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Technical Specification

3rd Generation Partnership Project;

Technical Specification Group Radio Access Network;

5GS;

User Equipment (UE) conformance specification;

Part 2: Common Implementation Conformance Statement (ICS) proforma (Release 18)

** 

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# Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

x the first digit:

1 presented to TSG for information;

2 presented to TSG for approval;

3 or greater indicates TSG approved document under change control.

y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.

z the third digit is incremented when editorial only changes have been incorporated in the document.

The present document is part 2 of a multi-part deliverable covering the 5G System (5GS) User Equipment (UE) protocol conformance specification, as identified below:

- 3GPP TS 38.508-1 [11]: "5GS; User Equipment (UE) conformance specification; Part 1: Common test environment ".

- 3GPP TS 38.508-2: "**5GS; User Equipment (UE) conformance specification; Part 2: Common Implementation Conformance Statement (ICS) proforma**" (the present document).

# 1 Scope

The present document provides the Implementation Conformance Statement (ICS) proforma for 5G New Radio (NR) User Equipment (UE), in compliance with the relevant requirements.

Special conformance testing functions can be found in 3GPP TS 38.509 [12] and 3GPP TS 36.509 [14] and the common test environments are included in 3GPP TS 38.508-1 [11] and 3GPP TS 36.508 [13].

The present document is valid for UE implemented according to 3GPP Releases starting from Release 15 up to the Release indicated on the cover page of the present document.

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 38.523-1: "5GS; UE conformance specification; Part 1: Protocol conformance specification".

[3] 3GPP TS 38.523-2: “5GS; User Equipment (UE) conformance specification; Part 2: Applicability of protocol test cases”.

[4] 3GPP TS 38.523-3: “5GS; User Equipment (UE) conformance specification; Part 3: Protocol Test Suites”.

[5] 3GPP TS 38.521-1: “NR; User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Range 1 Standalone”.

[6] 3GPP TS 38.521-2: “NR; User Equipment (UE) conformance specification; Radio transmission and reception; Part 2: Range 2 Standalone”.

[7] 3GPP TS 38.521-3: “NR; User Equipment (UE) conformance specification; Radio transmission and reception; Part 3: Range 1 and Range 2 Interworking operation with other radios”.

[8] 3GPP TS 38.521-4: “NR; User Equipment conformance specification; Radio transmission and reception; Part 4: Performance”.

[9] 3GPP TS 38.522: “NR; User Equipment (UE) conformance specification; Applicability of radio transmission, radio reception and radio resource management test cases”.

[10] 3GPP TS 38.533: “NR; User Equipment (UE) conformance specification; Radio resource management”.

[11] 3GPP TS 38.508-1: "5GS; User Equipment (UE) conformance specification; Part 1: Common test environment".

[12] 3GPP TS 38.509: "5GS; Special conformance testing functions for UE".

[13] 3GPP TS 36.508: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access (E-UTRAN); Common Test Environments for User Equipment (UE) Conformance Testing".

[14] 3GPP TS 36.509: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Special conformance testing functions for User Equipment (UE)".

[15] 3GPP TS 34.229-2: "Internet Protocol (IP) multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP);User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) specification".

[16] 3GPP TS 36.523-2: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access (E-UTRAN); User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification".

[17] 3GPP TS 38.306: “NR; User Equipment (UE) radio access capabilities”.

[18] ISO/IEC 9646-7: "Information technology - Open systems interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".

[19] 3GPP TS 38.307: “NR; User Equipments (UEs) supporting a release-independent frequency band”.

[20] 3GPP TS 37.340:"Evolved Universal Terrestrial Radio Access (E-UTRA) and NR; Multi-connectivity; Stage 2".

[21] 3GPP TS 38.300: "NR; NR and NG-RAN Overall Description; Stage 2".

[22] 3GPP TS 24.229: "IP multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); Stage 3"

[23] 3GPP TS 38.101-1: “NR; User Equipment (UE) radio transmission and reception; Part 1: Range 1 Standalone”

[24] 3GPP TS 38.101-2: “NR; User Equipment (UE) radio transmission and reception; Part 2: Range 2 Standalone”

[25] 3GPP TS 38.101-3: “NR; User Equipment (UE) radio transmission and reception; Part 3: Range 1 and Range 2 Interworking operation with other radios”

[26] 3GPP TS 23.003: “Numbering, addressing and identification”

# 3 Definitions, symbols and abbreviations

## 3.1 Definitions

For the purposes of the present document, the terms and definitions given in TR 21.905 [5] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in TR 21.905 [5].

**Implementation Conformance Statement (ICS):** statement made by the supplier of an implementation or system claimed to conform to a given specification, stating which capabilities have been implemented

**ICS proforma:** document, in the form of a questionnaire, which when completed for an implementation or system becomes an ICS

**Implementation extra Information for Testing (IXIT):** A statement made by a supplier or implementer of an UEUT which contains or references all of the information (in addition to that given in the ICS) related to the UEUT and its testing environment, which will enable the test laboratory to run an appropriate test suite against the UEUT

**IXIT proforma:** A document, in the form of a questionnaire, which when completed for an UEUT becomes an IXIT

**Protocol Implementation Conformance Statement (PICS):** An ICS for an implementation or system claimed to conform to a given protocol specification

**Protocol Implementation extra Information for Testing (PIXIT):** An IXIT related to testing for conformance to a given protocol specification

**Static conformance review**: A review of the extent to which the static conformance requirements are claimed to be supported by the UEUT, by comparing the answers in the ICS(s) with the static conformance requirements expressed in the relevant specification(s)

## 3.2 Symbols

For the purposes of the present document, the following symbols apply:

<symbol> <Explanation>

## 3.3 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [1].

For the purposes of the present document, the following abbreviations apply:

FFS For Further Study

ICS Implementation Conformance Statement

IXIT Implementation extra Information for Testing

PICS Protocol Implementation Conformance Statement

PIXIT Protocol Implementation extra Information for Testing

SCS System Conformance Statement

TC Test Case

UEUT User Equipment Under Test

Annex A (normative):ICS proforma for NR/5GS Generation User Equipment

Notwithstanding the provisions of the copyright clause related to the text of the present document, The Organizational Partners of 3GPP grant that users of the present document may freely reproduce the ICS proforma in this annex so that it can be used for its intended purposes and may further publish the completed ICS.

# A.1 Guidance for completing the ICS proforma

## A.1.1 Purposes and structure

The purpose of this ICS proforma is to provide a mechanism whereby a supplier of an implementation of the requirements defined in relevant specifications may provide information about the implementation in a standardised manner.

The ICS proforma is subdivided into clauses for the following categories of information:

- instructions for completing the ICS proforma;

- identification of the implementation;

- identification of the protocol;

- ICS proforma tables (for example: UE implementation types, Teleservices, etc).

## A.1.2 Abbreviations and conventions

The ICS proforma contained in this annex is comprised of information in tabular form in accordance with the guidelines presented in ISO/IEC 9646‑7 [18].

Item column

The item column contains a number which identifies the item in the table.

Item description column

The item description column describes in free text each respective item (e.g. parameters, timers, etc.). It implicitly means "is <item description> supported by the implementation?".

Reference column

The reference column gives reference to the relevant 3GPP core specifications.

Release column

The release column indicates the earliest release from which the capability or option is introduced.

Mnemonic column

The Mnemonic column contains mnemonic identifiers for each item.

Comments column

This column is left blank for particular use by the reader of the present document.

References to items

For each possible item answer (answer in the support column) within the ICS proforma there exists a unique reference, used, for example, in the conditional expressions. It is defined as the table identifier, followed by a solidus character "/", followed by the item number in the table. If there is more than one support column in a table, the columns shall be discriminated by letters (a, b, etc.), respectively.

## A.1.3 Instructions for completing the ICS proforma

The supplier of the implementation may complete the ICS proforma in each of the spaces provided. More detailed instructions are given at the beginning of the different clauses of the ICS proforma.

# A.2 Identification of the User Equipment

Identification of the User Equipment should be filled in so as to provide as much detail as possible regarding version numbers and configuration options.

The product supplier information and client information should both be filled in if they are different.

A person who can answer queries regarding information supplied in the ICS should be named as the contact person.

## A.2.1 Date of the statement

## A.2.2 User Equipment Under Test (UEUT) identification

UEUT name:

Hardware configuration:

Software configuration:

## A.2.3 Product supplier

Name:

Address:

Telephone number:

Facsimile number:

E-mail address:

Additional information:

## A.2.4 Client

Name:

Address:

Telephone number:

Facsimile number:

E-mail address:

Additional information:

## A.2.5 ICS contact person

Name:

Telephone number:

Facsimile number:

E-mail address:

Additional information:

# A.3 Identification of the protocol

This ICS proforma applies to the 3GPP standards listed in the normative references clause of the present document.

# A.4 ICS proforma tables

## A.4.1 UE Implementation Types

Table A.4.1-1: UE Radio Technologies

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | UE Radio Technologies | Ref. | Release | Mnemonic | Comments |
| 1 | NR FDD | 38.101-1 | Rel-15 | pc\_nrFDD |  |
| 2 | NR TDD | 38.101-1,  38.101-2 | Rel-15 | pc\_nrTDD |  |
| 3 | NR sidelink | 38.101-1 | Rel-16 | pc\_nrSL |  |

Table A.4.1-2: UE general functionality

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | UE Functionality | Ref. | Release | Mnemonic | Comments |
| 1 | Multiple NR FDD bands | 38.101-1, 5.2 | Rel-15 | pc\_nrFDD\_MultiBand |  |
| 2 | Multiple NR TDD bands | 38.101-1, 5.2,  38.101-2, 5.2 | Rel-15 | pc\_nrTDD\_MultiBand |  |
| 3 | NR SUL | 38.101-1 | Rel-15 | pc\_nrSUL |  |
| 4 | NR SDL | 38.101-1 | Rel-15 | pc\_nrSDL |  |
| 5 | Multiple NR SUL bands | 38.101-1, 5.2 | Rel-15 | pc\_nrSUL\_MultiBand |  |
| 6 | Multiple NR SDL bands | 38.101-1, 5.2 | Rel-15 | pc\_nrSDL\_MultiBand |  |
| 7 | Frequency range FR1 | 38.101-1, 5.1 | Rel-15 | pc\_nrFR1 |  |
| 8 | Frequency range FR2 | 38.101-2, 5.1 | Rel-15 | pc\_nrFR2 |  |
| YY->9 | NR NTN Frequency range FR1 | 38.101-5, 5.1 | Rel-17 | pc\_nrNTN\_FR1 |  |

Table A.4.1-3: RAN-CN Interface Options

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | UE support of RAN-CN Interface Options | Ref. | Release | Mnemonic | Comments |
| 1 | NG-RAN NR | 38.300 | Rel-15 | pc\_NG\_RAN\_NR | Option 2 |
| 2 | EN-DC | 37.340 | Rel-15 | pc\_EN\_DC | Option 3 |
| 3 | NE-DC | 37.340 | Rel-15 | pc\_NE\_DC | Option 4 |
| 4 | NG-RAN E-UTRA | 38.300 | Rel-15 | pc\_NG\_RAN\_EUTRA | Option 5 |
| 5 | NGEN-DC | 37.340 | Rel-15 | pc\_NGEN\_DC | Option 7 |

Table A.4.1-4: NSA DC UE Radio Technologies

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | NSA UE Radio Technologies | Ref. | Release | Mnemonic | Comments |
| 1 | Intra-Band Contiguous EN-DC | 38.101-3, 5.5B.2 | Rel-15 | pc\_IntraBand\_Contiguous\_ENDC |  |
| 2 | Intra-Band Non-Contiguous EN-DC | 38.101-3, 5.5B.3 | Rel-15 | pc\_IntraBand\_NonContiguous\_ENDC |  |
| 3 | Inter-Band EN-DC within FR1 | 38.101-3, 5.5B.4 | Rel-15 | pc\_InterBand\_ENDC\_WithinFR1 |  |
| 4 | Inter-Band EN-DC including FR2 | 38.101-3, 5.5B.5 | Rel-15 | pc\_InterBand\_ENDC\_IncludingFR2 |  |
| 5 | Inter-band EN-DC including FR1 and FR2 | 38.101-3, 5.5B.6 | Rel-15 | pc\_InterBand\_ENDC\_IncludingFR1\_FR2 |  |
| 6 | Inter-band NR-DC between FR1 and FR2 | 38.101-3, 5.5B.7 | Rel-15 | pc\_InterBand\_NRDC\_BetweenFR1\_FR2 |  |
| 7 | Inter-Band NE-DC within FR1 | 38.101-3, 5.5B.4a | Rel-15 | pc\_InterBand\_NEDC\_WithinFR1 |  |

Table A.4.1-4A: SA CA UE Radio Technologies

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | SA UE Radio Technologies | Ref. | Release | Mnemonic | Comments |
| 1 | Intra-Band Contiguous CA within FR1 | 38.101-1, 5.5A.1 | Rel-15 | pc\_IntraBand\_Contiguous\_CA\_WithinFR1 |  |
| 2 | Intra-Band Non-contiguous CA within FR1 | 38.101-1, 5.5A.2 | Rel-16 | pc\_IntraBand\_NonContiguous\_CA\_WithinFR1 |  |
| 3 | Intra-Band Contiguous CA within FR2 | 38.101-2, 5.5A.1 | Rel-15 | pc\_IntraBand\_Contiguous\_CA\_WithinFR2 |  |
| 4 | Intra-Band Non-contiguous CA within FR2 | 38.101-2, 5.5A.2 | Rel-15 | pc\_IntraBand\_NonContiguous\_CA\_WithinFR2 |  |
| 5 | Inter-Band CA within FR1 | 38.101-1, 5.5A.3 | Rel-15 | pc\_InterBand\_CA\_WithinFR1 |  |
| 6 | Inter-Band CA within FR2 | 38.101-2, 5.5A.3 | Rel-16 | pc\_InterBand\_CA\_WithinFR2 |  |
| 7 | Inter-band CA between FR1 PCell and FR2 SCell | 38.101-3, 5.5A.1 | Rel-15 | pc\_InterBand\_CA\_BetweenFR1PCell\_FR2SCell |  |

Table A.4.1-5: 5GS UE Core Technologies

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | 5GS UE Core Technologies | Ref. | Release | Mnemonic | Comments |
| 1 | UE Supports 5G Core Network | 24.501 | Rel-15 | pc\_5GCN |  |
| 2 | UE Supports 5G Core Network over non-3GPP Access Network | 24.501, 4.7 | Rel-15 | pc\_5GCN\_N3AN |  |
| 3 | UE Supports only Stand-alone Non-Public Network | 23.501, 5.30.2.3,  38.300, 16.6.1 | Rel-16 | pc\_SNPN\_only | UEs operating only in SNPN access mode |

## A.4.2 UE Service Capabilities

### A.4.2.1 3GPP Standardised UE Service Capabilities

#### A.4.2.1.1 Bearer Services

Table A.4.2.1.1-1: Definition of Bearer Services

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Item** | **Definition of Bearer Services** | **Ref.** | **Release** | **Mnemonic** | **Comments** |
| 1 | FFS |  |  |  |  |

## A.4.3 Baseline Implementation Capabilities

Table A.4.3-1: Supported protocols

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | Supported protocols | Ref. | Release | Mnemonic | Comments |
| 1 | 5GS Mobility Management | 24.501 | Rel-15 |  |  |
| 2 | 5GS Session Management | 24.501 | Rel-15 |  |  |
| 3 | Radio Resource Control | 38.331 | Rel-15 |  |  |
| 4 | Service Data Adaptation Protocol | 37.324 | Rel-15 |  |  |
| 5 | Packet Data Convergence Protocol | 38.323 | Rel-15 |  |  |
| 6 | Radio Link Control | 38.322 | Rel-15 |  |  |
| 7 | Medium Access Control | 38.321 | Rel-15 |  |  |
| 8 | Physical Layer | 38.201 | Rel-15 |  |  |

Table A.4.3-2: Special Conformance Testing Functions

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Item** | **Special Conformance Testing Functions** | **Ref.** | **Release** | **Mnemonic** | **Comments** |
| 1 | UE test loop | 38.509 | Rel-15 |  |  |
| 2 | UE Power Limit Function (UPLF) | 38.509, 5.11 | Rel-16 |  |  |

### A.4.3.1 RF Baseline Implementation Capabilities

NOTE: The values indicated in column "Release" for bands are to be understood as the specifications release version in which a band was introduced and not as a mandate that a UE conforming to particular release shall support a particular band. For further guidance to release independent bands see TS 38.307 [19].

NOTE: See Annex B for status of completed NR bands and power classes in this version of 3GPP UE conformance test specifications.

Table A.4.3.1-1: NR FDD FR1 RF Baseline Implementation Capabilities

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | NR FDD FR1 RF Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| 1 | NR Frequency band: 1920-1980 MHz (UL), 2110-2170 MHz (DL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand1\_Supp | NR FDD FR1 Band n1 |
| 2 | NR Frequency band: 1850-1910 MHz (UL), 1930-1990 MHz (DL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand2\_Supp | NR FDD FR1 Band n2 |
| 3 | NR Frequency band: 1710-1785 MHz (UL), 1805-1880 MHz (DL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand3\_Supp | NR FDD FR1 Band n3 |
| 4 | NR Frequency band: 824-849 MHz (UL), 869-894 MHz (DL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand5\_Supp | NR FDD FR1 Band n5 |
| 5 | NR Frequency band: 2500-2570 MHz (UL), 2620-2690 MHz (DL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand7\_Supp | NR FDD FR1 Band n7 |
| 6 | NR Frequency band: 880-915 MHz (UL), 925-960 MHz (DL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand8\_Supp | NR FDD FR1 Band n8 |
| 6a to 6c | Reserved |  |  |  |  |
| 6d | NR Frequency band: 699-716 MHz (UL), 729-746 MHz (DL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand12\_Supp | NR FDD FR1 Band n12 |
| 6e | NR Frequency band: 777-787 MHz (UL), 746-756 MHz (DL) | 38.101-1, 5.2 | Rel-17 | pc\_nrBand13\_Supp | NR FDD FR1 Band n13 |
| 6f | NR Frequency band: 788-798 MHz (UL), 758-768 MHz (DL) | 38.101-1, 5.2 | Rel-16 | pc\_nrBand14\_Supp | NR FDD FR1 Band n14 |
| 6g to 6i | Reserved |  |  |  |  |
| 6j | NR Frequency band: 815-830 MHz (UL), 860-875 MHz (DL) | 38.101-1, 5.2 | Rel-16 | pc\_nrBand18\_Supp | NR FDD FR1 Band n18 |
| 6k | Reserved |  |  |  |  |
| 7 | NR Frequency band: 832-862 MHz (UL), 791-821 MHz (DL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand20\_Supp | NR FDD FR1 Band n20 |
| 7a to 7c | Reserved |  |  |  |  |
| 7d | NR Frequency band: 1626.5-1660.5 MHz (UL), 1525-1559 MHz (DL) | 38.101-1, 5.2 | Rel-17 | pc\_nrBand24\_Supp | NR FDD FR1 Band n24 |
| 7e | NR Frequency band: 1850-1915 MHz (UL), 1930- 1995 MHz (DL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand25\_Supp | NR FDD FR1 Band n25 |
| 7f | NR Frequency band: 814-849 MHz (UL), 859-894 MHz (DL) | 38.101-1, 5.2 | Rel-16 | pc\_nrBand26\_Supp | NR FDD FR1 Band n26 |
| 7g | Reserved |  |  |  |  |
| 8 | NR Frequency band: 703-748 MHz (UL), 758-803 MHz (DL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand28\_Supp | NR FDD FR1 Band n28 |
| 8a | Reserved |  |  |  |  |
| 8b | NR Frequency band: 2305-2315 MHz (UL), 2350-2360 MHz (DL) | 38.101-1, 5.2 | Rel-16 | pc\_nrBand30\_Supp | NR FDD FR1 Band n30 |
| 8c to 8d | Reserved |  |  |  |  |
| 8e | NR Frequency band: 1920-2010 MHz (UL),2110-2200 MHz (DL) | 38.101-1, 5.2 | Rel-16 | pc\_nrBand65\_Supp | NR FDD FR1 Band n65 |
| 9 | NR Frequency band: 1710-1780 MHz (UL), 2110-2200 MHz (DL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand66\_Supp | NR FDD FR1 Band n66 |
| 9a to 9c | Reserved |  |  |  |  |
| 10 | NR Frequency band: 1695-1710 MHz (UL), 1995-2020 MHz (DL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand70\_Supp | NR FDD FR1 Band n70 |
| 11 | NR Frequency band: 663-698 MHz (UL), 617-652 MHz (DL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand71\_Supp | NR FDD FR1 Band n71 |
| 12 to 13 | Reserved |  |  |  |  |
| 14 | NR Frequency band: 1427-1470 MHz (UL), 1475-1518 MHz (DL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand74\_Supp | NR FDD FR1 Band n74 |
| 15 | NR Frequency band: 832-862 MHz (UL), 1427-1432 MHz (DL) | 38.101-1, 5.2 | Rel-16 | pc\_nrBand91\_Supp | NR FDD FR1 Band n91 |
| 16 | NR Frequency band: 832-862 MHz (UL), 1432-1517 MHz (DL) | 38.101-1, 5.2 | Rel-16 | pc\_nrBand92\_Supp | NR FDD FR1 Band n92 |
| 17 | NR Frequency band: 880-915 MHz (UL), 1427-1432 MHz (DL) | 38.101-1, 5.2 | Rel-16 | pc\_nrBand93\_Supp | NR FDD FR1 Band n93 |
| 18 | NR Frequency band: 880-915 MHz (UL), 1432-1517 MHz (DL) | 38.101-1, 5.2 | Rel-16 | pc\_nrBand94\_Supp | NR FDD FR1 Band n94 |
| 19 | NR Frequency band: 874.4-880 MHz (UL), 919.4-925 MHz (DL) | 38.101-1, 5.2 | Rel-17 | pc\_nrBand100\_Supp | NR FDD FR1 Band n100 |

Table A.4.3.1-2: NR TDD FR1 RF Baseline Implementation Capabilities

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | NR TDD FR1 RF Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| 0 | NR Frequency band: 2010-2025 MHz (UL / DL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand34\_Supp | NR TDD FR1 Band n34 |
| 0a to 0c | Reserved |  |  |  |  |
| 1 | NR Frequency band: 2570-2620 MHz (UL / DL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand38\_Supp | NR TDD FR1 Band n38 |
| 1a | NR Frequency band: 1880-1920 MHz (UL / DL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand39\_Supp | NR TDD FR1 Band n39 |
| 1b | NR Frequency band: 2300-2400 MHz (UL / DL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand40\_Supp | NR TDD FR1 Band n40 |
| 2 | NR Frequency band: 2496-2690 MHz (UL / DL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand41\_Supp | NR TDD FR1 Band n41 |
| 2a to 2d | Reserved |  |  |  |  |
| 2e | NR Frequency band: 5150-5925 MHz (UL / DL) | 38.101-1, 5.2 | Rel-16 | pc\_nrBand46\_Supp | NR TDD FR1 Band n46 |
| 2f | Reserved |  |  |  |  |
| 2g | NR Frequency band: 3550-3700 MHz (UL / DL) | 38.101-1, 5.2 | Rel-16 | pc\_nrBand48\_Supp | NR TDD FR1 Band n48 |
| 2h | Reserved |  |  |  |  |
| 2i | NR Frequency band: 1432-1517 MHz (UL / DL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand50\_Supp | NR TDD FR1 Band n50 |
| 2j | NR Frequency band: 1427-1432 MHz (UL / DL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand51\_Supp | NR TDD FR1 Band n51 |
| 2k | Reserved |  |  |  |  |
| 2l | NR Frequency band: 2483.5-2495 MHz (UL / DL) | 38.101-1, 5.2 | Rel-16 | pc\_nrBand53\_Supp | NR TDD FR1 Band n53 |
| 3 | NR Frequency band: 3300–4200 MHz (UL / DL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand77\_Supp | NR TDD FR1 Band n77 |
| 4 | NR Frequency band: 3300–3800 MHz (UL / DL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand78\_Supp | NR TDD FR1 Band n78 |
| 5 | NR Frequency band: 4400–5000 MHz (UL / DL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand79\_Supp | NR TDD FR1 Band n79 |
| 6 | Void |  |  |  |  |
| 7-11 | Reserved |  |  |  |  |
| 12 | NR Frequency band: 5925–7125 MHz (UL / DL) | 38.101-1, 5.2 | Rel-16 | pc\_nrBand96\_Supp | NR TDD FR1 Band n96 |
| 13 | NR Frequency band: 1900–1910 MHz (UL / DL) | 38.101-1, 5.2 | Rel-17 | pc\_nrBand101\_Supp | NR TDD FR1 Band n101 |
| 14 | NR Frequency band: 5925 MHz – 6425 MHz | 38.101-1, 5.2 | Rel-16 | pc\_nrBand102\_Supp | NR TDD FR1 Band n102 |

Table A.4.3.1-3: NR TDD FR2 RF Baseline Implementation Capabilities

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | NR TDD FR2 RF Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| 1 | NR Frequency band: 26500-29500 MHz (UL / DL) | 38.101-2, 5.2 | Rel-15 | pc\_nrBand257\_Supp | NR TDD FR2 Band n257 |
| 2 | NR Frequency band: 24250-27500 MHz (UL / DL) | 38.101-2, 5.2 | Rel-15 | pc\_nrBand258\_Supp | NR TDD FR2 Band n258 |
| 2a | NR Frequency band: 39500-43500 MHz (UL / DL) | 38.101-2, 5.2 | Rel-16 | pc\_nrBand259\_Supp | NR TDD FR2 Band n259 |
| 3 | NR Frequency band: 37000–40000 MHz (UL / DL) | 38.101-2, 5.2 | Rel-15 | pc\_nrBand260\_Supp | NR TDD FR2 Band n260 |
| 4 | NR Frequency band: 27500–28350 MHz (UL / DL) | 38.101-2, 5.2 | Rel-15 | pc\_nrBand261\_Supp | NR TDD FR2 Band n261 |

Table A.4.3.1-4: NR FR1 PC2 RF Baseline Implementation Capabilities

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | NR FR1 PC2 RF Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| 0 | NR Frequency band: 2300-2400 MHz (UL / DL) | 38.101-1, 6.2.1 | Rel-16 | pc\_nrBand40\_PC2\_Supp | NR FR1 PC2 Band n40 |
| 1 | NR Frequency band: 2496-2690 MHz (UL / DL) | 38.101-1, 6.2.1 | Rel-15 | pc\_nrBand41\_PC2\_Supp | NR FR1 PC2 Band n41 |
| 2 | NR Frequency band: 3300-4200 MHz (UL / DL) | 38.101-1, 6.2.1 | Rel-15 | pc\_nrBand77\_PC2\_Supp | NR FR1 PC2 Band n77 |
| 3 | NR Frequency band: 3300–3800 MHz (UL / DL) | 38.101-1, 6.2.1 | Rel-15 | pc\_nrBand78\_PC2\_Supp | NR FR1 PC2 Band n78 |
| 4 | NR Frequency band: 4400–5000 MHz (UL / DL) | 38.101-1, 6.2.1 | Rel-15 | pc\_nrBand79\_PC2\_Supp | NR FR1 PC2 Band n79 |
| 5 | NR Frequency band: 2010–2025 MHz | 38.101-1, 6.2.1 | Rel-16 | pc\_nrBand34\_PC2\_Supp | NR FR1 PC2 Band n34 |
| 6 | NR Frequency band: 1880–1920 MHz | 38.101-1, 6.2.1 | Rel-16 | pc\_nrBand39\_PC2\_Supp | NR FR1 PC2 Band n39 |
| 7 | NR Frequency band: 1920-1980 MHz (UL), 2110-2170 MHz (DL) | 38.101-1, 6.2.1 | Rel-17 | pc\_nrBand1\_PC2\_Supp | NR FR1 PC2 Band n1 |
| 8 | NR Frequency band: 1710-1785 MHz (UL), 1805-1880 MHz (DL) | 38.101-1, 6.2.1 | Rel-17 | pc\_nrBand3\_PC2\_Supp | NR FR1 PC2 Band n3 |
| 9 | NR Frequency band: 880-915 MHz (UL), 925-960 MHz (DL) | 38.101-1, 6.2.1 | Rel-18 | pc\_nrBand8\_PC2\_Supp | NR FR1 PC2 Band n8 |

Table A.4.3.1-4a: NR FR2 PC2 RF Baseline Implementation Capabilities

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | NR FR2 PC2 RF Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| 1 | NR Frequency band: 26500-29500 MHz (UL / DL) | 38.101-2, 6.2.1 | Rel-15 | pc\_nrBand257\_PC2\_Supp | NR FR2 PC2 Band n257 |
| 2 | NR Frequency band: 24250-27500 MHz (UL / DL) | 38.101-2, 6.2.1 | Rel-15 | pc\_nrBand258\_PC2\_Supp | NR FR2 PC2 Band n258 |
| 3 | NR Frequency band: 27500–28350 MHz (UL / DL) | 38.101-2, 6.2.1 | Rel-15 | pc\_nrBand261\_PC2\_Supp | NR FR2 PC2 Band n261 |

Table A.4.3.1-4b: NR FR1 PC1 RF Baseline Implementation Capabilities

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | NR FR1 PC1 RF Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| 1 | NR Frequency band: 788-798 MHz (UL), 758-768 MHz (DL) | 38.101-1, 6.2.1 | Rel-16 | pc\_nrBand14\_PC1\_Supp | NR FR1 PC1 Band n14 |
| 2 | NR Frequency band: 874.4-880 MHz (UL), 919.4-925 MHz (DL) | 38.101-1, 6.2.1 | Rel-18 | pc\_nrBand100\_PC1\_Supp | NR FR1 PC1 Band n100 |
| 3 | NR Frequency band: 1900–1910 MHz (UL / DL) | 38.101-1, 6.2.1 | Rel-18 | pc\_nrBand101\_PC1\_Supp | NR FR1 PC1 Band n101 |

Table A.4.3.1-4c: NR FR2 PC1 RF Baseline Implementation Capabilities

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | NR FR2 PC1 RF Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| 1 | NR Frequency band: 26500-29500 MHz (UL / DL) | 38.101-2, 6.2.1 | Rel-15 | pc\_nrBand257\_PC1\_Supp | NR FR2 PC1 Band n257 |
| 2 | NR Frequency band: 24250-27500 MHz (UL / DL) | 38.101-2, 6.2.1 | Rel-15 | pc\_nrBand258\_PC1\_Supp | NR FR2 PC1 Band n258 |
| 3 | NR Frequency band: 37000-40000 MHz (UL / DL) | 38.101-2, 6.2.1 | Rel-15 | pc\_nrBand260\_PC1\_Supp | NR FR2 PC1 Band n260 |
| 4 | NR Frequency band: 27500–28350 MHz (UL / DL) | 38.101-2, 6.2.1 | Rel-15 | pc\_nrBand261\_PC1\_Supp | NR FR2 PC1 Band n261 |

Table A.4.3.1-4d: NR FR2 PC4 RF Baseline Implementation Capabilities

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | NR FR2 PC4 RF Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| 1 | NR Frequency band: 26500-29500 MHz (UL / DL) | 38.101-2, 6.2.1 | Rel-15 | pc\_nrBand257\_PC4\_Supp | NR FR2 PC4 Band n257 |
| 2 | NR Frequency band: 24250-27500 MHz (UL / DL) | 38.101-2, 6.2.1 | Rel-15 | pc\_nrBand258\_PC4\_Supp | NR FR2 PC4 Band n258 |
| 3 | NR Frequency band: 37000-40000 MHz (UL / DL) | 38.101-2, 6.2.1 | Rel-15 | pc\_nrBand260\_PC4\_Supp | NR FR2 PC4 Band n260 |
| 4 | NR Frequency band: 27500–28350 MHz (UL / DL) | 38.101-2, 6.2.1 | Rel-15 | pc\_nrBand261\_PC4\_Supp | NR FR2 PC4 Band n261 |

Table A.4.3.1-4e: NR FR1 PC1.5 RF Baseline Implementation Capabilities

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | NR FR1 PC1.5 RF Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| 1 | NR Frequency band: 3300-4200 MHz | 38.101-1, 6.2.1 | Rel-15 | pc\_nrBand77\_PC1.5\_Supp | NR FR1 PC1.5 Band n77 |
| 2 | NR Frequency band: 3300–3800 MHz | 38.101-1, 6.2.1 | Rel-15 | pc\_nrBand78\_PC1.5\_Supp | NR FR1 PC1.5 Band n78 |
| 3 | NR Frequency band: 4400-5000 MHz | 38.101-1, 6.2.1 | Rel-15 | pc\_nrBand79\_PC1.5\_Supp | NR FR1 PC1.5 Band n79 |
| 4 | NR Frequency band: 2496-2690 MHz | 38.101-1, 6.2.1 | Rel-15 | pc\_nrBand41\_PC1.5\_Supp | NR FR1 PC1.5 Band n41 |
| 5 | NR Frequency band: 2010-2025 MHz | 38.101-1, 6.2.1 | Rel-15 | pc\_nrBand34\_PC1.5\_Supp | NR FR1 PC1.5 Band n34 |
| 6 | NR Frequency band: 2300-2400 MHz | 38.101-1, 6.2.1 | Rel-15 | pc\_nrBand40\_PC1.5\_Supp | NR FR1 PC1.5 Band n40 |
| 7 | NR Frequency band: 1880-1920 MHz | 38.101-1, 6.2.1 | Rel-15 | pc\_nrBand39\_PC1.5\_Supp | NR FR1 PC1.5 Band n39 |

Table A.4.3.1-4f: NR FR1 maxNumberSRS-Ports-PerResource RF Baseline Implementation Capabilities (Rel-15)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Item | NR Band | UE Physical Layer Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Parameter Type | Supported Value | Supported UE capability |
| 1 | n41 | NR\_n41 maxNumberSRS-Ports-PerResource | 38.306, 4.2.7.7 | Rel-15 | pc\_nrBand41\_maxNumberSRS-Ports-PerResource\_r15 | enumerated | n1, n2, n4 |  |

Table A.4.3.1-4g: NR FR1 maxUplinkDutyCycle-PC2-FR1 RF Baseline Implementation Capabilities

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Item | NR Band | UE Physical Layer Baseline Implementation Capabilities | Ref. | Release | Mnemonic Parameter Name | Parameter Type | Supported Value | Supported UE capability  (NOTE 1) |
| 1 | n41 | NR\_n41 maxUplinkDutyCycle-PC2-FR1 | 38.306, 4.2.7.2 | Rel-15 | pc\_nrBand41\_maxUplinkDutyCycle\_PC2\_FR1 | enumerated | n60, n70, n80, n90, n100 |  |
| 2 | n79 | NR\_n79 maxUplinkDutyCycle-PC2-FR1 | 38.306, 4.2.7.2 | Rel-15 | pc\_nrBand79\_maxUplinkDutyCycle\_PC2\_FR1 | enumerated | n60, n70, n80, n90, n100 |  |
| NOTE 1: The UE supplier shall indicate the supported maxUplinkDutyCycle-PC2-FR1 as per *RF-Parameters* in TS 38.331 Section 6.3.3 UE capability information elements and choose the supported value. | | | | | | | | |

Table A.4.3.1-4h: NR FR1 maxUplinkDutyCycle-PC1dot5-MPE-FR1-r16 RF Baseline Implementation Capabilities

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Item | NR Band | UE Physical Layer Baseline Implementation Capabilities | Ref. | Release | Mnemonic Parameter Name | Parameter Type | Supported Value | Supported UE capability  (NOTE 1) |
| 1 | n41 | NR\_n41 maxUplinkDutyCycle-PC1dot5-MPE-FR1-r16 | 38.306, 4.2.7.2 | Rel-16 | pc\_nrBand41\_maxUplinkDutyCycle\_PC1dot5\_MPE\_FR1\_r16 | enumerated | n10, n15, n20, n25, n30, n40, n50, n60, n70, n80, n90, n100 |  |
| 2 | n79 | NR\_n79 maxUplinkDutyCycle-PC1dot5-MPE-FR1-r16 | 38.306, 4.2.7.2 | Rel-16 | pc\_nrBand79\_maxUplinkDutyCycle\_PC1dot5\_MPE\_FR1\_r16 | enumerated | n10, n15, n20, n25, n30, n40, n50, n60, n70, n80, n90, n100 |  |
| NOTE 1: The UE supplier shall indicate the supported maxUplinkDutyCycle-PC1dot5-MPE-FR1-r16 as per RF-Parameters in TS 38.331 Section 6.3.3 UE capability information elements and choose the supported value. | | | | | | | | |

Table A.4.3.1-4i: NR FR2 PC6 RF Baseline Implementation Capabilities

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | NR FR2 PC4 RF Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| 1 | NR Frequency band: 26500-29500 MHz (UL / DL) | 38.101-2, 6.2.1 | Rel-17 | pc\_nrBand257\_PC6\_Supp | NR FR2 PC6 Band n257 |
| 2 | NR Frequency band: 24250-27500 MHz (UL / DL) | 38.101-2, 6.2.1 | Rel-17 | pc\_nrBand258\_PC6\_Supp | NR FR2 PC6 Band n258 |
| 3 | NR Frequency band: 27500–28350 MHz (UL / DL) | 38.101-2, 6.2.1 | Rel-17 | pc\_nrBand261\_PC6\_Supp | NR FR2 PC6 Band n261 |

Table A.4.3.1-5: NR SUL FR1 RF Baseline Implementation Capabilities

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | NR SUL FR1 RF Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| 1 | NR Frequency band: 1710-1785 MHz (UL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand80\_Supp | NR SUL FR1 Band n80 |
| 2 | NR Frequency band: 880-915 MHz (UL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand81\_Supp | NR SUL FR1 Band n81 |
| 3 | NR Frequency band: 832-862 MHz (UL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand82\_Supp | NR SUL FR1 Band n82 |
| 4 | NR Frequency band: 703-748 MHz (UL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand83\_Supp | NR SUL FR1 Band n83 |
| 5 | NR Frequency band: 1920-1980 MHz (UL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand84\_Supp | NR SUL FR1 Band n84 |
| 6 | NR Frequency band: 1710-1780 MHz (UL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand86\_Supp | NR SUL FR1 Band n86 |
| 6a to 6b | Reserved |  |  |  |  |
| 6c | Reserved |  |  |  |  |
| 7 | NR Frequency band: 2010-2025 MHz (UL) | 38.101-1, 5.2 | Rel-16 | pc\_nrBand95\_Supp | NR SUL FR1 Band n95 |
| 8 | NR Frequency band: 2300 MHz – 2400 MHz (UL) | 38.101-1, 5.2 | Rel-17 | pc\_nrBand97\_Supp | NR SUL FR1 Band n97 |
| 9 | NR Frequency band: 1626.5-1660.5 MHz (UL) | 38.101-1, 5.2 | Rel-17 | pc\_nrBand99\_Supp | NR SUL FR1 Band n99 |

Table A.4.3.1-6: NR SDL FR1 RF Baseline Implementation Capabilities

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | NR SDL FR1 RF Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| 0 | NR Frequency band: 717-728 MHz (DL) | 38.101-1, 5.2 | Rel-16 | pc\_nrBand29\_Supp | NR SDL FR1 Band n29 |
| 1 | NR Frequency band: 1432-1517 MHz (DL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand75\_Supp | NR SDL FR1 Band n75 |
| 2 | NR Frequency band: 1427-1432 MHz (DL) | 38.101-1, 5.2 | Rel-15 | pc\_nrBand76\_Supp | NR SDL FR1 Band n76 |

Table A.4.3.1-7: UE Power Class implementation Capabilities (for one or more of the supported UE Power Class Implemented Capabilities in Table A.4.3.1-4, Table A.4.3.1-4a, Table A.4.3.1-4b, Table A.4.3.1-4c, Table A.4.3.1-4d and Table A.4.3.1-4e)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | UE Power Class implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| 1 | UE Power Class 1 in FR1 | 38.101-1, 6.2.1 | Rel-16 | pc\_FR1\_PC1 | Applicable to the bands in Table A.4.3.1-4b |
| 1a | UE Power Class 1 in FR2 | 38.101-2, 6.2.1 | Rel-15 | pc\_FR2\_PC1 | Applicable to the bands in Table A.4.3.1-4c |
| 2 | UE Power Class 2 in FR1 | 38.101-1, 6.2.1 | Rel-15 | pc\_FR1\_PC2 | Applicable to the bands in Table A.4.3.1-4 |
| 2a | UE Power Class 2 in FR2 | 38.101-2, 6.2.1 | Rel-15 | pc\_FR2\_PC2 | Applicable to the bands in Table A.4.3.1-4a |
| 3 | UE Power Class 3 in FR1 | 38.101-1, 6.2.1 | Rel-15 | pc\_FR1\_PC3 | All applicable FR1 NR bands |
| 3a | UE Power Class 3 in FR2 | 38.101-2, 6.2.1 | Rel-15 | pc\_FR2\_PC3 | All applicable FR2 NR bands |
| 4 | UE Power Class 4 in FR2 | 38.101-2, 6.2.1 | Rel-15 | pc\_FR2\_PC4 | Applicable to the bands in Table A.4.3.1-4d |
| 5 | UE Power Class 1.5 in FR1 | 38.101-1, 6.2.1 | Rel-15 | pc\_FR1\_PC1.5 | Applicable to the bands in Table A.4.3.1-4e |
| 6 | UE Power Class 6 in FR2 | 38.101-2, 6.2.1 | Rel-17 | pc\_FR2\_PC6 | Applicable to the bands in Table A.4.3.1-4i |

Table A.4.3.1-7a: NR FR1 2Rx/4Rx implementation Capabilities

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | UE 2Rx/4Rx implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| 1 | UE 2Rx in FR1 | 38.101-1, 7.3 | Rel-15 | pc\_FR1\_2Rx | If the capability is supported then the Band(s) for which it is supported shall be indicated in Table A.4.3.9-4c |
| 2 | UE FDD 4Rx in FR1 | 38.101-1, 7.3 | Rel-15 | pc\_FR1\_FDD\_4Rx | If the capability is supported then the Band(s) for which it is supported shall be indicated in Table A.4.3.9-4a |
| 3 | UE TDD 4Rx in FR1 | 38.101-1, 7.3 | Rel-15 | pc\_FR1\_TDD\_4Rx | If the capability is supported then the Band(s) for which it is supported shall be indicated in Table A.4.3.9-4b |
| 4 | UE only supports 1Rx in FR1 | 38.101-1, 7.3I | Rel-17 | pc\_FR1\_1Rx | If the capability is supported then the Band(s) for which it is supported shall be indicated in Table A.4.3.9-4e |

Table A.4.3.1-8: Void

Table A.4.3.1-9: NR Sidelink FR1 RF Baseline Implementation Capabilities

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | NR Sidelink FR1 RF Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| 1 | NR Frequency band: 2570-2620 MHz (Transmission), 2570-2620 MHz (Reception) | 38.101-1, 5.2E | Rel-16 | pc\_nrBand38\_NRSL\_Supp | NR Sidelink FR1 Band n38 |
| 2 | NR Frequency band: 5855-5925 MHz (Transmission), 5855-5925 MHz (Reception) | 38.101-1, 5.2E | Rel-16 | pc\_nrBand47\_NRSL\_Supp | NR Sidelink FR1 Band n47 |

Table A.4.3.1-10: NR FR2 PC7 RF Baseline Implementation Capabilities

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | NR FR2 PC7 RF Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| 1 | NR Frequency band: 26500-29500 MHz (UL / DL) | 38.101-2, 6.2.1 | Rel-17 | pc\_nrBand257\_PC7\_Supp | NR FR2 PC7 Band n257 |
| 2 | NR Frequency band: 24250-27500 MHz (UL / DL) | 38.101-2, 6.2.1 | Rel-17 | pc\_nrBand258\_PC7\_Supp | NR FR2 PC7 Band n258 |
| 3 | NR Frequency band: 27500–28350 MHz (UL / DL) | 38.101-2, 6.2.1 | Rel-17 | pc\_nrBand261\_PC7\_Supp | NR FR2 PC7 Band n261 |

Table A.4.3.1-11: NR NTN RF Baseline Implementation Capabilities (NTN satellite bands in FR1)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | NR NTN RF Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| 1 | NR NTN Frequency band: 1980–2010 MHz (Transmission), 2170–2200 MHz (Reception) | 38.101-5, 5.2.2 | Rel-17 | pc\_nrBand256\_NRNTN | NR NTN Band n256 |
| 2 | NR NTN Frequency band: 1626.5–1660.5 MHz (Transmission), 1525–1559 MHz (Reception) | 38.101-5, 5.2.2 | Rel-17 | pc\_nrBand255\_NRNTN | NR NTN Band n255 |

### A.4.3.2 Physical Layer Baseline Implementation Capabilities

Table A.4.3.2-1: UE Physical Layer Baseline Implementation Capabilities

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Item | UE Physical Layer Baseline Implementation Capabilities | Ref. | Release | Mnemonic | M | If indicated “Yes” the feature shall be implemented and successfully tested for the corresponding release | Comments |
| 1 | Support PDSCH reception based on semi-persistent scheduling | 38.306, 4.2.7.10 | Rel-15 | pc\_downlinkSPS | No |  |  |
| 2 | Support 256QAM for PDSCH for FR1 | 38.306, 4.2.7.10 | Rel-15 | pc\_pdsch\_256QAM\_FR1 | CY |  | Mandatory for non-RedCap UEs and optional for RedCap UEs. |
| 3 | Support 256QAM for PDSCH for at least one NR FR2 band | 38.306, 4.2.7.2 | Rel-15 | pc\_pdsch\_256QAM\_FR2 | No |  |  |
| 4 | Support 256QAM for PUSCH for at least one NR FR1 band | 38.306, 4.2.7.2 | Rel-15 | pc\_pusch\_256QAM\_FR1 | No |  |  |
| 4a | Support 256QAM for PUSCH for at least one NR FR2 band | 38.306, 4.2.7.2 | Rel-15 | pc\_pusch\_256QAM\_FR2 | No |  |  |
| 5 | Support receiving PDSCH using PDSCH mapping type A with less than seven symbols | 38.306, 4.2.7.10 | Rel-15 | pc\_pdsch\_MappingTypeA | Yes | Yes |  |
| 6 | Support receiving PDSCH using PDSCH mapping type B | 38.306, 4.2.7.10 | Rel-15 | pc\_pdsch\_MappingTypeB | Yes |  |  |
| 7 | Support resource allocation Type 0 for PUSCH | 38.306, 4.2.7.10 | Rel-15 | pc\_ra\_Type0\_PUSCH | No |  |  |
| 8 | Support scaling factor 0.75 is applied to the band in the max data rate calculation | 38.306, 4.2.7 | Rel-15 | pc\_scalingFactor0dot75 |  |  |  |
| 9 | Support reconfiguration with sync using a contention free random access on PRACH resources that are associated with CSI-RS resources of the target cell | 38.306, 4.2.7.10 | Rel-15 | pc\_csi\_RS\_CFRA\_ForHO | No |  |  |
| 10 | Support Type 1 PUSCH transmissions with configured grant | 38.306, 4.2.7.10 | Rel-15 | pc\_configuredUL\_GrantType1 | No |  |  |
| 11 | Support Type 2 PUSCH transmissions with configured grant | 38.306, 4.2.7.10 | Rel-15 | pc\_configuredUL\_GrantType2 | No |  |  |
| 12 | Support PDSCH Reception when configured with higher layer parameter aggregationFactorDL > 1 | 38.306, 4.2.7.10 | Rel-15 | pc\_pdsch\_RepetitionMultiSlots | No |  |  |
| 13 | Supports supplemental uplink with dynamic switch (DCI based selection of PUSCH carrier) | 38.306, 4.2.7.7 | Rel-15 | pc\_dynamicSwitch\_SUL | No |  |  |
| 14 | Supports MIMO layers at the UE for PUSCH transmission with codebook precoding. UE indicating support of this feature shall also indicate support of PUSCH codebook coherency subset | 38.306, 4.2.7.8 | Rel-15 | pc\_nrMIMO\_CB\_PUSCH | No |  | Set to true if maxNumberMIMO-LayersCB-PUSCH  has value different from "oneLayer" |
| 15 | Void |  |  |  |  |  |  |
| 16 | Support receiving PDSCH with interleaved VRB-to-PRB mapping | 38.306, 4.2.7.10 | Rel-15 | pc\_interleavingVRB\_ToPRB\_PDSCH | Yes |  |  |
| 17 | Support dynamic EN-DC power sharing for at least one EN-DC band combination\_FR1 only | 38.306, 4.2.7.9 | Rel-15 | pc\_dynamicPowerSharingENDC | Yes |  | If the UE supports this capability it will dynamically share the power between NR and LTE if P\_LTE + P\_NR > Pcmax. |
| 18 | Supports up to 10 search spaces in a SCell per BWP | 38.306, 4.2.7.10 | Rel-15 | pc\_maxNumberSearchSpaces | No |  |  |
| 19 | Supports spatial bundling of HARQ-ACK bits carried on PUCCH or PUSCH per PUCCH group. With spatial bundling, two HARQ-ACK bits for a DL MIMO data is bundled into a single bit by logical "AND" operation | 38.306, 4.2.7.10 | Rel-15 | pc\_spatialBundlingHARQ\_ACK | Yes |  |  |
| 20 | Support alternative additional DMRS position for co-existence with LTE CRS | 38.306, 4.2.7.5 | Rel-15 | pc\_additionalDMRS\_DL\_Alt | No |  |  |
| 21 | Supports transmitting PUSCH scheduled by DCI format 0\_0 or 0\_1 when configured with higher layer parameter aggregationFactorIUL > 1 | 38.306, 4.2.7.10 | Rel-15 | pc\_pusch\_RepetitionMultiSlots | Yes |  |  |
| 22 | Support beam correspondence without UL beam sweeping | 38.306,  4.2.7.2 | Rel-15 | pc\_beamCorrespondenceWithoutUL\_BeamSweeping | Yes |  | A UE that can fulfil the requirements without UL beam sweeping then set the bit to 1.  A UE that can fulfil the requirements with UL beam sweeping then set the bit to 0. |
| 22A | Support beam correspondence based on SSB | 38.306,  4.2.7.2 | Rel-16 | pc\_beamCorrespondence\_SSBbased | No |  |  |
| 22B | Support beam correspondence based on CSI-RS | 38.306,  4.2.7.2 | Rel-16 | pc\_beamCorrespondence\_CSI\_RSbased | No |  |  |
| 23 | The maximum number of spatial multiplexing layer(s) supported by the UE for DL reception is 8 Layers. For single CC standalone NR, it is mandatory with capability signalling to support at least 4 MIMO layers in the bands where 4Rx is specified as mandatory for the given UE and at least 2 MIMO layers in FR2. If absent, the UE doesn’t support MIMO on this carrier | 38.306,  4.2.7.6 | Rel-15 | pc\_maxNumberMIMO\_LayersPDSCH\_eightLayers | CY |  | Set to false if Table A.4.3.2-1/23A or 23B set to true. |
| 23A | The maximum number of spatial multiplexing layer(s) supported by the UE for DL reception is 4 Layers. | 38.306,  4.2.7.6 | Rel-15 | pc\_maxNumberMIMO\_LayersPDSCH\_fourLayers | CY |  | Set to false if Table A.4.3.2-1/23 or 23B set to true. |
| 23B | The maximum number of spatial multiplexing layer(s) supported by the UE for DL reception is 2 Layers. | 38.306,  4.2.7.6 | Rel-15 | pc\_maxNumberMIMO\_LayersPDSCH\_twoLayers | CY |  | Set to false if Table A.4.3.2-1/23 or 23A set to true. |
| 24 | Supports DCI and timer based active BWP switching delay  type1 | 38.306,  4.2.7.10 | Rel-15 | pc\_bwp\_SwitchingDelay\_Type1 | No |  | It is mandatory to report one among BWP switching delay  type1 or type 2 as supported |
| 24A | Supports DCI and timer based active BWP switching delay  type2 | 38.306,  4.2.7.10 | Rel-15 | pc\_bwp\_SwitchingDelay\_Type2 | No |  | It is mandatory to report one among BWP switching delay  type1 or type 2 as supported |
| 24B | Supports incremental delay for DCI and timer based active BWP switching type 1 on multiple CCs simultaneously | 38.306,  4.2.7.10 | Rel-16 | pc\_bwp\_SwitchingMultiCCs\_type1\_r16 | No |  | It is mandatory to report one among incremental delay for DCI and timer based active BWP switching type 1 or type 2on multiple CCs simultaneously as supported |
| 24C | Supports incremental delay for DCI and timer based active BWP switching type 2 on multiple CCs simultaneously | 38.306,  4.2.7.10 | Rel-16 | pc\_bwp\_SwitchingMultiCCs\_type2\_r16 | No |  | It is mandatory to report one among incremental delay for DCI and timer based active BWP switching type 1 or type 2on multiple CCs simultaneously as supported |
| 25A | Support modified MPR behaviour bit 0 | 38.306  4.2.7.2 | Rel-15 | pc\_modifiedMPR\_behaviour\_bit0 | No |  | Applicable to FR2 bands n257, n258, n260 and n261 |
| 25 | Support modified MPR behaviour | 38.306  4.2.7.2 | Rel-15 | pc\_modifiedMPR\_behaviour | No |  |  |
| 26 | Support dynamic switching between resource allocation Types 0 and 1 for PDSCH | 38.306,  4.2.7.10 | Rel-15 | pc\_dynamicSwitchRA\_Type0\_1\_PDSCH | No |  |  |
| 27 | Support dynamic switching between resource allocation Types 0 and 1 for PUSCH | 38.306,  4.2.7.10 | Rel-15 | pc\_dynamicSwitchRA\_Type0\_1\_PUSCH | No |  |  |
| 28 | Support almost contiguous UL CP-OFDM transmissions in FR1 | 38.306,  4.2.7.10 | Rel-15 | pc\_almostContiguousCP\_OFDM\_UL\_FR1 | No |  |  |
| 29 | Support almost contiguous UL CP-OFDM transmissions in FR2 | 38.306,  4.2.7.10 | Rel-15 | pc\_almostContiguousCP\_OFDM\_UL\_FR2 | No |  |  |
| 30 | Support dynamic indication of applicable minimum scheduling restriction by DCI format 0\_1 and 1\_1, and the minimum scheduling offset for PDSCH and aperiodic CSI-RS triggering offset (K0), and PUSCH (K2), and the extended value range for aperiodic CSI-RS triggering offset | 38.306,  4.2.7.10 | Rel-16 | pc\_crossSlotScheduling | No |  |  |
| 31 | Supports pi/2-BPSK modulation scheme for PUSCH in FR1 | 38.306,  4.2.7.10 | Rel-15 | pc\_pusch\_halfpiBPSK\_FR1 | Yes |  |  |
| 31a | Supports pi/2-BPSK modulation scheme for PUSCH in FR2 | 38.306,  4.2.7.10 | Rel-15 | pc\_pusch\_halfpiBPSK\_FR2 | Yes |  |  |
| 32 | Support multi-DCI based multi-TRP and support of fully/partially overlapping PDSCHs in time and non-overlapping in frequency | 38.306,  4.2.7.6 | Rel-16 | pc\_multiDCI\_MultiTRP\_r16 | No |  |  |
| 33 | Support receiving PDSCH with resource mapping that excludes the REs determined by the higher layer configuration LTE-carrier configuring common RS | 38.306, 4.2.7.2 | Rel-15 | pc\_rateMatchingLTE\_CRS | Yes |  |  |
| 34 | Support of BWP operation without bandwidth restriction | 38.306,  4.2.7.2 | Rel-15 | pc\_bwp\_WithoutRestriction | No |  |  |
| 35 | Support of receiving SCell dormancy indication on SPCell using DCI format 2\_6 outside the active time | 38.306,  4.2.7.4 | Rel-16 | pc\_scellDormancyOutsideActiveTime\_r16 | No |  |  |
| 36 | Supports pi/2-BPSK modulation scheme for power boosting in FR1 | 38.306,  4.2.7.2 | Rel-15 | pc\_powerBoosting\_pi2BPSK | No |  |  |
| 37 | Support of dynamic 1Tx-2Tx UL Tx switching | 38.306,  4.2.7.1 | Rel-16 | pc\_ULTxSwitchingBandPair | No |  | If the capability is supported then the band pair(s) for which it is supported shall be indicated in Table A.4.3.2A.4.1-3, Table A.4.3.2B.2.3.1-2 and Table A.4.3.2C.2-1 |
| 38 | Support uplink transmission power boost by suspension of in-band emission (IBE) in FR2 | 38.306  4.2.7.2 | Rel-16 | pc\_mpr\_PowerBoost\_FR2 | No |  |  |
| 39 | Supports the alternative 64QAM MCS table for PDSCH | 38.306,  4.2.7.10 | Rel-16 | pc\_dl\_64qam\_mcs\_tableAlt | No |  |  |
| 40 | Supports the CQI table with target BLER of 10^-5 | 38.306,  4.2.7.10 | Rel-16 | pc\_cqi\_tableAlt | No |  |  |
| 41 | Supports of single DCI based spatial division multiplexing scheme | 38.306,  4.2.7.5 | Rel-16 | pc\_singledci\_sdm | No |  |  |
| 42 | Support of BWP adaptation (up to 2 BWPs) with the same numerology for FR1 FDD bands | 38.306, 4.2.7.2 | Rel-15 | pc\_bwp\_SameNumerology\_upto2\_FR1\_FDD | No |  | FR1 FDD bands |
| 42a | Support of BWP adaptation (up to 2 BWPs) with the same numerology for FR1 TDD bands | 38.306, 4.2.7.2 | Rel-15 | pc\_bwp\_SameNumerology\_upto2\_FR1\_TDD | No |  | FR1 TDD bands |
| 42b | Support of BWP adaptation (up to 2 BWPs) with the same numerology for FR2 bands | 38.306, 4.2.7.2 | Rel-15 | pc\_bwp\_SameNumerology\_upto2\_FR2 | No |  | FR2 bands |
| 43 | Support of BWP adaptation (up to 4 BWPs) with the same numerology for FR1 FDD bands | 38.306, 4.2.7.2 | Rel-15 | pc\_bwp\_SameNumerology\_upto4\_FR1\_FDD | No |  | FR1 FDD bands |
| 43a | Support of BWP adaptation (up to 4 BWPs) with the same numerology for FR1 TDD bands | 38.306, 4.2.7.2 | Rel-15 | pc\_bwp\_SameNumerology\_upto4\_FR1\_TDD | No |  | FR1 TDD bands |
| 43b | Support of BWP adaptation (up to 4 BWPs) with the same numerology for FR2 bands | 38.306, 4.2.7.2 | Rel-15 | pc\_bwp\_SameNumerology\_upto4\_FR2 | No |  | FR2 bands |
| 44 | Support BWP adaptation up to 4 BWPs with the different numerologies, via DCI and timer for FR1 FDD bands | 38.306  4.2.7.2 | Rel-15 | pc\_bwp\_DiffNumerology\_FR1\_FDD | No |  | FR1 FDD bands |
| 44a | Support BWP adaptation up to 4 BWPs with the different numerologies, via DCI and timer for FR1 TDD bands | 38.306  4.2.7.2 | Rel-15 | pc\_bwp\_DiffNumerology\_FR1\_TDD | No |  | FR1 TDD bands |
| 44b | Support BWP adaptation up to 4 BWPs with the different numerologies, via DCI and timer for FR2 bands | 38.306  4.2.7.2 | Rel-15 | pc\_bwp\_DiffNumerology\_FR2 | No |  | FR2 bands |
| 45 | Support PUSCH repetition type B | 38.306, 4.2.7.7 | Rel-16 | pc\_pusch\_RepetitionTypeB\_r16 | No |  |  |
| 46 | Support of 2-Step RACH | 38.306, 4.2.7.10 | Rel-16 | pc\_twoStepRACH\_r16 | No |  |  |
| 47 | Void |  |  |  |  |  |  |
| 48 | Void |  |  |  |  |  |  |
| 49 | Void |  |  |  |  |  |  |
| 50 | Void |  |  |  |  |  |  |
| 51 | Void |  |  |  |  |  |  |
| 52 | Support monitoring DCI format 1\_2 for DL scheduling and monitoring DCI format 0\_2 for UL scheduling | 38.306,  4.2.7.10 | Rel-16 | pc\_dci\_Format1\_2And0\_2\_r16 | No |  |  |
| 53 | Support of multi-DCI based multi-TRP | 38.306, 4.2.7.6 | Rel-16 | pc\_multi\_dci\_multi\_trp | No |  |  |
| 54 | Support of single DCI based FDMSchemeA | 38.306, 4.2.7.2 | Rel-16 | pc\_single\_dci\_fdmschemeA | No |  |  |
| 55 | Support of single-DCI based inter-slot TDM | 38.306, 4.2.7.2 | Rel-16 | pc\_single\_dci\_interslot\_tdm | No |  |  |
| 56 | Support of maximum number of TRS resource sets per CC which the UE can track simultaneously is at least 2 | 38.306, 4.2.7.2 | Rel-16 | pc\_simultaneous\_TRS | No |  |  |
| 57 | Support of low PAPR DMRS | 38.306  4.2.7.2 | Rel-16 | pc\_lowPAPR\_DMRS\_pusch\_precoding | No |  |  |
| 58 | Support of UL full power transmission mode of full power | 38.306, 4.2.7.7 | Rel-16 | pc\_ul\_FullPwrMode\_r16 | No |  |  |
| 59 | Support of UL full power transmission mode of fullpowerMode1 | 38.306, 4.2.7.7 | Rel-16 | pc\_ul\_FullPwrMode1\_r16 | No |  |  |
| 60 | Support of UL full power transmission mode of fullpowerMode2 | 38.306, 4.2.7.7 | Rel-16 | pc\_ul\_FullPwrMode2\_r16 | No |  |  |
| 61 | Support of PDSCH processing capability 2 | 38.306, 4.2.7.5 | Rel-16 | pc\_pdsch\_processing\_cap2 | No |  |  |
| 62 | Support Pre-Emption Indication | 38.306, 4.2.7.10 | Rel-15 | pc\_preEmptIndication\_DL | No |  |  |
| 63 | Support of SSB based BFD | 38.306, 4.2.7.2 | Rel-15 | pc\_maxNumberSSB\_BFD | CY |  |  |
| 64 | Support of CSI-RS based BFD | 38.306, 4.2.7.2 | Rel-15 | pc\_maxNumberCSI\_RS\_BFD | CY |  |  |
| 65 | Support of SSB and/or CSI-RS based Link Recovery | 38.306, 4.2.7.2 | Rel-15 | pc\_maxNumberCSI\_RS\_SSB\_CBD | CY |  |  |
| 66 | Support of type II codebook | 38.306, 4.2.7.2 | Rel-15 | pc\_typeIICodebook | No |  |  |
| 67 | Support of Enhanced Type II codebook with at least 16 ports per CSI-RS resource | 38.306, 4.2.7.2 | Rel-16 | pc\_enhanced\_typeII\_codebook | No |  |  |
| 68 | Support of TDD NR UL transmission with a 7.5 kHz shift to the LTE raster | 38.101-1, 5.4.2 | Rel-15 | pc\_frequencyShift7p5khz\_TDD | No |  | Mandatory since Rel-16 |
| 69 | Support of FDD NR UL transmission with a 7.5 kHz shift to the LTE raster | 38.101-1, 5.4.2 | Rel-15 | pc\_frequencyShift7p5khz\_FDD | Yes |  |  |
| 70 | Void |  |  |  |  |  |  |
| 71 | Support of density of CSI-RS for Channel Measurement Report | 38.306, 4.2.7.2 | Rel-16 | pc\_supportedCSI\_RS\_Density\_CMR | No |  |  |
| 72 | Support of SSB/CSI-RS for L1-SINR measurement | 38.306, 4.2.7.2 | Rel-16 | pc\_ssb\_csirs\_SINR\_measurement | No |  |  |
| 73 | Support of SSB as CMR with dedicated CSI-IM for L1-SINR measurement | 38.306, 4.2.7.2 | Rel-16 | pc\_supportedSINR\_meas\_ssbWithCSI\_IM | No |  |  |
| 74 | Support of SSB as CMR with dedicated NZP IMR for L1-SINR measurement | 38.306, 4.2.7.2 | Rel-16 | pc\_supportedSINR\_meas\_ssbWithNZP\_IMR | No |  |  |
| 75 | Support of CSI-RS as CMR with dedicated NZP IMR configured for L1-SINR measurement | 38.306, 4.2.7.2 | Rel-16 | pc\_supportedSINR\_meas\_csirsWithNZP\_IMR | No |  |  |
| 76 | Support of CSI-RS as CMR without dedicated IMR configured for L1-SINR measurement | 38.306, 4.2.7.2 | Rel-16 | pc\_supportedSINR\_meas\_csi\_RSWithoutIMR | No |  |  |
| 77 | Support of SCell beam failure recovery | 38.306, 4.2.7.2 | Rel-16 | Pc\_scellBFR | No |  |  |
| 78 | Support of the maximum number of activated TCI states per BWP per CC is other than n1, including control and data | 38.306, 4.2.7.2 | Rel-15 | pc\_maxNumberActiveTCI\_PerBWP | No |  |  |
| 79 | Support enhanced UL performance for the transient period | 38.306, 4.2.7.2 | Rel-16 | pc\_enhancedUL\_TransientPeriod\_r16 | No |  |  |
| 80 | Supports the priority indicator field configured in DCI formats 1\_1 and 1\_2 in a BWP when configured to monitor both DCI formats 1\_1 and 1\_2 in the BWP | 38.306, 4.2.7.10 | Rel-16 | pc\_dci\_DL\_PriorityIndicator\_r16 | No |  |  |
| 81 | Supports the priority indicator field configured in DCI formats 0\_1 and 0\_2 in a BWP when configured to monitor both DCI formats 0\_1 and 0\_2 in the BWP | 38.306, 4.2.7.10 | Rel-16 | pc\_dci\_UL\_PriorityIndicator\_r16 | No |  | A UE supporting this feature shall also support ul-IntraUE-Mux-r16 and dci-Format1-2And0-2-r16 |
| 82 | Supports restricting data transmission from a given LCH to a configured (sub-) set of dynamic grant priority levels | 38.306, 4.2.6 | Rel-16 | pc\_lch\_ToGrantPriorityRestriction\_r16 | No |  |  |
| 83 | Supports two PUCCH group in CA with a same numerology across CCs for data and control channel. | 38.306 4.2.7.7 | Rel15 | pc\_twoPUCCH\_group | No |  |  |
| 84 | Support of transparent Tx diversity requirements for at least one NR FR1 band | 38.306, 4.2.7.2  38.331, Annex C | Rel-15 | pc\_txDiversity\_r16 | No |  | FR1 only  This capability has been introduced in Rel-16 and is early implementable from Rel-15 onwards. |
| 85 | Support of repetition of PUSCH transmission scheduled by RAR UL grant and DCI format 0\_0 with CRC scrambled by TC-RNTI | 38.306, 4.2.7.2 | Rel-17 | pc\_pusch\_RepetitionMsg3\_r17 | No |  |  |
| 86 | Support of DL scheduling slot offset (K0) greater than 0 for PDSCH mapping type A. | 38.306, 4.2.7.10 | Rel-15 | pc\_dl\_SchedulingOffset\_PDSCH\_TypeA | Yes |  |  |
| 87 | Support of CQI reporting with 4 bits per subband for NTN and shared spectrum channel access | 38.306, 4.2.7.2 | Rel-17 | pc\_cqi\_4\_BitsSubbandNTN\_SharedSpectrumChAccess\_r17 | No |  | UE supports CQI reporting with 4 bits per subband for NTN and shared spectrum channel access |
| 88 | Support of propagation delay compensation based on legacy TA procedure for NTN and shared spectrum channel access | 38.306, 4.2.7.2 | Rel-17 | pc\_ta\_BasedPDC\_NTN\_SharedSpectrumChAccess\_r17 | No |  | UE supports propagation delay compensation based on legacy TA procedure for NTN and shared spectrum channel access |
| 89 | Support of 8 dynamic slot-level repetitions for group-common PDSCH for multicast for NTN and shared spectrum channel access | 38.306, 4.2.7.2 | Rel-17 | pc\_dynamicSlotRepetitionMulticastNTN\_SharedSpectrumChAccess\_r17\_n8 | No |  | UE supports 8 dynamic slot-level repetitions for group-common PDSCH for multicast for NTN and shared spectrum channel access |
| 90 | Support of 16 dynamic slot-level repetitions for group-common PDSCH for multicast for NTN and shared spectrum channel access | 38.306, 4.2.7.2 | Rel-17 | pc\_dynamicSlotRepetitionMulticastNTN\_SharedSpectrumChAccess\_r17\_n16 | No |  | UE supports 16 dynamic slot-level repetitions for group-common PDSCH for multicast for NTN and shared spectrum channel access |
| 91 | Support of NTN features in GSO scenario | 38.306, 4.2.2 | Rel-17 | pc\_ntn\_ScenarioSupport\_r17\_GSO | No |  | UE supports NTN features in GSO scenario |
| 92 | Support of NTN features in NGSO scenario | 38.306, 4.2.2 | Rel-17 | pc\_ntn\_ScenarioSupport\_r17\_NGSO | No |  | UE supports NTN features in NGSO scenario |
| 93 | Void |  |  |  |  |  |  |
| 94 | Supports the restriction to 3450 - 3550 MHz and 3700 - 3980 MHz ranges of band n77 | 38.306, 4.2.7.11 | Rel-16 | pc\_extendedBand\_n77\_r16 | No |  | Applicable for UE support band n77 and in the USA this band is restricted to 3450 – 3550 MHz and 3700 – 3980 MHz. |
| 95 | Supports the restriction to 3450 - 3650 MHz and 3650 - 3980 ranges of band n77 | 38.306, 4.2.7.11 | Rel-17 | pc\_extendedBand\_n77\_2\_r17 | No |  | Applicable for UE support band n77 and in Canada this band is restricted to 3450 – 3650 MHz and 3650 – 3980 MHz. |
| 96 | Void |  |  |  |  |  |  |
| 97 | Void |  |  |  |  |  |  |
| 98 | Void |  |  |  |  |  |  |
| 99 | Void |  |  |  |  |  |  |
| 100 | Void |  |  |  |  |  |  |
| 101 | Void |  |  |  |  |  |  |
| 102 | Void |  |  |  |  |  |  |
| 103 | Void |  |  |  |  |  |  |
| 104 | Support of 1024QAM modulation scheme for PDSCH with maximum 2 MIMO layers for FR1 FDD bands | 38.306, 4.2.7.2 | Rel-17 | pc\_pdsch\_1024QAM\_2MIMO\_FR1\_r17\_FDD | No |  | FR1 FDD bands |
| 105 | Support of 1024QAM modulation scheme for PDSCH with maximum 2 MIMO layers for FR1 TDD bands | 38.306, 4.2.7.2 | Rel-17 | pc\_pdsch\_1024QAM\_2MIMO\_FR1\_r17\_TDD | No |  | FR1 TDD bands |
| 106 | Support of 1024QAM modulation scheme for PDSCH for FR1\_FDD bands | 38.306, 4.2.7.2 | Rel-17 | pc\_pdsch\_1024QAM\_FR1\_r17\_FDD | No |  | FR1 FDD bands |
| 107 | Support of 1024QAM modulation scheme for PDSCH for FR1\_TDD bands | 38.306, 4.2.7.2 | Rel-17 | pc\_pdsch\_1024QAM\_FR1\_r17\_TDD | No |  | FR1 TDD bands |
| 108 | Support RTT-based propagation delay compensation for time synchronization of the Uu interface based on CSI-RS for tracking and SRS. | 38.306, 4.2.7.5 | Rel-17 | pc\_rtt\_BasedPDC\_CSI\_RS\_ForTracking\_r17 | No |  | A UE supporting this feature shall also indicate support of csi-RS-ForTracking and supportedSRS-Resources as specified in TS 38.331. |
| 109 | Support RTT-based Propagation delay compensation for time synchronization of the Uu interface based on DL PRS and SRS. | 38.306, 4.2.7.5 | Rel-17 | pc\_rtt\_BasedPDC\_PRS\_r17 | No |  | If UE provides parameter maxNumberPRS-Resource-r17 and optionally parameter maxNumberPRS-ResourceProcessedPerSlot-r17 as described in TS 38.331, consider this as supported, otherwise not supported.  A UE supporting this feature shall also indicate support of supportedSRS-Resources as specified in TS 38.331. |
| 110 | Support propagation delay compensation based on legacy TA procedure for TN and non-shared spectrum channel access. | 38.306, 4.2.7.10 | Rel-17 | pc\_ta\_BasedPDC\_TN\_NSSChAccess\_r17 | No |  |  |
| 111 | Support Type 1 PUSCH transmissions with configured grant | 38.306 4.2.7.10 | Rel-15 | pc\_type1\_PUSCH\_RepetitionMultiSlots | No |  |  |
| 112 | Support Type 2 PUSCH transmissions with configured grant | 38.306 4.2.7.10 | Rel-15 | pc\_type2\_PUSCH\_RepetitionMultiSlots | No |  |  |
| 113 | Support the dynamic indication of the number of repetitions for PUSCH transmission | 38.306 4.2.7.10 | Rel-16 | pc\_pusch\_RepetitionTypeA\_r16 | No |  |  |
| 114 | Support repetitions for PUCCH format 0, 1, 2, 3 and 4 over multiple PUCCH subslots based on dynamic repetition indication | 38.306 4.2.7.7 | Rel-17 | pc\_pucch\_Repetition\_F0\_1\_2\_3\_4\_DynamicIndication\_r17 | No |  |  |
| 115 | Support the increased maximum number of PUSCH Type A repetitions up to 32 | 38.306 4.2.7.2 | Rel-17 | pc\_maxNumberPUSCH\_TypeA\_Repetition\_r17 | No |  |  |
| 116 | Support PUSCH repetitions based on available slots | 38.306 4.2.7.2 | Rel-17 | pc\_puschTypeA\_RepetitionsAvailSlot\_r17 | No |  |  |
| 117 | Supports TB processing over multi-slot PUSCH without repetition | 38.306 4.2.7.2 | Rel-17 | pc\_tb\_ProcessingMultiSlotPUSCH\_r17 | No |  |  |
| 118 | Supports repetition of TB processing over multi-slot PUSCH | 38.306 4.2.7.2 | Rel-17 | pc\_tb\_ProcessingRepMultiSlotPUSCH\_r17 | No |  |  |
| 119 | Support SFN scheme A for PDCCH scheduling SFN Scheme A PDSCH | 38.306, 4.2.7.5 | Rel-17 | pc\_sfn\_schemeA\_r17 | No |  |  |
| 120 | Support SFN scheme B for PDCCH scheduling SFN Scheme B PDSCH | 38.306, 4.2.7.5 | Rel-17 | pc\_sfn\_schemeB\_r17 | No |  |  |
| 121 | Support of up to 8 configured SPS configurations in a BWP of a serving cell and up to 32 configured SPS configurations in a cell group | 38.306, 4.2.7.2 | Rel-16 | pc\_multi\_sps\_r16 | No |  | The UE can include this feature only if the UE indicates support of downlinkSPS. |
| 122 | Support transmission of two PUCCH formats in TDM in the same slot | 38.306, 4.2.7.10 | Rel-15 | pc\_twoPUCCH\_AnyOthersInSlot | No |  |  |
| 123 | Support of unified TCI state operation with joint DL/UL TCI update for intra-cell beam management | 38.306, 4.2.7.2 | Rel-17 | pc\_unifiedJointTCI\_r17 | No |  |  |
| 124 | Support of unified TCI state operation with separate DL/UL TCI update for intra-cell beam management | 38.306, 4.2.7.2 | Rel-17 | pc\_unifiedSeparateTCI\_r17 | No |  |  |
| 125 | Support of RRC configuration of additional PCI different from serving cell associated with the TCI state and/or QCL-info | 38.306, 4.2.7.2 | Rel-17 | pc\_mTRP\_InterCell\_r17 | No |  |  |
| 126 | Support of unified TCI with separate DL/UL TCI update for inter-cell beam management | 38.306, 4.2.7.2 | Rel-17 | pc\_unifiedSeparateTCI\_InterCell\_r17 | No |  |  |
| 127 | Support of dynamic 2Tx-2Tx UL Tx switching | 38.306, 4.2.7.1 | Rel-17 | pc\_2Tx\_ULTxSwitchingBandPair\_r17 | No |  | If the capability is supported then the band pair(s) for which it is supported shall be indicated in Table A.4.3.2A.4.1-3 |
| 128 | Indicates whether the UE supports aperiodic CSI-RS for tracking for fast SCell activation, i.e.,  1) Aperiodic CSI-RS for tracking for fast SCell activation is triggered by enhanced SCell activation/deactivation MAC CE; 2) Aperiodic CSI-RS for tracking for fast SCell activation is triggered within the BWP indicated by firstActiveDownlinkBWP-Id for the SCell. | 38.306, 4.2.7.2 | Rel-17 | pc\_aperiodicCSIRS\_FastScellActivation\_r17 | No |  | Includes maxNumberAperiodicCSI-RS-PerCC-r17 and maxNumberAperiodicCSI-RS-AcrossCCs-r17 to indicate the number of RS configurations for fast SCell activation that can be indicated by the MAC CE |
| 129 | Indicates whether the UE supports conditional PSCell addition in EN-DC. The UE supporting this feature shall also support 2 trigger events for same execution condition in conditional PSCell addition in EN-DC. | 38.306, 4.2.7.9 | Rel-17 | pc\_condPSCellAdditionENDC\_r17 | No |  |  |
| 130 | Support of conditional PSCell addition in NR-DC | 38.306, 4.2.7.12 | Rel-17 | pc\_condPSCellAdditionNRDC\_r17 | No |  |  |
| 131 | Support of activation (with or without RACH) and deactivation on SCG in EN-DC | 38.306, 4.2.7.9 | Rel-17 | pc\_scg\_ActivationDeactivationENDC\_r17 | No |  |  |
| 132 | Support of activation (with or without RACH) and deactivation on SCG in NR-DC | 38.306, 4.2.7.12 | Rel-17 | pc\_scg\_ActivationDeactivationNRDC\_r17 | No |  |  |
| 133 | Support of TCI state update and activation by a) MAC-CE+DCI-based TCI state indication (use of DCI formats 1\_1/1\_2 with DL assignment)  And b) MAC-CE+DCI-based TCI state indication (use of DCI formats 1\_1/1\_2 without DL assignment) | 38.306, 4.2.7.2 | Rel-17 | pc\_unifiedSeparateTCI\_multiMAC\_CE\_r17 | No |  | A UE supporting this feature shall also support unifiedSeparateTCI-r17. |
| 134 | Indicates whether UE supports partial frequency sounding for SRS with frequency hopping. | 38.306, 4.2.7.2 | Rel-17 | pc\_srs\_partialFequencySounding\_r17 | No |  |  |
| 135 | Indicates whether the UE supports partial frequency sounding for SRS with frequency hopping and start RB location hopping. | 38.306, 4.2.7.2 | Rel-17 | pc\_srs\_startRB\_locationHoppingPartial\_r17 | No |  | A UE supporting this feature shall also indicate support of pc\_srs\_partialFequencySounding\_r17 as specified in TS 38.306. |
| 136 | Indicates whether the UE supports PDCCH search space monitoring occasions in  any symbol of the slot (pdcch-MonitoringAnyOccasions) | 38.306, 4.2.7.5 | Rel-15 | pc\_pdcchMonitoringAnyOccasions | No |  |  |
| 137 | Indicates whether the UE supports PDCCH search space monitoring occasions in  any symbol of the slot with minimum time separation between two consecutive  transmissions of PDCCH with span (pdcch-MonitoringAnyOccasionsWithSpanGap) | 38.306, 4.2.7.5 | Rel-15 | pc\_pdcchMonitoringAnyOccasions\_SpanGap | No |  |  |
| bbb->138 | Support of UE reporting of information related to TA pre-compensation | 38.306, 4.2.7.2 | Rel-17 | pc\_uplink\_TA\_Reporting\_r17 | No |  | UE supports UE reporting of information related to TA pre-compensation. |
| xy1->139 | Indicates whether the UE supports mTRP BFR based on two BFD-RS sets. | 38.306, 4.2.7.5 | Rel-17 | pc\_mTRP\_BFR\_twoBFD\_RS\_Set\_r17 | No |  |  |
| xy2->140 | Indicates the support of intra-slot PDCCH repetition based on two linked SS sets associated with corresponding CORESETs. | 38.306, 4.2.7.5 | Rel-17 | pc\_mTRP\_PDCCH\_Repetition\_r17 | No |  |  |

Table A.4.3.2-2: UE Physical Layer Baseline Implementation Capabilities for Shared Spectrum

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Item | UE Physical Layer Baseline Implementation Capabilities | Ref. | Release | Mnemonic | M | If indicated “Yes” the feature shall be implemented and successfully tested for the corresponding release | Comments |
| 1 | Support of NR CA with NR shared spectrum channel access | 38.306, 4.2.7.2a | Rel-16 | pc\_NRCASharedAccess | No |  | Deployment scenario A in Annex B.3 of TS 38.300 [21] |
| 2 | Support of EN-DC with NR shared spectrum channel access | 38.306, 4.2.7.2a | Rel-16 | pc\_ENDCNRSharedAccess | No |  | Deployment scenario B in Annex B.3 of TS 38.300 [21] |
| 3 | Support of NR standalone shared spectrum channel access | 38.306, 4.2.7.2a | Rel-16 | pc\_standaloneNRSharedAccess | No |  | Deployment scenario C in Annex B.3 of TS 38.300 [21] |
| 4 | Support of NR shared spectrum channel access with UL in licensed band | 38.306, 4.2.7.2a | Rel-16 | pc\_NRSharedAccessUlLic | No |  | Deployment scenario D in Annex B.3 of TS 38.300 [21] |
| 5 | Support of NR-DC with NR shared spectrum channel access | 38.306, 4.2.7.2a | Rel-16 | pc\_NRDCSharedAccess | No |  | Deployment scenario E in Annex B.3 of TS 38.300 [21] |
| 6 | Support of MIB acquisition on shared spectrum PSCell | 38.306, 4.2.7.2a | Rel-16 | pc\_mib\_Acquisition\_r16 | No |  |  |
| 7 | Support of SIB1 acquisition for shared spectrum PCell | 38.306, 4.2.7.2a | Rel-16 | pc\_sib1\_Acquisition\_r16 | No |  |  |
| 8 | Support of UL on dynamic channel access | 38.306, 4.2.7.2a | Rel-16 | pc\_ul\_DynamicChAccess\_r16 | No |  |  |
| 9 | Support of UL on semi-static channel access | 38.306, 4.2.7.2a | Rel-16 | pc\_ul\_Semi\_StaticChAccess\_r16 | No |  |  |
| 10 | Support of SSB-based RRM for dynamic channel access | 38.306, 4.2.7.2a | Rel-16 | pc\_ssb\_RRM\_DynamicChAccess\_r16 | No |  |  |
| 11 | Support of SSB-based RRM for semi-static channel access | 38.306, 4.2.7.2a | Rel-16 | pc\_ssb\_RRM\_Semi\_StaticChAccess\_r16 | No |  |  |
| 12 | Support of SSB-based RLM on dynamic channel access | 38.306, 4.2.7.2a | Rel-16 | pc\_ssb\_RLM\_DynamicChAccess\_r16 | No |  |  |
| 13 | Support of SSB-based RLM on semi-static channel access | 38.306, 4.2.7.2a | Rel-16 | pc\_ssb\_RLM\_Semi\_StaticChAccess\_r16 | No |  |  |
| 14 | Support of SSB-based BFD and CBD for dynamic channel access | 38.306, 4.2.7.2a | Rel-16 | pc\_ssb\_BFD\_CBD\_dynamicChannelAccess\_r16 | No |  |  |
| 15 | Support of SSB-based BFD and CBD for semi-static channel access | 38.306, 4.2.7.2a | Rel-16 | pc\_ssb\_BFD\_CBD\_semi\_staticChannelAccess\_r16 | No |  |  |
| 16 | Support of CSI-RS-based RLM for shared spectrum | 38.306, 4.2.7.2a | Rel-16 | pc\_csi\_RS\_RLM\_r16 | No |  |  |
| 17 | Support of CSI-RS-based BFD and CBD for shared spectrum | 38.306, 4.2.7.2a | Rel-16 | pc\_csi\_RS\_BFD\_CBD\_r16 | No |  |  |
| 18 | Support of CSI-RS based CFRA for shared spectrum | 38.306, 4.2.7.2a | Rel-16 | pc\_csi\_RS\_CFRA\_ForHO\_r16 | No |  |  |
| 19 | Support of RSSI measurements and channel occupancy measurement reporting | 38.306, 4.2.7.2a | Rel-16 | pc\_rssi\_ChannelOccupancyReporting\_r16 | No |  |  |
| 20 | Support of SS-SINR measurements in shared spectrum | 38.306, 4.2.7.14 | Rel-16 | pc\_ss\_SINR\_Meas\_r16 | No |  |  |

### A.4.3.2A NR CA Physical Layer Baseline Implementation Capabilities

NOTE: See Annex B for status of completed NR CA configurations and power classes in this version of 3GPP UE conformance test specifications.

#### A.4.3.2A.1 General NR CA capabilities

Table A.4.3.2A.1-1: Downlink NR CA capabilities (for one or more of the supported NR CA configurations)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL NR CA capability | Ref. | Mnemonic | Comments |
| 1 | DL NR CA with 2 carriers | 38.101-1, 5.3A  38.101-2, 5.3A  38.101-3, 5.3A | pc\_DL\_NR\_CA\_2CC |  |
| 2 | DL NR CA with 3 carriers | 38.101-1, 5.3A  38.101-2, 5.3A  38.101-3, 5.3A | pc\_DL\_NR\_CA\_3CC |  |
| 3 | DL NR CA with 4 carriers | 38.101-1, 5.3A  38.101-2, 5.3A  38.101-3, 5.3A | pc\_DL\_NR\_CA\_4CC |  |
| 4 | DL NR CA with 5 carriers | 38.101-1, 5.3A  38.101-2, 5.3A  38.101-3, 5.3A | pc\_DL\_NR\_CA\_5CC |  |
| 5 | DL NR CA with 6 carriers | 38.101-1, 5.3A  38.101-2, 5.3A  38.101-3, 5.3A | pc\_DL\_NR\_CA\_6CC |  |
| 6 | DL NR CA with 7 carriers | 38.101-1, 5.3A  38.101-2, 5.3A  38.101-3, 5.3A | pc\_DL\_NR\_CA\_7CC |  |
| 7 | DL NR CA with 8 carriers | 38.101-1, 5.3A  38.101-2, 5.3A  38.101-3, 5.3A | pc\_DL\_NR\_CA\_8CC |  |

Table A.4.3.2A.1-2: Uplink NR CA capabilities (for one or more of the supported NR CA configurations )

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL NR CA capability | Ref. | Mnemonic | Comments |
| 1 | UL NR CA with 2 carriers | 38.101-1, 5.3A  38.101-2, 5.3A  38.101-3, 5.3A | pc\_UL\_NR\_CA\_2CC |  |
| 2 | UL NR CA with 3 carriers | 38.101-1, 5.3A  38.101-2, 5.3A  38.101-3, 5.3A | pc\_UL\_NR\_CA\_3CC |  |
| 3 | UL NR CA with 4 carriers | 38.101-1, 5.3A  38.101-2, 5.3A  38.101-3, 5.3A | pc\_UL\_NR\_CA\_4CC |  |
| 4 | UL NR CA with 5 carriers | 38.101-2, 5.3A  38.101-3, 5.3A | pc\_UL\_NR\_CA\_5CC |  |
| 5 | UL NR CA with 6 carriers | 38.101-2, 5.3A  38.101-3, 5.3A | pc\_UL\_NR\_CA\_6CC |  |
| 6 | UL NR CA with 7 carriers | 38.101-2, 5.3A  38.101-3, 5.3A | pc\_UL\_NR\_CA\_7CC |  |
| 7 | UL NR CA with 8 carriers | 38.101-2, 5.3A  38.101-3, 5.3A | pc\_UL\_NR\_CA\_8CC |  |

#### A.4.3.2A.2 NR Intra-band contiguous CA

##### A.4.3.2A.2.1 NR Intra-band contiguous CA within FR1

Table A.4.3.2A.2.1-1: Downlink Bandwidth Class capabilities for NR Intra-band contiguous CA configurations within FR1 (for one or more of the supported configurations in Table A.4.3.2A.2.1-3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL NR FR1 Intra-band contiguous CA Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | DL NR FR1 Intra-band contiguous CA BW Class A | 38.101-1, 5.3A.5 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR1\_Class\_A |  |
| 2 | DL NR FR1 Intra-band contiguous CA BW Class B | 38.101-1, 5.3A.5 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR1\_Class\_B |  |
| 3 | DL NR FR1 Intra-band contiguous CA BW Class C | 38.101-1, 5.3A.5 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR1\_Class\_C |  |
| 4 | DL NR FR1 Intra-band contiguous CA BW Class D | 38.101-1, 5.3A.5 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR1\_Class\_D |  |
| 5 | DL NR FR1 Intra-band contiguous CA BW Class E | 38.101-1, 5.3A.5 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR1\_Class\_E |  |
| 6 | void | void | void |  |
| 7 | DL NR FR1 Intra-band contiguous CA BW Class G | 38.101-1, 5.3A.5 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR1\_Class\_G |  |
| 8 | DL NR FR1 Intra-band contiguous CA BW Class H | 38.101-1, 5.3A.5 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR1\_Class\_H |  |
| 9 | DL NR FR1 Intra-band contiguous CA BW Class I | 38.101-1, 5.3A.5 | pc\_DL\_intra\_contiguous\_NR\_FR1\_CA\_Class\_I |  |
| 10 | DL NR FR1 Intra-band contiguous CA BW Class J | 38.101-1, 5.3A.5 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR1\_Class\_J |  |
| 11 | DL NR FR1 Intra-band contiguous CA BW Class K | 38.101-1, 5.3A.5 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR1\_Class\_K |  |
| 12 | DL NR FR1 Intra-band contiguous CA BW Class L | 38.101-1, 5.3A.5 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR1\_Class\_L |  |
| 13 | DL NR FR1 Intra-band contiguous CA BW Class M | 38.101-1, 5.3A.5 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR1\_Class\_M |  |
| 14 | DL NR FR1 Intra-band contiguous CA BW Class N | 38.101-1, 5.3A.5 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR1\_Class\_N |  |
| 15 | DL NR FR1 Intra-band contiguous CA BW Class O | 38.101-1, 5.3A.5 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR1\_Class\_O |  |

Table A.4.3.2A.2.1-2: Uplink Bandwidth Class capabilities for NR Intra-band contiguous CA configurations within FR1 (for one or more of the supported configurations in Table A.4.3.2A.2.1-3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL NR FR1 Intra-band contiguous CA Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | UL NR FR1 Intra-band contiguous CA BW Class A | 38.101-1, 5.3A.5 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR1\_Class\_A |  |
| 2 | UL NR FR1 Intra-band contiguous CA BW Class B | 38.101-1, 5.3A.5 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR1\_Class\_B |  |
| 3 | UL NR FR1 Intra-band contiguous CA BW Class C | 38.101-1, 5.3A.5 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR1\_Class\_C |  |
| 4-12 | Void |  |  |  |

Table A.4.3.2A.2.1-3: Supported configurations for NR Intra-band contiguous CA within FR1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| NR FR1 Intra-band contiguous CA configuration / Item  (Note 1, 7) | Release | Supported | Supported CA Bandwidth Class(es) in UL  (Note 2,5) | Supported Bandwidth Combination Set(s)  (Note 3) |
| CA\_n1B | Rel-16 |  |  |  |
| CA\_n41C | Rel-15 |  |  |  |
| CA\_n48B | Rel-16 |  |  |  |
| CA\_n48C | Rel-16 |  |  |  |
| CA\_n66B (Note 6) | Rel-16 |  |  |  |
| CA\_n77C | Rel-15 |  |  |  |
| CA\_n78B | Rel-16 |  |  |  |
| CA\_n78C | Rel-15 |  |  |  |
| CA\_n79C | Rel-15 |  |  |  |
| Note 1: Notation used for intra-band contiguous CA Bands is according to TS 38.101-1 [23] Table 5.5A.1-1, e.g. ‘CA\_n77C’ indicates CA operation on NR band n77 with DL CA Bandwidth Class C.  Note 2: The UL CA capabilities as per Table A.4.3.2A.2.1-2 can be supported on a single band. The UE supplier shall indicate all supported UL CA Bandwidth Class(es), in uplink of the supported CA Band(s), as per TS 38.101-1 [23] Table 5.5A.1-1. For this release of specification valid choices are ’N’, ‘nXB’ and ‘nXC’, where nX is the NR band. For example, for CA\_n1B, ’N’ would mean only DL CA, ‘n1B’ would mean both DL and UL CA.  Note 3: The UE supplier shall indicate the supported Bandwidth Combination Set(s) as per TS 38.101-1 [23] Table 5.5A.1-1.  Note 4: Void.  Note 5: See UL(*table\_index*) in Note 1 of Table 4.0-3 and UL\_*n*CC(*table\_index*) in Note 2 of Table 4.0-3 in TS 38.522 [9].  Note 6: A UE that supports NR Band n66 (Table A.4.3.1-1) and CA operation in any CA band shall also support the DL CA configurations CA\_n66B and CA\_n66(2A), as per Note 7, in Table 5.2-1, in TS 38.521-1 [5].  Note 7: See DL\_*n*CC(*table\_index*) in Note 4 of Table 4.0-3 in TS 38.522 [9]. | | | | |

Table A.4.3.2A.2.1-3a: Supported configurations for NR Intra-band contiguous CA within FR1 with UL MIMO capabilities

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| NR FR1 Intra-band contiguous CA configuration / Item  (Note 1, 6) | Release | Supported | Supported CA Bandwidth Class(es) in UL  (Note 2,4) | Supported Bandwidth Combination Set(s)  (Note 3) |
| CA\_n41C | Rel-15 |  |  |  |
| CA\_n78C | Rel-15 |  |  |  |
| Note 1: Notation used for intra-band contiguous CA Bands is according to TS 38.101-1 [23] Table 5.5A.1-1, e.g. ‘CA\_n77C’ indicates CA operation on NR band n77 with DL CA Bandwidth Class C.  Note 2: The UL CA capabilities as per Table A.4.3.2A.2.1-2 can be supported on a single band. The UE supplier shall indicate all supported UL CA Bandwidth Class(es), in uplink of the supported CA Band(s), as per TS 38.101-1 [23] Table 5.5A.1-1. For this release of specification valid choices are ’N’, ‘nXB’ and ‘nXC’, where nX is the NR band. For example, for CA\_n1B, ’N’ would mean only DL CA, ‘n1B’ would mean both DL and UL CA.  Note 3: The UE supplier shall indicate the supported Bandwidth Combination Set(s) as per TS 38.101-1 [23] Table 5.5A.1-1.  Note 4: See UL(*table\_index*) in Note 1 of Table 4.0-3 and UL\_*n*CC(*table\_index*) in Note 2 of Table 4.0-3 in TS 38.522 [9].  Note 5: A UE that supports NR Band n66 (Table A.4.3.1-1) and CA operation in any CA band shall also support the DL CA configurations CA\_n66B and CA\_n66(2A), as per Note 7, in Table 5.2-1, in TS 38.521-1 [5].  Note 6: See DL\_*n*CC(*table\_index*) in Note 4 of Table 4.0-3 in TS 38.522 [9]. | | | | |

Table A.4.3.2A.2.1-4: Intra-band contiguous CA PC2 UE RF Baseline Implementation Capabilities

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | Intra-band contiguous CA PC2 UE RF Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| 1 | NR Frequency band: 2496-2690 MHz | 38.101-1, 6.2A.1 | Rel-17 | pc\_nrBand41\_C\_PC2\_Supp | CA\_n41C |
| 2 | NR Frequency band: 3300-3800 MHz | 38.101-1, 6.2A.1 | Rel-17 | pc\_nrBand78\_C\_PC2\_Supp | CA\_n78C |

Table A.4.3.2A.2.1-5: Intra-band contiguous CA PC1.5 UE RF Baseline Implementation Capabilities

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | Intra-band contiguous CA PC2 UE RF Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| 1 | NR Frequency band: 2496-2690 MHz | 38.101-1, 6.2A.1 | Rel-17 | pc\_nrBand41\_C\_PC1.5\_Supp | CA\_n41C |

##### A.4.3.2A.2.2 NR Intra-band contiguous CA within FR2

Table A.4.3.2A.2.2-1: Downlink Bandwidth Class capabilities for NR Intra-band contiguous CA configurations within FR2 (for one or more of the supported configurations in Table A.4.3.2A.2.2-3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL NR FR2 Intra-band contiguous CA Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | DL NR FR2 Intra-band contiguous CA BW Class A | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_A |  |
| 2 | DL NR FR2 Intra-band contiguous CA BW Class B | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_B |  |
| 3 | DL NR FR2 Intra-band contiguous CA BW Class C | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_C |  |
| 3a | DL NR FR2 Intra-band contiguous CA BW Class V | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_V |  |
| 3b | DL NR FR2 Intra-band contiguous CA BW Class W | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_W |  |
| 4 | DL NR FR2 Intra-band contiguous CA BW Class D | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_D |  |
| 5 | DL NR FR2 Intra-band contiguous CA BW Class E | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_E |  |
| 6 | DL NR FR2 Intra-band contiguous CA BW Class F | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_F |  |
| 6a | DL NR FR2 Intra-band contiguous CA BW Class R | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_R |  |
| 6b | DL NR FR2 Intra-band contiguous CA BW Class S | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_S |  |
| 6c | DL NR FR2 Intra-band contiguous CA BW Class T | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_T |  |
| 6d | DL NR FR2 Intra-band contiguous CA BW Class U | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_U |  |
| 7 | DL NR FR2 Intra-band contiguous CA BW Class G | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_G |  |
| 8 | DL NR FR2 Intra-band contiguous CA BW Class H | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_H |  |
| 9 | DL NR FR2 Intra-band contiguous CA BW Class I | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_I |  |
| 10 | DL NR FR2 Intra-band contiguous CA BW Class J | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_J |  |
| 11 | DL NR FR2 Intra-band contiguous CA BW Class K | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_K |  |
| 12 | DL NR FR2 Intra-band contiguous CA BW Class L | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_L |  |
| 13 | DL NR FR2 Intra-band contiguous CA BW Class M | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_M |  |
| 14 | DL NR FR2 Intra-band contiguous CA BW Class O | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_O |  |
| 15 | DL NR FR2 Intra-band contiguous CA BW Class P | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_P |  |
| 16 | DL NR FR2 Intra-band contiguous CA BW Class Q | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_Q |  |
| 17 | DL NR FR2 Intra-band contiguous CA BW Class R2 | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_R2 |  |
| 18 | DL NR FR2 Intra-band contiguous CA BW Class R3 | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_R3 |  |
| 19 | DL NR FR2 Intra-band contiguous CA BW Class R4 | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_R4 |  |
| 20 | DL NR FR2 Intra-band contiguous CA BW Class R5 | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_R5 |  |
| 21 | DL NR FR2 Intra-band contiguous CA BW Class R6 | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_R6 |  |
| 22 | DL NR FR2 Intra-band contiguous CA BW Class R7 | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_R7 |  |
| 23 | DL NR FR2 Intra-band contiguous CA BW Class R8 | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_R8 |  |
| 24 | DL NR FR2 Intra-band contiguous CA BW Class R9 | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_R9 |  |
| 25 | DL NR FR2 Intra-band contiguous CA BW Class R10 | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_R10 |  |
| 26 | DL NR FR2 Intra-band contiguous CA BW Class R11 | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_R11 |  |
| 27 | DL NR FR2 Intra-band contiguous CA BW Class R12 | 38.101-2, 5.3A.4 | pc\_DL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_R12 |  |

Table A.4.3.2A.2.2-2: Uplink Bandwidth Class capabilities for NR Intra-band contiguous CA configurations within FR2 (for one or more of the supported configurations in Table A.4.3.2A.2.2-3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL NR FR2 Intra-band contiguous CA Bandwidth Class | Ref. | Mnemonic | Comments |
| 0 | UL NR FR2 Intra-band contiguous CA BW Class A | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_A |  |
| 1 | UL NR FR2 Intra-band contiguous CA BW Class B | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_B |  |
| 2 | UL NR FR2 Intra-band contiguous CA BW Class C | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_C |  |
| 2a | UL NR FR2 Intra-band contiguous CA BW Class V | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_V |  |
| 2b | UL NR FR2 Intra-band contiguous CA BW Class W | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_W |  |
| 3 | UL NR FR2 Intra-band contiguous CA BW Class D | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_D |  |
| 4 | UL NR FR2 Intra-band contiguous CA BW Class E | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_E |  |
| 5 | UL NR FR2 Intra-band contiguous CA BW Class F | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_F |  |
| 5a | UL NR FR2 Intra-band contiguous CA BW Class R | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_R |  |
| 5b | UL NR FR2 Intra-band contiguous CA BW Class S | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_S |  |
| 5c | UL NR FR2 Intra-band contiguous CA BW Class T | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_T |  |
| 5d | UL NR FR2 Intra-band contiguous CA BW Class U | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_U |  |
| 6 | UL NR FR2 Intra-band contiguous CA BW Class G | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_G |  |
| 7 | UL NR FR2 Intra-band contiguous CA BW Class H | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_H |  |
| 8 | UL NR FR2 Intra-band contiguous CA BW Class I | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_I |  |
| 9 | UL NR FR2 Intra-band contiguous CA BW Class J | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_J |  |
| 10 | UL NR FR2 Intra-band contiguous CA BW Class K | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_K |  |
| 11 | UL NR FR2 Intra-band contiguous CA BW Class L | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_L |  |
| 12 | UL NR FR2 Intra-band contiguous CA BW Class M | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_M |  |
| 13 | UL NR FR2 Intra-band contiguous CA BW Class O | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_O |  |
| 14 | UL NR FR2 Intra-band contiguous CA BW Class P | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_P |  |
| 15 | UL NR FR2 Intra-band contiguous CA BW Class Q | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_Q |  |
| 16 | UL NR FR2 Intra-band contiguous CA BW Class R2 | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_R2 |  |
| 17 | UL NR FR2 Intra-band contiguous CA BW Class R3 | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_R3 |  |
| 18 | UL NR FR2 Intra-band contiguous CA BW Class R4 | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_R4 |  |
| 19 | UL NR FR2 Intra-band contiguous CA BW Class R5 | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_R5 |  |
| 20 | UL NR FR2 Intra-band contiguous CA BW Class R6 | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_R6 |  |
| 21 | UL NR FR2 Intra-band contiguous CA BW Class R7 | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_R7 |  |
| 22 | UL NR FR2 Intra-band contiguous CA BW Class R8 | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_R8 |  |
| 23 | UL NR FR2 Intra-band contiguous CA BW Class R9 | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_R9 |  |
| 24 | UL NR FR2 Intra-band contiguous CA BW Class R10 | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_R10 |  |
| 25 | UL NR FR2 Intra-band contiguous CA BW Class R11 | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_R11 |  |
| 26 | UL NR FR2 Intra-band contiguous CA BW Class R12 | 38.101-2, 5.3A.4 | pc\_UL\_intra\_contiguous\_CA\_NR\_FR2\_Class\_R12 |  |

Table A.4.3.2A.2.2-3: Supported configurations for NR Intra-band contiguous CA within FR2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| NR FR2 Intra-band contiguous CA configuration / Item  (Note 1, 6) | Release | Supported | Supported CA Bandwidth Class(es) in UL  (Note 2,5) | Supported Bandwidth Combination Set(s)  (Note 3) |
| CA\_n257G | Rel-15 |  |  |  |
| CA\_n257H | Rel-15 |  |  |  |
| CA\_n257I | Rel-15 |  |  |  |
| CA\_n258B | Rel-16 |  |  |  |
| CA\_n258C | Rel-16 |  |  |  |
| CA\_n258D | Rel-16 |  |  |  |
| CA\_n258E | Rel-16 |  |  |  |
| CA\_n258F | Rel-16 |  |  |  |
| CA\_n258G | Rel-16 |  |  |  |
| CA\_n258H | Rel-16 |  |  |  |
| CA\_n258I | Rel-16 |  |  |  |
| CA\_n258J | Rel-16 |  |  |  |
| CA\_n258K | Rel-16 |  |  |  |
| CA\_n258L | Rel-16 |  |  |  |
| CA\_n258M | Rel-16 |  |  |  |
| CA\_n260G | Rel-15 |  |  |  |
| CA\_n260H | Rel-15 |  |  |  |
| CA\_n260I | Rel-15 |  |  |  |
| CA\_n260J | Rel-15 |  |  |  |
| CA\_n260K | Rel-15 |  |  |  |
| CA\_n260L | Rel-15 |  |  |  |
| CA\_n260M | Rel-15 |  |  |  |
| CA\_n261G | Rel-15 |  |  |  |
| CA\_n261H | Rel-15 |  |  |  |
| CA\_n261I | Rel-15 |  |  |  |
| CA\_n261J | Rel-15 |  |  |  |
| CA\_n261K | Rel-15 |  |  |  |
| CA\_n261L | Rel-15 |  |  |  |
| CA\_n261M | Rel-15 |  |  |  |
| Note 1: Notation used for intra-band contiguous CA Bands is according to TS 38.101-2 [24] Table 5.5A.1-1, e.g. ‘CA\_n257C’ indicates CA operation on NR band n257 with DL CA Bandwidth Class C.  Note 2: The UL CA capabilities as per Table A.4.3.2A.2.2-2 can be supported on a single band. The UE supplier shall indicate all supported UL CA Bandwidth Class(es), in uplink of the supported CA Band(s), as per TS 38.101-2 [24] Table 5.5A.1-1. For this release of specification valid choices are ’N’, ‘nXB’ ~ ‘nXM’ and ‘nXO’ ~ ‘nXQ’, where nX is the NR band. For example, for CA\_n257C, ’N’ would mean only DL CA, ’n257C’ would mean both DL and UL CA operation on NR band n257 with CA Bandwidth Class C.  Note 3: The UE supplier shall indicate the supported Bandwidth Combination Set(s) as per TS 38.101-2 [24] Table 5.5A.1-1.  Note 4: Void.  Note 5: See UL(*table\_index*) in Note 1 of Table 4.0-3 and UL\_*n*CC(*table\_index*) in Note 2 of Table 4.0-3 in TS 38.522 [9].  Note 6: See DL\_*n*CC(*table\_index*) in Note 4 of Table 4.0-3 in TS 38.522 [9]. | | | | |

#### A.4.3.2A.3 NR Intra-band non-contiguous CA

##### A.4.3.2A.3.1 NR Intra-band non-contiguous CA within FR1

Table A.4.3.2A.3.1-1: Downlink Bandwidth Class capabilities for NR Intra-band non-contiguous CA configurations within FR1 (for one or more of the supported configurations in Table A.4.3.2A.3.1-3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item** | **DL NR FR1 Intra-band non-contiguous CA Bandwidth Class** | **Ref.** | **Mnemonic** | **Comments** |
| 1 | DL NR FR1 Intra-band non-contiguous CA BW Class Combination (2A) | 38.101-1, 5.3A.5 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR1\_Class\_(2A) |  |
| 2 | DL NR FR1 Intra-band non-contiguous CA BW Class Combination (3A) | 38.101-1, 5.3A.5 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR1\_Class\_(3A) |  |
| 3 | DL NR FR1 Intra-band non-contiguous CA BW Class Combination (4A) | 38.101-1, 5.3A.5 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR1\_Class\_(4A) |  |

Table A.4.3.2A.3.1-1a: Downlink Bandwidth Class capabilities for NR mixed Intra-band contiguous and non-contiguous CA configurations within FR1 (for one or more of the supported configurations in Table A.4.3.2A.3.1-3a)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item** | **DL NR FR1 mixed Intra-band contiguous and non-contiguous CA Bandwidth Class** | **Ref.** | **Mnemonic** | **Comments** |
| 1 | DL NR FR1 mixed Intra-band contiguous and non-contiguous CA BW Class Combination (A-B) | 38.101-1, 5.3A.5 | pc\_DL\_intra\_contiguous\_non\_contiguous\_CA\_NR\_FR1\_Class\_(A-B) |  |
| 2 | DL NR FR1 mixed Intra-band contiguous and non-contiguous CA BW Class Combination (A-C) | 38.101-1, 5.3A.5 | pc\_DL\_intra\_contiguous\_non\_contiguous\_CA\_NR\_FR1\_Class\_(A-C) |  |

Table A.4.3.2A.3.1-2: Uplink Bandwidth Class capabilities for NR Intra-band non-contiguous CA configurations within FR1 (for one or more of the supported configurations in Table A.4.3.2A.3.1-3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item** | **UL NR FR1 Intra-band non-contiguous CA Bandwidth Class** | **Ref.** | **Mnemonic** | **Comments** |
| 1 | UL NR FR1 Intra-band non-contiguous CA BW Class Combination (2A) | 38.101-1, 5.3A.5 | pc\_UL\_intra\_non\_contiguous\_CA\_NR\_FR1\_Class\_(2A) |  |

Table A.4.3.2A.3.1-2a: Uplink Bandwidth Class capabilities for NR mixed Intra-band contiguous and non-contiguous CA configurations within FR1 (for one or more of the supported configurations in Table A.4.3.2A.3.1-3a)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item** | **UL NR FR1 mixed Intra-band contiguous and non-contiguous CA Bandwidth Class** | **Ref.** | **Mnemonic** | **Comments** |
| 1 | UL NR FR1 mixed Intra-band contiguous and non-contiguous CA BW Class Combination (B) | 38.101-1, 5.3A.5 | pc\_UL\_intra\_contiguous\_non\_contiguous\_CA\_NR\_FR1\_Class\_(B) |  |

Table A.4.3.2A.3.1-3: Supported configurations for NR Intra-band non-contiguous CA within FR1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NR FR1 Intra-band non-contiguous CA configuration / Item**  **(Note 5)** | **Release** | **Supported** | **Supported CA Bandwidth Class(es) in UL**  **(Note 3)** | **Supported Bandwidth Combination Set(s)**  **(Note 1)** |
| CA\_n2(2A) | Rel-17 |  |  |  |
| CA\_n48(2A) | Rel-16 |  |  |  |
| CA\_n66(2A) (Note 4) | Rel-16 |  |  |  |
| CA\_n77(2A) | Rel-17 |  |  |  |
| CA\_n71(2A) | Rel-17 |  |  |  |
| CA\_n77(2A) | Rel-17 |  |  |  |
| CA\_n78(2A) | Rel-17 |  |  |  |
| Note 1: The UE supplier shall indicate the supported Bandwidth Combination Set(s) as per TS 38.101-1 [23] Table 5.5A.2-1.  Note 2: Void.  Note 3: See UL(*table\_index*) in Note 1 of Table 4.0-3 and UL\_*n*CC(*table\_index*) in Note 2 of Table 4.0-3 in TS 38.522 [9].  Note 4: A UE that supports NR Band n66 (Table A.4.3.1-1) and CA operation in any CA band shall also support the DL CA configurations CA\_n66B and CA\_n66(2A), as per Note 7, in Table 5.2-1, in TS 38.521-1 [5].  Note 5: See DL\_*n*CC(*table\_index*) in Note 4 of Table 4.0-3 in TS 38.522 [9]. | | | | |

Table A.4.3.2A.3.1-3a: Supported configurations for NR mixed Intra-band contiguous and non-contiguous CA within FR1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NR FR1 mixed Intra-band contiguous and non-contiguous CA configuration / Item** | **Release** | **Supported** | **Supported CA Bandwidth Class(es) in UL**  **(Note 3)** | **Supported Bandwidth Combination Set(s)**  **(Note 1)** |
| TBD |  |  |  |  |

##### A.4.3.2A.3.2 NR Intra-band non-contiguous CA within FR2

Table A.4.3.2A.3.2-1: Downlink Bandwidth Class capabilities with single bandwidth class for NR Intra-band non-contiguous CA configurations within FR2 (for one or more of the supported configurations in Table A.4.3.2A.3.2-3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL NR FR2 Intra-band non-contiguous CA Bandwidth Class (with single bandwidth class) | Ref. | Mnemonic | Comments |
| 1 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A) |  |
| 2 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (3A) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(3A) |  |
| 3 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (4A) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(4A) |  |
| 4 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (5A) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(5A) |  |
| 5 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (6A) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(6A) |  |
| 6 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (7A) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(7A) |  |
| 7 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (8A) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(8A) |  |
| 8 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (9A) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(9A) |  |
| 9 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (10A) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(10A) |  |
| 10 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2D) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2D) |  |
| 11 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2G) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2G) |  |
| 12 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (3G) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(3G) |  |
| 13 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (4G) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(4G) |  |
| 14 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2H) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2H) |  |
| 15 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2I) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2I) |  |
| 16 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2O) |  |
| 17 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (3O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(3O) |  |
| 18 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (4O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(4O) |  |
| 19 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (5O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(5O) |  |
| 20 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (6O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(6O) |  |
| 21 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (7O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(7O) |  |
| 22 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2P) |  |
| 23 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (3P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(3P) |  |
| 24 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (4P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(4P) |  |
| 25 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2Q) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2Q) |  |
| 26 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2I) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2I) |  |

Table A.4.3.2A.3.2-1a: Downlink Bandwidth Class capabilities with multiple bandwidth classes for NR Intra-band non-contiguous CA configurations within FR2 (for one or more of the supported configurations in Table A.4.3.2A.3.2-3a)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL NR FR2 Intra-band non-contiguous CA Bandwidth Class (with multiple bandwidth classes) | Ref. | Mnemonic | Comments |
| 1 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-D) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-D) |  |
| 2 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-2D) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-2D) |  |
| 3 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-G) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-G) |  |
| 4 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-2G) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-2G) |  |
| 5 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-3G) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-3G) |  |
| 6 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-4G) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-4G) |  |
| 7 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-H) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-H) |  |
| 8 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-I) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-I) |  |
| 9 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-2I) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-2I) |  |
| 10 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-J) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-J) |  |
| 11 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-K) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-K) |  |
| 12 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-O) |  |
| 13 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-2O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-2O) |  |
| 14 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-3O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-3O) |  |
| 15 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-4O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-4O) |  |
| 16 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-5O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-5O) |  |
| 17 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-6O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-6O) |  |
| 18 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-7O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-7O) |  |
| 19 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-P) |  |
| 20 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-2P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-2P) |  |
| 21 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-3P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-3P) |  |
| 22 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-4P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-4P) |  |
| 23 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-Q) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-Q) |  |
| 24 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-2Q) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-2Q) |  |
| 25 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-D) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-D) |  |
| 26 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-2D) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-2D) |  |
| 27 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-G) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-G) |  |
| 28 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-2G) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-2G) |  |
| 29 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-O) |  |
| 30 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-2O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-2O) |  |
| 31 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-3O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-3O) |  |
| 32 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-4O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-4O) |  |
| 33 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-P) |  |
| 34 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-2P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-2P) |  |
| 35 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-3P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-3P) |  |
| 36 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-4P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-4P) |  |
| 37 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-Q) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-Q) |  |
| 38 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-2Q) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-2Q) |  |
| 39 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-H) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-H) |  |
| 40 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-2H) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-2H) |  |
| 41 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-I) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-I) |  |
| 42 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (3A-G) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(3A-G) |  |
| 43 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (3A-2G) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(3A-2G) |  |
| 44 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (3A-O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(3A-O) |  |
| 45 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (3A-2O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(3A-2O) |  |
| 46 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (3A-3O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(3A-3O) |  |
| 47 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (3A-4O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(3A-4O) |  |
| 48 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (3A-P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(3A-P) |  |
| 49 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (3A-2P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(3A-2P) |  |
| 50 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (3A-Q) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(3A-Q) |  |
| 51 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (3A-2Q) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(3A-2Q) |  |
| 52 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (4A-G) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(4A-G) |  |
| 53 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (4A-2G) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(4A-2G) |  |
| 54 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (4A-Q) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(4A-Q) |  |
| 55 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (4A-2Q) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(4A-2Q) |  |
| 56 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (4A-O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(4A-O) |  |
| 57 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (4A-2O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(4A-2O) |  |
| 58 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (4A-3O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(4A-3O) |  |
| 59 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (4A-4O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(4A-4O) |  |
| 60 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (4A-P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(4A-P) |  |
| 61 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (4A-2P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(4A-2P) |  |
| 62 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (5A-O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(5A-O) |  |
| 63 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (5A-2O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(5A-2O) |  |
| 64 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (5A-3O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(5A-3O) |  |
| 65 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (5A-4O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(5A-4O) |  |
| 66 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (5A-P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(5A-P) |  |
| 67 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (5A-2P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(5A-2P) |  |
| 68 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (6A-O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(6A-O) |  |
| 69 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (6A-2O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(6A-2O) |  |
| 70 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (6A-3O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(6A-3O) |  |
| 71 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (6A-P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(6A-P) |  |
| 72 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (6A-2P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(6A-2P) |  |
| 73 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (7A-O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(7A-O) |  |
| 74 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (7A-2O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(7A-2O) |  |
| 75 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (7A-3O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(7A-3O) |  |
| 76 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (8A-O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(8A-O) |  |
| 77 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (8A-2O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(8A-2O) |  |
| 78 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (D-G) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(D-G) |  |
| 79 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (D-2G) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(D-2G) |  |
| 80 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (D-H) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(D-H) |  |
| 81 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (D-I) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(D-I) |  |
| 82 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (D-O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(D-O) |  |
| 83 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (D-2O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(D-2O) |  |
| 84 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (D-P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(D-P) |  |
| 85 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (D-Q) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(D-Q) |  |
| 86 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2D-O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2D-O) |  |
| 87 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (E-O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(E-O) |  |
| 88 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (E-P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(E-P) |  |
| 89 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (E-Q) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(E-Q) |  |
| 90 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (G-H) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(G-H) |  |
| 91 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (G-I) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(G-I) |  |
| 92 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (G-O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(G-O) |  |
| 93 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (G-2O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(G-2O) |  |
| 94 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (G-3O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(G-3O) |  |
| 95 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (G-4O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(G-4O) |  |
| 96 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2G-O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2G-O) |  |
| 97 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2G-2O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2G-2O) |  |
| 98 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2G-3O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2G-3O) |  |
| 99 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2G-4O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2G-4O) |  |
| 100 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (3G-O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(3G-O) |  |
| 101 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (4G-O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(4G-O) |  |
| 102 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (H-I) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(H-I) |  |
| 103 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (H-O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(H-O) |  |
| 104 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2H-O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2H-O) |  |
| 105 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (O-P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(O-P) |  |
| 106 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (O-2P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(O-2P) |  |
| 107 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (O-Q) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(O-Q) |  |
| 108 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (O-2Q) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(O-2Q) |  |
| 109 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2O-P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2O-P) |  |
| 110 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2O-2P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2O-2P) |  |
| 111 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2O-Q) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2O-Q) |  |
| 112 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2O-2Q) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2O-2Q) |  |
| 113 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (P-Q) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(P-Q) |  |
| 114 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-D-O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-D-O) |  |
| 115 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-D-2O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-D-2O) |  |
| 116 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-D-H) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-D-H) |  |
| 117 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-G-H) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-G-H) |  |
| 118 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-G-I) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-G-I) |  |
| 119 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-G-O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-G-O) |  |
| 120 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-G-2O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-G-2O) |  |
| 121 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-2G-O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-2G-O) |  |
| 122 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-2G-2O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-2G-2O) |  |
| 123 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-3G-O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-3G-O) |  |
| 124 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-H-I) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-H-I) |  |
| 125 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-O-P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-O-P) |  |
| 126 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-O-2P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-O-2P) |  |
| 127 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-O-Q) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-O-Q) |  |
| 128 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-O-2Q) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-O-2Q) |  |
| 129 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-2O-P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-2O-P) |  |
| 130 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-2O-2P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-2O-2P) |  |
| 131 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-2O-Q) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-2O-Q) |  |
| 132 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-2O-2Q) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-2O-2Q) |  |
| 133 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (A-P-Q) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(A-P-Q) |  |
| 134 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-D-O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-D-O) |  |
| 135 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-D-2O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-D-2O) |  |
| 136 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-G-O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-G-O) |  |
| 137 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-G-2O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-G-2O) |  |
| 138 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-2G-O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-2G-O) |  |
| 139 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-2G-2O) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-2G-2O) |  |
| 140 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-O-P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-O-P) |  |
| 141 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-O-2P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-O-2P) |  |
| 142 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-2O-P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-2O-P) |  |
| 143 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-2O-2P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-2O-2P) |  |
| 144 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-O-Q) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-O-Q) |  |
| 145 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-O-2Q) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-O-2Q) |  |
| 146 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-2O-Q) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-2O-Q) |  |
| 147 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A-2O-2Q) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A-2O-2Q) |  |
| 148 | DL NR FR2 Intra-band non-contiguous CA BW Class Combination (3A-O-P) | 38.101-2, 5.3A.4 | pc\_DL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(3A-O-P) |  |

Table A.4.3.2A.3.2-2: Uplink Bandwidth Class capabilities with single bandwidth class for NR Intra-band non-contiguous CA configurations within FR2 (for one or more of the supported configurations in Table A.4.3.2A.3.2-3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL NR FR2 Intra-band non-contiguous CA Bandwidth Class (with single bandwidth class) | Ref. | Mnemonic | Comments |
| 1 | UL NR FR2 Intra-band non-contiguous CA BW Class Combination (2A) | 38.101-2, 5.3A.4 | pc\_UL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(2A) |  |
| 2 | UL NR FR2 Intra-band non-contiguous CA BW Class Combination (3A) | 38.101-2, 5.3A.4 | pc\_UL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(3A) |  |
| 3 | UL NR FR2 Intra-band non-contiguous CA BW Class Combination (G) | 38.101-2, 5.3A.4 | pc\_UL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(G) |  |
| 4 | UL NR FR2 Intra-band non-contiguous CA BW Class Combination (H) | 38.101-2, 5.3A.4 | pc\_UL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(H) |  |
| 5 | UL NR FR2 Intra-band non-contiguous CA BW Class Combination (I) | 38.101-2, 5.3A.4 | pc\_UL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(I) |  |

Table A.4.3.2A.3.2-2a: Uplink Bandwidth Class capabilities with multiple bandwidth classes for NR Intra-band non-contiguous CA configurations within FR2 (for one or more of the supported configurations in Table A.4.3.2A.3.2-3a)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL NR FR2 Intra-band non-contiguous CA Bandwidth Class (with multiple bandwidth classes) | Ref. | Mnemonic | Comments |
| 1 | UL NR FR2 Intra-band non-contiguous CA BW Class Combination (D) | 38.101-2, 5.3A.4 | pc\_UL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(D) |  |
| 2 | UL NR FR2 Intra-band non-contiguous CA BW Class Combination (E) | 38.101-2, 5.3A.4 | pc\_UL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(E) |  |
| 3 | UL NR FR2 Intra-band non-contiguous CA BW Class Combination (G) | 38.101-2, 5.3A.4 | pc\_UL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(G) |  |
| 4 | UL NR FR2 Intra-band non-contiguous CA BW Class Combination (H) | 38.101-2, 5.3A.4 | pc\_UL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(H) |  |
| 5 | UL NR FR2 Intra-band non-contiguous CA BW Class Combination (I) | 38.101-2, 5.3A.4 | pc\_UL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(I) |  |
| 6 | UL NR FR2 Intra-band non-contiguous CA BW Class Combination (O) | 38.101-2, 5.3A.4 | pc\_UL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(O) |  |
| 7 | UL NR FR2 Intra-band non-contiguous CA BW Class Combination (P) | 38.101-2, 5.3A.4 | pc\_UL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(P) |  |
| 8 | UL NR FR2 Intra-band non-contiguous CA BW Class Combination (Q) | 38.101-2, 5.3A.4 | pc\_UL\_intra\_non\_contiguous\_CA\_NR\_FR2\_Class\_(Q) |  |

Table A.4.3.2A.3.2-3: Supported configurations with single bandwidth class for NR Intra-band non-contiguous CA within FR2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NR FR2 Intra-band non-contiguous CA configuration / Item**  **(Note 4)** | **Release** | **Supported** | **Supported CA Bandwidth Class(es) in UL**  **(Note 3)** | **Supported Bandwidth Combination Set(s)**  **(Note 1)** |
| CA\_n261(2A) | Rel-15 |  |  |  |
| Note 1: The UE supplier shall indicate the supported Bandwidth Combination Set(s) as per TS 38.101-2 [24] Table 5.5A.2-1.  Note 2: Void.  Note 3: See UL(*table\_index*) in Note 1 of Table 4.0-3 and UL\_*n*CC(*table\_index*) in Note 2 of Table 4.0-3 in TS 38.522 [9].  Note 4: See DL\_*n*CC(*table\_index*) in Note 4 of Table 4.0-3 in TS 38.522 [9]. | | | | |

Table A.4.3.2A.3.2-3a: Supported configurations with multiple bandwidth classes for NR Intra-band non-contiguous CA within FR2

TBD

#### A.4.3.2A.4 NR Inter-band CA within FR1

##### A.4.3.2A.4.1 NR Inter-band CA within FR1 (two bands)

Table A.4.3.2A.4.1-1: Downlink Bandwidth Class Combination capabilities for NR Inter-band CA configuration within FR1 and two bands (for one or more of the supported CA configurations in Table A.4.3.2A.4.1-3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL NR FR1 Inter-band CA Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | DL NR FR1 Inter-band CA BW Class Combination A-A (two bands) | 38.101-1, 5.3A.5 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_2B\_Class\_A-A |  |
| 2 | DL NR FR1 Inter-band CA BW Class Combination A-(2A) (two bands) | 38.101-1, 5.3A.5 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_2B\_Class\_A-(2A) |  |
| 3 | DL NR FR1 Inter-band CA BW Class Combination A-B (two bands) | 38.101-1, 5.3A.5 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_2B\_Class\_A-B |  |
| 4 | DL NR FR1 Inter-band CA BW Class Combination A-C (two bands) | 38.101-1, 5.3A.5 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_2B\_Class\_A-C |  |
| 5 | DL NR FR1 Inter-band CA BW Class Combination (2A)-A (two bands) | 38.101-1, 5.3A.5 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_2B\_Class\_(2A)-A |  |
| 6 | DL NR FR1 Inter-band CA BW Class Combination (2A)-(2A) (two bands) | 38.101-1, 5.3A.5 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_2B\_Class\_(2A)-(2A) |  |
| 7 | DL NR FR1 Inter-band CA BW Class Combination (2A)-B (two bands) | 38.101-1, 5.3A.5 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_2B\_Class\_(2A)-B |  |
| 8 | DL NR FR1 Inter-band CA BW Class Combination B-A (two bands) | 38.101-1, 5.3A.5 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_2B\_Class\_B-A |  |
| 9 | DL NR FR1 Inter-band CA BW Class Combination C-A (two bands) | 38.101-1, 5.3A.5 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_2B\_Class\_C-A |  |
| 10 | DL NR FR1 Inter-band CA BW Class Combination C-B (two bands) | 38.101-1, 5.3A.5 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_2B\_Class\_C-B |  |

Table A.4.3.2A.4.1-2: Uplink Bandwidth Class Combination capabilities for NR Inter-band CA within FR1 and two bands (for one or more of the supported CA configurations in Table A.4.3.2A.4.1-3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL NR FR1 Inter-band CA Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | UL NR FR1 Inter-band CA BW Class Combination A-A (two bands) | 38.101-1, 5.3A.5 | pc\_UL\_inter\_band\_CANR\_FR1\_2B\_Class\_A-A |  |
| 2 | UL NR FR1 Inter-band CA BW Class Combination (2A) (two bands) | 38.101-1, 5.3A.5 | pc\_UL\_inter\_band\_CANR\_FR1\_2B\_Class\_(2A) |  |
| 3 | UL NR FR1 Inter-band CA BW Class Combination B (two bands) | 38.101-1, 5.3A.5 | pc\_UL\_inter\_band\_CANR\_FR1\_2B\_Class\_B |  |
| 4 | UL NR FR1 Inter-band CA BW Class Combination C (two bands) | 38.101-1, 5.3A.5 | pc\_UL\_inter\_band\_CANR\_FR1\_2B\_Class\_C |  |

Table A.4.3.2A.4.1-3: Supported configurations for NR Inter-band CA within FR1 and two bands

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **NR FR1 Inter-band CA configuration / Item**  **(Note 1, 9)** | | **Release** | **Supported** | **Supported power class for single uplink carrier**  **(Note 12)** | **Supported CA Bandwidth Class(es) in UL**  **(Note 2,5)** | **Supported Bandwidth Combination Set(s)**  **(Note 3)** | **Supported**  **1Tx-2Tx ULTxSwitch-ing Band Pair**  **(Note 7, 8)** | **Supported 2Tx-2Tx ULTxSwitching Band Pair**  **(Note 7, 8)** | **Supported uplinkTx Switching-DL-Interruption-r16**  **(Note 10)** | **Supported simultaneousRxTx**  **(Note 11)** |
| CA\_n1A-n3A | | Rel-16 |  |  |  |  |  |  |  |  |
| CA\_n1A-n28A | | Rel-16 |  |  |  |  |  |  |  |  |
| CA\_n1(2A)-n3A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n1(2A)-n5A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n1A-n8A | | Rel-16 |  |  |  |  |  |  |  |  |
| CA\_n1(2A)-n8A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n1A-n41A | | Rel-16 |  |  |  |  |  |  |  | Yes |
| CA\_n1A-n77A | | Rel-16 |  |  |  |  |  |  | Not supported | Yes |
| CA\_n1A-n78A | | Rel-16 |  |  |  |  |  |  | Not supported | Yes |
| CA\_n1(2A)-n78A | | Rel-17 |  |  |  |  |  |  | Not supported | Yes |
| CA\_n1A-n78(2A) | | Rel-17 |  |  |  |  |  |  | Not supported | Yes |
| CA\_n1A-n78C | | Rel-16 |  |  |  |  |  |  | Not supported | Yes |
| CA\_n1A-n79A | | Rel-16 |  |  |  |  |  |  | Not supported | Yes |
| CA\_n2A-n5A | | Rel-16 |  |  |  |  |  |  |  |  |
| CA\_n2A-n14A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n2A-n48A | | Rel-16 |  |  |  |  |  |  |  |  |
| CA\_n2A-n48(2A) | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n2A-n48B | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n2A-n66A | | Rel-16 |  |  |  |  |  |  |  |  |
| CA\_n2A-n77A | | Rel-16 |  |  |  |  |  |  |  |  |
| CA\_n2A-n77C | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n3A-n5A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n3(2A)-n5A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n3A-n8A | | Rel-16 |  |  |  |  |  |  |  |  |
| CA\_n3(2A)-n8A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n3A-n28A | | Rel-16 |  |  |  |  |  |  |  |  |
| CA\_n3A-n41A | | Rel-16 |  |  |  |  |  |  | Not supported | Yes |
| CA\_n3A-n77A | | Rel-15 |  |  |  |  |  | Not supported |  | CA\_n3A-n77A |
| CA\_n3A-n77(2A) | | Rel-16 |  |  |  |  |  |  | Not supported | Yes |
| CA\_n3A-n78A | | Rel-15 |  |  |  |  |  |  | Not supported | Yes |
| CA\_n5A-n48A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n5A-n48(2A) | | Rel-17 |  |  |  |  |  |  |  | CA\_n5A-n48(2A) |
| CA\_n5A-n48B | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n3A-n78(2A) | | Rel-17 |  |  |  |  |  |  | Not supported | Yes |
| CA\_n3(2A)-n78A | | Rel-17 |  |  |  |  |  |  | Not supported | Yes |
| CA\_n5A-n66A | | Rel-16 |  |  |  |  |  |  |  |  |
| CA\_n5A-n78(2A) | | Rel-17 |  |  |  |  |  |  |  | Yes |
| CA\_n5A-n7A | | Rel-16 |  |  |  |  |  |  |  |  |
| CA\_n5A-n48A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n5A-n77A | | Rel-16 |  |  |  |  |  |  |  | Yes |
| CA\_n5A-n77C | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n5A-n78A | | Rel-16 |  |  |  |  |  |  | Not supported | Yes |
| CA\_n7A-n78A | | Rel-16 |  |  |  |  |  |  |  | Yes |
| CA\_n8A-n78A | | Rel-15 |  |  |  |  |  |  | Not supported | Yes |
| CA\_n8A-n78(2A) | | Rel-17 |  |  |  |  |  |  | Not supported | Yes |
| CA\_n14A-n30A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n14A-n66A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n14A-n77A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n20A-n78A | | Rel-16 |  |  |  |  |  |  |  |  |
| CA\_n24A-n41A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n24A-n41(2A) | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n24A-n48A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n24A-n48B | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n24A-n48(2A) | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n24A-n77A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n24A-n77C | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n25A-n66A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n25A-n77A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n25A-n77(2A) | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n25A-n78A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n25A-n78(2A) | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n26A-n66A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n26A-n66(2A) | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n26A-n70A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n28A-n41A | | Rel-16 |  |  |  |  |  |  |  | Yes |
| CA\_n28A-n77A | | Rel-16 |  |  |  |  |  |  | Not supported |  |
| CA\_n28A-n77(2A) | | Rel-16 |  |  |  |  |  |  | Not supported | Yes |
| CA\_n28A-n78A | | Rel-16 |  |  |  |  |  |  | Not supported | Yes |
| CA\_n28A-n79A | | Rel-17 |  |  |  |  |  |  |  | Yes |
| CA\_n29A-n66A | | Rel-16 |  |  |  |  |  |  |  |  |
| CA\_n29A-n66B | | Rel-16 |  |  |  |  |  |  |  |  |
| CA\_n29A-n66(2A) | | Rel-16 |  |  |  |  |  |  |  |  |
| CA\_n29A-n70A | | Rel-16 |  |  |  |  |  |  |  |  |
| CA\_n29A-n71A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n39A-n41A | | Rel-16 |  |  |  |  |  |  |  |  |
| CA\_n41A-n66A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n41A-n71A | | Rel-16 |  |  |  |  |  |  |  | Yes |
| CA\_n41A-n77A | | Rel-17 |  |  |  |  |  |  |  | Yes |
| CA\_n41A-n79A | | Rel-16 |  |  |  |  |  |  | Not supported | Yes |
| CA\_n41C-n79A | | Rel-16 |  |  |  |  |  |  | Not supported | Yes |
| CA\_n48A-n66A (Note 6) | | Rel-16 |  |  |  |  |  |  |  |  |
| CA\_n48A-n66(2A) (Note 6) | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n48A-n70A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n48A-n71A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n48A-n71(2A) | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n48A-n77A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n48A-n77C | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n48B-n66A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n48B-n70A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n48B-n71A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n48B-n77A | | Rel-17 |  |  |  |  |  |  |  | CA\_n48B-n77A |
| CA\_n48(2A)-n66A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n48(2A)-n66(2A) | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n48(2A)-n70A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n48(2A)-n71A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n48(2A)-n71(2A) | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n48(2A)-n77A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n66A-n70A (Note 6) | | Rel-16 |  |  |  |  |  |  |  |  |
| CA\_n66B-n70A (Note 6) | | Rel-16 |  |  |  |  |  |  |  |  |
| CA\_n66(2A)-n70A (Note 6) | | Rel-16 |  |  |  |  |  |  |  |  |
| CA\_n66A-n71A (Note 6) | | Rel-16 |  |  |  |  |  |  |  |  |
| CA\_n66A-n71(2A) (Note 6) | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n66B-n71A (Note 6) | | Rel-16 |  |  |  |  |  |  |  |  |
| CA\_n66(2A)-n71A (Note 6) | | Rel-16 |  |  |  |  |  |  |  |  |
| CA\_n66(2A)-n71(2A) (Note 6) | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n66A-n77A | | Rel-16 |  |  |  |  |  |  |  |  |
| CA\_n66A-n77(2A) | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n66A-n78A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n66A-n78(2A) | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n66A-n77C | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n70A-n71A | | Rel-16 |  |  |  |  |  |  |  |  |
| CA\_n70A-n71(2A) | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n71A-n77A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n71A-n77(2A) | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n71A-n78A | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n71A-n78(2A) | | Rel-17 |  |  |  |  |  |  |  |  |
| CA\_n78A-n79A | | Rel-15 |  |  |  |  |  |  |  |  |
|  | Note 1: Notation used for inter-band CA Bands is according to TS 38.101-1 [23] Table 5.5A.3.1-1, e.g. ‘CA\_n1A-n78C’ indicates CA operation on NR band n1 and n78 with DL CA Bandwidth Class A and C respectively.  Note 2: The UL CA capabilities as per Table A.4.3.2A.4.1-2 can be supported on a single or multiple CA Band(s). The UE supplier shall indicate all supported UL CA Bandwidth Class(es), in uplink of the supported CA Band(s), as per TS 38.101-1 [23] Table 5.5A.3.1-1. For this release of specification valid choices are ’N’, ‘nXA-nYA’, ‘nX(2A)’, ‘nXB’ and ‘nXC’, where both nX and nY are the NR bands. For example, for CA\_n1A-n77A, ‘N’ would mean only DL CA, ‘n1A-n77A’ would mean both DL and UL CA.  Note 3: The UE supplier shall indicate the supported Bandwidth Combination Set(s) as per TS 38.101-1 [23] Table 5.5A.3.1-1.  Note 4: Void.  Note 5: See UL(*table\_index*) in in Note 1 of Table 4.0-3 and UL\_*n*CC(*table\_index*) in Note 2 of Table 4.0-3 in TS 38.522 [9].  Note 6: A UE that supports NR Band n66 (Table A.4.3.1-1) and CA operation in any CA band shall also support the DL CA configurations CA\_n66B and CA\_n66(2A), as per Note 7, in Table 5.2-1, in TS 38.521-1 [5].  Note 7: The ULTxSwitching capability can be reported on inter-band CA band combinations. The UE supplier shall indicate inter-band CA band pairs on which it supports 1Tx-2Tx or 2Tx-2Tx ULTxSwitching. For this release of specification valid choices are ’N’ and ‘nX-nY’, where both nX and nY are NR bands. For example, for CA\_n1A-n77A, ‘N’ would mean not supporting ULTxSwitching, ‘n1-n77’ would mean supporting of ULTxSwitching on this band pair. If UE supplier indicates supporting of ULTxSwitching on a band pair, they shall indicate at least one inter-band UL CA configuration on the same band pair in the column “Supported CA Bandwidth Class(es) in UL”. The ULTxSwitching is only tested with 2 UL or 3 UL CCs, so UE is allowed to report ‘N’ by default for CA configuration with > 3 component carriers.  Note 8: See ULTxSwitching(*table\_index*) and 2Tx\_ULTxSwitching(table\_index) in Note 6 of Table 4.0-3 in TS 38.522 [9].  Note 9: See DL\_*n*CC(*table\_index*) in Note 4 of Table 4.0-3 in TS 38.522 [9].  Note 10: A UE that supports ULTxSwitching on a band pair might report the uplinkTxSwitching-DL-Interruption-r16 capability on the same band pair. If UE doesn’t report this capability, no DL interruption is allowed during UL Tx switching. For certain band configurations DL interruption is not allowed according to Note 8 in Table 5.2A.2.1-1 of TS 38.101-1 [23], therefore the corresponding entry is prefilled by ‘Not Supported’.  Note 11: For configurations with Note 1 in Table 5.2A.2.1-1 of TS 38.521-1 [5], UE capability simultaneousRxTxInterBandCA is mandatory, therefore the corresponding entry is prefilled with ‘Yes’.  Note 12: The UE supplier shall indicate the supported single uplink carrier with power class other than PC3, as per TS 38.101-1 [23] Table 5.5A.3.1-1. For this release of specification valid choices are ’-’, ‘nX PC2’, ‘nY PC2’, where both nX and nY are the NR bands. For example, for CA\_n1A-n78A, ‘-’ would mean only supports PC3 single uplink carrier, ‘n1 PC2’ would mean supports single carrier PC2 on band n1, ‘n78 PC2’ would mean supports single carrier PC2 on band n78. | | | | | | | | | |

Table A.4.3.2A.4.1-4: Inter-band CA within FR1 (two bands) PC2 UE RF Baseline Implementation Capabilities

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Item | CA configuration | Inter-band CA within FR1 (two bands) PC2 UE RF Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| 1 | CA\_n1A-n78A | n1 band: 1920-1980 MHz (UL),2110- 2170 MHz (DL)  n78 band: 3300-3800 MHz | 38.101-1, 6.2A.1.3 | Rel-17 | pc\_UL\_inter\_band\_CA\_n1A\_n78A\_PC2\_Supp |  |
| A | CA\_n2A-n77A | n2 band: 1850-1910 MHz (UL), 1930-1990 MHz (DL)  n77 band: 3300-4200 MHz | 38.101-1, 6.2A.1.3 | Rel-17 | pc\_UL\_inter\_band\_CA\_n2A\_n77A\_PC2\_Supp |  |
| x->A1? | CA\_n2A-n77C | n2 band: 1850-1910 MHz (UL), 1930-1990 MHz (DL)  n77 band: 3300-4200 MHz | 38.101-1, 6.2A.1.3 | Rel-17 | pc\_UL\_inter\_band\_CA\_n2A\_n77A\_PC2\_Supp |  |
| 1B | CA\_n3A-n41A | n3 band: 1710-1785 MHz (UL),1805- 1880 MHz (DL)  n41 band: 2496-2690 MHz | 38.101-1, 6.2A.1.3 | Rel-17 | pc\_UL\_inter\_band\_CA\_n3A\_n41A\_PC2\_Supp |  |
| 2 | CA\_n3A-n78A | n3 band: 1710-1785 MHz (UL),1805- 1880 MHz (DL)  n78 band: 3300-3800 MHz | 38.101-1, 6.2A.1.3 | Rel-17 | pc\_UL\_inter\_band\_CA\_n3A\_n78A\_PC2\_Supp |  |
| 2A | CA\_n5A-n77A | n5 band: 824-849 MHz (UL), 869-894 MHz (DL)  n77 band: 3300-4200 MHz | 38.101-1, 6.2A.1.3 | Rel-17 | pc\_UL\_inter\_band\_CA\_n5A\_n77A\_PC2\_Supp |  |
| x->2B? | CA\_n5A-n77C | n5 band: 824-849 MHz (UL), 869-894 MHz (DL)  n77 band: 3300-4200 MHz | 38.101-1, 6.2A.1.3 | Rel-17 | pc\_UL\_inter\_band\_CA\_n5A\_n77A\_PC2\_Supp |  |
| 3 | CA\_n28A-n41A | n28 band: 703-748 MHz (UL),758- 803 MHz (DL)  n41 band: 2496-2690 MHz | 38.101-1, 6.2A.1.3 | Rel-17 | pc\_UL\_inter\_band\_CA\_n28A\_n41A\_PC2\_Supp |  |
| 4 | CA\_n28A-n79A | n28 band: 703-748 MHz (UL),758- 803 MHz (DL)  n79 band: 4400-5000 MHz | 38.101-1, 6.2A.1.3 | Rel-17 | pc\_UL\_inter\_band\_CA\_n28A\_n79A\_PC2\_Supp |  |
| 5 | CA\_n41A-n79A | n41 band: 2496-2690 MHz  n79 band: 4400-5000 MHz | 38.101-1, 6.2A.1.3 | Rel-17 | pc\_UL\_inter\_band\_CA\_n41A\_n79A\_PC2\_Supp |  |
| 6 | CA\_n66A-n77A | n66 band: 1710-1780 MHz (UL), 2110-2200 MHz (DL)  n77 band: 3300-4200 MHz | 38.101-1, 6.2A.1.3 | Rel-17 | pc\_UL\_inter\_band\_CA\_n66A\_n77A\_PC2\_Supp |  |
| x->6A? | CA\_n66A-n77C | n66 band: 1710-1780 MHz (UL), 2110-2200 MHz (DL)  n77 band: 3300-4200 MHz | 38.101-1, 6.2A.1.3 | Rel-17 | pc\_UL\_inter\_band\_CA\_n66A\_n77A\_PC2\_Supp |  |
| 7 | CA\_n78A-n79A | n78 band: 3300-3800 MHz  n79 band: 4400-5000 MHz | 38.101-1, 6.2A.1.3 | Rel-18 | pc\_UL\_inter\_band\_CA\_n78A\_n79A\_PC2\_Supp |  |

##### A.4.3.2A.4.2 NR Inter-band CA within FR1 (three bands)

Table A.4.3.2A.4.2-1: Downlink Bandwidth Class Combination capabilities for NR Inter-band CA configuration within FR1 and three bands (for one or more of the supported CA configurations in Table A.4.3.2A.4.2-3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL NR FR1 Inter-band CA Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | DL NR FR1 Inter-band CA BW Class Combination A-A-A (three bands) | 38.101-1, 5.3A.5 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_3B\_Class\_A-A-A |  |
| 2 | DL NR FR1 Inter-band CA BW Class Combination A-A-(2A) (three bands) | 38.101-1, 5.3A.5 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_3B\_Class\_A-A-(2A) |  |
| 3 | DL NR FR1 Inter-band CA BW Class Combination A-A-B (three bands) | 38.101-1, 5.3A.5 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_3B\_Class\_A-A-B |  |
| 4 | DL NR FR1 Inter-band CA BW Class Combination A-(2A)-A (three bands) | 38.101-1, 5.3A.5 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_3B\_Class\_A-(2A)-A |  |
| 5 | DL NR FR1 Inter-band CA BW Class Combination A-B-A (three bands) | 38.101-1, 5.3A.5 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_3B\_Class\_A-B-A |  |
| 6 | DL NR FR1 Inter-band CA BW Class Combination A-C-A (three bands) | 38.101-1, 5.3A.5 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_3B\_Class\_A-C-A |  |
| 7 | DL NR FR1 Inter-band CA BW Class Combination (2A)-A-A (three bands) | 38.101-1, 5.3A.5 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_3B\_Class\_(2A)-A-A |  |
| 8 | DL NR FR1 Inter-band CA BW Class Combination B-A-A (three bands) | 38.101-1, 5.3A.5 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_3B\_Class\_B-A-A |  |
| 9 | DL NR FR1 Inter-band CA BW Class Combination C-A-A (three bands) | 38.101-1, 5.3A.5 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_3B\_Class\_C-A-A |  |
| 10 | DL NR FR1 Inter-band CA BW Class Combination A-A-C (three bands) | 38.101-1, 5.3A.5 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_3B\_Class\_A-A-C |  |

Table A.4.3.2A.4.2-2: Uplink Bandwidth Class Combination capabilities for NR Inter-band CA within FR1 and three bands (for one or more of the supported CA configurations in Table A.4.3.2A.4.2-3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL NR FR1 Inter-band CA Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | UL NR FR1 Inter-band CA BW Class Combination A-A (three bands) | 38.101-1, 5.3A.5 | pc\_UL\_inter\_band\_CA\_NR\_FR1\_3B\_Class\_A-A |  |
| 2 | UL NR FR1 Inter-band CA BW Class Combination (2A) (three bands) | 38.101-1, 5.3A.5 | pc\_UL\_inter\_band\_CA\_NR\_FR1\_3B\_Class\_(2A) |  |
| 3 | UL NR FR1 Inter-band CA BW Class Combination C (three bands) | 38.101-1, 5.3A.5 | pc\_UL\_inter\_band\_CA\_NR\_FR1\_3B\_Class\_C |  |

Table A.4.3.2A.4.2-3: Supported configurations for NR Inter-band CA within FR1 and three bands

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| NR FR1 Inter-band CA configuration / Item  (Note 1, 7) | Release | Supported | Supported CA Bandwidth Class(es) in UL  (Note 2,5) | Supported Bandwidth Combination Set(s)  (Note 3) |
| CA\_n1A-n3A-n28A | Rel-16 |  |  |  |
| CA\_n1A-n3A-n77A | Rel-17 |  |  |  |
| CA\_n1A-n3A-n78A | Rel-16 |  |  |  |
| CA\_n1A-n28A-n77A | Rel-17 |  |  |  |
| CA\_n1A-n28A-n78A | Rel-16 |  |  |  |
| CA\_n1A-n41A-n77A | Rel-17 |  |  |  |
| CA\_n2A-n5A-n48A | Rel-17 |  |  |  |
| CA\_n2A-n5A-n77A | Rel-17 |  |  |  |
| CA\_n2A-n5A-n77C | Rel-17 |  |  |  |
| CA\_n2A-n48A-n66A | Rel-17 |  |  |  |
| CA\_n3A-n28A-n78A | Rel-16 |  |  |  |
| CA\_n2A-n48A-n77A | Rel-17 |  |  |  |
| CA\_n2A-n48A-n77C | Rel-17 |  |  |  |
| CA\_n2A-n66A-n77A | Rel-17 |  |  |  |
| CA\_n2A-n66A-n77C | Rel-17 |  |  |  |
| CA\_n3A-n28A-n41A | Rel-17 |  |  |  |
| CA\_n3A-n28A-n77A | Rel-16 |  |  |  |
| CA\_n3A-n41A-n77A | Rel-17 |  |  |  |
| CA\_n5A-n48A-n66A | Rel-17 |  |  |  |
| CA\_n5A-n48A-n77A | Rel-17 |  |  |  |
| CA\_n5A-n48A-n77C | Rel-17 |  |  |  |
| CA\_n5A-n66A-n77A | Rel-17 |  |  |  |
| CA\_n5A-n66A-n77C | Rel-17 |  |  |  |
| CA\_n25A-n66A-n77 | Rel-17 |  |  |  |
| CA\_n25A-n66A-n77(2A) | Rel-17 |  |  |  |
| CA\_n25A-n66A-n78 | Rel-17 |  |  |  |
| CA\_n25A-n66A-n78(2A) | Rel-17 |  |  |  |
| CA\_n26A-n66A-n70A | Rel-17 |  |  |  |
| CA\_n26A-n66(2A)-n70A | Rel-17 |  |  |  |
| CA\_n28A-n41A-n79A | Rel-17 |  |  |  |
| CA\_n29A-n66A-n70A | Rel-16 |  |  |  |
| CA\_n41A-n66A-n70A | Rel-16 |  |  |  |
| CA\_n48A-n66A-n70A | Rel-17 |  |  |  |
| CA\_n48A-n66A-n71A | Rel-17 |  |  |  |
| CA\_n48A-n66A-n71(2A) | Rel-17 |  |  |  |
| CA\_n48A-n66A-n77C | Rel-17 |  |  |  |
| CA\_n48A-n66(2A)-n70A | Rel-17 |  |  |  |
| CA\_n48A-n66(2A)-n71A | Rel-17 |  |  |  |
| CA\_n48A-n70A-n71A | Rel-17 |  |  |  |
| CA\_n48A-n70A-n71(2A) | Rel-17 |  |  |  |
| CA\_n48B-n66A-n70A | Rel-17 |  |  |  |
| CA\_n48B-n66A-n71A | Rel-17 |  |  |  |
| CA\_n48B-n70A-n71A | Rel-17 |  |  |  |
| CA\_n48(2A)-n66A-n70A | Rel-17 |  |  |  |
| CA\_n48(2A)-n66A-n71A | Rel-17 |  |  |  |
| CA\_n48A-n66A-n77A | Rel-17 |  |  |  |
| CA\_n48(2A)-n70A-n71A | Rel-17 |  |  |  |
| CA\_n66A-n70A-n71A (Note 6) | Rel-16 |  |  |  |
| CA\_n66A-n70A-n71(2A) (Note 6) | Rel-17 |  |  |  |
| CA\_n66B-n70A-n71A (Note 6) | Rel-16 |  |  |  |
| CA\_n66(2A)-n70A-n71A (Note 6) | Rel-16 |  |  |  |
| CA\_n66A-n71A-n77A | Rel-17 |  |  |  |
| CA\_n66A-n71A-n77(2A) | Rel-17 |  |  |  |
| CA\_n66A-n71A-n78A | Rel-17 |  |  |  |
| CA\_n66A-n71A-n78(2A) | Rel-17 |  |  |  |
| Note 1: Notation used for inter-band CA Bands is according to TS 38.101-1 [23] Table 5.5A.3-2, e.g. ‘CA\_n66B-n70A-n71A’ indicates CA operation on NR band n66, n70 and n71 with DL CA Bandwidth Class B, A and A respectively.  Note 2: The UL CA capabilities as per Table A.4.3.2A.4.2-2 can be supported on a single or multiple CA Band(s). The UE supplier shall indicate all supported UL CA Bandwidth Class(es), in uplink of the supported CA Band(s), as per TS 38.101-1 [23] Table 5.5A.1-1. For this release of specification valid choices are ’N’, ‘nXA-nYA’, ‘nX(2A)’ and ‘nXC’, where both nX and nY are the NR bands. For example, for CA\_n66A-n70A-n71A , ‘N‘ would mean only DL CA, ‘n66A-n71A’ would mean both DL and UL CA.  Note 3: The UE supplier shall indicate the supported Bandwidth Combination Set(s) as per TS 38.101-1 [23] Table 5.5A.3-2.  Note 4: Void.  Note 5: See UL(*table\_index*) in Note 1 of Table 4.0-3 and UL\_*n*CC(*table\_index*) in Note 2 of Table 4.0-3 in TS 38.522 [9].  Note 6: A UE that supports NR Band n66 (Table A.4.3.1-1) and CA operation in any CA band shall also support the DL CA configurations CA\_n66B and CA\_n66(2A), as per Note 7, in Table 5.2-1, in TS 38.521-1 [5].  Note 7: See DL\_*n*CC(*table\_index*) in Note 4 of Table 4.0-3 in TS 38.522 [9]. | | | | |

Table A.4.3.2A.4.2-4: Inter-band CA within FR1 (three bands) PC2 UE RF Baseline Implementation Capabilities

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Item | CA configuration | Inter-band CA within FR1 (three bands) PC2 UE RF Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| x->0? | CA\_n2A-n48A-n77A | n2 band: 1850-1910 MHz (UL), 1930-1990 MHz (DL)  n48 band: 3550-3700 MHz  n77 band: 3300-4200 MHz | 38.101-1, 6.2A.1.3 | Rel-18 | pc\_UL\_inter\_band\_CA\_n2A\_n77A\_PC2\_Supp |  |
| 1 | CA\_n2A-n5A-n77A | n2 band: 1850-1910 MHz (UL), 1930-1990 MHz (DL)  n5 band: 824-849 MHz (UL), 869-894 MHz (DL)  n77 band: 3300-4200 MHz | 38.101-1, 6.2A.1.3 | Rel-17 | pc\_UL\_inter\_band\_CA\_n2A\_n77A\_PC2\_Supp |  |
| 2 | CA\_n2A-n5A-n77A | n2 band: 1850-1910 MHz (UL), 1930-1990 MHz (DL)  n5 band: 824-849 MHz (UL), 869-894 MHz (DL)  n77 band: 3300-4200 MHz | 38.101-1, 6.2A.1.3 | Rel-17 | pc\_UL\_inter\_band\_CA\_n5A\_n77A\_PC2\_Supp |  |
| 3 | CA\_n2A-n66A-n77A | n2 band: 1850-1910 MHz (UL), 1930-1990 MHz (DL)  n66 band: 1710-1780 MHz (UL), 2110-2200 MHz (DL)  n77 band: 3300-4200 MHz | 38.101-1, 6.2A.1.3 | Rel-17 | pc\_UL\_inter\_band\_CA\_n2A\_n77A\_PC2\_Supp |  |
| 4 | CA\_n2A-n66A-n77A | n2 band: 1850-1910 MHz (UL), 1930-1990 MHz (DL)  n66 band: 1710-1780 MHz (UL), 2110-2200 MHz (DL)  n77 band: 3300-4200 MHz | 38.101-1, 6.2A.1.3 | Rel-17 | pc\_UL\_inter\_band\_CA\_n66A\_n77A\_PC2\_Supp |  |
| x->4A? | CA\_n5A-n48A-n77A | n5 band: 824-849 MHz (UL), 869-894 MHz (DL)  n48 band: 3550-3700 MHz  n77 band: 3300-4200 MHz | 38.101-1, 6.2A.1.3 | Rel-18 | pc\_UL\_inter\_band\_CA\_n5A\_n77A\_PC2\_Supp |  |
| 5 | CA\_n5A-n66A-n77A | n5 band: 824-849 MHz (UL), 869-894 MHz (DL)  n66 band: 1710-1780 MHz (UL), 2110-2200 MHz (DL)  n77 band: 3300-4200 MHz | 38.101-1, 6.2A.1.3 | Rel-17 | pc\_UL\_inter\_band\_CA\_n5A\_n77A\_PC2\_Supp |  |
| 6 | CA\_n5A-n66A-n77A | n5 band: 824-849 MHz (UL), 869-894 MHz (DL)  n66 band: 1710-1780 MHz (UL), 2110-2200 MHz (DL)  n77 band: 3300-4200 MHz | 38.101-1, 6.2A.1.3 | Rel-17 | pc\_UL\_inter\_band\_CA\_n66A\_n77A\_PC2\_Supp |  |
| x->6A? | CA\_n48A-n66A-n77A | n48 band: 3550-3700 MHz  n66 band: 1710-1780 MHz (UL), 2110-2200 MHz (DL)  n77 band: 3300-4200 MHz | 38.101-1, 6.2A.1.3 | Rel-18 | pc\_UL\_inter\_band\_CA\_n66A\_n77A\_PC2\_Supp |  |

##### A.4.3.2A.4.3 NR Inter-band CA within FR1 (four bands)

Table A.4.3.2A.4.3-1: Downlink Bandwidth Class Combination capabilities for NR Inter-band CA configuration within FR1 and four bands (for one or more of the supported CA configurations in Table A.4.3.2A.4.3-3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL NR FR1 Inter-band CA Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | DL NR FR1 Inter-band CA BW Class Combination A-A-A-A (four bands) | 38.101-1, 5.3A.5 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_4B\_Class\_A-A-A-A |  |
| 2 | DL NR FR1 Inter-band CA BW Class Combination A-A-B-A (four bands) | 38.101-1, 5.3A.5 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_4B\_Class\_A-A-B-A |  |
| 3 | DL NR FR1 Inter-band CA BW Class Combination A-B-A-A (four bands) | 38.101-1, 5.3A.5 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_4B\_Class\_A-B-A-A |  |

Table A.4.3.2A.4.3-2: Uplink Bandwidth Class Combination capabilities for NR Inter-band CA within FR1 and four bands (for one or more of the supported CA configurations in Table A.4.3.2A.4.3-3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL NR FR1 Inter-band CA Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | UL NR FR1 Inter-band CA BW Class Combination A-A (four bands) | 38.101-1, 5.3A.5 | pc\_UL\_inter\_band\_CA\_NR\_FR1\_4B\_Class\_A-A |  |

Table A.4.3.2A.4.3-3: Supported configurations for NR Inter-band CA within FR1 and four bands

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| NR FR1 Inter-band CA configuration / Item  (Note 1, 7) | Release | Supported | Supported CA Bandwidth Class(es) in UL  (Note 2,5) | Supported Bandwidth Combination Set(s)  (Note 3) |
| CA\_n1A-n3A-n28A-n78A | Rel-16 |  |  |  |
| CA\_n2A-n5A-n48A-n66A | Rel-17 |  |  |  |
| CA\_n2A-n5A-n48A-n77A | Rel-17 |  |  |  |
| CA\_n2A-n5A-n66A-n77A | Rel-17 |  |  |  |
| CA\_n2A-n48A-n66A-n77A | Rel-17 |  |  |  |
| CA\_n5A-n48A-n66A-n77A | Rel-17 |  |  |  |
| Note 1: Notation used for inter-band CA Bands is according to TS 38.101-1 [23] Table 5.5A.3.3-1.  Note 2: The UL CA capabilities as per Table A.4.3.2A.4.3-2 can be supported on a single or multiple CA Band(s). The UE supplier shall indicate all supported UL CA Bandwidth Class(es), in uplink of the supported CA Band(s), as per TS 38.101-1 [23] Table 5.5A.3.3-1. For this release of specification valid choices are ’N’, ‘nXA-nYA’, ‘nX(2A)’ and ‘nXC’, where both nX and nY are the NR bands. For example, for CA\_nXA-nYA-nWA-nZA , ‘N‘ would mean only DL CA, ‘nXA-nYA’ would mean both DL and UL CA.  Note 3: The UE supplier shall indicate the supported Bandwidth Combination Set(s) as per TS 38.101-1 [23] Table 5.5A.3.3-1.  Note 4: Void.  Note 5: See UL(*table\_index*) in Note 1 of Table 4.0-3 and UL\_*n*CC(*table\_index*) in Note 2 of Table 4.0-3 in TS 38.522 [9].  Note 6: A UE that supports NR Band n66 (Table A.4.3.1-1) and CA operation in any CA band shall also comply with the minimum requirements specified for the DL CA configurations CA\_n66B and CA\_n66(2A) in the current version of the specification as per Note 7, in Table 5.2-1, in TS 38.521-1 [5].  Note 7: See DL\_*n*CC(*table\_index*) in Note 4 of Table 4.0-3 in TS 38.522 [9]. | | | | |

Table A.4.3.2A.4.3-4: Inter-band CA within FR1 (four bands) PC2 UE RF Baseline Implementation Capabilities

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Item | CA configuration | Inter-band CA within FR1 (four bands) PC2 UE RF Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| 1 | CA\_n2A-n5A-n48A-n77A | n2 band: 1850-1910 MHz (UL), 1930-1990 MHz (DL)  n5 band: 824-849 MHz (UL), 869-894 MHz (DL)  n48 band: 3550-3700 MHz  n77 band: 3300-4200 MHz | 38.101-1, 6.2A.1.3 | Rel-18 | pc\_UL\_inter\_band\_CA\_n2A\_n77A\_PC2\_Supp |  |
| 2 | CA\_n2A-n5A-n48A-n77A | n2 band: 1850-1910 MHz (UL), 1930-1990 MHz (DL)  n5 band: 824-849 MHz (UL), 869-894 MHz (DL)  n48 band: 3550-3700 MHz  n77 band: 3300-4200 MHz | 38.101-1, 6.2A.1.3 | Rel-18 | pc\_UL\_inter\_band\_CA\_n5A\_n77A\_PC2\_Supp |  |
| 3 | CA\_n2A-n5A-n66A-n77A | n2 band: 1850-1910 MHz (UL), 1930-1990 MHz (DL)  n5 band: 824-849 MHz (UL), 869-894 MHz (DL)  n66 band: 1710-1780 MHz (UL), 2110-2200 MHz (DL)  n77 band: 3300-4200 MHz | 38.101-1, 6.2A.1.3 | Rel- Rel-1818 | pc\_UL\_inter\_band\_CA\_n2A\_n77A\_PC2\_Supp |  |
| 4 | CA\_n2A-n5A-n66A-n77A | n2 band: 1850-1910 MHz (UL), 1930-1990 MHz (DL)  n5 band: 824-849 MHz (UL), 869-894 MHz (DL)  n66 band: 1710-1780 MHz (UL), 2110-2200 MHz (DL)  n77 band: 3300-4200 MHz | 38.101-1, 6.2A.1.3 | Rel-18 | pc\_UL\_inter\_band\_CA\_n5A\_n77A\_PC2\_Supp |  |
| 5 | CA\_n2A-n5A-n66A-n77A | n2 band: 1850-1910 MHz (UL), 1930-1990 MHz (DL)  n5 band: 824-849 MHz (UL), 869-894 MHz (DL)  n66 band: 1710-1780 MHz (UL), 2110-2200 MHz (DL)  n77 band: 3300-4200 MHz | 38.101-1, 6.2A.1.3 | Rel-18 | pc\_UL\_inter\_band\_CA\_n66A\_n77A\_PC2\_Supp |  |
| 6 | CA\_n2A-n48A-n66A-n77A | n2 band: 1850-1910 MHz (UL), 1930-1990 MHz (DL)  n48 band: 3550-3700 MHz  n66 band: 1710-1780 MHz (UL), 2110-2200 MHz (DL)  n77 band: 3300-4200 MHz | 38.101-1, 6.2A.1.3 | Rel-18 | pc\_UL\_inter\_band\_CA\_n2A\_n77A\_PC2\_Supp |  |
| 7 | CA\_n2A-n48A-n66A-n77A | n2 band: 1850-1910 MHz (UL), 1930-1990 MHz (DL)  n48 band: 3550-3700 MHz  n66 band: 1710-1780 MHz (UL), 2110-2200 MHz (DL)  n77 band: 3300-4200 MHz | 38.101-1, 6.2A.1.3 | Rel-18 | pc\_UL\_inter\_band\_CA\_n66A\_n77A\_PC2\_Supp |  |
| 8 | CA\_n5A-n48A-n66A-n77A | n5 band: 824-849 MHz (UL), 869-894 MHz (DL)  n48 band: 3550-3700 MHz  n66 band: 1710-1780 MHz (UL), 2110-2200 MHz (DL)  n77 band: 3300-4200 MHz | 38.101-1, 6.2A.1.3 | Rel-18 | pc\_UL\_inter\_band\_CA\_n5A\_n77A\_PC2\_Supp |  |
| 9 | CA\_n5A-n48A-n66A-n77A | n5 band: 824-849 MHz (UL), 869-894 MHz (DL)  n48 band: 3550-3700 MHz  n66 band: 1710-1780 MHz (UL), 2110-2200 MHz (DL)  n77 band: 3300-4200 MHz | 38.101-1, 6.2A.1.3 | Rel-18 | pc\_UL\_inter\_band\_CA\_n66A\_n77A\_PC2\_Supp |  |

#### A.4.3.2A.5 NR Inter-band CA within FR2

##### A.4.3.2A.5.1 NR Inter-band CA within FR2 (two bands)

Table A.4.3.2A.5.1-1: Downlink Bandwidth Class Combination capabilities for NR Inter-band CA configuration within FR2 and two bands (for one or more of the supported CA configurations in Table A.4.3.2A.5.1-3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL NR FR2 Inter-band CA Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | DL NR FR2 Inter-band CA BW Class Combination A-A (two bands) | 38.101-2, 5.3A.4 | pc\_DL\_inter\_band\_CA\_NR\_FR2\_2B\_Class\_A-A |  |

Table A.4.3.2A.5.1-2: Uplink Bandwidth Class Combination capabilities for NR Inter-band CA within FR2 and two bands (for one or more of the supported CA configurations in Table A.4.3.2A.5.1-3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL NR FR2 Inter-band CA Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | UL NR FR2 Inter-band CA BW Class Combination A-A (two bands) | 38.101-2, 5.3A.4 | pc\_UL\_inter\_band\_CA\_NR\_FR2\_2B\_Class\_A-A |  |

Table A.4.3.2A.5.1-3: Supported configurations for NR Inter-band CA within FR2 and two bands

TBD

#### A.4.3.2A.6 NR Inter-band CA between FR1 and FR2

##### A.4.3.2A.6.1 NR Inter-band CA between FR1 and FR2 (two bands)

Table A.4.3.2A.6.1-1: Downlink Bandwidth Class Combination capabilities for NR Inter-band CA configuration between FR1 and FR2 and two bands (for one or more of the supported CA configurations in Table A.4.3.2A.6.1-3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL NR FR1 and FR2 Inter-band CA Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-A (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-A |  |
| 2 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-D (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-D |  |
| 3 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-E (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-E |  |
| 4 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-F (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-F |  |
| 5 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-G (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-G |  |
| 6 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-H (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-H |  |
| 7 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-I (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-I |  |
| 8 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-J (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-J |  |
| 9 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-K (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-K |  |
| 10 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-L (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-L |  |
| 11 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-M (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-M |  |
| 12 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-(2A) (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-(2A) |  |
| 13 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-(3A) (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-(3A) |  |
| 14 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-(4A) (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-(4A) |  |
| 15 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-(5A) (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-(5A) |  |
| 16 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-(6A) (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-(6A) |  |
| 17 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-(7A) (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-(7A) |  |
| 18 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-(8A) (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-(8A) |  |
| 19 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-(2G) (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-(2G) |  |
| 20 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-(2H) (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-(2H) |  |
| 21 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-(2I) (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-(2I) |  |
| 22 | DL NR FR1 and FR2 Inter-band CA BW Class Combination (2A)-A (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_(2A)-A |  |
| 23 | DL NR FR1 and FR2 Inter-band CA BW Class Combination (2A)-(2A) (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_(2A)-(2A) |  |
| 24 | DL NR FR1 and FR2 Inter-band CA BW Class Combination (2A)-D (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_(2A)-D |  |
| 25 | DL NR FR1 and FR2 Inter-band CA BW Class Combination (2A)-G (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_(2A)-G |  |
| 26 | DL NR FR1 and FR2 Inter-band CA BW Class Combination (2A)-H (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_(2A)-H |  |
| 27 | DL NR FR1 and FR2 Inter-band CA BW Class Combination (2A)-I (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_(2A)-I |  |
| 28 | DL NR FR1 and FR2 Inter-band CA BW Class Combination (2A)-J (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_(2A)-J |  |
| 29 | DL NR FR1 and FR2 Inter-band CA BW Class Combination (2A)-K (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_(2A)-K |  |
| 30 | DL NR FR1 and FR2 Inter-band CA BW Class Combination (2A)-L (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_(2A)-L |  |
| 31 | DL NR FR1 and FR2 Inter-band CA BW Class Combination (2A)-M (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_(2A)-M |  |
| 32 | DL NR FR1 and FR2 Inter-band CA BW Class Combination C-A (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_C-A |  |
| 33 | DL NR FR1 and FR2 Inter-band CA BW Class Combination C-(2A) (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_C-(2A) |  |
| 34 | DL NR FR1 and FR2 Inter-band CA BW Class Combination C-D (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_C-D |  |
| 35 | DL NR FR1 and FR2 Inter-band CA BW Class Combination C-E (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_C-E |  |
| 36 | DL NR FR1 and FR2 Inter-band CA BW Class Combination C-F (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_C-F |  |
| 37 | DL NR FR1 and FR2 Inter-band CA BW Class Combination G-H (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_G-H |  |
| 38 | DL NR FR1 and FR2 Inter-band CA BW Class Combination G-I (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_G-I |  |
| 39 | DL NR FR1 and FR2 Inter-band CA BW Class Combination H-I (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_H-I |  |

Table A.4.3.2A.6.1-2: Uplink Bandwidth Class Combination capabilities for NR Inter-band CA between FR1 and FR2 and two bands (for one or more of the supported CA configurations in Table A.4.3.2A.6.1-3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL NR FR1 and FR2 Inter-band CA Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | UL NR FR1 and FR2 Inter-band CA BW Class Combination A-A (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_UL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-A |  |
| 2 | UL NR FR1 and FR2 Inter-band CA BW Class Combination A-D (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_UL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-D |  |
| 3 | UL NR FR1 and FR2 Inter-band CA BW Class Combination A-G (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_UL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-G |  |
| 4 | UL NR FR1 and FR2 Inter-band CA BW Class Combination A-H (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_UL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-H |  |
| 5 | UL NR FR1 and FR2 Inter-band CA BW Class Combination A-I (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_UL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-I |  |
| 6 | UL NR FR1 and FR2 Inter-band CA BW Class Combination A-J (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_UL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-J |  |
| 7 | UL NR FR1 and FR2 Inter-band CA BW Class Combination A-K (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_UL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-K |  |
| 8 | UL NR FR1 and FR2 Inter-band CA BW Class Combination A-L (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_UL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-L |  |
| 9 | UL NR FR1 and FR2 Inter-band CA BW Class Combination A-M (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_UL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_A-M |  |
| 10 | UL NR FR1 and FR2 Inter-band CA BW Class Combination G (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_UL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_G |  |
| 11 | UL NR FR1 and FR2 Inter-band CA BW Class Combination H (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_UL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_H |  |
| 12 | UL NR FR1 and FR2 Inter-band CA BW Class Combination I (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_UL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_I |  |
| 13 | UL NR FR1 and FR2 Inter-band CA BW Class Combination J (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_UL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_J |  |
| 14 | UL NR FR1 and FR2 Inter-band CA BW Class Combination K (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_UL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_K |  |
| 15 | UL NR FR1 and FR2 Inter-band CA BW Class Combination L (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_UL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_L |  |
| 16 | UL NR FR1 and FR2 Inter-band CA BW Class Combination M (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_UL\_inter\_band\_CA\_NR\_FR1\_FR2\_2B\_Class\_M |  |

Table A.4.3.2A.6.1-3: Supported configurations for NR Inter-band CA between FR1 and FR2 and two bands

TBD

##### A.4.3.2A.6.2 NR Inter-band CA between FR1 and FR2 (three bands)

Table A.4.3.2A.6.2-1: Downlink Bandwidth Class Combination capabilities for NR Inter-band CA configuration between FR1 and FR2 and three bands (for one or more of the supported CA configurations in Table A.4.3.2A.6.2-3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL NR FR1 and FR2 Inter-band CA Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-A-A (three bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_3B\_Class\_A-A-A |  |
| 2 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-A-D (three bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_3B\_Class\_A-A-D |  |
| 3 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-A-G (three bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_3B\_Class\_A-A-G |  |
| 4 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-A-H (three bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_3B\_Class\_A-A-H |  |
| 5 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-A-I (three bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_3B\_Class\_A-A-I |  |
| 6 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-(2A)-A (three bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_3B\_Class\_A-(2A)-A |  |
| 7 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-(2A)-D (three bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_3B\_Class\_A-(2A)-D |  |
| 8 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-(2A)-G (three bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_3B\_Class\_A-(2A)-G |  |
| 9 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-(2A)-H (three bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_3B\_Class\_A-(2A)-H |  |
| 10 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-(2A)-I (three bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_3B\_Class\_A-(2A)-I |  |

Table A.4.3.2A.6.2-2: Uplink Bandwidth Class Combination capabilities for NR Inter-band CA between FR1 and FR2 and three bands (for one or more of the supported CA configurations in Table A.4.3.2A.6.2-3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL NR FR1 and FR2 Inter-band CA Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | UL NR FR1 and FR2 Inter-band CA BW Class Combination A-A (three bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_UL\_inter\_band\_CA\_NR\_FR1\_FR2\_3B\_Class\_A-A |  |
| 2 | UL NR FR1 and FR2 Inter-band CA BW Class Combination A-D (three bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_UL\_inter\_band\_CA\_NR\_FR1\_FR2\_3B\_Class\_A-D |  |
| 3 | UL NR FR1 and FR2 Inter-band CA BW Class Combination A-G (three bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_UL\_inter\_band\_CA\_NR\_FR1\_FR2\_3B\_Class\_A-G |  |
| 4 | UL NR FR1 and FR2 Inter-band CA BW Class Combination A-H (three bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_UL\_inter\_band\_CA\_NR\_FR1\_FR2\_3B\_Class\_A-H |  |
| 5 | UL NR FR1 and FR2 Inter-band CA BW Class Combination A-I (three bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_UL\_inter\_band\_CA\_NR\_FR1\_FR2\_3B\_Class\_A-I |  |

Table A.4.3.2A.6.2-3: Supported configurations for NR Inter-band CA between FR1 and FR2 and three bands

TBD

##### A.4.3.2A.6.3 NR Inter-band CA between FR1 and FR2 (four bands)

Table A.4.3.2A.6.3-1: Downlink Bandwidth Class Combination capabilities for NR Inter-band CA configuration between FR1 and FR2 and four bands (for one or more of the supported CA configurations in Table A.4.3.2A.6.3-3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL NR FR1 and FR2 Inter-band CA Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-A-A-A (four bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_4B\_Class\_A-A-A-A |  |
| 2 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-A-A-D (four bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_4B\_Class\_A-A-A-D |  |
| 3 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-A-A-G (four bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_4B\_Class\_A-A-A-G |  |
| 4 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-A-A-H (four bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_4B\_Class\_A-A-A-H |  |
| 5 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-A-A-I (four bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_4B\_Class\_A-A-A-I |  |
| 6 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-A-(2A)-A (four bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_4B\_Class\_A-A-(2A)-A |  |
| 7 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-A-(2A)-D (four bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_4B\_Class\_A-A-(2A)-D |  |
| 8 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-A-(2A)-G (four bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_4B\_Class\_A-A-(2A)-G |  |
| 9 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-A-(2A)-H (four bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_4B\_Class\_A-A-(2A)-H |  |
| 10 | DL NR FR1 and FR2 Inter-band CA BW Class Combination A-A-(2A)-I (four bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_DL\_inter\_band\_CA\_NR\_FR1\_FR2\_4B\_Class\_A-A-(2A)-I |  |

Table A.4.3.2A.6.3-2: Uplink Bandwidth Class Combination capabilities for NR Inter-band CA between FR1 and FR2 and four bands (for one or more of the supported CA configurations in Table A.4.3.2A.6.3-3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL NR FR1 and FR2 Inter-band CA Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | UL NR FR1 and FR2 Inter-band CA BW Class Combination A-A (four bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5A.1 | pc\_UL\_inter\_band\_CA\_NR\_FR1\_FR2\_4B\_Class\_A-A | Not used in any valid CA configurations in TS 38.101-3 [25] yet |

Table A.4.3.2A.6.3-3: Supported configurations for NR Inter-band CA between FR1 and FR2 and four bands

TBD

### A.4.3.2B NR-DC, EN-DC and NE-DC Physical Layer Baseline Implementation Capabilities

NOTE: See Annex B for status of completed NR-DC, EN-DC and NE-DC configurations and power classes in this version of 3GPP UE conformance test specifications.

#### A.4.3.2B.1 NR-DC Physical Layer Baseline Implementation Capabilities

#### A.4.3.2B.1.0 General NR-DC capabilities

Table A.4.3.2B.1.0-1: Downlink NR-DC capabilities (for one or more of the supported NR-DC configurations)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | DL NR-DC with 2 carriers | 38.101-3, 5.5B | pc\_DL\_NR\_DC\_2CC |  |
| 2 | DL NR-DC with 3 carriers | 38.101-3, 5.5B | pc\_DL\_NR\_DC\_3CC |  |
| 3 | DL NR-DC with 4 carriers | 38.101-3, 5.5B | pc\_DL\_NR\_DC\_4CC |  |
| 4 | DL NR-DC with 5 carriers | 38.101-3, 5.5B | pc\_DL\_NR\_DC\_5CC |  |
| 5 | DL NR-DC with 6 carriers | 38.101-3, 5.5B | pc\_DL\_NR\_DC\_6CC |  |
| 6 | DL NR-DC with 7 carriers | 38.101-3, 5.5B | pc\_DL\_NR\_DC\_7CC |  |
| 7 | DL NR-DC with 8 carriers | 38.101-3, 5.5B | pc\_DL\_NR\_DC\_8CC |  |
| 8 | DL NR-DC with 9 carriers | 38.101-3, 5.5B | pc\_DL\_NR\_DC\_9CC |  |
| 9 | DL NR-DC with 10 carriers | 38.101-3, 5.5B | pc\_DL\_NR\_DC\_10CC |  |

Table A.4.3.2B.1.0-2: Uplink NR-DC capabilities (for one or more of the supported NR-DC configurations)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | UL NR-DC with 2 carriers | 38.101-3, 5.5B | pc\_UL\_NR\_DC\_2CC |  |
| 2 | UL NR-DC with 3 carriers | 38.101-3, 5.5B | pc\_UL\_NR\_DC\_3CC |  |
| 3 | UL NR-DC with 4 carriers | 38.101-3, 5.5B | pc\_UL\_NR\_DC\_4CC |  |
| 4 | UL NR-DC with 5 carriers | 38.101-3, 5.5B | pc\_UL\_NR\_DC\_5CC |  |
| 5 | UL NR-DC with 6 carriers | 38.101-3, 5.5B | pc\_UL\_NR\_DC\_6CC |  |
| 6 | UL NR-DC with 7 carriers | 38.101-3, 5.5B | pc\_UL\_NR\_DC\_7CC |  |
| 7 | UL NR-DC with 8 carriers | 38.101-3, 5.5B | pc\_UL\_NR\_DC\_8CC |  |
| 8 | UL NR-DC with 9 carriers | 38.101-3, 5.5B | pc\_UL\_NR\_DC\_9CC |  |
| 9 | UL NR-DC with 10 carriers | 38.101-3, 5.5B | pc\_UL\_NR\_DC\_10CC |  |

#### A.4.3.2B.1.0a NR-DC within FR1

##### A.4.3.2B.1.0a.1 NR-DC within FR1 (two bands)

Table A.4.3.2B.1.0a.1-1: Downlink NR-DC Bandwidth Class Combination capabilities within FR1 and two bands (for one or more of the supported DC configurations in Table A.4.3.2B.1.0a.1-3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL NR-DC FR1 Bandwidth Class  (two bands) | Ref. | Mnemonic | Comments |
| 1 | DL NR-DC FR1 BW Class Combination A-A (two bands) | 38.101-1, 5.5B | pc\_DL\_NR\_DC\_FR1\_2B\_Class\_A-A |  |

Table A.4.3.2B.1.0a.1-2: Uplink NR-DC Bandwidth Class Combination capabilities within FR1 and two bands (for one or more of the supported DC configurations in Table A.4.3.2B.1.0a.1-3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL NR-DC FR1 Bandwidth Class  (two bands) | Ref. | Mnemonic | Comments |
| 1 | UL NR-DC FR1 BW Class Combination A-A (two bands) | 38.101-1, 5.5B | pc\_UL\_NR\_DC\_FR1\_2B\_Class\_A-A |  |

Table A.4.3.2B.1.0a.1-3: Supported NR-DC configurations within FR1 (two bands)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **NR FR1 Inter-band NR-DC configuration / Item**  **(Note 1, 6)** | **Release** | **Supported** | **Supported NR-DC Bandwidth Class(es) in UL**  **(Note 2,3)** | **Supported Bandwidth Combination Set(s)** | **Supported ULTxSwitching Band Pair**  **(Note 4, 5)** |
| DC\_n48A\_n70A | Rel-17 |  |  |  |  |
| Note 1: Notation used for inter-band NR-DC Bands is according to TS 38.101-1 [23] Table 5.5B.1-1, e.g. ‘DC\_n2A-n48C’ indicates NR-DC operation on NR band n2 and n48 with DL CA Bandwidth Class A and C respectively.  Note 2: The UL NR-DC capabilities as per Table A.4.3.2B.1.0a.1-2 can be supported on a single or multiple CA Band(s). The UE supplier shall indicate all supported UL NR-DC Bandwidth Class(es), in uplink of the supported NR-DC Band(s), as per TS 38.101-1 [23] Table 5.5B.1-1. For this release of specification valid choices are ’N’, ‘nXA-nYA’, ‘nX(2A)’, ‘nXB’ and ‘nXC’, where both nX and nY are the NR bands. For example, for DC\_n48A-n70A, ‘N’ would mean only DL NR\_DC, ‘n48A-n70A’ would mean both DL and UL NR-DC.  Note 3: See UL(*table\_index*) in Note 1 of Table 4.0-3 and UL\_*n*CC(*table\_index*) in Note 2 of Table 4.0-3 in TS 38.522 [9].  Note 4: The ULTxSwitching capability can be reported on inter-band NR-DC band combinations. The UE supplier shall indicate inter-band NR-DC band pairs on which it supports ULTxSwitching. For this release of specification valid choices are ’N’ and ‘nX-nY’, where both nX and nY are NR bands. For example, for DC\_n48A-n70A, ‘N’ would mean not supporting ULTxSwitching, ‘n48-n70’ would mean supporting of ULTxSwitching on this band pair. If UE supplier indicates supporting of ULTxSwitching on a band pair, they shall indicate at least one inter-band UL NR-DC configuration on the same band pair in the column “Supported NR-DC Bandwidth Class(es) in UL”. The ULTxSwitching is only tested with 2 UL CCs, so UE is allowed to report ‘N’ by default for NR-DC configuration with > 2 component carriers.  Note 5: See ULTxSwitching(*table\_index*) Note 6 of Table 4.0-3 in TS 38.522 [9].  Note 6: See DL\_*n*CC(*table\_index*) in Note 4 of Table 4.0-3 in TS 38.522 [9]. | | | | | |

#### A.4.3.2B.1.0b NR-DC within FR2

TBD

#### A.4.3.2B.1.1 NR-DC between FR1 and FR2

###### A.4.3.2B.1.1.1 NR-DC between FR1 and FR2 (two bands)

Table A.4.3.2B.1.1.1-1: Downlink NR-DC Bandwidth Class Combination capabilities between FR1 and FR2 and two bands (for one or more of the supported DC configurations in Table A.4.3.2B.1.1.1-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL NR-DC between FR1 and FR2 Bandwidth Class  (two bands) | Ref. | Mnemonic | Comments |
| 1 | DL NR-DC FR1 and FR2 BW Class Combination A-A (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_A-A |  |
| 2 | DL NR-DC FR1 and FR2 BW Class Combination A-(2A) (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_A-(2A) |  |
| 3 | DL NR-DC FR1 and FR2 BW Class Combination A-(3A) (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_A-(3A) |  |
| 4 | DL NR-DC FR1 and FR2 BW Class Combination A-(4A) (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_A-(4A) |  |
| 5 | DL NR-DC FR1 AND FR2 BW Class Combination A-D (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_A-D |  |
| 6 | DL NR-DC FR1 AND FR2 BW Class Combination A-E (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5. 5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_A-E |  |
| 7 | DL NR-DC FR1 AND FR2 BW Class Combination A-F (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5. 5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_A-F |  |
| 8 | DL NR-DC FR1 AND FR2 BW Class Combination A-G (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5. 5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_A-G |  |
| 9 | DL NR-DC FR1 AND FR2 BW Class Combination A-(2G) (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5. 5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_A-(2G) |  |
| 10 | DL NR-DC FR1 AND FR2 BW Class Combination A-H (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5. 5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_A-H |  |
| 11 | DL NR-DC FR1 AND FR2 BW Class Combination A-I (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5. 5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_A-I |  |
| 12 | DL NR-DC FR1 AND FR2 BW Class Combination A-(2I) (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5. 5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_A-(2I) |  |
| 13 | DL NR-DC FR1 AND FR2 BW Class Combination A-J (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5. 5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_A-J |  |
| 14 | DL NR-DC FR1 AND FR2 BW Class Combination A-K (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5. 5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_A-K |  |
| 15 | DL NR-DC FR1 AND FR2 BW Class Combination A-L (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5. 5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_A-L |  |
| 16 | DL NR-DC FR1 AND FR2 BW Class Combination A-M (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5. 5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_A-M |  |
| 17 | DL NR-DC FR1 AND FR2 BW Class Combination (2A)-A (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5. 5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_(2A)-A |  |
| 18 | DL NR-DC FR1 AND FR2 BW Class Combination (2A)-G (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5. 5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_(2A)-G |  |
| 19 | DL NR-DC FR1 AND FR2 BW Class Combination (2A)-H (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5. 5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_(2A)-H |  |
| 20 | DL NR-DC FR1 AND FR2 BW Class Combination (2A)-I (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5. 5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_(2A)-I |  |
| 21 | DL NR-DC FR1 AND FR2 BW Class Combination (2A)-J (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5. 5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_(2A)-J |  |
| 22 | DL NR-DC FR1 AND FR2 BW Class Combination (2A)-K (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5. 5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_(2A)-K |  |
| 23 | DL NR-DC FR1 AND FR2 BW Class Combination (2A)-L (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5. 5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_(2A)-L |  |
| 24 | DL NR-DC FR1 AND FR2 BW Class Combination (2A)-M (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5. 5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_(2A)-M |  |
| 25 | DL NR-DC FR1 AND FR2 BW Class Combination C-A (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5. 5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_C-A |  |
| 26 | DL NR-DC FR1 AND FR2 BW Class Combination C-D (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5. 5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_C-D |  |
| 27 | DL NR-DC FR1 AND FR2 BW Class Combination C-E (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5. 5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_C-E |  |
| 28 | DL NR-DC FR1 AND FR2 BW Class Combination C-F (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5. 5B.7 | pc\_DL\_NR\_DC\_FR1\_FR2\_2B\_Class\_C-F |  |

Table A.4.3.2B.1.1.1-1a: Uplink NR-DC Bandwidth Class Combination capabilities between FR1 and FR2 and two bands (for one or more of the supported DC configurations in Table A.4.3.2B.1.1.1-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL NR-DC between FR1 and FR2 Bandwidth Class  (two bands) | Ref. | Mnemonic | Comments |
| 1 | UL NR-DC FR1 and FR2 BW Class Combination A-A (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.7 | pc\_UL\_NR\_DC\_FR1\_FR2\_2B\_Class\_A-A |  |
| 2 | UL NR-DC FR1 and FR2 BW Class Combination A-D (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.7 | pc\_UL\_NR\_DC\_FR1\_FR2\_2B\_Class\_A-D |  |
| 3 | UL NR-DC FR1 and FR2 BW Class Combination A-G (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.7 | pc\_UL\_NR\_DC\_FR1\_FR2\_2B\_Class\_A-G |  |
| 4 | UL NR-DC FR1 and FR2 BW Class Combination A-H (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.7 | pc\_UL\_NR\_DC\_FR1\_FR2\_2B\_Class\_A-H |  |
| 5 | UL NR-DC FR1 and FR2 BW Class Combination A-I (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.7 | pc\_UL\_NR\_DC\_FR1\_FR2\_2B\_Class\_A-I |  |
| 6 | UL NR-DC FR1 and FR2 BW Class Combination A-J (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.7 | pc\_UL\_NR\_DC\_FR1\_FR2\_2B\_Class\_A-J |  |
| 7 | UL NR-DC FR1 and FR2 BW Class Combination A-K (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.7 | pc\_UL\_NR\_DC\_FR1\_FR2\_2B\_Class\_A-K |  |
| 8 | UL NR-DC FR1 and FR2 BW Class Combination A-L (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.7 | pc\_UL\_NR\_DC\_FR1\_FR2\_2B\_Class\_A-L |  |
| 9 | UL NR-DC FR1 and FR2 BW Class Combination A-M (two bands) | 38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.7 | pc\_UL\_NR\_DC\_FR1\_FR2\_2B\_Class\_A-M |  |

Table A.4.3.2B.1.1.1-2: Supported NR-DC configurations between FR1 and FR2 (two bands)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NR-DC configuration / Item**  **(Note 1)** | **Release** | **Supported** | **Supported DC Bandwidth Class(es) in UL** | **Supported Bandwidth Combination Set(s)** |
| DC\_n2A-n260A | Rel-17 |  |  |  |
| DC\_n2A-n261A | Rel-17 |  |  |  |
| DC\_n5A-n260A | Rel-17 |  |  |  |
| DC\_n5A-n261A | Rel-17 |  |  |  |
| DC\_n77A-n260A | Rel-17 |  |  |  |
| DC\_n77A-n261A | Rel-16 |  |  |  |
| DC\_n78A-n257A | Rel-15 |  |  |  |
| DC\_n78A-n257G | Rel-15 |  |  |  |
| DC\_n78A-n257H | Rel-15 |  |  |  |
| DC\_n78A-n257I | Rel-15 |  |  |  |
| DC\_n79A-n257A | Rel-15 |  |  |  |
| DC\_n79A-n257G | Rel-15 |  |  |  |
| DC\_n79A-n257H | Rel-15 |  |  |  |
| DC\_n79A-n257I | Rel-15 |  |  |  |
| Note 1: Notation used NR-DC Bands is according to TS 38.101-3 [25] Table 5.5B.7-1, e.g. ‘DC\_n78A-n257G’ indicates NR-DC operation on NR bands n78 and n257 with DL CA Bandwidth Class A and G respectively. | | | | |

#### A.4.3.2B.2 EN-DC Physical Layer Baseline Implementation Capabilities

##### A.4.3.2B.2.0 General EN-DC capabilities

Table A.4.3.2B.2.0-1: Downlink EN-DC capabilities (for one or more of the supported EN-DC configurations)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | DL EN-DC with 2 carriers | 38.101-3, 5.5B | pc\_DL\_EN\_DC\_2CC |  |
| 2 | DL EN-DC with 3 carriers | 38.101-3, 5.5B | pc\_DL\_EN\_DC\_3CC |  |
| 3 | DL EN-DC with 4 carriers | 38.101-3, 5.5B | pc\_DL\_EN\_DC\_4CC |  |
| 4 | DL EN-DC with 5 carriers | 38.101-3, 5.5B | pc\_DL\_EN\_DC\_5CC |  |
| 5 | DL EN-DC with 6 carriers | 38.101-3, 5.5B | pc\_DL\_EN\_DC\_6CC |  |
| 6 | DL EN-DC with 7 carriers | 38.101-3, 5.5B | pc\_DL\_EN\_DC\_7CC |  |
| 7 | DL EN-DC with 8 carriers | 38.101-3, 5.5B | pc\_DL\_EN\_DC\_8CC |  |

Table A.4.3.2B.2.0-1A: Downlink EN-DC capabilities (number of NR DL carriers)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | DL EN-DC with 1 NR DL carriers | 38.101-3, 5.5B | pc\_EN\_DC\_NR\_DL\_1CC |  |
| 2 | DL EN-DC with 2 NR DL carriers | 38.101-3, 5.5B | pc\_EN\_DC\_NR\_DL\_2CC |  |
| 3 | DL EN-DC with 3 NR DL carriers | 38.101-3, 5.5B | pc\_EN\_DC\_NR\_DL\_3CC |  |
| 4 | DL EN-DC with 4 NR DL carriers | 38.101-3, 5.5B | pc\_EN\_DC\_NR\_DL\_4CC |  |
| 5 | DL EN-DC with 5 NR DL carriers | 38.101-3, 5.5B | pc\_EN\_DC\_NR\_DL\_5CC |  |
| 6 | DL EN-DC with 6 NR DL carriers | 38.101-3, 5.5B | pc\_EN\_DC\_NR\_DL\_6CC |  |
| 7 | DL EN-DC with 7 NR DL carriers | 38.101-3, 5.5B | pc\_EN\_DC\_NR\_DL\_7CC |  |
| 8 | EN-DC with 8 NR DL carriers | 38.101-3, 5.5B | pc\_EN\_DC\_NR\_DL\_8CC |  |

Table A.4.3.2B.2.0-2: Uplink EN-DC capabilities (for one or more of the supported EN-DC configurations)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | UL EN-DC with 2 carriers | 38.101-3, 5.5B | pc\_UL\_EN\_DC\_2CC |  |
| 2 | UL EN-DC with 3 carriers | 38.101-3, 5.5B | pc\_UL\_EN\_DC\_3CC |  |
| 3 | UL EN-DC with 4 carriers | 38.101-3, 5.5B | pc\_UL\_EN\_DC\_4CC |  |
| 4 | UL EN-DC with 5 carriers | 38.101-3, 5.5B | pc\_UL\_EN\_DC\_5CC |  |
| 5 | UL EN-DC with 6 carriers | 38.101-3, 5.5B | pc\_UL\_EN\_DC\_6CC |  |
| 6 | UL EN-DC with 7 carriers | 38.101-3, 5.5B | pc\_UL\_EN\_DC\_7CC |  |
| 7 | UL EN-DC with 8 carriers | 38.101-3, 5.5B | pc\_UL\_EN\_DC\_8CC |  |

Table A.4.3.2B.2.0-2A: Uplink EN-DC capabilities (number of NR UL carriers)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | UL EN-DC with 1 NR UL carriers | 38.101-3, 5.5B | pc\_EN\_DC\_NR\_UL\_1CC |  |
| 2 | UL EN-DC with 2 NR UL carriers | 38.101-3, 5.5B | pc\_EN\_DC\_NR\_UL\_2CC |  |
| 3 | UL EN-DC with 3 NR UL carriers | 38.101-3, 5.5B | pc\_EN\_DC\_NR\_UL\_3CC |  |
| 4 | UL EN-DC with 4 NR UL carriers | 38.101-3, 5.5B | pc\_EN\_DC\_NR\_UL\_4CC |  |
| 5 | UL EN-DC with 5 NR UL carriers | 38.101-3, 5.5B | pc\_EN\_DC\_NR\_UL\_5CC |  |
| 6 | UL EN-DC with 6 NR UL carriers | 38.101-3, 5.5B | pc\_EN\_DC\_NR\_UL\_6CC |  |
| 7 | UL EN-DC with 7 NR UL carriers | 38.101-3, 5.5B | pc\_EN\_DC\_NR\_UL\_7CC |  |
| 8 | EN-DC with 8 NR UL carriers | 38.101-3, 5.5B | pc\_EN\_DC\_NR\_UL\_8CC |  |

##### A.4.3.2B.2.1 Intra-band contiguous EN-DC

Table A.4.3.2B.2.1-1: Downlink Bandwidth Class Combination capabilities for Intra-band contiguous EN-DC configurations (for one or more of the supported configurations in Table A.4.3.2B.2.1-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL Intra-band contiguous EN-DC Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | DL Intra-band contiguous EN-DC BW Class Combination AA | 36.101, 5.6A.1  38.101-3, 5.3B.1.2 | pc\_DL\_intra\_contiguous\_EN\_DC\_Class\_AA |  |
| 2 | DL Intra-band contiguous EN-DC BW Class Combination CA | 36.101, 5.6A.1  38.101-3, 5.3B.1.2 | pc\_DL\_intra\_contiguous\_EN\_DC\_Class\_CA |  |
| 3 | DL Intra-band contiguous EN-DC BW Class Combination DA | 36.101, 5.6A.1  38.101-3, 5.3B.1.2 | pc\_DL\_intra\_contiguous\_EN\_DC\_Class\_DA |  |

Table A.4.3.2B.2.1-1a: Uplink Bandwidth Class Combination capabilities for Intra-band contiguous EN-DC configurations (for one or more of the supported configurations in Table A.4.3.2B.2.1-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL Intra-band contiguous EN-DC Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | UL Intra-band contiguous EN-DC BW Class Combination AA | 36.101, 5.6A.1  38.101-3, 5.3B.1.2 | pc\_UL\_intra\_contiguous\_EN\_DC\_Class\_AA |  |
| 2 | UL Intra-band contiguous EN-DC BW Class Combination A\_A | 36.101, 5.6A.1  38.101-3, 5.3B.1.2 | pc\_UL\_intra\_contiguous\_EN\_DC\_Class\_A\_A |  |

Table A.4.3.2B.2.1-2: Supported Intra-band contiguous EN-DC configurations

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **EN-DC configuration / Item (Note 1, 3)** | **Release** | **Supported** | **Supported EN-DC Bandwidth Class(es) in UL**  **(Note 2)** | **Supported Bandwidth Combination Set(s)** |
| DC\_(n)41AA | Rel-15 |  |  |  |
| DC\_(n)71AA | Rel-15 |  |  |  |
| Note 1: Notation used for intra-band contiguous EN-DC Bands is according to TS 38.101-3 [25] Table 5.3B.1.2-1, e.g. ‘DC\_(n)41AA’ indicates contiguous EN-DC operation on E-UTRA band 41 with DL Bandwidth Class A and NR band n41 with DL CA Bandwidth Class A.  Note 2: See UL\_*n*CC(*table\_index*) in Note 2 of Table 4.0-3 in TS 38.522 [9].  Note 3: See DL\_*n*CC(*table\_index*) in Note 4 of Table 4.0-3 in TS 38.522 [9]. | | | | |

Table A.4.3.2B.2.1-3: Intra-band contiguous EN-DC PC2 UE RF Baseline Implementation Capabilities

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | Intra-band contiguous EN-DC PC2 UE RF Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| 1 | LTE Frequency band: 2496-2690 MHz  NR Frequency band: 2496-2690 MHz | 38.101-3, 6.2B.1.1 | Rel-15 | pc\_Band41\_nrBand41\_C\_PC2\_Supp | DC\_(n)41AA |

Table A.4.3.2B.2.1-4: Intra-band contiguous EN-DC NR part power class UE RF Baseline Implementation Capabilities (Rel-16 and forward)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Item | EN-DC configuration | UE Physical Layer Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Supported NR part power class |
| 1 | DC\_(n)41AA | DC\_(n)41AA NR part power class | 38.306, 4.2.7.1 | Rel-16 | pc\_Band41\_nrBand41\_C\_powerClassNRPart\_r16 |  |

Table A.4.3.2B.2.1-4a: Intra-band contiguous EN-DC maxNumberSRS-Ports-PerResource UE RF Baseline Implementation Capabilities (Rel-15)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Item | EN-DC configuration | UE Physical Layer Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Supported maxNumberSRS-Ports-PerResource |
| 1 | DC\_(n)41AA | DC\_(n)41AA maxNumberSRS-Ports-PerResource on NR band | 38.306, 4.2.7.7 | Rel-15 | pc\_Band41\_nrBand41\_C\_maxNumberSRS-Ports-PerResource\_NR\_r15 |  |

Table A.4.3.2B.2.1-4b: Intra-band contiguous EN-DC NR part power class UE RF Baseline Implementation Capabilities (Rel-15) (maxNumberSRS-Ports-PerResource=n2 in NR standalone operation mode, maxNumberSRS-Ports-PerResource=n1 for EN-DC on NR band)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Item | EN-DC configuration | UE Physical Layer Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Supported NR part power class |
| 1 | DC\_(n)41AA | DC\_(n)41AA NR part power class | 38.101-3, 6.1 | Rel-15 | pc\_Band41\_nrBand41\_C\_powerClassNRPart\_r15 |  |

##### A.4.3.2B.2.2 Intra-band non-contiguous EN-DC

Table A.4.3.2B.2.2-1: Downlink Bandwidth Class Combination capabilities for Intra-band non-contiguous EN-DC configurations (for one or more of the supported configurations in Table A.4.3.2B.2.2-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL Intra-band non-contiguous EN-DC Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | DL Intra-band non-contiguous EN-DC BW Class Combination A\_A | 36.101, 5.6A.1  38.101-3, 5.3B.1.3 | pc\_DL\_intra\_non\_contiguous\_EN\_DC\_Class\_A\_A |  |
| 2 | DL Intra-band non-contiguous EN-DC BW Class Combination A\_AA | 36.101, 5.6A.1  38.101-3, 5.3B.1.3 | pc\_DL\_intra\_non\_contiguous\_EN\_DC\_Class\_A\_AA |  |
| 3 | DL Intra-band non-contiguous EN-DC BW Class Combination A-A\_A | 36.101, 5.6A.1  38.101-3, 5.3B.1.3 | pc\_DL\_intra\_non\_contiguous\_EN\_DC\_Class\_A-A\_A |  |
| 4 | DL Intra-band non-contiguous EN-DC BW Class Combination C\_A | 36.101, 5.6A.1  38.101-3, 5.3B.1.3 | pc\_DL\_intra\_non\_contiguous\_EN\_DC\_Class\_C\_A |  |
| 5 | DL Intra-band non-contiguous EN-DC BW Class Combination D\_A | 36.101, 5.6A.1  38.101-3, 5.3B.1.3 | pc\_DL\_intra\_non\_contiguous\_EN\_DC\_Class\_D\_A |  |

Table A.4.3.2B.2.2-1a: Uplink Bandwidth Class Combination capabilities for Intra-band non-contiguous EN-DC configurations (for one or more of the supported configurations in Table A.4.3.2B.2.2-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL Intra-band non-contiguous EN-DC Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | UL Intra-band non-contiguous EN-DC BW Class Combination A\_A | 36.101, 5.6A.1  38.101-3, 5.3B.1.3 | pc\_UL\_intra\_non\_contiguous\_EN\_DC\_Class\_A\_A |  |
| 2 | UL Intra-band non-contiguous EN-DC BW Class Combination AA | 36.101, 5.6A.1  38.101-3, 5.3B.1.3 | pc\_UL\_intra\_non\_contiguous\_EN\_DC\_Class\_AA |  |

Table A.4.3.2B.2.2-2: Supported Intra-band non-contiguous EN-DC configurations

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **EN-DC configuration / Item (Note 1, 3, 4)** | **Release** | **Supported** | **Supported EN-DC Bandwidth Class(es) in UL**  **(Note 2)** | **Supported Bandwidth Combination Set(s)** |
| DC\_2A\_n2A6 | Rel-16 |  |  |  |
| DC\_41A\_n41A | Rel-15 |  |  |  |
| DC\_41C\_n41A | Rel-15 |  |  |  |
| DC\_41D\_n41A | Rel-15 |  |  |  |
| DC\_66A\_n66A6 | Rel-16 |  |  |  |
| Note 1: Notation used for intra-band non-contiguous EN-DC Bands is according to TS 38.101-3 [25] Table 5.3B.1.3-1, e.g. ‘DC\_41A\_n41A’ indicates non-contiguous EN-DC operation on E-UTRA band 41 with DL Bandwidth Class A and NR band n41 with DL CA Bandwidth Class A.  Note 2: See UL\_*n*CC(*table\_index*) in Note 2 of Table 4.0-3 in TS 38.522 [9].  Note 3: See DL\_*n*CC(*table\_index*) in Note 4 of Table 4.0-3 in TS 38.522 [9].  Note 4: See DL\_NR\_*n*CC(*table\_index*) in Note 5 of Table 4.0-3 in TS 38.522 [9].  Note 5: Only single switched UL is supported in Rel-15.  Note 6: Only single switched UL is supported. | | | | |

Table A.4.3.2B.2.2-3: Intra-band non-contiguous EN-DC PC2 UE RF Baseline Implementation Capabilities

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | Intra-band non-contiguous EN-DC PC2 UE RF Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| 1 | LTE Frequency band: 2496-2690 MHz  NR Frequency band: 2496-2690 MHz | 38.101-3, 6.2B.1.2 | Rel-15 | pc\_Band41\_nrBand41\_NC\_PC2\_Supp | DC\_41A\_n41A |

Table A.4.3.2B.2.2-4: Intra-band non-contiguous EN-DC NR part power class UE RF Baseline Implementation Capabilities (Rel-16 and forward)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Item | EN-DC configuration | UE Physical Layer Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Supported NR part power class |
| 1 | DC\_41A\_n41A | DC\_41A\_n41A NR part power class | 38.306, 4.2.7.1 | Rel-16 | pc\_Band41\_nrBand41\_NC\_powerClassNRPart\_r16 |  |

Table A.4.3.2B.2.2-4a: Intra-band non-contiguous EN-DC maxNumberSRS-Ports-PerResource UE RF Baseline Implementation Capabilities (Rel-15)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Item | EN-DC configuration | UE Physical Layer Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Supported maxNumberSRS-Ports-PerResource |
| 1 | DC\_41A\_n41A | DC\_41A\_n41A maxNumberSRS-Ports-PerResource on NR band | 38.306, 4.2.7.7 | Rel-15 | pc\_Band41\_nrBand41\_NC\_maxNumberSRS-Ports-PerResource\_NR\_r15 |  |

Table A.4.3.2B.2.2-4b: Intra-band non-contiguous EN-DC NR part power class UE RF Baseline Implementation Capabilities (Rel-15) (maxNumberSRS-Ports-PerResource=n2 in NR standalone operation mode, maxNumberSRS-Ports-PerResource=n1 for EN-DC on NR band)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Item | EN-DC configuration | UE Physical Layer Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Supported NR part power class |
| 1 | DC\_41A\_n41A | DC\_41A\_n41A NR part power class | 38.101-3, 6.1 | Rel-15 | pc\_Band41\_nrBand41\_NC\_powerClassNRPart\_r15 |  |

##### A.4.3.2B.2.3 Inter-band EN-DC

###### A.4.3.2B.2.3.1 Inter-band EN-DC within FR1 (two bands)

Table A.4.3.2B.2.3.1-1: Downlink Bandwidth Class Combination capabilities for Inter-band EN-DC within FR1 and two bands (for one or more of the supported DC configurations in Table A.4.3.2B.2.3.1-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL inter-band EN-DC within FR1 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | Inter-band EN-DC within FR1 BW Class Combination A\_A (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.1 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_2B\_Class\_A\_A |  |
| 2 | Inter-band EN-DC within FR1 BW Class Combination A\_(2A) (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.1 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_2B\_Class\_A\_(2A) |  |
| 3 | Inter-band EN-DC within FR1 BW Class Combination A\_B (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.1 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_2B\_Class\_A\_B |  |
| 4 | Inter-band EN-DC within FR1 BW Class Combination A\_C (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.1 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_2B\_Class\_A\_C |  |
| 5 | Inter-band EN-DC within FR1 BW Class Combination (2A)\_A (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.1 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_2B\_Class\_(2A)\_A |  |
| 6 | Inter-band EN-DC within FR1 BW Class Combination (2A)\_(2A) (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.1 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_2B\_Class\_(2A)\_(2A) |  |
| 7 | Inter-band EN-DC within FR1 BW Class Combination (2A)\_B (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.1 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_2B\_Class\_(2A)\_B |  |
| 8 | Inter-band EN-DC within FR1 BW Class Combination (3A)\_A (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.1 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_2B\_Class\_(3A)\_A |  |
| 9 | Inter-band EN-DC within FR1 BW Class Combination B\_A (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.1 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_2B\_Class\_B\_A |  |
| 10 | Inter-band EN-DC within FR1 BW Class Combination C\_A (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.1 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_2B\_Class\_C\_A |  |
| 11 | Inter-band EN-DC within FR1 BW Class Combination C\_(2A) (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.1 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_2B\_Class\_C\_(2A) |  |
| 12 | Inter-band EN-DC within FR1 BW Class Combination C\_B (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.1 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_2B\_Class\_C\_B |  |
| 13 | Inter-band EN-DC within FR1 BW Class Combination C\_C (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.1 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_2B\_Class\_C\_C |  |
| 14 | Inter-band EN-DC within FR1 BW Class Combination D\_A (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.1 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_2B\_Class\_D\_A |  |
| 15 | Inter-band EN-DC within FR1 BW Class Combination D\_C (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.1 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_2B\_Class\_D\_C |  |
| 16 | Inter-band EN-DC within FR1 BW Class Combination E\_A (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.1 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_2B\_Class\_E\_A |  |
| 17 | Inter-band EN-DC within FR1 BW Class Combination E\_C (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.1 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_2B\_Class\_E\_C |  |

Table A.4.3.2B.2.3.1-1a: Uplink Bandwidth Class Combination capabilities for Inter-band EN-DC within FR1 and two bands (for one or more of the supported configurations in Table A.4.3.2B.2.3.1-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL inter-band EN-DC within FR1 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | UL Inter-band EN-DC within FR1 BW Class Combination A\_A (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.1 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_2B\_Class\_A\_A |  |
| 2 | UL Inter-band EN-DC within FR1 BW Class Combination A\_B (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.1 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_2B\_Class\_A\_B |  |
| 3 | UL Inter-band EN-DC within FR1 BW Class Combination A\_C (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.1 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_2B\_Class\_A\_C |  |
| 4 | UL Inter-band EN-DC within FR1 BW Class Combination (2A)\_A (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.1 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_2B\_Class\_(2A)\_A |  |
| 5 | UL Inter-band EN-DC within FR1 BW Class Combination C\_A (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.1 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_2B\_Class\_C\_A |  |

Table A.4.3.2B.2.3.1-2: Supported Inter-band EN-DC configurations within FR1 (two bands)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **EN-DC configuration / Item** | **Release** | **Supported** | **Supported EN-DC Bandwidth Class(es) in UL** | **Supported ULTxSwitching Band Pair** | **Supported uplinkTxSwitching-DL-Interruption-r16**  **(Note 1)** | **Supported simultaneousRxTx**  **(Note 2)** |
| DC\_1A\_n3A | Rel-16 |  |  |  |  |  |
| DC\_1A\_n5A | Rel-16 |  |  |  |  |  |
| DC\_1A\_n7A | Rel-16 |  |  |  |  |  |
| DC\_1A\_n28A | Rel-15 |  |  |  |  |  |
| DC\_1A\_n41A | Rel-16 |  |  |  |  | Yes |
| DC\_1A\_n77A | Rel-15 |  |  |  | Not supported | Yes |
| DC\_1A\_n78A | Rel-15 |  |  |  | Not supported | Yes |
| DC\_1A\_n78C | Rel-15 |  |  |  | Not supported | Yes |
| DC\_1A-1A\_n78A | Rel-17 |  |  |  | Not supported |  |
| DC\_1A\_n79A | Rel-15 |  |  |  | Not supported | Yes |
| DC\_2A\_n5A | Rel-15 |  |  |  |  |  |
| DC\_2A-2A\_n5A | Rel-16 |  |  |  |  |  |
| DC\_2A\_n41A | Rel-16 |  |  |  |  |  |
| DC\_2C\_n41A | Rel-16 |  |  |  |  |  |
| DC\_2A\_n66A | Rel-15 |  |  |  |  |  |
| DC\_2A\_n71A | Rel-15 |  |  |  |  |  |
| DC\_2A\_n77A | Rel-17 |  |  |  |  |  |
| DC\_2A\_n77(2A) | Rel-17 |  |  |  |  |  |
| DC\_2A-2A\_n77A | Rel-17 |  |  |  |  |  |
| DC\_2A-2A\_n77(2A) | Rel-17 |  |  |  |  |  |
| DC\_2A\_n78A | Rel-15 |  |  |  |  |  |
| DC\_3A\_n1A | Rel-16 |  |  |  |  |  |
| DC\_3A\_n8A | Rel-16 |  |  |  |  |  |
| DC\_3A\_n7A | Rel-15 |  |  |  |  |  |
| DC\_3A\_n5A | Rel-16 |  |  |  |  |  |
| DC\_3A\_n28A | Rel-15 |  |  |  |  |  |
| DC\_3A\_n41A | Rel-16 |  |  |  | Not supported | Yes |
| DC\_3A\_n77A | Rel-15 |  |  |  | Not supported | Yes |
| DC\_3A\_n78A | Rel-15 |  |  |  | Not supported | Yes |
| DC\_3A\_n78C | Rel-15 |  |  |  | Not supported | Yes |
| DC\_3A\_n79A | Rel-15 |  |  |  | Not supported | Yes |
| DC\_3A\_n82A | Rel-15 |  |  |  |  |  |
| DC\_3C\_n77A | Rel-17 |  |  |  | Not supported |  |
| DC\_3C\_n77(2A) | Rel-17 |  |  |  | Not supported |  |
| DC\_3C\_n78A | Rel-15 |  |  |  | Not supported |  |
| DC\_5A\_n2A | Rel-16 |  |  |  |  |  |
| DC\_5A\_n66A | Rel-15 |  |  |  |  |  |
| DC\_5A\_n77A | Rel-17 |  |  |  |  |  |
| DC\_5A\_n77(2A) | Rel-17 |  |  |  |  |  |
| DC\_5A\_n78A | Rel-15 |  |  |  | Not supported | Yes |
| DC\_5A\_n78C | Rel-17 |  |  |  | Not supported | Yes |
| DC\_7A\_n1A | Rel-16 |  |  |  |  |  |
| DC\_7A\_n3A | Rel-16 |  |  |  |  |  |
| DC\_7A\_n5A | Rel-16 |  |  |  |  |  |
| DC\_7A\_n8A | Rel-16 |  |  |  |  |  |
| DC\_7A\_n28A | Rel-15 |  |  |  |  |  |
| DC\_7A\_n78A | Rel-15 |  |  |  |  | Yes |
| DC\_7A\_n66A | Rel-15 |  |  |  |  |  |
| DC\_7C\_n66A | Rel-15 |  |  |  |  |  |
| DC\_7C\_n78A | Rel-15 |  |  |  |  | Yes |
| DC\_8A\_n1A | Rel-16 |  |  |  |  |  |
| DC\_8A\_n3A | Rel-16 |  |  |  |  |  |
| DC\_8A\_n20A | Rel-16 |  |  |  |  |  |
| DC\_8A\_n41A | Rel-16 |  |  |  | Not supported | Yes |
| DC\_8A\_n77A | Rel-15 |  |  |  | Not supported | Yes |
| DC\_8A\_n77(2A) | Rel-16 |  |  |  | Not supported | Yes |
| DC\_8A\_n78A | Rel-15 |  |  |  | Not supported | Yes |
| DC\_11A\_n77A | Rel-15 |  |  |  | Not supported | Yes |
| DC\_11A\_n78A | Rel-15 |  |  |  | Not supported | Yes |
| DC\_11A\_n79A | Rel-15 |  |  |  |  | Yes |
| DC\_12A\_n2A | Rel-16 |  |  |  |  |  |
| DC\_12A\_n5A | Rel-15 |  |  |  |  |  |
| DC\_12A\_n66A | Rel-15 |  |  |  |  |  |
| DC\_12A\_n77A | Rel-17 |  |  |  |  |  |
| DC\_12A\_n77(2A) | Rel-17 |  |  |  |  |  |
| DC\_12A\_n78A | Rel-16 |  |  |  |  |  |
| DC\_13A\_n2A | Rel-16 |  |  |  |  |  |
| DC\_13A\_n66A | Rel-15 |  |  |  |  |  |
| DC\_13A\_n77A | Rel-17 |  |  |  |  |  |
| DC\_14A\_n2A | Rel-16 |  |  |  |  |  |
| DC\_14A\_n66A | Rel-16 |  |  |  |  |  |
| DC\_14A\_n77A | Rel-17 |  |  |  |  |  |
| DC\_14A\_n77(2A) | Rel-17 |  |  |  |  |  |
| DC\_18A\_n77A | Rel-15 |  |  |  | Not supported | Yes |
| DC\_18A\_n78A | Rel-15 |  |  |  | Not supported | Yes |
| DC\_18A\_n79A | Rel-15 |  |  |  |  | Yes |
| DC\_19A\_n1A | Rel-17 |  |  |  |  |  |
| DC\_19A\_n77A | Rel-15 |  |  |  |  | Yes |
| DC\_19A\_n77(2A) | Rel-17 |  |  |  |  | Yes |
| DC\_19A\_n78A | Rel-15 |  |  |  | Not supported | Yes |
| DC\_19A\_n78(2A) | Rel-17 |  |  |  | Not supported | Yes |
| DC\_19A\_n79A | Rel-15 |  |  |  | Not supported | Yes |
| DC\_20A\_n1A | Rel-16 |  |  |  |  |  |
| DC\_20A\_n3A | Rel-16 |  |  |  |  |  |
| DC\_20A\_n7A | Rel-16 |  |  |  |  |  |
| DC\_20A\_n8A | Rel-15 |  |  |  |  |  |
| DC\_20A\_n28A | Rel-15 |  |  |  |  |  |
| DC\_20A\_n78A | Rel-15 |  |  |  |  | Yes |
| DC\_20A\_n83A | Rel-16 |  |  |  |  |  |
| DC\_21A\_n1A | Rel-17 |  |  |  |  |  |
| DC\_21A\_n28A | Rel-17 |  |  |  |  |  |
| DC\_21A\_n77A | Rel-15 |  |  |  |  | Yes |
| DC\_21A\_n77(2A) | Rel-17 |  |  |  |  | Yes |
| DC\_21A\_n78A | Rel-15 |  |  |  | Not supported | Yes |
| DC\_21A\_n78(2A) | Rel-17 |  |  |  | Not supported | Yes |
| DC\_21A\_n79A | Rel-15 |  |  |  | Not supported | Yes |
| DC\_25A\_n41A | Rel-15 |  |  |  |  |  |
| DC\_26A\_n41A | Rel-16 |  |  |  |  |  |
| DC\_26A\_n77A | Rel-16 |  |  |  |  | Yes |
| DC\_26A\_n78A | Rel-16 |  |  |  |  | Yes |
| DC\_26A\_n79A | Rel-16 |  |  |  |  | Yes |
| DC\_28A\_n3A | Rel-16 |  |  |  |  |  |
| DC\_28A\_n5A | Rel-16 |  |  |  |  |  |
| DC\_28A\_n7A | Rel-16 |  |  |  |  |  |
| DC\_28A n51A | Rel-15 |  |  |  |  |  |
| DC\_28A\_n77A | Rel-15 |  |  |  | Not supported | Yes |
| DC\_28A\_n78A | Rel-15 |  |  |  | Not supported | Yes |
| DC\_28A\_n79A | Rel-15 |  |  |  |  | Yes |
| DC\_30A\_n2A | Rel-16 |  |  |  |  |  |
| DC\_30A\_n5A | Rel-15 |  |  |  |  |  |
| DC\_30A\_n77A | Rel-17 |  |  |  |  |  |
| DC\_30A\_n77(2A) | Rel-17 |  |  |  |  |  |
| DC\_30A\_n66A | Rel-15 |  |  |  |  |  |
| DC\_38A\_n78A | Rel-15 |  |  |  |  | Yes |
| DC\_39A\_n41A | Rel-16 |  |  |  | Not supported |  |
| DC\_39A\_n79A | Rel-15 |  |  |  | Not supported | Yes |
| DC\_40A\_n1A | Rel-16 |  |  |  |  |  |
| DC\_40A\_n41A | Rel-16 |  |  |  |  |  |
| DC\_40A\_n78A | Rel-16 |  |  |  |  |  |
| DC\_40A\_n79A | Rel-16 |  |  |  | Not supported | Yes |
| DC\_40C\_n78A | Rel-16 |  |  |  |  |  |
| DC\_40C\_n79A | Rel-16 |  |  |  | Not supported | Yes |
| DC\_41A\_n28A | Rel-16 |  |  |  |  | Yes |
| DC\_41A\_n77A | Rel-16 |  |  |  |  |  |
| DC\_41A\_n78A | Rel-16 |  |  |  |  |  |
| DC\_41A\_n79A | Rel-15 |  |  |  | Not supported | Yes |
| DC\_42A\_n1A | Rel-17 |  |  |  |  |  |
| DC\_42C\_n1A | Rel-17 |  |  |  |  |  |
| DC\_42A\_n77A | Rel-15 |  |  |  |  |  |
| DC\_42A\_n78A | Rel-15 |  |  |  |  |  |
| DC\_42A\_n79A | Rel-15 |  |  |  |  |  |
| DC\_48A\_n5A | Rel-16 |  |  |  |  |  |
| DC\_48A\_n46A | Rel-16 |  |  |  |  |  |
| DC\_48A\_n66A | Rel-16 |  |  |  |  |  |
| DC\_66A\_n2A | Rel-16 |  |  |  |  |  |
| DC\_66A\_n5A | Rel-15 |  |  |  |  |  |
| DC\_66A-66A\_n5A | Rel-16 |  |  |  |  |  |
| DC\_66A\_n41A | Rel-16 |  |  |  |  |  |
| DC\_66A\_n71A | Rel-15 |  |  |  |  |  |
| DC\_66A\_n77A | Rel-17 |  |  |  |  |  |
| DC\_66A\_n77(2A) | Rel-17 |  |  |  |  |  |
| DC\_66A-66A\_n77A | Rel-17 |  |  |  |  |  |
| DC\_66A-66A\_n77(2A) | Rel-17 |  |  |  |  |  |
| DC\_66A\_n78A | Rel-15 |  |  |  |  |  |
| DC\_71A\_n2A | Rel-17 |  |  |  |  |  |
| DC\_71A\_n66A | Rel-16 |  |  |  |  |  |
| Note 1: A UE that supports ULTxSwitching on a band pair might report the uplinkTxSwitching-DL-Interruption-r16 capability on the same band pair. If UE doesn’t report this capability, no DL interruption is allowed during UL Tx switching. For certain band configurations DL interruption is not allowed according to Note 14 in Table 5.5B.4.1-1 of TS 38.101-3 [25], therefore the corresponding entry is prefilled by ‘Not Supported’.  Note 2: For configurations with Note 7 in Table 5.5B.4.1-1 of TS 38.521-3 [7], UE capability simultaneousRxTxInterBandENDC is mandatory, therefore the corresponding entry is prefilled with ‘Yes’. | | | | | | |

Table A.4.3.2B.2.3.1-3: Inter-band EN-DC within FR1 (two bands) PC2 UE RF Baseline Implementation Capabilities

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Item | EN-DC configuration | Inter-band EN-DC within FR1 (two bands) PC2 UE RF Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| 1 | DC\_39A\_n41A | LTE Frequency band: 1880-1920 MHz  NR Frequency band: 2496-2690 MHz | 38.101-3, 6.2B.1.3 | Rel-16 | pc\_Band39\_nrBand41\_PC2\_Supp |  |
| 2 | DC\_39A\_n79A | LTE Frequency band: 1880-1920 MHz  NR Frequency band: 4400-5000 MHz | 38.101-3, 6.2B.1.3 | Rel-16 | pc\_Band39\_nrBand79\_PC2\_Supp |  |
| 3 | DC\_41A\_n79A | LTE Frequency band: 2496-2690 MHz  NR Frequency band: 4400-5000 MHz | 38.101-3, 6.2B.1.3 | Rel-16 | pc\_Band41\_nrBand79\_PC2\_Supp |  |
| 4 | DC\_3A\_n78A | LTE Frequency band: 1710-1785 MHz (UL), 1805-1880 MHz (DL)  NR Frequency band: 3300-3800 MHz | 38.101-3, 6.2B.1.3 | Rel-16 | pc\_Band3\_nrBand78\_PC2\_Supp |  |
| 5 | DC\_3A\_n41A | LTE Frequency band: 1710-1785 MHz (UL), 1805-1880 MHz (DL)  NR Frequency band: 2496-2690 MHz | 38.101-3, 6.2B.1.3 | Rel-16 | pc\_Band3\_nrBand41\_PC2\_Supp |  |
| 6 | DC\_1A\_n78A | LTE Frequency band: 1920-1980 MHz (UL),2110- 2170 MHz (DL)  NR Frequency band: 3300-3800 MHz | 38.101-3, 6.2B.1.3 | Rel-17 | pc\_Band1\_nrBand78\_PC2\_Supp |  |
| 7 | Void |  |  |  |  |  |
| 8 | DC\_8A\_n78A | LTE Frequency band: 703-748 MHz (UL), 758-803 MHz (DL)  NR Frequency band: 3300-3800 MHz | 38.101-3, 6.2B.1.3 | Rel-17 | pc\_Band8\_nrBand78\_PC2\_Supp |  |
| 9 | DC\_2A\_n77A | LTE Frequency band: 1850-1910 MHz (UL),1930-1990 MHz (DL)  NR Frequency band: 3300-4200 MHz1 | 38.101-3, 6.2B.1.3 | Rel-17 | pc\_Band2\_nrBand77\_PC2\_Supp |  |
| 10 | DC\_5A\_n77A | LTE Frequency band: 824-849 MHz (UL),869- 894 MHz (DL)  NR Frequency band: 3300-4200 MHz1 | 38.101-3, 6.2B.1.3 | Rel-17 | pc\_Band5\_nrBand77\_PC2\_Supp |  |
| 11 | DC\_13A\_n77A | LTE Frequency band: 777-787 MHz (UL),746-756 MHz (DL)  NR Frequency band: 3300-4200 MHz1 | 38.101-3, 6.2B.1.3 | Rel-17 | pc\_Band13\_nrBand77\_PC2\_Supp |  |
| 12 | DC\_66A\_n77A | LTE Frequency band: 1710-1780 MHz (UL),2110-2200 MHz (DL)  NR Frequency band: 3300-4200 MHz1 | 38.101-3, 6.2B.1.3 | Rel-17 | pc\_Band66\_nrBand77\_PC2\_Supp |  |
| 13 | DC\_12A\_n77A | LTE Frequency band: 699-716 MHz (UL),729- 746 MHz (DL)  NR Frequency band: 3300-4200 MHz1 | 38.101-3, 6.2B.1.3 | Rel-17 | pc\_Band12\_nrBand77\_PC2\_Supp |  |
| 14 | DC\_14A\_n77A | LTE Frequency band: 788-798 MHz (UL),758-768 MHz (DL)  NR Frequency band: 3300-4200 MHz1 | 38.101-3, 6.2B.1.3 | Rel-17 | pc\_Band14\_nrBand77\_PC2\_Supp |  |
| 15 | DC\_30A\_n77A | LTE Frequency band: 2305-2315 MHz (UL),2350-2360 MHz (DL)  NR Frequency band: 3300-4200 MHz1 | 38.101-3, 6.2B.1.3 | Rel-17 | pc\_Band30\_nrBand77\_PC2\_Supp |  |
| 16 | DC\_28A\_n78A | LTE Frequency band: 703-748 MHz (UL),758- 803 MHz (DL)  NR Frequency band: 3300-3800 MHz | 38.101-3, 6.2B.1.3 | Rel-17 | pc\_Band28\_nrBand78\_PC2\_Supp |  |
| 17 | DC\_1A\_n79A | LTE Frequency band: 1920-1980 MHz (UL), 2110- 2170 MHz (DL)  NR Frequency band: 4400-5000 MHz | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band1\_nrBand79\_PC2\_Supp |  |
| 18 | DC\_3A\_n79A | LTE Frequency band: 1710-1785 MHz (UL), 1805-1880 MHz (DL)  NR Frequency band: 4400-5000 MHz | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band3\_nrBand79\_PC2\_Supp |  |
| 19 | DC\_19A\_n78A | LTE Frequency band: 830-845 MHz (UL),875-890 MHz (DL)  NR Frequency band: 3300-3800 MHz | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band19\_nrBand78\_PC2\_Supp |  |
| 20 | DC\_19A\_n79A | LTE Frequency band: 830-845 MHz (UL),875-890 MHz (DL)  NR Frequency band: 4400-5000 MHz | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band19\_nrBand79\_PC2\_Supp |  |
| 21 | DC\_21A\_n78A | LTE Frequency band: 1447.9-1462.9 MHz (UL), 1495.9-1510.9 MHz (DL)  NR Frequency band: 3300-3800 MHz | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band21\_nrBand78\_PC2\_Supp |  |
| 22 | DC\_21A\_n79A | LTE Frequency band: 1447.9-1462.9 MHz (UL), 1495.9-1510.9 MHz (DL)  NR Frequency band: 4400-5000 MHz | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band21\_nrBand79\_PC2\_Supp |  |
| 23 | DC\_3A\_n77A | LTE Frequency band: 1710-1785 MHz (UL), 1805-1880 MHz (DL)  NR Frequency band: 3300-4200 MHz1 | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band3\_nrBand77\_ PC2\_Supp |  |
| 24 | DC\_18A\_n77A | LTE Frequency band: 815-830 MHz (UL), 860-875 MHz (DL)  NR Frequency band: 3300-4200 MHz1 | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band18\_nrBand77\_ PC2\_Supp |  |
| 25 | DC\_28A\_n77A | LTE Frequency band: 703-748 MHz (UL),758- 803 MHz (DL)  NR Frequency band: 3300-4200 MHz1 | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band28\_nrBand77\_ PC2\_Supp |  |
| NOTE 1: In the USA this band is restricted to 3450 – 3550 MHz and 3700 – 3980 MHz | | | | | | |

Table A.4.3.2B.2.3.1-3a: Inter-band EN-DC within FR1 (two bands) NR part power class UE RF Baseline Implementation Capabilities (Rel-16 and forward)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Item | EN-DC configuration | UE Physical Layer Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Supported NR part power class |
| 1 | DC\_39A\_n41A | DC\_39A\_n41A NR part power class | 38.306, 4.2.7.1 | Rel-16 | pc\_Band39\_nrBand41\_powerClassNRPart\_r16 |  |
| 2 | DC\_39A\_n79A | DC\_39A\_n79A NR part power class | 38.306, 4.2.7.1 | Rel-16 | pc\_Band39\_nrBand79\_powerClassNRPart\_r16 |  |
| 3 | DC\_41A\_n79A | DC\_41A\_n79A NR part power class | 38.306, 4.2.7.1 | Rel-16 | pc\_Band41\_nrBand79\_powerClassNRPart\_r16 |  |
| 4 | DC\_3A\_n78A | DC\_3A\_n78A NR part power class | 38.306, 4.2.7.1 | Rel-16 | pc\_Band3\_nrBand78\_powerClassNRPart\_r16 |  |
| 5 | DC\_3A\_n41A | DC\_3A\_n41A NR part power class | 38.306, 4.2.7.1 | Rel-16 | pc\_Band3\_nrBand41\_powerClassNRPart\_r16 |  |
| 6 | DC\_1A\_n78A | DC\_1A\_n78A NR part power class | 38.306, 4.2.7.1 | Rel-17 | pc\_Band1\_nrBand78\_powerClassNRPart\_r17 |  |
| 7 | DC\_8A\_n78A | DC\_8A\_n78A NR part power class | 38.306, 4.2.7.1 | Rel-17 | pc\_Band8\_nrBand78\_powerClassNRPart\_r17 |  |
| 8 | DC\_2A\_n77A | DC\_2A\_n77A NR part power class | 38.306, 4.2.7.1 | Rel-17 | pc\_Band2\_nrBand77\_powerClassNRPart\_r17 |  |
| 9 | DC\_5A\_n77A | DC\_5A\_n77A NR part power class | 38.306, 4.2.7.1 | Rel-17 | pc\_Band5\_nrBand77\_powerClassNRPart\_r17 |  |
| 10 | DC\_13A\_n77A | DC\_13A\_n77A NR part power class | 38.306, 4.2.7.1 | Rel-17 | pc\_Band13\_nrBand77\_powerClassNRPart\_r17 |  |
| 11 | DC\_66A\_n77A | DC\_66A\_n77A NR part power class | 38.306, 4.2.7.1 | Rel-17 | pc\_Band66\_nrBand77\_powerClassNRPart\_r17 |  |
| 12 | DC\_12A\_n77A | DC\_12A\_n77A NR part power class | 38.306, 4.2.7.1 | Rel-17 | pc\_Band12\_nrBand77\_powerClassNRPart\_r17 |  |
| 13 | DC\_14A\_n77A | DC\_14A\_n77A NR part power class | 38.306, 4.2.7.1 | Rel-17 | pc\_Band14\_nrBand77\_powerClassNRPart\_r17 |  |
| 14 | DC\_30A\_n77A | DC\_30A\_n77A NR part power class | 38.306, 4.2.7.1 | Rel-17 | pc\_Band30\_nrBand77\_powerClassNRPart\_r17 |  |
| 15 | DC\_3A\_n77A | DC\_3A\_n77A NR part power class | 38.306, 4.2.7.1 | Rel-17 | pc\_Band3\_nrBand77\_powerClassNRPart\_r17 |  |
| 16 | DC\_18A\_n77A | DC\_18A\_n77A NR part power class | 38.306, 4.2.7.1 | Rel-17 | pc\_Band18\_nrBand77\_powerClassNRPart\_r17 |  |
| 17 | DC\_28A\_n77A | DC\_28A\_n77A NR part power class | 38.306, 4.2.7.1 | Rel-17 | pc\_Band28\_nrBand77\_powerClassNRPart\_r17 |  |

Table A.4.3.2B.2.3.1-3b: Inter-band EN-DC within FR1 (two bands) maxNumberSRS-Ports-PerResource UE RF Baseline Implementation Capabilities (Rel-15)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Item | EN-DC configuration | UE Physical Layer Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Supported maxNumberSRS-Ports-PerResource |
| 1 | DC\_39A\_n41A | DC\_39A\_n41A maxNumberSRS-Ports-PerResource on NR band | 38.306, 4.2.7.7 | Rel-15 | pc\_Band39\_nrBand41\_maxNumberSRS-Ports-PerResource\_NR\_r15 |  |
| 2 | DC\_39A\_n79A | DC\_39A\_n79A maxNumberSRS-Ports-PerResource on NR band | 38.306, 4.2.7.7 | Rel-15 | pc\_Band39\_nrBand79\_maxNumberSRS-Ports-PerResource\_NR\_r15 |  |
| 3 | DC\_41A\_n79A | DC\_41A\_n79A maxNumberSRS-Ports-PerResource on NR band | 38.306, 4.2.7.7 | Rel-15 | pc\_Band41\_nrBand79\_maxNumberSRS-Ports-PerResource\_NR\_r15 |  |
| 4 | DC\_3A\_n78A | DC\_3A\_n78A maxNumberSRS-Ports-PerResource on NR band | 38.306, 4.2.7.7 | Rel-15 | pc\_Band3\_nrBand78\_maxNumberSRS-Ports-PerResource\_NR\_r15 |  |
| 5 | DC\_3A\_n41A | DC\_3A\_n41A maxNumberSRS-Ports-PerResource on NR band | 38.306, 4.2.7.7 | Rel-15 | pc\_Band3\_nrBand41\_maxNumberSRS-Ports-PerResource\_NR\_r15 |  |
| 6 | DC\_1A\_n78A | DC\_1A\_n78A maxNumberSRS-Ports-PerResource on NR band | 38.306, 4.2.7.7 | Rel-15 | pc\_Band1\_nrBand78\_maxNumberSRS-Ports-PerResource\_NR\_r15 |  |
| 7 | DC\_8A\_n78A | DC\_8A\_n78A maxNumberSRS-Ports-PerResource on NR band | 38.306, 4.2.7.7 | Rel-15 | pc\_Band8\_nrBand78\_maxNumberSRS-Ports-PerResource\_NR\_r15 |  |
| 8 | DC\_2A\_n77A | DC\_2A\_n77A maxNumberSRS-Ports-PerResource on NR band | 38.306, 4.2.7.7 | Rel-15 | pc\_Band2\_nrBand77\_maxNumberSRS-Ports-PerResource\_NR\_r15 |  |
| 9 | DC\_5A\_n77A | DC\_5A\_n77A maxNumberSRS-Ports-PerResource on NR band | 38.306, 4.2.7.7 | Rel-15 | pc\_Band5\_nrBand77\_maxNumberSRS-Ports-PerResource\_NR\_r15 |  |
| 10 | DC\_13A\_n77A | DC\_13A\_n77 maxNumberSRS-Ports-PerResource on NR band | 38.306, 4.2.7.7 | Rel-15 | pc\_Band13\_nrBand77\_maxNumberSRS-Ports-PerResource\_NR\_r15 |  |
| 11 | DC\_66A\_n77A | DC\_66A\_n77A maxNumberSRS-Ports-PerResource on NR band | 38.306, 4.2.7.7 | Rel-15 | pc\_Band66\_nrBand77\_maxNumberSRS-Ports-PerResource\_NR\_r15 |  |

Table A.4.3.2B.2.3.1-3c: Inter-band EN-DC within FR1 (two bands) NR part power class UE RF Baseline Implementation Capabilities (Rel-15) (maxNumberSRS-Ports-PerResource=n2 in NR standalone operation mode, maxNumberSRS-Ports-PerResource=n1 for EN-DC on NR band)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Item | EN-DC configuration | UE Physical Layer Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Supported NR part power class |
| 1 | DC\_39A\_n41A | DC\_39A\_n41A NR part power class | 38.101-3, 6.1 | Rel-15 | pc\_Band39\_nrBand41\_powerClassNRPart\_r15 |  |
| 2 | DC\_39A\_n79A | DC\_39A\_n79A NR part power class | 38.101-3, 6.1 | Rel-15 | pc\_Band39\_nrBand79\_powerClassNRPart\_r15 |  |
| 3 | DC\_41A\_n79A | DC\_41A\_n79A NR part power class | 38.101-3, 6.1 | Rel-15 | pc\_Band41\_nrBand79\_powerClassNRPart\_r15 |  |
| 4 | DC\_3A\_n78A | DC\_3A\_n78A NR part power class | 38.101-3, 6.1 | Rel-15 | pc\_Band3\_nrBand78\_powerClassNRPart\_r15 |  |
| 5 | DC\_3A\_n41A | DC\_3A\_n41A NR part power class | 38.101-3, 6.1 | Rel-15 | pc\_Band3\_nrBand41\_powerClassNRPart\_r15 |  |
| 6 | DC\_1A\_n78A | DC\_1A\_n78A NR part power class | 38.101-3, 6.1 | Rel-15 | pc\_Band1\_nrBand78\_powerClassNRPart\_r15 |  |
| 7 | DC\_8A\_n78A | DC\_8A\_n78A NR part power class | 38.101-3, 6.1 | Rel-15 | pc\_Band8\_nrBand78\_powerClassNRPart\_r15 |  |
| 8 | DC\_2A\_n77A | DC\_2A\_n77A NR part power class | 38.101-3, 6.1 | Rel-15 | pc\_Band2\_nrBand77\_powerClassNRPart\_r15 |  |
| 9 | DC\_5A\_n77A | DC\_5A\_n77A NR part power class | 38.101-3, 6.1 | Rel-15 | pc\_Band5\_nrBand77\_powerClassNRPart\_r15 |  |
| 10 | DC\_13A\_n77A | DC\_13A\_n77A NR part power class | 38.101-3, 6.1 | Rel-15 | pc\_Band13\_nrBand77\_powerClassNRPart\_r15 |  |
| 11 | DC\_66A\_n77A | DC\_66A\_n77A NR part power class | 38.101-3, 6.1 | Rel-15 | pc\_Band66\_nrBand77\_powerClassNRPart\_r15 |  |

Table A.4.3.2B.2.3.1-4: UE Power Class implementation Capabilities for inter-band EN-DC within FR1 (two bands)

|  |  |  |  |
| --- | --- | --- | --- |
| Item | UE Power Class implementation Capabilities | Ref. | Comments |
| 1 | UE Power Class 2 for Inter-band EN-DC within FR1 (two bands) | 38.101-3, 6.2B.1.3 | Applicable to the bands in Table A.4.3.2B.2.3.1-3 |
| 2 | UE Power Class 3 for Inter-band EN-DC within FR1 (two bands) | 38.101-3, 6.2B.1.3 | Applicable to the bands in Table A.4.3.2B.2.3.1-2 |

###### A.4.3.2B.2.3.2 Inter-band EN-DC within FR1 (three bands)

Table A.4.3.2B.2.3.2-1: Downlink Bandwidth Class Combination capabilities for Inter-band EN-DC within FR1 and three bands (for one or more of the supported DC configurations in Table A.4.3.2B.2.3.2-2)

|  |  |  |  |
| --- | --- | --- | --- |
| Item | DL inter-band EN-DC within FR1 Bandwidth Class | Ref. | Mnemonic |
| 1 | Inter-band EN-DC within FR1 BW Class Combination A-A\_A (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.2 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_3B\_Class\_A-A\_A |
| 2 | Inter-band EN-DC withinFR1 BW Class Combination A-A\_B (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.2 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_3B\_Class\_A-A\_B |
| 3 | Inter-band EN-DC within FR1 BW Class Combination A-A\_C (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.2 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_3B\_Class\_A-A\_C |
| 4 | Inter-band EN-DC within FR1 BW Class Combination A-C\_A (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.2 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_3B\_Class\_A-C\_A |
| 5 | Inter-band EN-DC within FR1 BW Class Combination A-C\_C (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.2 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_3B\_Class\_A-C\_C |
| 6 | Inter-band EN-DC withinFR1 BW Class Combination A-D\_A (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.2 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_3B\_Class\_A-D\_A |
| 7 | Inter-band EN-DC within FR1 BW Class Combination A-E\_A (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.2 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_3B\_Class\_A-E\_A |
| 8 | Inter-band EN-DC within FR1 BW Class Combination A\_A-A (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.2 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_3B\_Class\_A\_A-A |
| 9 | Inter-band EN-DC within FR1 BW Class Combination C-A\_A (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.2 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_3B\_Class\_C-A\_A |
| 10 | Inter-band EN-DC within FR1 BW Class Combination C-C\_A (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.2 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_3B\_Class\_C-C\_A |
| 11 | Inter-band EN-DC within FR1 BW Class Combination A\_(n)AA (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.2 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_3B\_Class\_A\_(n)AA |
| 12 | Inter-band EN-DC within FR1 BW Class Combination (2A)-A\_A (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.2 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_3B\_Class\_(2A)-A\_A |
| 13 | Inter-band EN-DC within FR1 BW Class Combination (2A)-C\_A (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.2 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_3B\_Class\_(2A)-C\_A |
| 14 | Inter-band EN-DC within FR1 BW Class Combination A-A\_(2A) (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.2 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_3B\_Class\_A-A\_(2A) |
| 15 | Inter-band EN-DC within FR1 BW Class Combination A-C\_(2A) (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.2 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_3B\_Class\_A-C\_(2A) |

Table A.4.3.2B.2.3.2-1a: Uplink Bandwidth Class Combination capabilities for Inter-band EN-DC within FR1 and three bands (for one or more of the supported configurations in Table A.4.3.2B.2.3.2-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL inter-band EN-DC within FR1 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | UL Inter-band EN-DC within FR1 BW Class Combination A\_A (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.2 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_3B\_Class\_A\_A |  |
| 2 | UL Inter-band EN-DC within FR1 BW Class Combination C\_A (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.2 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_3B\_Class\_C\_A |  |
| 3 | UL Inter-band EN-DC within FR1 BW Class Combination C\_B (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.2 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_3B\_Class\_C\_B |  |
| 4 | UL Inter-band EN-DC within FR1 BW Class Combination (n)AA (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.2 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_3B\_Class\_(n)AA |  |

Table A.4.3.2B.2.3.2-2: Supported Inter-band EN-DC configurations within FR1 (three bands)

|  |  |  |  |
| --- | --- | --- | --- |
| **EN-DC configuration / Item (Note 1, 3, 5)** | **Release** | **Supported** | **Supported EN-DC Bandwidth Class(es) in UL**  **(Note 2, 4)** |
| DC\_1A-3A\_n28A | Rel-15 |  |  |
| DC\_1A-3A\_n41A | Rel-16 |  |  |
| DC\_1A-3A\_n77A | Rel-15 |  |  |
| DC\_1A-3A\_n78A | Rel-15 |  |  |
| DC\_1A-3C\_n77A | Rel-17 |  |  |
| DC\_1A-3C\_n77(2A) | Rel-17 |  |  |
| DC\_1A-3C\_n78A | Rel-15 |  |  |
| DC\_1A-3C\_n78(2A) | Rel-16 |  |  |
| DC\_1A-1A-3A\_n78A | Rel-17 |  |  |
| DC\_1A-1A-3C\_n78A | Rel-17 |  |  |
| DC\_1A-1A-5A\_n78A | Rel-17 |  |  |
| DC\_1A-3A\_n79A | Rel-15 |  |  |
| DC\_1A-5A\_n78C | Rel-17 |  |  |
| DC\_1A-7A\_n3A | Rel-16 |  |  |
| DC\_1A-7A\_n28A | Rel-15 |  |  |
| DC\_1A-7A\_n78A | Rel-15 |  |  |
| DC\_1A-8A\_n3A | Rel-16 |  |  |
| DC\_1A-8A\_n77A | Rel-16 |  |  |
| DC\_1A-8A\_n77(2A) | Rel-16 |  |  |
| DC\_1A-8A\_n78A | Rel-15 |  |  |
| DC\_1A-8A\_n78(2A) | Rel-17 |  |  |
| DC\_1A-18A\_n77A | Rel-15 |  |  |
| DC\_1A-19A\_n77(2A) | Rel-17 |  |  |
| DC\_1A-19A\_n78A | Rel-15 |  |  |
| DC\_1A-19A\_n78(2A) | Rel-17 |  |  |
| DC\_1A-19A\_n79A | Rel-15 |  |  |
| DC\_1A-20A\_n3A | Rel-16 |  |  |
| DC\_1A-20A\_n8A | Rel-16 |  |  |
| DC\_1A-20A\_n28A | Rel-15 |  |  |
| DC\_1A-20A\_n78A | Rel-15 |  |  |
| DC\_1A-21A\_n28A | Rel-17 |  |  |
| DC\_1A-21A\_n77(2A) | Rel-17 |  |  |
| DC\_1A-21A\_n78A | Rel-15 |  |  |
| DC\_1A-21A\_n78(2A) | Rel-17 |  |  |
| DC\_1A-21A\_n79A | Rel-15 |  |  |
| DC\_1A-28A\_n3A | Rel-16 |  |  |
| DC\_1A-28A\_n5A | Rel-16 |  |  |
| DC\_1A-28A\_n78C | Rel-15 |  |  |
| DC\_1A\_n28A-n78A | Rel-15 |  |  |
| DC\_1A\_n28A-n79A | Rel-17 |  |  |
| DC\_1A-41A\_n28A | Rel-17 |  |  |
| DC\_1A-41C\_n28A | Rel-17 |  |  |
| DC\_1A-41A\_n41A | Rel-16 |  |  |
| DC\_1A-41A\_n77A | Rel-15 |  |  |
| DC\_1A-42A\_n78A | Rel-15 |  |  |
| DC\_1A-42C\_n78A | Rel-15 |  |  |
| DC\_1A-42D\_n78A | Rel-15 |  |  |
| DC\_1A-42E\_n78A | Rel-15 |  |  |
| DC\_1A-42A\_n79A | Rel-15 |  |  |
| DC\_1A-42C\_n79A | Rel-15 |  |  |
| DC\_1A-42D\_n79A | Rel-15 |  |  |
| DC\_1A-42E\_n79A | Rel-15 |  |  |
| DC\_1A\_n78A-n79A | Rel-15 |  |  |
| DC\_2A\_n5A-n77A | Rel-17 |  |  |
| DC\_2A-13A\_n77A | Rel-17 |  |  |
| DC\_2A-2A-14A\_n66A | Rel-16 |  |  |
| DC\_2A-14A\_n2A | Rel-16 |  |  |
| DC\_2A-14A\_n66A | Rel-16 |  |  |
| DC\_2A-66A\_n41A | Rel-16 |  |  |
| DC\_2A-66A\_n5A | Rel-16 |  |  |
| DC\_2A-66A\_n71A | Rel-15 |  |  |
| DC\_2A-66A\_n77A | Rel-17 |  |  |
| DC\_2A-(n)71AA | Rel-15 |  |  |
| DC\_3A\_n1A-n78A | Rel-17 |  |  |
| DC\_3A\_n1A-n79A | Rel-17 |  |  |
| DC\_3A-5A\_n78C | Rel-17 |  |  |
| DC\_3A-7A\_n1A | Rel-16 |  |  |
| DC\_3A-7A\_n5A | Rel-16 |  |  |
| DC\_3A-7A\_n8A | Rel-16 |  |  |
| DC\_3A-7A\_n28A | Rel-15 |  |  |
| DC\_3A-7A\_n78A | Rel-15 |  |  |
| DC\_3A-8A\_n1A | Rel-16 |  |  |
| DC\_3A-8A\_n28A | Rel-16 |  |  |
| DC\_3A-8A\_n77A | Rel-16 |  |  |
| DC\_3A-8A\_n77(2A) | Rel-16 |  |  |
| DC\_3A-8A\_n78A | Rel-15 |  |  |
| DC\_3A-8A\_n78(2A) | Rel-17 |  |  |
| DC\_3A-18A\_n77A | Rel-17 |  |  |
| DC\_3A-18A\_n78A | Rel-17 |  |  |
| DC\_3A-19A\_n1A | Rel-17 |  |  |
| DC\_3A-19A\_n77(2A) | Rel-17 |  |  |
| DC\_3A-19A\_n78A | Rel-15 |  |  |
| DC\_3A-19A\_n78(2A) | Rel-17 |  |  |
| DC\_3A-19A\_n79A | Rel-15 |  |  |
| DC\_3A-20A\_n1A | Rel-16 |  |  |
| DC\_3A-20A\_n8A | Rel-16 |  |  |
| DC\_3A-20A\_n28A | Rel-15 |  |  |
| DC\_3A-20A\_n78A | Rel-15 |  |  |
| DC\_3A-21A\_n1A | Rel-17 |  |  |
| DC\_3A-21A\_n28A | Rel-17 |  |  |
| DC\_3A-21A\_n77(2A) | Rel-17 |  |  |
| DC\_3A-21A\_n78A | Rel-15 |  |  |
| DC\_3A-21A\_n78(2A) | Rel-17 |  |  |
| DC\_3A-21A\_n79A | Rel-15 |  |  |
| DC\_3A-28A\_n78A | Rel-15 |  |  |
| DC\_3A\_n28A-n78A | Rel-15 |  |  |
| DC\_3A\_n28A-n79A | Rel-17 |  |  |
| DC\_3A-40A\_n1A | Rel-16 |  |  |
| DC\_3A-41A\_n28A | Rel-17 |  |  |
| DC\_3A-41C\_n28A | Rel-17 |  |  |
| DC\_3A-41A\_n41A | Rel-17 |  |  |
| DC\_3A-41A\_n77A | Rel-17 |  |  |
| DC\_3A-41A\_n77(2A) | Rel-17 |  |  |
| DC\_3A-41C\_n77A | Rel-17 |  |  |
| DC\_3A-42A\_n1A | Rel-17 |  |  |
| DC\_3A-42C\_n1A | Rel-17 |  |  |
| DC\_3A-42A\_n78A | Rel-15 |  |  |
| DC\_3A-42C\_n78A | Rel-15 |  |  |
| DC\_3A-42D\_n78A | Rel-15 |  |  |
| DC\_3A-42E\_n78A | Rel-15 |  |  |
| DC\_3A-42A\_n79A | Rel-15 |  |  |
| DC\_3A-42C\_n79A | Rel-15 |  |  |
| DC\_3A-42D\_n79A | Rel-15 |  |  |
| DC\_3A-42E\_n79A | Rel-15 |  |  |
| DC\_3A\_n78A-n79A | Rel-15 |  |  |
| DC\_3C-8A\_n77A | Rel-17 |  |  |
| DC\_3C-8A\_n77(2A) | Rel-17 |  |  |
| DC\_5A-7A\_n78A | Rel-15 |  |  |
| DC\_7A-5A\_n78A | Rel-16 |  |  |
| DC\_7A-8A\_n1A | Rel-16 |  |  |
| DC\_7A-8A\_n3A | Rel-16 |  |  |
| DC\_7A-20A\_n1A | Rel-16 |  |  |
| DC\_7A-20A\_n3A | Rel-16 |  |  |
| DC\_7A-20A\_n8A | Rel-16 |  |  |
| DC\_7A-20A\_n28A | Rel-15 |  |  |
| DC\_7A-20A\_n78A | Rel-15 |  |  |
| DC\_7A-28A\_n5A | Rel-16 |  |  |
| DC\_7A\_n28A-n78A | Rel-15 |  |  |
| DC\_7C-5A\_n78A | Rel-16 |  |  |
| DC\_7C\_n28A-n78A | Rel-16 |  |  |
| DC\_13A\_n2A-n77A | Rel-17 |  |  |
| DC\_13A-66A\_n2A | Rel-16 |  |  |
| DC\_13A-66A\_n77A | Rel-17 |  |  |
| DC\_14A-66A\_n2A | Rel-16 |  |  |
| DC\_14A-66A-66A\_n2A | Rel-16 |  |  |
| DC\_14A-66A\_n66A | Rel-16 |  |  |
| DC\_18A-41C\_n3A | Rel-17 |  |  |
| DC\_18A-41A\_n77A | Rel-17 |  |  |
| DC\_18A-41C\_n77A | Rel-17 |  |  |
| DC\_18A-41A\_n78A | Rel-17 |  |  |
| DC\_18A-41C\_n78A | Rel-17 |  |  |
| DC\_19A\_n1A-n78A | Rel-17 |  |  |
| DC\_19A\_n1A-n79A | Rel-17 |  |  |
| DC\_19A-21A\_n1A | Rel-17 |  |  |
| DC\_19A-21A\_n77(2A) | Rel-17 |  |  |
| DC\_19A-21A\_n78A | Rel-15 |  |  |
| DC\_19A-21A\_n78(2A) | Rel-17 |  |  |
| DC\_19A-21A\_n79A | Rel-15 |  |  |
| DC\_19A-42A\_n1A | Rel-17 |  |  |
| DC\_19A-42C\_n1A | Rel-17 |  |  |
| DC\_19A-42A\_n78A | Rel-15 |  |  |
| DC\_19A-42A\_n79A | Rel-15 |  |  |
| DC\_19A-42C\_n78A | Rel-15 |  |  |
| DC\_19A-42C\_n79A | Rel-15 |  |  |
| DC\_19A\_n78A-n79A | Rel-15 |  |  |
| DC\_20A\_n28A-n78A | Rel-15 |  |  |
| DC\_21A\_n1A-n78A | Rel-17 |  |  |
| DC\_21A\_n1A-n79A | Rel-17 |  |  |
| DC\_21A\_n28A-n77A | Rel-17 |  |  |
| DC\_21A\_n28A-n78A | Rel-17 |  |  |
| DC\_21A\_n28A-n79A | Rel-17 |  |  |
| DC\_21A-42A\_n1A | Rel-17 |  |  |
| DC\_21A-42C\_n1A | Rel-17 |  |  |
| DC\_21A-42A\_n78A | Rel-15 |  |  |
| DC\_21A-42C\_n78A | Rel-15 |  |  |
| DC\_21A-42A\_n79A | Rel-15 |  |  |
| DC\_21A-42C\_n79A | Rel-15 |  |  |
| DC\_21A\_n78A-n79A | Rel-15 |  |  |
| DC\_28A\_n7A-n78A | Rel-16 |  |  |
| DC\_66A\_n2A-n77A | Rel-17 |  |  |
| DC\_66A\_n5A-n77A | Rel-17 |  |  |
| DC\_66A-(n)71AA | Rel-15 |  |  |
| Note 1: Notation used for inter-band EN-DC Bands is according to TS 38.101-3 [25] Table 5.5B.4.2-1, e.g. ‘DC\_1A-3C\_n78A’ indicates EN-DC operation on E-UTRA CA configuration CA\_1A-3C with E-UTRA DL Bandwidth Classes A, C for the E-UTRA bands 1 and 3 respectively and NR band n78 with NR DL CA Bandwidth Class A.  Note 2: See UL\_*n*CC(*table\_index*) in Note 2 of Table 4.0-3 in TS 38.522 [9].  Note 3: See DL\_*n*CC(*table\_index*) in Note 4 of Table 4.0-3 in TS 38.522 [9].  Note 4: See UL\_NR\_*n*CC(*table\_index*) in Note 3 of Table 4.0-3 in TS 38.522 [9].  Note 5: See DL\_NR\_*n*CC(*table\_index*) in Note 5 of Table 4.0-3 in TS 38.522 [9]. | | | |

Table A.4.3.2B.2.3.2-3: Inter-band EN-DC within FR1 (three bands) PC2 UE RF Baseline Implementation Capabilities

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Item | EN-DC configuration | Inter-band EN-DC within FR1 (three bands) PC2 UE RF Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| 1 | DC\_1A-3A\_n78A | LTE Frequency band 1: 1920-1980 MHz (UL),2110- 2170 MHz (DL)  LTE Frequency band 3: 1710-1785 MHz (UL), 1805-1880 MHz (DL)  NR Frequency band n78: 3300-3800 MHz | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band1\_Band3\_nrBand78\_PC2\_Supp |  |
| 2 | DC\_1A-3A\_n79A | LTE Frequency band 1: 1920-1980 MHz (UL),2110- 2170 MHz (DL)  LTE Frequency band 3: 1710-1785 MHz (UL), 1805-1880 MHz (DL)  NR Frequency band n79: 4400-5000 MHz | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band1\_Band3\_nrBand79\_PC2\_Supp |  |
| 3 | DC\_1A-19A\_n78A | LTE Frequency band 1: 1920-1980 MHz (UL),2110- 2170 MHz (DL)  LTE Frequency band 19: 830-845 MHz (UL),875-890 MHz (DL)  NR Frequency band n78: 3300-3800 MHz | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band1\_Band19\_nrBand78\_PC2\_Supp |  |
| 4 | DC\_1A-19A\_n79A | LTE Frequency band 1: 1920-1980 MHz (UL),2110- 2170 MHz (DL)  LTE Frequency band 19: 830-845 MHz (UL),875-890 MHz (DL)  NR Frequency band n79: 4400-5000 MHz | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band1\_Band19\_nrBand79\_PC2\_Supp |  |
| 5 | DC\_1A-21A\_n78A | LTE Frequency band 1: 1920-1980 MHz (UL),2110- 2170 MHz (DL)  LTE Frequency band 21: 1447.9-1462.9 MHz (UL), 1495.9-1510.9 MHz (DL)  NR Frequency band n78: 3300-3800 MHz | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band1\_Band21\_nrBand78\_PC2\_Supp |  |
| 6 | DC\_1A-21A\_n79A | LTE Frequency band 1: 1920-1980 MHz (UL),2110- 2170 MHz (DL)  LTE Frequency band 21: 1447.9-1462.9 MHz (UL), 1495.9-1510.9 MHz (DL)  NR Frequency band n79: 4400-5000 MHz | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band1\_Band21\_nrBand79\_PC2\_Supp |  |
| 7 | DC\_1A-42A\_n79A | LTE Frequency band 1: 1920-1980 MHz (UL),2110- 2170 MHz (DL)  LTE Frequency band 42: 3400-3600 MHz  NR Frequency band n79: 4400-5000 MHz | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band1\_Band42\_nrBand79\_PC2\_Supp |  |
| 8 | DC\_1A\_n78A-n79A | LTE Frequency band 1: 1920-1980 MHz (UL),2110- 2170 MHz (DL)  NR Frequency band n78: 3300-3800 MHz  NR Frequency band n79: 4400-5000 MHz | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band1\_nrBand78\_nrBand79\_PC2\_Supp |  |
| x->8A? | DC\_2A\_n5A-n77A | LTE frequency band 2: 1850-1910 MHz (UL), 1930-1990 MHz (DL)  NR frequency band n5: 824-849 MHz (UL), 869-894 MHz (DL)  NR frequency band n77: 3300-4200 MHz | 38.101-3, 6.2B.1.3 | Rel-17 | pc\_Band2\_nrBand5\_nrBand77\_PC2\_Supp |  |
| x->8B? | DC\_2A-13A\_n77A | LTE frequency band 2: 1850-1910 MHz (UL), 1930-1990 MHz (DL)  LTE frequency band 13: 777-787 MHz (UL),746-756 MHz (DL)  NR frequency band n77: 3300-4200 MHz | 38.101-3, 6.2B.1.3 | Rel-17 | pc\_Band2\_Band13\_nrBand77\_PC2\_Supp |  |
| x->8C? | DC\_2A-66A\_n77A | LTE frequency band 2: 1850-1910 MHz (UL), 1930-1990 MHz (DL)  LTE frequency band 66: 1710-1780 MHz (UL), 2110-2200 MHz (DL)  NR frequency band n77: 3300-4200 MHz | 38.101-3, 6.2B.1.3 | Rel-17 | pc\_Band2\_Band66\_nrBand77\_PC2\_Supp |  |
| 9 | DC\_3A-19A\_n78A | LTE Frequency band 3: 1710-1785 MHz (UL), 1805-1880 MHz (DL)  LTE Frequency band 19: 830-845 MHz (UL),875-890 MHz (DL)  NR Frequency band n78: 3300-3800 MHz | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band3\_Band19\_nrBand78\_PC2\_Supp |  |
| 10 | DC\_3A-19A\_n79A | LTE Frequency band 3: 1710-1785 MHz (UL), 1805-1880 MHz (DL)  LTE Frequency band 19: 830-845 MHz (UL),875-890 MHz (DL)  NR Frequency band n79: 4400-5000 MHz | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band3\_Band19\_nrBand79\_PC2\_Supp |  |
| 11 | DC\_3A-21A\_n78A | LTE Frequency band 3: 1710-1785 MHz (UL), 1805-1880 MHz (DL)  LTE Frequency band 21: 1447.9-1462.9 MHz (UL), 1495.9-1510.9 MHz (DL)  NR Frequency band n78: 3300-3800 MHz | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band3\_Band21\_nrBand78\_PC2\_Supp |  |
| 12 | DC\_3A-21A\_n79A | LTE Frequency band 3: 1710-1785 MHz (UL), 1805-1880 MHz (DL)  LTE Frequency band 21: 1447.9-1462.9 MHz (UL), 1495.9-1510.9 MHz (DL)  NR Frequency band n79: 4400-5000 MHz | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band3\_Band21\_nrBand79\_PC2\_Supp |  |
| 13 | DC\_3A-42A\_n79A | LTE Frequency band 3: 1710-1785 MHz (UL), 1805-1880 MHz (DL)  LTE Frequency band 42: 3400-3600 MHz  NR Frequency band n79: 4400-5000 MHz | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band3\_Band42\_nrBand79\_PC2\_Supp |  |
| 14 | DC\_3A\_n78A-n79A | LTE Frequency band 3: 1710-1785 MHz (UL), 1805-1880 MHz (DL)  NR Frequency band n78: 3300-3800 MHz  NR Frequency band n79: 4400-5000 MHz | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band3\_nrBand78\_nrBand79\_PC2\_Supp |  |
| x->14A? | DC\_13A\_n2A-n77A | LTE frequency band 13: 777-787 MHz (UL),746-756 MHz (DL)  NR frequency band n2: 1850-1910 MHz (UL), 1930-1990 MHz (DL)  NR frequency band n77: 3300-4200 MHz | 38.101-3, 6.2B.1.3 | Rel-17 | pc\_Band13\_nrBand2\_nrBand77\_PC2\_Supp |  |
| x->14B? | DC\_13A-66A\_n77A | LTE frequency band 13: 777-787 MHz (UL),746-756 MHz (DL)  LTE frequency band 66: 1710-1780 MHz (UL), 2110-2200 MHz (DL)  NR frequency band n77: 3300-4200 MHz | 38.101-3, 6.2B.1.3 | Rel-17 | pc\_Band13\_Band66\_nrBand77\_PC2\_Supp |  |
| 15 | DC\_19A-21A\_n78A | LTE Frequency band 19: 830-845 MHz (UL),875-890 MHz (DL)  LTE Frequency band 21: 1447.9-1462.9 MHz (UL), 1495.9-1510.9 MHz (DL)  NR Frequency band n78: 3300-3800 MHz | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band19\_Band21\_nrBand78\_PC2\_Supp |  |
| 16 | DC\_19A-21A\_n79A | LTE Frequency band 19: 830-845 MHz (UL),875-890 MHz (DL)  LTE Frequency band 21: 1447.9-1462.9 MHz (UL), 1495.9-1510.9 MHz (DL)  NR Frequency band n79: 4400-5000 MHz | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band19\_Band21\_nrBand79\_PC2\_Supp |  |
| 17 | DC\_19A-42A\_n79A | LTE Frequency band 19: 830-845 MHz (UL),875-890 MHz (DL)  LTE Frequency band 42: 3400-3600 MHz  NR Frequency band n79: 4400-5000 MHz | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band19\_Band42\_nrBand79\_PC2\_Supp |  |
| 18 | DC\_19A\_n78A-n79A | LTE Frequency band 19: 830-845 MHz (UL),875-890 MHz (DL)  NR Frequency band n78: 3300-3800 MHz  NR Frequency band n79: 4400-5000 MHz | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band19\_nrBand78\_nrBand79\_PC2\_Supp |  |
| 19 | DC\_21A-42A\_n79A | LTE Frequency band 21: 1447.9-1462.9 MHz (UL), 1495.9-1510.9 MHz (DL)  LTE Frequency band 42: 3400-3600 MHz  NR Frequency band n79: 4400-5000 MHz | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band21\_Band42\_nrBand79\_PC2\_Supp |  |
| 20 | DC\_21A\_n78A-n79A | LTE Frequency band 21: 1447.9-1462.9 MHz (UL), 1495.9-1510.9 MHz (DL)  NR Frequency band n78: 3300-3800 MHz  NR Frequency band n79: 4400-5000 MHz | 38.101-3, 6.2B.1.3 | Rel-18 | pc\_Band21\_nrBand78\_nrBand79\_PC2\_Supp |  |
| x->21?? | DC\_66A\_n2A-n77A | LTE frequency band 66: 1710-1780 MHz (UL), 2110-2200 MHz (DL)  NR frequency band n2: 1850-1910 MHz (UL), 1930-1990 MHz (DL)  NR frequency band n77: 3300-4200 MHz | 38.101-3, 6.2B.1.3 | Rel-17 | pc\_Band66\_nrBand2\_nrBand77\_PC2\_Supp |  |
| x->22?? | DC\_66A\_n5A-n77A | LTE frequency band 66: 1710-1780 MHz (UL), 2110-2200 MHz (DL)  NR frequency band n5: 824-849 MHz (UL), 869-894 MHz (DL)  NR frequency band n77: 3300-4200 MHz | 38.101-3, 6.2B.1.3 | Rel-17 | pc\_Band66\_nrBand5\_nrBand77\_PC2\_Supp |  |

###### A.4.3.2B.2.3.3 Inter-band EN-DC within FR1 (four bands)

Table A.4.3.2B.2.3.3-1: Downlink Bandwidth Class Combination capabilities for Inter-band EN-DC within FR1 and four bands (for one or more of the supported DC configurations in Table A.4.3.2B.2.3.3-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL inter-band EN-DC within FR1 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | Inter-band EN-DC within FR1 BW Class Combination A-A-A\_A (four bands) | 36.101, 5.6A.1  38.101-1, 5.5B.4.3 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_4B\_Class\_A-A-A\_A |  |
| 2 | Inter-band EN-DC within FR1 BW Class Combination A-A-C\_A (four bands) | 36.101, 5.6A.1  38.101-1, 5.5B.4.3 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_4B\_Class\_A-A-C\_A |  |
| 3 | Inter-band EN-DC within FR1 BW Class Combination A-A-D\_A (four bands) | 36.101, 5.6A.1  38.101-1, 5.5B.4.3 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_4B\_Class\_A-A-D\_A |  |
| 4 | Inter-band EN-DC within FR1 BW Class Combination A-C-A\_A (four bands) | 36.101, 5.6A.1  38.101-1, 5.5B.4.3 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_4B\_Class\_A-C-A\_A |  |
| 5 | Inter-band EN-DC within FR1 BW Class Combination A-(2A)-A\_A (four bands) | 36.101, 5.6A.1  38.101-1, 5.5B.4.3 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_4B\_Class\_A-(2A)-A\_A |  |
| 6 | Inter-band EN-DC within FR1 BW Class Combination A-A\_A-A (four bands) | 36.101, 5.6A.1  38.101-1, 5.5B.4.3 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_4B\_Class\_A-A\_A-A |  |
| 7 | Inter-band EN-DC within FR1 BW Class Combination A-C\_A-A (four bands) | 36.101, 5.6A.1  38.101-1, 5.5B.4.3 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_4B\_Class\_A-C\_A-A |  |
| 8 | Inter-band EN-DC within FR1 BW Class Combination A-A\_(n)AA (four bands) | 36.101, 5.6A.1  38.101-1, 5.5B.4.3 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_4B\_Class\_A-A\_(n)AA |  |

Table A.4.3.2B.2.3.3-1a: Uplink Bandwidth Class Combination capabilities for Inter-band EN-DC within FR1 and four bands (for one or more of the supported configurations in Table A.4.3.2B.2.3.3-2 )

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL inter-band EN-DC within FR1 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | UL Inter-band EN-DC within FR1 BW Class Combination A\_A (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.3 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_4B\_Class\_A\_A |  |
| 2 | UL Inter-band EN-DC within FR1 BW Class Combination A\_B (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.3 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_4B\_Class\_A\_B |  |
| 3 | UL Inter-band EN-DC within FR1 BW Class Combination (n)AA (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.3 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_4B\_Class\_(n)AA |  |
| 4 | UL Inter-band EN-DC within FR1 BW Class Combination C\_A (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.3 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_4B\_Class\_C\_A |  |
| 5 | UL Inter-band EN-DC within FR1 BW Class Combination C\_B (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.3 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_4B\_Class\_C\_B |  |

Table A.4.3.2B.2.3.3-2: Supported Inter-band EN-DC configurations within FR1 (four bands)

|  |  |  |  |
| --- | --- | --- | --- |
| EN-DC configuration / Item (Note 1, 3, 5) | Release | Supported | Supported EN-DC Bandwidth Class(es) in UL  (Note 2, 4) |
| DC\_1A-3A-7A\_n28A | Rel-15 |  |  |
| DC\_1A-3A-7A\_n78A | Rel-15 |  |  |
| DC\_1A-3A-8A\_n77A | Rel-16 |  |  |
| DC\_1A-3A-8A\_n77(2A) | Rel-16 |  |  |
| DC\_1A-3A-8A\_n78A | Rel-15 |  |  |
| DC\_1A-3A-19A\_n77(2A) | Rel-17 |  |  |
| DC\_1A-3A-19A\_n78A | Rel-15 |  |  |
| DC\_1A-3A-19A\_n78(2A) | Rel-17 |  |  |
| DC\_1A-3A-19A\_n79A | Rel-15 |  |  |
| DC\_1A-3A-20A\_n28A | Rel-15 |  |  |
| DC\_1A-3A-20A\_n78A | Rel-15 |  |  |
| DC\_1A-3A-21A\_n77(2A) | Rel-17 |  |  |
| DC\_1A-3A-21A\_n78A | Rel-15 |  |  |
| DC\_1A-3A-21A\_n78(2A) | Rel-17 |  |  |
| DC\_1A-3A-21A\_n79A | Rel-15 |  |  |
| DC\_1A-3A-28A\_n78A | Rel-15 |  |  |
| DC\_1A-3A\_n28A-n78A | Rel-15 |  |  |
| DC\_1A-3A-42A\_n78A | Rel-15 |  |  |
| DC\_1A-3A-42C\_n78A | Rel-15 |  |  |
| DC\_1A-3A-42D\_n78A | Rel-16 |  |  |
| DC\_1A-3A-42D\_n79A | Rel-16 |  |  |
| DC\_1A-3A-42A\_n79A | Rel-15 |  |  |
| DC\_1A-3A-42C\_n79A | Rel-15 |  |  |
| DC\_1A-3C-8A\_n77A | Rel-17 |  |  |
| DC\_1A-3C-8A\_n77(2A) | Rel-17 |  |  |
| DC\_1A-7A\_n28A-n78A | Rel-15 |  |  |
| DC\_1A-7A-20A\_n28A | Rel-15 |  |  |
| DC\_1A-7A-20A\_n78A | Rel-15 |  |  |
| DC\_1A-7A-28A\_n78A | Rel-16 |  |  |
| DC\_1A-19A-21A\_n77(2A) | Rel-17 |  |  |
| DC\_1A-19A-21A\_n78A | Rel-15 |  |  |
| DC\_1A-19A-21A\_n78(2A) | Rel-17 |  |  |
| DC\_1A-19A-21A\_n79A | Rel-15 |  |  |
| DC\_1A-19A-42A\_n78A | Rel-15 |  |  |
| DC\_1A-19A-42C\_n78A | Rel-15 |  |  |
| DC\_1A-19A-42A\_n79A | Rel-15 |  |  |
| DC\_1A-19A-42C\_n79A | Rel-15 |  |  |
| DC\_1A-20A\_n28A-n78A | Rel-15 |  |  |
| DC\_1A-21A-42A\_n78A | Rel-15 |  |  |
| DC\_1A-21A-42C\_n78A | Rel-15 |  |  |
| DC\_1A-21A-42A\_n79A | Rel-15 |  |  |
| DC\_1A-21A-42C\_n79A | Rel-15 |  |  |
| DC\_2A-2A-14A-66A\_n66A | Rel-16 |  |  |
| DC\_2A-7A-7A-13A\_n66A | Rel-16 |  |  |
| DC\_2A-7A-7A-66A\_n66A | Rel-16 |  |  |
| DC\_2A-7A-7A-66A\_n78A | Rel-16 |  |  |
| DC\_2A-7A-13A\_n66A | Rel-16 |  |  |
| DC\_2A-7A-66A\_n66A | Rel-16 |  |  |
| DC\_2A-7C-13A\_n66A | Rel-16 |  |  |
| DC\_2A-7C-66A\_n66A | Rel-16 |  |  |
| DC\_2A-7C-66A\_n78A | Rel-16 |  |  |
| DC\_2A-13A-66A\_n77A | Rel-17 |  |  |
| DC\_2A-14A-66A\_n2A | Rel-16 |  |  |
| DC\_2A-14A-66A\_n66A | Rel-16 |  |  |
| DC\_2A-14A-66A-66A\_n2A | Rel-16 |  |  |
| DC\_2A-66A\_n5A-n77A | Rel-17 |  |  |
| DC\_2A-66A-(n)71AA | Rel-15 |  |  |
| DC\_3A-7A-20A\_n1A | Rel-16 |  |  |
| DC\_3A-7A-20A\_n8A | Rel-16 |  |  |
| DC\_3A-7A-20A\_n28A | Rel-15 |  |  |
| DC\_3A-7A-20A\_n78A | Rel-15 |  |  |
| DC\_3A-7A-28A\_n78A | Rel-15 |  |  |
| DC\_3A-7A\_n28A-n78A | Rel-15 |  |  |
| DC\_3A-19A\_n1A-n78A | Rel-17 |  |  |
| DC\_3A-19A\_n1A-n79A | Rel-17 |  |  |
| DC\_3A-19A-21A\_n78A | Rel-15 |  |  |
| DC\_3A-19A-21A\_n79A | Rel-15 |  |  |
| DC\_3A-19A-42A\_n1A | Rel-17 |  |  |
| DC\_3A-19A-42C\_n1A | Rel-17 |  |  |
| DC\_3A-19A-42A\_n78A | Rel-15 |  |  |
| DC\_3A-19A-42C\_n78A | Rel-15 |  |  |
| DC\_3A-19A-42A\_n79A | Rel-15 |  |  |
| DC\_3A-19A-42C\_n79A | Rel-15 |  |  |
| DC\_3A-20A\_n28A-n78A | Rel-15 |  |  |
| DC\_3A-21A\_n1A-n78A | Rel-17 |  |  |
| DC\_3A-21A\_n1A-n79A | Rel-17 |  |  |
| DC\_3A-21A-42A\_n78A | Rel-15 |  |  |
| DC\_3A-21A-42C\_n78A | Rel-15 |  |  |
| DC\_3A-21A-42A\_n79A | Rel-15 |  |  |
| DC\_3A-21A-42C\_n79A | Rel-15 |  |  |
| DC\_3A-42A\_n1A-n78A | Rel-17 |  |  |
| DC\_3A-42C\_n1A-n78A | Rel-17 |  |  |
| DC\_3A-42A\_n1A-n79A | Rel-17 |  |  |
| DC\_3A-42C\_n1A-n79A | Rel-17 |  |  |
| DC\_7A-20A\_n28A-n78A | Rel-15 |  |  |
| DC\_13A-66A\_n2A-n77A | Rel-17 |  |  |
| DC\_19A-21A\_n1A-n78A | Rel-17 |  |  |
| DC\_19A-21A\_n1A-n79A | Rel-17 |  |  |
| DC\_19A-21A-42A\_n1A | Rel-17 |  |  |
| DC\_19A-21A-42C\_n1A | Rel-17 |  |  |
| DC\_19A-21A-42A\_n78A | Rel-15 |  |  |
| DC\_19A-21A-42C\_n78A | Rel-15 |  |  |
| DC\_19A-21A-42A\_n79A | Rel-15 |  |  |
| DC\_19A-21A-42C\_n79A | Rel-15 |  |  |
| DC\_19A-42A\_n1A-n78A | Rel-17 |  |  |
| DC\_19A-42C\_n1A-n78A | Rel-17 |  |  |
| DC\_19A-42A\_n1A-n79A | Rel-17 |  |  |
| DC\_19A-42C\_n1A-n79A | Rel-17 |  |  |
| DC\_21A-42A\_n1A-n78A | Rel-17 |  |  |
| DC\_21A-42C\_n1A-n78A | Rel-17 |  |  |
| DC\_21A-42A\_n1A-n79A | Rel-17 |  |  |
| DC\_21A-42C\_n1A-n79A | Rel-17 |  |  |
| Note 1: Notation used for inter-band EN-DC Bands is according to TS 38.101-3 [25] Table 5.5B.4.3-1, e.g. ‘DC\_2A-7C-13A\_n66A’ indicates EN-DC operation on E-UTRA CA configuration CA\_2A-7C-13A with E-UTRA DL Bandwidth Classes A, C, A for the E-UTRA bands 2, 7 and 13 respectively and NR band n66 with NR DL CA Bandwidth Class A.  Note 2: See UL\_*n*CC(*table\_index*) in Note 2 of Table 4.0-3 in TS 38.522 [9].  Note 3: See DL\_*n*CC(*table\_index*) in Note 4 of Table 4.0-3 in TS 38.522 [9].  Note 4: See UL\_NR\_*n*CC(*table\_index*) in Note 3 of Table 4.0-3 in TS 38.522 [9].  Note 5: See DL\_NR\_*n*CC(*table\_index*) in Note 5 of Table 4.0-3 in TS 38.522 [9]. | | | |

###### A.4.3.2B.2.3.4 Inter-band EN-DC within FR1 (five bands)

Table A.4.3.2B.2.3.4-1: Downlink Bandwidth Class Combination capabilities for Inter-band EN-DC within FR1 and five bands (for one or more of the supported DC configurations in Table A.4.3.2B.2.3.4-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL inter-band EN-DC within FR1 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | Inter-band EN-DC within FR1 BW Class Combination A-A-A-A\_A (five bands) | 36.101, 5.6A.1  38.101-1, 5.5B.4.4 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_5B\_Class\_A-A-A-A\_A |  |
| 2 | Inter-band EN-DC within FR1 BW Class Combination A-A-A\_A-A (five bands) | 36.101, 5.6A.1  38.101-1, 5.5B.4.4 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_5B\_Class\_A-A-A\_A-A |  |
| 3 | Inter-band EN-DC within FR1 BW Class Combination A-A-A-C\_A (five bands) | 36.101, 5.6A.1  38.101-1, 5.5B.4.4 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_5B\_Class\_A-A-A-C\_A |  |
| 4 | Inter-band EN-DC within FR1 BW Class Combination A-A-C-A\_A (five bands) | 36.101, 5.6A.1  38.101-1, 5.5B.4.4 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_5B\_Class\_A-A-C-A\_A |  |
| 5 | Inter-band EN-DC within FR1 BW Class Combination A-A-C\_A-A (five bands) | 36.101, 5.6A.1  38.101-1, 5.5B.4.4 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_5B\_Class\_A-A-C\_A-A |  |
| 6 | Inter-band EN-DC within FR1 BW Class Combination A-C-A-A\_A (five bands) | 36.101, 5.6A.1  38.101-1, 5.5B.4.4 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_5B\_Class\_A-C-A-A\_A |  |
| 7 | Inter-band EN-DC within FR1 BW Class Combination C-A-A-A\_A (five bands) | 36.101, 5.6A.1  38.101-1, 5.5B.4.4 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_5B\_Class\_C-A-A-A\_A |  |

Table A.4.3.2B.2.3.4-1a: Uplink Bandwidth Class Combination capabilities for Inter-band EN-DC within FR1 and five bands (for one or more of the supported configurations in Table A.4.3.2B.2.3.4-2 )

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL inter-band EN-DC within FR1 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | UL Inter-band EN-DC within FR1 BW Class Combination A\_A (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.4 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_5B\_Class\_A\_A |  |
| 2 | UL Inter-band EN-DC within FR1 BW Class Combination A\_B (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.4 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_5B\_Class\_A\_B |  |
| 3 | UL Inter-band EN-DC within FR1 BW Class Combination C\_A (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.4 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_5B\_Class\_C\_A |  |
| 4 | UL Inter-band EN-DC within FR1 BW Class Combination C\_B (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4.4 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_5B\_Class\_C\_B |  |

Table A.4.3.2B.2.3.4-2: Supported Inter-band EN-DC configurations within FR1 (five bands)

|  |  |  |  |
| --- | --- | --- | --- |
| **EN-DC configuration / Item (Note 1, 3, 5)** | **Release** | **Supported** | **Supported EN-DC Bandwidth Class(es) in UL**  **(Note 2, 4)** |
| DC\_1A-3A-7A-20A\_n28A | Rel-15 |  |  |
| DC\_1A-3A-7A-20A\_n78A | Rel-15 |  |  |
| DC\_1A-3A-7A-28A\_n78A | Rel-16 |  |  |
| DC\_1A-3A-7A\_n28A-n78A | Rel-15 |  |  |
| DC\_1A-3A-19A-42A\_n78A | Rel-15 |  |  |
| DC\_1A-3A-19A-42C\_n78A | Rel-15 |  |  |
| DC\_1A-3A-19A-42A\_n79A | Rel-15 |  |  |
| DC\_1A-3A-19A-42C\_n79A | Rel-15 |  |  |
| DC\_1A-3A-20A\_n28A-n78A | Rel-15 |  |  |
| DC\_1A-3A-21A-42A\_n78A | Rel-15 |  |  |
| DC\_1A-3A-21A-42C\_n78A | Rel-15 |  |  |
| DC\_1A-3A-21A-42A\_n79A | Rel-15 |  |  |
| DC\_1A-3A-21A-42C\_n79A | Rel-15 |  |  |
| DC\_1A-7A-20A\_n28A-n78A | Rel-15 |  |  |
| DC\_1A-19A-21A-42A\_n78A | Rel-15 |  |  |
| DC\_1A-19A-21A-42C\_n78A | Rel-15 |  |  |
| DC\_1A-19A-21A-42A\_n79A | Rel-15 |  |  |
| DC\_1A-19A-21A-42C\_n79A | Rel-15 |  |  |
| DC\_3A-7A-20A\_n28A-n78A | Rel-15 |  |  |
| DC\_3A-19A-21A-42A\_n78A | Rel-16 |  |  |
| DC\_3A-19A-21A-42C\_n78A | Rel-16 |  |  |
| DC\_3A-19A-21A-42A\_n79A | Rel-16 |  |  |
| DC\_3A-19A-21A-42C\_n79A | Rel-16 |  |  |
| DC\_3A-19A-42A\_n1A-n78A | Rel-17 |  |  |
| DC\_3A-19A-42C\_n1A-n78A | Rel-17 |  |  |
| DC\_3A-19A-42A\_n1A-n79A | Rel-17 |  |  |
| DC\_3A-19A-42C\_n1A-n79A | Rel-17 |  |  |
| DC\_3A-21A-42A\_n1A-n78A | Rel-17 |  |  |
| DC\_3A-21A-42C\_n1A-n78A | Rel-17 |  |  |
| DC\_3A-21A-42A\_n1A-n79A | Rel-17 |  |  |
| DC\_3A-21A-42C\_n1A-n79A | Rel-17 |  |  |
| DC\_19A-21A-42A\_n1A-n78A | Rel-17 |  |  |
| DC\_19A-21A-42C\_n1A-n78A | Rel-17 |  |  |
| DC\_19A-21A-42A\_n1A-n79A | Rel-17 |  |  |
| DC\_19A-21A-42C\_n1A-n79A | Rel-17 |  |  |
| Note 1: Notation used for inter-band EN-DC Bands is according to TS 38.101-3 [25] Table 5.5B.4.4-1, e.g. ‘DC\_1A-3A-5A-41A\_n79A’ indicates EN-DC operation on E-UTRA CA configuration CA\_1A-3A-5A-41A with E-UTRA DL Bandwidth Classes A for all the E-UTRA bands 1, 3, 5 and 41 and NR band n79 with NR DL CA Bandwidth Class A.  Note 2: See UL\_*n*CC(*table\_index*) in Note 2 of Table 4.0-3 in TS 38.522 [9].  Note 3: See DL\_*n*CC(*table\_index*) in Note 4 of Table 4.0-3 in TS 38.522 [9].  Note 4: See UL\_NR\_*n*CC(*table\_index*) in Note 3 of Table 4.0-3 in TS 38.522 [9].  Note 5: See DL\_NR\_nCC(table\_index) in Note 5 of Table 4.0-3 in TS 38.522 [9]. | | | |

###### A.4.3.2B.2.3.5 Inter-band EN-DC within FR1 (six bands)

Table A.4.3.2B.2.3.5-1: Downlink Bandwidth Class Combination capabilities for Inter-band EN-DC within FR1 and six bands (for one or more of the supported DC configurations in Table A.4.3.2B.2.3.5-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL inter-band EN-DC within FR1 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | EN-DC Inter-band with NR FR1 BW Class Combination A-A-A-A\_A-A (six bands) | 36.101, 5.6A.1  38.101-1, 5.5B.4.5 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_6B\_Class\_A-A-A-A\_A-A |  |
| 2 | EN-DC Inter-band with NR FR1 BW Class Combination A-A-C-A\_A-A (six bands) | 36.101, 5.6A.1  38.101-1, 5.5B.4.5 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_6B\_Class\_A-A-C-A\_A-A |  |
| 3 | EN-DC Inter-band with NR FR1 BW Class Combination A-C-A-A\_A-A (six bands) | 36.101, 5.6A.1  38.101-1, 5.5B.4.5 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_6B\_Class\_A-C-A-A\_A-A |  |
| 4 | EN-DC Inter-band with NR FR1 BW Class Combination A-C-C-A\_A-A (six bands) | 36.101, 5.6A.1  38.101-1, 5.5B.4.5 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_6B\_Class\_A-C-C-A\_A-A |  |

Table A.4.3.2B.2.3.5-1a: Uplink Bandwidth Class Combination capabilities for Inter-band EN-DC within FR1 and six bands (for one or more of the supported configurations in Table A.4.3.2B.2.3.5-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL inter-band EN-DC within FR1 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | UL Inter-band EN-DC within FR1 BW Class Combination A\_A (six bands) | 36.101, 5.6A.1  38.101-1, 5.5B.4.5 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_6B\_Class\_A\_A |  |
| 2 | UL Inter-band EN-DC within FR1 BW Class Combination C\_A (six bands) | 36.101, 5.6A.1  38.101-1, 5.5B.4.5 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_6B\_Class\_C\_A |  |

Table A.4.3.2B.2.3.5-2: Supported Inter-band EN-DC configurations within FR1 (six bands)

|  |  |  |  |
| --- | --- | --- | --- |
| **EN-DC configuration / Item (Note 1, 3, 5)** | **Release** | **Supported** | **Supported EN-DC Bandwidth Class(es) in UL**  **(Note 2, 4)** |
| DC\_1A-3A-7A-20A\_n28A-n78A | Rel-15 |  |  |
| Note 1: Notation used for inter-band EN-DC Bands is according to TS 38.101-3 [25] Table 5.5B.4.5-1, e.g. ‘DC\_1A-3A-7A-20A\_n28A-n78A’ indicates EN-DC operation on E-UTRA CA configuration CA\_1A-3A-7A-20A with E-UTRA DL Bandwidth Class A for all the E-UTRA bands 1, 3, 7 and 20 and NR CA configuration CA\_n28A-n78A with NR DL CA Bandwidth Class A for all the NR bands n28 and n78.  Note 2: See UL\_*n*CC(*table\_index*) in Note 2 of Table 4.0-3 in TS 38.522 [9].  Note 3: See DL\_*n*CC(*table\_index*) in Note 4 of Table 4.0-3 in TS 38.522 [9].  Note 4: See UL\_NR\_*n*CC(*table\_index*) in Note 3 of Table 4.0-3 in TS 38.522 [9].  Note 5: See DL\_NR\_nCC(table\_index) in Note 5 of Table 4.0-3 in TS 38.522 [9]. | | | |

###### A.4.3.2B.2.3.6 Inter-band EN-DC including FR2 (two bands)

Table A.4.3.2B.2.3.6-1: Downlink Bandwidth Class Combination capabilities for Inter-band EN-DC including FR2 and two bands (for one or more of the supported DC configurations in Table A.4.3.2B.2.3.6-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL inter-band EN-DC including FR2 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | Inter-band EN-DC including FR2 BW Class Combination A\_A (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_A\_A |  |
| 2 | Inter-band EN-DC including FR2 BW Class Combination A\_B (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_A\_B |  |
| 3 | Inter-band EN-DC including FR2 BW Class Combination A\_C (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_A\_C |  |
| 4 | Inter-band EN-DC including FR2 BW Class Combination A\_D (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_A\_D |  |
| 5 | Inter-band EN-DC including FR2 BW Class Combination A\_E (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_A\_E |  |
| 6 | Inter-band EN-DC including FR2 BW Class Combination A\_F (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_A\_F |  |
| 7 | Inter-band EN-DC including FR2 BW Class Combination A\_G (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_A\_G |  |
| 8 | Inter-band EN-DC including FR2 BW Class Combination A\_H (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_A\_H |  |
| 9 | Inter-band EN-DC including FR2 BW Class Combination A\_I (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_A\_I |  |
| 10 | Inter-band EN-DC including FR2 BW Class Combination A\_J (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_A\_J |  |
| 11 | Inter-band EN-DC including FR2 BW Class Combination A\_K (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_A\_K |  |
| 12 | Inter-band EN-DC including FR2 BW Class Combination A\_L (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_A\_L |  |
| 13 | Inter-band EN-DC including FR2 BW Class Combination A\_M (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_A\_M |  |
| 14 | Inter-band EN-DC including FR2 BW Class Combination A\_O (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_A\_O |  |
| 15 | Inter-band EN-DC including FR2 BW Class Combination A\_P (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_A\_P |  |
| 16 | Inter-band EN-DC including FR2 BW Class Combination A\_Q (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_A\_Q |  |
| 17 | Inter-band EN-DC including FR2 BW Class Combination (2A)\_A (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_(2A)\_A |  |
| 18 | Inter-band EN-DC including FR2 BW Class Combination C\_A (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_C\_A |  |
| 19 | Inter-band EN-DC including FR2 BW Class Combination C\_E (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_C\_E |  |
| 20 | Inter-band EN-DC including FR2 BW Class Combination C\_F (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_C\_F |  |
| 21 | Inter-band EN-DC including FR2 BW Class Combination D\_A (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_D\_A |  |
| 22 | Inter-band EN-DC including FR2 BW Class Combination E\_A (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | c\_DL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_E\_A |  |

Table A.4.3.2B.2.3.6-1a: Uplink Bandwidth Class Combination capabilities for Inter-band EN-DC including FR2 and two bands (for one or more of the supported DC configurations in Table A.4.3.2B.2.3.6-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL inter-band EN-DC including FR2 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | UL Inter-band EN-DC including FR2 BW Class Combination A\_A (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_A\_A |  |
| 2 | UL Inter-band EN-DC including FR2 BW Class Combination A\_D (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_A\_D |  |
| 3 | UL Inter-band EN-DC including FR2 BW Class Combination A\_G (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_A\_G |  |
| 4 | UL Inter-band EN-DC including FR2 BW Class Combination A\_H (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_A\_H |  |
| 5 | UL Inter-band EN-DC including FR2 BW Class Combination A\_I (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_A\_I |  |
| 6 | UL Inter-band EN-DC including FR2 BW Class Combination A\_J (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_A\_J |  |
| 7 | UL Inter-band EN-DC including FR2 BW Class Combination A\_K (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_A\_K |  |
| 8 | UL Inter-band EN-DC including FR2 BW Class Combination A\_L (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_A\_L |  |
| 9 | UL Inter-band EN-DC including FR2 BW Class Combination A\_M (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.1 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_2B\_Class\_A\_M |  |

Table A.4.3.2B.2.3.6-2: Supported Inter-band EN-DC configurations including FR2 (two bands)

|  |  |  |  |
| --- | --- | --- | --- |
| **EN-DC configuration / Item**  **(Note 1, 3, 5)** | **Release** | **Supported** | **Supported EN-DC Bandwidth Class(es) in UL**  **(Note 2, 4)** |
| DC\_1A\_n257A | Rel-15 |  |  |
| DC\_1A\_n257G | Rel-16 |  |  |
| DC\_1A\_n257H | Rel-16 |  |  |
| DC\_1A\_n257I | Rel-16 |  |  |
| DC\_1A\_n257J | Rel-16 |  |  |
| DC\_2A\_n257A | Rel-15 |  |  |
| DC\_2A\_n260A | Rel-15 |  |  |
| DC\_2A-2A\_n260A | Rel-15 |  |  |
| DC\_3A\_n257A | Rel-15 |  |  |
| DC\_3A\_n257G | Rel-16 |  |  |
| DC\_3A\_n257H | Rel-16 |  |  |
| DC\_3A\_n257I | Rel-16 |  |  |
| DC\_5A\_n257A | Rel-15 |  |  |
| DC\_5A\_n260A | Rel-15 |  |  |
| DC\_5A\_n261A | Rel-15 |  |  |
| DC\_7A\_n257A | Rel-15 |  |  |
| DC\_7A-7A\_n257A | Rel-15 |  |  |
| DC\_8A\_n257A | Rel-15 |  |  |
| DC\_12A\_n260A | Rel-15 |  |  |
| DC\_13A\_n257A | Rel-15 |  |  |
| DC\_14A\_n260A | Rel-16 |  |  |
| DC\_14A\_n260G | Rel-16 |  |  |
| DC\_14A\_n260H | Rel-16 |  |  |
| DC\_14A\_n260I | Rel-16 |  |  |
| DC\_18A\_n257A | Rel-15 |  |  |
| DC\_18A\_n257G | Rel-16 |  |  |
| DC\_18A\_n257I | Rel-16 |  |  |
| DC\_19A\_n257A | Rel-15 |  |  |
| DC\_19A\_n257G | Rel-16 |  |  |
| DC\_19A\_n257H | Rel-16 |  |  |
| DC\_19A\_n257I | Rel-16 |  |  |
| DC\_20A\_n257A | Rel-17 |  |  |
| DC\_21A\_n257A | Rel-15 |  |  |
| DC\_21A\_n257G | Rel-16 |  |  |
| DC\_21A\_n257H | Rel-16 |  |  |
| DC\_21A\_n257I | Rel-16 |  |  |
| DC\_30A\_n260A | Rel-15 |  |  |
| DC\_66A-66A\_n257A | Rel-15 |  |  |
| DC\_66A\_n260A | Rel-15 |  |  |
| DC\_66A\_n261A | Rel-15 |  |  |
| DC\_66A\_n261G | Rel-15 |  |  |
| DC\_66A\_n261H | Rel-15 |  |  |
| DC\_66A\_n261I | Rel-15 |  |  |
| DC\_66A\_n261J | Rel-15 |  |  |
| DC\_66A\_n261K | Rel-15 |  |  |
| DC\_66A\_n261L | Rel-15 |  |  |
| DC\_66A\_n261M | Rel-15 |  |  |
| Note 1: Notation used for inter-band EN-DC Bands is according to TS 38.101-3 [25] Table 5.5B.5.1-1, e.g. ‘DC\_1A\_n257A’ indicates EN-DC operation on E-UTRA band 1 with E-UTRA DL Bandwidth Class A and NR band n257 with NR DL CA Bandwidth Class A.  Note 2: See UL\_*n*CC(*table\_index*) in Note 2 of Table 4.0-3 in TS 38.522 [9].  Note 3: See DL\_*n*CC(*table\_index*) in Note 4 of Table 4.0-3 in TS 38.522 [9].  Note 4: See UL\_NR\_*n*CC(*table\_index*) in Note 3 of Table 4.0-3 in TS 38.522 [9].  Note 5: See DL\_NR\_*n*CC(*table\_index*) in Note 5 of Table 4.0-3 in TS 38.522 [9]. | | | |

###### A.4.3.2B.2.3.7 Inter-band EN-DC including FR2 (three bands)

Table A.4.3.2B.2.3.7-1: Downlink Bandwidth Class Combination capabilities for Inter-band EN-DC including FR2 and three bands (for one or more of the supported DC configurations in Table A.4.3.2B.2.3.7-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL inter-band EN-DC including FR2 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | Inter-band EN-DC including FR2 BW Class Combination A-A\_A (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.2 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_3B\_Class\_A-A\_A |  |
| 2 | Inter-band EN-DC including FR2 BW Class Combination A-A\_G (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.2 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_3B\_Class\_A-A\_G |  |
| 3 | Inter-band EN-DC including FR2 BW Class Combination A-A\_H (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.2 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_3B\_Class\_A-A\_H |  |
| 4 | Inter-band EN-DC including FR2 BW Class Combination A-A\_I (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.2 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_3B\_Class\_A-A\_I |  |
| 5 | Inter-band EN-DC including FR2 BW Class Combination A-C\_A (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.2 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_3B\_Class\_A-C\_A |  |
| 6 | Inter-band EN-DC including FR2 BW Class Combination A-C\_G (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.2 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_3B\_Class\_A-C\_G |  |
| 7 | Inter-band EN-DC including FR2 BW Class Combination A-C\_H (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.2 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_3B\_Class\_A-C\_H |  |
| 8 | Inter-band EN-DC including FR2 BW Class Combination A-C\_I (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.2 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_3B\_Class\_A-C\_I |  |
| 9 | Inter-band EN-DC including FR2 BW Class Combination A-D\_A (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.2 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_3B\_Class\_A-D\_A |  |
| 10 | Inter-band EN-DC including FR2 BW Class Combination A-D\_G (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.2 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_3B\_Class\_A-D\_G |  |
| 11 | Inter-band EN-DC including FR2 BW Class Combination A-D\_H (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.2 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_3B\_Class\_A-D\_H |  |
| 12 | Inter-band EN-DC including FR2 BW Class Combination A-D\_I (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.2 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_3B\_Class\_A-D\_I |  |
| 13 | Inter-band EN-DC including FR2 BW Class Combination A-E\_A (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.2 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_3B\_Class\_A-E\_A |  |
| 14 | Inter-band EN-DC including FR2 BW Class Combination A-E\_G (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.2 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_3B\_Class\_A-E\_G |  |
| 15 | Inter-band EN-DC including FR2 BW Class Combination A-E\_H (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.2 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_3B\_Class\_A-E\_H |  |
| 16 | Inter-band EN-DC including FR2 BW Class Combination A-E\_I (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.2 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_3B\_Class\_A-E\_I |  |

Table A.4.3.2B.2.3.7-1a: Uplink Bandwidth Class Combination capabilities for Inter-band EN-DC including FR2 and three bands (for one or more of the supported DC configurations in Table A.4.3.2B.2.3.7-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL inter-band EN-DC including FR2 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | UL Inter-band EN-DC including FR2 BW Class Combination A\_A (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.2 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_3B\_Class\_A\_A |  |
| 2 | UL Inter-band EN-DC including FR2 BW Class Combination A\_D (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.2 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_3B\_Class\_A\_D |  |
| 3 | UL Inter-band EN-DC including FR2 BW Class Combination A\_G (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.2 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_3B\_Class\_A\_G |  |
| 4 | UL Inter-band EN-DC including FR2 BW Class Combination A\_H (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.2 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_3B\_Class\_A\_H |  |
| 5 | UL Inter-band EN-DC including FR2 BW Class Combination A\_I (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.2 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_3B\_Class\_A\_I |  |
| 6 | UL Inter-band EN-DC including FR2 BW Class Combination A\_J (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.2 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_3B\_Class\_A\_J |  |
| 7 | UL Inter-band EN-DC including FR2 BW Class Combination A\_K (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.2 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_3B\_Class\_A\_K |  |
| 8 | UL Inter-band EN-DC including FR2 BW Class Combination A\_L (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.2 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_3B\_Class\_A\_L |  |
| 9 | UL Inter-band EN-DC including FR2 BW Class Combination A\_M (three bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.2 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_3B\_Class\_A\_M |  |

Table A.4.3.2B.2.3.7-2: Supported Inter-band EN-DC configurations including FR2 (three bands)

|  |  |  |  |
| --- | --- | --- | --- |
| **EN-DC configuration / Item**  **(Note 1, 3, 5)** | **Release** | **Supported** | **Supported EN-DC Bandwidth Class(es) in UL**  **(Note 2, 4)** |
| DC\_1A-3A\_n257A | Rel-15 |  |  |
| DC\_1A-3A\_n257G | Rel-16 |  |  |
| DC\_1A-3A\_n257H | Rel-16 |  |  |
| DC\_1A-3A\_n257I | Rel-16 |  |  |
| DC\_1A-18A\_n257A | Rel-15 |  |  |
| DC\_1A-18A\_n257I | Rel-16 |  |  |
| DC\_1A-19A\_n257A | Rel-15 |  |  |
| DC\_1A-19A\_n257G | Rel-16 |  |  |
| DC\_1A-19A\_n257H | Rel-16 |  |  |
| DC\_1A-19A\_n257I | Rel-16 |  |  |
| DC\_1A-21A\_n257A | Rel-15 |  |  |
| DC\_1A-21A\_n257G | Rel-16 |  |  |
| DC\_1A-21A\_n257H | Rel-16 |  |  |
| DC\_1A-21A\_n257I | Rel-16 |  |  |
| DC\_1A-41A\_n257A | Rel-15 |  |  |
| DC\_1A-41A\_n257I | Rel-16 |  |  |
| DC\_1A-42A\_n257A | Rel-15 |  |  |
| DC\_1A-42A\_n257G | Rel-16 |  |  |
| DC\_1A-42A\_n257H | Rel-16 |  |  |
| DC\_1A-42A\_n257I | Rel-16 |  |  |
| DC\_1A-42C\_n257A | Rel-15 |  |  |
| DC\_1A-42D\_n257A | Rel-15 |  |  |
| DC\_1A-42D\_n257G | Rel-16 |  |  |
| DC\_1A-42D\_n257H | Rel-16 |  |  |
| DC\_1A-42D\_n257I | Rel-16 |  |  |
| DC\_1A-42E\_n257A | Rel-15 |  |  |
| DC\_1A-42E\_n257G | Rel-16 |  |  |
| DC\_1A-42E\_n257H | Rel-16 |  |  |
| DC\_1A-42E\_n257I | Rel-16 |  |  |
| DC\_2A-2A-14A\_n260A | Rel-16 |  |  |
| DC\_2A-2A-14A\_n260G | Rel-16 |  |  |
| DC\_2A-2A-14A\_n260H | Rel-16 |  |  |
| DC\_2A-2A-14A\_n260I | Rel-16 |  |  |
| DC\_2A-2A-14A\_n260J | Rel-16 |  |  |
| DC\_2A-2A-14A\_n260K | Rel-16 |  |  |
| DC\_2A-2A-14A\_n260L | Rel-16 |  |  |
| DC\_2A-2A-14A\_n260M | Rel-16 |  |  |
| DC\_2A-5A\_n257A | Rel-15 |  |  |
| DC\_2A-5A\_n260A | Rel-15 |  |  |
| DC\_2A-12A\_n260A | Rel-15 |  |  |
| DC\_2A-14A\_n260A | Rel-16 |  |  |
| DC\_2A-14A\_n260G | Rel-16 |  |  |
| DC\_2A-14A\_n260H | Rel-16 |  |  |
| DC\_2A-14A\_n260I | Rel-16 |  |  |
| DC\_2A-14A\_n260A | Rel-16 |  |  |
| DC\_2A-30A\_n260A | Rel-15 |  |  |
| DC\_2A-66A\_n257A | Rel-15 |  |  |
| DC\_2A-66A\_n260A | Rel-15 |  |  |
| DC\_3A-18A\_n257A | Rel-16 |  |  |
| DC\_3A-18A\_n257I | Rel-16 |  |  |
| DC\_3A-19A\_n257A | Rel-15 |  |  |
| DC\_3A-19A\_n257G | Rel-16 |  |  |
| DC\_3A-19A\_n257H | Rel-16 |  |  |
| DC\_3A-19A\_n257I | Rel-16 |  |  |
| DC\_3A-21A\_n257A | Rel-15 |  |  |
| DC\_3A-21A\_n257G | Rel-16 |  |  |
| DC\_3A-21A\_n257H | Rel-16 |  |  |
| DC\_3A-21A\_n257I | Rel-16 |  |  |
| DC\_3A-41A\_n257A | Rel-15 |  |  |
| DC\_3A-41A\_n257I | Rel-16 |  |  |
| DC\_3A-42A\_n257A | Rel-15 |  |  |
| DC\_3A-42A\_n257G | Rel-16 |  |  |
| DC\_3A-42A\_n257H | Rel-16 |  |  |
| DC\_3A-42A\_n257I | Rel-16 |  |  |
| DC\_3A-42C\_n257A | Rel-15 |  |  |
| DC\_3A-42C\_n257G | Rel-16 |  |  |
| DC\_3A-42C\_n257H | Rel-16 |  |  |
| DC\_3A-42C\_n257I | Rel-16 |  |  |
| DC\_3A-42D\_n257A | Rel-15 |  |  |
| DC\_3A-42D\_n257G | Rel-16 |  |  |
| DC\_3A-42D\_n257H | Rel-16 |  |  |
| DC\_3A-42D\_n257I | Rel-16 |  |  |
| DC\_3A-42E\_n257A | Rel-15 |  |  |
| DC\_3A-42E\_n257G | Rel-16 |  |  |
| DC\_3A-42E\_n257H | Rel-16 |  |  |
| DC\_3A-42E\_n257I | Rel-16 |  |  |
| DC\_5A-7A\_n257A | Rel-15 |  |  |
| DC\_5A-30A\_n260A | Rel-15 |  |  |
| DC\_5A-66A\_n257A | Rel-15 |  |  |
| DC\_5A-66A\_n260A | Rel-15 |  |  |
| DC\_12A-30A\_n260A | Rel-15 |  |  |
| DC\_12A-66A\_n260A | Rel-15 |  |  |
| DC\_14A-30A\_n260A | Rel-16 |  |  |
| DC\_14A-30A\_n260G | Rel-16 |  |  |
| DC\_14A-30A\_n260H | Rel-16 |  |  |
| DC\_14A-30A\_n260I | Rel-16 |  |  |
| DC\_14A-30A\_n260J | Rel-16 |  |  |
| DC\_14A-30A\_n260K | Rel-16 |  |  |
| DC\_14A-30A\_n260L | Rel-16 |  |  |
| DC\_14A-30A\_n260M | Rel-16 |  |  |
| DC\_14A-66A\_n260A | Rel-16 |  |  |
| DC\_14A-66A\_n260G | Rel-16 |  |  |
| DC\_14A-66A\_n260H | Rel-16 |  |  |
| DC\_14A-66A\_n260I | Rel-16 |  |  |
| DC\_14A-66A\_n260J | Rel-16 |  |  |
| DC\_14A-66A\_n260K | Rel-16 |  |  |
| DC\_14A-66A\_n260L | Rel-16 |  |  |
| DC\_14A-66A\_n260M | Rel-16 |  |  |
| DC\_14A-66A-66A\_n260A | Rel-16 |  |  |
| DC\_14A-66A-66A\_n260G | Rel-16 |  |  |
| DC\_14A-66A-66A\_n260H | Rel-16 |  |  |
| DC\_14A-66A-66A\_n260I | Rel-16 |  |  |
| DC\_14A-66A-66A\_n260J | Rel-16 |  |  |
| DC\_14A-66A-66A\_n260K | Rel-16 |  |  |
| DC\_14A-66A-66A\_n260L | Rel-16 |  |  |
| DC\_14A-66A-66A\_n260M | Rel-16 |  |  |
| DC\_19A-21A\_n257A | Rel-15 |  |  |
| DC\_19A-21A\_n257G | Rel-16 |  |  |
| DC\_19A-21A\_n257H | Rel-16 |  |  |
| DC\_19A-21A\_n257I | Rel-16 |  |  |
| DC\_19A-42A\_n257A | Rel-15 |  |  |
| DC\_19A-42A\_n257G | Rel-16 |  |  |
| DC\_19A-42A\_n257H | Rel-16 |  |  |
| DC\_19A-42A\_n257I | Rel-16 |  |  |
| DC\_19A-42C\_n257A | Rel-15 |  |  |
| DC\_19A-42C\_n257G | Rel-16 |  |  |
| DC\_19A-42C\_n257H | Rel-16 |  |  |
| DC\_19A-42C\_n257I | Rel-16 |  |  |
| DC\_21A-42A\_n257A | Rel-15 |  |  |
| DC\_21A-42A\_n257G | Rel-16 |  |  |
| DC\_21A-42A\_n257H | Rel-16 |  |  |
| DC\_21A-42A\_n257I | Rel-16 |  |  |
| DC\_21A-42C\_n257A | Rel-15 |  |  |
| DC\_21A-42C\_n257G | Rel-16 |  |  |
| DC\_21A-42C\_n257H | Rel-16 |  |  |
| DC\_21A-42C\_n257I | Rel-16 |  |  |
| Note 1: Notation used for inter-band EN-DC Bands is according to TS 38.101-3 [25] Table 5.5B.5.2-1, e.g. ‘DC\_1A-3A\_n257A’ indicates EN-DC operation on E-UTRA CA configuration CA\_1A-3A with E-UTRA DL Bandwidth Class A for both the E-UTRA bands 1 and 3 and NR band n257 with NR DL CA Bandwidth Class A.  Note 2: See UL\_*n*CC(*table\_index*) in Note 2 of Table 4.0-3 in TS 38.522 [9].  Note 3: See DL\_*n*CC(*table\_index*) in Note 4 of Table 4.0-3 in TS 38.522 [9].  Note 4: See UL\_NR\_*n*CC(*table\_index*) in Note 3 of Table 4.0-3 in TS 38.522 [9].  Note 5: See DL\_NR\_*n*CC(*table\_index*) in Note 5 of Table 4.0-3 in TS 38.522 [9]. | | | |

###### A.4.3.2B.2.3.8 Inter-band EN-DC including FR2 (four bands)

Table A.4.3.2B.2.3.8-1: Downlink Bandwidth Class Combination capabilities for Inter-band EN-DC including FR2 and four bands (for one or more of the supported DC configurations in Table A.4.3.2B.2.3.8-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL inter-band EN-DC including FR2 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | Inter-band EN-DC including FR2 BW Class Combination A-A-A\_A (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.3 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_4B\_Class\_A-A-A\_A |  |
| 2 | Inter-band EN-DC including FR2 BW Class Combination A-A-A\_G (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.3 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_4B\_Class\_A-A-A\_G |  |
| 3 | Inter-band EN-DC including FR2 BW Class Combination A-A-A\_H (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.3 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_4B\_Class\_A-A-A\_H |  |
| 4 | Inter-band EN-DC including FR2 BW Class Combination A-A-A\_I (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.3 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_4B\_Class\_A-A-A\_I |  |
| 5 | Inter-band EN-DC including FR2 BW Class Combination A-A-C\_A (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.3 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_4B\_Class\_A-A-C\_A |  |
| 6 | Inter-band EN-DC including FR2 BW Class Combination A-A-C\_G (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.3 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_4B\_Class\_A-A-C\_G |  |
| 7 | Inter-band EN-DC including FR2 BW Class Combination A-A-C\_H (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.3 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_4B\_Class\_A-A-C\_H |  |
| 8 | Inter-band EN-DC including FR2 BW Class Combination A-A-C\_I (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.3 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_4B\_Class\_A-A-C\_I |  |
| 9 | Inter-band EN-DC including FR2 BW Class Combination A-A-D\_G (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.3 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_4B\_Class\_A-A-D\_G |  |
| 10 | Inter-band EN-DC including FR2 BW Class Combination A-A-D\_H (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.3 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_4B\_Class\_A-A-D\_H |  |
| 11 | Inter-band EN-DC including FR2 BW Class Combination A-A-D\_I (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.3 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_4B\_Class\_A-A-D\_I |  |
| 12 | Inter-band EN-DC including FR2 BW Class Combination A-A-A\_J (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.3 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_4B\_Class\_A-A-A\_J |  |
| 13 | Inter-band EN-DC including FR2 BW Class Combination A-A-A\_K (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.3 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_4B\_Class\_A-A-A\_K |  |
| 14 | Inter-band EN-DC including FR2 BW Class Combination A-A-A\_L (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.3 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_4B\_Class\_A-A-A\_L |  |
| 15 | Inter-band EN-DC including FR2 BW Class Combination A-A-A\_M (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.3 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_4B\_Class\_A-A-A\_M |  |

Table A.4.3.2B.2.3.8-1a: Uplink Bandwidth Class Combination capabilities for Inter-band EN-DC including FR2 and four bands (for one or more of the supported DC configurations in Table A.4.3.2B.2.3.8-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL inter-band EN-DC including FR2 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | UL Inter-band EN-DC including FR2 BW Class Combination A\_A (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.3 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_4B\_Class\_A\_A |  |
| 2 | UL Inter-band EN-DC including FR2 BW Class Combination A\_D (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.3 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_4B\_Class\_A\_D |  |
| 3 | UL Inter-band EN-DC including FR2 BW Class Combination A\_G (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.3 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_4B\_Class\_A\_G |  |
| 4 | UL Inter-band EN-DC including FR2 BW Class Combination A\_H (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.3 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_4B\_Class\_A\_H |  |
| 5 | UL Inter-band EN-DC including FR2 BW Class Combination A\_I (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.3 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_4B\_Class\_A\_I |  |
| 6 | UL Inter-band EN-DC including FR2 BW Class Combination A\_J (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.3 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_4B\_Class\_A\_J |  |
| 7 | UL Inter-band EN-DC including FR2 BW Class Combination A\_K (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.3 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_4B\_Class\_A\_K |  |
| 8 | UL Inter-band EN-DC including FR2 BW Class Combination A\_L (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.3 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_4B\_Class\_A\_L |  |
| 9 | UL Inter-band EN-DC including FR2 BW Class Combination A\_M (four bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.3 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_4B\_Class\_A\_M |  |

Table A.4.3.2B.2.3.8-2: Supported Inter-band EN-DC configurations including FR2 (four bands)

|  |  |  |  |
| --- | --- | --- | --- |
| **EN-DC configuration / Item**  **(Note 1, 3, 5)** | **Release** | **Supported** | **Supported EN-DC Bandwidth Class(es) in UL**  **(Note 2, 4)** |
| DC\_1A-3A-18A\_n257A | Rel-16 |  |  |
| DC\_1A-3A-18A\_n257I | Rel-16 |  |  |
| DC\_1A-3A-19A\_n257A | Rel-15 |  |  |
| DC\_1A-3A-19A\_n257G | Rel-16 |  |  |
| DC\_1A-3A-19A\_n257H | Rel-16 |  |  |
| DC\_1A-3A-19A\_n257I | Rel-16 |  |  |
| DC\_1A-3A-21A\_n257A | Rel-15 |  |  |
| DC\_1A-3A-21A\_n257G | Rel-16 |  |  |
| DC\_1A-3A-21A\_n257H | Rel-16 |  |  |
| DC\_1A-3A-21A\_n257I | Rel-16 |  |  |
| DC\_1A-3A-41A\_n257A | Rel-16 |  |  |
| DC\_1A-3A-41A\_n257I | Rel-16 |  |  |
| DC\_1A-3A-42A\_n257A | Rel-15 |  |  |
| DC\_1A-3A-42A\_n257G | Rel-16 |  |  |
| DC\_1A-3A-42A\_n257H | Rel-16 |  |  |
| DC\_1A-3A-42A\_n257I | Rel-16 |  |  |
| DC\_1A-3A-42C\_n257A | Rel-15 |  |  |
| DC\_1A-3A-42C\_n257G | Rel-16 |  |  |
| DC\_1A-3A-42C\_n257H | Rel-16 |  |  |
| DC\_1A-3A-42C\_n257I | Rel-16 |  |  |
| DC\_1A-3A-42D\_n257A | Rel-16 |  |  |
| DC\_1A-3A-42D\_n257G | Rel-16 |  |  |
| DC\_1A-3A-42D\_n257H | Rel-16 |  |  |
| DC\_1A-3A-42D\_n257I | Rel-16 |  |  |
| DC\_1A-19A-21A\_n257A | Rel-15 |  |  |
| DC\_1A-19A-21A\_n257G | Rel-16 |  |  |
| DC\_1A-19A-21A\_n257H | Rel-16 |  |  |
| DC\_1A-19A-21A\_n257I | Rel-16 |  |  |
| DC\_1A-19A-42A\_n257A | Rel-15 |  |  |
| DC\_1A-19A-42A\_n257G | Rel-16 |  |  |
| DC\_1A-19A-42A\_n257H | Rel-16 |  |  |
| DC\_1A-19A-42A\_n257I | Rel-16 |  |  |
| DC\_1A-19A-42C\_n257A | Rel-15 |  |  |
| DC\_1A-19A-42C\_n257G | Rel-16 |  |  |
| DC\_1A-19A-42C\_n257H | Rel-16 |  |  |
| DC\_1A-19A-42C\_n257I | Rel-16 |  |  |
| DC\_1A-21A-42A\_n257A | Rel-15 |  |  |
| DC\_1A-21A-42A\_n257G | Rel-16 |  |  |
| DC\_1A-21A-42A\_n257H | Rel-16 |  |  |
| DC\_1A-21A-42A\_n257I | Rel-16 |  |  |
| DC\_1A-21A-42C\_n257A | Rel-15 |  |  |
| DC\_1A-21A-42C\_n257G | Rel-16 |  |  |
| DC\_1A-21A-42C\_n257H | Rel-16 |  |  |
| DC\_1A-21A-42C\_n257I | Rel-16 |  |  |
| DC\_2A-2A-14A-66A\_n260A | Rel-16 |  |  |
| DC\_2A-2A-14A-66A\_n260G | Rel-16 |  |  |
| DC\_2A-2A-14A-66A\_n260H | Rel-16 |  |  |
| DC\_2A-2A-14A-66A\_n260I | Rel-16 |  |  |
| DC\_2A-2A-14A-66A\_n260J | Rel-16 |  |  |
| DC\_2A-2A-14A-66A\_n260K | Rel-16 |  |  |
| DC\_2A-2A-14A-66A\_n260L | Rel-16 |  |  |
| DC\_2A-2A-14A-66A\_n260M | Rel-16 |  |  |
| DC\_2A-14A-30A\_n260A | Rel-16 |  |  |
| DC\_2A-14A-30A\_n260G | Rel-16 |  |  |
| DC\_2A-14A-30A\_n260H | Rel-16 |  |  |
| DC\_2A-14A-30A\_n260I | Rel-16 |  |  |
| DC\_2A-14A-30A\_n260J | Rel-16 |  |  |
| DC\_2A-14A-30A\_n260K | Rel-16 |  |  |
| DC\_2A-14A-30A\_n260L | Rel-16 |  |  |
| DC\_2A-14A-30A\_n260M | Rel-16 |  |  |
| DC\_2A-14A-66A\_n260A | Rel-16 |  |  |
| DC\_2A-14A-66A\_n260G | Rel-16 |  |  |
| DC\_2A-14A-66A\_n260H | Rel-16 |  |  |
| DC\_2A-14A-66A\_n260I | Rel-16 |  |  |
| DC\_2A-14A-66A\_n260J | Rel-16 |  |  |
| DC\_2A-14A-66A\_n260K | Rel-16 |  |  |
| DC\_2A-14A-66A\_n260L | Rel-16 |  |  |
| DC\_2A-14A-66A\_n260M | Rel-16 |  |  |
| DC\_2A-14A-66A-66A\_n260A | Rel-16 |  |  |
| DC\_2A-14A-66A-66A\_n260G | Rel-16 |  |  |
| DC\_2A-14A-66A-66A\_n260H | Rel-16 |  |  |
| DC\_2A-14A-66A-66A\_n260I | Rel-16 |  |  |
| DC\_2A-14A-66A-66A\_n260J | Rel-16 |  |  |
| DC\_2A-14A-66A-66A\_n260K | Rel-16 |  |  |
| DC\_2A-14A-66A-66A\_n260L | Rel-16 |  |  |
| DC\_2A-14A-66A-66A\_n260M | Rel-16 |  |  |
| DC\_3A-19A-21A\_n257A | Rel-15 |  |  |
| DC\_3A-19A-42A\_n257A | Rel-15 |  |  |
| DC\_3A-19A-42A\_n257G | Rel-16 |  |  |
| DC\_3A-19A-42A\_n257H | Rel-16 |  |  |
| DC\_3A-19A-42A\_n257I | Rel-16 |  |  |
| DC\_3A-19A-42C\_n257A | Rel-15 |  |  |
| DC\_3A-19A-42C\_n257G | Rel-16 |  |  |
| DC\_3A-19A-42C\_n257H | Rel-16 |  |  |
| DC\_3A-19A-42C\_n257I | Rel-16 |  |  |
| DC\_3A-21A-42A\_n257A | Rel-15 |  |  |
| DC\_3A-21A-42A\_n257G | Rel-16 |  |  |
| DC\_3A-21A-42A\_n257H | Rel-16 |  |  |
| DC\_3A-21A-42A\_n257I | Rel-16 |  |  |
| DC\_3A-21A-42C\_n257A | Rel-15 |  |  |
| DC\_3A-21A-42C\_n257G | Rel-16 |  |  |
| DC\_3A-21A-42C\_n257H | Rel-16 |  |  |
| DC\_3A-21A-42C\_n257I | Rel-16 |  |  |
| DC\_14A-30A-66A\_n260A | Rel-16 |  |  |
| DC\_14A-30A-66A\_n260G | Rel-16 |  |  |
| DC\_14A-30A-66A\_n260H | Rel-16 |  |  |
| DC\_14A-30A-66A\_n260I | Rel-16 |  |  |
| DC\_14A-30A-66A\_n260J | Rel-16 |  |  |
| DC\_14A-30A-66A\_n260K | Rel-16 |  |  |
| DC\_14A-30A-66A\_n260L | Rel-16 |  |  |
| DC\_14A-30A-66A\_n260M | Rel-16 |  |  |
| DC\_14A-30A-66A-66A\_n260A | Rel-16 |  |  |
| DC\_14A-30A-66A-66A\_n260G | Rel-16 |  |  |
| DC\_14A-30A-66A-66A\_n260H | Rel-16 |  |  |
| DC\_14A-30A-66A-66A\_n260I | Rel-16 |  |  |
| DC\_14A-30A-66A-66A\_n260J | Rel-16 |  |  |
| DC\_14A-30A-66A-66A\_n260K | Rel-16 |  |  |
| DC\_14A-30A-66A-66A\_n260L | Rel-16 |  |  |
| DC\_14A-30A-66A-66A\_n260M | Rel-16 |  |  |
| DC\_19A-21A-42A\_n257A | Rel-15 |  |  |
| DC\_19A-21A-42A\_n257G | Rel-16 |  |  |
| DC\_19A-21A-42A\_n257H | Rel-16 |  |  |
| DC\_19A-21A-42A\_n257I | Rel-16 |  |  |
| DC\_19A-21A-42C\_n257A | Rel-15 |  |  |
| DC\_19A-21A-42C\_n257G | Rel-16 |  |  |
| DC\_19A-21A-42C\_n257H | Rel-16 |  |  |
| DC\_19A-21A-42C\_n257I | Rel-16 |  |  |
| Note 1: Notation used for inter-band EN-DC Bands is according to TS 38.101-3 [25] Table 5.5B.5.3-1, e.g. ‘DC\_1A-3A-19A\_n257A’ indicates EN-DC operation on E-UTRA CA configuration CA\_1A-3A-19A with E.UTRA DL Bandwidth Class A for all the E-UTRA bands 1, 3 and 19 and NR band n257 with NR DL CA Bandwidth Class A.  Note 2: See UL\_*n*CC(*table\_index*) in Note 2 of Table 4.0-3 in TS 38.522 [9].  Note 3: See DL\_*n*CC(*table\_index*) in Note 4 of Table 4.0-3 in TS 38.522 [9].  Note 4: See UL\_NR\_*n*CC(*table\_index*) in Note 3 of Table 4.0-3 in TS 38.522 [9].  Note 5: See DL\_NR\_*n*CC(*table\_index*) in Note 5 of Table 4.0-3 in TS 38.522 [9]. | | | |

###### A.4.3.2B.2.3.9 Inter-band EN-DC including FR2 (five bands)

Table A.4.3.2B.2.3.9-1: Downlink Bandwidth Class Combination capabilities for Inter-band EN-DC including FR2 and five bands (for one or more of the supported DC configurations in Table A.4.3.2B.2.3.9-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL inter-band EN-DC including FR2 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | Inter-band EN-DC including FR2 BW Class Combination A-A-A-A\_A (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.4 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_5B\_Class\_A-A-A-A\_A |  |
| 2 | Inter-band EN-DC including FR2 BW Class Combination A-A-A-A\_G (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.4 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_5B\_Class\_A-A-A-A\_G |  |
| 3 | Inter-band EN-DC including FR2 BW Class Combination A-A-A-A\_H (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.4 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_5B\_Class\_A-A-A-A\_H |  |
| 4 | Inter-band EN-DC including FR2 BW Class Combination A-A-A-A\_I (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.4 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_5B\_Class\_A-A-A-A\_I |  |
| 5 | Inter-band EN-DC including FR2 BW Class Combination A-A-A-C\_A (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.4 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_5B\_Class\_A-A-A-C\_A |  |
| 6 | Inter-band EN-DC including FR2 BW Class Combination A-A-A-C\_G (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.4 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_5B\_Class\_A-A-A-C\_G |  |
| 7 | Inter-band EN-DC including FR2 BW Class Combination A-A-A-C\_H (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.4 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_5B\_Class\_A-A-A-C\_H |  |
| 8 | Inter-band EN-DC including FR2 BW Class Combination A-A-A-C\_I (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.4 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_5B\_Class\_A-A-A-C\_I |  |
| 9 | Inter-band EN-DC including FR2 BW Class Combination A-A-A-A\_J (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.4 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_5B\_Class\_A-A-A-A\_J |  |
| 10 | Inter-band EN-DC including FR2 BW Class Combination A-A-A-A\_K (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.4 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_5B\_Class\_A-A-A-A\_K |  |
| 11 | Inter-band EN-DC including FR2 BW Class Combination A-A-A-A\_L (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.4 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_5B\_Class\_A-A-A-A\_L |  |
| 12 | Inter-band EN-DC including FR2 BW Class Combination A-A-A-A\_M (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.4 | pc\_DL\_inter\_band\_EN\_DC\_FR2\_5B\_Class\_A-A-A-A\_M |  |

Table A.4.3.2B.2.3.9-1a: Uplink Bandwidth Class Combination capabilities for Inter-band EN-DC including FR2 and five bands (for one or more of the supported DC configurations in Table A.4.3.2B.2.3.9-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL inter-band EN-DC including FR2 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | Inter-band EN-DC including FR2 BW Class Combination A\_A (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.4 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_5B\_Class\_A\_A |  |
| 2 | Inter-band EN-DC including FR2 BW Class Combination A\_D (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.4 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_5B\_Class\_A\_D |  |
| 3 | Inter-band EN-DC including FR2 BW Class Combination A\_G (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.4 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_5B\_Class\_A\_G |  |
| 4 | Inter-band EN-DC including FR2 BW Class Combination A\_H (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.4 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_5B\_Class\_A\_H |  |
| 5 | Inter-band EN-DC including FR2 BW Class Combination A\_I (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.4 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_5B\_Class\_A\_I |  |
| 6 | Inter-band EN-DC including FR2 BW Class Combination A\_J (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.4 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_5B\_Class\_A\_J |  |
| 7 | Inter-band EN-DC including FR2 BW Class Combination A\_K (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.4 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_5B\_Class\_A\_K |  |
| 8 | Inter-band EN-DC including FR2 BW Class Combination A\_L (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.4 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_5B\_Class\_A\_L |  |
| 9 | Inter-band EN-DC including FR2 BW Class Combination A\_M (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.4 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_5B\_Class\_A\_M |  |
| 10 | Inter-band EN-DC including FR2 BW Class Combination C\_A (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.4 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_5B\_Class\_C\_A |  |
| 11 | Inter-band EN-DC including FR2 BW Class Combination C\_G (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.4 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_5B\_Class\_C\_G |  |
| 12 | Inter-band EN-DC including FR2 BW Class Combination C\_H (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.4 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_5B\_Class\_C\_H |  |
| 13 | Inter-band EN-DC including FR2 BW Class Combination C\_I (five bands) | 36.101, 5.6A.1  38.101-3, 5.5B.5.4 | pc\_UL\_inter\_band\_EN\_DC\_FR2\_5B\_Class\_C\_I |  |

Table A.4.3.2B.2.3.9-2: Supported Inter-band EN-DC configurations including FR2 (five bands)

|  |  |  |  |
| --- | --- | --- | --- |
| **EN-DC configuration / Item**  **(Note 1, 3, 5)** | **Release** | **Supported** | **Supported EN-DC Bandwidth Class(es) in UL**  **(Note 2, 4)** |
| DC\_1A-3A-19A-42A\_n257A | Rel-15 |  |  |
| DC\_1A-3A-19A-42A\_n257G | Rel-16 |  |  |
| DC\_1A-3A-19A-42C\_n257A | Rel-15 |  |  |
| DC\_1A-3A-19A-42C\_n257G | Rel-16 |  |  |
| DC\_1A-3A-19A-42C\_n257H | Rel-16 |  |  |
| DC\_1A-3A-19A-42C\_n257I | Rel-16 |  |  |
| DC\_1A-3A-21A-42A\_n257A | Rel-15 |  |  |
| DC\_1A-3A-21A-42C\_n257A | Rel-15 |  |  |
| DC\_1A-3A-21A-42C\_n257G | Rel-16 |  |  |
| DC\_1A-3A-21A-42C\_n257H | Rel-16 |  |  |
| DC\_1A-3A-21A-42C\_n257I | Rel-16 |  |  |
| DC\_1A-19A-21A-42A\_n257A | Rel-15 |  |  |
| DC\_1A-19A-21A-42A\_n257G | Rel-16 |  |  |
| DC\_1A-19A-21A-42A\_n257H | Rel-16 |  |  |
| DC\_1A-19A-21A-42A\_n257I | Rel-16 |  |  |
| DC\_1A-19A-21A-42C\_n257A | Rel-15 |  |  |
| DC\_1A-19A-21A-42C\_n257G | Rel-16 |  |  |
| DC\_1A-19A-21A-42C\_n257H | Rel-16 |  |  |
| DC\_1A-19A-21A-42C\_n257I | Rel-16 |  |  |
| DC\_2A-14A-30A-66A\_n260A | Rel-16 |  |  |
| DC\_2A-14A-30A-66A\_n260G | Rel-16 |  |  |
| DC\_2A-14A-30A-66A\_n260H | Rel-16 |  |  |
| DC\_2A-14A-30A-66A\_n260I | Rel-16 |  |  |
| DC\_2A-14A-30A-66A\_n260J | Rel-16 |  |  |
| DC\_2A-14A-30A-66A\_n260K | Rel-16 |  |  |
| DC\_2A-14A-30A-66A\_n260L | Rel-16 |  |  |
| DC\_2A-14A-30A-66A\_n260M | Rel-16 |  |  |
| Note 1: Notation used for inter-band EN-DC Bands is according to TS 38.101-3 [25] Table 5.5B.5.4-1, e.g. ‘DC\_1A-3A-19A-42A\_n257A’ indicates EN-DC operation on E-UTRA CA configuration CA\_1A-3A-19A-42A with E-UTRA DL Bandwidth Class A for all the E-UTRA bands 1, 3, 19 and 42 and NR band n257 with NR DL CA Bandwidth Class A.  Note 2: See UL\_*n*CC(*table\_index*) in Note 2 of Table 4.0-3 in TS 38.522 [9].  Note 3: See DL\_*n*CC(*table\_index*) in Note 4 of Table 4.0-3 in TS 38.522 [9].  Note 4: See UL\_NR\_*n*CC(*table\_index*) in Note 3 of Table 4.0-3 in TS 38.522 [9].  Note 5: See DL\_NR\_*n*CC(*table\_index*) in Note 5 of Table 4.0-3 in TS 38.522 [9]. | | | |

###### A.4.3.2B.2.3.10 Void

###### A.4.3.2B.2.3.11 Inter-band EN-DC including FR1 and FR2 (three bands)

Table A.4.3.2B.2.3.11-1: Downlink Bandwidth Class Combination capabilities for Inter-band EN-DC including FR1 and FR2, and three bands (for one or more of the supported DC configurations in Table A.4.3.2B.2.3.11-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL inter-band EN-DC including FR1 and FR2 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | Inter-band EN-DC including FR1 and FR2 BW Class Combination A\_A-A (three bands) | 36.101, 5.6A.1  38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.6.2 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_FR2\_3B\_Class\_A\_A-A |  |

Table A.4.3.2B.2.3.11-1a: Uplink Bandwidth Class Combination capabilities for Inter-band EN-DC including FR1 and FR2, and three bands (for one or more of the supported DC configurations in Table A.4.3.2B.2.3.11-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL inter-band EN-DC including FR1 and FR2 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | UL Inter-band EN-DC including FR1 and FR2 BW Class Combination A\_A (three bands) | 36.101, 5.6A.1  38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.6.2 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_FR2\_3B\_Class\_A\_A |  |

Table A.4.3.2B.2.3.11-2: Supported Inter-band EN-DC configurations including FR1 and FR2 (three bands)

|  |  |  |  |
| --- | --- | --- | --- |
| **EN-DC configuration / Item** | **Release** | **Supported** | **Supported EN-DC Bandwidth Class(es) in UL** |
| DC\_1A\_n78A-n257A | Rel-15 |  |  |
| DC\_1A\_n79A-n257A | Rel-15 |  |  |
| DC\_3A\_n78A-n257A | Rel-15 |  |  |
| DC\_3A\_n79A-n257A | Rel-15 |  |  |
| DC\_19A\_n78A-n257A | Rel-15 |  |  |
| DC\_19A\_n79A-n257A | Rel-15 |  |  |
| Note 1: Notation used for inter-band EN-DC Bands is according to TS 38.101-3 [25] Table 5.5B.6.2-1, e.g. ‘DC\_1A\_n78A-n257A’ indicates EN-DC operation on E-UTRA band 1 with E-UTRA DL Bandwidth Class A and NR CA configuration CA\_n78A-n257A on NR band n78 and n257 both with NR DL CA Bandwidth Class A. | | | |

###### A.4.3.2B.2.3.12 Inter-band EN-DC including FR1 and FR2 (four bands)

Table A.4.3.2B.2.3.12-1: Downlink Bandwidth Class Combination capabilities for Inter-band EN-DC including FR1 and FR2, and four bands (for one or more of the supported DC configurations in Table A.4.3.2B.2.3.12-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL inter-band EN-DC including FR1 and FR2 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | Inter-band EN-DC including FR1 and FR2 BW Class Combination A-A\_A-A (four bands) | 36.101, 5.6A.1  38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.6.3 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_FR2\_4B\_Class\_A-A\_A-A |  |
| 2 | Inter-band EN-DC including FR1 and FR2 BW Class Combination A-A\_A-G (four bands) | 36.101, 5.6A.1  38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.6.3 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_FR2\_4B\_Class\_A-A\_A-G |  |
| 3 | Inter-band EN-DC including FR1 and FR2 BW Class Combination A-A\_A-H (four bands) | 36.101, 5.6A.1  38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.6.3 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_FR2\_4B\_Class\_A-A\_A-H |  |
| 4 | Inter-band EN-DC including FR1 and FR2 BW Class Combination A-A\_A-I (four bands) | 36.101, 5.6A.1  38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.6.3 | pc\_DL\_inter\_band\_EN\_DC\_FR1\_FR2\_4B\_Class\_A-A\_A-I |  |

Table A.4.3.2B.2.3.12-1a: Uplink Bandwidth Class Combination capabilities for Inter-band EN-DC including FR1 and FR2, and four bands (for one or more of the supported DC configurations in Table A.4.3.2B.2.3.12-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL inter-band EN-DC including FR1 and FR2 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | UL Inter-band EN-DC including FR1 and FR2 BW Class Combination A\_A (four bands) | 36.101, 5.6A.1  38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.6.3 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_FR2\_4B\_Class\_A\_A |  |
| 2 | UL Inter-band EN-DC including FR1 and FR2 BW Class Combination A\_G (four bands) | 36.101, 5.6A.1  38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.6.3 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_FR2\_4B\_Class\_A\_G |  |
| 3 | UL Inter-band EN-DC including FR1 and FR2 BW Class Combination A\_H (four bands) | 36.101, 5.6A.1  38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.6.3 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_FR2\_4B\_Class\_A\_H |  |
| 4 | UL Inter-band EN-DC including FR1 and FR2 BW Class Combination A\_I (four bands) | 36.101, 5.6A.1  38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.6.3 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_FR2\_4B\_Class\_A\_I |  |
| 5 | UL Inter-band EN-DC including FR1 and FR2 BW Class Combination A\_A-A (four bands) | 36.101, 5.6A.1  38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.6.3 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_FR2\_4B\_Class\_A\_A-A |  |
| 6 | UL Inter-band EN-DC including FR1 and FR2 BW Class Combination A\_A-G (four bands) | 36.101, 5.6A.1  38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.6.3 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_FR2\_4B\_Class\_A\_A-G |  |
| 7 | UL Inter-band EN-DC including FR1 and FR2 BW Class Combination A\_A-H (four bands) | 36.101, 5.6A.1  38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.6.3 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_FR2\_4B\_Class\_A\_A-H |  |
| 8 | UL Inter-band EN-DC including FR1 and FR2 BW Class Combination A\_A-I (four bands) | 36.101, 5.6A.1  38.101-1, 5.3A.5  38.101-2, 5.3A.4  38.101-3, 5.5B.6.3 | pc\_UL\_inter\_band\_EN\_DC\_FR1\_FR2\_4B\_Class\_A\_A-I |  |

Table A.4.3.2B.2.3.12-2: Supported Inter-band EN-DC configurations including FR1 and FR2 (four bands)

|  |  |  |  |
| --- | --- | --- | --- |
| **EN-DC configuration / Item** | **Release** | **Supported** | **Supported EN-DC Bandwidth Class(es) in UL** |
| DC\_1A-3A\_n78A-n257A | Rel-15 |  |  |
| DC\_1A-3A\_n78A-n257G | Rel-16 |  |  |
| DC\_1A-3A\_n78A-n257H | Rel-16 |  |  |
| DC\_1A-3A\_n78A-n257I | Rel-16 |  |  |
| Note 1: Notation used for inter-band EN-DC Bands is according to TS 38.101-3 [25] Table 5.5B.6.3-1, e.g. ‘DC\_1A-3A\_n78A-n257G’ indicates EN-DC operation on E-UTRA CA configuration CA\_1A-3A with E-UTRA DL Bandwidth Class A for all the E-UTRA bands 1 and 3 and NR bands n78 and n257 with NR DL CA Bandwidth Class A and G respectively. | | | |

###### A.4.3.2B.2.3.13 Inter-band EN-DC including FR1 and FR2 (five bands)

Table A.4.3.2B.2.3.13-1: Downlink Bandwidth Class Combination capabilities for Inter-band EN-DC including FR1 and FR2, and five bands (for one or more of the supported DC configurations in Table A.4.3.2B.2.3.13-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL inter-band EN-DC including FR1 and FR2 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | TBD | TBD | TBD |  |

Table A.4.3.2B.2.3.13-1a: Uplink Bandwidth Class Combination capabilities for Inter-band EN-DC including FR1 and FR2, and five bands (for one or more of the supported DC configurations in Table A.4.3.2B.2.3.13-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL inter-band EN-DC including FR1 and FR2 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | TBD | TBD | TBD |  |

Table A.4.3.2B.2.3.13-2: Supported Inter-band EN-DC configurations including FR1 and FR2 (five bands)

|  |  |  |  |
| --- | --- | --- | --- |
| **EN-DC configuration / Item** | **Release** | **Supported** | **Supported EN-DC Bandwidth Class(es) in UL** |
| TBD | TBD |  |  |

###### A.4.3.2B.2.3.14 Inter-band EN-DC including FR1 and FR2 (six bands)

Table A.4.3.2B.2.3.14-1: Downlink Bandwidth Class Combination capabilities for Inter-band EN-DC including FR1 and FR2, and six bands (for one or more of the supported DC configurations in Table A.4.3.2B.2.3.14-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL inter-band EN-DC including FR1 and FR2 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | TBD | TBD | TBD |  |

Table A.4.3.2B.2.3.14-1a: Uplink Bandwidth Class Combination capabilities for Inter-band EN-DC including FR1 and FR2, and six bands (for one or more of the supported DC configurations in Table A.4.3.2B.2.3.14-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL inter-band EN-DC including FR1 and FR2 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | TBD | TBD | TBD |  |

Table A.4.3.2B.2.3.14-2: Supported Inter-band EN-DC configurations including FR1 and FR2 (six bands)

|  |  |  |  |
| --- | --- | --- | --- |
| EN-DC configuration / Item | Release | Supported | Supported EN-DC Bandwidth Class(es) in UL |
| TBD | TBD |  |  |

#### A.4.3.2B.3 NE-DC Physical Layer Baseline Implementation Capabilities

##### A.4.3.2B.3.0 General NE-DC capabilities

Table A.4.3.2B.3.0-1: Downlink NE-DC capabilities (for one or more of the supported NE-DC configurations)

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Bandwidth Class | Ref. | Comments |
| 1 | DL NE-DC with 2 carriers | 38.101-3, 5.5B |  |
| 2 | DL NE-DC with 3 carriers | 38.101-3, 5.5B |  |
| 3 | DL NE-DC with 4 carriers | 38.101-3, 5.5B |  |
| 4 | DL NE-DC with 5 carriers | 38.101-3, 5.5B |  |
| 5 | DL NE-DC with 6 carriers | 38.101-3, 5.5B |  |

Table A.4.3.2B.3.0-1A: Downlink NE-DC capabilities (number of NR DL carriers)

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Bandwidth Class | Ref. | Comments |
| 1 | DL NE-DC with 1 NR DL carriers | 38.101-3, 5.5B |  |

Table A.4.3.2B.3.0-2: Uplink NE-DC capabilities (for one or more of the supported NE-DCconfigurations)

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Bandwidth Class | Ref. | Comments |
| 1 | UL NE-DC with 2 carriers | 38.101-3, 5.5B |  |

Table A.4.3.2B.3.0-2A: Uplink NE-DC capabilities (number of NR UL carriers)

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Bandwidth Class | Ref. | Comments |
| 1 | UL NE-DC with 1 NR UL carriers | 38.101-3, 5.5B |  |

##### A.4.3.2B.3.1 Inter-band NE-DC within FR1

###### A.4.3.2B.3.1.1 Inter-band NE-DC within FR1 (two bands)

Table A.4.3.2B.3.1.1-1: Downlink Bandwidth Class Combination capabilities for Inter-band NE-DC within FR1 and two bands (for one or more of the supported DC configurations in Table A.4.3.2B.3.1.1-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | DL inter-band NE-DC within FR1 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | Inter-band NE-DC within FR1 BW Class Combination A\_A (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4a.1 | pc\_DL\_inter\_band\_NE\_DC\_FR1\_2B\_Class\_A\_A |  |
| 2 | Inter-band NE-DC within FR1 BW Class Combination (2A)\_A (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4a.1 | pc\_DL\_inter\_band\_NE\_DC\_FR1\_2B\_Class\_(2A)\_A |  |
| 3 | Inter-band NE-DC within FR1 BW Class Combination A\_C (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4a.1 | pc\_DL\_inter\_band\_NE\_DC\_FR1\_2B\_Class\_A\_C |  |
| 4 | Inter-band NE-DC within FR1 BW Class Combination A\_(2A) (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4a.1 | pc\_DL\_inter\_band\_NE\_DC\_FR1\_2B\_Class\_A\_(2A) |  |

Table A.4.3.2B.3.1.1-1a: Uplink Bandwidth Class Combination capabilities for Inter-band NE-DC within FR1 and two bands (for one or more of the supported configurations in Table A.4.3.2B.3.1.1-2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | UL inter-band NE-DC within FR1 Bandwidth Class | Ref. | Mnemonic | Comments |
| 1 | UL Inter-band NE-DC within FR1 BW Class Combination A\_A (two bands) | 36.101, 5.6A.1  38.101-3, 5.5B.4a.1 | pc\_UL\_inter\_band\_NE\_DC\_FR1\_2B\_Class\_A\_A |  |

Table A.4.3.2B.3.1.1-2: Supported Inter-band NE-DC configurations within FR1 (two bands)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NE-DC configuration / Item (Note 1)** | **Release** | **Supported** | **Supported NE-DC Bandwidth Class(es) in UL** | **Supported Bandwidth Combination Set(s)** |
| DC\_n28A\_3A | Rel-17 |  |  |  |
| DC\_n28A\_3C | Rel-17 |  |  |  |
| DC\_n28A\_39A | Rel-17 |  |  |  |
| DC\_n28A\_39C | Rel-17 |  |  |  |
| NOTE 1: Notation used for inter-band NE-DC Bands is according to TS 38.101-3 [25] Table 5.5B.4a.1-1, e.g. ‘DC\_n28A\_3A’ indicates NE-DC operation on NR band n28 with NR DL Bandwidth Class A and E-UTRA band 3 with E-UTRA DL CA Bandwidth Class A. | | | | |

Table A.4.3.2B.3.1.1-3: Inter-band NE-DC within FR1 (two bands) PC3 UE RF Baseline Implementation Capabilities

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Item | NE-DC configuration | Inter-band NE-DC within FR1 (two bands) PC3 UE RF Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Comments |
| 1 | DC\_n28A\_3A  DC\_n28A\_3C | NR Frequency band: 703–748 MHz (UL),758 MHz–803 MHz (DL)  LTE Frequency band: 1710-1785 MHz (UL), 1805-1880 MHz (DL) | 38.101-3, 6.2B.1.3a | Rel-17 | pc\_nrBand28\_Band3\_PC3\_Supp |  |
| 2 | DC\_n28A\_39A  DC\_n28A\_39C | NR Frequency band: 703–748 MHz (UL),758 MHz–803 MHz (DL)  LTE Frequency band: 1880-1920 MHz | 38.101-3, 6.2B.1.3a | Rel-17 | pc\_nrBand28\_Band39\_PC3\_Supp |  |

Table A.4.3.2B.3.1.1-3a: Inter-band NE-DC within FR1 (two bands) NR part power class UE RF Baseline Implementation Capabilities

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Item | EN-DC configuration | UE Physical Layer Baseline Implementation Capabilities | Ref. | Release | Mnemonic | Supported NR part power class |
| 1 | DC\_n28A\_3A  DC\_n28A\_3C | DC\_n28A\_3A NR part power class  DC\_n28A\_3C NR part power class | 38.306, 4.2.7.1 | Rel-16 | pc\_nrBand28\_Band3\_powerClassNRPart\_r16 |  |
| 2 | DC\_n28A\_39A  DC\_n28A\_39C | DC\_n28A\_39A NR part power class  DC\_n28A\_39C NR part power class | 38.306, 4.2.7.1 | Rel-16 | pc\_nrBand28\_Band39\_powerClassNRPart\_r16 |  |

Table A.4.3.2B.3.1.1-4: UE Power Class implementation Capabilities for inter-band NE-DC within FR1 (two bands)

|  |  |  |  |
| --- | --- | --- | --- |
| Item | UE Power Class implementation Capabilities | Ref. | Comments |
| 1 | UE Power Class 3 for Inter-band NE-DC within FR1 (two bands) | 38.101-3, 6.2B.1.3a | Applicable to the bands in Table A.4.3.2B.3.1.1-3 |

### A.4.3.2C NR SUL Physical Layer Baseline Implementation Capabilities

NOTE: See Annex B for status of completed NR SUL configurations in this version of 3GPP UE conformance test specifications.

#### A.4.3.2C.1 General NR SUL capabilities

Table A.4.3.2C.1-1: Uplink NR SUL capabilities (for one or more of the supported NR SULconfigurations)

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Bandwidth Class | Ref. | Comments |
| 1 | UL NR SUL with 2 carriers | 38.101-1, 5.5C |  |
| 2 | UL NR SUL with 3 carriers | 38.101-1, 5.5C |  |

#### A.4.3.2C.2 SUL band combinations without CA

Table A.4.3.2C.2-1: Supported SUL configurations without CA

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SUL configuration / Item**  **(Note 1)** | **Release** | **Supported** | **Supported Bandwidth Combination Set(s)** | **Supported 1Tx-2Tx ULTxSwitching Band Pair**  **(Note 2, 3)** | **Supported 2Tx-2Tx ULTxSwitching Band Pair**  **(Note 2, 3)** |
| SUL\_n41A-n83A | Rel-17 |  |  |  |  |
| SUL\_n78A-n80A | Rel-15 |  |  |  |  |
| SUL\_n78A-n81A | Rel-15 |  |  |  |  |
| SUL\_n78A-n84A | Rel-15 |  |  |  |  |
| SUL\_n79A-n83A | Rel-17 |  |  |  |  |
| Note 1: Notation used for SUL configurations is according to TS 38.101-1 [23] Table 5.5C-1, e.g. ‘SUL\_n78A-n80A’ indicates SUL operation on NR bands n78 and n80 with UL CA Bandwidth Class A on both bands.  Note 2: The ULTxSwitching capability can be reported on SUL band combinations. The UE supplier shall indicate SUL band pairs on which it supports 1Tx-2Tx or 2Tx-2Tx ULTxSwitching. For this release of specification valid choices are ’N’ and ‘nX-nY’, where both nX and nY are NR bands. For example, for SUL\_n78A-n80A, N would mean not supporting ULTxSwitching, ‘n78-n80’ would mean supporting of ULTxSwitching on this band pair. The ULTxSwitching is only tested with 2 UL CCs, so UE is allowed to report ‘N’ by default for SUL configuration with > 2 component carriers.  Note 3: See ULTxSwitching(table\_index) and 2Tx\_ULTxSwitching(table\_index) in Note 6 of Table 4.0-3 in TS 38.522 [9]. | | | | | |

#### A.4.3.2C.3 SUL band combinations with CA

Table A.4.3.2C.3-1: Supported SUL configurations with Intra-band non-contiguous CA

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| NR SUL with CA configuration / Item  (Note 1) | Release | Supported | Supported SUL configuration in UL | Supported Bandwidth Combination Set(s) | Supported 1Tx-2Tx ULTxSwitching Band Pair  (Note 2, 3) |
| TBD | TBD |  |  |  |  |
| Note 1: Notation used for SUL configurations is according to TS 38.101-1 [23] Table 5.5C-2.  Note 2: The ULTxSwitching capability can be reported on SUL band combinations. The UE supplier shall indicate SUL band pairs on which it supports 1Tx-2Tx ULTxSwitching. For this release of specification valid choices are ’N’ and ‘nX-nY’, where both nX and nY are NR bands. For example, for SUL\_n78A-n80A, N would mean not supporting ULTxSwitching, ‘n78-n80’ would mean supporting of ULTxSwitching on this band pair.  Note 3: See ULTxSwitching(table\_index) in Note 6 of Table 4.0-3 in TS 38.522 [9] | | | | | |

Table A.4.3.2C.3-2: Supported SUL configurations with Intra-band contiguous CA

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| NR SUL configuration / Item  (Note 1) | Release | Supported | Supported SUL configuration in UL | Supported Bandwidth Combination Set(s) | Supported 1Tx-2Tx ULTxSwitching Band Pair  (Note 2, 3) | Supported 2Tx-2Tx ULTxSwitching Band Pair  (Note 2, 3) |
| CA\_n41C-n83A | Rel-17 |  |  |  |  |  |
| CA\_n78C-n80A | Rel-17 |  |  |  |  |  |
| CA\_n78C-n84A | Rel-17 |  |  |  |  |  |
| CA\_n79C-n83A | Rel-17 |  |  |  |  |  |
| Note 1: Notation used for SUL configurations is according to TS 38.101-1 [23] Table 5.5C-3,. e.g. ‘CA\_n41C-n83A’ indicates SUL operation on NR bands n41 and n83 with DL CA Bandwidth Class C on band n41.  Note 2: The ULTxSwitching capability can be reported on SUL band combinations. The UE supplier shall indicate SUL band pairs on which it supports 1Tx-2Tx or 2Tx-2Tx ULTxSwitching. For this release of specification valid choices are ’N’ and ‘nX-nY’, where both nX and nY are NR bands. For example, for SUL\_n78A-n80A, N would mean not supporting ULTxSwitching, ‘n78-n80’ would mean supporting of ULTxSwitching on this band pair.  Note 3: See ULTxSwitching(table\_index) and 2Tx\_ULTxSwitching(table\_index) in Note 6 of Table 4.0-3 in TS 38.522 [9]. | | | | | | |

Table A.4.3.2C.3-3: Supported SUL configurations with Inter-band CA

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| NR SUL configuration / Item  (Note 1) | Release | Supported | Supported SUL configuration in UL | Supported Bandwidth Combination Set(s) | Supported 1Tx-2Tx ULTxSwitching Band Pair  (Note 2, 3) |
| CA\_n1A\_n78A-n80A | Rel-17 |  |  |  |  |
| CA\_n1A\_n78A-n84A | Rel-17 |  |  |  |  |
| CA\_n3A\_n78A-n80A | Rel-17 |  |  |  |  |
| CA\_n28A\_n41A-n83A | Rel-17 |  |  |  |  |
| CA\_n28A\_n79A-n83A | Rel-17 |  |  |  |  |
| Note 1: Notation used for SUL configurations is according to TS 38.101-1 [23] Table 5.5C-4. e.g. ‘CA\_n1A\_n78A-n84A’ indicates SUL operation on NR bands n1, n78 and n84 with DL CA Bandwidth Class A on bands n1 and n78.  Note 2: The ULTxSwitching capability can be reported on SUL band combinations. The UE supplier shall indicate SUL band pairs on which it supports 1Tx-2Tx ULTxSwitching. For this release of specification valid choices are ’N’ and ‘nX-nY’, where both nX and nY are NR bands. For example, for SUL\_n78A-n80A, N would mean not supporting ULTxSwitching, ‘n78-n80’ would mean supporting of ULTxSwitching on this band pair.  Note 3: See ULTxSwitching(table\_index) in Note 6 of Table 4.0-3 in TS 38.522 [9]. | | | | | |

### A.4.3.3 PDCP Implementation Capabilities

Table A.4.3.3-1: UE PDCP Implementation Capabilities

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Item | UE PDCP Implementation Capabilities | Ref. | Release | Mnemonic | M | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Comments |
| 1 | Support 12 bit length of PDCP sequence number | 38.306, 4.2.4 | Rel-15 | pc\_shortSN | Yes | Yes (for RedCap UE) | This PICS shall always be true for RedCap UE. |
| 1A | Support of 18 bit length of PDCP sequence number | 38.822, 4.2, 38.306, 4.2.21.3 | Rel-15 | pc\_longSN | No | Yes (for non-RedCap UE) | This PICS shall always be true for non-RedCap UE. |
| 2 | Supports Out of order delivery of data to upper layers by PDCP | 38.306, 4.2.4 | Rel-15 | pc\_outOfOrderDelivery | No |  |  |
| 3 | Support CA-based PDCP duplication over MCG or SCG DRB | 38.306, 4.2.4 | Rel-15 | pc\_pdcp\_DuplicationMCG\_OrSCG\_DRB | No |  |  |
| 4 | Support PDCP duplication over split DRB | 38.306, 4.2.4 | Rel-15 | pc\_pdcp\_DuplicationSplitDRB | No |  |  |
| 5 | Support PDCP duplication with more than two RLC entities | 38.306, 4.2.4 | Rel-16 | pc\_pdcp\_DuplicationMoreThanTwoRLC\_r16 | No |  | specifically for TSC (time sensitive communication) services |
| 6 | Support PDCP duplication over split SRB1/2 | 38.306, 4.2.4 | Rel-15 | pc\_pdcp\_DuplicationSplitSRB | No |  |  |
| 7 | Support EHC (Ethernet header compression) | 38.306, 4.2.4 | Rel-16 | pc\_NR\_ehc\_r16 | No |  | specifically for TSC (time sensitive communication) services |
| 8 | Support UDC (Uplink data compression) | 38.306, 4.2.4 | Rel-17 | pc\_NR\_udc\_r17 | No |  |  |
| 9 | Supportstandard Dictionary | 38.306, 4.2.4 | Rel-17 | pc\_NR\_udc\_standardDictionary\_r17 | No |  |  |
| 10 | Support continuation of uplink data compression protocol operation | 38.306, 4.2.4 | Rel-17 | pc\_NR\_udc\_continueUDC\_r17 | No |  |  |

### A.4.3.4 RLC Implementation Capabilities

Table A.4.3.4-1: UE RLC Implementation Capabilities

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Item | UE RLC Implementation Capabilities | Ref. | Release | Mnemonic | M | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Comments |
| 1A | Support RLC AM with 18 bit length of RLC sequence number | 38.306, 4.2.21.4 | Rel-15 | pc\_am\_WithLongSN | No | Yes (for non-RedCap UE) | This PICS shall always be true for non-RedCap UE. |
| 1 | Support RLC AM with 12 bit length of RLC sequence number | 38.306, 4.2.5 | Rel-15 | pc\_am\_WithShortSN | Yes | Yes (for RedCap UE) | This PICS shall always be true for RedCap UE. |
| 2 | Support RLC UM with 12 bit length of RLC sequence number | 38.306, 4.2.5 | Rel-15 | pc\_um\_WithLongSN | Yes |  |  |
| 3 | Support RLC UM with 6 bit length of RLC sequence number | 38.306, 4.2.5 | Rel-15 | pc\_um\_WithShortSN | Yes |  |  |

### A.4.3.5 MAC Implementation Capabilities

Table A.4.3.5-1: UE MAC Implementation Capabilities

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Item | UE MAC Implementation Capabilities | Ref. | Release | Mnemonic | M | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Comments |
| 1 | Support long DRX cycle | 38.306, 4.2.6 | Rel-15 | pc\_longDRX\_Cycle | Yes |  |  |
| 2 | Support short DRX cycle | 38.306, 4.2.6 | Rel-15 | pc\_shortDRX\_Cycle | Yes |  |  |
| 3 | Support skipping of UL transmission for an uplink grant indicated on PDCCH if no data is available for transmission | 38.306, 4.2.6 | Rel-15 | pc\_skipUplinkTxDynamic | No |  |  |
| 4 | Supports the logicalChannelSR-DelayTimer | 38.306, 4.2.6 | Rel-15 | pc\_logicalChannelSR\_DelayTimer | No |  |  |
| 5 | Supports DRX adaptation | 38.306, 4.2.6 | Rel-16 | pc\_DRX\_Adaptation | No |  |  |
| 6 | Support LCH-based prioritization | 38.306, 4.2.6 | Rel-16 | pc\_lch\_PriorityBasedPrioritization\_r16 | No |  |  |
| 7 | Supports autonomous transmission of the MAC PDU generated for a deprioritized configured uplink grant | 38.306, 4.2.6 | Rel-16 | pc\_autonomousTransmission\_r16 | No |  |  |
| 8 | Supports the bit rate recommendation message from the gNB to the UE as specified in TS 38.321 | 38.306, 4.2.6 | Rel-15 | pc\_recommendedBitRate | No |  |  |
| 9 | Supports the bit rate recommendation query message from the UE to the gNB as specified in TS 38.321. | 38.306, 4.2.6 | Rel-15 | pc\_recommendedBitRateQuery | No |  | This field is only applicable if the UE supports pc\_recommendedBitRate. |
| 10 | Support PUSCH transmissions on multiple configured uplink grants | 38.306, 4.2.6 | Rel-16 | pc\_multipleConfiguredGrants\_r16 | No |  |  |
| 11 | Support the selection of logical channels for each UL grant based on RRC configured restriction | 38.306, 4.2.6 | Rel-15 | pc\_lcp\_Restriction | No |  |  |
| 12 | Support direct NR SCG SCell activation, as specified in TS 38.321, upon SCell addition and upon reconfiguration with sync of the SCG, both performed via an RRCReconfiguration message received via SRB3 or contained in an RRC(Connection)Reconfiguration message received via SRB1, as specified in TS 38.331 and TS 36.331 | 38.306, 4.2.6 | Rel-16 | pc\_directSCG\_SCellActivation\_r16 | No |  | A UE indicating support of directSCG-SCellActivation-r16 shall indicate support of EN-DC or support of NGEN-DC as specified in TS 36.331 or support of NR-DC as specified in TS 38.331. |
| 13 | Support direct NR MCG SCell activation, as specified in TS 38.321, upon SCell addition, upon reconfiguration with sync of the MCG, as specified in TS 38.331. | 38.306, 4.2.6 | Rel-16 | pc\_directMCG\_SCellActivation\_r16 | No |  |  |
| 14 | Support direct NR MCG SCell activation, as specified in TS 38.321, upon reception of an RRCResume message, as specified in TS 38.331. | 38.306, 4.2.6 | Rel-16 | pc\_directMCG\_SCellActivationResume\_r16 | No |  |  |
| 15 | Support direct NR SCG SCell activation, as specified in TS 38.321:  - upon reception of an RRCReconfiguration included in an RRCConnectionResume message, as specified in TS 38.331 and TS 36.331, if the UE indicates support of EN-DC or NGEN-DC, and support of resumeWithSCG-Config-r16 as specified in TS 36.331,  - upon reception of an RRCReconfiguration included in an RRCResume message, as specified in TS 38.331, if the UE indicates support of NR-DC and of resumeWithSCG-Config-r16 as specified in TS 38.331. | 38.306, 4.2.6 | Rel-16 | pc\_directSCG\_SCellActivationResume\_r16 | No |  | A UE indicating support of directSCG-SCellActivationResume-r16 shall indicate support of EN-DC or NGEN-DC and support of resumeWithSCG-Config-r16 as specified in TS 36.331 or indicate support of NR-DC and of resumeWithSCG-Config-r16 as specified in TS 38.331. |
| 16 | Support services with survival time requirement using configured grant resource and PDCP duplication, as specified in TS 38.321. | 38.306, 4.2.6 | Rel-17 | pc\_survivalTime\_r17 | No |  | A UE supporting this feature shall support pdcp-DuplicationMCG-orSCG-DRB or pdcp-DuplicationSplitDRB. A UE supporting this feature shall also support configuredUL-GrantType1-v1650 or configuredUL-GrantType2-v1650. |
| XYZ->17 | Support of UL LBT Failure Detection and Recovery | 38.306, 4.2.6 | Rel-16 | pc\_UL\_LBT\_FailureDetectionRecovery\_r16 | No |  | Applies to UEs supporting shared spectrum channel access (at least one of A.4.3.2-1/1 to A.4.3.2-2/5). |

### A.4.3.6 Measurement Capabilities

Table A.4.3.6-1: UE Measurement Capabilities

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Item | UE Measurement Capabilities | Ref. | Release | Mnemonic | M | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Comments |
| 1 | Support NR measurements and events A triggered reporting | 38.306, 4.2.9 | Rel-15 | pc\_eventA\_MeasAndReport | Yes |  |  |
| 2 | Support two independent measurement gap configurations for FR1 and FR2 | 38.306, 4.2.9 | Rel-15 | pc\_independentGapConfig | No |  |  |
| 3 | Support NR intra-frequency and inter-frequency measurements and at least periodical reporting | 38.306, 4.2.9 | Rel-15 | pc\_intraAndInterF\_MeasAndReport | Yes |  |  |
| 4 | Support CSI-RSRP and CSI-RSRQ measurement as specified in TS38.215 [21], where CSI-RS resource is configured with an associated SS/PBCH | 38.306, 4.2.9 | Rel-15 | pc\_csi\_RSRP\_AndRSRQ\_MeasWithSSB | No |  |  |
| 5 | Support inter-RAT E-UTRA measurements and events B triggered reporting | 38.306, 4.2.9 | Rel-15 | pc\_eventB\_MeasAndReport | Yes |  |  |
| 6 | Support SS-SINR measurents | 38.306, 4.2.9 | Rel-15 | pc\_ss\_SINR\_Meas | No |  |  |
| 7 | Support acquisition of relevant information from a neighbouring E-UTRA cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9] when the EN-DC is not configured. | 38.306, 4.2.9 | Rel-15 | pc\_eutra\_CGI\_Reporting | Yes |  |  |
| 7a | Support acquisition of relevant information from a neighbouring E-UTRA cell by reading the SI of the neighbouring cell using autonomous gap and reporting the acquired information to the network as specified in TS 38.331 [9] when MR-DC is not configured | 38.306,4.2.9 | Rel-16 | pc\_eutra\_AutonomousGaps\_r16 | No |  |  |
| 8 | Support acquisition of relevant information from a neighbouring intra-frequency or inter-frequency NR cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9] when EN-DC is not configured. | 38.306, 4.2.9 | Rel-15 | pc\_nr\_CGI\_Reporting | Yes |  |  |
| 8a | Support acquisition of relevant information from a neighbouring NR cell by reading the SI of the neighbouring cell using autonomous gap and reporting the acquired information to the network as specified in TS 38.331 [9] when MR-DC is not configured. | 38.306, 4.2.9 | Rel-16 | pc\_nr\_AutonomousGaps\_r16 | No |  |  |
| 9 | Support acquisition of relevant information from a neighbouring intra-frequency or inter-frequency NR cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9] when the EN-DC is configured. | 38.306, 4.2.9 | Rel-15 | pc\_nr\_CGI\_Reporting\_ENDC | Yes |  |  |
| 10 | Support shorter measurement gap length (i.e. *gp2* and *gp3*) for independent measurement gap configuration on FR1 and per-UE gap in (NG)EN-DC. | 36.331, 6.3.6 | Rel-15 | pc\_gp2\_gp3\_en\_dc | No |  |  |
| 11 | Support NR supports gap pattern 4 for independent measurement gap configuration on FR1 and per-UE gap in (NG)EN-DC | 36.331, 6.3.6 | Rel-15 | pc\_gp4\_en\_dc | No |  |  |
| 12 | Support NR supports gap pattern 5 for independent measurement gap configuration on FR1 and per-UE gap in (NG)EN-DC | 36.331, 6.3.6 | Rel-15 | pc\_gp5\_en\_dc | No |  |  |
| 13 | Support NR supports gap pattern 6 for independent measurement gap configuration on FR1 and per-UE gap in (NG)EN-DC | 36.331, 6.3.6 | Rel-15 | pc\_gp6\_en\_dc | No |  |  |
| 14 | Support NR supports gap pattern 7 for independent measurement gap configuration on FR1 and per-UE gap in (NG)EN-DC | 36.331, 6.3.6 | Rel-15 | pc\_gp7\_en\_dc | No |  |  |
| 15 | Support NR supports gap pattern 8 for independent measurement gap configuration on FR1 and per-UE gap in (NG)EN-DC | 36.331, 6.3.6 | Rel-15 | pc\_gp8\_en\_dc | No |  |  |
| 16 | Support NR supports gap pattern 9 for independent measurement gap configuration on FR1 and per-UE gap in (NG)EN-DC | 36.331, 6.3.6 | Rel-15 | pc\_gp9\_en\_dc | No |  |  |
| 17 | Support NR supports gap pattern 10 for independent measurement gap configuration on FR1 and per-UE gap in (NG)EN-DC | 36.331, 6.3.6 | Rel-15 | pc\_gp10\_en\_dc | No |  |  |
| 18 | Support NR supports gap pattern 11 for independent measurement gap configuration on FR1 and per-UE gap in (NG)EN-DC | 36.331, 6.3.6 | Rel-15 | pc\_gp11\_en\_dc | No |  |  |
| 19 | Support measurement gap pattern 2 configured by NR RRC. | 38.306, 4.2.9 | Rel-15 | pc\_gp2\_nr | No |  |  |
| 20 | Support measurement gap pattern 3 configured by NR RRC. | 38.306, 4.2.9 | Rel-15 | pc\_gp3\_nr | No |  |  |
| 21 | Support measurement gap pattern 4 configured by NR RRC. | 38.306, 4.2.9 | Rel-15 | pc\_gp4\_nr | No |  |  |
| 22 | Support measurement gap pattern 5 configured by NR RRC. | 38.306, 4.2.9 | Rel-15 | pc\_gp5\_nr | No |  |  |
| 23 | Support measurement gap pattern 6 configured by NR RRC. | 38.306, 4.2.9 | Rel-15 | pc\_gp6\_nr | No |  |  |
| 24 | Support measurement gap pattern 7 configured by NR RRC. | 38.306, 4.2.9 | Rel-15 | pc\_gp7\_nr | No |  |  |
| 25 | Support measurement gap pattern 8 configured by NR RRC. | 38.306, 4.2.9 | Rel-15 | pc\_gp8\_nr | No |  |  |
| 26 | Support measurement gap pattern 9 configured by NR RRC. | 38.306, 4.2.9 | Rel-15 | pc\_gp9\_nr | No |  |  |
| 27 | Support measurement gap pattern 10 configured by NR RRC. | 38.306, 4.2.9 | Rel-15 | pc\_gp10\_nr | No |  |  |
| 28 | Support measurement gap pattern 11 configured by NR RRC. | 38.306, 4.2.9 | Rel-15 | pc\_gp11\_nr | No |  |  |
| 29 | Support measurement gap pattern 12 configured by NR RRC. | 38.306, 4.2.9 | Rel-15 | pc\_gp12\_nr | No |  |  |
| 30 | Support measurement gap pattern 15 configured by NR RRC. | 38.306, 4.2.9 | Rel-15 | pc\_gp15\_nr | No |  |  |
| 31 | Support measurement gap pattern 16 configured by NR RRC. | 38.306, 4.2.9 | Rel-15 | pc\_gp16\_nr | No |  |  |
| 32 | Support measurement gap pattern 17 configured by NR RRC. | 38.306, 4.2.9 | Rel-15 | pc\_gp17\_nr | No |  |  |
| 34 | Support measurement gap pattern 18 configured by NR RRC. | 38.306, 4.2.9 | Rel-15 | pc\_gp18\_nr | No |  |  |
| 35 | Support measurement gap pattern 19 configured by NR RRC. | 38.306, 4.2.9 | Rel-15 | pc\_gp19\_nr | No |  |  |
| 36 | Support measurement gap pattern 20 configured by NR RRC. | 38.306, 4.2.9 | Rel-15 | pc\_gp20\_nr | No |  |  |
| 37 | Support measurement gap pattern 21 configured by NR RRC. | 38.306, 4.2.9 | Rel-15 | pc\_gp21\_nr | No |  |  |
| 38 | Support measurement gap pattern 22 configured by NR RRC. | 38.306, 4.2.9 | Rel-15 | pc\_gp22\_nr | No |  |  |
| 39 | Support measurement gap pattern 23 configured by NR RRC. | 38.306, 4.2.9 | Rel-15 | pc\_gp23\_nr | No |  |  |
| 40 | Support CSI-RSRP and CSI-RSRQ measurement as specified in TS38.215 [21], where CSI-RS resource is configured without an associated SS/PBCH | 38.306, 4.2.9 | Rel-15 | pc\_csi\_RSRP\_AndRSRQ\_MeasWithoutSSB | No |  |  |
| 41 | Support CSI-RS based Radio Link Monitoring for FR1 | 38.306, 4.2.9 | Rel-15 | pc\_CSI\_RS\_RLM\_FR1 | Yes |  | If the UE supports this feature, the UE needs to report maxNumberResource-CSI-RS-RLM in its capability report. If the UE doesn’t support CSI-RS based RLM, it will not include this IE in its capability report. |
| 41a | Support CSI-RS based Radio Link Monitoring for FR2 | 38.306, 4.2.9 | Rel-15 | pc\_CSI\_RS\_RLM\_FR2 | Yes |  | If the UE supports this feature, the UE needs to report maxNumberResource-CSI-RS-RLM in its capability report. If the UE doesn’t support CSI-RS based RLM, it will not include this IE in its capability report. |
| 42 | Support of E-UTRA RS-SINR measurements | 38.306, 4.2.10 | Rel-15 | pc\_RS\_SINR\_MeasEUTRA | No |  |  |
| 43 | Support of SFTD measurements between a E-UTRA PCell and an NR PSCell in FDD | 38.306, 4.2.9 | Rel-15 | pc\_SFTD\_MeasPSCell\_MRDC\_FDD | No |  | The SFTD measurement support should be indicated in MRDC capabilities for EN-DC. The support needs to be declared for FDD and TDD separately |
| 44 | Support of SFTD measurements between a E-UTRA PCell and an NR PSCell in TDD | 38.306, 4.2.9 | Rel-15 | pc\_SFTD\_MeasPSCell\_MRDC\_TDD | No |  | The SFTD measurement support should be indicated in MRDC capabilities for EN-DC. The support needs to be declared for FDD and TDD separately |
| 45 | Support of relaxed RRM measurements of neighbour cells in RRC\_IDLE/RRC\_INACTIVE | 38.306, 5.6 | Rel-16 | pc\_Relaxed\_Measurement | No |  |  |
| 46 | Support of SFTD measurements between a E-UTRA PCell and an NR neighbour cell in FDD | 38.306, 4.2.9 | Rel-15 | pc\_SFTD\_MeasNR\_Cell\_FDD | No |  | The support needs to be declared for FDD and TDD separately  The SFTD measurement support can only be indicated in MRDC capabilities for EN-DC |
| 47 | Support of SFTD measurements between a E-UTRA PCell and an NR neighbour cell in TDD | 38.306, 4.2.9 | Rel-15 | pc\_SFTD\_MeasNR\_Cell\_TDD | No |  | The support needs to be declared for FDD and TDD separately  The SFTD measurement support can only be indicated in MRDC capabilities for EN-DC |
| 48 | Support of SFTD measurements between a NR PCell and an NR neighbour cell in FDD | 38.306, 4.2.9 | Rel-15 | pc\_SFTD\_MeasNR\_Neigh\_FDD | No |  | The support needs to be declared for FDD and TDD separately |
| 49 | Support of SFTD measurements between a NR PCell and an NR neighbour cell in TDD | 38.306, 4.2.9 | Rel-15 | pc\_SFTD\_MeasNR\_Neigh\_TDD | No |  | The support needs to be declared for FDD and TDD separately |
| 50 | Support of SFTD measurements between a NR PCell and an NR PSCell in FDD | 38.306, 4.2.9 | Rel-15 | pc\_SFTD\_MeasPSCell\_NRDC\_FDD | No |  | The SFTD measurement support should be indicated in UE-NR-Capability |
| 51 | Support of SFTD measurements between a NR PCell and an NR PSCell in TDD | 38.306, 4.2.9 | Rel-15 | pc\_SFTD\_MeasPSCell\_NRDC\_TDD | No |  | The SFTD measurement support should be indicated in UE-NR-Capability |
| 52 | Support of acquisition of CGI related information from a neighbouring intra-frequency or inter-frequency NPN CAG cell | 38.306, 4.2.9 | Rel-16 | pc\_nr\_CGI\_Reporting\_NPN\_r16 | No |  |  |
| 53 | Supports periodic EUTRA measurement and reporting. | 38.306, 4.2.9 | Rel-15 | pc\_periodicEUTRA\_MeasAndReport | Yes |  |  |
| 54 | Support configuration of NR SSB measurements in RRC\_IDLE/RRC\_INACTIVE and reporting of the corresponding results upon network request as specified in TS 38.331 [9] | 38.306, 4.2.9 | Rel-16 | pc\_idleInactiveNR\_MeasReport | No |  |  |
| 55 | Support configuration of E-UTRA measurements in RRC\_IDLE/RRC\_INACTIVE and reporting of the corresponding results upon network request as specified in TS 38.331 [9] | 38.306, 4.2.9 | Rel-16 | pc\_idleInactiveEUTRA\_MeasReport | No |  |  |
| 56 | Support SRS-RSRP measurements between a NR Pcell and an interfering UE, upon network request as specified in 38.331 [9] | 38.306, 4.2.9 | Rel-16 | pc\_nr\_CLI\_Reporting\_r16 | No |  | If the UE supports this feature, the UE needs to report *maxNumberCLI-SRS-RSRP-r16* and *maxNumberPerSlotCLI-SRS-RSRP-r16*  If the UE doesn’t support CLI SRS-RSRP measurement, it will not include this IE in its capability report. |
| 56A | Support SRS-RSRP measurements and periodical reporting and measurement event triggering based on SRS-RSRP | 38.306, 4.2.9 | Rel-16 | pc\_cli\_SRS\_RSRP\_Meas\_r16 | No |  | If the UE supports this feature, the UE needs to report *maxNumberCLI-SRS-RSRP-r16* and *maxNumberPerSlotCLI-SRS-RSRP-r16* |
| 56B | Support CLI RSSI measurements and periodical reporting and measurement event triggering | 38.306, 4.2.9 | Rel-16 | pc\_cli\_RSSI\_Meas\_r16 | No |  | If the UE supports this feature, the UE needs to report *maxNumberCLI-RSSI-r16* |
| 57 | Support acquisition of relevant information from a neighbouring E-UTRA cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9] when the NE-DC is configured. | 38.306, 4.2.9 | Rel-15 | pc\_eutra\_CGI\_Reporting\_NEDC | No |  |  |
| 58 | Support acquisition of relevant information from a neighbouring E-UTRA cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9] when the NR-DC is configured wherein MN and SN have different DRX cycles, or on-duration configured by MN does not contain on-duration configured by SN if the DRX cycles are the same. | 38.306, 4.2.9 | Rel-15 | pc\_eutra\_CGI\_Reporting\_NRDC | No |  |  |
| 59 | Support acquisition of relevant information from a neighbouring intra-frequency or inter-frequency NR cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9] when the NE-DC is configured. | 38.306, 4.2.9 | Rel-15 | pc\_nr\_CGI\_Reporting\_NEDC | Yes |  |  |
| 60 | Support acquisition of relevant information from a neighbouring intra-frequency or inter-frequency NR cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9] when the NR-DC is configured wherein MN and SN have different DRX cycles, or on-duration configured by MN does not contain on-duration configured by SN if the DRX cycles are the same. | 38.306, 4.2.9 | Rel-15 | pc\_nr\_CGI\_Reporting\_NRDC | Yes |  |  |
| 61 | Supports performing eNB-configured SSB-based RRM measurements for EN-DC configured NR FR1 carrier(s) in RRC\_IDLE and reporting them when requested by the eNB while resuming from RRC\_IDLE or in RRC\_CONNECTED, as specified in TS 36.331 [5]. | 36.306, 4.3.6.41 | Rel-16 | pc\_nrIdleInactiveNRFR1\_MeasReport | No |  |  |
| 62 | Supports performing eNB-configured SSB-based RRM measurements for EN-DC configured NR FR2 carrier(s) in RRC\_IDLE and reporting them when requested by the eNB while resuming from RRC\_IDLE or in RRC\_CONNECTED, as specified in TS 36.331 [5]. | 36.306, 4.3.6.42 | Rel-16 | pc\_nrIdleInactiveNRFR2\_MeasReport | No |  |  |
| 63 | Support more than 1 per-UE measurement gap configurations. | 38.306, 4.2.9 | Rel-17 | pc\_concurrentPerUE\_OnlyMeasGap\_r17 | No |  |  |
| 64 | Support all concurrent gap combination configurations as specified in TS 38.133 [5] including support of more than 1 per-UE measurement gap configurations. | 38.306, 4.2.9 | Rel-17 | pc\_concurrentPerUE\_PerFRCombMeasGap\_r17 | No |  |  |
| 65 | Support the configurations of E-UTRAN measurement objectives associated with more than 1 concurrent measurement gaps. | 38.306, 4.2.9 | Rel-17 | pc\_concurrentMeasGapEUTRA\_r17 | No |  |  |
| 66 | Support reporting of the NCSG and measurement gap requirement information for E-UTRA target bands in the UE response to a network configuration RRC message as specified in TS 38.331 [9]. | 38.306, 4.2.9 | Rel-17 | pc\_eutra\_NeedForGapNCSG\_Reporting\_r17 | No |  |  |
| 67 | Support two independent measurement gap configurations for FR1 and FR2 for PRS measurement. | 38.306, 4.2.9 | Rel-17 | pc\_independentGapConfigPRS\_r17 | No |  |  |
| 68 | Support NR-only NCSG patterns. | 38.306, 4.2.9 | Rel-17 | pc\_ncsg\_MeasGapNR\_Patterns\_r17 | No |  |  |
| 69 | Support NCSG patterns. | 38.306, 4.2.9 | Rel-17 | pc\_ncsg\_MeasGapPatterns\_r17 | No |  |  |
| 70 | Support per-FR NCSG. | 38.306, 4.2.9 | Rel-17 | pc\_ncsg\_MeasGapPerFR\_r17 | No |  |  |
| 71 | Support performing measurement with NCSG based on flag deriveSSB-IndexFromCell-inter and meeting the following requirements that the scheduling restriction in FR2 serving cell during NCSG ML is on SSB symbol level. | 38.306, 4.2.9 | Rel-17 | pc\_ncsg\_SymbolLevelScheduleRestrictionInter\_r17 | No |  |  |
| 72 | Support reporting of the NCSG and measurement gap requirement information for SSB based measurement in the UE response to a network configuration RRC message. | 38.306, 4.2.9 | Rel-17 | pc\_nr\_NeedForGapNCSG\_Reporting\_r17 | No |  |  |
| 73 | Support the preconfigured measurement gap with UE-autonomous mechanism for activation and deactivation. | 38.306, 4.2.9 | Rel-17 | pc\_preconfiguredUE\_AutonomousMeasGap\_r17 | No |  |  |
| 74 | Support the preconfigured measurement gap with network-controlled mechanism for activation and deactivation. | 38.306, 4.2.9 | Rel-17 | pc\_preconfiguredNW\_ControlledMeasGap\_r17 | No |  |  |
| 75 | Support of SFTD measurements between the NR PCell and a configured E-UTRA PSCell | 38.306, 4.2.9 | Rel-15 | pc\_SFTD\_MeasPSCell\_NEDC | No |  |  |
| 76 | Support of location-based triggered measurement reporting (i.e., event D1) as specified in TS 38.331 [9]. | 38.306, 4.2.9 | Rel-17 | pc\_eventD1\_MeasReportTrigger\_r17 | CY |  | If UE supports this feature then UE needs to support locationBasedCondHandover-r17 in any NTN band. |
| 77 | Support of Re-17 relaxed RRM measurements of neighbour cells in RRC\_IDLE/RRC\_INACTIVE | 38.306, 5.6 | Rel-17 | pc\_Relaxed\_Measurement\_r17 | No |  |  |
| 78 | Support of Rel-17 BFD relaxation criteria | 38.306, 4.2.7.2 | Rel-17 | pc\_bfd\_Relaxation\_r17 | No |  |  |
| 79 | Support of Rel-17 RLM relaxation criteria | 38.306, 4.2.7.2 | Rel-17 | pc\_rlm\_Relaxation\_r17 | No |  |  |
| 80 | Indicates the support of simultaneous transmission and reception in TDD-TDD and TDD-FDD inter-band NR CA. If this field is included in ca-ParametersNR-ForDC, it indicates the UE supports simultaneous transmission and reception between any UL/DL band pair within a cell group and across MCG and SCG in TDD-TDD and TDD-FDD inter-band NR-DC. | 38.306, 4.2.7 | Rel-17 | pc\_simultaneous\_RxTx\_InterBandCA | No |  | If the capability is supported then the band pair(s) for which it is supported shall be indicated in Table A.4.3.2A.4.1-3 |
| 81 | Indicates whether the UE can perform inter-frequency SSB based measurements without measurement gaps if the SSB is completely contained in the active BWP of the UE as specified in TS 38.133 [5]. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range of cells to be measured. | 38.306, 4.2.9 | Rel-16 | pc\_interFrequencyMeas\_NoGap\_r16 | No |  |  |
| 82 | Indicates whether the UE supports 2 parallel measurement gaps for NTN SSB  based RRM measurements | 38.306, 4.2.9 | Rel-17 | pc\_parallelMeasGap\_r17 | No |  | If a UE supports this feature, then it supports r17 NTN |
| XX1->83 | Indicates whether the UE supports Time-based measurement initiation for NTN while in RRC\_IDLE/RRC\_INACTIVE | 38.306, 5.6 | Rel-17 | pc\_timeBasedMeasInit\_r17 | No |  | If a UE supports this feature, then it supports r17 NTN |
| XX2->84 | Indicates whether the UE supports Location-based measurement initiation for NTN while in RRC\_IDLE/RRC\_INACTIVE | 38.306, 5.6 | Rel-17 | pc\_locationBasedMeasInit\_r17 | No |  | If a UE supports this feature, then it supports r17 NTN |
| XX3->85 | Indicates whether the UE supports enhanced RRM requirements for measurements in NTN bands while in RRC\_IDLE/RRC\_INACTIVE | 38.306, 5.6 | Rel-17 | pc\_enhRRMreqMeas\_r17 | No |  | If a UE supports this feature, then it supports r17 NTN |
| XX4->86 | Indicates whether the UE supports Time-based measurement initiation for NTN while in RRC\_IDLE/RRC\_INACTIVE | 38.306, 5.6 | Rel-17 | pc\_timeBasedMeasInit\_r17 | No |  | If a UE supports this feature, then it supports r17 NTN |
| XX5->87 | Indicates whether the UE supports measurement of 1 LEO satellite in parallel within an SMTC for NTN (maxNumber-NGSO-SatellitesWithinOneSMTC-r17) | 38.306, 4.2.7.2 | Rel-17 | pc\_maxNumNGSOsatPerSMTC\_1\_r17 | No |  | If a UE supports this feature, then it supports r17 NTN |
| XX6->88 | Indicates whether the UE supports measurement of 2 LEO satellite in parallel within an SMTC for NTN (maxNumber-NGSO-SatellitesWithinOneSMTC-r17) | 38.306, 4.2.7.2 | Rel-17 | pc\_maxNumNGSOsatPerSMTC\_2\_r17 | No |  | If a UE supports this feature, then it supports r17 NTN |
| XX7->89 | Indicates whether the UE supports measurement of 3 LEO satellite in parallel within an SMTC for NTN (maxNumber-NGSO-SatellitesWithinOneSMTC-r17) | 38.306, 4.2.7.2 | Rel-17 | pc\_maxNumNGSOsatPerSMTC\_3\_r17 | No |  | If a UE supports this feature, then it supports r17 NTN |
| XX8->90 | Indicates whether the UE supports measurement of 4 LEO satellite in parallel within an SMTC for NTN (maxNumber-NGSO-SatellitesWithinOneSMTC-r17) | 38.306, 4.2.7.2 | Rel-17 | pc\_maxNumNGSOsatPerSMTC\_4\_r17 | No |  | If a UE supports this feature, then it supports r17 NTN |
| XX9->91 | Indicates whether the UE supports inter-satellite measurements for NTN (interSatMeas-r17) | 38.306, 4.2.9 | Rel-17 | pc\_interSatMeas\_r17 | No |  | If a UE supports this feature, then it supports r17 NTN |

### A.4.3.7 General Capabilities

Table A.4.3.7-1: UE General Capabilities

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Item | UE General Capabilities | Ref. | Release | Mnemonic | M | If indicated “Yes” the feature shall be implemented and successfully tested for the corresponding release | Comments |
| 1 | Support UL transmission via either MCG path or SCG path for the split SRB as specified in TS 37.340[20] | 38.306, 4.2.2 | Rel-15 | pc\_splitSRB\_WithOneUL\_Path | No |  |  |
| 2 | Support UL transmission via both MCG path and SCG path for the split DRB as specified in TS 37.340[20] | 38.306, 4.2.2 | Rel-15 | pc\_splitDRB\_withUL\_Both\_MCG\_SCG | Yes |  |  |
| 3 | Support direct SRB between the SN and the UE as specified in TS 37.340[20] | 38.306, 4.2.2 | Rel-15 | pc\_srb3 | Yes |  |  |
| 4 | Support of reflective QoS | 38.306, 4.2.2 | Rel-15 | pc\_as\_ReflectiveQoS | No |  |  |
| 5 | Support of NAS reflective QoS | 24.501, 6.2.5.1.4.1, 9.11.4.1 | Rel-15 | pc\_nas\_ReflectiveQoS | No |  |  |
| 6 | Support of SMS over NAS | 24.501, 5.5.1.2 | Rel-15 | pc\_sms\_over\_NAS | No |  |  |
| 7 | Support of CMAS message on NR | 38.331, 5.2.2.2.2 | Rel-15 | pc\_CMAS\_NR | No |  |  |
| 8 | Support of ETWS message on NR | 38.331, 5.2.2.2.2 | Rel-15 | pc\_ETWS\_NR | No |  |  |
| 9 | The UE supports additional UE-requested PDU establishment | 24.501, 6.4.1.5 | Rel-15 | pc\_Additional\_PDU\_establishment | No |  | pc\_ExpectedNoOfPDUSessionsAtRegistration +1 |
| 10 | The UE includes the SM PDU DN request container IE in the PDU SESSION ESTABLISHMENT REQUEST message | 24.501, 6.4.1.2 | Rel-15 | pc\_SM\_PDU\_DN\_RequestContainer | No |  |  |
| 11 | Support of emergency services fallback in NR connected to 5GCN | 24.501 | Rel-15 | pc\_NR\_5GC\_EmergencyService\_fallback | No |  |  |
| 12 | Support of EPS fallback | 24.501, | Rel-15 | pc\_EPS\_fallback | No |  |  |
| 13 | Support of UE requested PDU session modification | 24.501, 6.4.2.2 | Rel-15 | pc\_MO\_PDU\_Session\_Modification | Yes |  |  |
| 14 | Support of emergency services in NR connected to 5GCN | 24.501 | Rel-15 | pc\_NR\_5GC\_EmergencyServices | No |  |  |
| 15 | Support of voiceFallbackIndication | 38.306, 4.2.13 | Rel-16 | pc\_voiceFallbackIndication | No |  |  |
| 16 | Support provision of referenceTimeInfo | 38.306, 4.2.2 | Rel-16 | pc\_referenceTimeProvision\_r16 | No |  | specifically for TSC (time sensitive communication) services |
| 17 | Support of RACS | 24.501, 9.11.3.1 | Rel-16 | pc\_5GC\_RACS | No |  |  |
| 18 | Support of RRC message Segmentation in the UL | 38.306, 5.4 | Rel-16 | pc\_NR\_UL\_Segmentation | No |  | UE supports segmenation of UECapabilityInformation message, IF size > maximum supported size of a PDCP SDU |
| 19 | Support of RRC\_INACTIVE as specified in TS 38.331 [9]. | 38.306, 4.2.2 | Rel-15 | pc\_inactiveState | Yes |  |  |
| 20 | Support of UE local release when the security check is successful but SOR Transparent container indicates ACK has been NOT requested | 23.122  clause C.2 | Rel-15 | pc\_SOR\_ACKNotReqLocalRel | No |  |  |
| 21 | Support of RRC connection release with deprioritisation | 38.306, 5.3 | Rel-15 | pc\_NR\_RRC\_Release\_With\_Deprioritisation | No |  |  |
| 22 | Support of RRC connection establishment failure with temporary offset | 38.306, 5.3 | Rel-15 | pc\_NR\_RRC\_ConEstFail\_With\_TempOffset | No |  |  |
| 23 | Support of Closed Access Group | 24.501, 9.11.3.1 | Rel-16 | pc\_CAG | No |  |  |
| 24 | Support of Stand-alone Non-Public Network | 23.501, 3.1 | Rel-16 | pc\_SNPN | No |  |  |
| 25 | Support of test function SET UL MESSAGE for using a preconfigured UE capability container over NR | 38.509, 5.9 | Rel-16 | pc\_Set\_UE\_Cap\_Info\_NR | No |  | This test function is mandatory for UEs supporting UL RRC segmentation and whose maximum UECapabilityInformation message size is less than the allowed maximum supported size of a PDCP SDU. |
| 26 | Support of network slice-specific authentication and authorization | 24.501, 9.11.3.1 | Rel-16 | pc\_5GC\_NSSAA | No |  |  |
| 27 | Support of EAP-AKA’ as EAP method for network slice-specific authentication and authorization | 24.501, 5.4.7 | Rel-16 | pc\_5GC\_NSSAA\_EAP\_AKA\_Prime | No |  |  |
| 28 | Support reduced control plane latency as defined in TS 38.331 [9] | 38.306, 4.2.2 | Rel-15 | pc\_reducedCP\_Latency | No |  |  |
| 29 | Support of release preference assistance information | 38.306, 4.2.2 | Rel-16 | pc\_releasePreference\_r16 | No |  |  |
| 30 | Support of user initiated SNPN reselection in automatic mode | 23.122 | Rel-16 | pc\_UserInitiated\_SNPN\_Reselection | No |  |  |
| 31 | Support of autonomous search function to detect CAG cells on serving and non-serving frequencies | 38.304, 5.2.4.10 | Rel-16 | pc\_Autonomous\_search\_function\_nr\_CAG | No |  |  |
| 32 | Support IMS voice over NR | 38.306, 4.2.13 | Rel-15 | pc\_voiceOverNR | No |  | A UE supporting IMS voice over NR shall support: - IMS emergency call over NR, and - IMS voice over E-UTRA/EPC if it supports E-UTRA/EPC. |
| 33 | Support of V2X communication | 24.501, 9.11.3.1 | Rel-16 | pc\_V2X | No |  | UE support V2X communication over NR-Uu and/or NR-PC5. |
| 34 | Support of V2X communication over NR-PC5 | 24.501, 9.11.3.1 | Rel-16 | pc\_V2XCNPC5 | No |  |  |
| 35 | Support of Manufacturer assigned Radio Capability ID | 23.501, 5.9.10 | Rel-16 | pc\_5GC\_RACS\_Manufacturer\_URCID | No |  | UE support of Manufacturer assigned radio capability ID |
| 36 | Support of 3GPP PS data off | 24.501, 6.2.10 | Rel-15 | pc\_PS\_data\_off | No |  | UE support of 3GPP PS data off |
| 37 | Support of Network Slice Simultaneous Registration Group | 24.501, 9.11.3.82 | Rel-17 | pc\_5GC\_NSSRG | No |  |  |
| 38 | Support of slice reselection information in SIB and on RRC release for slice based cell reselection in RRC \_IDLE and RRC INACTIVE | 38.306, 4.2.2 | Rel-17 | pc\_sliceInfoforCellReselection\_r17 | No |  |  |
| 39 | Support of reception of segmented DL RRC messages | 38.306, 4.2.2 | Rel-16 | pc\_NR\_dl\_DedicatedMessageSegmentation | No |  | The SS initiates the DL Dedicated Message Segment transfer procedure IF the encoded RRCReconfiguration or RRCResume message PDU size > maximum PDCP SDU size. |
| 40 | Support of unified access control configuration in the list of subscriber data, indicating for which access identities (see 3GPP TS 24.501 [64]) the ME is configured, when the MS accesses an SNPN | 23.122, 4.9.3.0, 24.501 4.5.2A | Rel-16 | pc\_SNPN\_access\_control\_configuration | No |  |  |
| 41 | Support of polarization signalling in NR NTN | 38.306, 5.4 | Rel-17 | pc\_Polarization\_Signalling\_NR\_NTN | No |  | UE supports polarization signalling in NR NTN |
| 42 | Supports receiving paging early indication and UE subgrouping indication with UEID | 38.306, 4.2.2 | Rel-17 | pc\_pei\_SubgroupingSupportBandList\_r17 | No |  |  |
| 43 | Support of Rel-17 extended DRX cycle up to 10485.76 seconds | 38.306, 5.8  24.501, 5.3.16 | Rel-17 | pc\_NR\_eDRX | No |  |  |
| 44 | Support of (re-)configuration of an SCG during the resume procedure. | 38.306, 4.2.2 | Rel-16 | pc\_resumeWithSCG\_Config\_r16 | No |  |  |
| 45 | Support of slice-based RACH prioritisation | 38.306, 5.4 | Rel-17 | pc\_Slice\_RACH\_Prioiritisation | No |  |  |
| 46 | Support of slice-based RACH partitioning | 38.306, 5.4 | Rel-17 | pc\_Slice\_RACH\_Partitioning | No |  |  |
| 47 | Support of RACH prioritisation for Access Identity 1 | 38.306, 5.4 | Rel-17 | pc\_AccId1\_RACH\_Prioiritisation | No |  | US supporting this shall also support MPS (Access ID 1) |
| 48 | Support of ATSSS and MA PDU session | 24.501, 6.4.1.2 | Rel-16 | pc\_5GC\_ATSSS | No |  |  |
| 49 | Support gNB-side RTT-based PDC | 38.306, 4.2.2 | Rel-17 | pc\_gNB\_SideRTT\_BasedPDC\_r17 | No |  | A UE supporting this feature shall also support rtt-BasedPDC-CSI-RS-ForTracking-r17 and/or rtt-BasedPDC-PRS-r17. |
| 50 | Support of user plane integrity protection with EPS | 24.301, 5.5.1  33.401, 7.3.3 | Rel-17 | pc\_EPS\_UPIP | No |  | A UE supporting this feature shall also support EN-DC |
| 51 | Support of UAS Services | 24.501, 3.1, 4.22 | Rel-17 | pc\_UAS | No |  | A UE supporting UAS services |
| 52 | Support of accessing SNPN using credentials from a Credentials Holder | 23.501  3.2,  5.30.2.9 | Rel-17 | pc\_accessing\_SNPN\_usingCH | No |  | UE supports access using credentials assigned by a Credentials Holder separate from the SNPN |
| 53 | Support of Onboarding Stand-alone Non-Public Network | 23.501 5.30.2.10 | Rel-17 | pc\_onboarding\_SNPN | No |  |  |
| 54 | Support of EAP-AKA’ as EAP method for PDU session authentication and authorization | 24.501, 6.3.1 | Rel-15 | pc\_5GC\_PDU\_EAP\_AKA\_Prime | No |  |  |
| 55 | Support of relaxed cell reselection on GEO. | 38.306. 5.4 | Rel-17 | pc\_relaxedCellReselectionGEO | No |  |  |
| 56 | Support of emergency services in NR connected to 5GCN in SNPN Access mode | 23.501, 5.16.4.1 | Rel-17 | pc\_SNPN\_EmergencyService | No |  |  |
| 57 | Support of PLMN access in SNPN Access mode | 23.122, 5.2.8 | Rel-17 | pc\_SNPN\_PLMN | No |  |  |
| 58 | Support of being configured for No E-UTRA Disabling In 5GS | 24.301, 4.5 | Rel-17 | pc\_no\_eutra\_disable\_5GS | No |  |  |
| 59 | Support of MICO mode | 24.501, 5.3.6, 5.5.1.2.2 | Rel-15 | pc\_MICO\_Mode | No |  | A UE supporting MICO mode |
| xx->60 | Support of establishing a PDN connection as the user plane resource of an MA PDU session in 5GS | 24.501, 6.4.1.2 | Rel-17 | pc\_5GC\_ATSSS\_PDN\_connection | No |  |  |
| xx->61 | Support of PEIPS assistance information | 24.501, 5.5.1.2.2, 5.3.25 | Rel-17 | pc\_PEIPS\_assistance\_information | No |  | A UE supporting this feature shall also support pc\_pei\_SubgroupingSupportBandList\_r17 |
| xx->62 | Support of steering of roaming SNPN selection information | 24.501  9.11.3.1 | Rel-17 | pc\_SSNPNSI | No |  |  |
| yy->63 | Support of steering of roaming connected mode control information | 24.501  9.11.3.51 | Rel-17 | pc\_SORCMCI | No |  |  |
| xy->64 | Support of extended rejected NSSAI | 24.501, 5.5.1.2.4 | Rel-17 | pc\_ER\_NSSAI | Yes |  | A UE supporting extended rejected NSSAI |
| XX->65 | Support of ATG | 38.306, 4.2.2 | Rel-18 | pc\_airToGroundNetwork\_r18 | No |  | UE supports ATG |

### A.4.3.8 Mobility Capabilities

Table A.4.3.8-1: UE Mobility Capabilities

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Item | UE Mobility Capabilities | Ref. | Release | Mnemonic | M | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Comments |
| 1 | Support inter-RAT Handover to EUTRA connected to EPC | 38.306, 4.2.9 | Rel-15 | pc\_interRAT\_EUTRA\_Handover | Yes |  |  |
| 2 | Support inter-frequency Handover from the corresponding duplex mode or from the corresponding frequency range. | 38.306, 4.2.9 | Rel-15 | pc\_handoverInterF | Yes |  |  |
| 3 | Support Handover between FR1 and FR2 | 38.306, 4.2.9 | Rel-15 | pc\_FR1toFR2\_Handover | Yes |  |  |
| 4 | Support Handover between FDD and TDD | 38.306, 4.2.9 | Rel-15 | pc\_FDDtoTDD\_Handover | Yes |  |  |
| 5 | Support inter-RAT Handover to E-UTRA connected to 5GC | 38.306, 4.2.9 | Rel-15 | pc\_interRAT\_eLTE\_Handover | Yes |  |  |
| 6 | Support inter-RAT Handover to NR FR1 TDD from EUTRA connected to EPC | 36.306, 4.3.34.9 | Rel-15 | pc\_eutra\_EPC\_HO\_ToNR\_TDD\_FR1\_r15 | Yes |  |  |
| 7 | Support inter-RAT Handover to NR FR1 FDD from EUTRA connected to EPC | 36.306, 4.3.34.8 | Rel-15 | pc\_eutra\_EPC\_HO\_ToNR\_FDD\_FR1\_r15 | Yes |  |  |
| 8 | Support inter-RAT Handover to NR FR2 TDD from EUTRA connected to EPC | 36.306, 4.3.34.11 | Rel-15 | pc\_eutra\_EPC\_HO\_ToNR\_TDD\_FR2\_r15 | Yes |  |  |
| 9 | Support intra-frequency DAPS handover | 38.306, 4.2.7.5 | Rel-16 | pc\_intraFreqDAPS\_r16 | No |  | It is mandated if the UE supports asynchronous intra-frequency DAPS handover |
| 10 | Support inter-RAT Handover from NR to EN-DC | 38.306, 4.2.10 | Rel-16 | pc\_interRAT\_NR\_ToENDC | CY |  | It is mandated if the UE supports EN-DC. |
| 11 | Support conditional handover | 38.306, 4.2.7.2 | Rel-16 | pc\_condHandover\_r16 | No |  |  |
| 12 | Support conditional handover during re-establishment procedure when the selected cell is configured as candidate cell for condition handover | 38.306, 4.2.7.2 | Rel-16 | pc\_condHandoverFailure\_r16 | No |  |  |
| 13 | Support 2 trigger events for same execution condition of conditional handover | 38.306, 4.2.7.2 | Rel-16 | pc\_condHandoverTwoTriggerEvents\_r16 | CY |  | It is mandated if the UE supports *condHandover-r16*. |
| 14 | Support inter-RAT Handover from NR to UTRA-FDD CELL\_DCH CS | 38.306, 4.2.9 | Rel-16 | pc\_handoverUTRA\_FDD\_r16 | No |  |  |
| 15 | Support inter-frequency DAPS handover | 38.306, 4.2.7.4 | Rel-16 | pc\_interFreqDAPS\_r16 | No |  | It is mandated if the UE supports asynchronous inter-frequency DAPS handover or supports different SCSs in source PCell and inter-frequency target PCell in DAPS handover |
| 16 | UE supports asynchronous intra-frequency DAPS handover | 38.306, 4.2.7.5 | Rel-16 | pc\_intraFreqAsyncDAPS\_r16 | No |  |  |
| 17 | UE supports asynchronous inter-frequency DAPS handover | 38.306, 4.2.7.5 | Rel-16 | pc\_interFreqAsyncDAPS\_r16 | No |  |  |
| 18 | UE supports different SCSs in source PCell and inter-frequency target PCell in DAPS handover | 38.306, 4.2.7.5 | Rel-16 | pc\_inteFreqDiffSCS\_DAPS\_r16 | No |  |  |
| 19 | Support conditional PSCell change | 38.306, 4.2.7.2 | Rel-16 | pc\_condPSCellChange\_r16 | No |  |  |
| 20 | Support handover from 5GS to EPC/ePDG | 24.302, 7.2.2.1 | Rel-15 | pc\_HO\_from\_5GS\_to\_EPC\_ePDG | No |  |  |
| 21 | Support handover from EPC/ePDG to 5GS | 23.502, 4.11.4.1 | Rel-15 | pc\_HO\_from\_EPC\_ePDG\_to\_5GS | No |  |  |
| 22 | Support Handover from EPS to 5GC-N3IWF | 23.502, 4.11.3.1 | Rel-15 | pc\_HO\_from\_EPS\_to\_5GC\_N3IWF | No |  |  |
| 23 | Support Handover from 5GC-N3IWF to EPS | 23.502, 4.11.3.2 | Rel-15 | pc\_HO\_from\_5GC\_N3IWF\_to\_EPS | No |  |  |
| 24 | Support Handover of a PDU Session procedure from untrusted non-3GPP to 3GPP access | 23.502, 4.9.2.1 | Rel-15 | pc\_HO\_from\_5GC\_N3IWF\_to\_5GC | No |  |  |
| 25 | Support Handover of a PDU Session procedure from 3GPP to untrusted non-3GPP access | 23.502, 4.9.2.2 | Rel-15 | pc\_HO\_from\_5GC\_to\_5GC\_N3IWF | No |  |  |
| 26 | Supports location based conditional handover, i.e., CondEvent D1 | 38.306, 4.2.7.2 | Rel-17 | pc\_locationBasedCondHandover\_r17 | No |  | A UE supporting this feature shall also indicate the support of condHandover-r16 for NTN bands and the support of nonTerrestrialNetwork-r17. UE shall set the capability value consistently for all FDD-FR1 NTN bands. |
| 27 | Support time based conditional handover, i.e., CondEvent T1 | 38.306, 4.2.7.2 | Rel-17 | pc\_timeBasedCondHandover\_r17 | No |  | A UE supporting this feature shall also indicate the support of condHandover-r16 for NTN bands and the support of nonTerrestrialNetwork-r17. UE shall set the capability value consistently for all FDD-FR1 NTN bands. |
| X1->28 | Support of MN initiated conditional PSCell change in NR-DC | 38.306, 4.2.7.2 | Rel-17 | pc\_mn\_InitiatedCondPSCellChangeNRDC\_r17 | No |  | A UE supporting this feature shall also support 2 trigger events for same execution condition in MN initiated conditional PSCell change in NR-DC. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands respectively. |
| X2->29 | Support of MN initiated conditional PSCell change within all supported FR1-FDD bands in EN-DC | 38.306, 4.6.9a | Rel-17 | pc\_mn\_InitiatedCondPSCellChange\_FR1FDD\_ENDC\_r17 | No |  | The UE supporting this feature shall also support 2 trigger events for same execution condition in MN initiated conditional PSCell change in EN-DC. |
| X3->30 | Support of MN initiated conditional PSCell change within all supported FR1-TDD bands in EN-DC | 38.306, 4.6.9a | Rel-17 | pc\_mn\_InitiatedCondPSCellChange\_FR1TDD\_ENDC\_r17 | No |  | The UE supporting this feature shall also support 2 trigger events for same execution condition in MN initiated conditional PSCell change in EN-DC. |
| X4->31 | Support of MN initiated conditional PSCell change within all supported FR2-TDD bands in EN-DC | 38.306, 4.6.9a | Rel-17 | pc\_mn\_InitiatedCondPSCellChange\_FR2TDD\_ENDC\_r17 | No |  | The UE supporting this feature shall also support 2 trigger events for same execution condition in MN initiated conditional PSCell change in EN-DC. |

### A.4.3.9 Additional capabilities for UE declared capability

Table A.4.3.9-1: UE declared capabilities

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Item** | **UE declared capabilities** | **Ref.** | **Release** | **Mnemonic** | **Comments** |
| 1 | Enhanced Type 1 Receiver for NR | 38.101-4, 5 | Rel-15 | pc\_nr\_enh\_type1\_receiver | Support for Enhanced Type 1 Receiver (SU-MIMO Interference Mitigation advanced receiver) |
| 2 | Vehicular UE | 38.101-1, 3 | Rel-15 | pc\_nr\_vehicular\_ue |  |
| 3 | MMSE-IRC (Minimum Mean Square Error - Interference Rejection Combining) receiver | 38.101-4, 5 | Rel-15 | pc\_nr\_mmse\_irc\_receiver | Support of MMSE-IRC processing for scenarios with inter-cell and intra-cell inter-user interference. |

Table A.4.3.9-2: UE declared multi-band peak EIRP relaxation factors for Rel-15 FR2 power class 3 UE

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Item | Supported FR2 bands set | Ref. | Release | peak EIRP relaxation factor per band, MBp (dB)  (Note 1) | peak EIRP relaxation factor per band, MBp (dB)  (Note 1) | peak EIRP relaxation factor per band, MBp (dB)  (Note 1) | peak EIRP relaxation factor per band, MBp (dB)  (Note 1) | Maximum sum of MBp, ∑MBP (dB)  (Note 2) | Comments |
|  |  |  |  | n257 | n258 | n260 | n261 |  |  |
| 1 | n257, n258 | 38.101-2, 6.2.1.3 | Rel-15 |  |  | N/A | N/A | 1.3 |  |
| 2 | n257, n260 | 38.101-2, 6.2.1.3 | Rel-15 |  | N/A |  | N/A | 1.0 |  |
| 3 | n258, n260 | 38.101-2, 6.2.1.3 | Rel-15 | N/A |  |  | N/A | 1.0 |  |
| 4 | n258, n261 | 38.101-2, 6.2.1.3 | Rel-15 | N/A |  | N/A |  | 1.0 |  |
| 5 | n260, n261 | 38.101-2, 6.2.1.3 | Rel-15 | N/A | N/A |  |  | 0.0 | No relaxation factor allowed |
| 6 | n257, n258, n260 | 38.101-2, 6.2.1.3 | Rel-15 |  |  |  | N/A | 1.7 |  |
| 7 | n257, n258, n261 | 38.101-2, 6.2.1.3 | Rel-15 |  |  | N/A |  | 1.7 |  |
| 8 | n257, n260, n261 | 38.101-2, 6.2.1.3 | Rel-15 |  | N/A |  |  | 0.5 |  |
| 9 | n258, n260, n261 | 38.101-2, 6.2.1.3 | Rel-15 | N/A |  |  |  | 1.5 |  |
| 10 | n257, n258, n260, n261 | 38.101-2, 6.2.1.3 | Rel-15 |  |  |  |  | 1.7 |  |
| 11 | n257, n261 | 38.101-2, 6.2.1.3 | Rel-15 |  | N/A | N/A |  | 0.0 | No relaxation factor allowed |
| Note 1: UE vendor to fill in the needed relaxation factor per band that is ≥0 for Rel-15 UE supporting only Rel-15 FR2 bands. One row to be filled in, the one matching the supported FR2 bands of the UE as declared in Table A.4.3.1-3.  Note 2: Max allowed sum of MBp over all supported FR2 bands as defined in TS 38.521-2 clause 6.2.1.1.3.3 | | | | | | | | | |

Table A.4.3.9-3: UE declared multi-band peak EIRP Spherical coverage relaxation factors for Rel-15 FR2 power class 3 UE

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Item | Supported FR2 bands set | Ref. | Release | EIRP Spherical coverage relaxation factor per band, MBs (dB)  (Note 1) | | EIRP Spherical coverage relaxation factor per band, MBs (dB)  (Note 1) | | EIRP Spherical coverage relaxation factor per band, MBs (dB)  (Note 1) | | EIRP Spherical coverage relaxation factor per band, MBs (dB)  (Note 1) | Maximum sum of MBs, ∑MBs (dB)  (Note 2) | Comments |
|  |  |  |  | n257 | n258 | | n260 | | n261 | |  |  |
| 1 | n257, n258 | 38.101-2, 6.2.1.3 | Rel-15 |  |  | | N/A | | N/A | | 1.25 |  |
| 2 | n257, n260 | 38.101-2, 6.2.1.3 | Rel-15 |  | N/A | |  | | N/A | | 0.75 | Maximum 0.4 dB relaxation allowed for n260 |
| 3 | n258, n260 | 38.101-2, 6.2.1.3 | Rel-15 | N/A |  | |  | | N/A | | 0.75 | Maximum 0.4 dB relaxation allowed for n260 |
| 4 | n258, n261 | 38.101-2, 6.2.1.3 | Rel-15 | N/A |  | | N/A | |  | | 1.25 |  |
| 5 | n260, n261 | 38.101-2, 6.2.1.3 | Rel-15 | N/A | N/A | |  | |  | | 0.75 | No relaxation allowed for n260 |
| 6 | n257, n258, n260 | 38.101-2, 6.2.1.3 | Rel-15 |  |  | |  | | N/A | | 1.75 | Maximum 0.4 dB relaxation allowed for n260 |
| 7 | n257, n258, n261 | 38.101-2, 6.2.1.3 | Rel-15 |  |  | | N/A | |  | | 1.75 |  |
| 8 | n257, n260, n261 | 38.101-2, 6.2.1.3 | Rel-15 |  | N/A | |  | |  | | 1.25 | Maximum 0.4 dB relaxation allowed for n260 |
| 9 | n258, n260, n261 | 38.101-2, 6.2.1.3 | Rel-15 | N/A |  | |  | |  | | 1.25 | Maximum 0.4 dB relaxation allowed for n260 |
| 10 | n257, n258, n260, n261 | 38.101-2, 6.2.1.3 | Rel-15 |  |  | |  | |  | | 1.75 | Maximum 0.4 dB relaxation allowed for n260 |
| 11 | n257, n261 | 38.101-2, 6.2.1.3 | Rel-15 |  | N/A | | N/A | |  | | 0.0 | No relaxation factor allowed |
| Note 1: UE vendor to fill in the needed relaxation factor per band that is ≥0 for Rel-15 UE supporting only Rel-15 FR2 bands. One row to be filled in, the one matching the supported FR2 bands of the UE as declared in Table A.4.3.1-3  Note 2: Max allowed sum of MBs over all supported FR2 bands as defined in TS 38.521-2 clause 6.2.1.1.3.3 | | | | | | | | | | | | |

Table A.4.3.9-4a: FDD 4 Rx antenna ports Capabilities

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | Band | Ref. | Release | Comments |
| 1 | FDD Band n1 | 38.101-1, 7.3.2 | Rel-15 |  |
| 2 | FDD Band n2 | 38.101-1, 7.3.2 | Rel-15 |  |
| 3 | FDD Band n3 | 38.101-1, 7.3.2 | Rel-15 |  |
| … |  |  |  |  |
| 7 | FDD Band n7 | 38.101-1, 7.3.2 | Rel-15 | NOTE 2 |
| 8 | FDD Band n8 | 38.101-1.7.3.2 | Rel-17 | 4 Rx operation is targeted for FWA form factor |
| ... |  |  |  |  |
| 28 | FDD Band n28 | 38.101-1, 7.3.2 | Rel-16 | 4 Rx operation is targeted for FWA form factor |
| ... |  |  |  |  |
| 30 | FDD Band n30 | 38.101-1, 7.3.2 | Rel-16 |  |
| ... |  |  |  |  |
| 66 | FDD Band n66 | 38.101-1, 7.3.2 | Rel-15 |  |
| … |  |  |  |  |
| 70 | FDD Band n70 | 38.101-1, 7.3.2 | Rel-15 |  |
| 71 | FDD Band n71 | 38.101-1, 7.3.2 | Rel-16 | 4 Rx operation is targeted for FWA form factor |
| NOTE 1: At least one band from those listed in the present table needs to be supported if UE has indicated support of the capability defined in Table A.4.3.1-7a/2.  NOTE 2: Support of 4 Rx for this band is mandatory for non-vehicular UEs i.e. if support has NOT been indicated to the capability specified in Table A.4.3.9-1/2. | | | | |

Table A.4.3.9-4b: TDD 4 Rx antenna ports Capabilities

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | Band | Ref. | Release | Comments |
| 34 | TDD Band n34 | 38.101-1, 7.3.2 | Rel-15 |  |
| ... |  |  |  |  |
| 38 | TDD Band n38 | 38.101-1, 7.3.2 | Rel-15 | NOTE 2 |
| 39 | TDD Band n39 | 38.101-1, 7.3.2 | Rel-15 |  |
| ... |  |  |  |  |
| 40 | TDD Band n40 | 38.101-1, 7.3.2 | Rel-15 |  |
| 41 | TDD Band n41 | 38.101-1, 7.3.2 | Rel-15 | NOTE 2 |
| ... |  |  |  |  |
| 48 | TDD Band n48 | 38.101-1, 7.3.2 | Rel-16 | NOTE 2 |
| … |  |  |  |  |
| 77 | TDD Band n77 | 38.101-1, 7.3.2 | Rel-15 | NOTE 2 |
| 78 | TDD Band n78 | 38.101-1, 7.3.2 | Rel-15 | NOTE 2 |
| 79 | TDD Band n79 | 38.101-1, 7.3.2 | Rel-15 | NOTE 2 |
| NOTE 1: At least one band from those listed in the present table needs to be supported if UE has indicated support of the capability defined in Table A.4.3.1-7a/3.  NOTE 2: Support of 4 Rx for this band is mandatory for non-vehicular UEs i.e. if support has NOT been indicated to the capability specified in Table A.4.3.9-1/2. | | | | |

Table A.4.3.9-4c: 2 Rx antenna ports Capabilities

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Band | Ref. | Comments |
| 1 | FDD Band n1 | 38.101-1, 7.3.2 |  |
| 2 | FDD Band n2 | 38.101-1, 7.3.2 |  |
| 3 | FDD Band n3 | 38.101-1, 7.3.2 |  |
| 4 | FDD Band n5 | 38.101-1, 7.3.2 |  |
| 5 | FDD Band n7 | 38.101-1, 7.3.2 | NOTE 2 |
| 6 | FDD Band n8 | 38.101-1, 7.3.2 |  |
| 7 | FDD Band n12 | 38.101-1, 7.3.2 |  |
| 7b | FDD Band n14 | 38.101-1, 7.3.2 |  |
| 8 | FDD Band n20 | 38.101-1, 7.3.2 |  |
| 8d | FDD Band n24 | 38.101-1, 7.3.2 |  |
| 9 | FDD Band n25 | 38.101-1, 7.3.2 |  |
| 9a | FDD Band n26 | 38.101-1, 7.3.2 |  |
| 10 | FDD Band n28 | 38.101-1, 7.3.2 |  |
| 10a | SDL Band n29 | 38.101-1, 7.3.2 |  |
| 10b | FDD Band n30 | 38.101-1, 7.3.2 |  |
| 11 | TDD Band n34 | 38.101-1, 7.3.2 |  |
| 12 | TDD Band n38 | 38.101-1, 7.3.2 | NOTE 2 |
| 13 | TDD Band n39 | 38.101-1, 7.3.2 |  |
| 14 | TDD Band n40 | 38.101-1, 7.3.2 |  |
| 15 | TDD Band n41 | 38.101-1, 7.3.2 | NOTE 2 |
| 16 | TDD Band n48 | 38.101-1, 7.3.2 |  |
| 17 | TDD Band n50 | 38.101-1, 7.3.2 |  |
| 18 | TDD Band n51 | 38.101-1, 7.3.2 |  |
| 18a | Reserved |  |  |
| 18b | TDD Band n53 | 38.101-1, 7.3.2 |  |
| 19 | FDD Band n65 | 38.101-1, 7.3.2 |  |
| 20 | FDD Band n66 | 38.101-1, 7.3.2 |  |
| 21 | FDD Band n70 | 38.101-1, 7.3.2 |  |
| 22 | FDD Band n71 | 38.101-1, 7.3.2 |  |
| 23 | FDD Band n74 | 38.101-1, 7.3.2 |  |
| 24 | TDD Band n77 | 38.101-1, 7.3.2 | NOTE 2 |
| 25 | TDD Band n78 | 38.101-1, 7.3.2 | NOTE 2 |
| 26 | TDD Band n79 | 38.101-1, 7.3.2 | NOTE 2 |
| 27 | FDD Band n91 | 38.101-1, 7.3.2 |  |
| 28 | FDD Band n92 | 38.101-1, 7.3.2 |  |
| 29 | FDD Band n93 | 38.101-1, 7.3.2 |  |
| 30 | FDD Band n94 | 38.101-1, 7.3.2 |  |
| 31 | FDD Band n100 | 38.101-1, 7.3.2 |  |
| 32 | TDD Band n101 | 38.101-1, 7.3.2 |  |
| NOTE 1: At least one band from those listed in the present table needs to be supported if UE has indicated support of the capability defined in Table A.4.3.1-7a/1.  NOTE 2: Support of 2 Rx for this band is allowed only for vehicular UEs i.e. if support has been indicated to the capability specified in Table A.4.3.9-1/2. | | | |

Table A.4.3.9-4d: Enhanced transient capabilities

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Item | Band | Ref | Release | enhanced transient capability per band | enhanced transient capability per band | enhanced transient capability per band | Comments |
|  |  |  |  | 2us | 4us | 7us |  |
| 1 | FDD Band n1 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 2 | FDD Band n2 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 3 | FDD Band n3 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 4 | FDD Band n5 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 5 | FDD Band n7 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 6 | FDD Band n8 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 7 | FDD Band n12 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 8 | FDD Band n14 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 9 | FDD Band n20 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 10 | FDD Band n24 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 11 | FDD Band n25 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 12 | FDD Band n26 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 13 | FDD Band n28 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 14 | FDD Band n30 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 15 | TDD Band n34 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 16 | TDD Band n38 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 17 | TDD Band n39 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 18 | TDD Band n40 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 19 | TDD Band n41 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 20 | TDD Band n46 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 21 | TDD Band n48 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 22 | TDD Band n50 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 23 | TDD Band n51 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 24 | TDD Band n53 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 25 | FDD Band n65 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 26 | FDD Band n66 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 27 | FDD Band n70 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 28 | FDD Band n71 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 29 | FDD Band n74 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 30 | TDD Band n77 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 31 | TDD Band n78 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 32 | TDD Band n79 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| 33 | TDD Band n96 | 38.101-1, 6.4.2.1a | Rel-16 |  |  |  |  |
| NOTE 1: At least one band from those listed in the present table needs to be supported with enhanced transient capability of 2us, 4us or 7us if UE has indicated support of the capability defined in Table A.4.3.2-1/79.  NOTE 2: Indicate transient capability for each band by ticking the cell corresponding to the smallest enhanced transient capability that the UE supports for that band. | | | | | | | |

Table A.4.3.9-4e: 1 Rx antenna ports Capabilities

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Band | Ref. | Comments |
| 1 | FDD Band n1 | 38.101-1, 7.3I.2 |  |
| 2 | FDD Band n2 | 38.101-1, 7.3I.2 |  |
| 3 | FDD Band n3 | 38.101-1, 7.3I.2 |  |
| 4 | FDD Band n5 | 38.101-1, 7.3I.2 |  |
| 5 | FDD Band n8 | 38.101-1, 7.3I.2 |  |
| 6 | FDD Band n12 | 38.101-1, 7.3I.2 |  |
| 7 | FDD Band n13 | 38.101-1, 7.3I.2 |  |
| 8 | FDD Band n14 | 38.101-1, 7.3I.2 |  |
| 9 | FDD Band n18 | 38.101-1, 7.3I.2 |  |
| 10 | FDD Band n20 | 38.101-1, 7.3I.2 |  |
| 11 | FDD Band n24 | 38.101-1, 7.3I.2 |  |
| 12 | FDD Band n25 | 38.101-1, 7.3I.2 |  |
| 13 | FDD Band n26 | 38.101-1, 7.3I.2 |  |
| 14 | FDD Band n28 | 38.101-1, 7.3I.2 |  |
| 15 | FDD Band n30 | 38.101-1, 7.3I.2 |  |
| 16 | TDD Band n34 | 38.101-1, 7.3I.2 |  |
| 17 | TDD Band n39 | 38.101-1, 7.3I.2 |  |
| 18 | TDD Band n40 | 38.101-1, 7.3I.2 |  |
| 19 | TDD Band n50 | 38.101-1, 7.3I.2 |  |
| 20 | TDD Band n51 | 38.101-1, 7.3I.2 |  |
| 21 | TDD Band n53 | 38.101-1, 7.3I.2 |  |
| 22 | FDD Band n65 | 38.101-1, 7.3I.2 |  |
| 23 | FDD Band n66 | 38.101-1, 7.3I.2 |  |
| 24 | FDD Band n70 | 38.101-1, 7.3I.2 |  |
| 25 | FDD Band n71 | 38.101-1, 7.3I.2 |  |
| 26 | FDD Band n74 | 38.101-1, 7.3I.2 |  |
| 27 | FDD Band n85 | 38.101-1, 7.3I.2 |  |
| 28 | FDD Band n91 | 38.101-1, 7.3I.2 |  |
| 29 | FDD Band n92 | 38.101-1, 7.3I.2 |  |
| 30 | FDD Band n93 | 38.101-1, 7.3I.2 |  |
| 31 | FDD Band n94 | 38.101-1, 7.3I.2 |  |
| 32 | FDD Band n100 | 38.101-1, 7.3I.2 | NOTE 2 |
| 33 | TDD Band n101 | 38.101-1, 7.3I.2 |  |
| 34 | TDD Band n104 | 38.101-1, 7.3I.2 |  |
| NOTE 1: At least one band from those listed in the present table needs to be supported if UE has indicated support of the capability defined in Table A.4.3.1-7a/1.  NOTE 2: HD-FDD is not supported. | | | |

Table A.4.3.9-5: Beam Peak Search Vendor Declarations with respect to test frequency range for single CC

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | Band | Intent | Ref. | Release | Comments |
| 1 | n257 | n257 single CC beam peak is leveraged from mid to low and high channels | 38.521-2, K.1.1 & K.1.2 | Rel-15 | NOTE 1 |
| 2 | n258 | n258 single CC beam peak is leveraged from mid to low and high channels | 38.521-2, K.1.1 & K.1.2 | Rel-15 | NOTE 1. |
| 3 | n260 | n260 single CC beam peak is leveraged from mid to low and high channels | 38.521-2, K.1.1 & K.1.2 | Rel-15 | NOTE 1 |
| 4 | n261 | n261 single CC beam peak is leveraged from mid to low and high channels | 38.521-2, K.1.1 & K.1.2 | Rel-15 | NOTE 1 |
| 5 | n261 | n261 single CC beam peak is leveraged from n257 single CC mid channel to n261 low, mid and high channels | 38.521-2, K.1.1 & K.1.2 | Rel-15 | NOTE 2 |
| NOTE 1: The beam peak searches shall be performed for every test frequency range by default unless the device manufacturer explicitly declares that the beam peak at the mid test frequency range is applicable for the remaining (low, high) test frequency ranges.  NOTE 2: Beam peak search results can be re-used from bands that completely contain the target bands if explicitly declared by the manufacturer. | | | | | |

Table A.4.3.9-6: Beam Peak Search Vendor Declarations with respect to test frequency range for different CA BW classes

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Item** | **Bands** | **NR CA bandwidth class** | **Intent** | **Ref.** | **Release** | **Comments** |
| 1 | n257, n258, n260, n261 | A, B, C, D, E, F, G, H, I, J, K, L, M, O, P, Q | The beam peak is leveraged from a reference (frequency band, CBW) or (frequency band combination, CA BW class) to a group of other intra-band contiguous combinations and CA BW classes | 38.521-2, K.1.1 & K.1.2 | Rel-15 | A beam peak search shall be performed for every intra-band contiguous combination and CA BW class by default unless the device manufacturer explicitly declares that the beam peak for a reference (frequency band, CBW) or (frequency band combination, CA BW class) is applicable for a group of other intra-band contiguous combinations and CA BW classes. |

Table A.4.3.9-7: Beam Peak Search Vendor Declarations with respect to modulation for single CC

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | Band | Intent | Ref. | Release | Comments |
| 1 | n257 | n257 single CC beam peak is leveraged from QPSK modulation to 16QAM and 64QAM | 38.521-2, K.1.1 & K.1.2 | Rel-15 | NOTE 1 |
| 2 | n258 | n258 single CC beam peak is leveraged from QPSK modulation to 16QAM and 64QAM | 38.521-2, K.1.1 & K.1.2 | Rel-15 | NOTE 1 |
| 3 | n260 | n260 single CC beam peak is leveraged from QPSK modulation to 16QAM and 64QAM | 38.521-2, K.1.1 & K.1.2 | Rel-15 | NOTE 1 |
| 4 | n261 | n261 single CC beam peak is leveraged from QPSK modulation to 16QAM and 64QAM | 38.521-2, K.1.1 & K.1.2 | Rel-15 | NOTE 1 |
| NOTE 1: The beam peak searches shall be performed for every modulation by default unless the device manufacturer explicitly declares that the beam peak at the QPSK modulation is applicable for the remaining 16QAM and 64QAM modulations. | | | | | |

Table A.4.3.9-8: Beam Peak Search Vendor Declarations with respect to waveform for single CC

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Item | Band | Intent | Reference Waveform | Ref. | Release | Comments |
| 1 | n257 | n257 single CC beam peak is leveraged from the reference waveform to the other waveform | CP-OFDM or DFT-s-OFDM | 38.521-2, K.1.1 | Rel-15 | NOTE 1 |
| 2 | n258 | n258 single CC beam peak is leveraged from the reference waveform to the other waveform | CP-OFDM or DFT-s-OFDM | 38.521-2, K.1.1 | Rel-15 | NOTE 1 |
| 3 | n260 | n260 single CC beam peak is leveraged from the reference waveform to the other waveform | CP-OFDM or DFT-s-OFDM | 38.521-2, K.1.1 | Rel-15 | NOTE 1 |
| 4 | n261 | n261 single CC beam peak is leveraged from the reference waveform to the other waveform | CP-OFDM or DFT-s-OFDM | 38.521-2, K.1.1 | Rel-15 | NOTE 1 |
| NOTE 1: The beam peak searches shall be performed for every waveform by default unless the device manufacturer explicitly declares that the beam peak from one waveform is applicable for the other waveform. | | | | | | |

Table A.4.3.9-9: Reference Point Vendor Declaration for grey-box test approach

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | Band | Positioning Reference Point: Offset (*x*/*y*/*z*) from geometric centre of DUT [cm] | Minimum QZ required to contain all active antennas within the quiet zone | Ref. | Release |
| 1 | n257 |  |  | 38.508-1, B.2.2.2 | Rel-15 |
| 2 | n258 |  |  | 38.508-1, B.2.2.2 | Rel-15 |
| 3 | n260 |  |  | 38.508-1, B.2.2.2 | Rel-15 |
| 4 | n261 |  |  | 38.508-1, B.2.2.2 | Rel-15 |
| NOTE: The available QZ sizes are defined in TS 38.508-1, Clause B.2.2.2, i.e., 20cm, 30cm, 40cm, and 55cm | | | | | |

Table A.4.3.9-10: Vendor Declarations with respect to PC3 antenna configuration

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | Band | Intent | Ref. | Release | Comments |
| 1a | n257 | n257 PC3 measurement grids can be relaxed based on 4x2 worst case antenna array configuration | 38.521-2, M.2 – M.4 | Rel-15 | NOTE 1 |
| 2a | n258 | n258 PC3 measurement grids can be relaxed based on 4x2 worst case antenna array configuration | 38.521-2, M.2 – M.4 | Rel-15 | NOTE 1 |
| 3a | n259 | n259 PC3 measurement grids can be relaxed based on 4x2 worst case antenna array configuration | 38.521-2, M.2 – M.4 | Rel-16 | NOTE 1 |
| 4a | n260 | n260 PC3 measurement grids can be relaxed based on 4x2 worst case antenna array configuration | 38.521-2, M.2 – M.4 | Rel-15 | NOTE 1 |
| 5a | n261 | n261 PC3 measurement grids can be relaxed based on 4x2 worst case antenna array configuration | 38.521-2, M.2 – M.4 | Rel-15 | NOTE 1 |
| 1b | n257 | n257 PC3 measurement grids can be relaxed based on 6x2 worst case antenna array configuration | 38.521-2, M.2 – M.4 | Rel-15 | NOTE 2 |
| 2b | n258 | n258 PC3 measurement grids can be relaxed based on 6x2 worst case antenna array configuration | 38.521-2, M.2 – M.4 | Rel-15 | NOTE 2 |
| 3b | n259 | n259 PC3 measurement grids can be relaxed based on 6x2 worst case antenna array configuration | 38.521-2, M.2 – M.4 | Rel-16 | NOTE 2 |
| 4b | n260 | n260 PC3 measurement grids can be relaxed based on 6x2 worst case antenna array configuration | 38.521-2, M.2 – M.4 | Rel-15 | NOTE 2 |
| 5b | n261 | n261 PC3 measurement grids can be relaxed based on 6x2 worst case antenna array configuration | 38.521-2, M.2 – M.4 | Rel-15 | NOTE 2 |
| NOTE 1: The fine PC3 measurement grids based on the 8x2 worst case configuration shall be applied by default unless the device manufacturer explicitly declares that all antenna arrays with *M* x *N* (*M* ≥ *N*) comply with *M* ≤ 4 and *N* ≤ 2 for each band.  NOTE 2: The fine PC3 measurement grids based on the 8x2 worst case configuration shall be applied by default unless the device manufacturer explicitly declares that all antenna arrays with M x N (M ≥ N) comply with 4<M≤6 and N≤2 for each band. | | | | | |

Table A.4.3.9-10a: Vendor Declarations with respect to PC5 antenna configuration

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | Band | Intent | Ref. | Release | Comments |
| 1 | n257 | n257 PC5 measurement grids can be relaxed based on 6x6 worst case antenna array configuration | 38.521-2, M.2 – M.4 | Rel-15 | NOTE 1 |
| 2 | n258 | n258 PC5 measurement grids can be relaxed based on 6x6 worst case antenna array configuration | 38.521-2, M.2 – M.4 | Rel-15 | NOTE 1 |
| NOTE 1: The fine PC5 measurement grids based on the 12x12 worst case configuration shall be applied by default unless the device manufacturer explicitly declares that all antenna arrays with *M* x *N* (*M* ≥ *N*) comply with *M* ≤ 6 and *N* ≤ 6 for each band. | | | | | |

Table A.4.3.9-11: Antenna Aperture Vendor Declaration

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | Band | Antenna Aperture Declaration | Ref. | Release |
| 1 | n257 | Maximum radiating aperture of any of the panels integrated in the DUTs is ≤5cm | 38.508-1, B.2 | Rel-15 |
| 2 | n258 | Maximum radiating aperture of any of the panels integrated in the DUTs is ≤5cm | 38.508-1, B.2 | Rel-15 |
| 3 | n260 | Maximum radiating aperture of any of the panels integrated in the DUTs is ≤5cm | 38.508-1, B.2 | Rel-15 |
| 4 | n261 | Maximum radiating aperture of any of the panels integrated in the DUTs is ≤5cm | 38.508-1, B.2 | Rel-15 |

Table A.4.3.9-12: NR FR1 UL MIMO Capabilities

|  |  |  |  |
| --- | --- | --- | --- |
| Item | RF Baseline Implementation Capabilities | Ref. | Comments |
| 1 | NR Frequency band: 1920-1980 MHz, 2110-2170 MHz | 38.101-1, 5.2D | NR FDD FR1 Band 1 |
| 2 | NR Frequency band: 1850-1910 MHz, 1930-1990 MHz | 38.101-1, 5.2D | NR FDD FR1 Band 2 |
| 3 | NR Frequency band: 1710-1785 MHz, 1805-1880 MHz | 38.101-1, 5.2D | NR FDD FR1 Band 3 |
| ... |  |  |  |
| 5 | NR Frequency band: 824-849 MHz , 869-894 MHz | 38.101-1, 5.2D | NR FDD FR1 Band 5 |
| ... |  |  |  |
| 7 | NR Frequency band: 832-862 MHz, 791-821 MHz | 38.101-1, 5.2D | NR FDD FR1 Band 7 |
| 8 | NR Frequency band: 880-915 MHz, 925-960 MHz | 38.101-1, 5.2D | NR FDD FR1 Band 8 |
| ... |  |  |  |
| 24 | NR Frequency band: 1626.5-1660.5 MHz, 1525-1559 MHz | 38.101-1, 5.2D | NR FDD FR1 Band 24 |
| 25 | NR Frequency band: 1850-1915 MHz, 1930-1995 MHz | 38.101-1, 5.2D | NR FDD FR1 Band 25 |
| ... |  |  |  |
| 301 | NR Frequency band: 2305-2315 MHz, 2350-2360 MHz | 38.101-1, 5.2D | NR FDD FR1 Band 30 |
| ... |  |  |  |
| 34 | NR Frequency band: 2010-2025 MHz | 38.101-1, 5.2D | NR TDD FR1 Band 34 |
| ... |  |  |  |
| 38 | NR Frequency band: 2570-2620 MHz | 38.101-1, 5.2D | NR TDD FR1 Band 38 |
| 39 | NR Frequency band: 1880-1920 MHz | 38.101-1, 5.2D | NR TDD FR1 Band 39 |
| 40 | NR Frequency band: 2300-2400 MHz | 38.101-1, 5.2D | NR TDD FR1 Band 40 |
| 41 | NR Frequency band: 2496-2690 MHz | 38.101-1, 5.2D | NR TDD FR1 Band 41 |
| ... |  |  |  |
| 46 | NR Frequency band: 5150-5925 MHz | 38.101-1, 5.2D | NR TDD FR1 Band 46 |
| ... |  |  |  |
| 48 | NR Frequency band: 3550-3700 MHz | 38.101-1, 5.2D | NR TDD FR1 Band 48 |
| ... |  |  |  |
| 66 | NR Frequency band: 1710-1780, 2110-2200 MHz | 38.101-1, 5.2D | NR FDD FR1 Band 66 |
| ... |  |  |  |
| 70 | NR Frequency band: 1695-1710, 1995-2020 MHz | 38.101-1, 5.2D | NR FDD FR1 Band 70 |
| 712 | NR Frequency band: 663-698 MHz, 617-652 MHz | 38.101-1, 5.2D | NR FDD FR1 Band 71 |
| ... |  |  |  |
| 77 | NR Frequency band: 3300–4200 MHz | 38.101-1, 5.2D | NR TDD FR1 Band 77 |
| 78 | NR Frequency band: 3300–3800 MHz | 38.101-1, 5.2D | NR TDD FR1 Band 78 |
| 79 | NR Frequency band: 4400–5000 MHz | 38.101-1, 5.2D | NR TDD FR1 Band 79 |
| 80 | NR Frequency band: 1710–1785 MHz | 38.101-1, 5.2D | NR TDD FR1 Band 80 |
| 84 | NR Frequency band: 1920–1980 MHz | 38.101-1, 5.2D | NR TDD FR1 Band 84 |
| 95 | NR Frequency band: 2010–2025 MHz | 38.101-1, 5.2D | NR SUL FR1 Band 95 |
| 97 | NR Frequency band: 2300–2400 MHz | 38.101-1, 5.2D | NR SUL FR1 Band 97 |
| 98 | NR Frequency band: 1880–1920 MHz | 38.101-1, 5.2D | NR SUL FR1 Band 98 |
| 99 | NR Frequency band: 1626.5–1660.5 MHz | 38.101-1, 5.2D | NR SUL FR1 Band 99 |
| NOTE 1: Uplink transmission is not allowed at this band for UE with external vehicle-mounted antennas.  NOTE 2: UL MIMO is targeted for FWA form factor. | | | |

Table A.4.3.9-13: NR FR2 UL MIMO Capabilities

|  |  |  |  |
| --- | --- | --- | --- |
| Item | RF Baseline Implementation Capabilities | Ref. | Comments |
| 257 | NR Frequency band: 26500-29500 MHz | 38.101-2, 5.2D | NR TDD FR2 Band 257 |
| 258 | NR Frequency band: 24250-27500 MHz | 38.101-2, 5.2D | NR TDD FR2 Band 258 |
| 259 | NR Frequency band: 39500-43500 MHz | 38.101-2, 5.2D | NR TDD FR2 Band 259 |
| 260 | NR Frequency band: 37000–40000 MHz | 38.101-2, 5.2D | NR TDD FR2 Band 260 |
| 261 | NR Frequency band: 27500–28350 MHz | 38.101-2, 5.2D | NR TDD FR2 Band 261 |

### A.4.3.10 Sidelink Capabilities

Table A.4.3.10-1: NR Sidelink Capabilities

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Item | UE Sidelink Capabilities | Ref. | Release | Mnemonic | M | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Comments |
| 1 | Support transmitting NR sidelink mode 1 scheduled by Uu | 38.306, 4.2.16.1.6 | Rel-16 | pc\_NR\_sl\_TransmissionMode1\_r16 | No |  |  |
| 2 | Support of NR sidelink transmission mode 2 | 38.306, 4.2.16.1.6 | Rel-16 | pc\_NR\_sl\_TransmissionMode2\_r16 | No |  |  |
| 3 | Support of sidelink CSI report with 2 antenna ports | 38.306, 4.2.16.1.6 | Rel-16 | pc\_NR\_sl\_csi\_rs\_portssidelink\_p2 | No |  |  |
| 4 | Support of out of order delivery of data to upper layers by PDCP for sidelink | 38.306, 4.2.16.1.2 | Rel-16 | pc\_outOfOrderDeliverySidelink\_r16 | No |  |  |
| 5 | Support of AM DRB with 18 bit length of RLC sequence number for sidelink | 38.306, 4.2.16.1.3 | Rel-16 | pc\_amWithLongSN\_Sidelink\_r16 | No |  |  |
| 6 | Support of UM DRB with 12 bit length of RLC sequence number for sidelink | 38.306, 4.2.16.1.3 | Rel-16 | pc\_umWithLongSN\_Sidelink\_r16 | No |  |  |
| 7 | supports receiving 5 PSFCH resources in a slot | 38.306, 4.2.16.1.6 | Rel-16 | pc\_psfch\_RxNumber\_n5 | No |  |  |
| 8 | supports receiving 15 PSFCH resources in a slot | 38.306, 4.2.16.1.6 | Rel-16 | pc\_psfch\_RxNumber\_n15 | No |  |  |
| 9 | supports receiving 25 PSFCH resources in a slot | 38.306, 4.2.16.1.6 | Rel-16 | pc\_psfch\_RxNumber\_n25 | No |  |  |
| 10 | supports receiving 32 PSFCH resources in a slot | 38.306, 4.2.16.1.6 | Rel-16 | pc\_psfch\_RxNumber\_n32 | No |  |  |
| 11 | supports receiving 35 PSFCH resources in a slot | 38.306, 4.2.16.1.6 | Rel-16 | pc\_psfch\_RxNumber\_n35 | No |  |  |
| 12 | supports receiving 45 PSFCH resources in a slot | 38.306, 4.2.16.1.6 | Rel-16 | pc\_psfch\_RxNumber\_n45 | No |  |  |
| 13 | supports receiving 50 PSFCH resources in a slot | 38.306, 4.2.16.1.6 | Rel-16 | pc\_psfch\_RxNumber\_n50 | No |  |  |
| 14 | supports receiving 64 PSFCH resources in a slot | 38.306, 4.2.16.1.6 | Rel-16 | pc\_psfch\_RxNumber\_n64 | No |  |  |
| 15 | supports transmitting 4 PSFCH resources in a slot | 38.306, 4.2.16.1.6 | Rel-16 | pc\_psfch\_TxNumber\_n4 | No |  |  |
| 16 | supports transmitting 8 PSFCH resources in a slot | 38.306, 4.2.16.1.6 | Rel-16 | pc\_psfch\_TxNumber\_n8 | No |  |  |
| 17 | supports transmitting 16 PSFCH resources in a slot | 38.306, 4.2.16.1.6 | Rel-16 | pc\_psfch\_TxNumber\_n16 | No |  |  |
| 18 | supports 16 SL HARQ processes for NR PSSCH reception across all links | 38.306, 4.2.16.1.6 | Rel-16 | pc\_harq\_RxProcessSidelink\_n16 | No |  |  |
| 19 | supports 24 SL HARQ processes for NR PSSCH reception across all links | 38.306, 4.2.16.1.6 | Rel-16 | pc\_harq\_RxProcessSidelink\_n24 | No |  |  |
| 20 | supports 32 SL HARQ processes for NR PSSCH reception across all links | 38.306, 4.2.16.1.6 | Rel-16 | pc\_harq\_RxProcessSidelink\_n32 | No |  |  |
| 21 | supports 48 SL HARQ processes for NR PSSCH reception across all links | 38.306, 4.2.16.1.6 | Rel-16 | pc\_harq\_RxProcessSidelink\_n48 | No |  |  |
| 22 | supports 64 SL HARQ processes for NR PSSCH reception across all links | 38.306, 4.2.16.1.6 | Rel-16 | pc\_harq\_RxProcessSidelink\_n64 | No |  |  |
| 23 | Support of NR L2 sidelink relay UE operation | 38.306, 4.2.16.1.1 | Rel-17 | pc\_relayUE\_Operation-L2-r17 | No |  |  |
| 24 | Support of NR L2 sidelink remote UE operation | 38.306, 4.2.16.1.1 | Rel-17 | pc\_remoteUE\_Operation-L2-r17 | No |  |  |
| 25 | Support of rank 2 transmission for NR sidelink | 38.211, 8.3.1.3 | Rel-16 | pc\_sl-MIMO-r16 | No |  |  |
| xx->26 | Support of direct to indirect path switch with target relay in RRC\_IDLE or RRC\_INACTIVE state | 38.306  4.2.16.1.1 | Rel-17 | pc\_remoteUE\_PathSwitchToIdleInactiveRelay\_r17 | No |  |  |

### A.4.3.11 High Speed Capabilities

Table A.4.3.11-1: High Speed Capabilities

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Item | UE High Speed Capabilities | Ref. | Release | Mnemonic | M | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Comments |
| 1 | Support the enhanced intra-NR and inter-RAT E-UTRAN measurement requirements to support high speed up to 500 km/h | 38.306, 4.2.19 | Rel-16 | pc\_hst\_meas\_enh\_r16 | No |  |  |
| 2 | Support the enhanced demodulation processing for HST-SFN joint transmission scheme with velocity up to 500km/h | 38.306, 4.2.19 | Rel-16 | pc\_hst\_demod\_enh\_r16 | No |  |  |
| 3 | Support the enhanced intra-NR RRM requirements to support high speed up to 500 km/h | 38.306, 4.2.19 | Rel-16 | pc\_hst\_intraNR\_meas\_enh\_r16 | No |  | This PICS can only be set to true when pc\_hst\_meas\_enh\_r16 is set to false.  Up to one PICS between pc\_hst\_intraNR\_meas\_enh\_r16 and pc\_hst\_interRAT\_meas\_enh\_r16 can be set to true |
| 4 | Supports the enhanced inter-RAT E-UTRAN RRM requirements to support high speed up to 500 km/h | 38.306, 4.2.19 | Rel-16 | pc\_hst\_interRAT\_meas\_enh\_r16 | No |  | This PICS can only be set to true when pc\_hst\_meas\_enh\_r16 is set to false.  Up to one PICS between pc\_hst\_intraNR\_meas\_enh\_r16 and pc\_hst\_interRAT\_meas\_enh\_r16 can be set to true |
| 5 | Support for enhanced inter-RAT NR measurement requirements in high-speed scenario | 36.306,4.3.33.7 | Rel-16 | pc\_hst\_interRAT\_NR\_meas\_enh\_r16 | No |  |  |
| 6 | Supports the enhanced RRM requirements for carrier aggregation to support high speed up to 500 km/h | 38.306, 4.2.19 | Rel-17 | pc\_hst\_RRM\_CA\_enh\_r17 | No |  | FR1 only  UE indicating support of this feature shall indicate support of measurementEnhancement-r16 or intraNR-MeasurementEnhancement-r16. |
| 7 | Supports the enhanced RRM requirements for inter-frequency measurements in connected mode to support high speed up to 500 km/h | 38.306, 4.2.19 | Rel-17 | pc\_hst\_RRM\_interfreq\_meas\_enh\_r17 | No |  | FR1 only  UE indicating support of this feature shall indicate support of measurementEnhancement-r16 or intraNR-MeasurementEnhancement-r16. |
| 8 | Support the enhanced RRM requirements for inter-frequency IDLE/INACTIVE measurements to support high speed up to 500 km/h | 38.306, 5.6 | Rel-17 | pc\_hst\_RRM\_interfreq\_idle\_inactive\_meas\_enh\_r17 | No |  | FR1 only  UE indicating support of this feature shall indicate support of measurementEnhancement-r16 or intraNR-MeasurementEnhancement-r16. |
| 9 | Indicates whether the UE supports one shot large UL timing adjustment. | 38.306, 4.2.7.2 | Rel-17 | pc\_hst\_oneStep\_UL\_Timing\_adj\_r17 | No |  | FR2 only |
| 10 | Support the enhanced intra-NR RRM requirements to support high-speed up to 350 km/h for FR2 | 38.306, 4.2.7.2 | Rel-17 | pc\_hst\_MeasFlagFR2\_r17 | No |  | FR2 only  UE indicating support of this feature shall indicate support of ue-PowerClass-v1700 set to 'pc6'. |

### A.4.3.12 RedCap Capabilities

According to TS 38.306 [17] clause 4.2.21:

CA, MR-DC, DAPS, CPAC and IAB (i.e the RedCap IE is not expected to act as IAB mode) related UE features and corresponding capabilities are not supported by the RedCap UEs.

- PICS associated to the following features are as below:

- CA: PICS defined in clause A.4.3.2A;

- MR-DC: PICS defined in clause A.4.3.2B;

- DAPS: PICS include pc\_intraFreqDAPS\_r16, interFreqDAPS\_r16 and other DAPS related PICS;

- CPAC: PICS include pc\_condPSCellChange\_r16 and other CPAC related PICS.

- UE features and corresponding capabilities related to more than 2 UE Rx branches or more than 2 DL MIMO layers, as well as UE features and capabilities related to more than 1 UE Tx branches or more than 1 UL MIMO layers are not supported by RedCap UE.

- For FR1, 1 DL MIMO layer if 1 Rx branch is supported, and 2 DL MIMO layers if 2 Rx branches are supported.

- For FR2, either 1 or 2 DL MIMO layers can be supported, while 2 Rx branches are always supported.

Table A.4.3.12-1: RedCap UE Capabilities

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Item | UE Capabilities | Ref. | Release | Mnemonic | M | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Comments |
| 1 | Support of 16 DRBs for RedCap UEs. | 38.306, 4.2.21.2 | Rel-17 | pc\_supportOf16DRB\_RedCap\_r17 | No |  |  |
| 2 | Support of RedCap. | 38.306, 4.2.21.2 | Rel-17 | pc\_supportOfRedCap\_r17 | No |  | This PICS shall always be true for RedCap UE. |
| 3 | Void |  |  |  |  |  |  |
| 4 | Void |  |  |  |  |  |  |
| 5 | Support of Half-duplex FDD operation (instead of full-duplex FDD operation) type A for RedCap UE. | 38.306  4.2.21.6.1 | Rel-17 | pc\_halfDuplexFDD\_TypeA\_RedCap\_r17 | No |  | FDD FR1 only |
| 6 | Support of relaxed RRM measurements in RRC\_CONNECTED for RedCap UE. | 38.306  4.2.21.5 | Rel-17 | pc\_rrm\_RelaxationRRC\_ConnectedRedCap\_r17 | No |  |  |
| 7 | Support of initiating  UE Assistance Information procedure immediately upon change of its fulfilment status for RRM measurement relaxation criterion for connected mode. | TS 38.331  5.7.4.2 | Rel-17 | pc\_UAI\_rrm\_RelaxationRRC\_ConnectedRedCap | No |  | The UE will initiate  UE Assistance Information procedure immediately upon change of its fulfilment status for RRM measurement relaxation criterion for connected mode.  It is only applicable for RedCap UE. |
| 8 | Support of Rel-17 relaxed RRM measurements of neighbour cells in RRC\_IDLE/RRC\_INACTIVE | 38.306, 5.6 | Rel-17 | pc\_Relaxed\_Measurement\_RedCap\_r17 | No |  | It is optional for RedCap UE to support Rel-17 relaxed RRM measurements of neighbour cells in RRC\_IDLE/RRC\_INACTIVE |

### A.4.3.13 Multi-SIM Capabilities

Table A.4.3.13-1: Multi-SIM Capabilities

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Item | UE Sidelink Capabilities | Ref. | Release | Mnemonic | M | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Comments |
| 1 | Support one or more Multi-SIM features include N1 NAS signalling connection release/Paging indication for voice services/Reject paging request/Paging restriction/IMSI offset and so on. | 24.501, 4.25 | Rel-17 | pc\_5GC\_MUSIM | No |  |  |
| 2 | Support of Multi-SIM N1 NAS signalling connection release | 24.501, 4.25 | Rel-17 | pc\_5GC\_MUSIM\_NCR | No |  |  |
| 3 | Support of Multi-SIM Paging indication for voice services | 24.501, 4.25 | Rel-17 | pc\_5GC\_MUSIM\_PIV | No |  |  |
| 4 | Support of Multi-SIM Reject paging request | 24.501, 4.25 | Rel-17 | pc\_5GC\_MUSIM\_RPR | No |  |  |
| 5 | Support of Multi-SIM Paging restriction | 24.501, 4.25 | Rel-17 | pc\_5GC\_MUSIM\_PR | No |  | A UE support Pging restriction shall support:  - N1 NAS signalling connection release or  - Reject paging request or  - both of them |
| 6 | Support providing MUSIM assistance information with MUSIM gap preference and related MUSIM gap configuration | 38.306  4.2.2 | Rel-17 | pc\_musim\_GapPreference\_r17 | No |  | UE supporting this feature supports 3 periodic gaps and 1 aperiodic gap. |
| 7 | Support providing MUSIM assistance information with indication of leaving RRC\_CONNECTED state | 38.306  4.2.2 | Rel-17 | pc\_musimLeaveConnected\_r17 | No |  |  |
| 8 | Support of MUSIM test function SET MUSIM UAI | 38.509, 5.13 | Rel-17 | pc\_Set\_MUSIM\_UAI\_Info\_NR | No |  |  |

### A.4.3.14 MBS Capabilities

Table A.4.3.14-1: MBS Capabilities

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Item | UE Sidelink Capabilities | Ref. | Release | Mnemonic | M | If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release | Comments |
| 1 | Support of broadcast reception. | 38.306, 5.10 | Rel-17 | pc\_Broadcast\_reception | No |  |  |
| 2 | Support of dynamic scheduling for multicast for PCell. | 38.306, 4.2.7.5 | Rel-17 | pc\_dynamicMulticastPCell\_r17 | No |  |  |
| 3 | Support of ACK/NACK based HARQ-ACK feedback and RRC-based enabling/disabling ACK/NACK-based feedback for dynamic scheduling for multicast. | 38.306, 4.2.7.4 | Rel-17 | pc\_ack\_NACK\_FeedbackForMulticast\_r17 | No |  | This PICS can only be set to true when pc\_dynamicMulticastPCell\_r17 is set to true. |
| 4 | Support of PTP retransmission for multicast on the same cell as multicast initial transmission. | 38.306, 4.2.7.4 | Rel-17 | pc\_ptp\_Retx\_Multicast\_r17 | No |  | This PICS can only be set to true when pc\_ack\_NACK\_FeedbackForMulticast\_r17 is set to true. |
| 5 | Support of NACK-only based HARQ-ACK feedback for multicast with ACK/NACK transforming | 38.306, 4.2.7.4 | Rel-17 | pc\_nack\_OnlyFeedbackForMulticast\_r17 | No |  | This PICS can only be set to true when pc\_ack\_NACK\_FeedbackForMulticast\_r17 is set to true. |
| 6 | Support of NACK-only based HARQ-ACK feedback for multicast corresponding to a specific sequence or a PUCCH transmission | 38.306, 4.2.7.4 | Rel-17 | pc\_nack\_OnlyFeedbackSpecificResourceForMulticast\_r17 | No |  | This PICS can only be set to true when pc\_nack\_OnlyFeedbackForMulticast\_r17 is set to true. |
| 7 | Support of multiplexing HARQ-ACK for unicast and for multicast with the same priority and different HARQ-ACK codebook types in a PUCCH or in a PUSCH. | 38.306, 4.2.7.4 | Rel-17 | pc\_mux\_HARQ\_ACK\_UnicastMulticast\_r17 | No |  |  |
| 8 | Support of DCI format 4\_2 with CRC scrambled with G-RNTI for multicast. | 38.306, 4.2.7.2 | Rel-17 | pc\_dynamicMulticastDCI\_Format4\_2\_r17 | No |  | This PICS can only be set to true when pc\_dynamicMulticastPCell\_r17 is set to true. |
| 9 | Support of  DCI-based enabling/disabling ACK/NACK based HARQ-ACK feedback configured per G-RNTI by RRC signalling via DCI format 4\_2. | 38.306, 4.2.7.2 | Rel-17 | pc\_ack\_NACK\_FeedbackForMulticastWithDCI\_Enabler\_r17 | No |  | This PICS can only be set to true when pc\_dynamicMulticastDCI\_Format4\_2\_r17  and pc\_ack\_NACK\_FeedbackForMulticast\_r17 are set to true. |
| 10 | Support of  DCI-based enabling/disabling NACK-only based HARQ-ACK feedback configured per G-RNTI by RRC signalling via DCI format 4\_2. | 38.306, 4.2.7.2 | Rel-17 | pc\_nack\_OnlyFeedbackForMulticastWithDCI\_Enabler\_r17 | No |  | This PICS can only be set to true when pc\_dynamicMulticastDCI\_Format4\_2\_r17  and pc\_nack\_OnlyFeedbackForMulticast\_r17 are set to true. |
| 11 | Support of  MBS reception via broadcast in RRC\_CONNECTED on one frequency indicated in an MBSInterestIndication message, when an SCell is configured and activated on that frequency | 38.306,  4.2.7.6 | Rel-17 | pc\_broadcastSCell\_r17 | No |  |  |
| 12 | Support of SPS group-common PDSCH for multicast on PCell. | 38.306,  4.2.7.5 | Rel-17 | pc\_sps\_Multicast\_r17 | No |  | This PICS can only be set to true when pc\_dynamicMulticastPCell\_r17 is set to true. |
| 13 | Support of ACK/NACK based HARQ-ACK feedback and RRC-based enabling/disabling ACK/NACK-based feedback for SPS group-common PDSCH for multicast. | 38.306,  4.2.7.4 | Rel-17 | pc\_ack\_NACK\_FeedbackForSPS\_Multicast\_r17 | No |  | This PICS can only be set to true when pc\_sps\_Multicast\_r17 is set to true. |
| 14 | Support of PTP retransmission associated with CS-RNTI for SPS multicast on the cell same as multicast initial transmission. | 38.306,  4.2.7.4 | Rel-17 | pc\_ptp\_Retx\_SPS\_Multicast\_r17 | No |  | This PICS can only be set to true when pc\_ack\_NACK\_FeedbackForSPS\_Multicast\_r17 is set to true. |
| 15 | Support of unicast PDCCH scrambled with CS-RNTI to release SPS group-common PDSCH. | 38.306,  4.2.7.2 | Rel-17 | pc\_releaseSPS\_MulticastWithCS\_RNTI\_r17 | No |  | This PICS can only be set to true when pc\_sps\_Multicast\_r17 is set to true. |
| 16 | Maximum number of G-RNTIs for multicast is more than one. | 38.306,  4.2.7.2 | Rel-17 | pc\_maxNumberG\_RNTI\_r17 | No |  | If the maximum number of G-RNTIs for multicast is more than one, then pc\_maxNumberG\_RNTI\_r17 is set to true. |

## A.4.4 Additional information

Table A.4.4-1: Additional information

| Item | Additional information | Ref. | Release | Mnemonic | Comments |
| --- | --- | --- | --- | --- | --- |
| 1 | Support of ICMP or ICMP IPv6 | RFC 792 OR RFC 4443, RFC 4884 | NA | pc\_IP\_Ping | UE supports ICMP or ICMPv6 protocol to enable IP Ping Operation |
| 2 | Support of IMS | 24.229, Annex U | Rel-15 | pc\_IMS\_5GS |  |
| 3 | Support of rachReport | 38.306, 4.2.17 | Rel-16 | pc\_rachReport\_r16 | UE supports delivery of rachReport upon request from the network. |
| 4 | Support of GNSS | 38.306, 4.2.18 | Rel-16 | pc\_GNSS\_location\_r16 | UE is equipped with a GNSS or A-GNSS receiver that may be used to provide detailed location information along with SON or MDT related measurements in RRC\_CONNECTED, RRC\_IDLE and RRC\_INACTIVE. |
| 5 | Support of UL PDCP Packet Average Delay | 38.306, 4.2.18 | Rel-16 | pc\_PDCP\_Delay\_r16 | UE supports UL PDCP Packet Average Delay measurement and reporting in RRC\_CONNECTED state |
| 6 | Support logged MDT | 38.306, 4.2.18 | Rel-16 | pc\_loggedMeasurements\_r16 | UE supports logged measurements in RRC\_IDLE and RRC\_INACTIVE. A UE that supports logged measurements shall support both periodical logging and event-triggered logging. The memory size of MDT logged measurements is 64KB. |
| 7 | Support of uncompensated barometric pressure measurement reporting | 38.306, 4.2.18 | Rel-16 | pc\_barometer\_r16 | UE supports uncompensated barometric pressure measurement reporting upon request from the network. |
| 8 | Support of orientation information reporting | 38.306, 4.2.18 | Rel-16 | pc\_orientation\_r16 | UE supports orientation information reporting upon request from the network. |
| 9 | Support of speed information reporting | 38.306, 4.2.18 | Rel-16 | pc\_speed\_r16 | UE supports speed information reporting upon request from the network. |
| 10 | Support of Bluetooth measurements in RRC\_CONNECTED state | 38.306, 4.2.18 | Rel-16 | pc\_immMeasBT\_r16 | UE supports Bluetooth measurements in RRC\_CONNECTED state. |
| 11 | Support of WLAN measurements in RRC\_CONNECTED state | 38.306, 4.2.18 | Rel-16 | pc\_immMeasWLAN\_r16 | UE supports WLAN measurements in RRC\_CONNECTED state. |
| 12 | Support of Bluetooth measurements in RRC\_IDLE and RRC\_INACTIVE state | 38.306, 4.2.18 | Rel-16 | pc\_loggedMeasBT\_r16 | UE supports Bluetooth measurements in RRC\_IDLE and RRC\_INACTIVE state. |
| 13 | Support of WLAN measurements in RRC\_IDLE and RRC\_INACTIVE state | 38.306, 4.2.18 | Rel-16 | pc\_loggedMeasWLAN\_r16 | UE supports WLAN measurements in RRC\_IDLE and RRC\_INACTIVE state. |
| 14 | Support of SDT in RRC\_INACTIVE state via Random Access Procedure | 38.306, 4.2.2 | Rel-17 | pc\_ra\_SDT\_r17 | UE supports SDT via Random Access procedure in RRC\_INACTIVE state |
| 15 | Support of SRB SDT in RRC\_INACTIVE state | 38.306, 4.2.2 | Rel-17 | pc\_srb\_SDT\_r17 | UE supports SRB SDT in RRC\_INACTIVE state |
| 16 | Support of SDT in RRC\_INACTIVE state via Configured Grant Type 1 | 38.306, 4.2.7.2 | Rel-17 | pc\_cg\_SDT\_r17 | UE supports SDT via Configured Grant Type 1 in RRC\_INACTIVE state |
| 17 | Support of NR NTN access | 38.306, 4.2.2 | Rel-17 | pc\_nonTerrestrialNetwork\_r17 | UE supports NR NTN access. |
| 18 | Support of RRC INACTIVE state in NTN | 38.331, 6.3.3 | Rel-17 | pc\_inactiveStateNTN\_r17 | UE supports RRC INACTIVE state in NTN |
| 19 | Support of RA-SDT in NTN | 38.331, 6.3.3 | Rel-17 | pc\_ra\_SDT\_NTN\_r17 | UE supports RA-SDT in NTN |
| 20 | Support of SRB-SDT in NTN | 38.331, 6.3.3 | Rel-17 | pc\_srb\_SDT\_NTN\_r17 | UE supports SRB-SDT in NTN |
| 21 | Support of storage and delivery of multiple CEF reports | 38.306, 4.2.18 | Rel-17 | pc\_multiple\_CEF\_Report\_r17 | UE supports the storage and delivery of multiple CEF reports upon request from the network |
| 22 | Support of the storage of Early Measurement Logging in logged measurements. | 38.306, 4.2.18 | Rel-17 | pc\_earlyMeasLog\_r17 | UE supports the storage of Early Measurement Logging in logged measurements and the reporting upon request from the network as specified in TS 38.331 |
| 23 | Support of IDC problem detection | 38.331, 6.2.2 | Rel-17 | pc\_inDeviceCoexDetected\_r17 | UE supports that measurement logging is suspended due to IDC problem detection |
| 24 | Support of delivery of on-Demand SI information upon request from the network | 38.306, 4.2.17 | Rel-17 | pc\_onDemandSI\_Report\_r17 |  |
| 25 | Support of the storage and delivery of 2-step RACH related information upon request from the network | 38.306, 4.2.17 | Rel-17 | pc\_twoStepRACH\_Report\_r17 |  |
| 26 | Support of mpsPriorityIndication on RRC release with redirect | 38.306, 4.2.2 | Rel-16 | pc\_NR\_mpsPriorityIndication\_r16 | UE supports mpsPriorityIndication on RRC release with redirect as specified in TS 38.331 |
| 27 | Support of RLF-Report for conditional handover | 38.306, 4.2.17 | Rel-17 | pc\_rlfReportCHO\_r17 | UE supports RLF-Report for conditional handover. |
| 28 | Support of RLF-Report for DAPS handover. | 38.306, 4.2.17 | Rel-17 | pc\_rlfReportDAPS\_r17 | UE supports RLF-Report for DAPS handover. |
| 29 | Support of the storage and delivery of Successful Handover Report. | 38.306, 4.2.17 | Rel-17 | pc\_success\_HO\_Report\_r17 | UE supports the storage and delivery of Successful Handover Report. |

Table A.4.4-2: Definition of UE implementation capabilities

| Item | Definition of UE implementation capabilities | Ref. | Release | Mnemonic | Comments |
| --- | --- | --- | --- | --- | --- |
| 1 | Void |  |  |  |  |
| 2 | Void |  |  |  |  |
| 3 | Number of UE-requested PDU session establishments after REGISTRATION during the same signalling connection | 24.501 | Rel-15 | pc\_noOf\_PDUsSameConnection | If the UE requires an external trigger to establish a PDU session, this value shall be set to 0 |
| 4 | Number of UE-requested PDU session establishments after REGISTRATION in a new signalling connection | 24.501 | Rel-15 | pc\_noOf\_PDUsNewConnection | If the UE requires an external trigger to establish a PDU session, this value shall be set to 0 |
| 5 | Number of UE-requested PDN connection establishments after ATTACH during the same signalling connection | 24.301 | Rel-15 | pc\_noOf\_PDNsSameConnection | If the UE requires an external trigger to establish a PDN connection, this value shall be set to 0 |
| 6 | Number of UE-requested PDN connection establishments after ATTACH in a new signalling connection | 24.301 | Rel-15 | pc\_noOf\_PDNsNewConnection | If the UE requires an external trigger to establish a PDN connection, this value shall be set to 0 |
| 7 | Void |  |  |  |  |
| 8 | Support of Emergency PDU session transfer from N1 mode to S1 mode when network does not support N26 interface | TS 24.501, 6.1.4.2 | Rel-15 | pc\_TransferEmergencyPDUN1toS1noN26 | Will the UE attempt to transfer an existing Emergency PDU session upon inter-system change from N1 mode to S1 mode in EMM-IDLE mode if the network does not support N26 interface |
| 9 | Support of Emergency PDN connection transfer from S1 mode to N1 mode when network does not support N26 interface | TS 24.501, 6.1.4.2 | Rel-15 | pc\_TransferEmergencyPDUS1toN1noN26 | Will the UE attempt to transfer an existing Emergency PDN connection upon inter-system change from S1 mode to N1 mode in EMM-IDLE mode if the network does not support N26 interface |
| 10 | Support of UE's usage setting as data centric | TS 24.501, 4.3.1 | Rel-15 | pc\_data\_centric | UE supports to be configured to consistently behave as a Data centric UE. |
| 11 | Support of join in MBS multicast session by sending a PDU Session Modification Request | TS 23.247  7.2.1 | Rel-17 | pc\_Join\_MBS\_by\_PDU\_Modification | If pc\_Join\_MBS\_by\_PDU\_Modification, UE join in MBS multicast session by sending a PDU Session Modification Request, else UE join in MBS multicast session by sending a PDU Session Establishment Request |
| xx->12 | Number of UE-requested PDU session establishments after REGISTRATION during the same signalling connection for 5G ProSe | 24.501 | Rel-17 | pc\_noOf\_PDUsSameConnection\_Relay |  |

Table A.4.4-2A: UE APN/DNN Implementation details

|  |  |  |  |
| --- | --- | --- | --- |
| Parameter Name | Parameter Type | Supported Value | Comments |
| pc\_APN\_Default\_Configuration | enumerated | none, internet, ims, urllc, miot, v2x, ethernet, mbs | The DNN/APN configuration specified in TS 38.508-1 [2], Table 4.8.4-1 which is to be used for the default DNN/APN.  The value provided shall match one of the DNN/APN types if a Default DNN will be established, e.g. internet, ims, etc. or shall be set to none if the UE will not establish default DNN/APN. |
| pc\_APN\_ID\_Internet | charstring |  | APN/DNN ID of type Internet  (NOTE 1)  The APN/DNN Network Identifier portion of the Access Point / Data Network Name, as defined in TS 23.003 [26], subclause 9.1  OR "none" if the UE will not establish PDN/PDU of type Internet  If the provided value is different to "none" then for this APN/DNN the DNN/APN configuration of type "Internet" as specified in TS 38.508-1 [2], Table 4.8.4-1 applies. |
| pc\_APN\_ID\_IMS | charstring |  | APN/DNN ID of type IMS  (NOTE 1)  The APN/DNN Network Identifier portion of the Access Point / Data Network Name, as defined in TS 23.003 [26], subclause 9.1  OR "none" if the UE will not establish PDN/PDU of type IMS  If the provided value is different to "none" then for this APN/DNN the DNN/APN configuration of type "IMS" as specified in TS 38.508-1 [2], Table 4.8.4-1 applies. |
| pc\_APN\_ID\_URLLC | charstring |  | APN/DNN ID of type URLLC  (NOTE 1)  The APN/DNN Network Identifier portion of the Access Point / Data Network Name, as defined in TS 23.003 [26], subclause 9.1  OR "none" if the UE will not establish PDN/PDU of type URLLC  If the provided value is different to "none" then for this APN/DNN the DNN/APN configuration of type "URLLC" as specified in TS 38.508-1 [2], Table 4.8.4-1 applies. |
| pc\_APN\_ID\_MIOT | charstring |  | APN/DNN ID of type MIoT  (NOTE 1)  The APN/DNN Network Identifier portion of the Access Point / Data Network Name, as defined in TS 23.003 [26], subclause 9.1  OR "none" if the UE will not establish PDN/PDU of type MIoT  If the provided value is different to "none" then for this APN/DNN the DNN/APN configuration of type "MIoT" as specified in TS 38.508-1 [2], Table 4.8.4-1 applies. |
| pc\_APN\_ID\_V2X | charstring |  | APN/DNN ID of type V2X  (NOTE 1)  The APN/DNN Network Identifier portion of the Access Point / Data Network Name, as defined in TS 23.003 [26], subclause 9.1  OR "none" if the UE will not establish PDN/PDU of type V2X  If the provided value is different to "none" then for this APN/DNN the DNN/APN configuration of type "V2X" as specified in TS 38.508-1 [2], Table 4.8.4-1 applies. |
| pc\_APN\_ID\_Ethernet | charstring |  | APN/DNN ID of type Ethernet  (NOTE 1)  The APN/DNN Network Identifier portion of the Access Point / Data Network Name, as defined in TS 23.003 [26], subclause 9.1  OR "none" if the UE will not establish PDN/PDU of type Ethernet  If the provided value is different to "none" then for this APN/DNN the DNN/APN configuration of type "Ethernet" as specified in TS 38.508-1 [2], Table 4.8.4-1 applies. |
| pc\_APN\_ID\_MBS | charstring |  | APN/DNN ID of type MBS  (NOTE 1)  The APN/DNN Network Identifier portion of the Access Point / Data Network Name, as defined in TS 23.003 [26], subclause 9.1  OR "none" if the UE will not establish PDN/PDU of type MBS  If the provided value is different to "none" then for this APN/DNN the DNN/APN configuration of type "MBS" as specified in TS 38.508-1 [2], Table 4.8.4-1 applies. |
| NOTE 1: For each UE, the APN/DNN IDs which will be used during for PDN/PDU establishment shall be provided. These shall cover both: The APN/DNN IDs which the UE will provide itself in the PDN/PDU establishment request, and, An APN/DNN ID which the UE will prefer to be assigned by the SS in the case of Default APN/DNN, if the UE utilises Provided and/or Default APN/DNN. | | | |

Annex B (informative): Status of NR band and NR CA, NR-DC, EN-DC, NE-DC and NR SUL configurations in 3GPP UE conformance test specifications

See attached document "PRD21 5G NR bands and CADC configurations list v1.8.0.zip" for the status of NR and V2X bands and its power classes, and NR-DC, EN-DC, NE-DC, NR SUL and V2X configurations and its power classes in the version of 3GPP UE conformance test specifications as indicated in the header of this document.

Annex C (informative):  
Change history

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Change history** | | | | | | | |
| **Date** | **Meeting** | **TDoc** | **CR** | **Rev** | **Cat** | **Subject/Comment** | **New version** |
| 2017-12 | RAN5#77 | R5-176852 | - | - | - | Introduction of TS 38.508-2 | 0.1.0 |
| 2018-04 | RAN5#2-5G-NR Adhoc | R5-182069 | - | - | - | Addition of several required PICS | 0.2.1 |
| 2018-05 | RAN5#79 | R5-183271 | - | - | - | Addition of Missing PICS | 1.0.0 |
| 2018-06 | RAN#80 | RP-181208 | - | - | - | put under revision control as v15.0.0 with small editorial changes | 15.0.0 |
| 2018-09 | RAN#81 | R5-185161 | 0001 | 1 | F | Addition of PICS | 15.1.0 |
| 2018-12 | RAN#82 | R5-187040 | 0010 | - | F | Addition of new band into RF baseline implementation capabilities | 15.2.0 |
| 2018-12 | RAN#82 | R5-187777 | 0011 | 1 | F | Addition of PICS | 15.2.0 |
| 2019-03 | RAN#83 | R5-192365 | 0020 | 1 | F | Introduction of Physical Layer Baseline Implementation Capabilities for NR CA, NR DC and EN-DC | 15.3.0 |
| 2019-03 | RAN#83 | R5-192706 | 0019 | 1 | F | Introduction of Non 3GPP Access over WLAN PICS | 15.3.0 |
| 2019-03 | RAN#83 | R5-192746 | 0017 | 1 | F | Addition of Capability for test cases | 15.3.0 |
| 2019-03 | RAN#83 | R5-192747 | 0018 | 1 | F | PICS Update | 15.3.0 |
| 2019-03 | RAN#83 | R5-192748 | 0021 | 1 | F | Add UE capability PDU | 15.3.0 |
| 2019-06 | RAN#84 | R5-193576 | 0027 | - | F | Update of Clause 2 References of 38.508-2 | 15.4.0 |
| 2019-06 | RAN#84 | R5-193577 | 0028 | - | F | Introduction of Table A.4.3.2A.2.1-3 configuration for FR1 Intra-band contiguous CA | 15.4.0 |
| 2019-06 | RAN#84 | R5-193756 | 0030 | - | F | Addition of UE capability for mobility | 15.4.0 |
| 2019-06 | RAN#84 | R5-195137 | 0036 | 1 | F | Addition of ICS for FR2 Multiband Relaxation declaration | 15.4.0 |
| 2019-06 | RAN#84 | R5-195331 | 0031 | 1 | F | PICS update | 15.4.0 |
| 2019-06 | RAN#84 | R5-195428 | 0035 | 2 | F | Resubmission: Addition of optional UE capabilities for Demod | 15.4.0 |
| 2019-06 | RAN#84 | R5-195052 | 0029 | 1 | F | Addition of CA\_n41C CA\_n66B and CA\_n71B | 16.0.0 |
| 2019-09 | RAN#85 | R5-197225 | 0037 | 1 | F | Addition and Update of PICS | 16.1.0 |
| 2019-09 | RAN#85 | R5-197440 | 0038 | 1 | F | Addition of NR FR1 intraband non-contiguous and interband CA tables with combinations CA\_66(2A), CA\_n66A-n70A, CA\_n66A-n71A, CA\_n70A-n71a, CA\_n66B-n70A, CA\_n66(2A)-n70A, CA\_n66(2A)-n71A to 38.508-2 | 16.1.0 |
| 2019-09 | RAN#85 | R5-197442 | 0045 | - | F | Updates of SA and NSA information | 16.1.0 |
| 2019-09 | RAN#85 | R5-197510 | 0044 | 1 | F | Update to 38.508-2 for 4Rx handling | 16.1.0 |
| 2019-12 | RAN#86 | R5-198169 | 0049 |  | F | Introduction of UE capabilities for Rel-16 NR CA and EN-DC configurations | 16.2.0 |
| 2019-12 | RAN#86 | R5-198349 | 0051 |  | F | Addition of NR FR1 intraband non-contiguous and interband CA tables with combinations CA\_n66B-n71A, CA\_n66A-n70A-n71A, CA\_n66B-n70A-n71A, CA\_n66(2A)-n70A-n71A to 38.508-2 | 16.2.0 |
| 2019-12 | RAN#86 | R5-198873 | 0047 | 1 | F | Add GAP pattern to PICS | 16.2.0 |
| 2019-12 | RAN#86 | R5-198963 | 0048 | 1 | F | Introduction of UE capabilities for Rel-15 NR CA, NR DC and EN-DC configurations | 16.2.0 |
| 2019-12 | RAN#86 | R5-198964 | 0050 | 1 | F | Introduction of UE capabilities for new Rel-16 NR bands and new SDL band n29 associated NR CA configuration CA\_n29A-n66A | 16.2.0 |
| 2019-12 | RAN#86 | R5-199076 | 0056 | 2 | F | Addition of new PICS needed for testing | 16.2.0 |
| 2019-12 | RAN#86 | R5-199305 | 0052 | 1 | F | Update to 38.508-2 regarding 4Rx antenna ports capability | 16.2.0 |
| 2019-12 | RAN#86 | R5-199312 | 0058 |  | F | Correction to n66 intra-band CA Physical Layer Baseline Implementation Capabilities | 16.2.0 |
| 2019-12 | RAN#86 | R5-199462 | 0054 | 2 | F | EN-DC bands Implementation Conformance Statement (ICS) proforma Updates | 16.2.0 |
| 2019-12 | RAN#86 | R5-199482 | 0053 | 1 | F | Physical Layer Baseline Implementation Capabilities for Beam Correspondence | 16.2.0 |
| 2020-03 | RAN#87 | R5-200558 | 0065 |  | F | Beam Correspondence Mnemonic name update | 16.3.0 |
| 2020-03 | RAN#87 | R5-200592 | 0067 |  | F | Corrections on categories of NR DC and EN-DC physical layer capabilities in 38.508-2 | 16.3.0 |
| 2020-03 | RAN#87 | R5-200598 | 0068 |  | F | Introduction on supported inter-band EN-DC configurations in 38.508-2 | 16.3.0 |
| 2020-03 | RAN#87 | R5-200636 | 0070 |  | F | Corrections and Addition of NR PICS | 16.3.0 |
| 2020-03 | RAN#87 | R5-200903 | 0059 | 1 | F | Additional UE Power Class declaration | 16.3.0 |
| 2020-03 | RAN#87 | R5-200923 | 0062 | 1 | F | Introduction of UE capabilities for n95 SUL band | 16.3.0 |
| 2020-03 | RAN#87 | R5-200969 | 0066 | 1 | F | Corrections on categories of NR CA physical layer capabilities in 38.508-2 | 16.3.0 |
| 2020-03 | RAN#87 | R5-200970 | 0069 | 1 | F | Adding modified MPR behaviour to physical layer capabilities | 16.3.0 |
| 2020-03 | RAN#87 | R5-201062 | 0064 | 1 | F | Introduction of UE capabilities for Rel-16 EN-DC configurations | 16.3.0 |
| 2020-03 | RAN#87 | R5-201123 | 0060 | 1 | F | Correction to NR TC PICs | 16.3.0 |
| 2020-06 | RAN#88 | R5-201923 | 0075 | - | F | Addition of TDD-TDD PC2 inter-band EN-DC UE RF Baseline implementation Capabilities declaration | 16.4.0 |
| 2020-06 | RAN#88 | R5-202108 | 0077 | - | F | Updates on UE capability for Rel-15 NR CA configuration | 16.4.0 |
| 2020-06 | RAN#88 | R5-202226 | 0079 | - | F | Update NR intra-band contiguous CA implementation capabilities in 38.508-2 | 16.4.0 |
| 2020-06 | RAN#88 | R5-202228 | 0080 | - | F | Update RF baseline implementation capabilities in 38.508-2 | 16.4.0 |
| 2020-06 | RAN#88 | R5-202446 | 0082 | - | F | Addition of EN-DC configurations DC\_41C\_n41A and DC\_41D\_n41A | 16.4.0 |
| 2020-06 | RAN#88 | R5-202709 | 0078 | 1 | F | Update ICS proforma tables for UE implementation types in A.4.1 of 38.508-2 | 16.4.0 |
| 2020-06 | RAN#88 | R5-202871 | 0074 | 1 | F | Introduction of several new NR 2CA and 3CA combinations | 16.4.0 |
| 2020-06 | RAN#88 | R5-203113 | 0076 | 2 | F | Additions and corrections to PICS | 16.4.0 |
| 2020-09 | RAN#89 | R5-203279 | 0085 | - | F | n26 Implementation baseline capabilities in 38.508-2 | 16.5.0 |
| 2020-09 | RAN#89 | R5-203457 | 0088 | - | F | Fixing References | 16.5.0 |
| 2020-09 | RAN#89 | R5-203463 | 0089 | - | F | Addition of PICs for CSI-RS measurement without associated SSB | 16.5.0 |
| 2020-09 | RAN#89 | R5-203632 | 0090 | - | F | Introduction of UE capabilities for additional Rel-15 band EN-DC inter-band configurations | 16.5.0 |
| 2020-09 | RAN#89 | R5-203635 | 0091 | - | F | Introduction of UE capabilities for additional Rel-16 EN-DC inter-band configurations | 16.5.0 |
| 2020-09 | RAN#89 | R5-203911 | 0094 | - | F | Update of A.4.3.2A for intra-band contiguous CA capabilities | 16.5.0 |
| 2020-09 | RAN#89 | R5-203912 | 0095 | - | F | Update of A.4.3.2A.3 for intra-band non-contiguous CA capabilities | 16.5.0 |
| 2020-09 | RAN#89 | R5-203914 | 0097 | - | F | Update of A.4.3.2B for NR-DC capabilities | 16.5.0 |
| 2020-09 | RAN#89 | R5-203917 | 0100 | - | F | Update of A.4.3.2B.2.3 for inter-band EN-DC including FR2 capabilities | 16.5.0 |
| 2020-09 | RAN#89 | R5-204332 | 0108 | - | F | Adding new ICS for handling inter-system change S1-N1 and aligning PDN and PDU handling | 16.5.0 |
| 2020-09 | RAN#89 | R5-204511 | 0109 | 1 | F | Addition of UE capability for voiceFallbackIndicationEPS-r16 | 16.5.0 |
| 2020-09 | RAN#89 | R5-204544 | 0106 | 1 | F | Addition and update of PICS | 16.5.0 |
| 2020-09 | RAN#89 | R5-204710 | 0105 | 1 | F | CR to 38.508-2 to allow vendor declarations related to beam peak searches | 16.5.0 |
| 2020-09 | RAN#89 | R5-204759 | 0102 | 1 | F | Addition of PICS for intra-band EN-DC PC2 | 16.5.0 |
| 2020-09 | RAN#89 | R5-204801 | 0084 | 1 | F | Introduction of Rel-16 inter-band EN-DC configurations within FR1 for physical layer baseline implementation capabilities | 16.5.0 |
| 2020-09 | RAN#89 | R5-204802 | 0096 | 1 | F | Update of A.4.3.2A.4 for inter-band CA within FR1 capabilities | 16.5.0 |
| 2020-09 | RAN#89 | R5-204803 | 0098 | 1 | F | Update of A.4.3.2B.2 for intra-band EN-DC capabilities | 16.5.0 |
| 2020-09 | RAN#89 | R5-204804 | 0099 | 1 | F | Update of A.4.3.2B.2.3 for inter-band EN-DC including FR1 and FR2 capabilities | 16.5.0 |
| 2020-09 | RAN#89 | R5-204805 | 0101 | 1 | F | Update of A.4.3.2B.2.3 for inter-band EN-DC within FR1 capabilities | 16.5.0 |
| 2020-09 | RAN#89 | R5-204806 | 0104 | 1 | F | Introduction of UE capabilities for Rel-16 EN-DC configurations | 16.5.0 |
| 2020-09 | RAN#89 | R5-204853 | 0086 | 1 | F | Added UE Phy layer capability into 38.508-2 from 38.306 | 16.5.0 |
| 2020-09 | RAN#89 | R5-204902 | 0087 | 1 | F | Updated table A.4.3.9-4 - 4 Rx antenna ports capabilities | 16.5.0 |
| 2020-09 | RAN#89 | R5-204903 | 0092 | 1 | F | Introduction and correction of general capabilities and some band-combo information for EN-DC | 16.5.0 |
| 2020-09 | RAN#89 | R5-204904 | 0107 | 1 | F | Add new PICS | 16.5.0 |
| 2020-12 | RAN#90 | R5-205053 | 0110 | - | F | ICS for iRAT RS-SINR and SFTD measurements | 16.6.0 |
| 2020-12 | RAN#90 | R5-205612 | 0117 | - | F | Addition of UE capabilities for Rel-16 UE power saving in NR | 16.6.0 |
| 2020-12 | RAN#90 | R5-205640 | 0118 | - | F | Addition of PC2 EN-DC DC\_3A-n78A into RF Baseline implementation Capabilities | 16.6.0 |
| 2020-12 | RAN#90 | R5-205695 | 0120 | - | F | Addition of ICS for UE support PUSCH Pi2 BPSK | 16.6.0 |
| 2020-12 | RAN#90 | R5-205707 | 0121 | - | F | Revise ICS Proforma Tables for Remaining n14, n29, and n30 Capabilities | 16.6.0 |
| 2020-12 | RAN#90 | R5-205773 | 0123 | - | F | Correction to baseline implementation capabilities for a few Rel-16 inter-band EN-DC configurations | 16.6.0 |
| 2020-12 | RAN#90 | R5-205774 | 0124 | - | F | Addition of baseline implementation capabilities for Rel-15 EN-DC inter-band configuration DC\_3A\_n7A | 16.6.0 |
| 2020-12 | RAN#90 | R5-205941 | 0127 | - | F | Update for Flexible PDU-PDN - ICS definitions new and removal | 16.6.0 |
| 2020-12 | RAN#90 | R5-206023 | 0129 | - | F | Update of A.4.1 for UE implementation types | 16.6.0 |
| 2020-12 | RAN#90 | R5-206024 | 0130 | - | F | Update of A.4.3.1 for UE power class implementation capabilities | 16.6.0 |
| 2020-12 | RAN#90 | R5-206025 | 0131 | - | F | Update of A.4.3.2A.2 for implementation capabilities of NR intra-band contiguous CA | 16.6.0 |
| 2020-12 | RAN#90 | R5-206026 | 0132 | - | F | Update of A.4.3.2A.3 for implementation capabilities of NR intra-band non-contiguous CA | 16.6.0 |
| 2020-12 | RAN#90 | R5-206027 | 0133 | - | F | Update of A.4.3.2B for NR-DC implementation capabilities | 16.6.0 |
| 2020-12 | RAN#90 | R5-206310 | 0115 | 1 | F | Addition and update of PICS | 16.6.0 |
| 2020-12 | RAN#90 | R5-206395 | 0112 | 1 | F | Adding UE capabilities for IIoT test | 16.6.0 |
| 2020-12 | RAN#90 | R5-206404 | 0138 | 1 | F | Add UE capability for NR MobEnc TCs | 16.6.0 |
| 2020-12 | RAN#90 | R5-206410 | 0137 | 1 | F | Add UE capability for NR V2X TCs | 16.6.0 |
| 2020-12 | RAN#90 | R5-206414 | 0139 | 1 | F | Adding UE capabilities for eMIMO | 16.6.0 |
| 2020-12 | RAN#90 | R5-206421 | 0116 | 1 | F | Addition of PICS for Rel-16 RACS | 16.6.0 |
| 2020-12 | RAN#90 | R5-206428 | 0111 | 1 | F | Addition of UE capability for nr-HO-ToEN-DC-r16 | 16.6.0 |
| 2020-12 | RAN#90 | R5-206634 | 0114 | 1 | F | Addition of EN-DC capabilities of number of NR DL or number of NR UL carriers | 16.6.0 |
| 2020-12 | RAN#90 | R5-206635 | 0125 | 1 | F | Correction to Enhanced Type X receiver PICS | 16.6.0 |
| 2020-12 | RAN#90 | R5-206636 | 0126 | 1 | F | Addition of PICS for LTE CRS rate matching capability | 16.6.0 |
| 2020-12 | RAN#90 | R5-206637 | 0128 | 1 | F | Addition of PICs for intra-frequency measurements with gap | 16.6.0 |
| 2020-12 | RAN#90 | R5-206716 | 0122 | 1 | F | Addition of baseline implementation capabilities for a few Rel-16 EN-DC inter-band configurations | 16.6.0 |
| 2020-12 | RAN#90 | R5-206717 | 0134 | 1 | F | Introduction of UE capabilities for additional Rel-16 EN-DC inter-band configurations | 16.6.0 |
| 2020-12 | RAN#90 | R5-206771 | 0119 | 1 | F | Addition of PC2 UE RF Baseline Implementation Capabilities for DC\_3A\_n41A | 16.6.0 |
| 2021-03 | RAN#91 | R5-210081 | 0141 | - | F | Introduction of Additional capabilities for NR Band n53 | 16.7.0 |
| 2021-03 | RAN#91 | R5-210483 | 0148 | - | F | Correction of core spec Ref. for 4 Rx antenna ports Capabilities | 16.7.0 |
| 2021-03 | RAN#91 | R5-210484 | 0149 | - | F | Addition of PUSCH HalfPi BPSK capability in FR2 | 16.7.0 |
| 2021-03 | RAN#91 | R5-210566 | 0150 | - | F | Update on manufacturer declaration required for Receiver Beam Peak Search | 16.7.0 |
| 2021-03 | RAN#91 | R5-211001 | 0160 | - | F | Update to NR FR1 2Rx-4Rx implementation Capabilities | 16.7.0 |
| 2021-03 | RAN#91 | R5-211108 | 0163 | - | F | Corrections to subclauses in 38.508-2 with appropriate subclause level and heading styles | 16.7.0 |
| 2021-03 | RAN#91 | R5-211229 | 0169 | - | F | Add n26 to 2Rx capabilities declaration | 16.7.0 |
| 2021-03 | RAN#91 | R5-211376 | 0147 | 1 | F | Addition and update of PICS | 16.7.0 |
| 2021-03 | RAN#91 | R5-211449 | 0164 | 1 | F | Correction of Table A.4.3.2B.2.3.12-1 | 16.7.0 |
| 2021-03 | RAN#91 | R5-211457 | 0154 | 1 | F | Add UE capability for NR MobEnc | 16.7.0 |
| 2021-03 | RAN#91 | R5-211463 | 0144 | 1 | F | Adding scell dormancy indication outside active time to physical layer baseline implementation capabilities | 16.7.0 |
| 2021-03 | RAN#91 | R5-211469 | 0143 | 1 | F | Introduction of common implementation conformance statements for R16 NR SON and MDT | 16.7.0 |
| 2021-03 | RAN#91 | R5-211492 | 0153 | 1 | F | Introduction of general capability for NR to UTRA-FDD CELL\_DCH CS handover | 16.7.0 |
| 2021-03 | RAN#91 | R5-211674 | 0162 | 1 | F | Introduction of UE capabilities for Rel-15 EN-DC FR2 configuration CA\_n261(2A) | 16.7.0 |
| 2021-03 | RAN#91 | R5-211815 | 0142 | 1 | F | Addition of common ICS in A.4.3.11 for Rel-16 HST | 16.7.0 |
| 2021-03 | RAN#91 | R5-211858 | 0140 | 1 | F | Update of UE capabilities for EN-DC configurations | 16.7.0 |
| 2021-03 | RAN#91 | R5-211859 | 0145 | 1 | F | Update of Table A.4.3.2B.2.3.2-2 (DC\_1A-8A\_n78A, DC\_3A-8A\_n78A) | 16.7.0 |
| 2021-03 | RAN#91 | R5-211860 | 0146 | 1 | F | Update of Table A.4.3.2B.2.3.3-2 (DC\_1A-3A-8A\_n78A) | 16.7.0 |
| 2021-03 | RAN#91 | R5-211861 | 0161 | 1 | F | Introduction of UE capabilities for Rel-15 EN-DC FR1 configurations | 16.7.0 |
| 2021-03 | RAN#91 | R5-211862 | 0165 | 1 | F | Addition of PICS powerBoosting-pi2BPSK | 16.7.0 |
| 2021-03 | RAN#91 | R5-211904 | 0170 | 1 | F | Updating UE capability for Rel-16 NR inter-band CA configurations for band n1 | 16.7.0 |
| 2021-03 | RAN#91 | R5-211910 | 0155 | 1 | F | Adding PICS for UL switching | 16.7.0 |
| 2021-03 | RAN#91 | R5-211839 | 0159 | 1 | F | Adding PICS for SUL with DL CA configurations | 17.0.0 |
| 2021-06 | RAN#92 | R5-212120 | 0174 | - | F | Updating UE capabilities for Rel-17 EN-DC band combinations within FR1 | 17.1.0 |
| 2021-06 | RAN#92 | R5-212136 | 0175 | - | F | Updating UE capabilities for R17 NR inter-band CA configurations in FR1 | 17.1.0 |
| 2021-06 | RAN#92 | R5-212199 | 0177 | - | F | Update of Table A.4.3.2B.2.3.6-2 - DC\_8A\_n257A | 17.1.0 |
| 2021-06 | RAN#92 | R5-212568 | 0180 | - | F | Corrections to Table A.4.3.2A.4.1-3 for NR Inter-band CA within FR1 and two bands | 17.1.0 |
| 2021-06 | RAN#92 | R5-212830 | 0188 | - | F | Correction of A.4.1 for UE implementation types for SA CA UE radio technologies | 17.1.0 |
| 2021-06 | RAN#92 | R5-212831 | 0189 | - | F | Correction of A.4.3.9 for additional capabilities for UE declared capability | 17.1.0 |
| 2021-06 | RAN#92 | R5-212834 | 0191 | - | F | Update of A.4.3.2A.2.2 for capabilities for NR intra-band contiguous CA within FR2 | 17.1.0 |
| 2021-06 | RAN#92 | R5-212835 | 0192 | - | F | Update of A.4.3.2A.3.1 for capabilities for NR intra-band non-contiguous CA within FR1 | 17.1.0 |
| 2021-06 | RAN#92 | R5-212836 | 0193 | - | F | Update of A.4.3.2A.4.1 for capabilities for NR inter-band CA within FR1 | 17.1.0 |
| 2021-06 | RAN#92 | R5-212837 | 0194 | - | F | Update of A.4.3.2B.1 for capabilities for NR-DC | 17.1.0 |
| 2021-06 | RAN#92 | R5-212838 | 0195 | - | F | Update of A.4.3.2B.2.3.8 for capabilities for EN-DC including FR2 | 17.1.0 |
| 2021-06 | RAN#92 | R5-212854 | 0197 | - | F | Addition of suffix for Mnemonic pc\_pusch\_halfpiBPSK to differentiate FR1 and FR2 | 17.1.0 |
| 2021-06 | RAN#92 | R5-212855 | 0198 | - | F | Addition of ENDC NR part power class parameter | 17.1.0 |
| 2021-06 | RAN#92 | R5-212931 | 0200 | - | F | Addition of PICS for NR sidelink RF testing | 17.1.0 |
| 2021-06 | RAN#92 | R5-212938 | 0201 | - | F | Adding PICS for eMIMO single DCI based SDM | 17.1.0 |
| 2021-06 | RAN#92 | R5-212947 | 0202 | - | F | Adding PICS for URLLC low BLER | 17.1.0 |
| 2021-06 | RAN#92 | R5-212987 | 0204 | - | F | Introducing Rel-16 CA configuration CA\_n28A-n41A | 17.1.0 |
| 2021-06 | RAN#92 | R5-213006 | 0205 | - | F | Introducing Rel-17 new SUL or CA configurations | 17.1.0 |
| 2021-06 | RAN#92 | R5-213191 | 0210 | - | F | Introduce PICS for NR URLLC | 17.1.0 |
| 2021-06 | RAN#92 | R5-213258 | 0215 | - | F | Addition of PC2 EN-DC DC\_1A-n78A into RF Baseline implementation Capabilities | 17.1.0 |
| 2021-06 | RAN#92 | R5-213374 | 0217 | - | F | Introduce PICS for 2-step RACH | 17.1.0 |
| 2021-06 | RAN#92 | R5-213406 | 0218 | - | F | Addition of capability for NR Sidelink Transmission Mode 2 | 17.1.0 |
| 2021-06 | RAN#92 | R5-213453 | 0179 | 1 | F | Addition of Emergency PDU-PDN transfer capabilities | 17.1.0 |
| 2021-06 | RAN#92 | R5-213454 | 0216 | 1 | F | Corrections and Addition of NR PICS | 17.1.0 |
| 2021-06 | RAN#92 | R5-213552 | 0173 | 1 | F | Add new UE capability for Rel-16 NR Mobility Enhancement | 17.1.0 |
| 2021-06 | RAN#92 | R5-213575 | 0185 | 1 | F | Addition of PICS for Rel-16 NPN | 17.1.0 |
| 2021-06 | RAN#92 | R5-213581 | 0184 | 1 | F | Addition of PICS for Test function for RACS | 17.1.0 |
| 2021-06 | RAN#92 | R5-213602 | 0182 | 1 | F | Update of Additional information | 17.1.0 |
| 2021-06 | RAN#92 | R5-213642 | 0183 | 1 | F | Addition of common ICS in A.4.3.7 for Rel-16 NSSAA | 17.1.0 |
| 2021-06 | RAN#92 | R5-213646 | 0209 | 1 | F | Addition of PICs for SST handling | 17.1.0 |
| 2021-06 | RAN#92 | R5-213835 | 0212 | 1 | F | CR to 38.508-2 on Optional 4x2 PC3 Antenna Array Configuration | 17.1.0 |
| 2021-06 | RAN#92 | R5-213965 | 0181 | 1 | F | Addition of CA\_n41C-n79A | 17.1.0 |
| 2021-06 | RAN#92 | R5-213966 | 0186 | 1 | F | Addition of A.4.3.2A.5 for capabilities for NR inter-band CA within FR2 | 17.1.0 |
| 2021-06 | RAN#92 | R5-213967 | 0187 | 1 | F | Addition of A.4.3.2A.6 for capabilities for NR inter-band CA between FR1 and FR2 | 17.1.0 |
| 2021-06 | RAN#92 | R5-213968 | 0190 | 1 | F | Update of A.4.3.2A.2.1 for capabilities for NR intra-band contiguous CA within FR1 | 17.1.0 |
| 2021-06 | RAN#92 | R5-213969 | 0206 | 1 | F | Introduction of CA\_n48(2A) | 17.1.0 |
| 2021-06 | RAN#92 | R5-214020 | 0172 | 1 | F | Updating A.4.3.2C for Rel-17 SUL combinations | 17.1.0 |
| 2021-06 | RAN#92 | R5-214027 | 0178 | 1 | F | UL power boosting via suspended IBE requirements | 17.1.0 |
| 2021-06 | RAN#92 | R5-214044 | 0213 | 1 | F | CR to 38.508-2 on larger quiet zone with grey-box approach | 17.1.0 |
| 2021-09 | RAN#93 | R5-214334 | 0220 | - | F | Introduction of ICS for NR-U | 17.2.0 |
| 2021-09 | RAN#93 | R5-214441 | 0221 | - | F | Corrections and Addition of NR PICS | 17.2.0 |
| 2021-09 | RAN#93 | R5-214565 | 0222 | - | F | Addition of PICS for relaxed RRM measurement | 17.2.0 |
| 2021-09 | RAN#93 | R5-214771 | 0226 | - | F | Correction to NR capability | 17.2.0 |
| 2021-09 | RAN#93 | R5-214934 | 0227 | - | F | Introduce PICS for NR URLLC | 17.2.0 |
| 2021-09 | RAN#93 | R5-215078 | 0232 | - | F | Addition of PICS for V2X SL-MIMO test cases | 17.2.0 |
| 2021-09 | RAN#93 | R5-215095 | 0233 | - | F | Adding PICS for eMIMO demod test cases | 17.2.0 |
| 2021-09 | RAN#93 | R5-215135 | 0236 | - | F | Addition of capability for NR Sidelink Transmission Mode 2 | 17.2.0 |
| 2021-09 | RAN#93 | R5-215161 | 0237 | - | F | Addition of PICS for Rel-16 release preference assistance information | 17.2.0 |
| 2021-09 | RAN#93 | R5-215184 | 0238 | - | F | Addition of UE capability for low PAPR DMRS | 17.2.0 |
| 2021-09 | RAN#93 | R5-215281 | 0241 | - | F | Introduction of CA\_n71(2A) | 17.2.0 |
| 2021-09 | RAN#93 | R5-215310 | 0242 | - | F | Introduction of UE capabilities for R17 SUL band n97 | 17.2.0 |
| 2021-09 | RAN#93 | R5-215357 | 0244 | - | F | Updating UE capability for NR inter-band EN-DC configurations | 17.2.0 |
| 2021-09 | RAN#93 | R5-215581 | 0255 | - | F | CR on Antenna Aperture Declarations | 17.2.0 |
| 2021-09 | RAN#93 | R5-215838 | 0228 | 1 | F | Addition of PICs for inter-RAT SFTD measurements | 17.2.0 |
| 2021-09 | RAN#93 | R5-215839 | 0245 | 1 | F | Update of A.4.3.2A.4.1 for implementation capabilities for NR inter-band CA within FR1 for two bands | 17.2.0 |
| 2021-09 | RAN#93 | R5-215840 | 0246 | 1 | F | Update of A.4.3.2A.4.2 for implementation capabilities for NR inter-band CA within FR1 for three bands | 17.2.0 |
| 2021-09 | RAN#93 | R5-215841 | 0247 | 1 | F | Update of A.4.3.2A.3.1 for implementation capabilities for NR intra-band non-contiguous CA within FR1 | 17.2.0 |
| 2021-09 | RAN#93 | R5-215842 | 0248 | 1 | F | Update of A.4.3.2A.3.2 for implementation capabilities for NR intra-band non-contiguous CA within FR2 | 17.2.0 |
| 2021-09 | RAN#93 | R5-215843 | 0249 | 1 | F | Update of A.4.3.2A.2.1 for implementation capabilities for NR intra-band contiguous CA within FR1 | 17.2.0 |
| 2021-09 | RAN#93 | R5-215844 | 0250 | 1 | F | Update of A.4.3.2A.2.2 for implementation capabilities for NR intra-band contiguous CA within FR2 | 17.2.0 |
| 2021-09 | RAN#93 | R5-215930 | 0229 | 1 | F | Addition of PICs for Mob\_Enh TCs | 17.2.0 |
| 2021-09 | RAN#93 | R5-215933 | 0225 | 1 | F | Introduction of UE capabilities for UL full power Tx rel-16 for UL MIMO | 17.2.0 |
| 2021-09 | RAN#93 | R5-215943 | 0231 | 1 | F | Addition of PICs for NR HST TCs | 17.2.0 |
| 2021-09 | RAN#93 | R5-215951 | 0234 | 1 | F | Addition of PICS for URLLC test cases | 17.2.0 |
| 2021-09 | RAN#93 | R5-215961 | 0239 | 1 | B | Introduction of n24 and n99 | 17.2.0 |
| 2021-09 | RAN#93 | R5-215982 | 0235 | 1 | F | Update of PC2 EN-DC configuration into 38.508-2 | 17.2.0 |
| 2021-09 | RAN#93 | R5-216028 | 0224 | 1 | F | Correction to Physical Layer Baseline Implementation Capabilities | 17.2.0 |
| 2021-09 | RAN#93 | R5-216106 | 0251 | 1 | F | Editorial corrections of A.4.3.2B.2.3.1 for inter-band EN-DC within FR1 | 17.2.0 |
| 2021-09 | RAN#93 | R5-216115 | 0219 | 1 | F | Updating UE capabilities for Rel-17 CA,DC,SUL band combinations within FR1 into TS 38.508-2 | 17.2.0 |
| 2021-09 | RAN#93 | R5-216257 | 0223 | 1 | F | Introduction of common implementation conformance statements for Multi configured uplink grants in NR IIoT | 17.2.0 |
| 2021-09 | RAN#93 | R5-216258 | 0253 | 1 | F | Addition of PIC for MIoT SST | 17.2.0 |
| 2021-09 | RAN#93 | R5-216271 | 0254 | 1 | F | Addition of PIC for V2X SST | 17.2.0 |
| 2021-12 | RAN#94 | R5-216465 | 0256 | - | F | Introduction of PC1.5 n79 ICS | 17.3.0 |
| 2021-12 | RAN#94 | R5-216466 | 0257 | - | F | Introduction of PC2 n34 ICS | 17.3.0 |
| 2021-12 | RAN#94 | R5-216467 | 0258 | - | F | Introduction of PC2 n39 ICS | 17.3.0 |
| 2021-12 | RAN#94 | R5-216554 | 0260 | - | F | Addition of Power Class 1.5 implementation capability for n77 and n78 | 17.3.0 |
| 2021-12 | RAN#94 | R5-217009 | 0263 | - | F | Add UE capability for NR MobEnh | 17.3.0 |
| 2021-12 | RAN#94 | R5-217260 | 0269 | - | F | Introduction of 9 new FR1 CA combos | 17.3.0 |
| 2021-12 | RAN#94 | R5-217299 | 0270 | - | F | Addition of physical baseline implementation capabilities for Rel-15 EN-DC configurations | 17.3.0 |
| 2021-12 | RAN#94 | R5-217318 | 0271 | - | F | Addition of ICS for UE type II PMI repoering capability | 17.3.0 |
| 2021-12 | RAN#94 | R5-217352 | 0272 | - | F | Update of A.4.3.1 for implementation capabilities for NR bands | 17.3.0 |
| 2021-12 | RAN#94 | R5-217353 | 0273 | - | F | Update of A.4.3.2A.2 for supported configurations for NR intra-band contiguous CA | 17.3.0 |
| 2021-12 | RAN#94 | R5-217354 | 0274 | - | F | Update of A.4.3.2A.3 for supported configurations for NR intra-band non-contiguous CA | 17.3.0 |
| 2021-12 | RAN#94 | R5-217355 | 0275 | - | F | Update of A.4.3.2A.4 for supported configurations for NR inter-band CA | 17.3.0 |
| 2021-12 | RAN#94 | R5-217356 | 0276 | - | F | Update of A.4.3.2B.2.1 for supported bandwidth classes for intra-band contiguous EN-DC configurations | 17.3.0 |
| 2021-12 | RAN#94 | R5-217357 | 0277 | - | F | Update of A.4.3.2B.2.2 for supported bandwidth classes for intra-band non-contiguous EN-DC configurations | 17.3.0 |
| 2021-12 | RAN#94 | R5-217358 | 0278 | - | F | Update of A.4.3.2B.2.3.1 to A.4.3.2B.2.3.5 for supported inter-band EN-DC configurations within FR1 | 17.3.0 |
| 2021-12 | RAN#94 | R5-217619 | 0281 | - | F | Addition of capabilities for R16 EN-DC FR2 configurations with n260 | 17.3.0 |
| 2021-12 | RAN#94 | R5-217715 | 0283 | - | F | Addition of PICS for NPN | 17.3.0 |
| 2021-12 | RAN#94 | R5-217745 | 0284 | - | F | Updating UE capabilities for Rel-16 DC band combinations within FR1 into TS 38.508-2 | 17.3.0 |
| 2021-12 | RAN#94 | R5-217802 | 0266 | 1 | F | Introduce and update PICS | 17.3.0 |
| 2021-12 | RAN#94 | R5-217889 | 0264 | 1 | F | Addition of NR V2X Capability | 17.3.0 |
| 2021-12 | RAN#94 | R5-218222 | 0279 | 1 | F | Update of A.4.3.2B.2.3.6 to A.4.3.2B.2.3.9 for supported inter-band EN-DC configurations including FR2 | 17.3.0 |
| 2021-12 | RAN#94 | R5-218307 | 0280 | 1 | F | Addition of PICS for enhanced type II CSI | 17.3.0 |
| 2021-12 | RAN#94 | R5-218453 | 0268 | 1 | F | Introduction\_of\_UE\_capabilities\_for\_new\_EN-DC\_comb\_within\_FR1 | 17.3.0 |
| 2022-03 | RAN#95 | R5-220199 | 0289 | - | F | Update Physical Layer Baseline Implementation Capabilities for NE-DC | 17.4.0 |
| 2022-03 | RAN#95 | R5-220205 | 0290 | - | F | Addition of NR CA Physical Layer Baseline Implementation Capabilities for R16 CA\_n3A-n41A | 17.4.0 |
| 2022-03 | RAN#95 | R5-220210 | 0291 | - | F | Addition of NR FR1 PC1.5 RF Baseline Implementation Capabilities for n41 | 17.4.0 |
| 2022-03 | RAN#95 | R5-220312 | 0292 | - | F | Introduction of Rel-16 inter-band EN-DC two band configurations within FR1 for physical layer baseline implementation capabilities | 17.4.0 |
| 2022-03 | RAN#95 | R5-220533 | 0293 | - | F | Editorial correction to UE declaration of Bandwidth Class and BCS information | 17.4.0 |
| 2022-03 | RAN#95 | R5-220633 | 0294 | - | F | Introduction\_of\_UE\_capabilities\_for\_new\_EN-DC\_comb\_within\_FR1 | 17.4.0 |
| 2022-03 | RAN#95 | R5-220666 | 0295 | - | F | Correction typo for Table A.4.3.2B.2.3.1-3a and Table A.4.3.8-1 | 17.4.0 |
| 2022-03 | RAN#95 | R5-220750 | 0296 | - | F | Correction to PICS for PS TCs | 17.4.0 |
| 2022-03 | RAN#95 | R5-220776 | 0297 | - | F | Update of PC2 DC\_8A-n78A Baseline Implementation Capabilities | 17.4.0 |
| 2022-03 | RAN#95 | R5-220850 | 0298 | - | F | Addition of new RACS PICS | 17.4.0 |
| 2022-03 | RAN#95 | R5-220864 | 0299 | - | F | Introducing Rel-17 2 band CA configurations for n24 and n41 to clause A.4.3.2A.4.1 | 17.4.0 |
| 2022-03 | RAN#95 | R5-220865 | 0300 | - | F | Introducing Rel-17 2 band CA configurations for n24 and n48 to clause A.4.3.2A.4.1 | 17.4.0 |
| 2022-03 | RAN#95 | R5-220866 | 0301 | - | F | Introducing Rel-17 2 band CA configurations for n24 and n77 to clause A.4.3.2A.4.1 | 17.4.0 |
| 2022-03 | RAN#95 | R5-220973 | 0303 | - | F | Addition of physical baseline implementation capabilities for Rel-16 EN-DC configurations | 17.4.0 |
| 2022-03 | RAN#95 | R5-221005 | 0305 | - | F | Addition of PICs for FR2 CSI-RS based RLM | 17.4.0 |
| 2022-03 | RAN#95 | R5-221006 | 0306 | - | F | UE capabilities for completed NR CA configurations CA\_n5A-n7A, CA\_n5A-n78A and CA\_n7A-n78A | 17.4.0 |
| 2022-03 | RAN#95 | R5-221047 | 0307 | - | F | Addition of A.4.3.2B.2.3.7 for DC\_3A-42D\_n257A and DC\_3A-42E\_n257A | 17.4.0 |
| 2022-03 | RAN#95 | R5-221054 | 0308 | - | F | Correction of A.4.3.2B.2 for intra-band contiguous and non-contiguous EN-DC | 17.4.0 |
| 2022-03 | RAN#95 | R5-221055 | 0309 | - | F | Correction of A.4.3.2B.2.3.4 for supported inter-band EN-DC configurations within FR1 | 17.4.0 |
| 2022-03 | RAN#95 | R5-221056 | 0310 | - | F | Removal of supported BCS for inter-band EN-DC configurations including FR1 and FR2 | 17.4.0 |
| 2022-03 | RAN#95 | R5-221057 | 0311 | - | F | Removal of supported BCS for inter-band EN-DC configurations including FR2 | 17.4.0 |
| 2022-03 | RAN#95 | R5-221058 | 0312 | - | F | Removal of supported BCS for inter-band EN-DC configurations within FR1 | 17.4.0 |
| 2022-03 | RAN#95 | R5-221330 | 0317 | - | F | Introduction of UE capabilities for Rel-17 EN-DC configurations | 17.4.0 |
| 2022-03 | RAN#95 | R5-221427 | 0287 | 1 | F | Introduction of common implementation conformance statements for NE-DC | 17.4.0 |
| 2022-03 | RAN#95 | R5-221428 | 0315 | 1 | F | Introduce and update PICS | 17.4.0 |
| 2022-03 | RAN#95 | R5-221585 | 0314 | 1 | F | Addition of new PICS for URLLC | 17.4.0 |
| 2022-03 | RAN#95 | R5-221673 | 0285 | 1 | F | Addition of PICS for frequencyShift7p5khz | 17.4.0 |
| 2022-03 | RAN#95 | R5-221674 | 0313 | 1 | F | Update of A.4.3.9 for Additional capabilities for UE declared capability | 17.4.0 |
| 2022-03 | RAN#95 | R5-221793 | 0316 | 1 | F | Addition of Condition for FR1 DL Interruptions test cases applicability | 17.4.0 |
| 2022-03 | RAN#95 | R5-221830 | 0304 | 1 | F | Addition of physical implementation capability for L1-SINR measurement | 17.4.0 |
| 2022-03 | RAN#95 | R5-221853 | 0286 | 1 | F | Addition of UE capability for maximum number of activated TCI states | 17.4.0 |
| 2022-03 | RAN#95 | R5-221875 | 0288 | 1 | F | Introduction of new R17 NR inter-band CA configurations in FR1 | 17.4.0 |
| 2022-03 | RAN#95 | R5-221876 | 0302 | 1 | F | Addition of applicability tables of several NR CA combinations to FR1 inter-band configurations | 17.4.0 |
| 2022-03 | RAN#95 | R5-221911 | 0318 | 1 | F | Add\_UE capability enhancedUL-TransientPeriod | 17.4.0 |
| 2022-06 | RAN#96 | R5-222266 | 0320 | - | F | Addition of new PICS for 3GPP PS Data off | 17.5.0 |
| 2022-06 | RAN#96 | R5-222284 | 0321 | - | F | Introduction of Rel-16 inter-band EN-DC three band configurations within FR1 for physical layer baseline implementation capabilities | 17.5.0 |
| 2022-06 | RAN#96 | R5-222459 | 0322 | - | F | Addition of UE capability for NSSRG | 17.5.0 |
| 2022-06 | RAN#96 | R5-222573 | 0323 | - | F | Addition of CA\_n29A-n71A applicability | 17.5.0 |
| 2022-06 | RAN#96 | R5-222618 | 0324 | - | F | Addition of PICS for NR SL Demod TCs | 17.5.0 |
| 2022-06 | RAN#96 | R5-222695 | 0326 | - | F | Addition of table for NR UL MIMO Capabilities | 17.5.0 |
| 2022-06 | RAN#96 | R5-222817 | 0327 | - | F | Add PICS for PUCCH Scell | 17.5.0 |
| 2022-06 | RAN#96 | R5-222827 | 0328 | - | F | Add PICS for RedCap test | 17.5.0 |
| 2022-06 | RAN#96 | R5-222877 | 0329 | - | F | Limiting MBR relaxation reporting to Rel-15 only | 17.5.0 |
| 2022-06 | RAN#96 | R5-222950 | 0332 | - | F | Introduce and update PICS | 17.5.0 |
| 2022-06 | RAN#96 | R5-223046 | 0334 | - | F | Update of ICS baseline for CA configurations | 17.5.0 |
| 2022-06 | RAN#96 | R5-223105 | 0336 | - | F | Add PICS for MBS test | 17.5.0 |
| 2022-06 | RAN#96 | R5-223127 | 0338 | - | F | Introducing R17 band configuration DC\_20A\_n257A | 17.5.0 |
| 2022-06 | RAN#96 | R5-223157 | 0339 | - | F | Introduction of UE capabilities for additional Rel-17 EN-DC configurations with PC2 band | 17.5.0 |
| 2022-06 | RAN#96 | R5-223164 | 0341 | - | F | Introduction of UE capabilities for 3 band EN-DC configurations | 17.5.0 |
| 2022-06 | RAN#96 | R5-223212 | 0343 | - | F | Introduction of UE capabilities for additional Rel-17 NR CA and EN-DC configurations | 17.5.0 |
| 2022-06 | RAN#96 | R5-223253 | 0348 | - | F | Correction pc\_dynamicPowerSharing to align with 38.306 | 17.5.0 |
| 2022-06 | RAN#96 | R5-223301 | 0350 | - | F | Removal of redundant condition for FR1 DL Interruptions test cases applicability | 17.5.0 |
| 2022-06 | RAN#96 | R5-223401 | 0333 | 1 | F | Addition of Measurement Capabilities for Idle/Inactive measurements testcase | 17.5.0 |
| 2022-06 | RAN#96 | R5-223654 | 0337 | 1 | F | Introduction of UE capabilities for 2 band EN-DC configurations | 17.5.0 |
| 2022-06 | RAN#96 | R5-223721 | 0325 | 1 | F | Addition of PICS for NR HST RRM TCs | 17.5.0 |
| 2022-06 | RAN#96 | R5-223733 | 0335 | 1 | F | Addition of UE capabilities for Rel-17 NR inter-band EN-DC configurations including n1 | 17.5.0 |
| 2022-06 | RAN#96 | R5-223772 | 0340 | 1 | F | Addition of PICS for TxD | 17.5.0 |
| 2022-06 | RAN#96 | R5-223797 | 0319 | 1 | F | Alignment of EN-DC Physical Layer Baseline Implementation Capabilities with 38.521-3 | 17.5.0 |
| 2022-06 | RAN#96 | R5-223798 | 0344 | 1 | F | Correction to A.4.3.2C for NR SUL physical layer baseline implementation capabilities | 17.5.0 |
| 2022-06 | RAN#96 | R5-223799 | 0345 | 1 | F | Editorial correction to A.4.3.1 for RF baseline implementation capabilities | 17.5.0 |
| 2022-06 | RAN#96 | R5-223800 | 0346 | 1 | F | Editorial correction to A.4.3.9 for Additional capabilities for UE declared capability | 17.5.0 |
| 2022-06 | RAN#96 | R5-223801 | 0347 | 1 | F | Update to A.4.1 for addition of inter-band NE-DC within FR1 for NSA DC UE radio technologies | 17.5.0 |
| 2022-09 | RAN#97 | R5-223988 | 0351 | - | F | Update of A.4.3.2B.2.0 for EN-DC capabilities | 17.6.0 |
| 2022-09 | RAN#97 | R5-224178 | 0354 | - | F | Introduction of configurations for Inter-band NR-DC within FR1 | 17.6.0 |
| 2022-09 | RAN#97 | R5-224267 | 0359 | - | F | Add UE new message 3 repetition implementation capability | 17.6.0 |
| 2022-09 | RAN#97 | R5-224272 | 0360 | - | F | Introduction of PC2 inter-band CA ICS for UL CA\_n1A-n78A | 17.6.0 |
| 2022-09 | RAN#97 | R5-224288 | 0361 | - | F | Addition of PICS for NR Multi-SIM devices | 17.6.0 |
| 2022-09 | RAN#97 | R5-224331 | 0362 | - | F | Addition of new PICS for SDT feature | 17.6.0 |
| 2022-09 | RAN#97 | R5-224593 | 0368 | - | F | Addition of UE capability for slice based cell reselection | 17.6.0 |
| 2022-09 | RAN#97 | R5-224833 | 0371 | - | F | Addition of PC2 PICS for CA\_41C | 17.6.0 |
| 2022-09 | RAN#97 | R5-225041 | 0377 | - | F | Update description for release column | 17.6.0 |
| 2022-09 | RAN#97 | R5-225055 | 0378 | - | F | Addition of 4Rx ICS Capability to FDD band n8 | 17.6.0 |
| 2022-09 | RAN#97 | R5-225187 | 0379 | - | F | Addition of PICS for CLI test cases | 17.6.0 |
| 2022-09 | RAN#97 | R5-225242 | 0382 | - | F | Update of RF Baseline Implementation Capabilities for PC2 UE on FDD band | 17.6.0 |
| 2022-09 | RAN#97 | R5-225270 | 0358 | 1 | F | Editorial correction for Table A.4.3.7-1 and Table A.4.4-2 | 17.6.0 |
| 2022-09 | RAN#97 | R5-225301 | 0363 | 1 | F | Addition of PICS for "SNPN Only" UE | 17.6.0 |
| 2022-09 | RAN#97 | R5-225369 | 0365 | 1 | F | Addition of new PICs dl-SchedulingOffset-PDSCH-TypeA | 17.6.0 |
| 2022-09 | RAN#97 | R5-225370 | 0367 | 1 | F | Add PICS for Rel-15 Inter-system mobility between untrusted Non-3GPP and 3GPP system | 17.6.0 |
| 2022-09 | RAN#97 | R5-225371 | 0383 | 1 | F | Addition of PICS for RRC DL segmentation | 17.6.0 |
| 2022-09 | RAN#97 | R5-225685 | 0356 | 1 | F | Update RF Baseline Implementation Capabilities for PC1.5 duty cycle | 17.6.0 |
| 2022-09 | RAN#97 | R5-225688 | 0355 | 1 | F | Update RF Baseline Implementation Capabilities for PC2 duty cycle | 17.6.0 |
| 2022-09 | RAN#97 | R5-225700 | 0353 | 1 | F | Introduction of DC\_3A-7A-20A\_n8A for physical layer baseline implementation capabilities | 17.6.0 |
| 2022-09 | RAN#97 | R5-225701 | 0366 | 1 | F | Addition of test capability for FR2 EN-DC TX Test Cases 5CC to 7CCs | 17.6.0 |
| 2022-09 | RAN#97 | R5-225717 | 0357 | 1 | F | Removing of n89, n91, n92, n93 and n94 from A.4.3.1 | 17.6.0 |
| 2022-09 | RAN#97 | R5-225732 | 0372 | 1 | F | Addition of applicability statement for many 4CA NR combinations | 17.6.0 |
| 2022-09 | RAN#97 | R5-225767 | 0380 | 1 | F | Update PICS for RedCap UE | 17.6.0 |
| 2022-09 | RAN#97 | R5-225783 | 0375 | 1 | F | Corrections on 2 Rx antenna ports capabilities for band n29 | 17.6.0 |
| 2022-09 | RAN#97 | R5-225840 | 0381 | 1 | F | Introduction of new UE ICS for UPLF test mode | 17.6.0 |
| 2022-12 | RAN#98 | R5-225963 | 0384 |  | F | Additional UE declared capabilities for new NR bands n91, n92, n93 and n94 | 17.7.0 |
| 2022-12 | RAN#98 | R5-226399 | 0388 |  | F | Updates for NR CA\_n2A-n77A, CA\_n5A-n77A, CA\_n66A-n77A | 17.7.0 |
| 2022-12 | RAN#98 | R5-226625 | 0394 |  | F | Update to Table A.4.3.2A.4.1-4: Inter-band CA within FR1 (two bands) PC2 UE RF Baseline Implementation Capabilities | 17.7.0 |
| 2022-12 | RAN#98 | R5-226740 | 0398 |  | F | Clean-up pending bands for R15 configurations | 17.7.0 |
| 2022-12 | RAN#98 | R5-226741 | 0399 |  | F | Clean-up pending bands for R16 configurations | 17.7.0 |
| 2022-12 | RAN#98 | R5-226847 | 0404 |  | F | Introducing SUL bands into NR FR1 UL MIMO Capabilities table | 17.7.0 |
| 2022-12 | RAN#98 | R5-227276 | 0414 |  | F | Introduction of CA\_n48A-n77A and CA\_n71A-n77A baseline capabilities | 17.7.0 |
| 2022-12 | RAN#98 | R5-227336 | 0417 |  | F | Updates to SET UL Message PICS | 17.7.0 |
| 2022-12 | RAN#98 | R5-227411 | 0387 | 1 | F | Addition of PICS for R15 SON\_MDT | 17.7.0 |
| 2022-12 | RAN#98 | R5-227450 | 0391 | 1 | F | Addition of PICS for SNPN UEs supporting access identities definition | 17.7.0 |
| 2022-12 | RAN#98 | R5-227472 | 0409 | 1 | F | Addition of ethernet DNN-APN configuration set to PICS for EHC in 38.508-2 | 17.7.0 |
| 2022-12 | RAN#98 | R5-227475 | 0418 |  | F | Addition of MAC implementation capabilities | 17.7.0 |
| 2022-12 | RAN#98 | R5-227481 | 0390 | 1 | F | Addition of new PICS for NTN feature | 17.7.0 |
| 2022-12 | RAN#98 | R5-227500 | 0413 | 1 | F | Addition of PICS for UE power saving enhancements | 17.7.0 |
| 2022-12 | RAN#98 | R5-227513 | 0411 | 1 | F | Addition of PICS for MBS TC | 17.7.0 |
| 2022-12 | RAN#98 | R5-227521 | 0405 | 1 | F | Addition of RedCap capabilities | 17.7.0 |
| 2022-12 | RAN#98 | R5-227548 | 0393 | 1 | F | Addition of PICS for support of (re-)configuration of an SCG during the resume procedure | 17.7.0 |
| 2022-12 | RAN#98 | R5-227549 | 0410 | 1 | F | Addition of UE capability clauses for idle mode measurements ENDC testcases | 17.7.0 |
| 2022-12 | RAN#98 | R5-227585 | 0415 | 1 | F | Addition of PICS for NR unlicensed | 17.7.0 |
| 2022-12 | RAN#98 | R5-227588 | 0407 | 1 | F | RedCap UE capability for Legacy test cases | 17.7.0 |
| 2022-12 | RAN#98 | R5-227597 | 0401 | 1 | F | Additional ICS for extendedBand-n77-r16 | 17.7.0 |
| 2022-12 | RAN#98 | R5-227598 | 0402 | 1 | F | Additional ICS for extendedBand-n77-2-r17 | 17.7.0 |
| 2022-12 | RAN#98 | R5-227603 | 0389 | 1 | F | Addition of test capability for PDCP UDC | 17.7.0 |
| 2022-12 | RAN#98 | R5-227707 | 0396 | 1 | F | Addition of PICS for NR-U | 17.7.0 |
| 2022-12 | RAN#98 | R5-227708 | 0395 | 1 | F | Addition of PICS for Redcap CSI test cases | 17.7.0 |
| 2022-12 | RAN#98 | R5-227709 | 0397 | 1 | F | Addition of DL1024QAM PICS | 17.7.0 |
| 2022-12 | RAN#98 | R5-227710 | 0386 | 1 | F | Addition of common ICS in A.4.3.11 for Rel-17 HST enh | 17.7.0 |
| 2022-12 | RAN#98 | R5-227893 | 0406 | 1 | F | Applicability for new Rel-16 FR2 RF requirements enhancements test cases | 17.7.0 |
| 2022-12 | RAN#98 | R5-227894 | 0385 | 1 | F | Addition of PICS for RedCap RRM TCs | 17.7.0 |
| 2023-03 | RAN#99 | R5-230077 | 0419 | - | F | Adding NR bands n100, n101 into RF Baseline Implementation Capabilities | 17.8.0 |
| 2023-03 | RAN#99 | R5-230078 | 0420 | - | F | Additional UE declared capabilities for new NR bands n100, n101 | 17.8.0 |
| 2023-03 | RAN#99 | R5-230097 | 0421 | - | F | Clean-up mislabeling of FDD bands as TDD bands | 17.8.0 |
| 2023-03 | RAN#99 | R5-230342 | 0429 | - | F | Addition of test capability for PDCP UDC | 17.8.0 |
| 2023-03 | RAN#99 | R5-230647 | 0432 | - | F | Update the pc\_maxNumberMIMO\_LayersPDSCH | 17.8.0 |
| 2023-03 | RAN#99 | R5-230775 | 0437 | - | F | Update to BWP adaptation PICS | 17.8.0 |
| 2023-03 | RAN#99 | R5-230803 | 0439 | - | F | Editorial correction to pics naming convenction | 17.8.0 |
| 2023-03 | RAN#99 | R5-230891 | 0442 | - | F | Update for 38.508-2 for DC\_71A\_n66A and DC\_12A\_n2A | 17.8.0 |
| 2023-03 | RAN#99 | R5-231024 | 0445 | - | F | Addition of PICS for measurement gap enhancements | 17.8.0 |
| 2023-03 | RAN#99 | R5-231270 | 0447 | - | F | Addition of new PICS for RAN enhancements for NR Slicing | 17.8.0 |
| 2023-03 | RAN#99 | R5-231401 | 0436 | 1 | F | Add Handover Capabilities for 5GC-N3IWF | 17.8.0 |
| 2023-03 | RAN#99 | R5-231441 | 0426 | 1 | F | Addition of PICS for support of multiple CEF reports | 17.8.0 |
| 2023-03 | RAN#99 | R5-231458 | 0422 | 1 | F | Addition of PICS for ATSSS devices | 17.8.0 |
| 2023-03 | RAN#99 | R5-231473 | 0431 | 1 | F | Addition of PICS for MBS TC | 17.8.0 |
| 2023-03 | RAN#99 | R5-231513 | 0433 | 1 | F | Addition of PICS for NR MUSIM RRC features | 17.8.0 |
| 2023-03 | RAN#99 | R5-231525 | 0434 | 1 | F | Addition of Rel-17 IIoT\_URLLC capabilities | 17.8.0 |
| 2023-03 | RAN#99 | R5-231558 | 0430 | 1 | F | Addition of UE capability for IDC mechanism and early measurements | 17.8.0 |
| 2023-03 | RAN#99 | R5-231572 | 0435 | 1 | F | Add Measurement Capabilities for SFTD | 17.8.0 |
| 2023-03 | RAN#99 | R5-231586 | 0449 | 1 | F | Addition of PICS for RedCap UE | 17.8.0 |
| 2023-03 | RAN#99 | R5-231605 | 0428 | 1 | F | Addition of UE capability for new EN-DC comb within FR1 | 17.8.0 |
| 2023-03 | RAN#99 | R5-231606 | 0427 | 1 | F | Addition of UE capability for new 3CC EN-DC comb within FR1 | 17.8.0 |
| 2023-03 | RAN#99 | R5-231607 | 0438 | 1 | F | Adding n259 to Optional 4x2 PC3 Antenna Array Configuration | 17.8.0 |
| 2023-03 | RAN#99 | R5-231635 | 0425 | 1 | F | Introduction of CA\_n41A-n66A. | 17.8.0 |
| 2023-03 | RAN#99 | R5-231636 | 0446 | 1 | F | Introduction of CA\_n41A-n71A. | 17.8.0 |
| 2023-03 | RAN#99 | R5-231777 | 0424 | 1 | F | CR on Optional 6x6 PC5 Antenna Array Configuration | 17.8.0 |
| 2023-03 | RAN#99 | R5-231797 | 0441 | 1 | F | Update for 38.508-2 for DC\_71A\_n2A | 17.8.0 |
| 2023-03 | RAN#99 | R5-231853 | 0440 | 1 | F | Addition of NR-U capabilities | 17.8.0 |
| 2023-03 | RAN#99 | R5-231974 | 0444 | 2 | F | Introduction of informative Annex for status of NR bands, and NR CA, NR-DC, EN-DC, NE-DC and NR SUL configurations | 17.8.0 |
| 2023-03 | RAN#99 | R5-231974 | 0444 | 2 | F | added attachment "PRD21 5G NR bands and CADC configurations list v1.4.0" | 17.8.1 |
| 2023-06 | RAN#100 | R5-232058 | 0450 | - | F | Correction to DAPS PICS | 17.9.0 |
| 2023-06 | RAN#100 | R5-232108 | 0451 | - | F | Introduction of CA\_n28A-n78A for physical layer baseline implementation capabilities | 17.9.0 |
| 2023-06 | RAN#100 | R5-232189 | 0452 | - | F | Addition of new PICS for Enhancement of data collection for SON/MDT in NR standalone | 17.9.0 |
| 2023-06 | RAN#100 | R5-232238 | 0453 | - | F | Addition and support of power class 6 UEs for HST FR2 | 17.9.0 |
| 2023-06 | RAN#100 | R5-232239 | 0454 | - | F | Update inter-band NR CA 3DL configurations of CA\_n2A-n5A-n77A, CA\_n2A-n66A-n77A, and CA\_n5A-n66A-n77A | 17.9.0 |
| 2023-06 | RAN#100 | R5-232320 | 0456 | - | F | Update of MAC implementation capabilities | 17.9.0 |
| 2023-06 | RAN#100 | R5-232362 | 0457 | - | F | Addition of UE capability for new 2CC and 3CC EN-DC comb within FR2 | 17.9.0 |
| 2023-06 | RAN#100 | R5-232363 | 0458 | - | F | Addition of UE capability for new EN-DC comb within FR2 | 17.9.0 |
| 2023-06 | RAN#100 | R5-232498 | 0460 | - | F | Addition of PICS for NR cov enh SIG TCs | 17.9.0 |
| 2023-06 | RAN#100 | R5-232624 | 0461 | - | F | Update 38.508-2 for CA\_n2A-n5A and CA\_n2A-n48A | 17.9.0 |
| 2023-06 | RAN#100 | R5-232655 | 0462 | - | F | Update of ICS baseline for CA\_n3A-n8A | 17.9.0 |
| 2023-06 | RAN#100 | R5-232731 | 0464 | - | F | Addition of NR FR1 bands with UL MIMO capabilities | 17.9.0 |
| 2023-06 | RAN#100 | R5-232793 | 0466 | - | F | Addition of CA\_n39A-n41A RF Baseline Implementation Capabilities | 17.9.0 |
| 2023-06 | RAN#100 | R5-232798 | 0468 | - | F | Addition of R17 new CA PC3 config RF Baseline Implementation Capabilities | 17.9.0 |
| 2023-06 | RAN#100 | R5-232822 | 0469 | - | F | Update NR band and CADC configs status in ICS Annex B | 17.9.0 |
| 2023-06 | RAN#100 | R5-232837 | 0470 | - | F | Adding ICS for UE MMSE-IRC receiver capability | 17.9.0 |
| 2023-06 | RAN#100 | R5-232875 | 0472 | - | F | Introduction of CA\_n5A-n66A and CA\_n41A-n66A-n71A. | 17.9.0 |
| 2023-06 | RAN#100 | R5-232929 | 0474 | - | F | Capability of REL17 Relaxed measurements in IDLE for RedCap | 17.9.0 |
| 2023-06 | RAN#100 | R5-232947 | 0475 | - | F | Addition of PICS for MBS TC | 17.9.0 |
| 2023-06 | RAN#100 | R5-232965 | 0476 | - | F | Add PICS for EPS UPIP | 17.9.0 |
| 2023-06 | RAN#100 | R5-233031 | 0477 | - | F | Adding PICS for enhanced beam correspondence | 17.9.0 |
| 2023-06 | RAN#100 | R5-233034 | 0478 | - | F | Adding PICS of PC7 | 17.9.0 |
| 2023-06 | RAN#100 | R5-233054 | 0480 | - | F | Addition of PICS for NR feMIMO test cases | 17.9.0 |
| 2023-06 | RAN#100 | R5-233188 | 0481 | - | F | Editorial correction to Table A.4.3.2A.2.1-4 | 17.9.0 |
| 2023-06 | RAN#100 | R5-233189 | 0482 | - | F | Additional support value to maxNumberSRS-Ports-PerResource element | 17.9.0 |
| 2023-06 | RAN#100 | R5-233202 | 0483 | - | F | Addition of PICS for UE support of Uncrewed Aerial Systems | 17.9.0 |
| 2023-06 | RAN#100 | R5-233320 | 0463 | 1 | F | Addition of PICS for support of mpsPriorityIndication on RRC release with redirect | 17.9.0 |
| 2023-06 | RAN#100 | R5-233471 | 0459 | 1 | F | Addition of PICS for Rel-17 eNPN | 17.9.0 |
| 2023-06 | RAN#100 | R5-233502 | 0479 | 1 | F | Adding PICS for DL interruption | 17.9.0 |
| 2023-06 | RAN#100 | R5-233505 | 0471 | 1 | F | Addition of PICS for CLI test case | 17.9.0 |
| 2023-06 | RAN#100 | R5-233508 | 0455 | 1 | F | Update inter-band NR CA PC2 configurations of CA\_n2A-n77A, CA\_n5A-n77A, and CA\_n66A-n77A | 17.9.0 |
| 2023-06 | RAN#100 | R5-233509 | 0467 | 1 | F | Addition of R17 new CA PC2 configs RF Baseline Implementation Capabilities | 17.9.0 |
| 2023-06 | RAN#100 | R5-233529 | 0465 | 2 | F | Update of physical layer baseline capabilities for CA\_n28A-n78A | 17.9.0 |
| 2023-06 | RAN#100 | R5-233735 | 0473 | 2 | F | Update of Table A.4.3.2B.2.3.2-2 and A.4.3.2B.2.3.3-2 for new 3/4 band EN-DC comb | 17.9.0 |
| 2023-09 | RAN#101 | R5-233904 | 0486 | - | F | Addition of PICS for MUSIM Test Function | 17.10.0 |
| 2023-09 | RAN#101 | R5-233945 | 0487 | - | F | Introduction of CA\_n20A-n78A for physical layer baseline implementation capabilities | 17.10.0 |
| 2023-09 | RAN#101 | R5-233964 | 0488 | - | F | Adding RF Baseline Implementation Capabilities for the new NR band n13 | 17.10.0 |
| 2023-09 | RAN#101 | R5-234009 | 0490 | - | F | Addition of PICS for Rel-16 SPS test cases | 17.10.0 |
| 2023-09 | RAN#101 | R5-234053 | 0491 | - | F | Update baseline capability for DC\_48A\_n46A | 17.10.0 |
| 2023-09 | RAN#101 | R5-234077 | 0492 | - | F | Addition of UE capability for new EN-DC combos within FR2 | 17.10.0 |
| 2023-09 | RAN#101 | R5-234103 | 0493 | - | F | New Additional information for MDT enhance | 17.10.0 |
| 2023-09 | RAN#101 | R5-234193 | 0495 | - | F | Update for inter-band NR CA\_n2A-n66A | 17.10.0 |
| 2023-09 | RAN#101 | R5-234195 | 0496 | - | F | Update inter-band NR CA 3DL configurations with additional band combos | 17.10.0 |
| 2023-09 | RAN#101 | R5-234202 | 0497 | - | F | Update inter-band NR CA PC2 3DL 2UL configurations | 17.10.0 |
| 2023-09 | RAN#101 | R5-234336 | 0502 | - | F | Addition of HighSpeedMeasFlagFR2-r17 UE capability for PC6 devices | 17.10.0 |
| 2023-09 | RAN#101 | R5-234426 | 0505 | - | F | Addition of PICS for RRM enh TCs | 17.10.0 |
| 2023-09 | RAN#101 | R5-234448 | 0506 | - | F | Addition of several NR CA combos to supported configurations tables | 17.10.0 |
| 2023-09 | RAN#101 | R5-234461 | 0507 | - | F | Add pics for MBS new TC. | 17.10.0 |
| 2023-09 | RAN#101 | R5-234478 | 0508 | - | F | Add new pics for the capability of transmission two PUCCH formats in TDM in the same slot | 17.10.0 |
| 2023-09 | RAN#101 | R5-234479 | 0509 | - | F | Add new pics for PDU session authentication and authroization using EAP\_AKA\_Prime | 17.10.0 |
| 2023-09 | RAN#101 | R5-234504 | 0510 | - | F | Addition of R17 new EN-DC PC2 config RF Baseline Implementation Capability for DC\_28A\_n78A | 17.10.0 |
| 2023-09 | RAN#101 | R5-234633 | 0511 | - | F | Introduction of UE capabilities for additional Rel-17 EN-DC configurations with PC2 band | 17.10.0 |
| 2023-09 | RAN#101 | R5-234691 | 0514 | - | F | Update of A.4.3.2B.2.3 for new EN-DC capabilities within FR1 | 17.10.0 |
| 2023-09 | RAN#101 | R5-234785 | 0520 | - | F | Addition of PICS indication for simultaneous RxTx capability | 17.10.0 |
| 2023-09 | RAN#101 | R5-235281 | 0484 | 1 | F | Correction of Annex A | 17.10.0 |
| 2023-09 | RAN#101 | R5-235339 | 0485 | 1 | F | Addition of PICS for NTN test cases | 17.10.0 |
| 2023-09 | RAN#101 | R5-235358 | 0527 | - | F | Addition of PICS of Emergency Services and PLMN access in SNPN mode for Rel-17 eNPN | 17.10.0 |
| 2023-09 | RAN#101 | R5-235374 | 0515 | 1 | F | Addition of Sidelink Capabilities for NR sidelink U2N Relay | 17.10.0 |
| 2023-09 | RAN#101 | R5-235608 | 0501 | 1 | F | Addition of UE capability for CA\_n28A-n77A | 17.10.0 |
| 2023-09 | RAN#101 | R5-235609 | 0525 | 1 | F | Corrections on notation for SUL Physical Layer Baseline Implementation Capabilities | 17.10.0 |
| 2023-09 | RAN#101 | R5-235610 | 0513 | 1 | F | Addition of PICS for Shared Spectrum | 17.10.0 |
| 2023-09 | RAN#101 | R5-235611 | 0521 | 1 | F | Addition of PICS for unified TCI state switch delay | 17.10.0 |
| 2023-09 | RAN#101 | R5-235612 | 0526 | 1 | F | Introduction Rel-17 Relaxed measurements capabilities for power saving enhancement | 17.10.0 |
| 2023-09 | RAN#101 | R5-235613 | 0522 | 1 | F | Addition of PICS for 2Tx switching | 17.10.0 |
| 2023-09 | RAN#101 | R5-235614 | 0503 | 1 | F | Addition of UE capability indicating supporting aperiodic CSI-RS for tracking for fast SCell activation and conditional PSCell addition in ENDC | 17.10.0 |
| 2023-09 | RAN#101 | R5-235615 | 0500 | 1 | F | Addition of UE capability for CA\_n3A-n77A | 17.10.0 |
| 2023-09 | RAN#101 | R5-235616 | 0518 | 1 | F | Update NR band and CADC configs status in ICS Annex B | 17.10.0 |
| 2023-09 | RAN#101 | R5-235845 | 0519 | 1 | F | Addition of UE capability indicating support of simultaneous transmission and reception in TDD-TDD and TDD-FDD inter-band NR CA | 17.10.0 |
| 2023-09 | RAN#101 | R5-235846 | 0504 | 1 | F | Editorial updates to 38.508-2 tables | 17.10.0 |
| 2023-09 | RAN#101 | R5-234293 | 0499 | - | F | Addition of R18 new NR-CA PC2 configs RF Baseline Implementation Capabilities | 18.0.0 |
| 2023-09 | RAN#101 | R5-234741 | 0516 | - | F | Addition of PC1.5 n34 and n40 ICS | 18.0.0 |
| 2023-09 | RAN#101 | R5-234752 | 0517 | - | F | Deletion of NonCB ICS | 18.0.0 |
| 2023-09 | RAN#101 | R5-235120 | 0524 | - | F | Addition of n8 with UL MIMO capabilities | 18.0.0 |
| 2023-09 | RAN#101 | R5-235607 | 0498 | 1 | F | Addition of R18 new NR-DC PC2 configs RF Baseline Implementation Capabilities | 18.0.0 |
| 2023-12 | RAN#102 | R5-236090 | 0532 |  | F | Introduction of railway bands n100 and n101 PC1 for physical layer baseline implementation capabilities | 18.1.0 |
| 2023-12 | RAN#102 | R5-236211 | 0535 |  | F | Correction of HighSpeedMeasFlagFR2-r17 UE capability | 18.1.0 |
| 2023-12 | RAN#102 | R5-236301 | 0537 |  | F | Renaming of pc\_pusch\_RepetitionCRC\_r17 | 18.1.0 |
| 2023-12 | RAN#102 | R5-236306 | 0538 |  | F | Clarification of the UE implementation related PICS | 18.1.0 |
| 2023-12 | RAN#102 | R5-236349 | 0539 |  | F | Addition of several EN-DC combos to supported configurations tables | 18.1.0 |
| 2023-12 | RAN#102 | R5-236368 | 0541 |  | F | Update additional ENDC inter-band configurations | 18.1.0 |
| 2023-12 | RAN#102 | R5-236375 | 0543 |  | F | Update additional NR CA two band configurations | 18.1.0 |
| 2023-12 | RAN#102 | R5-236402 | 0544 |  | F | Update of A.4.3.2B.2.3 for new EN-DC capabilities within FR1 | 18.1.0 |
| 2023-12 | RAN#102 | R5-236671 | 0550 |  | F | Update NR band and CADC configs status in ICS Annex B | 18.1.0 |
| 2023-12 | RAN#102 | R5-236678 | 0551 |  | F | Addition of PICS for RedCap RRM TCs | 18.1.0 |
| 2023-12 | RAN#102 | R5-236787 | 0552 |  | F | Addition of PICS for ING\_5GS feature | 18.1.0 |
| 2023-12 | RAN#102 | R5-236874 | 0553 |  | F | Addition of physical layer baseline capabilities for MR-DC enhancements | 18.1.0 |
| 2023-12 | RAN#102 | R5-236901 | 0554 |  | F | Addition of supported intra-band contiguous CA configurations with UL MIMO | 18.1.0 |
| 2023-12 | RAN#102 | R5-236931 | 0555 |  | F | Adding new FR2 CA BW class capabilities to A.4.3.2A.3.2 for intra-band contiguous CA | 18.1.0 |
| 2023-12 | RAN#102 | R5-237025 | 0556 |  | F | Introduction of measurement with no gap capability | 18.1.0 |
| 2023-12 | RAN#102 | R5-237068 | 0557 |  | F | Adding PICS for PC2 UL CA configuration CA\_n78C | 18.1.0 |
| 2023-12 | RAN#102 | R5-237134 | 0559 |  | F | CR to implement 6x2 Grids | 18.1.0 |
| 2023-12 | RAN#102 | R5-237327 | 0534 | 1 | F | Correction to condition of FR2 PICS | 18.1.0 |
| 2023-12 | RAN#102 | R5-237328 | 0546 | 1 | F | Addition of new PICS for MICO mode support | 18.1.0 |
| 2023-12 | RAN#102 | R5-237329 | 0548 | 1 | F | Correction to PICS for NR mpsPriorityIndication support | 18.1.0 |
| 2023-12 | RAN#102 | R5-237395 | 0533 | 1 | F | Addition of PICS for NR feMIMO test cases | 18.1.0 |
| 2023-12 | RAN#102 | R5-237396 | 0540 | 1 | F | Addition of PICS for SRS partial sounding | 18.1.0 |
| 2023-12 | RAN#102 | R5-237605 | 0545 | 1 | F | Addition of R18 new EN-DC PC2 config RF Baseline Implementation Capability for n78 and n79 | 18.1.0 |
| 2023-12 | RAN#102 | R5-237606 | 0528 | 1 | F | Addition of UE capability for new R16 NR CA configurations | 18.1.0 |
| 2023-12 | RAN#102 | R5-237607 | 0530 | 1 | F | Introduction of CA\_n1A-n3A-n28A-n78A for physical layer baseline implementation capabilities | 18.1.0 |
| 2023-12 | RAN#102 | R5-237608 | 0529 | 1 | F | Addition of UE capability for new R17 NR CA configurations | 18.1.0 |
| 2023-12 | RAN#102 | R5-237609 | 0531 | 1 | F | Introduction of CA\_n25A-n66A-n77(2A) and CA\_n25A-n66A-n78(2A) for physical layer baseline implementation capabilities | 18.1.0 |
| 2023-12 | RAN#102 | R5-237610 | 0542 | 1 | F | Updates for NR CA four band configurations | 18.1.0 |
| 2023-12 | RAN#102 | R5-237611 | 0560 | 1 | F | Addition of parallel measurement gap PICS for NTN | 18.1.0 |
| 2023-12 | RAN#102 | R5-237612 | 0549 | 1 | F | Addition of PC1.5 CA\_n41C ICS | 18.1.0 |
| 2023-12 | RAN#102 | R5-237613 | 0561 | 1 | F | Addition of scheduling restrictions PICS | 18.1.0 |
| 2024-03 | RAN#103 | R5-240027 | 0562 | - | F | Addition of PICS for Rel-17 ATSSS devices | 18.2.0 |
| 2024-03 | RAN#103 | R5-240093 | 0565 | - | F | Update NR band and CADC configs status in ICS Annex B | 18.2.0 |
| 2024-03 | RAN#103 | R5-240173 | 0567 | - | F | Correction to HPUE PICS Mnemonic | 18.2.0 |
| 2024-03 | RAN#103 | R5-240276 | 0570 | - | F | Addition of UE capability for new R16 NR CA combos within FR1 | 18.2.0 |
| 2024-03 | RAN#103 | R5-240277 | 0571 | - | F | Addition of UE capability for new R17 NR CA combos within FR1 | 18.2.0 |
| 2024-03 | RAN#103 | R5-240313 | 0573 | - | F | Introducing indicator for Power Class of CA configuration with single uplink carrier | 18.2.0 |
| 2024-03 | RAN#103 | R5-240316 | 0574 | - | F | Introducing SUL configuration SUL\_n78A-n81A | 18.2.0 |
| 2024-03 | RAN#103 | R5-240330 | 0575 | - | F | Addition of RF baseline implementation capabilities for new PC2 EN-DC combos within FR1 | 18.2.0 |
| 2024-03 | RAN#103 | R5-240335 | 0576 | - | F | Editorial correction to note numbering for inter-band EN-DC capabilities table | 18.2.0 |
| 2024-03 | RAN#103 | R5-240410 | 0581 | - | F | Addition of UE capability for new EN-DC comb within FR2 | 18.2.0 |
| 2024-03 | RAN#103 | R5-240425 | 0582 | - | F | Add PICS for PEIPS | 18.2.0 |
| 2024-03 | RAN#103 | R5-240461 | 0583 | - | F | Introduction of CA\_n66A-n71A-n77(2A) and CA\_n66A-n71A-n78(2A) for physical layer baseline implementation capabilities | 18.2.0 |
| 2024-03 | RAN#103 | R5-240522 | 0586 | - | F | Update the existing PICS of inter-band CA between FR1 and FR2 | 18.2.0 |
| 2024-03 | RAN#103 | R5-240887 | 0593 | - | F | Update additional FR1 NR CA inter-band band configurations | 18.2.0 |
| 2024-03 | RAN#103 | R5-241029 | 0599 | - | F | Update to PICS for R17 FR1 enhancement | 18.2.0 |
| 2024-03 | RAN#103 | R5-241165 | 0600 | - | F | Removal of duplicated RSSI measurements and channel occupancy reporting parameter | 18.2.0 |
| 2024-03 | RAN#103 | R5-241259 | 0601 | - | F | Addition of RF baseline implementation capability of PC2 config n8 | 18.2.0 |
| 2024-03 | RAN#103 | R5-241262 | 0602 | - | F | Addition of n5 with UL MIMO capabilities | 18.2.0 |
| 2024-03 | RAN#103 | R5-241270 | 0603 | - | F | Addition of PICS to support NTN RRM | 18.2.0 |
| 2024-03 | RAN#103 | R5-241491 | 0587 | 1 | F | Updates to align PICS mnemonics | 18.2.0 |
| 2024-03 | RAN#103 | R5-241581 | 0578 | 1 | F | Addition of capability for UEs to support steering of roaming SNPN selection information (SOR-SNPN-SI) and steering of roaming connected mode control information (SOR-CMCI) for Rel-17 eNPN | 18.2.0 |
| 2024-03 | RAN#103 | R5-241600 | 0584 | 1 | F | Addition of new pics for NR sidelink U2N Relay PDU session establishment | 18.2.0 |
| 2024-03 | RAN#103 | R5-241601 | 0579 | 1 | F | Addition of UE capability for inter-SN conditional PSCell change | 18.2.0 |
| 2024-03 | RAN#103 | R5-241631 | 0591 | 1 | F | Addition of new PICS for UE supporting extended rejected NSSAI (ER-NSSAI) | 18.2.0 |
| 2024-03 | RAN#103 | R5-241649 | 0597 | 1 | F | Addition of NR NTN TA reporting PICS | 18.2.0 |
| 2024-03 | RAN#103 | R5-241674 | 0585 | 2 | F | Addition of feMIMO physical layer baseline implementation capabilities | 18.2.0 |
| 2024-03 | RAN#103 | R5-241707 | 0598 | 1 | F | Adding PICS for V2X testing | 18.2.0 |
| 2024-03 | RAN#103 | R5-241709 | 0592 | 1 | F | Update for additional NR-DC band configurations | 18.2.0 |
| 2024-03 | RAN#103 | R5-241710 | 0596 | 1 | F | Editorial correction to supported EN-DC configuration table | 18.2.0 |
| 2024-03 | RAN#103 | R5-241711 | 0604 | 1 | F | Addition of PICS for UL LBT Failure Detection and Recovery | 18.2.0 |
| 2024-03 | RAN#103 | R5-241714 | 0594 | 1 | F | Update for additional band configurations with PC2 UL | 18.2.0 |
| 2024-03 | RAN#103 | R5-241715 | 0563 | 1 | F | Introduction of common ICS for ATG | 18.2.0 |
| 2024-03 | RAN#103 | R5-241720 | 0595 | 1 | F | Update for additional ENDC band configurations with PC2 UL | 18.2.0 |
| 2024-03 | RAN#103 | R5-241724 | 0577 | 1 | F | Addition of Sidelink Capabilities to support direct to indirect path switch for NR sidelink U2N Relay | 18.2.0 |
| 2024-03 | RAN#103 | R5-241909 | 0580 | 1 | F | Addition of NR NTN capabilities | 18.2.0 |
| 2024-03 | RAN#103 | R5-242023 | 0564 | 1 | F | Introduction of common ICS for PC1.5 n39 | 18.2.0 |