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| 3GPP TR 37.717-41-11 V0.6.0 (2021-08) | |
| Technical Report | |
| 3rd Generation Partnership Project;  Technical Specification Group Radio Access Networks;  Dual Connectivity (DC) of 4 bands LTE inter-band CA (4DL/1UL) and 1 NR band (1DL/1UL)  (Release 17) | |
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Contents

Foreword 7

1 Scope 9

2 References 9

3 Definitions of terms, symbols and abbreviations 9

3.1 Terms 9

3.2 Symbols 9

3.3 Abbreviations 10

4 Background 10

4.1 TR Maintenance 10

5 DC of 4 LTE band (4DL/1UL) + 1 NR band: Specific Band Combination Part 10

5.1 Inter-band EN-DC 10

5.1.1 DC\_a-b-c-d\_ne 10

5.1.1.1 Configuration for EN-DC 10

5.1.1.2 ∆TIB and ∆RIB values 10

5.1.1.3 Reference sensitivity exceptions 11

5.1.2 DC\_1-7-20-32\_n28 11

5.1.2.1 Configuration for EN-DC 11

5.1.2.2 ∆TIB and ∆RIB values 11

5.1.2.3 Reference sensitivity exceptions 12

5.1.3 DC\_1-7-20-32\_n78 12

5.1.3.1 Configuration for EN-DC 12

5.1.3.2 ∆TIB and ∆RIB values 12

5.1.3.3 Reference sensitivity exceptions 12

5.1.4 DC\_3-7-20-32\_n78 12

5.1.4.1 Configuration for EN-DC 12

5.1.4.2 ∆TIB and ∆RIB values 13

5.1.4.3 Reference sensitivity exceptions 13

5.1.4 DC\_2-7-28-66\_n66 13

5.1.4.1 Configuration for EN-DC 13

5.1.4.2 ∆TIB and ∆RIB values 13

5.1.5 DC\_2-5-7-66\_n66 14

5.1.5.1 Configurations for EN-DC 14

5.1.5.2 ∆TIB and ∆RIB values 14

5.1.5.3 REFSENS requirements 14

5.1.6 DC\_1-3-7-40\_n78 15

5.1.6.1 Configuration for EN-DC 15

5.1.6.2 ∆TIB and ∆RIB values 15

5.1.6.3 Reference sensitivity exceptions 15

5.1.7 DC\_1-3-8-40\_n78 15

5.1.7.1 Configuration for EN-DC 15

5.1.7.2 ∆TIB and ∆RIB values 16

5.1.7.3 Reference sensitivity exceptions 16

5.1.8 DC\_1-7-8-40\_n78 16

5.1.8.1 Configuration for EN-DC 16

5.1.8.2 ∆TIB and ∆RIB values 16

5.1.8.3 Reference sensitivity exceptions 17

5.1.9 DC\_3-7-8-40\_n78 17

5.1.9.1 Configuration for EN-DC 17

5.1.9.2 ∆TIB and ∆RIB values 17

5.1.9.3 Reference sensitivity exceptions 18

5.1.10 DC\_2-7-28-66\_n7 18

5.1.10.1 Configurations for EN-DC 18

5.1.10.2 ∆TIB and ∆RIB values 18

5.1.10.3 Reference sensitivity exceptions 18

5.1.11 DC\_2-5-7-66\_n7/ DC\_2-5-7-66-66\_n7 19

5.1.11.1 Configurations for EN-DC 19

5.1.11.2 ∆TIB and ∆RIB values 19

5.1.11.3 Reference sensitivity exceptions 19

5.1.12 DC\_1-3-7-8\_n28 19

5.1.12.1 Configurations for EN-DC 19

5.1.12.2 ∆TIB and ∆RIB values 20

5.1.12.3 Reference sensitivity exceptions 20

5.1.13 DC\_3-7-8-40\_n1 20

5.1.13.1 Configurations for EN-DC 20

5.1.13.2 ∆TIB and ∆RIB values 20

5.1.13.3 Reference sensitivity exceptions 21

5.1.14 DC\_1-3-20-40\_n78 21

5.1.14.1 Configuration for EN-DC 21

5.1.14.2 ∆TIB and ∆RIB values 21

5.1.14.3 Reference sensitivity exceptions 22

5.1.15 DC\_1-3-8-11\_n28 22

5.1.15.1 Configurations for EN-DC 22

5.1.15.2 ∆TIB and ∆RIB values 22

5.1.15.3 Reference sensitivity exceptions 22

5.1.16 DC\_1-3-8-11\_n77 23

5.1.16.1 Configurations for EN-DC 23

5.1.16.2 ∆TIB and ∆RIB values 23

5.1.16.3 Reference sensitivity exceptions 23

5.1.17 DC\_1-7-8-20\_n78 24

5.1.17.1 Configuration for EN-DC 24

5.1.17.2 ∆TIB and ∆RIB values 24

5.1.17.3 Reference sensitivity exceptions 24

5.1.18 DC\_2-7-12-66\_n78 24

5.1.18.1 Configuration for EN-DC 24

5.1.18.2 ∆TIB and ∆RIB values 25

5.1.18.3 Reference sensitivity exceptions 25

5.1.19 DC\_2-7-66-71\_n78 25

5.1.19.1 Configuration for EN-DC 25

5.1.19.2 ∆TIB and ∆RIB values 25

5.1.19.3 Reference sensitivity exceptions 26

5.1.20 DC\_2-5-7-66\_n2 26

5.1.20.1 Configuration for EN-DC 26

5.1.20.2 ∆TIB and ∆RIB values 26

5.1.20.3 Reference sensitivity exceptions 26

5.1.21 DC\_2-7-66-71\_n2 27

5.1.21.1 Configuration for EN-DC 27

5.1.21.2 ∆TIB and ∆RIB values 27

5.1.21.3 Reference sensitivity exceptions 27

5.1.22 DC\_2-7-12-66\_n2 27

5.1.22.1 Configuration for EN-DC 27

5.1.22.2 ∆TIB and ∆RIB values 28

5.1.22.3 Reference sensitivity exceptions 28

5.1.23 DC\_1-3-28-40\_n78 28

5.1.23.1 Configuration for EN-DC 28

5.1.23.2 ∆TIB and ∆RIB values 28

5.1.23.3 REFSENS requirements 29

5.1.24 DC\_1-3-7-38\_n28 29

5.1.24.1 Configurations for EN-DC 29

5.1.24.2 ∆TIB and ∆RIB values 29

5.1.24.3 Reference sensitivity exceptions 29

5.1.25 DC\_1-3-7-28\_n3 30

5.1.25.1 Configuration for EN-DC 30

5.1.25.2 ∆TIB and ∆RIB values 30

5.1.25.3 Reference sensitivity exceptions 30

5.1.26 DC\_2-5-30-66\_n2 31

5.1.26.1 Configuration for EN-DC 31

5.1.26.2 ∆TIB and ∆RIB values 31

5.1.26.3 Reference sensitivity exceptions 31

5.1.27 DC\_2-5-30-66\_n66 32

5.1.27.1 Configuration for EN-DC 32

5.1.27.2 ∆TIB and ∆RIB values 32

5.1.27.3 Reference sensitivity exceptions 32

5.1.28 DC\_2-14-30-66\_n2 33

5.1.28.1 Configuration for EN-DC 33

5.1.28.2 ∆TIB and ∆RIB values 33

5.1.28.3 Reference sensitivity exceptions 33

5.1.29 DC\_2-14-30-66\_n66 34

5.1.29.1 Configuration for EN-DC 34

5.1.29.2 ∆TIB and ∆RIB values 34

5.1.29.3 Reference sensitivity exceptions 34

5.1.30 DC\_2-29-30-66\_n66 34

5.1.30.1 Configuration for EN-DC 34

5.1.30.2 ∆TIB and ∆RIB values 35

5.1.30.3 Reference sensitivity exceptions 35

5.1.31 DC\_3-7-20-28\_n1 35

5.1.31.1 Configurations for EN-DC 35

5.1.31.2 ∆TIB and ∆RIB values 35

5.1.31.3 Reference sensitivity exceptions 36

5.1.32 DC\_1-3-5-7\_n77 36

5.1.32.1 Configuration for EN-DC 36

5.1.32.2 ∆TIB and ∆RIB values 36

5.1.32.3 REFSENS requirements 36

5.1.33 DC\_1-7-20-38\_n3 37

5.1.33.1 Configuration for EN-DC 37

5.1.33.2 ∆TIB and ∆RIB values 37

5.1.33.3 Reference sensitivity exceptions 37

5.1.34 DC\_1-7-8-20 \_n3 37

5.1.34.1 Configuration for EN-DC 37

5.1.34.2 ∆TIB and ∆RIB values 38

5.1.34.3 Reference sensitivity exceptions 38

5.1.35 DC\_1-7-20-28 \_n3 38

5.1.35.1 Configuration for EN-DC 38

5.1.35.2 ∆TIB and ∆RIB values 38

5.1.35.3 Reference sensitivity exceptions 39

5.1.36 DC\_1-7-20-32\_n3 39

5.1.36.1 Configuration for EN-DC 39

5.1.36.2 ∆TIB and ∆RIB values 39

5.1.36.3 Reference sensitivity exceptions 39

5.1.37 DC\_1-7-20-32\_n8 39

5.1.37.1 Configuration for EN-DC 39

5.1.37.2 ∆TIB and ∆RIB values 40

5.1.37.3 Reference sensitivity exceptions 40

5.1.39 DC\_1-7-28-32\_n3 40

5.1.39.1 Configuration for EN-DC 40

5.1.39.2 ∆TIB and ∆RIB values 40

5.1.39.3 Reference sensitivity exceptions 40

5.1.40 DC\_1-20-28-32\_n3 41

5.1.40.1 Configuration for EN-DC 41

5.1.40.2 ∆TIB and ∆RIB values 41

5.1.40.3 Reference sensitivity exceptions 41

5.1.41 DC\_3-7-8-20\_n1 41

5.1.41.1 Configuration for EN-DC 41

5.1.41.2 ∆TIB and ∆RIB values 42

5.1.41.3 Reference sensitivity exceptions 42

5.1.42 DC\_3-7-20-32\_n1 42

5.1.42.1 Configuration for EN-DC 42

5.1.42.2 ∆TIB and ∆RIB values 42

5.1.42.3 Reference sensitivity exceptions 43

5.1.43 DC\_7-8-20-32 \_n1 43

5.1.43.1 Configuration for EN-DC 43

5.1.43.2 ∆TIB and ∆RIB values 43

5.1.43.3 Reference sensitivity exceptions 43

5.1.44 DC\_7-20-28-32\_n1 43

5.1.44.1 Configuration for EN-DC 43

5.1.44.2 ∆TIB and ∆RIB values 44

5.1.44.3 Reference sensitivity exceptions 44

5.1.45 DC\_7-20-28-32\_n3 44

5.1.45.1 Configuration for EN-DC 44

5.1.45.2 ∆TIB and ∆RIB values 44

5.1.45.3 Reference sensitivity exceptions 45

5.1.46 DC\_7-20-32-38 \_n1 45

5.1.46.1 Configuration for EN-DC 45

5.1.46.2 ∆TIB and ∆RIB values 45

5.1.46.3 Reference sensitivity exceptions 45

5.2 Inter-band NE-DC 46

5.2.1 DC\_na\_b-c-d-e 46

5.2.1.1 Configuration for NE-DC 46

5.2.1.2 ∆TIB and ∆RIB values 46

Annex A - Change history 47

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# Foreword

This Technical Report 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.

In the present document, modal verbs have the following meanings:

**shall** indicates a mandatory requirement to do something

**shall not** indicates an interdiction (prohibition) to do something

The constructions "shall" and "shall not" are confined to the context of normative provisions, and do not appear in Technical Reports.

The constructions "must" and "must not" are not used as substitutes for "shall" and "shall not". Their use is avoided insofar as possible, and they are not used in a normative context except in a direct citation from an external, referenced, non-3GPP document, or so as to maintain continuity of style when extending or modifying the provisions of such a referenced document.

**should** indicates a recommendation to do something

**should not** indicates a recommendation not to do something

**may** indicates permission to do something

**need not** indicates permission not to do something

The construction "may not" is ambiguous and is not used in normative elements. The unambiguous constructions "might not" or "shall not" are used instead, depending upon the meaning intended.

**can** indicates that something is possible

**cannot** indicates that something is impossible

The constructions "can" and "cannot" are not substitutes for "may" and "need not".

**will** indicates that something is certain or expected to happen as a result of action taken by an agency the behaviour of which is outside the scope of the present document

**will not** indicates that something is certain or expected not to happen as a result of action taken by an agency the behaviour of which is outside the scope of the present document

**might** indicates a likelihood that something will happen as a result of action taken by some agency the behaviour of which is outside the scope of the present document

**might not** indicates a likelihood that something will not happen as a result of action taken by some agency the behaviour of which is outside the scope of the present document

In addition:

**is** (or any other verb in the indicative mood) indicates a statement of fact

**is not** (or any other negative verb in the indicative mood) indicates a statement of fact

The constructions "is" and "is not" do not indicate requirements.

# 1 Scope

The present document is a technical report for Dual Connectivity (DC) of 4 LTE bands (4DL/1UL) and 1 NR band (1DL/1UL) under Rel-17 time frame. The purpose is to gather the relevant background information and studies in order to address Dual Connectivity (DC) of 4 LTE band (4DL/1UL) and 1 NR band (1DL/1UL) for the Rel-17 band combinations. The co-existence analysis and RF front end requirements such as ΔRIB,c and ΔTIB,c are described based on the band combination basis since such information have no difference between the DC configurations consisting with the same E-UTRA band and the same NR band. The actual requirements are added to the corresponding technical specification.

# 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".

…

[x] <doctype> <#>[ ([up to and including]{yyyy[-mm]|V<a[.b[.c]]>}[onwards])]: "<Title>".

It is preferred that the reference to 21.905 be the first in the list.

# 3 Definitions of terms, symbols and abbreviations

This clause and its three subclauses are mandatory. The contents shall be shown as "void" if the TS/TR does not define any terms, symbols, or abbreviations.

## 3.1 Terms

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

Definition format (Normal)

**<defined term>:** <definition>.

**example:** text used to clarify abstract rules by applying them literally.

## 3.2 Symbols

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

Symbol format (EW)

<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].

Abbreviation format (EW)

<ABBREVIATION> <Expansion>

# 4 Background

The present document is a technical report for Dual Connectivity (DC) of 4 bands LTE inter-band CA and 1 NR band under Rel-17 timeframe. The document covers each band combination specific issues (i.e. one sub-clause defined per band combination)

## 4.1 TR Maintenance

A single company is responsible for introducing all approved TPs in the current TR, i.e. TR editor. However, it is the responsibility of the contact person of each band combination to ensure that the TPs related to the band combination have been implemented.

# 5 DC of 4 LTE band (4DL/1UL) + 1 NR band: Specific Band Combination Part

<Editor’s note: The requirements for specific band combinations shall be described according to the same manner as specified in TS38.101-3.>

## 5.1 Inter-band EN-DC

### 5.1.1 DC\_a-b-c-d\_ne

<Editor’s note: This example section will be voided in final TR>

#### 5.1.1.1 Configuration for EN-DC

<Editor’s note: If you need a note use same note numbering as in TS 38-101-3>

Table 5.2B.4.4-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_aA-bA-cA-dA\_neA | DC\_aA\_neA  DC\_bA\_neA  DC\_cA\_neA  DC\_dA\_neA |

#### 5.1.1.2 ∆TIB and ∆RIB values

<Editor’s note: rows in ΔTIB,c andΔRIB tables shall be deleted if ΔTIB,c andΔRIB values are zero. *>*

Table 6.2B.4.2.3.4-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_a-b-c-d\_ne | a |  |
|  | b |  |
|  | c |  |
|  | d |  |
|  | ne |  |

Table 7.3B.3.3.4-1: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_a-b-c-d\_ne | a |  |
|  | b |  |
|  | c |  |
|  | d |  |
|  | ne |  |

#### 5.1.1.3 Reference sensitivity exceptions

<Editor’s note: Unless specific sensitivity exceptions for intermodulation interference is needed due to dual uplink operation for DC in NR FR1 this section shall be omitted. *>*

### 5.1.2 DC\_1-7-20-32\_n28

#### 5.1.2.1 Configuration for EN-DC

Table 5.1.2.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_1A-7A-20A-32A\_n28A | DC\_1A\_n28A  DC\_7A\_n28A  DC\_20A\_n28A |

#### 5.1.2.2 ∆TIB and ∆RIB values

Table 5.1.2.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_1A-7A-20A-32A\_n28A | 1 | 0.5 |
| 7 | 0.6 |
| 20 | 0.6 |
| n28 | 0.7 |

Table 5.1.2.2.-2: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_1A-7A-20A-32A\_n28A | 1 | 0 |
| 7 | 0 |
| 20 | 0.2 |
| 32 | 0 |
| n28 | 0.2 |

#### 5.1.2.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination.

### 5.1.3 DC\_1-7-20-32\_n78

#### 5.1.3.1 Configuration for EN-DC

Table 5.1.3.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_1A-7A-20A-32A\_n78A | DC\_1A\_n78A  DC\_7A\_n78A  DC\_20A\_n78A |

#### 5.1.3.2 ∆TIB and ∆RIB values

Table 5.1.3.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_1A-7A-20A-32A\_n78A | 1 | 0.6 |
| 7 | 0.7 |
| 20 | 0.4 |
| n78 | 0.8 |

Table 5.1.3.2.-2: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_1A-7A-20A-32A\_n78A | 1 | 0.2 |
| 7 | 0.2 |
| 20 | 0.2 |
| 32 | 0 |
| n78 | 0.5 |

#### 5.1.3.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination.

### 5.1.4 DC\_3-7-20-32\_n78

#### 5.1.4.1 Configuration for EN-DC

Table 5.1.4.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_3A-7A-20A-32A\_n78A | DC\_3A\_n78A  DC\_7A\_n78A  DC\_20A\_n78A |

#### 5.1.4.2 ∆TIB and ∆RIB values

Table 5.1.4.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_3-7-20-32 \_n78 | 3 | 0.6 |
| 7 | 0.6 |
| 20 | 0.3 |
| n78 | 0.8 |

Table 5.1.4.2.-2: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_3-7-20-32 \_n78 | 3 | 0 |
| 7 | 0 |
| 20 | 0 |
| 32 | 0 |
| n78 | 0 |

#### 5.1.4.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination.

### 5.1.4 DC\_2-7-28-66\_n66

#### 5.1.4.1 Configuration for EN-DC

Table 5.2B.4.4-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_2A-7A-28A-66A\_n66A  DC\_2A-7C-28A-66A\_n66A | DC\_2A\_n66A  DC\_7A\_n66A  DC\_28A\_n66A  DC\_66A\_n66A4 |
| NOTE 4: Only single switched UL is supported | |

#### 5.1.4.2 ∆TIB and ∆RIB values

Table 6.2B.4.2.3.4-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_2-7-28-66\_n66 | 2 | 0.5 |
| 7 | 0.5 |
| 28 | 0.6 |
| 66 | 0.5 |
| n66 | 0.5 |

Table 7.3B.3.3.4-1: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB [dB] |
| --- | --- | --- |
| DC\_2-7-28-66\_n66 | 2 | 0.3 |
| 7 | 0.5 |
| 28 | 0.2 |
| 66 | 0.5 |
| n66 | 0.5 |

### 5.1.5 DC\_2-5-7-66\_n66

#### 5.1.5.1 Configurations for EN-DC

Table 5.2B.4.4-1: Band combinations EN-DC (five bands)

| DC  configuration | Uplink  configuration |
| --- | --- |
| DC\_2A-5A-7A-66A\_n66A  DC\_2A-5A-7C-66A\_n66A | DC\_2A\_n66A  DC\_5A\_n66A  DC\_7A\_n66A  DC\_66A\_n66A4 |
| NOTE 4: Only single switched UL is supported | |

#### 5.1.5.2 ∆TIB and ∆RIB values

For DC\_2-5-7-66\_n66, the ΔTIB,c and ΔRIB,c values are given in the tables below.

Table 6.2B.4.2.3.4-1: ΔTIB,c due to EN-DC (five bands)

| Inter-band DC Configuration | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_2-5-7-66\_n66 | 2 | 0.5 |
| 5 | 0.3 |
| 7 | 0.5 |
| 66 | 0.5 |
| n66 | 0.5 |

**Table 7.3B.3.3.4-1: ΔRIB due to EN-DC (five bands)**

| Inter-band DC Configuration | E-UTRA and NR Band | ΔRIB [dB] |
| --- | --- | --- |
| DC\_2-5-7-66\_n66 | 2 | 0.3 |
| 5 | 0 |
| 7 | 0.5 |
| 66 | 0.5 |
| n66 | 0.5 |

#### 5.1.5.3 REFSENS requirements

Compared to its fallback modes, there are no additional MSD requirements for this band combination.

### 5.1.6 DC\_1-3-7-40\_n78

#### 5.1.6.1 Configuration for EN-DC

Table 5.2B.4.4-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_1A-3A-7A-40A\_n78A  DC\_1A-3A-7A-40C\_n78A | DC\_1A\_n78A  DC\_3A\_n78A  DC\_7A\_n78A  DC\_40A\_n78A |

#### 5.1.6.2 ∆TIB and ∆RIB values

Table 6.2B.4.2.3.4-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_1A-3A-7A-40A\_n78A | 1 | 0.6 |
| 3 | 0.6 |
| 7 | 0.5 |
| 40 | 0.35 |
| n78 | 0.85 |
| NOTE 5: Only applicable for UE supporting inter-band carrier aggregation with uplink in one E-UTRA band and without simultaneous Rx/Tx. | | |

**Table 7.3B.3.3.4-1: ΔRIB due to EN-DC (five bands)**

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_1A-3A-7A-40A\_n78A | 1 | 0.2 |
| 3 | 0.2 |
| 7 | 0 |
| 40 | 0.45 |
| n78 | 0.55 |
| NOTE 5: Only applicable for UE supporting inter-band carrier aggregation with uplink in one E-UTRA band and without simultaneous Rx/Tx. | | |

#### 5.1.6.3 Reference sensitivity exceptions

In addition to its fallbacks, there is no particular MSD requirement needed for this band combination.

### 5.1.7 DC\_1-3-8-40\_n78

#### 5.1.7.1 Configuration for EN-DC

Table 5.2B.4.4-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_1A-3A-8A-40A\_n78A  DC\_1A-3A-8A-40C\_n78A | DC\_1A\_n78A  DC\_3A\_n78A  DC\_8A\_n78A  DC\_40A\_n78A |

#### 5.1.7.2 ∆TIB and ∆RIB values

Table 6.2B.4.2.3.4-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_1-3-8-40\_n78 | 1 | 0.6 |
| 3 | 0.6 |
| 8 | 0.6 |
| 40 | 0.35 |
| n78 | 0.85 |
| NOTE 5: Only applicable for UE supporting inter-band carrier aggregation with uplink in one E-UTRA band and without simultaneous Rx/Tx. | | |

**Table 7.3B.3.3.4-1: ΔRIB due to EN-DC (five bands)**

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_1-3-8-40\_n78 | 1 | 0.2 |
| 3 | 0.2 |
| 8 | 0.2 |
| 40 | 0.45 |
| n78 | 0.55 |
| NOTE 5: Only applicable for UE supporting inter-band carrier aggregation with uplink in one E-UTRA band and without simultaneous Rx/Tx. | | |

#### 5.1.7.3 Reference sensitivity exceptions

In addition to its fallbacks, there is no particular MSD requirement needed for this band combination.

### 5.1.8 DC\_1-7-8-40\_n78

#### 5.1.8.1 Configuration for EN-DC

Table 5.1.x.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_1A-7A-8A-40A\_n78A  DC\_1A-7A-8A-40C\_n78A | DC\_1A\_n78A  DC\_7A\_n78A  DC\_8A\_n78A  DC\_40A\_n78A |

#### 5.1.8.2 ∆TIB and ∆RIB values

Table 5.1.x.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_1-7-8-40\_n78 | 1 | 0.6 |
| 7 | 0.5 |
| 8 | 0.6 |
| 40 | 0.35 |
| n78 | 0.85 |
| NOTE 5: Only applicable for UE supporting inter-band carrier aggregation with uplink in one E-UTRA band and without simultaneous Rx/Tx. | | |

Table 5.1.x.2.-2: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_1-7-8-40\_n78 | 1 | 0.2 |
| 7 | 0 |
| 8 | 0.2 |
| 40 | 0.45 |
| n78 | 0.55 |
| NOTE 5: Only applicable for UE supporting inter-band carrier aggregation with uplink in one E-UTRA band and without simultaneous Rx/Tx. | | |

#### 5.1.8.3 Reference sensitivity exceptions

In addition to its fallbacks, there is no particular MSD requirement needed for this band combination.

### 5.1.9 DC\_3-7-8-40\_n78

#### 5.1.9.1 Configuration for EN-DC

Table 5.1.x.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_3A-7A-8A-40A\_n78A  DC\_3A-7A-8A-40C\_n78A | DC\_3A\_n78A  DC\_7A\_n78A  DC\_8A\_n78A  DC\_40A\_n78A |

#### 5.1.9.2 ∆TIB and ∆RIB values

Table 5.1.x.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_3-7-8-40\_n78 | 3 | 0.6 |
| 7 | 0.5 |
| 8 | 0.6 |
| 40 | 0.35 |
| n78 | 0.85 |
| NOTE 5: Only applicable for UE supporting inter-band carrier aggregation with uplink in one E-UTRA band and without simultaneous Rx/Tx. | | |

Table 5.1.x.2.-2: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_3-7-8-40\_n78 | 3 | 0.2 |
| 7 | 0 |
| 8 | 0.2 |
| 40 | 0.45 |
| n78 | 0.55 |
| NOTE 5: Only applicable for UE supporting inter-band carrier aggregation with uplink in one E-UTRA band and without simultaneous Rx/Tx. | | |

#### 5.1.9.3 Reference sensitivity exceptions

In addition to its fallbacks, there is no particular MSD requirement needed for this band combination.

### 5.1.10 DC\_2-7-28-66\_n7

#### 5.1.10.1 Configurations for EN-DC

Table 5.1.x.1-1: Band combinations EN-DC (five bands)

| EN-DC  Configuration | Uplink EN-DC  configuration |
| --- | --- |
| DC\_2A-7A-28A-66A\_n7A | DC\_2A\_n7A  DC\_7A\_n7A4  DC\_28A\_n7A  DC\_66A\_n7A |
| NOTE 4: Only single switched UL is supported | |

#### 5.1.10.2 ∆TIB and ∆RIB values

Table 5.1.x.2-1: ΔTIB,c due to EN-DC(five bands)

| Inter-band DC Configuration | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_2-7-28-66\_n7 | 2 | 0.5 |
| 7 | 0.5 |
| 28 | 0.6 |
| 66 | 0.5 |
| n7 | 0.5 |

**Table 5.1.x.2-2: ΔRIB,c due to EN-DC (five bands)**

| Inter-band DC Configuration | E-UTRA and NR Band | ΔRIB [dB] |
| --- | --- | --- |
| DC\_2-7-28-66\_n7 | 2 | 0.3 |
| 7 | 0.5 |
| 28 | 0.2 |
| 66 | 0.5 |
| n7 | 0.5 |

#### 5.1.10.3 Reference sensitivity exceptions

REFSENS exceptions are not needed.

### 5.1.11 DC\_2-5-7-66\_n7/ DC\_2-5-7-66-66\_n7

#### 5.1.11.1 Configurations for EN-DC

Table 5.1.x.1-1: Band combinations EN-DC (five bands)

| EN-DC  Configuration | Uplink EN-DC  configuration |
| --- | --- |
| DC\_2A-5A-7A-66A\_n7A  DC\_2A-5A-7A-66A-66A\_n7A | DC\_2A\_n7A  DC\_5A\_n7A  DC\_7A\_n7A4  DC\_66A\_n7A |
| NOTE 4: Only single switched UL is supported | |

#### 5.1.11.2 ∆TIB and ∆RIB values

Table 5.1.x.2-1: ΔTIB,c due to EN-DC(five bands)

| Inter-band DC Configuration | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_2-5-7-66\_n7  DC\_2-5-7-66-66\_n7 | 2 | 0.5 |
| 5 | 0.3 |
| 7 | 0.5 |
| 66 | 0.5 |
| n7 | 0.5 |

**Table 5.1.x.2-2: ΔRIB,c due to EN-DC (five bands)**

| Inter-band DC Configuration | E-UTRA and NR Band | ΔRIB [dB] |
| --- | --- | --- |
| DC\_2-5-7-66\_n7  DC\_2-5-7-66-66\_n7 | 2 | 0.3 |
| 5 | 0.2 |
| 7 | 0.5 |
| 66 | 0.5 |
| n7 | 0.5 |

#### 5.1.11.3 Reference sensitivity exceptions

REFSENS exceptions are not needed.

### 5.1.12 DC\_1-3-7-8\_n28

#### 5.1.12.1 Configurations for EN-DC

Table 5.1.x.1-1: Band combinations EN-DC (five bands)

| EN-DC  Configuration | Uplink EN-DC  configuration |
| --- | --- |
| DC\_1A-3A-7A-8A\_n28A | DC\_1A\_n28A  DC\_3A\_n28A  DC\_7A\_n28A  DC\_8A\_n28A |
|  | |

#### 5.1.12.2 ∆TIB and ∆RIB values

Table 5.1.x.2-1: ΔTIB,c due to EN-DC(five bands)

| Inter-band DC Configuration | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_1-3-7-8\_n28 | 1 | 0.5 |
| 3 | 0.5 |
| 7 | 0.6 |
| 8 | 0.6 |
| n28 | 0.6 |

**Table 5.1.x.2-2: ΔRIB,c due to EN-DC (five bands)**

| Inter-band DC Configuration | E-UTRA and NR Band | ΔRIB [dB] |
| --- | --- | --- |
| DC\_1-3-7-8\_n28 | 1 | 0 |
| 3 | 0 |
| 7 | 0 |
| 8 | 0.2 |
| n28 | 0.2 |

#### 5.1.12.3 Reference sensitivity exceptions

REFSENS exceptions are not needed.

### 5.1.13 DC\_3-7-8-40\_n1

#### 5.1.13.1 Configurations for EN-DC

Table 5.1.x.1-1: Band combinations EN-DC (five bands)

| EN-DC  Configuration | Uplink EN-DC  configuration |
| --- | --- |
| DC\_3A-7A-8A-40A\_n1A  DC\_3A-7A-8A-40C\_n1A | DC\_3A\_n1A  DC\_7A\_n1A  DC\_8A\_n1A  DC\_40A\_n1A |
|  | |

#### 5.1.13.2 ∆TIB and ∆RIB values

Table 5.1.x.2-1: ΔTIB,c due to EN-DC(five bands)

| Inter-band DC Configuration | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_3-7-8-40\_n1 | 3 | 0.5 |
| 7 | 0.8 |
| 8 | 0.6 |
| 40 | 0.9 |
| n1 | 0.6 |

**Table 5.1.x.2-2: ΔRIB,c due to EN-DC (five bands)**

| Inter-band DC Configuration | E-UTRA and NR Band | ΔRIB [dB] |
| --- | --- | --- |
| DC\_3-7-8-40\_n1 | 3 | 0 |
| 7 | 0.3 |
| 8 | 0.2 |
| 40 | 0.8 |
| n1 | 0.1 |

#### 5.1.13.3 Reference sensitivity exceptions

REFSENS exceptions are not needed.

### 5.1.14 DC\_1-3-20-40\_n78

#### 5.1.14.1 Configuration for EN-DC

Table 5.1.14.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_1A-3A-20A-40A\_n78A  DC\_1A-3A-20A-40C\_n78A | DC\_1A\_n78A  DC\_3A\_n78A  DC\_20A\_n78A  DC\_40A\_n78A |

#### 5.1.14.2 ∆TIB and ∆RIB values

It is proposed to re-use relaxation values from DC\_1-3-20\_n41-n78 which is very similar combination.

Table 5.1.14.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_1-3-20-40\_n78 | 1 | 0.5 |
| 3 | 0.5 |
| 20 | 0.3 |
| 40 | 0.55 |
| n78 | 0.85 |
| NOTE 5: Only applicable for UE supporting inter-band carrier aggregation with uplink in one E-UTRA band and without simultaneous Rx/Tx. | | |

Table 5.1.14.2.-2: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_1-3-20-40\_n78 | 1 | 0 |
| 3 | 0 |
| 20 | 0 |
| 40 | 05 |
| n78 | 0.55 |
| NOTE 5: Only applicable for UE supporting inter-band carrier aggregation with uplink in one E-UTRA band and without simultaneous Rx/Tx. | | |

#### 5.1.14.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination.

### 5.1.15 DC\_1-3-8-11\_n28

#### 5.1.15.1 Configurations for EN-DC

5.2B.4.4-1: Inter-band EN-DC configurations within FR1 (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_1A-3A-8A-11A\_n28A | DC\_1A\_n28A  DC\_3A\_n28A  DC\_8A\_n28A  DC\_11A\_n28A |

#### 5.1.15.2 ∆TIB and ∆RIB values

For DC\_1-3-8-11\_n28, the ΔTIB,c and ΔRIB,c values are given in the tables below.

6.2B.4.2.3.4-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_1-3-8-11\_n28 | 1 | 0.3 |
| 3 | 0.8 |
| 8 | 0.6 |
| 11 | 0.9 |
| n28 | 0.6 |

7.3B.3.3.4-1: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_1-3-8-11\_n28 | 1 | 0 |
| 3 | 0.3 |
| 8 | 0.2 |
| 11 | 0.5 |
| n28 | 0.2 |

#### 5.1.15.3 Reference sensitivity exceptions

Co-existence study for DC\_1-3-8-11\_n28 was covered by the studies for the fallback modes of DC\_1-3-8\_n28, DC\_1-3-11\_n28, DC\_1-8-11\_n28 and DC\_3-8-11\_n28.

No additional MSD requirement need to be defined for this dual connectivity configuration.

### 5.1.16 DC\_1-3-8-11\_n77

#### 5.1.16.1 Configurations for EN-DC

5.2B.4.4-1: Inter-band EN-DC configurations within FR1 (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_1A-3A-8A-11A\_n77A | DC\_1A\_n77A  DC\_3A\_n77A  DC\_8A\_n77A  DC\_11A\_n77A |
| DC\_1A-3A-8A-11A\_n77(2A) | DC\_1A\_n77A  DC\_3A\_n77A  DC\_8A\_n77A  DC\_11A\_n77A |

#### 5.1.16.2 ∆TIB and ∆RIB values

For DC\_1-3-8-11\_n77, the ΔTIB,c and ΔRIB,c values are given in the tables below.

6.2B.4.2.3.4-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_1-3-8-11\_n77 |  |  |
| 1 | 0.6 |
| 3 | 0.8 |
| 8 | 0.6 |
| 11 | 0.9 |
| n77 | 0.8 |

7.3B.3.3.4-1: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_1-3-8-11\_n77 | 1 | 0.2 |
| 3 | 0.3 |
| 8 | 0.2 |
| 11 | 0.5 |
| n77 | 0.5 |

#### 5.1.16.3 Reference sensitivity exceptions

Co-existence study for DC\_1-3-8-11\_n77 was covered by the studies for the fallback modes of DC\_1-3-8\_n77, DC\_1-3-11\_n77, DC\_1-8-11\_n77 and DC\_3-8-11\_n77.

No additional MSD requirement need to be defined for this dual connectivity configuration.

### 5.1.17 DC\_1-7-8-20\_n78

#### 5.1.17.1 Configuration for EN-DC

Table 5.1.17.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_1A-7A-8A-20A\_n78A | DC\_1A\_n78A  DC\_7A\_n78A  DC\_8A\_n78A  DC\_20A\_n78A |

#### 5.1.17.2 ∆TIB and ∆RIB values

Table 5.1.17.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_1A-7A-8A-20A\_n78A | 1 | 0.6 |
| 7 | 0.7 |
| 8 | 0.6 |
| 20 | 0.6 |
| n78 | 0.8 |

Table 5.1.17.2.-1: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_1A-7A-8A-20A\_n78A | 1 | 0.2 |
| 7 | 0.2 |
| 8 | 0.2 |
| 20 | 0.2 |
| n78 | 0.5 |

#### 5.1.17.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination.

### 5.1.18 DC\_2-7-12-66\_n78

#### 5.1.18.1 Configuration for EN-DC

Table 5.1.18.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_2A-7A-12A-66A\_n78A | DC\_2A\_n78A  DC\_7A\_n78A  DC\_12A\_n78A  DC\_66A\_n78A |
| DC\_2A-2A-7A-12A-66A\_n78A | DC\_2A\_n78A  DC\_7A\_n78A  DC\_12A\_n78A  DC\_66A\_n78A |

#### 5.1.18.2 ∆TIB and ∆RIB values

Based on values for DC\_1-3-7-20\_n78 in 38.101-3.

Table 5.1.18.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_2A-7A-12A-66A\_n78A | 2 | 0.6 |
| 7 | 0.6 |
| 12 | 0.6 |
| 66 | 0.6 |
| n78 | 0.6 |

Table 5.1.18.2.-2: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_2A-7A-12A-66A\_n78A | 2 | 0.2 |
| 7 | 0.2 |
| 12 | 0 |
| 66 | 0.2 |
| n78 | 0.5 |

#### 5.1.18.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination.

### 5.1.19 DC\_2-7-66-71\_n78

#### 5.1.19.1 Configuration for EN-DC

Based on values for DC\_1-3-7-20\_n78 in 38.101-3.

Table 5.1.19.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_2A-7A-66A-71A\_n78A | DC\_2A\_n78A  DC\_7A\_n78A  DC\_66A\_n78A  DC\_71A\_n78A |
| DC\_2A-2A-7A-66A-71A\_n78A | DC\_2A\_n78A  DC\_7A\_n78A  DC\_66A\_n78A  DC\_71A\_n78A |

#### 5.1.19.2 ∆TIB and ∆RIB values

Table 5.1.19.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_2A-7A-66A-71A\_n78A | 2 | 0.6 |
| 7 | 0.6 |
| 66 | 0.6 |
| 71 | 0.6 |
| n78 | 0.6 |

Table 5.1.19.2.-2: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_2A-7A-66A-71A\_n78A | 2 | 0.2 |
| 7 | 0.2 |
| 66 | 0.2 |
| 71 | 0 |
| n78 | 0.5 |

#### 5.1.19.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination.

### 5.1.20 DC\_2-5-7-66\_n2

#### 5.1.20.1 Configuration for EN-DC

Table 5.1.20.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_2A-5A-7A-66A\_n2A | DC\_5A\_n2A  DC\_7A\_n2A  DC\_66A\_n2A |

#### 5.1.20.2 ∆TIB and ∆RIB values

Based on values for CA\_2-7-13-66 in 36.101.

Table 5.1.20.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_2A-5A-7A-66A\_n2A | 2 | 0.5 |
| 5 | 0.3 |
| 7 | 0.5 |
| 66 | 0.5 |
| n2 | 0.5 |

Table 5.1.20.2.-2: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_2A-5A-7A-66A\_n2A | 2 | 0.3 |
| 5 | 0 |
| 7 | 0.5 |
| 66 | 0.5 |
| n2 | 0.3 |

#### 5.1.20.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination.

### 5.1.21 DC\_2-7-66-71\_n2

#### 5.1.21.1 Configuration for EN-DC

Based on values for DC\_2-7-66\_n71.

Table 5.1.21.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_2A-7A-66A-71A\_n2A | DC\_7A\_n2A  DC\_66A\_n2A  DC\_71A\_n2A |

#### 5.1.21.2 ∆TIB and ∆RIB values

Table 5.1.21.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_2A-7A-66A-71A\_n2A | 2 | 0.5 |
| 7 | 0.5 |
| 66 | 0.5 |
| 71 | 0.3 |
| n2 | 0.5 |

Table 5.1.21.2.-2: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_2A-7A-66A-71A\_n2A | 2 | 0.3 |
| 7 | 0.5 |
| 66 | 0.5 |
| 71 | 0 |
| n2 | 0.3 |

#### 5.1.21.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination.

### 5.1.22 DC\_2-7-12-66\_n2

#### 5.1.22.1 Configuration for EN-DC

Based on values for CA\_2-4-7-12 in 36.101.

Table 5.1.22.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_2A-7A-12A-66A \_n2A | DC\_7A\_n2A  DC\_12A\_n2A  DC\_66A\_n2A |

#### 5.1.22.2 ∆TIB and ∆RIB values

Table 5.1.22.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_2A-7A-12A-66A \_n2A | 2 | 0.5 |
| 7 | 0.5 |
| 12 | 0.8 |
| 66 | 0.5 |
| n2 | 0.5 |

Table 5.1.22.2.-2: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_2A-7A-12A-66A \_n2A | 2 | 0.3 |
| 7 | 0.3 |
| 12 | 0.5 |
| 66 | 0.5 |
| n2 | 0.3 |

#### 5.1.22.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination.

### 5.1.23 DC\_1-3-28-40\_n78

#### 5.1.23.1 Configuration for EN-DC

Table 5.1.23.1-1: Inter-band EN-DC configurations (five bands)

| EN-DC configuration | Uplink EN-DC configuration |
| --- | --- |
| DC\_1A-3A-28A-40A\_n78A  DC\_1A-3A-28A-40C\_n78A | DC\_1A\_n78A  DC\_3A\_n78A  DC\_28A\_n78A  DC\_40A\_n78A |

#### 5.1.23.2 ∆TIB and ∆RIB values

E-UTRA CA\_1-3-28-40 has been used as a basis for proposed relaxations.

Table 5.1.23.2-1: ΔTIB,c due to EN-DC(five bands)

| Inter-band DC Configuration | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_1-3-28-40\_n78 | 1 | 0.5 |
| 3 | 0.5 |
| 28 | 0.6 |
| 40 | 0.5 |
| n78 | 0.8 |

Table 5.1.23.2-1: ΔRIB,c due to EN-DC (five bands)

| Inter-band DC Configuration | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_1-3-28-40\_n78 | 1 | 0 |
| 3 | 0 |
| 28 | 0.2 |
| 40 | 0 |
| n78 | 0.5 |

#### 5.1.23.3 REFSENS requirements

No additional MSD requirement need to be defined for this EN-DC configuration.

### 5.1.24 DC\_1-3-7-38\_n28

#### 5.1.24.1 Configurations for EN-DC

Table 5.1.24.1-1: Band combinations EN-DC (five bands)

| EN-DC  Configuration | Uplink EN-DC  configuration |
| --- | --- |
| DC\_1A-3A-7A-38A\_n28A5 DC\_1A-3C-7A-38A\_n28A5 | DC\_1A\_n28A  DC\_3A\_n28A |
| NOTE 5: Band 7 and Band 38 are restricted as DL Scell. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within 6dB. | |

#### 5.1.24.2 ∆TIB and ∆RIB values

Table 5.1.24.2-1: ΔTIB,c due to EN-DC(five bands)

| Inter-band DC Configuration | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_1-3-7-38\_n28 | 1 | 0.6 |
| 3 | 0.6 |
| 7 | 0 |
| 38 | 0 |
| n28 | 0.5 |

**Table 5.1.24.2-2: ΔRIB,c due to EN-DC (five bands)**

| Inter-band DC Configuration | E-UTRA and NR Band | ΔRIB [dB] |
| --- | --- | --- |
| DC\_1-3-7-38\_n28 | 1 | 0 |
| 3 | 0 |
| 7 | 0 |
| 38 | 0.2 |
| n28 | 0.2 |

#### 5.1.24.3 Reference sensitivity exceptions

REFSENS exceptions are not needed.

### 5.1.25 DC\_1-3-7-28\_n3

#### 5.1.25.1 Configuration for EN-DC

Table 5.1.25.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_1A-3A-7A-28A\_n3A | DC\_1A\_n3A  DC\_3A\_n3A4  DC\_7A\_n3A  DC\_28A\_n3A |
| DC\_1A-3A-7C-28A\_n3A | DC\_1A\_n3A  DC\_3A\_n3A4  DC\_7A\_n3A  DC\_7C\_n3A  DC\_28A\_n3A |
| NOTE 4: Only single switched UL is supported | |

#### 5.1.25.2 ∆TIB and ∆RIB values

Based on values for CA\_1-3-7-28 in 36.101.

Table 5.1.25.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_1-3-7-28\_n3 | 1 | 0.6 |
| 3 | 0.6 |
| 7 | 0.6 |
| 28 | 0.6 |
| n3 | 0.6 |

Table 5.1.25.2.-2: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_1-3-7-28\_n3 | 1 | 0 |
| 3 | 0 |
| 7 | 0 |
| 28 | 0.2 |
| n3 | 0 |

#### 5.1.25.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination.

### 5.1.26 DC\_2-5-30-66\_n2

#### 5.1.26.1 Configuration for EN-DC

Table 5.1.26.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_2A-5A-30A-66A\_n2A | DC\_2A\_n2A1  DC\_5A\_n2A  DC\_30A\_n2A  DC\_66A\_n2A |
| NOTE 4: Only single switched UL is supported | |

#### 5.1.26.2 ∆TIB and ∆RIB values

Based on values for CA\_2-5-30-66 in 36.101.

Table 5.1.26.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_2-5-30-66\_n2 | 2 | 0.5 |
| 5 | 0.3 |
| 30 | 0.3 |
| 66 | 0.5 |
| n2 | 0.5 |

Table 5.1.26.2.-2: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_2-5-30-66\_n2 | 2 | 0.4 |
| 5 | 0 |
| 30 | 0.5 |
| 66 | 0.4 |
| n2 | 0.4 |

#### 5.1.26.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination.

### 5.1.27 DC\_2-5-30-66\_n66

#### 5.1.27.1 Configuration for EN-DC

Table 5.1.27.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_2A-5A-30A-66A\_n66A | DC\_2A\_n66A  DC\_5A\_n66A  DC\_30A\_n66A  DC\_66A\_n66A4 |
| NOTE 4: Only single switched UL is supported | |

#### 5.1.27.2 ∆TIB and ∆RIB values

Based on values for CA\_2-5-30-66 in 36.101.

Table 5.1.27.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_2-5-30-66\_n66 | 2 | 0.5 |
| 5 | 0.3 |
| 30 | 0.3 |
| 66 | 0.5 |
| n66 | 0.5 |

Table 5.1.27.2.-2: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_2-5-30-66\_n66 | 2 | 0.4 |
| 5 | 0 |
| 30 | 0.5 |
| 66 | 0.4 |
| n66 | 0.4 |

#### 5.1.27.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination.

### 5.1.28 DC\_2-14-30-66\_n2

#### 5.1.28.1 Configuration for EN-DC

Table 5.1.28.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_2A-14A-30A-66A\_n2A | DC\_2A\_n2A4  DC\_14A\_n2A  DC\_30A\_n2A  DC\_66A\_n2A |
| NOTE 4: Only single switched UL is supported | |

#### 5.1.28.2 ∆TIB and ∆RIB values

Based on values for CA\_2-14-30-66 in 36.101.

Table 5.1.28.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_2-14-30-66\_n2 | 2 | 0.5 |
| 14 | 0.3 |
| 30 | 0.3 |
| 66 | 0.5 |
| n2 | 0.5 |

Table 5.1.28.2.-2: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_2-14-30-66\_n2 | 2 | 0.4 |
| 14 | 0 |
| 30 | 0.5 |
| 66 | 0.4 |
| n2 | 0.4 |

#### 5.1.28.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination.

### 5.1.29 DC\_2-14-30-66\_n66

#### 5.1.29.1 Configuration for EN-DC

Table 5.1.29.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_2A-14A-30A-66A\_n66A | DC\_2A\_n66A  DC\_14A\_n66A  DC\_30A\_n66A  DC\_66A\_n66A4 |
| NOTE 4: Only single switched UL is supported | |

#### 5.1.29.2 ∆TIB and ∆RIB values

Based on values for CA\_2-14-30-66 in 36.101.

Table 5.1.29.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_2-14-30-66\_n66 | 2 | 0.5 |
| 14 | 0.3 |
| 30 | 0.3 |
| 66 | 0.5 |
| n66 | 0.5 |

Table 5.1.29.2.-2: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_2-14-30-66\_n66 | 2 | 0.4 |
| 14 | 0 |
| 30 | 0.5 |
| 66 | 0.4 |
| n66 | 0.4 |

#### 5.1.29.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination.

### 5.1.30 DC\_2-29-30-66\_n66

#### 5.1.30.1 Configuration for EN-DC

Table 5.1.30.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_2A-29A-30A-66A\_n66A | DC\_2A\_n66A  DC\_30A\_n66A  DC\_66A\_n66A4 |
| NOTE 4: Only single switched UL is supported | |

#### 5.1.30.2 ∆TIB and ∆RIB values

Based on values for CA\_2-29-30-66 in 36.101.

Table 5.1.30.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_2-29-30-66\_n66 | 2 | 0.5 |
| 30 | 0.3 |
| 66 | 0.5 |
| n66 | 0.5 |

Table 5.1.30.2.-2: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_2-29-30-66\_n66 | 2 | 0.4 |
| 29 | 0 |
| 30 | 0.5 |
| 66 | 0.4 |
| n66 | 0.4 |

#### 5.1.30.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination.

### 5.1.31 DC\_3-7-20-28\_n1

#### 5.1.31.1 Configurations for EN-DC

Table 5.1.31.1-1: Band combinations EN-DC (five bands)

| EN-DC  Configuration | Uplink EN-DC  configuration |
| --- | --- |
| DC\_3A-7A-20A-28A\_n1A | DC\_3A\_n1A  DC\_7A\_n1A  DC\_20A\_n1A  DC\_28A\_n1A |
|  | |

#### 5.1.31.2 ∆TIB and ∆RIB values

Table 5.1.31.2-1: ΔTIB,c due to EN-DC(five bands)

| Inter-band DC Configuration | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_3-7-20-28\_n1 | 3 | 0.6 |
| 7 | 0.6 |
| 20 | 0.6 |
| 28 | 0.6 |
| n1 | 0.6 |

**Table 5.1.31.2-2: ΔRIB,c due to EN-DC (five bands)**

| Inter-band DC Configuration | E-UTRA and NR Band | ΔRIB [dB] |
| --- | --- | --- |
| DC\_3-7-20-28\_n1 | 3 | 0 |
| 7 | 0 |
| 20 | 0.2 |
| 28 | 0.2 |
| n1 | 0 |

#### 5.1.31.3 Reference sensitivity exceptions

REFSENS exceptions are not needed.

### 5.1.32 DC\_1-3-5-7\_n77

#### 5.1.32.1 Configuration for EN-DC

Table 5.1.32.1-1: Inter-band EN-DC configurations (five bands)

| EN-DC configuration | Uplink EN-DC configuration |
| --- | --- |
| DC\_1A-3A-5A-7A\_n77A  DC\_1A-3A-5A-7A\_n77(2A)  DC\_1A-3A-5A-7A-7A\_n77A  DC\_1A-3A-5A-7A-7A\_n77(2A) | DC\_1A\_n77A  DC\_3A\_n77A  DC\_5A\_n77A  DC\_7A\_n77A |

#### 5.1.32.2 ∆TIB and ∆RIB values

The ΔTIB,c and ΔRIB,c values are specified below:

Table 5.1.32.2-1: ΔTIB,c due to EN-DC(five bands)

| Inter-band DC Configuration | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_1-3-5-7\_n77 | 1 | 0.6 |
| 3 | 0.6 |
| 5 | 0.6 |
| 7 | 0.6 |
| n77 | 0.8 |

**Table 5.1.32.2-2: ΔRIB,c due to EN-DC (five bands)**

| Inter-band DC Configuration | E-UTRA and NR Band | ΔRIB,c [dB] |
| --- | --- | --- |
| DC\_1-3-5-7\_n77 | 1 | 0.2 |
| 3 | 0.2 |
| 5 | 0.2 |
| 7 | 0.2 |
| n77 | 0.5 |

#### 5.1.32.3 REFSENS requirements

No additional MSD requirement needs to be defined for this dual connectivity configuration.

### 5.1.33 DC\_1-7-20-38\_n3

#### 5.1.33.1 Configuration for EN-DC

Table 5.1.33.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_1A-7A-20A-38A\_n3A | DC\_1A\_n3A  DC\_20A\_n3A |

#### 5.1.33.2 ∆TIB and ∆RIB values

Table 5.1.33.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_1-7-20-38\_n3 | 1 | 0.6 |
| 7 | 0.5 |
| 20 | 0.5 |
| 38 | 0.5 |
| n3 | 0.6 |

Table 5.1.33.2.-2: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c [dB] |
| --- | --- | --- |
| DC\_1-7-20-38\_n3 | 1 | 0 |
| 7 | 0 |
| 20 | 0 |
| 38 | 0.2 |
| n3 | 0 |

#### 5.1.33.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination.

### 5.1.34 DC\_1-7-8-20 \_n3

#### 5.1.34.1 Configuration for EN-DC

Table 5.1.34.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_1A-7A-8A-20A \_n3A | DC\_1A\_n3A  DC\_7A\_n3A  DC\_8A\_n3A  DC\_20A\_n3A |

#### 5.1.34.2 ∆TIB and ∆RIB values

Table 5.1.34.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_1-7-8-20 \_n3 | 1 | 0.6 |
| 7 | 0.6 |
| 8 | 0.6 |
| 20 | 0.6 |
| n3 | 0.6 |

Table 5.1.34.2.-1: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_1-7-8-20 \_n3 | 1 | 0 |
| 7 | 0 |
| 8 | 0.2 |
| 20 | 0.2 |
| n3 | 0 |

#### 5.1.34.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination.

### 5.1.35 DC\_1-7-20-28 \_n3

#### 5.1.35.1 Configuration for EN-DC

Table 5.1.35.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_1A-7A-20A-28A \_n3A | DC\_1A\_n3A  DC\_7A\_n3A  DC\_20A\_n3A  DC\_28A\_n3A |

#### 5.1.35.2 ∆TIB and ∆RIB values

Table 5.1.35.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_1-7-20-28 \_n3 | 1 | 0.6 |
| 7 | 0.6 |
| 20 | 0.6 |
| 28 | 0.6 |
| n3 | 0.6 |

Table 5.1.35.2.-1: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_1-7-20-28\_n3 | 1 | 0 |
| 7 | 0 |
| 20 | 0.2 |
| 28 | 0.2 |
| n3 | 0 |

#### 5.1.35.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination

### 5.1.36 DC\_1-7-20-32\_n3

#### 5.1.36.1 Configuration for EN-DC

Table 5.1.36.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_1A-7A-20A-32A\_n3A | DC\_1A\_n3A  DC\_7A\_n3A  DC\_20A\_n3A |

#### 5.1.36.2 ∆TIB and ∆RIB values

Table 5.1.36.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_1-7-20-32\_n3 | 1 | 0.7 |
| 7 | 0.7 |
| 20 | 0.3 |
| n3 | 0.7 |

Table 5.1.36.2.-1: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_1-7-20-32\_n3 | 1 | 0 |
| 7 | 0 |
| 20 | 0 |
| 32 | 0 |
| n3 | 0 |

#### 5.1.36.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination

### 5.1.37 DC\_1-7-20-32\_n8

#### 5.1.37.1 Configuration for EN-DC

Table 5.1.37.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_1A-7A-20A-32A\_n8A | DC\_1A\_n8A  DC\_7A\_n8A  DC\_20A\_n8A |

#### 5.1.37.2 ∆TIB and ∆RIB values

Table 5.1.37.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_1-7-20-32\_n8 | 1 | 0.7 |
| 7 | 0.7 |
| 20 | 0.6 |
| n8 | 0.6 |

Table 5.1.37.2.-1: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_1-7-20-32\_n8 | 1 | 0 |
| 7 | 0 |
| 20 | 0.2 |
| 32 | 0 |
| n8 | 0.2 |

#### 5.1.37.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination

### 5.1.39 DC\_1-7-28-32\_n3

#### 5.1.39.1 Configuration for EN-DC

Table 5.1.39.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_1A-7A-28A-32A\_n3A | DC\_1A\_n3A  DC\_7A\_n3A  DC\_28A\_n3A |

#### 5.1.39.2 ∆TIB and ∆RIB values

Table 5.1.39.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_1-7-28-32\_n3 | 1 | 0.6 |
| 7 | 0.6 |
| 28 | 0.6 |
| n3 | 0.6 |

Table 5.1.39.2.-1: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_1-7-28-32\_n3 | 1 | 0 |
| 7 | 0 |
| 28 | 0.2 |
| 32 | 0 |
| n3 | 0 |

#### 5.1.39.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination

### 5.1.40 DC\_1-20-28-32\_n3

#### 5.1.40.1 Configuration for EN-DC

Table 5.1.40.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_1A-20A-28A-32A\_n3A | DC\_1A\_n3A  DC\_20A\_n3A  DC\_28A\_n3A |

#### 5.1.40.2 ∆TIB and ∆RIB values

Table 5.1.40.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_1-20-28-32\_n3 | 1 | 0.5 |
| 20 | 0.6 |
| 28 | 0.6 |
| n3 | 0.5 |

Table 5.1.40.2.-1: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_1-20-28-32\_n3 | 1 | 0 |
| 20 | 0.2 |
| 28 | 0.2 |
| 32 | 0 |
| n3 | 0 |

#### 5.1.40.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination

### 5.1.41 DC\_3-7-8-20\_n1

#### 5.1.41.1 Configuration for EN-DC

Table 5.1.41.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_3A-7A-8A-20A\_n1A | DC\_3A\_n1A  DC\_7A\_n1A  DC\_8A\_n1A  DC\_20A\_n1A |

#### 5.1.41.2 ∆TIB and ∆RIB values

Table 5.1.41.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_3-7-8-20\_n1 | 3 | 0.6 |
| 7 | 0.6 |
| 8 | 0.6 |
| 20 | 0.6 |
| n1 | 0.6 |

Table 5.1.41.2.-1: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_3-7-8-20\_n1 | 3 | 0 |
| 7 | 0 |
| 8 | 0.2 |
| 20 | 0.2 |
| n1 | 0 |

#### 5.1.41.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination.

### 5.1.42 DC\_3-7-20-32\_n1

#### 5.1.42.1 Configuration for EN-DC

Table 5.1.42.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_3A-7A-20A-32A\_n1A | DC\_3A\_n1A  DC\_7A\_n1A  DC\_20A\_n1A |

#### 5.1.42.2 ∆TIB and ∆RIB values

Table 5.1.42.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_3-7-20-32\_n1 | 3 | 0.7 |
| 7 | 0.7 |
| 20 | 0.3 |
| n1 | 0.7 |

Table 5.1.42.2.-1: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_3-7-20-32\_n1 | 3 | 0 |
| 7 | 0 |
| 20 | 0 |
| 32 | 0 |
| n1 | 0 |

#### 5.1.42.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination.

### 5.1.43 DC\_7-8-20-32 \_n1

#### 5.1.43.1 Configuration for EN-DC

Table 5.1.43.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_7A-8A-20A-32A \_n1A | DC\_7A\_n1A  DC\_8A\_n1A  DC\_20A\_n1A |

#### 5.1.43.2 ∆TIB and ∆RIB values

Table 5.1.43.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_7-8-20-32\_n1 | 7 | 0.7 |
| 8 | 0.6 |
| 20 | 0.7 |
| 32 | N/A |
| n1 | 0.5 |

Table 5.1.43.2.-1: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_7-8-20-32\_n1 | 7 | 0 |
| 8 | 0.2 |
| 20 | 0.2 |
| 32 | 0 |
| n1 | 0 |

#### 5.1.43.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination.

### 5.1.44 DC\_7-20-28-32\_n1

#### 5.1.44.1 Configuration for EN-DC

Table 5.1.44.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_7A-20A-28A-32A\_n1A | DC\_7A\_n1A  DC\_20A\_n1A  DC\_28A\_n1A |

#### 5.1.44.2 ∆TIB and ∆RIB values

Table 5.1.44.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_7-20-28-32\_n1 | 7 | 0.7 |
| 20 | 0.6 |
| 28 | 0.6 |
| n1 | 0.7 |

Table 5.1.44.2.-1: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_7-20-28-32\_n1 | 7 | 0 |
| 20 | 0.2 |
| 28 | 0.2 |
| 32 | 0 |
| n1 | 0 |

#### 5.1.44.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination

### 5.1.45 DC\_7-20-28-32\_n3

#### 5.1.45.1 Configuration for EN-DC

Table 5.1.45.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_7A-20A-28A-32A\_n3A | DC\_7A\_n3A  DC\_20A\_n3A  DC\_28A\_n3A |

#### 5.1.45.2 ∆TIB and ∆RIB values

Table 5.1.45.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_7-20-28-32\_n3 | 7 | 0.7 |
| 20 | 0.6 |
| 28 | 0.5 |
| n3 | 0.7 |

Table 5.1.45.2.-1: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_7-20-28-32\_n3 | 7 | 0 |
| 20 | 0.2 |
| 28 | 0.1 |
| 32 | 0 |
| n3 | 0 |

#### 5.1.45.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination

### 5.1.46 DC\_7-20-32-38 \_n1

#### 5.1.46.1 Configuration for EN-DC

Table 5.1.46.1-1: Band combinations EN-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_7A-20A-32A-38A \_n1A | DC\_20A\_n1A |

#### 5.1.46.2 ∆TIB and ∆RIB values

Table 5.1.46.2.-1: ΔTIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔTIB,c [dB] |
| --- | --- | --- |
| DC\_7A-20-32-38\_n1 | 20 | 0.3 |
| n1 | 0.7 |

Table 5.1.46.2.-1: ΔRIB,c due to EN-DC (five bands)

| EN-DC band | E-UTRA and NR Band | ΔRIB,c (dB) |
| --- | --- | --- |
| DC\_7-20-32-38\_n1 | 7 | 0 |
| 20 | 0 |
| 32 | 0 |
| 38 | 0.2 |
| n1 | 0 |

#### 5.1.46.3 Reference sensitivity exceptions

Compared to its fallback modes, there are no additional MSD requirements for this band combination.

## 5.2 Inter-band NE-DC

### 5.2.1 DC\_na\_b-c-d-e

<Editor’s note: This example section will be voided in final TR>

#### 5.2.1.1 Configuration for NE-DC

<Editor’s note: If you need a note use same note numbering as in TS 38-101-3>

Table 5.5B.4a.4-1: Band combinations NE-DC (five bands)

| EN-DC band configuration | UL configuration(s) |
| --- | --- |
| DC\_naA\_bA-cA-ndA-eA | DC\_naA\_bA  DC\_naA\_cA  DC\_naA\_dA  DC\_naA\_eA |

#### 5.2.1.2 ∆TIB and ∆RIB values

<Editor’s note: Unless ΔTIB,c andΔRIB for specific reason need to be specified different than the correspondingly specified EN-DC configuration this section shall be omitted. *>*

# Annex A - Change history

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Change history** | | | | | | | |
| **Date** | **Meeting** | **TDoc** | **CR** | **Rev** | **Cat** | **Subject/Comment** | **New version** |
| 2020-08 | 3GPP RAN4#96-e | R4-2010399 |  |  |  | TR skeleton | 0.0.1 |
| 2020-08 | 3GPP RAN4#96-e | R4-2010400  R4-2009860  R4-2009861  R4-2009862  R4-2011624 |  |  |  | Addition of TPs from RAN4#96-e:  TP for TR 37.717-41-11: DC\_1-7-20-32\_n28  TP for TR 37.717-41-11: DC\_1-7-20-32\_n78  TP for TR 37.717-41-11: DC\_3-7-20-32\_n78  TP for TR 37.716-41-11 DC\_2A-7A-28A 66A\_n66A / DC\_2A-7C-28A-66A \_n66A | 0.1.0 |
| 2020-11 | 3GPP RAN4#97-e | R4-2015216  R4-2016657  R4-2016672  R4-2016673  R4-2016674  R4-2016675  R4-2015416  R4-2015417  R4-2015418  R4-2016677 |  |  |  | Addition of TPs from RAN4#97-e:  TP for 37.717-41-11 for DC\_2-5-7-66\_n66  TP to TR 37.717-41-11 DC\_1A-3A-7A-40C\_n78A  TP to TR 37.717-41-11 DC\_1A-3A-8A-40C\_n78A  TP to TR 37.717-41-11 DC\_1A-7A-8A-40C\_n78A  TP to TR 37.717-41-11 DC\_3A-7A-8A-40C\_n78A  TP for TR 37.717-41-11: DC\_2A-7A-28A-66A\_n7A  TP for TR 37.717-41-11:DC\_2A-5A-7A-66A\_n7A/DC\_2A-5A-7A-66A-66A\_n7A  TP for TR 37.717-41-11:DC\_1A-3A-7A-8A\_n28A  TP for TR 37.717-41-11:DC\_3A-7A-8A-40A\_n1A/DC\_3A-7A-8A-40C\_n1A | 0.2.0 |
| 2021-01 | 3GPP RAN4#98-e | R4-2101926  R4-2103008  R4-2100672  R4-2100673  R4-2101573  R4-2102038  R4-2102039  R4-2102040  R4-2102041  R4-2102042 |  |  |  | Addition of TPs from RAN4#98-e:  TP to TR 37.717-41-11: DC\_1-3-20-40\_n78  TP for TR 37.717-41-11: EN-DC\_1-3-8-11\_n28  TP for TR 37.717-41-11: EN-DC\_1-3-8-11\_n77  TP for TR 37.717-41-11: DC\_1-7-8-20\_n78  TP to TR 37.717-41-11 to include 2A-7A-12A-66A\_n78A, 2A-2A-7A-12A-66A\_n78A  TP to TR 37.717-41-11 to include 2A-7A-66A-71A\_n78A, 2A-2A-7A-66A-71A\_n78A  TP to TR 37.717-41-11 to include 2A-5A-7A-66A\_n2A  TP to TR 37.717-41-11 to include 2A-7A-66A-71A\_n2A  TP to TR 37.717-41-11 to include 2A-7A-66A-71A\_n2A | 0.3.0 |
| 2021-04 | 3GPP RAN4#98bis-e | R4-2107188  R4-2105284  R4-2106646  R4-2107067  R4-2107068  R4-2107069  R4-2107070  R4-2107071  R4-2107072 |  |  |  | Addition of TPs from RAN4#98-e:  TP to TR 37.717-41-11: DC\_1-3-28-40\_n78  TP for TR 37.717-41-11: DC\_1A-3A-7A-38A\_n28A/DC\_1A-3C-7A-38A\_n28A  TP for TR 37 717-41-11 to include DC\_1A-3A-7A-28A\_n3A  TP for TR 37 717-41-11 to include DC\_2A-5A-30A-66A\_n2A  TP for TR 37 717-41-11 to include DC\_2A-5A-30A-66A\_n66A  TP for TR 37 717-41-11 to include DC\_2A-14A-30A-66A\_n2A  TP for TR 37 717-41-11 to include DC\_2A-14A-30A-66A\_n66A  TP for TR 37 717-41-11 to include DC\_2A-29A-30A-66A\_n66A | 0.4.0 |
| 2021-05 | 3GPP RAN4#99-e | R4-2110715  R4-2110250 |  |  |  | Addition of TPs from RAN4#99-e TP for TR 37.717-41-11: DC\_3A-7A-20A-28A\_n1A | 0.5.0 |
| 2021-08 | 3GPP RAN4#100-e | R4-2113683  R4-2112460  R4-2112937  R4-2113613  R4-2113614  R4-2113615  R4-2113616  R4-2113618  R4-2113619  R4-2113627  R4-2113645  R4-2113646  R4-2113647  R4-2113648  R4-2113649 |  |  |  | Addition of TPs from RAN4#100-e  TP for TR 37.717-41-11 DC\_1-3-5-7\_n77  TP for TR 37.717-41-11: DC\_1A-7A-20A-38A\_n3A  TP for TR 37.717-41-11: DC\_1-7-8-20\_n3  TP for TR 37.717-41-11: DC\_1-7-20-28\_n3  TP for TR 37.717-41-11: DC\_1-7-20-32\_n3  TP for TR 37.717-41-11: DC\_1-7-20-32\_n8  TP for TR 37.717-41-11: DC\_1-7-28-32\_n3  TP for TR 37.717-41-11: DC\_1-20-28-32\_n3  TP for TR 37.717-41-11: DC\_3-7-8-20\_n1  TP for TR 37.717-41-11: DC\_3-7-20-32\_n1  TP for TR 37.717-41-11: DC\_7-8-20-32\_n1  TP for TR 37.717-41-11: DC\_7-20-28-32\_n1  TP for TR 37.717-41-11: DC\_7-20-28-32\_n3  TP for TR 37.717-41-11: DC\_7-20-32-38\_n1 | 0.6.0 |