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| 3GPP TR 38.8xx V0.0.1 (2025-10) |
| Technical Report |
| 3rd Generation Partnership Project;Technical Specification Group Radio Access Network;NR; SBFD BS(Subband non-overlapping Full Duplex Base Station) to SBFD BS adjacent channel co-existence(Release 20) |
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Contents

Foreword 4

1 Scope 6

2 References 6

3 Definitions of terms, symbols and abbreviations 6

3.1 Terms 6

3.2 Symbols 6

3.3 Abbreviations 6

4 Introduce 6

5 Coexistence scenarios 7

6 Coexistence scenarios 7

7 Coexistence study 7

7.1 General 7

7.2 Simulation assumption 7

7.3 Summary of the simulation results 7

7.4 Conclusion 7

8 Impacts on BS Tx requirements 8

9 Impacts on BS Rx requirements 8

Annex <A> : (Reserved) 9

Annex <X> Change history 9

# 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 the Technical Report for the Work Item on NR base station (BS) RF requirement evolution for FR1 and testing, phase 2.

*<Texts to be added>*

# 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>".

# 3 Definitions of terms, symbols and abbreviations

## 3.1 Terms

For the purposes of the present document, the terms given in 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 TR 21.905 [1].

**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> <Explanation>

## 3.3 Abbreviations

For the purposes of the present document, the abbreviations given in 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 TR 21.905 [1].

SBFD Subband non-overlapping Full Duplex

# 4 Introduce

SBFD is an evolution technique of TDD in the 5G-A. In Rel-19 TDD BS to SBFD BS co-existence study was conducted. And it was agreed that RAN4 do not introduce the specific requirements for SBFD BS to SBFD BS co-existence for FR1 WA or MR BS in Rel-19 and SBFD BS to SBFD BS co-existence case can be considered for Rel-20.

Compared to TDD BS to SBFD BS co-existence case, ACIR in SBFD BS to SBFD BS co-existence case could be improved and better co-existence performance might be achieved, because of the nature of SBFD design where the SBFD downlink of operator B can be adopted as guard band for filter implementation to protect the SBFD uplink of adjacent operator A.

This TR is to specify BS TX and RX RF requirement for SBFD-capable BS for the scenario of SBFD BS to SBFD BS adjacent channel coexistence.

# 5 Objectives

The objective for SBFD BS to SBFD BS adjacent channel coexistence are:

* + Focus on FR1 WA.
	+ Consider both scenarios including SBFD capable BS being co-located and non-collocated.
	+ Focus on bands: n104, n79, n41.
	+ Specify necessary (and if feasible) BS TX and RX RF requirement for SBFD-capable BS for the scenarios of SBFD BS to SBFD BS adjacent channel coexistence. The BS RF requirements include
		- TX unwanted emission
		- RX in-band blocking
	+ Note 1: whether to comply with requirements is declared by BS.
	+ Note 2: The existing TDD requirements apply for non-SBFD BSs

# 6 Coexistence scenarios

# 7 Coexistence study

## 7.1 General

*<Texts to be added>*

## 7.2 Simulation assumption

*<Editor’s note: It is expected that simulation assumption/methodology and etc.will be included in this sub-clause >*

*<Texts to be added>*

## 7.3 Summary of the simulation results

*<Editor’s note: To capture the all simulation results provided by companies.>*

*<Texts to be added>*

## 7.4 Conclusion

*<Texts to be added>*

# 8 Impacts on BS Tx requirements

*<Texts to be added>*

# 9 Impacts on BS Rx requirements

*<Texts to be added>*

Annex <A> :
(Reserved)

Annex <X>
Change history

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| **Change history** |
| **Date** | **Meeting** | **TDoc** | **CR** | **Rev** | **Cat** | **Subject/Comment** | **New version** |
| 2025-10 | RAN4#116bis | R4-25xxxxx |  |  |  | Skeleton | 0.0.1 |
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