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# **Foreword**

This Technical Specification has been produced by the 3<sup>rd</sup> 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.

# 1 Scope

The present document specifies requirements on UEs supporting a frequency band and inter-band/intra-band CA configurations that are independent of release.

### 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*.
- 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

  3GPP TS 36.101 (Release 12): "Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) Radio Transmission and Reception".

  3GPP TS 36.133 (Release 12): "Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for Support of Radio Resource Management".

  3GPP TS 36.101 (Release 13): "Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) Radio Transmission and Reception".

  3GPP TS 36.133 (Release 13): "Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for Support of Radio Resource Management".
- [6] 3GPP TS 36.307 (Release 13): "Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) Supporting a release-independent frequency band".
- [7] 3GPP TS 36.306 (Release 11): "Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities".

#### 3 Definitions and Abbreviations

#### 3.1 Definitions

For the purposes of the present document, the terms and definitions given in [1] apply.

#### 3.2 Abbreviations

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

#### 3A General

TSG-RAN has agreed that the standardisation of new frequency bands may be independent of a release, and that the standardisations of new inter-band/intra-band CA configurations also may be independent of a release for Rel-10 upwards. However, in order to implement a UE that conforms to a particular release but supports a band of operation or carrier aggregation of particular inter-band/intra-band CA configurations that is specified in a later release, it is necessary to specify some extra requirements.

For example, Band 19 is contained in the Release 9 specifications. In order to implement a UE conforming to Release 8 but supporting Band 19, it is necessary for the UE to additionally conform to some parts of the Release 9 specifications, such as the radio frequency and radio resource management requirements for the Band 19.

For another example on carrier aggregations, CA configuration CA\_1A-19A is contained in the Release 11 specifications. In order to implement a UE conforming to Release 10 but supporting the CA configuration CA\_1A-19A, it is necessary for the UE to additionally conform to some parts of the Release 11 specifications, such as the radio frequency and radio resource management requirements for the CA configuration CA\_1A-19A.

All frequency bands are fully specified in this release of the specifications. The present document does not contain any requirements for UEs supporting frequency bands independent of release.

NOTE: See NOTE in clause 4.4 in [2].

4	Void	
5	Void	
6	Void	
7	Void	
8	Void	
9	Void	
10	Void	
11	Void	
12	Void	

13	Void	
14	Void	
15	Void	
16	Void	
17	Void	
18	Void	

# 19 CA configuration CA\_41C Independent of Release

CA configuration CA\_41C is specified in Release 11, Release 12 and Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

# 19.1 CA\_41C UE

UEs that conform to Release 12 and support CA\_41C shall support the following requirements in Release 13.

#### 19.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_41C specified in [4] which are listed in Table B.4.2-1 of [6].

#### 19.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_41C specified in [5] which are listed in Table B.2.2-1 of [6].

#### 19.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_41C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 20 Void

# 21 CA configuration CA\_7C Independent of Release

CA configuration CA\_7C is specified in Release 11, Release 12 and Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

#### 21.1 CA 7C UE

UEs that conform to Release 12 and support CA\_7C shall support the following requirements in Release 13.

#### 21.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_7C specified in [4] which are listed in Table B.4.2-1 of [6].

#### 21.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_7C specified in [5] which are listed in Table B.2.2-1 of [6].

#### 21.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_7C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

#### 22 Void

# 23 CA configuration CA\_1A-18A Independent of Release

CA configuration CA\_1A-18A with 2ULs/2DLs is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

#### 23.1 Void

# 23.2 CA\_1A-18A UE with dual uplink

UEs that conform to Release 12 and support CA\_1A-18A with dual uplinkshall support the following requirements in Release 13.

#### 23.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-18A specified in [4] which are listed in Table B.4.6-1 of [6].

#### 23.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-18A specified in [5] which are listed in Table B.2.5-1 of [6].

# 23.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-18A among the CA demodulation performance and CSI reporting requirements specified in [4].

#### 24 Void

# 25 CA configuration CA\_3A-5A Independent of Release

CA configuration CA\_3A-5A with 1UL/2DLs is specified in Release 11, Release 12 and Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA\_3A-5A with 2ULs/2DLs is specified in Release 12 and Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

# 25.1 CA\_3A-5A UE with single uplink

UEs that conform to Release 12 and support CA\_3A-5A shall support the following requirements in Release 13.

#### 25.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-5A specified in [4], which are listed in Table B.4.3-1 of [6].

#### Table 25.1.1-1: Void

#### 25.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-5A specified in [5], which are listed in Table B.2.4-1 of [6].

#### Table 25.1.2-1: Void

#### 25.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-5A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

#### 25.2 CA\_3A-5A UE with dual uplink

UEs that conform to Release 12 and support CA\_3A-5A with dual uplink shall support the following requirements in Release 13.

#### 25.2.1 RF Requirements

The UE shall comply with the RF requirements for CA 3A-5A specified in [4], which are listed in Table B.4.6-1 of [6].

#### Table 25.2.1-1: Void

### 25.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-5A specified in [5], which are listed in Table B.2.5-1 of [6].

# 25.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-5A among the CA demodulation performance and CSI reporting requirements specified in [4].

# 26 CA configuration CA\_3A-7A Independent of Release

CA configuration CA\_3A-7A with 1ULs/2DLs to support combination set 1 is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

#### 26.1 CA\_3A-7A UE

UEs that conform to Release 11 and support CA\_3A-7A shall support the following requirements in Release 13.

#### 26.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-7A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 26.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-7A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 26.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-7A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

27	Void	
28	Void	
29	Void	
30	Void	
31	Void	
32	Void	
33	Void	

# 34 CA configuration CA\_4A-5A Independent of Release

CA configuration CA\_4A-5A with 2ULs/2DLs is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

#### 34.1 Void

#### 34.2 CA\_4A-5A UE with dual uplink

UEs that conform to Release 12 and support CA\_4A-5A with dual uplink shall support the following requirements in Release 13.

#### 34.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-5A specified in [4] which are listed in Table B.4.6-1 of [6]

#### 34.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-5A specified in [5] which are listed in Table B.2.5-1 of [6].

#### 34.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-5A among the CA demodulation performance and CSI reporting requirements specified in [4].

# 35 CA configuration CA\_4A-12A Independent of Release

CA configuration CA\_4A-12A with 1UL/2DLs is specified in Release 11, Release 12 and Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration  $CA_4A-12A$  with 2ULs/2DLs is specified in Release 12 and Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

# 35.1 CA\_4A-12A UE with single uplink

UEs that conform to Release 12 and support CA\_4A-12A shall support the following requirements in Release 13.

#### 35.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-12A specified in [4], which are listed in Table B.4.3-1 of [6].

#### Table 59.1.1-1: Void

# 35.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-12A specified in [5], which are listed in Table B.2.4-1 of [6].

Table 59.1.2-1: Void

#### 35.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-12A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

#### 35.2 CA\_5A-7A UE with dual uplink

UEs that conform to Release 12 and support CA\_4A-12A with dual uplink shall support the following requirements in Release 13.

#### 35.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-12A specified in [4], which are listed in Table B.4.6-1 of [6].

#### Table 59.2.1-1: Void

#### 35.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-12A specified in [5], which are listed in Table B.2.5-1 of [6].

#### 35.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-12A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

36	Void	
37	Void	
38	Void	
39	Void	
40	Void	
41	Void	

42	Void	
43	Void	
44	Void	
45	Void	
46	Void	
47	Void	
48	Void	
49	Void	
50	Void	

# 51 CA configuration CA\_4A-4A Independent of Release

CA configuration CA\_4A-4A with 1UL/2DLs is specified in Release 12 and Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

CA configuration CA\_4A-4A with 2UL/2DL is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

# 51.1 CA\_4A-4A UE with single uplink

UEs that conform to Release 12 and support CA\_4A-4A shall support the following requirements in Release 13.

#### 51.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-4A specified in [4], which are listed in Table B.4.5-1 of [6].

#### 51.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-4A specified in [5], which are listed in Table B.2.3-1 of [6].

#### 51.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-4A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

#### 51.2 CA\_4A-4A UE with dual uplink

UEs that conform to Release 12 and support CA\_4A-4A with dual uplink shall support the following requirements in Release 13.

#### 51.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-4A specified in [4], which are listed in Table B.4.7-1 of [6].

#### 51.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-4A specified in [5], which are listed in Table B.2.6-1 of [6].

#### 51.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-4A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

#### 52 Void

# 53 CA configuration CA\_1A-26A Independent of Release

CA configuration CA\_1A-26A with 2ULs/2DLs is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

#### 53.1 Void

#### 53.2 CA\_1A-26A UE with dual uplink

UEs that conform to Release 12 and support CA\_1A-26A with dual uplink shall support the following requirements in Release 13.

# 53.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-26A specified in [4] which are listed in Table B.4.6-1 of [6].

#### 53.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-26A specified in [5] which are listed in Table B.2.5-1 of [6].

#### 53.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-26A among the CA demodulation performance and CSI reporting requirements specified in [4].

#### 54 Void

# 55 CA configuration CA\_2A-5A Independent of Release

CA configuration CA\_2A-5A with 2ULs/2DLs is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

#### 55.1 Void

#### 55.2 CA\_2A-5A UE with dual uplink

UEs that conform to Release 12 and support CA\_2A-5A with dual uplink shall support the following requirements in Release 13.

#### 55.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-5A specified in [4] which are listed in Table B.4.6-1 of [6]

#### 55.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-5A specified in [5] which are listed in Table B.2.5-1 of [6].

#### 55.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-5A among the CA demodulation performance and CSI reporting requirements specified in [4].

#### 56 Void

# 57 Void

# 58 CA configuration CA\_2A-12A Independent of Release

CA configuration CA\_2A-12A with 1UL/2DLs is specified in Release 12 and Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA\_2A-12A with 2ULs/2DLs is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

## 58.1 CA\_2A-12A UE with Single Uplink

UEs that conform to Release 11 and support CA\_2A-12A shall support the following requirements in Release 13.

#### 58.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-12A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 58.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-12A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 58.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-12A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 58.2 CA\_2A-12A UE with dual uplink

UEs that conform to Release 11 and support CA\_2A-12A with dual uplink shall support the following requirements in Release 13.

#### 58.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-12A specified in [10], which are listed in Table B.4.6-1 of [11].

### 58.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-12A specified in [9] which are listed in Table B.2.5-1 of [11].

## 59 CA configuration CA\_5A-7A Independent of Release

CA configuration CA\_5A-7A with 1UL/2DLs is specified in Release 12 and Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA\_5A-7A with 2ULs/2DLs is specified in Release 12 and Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

## 59.1 CA 5A-7A UE with single uplink

UEs that conform to Release 12 and support CA\_5A-7A shall support the following requirements in Release 13.

## 59.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_5A-7A specified in [4], which are listed in Table B.4.3-1 of [6].

Table 59.1.1-1: Void

## 59.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_5A-7A specified in [5], which are listed in Table B.2.4-1 of [6].

#### Table 59.1.2-1: Void

#### 59.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_5A-7A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

#### 59.2 CA 5A-7A UE with dual uplink

UEs that conform to Release 12 and support CA\_5A-7A with dual uplink shall support the following requirements in Release 13.

#### 59.2.1 RF Requirements

The UE shall comply with the RF requirements for CA 5A-7A specified in [4], which are listed in Table B.4.6-1 of [6].

#### Table 59.2.1-1: Void

#### 59.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_5A-7A specified in [5], which are listed in Table B.2.5-1 of [6].

#### 59.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_5A-7A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 60 Void

# 61 CA configuration CA\_7A-28A Independent of Release

CA configuration CA\_7A-28A with 1UL/2DLs is specified in Release 12 and Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

## 61.1 CA\_7A-28A UE

UEs that conform to Release 11 and support CA\_7A-28A shall support the following requirements in Release 13.

## 61.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_7A-28A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 61.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_7A-28A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 61.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_7A-28A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

62 Void

63 Void

## 64 CA configuration CA\_7A-7A Independent of Release

CA configuration CA\_7A-7A is specified in Release 12 and Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

#### 64.1 CA 7A-7A UE

UEs that conform to Release 12 and support CA\_7A-7A shall support the following requirements in Release 13.

#### 64.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_7A-7A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 64.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_7A-7A specified in [5] which are listed in Table B.2.4-1 of [6].

## 64.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_7A-7A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

65 Void

66 Void

67 Void

68 Void

69	Void	
70	Void	
71	Void	
72	Void	
73	Void	
74	Void	
75	Void	
76	Void	
77	Void	
78	Void	
79	Void	
80	Void	

#### 81 Void

# 82 CA configuration CA\_18A-28A Independent of Release

CA configuration CA\_18A-28A with 2ULs/2DLs is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

#### 82.1 Void

## 82.2 CA\_18A-28A UE with dual uplink

UEs that conform to Release 12 and support CA\_18A-28A with dual uplink shall support the following requirements in Release 13.

#### 82.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_18A-28A specified in [4] which are listed in Table B.4.6-1 of [6]

#### 82.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_18A-28A specified in [5] which are listed in Table B.2.5-1 of [6].

#### 82.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_18A-28A among the CA demodulation performance and CSI reporting requirements specified in [4].

## CA configuration CA\_1A-5A-7A Independent of Release

CA configuration CA\_1A-5A-7A with 2UL/3DLs is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

#### 83.1 Void

## 83.2 CA\_1A-5A-7A UE with dual uplink

UEs that conform to Release 12 and support CA\_1A-5A-7A with dual uplink configuration as CA\_1A-5A, CA\_1A-7A and CA\_5A-7A shall support the following requirements in Release 13.

## 83.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-5A-7A specified in [4], which are listed in Table B.4.6-1 of [6].

## 83.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-5A-7A specified in [5], which are listed in Table B.2.5-1 of [6].

#### 83.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-5A-7A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 84 CA configuration CA\_1A-3A-5A Independent of Release

CA configuration CA\_1A-3A-5A with 2UL/3DLs is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

#### 84.1 Void

### 84.2 CA\_1A-3A-5A UE with dual uplink

UEs that conform to Release 12 and support CA\_1A-3A-5A with dual uplink configuration as CA\_1A-3A, CA\_1A-5A and CA\_3A-5A shall support the following requirements in Release 13.

#### 84.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A-5A specified in [4], which are listed in Table B.4.6-1 of [6].

#### 84.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-3A-5A specified in [5], which are listed in Table B.2.5-1 of [6].

#### 84.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-3A-5A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 85 CA configuration CA\_1A-3A-8A Independent of Release

CA configuration CA\_1A-3A-8A with 1UL/3DLs is specified in Release 12 and Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA\_1A-3A-8A with 2UL/3DLs is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 85.1 CA\_1A-3A-8A UE with one uplink

UEs that conform to Release 12 and support CA\_1A-3A-8A with one uplink shall support the following requirements in Release 13.

#### 85.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A-8A specified in [4] which are listed in Table B.4.3-1 of [6].

## 85.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-3A-8A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 85.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-3A-8A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 85.2 CA\_1A-3A-8A UE with dual uplink

UEs that conform to Release 12 and support CA\_1A-3A-8A with dual uplink configuration as CA\_1A-3A, CA\_1A-8A and CA\_3A-8A shall support the following requirements in Release 13.

#### 85.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A-8A specified in [4], which are listed in Table B.4.6-1 of [6].

#### 85.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-3A-8A specified in [5], which are listed in Table B.2.5-1 of [6].

#### 85.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-3A-8A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 86 CA configuration CA\_1A-3A-19A Independent of Release

CA configuration CA\_1A-3A-19A with 2UL/3DLs is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

#### 86.1 Void

## 86.2 CA\_1A-3A-19A UE with dual uplink

UEs that conform to Release 12 and support CA\_1A-3A-19A with dual uplink configuration as CA\_1A-3A, CA\_1A-19A and CA\_3A-19A shall support the following requirements in Release 13.

## 86.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A-19A specified in [4], which are listed in Table B.4.6-1 of [6].

## 86.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-3A-19A specified in [5], which are listed in Table B.2.5-1 of [6].

## 86.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-3A-19A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 87 Void

88	Void
89	Void
09	Volu
90	Void
91	CA configuration CA_1A-19A-21A Independent of Release
	uration CA_1A-19A-21A with 2UL/3DLs is specified in Release 13 but is defined as a release-independent uration for Rel-11 upwards for UE Categories specified in [7].
91.1	Void
91.2	CA_1A-19A-21A UE with dual uplink
UEs that co	onform to Release 12 and support CA_1A-19A-21A with dual uplink configuration as CA_1A-19A, CA_1A-

## 21A and CA\_19A-21A shall support the following requirements in Release 13.

91.2.1

RF Requirements

The UE shall comply with the RF requirements for CA\_1A-19A-21A specified in [4], which are listed in Table B.4.6-1 of [6].

## 91.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-19A-21A specified in [5], which are listed in Table B.2.5-1 of [6].

## 91.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-19A-21A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

92	Void				
93	Void				
94	Void				

# 95 CA configuration CA\_2A-4A-12A Independent of Release

CA configuration CA\_2A-4A-12A with 2UL/3DLs is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

#### 95.1 Void

#### 95.2 CA\_2A-4A-12A UE with dual uplink

UEs that conform to Release 12 and support CA\_2A-4A-12A with dual uplink configuration as CA\_2A-4A and CA\_4A-12A shall support the following requirements in Release 13.

#### 95.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-4A-12A specified in [4], which are listed in Table B.4.6-1 of [6].

#### 95.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-4A-12A specified in [5], which are listed in Table B.2.5-1 of [6].

#### 95.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-4A-12A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

### 96 Void

## 97 CA configuration CA\_3A-7C Independent of Release

CA configuration CA\_3A-7C with single uplink is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

CA configuration CA\_3A-7C with 2UL/3DLs is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 97.1 CA\_3A-7C UE with single uplink

UEs that conform to Release 12 and support CA\_3A-7C shall support the following requirements in Release 13.

## 97.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-7C specified in [4] which are listed in Table B.4.3-1 of [6].

## 97.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-7C specified in [5].

## 97.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-7C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 97.2 CA\_3A-7C UE with dual uplink

UEs that conform to Release 12 and support CA\_3A-7C with dual uplink configurations as CA\_7C shall support the following requirements in Release 13.

#### 97.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-7C specified in [9], which are listed in Table B.4.6-1 of [11].

#### 97.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-7C specified in [10], which are listed in Table B.2.5-1 of [11].

#### 97.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-7C with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [9] and listed in Table B.3.2-1 of [11].

## 98 CA configuration CA\_3A-7A-20A Independent of Release

CA configuration CA\_3A-7A-20A with 2UL/3DLs is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

#### 98.1 Void

#### 98.2 CA 3A-7A-20A UE with dual uplink

UEs that conform to Release 12 and support CA\_3A-7A-20A with dual uplink configuration as CA\_3A-7A, CA\_3A-20A and CA\_7A-20A shall support the following requirements in Release 13.

## 98.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-7A-20A specified in [4], which are listed in Table B.4.6-1 of [6].

## 98.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-7A-20A specified in [5], which are listed in Table B.2.5-1 of [6].

## 98.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-7A-20A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 99 Void

## 100 Void

101	Void	d				
102	Void	d				
103	Void	d				

## 104 CA configuration CA\_3C-7A Independent of Release

CA configuration CA\_3C-7A with 2UL/3DLs is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

104.1 Void

## 104.2 CA\_3C-7A UE with dual uplink

UEs that conform to Release 12 and support CA\_3C-7A with dual uplink configuration as CA\_3C shall support the following requirements in Release 13.

#### 104.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3C-7A specified in [9], which are listed in Table B.4.6-1 of [11].

## 104.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3C-7A specified in [10], which are listed in Table B.2.5-1 of [11].

## 104.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3C-7A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [9] and listed in Table B.3.2-1 of [11].

105	Void				
106	Void				
107	Void				

108	Void	
109	Void	
110	Void	
111	Void	
112	Void	
113	Void	
114	Void	
115	Void	
116	Void	
117	Void	
118	Void	
119	Void	

400	
1')(1	1/014
120	Void

## 121 Void

# 122 CA configuration CA\_1A-28A Independent of Release

CA configuration  $CA_1A-28A$  with 2ULs/2DLs is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

#### 122.1 Void

## 122.2 CA\_1A-28A UE with dual uplink

UEs that conform to Release 12 and support CA\_1A-28A with dual uplink shall support the following requirements in Release 13.

#### 122.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-28A specified in [4] which are listed in Table B.4.6-1 of [6].

#### 122.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-28A specified in [5] which are listed in Table B.2.5-1 of [6].

## 122.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-28A among the CA demodulation performance and CSI reporting requirements specified in [4].

123	Void			
124	Void			
125	Void			

## 126 Void

127	Void	
128	Void	
129	Void	

# 130 CA configuration CA\_39C-41A Independent of Release

CA configuration CA\_39C-41A with dual uplink is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

CA configuration CA\_39C-41A with three uplink is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards for UE Categories specified in [7].

#### 130.1 Void

#### 130.2 CA\_39C-41A UE with dual uplink

UEs that conform to Release 12 and support CA\_39C-41A with dual uplink configuration as CA\_39C and CA\_39A-41A shall support the following requirements in Release 13.

#### 130.2.1 RF Requirements

The UE that supports CA\_39C-41A with dual uplink configuration shall comply with the RF requirements for CA\_39C-41A specified in [4], which are listed in Table B.4.6-1 of [6].

#### 130.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_39C-41A specified in [5] and listed in Table B.2.5-1 of [6].

## 130.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_39C-41A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 130.3 CA\_39C-41A UE with three uplink

UEs that conform to Release 12 and support CA\_39C-41A with three uplink configuration shall support the following requirements in Release 13.

## 130.3.1 RF Requirements

The UE that supports CA\_39C-41A with dual uplink configuration shall comply with the RF requirements for CA\_39C-41A specified in [4], which are listed in Table B.4.8-1 of [6].

## 130.3.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_39C-41A specified in [5] and listed in Table B.2.7-1 of [6].

#### 130.3.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_39C-41A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 131 CA configuration CA\_39A-41C Independent of Release

CA configuration CA\_39A-41C with dual uplink is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

CA configuration CA\_39A-41C with three uplink is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards for UE Categories specified in [7].

#### 131.1 Void

## 131.2 CA\_39A-41C UE with dual uplink

UEs that conform to Release 12 and support 39A-41C with dual uplink configuration as CA\_41C and CA\_39A-41A shall support the following requirements in Release 13.

#### 131.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_39A-41C specified in [4], which are listed in Table B.4.6-1 of [6].

#### 131.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_39A-41C specified in [5] and listed in Table B.2.5-1 of [6].

#### 131.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_39A-41C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 131.3 CA\_39A-41C UE with three uplink

UEs that conform to Release 12 and support 39A-41C with three uplink configuration support the following requirements in Release 13.

## 131.3.1 RF Requirements

The UE shall comply with the RF requirements for CA\_39A-41C specified in [4], which are listed in Table B.4.8-1 of [6].

## 131.3.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_39A-41C specified in [5] and listed in Table B.2.7-1 of [6].

## 131.3.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_39A-41C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 132 Void

# 133 CA configuration CA\_4A-7A-12A Independent of Release

CA configuration CA\_4A-7A-12A is specified in Release 12 and Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards for UE Categories specified in [7].

#### 133.1 CA 4A-7A-12A UE

UEs that conform to Release 12 and support CA\_4A-7A-12A shall support the following requirements in Release 13.

#### 133.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-7A-12A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 133.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_4A-7A-12A specified in [5] which are listed in Table B.2.2-1 of [6].

#### 133.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-7A-12A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 134 CA configuration CA\_2A-5A-13A Independent of Release

CA configuration CA\_2A-5A-13A with 2UL/3DLs is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

#### 134.1 Void

## 134.2 CA\_2A-5A-13A UE with dual uplink

UEs that conform to Release 12 and support CA\_2A-5A-13A with dual uplink configuration as CA\_2A-13A shall support the following requirements in Release 13.

## 134.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-5A-13A specified in [4], which are listed in Table B.4.6-1 of [6].

## 134.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-5A-13A specified in [5], which are listed in Table B.2.5-1 of [6].

## 134.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-5A-13A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 135 CA configuration CA\_4A-5A-13A Independent of Release

CA configuration CA\_4A-5A-13A with 2UL/3DLs is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

#### 135.1 Void

## 135.2 CA\_4A-5A-13A UE with dual uplink

UEs that conform to Release 12 and support CA\_4A-5A-13A with dual uplink configuration as CA\_4A-13A shall support the following requirements in Release 13.

#### 135.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-5A-13A specified in [4], which are listed in Table B.4.6-1 of [6].

#### 135.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-5A-13A specified in [5], which are listed in Table B.2.5-1 of [6].

#### 135.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-5A-13A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 136 CA configuration CA\_1A-18A-28A Independent of Release

CA configuration CA\_1A-18A-28A with 2UL/3DLs is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

#### 136.1 Void

## 136.2 CA\_1A-18A-28A UE with dual uplink

UEs that conform to Release 12 and support CA\_1A-18A-28A with dual uplink configuration as CA\_1A-18A, CA\_1A-28A and CA\_18A-28A shall support the following requirements in Release 13.

## 136.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-18A-28A specified in [4], which are listed in Table B.4.6-1 of [6].

## 136.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-18A-28A specified in [5], which are listed in Table B.2.5-1 of [6].

## 136.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-18A-28A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

#### 137 Void

#### 138 Void

# 139 CA configuration CA\_4A-4A-7A Independent of Release

CA configuration CA\_4A-4A-7A is specified in Release 12 and Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

#### 139.1 CA 4A-4A-7A UE

UEs that conform to Release 12 and support CA\_4A-4A-7A shall support the following requirements in Release 13.

#### 139.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-4A-7A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 139.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_4A-4A-7A specified in [5] which are listed in Table B.2.2-1 of [6].

## 139.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-4A-7A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 140 CA configuration CA\_1A-3A-28A Independent of Release

CA configuration CA\_1A-3A-28A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 140.1 CA\_1A-3A-28A UE

UEs that conform to Release 12 and support CA\_1A-3A-28A shall support the following requirements in Release 13.

## 140.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A-28A specified in [4] which are listed in Table B.4.3-1 of [6].

## 140.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_1A-3A-28A specified in [5] which are listed in Table B.2.2-1 of [6].

#### 140.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-3A-28A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 141 CA configuration CA\_1A-7A-28A Independent of Release

CA configuration CA\_1A-7A-28A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

#### 141.1 CA\_1A-7A-28A UE

UEs that conform to Release 12 and support CA\_1A-7A-28A shall support the following requirements in Release 13.

#### 141.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-7A-28A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 141.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_1A-7A-28A specified in [5] which are listed in Table B.2.2-1 of [6].

#### 141.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-7A-28A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 142 CA configuration CA\_2A\_5A\_29A Independent of Release

CA configuration CA\_2A-5A-29A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 142.1 CA\_2A-5A-29A UE

UEs that conform to Release 12 and support CA\_2A-5A-29A shall support the following requirements in Release 13.

## 142.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-5A-29A specified in [4] which are listed in Table B.4.4-1 of [6].

## 142.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_2A-5A-29A specified in [5] which are listed in Table B.2.2-1 of [6].

## 142.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-5A-29A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 143 CA configuration CA\_3C\_5A Independent of Release

CA configuration CA\_3C-5A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

#### 143.1 CA 3C-5A UE

UEs that conform to Release 12 and support CA\_3C-5A shall support the following requirements in Release 13.

#### 143.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3C-5A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 143.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_3C-5A specified in [5] which are listed in Table B.2.2-1 of [6].

#### 143.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3C-5A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 144 CA configuration CA\_3A\_7B Independent of Release

CA configuration CA\_3A-7B is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

#### 144.1 CA 3A-7B UE

UEs that conform to Release 12 and support CA\_3A-7B shall support the following requirements in Release 13.

#### 144.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-7B specified in [4] which are listed in Table B.4.3-1 of [6].

## 144.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_3A-7B specified in [5] which are listed in Table B.2.2-1 of [6].

## 144.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-7B among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 145 CA configuration CA\_3A\_7A\_8A Independent of Release

CA configuration CA\_3A-7A-8A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 145.1 CA\_3A-7A-8A UE

UEs that conform to Release 12 and support CA\_3A-7A-8A shall support the following requirements in Release 13.

#### 145.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-7A-8A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 145.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_3A-7A-8A specified in [5] which are listed in Table B.2.2-1 of [6].

#### 145.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-7A-8A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 146 CA configuration CA\_3A\_7A\_28A Independent of Release

CA configuration CA\_3A-7A-28A with single uplink is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

CA configuration CA\_3A-7A-28A with 2UL/3DLs is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 146.1 CA\_3A-7A-28A UE with single uplink

UEs that conform to Release 12 and support CA\_3A-7A-28A shall support the following requirements in Release 13.

#### 146.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-7A-28A specified in [4] which are listed in Table B.4.3-1 of [6].

## 146.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_3A-7A-28A specified in [5] which are listed in Table B.2.2-1 of [6].

## 146.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-7A-28A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 146.2 CA\_3A-7A-28A UE with dual uplink

UEs that conform to Release 12 and support CA\_3A-7A-28A with dual uplink configurations as CA\_3A-7A and CA\_7A-28A shall support the following requirements in Release 13.

## 146.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-7A-28A specified in [4], which are listed in Table B.4.6-1 of [6].

## 146.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-7A-28A specified in [5], which are listed in Table B.2.5-1 of [6].

#### 146.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-7A-28A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [9] and listed in Table B.3.2-1 of [6].

## 147 CA configuration CA\_5A-29A Independent of Release

CA configuration CA\_5A-29A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

#### 147.1 CA\_5A-29A UE

UEs that conform to Release 12 and support CA\_5A-29A shall support the following requirements in Release 13.

#### 147.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_5A-29A specified in [4] which are listed in Table B.4.4-1 of [6].

#### 147.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_5A-29A specified in [5] which are listed in Table B.2.2-1 of [6].

#### 147.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_5A-29A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 148 CA configuration CA 7B Independent of Release

CA configuration CA\_7B is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

## 148.1 CA\_7B UE

UEs that conform to Release 12 and support CA\_7B shall support the following requirements in Release 13.

## 148.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_7B specified in [4] which are listed in Table B.4.2-1 of [6].

## 148.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_7B specified in [5] which are listed in Table B.2.2-1 of [6].

#### 148.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_7B among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 149 CA configuration CA\_7B\_28A Independent of Release

CA configuration CA\_7B-28A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

#### 149.1 CA 7B-28A UE

UEs that conform to Release 12 and support CA\_7B-28A shall support the following requirements in Release 13.

#### 149.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_7B-28A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 149.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_7B-28A specified in [5] which are listed in Table B.2.2-1 of [6].

#### 149.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_7B-28A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 150 CA configuration CA\_7C\_28A Independent of Release

CA configuration CA\_7C-28A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

### 150.1 CA\_7C-28A UE

UEs that conform to Release 12 and support CA\_7C-28A shall support the following requirements in Release 13.

### 150.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_7C-28A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 150.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_7C-28A specified in [5] which are listed in Table B.2.2-1 of [6].

## 150.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_7C-28A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 151 CA configuration CA\_40A-40A Independent of Release

CA configuration CA\_40A-40A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 151.1 CA\_40A-40A UE

UEs that conform to Release 12 and support CA\_40A-40A shall support the following requirements in Release 13.

## 151.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_40A-40A specified in [4] which are listed in Table B.4.5-1 of [6].

#### 151.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_40A-40A specified in [5] which are listed in Table B.2.3-1 of [6].

#### 151.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_40A-40A among the demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 152 CA configuration CA\_38A-40A Independent of Release

CA configuration CA\_38A-40A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

#### 152.1 CA\_38A-40A UE

UEs that conform to Release 12 and support CA\_38A-40A shall support the following requirements in Release 13.

#### 152.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_38A-40A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 152.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_38A-40A specified in [5] which are listed in Table B.2.4-1 of [6].

## 152.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_38A-40A among the demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 153 CA configuration CA\_38A-40C Independent of Release

CA configuration CA\_38A-40C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 153.1 CA\_38A-40C UE

UEs that conform to Release 12 and support CA\_38A-40C shall support the following requirements in Release 13.

## 153.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_38A-40C specified in [4] which are listed in Table B.4.3-1 of [6].

## 153.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_38A-40C specified in [5] which are listed in Table B.2.4-1 of [6].

#### 153.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_38A-40C among the demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 154 CA configuration CA\_38A-40A-40A Independent of Release

CA configuration CA\_38A-40A-40A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

#### 154.1 CA\_38A-40A-40A UE

UEs that conform to Release 12 and support CA\_38A-40A-40A shall support the following requirements in Release 13.

#### 154.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_38A-40A-40A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 154.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_38A-40A-40A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 154.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_38A-40A-40A among the demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 155 CA configuration CA\_41A\_42C Independent of Release

CA configuration CA\_41A-42C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 155.1 CA\_41A-42C UE

UEs that conform to Release 12 and support CA\_41A-42C shall support the following requirements in Release 13.

#### 155.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_41A-42C specified in [4] which are listed in Table B.4.3-1 of [6].

### 155.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_41A-42C specified in [5] which are listed in Table B.2.2-1 of [6].

#### 155.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_41A-42C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 156 CA configuration CA\_2A-28A Independent of Release

CA configuration CA\_2A-28A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

#### 156.1 CA 2A-28A UE

UEs that conform to Release 12 and support CA\_2A-28A shall support the following requirements in Release 13.

#### 156.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-28A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 156.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-28A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 156.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-28A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 157 CA configuration CA\_3A-31A Independent of Release

CA configuration CA\_3A-31A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

## 157.1 CA\_3A-31A UE

UEs that conform to Release 12 and support CA\_3A-31A shall support the following requirements in Release 13.

## 157.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-31A specified in [4] which are listed in Table B.4.3-1 of [6].

## 157.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-31A specified in [5] which are listed in Table B.2.4-1 of [6].

## 157.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-31A among the demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 158 CA configuration CA\_4A-28A Independent of Release

CA configuration CA\_4A-28A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

#### 158.1 CA 4A-28A UE

UEs that conform to Release 12 and support CA\_4A-28A shall support the following requirements in Release 13.

#### 158.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-28A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 158.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-28A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 158.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-28A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 159 CA configuration CA\_7A-22A Independent of Release

CA configuration CA\_7A-22A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

#### 159.1 CA\_7A-22A UE

UEs that conform to Release 12 and support CA\_7A-22A shall support the following requirements in Release 13.

### 159.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_7A-22A specified in [4] which are listed in Table B.4.3-1 of [6].

## 159.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_7A-22A specified in [5] which are listed in Table B.2.4-1 of [6].

## 159.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_7A-22A among the demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 160 CA configuration CA\_20A-31A Independent of Release

CA configuration CA\_20A-31A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

## 160.1 CA\_20A-31A UE

UEs that conform to Release 12 and support CA\_20A-31A shall support the following requirements in Release 13.

## 160.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_20A-31A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 160.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_20A-31A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 160.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_20A-31A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 161 CA configuration CA\_25A-26A Independent of Release

CA configuration  $CA_25A-26A$  is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

#### 161.1 CA\_25A-26A UE

UEs that conform to Release 12 and support CA\_25A-26A shall support the following requirements in Release 13.

#### 161.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_25A-26A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 161.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_25A-26A specified in [5] which are listed in Table B.2.4-1 of [6].

## 161.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_25A-26A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 162 CA configuration CA\_42D Independent of Release

CA configuration CA\_42D is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 162.1 CA\_42D UE

UEs that conform to Release 12 and support CA\_42D shall support the following requirements in Release 13.

#### 162.1.1 RF Requirements

The UE shall comply with the RF requirements for CA 42D specified in [4] which are listed in Table B.4.2-1 of [6].

## 162.1.2 RRM Requirements

The UE shall comply with the following RRM Requirements for CA\_42D specified in [5] which are listed in Table B.2.2-1 of [6].

## 162.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_42D specified in [4], which are listed in section B.3.2-1 of [6].

# 163 CA configuration CA\_2A-2A-4A Independent of Release

CA configuration CA\_2A-2A-4A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

#### 163.1 CA 2A-2A-4A UE

UEs that conform to Release 12 and support CA\_2A-2A-4A shall support the following requirements in Release 13.

#### 163.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-2A-4A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 163.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-2A-4A specified in [5].

#### 163.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-2A-4A among the CA demodulation performance and CSI reporting requirements demodulation performance and CSI reporting specified in [4].

## 164 CA configuration CA\_2A-2A-4A-4A Independent of Release

CA configuration CA\_2A-2A-4A-4A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 164.1 CA 2A-2A-4A-4A UE

UEs that conform to Release 12 and support CA\_2A-2A-4A shall support the following requirements in Release 13.

## 164.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-2A-4A specified in [4] which are listed in Table B.4.3-1 of [6].

## 164.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-2A-4A-4A specified in [5].

## 164.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-2A-4A among the CA demodulation performance and CSI reporting requirements demodulation performance and CSI reporting specified in [4].

## 165 CA configuration CA\_2C-5A Independent of Release

CA configuration CA\_2C-5A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 165.1 CA 2C-5A UE

UEs that conform to Release 12 and support CA\_2C-5A shall support the following requirements in Release 13.

#### 165.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2C-5A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 165.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2C-5A specified in [5].

#### 165.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2C-5A among the CA demodulation performance and CSI reporting requirements demodulation performance and CSI reporting specified in [4].

## 166 CA configuration CA\_2C-5A-30A Independent of Release

CA configuration CA\_2C-5A-30A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

#### 166.1 CA 2C-5A-30A UE

UEs that conform to Release 12 and support CA\_2C-5A-30A shall support the following requirements in Release 13.

#### 166.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2C-5A-30A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 166.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2C-5A-30A specified in [5].

## 166.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2C-5A-30A among the CA demodulation performance and CSI reporting requirements demodulation performance and CSI reporting specified in [4].

# 167 CA configuration CA\_2C-12A Independent of Release

CA configuration CA\_2C-12A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 167.1 CA 2C-12A UE

UEs that conform to Release 12 and support CA\_2C-12A shall support the following requirements in Release 13.

## 167.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2C-12A specified in [4] which are listed in Table B.4.3-1 of [6].

## 167.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2C-12A specified in [5].

#### 167.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2C-12A among the CA demodulation performance and CSI reporting requirements demodulation performance and CSI reporting specified in [4].

## 168 CA configuration CA\_2C-30A Independent of Release

CA configuration CA\_2C-30A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

#### 168.1 CA 2C-30A UE

UEs that conform to Release 12 and support CA\_2C-30A shall support the following requirements in Release 13.

#### 168.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2C-30A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 168.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2C-30A specified in [5].

#### 168.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2C-30A among the CA demodulation performance and CSI reporting requirements demodulation performance and CSI reporting specified in [4].

## 169 CA configuration CA\_2C-12A-30A Independent of Release

CA configuration CA\_2C-12A-30A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 169.1 CA 2C-12A-30A UE

UEs that conform to Release 12 and support CA\_2C-12A-30A shall support the following requirements in Release 13.

#### 169.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2C-12A-30A specified in [4] which are listed in Table B.4.3-1 of [6].

## 169.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2C-12A-30A specified in [5].

## 169.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2C-12A-30A among the CA demodulation performance and CSI reporting requirements demodulation performance and CSI reporting specified in [4].

# 170 CA configuration CA\_2C-29A-30A Independent of Release

CA configuration CA\_2C-29A-30A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

#### 170.1 CA 2C-29A-30A UE

UEs that conform to Release 12 and support CA\_2C-29A-30A shall support the following requirements in Release 13.

#### 170.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2C-29A-30A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 170.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2C-29A-30A specified in [5].

#### 170.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2C-29A-30A among the CA demodulation performance and CSI reporting requirements demodulation performance and CSI reporting specified in [4].

# 171 CA configuration CA\_2A-2A-4A-12A Independent of Release

CA configuration CA\_2A-2A-4A-12A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 171.1 CA 2A-2A-4A-12A UE

UEs that conform to Release 12 and support CA\_2A-2A-4A-12A shall support the following requirements in Release 13.

## 171.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-2A-4A-12A specified in [4] which are listed in Table B.4.3-1 of [6].

## 171.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-2A-4A-12A specified in [5].

## 171.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-2A-4A-12A among the CA demodulation performance and CSI reporting requirements demodulation performance and CSI reporting specified in [4].

# 172 CA configuration CA\_2A-4A-4A-12A Independent of Release

CA configuration CA\_2A-4A-4A-12A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

#### 172.1 CA 2A-4A-4A-12A UE

UEs that conform to Release 12 and support CA\_2A-4A-12A shall support the following requirements in Release 13.

#### 172.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-4A-12A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 172.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-4A-4A-12A specified in [5].

#### 172.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-4A-12A among the CA demodulation performance and CSI reporting requirements demodulation performance and CSI reporting specified in [4].

## 173 CA configuration CA\_2A-4A-5A-30A Independent of Release

CA configuration CA\_2A-4A-5A-30A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

#### 173.1 CA 2A-4A-5A-30A UE

UEs that conform to Release 12 and support CA\_2A-4A-5A-30A shall support the following requirements in Release 13.

## 173.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-4A-5A-30A specified in [4] which are listed in Table B.4.3-1 of [6].

## 173.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-4A-5A-30A specified in [5].

## 173.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-4A-5A-30A among the CA demodulation performance and CSI reporting requirements demodulation performance and CSI reporting specified in [4].

# 174 CA configuration CA\_2A-4A-30A Independent of Release

CA configuration CA\_2A-4A-30A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 174.1 CA\_2A-4A-30A UE

UEs that conform to Release 12 and support CA\_2A-4A-30A shall support the following requirements in Release 13.

## 174.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-4A-30A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 174.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-4A-30A specified in [5].

#### 174.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-4A-30A among the CA demodulation performance and CSI reporting requirements demodulation performance and CSI reporting specified in [4].

## 175 CA configuration CA\_2A-4A-12A-30A Independent of Release

CA configuration CA\_2A-4A-12A-30A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

#### 175.1 CA\_2A-4A-12A-30A UE

UEs that conform to Release 12 and support CA\_2A-4A-12A-30A shall support the following requirements in Release 13.

#### 175.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-4A-12A-30A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 175.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-4A-12A-30A specified in [5].

#### 175.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-4A-12A-30A among the CA demodulation performance and CSI reporting requirements demodulation performance and CSI reporting specified in [4].

# 176 CA configuration CA\_2A-4A-29A-30A Independent of Release

CA configuration CA\_2A-4A-29A-30A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 176.1 CA\_2A-4A-29A-30A UE

UEs that conform to Release 12 and support CA\_25A-41D shall support the following requirements in Release 13.

## 176.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-4A-29A-30A specified in [4] which are listed in Table B.4.3-1 of [6].

## 176.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-4A-29A-30A specified in [5].

## 176.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-4A-29A-30A among the CA demodulation performance and CSI reporting requirements demodulation performance and CSI reporting specified in [4].

# 177 CA configuration CA\_42C-42A and CA\_42A-42C Independent of Release

CA configurations CA\_42C-42A and CA\_42A-42C are specified in Release 13 but are defined as release-independent CA configurations for Rel-11 upwards.

#### 177.1 CA 42C-42A and CA 42A-42C UE

UEs that conform to Release 12 and support CA\_42C-42A and CA\_42A-42C shall support the following requirements in Release 13.

#### 177.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_42C-42A and CA\_42A-42C specified in [4], which are listed in Table B.4.3-1 of [6].

#### 177.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_42C-42A and CA\_42A-42C specified in [5], which are listed in Table B.2.2-1 of [6].

#### 177.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_42C-42A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 178 CA configuration CA\_2A\_2A\_12A Independent of Release

CA configuration CA\_2A-2A-12A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 178.1 CA\_2A-2A-12A UE

UEs that conform to Release 12 and support CA\_2A-12A shall support the following requirements in Release 13.

## 178.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-2A-12A specified in [4] which are listed in Table B.4.3-1 of [6].

## 178.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_2A-2A-12A specified in [5] which are listed in Table B.2.2-1 of [6].

## 178.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-2A-12A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 179 CA configuration CA\_3A\_3A\_8A Independent of Release

CA configuration CA\_3A-3A-8A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

#### 179.1 CA 3A-3A-8A UE

UEs that conform to Release 12 and support CA\_3A-3A-8A shall support the following requirements in Release 13.

#### 179.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-3A-8A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 179.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_3A-3A-8A specified in [5] which are listed in Table B.2.2-1 of [6].

#### 179.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-3A-8A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 180 CA configuration CA\_1A-3A-42A Independent of Release

CA configuration CA\_1A-3A-42A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

### 180.1 CA\_1A-3A-42A UE

UEs that conform to Release 12 and support CA\_1A-3A-42A shall support the following requirements in Release 13.

### 180.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A-42A specified in [4] which are listed in Table B.4.3-1 of [6].

## 180.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_1A-3A-42A specified in [5] which are listed in Table B.2.2-1 of [6].

## 180.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-3A-42A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 181 CA configuration CA\_1A-19A-42A Independent of Release

CA configuration CA\_1A-19A-42A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

## 181.1 CA\_1A-19A-42A UE

UEs that conform to Release 12 and support CA\_1A-19A-42A shall support the following requirements in Release 13.

## 181.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-19A-42A specified in [4] which are listed in Table B.4.3-1 of [6].

The UE shall comply with the RRM Requirements for CA\_1A-19A-42A specified in [5] which are listed in Table B.2.2-1 of [6].

#### 181.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-19A-42A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 182 CA configuration CA\_1A-21A-42A Independent of Release

CA configuration CA\_1A-21A-42A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

### 182.1 CA\_1A-21A-42A UE

UEs that conform to Release 12 and support CA\_1A-21A-42A shall support the following requirements in Release 13.

#### 182.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-21A-42A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 182.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_1A-21A-42A specified in [5] which are listed in Table B.2.2-1 of [6].

## 182.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-21A-42A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 183 CA configuration CA\_3A-19A-42A Independent of Release

CA configuration CA\_3A-19A-42A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

## 183.1 CA\_3A-19A-42A UE

UEs that conform to Release 12 and support CA\_3A-19A-42A shall support the following requirements in Release 13.

## 183.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-19A-42A specified in [4] which are listed in Table B.4.3-1 of [6].

## 183.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_3A-19A-42A specified in [5] which are listed in Table B.2.2-1 of [6].

The UE shall comply with the tests applicable for CA\_3A-19A-42A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 184 CA configuration CA\_8A\_41A Independent of Release

CA configuration CA\_8A-41A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

#### 184.1 CA 8A-41A UE

UEs that conform to Release 12 and support CA\_8A-41A shall support the following requirements in Release 13.

#### 184.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_8A-41A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 184.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_8A-41A specified in [5] which are listed in Table B.2.2-1 of [6].

#### 184.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_8A-41A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 185 CA configuration CA\_8A\_41C Independent of Release

CA configuration CA\_8A-41C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

## 185.1 CA\_8A-41C UE

UEs that conform to Release 12 and support CA\_8A-41C shall support the following requirements in Release 13.

### 185.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_8A-41C specified in [4] which are listed in Table B.4.3-1 of [6].

## 185.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_8A-41C specified in [5] which are listed in Table B.2.2-1 of [6].

## 185.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_8A-41C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 186 CA configuration CA\_19A-21A-42A Independent of Release

CA configuration CA\_19A-21A-42A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

#### 186.1 CA 19A-21A-42A UE

UEs that conform to Release 12 and support CA\_19A-21A-42A shall support the following requirements in Release 13.

#### 186.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_19A-21A-42A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 186.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_19A-21A-42A specified in [5] which are listed in Table B.2.2-1 of [6].

#### 186.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_19A-21A-42A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 187 CA configuration CA\_21A\_42A Independent of Release

CA configuration CA\_21A-42A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

## 187.1 CA\_21A-42A UE

UEs that conform to Release 12 and support CA\_21A-42A shall support the following requirements in Release 13.

## 187.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_21A-42A specified in [4] which are listed in Table B.4.3-1 of [6].

### 187.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_21A-42A specified in [5] which are listed in Table B.2.2-1 of [6].

## 187.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_21A-42A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 188 CA configuration CA\_21A\_42C Independent of Release

CA configuration CA\_21A-42C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

#### 188.1 CA 21A-42C UE

UEs that conform to Release 12 and support CA\_21A-42C shall support the following requirements in Release 13.

#### 188.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_21A-42C specified in [4] which are listed in Table B.4.3-1 of [6].

#### 188.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_21A-42C specified in [5] which are listed in Table B.2.2-1 of [6].

#### 188.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_21A-42C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 189 CA configuration CA\_25A-41D Independent of Release

CA configuration CA\_25A-41D is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

#### 189.1 CA 25A-41D UE

UEs that conform to Release 12 and support CA\_25A-41D shall support the following requirements in Release 13.

### 189.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_25A-41D specified in [4] which are listed in Table B.4.3-1 of [6].

## 189.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_25A-41D specified in [5].

## 189.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_25A-41D among the CA demodulation performance and CSI reporting requirements demodulation performance and CSI reporting specified in [4].

## 190 CA configuration CA\_1A-40A Independent of Release

CA configuration CA\_1A-40A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

## 190.1 CA\_1A-40A UE

UEs that conform to Release 12 and support CA\_1A-40A shall support the following requirements in Release 13.

## 190.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-40A specified in [4] which are listed in Table B.4.3-1 of [6].

The UE shall comply with the RRM requirements for CA\_1A-40A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 190.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-40A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 191 CA configuration CA\_3A-38A Independent of Release

CA configuration CA\_3A-38A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

#### 191.1 CA\_3A-38A UE

UEs that conform to Release 12 and support CA\_3A-38A shall support the following requirements in Release 13.

#### 191.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-38A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 191.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-38A specified in [5] which are listed in Table B.2.4-1 of [6].

## 191.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-38A among the demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 192 CA configuration CA\_5A-40A Independent of Release

CA configuration CA\_5A-40A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

## 192.1 CA\_5A-40A UE

UEs that conform to Release 12 and support CA\_5A-40A shall support the following requirements in Release 13.

## 192.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_5A-40A specified in [4] which are listed in Table B.4.3-1 of [6].

## 192.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_5A-40A specified in [5] which are listed in Table B.2.4-1 of [6].

The UE shall comply with the tests applicable for CA\_5A-40A among the demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 193 CA configuration CA\_3A-40C Independent of Release

CA configuration CA\_3A-40C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

#### 193.1 CA\_3A-40C UE

UEs that conform to Release 12 and support CA\_3A-40C shall support the following requirements in Release 13.

#### 193.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-40C specified in [4] which are listed in Table B.4.3-1 of [6].

#### 193.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-40C specified in [5] which are listed in Table B.2.4-1 of [6].

#### 193.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-40C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 194 CA configuration CA\_3A-40A Independent of Release

CA configuration CA\_3A-40A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

## 194.1 CA\_3A-40A UE

UEs that conform to Release 12 and support CA\_3A-40A shall support the following requirements in Release 13.

## 194.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-40A specified in [4] which are listed in Table B.4.3-1 of [6].

## 194.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-40A specified in [5] which are listed in Table B.2.4-1 of [6].

## 194.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-40A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 195 CA configuration CA\_4A-5A-29A Independent of Release

CA configuration CA\_4A-5A-29A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

#### 195.1 CA 4A-5A-29A UE

UEs that conform to Release 12 and support CA\_4A-5A-29A shall support the following requirements in Release 13.

#### 195.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-5A-29A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 195.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-5A-29A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 195.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-5A-29A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 196 CA configuration CA\_2A-4A-5A-29A Independent of Release

CA configuration CA\_2A-4A-5A-29A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

## 196.1 CA\_2A-4A-5A-29A UE

UEs that conform to Release 12 and support CA\_2A-4A-5A-29A shall support the following requirements in Release 13.

## 196.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-4A-5A-29A specified in [4] which are listed in Table B.4.3-1 of [6].

## 196.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-4A-5A-29A specified in [5] which are listed in Table B.2.4-1 of [6].

## 196.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-4A-5A-29A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 197 CA configuration CA\_1A-3A-19A-42A Independent of Release

CA configuration CA\_1A-3A-19A-42A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

### 197.1 CA\_1A-3A-19A-42A UE

UEs that conform to Release 12 and support CA\_1A-3A-19A-42A shall support the following requirements in Release 13.

#### 197.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A-19A-42A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 197.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-3A-19A-42A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 197.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-3A-19A-42A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 198 CA configuration CA\_1A-19A-21A-42A Independent of Release

CA configuration CA\_1A-19A-21A-42A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

#### 198.1 CA\_1A-19A-21A-42A UE

UEs that conform to Release 12 and support CA\_1A-19A-21A-42A shall support the following requirements in Release 13.

## 198.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-19A-21A-42A specified in [4] which are listed in Table B.4.3-1 of [6].

## 198.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-19A-21A-42A specified in [5] which are listed in Table B.2.4-1 of [6].

## 198.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-19A-21A-42A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 199 CA configuration CA\_1A-3A-42C Independent of Release

CA configuration CA\_1A-3A-42C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

## 199.1 CA\_1A-3A-42C UE

UEs that conform to Release 12 and support CA\_1A-3A-42C shall support the following requirements in Release 13.

#### 199.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A-42C specified in [4] which are listed in Table B.4.3-1 of [6].

#### 199.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-3A-42C specified in [5] which are listed in Table B.2.4-1 of [6].

#### 199.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-3A-42C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 200 CA configuration CA\_1A-19A-42C Independent of Release

CA configuration CA\_1A-19A-42C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

#### 200.1 CA 1A-19A-42C UE

UEs that conform to Release 12 and support CA\_1A-19A-42C shall support the following requirements in Release 13.

#### 200.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-19A-42C specified in [4] which are listed in Table B.4.3-1 of [6].

### 200.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-19A-42C specified in [5] which are listed in Table B.2.4-1 of [6].

## 200.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-19A-42C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 201 CA configuration CA\_1A-21A-42C Independent of Release

CA configuration CA\_1A-21A-42C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

## 201.1 CA\_1A-21A-42C UE

UEs that conform to Release 12 and support CA\_1A-21A-42C shall support the following requirements in Release 13.

## 201.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-21A-42C specified in [4] which are listed in Table B.4.3-1 of [6].

The UE shall comply with the RRM requirements for CA\_1A-21A-42C specified in [5] which are listed in Table B.2.4-1 of [6].

#### 201.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-21A-42C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 202 CA configuration CA\_3A-19A-42C Independent of Release

CA configuration CA\_3A-19A-42C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

#### 202.1 CA\_3A-19A-42C UE

UEs that conform to Release 12 and support CA\_3A-19A-42C shall support the following requirements in Release 13.

#### 202.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-19A-42C specified in [4] which are listed in Table B.4.3-1 of [6].

#### 202.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-19A-42C specified in [5] which are listed in Table B.2.4-1 of [6].

## 202.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-19A-42C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 203 CA configuration CA\_19A-21A-42C Independent of Release

CA configuration CA\_19A-21A-42C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

## 203.1 CA 19A-21A-42C UE

UEs that conform to Release 12 and support CA\_19A-21A-42C shall support the following requirements in Release 13.

## 203.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_19A-21A-42C specified in [4] which are listed in Table B.4.3-1 of [6].

## 203.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_19A-21A-42C specified in [5] which are listed in Table B.2.4-1 of [6].

The UE shall comply with the tests applicable for CA\_19A-21A-42C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 204 CA configuration CA\_1A-42A Independent of Release

CA configuration CA\_3A-5A with 1UL/2DLs is specified in Release 11, Release 12 and Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA\_3A-5A with 2ULs/2DLs is specified in Release 12 and Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

### 204.1 CA 1A-42A UE with single uplink

Void.

## 204.2 CA\_1A-42A UE with dual uplink

UEs that conform to Release 12 and support CA\_1A-42A with dual uplink shall support the following requirements in Release 13.

#### 204.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-42A specified in [4], which are listed in Table B.4.6-1 of [6].

#### Table 25.2.1-1: Void

## 204.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-42A specified in [5], which are listed in Table B.2.5-1 of [6].

## 204.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-42A among the CA demodulation performance and CSI reporting requirements specified in [4].

## 205 CA configuration CA\_19A-28A Independent of Release

CA configuration CA\_19A-28A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

## 205.1 CA\_19A-28A UE

UEs that conform to Release 12 and support CA\_19A-28A shall support the following requirements in Release 13.

## 205.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_19A-28A specified in [4] which are listed in Table B.4.3-1 of [6].

The UE shall comply with the RRM requirements for CA\_19A-28A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 205.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_19A-28A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 206 CA configuration CA\_1A-19A-28A Independent of Release

CA configuration CA\_1A-19A-28A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards for UE Categories specified in [7].

#### 206.1 CA\_1A-19A-28A UE

UEs that conform to Release 12 and support CA\_1A-19A-28A shall support the following requirements in Release 13.

#### 206.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-19A-28A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 206.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_1A-19A-28A specified in [5] which are listed in Table B.2.2-1 of [6].

## 206.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-19A-28A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 207 CA configuration CA\_1A-8A-11A Independent of Release

CA configuration CA\_1A-8A-11A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards for UE Categories specified in [7].

## 207.1 CA\_1A-8A-11A UE

UEs that conform to Release 12 and support CA\_1A-8A-11A shall support the following requirements in Release 13.

## 207.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-8A-11A specified in [4] which are listed in Table B.4.3-1 of [6].

## 207.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_1A-8A-11A specified in [5] which are listed in Table B.2.2-1 of [6].

The UE shall comply with the tests applicable for CA\_1A-8A-11A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 208 CA configuration CA\_1A-3C Independent of Release

CA configuration CA\_1A-3C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

#### 208.1 CA\_1A-3C UE

UEs that conform to Release 12 and support CA\_1A-3C shall support the following requirements in Release 13.

#### 208.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3C specified in [4] which are listed in Table B.4.3-1 of [6].

#### 208.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-3C specified in [5] which are listed in Table B.2.4-1 of [6].

#### 208.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-3C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 209 CA configuration CA\_20A-42A Independent of Release

CA configuration CA\_20A-42A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

## 209.1 CA\_20A-42A UE

UEs that conform to Release 12 and support CA\_20A-42A shall support the following requirements in Release 13.

## 209.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_20A-42A specified in [4] which are listed in Table B.4.3-1 of [6].

## 209.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_20A-42A specified in [5] which are listed in Table B.2.4-1 of [6].

## 209.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_20A-42A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 210 CA configuration CA\_20A-42A-42A Independent of Release

CA configuration CA\_20A-42A-42A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards for UE Categories specified in [7].

#### 210.1 CA 20A-42A-42A UE

UEs that conform to Release 12 and support CA\_20A-42A-42A shall support the following requirements in Release 13.

#### 210.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_20A-42A-42A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 210.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_20A-42A-42A specified in [5] which are listed in Table B.2.2-1 of [6].

#### 210.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_20A-42A-42A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 211 CA configuration CA\_3A-8A-40A Independent of Release

CA configuration CA\_3A-8A-40A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards for UE Categories specified in [7].

## 211.1 CA\_3A-8A-40A UE

UEs that conform to Release 12 and support CA\_3A-8A-40A shall support the following requirements in Release 13.

## 211.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-8A-40A specified in [4] which are listed in Table B.4.3-1 of [6].

## 211.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_3A-8A-40A specified in [5] which are listed in Table B.2.2-1 of [6].

## 211.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-8A-40A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 212 CA configuration CA\_7A-40A Independent of Release

CA configuration CA\_7A-40A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

#### 212.1 CA 7A-40A UE

UEs that conform to Release 12 and support CA\_7A-40A shall support the following requirements in Release 13.

### 212.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_7A-40A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 212.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_7A-40A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 212.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_7A-40A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 213 CA configuration CA\_7A-40C Independent of Release

CA configuration CA\_7A-40C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

## 213.1 CA\_7A-40C UE

UEs that conform to Release 12 and support CA\_7A-40C shall support the following requirements in Release 13.

### 213.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_7A-40C specified in [4] which are listed in Table B.4.3-1 of [6].

## 213.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_7A-40C specified in [5] which are listed in Table B.2.4-1 of [6].

## 213.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_7A-40C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 214 Band 45 Independent of Release

Band 45 is specified in Release 13 but is defined as a release-independent frequency band. This approach aligns the Band 45 with other frequency bands when considering features that have to be supported in different releases.

#### 214.1 Band 45 UE

UEs that conform to Release 12 and support Band 45 shall support the following requirements in Release 13.

## 214.1.1 RF Requirements

The UE shall comply with the RF requirements for Band 45 specified in [4], which are listed in Table B.4.1-1 of [6].

The UE shall comply with the RRM requirements for Band 45 specified in [5], which are listed in Table B.2.1-1 of [6].

## 215 Band 65 Independent of Release

Band 65 is specified in Release 13 but is defined as a release-independent frequency band. This approach aligns the Band 65 with other frequency bands when considering features that have to be supported in different releases.

#### 215.1 Band 65 UE

UEs that conform to Release 12 and support Band 65 shall support the following requirements in Release 13.

#### 215.1.1 RF Requirements

The UE shall comply with the RF requirements for Band 65 specified in [4], which are listed in Table B.4.1-1 of [6].

#### 215.1.2 RRM Requirements

The UE shall comply with the RRM requirements for Band 65 specified in [5], which are listed in Table B.2.1-1 of [6].

## 216 Band 66 Independent of Release

Band 66 is specified in Release 13 but is defined as a release-independent frequency band. This approach aligns the Band 66 with other frequency bands when considering features that have to be supported in different releases.

#### 216.1 Band 66 UE

UEs that conform to Release 12 and support Band 66 shall support the following requirements in Release 13.

#### 216.1.1 RF Requirements

The UE shall comply with the RF requirements for Band 66 specified in [4], which are listed in Table B.4.1-1 of [6].

#### 216.1.2 RRM Requirements

The UE shall comply with the RRM requirements for Band 66 specified in [5], which are listed in Table B.2.1-1 of [6].

## 217 CA configuration CA\_66B Independent of Release

CA configuration CA\_66B is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

## 217.1 CA\_66B UE

UEs that conform to Release 12 and support CA\_66B shall support the following requirements in Release 13.

#### 217.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_66B specified in [4] which are listed in Table B.4.2-1 of [6].

## 217.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_66B specified in [5] which are listed in Table B.2.2-1 of [6].

The UE shall comply with the tests applicable for CA\_66B among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 218 CA configuration CA\_66C Independent of Release

CA configuration CA\_66C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 218.1 CA\_66C UE

UEs that conform to Release 12 and support CA\_66C shall support the following requirements in Release 13.

#### 218.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_66C specified in [4] which are listed in Table B.4.2-1 of [6].

#### 218.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_66C specified in [5] which are listed in Table B.2.2-1 of [6].

#### 218.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_66C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 219 CA configuration CA\_66A-66A Independent of Release

CA configuration CA\_66A-66A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

## 219.1 CA\_66A-66A UE

UEs that conform to Release 12 and support CA\_66A-66A shall support the following requirements in Release 13.

## 219.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_66A-66A specified in [4] which are listed in Table B.4.5-1 of [6].

## 219.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_66A-66A specified in [5] which are listed in Table B.2.3-1 of [6].

## 219.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_66A-66A among the demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 220 CA configuration CA\_5B Independent of Release

CA configuration CA\_5B is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

#### 220.1 CA 5B UE

UEs that conform to Release 12 and support CA\_5B shall support the following requirements in Release 13.

#### 220.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_5B specified in [4] which are listed in Table B.4.2-1 of [6].

#### 220.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA 5B specified in [5] which are listed in Table B.2.2-1 of [6].

#### 220.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_5B among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 221 CA configuration CA\_8B Independent of Release

CA configuration CA\_8B is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards for UE Categories specified in [7].

#### 221.1 CA 8B UE

UEs that conform to Release 12 and support CA\_8B shall support the following requirements in Release 13.

#### 221.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_8B specified in [4] which are listed in Table B.4.2-1 of [6].

### 221.1.2 RRM Requirements

The UE shall comply with the following RRM Requirements for CA\_8B specified in [5] which are listed in Table B.2.2-1 of [6].

## 221.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_8B among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 222 CA configuration CA\_20A-67A Independent of Release

CA configuration CA\_20A-67A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

## 222.1 CA 20A-67A UE

UEs that conform to Release 12 and support CA\_20A-67A shall support the following requirements in Release 13.

## 222.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_20A-67A specified in [4] which are listed in Table B.4.3-1 of [6].

The UE shall comply with the RRM requirements for CA\_20A-67A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 222.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_20A-67A among demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 223 CA configuration CA\_1A-3A-7A Independent of Release

CA configuration CA\_1A-3A-7A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards for UE Categories specified in [7].

### 223.1 CA 1A-3A-7A UE

UEs that conform to Release 12 and support CA\_1A-3A-7A shall support the following requirements in Release 13.

#### 223.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A-7A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 223.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_1A-3A-7A specified in [5] which are listed in Table B.2.2-1 of [6].

## 223.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-3A-7A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 224 CA configuration CA\_1A-11A-18A Independent of Release

CA configuration CA\_1A-11A-18A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards for UE Categories specified in [7].

## 224.1 CA\_1A-11A-18A UE

UEs that conform to Release 12 and support CA\_1A-11A-18A shall support the following requirements in Release 13.

## 224.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-11A-18A specified in [4] which are listed in Table B.4.3-1 of [6].

## 224.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_1A-11A-18A specified in [5] which are listed in Table B.2.2-1 of [6].

The UE shall comply with the tests applicable for CA\_1A-11A-18A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 225 CA configuration CA\_4A-7A Independent of Release

CA configuration CA\_4A-7A is specified in Release 11 and Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards for UE Categories specified in [7].

#### 225.1 CA\_4A-7A UE

UEs that conform to Release 10 and support CA\_4A-7A shall support the following requirements in Release 13.

#### 225.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-7A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 225.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-7A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 225.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-7A among the demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 226 CA configuration CA\_2A-2A-12B Independent of Release

CA configuration CA\_2A-2A-12B is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

## 226.1 CA\_2A-2A-12B UE

UEs that conform to Release 12 and support CA\_2A-2A-12B shall support the following requirements in Release 13.

## 226.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-2A-12B specified in [4] which are listed in Table B.4.3-1 of [6].

## 226.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-2A-12B specified in [5] which are listed in Table B.2.4-1 of [6].

## 226.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-2A-12B among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 227 CA configuration CA\_5A-12B Independent of Release

CA configuration CA\_5A-12B is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

#### 227.1 CA 5A-12B UE

UEs that conform to Release 12 and support CA\_5A-12B shall support the following requirements in Release 13.

#### 227.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_5A-12B specified in [4] which are listed in Table B.4.3-1 of [6].

#### 227.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_5A-12B specified in [5] which are listed in Table B.2.4-1 of [6].

#### 227.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_5A-12B among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 228 CA configuration CA\_28A-40D Independent of Release

CA configuration CA\_28A-40D is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

## 228.1 CA\_28A-40D UE

UEs that conform to Release 12 and support CA\_28A-40D shall support the following requirements in Release 13.

## 228.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_28A-40D specified in [4] which are listed in Table B.4.3-1 of [6].

## 228.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_28A-40D specified in [5] which are listed in Table B.2.4-1 of [6].

## 228.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_28A-40D among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 229 CA configuration CA\_39A-41D Independent of Release

CA configuration CA\_39A-41D is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

#### 229.1 CA 39A-41D UE

UEs that conform to Release 12 and support CA\_39A-41D shall support the following requirements in Release 13.

#### 229.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_39A-41D specified in [4] which are listed in Table B.4.3-1 of [6].

#### 229.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_39A-41D specified in [5] which are listed in Table B.2.4-1 of [6].

### 229.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_39A-41D among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 230 CA configuration CA\_39C-41C Independent of Release

CA configuration CA\_39C-41C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

### 230.1 CA\_39C-41C UE

UEs that conform to Release 12 and support CA\_39C-41C shall support the following requirements in Release 13.

### 230.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_39C-41C specified in [4] which are listed in Table B.4.3-1 of [6].

## 230.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_39C-41C specified in [5] which are listed in Table B.2.4-1 of [6].

## 230.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_39C-41C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 231 CA configuration CA\_41C-42A Independent of Release

CA configuration CA\_41C-42A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

## 231.1 CA\_41C-42A UE

UEs that conform to Release 12 and support CA\_41C-42A shall support the following requirements in Release 13.

## 231.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_41C-42A specified in [4] which are listed in Table B.4.3-1 of [6].

The UE shall comply with the RRM requirements for CA\_41C-42A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 231.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_41C-42A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 232 CA configuration CA\_41C-42C Independent of Release

CA configuration CA\_41C-42C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

### 232.1 CA\_41C-42C UE

UEs that conform to Release 12 and support CA\_41C-42C shall support the following requirements in Release 13.

#### 232.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_41C-42C specified in [4] which are listed in Table B.4.3-1 of [6].

#### 232.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_41C-42C specified in [5] which are listed in Table B.2.4-1 of [6].

## 232.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_41C-42C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 233 CA configuration CA\_2A-2A-4A-5A Independent of Release

CA configuration CA\_2A-2A-4A-5A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

## 233.1 CA\_2A-2A-4A-5A UE

UEs that conform to Release 12 and support CA\_2A-2A-4A-5A shall support the following requirements in Release 13.

## 233.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-2A-4A-5A specified in [4] which are listed in Table B.4.3-1 of [6].

## 233.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-2A-4A-5A specified in [5] which are listed in Table B.2.4-1 of [6].

The UE shall comply with the tests applicable for CA\_2A-2A-4A-5A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 234 CA configuration CA\_2A-2A-5A-12A Independent of Release

CA configuration  $CA_2A-2A-5A-12A$  is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

#### 234.1 CA\_2A-2A-5A-12A UE

UEs that conform to Release 12 and support CA\_2A-2A-5A-12A shall support the following requirements in Release 13.

#### 234.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-2A-5A-12A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 234.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-2A-5A-12A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 234.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-2A-5A-12A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 235 CA configuration CA\_2A-5A-12B Independent of Release

CA configuration CA\_2A-5A-12B is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

## 235.1 CA\_2A-5A-12B UE

UEs that conform to Release 12 and support CA\_2A-5A-12B shall support the following requirements in Release 13.

## 235.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-5A-12B specified in [4] which are listed in Table B.4.3-1 of [6].

## 235.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-5A-12B specified in [5] which are listed in Table B.2.4-1 of [6].

## 235.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-5A-12B among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 236 CA configuration CA\_4A-4A-5A-12A Independent of Release

CA configuration CA\_4A-4A-5A-12A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

#### 236.1 CA 4A-4A-5A-12A UE

UEs that conform to Release 12 and support CA\_4A-4A-5A-12A shall support the following requirements in Release 13.

#### 236.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-4A-5A-12A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 236.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-4A-5A-12A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 236.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-4A-5A-12A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 237 CA configuration CA\_2A-4A-4A-5A Independent of Release

CA configuration CA\_2A-4A-4A-5A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

## 237.1 CA\_2A-4A-4A-5A UE

UEs that conform to Release 12 and support CA\_2A-4A-4A-5A shall support the following requirements in Release 13.

## 237.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-4A-4A-5A specified in [4] which are listed in Table B.4.3-1 of [6].

## 237.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-4A-4A-5A specified in [5] which are listed in Table B.2.4-1 of [6].

## 237.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-4A-4A-5A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 238 CA configuration CA\_1A-7A-8A Independent of Release

CA configuration CA\_1A-7A-8A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards.

#### 238.1 CA 1A-7A-8A UE

UEs that conform to Release 12 and support CA\_1A-7A-8A shall support the following requirements in Release 13.

#### 238.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-7A-8A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 238.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-7A-8A specified in [5] which are listed in Table B.2.4-1 of [6].

### 238.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-7A-8A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 239 CA configuration CA\_3A-7C-28A Independent of Release

CA configuration CA\_3A-7C-28A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

## 239.1 CA\_3A-7C-28A UE

UEs that conform to Release 12 and support CA\_3A-7C-28A shall support the following requirements in Release 13.

### 239.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-7C-28A specified in [4] which are listed in Table B.4.3-1 of [6].

## 239.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-7C-28A specified in [5] which are listed in Table B.2.4-1 of [6].

## 239.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-7C-28A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 240 CA configuration CA\_3A-28A-40A Independent of Release

CA configuration CA\_3A-28A-40A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

## 240.1 CA\_3A-28A-40A UE

UEs that conform to Release 12 and support CA\_3A-28A-40A shall support the following requirements in Release 13.

## 240.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-28A-40A specified in [4] which are listed in Table B.4.3-1 of [6].

The UE shall comply with the RRM requirements for CA\_3A-28A-40A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 240.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-28A-40A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 241 CA configuration CA\_3A-28A-40C Independent of Release

CA configuration CA\_3A-28A-40C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

#### 241.1 CA\_3A-28A-40C UE

UEs that conform to Release 12 and support CA\_3A-28A-40C shall support the following requirements in Release 13.

#### 241.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-28A-40C specified in [4] which are listed in Table B.4.3-1 of [6].

#### 241.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-28A-40C specified in [5] which are listed in Table B.2.4-1 of [6].

## 241.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-28A-40C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 242 CA configuration CA\_2A-4A-5A-12A Independent of Release

CA configuration CA\_2A-4A-5A-12A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

## 242.1 CA\_2A-4A-5A-12A UE

UEs that conform to Release 12 and support CA\_2A-4A-5A-12A shall support the following requirements in Release 13.

## 242.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-4A-5A-12A specified in [4] which are listed in Table B.4.3-1 of [6].

## 242.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-4A-5A-12A specified in [5] which are listed in Table B.2.4-1 of [6].

The UE shall comply with the tests applicable for CA\_2A-4A-5A-12A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 243 CA configuration CA\_1A-3A-7A-8A Independent of Release

CA configuration CA\_1A-3A-7A-8A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

### 243.1 CA\_1A-3A-7A-8A UE

UEs that conform to Release 12 and support CA\_1A-3A-7A-8A shall support the following requirements in Release 13.

#### 243.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A-7A-8A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 243.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-3A-7A-8A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 243.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-3A-7A-8A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 244 CA configuration CA\_1A-3A-8A-40A Independent of Release

CA configuration CA\_1A-3A-8A-40A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

## 244.1 CA\_1A-3A-8A-40A UE

UEs that conform to Release 12 and support CA\_1A-3A-8A-40A shall support the following requirements in Release 13.

## 244.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A-8A-40A specified in [4] which are listed in Table B.4.3-1 of [6].

## 244.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-3A-8A-40A specified in [5] which are listed in Table B.2.4-1 of [6].

## 244.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-3A-8A-40A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 245 CA configuration CA\_1A-5A-40A Independent of Release

CA configuration CA\_1A-5A-40A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

#### 245.1 CA 1A-5A-40A UE

UEs that conform to Release 12 and support CA\_1A-5A-40A shall support the following requirements in Release 13.

#### 245.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-5A-40A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 245.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-5A-40A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 245.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-5A-40A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 246 CA configuration CA\_3A-5A-40A Independent of Release

CA configuration CA\_3A-5A-40A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

## 246.1 CA\_3A-5A-40A UE

UEs that conform to Release 12 and support CA\_3A-5A-40A shall support the following requirements in Release 13.

## 246.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-5A-40A specified in [4] which are listed in Table B.4.3-1 of [6].

## 246.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-5A-40A specified in [5] which are listed in Table B.2.4-1 of [6].

## 246.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-5A-40A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 247 CA configuration CA\_1A-3A-5A-40A Independent of Release

CA configuration CA\_1A-3A-5A-40A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

### 247.1 CA\_1A-3A-5A-40A UE

UEs that conform to Release 12 and support CA\_1A-3A-5A-40A shall support the following requirements in Release 13.

#### 247.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A-5A-40A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 247.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-3A-5A-40A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 247.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-3A-5A-40A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 248 CA configuration CA\_5A-40C Independent of Release

CA configuration CA\_5A-40C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards for UE Categories specified in [7].

#### 248.1 CA\_5A-40C UE

UEs that conform to Release 12 and support CA\_5A-40C shall support the following requirements in Release 13.

### 248.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_5A-40C specified in [4] which are listed in Table B.4.3-1 of [6].

## 248.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_5A-40C specified in [5] which are listed in Table B.2.2-1 of [6].

## 248.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_5A-40C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 249 CA configuration CA\_3A-41C Independent of Release

CA configuration CA\_3A-41C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards for UE Categories specified in [7].

## 249.1 CA\_3A-41C UE

UEs that conform to Release 12 and support CA\_3A-41C shall support the following requirements in Release 13.

#### 249.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-41C specified in [4] which are listed in Table B.4.3-1 of [6].

#### 249.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_3A-41C specified in [5] which are listed in Table B.2.2-1 of [6].

#### 249.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-41C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 250 CA configuration CA\_28A-41C Independent of Release

CA configuration CA\_28A-41C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards for UE Categories specified in [7].

#### 250.1 CA 28A-41C UE

UEs that conform to Release 12 and support CA\_28A-41C shall support the following requirements in Release 13.

#### 250.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_28A-41C specified in [4] which are listed in Table B.4.3-1 of [6].

## 250.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_28A-41C specified in [5] which are listed in Table B.2.2-1 of [6].

## 250.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_28A-41C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 251 CA configuration CA\_28A-40C Independent of Release

CA configuration CA\_28A-40C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards for UE Categories specified in [7].

## 251.1 CA\_28A-40C UE

UEs that conform to Release 12 and support CA\_28A-40C shall support the following requirements in Release 13.

## 251.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_28A-40C specified in [4] which are listed in Table B.4.3-1 of [6].

The UE shall comply with the RRM Requirements for CA\_28A-40C specified in [5] which are listed in Table B.2.2-1 of [6].

#### 251.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_28A-40C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 252 CA configuration CA\_28A-40A Independent of Release

CA configuration CA\_28A-40A is specified in Release 11 and Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards for UE Categories specified in [7].

#### 252.1 CA\_28A-40A UE

UEs that conform to Release 10 and support CA\_28A-40A shall support the following requirements in Release 13.

#### 252.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_28A-40A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 252.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_28A-40A specified in [5] which are listed in Table B.2.4-1 of [6].

## 252.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_28A-40A among the demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 253 CA configuration CA\_7A-42A-42A Independent of Release

CA configuration CA\_7A-42A-42A is specified in Release 12 and Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards for UE Categories specified in [7].

## 253.1 CA 7A-42A-42A UE

UEs that conform to Release 12 and support CA\_7A-42A-42A shall support the following requirements in Release 13.

## 253.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_7A-42A-42A specified in [4] which are listed in Table B.4.3-1 of [6].

## 253.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_7A-42A-42A specified in [5] which are listed in Table B.2.2-1 of [6].

The UE shall comply with the tests applicable for CA\_7A-42A-42A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 254 CA configuration CA\_7A-42A Independent of Release

CA configuration CA\_7A-42A is specified in Release 11 and Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards for UE Categories specified in [7].

#### 254.1 CA\_7A-42A UE

UEs that conform to Release 10 and support CA\_7A-42A shall support the following requirements in Release 13.

#### 254.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_7A-42A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 254.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_7A-42A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 254.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_7A-42A among the demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 255 CA configuration CA\_28A-42C Independent of Release

CA configuration CA\_28A-42C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards for UE Categories specified in [7].

## 255.1 CA\_28A-42C UE

UEs that conform to Release 12 and support CA\_28A-42C shall support the following requirements in Release 13.

## 255.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_28A-42C specified in [4] which are listed in Table B.4.3-1 of [6].

## 255.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_28A-42C specified in [5] which are listed in Table B.2.2-1 of [6].

## 255.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_28A-42C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 256 CA configuration CA\_28A-42A Independent of Release

CA configuration CA\_28A-42A is specified in Release 11 and Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards for UE Categories specified in [7].

#### 256.1 CA 28A-42A UE

UEs that conform to Release 10 and support CA\_28A-42A shall support the following requirements in Release 13.

#### 256.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_28A-42A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 256.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_28A-42A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 256.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_28A-42A among the demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 257 CA configuration CA\_1A-8A-40A Independent of Release

CA configuration CA\_1A-8A-40A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards for UE Categories specified in [7].

## 257.1 CA\_1A-8A-40A UE

UEs that conform to Release 12 and support CA\_1A-8A-40A shall support the following requirements in Release 13.

## 257.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-8A-40A specified in [4] which are listed in Table B.4.3-1 of [6].

## 257.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_1A-8A-40A specified in [5] which are listed in Table B.2.2-1 of [6].

## 257.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-8A-40A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 258 CA configuration CA\_1A-3A-40A Independent of Release

CA configuration CA\_1A-3A-40A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards for UE Categories specified in [7].

### 258.1 CA\_1A-3A-40A UE

UEs that conform to Release 12 and support CA\_1A-3A-40A shall support the following requirements in Release 13.

#### 258.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A-40A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 258.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_1A-3A-40A specified in [5] which are listed in Table B.2.2-1 of [6].

#### 258.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-3A-40A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# 259 CA configuration CA\_3A-41A-42A Independent of Release

CA configuration CA\_3A-41A-42A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards for UE Categories specified in [7].

### 259.1 CA\_3A-41A-42A UE

UEs that conform to Release 12 and support CA\_3A-41A-42A shall support the following requirements in Release 13.

### 259.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-41A-42A specified in [4] which are listed in Table B.4.3-1 of [6].

## 259.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_3A-41A-42A specified in [5] which are listed in Table B.2.2-1 of [6].

## 259.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-41A-42A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 260 CA configuration CA\_3A-7A-38A Independent of Release

CA configuration CA\_3A-7A-38A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards for UE Categories specified in [7].

## 260.1 CA\_3A-7A-38A UE

UEs that conform to Release 12 and support CA\_3A-7A-38A shall support the following requirements in Release 13.

## 260.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-7A-38A specified in [4] which are listed in Table B.4.3-1 of [6].

The UE shall comply with the RRM Requirements for CA\_3A-7A-38A specified in [5] which are listed in Table B.2.2-1 of [6].

#### 260.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-7A-38A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 261 CA configuration CA\_7A-20A-38A Independent of Release

CA configuration CA\_7A-20A-38A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards for UE Categories specified in [7].

### 261.1 CA\_7A-20A-38A UE

UEs that conform to Release 12 and support CA\_7A-20A-38A shall support the following requirements in Release 13.

#### 261.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_7A-20A-38A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 261.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_7A-20A-38A specified in [5] which are listed in Table B.2.2-1 of [6].

## 261.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_7A-20A-38A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 262 CA configuration CA\_5A-5A Independent of Release

CA configurations CA\_5A-5A are specified in Release 13 but are defined as release-independent CA configurations for Rel-11 upwards.

## 262.1 CA\_5A-5A UE

UEs that conform to Release 12 and support CA\_5A-5A shall support the following requirements in Release 13.

### 262.1.1 RF Requirements

The UE shall comply with the RF requirements for CA 5A-5A specified in [4] which are listed in Table B.4.2-1 of [6].

## 262.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_5A-5A specified in [5] which are listed in Table B.2.2-1 of [6].

## 262.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_5A-5A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 263 CA configuration CA\_41C-41C, CA\_41A-41D and CA\_41D-41A Independent of Release

CA configurations CA\_41C-41C, CA\_41A-41D and CA\_41D-41A are specified in Release 13 but are defined as release-independent CA configurations for Rel-11 upwards.

#### 263.1 CA\_41C-41C, CA\_41A-41D and CA\_41D-41A UE

UEs that conform to Release 12 and support CA\_41C-41C, CA\_41A-41D and CA\_41D-41A shall support the following requirements in Release 13.

#### 263.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_41C-41C, CA\_41A-41D and CA\_41D-41A specified in [4], which are listed in Table B.4.7-1 of [6].

#### 263.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_41C-41C, CA\_41A-41D and CA\_41D-41A specified in [5], which are listed in Table B.2.6-1 of [6].

#### 263.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_41C-41C, CA\_41A-41D and CA\_41D-41A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 264 CA configuration CA\_42E Independent of Release

CA configuration CA\_42E is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

## 264.1 CA\_42E UE

UEs that conform to Release 12 and support CA 42E shall support the following requirements in Release 13.

#### 264.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_42E specified in [4] which are listed in Table B.4.2-1 of [6].

## 264.1.2 RRM Requirements

The UE shall comply with the following RRM Requirements for CA\_42E specified in [5] which are listed in Table B.2.2-1 of [6].

## 264.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_42E specified in [4], which are listed in section B.3.2-1 of [6].

## 265 CA configuration CA\_42A-42D, CA\_42D-42A and CA\_42C-42C Independent of Release

 $CA\ configurations\ CA\_42A-42D,\ CA\_42D-42A\ and\ CA\_42C-42C\ are\ specified\ in\ Release\ 13\ but\ are\ defined\ as\ release-independent\ CA\ configurations\ for\ Rel-11\ upwards.$ 

#### 265.1 CA\_42A-42D, CA\_42D-42A and CA\_42C-42C UE

UEs that conform to Release 12 and support CA\_42A-42D, CA\_42D-42A and CA\_42C-42C shall support the following requirements in Release 13.

#### 265.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_42A-42D, CA\_42D-42A and CA\_42C-42C specified in [4], which are listed in Table B.4.3-1 of [6].

#### 265.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_42A-42D, CA\_42D-42A and CA\_42C-42C specified in [5], which are listed in Table B.2.2-1 of [6].

#### 265.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_42D-42A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 266 CA configuration CA\_1A-3A-19A-42C Independent of Release

CA configuration CA\_1A-3A-19A-42C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

#### 266.1 CA\_1A-3A-19A-42C UE

UEs that conform to Release 12 and support CA\_1A-3A-19A-42C shall support the following requirements in Release 13

### 266.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A-19A-42C specified in [4] which are listed in Table B.4.3-1 of [6].

## 266.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-3A-19A-42C specified in [5] which are listed in Table B.2.4-1 of [6].

## 266.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-3A-19A-42C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 267 CA configuration CA\_1A-19A-21A-42C Independent of Release

CA configuration CA\_1A-19A-21A-42C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

## 267.1 CA\_1A-19A-21A-42C UE

UEs that conform to Release 12 and support CA\_1A-19A-21A-42C shall support the following requirements in Release 13.

#### 267.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-19A-21A-42C specified in [4] which are listed in Table B.4.3-1 of [6].

#### 267.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-19A-21A-42C specified in [5] which are listed in Table B.2.4-1 of [6].

#### 267.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-19A-21A-42C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 268 CA configuration CA\_3A-41A Independent of Release

CA configuration CA\_3A-41A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

#### 268.1 CA 3A-41A UE

UEs that conform to Release 12 and support CA\_3A-41A shall support the following requirements in Release 13.

#### 268.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-41A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 268.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-41A specified in [5] which are listed in Table B.2.4-1 of [6].

## 268.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-41A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 269 CA configuration CA\_20A-40A Independent of Release

CA configuration CA\_20A-40A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

## 269.1 CA\_20A-40A UE

UEs that conform to Release 12 and support CA\_20A-40A shall support the following requirements in Release 13.

## 269.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_20A-40A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 269.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_20A-40A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 269.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_20A-40A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 270 CA configuration CA\_5A-38A Independent of Release

CA configuration CA\_5A-38A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

#### 270.1 CA\_5A-38A UE

UEs that conform to Release 12 and support CA\_5A-38A shall support the following requirements in Release 13.

#### 270.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_5A-38A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 270.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_5A-38A specified in [5] which are listed in Table B.2.4-1 of [6].

## 270.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_5A-38A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 271 CA configuration CA\_25A-41C Independent of Release

CA configuration CA\_25A-41C with 2UL/3DLs is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

#### 271.1 Void

## 271.2 CA\_25A-41C UE with dual uplink

UEs that conform to Release 12 and support CA\_25A-41C with dual uplink configuration as CA\_41C shall support the following requirements in Release 13.

## 271.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_25A-41C specified in [9], which are listed in Table B.4.6-1 of [11].

## 271.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_25A-41C specified in [10], which are listed in Table B.2.5-1 of [11].

#### 271.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_25A-41C with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [9] and listed in Table B.3.2-1 of [11].

## 272 Band 68 Independent of Release

Band 68 is specified in Release 13 but is defined as a release-independent frequency band. This approach aligns the Band 68 with other frequency bands when considering features that have to be supported in different releases.

#### 272.1 Band 68 UE

UEs that conform to Release 12 and support Band 68 shall support the following requirements in Release 13.

#### 272.1.1 RF Requirements

The UE shall comply with the RF requirements for Band 68 specified in [4], which are listed in Table B.4.1-1 of [6].

#### 272.1.2 RRM Requirements

The UE shall comply with the RRM requirements for Band 68 specified in [5], which are listed in Table B.2.1-1 of [6].

## 273 CA configuration CA\_8A-42C Independent of Release

CA configuration CA\_8A-42C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards for UE Categories specified in [7].

## 273.1 CA\_8A-42C UE

UEs that conform to Release 12 and support CA\_8A-42C shall support the following requirements in Release 13.

## 273.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_8A-42C specified in [4] which are listed in Table B.4.3-1 of [6].

## 273.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_8A-42C specified in [5] which are listed in Table B.2.2-1 of [6].

## 273.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_8A-42C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 274 CA configuration CA\_8A-42A Independent of Release

CA configuration CA\_8A-42A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards for UE Categories specified in [7].

#### 274.1 CA 8A-42A UE

UEs that conform to Release 12 and support CA\_8A-42A shall support the following requirements in Release 13.

#### 274.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_8A-42A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 274.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_8A-42A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 274.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_8A-42A among the demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 275 CA configuration CA\_2A-4A-7A Independent of Release

CA configuration CA\_2A-4A-7A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards for UE Categories specified in [7].

#### 275.1 CA 2A-4A-7A UE

UEs that conform to Release 12 and support CA\_2A-4A-7A shall support the following requirements in Release 13.

### 275.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-4A-7A specified in [4] which are listed in Table B.4.3-1 of [6].

## 275.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_2A-4A-7A specified in [5] which are listed in Table B.2.2-1 of [6].

## 275.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-4A-7A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 276 CA configuration CA\_2A-7A-12A Independent of Release

CA configuration CA\_2A-7A-12A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards for UE Categories specified in [7].

## 276.1 CA\_2A-7A-12A UE

UEs that conform to Release 12 and support CA\_2A-7A-12A shall support the following requirements in Release 13.

## 276.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-7A-12A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 276.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_2A-7A-12A specified in [5] which are listed in Table B.2.2-1 of [6].

#### 276.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-7A-12A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 277 CA configuration CA\_2A-7A Independent of Release

CA configuration CA\_2A-7A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards for UE Categories specified in [7].

#### 277.1 CA 2A-7A UE

UEs that conform to Release 12 and support CA\_2A-7A shall support the following requirements in Release 13.

#### 277.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-7A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 277.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-7A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 277.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-7A among the demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 278 CA configuration CA\_4A-4A-29A Independent of Release

CA configuration CA\_4A-4A-29A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

## 278.1 CA\_4A-4A-29A UE

UEs that conform to Release 12 and support CA\_4A-4A-29A shall support the following requirements in Release 13.

## 278.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-4A-29A specified in [4] which are listed in Table B.4.3-1 of [6].

## 278.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-4A-29A specified in [5] which are listed in Table B.2.4-1 of [6].

## 278.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-4A-29A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 279 CA configuration CA\_4A-4A-30A Independent of Release

CA configuration CA\_4A-4A-30A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

#### 279.1 CA 4A-4A-30A UE

UEs that conform to Release 12 and support CA\_4A-4A-30A shall support the following requirements in Release 13.

#### 279.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-4A-30A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 279.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-4A-30A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 279.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-4A-30A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 280 CA configuration CA\_4A-4A-5A-30A Independent of Release

CA configuration CA\_4A-4A-5A-30A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

## 280.1 CA\_4A-4A-5A-30A UE

UEs that conform to Release 12 and support CA\_4A-4A-5A-30A shall support the following requirements in Release 13.

## 280.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-4A-5A-30A specified in [4] which are listed in Table B.4.3-1 of [6].

## 280.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-4A-5A-30A specified in [5] which are listed in Table B.2.4-1 of [6].

## 280.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-4A-5A-30A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 281 CA configuration CA\_4A-4A-12A-30A Independent of Release

CA configuration CA\_4A-4A-12A-30A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

#### 281.1 CA 4A-4A-12A-30A UE

UEs that conform to Release 12 and support CA\_4A-4A-12A-30A shall support the following requirements in Release 13.

#### 281.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-4A-12A-30A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 281.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-4A-12A-30A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 281.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-4A-12A-30A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 282 CA configuration CA\_4A-4A-29A-30A Independent of Release

CA configuration CA\_4A-4A-29A-30A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

#### 282.1 CA\_4A-4A-29A-30A UE

UEs that conform to Release 12 and support CA\_4A-4A-29A-30A shall support the following requirements in Release 13.

## 282.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-4A-29A-30A specified in [4] which are listed in Table B.4.3-1 of [6].

## 282.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-4A-29A-30A specified in [5] which are listed in Table B.2.4-1 of [6].

## 282.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-4A-29A-30A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 283 CA configuration CA\_2A-4A-7A-12A Independent of Release

CA configuration CA\_2A-4A-7A-12A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

## 283.1 CA\_2A-4A-7A-12A UE

UEs that conform to Release 12 and support CA\_2A-4A-7A-12A shall support the following requirements in Release 13.

#### 283.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-4A-7A-12A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 283.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-4A-7A-12A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 283.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-4A-7A-12A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 284 CA configuration CA\_3C-7C-28A Independent of Release

CA configuration CA\_3C-7C-28A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

#### 284.1 CA\_3C-7C-28A UE

UEs that conform to Release 12 and support CA\_3C-7C-28A shall support the following requirements in Release 13.

#### 284.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3C-7C-28A specified in [4] which are listed in Table B.4.3-1 of [6].

## 284.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3C-7C-28A specified in [5] which are listed in Table B.2.4-1 of [6].

## 284.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3C-7C-28A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 285 CA configuration CA\_3C-7C Independent of Release

CA configuration CA\_3C-7C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

## 285.1 CA 3C-7C UE

UEs that conform to Release 12 and support CA\_3C-7C shall support the following requirements in Release 13.

#### 285.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3C-7C specified in [4] which are listed in Table B.4.3-1 of [6].

## 285.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3C-7C specified in [5] which are listed in Table B.2.4-1 of [6].

#### 285.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3C-7C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 286 CA configuration CA\_3C-28A Independent of Release

CA configuration CA\_3C-28A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards for UE Categories specified in [7].

#### 286.1 CA\_3C-28A UE

UEs that conform to Release 12 and support CA\_3C-28A shall support the following requirements in Release 13.

#### 286.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3C-28A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 286.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3C-28A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 286.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3C-28A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 287 CA configuration CA\_3C-7A-28A Independent of Release

CA configuration CA\_3C-7A-28A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

## 287.1 CA\_3C-7A-28A UE

UEs that conform to Release 12 and support CA\_3C-7A-28A shall support the following requirements in Release 13.

## 287.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3C-7A-28A specified in [4] which are listed in Table B.4.3-1 of [6].

## 287.1.2 RRM Requirements

The UE shall comply with the RRM requirements CA\_3C-7A-28A specified in [5] which are listed in Table B.2.4-1 of [6].

## 287.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable CA\_3C-7A-28A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 288 CA configuration CA\_1A-3A-7C-28A Independent of Release

CA configuration CA\_1A-3A-7C-28A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-12 upwards.

#### 288.1 CA 1A-3A-7C-28A UE

UEs that conform to Release 12 and support CA\_1A-3A-7C-28A shall support the following requirements in Release 13.

#### 288.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A-7C-28A specified in [4] which are listed in Table B.4.3-1 of [6].

#### 288.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-3A-7C-28A specified in [5] which are listed in Table B.2.4-1 of [6].

#### 288.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable CA\_1A-3A-7C-28A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 289 CA configuration CA\_1A-3A-7A-28A Independent of Release

CA configuration CA\_1A-3A-7A-28A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

## 289.1 CA\_1A-3A-7A-28A UE

UEs that conform to Release 12 and support CA\_1A-3A-7A-28A shall support the following requirements in Release 13.

## 289.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A-7A-28A specified in [4] which are listed in Table B.4.3-1 of [6].

## 289.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-3A-7A-28A specified in [5] which are listed in Table B.2.4-1 of [6].

## 289.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable CA\_1A-3A-7A-28A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 290 CA configuration CA\_1A-3A-7C Independent of Release

CA configuration CA\_1A-3A-7C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

#### 290.1 CA 1A-3A-7C UE

UEs that conform to Release 12 and support CA\_1A-3A-7C shall support the following requirements in Release 13.

#### 290.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A-7C specified in [4] which are listed in Table B.4.3-1 of [6].

#### 290.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-3A-7C specified in [5] which are listed in Table B.2.4-1 of [6].

#### 290.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable CA\_1A-3A-7C among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 291 CA configuration CA\_1A-7C-28A Independent of Release

CA configuration CA\_1A-7C-28A is specified in Release 13 but is defined as a release-independent CA configuration for Rel-11 upwards.

## 291.1 CA\_1A-7C-28A UE

UEs that conform to Release 12 and support CA\_1A-7C-28A shall support the following requirements in Release 13.

## 291.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-7C-28A specified in [4] which are listed in Table B.4.3-1 of [6].

## 291.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-7C-28A specified in [5] which are listed in Table B.2.4-1 of [6].

## 291.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable CA\_1A-7C-28A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

## 292 CA configuration CA\_1A-7C Independent of Release

CA configuration CA\_1A-7C is specified in Release 13 but is defined as a release-independent CA configuration for Rel-10 upwards for UE Categories specified in [7].

#### 292.1 CA\_1A-7C UE

UEs that conform to Release 12 and support CA\_1A-7C shall support the following requirements in Release 13.

#### 292.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-7C specified in [4] which are listed in Table B.4.3-1 of [6].

#### 292.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-7C specified in [5] which are listed in Table B.2.4-1 of [6].

#### 292.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable CA\_1A-7C-28A among the CA demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [6].

# Annex A (informative): Frequency arrangement for overlapping operating bands

The following information is provided in order to assist a UE derive the DL EARFCN and UL EARFCN in a multi-band environment, in which multiple overlapping operating bands may be indicated in the fields *freqBandIndicator* and *multiBandInfoList* of SIB1.

The overlapping bands, independent of release, which may be indicated in a cell are shown in Table A-1 for applicable E-UTRA bands. The DL EARFCN and UL EARFCN are derived according to [2].

Table A-1: Overlapping bands (multi-band environments) for each E-UTRA band

E-UTRA Operating Band	Overlapping E-UTRA operating bands	Duplex Mode
2	25	FDD
3	9	FDD
4	10	FDD
5	18, 19, 26	FDD
9	3	FDD
10	4	FDD
12	17	FDD
17	12	FDD
18	5, 26, 27	FDD
19	5, 26	FDD
25	2	FDD
26	5, 18, 19, 27	FDD
27	18, 26	FDD
33	39	TDD
38	41	TDD
39	33	TDD
41	38	TDD

# Annex B (normative): Common Requirements

## B.1 Purpose of annex

The purpose of Annex B is to group the requirements that are common for several bands or CA configurations in this specification and use the common tables as references.

## B.2 Common RRM requirements

## B.2.1 Common RRM requirements for a band independent of release

The requirements and test cases listed in Table B.2.1-1 are specified in [3].

Table B.2.1-1: Common RRM requirements for a band independent of release

Section / Clause	Description
4 Note 1	E-UTRAN RRC_IDLE state mobility
5	E-UTRAN RRC_CONNECTED state mobility
6 Note 2	RRC Connection Mobility Control
7 Note 3	Timing and signalling characteristics
8 Note 4	UE Measurements Procedures in RRC_CONNECTED State
9 Note 5	Measurements performance requirements for UE
A.4 Note 1	E-UTRAN RRC_IDLE state
A.5	E-UTRAN RRC CONNECTED Mode Mobility
A.6 Note 2	RRC Connection Control
A.7 Note 3	Timing and Signalling Characteristics
A.8 Note 4	UE Measurements Procedures
A.9 Note 5	Measurement Performance Requirements

- NOTE 1: All requirements and the corresponding test cases shall apply, except:
  - for supporting the corresponding band in Rel-9 and below: clause 4.3 (Minimization of Drive Tests).
- NOTE 2: All requirements and the corresponding test cases shall apply, except:
  - for supporting the corresponding band in Rel-8: clauses 6.3 (RRC Connection Release with Redirection), 6.4 (CSG Proximity Indication for E-UTRAN and UTRAN).
- NOTE 3: All requirements and corresponding test cases shall apply, except those defined in sections 7.4 and 7.5.
- NOTE 4: All requirements and corresponding test cases shall apply, except:
  - for supporting the corresponding band in Rel-8: clauses 8.1.2.5 (E-UTRAN OTDOA Intra-Frequency RSTD Measurements), 8.1.2.6 (E-UTRAN Inter-Frequency OTDOA Measurements), 8.1.2.7 (E-UTRAN E-CID Measurements).
- NOTE 5: All requirements and corresponding test cases shall apply, except:
  - for supporting the corresponding band in Rel-8: clauses 9.1.9 (UE Rx–Tx time difference), 9.1.10 (Reference Signal Time Difference).
  - for supporting the corresponding band in Rel-11 or below: the RSRP absolute accuracy requirement under normal conditions in table 9.1.2.1-1, 9.1.2.3-1, 9.1.2.5-1 and 9.1.3.1-1 when lo≤-70dBm is ±6dB.
  - for supporting the corresponding band in Rel-11 or below: the interfrequency RSRP relative accuracy requirement under normal conditions in table 9.1.3.2-1 is ±6dB.
- NOTE 6: In addition to the exceptions above, all requirements and test cases in this table shall apply, except those defined for:
  - carrier aggregation;
  - for supporting the corresponding band in Rel-9 or below: measurements under time-domain measurement resource restriction without CRS assistance information;
  - for supporting the corresponding band in Rel-10 or below: measurements under time-domain measurement resource restriction with CRS assistance information;
  - for supporting the corresponding band in Rel-11 or below: requirements introduced in Rel-12.

## B.2.2 Common RRM requirements for an intra-band contiguous CA configuration

The requirements and test cases listed in Table B.2.2-1 are specified in [3].

Table B.2.2-1: Common RRM requirements for a single-band CA configuration independent of release

Section / Clause	Description
7.1	UE transmit timing
7.7	SCell Activation and Deactivation Delay for E-UTRA Carrier Aggregation
7.8	Interruptions with Carrier Aggregation
8.2	Capabilities for Support of Event Triggering and Reporting Criteria
8.3	Measurements for E-UTRA carrier aggregation
8.4	OTDOA RSTD Measurements for E-UTRAN carrier aggregation
9.1.11 Note 3	Carrier aggregation measurement accuracy
9.1.12	Reference Signal Time Difference (RSTD) Measurement Accuracy Requirements for Carrier Aggregation
A.7	Timing and Signalling Characteristics
A.8	UE Measurements Procedures
A.9 Note 3	Measurement Performance Requirements
NOTE 1: Only requiremen	ts and test cases defined for intra-band contiguous carrier aggregation shall apply.

- NOTE 2: In addition to the exceptions above, all requirements and test cases in this table shall apply, except:
  - for supporting the corresponding band in Rel-11 or below: requirements introduced in Rel-12.
- NOTE 3: For supporting the corresponding band in Rel-11 or below: the RSRP absolute accuracy requirement under normal conditions in table 9.1.2.1-1, 9.1.2.3-1, 9.1.2.5-1 and 9.1.3.1-1 when lo≤-70dBm is ±6dB.
  - For supporting the corresponding band in Rel-11 or below: the interfrequency RSRP relative accuracy requirement under normal conditions in table 9.1.3.2-1 is ±6dB.

#### Common RRM requirements for an intra-band non-B.2.3 contiguous CA with single uplink configuration

The requirements and test cases listed in Table B.2.3-1 are specified in [3].

Table B.2.3-1: Common RRM requirements for a single-band CA configuration independent of release

Section / Clause	Description
7.1	UE transmit timing
7.7	SCell Activation and Deactivation Delay for E-UTRA Carrier Aggregation
7.8	Interruptions with Carrier Aggregation
8.2	Capabilities for Support of Event Triggering and Reporting Criteria
8.3	Measurements for E-UTRA carrier aggregation
8.4	OTDOA RSTD Measurements for E-UTRAN carrier aggregation
9.1.11 Note 3	Carrier aggregation measurement accuracy
9.1.12	Reference Signal Time Difference (RSTD) Measurement Accuracy Requirements for Carrier Aggregation
A.7	Timing and Signalling Characteristics
A.8	UE Measurements Procedures
A.9 Note 3	Measurement Performance Requirements

- NOTE 1: Only requirements and test cases defined for intra-band non-contiguous carrier aggregation with single uplink shall apply.
- NOTE 2: In addition to the exceptions above, all requirements and test cases in this table shall apply, except:
  - for supporting the corresponding band in Rel-11 or below: requirements introduced in Rel-12.
- NOTE 3: -For supporting the corresponding band in Rel-11 or below: the RSRP absolute accuracy requirement under normal conditions in table 9.1.2.1-1, 9.1.2.3-1, 9.1.2.5-1 and 9.1.3.1-1 when lo≤
  - for supporting the corresponding band in Rel-11 or below: the interfrequency RSRP relative accuracy requirement under normal conditions in table 9.1.3.2-1 is ±6dB.

#### B.2.4 Common RRM requirements for an inter-band CA with single uplink configuration

The requirements and test cases listed in Table B.2.4-1 are specified in [3].

Table B.2.4-1: Common RRM requirements for a band-combination CA configuration

Section / Clause	Description
7.1	UE transmit timing
7.7	SCell Activation and Deactivation Delay for E-UTRA Carrier Aggregation
7.8	Interruptions with Carrier Aggregation
8.2	Capabilities for Support of Event Triggering and Reporting Criteria
8.3	Measurements for E-UTRA carrier aggregation
8.4	OTDOA RSTD Measurements for E-UTRAN carrier aggregation
9.1.11 Note 3	Carrier aggregation measurement accuracy
9.1.12	Reference Signal Time Difference (RSTD) Measurement Accuracy Requirements for Carrier Aggregation
A.7	Timing and Signalling Characteristics
A.8	UE Measurements Procedures
A.9 Note 3	Measurement Performance Requirements
apply.	ts and test cases defined for inter-band with single uplink carrier aggregation shall
	exceptions above, all requirements and test cases in this table shall apply, except: g the corresponding band in Rel-11 or below: requirements introduced in Rel-12.

- NOTE 3: For supporting the corresponding band in Rel-11 or below: the RSRP absolute accuracy requirement under normal conditions in table 9.1.2.1-1, 9.1.2.3-1, 9.1.2.5-1 and 9.1.3.1-1 when lo≤-70dBm is ±6dB.
  - for supporting the corresponding band in Rel-11 or below: the interfrequency RSRP relative accuracy requirement under normal conditions in table 9.1.3.2-1 is ±6dB.

#### Common RRM requirements for an inter-band CA with dual B.2.5 uplink configuration

The requirements and test cases listed in Table B.2.5-1 are specified in [3].

Table B.2.5-1: Common RRM requirements for a band-combination CA configuration with dual uplink

Section / Clause	Description
TBD	TBD
NOTE 1: Only requirements and test cases defined for inter-band with dual uplink carrier aggregation shall apply.	

#### Common RRM requirements for an intra-band non-B.2.6 contiguous CA with dual uplink configuration

The requirements and test cases listed in Table B.2.6-1 are specified in [3].

Table B.2.6-1: Common RRM requirements for a single-band CA configuration with dual uplink independent of release

Section / Clause	Description
TBD	TBD
NOTE 1: Only requirements a	and test cases defined for intra-band non-contiguous carrier aggregation with

#### B.3 Common UE performance requirements

#### Void B.3.1

Table B.3.1-1: Void

#### Common UE performance requirements and tests for B.3.2 different CA configurations and combination sets

Table B.3.2-1: Common UE performance requirements and tests for different CA configurations and combination sets

Section / Clause	Description
8.2.1.1.1	Single-antenna port performance (FDD)
8.2.2.1.1	Single-antenna port performance (TDD)
8.2.1.3.1	Open-loop spatial multiplexing performance - Minimum Requirement 2 Tx Antenna Port (FDD)
8.2.2.3.1	Open-loop spatial multiplexing performance - Minimum Requirement 2 Tx Antenna Port (TDD)
8.2.1.3.1A	Open-loop spatial multiplexing performance - Soft buffer management test (FDD)
8.2.2.3.1A	Open-loop spatial multiplexing performance - Soft buffer management test (TDD)
8.2.1.4.3	Closed-loop spatial multiplexing performance - Minimum Requirement Multi-Layer Spatial Multiplexing 4 Tx Antenna Port (FDD)
8.2.1.4.3A	Closed-loop spatial multiplexing performance - Minimum Requirement Multi-Layer Spatial Multiplexing 4 Tx Antenna Port (DC)
8.2.2.4.3	Closed-loop spatial multiplexing performance - Minimum Requirement Multi-Layer Spatial Multiplexing 4 Tx Antenna Port (TDD)
8.2.2.4.4	Closed-loop spatial multiplexing performance - Minimum Requirement Multi-Layer Spatial Multiplexing 4 Tx Antenna Port (DC)
8.2.1.7	Carrier aggregation with power imbalance (FDD)
8.2.1.8	Intra-band non-contiguous carrier aggregation with timing offset (FDD)
8.2.2.7	Carrier aggregation with power imbalance (TDD)
8.7.1	Sustained downlink data rate provided by lower layers (FDD)
8.7.2	Sustained downlink data rate provided by lower layers (TDD)
8.7.5	Sustained downlink data rate provided by lower layers (TDD-FDD CA)
9.6.1.1	Additional requirements for carrier aggregation - Periodic reporting on multiple cells (Cell Specific Reference symbols) (FDD)
9.6.1.2	Additional requirements for carrier aggregation - Periodic reporting on multiple cells (Cell Specific Reference symbols) (TDD)
Section 8.1.2.3 and	
NOTE 2: The test coverage	for different number of component carriers is defined in 8.1.2.4 in [2].

NOTE 2: The test coverage for different number of component carriers is defined in 8.1.2.4 in [2].

B.3.3 Void

Table B.3.3-1: Void

B.3.4 Void

## B.4 Common UE RF requirements

## B.4.1 Common UE RF requirements for a band independent of release

The requirements and test cases listed in Table B.4.1-1 are specified in [2].

Table B.4.1-1: Common UE RF requirements for a band independent of release

Section / Clause	Description
5.5	Operating bands
5.6	Channel bandwidth
5.7	Channel arrangement
6.2	Transmit power
6.3	Output power dynamics
6.5	Transmit signal quality
6.6	Output RF spectrum emissions
6.7	Transmit intermodulation
7.3	Reference sensitivity power level
7.4	Maximum input level
7.5	Adjacent Channel Selectivity (ACS)
7.6	Blocking characteristics
7.7	Spurious response
7.8	Intermodulation characteristics
7.9	RX spurious emissions

## B.4.2 Common UE RF requirements for an intra-band contiguous CA configuration

The requirements and test cases listed in Table B.4.2-1 are specified in [2].

Table B.4.2-1: Common UE RF requirements for an intra-band contiguous CA configuration independent of release

Section / Clause	Description
5.5A	Operating bands for CA
5.6A	Channel bandwidths per operating band for CA
5.7.1A	Channel spacing for CA
5.7.2A	Channel raster for CA
5.7.4A	TX–RX frequency separation for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.4A	UE maximum output power with additional requirements for CA
6.2.5A	Configured transmitted power for CA
6.3.2A	UE Minimum utput power for CA
6.3.3A	UE Trasnsmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.2A	Additional Spectrum Emission mask for CA
6.6.2.3.2A	UTRA ACLR for CA
6.6.2.3.3A	E-UTRA ACLR for CA
6.6.3.1A	Minimum requirements for CA
6.6.3.2A	Spurious emission band UE co-existence for CA
6.6.3.3A	Additional spurious emissions for CA
6.7.1A	Minimum requirement for CA
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA
7.10.1A	Receiver response for CA

## B.4.3 Common UE RF requirements for an single uplink interband CA configuration

The requirements and test cases listed in Table B.4.3-1 are specified in [2].

Table B.4.3-1: Common UE RF requirements for an inter-band CA configuration independent of release

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

# B.4.4 Common UE RF requirements for an inter-band CA configuration including an operating band without uplink band

The requirements and test cases listed in Table B.4.4-1 are specified in [2].

Table B.4.4-1: Common UE RF requirements for an inter-band CA configuration including an operating band without uplink band independent of release

Section / Clause	Description
5.5	Operating bands
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7	Channel arrangement
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

## B.4.5 Common UE RF requirements for a single uplink intra-band non-contiguous CA configuration

The requirements and test cases listed in Table B.4.5-1 are specified in [2].

Table B.4.5-1: Common UE RF requirements for a single uplink intra-band non-contiguous CA configuration independent of release

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

## B.4.6 Common UE RF requirements for Dual uplink inter-band CA configuration

The requirements and test cases listed in Table B.4.6-1 are specified in [2].

Table B.4.6-1: Common UE RF requirements for dual uplink inter-band CA configuration independent of release

Section / Clause	Description			
5.6A.1	Channel bandwidths per operating band for CA			
6.2.2A	UE maximum output power for CA			
6.2.5A	Configured transmitted Power for CA			
6.3.2A	UE Minimum output power for CA			
6.3.3A	UE Transmit OFF power for CA			
6.3.4A	ON/OFF time mask for CA			
6.3.5A	Power control for CA			
6.5.1A	Frequency error for CA			
6.5.2A	Transmit modulation quality for CA			
6.6.1A	Occupied bandwidth for CA			
6.6.2.1A	Spectrum emission mask for CA			
6.6.2.3	Adjacent Channel Leakage Ratio			
6.6.3.1A	Spurious Emission for CA			
6.6.3.2A	Spurious emission band UE co-existence for CA			
6.7.1A	Transmit intermodulation for CA			
7.3.1A	Reference sensitivity for CA			
7.6.2.1A	Out-of-band blocking for CA			
7.7.1A	Spurious response for CA			

## B.4.7 Common UE RF requirements for Dual uplink intra-band non-contiguous CA configuration

The requirements and test cases listed in Table B.4.7-1 are specified in [2].

Table B.4.7-1: Common UE RF requirements for dual uplink intra-band non-contiguous CA configuration independent of release

Section / Clause	Description				
5.6A.1	Channel bandwidths per operating band for CA				
6.2.2A	UE maximum output power for CA				
6.2.3A	UE Maximum Output power for modulation / channel bandwidth for CA				
6.2.5A	Configured transmitted Power for CA				
6.3.2A	UE Minimum output power for CA				
6.3.3A	UE Transmit OFF power for CA				
6.3.4A	ON/OFF time mask for CA				
6.3.5A	Power control for CA				
6.5.1A	Frequency error for CA				
6.5.2A	Transmit modulation quality for CA				
6.6.1A	Occupied bandwidth for CA				
6.6.2.1A	Spectrum emission mask for CA				
6.6.2.3	Adjacent Channel Leakage Ratio				
6.6.3.1A	Spurious Emission for CA				
6.6.3.2A	Spurious emission band UE co-existence for CA				
7.3.1A	Reference sensitivity for CA				
7.6.2.1A	Out-of-band blocking for CA				
7.7.1A	Spurious response for CA				

# Annex C (informative): Change history

**Table C.1: Change History** 

Date	Meeting	TDoc	CR	Rev	Cat	Subject/Comment	New version
11-2009	RP#46	RP-091141				TS36.307 V0.1.0 approved by RAN (Originally in R4-095022)	0.1.0
02-2010	R4#54	R4-100419				For release 9 version, replace sections 4 to 6 as 'Void' and add a new void section as section 7.	0.2.0
03-2010	RP#47	RP-100162				TS36.307 v1.0.0 for approval	1.0.0
03-2010	RP#47	RP-100162				Approved by RAN	9.0.0
09-2010	RP-49	RP-100927	2			CR LTE_TDD_2600_US spectrum band definition additions to TS 36.307 V900	9.1.0
		55 (5)55				Correction of section numbering	9.1.1
12-2010	RP-50	RP-101356				Band 42 and 43 parameters for UMTS/LTE 3500 (TDD) for TS 36.307	9.2.0
12-2010	RP-50	RP-101361				Introduction of L-band in TS 36.307	9.2.0
12-2010	RP-50	RP-101344	016			CR creating the rel-10 of the 36.307 specification Band 42 and 43 parameters for UMTS/LTE 3500 (TDD) for TS	9.3.0 9.3.0
12-2010	RP-50	RP-101356	012			36.307	
12-2010	RP-50					Raised to Rel-10 with no technical change	10.0.0
01-2011 06-2011	RP-52	RP-110804	015			Correction to history table  Add Expanded 1900 MHz Band (Band 25) in 36.307	10.0.1
06-2011	RP-52	RP-110804				Add 2GHz S-Band (Band 23) in 36.307 (Rel 10)	10.1.0
09-2011	RP-53	RP-111255				Add Band 22 for LTE/UMTS 3500 (FDD) to TS 36.307	10.1.0
03-2011	RP-55	RP-111233		-	-	Introduction of Band 26/XXVI to TS 36.307	11.0.0
2012-06	RP-56	RP-120303		+	1	Introduction of CA_1A-19A to TS 36.307	11.1.0
2012-06	RP-56	RP-120793				Introduction of APAC700(FDD) into TS 36.307 Rel-11	11.1.0
2012-06	RP-56	RP-120793				Introduction of APAC700(TDD) into TS 36.307 Rel-11	11.1.0
2012-06	RP-56	RP-120791				Introduction of e850_LB (Band 27) to TS 36.307	11.1.0
2012-09	RP-57	RP-121335				Introduction of CA_1A-21A to TS 36.307	11.2.0
2012-09	RP-57	RP-121295				Relation between EARFCN for overlapping bands with multiple FBI indication	11.2.0
2012-09	RP-57	RP-121338	072			36.307 CR for LTE_CA_B7	11.2.0
2012-09	RP-57	RP-121337				TS 36.307 CR for CA_38	11.2.0
2012-09	RP-57	RP-121327	074			Introduction of CA_B7_B20 in 36.307	11.2.0
2012-09	RP-57	RP-121329	075			Introduction of CA band combination Band3 + Band5 to TS 36.307	11.2.0
2012-09	RP-57	RP-121331	076			Introduction of CA_3A-20A to TS 36.307	11.2.0
2012-09	RP-57	RP-121334				Add requirements for inter-band CA of B_1-18 in TS36.307	11.2.0
2012-09	RP-57	RP-121333				Introduction of CA_8_20 RF requirements into TS36.307	11.2.0
2012-09	RP-57	RP-121324				Introduction of CA_B3_B7 in 36.307	11.2.0
2012-12	RP-58	RP-121890				Introduction of CA_4A-5A into 36.307	11.3.0
2012-12	RP-58	RP-121889				Introduction of CA band combination Band4 + Band13 to TS 36.307 (Rel-11)	11.3.0
2012-12	RP-58	RP-121896				Introduction of Band 5 + Band 17 inter-band CA configuration into 36.307	11.3.0
2012-12	RP-58	RP-121884				Introduction of CA_3A-8A to TS 36.307	11.3.0
2012-12	RP-58	RP-121894				Introduction of CA_B5_B12 in 36.307	11.3.0
2012-12	RP-58	RP-121887		1		Introduction of CA_4-12 into TS 36.307 (Rel-11)	11.3.0
2012-12	RP-58	RP-121882		1		[Rel-11] Introduction of inter-band CA_11-18 into TS36.307	11.3.0
2012-12	RP-58	RP-121861				Release-independent implementation of carrier aggregation configuration CA_4-7	11.3.0
2012-12	RP-58	RP-121901				Introduction of Band 29	11.3.0
2012-12	RP-58	RP-121718				Introduction of CA band combination Band2 + Band17 to TS 36.307 (Rel-11)	11.3.0
2012-12	RP-58	RP-121720				Introduction of CA band combination Band4 + Band17 to TS 36.307 (Rel-11)	11.3.0
2013-06	RP-60	RP-130771				Introduction of CA 1+8 into TS36.307(Rel-12)	12.0.0
2013-06	RP-60	RP-130782				Introduction of LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 28 to TS 36.307 Rel-12	12.0.0
2013-06	RP-60	RP-130785				Introduction of LTE Advanced inter-band Carrier Aggregation of Band 23 and Band 29 to TS 36.307 (Rel-12)	12.0.0
2013-06	RP-60	RP-130779	117			Introduction of LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 26 to TS 36.307 (Rel-12)	12.0.0
2013-06	RP-60	RP-130777				Introduction of CA_3A-19A to TS 36.307	12.0.0
2013-06	RP-60	RP-130783				Introduction of CA_19A-21A to TS 36.307	12.0.0
2013-06	RP-60	RP-130775				Introduction of CA_2A-13A to TS 36.307	12.0.0
2013-06	RP-60	RP-130791				Introduction of Band 30	12.0.0
2013-06	RP-60	RP-130790	143			Introduction of LTE 450 into TS 36.307 R12	12.0.0

0040.00	DD 00	DD 400707	450		40.00
2013-06		RP-130787		Introduction of CA_4A-4A into 36.307 Rel-12	12.0.0
09-2013	RP-61	RP-131300		36.307 CR for LTE_CA_C_B3 (Rel-12)	12.1.0
09-2013	RP-61	RP-131296		[Rel-12] Add requirements for CA_1A-26A into TS36.307	12.1.0
09-2013	RP-61	RP-131297		Introduction of CA_2A-4A to TS 36.307	12.1.0
09-2013	RP-61	RP-131298		Introduction of inter-band CA Band 2+5	12.1.0
12-2013	RP-62	RP-131965		Introduction of CA_23A-23A to TS 36.307	12.2.0
12-2013	RP-62	RP-131946	178	Introduction of CA band combination Band2 + Band12 to TS 36.307	12.2.0
12-2013	RP-62	RP-131954	181	Introduction of CA band combination Band12 + Band25 to TS 36.307	12.2.0
12-2013	RP-62	RP-131959	184	Introduction of LTE_CA_C_B27 to 36.307 (Rel-12)	12.2.0
12-2013	RP-62	RP-131957	192	Introduction of CA_23B to TS 36.307	12.2.0
12-2013	RP-62	RP-131961	194	Introduction of Intra-band non-contiguous CA in band 3 to TS 36.307	12.2.0
12-2013	RP-62	RP-131950	200	Introduction of CA band combination Band5 + Band25 to TS 36.307	12.2.0
12-2013	RP-62	RP-131967	201r1	Introducing 'General' clause with note referring to note in clause 4.4 in TS36.101, editorial corrections and modifications to Forward and Scope clauses	12.2.0
12-2013	RP-62	RP-131948	204	Introduction of CA band combination B5 + B7 to TS 36.307 R12	12.2.0
12-2013	RP-62	RP-131952		Introduction of CA band combination B7 + B28 to TS 36.307	12.2.0
12-2013	RP-62	RP-131967		Correction to release independent specification	12.2.0
12-2013	RP-62	RP-131925		UE performance requirements in release independent specification for CA	12.2.0
12-2013	RP-62	RP-131963	219	Introduction of CA_7A-7A to TS 36.307 Rel-12	12.2.0
03-2014	RP-63	RP-140371		Release independence of Band 14 HPUE	12.3.0
03-2014	RP-63	RP-140386		Introduction of CA band combination Band 3 and Band 27 to TS 36.307	12.3.0
03-2014	RP-63	RP-140389	2/15r1	Correction to release independent specification	12.3.0
03-2014	RP-63	RP-140388		Introduction of CA_39C to TS 36.307	12.3.0
03-2014	RP-63	RP-140387		Introduction of CA_39A-41A to TS 36.307	12.3.0
06-2014	RP-64		259	Introduction of CA_39A-41A to 13 36.307  Introduction of CA band combination Band 1 and Band 5 to TS 36.307	12.3.0
06-2014	RP-64		300	Correction of Common RRM requirements for CA in release	12.4.0
00-2014	111 04	140010		independent specification (Rel-12)	12.4.0
06-2014	RP-64	RP-140926	280r1	Introduction of Band 20+32 CA	12.4.0
06-2014	RP-64	1	265	Introduction of CA 1+11 to 36.307 (Rel-12)	12.4.0
06-2014	RP-64		275	Introduction of CA band combination Band 4 and Band 27 to TS 36.307	12.4.0
06-2014	RP-64	RP-140938	291	Introduction of CA_2A-2A to TS 36.307 Rel-12	12.4.0
06-2014	RP-64		319	Introduction of LTE_CA_NC_B42 into 36.307	12.4.0
06-2014	RP-64	RP-140942	253	Introduction of CA band combination Band 3 and Band 27 to TS 36.307	12.4.0
06-2014	RP-64	RP-140942	340	Introduction of CA band combination Band 1 and Band 20 to TS 36.307	12.4.0
	RP-64	RP-140943	347	Introduction of CA band combination CA_41D into TS 36.307 (Rel-12)	12.4.0
09-2014	RP-65		0388r1	[Rel-12] Introduction of inter-band CA_18-28 into TS36.307	12.5.0
09-2014	RP-65	RP-141200	0366r1	Introduction of CA_B1_B3_B19 into TS 36.307 (Rel-12)	12.5.0
09-2014	RP-65	RP-141205	0363r1	Introduction of CA_B1_B3 into TS 36.307 (Rel-12)	12.5.0
09-2014	RP-65	RP-141332	0429r1	Introduction of CA_1A-7A into 36.307 (Rel -12)	12.5.0
09-2014	RP-65		0376r1	Introduction of CA_B1_B5_B7 into TS 36.307 (Rel-12)	12.5.0
09-2014	RP-65	RP-141467	0432	Introduction of 3 DL CA for Band 1+7+20	12.5.0
09-2014 09-2014	RP-65 RP-65	RP-141527 RP-141551	415r1 360	CR for 36.307 on CA UE performance requirement in Rel-12 Introduction of CA 8+11 to 36.307 (Rel-12)	12.5.0 12.5.0
09-2014	RP-65		379	Introduction of CA_41A-42A to TS 36.307	12.5.0
09-2014	RP-65	RP-141553	381	Introduction of a new bandwidth combination set for CA_25A-25A into 36.307	12.5.0
09-2014	RP-65	RP-141554	418r1	Introduction of requirements for 2DL inter-band carrier aggregation (FDD) and 2DL fallback	12.5.0
09-2014	RP-65	RP-141554	421	Introduction of requirements for 3DL inter-band carrier aggregation including Band 30	12.5.0
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09-2014	RP-65	RP-141558	402	Introduction of CA band combination Band 1, Band 3 and Band 20 to TS 36.307	
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03-2015	RP-67	RP-150387	463		R4-73AH-0113: Correction of UE RF requirements for dual uplik to TS 36.307 Rel-12	12.7.0
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09-2015	RP-69	RP-151503	525		[Rel-12] Introduction of dual uplink CA into 36.307	12.9.0
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12-2015	RP-70	RP-152158	0544aR 2		Release independent requirements for CA_42E (Rel-12)	12.10.0
12-2015	RP-70	RP-152160	0548a		Introduction of 4DL NC CA in band42 in 36.307	12.10.0
12-2015	RP-70	RP-152133	0556		[Rel-12] Introduction of dual uplink CA into 36.307	12.10.0
12-2015	RP-70	RP-152157	0560		Introducing B20 + B67 CA into TS 36.307	12.10.0
12-2015	RP-70	RP-152168	0563		Introduction of intra-band CA_8B to TS 36.307	12.10.0
12-2015	RP-70	RP-152164	0568		Introduction of 3DL/2UL inter-band CA combinations with self- interference issues	12.10.0
12-2015	RP-70	RP-152171	0579		Introduction of Band 65	12.10.0
12-2015	RP-70	RP-152133	0592		[Rel-12] Introduction of dual uplink CA into 36.307	12.10.0
12-2015	RP-70	RP-152164	0594		Introduction of 3DL/2UL Inter-band CA for CA_39A-41C and CA_39C-41A	12.10.0
12-2015	RP-70	RP-152166	0595		Introduction of 3DL/3UL Inter-band CA for CA_39A-41C and CA_39C-41A	12.10.0
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12-2015	RP-70	RP-152164	0600		Introduction of 3DL/2UL inter-band CA_3A-7A-28A in TS36.307 Rel-12	12.10.0
12-2015	RP-70	RP-152162	0603		Introduction of finished 4DL inter-band CAs to TS 36.307	12.10.0
12-2015	RP-70	RP-152170	0606		Introduction of CA_7A-7A BCS1 to TS 36.307	12.10.0
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12-2015	RP-70	RP-152156	0615		Rel-13 2DL combinations	12.10.0
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03/2016	RP-71	RP-160480	0654	В	Rel-13 3DL combinations	12.11.0
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03/2016	RP-71	RP-160483	0646	В	Introduction of Band 68	12.11.0

## History

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