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**LTE;  
Evolved Universal Terrestrial Radio Access (E-UTRA);  
Requirements on User Equipments (UEs)  
supporting a release-independent frequency band  
(3GPP TS 36.307 version 11.13.0 Release 11)**



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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.

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## 2 References

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

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
  - [2] 3GPP TS 36.101 (Release 12): "Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) Radio Transmission and Reception".
  - [3] 3GPP TS 36.133 (Release 12): "Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for Support of Radio Resource Management".
  - [4] 3GPP TS 36.307 (Release 12): "Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) Supporting a release-independent frequency band".
  - [5] 3GPP TS 36.133 (Release 11): "Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for Support of Radio Resource Management".
  - [6] 3GPP TS 36.101 (Release 11): "Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) Radio Transmission and Reception".
  - [7] 3GPP TS 36.306 (Release 11): "Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities".
  - [8] 3GPP TS 36.101 (Release 10): "Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) Radio Transmission and Reception".
  - [9] 3GPP TS 36.101 (Release 13): "Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) Radio Transmission and Reception".
  - [10] 3GPP TS 36.133 (Release 13): "Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for Support of Radio Resource Management".
  - [11] 3GPP TS 36.307 (Release 13): "Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) Supporting a release-independent frequency band".
- 

## 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 [6].

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4 Void

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## 19 CA configuration CA\_41C Independent of Release

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

### 19.1 Band 41 UE

UEs that conform to Release 11 and support CA\_41C shall support the following requirements in Release 13 for both one uplink and simultaneous transmission on two uplinks.

#### 19.1.1 RF Requirements

The UE shall comply with the following RF requirements for CA\_41C specified in [9], which are listed in Table B.4.2-1 of [11].:

**Table 19.1.1-1: Void**

#### 19.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_41C specified in [10], which are listed in Table B.2.2-1 of [11].

**Table 19.1.1-2: Void**

### 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 [9] and listed in Table B.3.2-1 of [11].

---

## 20 CA configuration CA\_1A-19A Independent of Release

CA configuration CA\_1A-19A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

### 20.1 Void

### 20.2 CA\_1A-19A UE with dual uplink

UEs that conform to Release 11 and support CA\_1A-19A with dual uplink shall support the following requirements in Release 12.

#### 20.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-19A specified in [2], which are listed in Table B.4.6-1 of [4].

**Table 20.2.1-1: Void**

#### 20.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-19A specified in [3], which are listed in Table B.2.5-1 of [4].

#### 20.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-19A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

---

## 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 11 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 [9], which are listed in Table B.4.2-1 of [11].

**Table 21.1.1-1: Void**

## 21.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_7C specified in [10], which are listed in Table B.2.2-1 of [11].

**Table 21.1.1-2: Void**

## 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 [9] and listed in Table B.3.2-1 of [11].

---

## 22 Void

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

CA configuration CA\_1A-18A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

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 CA\_1A-18A UE with single uplink

UEs that conform to Release 11 and support CA\_1A-18A shall support the following requirements in Release 12.

#### 23.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-18A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 23.1.1-1: Void**

#### 23.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-18A specified in [3], which are listed in Table B.2.4-1 of [4].

**Table 23.1.2-1: Void**

#### 23.1.3 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 [2] and listed in Table B.3.2-1 of [4].

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

UEs that conform to Release 11 and support CA\_1A-18A with dual uplink shall 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 [10], which are listed in Table B.4.6-1 of [11].

## 23.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-18A specified in [9] which are listed in Table B.2.5-1 of [11].

## 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 [2].

---

# 24 CA configuration CA\_1A-21A Independent of Release

CA configuration CA\_1A-21A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

## 24.1 Void

## 24.2 CA\_1A-21A UE with dual uplink

UEs that conform to Release 11 and support CA\_1A-21A with dual uplink shall support the following requirements in Release 12.

### 24.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-21A specified in [2], which are listed in Table B.4.6-1 of [4].

**Table 24.2.1-1: Void**

### 24.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-21A specified in [3], which are listed in Table B.2.5-1 of [4].

### 24.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-21A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

---

# 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 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 11 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 [9], which are listed in Table B.4.3-1 of [11].

**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 [10], which are listed in Table B.2.4-1 of [11].

**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 [9] and listed in Table B.3.2-1 of [11].

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

UEs that conform to Release 11 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 [9], which are listed in Table B.4.6-1 of [11].

**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 [10], which are listed in Table B.2.5-1 of [11].

### 25.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-5A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [9] and listed in Table B.3.2-1 of [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.

CA configuration CA\_3A-7A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

### 26.1 CA\_3A-7A UE with single uplink

UEs that conform to Release 11 and support CA\_3A-7A with single uplink 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 [9] which are listed in Table B.4.3-1 of [11].

### 26.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-18A specified in [10] which are listed in Table B.2.4-1 of [11].

### 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 [9] and listed in Table B.3.2-1 of [11].

## 26.2 CA\_3A-7A UE with dual uplink

UEs that conform to Release 11 and support CA\_3A-7A with dual uplink shall support the following requirements in Release 12.

### 26.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-7A specified in [2], which are listed in Table B.4.6-1 of [4].

**Table 26.2.1-1: Void**

### 26.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-7A specified in [3], which are listed in Table B.2.5-1 of [4].

### 26.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-7A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

---

## 27 CA configuration CA\_3A-20A Independent of Release

CA configuration CA\_3A-20A with 1UL/2DLs is specified in Release 11 and Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA\_3A-20A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

### 27.1 CA\_3A-20A UE with single uplink

UEs that conform to Release 11 and support CA\_3A-20A shall support the following requirements in Release 12.

#### 27.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-20A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 27.1.1-1: Void**

## 27.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-20A specified in [3], which are listed in Table B.2.4-1 of [4].

## 27.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-20A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

## 27.2 CA\_3A-20A UE with dual uplink

UEs that conform to Release 11 and support CA\_3A-20A with dual uplink shall support the following requirements in Release 12.

### 27.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-20A specified in [2], which are listed in Table B.4.6-1 of [4].

**Table 27.2.1-1: Void**

### 27.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-20A specified in [3], which are listed in Table B.2.5-1 of [4].

### 27.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-20A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

---

## 28 CA configuration CA\_7A-20A Independent of Release

CA configuration CA\_7A-20A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

### 28.1 Void

## 28.2 CA\_7A-20A UE with dual uplink

UEs that conform to Release 11 and support CA\_7A-20A with dual uplink shall support the following requirements in Release 12.

### 28.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_7A-20A specified in [2], which are listed in Table B.4.6-1 of [4].

**Table 28.2.1-1: Void**

## 28.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_7A-20A specified in [3], which are listed in Table B.2.5-1 of [4].

## 28.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_7A-20A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 29 Void

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## 30 Void

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## 31 CA configuration CA\_2A-29A Independent of Release

CA configuration CA\_2A-29A is specified in Release 11 and Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 31.1 CA\_2A-29A UE

UEs that conform to Release 11 and support CA\_2A-29A shall support the following requirements in Release 12.

#### 31.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-29A specified in [2], which are listed in Table B.4.4-1 of [4].

**Table 31.1.1-1: Void**

#### 31.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-29A specified in [3], which are listed in Table B.2.4-1 of [4].

#### 31.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-29A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

---

## 32 CA configuration CA\_4A-29A Independent of Release

CA configuration CA\_4A-29A is specified in Release 11 and Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 32.1 CA\_4A-29A UE

UEs that conform to Release 11 and support CA\_4A-29A shall support the following requirements in Release 12.



### 32.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-29A specified in [2], which are listed in Table B.4.4-1 of [4].

**Table 32.1.1-1: Void**

### 32.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-29A specified in [3], which are listed in Table B.2.4-1 of [4].

### 32.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-29A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 33 CA configuration CA\_3A-8A Independent of Release

CA configuration CA\_3A-8A with 1UL/2DLs is specified in Release 11 and Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA\_3A-8A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

### 33.1 CA\_3A-8A UE with single uplink

UEs that conform to Release 11 and support CA\_3A-8A shall support the following requirements in Release 12.

#### 33.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-8A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 33.1.1-1: Void**

#### 33.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-8A specified in [3], which are listed in Table B.2.4-1 of [4].

#### 33.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-8A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

### 33.2 CA\_3A-8A UE with dual uplink

UEs that conform to Release 11 and support CA\_3A-8A with dual uplink shall support the following requirements in Release 12.

### 33.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-8A specified in [2], which are listed in Table B.4.6-1 of [4].

**Table 33.2.1-1: Void**

### 33.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-8A specified in [3], which are listed in Table B.2.5-1 of [4].

### 33.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-8A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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

CA configuration CA\_4A-5A is specified in Release 11 and Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 34.1 CA\_4A-5A UE

UEs that conform to Release 11 and support CA\_4A-5A shall support the following requirements in Release 12.

#### 34.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-5A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 34.1.1-1:**

#### 34.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-5A specified in [3], which are listed in Table B.2.4-1 of [4].

**Table 34.1.2-1: Void**

#### 34.1.3 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 [2] and listed in Table B.3.2-1 of [4].

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## 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 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 11 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 [9], which are listed in Table B.4.3-1 of [11].

**Table 35.1.1-1: Void**

### 35.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-12A specified in [10], which are listed in Table B.2.4-1 of [11].

**Table 35.1.2-1: 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 [9] and listed in Table B.3.2-1 of [11].

## 35.2 CA\_4A-12A UE with dual uplink

UEs that conform to Release 11 and support CA\_4A-12A with dual uplink shall support the following requirements in Release 12.

### 35.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-12A specified in [9], which are listed in Table B.4.6-1 of [11].

**Table 35.2.1-1: Void**

### 35.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-12A specified in [10], which are listed in Table B.2.5-1 of [11].

### 35.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-12A 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].

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## 36 CA configuration CA\_4A-13A Independent of Release

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

### 36.1 Void

### 36.2 CA\_4A-13A UE with dual uplink

UEs that conform to Release 11 and support CA\_4A-13A with dual uplink shall support the following requirements in Release 12.

## 36.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-13A specified in [2], which are listed in Table B.4.6-1 of [4].

**Table 36.2.1-1: Void**

## 36.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-13A specified in [3], which are listed in Table B.2.5-1 of [4].

## 36.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-13A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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# 37 CA configuration CA\_4A-17A Independent of Release

CA configuration CA\_4A-17A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

## 37.1 Void

## 37.2 CA\_4A-17A UE with dual uplink

UEs that conform to Release 11 and support CA\_4A-17A with dual uplink shall support the following requirements in Release 12.

### 37.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-17A specified in [2], which are listed in Table B.4.6-1 of [4].

**Table 37.2.1-1: Void**

### 37.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-17A specified in [3], which are listed in Table B.2.5-1 of [4].

### 37.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-17A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 38 CA configuration CA\_5A-12A Independent of Release

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

### 38.1 Void

### 38.2 CA\_5A-12A UE with dual uplink

UEs that conform to Release 11 and support CA\_5A-12A with dual uplink shall support the following requirements in Release 12.

#### 38.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_5A-12A specified in [2], which are listed in Table B.4.6-1 of [4].

**Table 38.2.1-1: Void**

#### 38.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_5A-12A specified in [3], which are listed in Table B.2.5-1 of [4].

#### 38.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_5A-12A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 39 CA configuration CA\_5A-17A Independent of Release

CA configuration CA\_5A-17A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

### 39.1 Void

### 39.2 CA\_5A-17A UE with dual uplink

UEs that conform to Release 11 and support CA\_5A-17A with dual uplink shall support the following requirements in Release 12.

#### 39.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_5A-17A specified in [2], which are listed in Table B.4.6-1 of [4].

**Table 39.2.1-1: Void**

## 39.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_5A-17A specified in [3], which are listed in Table B.2.5-1 of [4].

## 39.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_5A-17A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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# 40 CA configuration CA\_4A-7A Independent of Release

CA configuration CA\_4A-7A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

## 40.1 Void

## 40.2 CA\_4A-7A UE with dual uplink

UEs that conform to Release 11 and support CA\_4A-7A with dual uplink shall support the following requirements in Release 12.

### 40.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-7A specified in [2], which are listed in Table B.4.6-1 of [4].

**Table 40.2.1-1: Void**

### 40.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-7A specified in [3], which are listed in Table B.2.5-1 of [4].

### 40.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-7A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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# 41 Void

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# 42 Band 30 Independent of Release

Band 30 is specified in Release 12 but is defined as a release-independent frequency band. This approach aligns the Band 30 with other frequency bands when considering features that have to be supported in different releases.

## 42.1 Band 30 UE

UEs that conform to Release 11 and support Band 30 shall support the following requirements in Release 12.

### 42.1.1 RF Requirements

The UE shall comply with the RF requirements for Band 30 specified in [2], which are listed in Table B.4.1-1 of [4].

**Table 42.1.1-1: Void**

### 42.1.2 RRM Requirements

The UE shall comply with the RRM requirements for Band 30 specified in [3], which are listed in Table B.2.1-1 of [4].

**Table 42.1.2-1: Void**

### 42.1.3 Void

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## 43 Band 31 Independent of Release

Band 31 is specified in Release 12 but is defined as a release-independent frequency band. This approach aligns the Band 31 with other frequency bands when considering features that have to be supported in different releases.

### 43.1 Band 31 UE

UEs that conform to Release 11 and support Band 31 shall support the following requirements in Release 12.

#### 43.1.1 RF Requirements

The UE shall comply with the RF requirements for Band 31 specified [2], which are listed in Table B.4.1-1 of [4].

**Table 43.1.1-1: Void**

#### 43.1.2 RRM Requirements

The UE shall comply with the RRM requirements for Band 31, for 5 MHz only, specified in [3], which are listed in Table B.2.1-1 of [4].

**Table 43.1.2-1: Void**

#### 43.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the subset of demodulation performance and CSI reporting requirements specified in [2], which are listed in Table 43.1.3-2.

**Table 43.1.3-1: Void****Table 43.1.3-2: Demodulation performance and CSI reporting requirements for Band 31 UE**

Section / Clause	Description	Test case
8.2.1.1.1	Single-antenna port performance	6, 7, 8
8.2.1.2.1	Transmit diversity performance	1
8.2.1.3.1	Open-loop spatial multiplexing performance	2
8.2.1.4.1	Closed-loop spatial multiplexing performance	1A
8.2.1.4.2	Closed-loop spatial multiplexing performance	2A
8.5.1.2.1	Demodulation of PHICH	1A
9.2.1.1	CQI reporting definition under AWGN conditions	Table 9.2.1.1-2
9.3.2.1.1	CQI reporting under fading conditions	Table 9.3.2.1.1-3

## 44 CA configuration CA\_1A-8A Independent of Release

CA configuration CA\_1A-8A with 1UL/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA\_1A-8A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

### 44.1 CA\_1A-8A UE with single uplink

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

#### 44.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-8A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 44.1.1-1: Void**

#### 44.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-8A specified in [3], which are listed in Table B.2.4-1 of [4].

**Table 44.1.2-1: Void**

#### 44.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-8A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

### 44.2 CA\_1A-8A UE with dual uplink

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

#### 44.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-8A specified in [2], which are listed in Table B.4.6-1 of [4].

**Table 44.2.1-1: Void**



## 44.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-8A specified in [3], which are listed in Table B.2.5-1 of [4].

## 44.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-8A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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# 45 CA configuration CA\_2A-13A Independent of Release

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

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

## 45.1 CA\_2A-13A UE with single uplink

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

### 45.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-13A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 45.1.1-1: Void**

### 45.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-13A specified in [3], which are listed in Table B.2.4-1 of [4].

**Table 45.1.2-1: Void**

### 45.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-13A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

## 45.2 CA\_2A-13A UE with dual uplink

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

### 45.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-13A specified in [2], which are listed in Table B.4.6-1 of [4].

**Table 45.2.1-1: Void**

## 45.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-13A specified in [3], which are listed in Table B.2.5-1 of [4].

## 45.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-13A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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# 46 CA configuration CA\_3A-19A Independent of Release

CA configuration CA\_3A-19A with 1UL/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA\_3A-19A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

## 46.1 CA\_3A-19A UE with single uplink

UEs that conform to Release 11 and support CA\_3A-19A shall support the following requirements in Release 12.

### 46.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-19A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 46.1.1-1: Void**

### 46.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-19A specified in [3], which are listed in Table B.2.4-1 of [4].

**Table 46.1.2-1: Void**

### 46.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-19A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

## 46.2 CA\_3A-19A UE with dual uplink

UEs that conform to Release 11 and support CA\_3A-19A with dual uplink shall support the following requirements in Release 12.

### 46.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-19A specified in [2], which are listed in Table B.4.6-1 of [4].

**Table 46.2.1-1: Void**

## 46.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-19A specified in [3], which are listed in Table B.2.5-1 of [4].

## 46.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-19A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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

CA configuration CA\_3A-26A with 1UL/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA\_3A-26A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

## 47.1 CA\_3A-26A UE with single uplink

UEs that conform to Release 11 and support CA\_3A-26A shall support the following requirements in Release 12.

### 47.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-26A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 47.1.1-1: Void**

### 47.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-26A specified in [3], which are listed in Table B.2.4-1 of [4].

**Table 47.1.2-1: Void**

### 47.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-26A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

## 47.2 CA\_3A-26A UE with dual uplink

UEs that conform to Release 11 and support CA\_3A-26A with dual uplink shall support the following requirements in Release 12.

### 47.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-26A specified in [2], which are listed in Table B.4.6-1 of [4].

**Table 47.2.1-1: Void**

## 47.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-26A specified in [3], which are listed in Table B.2.5-1 of [4].

## 47.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-26A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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# 48 CA configuration CA\_3A-28A Independent of Release

CA configuration CA\_3A-28A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

## 48.1 CA\_3A-28A UE

UEs that conform to Release 11 and support CA\_3A-28A shall support the following requirements in Release 12.

### 48.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-28A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 48.1.1-1: Void**

### 48.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-28A specified in [3], which are listed in Table B.2.4-1 of [4].

**Table 48.1.2-1: Void**

### 48.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-28A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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# 49 CA configuration CA\_19A-21A Independent of Release

CA configuration CA\_19A-21A with 1UL/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA\_3A-26A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

## 49.1 CA\_19A-21A UE with single uplink

UEs that conform to Release 11 and support CA\_19A-21A shall support the following requirements in Release 12.

### 49.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_19A-21A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 49.1.1-1: Void**

### 49.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_19A-21A specified in [3], which are listed in Table B.2.4-1 of [4].

**Table 49.1.2-1: Void**

### 49.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_19A-21A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

## 49.2 CA\_19A-21A UE with dual uplink

UEs that conform to Release 11 and support CA\_19A-21A with dual uplink shall support the following requirements in Release 12.

### 49.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_19A-21A specified in [2], which are listed in Table B.4.6-1 of [4].

**Table 49.2.1-1: Void**

### 49.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_19A-21A specified in [3], which are listed in Table B.2.5-1 of [4].

### 49.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_19A-21A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 50 CA configuration CA\_23A-29A Independent of Release

CA configuration CA\_23A-29A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 50.1 CA\_23A-29A UE

UEs that conform to Release 11 and support CA\_23A-29A shall support the following requirements in Release 12.

#### 50.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_23A-29A specified in [2], which are listed in Table B.4.4-1 of [4].

**Table 50.1.1-1: Void**

## 50.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_23A-29A specified in [3], which are listed in Table B.2.4-1 of [4].

**Table 50.1.2-1: Void**

## 50.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_23A-29A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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# 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 11 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 [9], which are listed in Table B.4.5-1 of [11].

**Table 51.1.1-1: Void**

### 51.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-4A specified in [10], which are listed in Table B.2.3-1 of [11].

**Table 51.1.2-1: Void**

### 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 [9] and listed in Table B.3.2-1 of [11].

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

UEs that conform to Release 11 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 [9], which are listed in Table B.4.7-1 of [11].

## 51.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-4A specified in [10], which are listed in Table B.2.6-1 of [11].

## 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 [9] and listed in Table B.3.2-1 of [11].

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# 52 CA configuration CA\_3C Independent of Release

CA configuration CA\_3C is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

## 52.1 CA\_3C UE

UEs that conform to Release 11 and support CA\_3C shall support the following requirements in Release 12.

### 52.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3C specified in [2], which are listed in Table B.4.2-1 of [4].

**Table 52.1.1-1: Void**

### 52.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_3C specified in [3], which are listed in Table B.2.2-1 of [4].

**Table 52.1.1-2: Void**

### 52.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3C among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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

CA configuration CA\_1A-26A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

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 CA\_1A-26A UE with single uplink

UEs that conform to Release 11 and support CA\_1A-26A shall support the following requirements in Release 12.

### 53.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-26A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 53.1.1-1: Void**

### 53.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-26A specified in [3], which are listed in Table B.2.4-1 of [4].

**Table 53.1.2-1: Void**

### 53.1.3 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 [2] and listed in Table B.3.2-1 of [4].

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

UEs that conform to Release 11 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 [10] which are listed in Table B.4.6-1 of [11]

### 53.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-26A specified in [9] which are listed in Table B.2.5-1 of [11].

### 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 [10]

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## 54 CA configuration CA\_2A-4A Independent of Release

CA configuration CA\_2A-4A with 1UL/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA\_2A-4A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

### 54.1 CA\_2A-4A UE with single uplink

UEs that conform to Release 11 and support CA\_2A-4A shall support the following requirements in Release 12.

#### 54.1.1 RF Requirements

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

**Table 54.1.1-1: Void**

#### 54.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-4A specified in [3], which are listed in Table B.2.4-1 of [4].



**Table 54.1.2-1: Void**

### 54.1.3 Demodulation performance and CSI reporting Requirements

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

## 54.2 CA\_2A-4A UE with dual uplink

UEs that conform to Release 11 and support CA\_2A-4A with dual uplink shall support the following requirements in Release 12.

### 54.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-4A specified in [2], which are listed in Table B.4.6-1 of [4].

**Table 54.2.1-1: Void**

### 54.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-4A specified in [3], which are listed in Table B.2.5-1 of [4].

### 54.2.3 Demodulation performance and CSI reporting Requirements

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

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

CA configuration CA\_2A-5A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 55.1 CA\_2A-5A UE

UEs that conform to Release 11 and support CA\_2A-5A shall support the following requirements in Release 12.

#### 55.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-5A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 55.1.1-1: Void**

#### 55.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-5A specified in [3], which are listed in Table B.2.4-1 of [4].

**Table 55.1.2-1: Void**

#### 55.1.3 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 [2] and listed in Table B.3.2-1 of [4].

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## 56 CA configuration CA\_23B Independent of Release

CA configuration CA\_23B is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 56.1 CA\_23B UE

UEs that conform to Release 11 and support CA\_23B shall support the following requirements in Release 12.

#### 56.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_23B specified in [2], which are listed in Table B.4.2-1 of [4].

**Table 56.1.1-1: Void**

#### 56.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_23B specified in [3], which are listed in Table B.2.2-1 of [4].

**Table 56.1.2-1: Void**

#### 56.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_23B among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 57 CA configuration CA\_27B Independent of Release

CA configuration CA\_27B is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 57.1 CA\_27B UE

UEs that conform to Release 11 and support CA\_27B shall support the following requirements in Release 12.

#### 57.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_27B specified in [2], which are listed in Table B.4.2-1 of [4].

**Table 57.1.1-1: Void**

#### 57.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_27B specified in [3], which are listed in Table B.2.2-1 of [4].

**Table 57.1.2-1: Void**

#### 57.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_27B among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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

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

### 58.1 CA\_2A-12A UE

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 [9], which are listed in Table B.4.3-1 of [11].

**Table 58.1.1-1: Void**

#### 58.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-12A specified in [10], which are listed in Table B.2.4-1 of [11].

**Table 58.1.2-1: Void**

#### 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 [9] and listed in Table B.3.2-1 of [11].

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## 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 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 11 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 [9], which are listed in Table B.4.3-1 of [11].

**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 [10], which are listed in Table B.2.4-1 of [11].

**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 [9] and listed in Table B.3.2-1 of [11].

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

UEs that conform to Release 11 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 [9], which are listed in Table B.4.6-1 of [11].

**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 [10], which are listed in Table B.2.5-1 of [11].

### 59.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_5A-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].

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## 60 CA configuration CA\_5A-25A Independent of Release

CA configuration CA\_5A-25A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 60.1 CA\_5A-25A UE

UEs that conform to Release 11 and support CA\_5A-25A shall support the following requirements in Release 12.

#### 60.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_5A-25A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 60.1.1-1: Void**

#### 60.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_5A-25A specified in [3], which are listed in Table B.2.4-1 of [4].

**Table 60.1.2-1: Void**

### 60.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_5A-25A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 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.

CA configuration CA\_7A-28A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

### 61.1 CA\_7A-28A UE with single uplink

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 [9], which are listed in Table B.4.3-1 of [11].

**Table 61.1.1-1: Void**

#### 61.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_7A-28A specified in [10], which are listed in Table B.2.4-1 of [11].

#### 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 [9] and listed in Table B.3.2-1 of [11].

### 61.2 CA\_7A-28A UE with dual uplink

UEs that conform to Release 11 and support CA\_7A-28A with dual uplink shall support the following requirements in Release 12.

#### 61.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_7A-28A specified in [2], which are listed in Table B.4.6-1 of [4].

**Table 61.2.1-1: Void**

#### 61.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_7A-28A specified in [3], which are listed in Table B.2.5-1 of [4].

#### 61.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_7A-28A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 62 CA configuration CA\_12A-25A Independent of Release

CA configuration CA\_12A-25A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 62.1 CA\_12A-25A UE

UEs that conform to Release 11 and support CA\_12A-25A shall support the following requirements in Release 12.

#### 62.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_12A-25A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 62.1.1-1: Void**

#### 62.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_12A-25A specified in [3], which are listed in Table B.2.4-1 of [4].

**Table 62.1.2-1: Void**

#### 62.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_12A-25A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 63 CA configuration CA\_3A-3A Independent of Release

CA configuration CA\_3A-3A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

### 63.1 CA\_3A-3A UE

UEs that conform to Release 11 and support CA\_3A-3A shall support the following requirements in Release 12.

#### 63.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-3A specified in [2], which are listed in Table B.4.5-1 of [4].

**Table 63.1.1-1: Void**

#### 63.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-3A specified in [3], which are listed in Table B.2.3-1 of [4].

**Table 63.1.2-1: Void**

### 63.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-3A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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

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

### 64.1 CA\_7A-7A UE

UEs that conform to Release 11 and support CA\_7A-7A shall support the following requirements in Release 12.

#### 64.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_7A-7A specified in [2], which are listed in Table B.4.5-1 of [4].

**Table 64.1.1-1: Void**

#### 64.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_7A-7A specified in [3], which are listed in Table B.2.3-1 of [4].

#### 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 [2] and listed in Table B.3.2-1 of [4].

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## 65 CA configuration CA\_23A-23A Independent of Release

CA configuration CA\_23A-23A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

### 65.1 CA\_23A-23A UE

UEs that conform to Release 11 and support CA\_23A-23A shall support the following requirements in Release 12.

#### 65.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_23A-23A specified in [2], which are listed in Table B.4.5-1 of [4].

**Table 65.1.1-1: Void**

#### 65.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_23A-23A specified in [3], which are listed in Table B.2.3-1 of [4].

**Table 65.1.2-1: Void**

### 65.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_23A-23A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 66 CA configuration CA\_3A-27A Independent of Release

CA configuration CA\_3A-27A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 66.1 CA\_3A-27A UE

UEs that conform to Release 11 and support CA\_3A-27A shall support the following requirements in Release 12.

#### 66.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-27A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 66.1.1-1: Void**

#### 66.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-27A specified in [3], which are listed in Table B.2.4-1 of [4].

#### 66.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-27A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 67 CA configuration CA\_39C Independent of Release

CA configuration CA\_39C is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 67.1 CA\_39C UE

UEs that conform to Release 11 and support CA\_39C shall support the following requirements in Release 12.

#### 67.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_39C specified in [2], which are listed in Table B.4.2-1 of [4].

**Table 67.1.1-1: Void**

#### 67.1.2 RRM Requirements

The UE shall comply with the following RRM Requirements for CA\_39C specified in [3], which are listed in Table B.2.2-1 of [4].



### 67.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_39C among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 68 CA configuration CA\_39A-41A Independent of Release

CA configuration CA\_39A-41A with 1UL/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA\_39A-41A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards

### 68.1 CA\_39A-41A UE with single uplink

UEs that conform to Release 11 and support CA\_39A-41A shall support the following requirements in Release 12.

#### 68.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_39A-41A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 68.1.1-1: Void**

#### 68.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_39A-41A specified in [3], which are listed in Table B.2.4-1 of [4].

#### 68.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_39A-41A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

### 68.2 CA\_39A-41A UE with dual uplink

UEs that conform to Release 11 and support CA\_39A-41A with dual uplink shall support the following requirements in Release 12.

#### 68.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_39A-41A specified in [2], which are listed in Table B.4.6-1 of [4].

**Table 68.2.1-1: Void**

#### 68.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_39A-41A specified in [3], which are listed in Table B.2.5-1 of [4].

#### 68.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_39A-41A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 69 Void

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

CA configuration CA\_1A-5A with 1UL/2DLs to support band combination set 1 is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA\_1A-5A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

### 70.1 CA\_1A-5A UE with single uplink

UEs that conform to Release 11 and support CA\_1A-5A shall support the following requirements in Release 12.

#### 70.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-5A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 70.1.1-1: Void**

#### 70.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-5A specified in [3], which are listed in Table B.2.4-1 of [4].

**Table 70.1.2-1: Void**

#### 70.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-5A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

### 70.2 CA\_1A-5A UE with dual uplink

UEs that conform to Release 11 and support CA\_1A-5A with dual uplink shall support the following requirements in Release 12.

#### 70.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-5A specified in [2], which are listed in Table B.4.6-1 of [4].

**Table 70.2.1-1: Void**

#### 70.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-5A specified in [3], which are listed in Table B.2.5-1 of [4].

#### 70.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-5A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 71 CA configuration CA\_1A-11A Independent of Release

CA configuration CA\_1A-11A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 71.1 CA\_1A-11A UE

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

#### 71.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-11A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 71.1.1-1: Void**

#### 71.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-11A specified in [3], which are listed in Table B.2.4-1 of [4].

#### 71.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-11A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 72 CA configuration CA\_1A-20A Independent of Release

CA configuration CA\_1A-20A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 72.1 CA\_1A-20A UE

UEs that conform to Release 11 and support CA\_1A-20A shall support the following requirements in Release 12.

#### 72.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-20A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 72.1.1-1: Void**

#### 72.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-20A specified in [3], which are listed in Table B.2.4-1 of [4].

**Table 72.1.2-1: Void**

#### 72.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-20A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 73 CA configuration CA\_4A-27A Independent of Release

CA configuration CA\_4A-27A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 73.1 CA\_4A-27A UE

UEs that conform to Release 11 and support CA\_4A-27A shall support the following requirements in Release 12.

#### 73.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-27A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 73.1.1-1: Void**

#### 73.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-27A specified in [3], which are listed in Table B.2.4-1 of [4].

#### 73.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-27A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 74 CA configuration CA\_20A-32A Independent of Release

CA configuration CA\_20A-32A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 74.1 CA\_20A-32A UE

UEs that conform to Release 11 and support CA\_20A-32A shall support the following requirements in Release 12.

#### 74.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_20A-32A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 74.1.1-1: Void**

#### 74.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_20A-32A specified in [3], which are listed in Table B.2.4-1 of [4].

#### 74.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_20A-32A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 75 CA configuration CA\_41D Independent of Release

CA configuration CA\_41D is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

### 75.1 CA\_41D UE

UEs that conform to Release 11 and support CA\_41D shall support the following requirements in Release 12.

#### 75.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_41D specified in [2], which are listed in Table B.4.2-1 of [4].

**Table 75.1.1-1: Void**

#### 75.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_41D specified in [3], which are listed in Table B.2.2-1 of [4].

#### 75.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_41D among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 76 CA configuration CA\_42C Independent of Release

CA configuration CA\_42C is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 76.1 CA\_42C UE

UEs that conform to Release 11 and support CA\_42C shall support the following requirements in Release 12.

#### 76.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_42C specified in [2], which are listed in Table B.4.2-1 of [4].

#### 76.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_42C specified in [3], which are listed in Table B.2.2-1 of [4].

#### 76.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_42C among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 77 CA configuration CA\_42A-42A Independent of Release

CA configuration CA\_42A-42A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

### 77.1 CA\_42A-42A UE

UEs that conform to Release 11 and support CA\_42A-42A shall support the following requirements in Release 12.

### 77.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_42A-42A specified in [2], which are listed in Table B.4.5-1 of [4].

**Table 75.1.1-1: Void**

### 77.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_42A-42A specified in [3], which are listed in Table B.2.3-1 of [4].

### 77.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_42A-42A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 78 CA configuration CA\_2A-2A Independent of Release

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

### 78.1 CA\_2A-2A UE

UEs that conform to Release 11 and support CA\_2A-2A shall support the following requirements in Release 12.

#### 78.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-2A specified in [2], which are listed in Table B.4.5-1 of [4].

**Table 78.1.1-1: Void**

#### 78.1.2 RRM Requirements

The UE shall comply with the following RRM requirements for CA\_2A-2A specified in Annex B.2.3.

#### 78.1.3 Demodulation performance and CSI reporting Requirements

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

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## 79 CA configuration CA\_40C Independent of Release

CA\_40C is specified in Release 10, Release 11 and Release 12. It is defined as a release-independent CA configuration for Rel-10 upwards.

### 79.1 CA\_40C UE

UEs that conform to Release 11 and support CA\_40C shall support the following requirements in Release 12 for both one uplink and simultaneous transmission on two uplinks.

#### 79.1.1 RF Requirements

The UE shall comply with the following RF requirements for CA\_40C specified in [2], which are listed in Table B.4.2-1 of [4].

**Table 79.1.1-1: Void**

## 79.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_40C specified in [3], which are listed in Table B.2.2-1 of [4].

## 79.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_40C among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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# 80 CA configuration CA\_8A-11A Independent of Release

CA configuration CA\_8A-11A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

## 80.1 CA\_8A-11A UE

UEs that conform to Release 11 and support CA\_8A-11A shall support the following requirements in Release 12.

### 80.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_8A-11A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 80.1.1-1: Void**

## 80.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_8A-11A specified in [3], which are listed in Table B.2.4-1 of [4].

## 80.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_8A-11A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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# 81 CA configuration CA\_41A-42A Independent of Release

CA configuration CA\_41A-42A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

## 81.1 CA\_41A-42A UE

UEs that conform to Release 11 and support CA\_41A-42A shall support the following requirements in Release 12.

### 81.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_41A-42A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 81.1.1-1: Void**

## 81.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_41A-42A specified in [3], which are listed in Table B.2.4-1 of [4].

## 81.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_41A-42A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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

CA configuration CA\_18A-28A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

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 CA\_18A-28A UE with single uplink

UEs that conform to Release 11 and support CA\_18A-28A shall support the following requirements in Release 12.

### 82.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_18A-28A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 82.1.1-1: Void**

### 82.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_18A-28A specified in [3], which are listed in Table B.2.4-1 of [4].

### 82.1.3 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 [2] and listed in Table B.3.2-1 of [4].

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

UEs that conform to Release 11 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 [10] which are listed in Table B.4.6-1 of [11]

### 82.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_18A-28A specified in [9] which are listed in Table B.2.5-1 of [11].



### 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 [10]

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

CA configuration CA\_1A-5A-7A with 1UL/3DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

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 CA\_1A-5A-7A UE with single uplink

UEs that conform to Release 11 and support CA\_1A-5A-7A shall support the following requirements in Release 12.

#### 83.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-5A-7A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 83.1.1-1: Void**

#### 83.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-5A-7A specified in [3].

#### 83.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-5A-7A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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

UEs that conform to Release 11 and support CA\_1A-5A-7A with dual uplink configuration as CA\_1A-5A 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 [9], which are listed in Table B.4.6-1 of [11].

#### 83.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-5A-7A specified in [10], which are listed in Table B.2.5-1 of [11].

#### 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 [9] and listed in Table B.3.2-1 of [11].

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

CA configuration CA\_1A-3A-5A with 1UL/3DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

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 CA\_1A-3A-5A UE with single uplink

UEs that conform to Release 11 and support CA\_1A-3A-5A shall support the following requirements in Release 12.

#### 84.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A-5A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 84.1.1-1: Void**

#### 84.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-3A-5A specified in [3].

#### 84.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-3A-5A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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

UEs that conform to Release 11 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 [9], which are listed in Table B.4.6-1 of [11].

#### 84.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-3A-5A specified in [10], which are listed in Table B.2.5-1 of [11].

#### 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 [9] and listed in Table B.3.2-1 of [11].

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

CA configuration CA\_1A-3A-8A with 1UL/3DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

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 single uplink

UEs that conform to Release 11 and support CA\_1A-3A-8A shall support the following requirements in Release 12.

### 85.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A-8A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 85.1.1-1: Void**

### 85.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-3A-8A specified in [3].

### 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 [2] and listed in Table B.3.2-1 of [4].

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

UEs that conform to Release 11 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 [9], which are listed in Table B.4.6-1 of [11].

### 85.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-3A-8A specified in [10], which are listed in Table B.2.5-1 of [11].

### 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 [9] and listed in Table B.3.2-1 of [11].

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

CA configuration CA\_1A-3A-19A with 1UL/3DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

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 CA\_1A-3A-19A UE with single uplink

UEs that conform to Release 11 and support CA\_1A-3A-19A shall support the following requirements in Release 12.

### 86.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A-19A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 86.1.1-1: Void**

## 86.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-3A-19A specified in [3], which are listed in Table B.2.4-1 of [4].

## 86.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-3A-19A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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

UEs that conform to Release 11 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 [9], which are listed in Table B.4.6-1 of [11].

### 86.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-3A-19A specified in [10], which are listed in Table B.2.5-1 of [11].

### 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 [9] and listed in Table B.3.2-1 of [11].

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## 87 CA configuration CA\_1A-3A-20A Independent of Release

CA configuration CA\_1A-3A-20A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 87.1 CA\_1A-3A-20A UE

UEs that conform to Release 11 and support CA\_1A-3A-20A shall support the following requirements in Release 12.

#### 87.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A-20A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 87.1.1-1: Void**

#### 87.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-3A-20A specified in [3], which are listed in Table B.2.4-1 of [4].

### 87.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-3A-20A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 88 CA configuration CA\_1A-3A Independent of Release

CA configuration CA\_1A-3A with 1UL/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA\_1A-3A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

### 88.1 CA\_1A-3A UE with single uplink

UEs that conform to Release 11 and support CA\_1A-3A shall support the following requirements in Release 12.

#### 88.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 88.1.1-1: Void**

#### 88.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-3A specified in [3], which are listed in Table B.2.4-1 of [4].

#### 88.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-3A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

### 88.2 CA\_1A-3A UE with dual uplink

UEs that conform to Release 11 and support CA\_1A-3A with dual uplink shall support the following requirements in Release 12.

#### 88.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A specified in [2], which are listed in Table B.4.6-1 of [4].

**Table 88.2.1-1: Void**

#### 88.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-3A specified in [3], which are listed in Table B.2.5-1 of [4].

#### 88.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-3A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 89 CA configuration CA\_1A-7A-20A Independent of Release

CA configuration CA\_1A-7A-20A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 89.1 CA\_1A-7A-20A UE

UEs that conform to Release 11 and support CA\_1A-7A-20A shall support the following requirements in Release 12.

#### 89.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-7A-20A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 89.1.1-1: Void**

#### 89.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-7A-20A specified in [3], which are listed in Table B.2.4-1 of [4].

#### 89.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-7A-20A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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

CA configuration CA\_1A-7A with 1UL/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA\_1A-7A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

### 90.1 CA\_1A-7A UE with single uplink

UEs that conform to Release 11 and support CA\_1A-7A shall support the following requirements in Release 12.

#### 90.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-7A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 90.1.1-1: Void**

#### 90.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-7A specified in [3], which are listed in Table B.2.4-1 of [4].

#### 90.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-7A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

## 90.2 CA\_1A-7A UE with dual uplink

UEs that conform to Release 11 and support CA\_1A-7A with dual uplink shall support the following requirements in Release 12.

### 90.2.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-7A specified in [2], which are listed in Table B.4.6-1 of [4].

**Table 90.2.1-1: Void**

### 90.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-7A specified in [3], which are listed in Table B.2.5-1 of [4].

### 90.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-7A with dual uplink among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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

CA configuration CA\_1A-19A-21A with 1UL/3DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

CA configuration CA\_1A-19A-21A 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].

### 91.1 CA\_1A-19A-21A UE with single uplink

UEs that conform to Release 11 and support CA\_1A-19A-21A shall support the following requirements in Release 12.

#### 91.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-19A-21A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 91.1.1-1: Void**

#### 91.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-19A-21A specified in [3].

#### 91.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-19A-21A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

### 91.2 CA\_1A-19A-21A UE with dual uplink

UEs that conform to Release 11 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 [9], which are listed in Table B.4.6-1 of [11].

## 91.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-19A-21A specified in [10], which are listed in Table B.2.5-1 of [11].

## 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 [9] and listed in Table B.3.2-1 of [11].

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# 92 CA configuration CA\_2A-2A-13A Independent of Release

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

## 92.1 CA\_2A-2A-13A UE

UEs that conform to Release 11 and support CA\_2A-2A-13A shall support the following requirements in Release 12.

### 92.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-2A-13A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 92.1.1-1: Void**

### 92.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-2A-13A specified in [3].

### 92.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-2A-13A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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

CA configuration CA\_2A-4A-5A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 93.1 CA\_2A-4A-5A UE

UEs that conform to Release 11 and support CA\_2A-4A-5A shall support the following requirements in Release 12.

### 93.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-4A-5A specified in [2], which are listed in Table B.4.3-1 of [4].



**Table 93.1.1-1: Void**

## 93.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-4A-5A specified in [3].

## 93.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-4A-5A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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# 94 CA configuration CA\_2A-4A-13A Independent of Release

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

## 94.1 CA\_2A-4A-13A UE

UEs that conform to Release 11 and support CA\_2A-4A-13A shall support the following requirements in Release 12.

### 94.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-4A-13A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 94.1.1-1: Void**

## 94.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-4A-13A specified in [3].

## 94.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-4A-13A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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

CA configuration CA\_2A-4A-12A with 1UL/3DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

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 CA\_2A-4A-12A UE with single uplink

UEs that conform to Release 11 and support CA\_2A-4A-12A shall support the following requirements in Release 12.

### 95.1.1 RF Requirements

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

**Table 95.1.1-1: Void**

## 95.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-4A-12A specified in [3].

## 95.1.3 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 specified in [2] and listed in Table B.3.2-1 of [4].

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

UEs that conform to Release 11 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 [9], which are listed in Table B.4.6-1 of [11].

### 95.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-4A-12A specified in [10], which are listed in Table B.2.5-1 of [11].

### 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 [9] and listed in Table B.3.2-1 of [11].

## 96 CA configuration CA\_2A-12B Independent of Release

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

### 96.1 CA\_2A-12B UE

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

#### 96.1.1 RF Requirements

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

**Table 96.1.1-1: Void**

#### 96.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-12B specified in [3].

#### 96.1.3 Demodulation performance and CSI reporting Requirements

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

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

CA configuration CA\_3A-7C 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].

### 97.1 CA\_3A-7C UE

UEs that conform to Release 11 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 [9], which are listed in Table B.4.3-1 of [11].

**Table 97.1.1-1: Void**

#### 97.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-7C specified in [10].

#### 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 [9] and listed in Table B.3.2-1 of [11].

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

CA configuration CA\_3A-7A-20A with 1UL/3DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

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 CA\_3A-7A-20A UE with single uplink

UEs that conform to Release 11 and support CA\_3A-7A-20A shall support the following requirements in Release 12.

#### 98.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-7A-20A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 98.1.1-1: Void**

#### 98.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-7A-20A specified in [3].

#### 98.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-7A-20A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

## 98.2 CA\_3A-7A-20A UE with dual uplink

UEs that conform to Release 11 and support CA\_3A-7A-20A with dual uplink configuration as 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 [9], which are listed in Table B.4.6-1 of [11].

### 98.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-7A-20A specified in [10], which are listed in Table B.2.5-1 of [11].

### 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 [9] and listed in Table B.3.2-1 of [11].

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## 99 CA configuration CA\_4A-4A-13A Independent of Release

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

### 99.1 CA\_4A-4A-13A UE

UEs that conform to Release 11 and support CA\_4A-4A-13A shall support the following requirements in Release 12.

#### 99.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-4A-13A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 99.1.1-1: Void**

#### 99.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-4A-13A specified in [3].

#### 99.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-4A-13A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 100 CA configuration CA\_4A-12B Independent of Release

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

### 100.1 CA\_4A-12B UE

UEs that conform to Release 11 and support CA\_4A-12B shall support the following requirements in Release 12.

## 100.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-12B specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 100.1.1-1: Void**

## 100.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-12B specified in [3].

## 100.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-12B among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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# 101 CA configuration CA\_12B Independent of Release

CA configuration CA\_12B is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

## 101.1 CA\_12B UE

UEs that conform to Release 11 and support CA\_12B shall support the following requirements in Release 12.

### 101.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_12B specified in [2], which are listed in Table B.4.2-1 of [4].

**Table 101.1.1-1: Void**

### 101.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA\_12B specified in [3], which are listed in Table B.2.2-1 of [4].

### 101.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_12B among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

---

# 102 CA configuration CA\_2A-4A-4A Independent of Release

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

## 102.1 CA\_2A-4A-4A UE

UEs that conform to Release 11 and support CA\_2A-4A-4A shall support the following requirements in Release 12.

### 102.1.1 RF Requirements

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

**Table 102.1.1-1: Void**

## 102.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-4A-4A specified in [3].

## 102.1.3 Demodulation performance and CSI reporting Requirements

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

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# 103 CA configuration CA\_4A-4A-12A Independent of Release

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

## 103.1 CA\_4A-4A-12A UE

UEs that conform to Release 11 and support CA\_4A-4A-12A shall support the following requirements in Release 12.

### 103.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-4A-12A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 103.1.1-1: Void**

### 103.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-4A-12A specified in [3].

### 103.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-4A-12A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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

CA configuration CA\_3C-7A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 104.1 CA\_3C-7A UE

UEs that conform to Release 11 and support CA\_3C-7A shall support the following requirements in Release 12.

### 104.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3C-7A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 104.1.1-1: Void**

## 104.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3C-7A specified in [3].

## 104.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3C-7A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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# 105 CA configuration CA\_2A-5A-12A Independent of Release

CA configuration CA\_2A-5A-12A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 105.1 CA\_2A-5A-12A UE

UEs that conform to Release 11 and support CA\_4A-4A-12A shall support the following requirements in Release 12.

### 105.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-5A-12A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 105.1.1-1: Void**

### 105.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-5A-12A specified in [3].

### 105.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-5A-12A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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# 106 CA configuration CA\_4A-5A-12A Independent of Release

CA configuration CA\_4A-5A-12A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 106.1 CA\_4A-5A-12A UE

UEs that conform to Release 11 and support CA\_2A-4A-12A shall support the following requirements in Release 12.

### 106.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-5A-12A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 106.1.1-1: Void**

### 106.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-5A-12A specified in [3].

## 106.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-5A-12A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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

CA configuration CA\_2A-5A-30A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

### 107.1 CA\_2A-5A-30A UE

UEs that conform to Release 11 and support CA\_2A-5A-30A shall support the following requirements in Release 12.

#### 107.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-5A-30A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 107.1.1-1: Void**

#### 107.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-5A-30A specified in [3].

#### 107.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-5A-30A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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

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

### 108.1 CA\_2A-12A-30A UE

UEs that conform to Release 11 and support CA\_2A-12A-30A shall support the following requirements in Release 12.

#### 108.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-12A-30A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 108.1.1-1: Void**

#### 108.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-12A-30A specified in [3].



### 108.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-12A-30A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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

CA configuration CA\_2A-29A-30A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

### 109.1 CA\_2A-29A-30A UE

UEs that conform to Release 11 and support CA\_2A-29A-30A shall support the following requirements in Release 12.

#### 109.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-29A-30A specified in [2], which are listed in Table B.4.4-1 of [4].

**Table 109.1.1-1: Void**

#### 109.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-29A-30A specified in [3].

#### 109.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-29A-30A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 110 CA configuration CA\_4A-5A-30A Independent of Release

CA configuration CA\_4A-5A-30A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

### 110.1 CA\_4A-5A-30A UE

UEs that conform to Release 11 and support CA\_4A-5A-30A shall support the following requirements in Release 12.

#### 110.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-5A-30A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 110.1.1-1: Void**

#### 110.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-5A-30A specified in [3].

## 110.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-5A-30A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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# 111 CA configuration CA\_4A-12A-30A Independent of Release

CA configuration CA\_4A-12A-30A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 111.1 CA\_4A-12A-30A UE

UEs that conform to Release 11 and support CA\_4A-12A-30A shall support the following requirements in Release 12.

### 111.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-12A-30A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 111.1.1-1: Void**

### 111.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-12A-30A specified in [3].

### 111.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-12A-30A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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# 112 CA configuration CA\_4A-29A-30A Independent of Release

CA configuration CA\_4A-29A-30A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 112.1 CA\_4A-29A-30A UE

UEs that conform to Release 11 and support CA\_4A-29A-30A shall support the following requirements in Release 12.

### 112.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-29A-30A specified in [2], which are listed in Table B.4.4-1 of [4].

**Table 112.1.1-1: Void**

### 112.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-92A-30A specified in [3].

### 112.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-29A-30A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 113 CA configuration CA\_2A-30A Independent of Release

CA configuration CA\_2A-30A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 113.1 CA\_2A-30A UE

UEs that conform to Release 11 and support CA\_2A-30A shall support the following requirements in Release 12.

#### 113.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-30A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 113.1.1-1: Void**

#### 113.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-30A specified in [3], which are listed in Table B.2.4-1 of [4].

#### 113.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-30A among the CA demodulation performance and CSI reporting requirements specified in [2], which are listed in Table B.3.2-1 of [4].

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## 114 CA configuration CA\_4A-30A Independent of Release

CA configuration CA\_4A-30A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 114.1 CA\_4A-30A UE

UEs that conform to Release 11 and support CA\_4A-30A shall support the following requirements in Release 12.

#### 114.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-30A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 114.1.1-1: Void**

#### 114.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-30A specified in [3], which are listed in Table B.2.4-1 of [4].

### 114.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-30A among the CA demodulation performance and CSI reporting requirements specified in [2], which are listed in Table B.3.2-1 of [4].

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## 115 CA configuration CA\_5A-30A Independent of Release

CA configuration CA\_5A-30A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 115.1 CA\_5A-30A UE

UEs that conform to Release 11 and support CA\_5A-30A shall support the following requirements in Release 12.

#### 115.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_5A-30A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 115.1.1-1: Void**

#### 115.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_5A-30A specified in [3], which are listed in Table B.2.4-1 of [4].

### 115.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_5A-30A among the CA demodulation performance and CSI reporting requirements specified in [2], which are listed in Table B.3.2-1 of [4].

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## 116 CA configuration CA\_12A-30A Independent of Release

CA configuration CA\_12A-30A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 116.1 CA\_12A-30A UE

UEs that conform to Release 11 and support CA\_2A-30A shall support the following requirements in Release 12.

#### 116.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_12A-30A specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 116.1.1-1: Void**

#### 116.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_12A-30A specified in [3], which are listed in Table B.2.4-1 of [4].

## 116.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_12A-30A among the CA demodulation performance and CSI reporting requirements specified in [2], which are listed in Table B.3.2-1 of [4].

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## 117 CA configuration CA\_29A-30A Independent of Release

CA configuration CA\_29A-30A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 117.1 CA\_29A-30A UE

UEs that conform to Release 11 and support CA\_29A-30A shall support the following requirements in Release 12.

#### 117.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_29A-30A specified in [2], which are listed in Table B.4.4-1 of [4].

**Table 117.1.1-1: Void**

#### 117.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_29A-30A specified in [3], which are listed in Table B.2.4-1 of [4].

#### 117.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_29A-30A among the CA demodulation performance and CSI reporting requirements specified in [2], which are listed in Table B.3.2-1 of [4].

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## 118 CA configuration CA\_40D Independent of Release

CA configuration CA\_40D is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

### 118.1 CA\_40D UE

UEs that conform to Release 11 and support CA\_40D shall support the following requirements in Release 12.

#### 118.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_40D specified in [2], which are listed in Table B.4.2-1 of [4].

**Table 118.1.1-1: Void**

#### 118.1.2 RRM Requirements

The UE shall comply with the following RRM Requirements for CA\_40D specified in [3], which are listed in Table B.2.2-1 of [4].

### 118.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_40D among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 119 Void

### 119.1 Void

#### 119.1.1 Void

**Table 119.1.1-1: Void**

#### 119.1.2 Void

### 119.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_42C among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 120 CA configuration CA\_25A-25A Independent of Release

CA configuration CA\_25A-25A is specified in Release 11 and Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

### 120.1 CA\_25A-25A UE

UEs that conform to Release 11 and support CA\_25A-25A shall support the following requirements in Release 12.

#### 120.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_25A-25A specified in [2], which are listed in Table B.4.5-1 of [4].

**Table 120.1.1-1: Void**

#### 120.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_25A-25A specified in [3], which are listed in Table B.2.3-1 of [4].

#### 120.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_25A-25A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 121 CA configuration CA\_41C-41A and CA\_41A-41C Independent of Release

CA configurations CA\_41C-41A and CA\_41A-41C are specified in Release 12 but are defined as release-independent CA configurations for Rel-11 upwards for UE Categories specified in [7].

## 121.1 CA\_41C-41A and CA\_41A-41C UE

UEs that conform to Release 11 and support CA\_41C-41A and CA\_41A-41C shall support the following requirements in Release 12.

### 121.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_41C-41A and CA\_41A-41C specified in [2], which are listed in Table B.4.3-1 of [4].

**Table 121.1.1-1:**

### 121.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_41C-41A and CA\_41A-41C specified in [3], which are listed in Table B.2.2-1 of [4].

### 121.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_41C-41A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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

CA configuration CA\_1A-28A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

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 CA\_1A-28A UE with single uplink

UEs that conform to Release 11 and support CA\_1A-28A shall support the following requirements in Release 12.

#### 122.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-28A specified in [2], which are listed in Table B.4.3-1 of [4].

#### 122.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-28A specified in [3], which are listed in Table B.2.4-1 of [4].

#### 122.1.3 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 [2] and listed in Table B.3.2-1 of [4].

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

UEs that conform to Release 11 and support CA\_1A-28A 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 [10] which are listed in Table B.4.6-1 of [11]

### 122.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-28A specified in [9] which are listed in Table B.2.5-1 of [11].

### 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 [10].

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## 123 CA configuration CA\_5A-13A Independent of Release

CA configuration CA\_5A-13A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 123.1 CA\_5A-13A UE

UEs that conform to Release 11 and support CA\_5A-13A shall support the following requirements in Release 12.

#### 123.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_5A-13A specified in [2], which are listed in Table B.4.3-1 of [4].

#### 123.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_5A-13A specified in [3], which are listed in Table B.2.4-1 of [4].

#### 123.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_5A-13A among the demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 124 CA configuration CA\_1A-3A-26A Independent of Release

CA configuration CA\_1A-3A-26A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

### 124.1 CA\_1A-3A-26A UE

UEs that conform to Release 11 and support CA\_1A-3A-26A shall support the following requirements in Release 12.

#### 124.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A-26A specified in [2], which are listed in Table B.4.3-1 of [4].

#### 124.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-3A-26A specified in [3].



### 124.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-3A-26A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 125 CA configuration CA\_2C Independent of Release

CA configuration CA\_2C is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 125.1 CA\_2C UE

UEs that conform to Release 11 and support CA\_2C shall support the following requirements in Release 12.

#### 125.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2C specified in [2], which are listed in Table B.4.2-1 of [4].

#### 125.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2C specified in [3], which are listed in Table B.2.2-1 of [4].

#### 125.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2C among the demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [4].

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## 126 CA configuration CA\_2C-29A Independent of Release

CA configuration CA\_2C-29A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

### 126.1 CA\_2C-29A UE

UEs that conform to Release 11 and support CA\_2C-29A shall support the following requirements in Release 12.

#### 126.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2C-29A specified in [2], which are listed in Table B.4.3-1 of [4].

#### 126.1.2 RRM Requirements

The UE shall comply with the RRM requirements for 2C-29A specified in [3].

#### 126.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for 2C-29A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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

CA configuration CA\_2A-4A-29A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

### 127.1 CA\_2A-4A-29A UE

UEs that conform to Release 11 and support CA\_2A-4A-29A shall support the following requirements in Release 12.

#### 127.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-4A-29A specified in [2], which are listed in Table B.4.3-1 of [4].

#### 127.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-4A-29A specified in [3].

#### 127.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-4A-29A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 128 CA configuration CA\_7A-8A Independent of Release

CA configuration CA\_7A-8A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

### 128.1 CA\_7A-8A UE

UEs that conform to Release 11 and support CA\_7A-8A shall support the following requirements in Release 12.

#### 128.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_7A-8A specified in [2], which are listed in Table B.4.3-1 of [4].

#### 128.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_7A-8A specified in [3], which are listed in Table B.2.4-1 of [4].

#### 128.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_7A-8A among the demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 129 CA configuration CA\_7A-8A-20A Independent of Release

CA configuration CA\_7A-8A-20A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 129.1 CA\_7A-8A-20A UE

UEs that conform to Release 11 and support CA\_7A-8A-20A shall support the following requirements in Release 12.

### 129.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_7A-8A-20A specified in [2], which are listed in Table B.4.3-1 of [4].

### 129.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_7A-8A-20A specified in [3].

### 129.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_7A-8A-20A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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

CA configuration CA\_39C-41A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

### 130.1 CA\_39C-41A UE

UEs that conform to Release 11 and support CA\_39C-41A shall support the following requirements in Release 12.

#### 130.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_39C-41A specified in [2], which are listed in Table B.4.3-1 of [4].

#### 130.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_39C-41A specified in [3].

#### 130.1.3 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 [2] and listed in Table B.3.2-1 of [4].

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

CA configuration CA\_39A-41C is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

### 131.1 CA\_39A-41C UE

UEs that conform to Release 11 and support 39A-41C shall support the following requirements in Release 12.

#### 131.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_39A-41C specified in [2], which are listed in Table B.4.3-1 of [4].

## 131.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_39A-41C specified in [3].

## 131.1.3 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 [2] and listed in Table B.3.2-1 of [4]

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# 132 CA configuration CA\_7A-12A Independent of Release

CA configuration CA\_7A-12A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

## 132.1 CA\_7A-12A UE

UEs that conform to Release 11 and support CA\_7A-12A shall support the following requirements in Release 12.

### 132.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_7A-12A specified in [2], which are listed in Table B.4.3-1 of [4].

### 132.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_7A-12A specified in [3], which are listed in Table B.2.4-1 of [4].

### 132.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_7A-12A among the demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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

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

## 133.1 CA\_4A-7A-12A UE

UEs that conform to Release 11 and support CA\_4A-7A-12A shall support the following requirements in Release 12.

### 133.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-7A-12A specified in [2], which are listed in Table B.4.3-1 of [4].

### 133.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-7A-12A specified in [3].

### 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 [2] and listed in Table B.3.2-1 of [4].

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

CA configuration CA\_2A-5A-13A with 1UL/3DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

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 CA\_2A-5A-13A UE with single uplink

UEs that conform to Release 11 and support CA\_2A-5A-13A shall support the following requirements in Release 12.

#### 134.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-5A-13A specified in [2], which are listed in Table B.4.3-1 of [4].

#### 134.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-5A-13A specified in [3].

#### 134.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-5A-13A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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

UEs that conform to Release 11 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 [9], which are listed in Table B.4.6-1 of [11].

#### 134.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-5A-13A specified in [10], which are listed in Table B.2.5-1 of [11].

#### 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 [9] and listed in Table B.3.2-1 of [11].

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

CA configuration CA\_4A-5A-13A with 1UL/3DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

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 CA\_4A-5A-13A UE with single uplink

UEs that conform to Release 11 and support CA\_4A-5A-13A shall support the following requirements in Release 12.

### 135.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-5A-13A specified in [2], which are listed in Table B.4.3-1 of [4].

### 135.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-5A-13A specified in [3].

### 135.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-5A-13A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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

UEs that conform to Release 11 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 [9], which are listed in Table B.4.6-1 of [11].

### 135.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-5A-13A specified in [10], which are listed in Table B.2.5-1 of [11].

### 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 [9] and listed in Table B.3.2-1 of [11].

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

CA configuration CA\_1A-18A-28A with 1UL/3DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

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 CA\_1A-18A-28A UE with single uplink

UEs that conform to Release 11 and support CA\_1A-18A-28A shall support the following requirements in Release 12.

### 136.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-18A-28A specified in [2], which are listed in Table B.4.3-1 of [4].

## 136.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-18A-28A specified in [3].

## 136.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-18A-28A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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

UEs that conform to Release 11 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 [9], which are listed in Table B.4.6-1 of [11].

### 136.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-18A-28A specified in [10], which are listed in Table B.2.5-1 of [11].

### 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 [9] and listed in Table B.3.2-1 of [11].

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## 137 CA configuration CA\_2A-2A-5A Independent of Release

CA configuration CA\_2A-2A-5A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

### 137.1 CA\_2A-2A-5A UE

UEs that conform to Release 11 and support CA\_2A-2A-5A shall support the following requirements in Release 12.

#### 137.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-2A-5A specified in [2], which are listed in Table B.4.3-1 of [4].

#### 137.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-2A-5A specified in [3].

#### 137.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-2A-5A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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## 138 CA configuration CA\_4A-4A-5A Independent of Release

CA configuration CA\_4A-4A-5A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 138.1 CA\_4A-4A-5A UE

UEs that conform to Release 11 and support CA\_4A-4A-5A shall support the following requirements in Release 12.

### 138.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-4A-5A specified in [2], which are listed in Table B.4.3-1 of [4].

### 138.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-4A-5A specified in [3].

### 138.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_4A-4A-5A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

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

CA configuration CA\_4A-4A-7A is specified in Release 12 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 11 and support CA\_4A-4A-7A shall support the following requirements in Release 12.

#### 139.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-4A-7A specified in [2], which are listed in Table B.4.3-1 of [4].

#### 139.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-4A-7A specified in [3].

#### 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 [2] and listed in Table B.3.2-1 of [4].

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## 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 11 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 [9] which are listed in Table B.4.3-1 of [11].



## 140.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-3A-28A specified in [10] which are listed in Table B.2.4-1 of [11].

## 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 [9] and listed in Table B.3.2-1 of [11].

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# 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 11 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 [9] which are listed in Table B.4.3-1 of [11].

### 141.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-7A-28A specified in [10] which are listed in Table B.2.4-1 of [11].

### 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 [9] and listed in Table B.3.2-1 of [11].

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# 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 11 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 [9] which are listed in Table B.4.4-1 of [11].

### 142.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-5A-29A specified in [10] which are listed in Table B.2.4-1 of [11].

### 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 [9] and listed in Table B.3.2-1 of [11].

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## 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 11 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 [9] which are listed in Table B.4.3-1 of [11].

#### 143.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3C-5A specified in [10] which are listed in Table B.2.4-1 of [11].

#### 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 [9] and listed in Table B.3.2-1 of [11].

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## 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 11 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 [9] which are listed in Table B.4.3-1 of [11].

#### 144.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-7B specified in [10] which are listed in Table B.2.4-1 of [11].

#### 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 [9] and listed in Table B.3.2-1 of [11].

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## 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 11 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 [9] which are listed in Table B.4.3-1 of [11].

#### 145.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-7A-8A specified in [10] which are listed in Table B.2.4-1 of [11].

#### 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 [9] and listed in Table B.3.2-1 of [11].

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

CA configuration CA\_3A-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].

### 146.1 CA\_3A-7A-28A UE

UEs that conform to Release 11 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 [9] which are listed in Table B.4.3-1 of [11].

#### 146.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-7A-28A specified in [10] which are listed in Table B.2.4-1 of [11].

#### 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 [9] and listed in Table B.3.2-1 of [11].

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## 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 11 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 [9] which are listed in Table B.4.4-1 of [11].

#### 147.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_5A-29A specified in [10] which are listed in Table B.2.4-1 of [11].

#### 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 [9] and listed in Table B.3.2-1 of [11].

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## 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 11 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 [9] which are listed in Table B.4.2-1 of [11].

#### 148.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_7B specified in [10] which are listed in Table B.2.4-1 of [11].

#### 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 [9] and listed in Table B.3.2-1 of [11].

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## 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 11 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 [9] which are listed in Table B.4.3-1 of [11].

### 149.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_7B-28A specified in [10] which are listed in Table B.2.4-1 of [11].

### 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 [9] and listed in Table B.3.2-1 of [11].

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## 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 11 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 [9] which are listed in Table B.4.3-1 of [11].

#### 150.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_7C-28A specified in [10] which are listed in Table B.2.4-1 of [11].

#### 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 [9] and listed in Table B.3.2-1 of [11].

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## 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.

### 151.1 CA\_40A-40A UE

UEs that conform to Release 11 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 [9] which are listed in Table B.4.5-1 of [11].

## 151.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_40A-40A specified in [10] which are listed in Table B.2.3-1 of [11].

## 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 [9] and listed in Table B.3.2-1 of [11].

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# 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 11 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 [9] which are listed in Table B.4.3-1 of [11].

### 152.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_38A-40A specified in [10] which are listed in Table B.2.4-1 of [11].

### 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 [9] and listed in Table B.3.2-1 of [11].

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# 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-10 upwards.

## 153.1 CA\_38A-40C UE

UEs that conform to Release 11 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 [9] which are listed in Table B.4.3-1 of [11].

### 153.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_38A-40C specified in [10] which are listed in Table B.2.4-1 of [11].

### 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 [9] and listed in Table B.3.2-1 of [11].

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## 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.

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

UEs that conform to Release 11 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 [9] which are listed in Table B.4.3-1 of [11].

#### 154.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_38A-40A-40A specified in [10] which are listed in Table B.2.4-1 of [11].

### 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 [9] and listed in Table B.3.2-1 of [11].

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## 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 11 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 [9] which are listed in Table B.4.3-1 of [11].

#### 155.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_41A-42C specified in [10] which are listed in Table B.2.4-1 of [11].

### 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 [9] and listed in Table B.3.2-1 of [11].

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## 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 11 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 [9] which are listed in Table B.4.3-1 of [11].

#### 156.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-28A specified in [10] which are listed in Table B.2.4-1 of [11].

#### 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 [9] and listed in Table B.3.2-1 of [11].

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## 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 11 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 [9] which are listed in Table B.4.3-1 of [11].

#### 157.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-31A specified in [10] which are listed in Table B.2.4-1 of [11].

#### 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 [9] and listed in Table B.3.2-1 of [11].



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## 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 11 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 [9] which are listed in Table B.4.3-1 of [11].

#### 158.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-28A specified in [10] which are listed in Table B.2.4-1 of [11].

#### 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 [9] and listed in Table B.3.2-1 of [11].

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## 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 11 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 [9] which are listed in Table B.4.3-1 of [11].

#### 159.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_7A-22A specified in [10] which are listed in Table B.2.4-1 of [11].

#### 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 [9] and listed in Table B.3.2-1 of [11].

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## 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 11 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 [9] which are listed in Table B.4.3-1 of [11].

### 160.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_20A-31A specified in [10] which are listed in Table B.2.4-1 of [11].

### 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 [9] and listed in Table B.3.2-1 of [11].

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## 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 11 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 [9] which are listed in Table B.4.3-1 of [11] with the following exception. For uplink transmissions in Band 26, the UE shall comply with the additional spurious emissions requirements in sub-clause 6.6.3.3.5 (“NS\_12”) and sub-clause 6.6.3.36 (“NS\_13”) as specified in [6].

#### 161.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_25A-26A specified in [10] which are listed in Table B.2.4-1 of [11].

#### 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 [9] and listed in Table B.3.2-1 of [11].

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## 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 11 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 [9] which are listed in Table B.4.2-1 of [11].

### 162.1.2 RRM Requirements

The UE shall comply with the following RRM Requirements for CA\_42D specified in [10] which are listed in Table B.2.2-1 of [11].

### 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 [9], which are listed in section B.3.2-1 of [11].

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## 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 11 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 [11].

#### 163.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-2A-4A specified in [10].

#### 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 [9].

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## 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 11 and support CA\_2A-2A-4A-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-4A specified in [4] which are listed in Table B.4.3-1 of [11].

#### 164.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-2A-4A-4A specified in [10].

### 164.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-2A-4A-4A among the CA demodulation performance and CSI reporting requirements demodulation performance and CSI reporting specified in [9].

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## 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 11 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 [11].

#### 165.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2C-5A specified in [10].

#### 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 [9].

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## 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 11 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 [11].

#### 166.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2C-5A-30A specified in [10].

#### 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 [9].

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## 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 11 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 [11].

### 167.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2C-12A specified in [10].

### 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 [9].

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## 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 11 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 [11].

#### 168.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2C-30A specified in [10].

#### 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 [9].

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## 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 11 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 [11].

## 169.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2C-12A-30A specified in [10].

## 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 [9].

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# 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 11 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 [11].

### 170.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2C-29A-30A specified in [10].

### 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 [9].

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# 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 11 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 [11].

### 171.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-2A-4A-12A specified in [10].

### 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 [9].

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## 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 11 and support CA\_2A-4A-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-4A-12A specified in [4] which are listed in Table B.4.3-1 of [11].

#### 172.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-4A-4A-12A specified in [10].

#### 172.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_2A-4A-4A-12A among the CA demodulation performance and CSI reporting requirements demodulation performance and CSI reporting specified in [9].

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## 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 11 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 [11].

#### 173.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-4A-5A-30A specified in [10].

#### 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 [9].

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## 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 11 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 [11].

### 174.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-4A-30A specified in [10].

### 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 [9].

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## 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 11 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 [11].

#### 175.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-4A-12A-30A specified in [10].

#### 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 [9].

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## 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 11 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 [11].



## 176.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-4A-29A-30A specified in [10].

## 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 [9].

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# 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 11 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 [9], which are listed in Table B.4.3-1 of [11].

### 177.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_42C-42A and CA\_42A-42C specified in [10], which are listed in Table B.2.2-1 of [11].

### 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 [9] and listed in Table B.3.2-1 of [11].

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# 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 11 and support CA\_2A-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 [9] which are listed in Table B.4.3-1 of [11].

### 178.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-2A-12A specified in [10] which are listed in Table B.2.4-1 of [11].

### 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 [9] and listed in Table B.3.2-1 of [11].

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## 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 11 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 [9] which are listed in Table B.4.3-1 of [11].

#### 179.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_3A-3A-8A specified in [10] which are listed in Table B.2.4-1 of [11].

### 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 [9] and listed in Table B.3.2-1 of [11].

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## 180 – 194 Void

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## 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 11 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 [9] which are listed in Table B.4.3-1 of [11].

#### 195.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_4A-5A-29A specified in [10] which are listed in Table B.2.4-1 of [11].

### 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 [9] and listed in Table B.3.2-1 of [11].

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## 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 11 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 [9] which are listed in Table B.4.3-1 of [11].

#### 196.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_2A-4A-5A-29A specified in [10] which are listed in Table B.2.4-1 of [11].

#### 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 [9] and listed in Table B.3.2-1 of [11].

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## 197 – 204 Void

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## 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 11 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 [9] which are listed in Table B.4.3-1 of [11].

#### 205.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_19A-28A specified in [10] which are listed in Table B.2.4-1 of [11].

### 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 [9] and listed in Table B.3.2-1 of [11].

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## 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 11 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 [9] which are listed in Table B.4.3-1 of [11].

#### 206.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-19A-28A specified in [10] which are listed in Table B.2.4-1 of [11].

#### 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 [9] and listed in Table B.3.2-1 of [11].

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## 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 11 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 [9] which are listed in Table B.4.3-1 of [11].

#### 207.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-8A-11A specified in [10] which are listed in Table B.2.4-1 of [11].

#### 207.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-8A-11A among the CA demodulation performance and CSI reporting requirements specified in [9] and listed in Table B.3.2-1 of [11].

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## 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 for UE Categories specified in [7].

### 208.1 CA\_1A-3C UE

UEs that conform to Release 11 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 [9] which are listed in Table B.4.3-1 of [11].

#### 208.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA\_1A-3C specified in [10] which are listed in Table B.2.4-1 of [11].

#### 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 [9] and listed in Table B.3.2-1 of [11].

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## 209 – 213 Void

## 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 [5].

**Table B.2.1-1: Common RRM requirements for a band independent of release**

Section / Clause	Description
4 <sup>Note 1</sup>	E-UTRAN RRC_IDLE state mobility
5	E-UTRAN RRC_CONNECTED state mobility
6 <sup>Note 2</sup>	RRC Connection Mobility Control
7 <sup>Note 3</sup>	Timing and signalling characteristics
8 <sup>Note 4</sup>	UE Measurements Procedures in RRC_CONNECTED State
9 <sup>Note 5</sup>	Measurements performance requirements for UE
A.4 <sup>Note 1</sup>	E-UTRAN RRC_IDLE state
A.5	E-UTRAN RRC CONNECTED Mode Mobility
A.6 <sup>Note 2</sup>	RRC Connection Control
A.7 <sup>Note 3</sup>	Timing and Signalling Characteristics
A.8 <sup>Note 4</sup>	UE Measurements Procedures
A.9 <sup>Note 5</sup>	Measurement Performance Requirements
<p>NOTE 1: All requirements and the corresponding test cases shall apply, except:</p> <ul style="list-style-type: none"> <li>- for supporting the corresponding band in Rel-9 and below: clause 4.3 (Minimization of Drive Tests).</li> </ul> <p>NOTE 2: All requirements and the corresponding test cases shall apply, except:</p> <ul style="list-style-type: none"> <li>- 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).</li> </ul> <p>NOTE 3: All requirements and corresponding test cases shall apply, except those defined in sections 7.4 and 7.5.</p> <p>NOTE 4: All requirements and corresponding test cases shall apply, except:</p> <ul style="list-style-type: none"> <li>- 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).</li> </ul> <p>NOTE 5: All requirements and corresponding test cases shall apply, except:</p> <ul style="list-style-type: none"> <li>- for supporting the corresponding band in Rel-8: clauses 9.1.9 (UE Rx-Tx time difference), 9.1.10 (Reference Signal Time Difference).</li> </ul> <p>NOTE 6: All requirements and test cases in this table shall apply, except those defined for: carrier aggregation; measurements under time-domain measurement resource restriction with or without CRS assistance information, in addition to the exceptions listed above.</p>	

## 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 [5].

**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	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	Measurement Performance Requirements
NOTE: Only requirements and test cases defined for intra-band contiguous carrier aggregation shall apply.	

## B.2.3 Common RRM requirements for an intra-band non-contiguous CA configuration

The requirements and test cases listed in Table B.2.3-1 are specified in [5].

**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	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	Measurement Performance Requirements
NOTE: Only requirements and test cases defined for intra-band non-contiguous carrier aggregation shall apply.	

Editor's note: references to this section are to be revisited when intra-band non-contiguous CA requirements are finalized in TS 36.101.



## B.2.4 Common RRM requirements for an inter-band CA configuration

The requirements and test cases listed in Table B.2.4-1 are specified in [5].

**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	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	Measurement Performance Requirements
NOTE: Only requirements and test cases defined for inter-band carrier aggregation shall apply.	

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## B.3 Common UE performance requirements

### B.3.1 Void

**Table B.3.1-1: Void**

### B.3.2 Common UE performance requirements and tests for different CA configurations and combination sets

The requirements and test cases listed in Table B.3.2-1 are specified in [6].

**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)
8.2.2.4.3	Closed-loop spatial multiplexing performance - Minimum Requirement Multi-Layer Spatial Multiplexing 4 Tx Antenna Port (TDD)
8.2.1.7	Carrier aggregation with power imbalance (FDD)
8.2.2.7	Carrier aggregation with power imbalance (TDD)
8.2.1.8	Intra-band non-contiguous carrier aggregation with timing offset (FDD)
8.7.1	Sustained downlink data rate provided by lower layers (FDD)
8.7.2	Sustained downlink data rate provided by lower layers (TDD)
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)
Note 1:	The applicability of requirements for different CA configurations and bandwidth combination sets is specified in Section 8.1.2.3 and 9.1.1.2 in [6].
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

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## 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 [6].

Table B.4.1-1: Common UE RF requirements for a band independent of releaseSection / 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 (NOTE)	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
NOTE: Requirements in section 6.5.2.2.1 and 6.5.2.3.1 as specified in [8] apply	

## 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 [6].

**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 inter-band CA configuration

The requirements and test cases listed in Table B.4.3-1 are specified in [6].

**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 [6].

**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 an intra-band non-contiguous CA configuration

The requirements and test cases listed in Table B.4.5-1 are specified in [6].

**Table B.4.5-1: Common UE RF requirements for an intra-band non-contiguous CA configuration independent of release**

<b>Section / Clause</b>	<b>Description</b>
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

## Annex C (informative): Change history

**Table C.1: Change History**

Date	TSG#	TSG Doc.	CR	Subject	Old	New
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.	0.1.0	0.2.0
03-2010	RP#47	RP-100162		TS36.307 v1.0.0 for approval	0.2.0	1.0.0
03-2010	RP#47	RP-100162		Approved by RAN	1.0.0	9.0.0
09-2010	RP-49	RP-100927	2	CR LTE_TDD_2600_US spectrum band definition additions to TS 36.307 V900	9.0.0	9.1.0
				Correction of section numbering	9.1.0	9.1.1
12-2010	RP-50	RP-101356	008	Band 42 and 43 parameters for UMTS/LTE 3500 (TDD) for TS 36.307	9.1.1	9.2.0
12-2010	RP-50	RP-101361	005	Introduction of L-band in TS 36.307	9.1.1	9.2.0
12-2010	RP-50	RP-101344	016	CR creating the rel-10 of the 36.307 specification	9.2.0	9.3.0
12-2010	RP-50	RP-101356	012	Band 42 and 43 parameters for UMTS/LTE 3500 (TDD) for TS 36.307	9.2.0	9.3.0
12-2010	RP-50			Raised to Rel-10 with no technical change	9.3.0	10.0.0
01-2011				Correction to history table	10.0.0	10.0.1
06-2011	RP-52	RP-110804	015	Add Expanded 1900 MHz Band (Band 25) in 36.307	10.0.1	10.1.0
06-2011	RP-52	RP-110812	022	Add 2GHz S-Band (Band 23) in 36.307 (Rel 10)	10.0.1	10.1.0
09-2011	RP-53	RP-111255	025	Add Band 22 for LTE/UMTS 3500 (FDD) to TS 36.307	10.1.0	10.2.0
03-2012	RP-55	RP-120305	029	Introduction of Band 26/XXVI to TS 36.307	10.2.0	11.0.0
2012-06	RP-56	RP-120789	043	Introduction of CA_1A-19A to TS 36.307	11.0.0	11.1.0
2012-06	RP-56	RP-120793	049	Introduction of APAC700(FDD) into TS 36.307 Rel-11	11.0.0	11.1.0
2012-06	RP-56	RP-120793	053	Introduction of APAC700(TDD) into TS 36.307 Rel-11	11.0.0	11.1.0
2012-06	RP-56	RP-120791	057	Introduction of e850_LB (Band 27) to TS 36.307	11.0.0	11.1.0
2012-09	RP-57	RP-121335	059	Introduction of CA_1A-21A to TS 36.307	11.1.0	11.2.0
2012-09	RP-57	RP-121295	070r1	Relation between EARFCN for overlapping bands with multiple FBI indication	11.1.0	11.2.0
2012-09	RP-57	RP-121338	072	36.307 CR for LTE_CA_B7	11.1.0	11.2.0
2012-09	RP-57	RP-121337	073	TS 36.307 CR for CA_38	11.1.0	11.2.0
2012-09	RP-57	RP-121327	074	Introduction of CA_B7_B20 in 36.307	11.1.0	11.2.0
2012-09	RP-57	RP-121329	075	Introduction of CA band combination Band3 + Band5 to TS 36.307	11.1.0	11.2.0
2012-09	RP-57	RP-121331	076	Introduction of CA_3A-20A to TS 36.307	11.1.0	11.2.0
2012-09	RP-57	RP-121334	077	Add requirements for inter-band CA of B_1-18 in TS36.307	11.1.0	11.2.0
2012-09	RP-57	RP-121333	078	Introduction of CA_8_20 RF requirements into TS36.307	11.1.0	11.2.0
2012-09	RP-57	RP-121324	079	Introduction of CA_B3_B7 in 36.307	11.1.0	11.2.0
2012-12	RP-58	RP-121890	086	Introduction of CA_4A-5A into 36.307	11.2.0	11.3.0
2012-12	RP-58	RP-121889	088	Introduction of CA band combination Band4 + Band13 to TS 36.307 (Rel-11)	11.2.0	11.3.0
2012-12	RP-58	RP-121896	091	Introduction of Band 5 + Band 17 inter-band CA configuration into 36.307	11.2.0	11.3.0
2012-12	RP-58	RP-121884	092	Introduction of CA_3A-8A to TS 36.307	11.2.0	11.3.0
2012-12	RP-58	RP-121894	093	Introduction of CA_B5_B12 in 36.307	11.2.0	11.3.0
2012-12	RP-58	RP-121887	095	Introduction of CA_4-12 into TS 36.307 (Rel-11)	11.2.0	11.3.0
2012-12	RP-58	RP-121882	097	[Rel-11] Introduction of inter-band CA_11-18 into TS36.307	11.2.0	11.3.0
2012-12	RP-58	RP-121861	099	Release-independent implementation of carrier aggregation configuration CA_4-7	11.2.0	11.3.0
2012-12	RP-58	RP-121901	101	Introduction of Band 29	11.2.0	11.3.0
2012-12	RP-58	RP-121718	0102	Introduction of CA band combination Band2 + Band17 to TS 36.307 (Rel-11)	11.2.0	11.3.0
2012-12	RP-58	RP-121720	0104	Introduction of CA band combination Band4 + Band17 to TS 36.307 (Rel-11)	11.2.0	11.3.0
2013-06	RP-60	RP-130771	107r1	Introduction of CA 1+8 into TS36.307(Rel-11)	11.3.0	11.4.0
2013-06	RP-60	RP-130782	110r1	Introduction of LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 28 to TS 36.307 Rel-11	11.3.0	11.4.0
2013-06	RP-60	RP-130785	113	Introduction of LTE Advanced inter-band Carrier Aggregation of Band 23 and Band 29 to TS 36.307 (Rel-11)	11.3.0	11.4.0
2013-06	RP-60	RP-130779	116	Introduction of LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 26 to TS 36.307 (Rel-11)	11.3.0	11.4.0
2013-06	RP-60	RP-130777	119	Introduction of CA_3A-19A to TS 36.307	11.3.0	11.4.0
2013-06	RP-60	RP-130783	122	Introduction of CA_19A-21A to TS 36.307	11.3.0	11.4.0
2013-06	RP-60	RP-130787	128	Introduction of CA_4A-4A into 36.307 Rel-11	11.3.0	11.4.0
2013-06	RP-60	RP-130775	130	Introduction of CA_2A-13A to TS 36.307	11.3.0	11.4.0
2013-06	RP-60	RP-130791	135r1	Introduction of Band 30	11.3.0	11.4.0
2013-06	RP-60	RP-130790	142	Introduction of LTE 450 into TS 36.307 R11	11.3.0	11.4.0



09-2013	RP-61	RP-131300	152	36.307 CR for LTE_CA_C_B3 (Rel-11)	11.4.0	11.5.0
09-2013	RP-61	RP-131303	155	Band 31 release independence for UE demodulation performance	11.4.0	11.5.0
09-2013	RP-61	RP-131285	158	[Rel-11] Modify requirements for CA_1A-18A in TS36.307	11.4.0	11.5.0
09-2013	RP-61	RP-131296	159	[Rel-11] Add requirements for CA_1A-26A into TS36.307	11.4.0	11.5.0
09-2013	RP-61	RP-131297	162	Introduction of CA_2A-4A to TS 36.307	11.4.0	11.5.0
09-2013	RP-61	RP-131298	166	Introduction of inter-band CA Band 2+5	11.4.0	11.5.0
12-2013	RP-62	RP-131965	174	Introduction of CA_23A-23A to TS 36.307	11.5.0	11.6.0
12-2013	RP-62	RP-131946	177r1	Introduction of CA band combination Band2 + Band12 to TS 36.307	11.5.0	11.6.0
12-2013	RP-62	RP-131954	180r1	Introduction of CA band combination Band12 + Band25 to TS 36.307	11.5.0	11.6.0
12-2013	RP-62	RP-131959	183	Introduction of LTE_CA_C_B27 to 36.307 (Rel-11)	11.5.0	11.6.0
12-2013	RP-62	RP-131939	189r1	Correction to release independent specification	11.5.0	11.6.0
12-2013	RP-62	RP-131957	191	Introduction of CA_23B to TS 36.307	11.5.0	11.6.0
12-2013	RP-62	RP-131961	193	Introduction of Intra-band non-contiguous CA in band 3 to TS 36.307	11.5.0	11.6.0
12-2013	RP-62	RP-131950	199	Introduction of CA band combination Band5 + Band25 to TS 36.307	11.5.0	11.6.0
12-2013	RP-62	RP-131948	203r1	Introduction of CA band combination B5 + B7 to TS 36.307	11.5.0	11.6.0
12-2013	RP-62	RP-131952	206	Introduction of CA band combination B7 + B28 to TS 36.307	11.5.0	11.6.0
12-2013	RP-62	RP-131925	215	UE performance requirements in release independent specification for CA	11.5.0	11.6.0
12-2013	RP-62	RP-131963	218	Introduction of CA_7A-7A to TS 36.307 Rel-11	11.5.0	11.6.0
12-2013	RP-62	RP-131924	223	Introducing 'General' clause with note referring to note in clause 4.4 in TS36.101, editorial corrections and modifications to Forward and Scope clauses	11.5.0	11.6.0
03-2014	RP-63	RP-140375	231r1	CR on UE performance requirements in release independent specification	11.6.0	11.7.0
03-2014	RP-63	RP-140371	234	Release independence of Band 14 HPUE	11.6.0	11.7.0
03-2014	RP-63	RP-140375	244r1	Correction to release independent specification	11.6.0	11.7.0
03-2014	RP-63	RP-140386	226r2	Introduction of CA band combination Band 3 and Band 27 to TS 36.307	11.6.0	11.7.0
03-2014	RP-63	RP-140188	247	Addition of bandwidth combination set for CA_2A-29A and CA_4A-29A	11.6.0	11.7.0
03-2014	RP-63	RP-140387	196r1	Introduction of CA_39A-41A to TS 36.307	11.6.0	11.7.0
03-2014	RP-63	RP-140388	209r2	Introduction of CA_39C to TS 36.307	11.6.0	11.7.0
06-2014	RP-64	RP-140911	258	Introduction of CA band combination Band 1 and Band 5 to TS 36.307	11.7.0	11.8.0
06-2014	RP-64	RP-140918	299	Correction of Common RRM requirements for CA in release independent specification (Rel-11)	11.7.0	11.8.0
06-2014	RP-64	RP-140926	279	Introduction of Band 20+32 CA	11.7.0	11.8.0
06-2014	RP-64	RP-140931	264	Introduction of CA 1+11 to 36.307 (Rel-11)	11.7.0	11.8.0
06-2014	RP-64	RP-140933	274	Introduction of CA band combination Band 4 and Band 27 to TS 36.307	11.7.0	11.8.0
06-2014	RP-64	RP-140935	277	Addition of bandwidth combination sets for CA_3A-5A, CA_4A-5A, and CA_4A-12A into 36.307	11.7.0	11.8.0
06-2014	RP-64	RP-140938	290	Introduction of CA_2A-2A to TS 36.307 Rel-11	11.7.0	11.8.0
06-2014	RP-64	RP-140940	318	Introduction of LTE_CA_NC_B42 into 36.307	11.7.0	11.8.0
06-2014	RP-64	RP-140942	339	Introduction of CA band combination Band 1 and Band 20 to TS 36.307	11.7.0	11.8.0
06-2014	RP-64	RP-140942	252	Introduction of CA band combination Band 1 and Band 20 to TS 36.307	11.7.0	11.8.0
06-2014	RP-64	RP-140943	346	Introduction of CA band combination CA_41D into TS 36.307 (Rel-11)	11.7.0	11.8.0
06-2014	RP-64	RP-140946	342	Introduction of CA_42C to TS 36.307	11.7.0	11.8.0
06-2014	RP-64	RP-140947	302	Introduction of Band 40D in release independent specification (Rel-11)	11.7.0	11.8.0
06-2014	RP-64	RP-140953	0308	Introduction of a new CA_7C bandwidth combination set into 36.307 (Rel-11)	11.7.0	11.8.0
09-2014	RP-65	RP-141111	0389r1	[Rel-11] Introduction of inter-band CA_18-28 into TS36.307	11.8.0	11.9.0
09-2014	RP-65	RP-141199	0365r1	Introduction of CA_B1_B3_B19 into TS 36.307 (Rel-11)	11.8.0	11.9.0
09-2014	RP-65	RP-141204	0362r1	Introduction of CA_B1_B3 into TS 36.307 (Rel-11)	11.8.0	11.9.0
09-2014	RP-65	RP-141330	0428r1	Introduction of CA_1A-7A into 36.307 (Rel-11)	11.8.0	11.9.0
09-2014	RP-65	RP-141339	0375r2	Introduction of CA_B1_B5_B7 into TS 36.307 (Rel-11)	11.8.0	11.9.0
09-2014	RP-65	RP-141466	0431	Introduction of 3 DL CA for Band 1+7+20	11.8.0	11.9.0
09-2014	RP-65	RP-141527	414r1	CR for 36.307 on CA UE performance requirement in Rel-11	11.8.0	11.9.0
09-2014	RP-65	RP-141538	342r2	Introduction of CA_42C to TS 36.307	11.8.0	11.9.0
09-2014	RP-65	RP-141540	302r2	Introduction of Band 40D in release independent specification (Rel-11)	11.8.0	11.9.0

09-2014	RP-65	RP-141541	412	CR on UE performance requirement for Band 31 for 36.307 Rel-11	11.8.0	11.9.0
09-2014	RP-65	RP-141551	359	Introduction of CA 8+11 to 36.307 (Rel-11)	11.8.0	11.9.0
09-2014	RP-65	RP-141552	378	Introduction of CA_41A-42A to TS 36.307	11.8.0	11.9.0
09-2014	RP-65	RP-141553	380	Introduction of a new bandwidth combination set for CA_25A-25A into 36.307	11.8.0	11.9.0
09-2014	RP-65	RP-141554	417r1	Introduction of requirements for 3DL inter-band carrier aggregation (FDD) and 2DL fallback	11.8.0	11.9.0
09-2014	RP-65	RP-141554	420r1	Introduction of requirements for 3DL inter-band carrier aggregation including Band 30 and 2DL fallback	11.8.0	11.9.0
09-2014	RP-65	RP-141555	383r1	Introduction of 3 Band Carrier Aggregation of Band 1, Band 3 and Band 5 to TS 36.307(Rel.11)	11.8.0	11.9.0
09-2014	RP-65	RP-141556	356r1	Introduction of 3 Band Carrier Aggregation (3DL/1UL) of Band 1, Band 3 and Band 8 to TS 36.307	11.8.0	11.9.0
09-2014	RP-65	RP-141558	401	Introduction of CA band combination Band 1, Band 3 and Band 20 to TS 36.307	11.8.0	11.9.0
09-2014	RP-65	RP-141560	351	Introduction of new CA_40C bandwidth combination set into 36.307	11.8.0	11.9.0
09-2014	RP-65	RP-141561	353r2	CR to 36.307 Rel-11: Introduction of CA_41C-41A and CA_41A-41C and New BW Combination Set for CA_41C	11.8.0	11.9.0
12-2014	RP-66	RP-142142	439r1	UE RF requirements in the release independent spec	11.9.0	11.10.0
12-2014	RP-66	RP-142184	442	Introduction of CA band combinations for dual uplink to TS 36.307 Rel-11	11.9.0	11.10.0
12-2014	RP-66	RP-142182	447	[Rel-11] Introduction of inter-band CA_1-28 into TS36.307	11.9.0	11.10.0
12-2014	RP-66	RP-142189	454	CR for TR 36.307: LTE_CA_B5_B13	11.9.0	11.10.0
12-2014	RP-66	RP-142190	457r2	Introduction of additional band combinations for 3DL inter-band CA	11.9.0	11.10.0
03-2015	RP-67	RP-150387	462	R4-73AH-0112: Correction of UE RF requirements for dual uplink to TS 36.307 Rel-11	11.10.0	11.11.0
03-2015	RP-67	RP-150392	467	CR for 36.307 on CA UE performance requirement in Rel-11	11.10.0	11.11.0
03-2015	RP-67	RP-150388	476r1	Release independent requirements for CA_42C	11.10.0	11.11.0
06-2015	RP-68	RP-151025	0472r3	Introduction of CA_42D to TS 36.307(Rel-11)	11.11.0	11.12.0
06-2015	RP-68	RP-150958	459r1	Introduction of dual uplink CA into 36.307	11.11.0	11.12.0
06-2015	RP-68	RP-150955	481r1	Clean up of requirements of band release independent	11.11.0	11.12.0
06-2015	RP-68	RP-150958	486	CR for CA UE performance tests in 36.307 in Rel-11	11.11.0	11.12.0
06-2015	RP-68	RP-150968	497r2	Release independence CR for 2DL inter-band CA Rel-11	11.11.0	11.12.0
06-2015	RP-68	RP-150972	501r1	Release independence CR for 3DL inter-band CA Rel-11	11.11.0	11.12.0
06-2015	RP-68	RP-150974	504r1	Release independence CR for 4DL inter-band CA Rel-11	11.11.0	11.12.0
06-2015	RP-68	RP-150975	507	Introduction of non-contiguous Carrier Aggregation (CA) in Band 42 for 3DL	11.11.0	11.12.0
09-2015	RP-69	RP-151505	515	Additional bandwidth combination set for LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 4	11.12.0	11.13.0
09-2015	RP-69	RP-151501	518	Introduction of finished 4DL inter-band CAs to TS 36.307	11.12.0	11.13.0
09-2015	RP-69	RP-151476	521r1	Correction of TS 36.307 for release independent	11.12.0	11.13.0
09-2015	RP-69	RP-151498	532	Rel-13 2DL combinations	11.12.0	11.13.0
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09-2015	RP-69	RP-151504	540	Introduction of 3DL/2UL inter-band CA combinations without self-interference issues	11.12.0	11.13.0

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## History

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