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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 10.11.0 Release 10)**



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Foreword

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1 Scope

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

2 References

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

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

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

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:

CA	Carrier Aggregation
FDD	Frequency Division Duplex

RRC	Radio Resource Control
RRM	Radio Resource Management
TDD	Time Division Duplex
UE	User Equipment

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 [9].

4 Void

5 Void

6 Void

7 Void

8 Void

9 Void

10 Void

11 Void

12 Void

13 Void

14 Void

15 Band 26 Independent of Release

Band 26 is specified in Release 11 but is defined as a release-independent frequency band. This approach aligns the Band 26 with other frequency bands when considering features that have to be supported in different releases.

15.1 Band 26 UE

UEs that conform to Release 10 and support Band 26 shall support the following requirements in Release 11.

15.1.1 RF Requirements

The UE shall comply with the RF requirements for Band 26 specified [2]. The requirements are:

Table 15.1.1-1: RF Requirements for Band 26 UE

Section / Clause	Description
5.5	Operating bands
5.6	Channel bandwidth
5.7	Channel arrangement
6.2	Transmit power
6.3	Output power dynamics
6.6	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

15.1.2 RRM Requirements

The UE shall comply with the RRM requirements for Band 26 specified in [3] which are listed in Table B.2.1-1 of [6].

Table 15.1.2-1: Void

15.1.3 Void

16 Band 27 Independent of Release

Band 27 is specified in Release 11, but is defined as a release-independent frequency band. This approach aligns the Band 27 with other frequency bands when considering features that have to be supported in different releases.

16.1 Band 27 UE

UEs that conform to Release 10 and support Band 27 shall support the following requirements in Release 11.

16.1.1 RF Requirements

The UE shall comply with the Release 11 RF requirements for Band 27 specified [2]. The requirements are:

Table 16.1.1-1: RF Requirements for Band 27 UE

Section / Clause	Description
5.5	Operating bands
5.6	Channel bandwidth
5.7	Channel arrangement
6.2	Transmit power
6.3	Output power dynamics
6.6	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

16.1.2 RRM Requirements

The UE shall comply with the RRM requirements for Band 27 specified in [3] which are listed in Table B.2.1-1 of [6].

Table 16.1.2-1: Void

16.1.3 Void

17 Band 28 Independent of Release

Band 28 is specified in Release 11 but is defined as a release-independent frequency band. This approach aligns the Band 28 with other frequency bands when considering features that have to be supported in different releases.

17.1 Band 28 UE

UEs that conform to Release 10 and support Band 28 shall support the following requirements in Release 11.

17.1.1 RF Requirements

The UE shall comply with the RF requirements for Band 28 specified [2]. The requirements are:

Table 17.1.1-1: RF Requirements for Band 28 UE

Section / Clause	Description
5.5	Operating bands
5.6	Channel bandwidth
5.7	Channel arrangement
6.2	Transmit power
6.3	Output power dynamics
6.6	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

17.1.2 RRM Requirements

The UE shall comply with the RRM requirements for Band 28 specified in [3] which are listed in Table B.2.1-1 of [6].

Table 17.1.2-1: Void

17.1.3 Void

18 Band 44 Independent of Release

Band 44 is specified in Release 11 but is defined as a release-independent frequency band. This approach aligns the Band 44 with other frequency bands when considering features that have to be supported in different releases.

18.1 Band 44 UE

UEs that conform to Release 10 and support Band 44 shall support the following requirements in Release 11.

18.1.1 RF Requirements

The UE shall comply with the RF requirements for Band 44 specified [2]. The requirements are:

Table 18.1.1-1: RF Requirements for Band 44 UE

Section / Clause	Description
5.5	Operating bands
5.6	Channel bandwidth
5.7	Channel arrangement
6.2	Transmit power
6.3	Output power dynamics
6.6	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

18.1.2 RRM Requirements

The UE shall comply with the RRM requirements for Band 44 specified in [3] which are listed in Table B.2.1-1 of [6].

Table 18.1.2-1: Void

18.1.3 Void

19 CA configuration CA_41C Independent of Release

CA_41C is specified in Release 11 but is defined as a release-independent E-UTRA CA configuration.

19.1 Band 41 UE

UEs that conform to Release 10 and support CA_41C shall support the following requirements in Release 11 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 [2]. These requirements are:

Table 19.1.1-1: RF Requirements for CA_41C UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for intra-band contiguous 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
6.6.2.1A	Spectrum emission mask for CA
6.6.2.2A	Additional spectrum emission mask for C A
6.6.3.2A	Spurious emission band UE co-existence for CA
7.3.1A	Reference sensitivity power level minimum requirements for CA
7.6.1.1A	In-band blocking minimum requirements for CA
7.6.2.1A	Out-of-band blocking minimum requirements for CA

19.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA_41C specified in [3] which are listed in Table B.2.2-1 of [6].

Table 19.1.1-2: Void

19.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_41C specified in [2], which are listed in Table B.3.2-1 of [6].

20 CA configuration CA_1A-19A Independent of Release

CA configuration CA_1A-19A is specified in Release 11 but is defined as a release-independent CA configuration for Rel-10 upwards.

20.1 CA_1A-19A UE

UEs that conform to Release 10 and support CA_1A-19A shall support the following requirements in Release 11.

20.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_1A-19A specified in [2]. These requirements are:

Table 20.1.1-1: RF Requirements for CA_1A-19A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

20.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-19A specified in [3] which are listed in Table B.2.4-1 of [6].

Table 20.1.2-1: Void

20.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_1A-19A specified in [2], which are listed in section B.3.3 of [6].

21 CA configuration CA_7C Independent of Release

CA configuration CA_7C is specified in Release 11 and Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

21.1 CA_7C UE

UEs that conform to Release 10 and support CA_7C shall support the following requirements in Release 12.

21.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_7C specified in [4]. These requirements are:

Table 21.1.1-1: RF Requirements for CA_7C UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for intra-band contiguous 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
6.6.2.1A	Spectrum emission mask for CA
6.6.3.2A	Spurious emission band UE co-existence for CA
7.3.1A	Reference sensitivity power level minimum requirements for CA
7.6.1.1A	In-band blocking minimum requirements for CA
7.6.2.1A	Out-of-band blocking minimum requirements for CA

21.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA_7C specified in [5] which are listed in Table B.2.2-1 of [7].

Table 21.1.1-2: Void

21.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_7C specified in [4], which are listed in section B.3.2 of [7].

22 CA configuration CA_38C Independent of Release

CA_38C is specified in Release 11 but is defined as a release-independent CA configuration for Rel-10 upwards.

22.1 Band 38 UE

UEs that conform to Release 10 and support CA_38C shall support the following requirements in Release 11 for both one uplink and simultaneous transmission on two uplinks.

22.1.1 RF Requirements

The UE shall comply with the following RF requirements for CA_38C specified in [2]. These requirements are:

Table 22.1.1-1: RF Requirements for CA_38C UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for intra-band contiguous 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
6.6.2.1A	Spectrum emission mask for CA
6.6.3.2A	Spurious emission band UE co-existence for CA
7.3.1A	Reference sensitivity power level minimum requirements for CA
7.6.1.1A	In-band blocking minimum requirements for CA
7.6.2.1A	Out-of-band blocking minimum requirements for CA

22.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA_38C specified in [3] which are listed in Table B.2.2-1 of [6].

Table 22.1.2-1: Void

22.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_38C specified in [2], which are listed in section B.3.2 of [6].

23 CA configuration CA_1A-18A Independent of Release

CA configuration CA_1A-18A is specified in Release 11 and 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

23.1 CA_1A-18A UE

UEs that conform to Release 10 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 [4]. These requirements are:

Table 23.1.1-1: RF Requirements for CA_1A-18A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

23.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-18A specified in [5] which are listed in Table B.2.4-1 of [6].

Table 23.1.2-1: Void

23.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_1A-18A specified in [4], which are listed in section B.3.2 of [7].

24 CA configuration CA_1A-21A Independent of Release

CA configuration CA_1A-21A is specified in Release 11 but is defined as a release-independent CA configuration for Rel-10 upwards.

24.1 CA_1A-21A UE

UEs that conform to Release 10 and support CA_1A-21A shall support the following requirements in Release 11.

24.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_1A-21A specified in [2]. These requirements are:

Table 24.1.1-1: RF Requirements for CA_1A-21A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

24.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-21A specified in [3] which are listed in Table B.2.4-1 of [6].

Table 24.1.2-1: Void

24.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_1A-21A specified in [2], which are listed in section B.3.3 of [6].

25 CA configuration CA_3A-5A Independent of Release

CA configuration CA_3A-5A is specified in Release 11 and Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

25.1 CA_3A-5A UE

UEs that conform to Release 10 and support CA_3A-5A shall support the following requirements in Release 12.

25.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_3A-5A specified in [4]. These requirements are:

Table 25.1.1-1: RF Requirements for CA_3A-5A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

25.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_3A-5A specified in [5] which are listed in Table B.2.4-1 of [7].

Table 25.1.2-1: Void

25.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_3A-5A specified in [4], which are listed in section B.3.3 of [7].

26 CA configuration CA_3A-7A Independent of Release

CA configuration CA_3A-7A is specified in Release 11 but is defined as a release-independent CA configuration for Rel-10 upwards.

26.1 CA_3A-7A UE

UEs that conform to Release 10 and support CA_3A-7A shall support the following requirements in Release 11.

26.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_3A-7A specified in [2]. These requirements are:

Table 26.1.1-1: RF Requirements for CA_3A-7A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

26.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_3A-7A specified in [3] which are listed in Table B.2.4-1 of [6].

Table 26.1.2-1: Void

26.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_3A-7A specified in [2], which are listed in section B.3.3 of [6].

27 CA configuration CA_3A-20A Independent of Release

CA configuration CA_3A-20A is specified in Release 11 and Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

27.1 CA_3A-20A UE

UEs that conform to Release 10 and support CA_3A-20A shall support the following requirements in Release 11 and Release 12.

27.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_3A-20A specified in 3GPP TS TS 36.101 [4]. These requirements are:

Table 27.1.1-1: RF Requirements for CA_3A-20A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

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 [6].

Table 27.1.2-1: Void

27.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_3A-20A specified in [2], which are listed in section B.3.3 of [6].

28 CA configuration CA_7A-20A Independent of Release

CA configuration CA_7A-20A is specified in Release 11 but is defined as a release-independent CA configuration for Rel-10 upwards.

28.1 CA_7A-20A UE

UEs that conform to Release 10 and support CA_7A-20A shall support the following requirements in Release 11.

28.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_7A-20A specified in [2]. These requirements are:

Table 28.1.1-1: RF Requirements for CA_7A-20A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

28.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_7A-20A specified in [3] which are listed in Table B.2.4-1 of [6].

Table 28.1.2-1: Void

28.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_7A-20A specified in [2], which are listed in section B.3.3 of [6].

29 CA configuration CA_8A-20A Independent of Release

CA configuration CA_8A-20A is specified in Release 11 but is defined as a release-independent CA configuration for Rel-10 upwards.

29.1 CA_8A-20A UE

UEs that conform to Release 10 and support CA_8A-20A shall support the following requirements in Release 11.

29.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_8A-20A specified in [2]. These requirements are:

Table 29.1.1-1: RF Requirements for CA_8A-20A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

29.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_8A-20A specified in [3] which are listed in Table B.2.4-1 of [6].

Table 29.1.2-1: Void

29.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_8A-20A specified in [2], which are listed in section B.3.3 of [6].

30 CA configuration CA_2A-17A Independent of Release

CA configuration CA_2A-17A is specified in Release 11 but is defined as a release-independent CA configuration for Rel-10 upwards.

30.1 CA_2A-17A UE

UEs that conform to Release 10 and support CA_2A-17A shall support the following requirements in Release 11.

30.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_2A-17A specified in [2]. These requirements are:

Table 30.1.1-1: RF Requirements for CA_2A-17A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

30.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2A-17A specified in [3] which are listed in Table B.2.4-1 of [6].

Table 30.1.2-1: Void

30.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_2A-17A specified in [2], which are listed in section B.3.3 of [6].

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 10 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 [4]. These requirements are:

Table 31.1.1-1: RF Requirements for CA_2A-29A UE

Section / Clause	Description
5.5	Operating bands
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
5.7	Channel arrangement
6.2.5A	Configured transmitted Power for CA
7.3.1A	Reference sensitivity power level minimum requirements for CA
7.5.1A	ACS minimum requirements for CA
7.6.1.1A	In-band blocking minimum requirements for CA
7.7.1A	Spurious response for CA
7.8.1A	Intermodulation characteristics minimum requirement for CA

31.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2A-29A specified in [5] which are listed in Table B.2.4-1 of [7].

Table 31.1.2-1: Void

31.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_2A-29A specified in [4], which are listed in section B.3.3 of [7].

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 10 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 [4]. These requirements are:

Table 32.1.1-1: RF Requirements for CA_4A-29A UE

Section / Clause	Description
5.5	Operating bands
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
5.7	Channel arrangement
6.2.5A	Configured transmitted Power for CA
7.3.1A	Reference sensitivity power level minimum requirements for CA
7.5.1A	ACS minimum requirements for CA
7.6.1.1A	In-band blocking minimum requirements for CA
7.7.1A	Spurious response for CA
7.8.1A	Intermodulation characteristics minimum requirement for CA

32.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-29A specified in [5] which are listed in Table B.2.4-1 of [7].

Table 32.1.2-1: Void

32.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_4A-29A specified in [4], which are listed in section B.3.3 of [7].

33 CA configuration CA_3A-8A Independent of Release

CA configuration CA_3A-8A is specified in Release 11 but is defined as a release-independent CA configuration for Rel-10 upwards.

33.1 CA_3A-8A UE

UEs that conform to Release 10 and support CA_3A-8A shall support the following requirements in Release 11.

33.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_3A-8A specified in [2]. These requirements are:

Table 33.1.1-1: RF Requirements for CA_3A-8A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

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 [6].

Table 33.1.2-1: Void

33.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_3A-8A specified in [2], which are listed in section B.3.3 of [6].

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 10 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 [4]. These requirements are:

Table 34.1.1-1: RF Requirements for CA_4A-5A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

34.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-5A specified in [5] which are listed in Table B.2.4-1 of [7].

Table 34.1.2-1: Void

34.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_4A-5A specified in [4], which are listed in section B.3.3 of [7].

35 CA configuration CA_4A-12A Independent of Release

CA configuration CA_4A-12A is specified in Release 11 and Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

35.1 CA_4A-12A UE

UEs that conform to Release 10 and support CA_4A-12A shall support the following requirements in Release 12.

35.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_4A-12A specified in [4] which are:

Table 35.1.1-1: RF Requirements for CA_4A-12A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

35.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-12A specified in [5] which are listed in Table B.2.4-1 of [7].

Table 35.1.2-1: Void

35.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_4A-12A specified in [4], which are listed in section B.3.3 of [7].

36 CA configuration CA_4A-13A Independent of Release

CA configuration CA_4A-13A is specified in Release 11 but is defined as a release-independent CA configuration for Rel-10 upwards.

36.1 CA_4A-13A UE

UEs that conform to Release 10 and support CA_4A-13A shall support the following requirements in Release 11.

36.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_4A-13A specified in [2]. These requirements are:

Table 36.1.1-1: RF Requirements for CA_4A-13A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

36.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-13A specified in [3] which are listed in Table B.2.4-1 of [6].

Table 36.1.2-1: Void

36.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_4A-13A specified in [2], which are listed in section B.3.3 of [6].

37 CA configuration CA_4A-17A Independent of Release

CA configuration CA_4A-17A is specified in Release 11 but is defined as a release-independent CA configuration for Rel-10 upwards.

37.1 CA_4A-17A UE

UEs that conform to Release 10 and support CA_4A-17A shall support the following requirements in Release 11.

37.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_4A-17A specified in [2]. These requirements are:

Table 37.1.1-1: RF Requirements for CA_4A-17A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

37.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-17A specified in [3] which are listed in Table B.2.4-1 of [6].

Table 37.1.2-1: Void

37.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_4A-17A specified in [2], which are listed in section B.3.3 of [6].

38 CA configuration CA_5A-12A Independent of Release

CA configuration CA_5A-12A is specified in Release 11 but is defined as a release-independent CA configuration for Rel-10 upwards.

38.1 CA_5A-12A UE

UEs that conform to Release 10 and support CA_5A-12A shall support the following requirements in Release 11.

38.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_5A-12A specified in [2]. These requirements are:

Table 38.1.1-1: RF Requirements for CA_5A-12A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

38.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_5A-12A specified in [3] which are listed in Table B.2.4-1 of [6].

Table 38.1.2-1: Void

38.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_5A-12A specified in [2], which are listed in section B.3.3 of [6].

39 CA configuration CA_5A-17A Independent of Release

CA configuration CA_5A-17A is specified in Release 11 but is defined as a release-independent CA configuration for Rel-10 upwards.

39.1 CA_5A-17A UE

UEs that conform to Release 10 and support CA_5A-17A shall support the following requirements in Release 11.

39.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_5A-17A specified in [2]. These requirements are:

Table 39.1.1-1: RF Requirements for CA_5A-17A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

39.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_5A-17A specified in [3] which are listed in Table B.2.4-1 of [6].

Table 39.1.2-1: Void

39.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_5A-17A specified in [2], which are listed in Table section B.3.3 of [6].

40 CA configuration CA_4A-7A Independent of Release

CA_4A-7A is specified in Release 11 but is defined as a release-independent E-UTRA CA configuration.

40.1 CA_4A-7A UE

UEs that conform to Release 10 and support CA_4A-7A shall support the following requirements in Release 11 for one uplink.

40.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_4A-7A specified in [2]. These requirements are:

Table 40.1.1-1: RF Requirements for CA_4A-7A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

40.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-7A specified in [3] which are listed in Table B.2.4-1 of [6].

Table 40.1.2-1: Void

40.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_4A-7A specified in [2], which are listed in section B.3.3 of [6].

41 CA configuration CA_11A-18A Independent of Release

CA configuration CA_11A-18A is specified in Release 11 but is defined as a release-independent CA configuration for Rel-10 upwards.

41.1 CA_11A-18A UE

UEs that conform to Release 10 and support CA_11A-18A shall support the following requirements in Release 11.

41.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_11A-18A specified in [2]. These requirements are:

Table 41.1.1-1: RF Requirements for CA_11A-18A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

41.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_11A-18A specified in [3] which are listed in Table B.2.4-1 of [6].

Table 41.1.2-1: Void

41.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_11A-18A specified in [2], which are listed in section B.3.3 of [6].

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 10 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 [4]. The requirements are:

Table 42.1.1-1: RF Requirements for Band 30 UE

Section / Clause	Description
5.5	Operating bands
5.6	Channel bandwidth
5.7	Channel arrangement
6.2	Transmit power
6.3	Output power dynamics
6.6	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

42.1.2 RRM Requirements

The UE shall comply with the RRM requirements for Band 30 specified in [5] which are listed in Table B.2.1-1 of [7].

Table 42.1.2-1: Void

42.1.3 Void

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 10 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 [4]. The requirements are:

Table 43.1.1-1: RF Requirements for Band 31 UE

Section / Clause	Description
5.5	Operating bands
5.6	Channel bandwidth
5.7	Channel arrangement
6.2	Transmit power
6.3	Output power dynamics
6.6	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

43.1.2 RRM Requirements

The UE shall comply with the RRM requirements for Band 31, for 5 MHz only, specified in [5] which are listed in Table B.2.1-1 of [7].

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 [4] 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	1B
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	PHICH transmit diversity performance	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 is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

44.1 CA_1A-8A UE

UEs that conform to Release 10 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 [4]. These requirements are:

Table 44.1.1-1: RF Requirements for CA_1A-8A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

44.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-8A specified in [5] which are listed in Table B.2.4-1 of [7].

Table 44.1.2-1: Void

44.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_1A-8A specified in [4], which are listed in section B.3.3 of [7].

45 CA configuration CA_2A-13A Independent of Release

CA configuration CA_2A-13A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

45.1 CA_2A-13A UE

UEs that conform to Release 10 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 [4]. These requirements are:

Table 45.1.1-1: RF Requirements for CA_2A-13A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

45.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2A-13A specified in [5] which are listed in Table B.2.4-1 of [7].

Table 45.1.2-1: Void

45.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_2A-13A specified in [4], which are listed in section B.3.3 of [7].

46 CA configuration CA_3A-19A Independent of Release

CA configuration CA_3A-19A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

46.1 CA_3A-19A UE

UEs that conform to Release 10 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 [4]. These requirements are:

Table 46.1.1-1: RF Requirements for CA_3A-19A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

46.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_3A-19A specified in [5] which are listed in Table B.2.4-1 of [7].

Table 46.1.2-1: Void

46.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_3A-19A specified in [4], which are listed in section B.3.3 of [7].

47 CA configuration CA_3A-26A Independent of Release

CA configuration CA_3A-26A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

47.1 CA_3A-26A UE

UEs that conform to Release 10 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 [4]. These requirements are:

Table 47.1.1-1: RF Requirements for CA_3A-26A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

47.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_3A-26A specified in [5] which are listed in Table B.2.4-1 of [7].

Table 47.1.2-1: Void

47.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_3A-26A specified in [4], which are listed in section B.3.3 of [7].

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 10 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 [4]. These requirements are:

Table 48.1.1-1: RF Requirements for CA_3A-28A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

48.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_3A-28A specified in [5] which are listed in Table B.2.4-1 of [7].

Table 48.1.2-1: Void

48.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_3A-28A specified in [4], which are listed in section B.3.3 of [7].

49 CA configuration CA_19A-21A Independent of Release

CA configuration CA_19A-21A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

49.1 CA_19A-21A UE

UEs that conform to Release 10 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 [4]. These requirements are:

Table 49.1.1-1: RF Requirements for CA_19A-21A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

49.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_19A-21A specified in [5] which are listed in Table B.2.4-1 of [7].

Table 49.1.2-1: Void

49.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_19A-21A specified in [4], which are listed in section B.3.3 of [7].

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 10 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 [4]. These requirements are:

Table 50.1.1-1: RF Requirements for CA_23A-29A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

50.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_23A-29A specified in [5] which are listed in Table B.2.4-1 of [7].

Table 50.1.2-1: Void

50.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_23A-29A specified in [4], which are listed in section B.3.3 of [7].

51 Void

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 10 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 [4]. These requirements are:

Table 52.1.1-1: RF Requirements for CA_3C UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for intra-band contiguous CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5A	Configured transmitted power for CA
6.6.2.1A	Spectrum emission mask for CA
7.3.1A	Reference sensitivity power level minimum requirements for CA
7.6.1.1A	In-band blocking minimum requirements for CA
7.6.2.1A	Out-of-band blocking minimum requirements for CA

52.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA_3C specified in [5] which are listed in Table B.2.2-1 of [7].

Table 52.1.2-2: Void

52.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_3C specified in [4], which are listed in section B.3.2 of [7].

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.

53.1 CA_1A-26A UE

UEs that conform to Release 10 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 [4]. These requirements are:

Table 53.1.1-1: RF Requirements for CA_1A-26A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

53.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-26A specified in [5] which are listed in Table B.2.4-1 of [7].

Table 53.1.2-1: Void

53.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_1A-26A specified in [4], which are listed in section B.3.3 of [7].

54 CA configuration CA_2A-4A Independent of Release

CA configuration CA_2A-4A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

54.1 CA_2A-4A UE

UEs that conform to Release 10 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]. These requirements are:

Table 54.1.1-1: RF Requirements for CA_2A-4A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

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 [7].

Table 54.1.2-1: Void

54.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_2A-4A specified in [4], which are listed in section B.3.3 of [7].

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 10 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 [4]. These requirements are:

Table 55.1.1-1: RF Requirements for CA_2A-5A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

55.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2A-5A specified in [5] which are listed in Table B.2.4-1 of [7].

Table 55.1.2-1: Void

55.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_2A-5A specified in [4], which are listed in section B.3.3 of [7].

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 10 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 [4]. These requirements are:

Table 56.1.1-1: RF Requirements for CA_23B UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A	Nominal Guard Band for CA Bandwidth Class B
5.6A1	Channel bandwidths per operating band for CA
7.3.1A	Minimum requirements (QPSK) for CA, (REFSENS)
7.4.1A	Minimum requirements for CA, (Maximum input level)
7.5.1A	Minimum requirements for CA, (Adjacent channel selectivity)
7.6.1.1A	Minimum requirements for CA, (In-band blocking)
7.6.2.1A	Minimum requirements for CA, (Out of band blocking)
7.6.3.1A	Minimum requirements for CA, (Narrow band blocking)
7.7.1A	Minimum requirements for CA, (Spurious response)
7.8.1A	Minimum requirements for CA, (Wideband intermodulation)
7.10.1A	Receiver image - Minimum requirements for CA

56.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_23B specified in [5] which are listed in Table B.2.2-1 of [7].

Table 56.1.2-1: Void

56.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_23B specified in [4], which are listed in section B.3.2 of [7].

57 A 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 10 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 [4]. These requirements are:

Table 57.1.1-1: RF Requirements for CA_27B UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A	Nominal Guard Band for CA Bandwidth Class B
5.6A.1	Channel bandwidths per operating band for CA
7.3.1A	Reference sensitivity power level minimum requirements for CA
7.6.1.1A	In-band blocking minimum requirements for CA
7.6.2.1A	Out-of-band blocking minimum requirements for CA
7.6.3.1A	Narrow band blocking - Minimum requirements for CA
7.7.1A	Spurious response
7.8.1A	Wide band intermodulation - Minimum requirements for CA
7.10.1A	Receiver image - Minimum requirements for CA

57.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_27B specified in [5] which are listed in Table B.2.2-1 of [7].

Table 57.1.1-2: Void

57.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_27B specified in [4], which are listed in section B.3.2 of [7].

58 CA configuration CA_2A-12A Independent of Release

CA configuration CA_2A-12A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

58.1 CA_2A-12A UE

UEs that conform to Release 10 and support CA_2A-12A shall support the following requirements in Release 12.

58.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_2A-12A specified in [4]. These requirements are:

Table 58.1.1-1: RF Requirements for CA_2A-12A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

58.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2A-12A specified in [5] which are listed in Table B.2.4-1 of [7].

Table 58.1.2-1: Void

58.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_2A-12A specified in [4], which are listed in section B.3.3 of [7].

59 CA configuration CA_5A-7A Independent of Release

CA configuration CA_5A-7A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

59.1 CA_5A-7A UE

UEs that conform to Release 10 and support CA_5A-7A shall support the following requirements in Release 12.

59.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_5A-7A specified in [4]. These requirements are:

Table 59.1.1-1: RF Requirements for CA_5A-7A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

59.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_5A-7A specified in [5] which are listed in Table B.2.4-1 of [7].

Table 59.1.2-1: Void

59.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_5A-7A specified in [4], which are listed in section B.3.3 of [7].

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 10 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 [4]. These requirements are:

Table 60.1.1-1: RF Requirements for CA_5A-25A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

60.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_5A-25A specified in [5] which are listed in Table B.2.4-1 of [7].

Table 60.1.2-1: Void

60.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_5A-25A specified in [4], which are listed in section B.3.3 of [7].

61 CA configuration CA_7A-28A Independent of Release

CA configuration CA_7A-28A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

61.1 CA_7A-28A UE

UEs that conform to Release 10 and support CA_7A-28A shall support the following requirements in Release 12.

61.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_7A-28A specified in [4]. These requirements are:

Table 61.1.1-1: RF Requirements for CA_7A-28A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

61.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_7A-28A specified in [5] which are listed in Table B.2.4-1 of [7].

61.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_7A-28A specified in [4], which are listed in section B.3.3 of [7].

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 10 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 [4]. These requirements are:

Table 62.1.1-1: RF Requirements for CA_12A-25A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

62.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_12A-25A specified in [5] which are listed in Table B.2.4-1 of [7].

Table 62.1.2-1: Void

62.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_12A-25A specified in [4], which are listed in section B.3.3 of [7].

63 Void

64 Void

65 Void

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 10 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 [4]. These requirements are:

Table 66.1.1-1: RF Requirements for CA_3A-27A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

66.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_3A-27A specified in [5] which are listed in Table B.2.4-1 of [7].

66.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_3A-27A specified in [4], which are listed in Table B.3.3-1 of [7].

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 10 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 [4]. These requirements are:

Table 67.1.1-1: RF Requirements for CA_39C UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for intra-band contiguous 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
6.6.2.1A	Spectrum emission mask for CA
6.6.3.2A	Spurious emission band UE co-existence for CA
7.3.1A	Reference sensitivity power level minimum requirements for CA
7.6.1.1A	In-band blocking minimum requirements for CA
7.6.2.1A	Out-of-band blocking minimum requirements for CA

67.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA_39C specified in [5] which are listed in Table B.2.2-1 of [7].

68 CA configuration CA_39A-41A Independent of Release

CA configuration CA_39A-41A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

68.1 CA_39A-41A UE

UEs that conform to Release 10 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 [4]. These requirements are:

Table 68.1.1-1: RF Requirements for CA_39A-41A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

68.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_39A-41A specified in [5] which are listed in Table B.2.4-1 of [7].

68.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_39A-41A specified in [4], which are listed in Table B.3.3-1 of [7].

69 Band 14 Class 1 HPUE Independent of Release

Band 14 class 1 high power UE is specified in Release 11 but is defined as a release -independent feature and frequency band.

69.1 Band 14 HPUE

UEs that conform to Release 10 and support Band 14 class 1 high power UE shall support the following requirements in Release 11 in addition to all other requirements for Band 14 class 3 UE specified in [9].

69.1.1 RF Requirements

The UE shall comply with the RF requirements for Band 14 class 1 HPUE specified in [2]. These requirements are:

Table 69.1.1-1: RF Requirements for Band 14 class 1 HPUE

Section / Clause	Description
6.2	Transmit power
6.6	Output RF spectrum emissions

70 CA configuration CA_1A-5A Independent of Release

CA configuration CA_1A-5A with bandwidth combination set1 is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

70.1 CA_1A-5A UE

UEs that conform to Release 10 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 [4]. These requirements are:

Table 70.1.1-1: RF Requirements for CA_1A-5A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

70.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-5A specified in [5] which are listed in Table B.2.4-1 of [7].

70.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_1A-5A specified in [4], which are listed in Table B.3.3-1 of [7].

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 10 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 [4]. These requirements are:

Table 71.1.1-1: RF Requirements for CA_1A-11A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

71.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-11A specified in [5] which are listed in Table B.2.4-1 of [7].

71.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_1A-11A specified in [4], which are listed in Table B.3.3-1 of [7].

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 10 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 [4]. These requirements are:

Table 72.1.1-1: RF Requirements for CA_1A-20A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

72.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-20A specified in [5] which are listed in Table B.2.4-1 of [7].

72.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_1A-20A specified in [4], which are listed in Table B.3.3-1 of [7].

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 10 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 [4]. These requirements are:

Table 73.1.1-1: RF Requirements for CA_4A-27A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

73.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-27A specified in [5] which are listed in Table B.2.4-1 of [7].

73.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_4A-27A specified in [4], which are listed in Table B.3.3-1 of [7].

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 10 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 [4]. These requirements are:

Table 74.1.1-1: RF Requirements for CA_20A-32A UE

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

74.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_20A-32A specified in [5] which are listed in Table B.2.4-1 of [7].

74.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_20A-32A specified in [4], which are listed in section B.3.3 of [7].

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-10 upwards.

75.1 CA_41D UE

UEs that conform to Release 10 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 [4]. These requirements are:

Table 75.1.1-1: RF Requirements for CA_41D UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for CA
7.3.1A	Minimum requirements (QPSK) for CA
7.6.1.1A	Minimum requirements for CA
7.6.2.1A	Minimum requirements for CA

75.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_41D specified in [5] which are listed in Table B.2.2-1 of [7].

75.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_41D specified in [4], which are listed in Table B.3.2-1 of [7].

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 10 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 [4]. These requirements are:

Table 76.1.1-1: RF Requirements for CA_42C UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for intra-band contiguous 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
6.6.2.1A	Spectrum emission mask for CA
6.6.3.2A	Spurious emission band UE co-existence for CA
6.6.3.3A	Additional spurious emissions for CA
7.3.1A	Reference sensitivity power level minimum requirements for CA
7.6.1.1A	In-band blocking minimum requirements for CA
7.6.2.1A	Out-of-band blocking minimum requirements for CA

76.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA_42C specified in [5] which are listed in Table B.2.2-1 of [7].

76.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_42C specified in [2], which are listed in Table B.3.2-1 of [6].

Annex A (informative): Frequency arrangement for overlapping operating bands

The following information is provided in order to assist a UE derive the DL EARFCN and UL EARFCN in a multi-band environment, in which multiple overlapping operating bands may be indicated in the fields *freqBandIndicator* and *multiBandInfoList* of SIB1.

The overlapping bands, independent of release, which may be indicated in a cell are shown in Table A-1 for applicable E-UTRA bands. The DL EARFCN and UL EARFCN are derived according to [2].

Table A-1: Overlapping bands (multi-band environments) for each E-UTRA band

E-UTRA Operating Band	Overlapping E-UTRA operating bands	Duplex Mode
2	25	FDD
3	9	FDD
4	10	FDD
5	18, 19, 26	FDD
9	3	FDD
10	4	FDD
12	17	FDD
17	12	FDD
18	5, 26, 27	FDD
19	5, 26	FDD
25	2	FDD
26	5, 18, 19, 27	FDD
27	18, 26	FDD
33	39	TDD
38	41	TDD
39	33	TDD
41	38	TDD

Annex B (normative): Common Requirements

B.1 Purpose of annex

The purpose of Annex B is to group the requirements that are common for several bands or CA configurations in this specification and use the common tables as references.

B.2 Common RRM requirements

B.2.1 Common RRM requirements for a band independent of release

The requirements and test cases listed in Table B.2.1-1 are specified in [8].

Table B.2.1-1: Common RRM requirements for a band independent of release

Section / Clause	Description
4 ^{Note 1}	E-UTRAN RRC_IDLE state mobility
5	E-UTRAN RRC_CONNECTED state mobility
6 ^{Note 2}	RRC Connection Mobility Control
7 ^{Note 3}	Timing and signalling characteristics
8 ^{Note 4}	UE Measurements Procedures in RRC_CONNECTED State
9 ^{Note 5}	Measurements performance requirements for UE
A.4 ^{Note 1}	E-UTRAN RRC_IDLE state
A.5	E-UTRAN RRC CONNECTED Mode Mobility
A.6 ^{Note 2}	RRC Connection Control
A.7 ^{Note 3}	Timing and Signalling Characteristics
A.8 ^{Note 4}	UE Measurements Procedures
A.9 ^{Note 5}	Measurement Performance Requirements
<p>NOTE 1: All requirements and the corresponding test cases shall apply, except: - for supporting the corresponding band in Rel-9 and below: clause 4.3 (Minimization of Drive Tests).</p> <p>NOTE 2: All requirements and the corresponding test cases shall apply, except: - for supporting the corresponding band in Rel-8: clauses 6.3 (RRC Connection Release with Redirection), 6.4 (CSG Proximity Indication for E-UTRAN and UTRAN).</p> <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: - 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).</p> <p>NOTE 5: All requirements and corresponding test cases shall apply, except: - for supporting the corresponding band in Rel-8: clauses 9.1.9 (UE Rx-Tx time difference), 9.1.10 (Reference Signal Time Difference).</p> <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, 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 [8].

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.8	UE Measurements Procedures
A.9	Measurement Performance Requirements
NOTE:	Only requirements and test cases in this table defined for intra-band contiguous carrier aggregation shall apply.

B.2.3 Common RRM requirements for an inter-band CA configuration

The requirements and test cases listed in Table B.2.3-1 are specified in [8].

Table B.2.3-1: 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.8	UE Measurements Procedures
A.9	Measurement Performance Requirements
NOTE:	Only requirements and test cases in this table defined for inter-band carrier aggregation shall apply.

B.3 Common UE performance requirements

B.3.1 Void

Table B.3.1-1: Void

B.3.2 Void

Table B.3.2-1: Void

B.3.3 Void

Table B.3.3-1: Void

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	028	Introduction of Band 26/XXVI to TS 36.307	10.2.0	10.3.0
2012-06	RP-56	RP-120778	036r1	Correction of references	10.3.0	10.4.0
2012-06	RP-56	RP-120789	042	Introduction of CA_1A-19A to TS 36.307	10.3.0	10.4.0
2012-06	RP-56	RP-120785	044r1	Backdating CA_41C to Rel-10	10.3.0	10.4.0
2012-06	RP-56	RP-120793	048	Introduction of APAC700(FDD) into TS 36.307 Rel.10	10.3.0	10.4.0
2012-06	RP-56	RP-120793	052	Introduction of APAC700(TDD) into TS 36.307 Rel.10	10.3.0	10.4.0
2012-06	RP-56	RP-120791	056	Introduction of e850_LB (Band 27) to TS 36.307	10.3.0	10.4.0
2012-09	RP-57	RP-121335	058	Introduction of CA_1A-21A to TS 36.307	10.4.0	10.5.0
2012-09	RP-57	RP-121337	060r1	TS 36.307 CR for CA_38	10.4.0	10.5.0
2012-09	RP-57	RP-121327	061	Introduction of CA_B7_B20 in 36.307	10.4.0	10.5.0
2012-09	RP-57	RP-121334	062r1	Add requirements for inter-band CA of B_1-18 in TS36.307	10.4.0	10.5.0
2012-09	RP-57	RP-121329	063	Introduction of CA band combination Band3 + Band5 to TS 36.307	10.4.0	10.5.0
2012-09	RP-57	RP-121338	064r1	36.307 CR for LTE_CA_B7	10.4.0	10.5.0
2012-09	RP-57	RP-121331	065	Introduction of CA_3A-20A to TS 36.307	10.4.0	10.5.0
2012-09	RP-57	RP-121333	066	Introduction of CA_8_20 RF requirements into TS36.307	10.4.0	10.5.0
2012-09	RP-57	RP-121295	069r1	Relation between EARFCN for overlapping bands with multiple FBI indication	10.4.0	10.5.0
2012-09	RP-57	RP-121324	071	Introduction of CA_B3_B7 in 36.307	10.4.0	10.5.0
2012-12	RP-58	RP-121884	080	Introduction of CA_3A-8A to TS 36.307	10.5.0	10.6.0
2012-12	RP-58	RP-121890	085	Introduction of CA_4A-5A into 36.307	10.5.0	10.6.0
2012-12	RP-58	RP-121889	087	Introduction of CA band combination Band4 + Band13 to TS 36.307 (Rel-10)	10.5.0	10.6.0
2012-12	RP-58	RP-121894	089	Introduction of CA_B5_B12 in 36.307	10.5.0	10.6.0
2012-12	RP-58	RP-121896	090	Introduction of Band 5 + Band 17 inter-band CA configuration into 36.307	10.5.0	10.6.0
2012-12	RP-58	RP-121887	094	Introduction of CA_4-12 into TS 36.307 (Rel-10)	10.5.0	10.6.0
2012-12	RP-58	RP-121882	096	[Rel-10] Introduction of inter-band CA_11-18 into TS36.307	10.5.0	10.6.0
2012-12	RP-58	RP-121861	098	Release-independent implementation of carrier aggregation configuration CA_4-7	10.5.0	10.6.0
2012-12	RP-58	RP-121901	100	Introduction of Band 29	10.5.0	10.6.0
2012-12	RP-58	RP-121719	0103	Introduction of CA band combination Band2 + Band17 to TS 36.307 (Rel-10)	10.5.0	10.6.0
2012-12	RP-58	RP-121721	0105	Introduction of CA band combination Band4 + Band17 to TS 36.307 (Rel-10)	10.5.0	10.6.0
2013-06	RP-60	RP-130771	106r1	Introduction of CA 1+8 into TS36.307(Rel-10)	10.6.0	10.7.0
2013-06	RP-60	RP-130782	109r1	Introduction of LTE Advanced inter-band Carrier Aggregation	10.6.0	10.7.0

				of Band 3 and Band 28 to TS 36.307 Rel-10		
2013-06	RP-60	RP-130785	112	Introduction of LTE Advanced inter-band Carrier Aggregation of Band 23 and Band 29 to TS 36.307 (Rel-10)	10.6.0	10.7.0
2013-06	RP-60	RP-130779	115	Introduction of LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 26 to TS 36.307 (Rel-10)	10.6.0	10.7.0
2013-06	RP-60	RP-130777	118	Introduction of CA_3A-19A to TS 36.307	10.6.0	10.7.0
2013-06	RP-60	RP-130783	121	Introduction of CA_19A-21A to TS 36.307	10.6.0	10.7.0
2013-06	RP-60	RP-130775	129	Introduction of CA_2A-13A to TS 36.307	10.6.0	10.7.0
2013-06	RP-60	RP-130791	134r1	Introduction of Band 30	10.6.0	10.7.0
2013-06	RP-60	RP-130790	141	Introduction of LTE 450 into TS 36.307 R10	10.6.0	10.7.0
2013-06	RP-60	RP-130765	145	Corrections to release independent specifications	10.6.0	10.7.0
09-2013	RP-61	RP-131300	151	36.307 CR for LTE_CA_C_B3 (Rel-10)	10.7.0	10.8.0
09-2013	RP-61	RP-131303	154r1	Band 31 release independence for UE demodulation performance	10.7.0	10.8.0
09-2013	RP-61	RP-131285	156	[Rel-10] Modify requirements for CA_1A-18A in TS36.307	10.7.0	10.8.0
09-2013	RP-61	RP-131296	157	[Rel-10] Add requirements for CA_1A-26A into TS36.307	10.7.0	10.8.0
09-2013	RP-61	RP-131297	161	Introduction of CA_2A-4A into 36.307 REL-10	10.7.0	10.8.0
09-2013	RP-61	RP-131298	165	Introduction of inter-band CA Band 2+5	10.7.0	10.8.0
12-2013	RP-62	RP-131946	176	Introduction of CA band combination Band2 + Band12 to TS 36.307	10.8.0	10.9.0
12-2013	RP-62	RP-131954	179	Introduction of CA band combination Band12 + Band25 to TS 36.307	10.8.0	10.9.0
12-2013	RP-62	RP-131927	188r1	Correction to release independent specification	10.8.0	10.9.0
12-2013	RP-62	RP-131957	190	Introduction of CA_23B to TS 36.307	10.8.0	10.9.0
12-2013	RP-62	RP-131950	198	Introduction of CA band combination Band5 + Band25 to TS 36.307	10.8.0	10.9.0
12-2013	RP-62	RP-131948	202r1	Introduction of CA band combination B5 + B7 to TS 36.307	10.8.0	10.9.0
12-2013	RP-62	RP-131952	205	Introduction of CA band combination B7 + B28 to TS 36.307	10.8.0	10.9.0
12-2013	RP-62	RP-131925	214r1	UE performance requirements in release independent specification for CA	10.8.0	10.9.0
12-2013	RP-62	RP-131924	222	Introducing 'General' clause with note referring to note in clause 4.4 in TS36.101, editorial corrections and modifications to Forward and Scope clauses	10.8.0	10.9.0
12-2013	RP-62	RP-131959	224	Introduction of LTE_CA_C_B27 to 36.307 (Rel-10)	10.8.0	10.9.0
03-2014	RP-63	RP-140386	225r1	Introduction of CA band combination Band 3 and Band 27 to TS 36.307	10.9.0	10.10.0
03-2014	RP-63	RP-140368	230r1	CR on UE performance requirements in release independent specification	10.9.0	10.10.0
03-2014	RP-63	RP-140368	243r1	Correction to release independent specification	10.9.0	10.10.0
03-2014	RP-63	RP-140371	233	Release independence of Band 14 HPUE	10.9.0	10.10.0
03-2014	RP-63	RP-140187	246	Addition of bandwidth combination set for CA_2A-29A and CA_4A-29A	10.9.0	10.10.0
03-2014	RP-63	RP-140387	195r1	Introduction of CA_39A-41A to TS 36.307	10.9.0	10.10.0
03-2014	RP-63	RP-140388	208r2	Introduction of CA_39C to TS 36.307	10.9.0	10.10.0
06-2014	RP-64	RP-140911	298	Correction of Common RRM requirements for CA in release independent specification (Rel-10)	10.10.0	10.11.0
06-2014	RP-64	RP-140911	257	Introduction of CA band combination Band 1 and Band 5 to TS 36.307	10.10.0	10.11.0
06-2014	RP-64	RP-140911	270	CR on UE performance requirements in release independent specification	10.10.0	10.11.0
06-2014	RP-64	RP-140926	278	Introduction of Band 20+32 CA	10.10.0	10.11.0
06-2014	RP-64	RP-140931	263	Introduction of CA 1+11 to 36.307 (Rel-10)	10.10.0	10.11.0
06-2014	RP-64	RP-140932	344	Additional bandwidth combination set for LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 20, independent of LTE Release	10.10.0	10.11.0
06-2014	RP-64	RP-140933	273	Introduction of CA band combination Band 4 and Band 27 to TS 36.307	10.10.0	10.11.0
06-2014	RP-64	RP-140935	276	Addition of bandwidth combination sets for CA_3A-5A, CA_4A-5A, and CA_4A-12A into 36.307	10.10.0	10.11.0
06-2014	RP-64	RP-140942	338	Introduction of CA band combination Band 1 and Band 20 to TS 36.307	10.10.0	10.11.0
06-2014	RP-64	RP-140942	251	Introduction of CA band combination Band 1 and Band 20 to TS 36.307	10.10.0	10.11.0
06-2014	RP-64	RP-140943	345	Introduction of CA band combination CA_41D into TS 36.307 (Rel-10)	10.10.0	10.11.0

06-2014	RP-64	RP-140946	343	Introduction of CA_42C to TS 36.307	10.10.0	10.11.0
06-2014	RP-64	RP-140952	0304	Introduction of a new CA_7C bandwidth combination set into 36.307 (Rel-10)	10.10.0	10.11.0

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