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Technical Specification

3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) Supporting a release-independent frequency band (Release 11)



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Contents

1	Scope	7
2	References.....	7
3	Definitions and Abbreviations	7
3.1	Definitions	7
3.2	Abbreviations.....	7
4	Void.....	8
5	Void.....	8
6	Void.....	8
Void	8	
8	Void.....	8
9	Void.....	8
10	Void.....	8
11	Void.....	8
12	Void.....	8
13	Void.....	8
14	Void.....	8
15	Void.....	9
16	Void.....	9
17	Void.....	9
18	Void.....	9
19	Void.....	9
20	Void.....	9
21	Void.....	9
22	Void.....	9
23	CA configuration CA_1A-18A Independent of Release	9
23.1	CA_1A-18A UE	9
23.1.1	RF Requirements.....	10
23.1.2	RRM Requirements	10

24	Void.....	10
25	Void.....	10
26	Void.....	10
27	Void.....	10
28	Void.....	10
29	Void.....	10
30	Void.....	11
31	Void.....	11
32	Void.....	11
33	Void.....	11
34	Void.....	11
35	Void.....	11
36	Void.....	11
37	Void.....	11
38	Void.....	11
39	Void.....	11
40	Void.....	11
41	Void.....	12
42	Band 30 Independent of Release	12
42.1	Band 30 UE	12
42.1.1	RF Requirements.....	12
42.1.2	RRM Requirements	12
43	Band 31 Independent of Release	12
43.1	Band 31 UE	13
43.1.1	RF Requirements.....	13
43.1.2	RRM Requirements	13
43.1.3	Demodulation performance and CSI reporting Requirements	13
44	CA configuration CA_1A-8A Independent of Release.....	13
44.1	CA_1A-8A UE.....	14
44.1.1	RF Requirements.....	14
44.1.2	RRM Requirements	14
45	CA configuration CA_2A-13A Independent of Release	14
45.1	CA_2A-13A UE	14
45.1.1	RF Requirements.....	14
45.1.2	RRM Requirements	14
46	CA configuration CA_3A-19A Independent of Release	15
46.1	CA_3A-19A UE	15
46.1.1	RF Requirements.....	15
46.1.2	RRM Requirements	15
47	CA configuration CA_3A-26A Independent of Release	15
47.1	CA_3A-26A UE	15
47.1.1	RF Requirements.....	16
47.1.2	RRM Requirements	16
48	CA configuration CA_3A-28A Independent of Release	16
48.1	CA_3A-28A UE	16
48.1.1	RF Requirements.....	16
48.1.2	RRM Requirements	16

49	CA configuration CA_19A-21A Independent of Release	17
49.1	CA_19A-21A UE.....	17
49.1.1	RF Requirements.....	17
49.1.2	RRM Requirements	17
50	CA configuration CA_23A-29A Independent of Release	17
50.1	CA_23A-29A UE.....	17
50.1.1	RF Requirements.....	18
50.1.2	RRM Requirements	18
51	CA configuration CA_4A-4A Independent of Release.....	18
51.1	CA_4A-4A UE.....	18
51.1.1	RF Requirements.....	18
51.1.2	RRM Requirements	19
52	CA configuration CA_3C Independent of Release.....	19
52.1	CA_3C UE.....	19
52.1.1	RF Requirements.....	19
52.1.2	RRM Requirements	19
53	CA configuration CA_1A-26A Independent of Release	20
53.1	CA_1A-26A UE	20
53.1.1	RF Requirements.....	20
53.1.2	RRM Requirements	20
54	CA configuration CA_2A-4A Independent of Release.....	20
54.1	CA_2A-4A UE.....	20
54.1.1	RF Requirements.....	20
54.1.2	RRM Requirements	21
55	CA configuration CA_2A-5A Independent of Release.....	21
55.1	CA_2A-5A UE.....	21
55.1.1	RF Requirements.....	21
55.1.2	RRM Requirements	21
Annex A (informative) :	Frequency arrangement for overlapping operating bands	22
Annex B (informative):	Change history.....	23

Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

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- x the first digit:
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- 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. 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.

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".

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:

4 Void

5 Void

6 Void

Void

8 Void

9 Void

10 Void

11 Void

12 Void

13 Void

14 Void

15 Void

16 Void

17 Void

18 Void

19 Void

20 Void

21 Void

22 Void

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.

23.1 CA_1A-18A UE

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]. 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 following RRM requirements for CA_1A-18A specified in [3]. These requirements are:

Table 23.1.2-1: RRM Requirements for CA_1A-18A UE

Section / Clause	Description
8	UE Measurements Procedures in RRC_CONNECTED State
9	Measurement Performances for UE.

24 Void

25 Void

26 Void

27 Void

28 Void

29 Void

30 Void

31 Void

32 Void

33 Void

34 Void

35 Void

36 Void

37 Void

38 Void

39 Void

40 Void

41 Void

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 band 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 [2]. 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 following RRM requirements for Band 30 specified in [3]. These requirements are:

Table 42.1.2-1: RRM Requirements for Band 30 UE

Section / Clause	Description
4	E-UTRAN RRC_IDLE state mobility
8	UE Measurements Procedures in RRC_CONNECTED State
9	Measurement Performances for UE.
A.9	Measurement Performances for UE Test Cases

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 band 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]. 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 following RRM requirements for Band 31 specified in [3]. These requirements are:

Table 43.1.2-1: RRM Requirements for Band 31 UE

Section / Clause	Description
4	E-UTRAN RRC_IDLE state mobility
8	UE Measurements Procedures in RRC_CONNECTED State
9	Measurement Performances for UE.
A.9	Measurement Performances for UE Test Cases

43.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the following demodulation performance and CSI reporting requirements for Band 31 specified in [2]. These requirements are:

Table 43.1.3-1: Demodulation and CSI Requirements for Band 31 UE

Section / Clause	Description
8	Demodulation performance requirements
9	Performance requirements of reporting of channel state information.

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-11 upwards.

44.1 CA_1A-8A UE

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]. 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 following RRM requirements for CA_1A-8A specified in [3]. These requirements are:

Table 44.1.2-1: RRM Requirements for CA_1A-8A UE

Section / Clause	Description
8	UE Measurements Procedures in RRC_CONNECTED State
9	Measurement Performances for UE.

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 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]. 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 following RRM requirements for CA_2A-13A specified in [3]. These requirements are:

Table 45.1.2-1: RRM Requirements for CA_2A-13A UE

Section / Clause	Description
8	UE Measurements Procedures in RRC_CONNECTED State
9	Measurement Performances for UE.

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 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]. 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 following RRM requirements for CA_3A-19A specified in [3]. These requirements are:

Table 46.1.2-1: RRM Requirements for CA_3A-19A UE

Section / Clause	Description
8	UE Measurements Procedures in RRC_CONNECTED State
9	Measurement Performances for UE.

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-11 upwards.

47.1 CA_3A-26A UE

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]. 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 following RRM requirements for CA_3A-26A specified in [3]. These requirements are:

Table 47.1.2-1: RRM Requirements for CA_3A-26A UE

Section / Clause	Description
8	UE Measurements Procedures in RRC_CONNECTED State
9	Measurement Performances for UE.

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-11 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]. 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 following RRM requirements for CA_3A-28A specified in [3]. These requirements are:

Table 48.1.2-1: RRM Requirements for CA_3A-28A UE

Section / Clause	Description
8	UE Measurements Procedures in RRC_CONNECTED State
9	Measurement Performances for UE.

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 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]. 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 following RRM requirements for CA_19A-21A specified in [3]. These requirements are:

Table 49.1.2-1: RRM Requirements for CA_19A-21A UE

Section / Clause	Description
8	UE Measurements Procedures in RRC_CONNECTED State
9	Measurement Performances for UE.

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-11 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]. 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 following RRM requirements for CA_23A-29A specified in [3]. These requirements are:

Table 50.1.2-1: RRM Requirements for CA_23A-29A UE

Section / Clause	Description
8	UE Measurements Procedures in RRC_CONNECTED State
9	Measurement Performances for UE.

51 CA configuration CA_4A-4A Independent of Release

CA configuration CA_4A-4A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

51.1 CA_4A-4A UE

UEs that conform to Release 11 and support CA_4A-4A shall support the following requirements in Release 12.

51.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_4A-4A specified in [2]. These requirements are:

Table 51.1.1-1: RF Requirements for CA_4A-4A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
7.1	General
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)

51.1.2 RRM Requirements

The UE shall comply with the following RRM requirements for CA_4A-4A specified in [3]. These requirements are:

Table 51.1.2-1: RRM Requirements for CA_4A-4A UE

Section / Clause	Description
8	UE Measurements Procedures in RRC_CONNECTED State
9	Measurement Performances for UE.

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]. 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 following RRM Requirements for CA_3C specified in [3]. These requirements are:

Table 52.1.1-2: RRM Requirements for CA_3C UE

Section / Clause	Description
4	E-UTRAN RRC_IDLE state mobility
8	UE Measurements Procedures in RRC_CONNECTED State
9	Measurement Performances for UE.
A.9	Measurement Performances for UE Test Cases

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 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]. 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 following RRM requirements for CA_1A-26A specified in [3]. These requirements are:

Table 53.1.2-1: RRM Requirements for CA_1A-26A UE

Section / Clause	Description
8	UE Measurements Procedures in RRC_CONNECTED State
9	Measurement Performances for UE.

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 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]. 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 following RRM requirements for CA_2A-4A specified in [3]. These requirements are:

Table 54.1.2-1: RRM Requirements for CA_2A-4A UE

Section / Clause	Description
8	UE Measurements Procedures in RRC_CONNECTED State
9	Measurement Performances for UE.

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]. 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 following RRM requirements for CA_2A-5A specified in [3]. These requirements are:

Table 55.1.2-1: RRM Requirements for CA_2A-5A UE

Section / Clause	Description
8	UE Measurements Procedures in RRC_CONNECTED State
9	Measurement Performances for UE.

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 (informative): Change history

Table B.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