

# ETSI TS 136 307 V11.9.0 (2014-10)



**LTE;  
Evolved Universal Terrestrial Radio Access (E-UTRA);  
Requirements on User Equipments (UEs) supporting  
a release-independent frequency band  
(3GPP TS 36.307 version 11.9.0 Release 11)**



---

Reference

RTS/TSGR-0436307vb90

---

Keywords

LTE

**ETSI**

650 Route des Lucioles  
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C  
Association à but non lucratif enregistrée à la  
Sous-Préfecture de Grasse (06) N° 7803/88

---

**Important notice**

The present document can be downloaded from:

<http://www.etsi.org>

The present document may be made available in electronic versions and/or in print. The content of any electronic and/or print versions of the present document shall not be modified without the prior written authorization of ETSI. In case of any existing or perceived difference in contents between such versions and/or in print, the only prevailing document is the print of the Portable Document Format (PDF) version kept on a specific network drive within ETSI Secretariat.

Users of the present document should be aware that the document may be subject to revision or change of status. Information on the current status of this and other ETSI documents is available at

<http://portal.etsi.org/tb/status/status.asp>

If you find errors in the present document, please send your comment to one of the following services:

[http://portal.etsi.org/chaicor/ETSI\\_support.asp](http://portal.etsi.org/chaicor/ETSI_support.asp)

---

**Copyright Notification**

No part may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm except as authorized by written permission of ETSI.

The content of the PDF version shall not be modified without the written authorization of ETSI.

The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 2014.

All rights reserved.

**DECT™**, **PLUGTESTS™**, **UMTS™** and the ETSI logo are Trade Marks of ETSI registered for the benefit of its Members. **3GPP™** and **LTE™** are Trade Marks of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners.

**GSM®** and the GSM logo are Trade Marks registered and owned by the GSM Association.

---

## Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: *"Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards"*, which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (<http://ipr.etsi.org>).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

---

## Foreword

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

The present document may refer to technical specifications or reports using their 3GPP identities, UMTS identities or GSM identities. These should be interpreted as being references to the corresponding ETSI deliverables.

The cross reference between GSM, UMTS, 3GPP and ETSI identities can be found under <http://webapp.etsi.org/key/queryform.asp>.

---

## Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**may not**", "**need**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the [ETSI Drafting Rules](#) (Verbal forms for the expression of provisions).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

---

# Contents

Intellectual Property Rights .....	2
Foreword.....	2
Modal verbs terminology.....	2
Foreword.....	13
1 Scope .....	14
2 References .....	14
3 Definitions and Abbreviations.....	14
3.1 Definitions .....	14
3.2 Abbreviations .....	14
3A General .....	14
4 Void.....	15
5 Void.....	15
6 Void.....	15
7 Void.....	15
8 Void.....	15
9 Void.....	15
10 Void.....	15
11 Void.....	15
12 Void.....	16
13 Void.....	16
14 Void.....	16
15 Void.....	16
16 Void.....	16
17 Void.....	16
18 Void.....	16
19 CA configuration CA_41C Independent of Release .....	16
20 Void.....	17
22 Void.....	18
23 CA configuration CA_1A-18A Independent of Release.....	18
23.1 CA_1A-18A UE.....	18
23.1.1 RF Requirements .....	18
23.1.2 RRM Requirements .....	19
23.1.3 Demodulation performance and CSI reporting Requirements .....	19
24 Void.....	19
25 CA configuration CA_3A-5A Independent of Release.....	19
25.1 CA_3A-5A UE.....	19
25.1.1 RF Requirements .....	19
25.1.2 RRM Requirements .....	19
25.1.3 Demodulation performance and CSI reporting Requirements .....	20

26	Void.....	20
27	Void.....	20
28	Void.....	20
29	Void.....	20
30	Void.....	20
31	CA configuration CA_2A-29A Independent of Release.....	20
31.1	CA_2A-29A UE.....	20
31.1.1	RF Requirements.....	20
31.1.2	RRM Requirements.....	21
31.1.3	Demodulation performance and CSI reporting Requirements.....	21
32	CA configuration CA_4A-29A Independent of Release.....	21
32.1	CA_4A-29A UE.....	21
32.1.1	RF Requirements.....	21
32.1.2	RRM Requirements.....	22
32.1.3	Demodulation performance and CSI reporting Requirements.....	22
33	Void.....	22
34	CA configuration CA_4A-5A Independent of Release.....	22
34.1	CA_4A-5A UE.....	22
34.1.1	RF Requirements.....	22
34.1.2	RRM Requirements.....	22
34.1.3	Demodulation performance and CSI reporting Requirements.....	22
35	CA configuration CA_4A-12A Independent of Release.....	23
35.1	CA_4A-12A UE.....	23
35.1.1	RF Requirements.....	23
35.1.2	RRM Requirements.....	23
35.1.3	Demodulation performance and CSI reporting Requirements.....	23
36	Void.....	23
37	Void.....	23
38	Void.....	23
39	Void.....	23
40	Void.....	24
41	Void.....	24
42	Band 30 Independent of Release.....	24
42.1	Band 30 UE.....	24
42.1.1	RF Requirements.....	24
42.1.2	RRM Requirements.....	24
42.1.3	Void.....	25
43	Band 31 Independent of Release.....	25
43.1	Band 31 UE.....	25
43.1.1	RF Requirements.....	25
43.1.2	RRM Requirements.....	25
43.1.3	Demodulation performance and CSI reporting Requirements.....	25
44	CA configuration CA_1A-8A Independent of Release.....	26
44.1	CA_1A-8A UE.....	26
44.1.1	RF Requirements.....	26
44.1.2	RRM Requirements.....	26
44.1.3	Demodulation performance and CSI reporting Requirements.....	26
45	CA configuration CA_2A-13A Independent of Release.....	27
45.1	CA_2A-13A UE.....	27
45.1.1	RF Requirements.....	27

45.1.2	RRM Requirements .....	27
45.1.3	Demodulation performance and CSI reporting Requirements .....	27
46	CA configuration CA_3A-19A Independent of Release .....	27
46.1	CA_3A-19A UE .....	27
46.1.1	RF Requirements .....	27
46.1.2	RRM Requirements .....	28
46.1.3	Demodulation performance and CSI reporting Requirements .....	28
47	CA configuration CA_3A-26A Independent of Release .....	28
47.1	CA_3A-26A UE .....	28
47.1.1	RF Requirements .....	28
47.1.2	RRM Requirements .....	28
47.1.3	Demodulation performance and CSI reporting Requirements .....	29
48	CA configuration CA_3A-28A Independent of Release .....	29
48.1	CA_3A-28A UE .....	29
48.1.1	RF Requirements .....	29
48.1.2	RRM Requirements .....	29
48.1.3	Demodulation performance and CSI reporting Requirements .....	29
49	CA configuration CA_19A-21A Independent of Release .....	29
49.1	CA_19A-21A UE .....	29
49.1.1	RF Requirements .....	30
49.1.2	RRM Requirements .....	30
49.1.3	Demodulation performance and CSI reporting Requirements .....	30
50	CA configuration CA_23A-29A Independent of Release .....	30
50.1	CA_23A-29A UE .....	30
50.1.1	RF Requirements .....	30
50.1.2	RRM Requirements .....	30
50.1.3	Demodulation performance and CSI reporting Requirements .....	31
51	CA configuration CA_4A-4A Independent of Release .....	31
51.1	CA_4A-4A UE .....	31
51.1.1	RF Requirements .....	31
51.1.2	RRM Requirements .....	31
51.1.3	Demodulation performance and CSI reporting Requirements .....	31
52	CA configuration CA_3C Independent of Release .....	32
52.1	CA_3C UE .....	32
52.1.1	RF Requirements .....	32
52.1.2	RRM Requirements .....	32
52.1.3	Demodulation performance and CSI reporting Requirements .....	32
53	CA configuration CA_1A-26A Independent of Release .....	32
53.1	CA_1A-26A UE .....	32
53.1.1	RF Requirements .....	32
53.1.2	RRM Requirements .....	33
53.1.3	Demodulation performance and CSI reporting Requirements .....	33
54	CA configuration CA_2A-4A Independent of Release .....	33
54.1	CA_2A-4A UE .....	33
54.1.1	RF Requirements .....	33
54.1.2	RRM Requirements .....	33
54.1.3	Demodulation performance and CSI reporting Requirements .....	34
55	CA configuration CA_2A-5A Independent of Release .....	34
55.1	CA_2A-5A UE .....	34
55.1.1	RF Requirements .....	34
55.1.2	RRM Requirements .....	34
55.1.3	Demodulation performance and CSI reporting Requirements .....	34
56	CA configuration CA_23B Independent of Release .....	34
56.1	CA_23B UE .....	34
56.1.1	RF Requirements .....	34

56.1.2	RRM Requirements .....	35
56.1.3	Demodulation performance and CSI reporting Requirements .....	35
57	CA configuration CA_27B Independent of Release .....	35
57.1	CA_27B UE .....	35
57.1.1	RF Requirements .....	35
57.1.2	RRM Requirements .....	36
57.1.3	Demodulation performance and CSI reporting Requirements .....	36
58	CA configuration CA_2A-12A Independent of Release .....	36
58.1	CA_2A-12A UE .....	36
58.1.1	RF Requirements .....	36
58.1.2	RRM Requirements .....	37
58.1.3	Demodulation performance and CSI reporting Requirements .....	37
59	CA configuration CA_5A-7A Independent of Release .....	37
59.1	CA_5A-7A UE .....	37
59.1.1	RF Requirements .....	37
59.1.2	RRM Requirements .....	37
59.1.3	Demodulation performance and CSI reporting Requirements .....	37
60	CA configuration CA_5A-25A Independent of Release .....	38
60.1	CA_5A-25A UE .....	38
60.1.1	RF Requirements .....	38
60.1.2	RRM Requirements .....	38
60.1.3	Demodulation performance and CSI reporting Requirements .....	38
61	CA configuration CA_7A-28A Independent of Release .....	38
61.1	CA_7A-28A UE .....	38
61.1.1	RF Requirements .....	38
61.1.2	RRM Requirements .....	39
61.1.3	Demodulation performance and CSI reporting Requirements .....	39
62	CA configuration CA_12A-25A Independent of Release .....	39
62.1	CA_12A-25A UE .....	39
62.1.1	RF Requirements .....	39
62.1.2	RRM Requirements .....	39
62.1.3	Demodulation performance and CSI reporting Requirements .....	39
63	CA configuration CA_3A-3A Independent of Release .....	40
63.1	CA_3A-3A UE .....	40
63.1.1	RF Requirements .....	40
63.1.2	RRM Requirements .....	40
63.1.3	Demodulation performance and CSI reporting Requirements .....	40
64	CA configuration CA_7A-7A Independent of Release .....	40
64.1	CA_7A-7A UE .....	40
64.1.1	RF Requirements .....	41
64.1.2	RRM Requirements .....	41
64.1.3	Demodulation performance and CSI reporting Requirements .....	41
65	CA configuration CA_23A-23A Independent of Release .....	41
65.1	CA_23A-23A UE .....	41
65.1.1	RF Requirements .....	41
65.1.2	RRM Requirements .....	42
65.1.3	Demodulation performance and CSI reporting Requirements .....	42
66	CA configuration CA_3A-27A Independent of Release .....	42
66.1	CA_3A-27A UE .....	42
66.1.1	RF Requirements .....	42
66.1.2	RRM Requirements .....	43
66.1.3	Demodulation performance and CSI reporting Requirements .....	43
67	CA configuration CA_39C Independent of Release .....	43
67.1	CA_39C UE .....	43
67.1.1	RF Requirements .....	43

67.1.2	RRM Requirements .....	43
67.1.3	Demodulation performance and CSI reporting Requirements .....	43
68	CA configuration CA_39A-41A Independent of Release .....	44
68.1	CA_39A-41A UE .....	44
68.1.1	RF Requirements .....	44
68.1.2	RRM Requirements .....	44
68.1.3	Demodulation performance and CSI reporting Requirements .....	44
69	Void.....	44
70	CA configuration CA_1A-5A Independent of Release .....	44
70.1	CA_1A-5A UE .....	44
70.1.1	RF Requirements .....	44
70.1.2	RRM Requirements .....	45
70.1.3	Demodulation performance and CSI reporting Requirements .....	45
71	CA configuration CA_1A-11A Independent of Release .....	45
71.1	CA_1A-11A UE .....	45
71.1.1	RF Requirements .....	45
71.1.2	RRM Requirements .....	45
71.1.3	Demodulation performance and CSI reporting Requirements .....	45
72	CA configuration CA_1A-20A Independent of Release .....	46
72.1	CA_1A-20A UE .....	46
72.1.1	RF Requirements .....	46
72.1.2	RRM Requirements .....	46
72.1.3	Demodulation performance and CSI reporting Requirements .....	46
73	CA configuration CA_4A-27A Independent of Release .....	46
73.1	CA_4A-27A UE .....	46
73.1.1	RF Requirements .....	46
73.1.2	RRM Requirements .....	47
73.1.3	Demodulation performance and CSI reporting Requirements .....	47
74	CA configuration CA_20A-32A Independent of Release .....	47
74.1	CA_23A-29A UE .....	47
74.1.1	RF Requirements .....	47
74.1.2	RRM Requirements .....	48
74.1.3	Demodulation performance and CSI reporting Requirements .....	48
75	CA configuration CA_41D Independent of Release .....	48
75.1	CA_41D UE .....	48
75.1.1	RF Requirements .....	48
75.1.2	RRM Requirements .....	48
75.1.3	Demodulation performance and CSI reporting Requirements .....	48
76	CA configuration CA_42C Independent of Release .....	48
77	CA configuration CA_42A-42A Independent of Release .....	49
77.1	CA_42A-42A UE .....	49
77.1.1	RF Requirements .....	49
77.1.2	RRM Requirements .....	49
77.1.3	Demodulation performance and CSI reporting Requirements .....	49
78	CA configuration CA_2A-2A Independent of Release .....	49
78.1	CA_2A-2A UE .....	49
78.1.1	RF Requirements .....	49
78.1.2	RRM Requirements .....	50
78.1.3	Demodulation performance and CSI reporting Requirements .....	50
79	CA configuration CA_40C Independent of Release .....	50
79.1	CA_40C UE .....	50
79.1.1	RF Requirements .....	50
79.1.2	RRM Requirements .....	51
79.1.3	Demodulation performance and CSI reporting Requirements .....	51



80	CA configuration CA_8A-11A Independent of Release.....	51
80.1	CA_8A-11A UE.....	51
80.1.1	RF Requirements .....	51
80.1.2	RRM Requirements .....	51
80.1.3	Demodulation performance and CSI reporting Requirements .....	51
81	CA configuration CA_41A-42A Independent of Release.....	51
81.1	CA_41A-42A UE.....	51
81.1.1	RF Requirements .....	52
81.1.2	RRM Requirements .....	52
81.1.3	Demodulation performance and CSI reporting Requirements .....	52
82	CA configuration CA_18A-28A Independent of Release.....	52
82.1	CA_18A-28A UE.....	52
82.1.1	RF Requirements .....	52
82.1.2	RRM Requirements .....	52
82.1.3	Demodulation performance and CSI reporting Requirements .....	53
83	CA configuration CA_1A-5A-7A Independent of Release.....	53
83.1	CA_1A-5A-7A UE.....	53
83.1.1	RF Requirements .....	53
83.1.2	RRM Requirements .....	53
83.1.3	Demodulation performance and CSI reporting Requirements .....	53
84	CA configuration CA_1A-3A-5A Independent of Release.....	53
84.1	CA_1A-3A-5A UE.....	54
84.1.1	RF Requirements .....	54
84.1.2	RRM Requirements .....	54
84.1.3	Demodulation performance and CSI reporting Requirements .....	54
85	CA configuration CA_1A-3A-8A Independent of Release.....	54
85.1	CA_1A-3A-8A UE.....	54
85.1.1	RF Requirements .....	54
85.1.2	RRM Requirements .....	55
85.1.3	Demodulation performance and CSI reporting Requirements .....	55
86	CA configuration CA_1A-3A-19A Independent of Release.....	55
86.1	CA_1A-3A-19A UE.....	55
86.1.1	RF Requirements .....	55
86.1.2	RRM Requirements .....	56
86.1.3	Demodulation performance and CSI reporting Requirements .....	56
87	CA configuration CA_1A-3A-20A Independent of Release.....	56
87.1	CA_1A-3A-20A UE.....	56
87.1.1	RF Requirements .....	56
87.1.2	RRM Requirements .....	57
87.1.3	Demodulation performance and CSI reporting Requirements .....	57
88	CA configuration CA_1A-3A Independent of Release.....	57
88.1	CA_1A-3A UE.....	57
88.1.1	RF Requirements .....	57
88.1.2	RRM Requirements .....	57
88.1.3	Demodulation performance and CSI reporting Requirements .....	57
89	CA configuration CA_1A-7A-20A Independent of Release.....	58
89.1	CA_1A-7A-20A UE.....	58
89.1.1	RF Requirements .....	58
89.1.2	RRM Requirements .....	58
89.1.3	Demodulation performance and CSI reporting Requirements .....	58
90	CA configuration CA_1A-7A Independent of Release.....	58
90.1	CA_1A-7A UE.....	58
90.1.1	RF Requirements .....	58
90.1.2	RRM Requirements .....	59
90.1.3	Demodulation performance and CSI reporting Requirements .....	59

91	CA configuration CA_1A-19A-21A Independent of Release.....	59
91.1	CA_1A-19A-21A UE.....	59
91.1.1	RF Requirements .....	59
91.1.2	RRM Requirements .....	60
91.1.3	Demodulation performance and CSI reporting Requirements .....	60
92	CA configuration CA_2A-2A-13A Independent of Release.....	60
92.1	CA_2A-2A-13A UE.....	60
92.1.1	RF Requirements .....	60
92.1.2	RRM Requirements .....	60
92.1.3	Demodulation performance and CSI reporting Requirements .....	60
93	CA configuration CA_2A-4A-5A Independent of Release.....	61
93.1	CA_2A-4A-5A UE.....	61
93.1.1	RF Requirements .....	61
93.1.2	RRM Requirements .....	61
93.1.3	Demodulation performance and CSI reporting Requirements .....	61
94	CA configuration CA_2A-4A-13A Independent of Release.....	61
94.1	CA_2A-4A-13A UE.....	61
94.1.1	RF Requirements .....	62
94.1.2	RRM Requirements .....	62
94.1.3	Demodulation performance and CSI reporting Requirements .....	62
95	CA configuration CA_2A-4A-12A Independent of Release.....	62
95.1	CA_2A-4A-12A UE.....	62
95.1.1	RF Requirements .....	62
95.1.2	RRM Requirements .....	63
95.1.3	Demodulation performance and CSI reporting Requirements .....	63
96	CA configuration CA_2A-12B Independent of Release .....	63
96.1	CA_2A-12B UE .....	63
96.1.1	RF Requirements .....	63
96.1.2	RRM Requirements .....	64
96.1.3	Demodulation performance and CSI reporting Requirements .....	64
97	CA configuration CA_3A-7C Independent of Release .....	64
97.1	CA_3A-7C UE .....	64
97.1.1	RF Requirements .....	64
97.1.2	RRM Requirements .....	65
97.1.3	Demodulation performance and CSI reporting Requirements .....	65
98	CA configuration CA_3A-7A-20A Independent of Release.....	65
98.1	CA_3A-7A-20A UE.....	65
98.1.1	RF Requirements .....	65
98.1.2	RRM Requirements .....	66
98.1.3	Demodulation performance and CSI reporting Requirements .....	66
99	CA configuration CA_4A-4A-13A Independent of Release.....	66
99.1	CA_4A-4A-13A UE.....	66
99.1.1	RF Requirements .....	66
99.1.2	RRM Requirements .....	67
99.1.3	Demodulation performance and CSI reporting Requirements .....	67
100	CA configuration CA_4A-12B Independent of Release .....	67
100.1	CA_4A-12B UE .....	67
100.1.1	RF Requirements .....	67
100.1.2	RRM Requirements .....	68
100.1.3	Demodulation performance and CSI reporting Requirements .....	68
101	CA configuration CA_12B Independent of Release .....	68
101.1	CA_12B UE .....	68
101.1.1	RF Requirements .....	68
101.1.2	RRM Requirements .....	69
101.1.3	Demodulation performance and CSI reporting Requirements .....	69

102	CA configuration CA_2A-4A-4A Independent of Release.....	69
102.1	CA_2A-4A-4A UE.....	70
102.1.1	RF Requirements .....	70
102.1.2	RRM Requirements .....	70
102.1.3	Demodulation performance and CSI reporting Requirements .....	70
103	CA configuration CA_4A-4A-12A Independent of Release.....	70
103.1	CA_4A-4A-12A UE.....	70
103.1.1	RF Requirements .....	70
103.1.2	RRM Requirements .....	71
103.1.3	Demodulation performance and CSI reporting Requirements .....	71
104	CA configuration CA_3C-7A Independent of Release .....	71
104.1	CA_3C-7A UE .....	71
104.1.1	RF Requirements .....	71
104.1.2	RRM Requirements .....	72
104.1.3	Demodulation performance and CSI reporting Requirements .....	72
105	CA configuration CA_2A-5A-12A Independent of Release.....	72
105.1	CA_2A-5A-12A UE.....	72
105.1.1	RF Requirements .....	72
105.1.2	RRM Requirements .....	73
105.1.3	Demodulation performance and CSI reporting Requirements .....	73
106	CA configuration CA_4A-5A-12A Independent of Release.....	73
106.1	CA_4A-5A-12A UE.....	73
106.1.1	RF Requirements .....	73
106.1.2	RRM Requirements .....	74
106.1.3	Demodulation performance and CSI reporting Requirements .....	74
107	CA configuration CA_2A-5A-30A Independent of Release.....	74
107.1	CA_2A-5A-30A UE.....	74
107.1.1	RF Requirements .....	74
107.1.2	RRM Requirements .....	75
107.1.3	Demodulation performance and CSI reporting Requirements .....	75
108	CA configuration CA_2A-12A-30A Independent of Release.....	75
108.1	CA_2A-12A-30A UE.....	75
108.1.1	RF Requirements .....	75
108.1.2	RRM Requirements .....	76
108.1.3	Demodulation performance and CSI reporting Requirements .....	76
109	CA configuration CA_2A-29A-30A Independent of Release.....	76
109.1	CA_2A-29A-30A UE.....	76
109.1.1	RF Requirements .....	76
109.1.2	RRM Requirements .....	77
109.1.3	Demodulation performance and CSI reporting Requirements .....	77
110	CA configuration CA_4A-5A-30A Independent of Release.....	77
110.1	CA_4A-5A-30A UE.....	77
110.1.1	RF Requirements .....	77
110.1.2	RRM Requirements .....	78
110.1.3	Demodulation performance and CSI reporting Requirements .....	78
111	CA configuration CA_4A-12A-30A Independent of Release.....	78
111.1	CA_4A-12A-30A UE.....	78
111.1.1	RF Requirements .....	78
111.1.2	RRM Requirements .....	79
111.1.3	Demodulation performance and CSI reporting Requirements .....	79
112	CA configuration CA_4A-29A-30A Independent of Release.....	79
112.1	CA_4A-29A-30A UE.....	79
112.1.1	RF Requirements .....	79
112.1.2	RRM Requirements .....	80
112.1.3	Demodulation performance and CSI reporting Requirements .....	80

113	CA configuration CA_2A-30A Independent of Release .....	80
113.1	CA_2A-30A UE .....	80
113.1.1	RF Requirements .....	80
113.1.2	RRM Requirements .....	81
113.1.3	Demodulation performance and CSI reporting Requirements .....	81
114	CA configuration CA_4A-30A Independent of Release .....	81
114.1	CA_4A-30A UE .....	81
114.1.1	RF Requirements .....	81
114.1.2	RRM Requirements .....	82
114.1.3	Demodulation performance and CSI reporting Requirements .....	82
115	CA configuration CA_5A-30A Independent of Release .....	82
115.1	CA_5A-30A UE .....	82
115.1.1	RF Requirements .....	82
115.1.2	RRM Requirements .....	83
115.1.3	Demodulation performance and CSI reporting Requirements .....	83
116	CA configuration CA_12A-30A Independent of Release .....	83
116.1	CA_12A-30A UE .....	83
116.1.1	RF Requirements .....	83
116.1.2	RRM Requirements .....	84
116.1.3	Demodulation performance and CSI reporting Requirements .....	84
117	CA configuration CA_29A-30A Independent of Release .....	84
117.1	CA_29A-30A UE .....	84
117.1.1	RF Requirements .....	84
117.1.2	RRM Requirements .....	85
117.1.3	Demodulation performance and CSI reporting Requirements .....	85
118	CA configuration CA_40D Independent of Release .....	85
118.1	CA_40D UE .....	85
118.1.1	RF Requirements .....	85
118.1.2	RRM Requirements .....	86
118.1.3	Demodulation performance and CSI reporting Requirements .....	86
119	CA configuration CA_42C Independent of Release .....	86
119.1	CA_42C UE .....	86
119.1.1	RF Requirements .....	86
119.1.2	RRM Requirements .....	87
119.1.3	Demodulation performance and CSI reporting Requirements .....	87
121	CA configuration CA_41C-41A and CA_41A-41C Independent of Release .....	88
121.1	CA_41C-41A and CA_41A-41C UE .....	88
121.1.1	RF Requirements .....	88
121.1.2	RRM Requirements .....	89
121.1.3	Demodulation performance and CSI reporting Requirements .....	89
<b>Annex A (informative) : Frequency arrangement for overlapping operating bands .....</b>		<b>90</b>
<b>Annex B (normative): Common Requirements .....</b>		<b>91</b>
B.1	Purpose of annex .....	91
B.2	Common RRM requirements .....	91
B.2.1	Common RRM requirements for a band independent of release .....	91
B.2.2	Common RRM requirements for an intra-band contiguous CA configuration .....	92
B.2.3	Common RRM requirements for an intra-band non-contiguous CA configuration .....	92
B.2.4	Common RRM requirements for an inter-band CA configuration .....	93
B.3	Common UE performance requirements .....	93
B.3.1	Void .....	93
B.3.2	Common UE performance requirements and tests for different CA configurations and combination sets .....	93
B.3.3	Void .....	94
B.3.4	Void .....	94

**Annex C (informative): Change history .....95**  
History .....99

---

## Foreword

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

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

Version x.y.z

where:

- x the first digit:
  - 1 presented to TSG for information;
  - 2 presented to TSG for approval;
  - 3 or greater indicates TSG approved document under change control.
- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

---

# 1 Scope

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

---

# 2 References

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

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

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

---

# 3 Definitions and Abbreviations

## 3.1 Definitions

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

## 3.2 Abbreviations

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

---

## 3A General

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

carrier aggregation of particular inter-band/intra-band CA configurations that is specified in a later release, it is necessary to specify some extra requirements.

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

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

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

NOTE: See NOTE in clause 4.4 in [6].

---

4      Void

---

5      Void

---

6      Void

---

7      Void

---

8      Void

---

9      Void

---

10     Void

---

11     Void



---

12 Void

---

13 Void

---

14 Void

---

15 Void

---

16 Void

---

17 Void

---

18 Void

---

## 19 CA configuration CA\_41C Independent of Release

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

### 19.1 Band 41 UE

UEs that conform to Release 11 and support CA\_41C shall support the following requirements in Release 12 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 [4].

**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 [4].

---

## 20 Void

---

## 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 11 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 [2]. 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 [3] which are listed in Table B.2.2-1 of [4].

**Table 21.1.1-2: Void**

## 21.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_7C among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

---

## 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 RRM requirements for CA\_1A-18A specified in [3] which are listed in Table B.2.4-1 of [4].

**Table 23.1.2-1: Void**

## 23.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_1A-18A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

---

## 24 Void

---

## 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 [2]. 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 [3] which are listed in Table B.2.4-1 of [4].

Table 25.1.2-1: Void

### 25.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_3A-5A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

---

26 Void

---

27 Void

---

28 Void

---

29 Void

---

30 Void

---

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

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

#### 31.1 CA\_2A-29A UE

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

##### 31.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-29A specified in [2]. 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 [3] which are listed in Table B.2.4-1 of [4].

### 31.1.3 Demodulation performance and CSI reporting Requirements

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

---

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

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

### 32.1 CA\_4A-29A UE

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

#### 32.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-29A specified in [2]. 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 [3] which are listed in Table B.2.4-1 of [4].

### 32.1.3 Demodulation performance and CSI reporting Requirements

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

## 33 Void

## 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 [2]. 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 [3] which are listed in Table B.2.4-1 of [4].

**Table 34.1.2-1: Void**

#### 34.1.3 Demodulation performance and CSI reporting Requirements

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

---

## 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 [2] 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 [3] which are listed in Table B.2.4-1 of [4].

**Table 35.1.2-1: Void**

#### 35.1.3 Demodulation performance and CSI reporting Requirements

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

---

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 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 RRM requirements for Band 30 specified in [3] which are listed in Table B.2.1-1 of [4].

**Table 42.1.2-1: Void**

### 42.1.3 Void

---

## 43 Band 31 Independent of Release

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

### 43.1 Band 31 UE

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

#### 43.1.1 RF Requirements

The UE shall comply with the RF requirements for Band 31 specified [2]. 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 [3] which are listed in Table B.2.1-1 of [4].

**Table 43.1.2-1: Void**

#### 43.1.3 Demodulation performance and CSI reporting Requirements

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

Table 43.1.3-1: Void

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

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

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

CA configuration CA\_1A-8A 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 RRM requirements for CA\_1A-8A specified in [3] which are listed in Table B.2.4-1 of [4].

Table 44.1.2-1: Void

#### 44.1.3 Demodulation performance and CSI reporting Requirements

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

---

## 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 RRM requirements for CA\_2A-13A specified in [3] which are listed in Table B.2.4-1 of [4].

**Table 45.1.2-1: Void**

#### 45.1.3 Demodulation performance and CSI reporting Requirements

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

---

## 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 RRM requirements for CA\_3A-19A specified in [3] which are listed in Table B.2.4-1 of [4].

**Table 46.1.2-1: Void**

## 46.1.3 Demodulation performance and CSI reporting Requirements

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

---

# 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 RRM requirements for CA\_3A-26A specified in [3] which are listed in Table B.2.4-1 of [4].

**Table 47.1.2-1: Void**

### 47.1.3 Demodulation performance and CSI reporting Requirements

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

## 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 RRM requirements for CA\_3A-28A specified in [3] which are listed in Table B.2.4-1 of [4].

**Table 48.1.2-1: Void**

### 48.1.3 Demodulation performance and CSI reporting Requirements

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

## 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 RRM requirements for CA\_19A-21A specified in [3] which are listed in Table B.2.4-1 of [4].

**Table 49.1.2-1: Void**

## 49.1.3 Demodulation performance and CSI reporting Requirements

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

---

# 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 RRM requirements for CA\_23A-29A specified in [3] which are listed in Table B.2.4-1 of [4].

**Table 50.1.2-1: Void**

### 50.1.3 Demodulation performance and CSI reporting Requirements

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

## 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 RRM requirements for CA\_4A-4A specified in [3] which are listed in Table B.2.3-1 of [4].

**Table 51.1.2-1: Void**

#### 51.1.3 Demodulation performance and CSI reporting Requirements

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



## 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 RRM Requirements for CA\_3C specified in [3] which are listed in Table B.2.2-1 of [4].

**Table 52.1.1-2: Void**

#### 52.1.3 Demodulation performance and CSI reporting Requirements

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

## 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 RRM requirements for CA\_1A-26A specified in [3] which are listed in Table B.2.4-1 of [4].

**Table 53.1.2-1: Void**

### 53.1.3 Demodulation performance and CSI reporting Requirements

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

---

## 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 RRM requirements for CA\_2A-4A specified in [3] which are listed in Table B.2.4-1 of [4].

**Table 54.1.2-1: Void**

### 54.1.3 Demodulation performance and CSI reporting Requirements

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

## 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 RRM requirements for CA\_2A-5A specified in [3] which are listed in Table B.2.4-1 of [4].

**Table 55.1.2-1: Void**

### 55.1.3 Demodulation performance and CSI reporting Requirements

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

## 56 CA configuration CA\_23B Independent of Release

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

### 56.1 CA\_23B UE

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

#### 56.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_23B specified in [2]. 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 [3] which are listed in Table B.2.2-1 of [4].

**Table 56.1.2-1: Void**

## 56.1.3 Demodulation performance and CSI reporting Requirements

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

---

# 57 CA configuration CA\_27B Independent of Release

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

## 57.1 CA\_27B UE

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

### 57.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_27B specified in [2]. 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 [3] which are listed in Table B.2.2-1 of [4].

**Table 57.1.2-1: Void**

### 57.1.3 Demodulation performance and CSI reporting Requirements

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

---

## 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-11 upwards.

### 58.1 CA\_2A-12A UE

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

#### 58.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-12A specified in [2]. 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 [3] which are listed in Table B.2.4-1 of [4].

**Table 58.1.2-1: Void**

## 58.1.3 Demodulation performance and CSI reporting Requirements

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

---

# 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 11 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 [2]. 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 [3] which are listed in Table B.2.4-1 of [4].

**Table 59.1.2-1: Void**

### 59.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_5A-7A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

---

## 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-11 upwards.

### 60.1 CA\_5A-25A UE

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

#### 60.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_5A-25A specified in [2]. 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 [3] which are listed in Table B.2.4-1 of [4].

**Table 60.1.2-1: Void**

#### 60.1.3 Demodulation performance and CSI reporting Requirements

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

---

## 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 11 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 [2]. 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 [3] which are listed in Table B.2.4-1 of [4].

## 61.1.3 Demodulation performance and CSI reporting Requirements

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

---

# 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-11 upwards.

## 62.1 CA\_12A-25A UE

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

### 62.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_12A-25A specified in [2]. 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 [3] which are listed in Table B.2.4-1 of [4].

**Table 62.1.2-1: Void**

### 62.1.3 Demodulation performance and CSI reporting Requirements

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



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

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

### 63.1 CA\_3A-3A UE

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

#### 63.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-3A specified in [2]. These requirements are:

**Table 63.1.1-1: RF Requirements for CA\_3A-3A 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)

#### 63.1.2 RRM Requirements

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

**Table 63.1.2-1: Void**

#### 63.1.3 Demodulation performance and CSI reporting Requirements

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

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

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

### 64.1 CA\_7A-7A UE

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

## 64.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_7A-7A specified in [2]. These requirements are:

**Table 64.1.1-1: RF Requirements for CA\_7A-7A 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)

## 64.1.2 RRM Requirements

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

## 64.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA\_7A-7A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

---

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

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

## 65.1 CA\_23A-23A UE

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

### 65.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_23A-23A specified in [2]. These requirements are:

**Table 65.1.1-1: RF Requirements for CA\_23A-23A 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)

### 65.1.2 RRM Requirements

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

**Table 65.1.2-1: Void**

### 65.1.3 Demodulation performance and CSI reporting Requirements

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

---

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

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

### 66.1 CA\_3A-27A UE

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

#### 66.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-27A specified in [2]. 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 [3] which are listed in Table B.2.4-1 of [4].

## 66.1.3 Demodulation performance and CSI reporting Requirements

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

---

# 67 CA configuration CA\_39C Independent of Release

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

## 67.1 CA\_39C UE

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

### 67.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_39C specified in [2]. 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 following RRM Requirements for CA\_39C specified in [3] which are listed in Table B.2.2-1 of [4].

### 67.1.3 Demodulation performance and CSI reporting Requirements

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

---

## 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 11 and support CA\_39A-41A shall support the following requirements in Release 12.

#### 68.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_39A-41A specified in [2]. 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 [3] which are listed in Table B.2.4-1 of [4].

#### 68.1.3 Demodulation performance and CSI reporting Requirements

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

---

## 69 Void

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

CA configuration CA\_1A-5A with combination set 1 is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

### 70.1 CA\_1A-5A UE

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

#### 70.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-5A specified in [2]. 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 [3] which are listed in Table B.2.4-1 of [4].

**Table 70.1.2-1: Void**

## 70.1.3 Demodulation performance and CSI reporting Requirements

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

---

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

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

## 71.1 CA\_1A-11A UE

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

### 71.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-11A specified in [2]. 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 [3] which are listed in Table B.2.4-1 of [4].

### 71.1.3 Demodulation performance and CSI reporting Requirements

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

---

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

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

### 72.1 CA\_1A-20A UE

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

#### 72.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-20A specified in [2]. 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 [3] which are listed in Table B.2.4-1 of [4].

**Table 72.1.2-1: Void**

#### 72.1.3 Demodulation performance and CSI reporting Requirements

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

---

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

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

### 73.1 CA\_4A-27A UE

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

#### 73.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-27A specified in [2]. 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 [3] which are listed in Table B.2.4-1 of [4].

## 73.1.3 Demodulation performance and CSI reporting Requirements

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

---

# 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-11 upwards.

## 74.1 CA\_23A-29A UE

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

### 74.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_20A-32A specified in [2]. 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 [3] which are listed in Table B.2.4-1 of [4].

## 74.1.3 Demodulation performance and CSI reporting Requirements

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

---

# 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 11 and support CA\_41D shall support the following requirements in Release 12.

### 75.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_41D specified in [2]. 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
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)
7.3.1A	Minimum requirements (QPSK) for CA
7.4.1A	Minimum requirements for CA
7.5.1A	Minimum requirements for CA
7.6.1.1A	Minimum requirements for CA
7.6.2.1A	Minimum requirements for CA
7.6.3.1A	Minimum requirements for CA
7.7.1A	Minimum requirements for CA
7.8.1A	Minimum requirements for CA

## 75.1.2 RRM Requirements

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

## 75.1.3 Demodulation performance and CSI reporting Requirements

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

---

# 76 CA configuration CA\_42C Independent of Release

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

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

### 77.1 CA\_42A-42A UE

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

#### 77.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_42A-42A specified in [2]. These requirements are:

**Table 75.1.1-1: RF Requirements for CA\_42A-42A UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	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)

#### 77.1.2 RRM Requirements

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

#### 77.1.3 Demodulation performance and CSI reporting Requirements

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

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

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

### 78.1 CA\_2A-2A UE

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

#### 78.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-2A specified in [2]. These requirements are:

**Table 78.1.1-1: RF Requirements for CA\_2A-2A 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)

## 78.1.2 RRM Requirements

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

## 78.1.3 Demodulation performance and CSI reporting Requirements

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

---

# 79 CA configuration CA\_40C Independent of Release

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

## 79.1 CA\_40C UE

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

### 79.1.1 RF Requirements

The UE shall comply with the following RF requirements for CA\_40C specified in [2]. These requirements are:

**Table 79.1.1-1: RF Requirements for CA\_40C 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

## 79.1.2 RRM Requirements

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

## 79.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_40C specified in [2], which are listed in section B.3.2-1 of [4].

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

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

## 80.1 CA\_8A-11A UE

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

### 80.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_8A-11A specified in [2]. These requirements are:

**Table 80.1.1-1: RF Requirements for CA\_8A-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)

### 80.1.2 RRM Requirements

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

### 80.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_8A-11A specified in [2], which are listed in Table B.3.3-1 of [4].

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

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

## 81.1 CA\_41A-42A UE

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

## 81.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_41A-42A specified in [2]. These requirements are:

**Table 81.1.1-1: RF Requirements for CA\_41A-42A 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)

## 81.1.2 RRM Requirements

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

## 81.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_41A-42A specified in [2], which are listed in Table B.3.3-1 of [4].

---

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

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

## 82.1 CA\_18A-28A UE

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

### 82.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_18A-28A specified in [2]. These requirements are:

**Table 82.1.1-1: RF Requirements for CA\_18A-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)
7.3.1A	Minimum requirements for CA (QPSK)

### 82.1.2 RRM Requirements

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

### 82.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_18A-28A specified in [2], which are listed in Table B.3.3-1 of [4].

---

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

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

### 83.1 CA\_1A-5A-7A UE

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

#### 83.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-5A-7A specified in [2]. These requirements are:

**Table 83.1.1-1: RF Requirements for CA\_1A-5A-7A UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

#### 83.1.2 RRM Requirements

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

#### 83.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_1A-5A-7A specified in [2].

---

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

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

## 84.1 CA\_1A-3A-5A UE

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

### 84.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A-5A specified in [2]. These requirements are:

**Table 84.1.1-1: RF Requirements for CA\_1A-3A-5A UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

### 84.1.2 RRM Requirements

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

### 84.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_1A-3A-5A specified in [2].

---

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

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

### 85.1 CA\_1A-3A-8A UE

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

#### 85.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A-8A specified in [2]. These requirements are:

**Table 85.1.1-1: RF Requirements for CA\_1A-3A-8A UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

## 85.1.2 RRM Requirements

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

## 85.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements foCA\_1A-3A-8A specified in [2].

---

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

CA configuration CA\_1A-3A-19A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

## 86.1 CA\_1A-3A-19A UE

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

### 86.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A-19A specified in [2]. These requirements are:



**Table 86.1.1-1: RF Requirements for CA\_1A-3A-19A 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)
7.3.1A	Minimum requirements (QPSK) for CA
7.4.1A	Minimum requirements for CA
7.5.1A	Minimum requirements for CA
7.6.1.1A	Minimum requirements for CA
7.6.2.1A	Minimum requirements for CA
7.6.3.1A	Minimum requirements for CA
7.7.1A	Minimum requirements for CA
7.8.1A	Minimum requirements for CA

## 86.1.2 RRM Requirements

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

## 86.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_1A-3A-19A specified in [2], which are listed in Table B.3.3-1 of [4].

---

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

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

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

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

### 87.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A-20A specified in [2]. These requirements are:

**Table 87.1.1-1: RF Requirements for CA\_1A-3A-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)

## 87.1.2 RRM Requirements

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

## 87.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_1A-3A-20A specified in [2], which are listed in Table B.3.3-1 of [4].

---

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

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

## 88.1 CA\_1A-3A UE

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

### 88.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-3A specified in [2]. These requirements are:

**Table 88.1.1-1: RF Requirements for CA\_1A-3A 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)

### 88.1.2 RRM Requirements

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

### 88.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_1A-3A specified in [2], which are listed in Table B.3.3-1 of [4].

---

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

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

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

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

#### 89.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-7A-20A specified in [2]. These requirements are:

**Table 89.1.1-1: RF Requirements for CA\_1A-7A-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)

#### 89.1.2 RRM Requirements

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

#### 89.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_1A-7A-20A specified in [2], which are listed in Table B.3.3-1 of [4].

---

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

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

### 90.1 CA\_1A-7A UE

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

#### 90.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-7A specified in [2]. These requirements are:

**Table 90.1.1-1: RF Requirements for CA\_1A-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)

## 90.1.2 RRM Requirements

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

## 90.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_1A-7A specified in [2], which are listed in Table B.3.3-1 of [4].

---

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

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

## 91.1 CA\_1A-19A-21A UE

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

### 91.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_1A-19A-21A specified in [2]. These requirements are:

**Table 91.1.1-1: RF Requirements for CA\_1A-19A-21A UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

## 91.1.2 RRM Requirements

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

## 91.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_1A-19A-21A specified in [2].

---

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

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

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

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

### 92.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-2A-13A specified in [2]. These requirements are:

**Table 92.1.1-1: RF Requirements for CA\_2A-2A-13A UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

## 92.1.2 RRM Requirements

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

## 92.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_2A-2A-13A specified in [2].

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

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

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

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

#### 93.1.1 RF Requirements

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

**Table 93.1.1-1: RF Requirements for CA\_2A-4A-5A UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

#### 93.1.2 RRM Requirements

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

#### 93.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_2A-4A-5A specified in [2].

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

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

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

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

## 94.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-4A-13A specified in [2]. These requirements are:

**Table 94.1.1-1: RF Requirements for CA\_2A-4A-13A UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

## 94.1.2 RRM Requirements

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

## 94.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_2A-4A-13A specified in [2].

---

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

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

## 95.1 CA\_2A-4A-12A UE

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

### 95.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-4A-12A specified in [2]. These requirements are:

**Table 95.1.1-1: RF Requirements for CA\_2A-4A-12A UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

## 95.1.2 RRM Requirements

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

## 95.1.3 Demodulation performance and CSI reporting Requirements

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

---

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

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

## 96.1 CA\_2A-12B UE

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

### 96.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-12B specified in [2]. These requirements are:



Table 96.1.1-1: RF Requirements for CA\_2A-12B UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

## 96.1.2 RRM Requirements

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

## 96.1.3 Demodulation performance and CSI reporting Requirements

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

---

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

CA configuration CA\_3A-7C is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

## 97.1 CA\_3A-7C UE

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

### 97.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-7C specified in [2]. These requirements are:

**Table 97.1.1-1: RF Requirements for CA\_3A-7C UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

## 97.1.2 RRM Requirements

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

## 97.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements foCA\_3A-7C specified in [2].

---

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

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

## 98.1 CA\_3A-7A-20A UE

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

### 98.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3A-7A-20A specified in [2]. These requirements are:

**Table 98.1.1-1: RF Requirements for CA\_3A-7A-20A UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

## 98.1.2 RRM Requirements

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

## 98.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_3A-7A-20A specified in [2].

---

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

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

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

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

### 99.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-4A-13A specified in [2]. These requirements are:

**Table 99.1.1-1: RF Requirements for CA\_4A-4A-13A UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

## 99.1.2 RRM Requirements

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

## 99.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_4A-4A-13A specified in [2].

---

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

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

## 100.1 CA\_4A-12B UE

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

### 100.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-12B specified in [2]. These requirements are:

**Table 100.1.1-1: RF Requirements for CA\_4A-12B UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

## 100.1.2 RRM Requirements

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

## 100.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_4A-12B specified in [2].

---

# 101 CA configuration CA\_12B Independent of Release

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

## 101.1 CA\_12B UE

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

### 101.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_12B specified in [2]. These requirements are:

**Table 101.1.1-1: RF Requirements for CA\_12B UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A	Channel bandwidths per operating band for CA
5.7.1A	Channel spacing for CA
5.7.2A	Channel raster for CA
5.7.4A	TX–RX frequency separation for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.4A	UE maximum output power with additional requirements for CA
6.2.5A	Configured transmitted power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.2A	Additional Spectrum Emission mask for CA
6.6.2.3.2A	UTRA ACLR for CA
6.6.2.3.3A	E-UTRA ACLR for CA
6.6.3.1A	Minimum requirements for CA
6.6.3.2A	Spurious emission band UE co-existence for CA
6.6.3.3A	Additional spurious emissions for CA
6.7.1A	Minimum requirement for CA
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA
7.10.1A	Receiver response for CA

## 101.1.2 RRM Requirements

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

## 101.1.3 Demodulation performance and CSI reporting Requirements

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

---

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

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

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

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

### 102.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-4A-4A specified in [2]. These requirements are:

**Table 102.1.1-1: RF Requirements for CA\_2A-4A-4A UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

### 102.1.2 RRM Requirements

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

### 102.1.3 Demodulation performance and CSI reporting Requirements

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

---

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

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

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

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

#### 103.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-4A-12A specified in [2]. These requirements are:

**Table 103.1.1-1: RF Requirements for CA\_4A-4A-12A UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

## 103.1.2 RRM Requirements

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

## 103.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_4A-4A-12A specified in [2].

---

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

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

## 104.1 CA\_3C-7A UE

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

### 104.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_3C-7A specified in [2]. These requirements are:



**Table 104.1.1-1: RF Requirements for CA\_3C-7A UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

## 104.1.2 RRM Requirements

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

## 104.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_3C-7A specified in [2].

---

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

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

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

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

### 105.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-5A-12A specified in [2]. These requirements are:

**Table 105.1.1-1: RF Requirements for CA\_2A-5A-12A UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

## 105.1.2 RRM Requirements

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

## 105.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_2A-5A-12A specified in [2].

---

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

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

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

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

### 106.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-5A-12A specified in [2]. These requirements are:

**Table 106.1.1-1: RF Requirements for CA\_4A-5A-12A UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

## 106.1.2 RRM Requirements

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

## 106.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_4A-5A-12A specified in [2].

---

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

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

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

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

### 107.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-5A-30A specified in [2]. These requirements are:

**Table 107.1.1-1: RF Requirements for CA\_2A-5A-30A UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

## 107.1.2 RRM Requirements

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

## 107.1.3 Demodulation performance and CSI reporting Requirements

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

---

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

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

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

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

### 108.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-12A-30A specified in [2]. These requirements are:

**Table 108.1.1-1: RF Requirements for CA\_2A-12A-30A UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

## 108.1.2 RRM Requirements

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

## 108.1.3 Demodulation performance and CSI reporting Requirements

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

---

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

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

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

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

### 109.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-29A-30A specified in [2]. These requirements are:

**Table 109.1.1-1: RF Requirements for CA\_2A-29A-30A 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

## 109.1.2 RRM Requirements

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

## 109.1.3 Demodulation performance and CSI reporting Requirements

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

---

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

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

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

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

### 110.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-5A-30A specified in [2]. These requirements are:

**Table 110.1.1-1: RF Requirements for CA\_4A-5A-30A UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

## 110.1.2 RRM Requirements

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

## 110.1.3 Demodulation performance and CSI reporting Requirements

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

---

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

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

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

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

### 111.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-12A-30A specified in [2]. These requirements are:

**Table 111.1.1-1: RF Requirements for CA\_4A-12A-30A UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

## 111.1.2 RRM Requirements

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

## 111.1.3 Demodulation performance and CSI reporting Requirements

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

---

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

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

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

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

### 112.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-29A-30A specified in [2]. These requirements are:



**Table 112.1.1-1: RF Requirements for CA\_4A-29A-30A 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

## 112.1.2 RRM Requirements

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

## 112.1.3 Demodulation performance and CSI reporting Requirements

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

---

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

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

## 113.1 CA\_2A-30A UE

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

### 113.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_2A-30A specified in [2]. These requirements are:

**Table 113.1.1-1: RF Requirements for CA\_2A-30A UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

## 113.1.2 RRM Requirements

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

## 113.1.3 Demodulation performance and CSI reporting Requirements

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

---

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

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

## 114.1 CA\_4A-30A UE

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

### 114.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_4A-30A specified in [2]. These requirements are:

**Table 114.1.1-1: RF Requirements for CA\_4A-30A UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

## 114.1.2 RRM Requirements

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

## 114.1.3 Demodulation performance and CSI reporting Requirements

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

---

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

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

## 115.1 CA\_5A-30A UE

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

### 115.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_5A-30A specified in [2]. These requirements are:

**Table 115.1.1-1: RF Requirements for CA\_5A-30A UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

## 115.1.2 RRM Requirements

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

## 115.1.3 Demodulation performance and CSI reporting Requirements

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

---

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

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

## 116.1 CA\_12A-30A UE

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

### 116.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_12A-30A specified in [2]. These requirements are:

**Table 116.1.1-1: RF Requirements for CA\_12A-30A UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

## 116.1.2 RRM Requirements

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

## 116.1.3 Demodulation performance and CSI reporting Requirements

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

---

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

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

## 117.1 CA\_29A-30A UE

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

### 117.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_29A-30A specified in [2]. These requirements are:

Table 117.1.1-1: RF Requirements for CA\_29A-30A 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

## 117.1.2 RRM Requirements

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

## 117.1.3 Demodulation performance and CSI reporting Requirements

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

---

# 118 CA configuration CA\_40D Independent of Release

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

## 118.1 CA\_40D UE

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

### 118.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_40D specified in [2]. These requirements are:

**Table 118.1.1-1: RF Requirements for CA\_40D 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

## 118.1.2 RRM Requirements

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

## 118.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_40D specified in [2], which are listed in section B.3.2-1 of [4].

---

# 119 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.

## 119.1 CA\_42C UE

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

### 119.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_42C specified in [2]. These requirements are:

**Table 119.1.1-1: 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

## 119.1.2 RRM Requirements

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

## 119.1.3 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 section B.3.2-1 of [4].

---

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

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

## 120.1 CA\_25A-25A UE

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

### 120.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_25A-25A specified in [2]. These requirements are:



**Table 120.1.1-1: RF Requirements for CA\_25A-25A UE**

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	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)

## 120.1.2 RRM Requirements

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

## 120.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_25A-25A specified in [2], which are listed in section B.3.4-1 of [4].

---

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

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

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

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

### 121.1.1 RF Requirements

The UE shall comply with the RF requirements for CA\_41C-41A and CA\_41A-41C specified in [2]. These requirements are:

**Table 121.1.1-1: RF Requirements for CA\_41C-41A and CA\_41A-41C 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
7.3.1A	Minimum requirements (QPSK) for CA
7.4.1A	Minimum requirements for CA
7.5.1A	Minimum requirements for CA
7.6.1.1A	Minimum requirements for CA
7.6.2.1A	Minimum requirements for CA
7.6.3.1A	Minimum requirements for CA
7.7.1A	Minimum requirements for CA
7.8.1A	Minimum requirements for CA

## 121.1.2 RRM Requirements

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

## 121.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA\_41C-41A and CA\_41A-41C specified in [2], which are listed in Table B.3.2-1 of [4].

## Annex A (informative) :

### Frequency arrangement for overlapping operating bands

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

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

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

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

## Annex B (normative): Common Requirements

### B.1 Purpose of annex

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

### B.2 Common RRM requirements

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

The requirements and test cases listed in Table B.2.1-1 are specified in [5].

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

Section / Clause	Description
4 <sup>Note 1</sup>	E-UTRAN RRC_IDLE state mobility
5	E-UTRAN RRC_CONNECTED state mobility
6 <sup>Note 2</sup>	RRC Connection Mobility Control
7 <sup>Note 3</sup>	Timing and signalling characteristics
8 <sup>Note 4</sup>	UE Measurements Procedures in RRC_CONNECTED State
9 <sup>Note 5</sup>	Measurements performance requirements for UE
A.4 <sup>Note 1</sup>	E-UTRAN RRC_IDLE state
A.5	E-UTRAN RRC_CONNECTED Mode Mobility
A.6 <sup>Note 2</sup>	RRC Connection Control
A.7 <sup>Note 3</sup>	Timing and Signalling Characteristics
A.8 <sup>Note 4</sup>	UE Measurements Procedures
A.9 <sup>Note 5</sup>	Measurement Performance Requirements
<p>NOTE 1: All requirements and the corresponding test cases shall apply, except:</p> <ul style="list-style-type: none"> <li>- for supporting the corresponding band in Rel-9 and below: clause 4.3 (Minimization of Drive Tests).</li> </ul> <p>NOTE 2: All requirements and the corresponding test cases shall apply, except:</p> <ul style="list-style-type: none"> <li>- for supporting the corresponding band in Rel-8: clauses 6.3 (RRC Connection Release with Redirection), 6.4 (CSG Proximity Indication for E-UTRAN and UTRAN).</li> </ul> <p>NOTE 3: All requirements and corresponding test cases shall apply, except those defined in sections 7.4 and 7.5.</p> <p>NOTE 4: All requirements and corresponding test cases shall apply, except:</p> <ul style="list-style-type: none"> <li>- for supporting the corresponding band in Rel-8: clauses 8.1.2.5 (E-UTRAN OTDOA Intra-Frequency RSTD Measurements), 8.1.2.6 (E-UTRAN Inter-Frequency OTDOA Measurements), 8.1.2.7 (E-UTRAN E-CID Measurements).</li> </ul> <p>NOTE 5: All requirements and corresponding test cases shall apply, except:</p> <ul style="list-style-type: none"> <li>- for supporting the corresponding band in Rel-8: clauses 9.1.9 (UE Rx-Tx time difference), 9.1.10 (Reference Signal Time Difference).</li> </ul> <p>NOTE 6: All requirements and test cases in this table shall apply, except those defined for: carrier aggregation; measurements under time-domain measurement resource restriction with or without CRS assistance information, in addition to the exceptions listed above.</p>	

## B.2.2 Common RRM requirements for an intra-band contiguous CA configuration

The requirements and test cases listed in Table B.2.2-1 are specified in [5].

**Table B.2.2-1: Common RRM requirements for a single-band CA configuration independent of release**

Section / Clause	Description
7.1	UE transmit timing
7.7	SCell Activation and Deactivation Delay for E-UTRA Carrier Aggregation
7.8	Interruptions with Carrier Aggregation
8.2	Capabilities for Support of Event Triggering and Reporting Criteria
8.3	Measurements for E-UTRA carrier aggregation
8.4	OTDOA RSTD Measurements for E-UTRAN carrier aggregation
9.1.11	Carrier aggregation measurement accuracy
9.1.12	Reference Signal Time Difference (RSTD) Measurement Accuracy Requirements for Carrier Aggregation
A.7	Timing and Signalling Characteristics
A.8	UE Measurements Procedures
A.9	Measurement Performance Requirements
NOTE: Only requirements and test cases defined for intra-band contiguous carrier aggregation shall apply.	

## B.2.3 Common RRM requirements for an intra-band non-contiguous CA configuration

The requirements and test cases listed in Table B.2.3-1 are specified in [5].

**Table B.2.3-1: Common RRM requirements for a single-band CA configuration independent of release**

Section / Clause	Description
7.1	UE transmit timing
7.7	SCell Activation and Deactivation Delay for E-UTRA Carrier Aggregation
7.8	Interruptions with Carrier Aggregation
8.2	Capabilities for Support of Event Triggering and Reporting Criteria
8.3	Measurements for E-UTRA carrier aggregation
8.4	OTDOA RSTD Measurements for E-UTRAN carrier aggregation
9.1.11	Carrier aggregation measurement accuracy
9.1.12	Reference Signal Time Difference (RSTD) Measurement Accuracy Requirements for Carrier Aggregation
A.7	Timing and Signalling Characteristics
A.8	UE Measurements Procedures
A.9	Measurement Performance Requirements
NOTE: Only requirements and test cases defined for intra-band non-contiguous carrier aggregation shall apply.	

Editor's note: references to this section are to be revisited when intra-band non-contiguous CA requirements are finalized in TS 36.101.

## B.2.4 Common RRM requirements for an inter-band CA configuration

The requirements and test cases listed in Table B.2.4-1 are specified in [5].

**Table B.2.4-1: Common RRM requirements for a band-combination CA configuration**

Section / Clause	Description
7.1	UE transmit timing
7.7	SCell Activation and Deactivation Delay for E-UTRA Carrier Aggregation
7.8	Interruptions with Carrier Aggregation
8.2	Capabilities for Support of Event Triggering and Reporting Criteria
8.3	Measurements for E-UTRA carrier aggregation
8.4	OTDOA RSTD Measurements for E-UTRAN carrier aggregation
9.1.11	Carrier aggregation measurement accuracy
9.1.12	Reference Signal Time Difference (RSTD) Measurement Accuracy Requirements for Carrier Aggregation
A.7	Timing and Signalling Characteristics
A.8	UE Measurements Procedures
A.9	Measurement Performance Requirements
NOTE: Only requirements and test cases defined for inter-band carrier aggregation shall apply.	

---

## B.3 Common UE performance requirements

### B.3.1 Void

**Table B.3.1-1: Void**

### B.3.2 Common UE performance requirements and tests for different CA configurations and combination sets

The requirements and test cases listed in Table B.3.2-1 are specified in [6].

**Table B.3.2-1: Common UE performance requirements and tests for different CA configurations and combination sets**

Section / Clause	Description
8.2.1.1.1	Single-antenna port performance (FDD)
8.2.2.1.1	Single-antenna port performance (TDD)
8.2.1.3.1	Open-loop spatial multiplexing performance - Minimum Requirement 2 Tx Antenna Port (FDD)
8.2.2.3.1	Open-loop spatial multiplexing performance - Minimum Requirement 2 Tx Antenna Port (TDD)
8.2.1.3.1A	Open-loop spatial multiplexing performance - Soft buffer management test (FDD)
8.2.2.3.1A	Open-loop spatial multiplexing performance - Soft buffer management test (TDD)
8.2.1.4.3	Closed-loop spatial multiplexing performance - Minimum Requirement Multi-Layer Spatial Multiplexing 4 Tx Antenna Port (FDD)
8.2.2.4.3	Closed-loop spatial multiplexing performance - Minimum Requirement Multi-Layer Spatial Multiplexing 4 Tx Antenna Port (TDD)
8.2.1.7	Carrier aggregation with power imbalance (FDD)
8.2.2.7	Carrier aggregation with power imbalance (TDD)
8.7.1	Sustained downlink data rate provided by lower layers (FDD)
8.7.2	Sustained downlink data rate provided by lower layers (TDD)
9.6.1.1	Additional requirements for carrier aggregation - Periodic reporting on multiple cells (Cell Specific Reference symbols) (FDD)
9.6.1.2	Additional requirements for carrier aggregation - Periodic reporting on multiple cells (Cell Specific Reference symbols) (TDD)
Note 1:	The applicability of requirements for different CA configurations and bandwidth combination sets is specified in Section 8.1.2.3 and 9.1.12 in [6].

### B.3.3 Void

**Table B.3.3-1: Void**

### B.3.4 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	029	Introduction of Band 26/XXVI to TS 36.307	10.2.0	11.0.0
2012-06	RP-56	RP-120789	043	Introduction of CA_1A-19A to TS 36.307	11.0.0	11.1.0
2012-06	RP-56	RP-120793	049	Introduction of APAC700(FDD) into TS 36.307 Rel-11	11.0.0	11.1.0
2012-06	RP-56	RP-120793	053	Introduction of APAC700(TDD) into TS 36.307 Rel-11	11.0.0	11.1.0
2012-06	RP-56	RP-120791	057	Introduction of e850_LB (Band 27) to TS 36.307	11.0.0	11.1.0
2012-09	RP-57	RP-121335	059	Introduction of CA_1A-21A to TS 36.307	11.1.0	11.2.0
2012-09	RP-57	RP-121295	070r1	Relation between EARFCN for overlapping bands with multiple FBI indication	11.1.0	11.2.0
2012-09	RP-57	RP-121338	072	36.307 CR for LTE_CA_B7	11.1.0	11.2.0
2012-09	RP-57	RP-121337	073	TS 36.307 CR for CA_38	11.1.0	11.2.0
2012-09	RP-57	RP-121327	074	Introduction of CA_B7_B20 in 36.307	11.1.0	11.2.0
2012-09	RP-57	RP-121329	075	Introduction of CA band combination Band3 + Band5 to TS 36.307	11.1.0	11.2.0
2012-09	RP-57	RP-121331	076	Introduction of CA_3A-20A to TS 36.307	11.1.0	11.2.0
2012-09	RP-57	RP-121334	077	Add requirements for inter-band CA of B_1-18 in TS36.307	11.1.0	11.2.0
2012-09	RP-57	RP-121333	078	Introduction of CA_8_20 RF requirements into TS36.307	11.1.0	11.2.0
2012-09	RP-57	RP-121324	079	Introduction of CA_B3_B7 in 36.307	11.1.0	11.2.0
2012-12	RP-58	RP-121890	086	Introduction of CA_4A-5A into 36.307	11.2.0	11.3.0
2012-12	RP-58	RP-121889	088	Introduction of CA band combination Band4 + Band13 to TS 36.307 (Rel-11)	11.2.0	11.3.0



2012-12	RP-58	RP-121896	091	Introduction of Band 5 + Band 17 inter-band CA configuration into 36.307	11.2.0	11.3.0
2012-12	RP-58	RP-121884	092	Introduction of CA_3A-8A to TS 36.307	11.2.0	11.3.0
2012-12	RP-58	RP-121894	093	Introduction of CA_B5_B12 in 36.307	11.2.0	11.3.0
2012-12	RP-58	RP-121887	095	Introduction of CA_4-12 into TS 36.307 (Rel-11)	11.2.0	11.3.0
2012-12	RP-58	RP-121882	097	[Rel-11] Introduction of inter-band CA_11-18 into TS36.307	11.2.0	11.3.0
2012-12	RP-58	RP-121861	099	Release-independent implementation of carrier aggregation configuration CA_4-7	11.2.0	11.3.0
2012-12	RP-58	RP-121901	101	Introduction of Band 29	11.2.0	11.3.0
2012-12	RP-58	RP-121718	0102	Introduction of CA band combination Band2 + Band17 to TS 36.307 (Rel-11)	11.2.0	11.3.0
2012-12	RP-58	RP-121720	0104	Introduction of CA band combination Band4 + Band17 to TS 36.307 (Rel-11)	11.2.0	11.3.0
2013-06	RP-60	RP-130771	107r1	Introduction of CA 1+8 into TS36.307(Rel-11)	11.3.0	11.4.0
2013-06	RP-60	RP-130782	110r1	Introduction of LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 28 to TS 36.307 Rel-11	11.3.0	11.4.0
2013-06	RP-60	RP-130785	113	Introduction of LTE Advanced inter-band Carrier Aggregation of Band 23 and Band 29 to TS 36.307 (Rel-11)	11.3.0	11.4.0
2013-06	RP-60	RP-130779	116	Introduction of LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 26 to TS 36.307 (Rel-11)	11.3.0	11.4.0
2013-06	RP-60	RP-130777	119	Introduction of CA_3A-19A to TS 36.307	11.3.0	11.4.0
2013-06	RP-60	RP-130783	122	Introduction of CA_19A-21A to TS 36.307	11.3.0	11.4.0
2013-06	RP-60	RP-130787	128	Introduction of CA_4A-4A into 36.307 Rel-11	11.3.0	11.4.0
2013-06	RP-60	RP-130775	130	Introduction of CA_2A-13A to TS 36.307	11.3.0	11.4.0
2013-06	RP-60	RP-130791	135r1	Introduction of Band 30	11.3.0	11.4.0
2013-06	RP-60	RP-130790	142	Introduction of LTE 450 into TS 36.307 R11	11.3.0	11.4.0
09-2013	RP-61	RP-131300	152	36.307 CR for LTE_CA_C_B3 (Rel-11)	11.4.0	11.5.0
09-2013	RP-61	RP-131303	155	Band 31 release independence for UE demodulation performance	11.4.0	11.5.0
09-2013	RP-61	RP-131285	158	[Rel-11] Modify requirements for CA_1A-18A in TS36.307	11.4.0	11.5.0
09-2013	RP-61	RP-131296	159	[Rel-11] Add requirements for CA_1A-26A into TS36.307	11.4.0	11.5.0
09-2013	RP-61	RP-131297	162	Introduction of CA_2A-4A to TS 36.307	11.4.0	11.5.0
09-2013	RP-61	RP-131298	166	Introduction of inter-band CA Band 2+5	11.4.0	11.5.0
12-2013	RP-62	RP-131965	174	Introduction of CA_23A-23A to TS 36.307	11.5.0	11.6.0
12-2013	RP-62	RP-131946	177r1	Introduction of CA band combination Band2 + Band12 to TS 36.307	11.5.0	11.6.0
12-2013	RP-62	RP-131954	180r1	Introduction of CA band combination Band12 + Band25 to TS 36.307	11.5.0	11.6.0
12-2013	RP-62	RP-131959	183	Introduction of LTE_CA_C_B27 to 36.307 (Rel-11)	11.5.0	11.6.0
12-2013	RP-62	RP-131939	189r1	Correction to release independent specification	11.5.0	11.6.0
12-2013	RP-62	RP-131957	191	Introduction of CA_23B to TS 36.307	11.5.0	11.6.0
12-2013	RP-62	RP-131961	193	Introduction of Intra-band non-contiguous CA in band 3 to TS 36.307	11.5.0	11.6.0
12-2013	RP-62	RP-131950	199	Introduction of CA band combination Band5 + Band25 to TS 36.307	11.5.0	11.6.0
12-2013	RP-62	RP-131948	203r1	Introduction of CA band combination B5 + B7 to TS 36.307	11.5.0	11.6.0

					0	
12-2013	RP-62	RP-131952	206	Introduction of CA band combination B7 + B28 to TS 36.307	11.5.0	11.6.0
12-2013	RP-62	RP-131925	215	UE performance requirements in release independent specification for CA	11.5.0	11.6.0
12-2013	RP-62	RP-131963	218	Introduction of CA_7A-7A to TS 36.307 Rel-11	11.5.0	11.6.0
12-2013	RP-62	RP-131924	223	Introducing 'General' clause with note referring to note in clause 4.4 in TS36.101, editorial corrections and modifications to Forward and Scope clauses	11.5.0	11.6.0
03-2014	RP-63	RP-140375	231r1	CR on UE performance requirements in release independent specification	11.6.0	11.7.0
03-2014	RP-63	RP-140371	234	Release independence of Band 14 HPUE	11.6.0	11.7.0
03-2014	RP-63	RP-140375	244r1	Correction to release independent specification	11.6.0	11.7.0
03-2014	RP-63	RP-140386	226r2	Introduction of CA band combination Band 3 and Band 27 to TS 36.307	11.6.0	11.7.0
03-2014	RP-63	RP-140188	247	Addition of bandwidth combination set for CA_2A-29A and CA_4A-29A	11.6.0	11.7.0
03-2014	RP-63	RP-140387	196r1	Introduction of CA_39A-41A to TS 36.307	11.6.0	11.7.0
03-2014	RP-63	RP-140388	209r2	Introduction of CA_39C to TS 36.307	11.6.0	11.7.0
06-2014	RP-64	RP-140911	258	Introduction of CA band combination Band 1 and Band 5 to TS 36.307	11.7.0	11.8.0
06-2014	RP-64	RP-140918	299	Correction of Common RRM requirements for CA in release independent specification (Rel-11)	11.7.0	11.8.0
06-2014	RP-64	RP-140926	279	Introduction of Band 20+32 CA	11.7.0	11.8.0
06-2014	RP-64	RP-140931	264	Introduction of CA 1+11 to 36.307 (Rel-11)	11.7.0	11.8.0
06-2014	RP-64	RP-140933	274	Introduction of CA band combination Band 4 and Band 27 to TS 36.307	11.7.0	11.8.0
06-2014	RP-64	RP-140935	277	Addition of bandwidth combination sets for CA_3A-5A, CA_4A-5A, and CA_4A-12A into 36.307	11.7.0	11.8.0
06-2014	RP-64	RP-140938	290	Introduction of CA_2A-2A to TS 36.307 Rel-11	11.7.0	11.8.0
06-2014	RP-64	RP-140940	318	Introduction of LTE_CA_NC_B42 into 36.307	11.7.0	11.8.0
06-2014	RP-64	RP-140942	339	Introduction of CA band combination Band 1 and Band 20 to TS 36.307	11.7.0	11.8.0
06-2014	RP-64	RP-140942	252	Introduction of CA band combination Band 1 and Band 20 to TS 36.307	11.7.0	11.8.0
06-2014	RP-64	RP-140943	346	Introduction of CA band combination CA_41D into TS 36.307 (Rel-11)	11.7.0	11.8.0
06-2014	RP-64	RP-140946	342	Introduction of CA_42C to TS 36.307	11.7.0	11.8.0
06-2014	RP-64	RP-140947	302	Introduction of Band 40D in release independent specification (Rel-11)	11.7.0	11.8.0
06-2014	RP-64	RP-140953	0308	Introduction of a new CA_7C bandwidth combination set into 36.307 (Rel-11)	11.7.0	11.8.0
09-2014	RP-65	RP-141111	0389r1	[Rel-11] Introduction of inter-band CA_18-28 into TS36.307	11.8.0	11.9.0
09-2014	RP-65	RP-141199	0365r1	Introduction of CA_B1_B3_B19 into TS 36.307 (Rel-11)	11.8.0	11.9.0
09-2014	RP-65	RP-141204	0362r1	Introduction of CA_B1_B3 into TS 36.307 (Rel-11)	11.8.0	11.9.0
09-2014	RP-65	RP-141330	0428r1	Introduction of CA_1A-7A into 36.307 (Rel-11)	11.8.0	11.9.0
09-2014	RP-65	RP-141339	0375r2	Introduction of CA_B1_B5_B7 into TS 36.307 (Rel-11)	11.8.0	11.9.0
09-2014	RP-65	RP-141466	0431	Introduction of 3 DL CA for Band 1+7+20	11.8.0	11.9.0
09-2014	RP-65	RP-141527	414r1	CR for 36.307 on CA UE performance requirement in Rel-11	11.8.0	11.9.0
09-2014	RP-65	RP-141538	342r2	Introduction of CA_42C to TS 36.307	11.8.0	11.9.0
09-2014	RP-65	RP-141540	302r2	Introduction of Band 40D in release independent specification (Rel-11)	11.8.0	11.9.0
09-2014	RP-65	RP-141541	412	CR on UE performance requirement for Band 31 for 36.307 Rel-11	11.8.0	11.9.0
09-2014	RP-65	RP-141551	359	Introduction of CA 8+11 to 36.307 (Rel-11)	11.8.0	11.9.0
09-2014	RP-65	RP-141552	378	Introduction of CA_41A-42A to TS 36.307	11.8.0	11.9.0
09-2014	RP-65	RP-141553	380	Introduction of a new bandwidth combination set for CA_25A-25A into 36.307	11.8.0	11.9.0
09-2014	RP-65	RP-141554	417r1	Introduction of requirements for 3DL inter-band carrier aggregation (FDD) and 2DL fallback	11.8.0	11.9.0
09-2014	RP-65	RP-141554	420r1	Introduction of requirements for 3DL inter-band carrier aggregation including Band 30 and 2DL fallback	11.8.0	11.9.0
09-2014	RP-65	RP-141555	383r1	Introduction of 3 Band Carrier Aggregation of Band 1, Band 3 and Band 5 to TS 36.307(Rel.11)	11.8.0	11.9.0
09-2014	RP-65	RP-141556	356r1	Introduction of 3 Band Carrier Aggregation (3DL/1UL) of Band 1, Band 3 and Band 8 to TS 36.307	11.8.0	11.9.0
09-2014	RP-65	RP-141558	401	Introduction of CA band combination Band 1, Band 3 and Band 20 to TS 36.307	11.8.0	11.9.0

09-2014	RP-65	RP-141560	351	Introduction of new CA_40C bandwidth combination set into 36.307	11.8.0	11.9.0
09-2014	RP-65	RP-141561	353r2	CR to 36.307 Rel-11: Introduction of CA_41C-41A and CA_41A-41C and New BW Combination Set for CA_41C	11.8.0	11.9.0

---

## History

<b>Document history</b>		
V11.2.0	November 2012	Publication
V11.3.0	February 2013	Publication
V11.4.0	July 2013	Publication
V11.5.0	October 2013	Publication
V11.6.0	January 2014	Publication
V11.7.0	April 2014	Publication
V11.8.0	July 2014	Publication
V11.9.0	October 2014	Publication