





TEST REPORT

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1. Client

- Name : Samsung Electronics Co., Ltd.
- Address : 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
- Date of Receipt : 2023-09-05

2. Use of Report : Certification

3. Name of Product / Model : Tablet PC / SM-X308U

4. Manufacturer / Country of Origin : Samsung Electronics Co., Ltd. / Vietnam

5. FCC ID : A3LSMX308U

6. Date of Test : 2023-09-20 to 2023-11-22

7. Location of Test : Permanent Testing Lab On Site Testing
 (Address:65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea)

8. Test method used : FCC Part 2
 FCC Part 27 subpart C

9. Test Result : Refer to the test result in the test report

Affirmation	Tested by Name : Kwonse Kim (Signature)	Technical Manager Name : Seungyong Kim (Signature)
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2023-12-20

Eurofins KCTL Co.,Ltd.

As a test result of the sample which was submitted from the client, this report does not guarantee the whole product quality. This test report should not be used and copied without a written agreement by Eurofins KCTL Co.,Ltd.

REPORT REVISION HISTORY

Date	Revision	Page No
2023-11-24	Originally issued	-
2023-12-20	Updated	All

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Note. The report No. KR23-SRF0263 is superseded by the report No. KR23-SRF0263-A.

General remarks for test reports

Statement concerning the uncertainty of the measurement systems used for the tests

(may be required by the product standard or client)

Internal procedure used for type testing through which traceability of the measuring uncertainty has been established:

Procedure number, issue date and title:

Calculations leading to the reported values are on file with the testing laboratory that conducted the testing.

Statement not required by the standard or client used for type testing

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1. General information

Client : Samsung Electronics Co., Ltd.
Address : 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
Manufacturer : Samsung Electronics Co., Ltd.
Address : 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
Factory : Samsung Electronics Vietnam Thai Nguyen Co., Ltd
Address : Yen Binh Industrial Park, Dong Tien Ward, Pho Yen Town, Thai Nguyen Province, Vietnam
Laboratory : Eurofins KCTL Co.,Ltd.
Address : 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea
Accreditations : FCC Site Designation No: KR0040, FCC Site Registration No: 687132
VCCI Registration No. : R-20080, G-20078, C-20059, T-20056
CAB Identifier: KR0040
ISED Number: 8035A
KOLAS No.: KT231

2. Device information

Equipment under test : Tablet PC
Model : SM-X308U
Modulation technique : QPSK, 16QAM, 64QAM, 256QAM
Power source : DC 3.85 V
Antenna specification : Main Antenna 2 : LDS Antenna
Frequency range : LTE ULCA 41C : 2 499.3 Mhz ~ 2 680.0 Mhz (BW: 5 Mhz + 20 Mhz)
2 506.0 Mhz ~ 2 686.7 Mhz (BW: 20 Mhz + 5 Mhz)
2 501.3 Mhz ~ 2 682.5 Mhz (BW: 10 Mhz + 15 Mhz)
2 503.5 Mhz ~ 2 684.7 Mhz (BW: 15 Mhz + 10 Mhz)
2 501.5 Mhz ~ 2 680.0 Mhz (BW: 10 Mhz + 20 Mhz)
2 506.0 Mhz ~ 2 684.5 Mhz (BW: 20 Mhz + 10 Mhz)
2 503.5 Mhz ~ 2 682.5 Mhz (BW: 15 Mhz + 15 Mhz)
2 503.8 Mhz ~ 2 680.0 Mhz (BW: 15 Mhz + 20 Mhz)
2 506.0 Mhz ~ 2 682.2 Mhz (BW: 20 Mhz + 15 Mhz)
2 506.0 Mhz ~ 2 680.0 Mhz (BW: 20 Mhz + 20 Mhz)
Max. aggregated bandwidth : 25 Mhz, 30 Mhz, 35 Mhz, 40 Mhz
Software version : X308U.001
Hardware version : REV1.0
Test device serial No. : Conducted : R32WA0000FY
Radiated : R32W900200M
Operation temperature : 0 °C ~ 35 °C

2.1 Frequency/channel operations

This device contains the following capabilities:

WLAN (11a/b/g/n/ac/ax), Bluetooth (BDR/EDR/BLE), NFC, Digitizer, WCDMA 850/1700/1900,
 LTE B2/4/5/7/12/13/14/25/26/30/40/41(PC2/PC3)/48/66/71, ULCA 41C(PC2/PC3)/48C
 NR n2/5/12/25/30/41(PC2/PC3)/48/66/71/77(PC2/PC3)/78(PC3), SRS n48/n77(PC2/PC3)/n78(PC3)

LTE ULCA 41C

PCC	
Ch.	Frequency (MHz)
39683	2 499.3
40528	2 583.8
41373	2 668.3

Channel Bandwidth: 5 MHz

Table 2.1-1.

SCC	
Ch.	Frequency (MHz)
39800	2 511.0
40645	2 595.5
41490	2 680.0

Channel Bandwidth: 20 MHz

PCC	
Ch.	Frequency (MHz)
39750	2 506.0
40595	2 590.5
41440	2 675.0

Channel Bandwidth: 20 MHz

Table 2.1-2.

SCC	
Ch.	Frequency (MHz)
39867	2 517.7
40712	2 602.2
41557	2 686.7

Channel Bandwidth: 5 MHz

PCC	
Ch.	Frequency (MHz)
39703	2 501.3
40549	2 585.9
41395	2 670.5

Channel Bandwidth: 10 MHz

Table 2.1-3.

SCC	
Ch.	Frequency (MHz)
39823	2 513.3
40669	2 597.9
41515	2 682.5

Channel Bandwidth: 15 MHz

PCC	
Ch.	Frequency (MHz)
39725	2 503.5
40571	2 588.1
41417	2 672.7

Channel Bandwidth: 15 MHz

Table 2.1-4.

SCC	
Ch.	Frequency (MHz)
39845	2 515.5
40691	2 600.1
41537	2 684.7

Channel Bandwidth: 10 MHz

PCC	
Ch.	Frequency (MHz)
39705	2 501.5
40526	2 583.6
41346	2 665.6

Channel Bandwidth: 10 MHz

Table 2.1-5.

SCC	
Ch.	Frequency (MHz)
39849	2 515.9
40670	2 598.0
41490	2 680.0

Channel Bandwidth: 20 MHz

PCC	
Ch.	Frequency (MHz)
39750	2 506.0
40571	2 588.1
41391	2 670.1

Channel Bandwidth: 20 MHz

Table 2.1-6.

SCC	
Ch.	Frequency (MHz)
39894	2 520.4
40715	2 602.5
41535	2 684.5

Channel Bandwidth: 10 MHz

PCC	
Ch.	Frequency (MHz)
39725	2 503.5
40545	2 585.5
41365	2 667.5

Channel Bandwidth: 15 MHz

Table 2.1-7.

SCC	
Ch.	Frequency (MHz)
39875	2 518.5
40695	2 600.5
41515	2 682.5

Channel Bandwidth: 15 MHz

PCC	
Ch.	Frequency (MHz)
39728	2 503.8
40523	2 583.3
41319	2 662.9

Channel Bandwidth: 15 MHz

Table 2.1-8.

SCC	
Ch.	Frequency (MHz)
39899	2 520.9
40694	2 600.4
41490	2 680.0

Channel Bandwidth: 20 MHz

PCC	
Ch.	Frequency (MHz)
39750	2 506.0
40546	2 585.6
41341	2 665.1

Channel Bandwidth: 20 MHz

Table 2.1-9.

SCC	
Ch.	Frequency (MHz)
39921	2 523.1
40717	2 602.7
41512	2 682.2

Channel Bandwidth: 15 MHz

PCC	
Ch.	Frequency (MHz)
39750	2 506.0
40521	2 583.1
41292	2 660.2

Channel Bandwidth: 20 MHz

Table 2.1-10.

SCC	
Ch.	Frequency (MHz)
39948	2 525.8
40719	2 602.9
41490	2 680.0

Channel Bandwidth: 20 MHz

3. Maximum ERP/EIRP power

LTE ULCA 41C

Mode	PCC+SCC (MHz)	Tx frequency (MHz)	Emission designator	EIRP	
				Max. power (dBm)	Max. power (W)
LTE ULCA 41C	5+20	2 499.3 ~ 2 680.0	22M9G7D	26.49	0.446
			22M9W7D	25.20	0.331
	20+5	2 506.0 ~ 2 686.7	22M9G7D	26.30	0.427
			22M9W7D	25.19	0.330
	10+15	2 501.3 ~ 2 682.5	23M1G7D	26.69	0.467
			23M1W7D	25.74	0.375
	15+10	2 503.5 ~ 2 684.7	23M2G7D	26.73	0.471
			23M2W7D	25.91	0.390
	10+20	2 501.5 ~ 2 680.0	28M2G7D	26.96	0.497
			28M1W7D	25.90	0.389
	20+10	2 506.0 ~ 2 684.5	28M1G7D	27.08	0.511
			28M0W7D	26.57	0.454
	15+15	2 503.5 ~ 2 682.5	28M8G7D	26.88	0.488
			28M6W7D	25.78	0.378
	15+20	2 503.8 ~ 2 680.0	32M9G7D	26.99	0.500
			32M9W7D	26.01	0.399
	20+15	2 506.0 ~ 2 682.2	32M9G7D	26.68	0.466
			32M9W7D	26.07	0.405
20+20	2 506.0 ~ 2 680.0	37M9G7D	26.48	0.445	
		37M8W7D	25.66	0.368	

4. Summary of tests

FCC Part section(s)	Parameter	Test Limit	Test Condition	Test result
2.1046	Conducted Output Power	N/A	Conducted	Pass
2.1049	Occupied Bandwidth & 26 dB Bandwidth	N/A		Pass
2.1051 27.53(m)(4)	Band Edge Emissions at Antenna Terminal	$< 40 + 10\log_{10} (P[\text{Watts}] \text{ at Channel edges}$ $< 43 + 10\log_{10} (P[\text{Watts}] \text{ between 5 and X MHz from Channel edges}$ $< 55 + 10\log_{10} (P[\text{Watts}] \text{ beyond X MHz beyond from Channel edges}$		Pass
	Spurious Emissions at Antenna Terminal	$< 43 + 10 \log (P) \text{ dB on all frequencies between 2490.5 MHz and 2496 MHz}$		Pass
27.50(d)(5)	Peak to Average Power Ratio	$< 13 \text{ dB}$		Pass
2.1055 27.54	Frequency stability	Emission must remain in band		Pass
27.50(h)(2)	Equivalent Isotropic Radiated Power	$< 2 \text{ Watts max. EIRP}$	Radiated	Pass
2.1053 27.53(m)(4)	Radiated Spurious Emissions	$< 55 + 10\log_{10} (P[\text{Watts}]$		Pass

Notes:

- The test procedure(s) in this report were performed in accordance as following.
 - ◆ ANSI C63.26-2015
 - ◆ ANSI/TIA-603-E-2016
 - ◆ KDB 971168 D01 v03r01
 - ◆ KDB 971168 D02 v02r02

4.1. Worst case orientation

- All test were investigated for the two contiguous channels using various combinations of RB size, RB offset, modulation, and channel bandwidth in the test data.
- All configurations have been performed (Stand-alone, Stand-alone with TA, with accessories).
- Output power measurements were measured on QPSK, 16QAM, 64QAM and 256QAM modulation. All tests except output power was performed with QPSK and 16QAM modulation.
- In the case of radiated spurious emissions, only the worst-case bandwidth results were reported.
- The fundamental of the EUT was investigated with the accessories as below. It was determined that below orientation was worst orientation for each band.

Band	Stand-alone			Stand-alone with TA			With accessories		
	X-axis	Y-axis	Z-axis	X-axis	Y-axis	Z-axis	X-axis	Y-axis	Z-axis
ULCA 41C	-	-	-	O	-	-	-	-	-

- Output power measurement was performed about all power classes for LTE Band 41, and the All tests except output power was performed at PC2 as the worst case.
- Test Condition
 - The measurement was performed with various configurations then worst results are reported.

1) Radiated measurement

Test Description	Modulation	RB size	Test Channel
Effective Radiated Power	QPSK, 16QAM	1	Low, Mid, High
Radiated Spurious Emissions	QPSK		

LTE ULCA Band	Bandwidth (MHz)	RB size	RB offset
CA 41C	5+20 20+5 10+15 15+10 10+20 20+10 15+15 15+20 20+15 20+20	1	Low, Mid, High

2) Conducted measurement

Test Description	Modulation	RB size	Test Channel
OBW & 26 dB BW	QPSK, 16QAM	Full	Low, Mid, High
PAPR			Mid
Band Edge	QPSK	1	Low, High
		Full	
Spurious Emissions	QPSK	1	Low, Mid, High

LTE ULCA Band	Bandwidth (MHz)	RB size	RB offset
CA 41C	5+20 20+5 10+15 15+10 10+20 20+10 15+15 15+20 20+15 20+20	1	0, 24, 49, 74, 99
		Full	0

5. Measurement uncertainty

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.4-2014.

All measurement uncertainty values are shown with a coverage factor of $k=2$ to indicate a 95 % level of confidence. The measurement data shown herein meets or exceeds the U_{CISPR} measurement uncertainty values specified in CISPR 16-4-2 and thus, can be compared directly to specified limits to determine compliance.

Parameter	Expanded uncertainty (\pm)	
Conducted RF power	0.9 dB	
Conducted spurious emissions	1.3 dB	
Radiated spurious emissions	Below 1 000 MHz	2.4 dB
	1 000 MHz ~ 18 000 MHz	2.4 dB
	Above 1 8000 MHz	2.6 dB



6. Measurement results explanation example

Frequency (MHz)	Factor(dB)	Frequency (MHz)	Factor(dB)
30	6.10	16 000	10.13
50	6.25	17 000	9.56
100	6.32	18 000	9.97
200	6.33	19 000	9.66
300	6.45	20 000	10.20
400	6.61	21 000	10.56
500	6.99	22 000	9.90
600	7.08	23 000	11.16
700	7.04	24 000	10.48
800	7.03	25 000	11.89
900	6.95	26 000	11.17
1 000	7.01	26 500	11.29
2 000	7.39	27 000	11.37
3 000	7.55	28 000	12.81
4 000	7.94	29 000	13.00
5 000	8.38	30 000	13.30
6 000	8.61	31 000	12.70
7 000	7.88	32 000	12.52
8 000	8.06	33 000	12.63
9 000	8.31	34 000	13.45
10 000	7.98	35 000	13.74
11 000	8.53	36 000	13.78
12 000	8.45	37 000	13.88
13 000	9.45	38 000	14.93
14 000	9.41	39 000	15.79
15 000	9.79	40 000	16.42

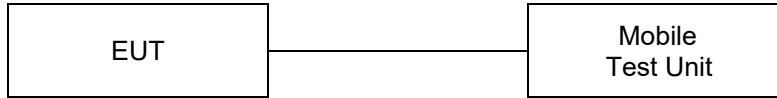
Note.

Offset(dB) = RF cable loss(dB) + Divider(dB)

7. Test results

7.1. Conducted output power

Test setup



Test procedure

971168 D01 v03r01 – Section 5.2
ANSI C63.26-2015 – Section 5.2.4.2
CFR 47 - Section §2.1046
Radio Standards Specifications – Section 132

Test settings

When an average power meter is used to perform RF output power measurements, the fundamental condition that measurement be performed only over durations of active transmissions at maximum output power level applies. Thus, an average power meter can always be used to perform the measurement when the EUT can be configured to transmit continuously.

If the EUT cannot be configured to transmit continuously (i.e., burst duty cycle < 98%), then the following options can be implemented to facilitate measurement of the average power with an average power meter:

- a) A gated average power meter can be used to perform the measurement if the gating parameters can be adjusted such that the power is measured only during active transmission bursts at maximum output power levels.
- b) A conventional average power meter with no signal gating capability can also be used if the measured burst duty cycle is constant (i.e., duty cycle variations are less than or equal to $\pm 2\%$) by performing the measurement over the on/off burst cycles and then correcting (increasing) the measured level by a factor equal to $[10\log (1/\text{duty cycle})]$. See 5.2.4.3.4 for guidance with respect to measuring the transmitter duty cycle.

See item r) of 4.1 for more information regarding power meter functional requirements and limitations, and consult the instrumentation-specific application literature for proper set-up and use.

Test results

1. LTE ULCA 41C /PC2

Channel	PCC						SCC						Conducted Power (dBm)
	BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset	BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset	
Low	5	39683	2 499.3	QPSK	1	24	20	39800	2 511.0	QPSK	1	0	26.76
	20	39750	2 506.0	QPSK	1	99	5	39867	2 517.7	QPSK	1	0	26.94
	10	39703	2 501.3	QPSK	1	49	15	39823	2 513.3	QPSK	1	0	27.00
	15	39725	2 503.5	QPSK	1	74	10	39845	2 515.5	QPSK	1	0	27.12
	10	39705	2 501.5	QPSK	1	49	20	39849	2 515.9	QPSK	1	0	26.86
	20	39750	2 506.0	QPSK	1	99	10	39894	2 520.4	QPSK	1	0	27.08
	15	39725	2 503.5	QPSK	1	74	15	39875	2 518.5	QPSK	1	0	27.11
	15	39728	2 503.8	QPSK	1	74	20	39899	2 520.9	QPSK	1	0	27.08
	20	39750	2 506.0	QPSK	1	99	15	39921	2 523.1	QPSK	1	0	27.07
	20	39750	2 506.0	QPSK	1	99	20	39948	2 525.8	QPSK	1	0	27.12
Mid	5	40528	2 583.8	QPSK	1	24	20	40645	2 595.5	QPSK	1	0	26.65
	20	40595	2 590.5	QPSK	1	99	5	40712	2 602.2	QPSK	1	0	26.50
	10	40549	2 585.9	QPSK	1	49	15	40669	2 597.9	QPSK	1	0	26.89
	15	40571	2 588.1	QPSK	1	74	10	40691	2 600.1	QPSK	1	0	26.70
	10	40526	2 583.6	QPSK	1	49	20	40670	2 598.0	QPSK	1	0	26.77
	20	40571	2 588.1	QPSK	1	99	10	40715	2 602.5	QPSK	1	0	26.48
	15	40545	2 585.5	QPSK	1	74	15	40695	2 600.5	QPSK	1	0	26.74
	15	40523	2 583.3	QPSK	1	74	20	40694	2 600.4	QPSK	1	0	26.78
	20	40546	2 585.6	QPSK	1	99	15	40717	2 602.7	QPSK	1	0	26.60
	20	40521	2 583.1	QPSK	1	99	20	40719	2 602.9	QPSK	1	0	27.03
High	5	41373	2 668.3	QPSK	1	24	20	41490	2 680.0	QPSK	1	0	26.60
	20	41440	2 675.0	QPSK	1	99	5	41557	2 686.7	QPSK	1	0	26.54
	10	41395	2 670.5	QPSK	1	49	15	41515	2 682.5	QPSK	1	0	26.83
	15	41417	2 672.7	QPSK	1	74	10	41537	2 684.7	QPSK	1	0	26.77
	10	41346	2 665.6	QPSK	1	49	20	41490	2 680.0	QPSK	1	0	26.62
	20	41391	2 670.1	QPSK	1	99	10	41535	2 684.5	QPSK	1	0	26.46
	15	41365	2 667.5	QPSK	1	74	15	41515	2 682.5	QPSK	1	0	26.77
	15	41319	2 662.9	QPSK	1	74	20	41490	2 680.0	QPSK	1	0	26.72
	20	41341	2 665.1	QPSK	1	99	15	41512	2 682.2	QPSK	1	0	26.74
	20	41292	2 660.2	QPSK	1	99	20	41490	2 680.0	QPSK	1	0	27.10

Note.

- Configuration: 1 RB

Channel	PCC						SCC						Conducted Power (dBm)
	BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset	BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset	
Low	5	39683	2 499.3	QPSK	25	0	20	39800	2 511.0	QPSK	100	0	26.67
	20	39750	2 506.0	QPSK	100	0	5	39867	2 517.7	QPSK	25	0	26.87
	10	39703	2 501.3	QPSK	50	0	15	39823	2 513.3	QPSK	75	0	26.75
	15	39725	2 503.5	QPSK	75	0	10	39845	2 515.5	QPSK	50	0	26.90
	10	39705	2 501.5	QPSK	50	0	20	39849	2 515.9	QPSK	100	0	26.64
	20	39750	2 506.0	QPSK	100	0	10	39894	2 520.4	QPSK	50	0	26.88
	15	39725	2 503.5	QPSK	75	0	15	39875	2 518.5	QPSK	75	0	26.90
	15	39728	2 503.8	QPSK	75	0	20	39899	2 520.9	QPSK	100	0	26.77
	20	39750	2 506.0	QPSK	100	0	15	39921	2 523.1	QPSK	75	0	26.93
	20	39750	2 506.0	QPSK	100	0	20	39948	2 525.8	QPSK	100	0	26.94
Mid	5	40528	2 583.8	QPSK	25	0	20	40645	2 595.5	QPSK	100	0	26.75
	20	40595	2 590.5	QPSK	100	0	5	40712	2 602.2	QPSK	25	0	26.44
	10	40549	2 585.9	QPSK	50	0	15	40669	2 597.9	QPSK	75	0	26.59
	15	40571	2 588.1	QPSK	75	0	10	40691	2 600.1	QPSK	50	0	26.52
	10	40526	2 583.6	QPSK	50	0	20	40670	2 598.0	QPSK	100	0	26.78
	20	40571	2 588.1	QPSK	100	0	10	40715	2 602.5	QPSK	50	0	26.60
	15	40545	2 585.5	QPSK	75	0	15	40695	2 600.5	QPSK	75	0	26.72
	15	40523	2 583.3	QPSK	75	0	20	40694	2 600.4	QPSK	100	0	26.67
	20	40546	2 585.6	QPSK	100	0	15	40717	2 602.7	QPSK	75	0	26.52
	20	40521	2 583.1	QPSK	100	0	20	40719	2 602.9	QPSK	100	0	26.86
High	5	41373	2 668.3	QPSK	25	0	20	41490	2 680.0	QPSK	100	0	26.60
	20	41440	2 675.0	QPSK	100	0	5	41557	2 686.7	QPSK	25	0	26.52
	10	41395	2 670.5	QPSK	50	0	15	41515	2 682.5	QPSK	75	0	26.68
	15	41417	2 672.7	QPSK	75	0	10	41537	2 684.7	QPSK	50	0	26.66
	10	41346	2 665.6	QPSK	50	0	20	41490	2 680.0	QPSK	100	0	26.72
	20	41391	2 670.1	QPSK	100	0	10	41535	2 684.5	QPSK	50	0	26.40
	15	41365	2 667.5	QPSK	75	0	15	41515	2 682.5	QPSK	75	0	26.63
	15	41319	2 662.9	QPSK	75	0	20	41490	2 680.0	QPSK	100	0	26.63
	20	41341	2 665.1	QPSK	100	0	15	41512	2 682.2	QPSK	75	0	26.61
	20	41292	2 660.2	QPSK	100	0	20	41490	2 680.0	QPSK	100	0	26.78

Note.

- Configuration: Full RB

Channel	PCC						SCC						Conducted Power (dBm)
	BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset	BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset	
Low	20	39750	2 506.0	16QAM	1	99	20	39948	2 525.8	16QAM	1	0	26.79
Mid	20	40521	2 583.1	16QAM	1	99	20	40719	2 602.9	16QAM	1	0	26.91
High	20	41292	2 660.2	16QAM	1	99	20	41490	2 680.0	16QAM	1	0	26.84
Low	20	39750	2 506.0	16QAM	100	0	20	39948	2 525.8	16QAM	100	0	26.86
Mid	20	40521	2 583.1	16QAM	100	0	20	40719	2 602.9	16QAM	100	0	26.77
High	20	41292	2 660.2	16QAM	100	0	20	41490	2 680.0	16QAM	100	0	26.72

Note.

- Configuration: 1 RB & Full RB (Worst case for QPSK)

Channel	PCC						SCC						Conducted Power (dBm)
	BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset	BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset	
Low	20	39750	2 506.0	64QAM	1	99	20	39948	2 525.8	64QAM	1	0	25.75
Mid	20	40521	2 583.1	64QAM	1	99	20	40719	2 602.9	64QAM	1	0	25.79
High	20	41292	2 660.2	64QAM	1	99	20	41490	2 680.0	64QAM	1	0	25.95
Low	20	39750	2 506.0	64QAM	100	0	20	39948	2 525.8	64QAM	100	0	26.69
Mid	20	40521	2 583.1	64QAM	100	0	20	40719	2 602.9	64QAM	100	0	26.61
High	20	41292	2 660.2	64QAM	100	0	20	41490	2 680.0	64QAM	100	0	26.64

Note.

- Configuration: 1 RB & Full RB (Worst case for QPSK)

Channel	PCC						SCC						Conducted Power (dBm)
	BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset	BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset	
Low	20	39750	2 506.0	256QAM	1	99	20	39948	2 525.8	256QAM	1	0	23.36
Mid	20	40521	2 583.1	256QAM	1	99	20	40719	2 602.9	256QAM	1	0	22.96
High	20	41292	2 660.2	256QAM	1	99	20	41490	2 680.0	256QAM	1	0	23.16
Low	20	39750	2 506.0	256QAM	100	0	20	39948	2 525.8	256QAM	100	0	24.76
Mid	20	40521	2 583.1	256QAM	100	0	20	40719	2 602.9	256QAM	100	0	24.85
High	20	41292	2 660.2	256QAM	100	0	20	41490	2 680.0	256QAM	100	0	24.99

Note.

- Configuration: 1 RB & Full RB (Worst case for QPSK)

2. LTE ULCA 41C /PC3

Channel	PCC						SCC						Conducted Power (dBm)
	BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset	BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset	
Low	5	39683	2 499.3	QPSK	1	24	20	39800	2 511.0	QPSK	1	0	23.69
	20	39750	2 506.0	QPSK	1	99	5	39867	2 517.7	QPSK	1	0	24.24
	10	39703	2 501.3	QPSK	1	49	15	39823	2 513.3	QPSK	1	0	24.79
	15	39725	2 503.5	QPSK	1	74	10	39845	2 515.5	QPSK	1	0	24.54
	10	39705	2 501.5	QPSK	1	49	20	39849	2 515.9	QPSK	1	0	24.67
	20	39750	2 506.0	QPSK	1	99	10	39894	2 520.4	QPSK	1	0	24.41
	15	39725	2 503.5	QPSK	1	74	15	39875	2 518.5	QPSK	1	0	24.08
	15	39728	2 503.8	QPSK	1	74	20	39899	2 520.9	QPSK	1	0	24.52
	20	39750	2 506.0	QPSK	1	99	15	39921	2 523.1	QPSK	1	0	24.07
	20	39750	2 506.0	QPSK	1	99	20	39948	2 525.8	QPSK	1	0	24.89
Mid	5	40528	2 583.8	QPSK	1	24	20	40645	2 595.5	QPSK	1	0	24.20
	20	40595	2 590.5	QPSK	1	99	5	40712	2 602.2	QPSK	1	0	23.71
	10	40549	2 585.9	QPSK	1	49	15	40669	2 597.9	QPSK	1	0	24.02
	15	40571	2 588.1	QPSK	1	74	10	40691	2 600.1	QPSK	1	0	24.44
	10	40526	2 583.6	QPSK	1	49	20	40670	2 598.0	QPSK	1	0	24.15
	20	40571	2 588.1	QPSK	1	99	10	40715	2 602.5	QPSK	1	0	23.91
	15	40545	2 585.5	QPSK	1	74	15	40695	2 600.5	QPSK	1	0	23.82
	15	40523	2 583.3	QPSK	1	74	20	40694	2 600.4	QPSK	1	0	24.56
	20	40546	2 585.6	QPSK	1	99	15	40717	2 602.7	QPSK	1	0	23.84
	20	40521	2 583.1	QPSK	1	99	20	40719	2 602.9	QPSK	1	0	24.59
High	5	41373	2 668.3	QPSK	1	24	20	41490	2 680.0	QPSK	1	0	23.66
	20	41440	2 675.0	QPSK	1	99	5	41557	2 686.7	QPSK	1	0	24.45
	10	41395	2 670.5	QPSK	1	49	15	41515	2 682.5	QPSK	1	0	23.95
	15	41417	2 672.7	QPSK	1	74	10	41537	2 684.7	QPSK	1	0	24.48
	10	41346	2 665.6	QPSK	1	49	20	41490	2 680.0	QPSK	1	0	23.77
	20	41391	2 670.1	QPSK	1	99	10	41535	2 684.5	QPSK	1	0	24.13
	15	41365	2 667.5	QPSK	1	74	15	41515	2 682.5	QPSK	1	0	24.37
	15	41319	2 662.9	QPSK	1	74	20	41490	2 680.0	QPSK	1	0	23.79
	20	41341	2 665.1	QPSK	1	99	15	41512	2 682.2	QPSK	1	0	23.77
	20	41292	2 660.2	QPSK	1	99	20	41490	2 680.0	QPSK	1	0	24.90

Note.

- Configuration: 1 RB

Channel	PCC						SCC						Conducted Power (dBm)
	BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset	BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset	
Low	5	39683	2 499.3	QPSK	25	0	20	39800	2 511.0	QPSK	100	0	24.43
	20	39750	2 506.0	QPSK	100	0	5	39867	2 517.7	QPSK	25	0	24.08
	10	39703	2 501.3	QPSK	50	0	15	39823	2 513.3	QPSK	75	0	23.91
	15	39725	2 503.5	QPSK	75	0	10	39845	2 515.5	QPSK	50	0	24.42
	10	39705	2 501.5	QPSK	50	0	20	39849	2 515.9	QPSK	100	0	24.27
	20	39750	2 506.0	QPSK	100	0	10	39894	2 520.4	QPSK	50	0	24.23
	15	39725	2 503.5	QPSK	75	0	15	39875	2 518.5	QPSK	75	0	24.45
	15	39728	2 503.8	QPSK	75	0	20	39899	2 520.9	QPSK	100	0	24.50
	20	39750	2 506.0	QPSK	100	0	15	39921	2 523.1	QPSK	75	0	24.21
	20	39750	2 506.0	QPSK	100	0	20	39948	2 525.8	QPSK	100	0	24.54
Mid	5	40528	2 583.8	QPSK	25	0	20	40645	2 595.5	QPSK	100	0	23.69
	20	40595	2 590.5	QPSK	100	0	5	40712	2 602.2	QPSK	25	0	23.84
	10	40549	2 585.9	QPSK	50	0	15	40669	2 597.9	QPSK	75	0	24.22
	15	40571	2 588.1	QPSK	75	0	10	40691	2 600.1	QPSK	50	0	24.01
	10	40526	2 583.6	QPSK	50	0	20	40670	2 598.0	QPSK	100	0	23.79
	20	40571	2 588.1	QPSK	100	0	10	40715	2 602.5	QPSK	50	0	24.21
	15	40545	2 585.5	QPSK	75	0	15	40695	2 600.5	QPSK	75	0	24.09
	15	40523	2 583.3	QPSK	75	0	20	40694	2 600.4	QPSK	100	0	23.70
	20	40546	2 585.6	QPSK	100	0	15	40717	2 602.7	QPSK	75	0	23.65
	20	40521	2 583.1	QPSK	100	0	20	40719	2 602.9	QPSK	100	0	24.27
High	5	41373	2 668.3	QPSK	25	0	20	41490	2 680.0	QPSK	100	0	23.90
	20	41440	2 675.0	QPSK	100	0	5	41557	2 686.7	QPSK	25	0	23.61
	10	41395	2 670.5	QPSK	50	0	15	41515	2 682.5	QPSK	75	0	24.36
	15	41417	2 672.7	QPSK	75	0	10	41537	2 684.7	QPSK	50	0	24.44
	10	41346	2 665.6	QPSK	50	0	20	41490	2 680.0	QPSK	100	0	24.17
	20	41391	2 670.1	QPSK	100	0	10	41535	2 684.5	QPSK	50	0	24.18
	15	41365	2 667.5	QPSK	75	0	15	41515	2 682.5	QPSK	75	0	24.30
	15	41319	2 662.9	QPSK	75	0	20	41490	2 680.0	QPSK	100	0	23.82
	20	41341	2 665.1	QPSK	100	0	15	41512	2 682.2	QPSK	75	0	24.15
	20	41292	2 660.2	QPSK	100	0	20	41490	2 680.0	QPSK	100	0	24.48

Note.

- Configuration: Full RB

Channel	PCC						SCC						Conducted Power (dBm)
	BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset	BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset	
Low	20	39750	2 506.0	16QAM	1	99	20	39948	2 525.8	16QAM	1	0	24.26
Mid	20	40521	2 583.1	16QAM	1	99	20	40719	2 602.9	16QAM	1	0	23.93
High	20	41292	2 660.2	16QAM	1	99	20	41490	2 680.0	16QAM	1	0	24.48
Low	20	39750	2 506.0	16QAM	100	0	20	39948	2 525.8	16QAM	100	0	24.42
Mid	20	40521	2 583.1	16QAM	100	0	20	40719	2 602.9	16QAM	100	0	23.70
High	20	41292	2 660.2	16QAM	100	0	20	41490	2 680.0	16QAM	100	0	24.25

Note.

- Configuration: 1 RB & Full RB (Worst case for QPSK)

Channel	PCC						SCC						Conducted Power (dBm)
	BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset	BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset	
Low	20	39750	2 506.0	64QAM	1	99	20	39948	2 525.8	64QAM	1	0	22.85
Mid	20	40521	2 583.1	64QAM	1	99	20	40719	2 602.9	64QAM	1	0	23.65
High	20	41292	2 660.2	64QAM	1	99	20	41490	2 680.0	64QAM	1	0	22.91
Low	20	39750	2 506.0	64QAM	100	0	20	39948	2 525.8	64QAM	100	0	24.55
Mid	20	40521	2 583.1	64QAM	100	0	20	40719	2 602.9	64QAM	100	0	23.61
High	20	41292	2 660.2	64QAM	100	0	20	41490	2 680.0	64QAM	100	0	23.78

Note.

- Configuration: 1 RB & Full RB (Worst case for QPSK)

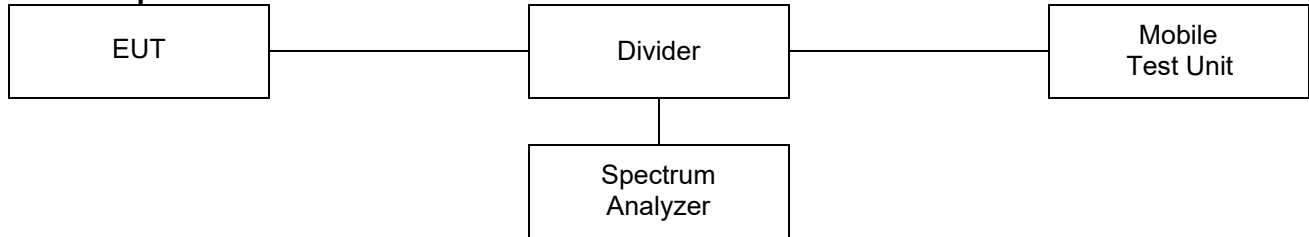
Channel	PCC						SCC						Conducted Power (dBm)
	BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset	BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset	
Low	20	39750	2 506.0	256QAM	1	99	20	39948	2 525.8	256QAM	1	0	20.45
Mid	20	40521	2 583.1	256QAM	1	99	20	40719	2 602.9	256QAM	1	0	20.35
High	20	41292	2 660.2	256QAM	1	99	20	41490	2 680.0	256QAM	1	0	20.56
Low	20	39750	2 506.0	256QAM	100	0	20	39948	2 525.8	256QAM	100	0	22.25
Mid	20	40521	2 583.1	256QAM	100	0	20	40719	2 602.9	256QAM	100	0	22.03
High	20	41292	2 660.2	256QAM	100	0	20	41490	2 680.0	256QAM	100	0	22.91

Note.

- Configuration: 1 RB & Full RB (Worst case for QPSK)

7.2 99% Occupied Bandwidth & 26 dB Bandwidth

Test setup



Limit

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured.



Test procedure

971168 D01 v03r01 – Section 4.2 and 4.3
ANSI C63.26-2015 – Section 5.4.3 and 5.4.4

Test settings

◆ 26 dB Bandwidth

- a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be wide enough to see sufficient roll off of the signal to make the measurement.
- b) The nominal RBW shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set $\geq 3 \times \text{RBW}$.
- c) Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation. See guidance provided in 4.2.3.
- d) The dynamic range of the spectrum analyzer at the selected RBW shall be more than 10 dB below the target “-X dB” requirement, i.e., if the requirement calls for measuring the -26 dB OBW, the spectrum analyzer noise floor at the selected RBW shall be at least 36 dB below the reference level.
- e) Set spectrum analyzer detection mode to peak, and the trace mode to max hold.
- f) Determine the reference value by either of the following:
 - 1) Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace (this is the reference value).
 - 2) Set the EUT to transmit an unmodulated carrier. Set the spectrum analyzer marker to the level of the carrier.
- g) Determine the “-X dB amplitude” as equal to (Reference Value - X). Alternatively, this calculation can be performed on the spectrum analyzer using the delta-marker measurement function.
- h) If the reference value was determined using an unmodulated carrier, turn the EUT modulation on, then either clear the existing trace or start a new trace on the spectrum analyzer and allow the new trace to stabilize. Otherwise the trace from step f) shall be used for step i).

<p>Eurofins KCTL Co.,Ltd. 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea TEL: 82-70-5008-1021 FAX: 82-505-299-8311 www.kctl.co.kr</p>	<p>Report No.: KR23-SRF0263-A Page (19) of (61)</p>	 
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- i) Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display such that each marker is at or slightly below the “-X dB amplitude” determined in step f). If a marker is below this “-X dB amplitude” value it should be as close as possible to this value. The OBW is the positive frequency difference between the two markers.
- j) The spectral envelope can cross the “-X dB amplitude” at multiple points. The lowest or highest frequency shall be selected as the frequencies that are the farthest away from the center frequency at which the spectral envelope crosses the “-X dB amplitude.”
- k) The OBW shall be reported by providing plot(s) of the measuring instrument display, to include markers depicting the relevant frequency and amplitude information (e.g., marker table). The frequency and amplitude axis and scale shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

◆ **99% Occupied Bandwidth**

- a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be set wide enough to capture all modulation products including the emission skirts (typically a span of $1.5 \times \text{OBW}$ is sufficient).
- b) The nominal IF filter 3 dB bandwidth (RBW) shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set $\geq 3 \times \text{RBW}$.
- c) Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation. See guidance provided in 4.2.3.
- d) Set the detection mode to peak, and the trace mode to max-hold.
- e) If the instrument does not have a 99% OBW function, recover the trace data points and sum directly in linear power terms. Place the recovered amplitude data points, beginning at the lowest frequency, in a running sum until 0.5% of the total is reached. Record that frequency as the lower OBW frequency. Repeat the process until 99.5% of the total is reached and record that frequency as the upper OBW frequency. The 99% power OBW can be determined by computing the difference these two frequencies.
- f) The OBW shall be reported and plot(s) of the measuring instrument display shall be provided with the test report. The frequency and amplitude axis and scale shall be clearly labeled. Tabular data can be reported in addition to the plot(s).

Notes:

1. The EUT was setup to maximum output power with all bandwidth and modulation.
2. All modes of operation were investigated and the worst-case configuration results are reported.

Test results

1. LTE ULCA 41C

Operating Frequency : Low

PCC						SCC						26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset	BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset		
5	39683	2 499.3	QPSK	25	0	20	39800	2 511.0	QPSK	100	0	24.41	22.91
20	39750	2 506.0	QPSK	100	0	5	39867	2 517.7	QPSK	25	0	24.91	22.85
10	39703	2 501.3	QPSK	50	0	15	39823	2 513.3	QPSK	75	0	24.85	23.10
15	39725	2 503.5	QPSK	75	0	10	39845	2 515.5	QPSK	50	0	25.35	23.16
10	39705	2 501.5	QPSK	50	0	20	39849	2 515.9	QPSK	100	0	30.72	28.17
20	39750	2 506.0	QPSK	100	0	10	39894	2 520.4	QPSK	50	0	30.87	28.10
15	39725	2 503.5	QPSK	75	0	15	39875	2 518.5	QPSK	75	0	31.39	28.70
15	39728	2 503.8	QPSK	75	0	20	39899	2 520.9	QPSK	100	0	35.58	32.78
20	39750	2 506.0	QPSK	100	0	15	39921	2 523.1	QPSK	75	0	35.75	32.87
20	39750	2 506.0	QPSK	100	0	20	39948	2 525.8	QPSK	100	0	40.76	37.86

PCC						SCC						26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset	BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset		
5	39683	2 499.3	16QAM	25	0	20	39800	2 511.0	16QAM	100	0	24.35	22.85
20	39750	2 506.0	16QAM	100	0	5	39867	2 517.7	16QAM	25	0	24.66	22.85
10	39703	2 501.3	16QAM	50	0	15	39823	2 513.3	16QAM	75	0	24.98	23.10
15	39725	2 503.5	16QAM	75	0	10	39845	2 515.5	16QAM	50	0	25.16	23.16
10	39705	2 501.5	16QAM	50	0	20	39849	2 515.9	16QAM	100	0	30.42	28.10
20	39750	2 506.0	16QAM	100	0	10	39894	2 520.4	16QAM	50	0	30.42	28.02
15	39725	2 503.5	16QAM	75	0	15	39875	2 518.5	16QAM	75	0	31.09	28.62
15	39728	2 503.8	16QAM	75	0	20	39899	2 520.9	16QAM	100	0	35.49	32.87
20	39750	2 506.0	16QAM	100	0	15	39921	2 523.1	16QAM	75	0	35.58	32.87
20	39750	2 506.0	16QAM	100	0	20	39948	2 525.8	16QAM	100	0	40.66	37.76

Note.

- RB configuration: Full RB

Operating Frequency : Middle

PCC						SCC						26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset	BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset		
5	40528	2 583.8	QPSK	25	0	20	40645	2 595.5	QPSK	100	0	24.23	22.79
20	40595	2 590.5	QPSK	100	0	5	40712	2 602.2	QPSK	25	0	24.73	22.91
10	40549	2 585.9	QPSK	50	0	15	40669	2 597.9	QPSK	75	0	24.79	23.04
15	40571	2 588.1	QPSK	75	0	10	40691	2 600.1	QPSK	50	0	25.16	23.16
10	40526	2 583.6	QPSK	50	0	20	40670	2 598.0	QPSK	100	0	30.35	28.02
20	40571	2 588.1	QPSK	100	0	10	40715	2 602.5	QPSK	50	0	30.94	28.10
15	40545	2 585.5	QPSK	75	0	15	40695	2 600.5	QPSK	75	0	31.32	28.77
15	40523	2 583.3	QPSK	75	0	20	40694	2 600.4	QPSK	100	0	35.58	32.87
20	40546	2 585.6	QPSK	100	0	15	40717	2 602.7	QPSK	75	0	35.75	32.78
20	40521	2 583.1	QPSK	100	0	20	40719	2 602.9	QPSK	100	0	40.56	37.66

PCC						SCC						26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset	BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset		
5	40528	2 583.8	16QAM	25	0	20	40645	2 595.5	16QAM	100	0	24.10	22.79
20	40595	2 590.5	16QAM	100	0	5	40712	2 602.2	16QAM	25	0	24.73	22.91
10	40549	2 585.9	16QAM	50	0	15	40669	2 597.9	16QAM	75	0	24.79	23.04
15	40571	2 588.1	16QAM	75	0	10	40691	2 600.1	16QAM	50	0	25.10	23.10
10	40526	2 583.6	16QAM	50	0	20	40670	2 598.0	16QAM	100	0	30.35	27.95
20	40571	2 588.1	16QAM	100	0	10	40715	2 602.5	16QAM	50	0	30.64	28.02
15	40545	2 585.5	16QAM	75	0	15	40695	2 600.5	16QAM	75	0	31.17	28.47
15	40523	2 583.3	16QAM	75	0	20	40694	2 600.4	16QAM	100	0	35.32	32.87
20	40546	2 585.6	16QAM	100	0	15	40717	2 602.7	16QAM	75	0	35.75	32.78
20	40521	2 583.1	16QAM	100	0	20	40719	2 602.9	16QAM	100	0	40.46	37.56

Note.

- RB configuration: Full RB

Operating Frequency : High

PCC						SCC						26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset	BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset		
5	41373	2 668.3	QPSK	25	0	20	41490	2 680.0	QPSK	100	0	24.35	22.73
20	41440	2 675.0	QPSK	100	0	5	41557	2 686.7	QPSK	25	0	24.91	22.91
10	41395	2 670.5	QPSK	50	0	15	41515	2 682.5	QPSK	75	0	24.98	23.04
15	41417	2 672.7	QPSK	75	0	10	41537	2 684.7	QPSK	50	0	25.16	23.04
10	41346	2 665.6	QPSK	50	0	20	41490	2 680.0	QPSK	100	0	30.27	27.87
20	41391	2 670.1	QPSK	100	0	10	41535	2 684.5	QPSK	50	0	30.50	28.02
15	41365	2 667.5	QPSK	75	0	15	41515	2 682.5	QPSK	75	0	31.02	28.32
15	41319	2 662.9	QPSK	75	0	20	41490	2 680.0	QPSK	100	0	35.14	32.60
20	41341	2 665.1	QPSK	100	0	15	41512	2 682.2	QPSK	75	0	35.58	32.78
20	41292	2 660.2	QPSK	100	0	20	41490	2 680.0	QPSK	100	0	40.26	37.56

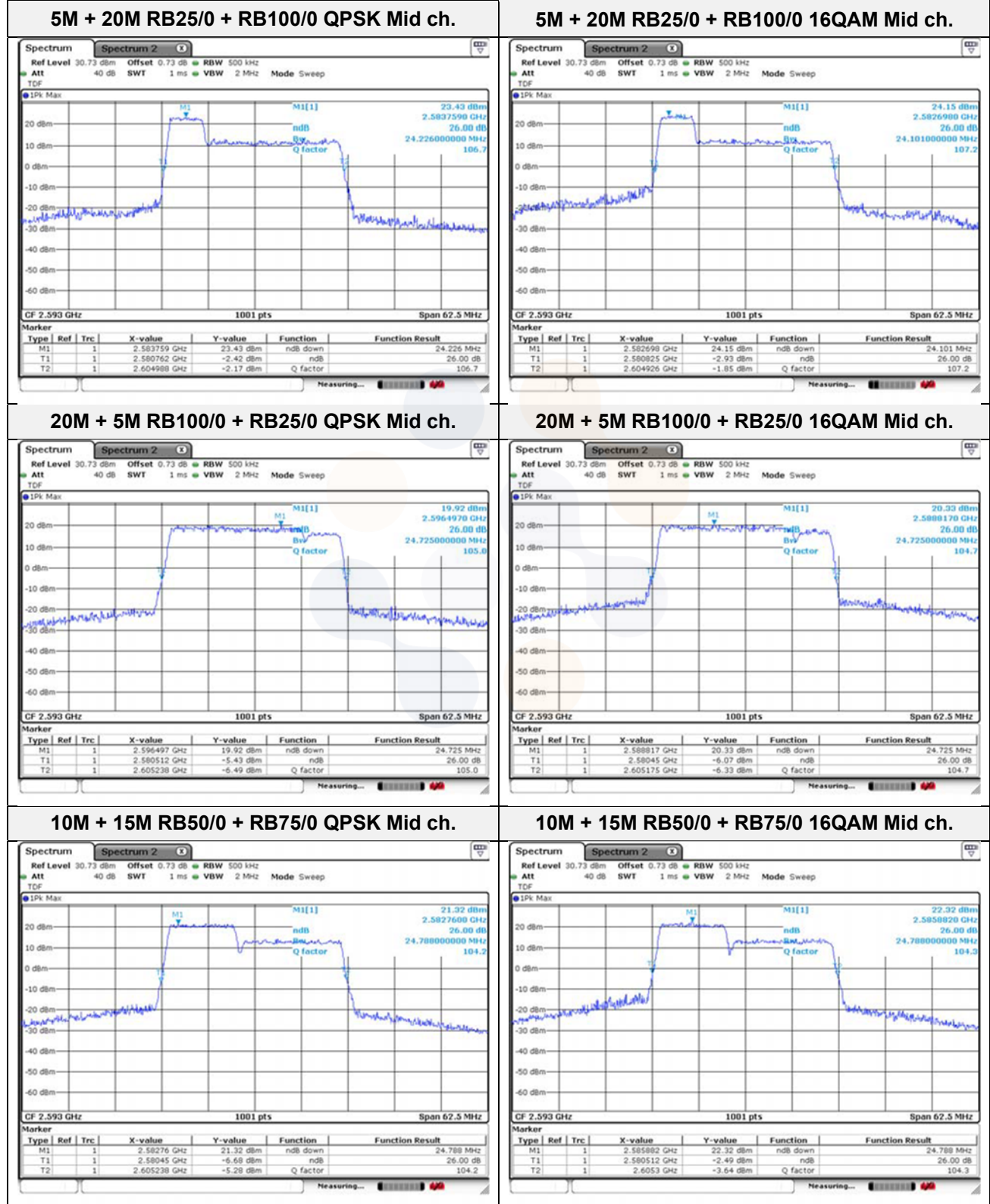
PCC						SCC						26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset	BW (MHz)	Ch	Freq. (MHz)	Mod.	RB	RB offset		
5	41373	2 668.3	16QAM	25	0	20	41490	2 680.0	16QAM	100	0	24.16	22.73
20	41440	2 675.0	16QAM	100	0	5	41557	2 686.7	16QAM	25	0	24.60	22.85
10	41395	2 670.5	16QAM	50	0	15	41515	2 682.5	16QAM	75	0	24.79	22.98
15	41417	2 672.7	16QAM	75	0	10	41537	2 684.7	16QAM	50	0	24.85	23.10
10	41346	2 665.6	16QAM	50	0	20	41490	2 680.0	16QAM	100	0	30.20	27.80
20	41391	2 670.1	16QAM	100	0	10	41535	2 684.5	16QAM	50	0	30.50	27.95
15	41365	2 667.5	16QAM	75	0	15	41515	2 682.5	16QAM	75	0	31.17	28.47
15	41319	2 662.9	16QAM	75	0	20	41490	2 680.0	16QAM	100	0	35.32	32.60
20	41341	2 665.1	16QAM	100	0	15	41512	2 682.2	16QAM	75	0	35.58	32.69
20	41292	2 660.2	16QAM	100	0	20	41490	2 680.0	16QAM	100	0	40.36	37.46

Note.

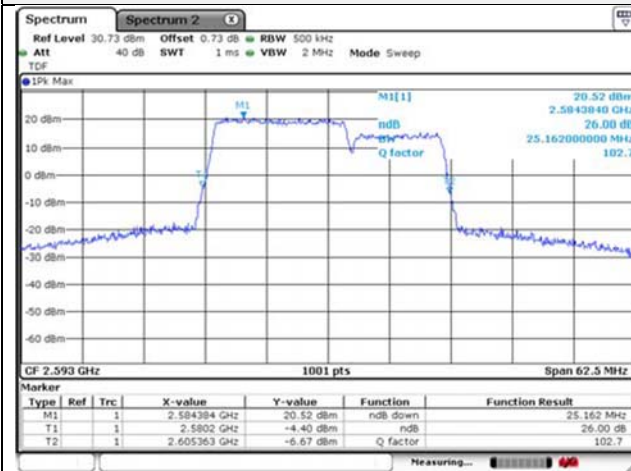
- RB configuration: Full RB

26 dB Bandwidth

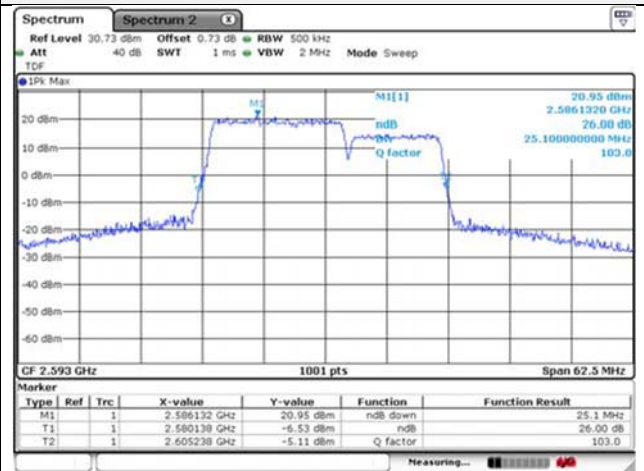
Test mode: LTE ULCA 41C



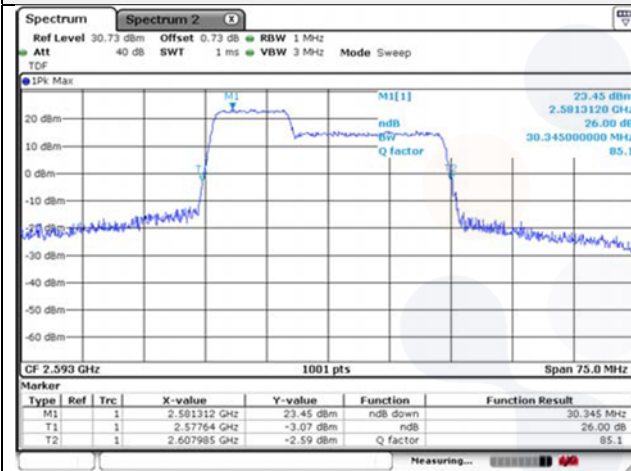
15M + 10M RB75/0 + RB50/0 QPSK Mid ch.



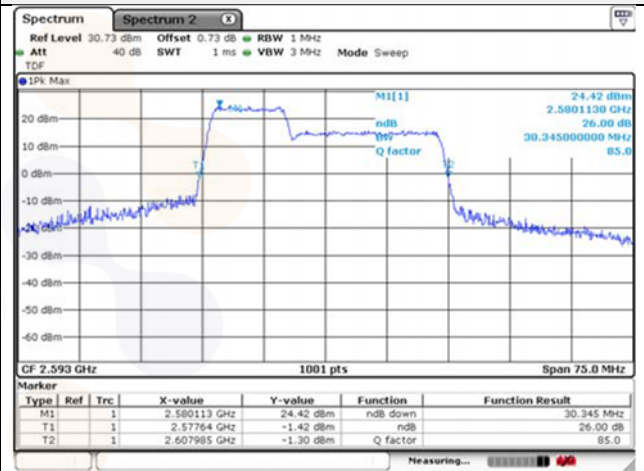
15M + 10M RB75/0 + RB50/0 16QAM Mid ch.



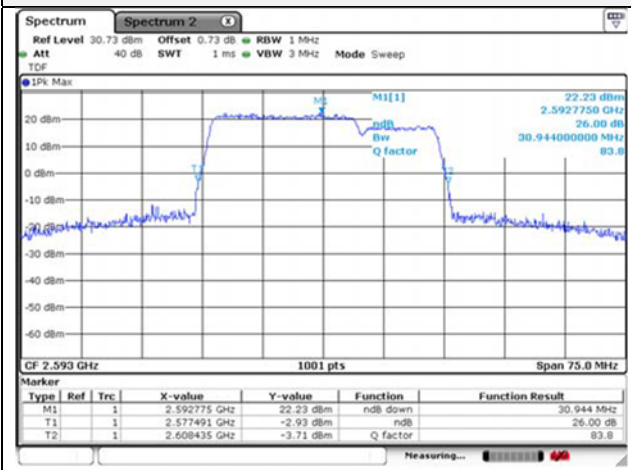
10M + 20M RB50/0 + RB100/0 QPSK Mid ch.



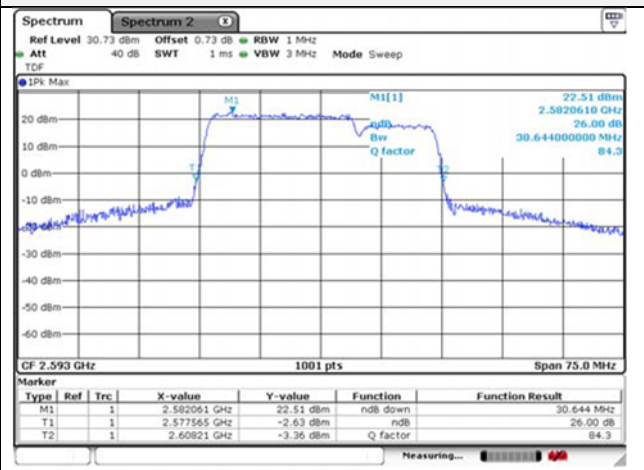
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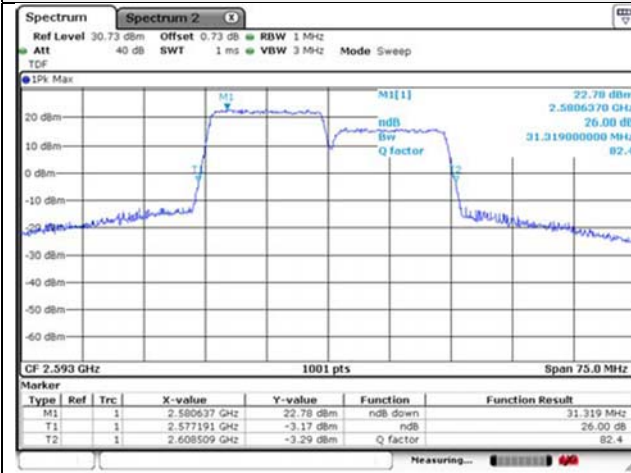
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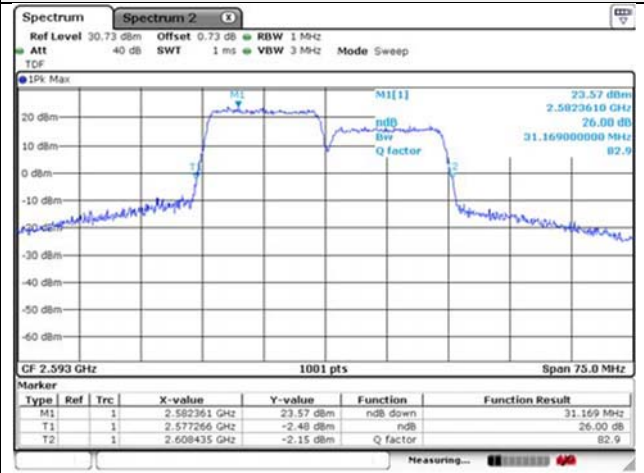
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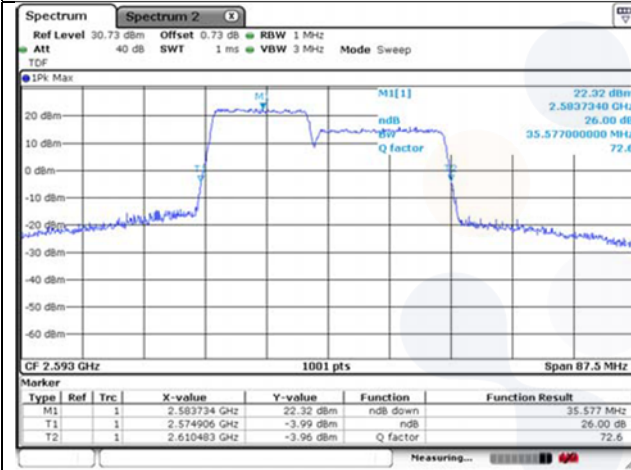
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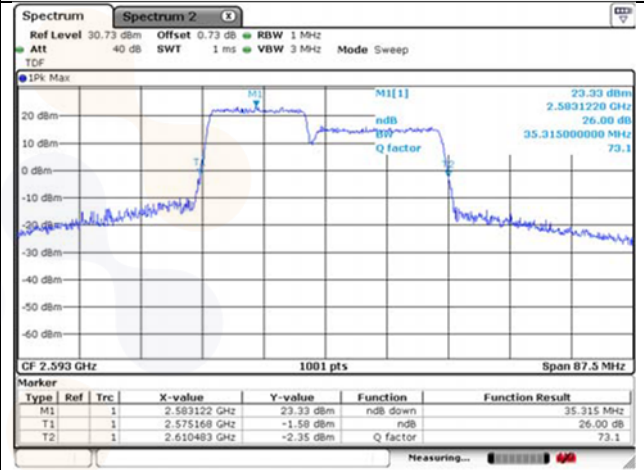
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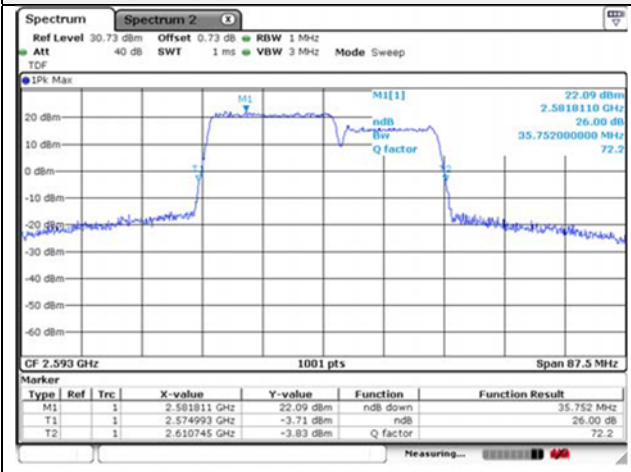
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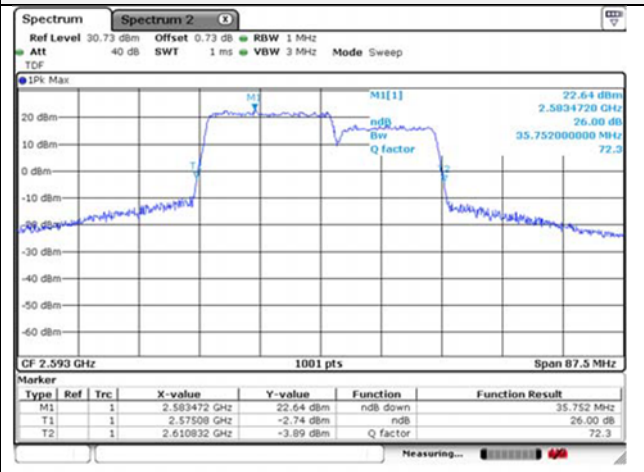
15M + 20M RB75/0 + RB100/0 16QAM Mid ch.



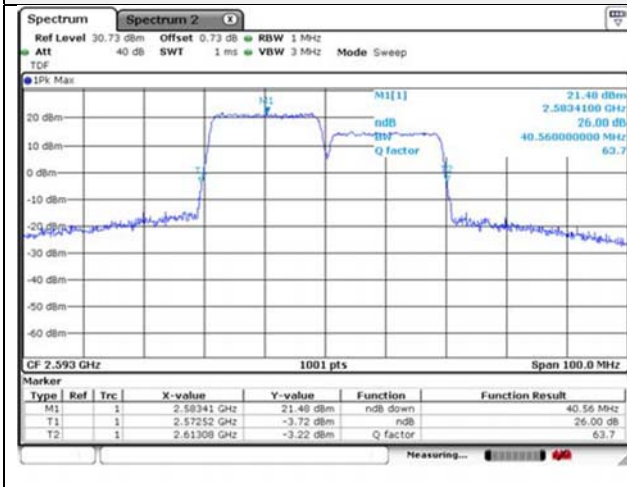
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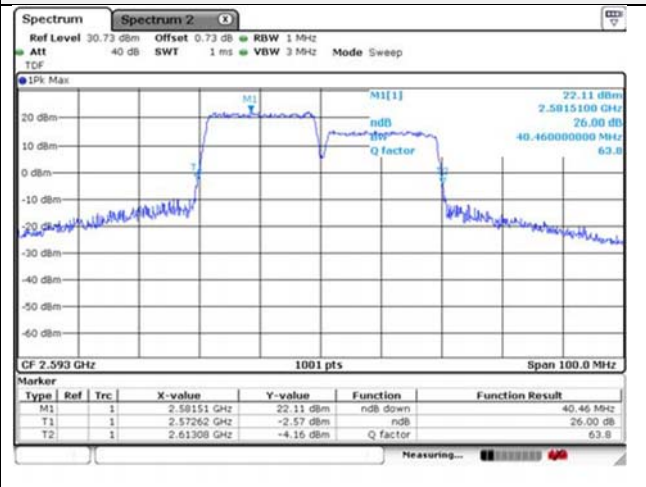
20M + 15M RB100/0 + RB75/0 16QAM Mid ch.



20M + 20M RB100/0 + RB100/0 QPSK Mid ch.



20M + 20M RB100/0 + RB100/0 16QAM Mid ch.



99% Occupied Bandwidth

Test mode: LTE ULCA 41C

