FCC CFR47 PART 27 SUBPART M

WWAN

C2PC CERTIFICATION TEST REPORT

FOR

GSM/WCDMA/LTE Phone + BT/BLE, DTS/UNII a/b/g/n, ANT+ and NFC

MODEL NUMBER : SM-A6050, SM-A6058, SM-A605XC

FCC ID: A3LSMA6050

REPORT NUMBER: 4788480677-E1V2

ISSUE DATE: MAY 11, 2018

Prepared for
SAMSUNG ELECTRONICS CO., LTD.
129 SAMSUNG-RO, YEONGTONG-GU, SUWON-SI,
GYEONGGI-DO, 16677, KOREA

Prepared by
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ACCREDITED
Testing Laboratory

TL-637

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	05/09/18	Initial issue	Junwhan Lee
V2	05/11/18	Applied TCB's request	Junwhan Lee

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218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea TEL: (031) 337-9902 FAX: (031) 213-5433

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: SAMSUNG ELECTRONICS CO., LTD.

EUT DESCRIPTION: GSM/WCDMA/LTE Phone + BT/BLE, DTS/UNII a/b/g/n, ANT+ and NFC

MODEL NUMBER: SM-A6050, SM-A6058, SM-A605XC

SERIAL NUMBER: R38K30X5WEN (RADIATED);
R38K30X5W8M (CONDUCTED)

DATE TESTED: MAY 03, 2018 - MAY 08, 2018

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
FCC PART 27M	Pass

UL Korea, Ltd. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Korea, Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Korea, Ltd. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Korea, Ltd. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by IAS, any agency of the Federal Government, or any agency of any government.

Approved & Released For
UL Korea, Ltd. By:

SungGil Park
Suwon Lab Engineer
UL Korea, Ltd.

Tested By:

Junwhan Lee
Suwon Lab Engineer
UL Korea, Ltd.

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with following methods.

1. FCC CFR 47 Part 2.
2. FCC CFR 47 Part 27.
3. ANSI TIA-603-E, 2016
4. KDB 971168 D01 Power Meas License Digital Systems v03r01

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do,16675, Korea. Line conducted emissions are measured only at the 218 address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

218 Maeyeong-ro
☒ Chamber 1
☒ Chamber 2
☒ Chamber 3

UL Korea, Ltd. is accredited by IAS, Laboratory Code TL-637. The full scope of accreditation can be viewed at http://www.iasonline.org/PDF/TL/TL-637.pdf.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

EIRP = PSA reading with EUT worst orientation (dBm) + Path loss (dB) – cable loss(between the SG and substitution antenna) + Substitution Antenna Factor (dBi)
ERP = PSA reading with EUT worst orientation (dBm) + Path loss (dB) – cable loss(between the SG and substitution antenna)
(Path loss = Signal generator output – PSA reading with substitution antenna)

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	2.32 dB
Radiated Disturbance, Below 1GHz	3.86 dB
Radiated Disturbance, Above 1 GHz	5.97 dB

Uncertainty figures are valid to a confidence level of 95%.

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5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a GSM/WCDMA/LTE Phone + BT/BLE, DTS/UNII a/b/g/n and ANT+ and NFC.
This test report addresses the WWAN operational mode for dual carrier Bands of LTE Band 41.

5.2. MAXIMUM OUTPUT POWER

EUT includes different power levels for head use configuration and body use configuration and the below tables contain the highest of all configurations average conducted and EIRP output powers as follows:

OUTPUT POWER FOR LTE BAND 41

Part 27	
EIRP Limit (dBm)	33.00
Antenna Gain (dBi)	-2.68

Bandwidth (MHz)	Frequency Range (MHz)	Modulation	OUTPUT POWER			
			Conducted Average (dBm)	EIRP Average (dBm)		Margin (dB)
				dBm	mW	
5+20	2555-2655	QPSK	21.66	18.98	79.07	-14.02
		16QAM	20.73	18.05	63.83	-14.95
20+5		QPSK	21.66	18.98	79.07	-14.02
		16QAM	20.67	17.99	62.95	-15.01
10+15		QPSK	21.62	18.94	78.34	-14.06
		16QAM	20.75	18.07	64.12	-14.93
15+10		QPSK	21.67	18.99	79.25	-14.01
		16QAM	20.84	18.16	65.46	-14.84
10+20		QPSK	21.59	18.91	77.80	-14.09
		16QAM	20.57	17.89	61.52	-15.11
20+10		QPSK	21.75	19.07	80.72	-13.93
		16QAM	20.47	17.79	60.12	-15.21
15+15		QPSK	21.75	19.07	80.72	-13.93
		16QAM	20.55	17.87	61.24	-15.13
15+20		QPSK	21.63	18.95	78.52	-14.05
		16QAM	20.58	17.90	61.66	-15.10
20+15		QPSK	21.96	19.28	84.72	-13.72
		16QAM	20.61	17.93	62.09	-15.07
20+20		QPSK	21.88	19.20	83.18	-13.80
		16QAM	20.65	17.97	62.66	-15.03

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a internal antenna for the [List the bands supported] with a maximum peak gain as follow:

Frequency (MHz)	Peak Gain (dBi)
LTE Band 41 2555 ~ 2655 MHz	-2.68

5.4. WORST-CASE CONFIGURATION

The fundamental of the EUT was investigated in three orthogonal orientations X, Y and Z it was determined that X orientation was worst-case orientation; therefore, radiated spurious testing was performed with the EUT in X orientation.

The worst-case scenario for spurious tests(radiated/conducted) are based on the average conducted output power measurement investigation results. So spurious tests were performed 20MHz/15MHz bandwidth combinations. (Adjacent allocation of single RB in PCC and SCC represents worst-case of single RB allocations.)

Note : Radiated spurious tests were performed connected with earphone and charger for evaluation of worst case mode.

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
Charger	SAMSUNG	EP-TA50CBC	DK5J808HS/A- E	N/A
Data Cable	SAMSUNG	ECB-DU68WE	N/A	N/A
Earphone	SAMSUNG	EHS61ASFWE	N/A	N/A

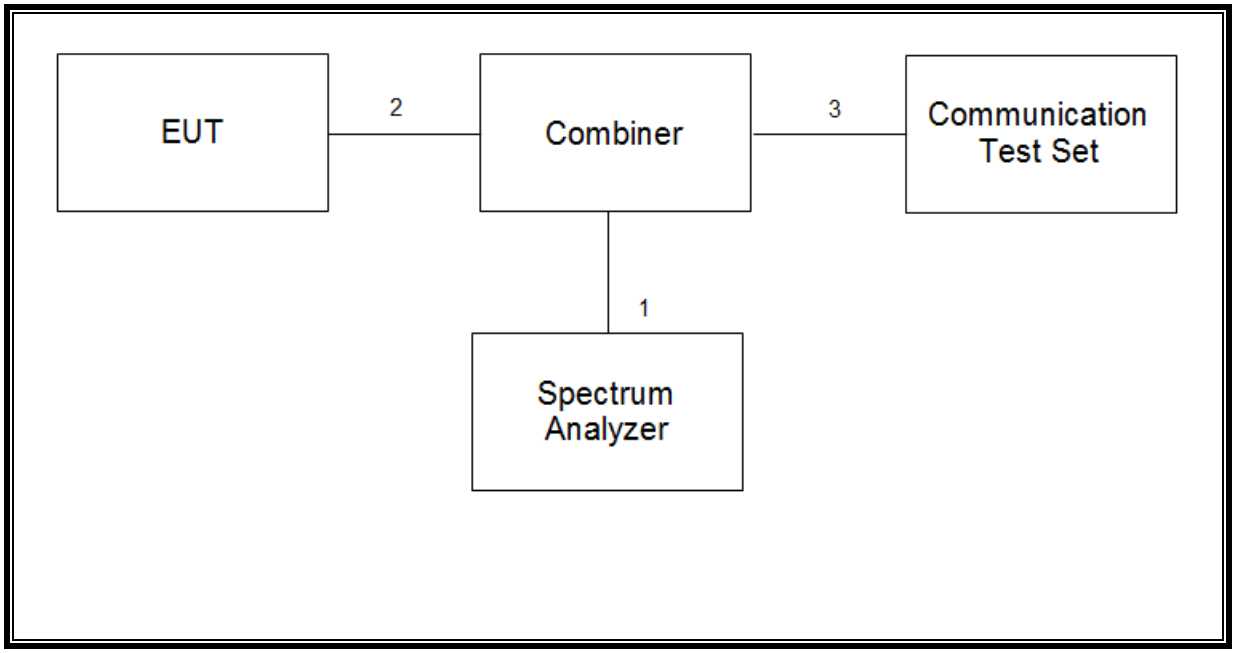
I/O CABLES

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	DC Power	1	Mini-USB	Shielded	1.2m	N/A
2	Audio	2	Mini-Jack	Unshielded	1.2m	N/A

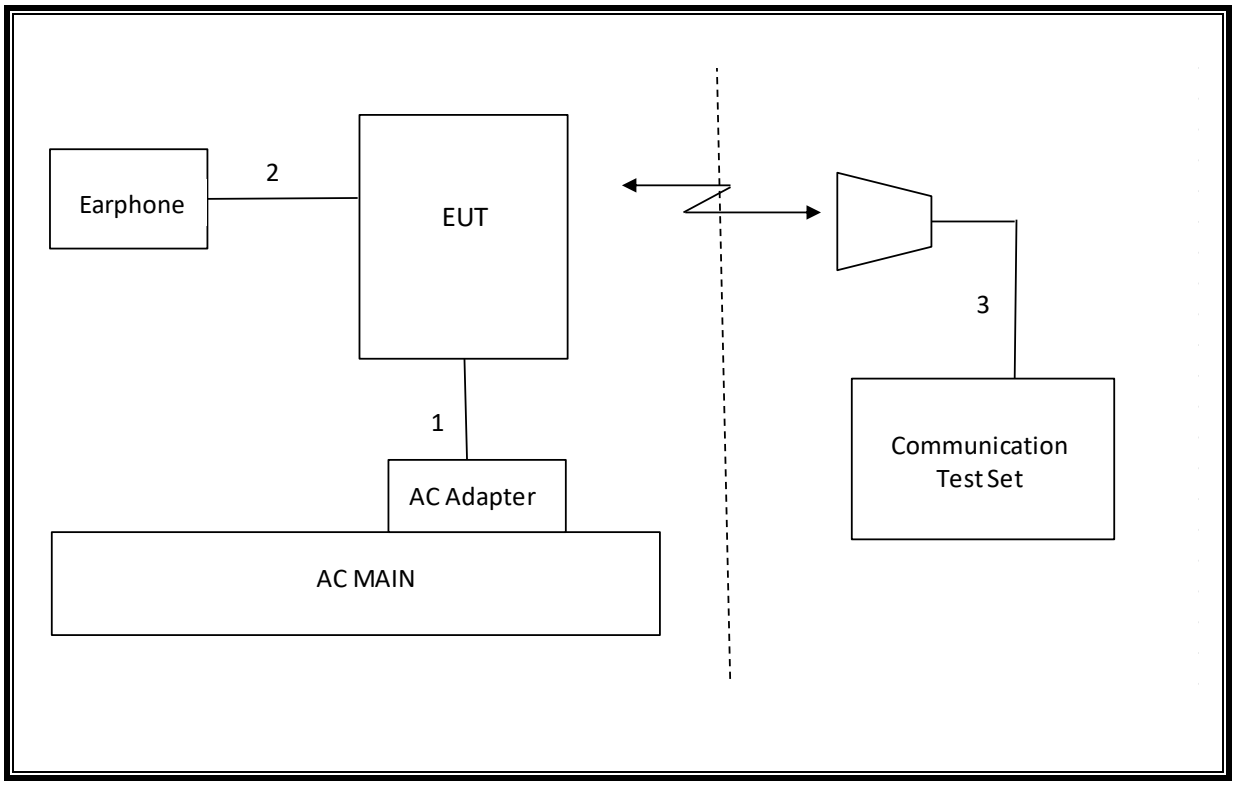
TEST SETUP

The EUT is continuously communicated to the call box during the tests.

SETUP DIAGRAM FOR TESTS (CONDUCTED TEST SETUP)



SETUP DIAGRAM FOR TESTS (RADIATED TEST SETUP)



6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

Test Equipment List				
Description	**Manufacturer**	**Model**	**S/N**	**Cal Due**
Antenna, Tuned Dipole 400~1000 MHz	ETS	3121D DB4	00164753	06-30-19
Antenna, Horn, 40 GHz	ETS	3116C	00166155	12-04-19
Preamplifier	ETS	3116C-PA	00168841	11-13-19
Antenna, Horn, 40 GHz	ETS	3116C	00168645	12-04-19
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	750	08-31-19
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	845	08-31-19
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	749	09-14-19
Antenna, Horn, 18 GHz	ETS	3115	00167211	10-14-18
Antenna, Horn, 18 GHz	ETS	3115	00161451	03-10-19
Antenna, Horn, 18 GHz	ETS	3117	00168724	05-31-19
Antenna, Horn, 18 GHz	ETS	3117	00205959	11-29-18
Antenna, Horn, 18 GHz	ETS	3117	00168717	05-31-19
Combiner	WEINSCHEL	1575	2152	08-08-18
Communications Test Set	R&S	CMW500	150314	12-05-18
DC Power Supply	Agilent / HP	E3640A	MY54226395	08-07-18
Preamplifier, 1000 MHz	Sonoma	310N	341282	08-09-18
Preamplifier, 1000 MHz	Sonoma	310N	370599	08-10-18
Preamplifier, 1000 MHz	Sonoma	310N	351741	08-07-18
Preamplifier, 18 GHz	Miteq	AFS42-00101800-25-S-42	1876511	08-08-18
Preamplifier, 18 GHz	Miteq	AFS42-00101800-25-S-42	2029169	08-11-18
Preamplifier, 18 GHz	Miteq	AFS42-00101800-25-S-42	1896138	08-08-18
Spectrum Analyzer, 44 GHz	Agilent / HP	N9030A	MY54490312	08-08-18
EMI Test Receive, 40 GHz	R&S	ESU40	100439	08-08-18
EMI Test Receive, 40 GHz	R&S	ESU40	100457	08-08-18
EMI Test Receive, 44 GHz	R&S	ESW40	101590	08-09-18
High Pass Filter 1.2GHz	Micro-Tronics	HPM50108-02	G005	08-09-18
High Pass Filter 1.2GHz	Micro-Tronics	HPM50108-02	G006	08-08-18
High Pass Filter 2.8GHz	Micro-Tronics	HPM50111-02	010	08-09-18
High Pass Filter 2.8GHz	Micro-Tronics	HPM50111-02	011	08-08-18
High Pass Filter 4GHz	Micro-Tronics	HPM50118-02	G001	08-09-18
High Pass Filter 4GHz	Micro-Tronics	HPM50118-02	G002	08-08-18
Attenuator	PASTERNACK	PE7087-10	A009	08-08-18
Attenuator	PASTERNACK	PE7087-10	A001	08-08-18
Attenuator	PASTERNACK	PE7087-10	A008	08-08-18
Attenuator	PASTERNACK	PE7087-10	2	08-10-18
Attenuator	PASTERNACK	PE7395-10	A011	02-12-19
Antenna, Loop, 9kHz-30MHz	R&S	HFH2-Z2	100418	10-26-19
Temperature Chamber	ESPEC	SH-642	93001109	08-08-18
UL Software				
Description	**Manufacturer**	**Model**	**Version**	
Antenna port test software	UL	CLT	Ver 2.4	

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7. RF OUTPUT POWER VERIFICATION (CONDUCTED AND EIRP)

RULE PART(S)

FCC: §2.1046, §27.50

EIRP LIMIT

FCC: §27.50(h)

(h) The following power limits shall apply in the BRS and EBS:
(2) Mobile and other user stations. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

TEST PROCEDURE

TIA-603-E Clause 2.2.17
KDB 971168 Section 5.6

ERP/EIRP = PMeas + GT − LC
where: ERP/EIRP = effective or equivalent radiated power, respectively (expressed in the same units as PMeas, typically dBW or dBm);
PMeas = measured transmitter output power or PSD, in dBm or dBW;
GT = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);
LC = signal attenuation in the connecting cable between the transmitter and antenna, in dB.2

RESULTS

EUT includes different power levels for head use configuration and body use configuration and the below tables contain the highest of all configurations average conducted and ERP/EIRP output powers as follows:

7.1. LTE BAND 41

OUTPUT POWER FOR LTE BAND 41 (5.0MHz + 20.0MHz)

Antenna Gain (dBi)	-2.68												
Bandwidth	PCC Frequency (MHz)	SCC1 Frequency (MHz)	PCC RB		SCC1 RB		Conducted Average (dBm)		EIRP Average (dBm)		EIRP Limit (dBm)	Margin (dB)	
			Size	Offset	Size	Offset	QPSK	16QAM	QPSK	16QAM		QPSK	16QAM
5MHz / 20MHz	2558.3	2570.0	1	24	1	0	21.37	20.22	18.69	17.54	33	-14.31	-15.46
			1	0	1	99	21.42	20.61	18.74	17.93	33	-14.26	-15.07
			25	0	100	0	20.64	19.48	17.96	16.80	33	-15.04	-16.20
	2595.8	2607.5	1	24	1	0	21.66	20.39	18.98	17.71	33	-14.02	-15.29
			1	0	1	99	21.29	20.73	18.61	18.05	33	-14.39	-14.95
			25	0	100	0	20.69	19.61	18.01	16.93	33	-14.99	-16.07
	2633.3	2645.0	1	24	1	0	21.43	20.36	18.75	17.68	33	-14.25	-15.32
			1	0	1	99	20.96	20.12	18.28	17.44	33	-14.72	-15.56
			25	0	100	0	20.46	19.30	17.78	16.62	33	-15.22	-16.38

OUTPUT POWER FOR LTE BAND 41 (20.0MHz + 5.0MHz)

Antenna Gain (dBi)	-2.68												
Bandwidth	PCC Frequency (MHz)	SCC1 Frequency (MHz)	PCC RB	PCC RB	SCC1 RB	SCC1 RB	Conducted Average (dBm)		EIRP Average (dBm)		EIRP Limit (dBm)	Margin (dB)	
			Size	Offset	Size	Offset	QPSK	16QAM	QPSK	16QAM		QPSK	16QAM
20MHz / 5MHz	2565.0	2576.7	1	99	1	0	21.66	20.33	18.98	17.65	33	-14.02	-15.35
			1	0	1	24	21.60	20.40	18.92	17.72	33	-14.08	-15.28
			100	0	25	0	20.62	19.49	17.94	16.81	33	-15.06	-16.19
	2602.5	2614.2	1	99	1	0	21.23	19.88	18.55	17.20	33	-14.45	-15.80
			1	0	1	24	21.45	20.67	18.77	17.99	33	-14.23	-15.01
			100	0	25	0	20.44	19.32	17.76	16.64	33	-15.24	-16.36
	2640.0	2651.7	1	99	1	0	21.23	19.84	18.55	17.16	33	-14.45	-15.84
			1	0	1	24	21.10	20.22	18.42	17.54	33	-14.58	-15.46
			100	0	25	0	20.29	19.19	17.61	16.51	33	-15.39	-16.49

OUTPUT POWER FOR LTE BAND 41 (10.0MHz + 15.0MHz)

Antenna Gain (dBi)	-2.68												
Bandwidth	PCC Frequency (MHz)	SCC1 Frequency (MHz)	PCC RB	PCC RB	SCC1 RB	SCC1 RB	Conducted Average (dBm)		EIRP Average (dBm)		EIRP Limit (dBm)	Margin (dB)	
			Size	Offset	Size	Offset	QPSK	16QAM	QPSK	16QAM		QPSK	16QAM
10MHz / 15MHz	2560.3	2572.3	1	49	1	0	21.49	20.27	18.81	17.59	33	-14.19	-15.41
			1	0	1	74	21.62	20.17	18.94	17.49	33	-14.06	-15.51
			50	0	75	0	20.60	19.44	17.92	16.76	33	-15.08	-16.24
	2597.9	2609.9	1	49	1	0	21.59	20.28	18.91	17.60	33	-14.09	-15.40
			1	0	1	74	21.42	20.75	18.74	18.07	33	-14.26	-14.93
			50	0	75	0	20.60	19.52	17.92	16.84	33	-15.08	-16.16
	2635.5	2647.5	1	49	1	0	21.50	19.85	18.82	17.17	33	-14.18	-15.83
			1	0	1	74	20.97	20.09	18.29	17.41	33	-14.71	-15.59
			50	0	75	0	20.45	19.29	17.77	16.61	33	-15.23	-16.39

OUTPUT POWER FOR LTE BAND 41 (15.0MHz + 10.0MHz)

Antenna Gain (dBi)	-2.68												
Bandwidth	PCC Frequency (MHz)	SCC1 Frequency (MHz)	PCC RB	PCC RB	SCC1 RB	SCC1 RB	Conducted Average (dBm)		EIRP Average (dBm)		EIRP Limit (dBm)	Margin (dB)	
			Size	Offset	Size	Offset	QPSK	16QAM	QPSK	16QAM		QPSK	16QAM
15MHz / 10MHz	2562.5	2574.5	1	74	1	0	21.61	20.55	18.93	17.87	33	-14.07	-15.13
			1	0	1	49	21.67	20.20	18.99	17.52	33	-14.01	-15.48
			75	0	50	0	20.64	19.45	17.96	16.77	33	-15.04	-16.23
	2600.1	2612.1	1	74	1	0	21.40	19.75	18.72	17.07	33	-14.28	-15.93
			1	0	1	49	21.52	20.84	18.84	18.16	33	-14.16	-14.84
			75	0	50	0	20.48	19.37	17.80	16.69	33	-15.20	-16.31
	2637.7	2649.7	1	74	1	0	21.45	20.19	18.77	17.51	33	-14.23	-15.49
			1	0	1	49	21.09	20.50	18.41	17.82	33	-14.59	-15.18
			75	0	50	0	20.44	19.25	17.76	16.57	33	-15.24	-16.43

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OUTPUT POWER FOR LTE BAND 41 (10.0MHz + 20.0MHz)

Antenna Gain (dBi)	-2.68

Bandwidth	PCC Frequency (MHz)	SCC1 Frequency (MHz)	PCC RB	PCC RB	SCC1 RB	SCC1 RB	Conducted Average (dBm)		EIRP Average (dBm)		EIRP Limit (dBm)	Margin (dB)	
			Size	Offset	Size	Offset	QPSK	16QAM	QPSK	16QAM		QPSK	16QAM
10MHz / 20MHz	2560.5	2574.9	1	49	1	0	21.56	20.35	18.88	17.67	33	-14.12	-15.33
			1	0	1	99	21.31	19.92	18.63	17.24	33	-14.37	-15.76
			50	0	100	0	20.65	19.51	17.97	16.83	33	-15.03	-16.17
	2595.60	2610.00	1	49	1	0	21.59	20.26	18.91	17.58	33	-14.09	-15.42
			1	0	1	99	21.35	20.57	18.67	17.89	33	-14.33	-15.11
			50	0	100	0	20.60	19.47	17.92	16.79	33	-15.08	-16.21
	2630.6	2645.0	1	49	1	0	21.53	19.90	18.85	17.22	33	-14.15	-15.78
			1	0	1	99	20.73	19.96	18.05	17.28	33	-14.95	-15.72
			50	0	100	0	20.37	19.24	17.69	16.56	33	-15.31	-16.44

OUTPUT POWER FOR LTE BAND 41 (20.0MHz + 10.0MHz)

Antenna Gain (dBi)	-2.68

Bandwidth	PCC Frequency (MHz)	SCC1 Frequency (MHz)	PCC RB	PCC RB	SCC1 RB	SCC1 RB	Conducted Average (dBm)		EIRP Average (dBm)		EIRP Limit (dBm)	Margin (dB)	
			Size	Offset	Size	Offset	QPSK	16QAM	QPSK	16QAM		QPSK	16QAM
20MHz / 10MHz	2565.0	2579.4	1	99	1	0	21.75	20.47	19.07	17.79	33	-13.93	-15.21
			1	0	1	49	21.43	20.20	18.75	17.52	33	-14.25	-15.48
			100	0	50	0	20.71	19.56	18.03	16.88	33	-14.97	-16.12
	2600.1	2614.5	1	99	1	0	21.31	19.98	18.63	17.30	33	-14.37	-15.70
			1	0	1	49	21.29	20.44	18.61	17.76	33	-14.39	-15.24
			100	0	50	0	20.42	19.30	17.74	16.62	33	-15.26	-16.38
	2635.1	2649.5	1	99	1	0	21.38	20.05	18.70	17.37	33	-14.30	-15.63
			1	0	1	49	20.81	20.05	18.13	17.37	33	-14.87	-15.63
			100	0	50	0	20.44	19.48	17.76	16.80	33	-15.24	-16.20

OUTPUT POWER FOR LTE BAND 41 (15.0MHz + 15.0MHz)

Antenna Gain (dBi)	-2.68

Bandwidth	PCC Frequency (MHz)	SCC1 Frequency (MHz)	PCC RB	PCC RB	SCC1 RB	SCC1 RB	Conducted Average (dBm)		EIRP Average (dBm)		EIRP Limit (dBm)	Margin (dB)	
			Size	Offset	Size	Offset	QPSK	16QAM	QPSK	16QAM		QPSK	16QAM
15MHz / 15MHz	2562.5	2577.5	1	74	1	0	21.75	20.55	19.07	17.87	33	-13.93	-15.13
			1	0	1	74	21.33	20.42	18.65	17.74	33	-14.35	-15.26
			75	0	75	0	20.66	19.51	17.98	16.83	33	-15.02	-16.17
	2597.5	2612.5	1	74	1	0	21.48	19.87	18.80	17.19	33	-14.20	-15.81
			1	0	1	74	21.24	20.12	18.56	17.44	33	-14.44	-15.56
			75	0	75	0	20.55	19.40	17.87	16.72	33	-15.13	-16.28
	2632.5	2647.5	1	74	1	0	21.48	20.41	18.80	17.73	33	-14.20	-15.27
			1	0	1	74	20.79	20.13	18.11	17.45	33	-14.89	-15.55
			75	0	75	0	20.36	19.24	17.68	16.56	33	-15.32	-16.44

OUTPUT POWER FOR LTE BAND 41 (15.0MHz + 20.0MHz)

Antenna Gain (dBi)	-2.68

Bandwidth	PCC Frequency (MHz)	SCC1 Frequency (MHz)	PCC RB	PCC RB	SCC1 RB	SCC1 RB	Conducted Average (dBm)		EIRP Average (dBm)		EIRP Limit (dBm)	Margin (dB)	
			Size	Offset	Size	Offset	QPSK	16QAM	QPSK	16QAM		QPSK	16QAM
15MHz / 20MHz	2562.8	2579.9	1	74	1	0	21.63	20.58	18.95	17.90	33	-14.05	-15.10
			1	0	1	99	20.99	19.76	18.31	17.08	33	-14.69	-15.92
			75	0	100	0	20.63	19.46	17.95	16.78	33	-15.05	-16.22
	2595.4	2612.5	1	74	1	0	21.62	20.03	18.94	17.35	33	-14.06	-15.65
			1	0	1	99	21.02	20.25	18.34	17.57	33	-14.66	-15.43
			75	0	100	0	20.47	19.33	17.79	16.65	33	-15.21	-16.35
	2627.9	2645.0	1	74	1	0	21.53	20.30	18.85	17.62	33	-14.15	-15.38
			1	0	1	99	20.37	20.02	17.69	17.34	33	-15.31	-15.66
			75	0	100	0	20.30	19.11	17.62	16.43	33	-15.38	-16.57

OUTPUT POWER FOR LTE BAND 41 (20.0MHz + 15.0MHz)

Antenna Gain (dBi)	-2.68

Bandwidth	PCC Frequency (MHz)	SCC1 Frequency (MHz)	PCC RB	PCC RB	SCC1 RB	SCC1 RB	Conducted Average (dBm)		EIRP Average (dBm)		EIRP Limit (dBm)	Margin (dB)	
			Size	Offset	Size	Offset	QPSK	16QAM	QPSK	16QAM		QPSK	16QAM
20MHz / 15MHz	2565.0	2582.1	1	99	1	0	21.96	20.61	19.28	17.93	33	-13.72	-15.07
			1	0	1	74	20.92	19.77	18.24	17.09	33	-14.76	-15.91
			100	0	75	0	20.69	19.53	18.01	16.85	33	-14.99	-16.15
	2597.6	2614.7	1	99	1	0	21.45	20.13	18.77	17.45	33	-14.23	-15.55
			1	0	1	74	20.99	20.11	18.31	17.43	33	-14.69	-15.57
			100	0	75	0	20.42	19.32	17.74	16.64	33	-15.26	-16.36
	2630.1	2647.2	1	99	1	0	21.43	20.10	18.75	17.42	33	-14.25	-15.58
			1	0	1	74	20.44	19.74	17.76	17.06	33	-15.24	-15.94
			100	0	75	0	20.24	19.06	17.56	16.38	33	-15.44	-16.62

OUTPUT POWER FOR LTE BAND 41 (20.0MHz + 20.0MHz)

Antenna Gain (dBi)	-2.68

Bandwidth	PCC Frequency (MHz)	SCC1 Frequency (MHz)	PCC RB	PCC RB	SCC1 RB	SCC1 RB	Conducted Average (dBm)		EIRP Average (dBm)		EIRP Limit (dBm)	Margin (dB)	
			Size	Offset	Size	Offset	QPSK	16QAM	QPSK	16QAM		QPSK	16QAM
20MHz/ 20MHz	2565.0	2584.8	1	99	1	0	21.88	20.65	19.20	17.97	33	-13.80	-15.03
			1	0	1	99	20.33	19.13	17.65	16.45	33	-15.35	-16.55
			100	0	100	0	20.57	19.43	17.89	16.75	33	-15.11	-16.25
	2595.1	2614.9	1	99	1	0	21.45	20.11	18.77	17.43	33	-14.23	-15.57
			1	0	1	99	20.44	19.54	17.76	16.86	33	-15.24	-16.14
			100	0	100	0	20.25	19.14	17.57	16.46	33	-15.43	-16.54
	2625.2	2645.0	1	99	1	0	21.35	20.05	18.67	17.37	33	-14.33	-15.63
			1	0	1	99	20.31	19.30	17.63	16.62	33	-15.37	-16.38
			100	0	100	0	20.03	18.85	17.35	16.17	33	-15.65	-16.83

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218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea TEL: (031) 337-9902 FAX: (031) 213-5433

8. LIMITS AND CONDUCTED RESULTS

8.1. OCCUPIED BANDWIDTH

RULE PART(S)

FCC: §2.1049

LIMITS

For reporting purposes only

TEST PROCEDURE

The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer. The occupied bandwidth was measured with the spectrum analyzer at the low, middle and high channel in each band. The -26dB bandwidth was also measured and recorded.

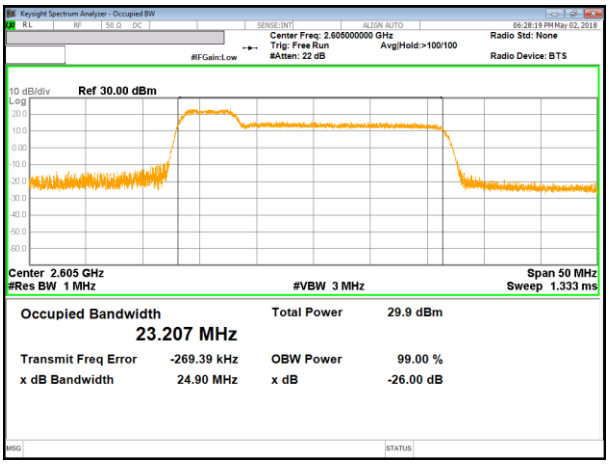
(KDB 971168 D01 Power Meas License Digital Systems v03r01)

8.1.1. OCCUPIED BANDWIDTH RESULTS

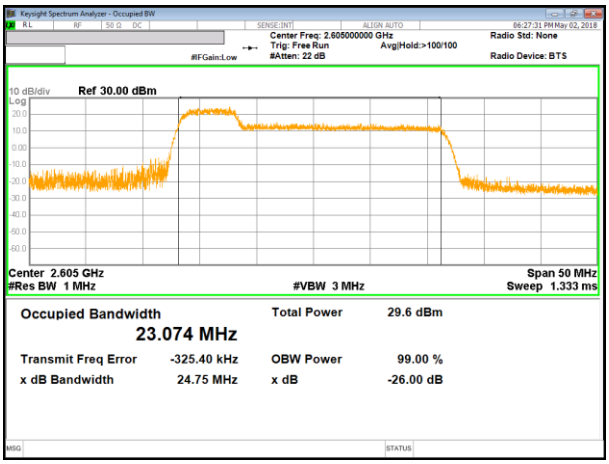
LTE BAND 41

Band	Mode	RB Allocation/RB Offset	f (MHz)	99% BW (MHz)	- 26dB BW (MHz)
LTE BAND 41	5MHz + 20MHz BAND QPSK	25/0 + 100/0	2605	23.207	24.90
	5MHz + 20MHz BAND 16QAM			23.074	24.75
	20MHz + 5MHz BAND QPSK	100/0 + 25/0		23.300	25.30
	20MHz + 5MHz BAND 16QAM			23.259	25.14
	10MHz + 15MHz BAND QPSK	50/0 + 75/0		23.433	25.45
	10MHz + 15MHz BAND 16QAM			23.398	25.28
	15MHz + 10MHz BAND QPSK	75/0 + 50/0		23.448	25.30
	15MHz + 10MHz BAND 16QAM			23.364	25.29
	10MHz + 20MHz BAND QPSK	50/0 + 100/0		27.989	29.93
	10MHz + 20MHz BAND 16QAM			27.808	29.73
	20MHz + 10MHz BAND QPSK	100/0 + 50/0		27.962	29.97
	20MHz + 10MHz BAND 16QAM			27.971	29.95
	15MHz + 15MHz BAND QPSK	75/0 + 75/0		28.546	32.28
	15MHz + 15MHz BAND 16QAM			28.485	30.39
	15MHz + 20MHz BAND QPSK	75/0 + 100/0		32.672	34.85
	15MHz + 20MHz BAND 16QAM			32.573	35.52
	20MHz + 15MHz BAND QPSK	100/0 + 75/0		32.721	36.15
	20MHz + 15MHz BAND 16QAM			32.771	34.84
	20MHz + 20MHz BAND QPSK	100/0 + 100/0		37.405	39.97
	20MHz + 20MHz BAND 16QAM			37.467	39.89

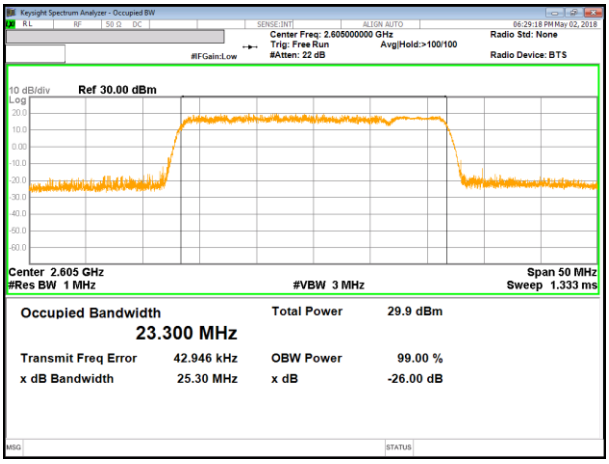
8.1.2. OCCUPIED BANDWIDTH PLOTS



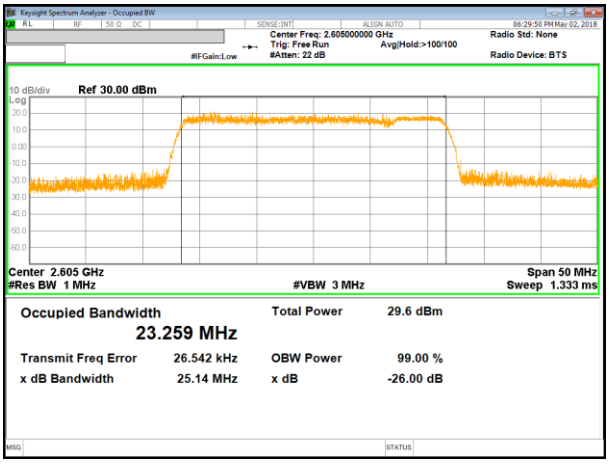
LTE B41 5MHz + 20MHz QPSK RB25-0 + RB100-0



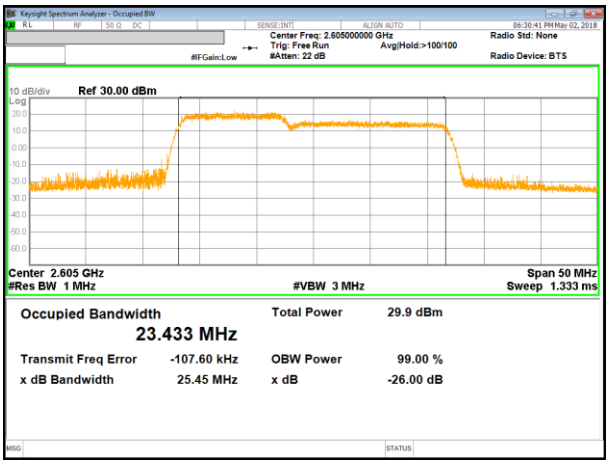
LTE B41 5MHz + 20MHz 16QAM RB25-0 + RB100-0



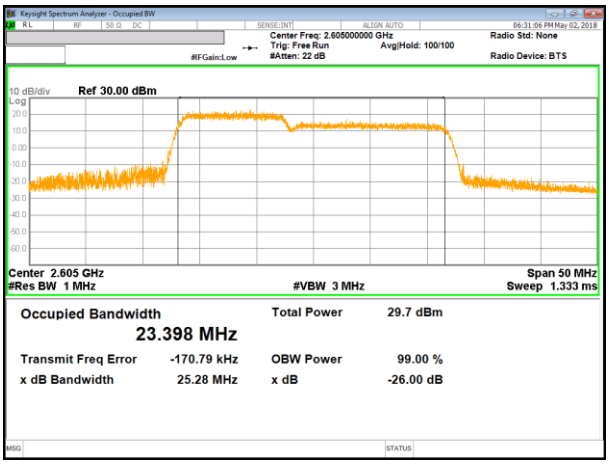
LTE B41 20MHz + 5MHz QPSK RB100-0 + RB25-0



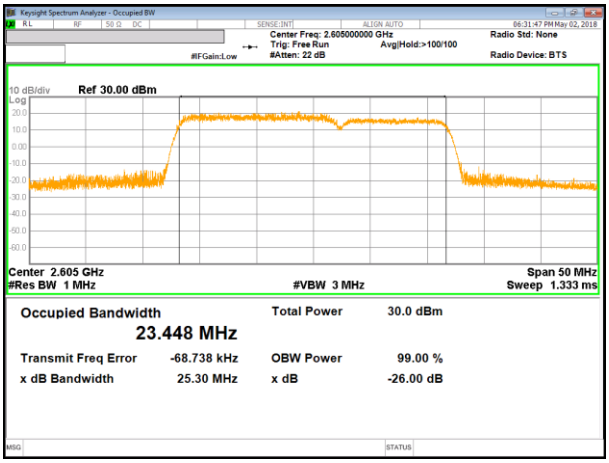
LTE B41 10MHz + 5MHz 16QAM RB100-0 + RB25-0



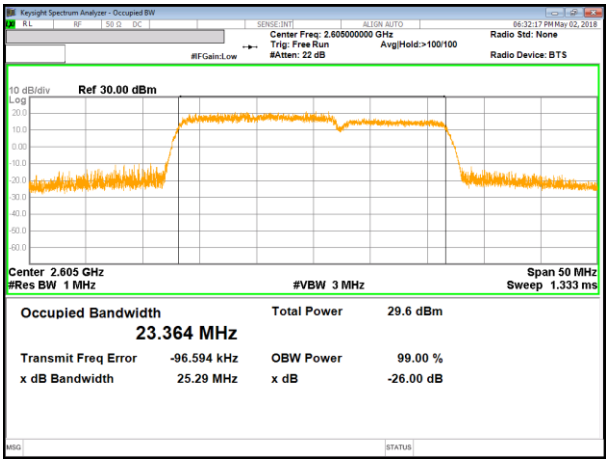
LTE B41 10MHz + 15MHz QPSK RB50-0 + RB100-0



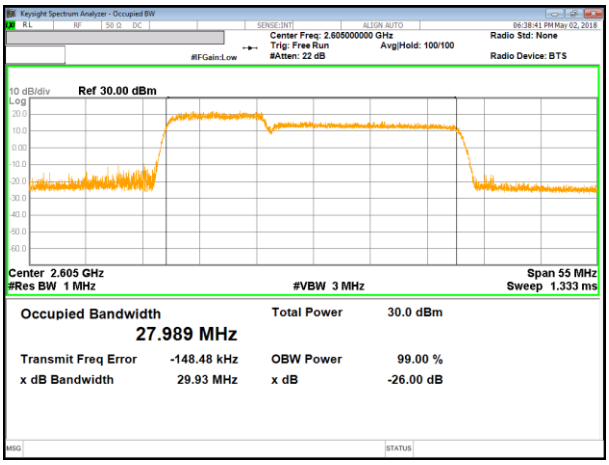
LTE B41 10MHz + 15MHz 16QAM RB50-0 + RB100-0



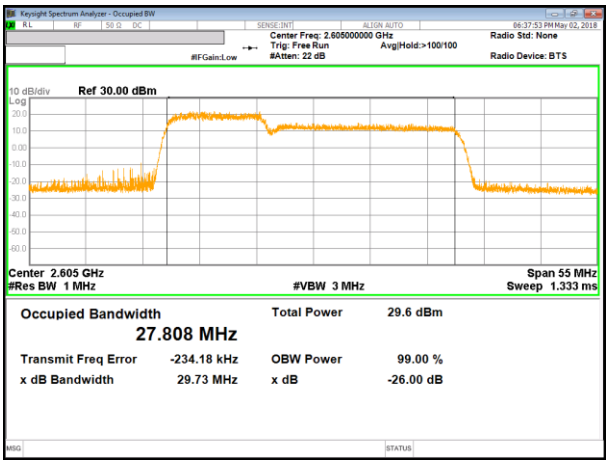
LTE B41 15MHz + 10MHz QPSK RB100-0 + RB50-0



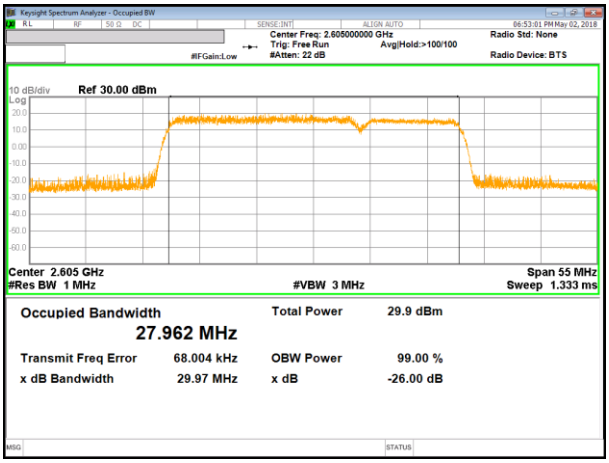
LTE B41 15MHz + 10MHz 16QAM RB100-0 + RB50-0



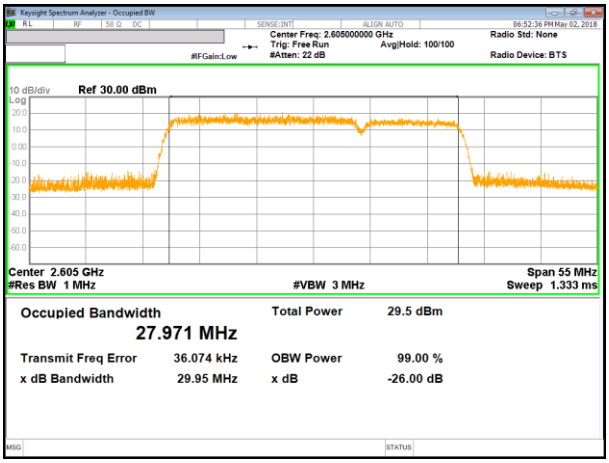
LTE B41 10MHz + 20MHz QPSK RB50-0 + RB100-0



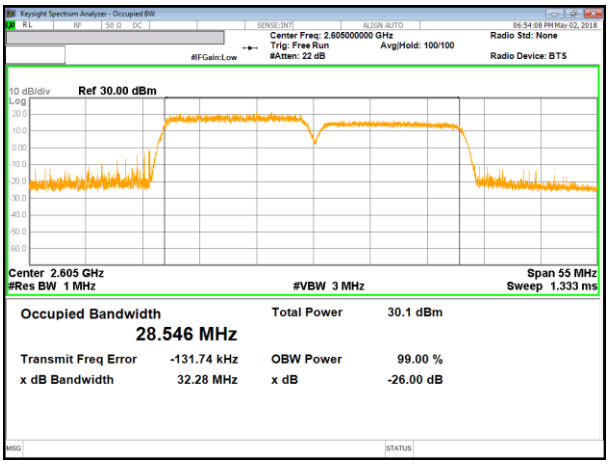
LTE B41 10MHz + 20MHz 16QAM RB50-0 + RB100-0



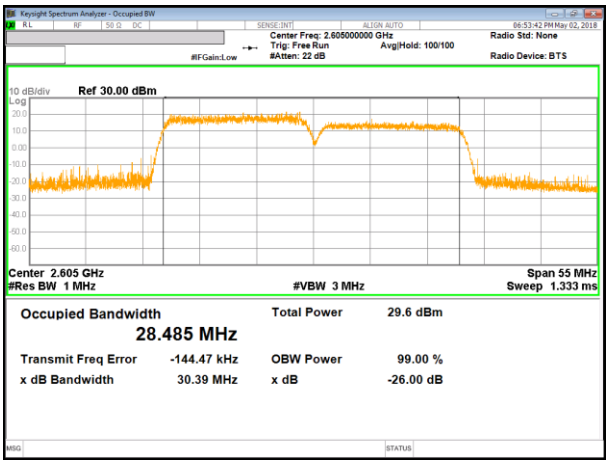
LTE B41 20MHz + 10MHz QPSK RB100-0 + RB50-0



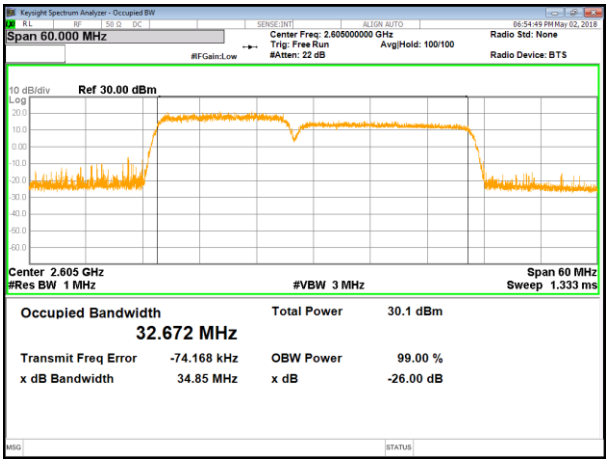
LTE B41 20MHz + 10MHz 16QAM RB100-0 + RB50-0



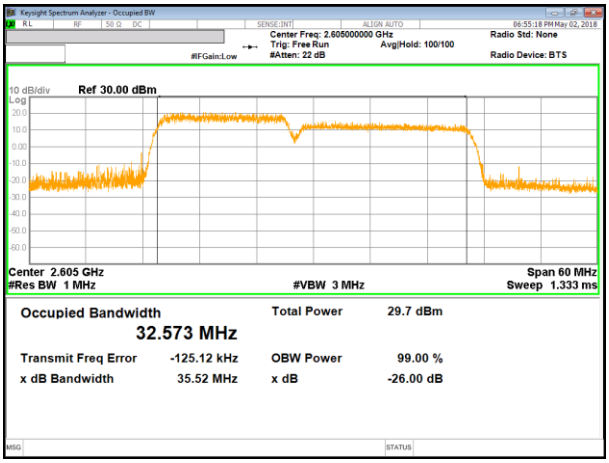
LTE B41 15MHz + 15MHz QPSK RB75-0 + RB75-0



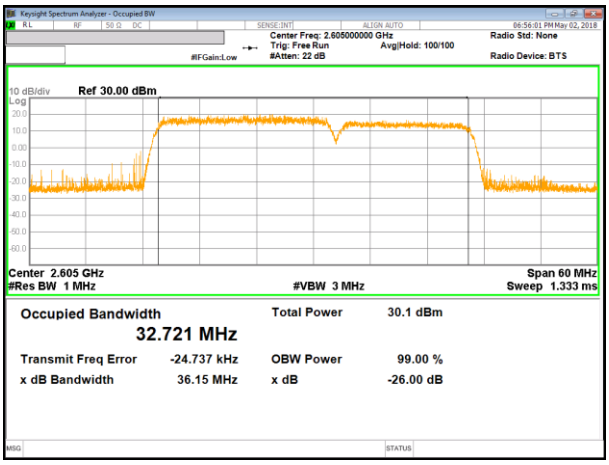
LTE B41 15MHz + 15MHz 16QAM RB75-0 + RB75-0



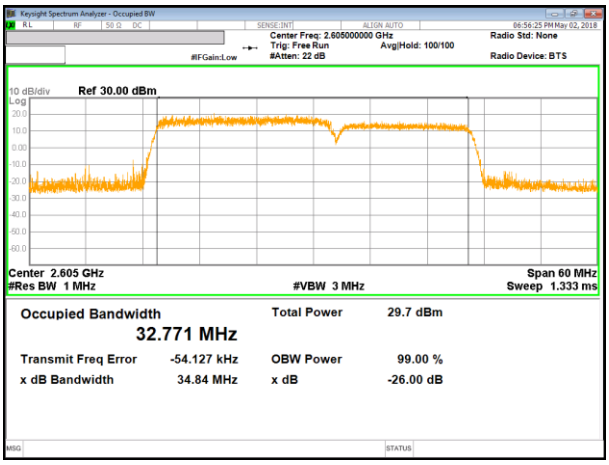
LTE B41 15MHz + 20MHz QPSK RB75-0 + RB100-0



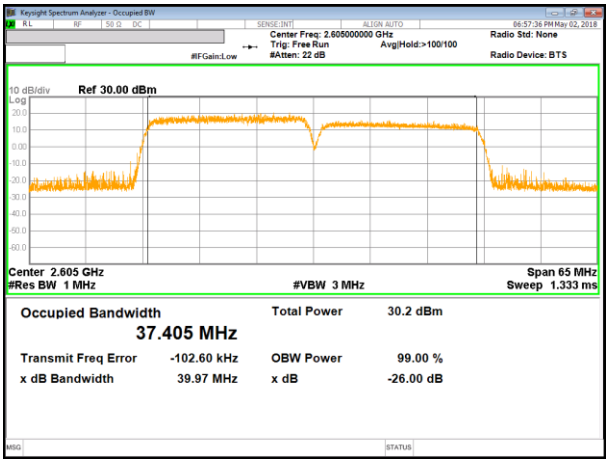
LTE B41 15MHz + 20MHz 16QAM RB75-0 + RB100-0



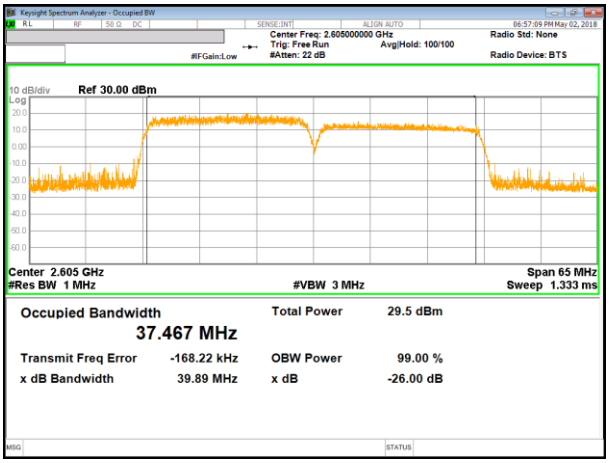
LTE B41 20MHz + 15MHz QPSK RB100-0 + RB75-0



LTE B41 20MHz + 15MHz 16QAM RB100-0 + RB75-0



LTE B41 20MHz + 20MHz QPSK RB100-0 + RB100-0



LTE B41 20MHz + 20MHz 16QAM RB100-0 + RB100-0

8.2. EMISSION MASK

RULE PART(S)

FCC: §27. 53(m)

LIMITS

Part 27.53(m) For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

TEST PROCEDURE

Per KDB 971168 D01 Power Meas License Digital Systems v03r01
The transmitter output was connected to a CMW500 Test Set and configured to operate at maximum power. The band edge emissions were measured at the required operating frequencies in each band on the Spectrum Analyzer.

NOTE

LTE 41 - Duty cycle correction factor(2.25dB) already applied on the plot.

RESULTS

LTE 41

Bandwidth	Mode	f [MHz]	RB Status	Side Trace	Level [dBm]	Limit [dBm]
PCC 5 MHz SCC 20 MHz	QPSK	2567.5	1RB	Lower Trace 1	-30.80	-10.00
				Lower Trace 2	-22.44	-13.00
				Lower Trace 3	-44.45	-25.00
			FRB	Lower Trace 1	-31.47	-10.00
				Lower Trace 2	-34.31	-13.00
				Lower Trace 3	-43.99	-25.00
		2642.5	1RB	Upper Trace 1	-33.56	-10.00
				Upper Trace 2	-31.77	-13.00
				Upper Trace 3	-44.13	-25.00
			FRB	Upper Trace 1	-32.49	-10.00
				Upper Trace 2	-34.85	-13.00
				Upper Trace 3	-44.04	-25.00
	16QAM	2567.5	1RB	Lower Trace 1	-32.87	-10.00
				Lower Trace 2	-20.94	-13.00
				Lower Trace 3	-44.47	-25.00
			FRB	Lower Trace 1	-29.39	-10.00
				Lower Trace 2	-32.53	-13.00
				Lower Trace 3	-44.13	-25.00
		2642.5	1RB	Upper Trace 1	-34.75	-10.00
				Upper Trace 2	-29.56	-13.00
				Upper Trace 3	-44.16	-25.00
			FRB	Upper Trace 1	-31.90	-10.00
				Upper Trace 2	-34.58	-13.00
				Upper Trace 3	-44.05	-25.00

LTE 41 (Continue)

Bandwidth	Mode	f [MHz]	RB Status	Side Trace	Level [dBm]	Limit [dBm]
PCC 20 MHz SCC 5 MHz	QPSK	2567.5	1RB	Lower Trace 1	-30.19	-10.00
				Lower Trace 2	-22.31	-13.00
				Lower Trace 3	-44.32	-25.00
			FRB	Lower Trace 1	-33.37	-10.00
				Lower Trace 2	-34.05	-13.00
				Lower Trace 3	-43.92	-25.00
		2642.5	1RB	Upper Trace 1	-36.51	-10.00
				Upper Trace 2	-31.68	-13.00
				Upper Trace 3	-44.05	-25.00
			FRB	Upper Trace 1	-31.35	-10.00
				Upper Trace 2	-32.19	-13.00
				Upper Trace 3	-43.96	-25.00
	16QAM	2567.5	1RB	Lower Trace 1	-29.67	-10.00
				Lower Trace 2	-20.82	-13.00
				Lower Trace 3	-44.32	-25.00
			FRB	Lower Trace 1	-31.62	-10.00
				Lower Trace 2	-33.51	-13.00
				Lower Trace 3	-44.12	-25.00
		2642.5	1RB	Upper Trace 1	-37.01	-10.00
				Upper Trace 2	-30.10	-13.00
				Upper Trace 3	-44.09	-25.00
			FRB	Upper Trace 1	-30.51	-10.00
				Upper Trace 2	-31.37	-13.00
				Upper Trace 3	-43.96	-25.00

LTE 41 (Continue)

Bandwidth	Mode	f [MHz]	RB Status	Side Trace	Level [dBm]	Limit [dBm]
PCC 10 MHz SCC 15 MHz	QPSK	2567.5	1RB	Lower Trace 1	-31.83	-10.00
				Lower Trace 2	-22.54	-13.00
				Lower Trace 3	-44.29	-25.00
			FRB	Lower Trace 1	-32.33	-10.00
				Lower Trace 2	-33.41	-13.00
				Lower Trace 3	-43.94	-25.00
		2642.5	1RB	Upper Trace 1	-30.35	-10.00
				Upper Trace 2	-32.72	-13.00
				Upper Trace 3	-44.24	-25.00
			FRB	Upper Trace 1	-31.24	-10.00
				Upper Trace 2	-33.63	-13.00
				Upper Trace 3	-44.20	-25.00
	16QAM	2567.5	1RB	Lower Trace 1	-31.06	-10.00
				Lower Trace 2	-21.81	-13.00
				Lower Trace 3	-44.34	-25.00
			FRB	Lower Trace 1	-30.48	-10.00
				Lower Trace 2	-32.40	-13.00
				Lower Trace 3	-44.02	-25.00
		2642.5	1RB	Upper Trace 1	-31.95	-10.00
				Upper Trace 2	-30.40	-13.00
				Upper Trace 3	-44.28	-25.00
			FRB	Upper Trace 1	-31.09	-10.00
				Upper Trace 2	-32.53	-13.00
				Upper Trace 3	-44.19	-25.00

LTE 41 (Continue)

Bandwidth	Mode	f [MHz]	RB Status	Side Trace	Level [dBm]	Limit [dBm]
PCC 15 MHz SCC 10 MHz	QPSK	2567.5	1RB	Lower Trace 1	-25.86	-10.00
				Lower Trace 2	-23.14	-13.00
				Lower Trace 3	-44.32	-25.00
			FRB	Lower Trace 1	-32.01	-10.00
				Lower Trace 2	-33.28	-13.00
				Lower Trace 3	-43.98	-25.00
		2642.5	1RB	Upper Trace 1	-36.55	-10.00
				Upper Trace 2	-31.93	-13.00
				Upper Trace 3	-44.31	-25.00
			FRB	Upper Trace 1	-30.62	-10.00
				Upper Trace 2	-32.51	-13.00
				Upper Trace 3	-44.08	-25.00
	16QAM	2567.5	1RB	Lower Trace 1	-26.36	-10.00
				Lower Trace 2	-21.26	-13.00
				Lower Trace 3	-44.25	-25.00
			FRB	Lower Trace 1	-30.96	-10.00
				Lower Trace 2	-32.58	-13.00
				Lower Trace 3	-44.06	-25.00
		2642.5	1RB	Upper Trace 1	-34.87	-10.00
				Upper Trace 2	-31.40	-13.00
				Upper Trace 3	-44.29	-25.00
			FRB	Upper Trace 1	-29.55	-10.00
				Upper Trace 2	-31.60	-13.00
				Upper Trace 3	-44.16	-25.00

LTE 41 (Continue)

Bandwidth	Mode	f [MHz]	RB Status	Side Trace	Level [dBm]	Limit [dBm]
PCC 10 MHz SCC 20 MHz	QPSK	2570.0	1RB	Lower Trace 1	-31.23	-10.00
				Lower Trace 2	-35.38	-13.00
				Lower Trace 3	-44.36	-25.00
			FRB	Lower Trace 1	-33.15	-10.00
				Lower Trace 2	-34.42	-13.00
				Lower Trace 3	-44.29	-25.00
		2640.0	1RB	Upper Trace 1	-34.88	-10.00
				Upper Trace 2	-39.64	-13.00
				Upper Trace 3	-44.38	-25.00
			FRB	Upper Trace 1	-32.59	-10.00
				Upper Trace 2	-34.47	-13.00
				Upper Trace 3	-44.31	-25.00
	16QAM	2570.0	1RB	Lower Trace 1	-32.30	-10.00
				Lower Trace 2	-32.96	-13.00
				Lower Trace 3	-44.22	-25.00
			FRB	Lower Trace 1	-31.73	-10.00
				Lower Trace 2	-32.95	-13.00
				Lower Trace 3	-44.19	-25.00
		2640.0	1RB	Upper Trace 1	-35.39	-10.00
				Upper Trace 2	-39.03	-13.00
				Upper Trace 3	-44.35	-25.00
			FRB	Upper Trace 1	-31.89	-10.00
				Upper Trace 2	-34.07	-13.00
				Upper Trace 3	-44.27	-25.00

LTE 41 (Continue)

Bandwidth	Mode	f [MHz]	RB Status	Side Trace	Level [dBm]	Limit [dBm]
PCC 20 MHz SCC 10 MHz	QPSK	2570.0	1RB	Lower Trace 1	-28.01	-10.00
				Lower Trace 2	-35.65	-13.00
				Lower Trace 3	-44.29	-25.00
			FRB	Lower Trace 1	-33.50	-10.00
				Lower Trace 2	-33.96	-13.00
				Lower Trace 3	-44.22	-25.00
		2640.0	1RB	Upper Trace 1	-38.94	-10.00
				Upper Trace 2	-40.27	-13.00
				Upper Trace 3	-44.38	-25.00
			FRB	Upper Trace 1	-32.43	-10.00
				Upper Trace 2	-32.46	-13.00
				Upper Trace 3	-44.28	-25.00
	16QAM	2570.0	1RB	Lower Trace 1	-29.40	-10.00
				Lower Trace 2	-32.87	-13.00
				Lower Trace 3	-44.16	-25.00
			FRB	Lower Trace 1	-32.12	-10.00
				Lower Trace 2	-33.10	-13.00
				Lower Trace 3	-44.22	-25.00
		2640.0	1RB	Upper Trace 1	-38.11	-10.00
				Upper Trace 2	-38.00	-13.00
				Upper Trace 3	-44.35	-25.00
			FRB	Upper Trace 1	-30.85	-10.00
				Upper Trace 2	-31.98	-13.00
				Upper Trace 3	-44.29	-25.00

LTE 41 (Continue)

Bandwidth	Mode	f [MHz]	RB Status	Side Trace	Level [dBm]	Limit [dBm]
PCC 15 MHz SCC 15 MHz	QPSK	2570.0	1RB	Lower Trace 1	-24.78	-10.00
				Lower Trace 2	-38.85	-13.00
				Lower Trace 3	-44.26	-25.00
			FRB	Lower Trace 1	-32.77	-10.00
				Lower Trace 2	-33.63	-13.00
				Lower Trace 3	-44.23	-25.00
		2640.0	1RB	Upper Trace 1	-29.73	-10.00
				Upper Trace 2	-40.82	-13.00
				Upper Trace 3	-44.33	-25.00
			FRB	Upper Trace 1	-31.11	-10.00
				Upper Trace 2	-33.06	-13.00
				Upper Trace 3	-44.34	-25.00
	16QAM	2570.0	1RB	Lower Trace 1	-23.89	-10.00
				Lower Trace 2	-36.10	-13.00
				Lower Trace 3	-44.24	-25.00
			FRB	Lower Trace 1	-31.48	-10.00
				Lower Trace 2	-32.61	-13.00
				Lower Trace 3	-44.15	-25.00
		2640.0	1RB	Upper Trace 1	-29.94	-10.00
				Upper Trace 2	-39.26	-13.00
				Upper Trace 3	-44.33	-25.00
			FRB	Upper Trace 1	-31.10	-10.00
				Upper Trace 2	-32.87	-13.00
				Upper Trace 3	-44.29	-25.00

LTE 41 (Continue)

Bandwidth	Mode	f [MHz]	RB Status	Side Trace	Level [dBm]	Limit [dBm]
PCC 15 MHz SCC 20 MHz	QPSK	2572.5	1RB	Lower Trace 1	-29.79	-10.00
				Lower Trace 2	-42.90	-13.00
				Lower Trace 3	-44.41	-25.00
			FRB	Lower Trace 1	-34.08	-10.00
				Lower Trace 2	-33.92	-13.00
				Lower Trace 3	-44.46	-25.00
		2637.5	1RB	Upper Trace 1	-33.01	-10.00
				Upper Trace 2	-43.24	-13.00
				Upper Trace 3	-44.25	-25.00
			FRB	Upper Trace 1	-32.32	-10.00
				Upper Trace 2	-33.60	-13.00
				Upper Trace 3	-44.23	-25.00
	16QAM	2572.5	1RB	Lower Trace 1	-31.99	-10.00
				Lower Trace 2	-42.82	-13.00
				Lower Trace 3	-44.42	-25.00
			FRB	Lower Trace 1	-32.78	-10.00
				Lower Trace 2	-33.59	-13.00
				Lower Trace 3	-44.43	-25.00
		2637.5	1RB	Upper Trace 1	-33.48	-10.00
				Upper Trace 2	-43.33	-13.00
				Upper Trace 3	-44.17	-25.00
			FRB	Upper Trace 1	-31.74	-10.00
				Upper Trace 2	-33.35	-13.00
				Upper Trace 3	-44.21	-25.00

LTE 41 (Continue)

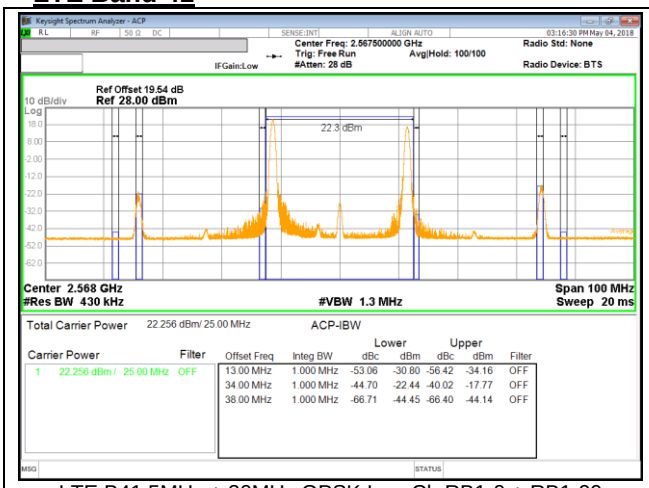
Bandwidth	Mode	f [MHz]	RB Status	Side Trace	Level [dBm]	Limit [dBm]
PCC 20 MHz SCC 15 MHz	QPSK	2572.5	1RB	Lower Trace 1	-27.99	-10.00
				Lower Trace 2	-42.45	-13.00
				Lower Trace 3	-44.30	-25.00
			FRB	Lower Trace 1	-33.79	-10.00
				Lower Trace 2	-34.74	-13.00
				Lower Trace 3	-44.40	-25.00
		2637.5	1RB	Upper Trace 1	-35.89	-10.00
				Upper Trace 2	-43.43	-13.00
				Upper Trace 3	-44.31	-25.00
			FRB	Upper Trace 1	-32.43	-10.00
				Upper Trace 2	-33.53	-13.00
				Upper Trace 3	-44.37	-25.00
	16QAM	2572.5	1RB	Lower Trace 1	-29.38	-10.00
				Lower Trace 2	-42.17	-13.00
				Lower Trace 3	-44.40	-25.00
			FRB	Lower Trace 1	-32.95	-10.00
				Lower Trace 2	-33.45	-13.00
				Lower Trace 3	-44.39	-25.00
		2637.5	1RB	Upper Trace 1	-36.92	-10.00
				Upper Trace 2	-43.08	-13.00
				Upper Trace 3	-44.28	-25.00
			FRB	Upper Trace 1	-31.74	-10.00
				Upper Trace 2	-32.97	-13.00
				Upper Trace 3	-44.31	-25.00

LTE 41 (Continue)

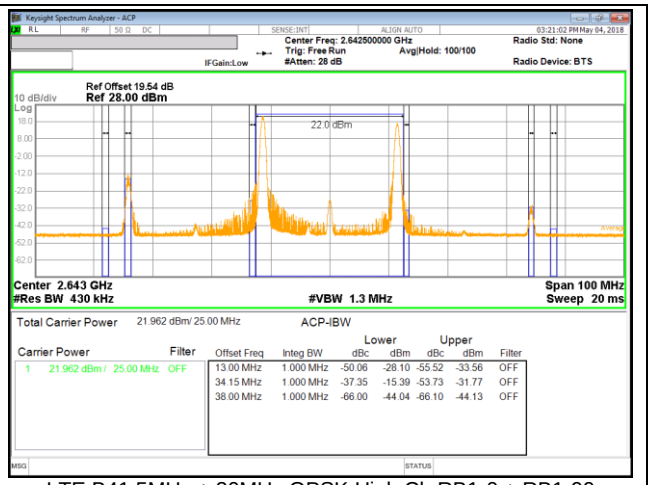
Bandwidth	Mode	f [MHz]	RB Status	Side Trace	Level [dBm]	Limit [dBm]
PCC 20 MHz SCC 20 MHz	QPSK	2575.0	1RB	Lower Trace 1	-30.11	-10.00
				Lower Trace 2	-42.84	-13.00
				Lower Trace 3	-44.46	-25.00
			FRB	Lower Trace 1	-34.15	-10.00
				Lower Trace 2	-34.82	-13.00
				Lower Trace 3	-44.42	-25.00
		2635.0	1RB	Upper Trace 1	-34.14	-10.00
				Upper Trace 2	-42.92	-13.00
				Upper Trace 3	-44.21	-25.00
			FRB	Upper Trace 1	-32.85	-10.00
				Upper Trace 2	-34.24	-13.00
				Upper Trace 3	-44.34	-25.00
	16QAM	2575.0	1RB	Lower Trace 1	-30.89	-10.00
				Lower Trace 2	-42.76	-13.00
				Lower Trace 3	-44.28	-25.00
			FRB	Lower Trace 1	-33.26	-10.00
				Lower Trace 2	-33.88	-13.00
				Lower Trace 3	-44.43	-25.00
		2635.0	1RB	Upper Trace 1	-35.14	-10.00
				Upper Trace 2	-43.51	-13.00
				Upper Trace 3	-44.32	-25.00
			FRB	Upper Trace 1	-32.13	-10.00
				Upper Trace 2	-34.06	-13.00
				Upper Trace 3	-44.26	-25.00

8.2.1. EMISSION MASK PLOTS

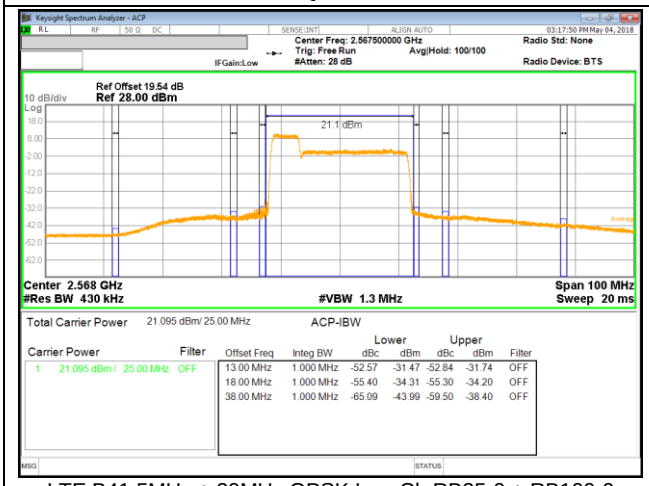
LTE Band 41



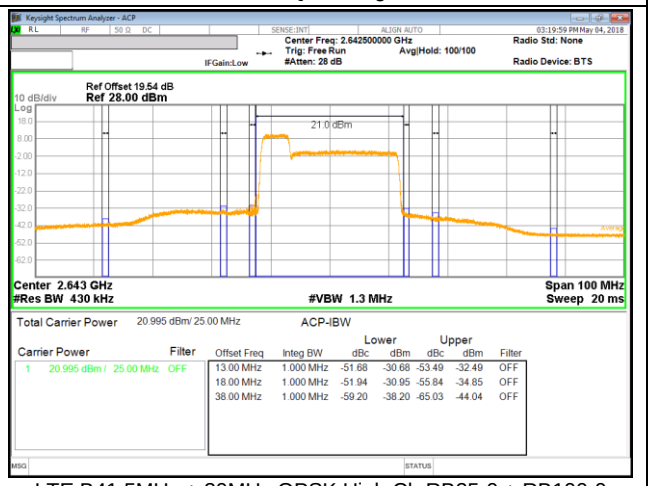
LTE B41 5MHz + 20MHz QPSK Low Ch RB1-0 + RB1-99



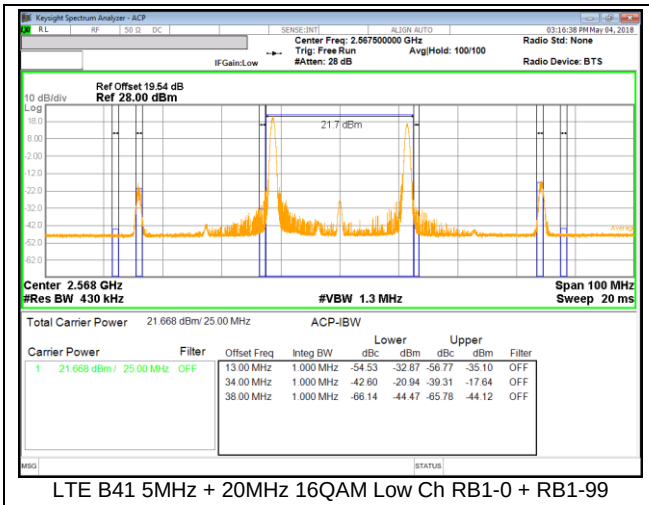
LTE B41 5MHz + 20MHz QPSK High Ch RB1-0 + RB1-99



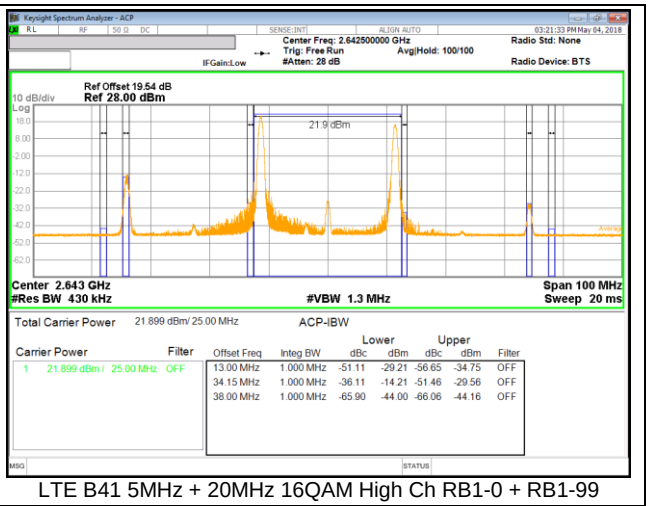
LTE B41 5MHz + 20MHz QPSK Low Ch RB25-0 + RB100-0



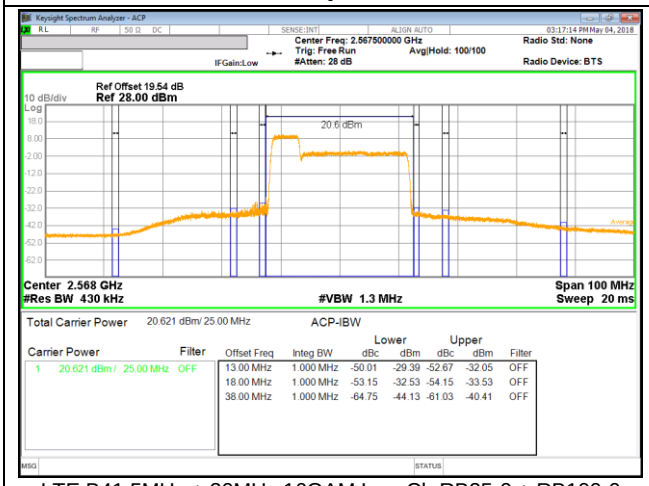
LTE B41 5MHz + 20MHz QPSK High Ch RB25-0 + RB100-0



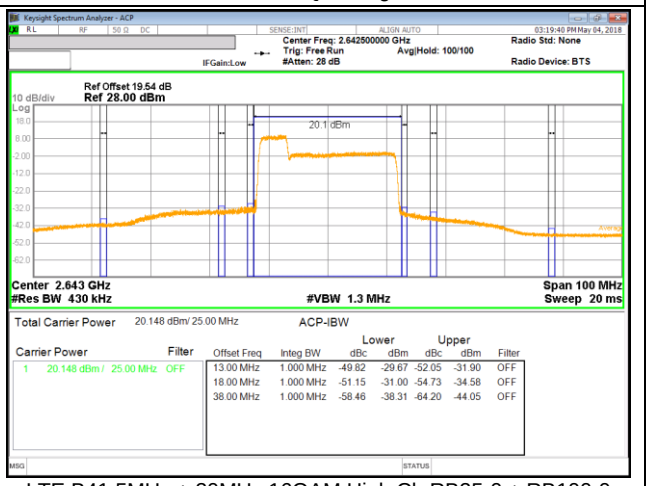
LTE B41 5MHz + 20MHz 16QAM Low Ch RB1-0 + RB1-99



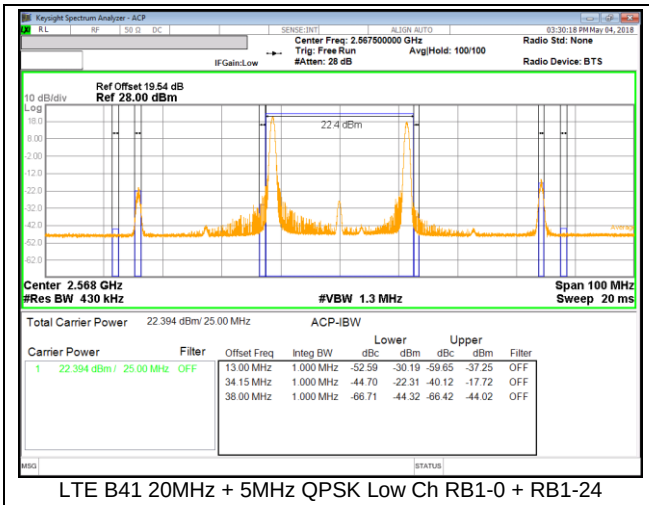
LTE B41 5MHz + 20MHz 16QAM High Ch RB1-0 + RB1-99



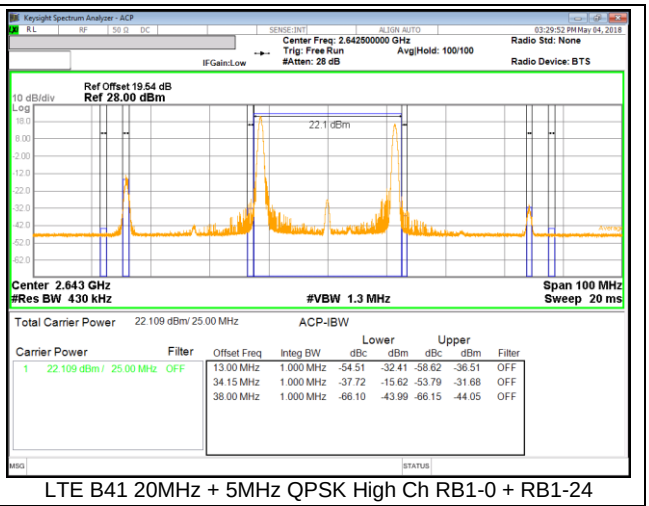
LTE B41 5MHz + 20MHz 16QAM Low Ch RB25-0 + RB100-0



LTE B41 5MHz + 20MHz 16QAM High Ch RB25-0 + RB100-0

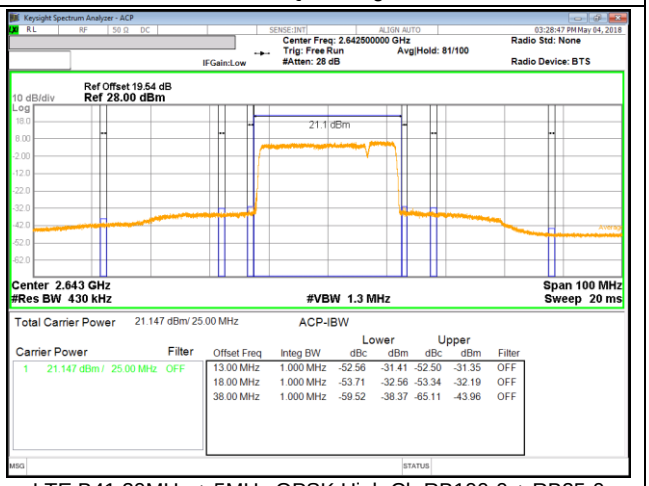


LTE B41 20MHz + 5MHz QPSK Low Ch RB1-0 + RB1-24

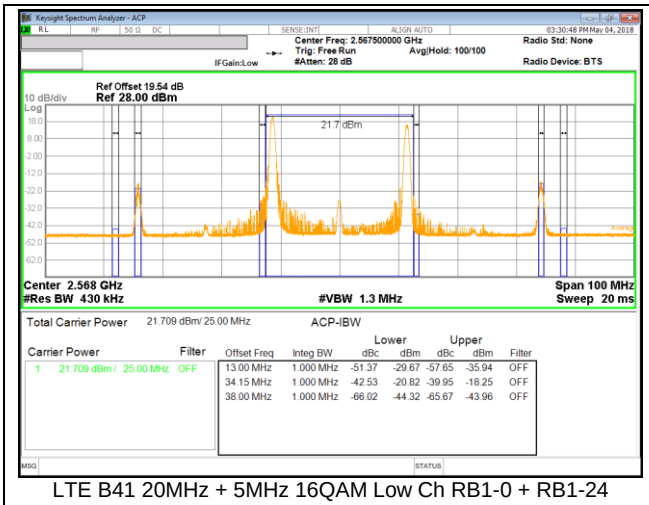


LTE B41 20MHz + 5MHz QPSK High Ch RB1-0 + RB1-24

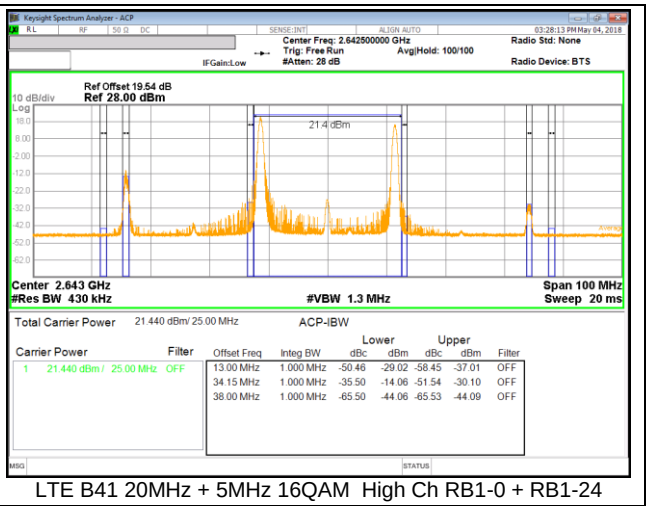
LTE B41 20MHz + 5MHz QPSK Low Ch RB100-0 + RB25-0



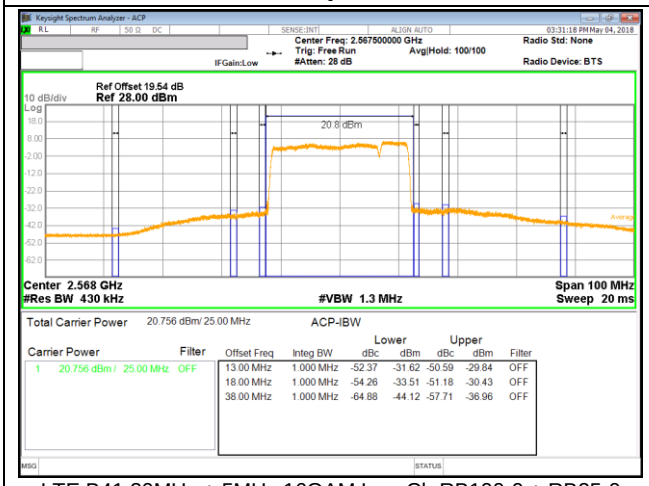
LTE B41 20MHz + 5MHz QPSK High Ch RB100-0 + RB25-0



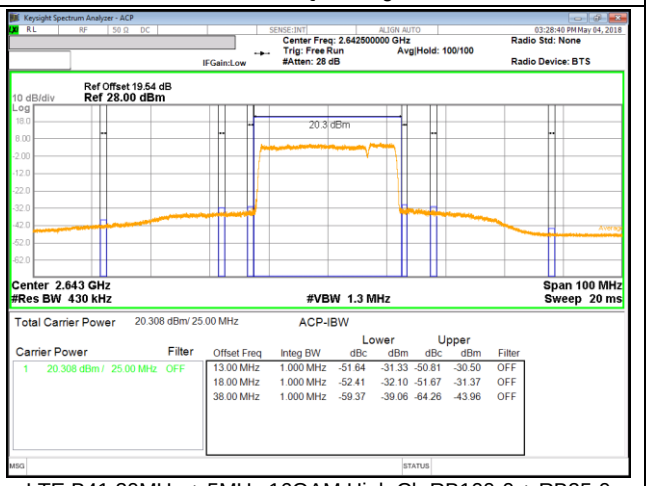
LTE B41 20MHz + 5MHz 16QAM Low Ch RB1-0 + RB1-24



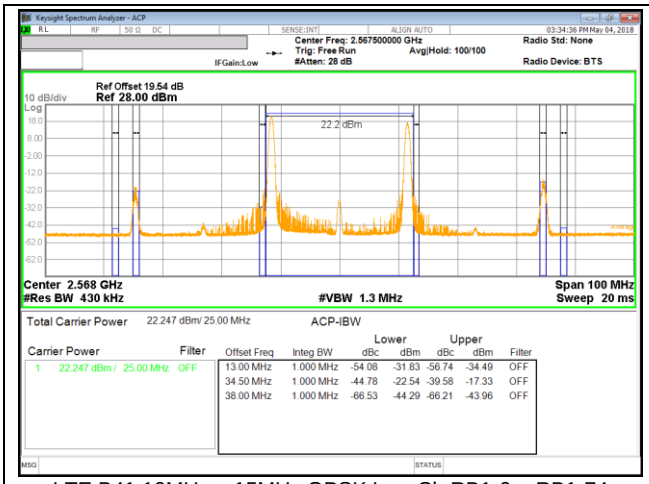
LTE B41 20MHz + 5MHz 16QAM High Ch RB1-0 + RB1-24



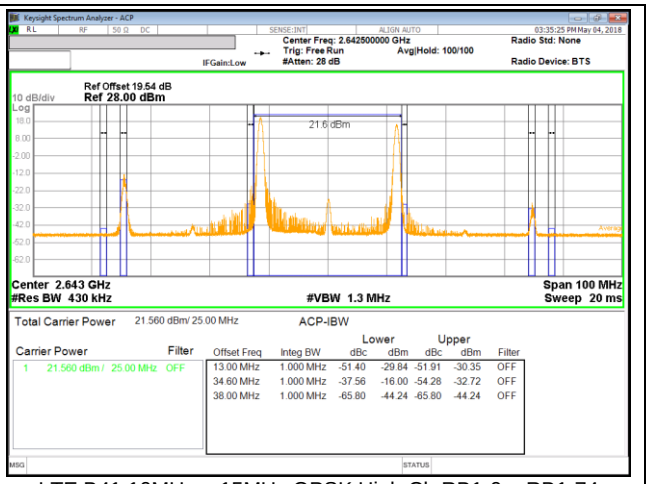
LTE B41 20MHz + 5MHz 16QAM Low Ch RB100-0 + RB25-0



LTE B41 20MHz + 5MHz 16QAM High Ch RB100-0 + RB25-0

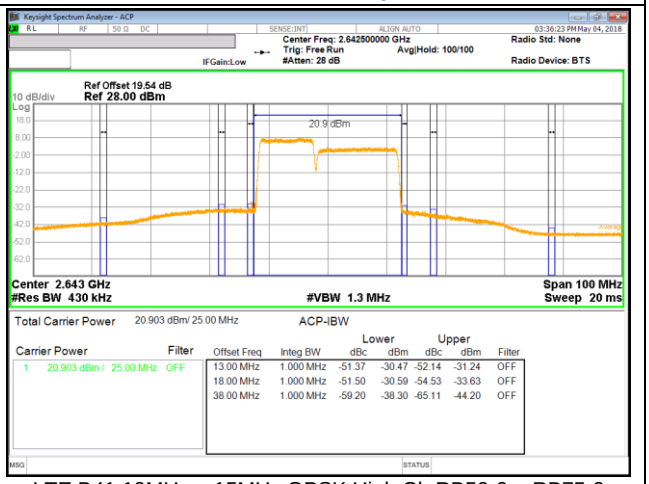


LTE B41 10MHz + 15MHz QPSK Low Ch RB1-0 + RB1-74

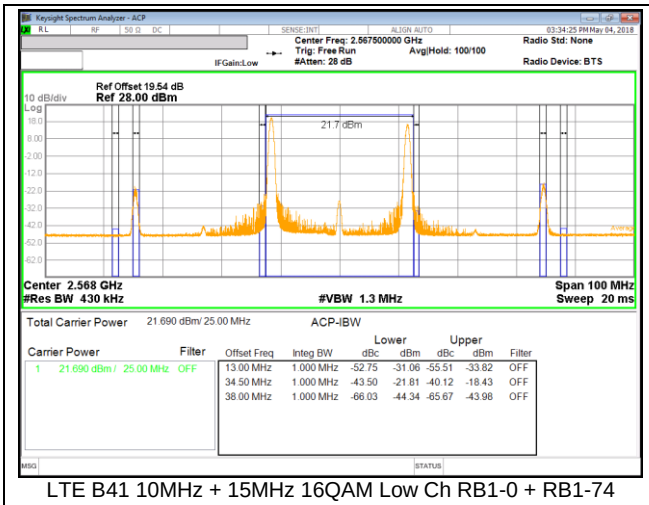


LTE B41 10MHz + 15MHz QPSK High Ch RB1-0 + RB1-74

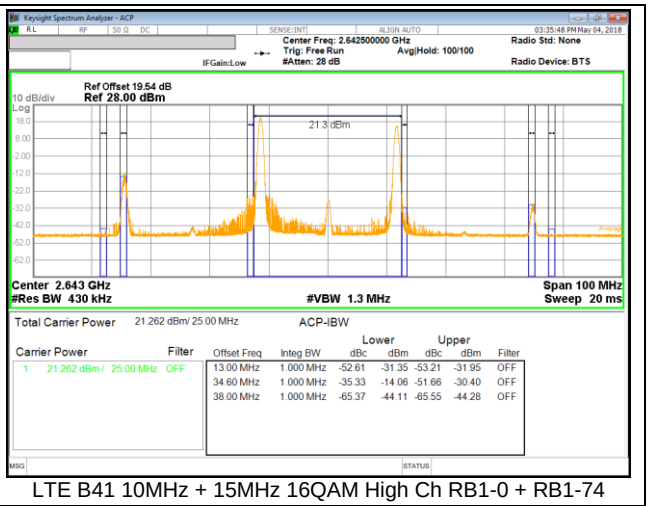
LTE B41 10MHz + 15MHz QPSK Low Ch RB50-0 + RB75-0



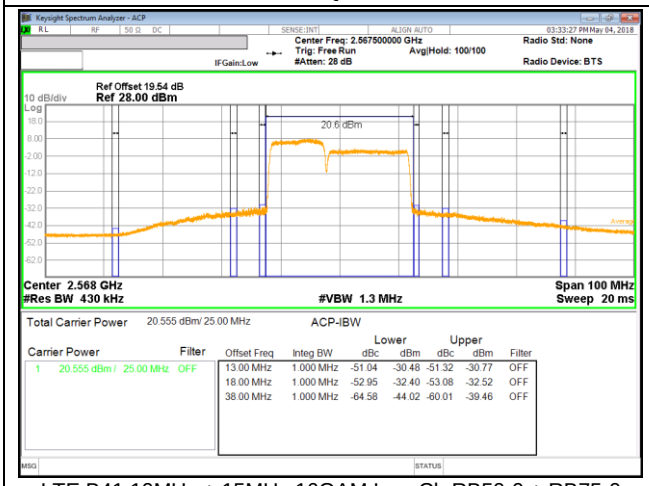
LTE B41 10MHz + 15MHz QPSK High Ch RB50-0 + RB75-0



LTE B41 10MHz + 15MHz 16QAM Low Ch RB1-0 + RB1-74

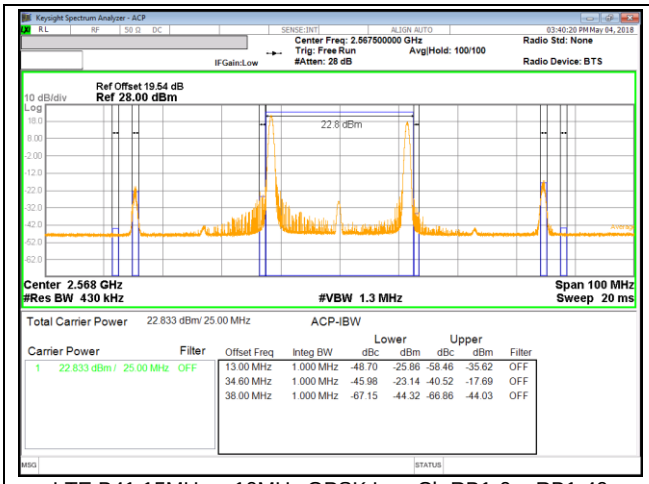


LTE B41 10MHz + 15MHz 16QAM High Ch RB1-0 + RB1-74

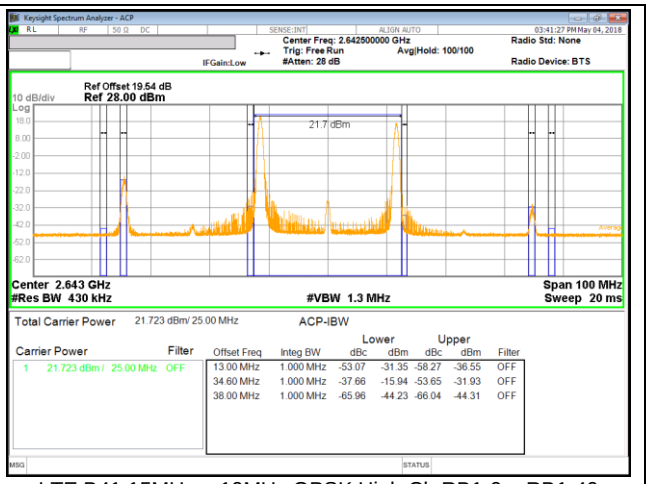


LTE B41 10MHz + 15MHz 16QAM Low Ch RB50-0 + RB75-0

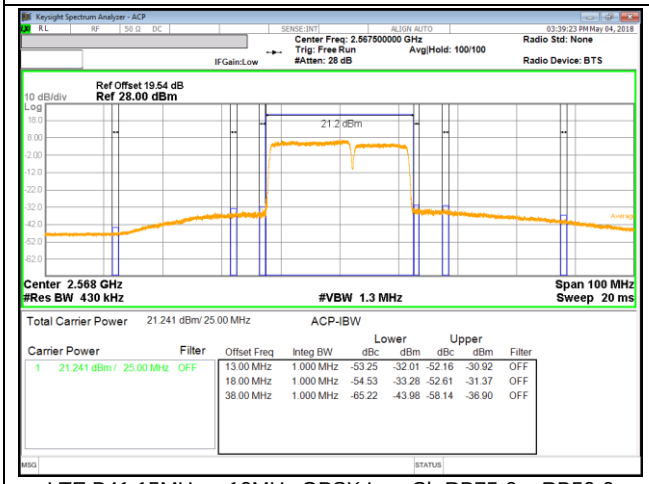
LTE B41 10MHz + 15MHz 16QAM High Ch RB50-0 + RB75-0



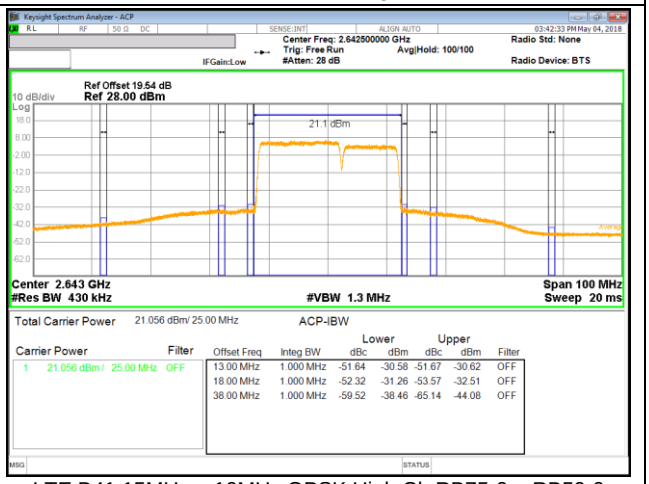
LTE B41 15MHz + 10MHz QPSK Low Ch RB1-0 + RB1-49



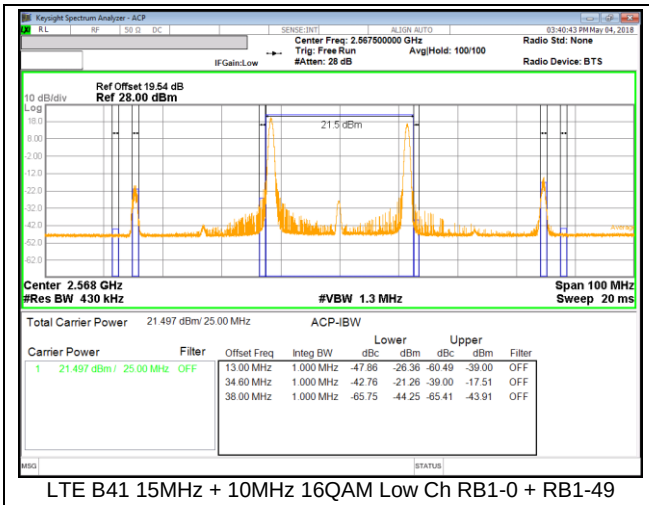
LTE B41 15MHz + 10MHz QPSK High Ch RB1-0 + RB1-49



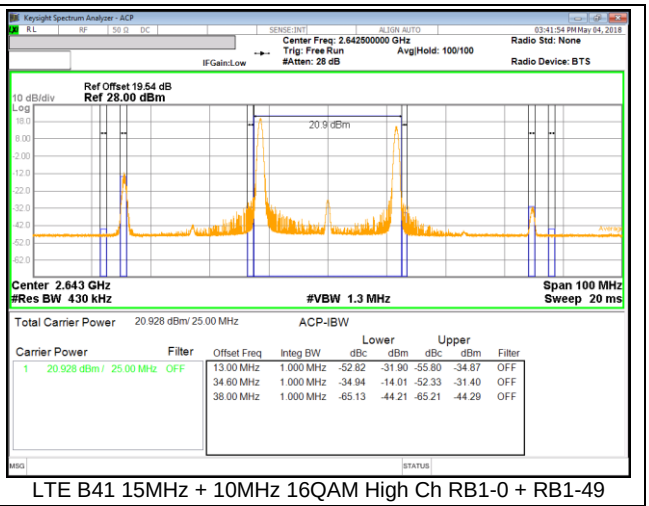
LTE B41 15MHz + 10MHz QPSK Low Ch RB75-0 + RB50-0



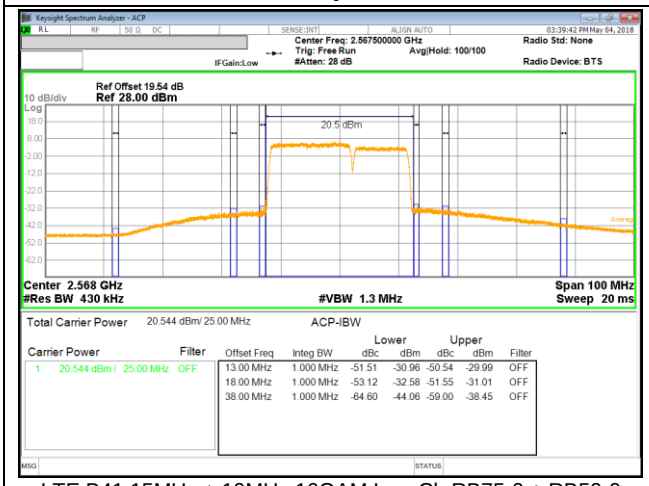
LTE B41 15MHz + 10MHz QPSK High Ch RB75-0 + RB50-0



LTE B41 15MHz + 10MHz 16QAM Low Ch RB1-0 + RB1-49

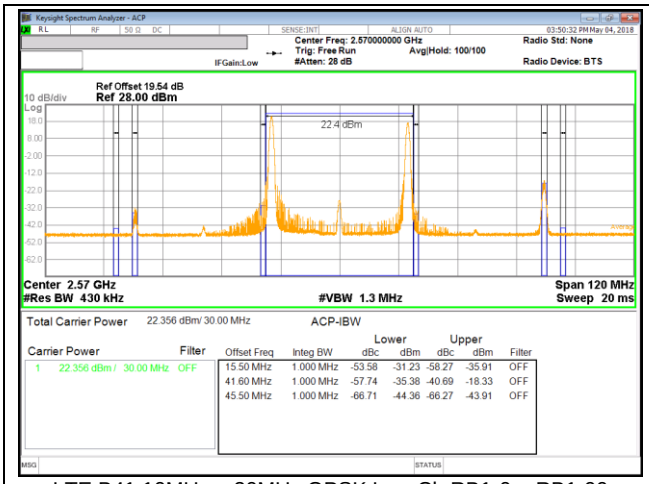


LTE B41 15MHz + 10MHz 16QAM High Ch RB1-0 + RB1-49

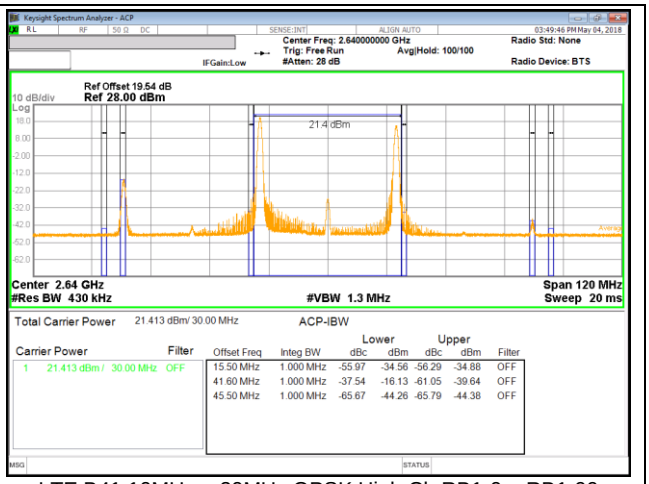


LTE B41 15MHz + 10MHz 16QAM Low Ch RB75-0 + RB50-0

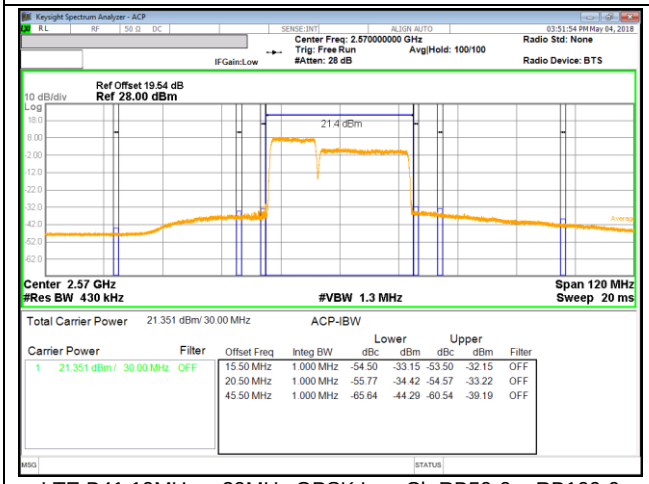
LTE B41 15MHz + 10MHz 16QAM High Ch RB75-0 + RB50-0



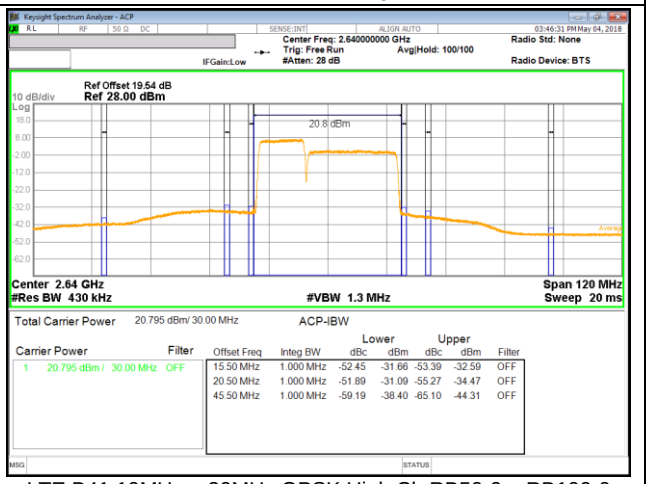
LTE B41 10MHz + 20MHz QPSK Low Ch RB1-0 + RB1-99



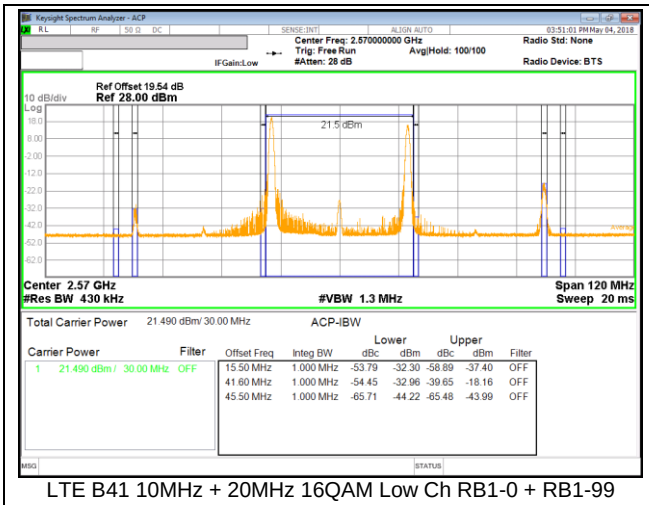
LTE B41 10MHz + 20MHz QPSK High Ch RB1-0 + RB1-99



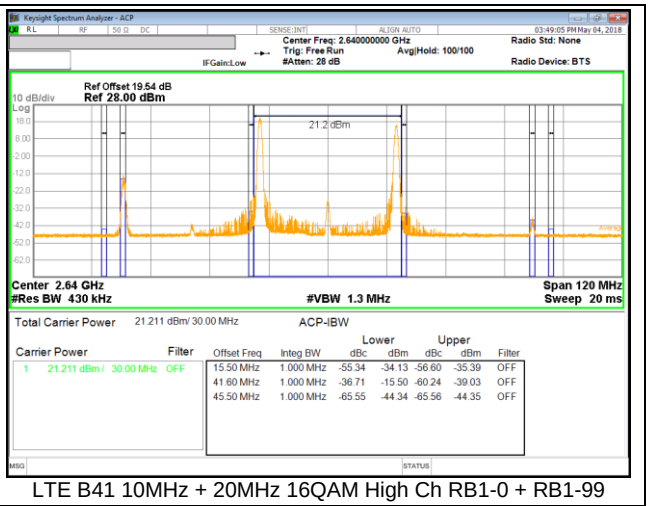
LTE B41 10MHz + 20MHz QPSK Low Ch RB50-0 + RB100-0



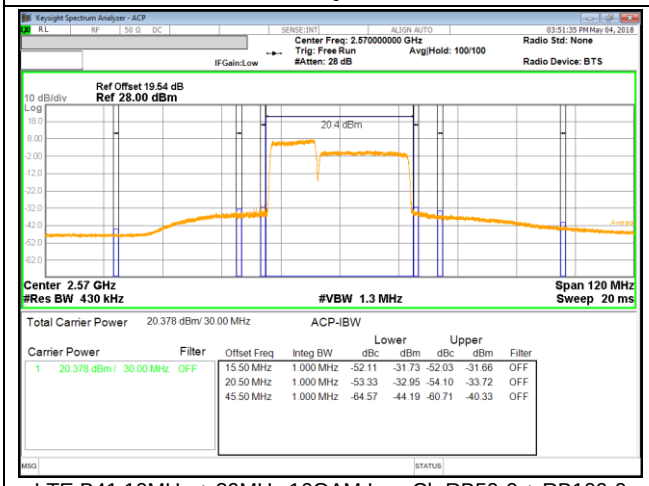
LTE B41 10MHz + 20MHz QPSK High Ch RB50-0 + RB100-0



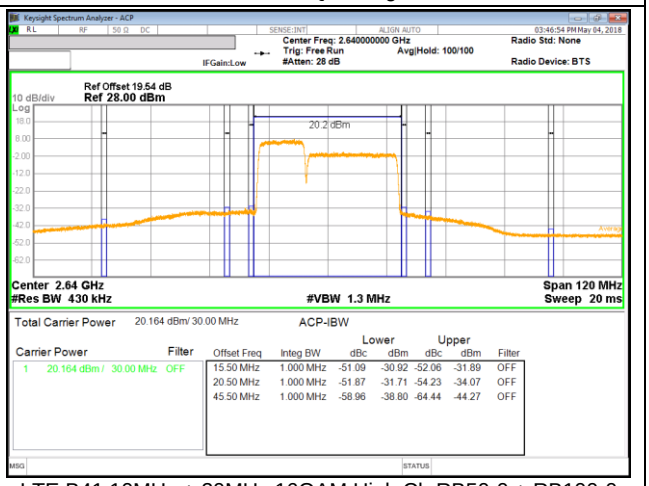
LTE B41 10MHz + 20MHz 16QAM Low Ch RB1-0 + RB1-99



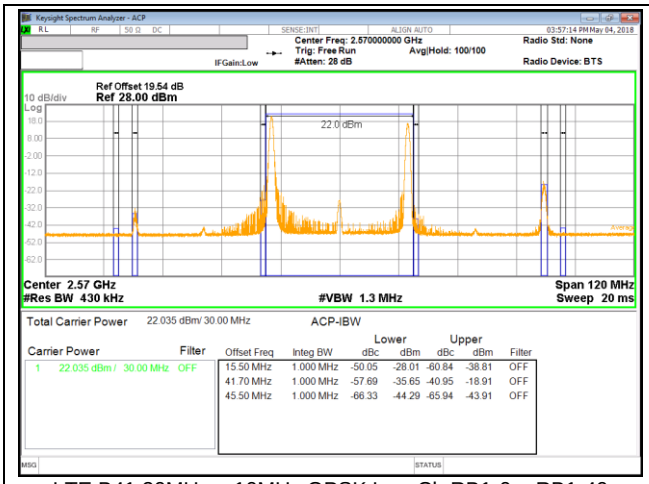
LTE B41 10MHz + 20MHz 16QAM High Ch RB1-0 + RB1-99



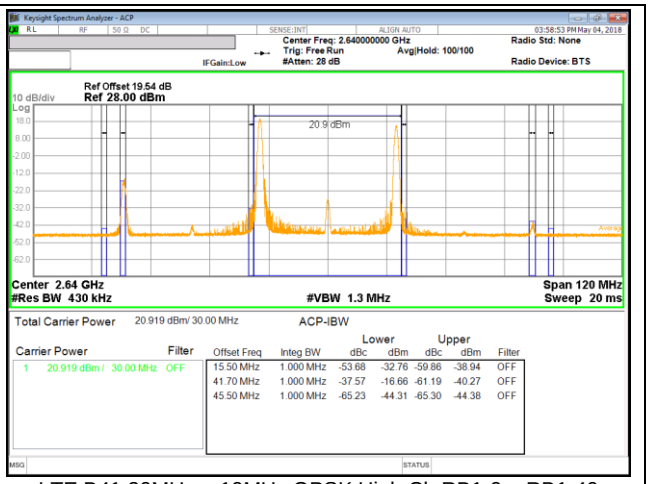
LTE B41 10MHz + 20MHz 16QAM Low Ch RB50-0 + RB100-0



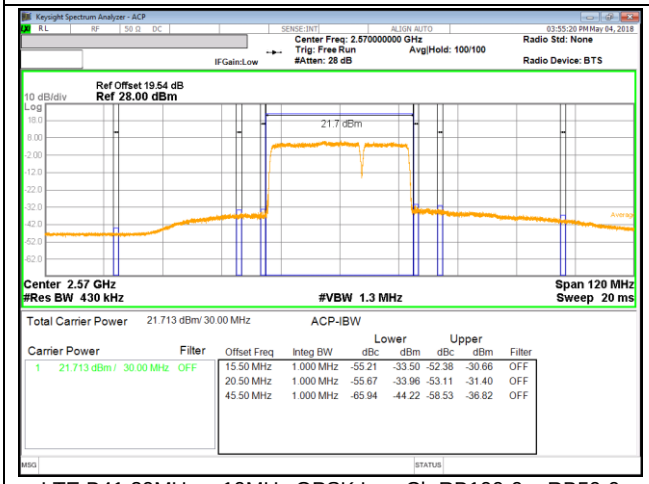
LTE B41 10MHz + 20MHz 16QAM High Ch RB50-0 + RB100-0



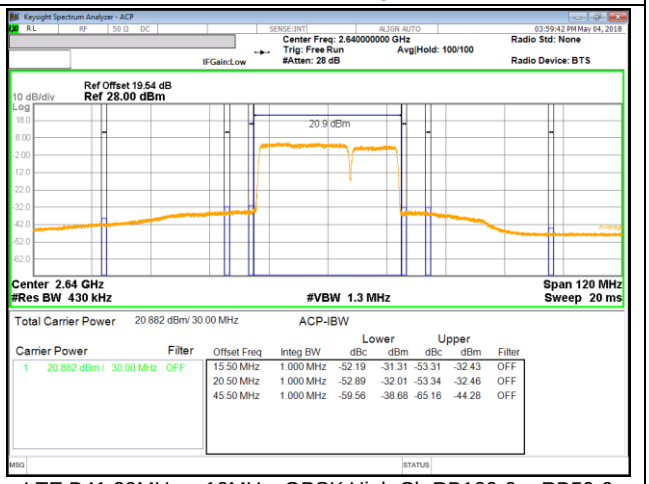
LTE B41 20MHz + 10MHz QPSK Low Ch RB1-0 + RB1-49



LTE B41 20MHz + 10MHz QPSK High Ch RB1-0 + RB1-49



LTE B41 20MHz + 10MHz QPSK Low Ch RB100-0 + RB50-0



LTE B41 20MHz + 10MHz QPSK High Ch RB100-0 + RB50-0