CERTIFICATION TEST REPORT

Report Number. : 12607346-E7V2

Applicant	:	APPLE, INC. 1 APPLE PARK WAY CUPERTINO, CA 95014, U.S.A.
Model	:	A2160, A2216, A2217
FCC ID	:	BCG-E3305A
EUT Description	:	SMARTPHONE
Test Standard(s)	:	CFR47 PART 22H, 24E, 27, 90S, AND 96

Date Of Issue:
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NVLAP TESTING

NVLAP Lab code: 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	8/8/2019	Initial Review	Lieu Nguyen
V2	8/16/2019	Address TCB Questions	Lieu Nguyen

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1. ATTESTATION OF TEST RESULTS

Applicant Name and Address	APPLE, INC. 1 APPLE PARK WAY CUPERTINO, CA 95014, U.S.A.
Model	A2160, A2216, A2217
FCC ID	BCG-E3305A
EUT Description	SMARTPHONE
Serial Number	C39YV073N2R5 (Conducted), C39YJ033MKLX (Radiated)
Date Tested	MARCH 29, 2019 to AUGUST 14, 2019
Applicable Standards	PART 22H, 24E, 27, 90S, AND 96
Test Results	COMPLIES

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise.

This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. 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 NVLAP, NIST, any agency of the Federal Government, or any agency of the U.S. government.

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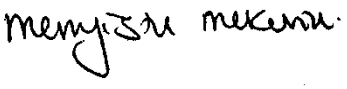
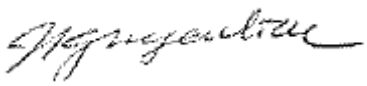
	
Mengistu Mekuria Lead Test Engineer UL Verification Services Inc.	Lieu Nguyen Test Engineer UL Verification Services Inc.

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.26:2015, FCC CFR 47 Part 2, Part 22, Part 24, Part 27, Part 90S, Part 90S, and 96, FCC KDB 971168 D01 v03r01/ D02 v02r01, KDB 412172 D01 v01r01.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 and 47266 Benicia Street, and 47658 Kato Road, Fremont, California, USA. 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.

47173 Benicia Street	47266 Benicia Street	47658 Kato Rd.
☒ Chamber A (ISED:2324B-1)	☐ Chamber D (ISED:22541-1)	☐ Chamber I (ISED: 2324A-5)
☒ Chamber B (ISED:2324B-2)	☐ Chamber E (ISED:22541-2)	☐ Chamber J (ISED: 2324A-6)
☐ Chamber C (ISED:2324B-3)	☐ Chamber F (ISED:22541-3)	☐ Chamber K (ISED: 2324A-1)
	☐ Chamber G (ISED:22541-4)	☐ Chamber L (ISED: 2324A-3)
	☐ Chamber H (ISED:22541-5)	

The above test sites and facilities are covered under FCC Test Firm Registration # 208313. Chambers above are covered under Industry Canada company address and respective code.

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0.

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

RADIATED EMISSIONS

Where relevant, the following sample calculation is provided:
Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)
36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

MAINS CONDUCTED EMISSIONS

Where relevant, the following sample calculation is provided:
Final Voltage (dBuV) = Measured Voltage (dBuV) + Cable Loss (dB) + Limiter Factor (dB) + LISN Insertion Loss.
36.5 dBuV + 0 dB +10.1 dB+ 0 dB = 46.6 dBuV

4.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Conducted Disturbance, 9KHz to 0.15 MHz	3.84 dB
Conducted Disturbance, 0.15 to 30 MHz	3.65 dB
Radiated Disturbance, 9KHz to 30 MHz	2.52 dB
Radiated Disturbance, 30 to 1000 MHz	4.88 dB
Radiated Disturbance,1000 to 18000 MHz	4.24 dB
Radiated Disturbance,18000 to 26000 MHz	4.37 dB
Radiated Disturbance,26000 to 40000 MHz	5.17 dB
Occupied Channel Bandwidth	±0.39 %
Temperature	±0.9 °C
Supply voltages	±0.45 %
Time	±0.02 %

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

EUT is a smartphone with multimedia functions (music, application support, and video), cellular GSM, GPRS, EGPRS, UMTS, LTE, TD-SCDMA, CDMA, IEEE 802.11a/b/g/n/ac/ax, Bluetooth, Ultra-Wide band, GPS and NFC. All models support at least one UICC based SIM. The second SIM, if present, is either UICC based pSIM (physical SIM) or e-SIM (electronic SIM). The device has a built-in inductive charging receiver. The rechargeable battery is also not user accessible.

5.2. DIFFERENCE IN MODEL NUMBER

Model A2160, A2216 and A2217 is electrically identical to Model A2160. Three model numbers are allocated for marketing and logistic purposes only. A2160 was used to perform all final tests.

5.3. MAXIMUM OUTPUT POWER

ERP/EIRP LIMIT

FCC: §2.1046, §22.913, §24.232, §27.50, §90.635, §90.541, and §96.41

EIRP/ERP TEST PROCEDURE

ANSI C63.26:2015
KDB 971168 D01 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.

For devices utilizing multiple antennas, KDB 662911 provides guidance for determining the effective array transmit antenna gain term to be used in the above equation.

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:

LTE BAND 2

Part 24	
EIRP Limit (W)	2.00
Antenna Gain (dBi)	-2.50

Bandwidth (MHz)	Modulation	Low Frequency (MHz)	Upper Frequency (MHz)	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (kHz)	Emission Designator
1.4	QPSK	1850.7	1909.3	24.8	22.30	0.170	1090.8	1M09G7W
	16QAM			24.1	21.60	0.145	1083.9	1M08D7W
	64QAM			23.3	20.80	0.120	1093.3	1M09D7W
3.0	QPSK	1851.5	1908.5	24.8	22.30	0.170	2693.4	2M69G7W
	16QAM			24.0	21.50	0.141	2696.5	2M70D7W
	64QAM			23.2	20.70	0.117	2697.6	2M70D7W
5.0	QPSK	1852.5	1907.5	24.9	22.40	0.174	4495.2	4M50G7W
	16QAM			24.3	21.80	0.151	4492.2	4M49D7W
	64QAM			23.4	20.90	0.123	4507.6	4M51D7W
10.0	QPSK	1855.0	1905.0	25.0	22.50	0.178	8990.4	8M99G7W
	16QAM			24.3	21.80	0.151	8993.1	8M99D7W
	64QAM			23.7	21.20	0.132	9006.9	9M01D7W
15.0	QPSK	1857.5	1902.5	25.0	22.50	0.178	13427.8	13M4G7W
	16QAM			24.3	21.80	0.151	13434	13M4D7W
	64QAM			23.7	21.20	0.132	13465.3	13M5D7W
20.0	QPSK	1860.0	1900.0	25.0	22.50	0.178	17903.7	17M9G7W
	16QAM			24.3	21.80	0.151	17935.4	17M9D7W
	64QAM			23.8	21.30	0.135	17936.6	17M9D7W

LTE BAND 5

Part 22H	
ERP Limit (W)	7.00
Antenna Gain (dBi)	-5.00

Bandwidth (MHz)	Modulation	Low Frequency (MHz)	Upper Frequency (MHz)	Conducted Average (dBm)	ERP Average (dBm)	ERP Average (W)	99% BW (kHz)	Emission Designator
1.4	QPSK	824.7	848.3	25.7	18.54	0.071	1088.6	1M09G7W
	16QAM			24.8	17.68	0.059	1087.1	1M09D7W
	64QAM			24.1	16.96	0.050	1096.3	1M10D7W
3.0	QPSK	825.5	847.5	25.7	18.54	0.071	2696	2M70G7W
	16QAM			24.9	17.78	0.060	2701.9	2M70D7W
	64QAM			24.0	16.80	0.048	2694.7	2M69D7W
5.0	QPSK	826.5	846.5	25.7	18.52	0.071	4507	4M51G7W
	16QAM			25.1	17.90	0.062	4492.6	4M49D7W
	64QAM			24.1	16.95	0.050	4504.9	4M50D7W
10.0	QPSK	829.0	844.0	25.7	18.55	0.072	8980.2	8M98G7W
	16QAM			25.1	17.90	0.062	8975.4	8M98D7W
	64QAM			24.1	16.98	0.050	8994.8	8M99D7W

LTE BAND 7

Part 27	
EIRP Limit (W)	2.00
Antenna Gain (dBi)	-2.70

Bandwidth (MHz)	Modulation	Low Frequency (MHz)	Upper Frequency (MHz)	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (kHz)	Emission Designator
5.0	QPSK	2502.5	2567.5	25.7	22.96	0.198	4502.1	4M50G7W
	16QAM			25.0	22.26	0.168	4493.4	4M49D7W
	64QAM			24.1	21.36	0.137	4514	4M51D7W
10.0	QPSK	2505.0	2565.0	25.7	22.98	0.199	8990.3	8M99G7W
	16QAM			25.1	22.39	0.173	8987.5	8M99D7W
	64QAM			24.2	21.45	0.140	8991.3	8M99D7W
15.0	QPSK	2507.5	2562.5	25.7	23.00	0.200	13442.1	13M4G7W
	16QAM			25.0	22.34	0.171	13438	13M4D7W
	64QAM			24.2	21.53	0.142	13445.1	13M4D7W
20.0	QPSK	2510.0	2560.0	25.6	22.94	0.197	17911	17M9G7W
	16QAM			25.2	22.46	0.176	17899.2	17M9D7W
	64QAM			24.3	21.62	0.145	17939.4	17M9D7W

LTE BAND 12

Part 27	
ERP Limit (W)	3.00
Antenna Gain (dBi)	-6.20

Bandwidth (MHz)	Modulation	Low Frequency (MHz)	Upper Frequency (MHz)	Conducted Average (dBm)	ERP Average (dBm)	ERP Average (W)	99% BW (kHz)	Emission Designator
1.4	QPSK	699.7	715.3	25.7	17.35	0.054	1095.3	1M10G7W
	16QAM			24.8	16.49	0.045	1087.9	1M09D7W
	64QAM			24.2	15.87	0.039	1092.6	1M09D7W
3.0	QPSK	700.5	714.5	25.6	17.28	0.053	2694.7	2M69G7W
	16QAM			24.9	16.57	0.045	2693.4	2M69D7W
	64QAM			24.0	15.69	0.037	2696.9	2M70D7W
5.0	QPSK	701.5	713.5	25.7	17.32	0.054	4501.9	4M50G7W
	16QAM			24.9	16.59	0.046	4489.2	4M49D7W
	64QAM			24.1	15.80	0.038	4494.2	4M49D7W
10.0	QPSK	704.0	711.0	25.7	17.30	0.054	8974.8	8M97G7W
	16QAM			25.0	16.62	0.046	8970.3	8M97D7W
	64QAM			24.1	15.76	0.038	8968.6	8M97D7W

LTE BAND 13

Part 27	
ERP Limit (W)	3.00
Antenna Gain (dBi)	-5.50

Bandwidth (MHz)	Modulation	Low Frequency (MHz)	Upper Frequency (MHz)	Conducted Average (dBm)	ERP Average (dBm)	ERP Average (W)	99% BW (kHz)	Emission Designator
5.0	QPSK	779.5	784.5	25.7	18.05	0.064	4519.8	4M52G7W
	16QAM			24.9	17.28	0.053	4493.7	4M49D7W
	64QAM			23.9	16.28	0.042	4493.1	4M49D7W
10.0	QPSK	782.0	782.0	25.6	17.97	0.063	8959.1	8M96G7W
	16QAM			24.9	17.26	0.053	8971.1	8M97D7W
	64QAM			23.9	16.21	0.042	8970.3	8M97D7W

LTE BAND 14

Part 90R	
ERP Limit (W)	3.00
Antenna Gain (dBi)	-5.70

Bandwidth (MHz)	Modulation	Low Frequency (MHz)	Upper Frequency (MHz)	Conducted Average (dBm)	ERP Average (dBm)	ERP Average (W)	99% BW (kHz)	Emission Designator
5.0	QPSK	790.5	795.5	25.7	17.85	0.061	4498.1	4M50G7W
	16QAM			25.0	17.16	0.052	4507.3	4M51D7W
	64QAM			24.1	16.29	0.043	4495.7	4M50D7W
10.0	QPSK	793.0	793.0	25.7	17.83	0.061	8980.8	8M98G7W
	16QAM			25.1	17.23	0.053	8957.2	8M96D7W
	64QAM			24.2	16.38	0.043	8998.5	9M00D7W

LTE BAND 17

Part 27	
ERP Limit (W)	3.00
Antenna Gain (dBi)	-6.20

Bandwidth (MHz)	Modulation	Low Frequency (MHz)	Upper Frequency (MHz)	Conducted Average (dBm)	ERP Average (dBm)	ERP Average (W)	99% BW (kHz)	Emission Designator
5.0	QPSK	706.5	713.5	25.7	17.35	0.054	4488.7	4M49G7W
	16QAM			25.1	16.72	0.047	4507.1	4M51D7W
	64QAM			24.2	15.87	0.039	4509	4M51D7W
10.0	QPSK	709.0	711.0	25.7	17.33	0.054	8977.5	8M98G7W
	16QAM			25.0	16.69	0.047	8960.7	8M96D7W
	64QAM			24.3	15.92	0.039	8989.2	8M99D7W

LTE BAND 25

Part 24	
EIRP Limit (W)	2.00
Antenna Gain (dBi)	-2.50

Bandwidth (MHz)	Modulation	Low Frequency (MHz)	Upper Frequency (MHz)	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (kHz)	Emission Designator
1.4	QPSK	1850.7	1914.3	24.8	22.30	0.170	1088.2	1M09G7W
	16QAM			24.0	21.50	0.141	1086.4	1M09D7W
	64QAM			23.2	20.70	0.117	1089.2	1M09D7W
3.0	QPSK	1851.5	1913.5	24.7	22.20	0.166	2691.3	2M69G7W
	16QAM			24.0	21.50	0.141	2690.6	2M69D7W
	64QAM			23.1	20.60	0.115	2690.4	2M69D7W
5.0	QPSK	1852.5	1912.5	24.9	22.40	0.174	4495.4	4M50G7W
	16QAM			24.2	21.70	0.148	4499	4M50D7W
	64QAM			23.3	20.80	0.120	4488.5	4M49D7W
10.0	QPSK	1855.0	1910.0	24.9	22.40	0.174	8996.5	9M00G7W
	16QAM			24.2	21.70	0.148	9007.7	9M01D7W
	64QAM			23.3	20.80	0.120	9009.1	9M01D7W
15.0	QPSK	1857.5	1907.5	25.0	22.50	0.178	13456.7	13M5G7W
	16QAM			24.3	21.80	0.151	13472.1	13M5D7W
	64QAM			23.6	21.10	0.129	13473.1	13M5D7W
20.0	QPSK	1860.0	1905.0	24.9	22.40	0.174	17912.2	17M9G7W
	16QAM			24.4	21.90	0.155	17913.5	17M9D7W
	64QAM			23.6	21.10	0.129	17935.9	17M9D7W

LTE BAND 26

Part 90S	
ERP Limit (W)	100.00
Antenna Gain (dBi)	-5.00

Bandwidth (MHz)	Modulation	Low Frequency (MHz)	Upper Frequency (MHz)	Conducted Average (dBm)	ERP Average (dBm)	ERP Average (W)	99% BW (kHz)	Emission Designator
1.4	QPSK	814.7	823.3	25.7	18.55	0.072	1078.3	1M08G7W
	16QAM			24.6	17.50	0.056	1088.5	1M09D7W
	64QAM			23.7	16.52	0.045	1086.6	1M09D7W
3.0	QPSK	815.5	822.5	25.5	18.33	0.068	2696.6	2M70G7W
	16QAM			24.7	17.58	0.057	2696.4	2M70D7W
	64QAM			23.6	16.43	0.044	2686.6	2M69D7W
5.0	QPSK	816.5	821.5	25.4	18.30	0.068	4521.7	4M52G7W
	16QAM			24.8	17.69	0.059	4508.4	4M51D7W
	64QAM			23.6	16.43	0.044	4499.3	4M50D7W
10.0	QPSK	819.0	819.0	25.5	18.37	0.069	9001.3	9M00G7W
	16QAM			24.7	17.53	0.057	8996.8	9M00D7W
	64QAM			23.7	16.50	0.045	9008.7	9M01D7W

LTE BAND 30

Part 27	
EIRP Limit (W)	0.25
Antenna Gain (dBi)	-2.20

Bandwidth (MHz)	Modulation	Low Frequency (MHz)	Upper Frequency (MHz)	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (kHz)	Emission Designator
5.0	QPSK	2307.5	2312.5	25.7	23.47	0.222	4477.6	4M48G7W
	16QAM			25.1	22.94	0.197	4498.9	4M50D7W
	64QAM			24.4	22.19	0.166	4498.1	4M50D7W
10.0	QPSK	2310.0	2310.0	25.7	23.50	0.224	8977.7	8M98G7W
	16QAM			25.1	22.90	0.195	8984.4	8M98D7W
	64QAM			24.4	22.16	0.164	8991.3	8M99D7W

LTE BAND 41

Part 27	
EIRP Limit (W)	2.00
Antenna Gain (dBi)	-2.70

Bandwidth (MHz)	Modulation	Low Frequency (MHz)	Upper Frequency (MHz)	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (kHz)	Emission Designator
5.0	QPSK	2498.5	2687.5	28.7	26.00	0.398	4451.8	4M45G7W
	16QAM			28.2	25.50	0.355	4494.6	4M49D7W
	64QAM			27.3	24.60	0.288	4504.3	4M50D7W
10.0	QPSK	2501.0	2685.0	28.6	25.88	0.387	8983	8M98G7W
	16QAM			27.8	25.10	0.324	8918	8M92D7W
	64QAM			27.2	24.50	0.282	8933	8M93D7W
15.0	QPSK	2503.5	2682.5	28.6	25.90	0.389	13401.4	13M4G7W
	16QAM			27.9	25.20	0.331	13500.4	13M5D7W
	64QAM			27.1	24.40	0.275	13411.7	13M4D7W
20.0	QPSK	2506.0	2680.0	28.7	26.00	0.398	17929.3	17M9G7W
	16QAM			28.0	25.31	0.340	17825.8	17M8D7W
	64QAM			27.2	24.50	0.282	17875.9	17M9D7W

LTE BAND 48

Part 96	
EIRP Limit (W)	2.00
Antenna Gain (dBi)	-4.60

Bandwidth (MHz)	Modulation	Low Frequency (MHz)	Upper Frequency (MHz)	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (kHz)	Emission Designator
5.0	QPSK	3552.5	3697.5	25.6	21.00	0.126	4502.8	4M50G7W
	16QAM			25.1	20.50	0.112	4483.1	4M48D7W
	64QAM			24.1	19.50	0.089	4492.6	4M49D7W
10.0	QPSK	3555.0	3695.0	25.7	21.10	0.129	8906.2	8M91G7W
	16QAM			25.1	20.50	0.112	8965.3	8M97D7W
	64QAM			23.9	19.30	0.085	8998.6	9M00D7W
15.0	QPSK	3557.5	3692.5	25.7	21.10	0.129	13447.2	13M4G7W
	16QAM			25.0	20.40	0.110	13377.9	13M4D7W
	64QAM			24.0	19.40	0.087	13466.3	13M5D7W
20.0	QPSK	3560.0	3690.0	25.7	21.10	0.129	17830.9	17M8G7W
	16QAM			25.1	20.50	0.112	17873.7	17M9D7W
	64QAM			24.2	19.60	0.091	17850.7	17M9D7W

LTE BAND 66

Part 27	
EIRP Limit (W)	1.00
Antenna Gain (dBi)	-2.30

Bandwidth (MHz)	Modulation	Low Frequency (MHz)	Upper Frequency (MHz)	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (kHz)	Emission Designator
1.4	QPSK	1710.7	1779.3	25.0	22.70	0.186	1088.2	1M09G7W
	16QAM			24.3	22.00	0.158	1087.3	1M09D7W
	64QAM			23.3	21.00	0.126	1087.4	1M09D7W
3.0	QPSK	1711.5	1778.5	24.5	22.20	0.166	2692.6	2M69G7W
	16QAM			23.8	21.50	0.141	2700.9	2M70D7W
	64QAM			23.1	20.80	0.120	2696.4	2M70D7W
5.0	QPSK	1712.5	1777.5	24.5	22.20	0.166	4492.3	4M49G7W
	16QAM			23.9	21.60	0.145	4497.1	4M50D7W
	64QAM			23.3	21.00	0.126	4487	4M49D7W
10.0	QPSK	1715.0	1775.0	24.7	22.40	0.174	9015.1	9M02G7W
	16QAM			23.9	21.60	0.145	9002.9	9M00D7W
	64QAM			23.3	21.00	0.126	8976.3	8M98D7W
15.0	QPSK	1717.5	1772.5	24.7	22.40	0.174	13460	13M5G7W
	16QAM			24.1	21.80	0.151	13483	13M5D7W
	64QAM			23.4	21.10	0.129	13449.8	13M4D7W
20.0	QPSK	1720.0	1770.0	24.7	22.40	0.174	17928	17M9G7W
	16QAM			24.2	21.90	0.155	17943	17M9D7W
	64QAM			23.5	21.20	0.132	17944.7	17M9D7W

LTE BAND 71

Part 27	
ERP Limit (W)	3.00
Antenna Gain (dBi)	-5.80

Bandwidth (MHz)	Modulation	Low Frequency (MHz)	Upper Frequency (MHz)	Conducted Average (dBm)	ERP Average (dBm)	ERP Average (W)	99% BW (kHz)	Emission Designator
5.0	QPSK	665.5	695.5	25.7	17.74	0.059	4492.7	4M49G7W
	16QAM			25.1	17.19	0.052	4493.6	4M49D7W
	64QAM			24.2	16.28	0.042	4500.9	4M50D7W
10.0	QPSK	668.0	693.0	25.7	17.75	0.060	9005.1	9M01G7W
	16QAM			25.1	17.19	0.052	8959.6	8M96D7W
	64QAM			24.2	16.26	0.042	8986	8M99D7W
15.0	QPSK	670.5	690.5	25.6	17.66	0.058	13433.4	13M4G7W
	16QAM			25.0	17.07	0.051	13475.4	13M5D7W
	64QAM			24.1	16.18	0.041	13438.3	13M4D7W
20.0	QPSK	673.0	688.0	25.6	17.69	0.059	17917.8	17M9G7W
	16QAM			25.0	17.07	0.051	17885	17M9D7W
	64QAM			24.3	16.37	0.043	17891.8	17M9D7W

5.4. SOFTWARE AND FIRMWARE

The EUT Firmware installed during testing was version: 19-01.1919.01_27-0.22.00-27.

5.5. MAXIMUM ANTENNA GAIN

Please see table below:

LTE Bands	Ant 1 Gain (dBi)	Ant 2 Gain (dBi)	Ant 3 Gain (dBi)	Ant 4 Gain (dBi)	Ant 6 Gain (dBi)
LTE Band 2, 1850 – 1910 MHz	-3.5	-2.3	-2.5	-5.9	
LTE Band 4, 1710 – 1755 MHz	-3.6	-3.0	-2.6	-6.8	
LTE Band 5, 824 – 849 MHz	-5.0	-5.1	N/A	N/A	
LTE Band 7, 2500 – 2570 MHz	-2.7	-4.6	-8.4	-2.0	
LTE Band 12, 699 – 716 MHz	-6.2	-5.9	N/A	N/A	
LTE Band 13, 777 – 787 MHz	-5.5	-5.0	N/A	N/A	
LTE Band 14, 788 – 798 MHz	-5.7	-5.0	N/A	N/A	
LTE Band 17, 704 – 716 MHz	-6.2	-5.9	N/A	N/A	
LTE Band 25, 1850 – 1915 MHz	-3.5	-2.3	-2.5	-5.9	
LTE Band 26, 814 – 824 MHz (Part 90S)	-5.0	-5.1	N/A	N/A	
LTE Band 30, 2305 – 2315 MHz	-2.2	-5.9	-2.8	-2.0	
LTE Band 41, 2496 – 2690 MHz	-2.7	-3.9	-7.5	-1.9	
LTE Band 48, 3550 –3700 MHz	-4.6		-7.0	-7.5	-8.3
LTE Band 66, 1710 – 1780 MHz	-3.6	-2.8	-2.3	-6.4	
LTE Band 71, 663 – 698 MHz	-5.8	-5.9	N/A	N/A	

Note:

Conducted Port 1 can support Ant 1 and Ant 3 while Port 2 supports Ant 2 and Ant 4. These ports have a switching system between the two antennas of different frequency ranges.

5.6. WORST-CASE CONFIGURATION AND MODE

The EUT supports LTE Bands of:
Band 2, Band 4, Band 5, Band 7, Band 12, Band 13, Band 14, Band 17, Band 25, Band 26, Band 30, Band 41, Band 48, Band 66, and Band 71.

LTE Band 4 (1710-1755MHz, 5/10/15/20MHz bandwidth) is covered by LTE Band 66 because it is a subset of LTE band 66 and they have same output power.

FCC rule Part 22.905 of LTE Band 26 (824-849MHz) is covered by LTE Band 5 of same rule since they have the same output power and supported bandwidths.

The worst-case scenario for all measurements is based on the average conducted output power measurement investigation results. Output power measurements were measured on QPSK, 16QAM and 64QAM modulations. It was found that QPSK and 16QAM results were worst case. All testing was performed using QPSK and 16QAM modulations to represent the worst case. Tests were performed on the conducted test at Ant 1 antenna as worst case since it has higher output powers.

The EUT was investigated in three orthogonal orientations X/Y/Z on antennas 1, 2, 3, 4, and 6. For ANT 1 antenna, it was determined that Y (Landscape) orientation was worst-case orientation for PCS bands and bands 7, 30, and 41; X (Flatbed) orientation was worst-case orientation for AWS bands, cell bands and band 48 without AC/DC adapter.
For ANT 2 antenna, it was determined that X (Flatbed) orientation was worst-case orientation for all bands without AC/DC adapter.
For ANT 3 antenna, it was determined that X (Flatbed) orientation was worst-case orientation for all bands without AC/DC adapter.
For ANT 4 antenna, it was determined that X (Flatbed) orientation was worst-case orientation for cell bands, AWS bands and PCS bands; Y (Landscape) orientation was worst-case for bands 7, 30, 41, and 48 without AC/DC adapter
For ANT 6 antenna, it was determined that Y (Landscape) orientation was worst-case orientation for band 48 without AC/DC adapter.

Radiated spurious emissions were investigated below 30MHz, 30MHz-1GHz and above 1GHz. There were no emissions found on below 30MHz and 30MHz-1GHz.

For simultaneous transmission of multiple channels in the 2.4GHz/5GH WLAN, UWB, and Cellular bands, tests were conducted for various configurations having the highest power, least separation in frequencies and widest operation bandwidths. No noticeable new emission was found.

5.7. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List			
Description	Manufacturer	Model	Serial Number
Laptop AC/DC adapter	Apple	85W MagSafe 2	C0651730MMMG6P4AL
Laptop	Apple	Macbook Pro	C02PM012G3QD
Laptop	Apple	Macbook Pro	C02P52HGG085

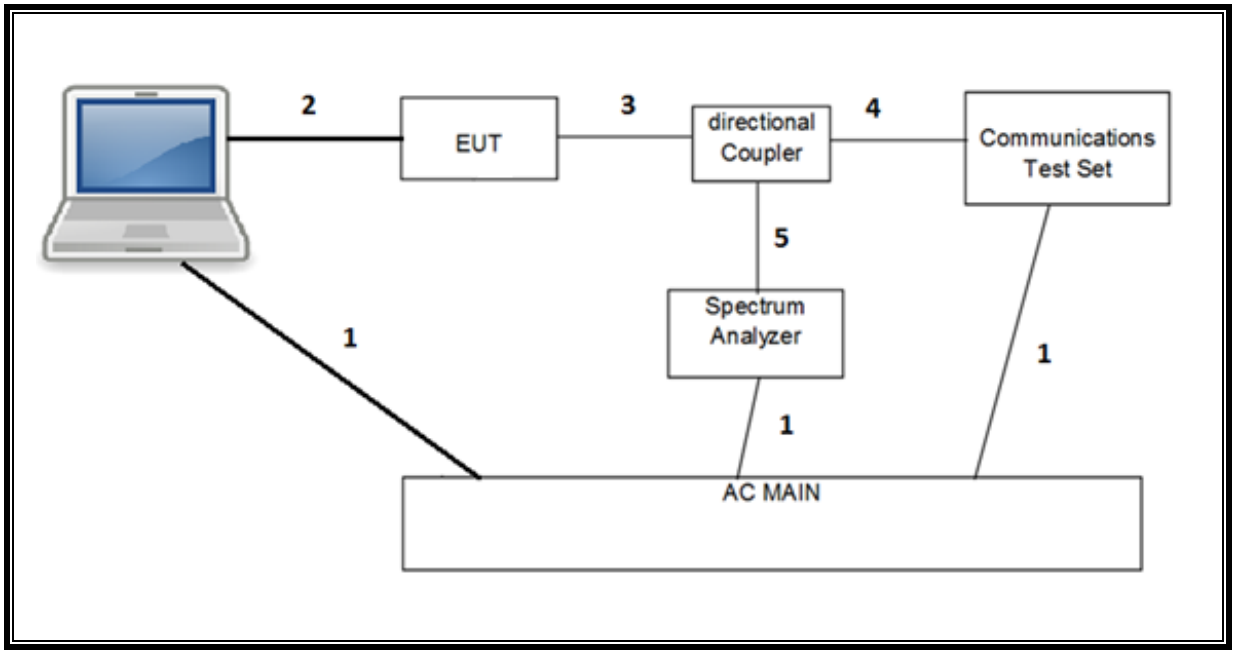
I/O CABLES (RF Conducted Test)

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	AC	3	US 115V	Un-shielded	2.0m	N/A
2	USB	1	DC	Un-shielded	1.0m	N/A
3	RF In/Out	1	EUT	Un-shielded	0.6m	N/A
4	RF In/Out	1	Communication Test Set	Un-shielded	1.2m	N/A
5	RF In/Out	1	Barrel	N/A	N/A	N/A

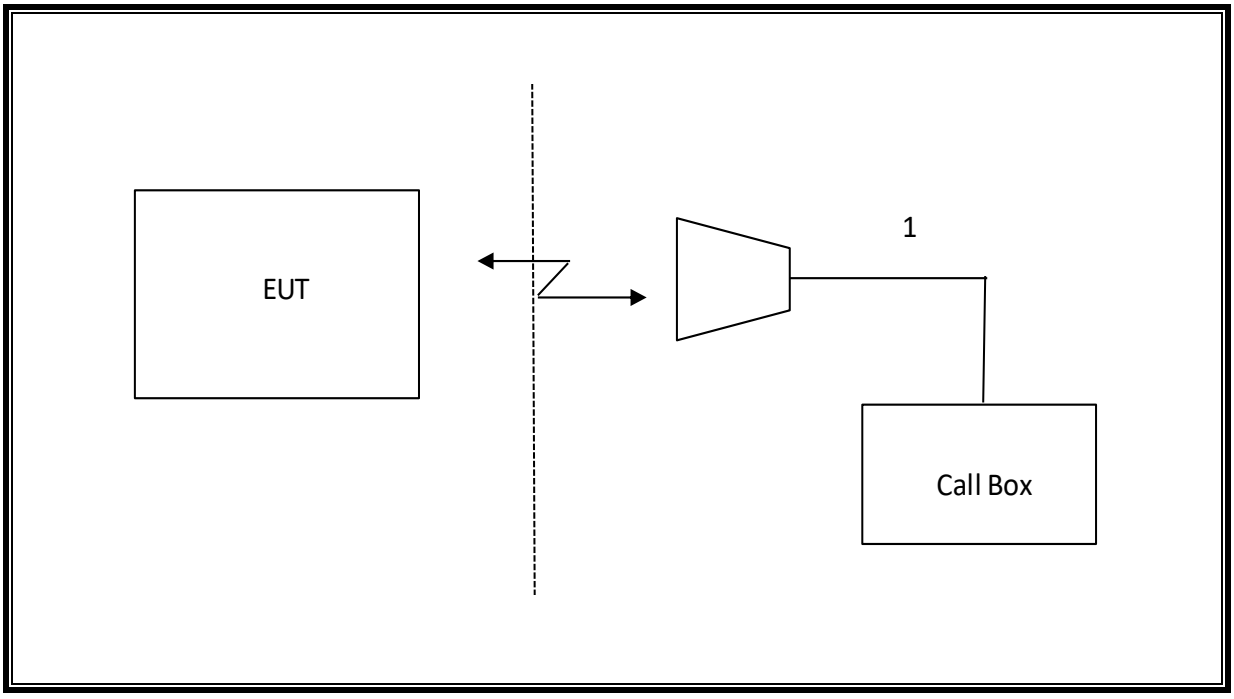
I/O CABLES (RF Radiated Test)

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	RF In/Out	1	Antenna	Un-shielded	5.0m	N/A

CONDUCTED SETUP



RADIATED 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**	**Asset**	**Cal Due**
Antenna, Horn 1-18GHz	ETS Lindgren	3117	T344	05/07/2020
Antenna, Horn 18-26GHz	ARA	MWH-1826/B	T447	6/16/2019
Antenna, Horn 26-40GHz	ARA	MWH-2640/B	T446	8/9/2019
Antenna, Broadband Hybrid, 30MHz to 2000MHz	Sunol Sciences	JB3	PRE0181574	08/01/2019
Amplifier, 10KHz to 1GHz, 32dB	Sonoma	310N	T15	08/15/2019
Amplifier, 18-26GHz	Agilent	8449B	T404	3/23/2020
Amplifier, 26-40GHz	Miteq	TTA2640	T1804	3/23/2020
Spectrum Analyzer, PXA 3Hz to 44GHZ	Agilent	N9030A	T905	1/24/2020
Spectrum Analyzer, PXA 3Hz to 44GHz	Keysight	N9030A	T340	01/22/2020
Spectrum Analyzer, PXA 3Hz to 44GHz	Keysight	N9030A	T1454	01/23/2020
Spectrum Analyzer, PXA 3Hz to 44GHz	Keysight	N9030A	T908	01/23/2020
Spectrum Analyzer, PXA 3Hz to 44GHz	Keysight	N9030A	T339	01/29/2020
Amplifier, 1 to 18GHz	MITEQ	AFS42-00101800-25-S-42	T931	05/11/2020
Amplifier, 10KHz to 1GHz, 32dB	Sonoma	310N	PRE0180176	11/01/2019
Spectrum Analyzer, PSA, 3Hz to 44GHz	Keysight	E4446A	T177	04/12/2019
Spectrum Analyzer, PSA, 3Hz to 44GHz	Keysight	E4446A	T123	01/28/2020
Spectrum Analyzer, PSA, 3Hz to 44GHz	Keysight	E4440A	T198	01/30/2020
Spectrum Analyzer, PSA, 3Hz to 44GHz	Keysight	E4440A	T99	1/28/2020
Directional Coupler	KRYTAR	152610	T1536	04/27/2019
Directional Coupler	KRYTAR	152610	T1537	04/27/2019
Wireless Communications Test Set, 8960 Series 10	Agilent	E5515C	T211	05/10/2020
Filter, HPF 3.0GHz	Micro-Tronics	HPM17543	T487	12/04/2019
Filter, HPF 1.2GHz	Micro-Tronics	WHKX1.2/15G-6ST	T1182	05/19/2019
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight	N9030A	T459	07/25/2019
Wideband Communication Test Set, Call Box	R&S GmbH & Co. KG	CMW500	T959	02/16/2020
Wideband Communication Test Set, Call Box	R&S GmbH & Co. KG	CMW500	T1871	02/18/2020
Wideband Communication Test Set, Call Box	R&S GmbH & Co. KG	CMW500	T921	02/18/2020
Wideband Communication Test Set, Call Box	R&S GmbH & Co. KG	CMW500	T376	02/21/2020
Wideband Communication Test Set, Call Box	R&S GmbH & Co. KG	CMW500	T958	02/20/2020
Chamber, Environmental	Cincinnati Sub Zero	ZPHS-8-3.5-SCT/WC	T754	08/15/2019
Power Meter, P-series single channel	Keysight	N1911A	T1268	01/31/2020
Power Sensor	Keysight	N1921A	T1228	07/10/2019
Antenna, Horn 1-18GHz	ETS Lindgren	T3117	T346	05/14/2020
Antenna, Broadband Hybrid, 30MHz to 2000MHz	Sunol Sciences	JB3	PRE0077974	05/13/2020
Antenna, Active Loop 9KHz to 30MHz	EMCO	6502	T1616	10/18/2019
UL AUTOMATION SOFTWARE				
CLT Software	UL	UL RF	Ver 9.5, April 26, 2016	
Power Measurement Software	UL	UL RF	Ver 2.2, June 2017	

NOTES:

1. For equipment listed above that had a calibration due during the testing period, its use was paused to allow for calibration.

7. RF OUTPUT POWER VERIFICATION

CONDUCTED OUTPUT POWER MEASUREMENT PROCEDURE

All LTE bands conducted average power is obtained from the CMW500 telecommunication test set.

The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP TS36.101 specification.

UE Power Class: 3 (23 +/- 2dBm). The allowed Maximum Power Reduction (MPR) for the maximum output power due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1 of the 3GPP TS36.101.

Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3

Modulation	Channel bandwidth / Transmission bandwidth (N_{RB})						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2
64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3

The allowed A-MPR values specified below in Table 6.2.4.-1 of 3GPP TS36.101 are in addition to the allowed MPR requirements. All the measurements below were performed with A-MPR disabled, by using Network Signaling Value of "NS_01".3

Table 6.2.4-1: Additional Maximum Power Reduction (A-MPR)

Network Signalling value	Requirements (sub-clause)	E-UTRA Band	Channel bandwidth (MHz)	Resources Blocks (N_{RB})	A-MPR (dB)
NS_01	6.6.2.1.1	Table 5.5-1	1.4, 3, 5, 10, 15, 20	Table 5.6-1	NA
NS_03	6.6.2.2.1	2, 4,10, 23, 25, 35, 36	3	>5	≤ 1
			5	>6	≤ 1
			10	>6	≤ 1
			15	>8	≤ 1
			20	>10	≤ 1
NS_04	6.6.2.2.2	41	5	>6	≤ 1
			10, 15, 20	See Table 6.2.4-4	
NS_05	6.6.3.3.1	1	10,15,20	≥ 50	≤ 1
NS_06	6.6.2.2.3	12, 13, 14, 17	1.4, 3, 5, 10	Table 5.6-1	n/a
NS_07	6.6.2.2.3 6.6.3.3.2	13	10	Table 6.2.4-2	Table 6.2.4-2
NS_08	6.6.3.3.3	19	10, 15	> 44	≤ 3
NS_09	6.6.3.3.4	21	10, 15	> 40	≤ 1
				> 55	≤ 2
NS_10		20	15, 20	Table 6.2.4-3	Table 6.2.4-3
NS_11	6.6.2.2.1	23[1]	1.4, 3, 5, 10	Table 6.2.4-5	Table 6.2.4-5
..					
NS_32	-	-	-	-	-
Note 1: Applies to the lower block of Band 23, i.e. a carrier placed in the 2000-2010 MHz region.					

MODES TESTED

- LTE Band 2
- LTE Band 5
- LTE Band 7
- LTE Band 12
- LTE Band 13
- LTE Band 14
- LTE Band 17
- LTE Band 25
- LTE Band 26
- LTE Band 30
- LTE Band 41
- LTE Band 48
- LTE Band 66
- LTE Band 71

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 output powers as follows:

7.1. LTE BAND 2

ID:	39004	Date:	4/15/2019

OUTPUT POWER FOR LTE BAND 2 (1.4 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				18607	18900	19193	18607	18900	19193	18607	18900	19193	18607	18900	19193
				1850.7	1880.0	1909.3	1850.7	1880.0	1909.3	1850.7	1880.0	1909.3	1850.7	1880.0	1909.3
1.4	QPSK	1	0	25.2	25.2	25.2	20.2	20.0	**20.5**	**24.8**	24.8	24.8	18.9	19.2	**19.6**
		1	2	25.2	25.1	25.2	20.2	19.9	20.3	24.8	24.8	24.7	18.9	19.4	19.5
		1	5	25.2	25.1	**25.2**	20.2	20.0	20.4	24.8	24.7	24.8	18.9	19.4	19.6
		3	0	25.2	25.0	25.1	20.1	19.8	20.2	24.7	24.6	24.6	18.7	19.3	19.5
		3	1	25.1	25.0	25.0	20.1	19.8	20.2	24.6	24.6	24.6	18.8	19.3	19.5
		3	2	25.2	24.9	25.1	20.1	19.9	20.2	24.6	24.6	24.6	18.8	19.2	19.5
		6	0	24.1	23.9	24.1	19.1	18.8	19.1	23.6	23.6	23.5	17.8	18.1	18.4
	16QAM	1	0	**24.4**	24.3	24.4	19.4	19.3	**19.7**	24.0	**24.1**	24.0	18.1	18.7	**18.8**
		1	2	24.4	24.4	24.4	19.3	19.3	19.6	23.9	24.0	24.0	18.2	18.7	18.7
		1	5	24.4	24.3	24.4	19.4	19.4	19.6	24.0	24.0	24.0	18.2	18.6	18.7
		3	0	24.2	24.1	24.2	19.0	19.0	19.3	23.7	23.8	23.7	17.9	18.4	18.5
		3	1	24.2	24.1	24.1	19.1	18.9	19.3	23.7	23.8	23.7	17.9	18.4	18.5
		3	2	24.2	24.1	24.1	19.2	19.0	19.3	23.7	23.7	23.7	17.9	18.3	18.5
		6	0	23.1	22.9	23.0	18.0	17.8	18.2	22.5	22.5	22.6	16.7	17.3	17.4
	64QAM	1	0	23.4	23.2	**23.5**	17.9	17.7	17.9	23.3	23.1	23.1	17.7	18.0	18.0
		1	2	23.4	23.2	23.5	17.9	17.6	**17.9**	23.3	23.0	23.1	17.7	**18.1**	18.0
		1	5	23.4	23.2	23.5	17.9	17.7	17.8	**23.3**	23.0	23.2	17.7	18.0	17.9
		3	0	23.2	23.0	23.1	17.6	17.4	17.7	23.0	22.9	23.0	17.4	17.8	17.7
		3	1	23.1	23.0	23.1	17.5	17.4	17.7	23.0	22.9	23.0	17.5	17.8	17.7
		3	2	23.2	23.1	23.1	17.5	17.3	17.7	23.0	22.9	22.9	17.5	17.7	17.8
		6	0	22.0	22.0	22.0	16.3	16.4	16.6	21.8	21.9	21.9	16.4	16.6	16.7

OUTPUT POWER FOR LTE BAND 2 (3.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				18615	18900	19185	18615	18900	19185	18615	18900	19185	18615	18900	19185
				1851.5	1880.0	1908.5	1851.5	1880.0	1908.5	1851.5	1880.0	1908.5	1851.5	1880.0	1908.5
3.0	QPSK	1	0	25.2	25.1	25.2	20.1	19.9	20.3	24.8	24.7	24.7	19.1	19.3	19.8
		1	7	25.1	25.0	**25.2**	20.3	20.0	**20.4**	**24.8**	24.7	24.7	19.1	19.5	**19.9**
		1	14	25.1	24.9	25.2	20.1	19.9	20.3	**24.8**	24.7	24.6	19.0	19.6	19.8
		8	0	24.0	23.9	24.1	19.0	18.8	19.2	23.6	23.6	23.6	18.0	18.5	18.7
		8	4	24.0	23.9	24.0	19.0	18.8	19.2	23.6	23.6	23.5	18.0	18.5	18.7
		8	7	24.0	23.8	24.0	19.0	18.8	19.2	23.6	23.5	23.5	18.0	18.4	18.8
		15	0	24.1	23.9	24.1	19.1	18.9	19.2	23.6	23.6	23.5	18.0	18.4	18.8
	16QAM	1	0	**24.4**	24.3	24.3	19.4	19.2	19.6	23.9	23.9	**24.0**	18.4	18.8	19.0
		1	7	**24.4**	24.2	24.4	19.5	19.4	**19.7**	24.0	23.9	24.0	18.4	18.8	**19.2**
		1	14	24.4	24.2	24.4	19.3	19.4	19.5	24.0	23.9	23.9	18.4	18.8	19.0
		8	0	23.0	22.9	23.0	18.0	17.8	18.1	22.6	22.5	22.5	17.0	17.5	17.7
		8	4	23.0	22.9	23.0	18.0	17.8	18.2	22.6	22.5	22.5	17.0	17.5	17.7
		8	7	23.0	22.8	23.0	18.1	17.8	18.2	22.6	22.5	22.5	17.0	17.5	17.7
		15	0	23.0	22.8	23.0	18.0	17.8	18.2	22.6	22.5	22.5	17.0	17.4	17.7
	64QAM	1	0	23.2	23.2	**23.4**	17.7	17.6	17.8	23.1	23.1	23.1	17.7	17.8	17.9
		1	7	23.2	23.3	23.3	17.8	17.6	**17.9**	23.2	23.2	**23.2**	17.7	17.8	**18.1**
		1	14	23.1	23.2	23.2	17.6	17.5	17.7	23.0	23.0	23.1	17.5	17.8	17.9
		8	0	22.0	21.9	22.0	16.3	16.3	16.6	21.8	21.8	21.9	16.4	16.5	16.7
		8	4	21.9	21.9	21.9	16.3	16.3	16.6	21.8	21.8	21.8	16.3	16.5	16.7
		8	7	21.9	21.9	22.0	16.3	16.2	16.6	21.8	21.8	21.8	16.3	16.5	16.7
		15	0	21.9	21.9	22.0	16.3	16.2	16.6	21.8	21.8	21.8	16.2	16.5	16.7

OUTPUT POWER FOR LTE BAND 2 (5.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				18625	18900	19175	18625	18900	19175	18625	18900	19175	18625	18900	19175
				1852.5	1880.0	1907.5	1852.5	1880.0	1907.5	1852.5	1880.0	1907.5	1852.5	1880.0	1907.5
5.0	QPSK	1	0	**25.4**	25.2	25.4	20.2	20.0	20.4	24.9	24.9	**24.9**	19.4	19.7	19.8
		1	12	25.3	25.1	25.3	20.3	20.1	20.3	24.8	24.8	24.8	19.4	19.6	**19.9**
		1	24	25.3	25.1	25.3	20.3	20.1	**20.4**	24.7	24.8	24.8	19.5	19.7	19.9
		12	0	24.3	24.1	24.3	19.2	18.9	19.3	23.7	23.8	23.8	18.3	18.6	18.8
		12	6	24.3	24.1	24.2	19.2	18.9	19.3	23.8	23.8	23.8	18.3	18.6	18.8
		12	11	24.3	24.1	24.1	19.2	19.0	19.4	23.7	23.7	23.7	18.4	18.6	18.9
		25	0	24.3	24.0	24.3	19.1	19.0	19.4	23.7	23.7	23.8	18.4	18.6	18.8
	16QAM	1	0	24.6	24.5	**24.7**	19.6	19.4	**19.8**	24.2	24.1	**24.3**	18.9	19.1	19.1
		1	12	24.6	24.4	24.5	19.6	19.4	19.8	24.2	24.0	24.2	18.8	19.0	19.1
		1	24	24.5	24.3	24.5	19.7	19.4	19.8	24.1	24.1	24.2	18.9	19.1	**19.1**
		12	0	23.3	23.1	23.2	18.2	18.0	18.4	22.7	22.7	22.8	17.4	17.6	17.8
		12	6	23.2	23.1	23.3	18.1	18.0	18.3	22.8	22.7	22.8	17.4	17.6	17.8
		12	11	23.2	23.1	23.2	18.2	18.1	18.4	22.7	22.7	22.7	17.4	17.6	17.9
		25	0	23.2	23.0	23.2	18.1	18.0	18.3	22.7	22.7	22.7	17.3	17.6	17.8
	64QAM	1	0	23.5	23.2	**23.6**	17.8	17.9	18.0	23.2	23.2	**23.4**	17.8	**18.1**	18.0
		1	12	23.3	23.3	23.4	17.8	17.8	**18.0**	23.1	23.3	23.3	17.7	18.0	18.1
		1	24	23.4	23.4	23.5	17.9	17.9	17.9	23.2	23.3	23.3	17.9	18.1	18.1
		12	0	22.1	22.1	22.2	16.4	16.5	16.7	21.9	21.9	22.2	16.4	16.7	16.8
		12	6	22.1	22.1	22.2	16.4	16.4	16.8	21.9	21.9	22.1	16.4	16.7	16.9
		12	11	22.1	22.2	22.0	16.5	16.4	16.8	21.9	21.9	22.0	16.5	16.6	16.9
		25	0	22.1	22.1	22.2	16.5	16.4	16.7	21.9	21.9	22.1	16.4	16.6	16.9

OUTPUT POWER FOR LTE BAND 2 (10.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				18650	18900	19150	18650	18900	19150	18650	18900	19150	18650	18900	19150
				1855.0	1880.0	1905.0	1855.0	1880.0	1905.0	1855.0	1880.0	1905.0	1855.0	1880.0	1905.0
10.0	QPSK	1	0	25.4	25.3	**25.7**	20.4	20.2	20.4	24.9	24.9	**25.0**	19.6	19.9	19.9
		1	24	25.3	25.2	25.5	20.3	20.1	20.5	24.7	24.8	25.0	19.6	19.8	19.8
		1	49	25.2	25.1	25.3	20.4	20.2	**20.5**	24.8	24.8	24.9	19.7	19.8	**20.0**
		25	0	24.4	24.2	24.5	19.3	19.1	19.5	23.9	23.9	24.0	18.5	18.8	18.8
		25	12	24.4	24.3	24.4	19.3	19.1	19.5	23.8	23.8	24.0	18.6	18.8	18.9
		25	24	24.3	24.2	24.4	19.4	19.2	19.5	23.7	23.8	23.9	18.7	18.8	19.0
		50	0	24.4	24.2	24.5	19.4	19.2	19.4	23.8	23.8	23.9	18.6	18.8	18.9
	16QAM	1	0	24.7	24.6	**25.0**	19.7	19.5	19.7	24.2	24.2	**24.3**	18.9	19.2	19.3
		1	24	24.7	24.5	24.7	19.7	19.5	**19.8**	24.0	24.2	24.2	18.9	19.0	19.2
		1	49	24.6	24.4	24.6	19.7	19.5	19.7	**24.3**	24.1	24.1	18.9	19.1	**19.3**
		25	0	23.5	23.3	23.6	18.4	18.2	18.5	23.0	22.9	23.1	17.5	17.9	17.9
		25	12	23.5	23.3	23.5	18.4	18.1	18.5	22.9	22.9	23.0	17.7	17.9	17.9
		25	24	23.4	23.2	23.5	18.4	18.3	18.5	22.8	22.9	22.9	17.7	17.8	18.0
		50	0	23.4	23.3	23.5	18.4	18.3	18.5	22.9	22.9	23.0	17.6	17.8	18.0
	64QAM	1	0	23.4	23.3	**23.8**	17.8	18.0	17.9	23.2	23.1	**23.7**	17.9	18.1	18.1
		1	24	23.4	23.3	23.7	17.9	17.8	17.9	23.2	23.2	23.6	17.9	18.0	18.1
		1	49	23.4	23.3	23.6	18.0	17.9	**18.0**	23.3	23.1	23.5	17.9	18.0	**18.2**
		25	0	22.3	22.2	22.6	16.7	16.7	16.8	22.1	22.1	22.5	16.7	16.9	16.9
		25	12	22.3	22.3	22.5	16.7	16.7	16.8	22.1	22.1	22.4	16.7	16.9	17.0
		25	24	22.3	22.3	22.5	16.8	16.6	16.9	22.2	22.2	22.4	16.9	16.9	17.1
		50	0	22.3	22.3	22.5	16.8	16.6	16.8	22.1	22.2	22.4	16.7	16.8	17.0

OUTPUT POWER FOR LTE BAND 2 (15.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				18675	18900	19125	18675	18900	19125	18675	18900	19125	18675	18900	19125
				1857.5	1880.0	1902.5	1857.5	1880.0	1902.5	1857.5	1880.0	1902.5	1857.5	1880.0	1902.5
15.0	QPSK	1	0	25.4	25.2	**25.6**	20.4	20.2	20.3	24.9	24.9	24.9	19.6	19.9	19.8
		1	37	25.2	25.1	25.5	20.4	20.2	**20.5**	24.7	24.8	**25.0**	19.7	19.7	19.8
		1	74	25.2	25.2	25.3	20.2	20.0	20.4	24.6	24.7	24.8	19.8	19.8	**19.9**
		36	0	24.4	24.2	24.8	19.4	19.1	19.3	23.9	23.9	24.0	18.6	18.8	18.8
		36	16	24.3	24.3	24.6	19.4	19.1	19.4	23.7	23.9	24.0	18.8	18.8	18.8
		36	35	24.3	24.3	24.5	19.4	19.2	19.5	23.7	23.8	23.9	18.7	18.7	18.9
		75	0	24.4	24.2	24.6	19.4	19.2	19.4	23.7	23.8	24.0	18.8	18.7	18.8
	16QAM	1	0	24.7	24.5	**25.0**	19.6	19.5	19.6	24.1	24.2	24.2	18.9	19.2	19.0
		1	37	24.5	24.4	24.9	19.6	19.5	**19.8**	24.1	24.1	**24.3**	19.0	19.0	19.2
		1	74	24.6	24.5	24.6	19.4	19.4	19.7	23.9	24.0	24.2	19.2	19.0	**19.3**
		36	0	23.4	23.3	23.8	18.4	18.1	18.4	22.9	23.0	23.0	17.6	17.8	17.8
		36	16	23.3	23.3	23.7	18.5	18.1	18.5	22.8	22.9	23.0	17.8	17.8	17.9
		36	35	23.3	23.3	23.5	18.4	18.2	18.5	22.7	22.9	23.0	17.7	17.8	17.9
		75	0	23.4	23.3	23.6	18.5	18.2	18.5	22.7	22.9	23.0	17.8	17.7	17.8
	64QAM	1	0	23.5	23.4	23.6	17.9	17.9	17.8	23.2	23.3	23.6	17.8	**18.2**	18.0
		1	37	23.5	23.5	**23.7**	**18.0**	17.8	18.0	23.2	23.4	**23.7**	17.8	18.0	18.1
		1	74	23.6	23.4	23.4	18.0	17.7	18.0	23.4	23.3	23.5	18.0	18.1	18.2
		36	0	22.3	22.2	22.5	16.7	16.7	16.7	22.1	22.1	22.5	16.7	16.9	16.9
		36	16	22.3	22.3	22.6	16.8	16.7	16.8	22.2	22.1	22.5	16.8	16.9	17.0
		36	35	22.4	22.3	22.5	16.7	16.6	16.9	22.2	22.2	22.5	16.8	16.8	17.0
		75	0	22.4	22.3	22.5	16.8	16.6	16.8	22.2	22.1	22.5	16.8	16.9	16.9

OUTPUT POWER FOR LTE BAND 2 (20.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				18700	18900	19100	18700	18900	19100	18700	18900	19100	18700	18900	19100
				1860.0	1880.0	1900.0	1860.0	1880.0	1900.0	1860.0	1880.0	1900.0	1860.0	1880.0	1900.0
20.0	QPSK	1	0	25.4	25.2	25.5	20.4	20.2	20.2	24.9	24.8	25.0	19.5	19.8	19.7
		1	49	25.2	25.2	**25.7**	20.3	20.1	20.3	24.8	24.9	**25.0**	19.6	19.8	19.9
		1	99	25.3	25.3	25.4	20.2	20.1	**20.5**	24.7	24.8	24.8	19.8	19.8	**20.0**
		50	0	24.4	24.4	24.8	19.4	19.2	19.3	23.9	23.9	24.0	18.6	18.8	18.7
		50	24	24.3	24.3	24.7	19.4	19.2	19.4	23.8	23.8	24.1	18.7	18.8	18.9
		50	49	24.3	24.3	24.6	19.3	19.2	19.5	23.7	23.9	24.0	18.8	18.8	18.9
		100	0	24.3	24.3	24.7	19.4	19.2	19.4	23.7	23.8	24.1	18.8	18.8	18.9
	16QAM	1	0	24.8	24.6	25.0	19.8	19.6	19.5	24.2	24.2	**24.3**	18.8	**19.3**	19.0
		1	49	24.6	24.6	**25.2**	19.8	19.5	19.6	24.2	24.2	24.3	18.9	19.2	19.1
		1	99	24.7	24.7	24.8	19.6	19.5	**19.8**	24.0	24.3	24.2	19.2	19.2	19.3
		50	0	23.3	23.4	23.8	18.4	18.2	18.3	22.9	22.9	23.0	17.7	17.9	17.8
		50	24	23.3	23.3	23.7	18.4	18.2	18.5	22.7	22.9	23.1	17.7	17.8	17.9
		50	49	23.3	23.3	23.6	18.3	18.3	18.6	22.8	22.9	22.9	17.8	17.9	18.0
		100	0	23.4	23.3	23.8	18.5	18.2	18.5	22.8	22.9	23.1	17.8	17.8	17.9
	64QAM	1	0	23.5	23.2	23.7	18.0	18.0	17.6	23.4	23.4	23.6	17.8	18.3	18.0
		1	49	23.7	23.2	**23.9**	18.0	18.0	17.8	23.5	23.3	**23.8**	17.8	18.2	18.3
		1	99	23.7	23.4	23.7	**18.1**	18.0	18.0	23.5	23.5	23.6	18.0	18.2	**18.4**
		50	0	22.3	22.3	22.5	16.7	16.8	16.7	22.2	22.1	22.4	16.7	16.9	16.8
		50	24	22.4	22.3	22.6	16.7	16.6	16.8	22.2	22.2	22.5	16.8	16.9	16.9
		50	49	22.4	22.3	22.5	16.8	16.7	16.9	22.2	22.2	22.4	16.9	16.9	17.0
		100	0	22.4	22.3	22.6	16.8	16.6	16.8	22.2	22.2	22.5	16.9	16.9	16.9

7.2. LTE BAND 5

ID:	39004	Date:	4/14/2019

OUTPUT POWER FOR LTE BAND 5 (1.4 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)					
				ANT 1			ANT 2		
				20407	20525	20643	20407	20525	20643
				824.7	836.5	848.3	824.7	836.5	848.3
1.4	QPSK	1	0	25.6	25.6	25.4	24.2	**24.4**	24.2
		1	2	25.6	25.6	25.4	24.2	24.3	24.2
		1	5	**25.7**	25.6	25.5	24.2	24.3	24.2
		3	0	25.5	25.4	25.3	24.1	24.2	24.0
		3	1	25.5	25.4	25.3	24.1	24.2	24.0
		3	2	25.5	25.4	25.3	24.1	24.1	24.0
		6	0	24.4	24.3	24.2	23.0	23.1	22.9
	16QAM	1	0	24.8	24.7	24.4	23.4	**23.6**	23.4
		1	2	24.8	24.7	24.5	23.4	23.6	23.4
		1	5	**24.8**	24.7	24.6	23.4	23.5	23.5
		3	0	24.5	24.5	24.3	23.1	23.3	23.1
		3	1	24.5	24.5	24.3	23.1	23.3	23.1
		3	2	24.4	24.5	24.2	23.1	23.2	23.0
		6	0	23.4	23.3	23.1	22.0	22.0	22.0
	64QAM	1	0	**24.1**	23.9	23.6	22.4	22.4	22.2
		1	2	24.0	23.9	23.7	22.3	22.3	22.1
		1	5	24.0	23.9	23.7	**22.4**	22.2	22.2
		3	0	23.8	23.6	23.5	22.2	22.1	22.1
		3	1	23.7	23.6	23.5	22.1	22.1	22.0
		3	2	23.7	23.6	23.5	22.1	22.1	22.0
		6	0	22.5	22.7	22.4	21.0	21.1	20.9

OUTPUT POWER FOR LTE BAND 5 (3.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)					
				ANT 1			ANT 2		
				20415	20525	20635	20415	20525	20635
				825.5	836.5	847.5	825.5	836.5	847.5
3.0	QPSK	1	0	25.6	25.5	25.4	24.3	**24.4**	24.2
		1	7	**25.7**	25.6	25.4	24.3	24.3	24.2
		1	14	25.6	25.5	25.5	24.3	24.2	24.1
		8	0	24.5	24.4	24.2	23.1	23.2	23.0
		8	4	24.5	24.4	24.2	23.1	23.1	23.0
		8	7	24.5	24.4	24.2	23.1	23.1	23.0
		15	0	24.6	24.4	24.3	23.2	23.1	23.1
	16QAM	1	0	24.9	24.9	24.7	23.5	23.6	23.5
		1	7	**24.9**	24.9	24.7	23.6	23.5	23.5
		1	14	24.9	24.8	24.7	**23.7**	23.3	23.5
		8	0	23.4	23.3	23.2	22.0	22.2	22.0
		8	4	23.4	23.3	23.2	22.0	22.2	22.0
		8	7	23.5	23.4	23.1	22.0	22.1	22.0
		15	0	23.5	23.3	23.1	22.0	22.1	22.0
	64QAM	1	0	23.8	23.8	23.7	22.3	**22.4**	22.2
		1	7	23.8	23.9	23.7	22.2	22.3	22.3
		1	14	23.8	**24.0**	23.8	22.3	22.2	22.1
		8	0	22.5	22.5	22.4	20.9	21.1	20.9
		8	4	22.5	22.5	22.3	20.9	21.0	20.9
		8	7	22.5	22.6	22.3	20.9	21.0	20.8
		15	0	22.5	22.6	22.4	21.0	21.0	20.8

OUTPUT POWER FOR LTE BAND 5 (5.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)					
				ANT 1			ANT 2		
				20425	20525	20625	20425	20525	20625
				826.5	836.5	846.5	826.5	836.5	846.5
5.0	QPSK	1	0	25.6	25.6	25.5	24.2	**24.5**	24.2
		1	12	**25.7**	25.6	25.4	24.3	24.3	24.2
		1	24	25.7	25.6	25.5	24.4	24.2	24.2
		12	0	24.5	24.5	24.4	23.1	23.3	23.1
		12	6	24.6	24.5	24.3	23.2	23.3	23.1
		12	11	24.6	24.5	24.3	23.3	23.2	23.1
		25	0	24.6	24.5	24.3	23.3	23.2	23.1
	16QAM	1	0	25.0	24.9	24.7	23.6	23.8	23.5
		1	12	25.0	24.8	24.6	23.7	23.6	23.4
		1	24	**25.1**	24.8	24.7	**23.9**	23.6	23.5
		12	0	23.6	23.5	23.3	22.2	22.3	22.1
		12	6	23.6	23.4	23.2	22.2	22.2	22.1
		12	11	23.6	23.4	23.2	22.3	22.2	22.0
		25	0	23.5	23.4	23.2	22.2	22.2	22.0
	64QAM	1	0	24.1	24.1	23.8	22.3	22.4	22.6
		1	12	24.0	24.0	23.8	22.4	22.3	22.5
		1	24	**24.1**	24.0	23.9	**22.6**	22.5	22.4
		12	0	22.6	22.7	22.5	21.1	21.1	21.1
		12	6	22.6	22.7	22.4	21.1	21.0	21.0
		12	11	22.6	22.7	22.4	21.1	21.0	21.0
		25	0	22.6	22.7	22.4	21.1	21.1	21.0

OUTPUT POWER FOR LTE BAND 5 (10.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)					
				ANT 1			ANT 2		
				20450	20525	20600	20450	20525	20600
				829.0	836.5	844.0	829.0	836.5	844.0
10.0	QPSK	1	0	25.6	25.7	25.5	24.3	24.4	24.2
		1	24	**25.7**	25.6	25.5	24.5	24.3	24.2
		1	49	25.6	25.5	25.4	**24.5**	24.2	24.2
		25	0	24.7	24.6	24.6	23.3	23.4	23.2
		25	12	24.7	24.6	24.5	23.4	23.3	23.2
		25	24	24.7	24.6	24.4	23.4	23.2	23.2
		50	0	24.8	24.6	24.5	23.5	23.3	23.2
	16QAM	1	0	25.0	**25.1**	24.9	23.5	**23.8**	23.5
		1	24	25.0	24.9	24.9	23.8	23.7	23.5
		1	49	25.0	24.9	24.7	23.8	23.5	23.5
		25	0	23.7	23.6	23.6	22.4	22.5	22.2
		25	12	23.7	23.6	23.5	22.4	22.4	22.2
		25	24	23.8	23.6	23.3	22.4	22.2	22.2
		50	0	23.7	23.6	23.5	22.5	22.3	22.2
	64QAM	1	0	23.9	24.0	24.0	22.3	22.6	22.4
		1	24	24.0	23.9	23.8	**22.6**	22.3	22.4
		1	49	**24.1**	23.9	23.8	22.6	22.5	22.3
		25	0	22.8	22.9	22.7	21.3	21.3	21.4
		25	12	22.9	22.8	22.7	21.4	21.3	21.3
		25	24	22.9	22.9	22.6	21.5	21.3	21.2
		50	0	22.9	22.9	22.7	21.5	21.3	21.3

7.3. LTE BAND 7

ID:	39004	Date:	4/14/2019

OUTPUT POWER FOR LTE BAND 7 (5.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				20775	21100	21425	20775	21100	21425	20775	21100	21425	20775	21100	21425
				2502.5	2535.0	2567.5	2502.5	2535.0	2567.5	2502.5	2535.0	2567.5	2502.5	2535.0	2567.5
5.0	QPSK	1	0	25.5	25.5	25.6	20.4	20.2	20.1	24.3	**24.3**	24.2	**18.2**	18.0	17.9
		1	12	25.6	25.4	25.6	**20.4**	20.1	20.1	24.2	24.3	24.1	18.1	17.9	17.9
		1	24	**25.7**	25.3	25.4	20.3	20.1	20.2	24.3	24.2	24.2	18.0	18.0	18.0
		12	0	24.4	24.2	24.5	19.3	19.1	18.9	23.3	23.3	23.1	17.1	16.9	16.8
		12	6	24.5	24.2	24.3	19.3	19.1	19.0	23.2	23.3	23.1	17.0	16.9	16.8
		12	11	24.6	24.2	24.3	19.2	19.0	19.0	23.2	23.2	23.1	16.9	16.9	16.9
		25	0	24.5	24.3	24.3	19.3	19.0	19.0	23.2	23.2	23.1	17.0	16.8	16.8
	16QAM	1	0	24.8	24.7	24.7	19.7	**19.8**	19.5	23.6	**23.9**	23.5	**17.5**	17.4	17.2
		1	12	24.9	24.7	24.8	19.6	19.6	19.4	23.5	23.8	23.5	17.3	17.4	17.3
		1	24	**25.0**	24.7	24.7	19.6	19.5	19.6	23.6	23.7	23.4	17.3	17.4	17.5
		12	0	23.4	23.3	23.3	18.3	18.1	17.9	22.3	22.4	22.2	16.2	15.9	15.8
		12	6	23.5	23.3	23.4	18.3	18.1	18.0	22.3	22.4	22.2	16.0	15.9	15.8
		12	11	23.6	23.3	23.4	18.2	18.1	18.0	22.2	22.3	22.2	16.0	15.9	15.8
		25	0	23.5	23.3	23.4	18.2	18.1	18.0	22.2	22.2	22.1	16.0	15.9	15.8
	64QAM	1	0	23.9	**24.1**	23.7	18.7	**18.9**	18.5	22.3	**22.5**	21.9	**16.7**	16.5	16.1
		1	12	23.9	24.0	23.8	18.7	18.8	18.5	22.2	22.4	21.8	16.5	16.4	16.4
		1	24	24.0	23.9	23.9	18.7	18.7	18.6	22.2	22.4	21.9	16.5	16.5	16.5
		12	0	22.5	22.5	22.5	17.3	17.3	17.1	20.9	20.9	20.6	15.2	15.0	14.9
		12	6	22.5	22.5	22.5	17.2	17.3	17.2	20.8	21.0	20.5	15.1	15.0	15.0
		12	11	22.5	22.5	22.5	17.3	17.3	17.1	20.8	20.9	20.6	15.1	15.0	15.0
		25	0	22.5	22.5	22.5	17.3	17.2	17.1	20.8	20.9	20.5	15.1	15.0	15.0

OUTPUT POWER FOR LTE BAND 7 (10.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				20800	21100	21400	20800	21100	21400	20800	21100	21400	20800	21100	21400
				2505.0	2535.0	2565.0	2505.0	2535.0	2565.0	2505.0	2535.0	2565.0	2505.0	2535.0	2565.0
10.0	QPSK	1	0	25.5	25.6	25.6	**20.4**	20.3	20.2	24.4	24.4	24.3	**18.2**	18.1	17.9
		1	24	**25.7**	25.3	25.4	20.3	20.2	20.2	24.3	24.4	24.3	18.1	18.0	17.9
		1	49	25.6	25.3	25.5	20.3	20.2	20.3	**24.5**	24.3	24.2	18.1	18.0	18.0
		25	0	24.6	24.5	24.4	19.3	19.3	19.1	23.4	23.4	23.3	17.1	17.1	16.9
		25	12	24.7	24.4	24.4	19.3	19.2	19.2	23.4	23.4	23.3	17.1	17.0	16.9
		25	24	24.7	24.4	24.5	19.3	19.2	19.2	23.4	23.3	23.2	17.1	17.1	17.0
		50	0	24.7	24.4	24.5	19.3	19.2	19.2	23.2	23.3	23.2	17.1	17.1	16.9
	16QAM	1	0	25.0	24.9	24.9	**19.8**	19.7	19.5	23.7	**23.9**	23.8	**17.5**	17.4	17.2
		1	24	**25.1**	24.8	24.9	19.7	19.6	19.5	23.6	23.8	23.7	17.3	17.4	17.3
		1	49	25.1	24.8	24.9	19.8	19.6	19.6	23.9	23.7	23.5	17.4	17.5	17.4
		25	0	23.7	23.6	23.5	18.4	18.3	18.2	22.4	22.5	22.4	16.2	16.1	15.9
		25	12	23.8	23.5	23.5	18.4	18.2	18.2	22.4	22.5	22.3	16.2	16.1	16.0
		25	24	23.8	23.5	23.6	18.4	18.2	18.2	22.4	22.4	22.3	16.1	16.1	16.1
		50	0	23.8	23.5	23.6	18.3	18.2	18.2	22.3	22.4	22.3	16.1	16.1	16.0
	64QAM	1	0	24.0	24.0	23.8	**18.8**	18.7	18.5	22.3	22.4	22.2	**16.7**	16.5	16.3
		1	24	24.1	23.9	23.8	18.7	18.6	18.6	22.2	22.4	22.0	16.4	16.3	16.3
		1	49	**24.2**	23.9	24.0	18.8	18.7	18.7	**22.5**	22.4	21.9	16.6	16.4	16.5
		25	0	22.7	22.8	22.6	17.5	17.5	17.3	21.0	21.3	20.9	15.3	15.3	15.1
		25	12	22.8	22.8	22.6	17.5	17.5	17.3	21.1	21.2	20.8	15.3	15.2	15.1
		25	24	22.9	22.8	22.7	17.5	17.5	17.4	21.1	21.2	20.8	15.3	15.3	15.3
		50	0	22.8	22.8	22.6	17.5	17.5	17.3	21.1	21.2	20.8	15.3	15.2	15.2

OUTPUT POWER FOR LTE BAND 7 (15.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				20825	21100	21375	20825	21100	21375	20825	21100	21375	20825	21100	21375
				2507.5	2535.0	2562.5	2507.5	2535.0	2562.5	2507.5	2535.0	2562.5	2507.5	2535.0	2562.5
15.0	QPSK	1	0	25.5	25.5	25.4	20.4	20.3	20.2	24.4	**24.9**	24.8	17.9	18.0	17.9
		1	37	**25.7**	25.3	25.4	20.2	20.3	20.1	24.4	24.8	24.8	18.0	18.0	17.9
		1	74	25.6	25.4	25.5	**20.5**	20.2	20.2	24.4	24.7	24.7	**18.1**	18.0	17.9
		36	0	24.8	24.5	24.5	19.3	19.2	19.1	23.4	24.0	23.9	17.0	17.0	16.8
		36	16	24.7	24.4	24.5	19.2	19.2	19.1	23.9	23.9	23.8	17.0	17.0	16.9
		36	35	24.7	24.4	24.5	19.4	19.2	19.1	24.0	23.8	23.8	17.0	17.0	17.0
		75	0	24.8	24.4	24.5	19.2	19.2	19.1	23.9	23.8	23.8	17.0	17.0	16.9
	16QAM	1	0	25.0	25.0	24.8	19.7	19.7	19.6	24.2	**24.3**	24.2	17.4	17.5	17.3
		1	37	**25.0**	24.8	24.9	19.6	19.6	19.4	24.3	24.2	24.2	17.4	17.3	17.2
		1	74	**25.0**	24.8	24.9	**19.9**	19.6	19.5	**24.3**	24.1	24.0	**17.5**	17.4	17.4
		36	0	23.8	23.5	23.5	18.3	18.4	18.2	22.9	23.0	23.0	16.1	16.2	15.9
		36	16	23.8	23.5	23.6	18.3	18.3	18.2	23.0	23.0	22.9	16.1	16.1	16.0
		36	35	23.6	23.5	23.6	18.4	18.3	18.2	23.0	22.9	22.8	16.1	16.1	16.0
		75	0	23.7	23.5	23.5	18.3	18.3	18.2	22.9	22.9	22.8	16.1	16.1	16.0
	64QAM	1	0	24.0	24.1	23.8	18.8	18.8	18.6	22.2	22.4	22.2	**16.6**	16.6	16.3
		1	37	24.1	24.0	23.8	18.6	18.8	18.5	22.3	22.4	22.1	16.4	16.4	16.3
		1	74	**24.2**	23.9	24.0	**18.8**	18.7	18.6	22.4	**22.4**	21.9	16.4	16.5	16.4
		36	0	22.8	22.8	22.5	17.5	17.5	17.2	21.0	21.2	20.9	15.3	15.3	15.0
		36	16	22.9	22.7	22.6	17.5	17.5	17.3	21.1	21.1	20.8	15.3	15.2	15.1
		36	35	23.0	22.6	22.7	17.5	17.5	17.3	21.2	21.1	20.8	15.3	15.3	15.2
		75	0	22.9	22.7	22.6	17.5	17.4	17.2	21.1	21.1	20.7	15.3	15.2	15.1

OUTPUT POWER FOR LTE BAND 7 (20.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				20850	21100	21350	20850	21100	21350	20850	21100	21350	20850	21100	21350
				2510.0	2535.0	2560.0	2510.0	2535.0	2560.0	2510.0	2535.0	2560.0	2510.0	2535.0	2560.0
20.0	QPSK	1	0	**25.6**	25.6	25.4	20.4	20.4	20.3	24.9	25.0	24.6	17.8	**18.1**	18.0
		1	49	25.6	25.4	25.4	20.4	20.2	20.1	24.9	24.8	24.7	18.1	17.9	17.6
		1	99	25.6	25.4	25.5	**20.5**	20.3	20.2	**25.0**	24.7	24.7	18.0	18.0	17.9
		50	0	24.8	24.5	24.4	19.2	19.2	19.1	23.9	24.0	23.8	17.1	17.1	16.8
		50	24	24.6	24.4	24.4	19.3	19.2	19.0	24.0	23.8	23.8	17.1	17.0	16.8
		50	49	24.6	24.5	24.5	19.4	19.2	19.1	23.9	23.8	23.8	17.0	17.0	16.9
		100	0	24.7	24.5	24.5	19.4	19.2	19.1	23.9	23.8	23.8	17.0	17.0	16.8
	16QAM	1	0	**25.2**	25.2	25.0	19.9	19.8	19.8	24.3	24.4	24.1	17.3	17.4	**17.6**
		1	49	25.1	24.9	24.9	19.9	19.5	19.5	**24.5**	24.3	24.3	17.3	17.3	17.3
		1	99	25.2	24.9	25.0	**20.0**	19.6	19.5	24.5	24.2	24.1	17.5	17.4	17.5
		50	0	23.8	23.6	23.5	18.3	18.4	18.2	22.9	23.0	22.9	16.2	16.2	15.9
		50	24	23.7	23.5	23.5	18.4	18.3	18.1	23.0	22.9	22.8	16.1	16.1	15.9
		50	49	23.6	23.5	23.6	18.5	18.2	18.1	23.0	22.8	22.8	16.1	16.2	16.0
		100	0	23.7	23.5	23.5	18.4	18.2	18.1	22.9	22.9	22.8	16.1	16.1	15.9
	64QAM	1	0	23.9	**24.3**	23.9	18.8	18.7	18.9	22.4	22.2	22.3	16.8	16.4	16.5
		1	49	24.0	24.0	24.0	18.8	18.5	18.6	22.5	22.2	22.3	16.6	16.1	16.3
		1	99	24.1	23.9	24.1	**19.1**	18.6	18.8	**22.6**	22.2	22.0	**16.9**	16.3	16.6
		50	0	22.8	22.8	22.5	17.4	17.5	17.2	21.1	21.1	20.9	15.3	15.2	14.9
		50	24	22.9	22.7	22.6	17.4	17.5	17.3	21.1	21.1	20.9	15.2	15.2	15.0
		50	49	23.0	22.6	22.6	17.5	17.5	17.2	21.1	21.1	20.8	15.3	15.3	15.1
		100	0	22.9	22.7	22.6	17.4	17.4	17.2	21.0	21.1	20.8	15.2	15.2	14.9

7.4. LTE BAND 12

ID:	39004	Date:	4/14/2019

OUTPUT POWER FOR LTE BAND 12 (1.4 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)					
				ANT 1			ANT 2		
				23017	23095	23173	23017	23095	23173
				699.7	707.5	715.3	699.7	707.5	715.3
1.4	QPSK	1	0	25.5	25.5	**25.7**	23.6	23.5	24.3
		1	2	25.5	25.5	25.7	23.5	23.9	**24.5**
		1	5	25.6	25.5	25.7	23.6	23.9	24.5
		3	0	25.3	25.4	25.5	23.5	23.7	24.3
		3	1	25.4	25.3	25.5	23.5	23.7	24.3
		3	2	25.4	25.3	25.4	23.5	23.7	24.2
		6	0	24.3	24.3	24.4	22.3	22.7	23.2
	16QAM	1	0	24.8	24.7	24.8	22.8	23.2	**23.7**
		1	2	24.7	24.6	24.8	22.7	23.2	23.7
		1	5	24.8	24.6	**24.8**	22.8	23.3	23.7
		3	0	24.4	24.4	24.5	22.5	22.8	23.4
		3	1	24.5	24.4	24.5	22.5	22.8	23.4
		3	2	24.5	24.4	24.5	22.5	22.8	23.4
		6	0	23.3	23.3	23.4	21.3	21.6	22.3
	64QAM	1	0	**24.2**	23.8	23.9	22.2	22.2	22.1
		1	2	24.2	23.7	23.9	22.0	22.2	22.0
		1	5	24.1	23.7	23.9	22.1	**22.2**	22.1
		3	0	23.8	23.5	23.7	21.9	21.9	21.8
		3	1	23.8	23.5	23.7	21.9	21.9	21.8
		3	2	23.8	23.5	23.7	21.9	21.9	21.8
		6	0	22.7	22.5	22.6	20.8	20.7	20.8

OUTPUT POWER FOR LTE BAND 12 (3.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)					
				ANT 1			ANT 2		
				23025	23095	23165	23025	23095	23165
				700.5	707.5	714.5	700.5	707.5	714.5
3.0	QPSK	1	0	25.5	25.5	25.6	24.2	24.1	24.3
		1	7	25.6	25.5	**25.6**	24.3	24.2	**24.3**
		1	14	25.5	25.6	25.6	24.2	24.2	24.3
		8	0	24.3	24.4	24.4	23.0	22.9	23.1
		8	4	24.3	24.4	24.5	23.0	22.9	23.1
		8	7	24.3	24.4	24.5	23.0	22.9	23.1
		15	0	24.4	24.4	24.6	23.0	23.0	23.2
	16QAM	1	0	24.7	24.8	24.8	23.3	23.3	23.5
		1	7	24.9	24.8	**24.9**	23.5	23.4	**23.6**
		1	14	24.8	24.7	24.8	23.4	23.4	23.5
		8	0	23.2	23.3	23.3	22.0	21.9	22.1
		8	4	23.3	23.2	23.4	22.0	21.9	22.1
		8	7	23.3	23.2	23.4	22.0	21.9	22.0
		15	0	23.3	23.2	23.5	22.0	21.9	22.1
	64QAM	1	0	24.0	23.8	23.9	22.1	21.8	22.1
		1	7	24.0	23.7	**24.0**	22.0	21.9	**22.2**
		1	14	23.7	23.9	23.9	21.9	22.0	22.1
		8	0	22.6	22.5	22.6	20.7	20.6	20.7
		8	4	22.6	22.4	22.6	20.6	20.6	20.7
		8	7	22.5	22.4	22.6	20.6	20.6	20.7
		15	0	22.5	22.4	22.7	20.7	20.6	20.7

OUTPUT POWER FOR LTE BAND 12 (5.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)					
				ANT 1			ANT 2		
				23035	23095	23155	23035	23095	23155
				701.5	707.5	713.5	701.5	707.5	713.5
5.0	QPSK	1	0	25.5	25.5	25.5	24.2	24.1	24.2
		1	12	25.6	25.4	25.5	24.1	24.1	24.3
		1	24	25.5	25.6	**25.7**	24.1	24.2	**24.3**
		12	0	24.4	24.5	24.5	23.1	23.0	23.1
		12	6	24.4	24.3	24.5	23.0	23.0	23.1
		12	11	24.4	24.4	24.5	23.0	23.0	23.2
		25	0	24.5	24.4	24.5	23.0	23.0	23.2
	16QAM	1	0	24.9	24.9	24.8	23.5	23.5	23.6
		1	12	24.9	24.7	24.8	23.4	23.5	23.6
		1	24	24.8	24.8	**24.9**	23.4	23.6	**23.6**
		12	0	23.4	23.4	23.5	22.1	22.0	22.1
		12	6	23.5	23.3	23.4	22.0	22.0	22.1
		12	11	23.4	23.4	23.5	22.0	22.1	22.1
		25	0	23.5	23.3	23.5	22.0	22.0	22.2
	64QAM	1	0	24.1	23.9	24.1	**22.3**	22.0	22.1
		1	12	23.8	23.8	**24.1**	22.1	22.0	22.1
		1	24	24.0	24.0	24.1	22.2	22.2	22.2
		12	0	22.7	22.5	22.6	20.8	20.7	20.7
		12	6	22.6	22.4	22.7	20.7	20.7	20.8
		12	11	22.6	22.5	22.7	20.7	20.7	20.8
		25	0	22.5	22.5	22.7	20.7	20.7	20.8

OUTPUT POWER FOR LTE BAND 12 (10.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)					
				ANT 1			ANT 2		
				23060	23095	23130	23060	23095	23130
				704.0	707.5	711.0	704.0	707.5	711.0
10.0	QPSK	1	0	25.6	25.5	25.5	24.2	24.1	24.2
		1	24	25.5	25.4	25.6	24.1	24.1	24.2
		1	49	25.6	25.6	**25.7**	24.2	24.2	**24.4**
		25	0	24.6	24.5	24.5	23.1	23.1	23.1
		25	12	24.5	24.4	24.6	23.1	23.1	23.2
		25	24	24.5	24.5	24.5	23.1	23.1	23.3
		50	0	24.6	24.4	24.6	23.2	23.1	23.2
	16QAM	1	0	24.8	24.9	24.8	23.5	23.5	23.5
		1	24	24.8	24.8	24.9	23.4	23.5	23.6
		1	49	24.7	24.9	**25.0**	23.4	23.6	**23.6**
		25	0	23.6	23.5	23.4	22.2	22.1	22.2
		25	12	23.5	23.4	23.6	22.1	22.1	22.2
		25	24	23.5	23.5	23.5	22.1	22.1	22.3
		50	0	23.6	23.4	23.5	22.2	22.1	22.2
	64QAM	1	0	24.1	23.9	23.8	22.2	22.0	22.0
		1	24	24.0	23.7	24.1	22.1	22.0	22.0
		1	49	23.9	**24.1**	24.1	**22.2**	22.2	22.2
		25	0	22.7	22.6	22.7	20.9	20.8	20.9
		25	12	22.7	22.6	22.8	20.9	20.8	20.9
		25	24	22.7	22.8	22.8	20.9	20.8	21.0
		50	0	22.7	22.6	22.8	20.8	20.8	20.9

7.5. LTE BAND 13

ID:	39004	Date:	4/14/2019

OUTPUT POWER FOR LTE BAND 13 (5.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)					
				ANT 1			ANT 2		
				23205	23230	23255	23205	23230	23255
				779.5	782.0	784.5	779.5	782.0	784.5
5.0	QPSK	1	0	**25.7**	25.5	25.6	**24.5**	24.4	24.3
		1	12	25.5	25.5	25.5	24.4	24.3	24.4
		1	24	25.6	25.6	25.5	24.4	24.4	24.4
		12	0	24.6	24.4	24.4	23.4	23.2	23.3
		12	6	24.4	24.4	24.4	23.3	23.2	23.3
		12	11	24.4	24.4	24.4	23.3	23.2	23.3
		25	0	24.5	24.4	24.4	23.3	23.3	23.3
	16QAM	1	0	**24.9**	24.8	24.8	23.7	**23.9**	23.7
		1	12	24.8	24.8	24.8	23.7	23.7	23.8
		1	24	24.9	24.8	24.7	23.7	23.8	23.7
		12	0	23.5	23.3	23.4	22.3	22.3	22.2
		12	6	23.4	23.4	23.4	22.3	22.2	22.2
		12	11	23.4	23.4	23.4	22.3	22.2	22.2
		25	0	23.4	23.4	23.4	22.3	22.2	22.2
	64QAM	1	0	23.9	**23.9**	23.9	22.1	**22.2**	22.2
		1	12	23.8	23.8	23.8	22.2	22.0	22.1
		1	24	23.9	23.7	23.8	22.1	21.9	22.1
		12	0	22.5	22.5	22.4	20.8	20.7	20.6
		12	6	22.6	22.4	22.4	20.8	20.7	20.7
		12	11	22.5	22.3	22.4	20.8	20.6	20.7
		25	0	22.5	22.5	22.4	20.8	20.7	20.7

OUTPUT POWER FOR LTE BAND 13 (10.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)					
				ANT 1			ANT 2		
				N/A	23230	N/A	N/A	23230	N/A
				N/A	782.0	N/A	N/A	782.0	N/A
10.0	QPSK	1	0		**25.6**			**24.5**	
		1	24		25.6			24.3	
		1	49		25.6			24.3	
		25	0		24.6			23.4	
		25	12		24.6			23.3	
		25	24		24.5			23.3	
		50	0		24.6			23.3	
	16QAM	1	0		**24.9**			**23.8**	
		1	24		24.9			23.7	
		1	49		24.8			23.6	
		25	0		23.5			22.3	
		25	12		23.6			22.3	
		25	24		23.6			22.3	
		50	0		23.6			22.3	
	64QAM	1	0		**23.9**			22.1	
		1	24		23.8			**22.1**	
		1	49		23.7			22.0	
		25	0		22.7			20.9	
		25	12		22.6			21.0	
		25	24		22.5			20.8	
		50	0		22.6			20.9	

7.6. LTE BAND 14

ID:	39004	Date:	4/14/2019

OUTPUT POWER FOR LTE BAND 14 (5.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)					
				ANT 1			ANT 2		
				23305	23330	23355	23305	23330	23355
				790.5	793.0	795.5	790.5	793.0	795.5
5.0	QPSK	1	0	25.5	25.6	25.6	24.3	24.3	24.2
		1	12	25.5	25.6	25.6	24.2	24.3	24.3
		1	24	25.6	25.6	**25.7**	24.3	**24.4**	24.4
		12	0	24.4	24.4	24.5	23.2	23.2	23.1
		12	6	24.5	24.5	24.4	23.2	23.2	23.2
		12	11	24.4	24.5	24.5	23.2	23.1	23.2
		25	0	24.4	24.5	24.5	23.2	23.2	23.2
	16QAM	1	0	24.9	24.9	24.8	23.5	23.8	23.6
		1	12	24.9	24.9	24.8	23.6	23.8	23.7
		1	24	**25.0**	24.9	25.0	23.6	**23.9**	23.8
		12	0	23.5	23.4	23.4	22.2	22.2	22.1
		12	6	23.5	23.5	23.4	22.1	22.2	22.2
		12	11	23.5	23.5	23.5	22.1	22.2	22.2
		25	0	23.4	23.5	23.5	22.1	22.2	22.2
	64QAM	1	0	24.0	24.0	23.9	22.3	22.4	22.3
		1	12	23.9	24.0	24.0	22.3	22.3	22.4
		1	24	24.0	**24.1**	24.1	22.2	**22.5**	22.5
		12	0	22.5	22.6	22.7	20.8	20.9	21.0
		12	6	22.5	22.6	22.7	20.9	20.9	21.0
		12	11	22.5	22.6	22.7	20.9	20.9	21.0
		25	0	22.6	22.6	22.7	20.9	20.9	21.0

OUTPUT POWER FOR LTE BAND 14 (10.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)					
				ANT 1			ANT 2		
				N/A	23330	N/A	N/A	23330	N/A
				N/A	793.0	N/A	N/A	793.0	N/A
10.0	QPSK	1	0		25.4			24.3	
		1	24		25.6			24.3	
		1	49		**25.7**			**24.5**	
		25	0		24.5			23.3	
		25	12		24.5			23.3	
		25	24		24.6			23.4	
		50	0		24.6			23.3	
	16QAM	1	0		24.9			23.6	
		1	24		24.9			23.6	
		1	49		**25.1**			**23.8**	
		25	0		23.6			22.3	
		25	12		23.6			22.3	
		25	24		23.7			22.4	
		50	0		23.7			22.3	
	64QAM	1	0		24.0			22.3	
		1	24		23.9			22.3	
		1	49		**24.2**			**22.4**	
		25	0		22.8			21.1	
		25	12		22.8			21.1	
		25	24		22.9			21.2	
		50	0		22.8			21.1	

7.7. LTE BAND 17

ID:	39004	Date:	4/14/2019

OUTPUT POWER FOR LTE BAND 17 (5.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)					
				ANT 1			ANT 2		
				23755	23790	23825	23755	23790	23825
				706.5	710.0	713.5	706.5	710.0	713.5
5.0	QPSK	1	0	25.5	25.5	25.6	24.4	24.2	24.4
		1	12	25.5	25.6	25.6	24.2	24.4	24.4
		1	24	25.6	25.6	**25.7**	24.3	24.4	**24.5**
		12	0	24.5	24.5	24.5	23.1	23.2	23.3
		12	6	24.5	24.5	24.5	23.2	23.2	23.3
		12	11	24.4	24.5	24.5	23.2	23.2	23.3
		25	0	24.5	24.6	24.6	23.2	23.3	23.4
	16QAM	1	0	24.8	24.8	25.0	23.6	23.7	23.7
		1	12	24.8	25.0	25.0	23.5	23.8	**23.8**
		1	24	24.8	25.0	**25.1**	23.6	23.8	23.8
		12	0	23.4	23.5	23.5	22.1	22.2	22.3
		12	6	23.4	23.5	23.4	22.1	22.2	22.2
		12	11	23.3	23.5	23.5	22.1	22.3	22.3
		25	0	23.4	23.5	23.5	22.1	22.2	22.3
	64QAM	1	0	24.0	24.0	24.1	22.3	22.4	22.4
		1	12	24.0	24.1	24.2	22.3	22.5	22.5
		1	24	24.0	**24.2**	24.1	22.4	22.5	**22.6**
		12	0	22.6	22.6	22.8	21.0	20.9	21.0
		12	6	22.5	22.7	22.8	21.0	20.9	21.1
		12	11	22.6	22.7	22.8	21.0	21.0	21.1
		25	0	22.6	22.8	22.8	21.0	21.0	21.1

OUTPUT POWER FOR LTE BAND 17 (10.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)					
				ANT 1			ANT 2		
				23780	23790	23800	23780	23790	23800
				709.0	710.0	711.0	709.0	710.0	711.0
10.0	QPSK	1	0	25.6	25.6	25.5	24.3	24.3	24.3
		1	24	25.5	25.6	25.6	24.2	24.3	24.3
		1	49	**25.7**	25.7	25.7	24.4	24.4	**24.5**
		25	0	24.5	24.4	24.5	23.2	23.2	23.2
		25	12	24.5	24.5	24.6	23.2	23.2	23.2
		25	24	24.6	24.6	24.6	23.3	23.3	23.3
		50	0	24.6	24.6	24.6	23.3	23.3	23.3
	16QAM	1	0	24.9	24.8	24.8	23.7	23.5	23.5
		1	24	24.9	24.8	24.9	23.6	23.6	23.6
		1	49	**25.0**	24.9	25.0	**23.8**	23.8	23.7
		25	0	23.5	23.4	23.5	22.3	22.2	22.3
		25	12	23.5	23.6	23.6	22.3	22.3	22.3
		25	24	23.6	23.7	23.6	22.3	22.4	22.4
		50	0	23.6	23.7	23.6	22.3	22.3	22.3
	64QAM	1	0	24.0	24.0	23.9	22.2	22.2	22.3
		1	24	24.0	24.0	24.2	22.3	22.3	22.3
		1	49	24.3	**24.3**	24.2	22.2	22.5	**22.6**
		25	0	22.7	22.7	22.9	21.0	21.1	21.1
		25	12	22.8	22.9	22.9	21.1	21.1	21.2
		25	24	23.0	22.9	23.0	21.2	21.2	21.3
		50	0	22.8	22.9	22.9	21.1	21.1	21.2

7.8. LTE BAND 25

ID:	39004	Date:	4/14/2019

OUTPUT POWER FOR LTE BAND 25 (1.4 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				26047	26365	26683	26047	26365	26683	26047	26365	26683	26047	26365	26683
				1850.7	1882.5	1914.3	1850.7	1882.5	1914.3	1850.7	1882.5	1914.3	1850.7	1882.5	1914.3
1.4	QPSK	1	0	25.2	25.0	25.2	20.2	20.1	20.1	**24.8**	24.7	24.6	19.2	19.4	**19.5**
		1	2	25.2	25.0	**25.3**	20.2	20.0	20.1	24.7	24.7	24.6	19.2	19.4	19.4
		1	5	**25.3**	25.1	25.2	**20.2**	20.0	20.1	24.7	24.8	24.6	19.2	19.3	19.4
		3	0	25.2	24.9	25.1	20.1	19.9	19.9	24.7	24.6	24.4	19.0	19.3	19.3
		3	1	25.2	24.9	25.1	20.1	19.9	19.9	24.6	24.6	24.4	19.1	19.3	19.2
		3	2	25.2	25.0	25.2	20.2	19.9	19.9	24.6	24.6	24.4	19.1	19.3	19.2
		6	0	24.1	23.9	24.1	19.1	18.9	18.9	23.5	23.6	23.3	18.0	18.2	18.1
	16QAM	1	0	24.5	24.2	**24.5**	19.4	19.3	19.4	24.0	**24.0**	23.8	18.3	**18.7**	18.7
		1	2	24.4	24.2	24.5	19.4	19.3	19.2	23.9	24.0	23.8	18.4	18.7	18.6
		1	5	24.5	24.3	24.4	**19.4**	19.4	19.4	23.9	24.0	23.8	18.3	18.6	18.6
		3	0	24.2	24.0	24.3	19.1	19.0	19.0	23.7	23.7	23.5	18.1	18.4	18.4
		3	1	24.2	24.0	24.2	19.2	19.1	19.0	23.7	23.7	23.5	18.1	18.4	18.4
		3	2	24.1	24.0	24.2	19.1	19.0	19.0	23.7	23.6	23.5	18.1	18.4	18.4
		6	0	23.1	22.9	23.0	18.0	17.9	17.9	22.5	22.5	22.5	17.0	17.2	17.4
	64QAM	1	0	23.5	23.3	23.3	**17.9**	17.6	17.6	23.2	23.0	23.1	17.7	17.6	17.6
		1	2	23.5	23.3	23.3	17.9	17.6	17.6	**23.2**	23.0	23.1	17.6	17.6	17.6
		1	5	**23.5**	23.3	23.3	17.9	17.5	17.8	23.2	23.0	23.1	**17.7**	17.6	17.6
		3	0	23.3	23.1	23.1	17.5	17.3	17.5	23.0	22.8	22.9	17.3	17.4	17.4
		3	1	23.2	23.1	23.2	17.5	17.3	17.5	22.9	22.9	22.9	17.4	17.4	17.4
		3	2	23.2	23.2	23.2	17.6	17.3	17.5	23.0	22.8	22.9	17.3	17.4	17.4
		6	0	22.1	22.1	22.0	16.4	16.3	16.3	21.8	21.8	21.8	16.1	16.4	16.3

OUTPUT POWER FOR LTE BAND 25 (3.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				26055	26365	26675	26055	26365	26675	26055	26365	26675	26055	26365	26675
				1851.5	1882.5	1913.5	1851.5	1882.5	1913.5	1851.5	1882.5	1913.5	1851.5	1882.5	1913.5
3.0	QPSK	1	0	25.2	25.0	25.3	20.2	20.0	20.1	**24.7**	24.7	24.5	19.1	19.4	**19.5**
		1	7	**25.3**	25.1	25.3	**20.3**	20.1	20.1	24.7	24.7	24.5	19.1	19.4	19.5
		1	14	25.2	25.1	25.2	20.2	20.1	20.0	24.7	24.7	24.5	19.1	19.4	19.3
		8	0	24.1	23.9	24.1	19.1	18.9	19.0	23.6	23.5	23.4	18.0	18.2	18.3
		8	4	24.0	23.9	24.1	19.1	18.9	19.0	23.6	23.5	23.4	18.0	18.2	18.3
		8	7	24.0	24.0	24.1	19.1	18.9	18.9	23.6	23.5	23.4	18.0	18.2	18.2
		15	0	24.1	24.0	24.2	19.1	18.9	19.1	23.6	23.6	23.4	18.0	18.2	18.3
	16QAM	1	0	24.5	24.2	24.5	19.5	19.4	19.4	**24.0**	23.9	23.7	18.4	18.5	18.6
		1	7	24.4	24.4	**24.6**	**19.5**	19.4	19.5	24.0	24.0	23.8	18.5	18.6	**18.7**
		1	14	24.4	24.4	24.4	19.4	19.4	19.3	23.9	23.9	23.8	18.4	18.5	18.6
		8	0	23.1	22.9	23.1	18.1	17.9	18.0	22.5	22.5	22.3	17.0	17.3	17.3
		8	4	23.0	22.8	23.0	18.1	17.9	18.0	22.5	22.5	22.3	17.0	17.2	17.3
		8	7	23.0	22.9	23.0	18.0	17.9	17.9	22.5	22.5	22.3	17.0	17.2	17.2
		15	0	23.0	22.9	23.1	18.0	17.9	18.0	22.6	22.5	22.3	17.0	17.2	17.3
	64QAM	1	0	23.3	23.2	23.3	17.8	17.6	17.6	23.0	**23.1**	23.0	17.4	17.6	17.6
		1	7	23.3	23.3	**23.4**	**17.8**	17.6	17.7	22.9	23.0	23.1	17.4	17.6	**17.7**
		1	14	23.2	23.3	23.3	17.7	17.6	17.6	22.9	23.0	23.0	17.3	17.5	17.7
		8	0	22.1	22.1	22.0	16.3	16.3	16.3	21.7	21.8	21.7	16.1	16.3	16.3
		8	4	22.0	22.1	22.0	16.4	16.3	16.3	21.7	21.8	21.7	16.1	16.3	16.3
		8	7	22.0	22.0	22.0	16.4	16.3	16.3	21.7	21.8	21.7	16.1	16.3	16.3
		15	0	22.0	22.0	22.0	16.3	16.2	16.3	21.7	21.8	21.6	16.1	16.3	16.3

OUTPUT POWER FOR LTE BAND 25 (5.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				26065	26365	26665	26065	26365	26665	26065	26365	26665	26065	26365	26665
				1852.5	1882.5	1912.5	1852.5	1882.5	1912.5	1852.5	1882.5	1912.5	1852.5	1882.5	1912.5
5.0	QPSK	1	0	25.3	25.1	25.2	20.2	20.2	**20.4**	**24.9**	24.8	24.7	19.2	19.4	**19.6**
		1	12	25.3	25.1	**25.3**	20.3	20.1	20.2	24.8	24.8	24.6	19.2	19.4	19.5
		1	24	25.3	25.1	25.3	20.3	20.1	20.1	24.7	24.7	24.6	19.3	19.5	19.4
		12	0	24.3	24.1	24.2	19.2	19.0	19.3	23.7	23.7	23.6	18.1	18.4	18.5
		12	6	24.3	24.1	24.2	19.2	19.0	19.2	23.7	23.7	23.6	18.1	18.4	18.4
		12	11	24.2	24.1	24.1	19.2	19.1	19.2	23.7	23.7	23.5	18.2	18.3	18.4
		25	0	24.3	24.1	24.3	19.2	19.0	19.2	23.7	23.7	23.6	18.1	18.4	18.5
	16QAM	1	0	**24.6**	24.4	24.5	19.6	19.4	**19.8**	**24.2**	24.0	24.1	18.6	18.8	**18.9**
		1	12	24.5	24.4	24.6	19.7	19.4	19.5	24.2	24.0	23.9	18.6	18.7	18.8
		1	24	24.5	24.4	24.5	19.7	19.4	19.5	24.0	24.0	24.0	18.7	18.8	18.7
		12	0	23.3	23.0	23.2	18.2	18.1	18.2	22.7	22.7	22.6	17.2	17.4	17.5
		12	6	23.3	23.1	23.2	18.2	18.1	18.1	22.7	22.7	22.5	17.2	17.4	17.5
		12	11	23.2	23.1	23.2	18.3	18.1	18.2	22.7	22.7	22.6	17.2	17.4	17.5
		25	0	23.2	23.1	23.2	18.2	18.0	18.2	22.7	22.7	22.6	17.1	17.4	17.4
	64QAM	1	0	23.5	23.5	23.4	17.8	17.8	**18.0**	**23.3**	23.2	23.2	17.7	17.7	**17.8**
		1	12	23.4	**23.5**	23.4	17.8	17.8	17.7	23.2	23.1	23.2	17.6	17.8	17.8
		1	24	23.5	23.3	23.5	17.9	17.8	17.9	23.2	23.0	23.2	17.7	17.7	17.8
		12	0	22.1	22.2	22.2	16.5	16.5	16.5	21.9	22.0	21.9	16.2	16.5	16.5
		12	6	22.1	22.2	22.2	16.4	16.4	16.5	21.9	22.0	21.8	16.2	16.4	16.5
		12	11	22.2	22.2	22.1	16.5	16.4	16.5	21.9	22.0	21.8	16.2	16.5	16.4
		25	0	22.1	22.2	22.1	16.4	16.4	16.5	21.9	21.9	21.8	16.1	16.5	16.5

OUTPUT POWER FOR LTE BAND 25 (10.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				26090	26365	26640	26090	26365	26640	26090	26365	26640	26090	26365	26640
				1855.0	1882.5	1910.0	1855.0	1882.5	1910.0	1855.0	1882.5	1910.0	1855.0	1882.5	1910.0
10.0	QPSK	1	0	**25.4**	25.2	**25.4**	20.4	20.1	**20.5**	24.9	24.8	**24.9**	19.3	19.6	19.9
		1	24	25.3	25.1	25.3	20.4	20.2	20.5	24.7	24.8	24.8	19.4	19.5	**20.0**
		1	49	25.2	25.3	25.3	20.4	20.1	20.2	24.8	24.7	24.7	19.5	19.6	19.8
		25	0	24.4	24.2	24.4	19.4	19.2	19.4	23.9	23.8	23.9	18.3	18.5	19.0
		25	12	24.4	24.2	24.3	19.4	19.2	19.5	23.8	23.8	23.8	18.4	18.5	19.0
		25	24	24.3	24.2	24.4	19.4	19.2	19.3	23.7	23.8	23.7	18.5	18.6	18.9
		50	0	24.3	24.2	24.4	19.4	19.2	19.4	23.8	23.8	23.8	18.4	18.8	19.0
	16QAM	1	0	24.7	24.6	**24.7**	19.7	19.6	**19.8**	24.1	24.2	24.2	18.7	19.1	**19.3**
		1	24	24.6	24.4	24.6	19.7	19.5	19.7	24.0	24.1	24.1	18.7	19.0	19.3
		1	49	24.5	24.5	24.7	19.7	19.4	19.5	**24.2**	24.1	23.9	18.8	19.1	19.2
		25	0	23.4	23.2	23.5	18.4	18.2	18.5	22.9	22.8	22.9	17.4	17.9	18.0
		25	12	23.4	23.1	23.3	18.4	18.2	18.5	22.8	22.9	22.8	17.4	17.9	18.0
		25	24	23.3	23.2	23.4	18.5	18.2	18.3	22.8	22.8	22.7	17.5	17.9	17.9
		50	0	23.3	23.2	23.3	18.4	18.2	18.5	22.8	22.8	22.8	17.4	17.8	18.0
	64QAM	1	0	23.5	23.4	**23.7**	17.8	17.8	18.0	23.3	23.1	23.3	17.6	17.9	**18.0**
		1	24	23.5	23.5	23.6	17.9	17.7	**18.0**	23.2	23.2	**23.3**	17.7	17.9	18.0
		1	49	23.5	23.4	23.6	17.9	17.8	18.0	23.2	23.1	23.3	17.6	17.9	17.8
		25	0	22.3	22.4	22.5	16.6	16.6	17.0	22.1	22.1	22.3	16.4	16.7	16.8
		25	12	22.4	22.4	22.4	16.7	16.7	16.9	22.1	22.1	22.2	16.5	16.7	16.8
		25	24	22.4	22.4	22.4	16.8	16.7	16.7	22.2	22.0	22.1	16.6	16.7	16.7
		50	0	22.4	22.4	22.4	16.8	16.7	16.9	22.1	22.1	22.2	16.6	16.7	16.8

OUTPUT POWER FOR LTE BAND 25 (15.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				26115	26365	26615	26115	26365	26615	26115	26365	26615	26115	26365	26615
				1857.5	1882.5	1907.5	1857.5	1882.5	1907.5	1857.5	1882.5	1907.5	1857.5	1882.5	1907.5
15.0	QPSK	1	0	25.3	25.2	**25.6**	20.4	20.2	20.4	24.8	24.9	**25.0**	19.6	19.9	19.9
		1	37	25.2	25.2	25.3	20.4	20.2	**20.4**	24.8	24.7	24.9	19.7	19.7	**20.0**
		1	74	25.2	25.3	25.3	20.2	20.2	20.2	24.6	24.8	24.6	19.8	19.8	19.8
		36	0	24.3	24.3	24.5	19.4	19.2	19.5	23.8	23.8	23.9	18.6	18.8	18.9
		36	16	24.2	24.2	24.4	19.4	19.2	19.4	23.7	23.8	23.9	18.7	18.8	19.0
		36	35	24.3	24.3	24.4	19.4	19.2	19.4	23.7	23.8	23.7	18.8	18.8	19.0
		75	0	24.2	24.2	24.4	19.4	19.2	19.5	23.7	23.8	23.9	18.8	18.8	19.0
	16QAM	1	0	24.7	24.5	**25.0**	19.7	19.5	19.6	24.1	24.2	**24.3**	18.9	19.1	19.2
		1	37	24.5	24.5	24.6	**19.7**	19.6	19.7	24.1	24.1	24.2	19.0	19.0	**19.2**
		1	74	24.6	24.6	24.7	19.5	19.6	19.4	23.9	24.2	23.9	19.1	19.0	19.1
		36	0	23.4	23.3	23.5	18.5	18.2	18.5	22.8	22.9	23.0	17.6	17.9	17.9
		36	16	23.2	23.2	23.5	18.5	18.3	18.6	22.8	22.9	23.0	17.8	17.9	18.1
		36	35	23.3	23.3	23.4	18.4	18.2	18.5	22.8	22.8	22.8	17.8	17.9	18.0
		75	0	23.3	23.3	23.4	18.5	18.2	18.5	22.8	22.8	22.9	17.8	17.8	18.1
	64QAM	1	0	23.5	23.5	**23.9**	17.9	17.9	17.9	23.3	23.2	**23.6**	17.5	**18.0**	18.0
		1	37	23.5	23.6	23.7	18.0	17.8	**18.1**	23.3	23.2	23.3	17.6	17.9	18.0
		1	74	23.6	23.7	23.5	18.0	17.8	17.8	23.4	23.4	23.2	17.8	17.9	17.9
		36	0	22.4	22.4	22.6	16.7	16.7	16.8	22.1	22.1	22.3	16.5	16.8	16.7
		36	16	22.4	22.4	22.5	16.8	16.6	16.9	22.1	22.1	22.3	16.6	16.7	16.9
		36	35	22.5	22.4	22.4	16.8	16.6	16.9	22.2	22.2	22.2	16.6	16.7	16.8
		75	0	22.4	22.4	22.5	16.7	16.6	16.9	22.2	22.1	22.3	16.6	16.6	16.8

OUTPUT POWER FOR LTE BAND 25 (20.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				26140	26365	26590	26140	26365	26590	26140	26365	26590	26140	26365	26590
				1860.0	1882.5	1905.0	1860.0	1882.5	1905.0	1860.0	1882.5	1905.0	1860.0	1882.5	1905.0
20.0	QPSK	1	0	25.4	25.2	**25.7**	20.4	20.3	20.3	24.9	24.9	24.9	19.6	**19.9**	19.9
		1	49	25.2	25.1	25.4	20.3	20.2	**20.5**	24.8	24.8	**24.9**	19.7	19.7	19.9
		1	99	25.3	25.4	25.3	20.2	20.2	20.2	24.7	24.9	24.6	19.8	19.8	19.8
		50	0	24.3	24.3	24.6	19.4	19.2	19.4	23.9	23.9	24.1	18.7	18.8	18.9
		50	24	24.3	24.2	24.5	19.3	19.2	19.4	23.7	23.8	23.9	18.8	18.8	18.9
		50	49	24.2	24.3	24.3	19.3	19.2	19.4	23.7	23.8	23.8	18.8	18.9	19.1
		100	0	24.3	24.2	24.4	19.4	19.2	19.5	23.7	23.8	23.9	18.8	18.8	19.0
	16QAM	1	0	24.9	24.7	**25.1**	**19.8**	19.6	19.6	24.2	24.3	24.2	18.9	**19.3**	19.2
		1	49	24.5	24.5	24.8	19.7	19.5	19.8	24.2	24.2	24.2	19.0	19.1	19.2
		1	99	24.8	24.9	24.8	19.6	19.5	19.5	24.0	**24.4**	23.9	19.2	19.1	19.3
		50	0	23.3	23.3	23.6	18.4	18.2	18.4	22.9	22.9	23.1	17.7	17.9	18.0
		50	24	23.3	23.3	23.4	18.4	18.3	18.5	22.7	22.8	23.0	17.8	17.9	17.9
		50	49	23.3	23.3	23.4	18.3	18.2	18.5	22.8	22.8	22.8	17.9	17.9	18.0
		100	0	23.3	23.2	23.4	18.5	18.3	18.5	22.8	22.8	23.0	17.9	17.8	18.0
	64QAM	1	0	23.6	23.4	**23.9**	18.0	17.8	18.0	23.4	23.4	23.4	17.8	17.8	18.0
		1	49	23.7	23.4	23.8	18.1	17.7	18.1	23.4	23.3	23.3	17.8	17.7	**18.1**
		1	99	23.8	23.6	23.7	**18.1**	17.7	18.1	23.4	**23.6**	23.2	18.1	17.7	18.0
		50	0	22.4	22.4	22.7	16.7	16.7	16.7	22.1	22.1	22.4	16.6	16.7	16.7
		50	24	22.5	22.4	22.6	16.7	16.6	16.8	22.1	22.1	22.3	16.6	16.7	16.8
		50	49	22.5	22.5	22.4	16.8	16.7	17.0	22.2	22.2	22.2	16.7	16.7	16.8
		100	0	22.5	22.4	22.6	16.8	16.6	16.9	22.2	22.1	22.3	16.7	16.6	16.8

7.9. LTE BAND 26

ID:	39004	Date:	4/14/2019

OUTPUT POWER FOR LTE BAND 26 (1.4 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)					
				ANT 1			ANT 2		
				26697	26740	26783	26697	26740	26783
				814.7	819.0	823.3	814.7	819.0	823.3
1.4	QPSK	1	0	25.4	25.4	**25.7**	24.4	24.4	24.4
		1	2	25.4	25.4	25.5	24.4	24.4	24.4
		1	5	25.4	25.4	25.5	24.4	**24.4**	24.4
		3	0	25.4	25.3	25.3	24.2	24.3	24.3
		3	1	25.3	25.2	25.4	24.2	24.2	24.3
		3	2	25.3	25.2	25.3	24.3	24.2	24.3
		6	0	24.2	24.1	24.3	23.3	23.1	23.2
	16QAM	1	0	**24.6**	24.6	24.6	**23.7**	23.6	23.6
		1	2	**24.6**	24.5	24.6	23.6	23.5	23.6
		1	5	24.5	24.5	**24.6**	23.6	23.6	23.6
		3	0	24.3	24.3	24.4	23.4	23.3	23.3
		3	1	24.3	24.3	24.4	23.4	23.3	23.4
		3	2	24.3	24.3	24.4	23.4	23.2	23.3
		6	0	23.2	23.2	23.2	22.1	22.2	22.2
	64QAM	1	0	**23.7**	23.5	23.5	22.5	22.6	22.6
		1	2	23.6	23.4	23.5	22.4	22.6	22.5
		1	5	23.6	23.5	23.5	22.5	**22.6**	22.6
		3	0	23.4	23.2	23.4	22.4	22.3	22.3
		3	1	23.3	23.2	23.4	22.3	22.3	22.3
		3	2	23.3	23.2	23.4	22.3	22.3	22.3
		6	0	22.2	22.2	22.3	21.2	21.1	21.3

OUTPUT POWER FOR LTE BAND 26 (3.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)					
				ANT 1			ANT 2		
				26705	26740	26775	26705	26740	26775
				815.5	819.0	822.5	815.5	819.0	822.5
3.0	QPSK	1	0	25.4	25.3	25.4	**24.5**	24.3	24.3
		1	7	25.4	25.4	**25.5**	24.4	24.3	24.4
		1	14	25.3	25.4	25.4	24.4	24.2	24.4
		8	0	24.2	24.2	24.3	23.3	23.2	23.2
		8	4	24.2	24.2	24.3	23.2	23.2	23.3
		8	7	24.2	24.2	24.3	23.2	23.2	23.3
		15	0	24.2	24.3	24.4	23.2	23.2	23.3
	16QAM	1	0	24.6	24.6	24.7	23.7	23.6	23.6
		1	7	24.6	24.7	**24.7**	23.6	23.5	23.7
		1	14	24.6	24.7	24.7	23.6	23.5	**23.7**
		8	0	23.2	23.2	23.2	22.2	22.1	22.1
		8	4	23.1	23.1	23.2	22.1	22.1	22.2
		8	7	23.1	23.1	23.2	22.2	22.2	22.2
		15	0	23.1	23.2	23.3	22.2	22.2	22.2
	64QAM	1	0	23.4	23.4	23.4	22.3	22.6	**23.7**
		1	7	23.4	23.6	**23.6**	22.5	22.5	22.5
		1	14	23.3	23.5	23.5	22.5	22.4	22.6
		8	0	22.2	22.1	22.2	21.0	21.2	21.1
		8	4	22.1	22.1	22.2	21.1	21.2	21.1
		8	7	22.1	22.2	22.2	21.1	21.2	21.1
		15	0	22.1	22.2	22.2	21.1	21.2	21.1

OUTPUT POWER FOR LTE BAND 26 (5.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)					
				ANT 1			ANT 2		
				26715	26740	26765	26715	26740	26765
				816.5	819.0	821.5	816.5	819.0	821.5
5.0	QPSK	1	0	25.4	25.3	25.3	**24.5**	24.4	24.3
		1	12	25.3	25.3	25.3	24.4	24.3	24.3
		1	24	25.3	**25.4**	25.4	24.4	24.3	24.4
		12	0	24.2	24.2	24.2	23.2	23.3	23.2
		12	6	24.2	24.3	24.3	23.2	23.3	23.2
		12	11	24.2	24.2	24.3	23.3	23.3	23.3
		25	0	24.2	24.2	24.3	23.3	23.3	23.3
	16QAM	1	0	**24.8**	24.6	24.7	**23.9**	23.7	23.6
		1	12	24.7	24.6	24.7	23.8	23.5	23.6
		1	24	24.7	24.6	24.7	23.8	23.6	23.8
		12	0	23.2	23.2	23.3	22.2	22.3	22.2
		12	6	23.2	23.2	23.3	22.3	22.3	22.2
		12	11	23.2	23.2	23.4	22.3	22.3	22.3
		25	0	23.2	23.2	23.3	22.3	22.2	22.3
	64QAM	1	0	23.5	23.5	23.6	22.4	22.7	**22.8**
		1	12	23.5	23.6	23.6	22.4	22.5	22.6
		1	24	23.5	23.6	**23.7**	22.6	22.5	22.6
		12	0	22.2	22.1	22.3	21.1	21.2	21.2
		12	6	22.2	22.1	22.3	21.2	21.1	21.2
		12	11	22.1	22.2	22.3	21.2	21.2	21.3
		25	0	22.1	22.3	22.2	21.2	21.2	21.2

OUTPUT POWER FOR LTE BAND 26 (10.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)					
				ANT 1			ANT 2		
				N/A	26740	N/A	N/A	26740	N/A
				N/A	819.0	N/A	N/A	819.0	N/A
10.0	QPSK	1	0		25.4			24.4	
		1	24		25.4			24.3	
		1	49		**25.5**			**24.5**	
		25	0		24.3			23.3	
		25	12		24.4			23.4	
		25	24		24.4			23.3	
		50	0		24.3			23.4	
	16QAM	1	0		**24.7**			23.6	
		1	24		24.6			23.5	
		1	49		24.7			**23.7**	
		25	0		23.3			22.3	
		25	12		23.4			22.4	
		25	24		23.5			22.4	
		50	0		23.4			22.4	
	64QAM	1	0		23.5			**22.6**	
		1	24		23.4			22.5	
		1	49		**23.7**			22.6	
		25	0		22.3			21.4	
		25	12		22.4			21.4	
		25	24		22.5			21.4	
		50	0		22.5			21.3	

7.10. LTE BAND 30

ID:	39004	Date:	4/14/2019

OUTPUT POWER FOR LTE BAND 30 (5.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				27685	27710	27735	27685	27710	27735	27685	27710	27735	27685	27710	27735
				2307.5	2310.0	2312.5	2307.5	2310.0	2312.5	2307.5	2310.0	2312.5	2307.5	2310.0	2312.5
5.0	QPSK	1	0	**25.7**	25.6	25.5	20.8	20.9	**21.0**	24.3	24.3	24.4	18.7	18.6	18.8
		1	12	25.6	25.5	25.5	20.9	20.9	20.9	24.3	24.4	24.5	18.6	18.7	18.7
		1	24	25.6	25.4	25.5	20.9	20.9	21.0	24.3	**24.5**	24.4	18.8	18.7	**18.9**
		12	0	24.5	24.5	24.4	19.8	19.8	19.9	23.3	23.3	23.4	17.6	17.6	17.6
		12	6	24.5	24.5	24.4	19.8	19.8	19.8	23.2	23.3	23.4	17.5	17.7	17.6
		12	11	24.4	24.4	24.4	19.8	19.8	19.8	23.2	23.4	23.4	17.6	17.7	17.6
		25	0	24.5	24.4	24.4	19.8	19.8	19.9	23.3	23.4	23.5	17.6	17.7	17.6
	16QAM	1	0	25.1	**25.1**	25.0	20.2	20.4	20.4	23.6	23.8	23.8	18.0	18.1	18.1
		1	12	25.0	25.0	25.0	20.2	**20.5**	20.4	23.6	23.8	23.9	18.0	18.2	18.1
		1	24	24.9	24.9	25.0	20.2	20.4	20.4	23.6	**24.0**	23.8	18.1	18.3	**18.3**
		12	0	23.6	23.6	23.4	18.7	18.9	18.9	22.4	22.3	22.5	16.6	16.7	16.7
		12	6	23.6	23.6	23.5	18.9	18.8	18.9	22.3	22.3	22.4	16.6	16.7	16.7
		12	11	23.5	23.5	23.4	18.8	18.9	18.8	22.3	22.5	22.4	16.7	16.7	16.8
		25	0	23.5	23.4	23.4	18.8	18.8	18.9	22.3	22.4	22.4	16.6	16.7	16.7
	64QAM	1	0	24.2	24.3	24.4	18.9	18.9	18.8	21.3	21.0	21.2	17.6	17.7	17.6
		1	12	24.2	24.2	**24.4**	18.9	**19.0**	18.9	21.2	21.1	21.3	17.6	17.8	17.7
		1	24	24.2	24.3	24.3	18.9	19.0	18.8	**21.5**	21.3	21.4	17.7	17.7	**17.9**
		12	0	22.9	22.8	22.9	17.3	17.4	17.5	19.8	19.9	19.8	16.2	16.2	16.3
		12	6	23.0	22.8	22.8	17.4	17.4	17.5	19.8	19.9	19.9	16.2	16.2	16.3
		12	11	22.9	22.7	22.8	17.5	17.4	17.5	19.8	19.9	19.9	16.2	16.2	16.3
		25	0	22.9	22.8	22.9	17.4	17.4	17.4	19.7	19.8	20.0	16.2	16.2	16.2

OUTPUT POWER FOR LTE BAND 30 (10.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				N/A	27710	N/A	N/A	27710	N/A	N/A	27710	N/A	N/A	27710	N/A
				N/A	2310.0	N/A	N/A	2310.0	N/A	N/A	2310.0	N/A	N/A	2310.0	N/A
10.0	QPSK	1	0		**25.7**			20.9			24.4			18.8	
		1	24		25.6			21.0			24.3			18.9	
		1	49		25.4			**21.0**			**24.4**			**19.0**	
		25	0		24.6			20.0			23.5			17.7	
		25	12		24.6			19.9			23.4			17.8	
		25	24		24.5			20.0			23.5			17.7	
		50	0		24.5			20.0			23.5			17.8	
	16QAM	1	0		**25.1**			**20.3**			23.8			18.2	
		1	24		25.1			20.2			23.7			18.2	
		1	49		24.9			20.2			**23.9**			**18.4**	
		25	0		23.7			19.0			22.5			16.8	
		25	12		23.6			19.0			22.5			16.9	
		25	24		23.6			19.0			22.6			16.8	
		50	0		23.6			19.0			22.6			16.9	
	64QAM	1	0		**24.4**			18.9			21.2			17.6	
		1	24		24.3			18.9			21.3			17.7	
		1	49		24.2			**18.9**			**21.4**			**18.0**	
		25	0		23.1			17.5			20.0			16.4	
		25	12		23.0			17.6			20.2			16.5	
		25	24		23.1			17.6			20.2			16.4	
		50	0		23.0			17.7			20.1			16.5	

7.11. LTE BAND 41

ID:	10646	Date:	4/14/2019

OUTPUT POWER FOR LTE BAND 41 (5.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				39675	40620	41565	39675	40620	41565	39675	40620	41565	39675	40620	41565
				2498.5	2593.0	2687.5	2498.5	2593.0	2687.5	2498.5	2593.0	2687.5	2498.5	2593.0	2687.5
5.0	QPSK	1	0	25.6	28.6	28.5	19.7	22.6	22.6	25.0	27.9	27.8	18.0	21.0	20.9
		1	12	27.6	28.6	28.5	21.7	22.6	22.5	27.0	28.0	27.8	19.7	21.0	20.9
		1	24	27.7	28.7	28.5	21.7	22.6	22.6	27.0	28.0	27.8	19.6	21.0	20.9
		12	0	24.6	27.6	27.3	18.6	21.4	21.5	23.8	26.8	26.7	17.8	20.0	19.8
		12	6	24.6	27.6	27.3	18.6	21.4	21.4	23.8	26.8	26.7	17.7	19.9	19.8
		12	11	26.6	27.6	27.3	20.6	21.4	21.4	25.9	26.8	26.7	18.7	20.0	19.8
		25	0	24.6	27.6	27.4	18.6	21.4	21.4	23.9	26.9	26.7	17.7	20.0	19.8
	16QAM	1	0	24.2	27.1	27.0	19.1	22.0	22.0	24.4	27.4	27.2	17.3	20.4	20.3
		1	12	26.1	27.0	27.0	21.1	22.0	21.9	26.3	27.4	27.1	19.2	20.4	20.3
		1	24	26.1	27.1	26.9	21.1	22.0	21.9	26.4	27.5	27.1	19.0	20.4	20.2
		12	0	22.6	25.6	28.2	17.6	20.5	20.5	22.8	25.9	25.7	16.8	18.9	18.9
		12	6	22.6	25.6	28.2	17.6	20.5	20.4	22.8	25.9	25.7	16.8	18.9	18.9
		12	11	24.6	25.5	28.2	19.6	20.4	20.4	24.8	25.9	25.7	17.7	18.9	18.8
		25	0	22.6	25.5	28.2	17.6	20.4	20.4	22.8	25.8	25.7	16.7	18.9	18.8
	64QAM	1	0	24.3	27.2	27.3	15.2	18.5	18.0	20.1	23.1	22.5	16.5	19.6	16.6
		1	12	26.3	27.2	27.3	17.5	18.4	18.1	22.0	23.0	22.5	18.0	19.5	16.6
		1	24	26.4	27.2	27.3	17.5	18.5	18.0	21.9	23.0	22.3	18.0	19.6	16.6
		12	0	22.9	25.8	25.9	13.9	17.0	16.8	18.6	21.7	21.3	15.0	18.3	15.3
		12	6	22.8	25.9	25.9	14.0	16.9	16.8	18.6	21.6	21.3	15.0	18.2	15.3
		12	11	24.9	25.8	25.9	16.1	16.9	16.8	20.6	21.6	21.2	16.9	18.3	15.3
		25	0	22.8	25.8	25.9	14.0	16.9	16.7	18.6	21.6	21.2	15.0	18.3	15.3

OUTPUT POWER FOR LTE BAND 41 (10.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				39700	40620	41540	39700	40620	41540	39700	40620	41540	39700	40620	41540
				2501.0	2593.0	2685.0	2501.0	2593.0	2685.0	2501.0	2593.0	2685.0	2501.0	2593.0	2685.0
10.0	QPSK	1	0	24.6	28.6	28.4	18.7	22.7	22.7	23.8	28.0	27.8	17.3	21.0	20.9
		1	24	27.6	28.6	28.4	21.7	22.7	22.7	26.8	28.0	27.8	20.0	21.0	20.9
		1	49	27.7	28.6	28.3	21.7	22.7	22.7	27.0	28.0	27.8	19.7	21.0	20.9
		25	0	24.6	27.6	27.4	18.7	21.7	21.7	23.8	27.0	26.8	17.2	20.0	19.9
		25	12	26.7	27.6	27.4	20.7	21.7	21.7	25.8	27.0	26.8	19.0	20.0	19.9
		25	24	25.9	27.5	27.4	19.7	21.7	21.7	24.9	27.0	26.9	17.7	20.0	19.9
		50	0	24.9	27.4	27.4	18.7	21.7	21.7	23.8	27.0	26.8	17.0	20.0	19.8
	16QAM	1	0	24.2	27.8	27.7	18.1	22.2	22.1	23.1	27.4	27.2	16.7	20.3	20.2
		1	24	27.2	27.8	27.7	21.1	22.1	22.0	26.1	27.3	27.2	19.4	20.3	20.1
		1	49	27.3	27.8	27.7	21.1	22.2	22.0	26.3	27.4	27.3	19.1	20.3	20.1
		25	0	23.9	26.5	26.5	17.8	20.8	20.8	22.8	26.1	25.9	16.3	19.1	19.0
		25	12	25.9	26.6	26.4	19.8	20.8	20.8	24.9	26.1	25.9	18.1	19.1	18.9
		25	24	25.0	26.6	26.4	18.8	20.8	20.8	24.0	26.1	25.9	16.9	19.1	19.0
		50	0	23.9	26.6	26.4	17.8	20.8	20.8	22.9	26.0	25.9	16.1	19.1	18.9
	64QAM	1	0	23.3	27.0	27.1	14.2	18.7	18.4	18.8	23.0	22.8	15.8	19.5	16.5
		1	24	26.3	26.9	27.0	17.5	18.6	18.3	21.6	23.0	22.6	18.2	19.5	16.5
		1	49	26.5	27.0	27.2	17.5	18.6	18.3	21.6	23.2	22.6	18.1	19.6	16.6
		25	0	23.1	25.7	25.8	14.2	17.4	17.2	18.7	21.8	21.6	15.5	18.4	15.4
		25	12	25.2	25.7	25.8	16.3	17.3	17.1	20.6	21.8	21.4	17.3	18.5	15.4
		25	24	24.2	25.8	25.8	15.3	17.3	17.1	19.6	21.9	21.5	16.2	18.4	15.3
		50	0	23.2	25.8	25.8	14.3	17.3	17.1	18.6	21.8	21.4	15.4	18.4	15.4

OUTPUT POWER FOR LTE BAND 41 (15.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				39725	40620	41515	39725	40620	41515	39725	40620	41515	39725	40620	41515
				2503.5	2593.0	2682.5	2503.5	2593.0	2682.5	2503.5	2593.0	2682.5	2503.5	2593.0	2682.5
15.0	QPSK	1	0	24.6	28.5	28.5	18.7	22.6	22.7	23.7	28.0	27.9	17.7	20.8	20.9
		1	37	27.6	28.6	28.4	21.7	22.7	22.7	26.8	28.0	27.8	20.0	20.9	20.8
		1	74	27.7	28.5	28.3	21.7	22.6	22.6	27.0	27.9	27.8	19.9	20.7	20.7
		36	0	23.7	27.5	27.4	17.7	21.7	21.8	22.8	26.9	26.8	16.5	19.9	19.8
		36	16	26.8	27.5	27.4	20.7	21.7	21.7	25.9	27.0	26.8	19.1	19.9	19.8
		36	35	25.8	27.5	27.4	19.7	21.7	21.7	25.0	27.0	26.8	18.0	19.9	19.7
		75	0	23.7	27.5	27.4	17.7	21.6	21.7	22.9	27.0	26.8	16.0	19.9	19.8
	16QAM	1	0	23.9	27.9	27.7	17.9	22.0	22.1	23.1	27.4	27.1	16.9	20.1	20.1
		1	37	27.0	27.8	27.7	20.9	22.0	22.1	26.2	27.4	27.0	19.3	20.2	20.1
		1	74	27.0	27.8	27.7	20.8	22.0	22.0	26.3	27.4	27.1	19.1	20.1	19.9
		36	0	22.7	26.6	26.5	16.7	20.8	20.8	21.9	26.0	25.9	15.5	19.0	18.9
		36	16	25.8	26.6	26.5	19.8	20.8	20.8	25.0	26.0	25.9	18.2	19.0	18.8
		36	35	24.8	26.6	26.5	18.7	20.8	20.7	24.0	26.1	25.9	17.1	19.0	18.8
		75	0	22.7	26.6	26.4	16.7	20.7	20.7	21.9	26.0	25.9	15.1	18.9	18.8
	64QAM	1	0	23.1	26.9	27.1	14.4	18.5	18.5	18.8	22.9	22.8	16.3	19.3	16.2
		1	37	26.3	27.0	27.1	17.6	18.5	18.5	21.7	23.0	22.8	18.4	19.4	16.3
		1	74	26.3	26.8	27.1	17.5	18.4	18.3	21.8	23.1	22.6	18.3	19.3	16.3
		36	0	21.9	25.6	25.8	13.2	17.4	17.2	17.6	21.9	21.7	14.8	18.2	15.1
		36	16	24.9	25.7	25.8	16.3	17.3	17.2	20.5	21.8	21.5	17.5	18.3	15.2
		36	35	23.9	25.8	25.8	15.2	17.3	17.2	19.5	21.8	21.5	16.5	18.3	15.2
		75	0	21.8	25.6	25.8	13.2	17.3	17.2	17.4	21.8	21.5	14.5	18.2	15.2

OUTPUT POWER FOR LTE BAND 41 (20.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				39750	40620	41490	39750	40620	41490	39750	40620	41490	39750	40620	41490
				2506.0	2593.0	2680.0	2506.0	2593.0	2680.0	2506.0	2593.0	2680.0	2506.0	2593.0	2680.0
20.0	QPSK	1	0	24.6	28.5	28.7	18.8	22.7	22.6	23.8	27.9	28.0	17.0	21.0	20.9
		1	49	27.7	28.6	28.4	21.7	22.6	22.6	27.0	28.0	27.8	19.9	21.0	20.9
		1	99	27.7	28.5	28.4	21.7	22.6	22.5	27.0	28.0	27.9	20.0	20.9	20.8
		50	0	23.6	27.5	27.5	17.7	21.6	21.5	22.8	26.9	26.9	16.2	20.0	19.8
		50	24	26.7	27.5	27.4	20.6	21.5	21.5	25.9	27.0	26.8	18.9	20.0	19.8
		50	49	25.6	27.5	27.4	19.6	21.5	21.5	24.9	27.0	26.8	17.9	20.0	19.8
		100	0	23.6	27.5	27.4	17.6	21.5	21.5	22.9	26.9	26.9	15.9	20.0	19.8
	16QAM	1	0	24.0	28.0	28.0	18.2	22.0	21.9	23.2	27.3	27.4	16.6	20.4	20.3
		1	49	27.0	28.0	27.8	21.1	22.0	21.9	26.4	27.4	27.3	19.3	20.4	20.2
		1	99	27.2	28.0	27.9	21.1	21.9	21.9	26.5	27.4	27.3	19.3	20.3	20.1
		50	0	22.6	26.5	26.5	16.7	20.7	20.6	21.8	26.0	26.0	15.2	19.0	18.9
		50	24	25.7	26.6	26.4	19.7	20.6	20.6	24.9	26.0	25.9	18.0	19.0	18.9
		50	49	24.7	26.6	26.4	18.7	20.6	20.5	23.9	26.0	25.9	17.0	19.1	18.9
		100	0	22.6	26.5	26.4	16.6	20.6	20.6	21.9	26.0	25.9	15.0	19.0	18.9
	64QAM	1	0	23.0	27.1	27.2	14.3	18.5	18.3	18.8	23.0	22.7	16.2	19.5	16.4
		1	49	26.0	27.0	27.0	17.5	18.5	18.4	21.6	23.1	22.7	18.3	19.6	16.4
		1	99	26.2	27.0	27.1	17.6	18.5	18.3	21.8	23.2	22.6	18.4	19.6	16.5
		50	0	21.7	25.6	25.8	13.2	17.2	17.0	17.6	21.7	21.5	14.6	18.3	15.2
		50	24	24.8	25.7	25.8	16.2	17.2	17.1	20.5	21.8	21.5	17.3	18.4	15.3
		50	49	23.8	25.7	25.8	15.2	17.2	17.0	19.7	21.8	21.5	16.4	18.4	15.3
		100	0	21.7	25.6	25.8	13.1	17.2	17.1	17.4	21.7	21.5	14.4	18.3	15.2

7.12. LTE BAND 48

ID:	39004	Date:	5/30/2019

OUTPUT POWER FOR LTE BAND 48 (5.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 6			ANT 3			ANT 4		
				55265	55990	56715	55265	55990	56715	55265	55990	56715	55265	55990	56715
				3552.5	3625.0	3697.5	3552.5	3625.0	3697.5	3552.5	3625.0	3697.5	3552.5	3625.0	3697.5
5.0	QPSK	1	0	20.8	25.6	21.0	18.5	22.3	18.4	20.5	25.4	20.4	18.5	22.2	18.3
		1	12	20.8	25.3	20.8	18.3	22.1	18.1	20.1	25.4	20.2	18.3	22.0	18.2
		1	24	20.8	**25.6**	21.0	18.4	**22.4**	18.4	20.5	**25.5**	20.6	18.5	**22.3**	18.4
		12	0	19.8	24.6	20.0	17.4	21.3	17.3	19.5	24.6	19.5	17.6	21.2	17.4
		12	6	19.7	24.5	19.9	17.3	21.2	17.2	19.4	24.5	19.4	17.4	21.1	17.4
		12	11	19.7	24.5	20.0	17.4	21.3	17.3	19.5	24.5	19.4	17.4	21.1	17.4
		25	0	19.8	24.7	20.2	17.5	21.5	17.4	19.6	24.7	19.6	17.6	21.3	17.6
	16QAM	1	0	20.2	**25.1**	20.3	17.9	21.8	17.8	19.9	25.0	19.8	17.8	21.6	17.8
		1	12	19.9	24.8	20.1	17.8	21.6	17.6	19.7	24.8	19.5	17.8	21.4	17.6
		1	24	20.2	25.1	20.4	17.9	**21.8**	17.9	19.7	**25.0**	19.7	17.8	**21.7**	17.9
		12	0	18.6	23.4	18.9	16.3	20.2	16.2	18.4	23.4	18.4	16.4	20.0	16.3
		12	6	18.5	23.3	18.8	16.2	20.0	16.1	18.3	23.4	18.3	16.3	20.0	16.2
		12	11	18.6	23.3	18.8	16.3	20.1	16.1	18.3	23.4	18.4	16.4	20.0	16.3
		25	0	18.8	23.5	19.0	16.5	20.3	16.3	18.5	23.5	18.4	16.5	20.1	16.4
	64QAM	1	0	19.1	**24.1**	19.5	16.9	**20.9**	16.8	18.9	**24.1**	18.7	16.9	**20.6**	16.7
		1	12	18.7	23.8	19.3	16.4	20.6	16.5	18.8	23.9	18.4	16.7	20.2	16.4
		1	24	19.1	23.9	19.4	16.8	20.9	16.7	19.0	24.0	18.7	16.9	20.6	16.7
		12	0	17.8	22.3	17.7	15.5	19.1	14.9	17.3	22.2	17.4	15.2	19.0	15.5
		12	6	17.6	22.3	17.6	15.3	19.0	15.1	17.2	22.2	17.4	15.1	18.8	15.3
		12	11	17.6	22.2	17.6	15.4	19.0	14.9	17.2	22.2	17.4	15.2	18.9	15.4
		25	0	17.8	22.5	17.9	15.5	19.3	15.3	17.5	22.6	17.6	15.5	19.2	15.5

OUTPUT POWER FOR LTE BAND 48 (10.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 6			ANT 3			ANT 4		
				55290	55990	56690	55290	55990	56690	55290	55990	56690	55290	55990	56690
				3555.0	3625.0	3695.0	3555.0	3625.0	3695.0	3555.0	3625.0	3695.0	3555.0	3625.0	3695.0
10.0	QPSK	1	0	21.0	25.6	20.9	18.5	**22.5**	18.5	20.5	25.5	20.5	18.5	**22.5**	18.5
		1	24	20.7	25.4	20.7	18.3	22.3	18.2	20.2	25.3	20.2	18.2	22.1	18.2
		1	49	21.0	**25.7**	20.9	18.4	22.5	18.5	20.4	**25.5**	20.5	18.4	22.4	18.5
		25	0	19.8	24.5	19.8	17.4	21.4	17.4	19.4	24.4	19.5	17.4	21.2	17.4
		25	12	19.8	24.5	19.7	17.3	21.3	17.3	19.3	24.3	19.4	17.3	21.2	17.3
		25	24	19.8	24.5	19.7	17.3	21.4	17.4	19.4	24.4	19.5	17.4	21.2	17.4
		50	0	19.9	24.6	19.8	17.3	21.5	17.4	19.4	24.4	19.5	17.4	21.3	17.4
	16QAM	1	0	20.4	**25.1**	20.3	17.9	**22.0**	18.0	19.7	**24.9**	20.0	17.9	**21.7**	17.9
		1	24	20.0	24.8	20.1	17.6	21.8	17.8	19.6	24.6	19.7	17.7	21.4	17.5
		1	49	20.3	25.1	20.3	17.7	22.0	17.9	19.8	24.9	19.9	17.9	21.7	17.9
		25	0	18.8	23.4	18.7	16.3	20.3	16.3	18.4	23.4	18.4	16.3	20.2	16.3
		25	12	18.7	23.4	18.6	16.2	20.2	16.2	18.3	23.3	18.3	16.2	20.1	16.2
		25	24	18.8	23.4	18.7	16.2	20.3	16.3	18.4	23.3	18.3	16.3	20.1	16.3
		50	0	18.9	23.5	18.8	16.3	20.4	16.4	18.4	23.5	18.5	16.4	20.3	16.4
	64QAM	1	0	19.2	**23.9**	19.3	16.9	**20.8**	16.7	18.7	23.8	18.9	16.9	**20.6**	16.7
		1	24	18.9	23.7	19.1	16.6	20.4	16.5	18.5	23.6	18.6	16.6	20.4	16.4
		1	49	19.2	23.8	19.3	16.7	20.8	16.7	18.8	**23.9**	18.8	16.8	20.6	16.7
		25	0	17.7	22.4	17.7	15.2	19.3	15.3	17.4	22.3	17.4	15.3	19.2	15.3
		25	12	17.8	22.3	17.6	15.1	19.2	15.2	17.3	22.3	17.3	15.3	19.2	15.2
		25	24	17.7	22.4	17.7	15.2	19.3	15.3	17.4	22.4	17.4	15.3	19.2	15.3
		50	0	17.8	22.5	17.9	15.3	19.4	15.4	17.4	22.5	17.5	15.5	19.3	15.4

OUTPUT POWER FOR LTE BAND 48 (15.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 6			ANT 3			ANT 4		
				55315	55990	56665	55315	55990	56665	55315	55990	56665	55315	55990	56665
				3667.5	3625.0	3692.5	3667.5	3625.0	3692.5	3667.5	3625.0	3692.5	3667.5	3625.0	3692.5
15.0	QPSK	1	0	21.0	25.6	20.9	18.5	22.3	18.5	20.4	25.5	20.5	18.5	22.5	18.4
		1	37	20.8	25.5	20.8	18.4	22.2	18.4	20.4	25.4	20.4	18.3	22.4	18.3
		1	74	21.0	**25.7**	20.9	18.5	**22.4**	18.5	20.5	**25.5**	20.4	18.5	**22.5**	18.4
		36	0	19.9	24.6	19.8	17.4	21.3	17.4	19.5	24.5	19.4	17.5	21.4	17.3
		36	16	19.9	24.5	19.8	17.4	21.2	17.4	19.4	24.5	19.4	17.4	21.3	17.3
		36	35	19.9	24.6	19.8	17.4	21.3	17.4	19.4	24.5	19.4	17.4	21.3	17.3
		75	0	19.9	24.6	19.9	17.4	21.3	17.4	19.4	24.5	19.4	17.4	21.4	17.3
	16QAM	1	0	20.5	**25.0**	20.3	17.7	21.8	17.9	19.6	25.0	19.8	17.9	**21.7**	17.7
		1	37	20.3	24.9	20.1	17.5	21.7	17.9	19.6	25.0	19.8	17.8	21.6	17.6
		1	74	20.5	24.9	20.3	17.7	**21.9**	18.0	19.7	**25.0**	19.8	17.9	21.7	17.8
		36	0	18.9	23.5	18.8	16.4	20.3	16.4	18.4	23.5	18.4	16.4	20.3	16.3
		36	16	18.8	23.5	18.8	16.3	20.2	16.4	18.4	23.4	18.4	16.4	20.3	16.3
		36	35	18.8	23.6	18.8	16.4	20.3	16.4	18.4	23.5	18.3	16.4	20.3	16.3
		75	0	19.0	23.6	18.9	16.4	20.3	16.4	18.4	23.5	18.4	16.5	20.4	16.3
	64QAM	1	0	19.5	24.0	19.3	17.0	20.8	16.8	18.9	23.9	18.8	17.0	**20.9**	16.7
		1	37	19.3	23.9	19.2	16.8	20.8	16.8	18.9	23.8	18.7	16.7	20.7	16.5
		1	74	19.4	**24.0**	19.3	17.0	**20.8**	16.9	19.0	**23.9**	18.8	16.9	20.8	16.7
		36	0	17.8	22.5	17.8	15.4	19.2	15.4	17.5	22.5	17.4	15.4	19.3	15.3
		36	16	17.8	22.5	17.7	15.3	19.2	15.4	17.4	22.5	17.4	15.4	19.2	15.3
		36	35	17.8	22.5	17.7	15.4	19.2	15.4	17.4	22.5	17.4	15.4	19.3	15.3
		75	0	18.0	22.6	17.8	15.4	19.3	15.5	17.6	22.5	17.5	15.5	19.4	15.3

OUTPUT POWER FOR LTE BAND 48 (20.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 6			ANT 3			ANT 4		
				55340	55990	56640	55340	55990	56640	55340	55990	56640	55340	55990	56640
				3560.0	3625.0	3690.0	3560.0	3625.0	3690.0	3560.0	3625.0	3690.0	3560.0	3625.0	3690.0
20.0	QPSK	1	0	21.0	25.7	21.0	18.4	22.5	18.4	20.5	25.4	20.4	18.5	**22.4**	18.4
		1	49	20.7	25.4	20.7	18.1	22.2	18.2	20.2	25.1	20.1	18.2	22.1	18.1
		1	99	21.0	**25.7**	21.0	18.4	**22.5**	18.4	20.5	**25.5**	20.3	18.5	22.3	18.4
		50	0	19.8	24.5	19.9	17.2	21.3	17.3	19.4	24.2	19.3	17.4	21.2	17.3
		50	24	19.7	24.5	19.8	17.1	21.3	17.2	19.3	24.2	19.2	17.3	21.1	17.2
		50	49	19.8	24.5	19.9	17.2	21.3	17.2	19.4	24.2	19.3	17.4	21.1	17.3
		100	0	19.8	24.5	19.9	17.2	21.3	17.3	19.4	24.3	19.3	17.4	21.2	17.3
	16QAM	1	0	20.4	**25.1**	20.4	17.8	22.0	17.7	19.9	**24.9**	19.7	17.8	**21.7**	17.9
		1	49	20.1	24.9	20.2	17.4	21.8	17.5	19.6	24.7	19.4	17.5	21.5	17.6
		1	99	20.3	25.1	20.5	17.8	**22.0**	17.7	19.8	24.9	19.6	17.8	21.7	17.8
		50	0	18.7	23.5	18.9	16.2	20.3	16.3	18.4	23.2	18.3	16.4	20.1	16.3
		50	24	18.7	23.5	18.8	16.1	20.2	16.2	18.3	23.2	18.2	16.3	20.1	16.2
		50	49	18.7	23.6	18.8	16.2	20.3	16.2	18.4	23.2	18.2	16.4	20.1	16.2
		100	0	18.8	23.6	18.9	16.2	20.4	16.3	18.5	23.3	18.3	16.4	20.1	16.3
	64QAM	1	0	19.5	**24.2**	19.4	16.8	21.0	16.8	18.9	23.8	18.8	17.0	20.8	16.8
		1	49	19.2	23.9	19.1	16.4	20.8	16.6	18.7	23.7	18.5	16.8	20.5	16.5
		1	99	19.4	24.2	19.4	16.8	**21.0**	16.8	18.8	**23.9**	18.7	17.0	**20.8**	16.7
		50	0	17.8	22.5	17.9	15.2	19.3	15.3	17.4	22.2	17.3	15.4	19.2	15.3
		50	24	17.7	22.5	17.8	15.1	19.3	15.2	17.3	22.2	17.2	15.4	19.2	15.2
		50	49	17.8	22.6	17.9	15.2	19.3	15.3	17.4	22.2	17.3	15.4	19.2	15.2
		100	0	17.8	22.7	18.0	15.3	19.4	15.3	17.5	22.3	17.3	15.5	19.3	15.3

7.13. LTE BAND 66

ID:	39004	Date:	4/14/2019

OUTPUT POWER FOR LTE BAND 66 (1.4 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				131979	132322	132665	131979	132322	132665	131979	132322	132665	131979	132322	132665
				1710.7	1745.0	1779.3	1710.7	1745.0	1779.3	1710.7	1745.0	1779.3	1710.7	1745.0	1779.3
1.4	QPSK	1	0	25.4	**25.7**	25.3	**21.8**	21.8	21.6	24.6	25.0	23.9	21.6	21.8	21.3
		1	2	25.3	25.6	25.3	21.8	21.8	21.6	24.6	**25.0**	23.9	21.5	21.8	21.4
		1	5	25.4	25.7	25.4	21.8	21.8	21.6	24.6	25.0	23.8	21.5	**21.8**	21.4
		3	0	25.3	25.5	25.2	21.7	21.7	21.4	24.6	25.0	23.8	21.5	21.7	21.3
		3	1	25.2	25.5	25.2	21.7	21.7	21.5	24.6	24.9	23.8	21.4	21.7	21.3
		3	2	25.3	25.5	25.2	21.7	21.7	21.4	24.6	24.8	23.8	21.4	21.7	21.3
		6	0	24.2	24.5	24.1	20.6	20.6	20.4	23.6	23.9	22.8	20.4	20.7	20.2
	16QAM	1	0	24.6	**25.1**	24.7	21.1	21.1	20.9	23.9	**24.3**	23.1	20.7	**21.1**	20.5
		1	2	24.6	25.0	24.6	21.0	21.1	20.9	23.9	23.8	23.2	20.7	21.1	20.6
		1	5	24.6	25.0	24.7	21.0	**21.1**	20.9	23.9	23.7	23.1	20.7	21.1	20.6
		3	0	24.4	24.7	24.4	20.8	20.8	20.6	23.6	23.5	22.9	20.4	20.8	20.3
		3	1	24.3	24.6	24.4	20.7	20.8	20.6	23.6	23.5	22.9	20.4	20.8	20.3
		3	2	24.4	24.7	24.3	20.8	20.8	20.6	23.6	23.4	22.9	20.5	20.8	20.4
		6	0	23.3	23.5	23.3	19.6	19.6	19.4	22.6	22.3	21.8	19.4	19.6	19.3
	64QAM	1	0	23.5	24.0	23.5	**20.1**	19.9	19.6	22.8	23.3	22.6	19.2	19.3	18.8
		1	2	23.5	23.9	23.5	20.0	20.0	19.7	22.7	23.2	22.6	19.2	19.3	18.7
		1	5	23.4	**24.1**	23.5	20.0	20.0	19.5	22.7	**23.3**	22.6	19.2	**19.3**	18.8
		3	0	23.3	23.7	23.2	19.7	19.7	19.4	22.6	23.0	22.3	18.9	19.2	18.7
		3	1	23.3	23.7	23.2	19.7	19.8	19.4	22.5	23.0	22.3	18.9	19.2	18.6
		3	2	23.3	23.7	23.2	19.7	19.7	19.4	22.6	23.0	22.3	18.9	19.2	18.6
		6	0	22.2	22.5	22.2	18.5	18.7	18.4	21.4	21.7	21.3	17.7	18.1	17.6

OUTPUT POWER FOR LTE BAND 66 (3.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				131987	132322	132657	131987	132322	132657	131987	132322	132657	131987	132322	132657
				1711.5	1745.0	1778.5	1711.5	1745.0	1778.5	1711.5	1745.0	1778.5	1711.5	1745.0	1778.5
3.0	QPSK	1	0	25.4	25.6	25.2	21.8	21.7	21.5	23.9	24.4	23.9	21.5	21.8	21.4
		1	7	25.4	**25.6**	25.2	**21.8**	21.8	21.5	23.9	**24.5**	24.0	21.6	**21.8**	21.4
		1	14	25.4	25.5	25.2	21.7	21.7	21.5	23.9	24.4	23.9	21.5	21.8	21.3
		8	0	24.2	24.4	24.1	20.6	20.6	20.4	22.8	23.4	22.8	20.4	20.7	20.3
		8	4	24.2	24.4	24.1	20.7	20.6	20.4	22.8	23.4	22.8	20.4	20.7	20.3
		8	7	24.2	24.4	24.1	20.7	20.6	20.4	22.8	23.4	22.8	20.4	20.7	20.2
		15	0	24.2	24.5	24.1	20.6	20.7	20.4	22.8	23.4	22.9	20.4	20.7	20.3
	16QAM	1	0	24.8	**25.0**	24.6	21.0	21.1	20.9	23.1	23.6	23.2	20.7	21.0	20.7
		1	7	24.6	25.0	24.7	**21.1**	21.1	20.8	23.1	**23.8**	23.2	20.8	**21.0**	20.6
		1	14	24.6	24.9	24.6	20.9	21.0	20.8	23.0	23.6	23.1	20.8	21.0	20.6
		8	0	23.2	23.5	23.1	19.6	19.6	19.4	21.8	22.3	21.9	19.4	19.6	19.2
		8	4	23.2	23.4	23.0	19.6	19.6	19.4	21.7	22.4	21.9	19.4	19.6	19.2
		8	7	23.2	23.4	23.1	19.6	19.6	19.3	21.7	22.3	21.9	19.4	19.6	19.2
		15	0	23.2	23.4	23.0	19.6	19.6	19.4	21.7	22.3	21.9	19.3	19.6	19.2
	64QAM	1	0	23.5	**23.9**	23.4	19.8	19.9	19.7	22.7	23.1	22.6	19.1	19.3	18.8
		1	7	23.5	23.8	23.5	19.8	**20.0**	19.7	22.8	**23.1**	22.7	19.1	**19.4**	18.8
		1	14	23.5	23.7	23.5	19.8	19.9	19.5	22.7	23.0	22.7	19.1	19.3	18.8
		8	0	22.2	22.5	22.1	18.5	18.6	18.3	21.3	21.7	21.3	17.8	18.1	17.6
		8	4	22.2	22.5	22.1	18.5	18.6	18.3	21.3	21.7	21.3	17.8	18.1	17.6
		8	7	22.2	22.5	22.1	18.5	18.6	18.3	21.4	21.7	21.3	17.8	18.1	17.5
		15	0	22.1	22.5	22.0	18.5	18.7	18.3	21.3	21.7	21.2	17.7	18.0	17.6

OUTPUT POWER FOR LTE BAND 66 (5.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				131997	132322	132647	131997	132322	132647	131997	132322	132647	131997	132322	132647
				1712.5	1745.0	1777.5	1712.5	1745.0	1777.5	1712.5	1745.0	1777.5	1712.5	1745.0	1777.5
5.0	QPSK	1	0	25.3	**25.7**	25.1	**21.9**	21.7	21.7	24.0	24.5	24.1	21.6	21.8	21.6
		1	12	25.3	25.6	25.1	21.8	21.8	21.7	23.9	**24.5**	24.0	21.6	21.8	21.4
		1	24	25.2	25.6	25.1	21.7	21.9	21.6	24.0	24.4	24.0	21.7	**21.9**	21.4
		12	0	24.2	24.5	24.1	20.8	20.7	20.6	23.0	23.5	23.0	20.5	20.8	20.6
		12	6	24.2	24.6	24.0	20.8	20.7	20.6	23.0	23.6	23.0	20.5	20.8	20.4
		12	11	24.2	24.6	24.1	20.7	20.7	20.6	23.0	23.5	23.0	20.6	20.7	20.4
		25	0	24.2	24.6	24.1	20.8	20.7	20.6	23.0	23.5	23.0	20.5	20.8	20.5
	16QAM	1	0	24.7	**25.1**	24.4	**21.4**	21.1	21.3	23.3	23.8	23.5	20.9	21.2	21.0
		1	12	24.6	24.9	24.5	21.2	21.1	21.1	23.1	**23.9**	23.4	20.9	21.2	20.8
		1	24	24.5	24.9	24.5	21.1	21.2	21.0	23.2	23.8	23.3	21.0	**21.3**	20.8
		12	0	23.3	23.5	23.1	19.8	19.7	19.6	21.9	22.5	22.0	19.5	19.8	19.5
		12	6	23.3	23.5	23.1	19.7	19.8	19.6	21.9	22.6	22.1	19.5	19.8	19.4
		12	11	23.2	23.6	23.1	19.7	19.7	19.6	21.9	22.5	22.1	19.6	19.7	19.4
		25	0	23.2	23.5	23.0	19.8	19.7	19.6	21.9	22.5	22.1	19.5	19.7	19.4
	64QAM	1	0	23.7	**24.2**	23.6	20.0	20.1	20.0	23.0	**23.3**	22.8	19.9	20.1	19.8
		1	12	23.7	24.1	23.6	20.0	**20.1**	19.7	22.9	23.2	22.8	20.0	20.2	19.7
		1	24	23.6	24.0	23.6	19.9	20.1	19.7	22.9	23.2	22.8	20.0	**20.3**	19.6
		12	0	22.3	22.6	22.4	18.7	18.8	18.6	21.5	21.9	21.4	18.6	18.9	18.6
		12	6	22.2	22.6	22.3	18.7	18.7	18.5	21.5	21.9	21.4	18.6	18.9	18.5
		12	11	22.2	22.6	22.3	18.6	18.7	18.5	21.4	21.9	21.4	18.7	18.9	18.5
		25	0	22.3	22.6	22.2	18.7	18.7	18.5	21.5	21.8	21.4	18.6	18.8	18.5

OUTPUT POWER FOR LTE BAND 66 (10.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				132022	132322	132622	132022	132322	132622	132022	132322	132622	132022	132322	132622
				1715.0	1745.0	1775.0	1715.0	1745.0	1775.0	1715.0	1745.0	1775.0	1715.0	1745.0	1775.0
10.0	QPSK	1	0	25.3	**25.7**	25.3	21.9	21.8	21.8	24.0	**24.7**	24.3	21.7	21.9	21.7
		1	24	25.2	25.6	25.2	21.8	21.9	21.8	24.1	24.6	24.1	21.7	**21.9**	21.7
		1	49	25.3	25.4	25.2	21.8	**22.0**	21.7	24.3	24.5	24.0	21.7	21.9	21.6
		25	0	24.3	24.7	24.2	20.9	20.8	20.7	23.1	23.7	23.2	20.7	20.9	20.8
		25	12	24.3	24.7	24.2	20.8	20.9	20.7	23.2	23.7	23.2	20.7	20.9	20.7
		25	24	24.3	24.6	24.2	20.8	20.9	20.7	23.3	23.5	23.1	20.6	21.0	20.6
		50	0	24.3	24.7	24.2	20.8	20.9	20.7	23.2	23.6	23.1	20.7	20.9	20.8
	16QAM	1	0	24.8	**25.1**	24.6	21.4	21.1	21.1	23.3	23.9	23.5	21.0	21.1	21.0
		1	24	24.6	25.0	24.5	21.1	21.3	21.1	23.4	**23.9**	23.4	21.1	**21.2**	21.0
		1	49	24.7	24.8	24.6	21.2	**21.4**	21.0	23.6	23.7	23.3	21.1	21.1	20.8
		25	0	23.4	23.8	23.3	20.0	19.9	19.8	22.1	22.7	22.3	19.8	19.9	19.8
		25	12	23.3	23.7	23.3	19.9	20.0	19.8	22.2	22.8	22.2	19.8	20.0	19.8
		25	24	23.3	23.6	23.3	19.9	20.0	19.8	22.3	22.7	22.2	19.7	20.0	19.6
		50	0	23.3	23.7	23.3	19.8	20.0	19.8	22.2	22.7	22.2	19.8	19.9	19.8
	64QAM	1	0	23.8	**24.2**	23.6	19.9	20.1	**20.2**	22.9	23.2	22.7	19.9	20.0	20.0
		1	24	23.5	24.0	23.6	19.9	20.1	20.1	22.9	**23.3**	22.7	20.0	20.1	20.0
		1	49	23.6	23.9	23.7	20.1	19.8	19.9	22.9	23.2	22.8	20.1	**20.3**	19.6
		25	0	22.4	22.9	22.5	18.9	18.9	19.0	21.7	22.1	21.7	18.9	19.0	18.9
		25	12	22.4	22.9	22.5	18.9	19.0	18.9	21.7	22.0	21.7	18.9	19.1	18.9
		25	24	22.5	22.9	22.5	18.9	18.9	18.7	21.7	22.1	21.7	18.8	19.2	18.8
		50	0	22.4	22.9	22.5	18.9	19.0	18.9	21.6	22.0	21.7	18.9	19.1	18.9

OUTPUT POWER FOR LTE BAND 66 (15.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				132047	132322	132597	132047	132322	132597	132047	132322	132597	132047	132322	132597
				1717.5	1745.0	1772.5	1717.5	1745.0	1772.5	1717.5	1745.0	1772.5	1717.5	1745.0	1772.5
15.0	QPSK	1	0	25.3	**25.6**	25.3	**21.9**	21.7	21.8	24.0	**24.7**	24.2	21.7	21.8	**22.0**
		1	37	25.2	25.6	25.2	21.8	21.9	21.7	24.2	24.6	24.1	21.7	21.9	21.8
		1	74	25.3	25.4	25.2	21.8	21.8	21.6	24.4	24.5	23.9	21.6	21.9	21.5
		36	0	24.3	24.7	24.3	20.9	20.8	20.8	23.2	23.7	23.3	20.7	20.9	20.7
		36	16	24.3	24.6	24.2	20.8	20.9	20.6	23.3	23.7	23.2	20.6	20.9	20.8
		36	35	24.4	24.5	24.2	20.8	20.9	20.6	23.3	23.6	23.1	20.6	21.0	20.7
		75	0	24.3	24.6	24.1	20.8	20.9	20.6	23.3	23.6	23.1	20.6	20.9	20.7
	16QAM	1	0	24.7	**25.1**	24.6	21.3	21.1	21.1	23.3	**24.1**	23.5	21.0	21.1	**21.3**
		1	37	24.6	25.0	24.5	21.1	21.2	21.0	23.5	23.9	23.5	21.1	21.1	21.2
		1	74	24.7	24.8	24.5	**21.3**	21.0	20.9	23.8	23.8	23.2	21.0	21.1	20.8
		36	0	23.3	23.7	23.4	19.8	19.9	19.8	22.2	22.7	22.3	19.8	19.9	19.8
		36	16	23.3	23.7	23.3	19.9	19.9	19.7	22.3	22.8	22.2	19.7	20.0	19.9
		36	35	23.4	23.6	23.3	19.9	19.9	19.7	22.3	22.6	22.2	19.6	20.0	19.8
		75	0	23.3	23.6	23.2	19.9	19.9	19.6	22.3	22.7	22.1	19.6	19.9	19.8
	64QAM	1	0	23.7	**24.2**	23.6	20.0	20.1	**20.2**	22.9	**23.4**	22.9	19.9	20.0	**20.4**
		1	37	23.6	24.0	23.6	20.1	20.2	20.1	22.9	23.4	22.8	20.0	20.2	20.2
		1	74	23.8	24.0	23.6	20.2	20.0	19.9	22.9	23.2	22.8	20.0	20.1	19.6
		36	0	22.5	22.9	22.5	18.9	18.9	18.9	21.7	22.1	21.7	18.9	19.0	18.9
		36	16	22.5	22.8	22.5	19.0	19.0	19.0	21.7	22.1	21.7	18.8	19.1	18.9
		36	35	22.5	22.8	22.5	18.9	18.9	18.9	21.8	22.0	21.7	18.8	19.1	18.9
		75	0	22.5	22.8	22.4	18.9	19.0	18.9	21.7	22.0	21.7	18.8	19.0	18.9

OUTPUT POWER FOR LTE BAND 66 (20.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)											
				ANT 1			ANT 2			ANT 3			ANT 4		
				132072	132322	132572	132072	132322	132572	132072	132322	132572	132072	132322	132572
				1720.0	1745.0	1770.0	1720.0	1745.0	1770.0	1720.0	1745.0	1770.0	1720.0	1745.0	1770.0
20.0	QPSK	1	0	25.4	**25.7**	25.3	21.9	21.7	**22.0**	24.0	**24.7**	24.3	21.7	21.7	**22.2**
		1	49	25.3	25.6	25.2	21.8	21.8	21.8	24.3	24.6	24.2	21.6	21.9	21.7
		1	99	25.7	25.4	25.1	21.8	21.8	21.7	24.6	24.3	23.9	21.5	22.1	21.5
		50	0	24.3	24.7	24.3	20.8	20.7	20.9	23.2	23.7	23.3	20.7	20.9	20.9
		50	24	24.4	24.6	24.3	20.8	20.9	20.7	23.3	23.6	23.2	20.5	20.9	20.7
		50	49	24.5	24.5	24.2	20.8	20.9	20.6	23.4	23.5	23.1	20.5	21.0	20.8
		100	0	24.4	24.6	24.3	20.8	20.9	20.7	23.4	23.6	23.2	20.5	20.9	20.8
	16QAM	1	0	24.8	**25.2**	24.8	**21.4**	21.1	21.4	23.3	24.1	23.6	21.0	21.1	**21.6**
		1	49	24.7	25.1	24.6	21.3	21.2	21.1	23.6	23.9	23.6	21.0	21.3	20.9
		1	99	25.2	24.8	24.6	21.3	21.1	21.0	**24.2**	23.6	23.3	20.8	21.4	20.9
		50	0	23.4	23.7	23.4	19.8	19.8	19.9	22.2	22.8	22.3	19.7	19.9	20.0
		50	24	23.4	23.6	23.3	19.9	19.9	19.8	22.3	22.7	22.3	19.6	19.9	19.8
		50	49	23.6	23.5	23.2	19.9	19.9	19.6	22.5	22.6	22.1	19.6	20.0	19.8
		100	0	23.4	23.7	23.3	19.9	19.8	19.7	22.4	22.7	22.3	19.6	19.9	19.8
	64QAM	1	0	23.9	23.9	24.0	20.1	20.0	**20.4**	22.8	**23.5**	23.2	20.0	19.8	**20.6**
		1	49	23.7	23.9	23.6	20.3	20.0	20.3	22.7	23.4	22.8	20.2	20.0	20.1
		1	99	**24.1**	23.8	23.8	20.4	20.0	20.0	23.1	23.3	22.9	20.0	20.1	19.7
		50	0	22.5	22.9	22.5	18.9	18.9	18.9	21.7	22.1	21.7	18.8	19.0	19.0
		50	24	22.5	22.8	22.4	18.9	19.0	18.9	21.8	22.0	21.7	18.7	19.1	18.9
		50	49	22.7	22.8	22.4	18.9	18.9	18.8	21.9	22.0	21.7	18.8	19.1	18.9
		100	0	22.5	22.8	22.4	18.9	19.0	18.8	21.8	22.0	21.7	18.7	19.0	18.8

7.14. LTE BAND 71

ID:	39004	Date:	4/14/2019

OUTPUT POWER FOR LTE BAND 71 (5.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)					
				ANT 1			ANT 2		
				133147	133297	133447	133147	133297	133447
				665.5	680.5	695.5	665.5	680.5	695.5
5.0	QPSK	1	0	**25.7**	25.4	25.3	24.4	24.2	24.0
		1	12	25.7	25.3	25.4	24.4	24.1	24.0
		1	24	25.6	25.4	25.5	**24.4**	24.1	24.2
		12	0	24.5	24.2	24.3	23.3	23.0	22.9
		12	6	24.5	24.2	24.3	23.3	23.0	22.9
		12	11	24.5	24.3	24.4	23.3	23.0	23.0
		25	0	24.6	24.2	24.4	23.3	23.0	22.9
	16QAM	1	0	**25.1**	24.6	24.7	**23.9**	23.6	23.4
		1	12	25.0	24.6	24.8	23.7	23.4	23.4
		1	24	25.0	24.7	25.0	23.8	23.4	23.6
		12	0	23.6	23.2	23.3	22.2	22.0	21.9
		12	6	23.5	23.2	23.3	22.2	22.0	21.9
		12	11	23.5	23.3	23.4	22.3	22.0	21.9
		25	0	23.6	23.2	23.3	22.3	22.0	21.8
	64QAM	1	0	**24.2**	24.0	23.8	23.0	22.9	22.5
		1	12	24.1	24.0	24.0	23.0	22.9	22.6
		1	24	24.1	24.0	23.9	**23.1**	22.9	22.6
		12	0	22.7	22.5	22.5	21.5	21.4	21.3
		12	6	22.7	22.6	22.5	21.7	21.4	21.2
		12	11	22.7	22.5	22.6	21.6	21.5	21.2
		25	0	22.8	22.6	22.5	21.7	21.4	21.2

OUTPUT POWER FOR LTE BAND 71 (10.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)					
				ANT 1			ANT 2		
				133172	133322	133422	133172	133322	133422
				668.0	683.0	693.0	668.0	683.0	693.0
10.0	QPSK	1	0	**25.7**	25.4	25.2	**24.5**	24.3	23.9
		1	24	25.5	25.4	25.3	24.4	24.2	24.0
		1	49	25.5	25.4	25.5	24.3	24.0	24.1
		25	0	24.6	24.3	24.3	23.4	23.2	22.9
		25	12	24.5	24.3	24.3	23.4	23.1	22.9
		25	24	24.5	24.4	24.4	23.3	23.1	23.0
		50	0	24.5	24.3	24.3	23.4	23.1	22.9
	16QAM	1	0	**25.1**	24.7	24.5	**23.9**	23.5	23.2
		1	24	24.8	24.6	24.6	23.8	23.4	23.2
		1	49	24.9	24.7	24.8	23.7	23.3	23.5
		25	0	23.6	23.3	23.2	22.4	22.1	22.0
		25	12	23.5	23.3	23.3	22.4	22.1	22.0
		25	24	23.5	23.4	23.4	22.3	22.1	22.0
		50	0	23.5	23.3	23.3	22.3	22.1	22.0
	64QAM	1	0	24.2	23.9	23.7	22.8	22.8	22.6
		1	24	24.1	23.9	23.8	22.9	22.8	22.4
		1	49	**24.2**	23.9	24.0	**23.0**	22.8	22.6
		25	0	23.0	22.7	22.6	21.7	21.7	21.3
		25	12	22.9	22.7	22.6	21.8	21.6	21.3
		25	24	22.9	22.7	22.7	21.8	21.7	21.4
		50	0	22.9	22.7	22.6	21.8	21.6	21.3

OUTPUT POWER FOR LTE BAND 71 (15.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)					
				ANT 1			ANT 2		
				133197	133297	133397	133197	133297	133397
				670.5	680.5	690.5	670.5	680.5	690.5
15.0	QPSK	1	0	**25.6**	25.5	25.4	**24.4**	24.2	23.9
		1	37	25.5	25.4	25.3	24.3	24.1	23.9
		1	74	25.5	25.3	25.5	24.2	23.9	24.1
		36	0	24.5	24.4	24.3	23.5	23.2	23.0
		36	16	24.5	24.3	24.3	23.3	23.1	22.9
		36	35	24.4	24.4	24.3	23.2	22.9	22.9
		75	0	24.5	24.4	24.3	23.3	23.1	23.0
	16QAM	1	0	**25.0**	24.9	24.7	**23.7**	23.5	23.3
		1	37	24.9	24.7	24.5	23.7	23.5	23.3
		1	74	24.9	24.6	24.8	23.4	23.3	23.4
		36	0	23.5	23.4	23.3	22.4	22.2	22.0
		36	16	23.5	23.3	23.3	22.3	22.1	22.0
		36	35	23.5	23.4	23.3	22.2	22.0	22.0
		75	0	23.5	23.3	23.3	22.3	22.1	22.0
	64QAM	1	0	**24.1**	24.1	23.9	23.0	22.8	22.7
		1	37	24.0	24.1	23.8	**23.1**	22.9	22.5
		1	74	23.8	23.8	24.0	22.7	22.5	22.6
		36	0	22.9	22.8	22.5	21.7	21.5	21.3
		36	16	22.9	22.7	22.6	21.7	21.6	21.3
		36	35	22.8	22.7	22.6	21.8	21.6	21.4
		75	0	22.9	22.7	22.6	21.8	21.5	21.3

OUTPUT POWER FOR LTE BAND 71 (20.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)					
				ANT 1			ANT 2		
				133222	133322	133372	133222	133322	133372
				673.0	683.0	688.0	673.0	683.0	688.0
20.0	QPSK	1	0	**25.6**	25.5	25.3	**24.4**	24.3	24.0
		1	49	25.5	25.2	25.3	24.2	24.0	23.9
		1	99	25.3	25.5	25.6	24.1	24.2	24.1
		50	0	24.5	24.3	24.3	23.4	23.1	22.9
		50	24	24.5	24.3	24.3	23.2	23.0	22.9
		50	49	24.5	24.5	24.4	23.2	23.0	22.9
		100	0	24.5	24.3	24.3	23.2	23.1	22.9
	16QAM	1	0	**25.0**	24.9	24.7	**23.8**	23.7	23.4
		1	49	24.9	24.7	24.6	23.7	23.3	23.2
		1	99	24.7	24.9	24.9	23.5	23.5	23.4
		50	0	23.5	23.4	23.4	22.4	22.1	21.9
		50	24	23.5	23.3	23.3	22.2	22.0	21.9
		50	49	23.5	23.5	23.3	22.3	22.0	22.0
		100	0	23.5	23.3	23.3	22.3	22.1	22.0
	64QAM	1	0	24.3	24.0	24.0	22.8	**23.1**	23.0
		1	49	**24.3**	23.6	23.8	22.9	22.8	22.7
		1	99	23.9	23.8	24.3	22.5	22.8	22.8
		50	0	22.9	22.7	22.6	21.8	21.5	21.5
		50	24	22.8	22.6	22.5	21.7	21.4	21.3
		50	49	22.6	22.6	22.6	21.5	21.4	21.3
		100	0	22.8	22.6	22.6	21.8	21.4	21.3

8. CONDUCTED TEST 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 middle channel in each band. The 99% and -26dB bandwidths was also measured and recorded.

MODES TESTED

- LTE Band 2
- LTE Band 5
- LTE Band 7
- LTE Band 12
- LTE Band 13
- LTE Band 14
- LTE Band 17
- LTE Band 25
- LTE Band 26
- LTE Band 30
- LTE Band 41
- LTE Band 48
- LTE Band 66
- LTE Band 71

RESULTS

There is no limit required and power is the same for low, middle and high channel; therefore, only middle channel was tested.

LTE BAND 2

Band	Mode	RB Allocation/RB Offset	f(MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE BAND 2	1.4MHz, QPSK	6/0	1880.0	1.0908	1.239
	1.4MHz,16QAM			1.0839	1.244
	1.4MHz 64QAM			1.0933	1.321
	3MHz, QPSK	15/0		2.6934	2.976
	3MHz, 16QAM			2.6965	2.986
	3MHz 64QAM			2.6976	2.964
	5MHz, QPSK	25/0		4.4952	4.933
	5MHz, 16QAM			4.4922	4.916
	5MHz 64QAM			4.5076	4.907
	10MHz, QPSK	50/0		8.9904	10.287
	10MHz, 16QAM			8.9931	10.433
	10MHz 64QAM			9.0069	10.303
	15MHz, QPSK	75/0		13.4278	14.586
	15MHz, 16QAM			13.4340	15.471
	15MHz 64QAM			13.4653	15.384
	20MHz, QPSK	100/0		17.9037	19.662
	20MHz, 16QAM			17.9354	19.859
	20MHz 64QAM			17.9366	19.602

LTE BAND 5

Band	Mode	RB Allocation/RB Offset	f(MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE BAND 5	1.4MHz, QPSK	6/0	836.5	1.0886	1.242
	1.4MHz,16QAM			1.0871	1.249
	1.4MHz 64QAM			1.0963	1.248
	3MHz, QPSK	15/0		2.6960	2.993
	3MHz, 16QAM			2.7019	2.988
	3MHz 64QAM			2.6947	2.979
	5MHz, QPSK	25/0		4.5070	4.899
	5MHz, 16QAM			4.4926	4.921
	5MHz 64QAM			4.5049	4.920
	10MHz, QPSK	50/0		8.9802	10.465
	10MHz, 16QAM			8.9754	10.415
	10MHz 64QAM			8.9948	10.331

LTE BAND 7

Band	Mode	RB Allocation/RB Offset	f(MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE BAND 7	5MHz, QPSK	25/0	2535.0	4.5021	4.898
	5MHz, 16QAM			4.4934	4.937
	5MHz 64QAM			4.5140	4.891
	10MHz, QPSK	50/0		8.9903	10.495
	10MHz, 16QAM			8.9875	10.292
	10MHz 64QAM			8.9913	10.207
	15MHz, QPSK	75/0		13.4421	15.144
	15MHz, 16QAM			13.4380	15.443
	15MHz 64QAM			13.4451	15.568
	20MHz, QPSK	100/0		17.9110	19.817
	20MHz, 16QAM			17.8992	19.841
	20MHz 64QAM			17.9394	19.706

LTE BAND 12

Band	Mode	RB Allocation/RB Offset	f(MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE BAND 12	1.4 MHz, QPSK	6/0	707.5	1.0953	1.248
	1.4 MHz,16QAM			1.0879	1.243
	1.4 MHz 64QAM			1.0926	1.240
	3 MHz, QPSK	15/0		2.6947	2.984
	3 MHz, 16QAM			2.6934	2.983
	3 MHz 64QAM			2.6969	2.994
	5 MHz, QPSK	25/0		4.5019	4.928
	5 MHz, 16QAM			4.4892	4.930
	5 MHz 64QAM			4.4942	4.961
	10 MHz, QPSK	50/0		8.9748	10.289
	10 MHz, 16QAM			8.9703	10.267
	10 MHz 64QAM			8.9686	10.276

LTE BAND 13

Band	Mode	RB Allocation/RB Offset	f(MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE BAND 13	5 MHz, QPSK	25/0	782.0	4.5198	4.907
	5 MHz, 16QAM			4.4937	4.957
	5 MHz 64QAM			4.4931	4.942
	10 MHz, QPSK	50/0		8.9591	10.348
	10 MHz, 16QAM			8.9711	10.342
	10 MHz 64QAM			8.9703	10.343

LTE BAND 14

Band	Mode	RB Allocation/RB Offset	f(MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE BAND 14	5 MHz, QPSK	25/0	793.0	4.4981	4.891
	5 MHz, 16QAM			4.5073	4.927
	5M Hz 64QAM			4.4957	4.882
	10 MHz, QPSK	50/0		8.9808	10.348
	10 MHz, 16QAM			8.9572	10.364
	10 MHz 64QAM			8.9985	10.382

LTE BAND 17

Band	Mode	RB Allocation/RB Offset	f(MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE BAND 17	5 MHz, QPSK	25/0	710.0	4.4887	4.907
	5 MHz, 16QAM			4.5071	4.933
	5 MHz 64QAM			4.5090	4.894
	10 MHz, QPSK	50/0		8.9775	10.283
	10 MHz, 16QAM			8.9607	10.210
	10 MHz 64QAM			8.9892	10.403

LTE BAND 25

Band	Mode	RB Allocation/RB Offset	f(MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE BAND 25	1.4MHz, QPSK	6/0	1882.5	1.0882	1.242
	1.4MHz,16QAM			1.0864	1.245
	1.4MHz 64QAM			1.0892	1.243
	3MHz, QPSK	15/0		2.6913	2.992
	3MHz, 16QAM			2.6906	2.991
	3MHz 64QAM			2.6904	2.975
	5MHz, QPSK	25/0		4.4954	4.928
	5MHz, 16QAM			4.4990	4.910
	5MHz 64QAM			4.4885	4.904
	10MHz, QPSK	50/0		8.9965	10.382
	10MHz, 16QAM			9.0077	10.290
	10MHz 64QAM			9.0091	10.419
	15MHz, QPSK	75/0		13.4567	15.305
	15MHz, 16QAM			13.4721	15.398
	15MHz 64QAM			13.4731	15.341
	20MHz, QPSK	100/0		17.9122	19.720
	20MHz, 16QAM			17.9135	19.597
	20MHz 64QAM			17.9359	19.739

LTE BAND 26

Band	Mode	RB Allocation/RB Offset	f(MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE BAND 26	1.4 MHz, QPSK	1/0	819.0	0.2453	0.369
	1.4 MHz,16QAM			0.2543	0.377
	1.4 MHz, QPSK	6/0		1.0783	1.230
	1.4 MHz,16QAM			1.0885	1.238
	1.4 MHz 64QAM			1.0866	1.246
	3 MHz, QPSK	1/0		0.2613	0.409
	3 MHz, 16QAM			0.2791	0.416
	3 MHz, QPSK	15/0		2.6966	2.992
	3 MHz, 16QAM			2.6964	2.962
	3 MHz 64QAM			2.6866	2.977
	5 MHz, QPSK	1/0		0.2373	0.416
	5 MHz, 16QAM			0.2255	0.389
	5 MHz, QPSK	25/0		4.5217	4.890
	5 MHz, 16QAM			4.5084	4.908
	5 MHz 64QAM			4.4993	4.939
	10 MHz, QPSK	1/0		0.2621	0.409
	10 MHz, 16QAM			0.2713	0.458
	10 MHz, QPSK	50/0		9.0013	10.334
	10 MHz, 16QAM			8.9968	10.254
	10 MHz 64QAM			9.0087	10.362

LTE BAND 30

Band	Mode	RB Allocation/RB Offset	f(MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE BAND 30	5MHz, QPSK	25/0	2310.0	4.4776	4.709
	5MHz, 16QAM			4.4989	4.914
	5MHz 64QAM			4.4981	4.922
	10MHz, QPSK	50/0		8.9777	10.227
	10MHz, 16QAM			8.9844	10.440
	10MHz 64QAM			8.9913	10.357

LTE BAND 41

Band	Mode	RB Allocation/RB Offset	f(MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE BAND 41	5MHz, QPSK	25/0	2593.0	4.4518	4.710
	5MHz, 16QAM			4.4946	4.816
	5MHz 64QAM			4.5043	4.890
	10MHz, QPSK	50/0		8.9830	10.284
	10MHz, 16QAM			8.9186	10.076
	10MHz 64QAM			8.9330	10.140
	15MHz, QPSK	75/0		13.4014	17.010
	15MHz, 16QAM			13.5004	14.775
	15MHz 64QAM			13.4117	15.416
	20MHz, QPSK	100/0		17.9293	21.195
	20MHz, 16QAM			17.8258	19.409
	20MHz 64QAM			17.8759	19.143

LTE BAND 48

Band	Mode	RB Allocation/RB Offset	f(MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE BAND 48	5MHz, QPSK	25/0	3625.0	4.5028	5.025
	5MHz, 16QAM			4.4831	4.896
	5MHz 64QAM			4.4926	4.872
	10MHz, QPSK	50/0		8.9062	10.253
	10MHz, 16QAM			8.9653	10.258
	10MHz 64QAM			8.9986	10.287
	15MHz, QPSK	75/0		13.4472	15.109
	15MHz, 16QAM			13.3779	14.856
	15MHz 64QAM			13.4663	14.840
	20MHz, QPSK	100/0		17.8309	20.025
	20MHz, 16QAM			17.8737	19.437
	20MHz 64QAM			17.8507	19.351

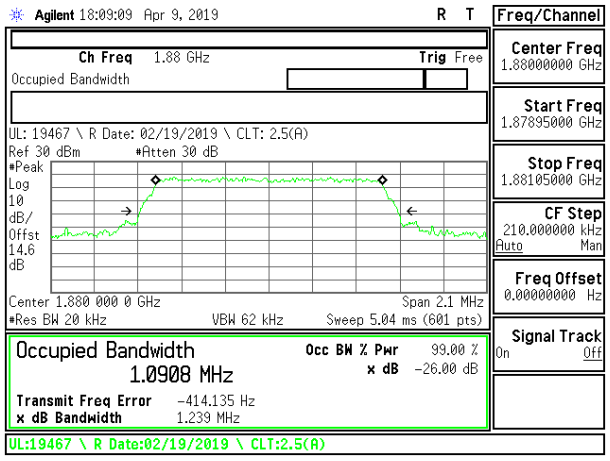
LTE BAND 66

Band	Mode	RB Allocation/RB Offset	f(MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE BAND 66	1.4MHz, QPSK	6/0	1745.0	1.0882	1.238
	1.4MHz,16QAM			1.0873	1.243
	1.4MHz 64QAM			1.0874	1.243
	3MHz, QPSK	15/0		2.6926	2.982
	3MHz, 16QAM			2.7009	2.973
	3MHz 64QAM			2.6964	2.977
	5MHz, QPSK	25/0		4.4923	4.912
	5MHz, 16QAM			4.4971	4.929
	5MHz 64QAM			4.4870	4.947
	10MHz, QPSK	50/0		9.0151	10.440
	10MHz, 16QAM			9.0029	10.440
	10MHz 64QAM			8.9763	10.113
	15MHz, QPSK	75/0		13.4600	15.490
	15MHz, 16QAM			13.4830	15.340
	15MHz 64QAM			13.4498	15.448
	20MHz, QPSK	100/0		17.9280	19.790
	20MHz, 16QAM			17.9430	20.040
	20MHz 64QAM			17.9447	19.637

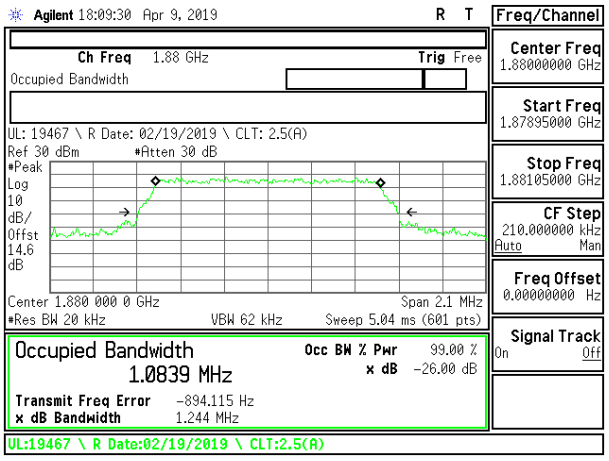
LTE BAND 71

Band	Mode	RB Allocation/RB Offset	f(MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE BAND 71	5MHz, QPSK	1/0	680.5	0.2671	0.431
	5MHz, 16QAM			0.2502	0.433
	5MHz, QPSK	25/0		4.4927	4.941
	5MHz, 16QAM			4.4936	4.977
	5MHz 64QAM			4.5009	4.954
	10MHz, QPSK	1/0		0.5741	0.672
	10MHz, 16QAM			0.5138	0.594
	10MHz, QPSK	50/0		9.0051	10.191
	10MHz, 16QAM			8.9596	10.203
	10MHz 64QAM			8.9860	10.309
	15MHz, QPSK	1/0		0.7029	0.980
	15MHz, 16QAM			0.7498	1.053
	15MHz, QPSK	75/0		13.4334	15.005
	15MHz, 16QAM			13.4754	15.284
	15MHz 64QAM			13.4383	15.649
	20MHz, QPSK	1/0		0.7926	1.094
	20MHz, 16QAM			0.7070	0.939
	20MHz, QPSK	100/0		17.9178	19.504
	20MHz, 16QAM			17.8850	19.624
	20MHz 64QAM			17.8918	18.792

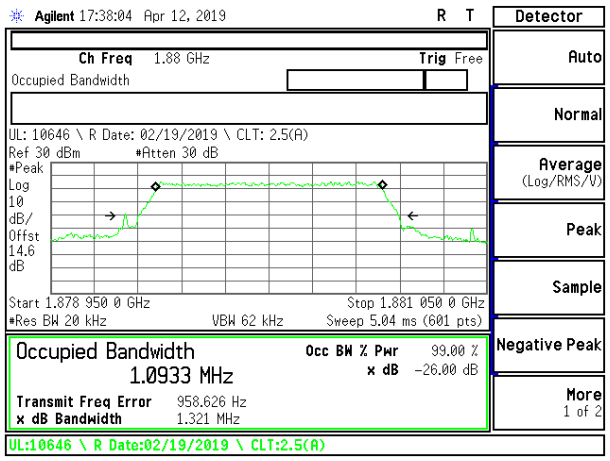
8.1.1. LTE BAND 2



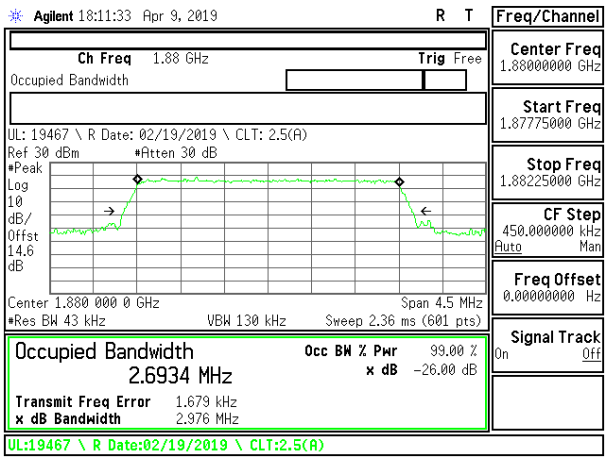
LTE B2 1.4MHz QPSK Middle Channel RB6-0



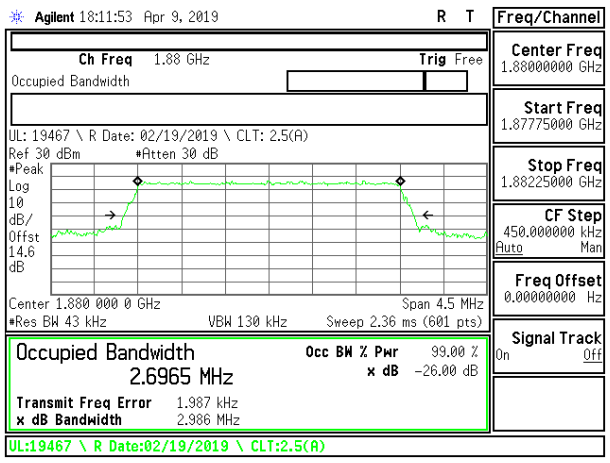
LTE B2 1.4MHz 16QAM Middle Channel RB6-0



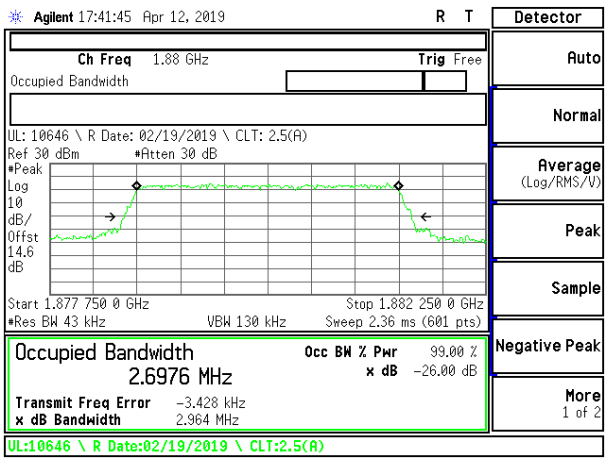
LTE B2 1.4MHz 64QAM Middle Channel RB6-0



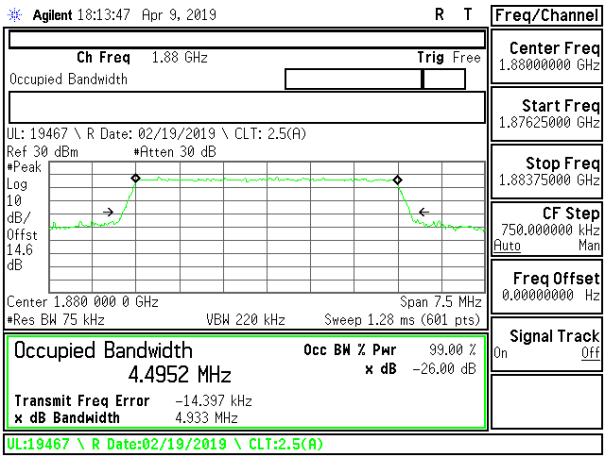
LTE B2 3MHz QPSK Middle Channel RB15-0



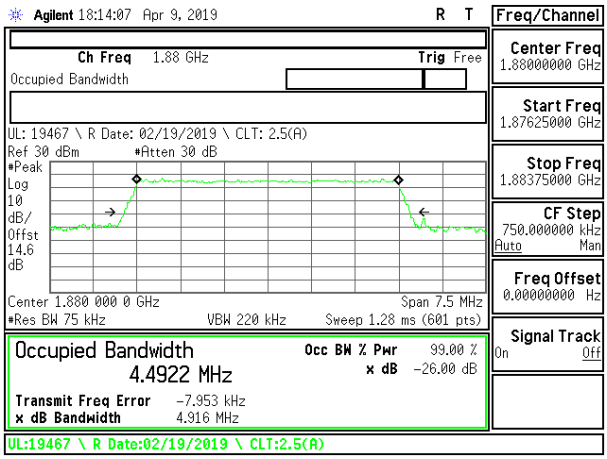
LTE B2 3MHz 16QAM Middle Channel RB15-0



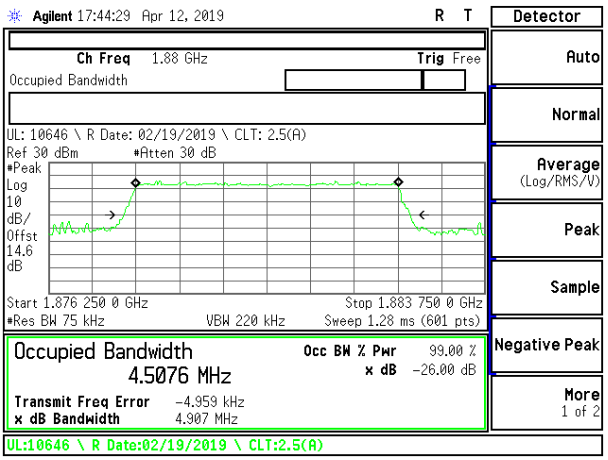
LTE B2 3MHz 64QAM Middle Channel RB15-0



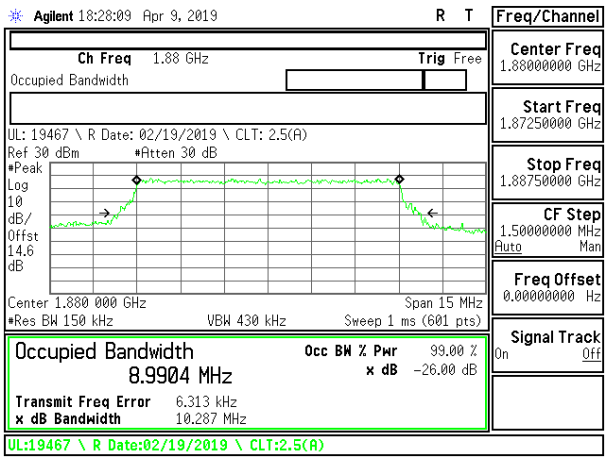
LTE B2 5MHz QPSK Middle Channel RB25-0



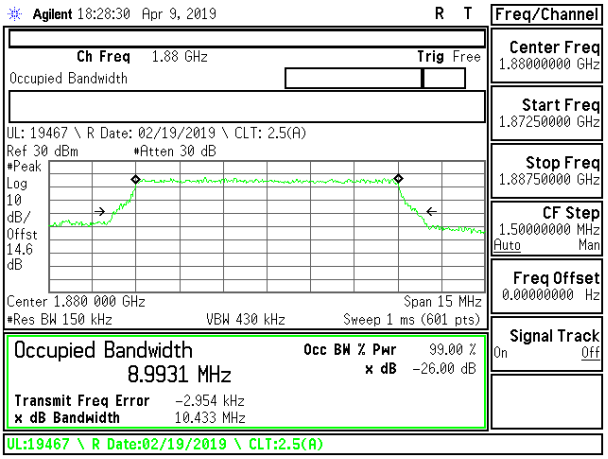
LTE B2 5MHz 16QAM Middle Channel RB25-0



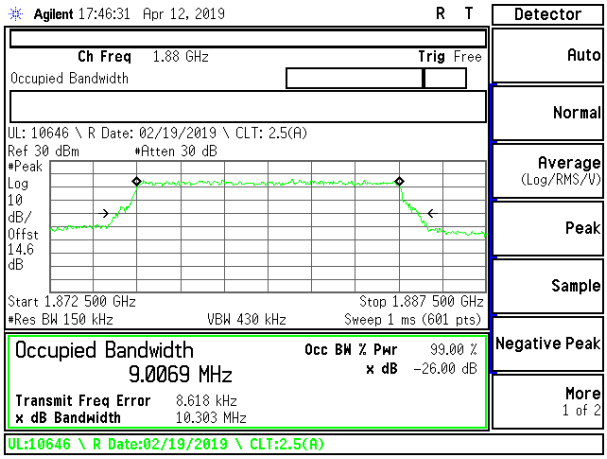
LTE B2 5MHz 64QAM Middle Channel RB25-0



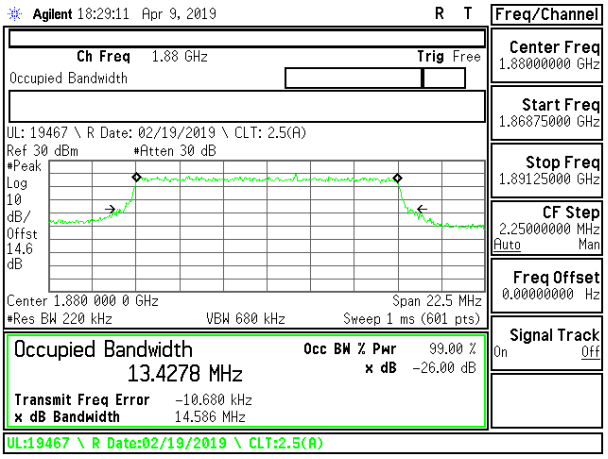
LTE B2 10MHz QPSK Middle Channel RB50-0



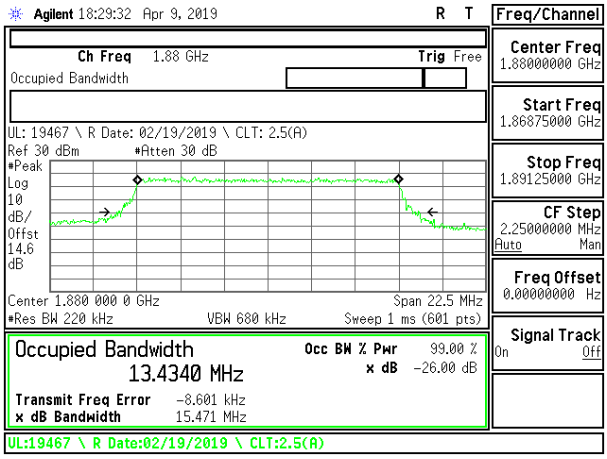
LTE B2 10MHz 16QAM Middle Channel RB50-0



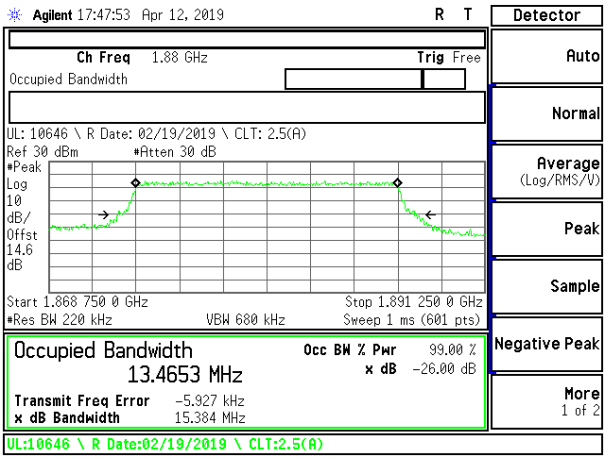
LTE B2 10MHz 64QAM Middle Channel RB50-0



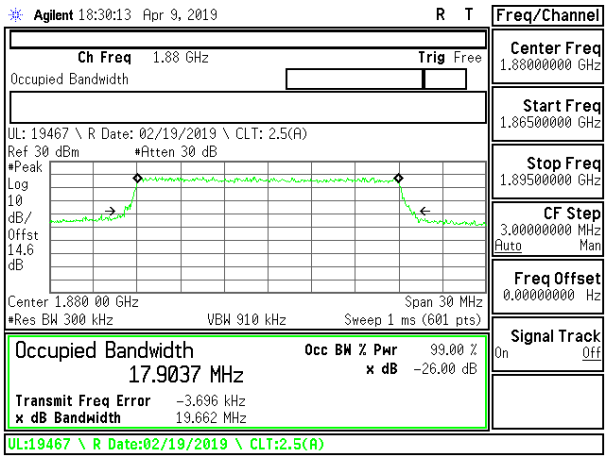
LTE B2 15MHz QPSK Middle Channel RB75-0



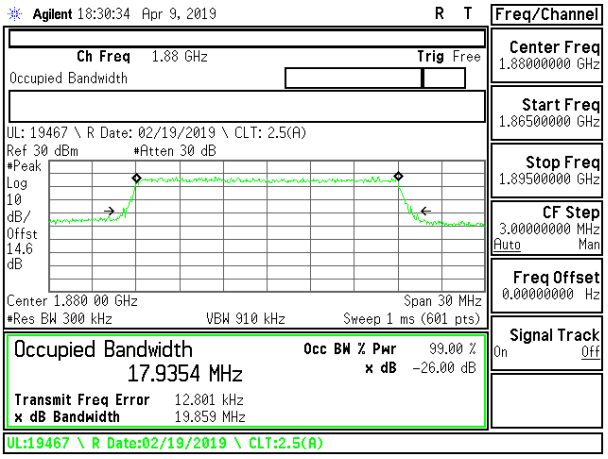
LTE B2 15MHz 16QAM Middle Channel RB75-0



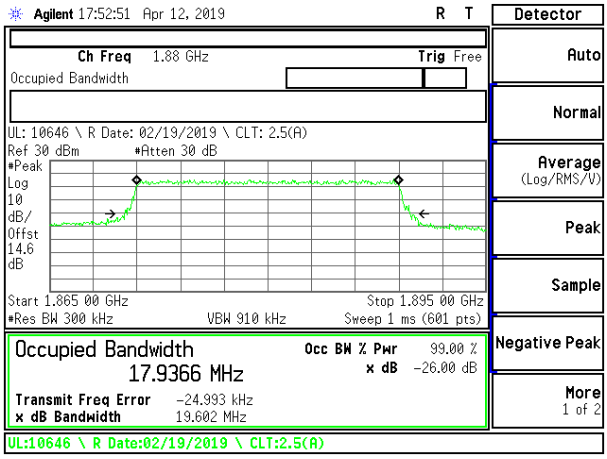
LTE B2 15MHz 64QAM Middle Channel RB75-0



LTE B2 20MHz QPSK Middle Channel RB100-0

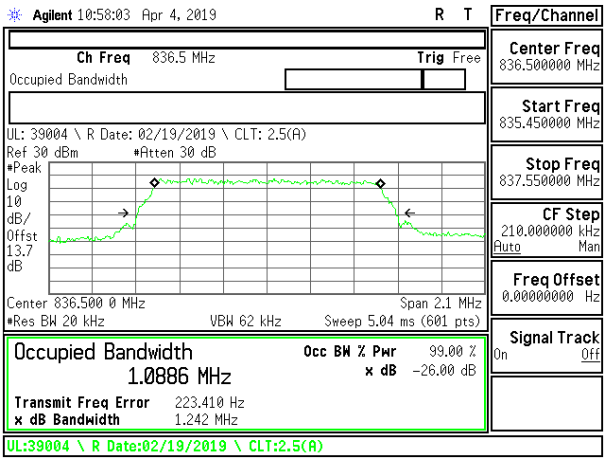


LTE B2 20MHz 16QAM Middle Channel RB100-0

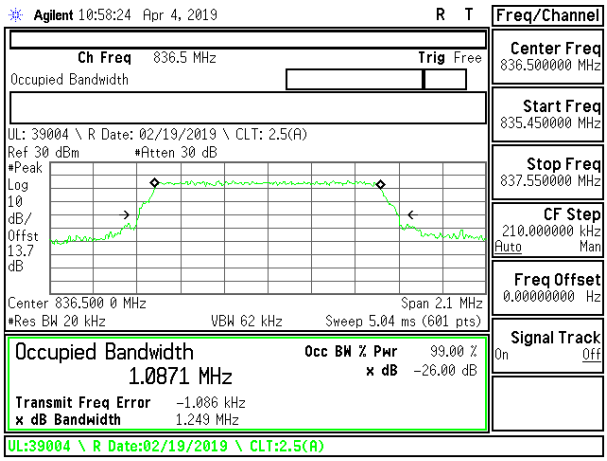


LTE B2 20MHz 64QAM Middle Channel RB100-0

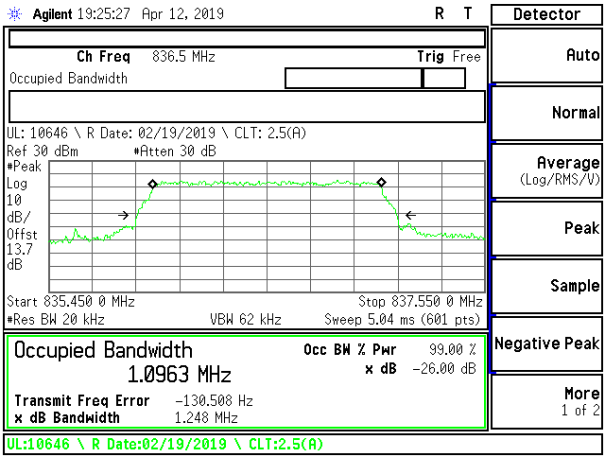
8.1.2. LTE BAND 5



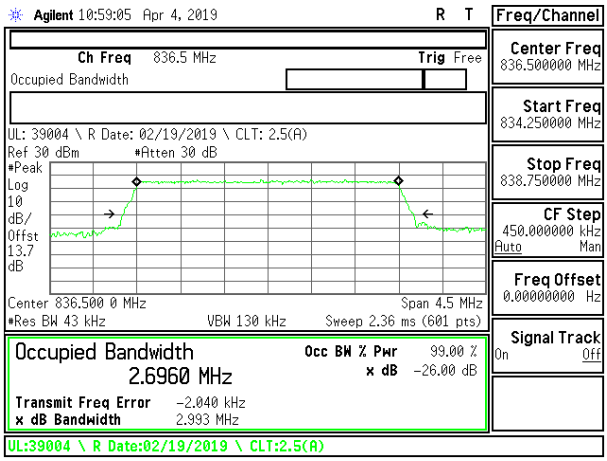
LTE B5 1.4MHz QPSK Middle Channel RB6-0



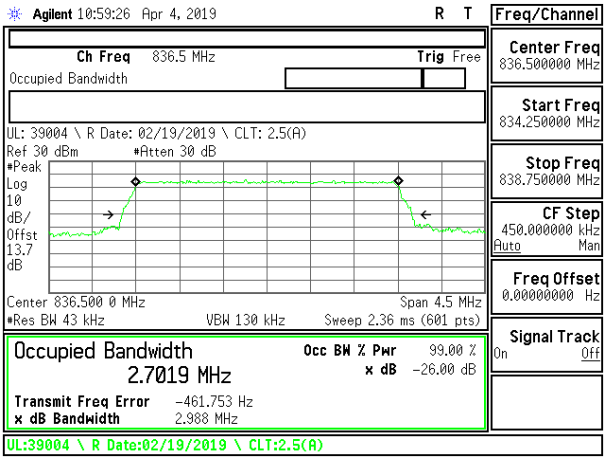
LTE B5 1.4MHz 16QAM Middle Channel RB6-0



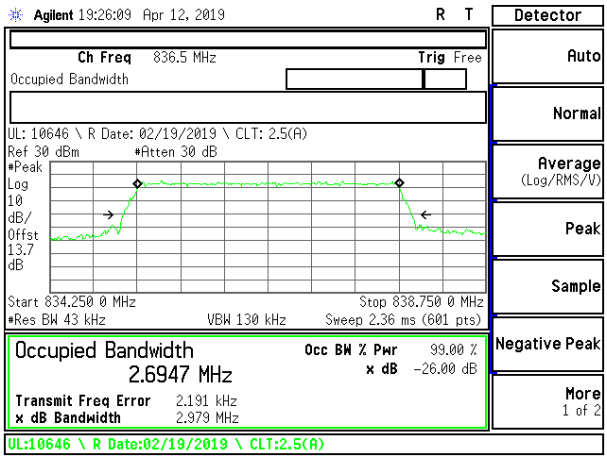
LTE B5 1.4MHz 64QAM Middle Channel RB6-0



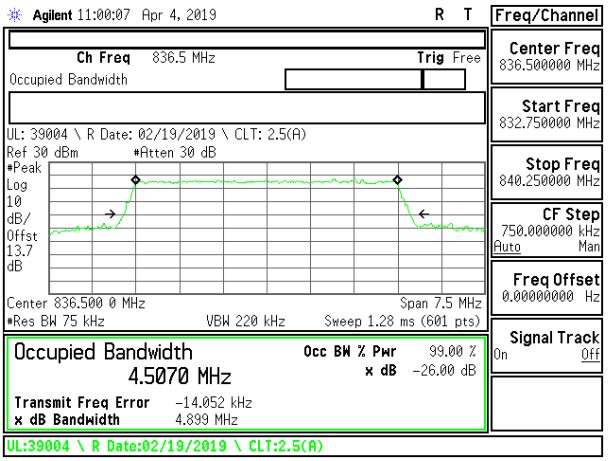
LTE B5 3MHz QPSK Middle Channel RB15-0



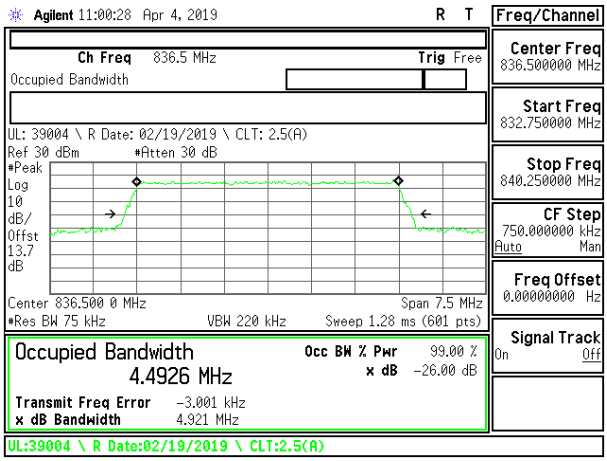
LTE B5 3MHz 16QAM Middle Channel RB15-0



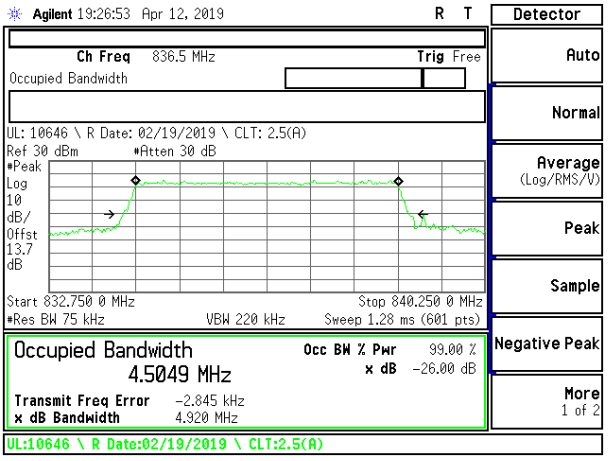
LTE B5 3MHz 64QAM Middle Channel RB15-0



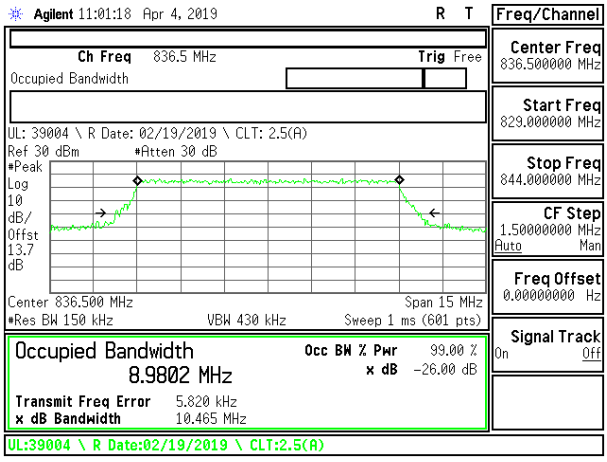
LTE B5 5MHz QPSK Middle Channel RB25-0



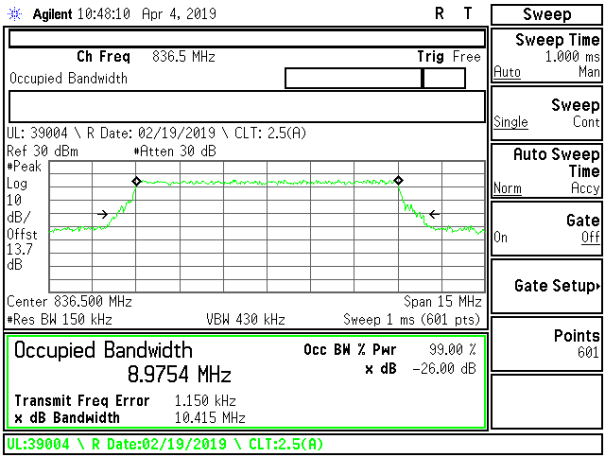
LTE B5 5MHz 16QAM Middle Channel RB25-0



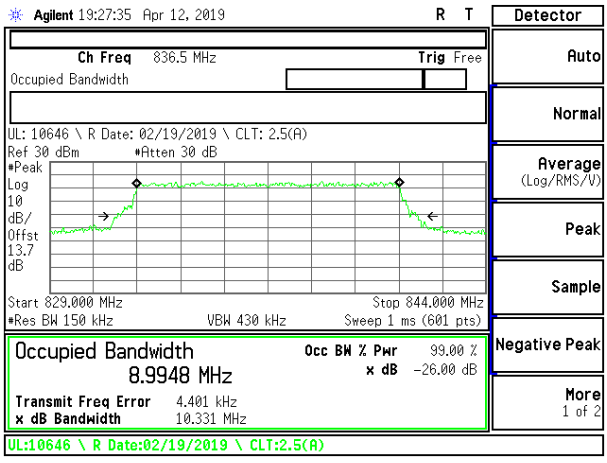
LTE B5 5MHz 64QAM Middle Channel RB25-0



LTE B5 10MHz QPSK Middle Channel RB50-0

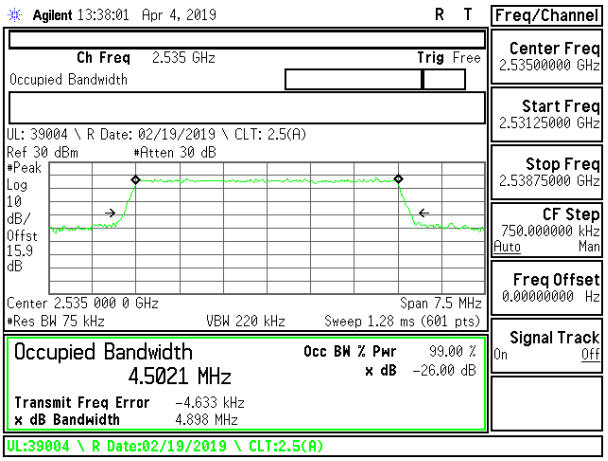


LTE B5 10MHz 16QAM Middle Channel RB50-0

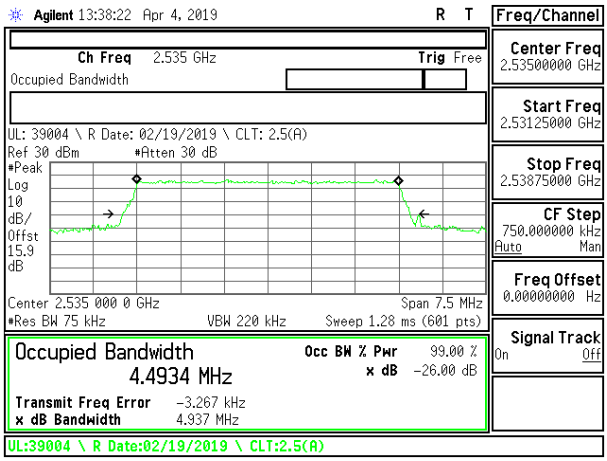


LTE B5 10MHz 64QAM Middle Channel RB50-0

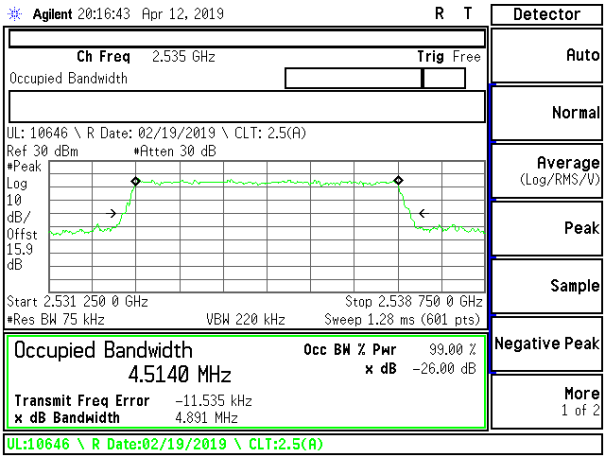
8.1.3. LTE BAND 7



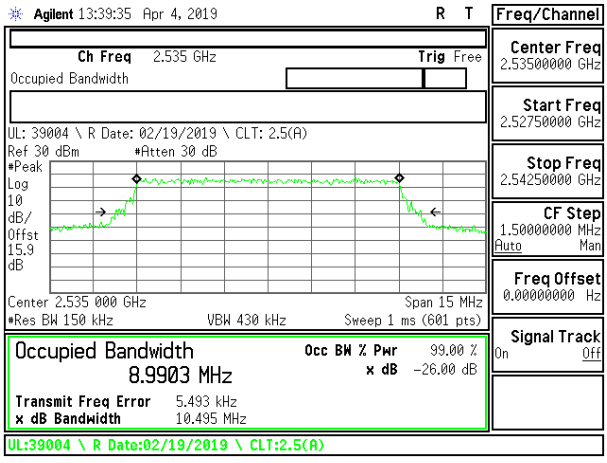
LTE B7 5MHz QPSK Middle Channel RB25-0



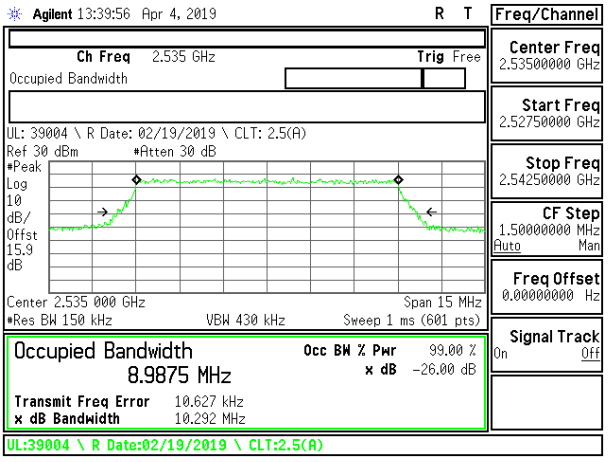
LTE B7 5MHz 16QAM Middle Channel RB25-0



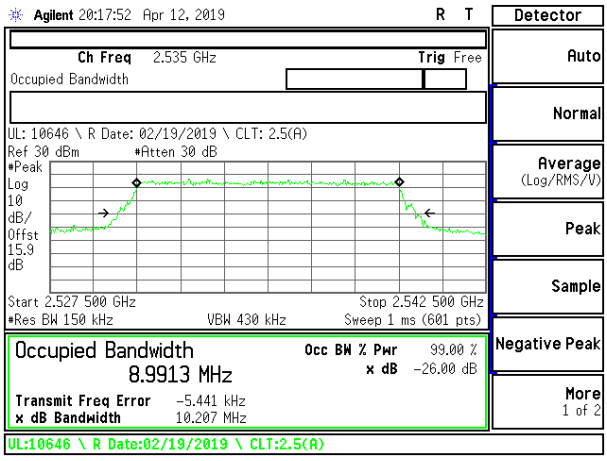
LTE B7 5MHz 64QAM Middle Channel RB25-0



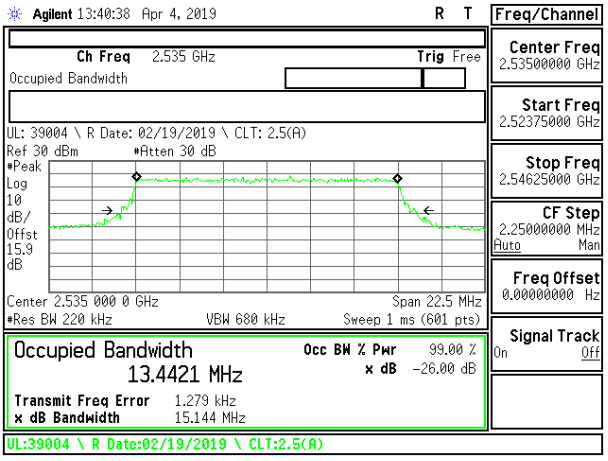
LTE B7 10MHz QPSK Middle Channel RB50-0



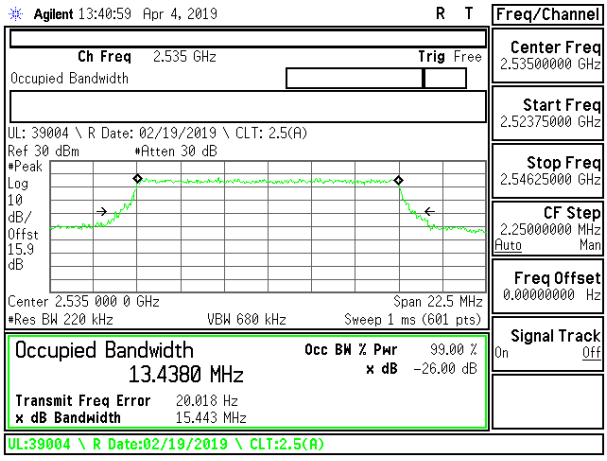
LTE B7 10MHz 16QAM Middle Channel RB50-0



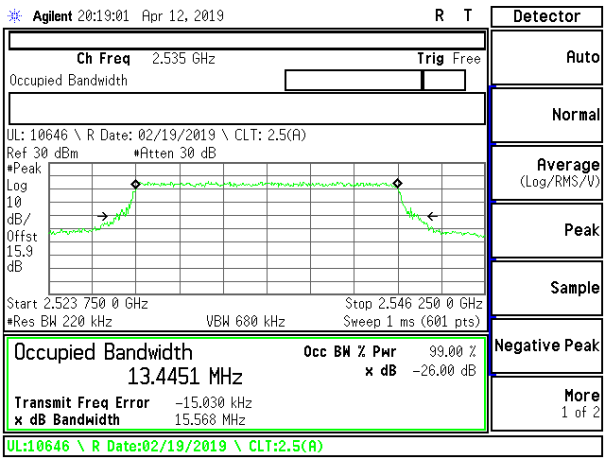
LTE B7 10MHz 64QAM Middle Channel RB50-0



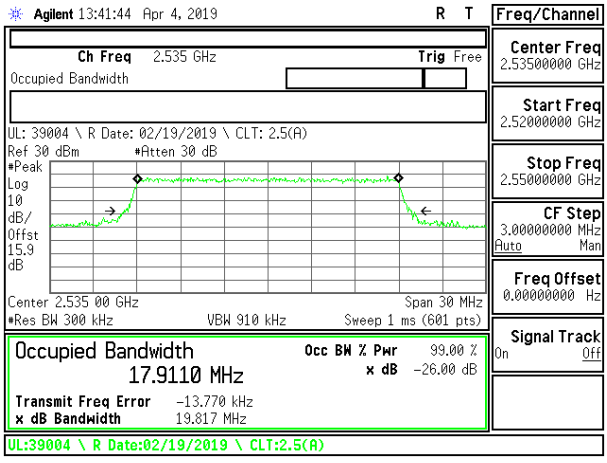
LTE B7 15MHz QPSK Middle Channel RB75-0



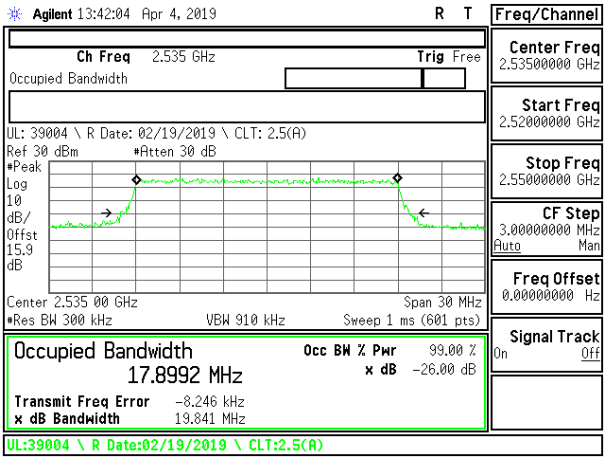
LTE B7 15MHz 16QAM Middle Channel RB75-0



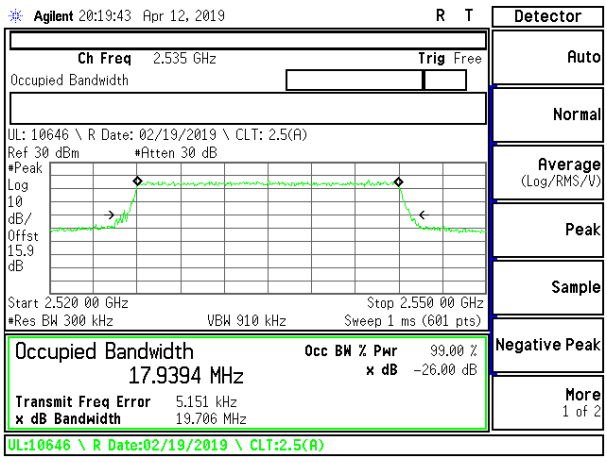
LTE B7 15MHz 64QAM Middle Channel RB75-0



LTE B7 20MHz QPSK Middle Channel RB100-0

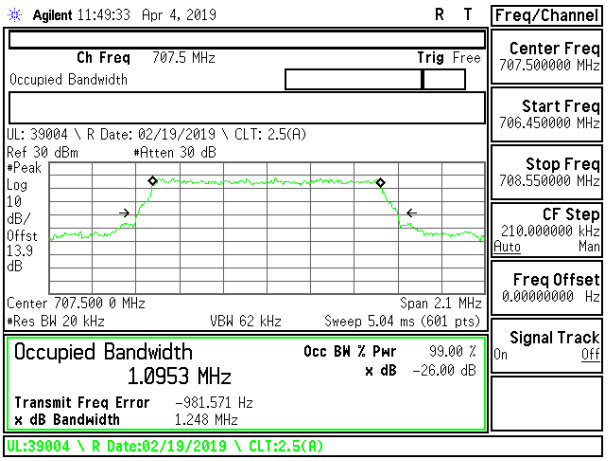


LTE B7 20MHz 16QAM Middle Channel RB100-0

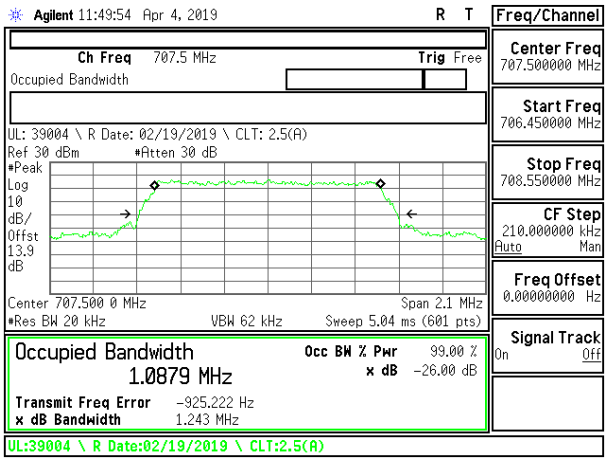


LTE B7 20MHz 64QAM Middle Channel RB100-0

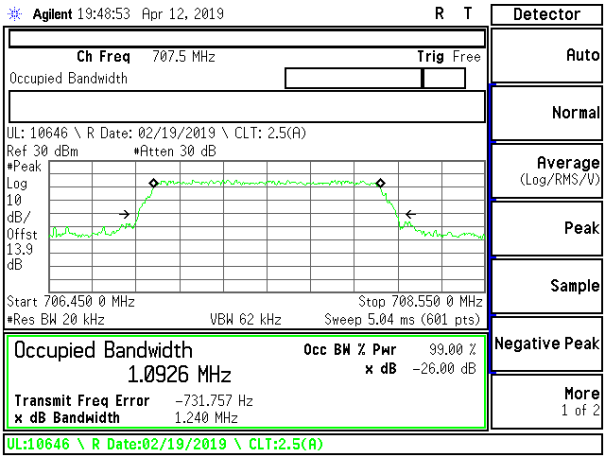
8.1.4. LTE BAND 12



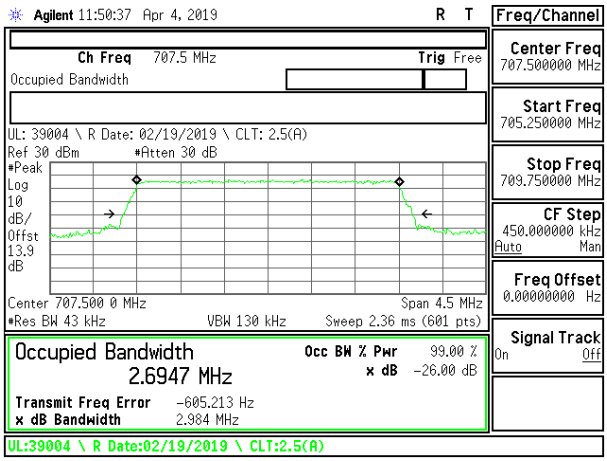
LTE B12 1.4MHz QPSK Middle Channel RB6-0



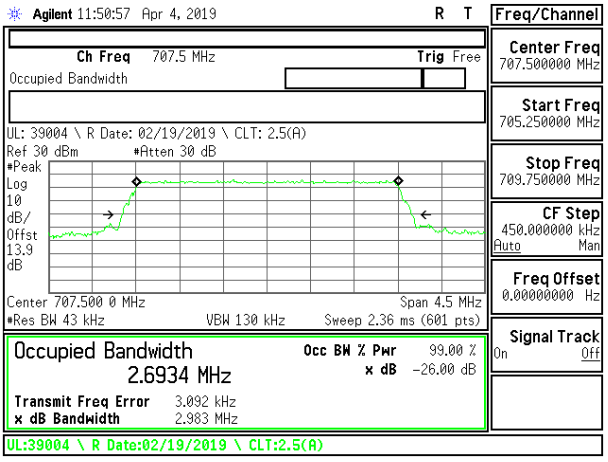
LTE B12 1.4MHz 16QAM Middle Channel RB6-0



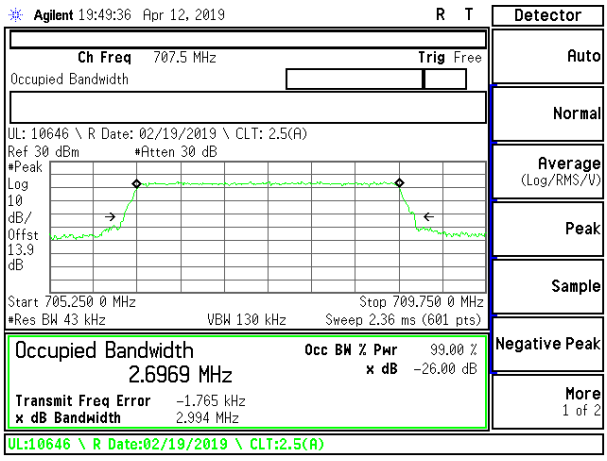
LTE B12 1.4MHz 64QAM Middle Channel RB6-0



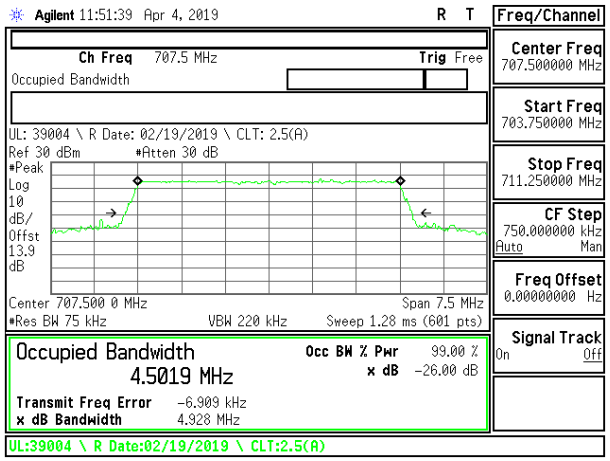
LTE B12 3MHz QPSK Middle Channel RB15-0



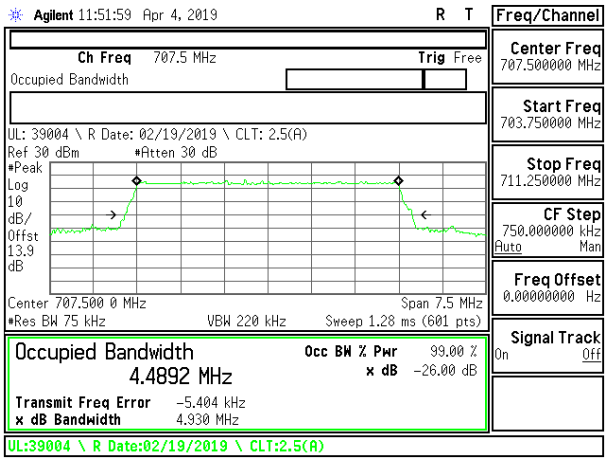
LTE B12 3MHz 16QAM Middle Channel RB15-0



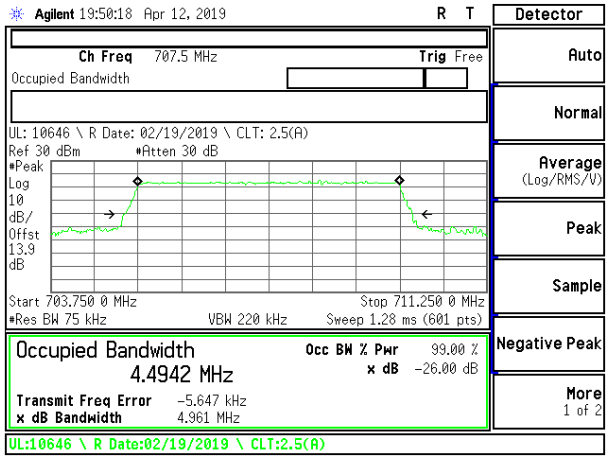
LTE B12 3MHz 64QAM Middle Channel RB15-0



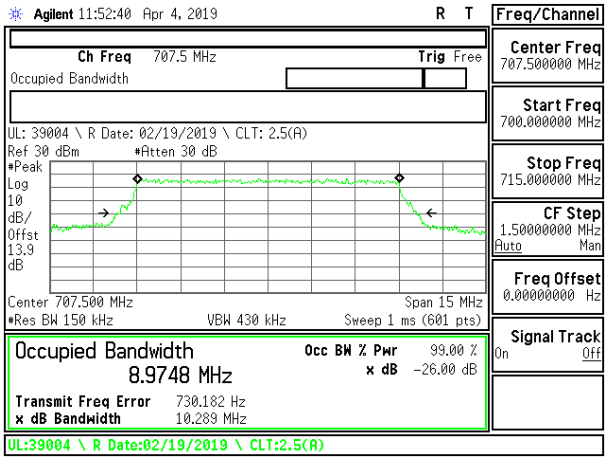
LTE B12 5MHz QPSK Middle Channel RB25-0



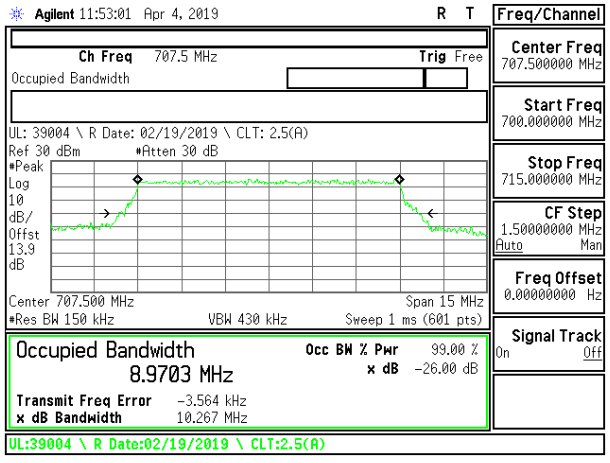
LTE B12 5MHz 16QAM Middle Channel RB25-0



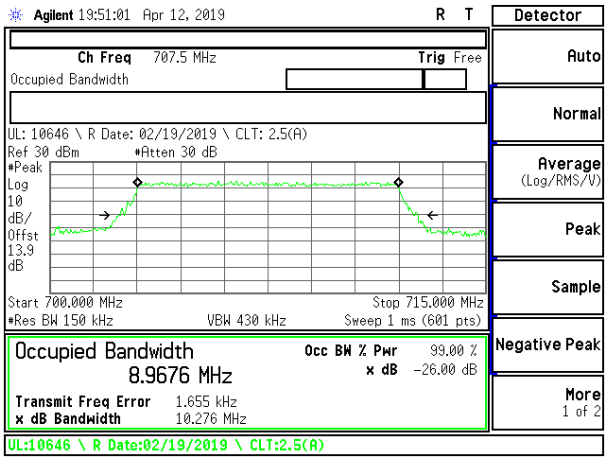
LTE B12 5MHz 64QAM Middle Channel RB25-0



LTE B12 10MHz QPSK Middle Channel RB50-0

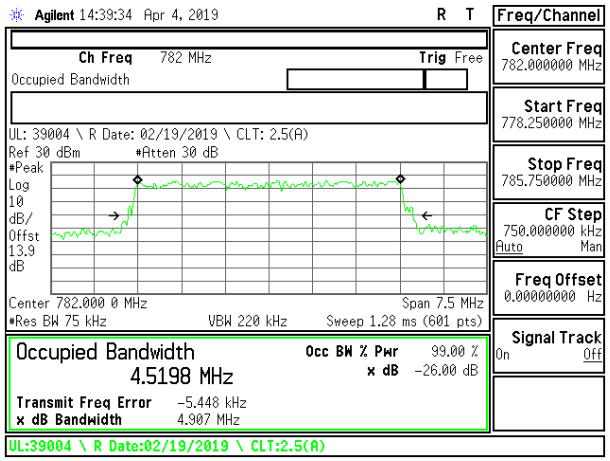


LTE B12 10MHz 16QAM Middle Channel RB50-0

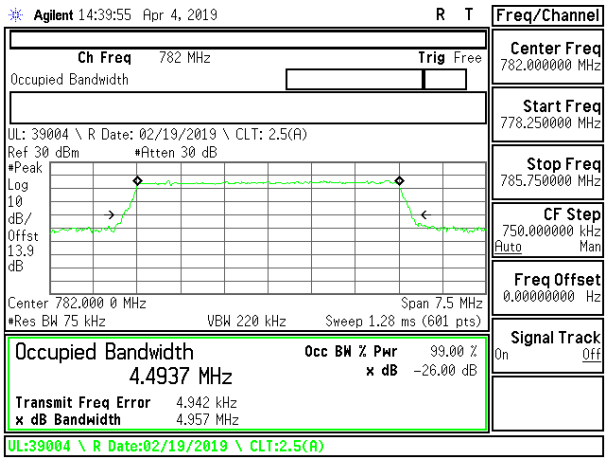


LTE B12 10MHz 64QAM Middle Channel RB50-0

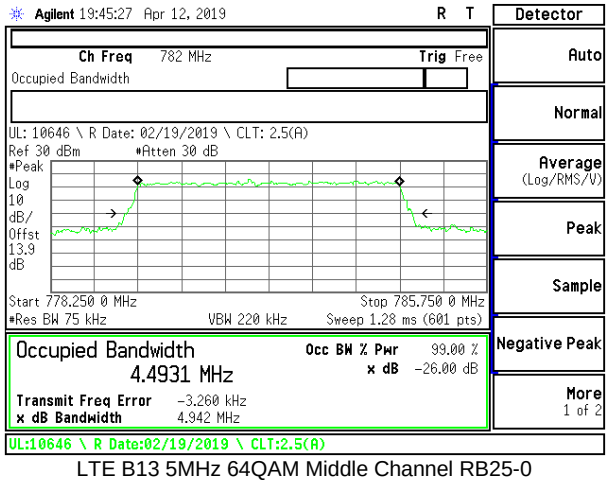
8.1.5. LTE BAND 13



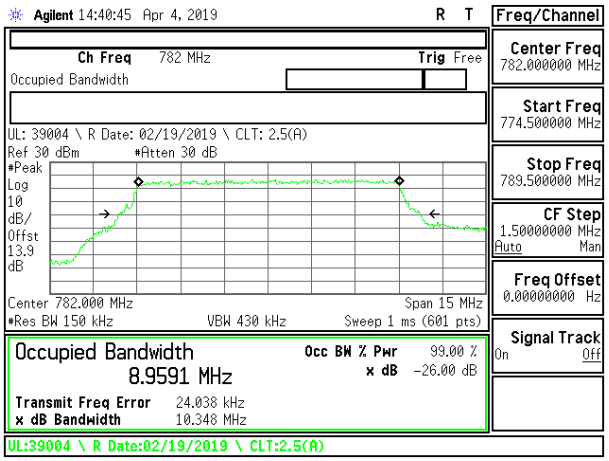
LTE B13 5MHz QPSK Middle Channel RB25-0



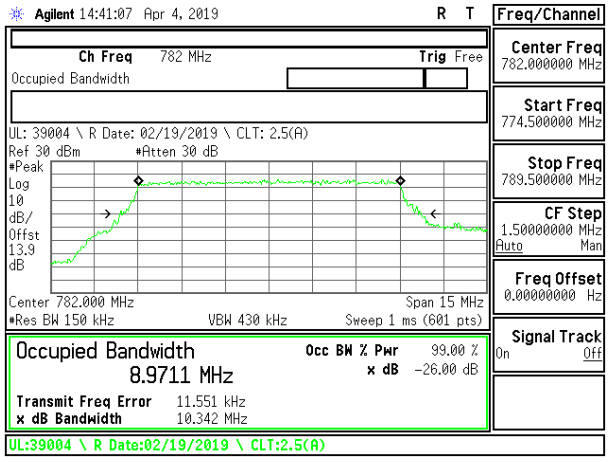
LTE B13 5MHz 16QAM Middle Channel RB25-0



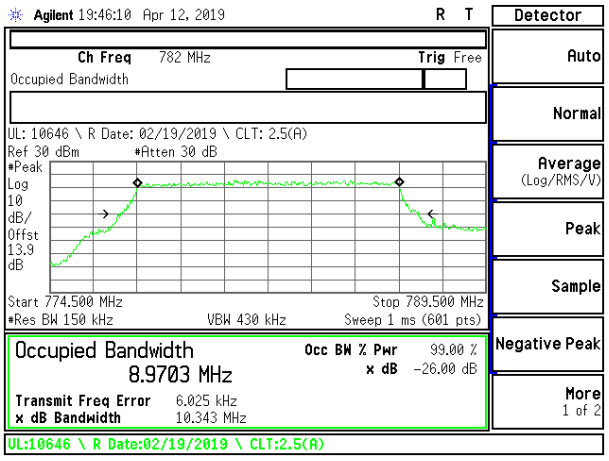
LTE B13 5MHz 64QAM Middle Channel RB25-0



LTE B13 10MHz QPSK Middle Channel RB50-0

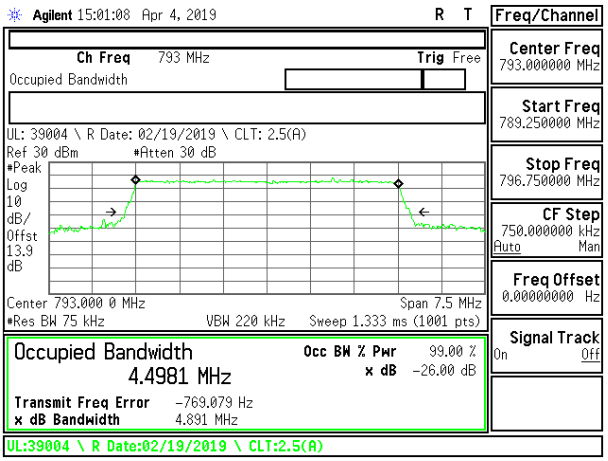


LTE B13 10MHz 16QAM Middle Channel RB50-0

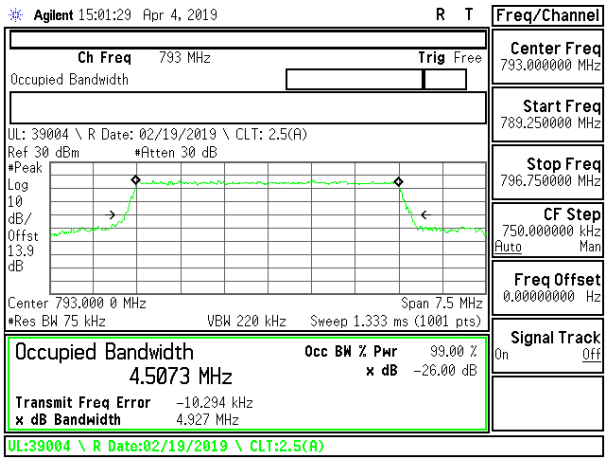


LTE B13 10MHz 64QAM Middle Channel RB50-0

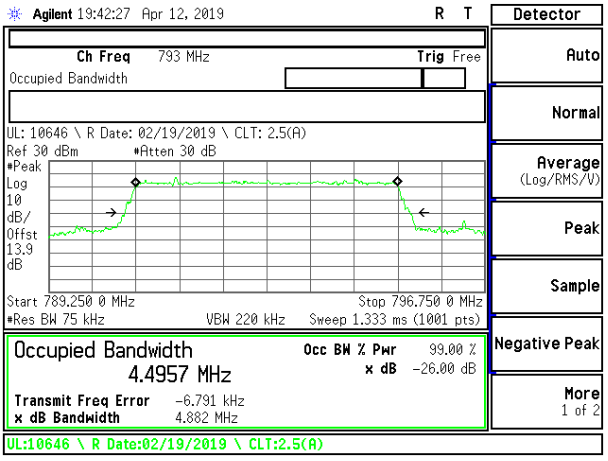
8.1.6. LTE BAND 14



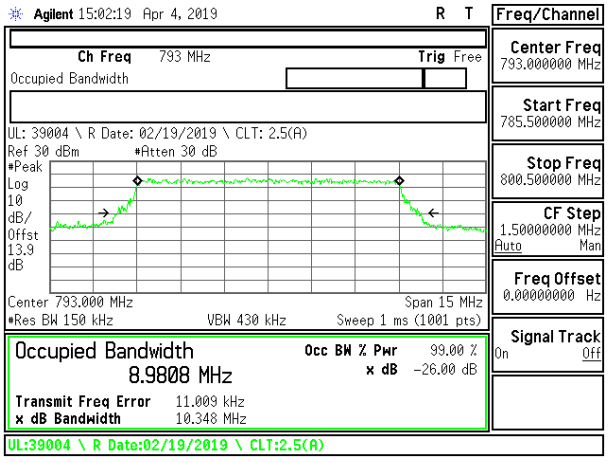
LTE B14 5MHz QPSK Middle Channel RB25-0



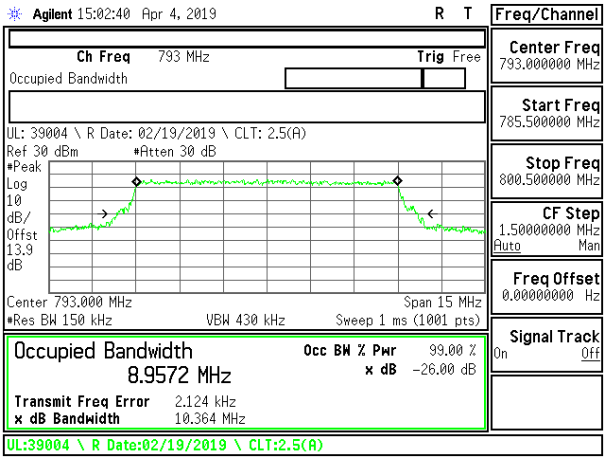
LTE B14 5MHz 16QAM Middle Channel RB25-0



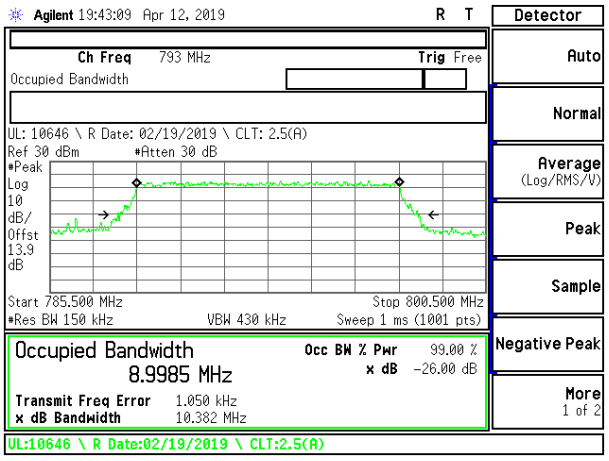
LTE B14 5MHz 64QAM Middle Channel RB25-0



LTE B14 10MHz QPSK Middle Channel RB50-0

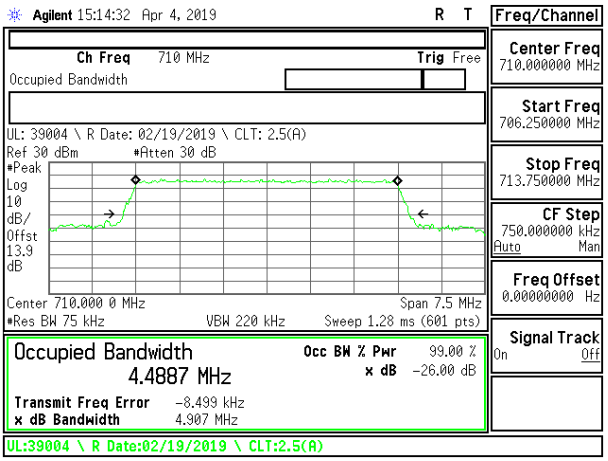


LTE B14 10MHz 16QAM Middle Channel RB50-0

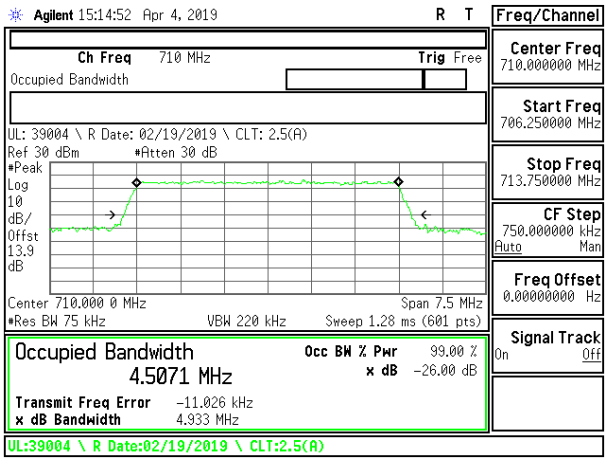


LTE B14 10MHz 64QAM Middle Channel RB50-0

8.1.7. LTE BAND 17



LTE B17 5MHz QPSK Middle Channel RB25-0



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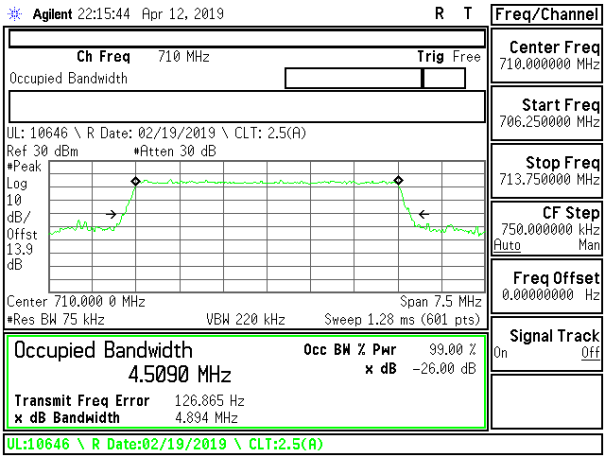

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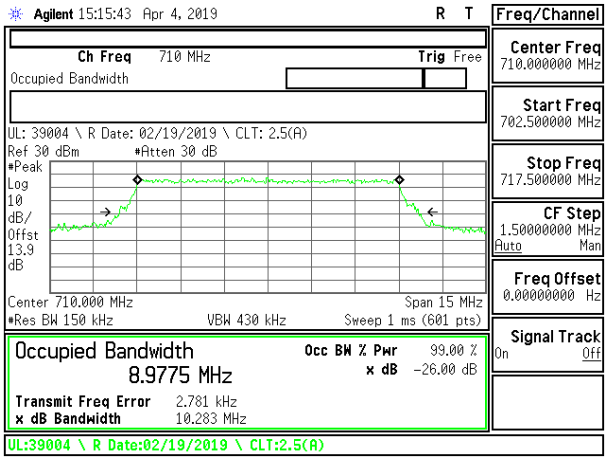
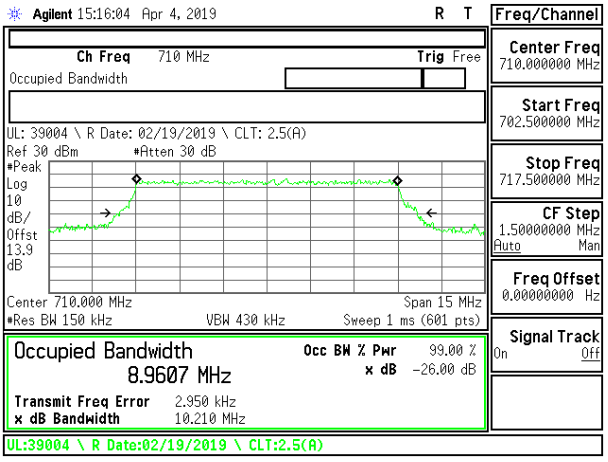
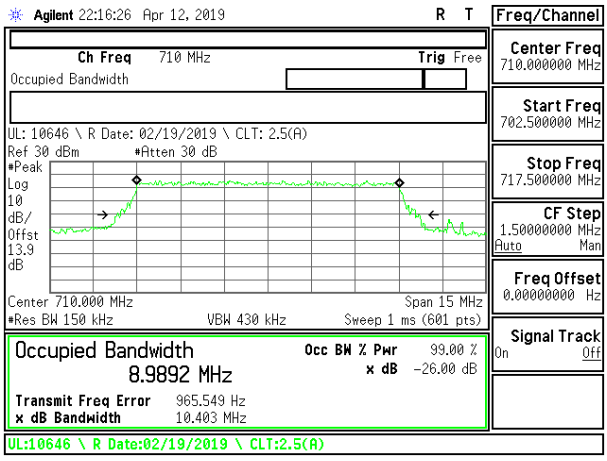


LTE B17 10MHz QPSK Middle Channel RB50-0

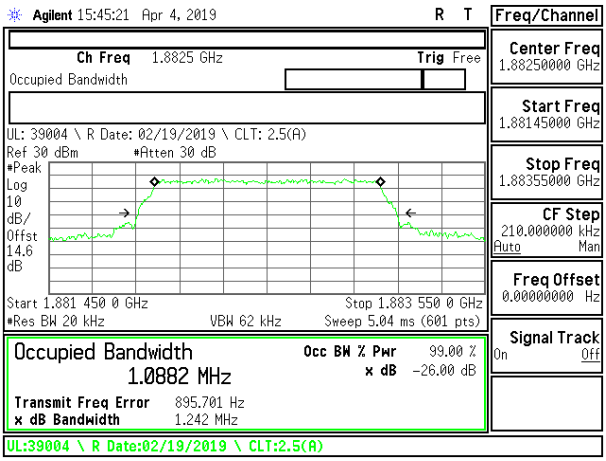


LTE B17 10MHz 16QAM Middle Channel RB50-0

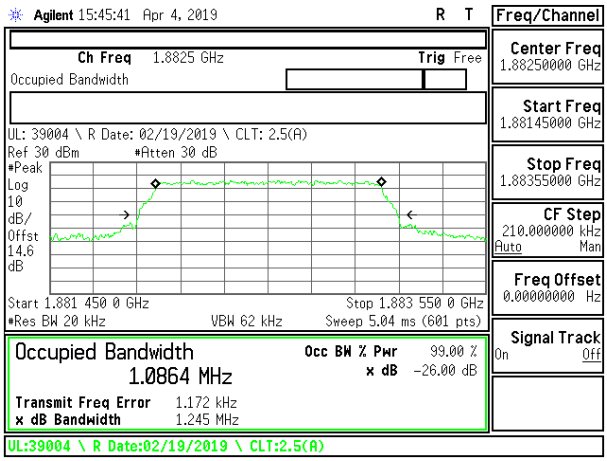


LTE B17 10MHz 64QAM Middle Channel RB50-0

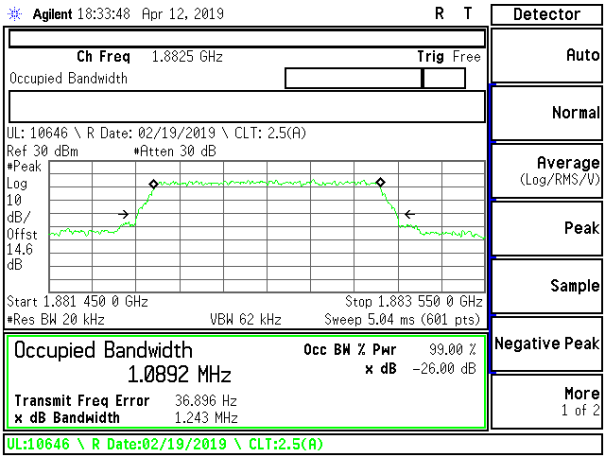
8.1.8. LTE BAND 25



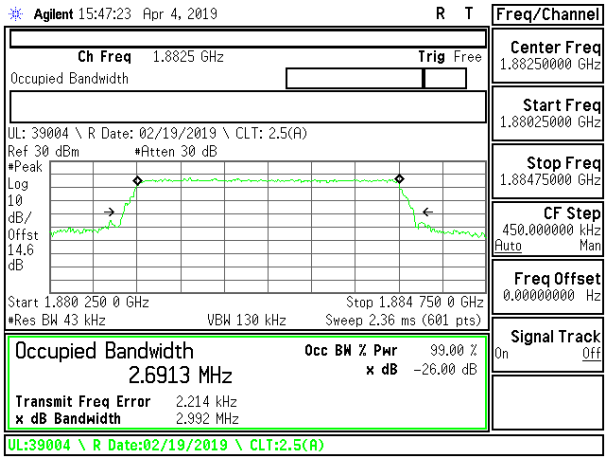
LTE B25 1.4MHz QPSK Middle Channel RB6-0



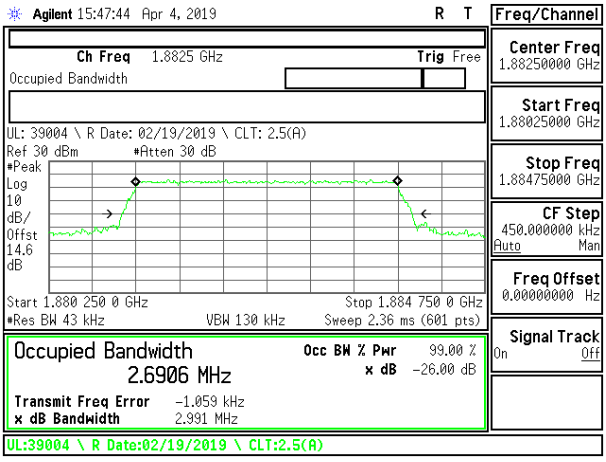
LTE B25 1.4MHz 16QAM Middle Channel RB6-0



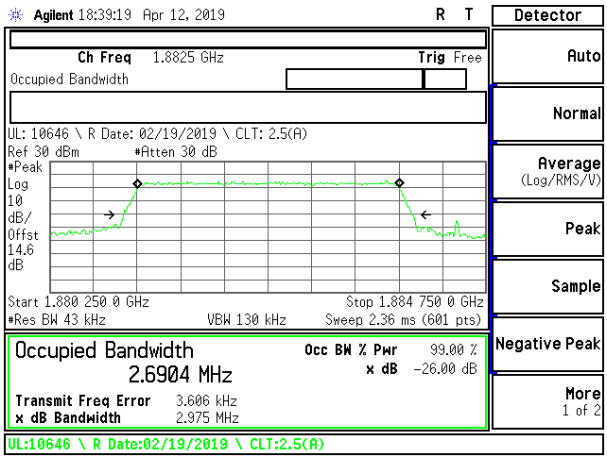
LTE B25 1.4MHz 64QAM Middle Channel RB6-0



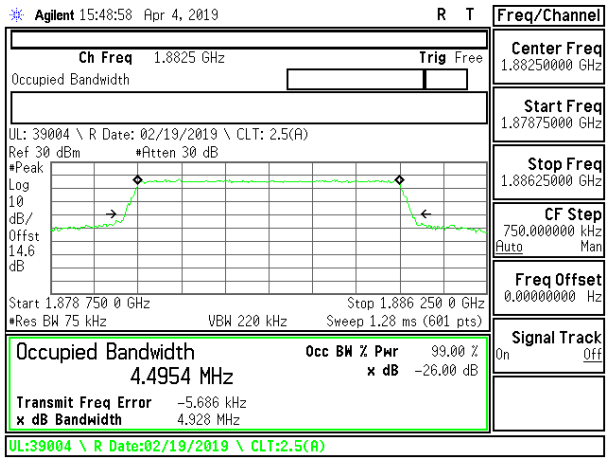
LTE B25 3MHz QPSK Middle Channel RB15-0



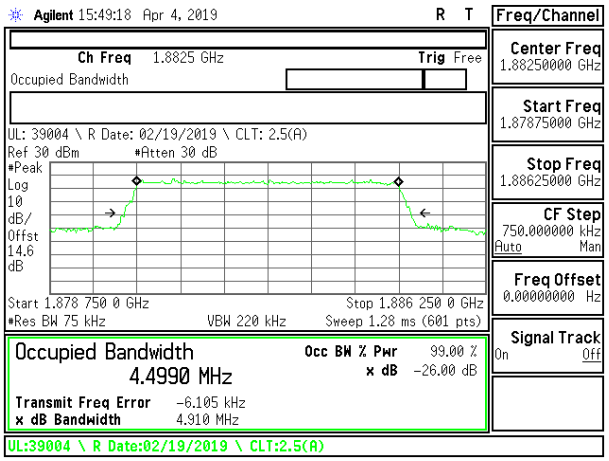
LTE B25 3MHz 16QAM Middle Channel RB15-0



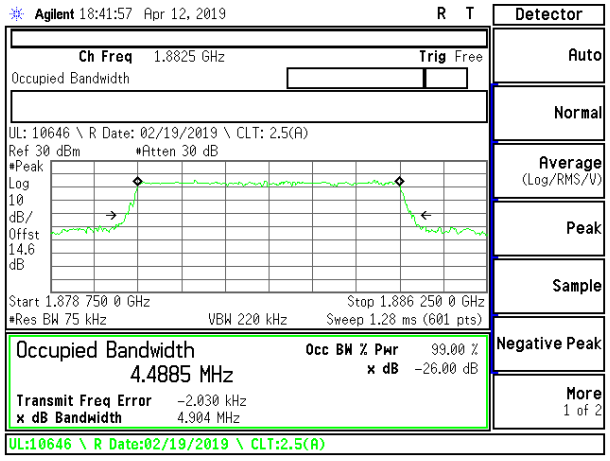
LTE B25 3MHz 64QAM Middle Channel RB15-0



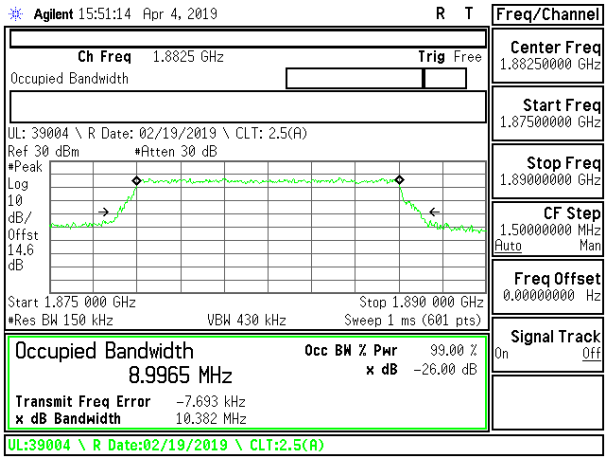
LTE B25 5MHz QPSK Middle Channel RB25-0



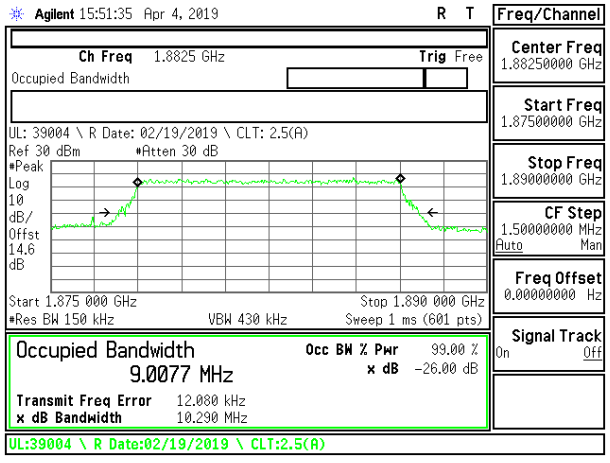
LTE B25 5MHz 16QAM Middle Channel RB25-0



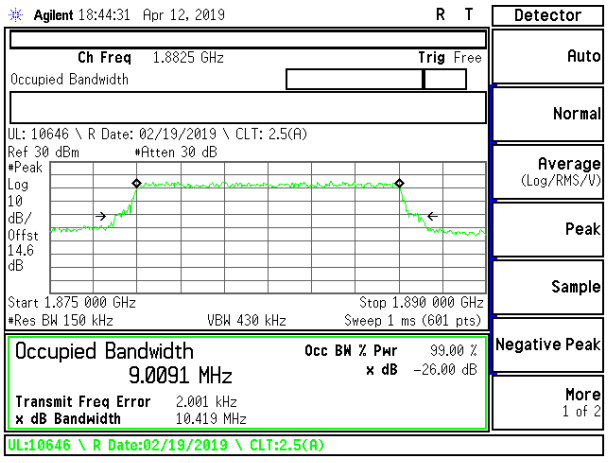
LTE B25 5MHz 64QAM Middle Channel RB25-0



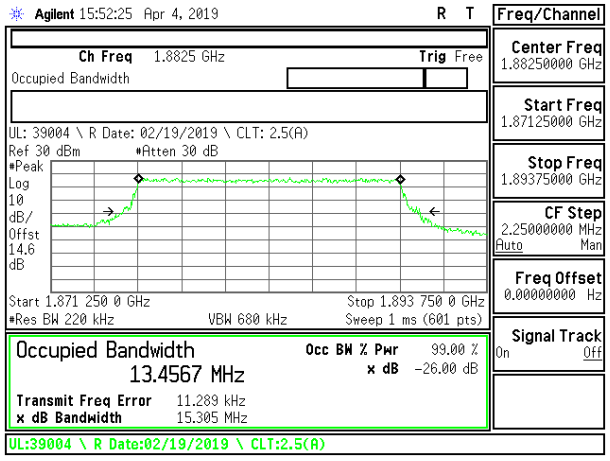
LTE B25 10MHz QPSK Middle Channel RB50-0



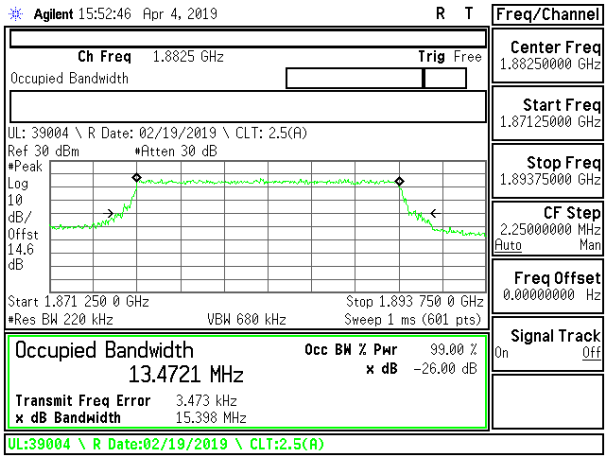
LTE B25 10MHz 16QAM Middle Channel RB50-0



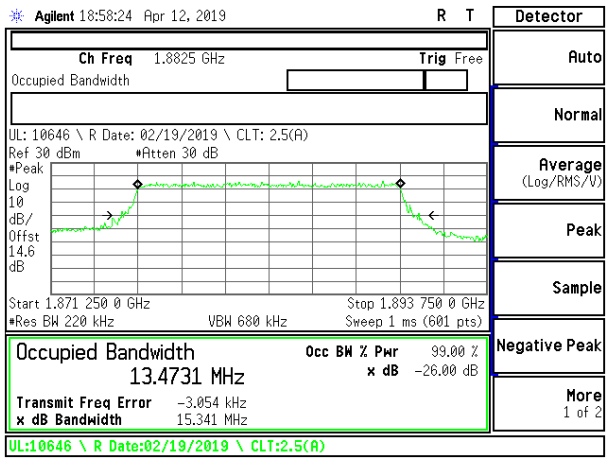
LTE B25 10MHz 64QAM Middle Channel RB50-0



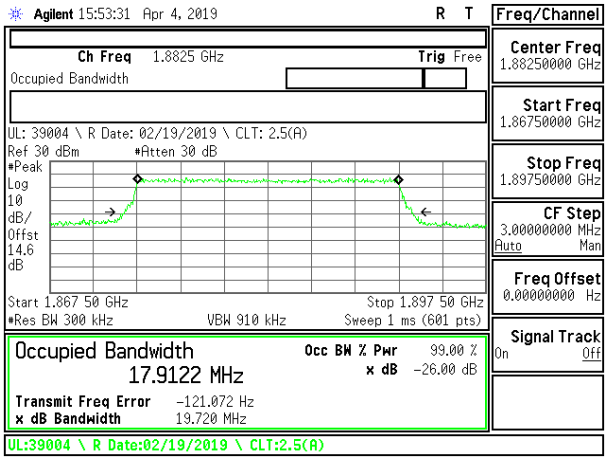
LTE B25 15MHz QPSK Middle Channel RB75-0



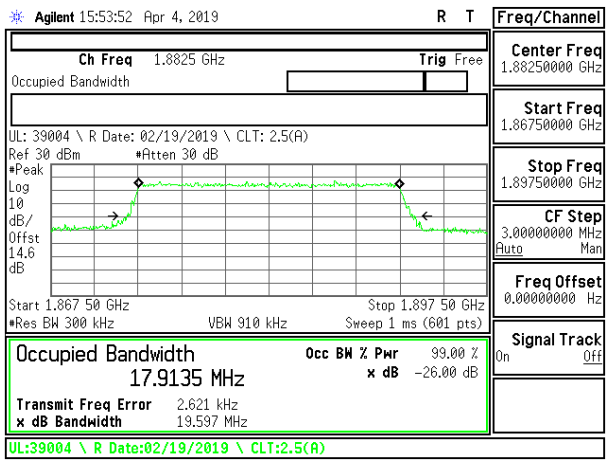
LTE B25 15MHz 16QAM Middle Channel RB75-0



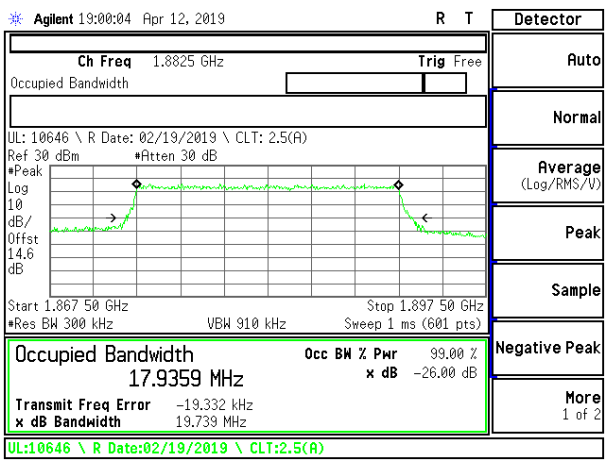
LTE B25 15MHz 64QAM Middle Channel RB75-0



LTE B25 20MHz QPSK Middle Channel RB100-0

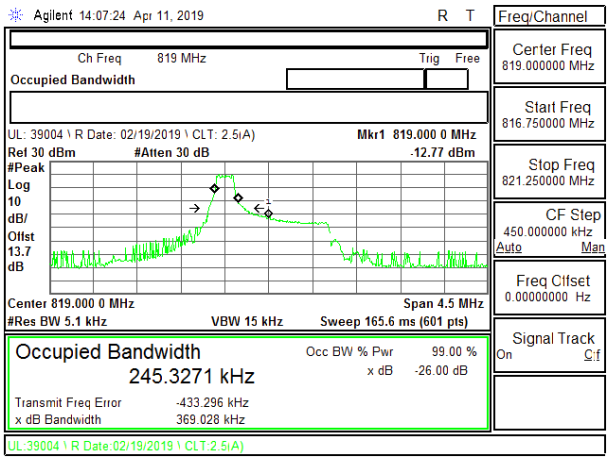


LTE B25 20MHz 16QAM Middle Channel RB100-0

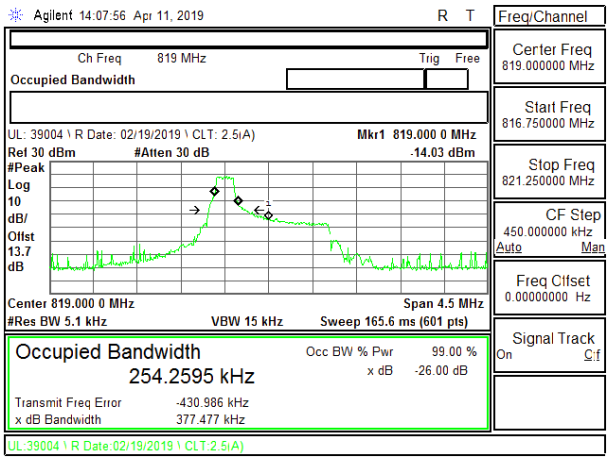


LTE B25 20MHz 64QAM Middle Channel RB100-0

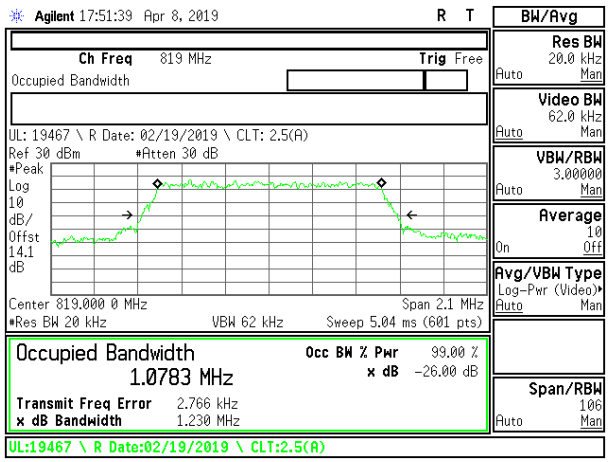
8.1.9. LTE BAND 26



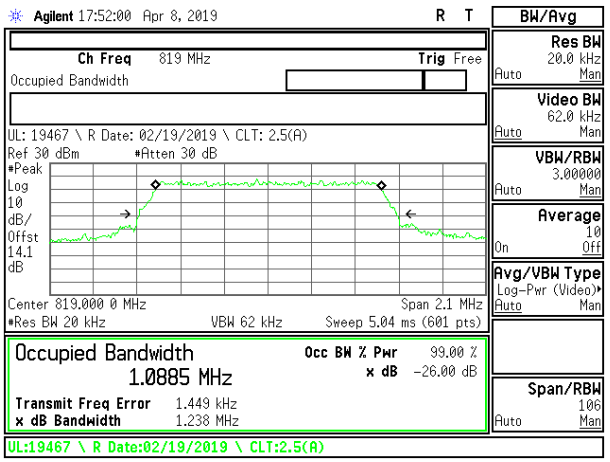
LTE B26 1.4MHz QPSK Middle Channel RB1-0



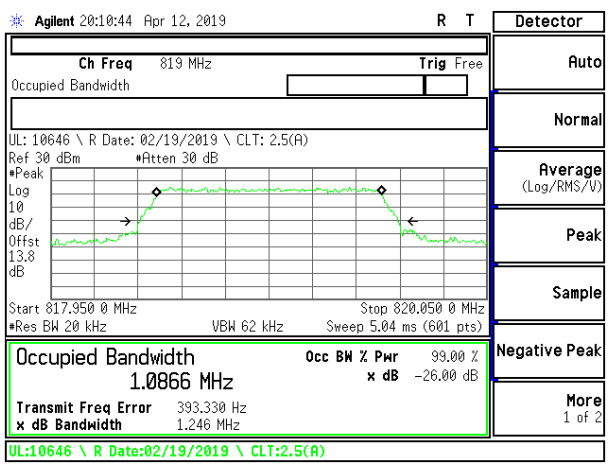
LTE B26 1.4MHz 16QAM Middle Channel RB1-0



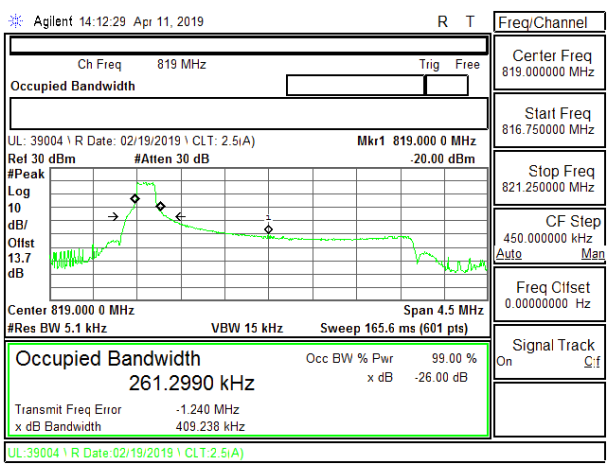
LTE B26 1.4MHz QPSK Middle Channel RB6-0



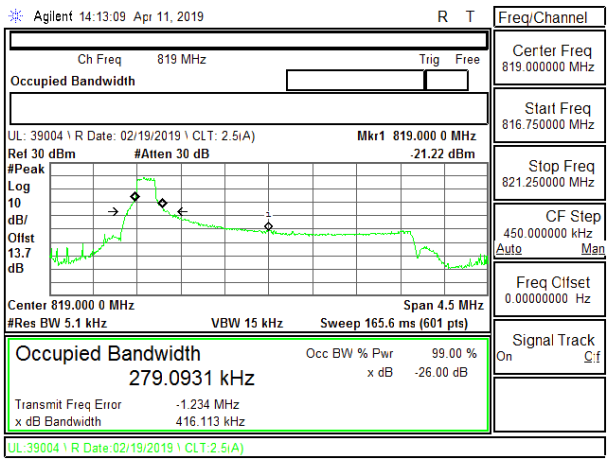
LTE B26 1.4MHz 16QAM Middle Channel RB6-0



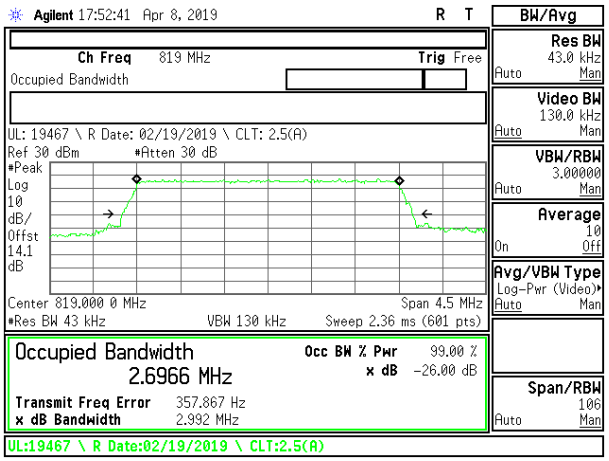
LTE B26 1.4MHz 64QAM Middle Channel RB6-0



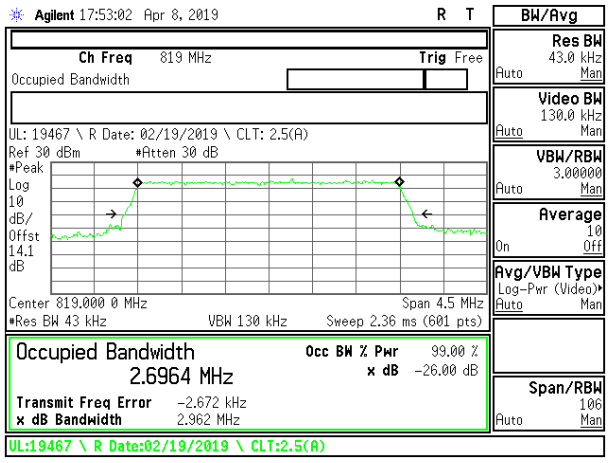
LTE B26 3MHz QPSK Middle Channel RB1-0



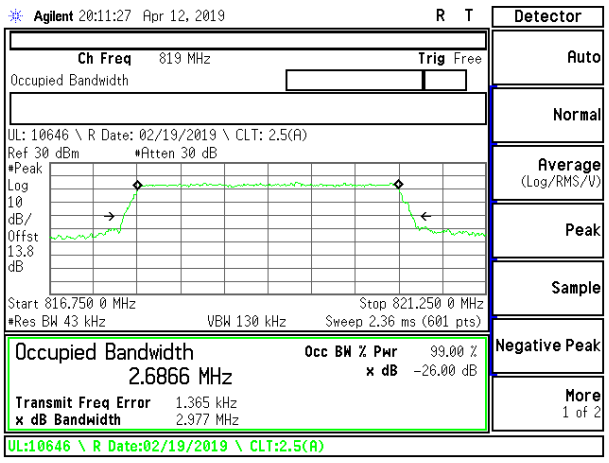
LTE B26 3MHz 16QAM Middle Channel RB1-0



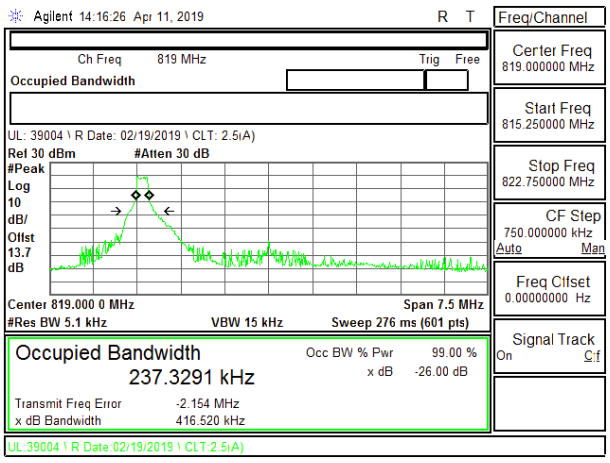
LTE B26 3MHz QPSK Middle Channel RB15-0



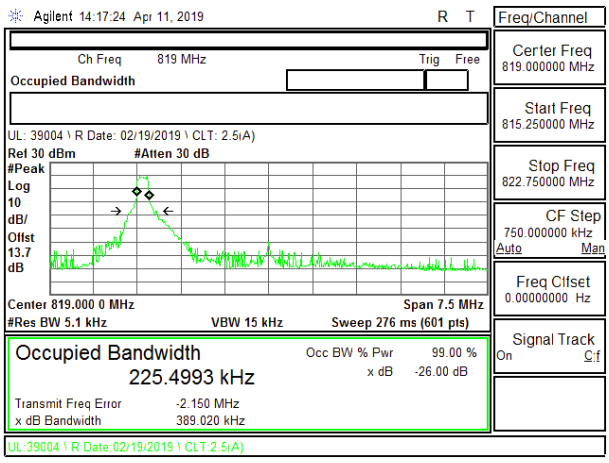
LTE B26 3MHz 16QAM Middle Channel RB15-0



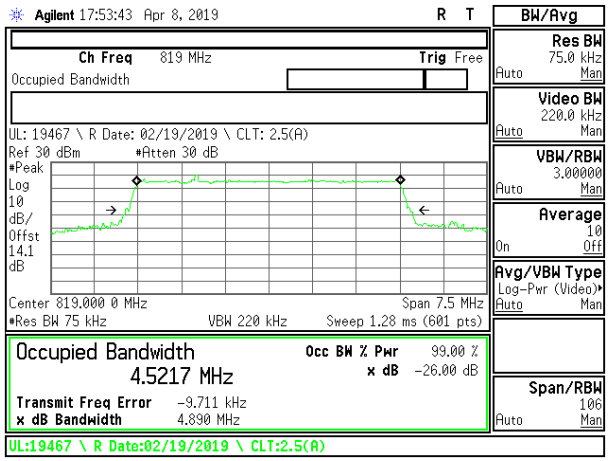
LTE B26 3MHz 64QAM Middle Channel RB15-0



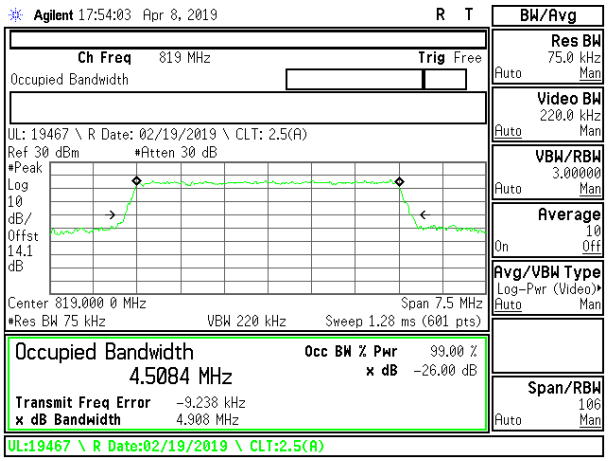
LTE B26 5MHz QPSK Middle Channel RB1-0



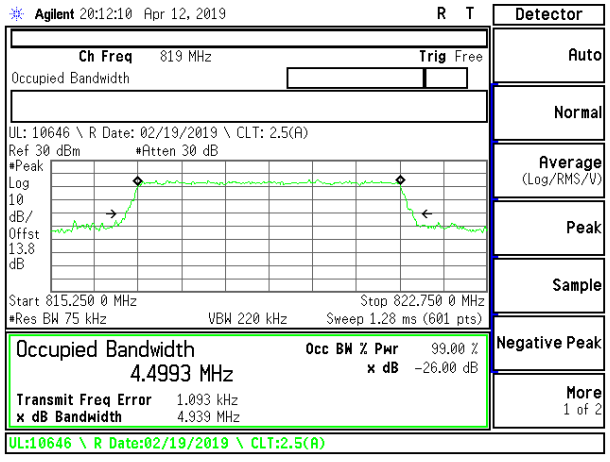
LTE B26 5MHz 16QAM Middle Channel RB1-0



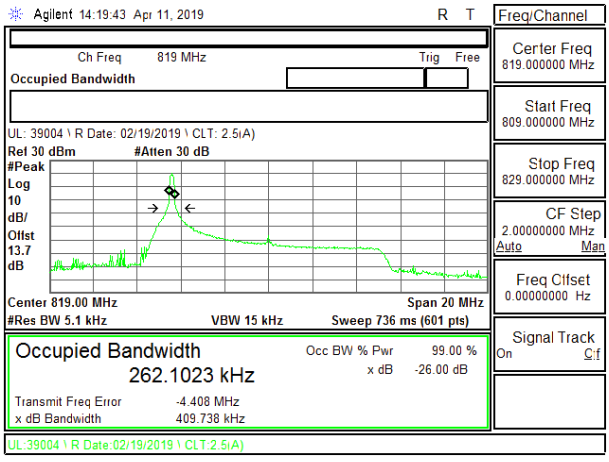
LTE B26 5MHz QPSK Middle Channel RB25-0



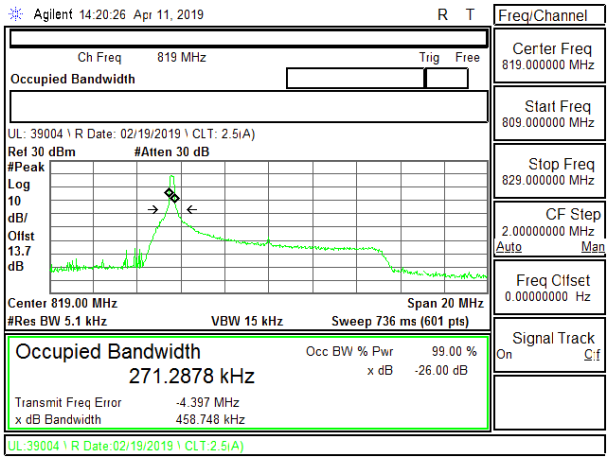
LTE B26 5MHz 16QAM Middle Channel RB25-0



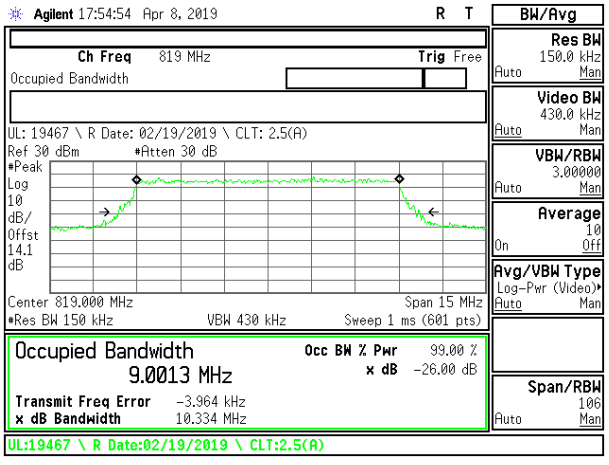
LTE B26 5MHz 64QAM Middle Channel RB25-0



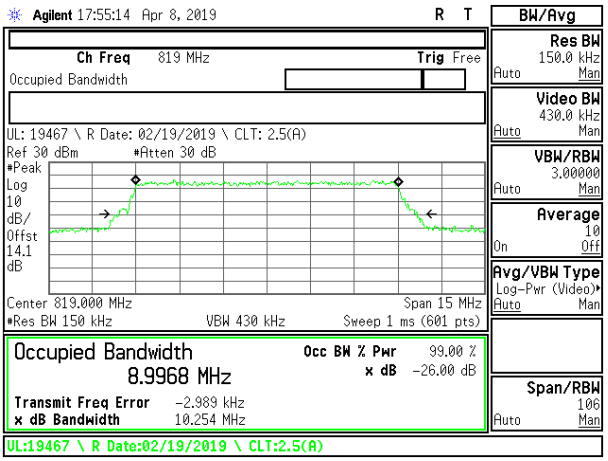
LTE B26 10MHz QPSK Middle Channel RB1-0



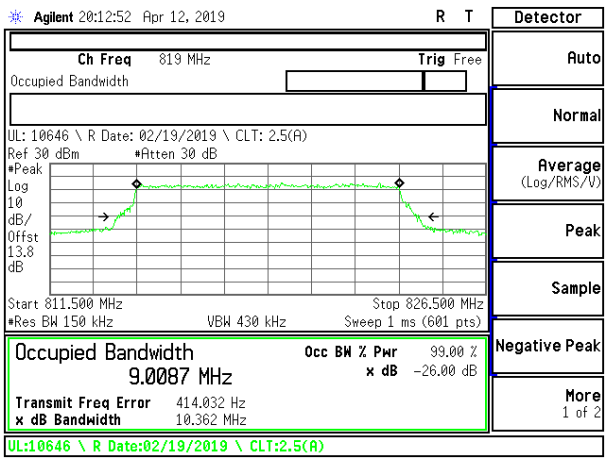
LTE B26 10MHz 16QAM Middle Channel RB1-0



LTE B26 10MHz QPSK Middle Channel RB50-0

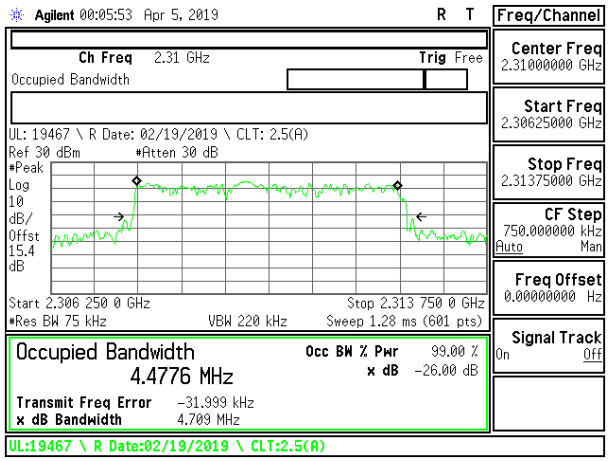


LTE B26 10MHz 16QAM Middle Channel RB50-0

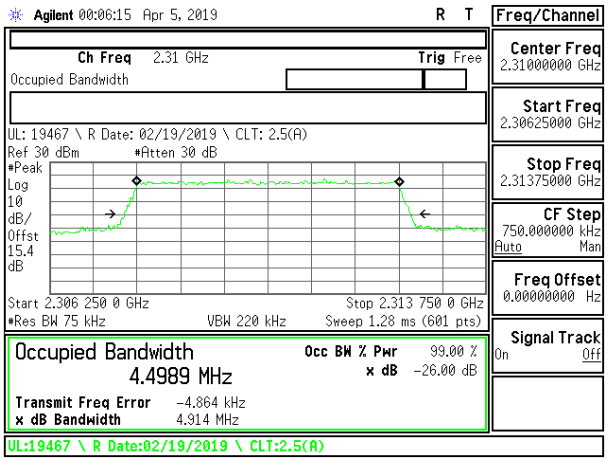


LTE B26 10MHz 64QAM Middle Channel RB50-0

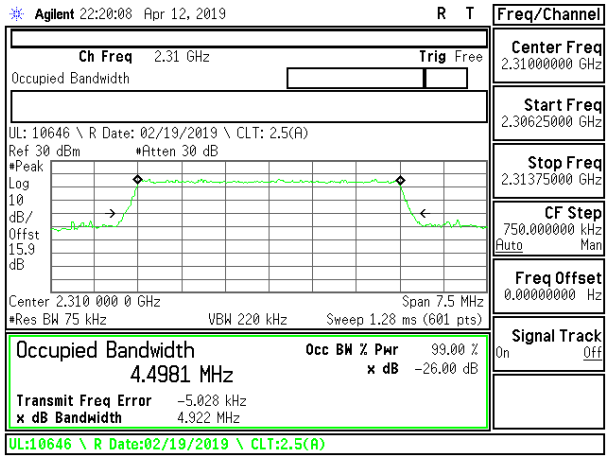
8.1.10. LTE BAND 30



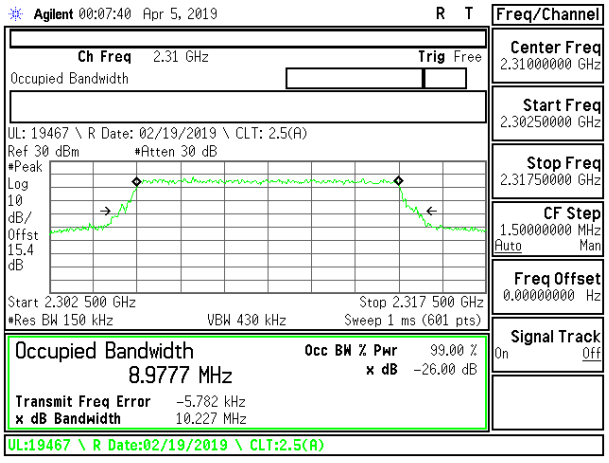
LTE B30 5MHz QPSK Middle Channel RB25-0



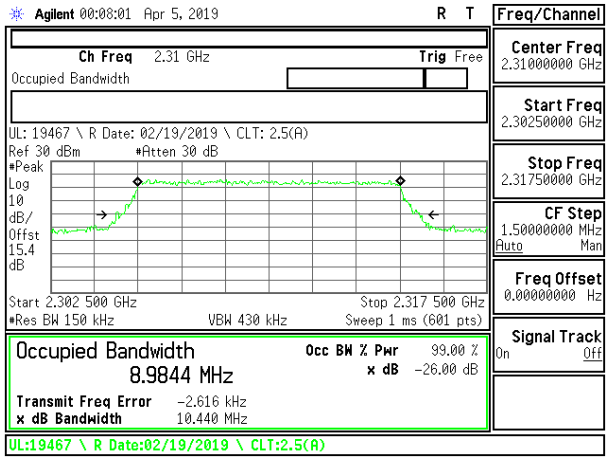
LTE B30 5MHz 16QAM Middle Channel RB25-0



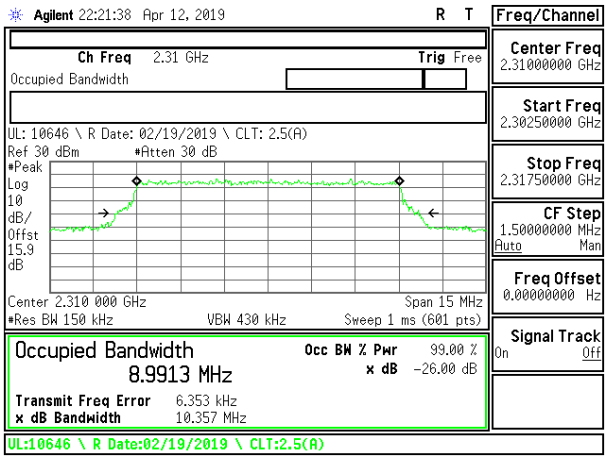
LTE B30 5MHz 64QAM Middle Channel RB25-0



LTE B30 10MHz QPSK Middle Channel RB50-0

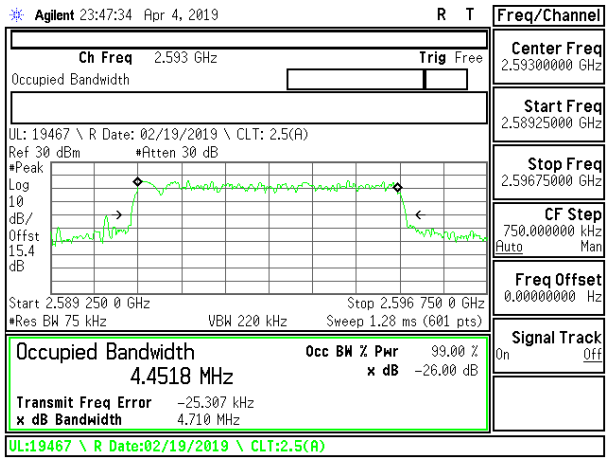


LTE B30 10MHz 16QAM Middle Channel RB50-0

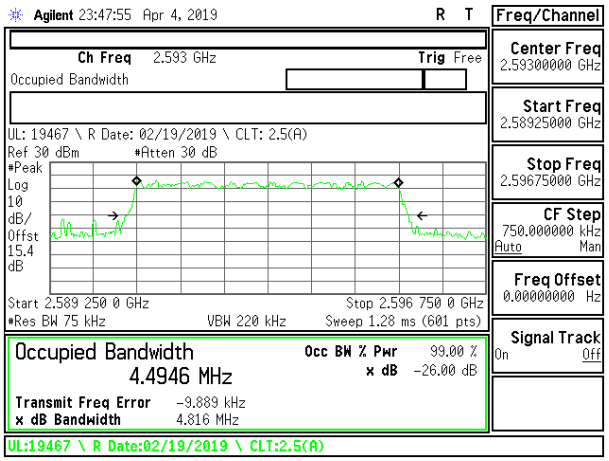


LTE B30 10MHz 64QAM Middle Channel RB50-0

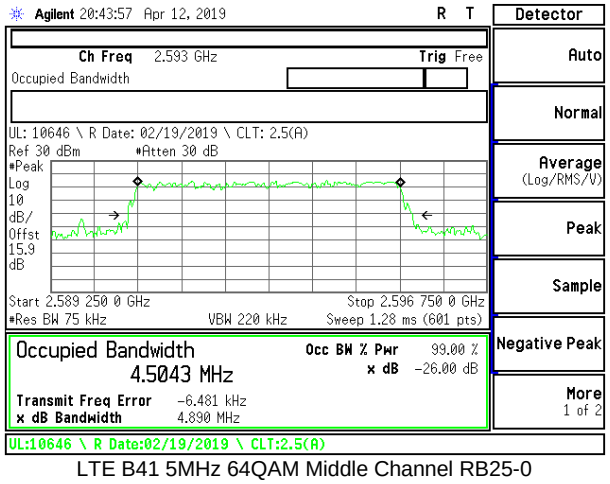
8.1.11. LTE BAND 41



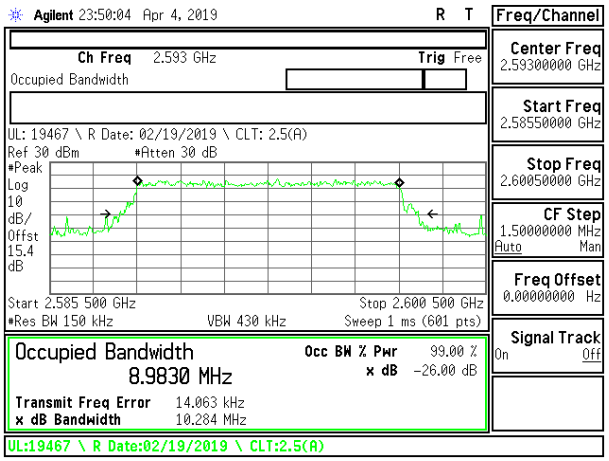
LTE B41 5MHz QPSK Middle Channel RB25-0



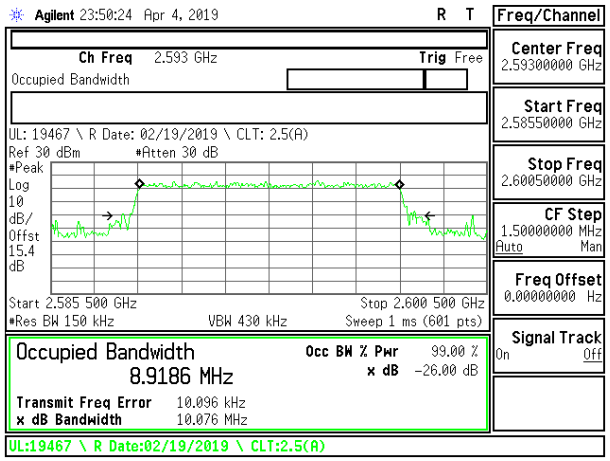
LTE B41 5MHz 16QAM Middle Channel RB25-0



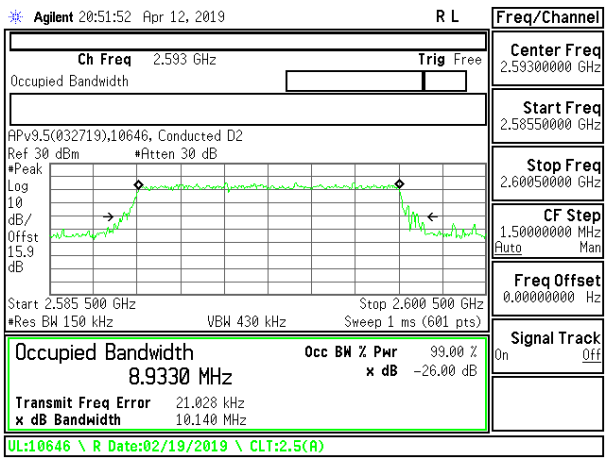
LTE B41 5MHz 64QAM Middle Channel RB25-0



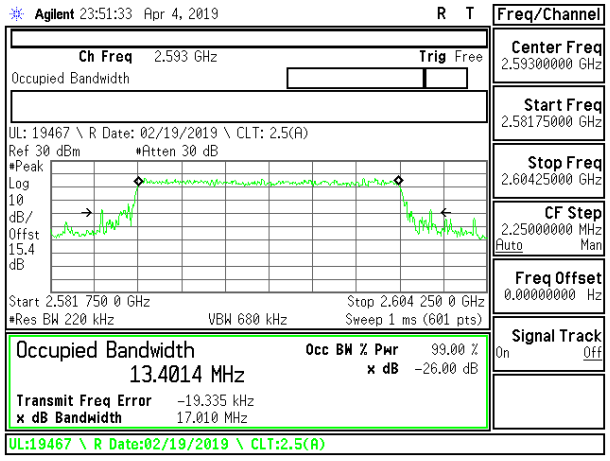
LTE B41 10MHz QPSK Middle Channel RB50-0



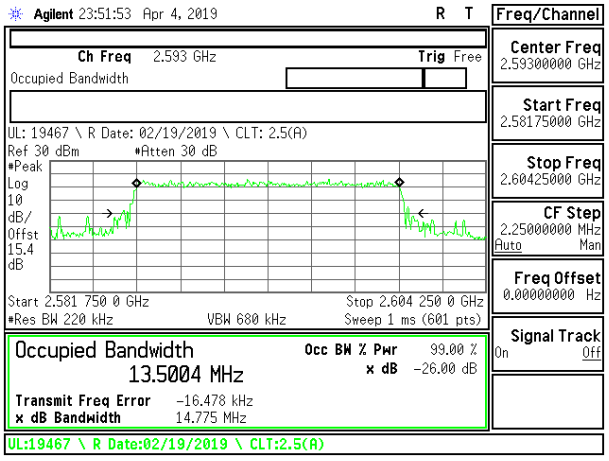
LTE B41 10MHz 16QAM Middle Channel RB50-0



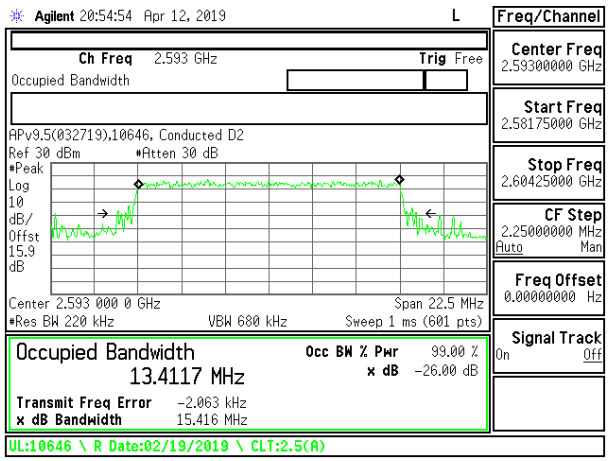
LTE B41 10MHz 64QAM Middle Channel RB50-0



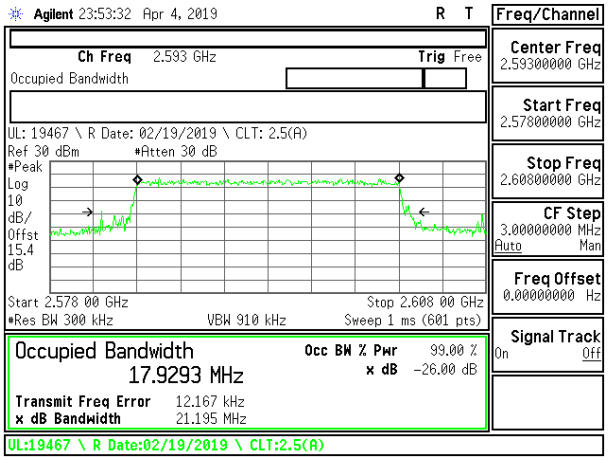
LTE B41 15MHz QPSK Middle Channel RB75-0



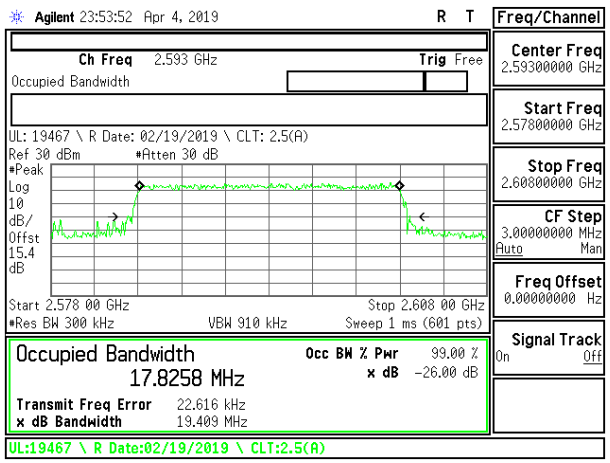
LTE B41 15MHz 16QAM Middle Channel RB75-0



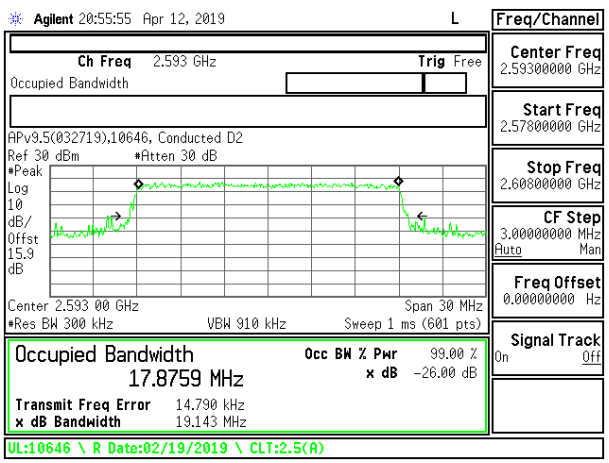
LTE B41 15MHz 64QAM Middle Channel RB75-0



LTE B41 20MHz QPSK Middle Channel RB100-0

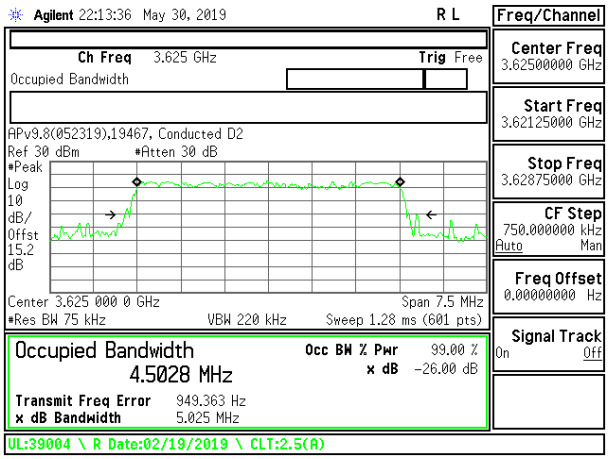


LTE B41 20MHz 16QAM Middle Channel RB100-0

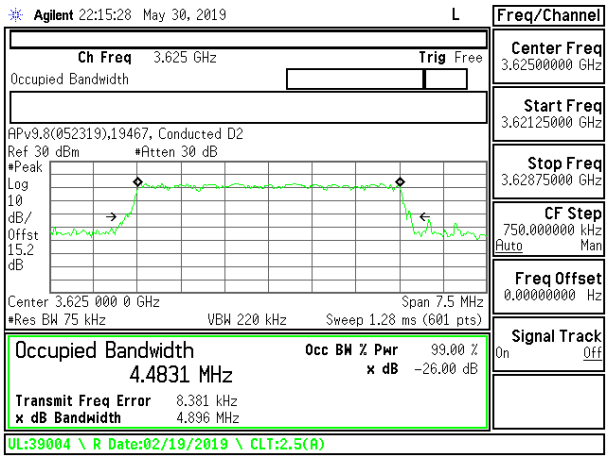


LTE B41 20MHz 64QAM Middle Channel RB100-0

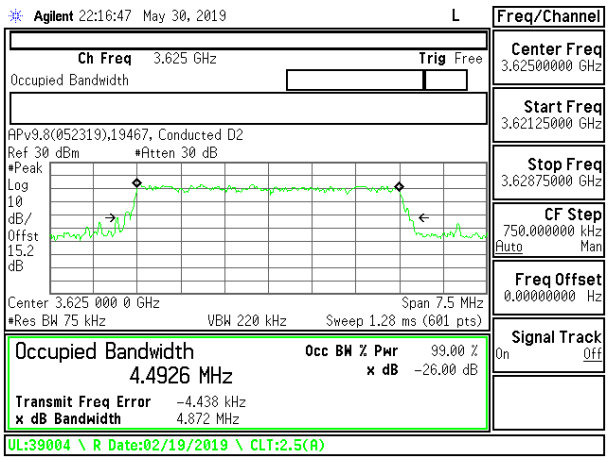
8.1.12. LTE BAND 48



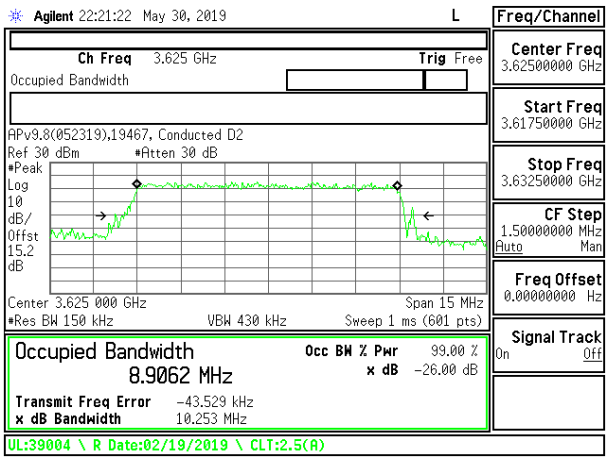
LTE B48 5MHz QPSK Middle Channel RB25-0



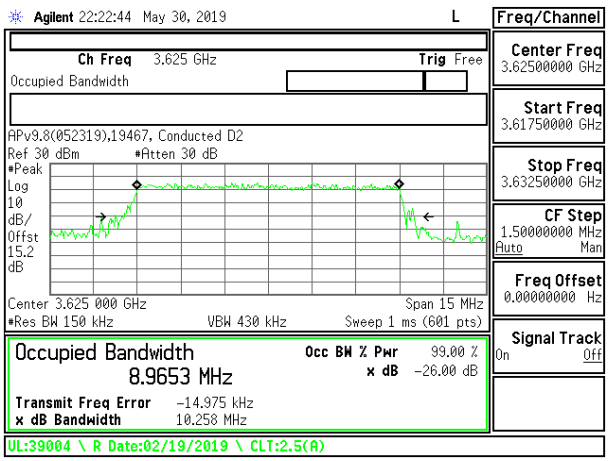
LTE B48 5MHz 16QAM Middle Channel RB25-0



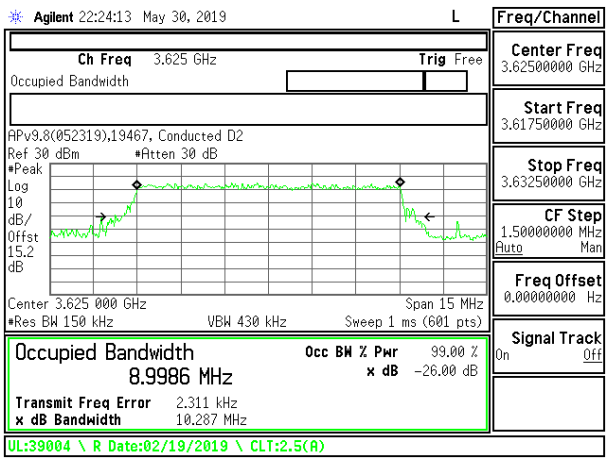
LTE B48 5MHz 64QAM Middle Channel RB25-0



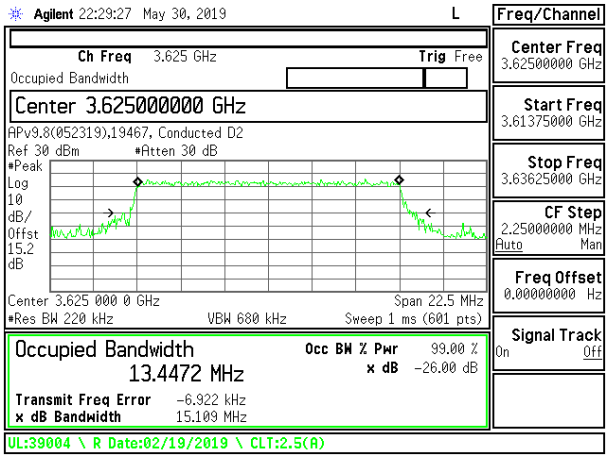
LTE B48 10MHz QPSK Middle Channel RB50-0



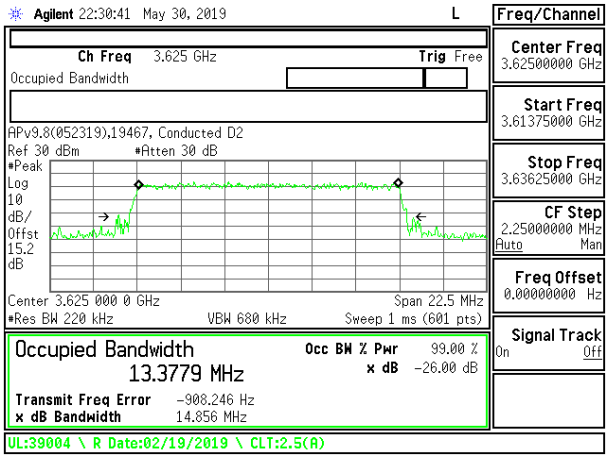
LTE B48 10MHz 16QAM Middle Channel RB50-0



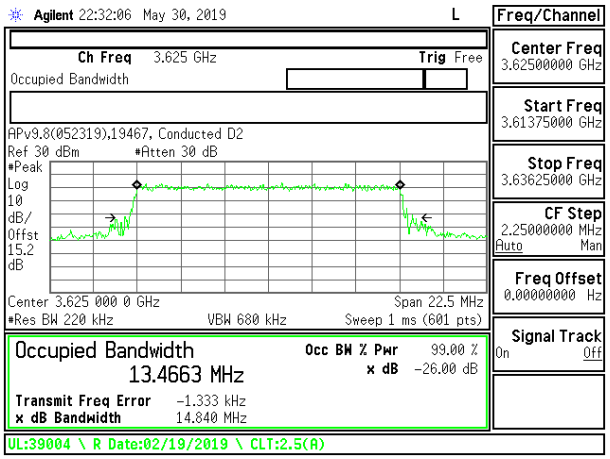
LTE B48 10MHz 64QAM Middle Channel RB50-0



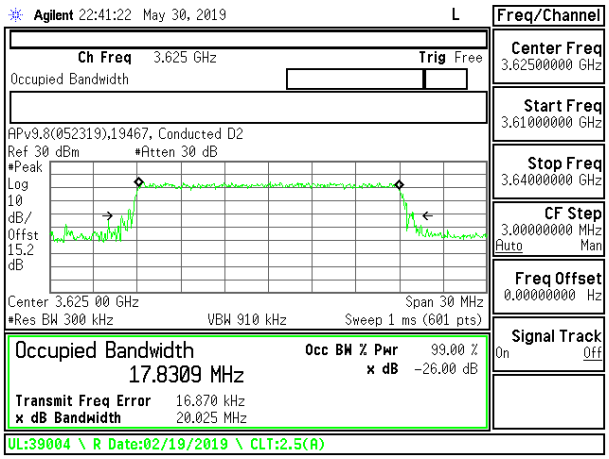
LTE B48 15MHz QPSK Middle Channel RB75-0



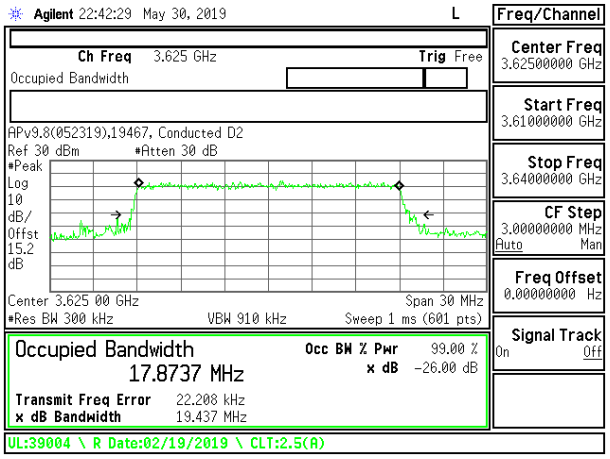
LTE B48 15MHz 16QAM Middle Channel RB75-0



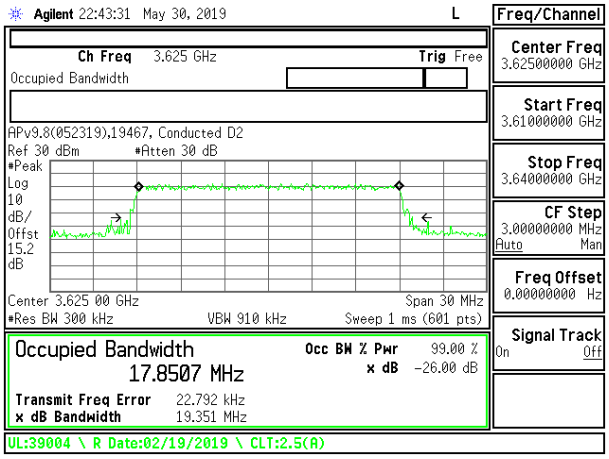
LTE B48 15MHz 64QAM Middle Channel RB75-0



LTE B48 20MHz QPSK Middle Channel RB100-0

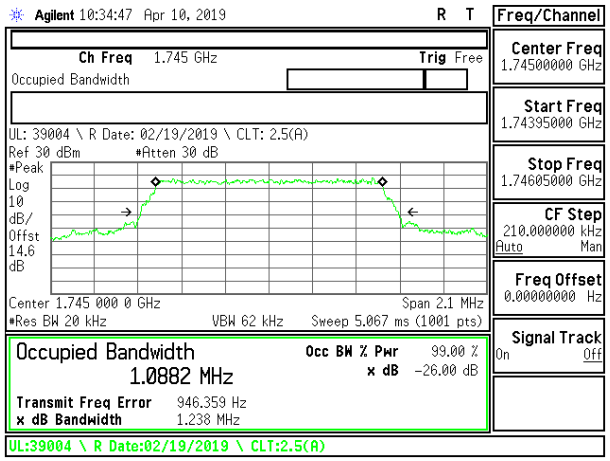


LTE B48 20MHz 16QAM Middle Channel RB100-0

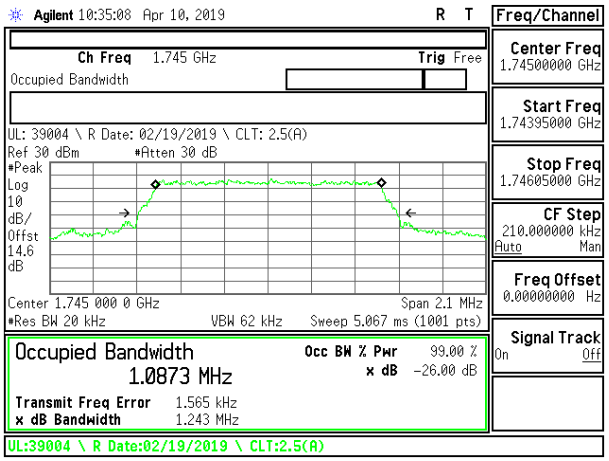


LTE B48 20MHz 64QAM Middle Channel RB100-0

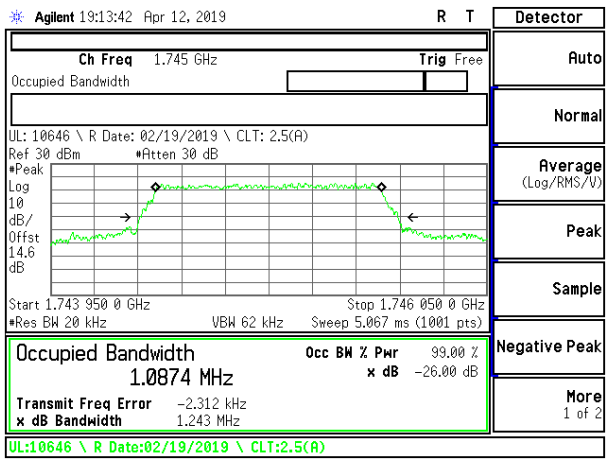
8.1.13. LTE BAND 66



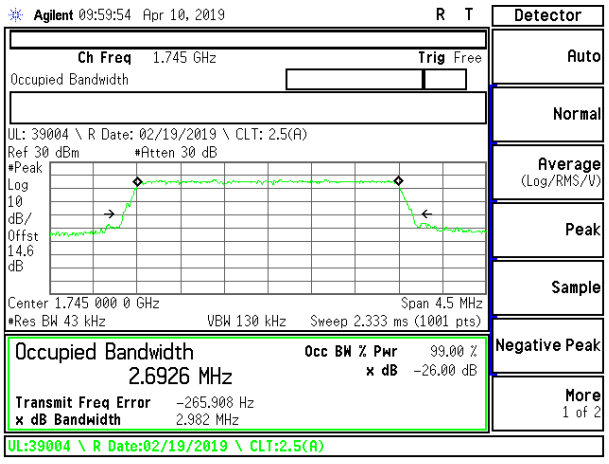
LTE B66 1.4MHz QPSK Middle Channel RB6-0



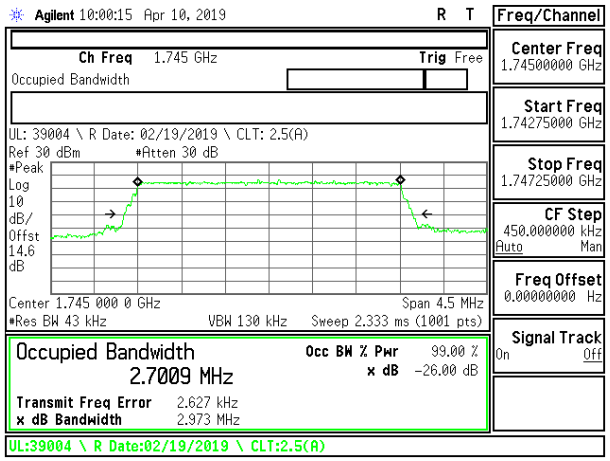
LTE B66 1.4MHz 16QAM Middle Channel RB6-0



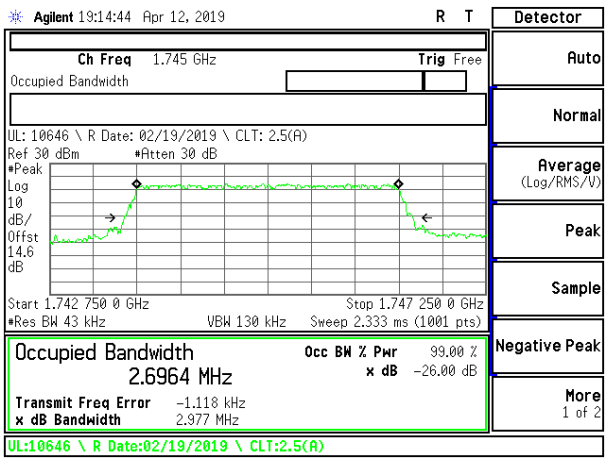
LTE B66 1.4MHz 64QAM Middle Channel RB6-0



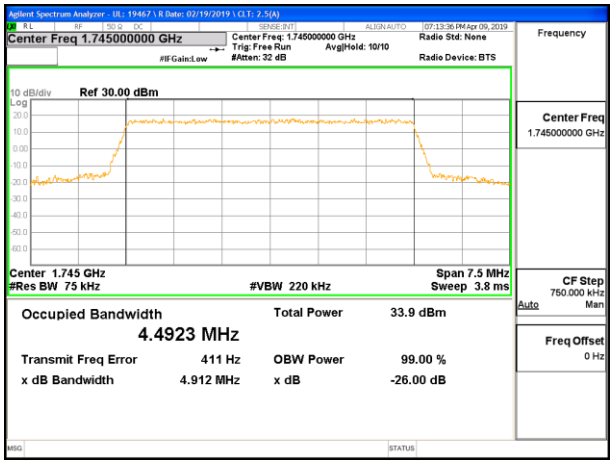
LTE B66 3MHz QPSK Middle Channel RB15-0



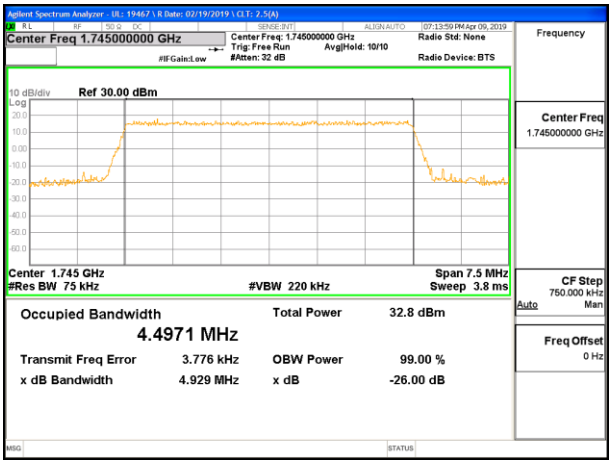
LTE B66 3MHz 16QAM Middle Channel RB15-0



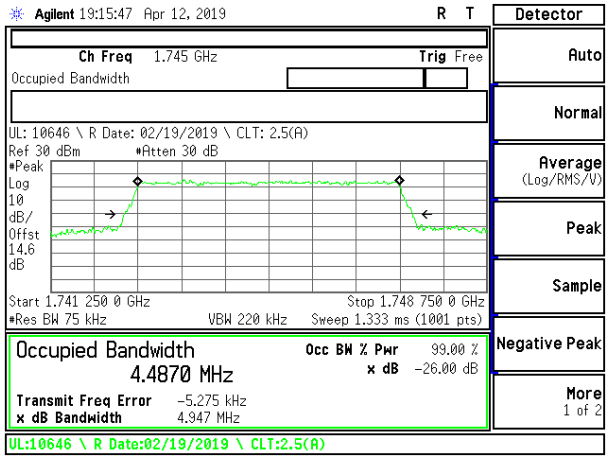
LTE B66 3MHz 64QAM Middle Channel RB15-0



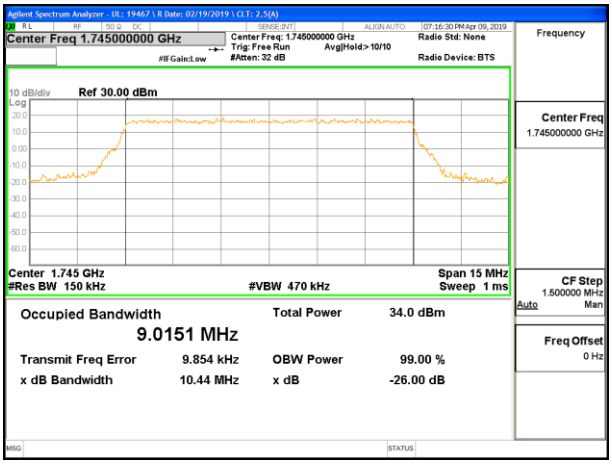
LTE B66 5MHz QPSK Middle Channel RB25-0



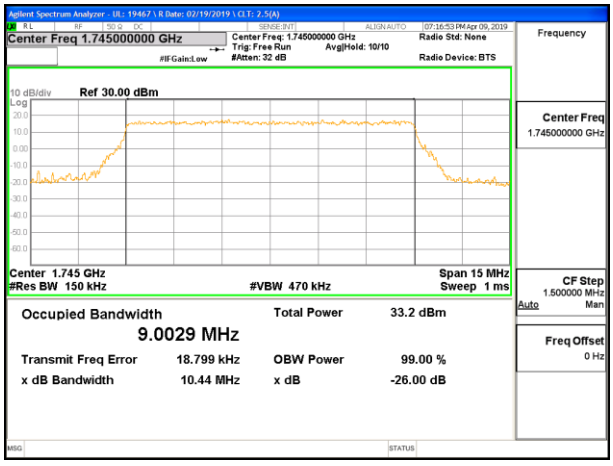
LTE B66 5MHz 16QAM Middle Channel RB25-0



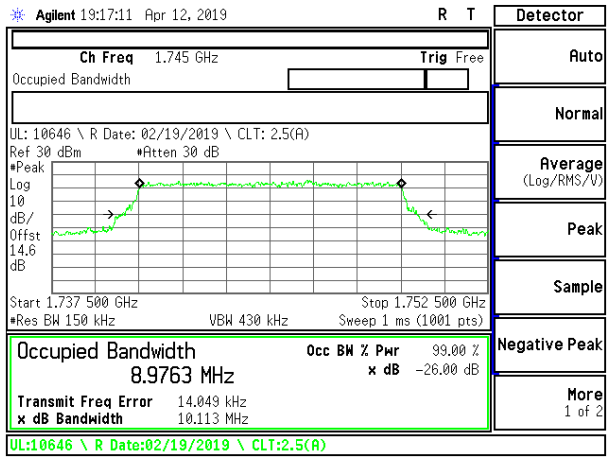
LTE B66 5MHz 64QAM Middle Channel RB25-0



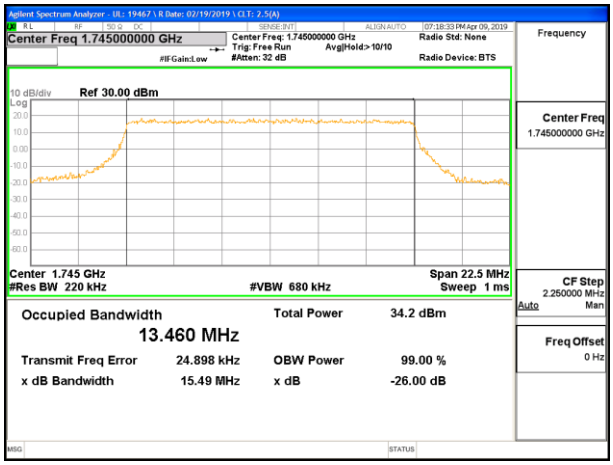
LTE B66 10MHz QPSK Middle Channel RB50-0



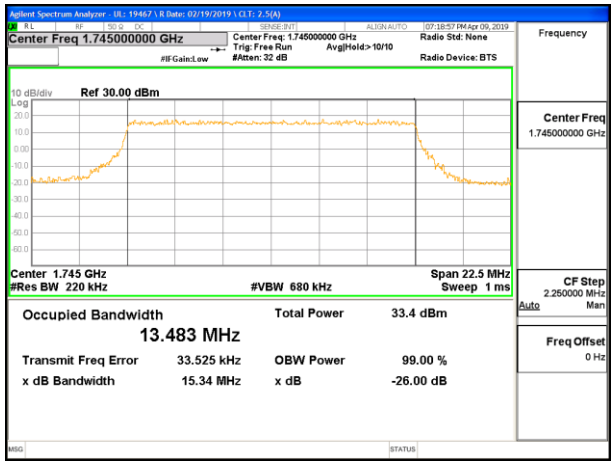
LTE B66 10MHz 16QAM Middle Channel RB50-0



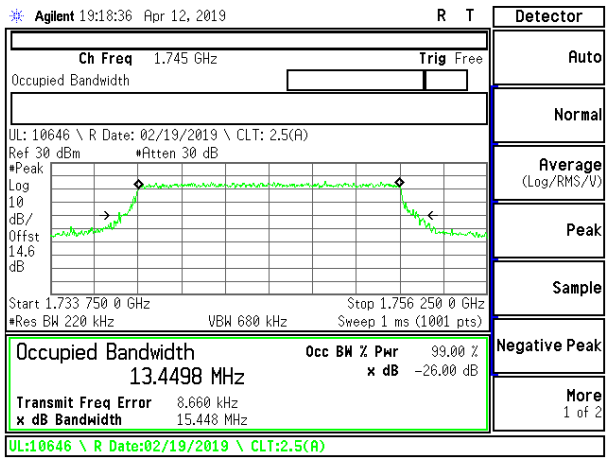
LTE B66 10MHz 64QAM Middle Channel RB50-0



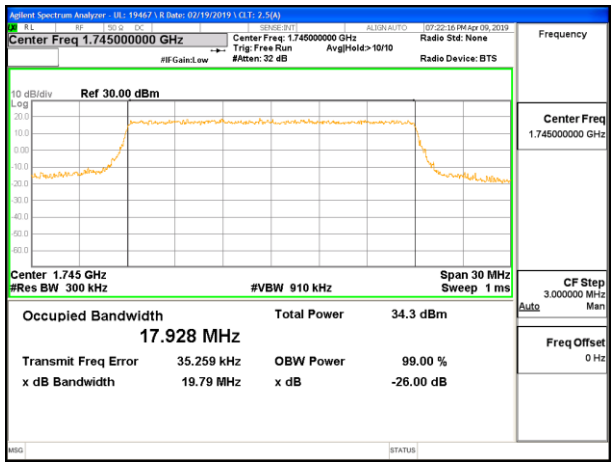
LTE B66 15MHz QPSK Middle Channel RB75-0



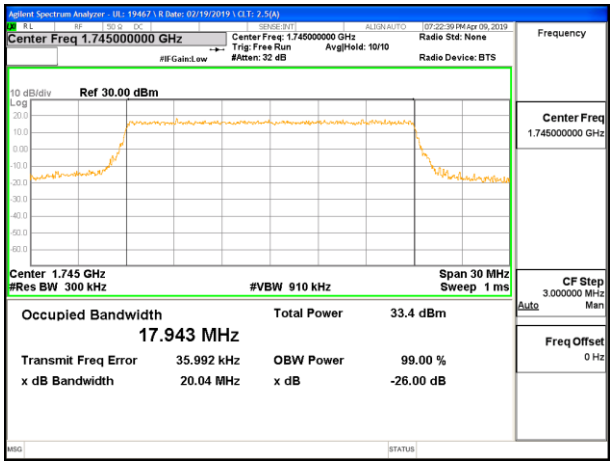
LTE B66 15MHz 16QAM Middle Channel RB75-0



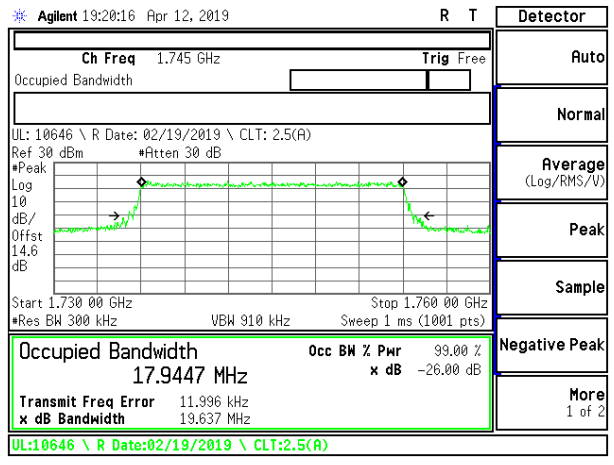
LTE B66 15MHz 64QAM Middle Channel RB75-0



LTE B66 20MHz QPSK Middle Channel RB100-0

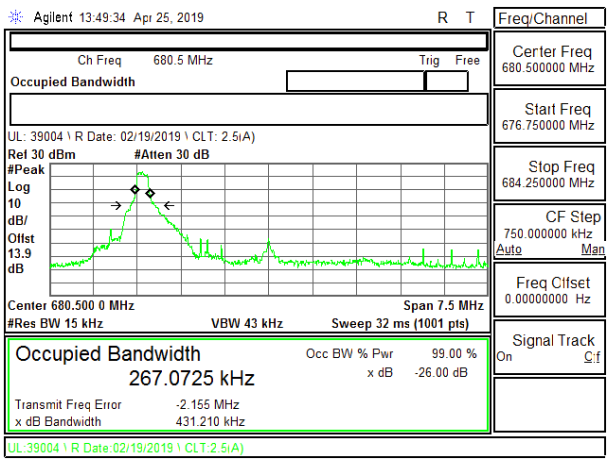


LTE B66 20MHz 16QAM Middle Channel RB100-0

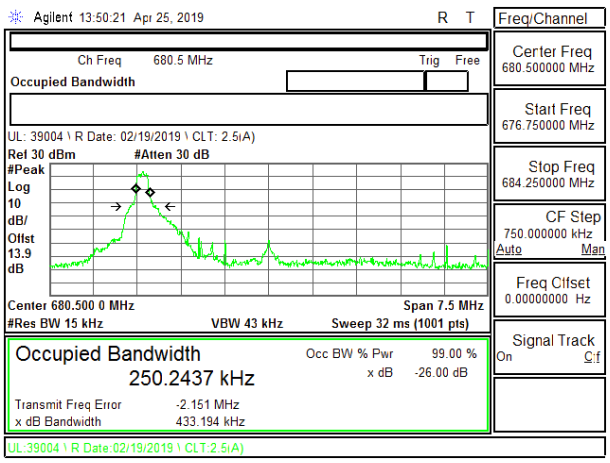


LTE B66 20MHz 64QAM Middle Channel RB100-0

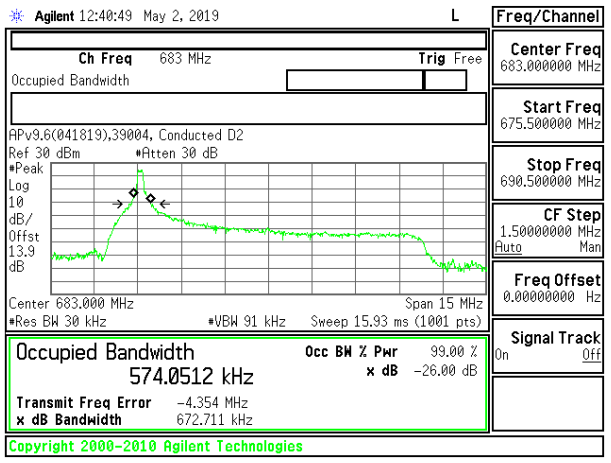
8.1.14. LTE BAND 71



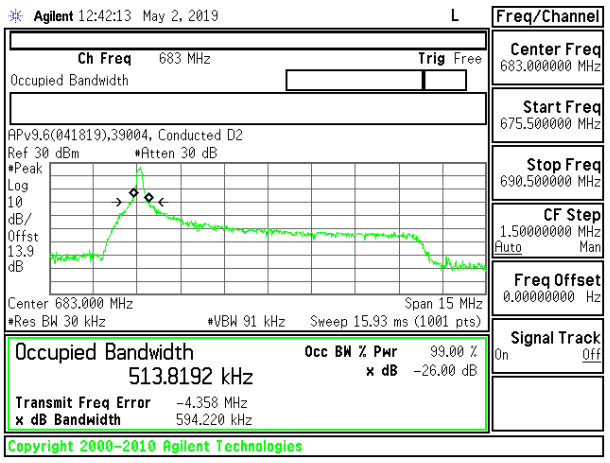
LTE B71 5MHz QPSK Middle Channel RB1-0



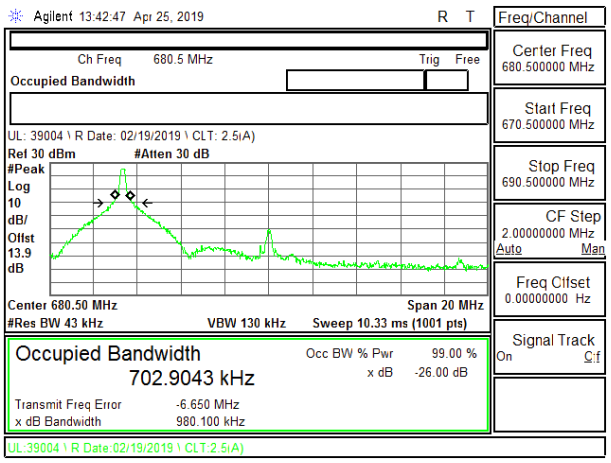
LTE B71 5MHz 16QAM Middle Channel RB1-0



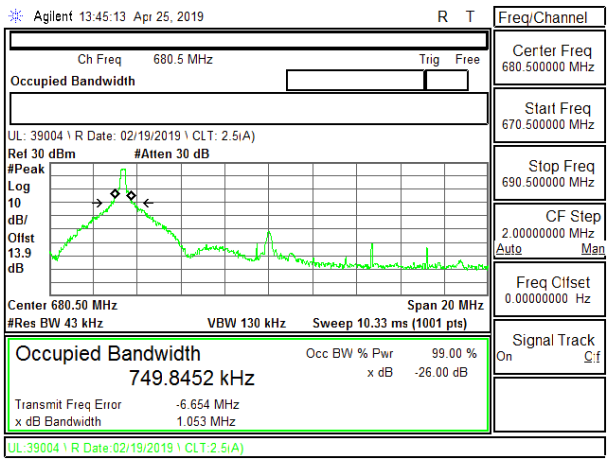
LTE B71 10MHz QPSK Middle Channel RB1-0



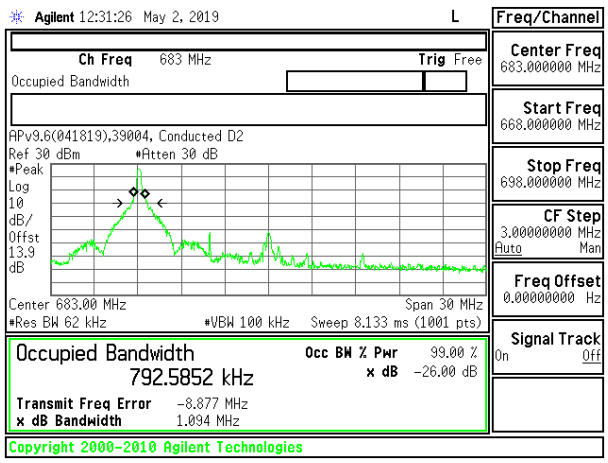
LTE B71 10MHz 16QAM Middle Channel RB1-0



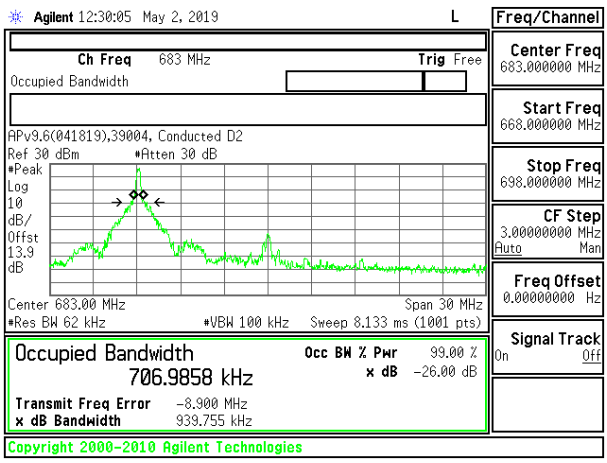
LTE B71 15MHz QPSK Middle Channel RB1-0



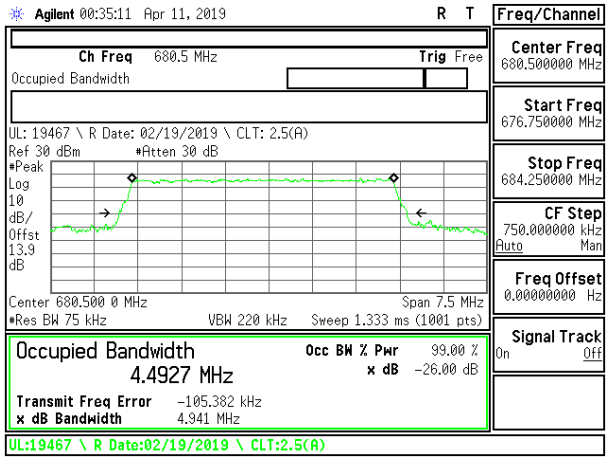
LTE B71 15MHz 16QAM Middle Channel RB1-0



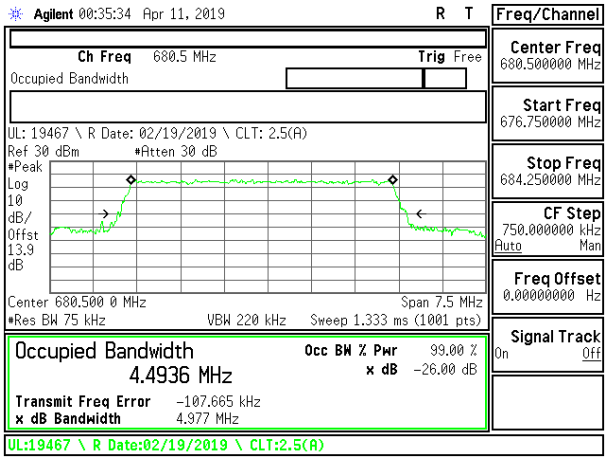
LTE B71 20MHz QPSK Middle Channel RB1-0



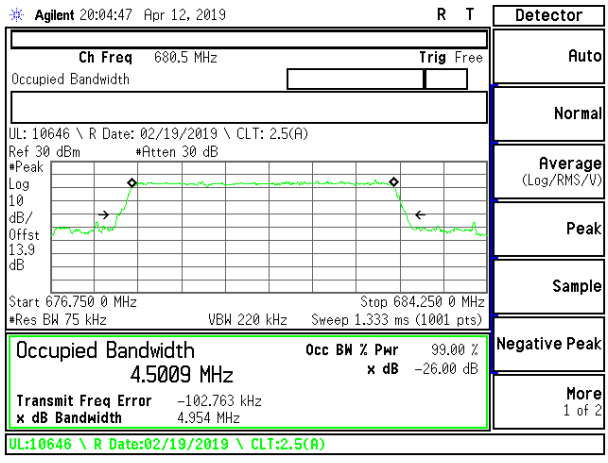
LTE B71 20MHz 16QAM Middle Channel RB1-0



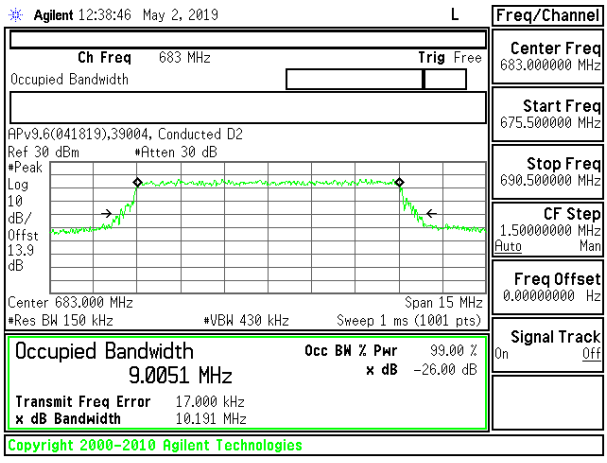
LTE B71 5MHz QPSK Middle Channel RB25-0



LTE B71 5MHz 16QAM Middle Channel RB25-0



LTE B71 5MHz 64QAM Middle Channel RB25-0



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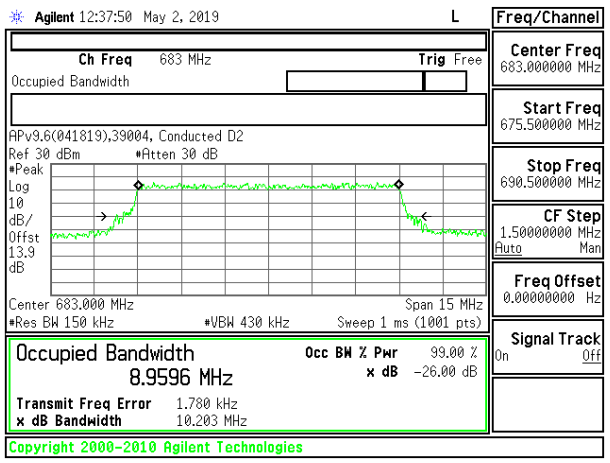

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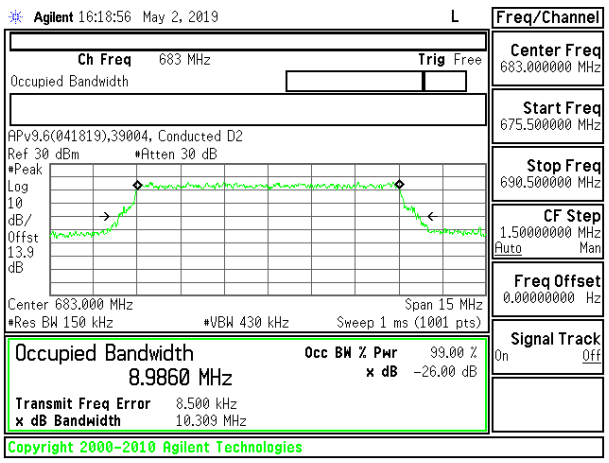

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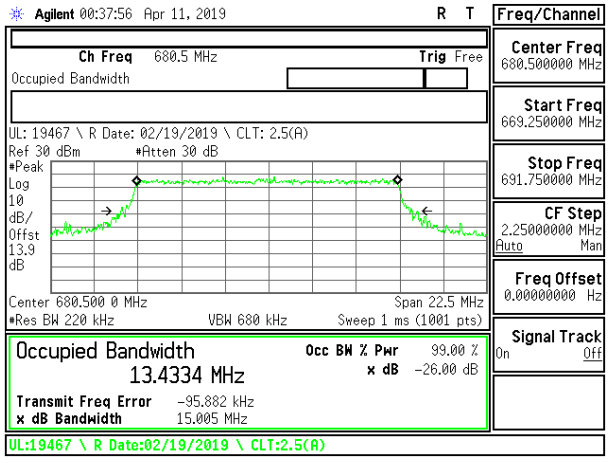
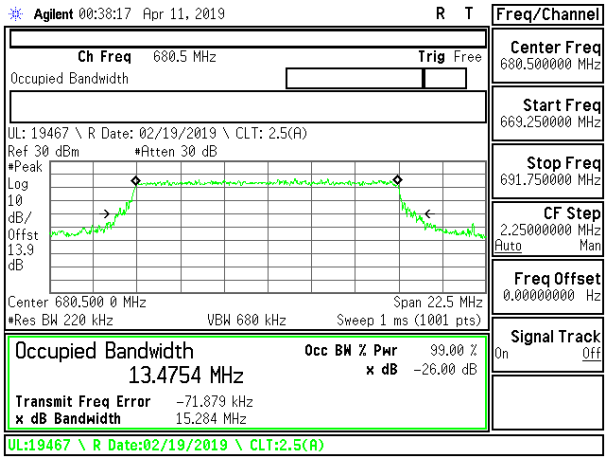


LTE B71 15MHz QPSK Middle Channel RB75-0



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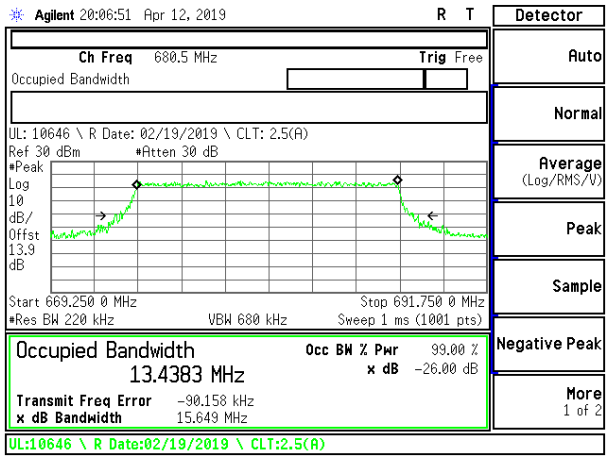
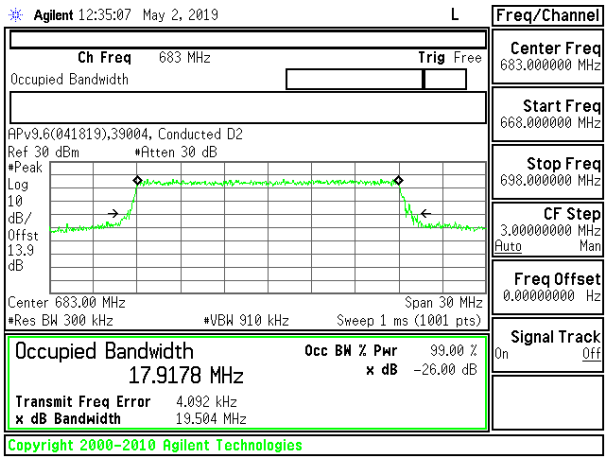
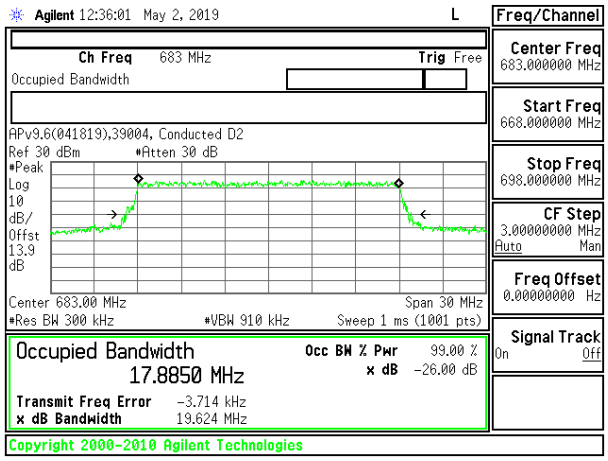


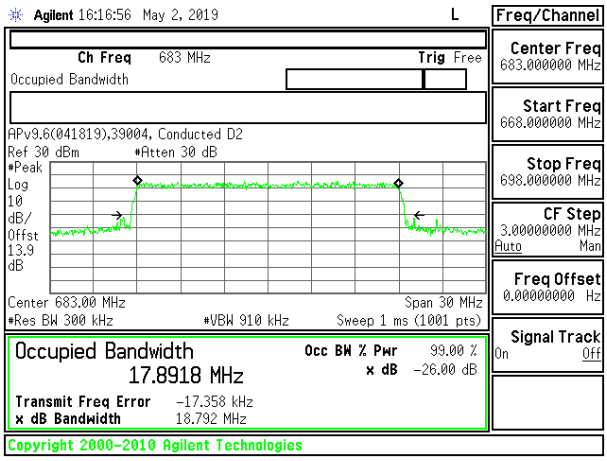
LTE B71 15MHz 64QAM Middle Channel RB75-0



LTE B71 20MHz QPSK Middle Channel RB100-0



LTE B71 20MHz 16QAM Middle Channel RB100-0



LTE B71 20MHz 64QAM Middle Channel RB100-0

8.2. BAND EDGE AND EMISSION MASK

RULE PART(S)

FCC: §2.1051, §22.917, §24.238, §27.53, §90.691, §96.41, and §90.543

LIMITS

§22.917, §24.238, §27.53(h)
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

§90.691 Emission mask requirements for EA-based systems.
(a) Out-of-band emission requirement shall apply only to the “outer” channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows:

(1) For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116 Log10(f/6.1) decibels or 50 + 10 Log10(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.

(2) For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 43 + 10Log10(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

§90.543 Emission Limitations. (Band 14)
(e) For operations in the 758-768 MHz and the 788-798 MHz bands, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

(2) On all frequencies between 769-775 MHz and 799-805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations.

(3) On any frequency between 775-788 MHz, above 805 MHz, and below 758 MHz, by at least 43 + 10 log (P) dB.

(4) Compliance with the provisions of paragraphs (e)(1) and (2) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

(5) Compliance with the provisions of paragraph (e)(3) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of 30 kHz may be employed.

(f) For operations in the 758-775 MHz and 788-805 MHz bands, all emissions including harmonics in the band 1559-1610 MHz shall be limited to −70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and −80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

§27.53 (Band 30)
(a) For operations in the 2305-2320 MHz band and the 2345-2360 MHz band, the power of any emission outside a

licensee's frequency band(s) of operation shall be attenuated below the transmitter power P (with averaging performed only during periods of transmission) within the licensed band(s) of operation, in watts, by the following amounts:

(4) For mobile and portable stations operating in the 2305-2315 MHz and 2350-2360 MHz bands:

(i) By a factor of not less than: 43 + 10 log (P) dB on all frequencies between 2305 and 2320 MHz and on all frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation, not less than 55 + 10 log (P) dB on all frequencies between 2320 and 2324 MHz and on all frequencies between 2341 and 2345 MHz, not less than 61 + 10 log (P) dB on all frequencies between 2324 and 2328 MHz and on all frequencies between 2337 and 2341 MHz, and not less than 67 + 10 log (P) dB on all frequencies between 2328 and 2337 MHz;

(ii) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2300 and 2305 MHz, 55 + 10 log (P) dB on all frequencies between 2296 and 2300 MHz, 61 + 10 log (P) dB on all frequencies between 2292 and 2296 MHz, 67 + 10 log (P) dB on all frequencies between 2288 and 2292 MHz, and 70 + 10 log (P) dB below 2288 MHz;

(iii) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2360 and 2365 MHz, and not less than 70 + 10 log (P) dB above 2365 MHz.

§27.53 (Band 13)
(c)For operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

(2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;

(4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations;

(5) Compliance with the provisions of paragraphs (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;

(6) Compliance with the provisions of paragraphs (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

(f) Emissions in the band 1559-1610 MHz shall be limited to −70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals. (-70 dBW/MHz = -40dBm/MHz).

§27.53 (Band 12, 17, 71)
(g) For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

§27.53 (Band 7, 41)
(m)(4) 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.

FCC: §96.41
(e) 3.5 GHz Emissions and Interference Limits—(1) General protection levels. Except as otherwise specified in paragraph (e)(2) of this section, for channel and frequency assignments made by the SAS to CBSDs, the conducted power of any emission outside the fundamental emission (whether in or outside of the authorized band) shall not exceed −13 dBm/MHz within 0-10 megahertz above the upper SAS-assigned channel edge and within 0-10 megahertz below the lower SAS-assigned channel edge. At all frequencies greater than 10 megahertz above the upper SAS assigned channel edge and less than 10 MHz below the lower SAS assigned channel edge, the conducted power of any emission shall not exceed −25 dBm/MHz. The upper and lower SAS assigned channel edges are the upper and lower limits of any channel assigned to a CBSD by an SAS, or in the case of multiple contiguous channels, the upper and lower limits of the combined contiguous channels.

(2) Additional protection levels. Notwithstanding paragraph (d)(1) of this section, the conducted power of any emissions below 3530 MHz or above 3720 MHz shall not exceed −40dBm/MHz.

TEST PROCEDURE

The transmitter output was connected to a CMW500Test 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.

For each band edge measurement:
1. Set the spectrum analyzer span to include the block edge frequency.
2. Set a marker to point the corresponding band edge frequency in each test case.
3. Set display line at -13 dBm
4. Set resolution bandwidth to at least 1% of emission bandwidth.

TEST PROCEDURE (FCC LTE BAND 14)

(b)ACP measurement procedure. The following are the procedures for making the transmitter ACP measurements. For all measurements modulate the transmitter as it would be modulated in normal operating conditions. For time division multiple access (TDMA) systems, the measurements are to be made under TDMA operation only during time slots when the transmitter is active. All measurements are made at the transmitter's output port. If a transmitter has an integral antenna, a suitable power coupling device shall be used to couple the RF signal to the measurement instrument. The coupling device shall substantially maintain the proper transmitter load impedance. The ACP measurements may be made with a spectrum analyzer capable of making direct ACP measurements. “Measurement bandwidth”, as used for non-swept measurements, implies an instrument that measures the power in many narrow bandwidths equal to the nominal resolution bandwidth and integrates these powers to determine the total power in the specified measurement bandwidth.

(1)Setting reference level. Set transmitter to maximum output power. Using a spectrum analyzer capable of ACP measurements, set the measurement bandwidth to the channel size. For example, for a 6.25 kHz transmitter set the measurement bandwidth to 6.25 kHz. Set the frequency offset of the measurement bandwidth to zero and adjust the center frequency of the instrument to the assigned center frequency to measure the average power level of the transmitter. Record this power level in dBm as the “reference power level.”

(2)Non-swept power measurement. Using a spectrum analyzer capable of ACP measurements, set the mesurement bandwidth and frequency offset from the assigned center frequency as shown in the tables in §90.543 (a) above. Any value of resolution bandwidth may be used as long as it does not exceed 2 percent of the specified measurement bandwidth. Measure the power level in dBm. These measurements should be made at maximum power. Calculate ACP by substracting the reference power level measured in (b)(1) from the measurements made in this step. The absolute

value of the calculated ACP must be greater than or equal to the absolute value of the ACP given in the table for each condition above.

(3)Swept power measurement. Set a spectrum analyzer to 30 kHz resolution bandwidth, 1 MHz video bandwidth and average, sample, or RMS detection. Set the reference level of the spectrum analyzer to the RMS value of the transmitter power. Sweep above and below the carrier frequency to the limits defined in the tables. Calculate ACP by substracting the reference power level measured in (b)(1) from the measurements made in this step. The absolute value of the calculated ACP must be greater than or equal to the absolute value of the ACP given in the table for each condition above.

TEST PROCEDURE (LTE BAND 7, 41)

(m)(6) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed; for mobile digital stations, in the 1 megahertz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least two percent may be employed, except when the 1 megahertz band is 2495-2496 MHz, in which case a resolution bandwidth of at least one percent may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 megahertz or 1 percent of emission bandwidth, as specified; or 1 megahertz or 2 percent for mobile digital stations, except in the band 2495-2496 MHz). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. With respect to television operations, measurements must be made of the separate visual and aural operating powers at sufficiently frequent intervals to ensure compliance with the rules.

TEST PROCEDURE (LTE BAND 30)

(5) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the channel blocks at 2305, 2310, 2315, 2320, 2345, 2350, 2355, and 2360 MHz, a resolution bandwidth of at least 1 percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (*i.e.,* 1 MHz). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

TEST PROCEDURE (LTE BAND 48)

(i) Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's authorized frequency channel, a resolution bandwidth of no less than one percent of the fundamental emission bandwidth may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full reference bandwidth (i.e., 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

(ii) When measuring unwanted emissions to demonstrate compliance with the limits, the CBSD and End User Device nominal carrier frequency/channel shall be adjusted as close to the licensee's authorized frequency block edges, both upper and lower, as the design permits.

(iii) Compliance with emission limits shall be demonstrated using either average (RMS)-detected or peak-detected power measurement techniques.

Notes:

Band 12
1.4MHz BW: For emissions within 100kHz of the band edge the value measured in 13kHz, after correction of 10log(13/30), 3.6dB, to account for reference bandwidth of 30kHz and measurement bandwidth of 13 kHz, are below -13dBm. For emissions more than 100kHz from the band edge the value measured in 13kHz, after correction of 10log(13/100), 8.9dB, to account for reference bandwidth of 100kHz and measurement bandwidth of 30 kHz, are below -13dBm.

3MHz BW: For emissions more than 100kHz from the band edge the value measured in 30kHz, after correction of 10log(30/100), 5.2dB, to account for reference bandwidth of 100kHz and measurement bandwidth of 30 kHz, are below -13dBm.

5MHz BW: For emissions more than 100kHz from the band edge the value measured in 51kHz, after correction of 10log(51/100), 2.9dB, to account for reference bandwidth of 100kHz and measurement bandwidth of 51 kHz, are below -13dBm.

Band 17
For emissions more than 100kHz from the band edge the value measured in 51kHz, after correction of 10log(51/100), 2.9dB, to account for reference bandwidth of 100kHz and measurement bandwidth of 51 kHz, are below -13dBm.

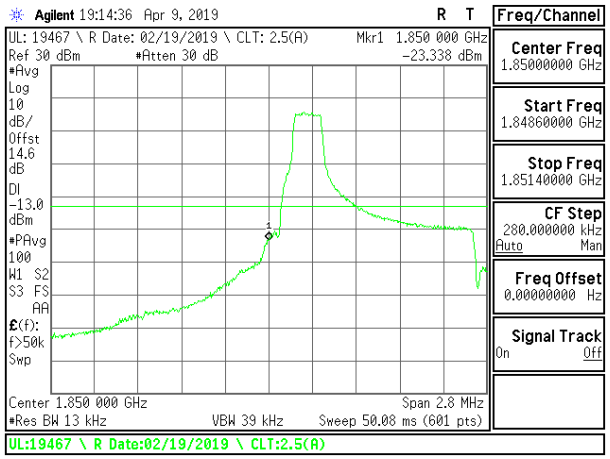
Band 48
The worst case ACLR is determined through the following calculations:
The Channel Power is noted as $P_{fundamental}$.
The Bandwidth of the adjacent channel is noted as BW_{adj}. It is restricted to multiples of 10MHz, and it is the least bandwidth needed to be equal or greater than the signal bandwidth.
The highest reference bandwidth in the Adjacent Channel is noted as $P_{refference}$.
The Adjacent Channel Power, P_{adj}, is then extrapolated with the equation: $P_{adj} = P_{refference} + 10Log(BW_{adj})$.
The ACLR is then: $ACLR = P_{adj} - P_{fundamental}$.
This calculation was run for every plot, and the one with the highest (worst case) ACLR is displayed for each bandwidth at the end of section 8.2.12 of this report.

MODES TESTED

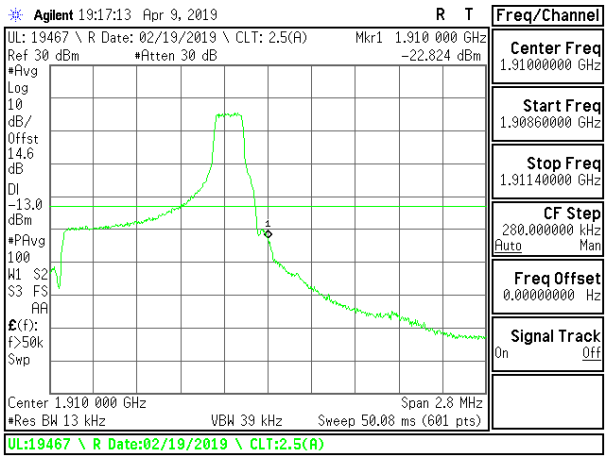
- LTE Band 2
- LTE Band 5
- LTE Band 7
- LTE Band 12
- LTE Band 13
- LTE Band 14
- LTE Band 17
- LTE Band 25
- LTE Band 26
- LTE Band 30
- LTE Band 41
- LTE Band 48
- LTE Band 66
- LTE Band 71

RESULTS

8.2.1. LTE BAND 2 BANDEDGE



LTE B2 1.4MHz QPSK Low Channel RB1-0



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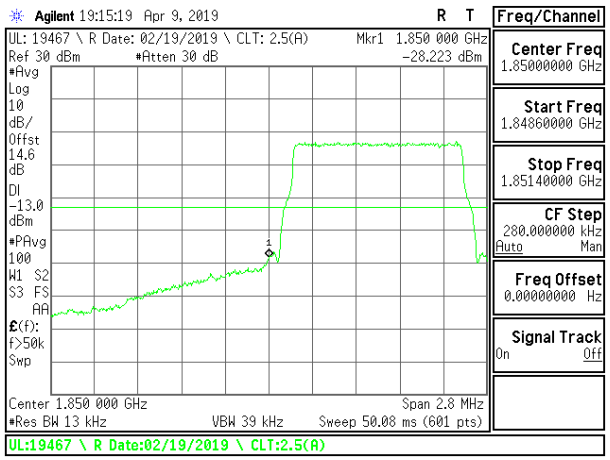

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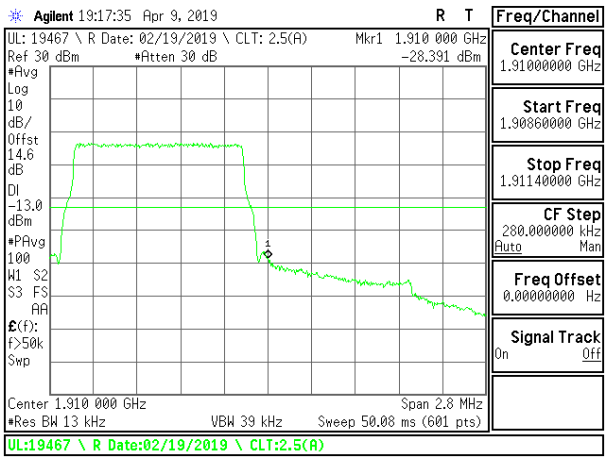

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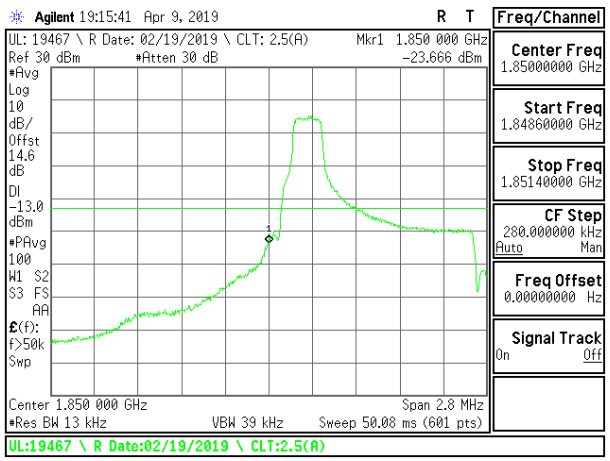
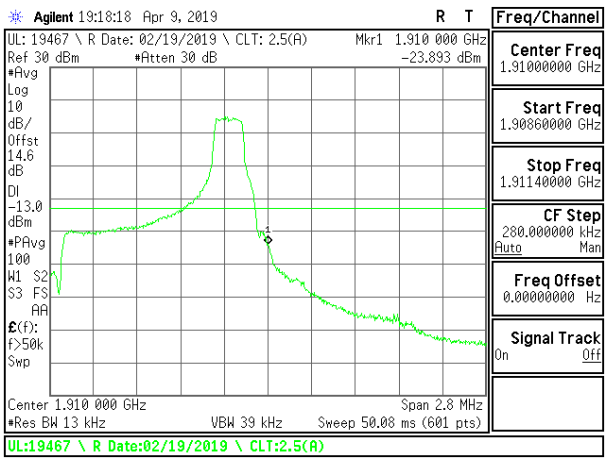


LTE B2 1.4MHz 16QAM Low Channel RB1-0



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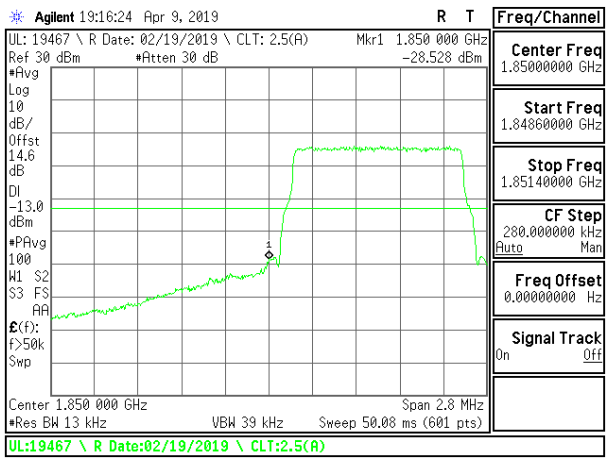

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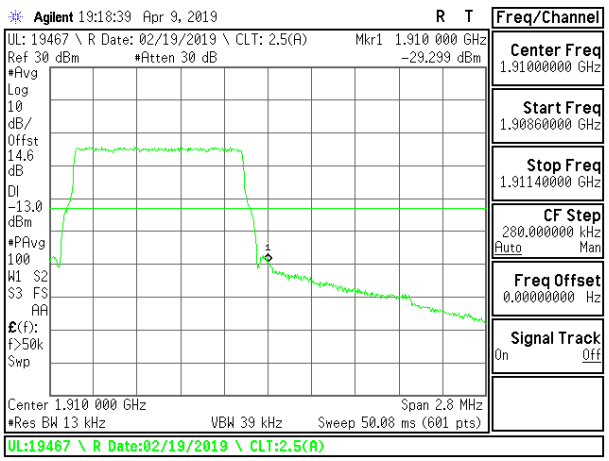

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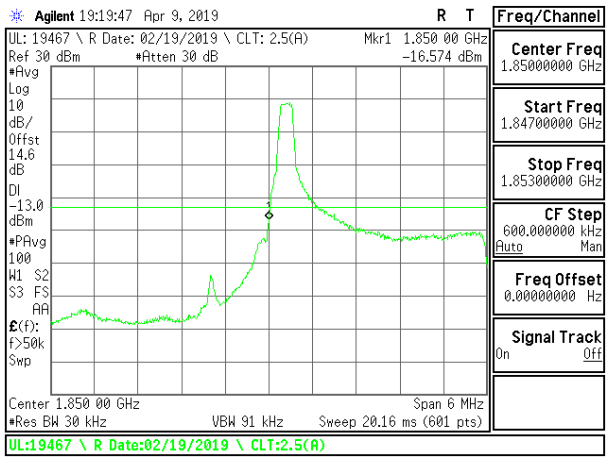
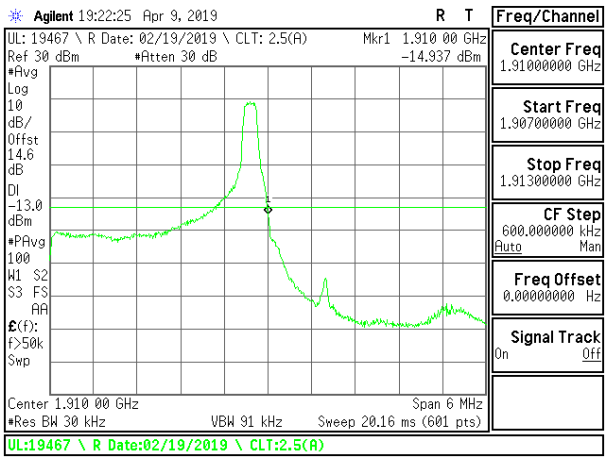
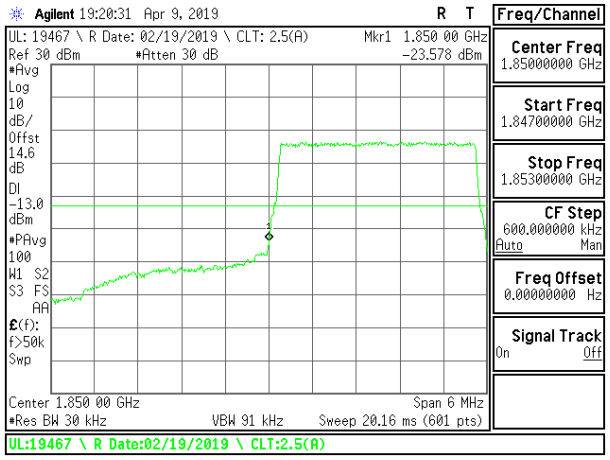


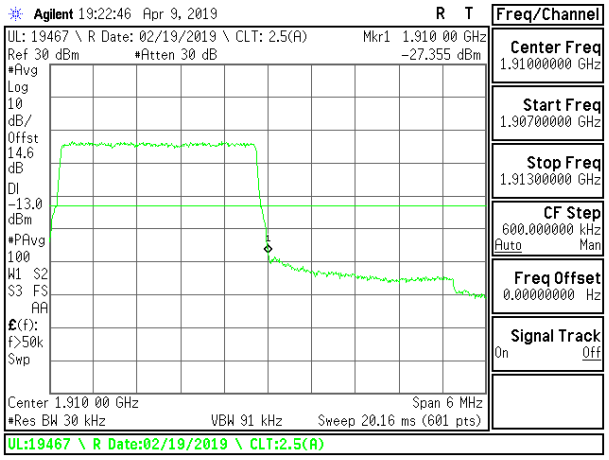
LTE B2 3MHz QPSK Low Channel RB1-0



LTE B2 3MHz QPSK High Channel RB1-14



LTE B2 3MHz QPSK Low Channel RB15-0



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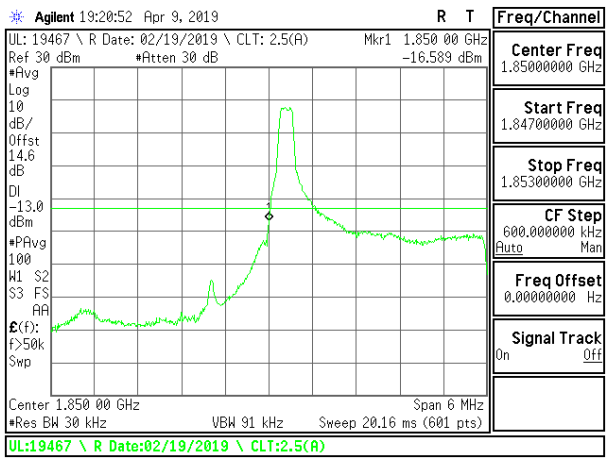
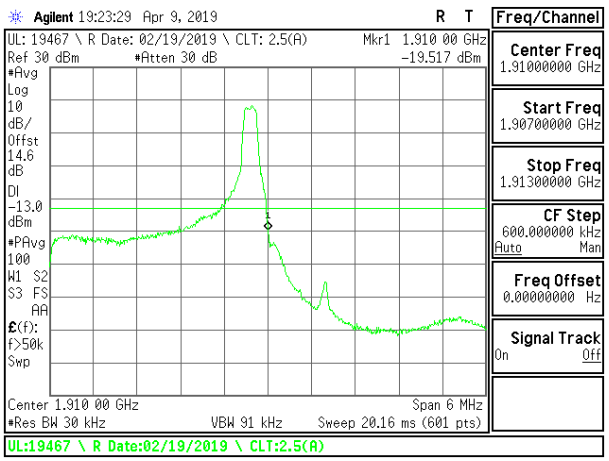


LTE B2 3MHz 16QAM Low Channel RB1-0



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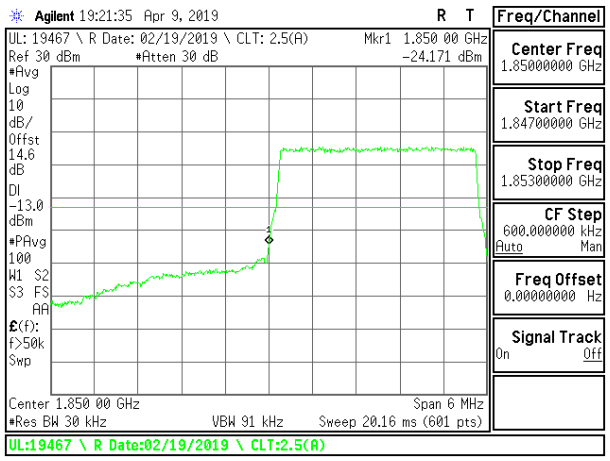
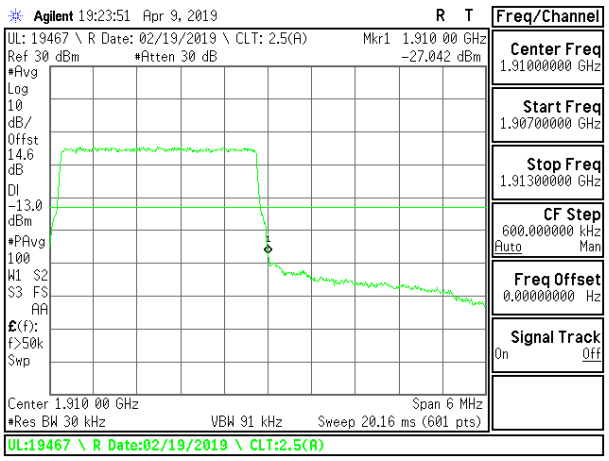
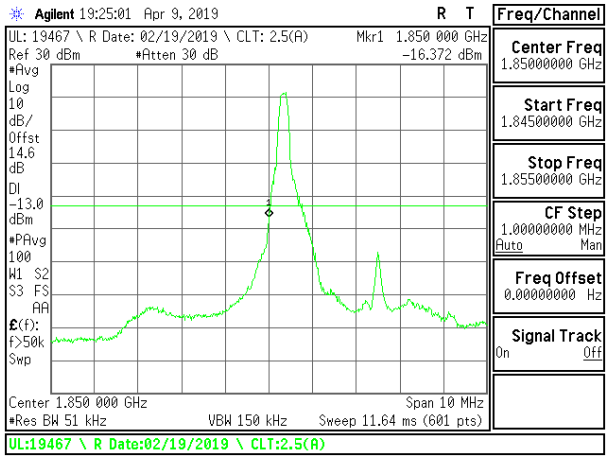


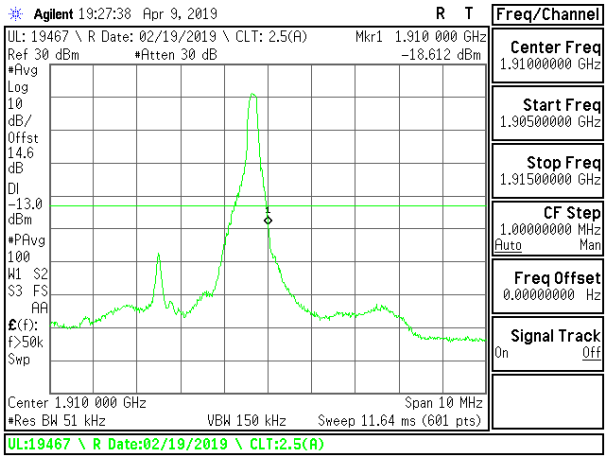
LTE B2 3MHz 16QAM Low Channel RB15-0



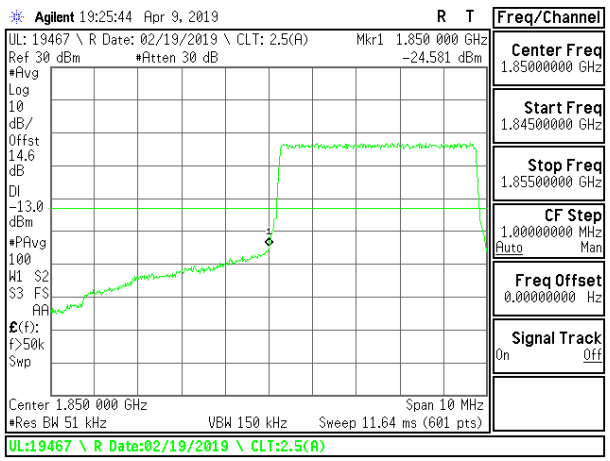
LTE B2 3MHz 16QAM High Channel RB15-0



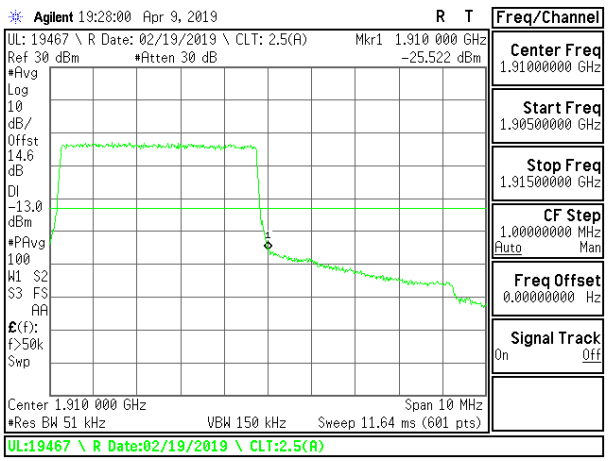
LTE B2 5MHz QPSK Low Channel RB1-0



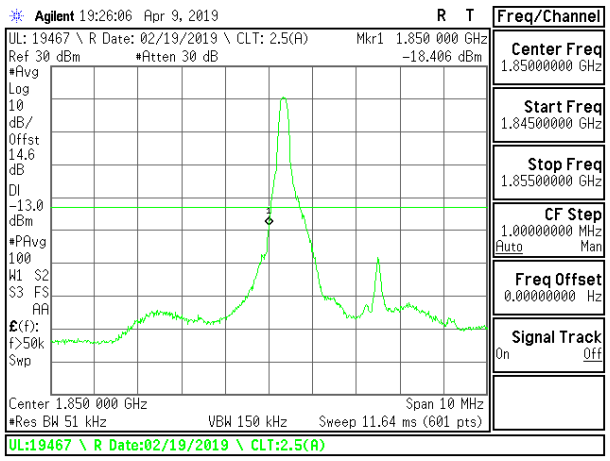
LTE B2 5MHz QPSK High Channel RB1-24



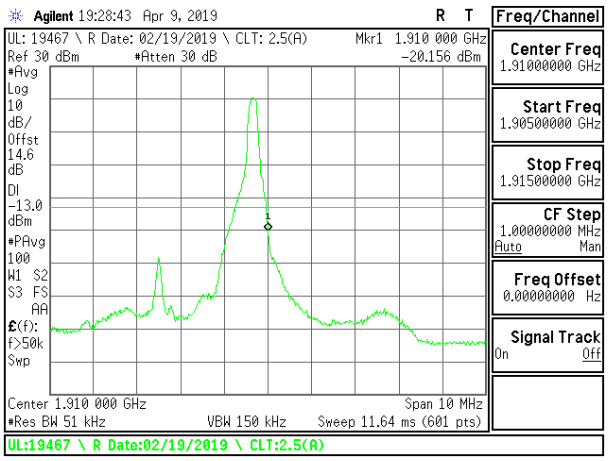
LTE B2 5MHz QPSK Low Channel RB25-0



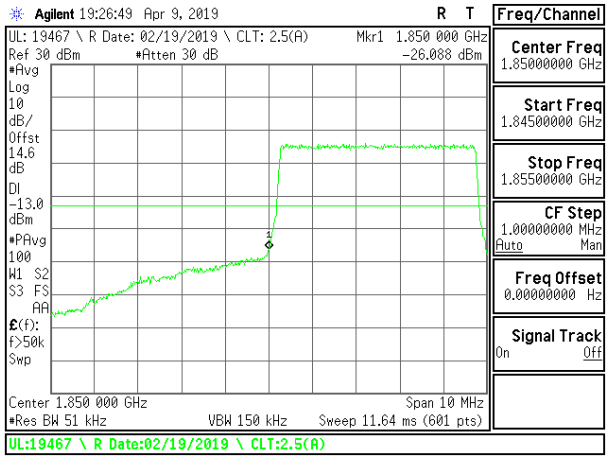
LTE B2 5MHz QPSK High Channel RB25-0



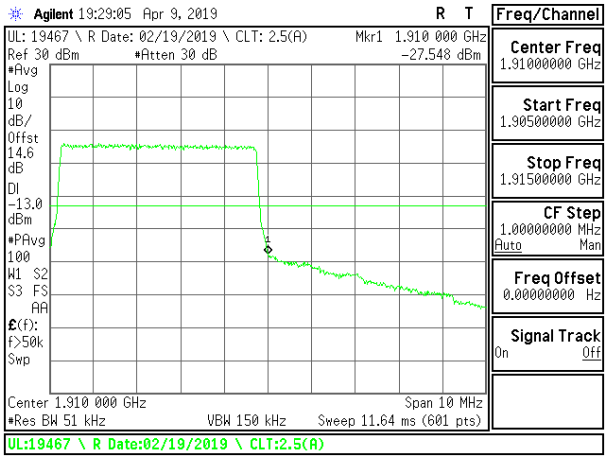
LTE B2 5MHz 16QAM Low Channel RB1-0



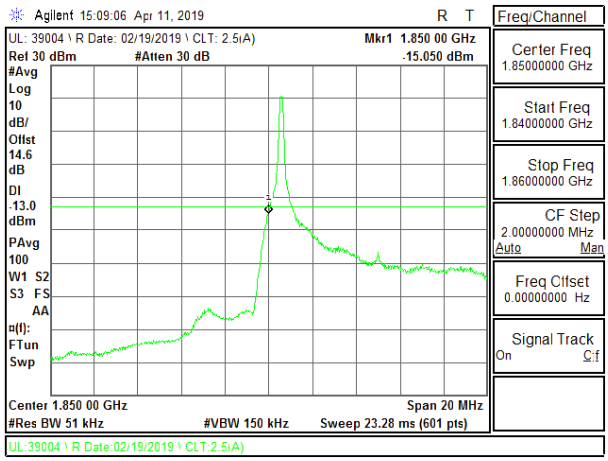
LTE B2 5MHz 16QAM High Channel RB1-24



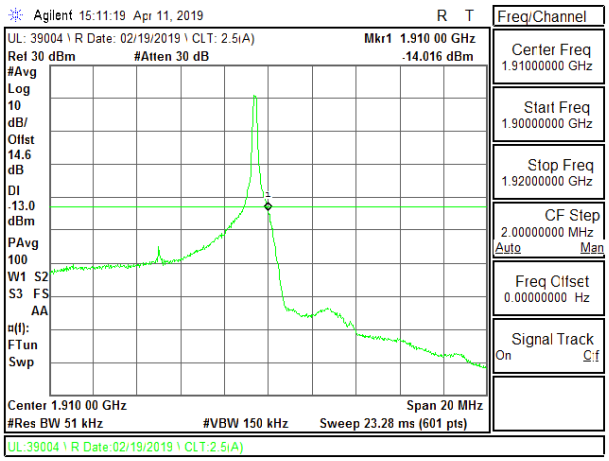
LTE B2 5MHz 16QAM Low Channel RB25-0



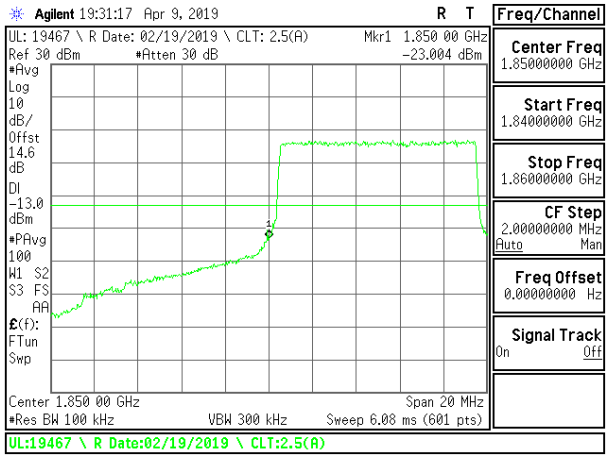
LTE B2 5MHz 16QAM High Channel RB25-0



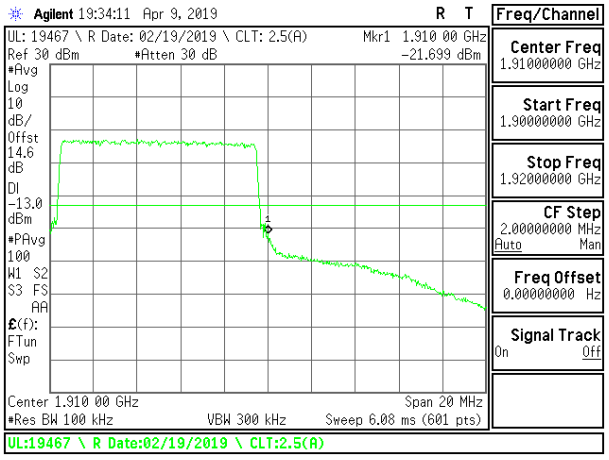
LTE B2 10MHz QPSK Low Channel RB1-0



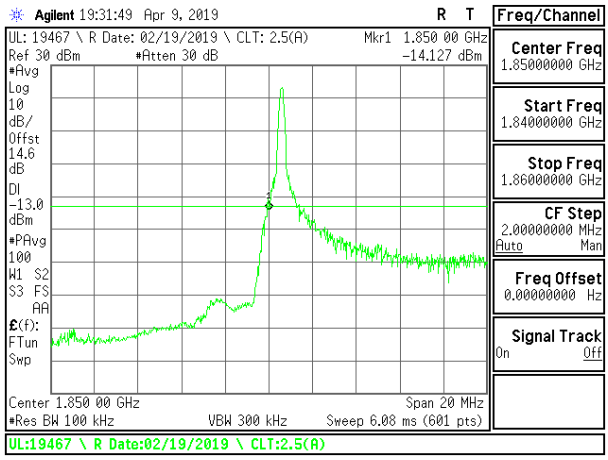
LTE B2 10MHz QPSK High Channel RB1-49



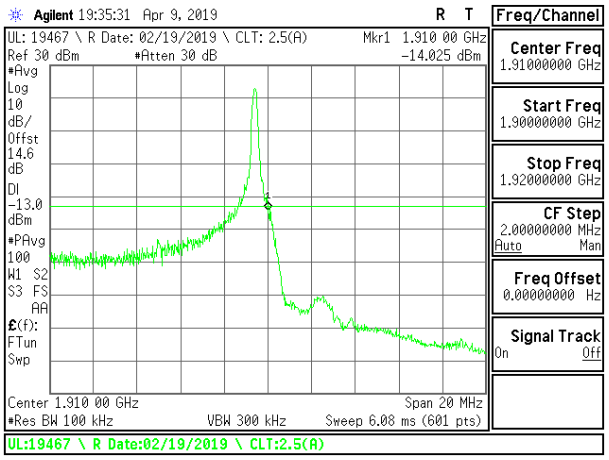
LTE B2 10MHz QPSK Low Channel RB50-0



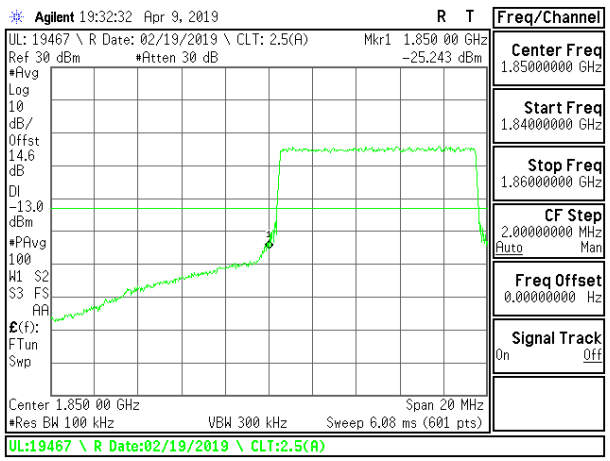
LTE B2 10MHz QPSK High Channel RB50-0



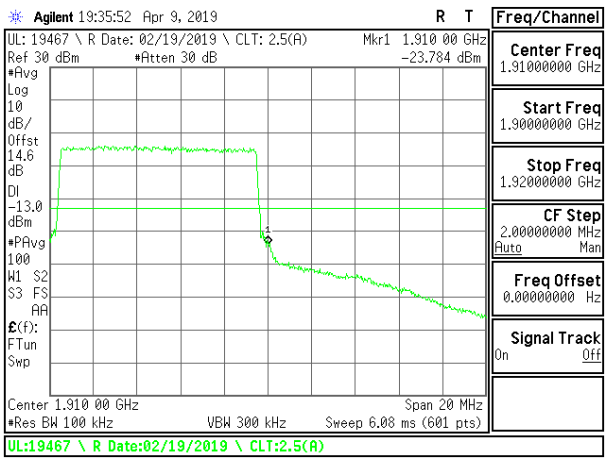
LTE B2 10MHz 16QAM Low Channel RB1-0



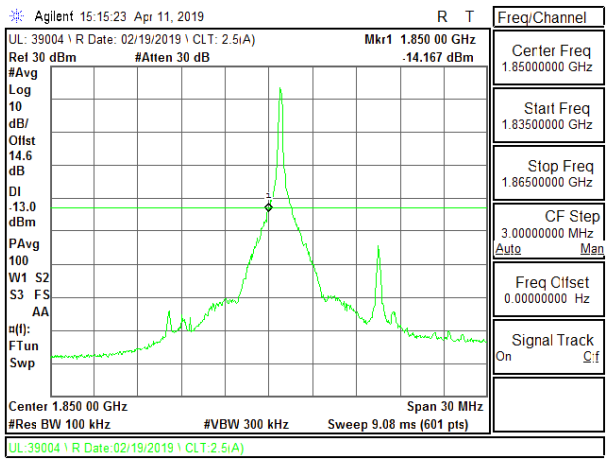
LTE B2 10MHz 16QAM High Channel RB1-49



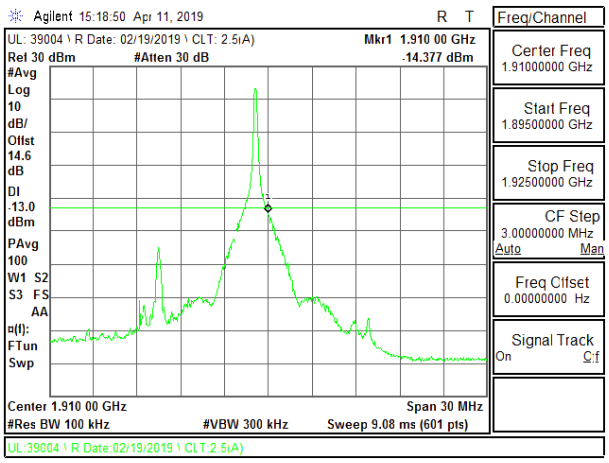
LTE B2 10MHz 16QAM Low Channel RB50-0



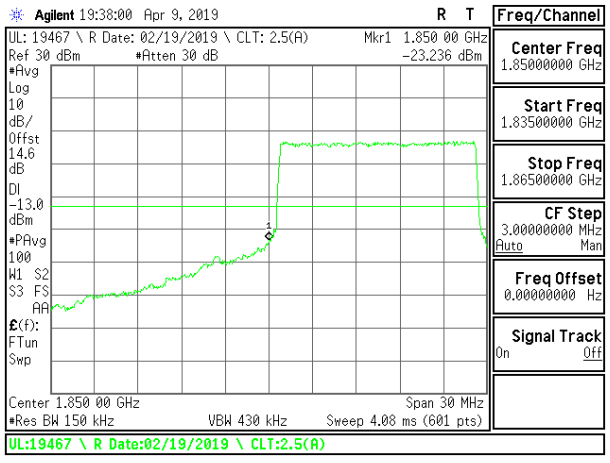
LTE B2 10MHz 16QAM High Channel RB50-0



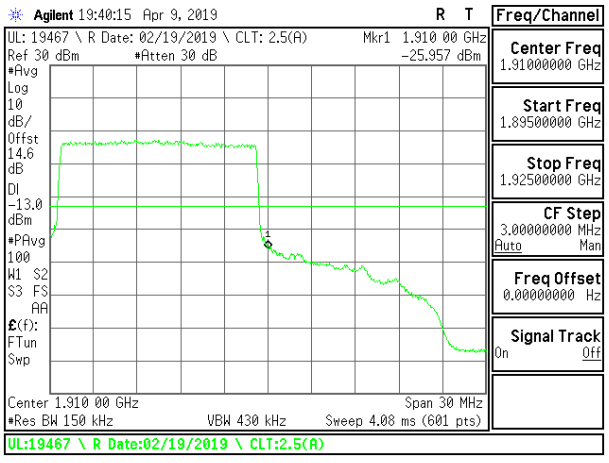
LTE B2 15MHz QPSK Low Channel RB1-0



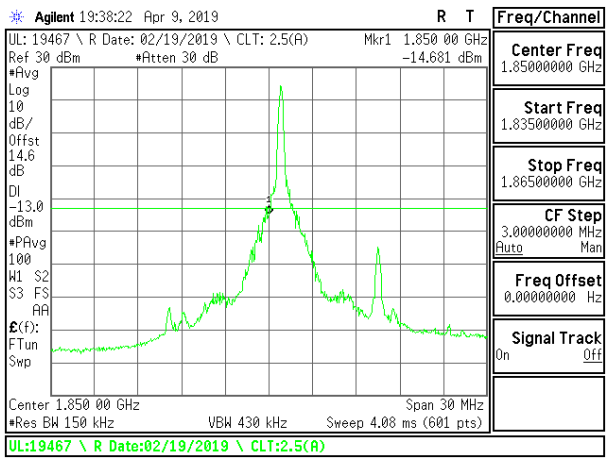
LTE B2 15MHz QPSK High Channel RB1-74



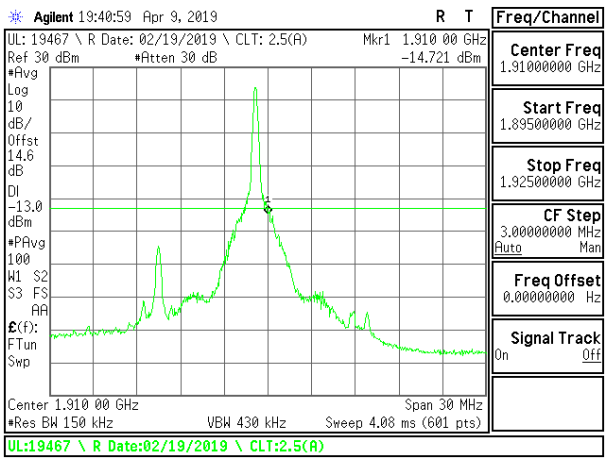
LTE B2 15MHz QPSK Low Channel RB75-0



LTE B2 15MHz QPSK High Channel RB75-0



LTE B2 15MHz 16QAM Low Channel RB1-0



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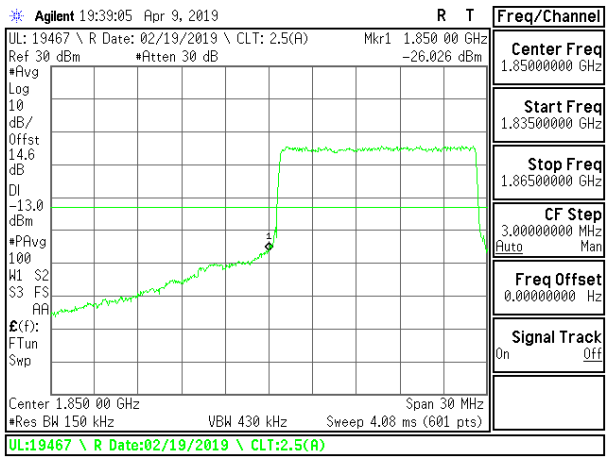
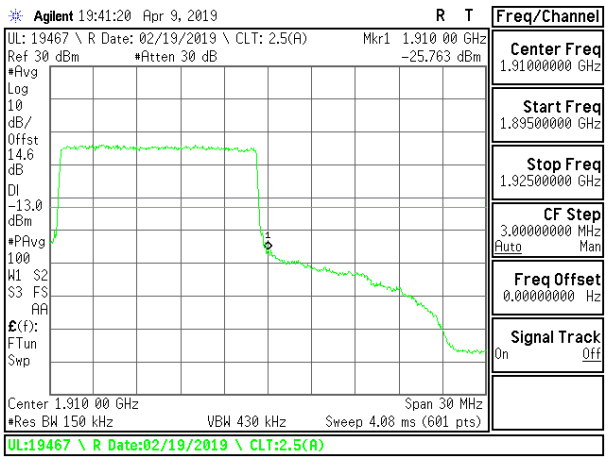
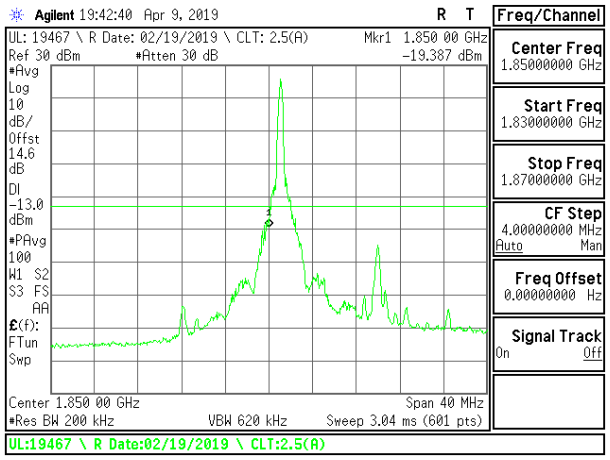


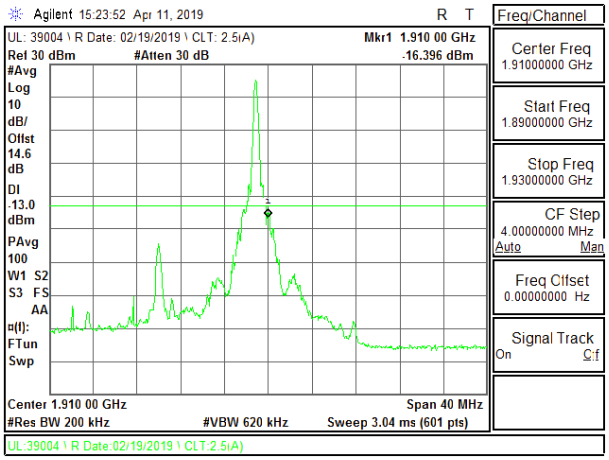
LTE B2 15MHz 16QAM Low Channel RB75-0



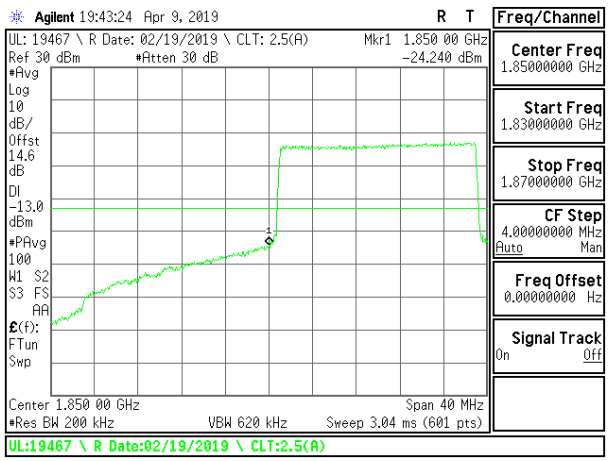
LTE B2 15MHz 16QAM High Channel RB75-0



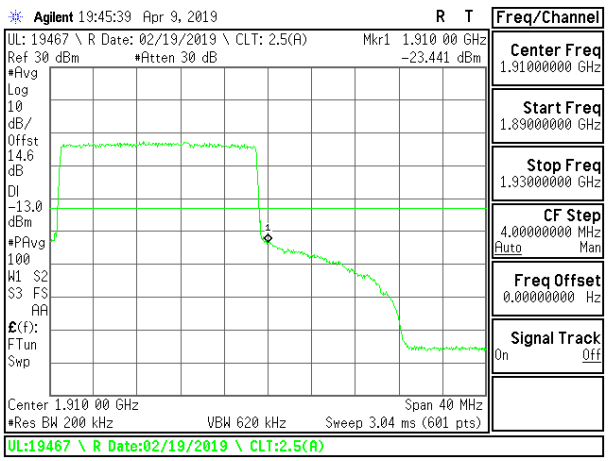
LTE B2 20MHz QPSK Low Channel RB1-0



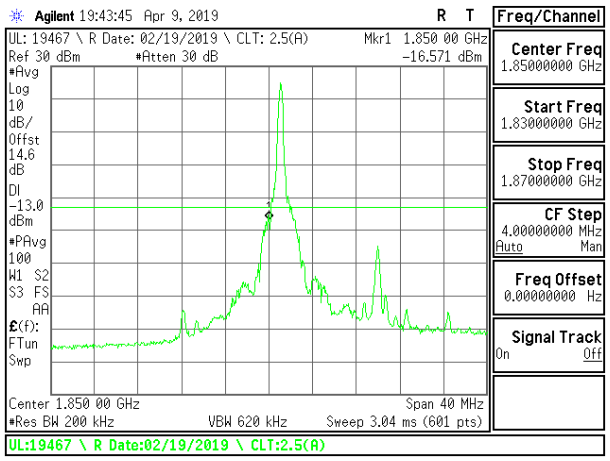
LTE B2 20MHz QPSK High Channel RB1-99



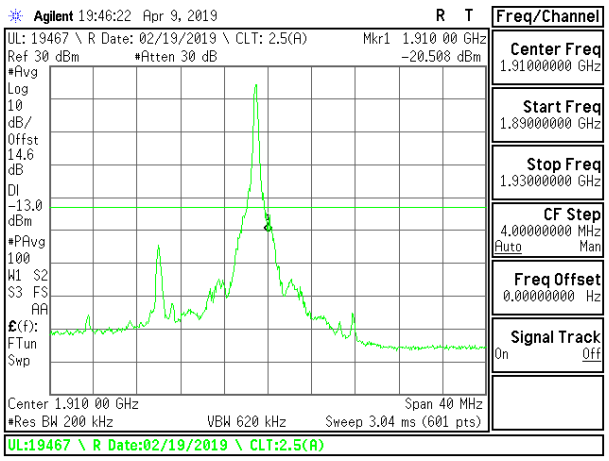
LTE B2 20MHz QPSK Low Channel RB100-0



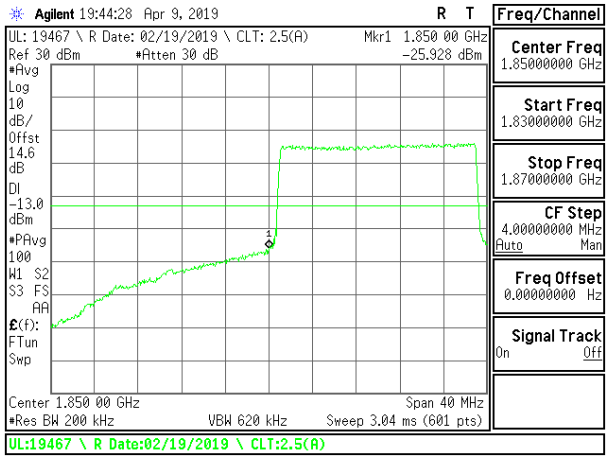
LTE B2 20MHz QPSK High Channel RB100-0



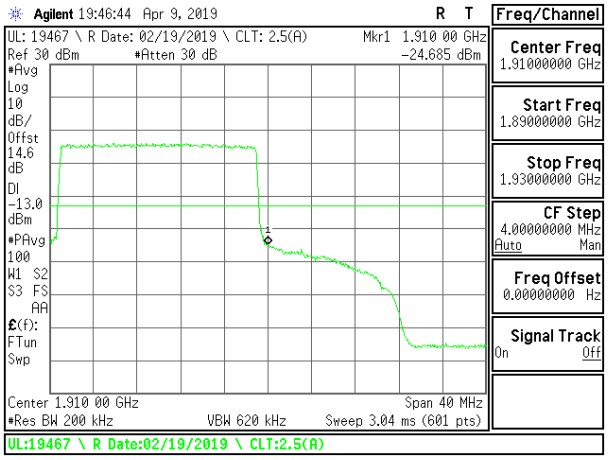
LTE B2 20MHz 16QAM Low Channel RB1-0



LTE B2 20MHz 16QAM High Channel RB1-99

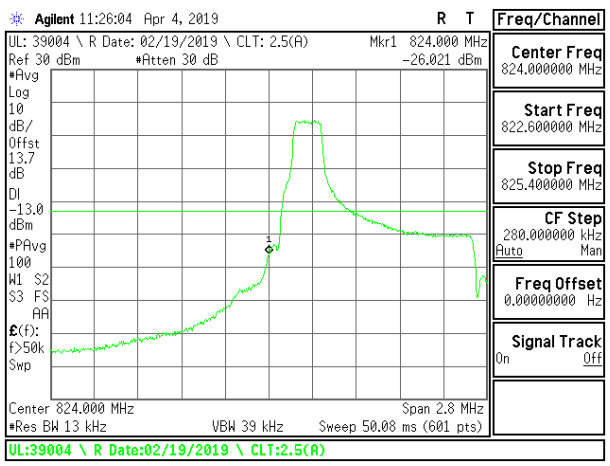


LTE B2 20MHz 16QAM Low Channel RB100-0

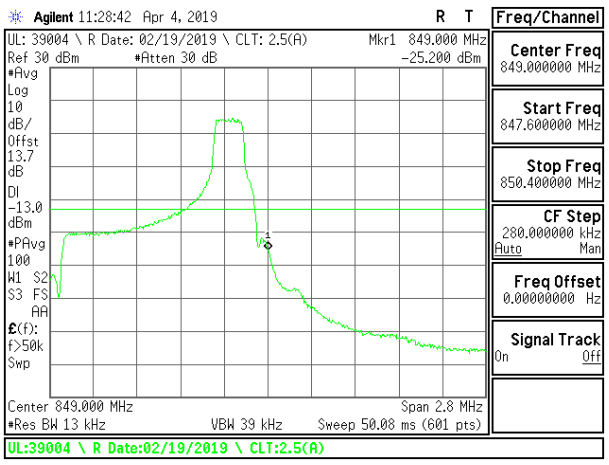


LTE B2 20MHz 16QAM High Channel RB100-0

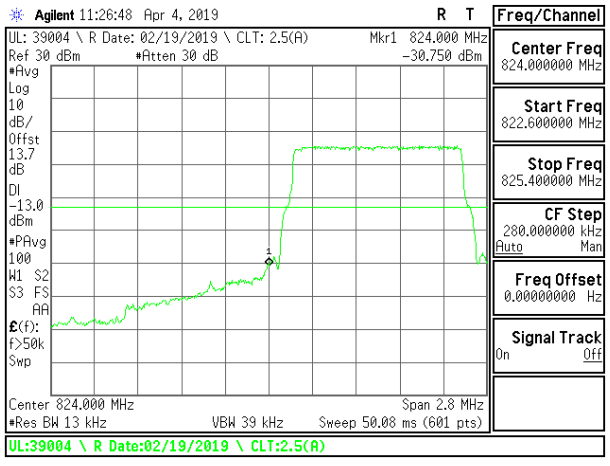
8.2.2. LTE BAND 5 BANDEDGE



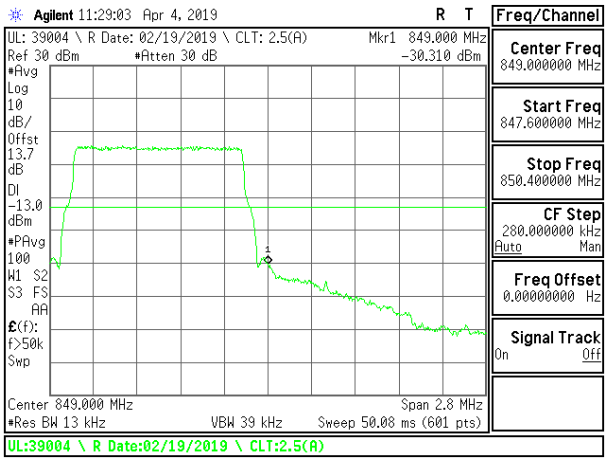
LTE B5 1.4MHz QPSK Low Channel RB1-0



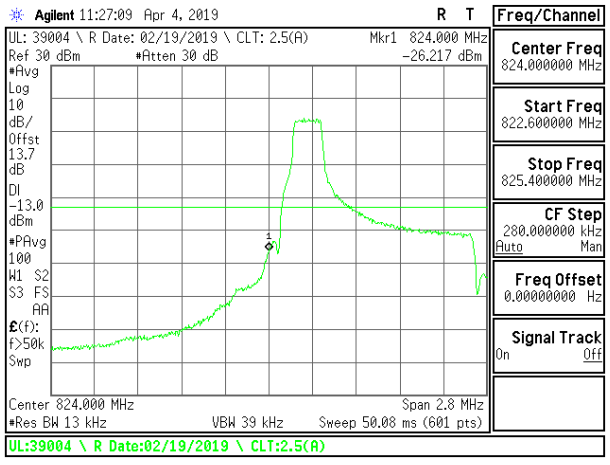
LTE B5 1.4MHz QPSK High Channel RB1-5



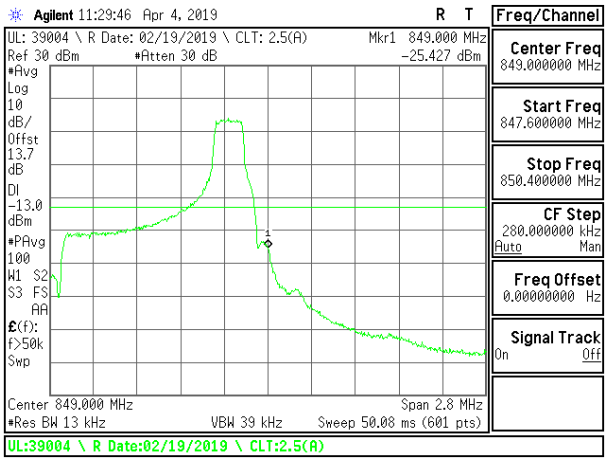
LTE B5 1.4MHz QPSK Low Channel RB6-0



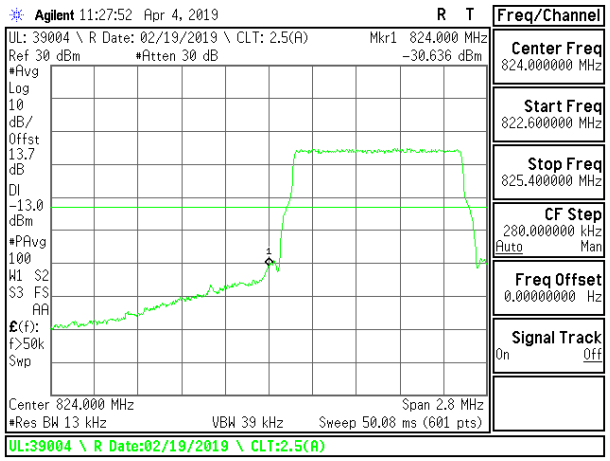
LTE B5 1.4MHz QPSK High Channel RB6-0



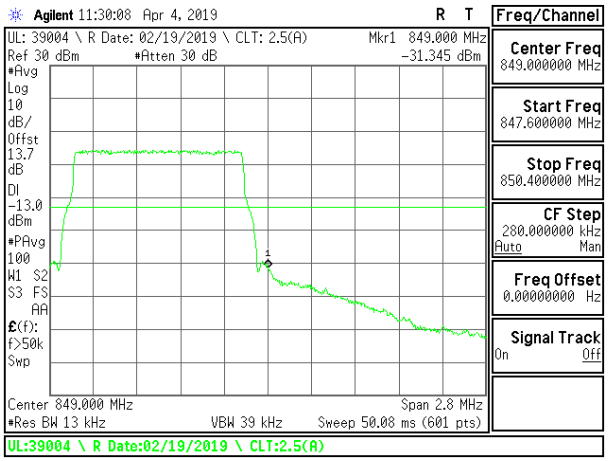
LTE B5 1.4MHz 16QAM Low Channel RB1-0



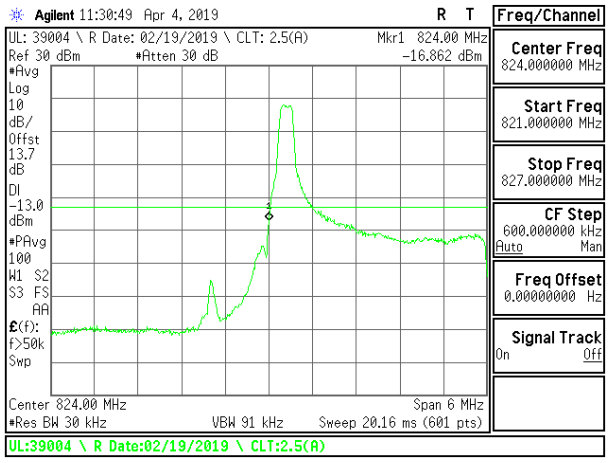
LTE B5 1.4MHz 16QAM High Channel RB1-5



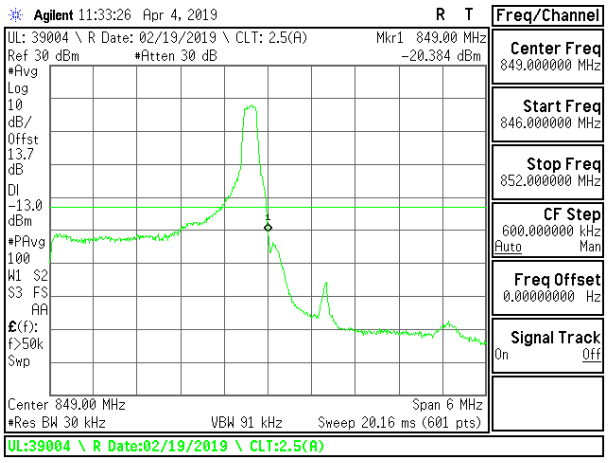
LTE B5 1.4MHz 16QAM Low Channel RB6-0



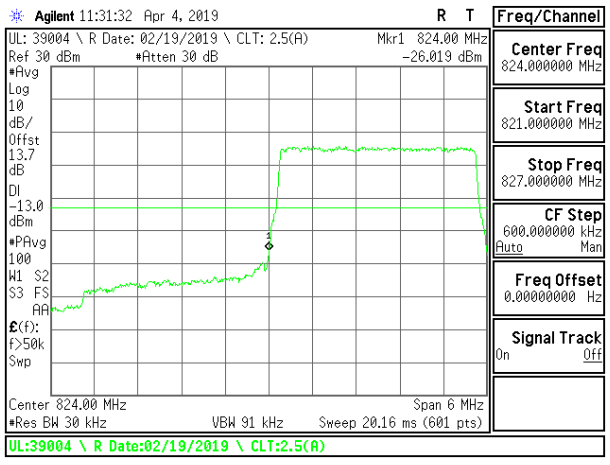
LTE B5 1.4MHz 16QAM High Channel RB6-0



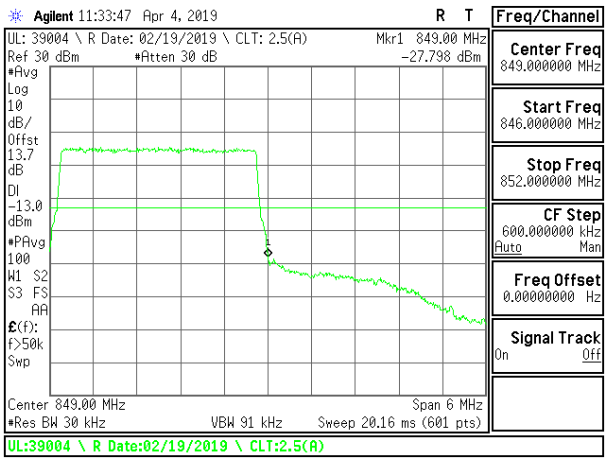
LTE B5 3MHz QPSK Low Channel RB1-0



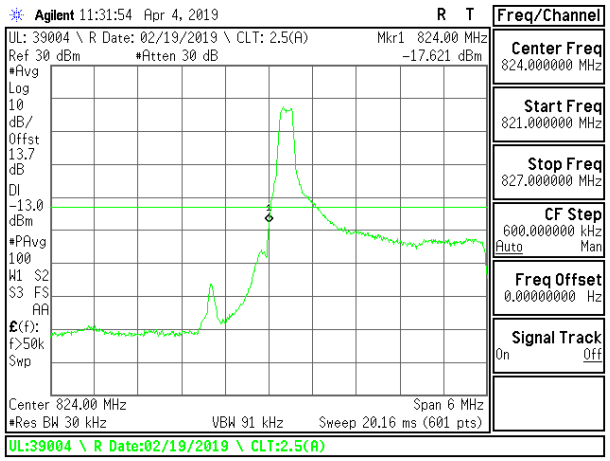
LTE B5 3MHz QPSK High Channel RB1-14



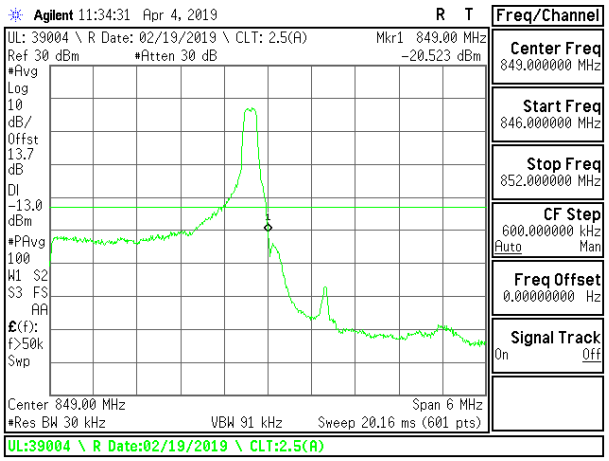
LTE B5 3MHz QPSK Low Channel RB15-0



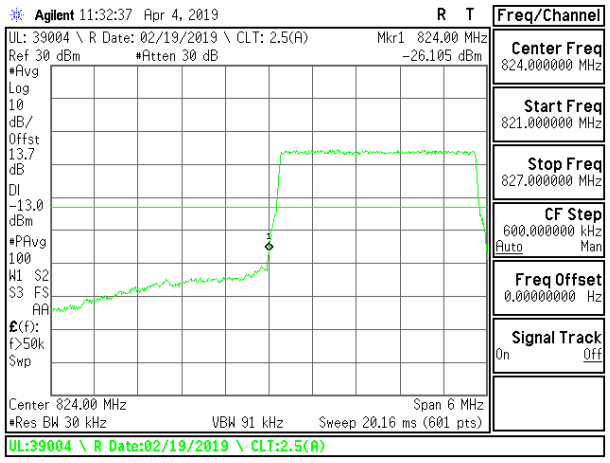
LTE B5 3MHz QPSK High Channel RB15-0



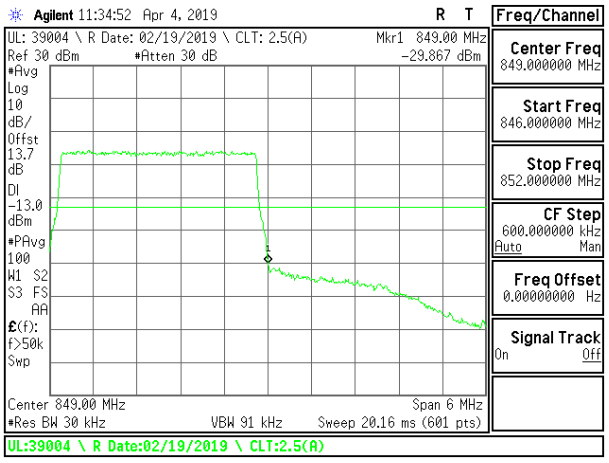
LTE B5 3MHz 16QAM Low Channel RB1-0



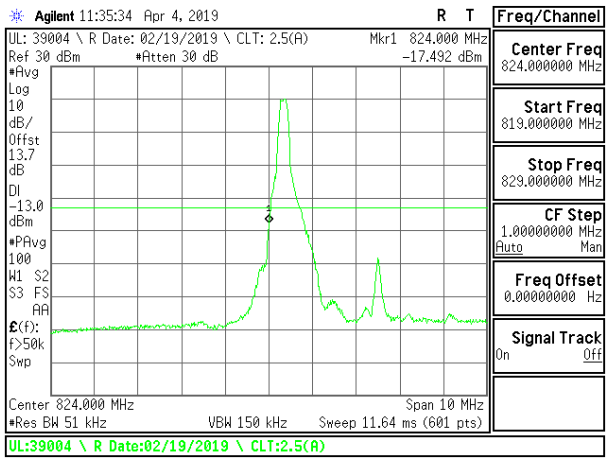
LTE B5 3MHz 16QAM High Channel RB1-14



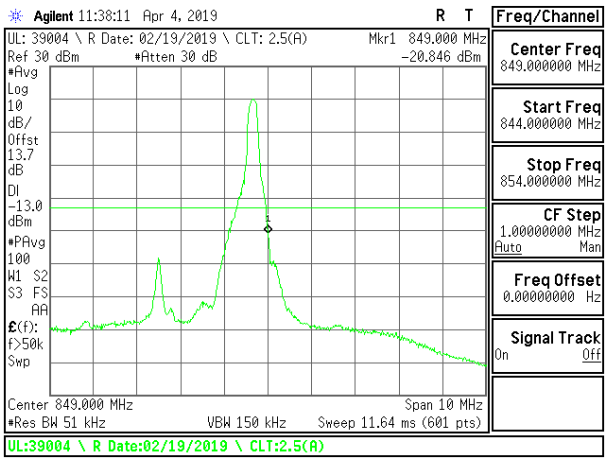
LTE B5 3MHz 16QAM Low Channel RB15-0



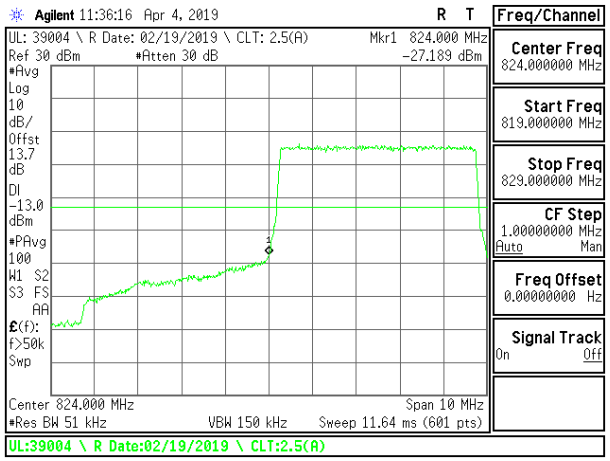
LTE B5 3MHz 16QAM High Channel RB15-0



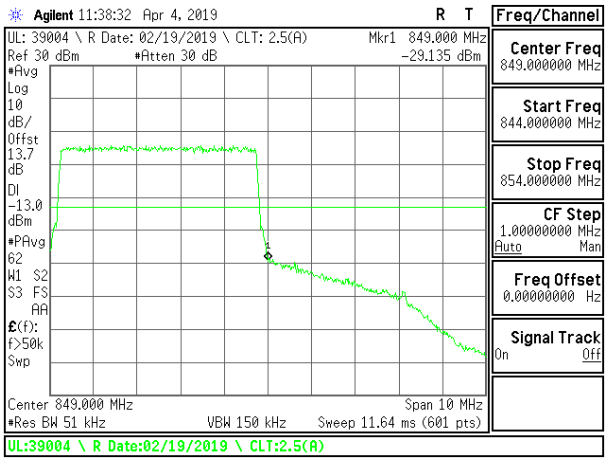
LTE B5 5MHz QPSK Low Channel RB1-0



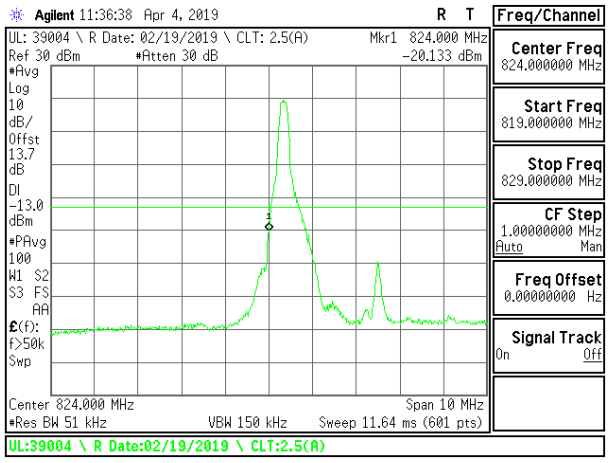
LTE B5 5MHz QPSK High Channel RB1-24



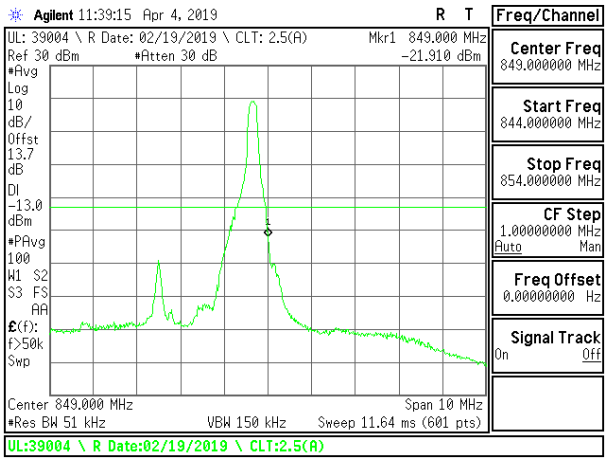
LTE B5 5MHz QPSK Low Channel RB25-0



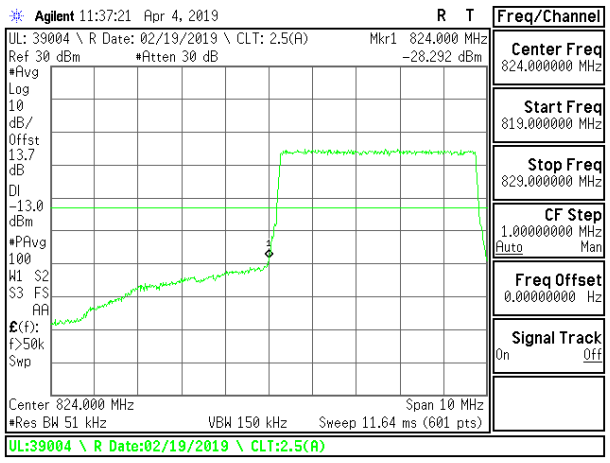
LTE B5 5MHz QPSK High Channel RB25-0



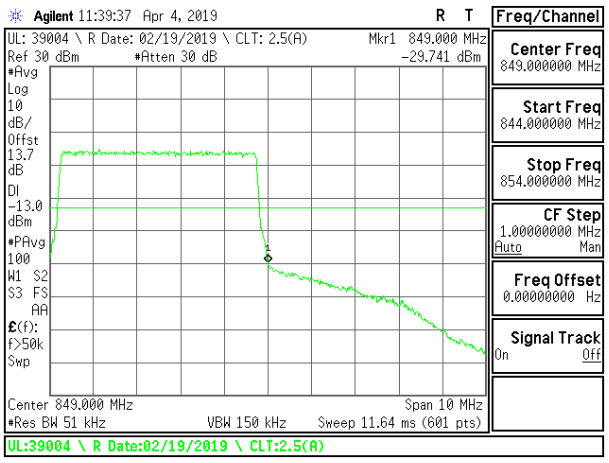
LTE B5 5MHz 16QAM Low Channel RB1-0



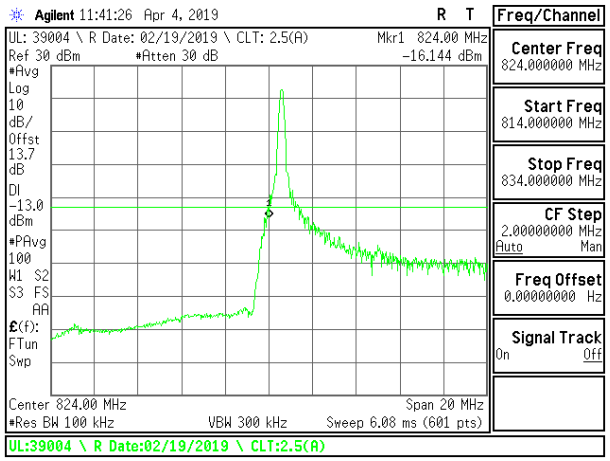
LTE B5 5MHz 16QAM High Channel RB1-24



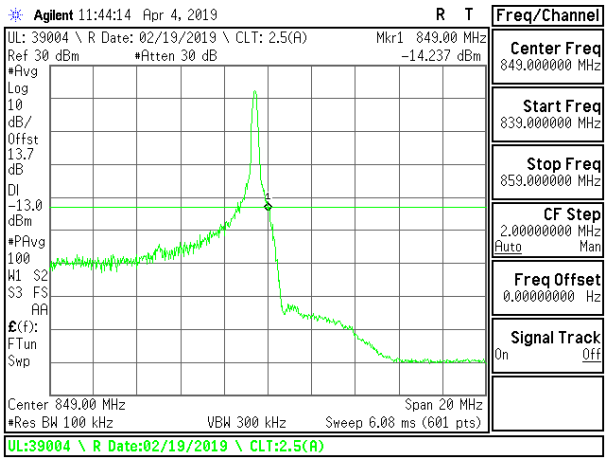
LTE B5 5MHz 16QAM Low Channel RB25-0



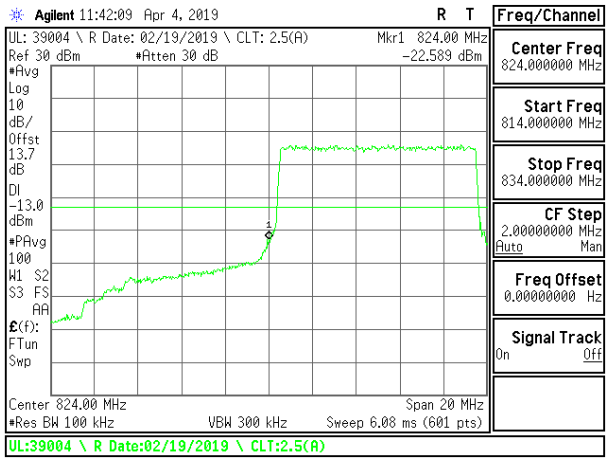
LTE B5 5MHz 16QAM High Channel RB25-0



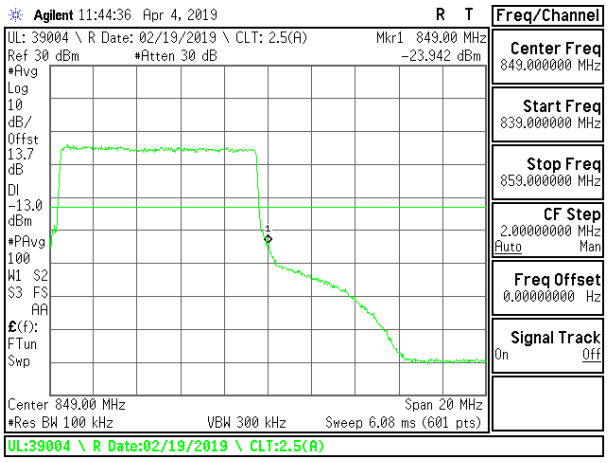
LTE B5 10MHz QPSK Low Channel RB1-0



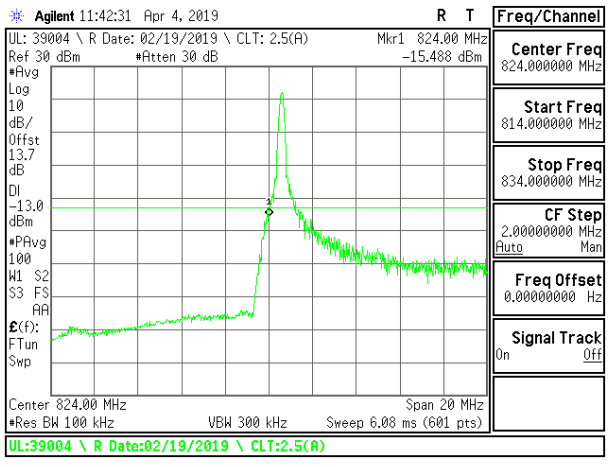
LTE B5 10MHz QPSK High Channel RB1-49



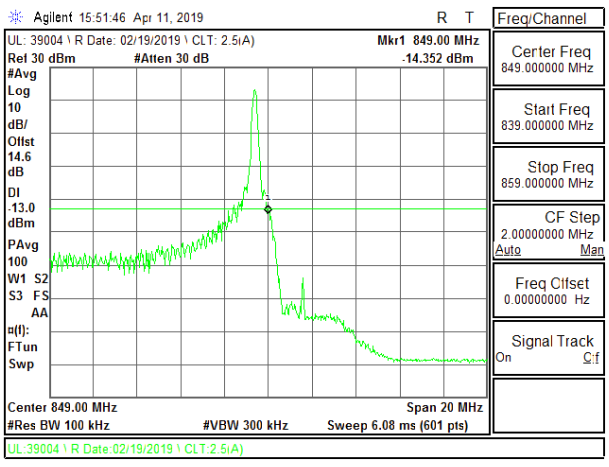
LTE B5 10MHz QPSK Low Channel RB50-0



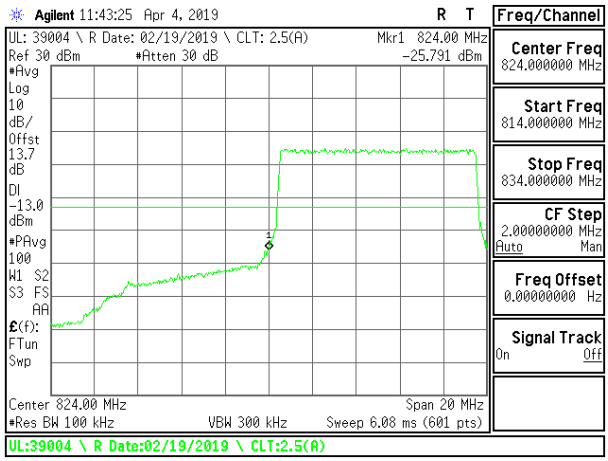
LTE B5 10MHz QPSK High Channel RB50-0



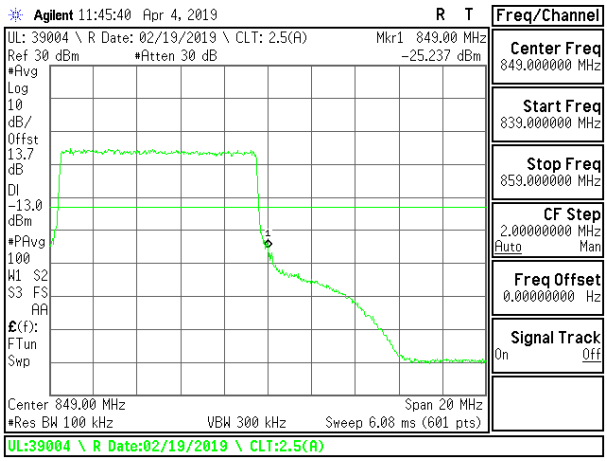
LTE B5 10MHz 16QAM Low Channel RB1-0



LTE B5 10MHz 16QAM High Channel RB1-49

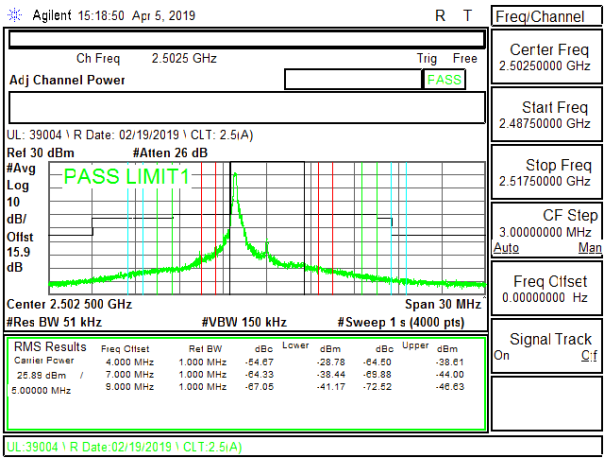


LTE B5 10MHz 16QAM Low Channel RB50-0

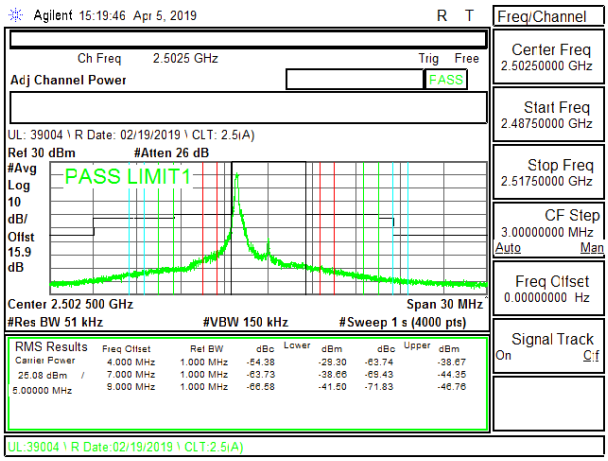


LTE B5 10MHz 16QAM High Channel RB50-0

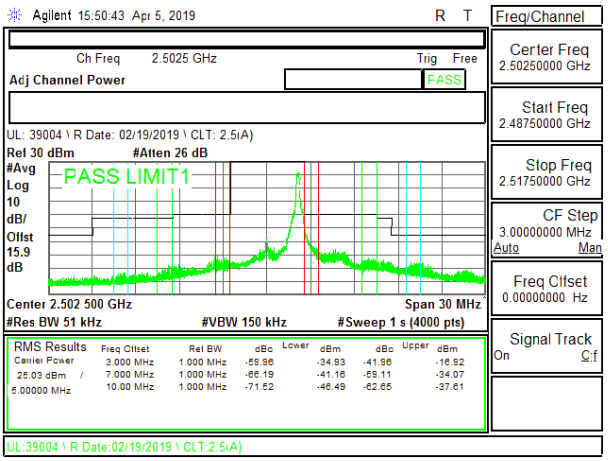
8.2.3. LTE BAND 7 ADJACENT CHANNEL POWER



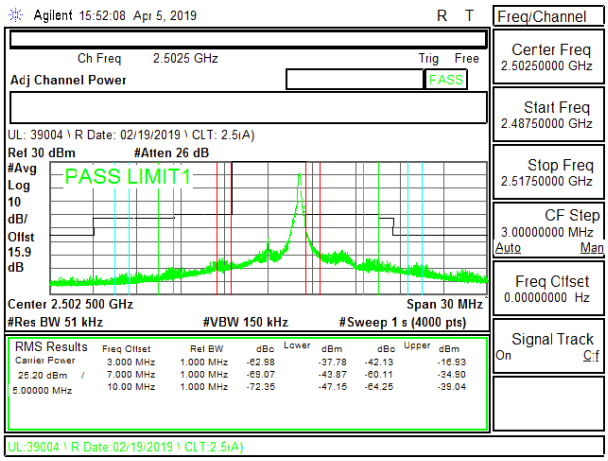
LTE B7 5MHz QPSK Low Channel RB1-0



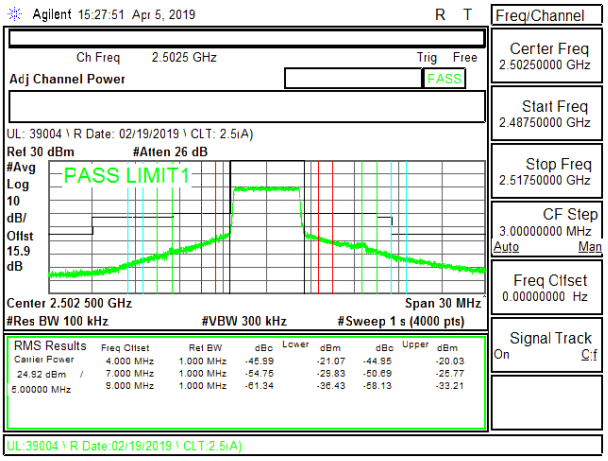
LTE B7 5MHz 16QAM Low Channel RB1-0



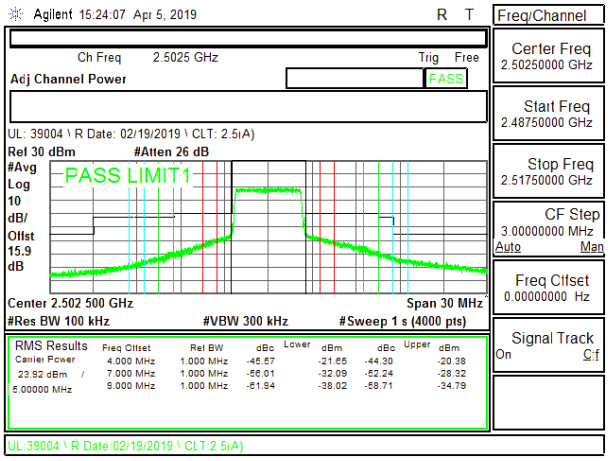
LTE B7 5MHz QPSK Low Channel RB1-24



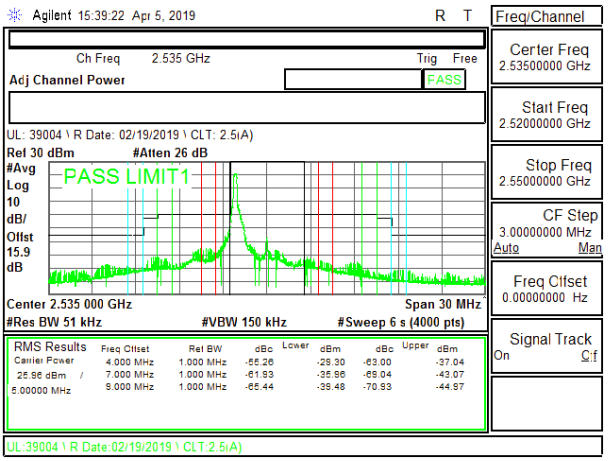
LTE B7 5MHz 16QAM Low Channel RB1-24



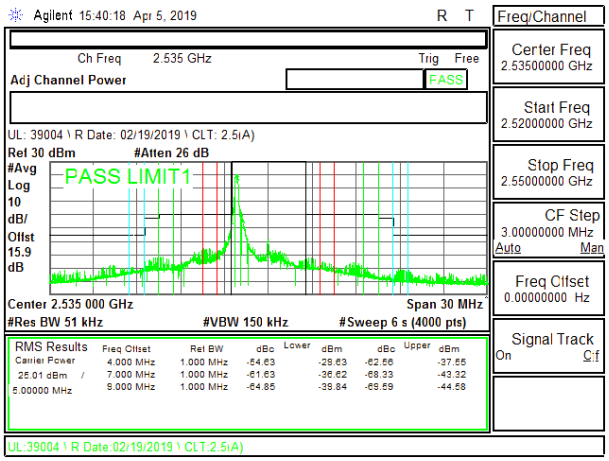
LTE B7 5MHz QPSK Low Channel RB25-0



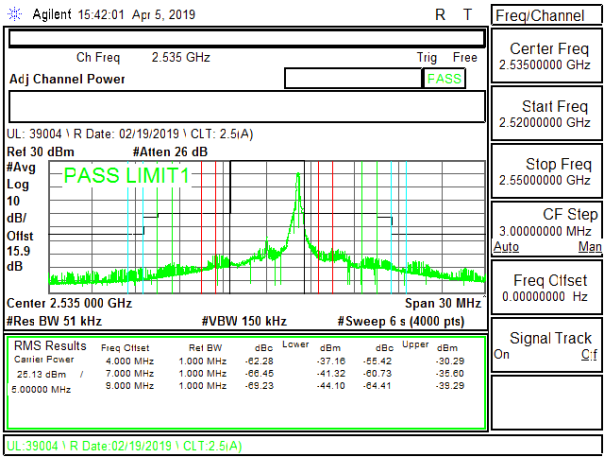
LTE B7 5MHz 16QAM Low Channel RB25-0



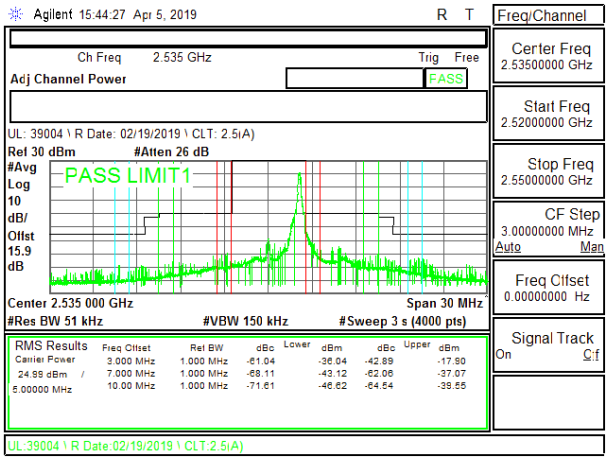
LTE B7 5MHz QPSK Middle Channel RB1-0



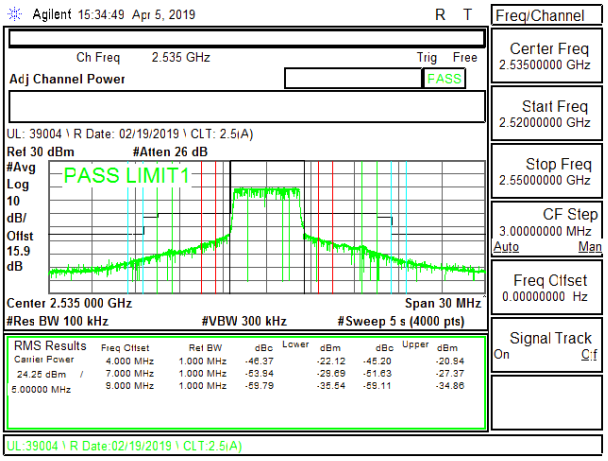
LTE B7 5MHz 16QAM Middle Channel RB1-0



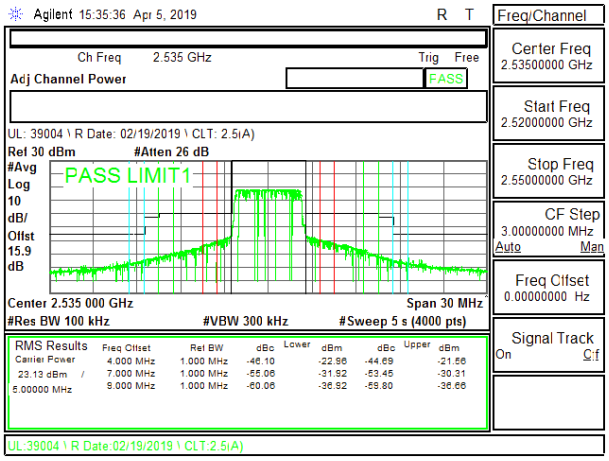
LTE B7 5MHz QPSK Middle Channel RB1-24



LTE B7 5MHz 16QAM Middle Channel RB1-24



LTE B7 5MHz QPSK Middle Channel RB25-0



LTE B7 5MHz 16QAM Middle Channel RB25-0