FCC Test Report (Part 96: LTE Band 48)

Report No.: RF191031C08-7

FCC ID: PY319400469

Test Model: MR5100

Received Date: Nov. 04, 2019

Test Date: Dec. 27, 2019 ~ Jan. 17, 2020

Issued Date: Jan. 30, 2020

Applicant: Netgear, Inc.

Address: 350 E. Plumeria Drive, San Jose CA 95134, USA

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lin Kou Laboratories

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FCC Registration/ Designation Number: 788550 / TW0003

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Release Control Record

Issue No.	Description	Date Issued
RF191031C08-7	Original release.	Jan. 30, 2020

1 Certificate of Conformity

Product: 5G MHS Travel Router

Brand: NETGEAR

Test Model: MR5100

Sample Status: Engineering sample

Applicant: Netgear, Inc.

Test Date: Dec. 27, 2019 ~ Jan. 17, 2020

Standards: 47 CFR FCC Part 96

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by : Pettie Chen , **Date:** Jan. 30, 2020

Pettie Chen / Senior Specialist

Approved by : Bruce Chen , **Date:** Jan. 30, 2020

Bruce Chen / Senior Project Engineer

2 Summary of Test Results

47 CFR FCC Part 96			
FCC Clause	Test Item	Result	Remarks
2.1046 96.41(b)	Maximum Peak Output Power	Pass	Meet the requirement of limit.
2.1046 96.41(b)	Maximum Power Spectral Density	Pass	Meet the requirement of limit.
96.41(a) 2.1047	Modulation Characteristics	Pass	Meet the requirement
96.41(g)	Peak to Average Ration	Pass	Meet the requirement of limit.
2.1049	Emission Bandwidth	Pass	Meet the requirement of limit.
2.1055	Frequency Stability	Pass	Meet the requirement of limit.
2.1051 96.41(e)	Conducted Spurious Emissions	Pass	Meet the requirement of limit.
2.1053 96.41(e)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -4.7dB at 85.29MHz.

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Radiated Emissions up to 1 GHz	9 kHz ~ 30MHz	3.04 dB
	30 MHz ~ 200 MHz	3.59 dB
	200 MHz ~ 1000 MHz	3.60 dB
Radiated Emissions above 1 GHz	1 GHz ~ 18 GHz	2.29 dB
	18 GHz ~ 40 GHz	2.29 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	5G MHS Travel Router				
Brand	NETGEAR				
Test Model	MR5100				
Status of EUT	Engineering sample				
Modulation Type	QPSK, 16QAM, 64QAM				
Operating Frequency	LTE Band 48	Channel Bandwidth 5MHz	TX: 3552.5 ~ 3697.5 MHz		
			RX: 3552.5 ~ 3697.5 MHz		
		Channel Bandwidth 10MHz	TX: 3555 ~ 3695 MHz		
			RX: 3555 ~ 3695 MHz		
		Channel Bandwidth 15MHz	TX: 3557.5 ~ 3692.5 MHz		
			RX: 3557.5 ~ 3692.5 MHz		
		Channel Bandwidth 20MHz	TX: 3560 ~ 3690 MHz		
			RX: 3560 ~ 3690 MHz		
Max. EIRP Power	LTE Band 48	Per 10M EIRP Power	QPSK	16QAM	64QAM
		Channel Bandwidth 5MHz	186.209mW (22.7dBm)	151.356mW (21.8dBm)	131.826mW (21.2dBm)
		Channel Bandwidth 10MHz	186.209mW (22.7dBm)	181.970mW (22.6dBm)	144.544mW (21.6dBm)
		Channel Bandwidth 15MHz	190.546mW (22.8dBm)	165.959mW (22.2dBm)	134.896mW (21.3dBm)
		Channel Bandwidth 20MHz	186.209mW (22.7dBm)	158.489mW (22.0dBm)	138.038mW (21.4dBm)
	LTE Band 48	Full EIRP Power	QPSK	16QAM	64QAM
		Channel Bandwidth 5MHz	186.209mW (22.7dBm)	151.356mW (21.8dBm)	131.826mW (21.2dBm)
		Channel Bandwidth 10MHz	186.209mW (22.7dBm)	181.970mW (22.6dBm)	144.544mW (21.6dBm)
		Channel Bandwidth 15MHz	181.970mW (22.6dBm)	162.181mW (22.1dBm)	128.825mW (21.1dBm)
		Channel Bandwidth 20MHz	177.828mW (22.5dBm)	147.910mW (21.7dBm)	125.893mW (21.0dBm)
Emission Designator	LTE Band 48	Channel Bandwidth 5MHz	4M47G7D	4M45D7W	4M46D7W
		Channel Bandwidth 10MHz	8M91G7D	8M92D7W	8M93D7W
		Channel Bandwidth 15MHz	13M4G7D	13M4D7W	13M4D7W
		Channel Bandwidth 20MHz	17M8G7D	17M8D7W	17M8D7W
Antenna Type	Refer to note				
Antenna Connector	Refer to note				
Accessory Device	Adapter x1, battery x1				
Data Cable Supplied	1m shielded USB cable without core (Brand: NIENYI, model: NYS2371-1)				

Note:

1. The following antennas were provided to the EUT.

Antenna Type	monopole	
Antenna Connector	NA	
Antenna Gain (dBi)	LTE Band 48	3.84

2. The EUT must be supplied with a power adapter or battery as following table:

Items	Brand	Model No.	Spec.
Adapter	NETGEAR	AD2122F20	Input: 100-240Vac~50/60Hz, 0.5A Output: 5Vdc / 2.0A or 9Vdc /1.8A
Battery	NETGEAR	W-20	3.85Vdc, 19.40Wh

3.2 Test Mode Applicability and Tested Channel Detail

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports
The worst case was found when positioned on X-plane. Following channel(s) was (were) selected for the final test as listed below:

Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation
Maximum Output Power	55265 to 56715	55265 (3552.5MHz), 55745 (3600.5MHz), 56235 (3649.5MHz), 56715 (3697.5MHz)	5MHz	QPSK / 16QAM / 64QAM
	55290 to 56690	55290 (3555.0MHz), 55750 (3601.0MHz), 56220 (3648.0MHz), 56690 (3695.0MHz)	10MHz	QPSK / 16QAM / 64QAM
	55315 to 56665	55315 (3557.5MHz), 55765 (3602.5MHz), 56215 (3647.5MHz), 56665 (3692.5MHz)	15MHz	QPSK / 16QAM / 64QAM
	55340 to 56640	55340 (3560.0MHz), 55780 (3603.0MHz), 56210 (3647.0MHz), 56640 (3690.0MHz)	20MHz	QPSK / 16QAM / 64QAM
Frequency Stability	55265 to 56715	55265 (3552.5MHz), 56715 (3697.5MHz)	5MHz	QPSK
	55290 to 56690	55290 (3555.0MHz), 56690 (3695.0MHz)	10MHz	QPSK
	55315 to 56665	55315 (3557.5MHz), 56665 (3692.5MHz)	15MHz	QPSK
	55340 to 56640	55340 (3560.0MHz), 56640 (3690.0MHz)	20MHz	QPSK
Occupied Bandwidth	55265 to 56715	55265 (3552.5MHz), 55745 (3600.5MHz), 56235 (3649.5MHz), 56715 (3697.5MHz)	5MHz	QPSK / 16QAM / 64QAM
	55290 to 56690	55290 (3555.0MHz), 55750 (3601.0MHz), 56220 (3648.0MHz), 56690 (3695.0MHz)	10MHz	QPSK / 16QAM / 64QAM
	55315 to 56665	55315 (3557.5MHz), 55765 (3602.5MHz), 56215 (3647.5MHz), 56665 (3692.5MHz)	15MHz	QPSK / 16QAM / 64QAM
	55340 to 56640	55340 (3560.0MHz), 55780 (3603.0MHz), 56210 (3647.0MHz), 56640 (3690.0MHz)	20MHz	QPSK / 16QAM / 64QAM

Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation
Peak to Average Ratio	55265 to 56715	55265 (3552.5MHz), 55745 (3600.5MHz), 56235 (3649.5MHz), 56715 (3697.5MHz)	5MHz	QPSK / 16QAM / 64QAM
	55290 to 56690	55290 (3555.0MHz), 55750 (3601.0MHz), 56220 (3648.0MHz), 56690 (3695.0MHz)	10MHz	QPSK / 16QAM / 64QAM
	55315 to 56665	55315 (3557.5MHz), 55765 (3602.5MHz), 56215 (3647.5MHz), 56665 (3692.5MHz)	15MHz	QPSK / 16QAM / 64QAM
	55340 to 56640	55340 (3560.0MHz), 55780 (3603.0MHz), 56210 (3647.0MHz), 56640 (3690.0MHz)	20MHz	QPSK / 16QAM / 64QAM
Conducted Emission	55265 to 56715	55265 (3552.5MHz), 55745 (3600.5MHz), 56235 (3649.5MHz), 56715 (3697.5MHz)	5MHz	QPSK
	55290 to 56690	55290 (3555.0MHz), 55750 (3601.0MHz), 56220 (3648.0MHz), 56690 (3695.0MHz)	10MHz	QPSK
	55315 to 56665	55315 (3557.5MHz), 55765 (3602.5MHz), 56215 (3647.5MHz), 56665 (3692.5MHz)	15MHz	QPSK
	55340 to 56640	55340 (3560.0MHz), 55780 (3603.0MHz), 56210 (3647.0MHz), 56640 (3690.0MHz)	20MHz	QPSK
Radiated Emission Below 1GHz	55265 to 56715	55265 (3552.5MHz)	5MHz	QPSK
	55340 to 56640	55340 (3560.0MHz)	20MHz	QPSK
Radiated Emission Above 1GHz	55265 to 56715	55265 (3552.5MHz), 55745 (3600.5MHz), 56235 (3649.5MHz), 56715 (3697.5MHz)	5MHz	QPSK
	55340 to 56640	55340 (3560.0MHz), 55780 (3603.0MHz), 56210 (3647.0MHz), 56640 (3690.0MHz)	20MHz	QPSK

Note:

1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.
2. For radiated emission below 1GHz, low, mid and high channels were pre-tested in chamber. Low channel in 5MHz was found to be the worst case and therefore had been chosen for all final tests.
3. For radiated emission above 1GHz, according to 3GPP 36.521 Section 6.6.3.1.4, choose the lowest, 5MHz & highest channel bandwidth for final test.

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
Maximum Output Power	25deg. C, 70%RH	120Vac, 60Hz	Noah Chang
Frequency Stability	24deg. C, 64%RH	120Vac, 60Hz	James Yang
Occupied Bandwidth	24deg. C, 64%RH	120Vac, 60Hz	James Yang
Peak to Average Ratio	24deg. C, 64%RH	120Vac, 60Hz	James Yang
Condcudeted Emission	24deg. C, 64%RH	120Vac, 60Hz	James Yang
Radiated Emission	25deg. C, 70%RH	120Vac, 60Hz	Noah Chang Luis Lee

3.3 Description of Support Units

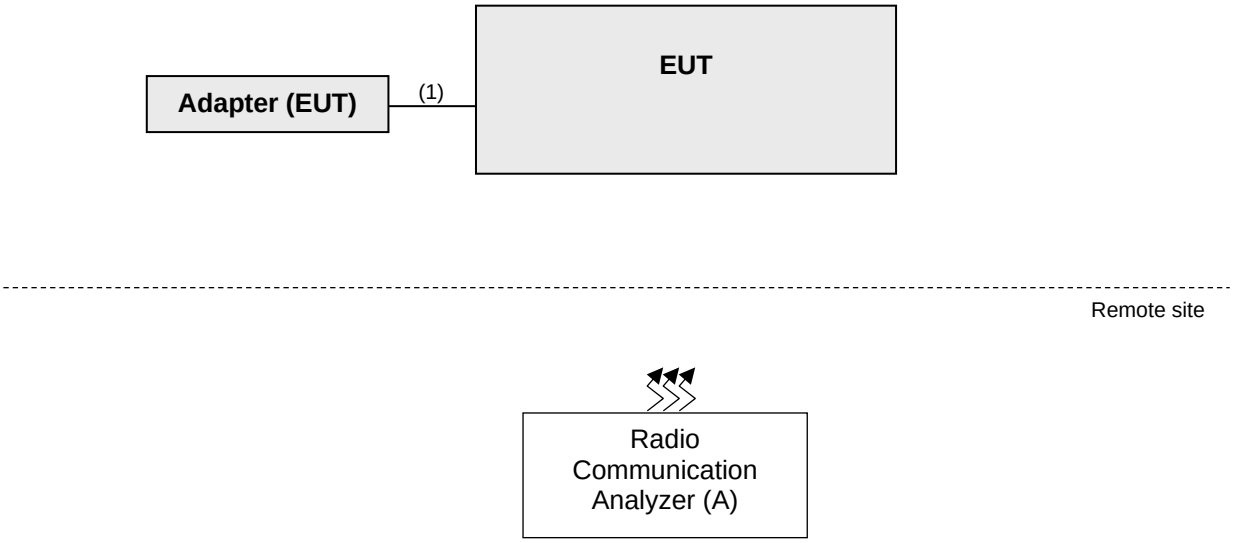
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Radio Communication Analyzer	Anritsu	MT8821C	6261806803	NA	-

Note:
1. All power cords of the above support units are non-shielded (1.8m).
2. Items A acted as communication partners to transfer data.

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	USB cable	1	1	Y	0	Accessory of EUT

3.3.1 Configuration of System under Test



3.4 General Description of Applied Standards

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC 47 CFR Part 2
FCC 47 CFR Part 96
KDB 971168 D01 Power Meas License Digital Systems v03r01
KDB 940660 D01 Part 96 CBRS Eqpt v02
ANSI/TIA/EIA-603-D-2010

All test items have been performed and recorded as per the above standards.

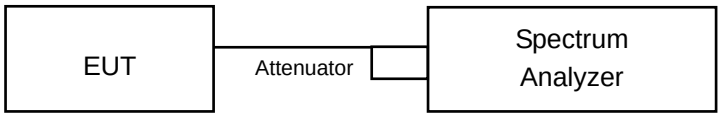
4 Test Types and Results

4.1 Maximum Output Power Measurement

4.1.1 Limits of Maximum Output Power Measurement

Device		Maximum Output Power (dBm/10 MHz)
☒	End User Device	23
☐	Category A CBSD	30
☐	Category B CBSD	47

4.1.2 Test Setup



4.1.3 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer KEYSIGHT	N9030A	MY53120770	Jan. 29, 2019	Jan. 28, 2020
Radio Communication Analyzer Anritsu	MT8821C	6261806803	Jan. 22, 2019	Jan. 21, 2020
RF cable	JB200	Cable-OVEN-02	NA	NA
DC-6GHz 20dB 50W Fixed attenuator Woken	MDC9331N-20	0724	Jun. 19, 2018	Jun. 18, 2020

Note: 1. The calibration interval of the above test instruments is 12/24 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.1.4 Test Procedures

Conducted output power measurement

1. Connect the DUT transmitter output to the spectrum analyzer via coaxial cable while ensuring proper impedance matching.
2. Set span to at least 1.5 times the OBW.
3. Set RBW = 1-5% of the OBW, not to exceed 1 MHz.
4. Set VBW ≥ 3 × RBW.
5. Set number of points in sweep ≥ 2 × span / RBW.
6. Sweep time = auto-couple.
7. Detector = RMS (power averaging).
8. If the EUT can be configured to transmit continuously (i.e., burst duty cycle ≥ 98%), then set the trigger to free run.
9. If the EUT cannot be configured to transmit continuously (i.e., burst duty cycle < 98 %), then use a sweep trigger with the level set to enable triggering only on full power bursts and configure the EUT to transmit at full power for the entire duration of each sweep. Ensure that the sweep time is less than or equal to the transmission burst duration.
10. Trace average at least 100 traces in power averaging (i.e., RMS) mode.
11. Compute the power by integrating the spectrum across the OBW of the signal using the instrument's band or channel power measurement function, with the band/channel limits set equal to the OBW band edges. If the instrument does not have a band or channel power function, then sum the spectrum levels (in linear power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.
12. For per 10MHz method, channel power integrating bandwidth 10MHz is used for bandwidth 5M, 10M, 15M and 20M.
13. For full power method, channel power integrating bandwidth 5MHz is used for bandwidth 5M, integrating bandwidth 10MHz is used for bandwidth 10M, integrating bandwidth 15MHz is used for bandwidth 15M, integrating bandwidth 20MHz is used for bandwidth 20M.

EIRP / ERP Measurement:

a. All measurements were done at low, middle and high operational frequency range. RWB and VBW is 20MHz for LTE Mode.

b. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m(below or equal 1GHz) and/or 1.5m(above 1GHz) height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.

c. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value" of step b. Record the power level of S.G

d. EIRP = Output power level of S.G – TX cable loss + Antenna gain of substitution horn.E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, E.R.P power = E.I.R.P power - 2.15dBi.

4.1.5 Deviation from Test Standard

No deviation.

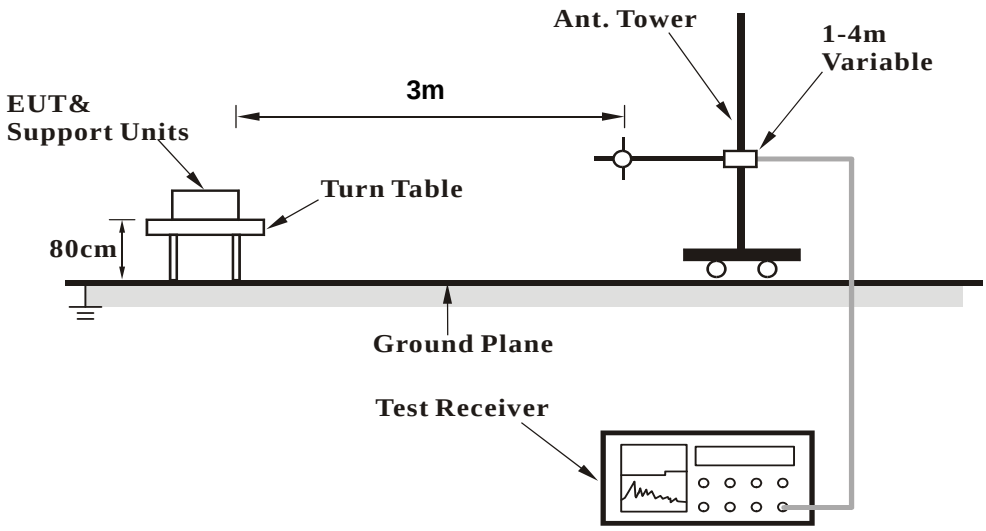
4.1.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

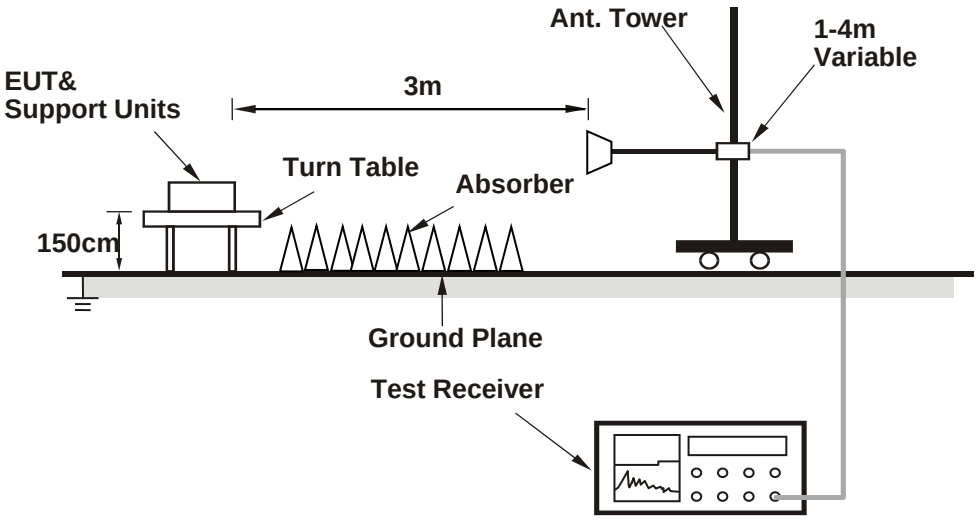
4.1.7 Test Setup

EIRP / ERP MEASUREMENT:

For Radiated Emission below or equal 1GHz



For Radiated Emission above 1GHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.8 Test Results

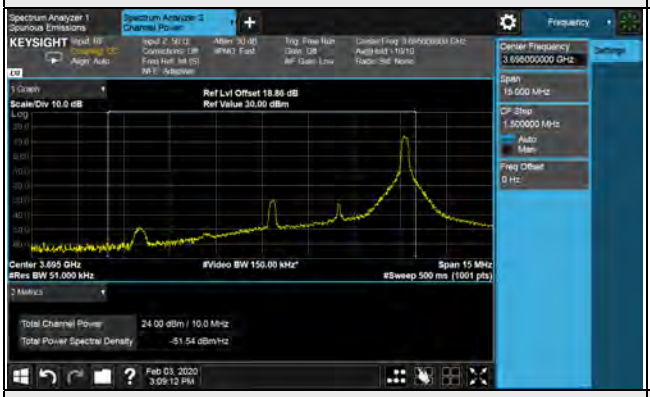
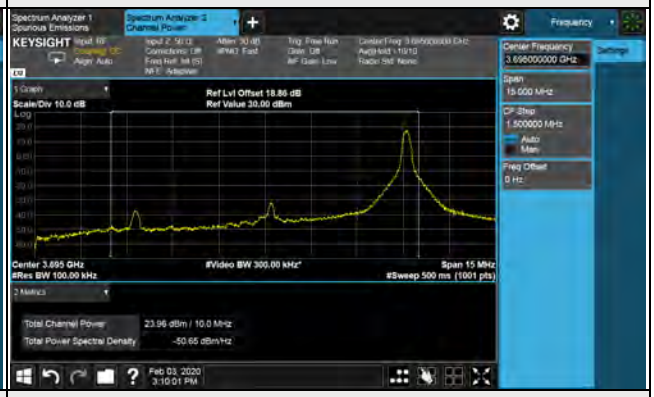
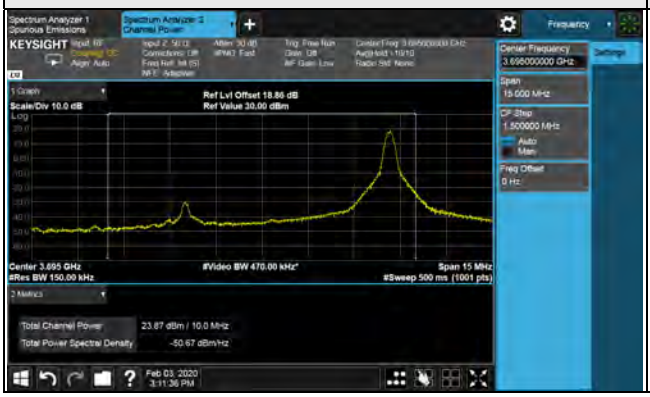
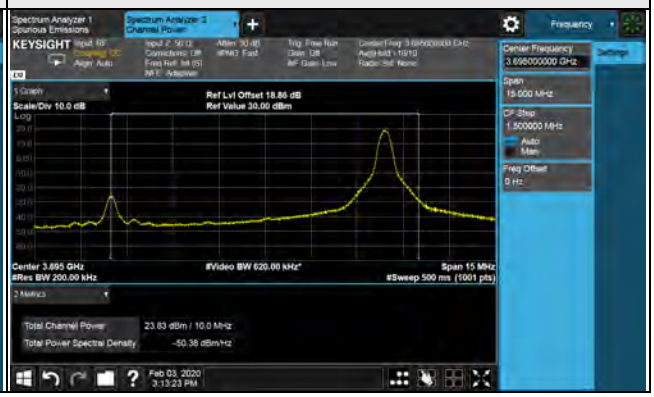
Conducted Output Power (dBm/10MHz)

BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	High
		Channel		55265	55745	56235	56715
		Frequency (MHz)		3552.5	3600.5	3649.5	3697.5
5M	QPSK	1	0	23.42	23.66	23.71	23.82
		1	12	23.27	23.63	23.70	23.82
		1	24	23.48	23.82	23.94	24.00
		12	0	22.25	22.56	22.77	22.57
		12	6	22.38	22.72	22.83	22.75
		12	13	22.47	22.89	22.97	22.95
		25	0	22.19	22.42	22.53	22.52
	16QAM	1	0	22.46	22.60	22.78	22.78
		1	12	22.32	22.58	22.74	22.78
		1	24	22.52	22.80	22.96	22.95
		12	0	21.30	21.60	21.77	21.63
		12	6	21.41	21.66	21.82	21.77
		12	13	21.56	21.81	21.96	21.90
		25	0	21.20	21.37	21.55	21.56
	64QAM	1	0	21.46	21.62	21.78	21.73
		1	12	21.29	21.58	21.72	21.80
		1	24	21.51	21.84	21.88	21.91
		12	0	20.23	20.54	20.68	20.55
		12	6	20.39	20.67	20.84	20.75
		12	13	20.51	20.81	20.91	20.89
		25	0	20.14	20.41	20.54	20.50

BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	High
		Channel		55290	55750	56220	56690
		Frequency (MHz)		3555	3601	3648	3695
10M	QPSK	1	0	23.42	23.75	23.80	23.83
		1	24	23.37	23.69	23.85	23.72
		1	49	23.50	23.85	23.94	23.96
		25	0	22.22	22.57	22.72	22.54
		25	12	22.39	22.64	22.88	22.86
		25	25	22.56	22.82	22.97	22.99
		50	0	22.12	22.41	22.60	22.57
	16QAM	1	0	22.39	22.73	22.70	22.73
		1	24	22.37	22.67	22.85	22.75
		1	49	22.46	22.90	22.94	22.99
		25	0	21.18	21.57	21.72	21.61
		25	12	21.32	21.59	21.87	21.85
		25	25	21.55	21.78	21.97	21.95
		50	0	21.18	21.37	21.52	21.52
	64QAM	1	0	21.34	21.77	21.70	21.74
		1	24	21.29	21.69	21.80	21.79
		1	49	21.43	21.86	21.99	21.97
		25	0	20.25	20.56	20.67	20.60
		25	12	20.32	20.64	20.84	20.80
		25	25	20.47	20.78	20.94	21.00
		50	0	20.11	20.40	20.56	20.59

BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	High
		Channel		55315	55765	56215	56665
		Frequency (MHz)		3557.5	3602.5	3647.5	3692.5
15M	QPSK	1	0	23.34	23.59	23.74	23.75
		1	37	23.19	23.70	22.73	23.71
		1	74	23.48	23.82	22.81	23.87
		36	0	22.16	22.58	22.62	22.61
		36	19	22.33	22.61	22.79	22.75
		36	39	22.44	22.74	22.84	22.88
		75	0	21.25	21.35	21.51	21.41
	16QAM	1	0	22.25	22.72	22.74	22.70
		1	37	22.31	22.70	22.75	22.73
		1	74	22.46	22.79	22.81	22.82
		36	0	21.32	21.55	21.62	21.58
		36	19	21.24	21.68	21.72	21.72
		36	39	21.44	21.77	21.80	21.71
		75	0	20.16	20.32	20.55	20.53
	64QAM	1	0	21.29	21.65	21.70	21.72
		1	37	21.32	21.69	21.72	21.76
		1	74	21.42	21.79	21.81	21.85
		36	0	20.08	20.58	20.70	20.64
		36	19	20.29	20.60	20.73	20.80
		36	39	20.33	20.79	20.82	20.88
		75	0	19.11	19.35	19.38	19.57

BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	High
		Channel		55340	55780	56210	56640
		Frequency (MHz)		3560	3603	3647	3690
20M	QPSK	1	0	23.31	23.71	23.81	23.80
		1	50	23.32	23.70	23.76	23.77
		1	99	23.48	23.84	23.82	23.83
		50	0	22.25	22.61	22.70	22.62
		50	25	22.40	22.65	22.75	22.79
		50	50	22.43	22.78	22.79	22.81
		100	0	20.16	20.48	20.62	20.65
	16QAM	1	0	22.39	22.77	22.91	22.90
		1	50	22.38	22.73	22.88	22.84
		1	99	22.66	22.91	22.89	22.87
		50	0	21.33	21.65	21.78	21.72
		50	25	21.40	21.68	21.88	21.84
		50	50	21.56	21.93	21.94	21.95
		100	0	19.15	19.42	19.58	19.59
	64QAM	1	0	21.45	21.77	20.63	21.87
		1	50	21.38	21.71	20.65	21.79
		1	99	21.60	21.97	20.95	21.96
		50	0	20.29	20.64	19.81	20.81
		50	25	20.48	20.71	19.93	20.89
		50	50	20.54	20.90	20.15	20.94
		100	0	18.16	18.38	17.72	18.51

Spectrum Plot of Worst Value	
5MHz	10MHz
	
15MHz	20MHz
	

Full Conducted Output Power

BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	High
		Channel		55265	55745	56235	56715
		Frequency (MHz)		3552.5	3600.5	3649.5	3697.5
5M	QPSK	1	0	23.42	23.66	23.71	23.82
		1	12	23.27	23.63	23.70	23.82
		1	24	23.48	23.82	23.94	24.00
		12	0	22.25	22.56	22.77	22.57
		12	6	22.38	22.72	22.83	22.75
		12	13	22.47	22.89	22.97	22.95
		25	0	22.19	22.42	22.53	22.52
	16QAM	1	0	22.46	22.60	22.78	22.78
		1	12	22.32	22.58	22.74	22.78
		1	24	22.52	22.80	22.96	22.95
		12	0	21.30	21.60	21.77	21.63
		12	6	21.41	21.66	21.82	21.77
		12	13	21.56	21.81	21.96	21.90
		25	0	21.20	21.37	21.55	21.56
	64QAM	1	0	21.46	21.62	21.78	21.73
		1	12	21.29	21.58	21.72	21.80
		1	24	21.51	21.84	21.88	21.91
		12	0	20.23	20.54	20.68	20.55
		12	6	20.39	20.67	20.84	20.75
		12	13	20.51	20.81	20.91	20.89
		25	0	20.14	20.41	20.54	20.50

Full Conducted Output Power

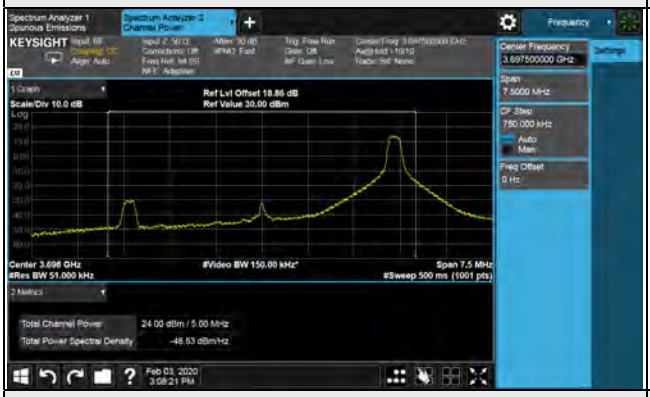
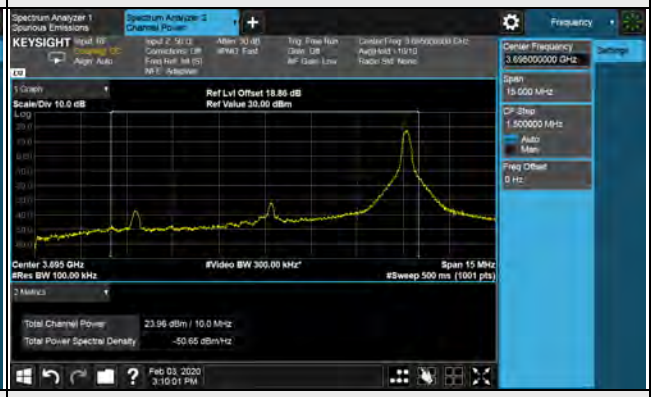
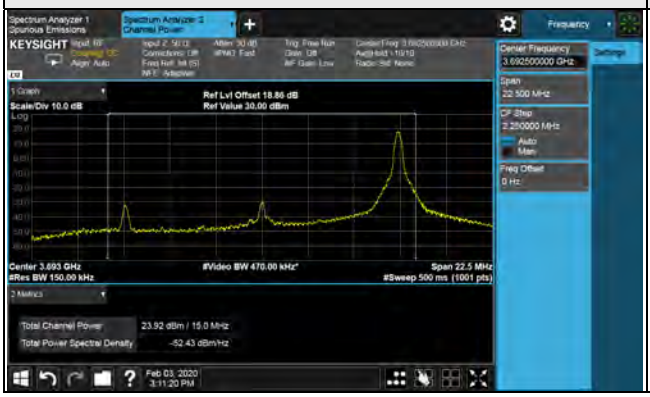
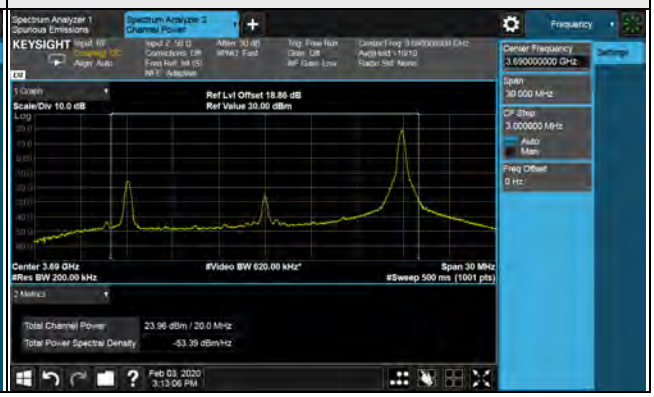
BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	High
		Channel		55290	55750	56220	56690
		Frequency (MHz)		3555	3601	3648	3695
10M	QPSK	1	0	23.42	23.75	23.80	23.83
		1	24	23.37	23.69	23.85	23.72
		1	49	23.50	23.85	23.94	23.96
		25	0	22.22	22.57	22.72	22.54
		25	12	22.39	22.64	22.88	22.86
		25	25	22.56	22.82	22.97	22.99
		50	0	22.12	22.41	22.60	22.57
	16QAM	1	0	22.39	22.73	22.70	22.73
		1	24	22.37	22.67	22.85	22.75
		1	49	22.46	22.90	22.94	22.99
		25	0	21.18	21.57	21.72	21.61
		25	12	21.32	21.59	21.87	21.85
		25	25	21.55	21.78	21.97	21.95
		50	0	21.18	21.37	21.52	21.52
	64QAM	1	0	21.34	21.77	21.70	21.74
		1	24	21.29	21.69	21.80	21.79
		1	49	21.43	21.86	21.99	21.97
		25	0	20.25	20.56	20.67	20.60
		25	12	20.32	20.64	20.84	20.80
		25	25	20.47	20.78	20.94	21.00
		50	0	20.11	20.40	20.56	20.59

Full Conducted Output Power

BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	High
		Channel		55315	55765	56215	56665
		Frequency (MHz)		3557.5	3602.5	3647.5	3692.5
15M	QPSK	1	0	23.44	23.68	23.87	23.81
		1	37	23.33	23.76	23.77	23.77
		1	74	23.60	23.90	23.91	23.92
		36	0	22.34	22.62	22.71	22.69
		36	19	22.41	22.69	22.88	22.83
		36	39	22.51	22.89	22.93	22.95
		75	0	22.18	22.47	22.56	22.58
	16QAM	1	0	22.38	22.78	22.80	22.84
		1	37	22.42	22.72	22.85	22.84
		1	74	22.56	22.86	22.89	22.90
		36	0	21.35	21.61	21.69	21.63
		36	19	21.37	21.74	21.78	21.86
		36	39	21.58	21.83	21.84	21.88
		75	0	21.24	21.43	21.64	21.62
	64QAM	1	0	21.40	21.73	21.78	21.82
		1	37	21.41	21.75	21.85	21.84
		1	74	21.59	21.91	21.89	21.92
		36	0	20.29	20.66	20.77	20.72
		36	19	20.41	20.66	20.83	20.86
		36	39	20.55	20.90	20.95	20.98
		75	0	20.15	20.41	20.59	20.64

Full Conducted Output Power

BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	High
		Channel		55340	55780	56210	56640
		Frequency (MHz)		3560	3603	3647	3690
20M	QPSK	1	0	23.48	23.78	23.88	23.91
		1	50	23.42	23.76	23.86	23.85
		1	99	23.62	23.96	23.91	23.96
		50	0	22.35	22.68	22.79	22.72
		50	25	22.45	22.74	22.88	22.90
		50	50	22.58	22.90	22.92	22.94
		100	0	22.24	22.51	22.66	22.67
	16QAM	1	0	22.39	22.77	22.91	22.90
		1	50	22.38	22.73	22.88	22.84
		1	99	22.66	22.91	22.89	22.87
		50	0	21.33	21.65	21.78	21.72
		50	25	21.40	21.68	21.88	21.84
		50	50	21.56	21.93	21.94	21.95
		100	0	21.21	21.48	21.66	21.62
	64QAM	1	0	21.45	21.77	20.63	21.87
		1	50	21.38	21.71	20.65	21.79
		1	99	21.60	21.97	20.95	21.96
		50	0	20.29	20.64	19.81	20.81
		50	25	20.48	20.71	19.93	20.89
		50	50	20.54	20.90	20.15	20.94
		100	0	20.20	20.47	19.76	20.63

Spectrum Plot of Worst Value	
5MHz	10MHz
	
15MHz	20MHz
	

EIRP Power (dBm/10MHz)

Modulation Type: QPSK

LTE Band 48, Channel Bandwidth: 5MHz

Mode		TX channel 55265					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3552.50	-24.4	22.1	0.5	22.6	23.0	-0.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3552.50	-26.9	19.0	0.5	19.5	23.0	-3.5

Mode		TX channel 55745					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3600.50	-24.5	22.2	0.5	22.7	23.0	-0.3
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3600.50	-26.5	19.3	0.5	19.8	23.0	-3.2

Mode		TX channel 56235					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3649.50	-24.7	22.1	0.4	22.5	23.0	-0.5
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3649.50	-26.4	19.2	0.4	19.6	23.0	-3.4

Mode		TX channel 56715					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3697.50	-24.6	21.9	0.6	22.5	23.0	-0.5
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3697.50	-26.3	18.8	0.6	19.4	23.0	-3.6

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 48, Channel Bandwidth: 10MHz

Mode		TX channel 55290					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3555.00	-24.6	21.9	0.5	22.4	23.0	-0.6
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3555.00	-27.2	18.7	0.5	19.2	23.0	-3.8

Mode		TX channel 55750					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3601.00	-24.6	22.1	0.5	22.6	23.0	-0.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3601.00	-26.8	19.0	0.5	19.5	23.0	-3.5

Mode		TX channel 56220					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3648.00	-24.8	22.0	0.4	22.4	23.0	-0.6
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3648.00	-26.3	19.3	0.4	19.7	23.0	-3.3

Mode		TX channel 56690					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3695.00	-24.4	22.1	0.6	22.7	23.0	-0.3
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3695.00	-26.1	19.0	0.6	19.6	23.0	-3.4

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 48, Channel Bandwidth: 15MHz

Mode		TX channel 55315					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3557.50	-24.2	22.3	0.5	22.8	23.0	-0.2
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3557.50	-27.1	18.8	0.5	19.3	23.0	-3.7

Mode		TX channel 55765					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3602.50	-24.7	22.0	0.5	22.5	23.0	-0.5
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3602.50	-27.0	18.8	0.5	19.3	23.0	-3.7

Mode		TX channel 56215					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3647.50	-24.4	22.4	0.4	22.8	23.0	-0.2
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3647.50	-26.4	19.2	0.4	19.6	23.0	-3.4

Mode		TX channel 56665					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3692.50	-24.4	22.1	0.6	22.7	23.0	-0.3
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3692.50	-26.2	18.9	0.6	19.5	23.0	-3.5

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 48, Channel Bandwidth: 20MHz

Mode		TX channel 55340					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3560.00	-24.6	22.0	0.5	22.5	23.0	-0.5
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3560.00	-26.7	19.2	0.5	19.7	23.0	-3.3

Mode		TX channel 55780					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3603.00	-24.5	22.2	0.5	22.7	23.0	-0.3
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3603.00	-26.9	18.9	0.5	19.4	23.0	-3.6

Mode		TX channel 56210					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3647.00	-24.5	22.3	0.4	22.7	23.0	-0.3
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3647.00	-26.3	19.3	0.4	19.7	23.0	-3.3

Mode		TX channel 56640					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3690.00	-24.6	22.0	0.6	22.6	23.0	-0.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3690.00	-26.3	18.8	0.6	19.4	23.0	-3.6

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Modulation Type: 16QAM

LTE Band 48, Channel Bandwidth: 5MHz

Mode		TX channel 55265					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3552.50	-25.2	21.3	0.5	21.8	23.0	-1.2
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3552.50	-27.5	18.4	0.5	18.9	23.0	-4.1

Mode		TX channel 55745					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3600.50	-25.4	21.3	0.5	21.8	23.0	-1.2
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3600.50	-27.3	18.5	0.5	19.0	23.0	-4.0

Mode		TX channel 56235					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3649.50	-25.5	21.3	0.4	21.7	23.0	-1.3
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3649.50	-26.9	18.7	0.4	19.1	23.0	-3.9

Mode		TX channel 56715					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3697.50	-25.5	21.0	0.6	21.6	23.0	-1.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3697.50	-27.1	18.0	0.6	18.6	23.0	-4.4

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 48, Channel Bandwidth: 10MHz

Mode		TX channel 55290					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3555.00	-25.5	21.0	0.5	21.5	23.0	-1.5
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3555.00	-28.0	17.9	0.5	18.4	23.0	-4.6

Mode		TX channel 55750					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3601.00	-25.5	21.2	0.5	21.7	23.0	-1.3
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3601.00	-27.5	18.3	0.5	18.8	23.0	-4.2

Mode		TX channel 56220					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3648.00	-24.6	22.2	0.4	22.6	23.0	-0.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3648.00	-27.1	18.5	0.4	18.9	23.0	-4.1

Mode		TX channel 56690					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3695.00	-25.2	21.3	0.6	21.9	23.0	-1.1
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3695.00	-27.1	18.0	0.6	18.6	23.0	-4.4

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 48, Channel Bandwidth: 15MHz

Mode		TX channel 55315					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3557.50	-25.0	21.5	0.5	22.0	23.0	-1.0
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3557.50	-28.2	17.7	0.5	18.2	23.0	-4.8

Mode		TX channel 55765					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3602.50	-25.6	21.1	0.5	21.6	23.0	-1.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3602.50	-27.9	17.9	0.5	18.4	23.0	-4.6

Mode		TX channel 56215					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3647.50	-25.0	21.8	0.4	22.2	23.0	-0.8
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3647.50	-27.1	18.5	0.4	18.9	23.0	-4.1

Mode		TX channel 56665					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3692.50	-24.9	21.6	0.6	22.2	23.0	-0.8
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3692.50	-27.0	18.1	0.6	18.7	23.0	-4.3

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 48, Channel Bandwidth: 20MHz

Mode		TX channel 55340					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3560.00	-25.2	21.4	0.5	21.9	23.0	-1.1
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3560.00	-27.5	18.4	0.5	18.9	23.0	-4.1

Mode		TX channel 55780					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3603.00	-25.2	21.5	0.5	22.0	23.0	-1.0
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3603.00	-27.4	18.4	0.5	18.9	23.0	-4.1

Mode		TX channel 56210					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3647.00	-25.3	21.5	0.4	21.9	23.0	-1.1
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3647.00	-26.9	18.7	0.4	19.1	23.0	-3.9

Mode		TX channel 56640					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3690.00	-25.5	21.1	0.6	21.7	23.0	-1.3
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3690.00	-26.9	18.2	0.6	18.8	23.0	-4.2

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Modulation Type: 64QAM

LTE Band 48, Channel Bandwidth: 5MHz

Mode		TX channel 55265					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3552.50	-26.1	20.4	0.5	20.9	23.0	-2.1
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3552.50	-28.3	17.6	0.5	18.1	23.0	-4.9

Mode		TX channel 55745					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3600.50	-26.0	20.7	0.5	21.2	23.0	-1.8
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3600.50	-28.1	17.7	0.5	18.2	23.0	-4.8

Mode		TX channel 56235					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3649.50	-26.2	20.6	0.4	21.0	23.0	-2.0
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3649.50	-27.6	18.0	0.4	18.4	23.0	-4.6

Mode		TX channel 56715					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3697.50	-26.2	20.3	0.6	20.9	23.0	-2.1
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3697.50	-27.9	17.2	0.6	17.8	23.0	-5.2

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 48, Channel Bandwidth: 10MHz

Mode		TX channel 55290					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3555.00	-26.2	20.3	0.5	20.8	23.0	-2.2
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3555.00	-28.4	17.5	0.5	18.0	23.0	-5.0

Mode		TX channel 55750					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3601.00	-26.3	20.4	0.5	20.9	23.0	-2.1
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3601.00	-28.2	17.6	0.5	18.1	23.0	-4.9

Mode		TX channel 56220					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3648.00	-25.6	21.2	0.4	21.6	23.0	-1.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3648.00	-27.8	17.8	0.4	18.2	23.0	-4.8

Mode		TX channel 56690					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3695.00	-26.4	20.1	0.6	20.7	23.0	-2.3
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3695.00	-27.9	17.2	0.6	17.8	23.0	-5.2

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 48, Channel Bandwidth: 15MHz

Mode		TX channel 55315					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3557.50	-25.7	20.8	0.5	21.3	23.0	-1.7
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3557.50	-28.9	17.0	0.5	17.5	23.0	-5.5

Mode		TX channel 55765					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3602.50	-26.3	20.4	0.5	20.9	23.0	-2.1
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3602.50	-28.4	17.4	0.5	17.9	23.0	-5.1

Mode		TX channel 56215					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3647.50	-25.9	20.9	0.4	21.3	23.0	-1.7
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3647.50	-27.6	18.0	0.4	18.4	23.0	-4.6

Mode		TX channel 56665					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3692.50	-25.9	20.6	0.6	21.2	23.0	-1.8
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3692.50	-27.8	17.3	0.6	17.9	23.0	-5.1

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 48, Channel Bandwidth: 20MHz

Mode		TX channel 55340					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3560.00	-26.1	20.5	0.5	21.0	23.0	-2.0
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3560.00	-28.5	17.4	0.5	17.9	23.0	-5.1

Mode		TX channel 55780					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3603.00	-26.3	20.4	0.5	20.9	23.0	-2.1
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3603.00	-28.3	17.5	0.5	18.0	23.0	-5.0

Mode		TX channel 56210					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3647.00	-25.8	21.0	0.4	21.4	23.0	-1.6
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3647.00	-27.9	17.7	0.4	18.1	23.0	-4.9

Mode		TX channel 56640					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3690.00	-26.6	20.0	0.6	20.6	23.0	-2.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3690.00	-28.2	16.9	0.6	17.5	23.0	-5.5

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Full EIRP Power (dBm/10MHz)

Modulation Type: QPSK

LTE Band 48, Channel Bandwidth: 5MHz

Mode		TX channel 55265					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3552.50	-24.4	22.1	0.5	22.6	23.0	-0.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3552.50	-26.9	19.0	0.5	19.5	23.0	-3.5

Mode		TX channel 55745					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3600.50	-24.5	22.2	0.5	22.7	23.0	-0.3
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3600.50	-26.5	19.3	0.5	19.8	23.0	-3.2

Mode		TX channel 56235					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3649.50	-24.7	22.1	0.4	22.5	23.0	-0.5
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3649.50	-26.4	19.2	0.4	19.6	23.0	-3.4

Mode		TX channel 56715					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3697.50	-24.6	21.9	0.6	22.5	23.0	-0.5
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3697.50	-26.3	18.8	0.6	19.4	23.0	-3.6

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 48, Channel Bandwidth: 10MHz

Mode		TX channel 55290					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3555.00	-24.6	21.9	0.5	22.4	23.0	-0.6
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3555.00	-27.2	18.7	0.5	19.2	23.0	-3.8

Mode		TX channel 55750					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3601.00	-24.6	22.1	0.5	22.6	23.0	-0.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3601.00	-26.8	19.0	0.5	19.5	23.0	-3.5

Mode		TX channel 56220					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3648.00	-24.8	22.0	0.4	22.4	23.0	-0.6
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3648.00	-26.3	19.3	0.4	19.7	23.0	-3.3

Mode		TX channel 56690					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3695.00	-24.4	22.1	0.6	22.7	23.0	-0.3
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3695.00	-26.1	19.0	0.6	19.6	23.0	-3.4

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 48, Channel Bandwidth: 15MHz

Mode		TX channel 55315					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3557.50	-24.4	22.1	0.5	22.6	23.0	-0.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3557.50	-27.5	18.4	0.5	18.9	23.0	-4.1

Mode		TX channel 55765					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3602.50	-24.8	21.9	0.5	22.4	23.0	-0.6
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3602.50	-27.0	18.8	0.5	19.3	23.0	-3.7

Mode		TX channel 56215					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3647.50	-24.8	22.0	0.4	22.4	23.0	-0.6
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3647.50	-26.5	19.1	0.4	19.5	23.0	-3.5

Mode		TX channel 56665					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3692.50	-24.5	22.0	0.6	22.6	23.0	-0.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3692.50	-26.6	18.5	0.6	19.1	23.0	-3.9

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 48, Channel Bandwidth: 20MHz

Mode		TX channel 55340					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3560.00	-24.7	21.9	0.5	22.4	23.0	-0.6
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3560.00	-27.0	18.9	0.5	19.4	23.0	-3.6

Mode		TX channel 55780					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3603.00	-24.7	22.0	0.5	22.5	23.0	-0.5
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3603.00	-27.3	18.5	0.5	19.0	23.0	-4.0

Mode		TX channel 56210					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3647.00	-24.7	22.1	0.4	22.5	23.0	-0.5
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3647.00	-26.6	19.0	0.4	19.4	23.0	-3.6

Mode		TX channel 56640					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3690.00	-24.9	21.7	0.6	22.3	23.0	-0.7
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3690.00	-26.8	18.3	0.6	18.9	23.0	-4.1

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Modulation Type: 16QAM

LTE Band 48, Channel Bandwidth: 5MHz

Mode		TX channel 55265					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3552.50	-25.2	21.3	0.5	21.8	23.0	-1.2
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3552.50	-27.5	18.4	0.5	18.9	23.0	-4.1

Mode		TX channel 55745					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3600.50	-25.4	21.3	0.5	21.8	23.0	-1.2
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3600.50	-27.3	18.5	0.5	19.0	23.0	-4.0

Mode		TX channel 56235					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3649.50	-25.5	21.3	0.4	21.7	23.0	-1.3
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3649.50	-26.9	18.7	0.4	19.1	23.0	-3.9

Mode		TX channel 56715					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3697.50	-25.5	21.0	0.6	21.6	23.0	-1.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3697.50	-27.1	18.0	0.6	18.6	23.0	-4.4

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 48, Channel Bandwidth: 10MHz

Mode		TX channel 55290					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3555.00	-25.5	21.0	0.5	21.5	23.0	-1.5
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3555.00	-28.0	17.9	0.5	18.4	23.0	-4.6

Mode		TX channel 55750					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3601.00	-25.5	21.2	0.5	21.7	23.0	-1.3
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3601.00	-27.5	18.3	0.5	18.8	23.0	-4.2

Mode		TX channel 56220					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3648.00	-24.6	22.2	0.4	22.6	23.0	-0.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3648.00	-27.1	18.5	0.4	18.9	23.0	-4.1

Mode		TX channel 56690					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3695.00	-25.2	21.3	0.6	21.9	23.0	-1.1
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3695.00	-27.1	18.0	0.6	18.6	23.0	-4.4

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 48, Channel Bandwidth: 15MHz

Mode		TX channel 55315					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3557.50	-25.4	21.1	0.5	21.6	23.0	-1.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3557.50	-28.2	17.7	0.5	18.2	23.0	-4.8

Mode		TX channel 55765					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3602.50	-25.9	20.8	0.5	21.3	23.0	-1.7
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3602.50	-28.2	17.6	0.5	18.1	23.0	-4.9

Mode		TX channel 56215					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3647.50	-25.1	21.7	0.4	22.1	23.0	-0.9
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3647.50	-27.6	18.0	0.4	18.4	23.0	-4.6

Mode		TX channel 56665					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3692.50	-25.2	21.3	0.6	21.9	23.0	-1.1
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3692.50	-27.1	18.0	0.6	18.6	23.0	-4.4

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 48, Channel Bandwidth: 20MHz

Mode		TX channel 55340					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3560.00	-25.4	21.2	0.5	21.7	23.0	-1.3
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3560.00	-27.6	18.3	0.5	18.8	23.0	-4.2

Mode		TX channel 55780					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3603.00	-25.6	21.1	0.5	21.6	23.0	-1.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3603.00	-27.8	18.0	0.5	18.5	23.0	-4.5

Mode		TX channel 56210					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3647.00	-25.7	21.1	0.4	21.5	23.0	-1.5
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3647.00	-27.0	18.6	0.4	19.0	23.0	-4.0

Mode		TX channel 56640					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3690.00	-25.6	21.0	0.6	21.6	23.0	-1.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3690.00	-27.1	18.0	0.6	18.6	23.0	-4.4

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Modulation Type: 64QAM

LTE Band 48, Channel Bandwidth: 5MHz

Mode		TX channel 55265					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3552.50	-26.1	20.4	0.5	20.9	23.0	-2.1
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3552.50	-28.3	17.6	0.5	18.1	23.0	-4.9

Mode		TX channel 55745					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3600.50	-26.0	20.7	0.5	21.2	23.0	-1.8
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3600.50	-28.1	17.7	0.5	18.2	23.0	-4.8

Mode		TX channel 56235					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3649.50	-26.2	20.6	0.4	21.0	23.0	-2.0
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3649.50	-27.6	18.0	0.4	18.4	23.0	-4.6

Mode		TX channel 56715					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3697.50	-26.2	20.3	0.6	20.9	23.0	-2.1
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3697.50	-27.9	17.2	0.6	17.8	23.0	-5.2

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 48, Channel Bandwidth: 10MHz

Mode		TX channel 55290					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3555.00	-26.2	20.3	0.5	20.8	23.0	-2.2
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3555.00	-28.4	17.5	0.5	18.0	23.0	-5.0

Mode		TX channel 55750					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3601.00	-26.3	20.4	0.5	20.9	23.0	-2.1
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3601.00	-28.2	17.6	0.5	18.1	23.0	-4.9

Mode		TX channel 56220					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3648.00	-25.6	21.2	0.4	21.6	23.0	-1.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3648.00	-27.8	17.8	0.4	18.2	23.0	-4.8

Mode		TX channel 56690					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3695.00	-26.4	20.1	0.6	20.7	23.0	-2.3
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3695.00	-27.9	17.2	0.6	17.8	23.0	-5.2

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 48, Channel Bandwidth: 15MHz

Mode		TX channel 55315					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3557.50	-25.9	20.6	0.5	21.1	23.0	-1.9
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3557.50	-29.0	16.9	0.5	17.4	23.0	-5.6

Mode		TX channel 55765					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3602.50	-26.6	20.1	0.5	20.6	23.0	-2.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3602.50	-28.6	17.2	0.5	17.7	23.0	-5.3

Mode		TX channel 56215					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3647.50	-26.2	20.6	0.4	21.0	23.0	-2.0
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3647.50	-28.0	17.6	0.4	18.0	23.0	-5.0

Mode		TX channel 56665					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3692.50	-26.0	20.5	0.6	21.1	23.0	-1.9
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3692.50	-28.1	17.0	0.6	17.6	23.0	-5.4

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 48, Channel Bandwidth: 20MHz

Mode		TX channel 55340					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3560.00	-26.3	20.3	0.5	20.8	23.0	-2.2
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3560.00	-29.0	16.9	0.5	17.4	23.0	-5.6

Mode		TX channel 55780					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3603.00	-26.7	20.0	0.5	20.5	23.0	-2.5
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3603.00	-28.4	17.4	0.5	17.9	23.0	-5.1

Mode		TX channel 56210					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3647.00	-26.2	20.6	0.4	21.0	23.0	-2.0
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3647.00	-27.9	17.7	0.4	18.1	23.0	-4.9

Mode		TX channel 56640					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3690.00	-27.1	19.5	0.6	20.1	23.0	-2.9
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3690.00	-28.3	16.8	0.6	17.4	23.0	-5.6

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

4.2 Frequency Stability Measurement

4.2.1 Limits of Frequency Stabiliity Measurement

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency band.

4.2.2 Test Procedure

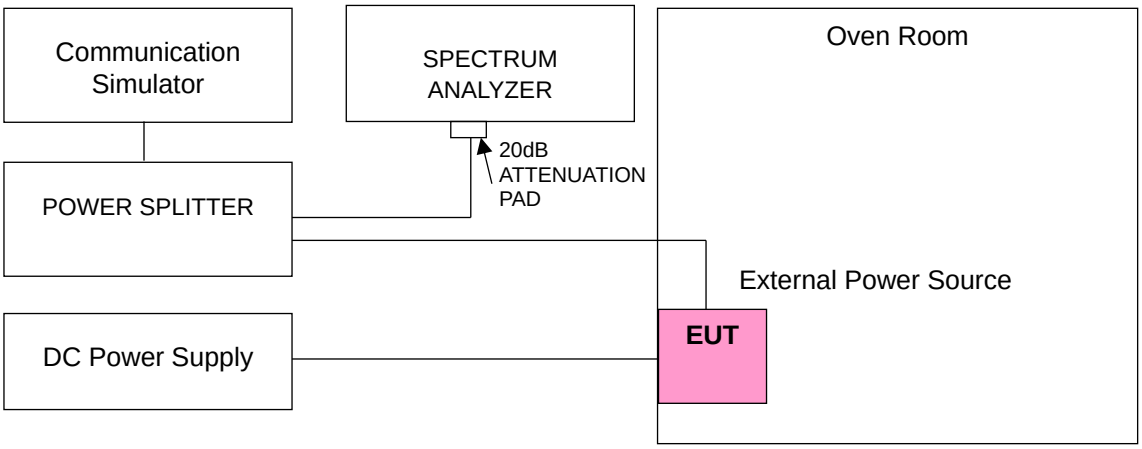
a. Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.

b. EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.

c. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the ±0.5 ℃ during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

NOTE: The frequency error was recorded frequency error from the communication simulator.

4.2.3 Test Setup



4.2.4 Test Results

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 48, Channel Bandwidth: 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.4	3552.500003	0.001	3697.500004	0.001
3.85	3552.500003	0.001	3697.500001	0.000
4.4	3552.500002	0.001	3697.500003	0.001

Note: The applicant defined the normal working voltage is from 3.4Vdc to 4.4Vdc.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 48, Channel Bandwidth: 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3552.500002	0.001	3697.500002	0.001
-20	3552.500001	0.000	3697.500002	0.000
-10	3552.500002	0.001	3697.500003	0.001
0	3552.500003	0.001	3697.500003	0.001
10	3552.500003	0.001	3697.500001	0.000
20	3552.499997	-0.001	3697.499998	-0.001
30	3552.499999	0.000	3697.499999	0.000
40	3552.499998	-0.001	3697.499997	-0.001
50	3552.499996	-0.001	3697.499998	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 48, Channel Bandwidth: 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.4	3555.000002	0.000	3695.000003	0.001
3.85	3555.000002	0.001	3695.000001	0.000
4.4	3555.000002	0.001	3695.000003	0.001

Note: The applicant defined the normal working voltage is from 3.4Vdc to 4.4Vdc.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 48, Channel Bandwidth: 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3555.000001	0.000	3695.000003	0.001
-20	3555.000004	0.001	3695.000002	0.000
-10	3555.000003	0.001	3695.000003	0.001
0	3555.000001	0.000	3695.000003	0.001
10	3555.000002	0.001	3695.000002	0.001
20	3554.999999	0.000	3694.999999	0.000
30	3554.999997	-0.001	3694.999998	-0.001
40	3554.999996	-0.001	3694.999997	-0.001
50	3554.999997	-0.001	3694.999998	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 48, Channel Bandwidth: 15MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.4	3557.500003	0.001	3692.500002	0.001
3.85	3557.500002	0.001	3692.500004	0.001
4.4	3557.500003	0.001	3692.500003	0.001

Note: The applicant defined the normal working voltage is from 3.4Vdc to 4.4Vdc.

Frequency Error vs. Temperature

Temp. (℃)	LTE Band 48, Channel Bandwidth: 15MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3557.500003	0.001	3692.500003	0.001
-20	3557.500003	0.001	3692.500001	0.000
-10	3557.500004	0.001	3692.500004	0.001
0	3557.500002	0.001	3692.500004	0.001
10	3557.500002	0.000	3692.500002	0.001
20	3557.499998	-0.001	3692.499998	-0.001
30	3557.499998	-0.001	3692.499997	-0.001
40	3557.499996	-0.001	3692.499999	0.000
50	3557.499997	-0.001	3692.499998	0.000

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 48, Channel Bandwidth: 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.4	3560.000002	0.001	3690.000003	0.001
3.85	3560.000003	0.001	3690.000002	0.000
4.4	3560.000002	0.001	3690.000002	0.000

Note: The applicant defined the normal working voltage is from 3.4Vdc to 4.4Vdc.

Frequency Error vs. Temperature

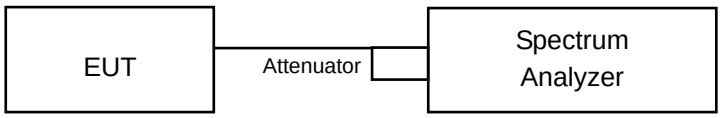
Temp. (℃)	LTE Band 48, Channel Bandwidth: 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3560.000001	0.000	3690.000001	0.000
-20	3560.000002	0.001	3690.000002	0.001
-10	3560.000001	0.000	3690.000003	0.001
0	3560.000002	0.001	3690.000004	0.001
10	3560.000002	0.000	3690.000002	0.000
20	3559.999998	-0.001	3689.999998	-0.001
30	3559.999997	-0.001	3689.999998	0.000
40	3559.999997	-0.001	3689.999998	-0.001
50	3559.999998	-0.001	3689.999997	-0.001

4.3 Emission Bandwidth Measurement

4.3.1 Emission Bandwidth Measurement

Reference only

4.3.2 Test Setup



4.3.3 Test Instruments

Refer to section 4.1.3 to get information of above instrument.

4.3.4 Test Procedure

Occupied Bandwdith & 26dBc Bandwidth

1. The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be wide enough to see sufficient roll off of the signal to make the measurement.
2. The nominal RBW shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set ≥ 3 × RBW.
3. Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation.
   NOTE—Step 1), step 2), and step 3) may require iteration to adjust within the specified tolerances.
4. The dynamic range of the spectrum analyzer at the selected RBW shall be more than 10 dB below the target "−X dB" requirement, i.e., if the requirement calls for measuring the −26 dB OBW, the spectrum analyzer noise floor at the selected RBW shall be at least 36 dB below the reference level.
5. Set spectrum analyzer detection mode to peak, and the trace mode to max hold.
6. Determine the reference value by either of the following:
   a) Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace (this is the reference value).
   b) Set the EUT to transmit an unmodulated carrier. Set the spectrum analyzer marker to the level of the carrier.
7. Determine the "−X dB amplitude" as equal to (Reference Value − X). Alternatively, this calculation can be performed on the spectrum analyzer using the delta-marker measurement function.
8. Determine the "99% of OBW Power" as equal to (Occupied Bandwidth). This calculation can be performed on the spectrum analyzer.

4.3.5 Deviation fromTest Standard

No deviation.

4.3.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.7 Test Result (-26dB Bandwidth)

LTE Band 48

LTE Band 48, Channel Bandwidth 5MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
55265	3552.5	4.69	4.71	4.69
55745	3600.5	4.74	4.70	4.69
56235	3649.5	4.70	4.69	4.68
56715	3697.5	4.74	4.71	4.73
LTE Band 48, Channel Bandwidth 10MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
55290	3555.0	9.28	9.28	9.28
55750	3601.0	9.28	9.27	9.32
56220	3648.0	9.29	9.29	9.34
56690	3695.0	9.29	9.25	9.28
LTE Band 48, Channel Bandwidth 15MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
55315	3557.5	13.91	13.92	13.91
55765	3602.5	13.91	13.90	13.91
56215	3647.5	13.92	13.90	13.91
56665	3692.5	13.92	13.87	13.88
LTE Band 48, Channel Bandwidth 20MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
55340	3560.0	18.53	18.50	18.50
55780	3603.0	18.49	18.47	18.48
56210	3647.0	18.53	18.50	18.51
56640	3690.0	18.50	18.51	18.51

Spectrum Plot of Worst Value	
5MHz / QPSK	10MHz / 64QAM
15MHz / QPSK	20MHz / QPSK

4.3.8 Test Result (Occupied Bandwidth)

LTE Band 48, Channel Bandwidth 5MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
55265	3552.5	4.45	4.45	4.45
55745	3600.5	4.47	4.45	4.45
56235	3649.5	4.45	4.45	4.45
56715	3697.5	4.46	4.45	4.46
LTE Band 48, Channel Bandwidth 10MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
55290	3555.0	8.89	8.92	8.91
55750	3601.0	8.88	8.92	8.93
56220	3648.0	8.91	8.91	8.91
56690	3695.0	8.90	8.91	8.93
LTE Band 48, Channel Bandwidth 15MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
55315	3557.5	13.39	13.34	13.38
55765	3602.5	13.36	13.38	13.36
56215	3647.5	13.37	13.38	13.36
56665	3692.5	13.40	13.39	13.39
LTE Band 48, Channel Bandwidth 20MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
55340	3560.0	17.79	17.82	17.82
55780	3603.0	17.84	17.84	17.81
56210	3647.0	17.83	17.80	17.80
56640	3690.0	17.82	17.81	17.81

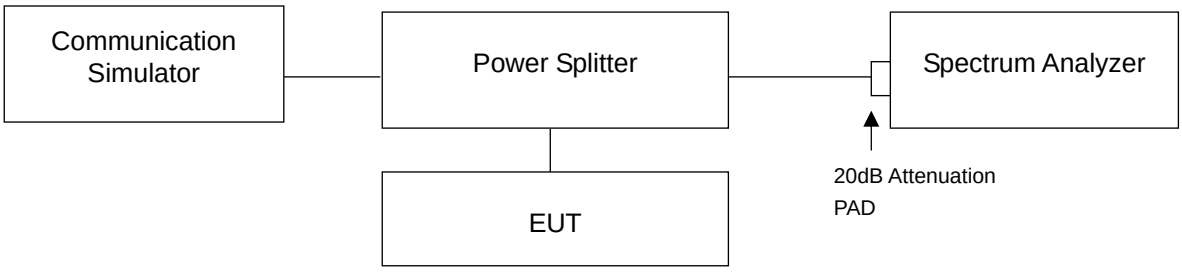
Spectrum Plot of Worst Value	
5MHz / QPSK	10MHz / 64QAM
15MHz / QPSK	20MHz / 16QAM

4.4 Peak to Average Ratio Measurement

4.4.1 Limits of Peak to Average Ratio Measurement

In measuring transmissions in this band using an average power technique, the peak to-average ratio (PAR) of the transmission may not exceed 13 dB

4.4.2 Test Setup



4.4.3 Test Procedures

a. Set resolution/measurement bandwidth ≥ signal's occupied bandwidth;

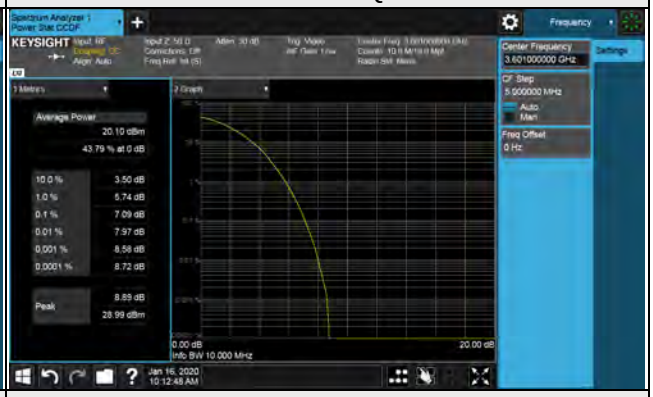
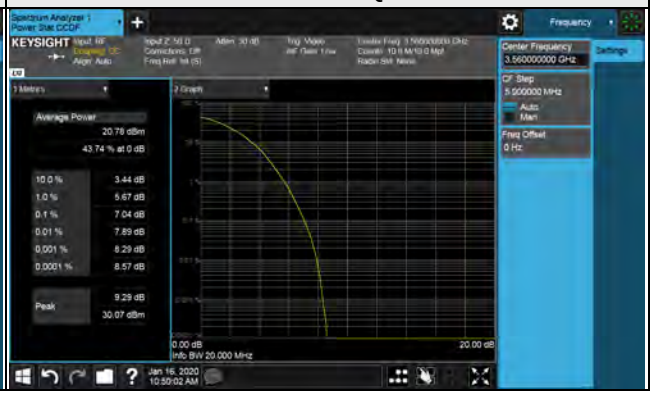
b. Set the number of counts to a value that stabilizes the measured CCDF curve;

c. Record the maximum PAPR level associated with a probability of 0.1%.

4.4.4 Test Results

LTE Band 48

LTE Band 48, Channel Bandwidth 5MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
55265	3552.5	5.48	6.16	6.84
55745	3600.5	5.28	5.81	6.76
56235	3649.5	5.54	5.95	6.83
56715	3697.5	5.67	6.22	6.82
LTE Band 48, Channel Bandwidth 10MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
55290	3555.0	6.21	6.63	7.07
55750	3601.0	6.16	6.33	7.09
56220	3648.0	6.23	6.31	7.09
56690	3695.0	6.01	6.55	6.96
LTE Band 48, Channel Bandwidth 15MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
55315	3557.5	6.00	6.54	7.12
55765	3602.5	5.89	6.27	6.98
56215	3647.5	5.87	6.46	6.93
56665	3692.5	5.83	6.46	6.99
LTE Band 48, Channel Bandwidth 20MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
55340	3560.0	6.00	6.53	7.04
55780	3603.0	5.60	6.32	6.92
56210	3647.0	5.66	6.54	6.91
56640	3690.0	5.77	6.46	6.90

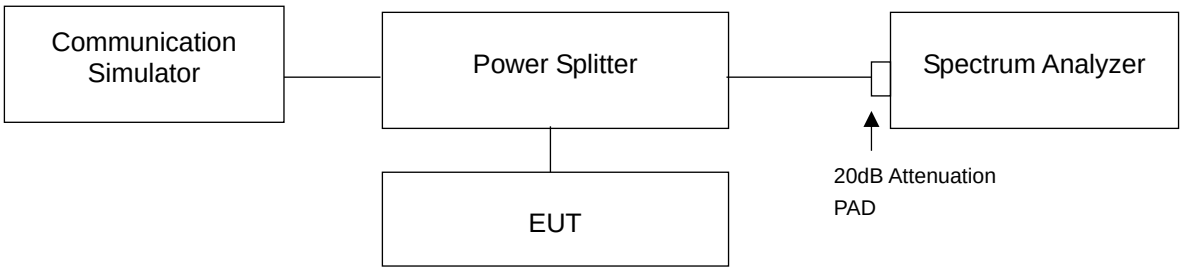
Spectrum Plot of Worst Value	
5MHz / 64QAM	10MHz / 64QAM
	
15MHz / 64QAM	20MHz / 64QAM
	

4.5 Conducted Spurious Emissions

4.5.1 Limits of Conducted Spurious Emissions Measurement

Power of any emissions outside the Fundamental	Limit
Within 0-10MHz above the Assigned Channel	-13 dBm/MHz
Within 0-10MHz below the Assigned Channel	
Greater than 0-10MHz above the Assigned Channel	-25 dBm/MHz
Greater than 0-10MHz below the Assigned Channel	
Power of any emission below 3530MHz	-40 dBm/MHz
Power of any emission above 3720MHz	

4.5.2 Test Setup



4.5.3 Test Procedure

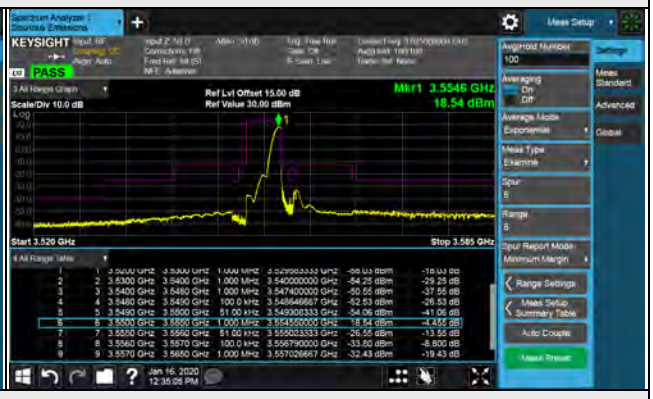
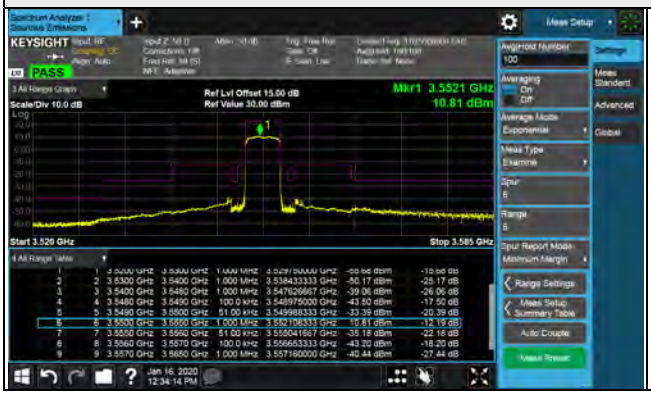
a. The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.

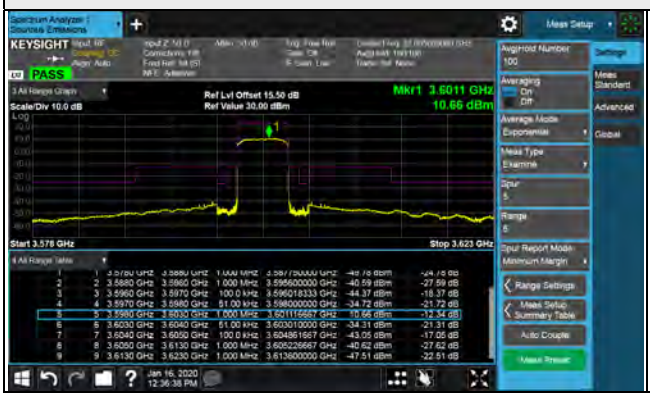
b. Measuring frequency range are from 9 kHz to 40GHz. 20dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz is used for conducted emission measurement.

c. Measuring frequency band edge, 20dB attenuation pad is connected with spectrum. 1% of the fundamental emission bandwidth is used for conducted emission measurement.

d. For 5 MHz and 10 MHz channel BW mode, extend the 1% range from 1M to 2M above and below the channel edge and then reduce the limit further by 10 log (1000/51)=13dB (i.e. total -13 + -13=-26dB) to compensate for the integration from 51k to 1M.

4.5.4 Test Results

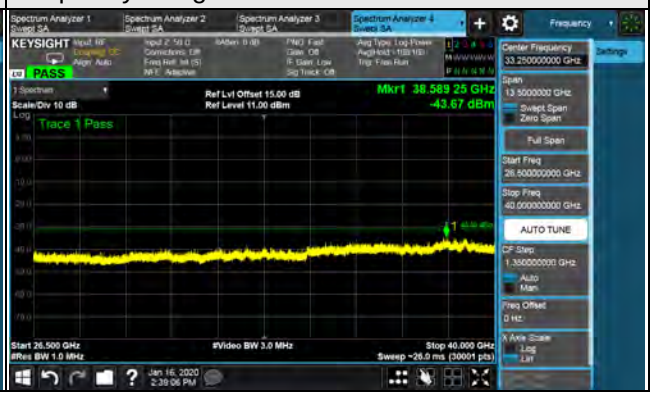
LTE Band 48, Channel Bandwidth 5MHz	
Channel 55265 (3552.5MHz)	
1RB	
	
Full RB	
	

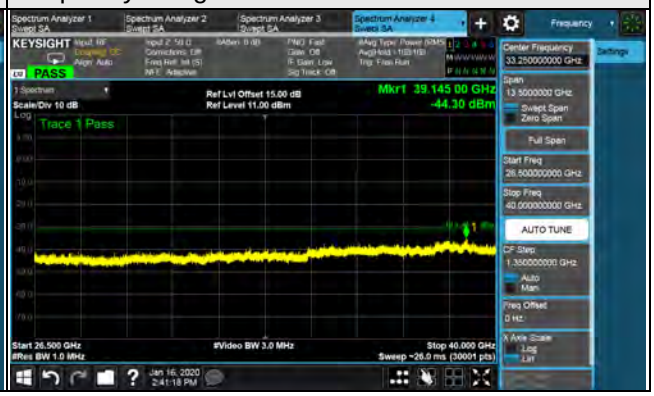
Channel 55745 (3600.5MHz)	
1RB	
Full RB	
	

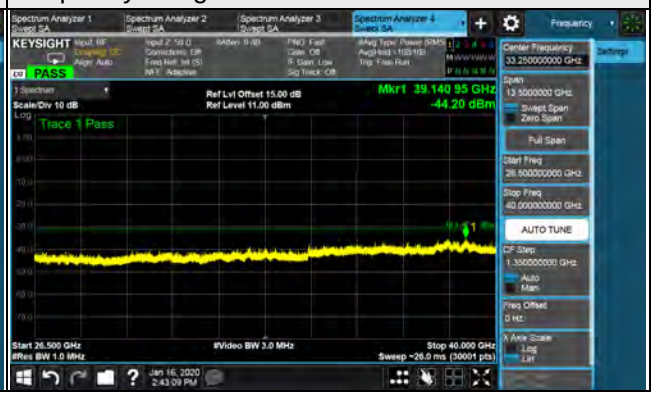
Channel 56235 (3649.5MHz)	
1RB	
Full RB	

Channel 56715 (3697.5MHz)	
1RB	
Full RB	

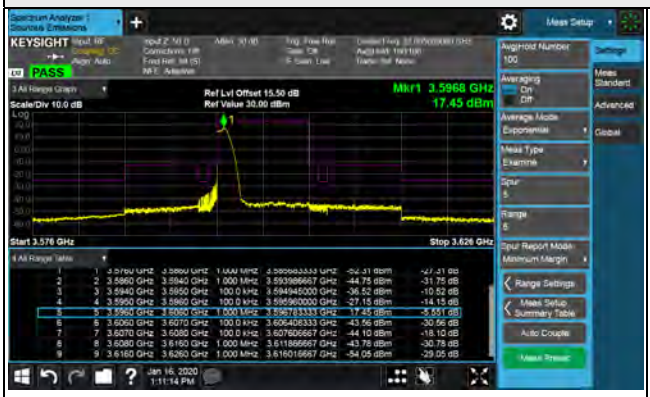
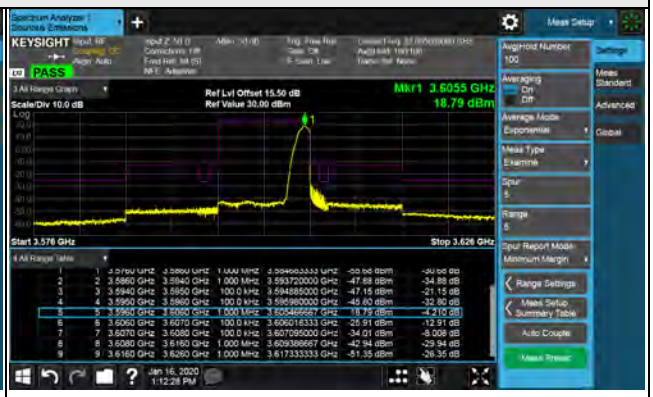
LTE Band 48, Channel Bandwidth 5MHz	
Channel 55265 (3552.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~3.5GHz
Frequency Range : 3.75GHz~26.5GHz	Frequency Range : 26.5GHz~40GHz

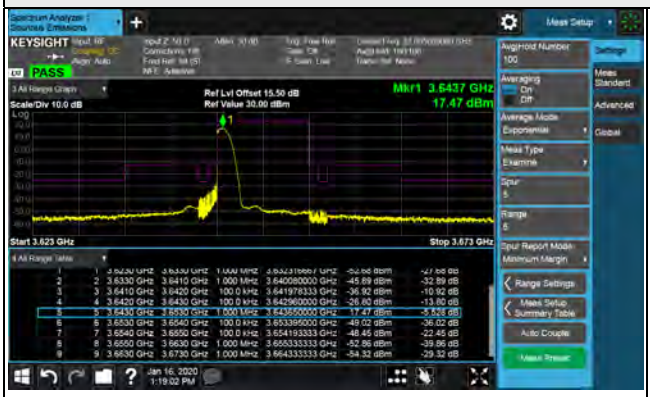
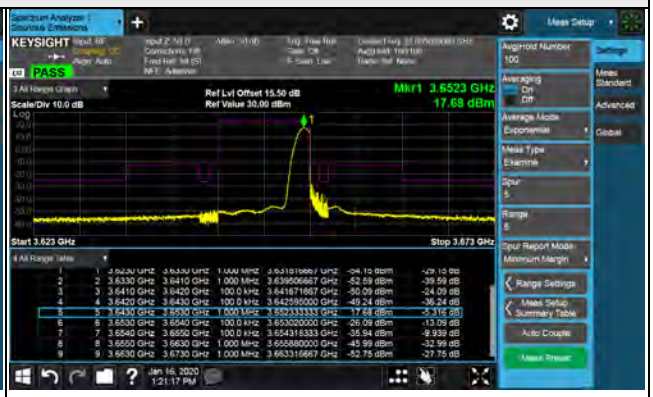
LTE Band 48, Channel Bandwidth 5MHz	
Channel 55745 (3600.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~3.5GHz
Frequency Range : 3.75GHz~26.5GHz	Frequency Range : 26.5GHz~40GHz
	

LTE Band 48, Channel Bandwidth 5MHz	
Channel 56235 (3649.5MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~3.5GHz
Frequency Range : 3.75GHz~26.5GHz	Frequency Range : 26.5GHz~40GHz
	

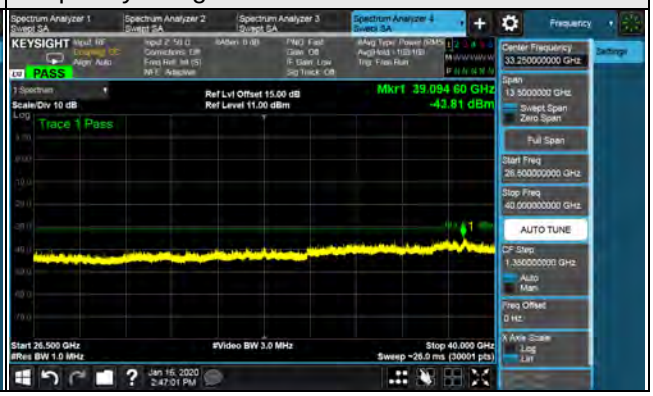
LTE Band 48, Channel Bandwidth 5MHz	
Channel 56715 (3697.50MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~3.5GHz
Frequency Range : 3.75GHz~26.5GHz	Frequency Range : 26.5GHz~40GHz
	

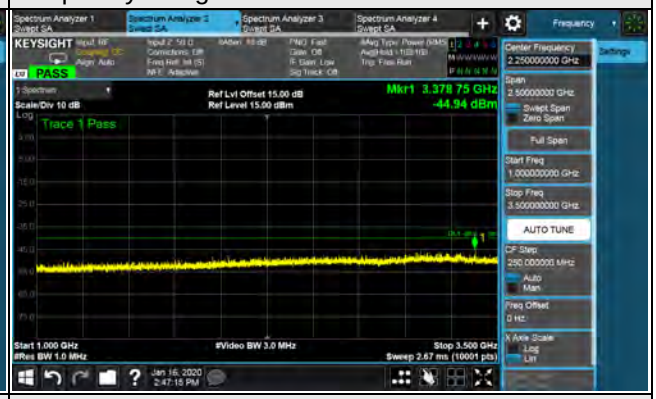
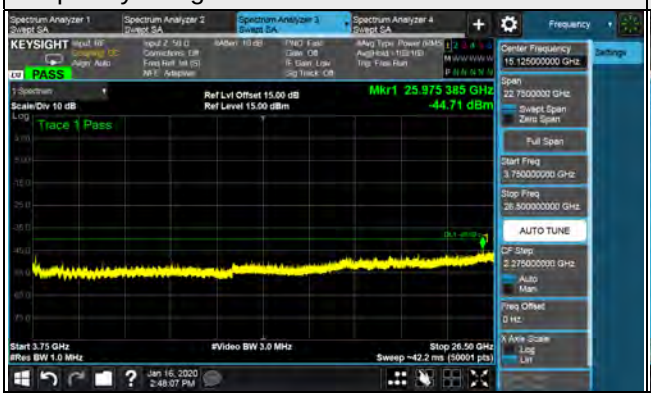
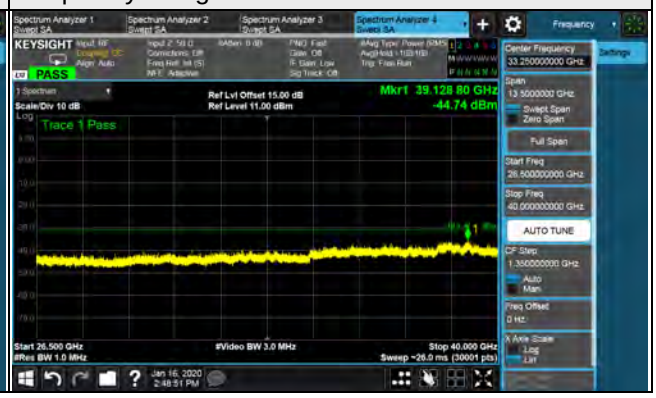
LTE Band 48, Channel Bandwidth 10MHz	
Channel 55290 (3555.0MHz)	
1RB	
Full RB	

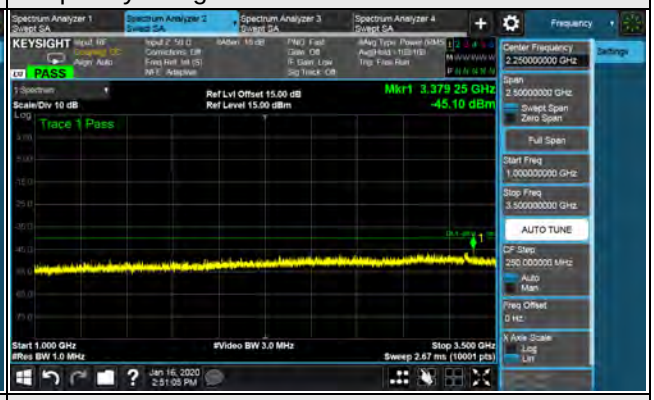
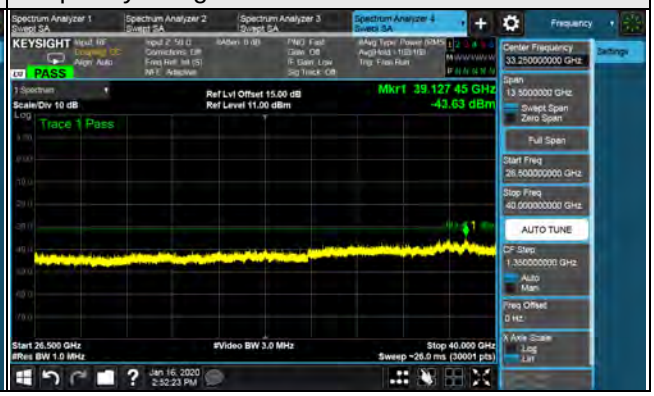
Channel 55750 (3601.00MHz)	
1RB	
	
Full RB	

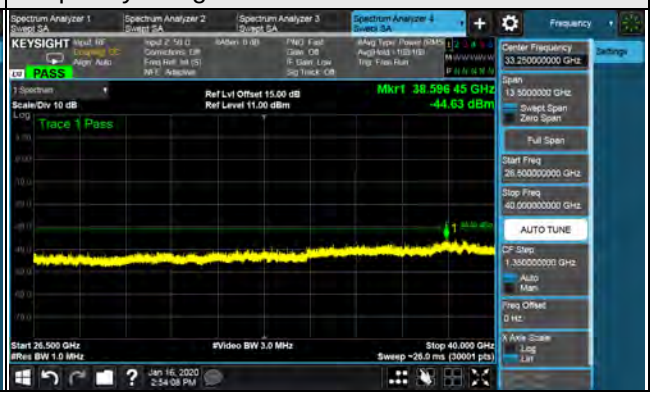
Channel 56220 (3648.00MHz)	
1RB	
	
Full RB	

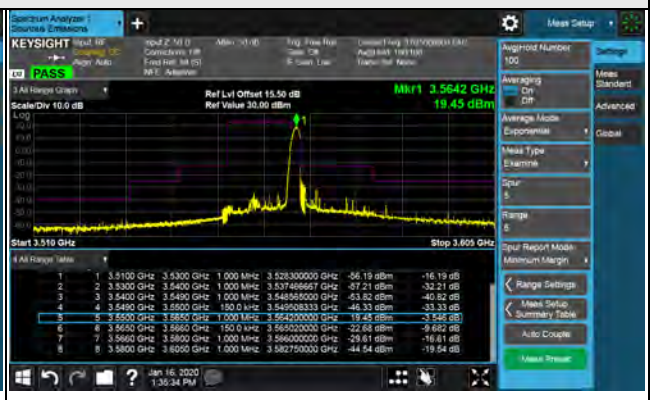
Channel 56690 (3695.0MHz)	
1RB	
Full RB	

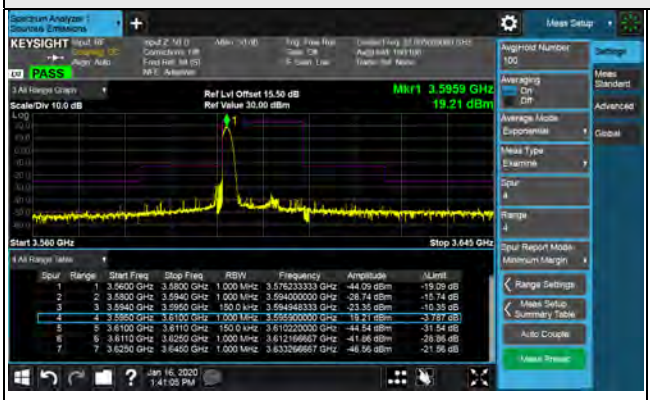
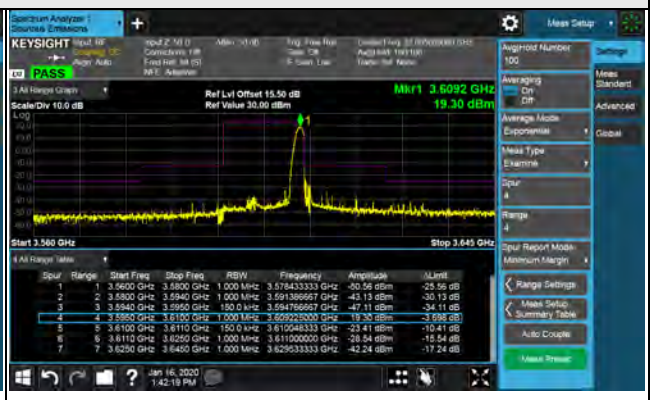
LTE Band 48, Channel Bandwidth 10MHz	
Channel 55290 (3555.0MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~3.5GHz
Frequency Range : 3.75GHz~26.5GHz	Frequency Range : 26.5GHz~40GHz
	

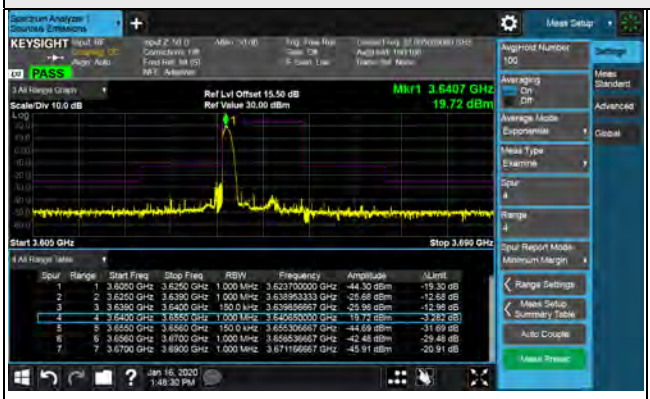
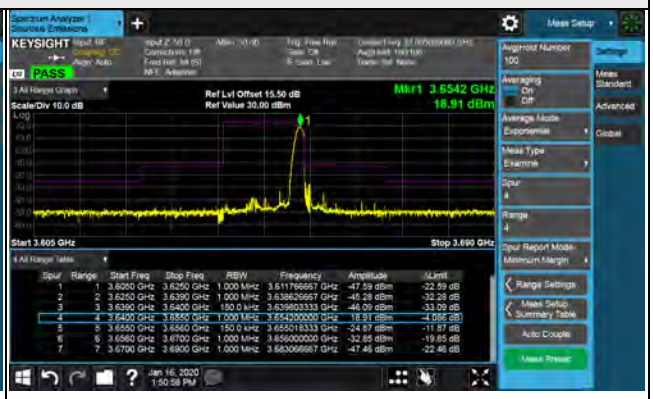
LTE Band 48, Channel Bandwidth 10MHz	
Channel 55750 (3601.0MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~3.5GHz
	
Frequency Range : 3.75GHz~26.5GHz	Frequency Range : 26.5GHz~40GHz
	

LTE Band 48, Channel Bandwidth 10MHz	
Channel 56220 (3648.0MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~3.5GHz
	
Frequency Range : 3.75GHz~26.5GHz	Frequency Range : 26.5GHz~40GHz
	

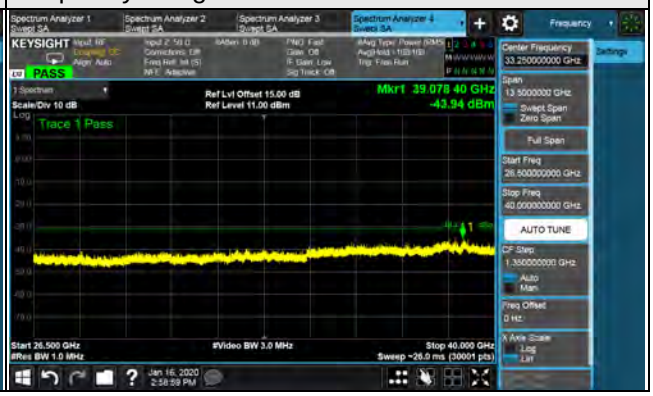
LTE Band 48, Channel Bandwidth 10MHz	
Channel 56690 (3695.0MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~3.5GHz
Frequency Range : 3.75GHz~26.5GHz	Frequency Range : 26.5GHz~40GHz
	

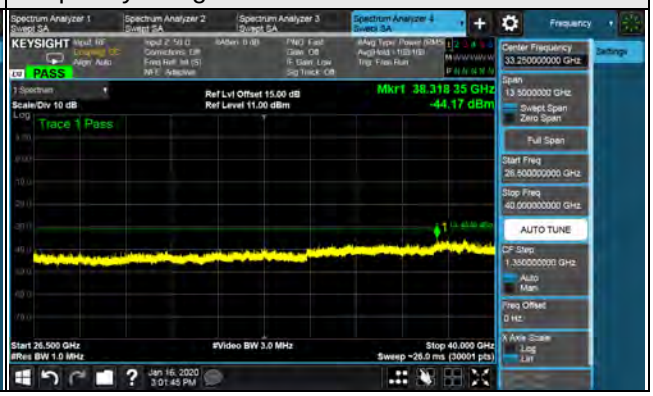
LTE Band 48, Channel Bandwidth 15MHz	
Channel 55315 (3557.50MHz)	
1RB	
	
Full RB	

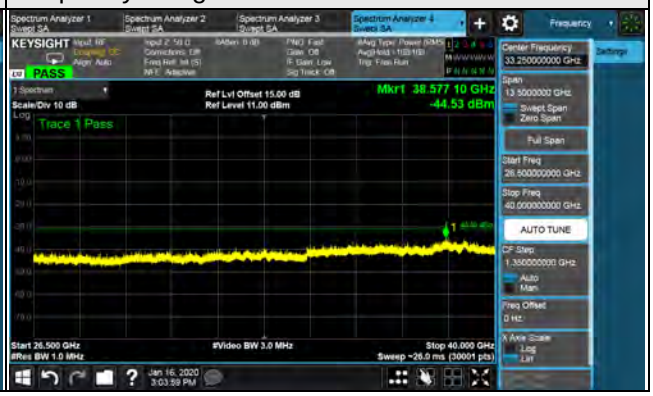
LTE Band 48, Channel Bandwidth 15MHz	
Channel 55765 (3602.50MHz)	
1RB	
	
Full RB	

LTE Band 48, Channel Bandwidth 15MHz	
Channel 56215 (3647.50MHz)	
1RB	
	
Full RB	

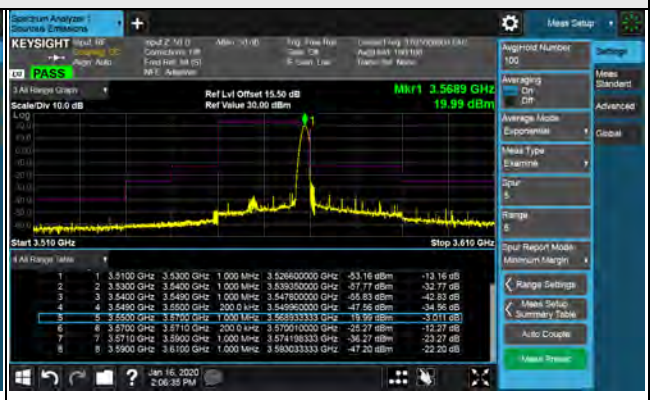
Channel 56665 (3692.5MHz)	
1RB	
Full RB	

LTE Band 48, Channel Bandwidth 15MHz	
Channel 55315 (3557.50MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~3.5GHz
Frequency Range : 3.75GHz~26.5GHz	Frequency Range : 26.5GHz~40GHz
	

LTE Band 48, Channel Bandwidth 15MHz	
Channel 55765 (3602.50MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~3.5GHz
Frequency Range : 3.75GHz~26.5GHz	Frequency Range : 26.5GHz~40GHz
	

LTE Band 48, Channel Bandwidth 15MHz	
Channel 56215 (3647.50MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~3.5GHz
Frequency Range : 3.75GHz~26.5GHz	Frequency Range : 26.5GHz~40GHz
	

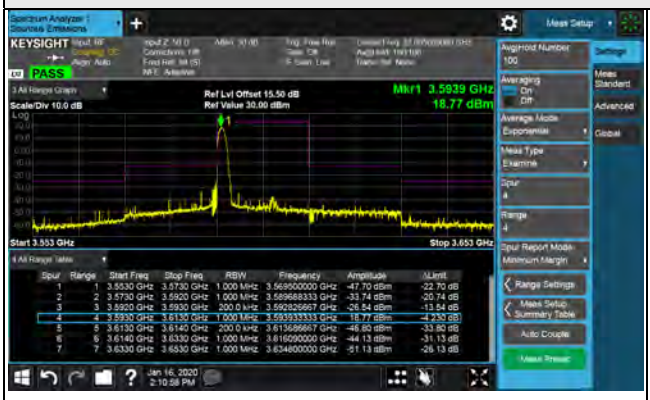
LTE Band 48, Channel Bandwidth 15MHz	
Channel 56665 (3692.50MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~3.5GHz
Frequency Range : 3.75GHz~26.5GHz	Frequency Range : 26.5GHz~40GHz

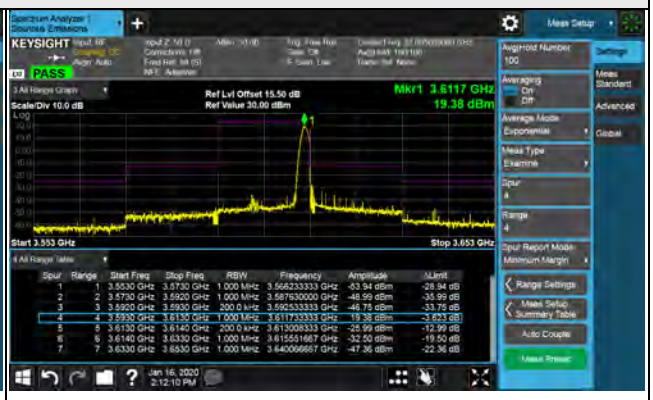
LTE Band 48, Channel Bandwidth 20MHz	
Channel 55340 (3560.0MHz)	
1RB	
	
Full RB	

LTE Band 48, Channel Bandwidth 20MHz

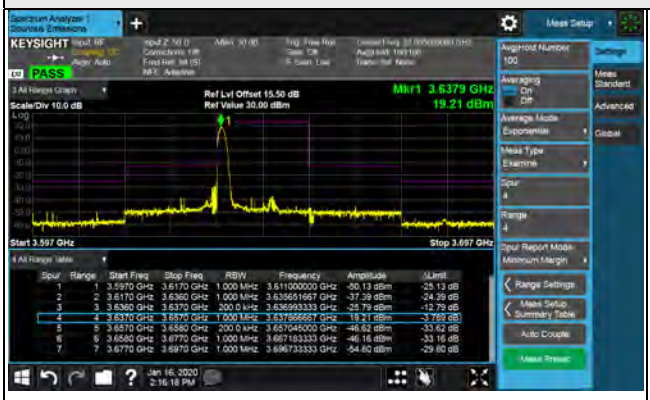
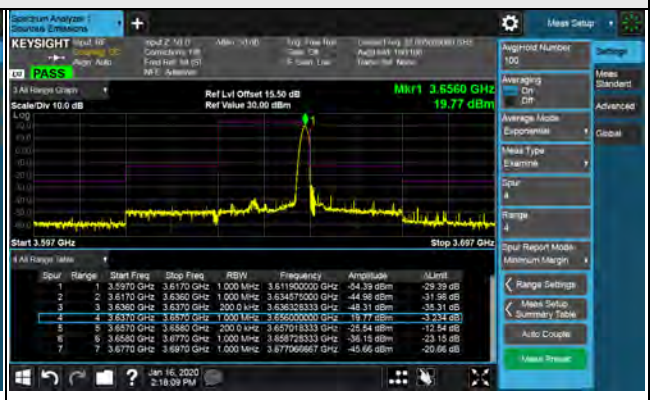
Channel 55780 (3603.0MHz)

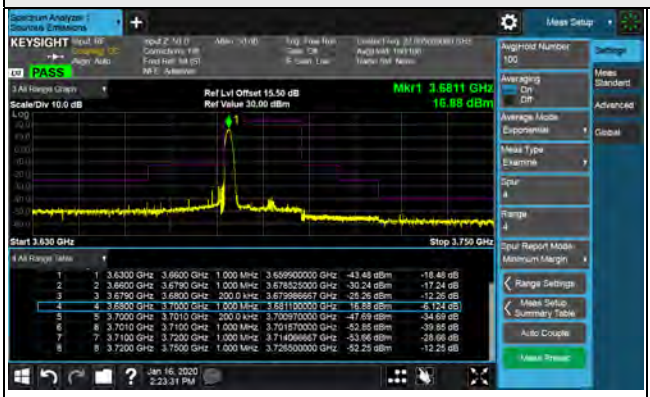
1RB

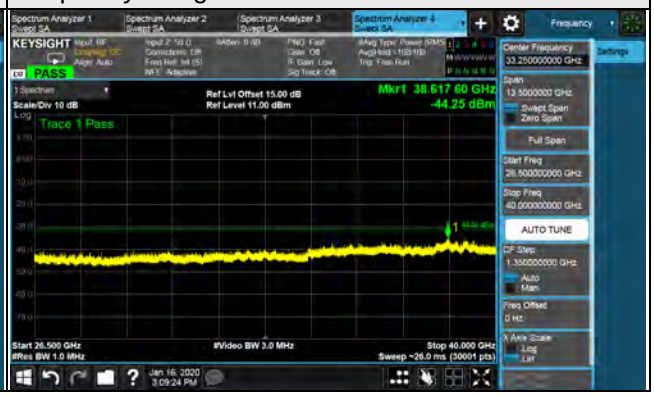




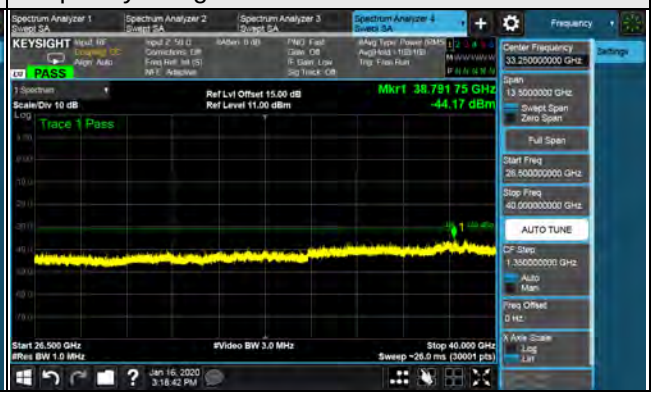
Full RB

LTE Band 48, Channel Bandwidth 20MHz	
Channel 56210 (3647.0MHz)	
1RB	
	
Full RB	

Channel 56640 (3690.0MHz)	
1RB	
	
Full RB	

LTE Band 48, Channel Bandwidth 20MHz	
Channel 55340 (3560.0MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~3.5GHz
Frequency Range : 3.75GHz~26.5GHz	Frequency Range : 26.5GHz~40GHz
	

LTE Band 48, Channel Bandwidth 20MHz	
Channel 55780 (3603.0MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~3.5GHz
Frequency Range : 3.75GHz~26.5GHz	Frequency Range : 26.5GHz~40GHz

LTE Band 48, Channel Bandwidth 20MHz	
Channel 56210 (3647.0MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~3.5GHz
Frequency Range : 3.75GHz~26.5GHz	Frequency Range : 26.5GHz~40GHz
	

LTE Band 48, Channel Bandwidth 20MHz	
Channel 56640 (3690.0MHz)	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~3.5GHz
Frequency Range : 3.75GHz~26.5GHz	Frequency Range : 26.5GHz~40GHz

4.6 Radiated Emission Measurement

4.6.1 Limits of Radiated Emission Measurement

The power of any emissions below 3530 MHz or above 3720 MHz shall not exceed −40dBm/MHz.

4.6.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESIB7	100187	May 30, 2019	May 29, 2020
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Sep. 23, 2019	Sep. 22, 2020
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Nov. 11, 2019	Nov. 10, 2020
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-1170	Nov. 24, 2019	Nov. 23, 2020
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Nov. 24, 2019	Nov. 23, 2020
Preamplifier Agilent (Below 1GHz)	8447D	2944A10631	Jul. 11, 2019	Jul. 10, 2020
Preamplifier KEYSIGHT (Above 1GHz)	83017A	MY53270295	Jun. 11, 2019	Jun. 10, 2020
RF Coaxial Cable WORKEN With 5dB PAD	8D-FB	Cable-CH4-01	Aug. 20, 2019	Aug. 19, 2020
RF Coaxial Cable EMCI	EMC102-KM-KM-3000	150929	Aug. 20, 2019	Aug. 19, 2020
RF Coaxial Cable EMCI	EMC102-KM-KM-600	150928	Aug. 20, 2019	Aug. 19, 2020
RF signal cable HUBER+SUHNER	SUCOFLEX 104	MY 13380+295012/04	Jul. 11, 2019	Jul. 10, 2020
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH4-03 (250724)	Jul. 11, 2019	Jul. 10, 2020
Software BV ADT	ADT_Radiated_V7.6.15.9.5	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021703	NA	NA
Turn Table BV ADT	TT100	TT93021703	NA	NA
Turn Table Controller BV ADT	SC100	SC93021703	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 03, 2019	Jun. 02, 2020
JFW 20dB attenuation	50HF-020-SMA	NA	NA	NA
True RMS Clamp Meter Fluke	325	31130711WS	May 21, 2019	May 20, 2020

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Chamber 4.

4.6.3 Test Procedures

a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m (below or equal 1 GHz) and/or 1.5 m (above 1 GHz) height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.

b. The substitution antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value" of step a. Record the power level of S.G

c. EIRP = Output power level of S.G – TX cable loss + Antenna gain of substitution horn.

d. ERP power can be calculated form EIRP power by subtracting the gain of dipole, ERP power = EIRP power - 2.15dBi.

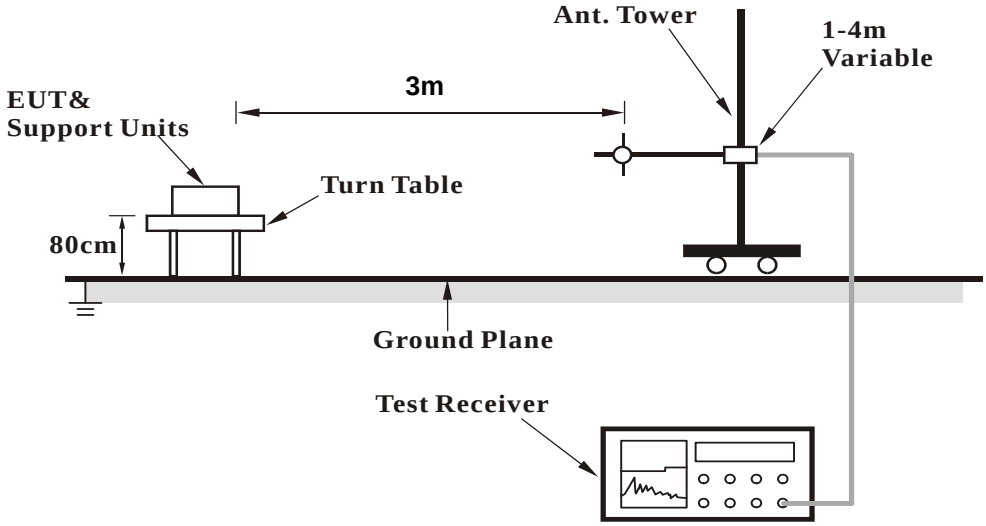
Note: The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

4.6.4 Deviation from Test Standard

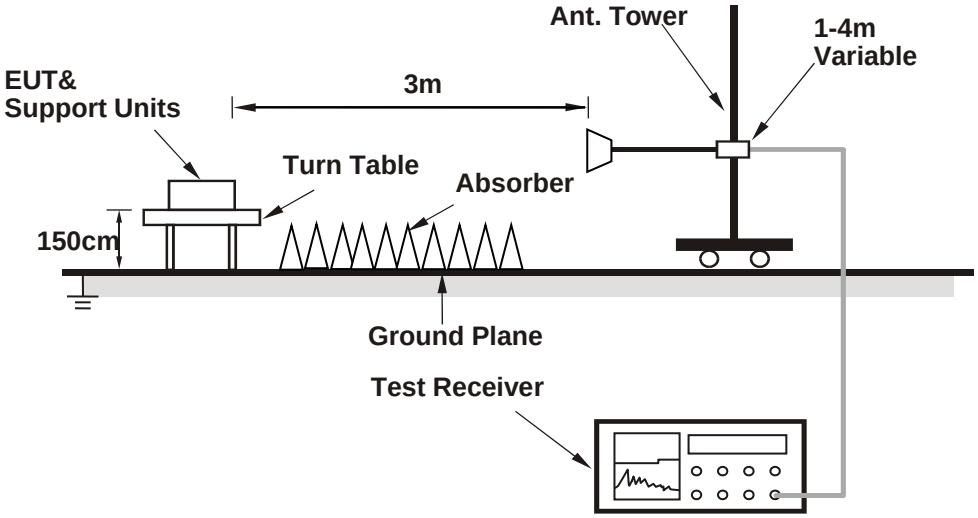
No deviation.

4.6.5 Test Set Up

<Frequency Range below 1GHz>



<Frequency Range above 1GHz>



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.6.6 Test Results

Test was done with 50ohm terminator on antenna port.

Below 1GHz Data：

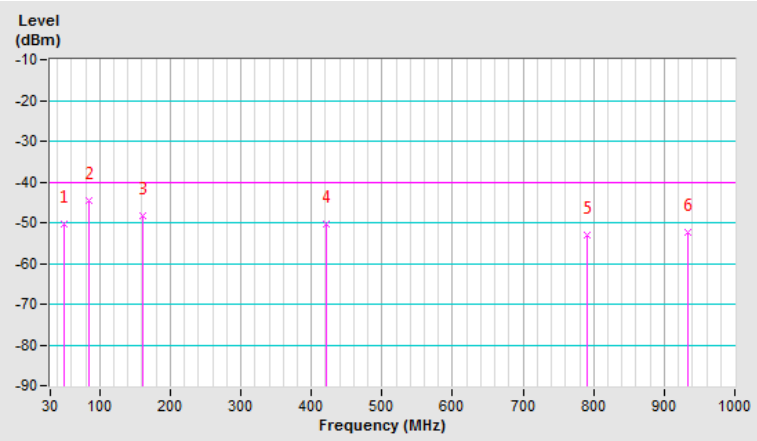
LTE Band 48

Channel Bandwidth: 5 MHz / QPSK

Mode	TX channel 55265 (3552.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Luis Lee		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	49.40	-50.5	-41.0	-9.3	-50.3	-40.0	-10.3
2	**85.29**	**-38.2**	**-44.5**	**-0.2**	**-44.7**	**-40.0**	**-4.7**
3	161.92	-42.6	-49.1	0.7	-48.4	-40.0	-8.4
4	420.91	-49.0	-55.6	5.2	-50.4	-40.0	-10.4
5	790.48	-58.5	-57.2	4.1	-53.1	-40.0	-13.1
6	933.07	-59.4	-56.2	3.9	-52.3	-40.0	-12.3

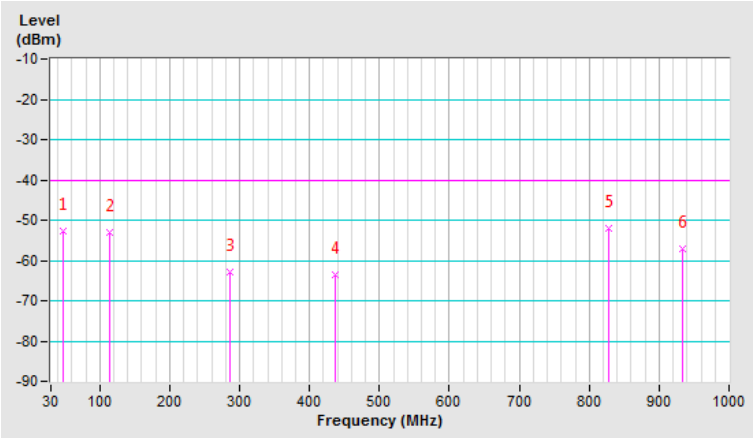
Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



Mode	TX channel 55265 (3552.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Luis Lee		

Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	47.46	-46.6	-42.9	-9.7	-52.6	-40.0	-12.6
2	113.42	-46.4	-53.5	0.3	-53.2	-40.0	-13.2
3	286.08	-63.6	-68.0	5.2	-62.8	-40.0	-22.8
4	436.43	-61.9	-68.6	5.2	-63.4	-40.0	-23.4
5	827.34	-58.5	-56.1	4.0	-52.1	-40.0	-12.1
6	934.04	-65.7	-60.9	3.9	-57.0	-40.0	-17.0

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

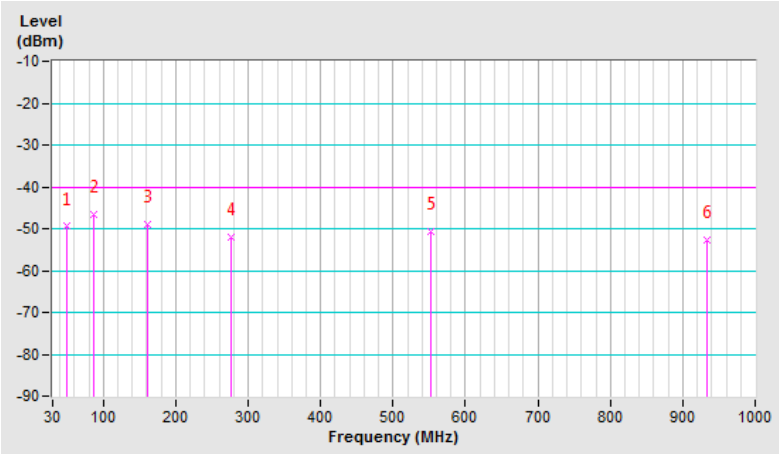


Channel Bandwidth: 20 MHz / QPSK

Mode	TX channel 55340 (3560.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Luis Lee		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	49.40	-49.7	-40.2	-9.3	-49.5	-40.0	-9.5
2	87.23	-39.4	-46.9	0.4	-46.5	-40.0	-6.5
3	160.95	-43.3	-49.4	0.5	-48.9	-40.0	-8.9
4	277.35	-47.2	-57.5	5.3	-52.2	-40.0	-12.2
5	552.83	-50.3	-55.5	4.7	-50.8	-40.0	-10.8
6	934.04	-59.8	-56.6	3.9	-52.7	-40.0	-12.7

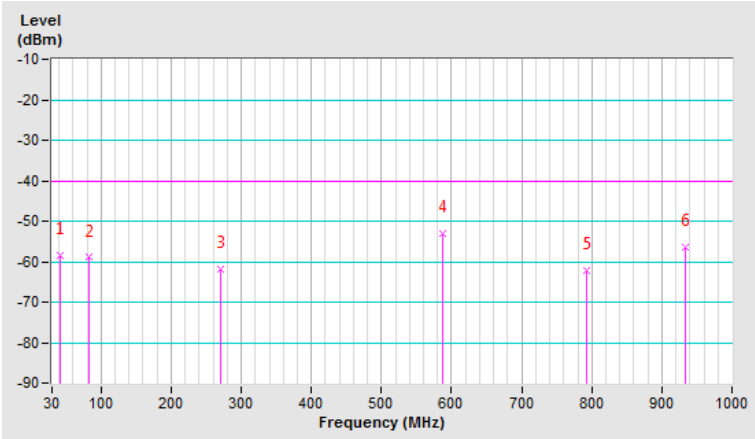
Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



Mode	TX channel 55340 (3560.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Luis Lee		

Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	42.61	-52.0	-47.9	-10.5	-58.4	-40.0	-18.4
2	82.38	-55.0	-58.0	-1.0	-59.0	-40.0	-19.0
3	270.56	-65.1	-67.2	5.3	-61.9	-40.0	-21.9
4	586.78	-56.0	-57.6	4.5	-53.1	-40.0	-13.1
5	793.39	-68.5	-66.3	4.1	-62.2	-40.0	-22.2
6	933.07	-65.0	-60.3	3.9	-56.4	-40.0	-16.4

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



Above 1GHz

LTE Band 48, Channel Bandwidth 5MHz

Mode	TX channel 55265 (3552.5MHz)	Frequency Range	1GHz ~ 40GHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Luis Lee		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	7105.00	-69.8	-51.1	4.7	-46.4	-40.0	-6.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	7105.00	-70.8	-51.8	4.7	-47.1	-40.0	-7.1

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 55745 (3600.5MHz)	Frequency Range	1GHz ~ 40GHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Luis Lee		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	7201.00	-70.8	-51.0	4.5	-46.5	-40.0	-6.5
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	7201.00	-70.4	-51.6	4.5	-47.1	-40.0	-7.1

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 56235 (3649.5MHz)	Frequency Range	1GHz ~ 40GHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Luis Lee		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	7299.00	-70.6	-50.6	4.5	-46.1	-40.0	-6.1
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	7299.00	-70.0	-51.3	4.5	-46.8	-40.0	-6.8

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 56715 (3697.5MHz)	Frequency Range	1GHz ~ 40GHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Luis Lee		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	7395.00	-69.8	-49.6	4.3	-45.3	-40.0	-5.3
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	7395.00	-70.9	-51.4	4.3	-47.1	-40.0	-7.1

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

LTE Band 48, Channel Bandwidth 20MHz

Mode	TX channel 55340 (3560.0MHz)	Frequency Range	1GHz ~ 40GHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Luis Lee		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	7120.00	-69.6	-50.8	4.7	-46.1	-40.0	-6.1
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	7120.00	-70.9	-52.0	4.7	-47.3	-40.0	-7.3

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 55780 (3603.0MHz)	Frequency Range	1GHz ~ 40GHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Luis Lee		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	7206.00	-70.3	-50.5	4.5	-46.0	-40.0	-6.0
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	7206.00	-69.9	-51.1	4.5	-46.6	-40.0	-6.6

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 56210 (3647.0MHz)	Frequency Range	1GHz ~ 40GHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Luis Lee		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	7294.00	-70.7	-50.7	4.5	-46.2	-40.0	-6.2
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	7294.00	-70.2	-51.5	4.5	-47.0	-40.0	-7.0

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 56640 (3690.0MHz)	Frequency Range	1GHz ~ 40GHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Luis Lee		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	7380.00	-69.6	-49.4	4.3	-45.1	-40.0	-5.1
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	7380.00	-71.0	-51.6	4.3	-47.3	-40.0	-7.3

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

Appendix – Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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Email: service.adt@tw.bureauveritas.com
Web Site: www.bureauveritas-adt.com

The address and road map of all our labs can be found in our web site also.

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