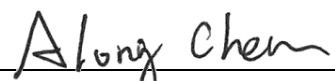


FCC Test Report

FCC ID : MXF-WLTFQT141GN
Equipment : Cat4 Indoor CPE
Model No. : WLTFQT-141GN
Brand Name : Gemtek
Multiple Listing : Refer to item 1.1.1 for more details.
Applicant : Gemtek Technology Co., Ltd.
Address : No. 15-1 Zhonghua Road, Hsinchu Industrial
Park, Hukou, Hsinchu, Taiwan, 30352.
Standard : 47 CFR FCC Part 24 Subpart E
Received Date : May 17, 2018
Tested Date : May 24 ~ May 30, 2018

We, International Certification Corp., would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It may be duplicated completely for legal use with the approval of the applicant. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by:


Along Chen / Assistant Manager

Approved by:

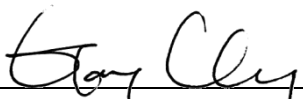

Gary Chang / Manager



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Release Record

Report No.	Version	Description	Issued Date
FG851703P24L	Rev. 01	Initial issue	Jun. 27, 2018

Summary of Test Results

FCC Rules	Test Items	Measured	Result
2.1046 / 24.232(c)	Equivalent Isotropically Radiated Power	Power[dBm]: 27.89	Pass
2.1053 / 24.238(a)	Radiated Emissions	Meet the requirement of limit	Pass
2.1051 / 24.238(a)	Conducted Emissions	Meet the requirement of limit	Pass
2.1051 / 24.238(a)	Band Edge	Meet the requirement of limit	Pass
2.1049 / 24.238(b)	Occupied Bandwidth	Meet the requirement of limit	Pass
2.1051 / 24.232(d)	Peak to average ratio	Meet the requirement of limit	Pass
2.1055 / 24.235	Frequency Stability	Meet the requirement of limit	Pass

1 General Description

1.1 Information

1.1.1 Product Details

The following models are provided to this EUT.

Brand Name	Model Name	Product Name	Description
Gemtek	WLTFQT-141GN	Cat4 Indoor CPE	Main tested model.
Blu-Castle	BC-4GMCPGa		For marketing purpose.
✦ All models are electrically identical, different model names are for marketing purpose.			

1.1.2 Specification of the Equipment under Test (EUT)

Operating Frequency	LTE Band 2: Channel Bandwidth: 1.4MHz: 1850.7~1909.3 MHz Channel Bandwidth: 3MHz: 1851.5 MHz ~ 1908.5 MHz Channel Bandwidth: 5MHz: 1852.5 MHz ~ 1907.5 MHz Channel Bandwidth: 10MHz: 1855 MHz ~ 1905 MHz Channel Bandwidth: 15MHz: 1857.5 MHz ~ 1902.5 MHz Channel Bandwidth: 20MHz: 1860 MHz ~ 1900 MHz
Modulation	QPSK, 16QAM (Uplink)
Release Version	9
Duplex Mode	FDD
UE Category	Cat. 4

1.1.3 Maximum EIRP and Emission Designator

Mode	Modulation	Maximum EIRP (W)	Emission Designator
LTE Band 2, CB: 1.4MHz	QPSK	0.558	1M09G7D
LTE Band 2, CB: 1.4MHz	16QAM	0.458	1M09W7D
LTE Band 2, CB: 3MHz	QPSK	0.560	2M69G7D
LTE Band 2, CB: 3MHz	16QAM	0.470	2M69W7D
LTE Band 2, CB: 5MHz	QPSK	0.552	4M49G7D
LTE Band 2, CB: 5MHz	16QAM	0.450	4M48W7D
LTE Band 2, CB: 10MHz	QPSK	0.590	8M96G7D
LTE Band 2, CB: 10MHz	16QAM	0.439	8M94W7D
LTE Band 2, CB: 15MHz	QPSK	0.615	13M4G7D
LTE Band 2, CB: 15MHz	16QAM	0.439	13M4W7D
LTE Band 2, CB: 20MHz	QPSK	0.592	17M9G7D
LTE Band 2, CB: 20MHz	16QAM	0.440	17M8W7D

1.1.4 Antenna Details

Type	Gain (dBi)	Connector	Remark
Monopole	2.5	No	---

1.1.5 EUT Operational Condition

Supply Voltage	12Vdc from AC adapter		
Operational Voltage	☒ Vnom (120 V)	☒ Vmax (138 V)	☒ Vmin (102 V)
Operational Climatic	☒ Tnom (20°C)	☒ Tmax (50°C)	☒ Tmin (-30°C)

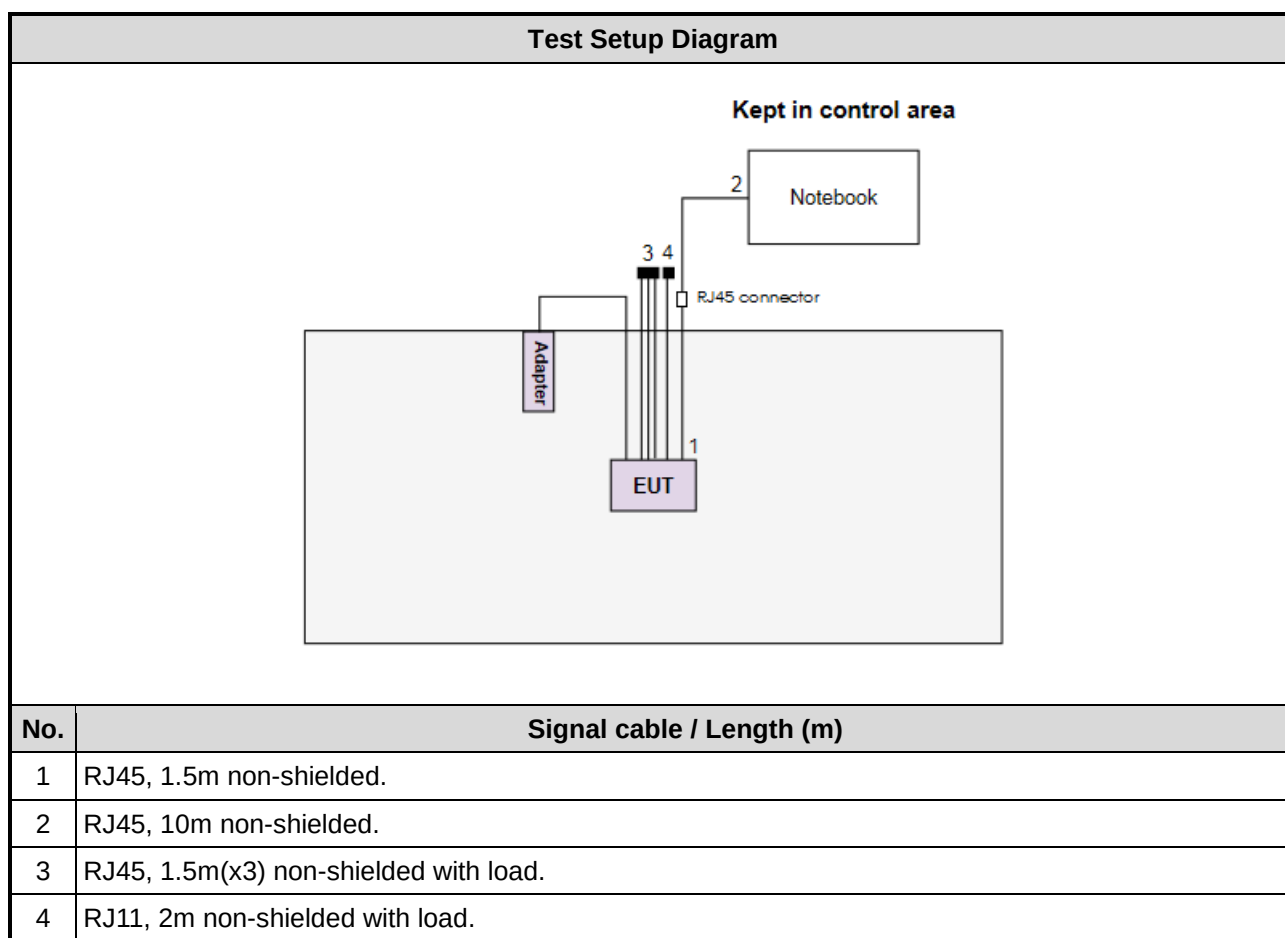
1.1.6 Operating Channel List

LTE Band 2		
Channel Bandwidth (MHz)	Channel	Frequency (MHz)
1.4	18607	1850.7
1.4	18900	1880.0
1.4	19193	1909.3
3	18615	1851.5
3	18900	1880.0
3	19185	1908.5
5	18625	1852.5
5	18900	1880.0
5	19175	1907.5
10	18650	1855.0
10	18900	1880.0
10	19150	1905.0
15	18675	1857.5
15	18900	1880.0
15	19125	1902.5
20	18700	1860.0
20	18900	1880.0
20	19100	1900.0

1.2 Local Support Equipment List

Support Equipment List					
No.	Equipment	Brand	Model	FCC ID	Remarks
1	Notebook	DELL	Latitude E6430	DoC	---
2	RJ45 Load	ICC	---	---	---
3	RJ11 Load	ICC	---	---	---

1.3 Test Setup Chart



1.4 The Equipment List

Test Item	Radiated Emission				
Test Site	966 chamber1 / (03CH01-WS)				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Radio Communication Analyzer	Anritsu	MT8820C	6201240341	Apr. 08, 2018	Apr. 07, 2019
Spectrum Analyzer	R&S	FSV40	101498	Dec. 04, 2017	Dec. 03, 2018
Receiver	R&S	ESR3	101658	Nov. 20, 2017	Nov. 19, 2018
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Jul. 25, 2017	Jul. 24, 2018
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1096	Dec. 20, 2017	Dec. 19, 2018
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 13, 2017	Nov. 12, 2018
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Dec. 07, 2017	Dec. 06, 2018
Preamplifier	EMC	EMC02325	980225	Jul. 28, 2017	Jul. 27, 2018
Preamplifier	Agilent	83017A	MY39501308	Oct. 06, 2017	Oct. 05, 2018
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16140/4	May 09, 2018	May 08, 2019
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16019/4	Dec. 07, 2017	Dec. 06, 2018
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16139/4	Dec. 07, 2017	Dec. 06, 2018
LF cable 1M	EMC	EMCCFD400-NM-N M-1000	16052	Dec. 07, 2017	Dec. 06, 2018
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-001	Dec. 07, 2017	Dec. 06, 2018
LF cable 10M	Woken	CFD400NL-LW	CFD400NL-002	Dec. 07, 2017	Dec. 06, 2018
Radio Communication Analyzer	Anritsu	MT8820C	6201240341	Apr. 08, 2018	Apr. 07, 2019
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101063	Apr. 16, 2018	Apr. 15, 2019
Radio Communication Analyzer	Anritsu	MT8820C	6201240341	Apr. 08, 2018	Apr. 07, 2019
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	Nov. 27, 2017	Nov. 26, 2018
AC POWER SOURCE	APC	AFC-500W	F312060012	Dec. 01, 2017	Nov. 30, 2018
Measurement Software	Sporton	Sporton_1	1.3.30	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

1.5 Test Standards

According to the specification of EUT, the EUT must comply with following standards.

47 CFR FCC Part 24 Subpart E

ANSI C63.4-2014

ANSI C63.26-2015

FCC KDB 971168 D01 Power Meas License Digital Systems v03r01

FCC KDB 412172 D01 Determining ERP and EIRP v01r01

FCC KDB 442401 ERP/EIRP measurement procedures for licensed radio service devices

1.6 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor ($k=2$)).

Measurement Uncertainty	
Parameters	Uncertainty
Bandwidth	± 34.134 Hz
Conducted power	± 0.808 dB
Frequency error	± 34.134 Hz
Temperature	± 0.6 °C
Conducted emission	± 2.670 dB
AC conducted emission	± 2.90 dB
Radiated emission ≤ 1 GHz	± 3.66 dB
Radiated emission > 1 GHz	± 5.63 dB

2 Test Configuration

2.1 Testing Condition and Location Information

Test Item	Test Site	Ambient Condition	Tested By
Radiated Emissions	03CH01-WS	21-22°C / 63%	Vincent Yeh Akun Chung
RF conducted	TH01-WS	23°C / 63%	Brad Wu

- FCC Designation No.: TW2732
- FCC site registration No.: 181692
- IC site registration No.: 10807A-1

2.2 The Worst Test Modes and Channel Details

LTE Band 2			
Test item	Channel Bandwidth	Modulation	Test channel
E.I.R.P	1.4 MHz	QPSK / 16QAM	18607 / 18900 / 19193
Conducted Emissions	3 MHz	QPSK / 16QAM	18615 / 18900 / 19185
Occupied Bandwidth	5 MHz	QPSK / 16QAM	18625 / 18900 / 19175
Peak to Average Ratio	10 MHz	QPSK / 16QAM	18650 / 18900 / 19150
	15 MHz	QPSK / 16QAM	18675 / 18900 / 19125
	20 MHz	QPSK / 16QAM	18700 / 18900 / 19100
Radiated Emission ≤ 1GHz	1.4 MHz	QPSK	19193
	3 MHz	QPSK	19185
	5 MHz	QPSK	19175
	10 MHz	QPSK	19150
	15 MHz	QPSK	19125
	20 MHz	QPSK	19100
Radiated Emission > 1GHz	1.4 MHz	QPSK	18607 / 18900 / 19193
	3 MHz	QPSK	18615 / 18900 / 19185
	5 MHz	QPSK	18625 / 18900 / 19175
	10 MHz	QPSK	18650 / 18900 / 19150
	15 MHz	QPSK	18675 / 18900 / 19125
	20 MHz	QPSK	18700 / 18900 / 19100
Band Edge	1.4 MHz	QPSK / 16QAM	18607 / 19193
	3 MHz	QPSK / 16QAM	18615 / 19185
	5 MHz	QPSK / 16QAM	18625 / 19175
	10 MHz	QPSK / 16QAM	18650 / 19150
	15 MHz	QPSK / 16QAM	18675 / 19125
	20 MHz	QPSK / 16QAM	18700 / 19100
Frequency Stability	1.4 MHz	QPSK	18900
	3 MHz	QPSK	18900
	5 MHz	QPSK	18900
	10 MHz	QPSK	18900
	15 MHz	QPSK	18900
	20 MHz	QPSK	18900

3 Test Results

3.1 Equivalent Isotropically Radiated Power

3.1.1 Limit of Equivalent Isotropically Radiated Power

Mobile and portable stations are limited to 2 watts EIRP.

3.1.2 Test Procedures

For Conducted power measurement:

1. The EUT links up with simulator and is set to maximum output power level at low / middel / high channel.
2. Measure the output power of low / middle / high channel of the EUT.

For EIRP measurement:

EIPR can be calculated by below formula from KDB 412172 D01.

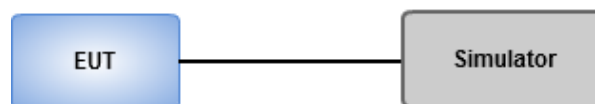
1. $EIRP = P_T + G_T - L_C$

P_T = transmitter output power, in dBm.

G_T = gain of the transmitting antenna, in dBi (EIRP).

L_C = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

3.1.3 Test Setup



3.1.4 Test Result of Conducted power (dBm)

Band / Channel Bandwidth			LTE Band 2 / CB: 1.4MHz		
Channel			18607	18900	19193
Frequency (MHz)			1850.7	1880.0	1909.3
Mode	RB	RB Offset	Maximum AV Power (dBm)		
QPSK	1	0	24.25	24.76	24.94
	1	2	24.42	24.88	24.97
	1	5	24.41	24.68	24.72
	3	0	24.42	24.77	24.88
	3	1	24.54	24.86	24.87
	3	2	24.53	24.81	24.83
	6	0	23.53	23.81	24.28
16QAM	1	0	22.96	23.31	23.68
	1	2	23.01	23.39	23.72
	1	5	23.08	23.38	23.52
	3	0	23.25	23.82	24.11
	3	1	23.57	23.86	24.10
	3	2	23.38	23.94	24.05
	6	0	22.40	22.68	22.80

Band / Channel Bandwidth			LTE Band 2 / CB: 3MHz		
Channel			18615	18900	19185
Frequency (MHz)			1851.5	1880.0	1908.5
Mode	RB	RB Offset	Maximum AV Power (dBm)		
QPSK	1	0	24.57	24.70	24.96
	1	7	24.64	24.81	24.98
	1	14	24.56	24.79	24.81
	8	0	23.63	23.73	24.24
	8	4	23.55	23.74	24.12
	8	7	23.51	23.81	23.95
	15	0	23.51	23.81	24.09
16QAM	1	0	23.43	23.71	24.20
	1	7	23.49	23.76	24.22
	1	14	23.23	23.47	23.88
	8	0	22.56	22.59	23.15
	8	4	22.59	22.88	23.05
	8	7	22.61	22.81	23.15
	15	0	22.28	22.68	23.10

Band / Channel Bandwidth			LTE Band 2 / CB: 5MHz		
Channel			18625	18900	19175
Frequency (MHz)			1852.5	1880.0	1907.5
Mode	RB	RB Offset	Maximum AV Power (dBm)		
QPSK	1	0	24.43	24.64	24.85
	1	12	24.49	24.69	24.92
	1	24	24.22	24.52	24.54
	12	0	23.48	23.74	24.04
	12	6	23.49	23.73	24.00
	12	11	23.47	23.79	23.98
	25	0	23.44	23.70	23.98
16QAM	1	0	23.25	23.33	23.74
	1	12	23.80	23.76	24.03
	1	24	23.64	23.68	23.96
	12	0	22.42	22.58	23.03
	12	6	22.43	22.85	23.17
	12	11	22.39	22.71	22.82
	25	0	22.59	22.84	23.12

Band / Channel Bandwidth			LTE Band 2 / CB: 10MHz		
Channel			18650	18900	19150
Frequency (MHz)			1855.0	1880.0	1905.0
Mode	RB	RB Offset	Maximum AV Power (dBm)		
QPSK	1	0	24.33	24.46	24.69
	1	24	24.58	25.06	25.21
	1	49	24.33	24.57	24.00
	25	0	23.70	23.90	24.14
	25	12	23.64	23.96	24.15
	25	24	23.66	23.94	24.04
	50	0	23.59	23.97	24.15
16QAM	1	0	23.28	23.64	23.88
	1	24	23.37	23.73	23.92
	1	49	23.38	23.46	23.33
	25	0	22.70	22.82	23.20
	25	12	22.64	22.91	23.14
	25	24	22.67	22.86	23.13
	50	0	22.73	22.89	23.06

Band / Channel Bandwidth			LTE Band 2 / CB: 15MHz		
Channel			18675	18900	19125
Frequency (MHz)			1857.5	1880.0	1902.5
Mode	RB	RB Offset	Maximum AV Power (dBm)		
QPSK	1	0	24.51	24.83	25.00
	1	37	24.93	24.94	25.39
	1	74	24.68	24.63	23.89
	36	0	23.75	23.95	24.16
	36	18	23.73	23.90	24.19
	36	37	23.78	23.92	24.11
	75	0	23.68	23.96	24.18
16QAM	1	0	23.53	23.61	23.89
	1	37	23.56	23.69	23.92
	1	74	23.56	23.63	23.19
	36	0	22.64	22.86	23.10
	36	18	22.76	22.93	23.16
	36	37	22.69	23.06	23.09
	75	0	22.71	23.01	23.18

Band / Channel Bandwidth			LTE Band 2 / CB: 20MHz		
Channel			18700	18900	19100
Frequency (MHz)			1860.0	1880.0	1900.0
Mode	RB	RB Offset	Maximum AV Power (dBm)		
QPSK	1	0	24.41	24.74	24.75
	1	49	25.03	25.22	25.18
	1	99	24.25	24.57	23.76
	50	0	23.75	23.88	24.17
	50	24	23.78	23.96	24.17
	50	49	23.76	23.97	24.19
	100	0	23.79	23.96	24.16
16QAM	1	0	23.48	23.56	23.78
	1	49	23.55	23.74	23.93
	1	99	23.41	23.63	23.05
	50	0	22.76	22.93	23.23
	50	24	22.88	23.02	23.14
	50	49	22.79	22.93	23.16
	100	0	22.68	22.91	23.13

3.1.5 Test Result of Equivalent Isotropically Radiated Power (dBm)

LTE Band2 CB:1.4MHz	Channel	Freq. (MHz)	RB	RB Offset	Conducted Average Power (dBm)	Conducted Power (W)	Conducted Limit (W)	Ant. Gain (dB)	E.I.R.P Power (dBm)	E.I.R.P Power (W)	E.I.R.P Limit (W)
QPSK	18607	1850.7	1	0	24.25	0.266	NA	2.5	26.75	0.473	2
			1	2	24.42	0.277	NA	2.5	26.92	0.492	2
			1	5	24.41	0.276	NA	2.5	26.91	0.491	2
			3	0	24.42	0.277	NA	2.5	26.92	0.492	2
			3	1	24.54	0.284	NA	2.5	27.04	0.506	2
			3	2	24.53	0.284	NA	2.5	27.03	0.505	2
			6	0	23.53	0.225	NA	2.5	26.03	0.401	2
	18900	1880	1	0	24.76	0.299	NA	2.5	27.26	0.532	2
			1	2	24.88	0.308	NA	2.5	27.38	0.547	2
			1	5	24.68	0.294	NA	2.5	27.18	0.522	2
			3	0	24.77	0.300	NA	2.5	27.27	0.533	2
			3	1	24.86	0.306	NA	2.5	27.36	0.545	2
			3	2	24.81	0.303	NA	2.5	27.31	0.538	2
			6	0	23.81	0.240	NA	2.5	26.31	0.428	2
	19193	1909.3	1	0	24.94	0.312	NA	2.5	27.44	0.555	2
			1	2	24.97	0.314	NA	2.5	27.47	0.558	2
			1	5	24.72	0.296	NA	2.5	27.22	0.527	2
			3	0	24.88	0.308	NA	2.5	27.38	0.547	2
			3	1	24.87	0.307	NA	2.5	27.37	0.546	2
			3	2	24.83	0.304	NA	2.5	27.33	0.541	2
			6	0	24.28	0.268	NA	2.5	26.78	0.476	2

LTE Band2 CB:1.4MHz	Channel	Freq. (MHz)	RB	RB Offset	Conducted Average Power (dBm)	Conducted Power (W)	Conducted Limit (W)	Ant. Gain (dB)	E.I.R.P Power (dBm)	E.I.R.P Power (W)	E.I.R.P Limit (W)
16QAM	18607	1850.7	1	0	22.96	0.198	NA	2.5	25.46	0.352	2
			1	2	23.01	0.200	NA	2.5	25.51	0.356	2
			1	5	23.08	0.203	NA	2.5	25.58	0.361	2
			3	0	23.25	0.211	NA	2.5	25.75	0.376	2
			3	1	23.57	0.228	NA	2.5	26.07	0.405	2
			3	2	23.38	0.218	NA	2.5	25.88	0.387	2
			6	0	22.40	0.174	NA	2.5	24.90	0.309	2
	18900	1880	1	0	23.31	0.214	NA	2.5	25.81	0.381	2
			1	2	23.39	0.218	NA	2.5	25.89	0.388	2
			1	5	23.38	0.218	NA	2.5	25.88	0.387	2
			3	0	23.82	0.241	NA	2.5	26.32	0.429	2
			3	1	23.86	0.243	NA	2.5	26.36	0.433	2
			3	2	23.94	0.248	NA	2.5	26.44	0.441	2
			6	0	22.68	0.185	NA	2.5	25.18	0.330	2
	19193	1909.3	1	0	23.68	0.233	NA	2.5	26.18	0.415	2
			1	2	23.72	0.236	NA	2.5	26.22	0.419	2
			1	5	23.52	0.225	NA	2.5	26.02	0.400	2
			3	0	24.11	0.258	NA	2.5	26.61	0.458	2
			3	1	24.10	0.257	NA	2.5	26.60	0.457	2
			3	2	24.05	0.254	NA	2.5	26.55	0.452	2
			6	0	22.80	0.191	NA	2.5	25.30	0.339	2

LTE Band2 CB:3MHz	Channel	Freq. (MHz)	RB	RB Offset	Conducted Average Power (dBm)	Conducted Power (W)	Conducted Limit (W)	Ant. Gain (dB)	E.I.R.P Power (dBm)	E.I.R.P Power (W)	E.I.R.P Limit (W)
QPSK	18615	1851.5	1	0	24.57	0.286	NA	2.5	27.07	0.509	2
			1	7	24.64	0.291	NA	2.5	27.14	0.518	2
			1	14	24.56	0.286	NA	2.5	27.06	0.508	2
			8	0	23.63	0.231	NA	2.5	26.13	0.410	2
			8	4	23.55	0.226	NA	2.5	26.05	0.403	2
			8	7	23.51	0.224	NA	2.5	26.01	0.399	2
			15	0	23.51	0.224	NA	2.5	26.01	0.399	2
	18900	1880	1	0	24.70	0.295	NA	2.5	27.20	0.525	2
			1	7	24.81	0.303	NA	2.5	27.31	0.538	2
			1	14	24.79	0.301	NA	2.5	27.29	0.536	2
			8	0	23.73	0.236	NA	2.5	26.23	0.420	2
			8	4	23.74	0.237	NA	2.5	26.24	0.421	2
			8	7	23.81	0.240	NA	2.5	26.31	0.428	2
			15	0	23.81	0.240	NA	2.5	26.31	0.428	2
	19185	1908.5	1	0	24.96	0.313	NA	2.5	27.46	0.557	2
			1	7	24.98	0.315	NA	2.5	27.48	0.560	2
			1	14	24.81	0.303	NA	2.5	27.31	0.538	2
			8	0	24.24	0.265	NA	2.5	26.74	0.472	2
			8	4	24.12	0.258	NA	2.5	26.62	0.459	2
			8	7	23.95	0.248	NA	2.5	26.45	0.442	2
			15	0	24.09	0.256	NA	2.5	26.59	0.456	2

LTE Band2 CB:3MHz	Channel	Freq. (MHz)	RB	RB Offset	Conducted Average Power (dBm)	Conducted Power (W)	Conducted Limit (W)	Ant. Gain (dB)	E.I.R.P Power (dBm)	E.I.R.P Power (W)	E.I.R.P Limit (W)
16QAM	18615	1851.5	1	0	23.43	0.220	NA	2.5	25.93	0.392	2
			1	7	23.49	0.223	NA	2.5	25.99	0.397	2
			1	14	23.23	0.210	NA	2.5	25.73	0.374	2
			8	0	22.56	0.180	NA	2.5	25.06	0.321	2
			8	4	22.59	0.182	NA	2.5	25.09	0.323	2
			8	7	22.61	0.182	NA	2.5	25.11	0.324	2
			15	0	22.28	0.169	NA	2.5	24.78	0.301	2
	18900	1880	1	0	23.71	0.235	NA	2.5	26.21	0.418	2
			1	7	23.76	0.238	NA	2.5	26.26	0.423	2
			1	14	23.47	0.222	NA	2.5	25.97	0.395	2
			8	0	22.59	0.182	NA	2.5	25.09	0.323	2
			8	4	22.88	0.194	NA	2.5	25.38	0.345	2
			8	7	22.81	0.191	NA	2.5	25.31	0.340	2
			15	0	22.68	0.185	NA	2.5	25.18	0.330	2
	19185	1908.5	1	0	24.20	0.263	NA	2.5	26.70	0.468	2
			1	7	24.22	0.264	NA	2.5	26.72	0.470	2
			1	14	23.88	0.244	NA	2.5	26.38	0.435	2
			8	0	23.15	0.207	NA	2.5	25.65	0.367	2
			8	4	23.05	0.202	NA	2.5	25.55	0.359	2
			8	7	23.15	0.207	NA	2.5	25.65	0.367	2
			15	0	23.10	0.204	NA	2.5	25.60	0.363	2

LTE Band2 CB:5MHz	Channel	Freq. (MHz)	RB	RB Offset	Conducted Average Power (dBm)	Conducted Power (W)	Conducted Limit (W)	Ant. Gain (dB)	E.I.R.P Power (dBm)	E.I.R.P Power (W)	E.I.R.P Limit (W)
QPSK	18625	1852.5	1	0	24.43	0.277	NA	2.5	26.93	0.493	2
			1	12	24.49	0.281	NA	2.5	26.99	0.500	2
			1	24	24.22	0.264	NA	2.5	26.72	0.470	2
			12	0	23.48	0.223	NA	2.5	25.98	0.396	2
			12	6	23.49	0.223	NA	2.5	25.99	0.397	2
			12	11	23.47	0.222	NA	2.5	25.97	0.395	2
			25	0	23.44	0.221	NA	2.5	25.94	0.393	2
	18900	1880	1	0	24.64	0.291	NA	2.5	27.14	0.518	2
			1	12	24.69	0.294	NA	2.5	27.19	0.524	2
			1	24	24.52	0.283	NA	2.5	27.02	0.504	2
			12	0	23.74	0.237	NA	2.5	26.24	0.421	2
			12	6	23.73	0.236	NA	2.5	26.23	0.420	2
			12	11	23.79	0.239	NA	2.5	26.29	0.426	2
			25	0	23.70	0.234	NA	2.5	26.20	0.417	2
	19175	1907.5	1	0	24.85	0.305	NA	2.5	27.35	0.543	2
			1	12	24.92	0.310	NA	2.5	27.42	0.552	2
			1	24	24.54	0.284	NA	2.5	27.04	0.506	2
			12	0	24.04	0.254	NA	2.5	26.54	0.451	2
			12	6	24.00	0.251	NA	2.5	26.50	0.447	2
			12	11	23.98	0.250	NA	2.5	26.48	0.445	2
			25	0	23.98	0.250	NA	2.5	26.48	0.445	2

LTE Band2 CB:5MHz	Channel	Freq. (MHz)	RB	RB Offset	Conducted Average Power (dBm)	Conducted Power (W)	Conducted Limit (W)	Ant. Gain (dB)	E.I.R.P Power (dBm)	E.I.R.P Power (W)	E.I.R.P Limit (W)
16QAM	18625	1852.5	1	0	23.25	0.211	NA	2.5	25.75	0.376	2
			1	12	23.80	0.240	NA	2.5	26.30	0.427	2
			1	24	23.64	0.231	NA	2.5	26.14	0.411	2
			12	0	22.42	0.175	NA	2.5	24.92	0.310	2
			12	6	22.43	0.175	NA	2.5	24.93	0.311	2
			12	11	22.39	0.173	NA	2.5	24.89	0.308	2
			25	0	22.59	0.182	NA	2.5	25.09	0.323	2
	18900	1880	1	0	23.33	0.215	NA	2.5	25.83	0.383	2
			1	12	23.76	0.238	NA	2.5	26.26	0.423	2
			1	24	23.68	0.233	NA	2.5	26.18	0.415	2
			12	0	22.58	0.181	NA	2.5	25.08	0.322	2
			12	6	22.85	0.193	NA	2.5	25.35	0.343	2
			12	11	22.71	0.187	NA	2.5	25.21	0.332	2
			25	0	22.84	0.192	NA	2.5	25.34	0.342	2
	19175	1907.5	1	0	23.74	0.237	NA	2.5	26.24	0.421	2
			1	12	24.03	0.253	NA	2.5	26.53	0.450	2
			1	24	23.96	0.249	NA	2.5	26.46	0.443	2
			12	0	23.03	0.201	NA	2.5	25.53	0.357	2
			12	6	23.17	0.207	NA	2.5	25.67	0.369	2
			12	11	22.82	0.191	NA	2.5	25.32	0.340	2
			25	0	23.12	0.205	NA	2.5	25.62	0.365	2

LTE Band2 CB:10MHz	Channel	Freq. (MHz)	RB	RB Offset	Conducted Average Power (dBm)	Conducted Power (W)	Conducted Limit (W)	Ant. Gain (dB)	E.I.R.P Power (dBm)	E.I.R.P Power (W)	E.I.R.P Limit (W)
QPSK	18650	1855	1	0	24.33	0.271	NA	2.5	26.83	0.482	2
			1	24	24.58	0.287	NA	2.5	27.08	0.511	2
			1	49	24.33	0.271	NA	2.5	26.83	0.482	2
			25	0	23.70	0.234	NA	2.5	26.20	0.417	2
			25	12	23.64	0.231	NA	2.5	26.14	0.411	2
			25	24	23.66	0.232	NA	2.5	26.16	0.413	2
			50	0	23.59	0.229	NA	2.5	26.09	0.406	2
	18900	1880	1	0	24.46	0.279	NA	2.5	26.96	0.497	2
			1	24	25.06	0.321	NA	2.5	27.56	0.570	2
			1	49	24.57	0.286	NA	2.5	27.07	0.509	2
			25	0	23.90	0.245	NA	2.5	26.40	0.437	2
			25	12	23.96	0.249	NA	2.5	26.46	0.443	2
			25	24	23.94	0.248	NA	2.5	26.44	0.441	2
			50	0	23.97	0.249	NA	2.5	26.47	0.444	2
	19150	1905	1	0	24.69	0.294	NA	2.5	27.19	0.524	2
			1	24	25.21	0.332	NA	2.5	27.71	0.590	2
			1	49	24.00	0.251	NA	2.5	26.50	0.447	2
			25	0	24.14	0.259	NA	2.5	26.64	0.461	2
			25	12	24.15	0.260	NA	2.5	26.65	0.462	2
			25	24	24.04	0.254	NA	2.5	26.54	0.451	2
			50	0	24.15	0.260	NA	2.5	26.65	0.462	2

LTE Band2 CB:10MHz	Channel	Freq. (MHz)	RB	RB Offset	Conducted Average Power (dBm)	Conducted Power (W)	Conducted Limit (W)	Ant. Gain (dB)	E.I.R.P Power (dBm)	E.I.R.P Power (W)	E.I.R.P Limit (W)
16QAM	18650	1855	1	0	23.28	0.213	NA	2.5	25.78	0.378	2
			1	24	23.37	0.217	NA	2.5	25.87	0.386	2
			1	49	23.38	0.218	NA	2.5	25.88	0.387	2
			25	0	22.70	0.186	NA	2.5	25.20	0.331	2
			25	12	22.64	0.184	NA	2.5	25.14	0.327	2
			25	24	22.67	0.185	NA	2.5	25.17	0.329	2
			50	0	22.73	0.187	NA	2.5	25.23	0.333	2
	18900	1880	1	0	23.64	0.231	NA	2.5	26.14	0.411	2
			1	24	23.73	0.236	NA	2.5	26.23	0.420	2
			1	49	23.46	0.222	NA	2.5	25.96	0.394	2
			25	0	22.82	0.191	NA	2.5	25.32	0.340	2
			25	12	22.91	0.195	NA	2.5	25.41	0.348	2
			25	24	22.86	0.193	NA	2.5	25.36	0.344	2
			50	0	22.89	0.195	NA	2.5	25.39	0.346	2
	19150	1905	1	0	23.88	0.244	NA	2.5	26.38	0.435	2
			1	24	23.92	0.247	NA	2.5	26.42	0.439	2
			1	49	23.33	0.215	NA	2.5	25.83	0.383	2
			25	0	23.20	0.209	NA	2.5	25.70	0.372	2
			25	12	23.14	0.206	NA	2.5	25.64	0.366	2
			25	24	23.13	0.206	NA	2.5	25.63	0.366	2
			50	0	23.06	0.202	NA	2.5	25.56	0.360	2

LTE Band2 CB:15MHz	Channel	Freq. (MHz)	RB	RB Offset	Conducted Average Power (dBm)	Conducted Power (W)	Conducted Limit (W)	Ant. Gain (dB)	E.I.R.P Power (dBm)	E.I.R.P Power (W)	E.I.R.P Limit (W)
QPSK	18675	1857.5	1	0	24.51	0.282	NA	2.5	27.01	0.502	2
			1	37	24.93	0.311	NA	2.5	27.43	0.553	2
			1	74	24.68	0.294	NA	2.5	27.18	0.522	2
			36	0	23.75	0.237	NA	2.5	26.25	0.422	2
			36	18	23.73	0.236	NA	2.5	26.23	0.420	2
			36	37	23.78	0.239	NA	2.5	26.28	0.425	2
			75	0	23.68	0.233	NA	2.5	26.18	0.415	2
	18900	1880	1	0	24.83	0.304	NA	2.5	27.33	0.541	2
			1	37	24.94	0.312	NA	2.5	27.44	0.555	2
			1	74	24.63	0.290	NA	2.5	27.13	0.516	2
			36	0	23.95	0.248	NA	2.5	26.45	0.442	2
			36	18	23.90	0.245	NA	2.5	26.40	0.437	2
			36	37	23.92	0.247	NA	2.5	26.42	0.439	2
			75	0	23.96	0.249	NA	2.5	26.46	0.443	2
	19125	1902.5	1	0	25.00	0.316	NA	2.5	27.50	0.562	2
			1	37	25.39	0.346	NA	2.5	27.89	0.615	2
			1	74	23.89	0.245	NA	2.5	26.39	0.436	2
			36	0	24.16	0.261	NA	2.5	26.66	0.463	2
			36	18	24.19	0.262	NA	2.5	26.69	0.467	2
			36	37	24.11	0.258	NA	2.5	26.61	0.458	2
			75	0	24.18	0.262	NA	2.5	26.68	0.466	2

LTE Band2 CB:15MHz	Channel	Freq. (MHz)	RB	RB Offset	Conducted Average Power (dBm)	Conducted Power (W)	Conducted Limit (W)	Ant. Gain (dB)	E.I.R.P Power (dBm)	E.I.R.P Power (W)	E.I.R.P Limit (W)
16QAM	18675	1857.5	1	0	23.53	0.225	NA	2.5	26.03	0.401	2
			1	37	23.56	0.227	NA	2.5	26.06	0.404	2
			1	74	23.56	0.227	NA	2.5	26.06	0.404	2
			36	0	22.64	0.184	NA	2.5	25.14	0.327	2
			36	18	22.76	0.189	NA	2.5	25.26	0.336	2
			36	37	22.69	0.186	NA	2.5	25.19	0.330	2
			75	0	22.71	0.187	NA	2.5	25.21	0.332	2
	18900	1880	1	0	23.61	0.230	NA	2.5	26.11	0.408	2
			1	37	23.69	0.234	NA	2.5	26.19	0.416	2
			1	74	23.63	0.231	NA	2.5	26.13	0.410	2
			36	0	22.86	0.193	NA	2.5	25.36	0.344	2
			36	18	22.93	0.196	NA	2.5	25.43	0.349	2
			36	37	23.06	0.202	NA	2.5	25.56	0.360	2
			75	0	23.01	0.200	NA	2.5	25.51	0.356	2
	19125	1902.5	1	0	23.89	0.245	NA	2.5	26.39	0.436	2
			1	37	23.92	0.247	NA	2.5	26.42	0.439	2
			1	74	23.19	0.208	NA	2.5	25.69	0.371	2
			36	0	23.10	0.204	NA	2.5	25.60	0.363	2
			36	18	23.16	0.207	NA	2.5	25.66	0.368	2
			36	37	23.09	0.204	NA	2.5	25.59	0.362	2
			75	0	23.18	0.208	NA	2.5	25.68	0.370	2

LTE Band2 CB:20MHz	Channel	Freq. (MHz)	RB	RB Offset	Conducted Average Power (dBm)	Conducted Power (W)	Conducted Limit (W)	Ant. Gain (dB)	E.I.R.P Power (dBm)	E.I.R.P Power (W)	E.I.R.P Limit (W)
QPSK	18700	1860	1	0	24.41	0.276	NA	2.5	26.91	0.491	2
			1	49	25.03	0.318	NA	2.5	27.53	0.566	2
			1	99	24.25	0.266	NA	2.5	26.75	0.473	2
			50	0	23.75	0.237	NA	2.5	26.25	0.422	2
			50	24	23.78	0.239	NA	2.5	26.28	0.425	2
			50	49	23.76	0.238	NA	2.5	26.26	0.423	2
			100	0	23.79	0.239	NA	2.5	26.29	0.426	2
	18900	1880	1	0	24.74	0.298	NA	2.5	27.24	0.530	2
			1	49	25.22	0.333	NA	2.5	27.72	0.592	2
			1	99	24.57	0.286	NA	2.5	27.07	0.509	2
			50	0	23.88	0.244	NA	2.5	26.38	0.435	2
			50	24	23.96	0.249	NA	2.5	26.46	0.443	2
			50	49	23.97	0.249	NA	2.5	26.47	0.444	2
			100	0	23.96	0.249	NA	2.5	26.46	0.443	2
	19100	1900	1	0	24.75	0.299	NA	2.5	27.25	0.531	2
			1	49	25.18	0.330	NA	2.5	27.68	0.586	2
			1	99	23.76	0.238	NA	2.5	26.26	0.423	2
			50	0	24.17	0.261	NA	2.5	26.67	0.465	2
			50	24	24.17	0.261	NA	2.5	26.67	0.465	2
			50	49	24.19	0.262	NA	2.5	26.69	0.467	2
			100	0	24.16	0.261	NA	2.5	26.66	0.463	2

LTE Band2 CB:20MHz	Ch.	Freq. (MHz)	RB	RB Offset	Conducted Average Power (dBm)	Conducted Power (W)	Conducted Limit (W)	Ant. Gain (dB)	E.I.R.P Power (dBm)	E.I.R.P Power (W)	E.I.R.P Limit (W)
16QAM	18700	1860	1	0	23.48	0.223	NA	2.5	25.98	0.396	2
			1	49	23.55	0.226	NA	2.5	26.05	0.403	2
			1	99	23.41	0.219	NA	2.5	25.91	0.390	2
			50	0	22.76	0.189	NA	2.5	25.26	0.336	2
			50	24	22.88	0.194	NA	2.5	25.38	0.345	2
			50	49	22.79	0.190	NA	2.5	25.29	0.338	2
			100	0	22.68	0.185	NA	2.5	25.18	0.330	2
	18900	1880	1	0	23.56	0.227	NA	2.5	26.06	0.404	2
			1	49	23.74	0.237	NA	2.5	26.24	0.421	2
			1	99	23.63	0.231	NA	2.5	26.13	0.410	2
			50	0	22.93	0.196	NA	2.5	25.43	0.349	2
			50	24	23.02	0.200	NA	2.5	25.52	0.356	2
			50	49	22.93	0.196	NA	2.5	25.43	0.349	2
			100	0	22.91	0.195	NA	2.5	25.41	0.348	2
	19100	1900	1	0	23.78	0.239	NA	2.5	26.28	0.425	2
			1	49	23.93	0.247	NA	2.5	26.43	0.440	2
			1	99	23.05	0.202	NA	2.5	25.55	0.359	2
			50	0	23.23	0.210	NA	2.5	25.73	0.374	2
			50	24	23.14	0.206	NA	2.5	25.64	0.366	2
			50	49	23.16	0.207	NA	2.5	25.66	0.368	2
			100	0	23.13	0.206	NA	2.5	25.63	0.366	2

3.2 Radiated Emissions

3.2.1 Limit of Radiated Emissions

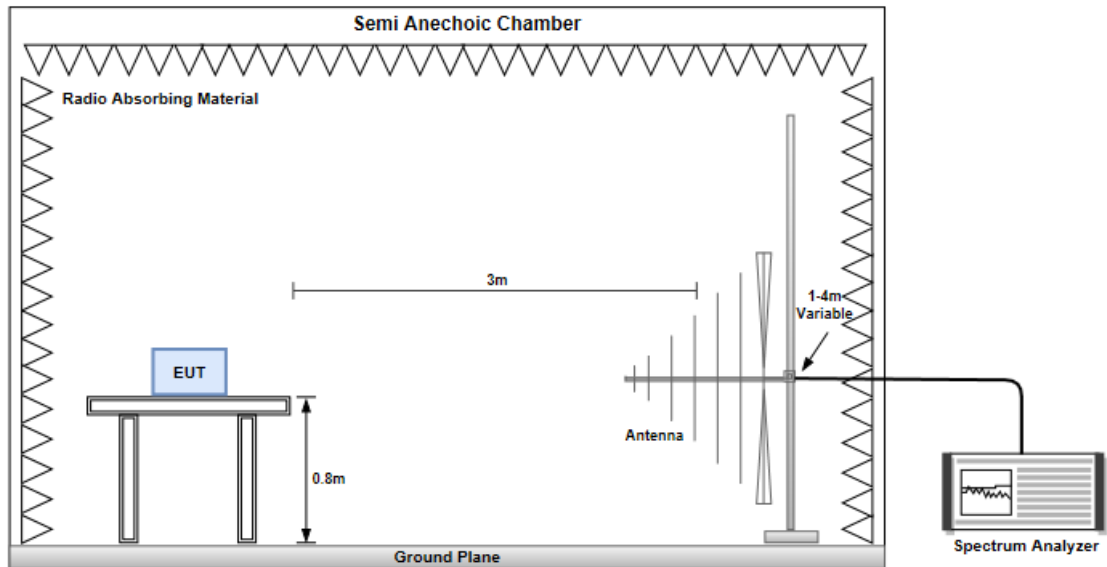
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB equal to -13dBm.

3.2.2 Test Procedures

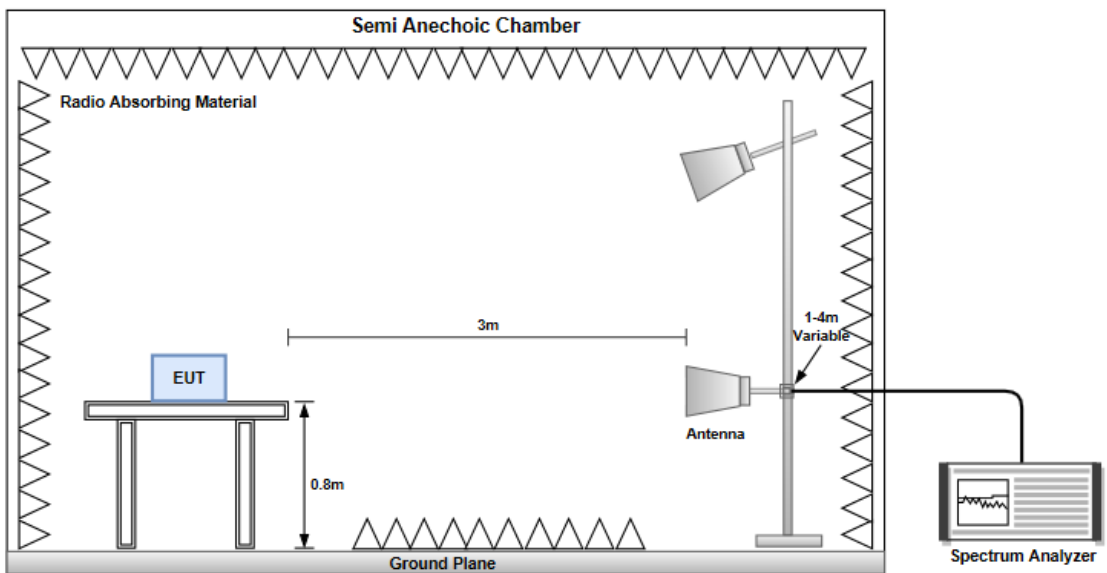
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. The EUT is placed at test table. For emissions testing at or below 1 GHz, the table height is 80 cm above the reference ground plane. For emission measurements above 1 GHz, the table height is 1.5 m
2. Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m ~ 4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3 m.
3. This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.
4. After finding the max radiated emission, substitution method will be used for getting effective radiated power. EUT will be removed and substitution antenna will be placed at same position. Signal generator will output CW signal to substitution antenna through a RF cable. Rotate turntable and move antenna to find maximum radiated emission. Adjust output power of signal generator to let the maximum radiated emission is same as step 3. Record the output power level.
5. E.I.R.P = output power of step 4 + gain of substitution antenna – cable loss of RF cable.

3.2.3 Test Setup

Radiated Emissions below 1 GHz



Radiated Emissions above 1 GHz



3.2.4 Test Result of Radiated Emissions below 1GHz

Mode	LTE Band 2, QPSK, CB:1.4 MHz, 1 RB, Offset 2, Channel: 19193						
Frequency (MHz)	Antenna Polarity	E.IR.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
30.97	H	-65.73	-13.00	-52.73	-73.69	-51.84	-13.89
108.57	H	-63.97	-13.00	-50.97	-61.94	-63.68	-0.29
140.58	H	-63.94	-13.00	-50.94	-63.24	-62.51	-1.43
374.35	H	-64.90	-13.00	-51.90	-66.80	-68.93	4.03
624.61	H	-60.97	-13.00	-47.97	-66.35	-64.46	3.49
749.74	H	-61.13	-13.00	-48.13	-69.68	-64.11	2.98
101.78	V	-58.35	-13.00	-45.35	-57.40	-58.43	0.08
124.09	V	-53.07	-13.00	-40.07	-52.98	-53.05	-0.02
142.52	V	-60.53	-13.00	-47.53	-62.11	-59.15	-1.38
499.48	V	-63.66	-13.00	-50.66	-67.67	-67.54	3.88
624.61	V	-55.64	-13.00	-42.64	-64.25	-59.13	3.49
749.74	V	-59.93	-13.00	-46.93	-69.09	-62.91	2.98

Note: EIRP = S.G Power value + Correction factor.

Mode	LTE Band 2, QPSK, CB:3 MHz, 1 RB, Offset 7, Channel: 19185						
Frequency (MHz)	Antenna Polarity	E.IR.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
30.97	H	-62.96	-13.00	-49.96	-70.92	-49.07	-13.89
101.78	H	-59.82	-13.00	-46.82	-57.97	-59.90	0.08
140.48	H	-62.74	-13.00	-49.74	-62.04	-61.31	-1.43
499.48	H	-63.73	-13.00	-50.73	-67.39	-67.61	3.88
624.61	H	-62.36	-13.00	-49.36	-67.74	-65.85	3.49
749.74	H	-61.94	-13.00	-48.94	-70.49	-64.92	2.98
97.90	V	-57.67	-13.00	-44.67	-56.61	-57.88	0.21
124.09	V	-52.77	-13.00	-39.77	-52.68	-51.75	-1.02
142.52	V	-61.63	-13.00	-48.63	-63.21	-60.25	-1.38
499.48	V	-64.08	-13.00	-51.08	-68.09	-67.96	3.88
624.61	V	-57.49	-13.00	-44.49	-66.10	-60.98	3.49
749.74	V	-61.46	-13.00	-48.46	-70.62	-64.44	2.98

Note: EIRP = S.G Power value + Correction factor.

Mode	LTE Band 2, QPSK, CB:5 MHz, 1 RB, Offset 12, Channel: 19175						
Frequency (MHz)	Antenna Polarity	E.I.R.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
30.97	H	-65.25	-13.00	-52.25	-73.21	-51.36	-13.89
101.78	H	-64.00	-13.00	-51.00	-62.15	-64.08	0.08
140.58	H	-63.61	-13.00	-50.61	-62.91	-62.18	-1.43
374.35	H	-65.16	-13.00	-52.16	-67.06	-69.19	4.03
624.61	H	-62.76	-13.00	-49.76	-68.14	-66.25	3.49
749.74	H	-62.29	-13.00	-49.29	-70.84	-65.27	2.98
101.78	V	-57.83	-13.00	-44.83	-56.88	-57.91	0.08
124.09	V	-51.97	-13.00	-38.97	-51.88	-50.95	-1.02
140.58	V	-60.76	-13.00	-47.76	-62.29	-59.33	-1.43
499.48	V	-63.40	-13.00	-50.40	-67.41	-67.28	3.88
624.61	V	-57.85	-13.00	-44.85	-66.46	-61.34	3.49
749.74	V	-60.55	-13.00	-47.55	-69.71	-63.53	2.98

Note: EIRP = S.G Power value + Correction factor.

Mode	LTE Band 2, QPSK, CB:10 MHz, 1 RB, Offset 24, Channel: 19150						
Frequency (MHz)	Antenna Polarity	E.I.R.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
30.97	H	-64.47	-13.00	-51.47	-72.43	-50.58	-13.89
105.66	H	-64.72	-13.00	-51.72	-62.77	-64.59	-0.13
140.58	H	-64.24	-13.00	-51.24	-63.54	-62.81	-1.43
374.35	H	-65.92	-13.00	-52.92	-67.82	-69.95	4.03
624.61	H	-61.53	-13.00	-48.53	-66.91	-65.02	3.49
749.74	H	-62.70	-13.00	-49.70	-71.25	-65.68	2.98
101.78	V	-56.80	-13.00	-43.80	-55.85	-56.88	0.08
124.09	V	-52.56	-13.00	-39.56	-52.47	-51.54	-1.02
142.52	V	-61.80	-13.00	-48.80	-63.38	-60.42	-1.38
499.48	V	-63.87	-13.00	-50.87	-67.88	-67.75	3.88
624.61	V	-57.07	-13.00	-44.07	-65.68	-60.56	3.49
749.74	V	-61.30	-13.00	-48.30	-70.46	-64.28	2.98

Note: EIRP = S.G Power value + Correction factor.

Mode	LTE Band 2, QPSK, CB:15 MHz, 1 RB, Offset 37, Channel: 19125						
Frequency (MHz)	Antenna Polarity	E.IR.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
30.97	H	-64.03	-13.00	-51.03	-71.99	-50.14	-13.89
101.78	H	-62.71	-13.00	-49.71	-60.86	-62.79	0.08
140.58	H	-63.84	-13.00	-50.84	-63.14	-62.41	-1.43
374.35	H	-65.44	-13.00	-52.44	-67.34	-69.47	4.03
624.61	H	-62.18	-13.00	-49.18	-67.56	-65.67	3.49
749.74	H	-61.16	-13.00	-48.16	-69.71	-64.14	2.98
101.78	V	-57.40	-13.00	-44.40	-56.45	-57.48	0.08
124.09	V	-52.27	-13.00	-39.27	-52.18	-51.25	-1.02
142.52	V	-61.68	-13.00	-48.68	-63.26	-60.30	-1.38
499.48	V	-63.74	-13.00	-50.74	-67.75	-67.62	3.88
624.61	V	-57.06	-13.00	-44.06	-65.67	-60.55	3.49
749.74	V	-60.07	-13.00	-47.07	-69.23	-63.05	2.98

Note: EIRP = S.G Power value + Correction factor.

Mode	LTE Band 2, QPSK, CB:20 MHz, 1 RB, Offset 49, Channel: 18900						
Frequency (MHz)	Antenna Polarity	E.IR.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
30.97	H	-64.80	-13.00	-51.80	-72.76	-50.91	-13.89
104.69	H	-63.97	-13.00	-50.97	-62.05	-63.89	-0.08
140.58	H	-64.80	-13.00	-51.80	-64.10	-63.37	-1.43
374.35	H	-65.70	-13.00	-52.70	-67.60	-69.73	4.03
624.61	H	-60.82	-13.00	-47.82	-66.20	-64.31	3.49
749.74	H	-62.75	-13.00	-49.75	-71.30	-65.73	2.98
101.78	V	-57.62	-13.00	-44.62	-56.67	-57.70	0.08
124.09	V	-52.93	-13.00	-39.93	-52.84	-51.91	-1.02
139.61	V	-55.64	-13.00	-42.64	-57.11	-54.20	-1.44
499.48	V	-63.49	-13.00	-50.49	-67.50	-67.37	3.88
624.61	V	-57.71	-13.00	-44.71	-66.32	-61.20	3.49
749.74	V	-61.35	-13.00	-48.35	-70.51	-64.33	2.98

Note: EIRP = S.G Power value + Correction factor.

3.2.5 Test Result of Radiated Emissions above 1GHz

Mode	LTE Band 2, CB: 1.4MHz, 1RB, Offset 2,Channel: 18607						
Frequency (MHz)	Antenna Polarity	E.I.R.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
3701.40	H	-42.34	-13.00	-29.34	-56.10	-48.98	6.64
5552.10	H	-40.95	-13.00	-27.95	-57.40	-47.01	6.06
7402.80	H	-38.34	-13.00	-25.34	-58.01	-41.71	3.37
3701.40	V	-44.88	-13.00	-31.88	-58.66	-51.52	6.64
5552.10	V	-39.29	-13.00	-26.29	-56.23	-45.35	6.06
7402.80	V	-37.69	-13.00	-24.69	-57.65	-41.06	3.37

Mode	LTE Band 2, CB: 1.4MHz, 1RB, Offset 2,Channel: 18900						
Frequency (MHz)	Antenna Polarity	E.I.R.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
3760.00	H	-42.77	-13.00	-29.77	-57.06	-49.43	6.66
5640.00	H	-39.85	-13.00	-26.85	-56.47	-45.89	6.04
7520.00	H	-39.90	-13.00	-26.90	-58.86	-43.13	3.23
3760.00	V	-45.72	-13.00	-32.72	-59.99	-52.38	6.66
5640.00	V	-38.62	-13.00	-25.62	-55.66	-44.66	6.04
7520.00	V	-38.40	-13.00	-25.40	-57.56	-41.63	3.23

Mode	LTE Band 2, CB: 1.4MHz, 1RB, Offset 2,Channel: 19193						
Frequency (MHz)	Antenna Polarity.	E.I.R.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
3818.60	H	-44.33	-13.00	-31.33	-58.98	-51.00	6.67
5727.90	H	-38.63	-13.00	-25.63	-55.36	-44.60	5.97
7637.20	H	-40.83	-13.00	-27.83	-59.31	-43.87	3.04
3818.60	V	-44.78	-13.00	-31.78	-59.40	-51.45	6.67
5727.90	V	-38.29	-13.00	-25.29	-55.37	-44.26	5.97
7637.20	V	-40.85	-13.00	-27.85	-59.62	-43.89	3.04

Note: EIRP = S.G Power value + Correction factor.

Mode	LTE Band 2, CB: 3MHz, 1RB, Offset 7,Channel: 18615						
Frequency (MHz)	Antenna Polarity	E.I.R.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
3703.00	H	-43.56	-13.00	-30.56	-57.34	-50.20	6.64
5554.50	H	-39.81	-13.00	-26.81	-56.27	-45.87	6.06
7406.00	H	-39.89	-13.00	-26.89	-59.54	-43.25	3.36
3703.00	V	-45.34	-13.00	-32.34	-59.13	-51.98	6.64
5554.50	V	-39.33	-13.00	-26.33	-56.27	-45.39	6.06
7406.00	V	-37.59	-13.00	-24.59	-57.53	-40.95	3.36

Mode	LTE Band 2, CB: 3MHz, 1RB, Offset 7,Channel: 18900						
Frequency (MHz)	Antenna Polarity	E.I.R.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
3760.00	H	-43.53	-13.00	-30.53	-57.82	-50.19	6.66
5640.00	H	-39.82	-13.00	-26.82	-56.44	-45.86	6.04
7520.00	H	-39.80	-13.00	-26.80	-58.76	-43.03	3.23
3760.00	V	-45.34	-13.00	-32.34	-59.61	-52.00	6.66
5640.00	V	-39.11	-13.00	-26.11	-56.15	-45.15	6.04
7520.00	V	-37.55	-13.00	-24.55	-56.71	-40.78	3.23

Mode	LTE Band 2, CB: 3MHz, 1RB, Offset 7,Channel: 19185						
Frequency (MHz)	Antenna Polarity.	E.I.R.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
3817.00	H	-43.46	-13.00	-30.46	-58.11	-50.13	6.67
5725.50	H	-39.62	-13.00	-26.62	-56.34	-45.60	5.98
7634.00	H	-39.62	-13.00	-26.62	-58.10	-42.66	3.04
3817.00	V	-45.23	-13.00	-32.23	-59.85	-51.90	6.67
5725.50	V	-38.99	-13.00	-25.99	-56.06	-44.97	5.98
7634.00	V	-37.41	-13.00	-24.41	-56.17	-40.45	3.04

Note: EIRP = S.G Power value + Correction factor.

Mode	LTE Band 2, CB: 5MHz, 1RB, Offset 12,Channel: 18625						
Frequency (MHz)	Antenna Polarity	E.I.R.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
3705.00	H	-43.86	-13.00	-30.86	-57.65	-50.50	6.64
5557.50	H	-39.67	-13.00	-26.67	-56.14	-45.73	6.06
7410.00	H	-41.26	-13.00	-28.26	-60.89	-44.62	3.36
3705.00	V	-44.66	-13.00	-31.66	-58.47	-51.30	6.64
5557.50	V	-39.61	-13.00	-26.61	-56.56	-45.67	6.06
7410.00	V	-38.12	-13.00	-25.12	-58.04	-41.48	3.36

Mode	LTE Band 2, CB: 5MHz, 1RB, Offset 12,Channel: 18900						
Frequency (MHz)	Antenna Polarity	E.I.R.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
3760.00	H	-43.60	-13.00	-30.60	-57.89	-50.26	6.66
5640.00	H	-39.55	-13.00	-26.55	-56.17	-45.59	6.04
7520.00	H	-41.05	-13.00	-28.05	-60.01	-44.28	3.23
3760.00	V	-44.51	-13.00	-31.51	-58.78	-51.17	6.66
5640.00	V	-39.52	-13.00	-26.52	-56.56	-45.56	6.04
7520.00	V	-38.00	-13.00	-25.00	-57.16	-41.23	3.23

Mode	LTE Band 2, CB: 5MHz, 1RB, Offset 12,Channel: 19175						
Frequency (MHz)	Antenna Polarity.	E.I.R.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
3815.00	H	-43.51	-13.00	-30.51	-58.16	-50.18	6.67
5722.50	H	-39.42	-13.00	-26.42	-56.14	-45.40	5.98
7630.00	H	-40.98	-13.00	-27.98	-59.47	-44.03	3.05
3815.00	V	-44.39	-13.00	-31.39	-59.01	-51.06	6.67
5722.50	V	-39.39	-13.00	-26.39	-56.46	-45.37	5.98
7630.00	V	-37.81	-13.00	-24.81	-56.56	-40.86	3.05

Note: EIRP = S.G Power value + Correction factor.

Mode	LTE Band 2, CB: 10MHz, 1RB, Offset 24,Channel: 18650						
Frequency (MHz)	Antenna Polarity	E.I.R.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
3710.00	H	-44.31	-13.00	-31.31	-58.15	-50.95	6.64
5565.00	H	-40.12	-13.00	-27.12	-56.60	-46.18	6.06
7420.00	H	-40.39	-13.00	-27.39	-59.95	-43.74	3.35
3710.00	V	-43.87	-13.00	-30.87	-57.72	-50.51	6.64
5565.00	V	-39.71	-13.00	-26.71	-56.67	-45.77	6.06
7420.00	V	-39.03	-13.00	-26.03	-58.88	-42.38	3.35

Mode	LTE Band 2, CB: 10MHz, 1RB, Offset 24,Channel: 18900						
Frequency (MHz)	Antenna Polarity	E.I.R.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
3760.00	H	-43.96	-13.00	-30.96	-58.25	-50.62	6.66
5640.00	H	-39.72	-13.00	-26.72	-56.34	-45.76	6.04
7520.00	H	-40.05	-13.00	-27.05	-59.01	-43.28	3.23
3760.00	V	-43.43	-13.00	-30.43	-57.70	-50.09	6.66
5640.00	V	-39.33	-13.00	-26.33	-56.37	-45.37	6.04
7520.00	V	-38.63	-13.00	-25.63	-57.79	-41.86	3.23

Mode	LTE Band 2, CB: 10MHz, 1RB, Offset 24,Channel: 19150						
Frequency (MHz)	Antenna Polarity.	E.I.R.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
3810.00	H	-43.81	-13.00	-30.81	-58.47	-50.48	6.67
5715.00	H	-39.62	-13.00	-26.62	-56.33	-45.60	5.98
7620.00	H	-39.97	-13.00	-26.97	-58.46	-43.05	3.08
3810.00	V	-43.35	-13.00	-30.35	-57.98	-50.02	6.67
5715.00	V	-39.12	-13.00	-26.12	-56.19	-45.10	5.98
7620.00	V	-39.42	-13.00	-26.42	-58.13	-42.50	3.08

Note: EIRP = S.G Power value + Correction factor.

Mode	LTE Band 2, CB: 15MHz, 1RB, Offset 37,Channel: 18675						
Frequency (MHz)	Antenna Polarity	E.I.R.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
3715.00	H	-42.81	-13.00	-29.81	-56.69	-49.45	6.64
5572.50	H	-39.72	-13.00	-26.72	-56.23	-45.79	6.07
7430.00	H	-40.56	-13.00	-27.56	-60.06	-43.89	3.33
3715.00	V	-44.31	-13.00	-31.31	-58.20	-50.95	6.64
5572.50	V	-39.46	-13.00	-26.46	-56.43	-45.53	6.07
7430.00	V	-38.86	-13.00	-25.86	-58.64	-42.19	3.33

Mode	LTE Band 2, CB: 15MHz, 1RB, Offset 37,Channel: 18900						
Frequency (MHz)	Antenna Polarity	E.I.R.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
3760.00	H	-42.76	-13.00	-29.76	-57.05	-49.42	6.66
5640.00	H	-39.69	-13.00	-26.69	-56.31	-45.73	6.04
7520.00	H	-40.50	-13.00	-27.50	-59.46	-43.73	3.23
3760.00	V	-44.27	-13.00	-31.27	-58.54	-50.93	6.66
5640.00	V	-39.41	-13.00	-26.41	-56.45	-45.45	6.04
7520.00	V	-38.80	-13.00	-25.80	-57.96	-42.03	3.23

Mode	LTE Band 2, CB: 15MHz, 1RB, Offset 37,Channel: 19125						
Frequency (MHz)	Antenna Polarity.	E.I.R.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
3805.00	H	-42.31	-13.00	-29.31	-56.96	-48.98	6.67
5707.50	H	-39.23	-13.00	-26.23	-55.93	-45.22	5.99
7610.00	H	-40.23	-13.00	-27.23	-58.74	-43.33	3.10
3805.00	V	-43.95	-13.00	-30.95	-58.57	-50.62	6.67
5707.50	V	-39.03	-13.00	-26.03	-56.09	-45.02	5.99
7610.00	V	-38.52	-13.00	-25.52	-57.20	-41.62	3.10

Note: EIRP = S.G Power value + Correction factor.

Mode	LTE Band 2, CB: 20MHz, 1RB, Offset 49,Channel: 18700						
Frequency (MHz)	Antenna Polarity	E.I.R.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
3720.00	H	-43.16	-13.00	-30.16	-57.09	-49.81	6.65
5580.00	H	-39.34	-13.00	-26.34	-55.86	-45.41	6.07
7440.00	H	-40.98	-13.00	-27.98	-60.42	-44.30	3.32
3720.00	V	-45.31	-13.00	-32.31	-59.25	-51.96	6.65
5580.00	V	-40.19	-13.00	-27.19	-57.17	-46.26	6.07
7440.00	V	-38.13	-13.00	-25.13	-57.83	-41.45	3.32

Mode	LTE Band 2, CB: 20MHz, 1RB, Offset 49,Channel: 18900						
Frequency (MHz)	Antenna Polarity	E.I.R.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
3760.00	H	-42.66	-13.00	-29.66	-56.95	-49.32	6.66
5640.00	H	-39.02	-13.00	-26.02	-55.64	-45.06	6.04
7520.00	H	-39.47	-13.00	-26.47	-58.43	-42.70	3.23
3760.00	V	-44.68	-13.00	-31.68	-58.95	-51.34	6.66
5640.00	V	-38.77	-13.00	-25.77	-55.81	-44.81	6.04
7520.00	V	-38.73	-13.00	-25.73	-57.89	-41.96	3.23

Mode	LTE Band 2, CB: 20MHz, 1RB, Offset 49,Channel: 19100						
Frequency (MHz)	Antenna Polarity.	E.I.R.P (dBm)	Limit (dBm)	Margin (dB)	S.A Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)
3800.00	H	-44.67	-13.00	-31.67	-59.33	-51.34	6.67
5700.00	H	-37.85	-13.00	-24.85	-54.55	-43.84	5.99
7600.00	H	-40.46	-13.00	-27.46	-58.97	-43.59	3.13
3800.00	V	-43.38	-13.00	-30.38	-58.00	-50.05	6.67
5700.00	V	-37.83	-13.00	-24.83	-54.89	-43.82	5.99
7600.00	V	-40.01	-13.00	-27.01	-58.65	-43.14	3.13

Note: EIRP = S.G Power value + Correction factor.

3.3 Conducted Emissions

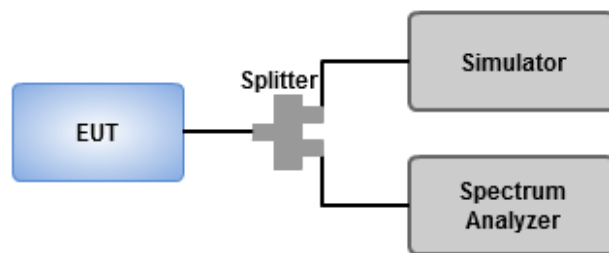
3.3.1 Limit of Conducted Emissions

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB equal to -13dBm.

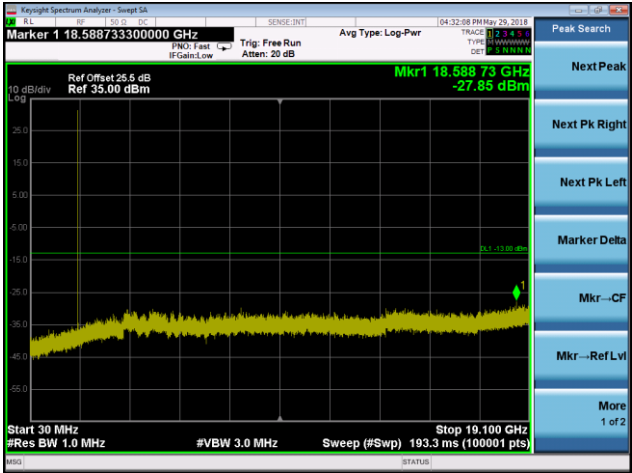
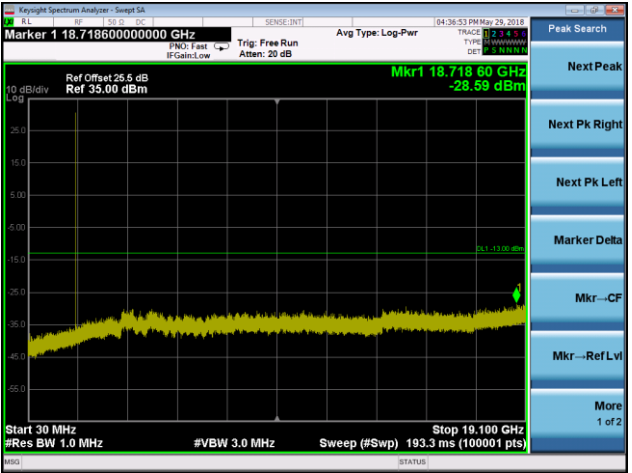
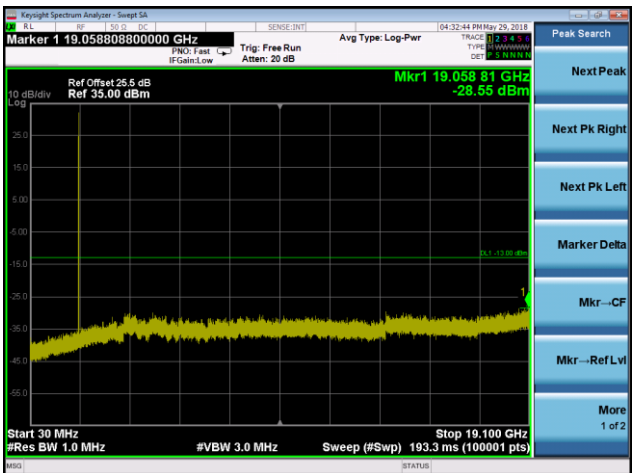
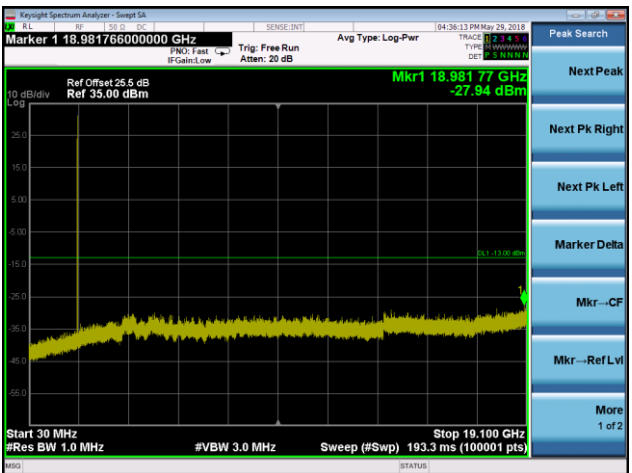
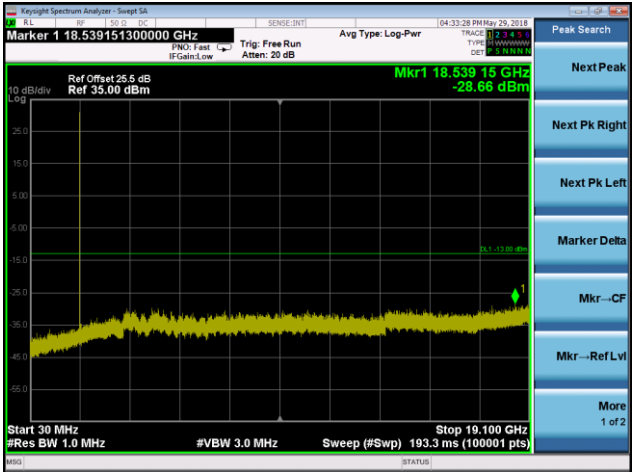
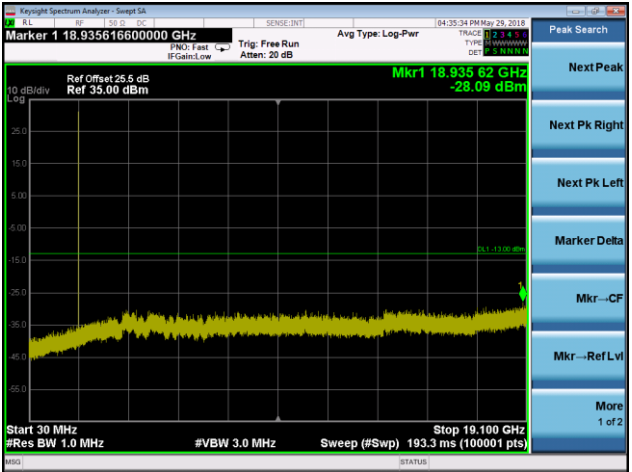
3.3.2 Test Procedures

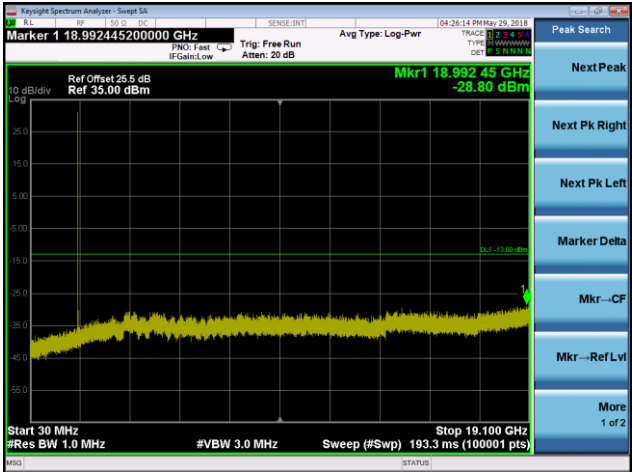
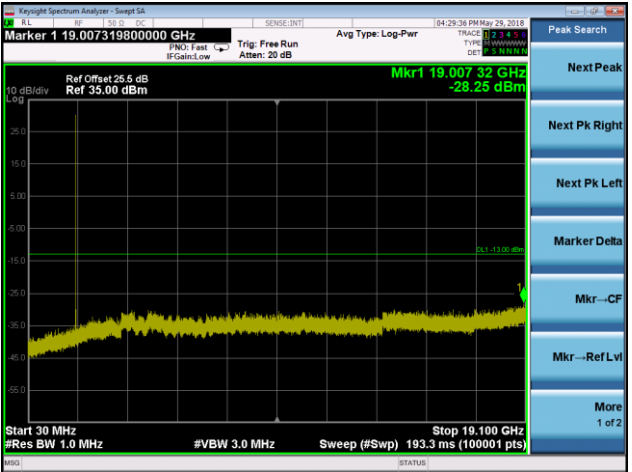
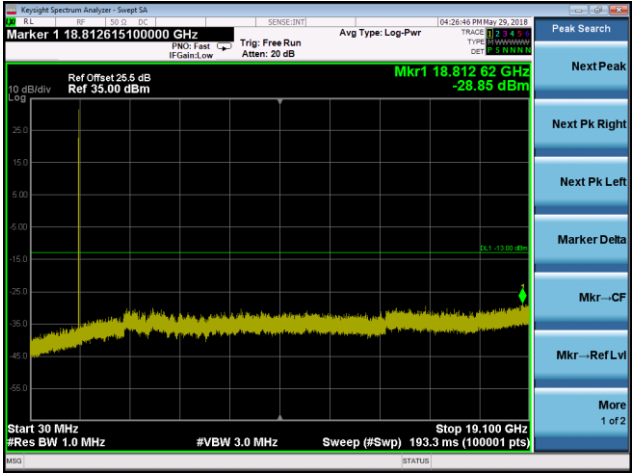
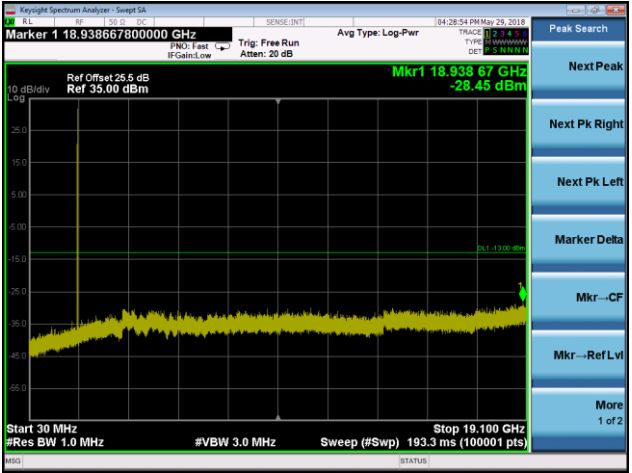
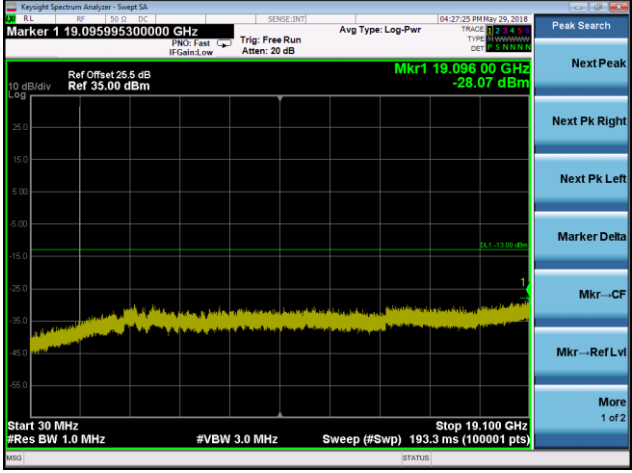
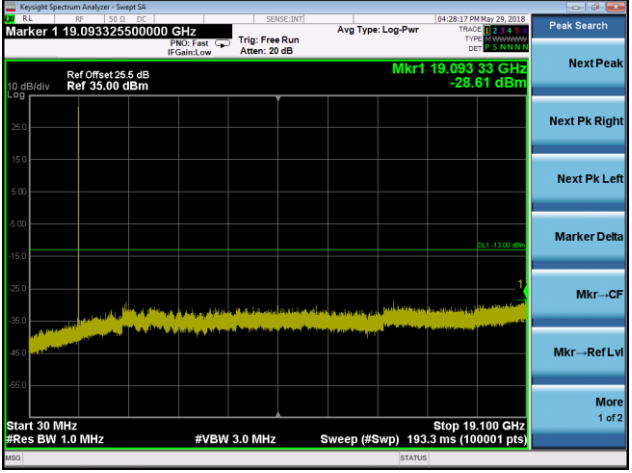
1. Lowest, middle and highest operating channels are tested for this item.
2. Scan frequency range is from 30 MHz ~ 19.1 GHz.
3. Set RBW = 1 MHz, VBW = 3 MHz, detector = Peak, sweep time = auto.
4. Record the max trace value and capture the test plot of each sub frequency band.

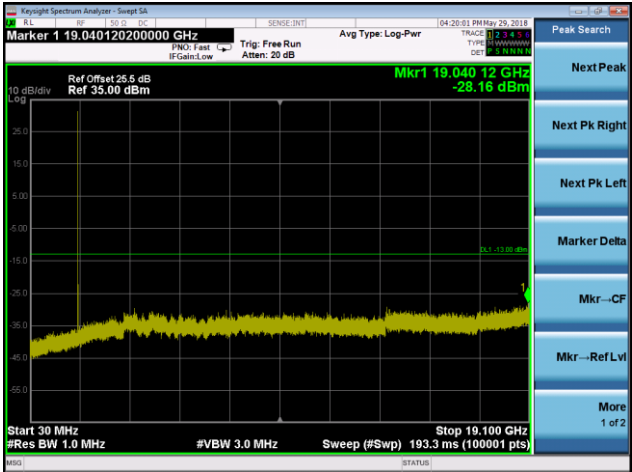
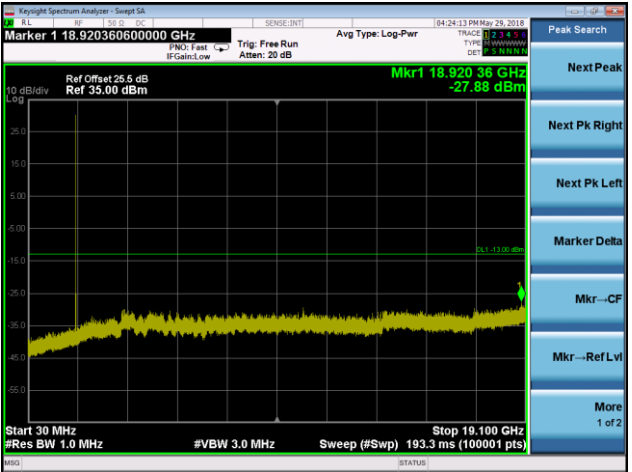
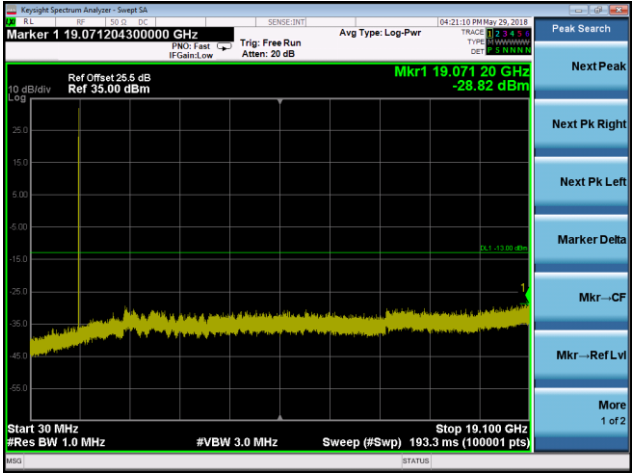
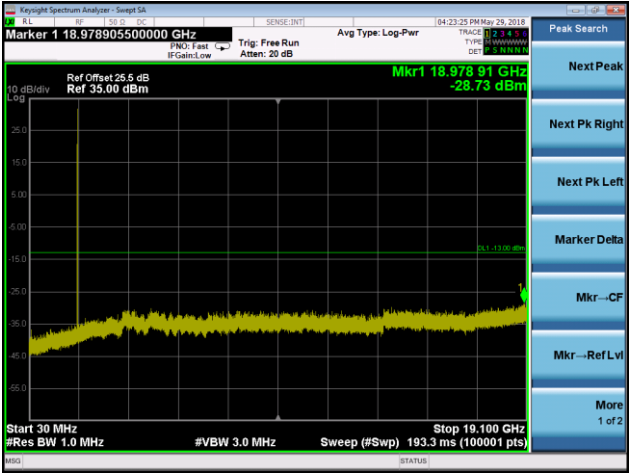
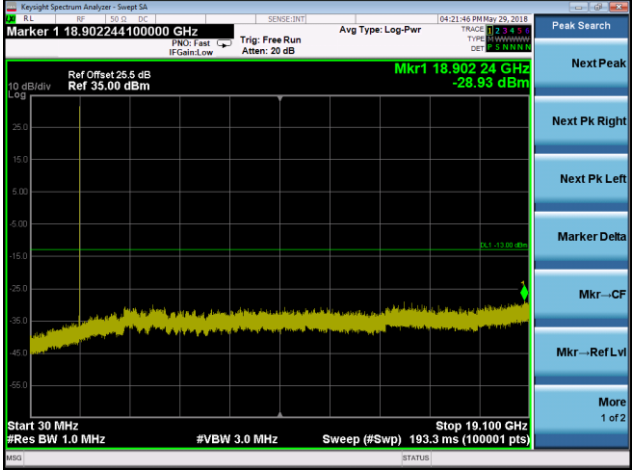
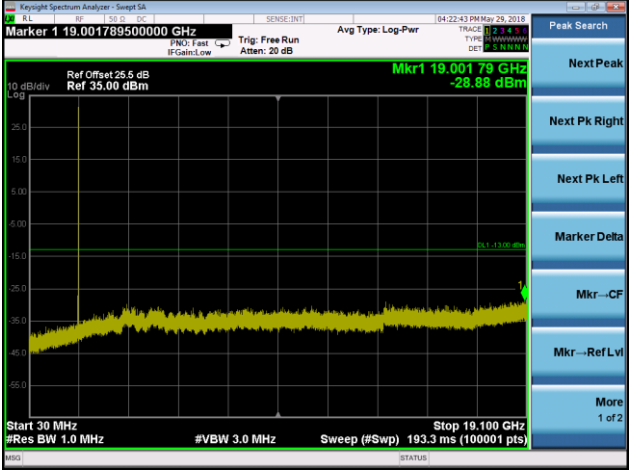
3.3.3 Test Setup

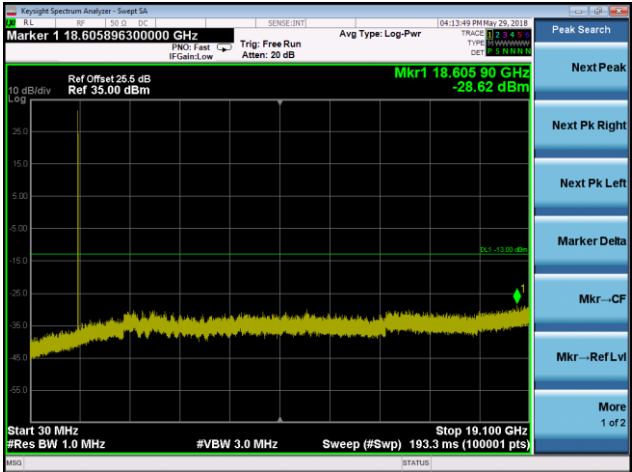
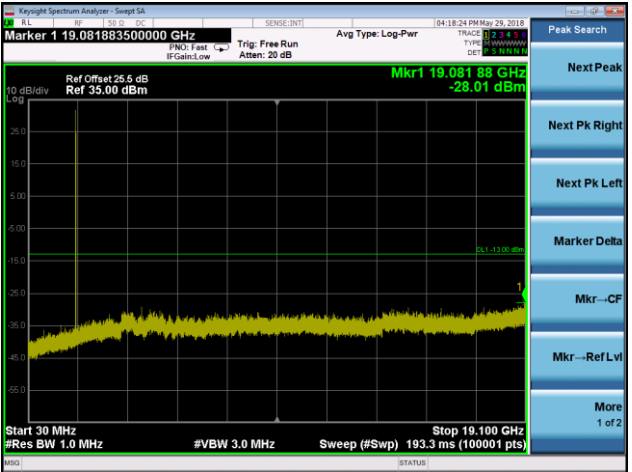
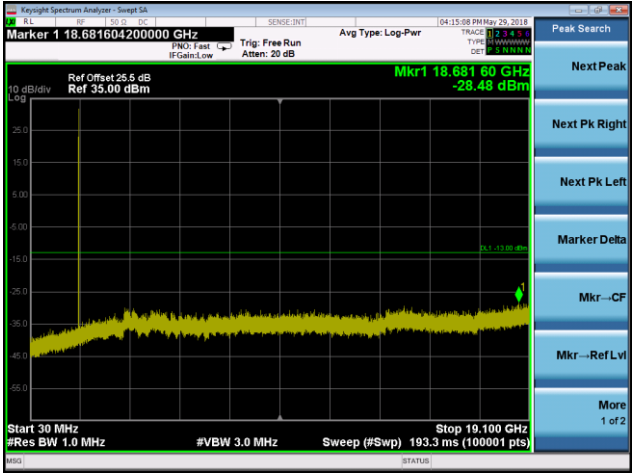
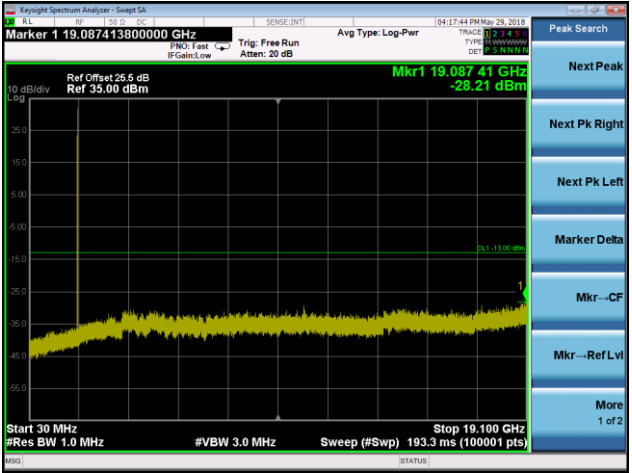


3.3.4 Test Result of Conducted Emissions

Mode	LTE Band 2, CB: 1.4MHz, QPSK	Mode	LTE Band 2, CB: 1.4MHz, 16QAM
Channel	18607	Channel	18607
			
Channel	18900	Channel	18900
			
Channel	19193	Channel	19193
			

Mode	LTE Band 2, CB: 3MHz, QPSK	Mode	LTE Band 2, CB: 3MHz, 16QAM
Channel	18615	Channel	18615
			
Channel	18900	Channel	18900
			
Channel	19185	Channel	19185
			

Mode	LTE Band 2, CB: 5MHz, QPSK	Mode	LTE Band 2, CB: 5MHz, 16QAM
Channel	18625	Channel	18625
			
Channel	18900	Channel	18900
			
Channel	19175	Channel	19175
			

Mode	LTE Band 2, CB: 10MHz, QPSK	Mode	LTE Band 2, CB: 10MHz, 16QAM
Channel	18650	Channel	18650
			
Channel	18900	Channel	18900
			
Channel	19150	Channel	19150
