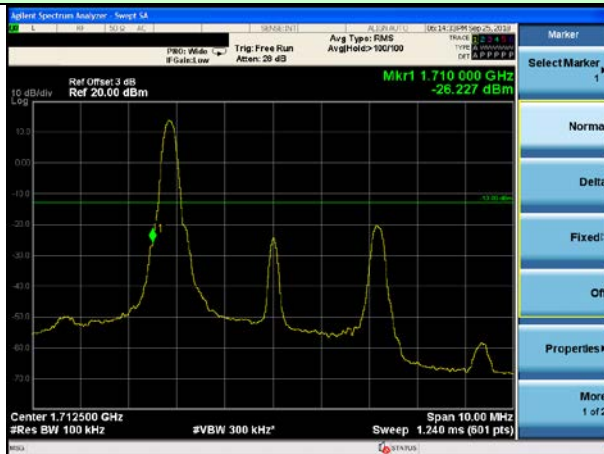


5MHz Bandwidth (RB size:1# RB offset:0#)



Lowest channel

5MHz Bandwidth (RB size:1# RB offset:24#)



Highest channel

5MHz Bandwidth (RB size:12# RB offset:0#)



Lowest channel

5MHz Bandwidth (RB size:12# RB offset:13#)



Highest channel

5MHz Bandwidth (RB size:25# RB offset:0#)



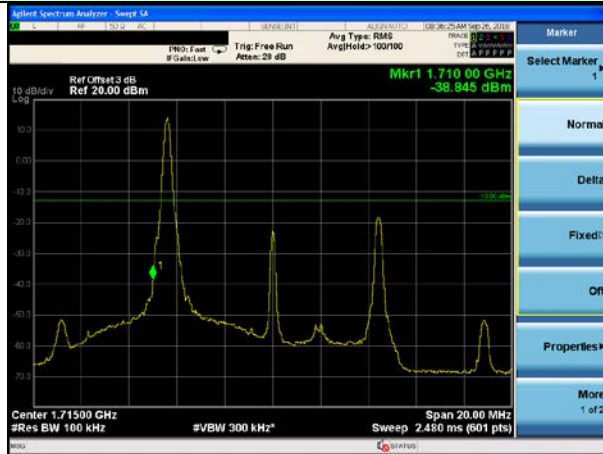
Lowest channel

5MHz Bandwidth (RB size:25# RB offset:0#)



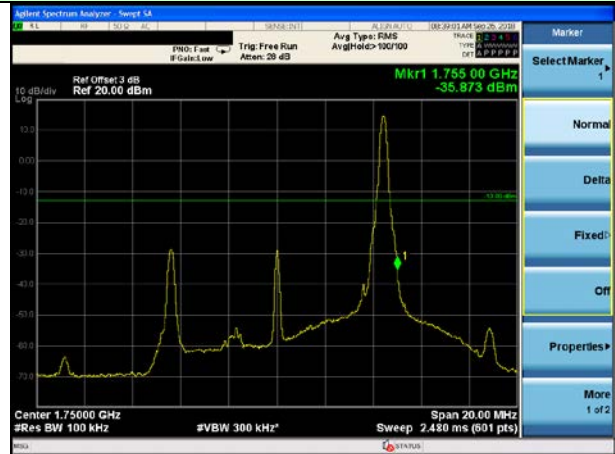
Highest channel

10MHz Bandwidth (RB size:1# RB offset:0#)



Lowest channel

10MHz Bandwidth (RB size:1# RB offset:49#)



Highest channel

10MHz Bandwidth (RB size:25# RB offset:0#)



Lowest channel

10MHz Bandwidth (RB size:25# RB offset:25#)



Highest channel

10MHz Bandwidth (RB size:50# RB offset:0#)



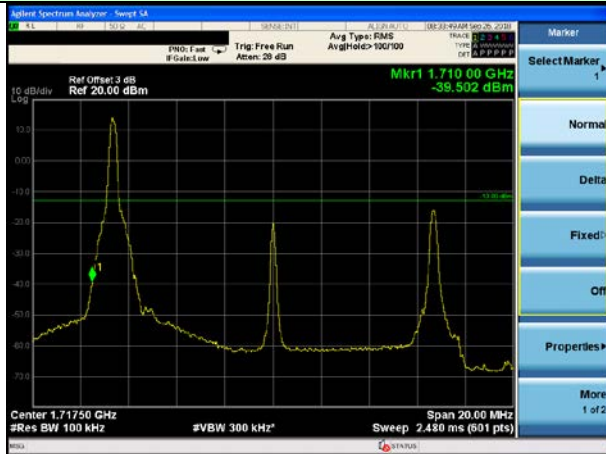
Lowest channel

10MHz Bandwidth (RB size:50# RB offset:0#)



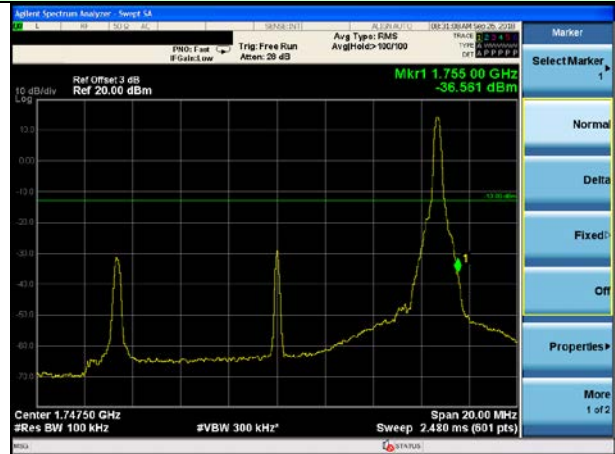
Highest channel

15MHz Bandwidth (RB size:1# RB offset:0#)



Lowest channel

15MHz Bandwidth (RB size:1# RB offset:74#)



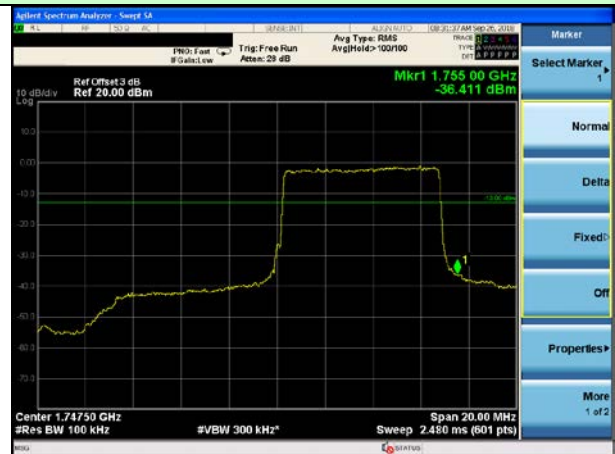
Highest channel

15MHz Bandwidth (RB size:36# RB offset:0#)



Lowest channel

15MHz Bandwidth (RB size:36# RB offset:39#)



Highest channel

15MHz Bandwidth (RB size:75# RB offset:0#)



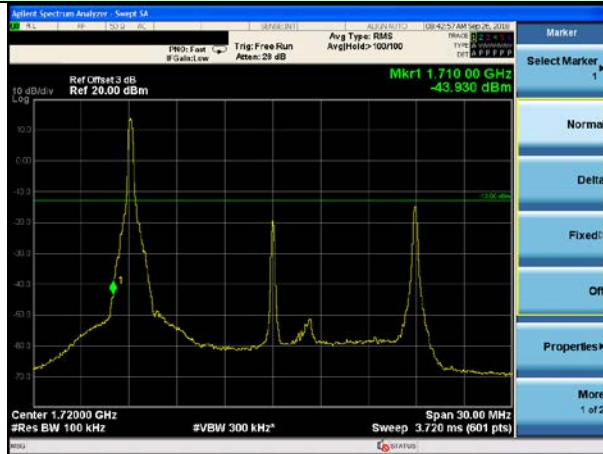
Lowest channel

15MHz Bandwidth (RB size:75# RB offset:0#)



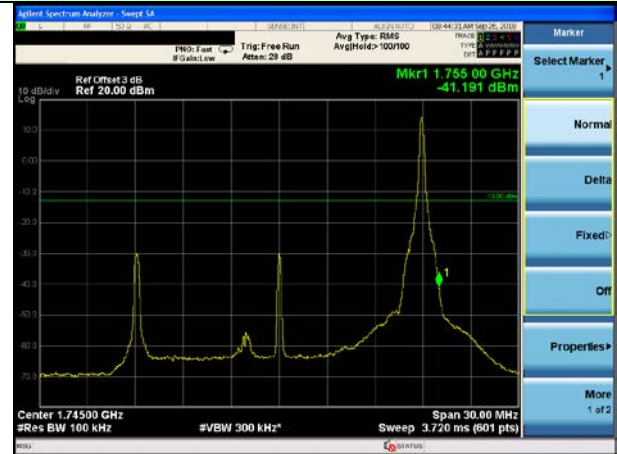
Highest channel

20MHz Bandwidth (RB size:1# RB offset:0#)



Lowest channel

20MHz Bandwidth (RB size:1# RB offset:99#)



Highest channel

20MHz Bandwidth (RB size:50# RB offset:0#)



Lowest channel

20MHz Bandwidth (RB size:50# RB offset:50#)



Highest channel

20MHz Bandwidth (RB size:100# RB offset:0#)



Lowest channel

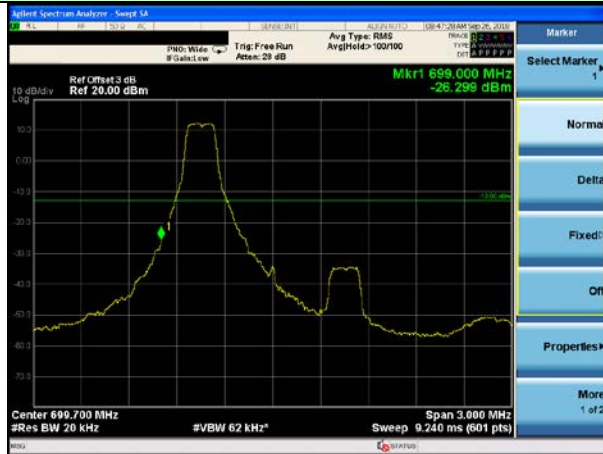
20MHz Bandwidth (RB size:100# RB offset:0#)



Highest channel

LTE Band 12 (16QAM mode):

1.4MHz Bandwidth (RB size:1# RB offset:0#)



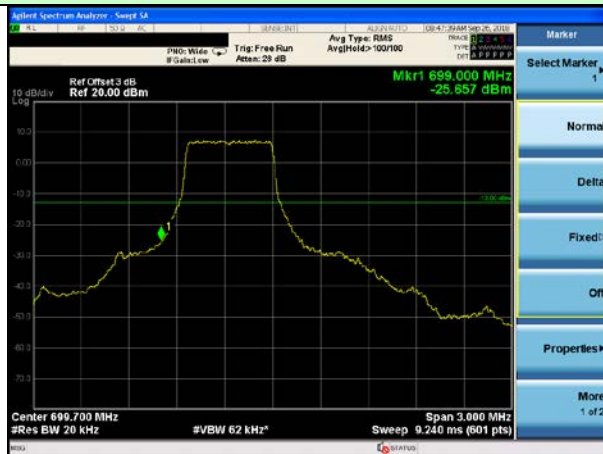
Lowest channel

1.4MHz Bandwidth (RB size:1# RB offset:5#)



Highest channel

1.4MHz Bandwidth (RB size:3# RB offset:0#)



Lowest channel

1.4MHz Bandwidth (RB size:3# RB offset:2#)



Highest channel

1.4MHz Bandwidth (RB size 6# RB offset:0#)



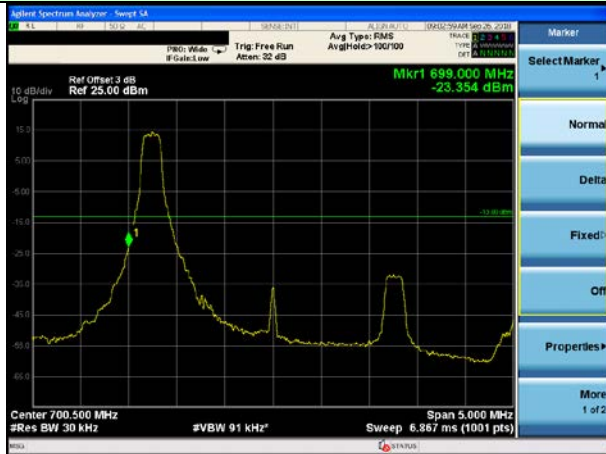
Lowest channel

1.4MHz Bandwidth (RB size:6# RB offset:0#)



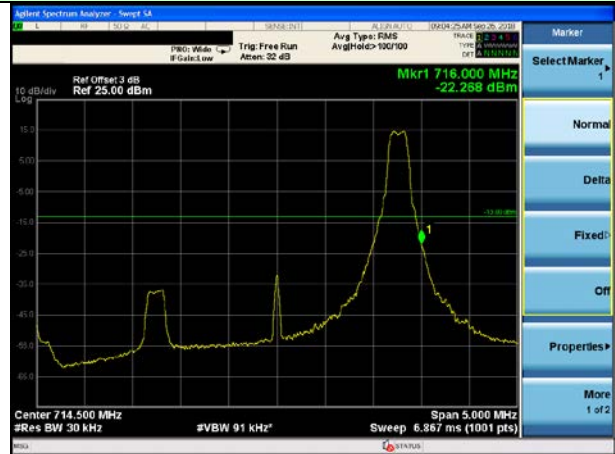
Highest channel

3MHz Bandwidth (RB size:1# RB offset:0#)



Lowest channel

3MHz Bandwidth (RB size:1# RB offset:14#)



Highest channel

3MHz Bandwidth (RB size:8# RB offset:0#)



Lowest channel

3MHz Bandwidth (RB size:8# RB offset:7#)



Highest channel

3MHz Bandwidth (RB size:15# RB offset:0#)



Lowest channel

3MHz Bandwidth (RB size:15# RB offset:0#)



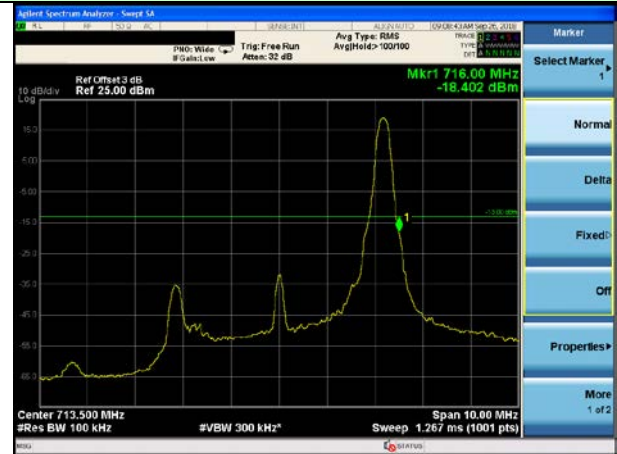
Highest channel

5MHz Bandwidth (RB size:1# RB offset:0#)



Lowest channel

5MHz Bandwidth (RB size:1# RB offset:24#)



Highest channel

5MHz Bandwidth (RB size:12# RB offset:0#)



Lowest channel

5MHz Bandwidth (RB size:12# RB offset:13#)



Highest channel

5MHz Bandwidth (RB size:25# RB offset:0#)



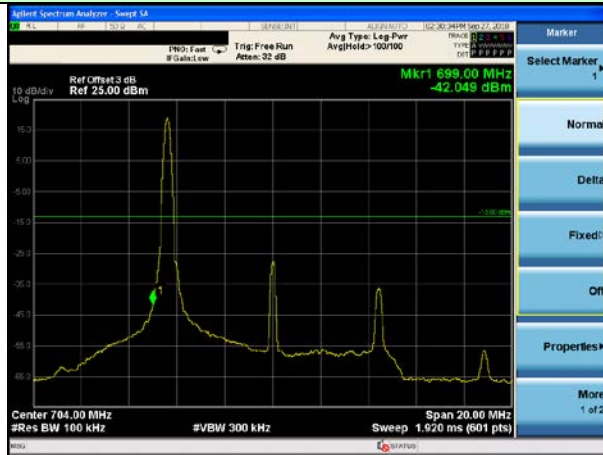
Lowest channel

5MHz Bandwidth (RB size:25# RB offset:0#)



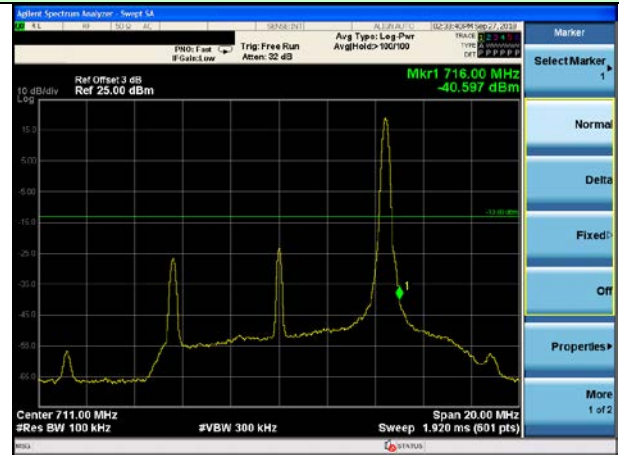
Highest channel

10MHz Bandwidth (RB size:1# RB offset:0#)



Lowest channel

10MHz Bandwidth (RB size:1# RB offset:49#)



Highest channel

10MHz Bandwidth (RB size:25# RB offset:0#)



Lowest channel

10MHz Bandwidth (RB size:25# RB offset:25#)



Highest channel

10MHz Bandwidth (RB size:50# RB offset:0#)



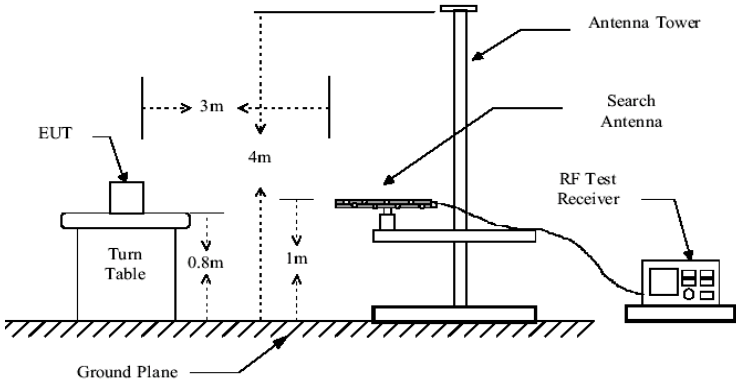
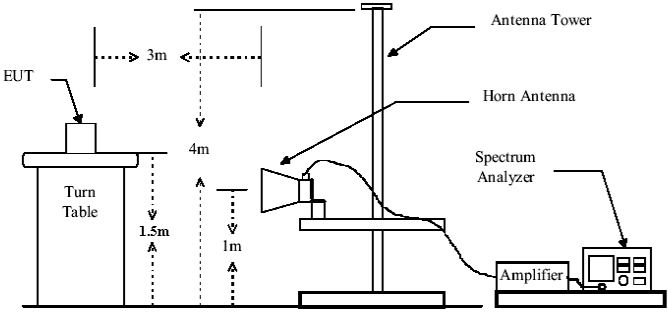
Lowest channel

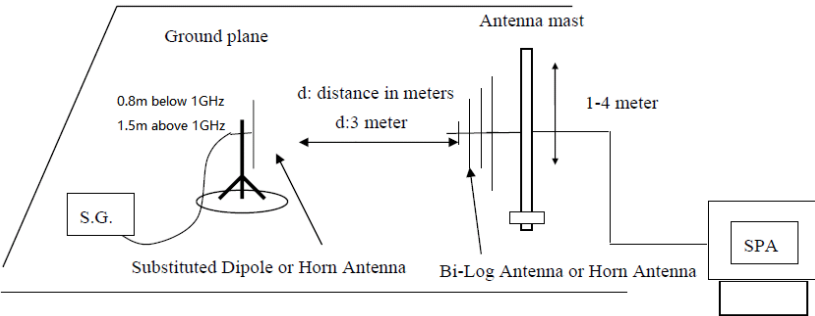
10MHz Bandwidth (RB size:50# RB offset:0#)



Highest channel

6.9 ERP, EIRP Measurement

Test Requirement for FCC:	Part 24.238 (a); Part 27.50(c)(10)/(d)(4)
Test Requirement for IC:	RSS-130 Clause 4.4, RSS-133 Clause 6.4, RSS-139 Clause 6.5
Limit for FCC:	LTE Band 2: 2W (EIRP) LTE Band 4: 1W (EIRP) LTE Band 12: 3W (ERP)
Limit for IC:	LTE Band 2: 2W (EIRP) LTE Band 4: 1W (EIRP) LTE Band 12: 5W (EIRP)
Test setup:	Below 1GHz  Above 1GHz  Substituted method:

	 The diagram illustrates the test setup. A ground plane is shown on the left. A substituted dipole or horn antenna is positioned 0.8m below 1GHz and 1.5m above 1GHz. A spectrum analyzer (SPA) is connected to the antenna. The distance d is 3 meters. The antenna mast is 1-4 meters high. The antenna is a Bi-Log Antenna or Horn Antenna.
Test Procedure:	1. The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer. 2. During the measurement, the EUT was communication with the station. The highest emission was recorded with the rotation of the turntable and the lowering of the test antenna from 4m to 1m. The reading was recorded and the field strength (E in dBuV/m) was calculated. 3. ERP in frequency band 777–787MHz were measured using a substitution method. The EUT was replaced by dipole antenna connected, the S.G. output was recorded and ERP was calculated as follows: $ERP = S.G. \text{ output (dBm) + Antenna Gain (dBd) - Cable Loss (dB)}$ 4. EIRP in frequency band 1710–1755MHz were measured using a substitution method. The EUT was replaced by or horn antenna connected, the S.G. output was recorded and EIRP was calculated as follows: $EIRP = S.G. \text{ output (dBm) + Antenna Gain (dBi) - Cable Loss (dB)}$
Test environment:	Temp.: 25 °C Humid.: 52% Press.: 1 012mbar
Test Instruments:	Refer to section 5.0 for details
Test mode:	Refer to section 6.1 for details
Test results:	Pass

Measurement Data

The maximum value has been record and the tighter limits apply:

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	EIRP (dBm)	Limit (dBm)	Result
LTE Band 2 (1.4M)	Lowest	QPSK	H	21.08	-1.93	1.13	20.28	33.00	Pass
	Middle	QPSK	H	21.43	-1.93	1.22	20.72	33.00	Pass
	Highest	QPSK	H	22.63	-1.93	1.34	22.04	33.00	Pass
	Lowest	16-QAM	H	22.05	-1.93	1.13	21.25	33.00	Pass
	Middle	16-QAM	H	21.89	-1.93	1.22	21.18	33.00	Pass
	Highest	16-QAM	H	21.66	-1.93	1.34	21.07	33.00	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	EIRP (dBm)	Limit (dBm)	Result
LTE Band 2 (3M)	Lowest	QPSK	H	21.26	-1.93	1.13	20.46	33.00	Pass
	Middle	QPSK	H	21.77	-1.93	1.22	21.06	33.00	Pass
	Highest	QPSK	H	22.77	-1.93	1.34	22.18	33.00	Pass
	Lowest	16-QAM	H	22.68	-1.93	1.13	21.88	33.00	Pass
	Middle	16-QAM	H	21.53	-1.93	1.22	20.82	33.00	Pass
	Highest	16-QAM	H	21.79	-1.93	1.34	21.20	33.00	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	EIRP (dBm)	Limit (dBm)	Result
LTE Band 2 (5M)	Lowest	QPSK	H	21.03	-1.93	1.13	20.23	33.00	Pass
	Middle	QPSK	H	21.43	-1.93	1.22	20.72	33.00	Pass
	Highest	QPSK	H	22.11	-1.93	1.34	21.52	33.00	Pass
	Lowest	16-QAM	H	22.07	-1.93	1.13	21.27	33.00	Pass
	Middle	16-QAM	H	21.96	-1.93	1.22	21.25	33.00	Pass
	Highest	16-QAM	H	21.83	-1.93	1.34	21.24	33.00	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	EIRP (dBm)	Limit (dBm)	Result
LTE Band 2 (10M)	Lowest	QPSK	H	21.42	-1.93	1.13	20.62	33.00	Pass
	Middle	QPSK	H	21.27	-1.93	1.22	20.56	33.00	Pass
	Highest	QPSK	H	22.92	-1.93	1.34	22.33	33.00	Pass
	Lowest	16-QAM	H	22.41	-1.93	1.13	21.61	33.00	Pass
	Middle	16-QAM	H	21.40	-1.93	1.22	20.69	33.00	Pass
	Highest	16-QAM	H	21.56	-1.93	1.34	20.97	33.00	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	EIRP (dBm)	Limit (dBm)	Result
LTE Band 2(15M)	Lowest	QPSK	H	21.74	-1.93	1.13	20.94	33.00	Pass
	Middle	QPSK	H	21.70	-1.93	1.22	20.99	33.00	Pass
	Highest	QPSK	H	21.71	-1.93	1.34	21.12	33.00	Pass
	Lowest	16-QAM	H	21.12	-1.93	1.13	20.32	33.00	Pass
	Middle	16-QAM	H	21.39	-1.93	1.22	20.68	33.00	Pass
	Highest	16-QAM	H	21.75	-1.93	1.34	21.16	33.00	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	EIRP (dBm)	Limit (dBm)	Result
LTE Band 2 (20M)	Lowest	QPSK	H	21.29	-1.93	1.13	20.49	33.00	Pass
	Middle	QPSK	H	21.18	-1.93	1.22	20.47	33.00	Pass
	Highest	QPSK	H	21.34	-1.93	1.34	20.75	33.00	Pass
	Lowest	16-QAM	H	21.42	-1.93	1.13	20.62	33.00	Pass
	Middle	16-QAM	H	21.50	-1.93	1.22	20.79	33.00	Pass
	Highest	16-QAM	H	21.58	-1.93	1.34	20.99	33.00	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	EIRP (dBm)	Limit (dBm)	Result
LTE Band 4 (1.4M)	Lowest	QPSK	H	22.90	-2.74	1.71	21.87	30.00	Pass
	Middle	QPSK	H	22.51	-2.74	1.73	21.50	30.00	Pass
	Highest	QPSK	H	22.85	-2.74	1.81	21.92	30.00	Pass
	Lowest	16-QAM	H	22.92	-2.74	1.71	21.89	30.00	Pass
	Middle	16-QAM	H	22.50	-2.74	1.73	21.49	30.00	Pass
	Highest	16-QAM	H	22.79	-2.74	1.81	21.86	30.00	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	EIRP (dBm)	Limit (dBm)	Result
LTE Band 4 (3M)	Lowest	QPSK	H	22.34	-2.74	1.71	21.31	30.00	Pass
	Middle	QPSK	H	22.78	-2.74	1.73	21.77	30.00	Pass
	Highest	QPSK	H	22.37	-2.74	1.81	21.44	30.00	Pass
	Lowest	16-QAM	H	22.68	-2.74	1.71	21.65	30.00	Pass
	Middle	16-QAM	H	22.47	-2.74	1.73	21.46	30.00	Pass
	Highest	16-QAM	H	22.71	-2.74	1.81	21.78	30.00	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	EIRP (dBm)	Limit (dBm)	Result
LTE Band 4 (5M)	Lowest	QPSK	H	22.70	-2.74	1.71	21.67	30.00	Pass
	Middle	QPSK	H	22.03	-2.74	1.73	21.02	30.00	Pass
	Highest	QPSK	H	22.65	-2.74	1.81	21.72	30.00	Pass
	Lowest	16-QAM	H	22.49	-2.74	1.71	21.46	30.00	Pass
	Middle	16-QAM	H	22.10	-2.74	1.73	21.09	30.00	Pass
	Highest	16-QAM	H	22.56	-2.74	1.81	21.63	30.00	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	EIRP (dBm)	Limit (dBm)	Result
LTE Band 4 (10M)	Lowest	QPSK	H	22.54	-2.74	1.71	21.51	30.00	Pass
	Middle	QPSK	H	22.56	-2.74	1.73	21.55	30.00	Pass
	Highest	QPSK	H	22.21	-2.74	1.81	21.28	30.00	Pass
	Lowest	16-QAM	H	22.95	-2.74	1.71	21.92	30.00	Pass
	Middle	16-QAM	H	22.62	-2.74	1.73	21.61	30.00	Pass
	Highest	16-QAM	H	22.49	-2.74	1.81	21.56	30.00	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	EIRP (dBm)	Limit (dBm)	Result
LTE Band 4 (15M)	Lowest	QPSK	H	22.90	-2.74	1.71	21.87	30.00	Pass
	Middle	QPSK	H	22.68	-2.74	1.73	21.67	30.00	Pass
	Highest	QPSK	H	22.02	-2.74	1.81	21.09	30.00	Pass
	Lowest	16-QAM	H	22.06	-2.74	1.71	21.03	30.00	Pass
	Middle	16-QAM	H	22.81	-2.74	1.73	21.80	30.00	Pass
	Highest	16-QAM	H	22.74	-2.74	1.81	21.81	30.00	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	EIRP (dBm)	Limit (dBm)	Result
LTE Band 4 (20M)	Lowest	QPSK	H	22.56	-2.74	1.71	21.53	30.00	Pass
	Middle	QPSK	H	22.21	-2.74	1.73	21.20	30.00	Pass
	Highest	QPSK	H	22.40	-2.74	1.81	21.47	30.00	Pass
	Lowest	16-QAM	H	22.25	-2.74	1.71	21.22	30.00	Pass
	Middle	16-QAM	H	22.99	-2.74	1.73	21.98	30.00	Pass
	Highest	16-QAM	H	22.31	-2.74	1.81	21.38	30.00	Pass

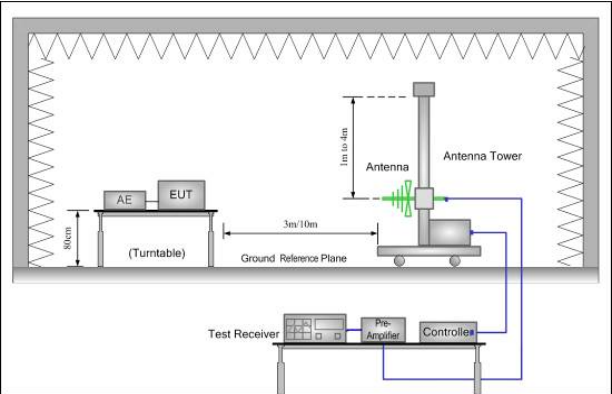
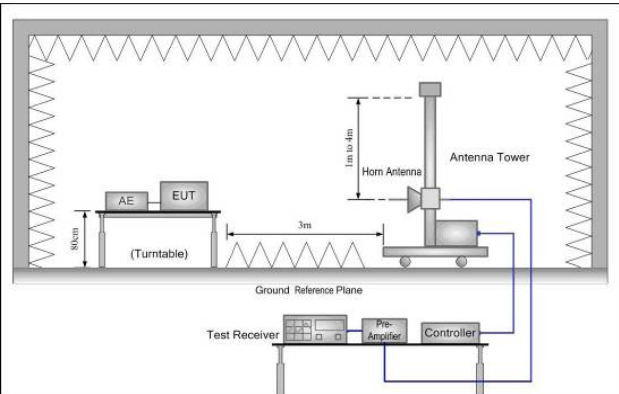
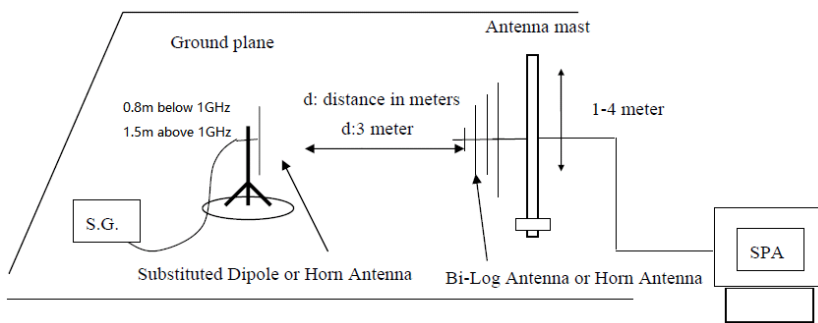
EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	ERP (dBm)	Limit (dBm)	Result
LTE Band 12 (1.4M)	Lowest	QPSK	H	22.45	-2.46	1.55	21.54	34.77	Pass
	Middle	QPSK	H	22.86	-2.46	1.6	22.00	34.77	Pass
	Highest	QPSK	H	22.78	-2.46	1.65	21.97	34.77	Pass
	Lowest	16-QAM	H	22.38	-2.46	1.55	21.47	34.77	Pass
	Middle	16-QAM	H	22.85	-2.46	1.6	21.99	34.77	Pass
	Highest	16-QAM	H	22.62	-2.46	1.65	21.81	34.77	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	ERP (dBm)	Limit (dBm)	Result
LTE Band 12 (5M)	Lowest	QPSK	H	22.73	-2.46	1.55	21.82	34.77	Pass
	Middle	QPSK	H	22.31	-2.46	1.6	21.45	34.77	Pass
	Highest	QPSK	H	22.74	-2.46	1.65	21.93	34.77	Pass
	Lowest	16-QAM	H	22.98	-2.46	1.55	22.07	34.77	Pass
	Middle	16-QAM	H	22.80	-2.46	1.6	21.94	34.77	Pass
	Highest	16-QAM	H	22.41	-2.46	1.65	21.60	34.77	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	ERP (dBm)	Limit (dBm)	Result
LTE Band 12 (5M)	Lowest	QPSK	H	22.75	-2.46	1.55	21.84	34.77	Pass
	Middle	QPSK	H	22.33	-2.46	1.6	21.47	34.77	Pass
	Highest	QPSK	H	22.05	-2.46	1.65	21.24	34.77	Pass
	Lowest	16-QAM	H	22.81	-2.46	1.55	21.90	34.77	Pass
	Middle	16-QAM	H	22.00	-2.46	1.6	21.14	34.77	Pass
	Highest	16-QAM	H	22.46	-2.46	1.65	21.65	34.77	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	ERP (dBm)	Limit (dBm)	Result
LTE Band 12 (10M)	Lowest	QPSK	H	22.04	-2.46	1.55	21.13	34.77	Pass
	Middle	QPSK	H	22.35	-2.46	1.6	21.49	34.77	Pass
	Highest	QPSK	H	22.21	-2.46	1.65	21.40	34.77	Pass
	Lowest	16-QAM	H	22.32	-2.46	1.55	21.41	34.77	Pass
	Middle	16-QAM	H	22.22	-2.46	1.6	21.36	34.77	Pass
	Highest	16-QAM	H	22.70	-2.46	1.65	21.89	34.77	Pass

6.10 Field strength of spurious radiation measurement

Test Requirement for FCC:	Part 24.238 (a); FCC Part 27.53(h)/(g)
Test Requirement for IC:	RSS-GEN Clause 6.13
Limit:	Band 2/4/12:-13dBm
Test setup:	Below 1GHz  Above 1GHz  Substituted method: 

Test Procedure:	1. The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer. 2. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations. 3. The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). Once spurious emission was identified, the power of the emission was determined using the substitution method. 4. The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency. $\text{ERP / EIRP} = \text{S.G. output (dBm)} + \text{Antenna Gain(dB/dBi)} - \text{Cable Loss (dB)}$					
Test environment:	Temp.:	25 °C	Humid.:	52%	Press.:	1 012mbar
Test Instruments:	Refer to section 5.0 for details					
Test mode:	Refer to section 6.1 for details					
Test results:	Pass					

Measurement Data

Remark:

1. The emission behavior belongs to narrowband spurious emission.
2. The emission levels of below 1 GHz are very lower than the limit and not show in test report.

QPSK mode:

Test mode:	LTE Band 2(5MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3705.00	Vertical	-42.15	-13.00	Pass
5557.50	V	-43.88		
7410.00	V	-41.13		
9262.50	V	-43.29		
11115.00	V	-42.64		
3705.00	Horizontal	-41.38	-13.00	Pass
5557.50	H	-45.23		
7410.00	H	-44.79		
9262.50	H	-44.51		
11115.00	H	-43.94		
Test mode:	LTE Band 2(5MHz)		Test channel:	Middle
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3760.00	Vertical	-43.27	-13.00	Pass
5640.00	V	-41.55		
7520.00	V	-41.44		
9400.00	V	-43.25		
11280.00	V	-44.59		
3760.00	Horizontal	-41.65	-13.00	Pass
5640.00	H	-44.87		
7520.00	H	-44.18		
9400.00	H	-45.46		
11280.00	H	-42.85		
Test mode:	LTE Band 2(5MHz)		Test channel:	Highest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3815.00	Vertical	-42.31	-13.00	Pass
5722.50	V	-43.35		
7630.00	V	-44.03		
9537.50	V	-42.65		
11445.00	V	-42.87		
3815.00	Horizontal	-41.22	-13.00	Pass
5722.50	H	-44.10		
7630.00	H	-45.27		
9537.50	H	-47.31		
11445.00	H	-44.14		

Test mode:	LTE Band 2(10MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3810.00	Vertical	-42.34	-13.00	Pass
5715.00	V	-44.07		
7620.00	V	-41.31		
9525.00	V	-43.46		
11430.00	V	-42.75		
3810.00	Horizontal	-41.56	-13.00	Pass
5715.00	H	-45.40		
7620.00	H	-44.95		
9525.00	H	-44.66		
11430.00	H	-44.10		
Test mode:	LTE Band 2(10MHz)		Test channel:	Middle
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3760.00	Vertical	-43.46	-13.00	Pass
5640.00	V	-41.74		
7520.00	V	-41.62		
9400.00	V	-43.42		
11280.00	V	-44.78		
3760.00	Horizontal	-41.83	-13.00	Pass
5640.00	H	-45.04		
7520.00	H	-44.34		
9400.00	H	-45.61		
11280.00	H	-43.01		
Test mode:	LTE Band 2(10MHz)		Test channel:	Highest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3710.00	Vertical	-42.50	-13.00	Pass
5565.00	V	-43.54		
7420.00	V	-44.21		
9275.00	V	-42.82		
11130.00	V	-43.08		
3710.00	Horizontal	-41.40	-13.00	Pass
5565.00	H	-44.27		
7420.00	H	-45.43		
9275.00	H	-47.46		
11130.00	H	-44.33		

Test mode:	LTE Band 2(15MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3805.00	Vertical	-42.46	-13.00	Pass
5707.50	V	-44.18		
7610.00	V	-41.42		
9512.50	V	-43.57		
11415.00	V	-42.82		
3805.00	Horizontal	-41.67	-13.00	Pass
5707.50	H	-45.50		
7610.00	H	-45.05		
9512.50	H	-44.75		
11415.00	H	-44.20		
Test mode:	LTE Band 2(15MHz)		Test channel:	Middle
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3760.00	Vertical	-43.58	-13.00	Pass
5640.00	V	-41.85		
7520.00	V	-41.73		
9400.00	V	-43.53		
11280.00	V	-44.90		
3760.00	Horizontal	-41.94	-13.00	Pass
5640.00	H	-45.14		
7520.00	H	-44.44		
9400.00	H	-45.70		
11280.00	H	-43.11		
Test mode:	LTE Band 2(15MHz)		Test channel:	Highest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3715.00	Vertical	-42.62	-13.00	Pass
5572.50	V	-43.65		
7430.00	V	-44.32		
9287.50	V	-42.93		
11145.00	V	-43.21		
3715.00	Horizontal	-41.51	-13.00	Pass
5572.50	H	-44.37		
7430.00	H	-45.53		
9287.50	H	-47.55		
11145.00	H	-44.44		

Test mode:	LTE Band 2(20MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3800.00	Vertical	-42.30	-13.00	Pass
5700.00	V	-44.02		
7600.00	V	-41.27		
9500.00	V	-43.42		
11400.00	V	-42.73		
3800.00	Horizontal	-41.51	-13.00	Pass
5700.00	H	-45.36		
7600.00	H	-44.91		
9500.00	H	-44.63		
11400.00	H	-44.06		
Test mode:	LTE Band 2(20MHz)		Test channel:	Middle
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3760.00	Vertical	-43.42	-13.00	Pass
5640.00	V	-41.69		
7520.00	V	-41.58		
9400.00	V	-43.38		
11280.00	V	-44.74		
3760.00	Horizontal	-41.78	-13.00	Pass
5640.00	H	-45.00		
7520.00	H	-44.30		
9400.00	H	-45.58		
11280.00	H	-42.97		
Test mode:	LTE Band 2(20MHz)		Test channel:	Highest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3720.00	Vertical	-42.46	-13.00	Pass
5580.00	V	-43.49		
7440.00	V	-44.17		
9300.00	V	-42.78		
11160.00	V	-43.03		
3720.00	Horizontal	-41.35	-13.00	Pass
5580.00	H	-44.23		
7440.00	H	-45.39		
9300.00	H	-47.43		
11160.00	H	-44.28		

Test mode:	LTE Band 4(5MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3425.00	Vertical	-42.23	-13.00	Pass
5137.50	V	-43.96		
6850.00	V	-41.21		
8562.50	V	-43.36		
10275.00	V	-42.69		
3425.00	Horizontal	-41.45	-13.00	Pass
5137.50	H	-45.30		
6850.00	H	-44.86		
8562.50	H	-44.58		
10275.00	H	-44.01		
Test mode:	LTE Band 4(5MHz)		Test channel:	Middle
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3465.00	Vertical	-43.35	-13.00	Pass
5197.50	V	-41.63		
6930.00	V	-41.52		
8662.50	V	-43.32		
10395.00	V	-44.67		
3465.00	Horizontal	-41.72	-13.00	Pass
5197.50	H	-44.94		
6930.00	H	-44.25		
8662.50	H	-45.53		
10395.00	H	-42.92		
Test mode:	LTE Band 4(5MHz)		Test channel:	Highest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3505.00	Vertical	-42.39	-13.00	Pass
5257.50	V	-43.43		
7010.00	V	-44.11		
8762.50	V	-42.72		
10515.00	V	-42.96		
3505.00	Horizontal	-41.29	-13.00	Pass
5257.50	H	-44.17		
7010.00	H	-45.34		
8762.50	H	-47.38		
10515.00	H	-44.22		

Test mode:	LTE Band 4(10MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3430.00	Vertical	-42.04	-13.00	Pass
5145.00	V	-43.77		
6860.00	V	-41.03		
8575.00	V	-43.19		
10290.00	V	-42.58		
3430.00	Horizontal	-41.27	-13.00	Pass
5145.00	H	-45.14		
6860.00	H	-44.70		
8575.00	H	-44.43		
10290.00	H	-43.85		
Test mode:	LTE Band 4(10MHz)		Test channel:	Middle
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3465.00	Vertical	-43.16	-13.00	Pass
5197.50	V	-41.44		
6930.00	V	-41.34		
8662.50	V	-43.15		
10395.00	V	-44.48		
3465.00	Horizontal	-41.54	-13.00	Pass
5197.50	H	-44.78		
6930.00	H	-44.09		
8662.50	H	-45.38		
10395.00	H	-42.76		
Test mode:	LTE Band 4(10MHz)		Test channel:	Highest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3500.00	Vertical	-42.20	-13.00	Pass
5250.00	V	-43.24		
7000.00	V	-43.93		
8750.00	V	-42.55		
10500.00	V	-42.75		
3500.00	Horizontal	-41.11	-13.00	Pass
5250.00	H	-44.01		
7000.00	H	-45.18		
8750.00	H	-47.23		
10500.00	H	-44.03		

Test mode:	LTE Band 4(15MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3435.00	Vertical	-42.05	-13.00	Pass
5152.50	V	-43.78		
6870.00	V	-41.04		
8587.50	V	-43.20		
10305.00	V	-42.59		
3435.00	Horizontal	-41.28	-13.00	Pass
5152.50	H	-45.14		
6870.00	H	-44.71		
8587.50	H	-44.44		
10305.00	H	-43.85		
Test mode:	LTE Band 4(15MHz)		Test channel:	Middle
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3465.00	Vertical	-43.17	-13.00	Pass
5197.50	V	-41.45		
6930.00	V	-41.35		
8662.50	V	-43.16		
10395.00	V	-44.49		
3465.00	Horizontal	-41.55	-13.00	Pass
5197.50	H	-44.78		
6930.00	H	-44.10		
8662.50	H	-45.39		
10395.00	H	-42.76		
Test mode:	LTE Band 4(15MHz)		Test channel:	Highest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3495.00	Vertical	-42.21	-13.00	Pass
5242.50	V	-43.25		
6990.00	V	-43.94		
8737.50	V	-42.56		
10485.00	V	-42.76		
3495.00	Horizontal	-41.12	-13.00	Pass
5242.50	H	-44.01		
6990.00	H	-45.19		
8737.50	H	-47.24		
10485.00	H	-44.04		

Test mode:	LTE Band 4(20MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3440.00	Vertical	-41.31	-13.00	Pass
5160.00	V	-42.77		
6880.00	V	-42.82		
8600.00	V	-41.75		
10320.00	V	-38.38		
3440.00	Horizontal	-40.02	-13.00	Pass
5160.00	H	-43.50		
6880.00	H	-41.93		
8600.00	H	-42.40		
10320.00	H	-39.24		
Test mode:	LTE Band 4(20MHz)		Test channel:	Middle
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3465.00	Vertical	-42.27	-13.00	Pass
5197.50	V	-43.80		
6930.00	V	-41.90		
8662.50	V	-42.90		
10395.00	V	-38.68		
3465.00	Horizontal	-43.12	-13.00	Pass
5197.50	H	-41.69		
6930.00	H	-43.17		
8662.50	H	-41.71		
10395.00	H	-40.00		
Test mode:	LTE Band 4(20MHz)		Test channel:	Highest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3490.00	Vertical	-42.32	-13.00	Pass
5235.00	V	-43.78		
6980.00	V	-42.83		
8725.00	V	-40.76		
10470.00	V	-39.70		
3490.00	Horizontal	-41.03	-13.00	Pass
5235.00	H	-42.51		
6980.00	H	-43.94		
8725.00	H	-42.41		
10470.00	H	-40.05		

Test mode:	LTE Band 12(5MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1559.00	Vertical	-41.96	-13.00	Pass
2338.50	V	-43.69		
3118.00	V	-40.96		
3897.50	V	-43.12		
4677.00	V	-42.53		
1559.00	Horizontal	-41.20	-13.00	Pass
2338.50	H	-45.06		
3118.00	H	-44.63		
3897.50	H	-44.37		
4677.00	H	-43.78		
Test mode:	LTE Band 12(5MHz)		Test channel:	Middle
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1764.00	Vertical	-43.08	-13.00	Pass
2646.00	V	-41.36		
3528.00	V	-41.27		
4410.00	V	-43.08		
5292.00	V	-44.40		
1764.00	Horizontal	-41.47	-13.00	Pass
2646.00	H	-44.70		
3528.00	H	-44.02		
4410.00	H	-45.32		
5292.00	H	-42.69		
Test mode:	LTE Band 12(5MHz)		Test channel:	Highest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1569.00	Vertical	-42.12	-13.00	Pass
2353.50	V	-43.16		
3138.00	V	-43.86		
3922.50	V	-42.48		
4707.00	V	-42.66		
1569.00	Horizontal	-41.04	-13.00	Pass
2353.50	H	-43.93		
3138.00	H	-45.11		
3922.50	H	-47.17		
4707.00	H	-43.95		

Test mode:	LTE Band 12(10MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1408.00	Vertical	-41.75	-13.00	Pass
2112.00	V	-43.19		
2816.00	V	-44.22		
3520.00	V	-42.13		
4224.00	V	-38.83		
1408.00	Horizontal	-40.42	-13.00	Pass
2112.00	H	-43.87		
2816.00	H	-42.28		
3520.00	H	-42.73		
4224.00	H	-39.67		
Test mode:	LTE Band 12(10MHz)		Test channel:	Middle
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1415.00	Vertical	-42.71	-13.00	Pass
2122.50	V	-44.22		
2830.00	V	-42.30		
3537.50	V	-43.28		
4245.00	V	-39.12		
1415.00	Horizontal	-43.52	-13.00	Pass
2122.50	H	-42.06		
2830.00	H	-43.52		
3537.50	H	-42.04		
4245.00	H	-40.35		
Test mode:	LTE Band 12(10MHz)		Test channel:	Highest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1422.00	Vertical	-42.76	-13.00	Pass
2133.00	V	-44.20		
2844.00	V	-43.23		
3555.00	V	-41.14		
4266.00	V	-40.14		
1422.00	Horizontal	-41.43	-13.00	Pass
2133.00	H	-42.88		
2844.00	H	-44.29		
3555.00	H	-42.74		
4266.00	H	-40.46		

16QAM mode:

Test mode:	LTE Band 2(5MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3705.00	Vertical	-42.24	-13.00	Pass
5557.50	V	-43.97		
7410.00	V	-41.22		
9262.50	V	-43.37		
11115.00	V	-42.70		
3705.00	Horizontal	-41.46	-13.00	Pass
5557.50	H	-45.31		
7410.00	H	-44.87		
9262.50	H	-44.58		
11115.00	H	-44.02		
Test mode:	LTE Band 2(5MHz)		Test channel:	Middle
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3760.00	Vertical	-43.36	-13.00	Pass
5640.00	V	-41.64		
7520.00	V	-41.53		
9400.00	V	-43.33		
11280.00	V	-44.68		
3760.00	Horizontal	-41.73	-13.00	Pass
5640.00	H	-44.95		
7520.00	H	-44.26		
9400.00	H	-45.53		
11280.00	H	-42.93		
Test mode:	LTE Band 2(5MHz)		Test channel:	Highest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3815.00	Vertical	-42.40	-13.00	Pass
5722.50	V	-43.44		
7630.00	V	-44.12		
9537.50	V	-42.73		
11445.00	V	-42.97		
3815.00	Horizontal	-41.30	-13.00	Pass
5722.50	H	-44.18		
7630.00	H	-45.35		
9537.50	H	-47.38		
11445.00	H	-44.23		

Test mode:	LTE Band 2(10MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3810.00	Vertical	-42.36	-13.00	Pass
5715.00	V	-43.77		
7620.00	V	-44.77		
9525.00	V	-42.68		
11430.00	V	-39.47		
3810.00	Horizontal	-40.99	-13.00	Pass
5715.00	H	-44.40		
7620.00	H	-42.78		
9525.00	H	-43.19		
11430.00	H	-40.26		
Test mode:	LTE Band 2(10MHz)		Test channel:	Middle
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3760.00	Vertical	-43.32	-13.00	Pass
5640.00	V	-44.80		
7520.00	V	-42.85		
9400.00	V	-43.83		
11280.00	V	-39.74		
3760.00	Horizontal	-44.09	-13.00	Pass
5640.00	H	-42.59		
7520.00	H	-44.02		
9400.00	H	-42.50		
11280.00	H	-40.85		
Test mode:	LTE Band 2(10MHz)		Test channel:	Highest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3710.00	Vertical	-43.37	-13.00	Pass
5565.00	V	-44.78		
7420.00	V	-43.78		
9275.00	V	-41.69		
11130.00	V	-40.75		
3710.00	Horizontal	-42.00	-13.00	Pass
5565.00	H	-43.41		
7420.00	H	-44.79		
9275.00	H	-43.20		
11130.00	H	-41.03		

Test mode:	LTE Band 2(15MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3805.00	Vertical	-43.52	-13.00	Pass
5707.50	V	-42.61		
7610.00	V	-44.17		
9512.50	V	-42.63		
11415.00	V	-40.16		
3805.00	Horizontal	-44.45	-13.00	Pass
5707.50	H	-44.82		
7610.00	H	-45.10		
9512.50	H	-43.60		
11415.00	H	-41.16		
Test mode:	LTE Band 2(15MHz)		Test channel:	Middle
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3760.00	Vertical	-43.10	-13.00	Pass
5640.00	V	-42.04		
7520.00	V	-44.47		
9400.00	V	-43.81		
11280.00	V	-41.72		
3760.00	Horizontal	-44.74	-13.00	Pass
5640.00	H	-46.90		
7520.00	H	-44.59		
9400.00	H	-43.52		
11280.00	H	-41.66		
Test mode:	LTE Band 2(15MHz)		Test channel:	Highest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3715.00	Vertical	-44.21	-13.00	Pass
5572.50	V	-40.96		
7430.00	V	-43.23		
9287.50	V	-45.42		
11145.00	V	-41.89		
3715.00	Horizontal	-43.48	-13.00	Pass
5572.50	H	-47.37		
7430.00	H	-44.95		
9287.50	H	-44.69		
11145.00	H	-41.38		

Test mode:	LTE Band 2(20MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3800.00	Vertical	-44.62	-13.00	Pass
5700.00	V	-43.40		
7600.00	V	-43.18		
9500.00	V	-42.71		
11400.00	V	-42.02		
3800.00	Horizontal	-43.48	-13.00	Pass
5700.00	H	-42.22		
7600.00	H	-47.67		
9500.00	H	-45.34		
11400.00	H	-43.03		
Test mode:	LTE Band 2(20MHz)		Test channel:	Middle
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3760.00	Vertical	-43.55	-13.00	Pass
5640.00	V	-45.90		
7520.00	V	-43.57		
9400.00	V	-43.04		
11280.00	V	-41.46		
3760.00	Horizontal	-45.07	-13.00	Pass
5640.00	H	-43.03		
7520.00	H	-44.62		
9400.00	H	-42.88		
11280.00	H	-41.84		
Test mode:	LTE Band 2(20MHz)		Test channel:	Highest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3720.00	Vertical	-44.97	-13.00	Pass
5580.00	V	-43.45		
7440.00	V	-42.13		
9300.00	V	-44.03		
11160.00	V	-42.76		
3720.00	Horizontal	-42.48	-13.00	Pass
5580.00	H	-42.87		
7440.00	H	-44.29		
9300.00	H	-45.48		
11160.00	H	-43.26		

Test mode:	LTE Band 4(5MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3425.00	Vertical	-44.07	-13.00	Pass
5137.50	V	-43.81		
6850.00	V	-41.28		
8562.50	V	-43.53		
10275.00	V	-42.66		
3425.00	Horizontal	-42.34	-13.00	Pass
5137.50	H	-44.05		
6850.00	H	-45.03		
8562.50	H	-48.00		
10275.00	H	-43.15		
Test mode:	LTE Band 4(5MHz)		Test channel:	Middle
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3465.00	Vertical	-43.70	-13.00	Pass
5197.50	V	-41.86		
6930.00	V	-43.49		
8662.50	V	-47.60		
10395.00	V	-42.06		
3465.00	Horizontal	-42.97	-13.00	Pass
5197.50	H	-43.89		
6930.00	H	-46.18		
8662.50	H	-49.30		
10395.00	H	-43.99		
Test mode:	LTE Band 4(5MHz)		Test channel:	Highest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3505.00	Vertical	-45.42	-13.00	Pass
5257.50	V	-42.89		
7010.00	V	-44.01		
8762.50	V	-42.35		
10515.00	V	-42.87		
3505.00	Horizontal	-43.31	-13.00	Pass
5257.50	H	-47.21		
7010.00	H	-46.36		
8762.50	H	-44.41		
10515.00	H	-43.23		

Test mode:	LTE Band 4(10MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3430.00	Vertical	-42.05	-13.00	Pass
5145.00	V	-43.78		
6860.00	V	-41.04		
8575.00	V	-43.20		
10290.00	V	-42.59		
3430.00	Horizontal	-41.28	-13.00	Pass
5145.00	H	-45.14		
6860.00	H	-44.71		
8575.00	H	-44.44		
10290.00	H	-43.85		
Test mode:	LTE Band 4(10MHz)		Test channel:	Middle
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3465.00	Vertical	-43.17	-13.00	Pass
5197.50	V	-41.45		
6930.00	V	-41.35		
8662.50	V	-43.16		
10395.00	V	-44.49		
3465.00	Horizontal	-41.55	-13.00	Pass
5197.50	H	-44.78		
6930.00	H	-44.10		
8662.50	H	-45.39		
10395.00	H	-42.76		
Test mode:	LTE Band 4(10MHz)		Test channel:	Highest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3500.00	Vertical	-42.21	-13.00	Pass
5250.00	V	-43.25		
7000.00	V	-43.94		
8750.00	V	-42.56		
10500.00	V	-42.76		
3500.00	Horizontal	-41.12	-13.00	Pass
5250.00	H	-44.01		
7000.00	H	-45.19		
8750.00	H	-47.24		
10500.00	H	-44.04		

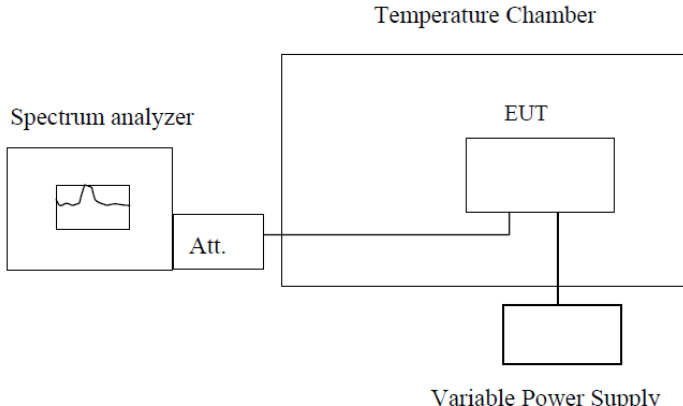
Test mode:	LTE Band 4(15MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3435.00	Vertical	-42.17	-13.00	Pass
5152.50	V	-43.59		
6870.00	V	-44.61		
8587.50	V	-42.51		
10305.00	V	-39.27		
3435.00	Horizontal	-40.81	-13.00	Pass
5152.50	H	-44.24		
6870.00	H	-42.63		
8587.50	H	-43.05		
10305.00	H	-40.08		
Test mode:	LTE Band 4(15MHz)		Test channel:	Middle
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3465.00	Vertical	-43.13	-13.00	Pass
5197.50	V	-44.62		
6930.00	V	-42.69		
8662.50	V	-43.66		
10395.00	V	-39.55		
3465.00	Horizontal	-43.91	-13.00	Pass
5197.50	H	-42.43		
6930.00	H	-43.87		
8662.50	H	-42.36		
10395.00	H	-40.70		
Test mode:	LTE Band 4(15MHz)		Test channel:	Highest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3495.00	Vertical	-43.18	-13.00	Pass
5242.50	V	-44.60		
6990.00	V	-43.62		
8737.50	V	-41.52		
10485.00	V	-40.56		
3495.00	Horizontal	-41.82	-13.00	Pass
5242.50	H	-43.25		
6990.00	H	-44.64		
8737.50	H	-43.06		
10485.00	H	-40.85		

Test mode:	LTE Band 4(20MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3440.00	Vertical	-43.31	-13.00	Pass
5160.00	V	-42.42		
6880.00	V	-43.98		
8600.00	V	-42.45		
10320.00	V	-39.96		
3440.00	Horizontal	-44.26	-13.00	Pass
5160.00	H	-44.65		
6880.00	H	-44.93		
8600.00	H	-43.43		
10320.00	H	-41.01		
Test mode:	LTE Band 4(20MHz)		Test channel:	Middle
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3465.00	Vertical	-42.89	-13.00	Pass
5197.50	V	-41.85		
6930.00	V	-44.28		
8662.50	V	-43.63		
10395.00	V	-41.53		
3465.00	Horizontal	-44.55	-13.00	Pass
5197.50	H	-46.73		
6930.00	H	-44.42		
8662.50	H	-43.37		
10395.00	H	-41.45		
Test mode:	LTE Band 4(20MHz)		Test channel:	Highest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3490.00	Vertical	-44.00	-13.00	Pass
5235.00	V	-40.77		
6980.00	V	-43.04		
8725.00	V	-45.24		
10470.00	V	-41.75		
3490.00	Horizontal	-43.29	-13.00	Pass
5235.00	H	-47.20		
6980.00	H	-44.78		
8725.00	H	-44.54		
10470.00	H	-41.24		

Test mode:	LTE Band 12(5MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1559.00	Vertical	-44.41	-13.00	Pass
2338.50	V	-43.20		
3118.00	V	-42.98		
3897.50	V	-42.52		
4677.00	V	-41.89		
1559.00	Horizontal	-43.29	-13.00	Pass
2338.50	H	-42.04		
3118.00	H	-47.50		
3897.50	H	-45.18		
4677.00	H	-42.89		
Test mode:	LTE Band 12(5MHz)		Test channel:	Middle
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1764.00	Vertical	-43.34	-13.00	Pass
2646.00	V	-45.70		
3528.00	V	-43.37		
4410.00	V	-42.85		
5292.00	V	-41.30		
1764.00	Horizontal	-44.88	-13.00	Pass
2646.00	H	-42.85		
3528.00	H	-44.45		
4410.00	H	-42.72		
5292.00	H	-41.67		
Test mode:	LTE Band 12(5MHz)		Test channel:	Highest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1569.00	Vertical	-44.76	-13.00	Pass
2353.50	V	-43.25		
3138.00	V	-41.93		
3922.50	V	-43.84		
4707.00	V	-42.62		
1569.00	Horizontal	-42.29	-13.00	Pass
2353.50	H	-42.69		
3138.00	H	-44.12		
3922.50	H	-45.32		
4707.00	H	-43.12		

Test mode:	LTE Band 12(10MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1408.00	Vertical	-43.85	-13.00	Pass
2112.00	V	-43.60		
2816.00	V	-41.08		
3520.00	V	-43.33		
4224.00	V	-42.51		
1408.00	Horizontal	-42.13	-13.00	Pass
2112.00	H	-43.86		
2816.00	H	-44.84		
3520.00	H	-47.84		
4224.00	H	-43.00		
Test mode:	LTE Band 12(10MHz)		Test channel:	Middle
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1415.00	Vertical	-43.48	-13.00	Pass
2122.50	V	-41.65		
2830.00	V	-43.29		
3537.50	V	-47.40		
4245.00	V	-41.93		
1415.00	Horizontal	-42.76	-13.00	Pass
2122.50	H	-43.70		
2830.00	H	-45.99		
3537.50	H	-49.14		
4245.00	H	-43.85		
Test mode:	LTE Band 12(10MHz)		Test channel:	Highest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1422.00	Vertical	-45.20	-13.00	Pass
2133.00	V	-42.68		
2844.00	V	-43.81		
3555.00	V	-42.19		
4266.00	V	-42.74		
1422.00	Horizontal	-43.10	-13.00	Pass
2133.00	H	-47.02		
2844.00	H	-46.17		
3555.00	H	-44.25		
4266.00	H	-43.09		

6.11 Frequency stability V.S. Temperature measurement

Test Requirement for FCC:	FCC Part2.1055(a)(1)(b)
Test Requirement for IC:	RSS-130 Clause 4.3, RSS-133 Clause 6.3, RSS-139 Clause 6.4
Limit:	2.5ppm
Test setup:	 Note : Measurement setup for testing on Antenna connector
Test procedure:	1. The equipment under test was connected to an external DC power supply and input rated voltage. 2. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. 3. The EUT was placed inside the temperature chamber. 4. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25°C operating frequency as reference frequency. 5. Turn EUT off and set the chamber temperature to –20°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. 6. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.
Test Instruments:	Refer to section 5.0 for details
Test mode:	Refer to section 6.1 for details
Test results:	Pass

Measurement Data

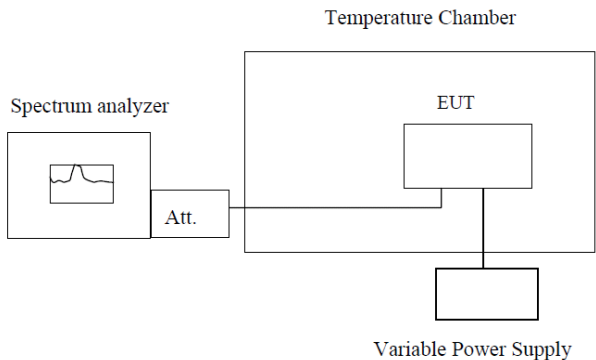
QPSK mode:

Reference Frequency: LTE Band 2 Middle channel=18900 channel=1880MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
12.0	-30	56	0.0300	2.5	Pass
	-20	64	0.0338		
	-10	54	0.0288		
	0	45	0.0238		
	10	52	0.0275		
	20	45	0.0238		
	30	73	0.0388		
	40	66	0.0351		
	50	64	0.0338		
Reference Frequency: LTE Band 4 Middle channel=20175 channel=1732.5MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
12.0	-30	47	0.0271	2.5	Pass
	-20	52	0.0299		
	-10	45	0.0258		
	0	40	0.0231		
	10	42	0.0244		
	20	38	0.0217		
	30	64	0.0367		
	40	54	0.0312		
	50	52	0.0299		
Reference Frequency: LTE Band 12 Middle channel=23095 channel=707.5MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error			Result
		Hz	ppm		
12.0	-30	106	0.0418	2.5	Pass
	-20	122	0.0482		
	-10	103	0.0405		
	0	90	0.0354		
	10	100	0.0395		
	20	88	0.0346		
	30	146	0.0575		
	40	127	0.0502		
	50	121	0.0476		

16QAM mode:

Reference Frequency: LTE Band 2 Middle channel=18900 channel=1880MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
12.0	-30	80	0.1132	2.5	Pass
	-20	94	0.1332		
	-10	80	0.1132		
	0	68	0.0965		
	10	80	0.1132		
	20	71	0.0998		
	30	111	0.1565		
	40	97	0.1365		
	50	92	0.1299		
Reference Frequency: LTE Band 4 Middle channel=20175 channel=1732.5MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
12.0	-30	78	0.1095	2.5	Pass
	-20	90	0.1261		
	-10	73	0.1028		
	0	61	0.0862		
	10	75	0.1061		
	20	61	0.0862		
	30	101	0.1427		
	40	85	0.1194		
	50	90	0.1261		
Reference Frequency: LTE Band 12 Middle channel=23095 channel=707.5MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error			Result
		Hz	ppm		
12.0	-30	187	0.0992	2.5	Pass
	-20	218	0.1159		
	-10	179	0.0954		
	0	149	0.0795		
	10	182	0.0966		
	20	154	0.0818		
	30	243	0.1295		
	40	205	0.1091		
	50	215	0.1144		

6.12 Frequency stability V.S. Voltage measurement

Test Requirement for FCC:	FCC Part2.1055(d)(1)(2)
Test Requirement for IC:	RSS-130 Clause 4.3, RSS-133 Clause 6.3, RSS-139 Clause 6.4
Limit:	2.5ppm
Test setup:	 Note : Measurement setup for testing on Antenna connector
Test procedure:	1. Set chamber temperature to 25°C. Use a variable DC power source to power the EUT and set the voltage to rated voltage. 2. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency. 3. Reduce the input voltage to specified extreme voltage variation (+/- 15%) and endpoint, record the maximum frequency change.
Test Instruments:	Refer to section 5.0 for details
Test mode:	Refer to section 6.1 for details
Test results:	Pass

Measurement Data

QPSK mode:

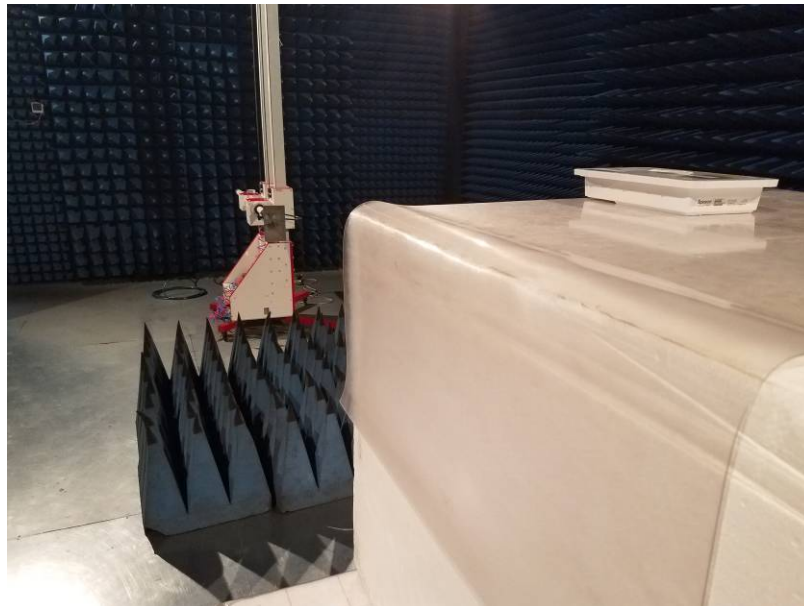
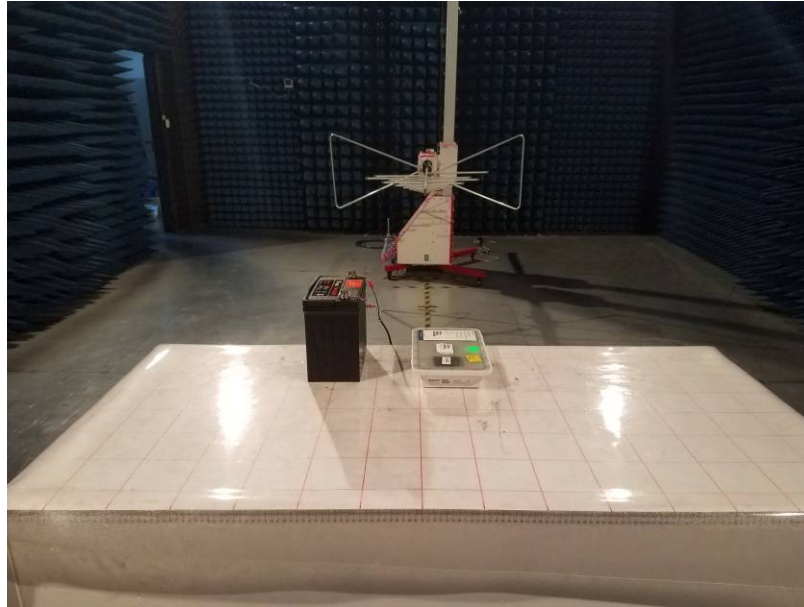
Reference Frequency: LTE Band 2 Middle channel=18900 channel=1880MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	14.0	89	0.0472	2.5	Pass
	12.0	102	0.0543		
	10.0	115	0.0614		
Reference Frequency: LTE Band 4 Middle channel=20175 channel=1732.5MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	14.0	149	0.0859	2.5	Pass
	12.0	109	0.0628		
	10.0	122	0.0705		
Reference Frequency: LTE Band 12 Middle channel=23095 channel=707.5MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	14.0	179	0.2526	2.5	Pass
	12.0	203	0.2874		
	10.0	227	0.3213		

16QAM mode:

Reference Frequency: LTE Band 2 Middle channel=18900 channel=1880MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	14.0	74	0.0395	2.5	Pass
	12.0	86	0.0455		
	10.0	97	0.0515		
Reference Frequency: LTE Band 4 Middle channel=20175 channel=1732.5MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	14.0	125	0.0722	2.5	Pass
	12.0	91	0.0526		
	10.0	103	0.0592		
Reference Frequency: LTE Band 12 Middle channel=23095 channel=707.5MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	14.0	151	0.2129	2.5	Pass
	12.0	172	0.2425		
	10.0	192	0.2713		

7 Test Setup Photo

Radiated Emission



8 EUT Constructional Details

Reference to the test report No. : GTS201809000106-01

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