Radiated Power (EIRP) for LTE Band 41 /20M										
BW (MHz)	UL Channel	RB Size	RB offset	Modulation	Conduction AVG Power(dBm)	Ant Gain（dBi）	EIRP (dBm)	EIRP Limit(W)	EIRP Limit(dBm)	Verdict
20	Lowest	1	0	QPSK	19.47	1.12	20.59	2.00	33.01	PASS
		1	49		19.71	1.12	20.83	2.00	33.01	PASS
		1	99		19.40	1.12	20.52	2.00	33.01	PASS
		50	0		18.47	1.12	19.59	2.00	33.01	PASS
		50	24		18.49	1.12	19.61	2.00	33.01	PASS
		50	49		18.41	1.12	19.53	2.00	33.01	PASS
		100	0		18.41	1.12	19.53	2.00	33.01	PASS
		1	0	16QAM	18.56	1.12	19.68	2.00	33.01	PASS
		1	49		18.82	1.12	19.94	2.00	33.01	PASS
		1	99		18.55	1.12	19.67	2.00	33.01	PASS
		50	0		17.50	1.12	18.62	2.00	33.01	PASS
		50	24		17.55	1.12	18.67	2.00	33.01	PASS
		50	49		17.45	1.12	18.57	2.00	33.01	PASS
		100	0		17.50	1.12	18.62	2.00	33.01	PASS
	Middle	1	0	QPSK	19.30	1.12	20.42	2.00	33.01	PASS
		1	49		19.65	1.12	20.77	2.00	33.01	PASS
		1	99		19.39	1.12	20.51	2.00	33.01	PASS
		50	0		18.46	1.12	19.58	2.00	33.01	PASS
		50	24		18.54	1.12	19.66	2.00	33.01	PASS
		50	49		18.51	1.12	19.63	2.00	33.01	PASS
		100	0		18.46	1.12	19.58	2.00	33.01	PASS
		1	0	16QAM	18.64	1.12	19.76	2.00	33.01	PASS
		1	49		18.98	1.12	20.10	2.00	33.01	PASS
		1	99		18.66	1.12	19.78	2.00	33.01	PASS
		50	0		17.56	1.12	18.68	2.00	33.01	PASS
		50	24		17.64	1.12	18.76	2.00	33.01	PASS
		50	49		17.57	1.12	18.69	2.00	33.01	PASS
		100	0		17.57	1.12	18.69	2.00	33.01	PASS
	Highest	1	0	QPSK	19.39	1.12	20.51	2.00	33.01	PASS
		1	49		19.76	1.12	20.88	2.00	33.01	PASS
		1	99		19.52	1.12	20.64	2.00	33.01	PASS
		50	0		18.62	1.12	19.74	2.00	33.01	PASS
		50	24		18.62	1.12	19.74	2.00	33.01	PASS
		50	49		18.61	1.12	19.73	2.00	33.01	PASS
		100	0		18.60	1.12	19.72	2.00	33.01	PASS
		1	0	16QAM	18.67	1.12	19.79	2.00	33.01	PASS
		1	49		19.04	1.12	20.16	2.00	33.01	PASS
		1	99		18.73	1.12	19.85	2.00	33.01	PASS
		50	0		17.67	1.12	18.79	2.00	33.01	PASS
		50	24		17.68	1.12	18.80	2.00	33.01	PASS
		50	49		17.68	1.12	18.80	2.00	33.01	PASS
		100	0		17.70	1.12	18.82	2.00	33.01	PASS

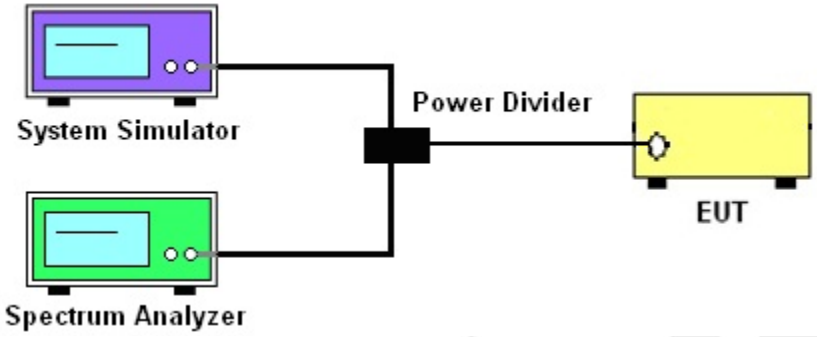
4. PEAK-TO-AVERAGE RATIO

4.1 DESCRIPTION OF THE CONDUCTED OUTPUT POWER MEASUREMENT

4.1.1 MEASUREMENT METHOD

Use one of the procedures presented in 4.1.3 to measure the total peak power and record as PPk. Use one of the applicable procedures presented 4.1.3 to measure the total average power and record as PAvg. Both the peak and average power levels must be expressed in the same logarithmic units (e.g., dBm). Determine the PAPR from:
PAPR (dB) = PPk (dBm) - PAvg (dBm).

4.1.2 TEST SETUP



4.1.3 TEST PROCEDURES

1. The testing follows FCC KDB 971168 D01 v03r01 Section 5.7 and ANSI C63.26 2015 Section 5.2.6.
2. The EUT was connected to spectrum and system simulator via a power divider
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Set the test probe and measure the peak and average power of the spectrum analyzer
5. Record the deviation as Peak to Average Ratio.

4.1.4 TEST RESULTS

Note: The test data please reference to attachment “STS2301309W09_Appendix LTE”.

5. OCCUPIED BANDWIDTH

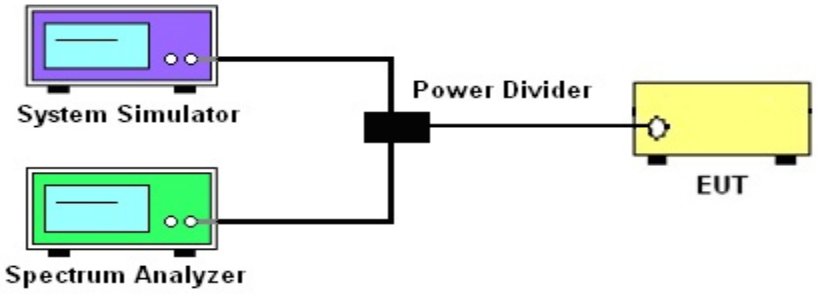
5.1 DESCRIPTION OF OCCUPIED BANDWIDTH MEASUREMENT

5.1.1 MEASUREMENT METHOD

1.The occupied bandwidth is the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean transmitted power.

2.The 26 db emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 db below the maximum in-band spectral density of the modulated signal. spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

5.1.2 TEST SETUP



5.1.3 TEST PROCEDURES

1. The testing follows FCC KDB 971168 D01 v03r01 Section 4.2 and 4.3.

2. The EUT was connected to spectrum and system simulator via a power divider.

3. Select lowest, middle, and highest channels for each band and different modulation.

4. Set the test probe and measure the Occupied Bandwidth of the spectrum analyzer.

5. Measure and record the Occupied Bandwidth from the Spectrum Analyzer.

5.1.4 MEASUREMENT RESULT

Note: The test data please reference to attachment “STS2301309W09_Appendix LTE”.

6. CONDUCTED BAND EDGE

6.1 DESCRIPTION OF CONDUCTED BAND EDGE MEASUREMENT

6.1.1 MEASUREMENT METHOD

1. §22.917(a)
For operations in the 824 – 849 MHz band, the FCC limit is 43 + 10log10(P[Watts]) dB below the transmitter power P(Watts) in a 100kHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

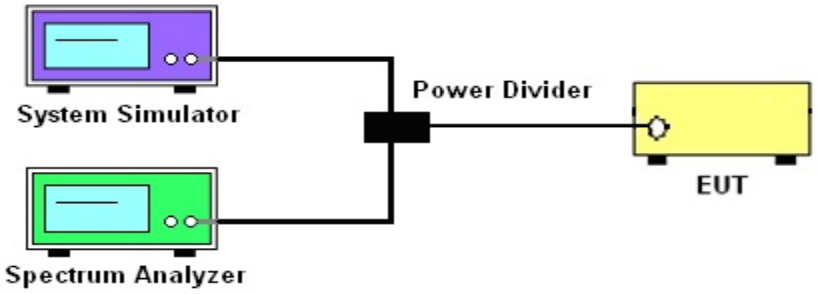
2. §24.238 (a)
For operations in the 1850-1910 and 1930-1990 MHz band, the FCC limit is 43 + 10log10(P[Watts]) dB below the transmitter power P(Watts) in a 1MHz bandwidth. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed

3. §27.53 (h)
For operations in the 1710 – 1755 MHz band, the FCC limit is 43 + 10log10(P[Watts]) dB below the transmitter power P(Watts) in a 1 MHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

4. §27.53(m)(4)
For operations in the 2500 MHz ~ 2570 MHz band this section, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHzand 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licenseesoperating on frequencies below 2495 MHz may also submit a documented interference complaintagainst BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

5. §27.53 (g)
For operations in the 698 -746 MHz band, the FCC limit is 43 + 10log10(P[Watts]) dB below the transmitter power P(Watts) in a 100 kHz bandwidth. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

6.1.2 TEST SETUP



6.1.3 TEST PROCEDURES

1. The testing FCC KDB 971168 D01 v03r01 Section 6.0 and ANSI C63.26 2015 Section 5.7.

2. The EUT was connected to spectrum analyzer and system simulator via a power divider.

3. The band edges of low and high channels for the highest RF powers were measured. Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.

4. Set spectrum analyzer with RMS/AVG detector.

5. The RF fundamental frequency should be excluded against the limit line in the operating frquency band.

6.The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
= P(W)- [43 + 10log(P)] (dB)
= [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
= -13dBm.

Band 7:
= P(W)- [55 + 10log(P)] (dB)
= [30 + 10log(P)] (dBm) - [55 + 10log(P)] (dB)
= -25dBm.

6.1.4 MEASUREMENT RESULT

Note: The test data please reference to attachment “STS2301309W09_Appendix LTE”.

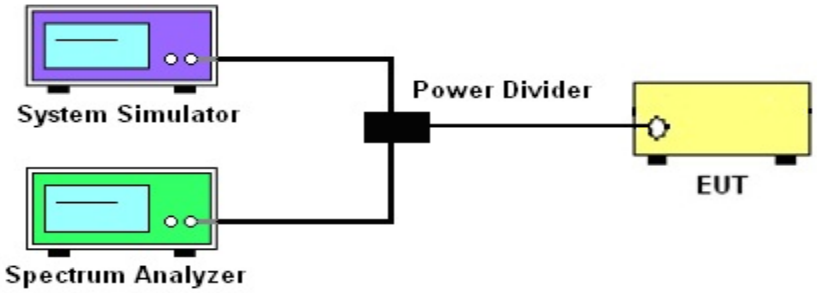
7. CONDUCTED SPURIOUS EMISSION

7.1 DESCRIPTION OF CONDUCTED SPURIOUS EMISSION MEASUREMENT

7.1.1 MEASUREMENT METHOD

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.
For Band 7:
The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 55 + 10 log (P) dB.
It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10th harmonic.

7.1.2 TEST SETUP



7.1.3 TEST PROCEDURES

1. The testing FCC KDB 971168 D01 v03r01 Section 6.0 and ANSI C63.26 2015 Section 5.7.

2. The EUT was connected to spectrum analyzer and system simulator via a power divider.

3. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.
The path loss was compensated to the results for each measurement
4. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
5. The RF fundamental frequency should be excluded against the limit line in the operating frquency band.
6.The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
= P(W)- [43 + 10log(P)] (dB) = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
= -13dBm.
For Band 7: P(W)- [43 + 10log(P)] (dB) =-25dBm

7.1.4 TEST RESULTS

Note: The test data please reference to attachment “STS2301309W09_Appendix LTE”.

8. RADIATED SPURIOUS EMISSION

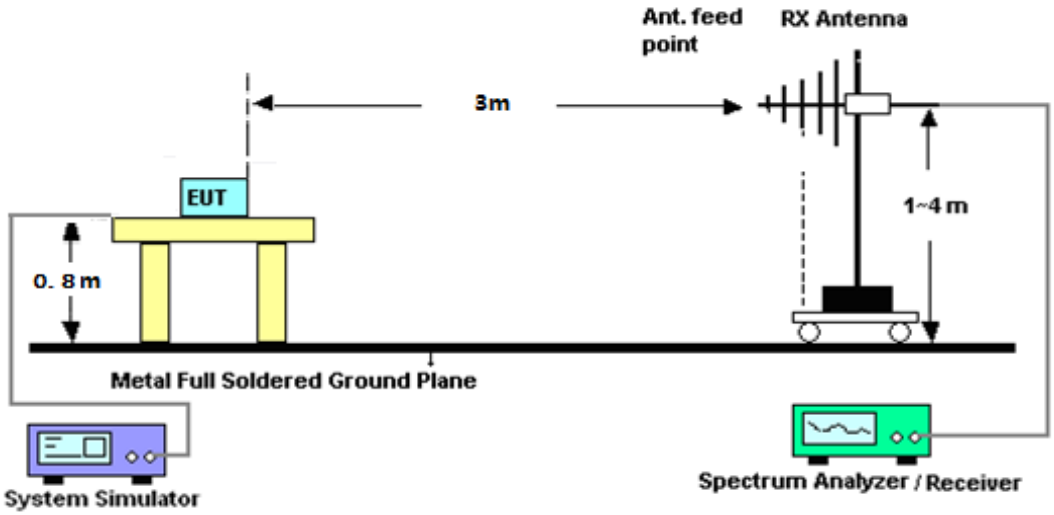
8.1 DESCRIPTION OF RADIATED SPURIOUS EMISSION

8.1.1 MEASUREMENT METHOD

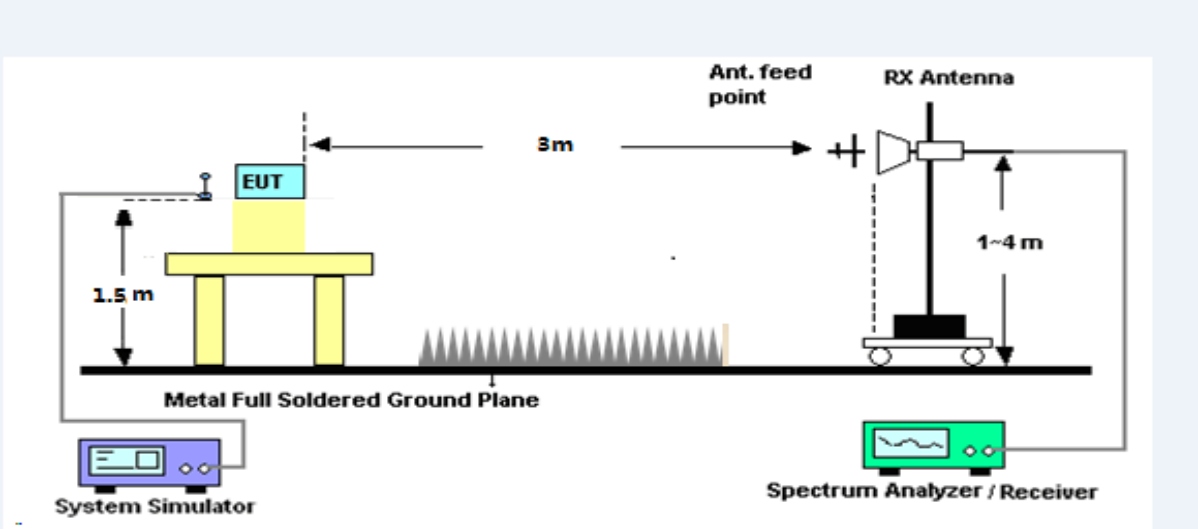
The radiated spurious emission was measured by substitution method according to ANSI C63.26 2015. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.
For Band 7 The power of any emission outside of the authorized operating frequency ranges must attenuated below the transmitter power (P) by a factor of at least 55 + 10 log (P) dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

8.1.2 TEST SETUP

The procedure of radiated spurious emissions is as follows:
a) Pre-calibration With pre-calibration method, the Radiated Spurious Emissions(RSE) is calculated as, RSE=Rx (dBuV) +CL (dB) +SA (dB) +Gain (dBi) -107 (dBuV to dBm) The SA is calibrated using following setup.
b) EUT was placed on 1.5 m non-conductive stand at a 3 m test distance from the receive antenna. A receiving antenna was placed on the antenna mast 3 m from the test item for emission measurements. The height of receiving antenna is 0.8m. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the test item and adjusting the receiving antenna polarization. The radiated emission measurements of all non-harmonic and harmonics of the transmit frequency through the 10th harmonic measured with peak detector and 1MHz bandwidth.
Radiated emissions measurements were made only at the upper, middle, and lower carrier frequencies It was decided that measurements at these three carrier frequencies would be sufficient to demonstrate compliance with emissions limits because it was seen that all the significant spurs occur well outside the band and no radiation was seen from a carrier in one block of any band into any of the other blocks.
The substitution method is used. Substitution values at each frequency are measured before and saved to the test software. A "reference path loss" is established and the ARpl is the attenuation of “reference path loss”, and including the gain of receive antenna, the gain of the preamplifier, the cable loss and the air loss. The measurement results are obtained as described below:
Power=PMea+ARpl
For radiated test from 30MHz to 1GHz



For radiated test from above 1GHz



8.1.3 TEST PROCEDURES

1. The testing FCC KDB 971168 D01 Section 7 and ANSI C63.26 2015 Section 5.5.

2. The EUT was placed on a rotatable wooden table with 1.5 meter above ground.

3. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.

4. The table was rotated 360 degrees to determine the position of the highest spurious emission.

5. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations

6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.

7. A horn antenna was substituted in place of the EUT and was driven by a signal generator.

8. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.

9. Taking the record of output power at antenna port.

10. Repeat step 7 to step 8 for another polarization.

11. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
= P(W)- [43 + 10log(P)] (dB)
= [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
= -13dBm
.
For Band 7:
The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)
= [30 + 10log(P)] (dBm) - [55 + 10log(P)] (dB)
= -25dBm
PMea=S.G Level+ Ant-Cable loss; Margin=PMea-Limit.

8.1.4 TEST RESULTS

LTE Band 5 / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1648.75	-33.95	9.56	9.72	-34.11	-13.00	-21.11	H
2473.79	-34.33	10.50	10.86	-34.69	-13.00	-21.69	H
3298.35	-32.76	12.78	11.57	-31.55	-13.00	-18.55	H
1648.75	-34.63	9.56	9.72	-34.79	-13.00	-21.79	V
2473.79	-34.67	10.50	10.86	-35.03	-13.00	-22.03	V
3298.35	-33.19	12.78	11.57	-31.98	-13.00	-18.98	V
LTE Band 5 / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1672.65	-34.46	9.56	9.72	-34.62	-13.00	-21.62	H
2509.24	-34.01	10.50	10.86	-34.37	-13.00	-21.37	H
3345.76	-33.23	12.78	11.57	-32.02	-13.00	-19.02	H
1672.65	-35.99	9.56	9.72	-36.15	-13.00	-23.15	V
2509.24	-34.16	10.50	10.86	-34.52	-13.00	-21.52	V
3345.76	-32.60	12.78	11.57	-31.39	-13.00	-18.39	V
LTE Band 5 / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1696.10	-34.22	9.56	9.72	-34.38	-13.00	-21.38	H
2544.55	-34.66	10.50	10.86	-35.02	-13.00	-22.02	H
3393.04	-33.57	12.78	11.57	-32.36	-13.00	-19.36	H
1696.10	-35.46	9.56	9.72	-35.62	-13.00	-22.62	V
2544.55	-34.47	10.50	10.86	-34.83	-13.00	-21.83	V
3393.04	-32.15	12.78	11.57	-30.94	-13.00	-17.94	V

LTE Band 5 / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1650.37	-34.32	9.56	9.72	-34.48	-13.00	-21.48	H
2475.96	-34.35	10.50	10.86	-34.71	-13.00	-21.71	H
3301.63	-32.27	12.78	11.57	-31.06	-13.00	-18.06	H
1650.37	-35.08	9.56	9.72	-35.24	-13.00	-22.24	V
2475.96	-34.88	10.50	10.86	-35.24	-13.00	-22.24	V
3301.63	-32.03	12.78	11.57	-30.82	-13.00	-17.82	V
LTE Band 5 / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1672.16	-33.88	9.56	9.72	-34.04	-13.00	-21.04	H
2508.99	-35.19	10.50	10.86	-35.55	-13.00	-22.55	H
3345.82	-32.15	12.78	11.57	-30.94	-13.00	-17.94	H
1672.16	-34.84	9.56	9.72	-35.00	-13.00	-22.00	V
2508.99	-34.38	10.50	10.86	-34.74	-13.00	-21.74	V
3345.82	-32.85	12.78	11.57	-31.64	-13.00	-18.64	V
LTE Band 5 / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1694.61	-34.20	9.56	9.72	-34.36	-13.00	-21.36	H
2542.10	-34.11	10.50	10.86	-34.47	-13.00	-21.47	H
3389.18	-32.88	12.78	11.57	-31.67	-13.00	-18.67	H
1694.61	-35.85	9.56	9.72	-36.01	-13.00	-23.01	V
2542.10	-34.15	10.50	10.86	-34.51	-13.00	-21.51	V
3389.18	-32.21	12.78	11.57	-31.00	-13.00	-18.00	V

LTE Band 5 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1652.44	-34.82	9.56	9.72	-34.98	-13.00	-21.98	H
2478.61	-34.88	10.50	10.86	-35.24	-13.00	-22.24	H
3305.50	-32.23	12.78	11.57	-31.02	-13.00	-18.02	H
1652.44	-34.68	9.56	9.72	-34.84	-13.00	-21.84	V
2478.61	-33.89	10.50	10.86	-34.25	-13.00	-21.25	V
3305.50	-32.62	12.78	11.57	-31.41	-13.00	-18.41	V
LTE Band 5 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1672.54	-34.44	9.56	9.72	-34.60	-13.00	-21.60	H
2508.85	-35.45	10.50	10.86	-35.81	-13.00	-22.81	H
3345.45	-33.23	12.78	11.57	-32.02	-13.00	-19.02	H
1672.54	-34.76	9.56	9.72	-34.92	-13.00	-21.92	V
2508.85	-34.78	10.50	10.86	-35.14	-13.00	-22.14	V
3345.45	-31.87	12.78	11.57	-30.66	-13.00	-17.66	V
LTE Band 5 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1692.44	-33.52	9.56	9.72	-33.68	-13.00	-20.68	H
2538.78	-34.21	10.50	10.86	-34.57	-13.00	-21.57	H
3385.93	-32.39	12.78	11.57	-31.18	-13.00	-18.18	H
1692.44	-34.65	9.56	9.72	-34.81	-13.00	-21.81	V
2538.78	-34.24	10.50	10.86	-34.60	-13.00	-21.60	V
3385.93	-32.09	12.78	11.57	-30.88	-13.00	-17.88	V

LTE Band 5 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1657.62	-33.77	9.56	9.72	-33.93	-13.00	-20.93	H
2486.48	-35.18	10.50	10.86	-35.54	-13.00	-22.54	H
3315.49	-33.48	12.78	11.57	-32.27	-13.00	-19.27	H
1657.62	-36.01	9.56	9.72	-36.17	-13.00	-23.17	V
2486.48	-34.41	10.50	10.86	-34.77	-13.00	-21.77	V
3315.49	-32.53	12.78	11.57	-31.32	-13.00	-18.32	V
LTE Band 5 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1672.32	-33.56	9.56	9.72	-33.72	-13.00	-20.72	H
2508.95	-34.28	10.50	10.86	-34.64	-13.00	-21.64	H
3345.27	-33.33	12.78	11.57	-32.12	-13.00	-19.12	H
1672.32	-35.93	9.56	9.72	-36.09	-13.00	-23.09	V
2508.95	-35.24	10.50	10.86	-35.60	-13.00	-22.60	V
3345.27	-32.53	12.78	11.57	-31.32	-13.00	-18.32	V
LTE Band 5 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1687.38	-33.90	9.56	9.72	-34.06	-13.00	-21.06	H
2531.43	-35.43	10.50	10.86	-35.79	-13.00	-22.79	H
3375.63	-32.88	12.78	11.57	-31.67	-13.00	-18.67	H
1687.38	-35.87	9.56	9.72	-36.03	-13.00	-23.03	V
2531.43	-34.59	10.50	10.86	-34.95	-13.00	-21.95	V
3375.63	-32.64	12.78	11.57	-31.43	-13.00	-18.43	V

LTE Band 7 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5005.14	-34.20	12.66	15.86	-37.40	-25.00	-12.40	H
7507.90	-34.02	11.46	19.28	-41.84	-25.00	-16.84	H
10010.53	-33.59	12.79	23.19	-43.99	-25.00	-18.99	H
5005.14	-35.11	12.66	15.86	-38.31	-25.00	-13.31	V
7507.90	-35.16	11.46	19.28	-42.98	-25.00	-17.98	V
10010.53	-32.44	12.79	23.19	-42.84	-25.00	-17.84	V
LTE Band 7 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5069.70	-33.54	12.72	15.86	-36.68	-25.00	-11.68	H
7604.84	-35.02	11.46	19.28	-42.84	-25.00	-17.84	H
10139.68	-32.24	12.09	23.19	-43.34	-25.00	-18.34	H
5069.70	-35.90	12.72	15.86	-39.04	-25.00	-14.04	V
7604.84	-34.08	11.46	19.28	-41.90	-25.00	-16.90	V
10139.68	-31.73	12.09	23.19	-42.83	-25.00	-17.83	V
LTE Band 7 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5133.94	-34.20	12.76	15.86	-37.30	-25.00	-12.30	H
7701.49	-35.48	11.45	19.28	-43.31	-25.00	-18.31	H
10268.15	-33.57	12.28	23.19	-44.48	-25.00	-19.48	H
5133.94	-36.00	12.76	15.86	-39.10	-25.00	-14.10	V
7701.49	-34.63	11.45	19.28	-42.46	-25.00	-17.46	V
10268.15	-32.04	12.28	23.19	-42.95	-25.00	-17.95	V

LTE Band 7 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5010.10	-33.96	12.66	15.86	-37.16	-25.00	-12.16	H
7515.51	-34.36	11.46	19.28	-42.18	-25.00	-17.18	H
10020.36	-33.55	12.79	23.19	-43.95	-25.00	-18.95	H
5010.10	-35.44	12.66	15.86	-38.64	-25.00	-13.64	V
7515.51	-35.05	11.46	19.28	-42.87	-25.00	-17.87	V
10020.36	-32.44	12.79	23.19	-42.84	-25.00	-17.84	V
LTE Band 7 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5069.74	-33.98	12.72	15.86	-37.12	-25.00	-12.12	H
7604.86	-34.41	11.46	19.28	-42.23	-25.00	-17.23	H
10139.98	-32.41	12.09	23.19	-43.51	-25.00	-18.51	H
5069.74	-34.81	12.72	15.86	-37.95	-25.00	-12.95	V
7604.86	-34.04	11.46	19.28	-41.86	-25.00	-16.86	V
10139.98	-33.01	12.09	23.19	-44.11	-25.00	-19.11	V
LTE Band 7 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5129.32	-33.68	12.76	15.86	-36.78	-25.00	-11.78	H
7694.01	-34.45	11.45	19.28	-42.28	-25.00	-17.28	H
10258.88	-33.14	12.28	23.19	-44.05	-25.00	-19.05	H
5129.32	-35.91	12.76	15.86	-39.01	-25.00	-14.01	V
7694.01	-34.79	11.45	19.28	-42.62	-25.00	-17.62	V
10258.88	-32.34	12.28	23.19	-43.25	-25.00	-18.25	V

LTE Band 7 / 15MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5015.77	-34.81	12.66	15.86	-38.01	-25.00	-13.01	H
7524.15	-34.59	11.46	19.28	-42.41	-25.00	-17.41	H
10031.71	-32.79	12.79	23.19	-43.19	-25.00	-18.19	H
5015.77	-34.94	12.66	15.86	-38.14	-25.00	-13.14	V
7524.15	-34.53	11.46	19.28	-42.35	-25.00	-17.35	V
10031.71	-32.93	12.79	23.19	-43.33	-25.00	-18.33	V
LTE Band 7 / 15MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5069.76	-34.59	12.72	15.86	-37.73	-25.00	-12.73	H
7604.73	-34.20	11.46	19.28	-42.02	-25.00	-17.02	H
10140.01	-33.02	12.09	23.19	-44.12	-25.00	-19.12	H
5069.76	-35.99	12.72	15.86	-39.13	-25.00	-14.13	V
7604.73	-34.54	11.46	19.28	-42.36	-25.00	-17.36	V
10140.01	-33.07	12.09	23.19	-44.17	-25.00	-19.17	V
LTE Band 7 / 15MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5123.35	-34.17	12.76	15.86	-37.27	-25.00	-12.27	H
7523.86	-34.90	11.45	19.28	-42.73	-25.00	-17.73	H
10031.89	-33.53	12.28	23.19	-44.44	-25.00	-19.44	H
5123.35	-35.82	12.76	15.86	-38.92	-25.00	-13.92	V
7523.86	-34.55	11.45	19.28	-42.38	-25.00	-17.38	V
10031.89	-32.49	12.28	23.19	-43.40	-25.00	-18.40	V

LTE Band 7 / 20MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5020.83	-34.22	12.66	15.86	-37.42	-25.00	-12.42	H
7531.03	-34.11	11.46	19.28	-41.93	-25.00	-16.93	H
10258.69	-33.26	12.79	23.19	-43.66	-25.00	-18.66	H
5020.83	-35.63	12.66	15.86	-38.83	-25.00	-13.83	V
7531.03	-35.01	11.46	19.28	-42.83	-25.00	-17.83	V
10258.69	-32.46	12.79	23.19	-42.86	-25.00	-17.86	V
LTE Band 7 / 20MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5069.77	-34.48	12.72	15.86	-37.62	-25.00	-12.62	H
7605.04	-34.56	11.46	19.28	-42.38	-25.00	-17.38	H
10139.96	-33.09	12.09	23.19	-44.19	-25.00	-19.19	H
5069.77	-35.69	12.72	15.86	-38.83	-25.00	-13.83	V
7605.04	-34.93	11.46	19.28	-42.75	-25.00	-17.75	V
10139.96	-33.02	12.09	23.19	-44.12	-25.00	-19.12	V
LTE Band 7 / 20MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5118.98	-34.35	12.76	15.86	-37.45	-25.00	-12.45	H
7678.10	-35.47	11.45	19.28	-43.30	-25.00	-18.30	H
10237.95	-33.29	12.28	23.19	-44.20	-25.00	-19.20	H
5118.98	-35.46	12.76	15.86	-38.56	-25.00	-13.56	V
7678.10	-34.65	11.45	19.28	-42.48	-25.00	-17.48	V
10237.95	-32.76	12.28	23.19	-43.67	-25.00	-18.67	V

LTE Band 38 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5115.22	-34.30	12.66	15.86	-37.50	-25.00	-12.50	H
7672.83	-34.18	11.46	19.28	-42.00	-25.00	-17.00	H
10229.91	-32.27	12.79	23.19	-42.67	-25.00	-17.67	H
4997.28	-35.38	12.66	15.86	-38.58	-25.00	-13.58	V
7495.90	-34.49	11.46	19.28	-42.31	-25.00	-17.31	V
9994.32	-33.06	12.79	23.19	-43.46	-25.00	-18.46	V
LTE Band 38 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5209.86	-34.45	12.72	15.86	-37.59	-25.00	-12.59	H
7815.29	-34.30	11.46	19.28	-42.12	-25.00	-17.12	H
10420.12	-32.47	12.09	23.19	-43.57	-25.00	-18.57	H
5209.86	-35.65	12.72	15.86	-38.79	-25.00	-13.79	V
7815.29	-33.96	11.46	19.28	-41.78	-25.00	-16.78	V
10420.12	-32.95	12.09	23.19	-44.05	-25.00	-19.05	V
LTE Band 38 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5305.11	-33.81	12.76	15.86	-36.91	-25.00	-11.91	H
7957.60	-34.12	11.45	19.28	-41.95	-25.00	-16.95	H
10609.90	-32.22	12.28	23.19	-43.13	-25.00	-18.13	H
5305.11	-34.97	12.76	15.86	-38.07	-25.00	-13.07	V
7957.60	-33.96	11.45	19.28	-41.79	-25.00	-16.79	V
10609.90	-33.10	12.28	23.19	-44.01	-25.00	-19.01	V

LTE Band 38 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5120.02	-33.70	12.66	15.86	-36.90	-25.00	-11.90	H
7680.03	-34.36	11.46	19.28	-42.18	-25.00	-17.18	H
10240.04	-32.46	12.79	23.19	-42.86	-25.00	-17.86	H
5120.02	-35.29	12.66	15.86	-38.49	-25.00	-13.49	V
7680.03	-33.86	11.46	19.28	-41.68	-25.00	-16.68	V
10240.04	-32.11	12.79	23.19	-42.51	-25.00	-17.51	V
LTE Band 38 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5209.92	-33.59	12.72	15.86	-36.73	-25.00	-11.73	H
7815.30	-34.80	11.46	19.28	-42.62	-25.00	-17.62	H
10420.20	-33.58	12.09	23.19	-44.68	-25.00	-19.68	H
5209.92	-34.70	12.72	15.86	-37.84	-25.00	-12.84	V
7815.30	-34.22	11.46	19.28	-42.04	-25.00	-17.04	V
10420.20	-32.67	12.09	23.19	-43.77	-25.00	-18.77	V
LTE Band 38 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5300.05	-34.13	12.76	15.86	-37.23	-25.00	-12.23	H
7950.25	-34.63	11.45	19.28	-42.46	-25.00	-17.46	H
10599.76	-32.55	12.28	23.19	-43.46	-25.00	-18.46	H
5300.05	-34.79	12.76	15.86	-37.89	-25.00	-12.89	V
7950.25	-35.11	11.45	19.28	-42.94	-25.00	-17.94	V
10599.76	-32.89	12.28	23.19	-43.80	-25.00	-18.80	V

LTE Band 38 / 15MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5124.86	-33.60	12.66	15.86	-36.80	-25.00	-11.80	H
7687.78	-34.47	11.46	19.28	-42.29	-25.00	-17.29	H
10250.37	-33.41	12.79	23.19	-43.81	-25.00	-18.81	H
5124.86	-35.37	12.66	15.86	-38.57	-25.00	-13.57	V
7687.78	-35.16	11.46	19.28	-42.98	-25.00	-17.98	V
10250.37	-32.26	12.79	23.19	-42.66	-25.00	-17.66	V
LTE Band 38 / 15MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5210.17	-34.18	12.72	15.86	-37.32	-25.00	-12.32	H
7815.23	-34.57	11.46	19.28	-42.39	-25.00	-17.39	H
10419.91	-32.47	12.09	23.19	-43.57	-25.00	-18.57	H
5210.17	-35.98	12.72	15.86	-39.12	-25.00	-14.12	V
7815.23	-33.81	11.46	19.28	-41.63	-25.00	-16.63	V
10419.91	-32.42	12.09	23.19	-43.52	-25.00	-18.52	V
LTE Band 38 / 15MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5297.80	-33.70	12.76	15.86	-36.80	-25.00	-11.80	H
7942.51	-34.33	11.45	19.28	-42.16	-25.00	-17.16	H
10590.14	-32.55	12.28	23.19	-43.46	-25.00	-18.46	H
5297.80	-35.92	12.76	15.86	-39.02	-25.00	-14.02	V
7942.51	-33.84	11.45	19.28	-41.67	-25.00	-16.67	V
10590.14	-31.76	12.28	23.19	-42.67	-25.00	-17.67	V

LTE Band 38 / 20MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5129.86	-33.97	12.66	15.86	-37.17	-25.00	-12.17	H
7695.01	-35.09	11.46	19.28	-42.91	-25.00	-17.91	H
10260.26	-32.82	12.79	23.19	-43.22	-25.00	-18.22	H
5129.86	-34.59	12.66	15.86	-37.79	-25.00	-12.79	V
7695.01	-33.90	11.46	19.28	-41.72	-25.00	-16.72	V
10260.26	-31.85	12.79	23.19	-42.25	-25.00	-17.25	V
LTE Band 38 /20MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5210.06	-33.52	12.72	15.86	-36.66	-25.00	-11.66	H
7814.91	-34.08	11.46	19.28	-41.90	-25.00	-16.90	H
10420.02	-33.55	12.09	23.19	-44.65	-25.00	-19.65	H
5210.06	-35.48	12.72	15.86	-38.62	-25.00	-13.62	V
7814.91	-35.15	11.46	19.28	-42.97	-25.00	-17.97	V
10420.02	-32.73	12.09	23.19	-43.83	-25.00	-18.83	V
LTE Band 38 / 20MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5290.04	-33.86	12.76	15.86	-36.96	-25.00	-11.96	H
7935.00	-34.40	11.45	19.28	-42.23	-25.00	-17.23	H
10579.89	-33.56	12.28	23.19	-44.47	-25.00	-19.47	H
5290.04	-34.99	12.76	15.86	-38.09	-25.00	-13.09	V
7935.00	-33.76	11.45	19.28	-41.59	-25.00	-16.59	V
10579.89	-32.99	12.28	23.19	-43.90	-25.00	-18.90	V

2305-2315MHz

LTE Band 40 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
4614.86	-45.22	12.91	12.95	-45.26	-40.00	-5.26	H
6922.51	-41.22	13.18	17.02	-45.06	-40.00	-5.06	H
9229.73	-36.47	12.45	21.78	-45.80	-40.00	-5.80	H
4614.86	-45.75	12.91	12.95	-45.79	-40.00	-5.79	V
6922.51	-41.38	13.18	17.02	-45.22	-40.00	-5.22	V
9229.73	-36.25	12.45	21.78	-45.58	-40.00	-5.58	V
LTE Band 40 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
4620.20	-45.93	12.91	12.95	-45.97	-40.00	-5.97	H
6930.22	-41.56	13.18	17.02	-45.40	-40.00	-5.40	H
9239.82	-36.48	12.45	21.78	-45.81	-40.00	-5.81	H
4620.20	-45.09	12.91	12.95	-45.13	-40.00	-5.13	V
6930.22	-41.52	13.18	17.02	-45.36	-40.00	-5.36	V
9239.82	-35.47	12.45	21.78	-44.80	-40.00	-4.80	V
LTE Band 40 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
4625.12	-44.87	12.91	12.95	-44.91	-40.00	-4.91	H
6937.58	-41.70	13.18	17.02	-45.54	-40.00	-5.54	H
9249.96	-35.17	12.45	21.78	-44.50	-40.00	-4.50	H
4625.12	-45.85	12.91	12.95	-45.89	-40.00	-5.89	V
6937.58	-41.94	13.18	17.02	-45.78	-40.00	-5.78	V
9249.96	-35.81	12.45	21.78	-45.14	-40.00	-5.14	V

LTE Band 40 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
4620.10	-45.03	12.91	12.95	-45.07	-40.00	-5.07	H
6929.79	-41.51	13.18	17.02	-45.35	-40.00	-5.35	H
9240.04	-36.61	12.45	21.78	-45.94	-40.00	-5.94	H
4620.10	-45.41	12.91	12.95	-45.45	-40.00	-5.45	V
6929.79	-41.82	13.18	17.02	-45.66	-40.00	-5.66	V
9240.04	-35.69	12.45	21.78	-45.02	-40.00	-5.02	V

2350-2360MHz

LTE Band 40 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
4705.14	-44.56	12.91	12.95	-44.60	-40.00	-4.60	H
7057.16	-41.33	13.18	17.02	-45.17	-40.00	-5.17	H
9410.19	-36.05	12.45	21.78	-45.38	-40.00	-5.38	H
4705.14	-45.72	12.91	12.95	-45.76	-40.00	-5.76	V
7057.16	-41.71	13.18	17.02	-45.55	-40.00	-5.55	V
9410.19	-36.63	12.45	21.78	-45.96	-40.00	-5.96	V
LTE Band 40 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
4709.71	-44.85	12.91	12.95	-44.89	-40.00	-4.89	H
7065.03	-42.45	13.18	17.02	-46.29	-40.00	-6.29	H
9420.28	-36.16	12.45	21.78	-45.49	-40.00	-5.49	H
4709.71	-44.94	12.91	12.95	-44.98	-40.00	-4.98	V
7065.03	-40.97	13.18	17.02	-44.81	-40.00	-4.81	V
9420.28	-36.56	12.45	21.78	-45.89	-40.00	-5.89	V
LTE Band 40 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
4714.98	-44.91	12.91	12.95	-44.95	-40.00	-4.95	H
7072.00	-42.36	13.18	17.02	-46.20	-40.00	-6.20	H
9429.87	-36.65	12.45	21.78	-45.98	-40.00	-5.98	H
4714.98	-45.79	12.91	12.95	-45.83	-40.00	-5.83	V
7072.00	-40.84	13.18	17.02	-44.68	-40.00	-4.68	V
9429.87	-35.85	12.45	21.78	-45.18	-40.00	-5.18	V

LTE Band 40 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
4709.78	-45.61	12.91	12.95	-45.65	-40.00	-5.65	H
7064.77	-41.95	13.18	17.02	-45.79	-40.00	-5.79	H
9419.83	-35.86	12.45	21.78	-45.19	-40.00	-5.19	H
4709.78	-45.05	12.91	12.95	-45.09	-40.00	-5.09	V
7064.77	-41.88	13.18	17.02	-45.72	-40.00	-5.72	V
9419.83	-35.98	12.45	21.78	-45.31	-40.00	-5.31	V

LTE Band 41 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5114.94	-33.83	12.66	15.86	-37.03	-25.00	-12.03	H
7672.51	-34.80	11.46	19.28	-42.62	-25.00	-17.62	H
10230.26	-32.98	12.79	23.19	-43.38	-25.00	-18.38	H
5114.94	-35.67	12.66	15.86	-38.87	-25.00	-13.87	V
7672.51	-34.39	11.46	19.28	-42.21	-25.00	-17.21	V
10230.26	-32.12	12.79	23.19	-42.52	-25.00	-17.52	V
LTE Band 41 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5209.96	-34.67	12.72	15.86	-37.81	-25.00	-12.81	H
7815.26	-33.99	11.46	19.28	-41.81	-25.00	-16.81	H
10419.94	-32.96	12.09	23.19	-44.06	-25.00	-19.06	H
5209.96	-34.72	12.72	15.86	-37.86	-25.00	-12.86	V
7815.26	-34.70	11.46	19.28	-42.52	-25.00	-17.52	V
10419.94	-32.84	12.09	23.19	-43.94	-25.00	-18.94	V
LTE Band 41 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5304.87	-34.78	12.76	15.86	-37.88	-25.00	-12.88	H
7957.70	-34.17	11.45	19.28	-42.00	-25.00	-17.00	H
10610.02	-33.61	12.28	23.19	-44.52	-25.00	-19.52	H
5304.87	-34.58	12.76	15.86	-37.68	-25.00	-12.68	V
7957.70	-34.00	11.45	19.28	-41.83	-25.00	-16.83	V
10610.02	-32.36	12.28	23.19	-43.27	-25.00	-18.27	V

LTE Band 41 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5119.73	-34.11	12.66	15.86	-37.31	-25.00	-12.31	H
7679.94	-35.36	11.46	19.28	-43.18	-25.00	-18.18	H
10240.15	-32.27	12.79	23.19	-42.67	-25.00	-17.67	H
5119.73	-35.51	12.66	15.86	-38.71	-25.00	-13.71	V
7679.94	-34.04	11.46	19.28	-41.86	-25.00	-16.86	V
10240.15	-32.38	12.79	23.19	-42.78	-25.00	-17.78	V
LTE Band 41 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5209.92	-34.31	12.72	15.86	-37.45	-25.00	-12.45	H
7815.25	-34.99	11.46	19.28	-42.81	-25.00	-17.81	H
10420.09	-32.42	12.09	23.19	-43.52	-25.00	-18.52	H
5209.92	-34.71	12.72	15.86	-37.85	-25.00	-12.85	V
7815.25	-35.00	11.46	19.28	-42.82	-25.00	-17.82	V
10420.09	-32.02	12.09	23.19	-43.12	-25.00	-18.12	V
LTE Band 41 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5299.98	-33.98	12.76	15.86	-37.08	-25.00	-12.08	H
7949.89	-35.27	11.45	19.28	-43.10	-25.00	-18.10	H
10600.20	-32.24	12.28	23.19	-43.15	-25.00	-18.15	H
5299.98	-35.44	12.76	15.86	-38.54	-25.00	-13.54	V
7949.89	-34.22	11.45	19.28	-42.05	-25.00	-17.05	V
10600.20	-32.56	12.28	23.19	-43.47	-25.00	-18.47	V

LTE Band 41 / 15MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5125.20	-34.13	12.66	15.86	-37.33	-25.00	-12.33	H
7687.75	-34.82	11.46	19.28	-42.64	-25.00	-17.64	H
10250.37	-33.63	12.79	23.19	-44.03	-25.00	-19.03	H
5125.20	-35.95	12.66	15.86	-39.15	-25.00	-14.15	V
7687.75	-34.34	11.46	19.28	-42.16	-25.00	-17.16	V
10250.37	-32.46	12.79	23.19	-42.86	-25.00	-17.86	V
LTE Band 41 / 15MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5210.08	-34.73	12.72	15.86	-37.87	-25.00	-12.87	H
7815.20	-34.91	11.46	19.28	-42.73	-25.00	-17.73	H
10420.04	-33.62	12.09	23.19	-44.72	-25.00	-19.72	H
5210.08	-35.66	12.72	15.86	-38.80	-25.00	-13.80	V
7815.20	-35.07	11.46	19.28	-42.89	-25.00	-17.89	V
10420.04	-32.45	12.09	23.19	-43.55	-25.00	-18.55	V
LTE Band 41 / 15MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5297.92	-33.68	12.76	15.86	-36.78	-25.00	-11.78	H
7942.38	-35.38	11.45	19.28	-43.21	-25.00	-18.21	H
10589.80	-32.70	12.28	23.19	-43.61	-25.00	-18.61	H
5297.92	-34.87	12.76	15.86	-37.97	-25.00	-12.97	V
7942.38	-34.50	11.45	19.28	-42.33	-25.00	-17.33	V
10589.80	-31.71	12.28	23.19	-42.62	-25.00	-17.62	V

LTE Band 41 / 20MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5130.12	-33.99	12.66	15.86	-37.19	-25.00	-12.19	H
7694.95	-35.12	11.46	19.28	-42.94	-25.00	-17.94	H
10260.29	-33.34	12.79	23.19	-43.74	-25.00	-18.74	H
5130.12	-35.09	12.66	15.86	-38.29	-25.00	-13.29	V
7694.95	-34.52	11.46	19.28	-42.34	-25.00	-17.34	V
10260.29	-32.21	12.79	23.19	-42.61	-25.00	-17.61	V
LTE Band 41 /20MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5209.84	-33.58	12.72	15.86	-36.72	-25.00	-11.72	H
7814.98	-34.17	11.46	19.28	-41.99	-25.00	-16.99	H
10419.99	-32.64	12.09	23.19	-43.74	-25.00	-18.74	H
5209.84	-35.02	12.72	15.86	-38.16	-25.00	-13.16	V
7814.98	-34.24	11.46	19.28	-42.06	-25.00	-17.06	V
10419.99	-32.71	12.09	23.19	-43.81	-25.00	-18.81	V
LTE Band 41 / 20MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
5290.11	-34.83	12.76	15.86	-37.93	-25.00	-12.93	H
7934.90	-34.75	11.45	19.28	-42.58	-25.00	-17.58	H
10580.21	-32.37	12.28	23.19	-43.28	-25.00	-18.28	H
5290.11	-34.82	12.76	15.86	-37.92	-25.00	-12.92	V
7934.90	-34.81	11.45	19.28	-42.64	-25.00	-17.64	V
10580.21	-31.80	12.28	23.19	-42.71	-25.00	-17.71	V

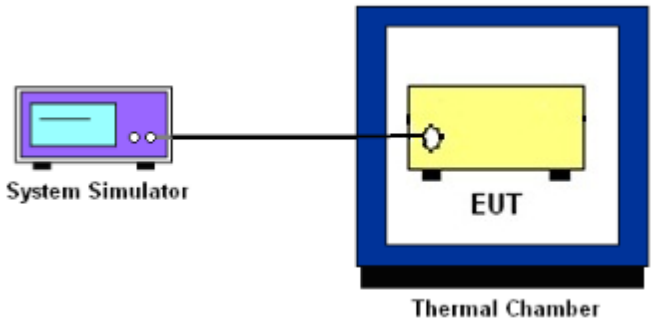
9. FREQUENCY STABILITY

9.1 DESCRIPTION OF FREQUENCY STABILITY MEASUREMENT

10.1.1 MEASUREMENT METHOD

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5ppm) of the center frequency.

9.1.2 TEST SETUP



9.1.3 TEST PROCEDURES FOR TEMPERATURE VARIATION

1. The EUT was set up in the thermal chamber and connected with the system simulator.

2. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
3. With power OFF, the temperature was raised in 10°C step up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

9.1.4 TEST PROCEDURES FOR VOLTAGE VARIATION

1. The testing follows FCC KDB 971168 D01v01r03 Section 9.

2. The EUT was placed in a temperature chamber at 25±5° C and connected with the system simlator.

3. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.

4. The variation in frequency was measured for the worst case.

9.1.5 TEST RESULTS

LTE Band 5 (QPSK) / 836.5MHz / BW5M					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	34.42	0.048	2.5ppm	PASS
40		32.56	0.046		
30		27.32	0.038		
20		12.17	0.017		
10		14.24	0.020		
0		23.17	0.033		
-10		15.22	0.002		
-20		28.75	0.040		
-30		30.59	0.043		
20	Maximum Voltage	35.10	0.049		
20	BEP	17.95	0.025		

LTE Band 5 (QPSK) / 836.5MHz / BW10M					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	17.66	0.025	2.5ppm	PASS
40		24.87	0.035		
30		27.45	0.039		
20		12.34	0.017		
10		26.75	0.038		
0		33.22	0.047		
-10		31.68	0.004		
-20		17.19	0.024		
-30		32.86	0.046		
20	Maximum Voltage	15.42	0.022		
20	BEP	14.90	0.021		

LTE Band 7 (QPSK) / 2535MHz / BW10M					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	15.65	0.006	2.5ppm	PASS
40		13.49	0.005		
30		18.92	0.007		
20		29.50	0.012		
10		14.16	0.006		
0		22.00	0.009		
-10		12.37	0.005		
-20		34.98	0.014		
-30		19.63	0.008		
20	Maximum Voltage	27.35	0.011		
20	BEP	24.50	0.010		

LTE Band 7 (QPSK) / 2535MHz / BW20M					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	23.27	0.009	2.5ppm	PASS
40		15.09	0.006		
30		26.34	0.010		
20		18.47	0.007		
10		26.09	0.010		
0		11.82	0.005		
-10		13.88	0.005		
-20		25.46	0.010		
-30		32.29	0.013		
20	Maximum Voltage	16.93	0.007		
20	BEP	20.02	0.008		

LTE Band 38 (QPSK) / 2595MHz / BW10M					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	12.08	0.005	2.5ppm	PASS
40		24.57	0.010		
30		17.17	0.007		
20		23.54	0.009		
10		21.34	0.008		
0		33.50	0.013		
-10		25.32	0.010		
-20		33.73	0.013		
-30		29.08	0.011		
20	Maximum Voltage	25.10	0.010		
20	BEP	20.61	0.008		

LTE Band 38 (QPSK) / 2595MHz / BW20M					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	34.82	0.014	2.5ppm	PASS
40		12.44	0.005		
30		23.90	0.009		
20		23.42	0.009		
10		25.29	0.010		
0		13.88	0.005		
-10		20.56	0.008		
-20		11.96	0.005		
-30		21.74	0.009		
20	Maximum Voltage	22.52	0.009		
20	BEP	21.53	0.008		

2305-2315MHz

LTE Band 40 (QPSK) / 2310MHz / BW10M					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	35.42	0.014	2.5ppm	PASS
40		30.14	0.012		
30		20.74	0.008		
20		21.17	0.008		
10		30.69	0.012		
0		14.74	0.006		
-10		31.36	0.012		
-20		11.90	0.005		
-30		21.59	0.009		
20	Maximum Voltage	19.11	0.008		
20	BEP	33.95	0.013		

2350-2360MHz

LTE Band 40 (QPSK) / 2355MHz / BW10M					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	27.18	0.011	2.5ppm	PASS
40		21.07	0.008		
30		27.06	0.011		
20		17.22	0.007		
10		23.35	0.009		
0		34.12	0.013		
-10		15.13	0.006		
-20		22.80	0.009		
-30		27.04	0.011		
20	Maximum Voltage	14.60	0.006		
20	BEP	29.95	0.012		

LTE Band 41 (QPSK) / 2605MHz / BW10M					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	24.77	0.010	2.5ppm	PASS
40		23.28	0.009		
30		35.51	0.014		
20		28.16	0.011		
10		26.95	0.011		
0		14.64	0.006		
-10		19.14	0.008		
-20		25.28	0.010		
-30		26.43	0.010		
20	Maximum Voltage	20.21	0.008		
20	BEP	22.11	0.009		

LTE Band 41 (QPSK) / 2605MHz / BW20M					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	20.61	0.008	2.5ppm	PASS
40		18.52	0.007		
30		33.89	0.013		
20		35.06	0.014		
10		29.44	0.012		
0		30.94	0.012		
-10		24.10	0.010		
-20		12.49	0.005		
-30		18.94	0.007		
20	Maximum Voltage	19.53	0.008		
20	BEP	26.14	0.010		

APPENDIX-PHOTOS OF TEST SETUP

Note: See test photos in setup photo document for the actual connections between Product and support equipment.

※※※※※END OF THE REPORT※※※※※