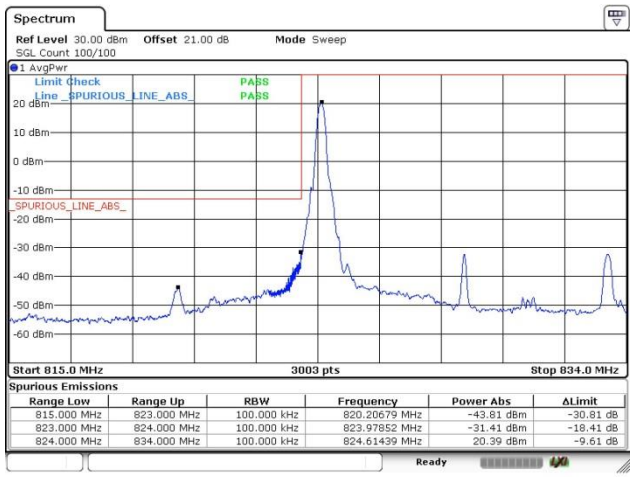
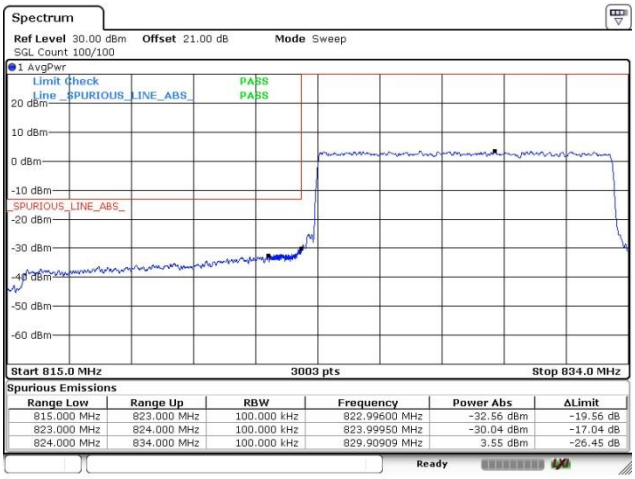
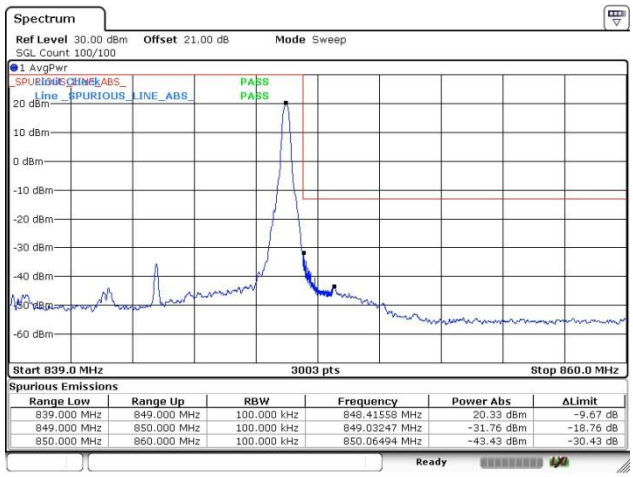
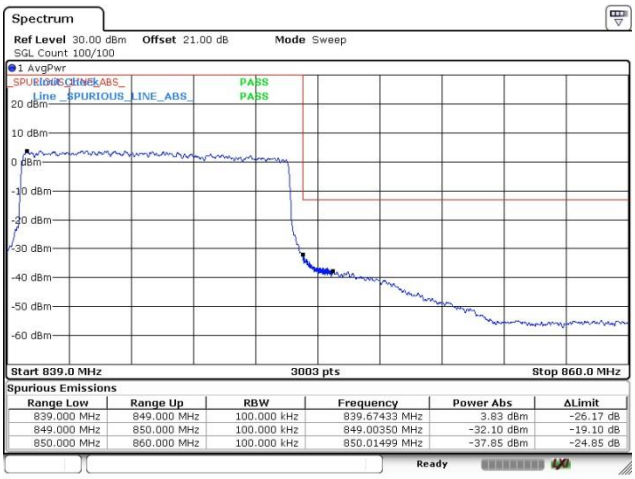
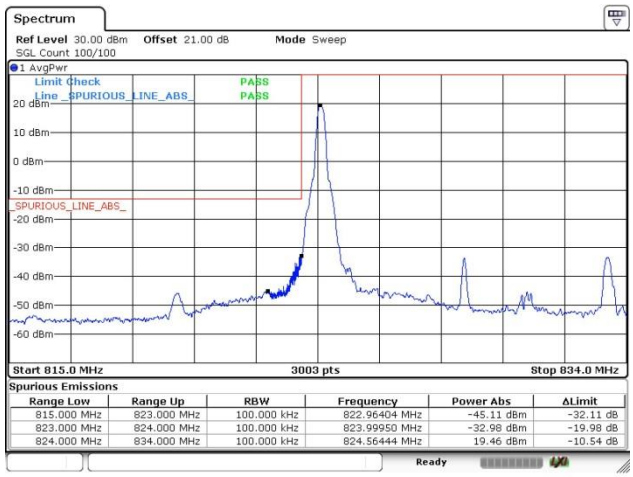
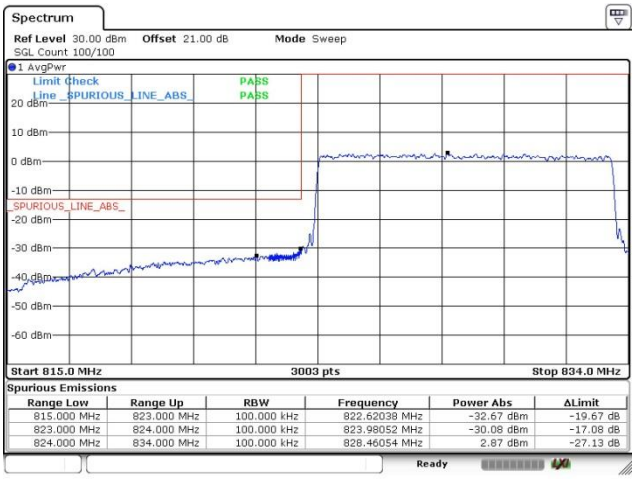
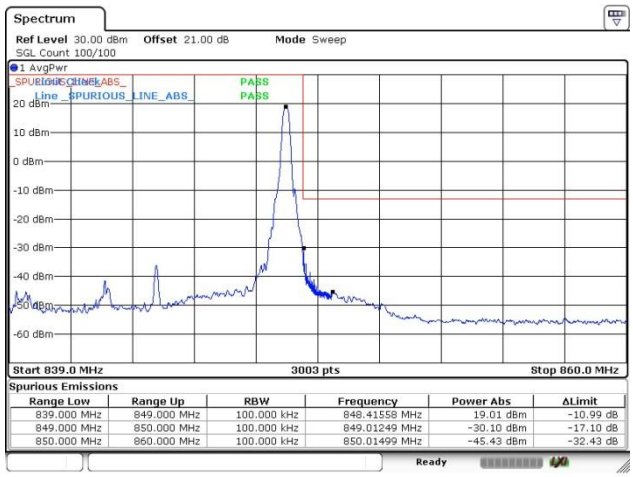
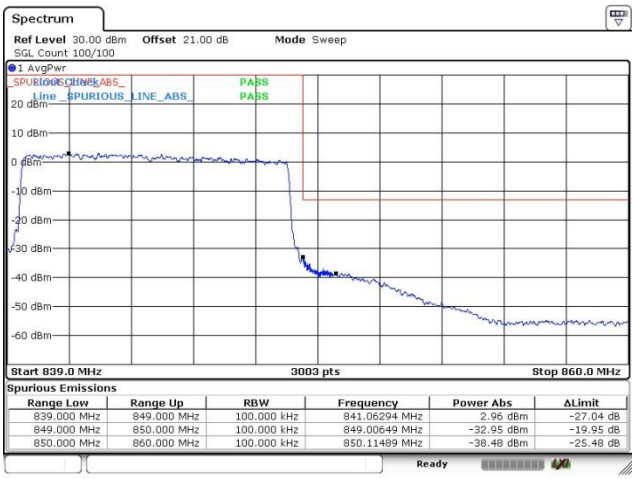
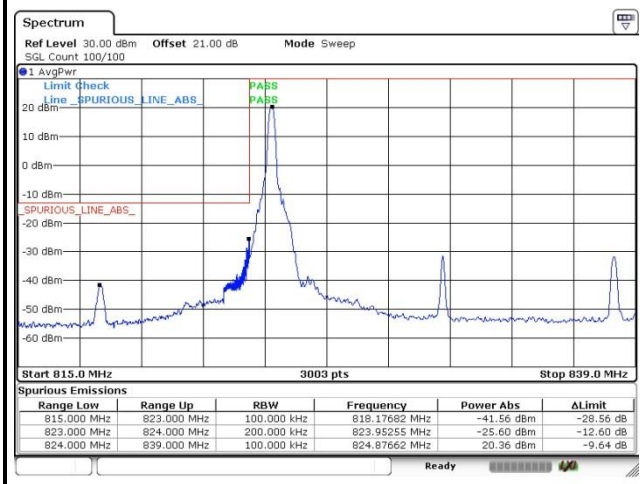
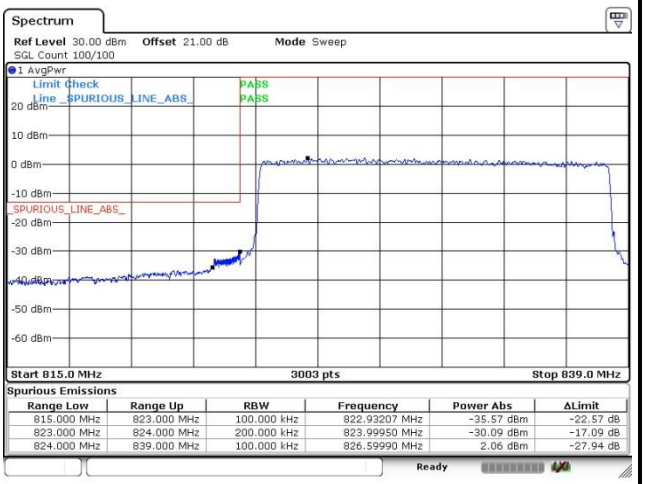
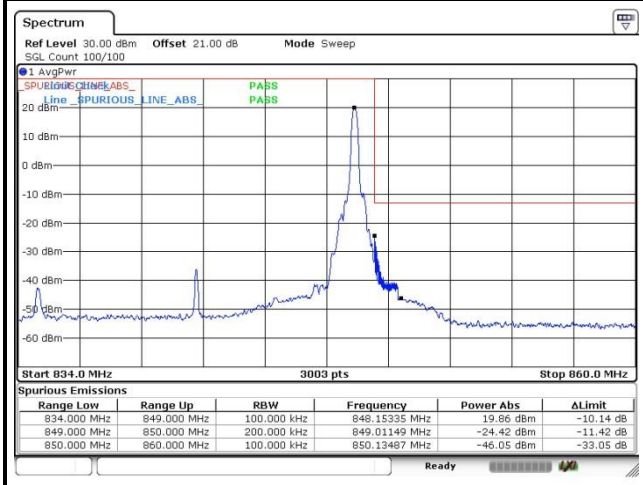
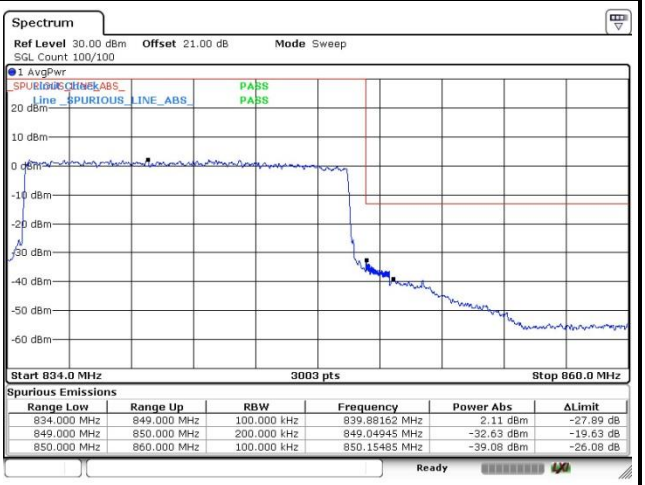
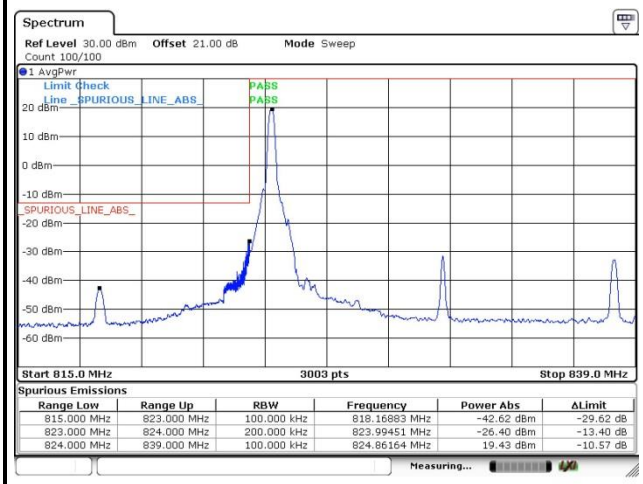
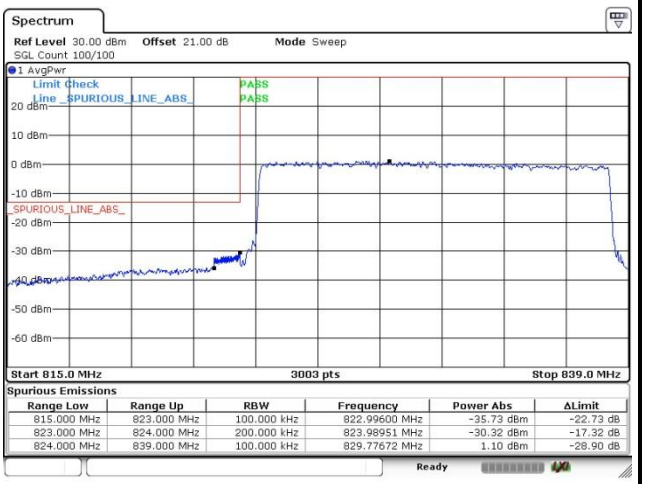
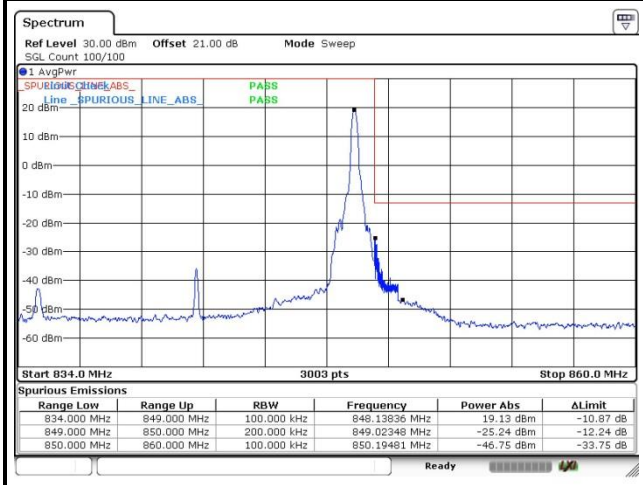
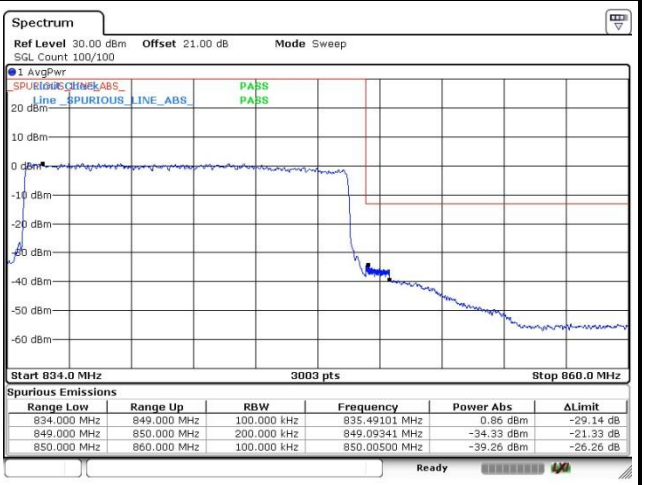
Mode	LTE Band 26, CB: 10MHz, QPSK				
Channel	Low	1 RB Low	**Channel**	Low	100%RB
					
Channel	High	1 RB High	**Channel**	High	100%RB
					

Mode	LTE Band 26, CB: 10MHz, 16QAM				
Channel	Low	1 RB Low	**Channel**	Low	100%RB
					
Channel	High	1 RB High	**Channel**	High	100%RB
					

Mode	LTE Band 26, CB: 15MHz, QPSK				
Channel	Low	1 RB Low	**Channel**	Low	100%RB
					
Channel	High	1 RB High	**Channel**	High	100%RB
					

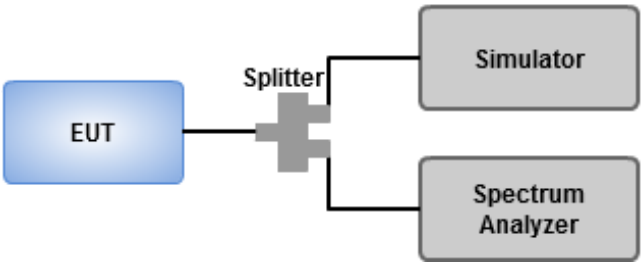
Mode	LTE Band 26, CB: 15MHz, 16QAM				
Channel	Low	1 RB Low	**Channel**	Low	100%RB
					
Channel	High	1 RB High	**Channel**	High	100%RB
					

3.5 Occupied and 26 dB Bandwidth

3.5.1 Test Procedures

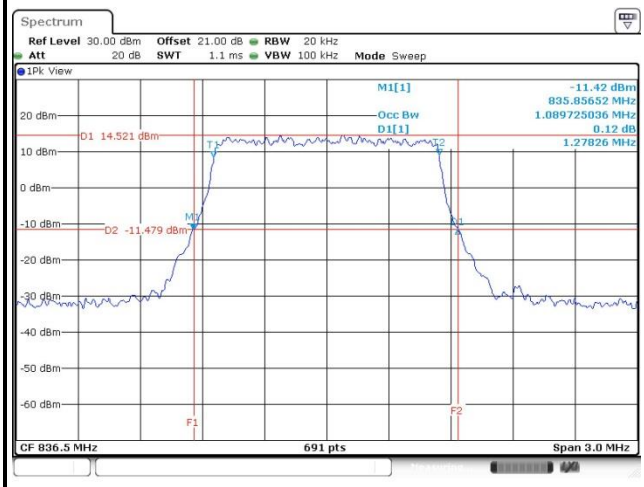
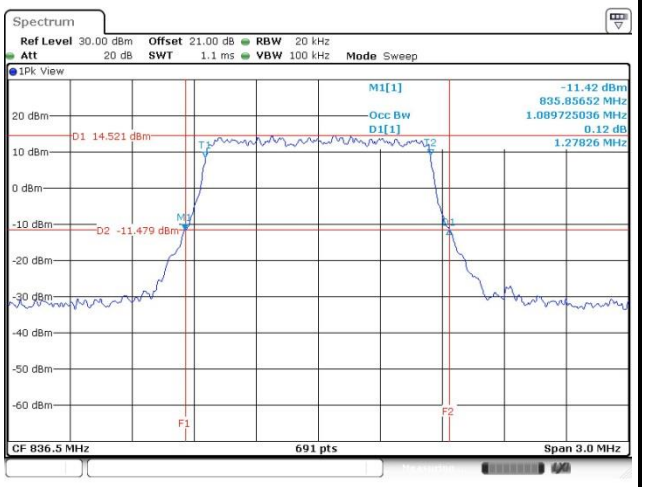
1. Set RBW = 20 / 30 / 50 / 100 / 200 kHz, VBW = 100 / 100 / 200 / 300 / 1000 kHz for channel bandwidth 1.4 / 3 / 5 / 10 / 15MHz.
2. Detector = Peak, Trace mode = max hold.
3. Sweep = auto couple, Allow the trace to stabilize.
4. Using occupied bandwidth measurement function of spectrum analyzer to measure occupied bandwidth
5. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 26dB relative to the maximum level measured in the fundamental emission.

3.5.2 Test Setup



3.5.3 Test Result of Occupied Bandwidth

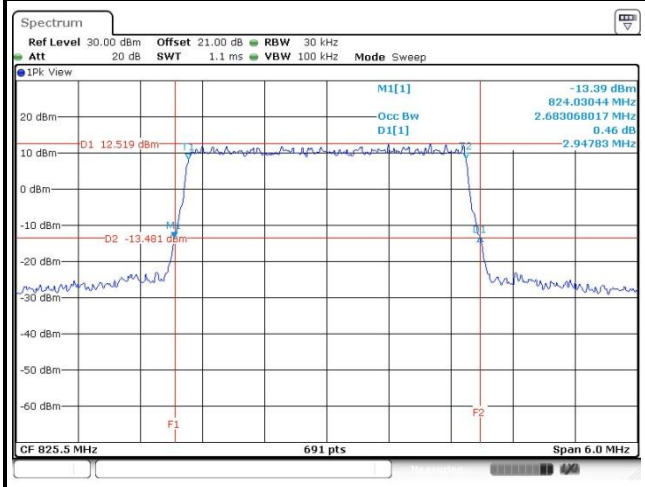
Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	26dB BW (MHz)	99% OBW (MHz)
LTE Band 26	1.4	QPSK	26797	824.7	1.26522	1.09
LTE Band 26	1.4	QPSK	26915	836.5	1.27826	1.09
LTE Band 26	1.4	QPSK	27033	848.3	1.28261	1.09
LTE Band 26	1.4	16QAM	26797	824.7	1.26522	1.09
LTE Band 26	1.4	16QAM	26915	836.5	1.26957	1.09
LTE Band 26	1.4	16QAM	27033	848.3	1.26957	1.09

Worst plots	
26dB bandwidth	**OBW**
	

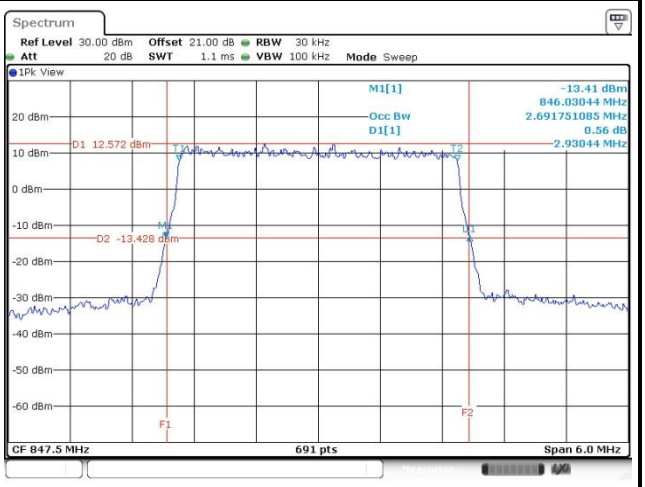
Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	26dB BW (MHz)	99% OBW (MHz)
LTE Band 26	3	QPSK	26805	825.5	2.94783	2.68
LTE Band 26	3	QPSK	26915	836.5	2.92174	2.67
LTE Band 26	3	QPSK	27025	847.5	2.93044	2.68
LTE Band 26	3	16QAM	26805	825.5	2.93913	2.68
LTE Band 26	3	16QAM	26915	836.5	2.92174	2.68
LTE Band 26	3	16QAM	27025	847.5	2.93044	2.69

Worst plots

26dB bandwidth



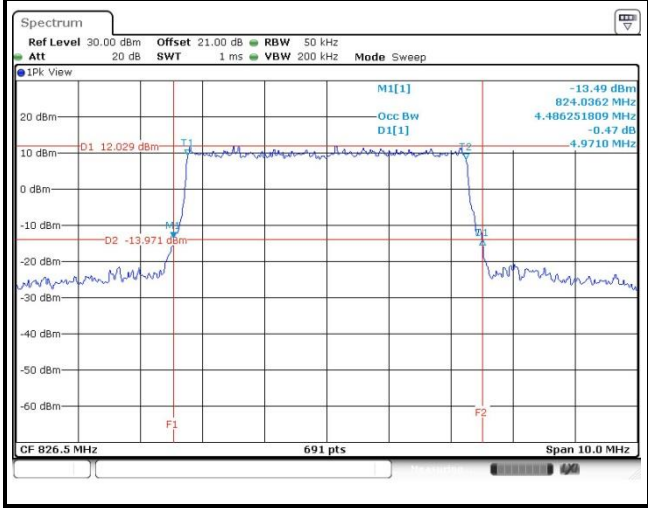
OBW



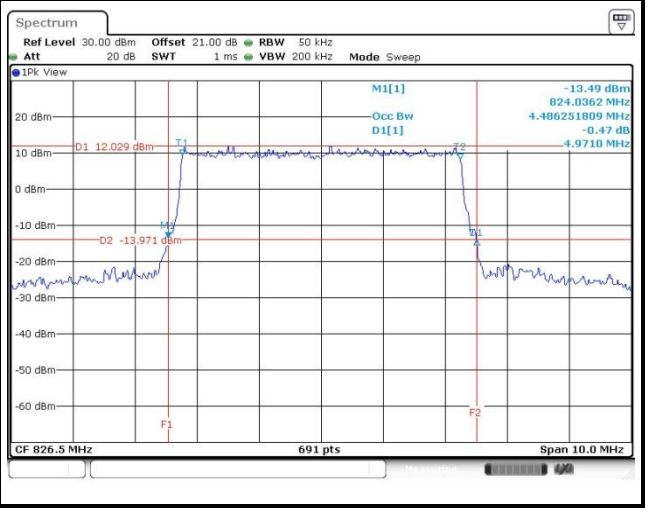
Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	26dB BW (MHz)	99% OBW (MHz)
LTE Band 26	5	QPSK	26815	826.5	4.9130	4.47
LTE Band 26	5	QPSK	26915	836.5	4.9565	4.47
LTE Band 26	5	QPSK	27015	846.5	4.9130	4.47
LTE Band 26	5	16QAM	26815	826.5	4.9710	4.49
LTE Band 26	5	16QAM	26915	836.5	4.9275	4.47
LTE Band 26	5	16QAM	27015	846.5	4.8986	4.47

Worst plots

26dB bandwidth



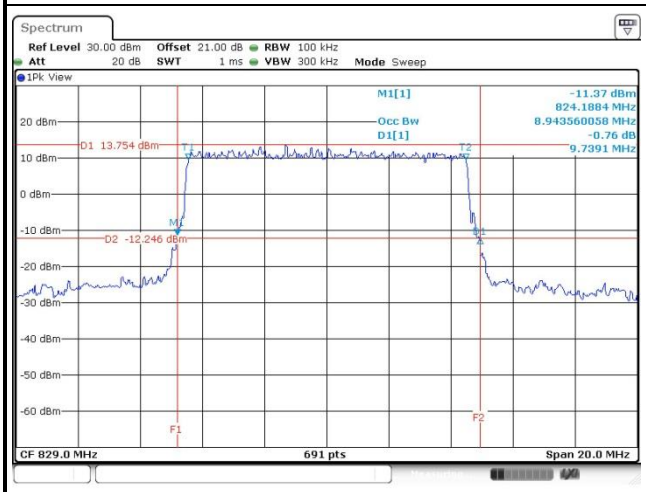
OBW



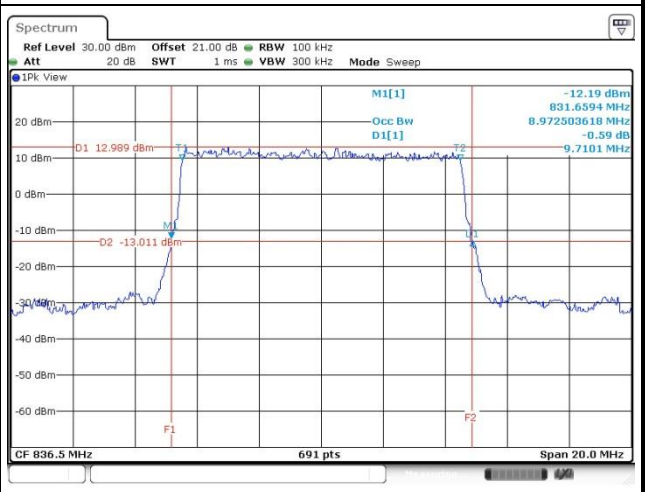
Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	26dB BW (MHz)	99% OBW (MHz)
LTE Band 26	10	QPSK	26840	829.0	9.7391	8.94
LTE Band 26	10	QPSK	26915	836.5	9.7101	8.97
LTE Band 26	10	QPSK	26990	844.0	9.6522	8.91
LTE Band 26	10	16QAM	26840	829.0	9.6232	8.94
LTE Band 26	10	16QAM	26915	836.5	9.6232	8.94
LTE Band 26	10	16QAM	26990	844.0	9.5652	8.91

Worst plots

26dB bandwidth



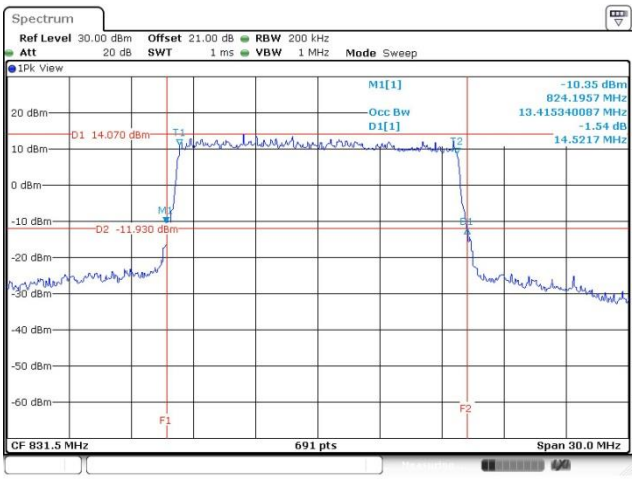
OBW



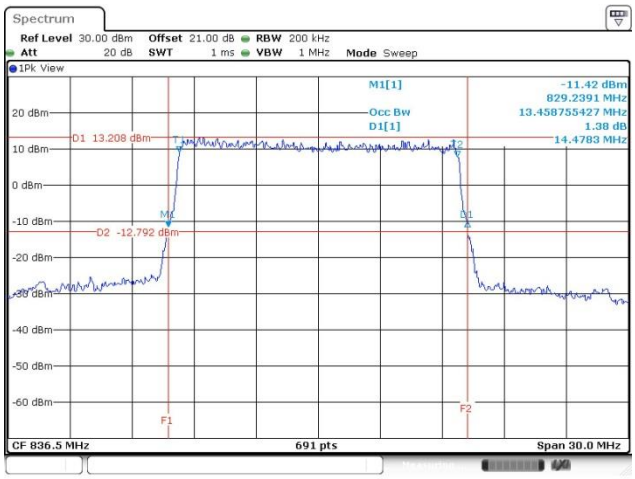
Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	26dB BW (MHz)	99% OBW (MHz)
LTE Band 26	15	QPSK	26865	831.5	14.4783	13.42
LTE Band 26	15	QPSK	26915	836.5	14.4348	13.42
LTE Band 26	15	QPSK	26965	841.5	14.4783	13.46
LTE Band 26	15	16QAM	26865	831.5	14.5217	13.42
LTE Band 26	15	16QAM	26915	836.5	14.4783	13.46
LTE Band 26	15	16QAM	26965	841.5	14.3478	13.37

Worst plots

26dB bandwidth



OBW



3.6 Peak to Average Ratio

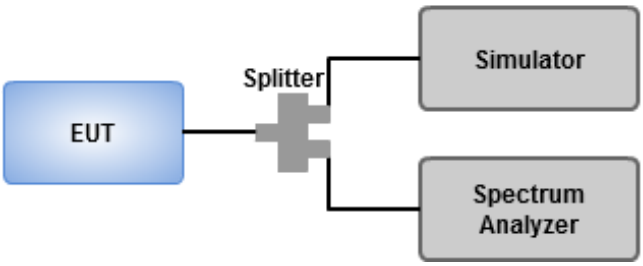
3.6.1 Limit of Peak to Average Ratio

Peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

3.6.2 Test Procedures

1. Enable CCDF function of spectrum analyzer and set RBW = 10 MHz.
2. Set the number of counts to a value that stabilizes the measured CCDF curve.
3. Record the maximum PAPR level associated with a probability of 0.1%.

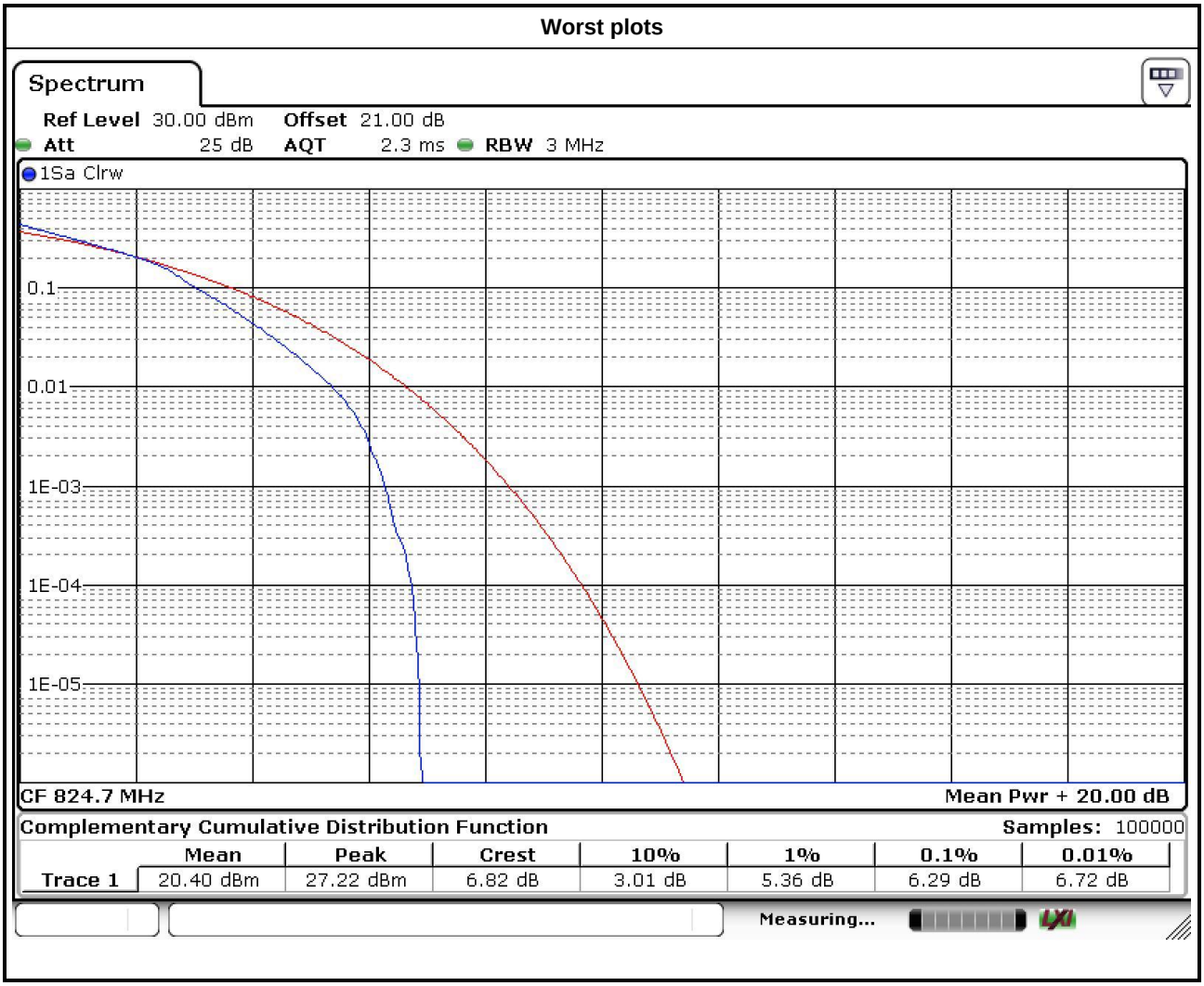
3.6.3 Test Setup



3.6.4 Test Result of Peak to Average Ratio

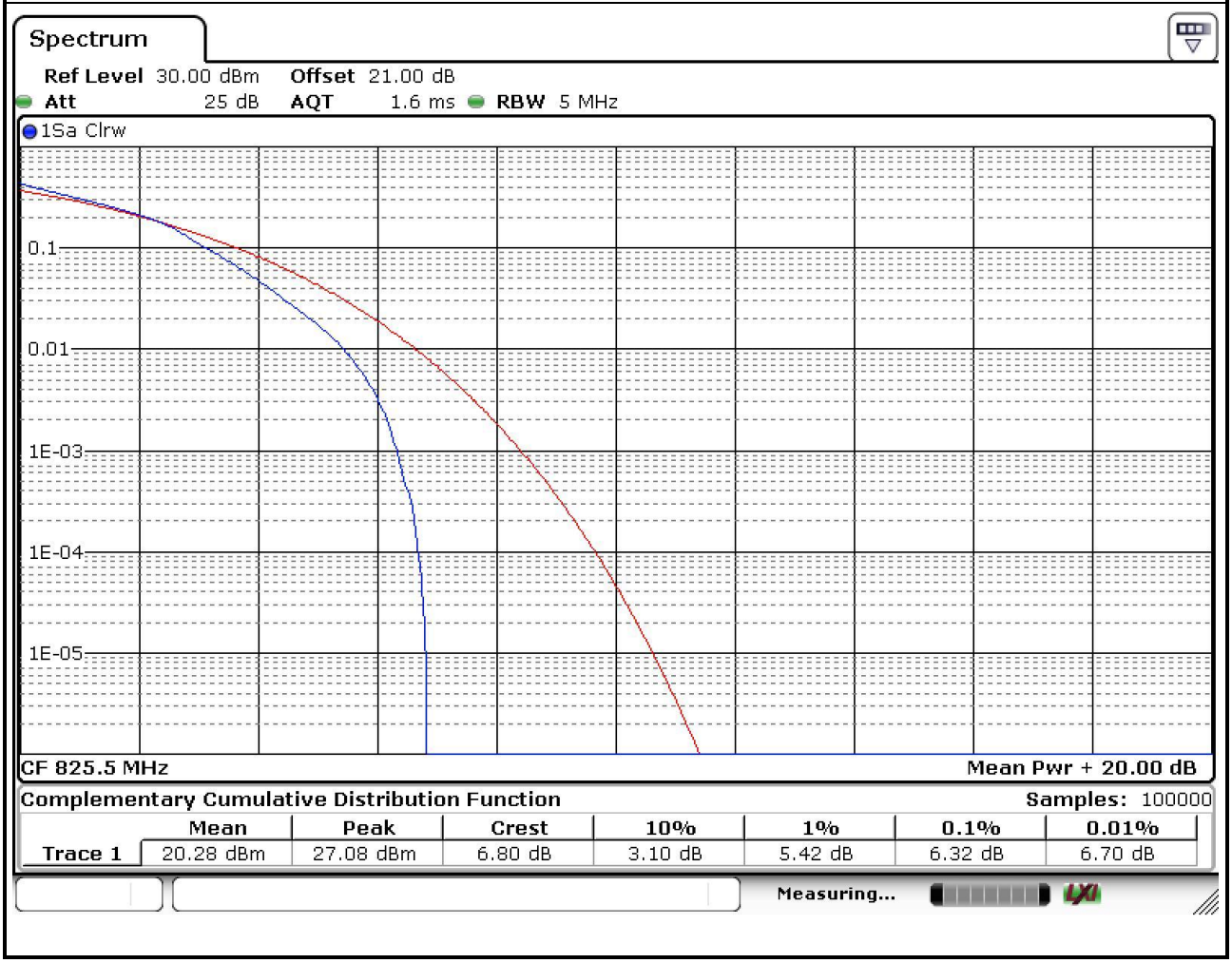
Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	Peak to Average ratio (dB)
LTE Band 26	1.4	QPSK	26797	824.7	5.48
LTE Band 26	1.4	QPSK	26915	836.5	5.28
LTE Band 26	1.4	QPSK	27033	848.3	5.01
LTE Band 26	1.4	16QAM	26797	824.7	6.29
LTE Band 26	1.4	16QAM	26915	836.5	6.06
LTE Band 26	1.4	16QAM	27033	848.3	5.97

Worst plots



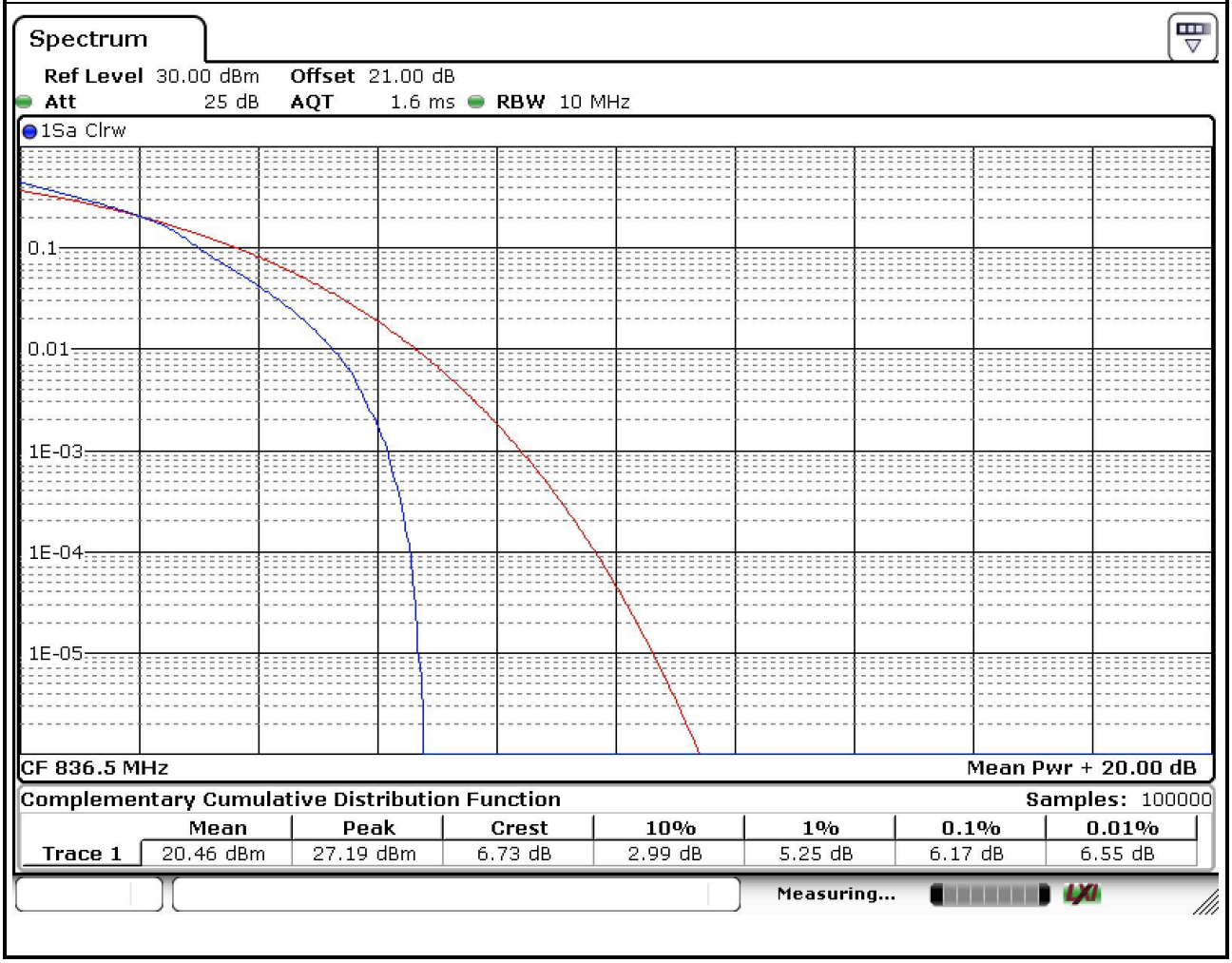
Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	Peak to Average ratio (dB)
LTE Band 26	3	QPSK	26805	825.5	5.42
LTE Band 26	3	QPSK	26915	836.5	5.25
LTE Band 26	3	QPSK	27025	847.5	4.96
LTE Band 26	3	16QAM	26805	825.5	6.32
LTE Band 26	3	16QAM	26915	836.5	6.12
LTE Band 26	3	16QAM	27025	847.5	5.86

Worst plots



Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	Peak to Average ratio (dB)
LTE Band 26	5	QPSK	26815	826.5	5.33
LTE Band 26	5	QPSK	26915	836.5	5.30
LTE Band 26	5	QPSK	27015	846.5	4.99
LTE Band 26	5	16QAM	26815	826.5	6.14
LTE Band 26	5	16QAM	26915	836.5	6.17
LTE Band 26	5	16QAM	27015	846.5	5.80

Worst plots



Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	Peak to Average ratio (dB)
LTE Band 26	10	QPSK	26840	829.0	5.28
LTE Band 26	10	QPSK	26915	836.5	5.28
LTE Band 26	10	QPSK	26990	844.0	5.07
LTE Band 26	10	16QAM	26840	829.0	6.09
LTE Band 26	10	16QAM	26915	836.5	6.09
LTE Band 26	10	16QAM	26990	844.0	6.06

Worst plots

Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	Peak to Average ratio (dB)
LTE Band 26	15	QPSK	26865	831.5	5.01
LTE Band 26	15	QPSK	26915	836.5	5.19
LTE Band 26	15	QPSK	26965	841.5	5.07
LTE Band 26	15	16QAM	26865	831.5	5.94
LTE Band 26	15	16QAM	26915	836.5	6.12
LTE Band 26	15	16QAM	26965	841.5	5.97

Worst plots

3.7 Frequency Stability

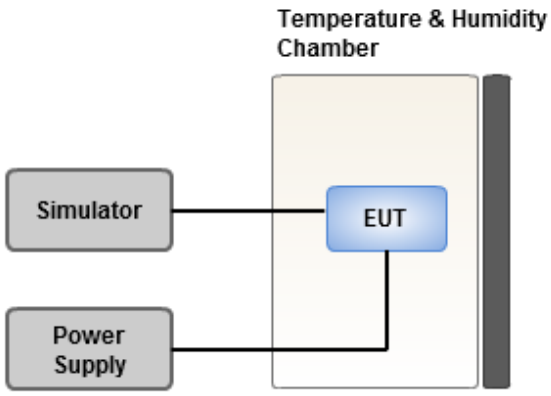
3.7.1 Limit of Frequency Stability

The frequency stability shall be less +/- 2.5ppm.

3.7.2 Test Procedures

1. EUT was placed at temperature chamber and connected to an external power supply.
2. Temperature and voltage condition shall be tested to confirm frequency stability.
3. Temperature range is from -30~55°C and voltage range is from lowest to highest working voltage.
4. Link up EUT and simulator. Confirm frequency drift value of simulator and record it.

3.7.3 Test Setup



3.7.4 Test Result of Frequency Stability

LTE Band 26, CB: 1.4MHz			
Temperature (°C)	Voltage (dc)	Frequency Drift (ppm)	Limit (ppm)
55	3.9	0.010	2.5
50	3.9	0.010	2.5
40	3.9	0.008	2.5
30	3.9	0.006	2.5
20	3.9	0.005	2.5
10	3.9	0.002	2.5
0	3.9	-0.001	2.5
-10	3.9	-0.004	2.5
-20	3.9	-0.006	2.5
-30	3.9	-0.008	2.5
20	4.29	0.005	2.5
20	3.51	0.004	2.5

LTE Band 26, CB: 3MHz			
Temperature (°C)	Voltage (dc)	Frequency Drift (ppm)	Limit (ppm)
55	3.9	0.011	2.5
50	3.9	0.008	2.5
40	3.9	0.007	2.5
30	3.9	0.006	2.5
20	3.9	0.006	2.5
10	3.9	0.001	2.5
0	3.9	-0.004	2.5
-10	3.9	-0.005	2.5
-20	3.9	-0.007	2.5
-30	3.9	-0.010	2.5
20	4.29	0.005	2.5
20	3.51	0.004	2.5

LTE Band 26, CB: 5MHz			
Temperature (°C)	**Voltage (dc)**	**Frequency Drift (ppm)**	**Limit (ppm)**
55	3.9	0.007	2.5
50	3.9	0.007	2.5
40	3.9	0.006	2.5
30	3.9	0.006	2.5
20	3.9	0.002	2.5
10	3.9	-0.004	2.5
0	3.9	-0.004	2.5
-10	3.9	-0.007	2.5
-20	3.9	-0.007	2.5
-30	3.9	-0.007	2.5
20	4.29	0.006	2.5
20	3.51	0.006	2.5

LTE Band 26, CB: 10MHz			
Temperature (°C)	**Voltage (dc)**	**Frequency Drift (ppm)**	**Limit (ppm)**
55	3.9	0.008	2.5
50	3.9	0.007	2.5
40	3.9	0.007	2.5
30	3.9	0.005	2.5
20	3.9	0.005	2.5
10	3.9	-0.001	2.5
0	3.9	-0.002	2.5
-10	3.9	-0.005	2.5
-20	3.9	-0.006	2.5
-30	3.9	-0.011	2.5
20	4.29	0.006	2.5
20	3.51	0.005	2.5

LTE Band 26, CB: 15MHz			
Temperature (°C)	**Voltage (dc)**	**Frequency Drift (ppm)**	**Limit (ppm)**
55	3.9	0.011	2.5
50	3.9	0.006	2.5
40	3.9	0.007	2.5
30	3.9	0.004	2.5
20	3.9	0.006	2.5
10	3.9	0.001	2.5
0	3.9	-0.002	2.5
-10	3.9	-0.006	2.5
-20	3.9	-0.007	2.5
-30	3.9	-0.010	2.5
20	4.29	0.005	2.5
20	3.51	0.005	2.5

4 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corp, it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan Hsiang. Location map can be found on our website http://www.icertifi.com.tw.

Linkou	**Kwei Shan**	**Kwei Shan Site II**
Tel: 886-2-2601-1640	Tel: 886-3-271-8666	Tel: 886-3-271-8640
No. 30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City, Taiwan, R.O.C.	No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan Hsiang, Tao Yuan Hsien 333, Taiwan, R.O.C.	No. 14-1, Lane 19, Wen San 3rd St., Kwei Shan Hsiang, Tao Yuan Hsien 333, Taiwan, R.O.C.

If you have any suggestion, please feel free to contact us as below information

Tel: 886-3-271-8666
Fax: 886-3-318-0155
Email: ICC_Service@icertifi.com.tw

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