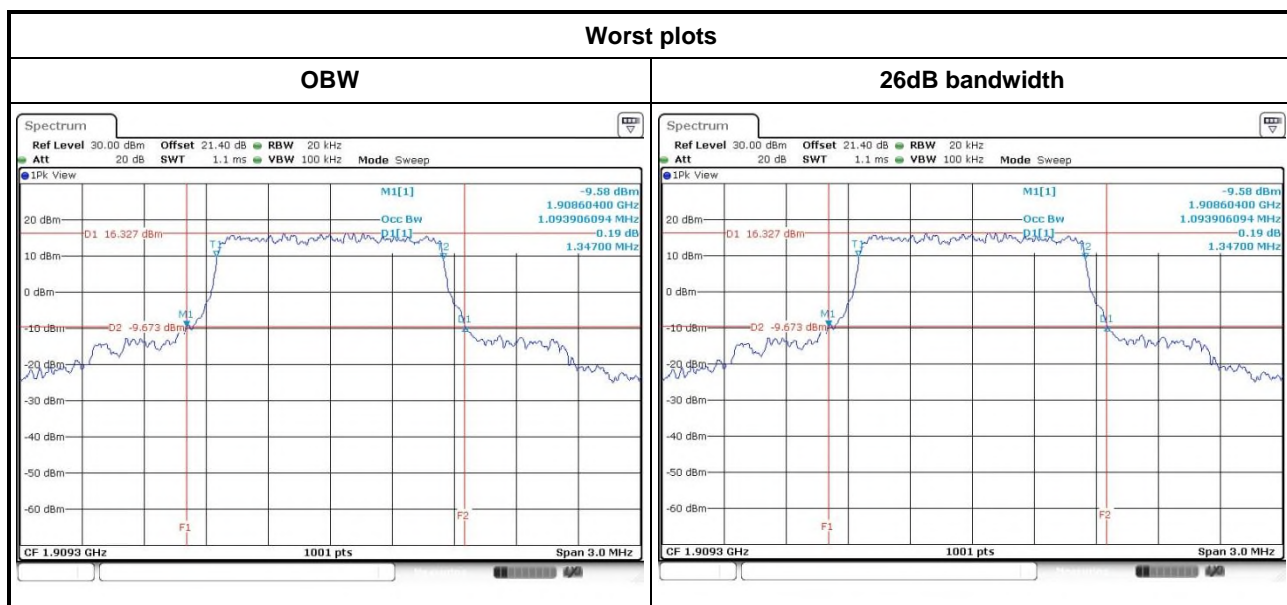


Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	26dB BW (MHz)	99% OBW (MHz)
LTE Band 2	1.4	QPSK	18607	1850.7	1.3170	1.0909
LTE Band 2	1.4	QPSK	18900	1880.0	1.3140	1.0879
LTE Band 2	1.4	QPSK	19193	1909.3	1.3470	1.0939
LTE Band 2	1.4	16QAM	18607	1850.7	1.3320	1.0879
LTE Band 2	1.4	16QAM	18900	1880.0	1.3200	1.0879
LTE Band 2	1.4	16QAM	19193	1909.3	1.3440	1.0879



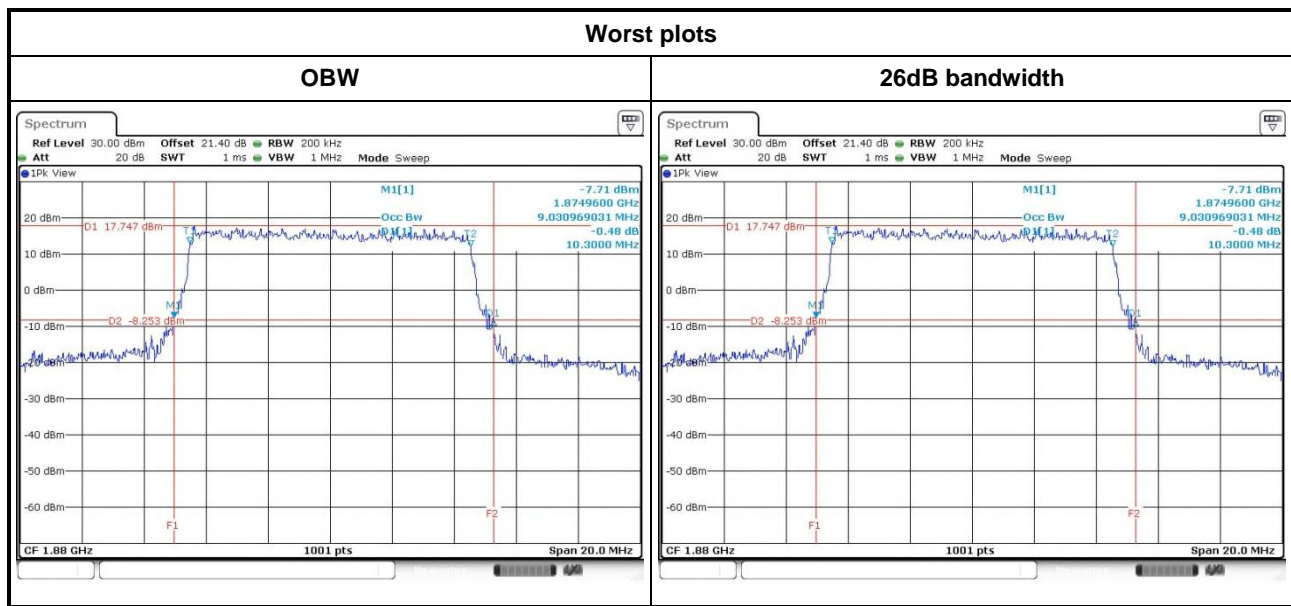
Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	26dB BW (MHz)	99% OBW (MHz)
LTE Band 2	3	QPSK	18615	1851.5	2.9700	2.6913
LTE Band 2	3	QPSK	18900	1880.0	2.9760	2.6853
LTE Band 2	3	QPSK	19185	1908.5	2.9700	2.6913
LTE Band 2	3	16QAM	18615	1851.5	3.0600	2.6913
LTE Band 2	3	16QAM	18900	1880.0	2.9800	2.6973
LTE Band 2	3	16QAM	19185	1908.5	2.9820	2.6913



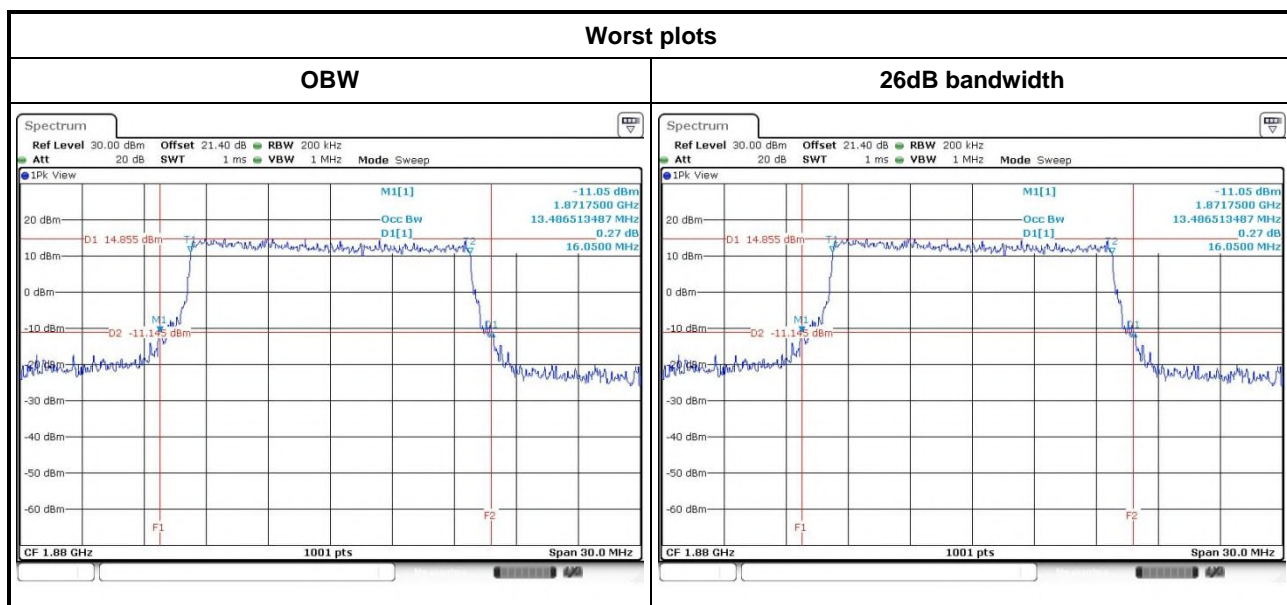
Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	26dB BW (MHz)	99% OBW (MHz)
LTE Band 2	5	QPSK	18625	1852.5	5.0500	4.4955
LTE Band 2	5	QPSK	18900	1880.0	5.0300	4.4955
LTE Band 2	5	QPSK	19175	1907.5	4.9900	4.4955
LTE Band 2	5	16QAM	18625	1852.5	5.0000	4.4955
LTE Band 2	5	16QAM	18900	1880.0	5.0300	4.4955
LTE Band 2	5	16QAM	19175	1907.5	5.0100	4.4955



Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	26dB BW (MHz)	99% OBW (MHz)
LTE Band 2	10	QPSK	18650	1855.0	10.0400	9.0109
LTE Band 2	10	QPSK	18900	1880.0	10.3000	9.0309
LTE Band 2	10	QPSK	19150	1905.0	10.3000	9.0109
LTE Band 2	10	16QAM	18650	1855.0	10.1400	8.9910
LTE Band 2	10	16QAM	18900	1880.0	10.1800	8.9910
LTE Band 2	10	16QAM	19150	1905.0	10.0400	9.0109



Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	26dB BW (MHz)	99% OBW (MHz)
LTE Band 2	15	QPSK	18675	1857.5	15.1500	13.4565
LTE Band 2	15	QPSK	18900	1880.0	15.4200	13.4565
LTE Band 2	15	QPSK	19125	1902.5	15.1500	13.3666
LTE Band 2	15	16QAM	18675	1857.5	15.1800	13.4565
LTE Band 2	15	16QAM	18900	1880.0	16.0500	13.4865
LTE Band 2	15	16QAM	19125	1902.5	15.1800	13.4265



Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	26dB BW (MHz)	99% OBW (MHz)
LTE Band 2	20	QPSK	18700	1860.0	20.0000	17.8621
LTE Band 2	20	QPSK	18900	1880.0	20.6000	18.0219
LTE Band 2	20	QPSK	19100	1900.0	19.9600	17.9020
LTE Band 2	20	16QAM	18700	1860.0	20.0400	17.9020
LTE Band 2	20	16QAM	18900	1880.0	20.3600	18.0220
LTE Band 2	20	16QAM	19100	1900.0	20.1600	17.8621



3.6 Peak to Average Ratio

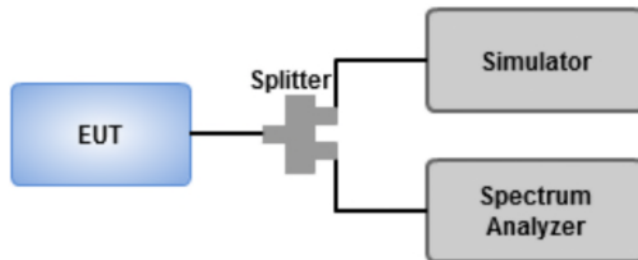
3.6.1 Limit of Peak to Average Ratio

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

3.6.2 Test Procedures

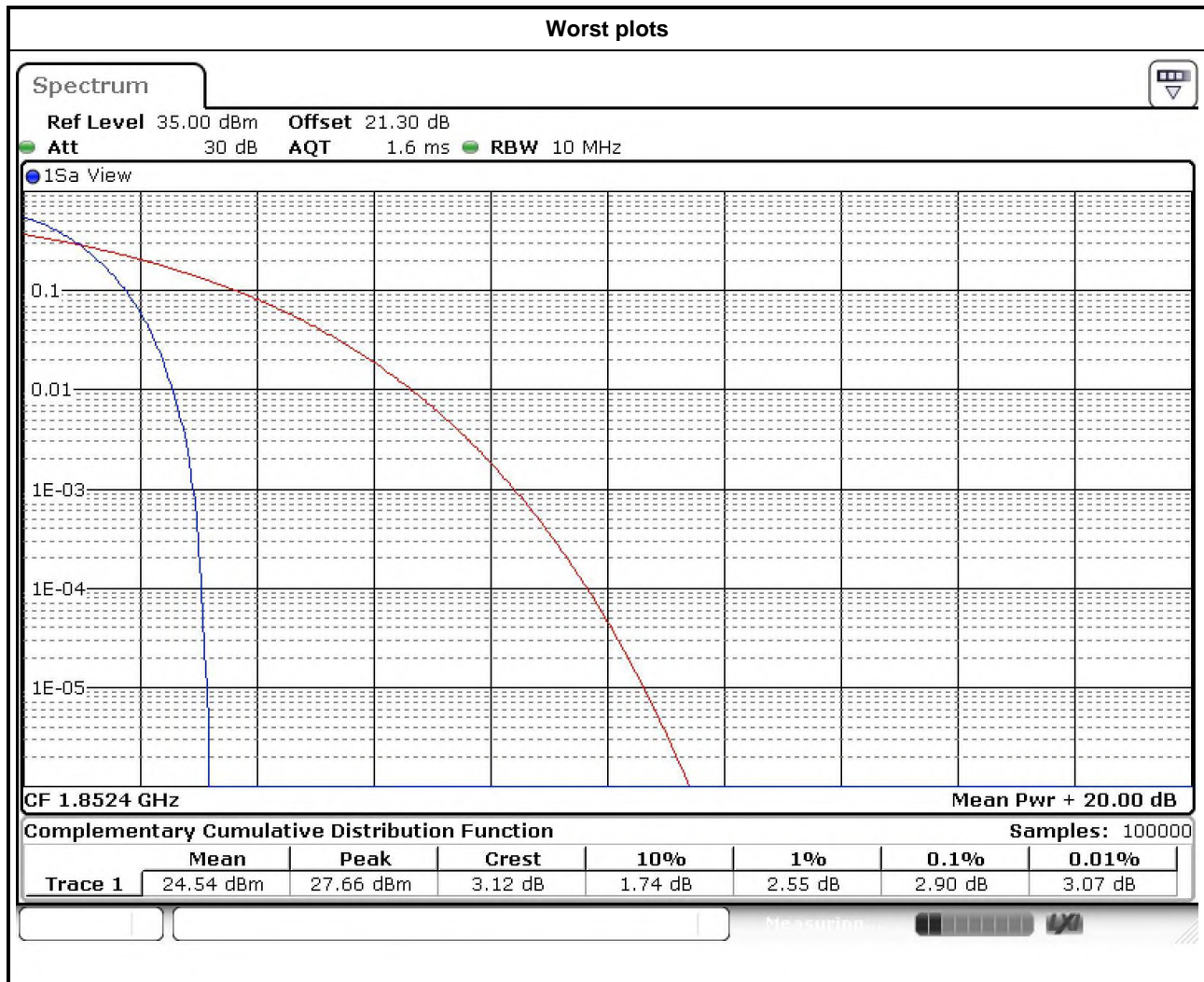
1. Enable CCDF function of spectrum analyzer and set RBW = 10MHz.
2. Set the number of counts to a value that stabilizes the measured CCDF curve.
3. Record the maximum PAPR level associated with a probability of 0.1%.

3.6.3 Test Setup

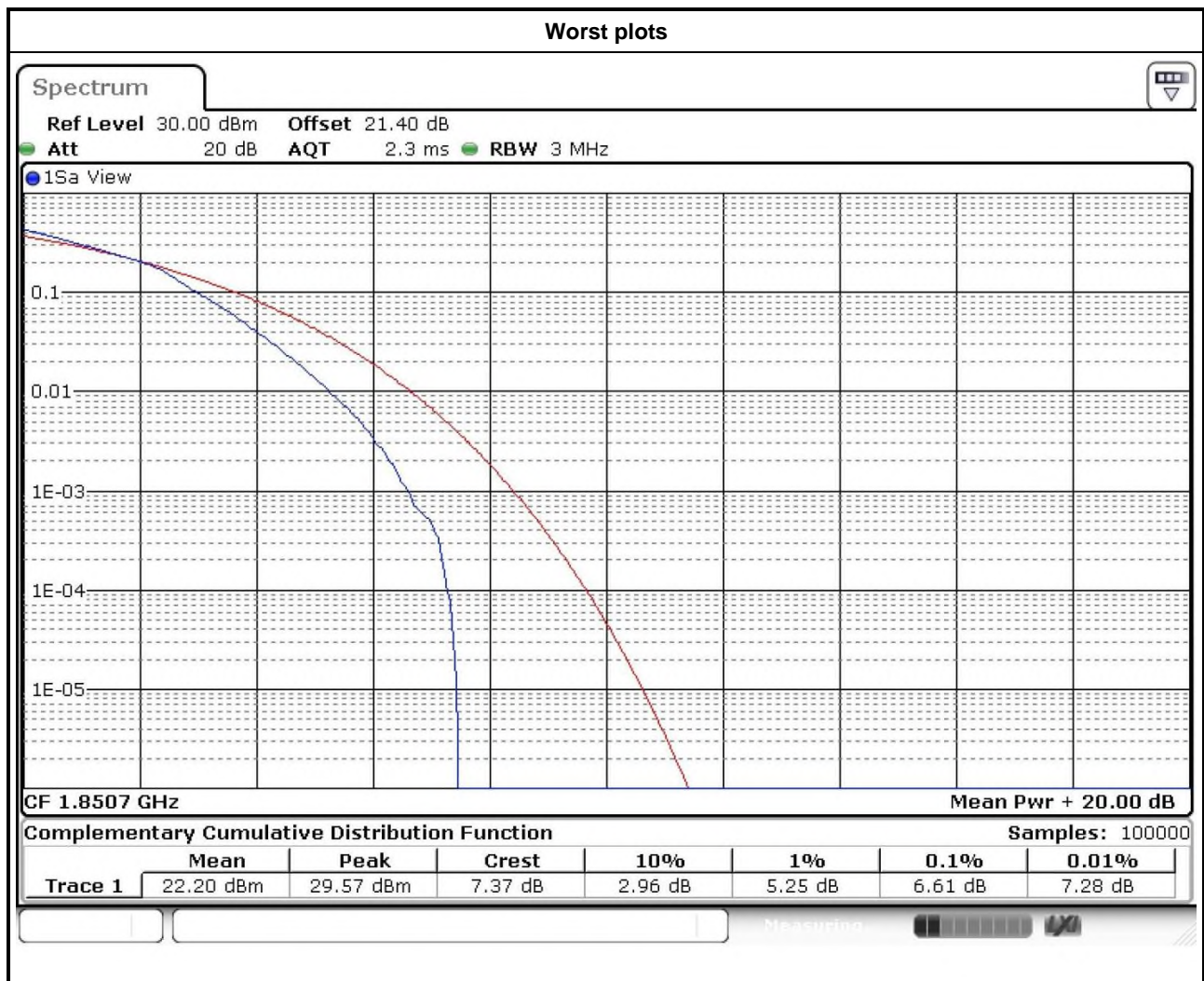


3.6.4 Test Result of Peak to Average ratio

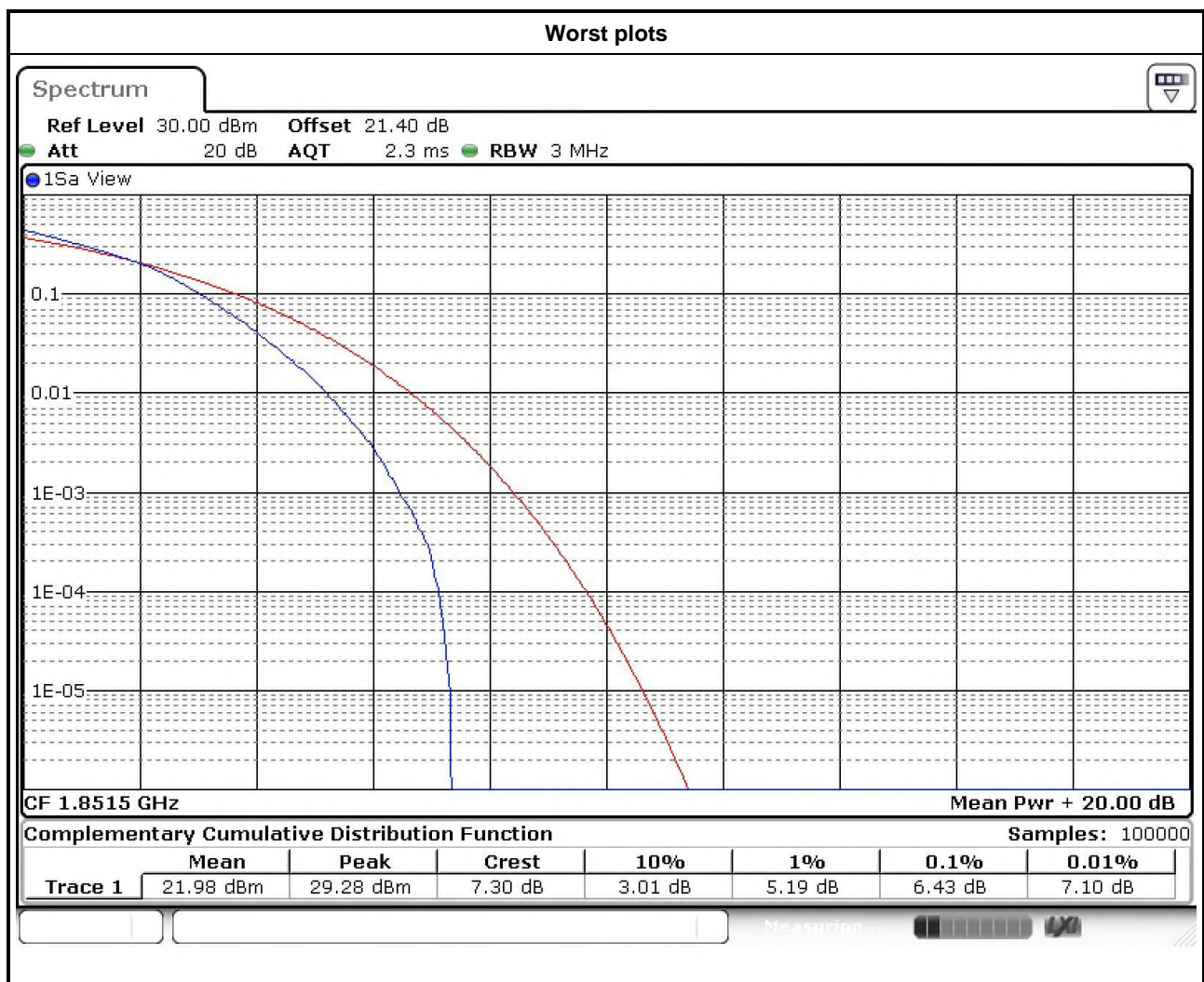
MODE	Channel	Frequency (MHz)	Peak to Average ratio (dB)
WCDMA BAND 2	9262	1852.4	2.90
WCDMA BAND 2	9400	1880.0	1.88
WCDMA BAND 2	9538	1907.6	2.38



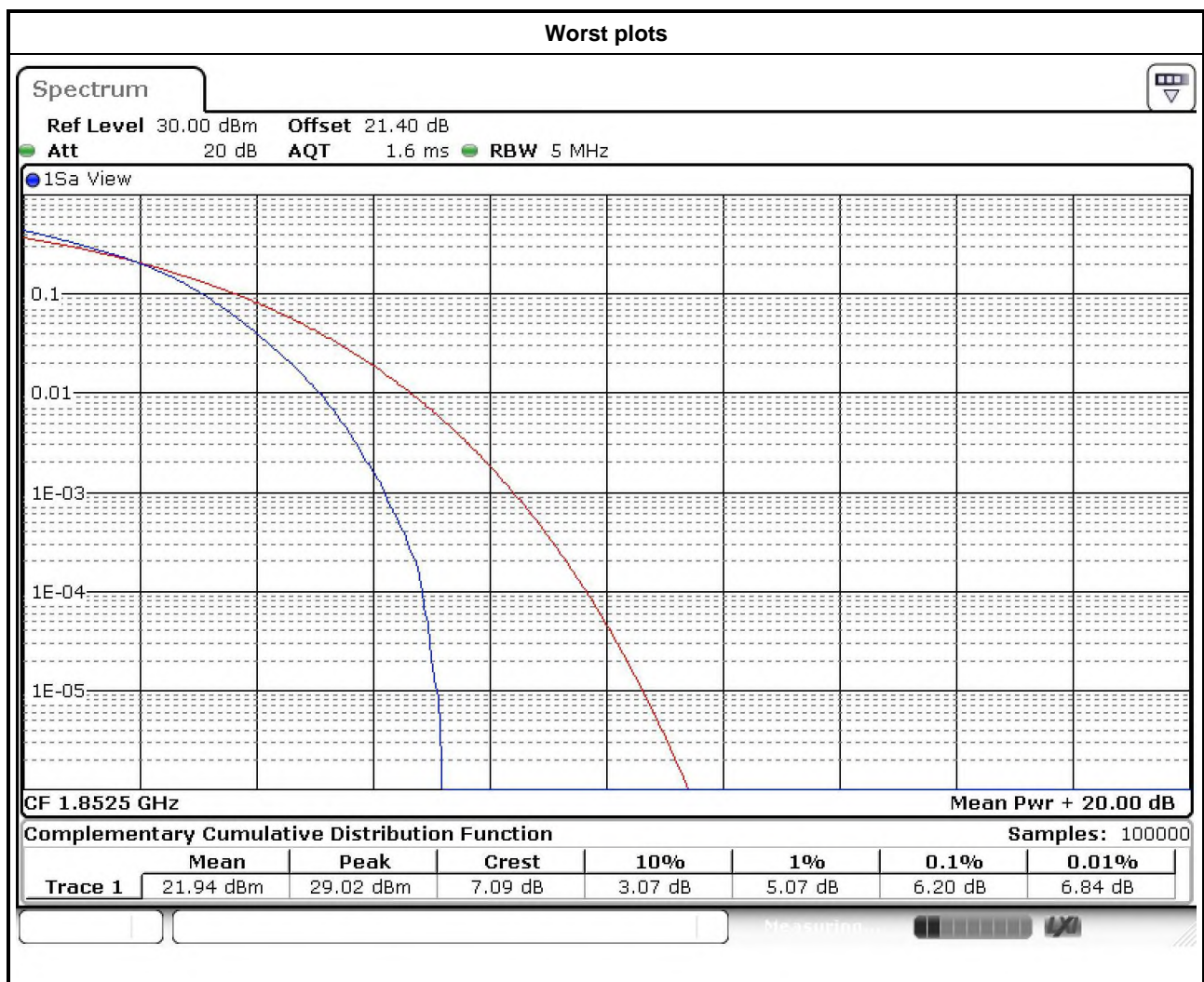
Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	Peak to Average ratio (dB)
LTE Band 2	1.4	QPSK	18607	1850.7	5.86
LTE Band 2	1.4	QPSK	18900	1880.0	4.96
LTE Band 2	1.4	QPSK	19193	1909.3	5.39
LTE Band 2	1.4	16QAM	18607	1850.7	6.61
LTE Band 2	1.4	16QAM	18900	1880.0	5.65
LTE Band 2	1.4	16QAM	19193	1909.3	6.26



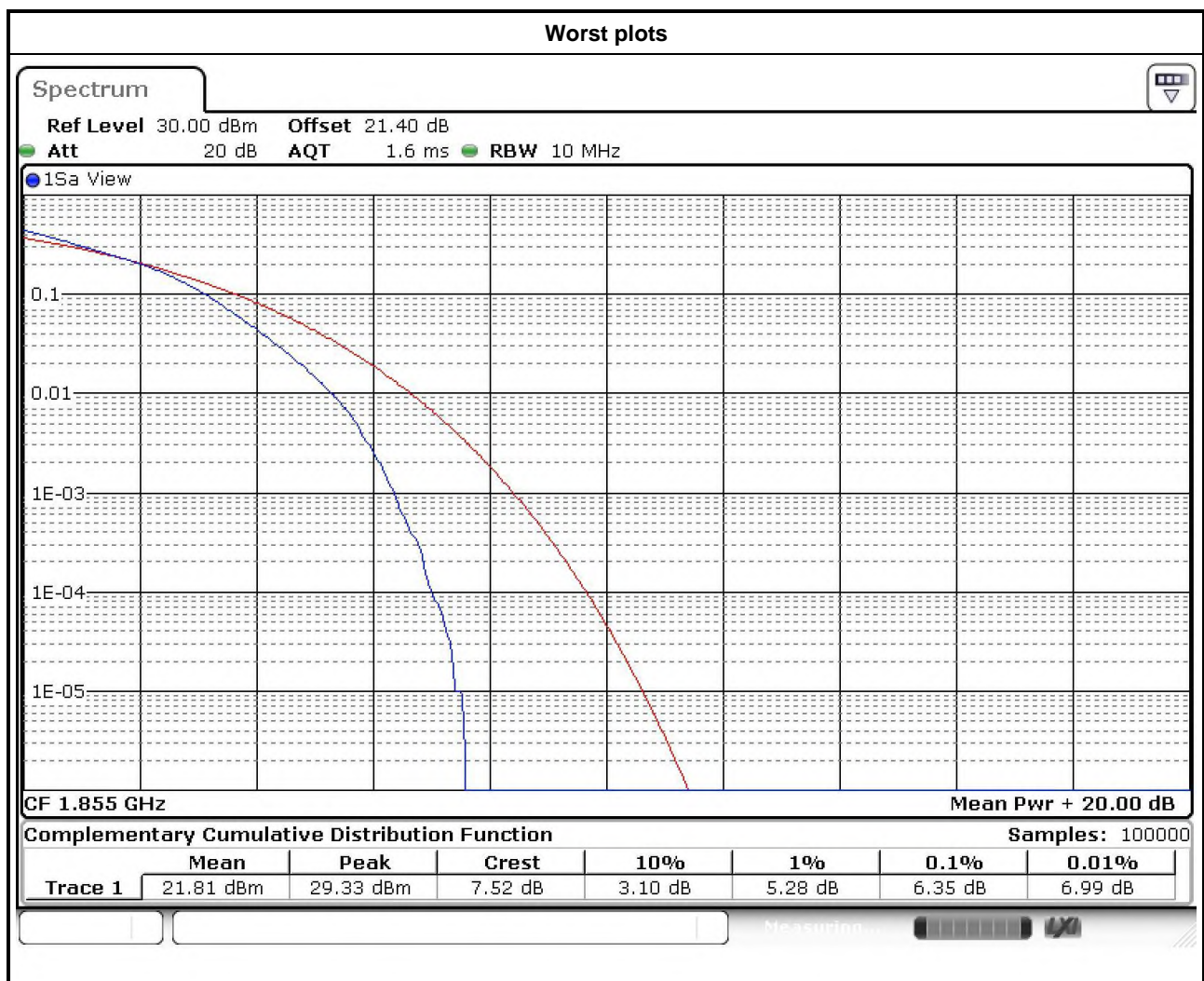
Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	Peak to Average ratio (dB)
LTE Band 2	3	QPSK	18615	1851.5	5.54
LTE Band 2	3	QPSK	18900	1880.0	4.81
LTE Band 2	3	QPSK	19185	1908.5	5.25
LTE Band 2	3	16QAM	18615	1851.5	6.43
LTE Band 2	3	16QAM	18900	1880.0	5.74
LTE Band 2	3	16QAM	19185	1908.5	6.26



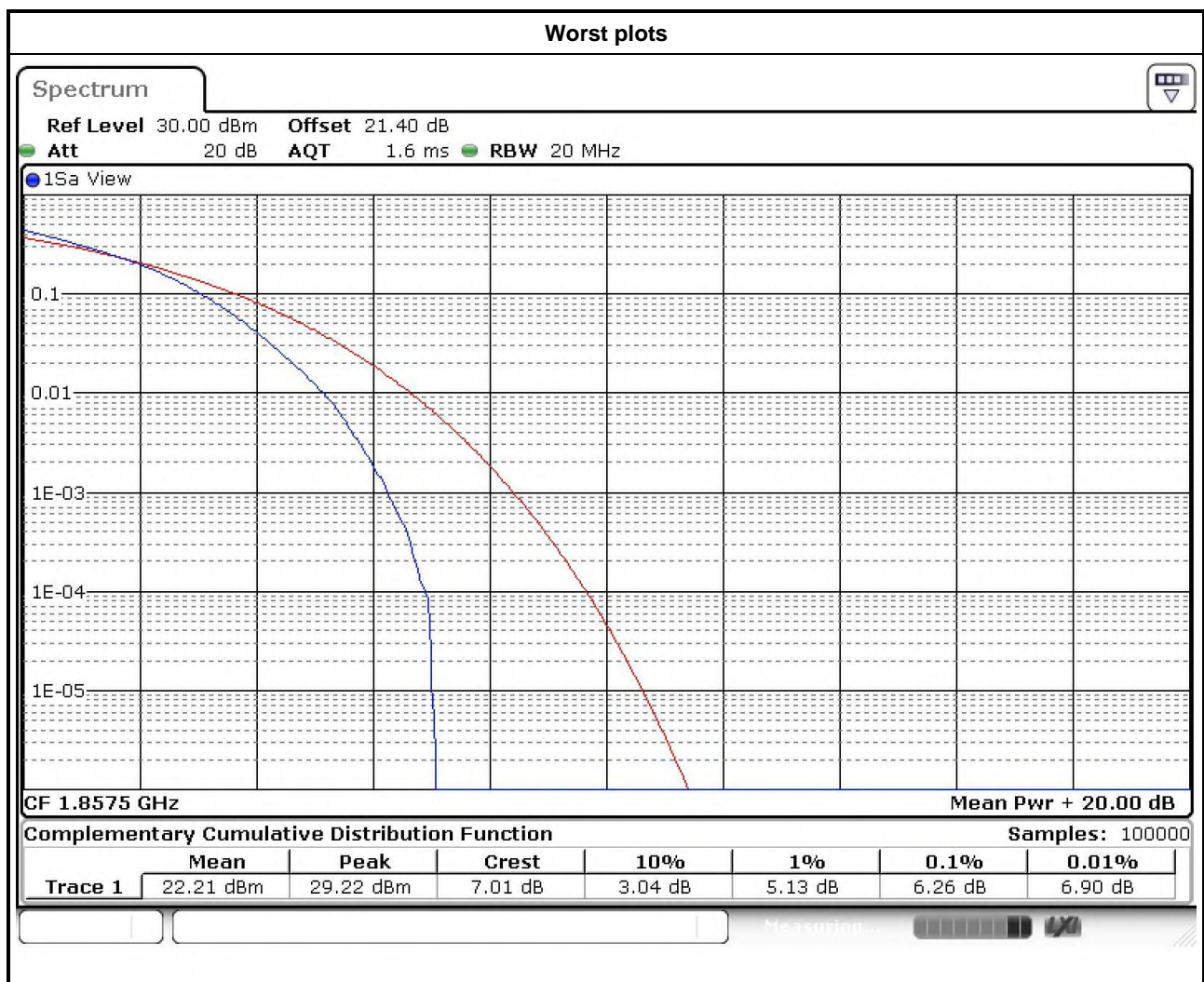
Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	Peak to Average ratio (dB)
LTE Band 2	5	QPSK	18625	1852.5	5.57
LTE Band 2	5	QPSK	18900	1880.0	4.81
LTE Band 2	5	QPSK	19175	1907.5	5.13
LTE Band 2	5	16QAM	18625	1852.5	6.20
LTE Band 2	5	16QAM	18900	1880.0	5.71
LTE Band 2	5	16QAM	19175	1907.5	5.80



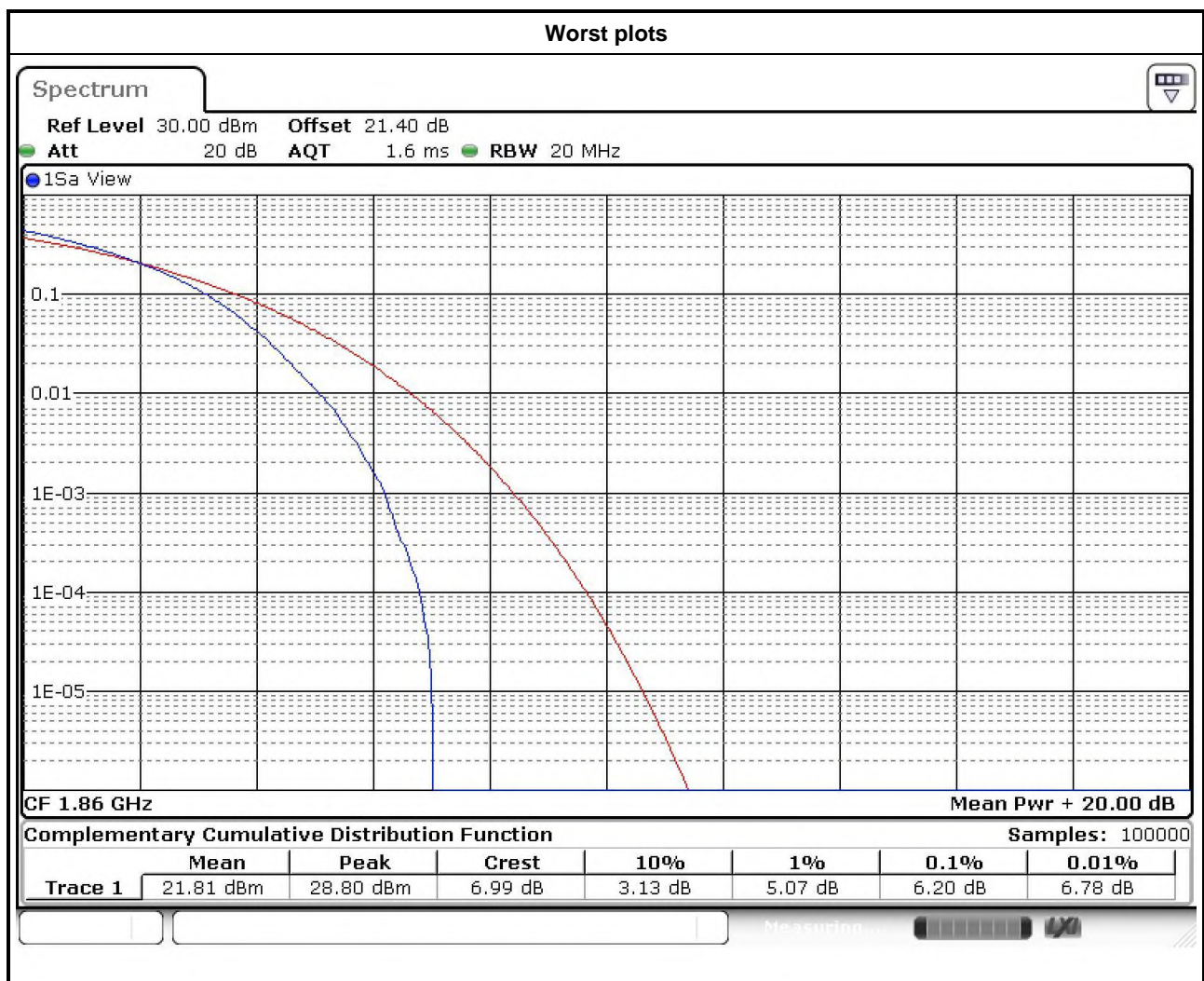
Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	Peak to Average ratio (dB)
LTE Band 2	10	QPSK	18650	1855.0	5.33
LTE Band 2	10	QPSK	18900	1880.0	4.84
LTE Band 2	10	QPSK	19150	1905.0	5.07
LTE Band 2	10	16QAM	18650	1855.0	6.35
LTE Band 2	10	16QAM	18900	1880.0	5.62
LTE Band 2	10	16QAM	19150	1905.0	5.86



Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	Peak to Average ratio (dB)
LTE Band 2	15	QPSK	18675	1857.5	5.57
LTE Band 2	15	QPSK	18900	1880.0	4.87
LTE Band 2	15	QPSK	19125	1902.5	5.13
LTE Band 2	15	16QAM	18675	1857.5	6.26
LTE Band 2	15	16QAM	18900	1880.0	5.68
LTE Band 2	15	16QAM	19125	1902.5	6.03



Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	Peak to Average ratio (dB)
LTE Band 2	20	QPSK	18700	1860.0	5.22
LTE Band 2	20	QPSK	18900	1880.0	5.04
LTE Band 2	20	QPSK	19100	1900.0	5.04
LTE Band 2	20	16QAM	18700	1860.0	6.20
LTE Band 2	20	16QAM	18900	1880.0	5.91
LTE Band 2	20	16QAM	19100	1900.0	6.14



3.7 Frequency Stability

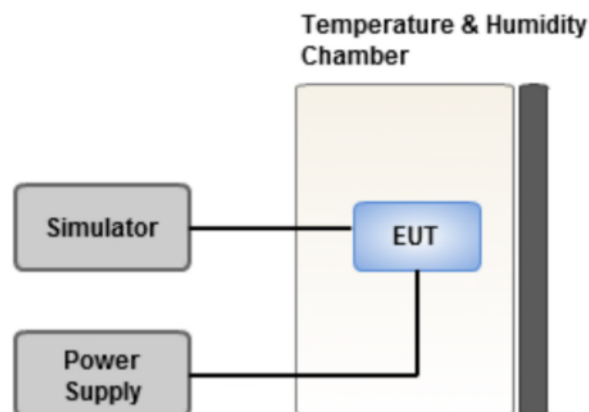
3.7.1 Limit of Frequency Stability

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

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. Tem 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

WCDMA Band 2			
Temperature (°C)	Voltage (dc)	Frequency Drift (ppm)	Limit (ppm)
55	3.7	0.011	2.5
50	3.7	0.014	2.5
40	3.7	0.013	2.5
30	3.7	0.015	2.5
20	3.7	0.013	2.5
10	3.7	0.014	2.5
0	3.7	0.012	2.5
-10	3.7	0.012	2.5
-20	3.7	0.014	2.5
-30	3.7	0.013	2.5
20	4.5	0.013	2.5
20	3.2	0.012	2.5

LTE Band 2, CB: 1.4MHz			
Temperature (°C)	Voltage (dc)	Frequency Drift (ppm)	Limit (ppm)
55	3.7	0.011	2.5
50	3.7	0.014	2.5
40	3.7	0.015	2.5
30	3.7	0.016	2.5
20	3.7	0.012	2.5
10	3.7	0.014	2.5
0	3.7	0.015	2.5
-10	3.7	0.011	2.5
-20	3.7	0.012	2.5
-30	3.7	0.013	2.5
20	4.5	0.014	2.5
20	3.2	0.012	2.5

LTE Band 2, CB: 3MHz			
Temperature (°C)	Voltage (dc)	Frequency Drift (ppm)	Limit (ppm)
55	3.7	0.012	2.5
50	3.7	0.013	2.5
40	3.7	0.014	2.5
30	3.7	0.012	2.5
20	3.7	0.013	2.5
10	3.7	0.014	2.5
0	3.7	0.015	2.5
-10	3.7	0.013	2.5
-20	3.7	0.012	2.5
-30	3.7	0.015	2.5
20	4.5	0.013	2.5
20	3.2	0.012	2.5

LTE Band 2, CB: 5MHz			
Temperature (°C)	Voltage (dc)	Frequency Drift (ppm)	Limit (ppm)
55	3.7	0.012	2.5
50	3.7	0.014	2.5
40	3.7	0.013	2.5
30	3.7	0.013	2.5
20	3.7	0.012	2.5
10	3.7	0.011	2.5
0	3.7	0.014	2.5
-10	3.7	0.014	2.5
-20	3.7	0.012	2.5
-30	3.7	0.013	2.5
20	4.5	0.012	2.5
20	3.2	0.011	2.5

LTE Band 2, CB: 10MHz			
Temperature (°C)	Voltage (dc)	Frequency Drift (ppm)	Limit (ppm)
55	3.7	0.012	2.5
50	3.7	0.011	2.5
40	3.7	0.010	2.5
30	3.7	0.013	2.5
20	3.7	0.012	2.5
10	3.7	0.012	2.5
0	3.7	0.011	2.5
-10	3.7	0.010	2.5
-20	3.7	0.013	2.5
-30	3.7	0.011	2.5
20	4.5	0.013	2.5
20	3.2	0.011	2.5

LTE Band 2, CB: 15MHz			
Temperature (°C)	Voltage (dc)	Frequency Drift (ppm)	Limit (ppm)
55	3.7	0.012	2.5
50	3.7	0.013	2.5
40	3.7	0.012	2.5
30	3.7	0.015	2.5
20	3.7	0.014	2.5
10	3.7	0.011	2.5
0	3.7	0.013	2.5
-10	3.7	0.012	2.5
-20	3.7	0.013	2.5
-30	3.7	0.014	2.5
20	4.5	0.012	2.5
20	3.2	0.013	2.5

LTE Band 2, CB: 20MHz			
Temperature (°C)	Voltage (dc)	Frequency Drift (ppm)	Limit (ppm)
55	3.7	0.014	2.5
50	3.7	0.013	2.5
40	3.7	0.011	2.5
30	3.7	0.012	2.5
20	3.7	0.015	2.5
10	3.7	0.015	2.5
0	3.7	0.014	2.5
-10	3.7	0.014	2.5
-20	3.7	0.014	2.5
-30	3.7	0.012	2.5
20	4.5	0.013	2.5
20	3.2	0.012	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

Tel: 886-2-2601-1640

No. 30-2, Ding Fwu Tsuen, Lin Kou
District, New Taipei City, Taiwan,
R.O.C.

Kwei Shan

Tel: 886-3-271-8666

No. 3-1, Lane 6, Wen San 3rd
St., Kwei Shan Hsiang, Tao
Yuan Hsien 333, Taiwan, R.O.C.

Kwei Shan Site II

Tel: 886-3-271-8640

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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