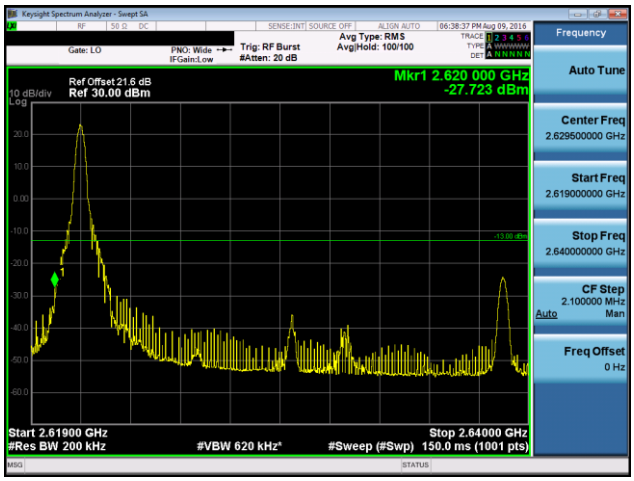
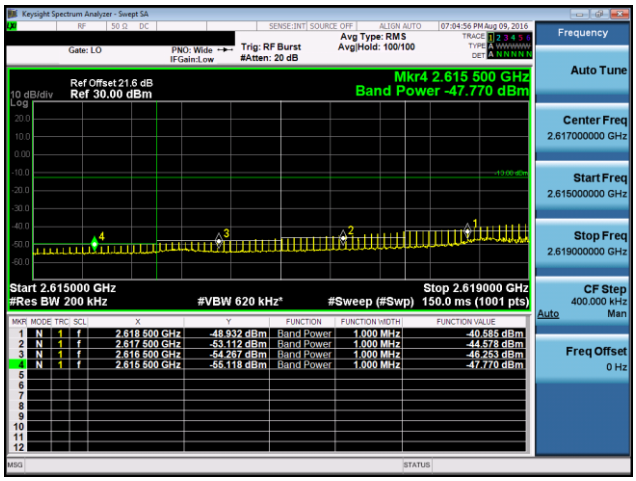
CB: 20MHz

Mode	CB: 20MHz, QPSK

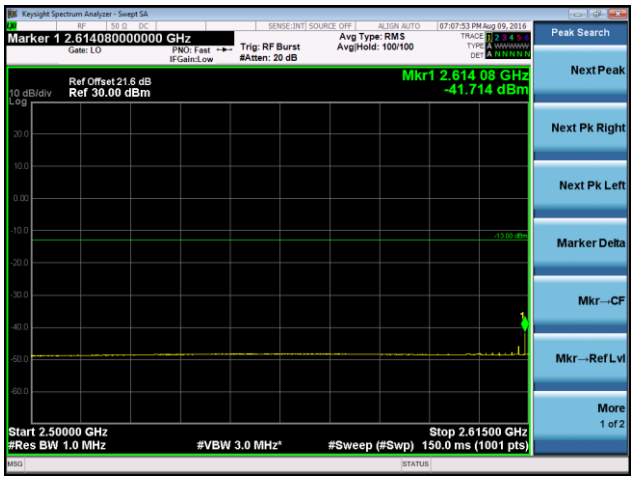
Low Channel, 1RB-1



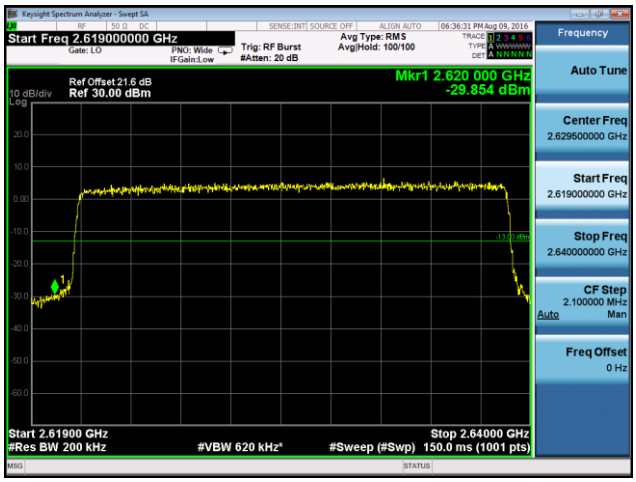
Low Channel, 1RB-2



Low Channel, 1RB-3

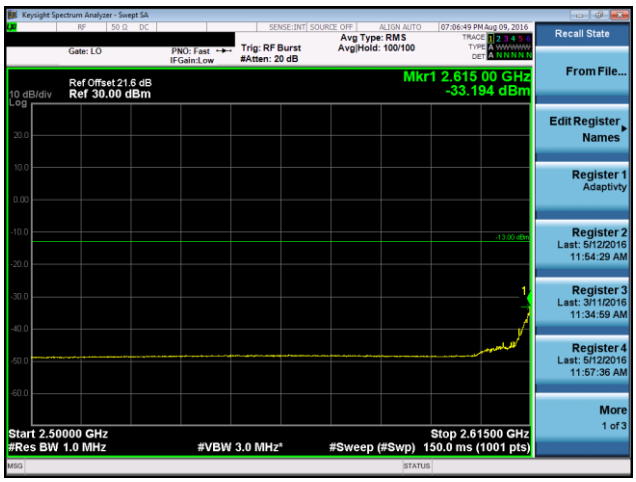


Low Channel, 100%RB-1



Low Channel, 100%RB-2

Low Channel, 100%RB-3

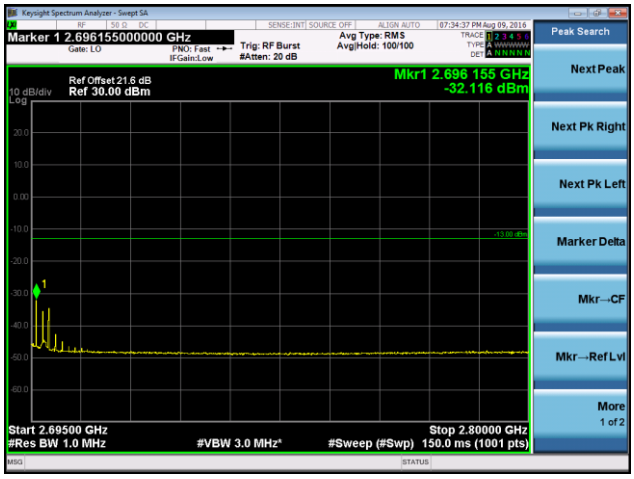


Mode	CB: 20MHz, QPSK

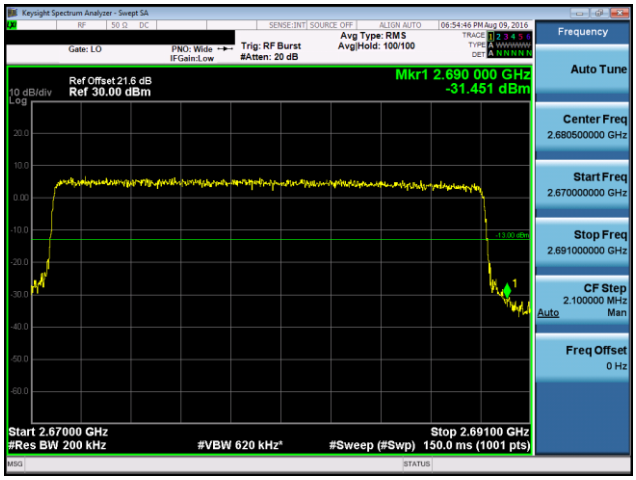
High Channel, 1RB-1

High Channel, 1RB-2

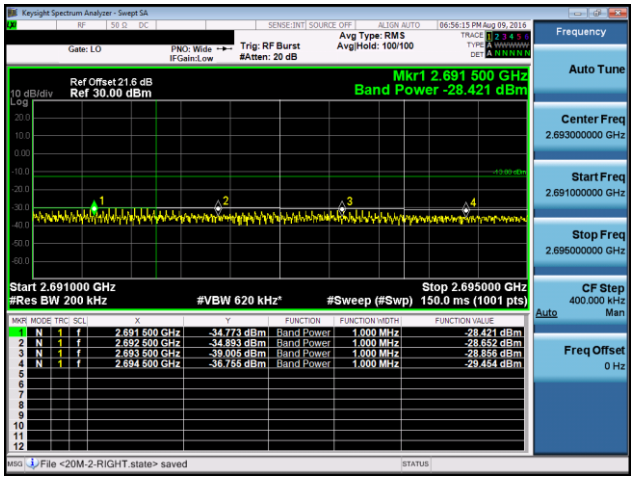
High Channel, 1RB-3



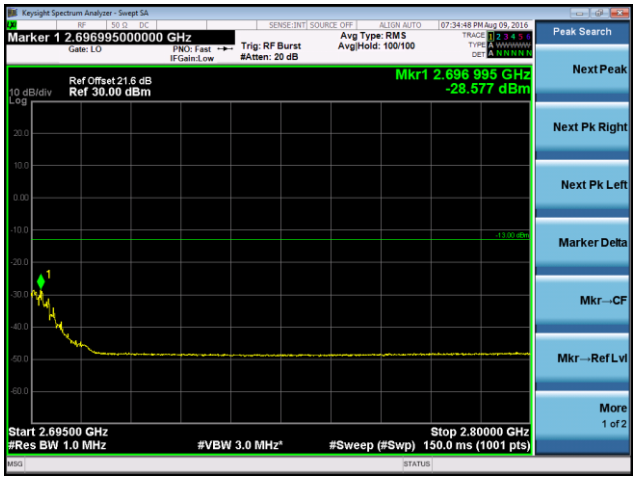
High Channel, 100%RB-1



High Channel, 100%RB-2

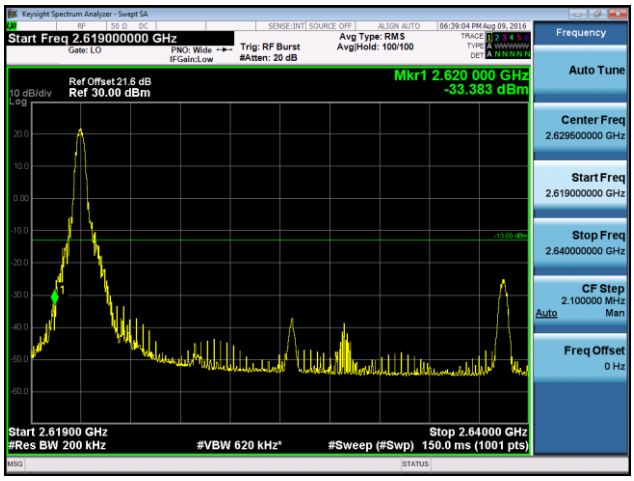


High Channel, 100%RB-3



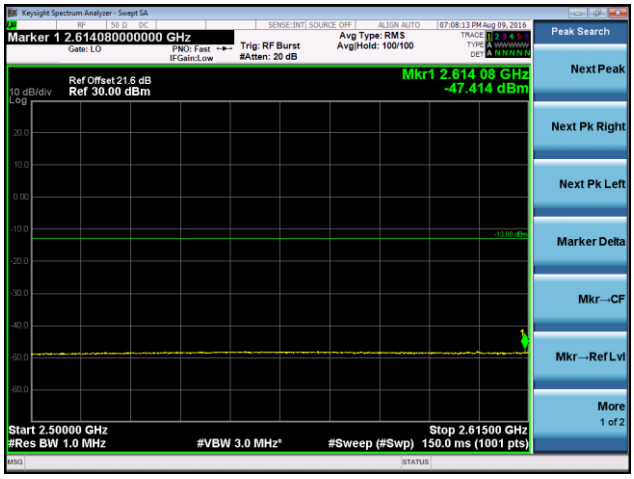
Mode	CB: 20MHz, 16QAM

Low Channel, 1RB-1

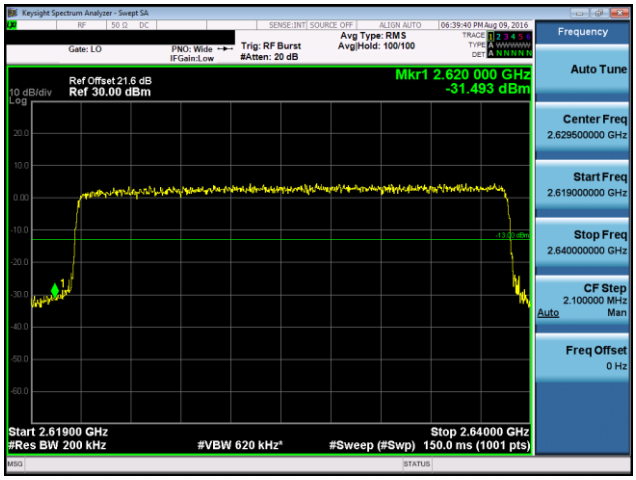


Low Channel, 1RB-2

Low Channel, 1RB-3



Low Channel, 100%RB-1

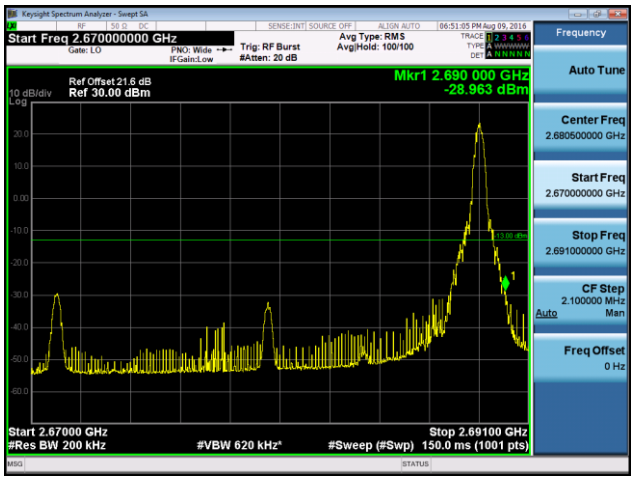


Low Channel, 100%RB-2

Low Channel, 100%RB-3

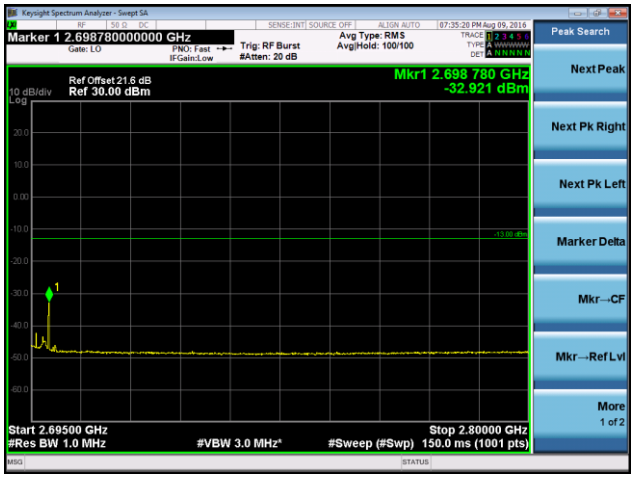
Mode	CB: 20MHz, 16QAM

High Channel, 1RB-1



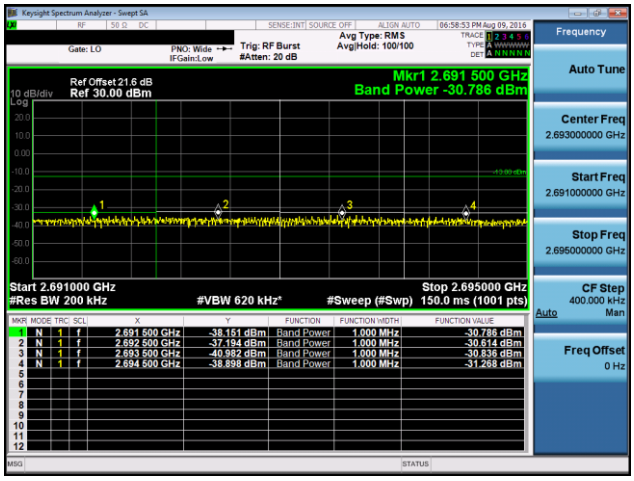
High Channel, 1RB-2

High Channel, 1RB-3



High Channel, 100%RB-1

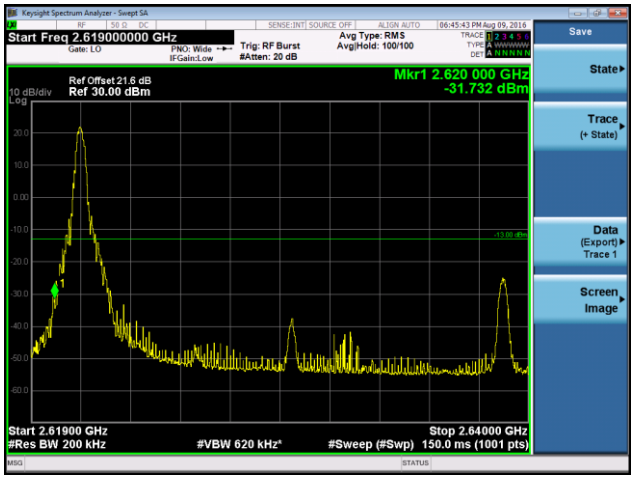
High Channel, 100%RB-2



High Channel, 100%RB-3

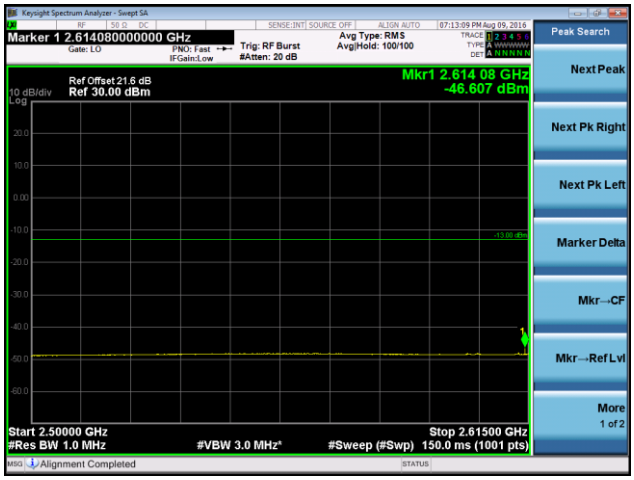
Mode	CB: 20MHz, 64QAM

Low Channel, 1RB-1

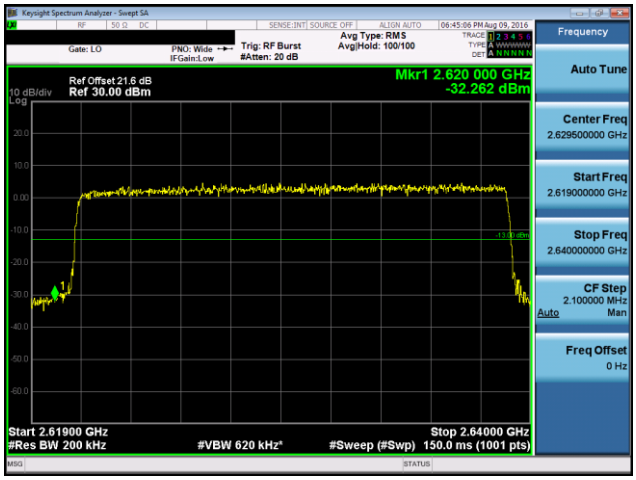


Low Channel, 1RB-2

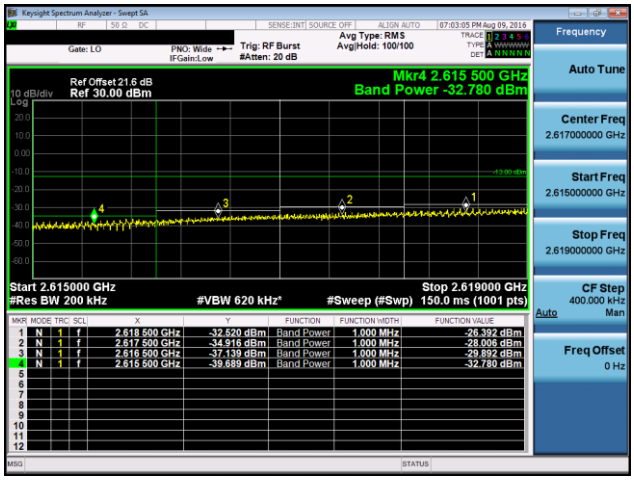
Low Channel, 1RB-3



Low Channel, 100%RB-1



Low Channel, 100%RB-2



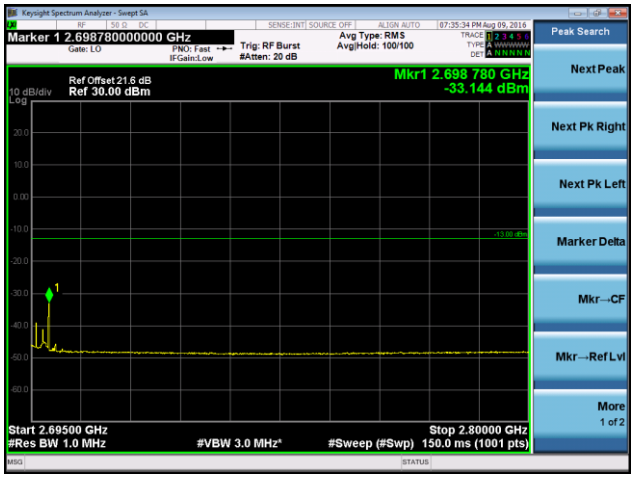
Low Channel, 100%RB-3

Mode	CB: 20MHz, 64QAM

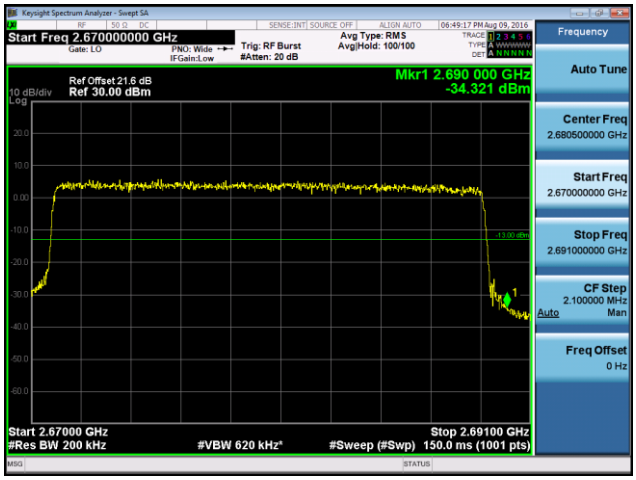
High Channel, 1RB-1

High Channel, 1RB-2

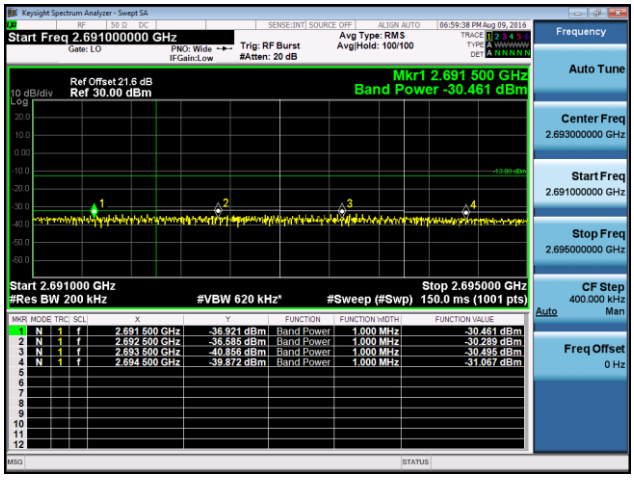
High Channel, 1RB-3



High Channel, 100%RB-1



High Channel, 100%RB-2



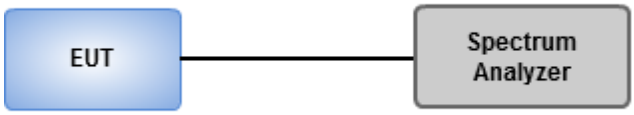
High Channel, 100%RB-3

3.5 Emission and Occupied Bandwidth

3.5.1 Test Procedures

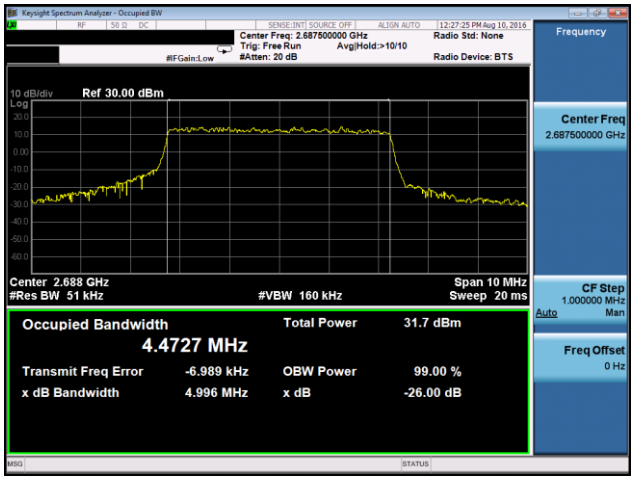
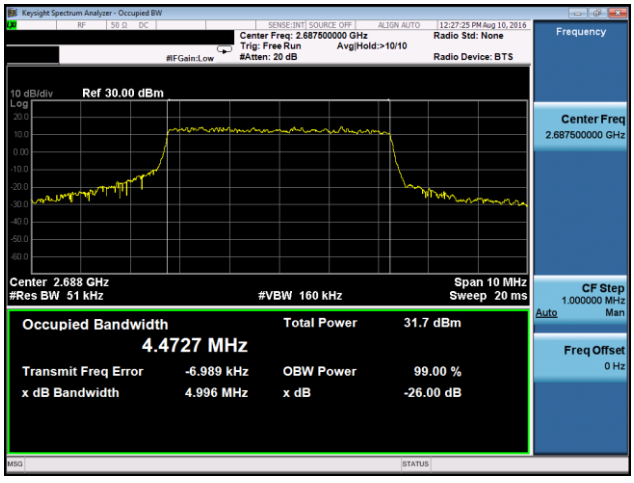
1. Set resolution bandwidth (RBW) = 51~200 kHz, Video bandwidth = 160 ~ 620 kHz for 5 ~ 20 MHz channel bandwidth.
2. Set Detector = Peak, Trace mode = max hold, Sweep = auto couple, Allow the trace to stabilize.
3. Using 26dB and occupied bandwidth measurement function of spectrum analyzer to measure bandwidth.

3.5.2 Test Setup



3.5.3 Test Result of Occupied Bandwidth

Channel Bandwidth (MHz)	Modulation	Frequency (MHz)	26dB BW (MHz)	99% OBW (MHz)
5	QPSK	2622.5	4.873	4.47
5	QPSK	2655.0	4.940	4.47
5	QPSK	2687.5	4.996	4.47
5	16QAM	2622.5	4.852	4.47
5	16QAM	2655.0	4.881	4.47
5	16QAM	2687.5	4.852	4.46
5	64QAM	2622.5	4.850	4.46
5	64QAM	2655.0	4.860	4.46
5	64QAM	2687.5	4.877	4.46

Worst plots	
26dB bandwidth	**OBW**
	

Channel Bandwidth (MHz)	Modulation	Frequency (MHz)	26dB BW (MHz)	99% OBW (MHz)
10	QPSK	2625.0	9.582	8.91
10	QPSK	2655.0	9.637	8.92
10	QPSK	2685.0	9.663	8.91
10	16QAM	2625.0	9.600	8.90
10	16QAM	2655.0	9.710	8.92
10	16QAM	2685.0	9.694	8.92
10	64QAM	2625.0	9.619	8.92
10	64QAM	2655.0	9.820	8.94
10	64QAM	2685.0	9.737	8.92

Worst plots

26dB bandwidth

OBW

Channel Bandwidth (MHz)	Modulation	Frequency (MHz)	26dB BW (MHz)	99% OBW (MHz)
15	QPSK	2627.5	14.58	13.40
15	QPSK	2655.0	14.61	13.42
15	QPSK	2682.5	14.51	13.38
15	16QAM	2627.5	14.52	13.41
15	16QAM	2655.0	14.62	13.43
15	16QAM	2682.5	14.75	13.40
15	64QAM	2627.5	14.54	13.42
15	64QAM	2655.0	14.60	13.41
15	64QAM	2682.5	14.65	13.41

Worst plots	
26dB bandwidth	OBW
	

Channel Bandwidth (MHz)	Modulation	Frequency (MHz)	26dB BW (MHz)	99% OBW (MHz)
20	QPSK	2630.0	19.07	17.83
20	QPSK	2655.0	19.09	17.84
20	QPSK	2680.0	19.16	17.85
20	16QAM	2630.0	19.40	17.82
20	16QAM	2655.0	19.12	17.83
20	16QAM	2680.0	19.18	17.82
20	64QAM	2630.0	19.07	17.82
20	64QAM	2655.0	19.12	17.84
20	64QAM	2680.0	19.15	17.80

Worst plots

26dB bandwidth

OBW

3.6 Frequency Stability

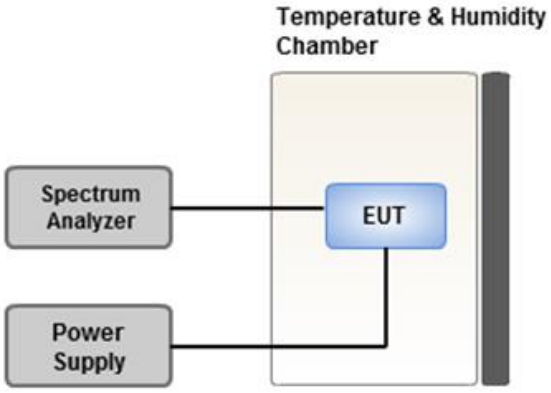
3.6.1 Limit of Frequency Stability

The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation

3.6.2 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 -40~60°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.

3.6.3 Test Setup



3.6.4 Test Result of Frequency Stability

Temperature (°C)	Voltage (ac)	Frequency Drift (ppm)			
		CB: 5MHz	CB: 10MHz	CB: 15MHz	CB: 20MHz
60	120	0.028	0.031	0.034	0.038
50	120	0.029	0.030	0.035	0.037
40	120	0.029	0.029	0.033	0.039
30	120	0.028	0.029	0.035	0.037
20	120	0.027	0.030	0.036	0.038
10	120	0.027	0.031	0.033	0.038
0	120	0.027	0.029	0.034	0.037
-10	120	0.028	0.029	0.033	0.039
-20	120	0.028	0.030	0.035	0.038
-30	120	0.029	0.031	0.035	0.037
-40	120	0.029	0.031	0.034	0.037
20	138	0.028	0.029	0.032	0.037
20	102	0.027	0.030	0.033	0.036

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 (EMC and Wireless Communication Laboratory), 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 District, Tao Yuan City 333, Taiwan, R.O.C.	No. 14-1, Lane 19, Wen San 3rd St., Kwei Shan District, Tao Yuan City 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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