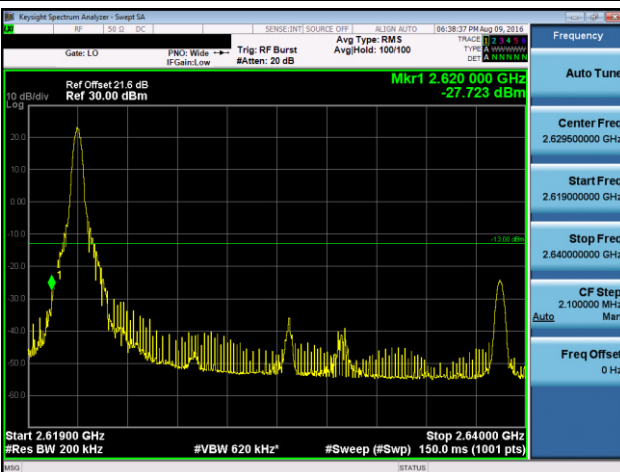
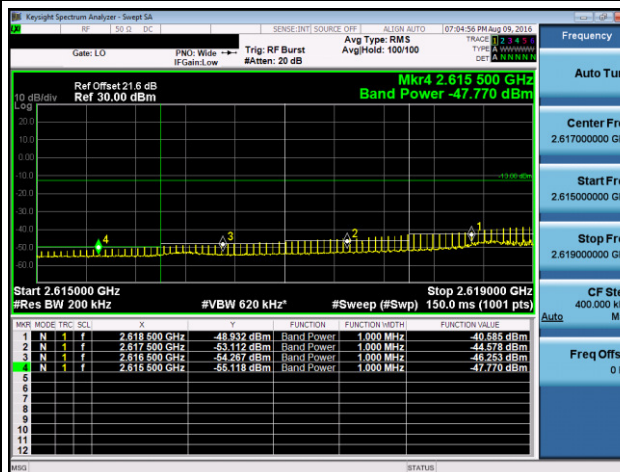

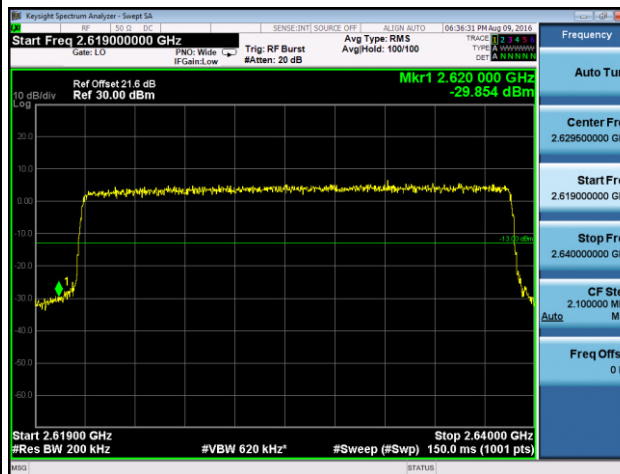
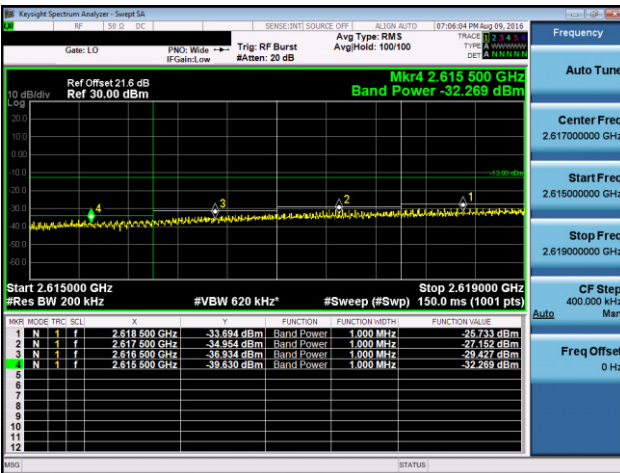

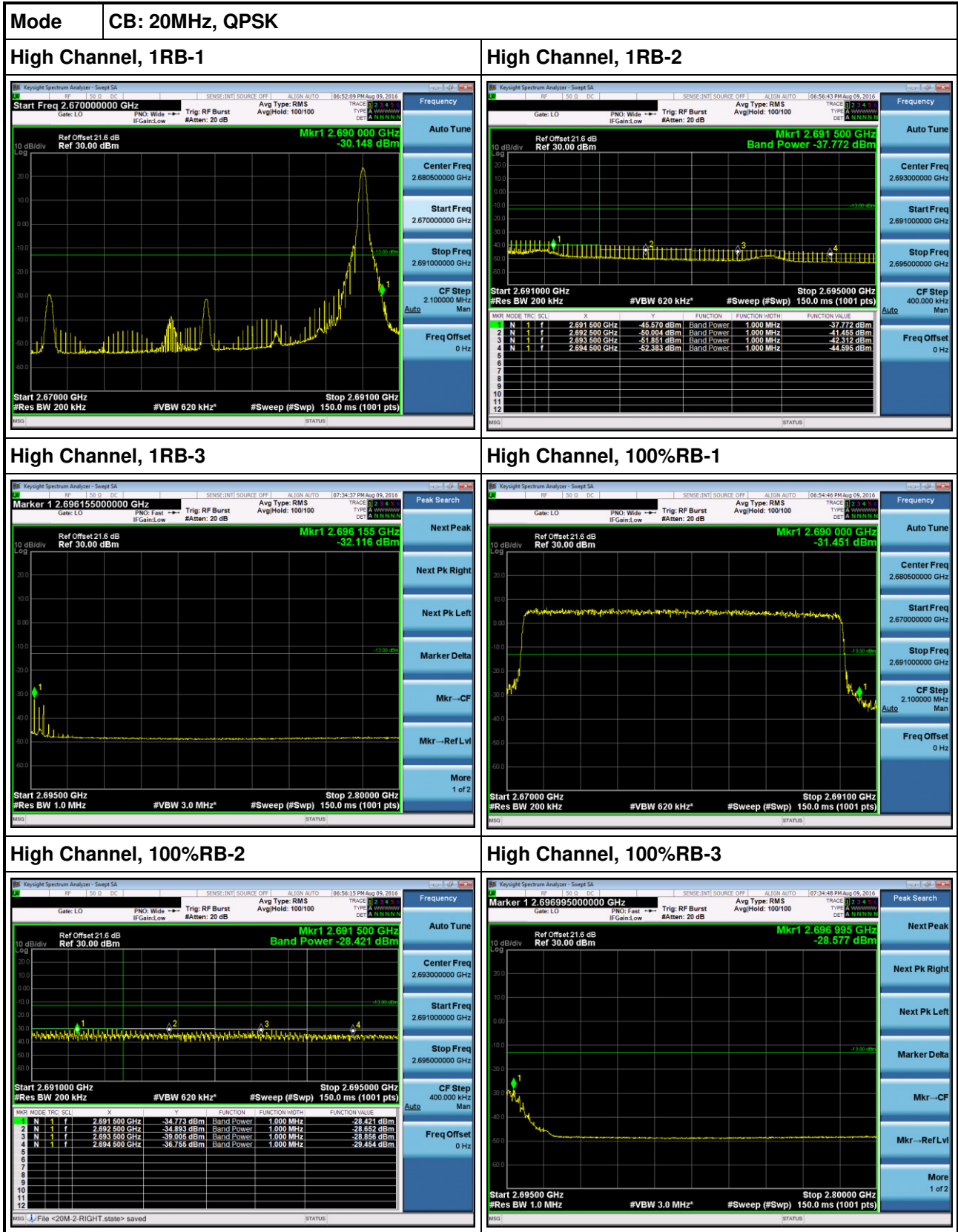
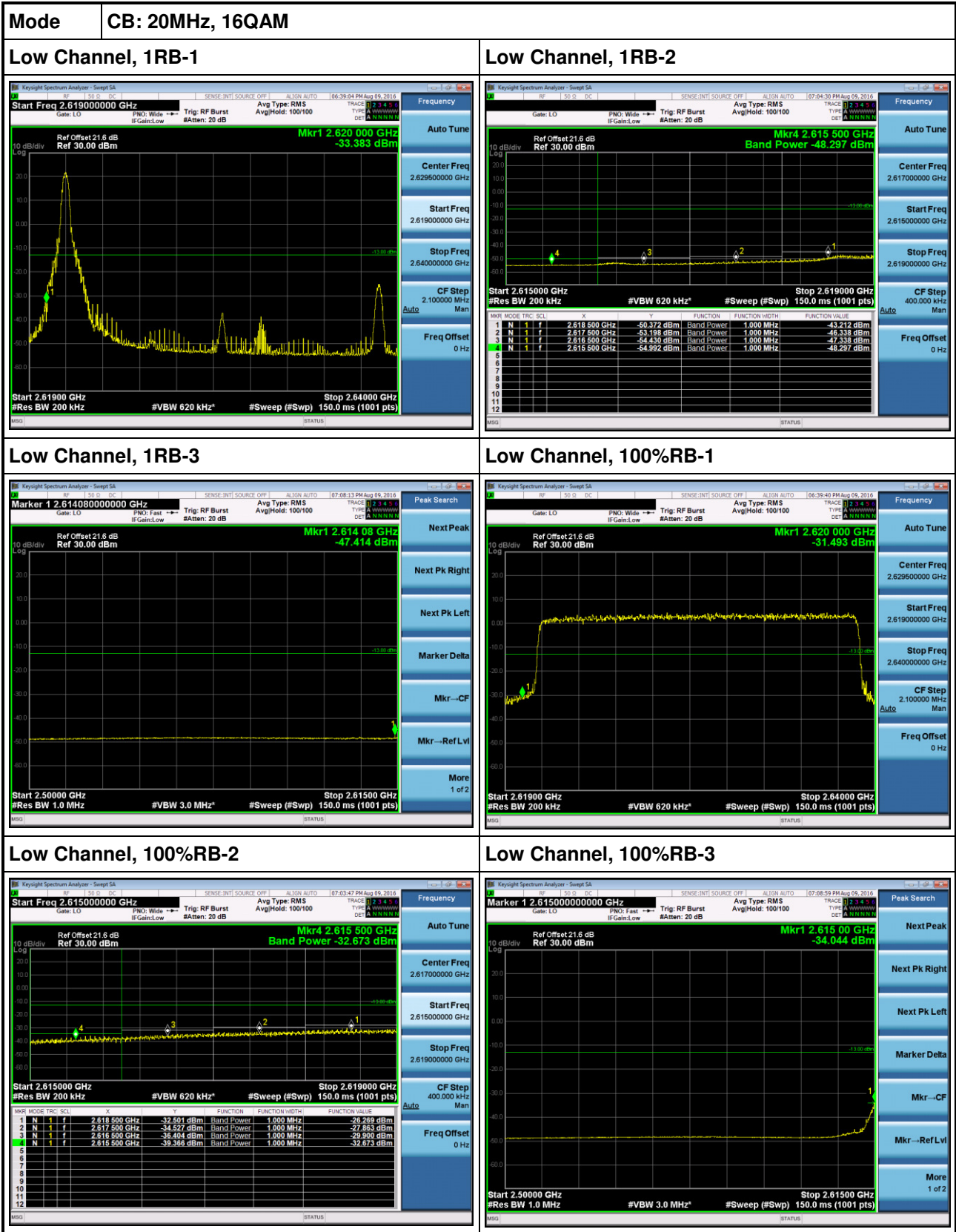
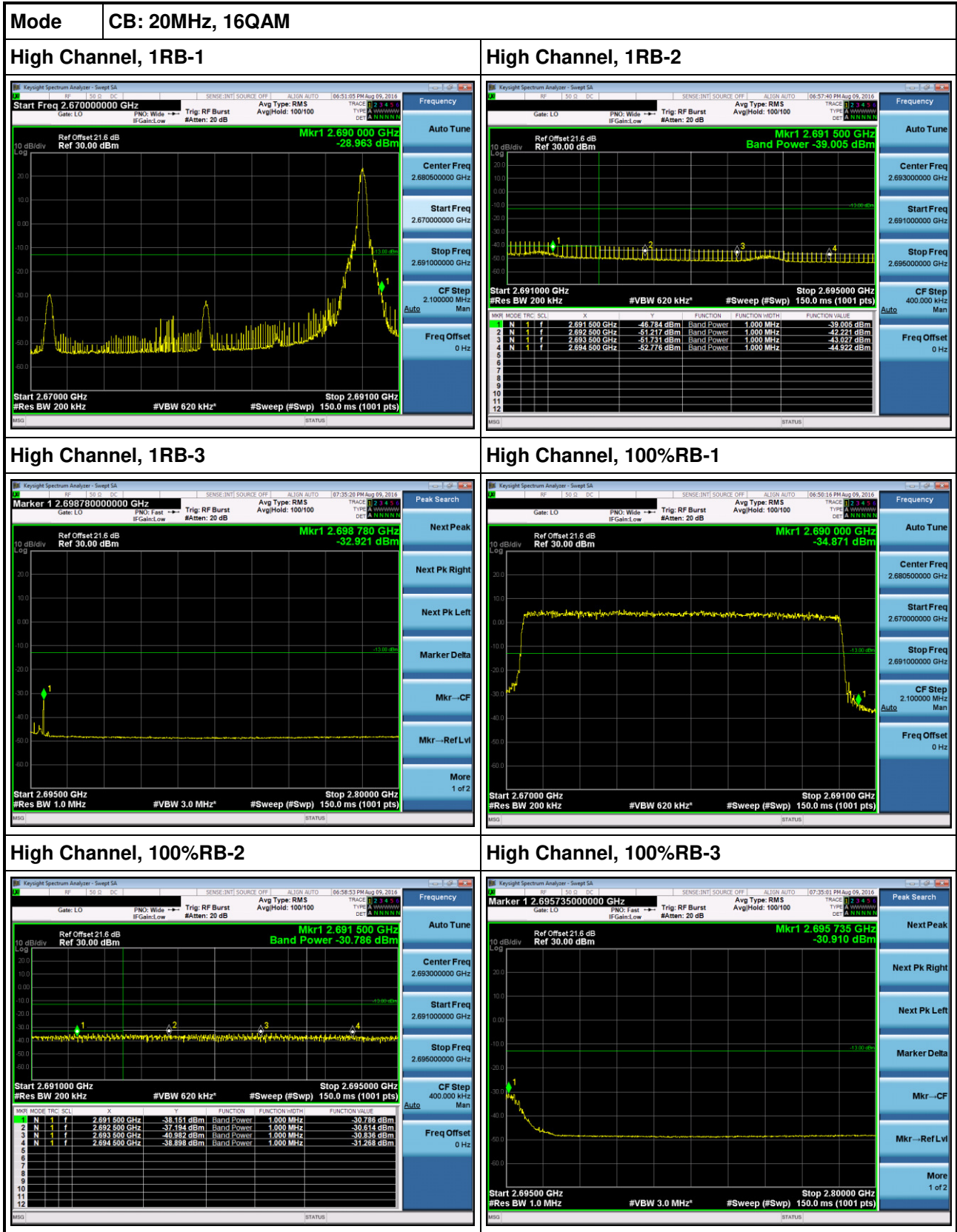


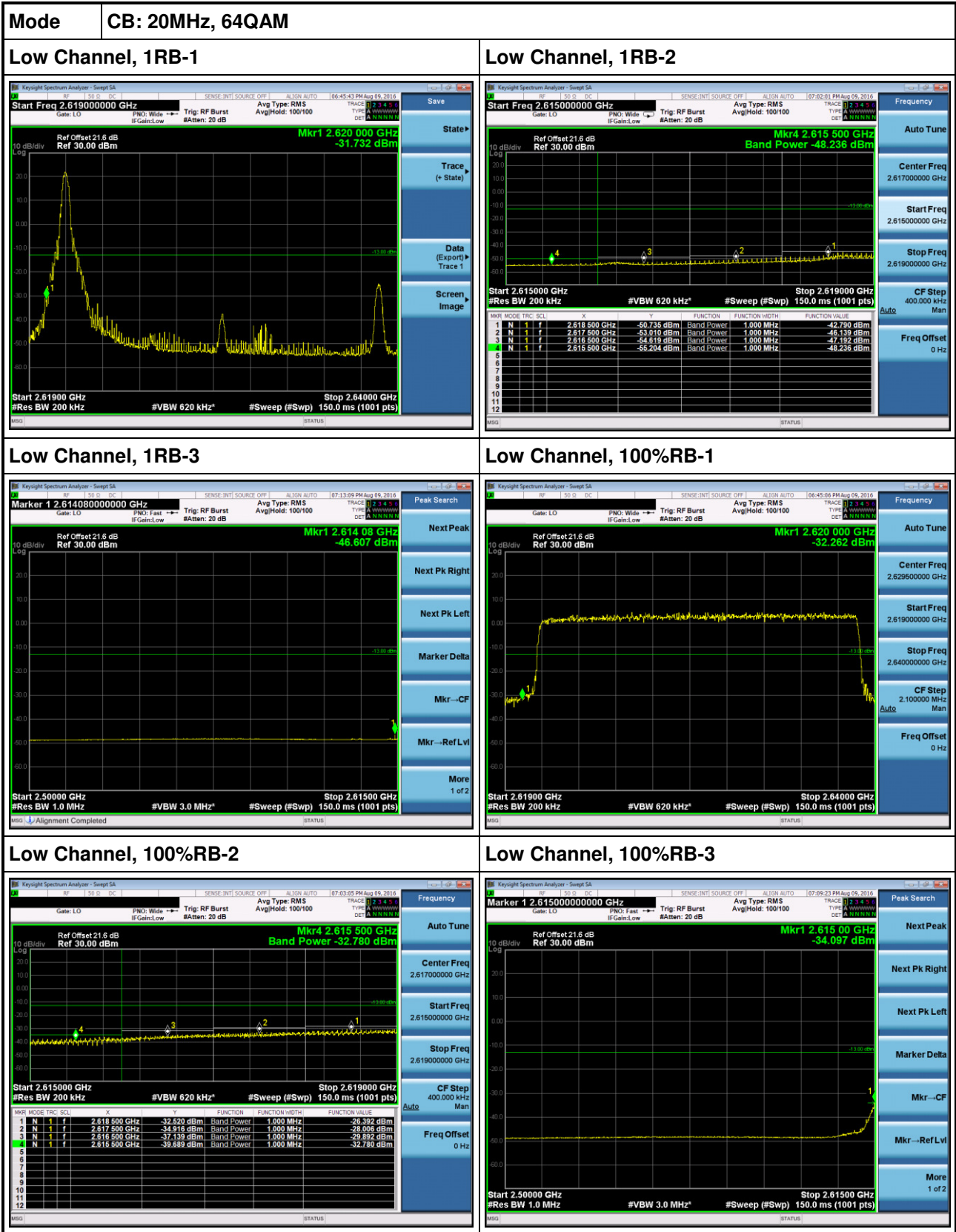
CB: 20MHz

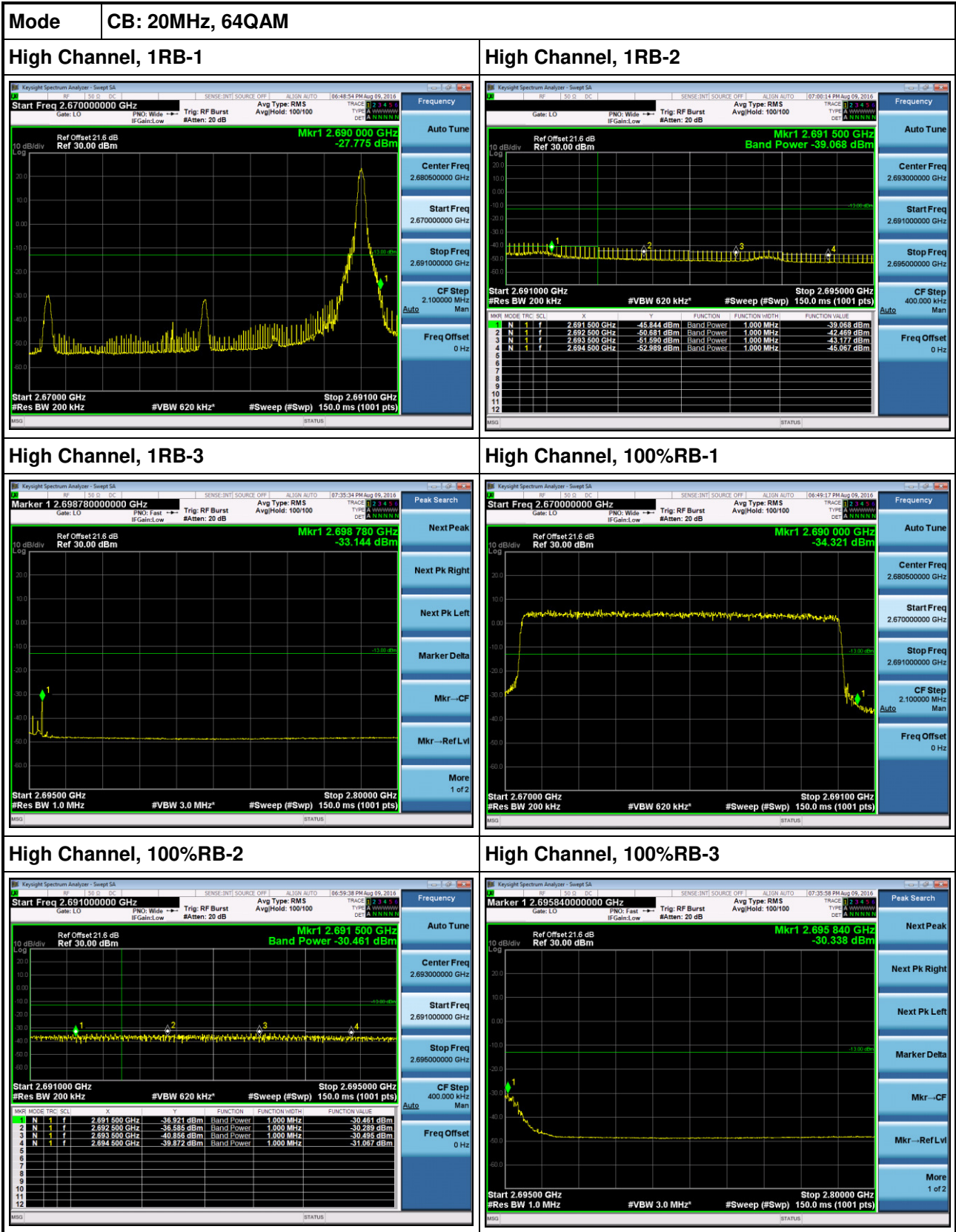
Mode CB: 20MHz, QPSK																																																																		
Low Channel, 1RB-1																																																																		
 <p>KeySight Spectrum Analyzer - Swept SA Gate: LO PNO: Wide → Trig: RF Burst Avg Type: RMS #Atten: 20 dB IF Gain: Low #Sweep: 100/100</p> <p>Mkr1 2.620 000 GHz -27.723 dBm</p> <p>Start 2.61900 GHz #Res BW 200 kHz #VBW 620 kHz* #Sweep (#Swp) 150.0 ms (1001 pts)</p>	<p>Auto Tune</p> <p>Center Freq 2.629500000 GHz</p> <p>Start Freq 2.619000000 GHz</p> <p>Stop Freq 2.640000000 GHz</p> <p>CF Step 2.100000 MHz Auto</p> <p>Freq Offset 0 Hz</p>																																																																	
Low Channel, 1RB-2																																																																		
 <p>KeySight Spectrum Analyzer - Swept SA Gate: LO PNO: Wide → Trig: RF Burst Avg Type: RMS #Atten: 20 dB IF Gain: Low #Sweep: 100/100</p> <p>Mkr4 2.615 500 GHz Band Power -47.770 dBm</p> <p>Start 2.615000 GHz #Res BW 200 kHz #VBW 620 kHz* #Sweep (#Swp) 150.0 ms (1001 pts)</p> <table border="1"> <thead> <tr> <th>MKR</th> <th>MODE</th> <th>TRIG</th> <th>SCN</th> <th>F</th> <th>F</th> <th>F</th> <th>F</th> <th>F</th> <th>FUNCTION</th> <th>VALUE</th> <th>FUNCTION</th> <th>VALUE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>N</td> <td>1</td> <td>f</td> <td>2.618 500 GHz</td> <td>-48.932 dBm</td> <td>Band Power</td> <td>1.000 MHz</td> <td>-40.586 dBm</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>N</td> <td>1</td> <td>f</td> <td>2.617 500 GHz</td> <td>-53.112 dBm</td> <td>Band Power</td> <td>1.000 MHz</td> <td>-44.578 dBm</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>N</td> <td>1</td> <td>f</td> <td>2.616 500 GHz</td> <td>-54.287 dBm</td> <td>Band Power</td> <td>1.000 MHz</td> <td>-46.253 dBm</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>N</td> <td>1</td> <td>f</td> <td>2.615 500 GHz</td> <td>-55.118 dBm</td> <td>Band Power</td> <td>1.000 MHz</td> <td>-47.770 dBm</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	MKR	MODE	TRIG	SCN	F	F	F	F	F	FUNCTION	VALUE	FUNCTION	VALUE	1	N	1	f	2.618 500 GHz	-48.932 dBm	Band Power	1.000 MHz	-40.586 dBm					2	N	1	f	2.617 500 GHz	-53.112 dBm	Band Power	1.000 MHz	-44.578 dBm					3	N	1	f	2.616 500 GHz	-54.287 dBm	Band Power	1.000 MHz	-46.253 dBm					4	N	1	f	2.615 500 GHz	-55.118 dBm	Band Power	1.000 MHz	-47.770 dBm					<p>Auto Tune</p> <p>Center Freq 2.617000000 GHz</p> <p>Start Freq 2.615000000 GHz</p> <p>Stop Freq 2.619000000 GHz</p> <p>CF Step 400.000 kHz Auto</p> <p>Freq Offset 0 Hz</p>
MKR	MODE	TRIG	SCN	F	F	F	F	F	FUNCTION	VALUE	FUNCTION	VALUE																																																						
1	N	1	f	2.618 500 GHz	-48.932 dBm	Band Power	1.000 MHz	-40.586 dBm																																																										
2	N	1	f	2.617 500 GHz	-53.112 dBm	Band Power	1.000 MHz	-44.578 dBm																																																										
3	N	1	f	2.616 500 GHz	-54.287 dBm	Band Power	1.000 MHz	-46.253 dBm																																																										
4	N	1	f	2.615 500 GHz	-55.118 dBm	Band Power	1.000 MHz	-47.770 dBm																																																										
Low Channel, 1RB-3																																																																		
 <p>KeySight Spectrum Analyzer - Swept SA Gate: LO PNO: Fast → Trig: RF Burst Avg Type: RMS #Atten: 20 dB IF Gain: Low #Sweep: 100/100</p> <p>Mkr1 2.614 08 GHz -41.714 dBm</p> <p>Start 2.50000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz* #Sweep (#Swp) 150.0 ms (1001 pts)</p>	<p>Peak Search</p> <p>Next Peak</p> <p>Next Pk Right</p> <p>Next Pk Left</p> <p>Marker Delta</p> <p>Mkr--CF</p> <p>Mkr--RefLvl</p> <p>More 1 of 2</p>																																																																	
Low Channel, 100%RB-1																																																																		
 <p>KeySight Spectrum Analyzer - Swept SA Gate: LO PNO: Wide → Trig: RF Burst Avg Type: RMS #Atten: 20 dB IF Gain: Low #Sweep: 100/100</p> <p>Mkr1 2.620 000 GHz -29.854 dBm</p> <p>Start 2.61900 GHz #Res BW 200 kHz #VBW 620 kHz* #Sweep (#Swp) 150.0 ms (1001 pts)</p>	<p>Auto Tune</p> <p>Center Freq 2.629500000 GHz</p> <p>Start Freq 2.619000000 GHz</p> <p>Stop Freq 2.640000000 GHz</p> <p>CF Step 2.100000 MHz Auto</p> <p>Freq Offset 0 Hz</p>																																																																	
Low Channel, 100%RB-2																																																																		
 <p>KeySight Spectrum Analyzer - Swept SA Gate: LO PNO: Wide → Trig: RF Burst Avg Type: RMS #Atten: 20 dB IF Gain: Low #Sweep: 100/100</p> <p>Mkr4 2.615 500 GHz Band Power -32.269 dBm</p> <p>Start 2.615000 GHz #Res BW 200 kHz #VBW 620 kHz* #Sweep (#Swp) 150.0 ms (1001 pts)</p> <table border="1"> <thead> <tr> <th>MKR</th> <th>MODE</th> <th>TRIG</th> <th>SCN</th> <th>F</th> <th>F</th> <th>F</th> <th>F</th> <th>F</th> <th>FUNCTION</th> <th>VALUE</th> <th>FUNCTION</th> <th>VALUE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>N</td> <td>1</td> <td>f</td> <td>2.618 500 GHz</td> <td>-33.694 dBm</td> <td>Band Power</td> <td>1.000 MHz</td> <td>-25.733 dBm</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>N</td> <td>1</td> <td>f</td> <td>2.617 500 GHz</td> <td>-34.854 dBm</td> <td>Band Power</td> <td>1.000 MHz</td> <td>-27.152 dBm</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>N</td> <td>1</td> <td>f</td> <td>2.616 500 GHz</td> <td>-36.934 dBm</td> <td>Band Power</td> <td>1.000 MHz</td> <td>-29.427 dBm</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>N</td> <td>1</td> <td>f</td> <td>2.615 500 GHz</td> <td>-39.830 dBm</td> <td>Band Power</td> <td>1.000 MHz</td> <td>-32.269 dBm</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	MKR	MODE	TRIG	SCN	F	F	F	F	F	FUNCTION	VALUE	FUNCTION	VALUE	1	N	1	f	2.618 500 GHz	-33.694 dBm	Band Power	1.000 MHz	-25.733 dBm					2	N	1	f	2.617 500 GHz	-34.854 dBm	Band Power	1.000 MHz	-27.152 dBm					3	N	1	f	2.616 500 GHz	-36.934 dBm	Band Power	1.000 MHz	-29.427 dBm					4	N	1	f	2.615 500 GHz	-39.830 dBm	Band Power	1.000 MHz	-32.269 dBm					<p>Auto Tune</p> <p>Center Freq 2.617000000 GHz</p> <p>Start Freq 2.615000000 GHz</p> <p>Stop Freq 2.619000000 GHz</p> <p>CF Step 400.000 kHz Auto</p> <p>Freq Offset 0 Hz</p>
MKR	MODE	TRIG	SCN	F	F	F	F	F	FUNCTION	VALUE	FUNCTION	VALUE																																																						
1	N	1	f	2.618 500 GHz	-33.694 dBm	Band Power	1.000 MHz	-25.733 dBm																																																										
2	N	1	f	2.617 500 GHz	-34.854 dBm	Band Power	1.000 MHz	-27.152 dBm																																																										
3	N	1	f	2.616 500 GHz	-36.934 dBm	Band Power	1.000 MHz	-29.427 dBm																																																										
4	N	1	f	2.615 500 GHz	-39.830 dBm	Band Power	1.000 MHz	-32.269 dBm																																																										
Low Channel, 100%RB-3																																																																		
 <p>KeySight Spectrum Analyzer - Swept SA Gate: LO PNO: Fast → Trig: RF Burst Avg Type: RMS #Atten: 20 dB IF Gain: Low #Sweep: 100/100</p> <p>Mkr1 2.615 00 GHz -33.194 dBm</p> <p>Start 2.50000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz* #Sweep (#Swp) 150.0 ms (1001 pts)</p>	<p>Recall State</p> <p>From File...</p> <p>Edit Register Names</p> <p>Register 1 Adaptivity</p> <p>Register 2 Last: 6/12/2016 11:54:29 AM</p> <p>Register 3 Last: 6/12/2016 11:34:59 AM</p> <p>Register 4 Last: 6/12/2016 11:57:36 AM</p> <p>More 1 of 3</p>																																																																	









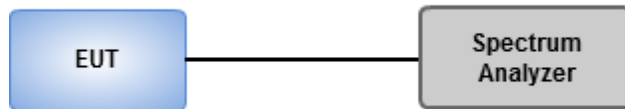


3.5 Emission and Occupied Bandwidth

3.5.1 Test Procedures

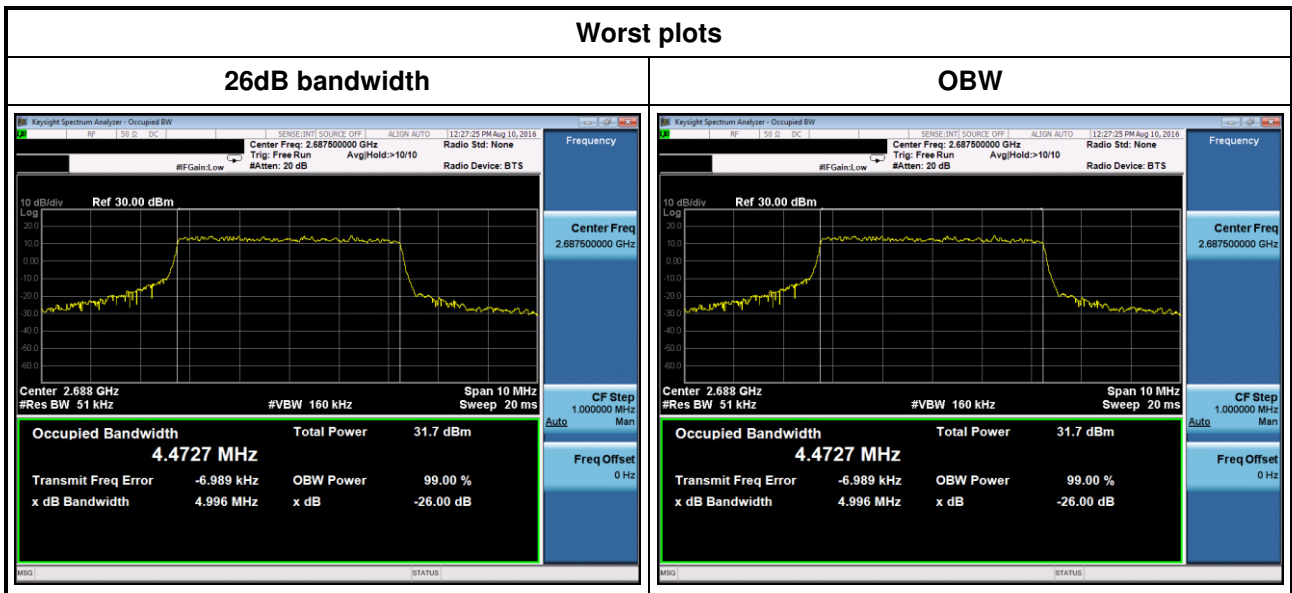
1. Set resolution bandwidth (RBW) = 51~200 kHz, Video bandwidth = 160 ~ 620 kHz for 5 ~ 20 MHz channel bandwidth.
2. Set Detector = Peak, Trace mode = max hold, Sweep = auto couple, Allow the trace to stabilize.
3. Using 26dB and occupied bandwidth measurement function of spectrum analyzer to measure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

3.5.2 Test Setup

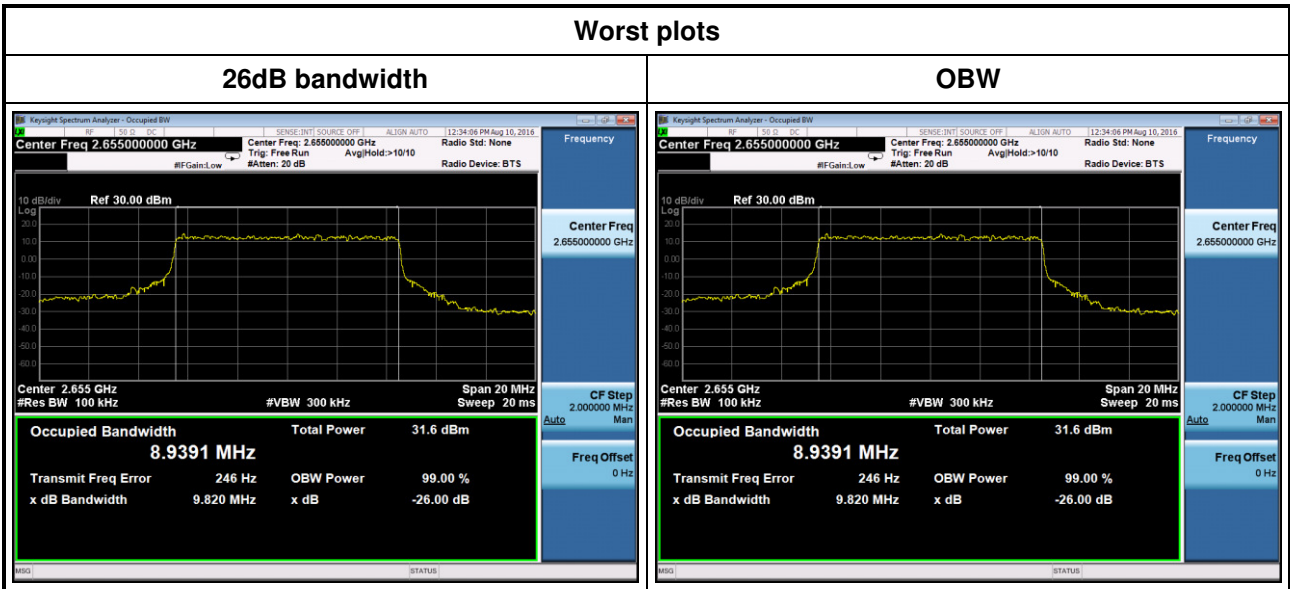


3.5.3 Test Result of Occupied Bandwidth

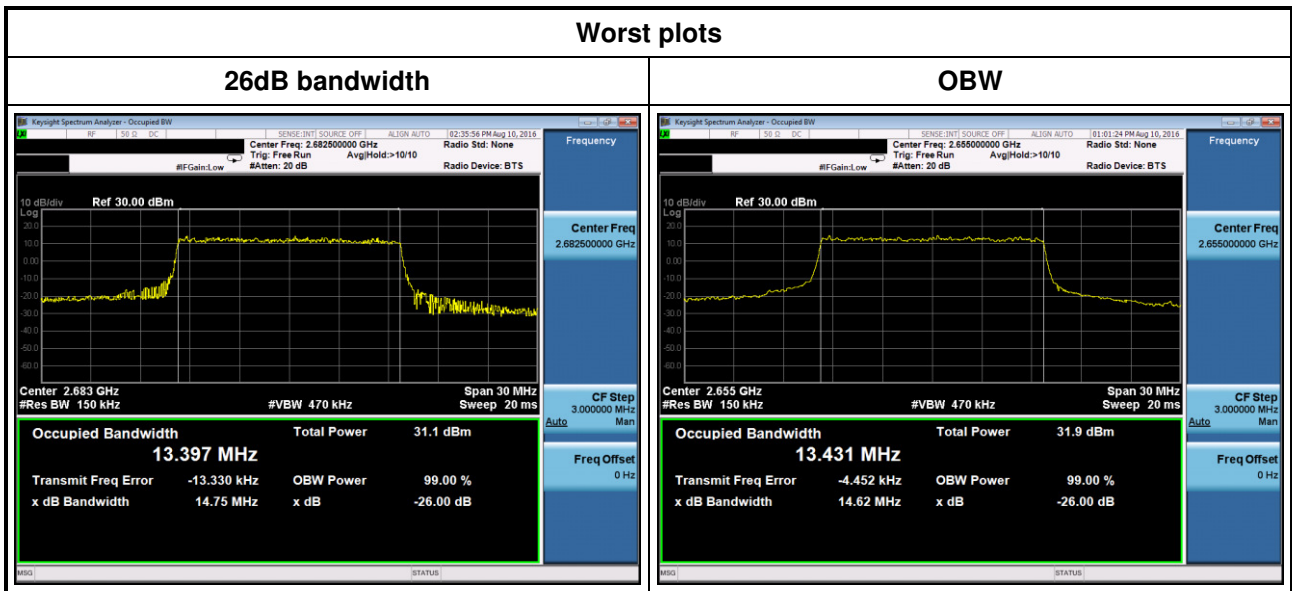
Channel Bandwidth (MHz)	Modulation	Frequency (MHz)	26dB BW (MHz)	99% OBW (MHz)
5	QPSK	2622.5	4.873	4.47
5	QPSK	2655.0	4.940	4.47
5	QPSK	2687.5	4.996	4.47
5	16QAM	2622.5	4.852	4.47
5	16QAM	2655.0	4.881	4.47
5	16QAM	2687.5	4.852	4.46
5	64QAM	2622.5	4.850	4.46
5	64QAM	2655.0	4.860	4.46
5	64QAM	2687.5	4.877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



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



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



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



3.6 Frequency Stability

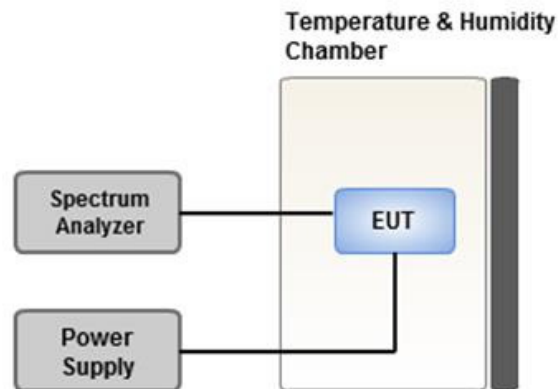
3.6.1 Limit of Frequency Stability

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

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 District, Tao Yuan City
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 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

==END==