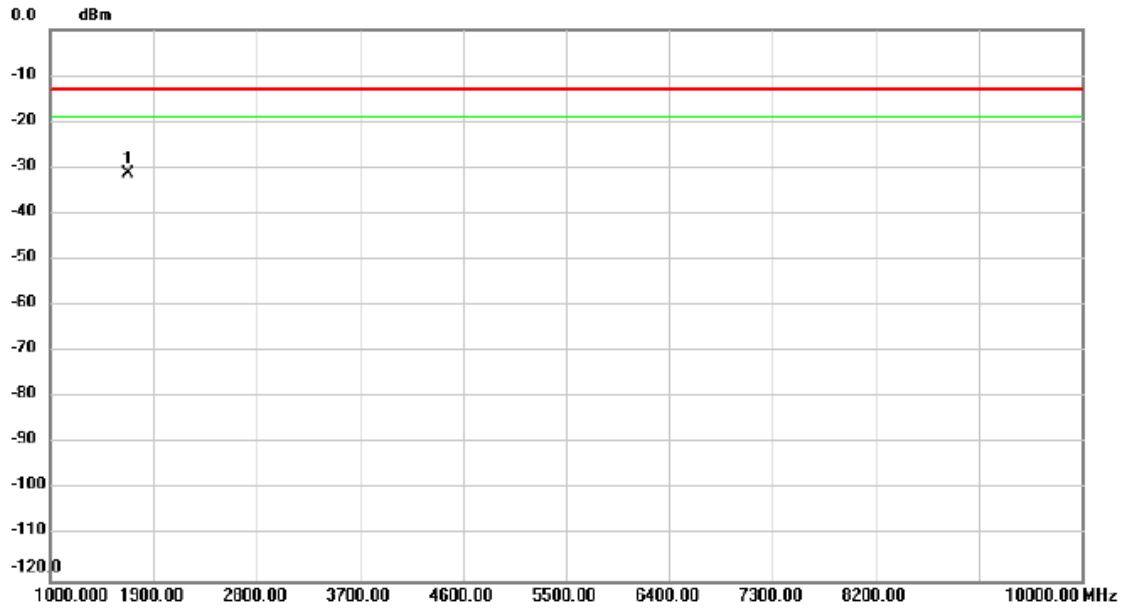


Test Mode: GSM850_TX CH190_GPRS

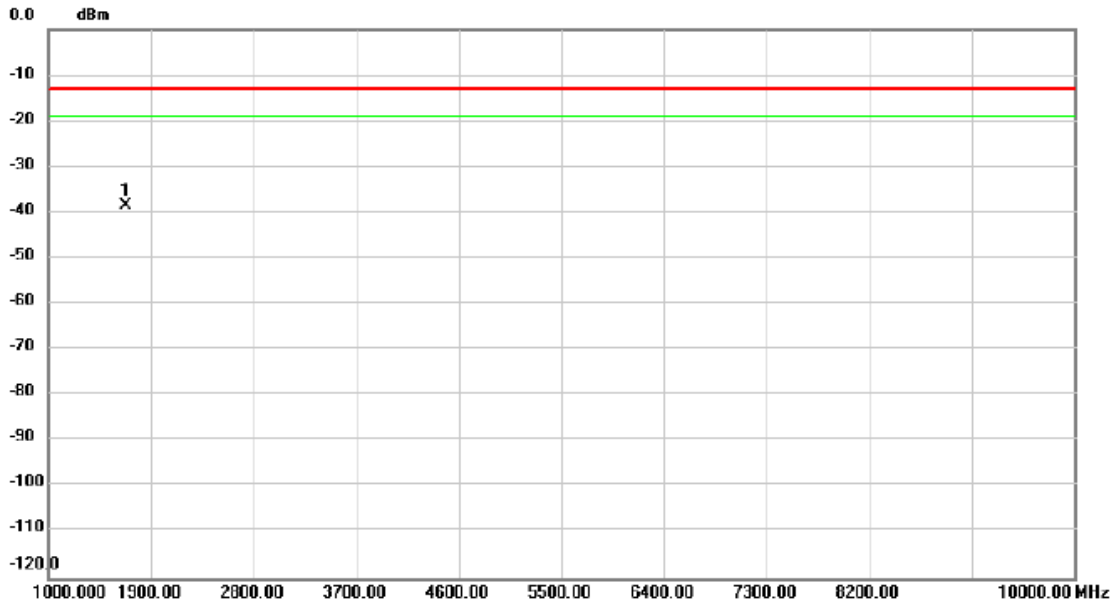
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1	*	1673.220	-12.60	-18.74	-31.34	-13.00	-18.34	peak	

Test Mode: GSM850_TX CH190_EDGE

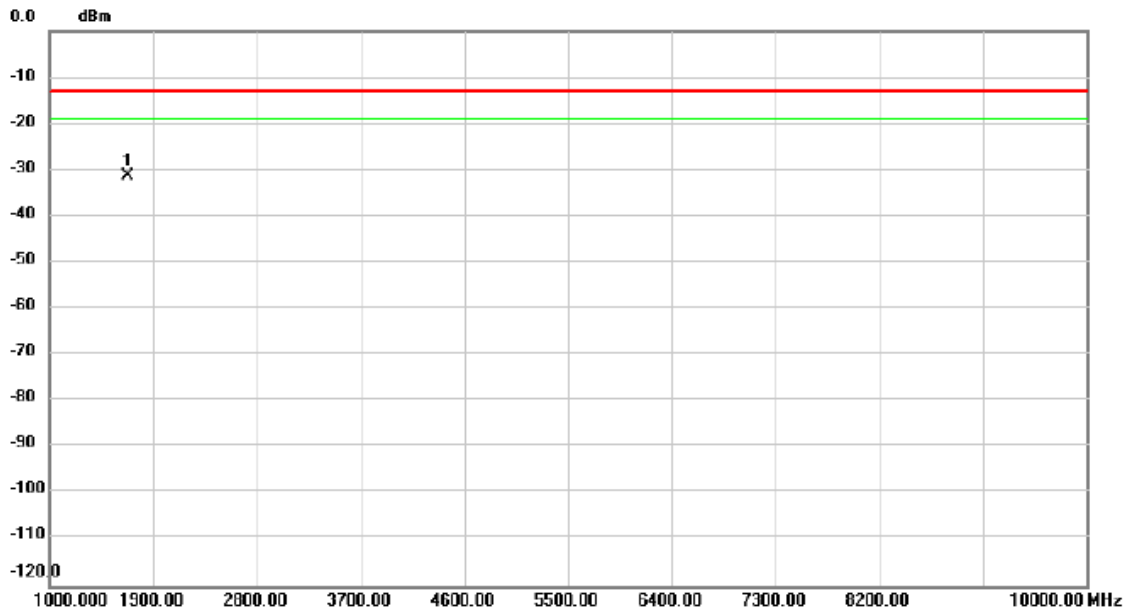
Vertical



No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1	*	1673.185	-19.71	-18.74	-38.45	-13.00	-25.45	peak	

Test Mode: GSM850_TX CH190_EDGE

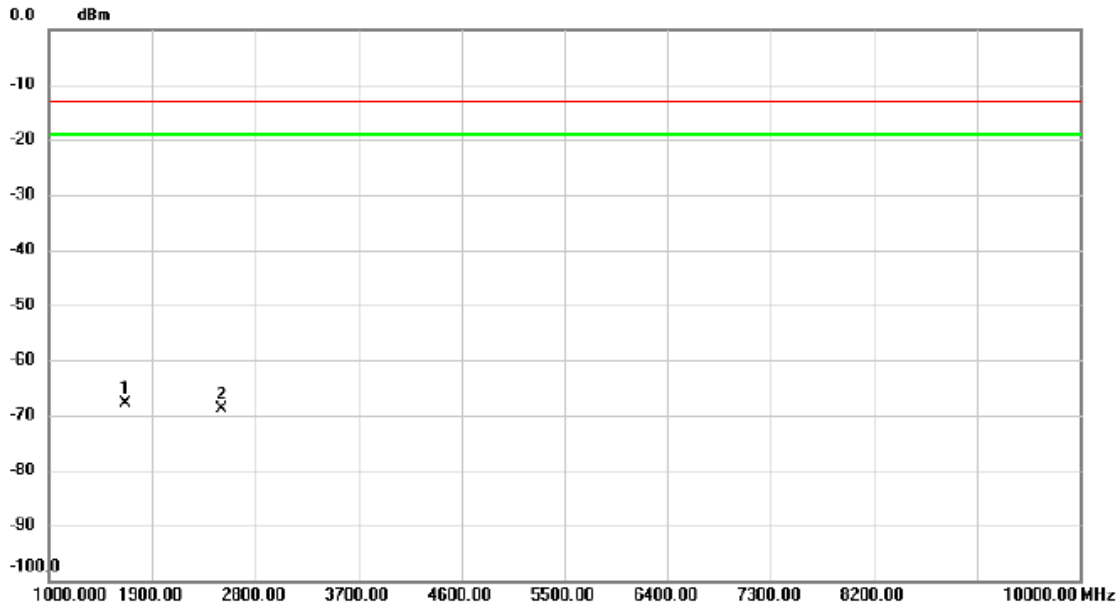
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	1673.185	-12.71	-18.74	-31.45	-13.00	-18.45	peak	

Test Mode: WCDMA Band V_TX CH4182

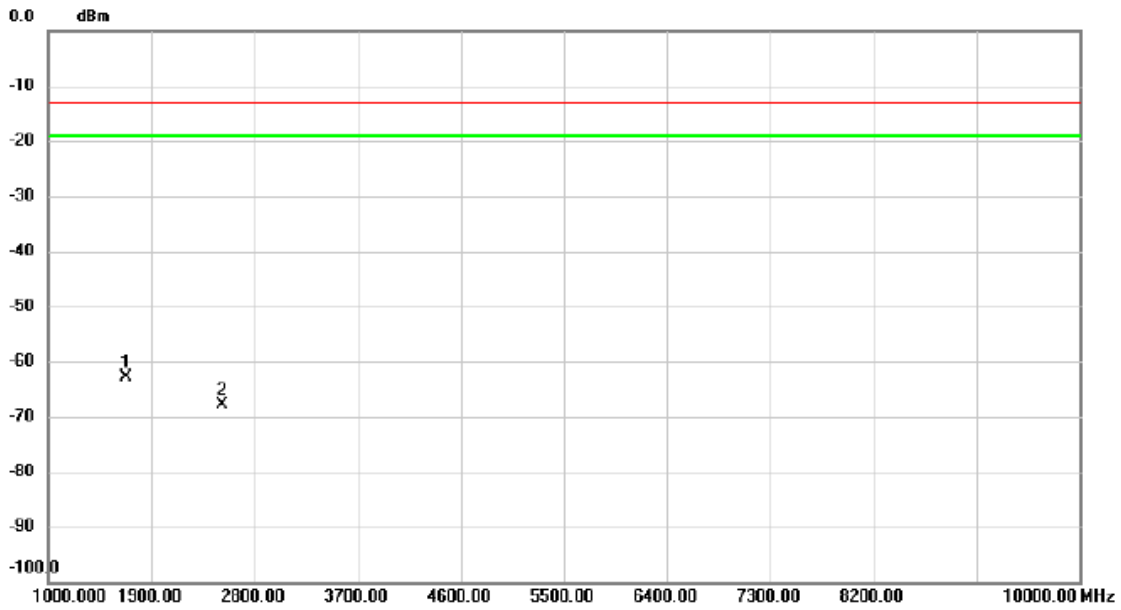
Vertical



No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1	*	1671.020	-49.24	-18.74	-67.98	-13.00	-54.98	peak	
2		2511.760	-53.00	-15.97	-68.97	-13.00	-55.97	peak	

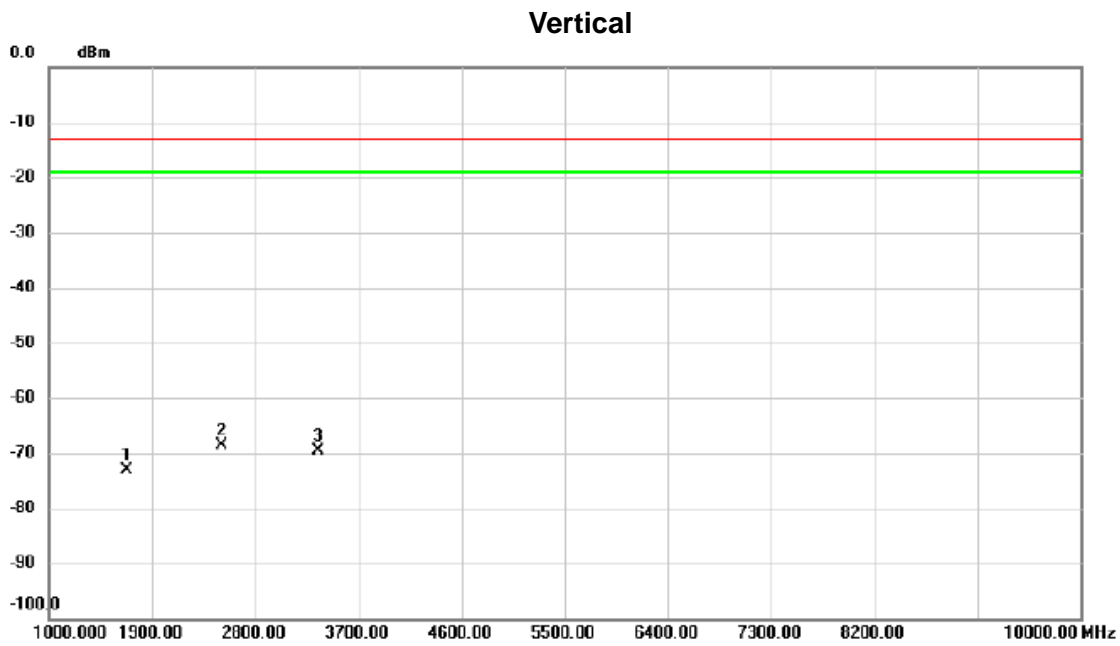
Test Mode: WCDMA Band V_TX CH4182

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1	*	1674.660	-44.05	-18.73	-62.78	-13.00	-49.78	peak	
2		2512.240	-51.97	-15.97	-67.94	-13.00	-54.94	peak	

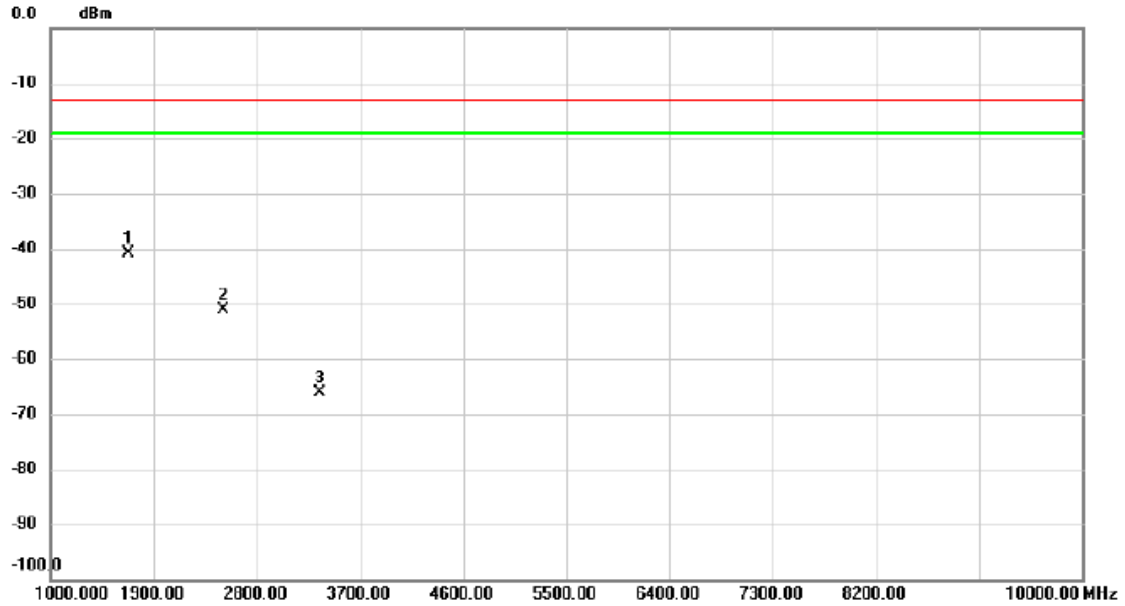
Test Mode: LTE Band 5_TX CH20525_1.4M



No. Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1	1673.050	-54.28	-18.74	-73.02	-13.00	-60.02	peak	
2 *	2509.425	-52.53	-15.98	-68.51	-13.00	-55.51	peak	
3	3345.940	-55.60	-14.12	-69.72	-13.00	-56.72	peak	

Test Mode: LTE Band 5_TX CH20525_1.4M

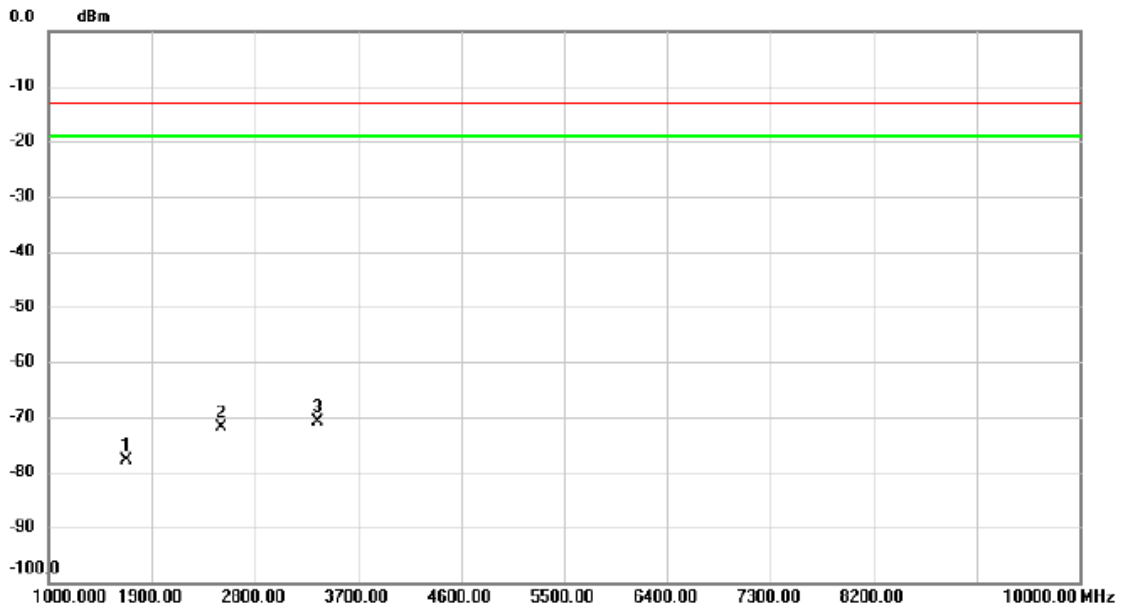
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	1673.100	-22.23	-18.74	-40.97	-13.00	-27.97	peak	
2		2509.820	-35.23	-15.98	-51.21	-13.00	-38.21	peak	
3		3346.070	-52.05	-14.12	-66.17	-13.00	-53.17	peak	

Test Mode: LTE Band 5_TX CH20525_5M

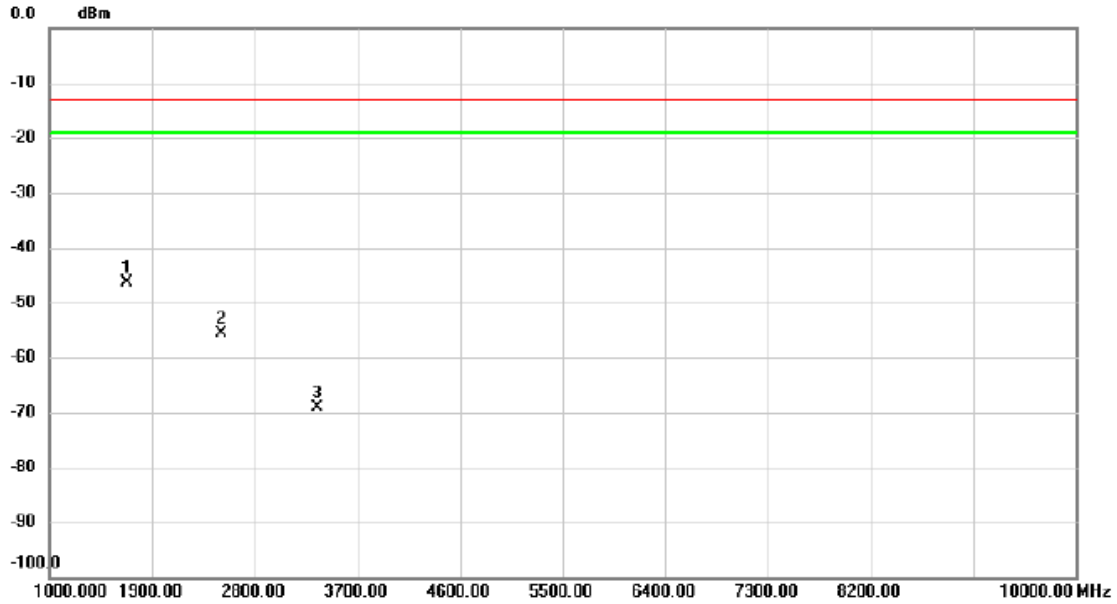
Vertical



No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1		1674.080	-59.02	-18.73	-77.75	-13.00	-64.75	peak	
2		2509.740	-55.95	-15.98	-71.93	-13.00	-58.93	peak	
3	*	3346.060	-56.84	-14.12	-70.96	-13.00	-57.96	peak	

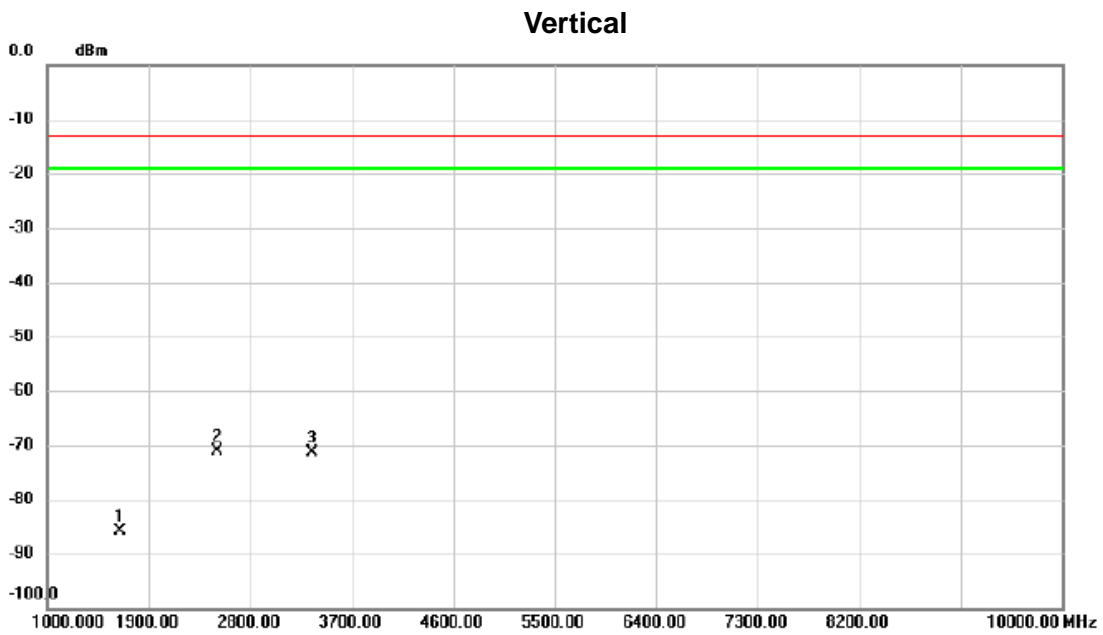
Test Mode: LTE Band 5_TX CH20525_5M

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1	*	1674.180	-27.67	-18.73	-46.40	-13.00	-33.40	peak	
2		2509.940	-39.63	-15.98	-55.61	-13.00	-42.61	peak	
3		3346.120	-55.07	-14.12	-69.19	-13.00	-56.19	peak	

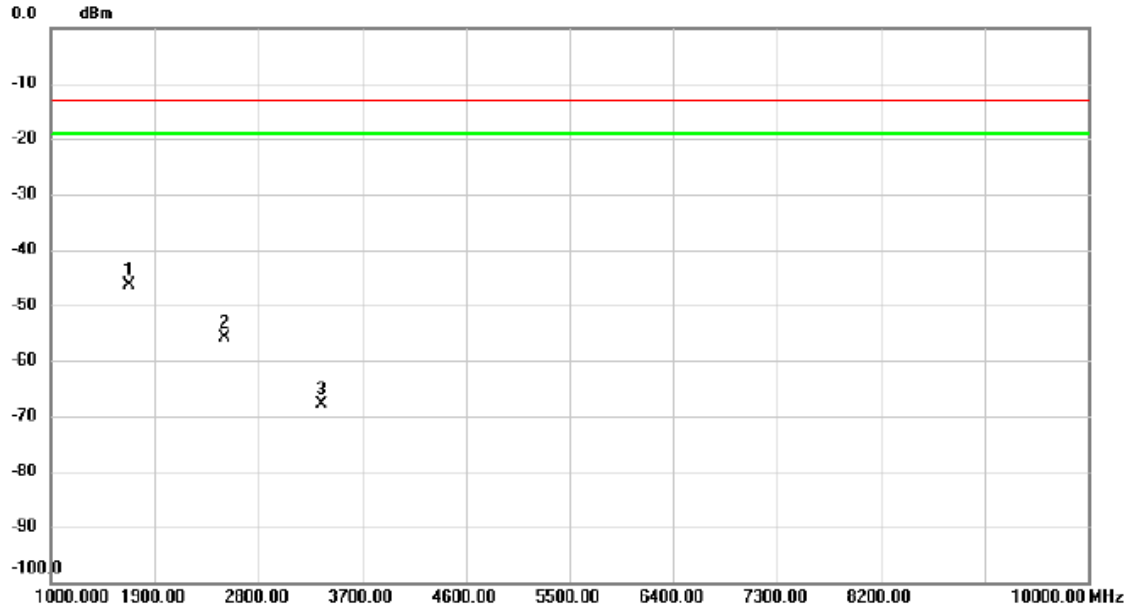
Test Mode: LTE Band 5_TX CH20525_10M



No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1		1638.080	-66.96	-18.87	-85.83	-13.00	-72.83	peak	
2	*	2509.380	-55.14	-15.98	-71.12	-13.00	-58.12	peak	
3		3346.080	-57.35	-14.12	-71.47	-13.00	-58.47	peak	

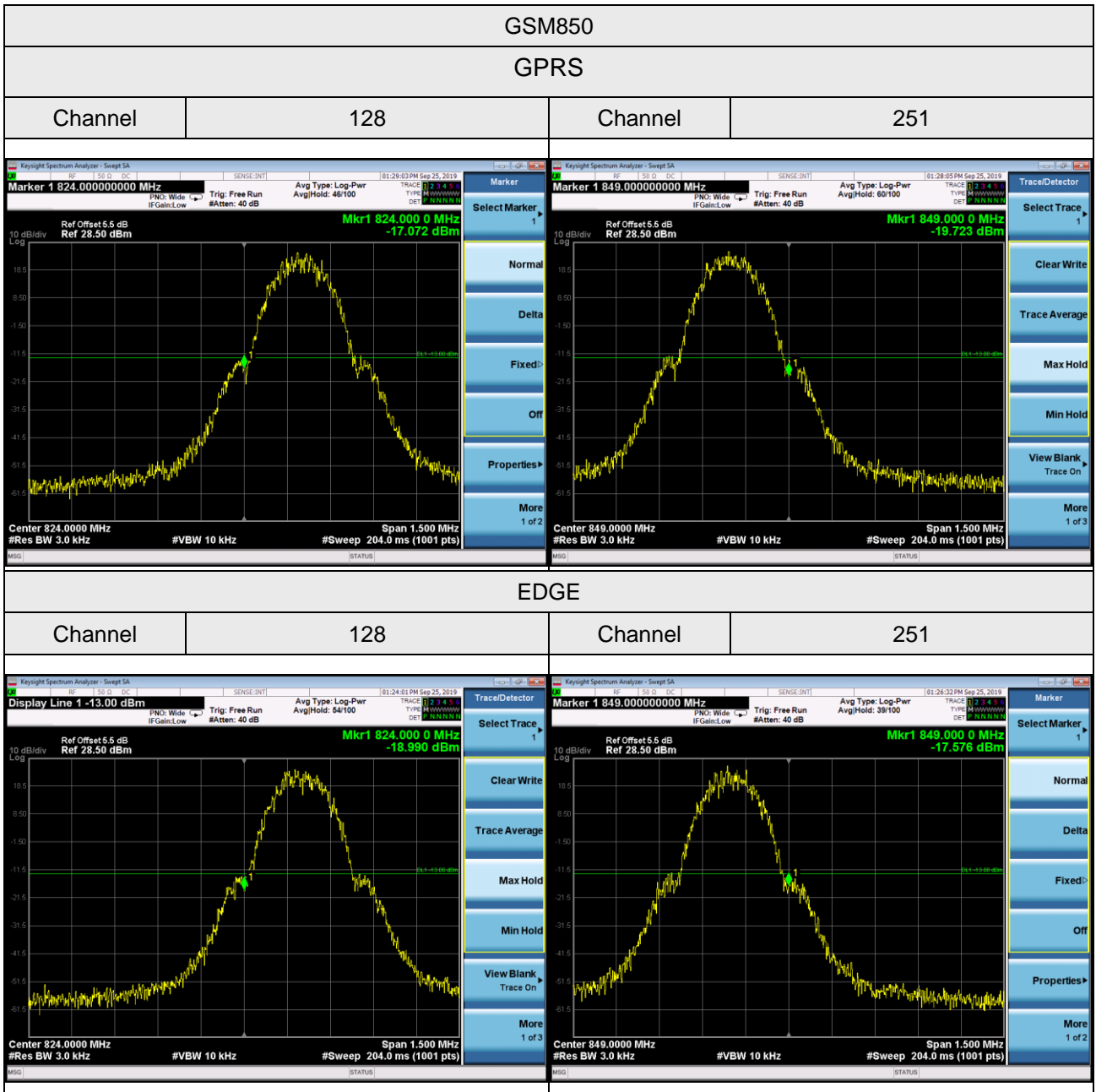
Test Mode: LTE Band 5_TX CH20525_10M

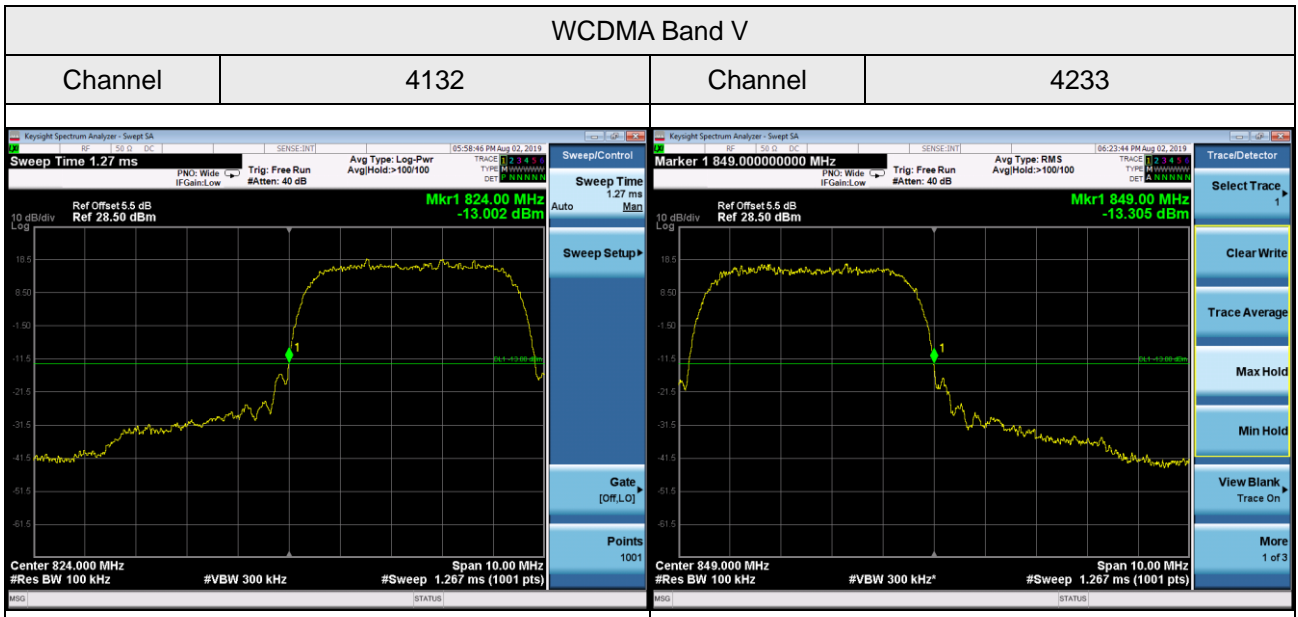
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1	*	1673.980	-27.55	-18.74	-46.29	-13.00	-33.29	peak	
2		2510.020	-39.83	-15.98	-55.81	-13.00	-42.81	peak	
3		3345.955	-53.85	-14.12	-67.97	-13.00	-54.97	peak	

APPENDIX G - BAND EDGE





LTE Band 5_1.4M

1RB#0

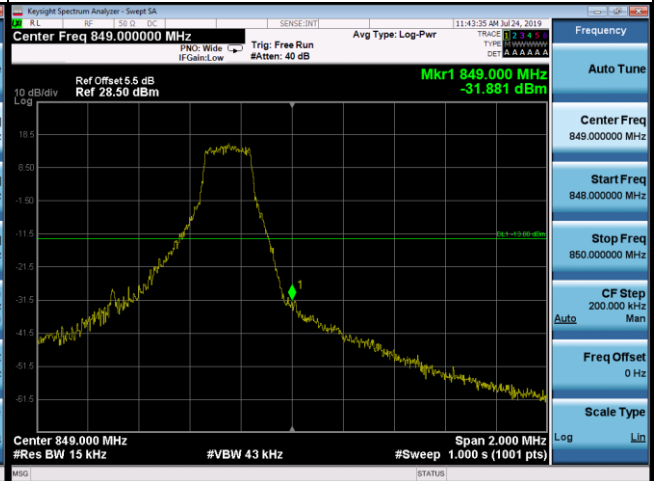
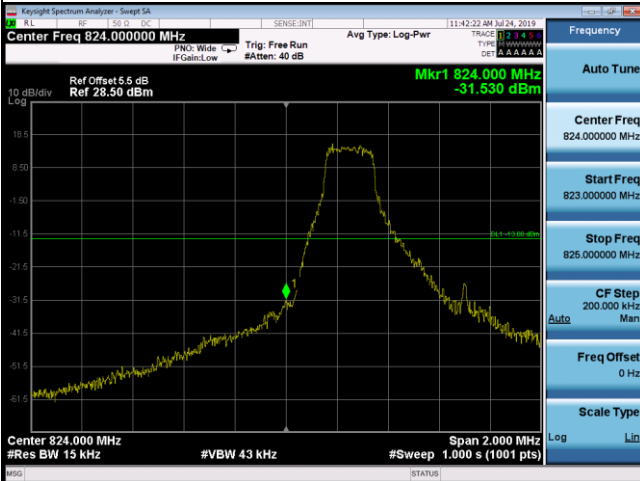
1RB#5

Channel

20407

Channel

20643



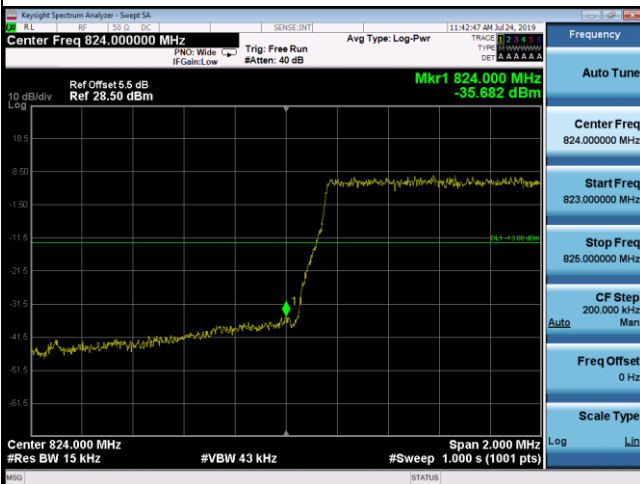
6RB#0

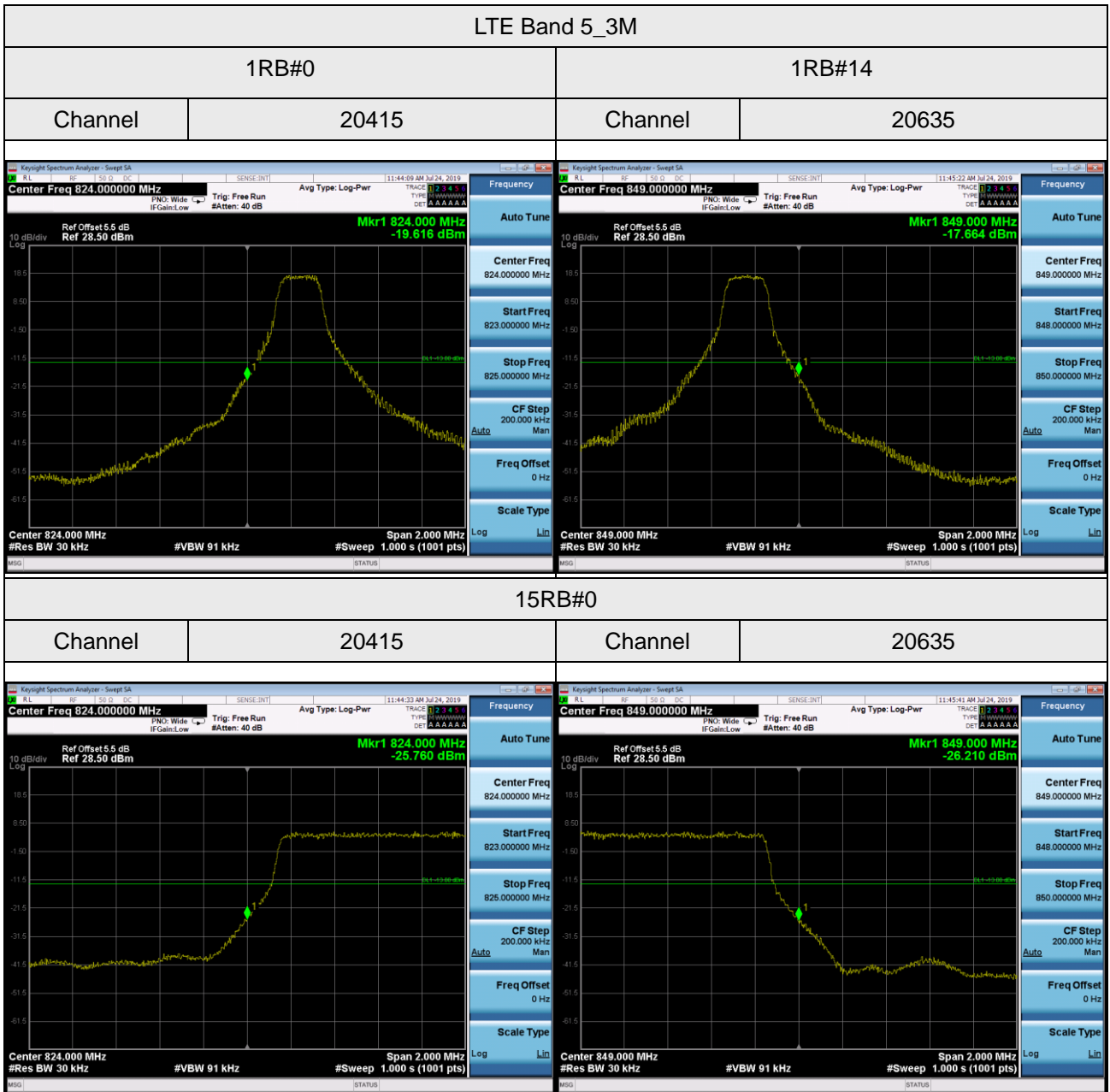
Channel

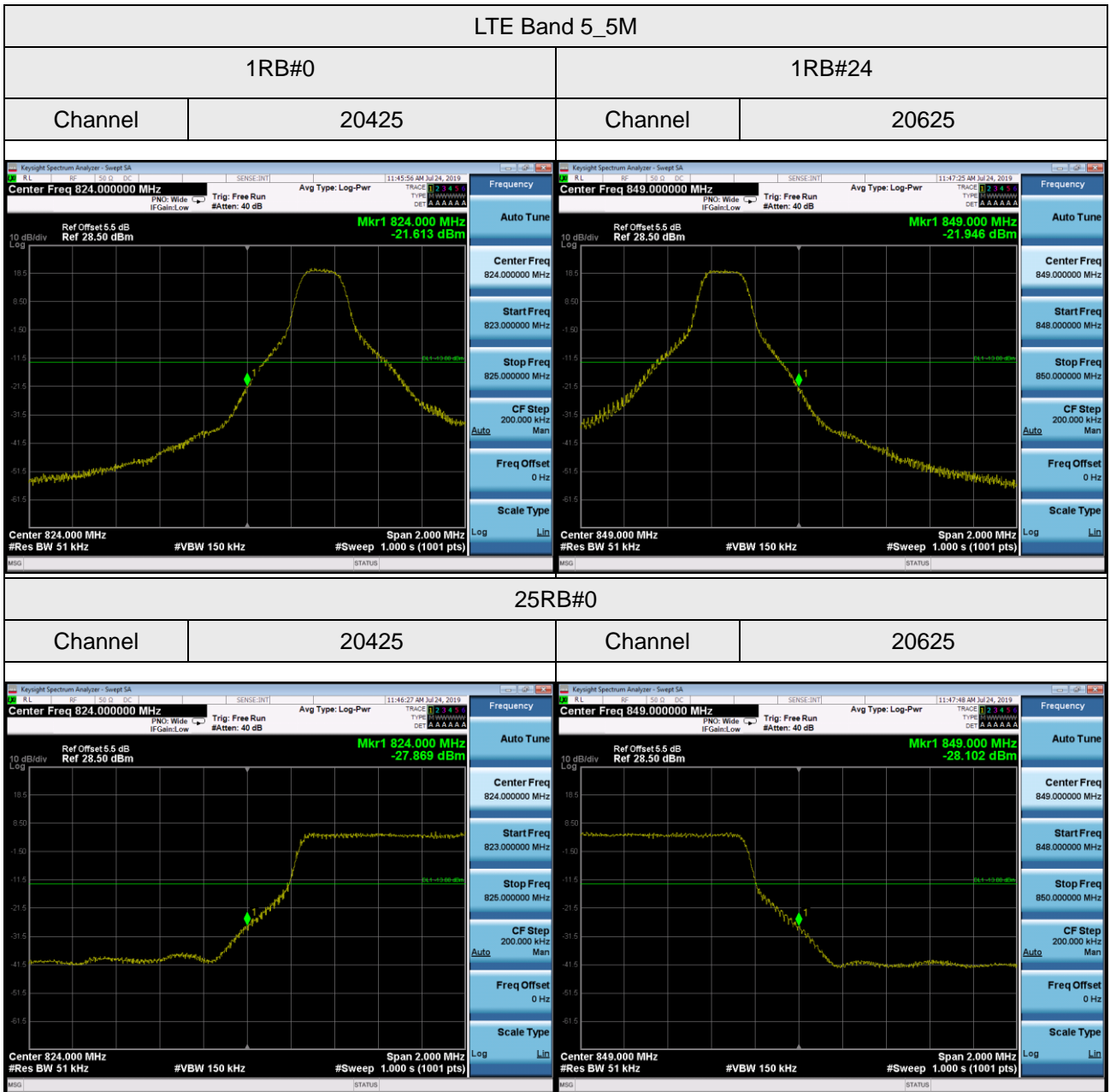
20407

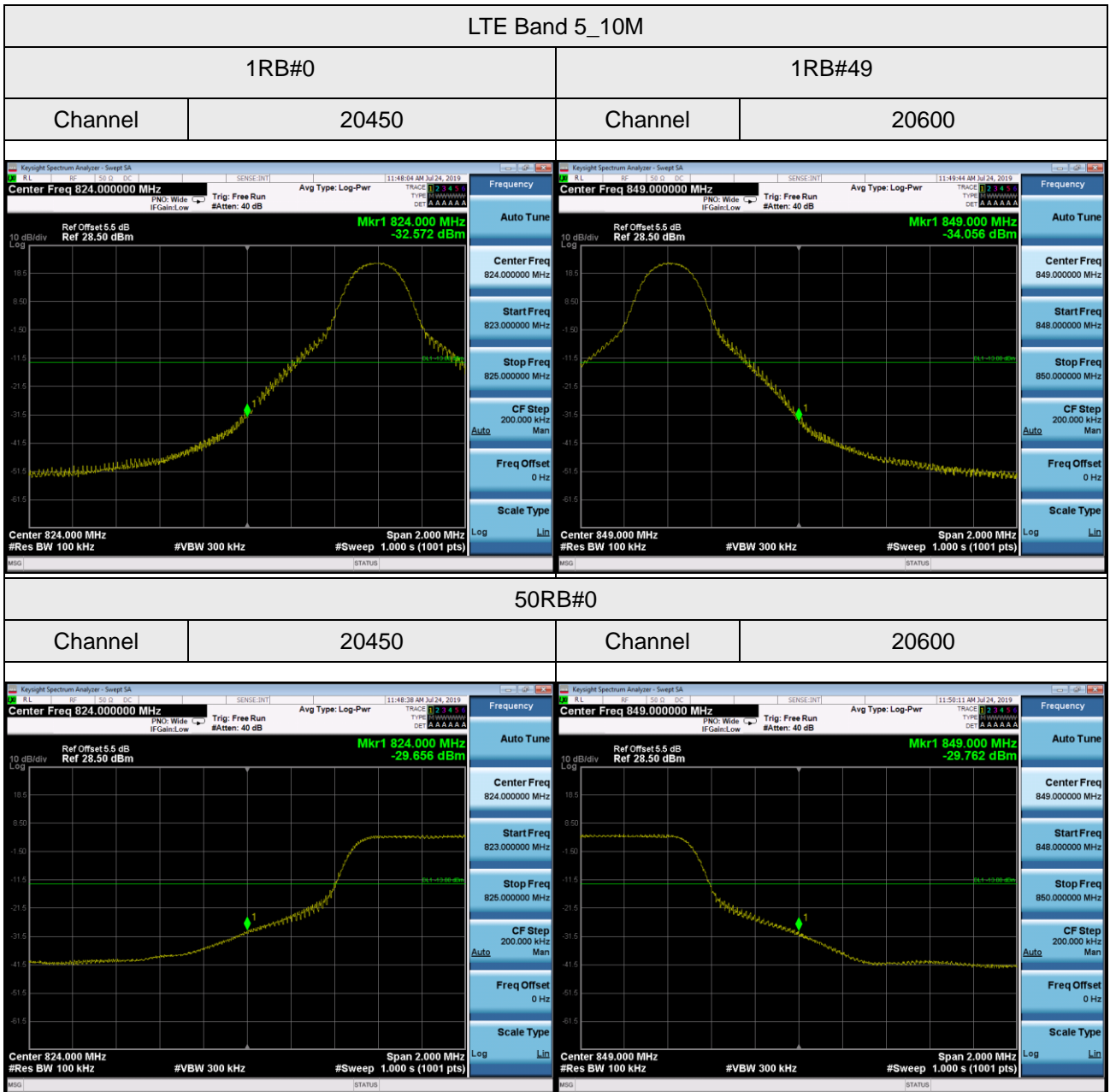
Channel

20643





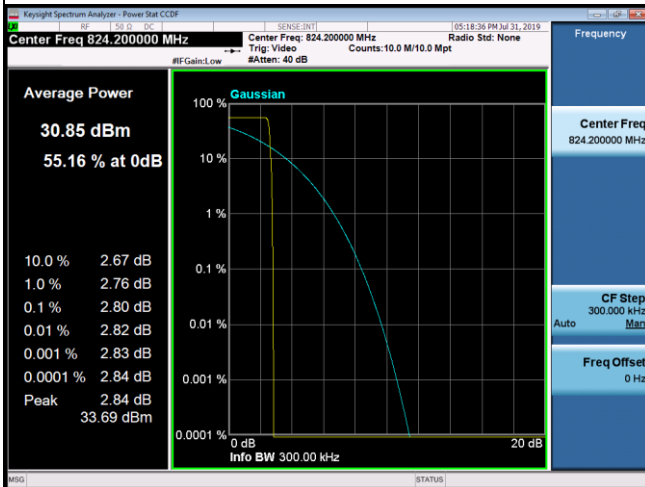




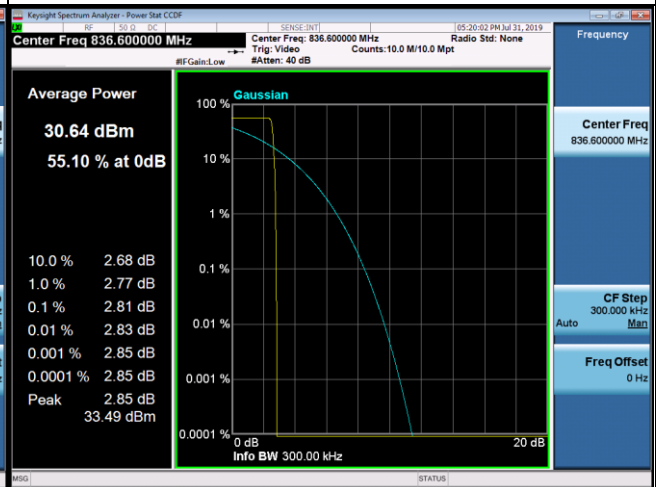
APPENDIX H - PEAK TO AVERAGE RATIO

GSM 850 Spectrum Plot

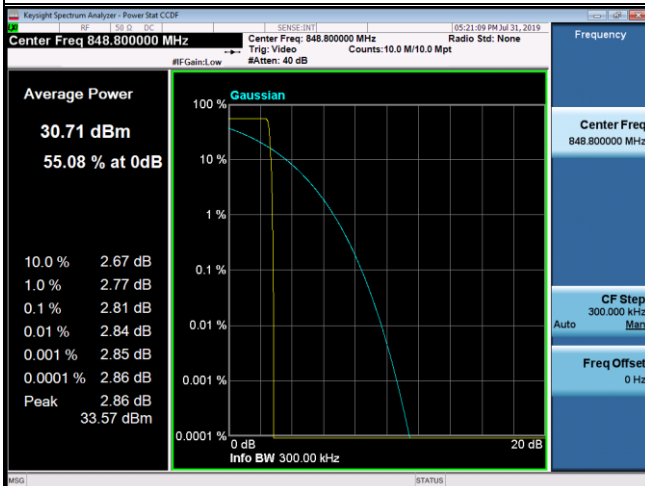
GPRS -128



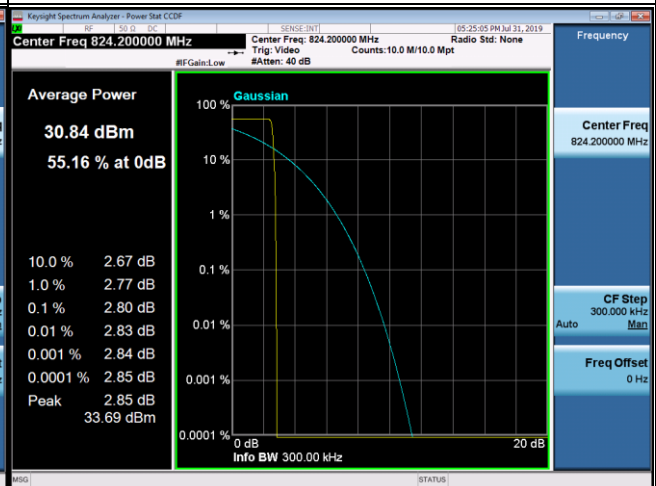
GPRS -190



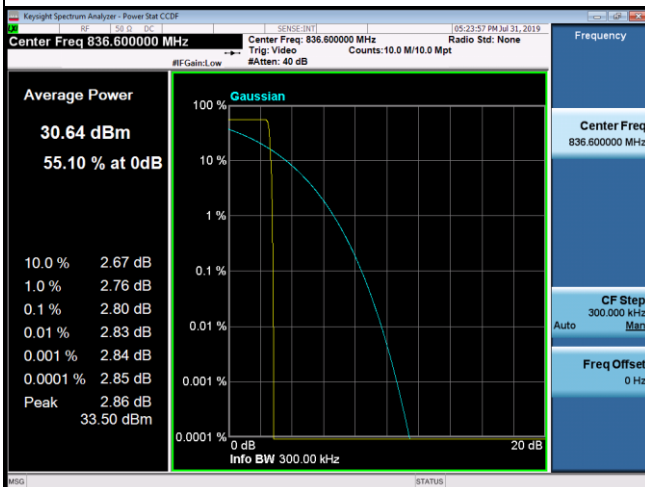
GPRS -251



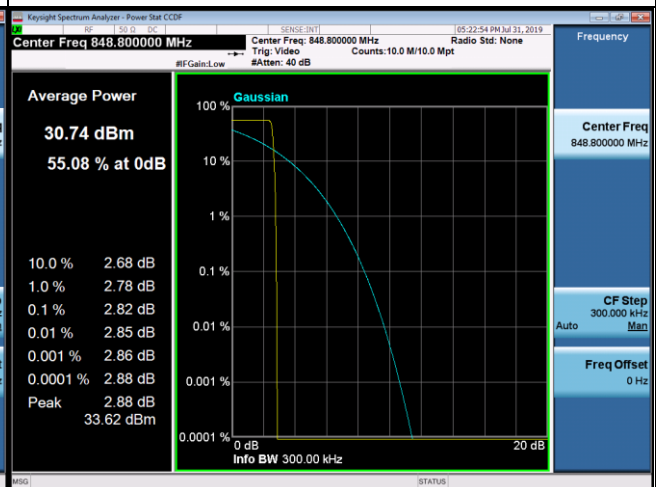
EDGE-128



EDGE-190



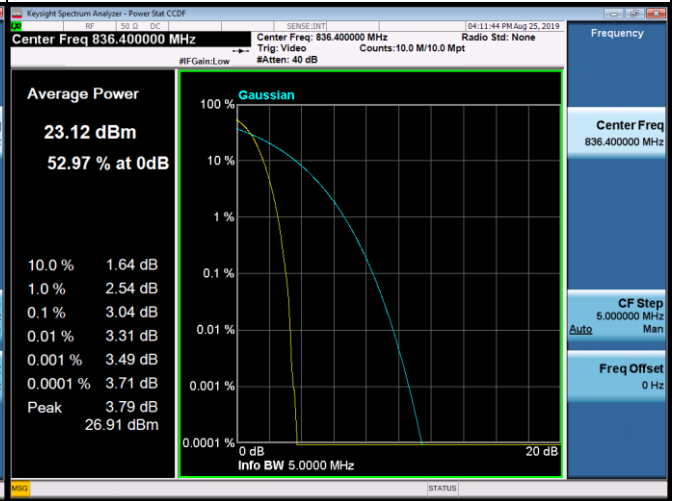
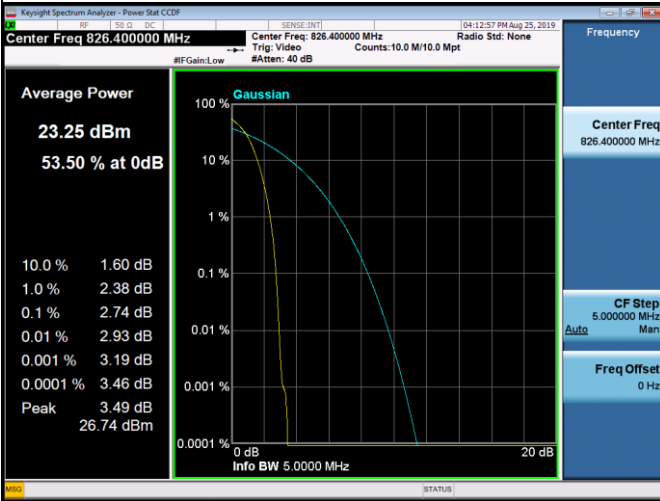
EDGE-251



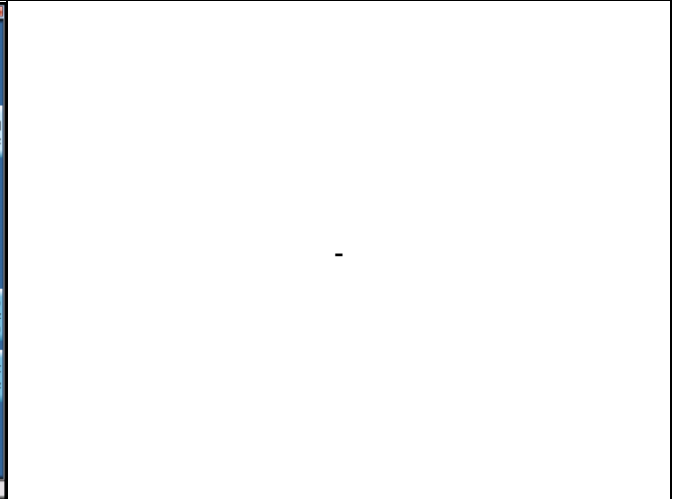
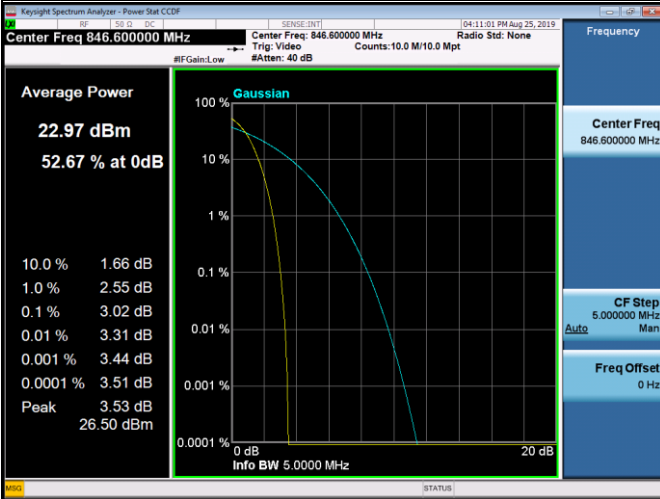
WCDMA Band V Spectrum Plot

4132

4182

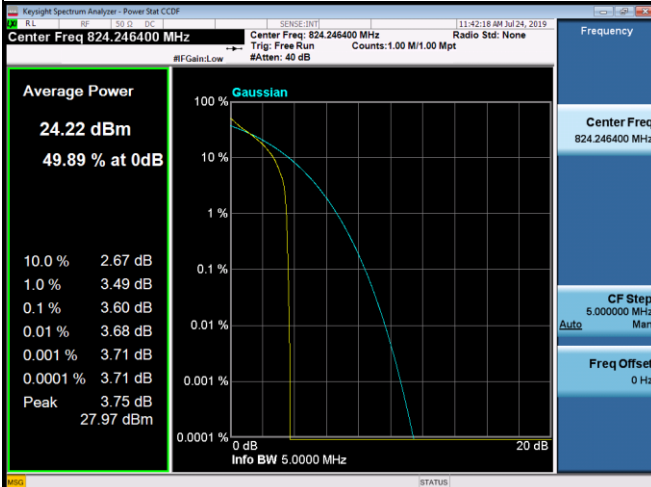


4233

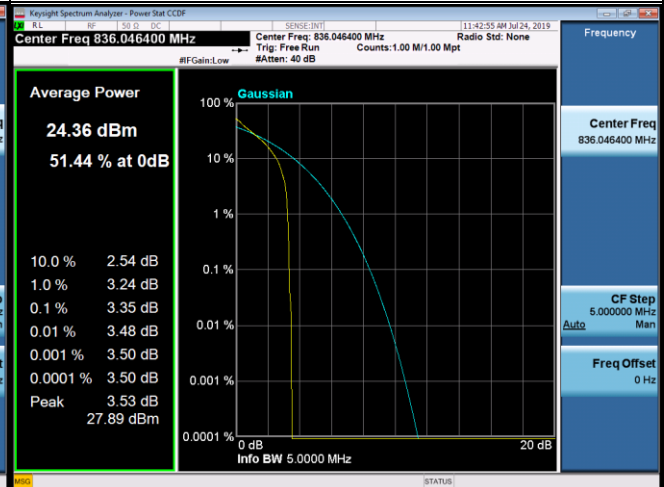


LTE Band 5 Spectrum Plot_1.4M

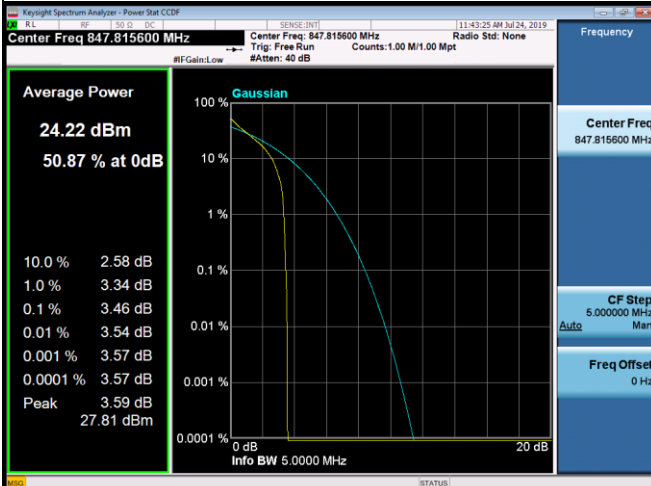
QPSK-20407



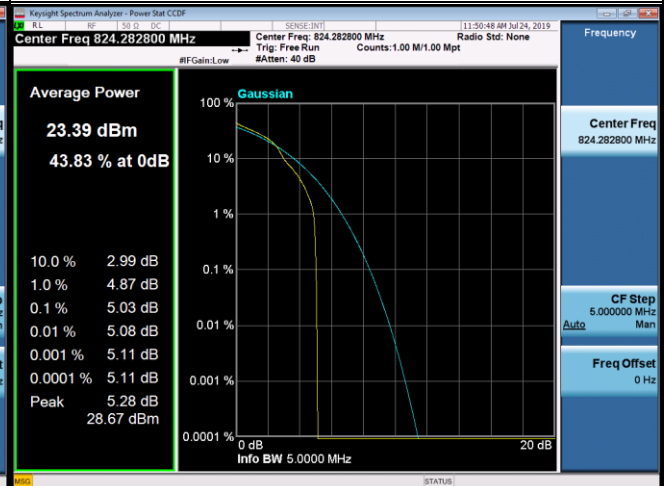
QPSK-20525



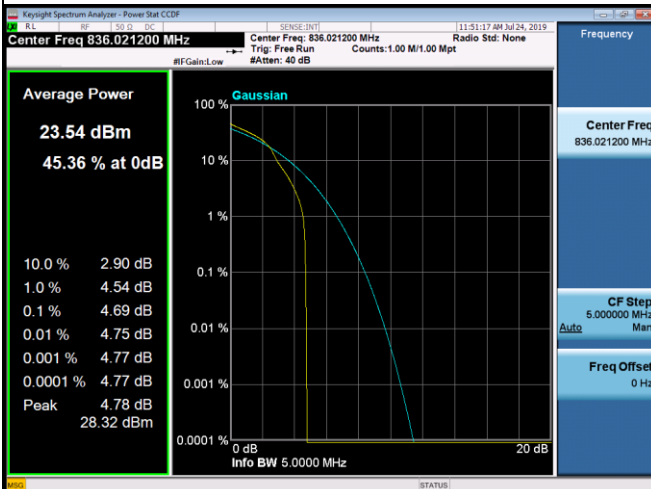
QPSK-20643



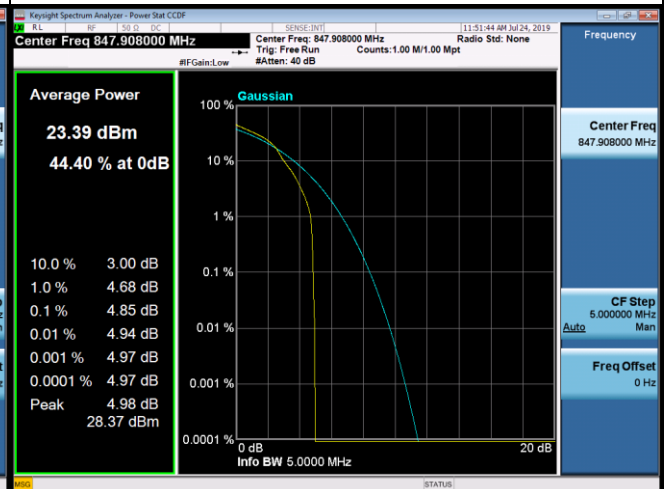
16QAM-20407



16QAM-20525



16QAM-20643



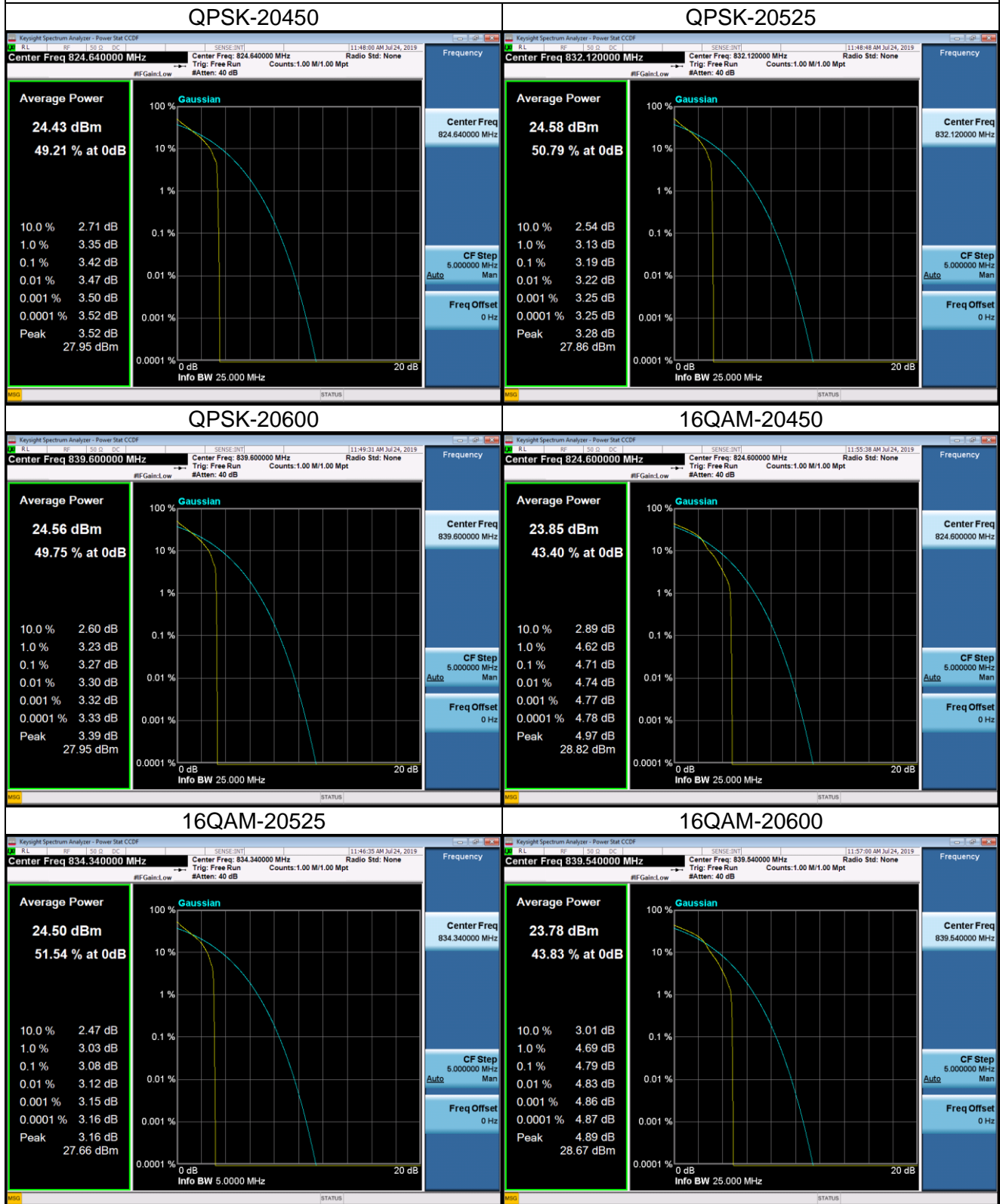
LTE Band 5 Spectrum Plot_3M



LTE Band 5 Spectrum Plot_5M



LTE Band 5 Spectrum Plot_10M



APPENDIX I - FREQUENCY STABILITY

Test Mode:	GSM850_CH190
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-20	-4.83	-0.005773368	± 2.5
-10	4.43	0.005295243	
0	5.12	0.00612001	
10	5.37	0.006418838	
20	5.49	0.006562276	
30	6.29	0.007518527	
40	6.84	0.00817595	
50	6.24	0.007458762	
Max. Deviation (ppm)	6.84	0.00817595	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
6.6	2.41	0.002880708	± 2.5
7.2	3.34	0.00399235	
8.4	3.51	0.004195553	
Max. Deviation (ppm)	3.51	0.004195553	

Test Mode:	WCDMA Band V_CH4182
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-20	5.16	0.006169297	±2.5
-10	5.42	0.006480153	
0	4.41	0.005272597	
10	6.87	0.008213773	
20	5.93	0.007089909	
30	3.61	0.004316117	
40	4.06	0.004854137	
50	2.62	0.003132473	
Max. Deviation (ppm)	6.87	0.008213773	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
6.6	3.18	0.003802009	±2.5
7.2	2.51	0.003000956	
8.4	1.97	0.002355332	
Max. Deviation (ppm)	3.18	0.003802009	

Test Mode:	LTE Band 5_CH20525_1.4M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-20	2.47	0.002952779	±2.5
-10	3.45	0.004124328	
0	1.18	0.00141064	
10	-2.33	-0.002785415	
20	1.47	0.001757322	
30	2.01	0.002402869	
40	4.55	0.005439331	
50	3.11	0.003717872	
Max. Deviation (ppm)	4.55	0.005439331	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
6.6	-5.62	-0.00671847	±2.5
7.2	2.03	0.002426778	
8.4	-0.81	-0.00096832	
Max. Deviation (ppm)	-5.62	-0.00671847	

Test Mode:	LTE Band 5_CH20525_3M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-20	-5.34	-0.006383742	±2.5
-10	-5.42	-0.006479378	
0	2.46	0.002940825	
10	3.11	0.003717872	
20	-1.21	-0.001446503	
30	2.13	0.002546324	
40	6.11	0.007304244	
50	1.31	0.001566049	
Max. Deviation (ppm)	6.11	0.007304244	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
6.6	-1.27	-0.001518231	±2.5
7.2	-5.62	-0.00671847	
8.4	2.49	0.002976689	
Max. Deviation (ppm)	-5.62	-0.00671847	

Test Mode:	LTE Band 5_CH20525_5M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-20	-2.94	-0.003514644	± 2.5
-10	-2.71	-0.003239689	
0	1.82	0.002175732	
10	4.52	0.005403467	
20	-1.06	-0.001267185	
30	2.26	0.002701733	
40	-3.71	-0.004435146	
50	-4.55	-0.005439331	
Max. Deviation (ppm)	-4.55	-0.005439331	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
6.6	1.46	0.001745368	± 2.5
7.2	5.32	0.006359833	
8.4	2.83	0.003383144	
Max. Deviation (ppm)	5.32	0.006359833	

Test Mode:	LTE Band 5_CH20525_10M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-20	4.13	0.004937238	± 2.5
-10	5.58	0.006670652	
0	3.61	0.004315601	
10	2.57	0.003072325	
20	3.64	0.004351464	
30	-1.44	-0.001721458	
40	3.72	0.004447101	
50	5.89	0.007041243	
Max. Deviation (ppm)	5.89	0.007041243	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
6.6	2.23	0.00266587	± 2.5
7.2	-1.02	-0.001219366	
8.4	3.25	0.003885236	
Max. Deviation (ppm)	3.25	0.003885236	

End of Test Report