

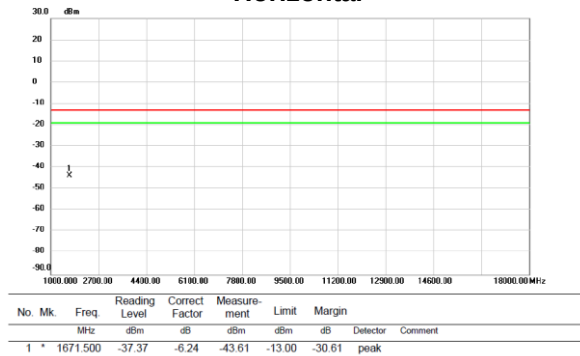
Test Mode : LTE Band 5_TX CH20525_1.4MHz

Vertical



Test Mode : LTE Band 5_TX CH20525_1.4MHz

Horizontal



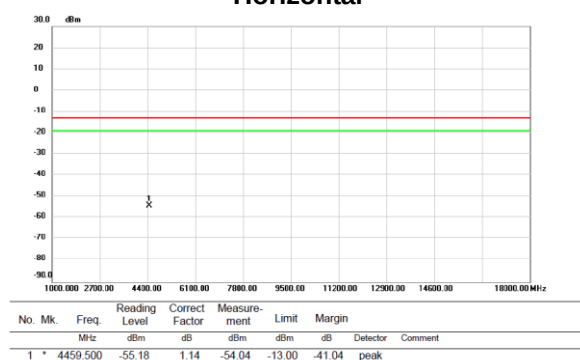
Test Mode : LTE Band 5_TX CH20525_5MHz

Vertical



Test Mode : LTE Band 5_TX CH20525_5MHz

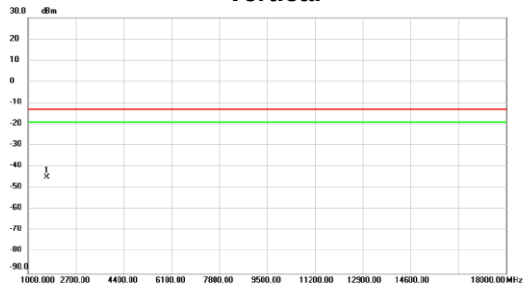
Horizontal



Test Mode : LTE Band 5_TX CH20525_10MHz

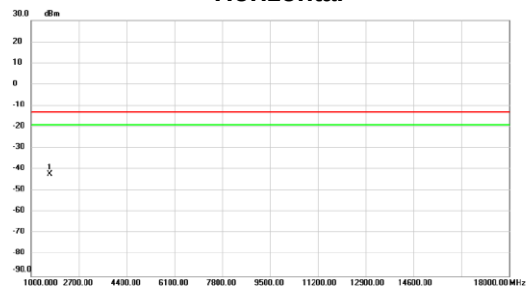
Test Mode : LTE Band 5_TX CH20525_10MHz

Vertical



No. Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measurement dBm	Limit dBm	Margin dB	Detector	Comment
1 *	1663.000	-38.64	-6.26	-44.90	-13.00	-31.90	peak	

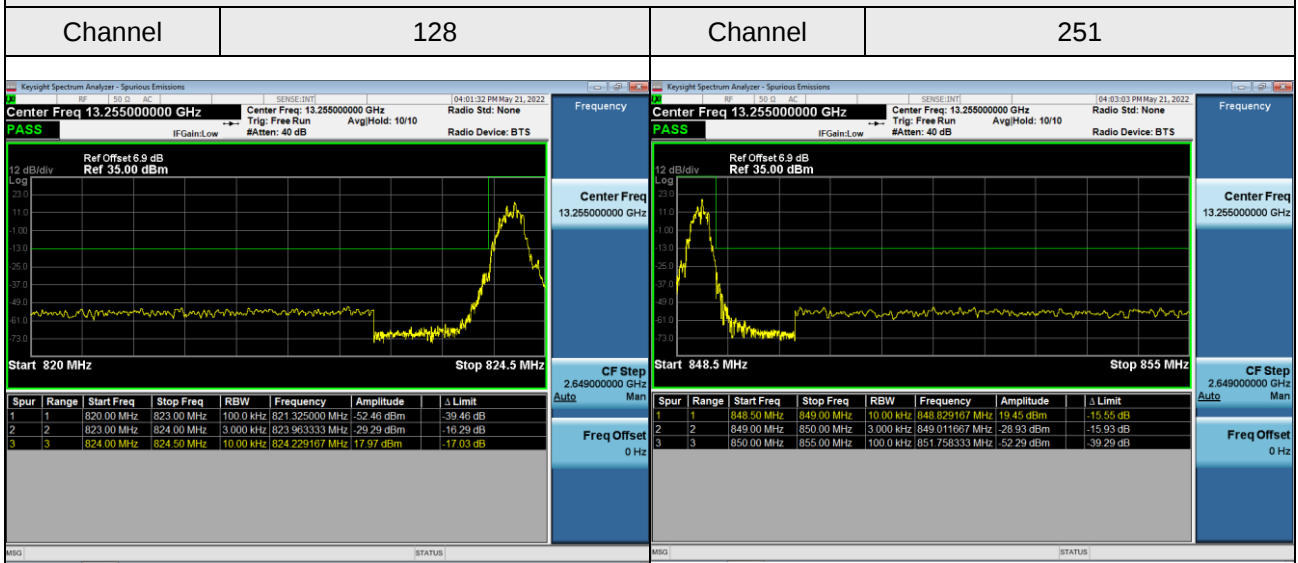
Horizontal



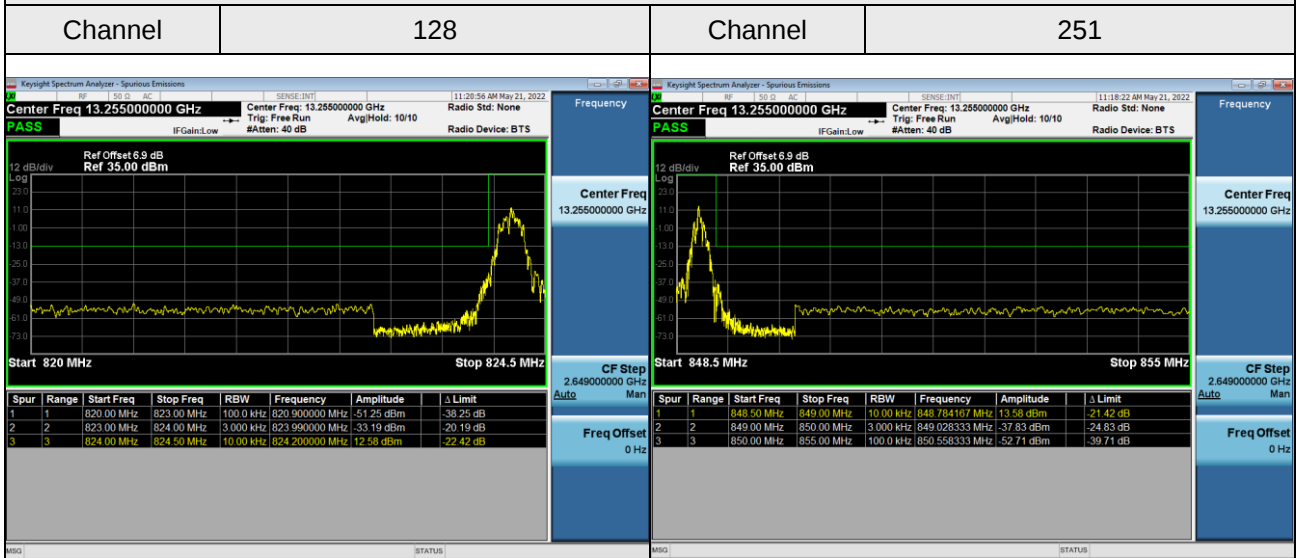
No. Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measurement dBm	Limit dBm	Margin dB	Detector	Comment
1 *	1663.000	-35.77	-6.26	-42.03	-13.00	-29.03	peak	

APPENDIX G - BAND EDGE

GSM850_GSM Spectrum Plot



GSM850_EDGE Spectrum Plot



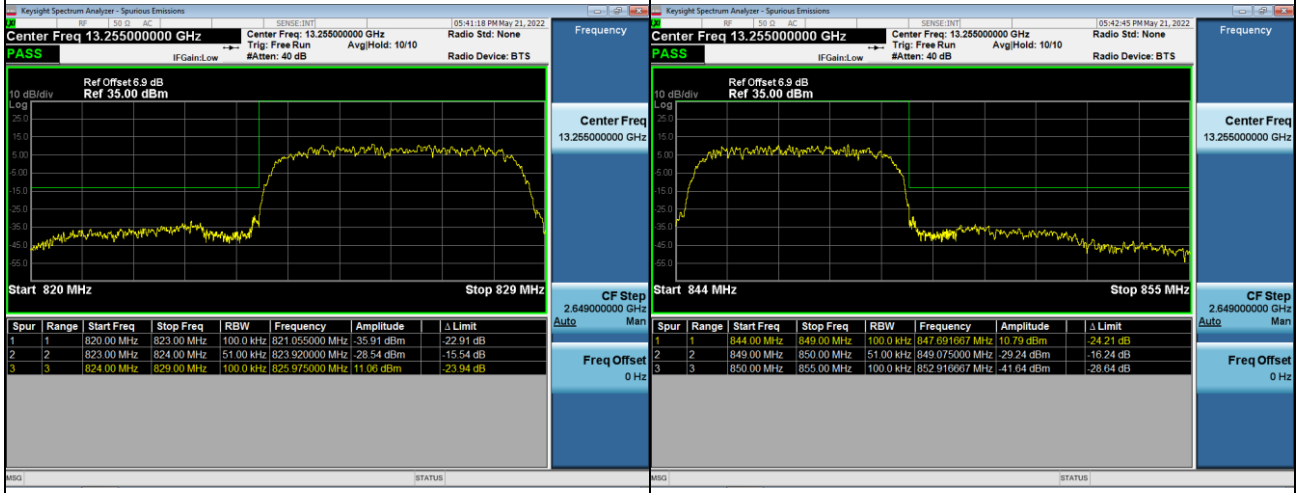
WCDMA Band V_WCDMA Spectrum Plot

Channel

4132

Channel

4233



LTE Band 5_1.4MHz Spectrum Plot

1RB#0

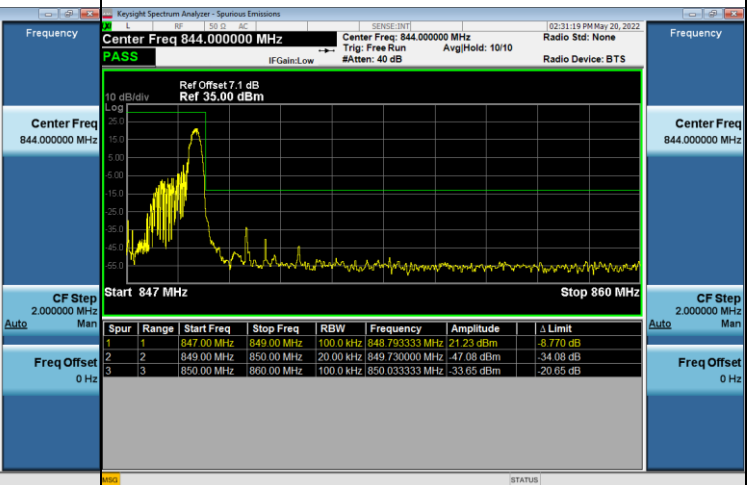
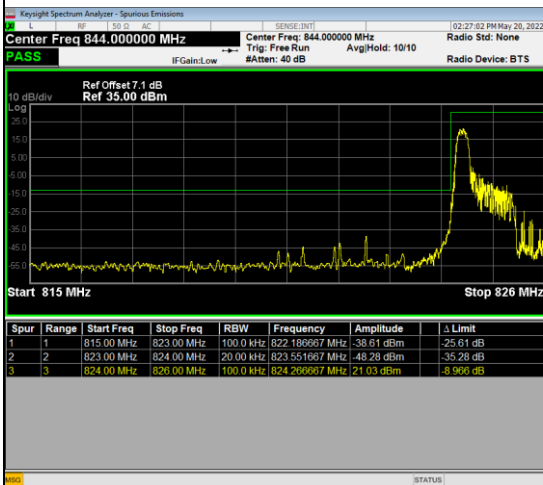
1RB#5

Channel

20407

Channel

20643



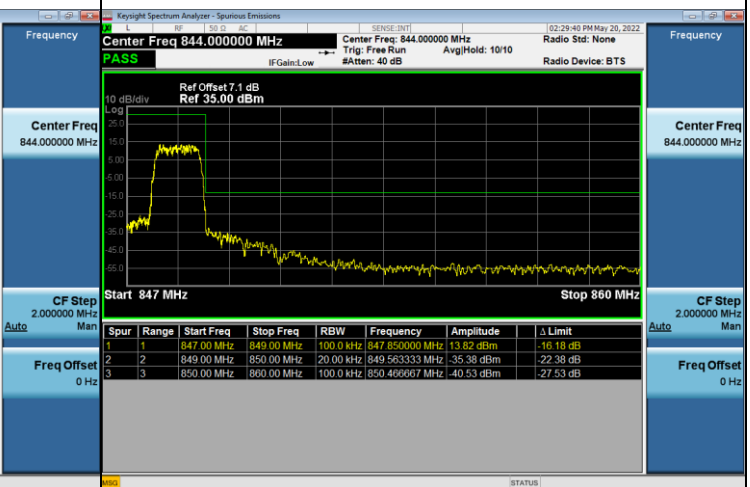
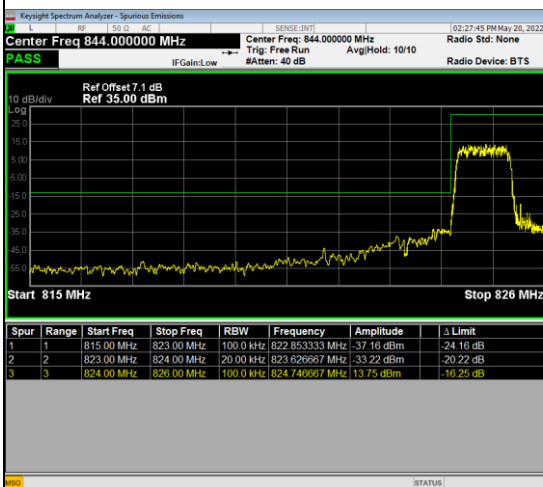
6RB#0

Channel

20407

Channel

20643



LTE Band 5_3MHz Spectrum Plot

1RB#0

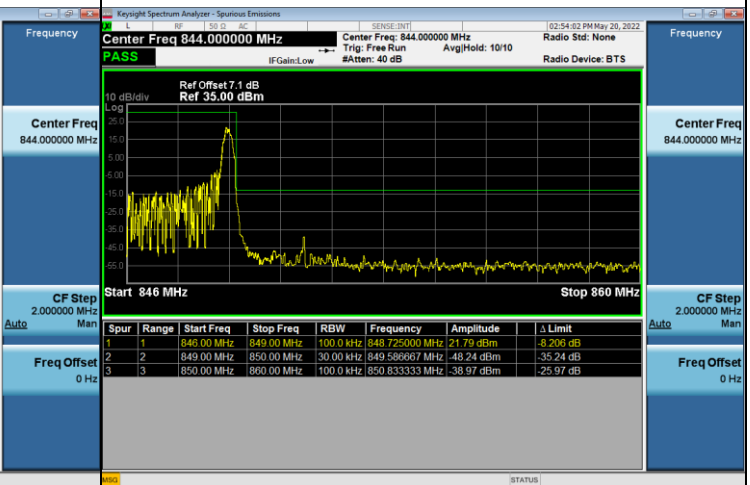
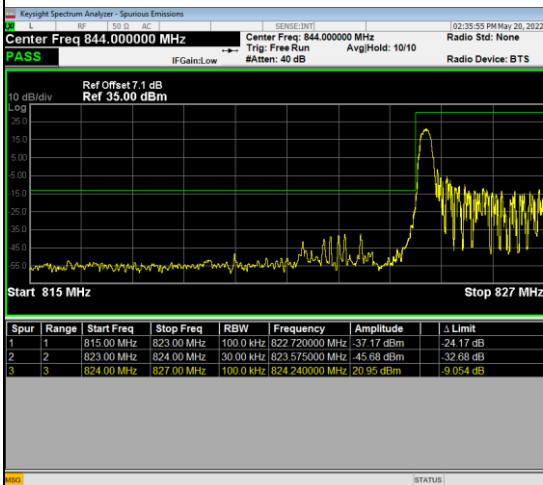
1RB#14

Channel

20415

Channel

20635



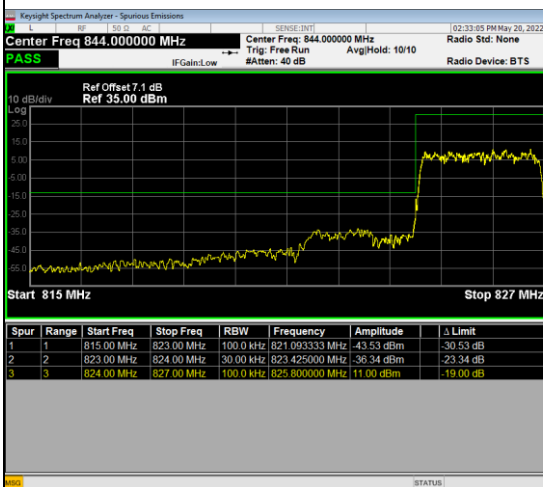
15RB#0

Channel

20415

Channel

20635



LTE Band 5_5MHz Spectrum Plot

1RB#0

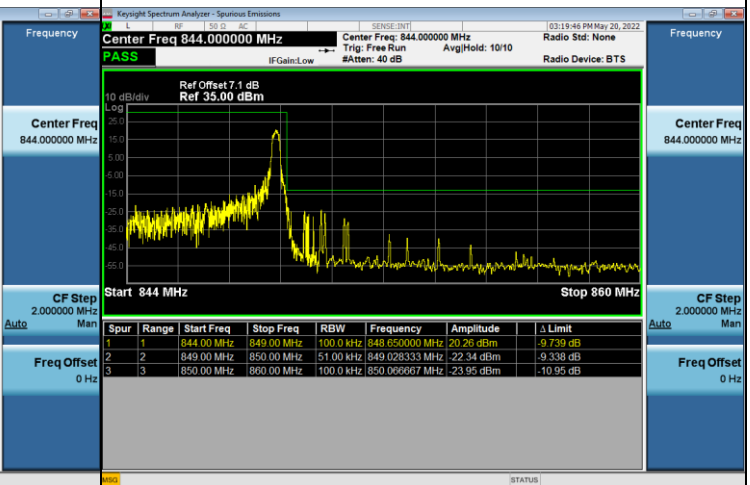
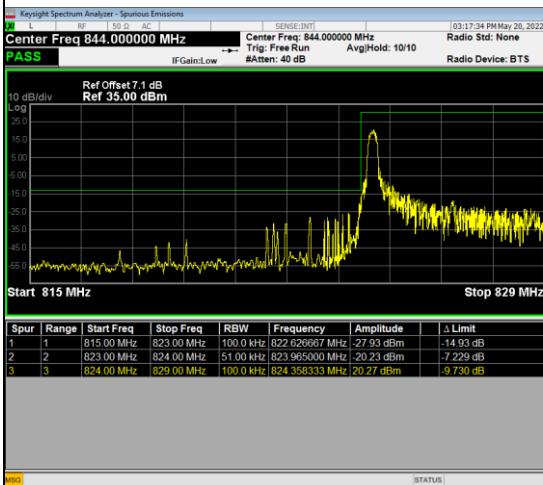
1RB#24

Channel

20425

Channel

20625



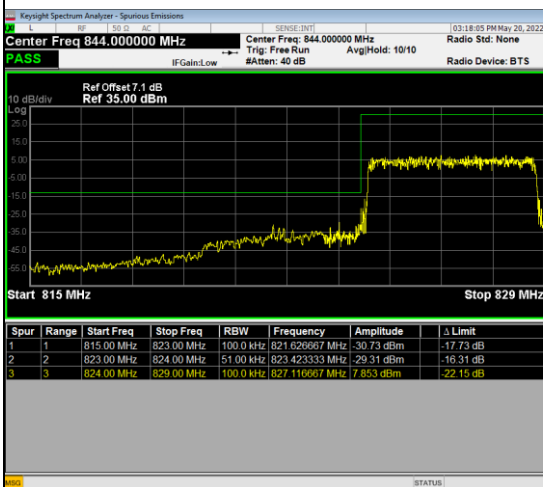
25RB#0

Channel

20425

Channel

20625



LTE Band 5_10MHz Spectrum Plot

1RB#0

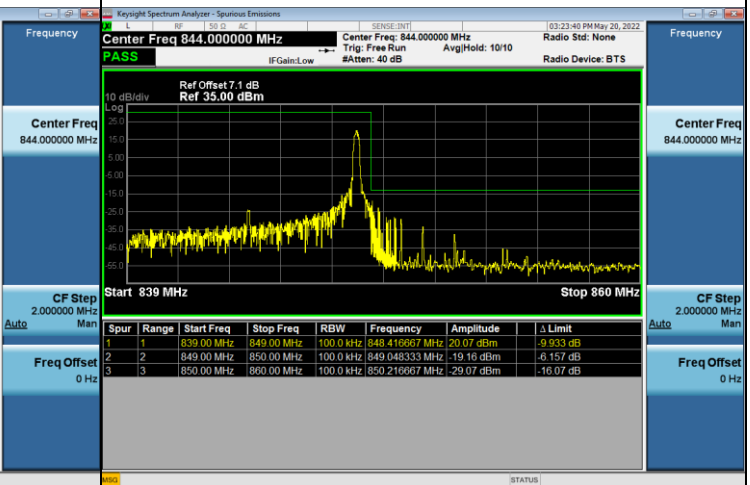
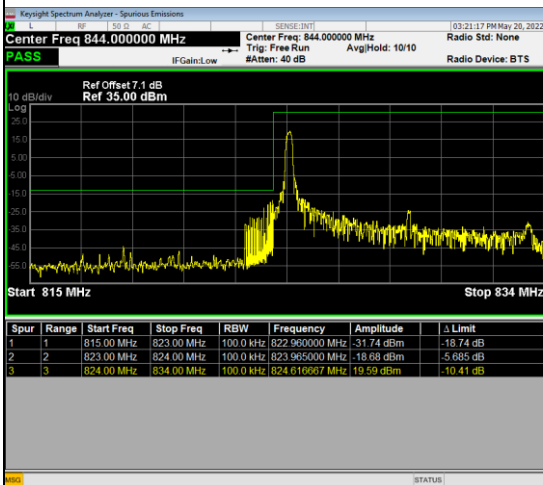
1RB#49

Channel

20450

Channel

20600



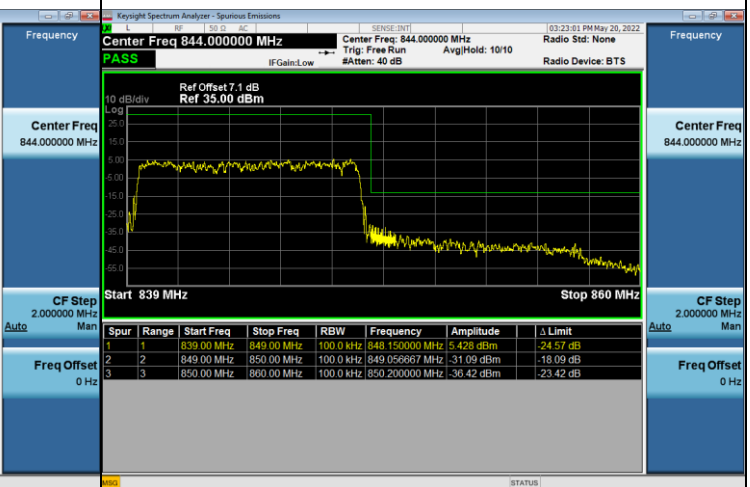
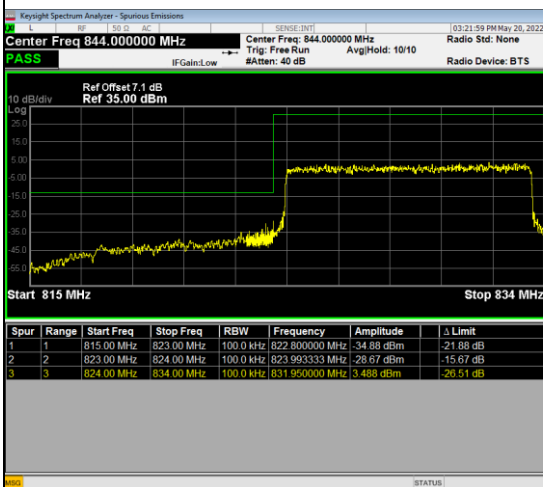
50RB#0

Channel

20450

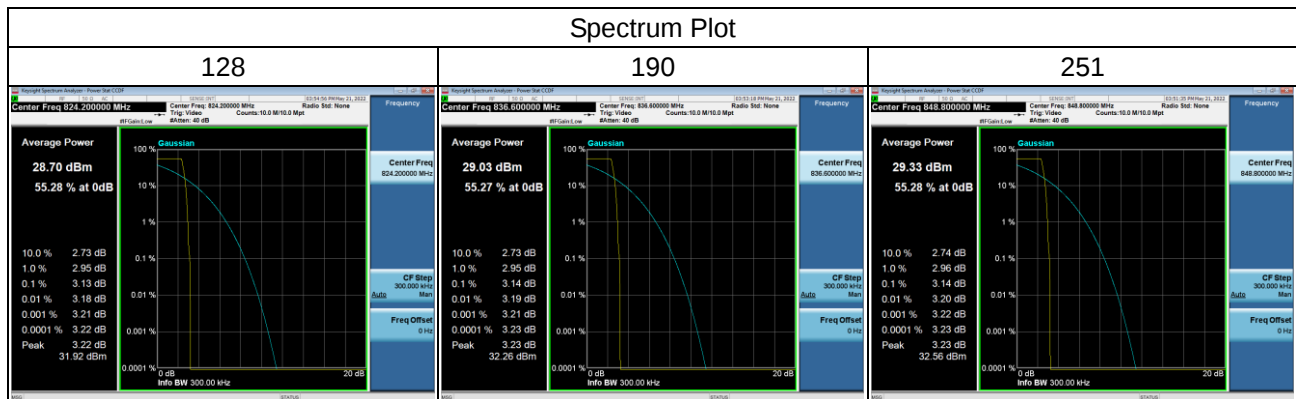
Channel

20600

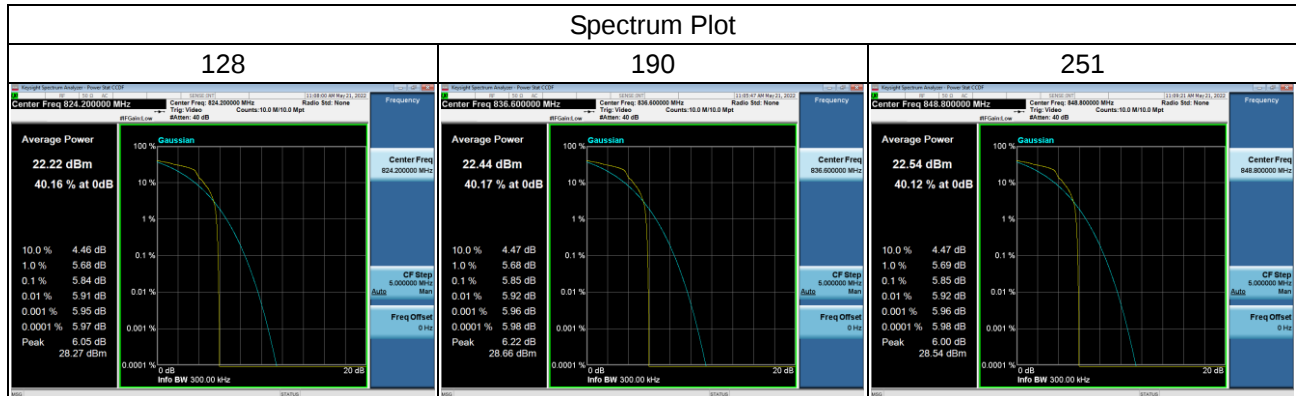


APPENDIX H - PEAK TO AVERAGE RATIO

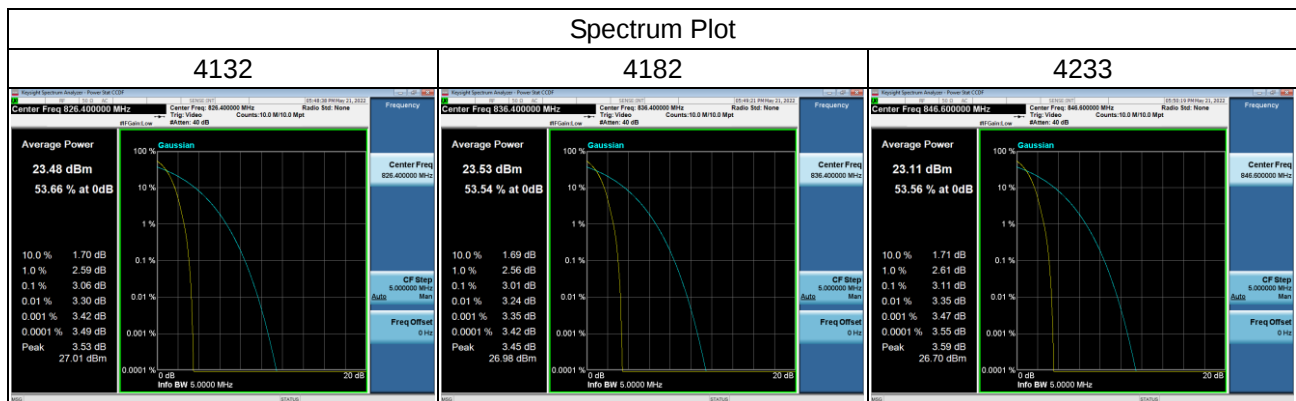
GSM 850_GSM				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)	Max. Limit (dB)	Result
		QPSK		
128	824.2	3.13	13	Pass
190	836.6	3.14	13	Pass
251	848.8	3.14	13	Pass



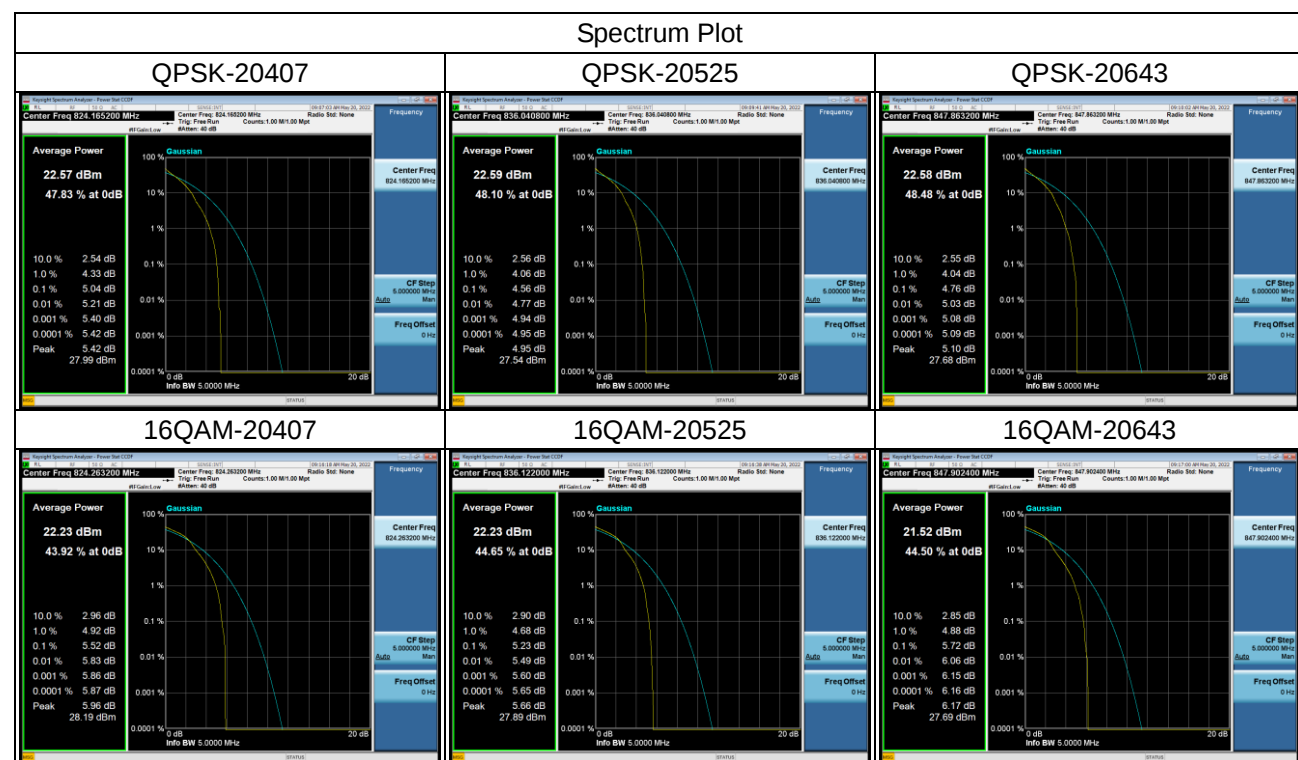
GSM 850_EDGE				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)	Max. Limit (dB)	Result
		QPSK		
128	824.2	5.84	13	Pass
190	836.6	5.85	13	Pass
251	848.8	5.85	13	Pass



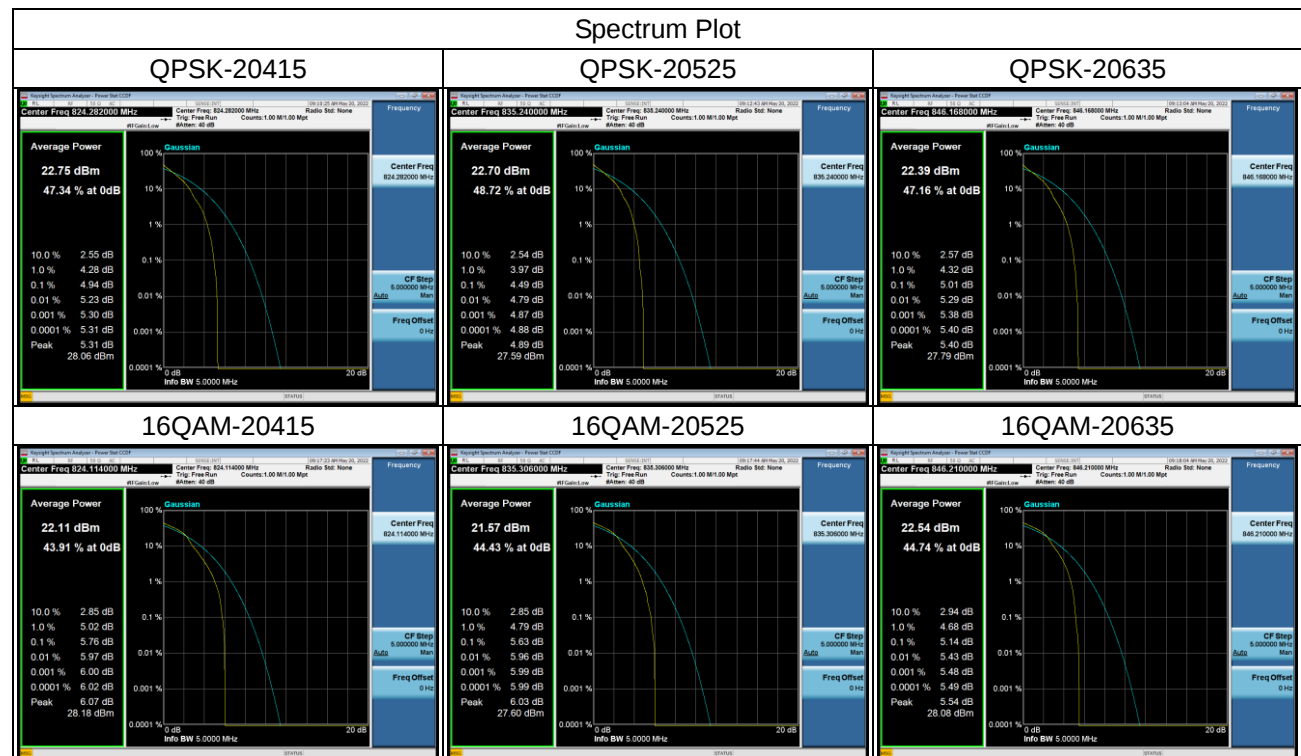
WCDMA Band V_WCDMA				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)	Max. Limit (dB)	Result
		QPSK		
4132	826.4	3.06	13	Pass
4182	836.4	3.01	13	Pass
4233	846.6	3.11	13	Pass



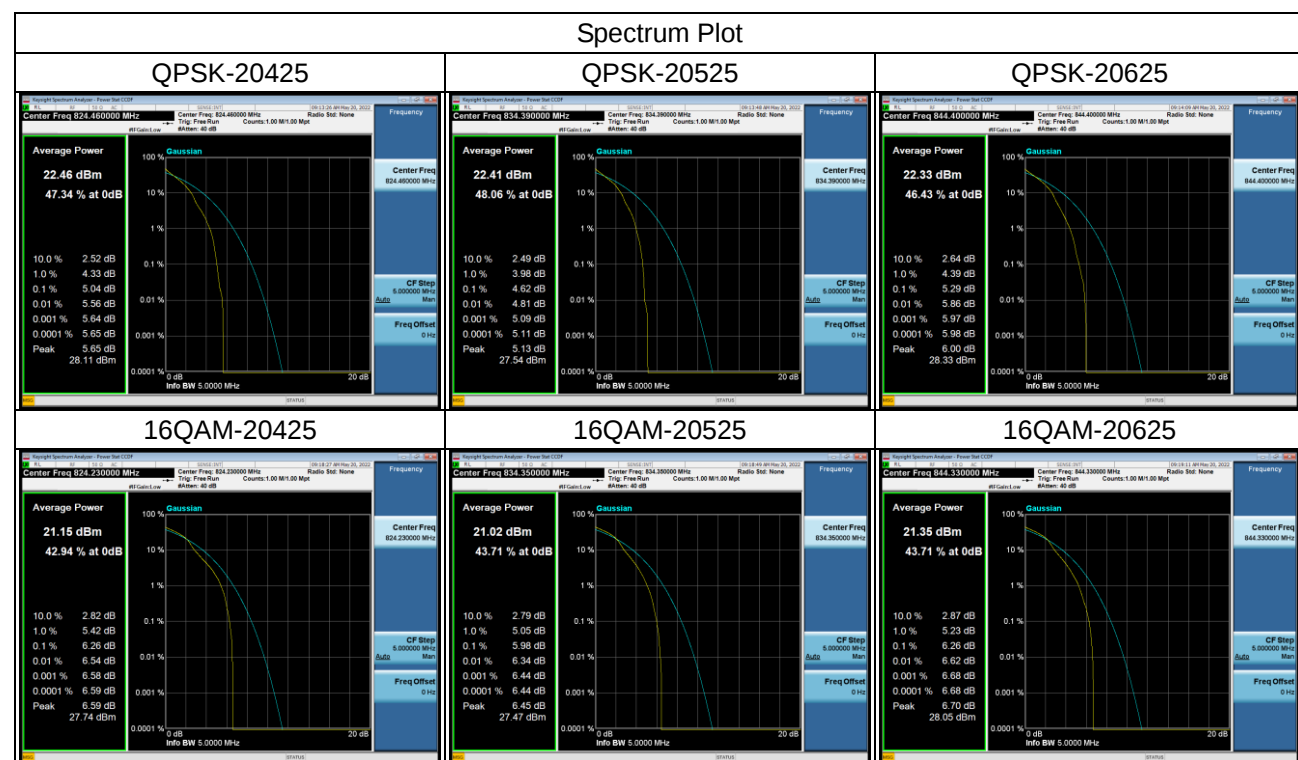
LTE Band 5_1.4MHz					
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		Max. Limit (dB)	Result
		QPSK	16QAM		
20407	824.7	5.04	5.52	13	Pass
20525	836.5	4.56	5.23	13	Pass
20643	848.3	4.76	5.72	13	Pass



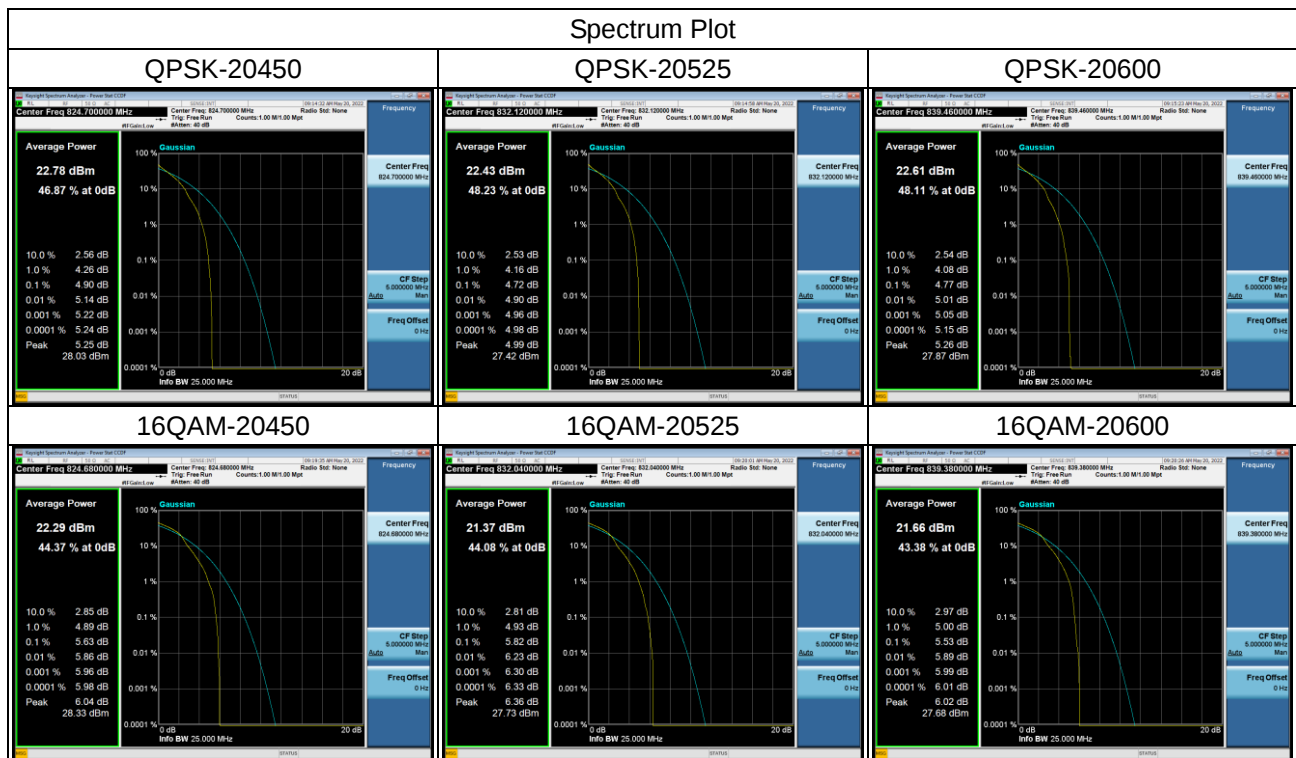
LTE Band 5_3MHz					
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		Max. Limit (dB)	Result
		QPSK	16QAM		
20415	825.5	4.94	5.76	13	Pass
20525	836.5	4.49	5.63	13	Pass
20635	847.5	5.01	5.14	13	Pass



LTE Band 5_5MHz					
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		Max. Limit (dB)	Result
		QPSK	16QAM		
20425	826.5	5.04	6.26	13	Pass
20525	836.5	4.62	5.98	13	Pass
20625	846.5	5.29	6.26	13	Pass



LTE Band 5_10MHz					
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		Max. Limit (dB)	Result
		QPSK	16QAM		
20450	829.0	4.90	5.63	13	Pass
20525	836.5	4.72	5.82	13	Pass
20600	844.0	4.77	5.53	13	Pass



APPENDIX I - FREQUENCY STABILITY

Test Mode	GSM850_CH190
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Frequency error versus temperature and supply voltage			
Temperature (°C)	Frequency error (Hz)	ppm	Limit
50	-3.23	-0.0039	±2.5ppm
40	-5.17	-0.0062	
30	-5.94	-0.0071	
20	-5.26	-0.0063	
10	-2.94	-0.0035	
0	-5.52	-0.0066	
-10	-6.91	-0.0083	
-20	-9.17	-0.0110	
-30	-8.85	-0.0106	
Minimum voltage	-3.1	-0.0037	
Maximum voltage	-6.81	-0.0081	
Nominal voltage	-9.27	-0.0111	

Note: Nominal voltage= 3.8V, Maximum voltage= 4.2V, Minimum voltage= 3.5V.

Test Mode	WCDMA Band V_CH4182
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Frequency error versus temperature and supply voltage			
Temperature (°C)	Frequency error (Hz)	ppm	Limit
50	-1.42	-0.0017	±2.5ppm
40	-1.18	-0.0014	
30	2.47	0.0030	
20	-2.1	-0.0025	
10	0.22	0.0003	
0	-1.24	-0.0015	
-10	-1.02	-0.0012	
-20	-3.67	-0.0044	
-30	-3.67	-0.0044	
Minimum voltage	-2.22	-0.0027	
Maximum voltage	-1.04	-0.0012	
Nominal voltage	0.75	0.0009	

Note: Nominal voltage= 3.8V, Maximum voltage= 4.2V, Minimum voltage= 3.5V.

Test Mode	LTE Band 5_CH20525_10MHz
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Frequency error versus temperature and supply voltage			
Temperature (°C)	Frequency error (Hz)	ppm	Limit
50	-40	-0.0478	±2.5ppm
40	-33	-0.0395	
30	-33	-0.0395	
20	-38	-0.0454	
10	-35	-0.0418	
0	-32	-0.0383	
-10	-32	-0.0383	
-20	-30	-0.0359	
-30	-34	-0.0406	
Minimum voltage	-40	-0.0478	
Maximum voltage	-35	-0.0418	
Nominal voltage	-36	-0.0430	

Note: Nominal voltage= 3.8V, Maximum voltage= 4.2V, Minimum voltage= 3.5V.

End of Test Report