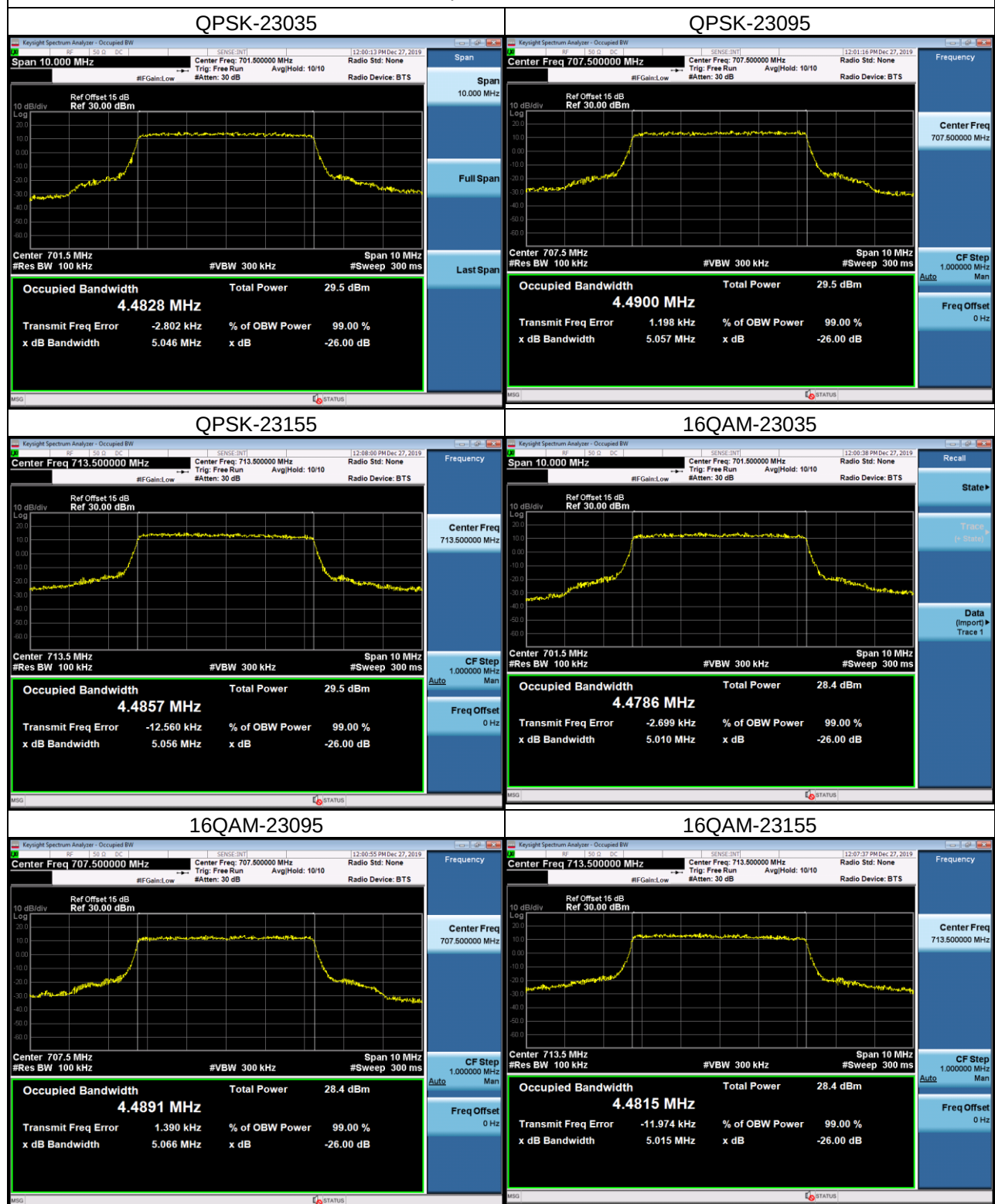
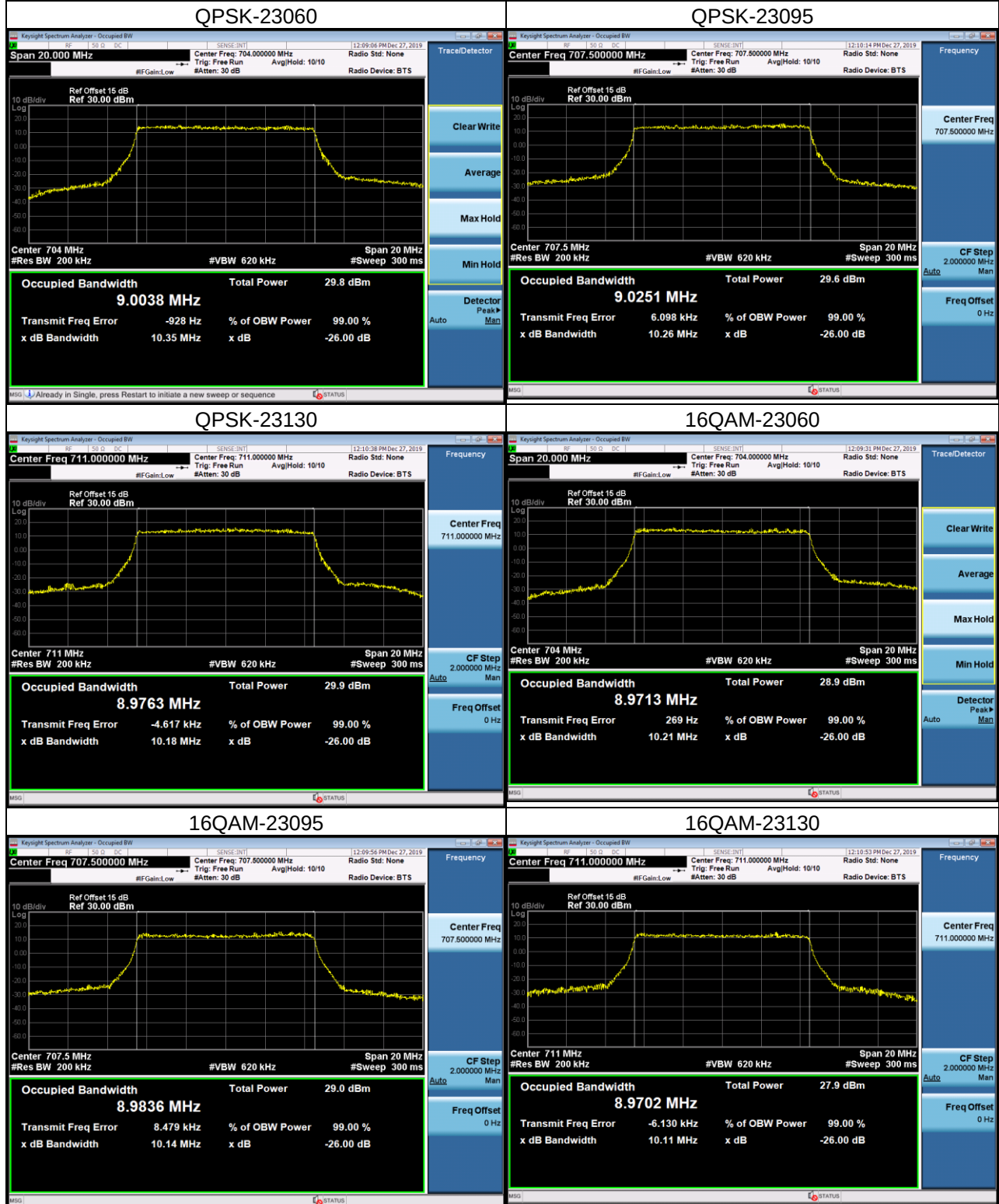


Spectrum Plot

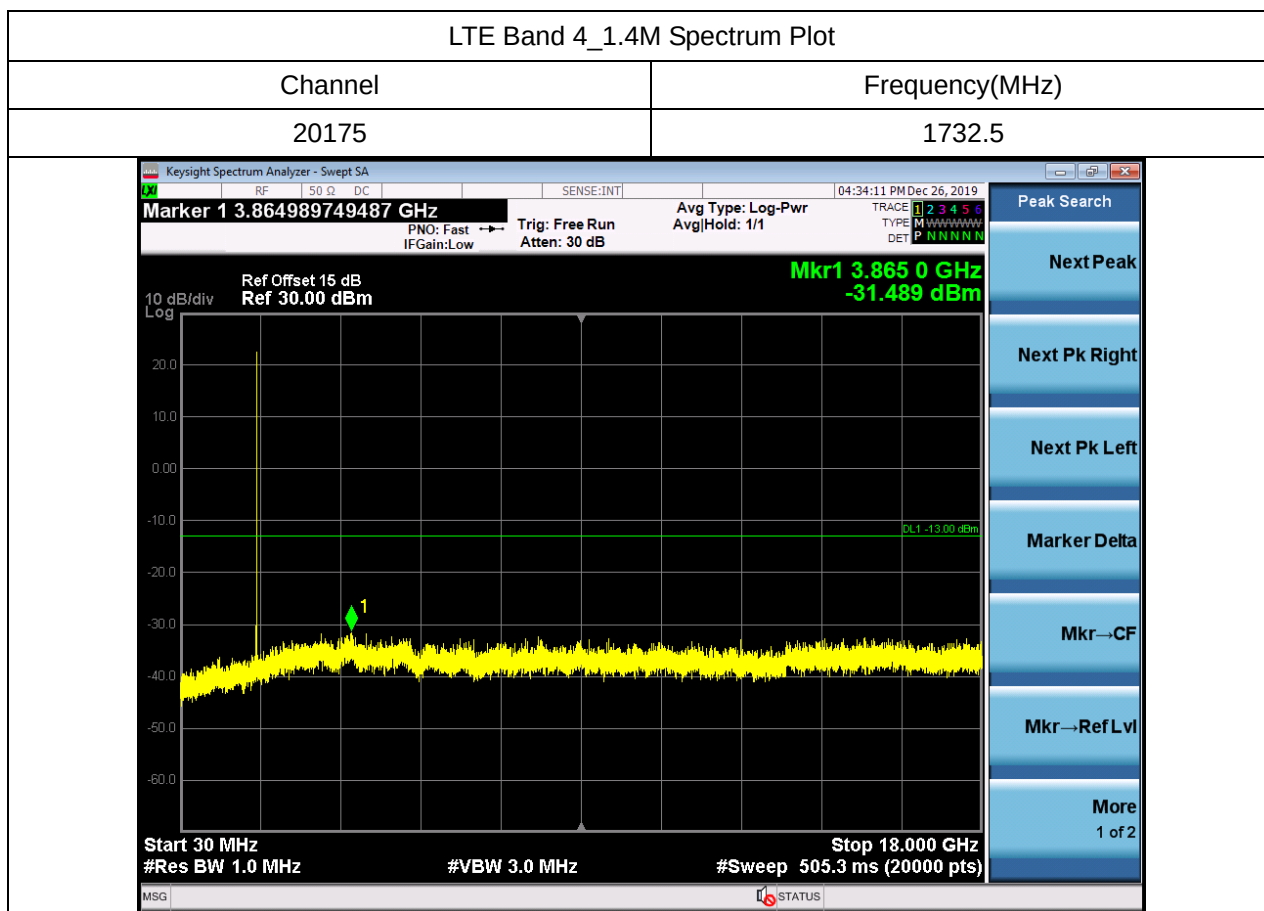


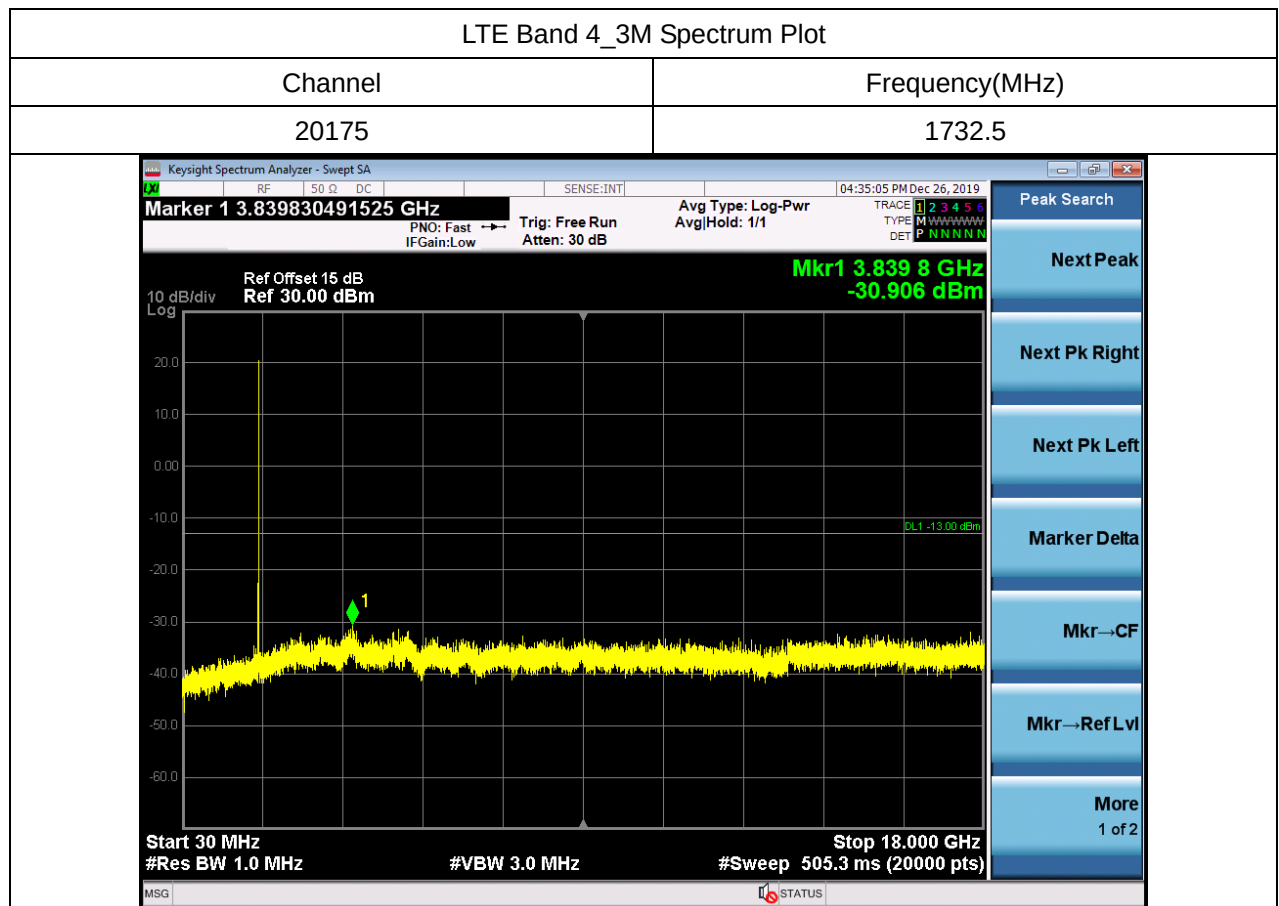
LTE Band 12_10M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23060	704.0	9.0038	23060	704.0	10.35
23095	707.5	9.0251	23095	707.5	10.26
23130	711.0	8.9763	23130	711.0	10.18
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23060	704.0	8.9713	23060	704.0	10.21
23095	707.5	8.9836	23095	707.5	10.14
23130	711.0	8.9702	23130	711.0	10.11

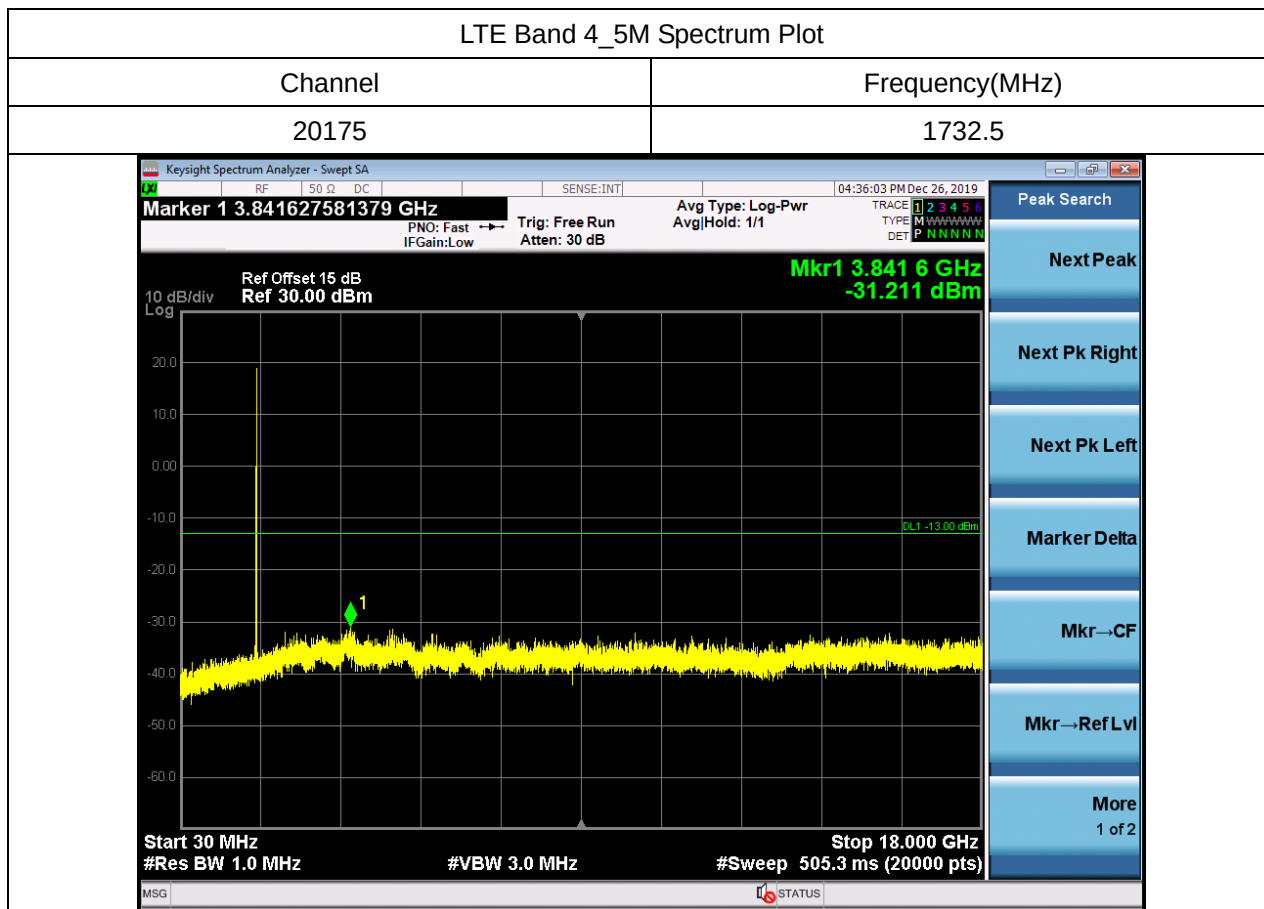
Spectrum Plot

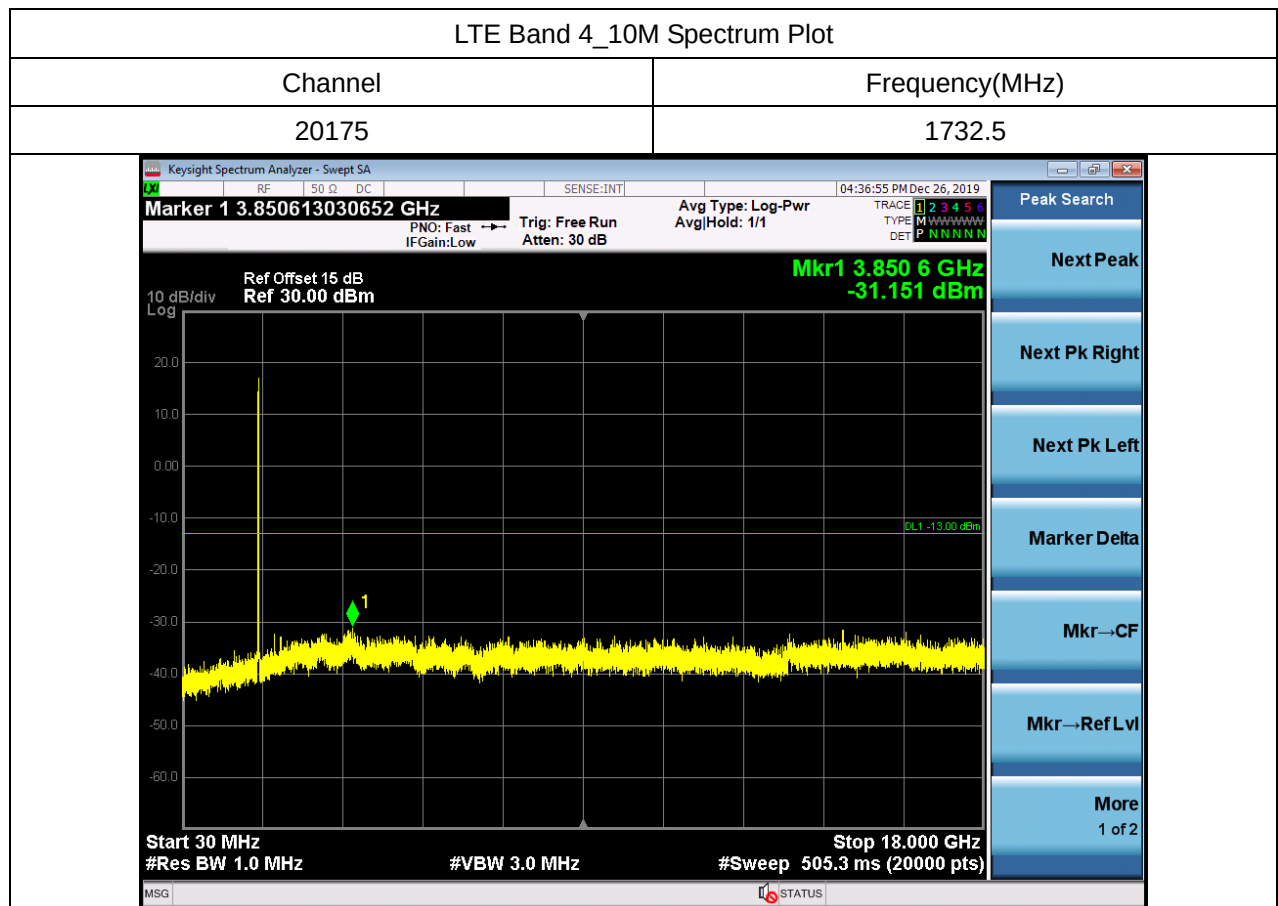


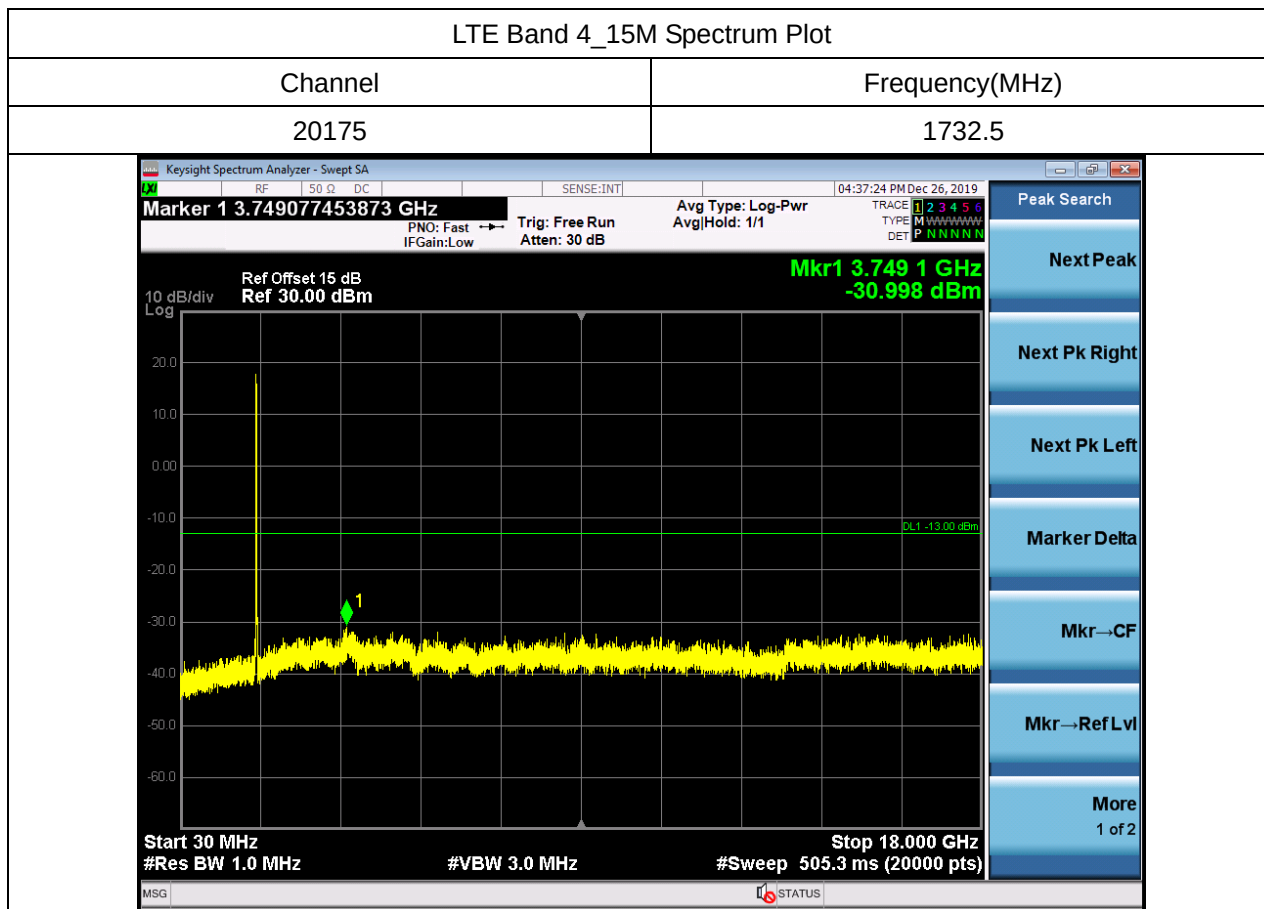
APPENDIX C - CONDUCTED SPURIOUS EMISSIONS

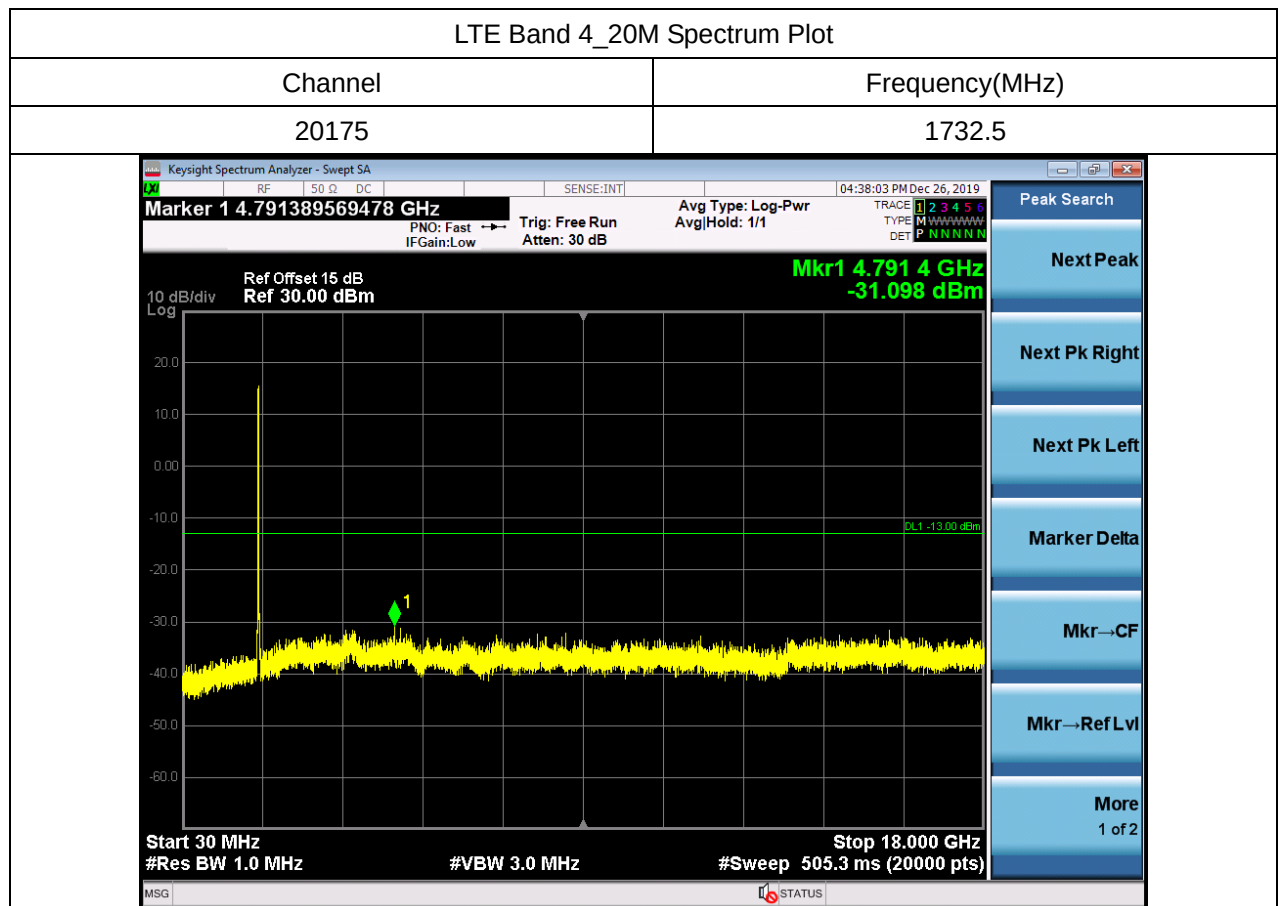


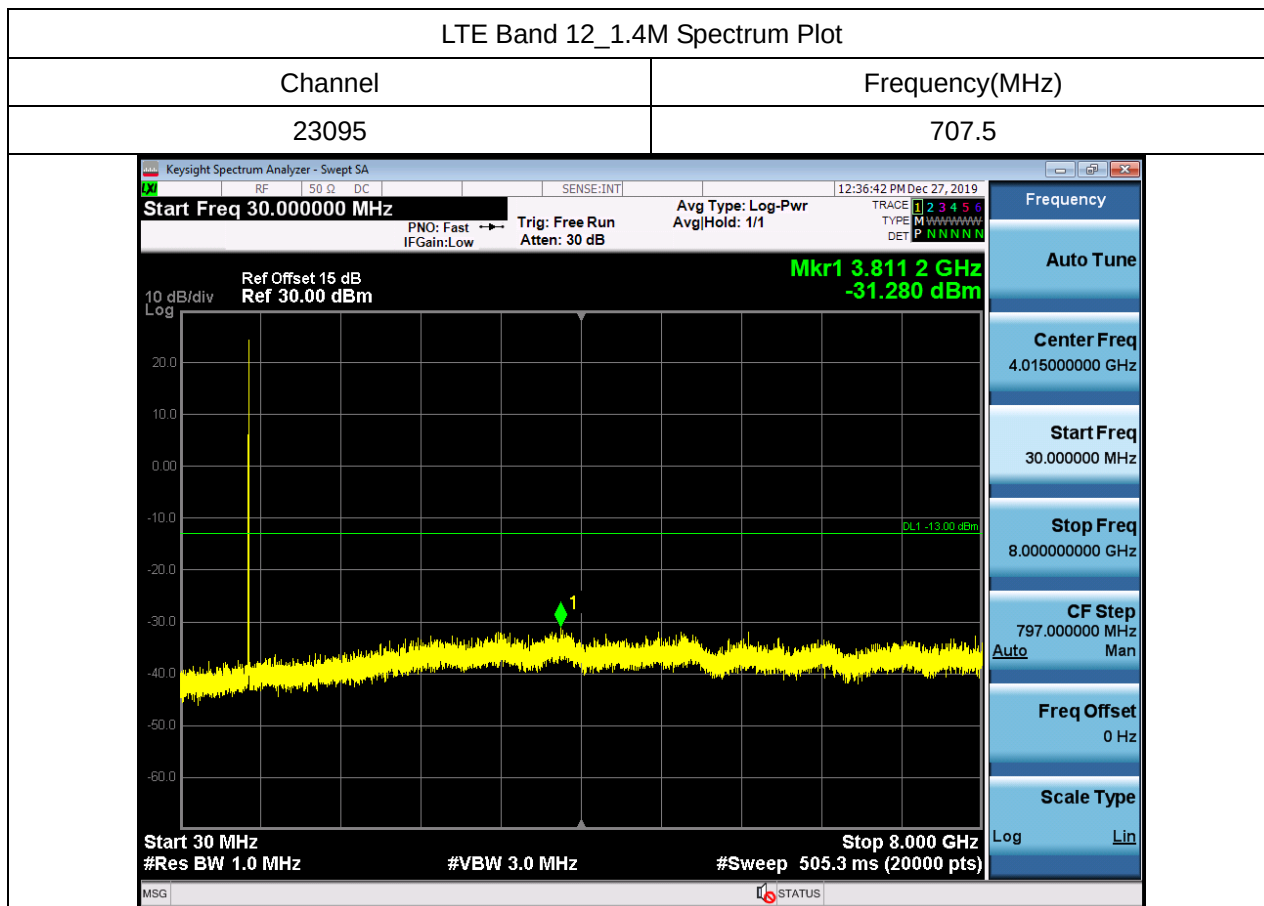


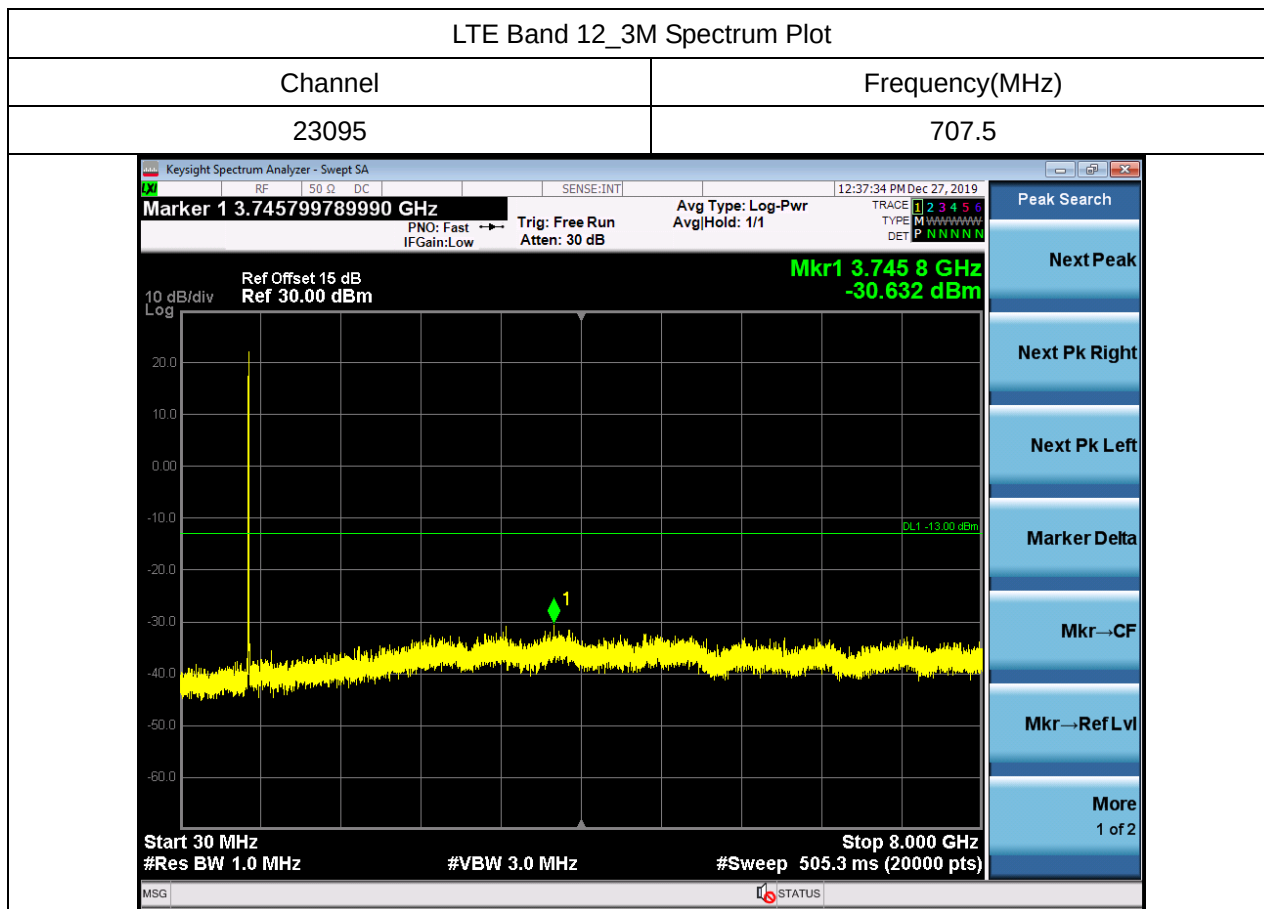


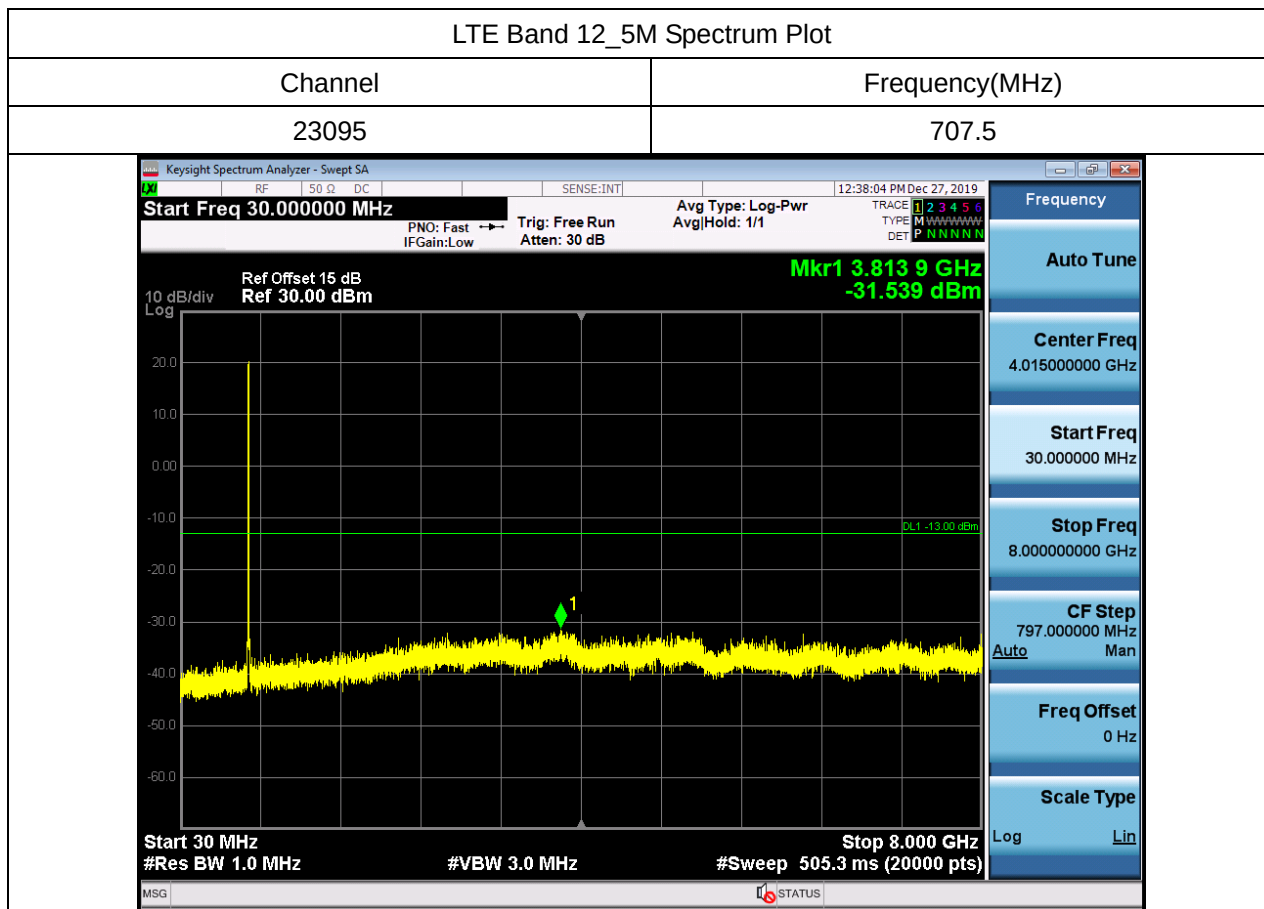


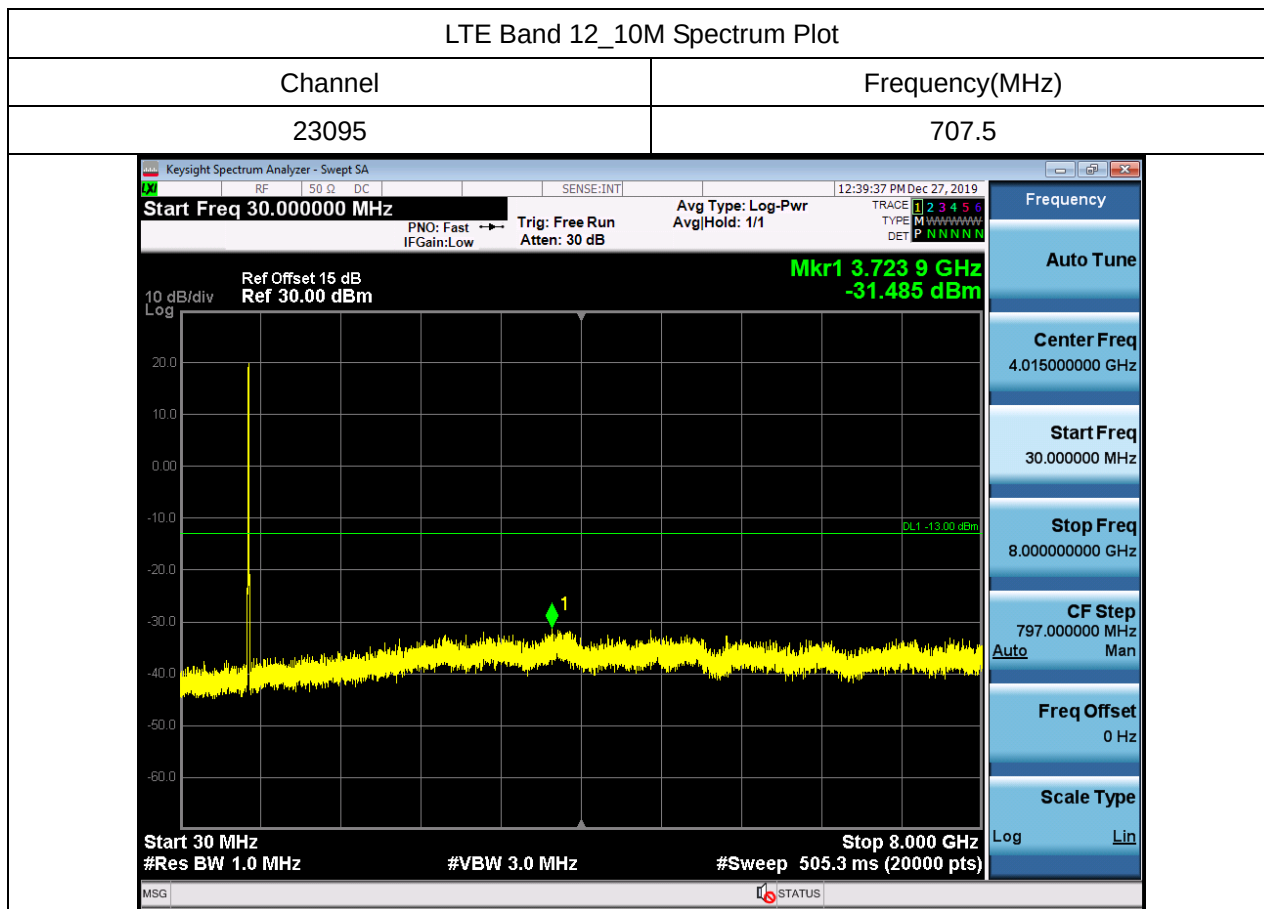






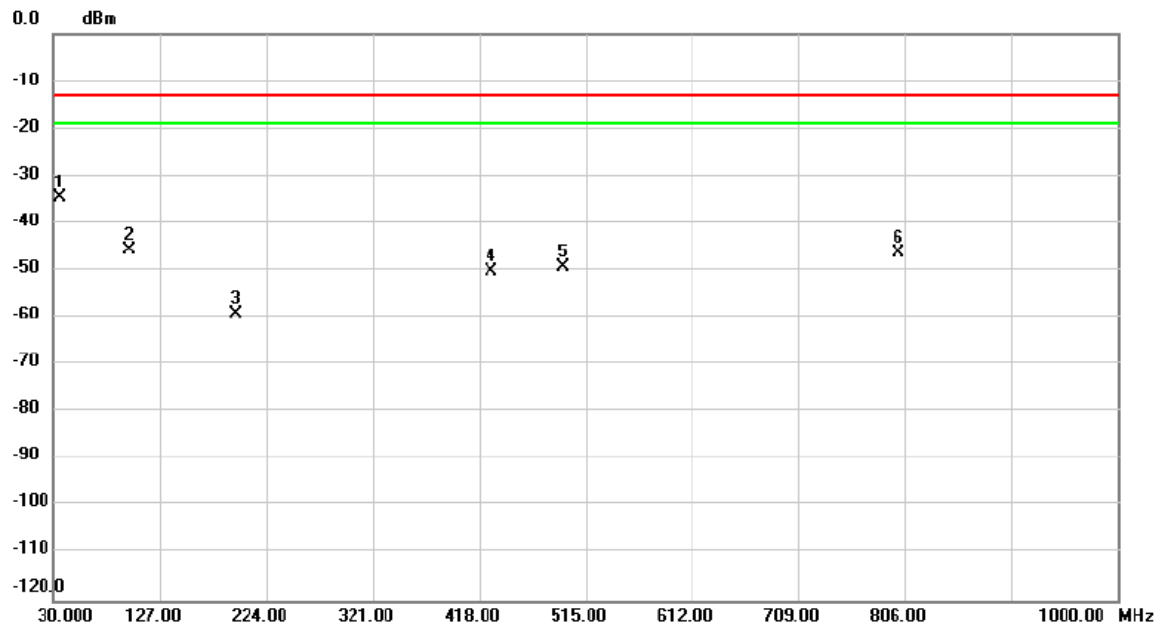






APPENDIX D - RADIATED SPURIOUS EMISSIONS (30MHZ TO 1GHZ)

Test Mode	LTE Band 4_TX CH20175_Internal Antenna	Tested Date	2019/12/22
Test Voltage	DC 32V	Polarization	Vertical

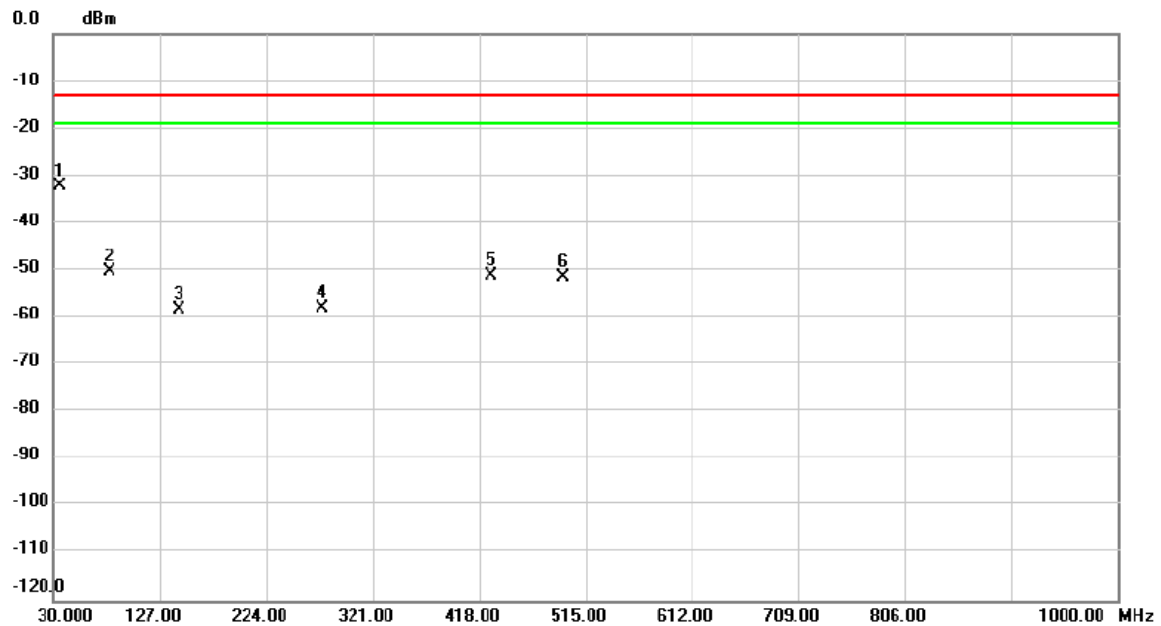


No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1	*	35.8200	-49.77	15.22	-34.55	-13.00	-21.55	peak	
2		98.8700	-49.25	3.39	-45.86	-13.00	-32.86	peak	
3		195.8700	-57.56	-1.69	-59.25	-13.00	-46.25	peak	
4		428.6700	-62.92	12.72	-50.20	-13.00	-37.20	peak	
5		494.6300	-62.22	12.73	-49.49	-13.00	-36.49	peak	
6		800.1800	-62.45	16.20	-46.25	-13.00	-33.25	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	LTE Band 4_TX CH20175_Internal Antenna	Tested Date	2019/12/22
Test Voltage	DC 32V	Polarization	Horizontal

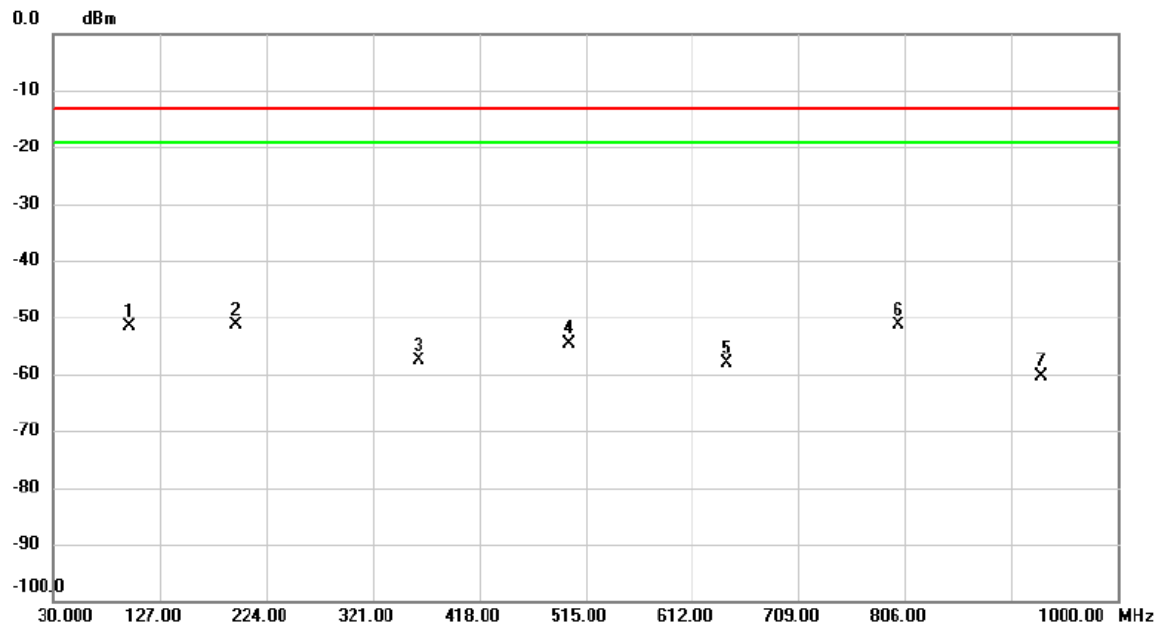


No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1	*	35.8200	-47.38	15.22	-32.16	-13.00	-19.16	peak	
2		80.4400	-55.92	5.66	-50.26	-13.00	-37.26	peak	
3		144.4600	-61.04	2.78	-58.26	-13.00	-45.26	peak	
4		275.4100	-58.24	0.09	-58.15	-13.00	-45.15	peak	
5		428.6700	-63.76	12.72	-51.04	-13.00	-38.04	peak	
6		494.6300	-64.06	12.73	-51.33	-13.00	-38.33	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	LTE Band 12_TX CH23095_Internal Antenna	Tested Date	2019/12/24
Test Voltage	DC 32V	Polarization	Vertical

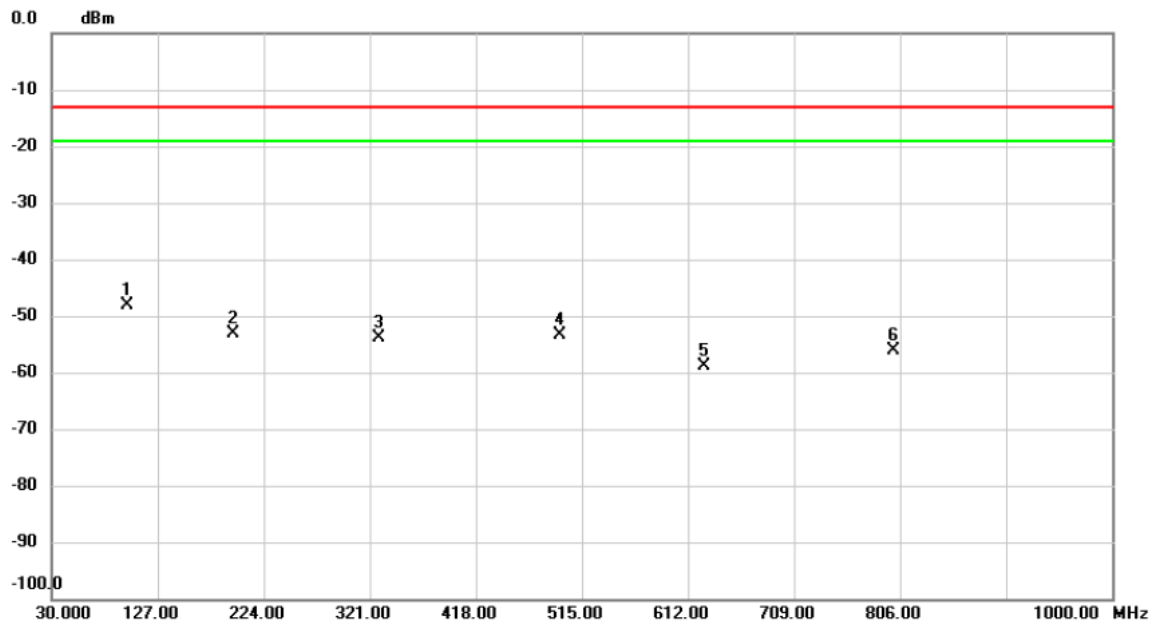


No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1		98.8700	-52.11	0.52	-51.59	-13.00	-38.59	peak	
2	*	195.8700	-54.43	3.16	-51.27	-13.00	-38.27	peak	
3		362.7100	-63.89	6.33	-57.56	-13.00	-44.56	peak	
4		500.4500	-61.59	7.05	-54.54	-13.00	-41.54	peak	
5		644.0100	-72.42	14.39	-58.03	-13.00	-45.03	peak	
6		800.1800	-61.59	10.15	-51.44	-13.00	-38.44	peak	
7		930.1600	-74.03	13.61	-60.42	-13.00	-47.42	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	LTE Band 12_TX CH23095_Internal Antenna	Tested Date	2019/12/24
Test Voltage	DC 32V	Polarization	Horizontal

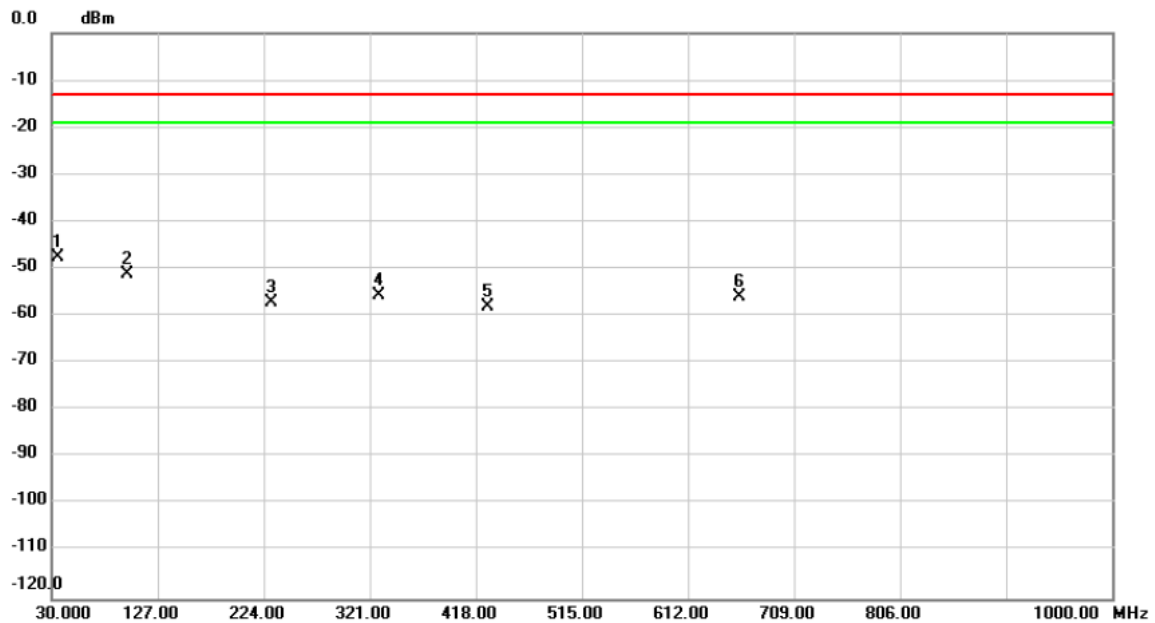


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	98.8700	-48.66	0.52	-48.14	-13.00	-35.14	peak	
2		195.8700	-56.30	3.16	-53.14	-13.00	-40.14	peak	
3		329.7300	-60.87	7.03	-53.84	-13.00	-40.84	peak	
4		494.6300	-60.37	6.88	-53.49	-13.00	-40.49	peak	
5		626.5500	-72.30	13.50	-58.80	-13.00	-45.80	peak	
6		800.1800	-66.21	10.15	-56.06	-13.00	-43.06	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	LTE Band 4_TX CH20175_External Antenna	Tested Date	2019/12/22
Test Voltage	DC 32V	Polarization	Vertical

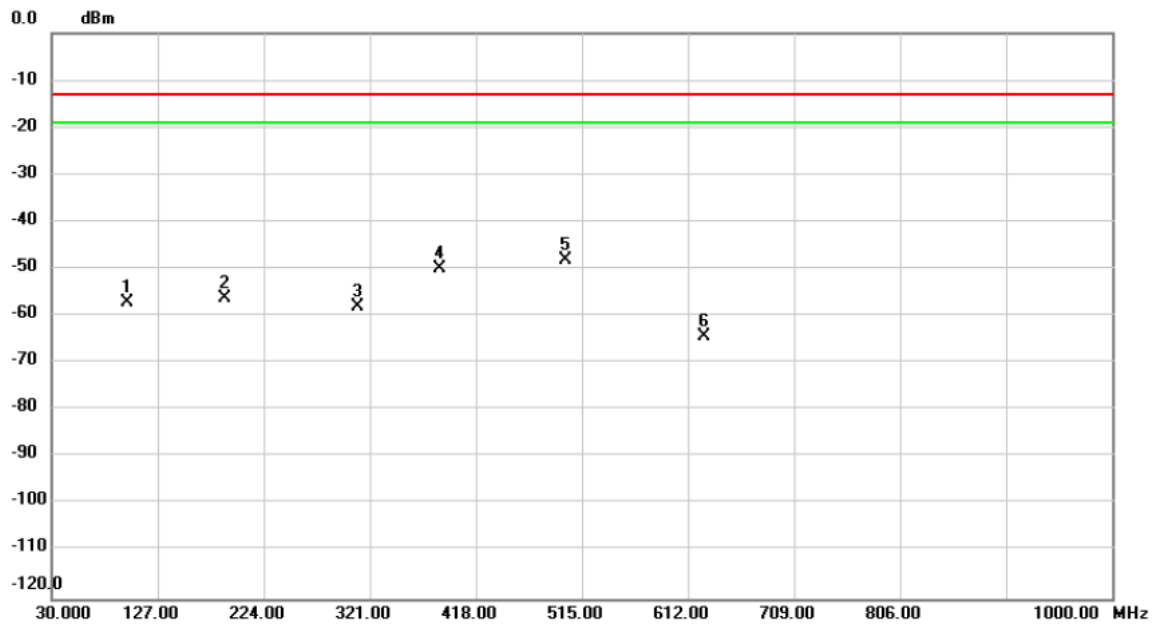


No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1	*	35.8200	-44.59	-2.82	-47.41	-13.00	-34.41	peak	
2		98.8700	-52.41	1.26	-51.15	-13.00	-38.15	peak	
3		230.7900	-62.30	5.15	-57.15	-13.00	-44.15	peak	
4		329.7300	-63.99	8.38	-55.61	-13.00	-42.61	peak	
5		428.6700	-65.22	7.09	-58.13	-13.00	-45.13	peak	
6		659.5300	-72.55	16.65	-55.90	-13.00	-42.90	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	LTE Band 4_TX CH20175_External Antenna	Tested Date	2019/12/22
Test Voltage	DC 32V	Polarization	Horizontal

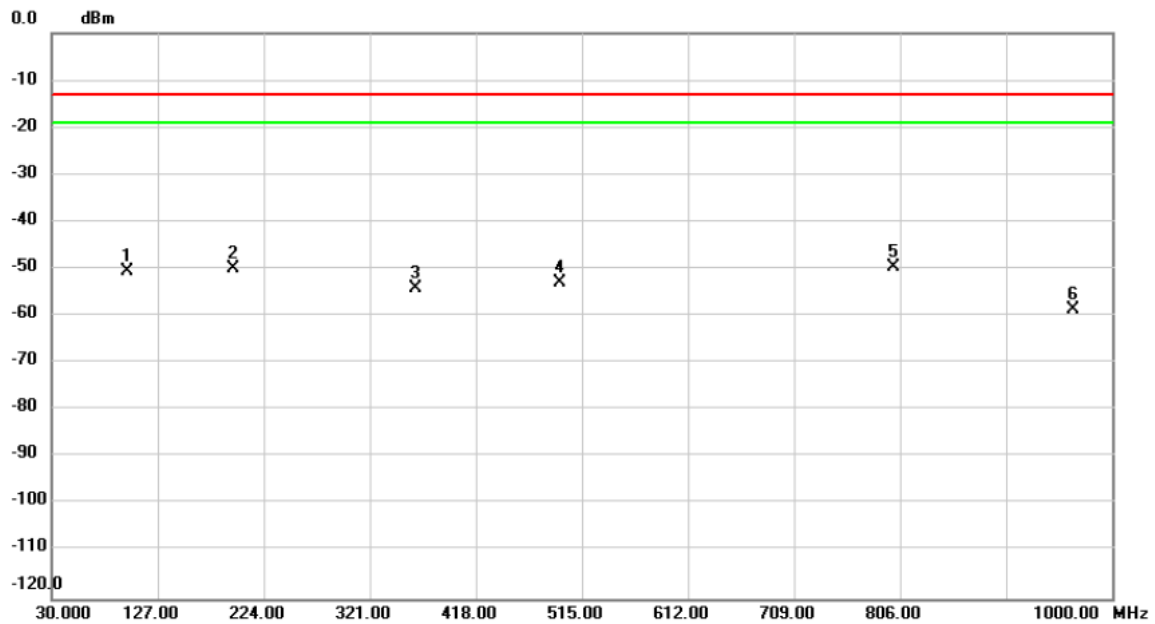


No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1		98.8700	-61.19	4.13	-57.06	-13.00	-44.06	peak	
2		188.1100	-56.93	0.72	-56.21	-13.00	-43.21	peak	
3		310.3300	-60.81	2.82	-57.99	-13.00	-44.99	peak	
4		385.0200	-59.11	9.09	-50.02	-13.00	-37.02	peak	
5	*	500.4500	-62.21	14.03	-48.18	-13.00	-35.18	peak	
6		626.5500	-73.33	9.08	-64.25	-13.00	-51.25	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	LTE Band 12_TX CH23095_External Antenna	Tested Date	2019/12/24
Test Voltage	DC 32V	Polarization	Vertical

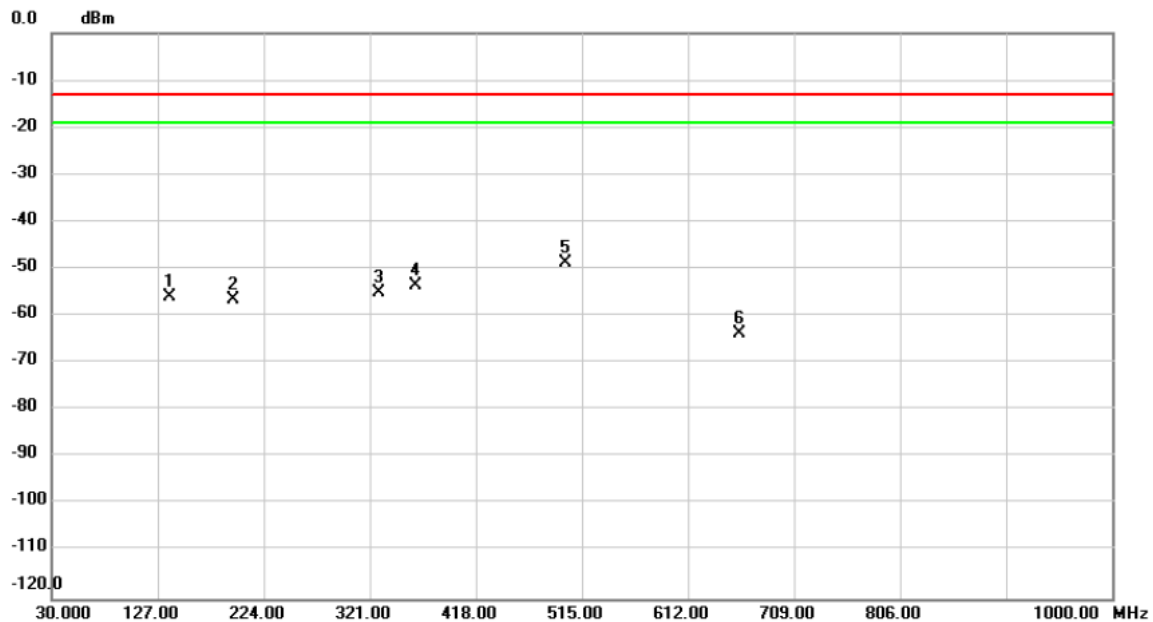


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1		98.8700	-51.86	1.26	-50.60	-13.00	-37.60	peak	
2		195.8700	-54.06	4.20	-49.86	-13.00	-36.86	peak	
3		362.7100	-61.88	7.73	-54.15	-13.00	-41.15	peak	
4		494.6300	-61.55	8.54	-53.01	-13.00	-40.01	peak	
5	*	800.1800	-62.05	12.41	-49.64	-13.00	-36.64	peak	
6		964.1100	-76.39	17.68	-58.71	-13.00	-45.71	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	LTE Band 12_TX CH23095_External Antenna	Tested Date	2019/12/24
Test Voltage	DC 32V	Polarization	Horizontal



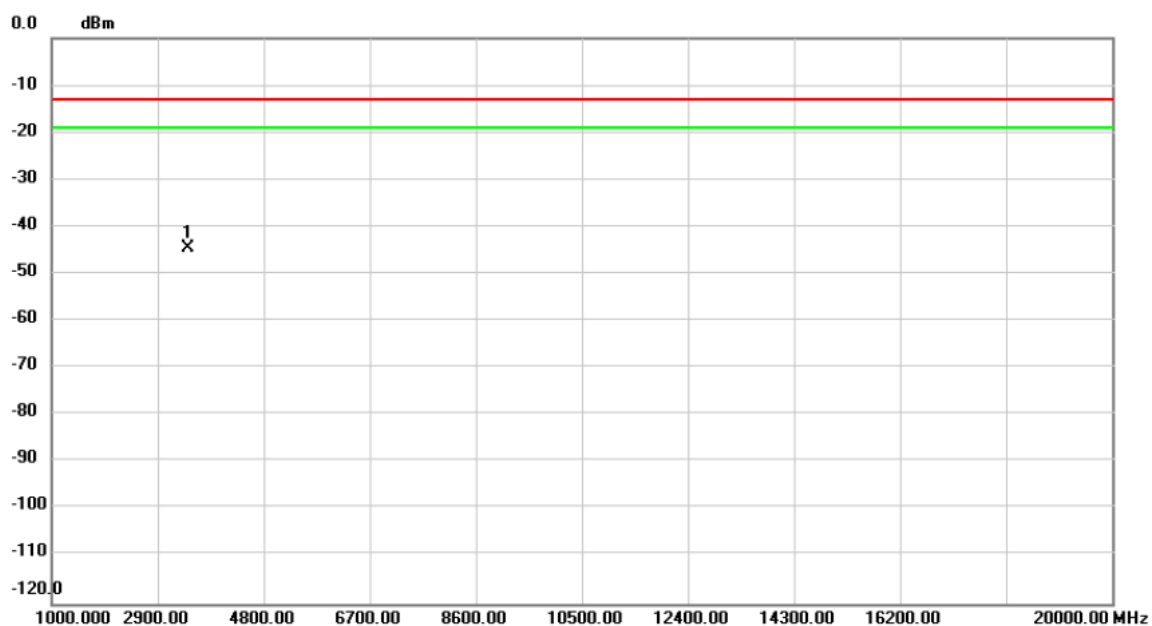
No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Margin dB	Detector	Comment
1		137.6700	-59.66	3.62	-56.04	-13.00	-43.04	peak	
2		195.8700	-55.77	-0.65	-56.42	-13.00	-43.42	peak	
3		329.7300	-59.20	4.12	-55.08	-13.00	-42.08	peak	
4		362.7100	-60.36	6.78	-53.58	-13.00	-40.58	peak	
5	*	500.4500	-62.92	14.03	-48.89	-13.00	-35.89	peak	
6		659.5300	-73.21	9.54	-63.67	-13.00	-50.67	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

APPENDIX E - RADIATED SPURIOUS EMISSIONS (ABOVE 1GHZ)

Test Mode	LTE Band 4_TX CH20175_Internal Antenna	Tested Date	2019/12/24
Test Voltage	DC 32V	Polarization	Vertical

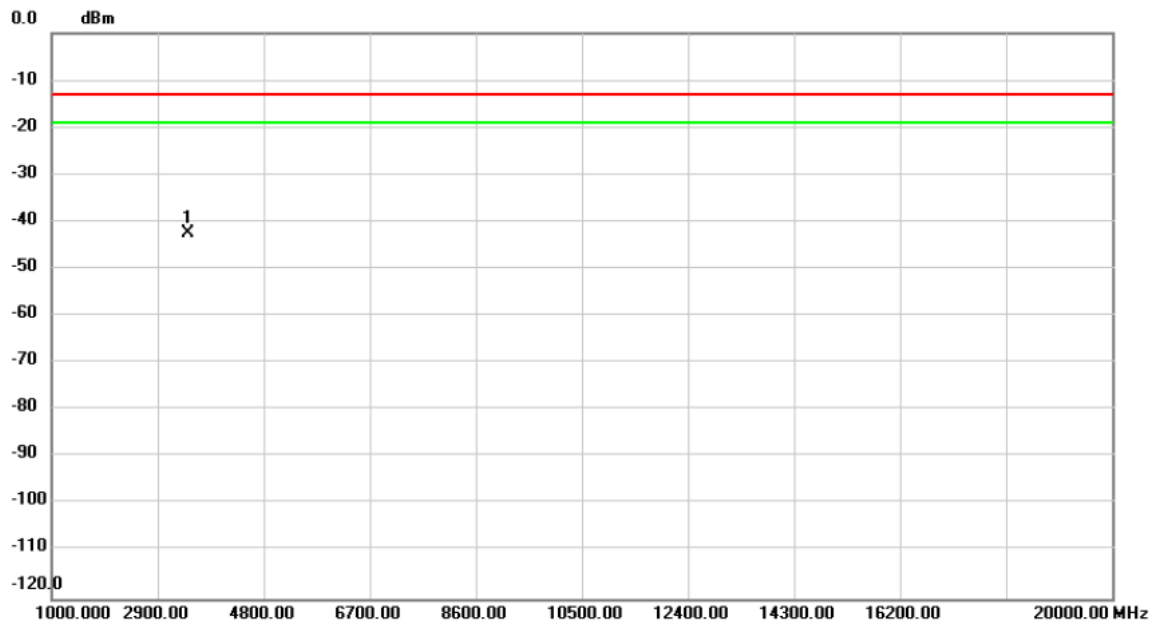


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	3447.110	-43.35	-1.21	-44.56	-13.00	-31.56	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	LTE Band 4_TX CH20175_Internal Antenna	Tested Date	2019/12/24
Test Voltage	DC 32V	Polarization	Horizontal

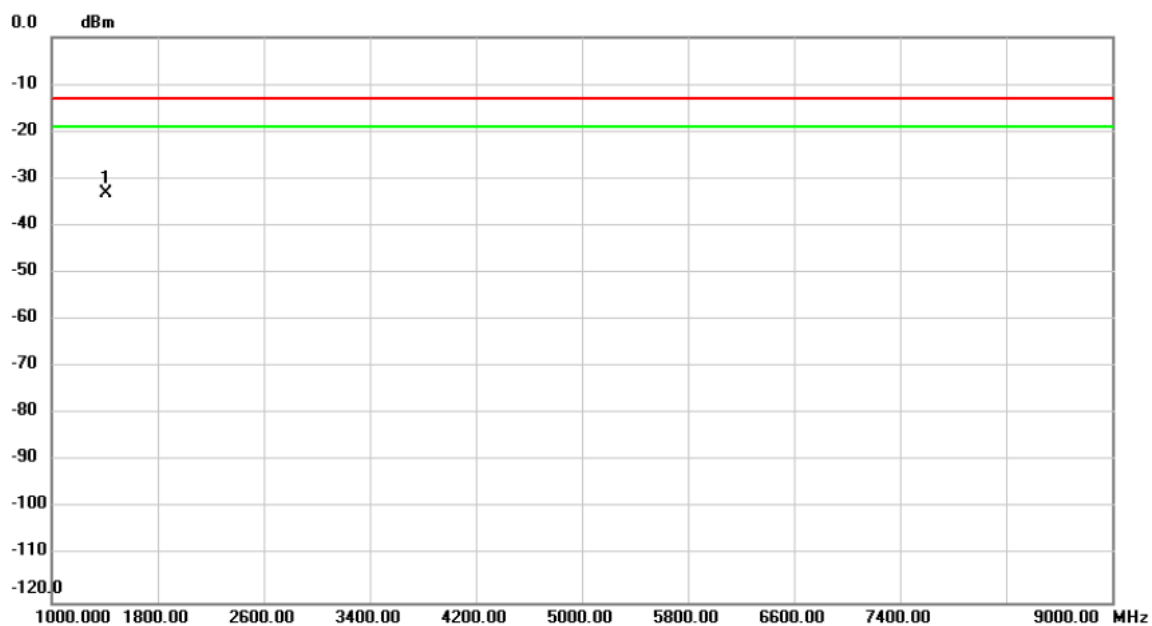


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	3447.160	-41.38	-1.15	-42.53	-13.00	-29.53	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	LTE Band 12_TX CH23095_Internal Antenna	Tested Date	2019/12/24
Test Voltage	DC 32V	Polarization	Vertical

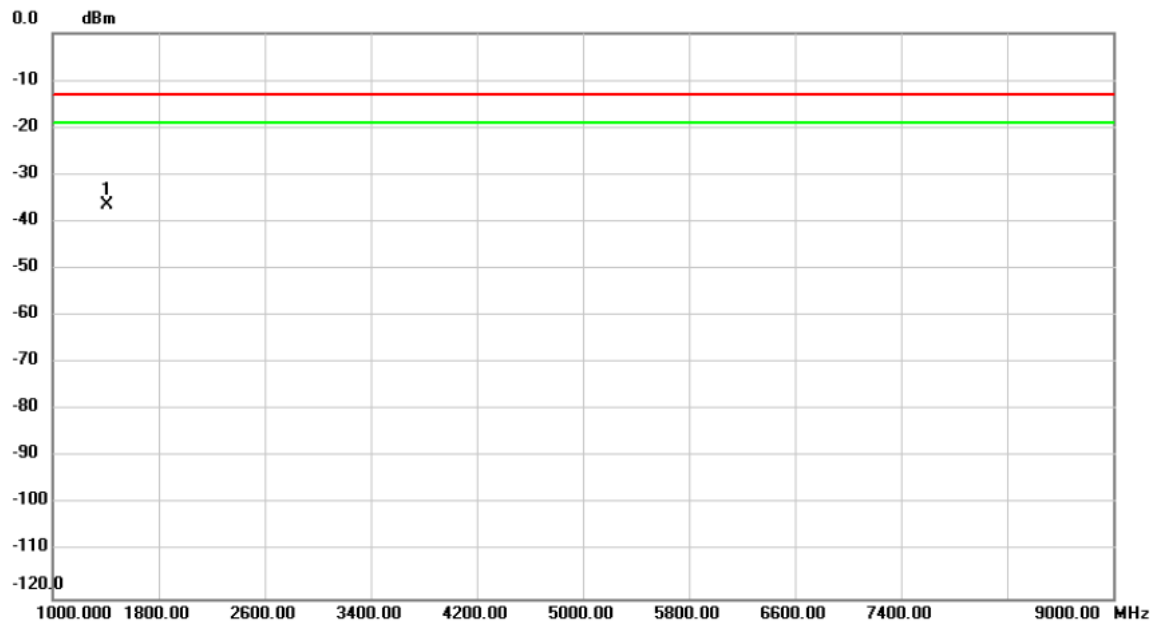


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	1406.275	-26.10	-6.99	-33.09	-13.00	-20.09	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	LTE Band 12_TX CH23095_Internal Antenna	Tested Date	2019/12/24
Test Voltage	DC 32V	Polarization	Horizontal

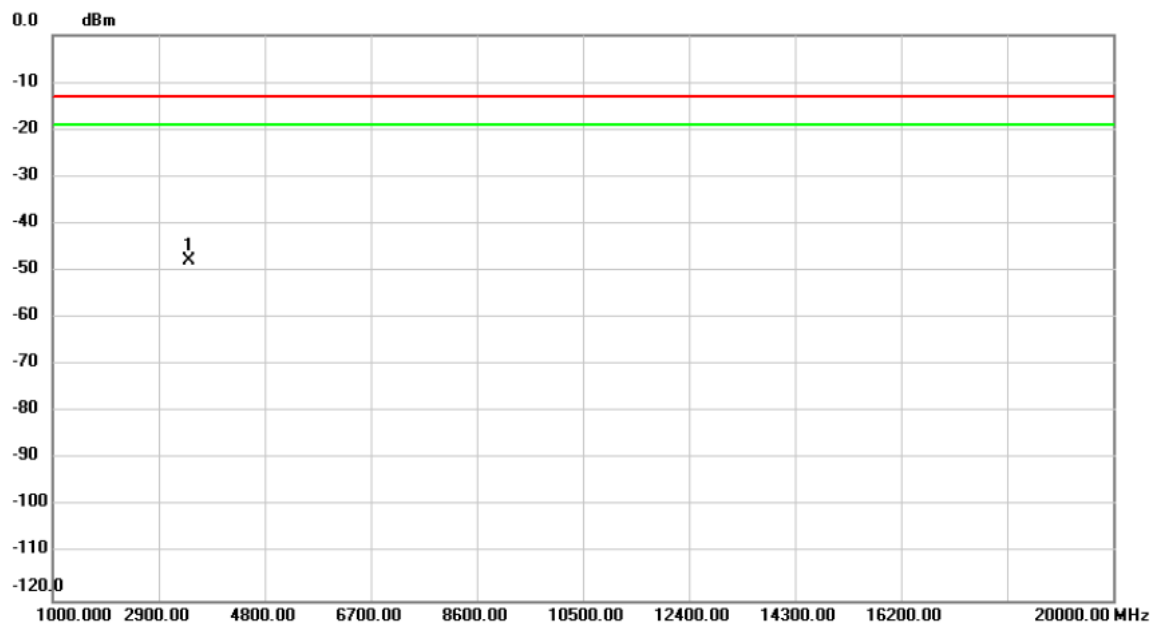


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	1406.280	-29.69	-6.73	-36.42	-13.00	-23.42	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	LTE Band 4_TX CH20175_External Antenna	Tested Date	2019/12/24
Test Voltage	DC 32V	Polarization	Vertical

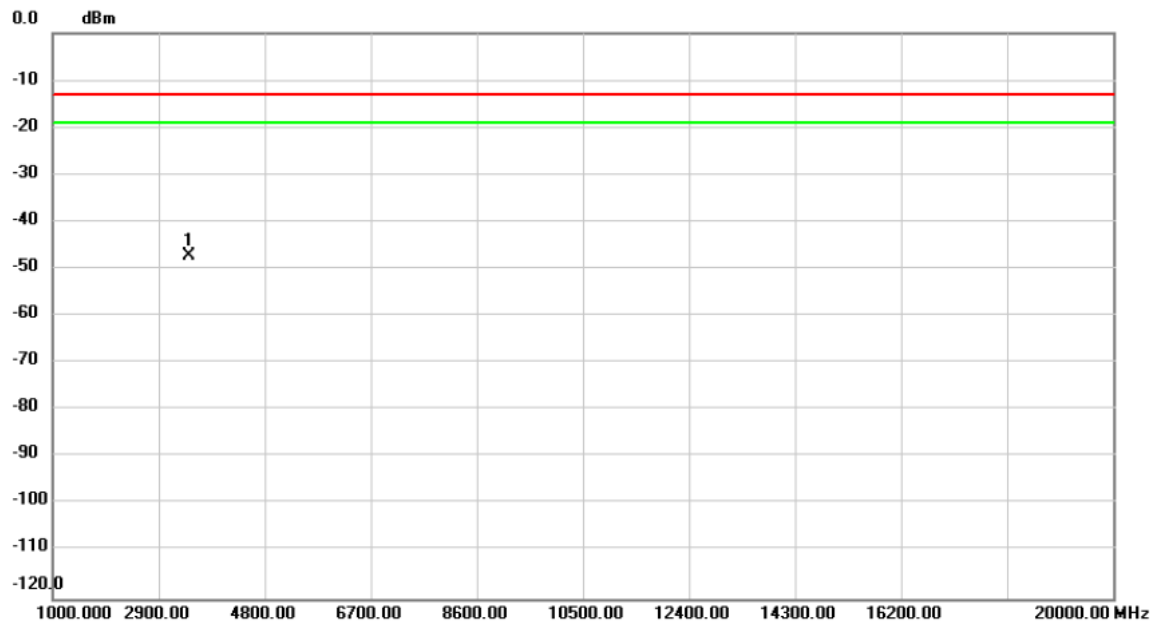


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	3447.045	-46.68	-1.21	-47.89	-13.00	-34.89	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	LTE Band 4_TX CH20175_External Antenna	Tested Date	2019/12/24
Test Voltage	DC 32V	Polarization	Horizontal

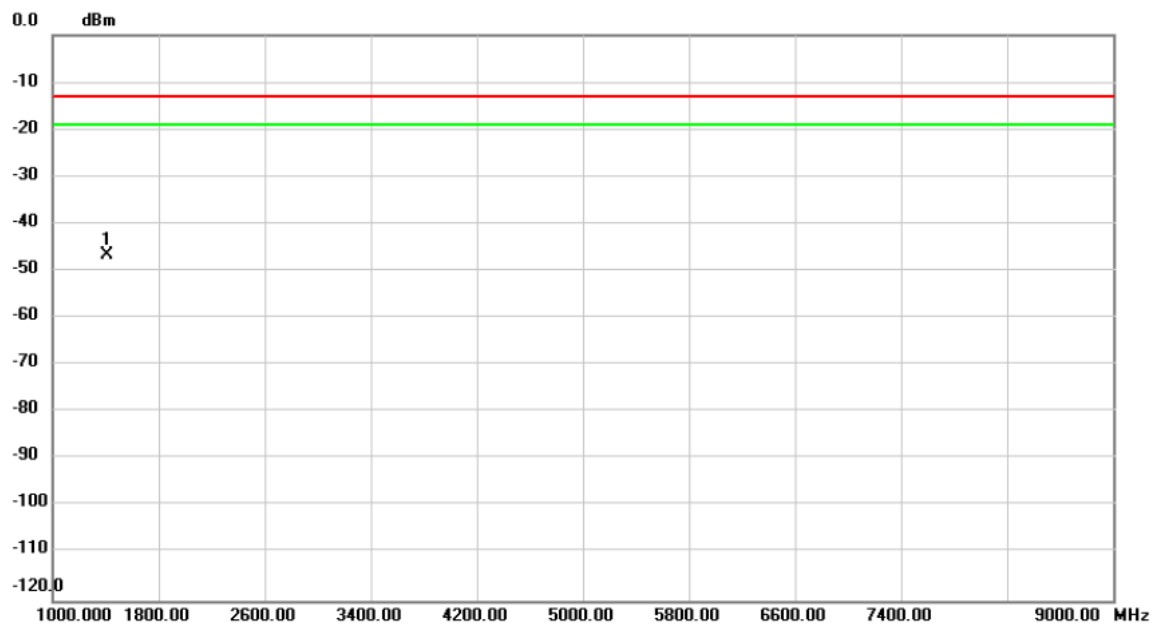


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	3447.390	-45.95	-1.15	-47.10	-13.00	-34.10	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	LTE Band 12_TX CH23095_External Antenna	Tested Date	2019/12/24
Test Voltage	DC 32V	Polarization	Vertical

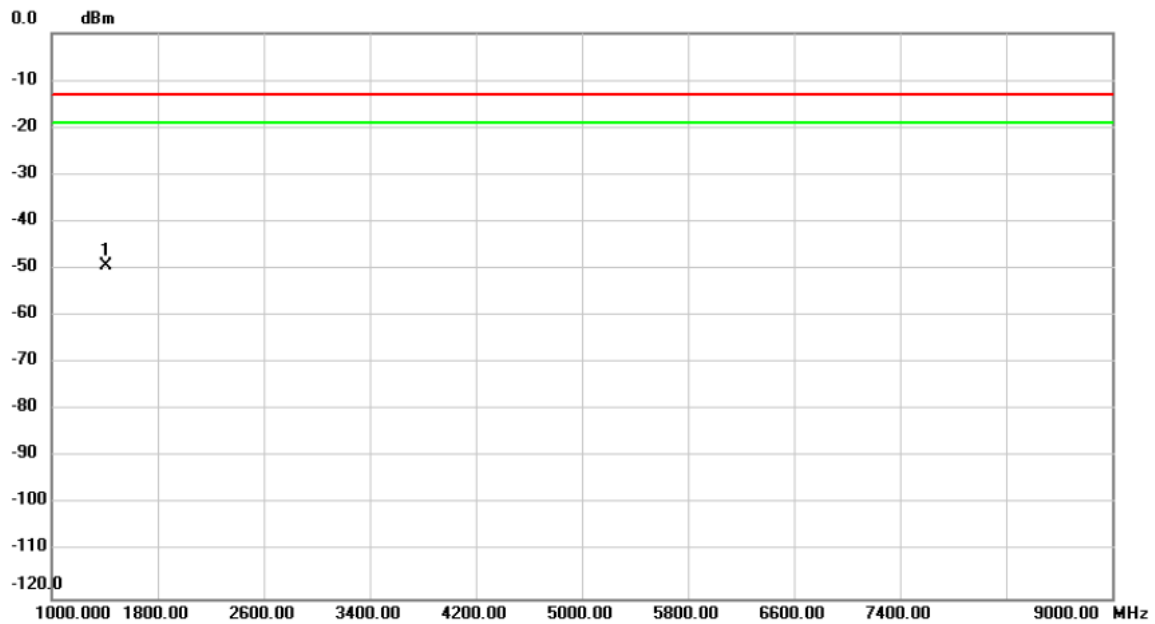


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	1406.145	-39.59	-7.00	-46.59	-13.00	-33.59	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	LTE Band 12_TX CH23095_External Antenna	Tested Date	2019/12/24
Test Voltage	DC 32V	Polarization	Horizontal

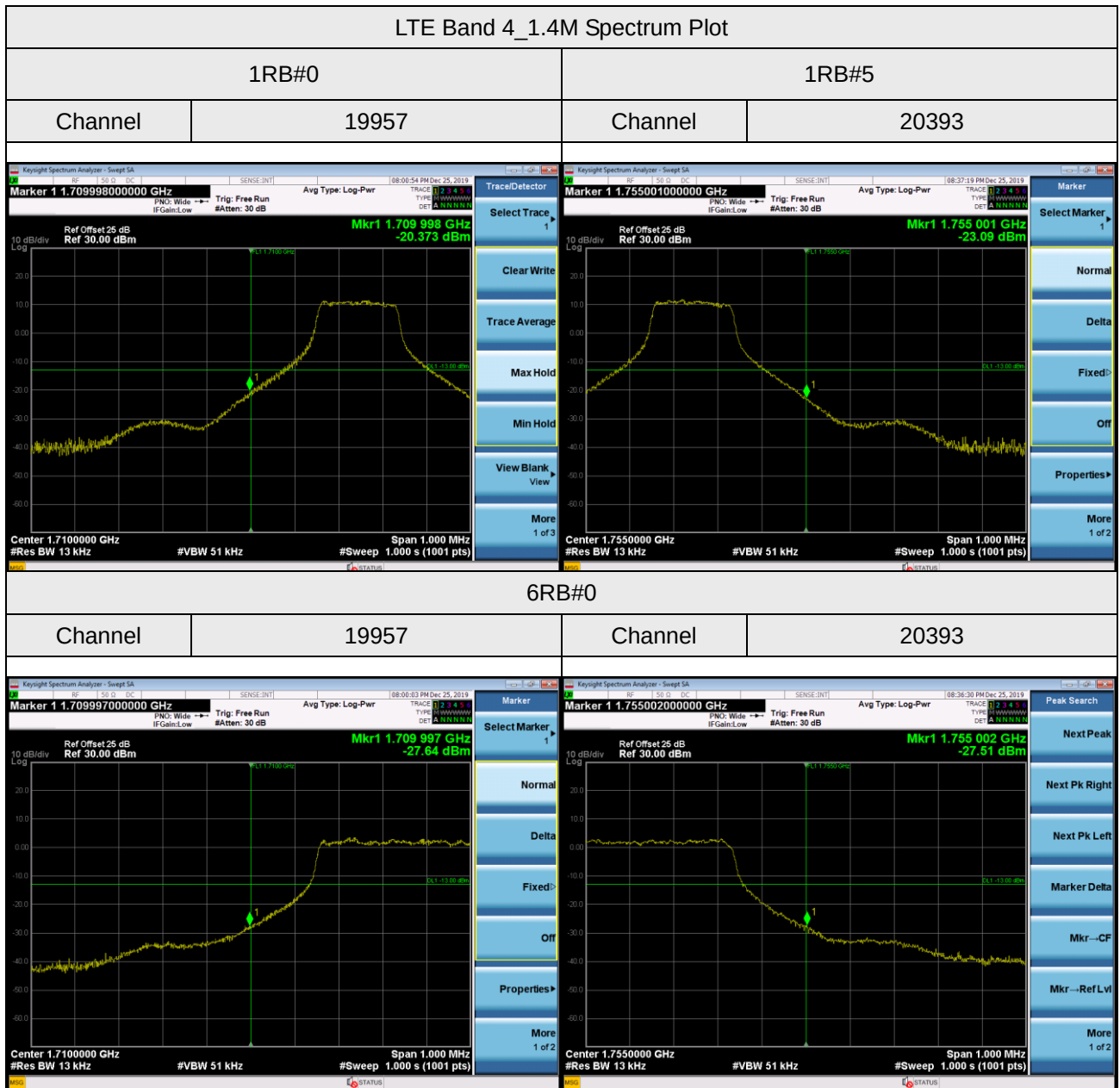


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	1406.210	-42.68	-6.73	-49.41	-13.00	-36.41	peak	

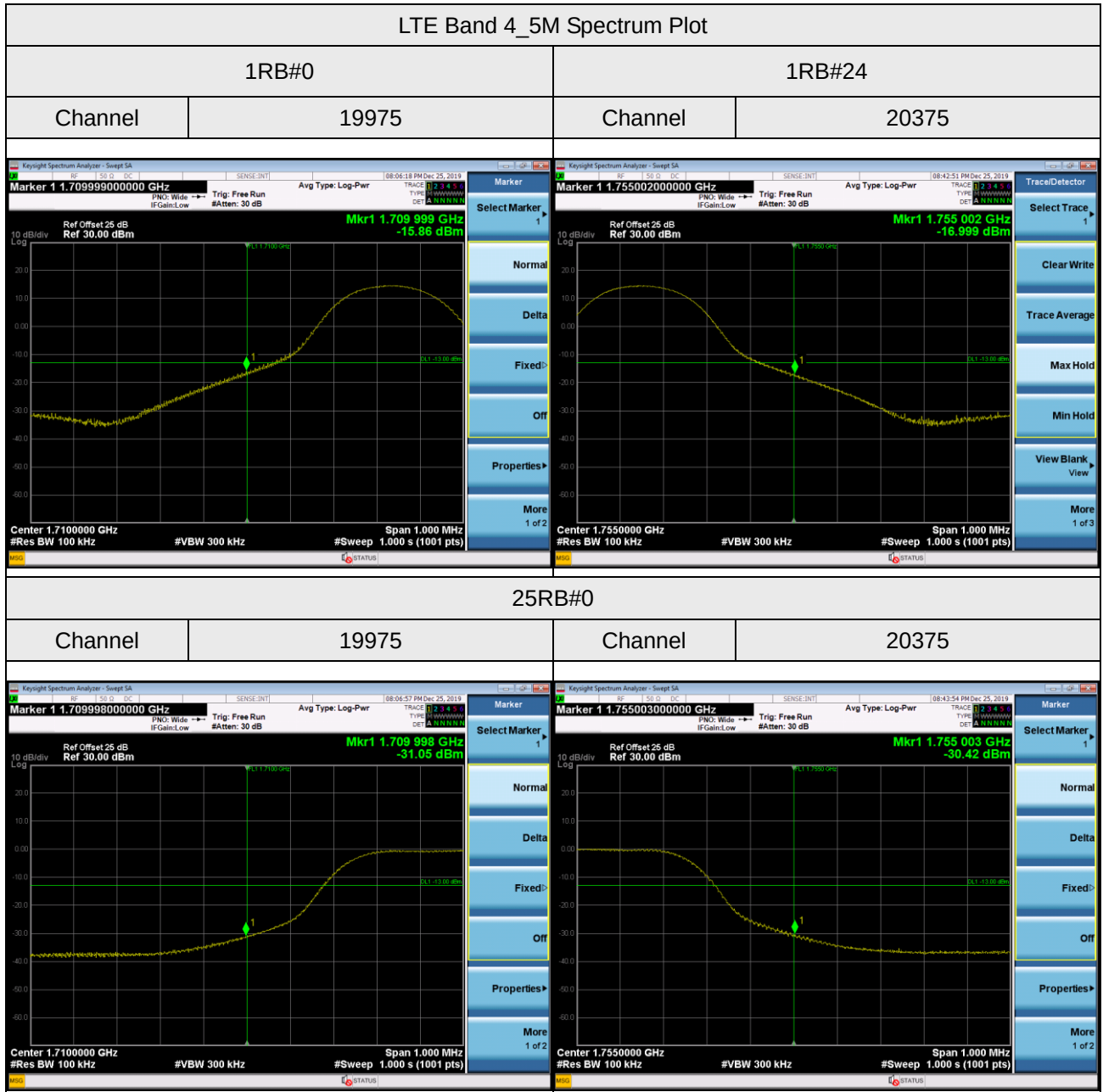
REMARKS:

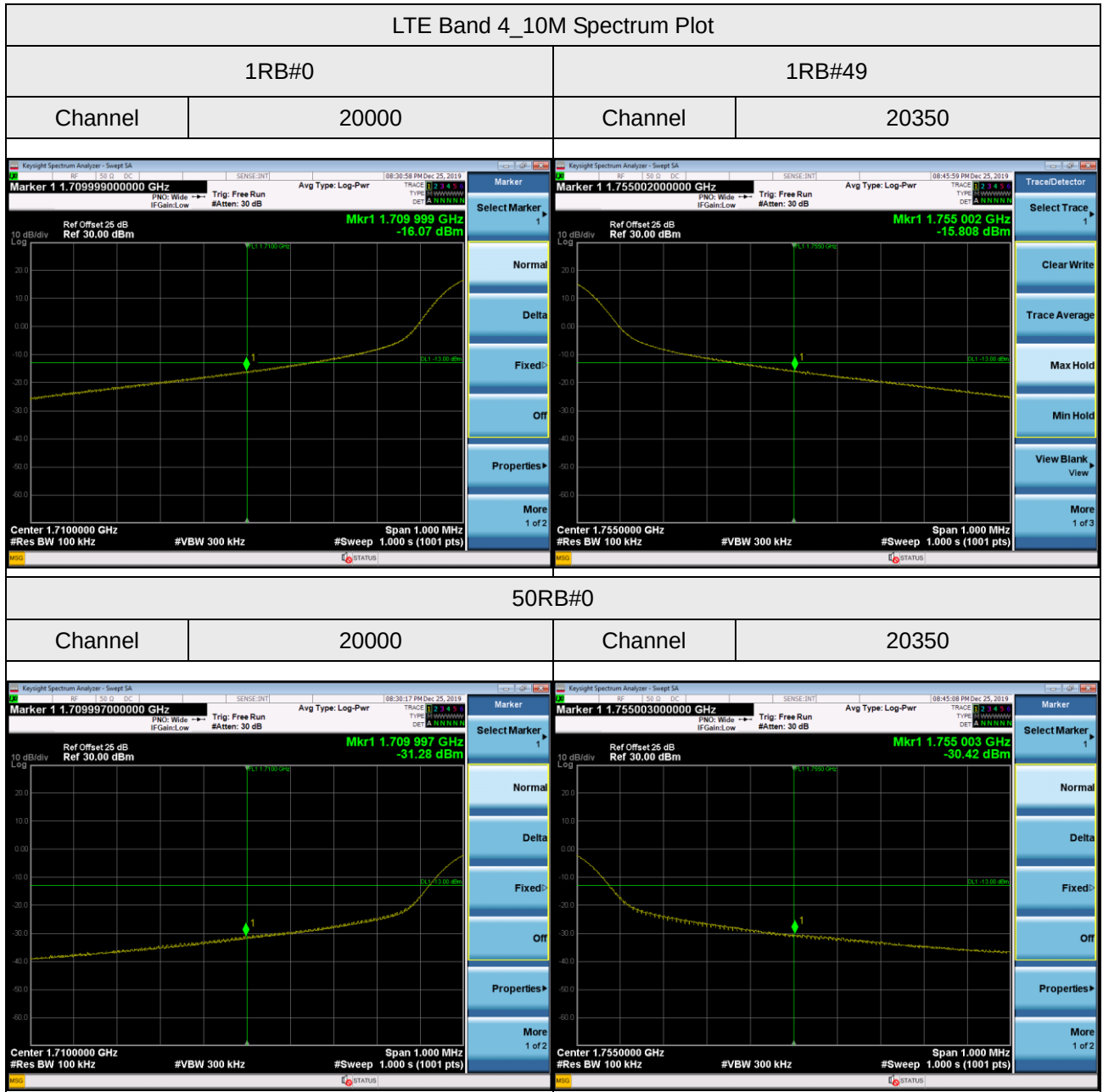
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

APPENDIX F - BAND EDGE



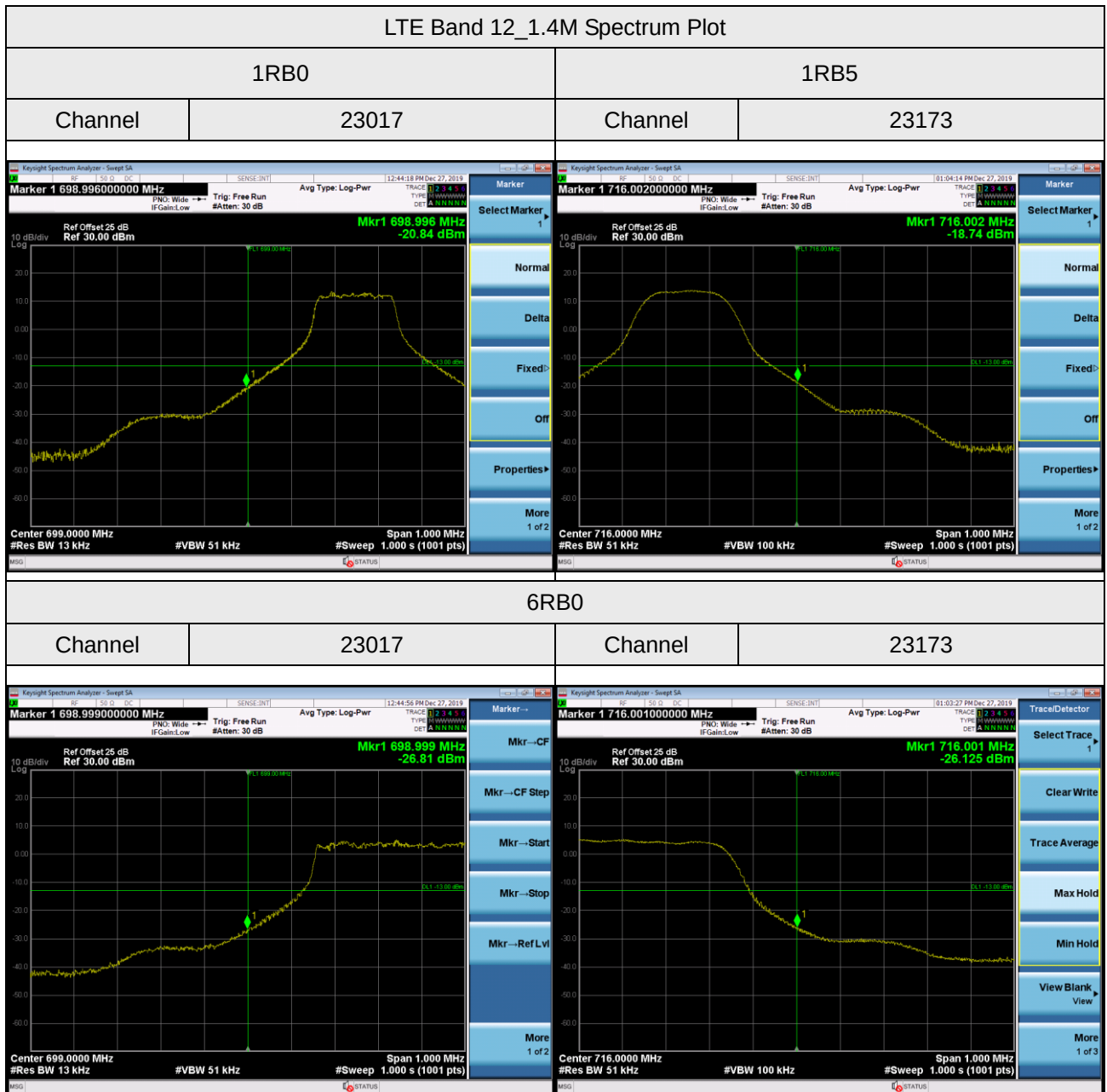


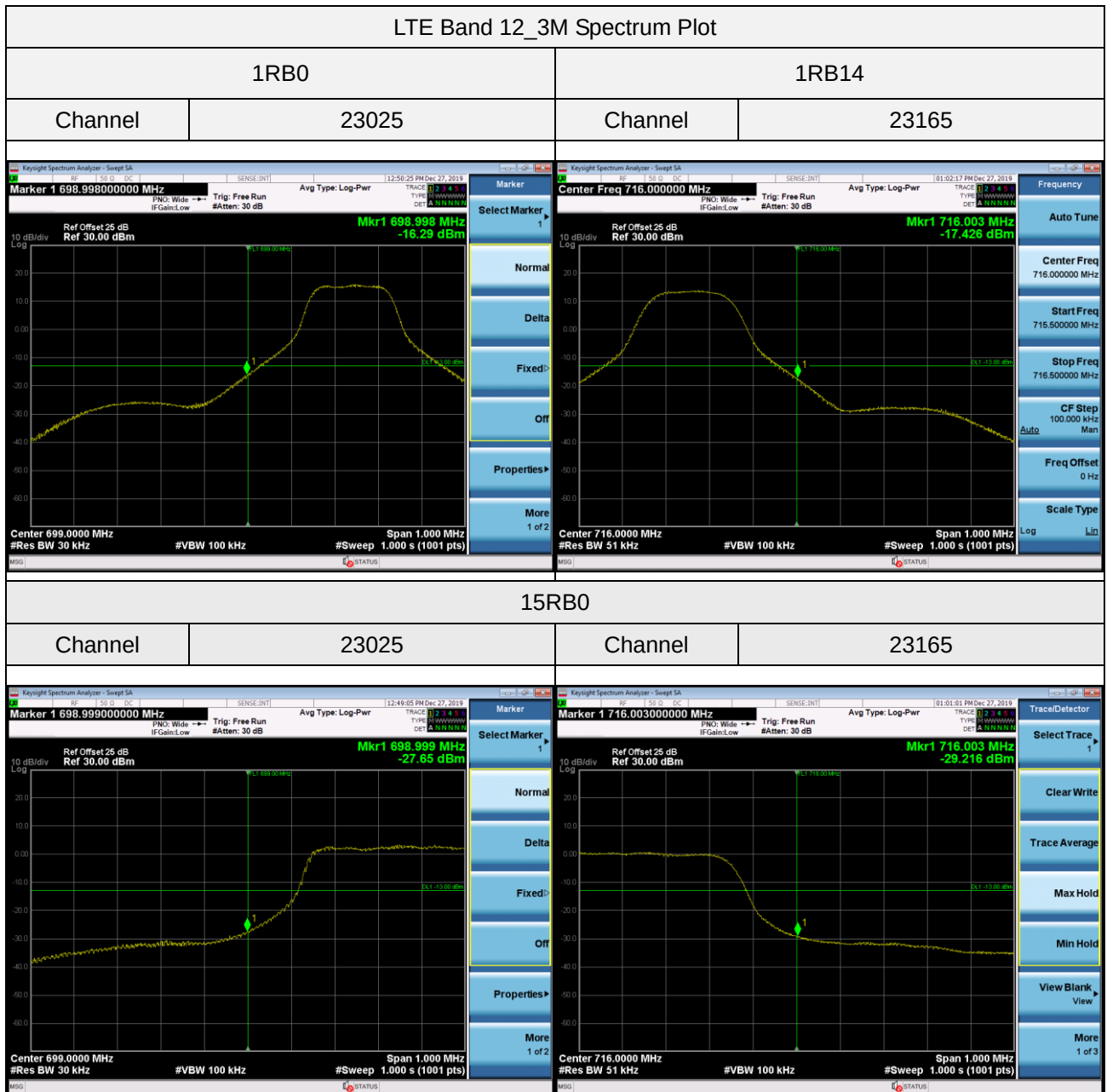


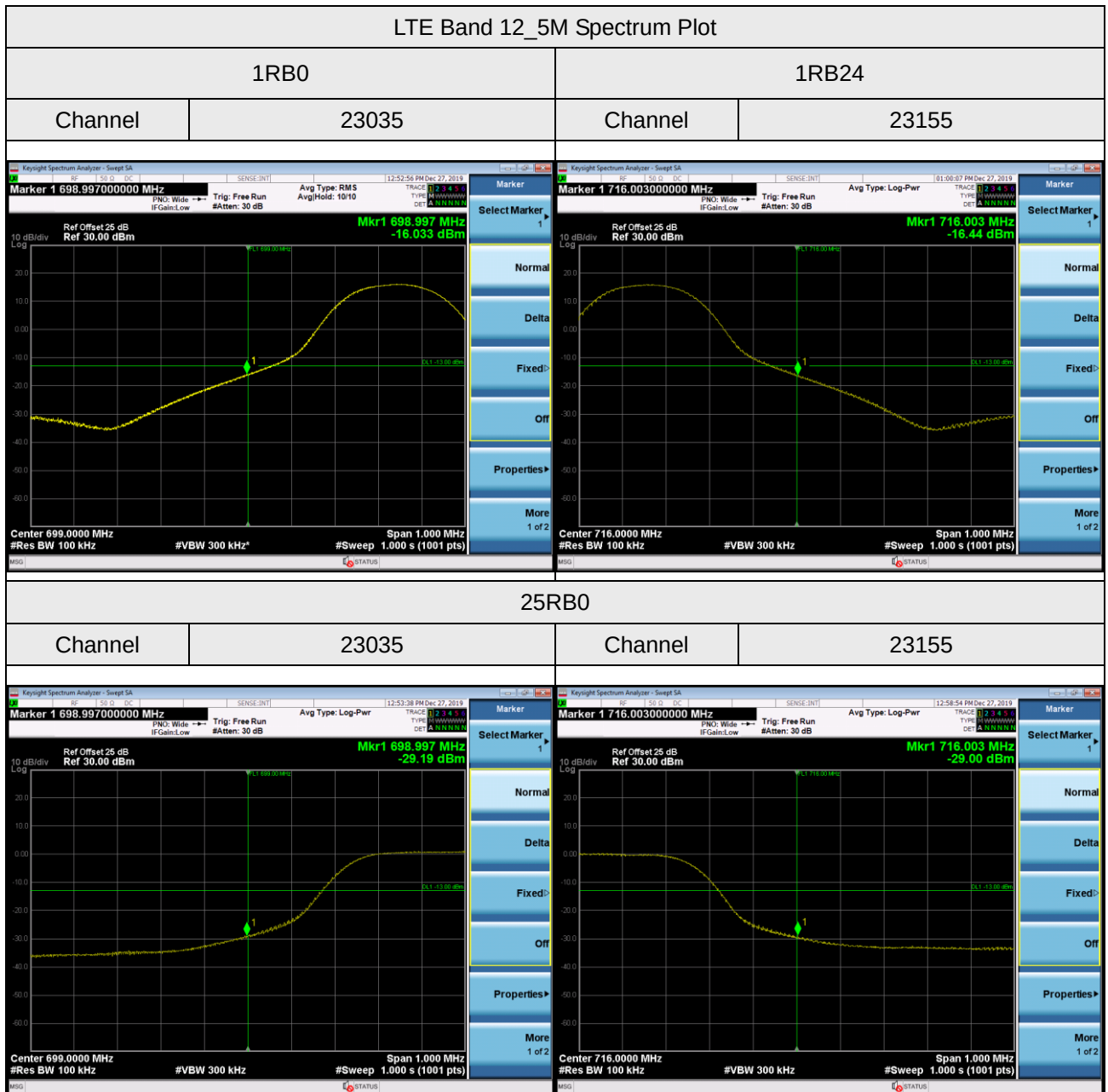


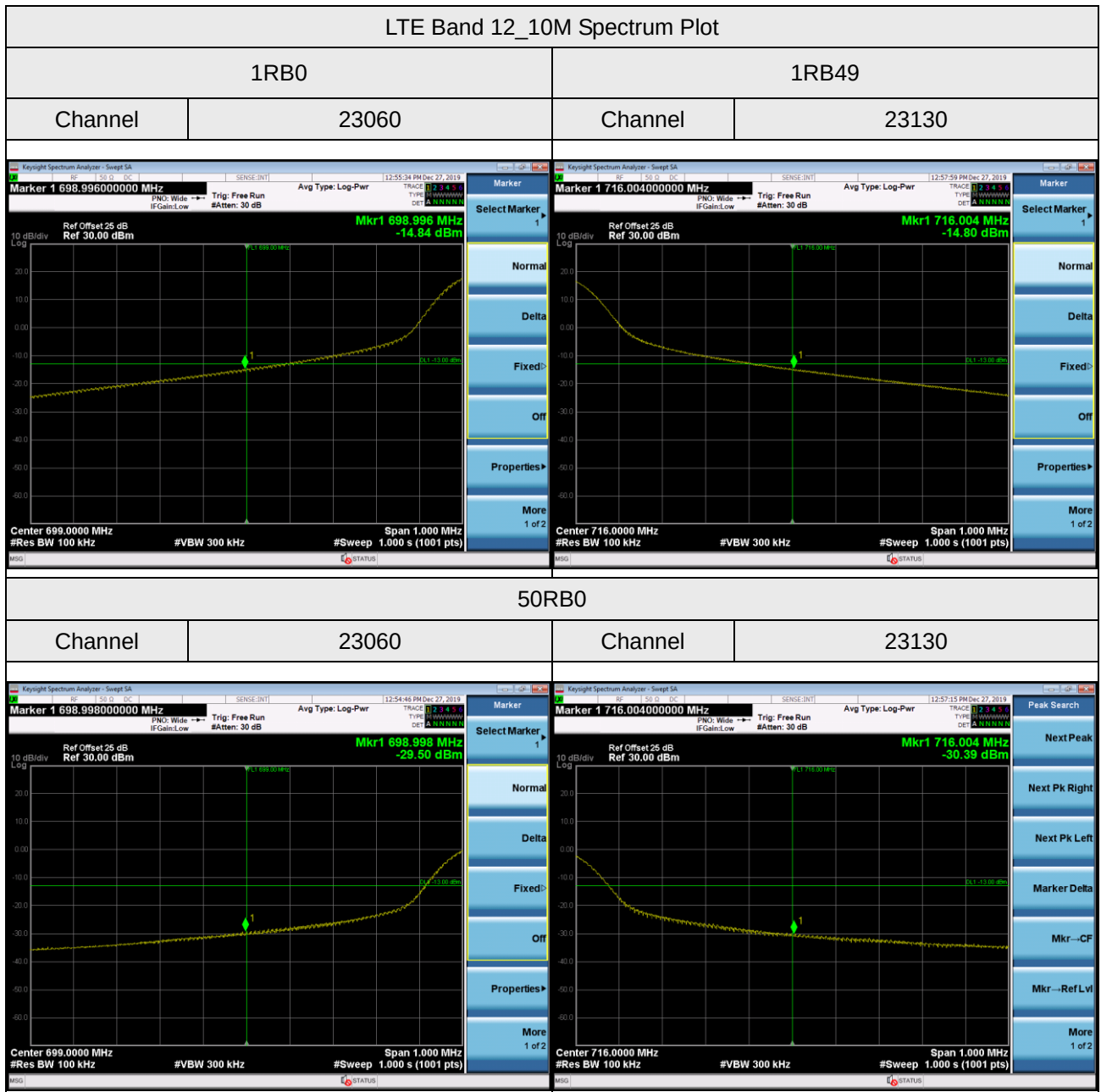












APPENDIX H - PEAK TO AVERAGE RATIO

LTE Band 4_1.4M Spectrum Plot

