

Spectrum Plot



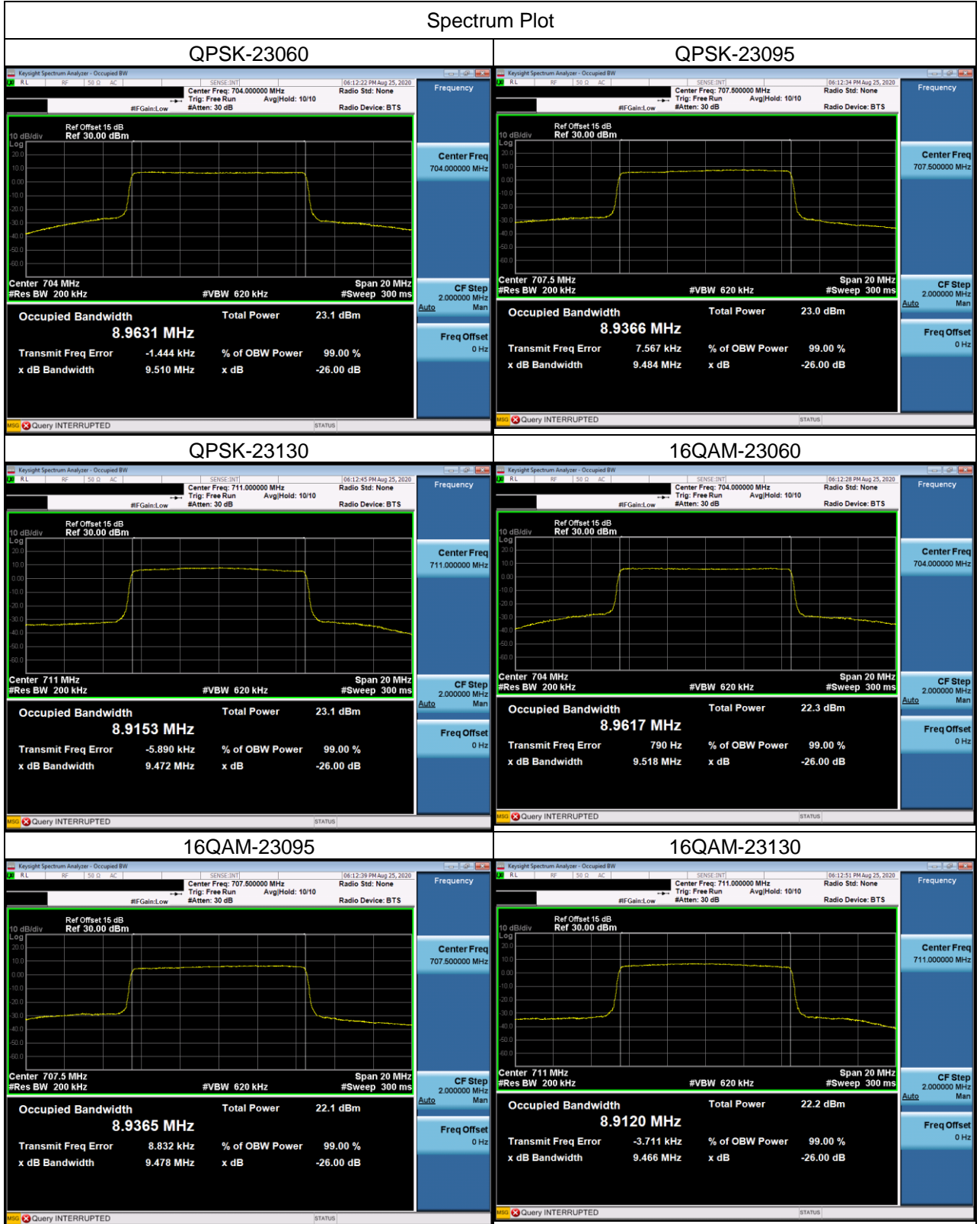
LTE Band 12_5M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23035	701.5	4.5104	23035	701.5	4.873
23095	707.5	4.5113	23095	707.5	4.866
23155	713.5	4.5183	23155	713.5	4.872
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23035	701.5	4.5036	23035	701.5	4.866
23095	707.5	4.5033	23095	707.5	4.867
23155	713.5	4.5094	23155	713.5	4.866

Spectrum Plot



LTE Band 12_10M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23060	704.0	8.9631	23060	704.0	9.510
23095	707.5	8.9366	23095	707.5	9.484
23130	711.0	8.9153	23130	711.0	9.472
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23060	704.0	8.9617	23060	704.0	9.518
23095	707.5	8.9365	23095	707.5	9.478
23130	711.0	8.9120	23130	711.0	9.466

Spectrum Plot



APPENDIX C CONDUCTED SPURIOUS EMISSIONS

LTE Band 4_1.4M Spectrum Plot	
Channel	Frequency(MHz)
20175	1732.5



LTE Band 4_3M Spectrum Plot

Channel	Frequency(MHz)
20175	1732.5



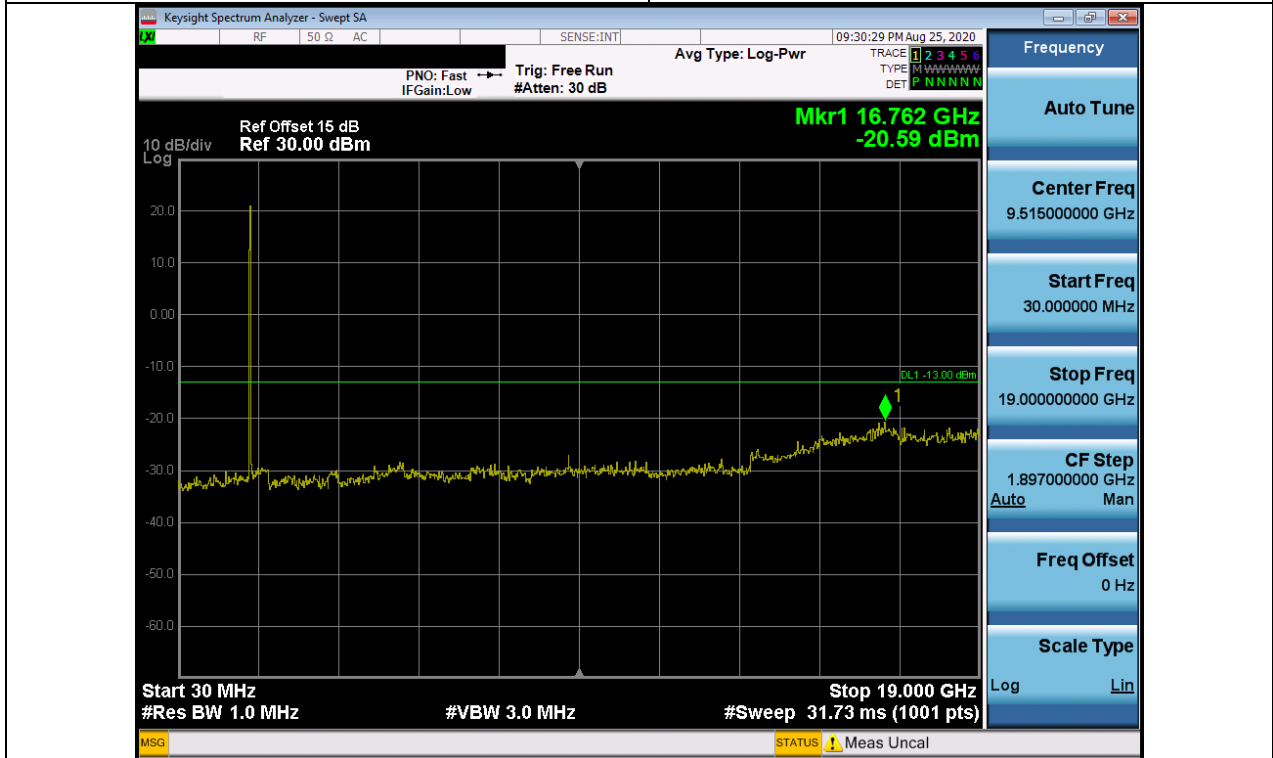
LTE Band 4_5M Spectrum Plot

Channel	Frequency(MHz)
20175	1732.5



LTE Band 4_10M Spectrum Plot

Channel	Frequency(MHz)
20175	1732.5



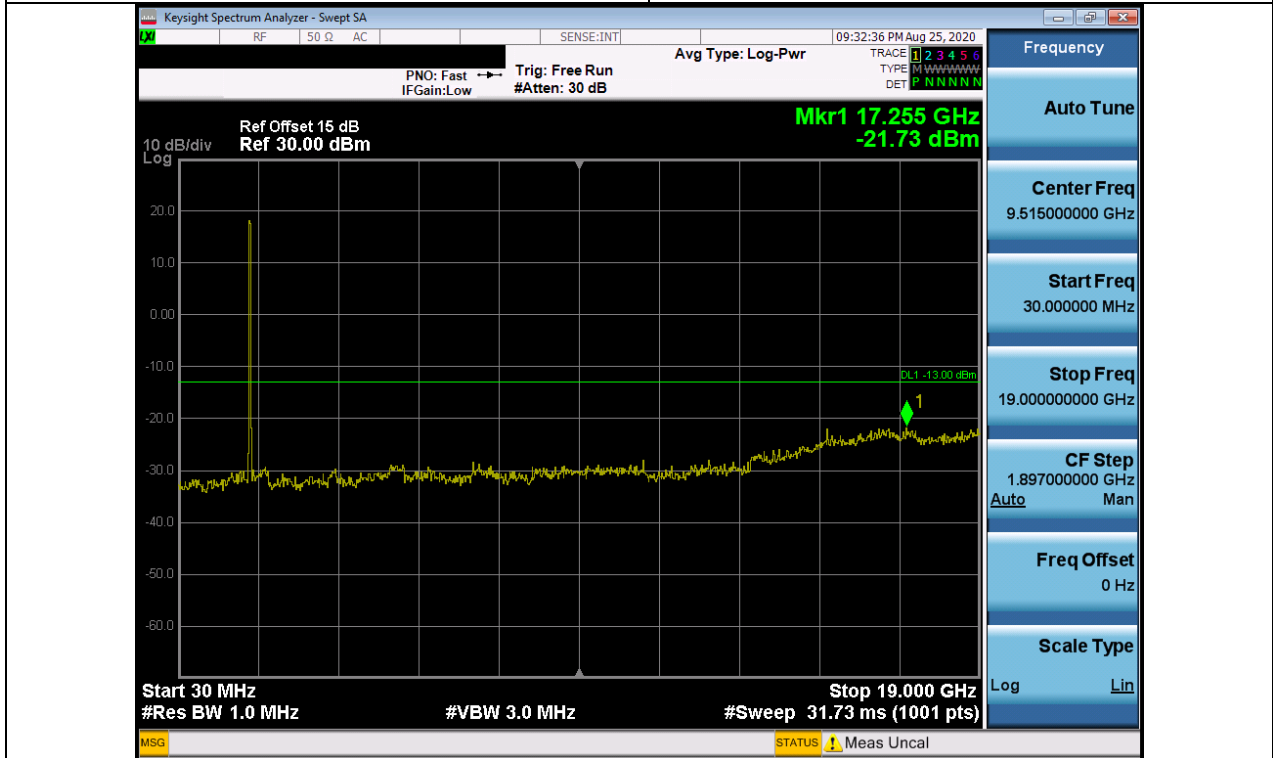
LTE Band 4_15M Spectrum Plot

Channel	Frequency(MHz)
20175	1732.5



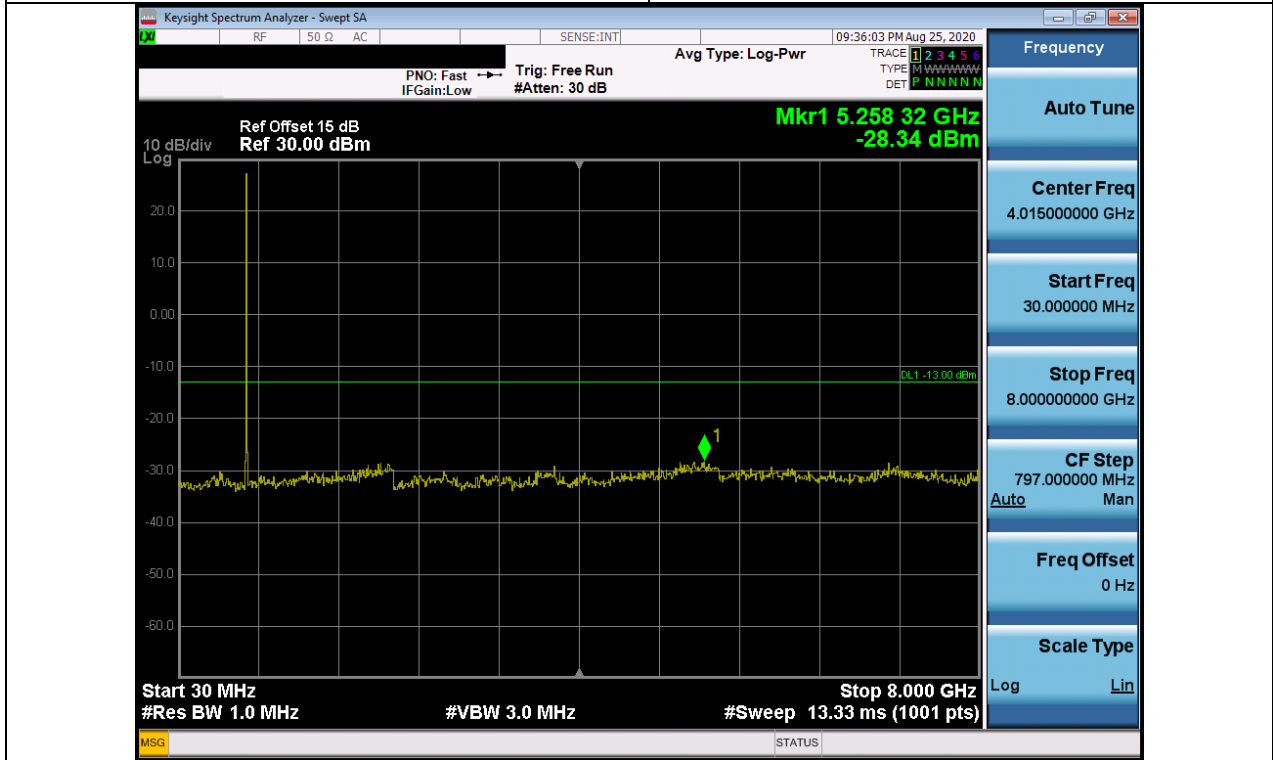
LTE Band 4_20M Spectrum Plot

Channel	Frequency(MHz)
20175	1732.5



LTE Band 12_1.4M Spectrum Plot

Channel	Frequency(MHz)
23095	707.5



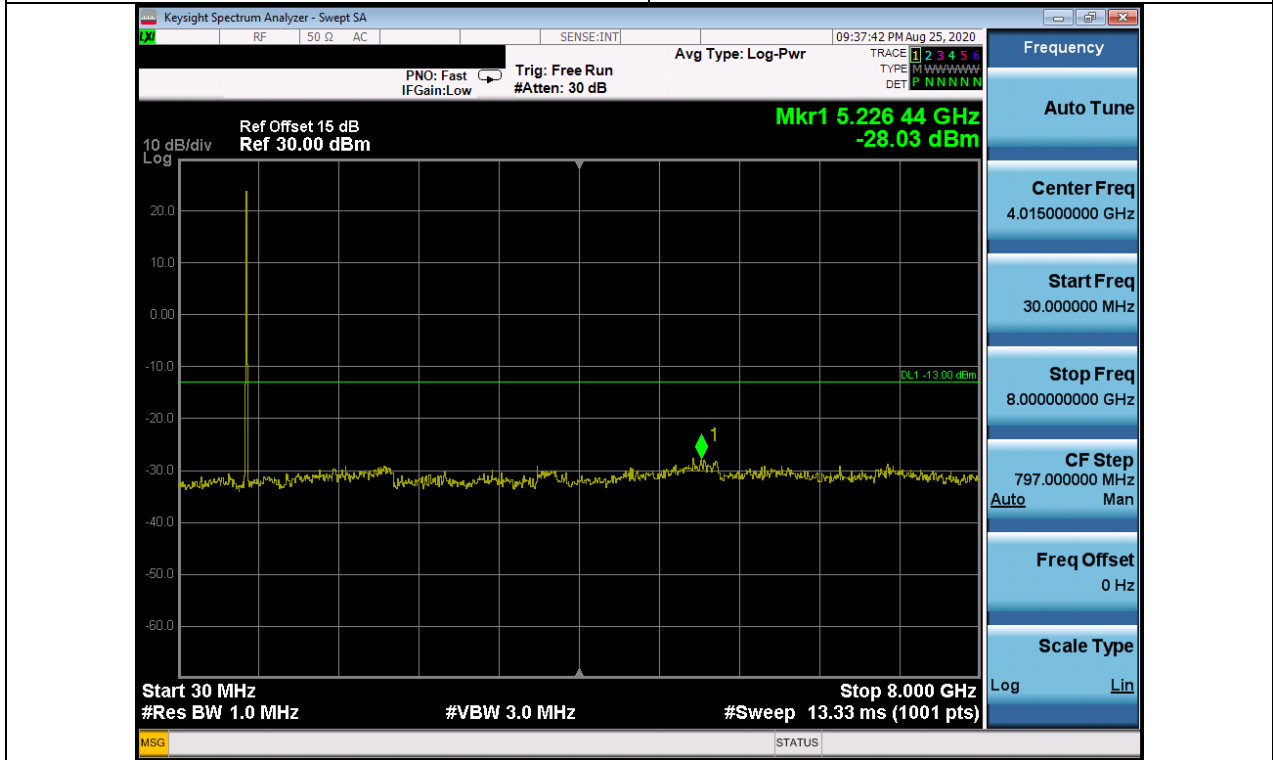
LTE Band 12_3M Spectrum Plot

Channel	Frequency(MHz)
23095	707.5



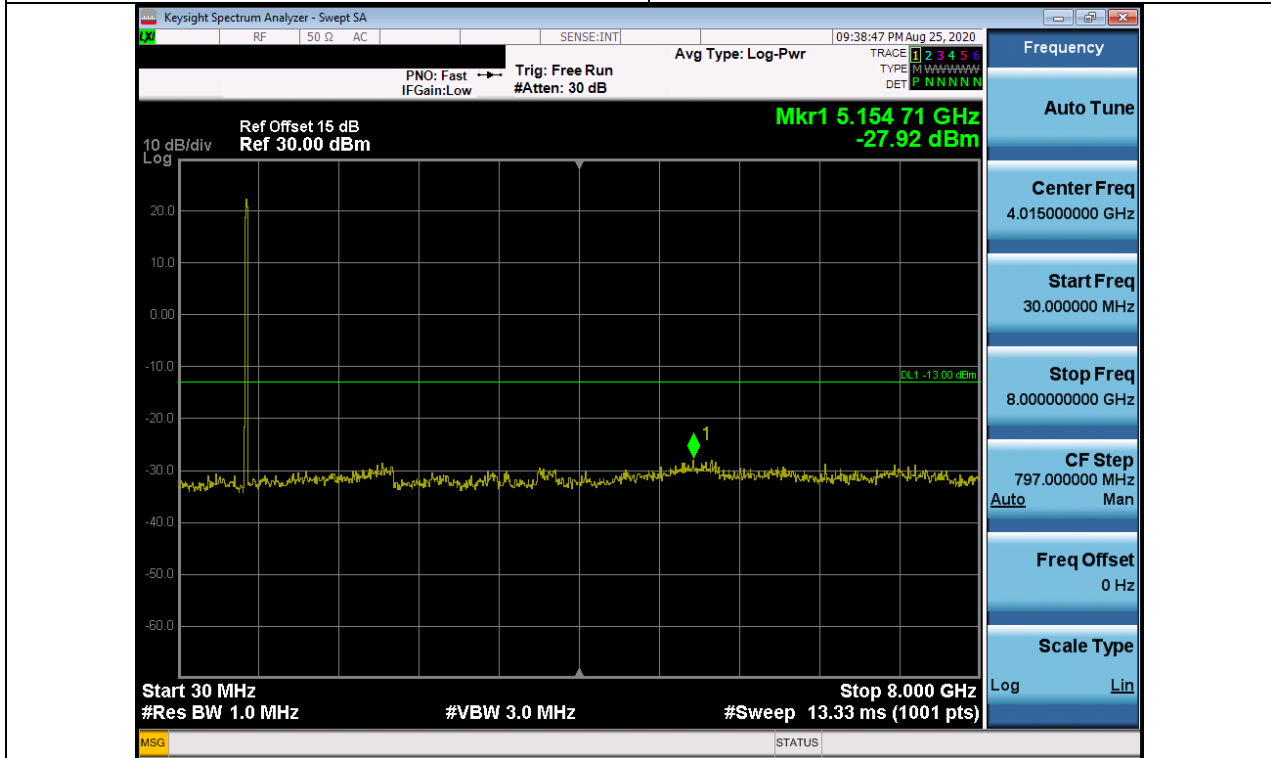
LTE Band 12_5M Spectrum Plot

Channel	Frequency(MHz)
23095	707.5



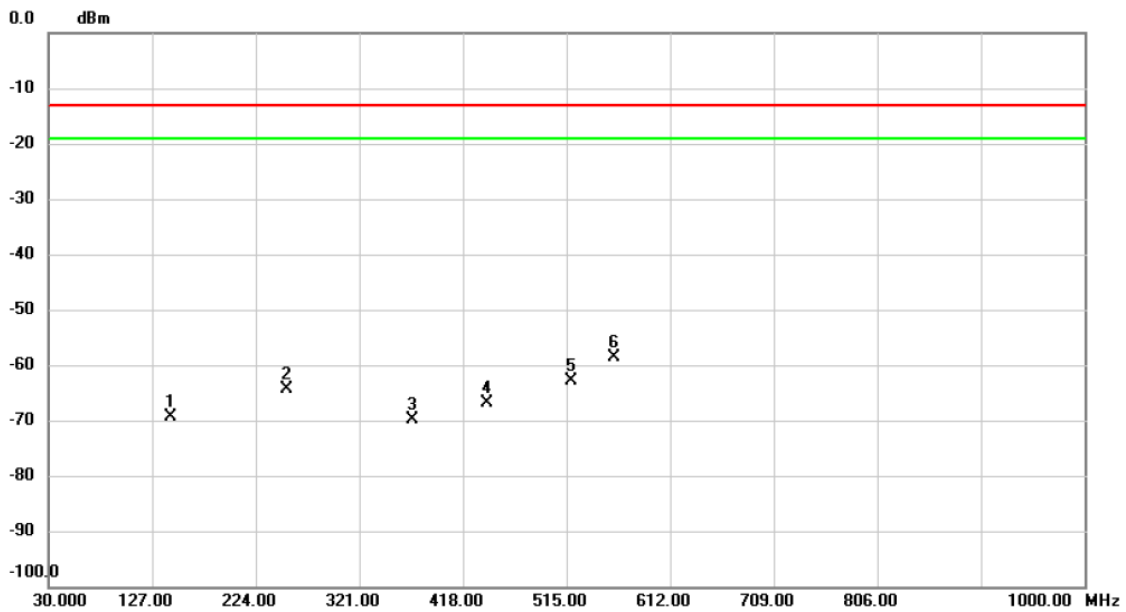
LTE Band 12_10M Spectrum Plot

Channel	Frequency(MHz)
23095	707.5



APPENDIX D RADIATED SPURIOUS EMISSIONS TEST

Test Mode	WCDMA Band IV_Link CH1638	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Vertical

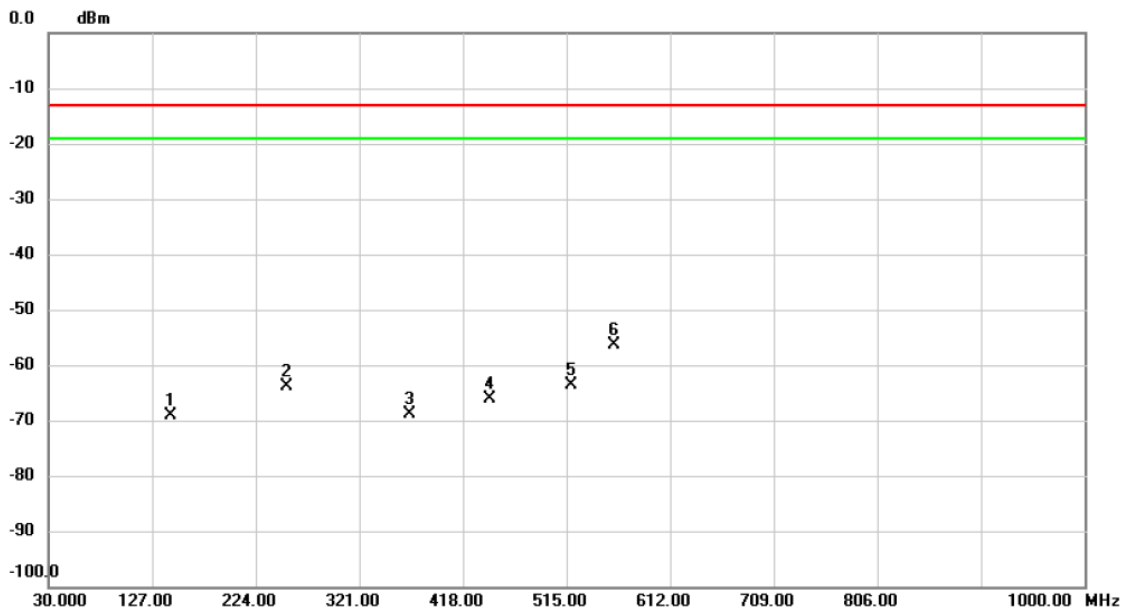


No. Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measurement dBm	Limit dBm	Over dB	Detector	Comment
1	144.4600	-68.47	-0.90	-69.37	-13.00	-56.37	peak	
2	253.1000	-58.60	-5.67	-64.27	-13.00	-51.27	peak	
3	370.4700	-69.93	-0.05	-69.98	-13.00	-56.98	peak	
4	440.3100	-67.85	0.96	-66.89	-13.00	-53.89	peak	
5	519.8500	-64.00	1.24	-62.76	-13.00	-49.76	peak	
6 *	559.6200	-60.49	1.92	-58.57	-13.00	-45.57	peak	

REMARKS:

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

Test Mode	WCDMA Band IV_Link CH1638	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Horizontal

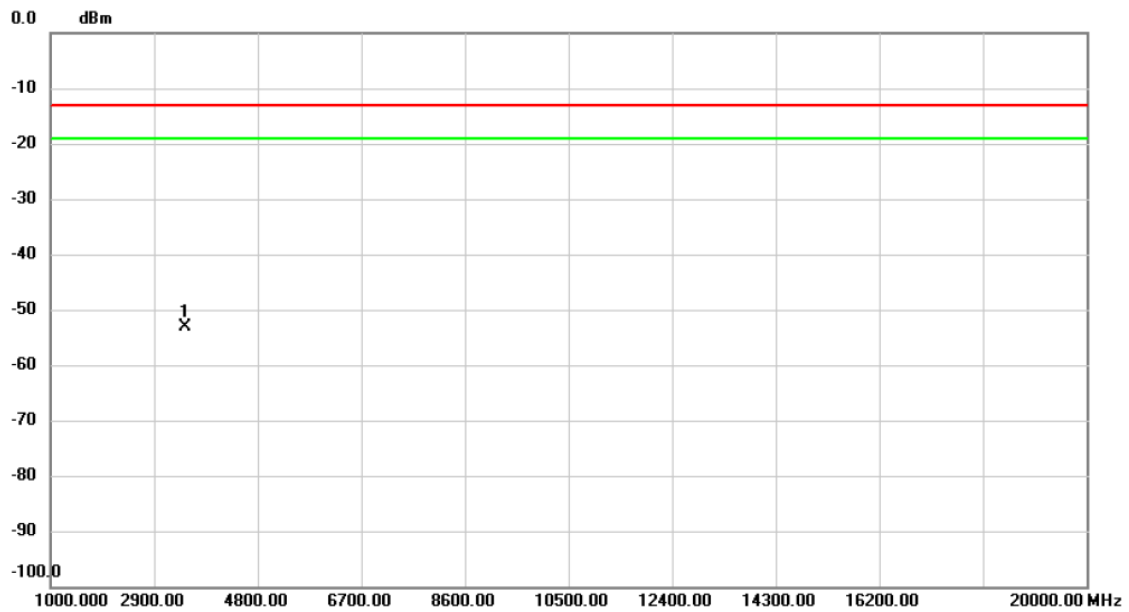


No. Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector	Comment
1	144.4600	-68.32	-0.90	-69.22	-13.00	-56.22	peak	
2	253.1000	-58.15	-5.67	-63.82	-13.00	-50.82	peak	
3	367.5600	-68.74	-0.10	-68.84	-13.00	-55.84	peak	
4	443.2200	-67.24	1.00	-66.24	-13.00	-53.24	peak	
5	519.8500	-64.89	1.24	-63.65	-13.00	-50.65	peak	
6 *	559.6200	-58.20	1.92	-56.28	-13.00	-43.28	peak	

REMARKS:

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

Test Mode	WCDMA Band IV_Link CH1638	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Vertical

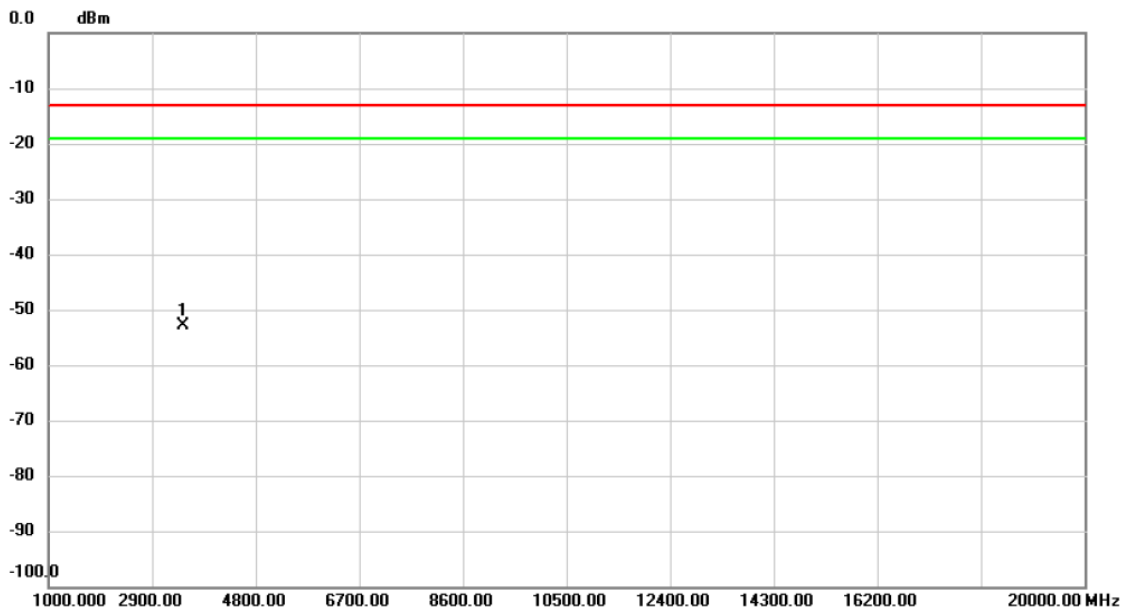


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	3467.165	-51.80	-1.43	-53.23	-13.00	-40.23	peak	

REMARKS:

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

Test Mode	WCDMA Band IV_Link CH1638	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Horizontal

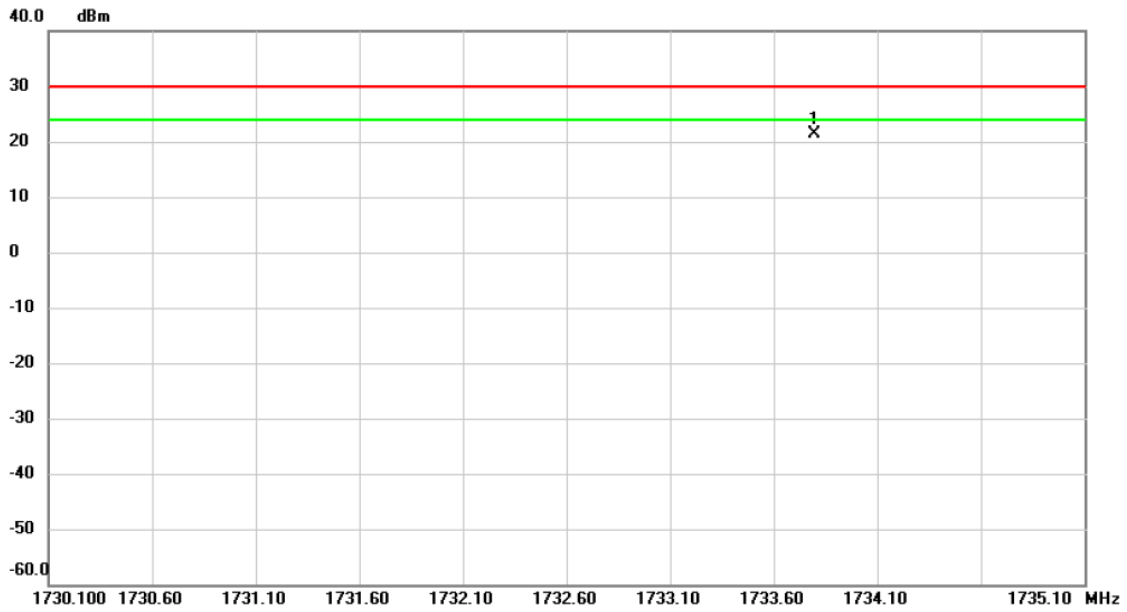


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	3466.850	-51.08	-1.72	-52.80	-13.00	-39.80	peak	

REMARKS:

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

Test Mode	WCDMA Band IV_Link CH1638	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Vertical

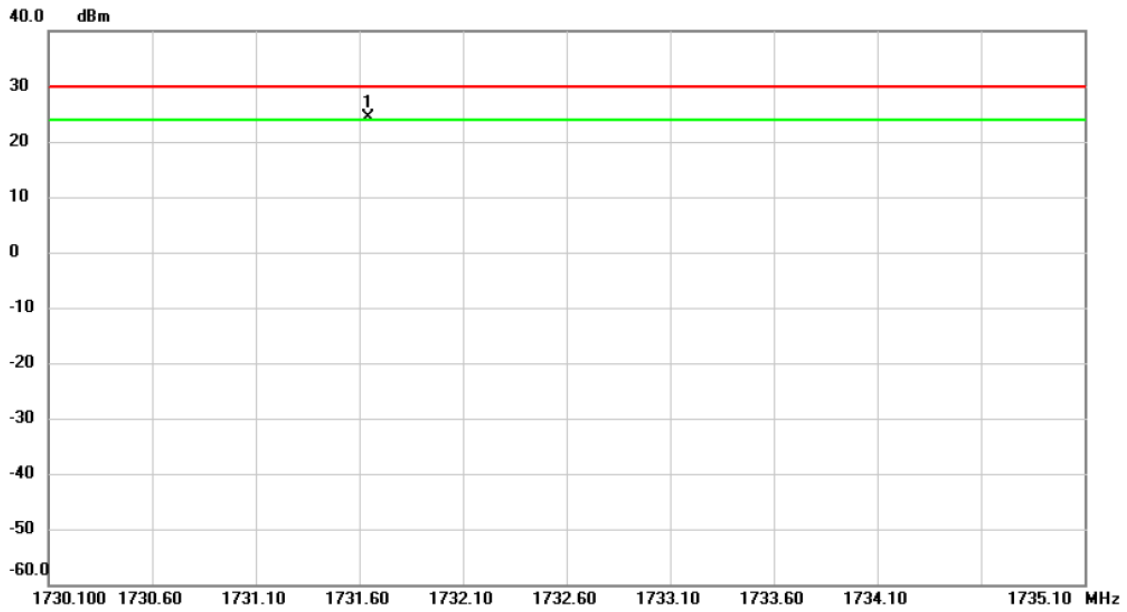


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	1733.795	-17.45	38.79	21.34	30.00	-8.66	peak	

REMARKS:

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

Test Mode	WCDMA Band IV_Link CH1638	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Horizontal

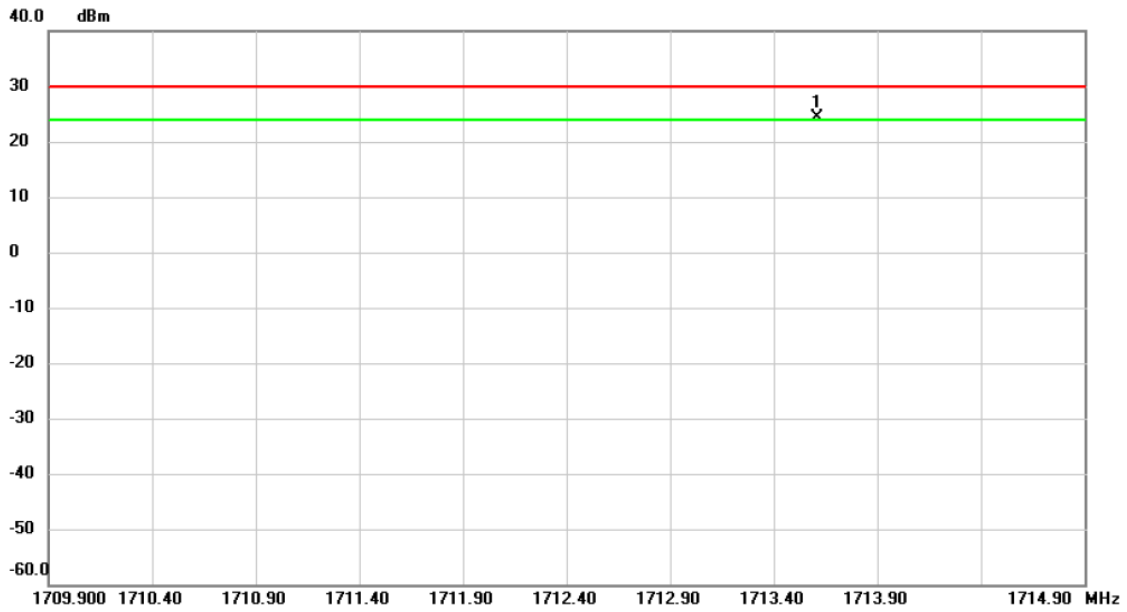


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	1731.640	-14.83	39.33	24.50	30.00	-5.50	peak	

REMARKS:

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

Test Mode	WCDMA Band IV_Link CH1537	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Vertical

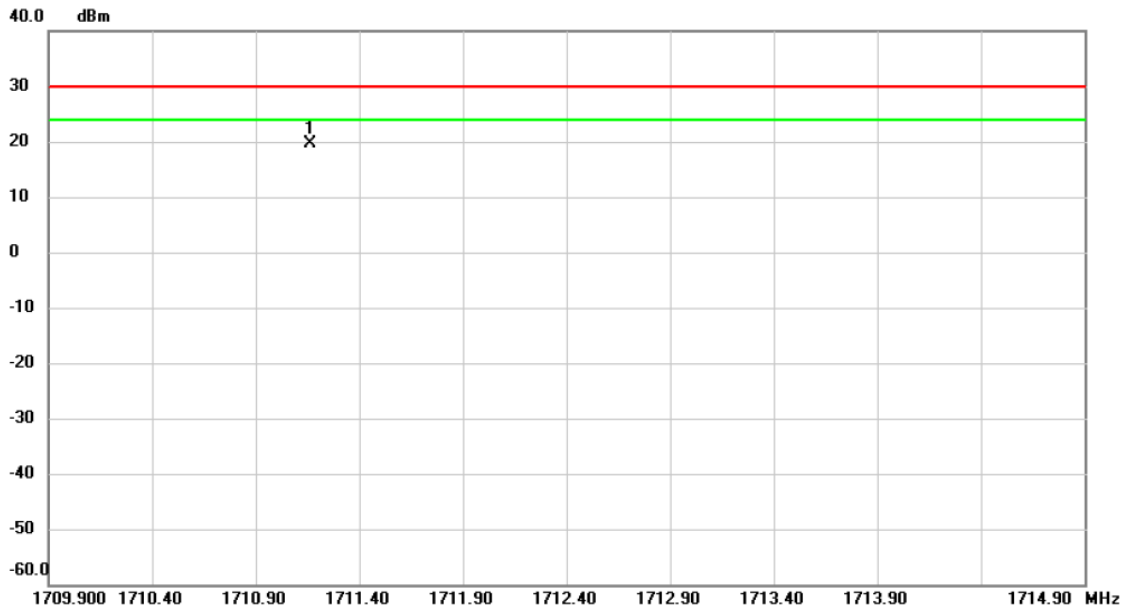


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	1713.610	-14.78	39.26	24.48	30.00	-5.52	peak	

REMARKS:

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

Test Mode	WCDMA Band IV_Link CH1537	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Horizontal

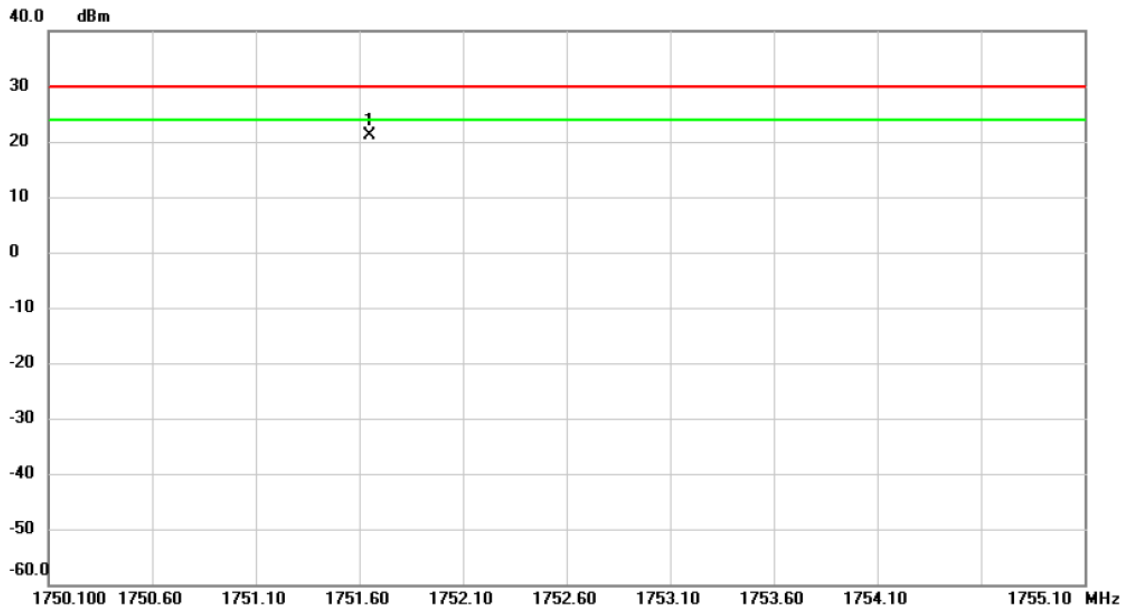


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	1711.165	-19.12	38.70	19.58	30.00	-10.42	peak	

REMARKS:

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

Test Mode	WCDMA Band IV_Link CH1738	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Vertical

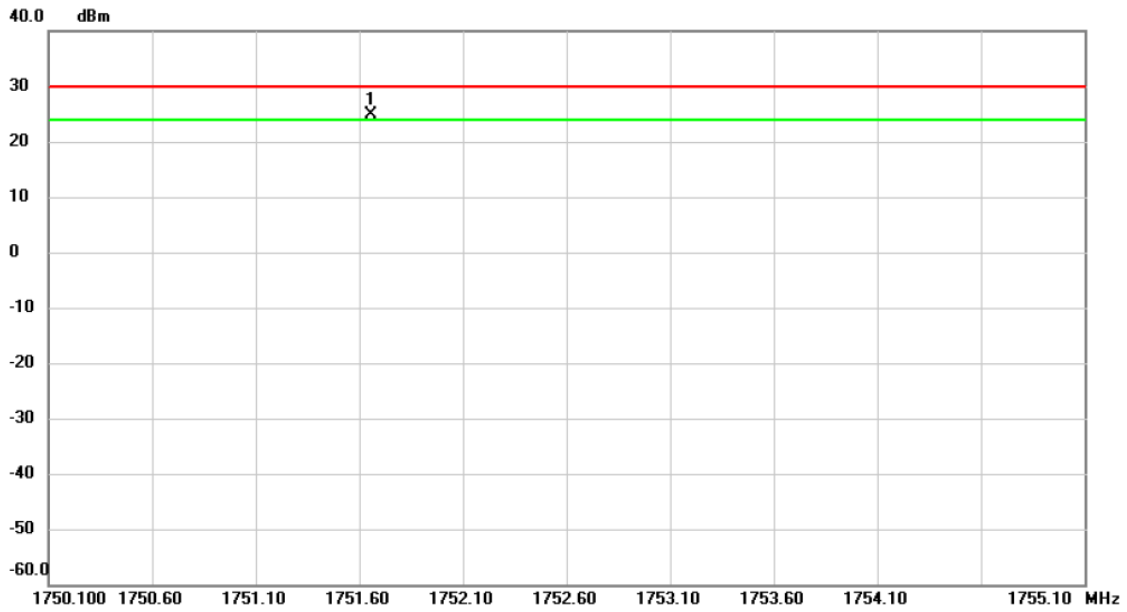


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	1751.650	-17.83	38.85	21.02	30.00	-8.98	peak	

REMARKS:

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

Test Mode	WCDMA Band IV_Link CH1738	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Horizontal

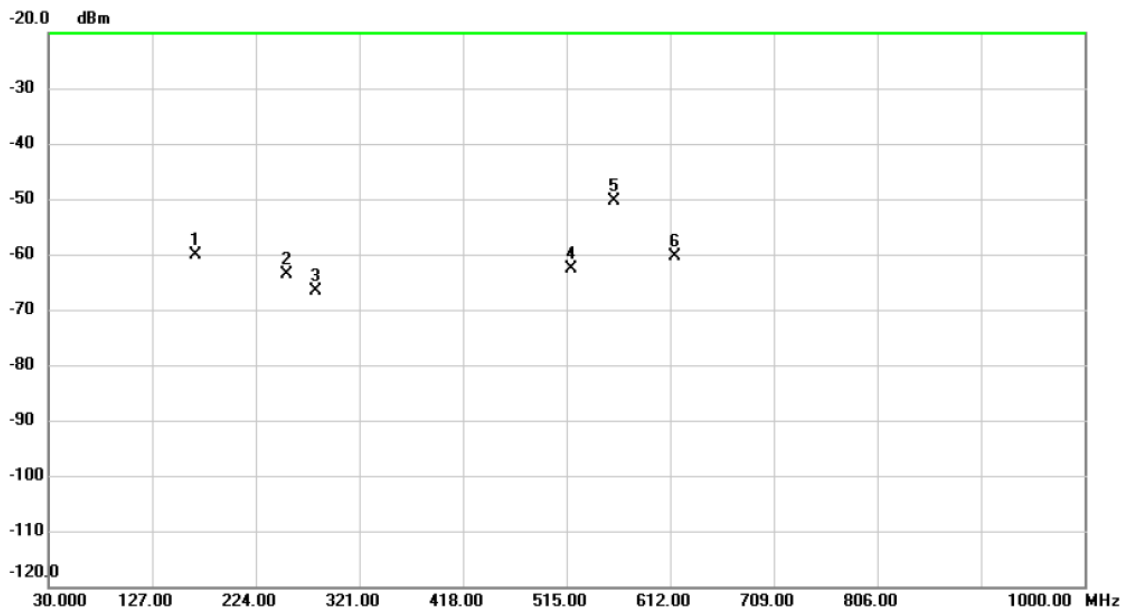


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	1751.655	-14.47	39.41	24.94	30.00	-5.06	peak	

REMARKS:

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

Test Mode	LTE Band 4_Link CH 20175	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Vertical

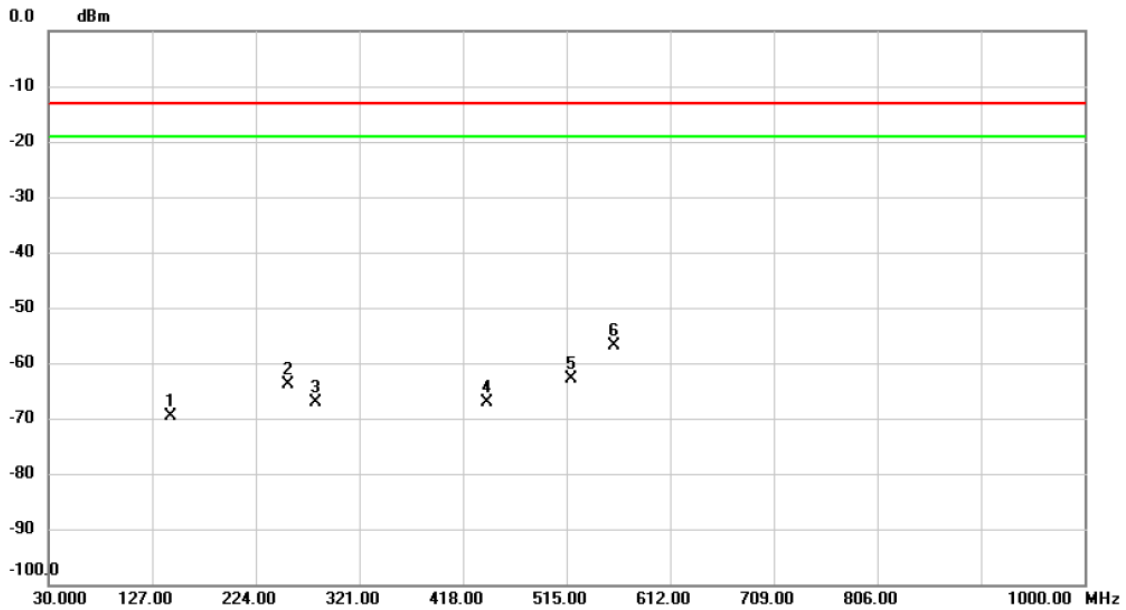


No. Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector	Comment
1	167.7400	-65.17	4.93	-60.24	-13.00	-47.24	peak	
2	253.1000	-62.61	-1.02	-63.63	-13.00	-50.63	peak	
3	280.2600	-65.57	-0.98	-66.55	-13.00	-53.55	peak	
4	519.8500	-65.68	3.17	-62.51	-13.00	-49.51	peak	
5 *	559.6200	-55.77	5.43	-50.34	-13.00	-37.34	peak	
6	615.8800	-66.23	5.76	-60.47	-13.00	-47.47	peak	

REMARKS:

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

Test Mode	LTE Band 4_Link CH 20175	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Horizontal

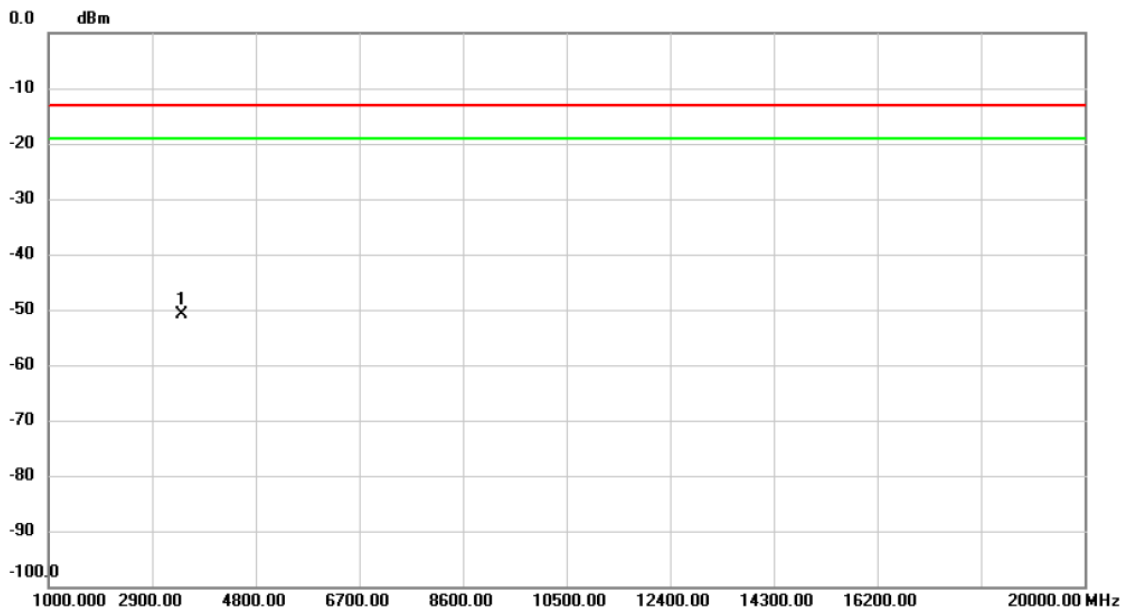


No. Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measurement dBm	Limit dBm	Over dB	Detector	Comment
1	144.4600	-68.66	-0.90	-69.56	-13.00	-56.56	peak	
2	254.0700	-58.22	-5.64	-63.86	-13.00	-50.86	peak	
3	280.2600	-62.49	-4.74	-67.23	-13.00	-54.23	peak	
4	440.3100	-68.00	0.96	-67.04	-13.00	-54.04	peak	
5	519.8500	-64.01	1.24	-62.77	-13.00	-49.77	peak	
6 *	559.6200	-58.91	1.92	-56.99	-13.00	-43.99	peak	

REMARKS:

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

Test Mode	LTE Band 4_Link CH 20175	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Vertical

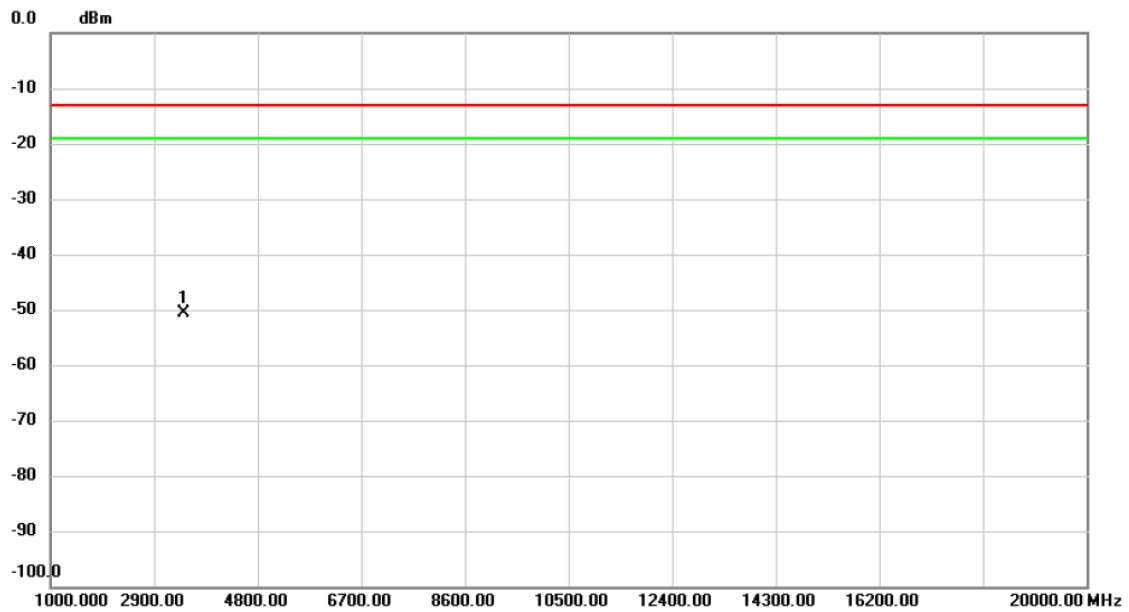


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	3446.935	-49.80	-1.15	-50.95	-13.00	-37.95	peak	

REMARKS:

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

Test Mode	LTE Band 4_Link CH 20175	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Horizontal

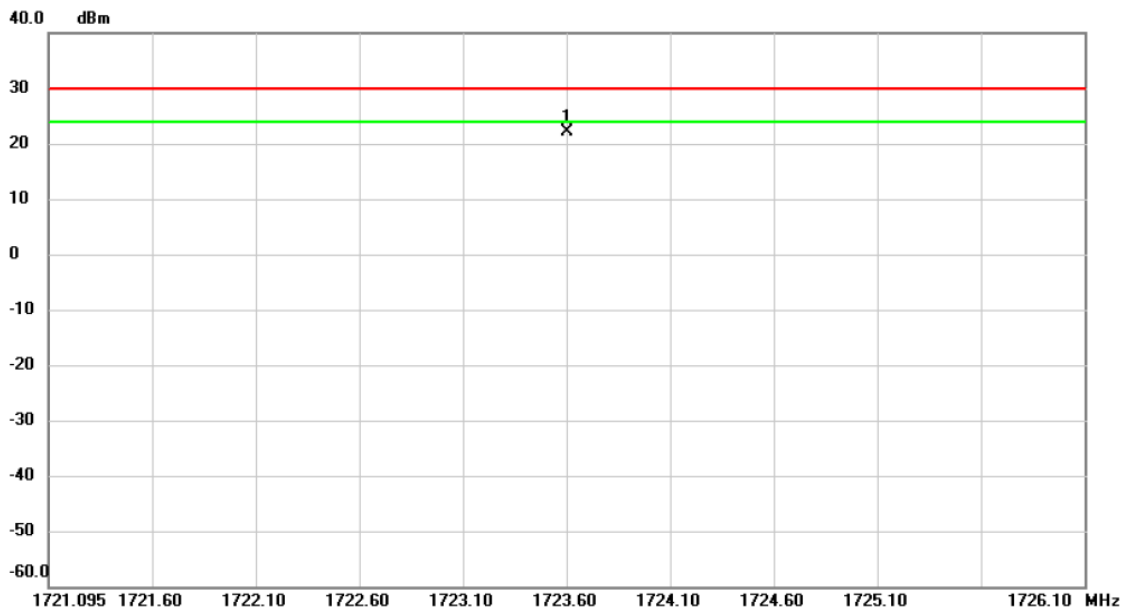


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	3447.200	-49.30	-1.21	-50.51	-13.00	-37.51	peak	

REMARKS:

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

Test Mode	LTE Band 4_Link CH 20175	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Vertical

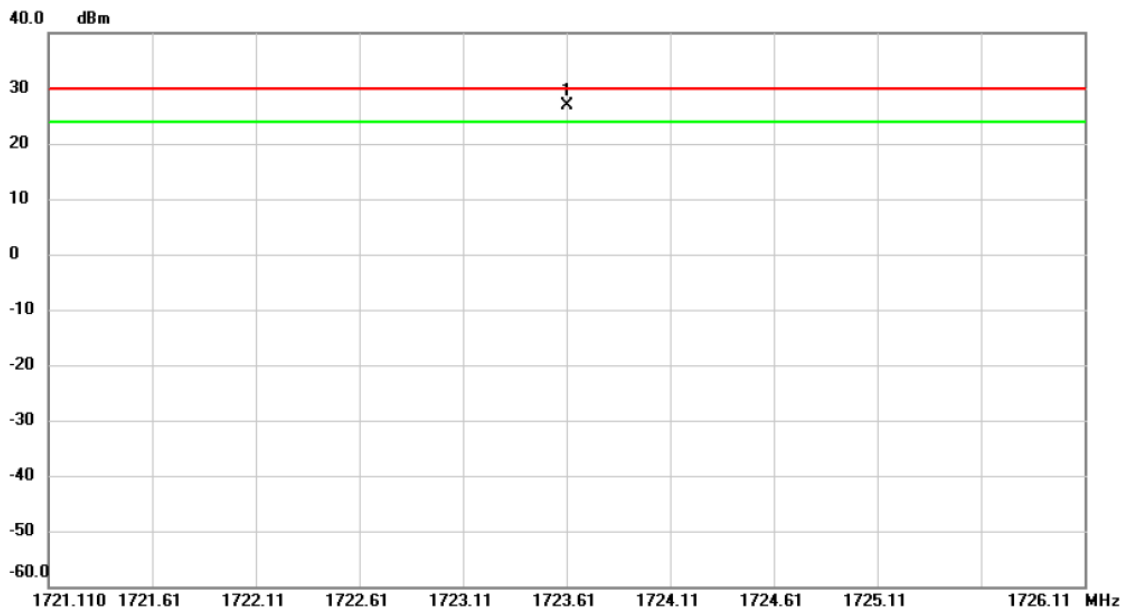


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	1723.595	-16.59	38.75	22.16	30.00	-7.84	peak	

REMARKS:

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

Test Mode	LTE Band 4_Link CH 20175	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Horizontal

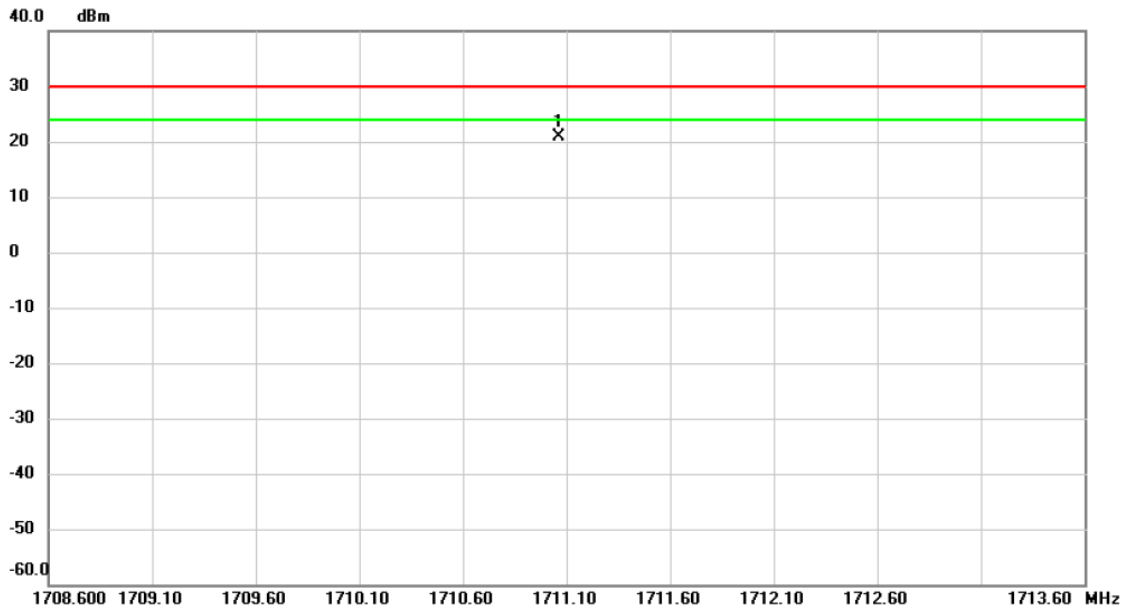


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	1723.615	-12.32	39.30	26.98	30.00	-3.02	peak	

REMARKS:

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

Test Mode	LTE Band 4_Link CH 20050	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Vertical

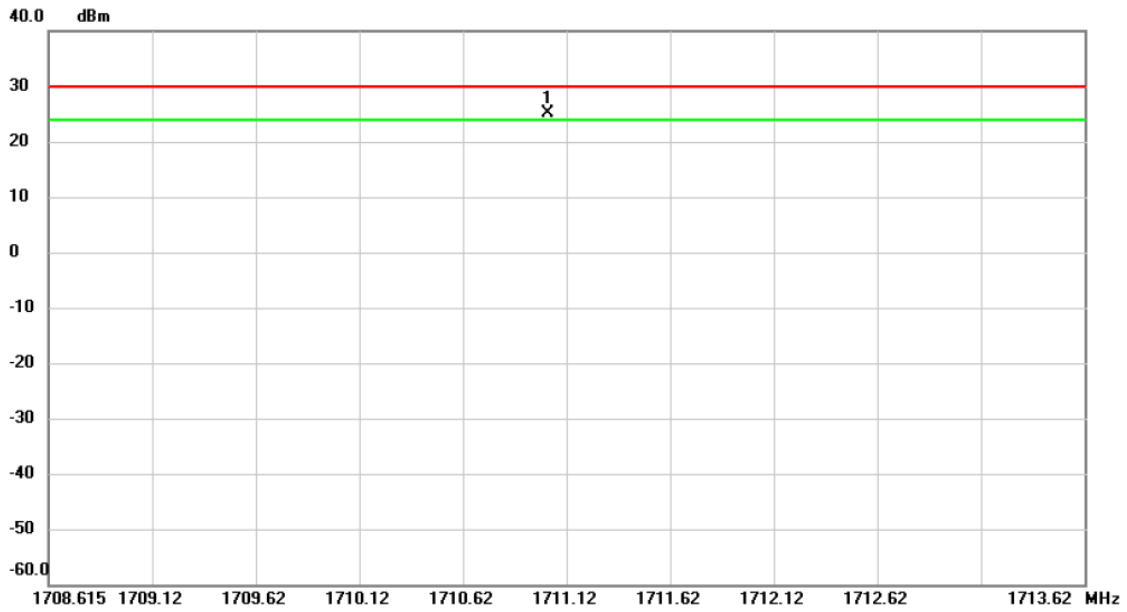


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	1711.065	-17.83	38.70	20.87	30.00	-9.13	peak	

REMARKS:

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

Test Mode	LTE Band 4_Link CH 20050	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Horizontal

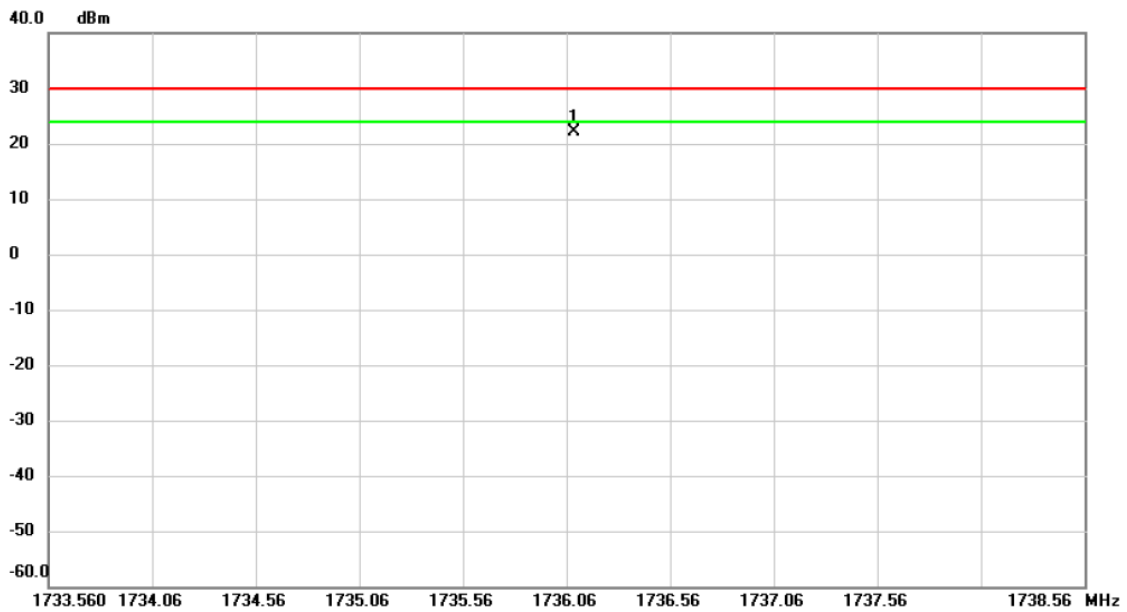


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	1711.025	-14.23	39.25	25.02	30.00	-4.98	peak	

REMARKS:

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

Test Mode	LTE Band 4_Link CH 20300	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Vertical

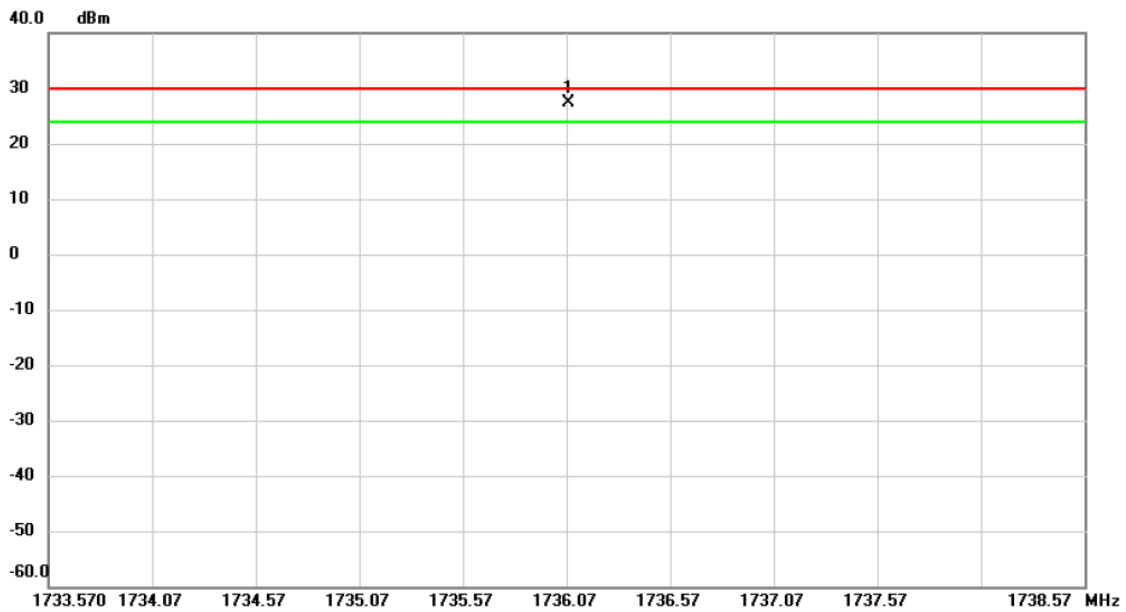


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	1736.095	-16.63	38.79	22.16	30.00	-7.84	peak	

REMARKS:

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

Test Mode	LTE Band 4_Link CH 20300	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Horizontal

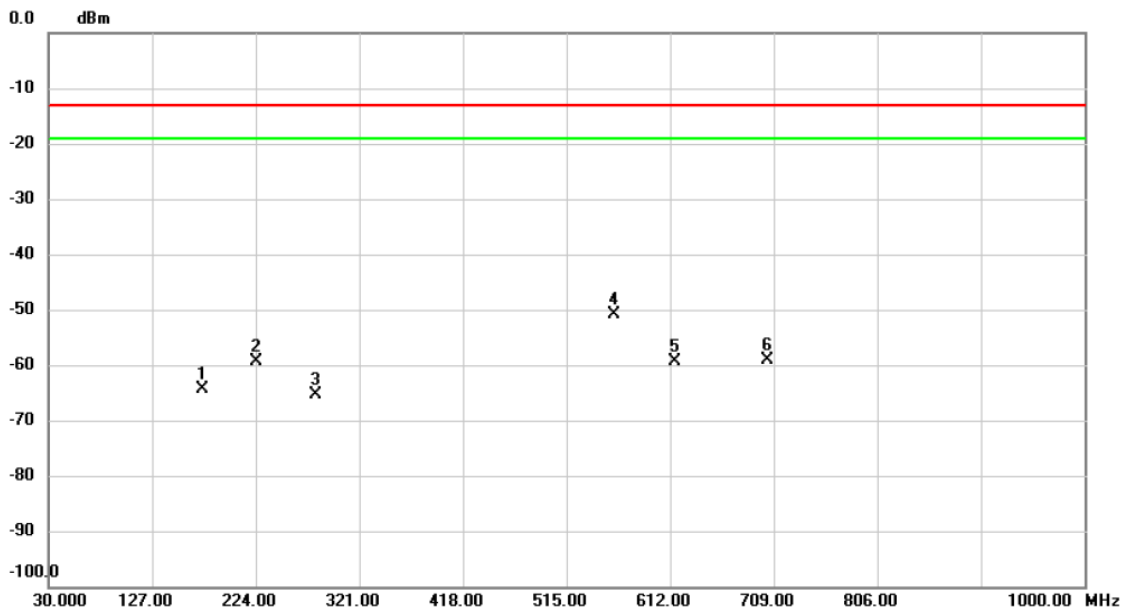


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	1736.080	-11.90	39.35	27.45	30.00	-2.55	peak	

REMARKS:

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

Test Mode	LTE Band 12_Link CH23095	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Vertical

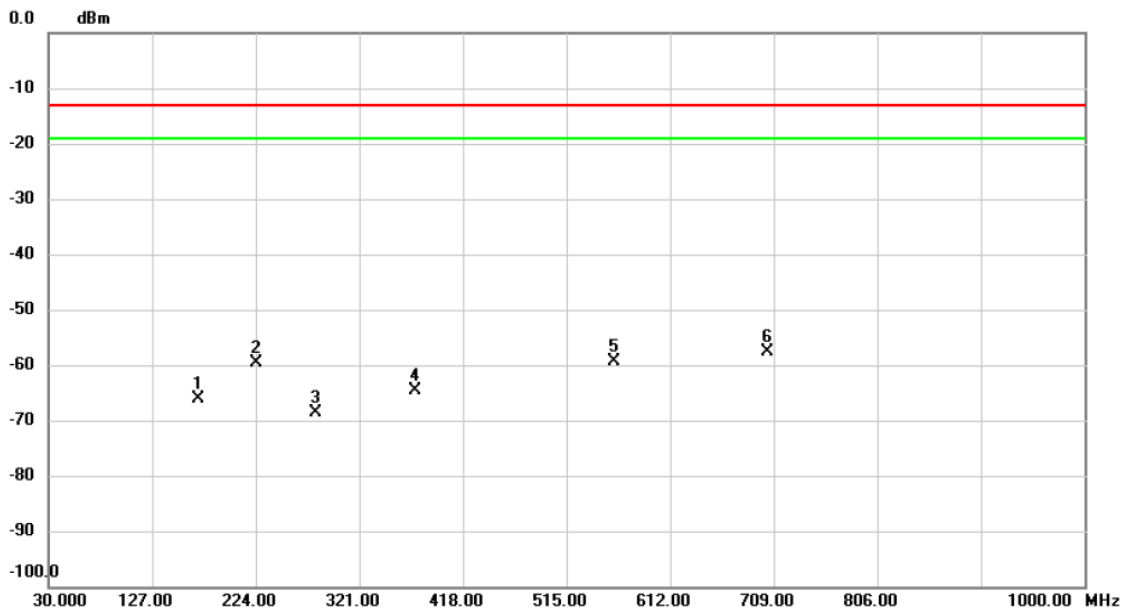


No. Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measurement dBm	Limit dBm	Over dB	Detector	Comment
1	173.5600	-67.75	3.36	-64.39	-13.00	-51.39	peak	
2	224.0000	-59.12	-0.34	-59.46	-13.00	-46.46	peak	
3	280.2600	-64.29	-0.98	-65.27	-13.00	-52.27	peak	
4 *	559.6200	-56.35	5.43	-50.92	-13.00	-37.92	peak	
5	615.8800	-65.13	5.76	-59.37	-13.00	-46.37	peak	
6	703.1800	-65.10	6.01	-59.09	-13.00	-46.09	peak	

REMARKS:

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

Test Mode	LTE Band 12_Link CH23095	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Horizontal

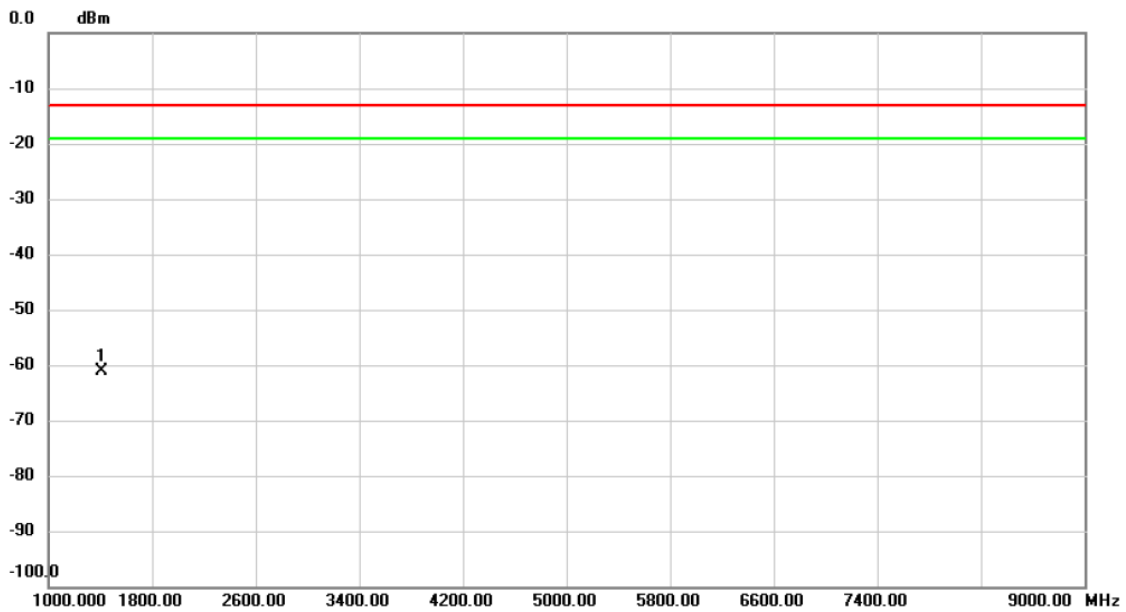


No. Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector	Comment
1	169.6800	-66.92	0.71	-66.21	-13.00	-53.21	peak	
2	224.0000	-53.83	-5.90	-59.73	-13.00	-46.73	peak	
3	280.2600	-63.80	-4.74	-68.54	-13.00	-55.54	peak	
4	373.3800	-64.56	0.00	-64.56	-13.00	-51.56	peak	
5	559.6200	-61.34	1.92	-59.42	-13.00	-46.42	peak	
6 *	703.1800	-62.15	4.62	-57.53	-13.00	-44.53	peak	

REMARKS:

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

Test Mode	LTE Band 12_Link CH23095	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Vertical

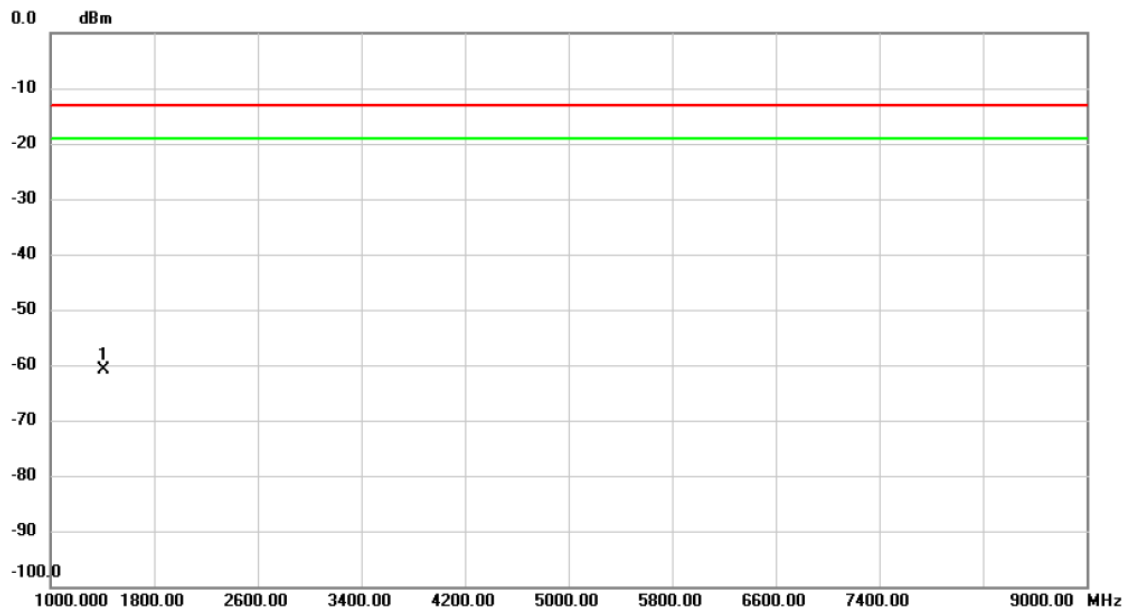


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	1412.580	-51.20	-9.80	-61.00	-13.00	-48.00	peak	

REMARKS:

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

Test Mode	LTE Band 12_Link CH23095	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Horizontal

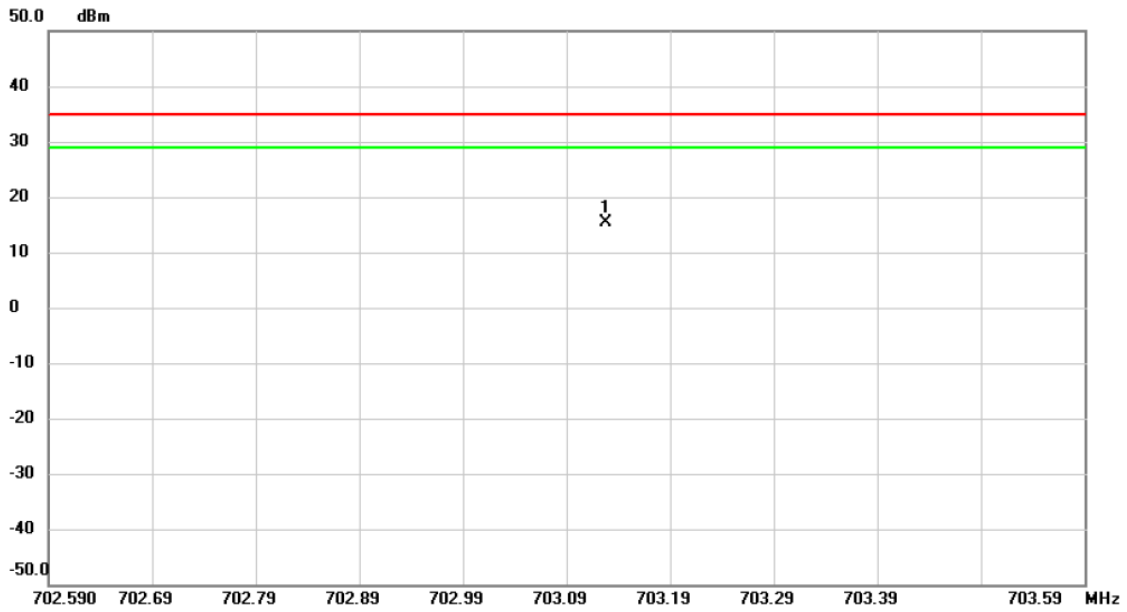


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	1415.490	-50.86	-10.02	-60.88	-13.00	-47.88	peak	

REMARKS:

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

Test Mode	LTE Band 12_Link CH23095	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Vertical

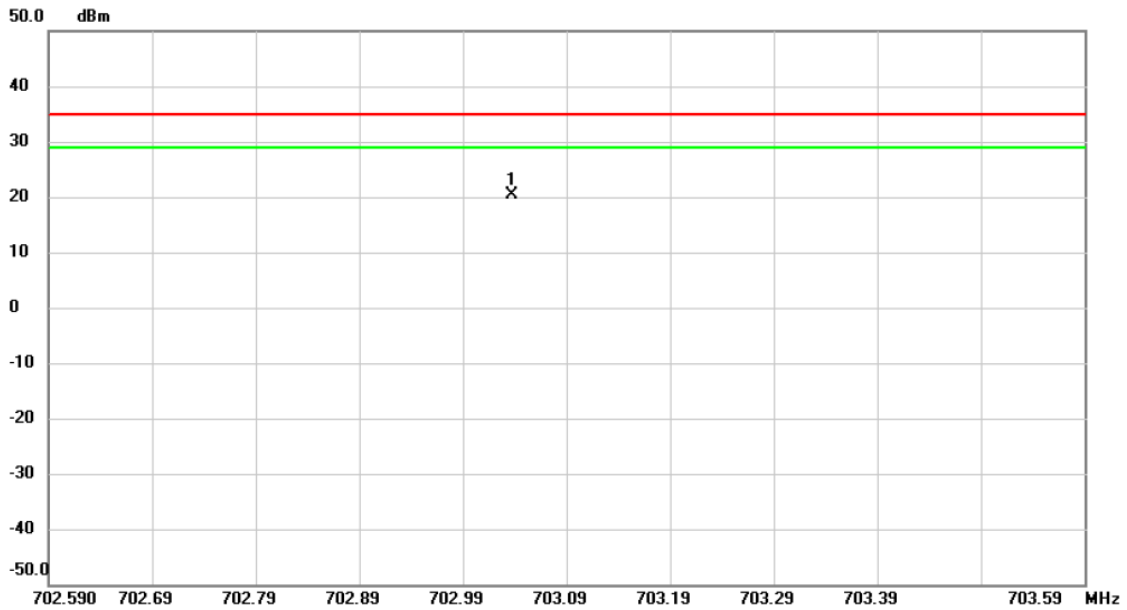


No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
	MHz	dBm	dB	dBm	dBm	dB		
1 *	703.1280	-20.64	36.00	15.36	34.77	-19.41	peak	

REMARKS:

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

Test Mode	LTE Band 12_Link CH23095	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Horizontal

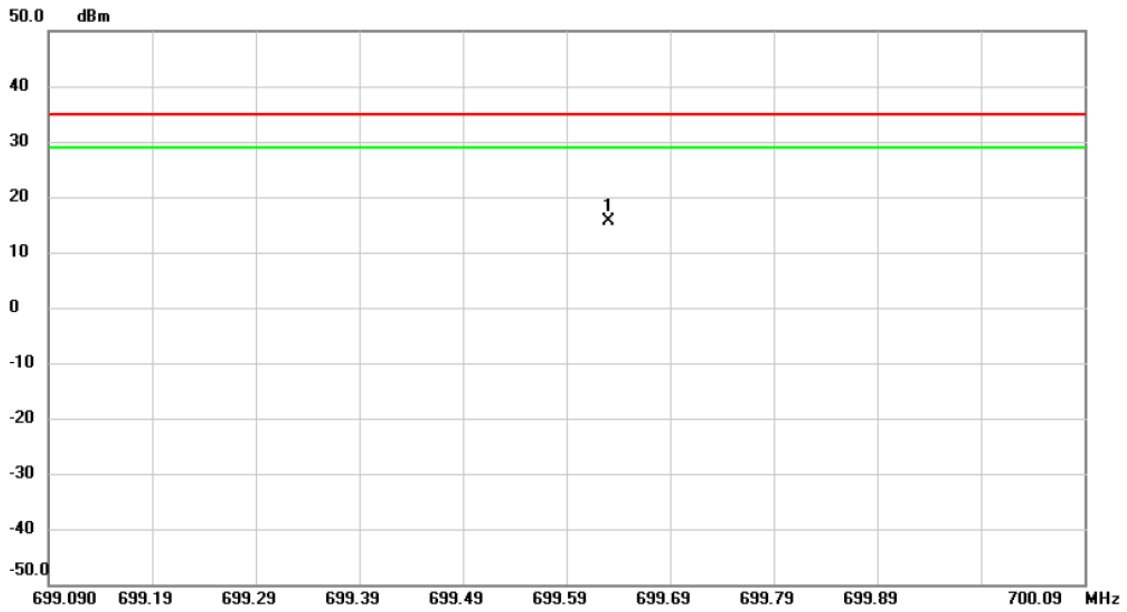


No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
	MHz	dBm	dB	dBm	dBm	dB		
1 *	703.0380	-13.56	33.96	20.40	34.77	-14.37	peak	

REMARKS:

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

Test Mode	LTE Band 12_Link CH23060	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Vertical

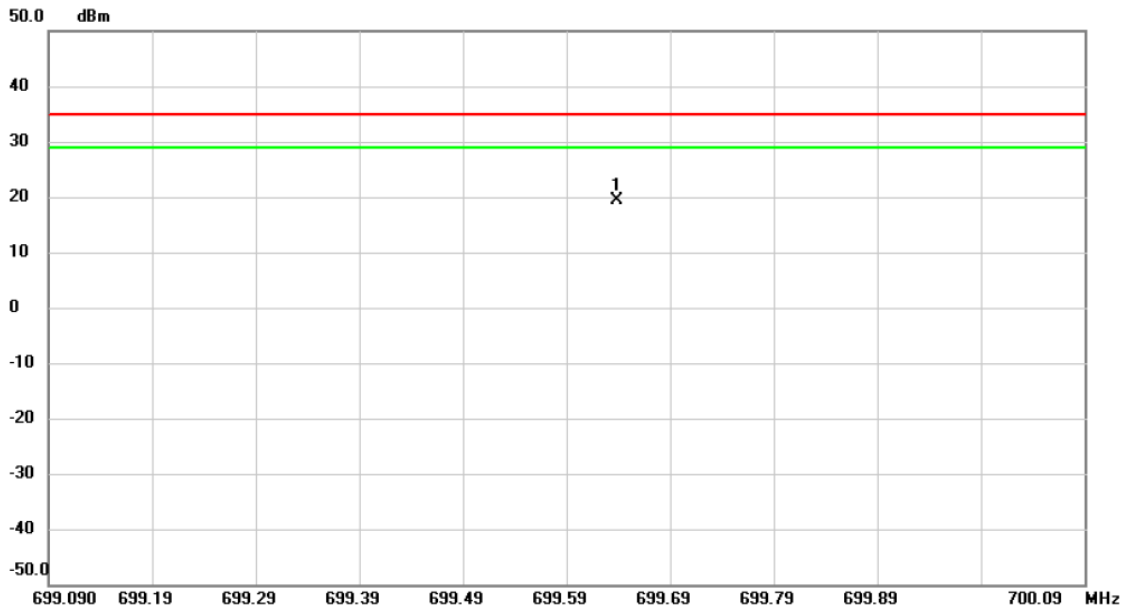


No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
	MHz	dBm	dB	dBm	dBm	dB		
1 *	699.6310	-20.46	35.98	15.52	34.77	-19.25	peak	

REMARKS:

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

Test Mode	LTE Band 12_Link CH23060	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Horizontal

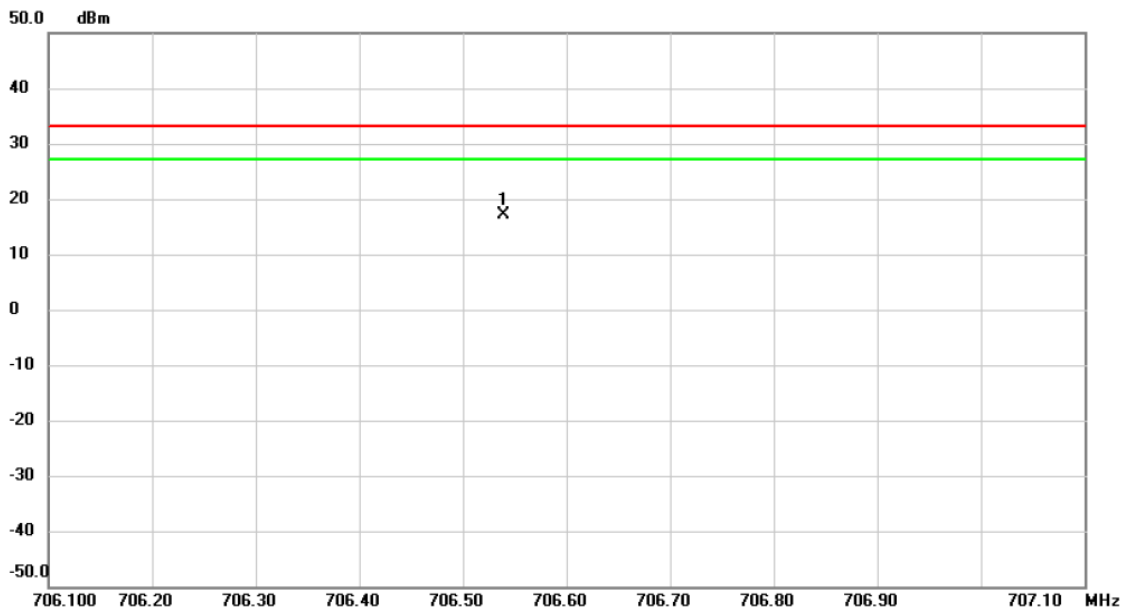


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	699.6380	-14.48	33.85	19.37	34.77	-15.40	peak	

REMARKS:

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

Test Mode	LTE Band 12_Link CH23130	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Vertical

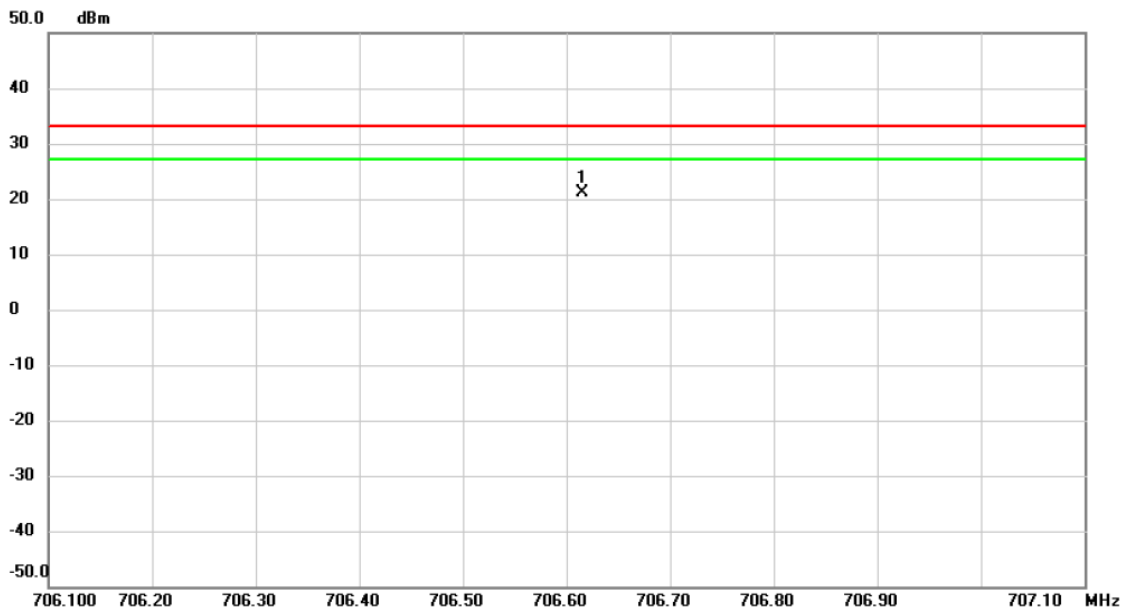


No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
	MHz	dBm	dB	dBm	dBm	dB		
1 *	706.5390	-19.01	36.03	17.02	33.01	-15.99	peak	

REMARKS:

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

Test Mode	LTE Band 12_Link CH23130	Tested Date	2019/10/28~29
Test Voltage	DC 60V	Polarization	Horizontal



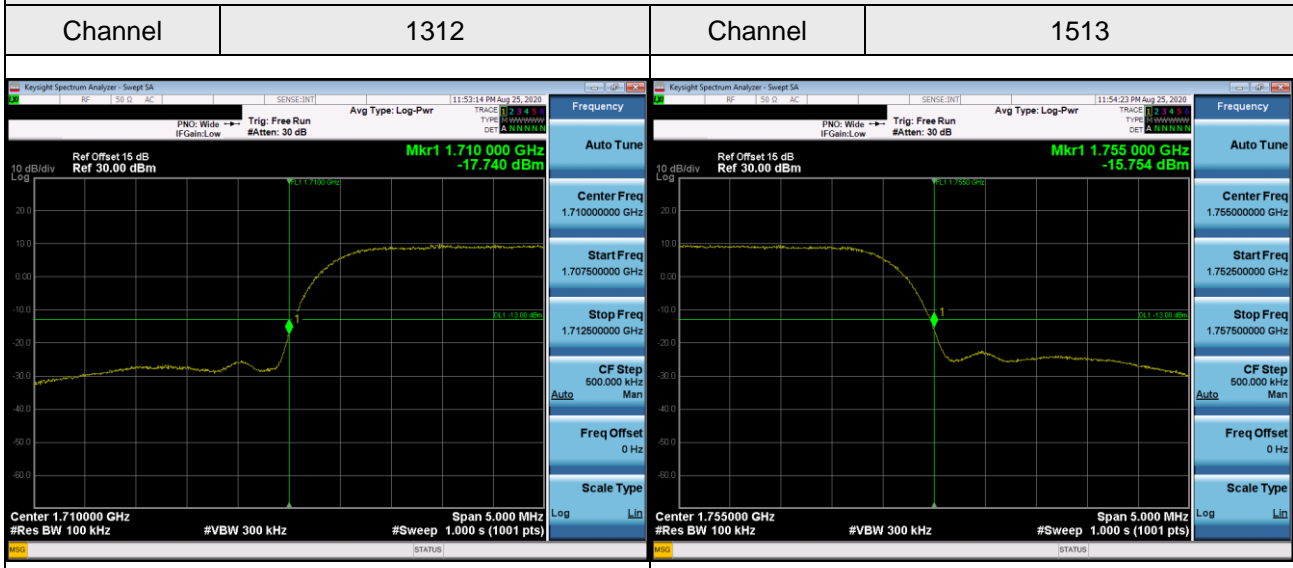
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBm	dB	dBm	dBm	dB		
1	*	706.6160	-13.02	34.10	21.08	33.01	-11.93	peak	

REMARKS:

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

APPENDIX E BAND EDGE

WCDMA Band IV_WCDMA Spectrum Plot



LTE Band 4_1.4M Spectrum Plot

1RB#0

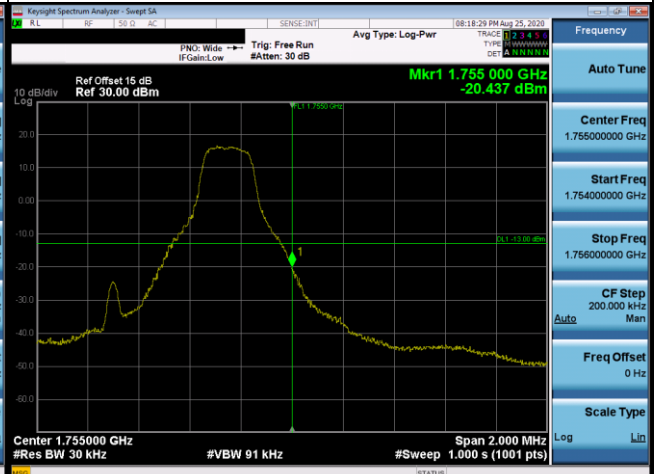
1RB#5

Channel

19957

Channel

20393



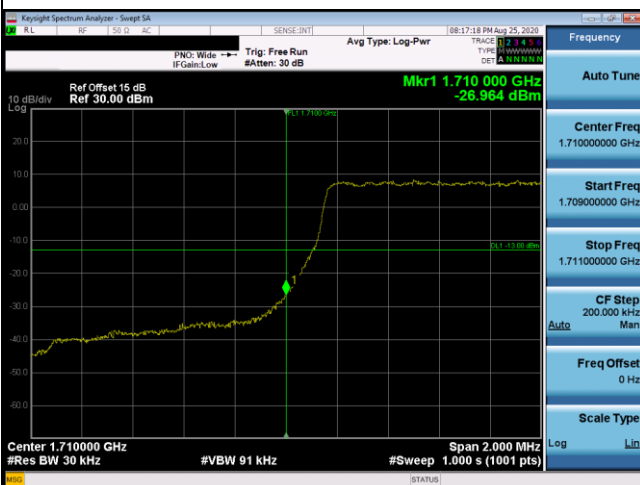
6RB#0

Channel

19957

Channel

20393



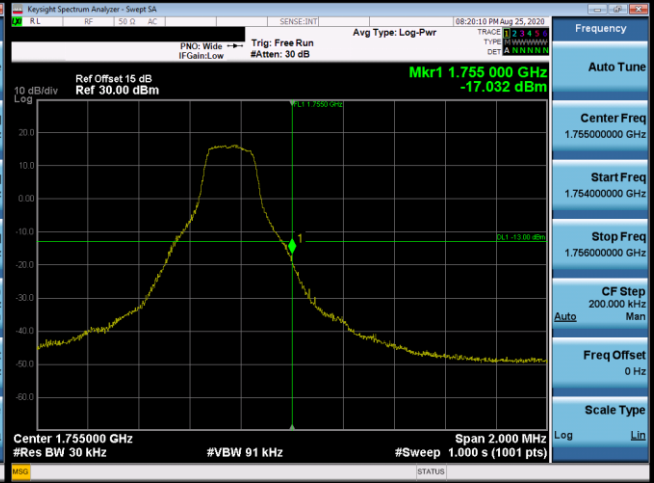
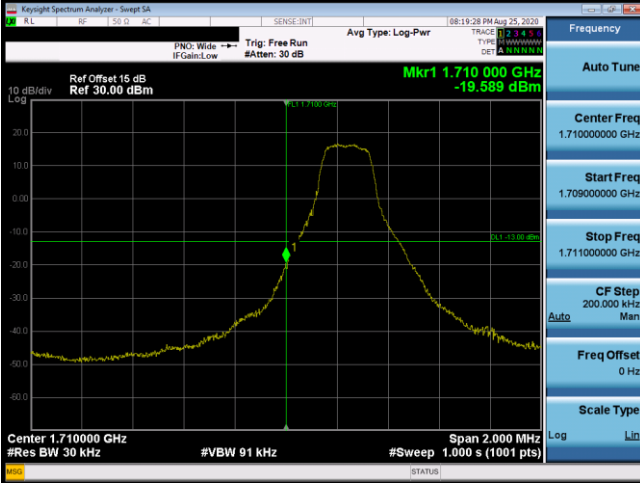
LTE Band 4_3M Spectrum Plot

1RB#0

1RB#14

Channel 19965

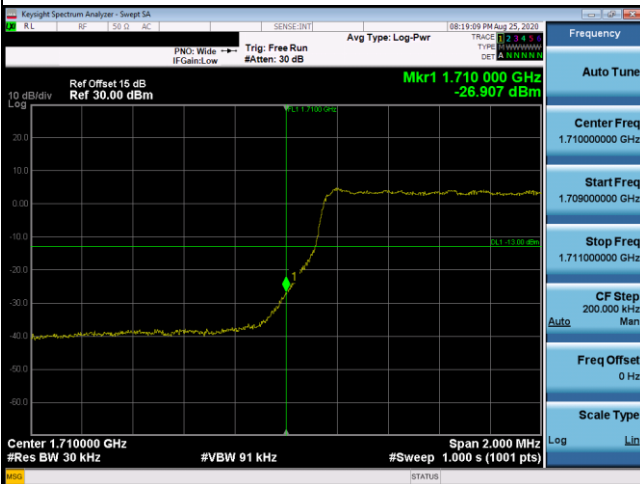
Channel 20385



15RB#0

Channel 19965

Channel 20385



LTE Band 4_5M Spectrum Plot

1RB#0

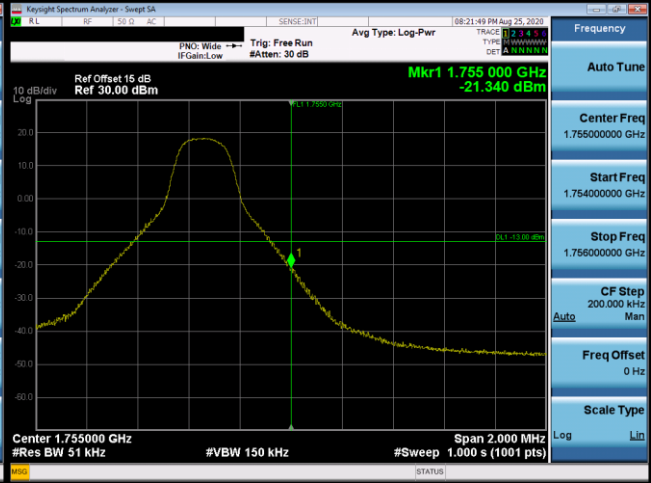
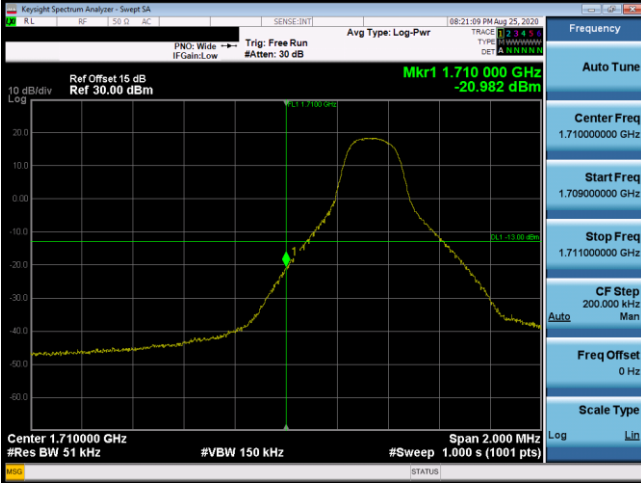
1RB#24

Channel

19975

Channel

20375



25RB#0

Channel

19975

Channel

20375



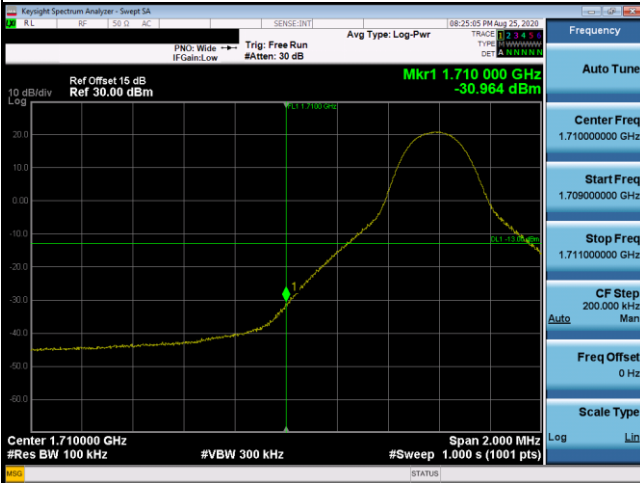
LTE Band 4_10M Spectrum Plot

1RB#0

1RB#49

Channel 20000

Channel 20350



50RB#0

Channel 20000

Channel 20350

