

LTE Band 13

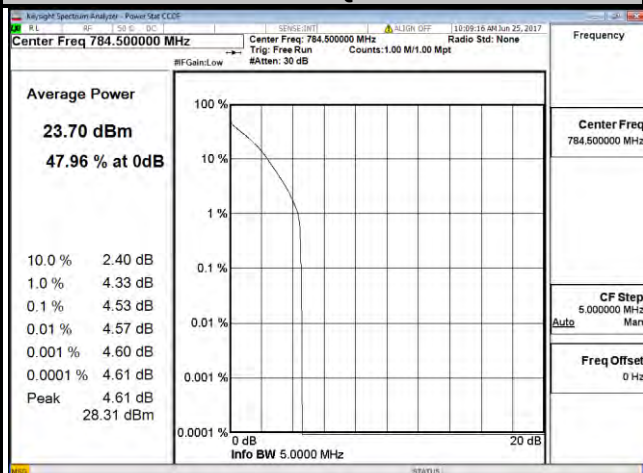
Channel Bandwidth: 5 MHz

Channel Bandwidth: 10 MHz

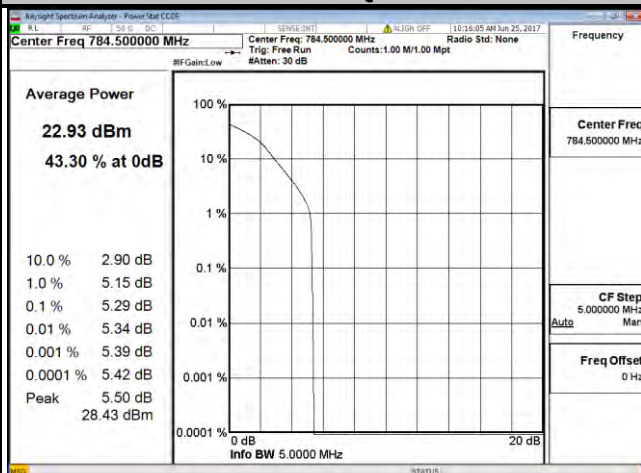
Channel	Frequency (MHz)	Peak to Average Ratio (dB)			Channel	Frequency (MHz)	Peak to Average Ratio (dB)		
		QPSK	16QAM	64QAM			QPSK	16QAM	64QAM
23205	779.5	3.38	4.15	5.15	23230	782.0	3.37	4.26	5.11
23230	782.0	3.57	4.31	5.34					
23255	784.5	4.53	5.29	6.29					

Spectrum Plot of Worst Value

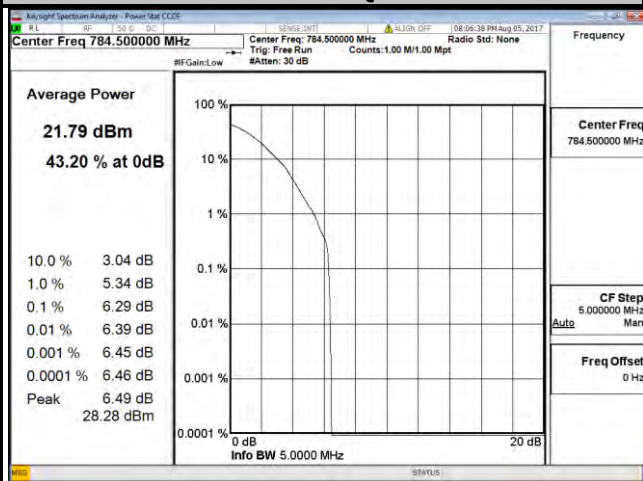
5 MHz / QPSK



5 MHz / 16QAM

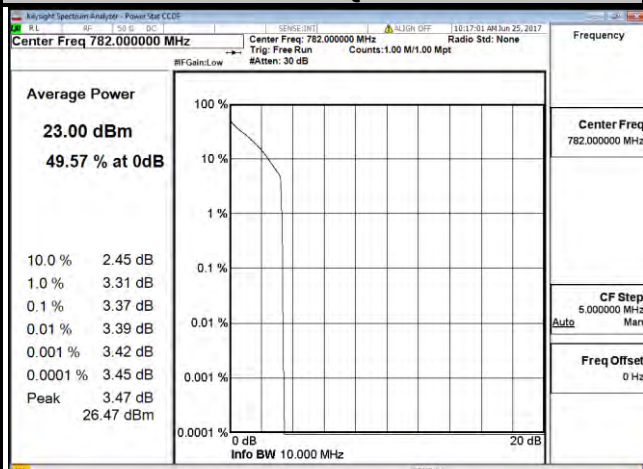


5 MHz / 64QAM

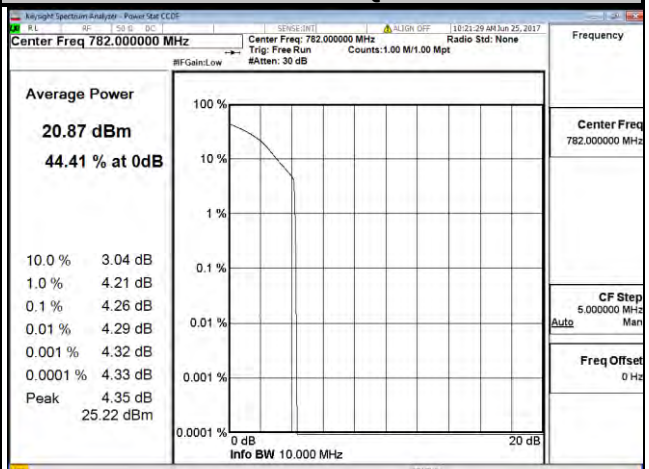


Spectrum Plot of Worst Value

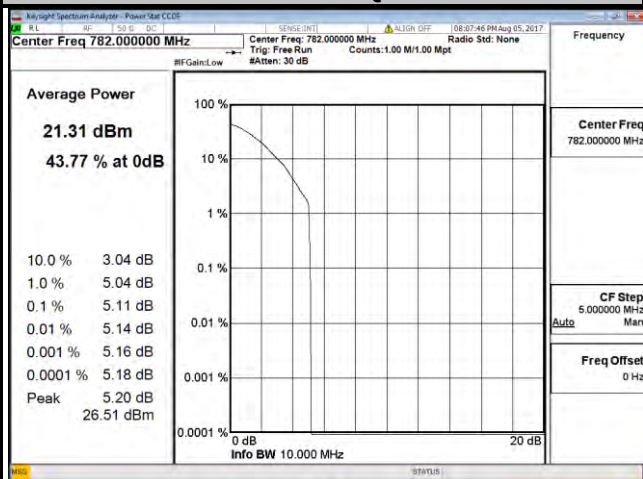
10 MHz / QPSK



10 MHz / 16QAM



10 MHz / 64QAM

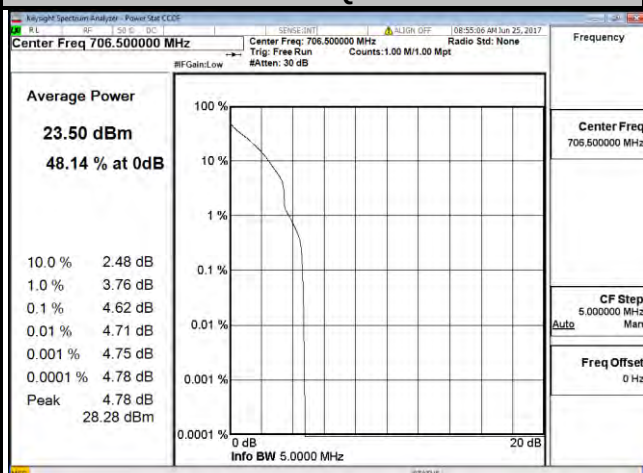


LTE Band 17

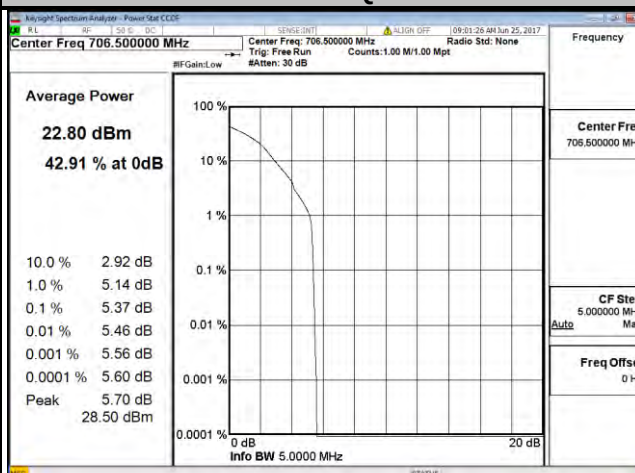
Channel Bandwidth: 5 MHz					Channel Bandwidth: 10 MHz				
Channel	Frequency (MHz)	Peak to Average Ratio (dB)			Channel	Frequency (MHz)	Peak to Average Ratio (dB)		
		QPSK	16QAM	64QAM			QPSK	16QAM	64QAM
23755	706.5	4.62	5.37	5.43	23780	709.0	4.55	4.86	5.47
23790	710.0	3.87	4.59	5.56	23790	710.0	3.77	4.53	5.82
23825	713.5	4.61	5.35	6.35	23800	711.0	3.71	4.42	5.59

Spectrum Plot of Worst Value

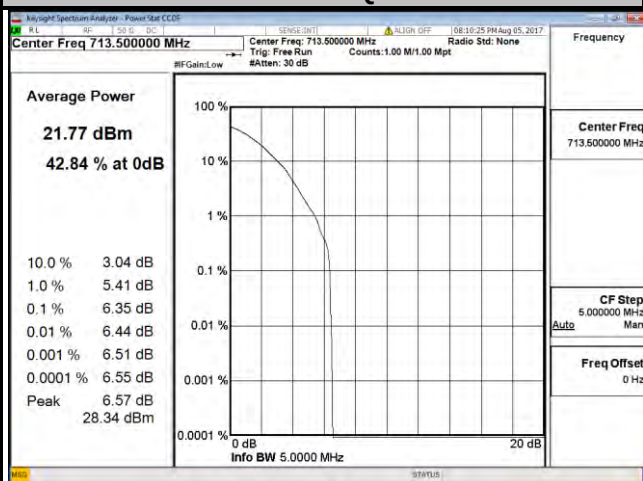
5 MHz / QPSK



5 MHz / 16QAM

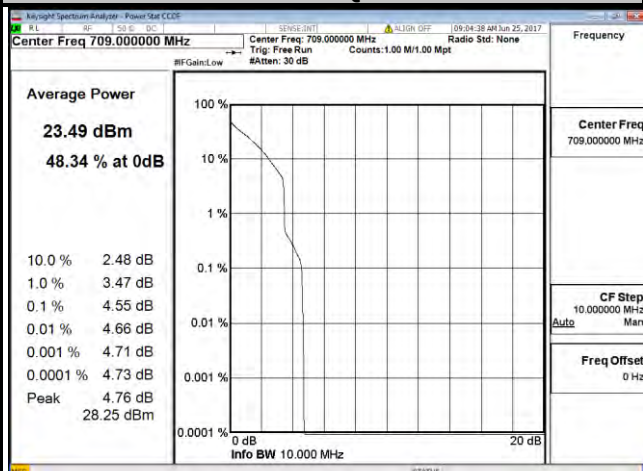


5 MHz / 64QAM

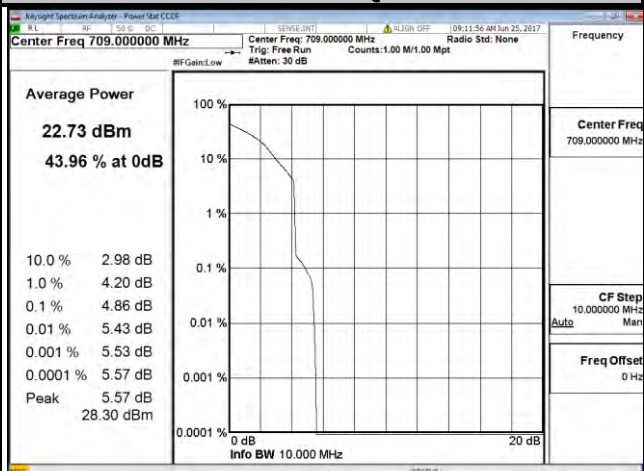


Spectrum Plot of Worst Value

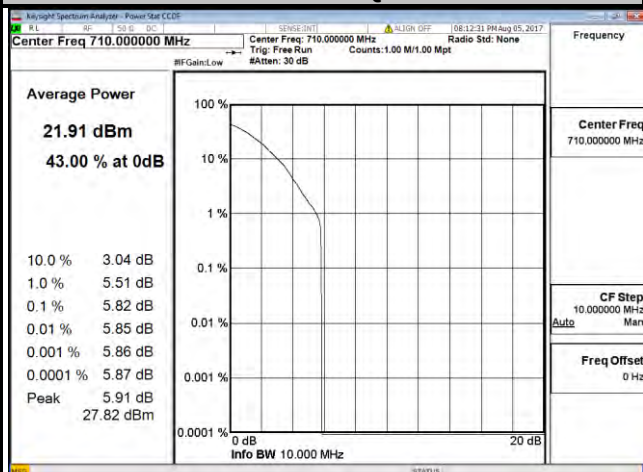
10 MHz / QPSK



10 MHz / 16QAM



10 MHz / 64QAM



LTE Band 66

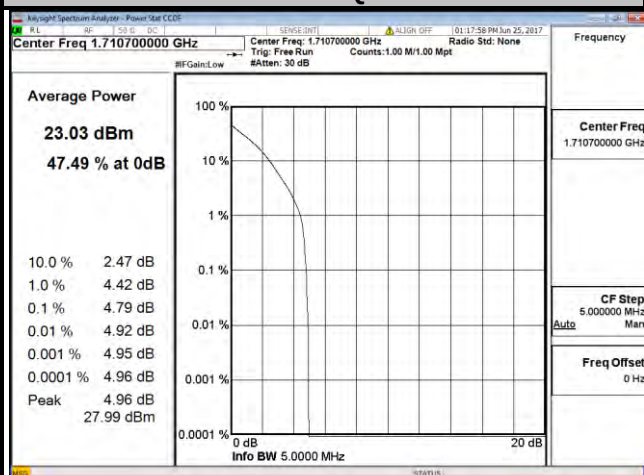
Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 3 MHz

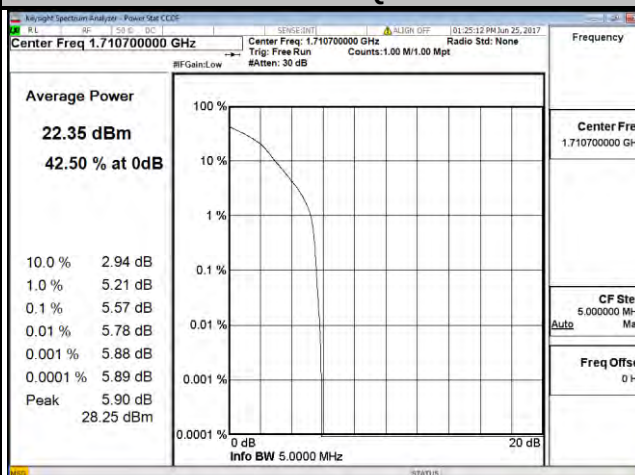
Channel	Frequency (MHz)	Peak to Average Ratio (dB)			Channel	Frequency (MHz)	Peak to Average Ratio (dB)		
		QPSK	16QAM	64QAM			QPSK	16QAM	64QAM
131979	1710.7	4.79	5.57	5.34	131987	1711.5	4.64	5.37	5.39
132322	1745	4.14	4.87	5.95	132322	1745	4.02	4.78	5.88
132665	1779.3	4.36	5.12	6.10	132657	1778.5	4.11	4.87	5.90

Spectrum Plot of Worst Value

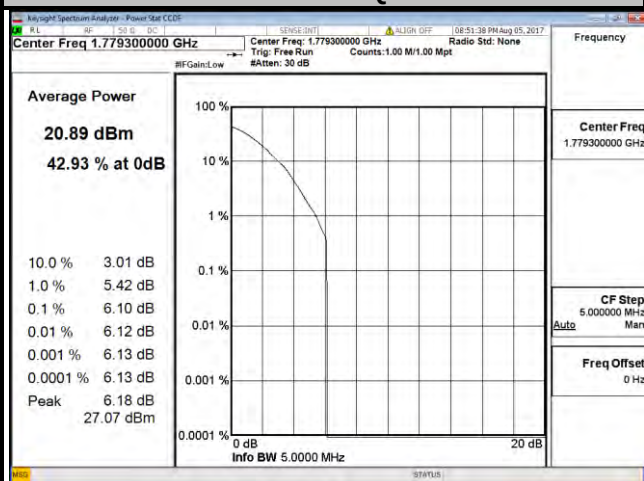
1.4 MHz / QPSK



1.4 MHz / 16QAM

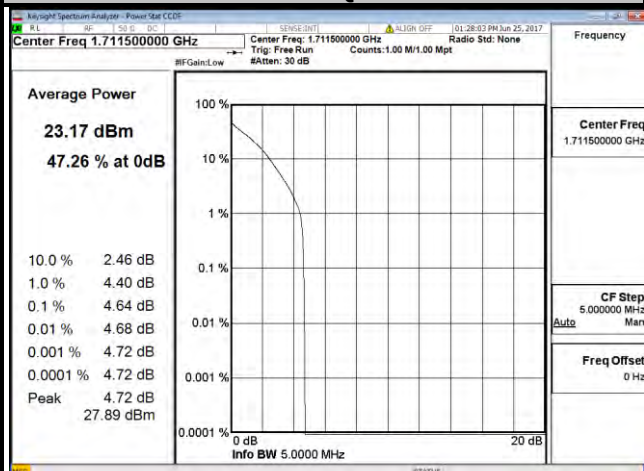


1.4 MHz / 64QAM

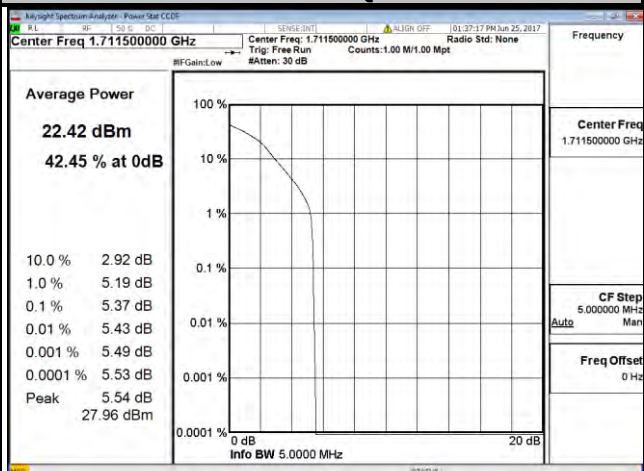


Spectrum Plot of Worst Value

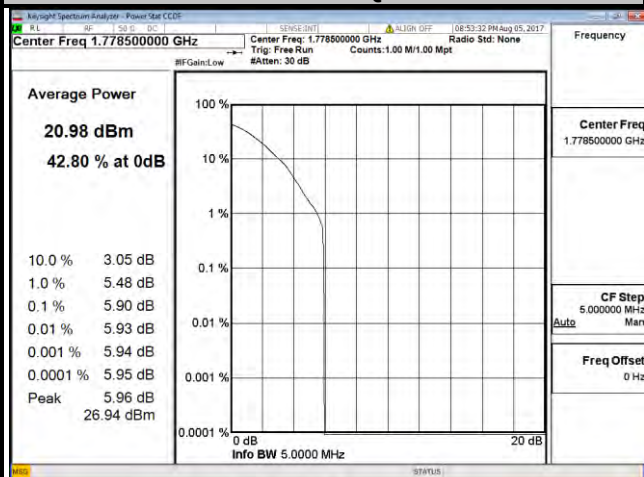
3 MHz / QPSK



3 MHz / 16QAM



3 MHz / 64QAM



LTE Band 66

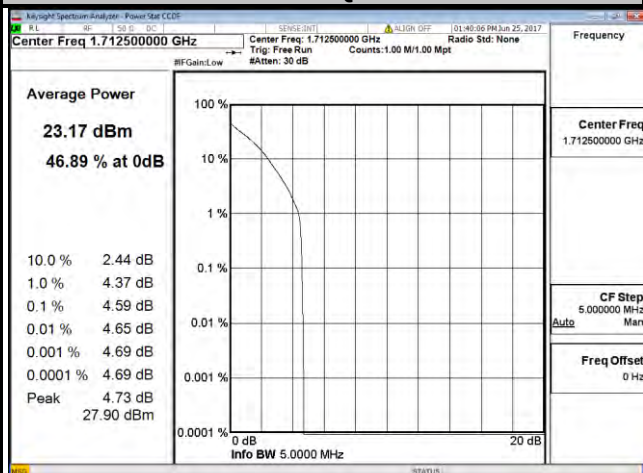
Channel Bandwidth: 5 MHz

Channel Bandwidth: 10 MHz

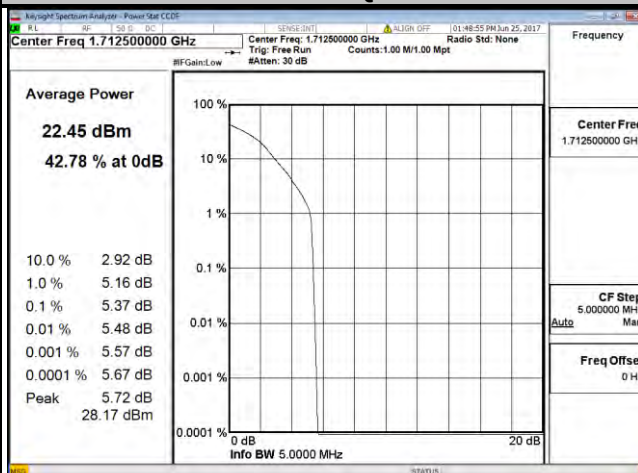
Channel	Frequency (MHz)	Peak to Average Ratio (dB)			Channel	Frequency (MHz)	Peak to Average Ratio (dB)		
		QPSK	16QAM	64QAM			QPSK	16QAM	64QAM
131997	1712.5	4.59	5.37	6.23	132022	1715	4.57	5.31	6.33
132322	1745	3.90	4.72	5.80	132322	1745	3.73	4.52	5.63
132647	1777.5	3.79	4.55	5.57	132622	1775	3.85	4.63	5.86

Spectrum Plot of Worst Value

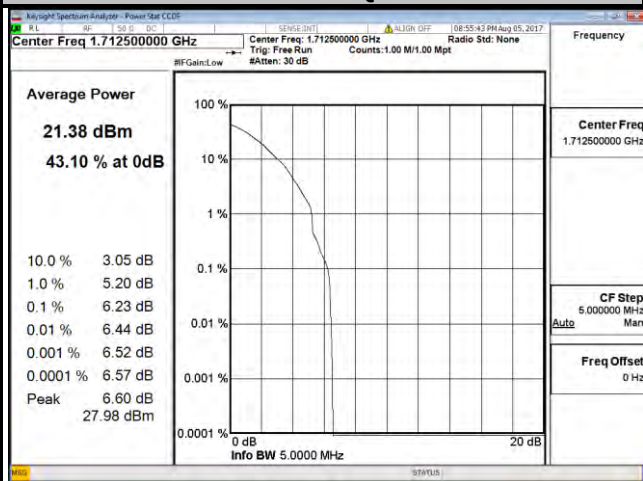
5 MHz / QPSK



5 MHz / 16QAM

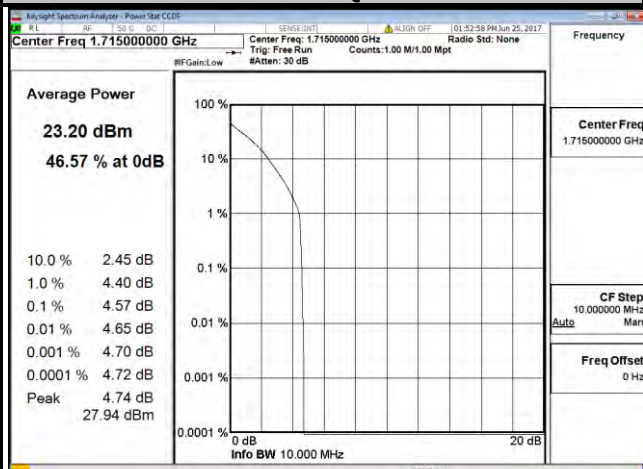


5 MHz / 64QAM

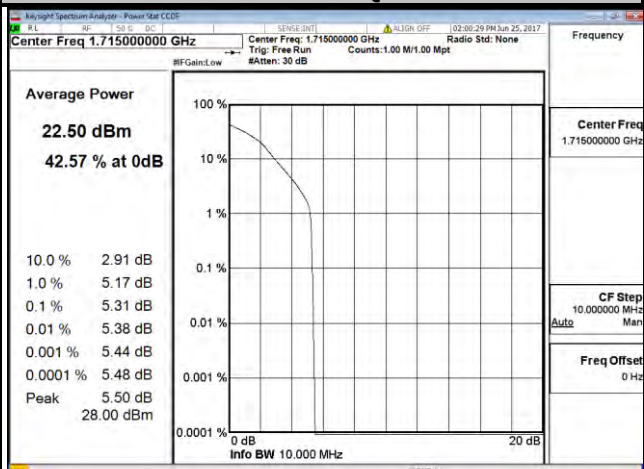


Spectrum Plot of Worst Value

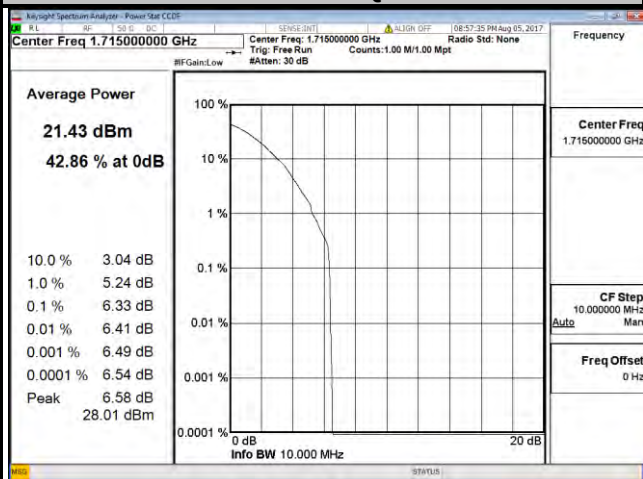
10 MHz / QPSK



10 MHz / 16QAM



10 MHz / 64QAM



LTE Band 66

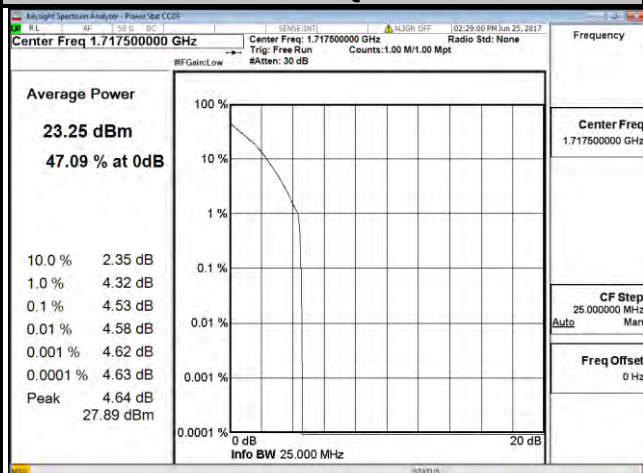
Channel Bandwidth: 15 MHz

Channel Bandwidth: 20 MHz

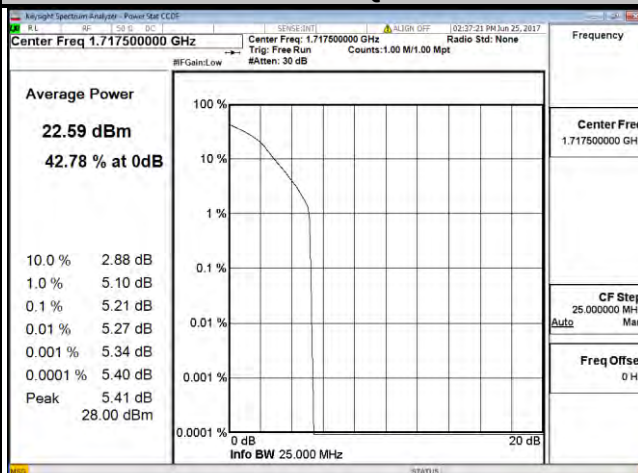
Channel	Frequency (MHz)	Peak to Average Ratio (dB)			Channel	Frequency (MHz)	Peak to Average Ratio (dB)		
		QPSK	16QAM	64QAM			QPSK	16QAM	64QAM
132047	1717.5	4.53	5.21	6.31	132072	1720	4.47	5.28	6.31
132322	1745	3.64	4.44	5.61	132322	1745	3.84	4.62	5.77
132597	1772.5	4.45	5.13	6.25	132572	1770	4.50	5.31	6.30

Spectrum Plot of Worst Value

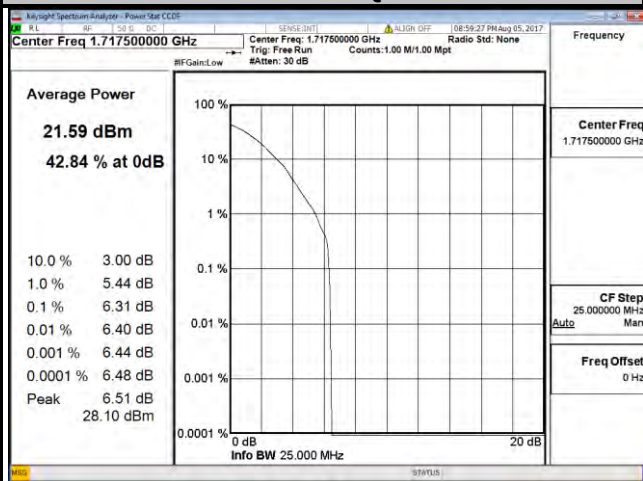
15 MHz / QPSK



15 MHz / 16QAM

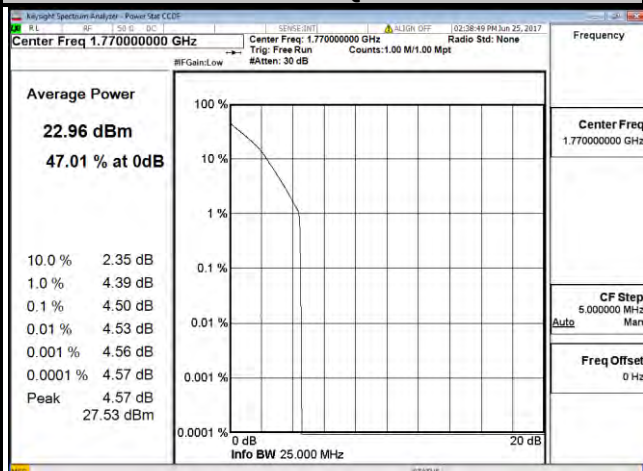


15 MHz / 64QAM

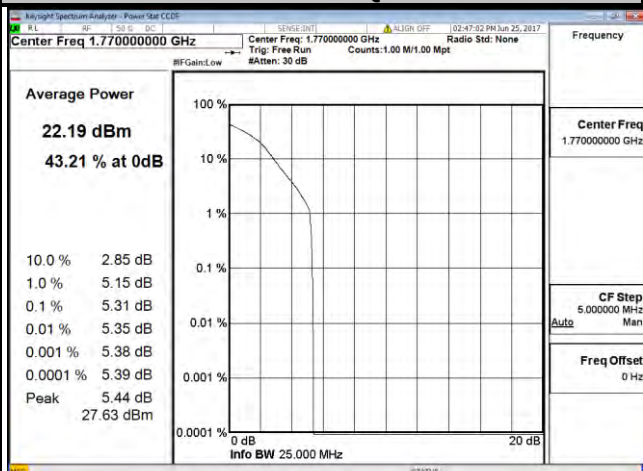


Spectrum Plot of Worst Value

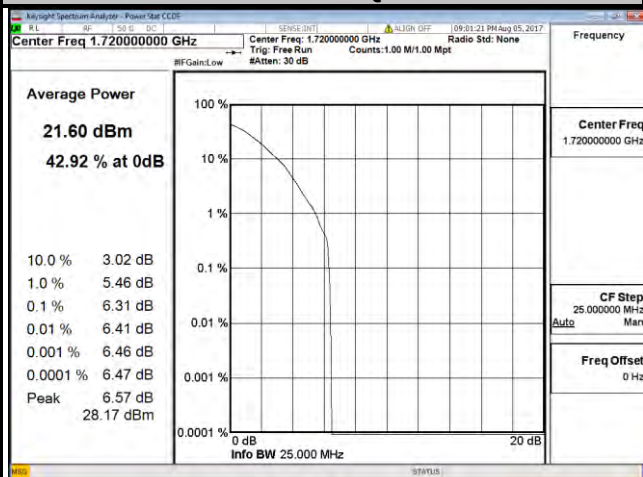
20 MHz / QPSK



20 MHz / 16QAM



20 MHz / 64QAM

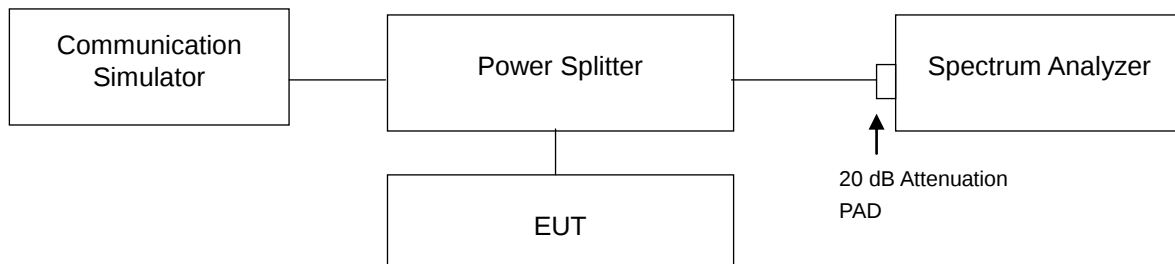


4.6 Conducted Spurious Emissions

4.6.1 Limits of Conducted Spurious Emissions Measurement

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $43 + 10 \log_{10}(P)$ dB. The limit of emission is equal to -13 dBm.

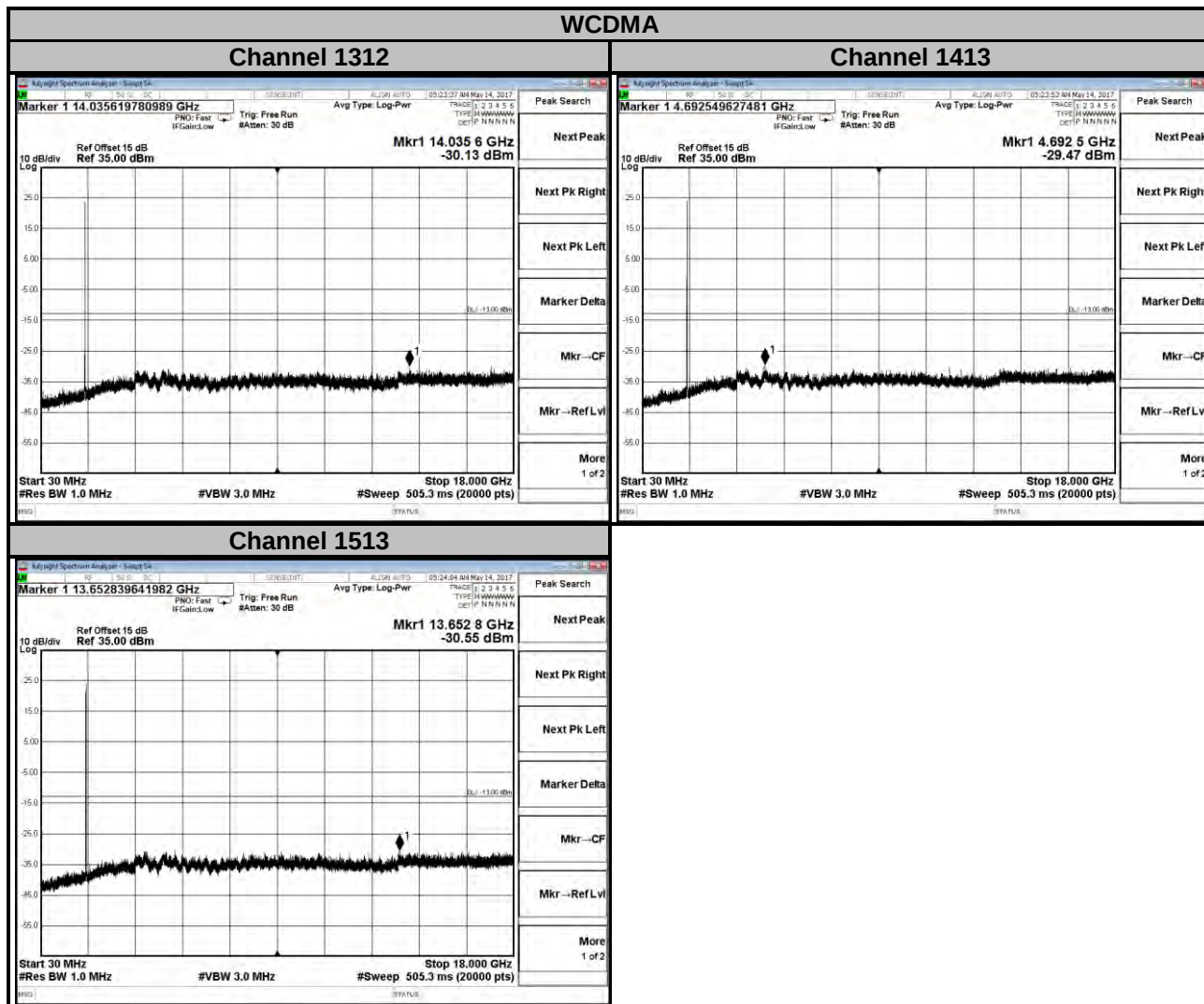
4.6.2 Test Setup



4.6.3 Test Procedure

- The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.
- Measuring frequency range is from 30 MHz to 8 GHz for LTE Band 12/13/17 and from 30 MHz to 18 GHz for WCDMA and LTE Band 4/66. 10 dB attenuation pad is connected with spectrum. RBW=1 MHz and VBW=3 MHz are used for conducted emission measurement.

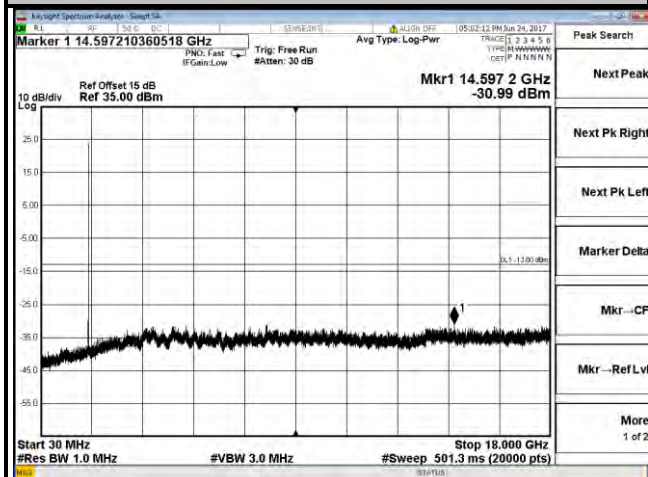
4.6.4 Test Results



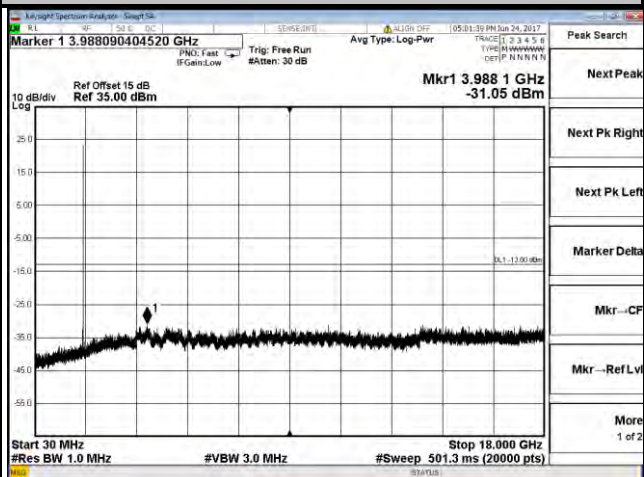
LTE Band 4

Channel Bandwidth: 1.4 MHz

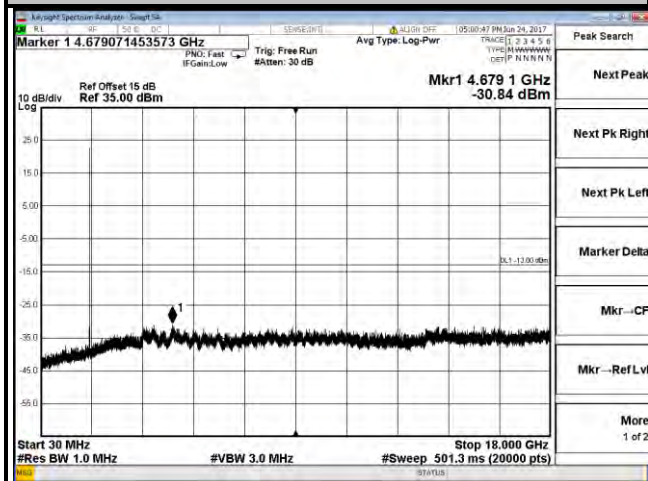
Channel 19957



Channel 19175



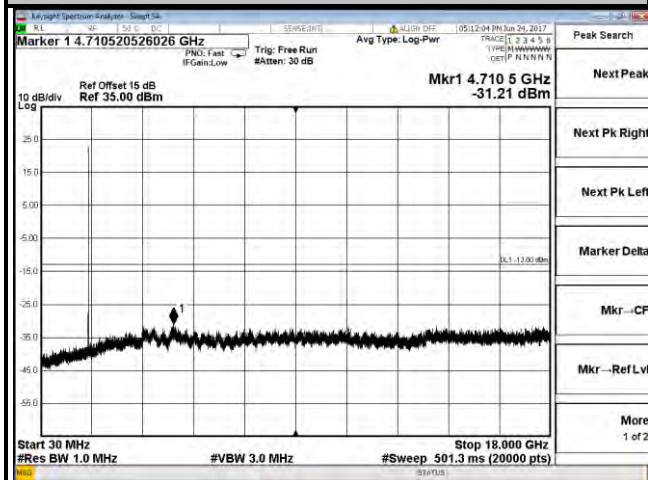
Channel 20393



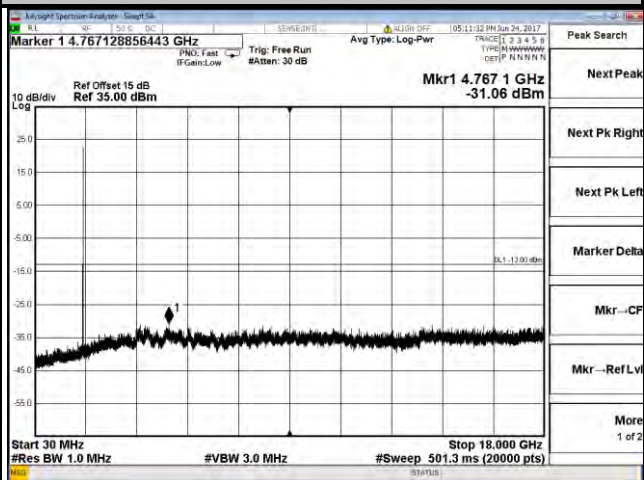
LTE Band 4

Channel Bandwidth: 3 MHz

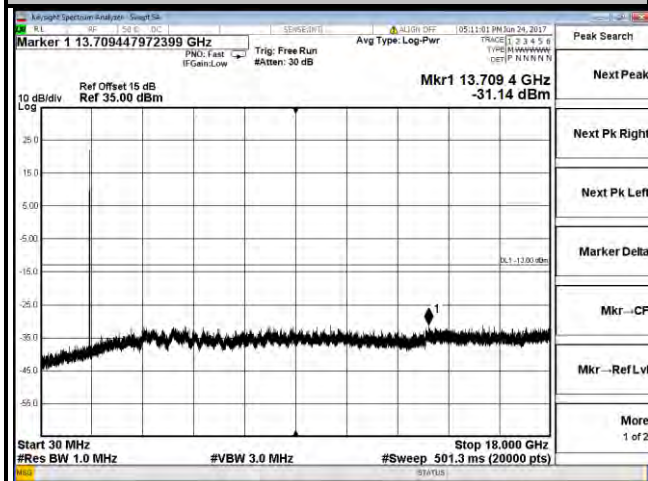
Channel 19965



Channel 19175



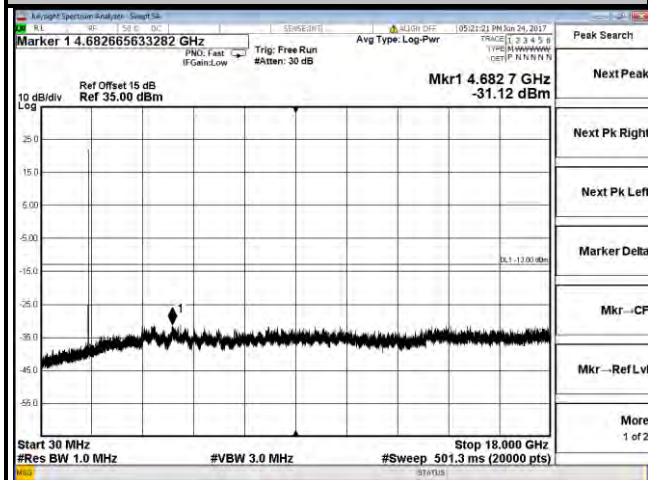
Channel 20385



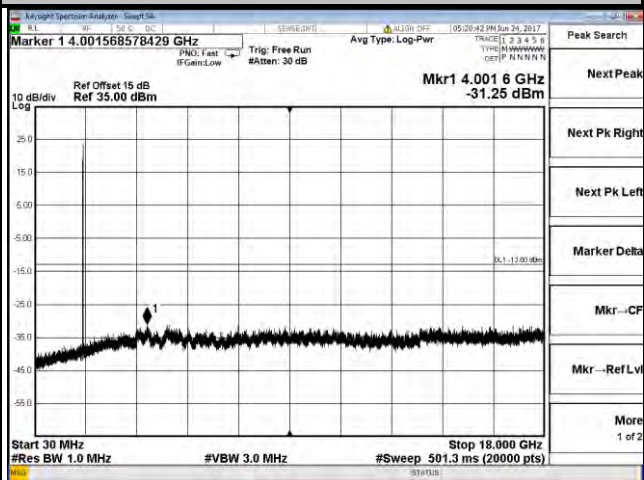
LTE Band 4

Channel Bandwidth: 5 MHz

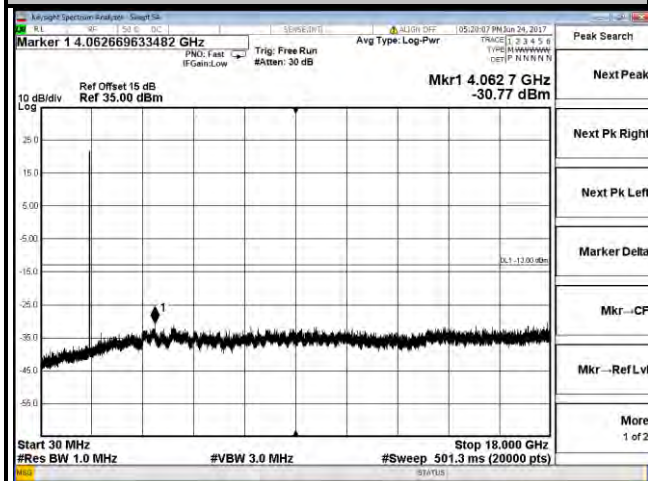
Channel 19975



Channel 10175



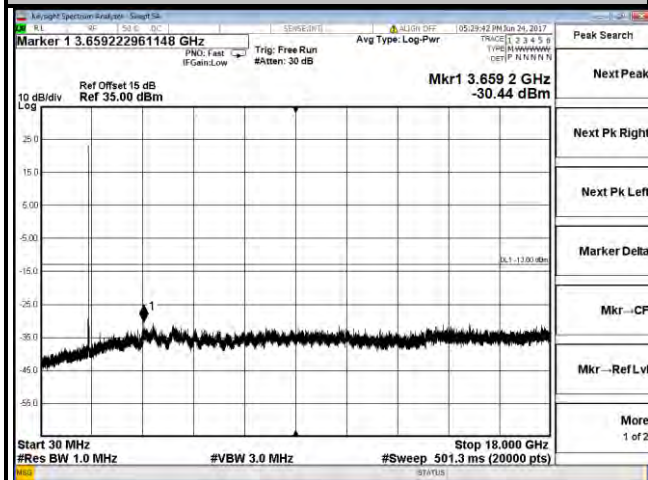
Channel 20375



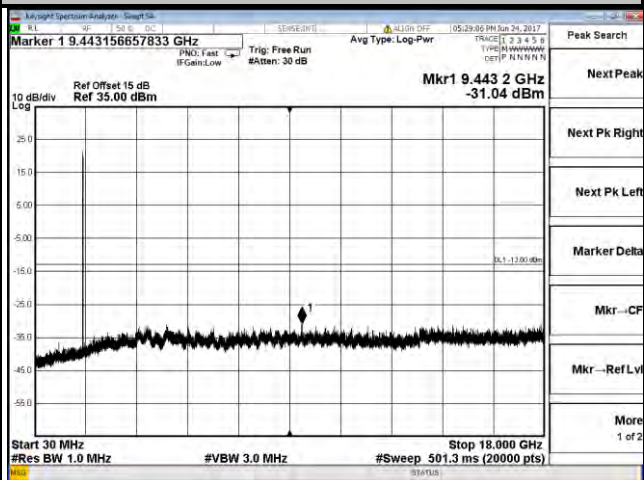
LTE Band 4

Channel Bandwidth: 10 MHz

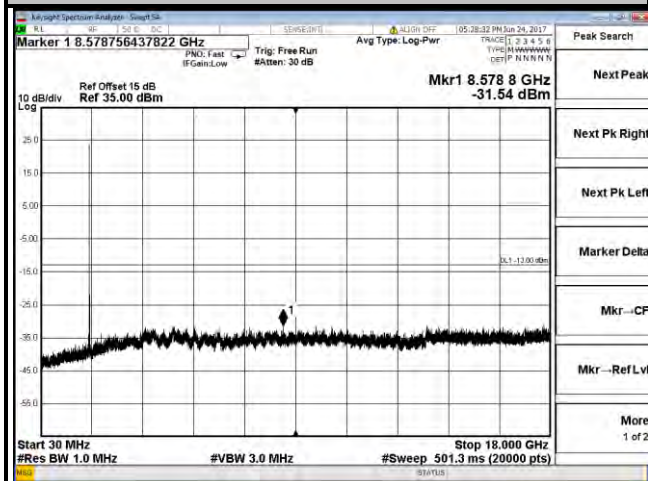
Channel 20000

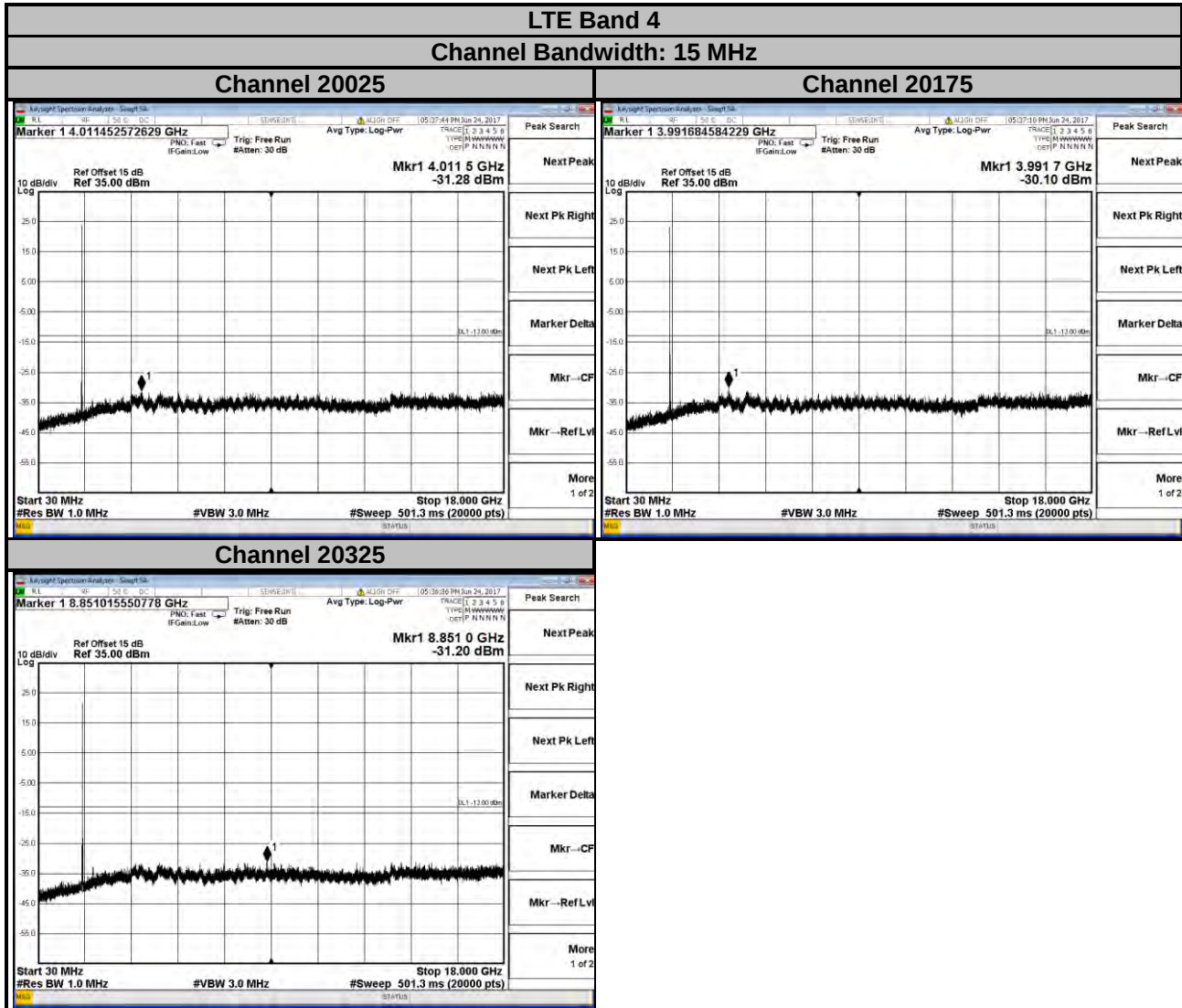


Channel 17175



Channel 20350

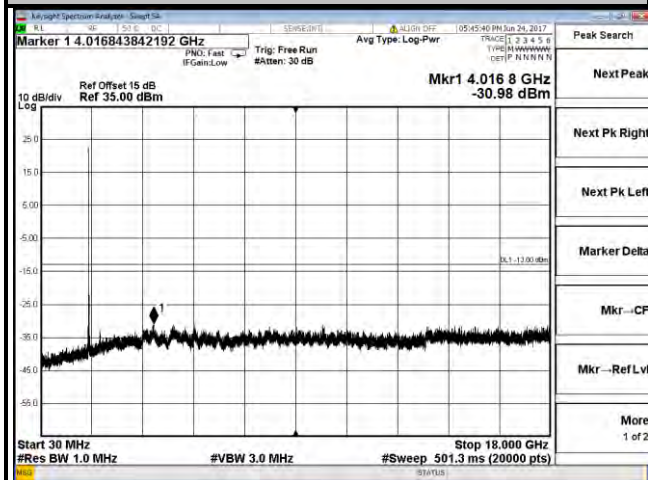




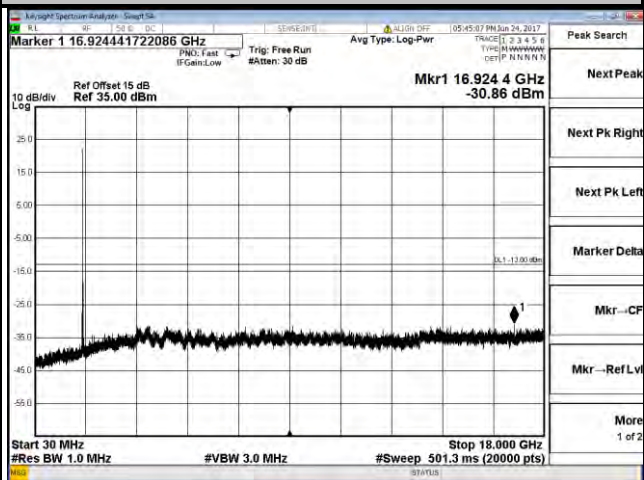
LTE Band 4

Channel Bandwidth: 20 MHz

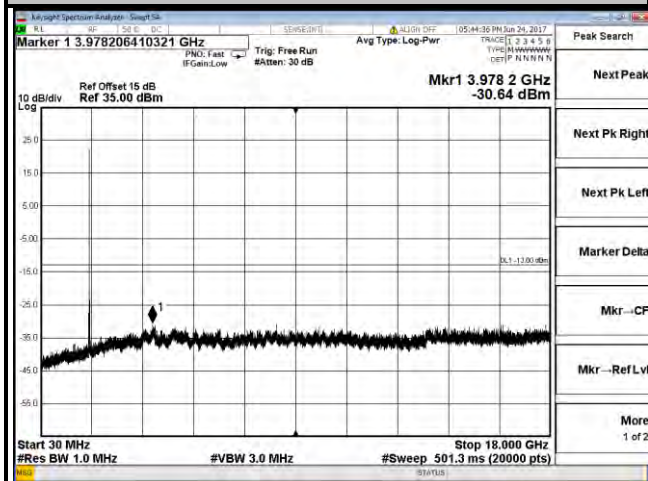
Channel 20050



Channel 17175



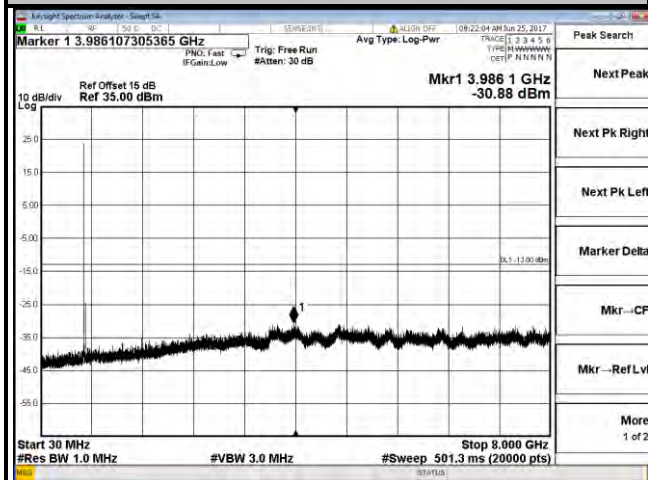
Channel 20300



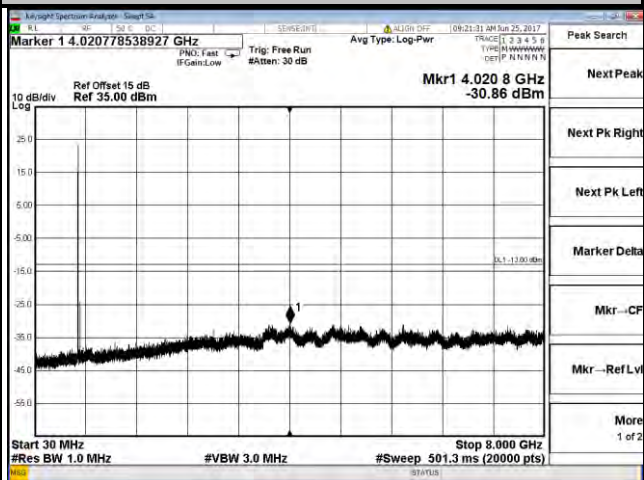
LTE Band 12

Channel Bandwidth: 1.4 MHz

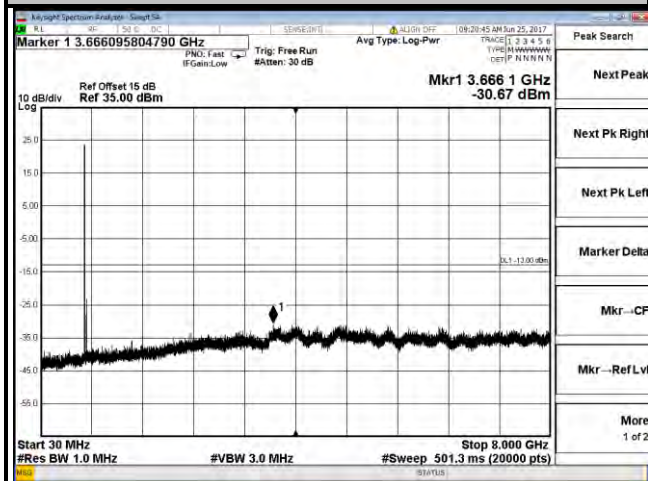
Channel 23017



Channel 23095



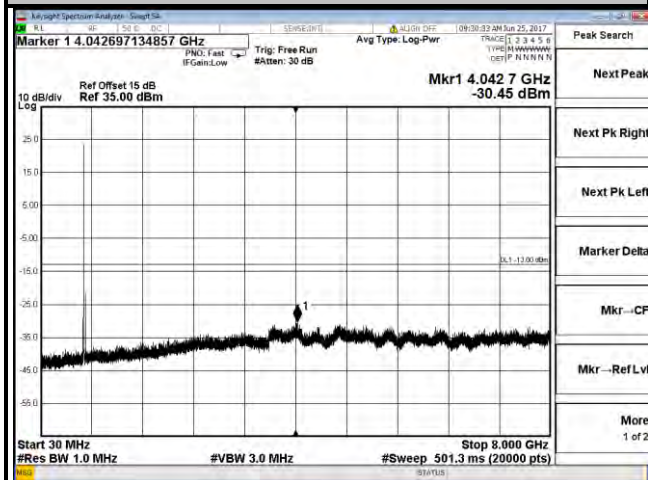
Channel 23173



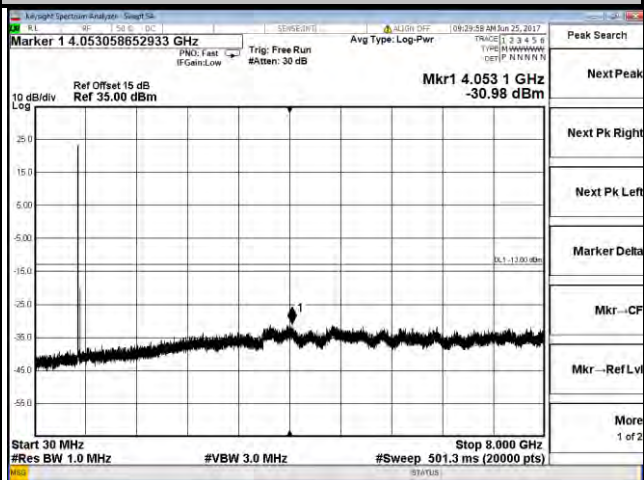
LTE Band 12

Channel Bandwidth: 3 MHz

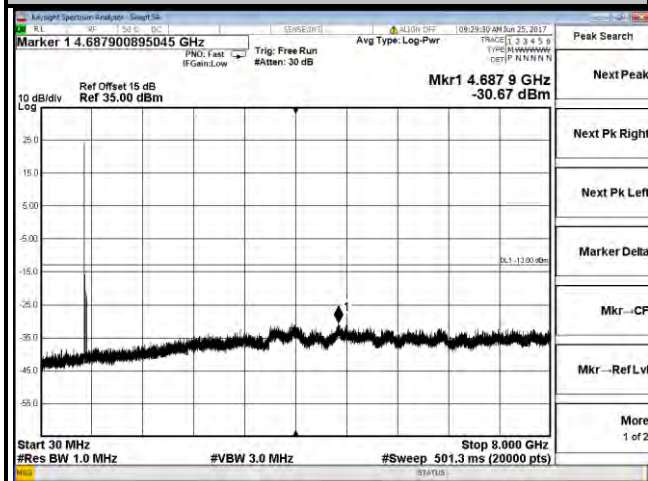
Channel 23025

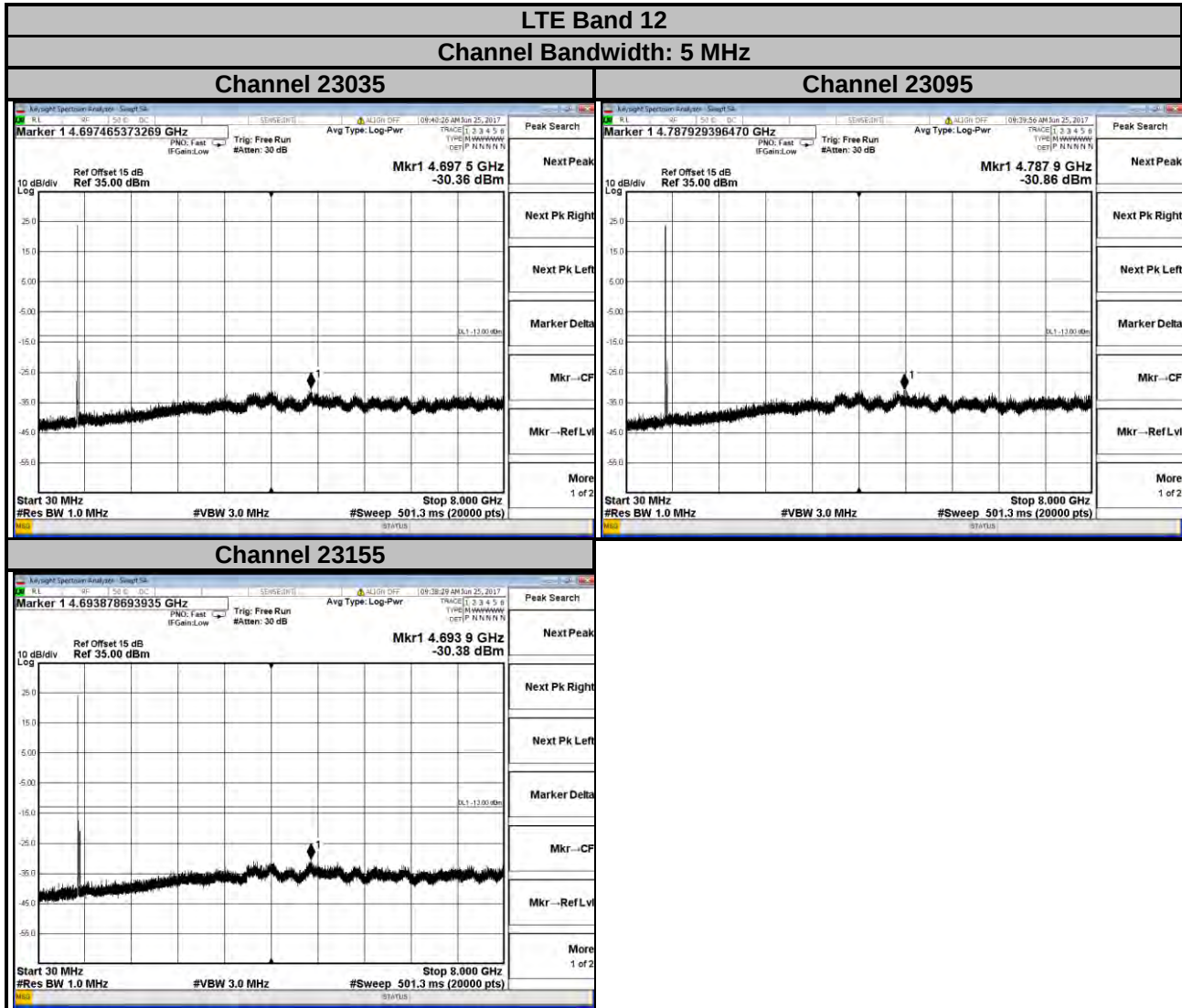


Channel 23095



Channel 23165

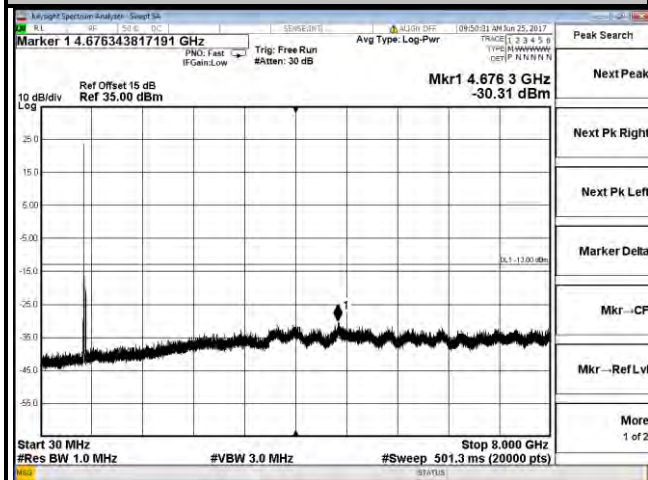




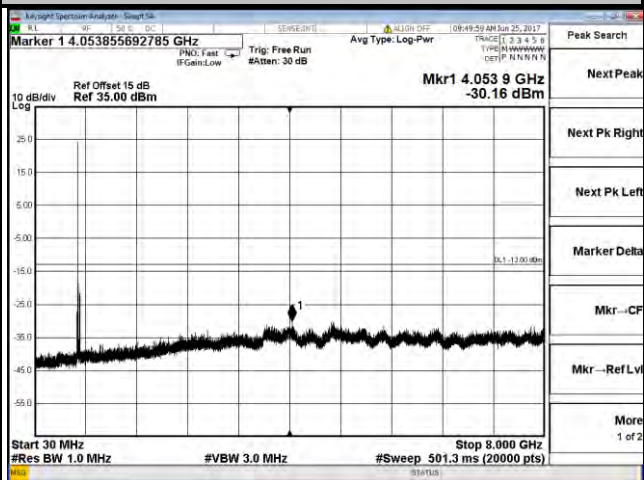
LTE Band 12

Channel Bandwidth: 10 MHz

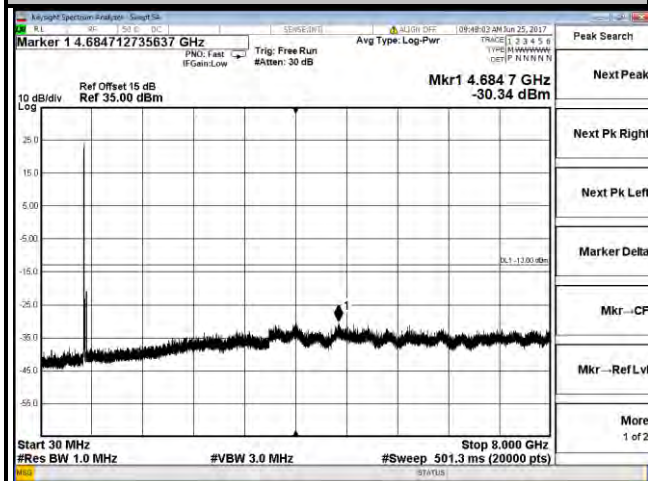
Channel 23060

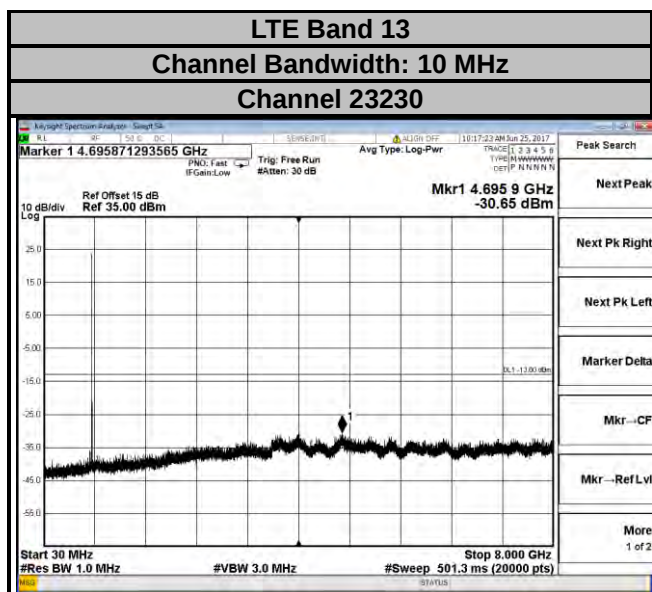
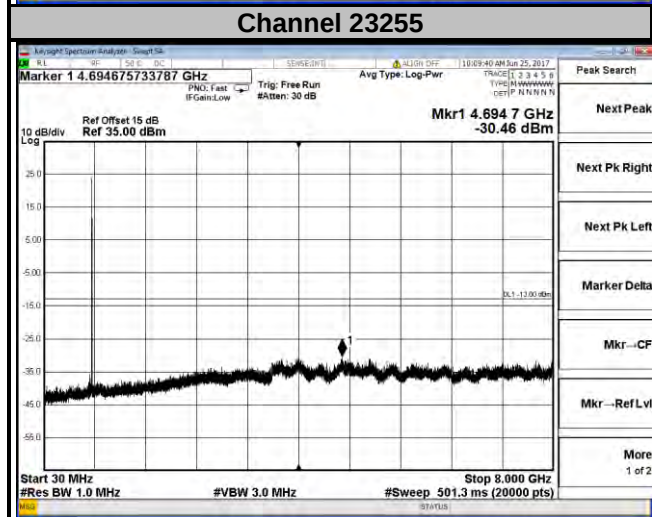
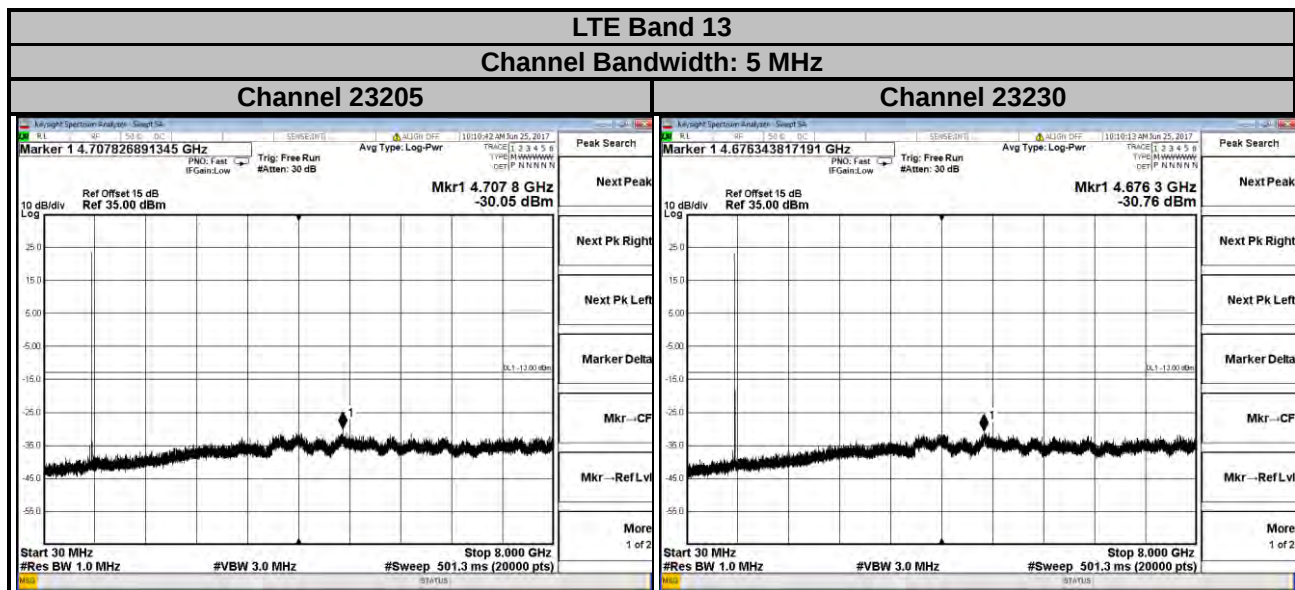


Channel 23095



Channel 23130

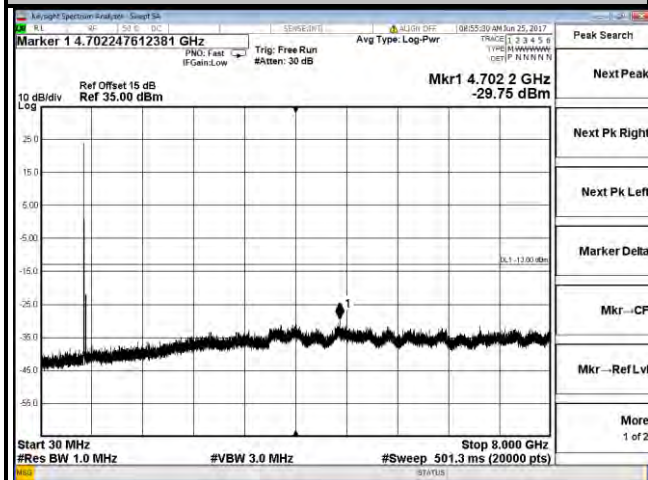




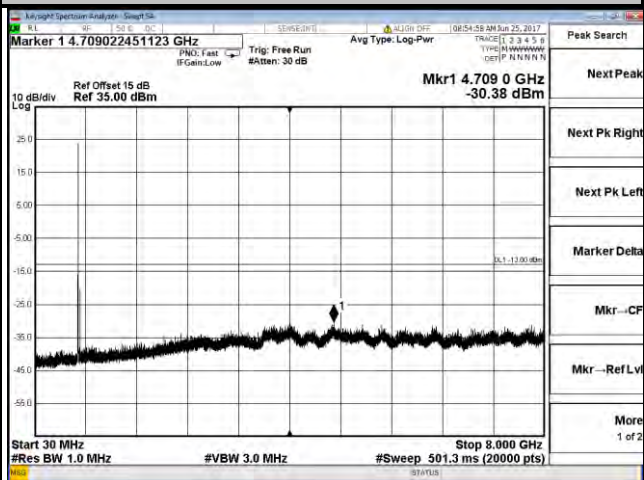
LTE Band 17

Channel Bandwidth: 5 MHz

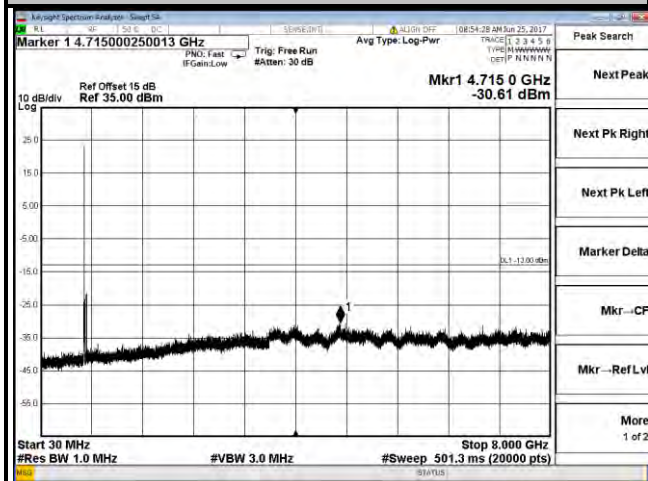
Channel 23755



Channel 23790



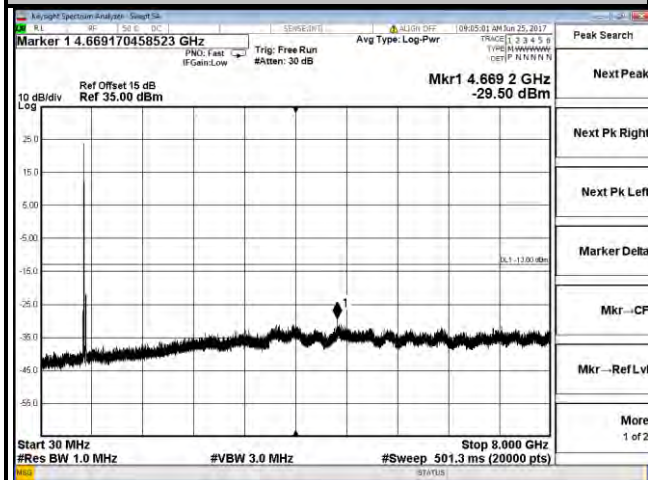
Channel 23825



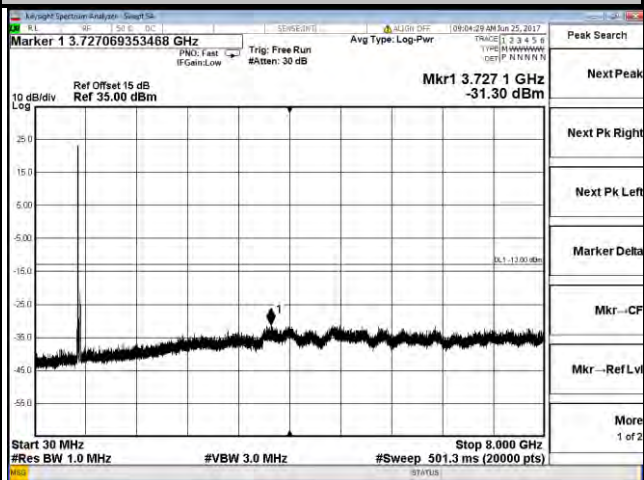
LTE Band 17

Channel Bandwidth: 10 MHz

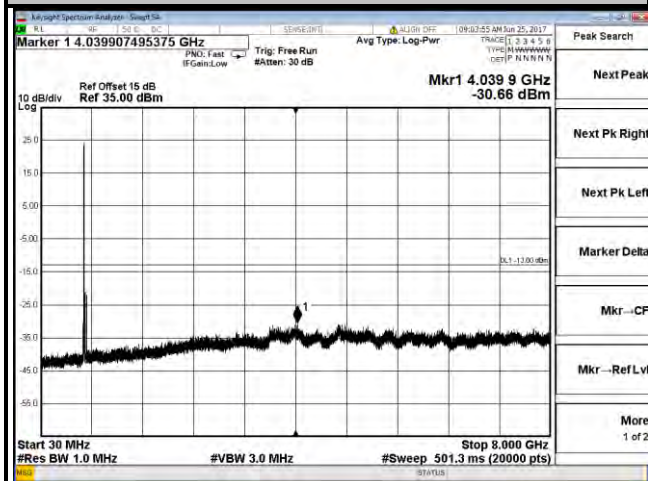
Channel 23780

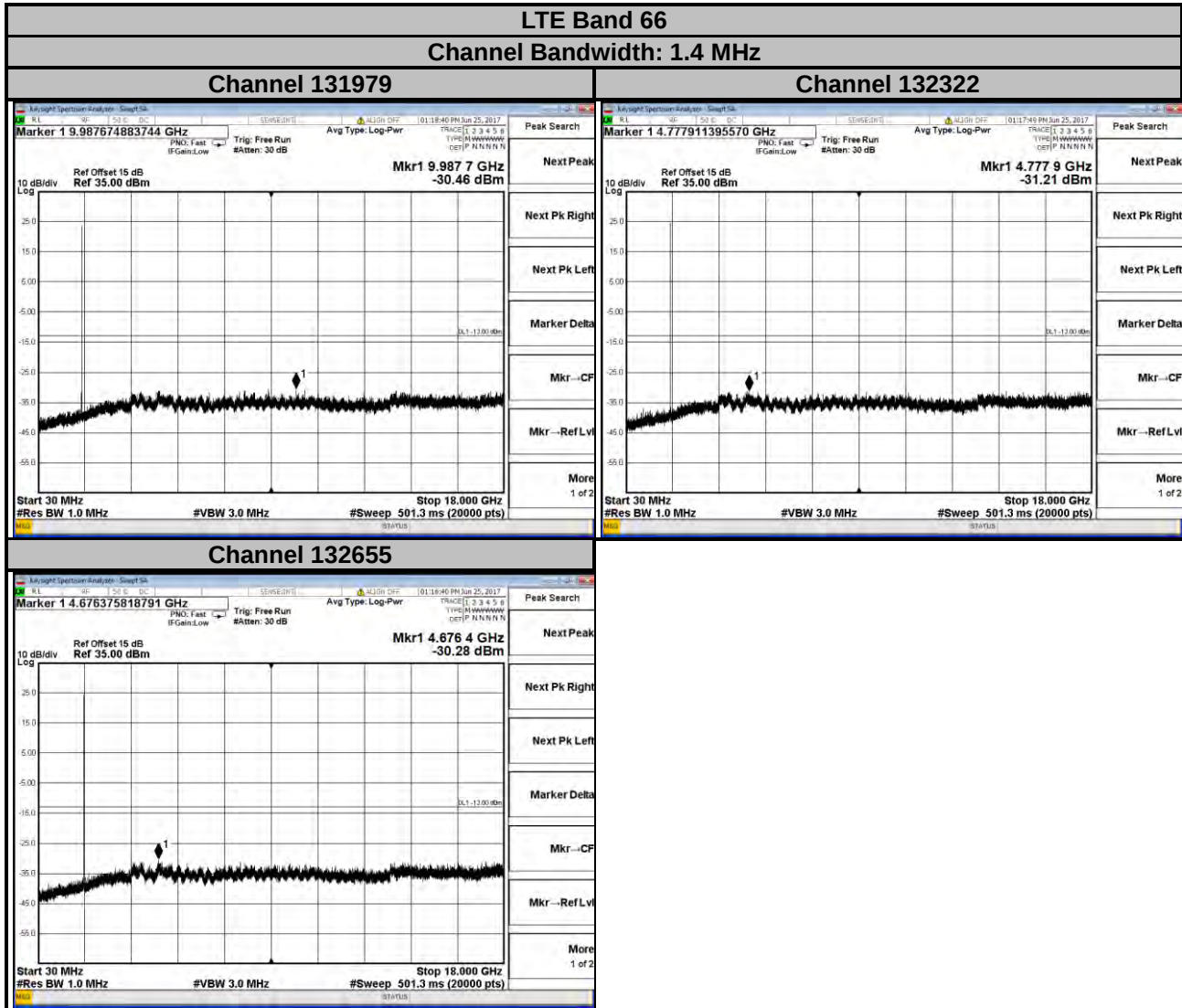


Channel 23790



Channel 23800

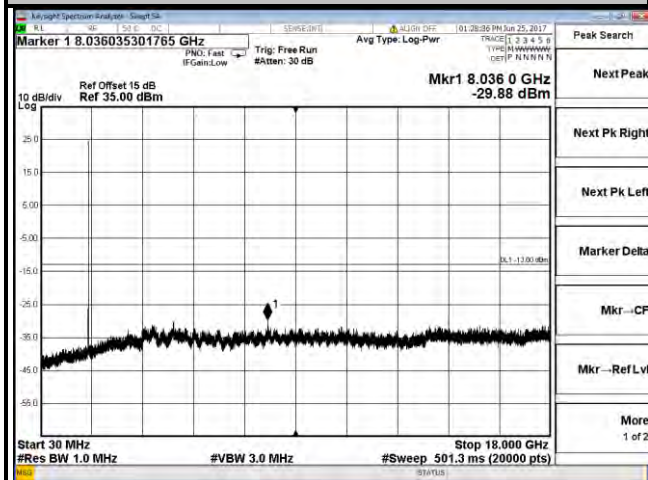




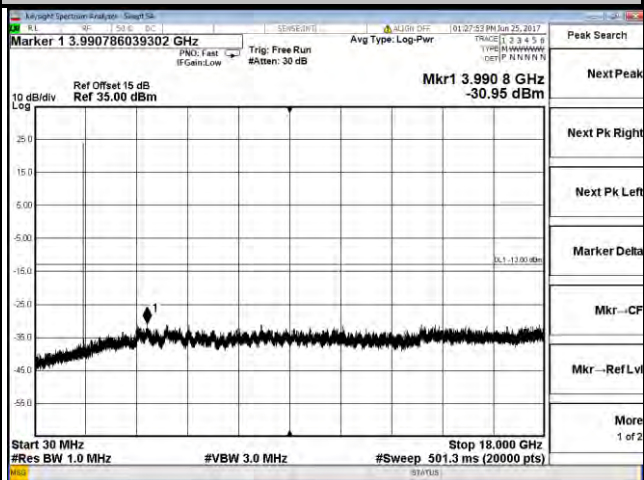
LTE Band 66

Channel Bandwidth: 3 MHz

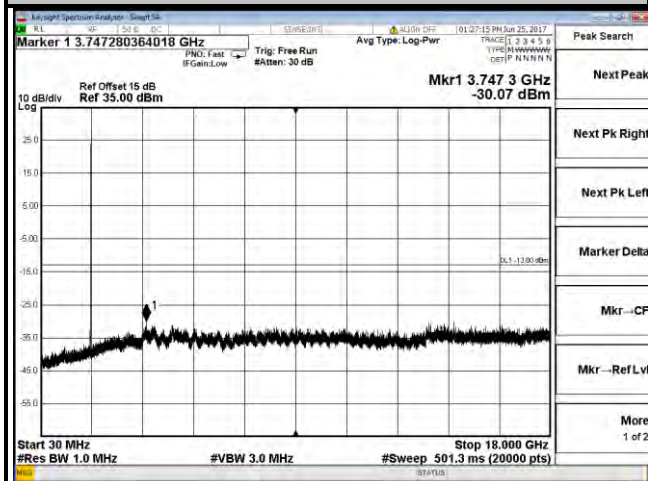
Channel 131987



Channel 132322



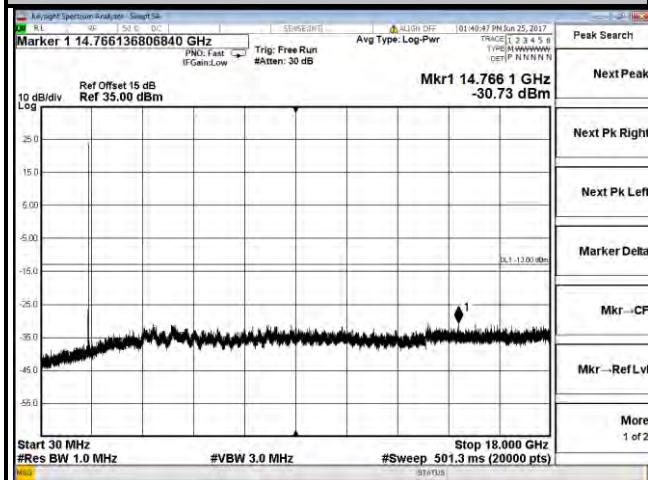
Channel 132657



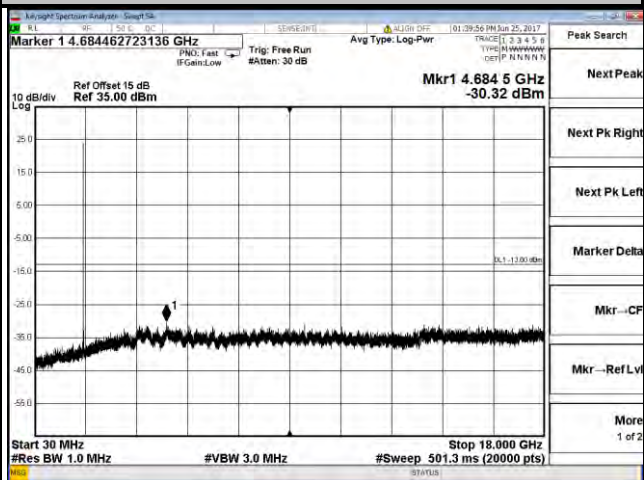
LTE Band 66

Channel Bandwidth: 5 MHz

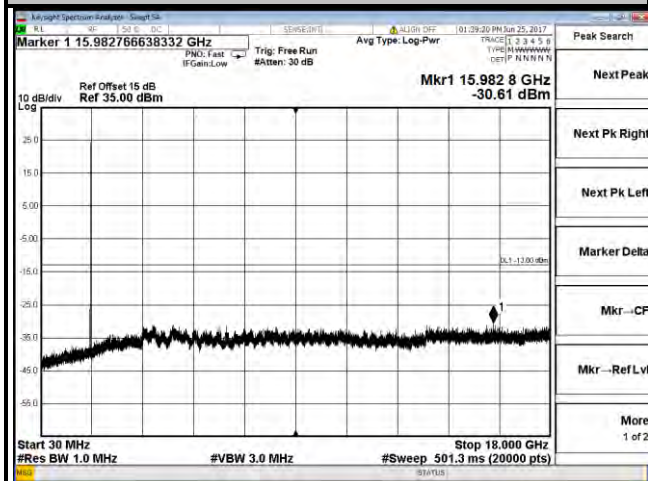
Channel 131997

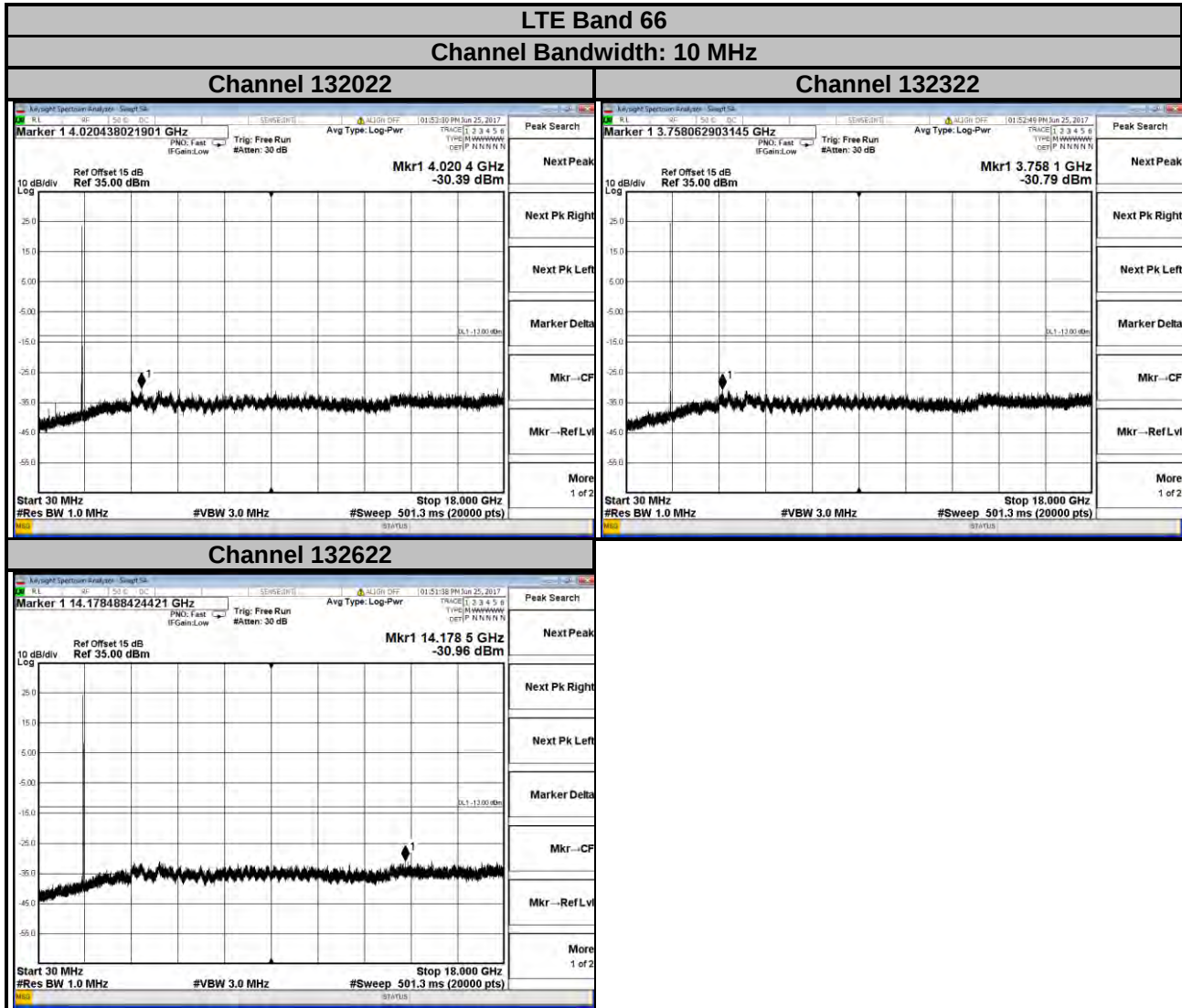


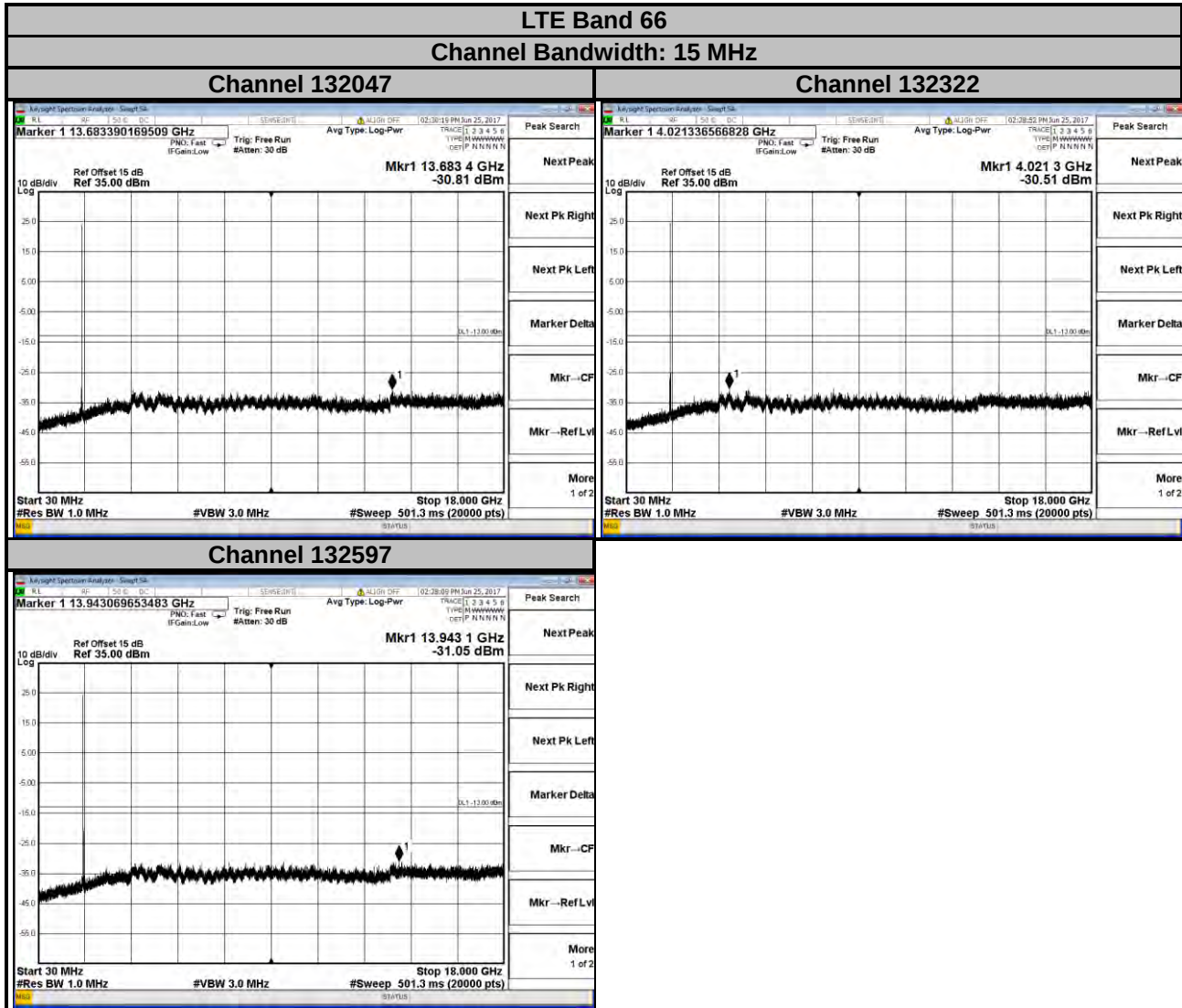
Channel 132322



Channel 132647



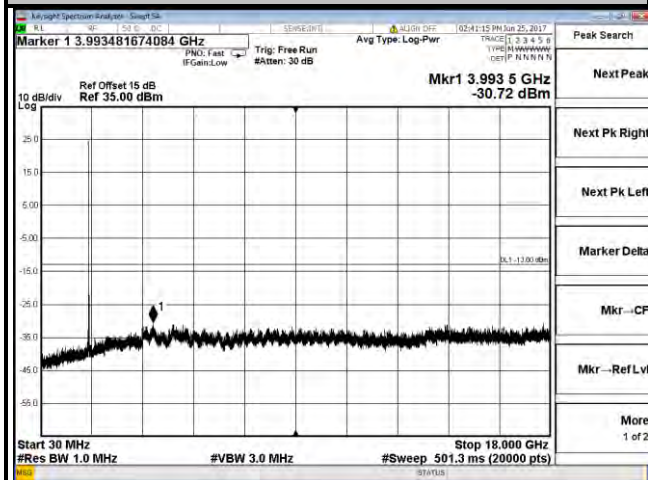




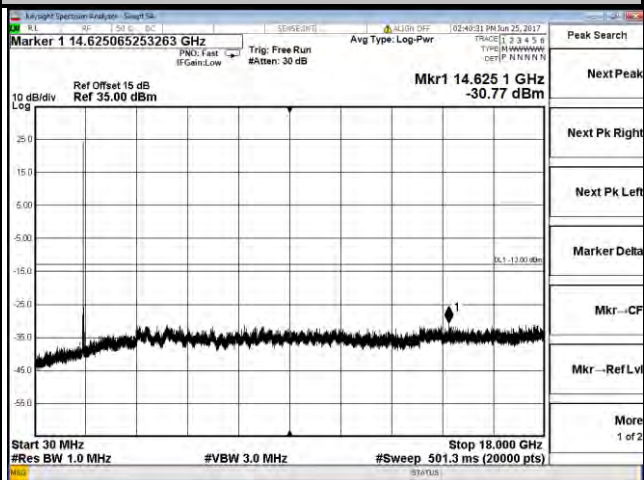
LTE Band 66

Channel Bandwidth: 20 MHz

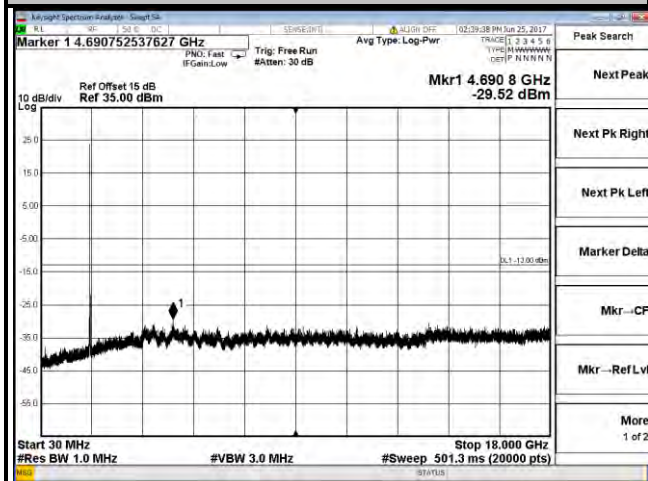
Channel 132072



Channel 132322



Channel 132572



4.7 Radiated Emission Measurement

4.7.1 Limits of Radiated Emission Measurement

- a. The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $43 + 10 \log_{10}(P)$ dB. The limit of emission is equal to -13 dBm.
- b. For operations in the 775-788 MHz, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz. The limit of emissions is equal to -40 dBm.

4.7.2 Test Procedure

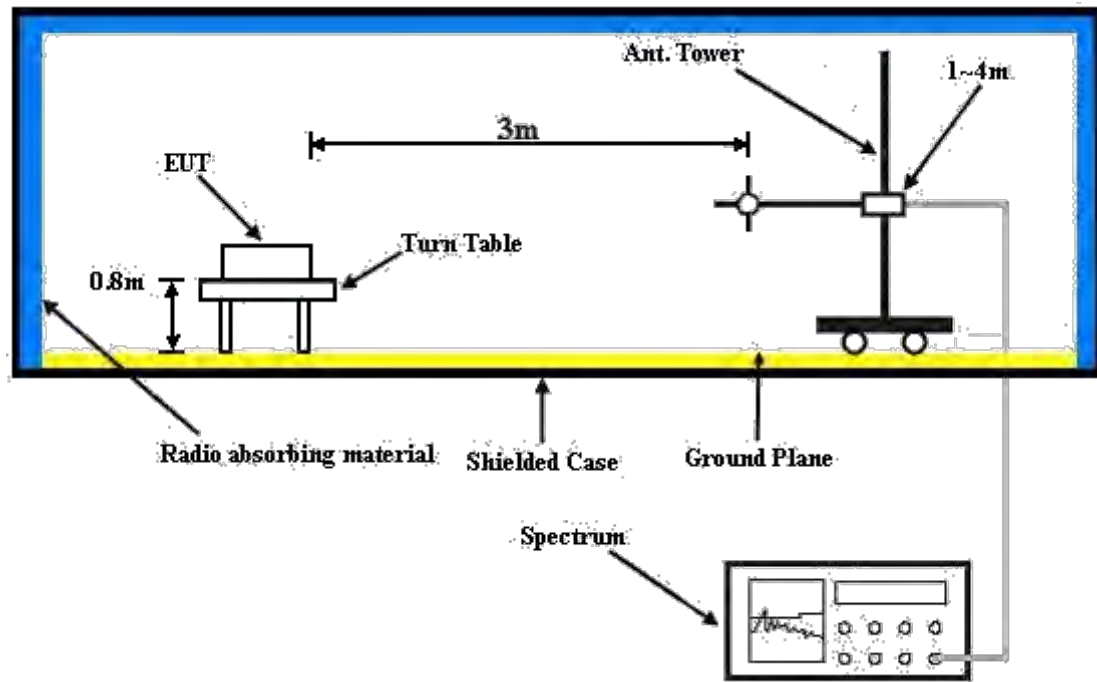
- a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8 m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1 m to 4 m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- b. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value" of step a. Record the power level of S.G.
- c. $EIRP = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$.
- d. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, $E.R.P \text{ power} = E.I.P.R \text{ power} - 2.15 \text{ dBi}$.

Note: The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

4.7.3 Deviation from Test Standard

No deviation.

4.7.4 Test Setup



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.7.5 Test Results

Mode A

WCDMA:

Low Channel

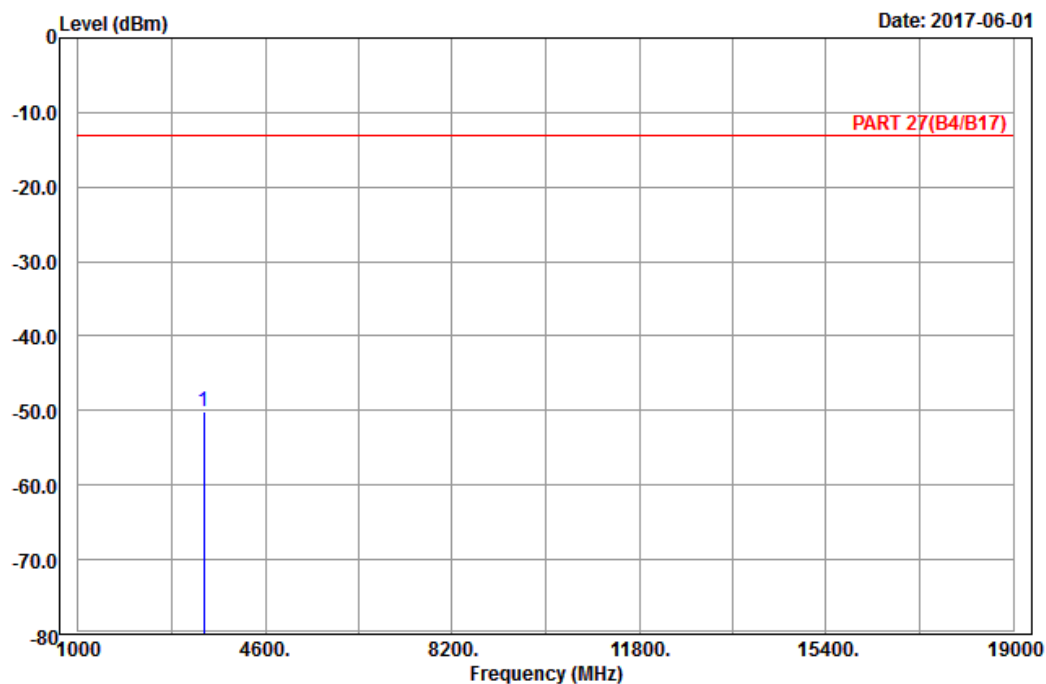


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2017-06-01



Site : 966 chamber 1

Condition: PART 27(B4/B17) Horizontal

Remark : Band IV_Link_CH1312

Tested by: Charles Hsiao

		Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3424.80	-50.21	-64.58	-13.00	-37.21	14.37	Peak

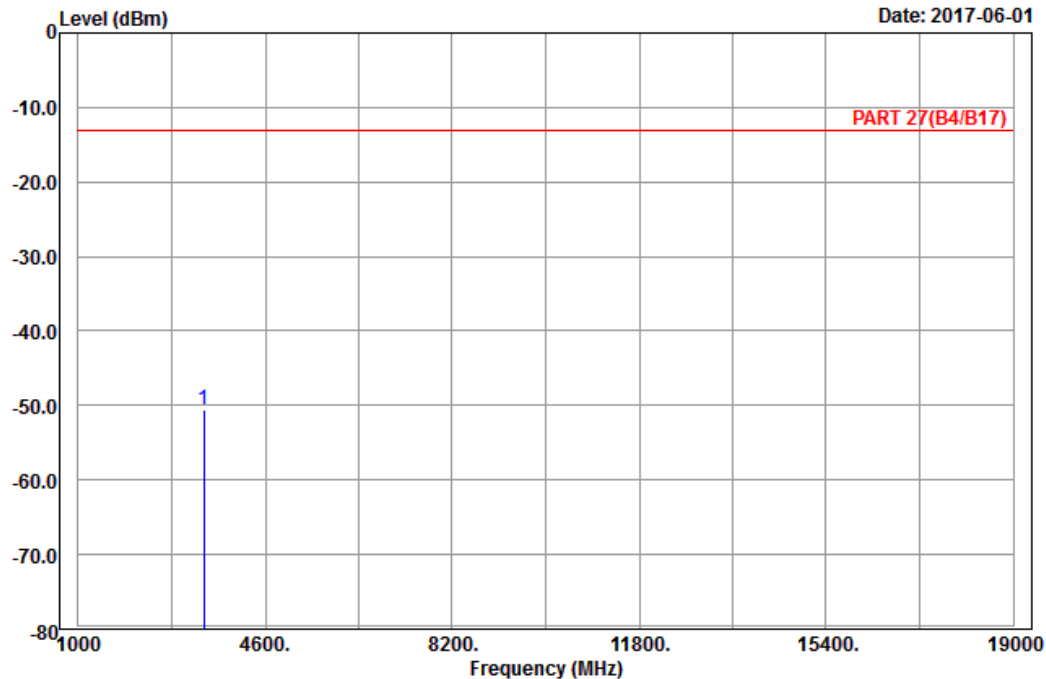


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2017-06-01



Site : 966 chamber 1
Condition: PART 27(B4/B17) Vertical
Remark : Band IV_Link_CH1312
Tested by: Charles Hsiao

		Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3424.80	-50.60	-64.97	-13.00	-37.60	14.37	Peak

Middle Channel

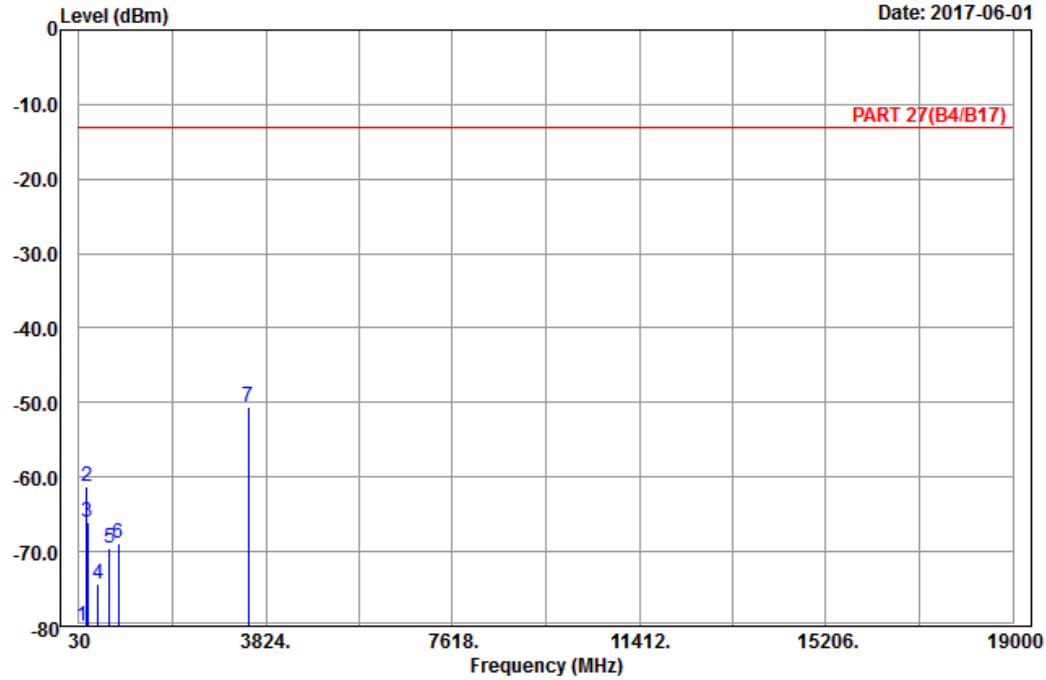


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 13

Date: 2017-06-01



Site : 966 chamber 1
Condition: PART 27(B4/B17) Horizontal
Remark : Band IV_Link_CH1413
Tested by: Charles Hsiao

		Read	Limit	Over			
Freq	Level	Level	Line	Limit	Factor	Remark	
MHz	dBm	dBm	dBm	dB	dB		
1	89.67	-79.92	-69.25	-13.00	-66.92	-10.67	Peak
2	183.63	-61.30	-55.68	-13.00	-48.30	-5.62	Peak
3	203.88	-66.15	-60.02	-13.00	-53.15	-6.13	Peak
4	414.10	-74.26	-71.20	-13.00	-61.26	-3.06	Peak
5	648.60	-69.49	-69.37	-13.00	-56.49	-0.12	Peak
6	832.70	-68.87	-70.51	-13.00	-55.87	1.64	Peak
7 pp	3465.20	-50.47	-64.81	-13.00	-37.47	14.34	Peak

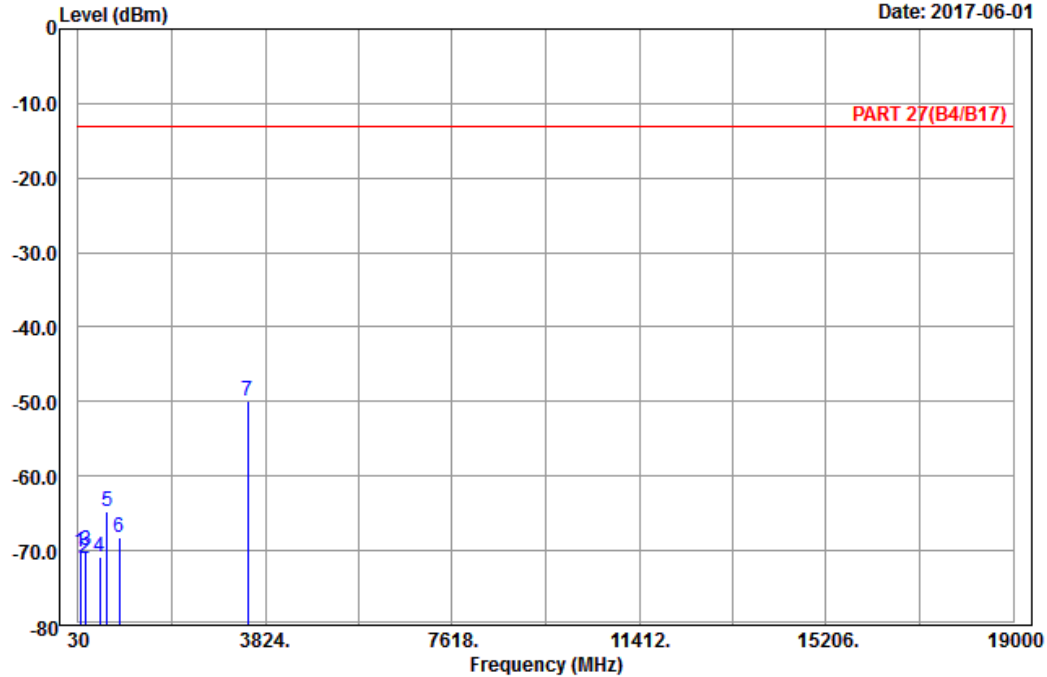


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 14

Date: 2017-06-01



Site : 966 chamber 1
Condition: PART 27(B4/B17) Vertical
Remark : Band IV_Link_CH1413
Tested by: Charles Hsiao

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	78.06	-70.17	-58.24	-13.00	-57.17	-11.93	Peak
2	169.59	-71.11	-64.40	-13.00	-58.11	-6.71	Peak
3	181.47	-69.95	-64.36	-13.00	-56.95	-5.59	Peak
4	468.70	-70.94	-66.57	-13.00	-57.94	-4.37	Peak
5	610.80	-64.78	-65.09	-13.00	-51.78	0.31	Peak
6	859.30	-68.28	-70.00	-13.00	-55.28	1.72	Peak
7 pp	3465.20	-49.82	-64.16	-13.00	-36.82	14.34	Peak

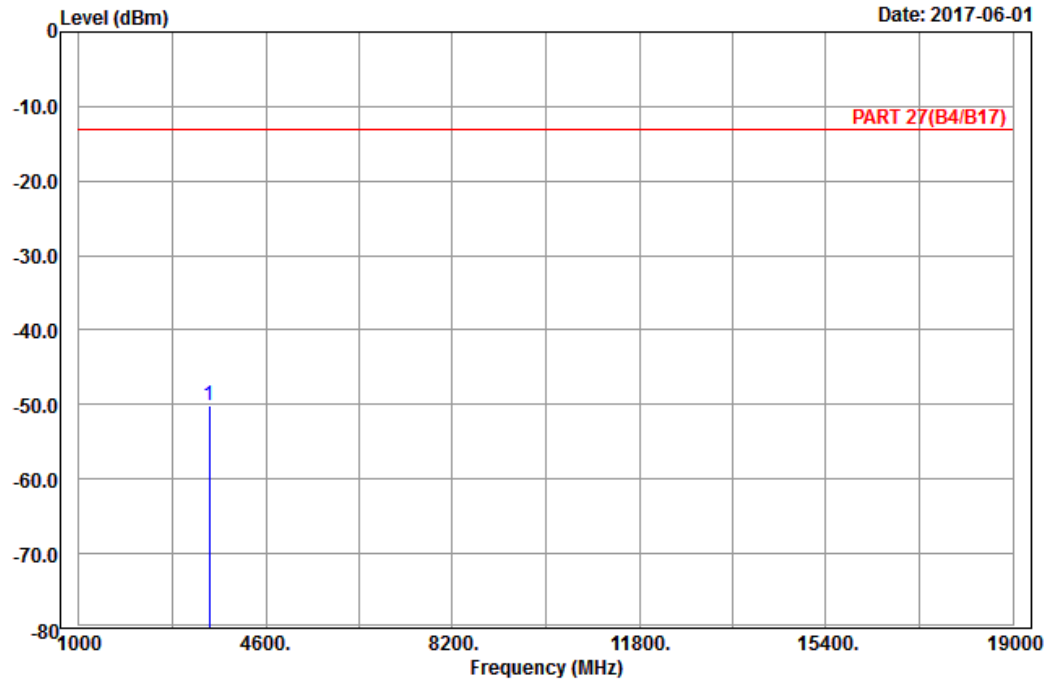
High Channel



Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch

A D T

Data: 9



Site : 966 chamber 1
Condition: PART 27(B4/B17) Horizontal
Remark : Band IV_Link_CH1513
Tested by: Charles Hsiao

Freq	Level	Read	Limit	Over	Factor	Remark
		Level	Line	Limit		
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3505.20	-50.15	-64.43	-13.00	-37.15	14.28	Peak

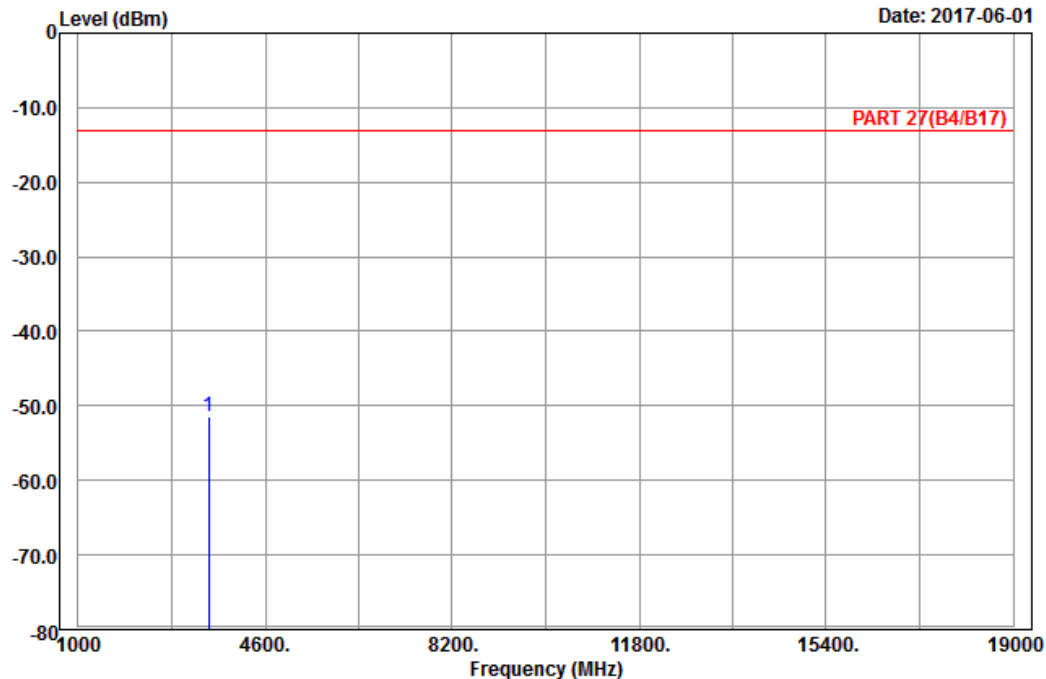


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2017-06-01



Site : 966 chamber 1
Condition: PART 27(B4/B17) Vertical
Remark : Band IV_Link_CH1513
Tested by: Charles Hsiao

			Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor	Remark	
MHz	dBm	dBm	dBm	dB	dB		
1 pp 3505.20	-51.34	-65.62	-13.00	-38.34	14.28	Peak	

LTE Band 4
Channel Bandwidth: 20 MHz / QPSK
Low Channel

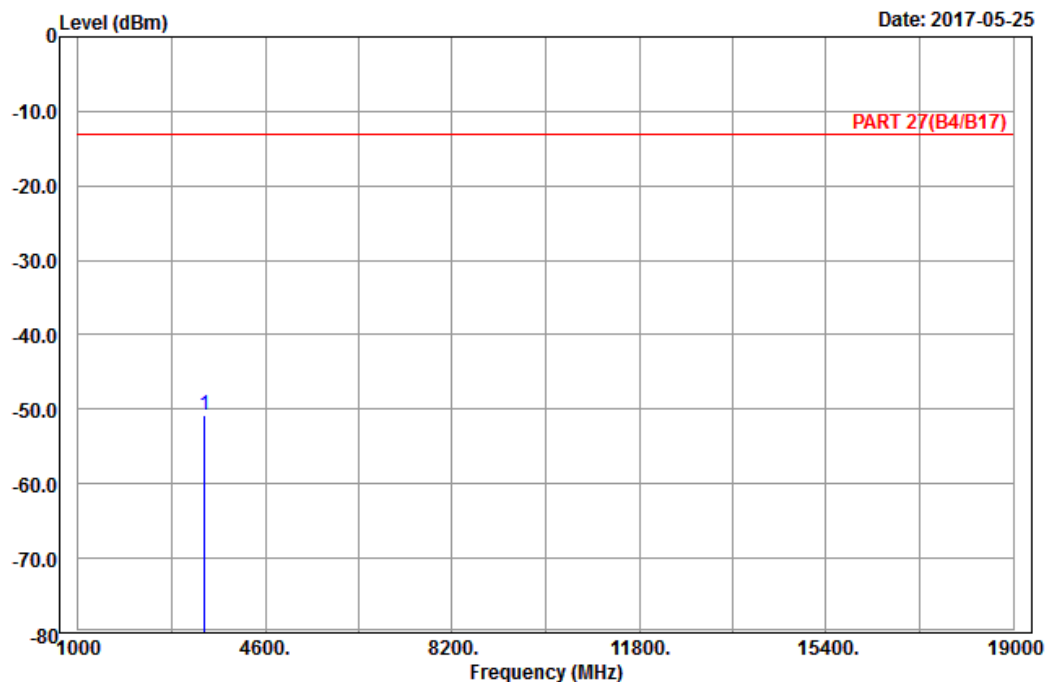


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2017-05-25



Site : 966 chamber 1
Condition: PART 27(B4/B17) Horizontal
Remark : LTE_Band 4_Link_CH20050
Tested by: Charles Hsiao

		Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3440.00	-50.72	-65.07	-13.00	-37.72	14.35	Peak

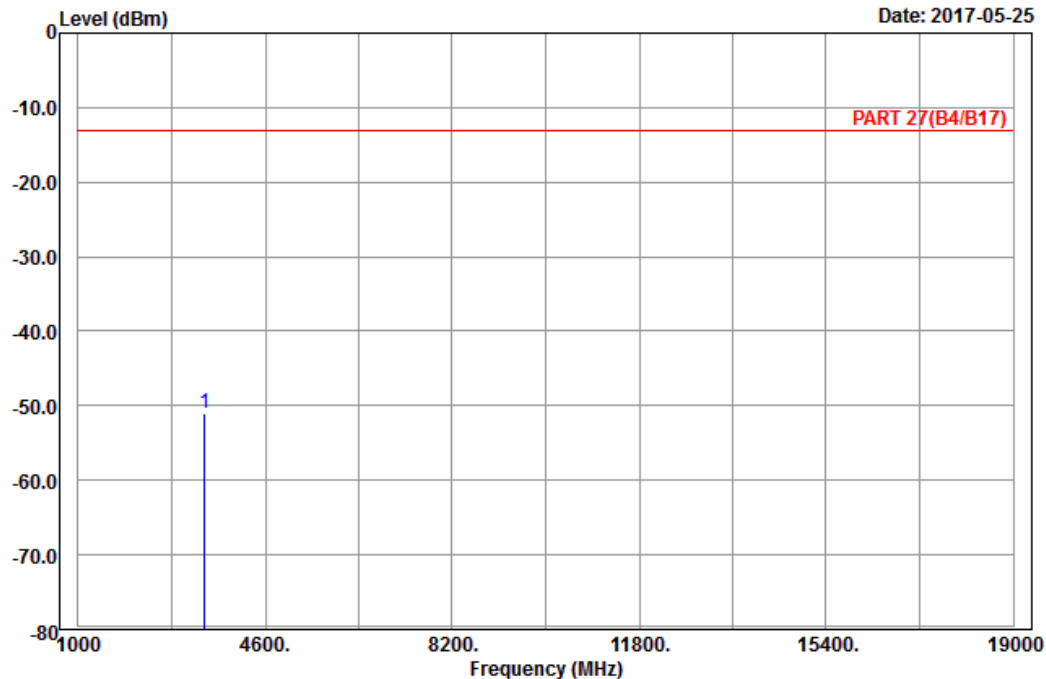


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2017-05-25



Site : 966 chamber 1
Condition: PART 27(B4/B17) Vertical
Remark : LTE_Band 4_Link_CH20050
Tested by: Charles Hsiao

		Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3440.00	-50.96	-65.31	-13.00	-37.96	14.35	Peak

Middle Channel

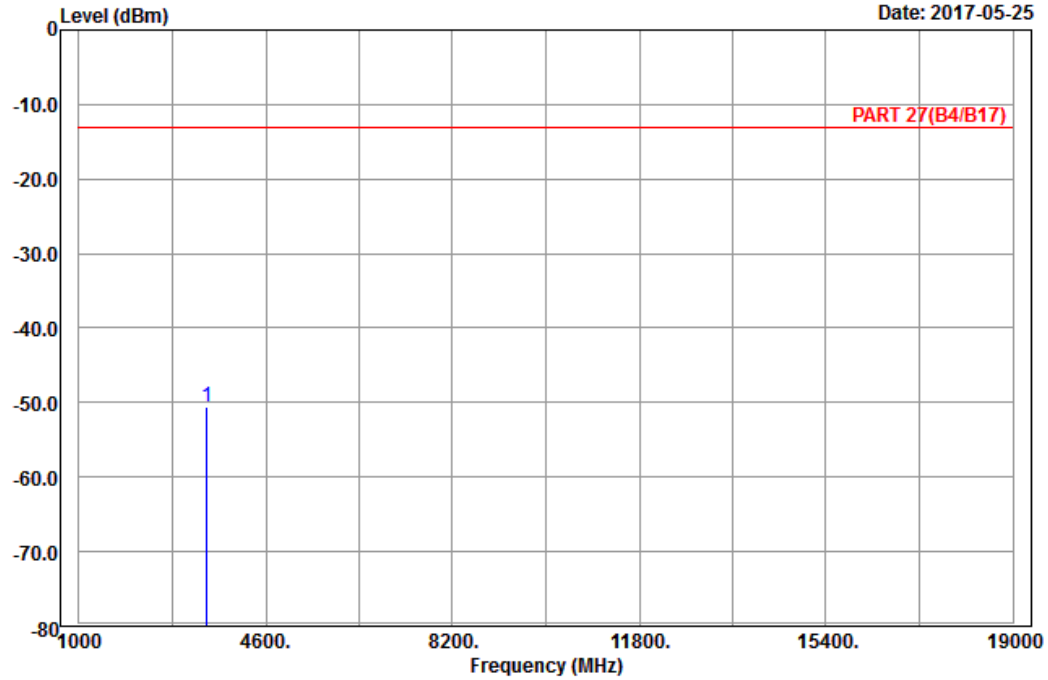


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2017-05-25



Site : 966 chamber 1
Condition: PART 27(B4/B17) Horizontal
Remark : LTE_Band 4_Link_CH20175
Tested by: Charles Hsiao

Freq	Level	Read	Limit	Over	Factor	Remark
		Level	Line	Limit		
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3465.00	-50.50	-64.84	-13.00	-37.50	14.34	Peak

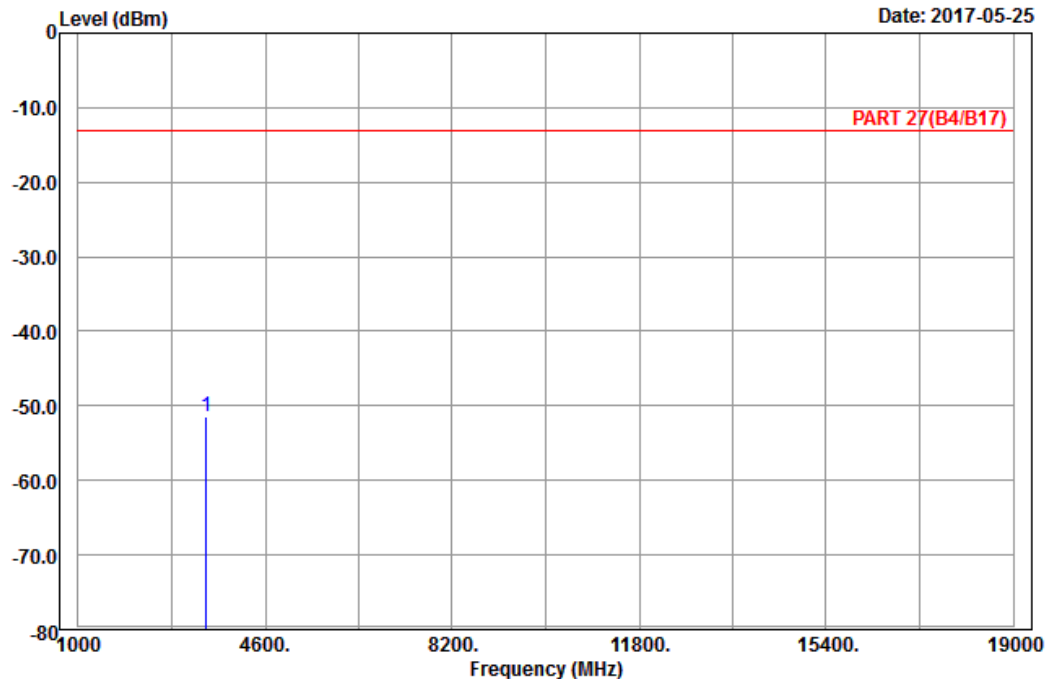


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2017-05-25



Site : 966 chamber 1
Condition: PART 27(B4/B17) Vertical
Remark : LTE_Band 4_Link_CH20175
Tested by: Charles Hsiao

		Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3465.00	-51.53	-65.87	-13.00	-38.53	14.34	Peak

High Channel

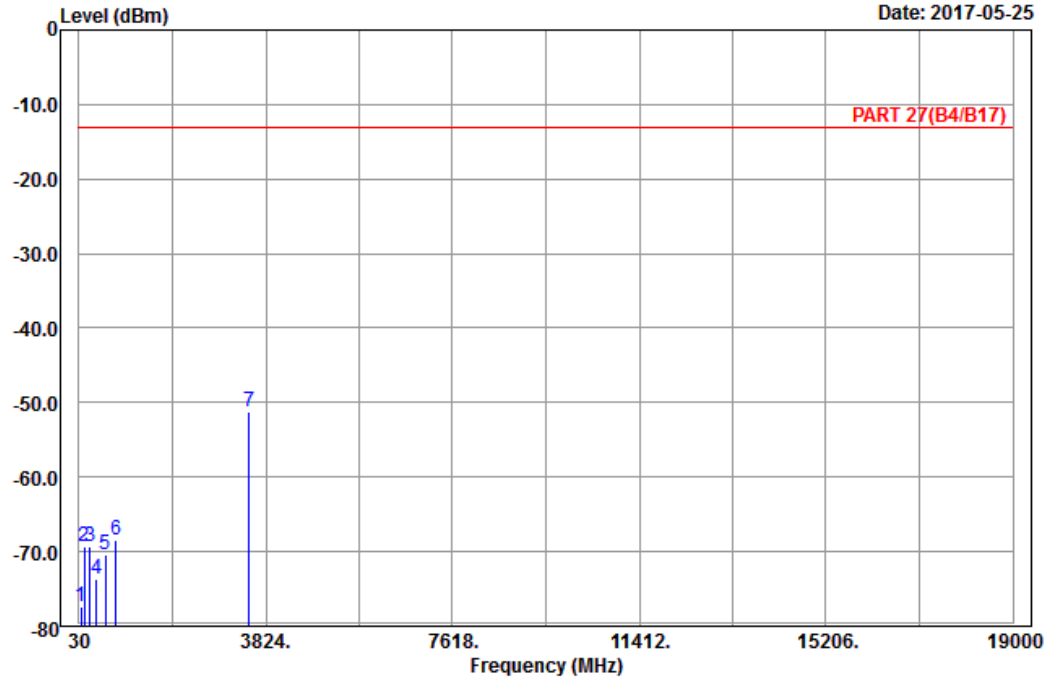


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 13

Date: 2017-05-25



Site : 966 chamber 1
Condition: PART 27(B4/B17) Horizontal
Remark : LTE_Band 4_Link_CH20300
Tested by: Charles Hsiao

		Read	Limit	Over			
Freq	Level	Level	Line	Limit	Factor	Remark	
MHz	dBm	dBm	dBm	dB	dB		
1	65.91	-77.31	-64.07	-13.00	-64.31	-13.24	Peak
2	139.35	-69.24	-61.55	-13.00	-56.24	-7.69	Peak
3	258.96	-69.24	-63.65	-13.00	-56.24	-5.59	Peak
4	388.90	-73.71	-70.40	-13.00	-60.71	-3.31	Peak
5	572.30	-70.38	-69.64	-13.00	-57.38	-0.74	Peak
6	778.10	-68.55	-69.09	-13.00	-55.55	0.54	Peak
7 pp	3490.00	-51.29	-65.60	-13.00	-38.29	14.31	Peak

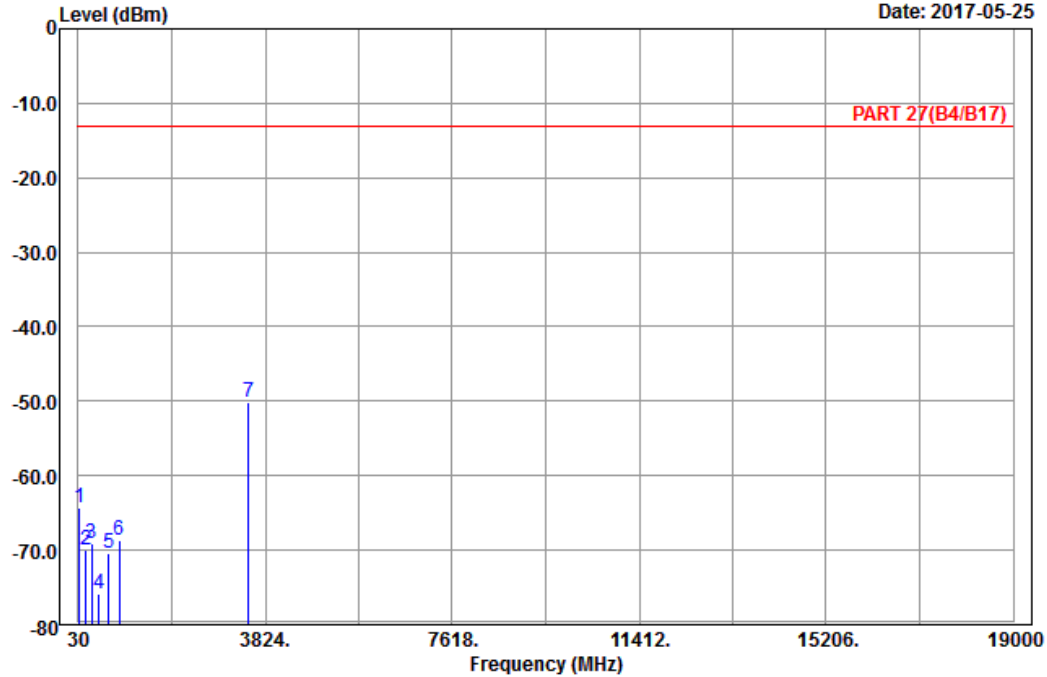


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 14

Date: 2017-05-25



Site : 966 chamber 1
Condition: PART 27(B4/B17) Vertical
Remark : LTE_Band 4_Link_CH20300
Tested by: Charles Hsiao

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	61.32	-64.25	-50.32	-13.00	-51.25	-13.93	Peak
2	190.92	-69.89	-64.11	-13.00	-56.89	-5.78	Peak
3	294.33	-69.13	-63.22	-13.00	-56.13	-5.91	Peak
4	451.90	-75.80	-71.90	-13.00	-62.80	-3.90	Peak
5	642.30	-70.36	-70.31	-13.00	-57.36	-0.05	Peak
6	862.80	-68.67	-70.51	-13.00	-55.67	1.84	Peak
7 pp	3490.00	-50.13	-64.44	-13.00	-37.13	14.31	Peak

LTE Band 12
Channel Bandwidth: 10 MHz / QPSK
Low Channel

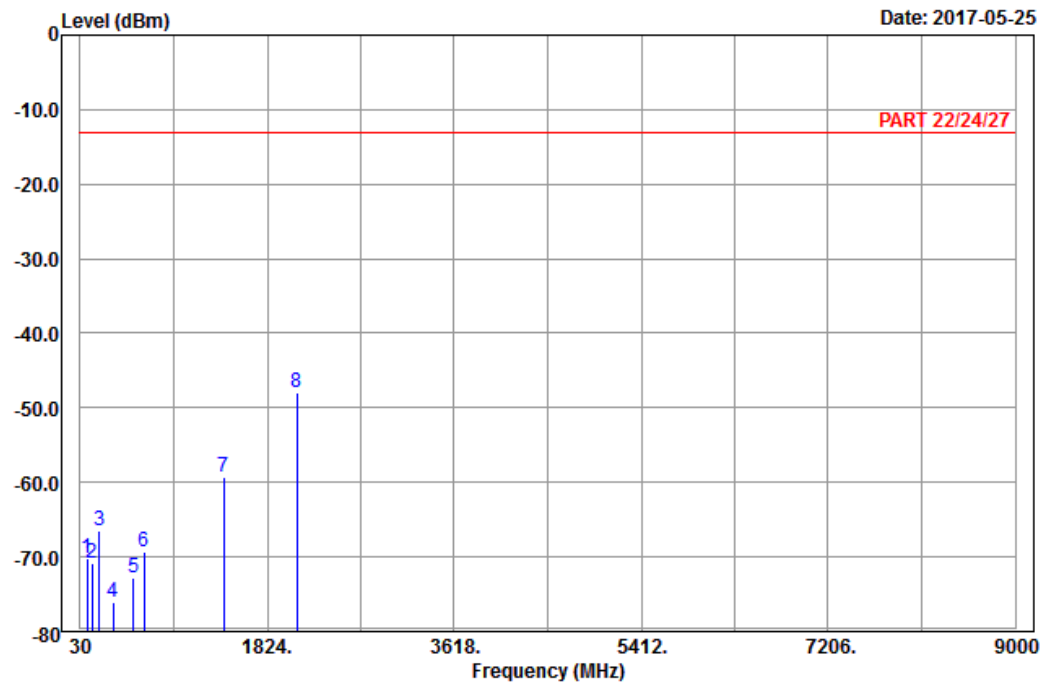


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2017-05-25



Site : 966 chamber 1
Condition: PART 22/24/27 Horizontal
Remark : LTE_Band 12_Link_CH23060
Tested by: Charles Hsiao

		Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1	97.50	-70.14	-59.91	-13.00	-57.14	-10.23 Peak
2	144.48	-70.95	-63.14	-13.00	-57.95	-7.81 Peak
3	210.90	-66.39	-60.35	-13.00	-53.39	-6.04 Peak
4	346.90	-75.99	-70.58	-13.00	-62.99	-5.41 Peak
5	542.20	-72.82	-70.59	-13.00	-59.82	-2.23 Peak
6	641.60	-69.42	-69.37	-13.00	-56.42	-0.05 Peak
7	1408.00	-59.39	-65.75	-13.00	-46.39	6.36 Peak
8 pp	2112.00	-47.96	-59.07	-13.00	-34.96	11.11 Peak

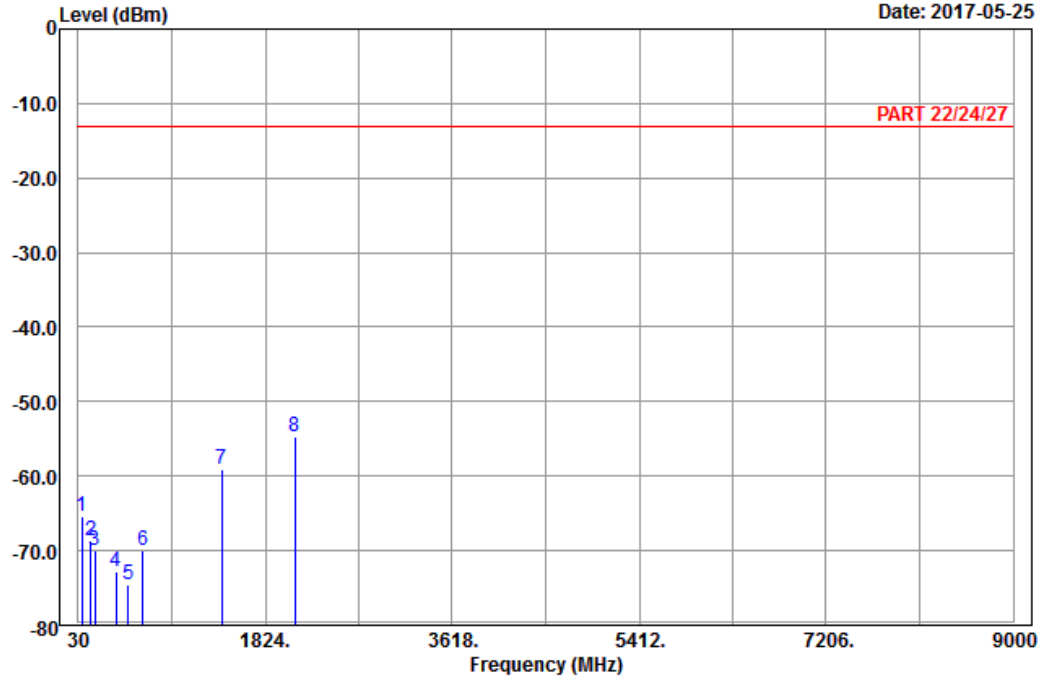


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2017-05-25



Site : 966 chamber 1
Condition: PART 22/24/27 Vertical
Remark : LTE_Band 12_Link_CH23060
Tested by: Charles Hsiao

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	63.48	-65.46	-51.95	-13.00	-52.46	-13.51	Peak
2	153.93	-68.59	-60.75	-13.00	-55.59	-7.84	Peak
3	186.60	-70.04	-64.37	-13.00	-57.04	-5.67	Peak
4	394.50	-72.71	-69.71	-13.00	-59.71	-3.00	Peak
5	513.50	-74.66	-70.30	-13.00	-61.66	-4.36	Peak
6	651.40	-70.00	-69.86	-13.00	-57.00	-0.14	Peak
7	1408.00	-59.18	-65.54	-13.00	-46.18	6.36	Peak
8 pp	2112.00	-54.66	-65.77	-13.00	-41.66	11.11	Peak

Middle Channel

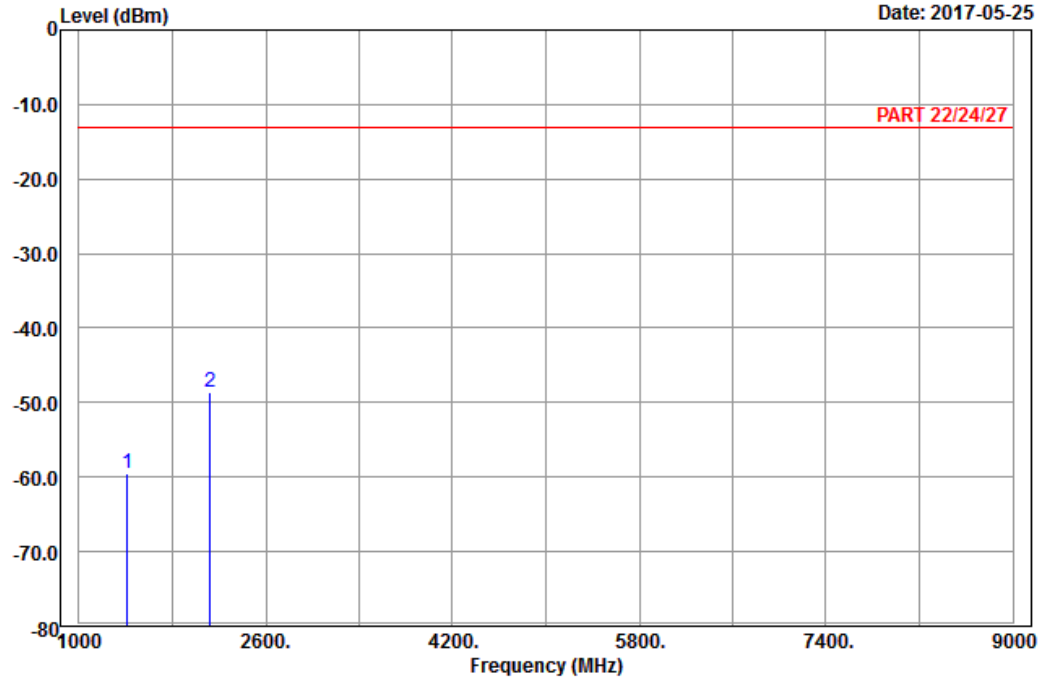


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5

Date: 2017-05-25



Site : 966 chamber 1
Condition: PART 22/24/27 Horizontal
Remark : LTE_Band 12_Link_CH23095
Tested by: Charles Hsiao

			Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor	Remark	
MHz	dBm	dBm	dBm	dB	dB		
1	1415.00	-59.46	-65.82	-13.00	-46.46	6.36	Peak
2 pp	2122.50	-48.67	-59.78	-13.00	-35.67	11.11	Peak

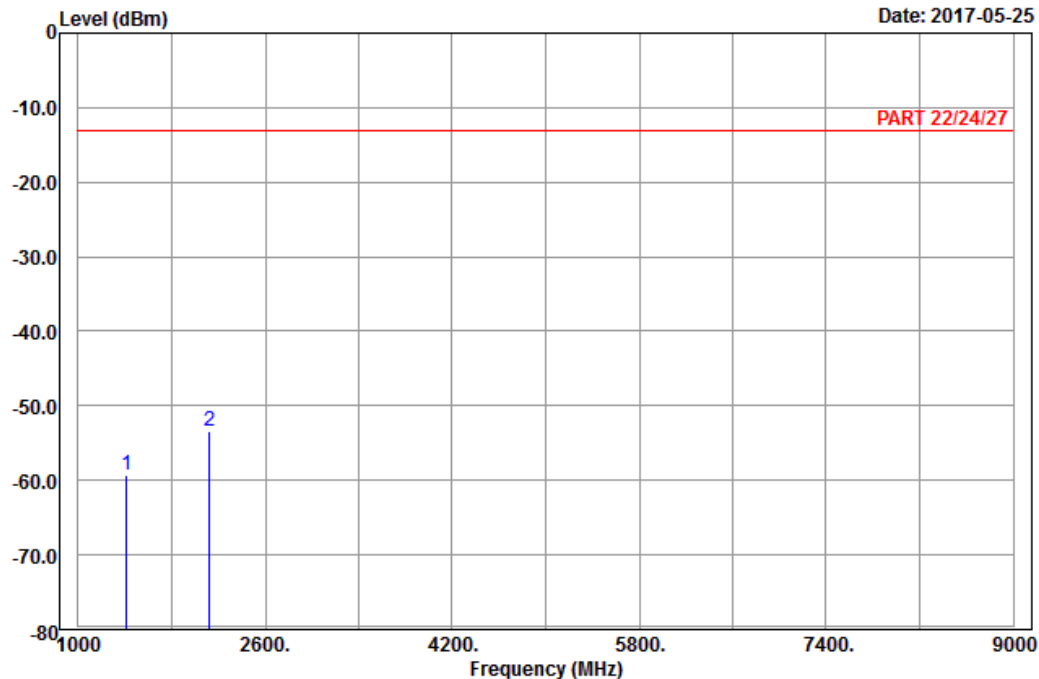


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6

Date: 2017-05-25



Site : 966 chamber 1
Condition: PART 22/24/27 Vertical
Remark : LTE_Band 12_Link_CH23095
Tested by: Charles Hsiao

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	1415.00	-59.31	-65.67	-13.00	-46.31	6.36	Peak
2 pp	2122.50	-53.45	-64.56	-13.00	-40.45	11.11	Peak

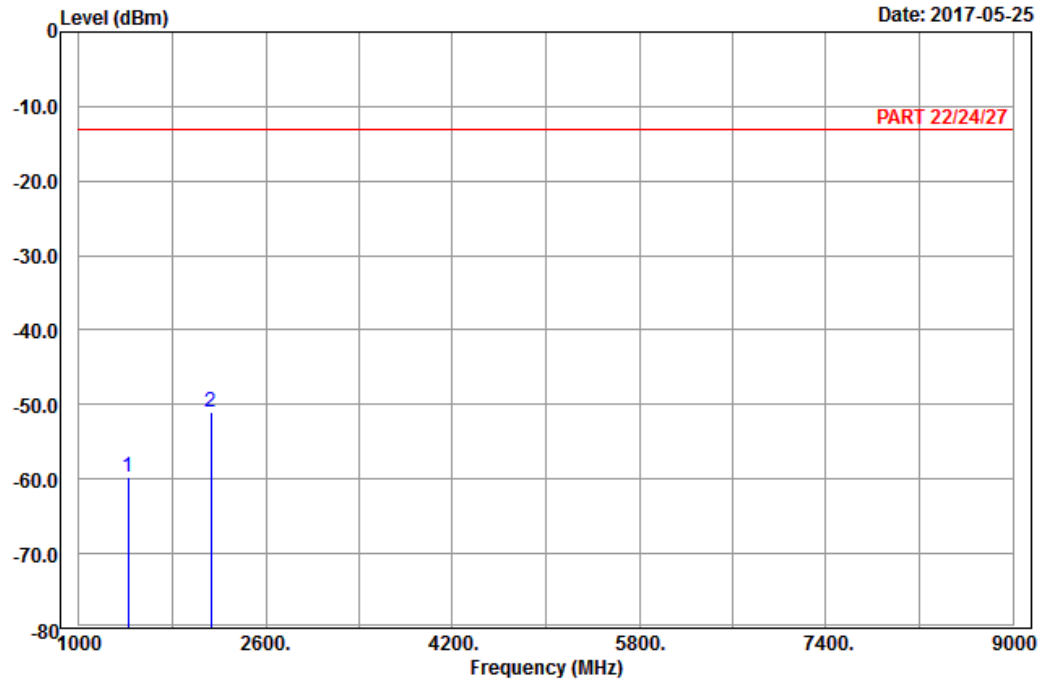
High Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5



Site : 966 chamber 1
Condition: PART 22/24/27 Horizontal
Remark : LTE_Band 12_Link_CH23130
Tested by: Karl Lee

			Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor	Remark	
MHz	dBm	dBm	dBm	dB	dB		
1	1422.00	-59.76	-66.12	-13.00	-46.76	6.36	Peak
2	2133.00	-50.95	-62.23	-13.00	-37.95	11.28	Peak

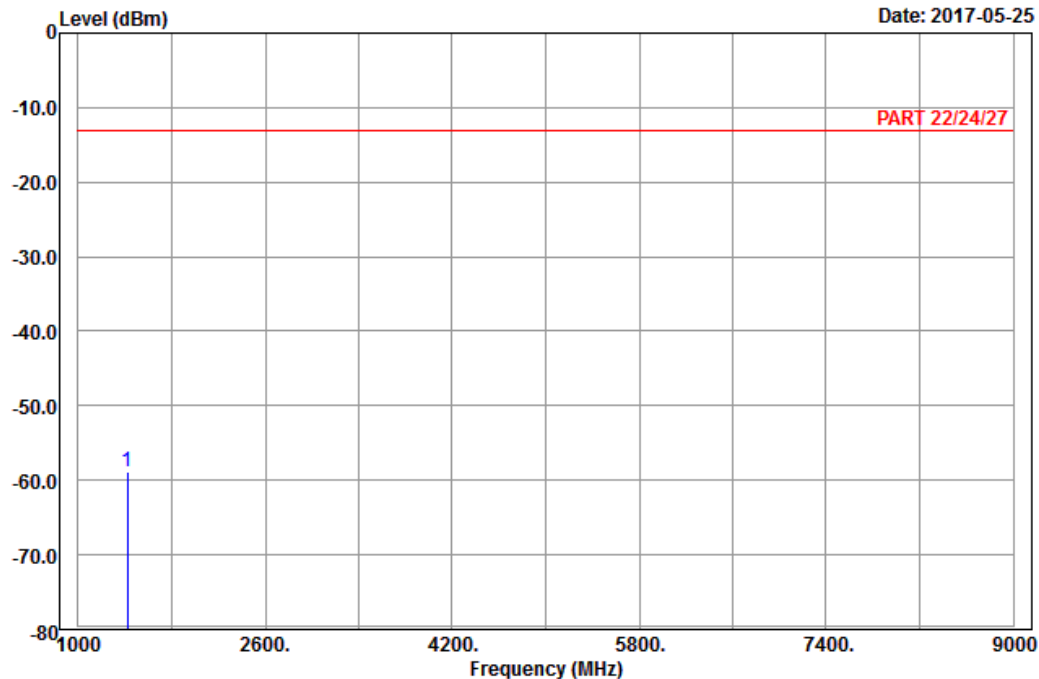


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6

Date: 2017-05-25



Site : 966 chamber 1
Condition: PART 22/24/27 Vertical
Remark : LTE_Band 12_Link_CH23130
Tested by: Karl Lee

		Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 1422.00	-58.76	-65.12	-13.00	-45.76	6.36	Peak

LTE Band 13

Channel Bandwidth: 10 MHz / QPSK

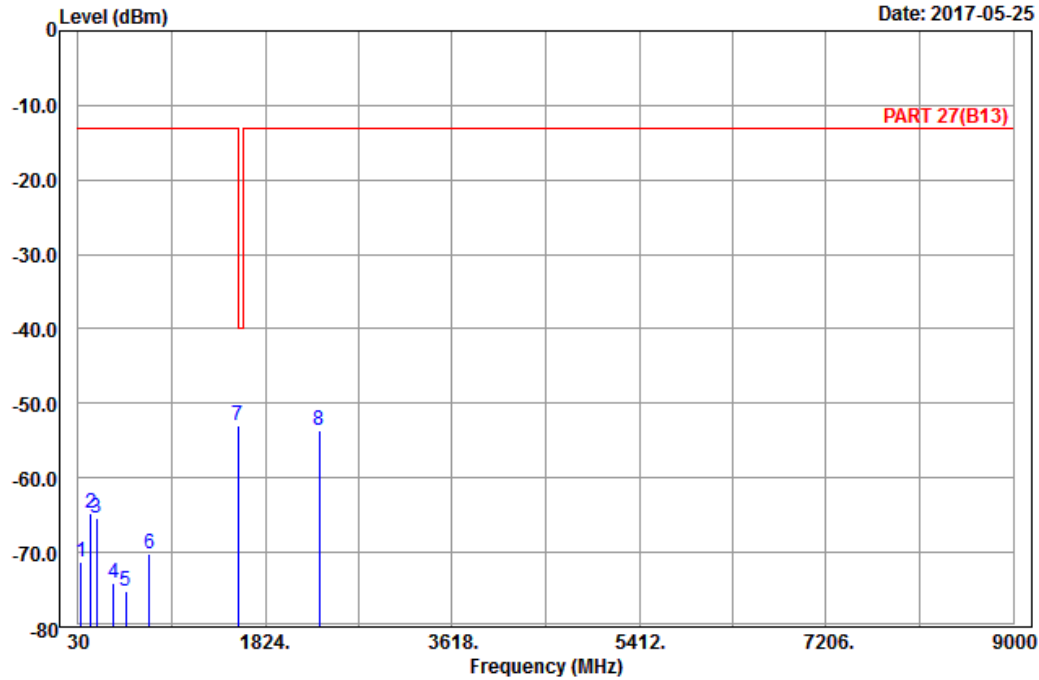


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2017-05-25



Site : 966 chamber 1

Condition: PART 27(B13) Horizontal

Remark : LTE_Band 13_Link_CH23230

Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	54.84	-71.31	-57.25	-13.00	-58.31	-14.06	Peak
2	153.12	-64.76	-56.90	-13.00	-51.76	-7.86	Peak
3	202.80	-65.38	-59.24	-13.00	-52.38	-6.14	Peak
4	367.90	-74.20	-69.75	-13.00	-61.20	-4.45	Peak
5	482.70	-75.13	-70.34	-13.00	-62.13	-4.79	Peak
6	715.80	-70.22	-69.55	-13.00	-57.22	-0.67	Peak
7 pp	1564.00	-52.91	-59.77	-40.00	-12.91	6.86	Peak
8	2346.00	-53.58	-64.52	-13.00	-40.58	10.94	Peak

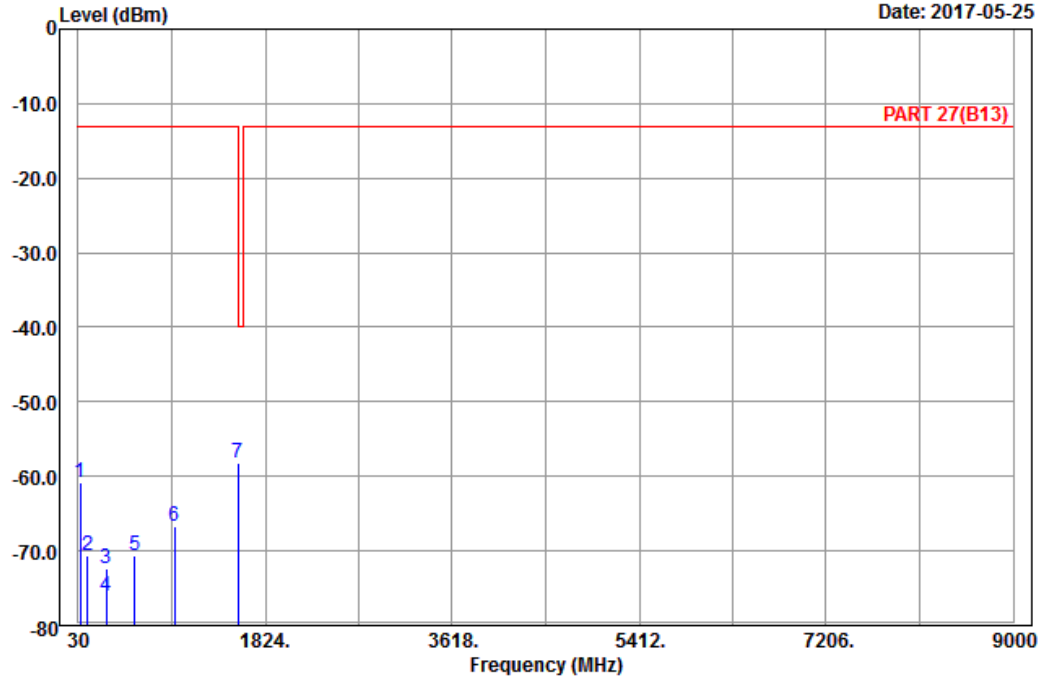


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2017-05-25



Site : 966 chamber 1
Condition: PART 27(B13) Vertical
Remark : LTE_Band 13_Link_CH23230
Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	51.33	-60.84	-46.79	-13.00	-47.84	-14.05	Peak
2	117.75	-70.58	-62.14	-13.00	-57.58	-8.44	Peak
3	297.84	-72.40	-66.46	-13.00	-59.40	-5.94	Peak
4	302.10	-76.16	-70.23	-13.00	-63.16	-5.93	Peak
5	569.50	-70.52	-69.66	-13.00	-57.52	-0.86	Peak
6	951.00	-66.62	-71.73	-13.00	-53.62	5.11	Peak
7 pp	1564.00	-58.11	-64.97	-40.00	-18.11	6.86	Peak

LTE Band 17
Channel Bandwidth: 10 MHz / QPSK
Low Channel

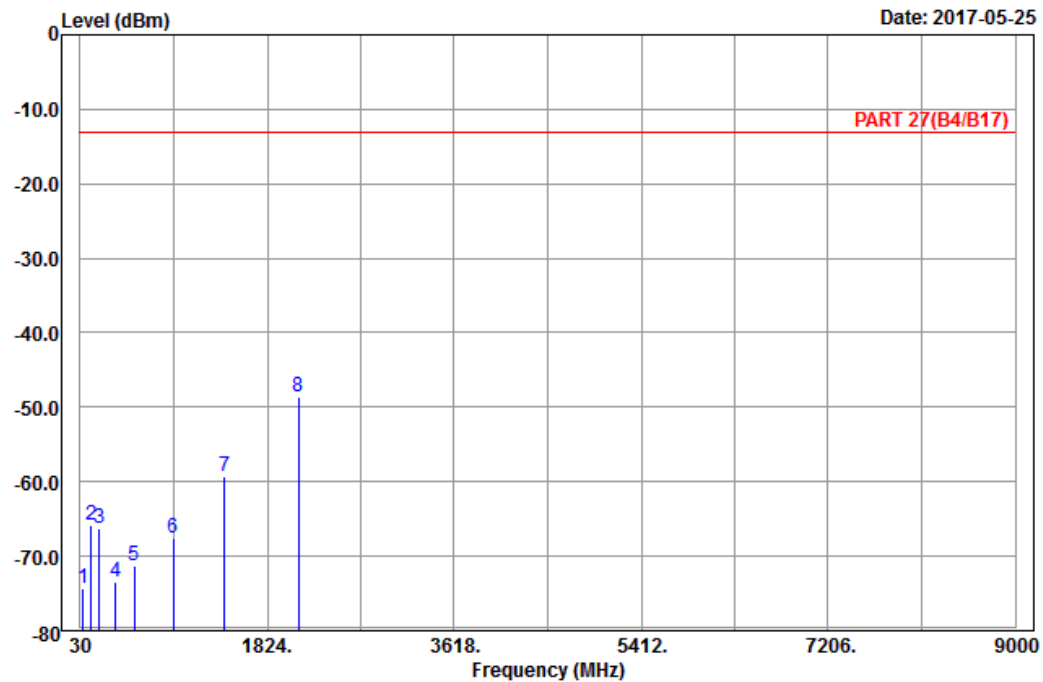


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2017-05-25



Site : 966 chamber 1
Condition: PART 27(B4/B17) Horizontal
Remark : LTE_Band 17_Link_CH23780
Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	61.05	-74.39	-60.46	-13.00	-61.39	-13.93	Peak
2	132.06	-65.87	-58.21	-13.00	-52.87	-7.66	Peak
3	211.17	-66.31	-60.28	-13.00	-53.31	-6.03	Peak
4	372.10	-73.53	-69.34	-13.00	-60.53	-4.19	Peak
5	548.50	-71.24	-69.51	-13.00	-58.24	-1.73	Peak
6	922.30	-67.56	-71.45	-13.00	-54.56	3.89	Peak
7	1418.00	-59.26	-65.62	-13.00	-46.26	6.36	Peak
8 pp	2127.00	-48.61	-59.89	-13.00	-35.61	11.28	Peak

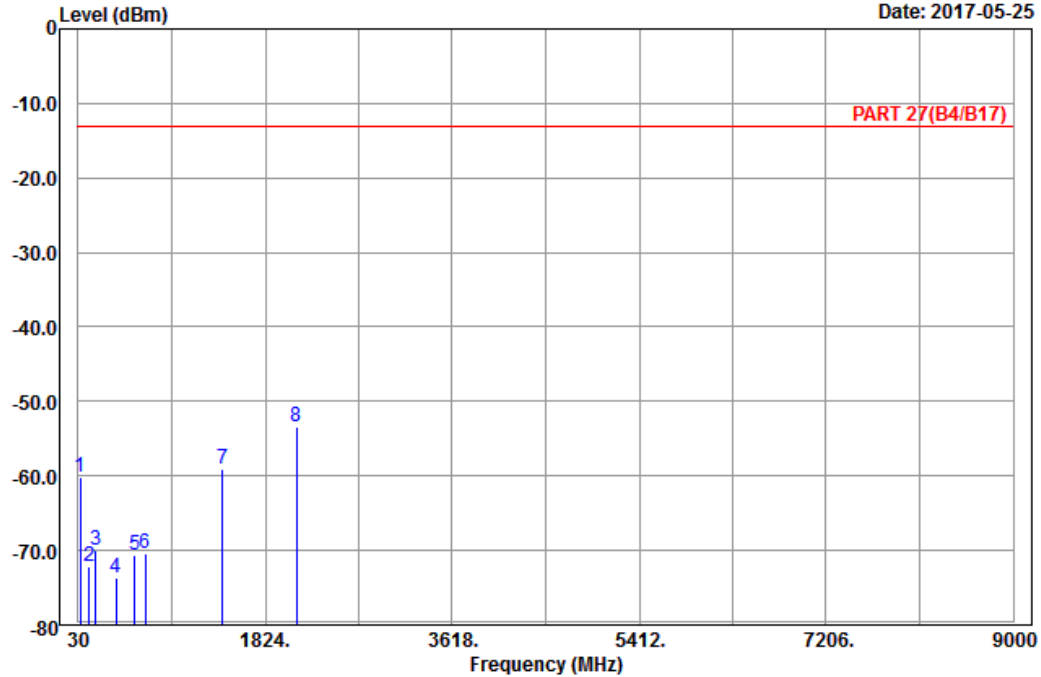


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2017-05-25



Site : 966 chamber 1
Condition: PART 27(B4/B17) Vertical
Remark : LTE_Band 17_Link_CH23780
Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	52.68	-60.09	-46.03	-13.00	-47.09	-14.06	Peak
2	133.14	-72.16	-64.50	-13.00	-59.16	-7.66	Peak
3	194.43	-70.01	-64.05	-13.00	-57.01	-5.96	Peak
4	392.40	-73.69	-70.59	-13.00	-60.69	-3.10	Peak
5	568.80	-70.72	-69.82	-13.00	-57.72	-0.90	Peak
6	670.30	-70.30	-70.07	-13.00	-57.30	-0.23	Peak
7	1418.00	-59.04	-65.40	-13.00	-46.04	6.36	Peak
8 pp	2127.00	-53.36	-64.64	-13.00	-40.36	11.28	Peak

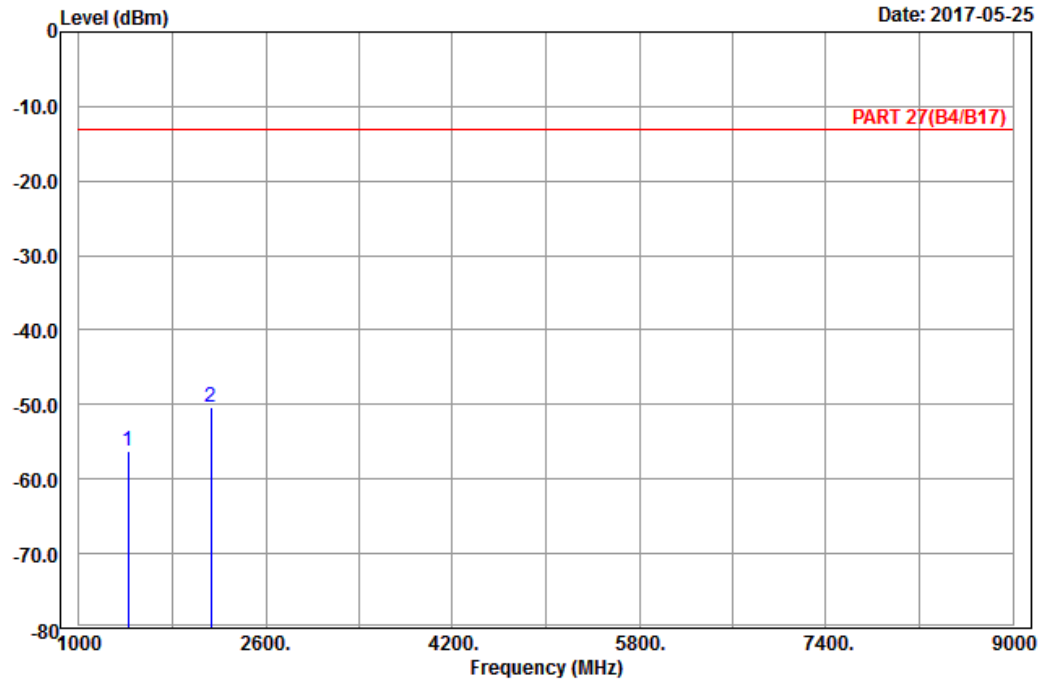
Middle Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5



Site : 966 chamber 1
Condition: PART 27(B4/B17) Horizontal
Remark : LTE_Band 17_Link_CH23790
Tested by: Karl Lee

		Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1	1420.00	-56.26	-62.62	-13.00	-43.26	6.36 Peak
2 pp	2130.00	-50.44	-61.72	-13.00	-37.44	11.28 Peak

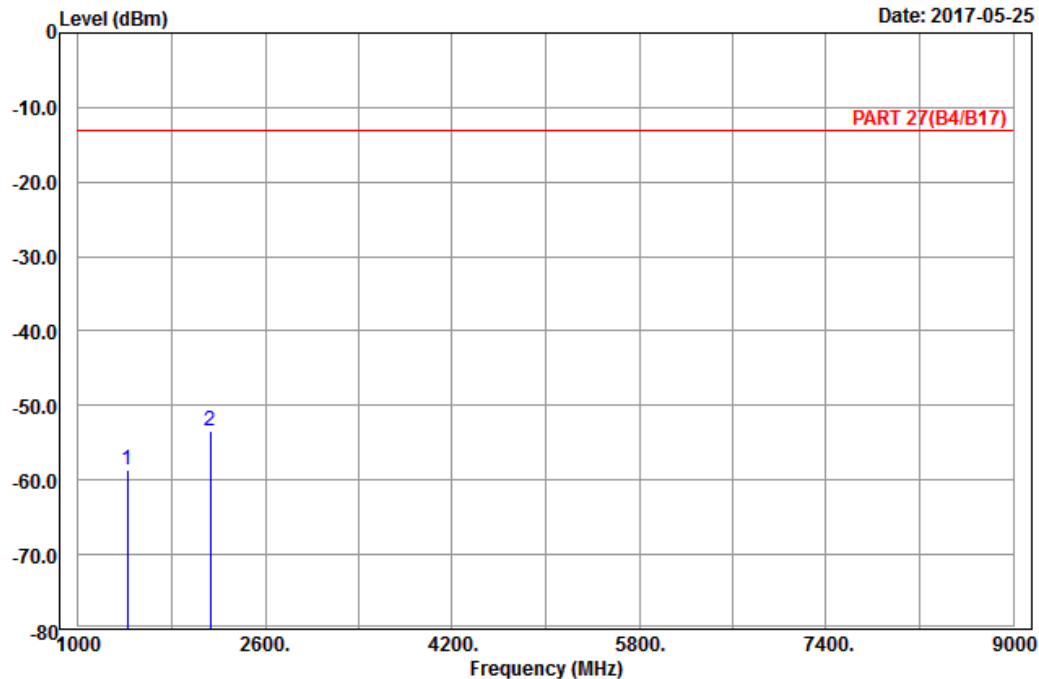


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6

Date: 2017-05-25



Site : 966 chamber 1
Condition: PART 27(B4/B17) Vertical
Remark : LTE_Band 17_Link_CH23790
Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	1420.00	-58.68	-65.04	-13.00	-45.68	6.36	Peak
2 pp	2130.00	-53.46	-64.74	-13.00	-40.46	11.28	Peak

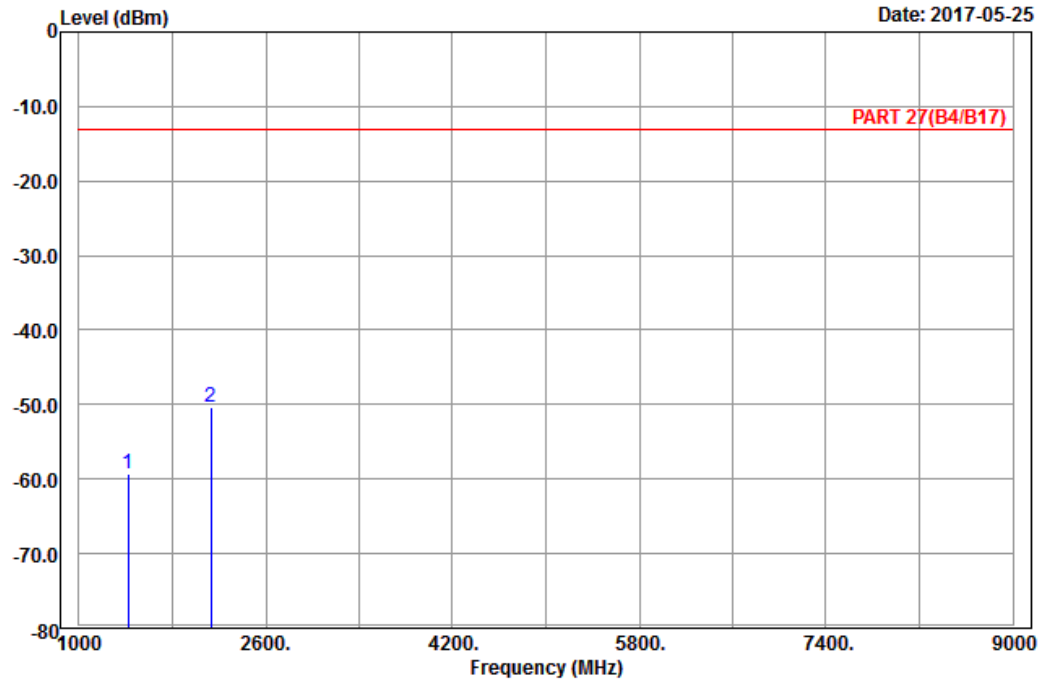
High Channel



Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch

A D T

Data: 5



Site : 966 chamber 1
Condition: PART 27(B4/B17) Horizontal
Remark : LTE_Band 17_Link_CH23800
Tested by: Karl Lee

			Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor	Remark	
MHz	dBm	dBm	dBm	dB	dB		
1	1422.00	-59.38	-65.74	-13.00	-46.38	6.36	Peak
2 pp	2133.00	-50.26	-61.54	-13.00	-37.26	11.28	Peak

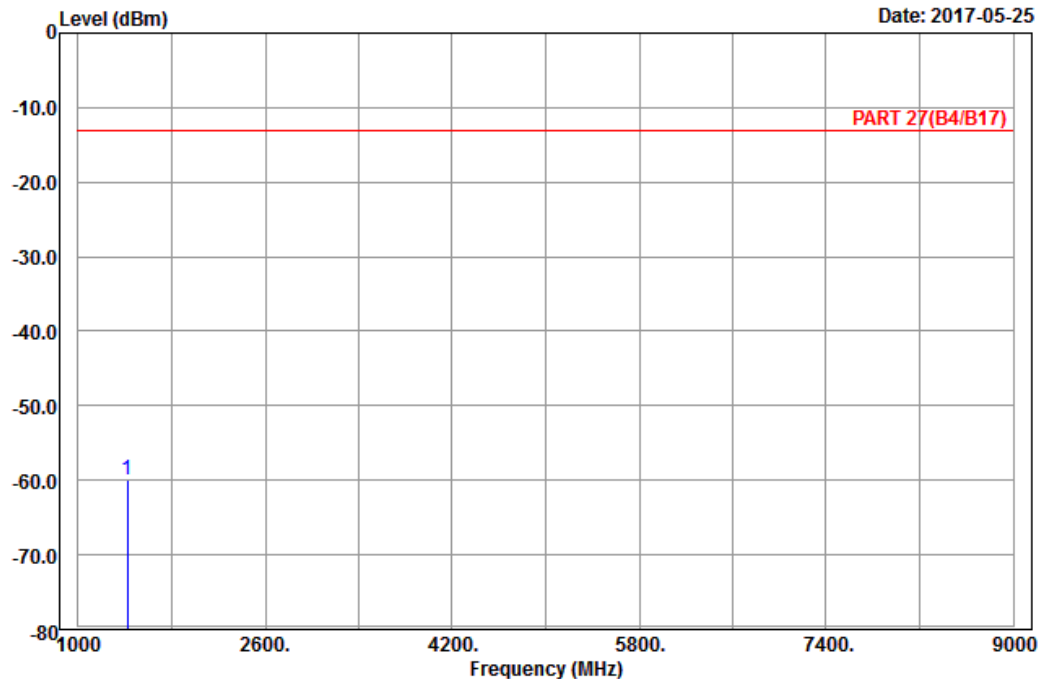


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6

Date: 2017-05-25



Site : 966 chamber 1
Condition: PART 27(B4/B17) Vertical
Remark : LTE_Band 17_Link_CH23800
Tested by: Karl Lee

			Read	Limit	Over		
	Freq	Level	Level	Line	Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	pp	1422.00	-59.87	-66.23	-13.00	-46.87	6.36 Peak

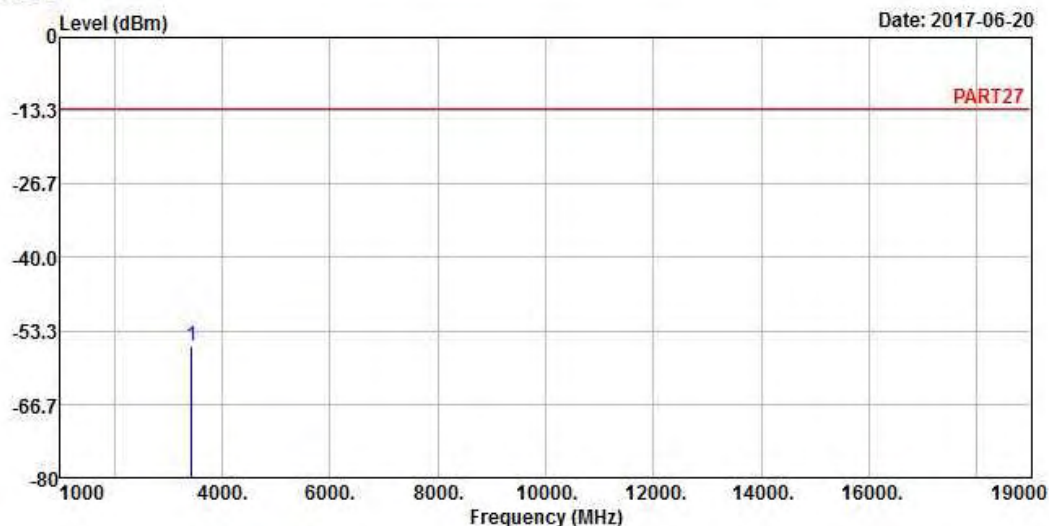
LTE Band 66:
Low Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5



Site : 966 Chamber 5
Condition: PART27 HORIZONTAL
Remak : LTE Band 66 QPSK_20M_L-CH Link
Tested by: Getaz Yang

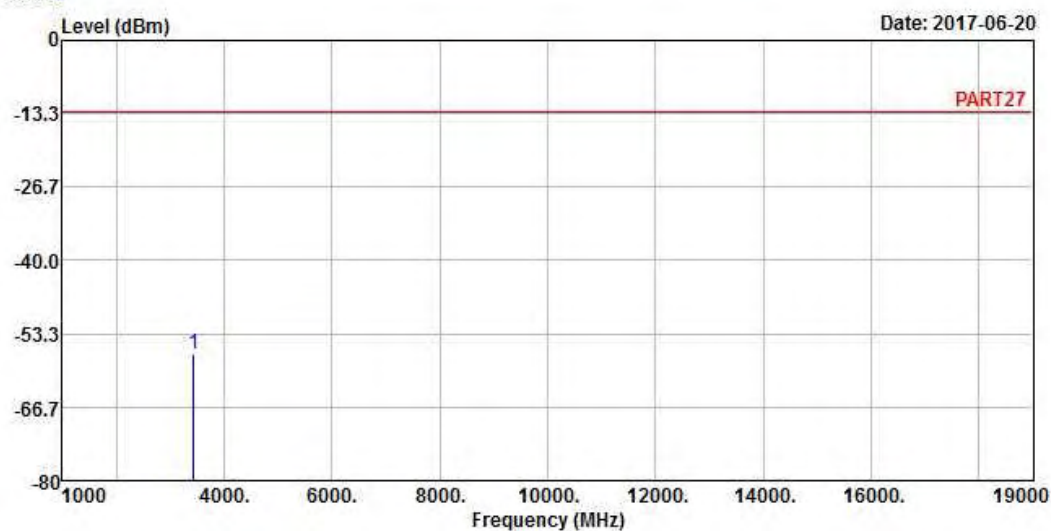
			Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor	Remark	
MHz	dBm	dBm	dBm	dB	dB		
1 pp 3440.00	-55.99	-46.99	-13.00	-42.99	-9.00	Peak	



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6



Site : 966 Chamber 5
Condition: PART27 VERTICAL
Remak : LTE Band 66 QPSK_20M_L-CH Link
Tested by: Getaz Yang

		Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3440.00	-56.90	-47.90	-13.00	-43.90	-9.00	Peak

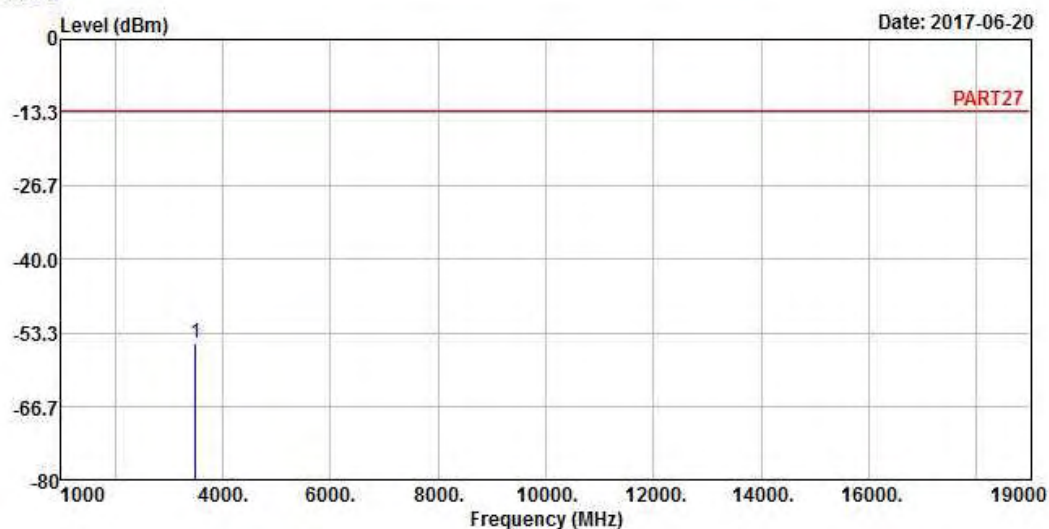
Middle Channel



Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch

A D T

Data: 5



Site : 966 Chamber 5
Condition: PART27 HORIZONTAL
Remak : LTE Band 66 QPSK_20M_M-CH Link
Tested by: Getaz Yang

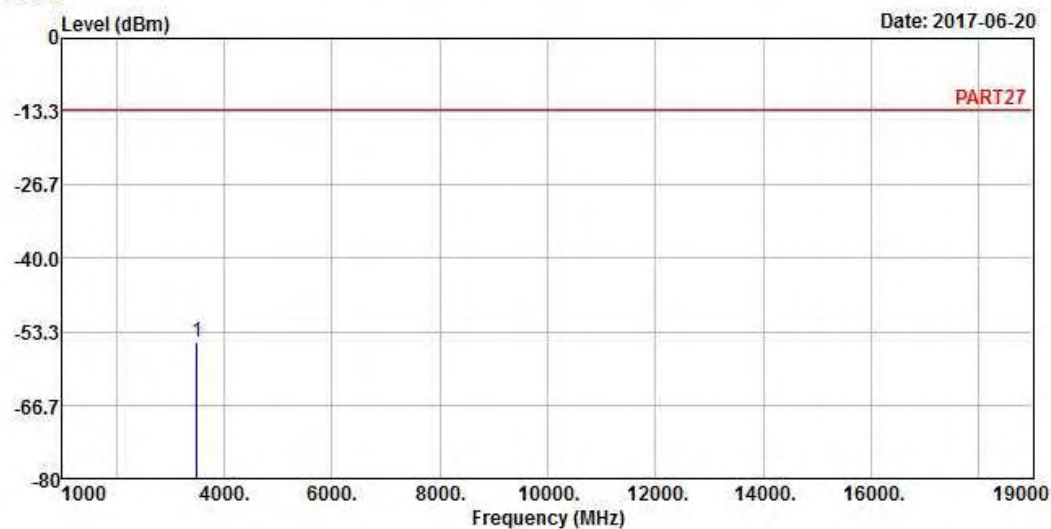
		Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3490.00	-55.09	-46.58	-13.00	-42.09	-8.51	Peak



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6



Site : 966 Chamber 5
Condition: PART27 VERTICAL
Remak : LTE Band 66 QPSK_20M_M-CH Link
Tested by: Getaz Yang

		Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3490.00	-55.12	-46.61	-13.00	-42.12	-8.51	Peak

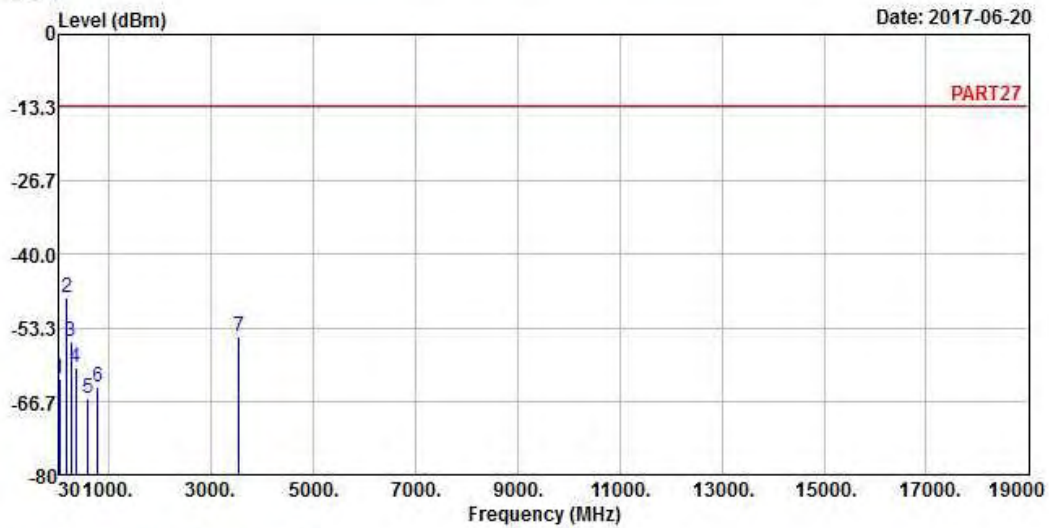
High Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 7



Site : 966 Chamber 5
Condition: PART27 HORIZONTAL
Remak : LTE Band 66 QPSK_20M_H-CH Link
Tested by: Getaz Yang

			Read	Limit	Over		
	Freq	Level	Level	Line	Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	30.00	-62.47	-62.85	-13.00	-49.47	0.38	Peak
2 pp	173.56	-47.92	-41.71	-13.00	-34.92	-6.21	Peak
3	258.92	-55.67	-49.50	-13.00	-42.67	-6.17	Peak
4	350.10	-60.65	-54.41	-13.00	-47.65	-6.24	Peak
5	596.48	-66.04	-65.13	-13.00	-53.04	-0.91	Peak
6	785.63	-64.16	-64.94	-13.00	-51.16	0.78	Peak
7	3540.00	-54.91	-46.56	-13.00	-41.91	-8.35	Peak

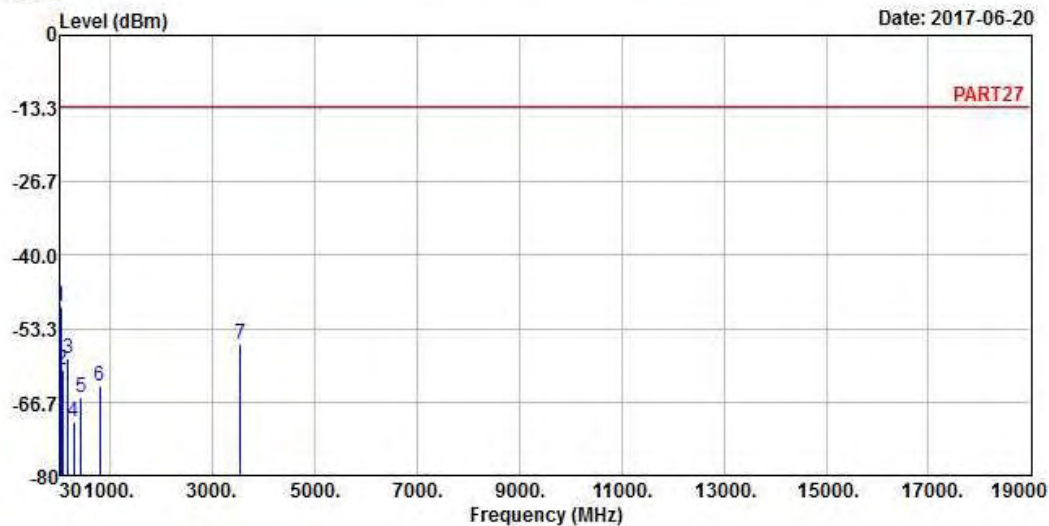


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 8

Date: 2017-06-20



Site : 966 Chamber 5
Condition: PART27 VERTICAL
Remak : LTE Band 66 QPSK_20M_H-CH Link
Tested by: Getaz Yang

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	30.00	-49.43	-49.81	-13.00	-36.43	0.38	Peak
2	63.95	-60.95	-52.99	-13.00	-47.95	-7.96	Peak
3	175.50	-58.87	-52.32	-13.00	-45.87	-6.55	Peak
4	292.87	-70.30	-63.43	-13.00	-57.30	-6.87	Peak
5	427.70	-65.80	-60.07	-13.00	-52.80	-5.73	Peak
6	799.21	-63.81	-64.55	-13.00	-50.81	0.74	Peak
7	3540.00	-56.08	-47.73	-13.00	-43.08	-8.35	Peak

Mode B
WCDMA:
Low Channel

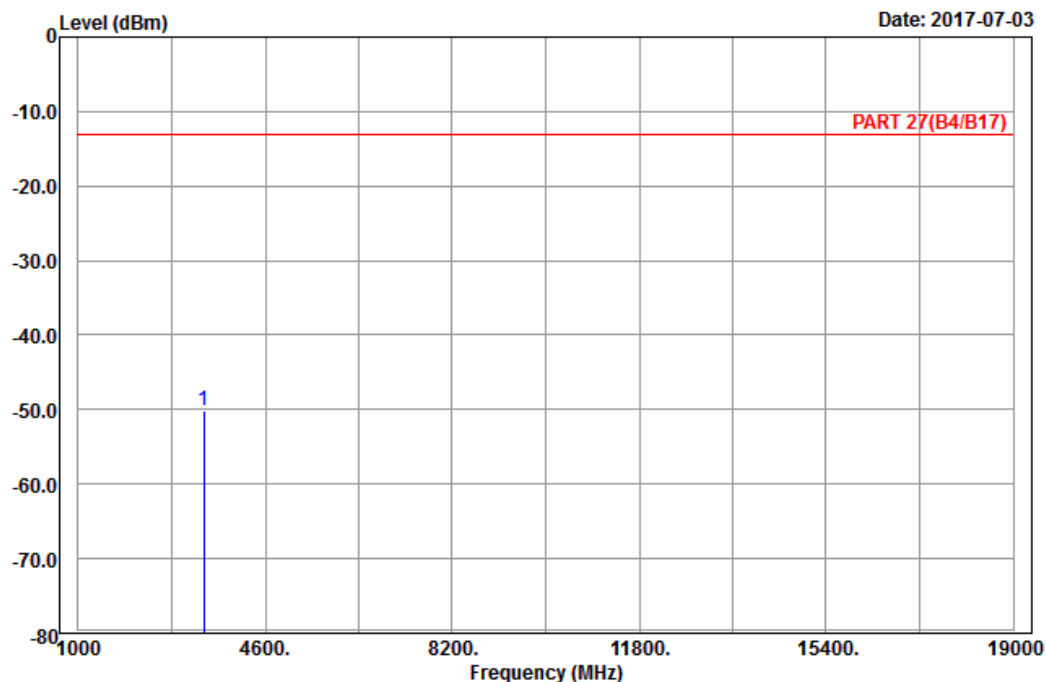


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2017-07-03



Site : 966 chamber 1
Condition: PART 27(B4/B17) Horizontal
Remark : Band IV_Link_CH1312
Tested by: Karl Lee

		Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3424.80	-50.21	-64.58	-13.00	-37.21	14.37	Peak

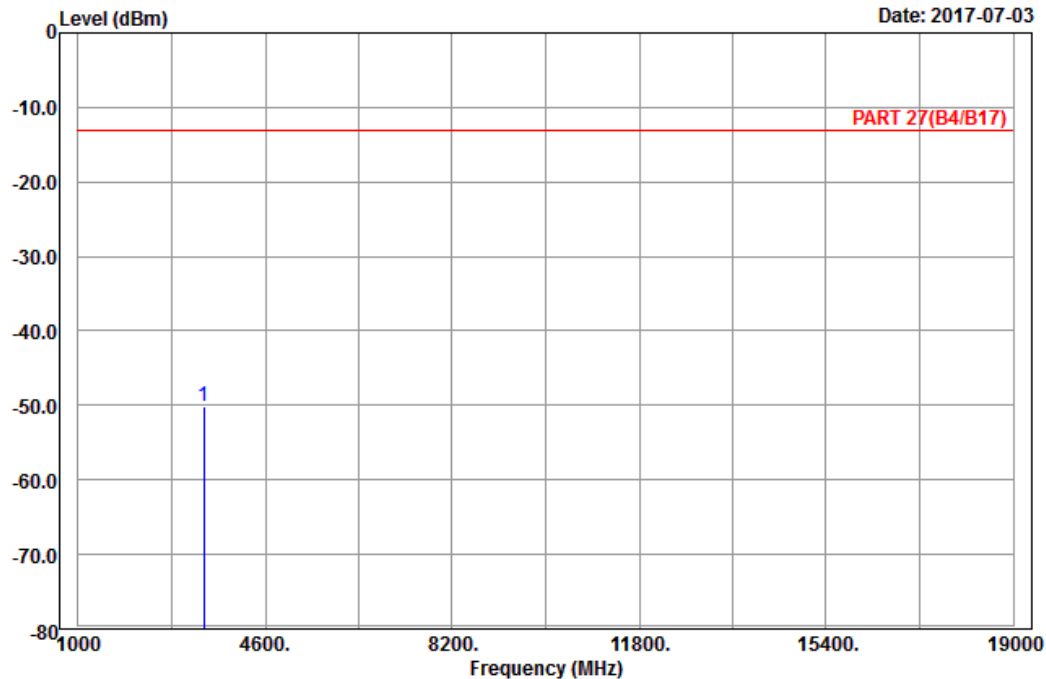


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2017-07-03



Site : 966 chamber 1
Condition: PART 27(B4/B17) Vertical
Remark : Band IV_Link_CH1312
Tested by: Karl Lee

		Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3424.80	-50.10	-64.47	-13.00	-37.10	14.37	Peak

Middle Channel

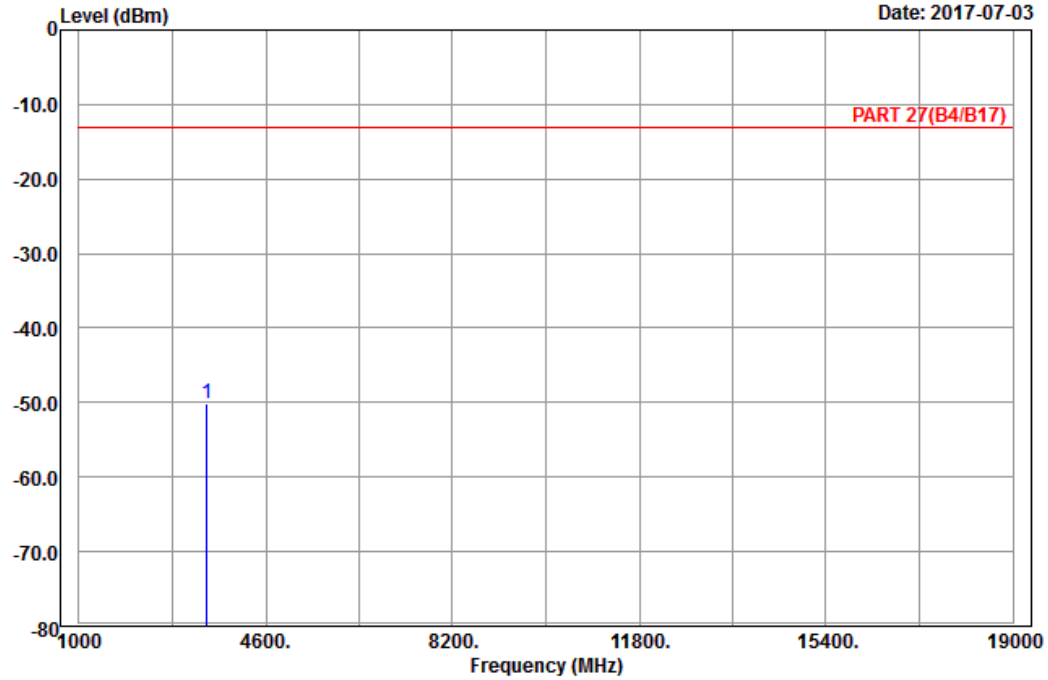


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2017-07-03



Site : 966 chamber 1
Condition: PART 27(B4/B17) Horizontal
Remark : Band IV_Link_CH1413
Tested by: Charles Hsiao

Freq	Level	Read	Limit	Over	Factor	Remark
		Level	Line	Limit		
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3465.20	-50.21	-64.55	-13.00	-37.21	14.34	Peak

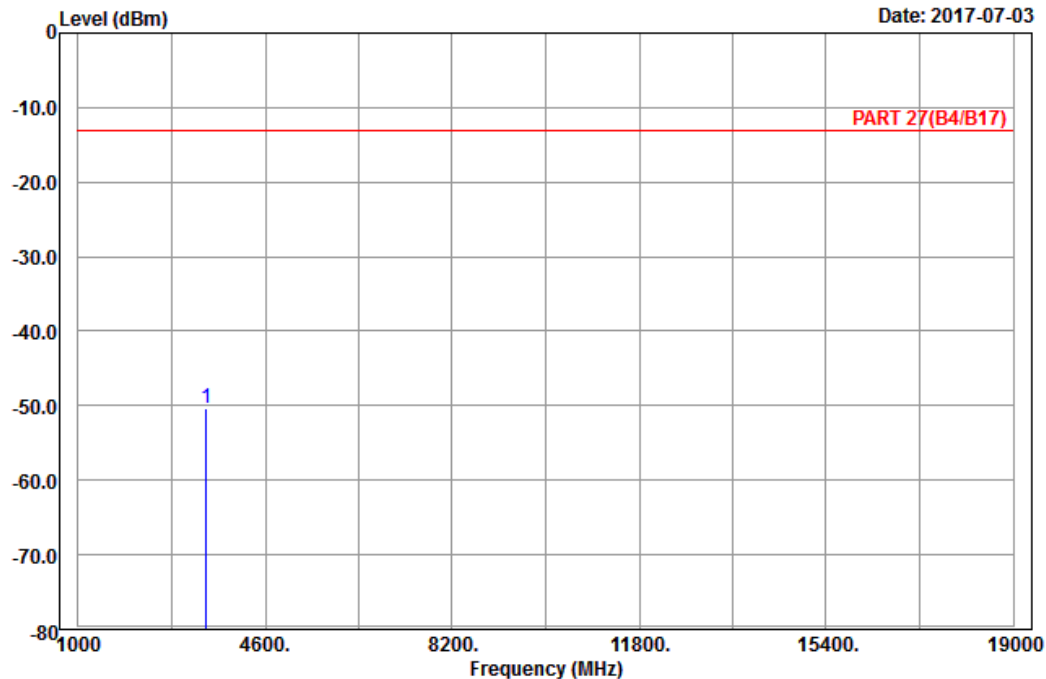


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2017-07-03



Site : 966 chamber 1
Condition: PART 27(B4/B17) Vertical
Remark : Band IV_Link_CH1413
Tested by: Charles Hsiao

			Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor	Remark	
MHz	dBm	dBm	dBm	dB	dB		
1 pp 3465.20	-50.25	-64.59	-13.00	-37.25	14.34	Peak	

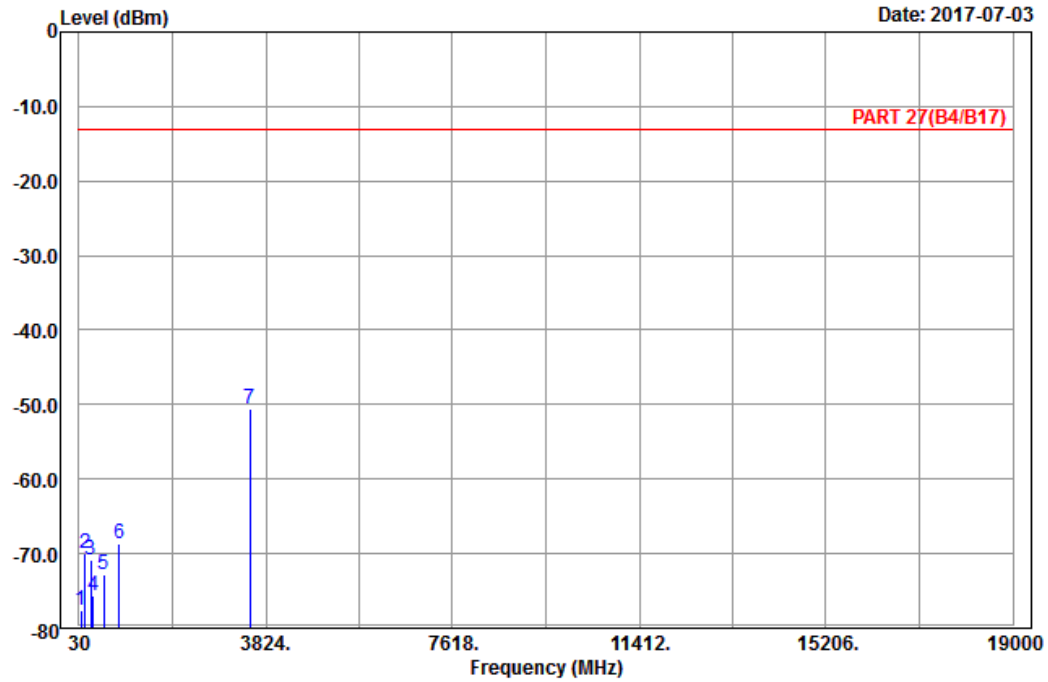
High Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 13



Site : 966 chamber 1
 Condition: PART 27(B4/B17) Horizontal
 Remark : Band IV_Link_CH1513
 Tested by: Karl Lee

		Read	Limit	Over			
	Freq	Level	Level	Line	Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	65.37	-77.70	-64.32	-13.00	-64.70	-13.38	Peak
2	146.64	-70.04	-62.18	-13.00	-57.04	-7.86	Peak
3	275.97	-70.93	-65.18	-13.00	-57.93	-5.75	Peak
4	314.70	-75.57	-69.79	-13.00	-62.57	-5.78	Peak
5	537.30	-72.86	-70.28	-13.00	-59.86	-2.58	Peak
6	842.50	-68.68	-70.21	-13.00	-55.68	1.53	Peak
7 pp	3505.20	-50.65	-64.93	-13.00	-37.65	14.28	Peak

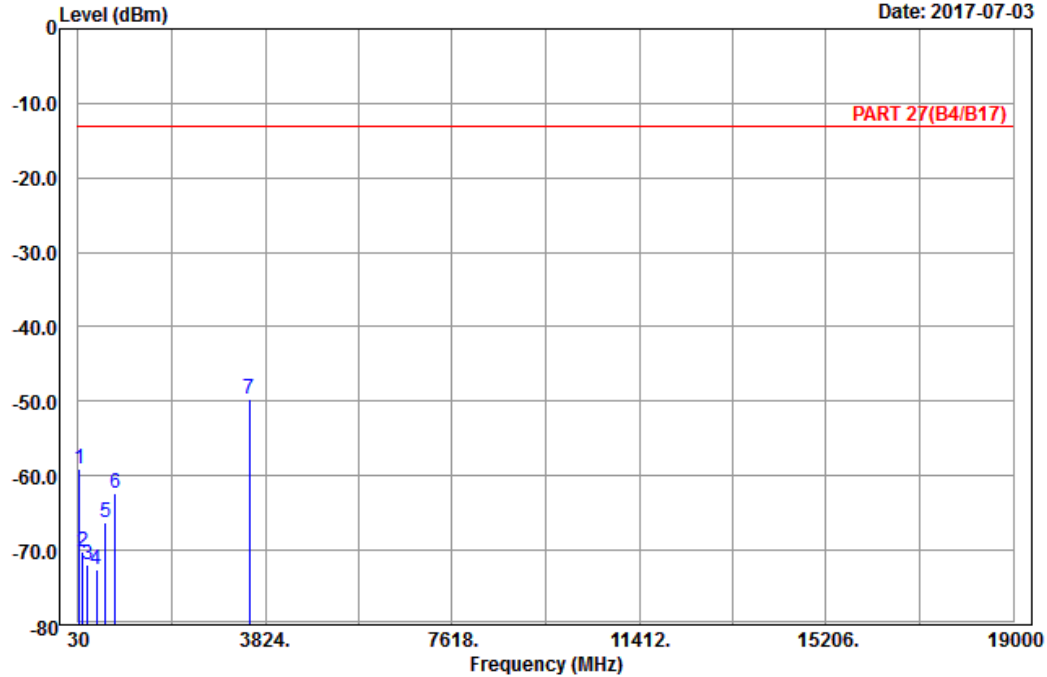


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 14

Date: 2017-07-03



Site : 966 chamber 1
Condition: PART 27(B4/B17) Vertical
Remark : Band IV_Link_CH1513
Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	47.01	-59.10	-45.99	-13.00	-46.10	-13.11	Peak
2	123.15	-70.30	-62.23	-13.00	-57.30	-8.07	Peak
3	216.57	-71.99	-66.03	-13.00	-58.99	-5.96	Peak
4	396.60	-72.60	-69.70	-13.00	-59.60	-2.90	Peak
5	577.90	-66.37	-65.87	-13.00	-53.37	-0.50	Peak
6	774.60	-62.30	-62.65	-13.00	-49.30	0.35	Peak
7 pp	3505.20	-49.75	-64.03	-13.00	-36.75	14.28	Peak

LTE Band 4
Channel Bandwidth: 20 MHz / QPSK
Low Channel

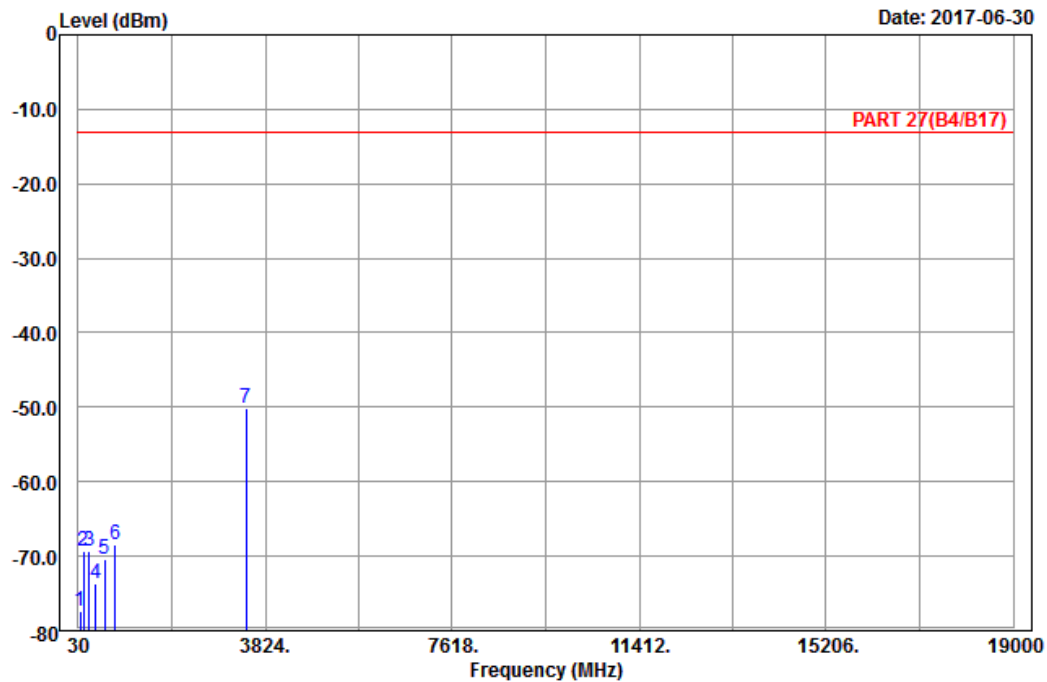


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 13

Date: 2017-06-30



Site : 966 chamber 1
Condition: PART 27(B4/B17) Horizontal
Remark : LTE_Band 4_Link_CH20050
Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	65.91	-77.31	-64.07	-13.00	-64.31	-13.24	Peak
2	139.35	-69.24	-61.55	-13.00	-56.24	-7.69	Peak
3	258.96	-69.24	-63.65	-13.00	-56.24	-5.59	Peak
4	388.90	-73.71	-70.40	-13.00	-60.71	-3.31	Peak
5	572.30	-70.38	-69.64	-13.00	-57.38	-0.74	Peak
6	778.10	-68.55	-69.09	-13.00	-55.55	0.54	Peak
7 pp	3440.00	-50.18	-64.53	-13.00	-37.18	14.35	Peak

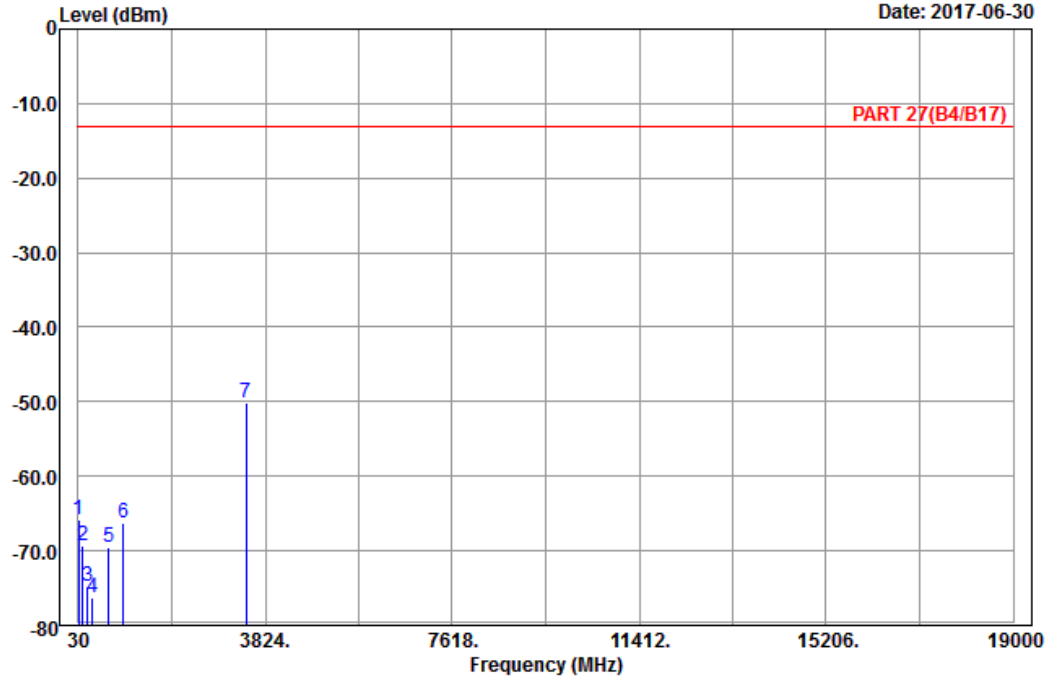


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 14

Date: 2017-06-30



Site : 966 chamber 1
Condition: PART 27(B4/B17) Vertical
Remark : LTE_Band 4_Link_CH20050
Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	45.12	-65.80	-53.32	-13.00	-52.80	-12.48	Peak
2	115.05	-69.32	-60.75	-13.00	-56.32	-8.57	Peak
3	224.67	-74.83	-68.98	-13.00	-61.83	-5.85	Peak
4	317.50	-76.39	-70.63	-13.00	-63.39	-5.76	Peak
5	646.50	-69.45	-69.35	-13.00	-56.45	-0.10	Peak
6	939.10	-66.27	-70.90	-13.00	-53.27	4.63	Peak
7 pp	3440.00	-50.20	-64.55	-13.00	-37.20	14.35	Peak

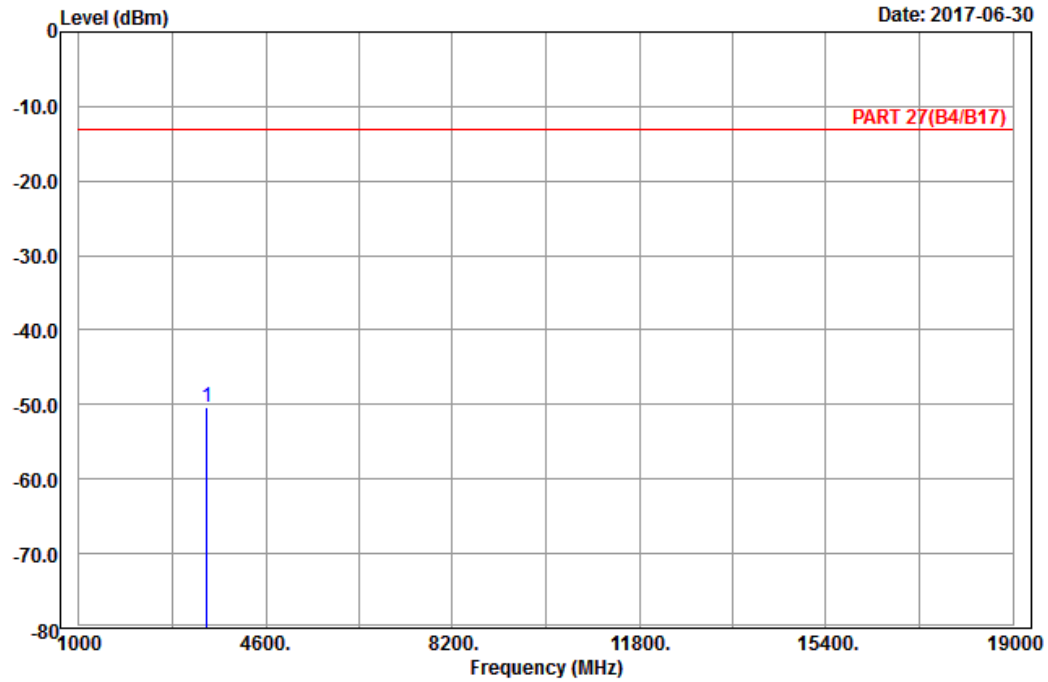
Middle Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9



Site : 966 chamber 1
 Condition: PART 27(B4/B17) Horizontal
 Remark : LTE_Band 4_Link_CH20175
 Tested by: Karl Lee

		Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3465.00	-50.28	-64.62	-13.00	-37.28	14.34	Peak

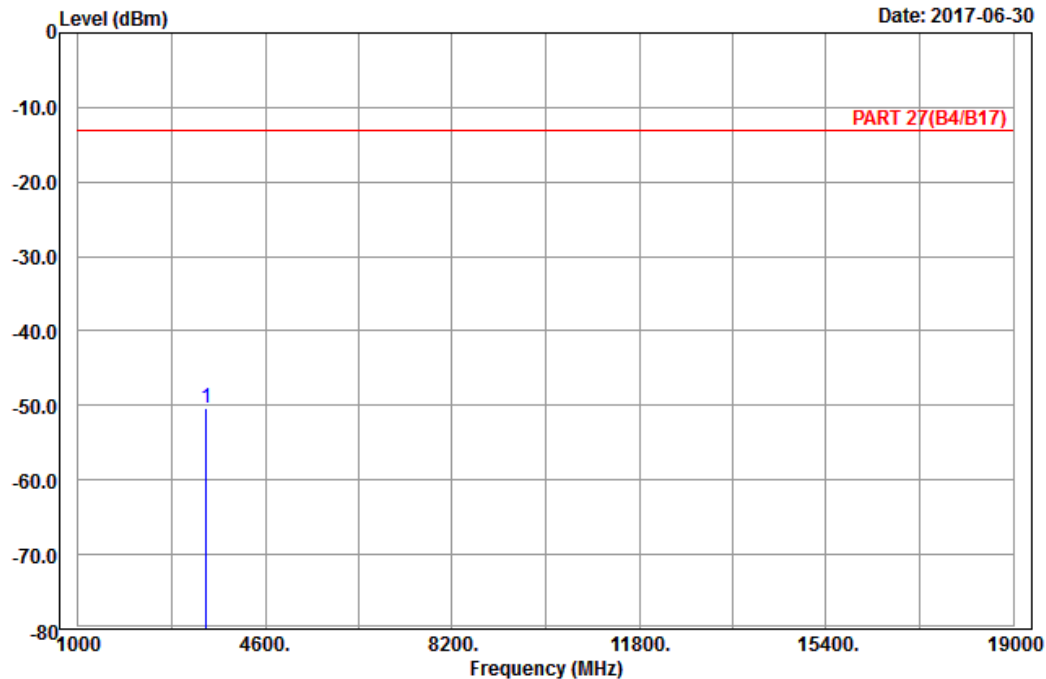


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2017-06-30



Site : 966 chamber 1
Condition: PART 27(B4/B17) Vertical
Remark : LTE_Band 4_Link_CH20175
Tested by: Karl Lee

		Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3465.00	-50.27	-64.61	-13.00	-37.27	14.34	Peak

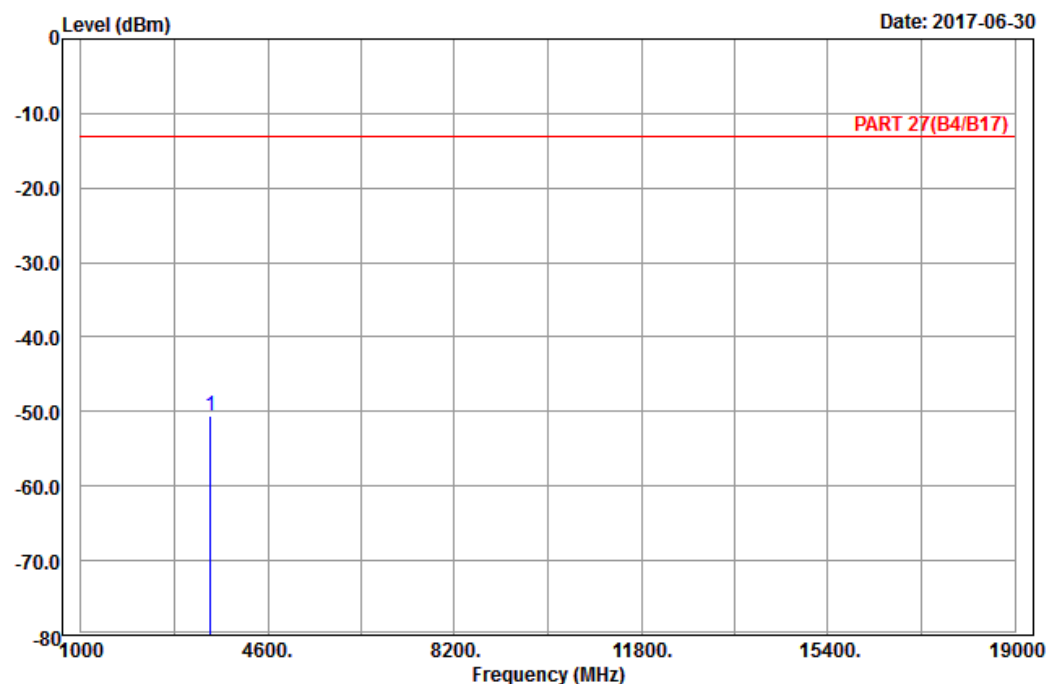
High Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9



Site : 966 chamber 1
 Condition: PART 27(B4/B17) Horizontal
 Remark : LTE_Band 4_Link_CH20300
 Tested by: Karl Lee

		Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3490.00	-50.55	-64.86	-13.00	-37.55	14.31	Peak

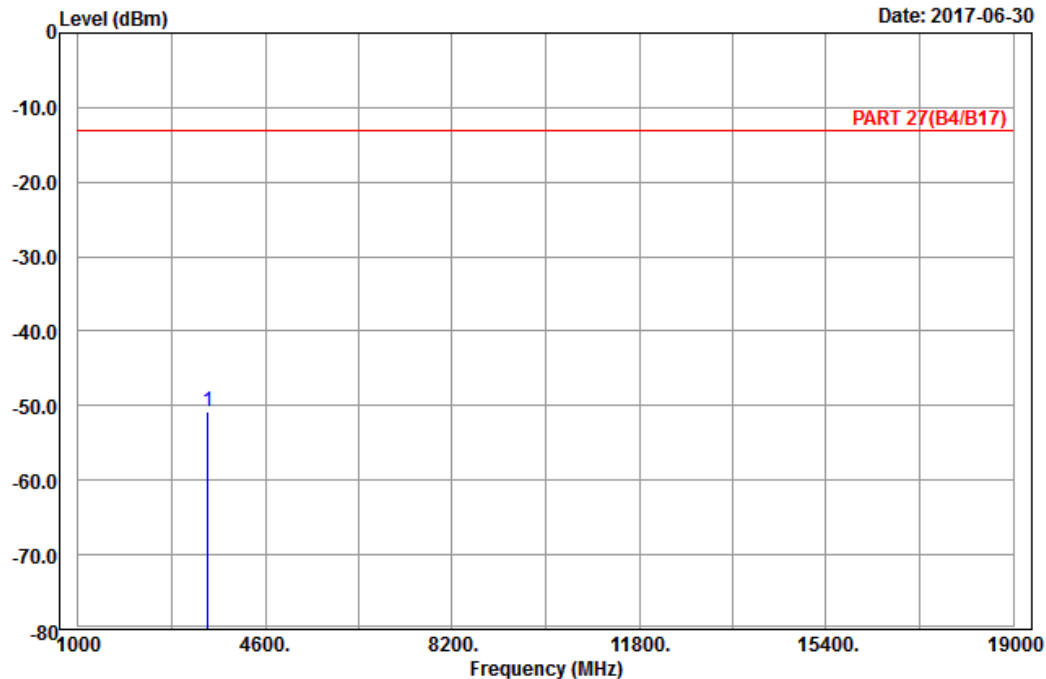


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2017-06-30



Site : 966 chamber 1
Condition: PART 27(B4/B17) Vertical
Remark : LTE_Band 4_Link_CH20300
Tested by: Karl Lee

		Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3490.00	-50.88	-65.19	-13.00	-37.88	14.31	Peak

LTE Band 13

Channel Bandwidth: 10 MHz / QPSK

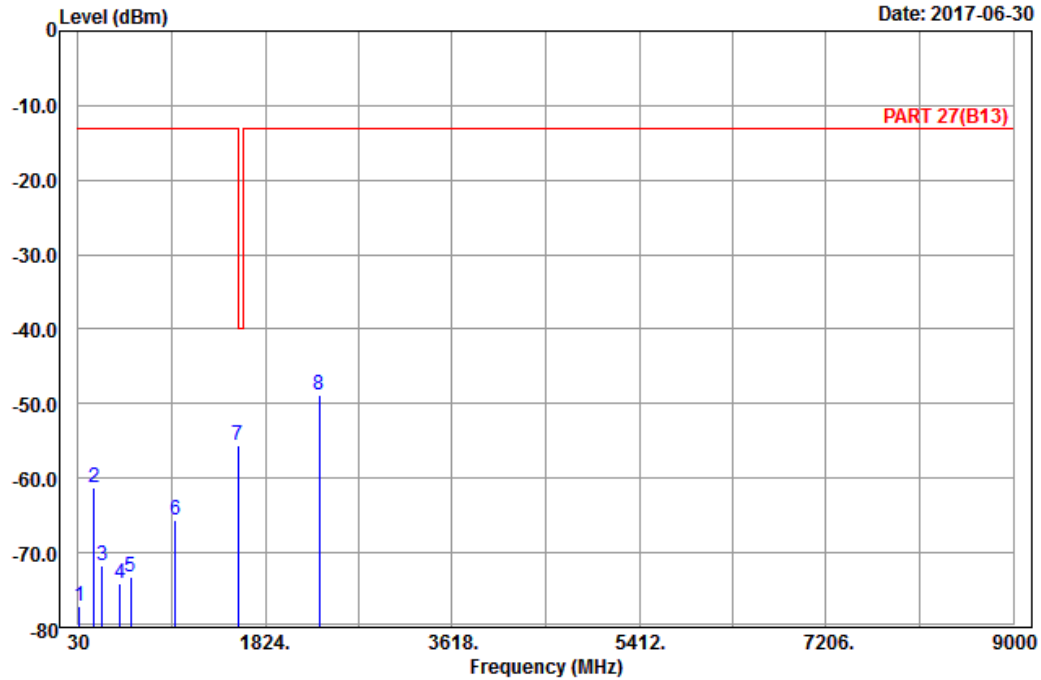


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2017-06-30



Site : 966 chamber 1

Condition: PART 27(B13) Horizontal

Remark : LTE_Band 13_Link_CH23230

Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	44.04	-77.19	-65.61	-13.00	-64.19	-11.58	Peak
2	179.85	-61.19	-55.51	-13.00	-48.19	-5.68	Peak
3	258.15	-71.80	-66.22	-13.00	-58.80	-5.58	Peak
4	428.80	-74.19	-70.81	-13.00	-61.19	-3.38	Peak
5	533.10	-73.28	-70.41	-13.00	-60.28	-2.87	Peak
6	961.50	-65.57	-70.71	-13.00	-52.57	5.14	Peak
7 pp	1564.00	-55.53	-62.39	-40.00	-15.53	6.86	Peak
8	2346.00	-48.78	-59.72	-13.00	-35.78	10.94	Peak

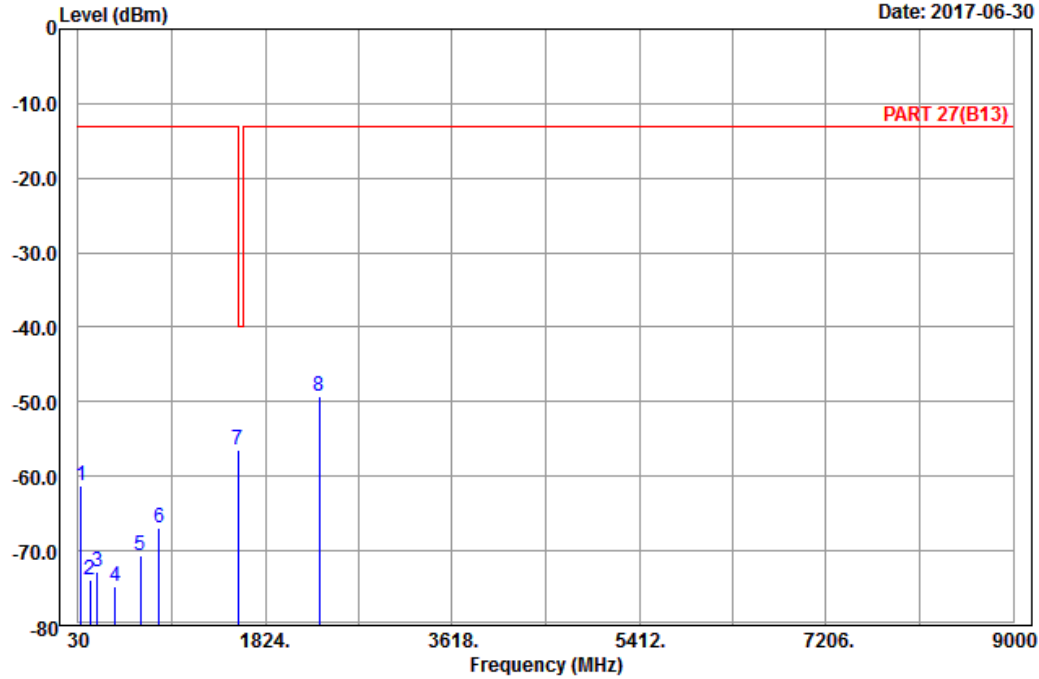


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2017-06-30



Site : 966 chamber 1
Condition: PART 27(B13) Vertical
Remark : LTE_Band 13_Link_CH23230
Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	58.89	-61.33	-47.27	-13.00	-48.33	-14.06	Peak
2	145.29	-73.84	-66.01	-13.00	-60.84	-7.83	Peak
3	211.17	-72.88	-66.85	-13.00	-59.88	-6.03	Peak
4	385.40	-74.73	-71.21	-13.00	-61.73	-3.52	Peak
5	629.00	-70.56	-70.66	-13.00	-57.56	0.10	Peak
6	805.40	-66.98	-68.94	-13.00	-53.98	1.96	Peak
7 pp	1564.00	-56.55	-63.41	-40.00	-16.55	6.86	Peak
8	2346.00	-49.27	-60.21	-13.00	-36.27	10.94	Peak

5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

Appendix – Information on the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab

Tel: 886-3-6668565

Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety

Tel: 886-3-3183232

Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

The address and road map of all our labs can be found in our web site also.

--- END ---