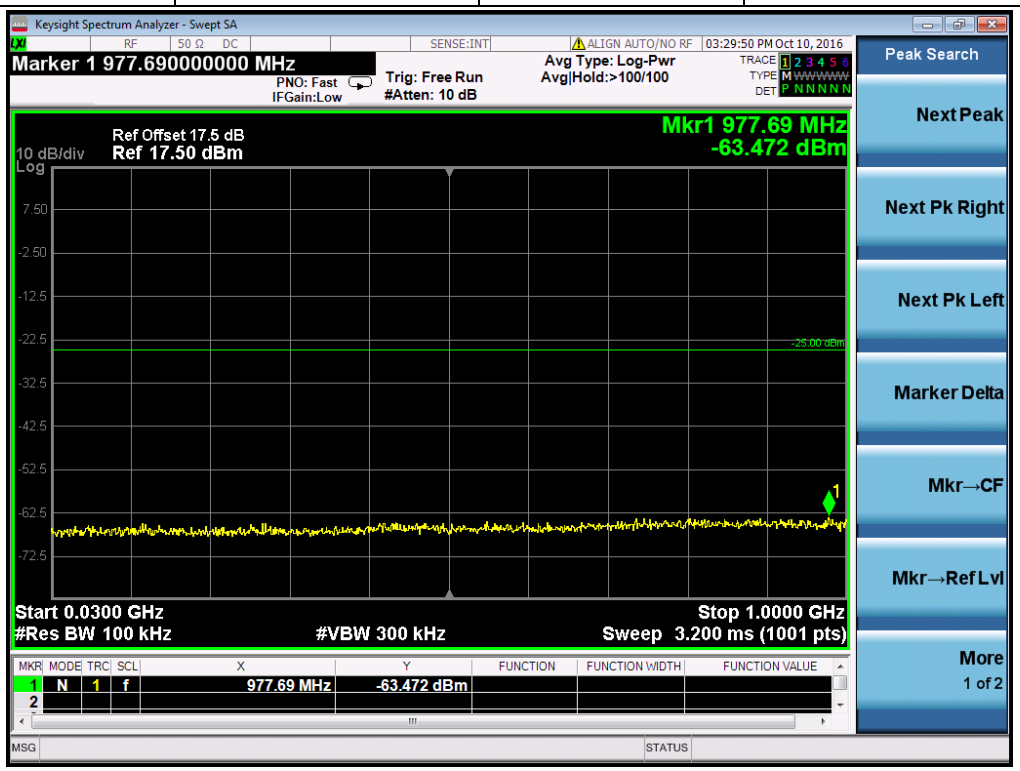
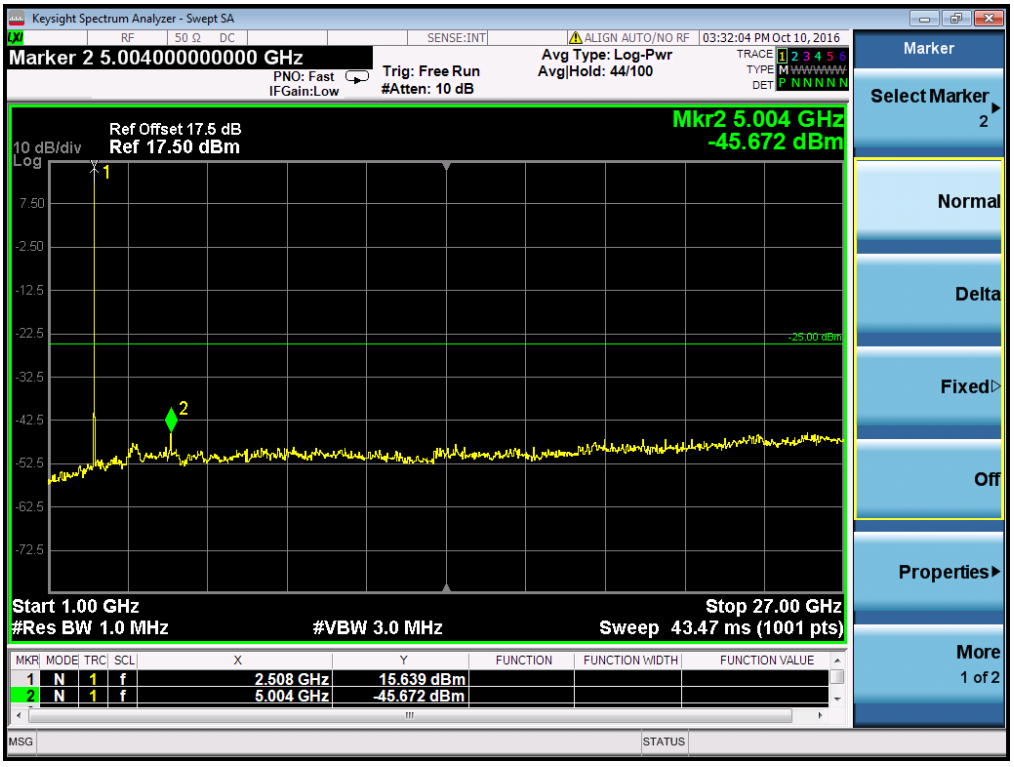
Band	LTE Band 41	Channel	Low
Bandwidth	10MHz	Modulation	QPSK

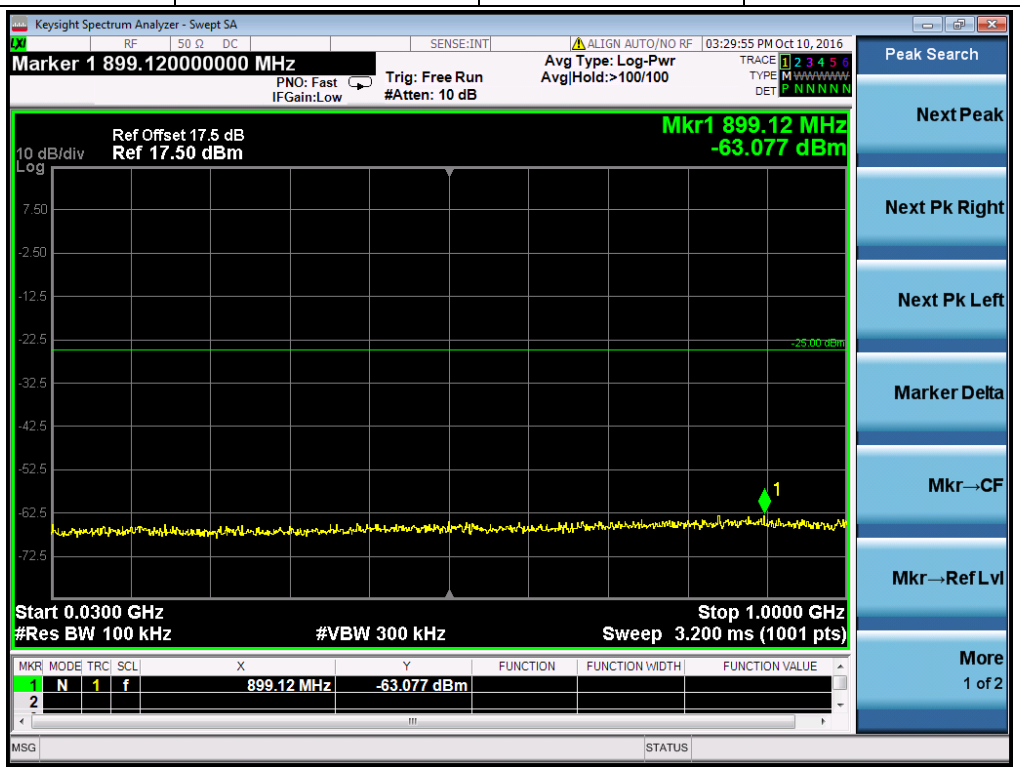


RB Size 1, RB Offset 0 30MHz to 1GHz

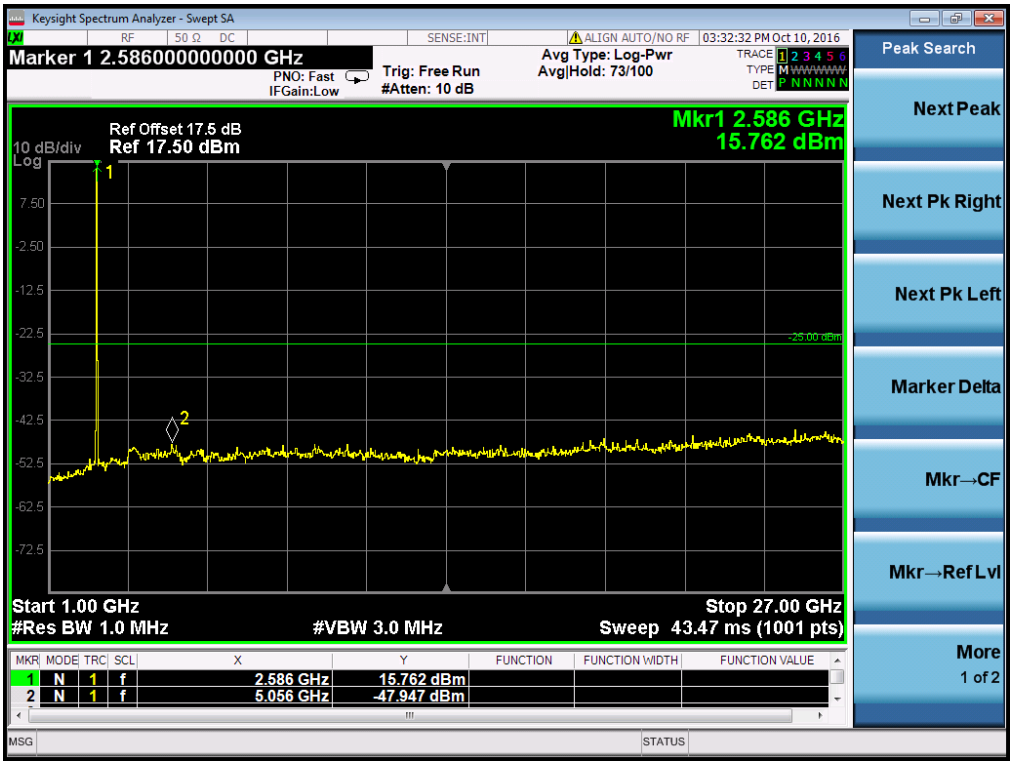


RB Size 1, RB Offset 0 1GHz to 26GHz

Band	LTE Band 41	Channel	Middle
Bandwidth	10MHz	Modulation	QPSK

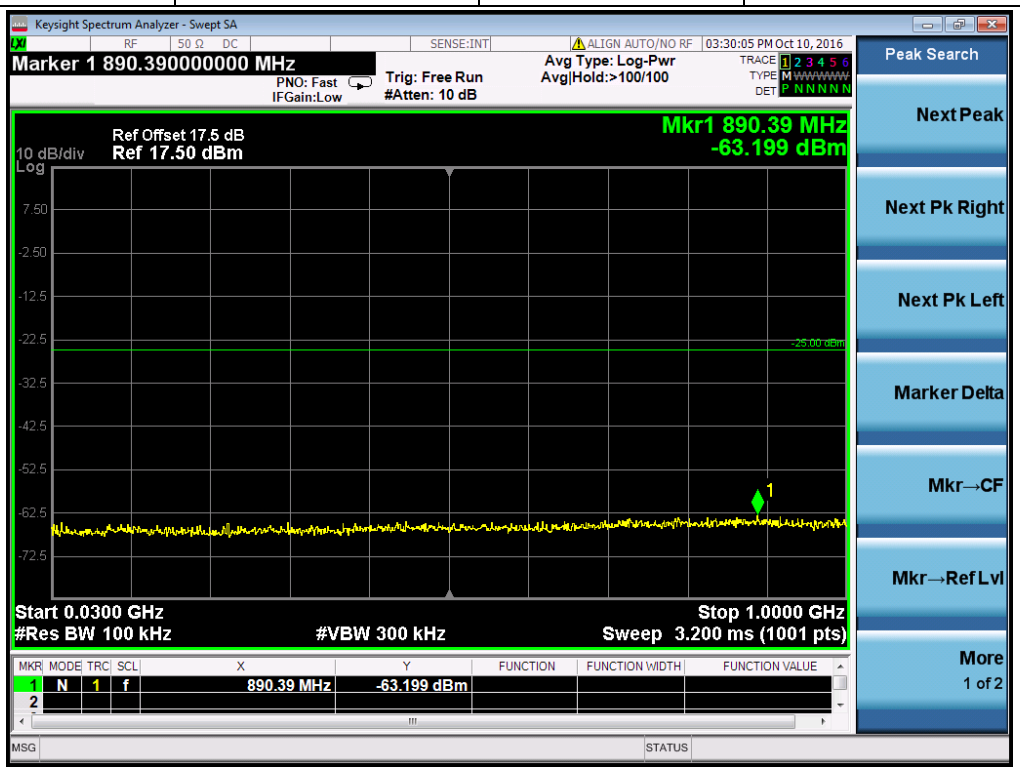


RB Size 1, RB Offset 0 30MHz to 1GHz

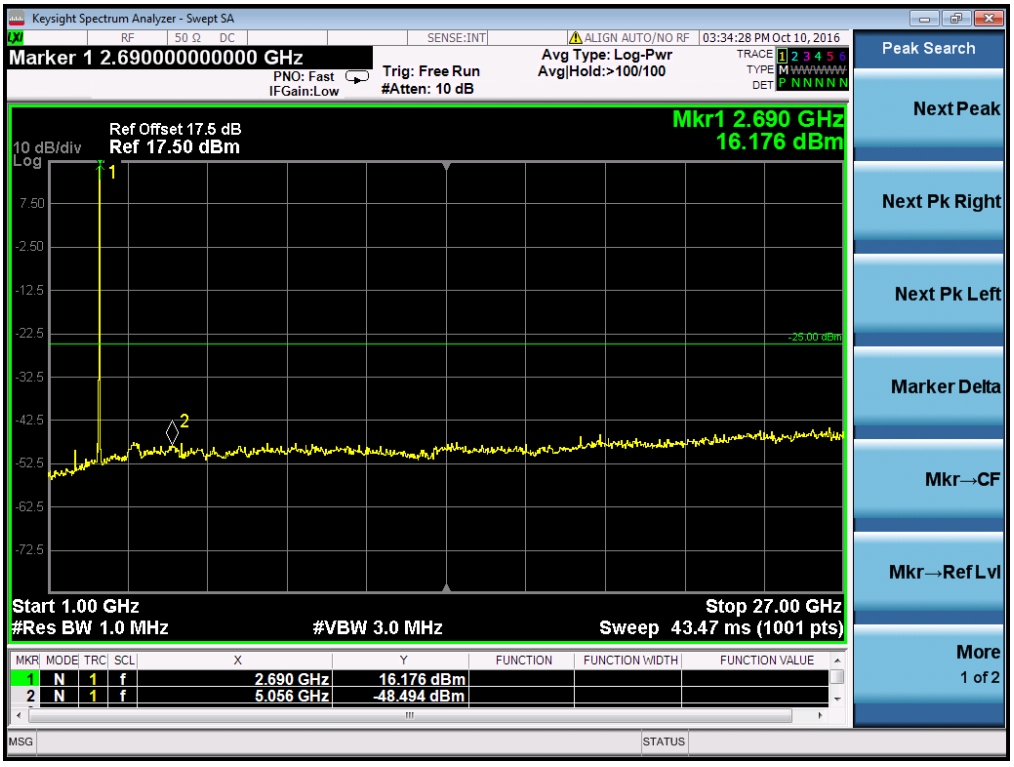


RB Size 1, RB Offset 0 1GHz to 26GHz

Band	LTE Band 41	Channel	High
Bandwidth	10MHz	Modulation	QPSK

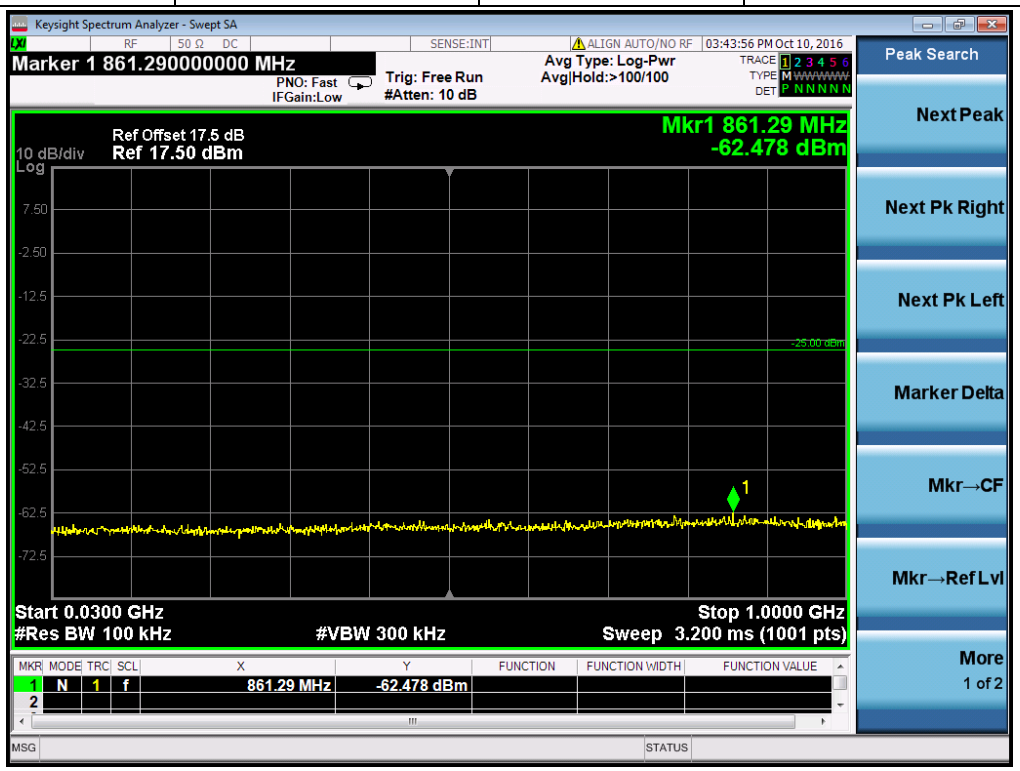


RB Size 1, RB Offset 0 30MHz to 1GHz

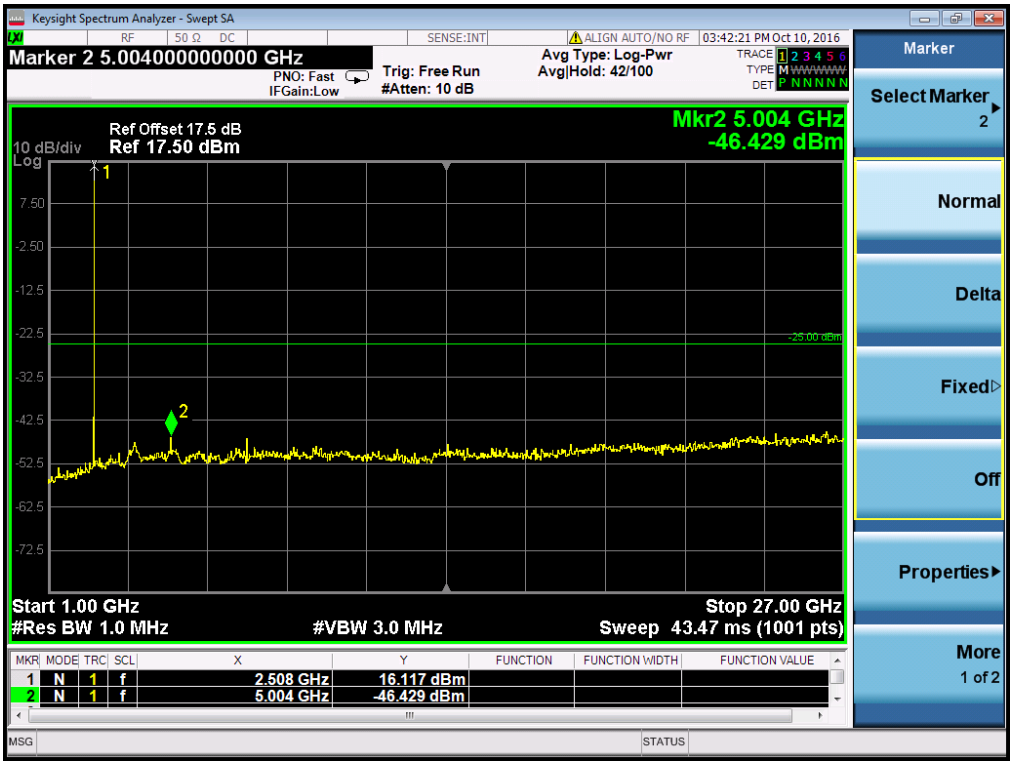


RB Size 1, RB Offset 0 1GHz to 26GHz

Band	LTE Band 41	Channel	Low
Bandwidth	15MHz	Modulation	QPSK

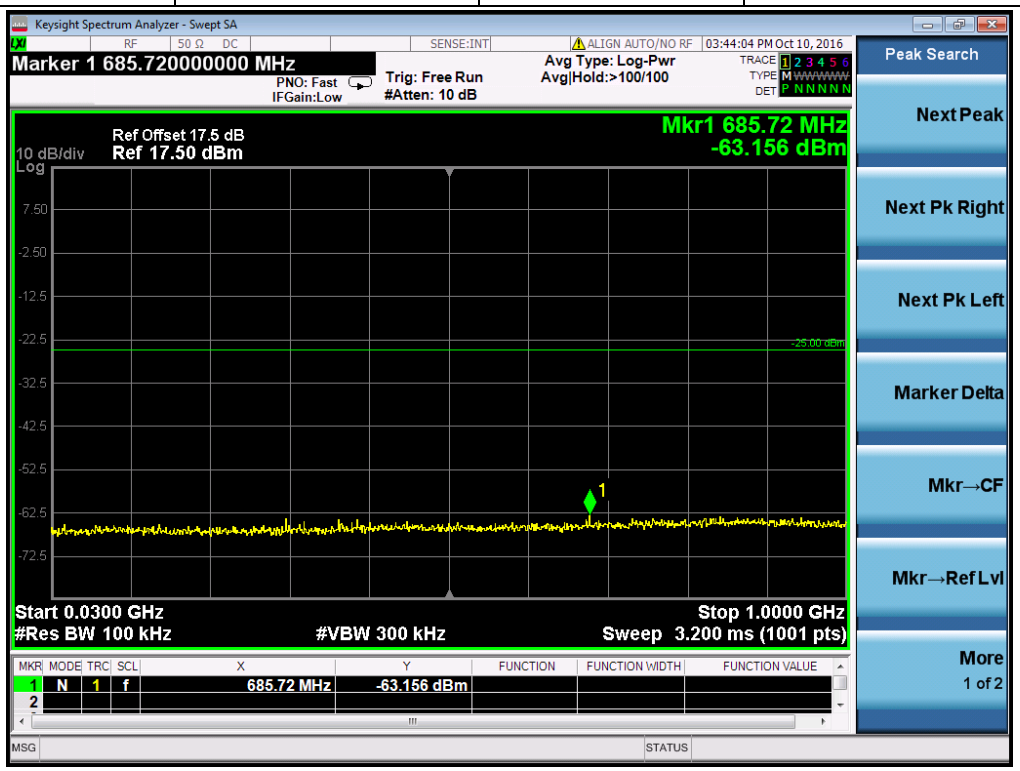


RB Size 1, RB Offset 0 30MHz to 1GHz

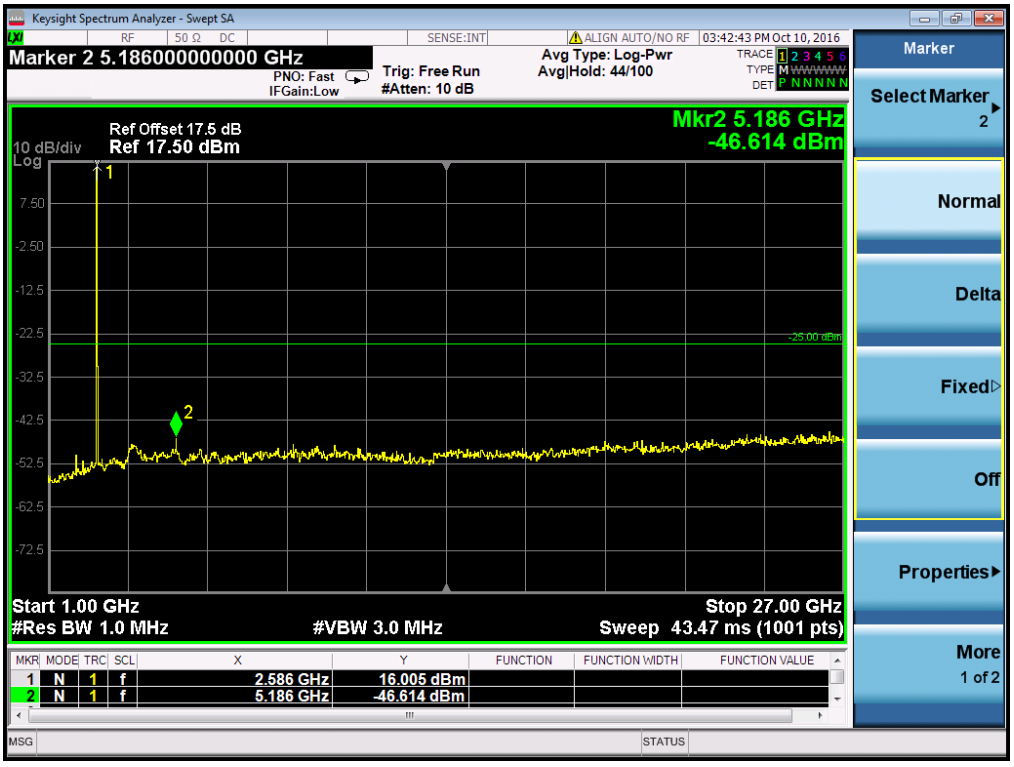


RB Size 1, RB Offset 0 1GHz to 26GHz

Band	LTE Band 41	Channel	Middle
Bandwidth	15MHz	Modulation	QPSK

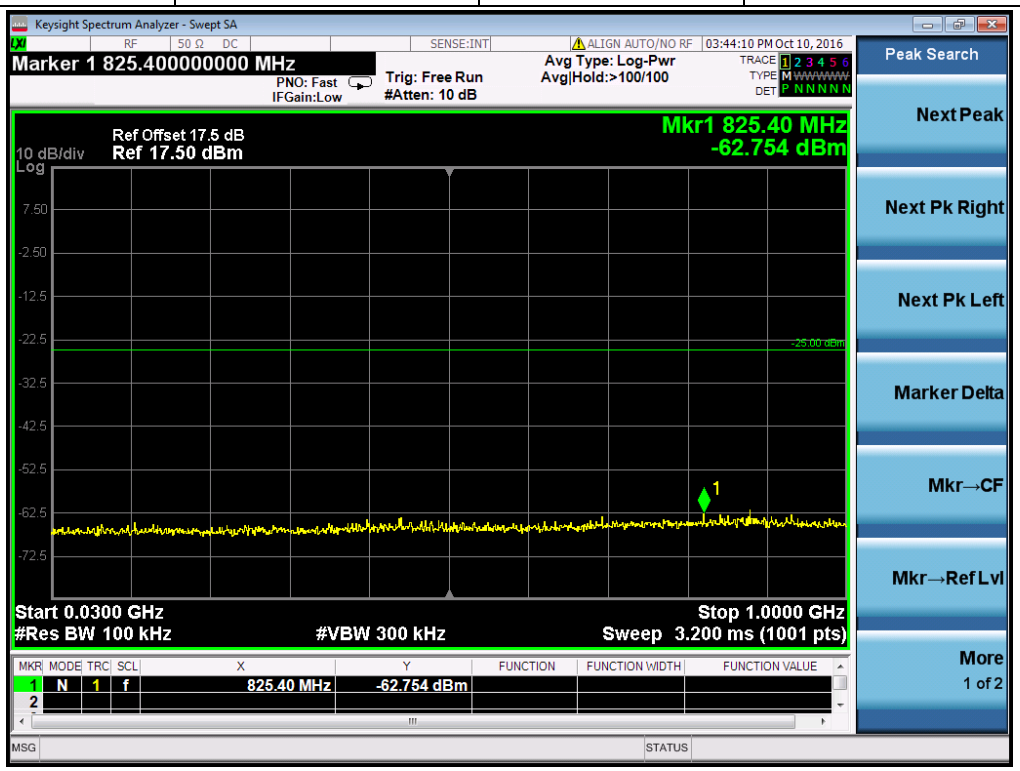


RB Size 1, RB Offset 0 30MHz to 1GHz

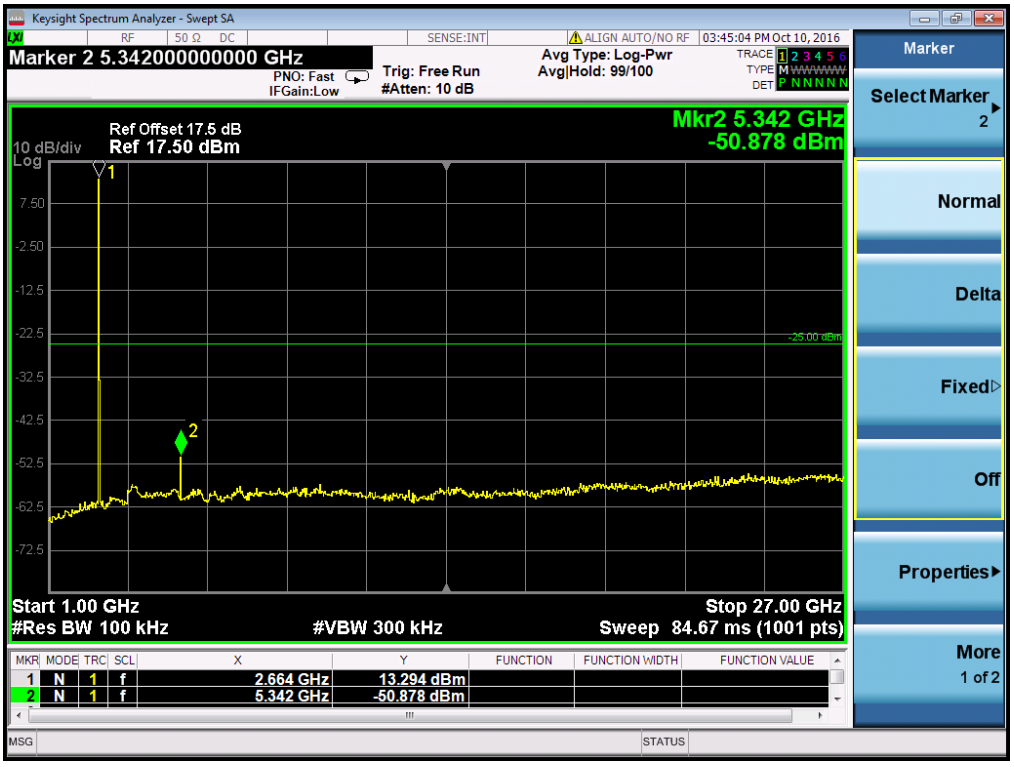


RB Size 1, RB Offset 0 1GHz to 26GHz

Band	LTE Band 41	Channel	High
Bandwidth	15MHz	Modulation	QPSK

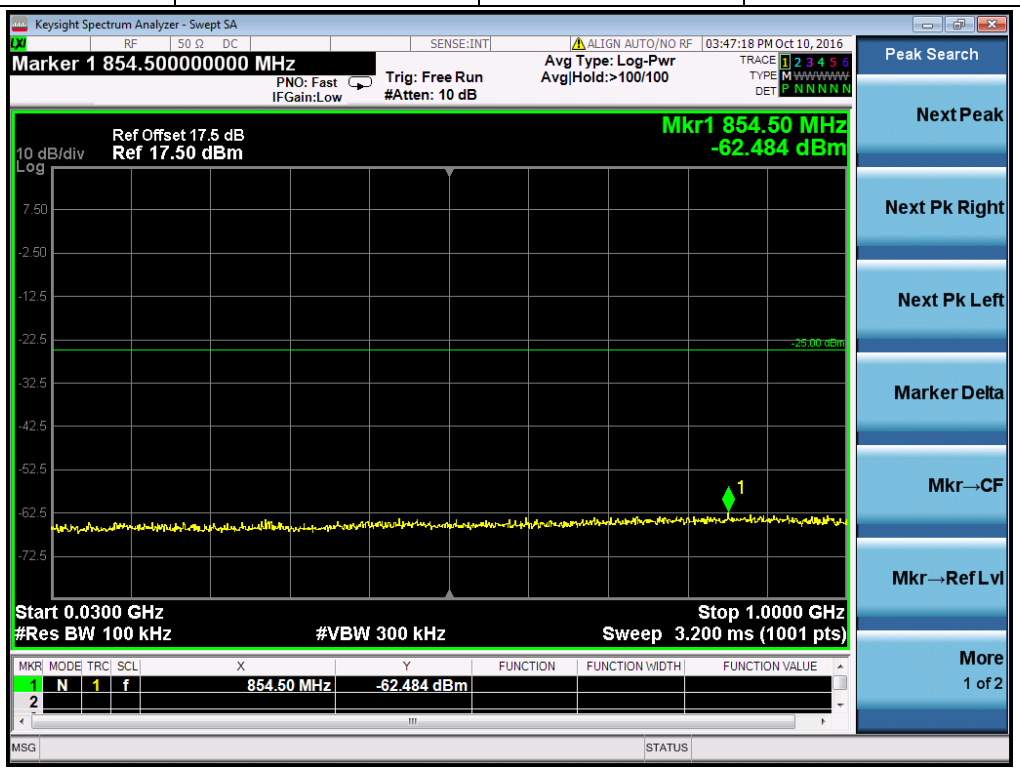


RB Size 1, RB Offset 0 30MHz to 1GHz

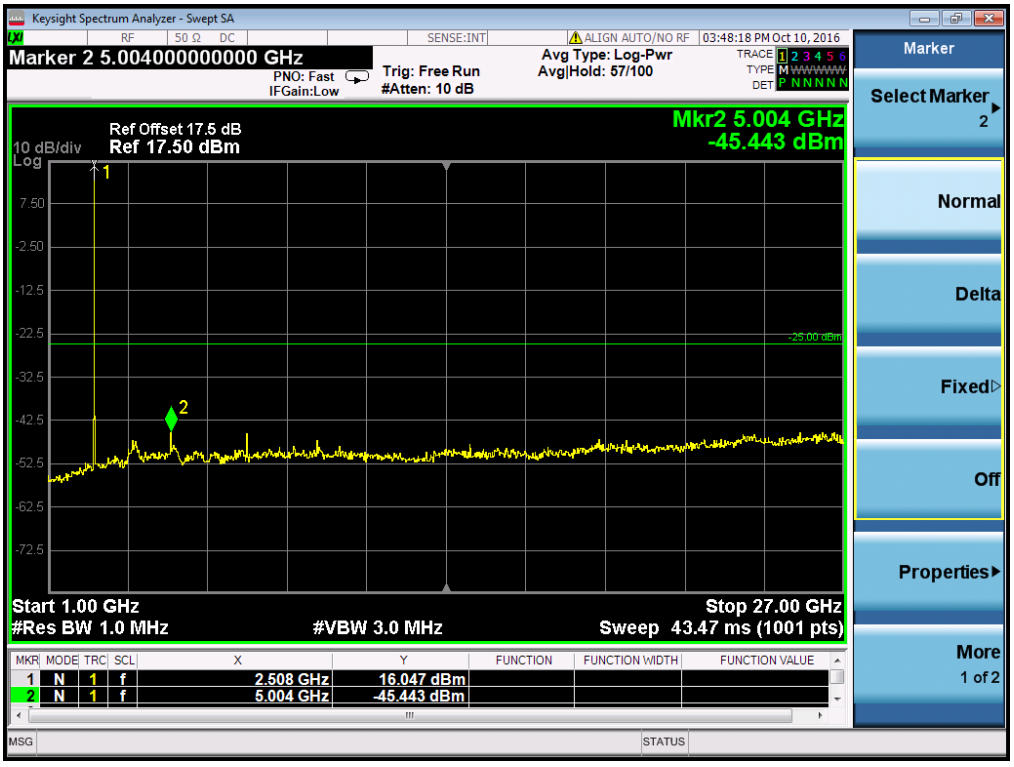


RB Size 1, RB Offset 0 1GHz to 26GHz

Band	LTE Band 41	Channel	Low
Bandwidth	20MHz	Modulation	QPSK

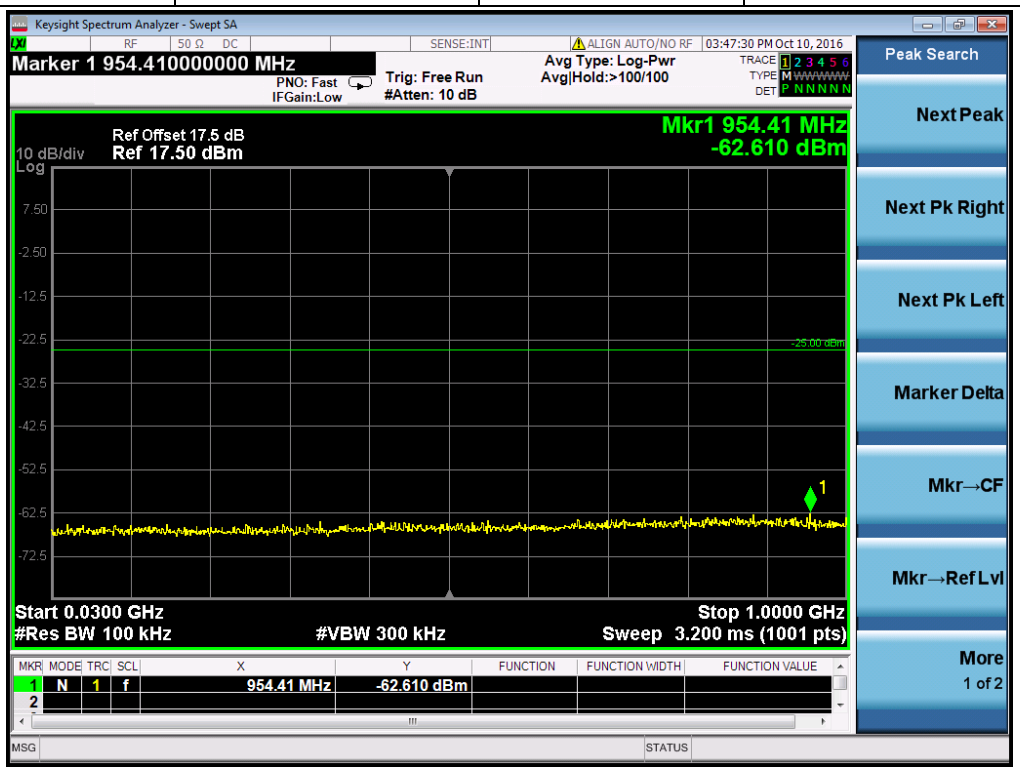


RB Size 1, RB Offset 0 30MHz to 1GHz

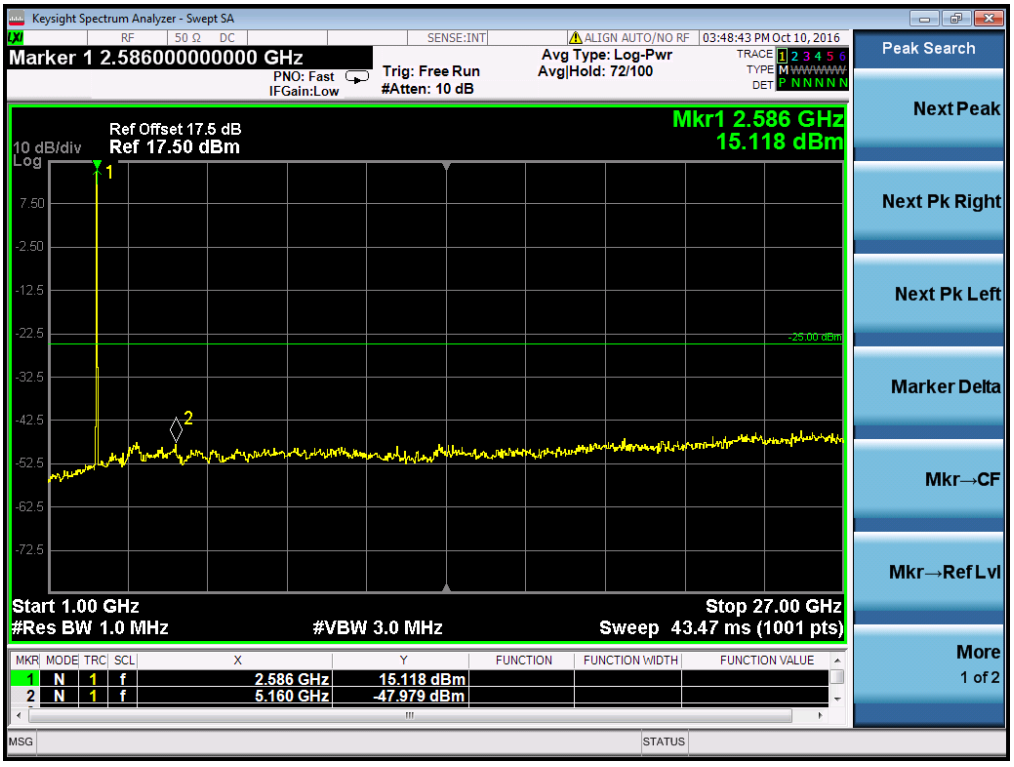


RB Size 1, RB Offset 0 1GHz to 26GHz

Band	LTE Band 41	Channel	Middle
Bandwidth	20MHz	Modulation	QPSK

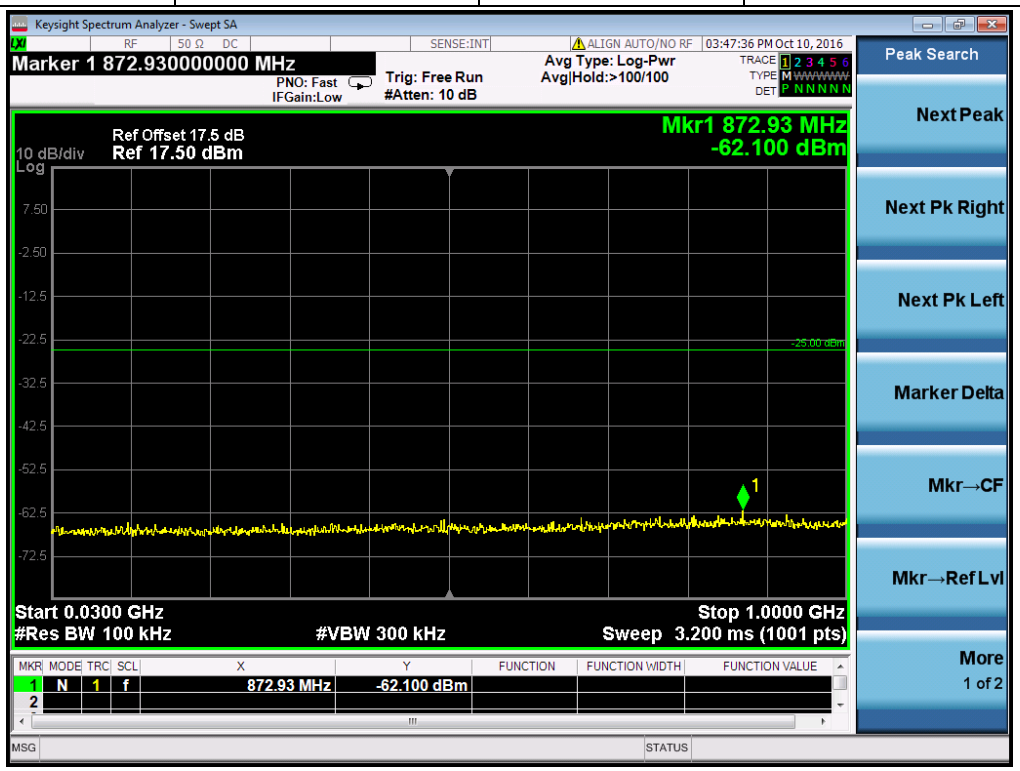


RB Size 1, RB Offset 0 30MHz to 1GHz

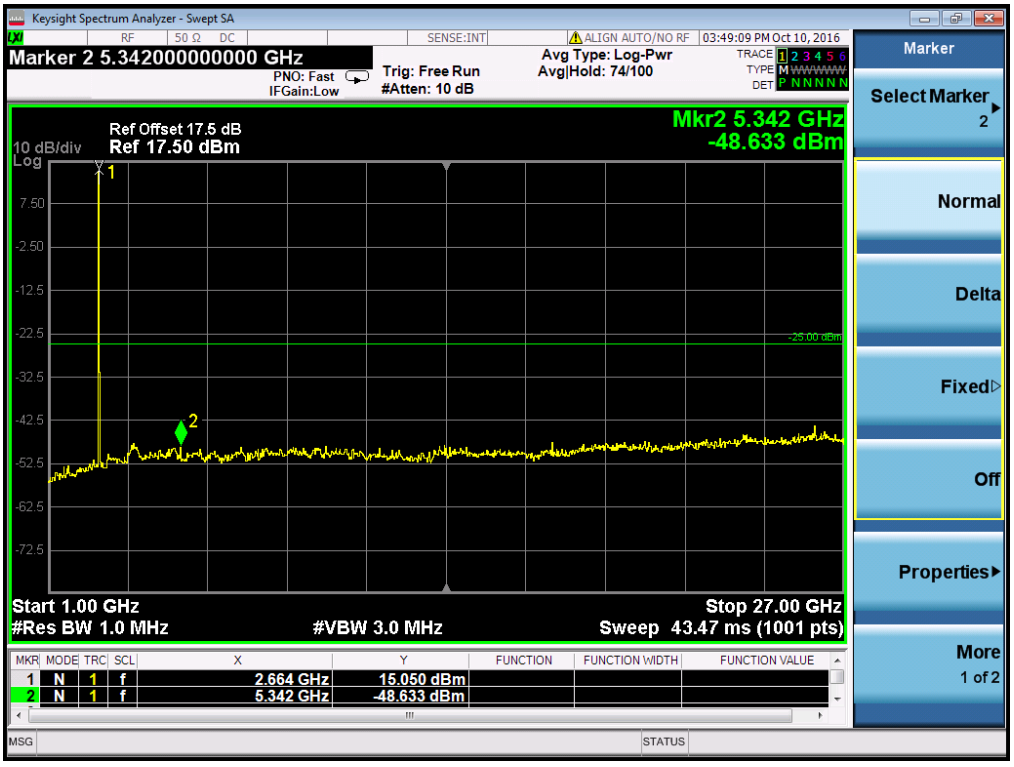


RB Size 1, RB Offset 0 1GHz to 26GHz

Band	LTE Band 41	Channel	High
Bandwidth	20MHz	Modulation	QPSK



RB Size 1, RB Offset 0 30MHz to 1GHz



RB Size 1, RB Offset 0 1GHz to 26GHz

2.6 Conducted Band Edge

2.6.1 Description of Conducted Band Edge Measurement

22.917(a) for Band 5

For operations in the 824 - 849 MHz band, the FCC limit is 43 + 10log10(P[Watts]) dB below the transmitter power P(Watts) in a 100 kHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

27.53(g) for Band 17

For operations in the 698 - 746 MHz band, the FCC limit is 43 + 10log10(P[Watts]) dB below the transmitter power P(Watts) in a 100 kHz bandwidth. However, in the 100 kHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

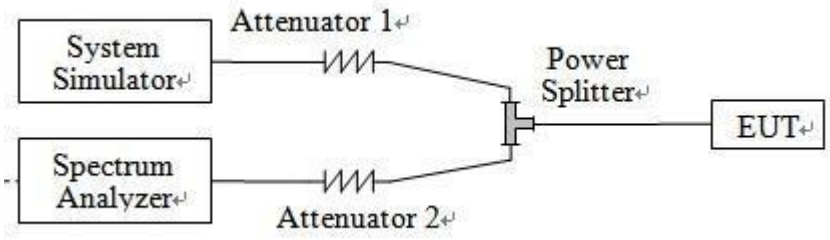
27.53 (m)(4) for Band 41

For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

2.6.2 Measuring Instruments

The measuring equipment is listed in the section 3 of this test report.

2.6.3 Test Setup



2.6.4 Test Procedures

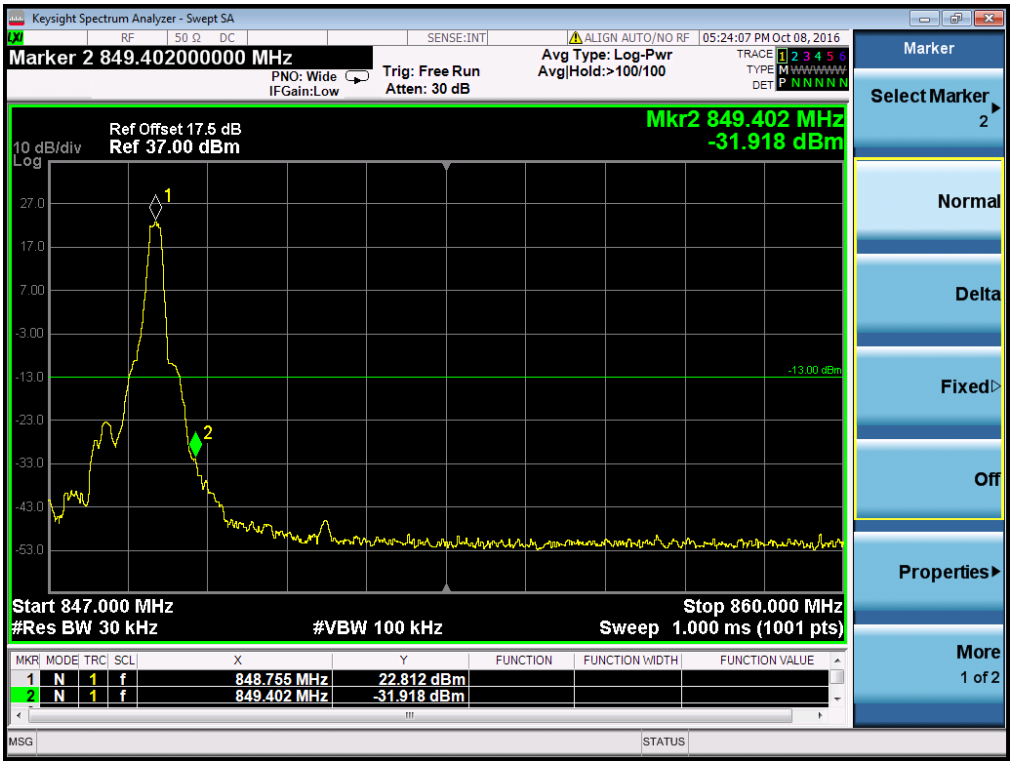
1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The band edges of low and high channels for the highest RF powers were measured. Set RBW>= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
3. Set spectrum analyzer with RMS detector.
4. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
5. The limit line is derived from 43 + 10log (P)dB below the transmitter power P(Watts)
   = P(W)- [43 + 10log(P)] (dB)
   = [30 + 10log (P)] (dBm) - [43 + 10log (P)] (dB)
   = -13dBm.
   <For Band 41>
   The limit line is derived from 55+ 10log (P)dB below the transmitter power P(Watts)
   = P(W)- [55 + 10log(P)] (dB)
   = [30 + 10log (P)] (dBm) - [55 + 10log (P)] (dB)
   = -25dBm.

2.6.5 Test Result of Conducted Band Edge

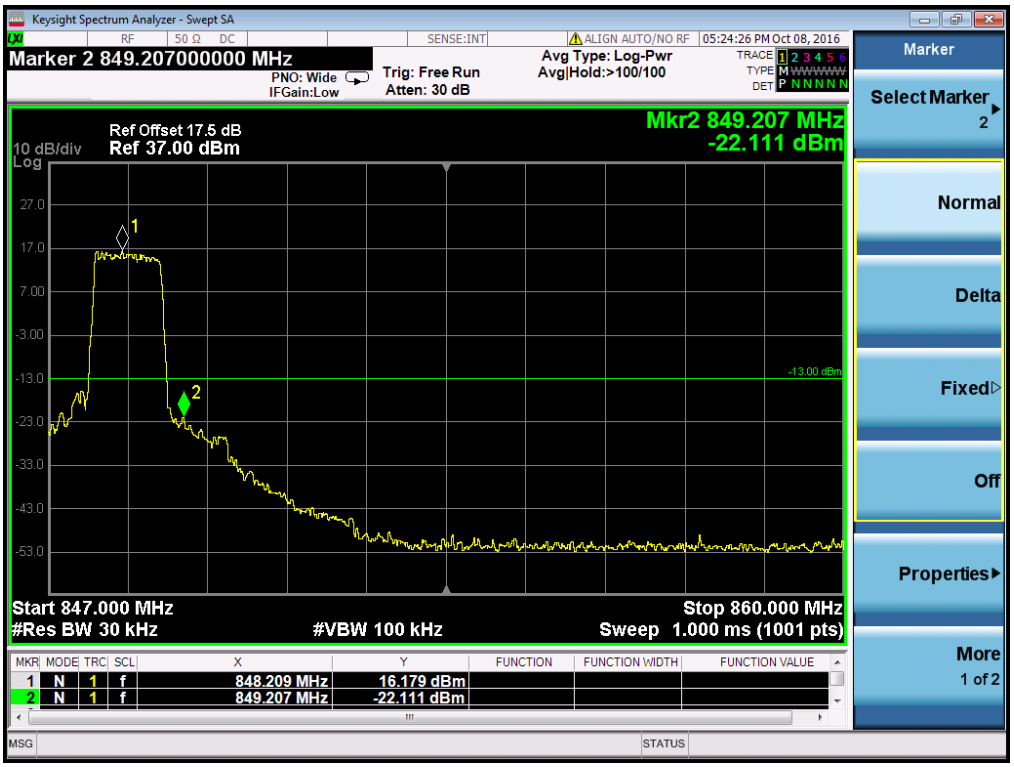
Band	LTE Band 5	Modulation	QPSK
Bandwidth	1.4MHz		

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0

Lower Band Edge Plot for 16QAM -RB Size 6, RB Offset 0

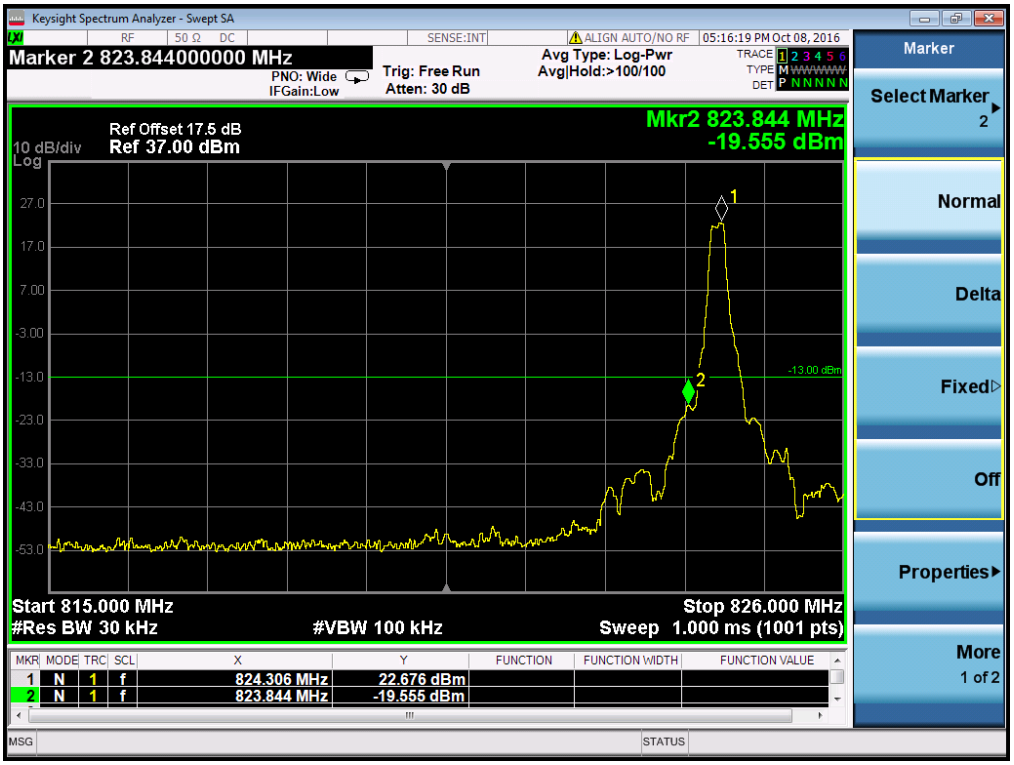


Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 5



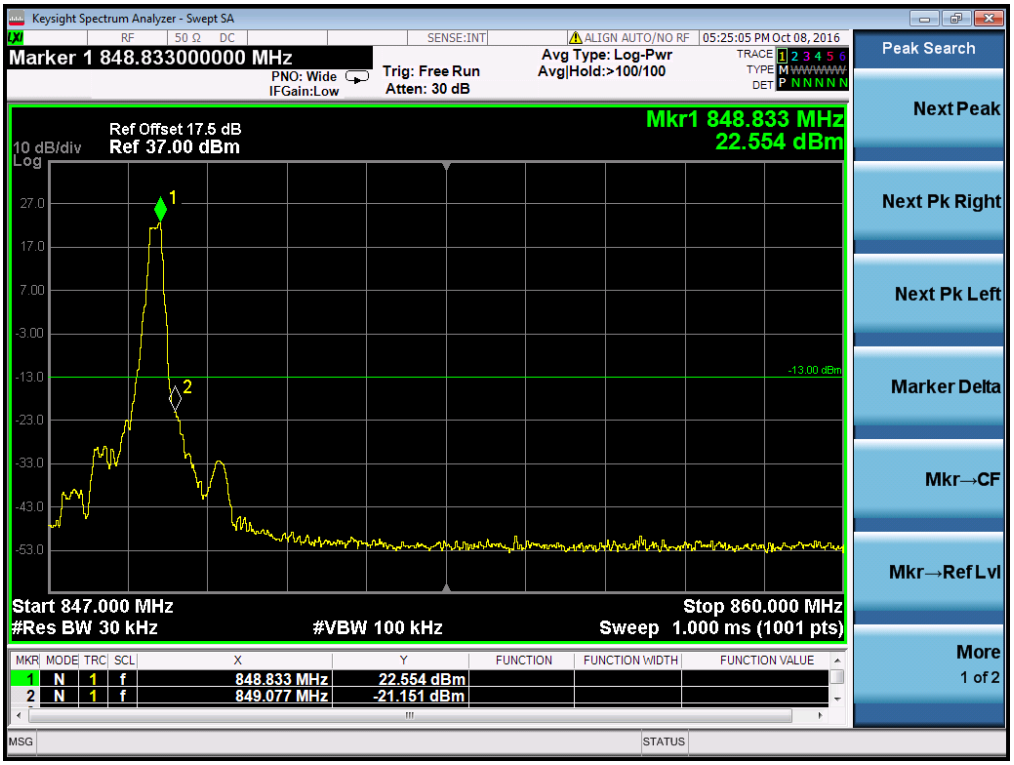
Higher Band Edge Plot for 16QAM -RB Size 6, RB Offset 0

Band	LTE Band 5	Modulation	16QAM
Bandwidth	1.4MHz		



Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0

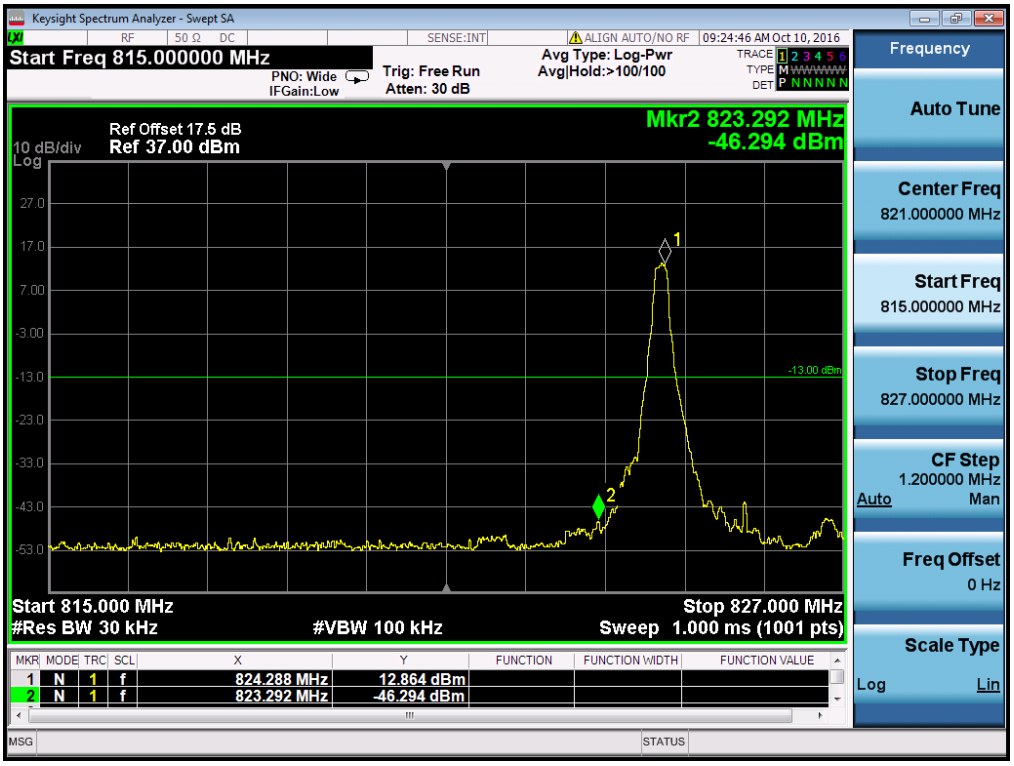
Lower Band Edge Plot for 16QAM -RB Size 6, RB Offset 0



Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 5

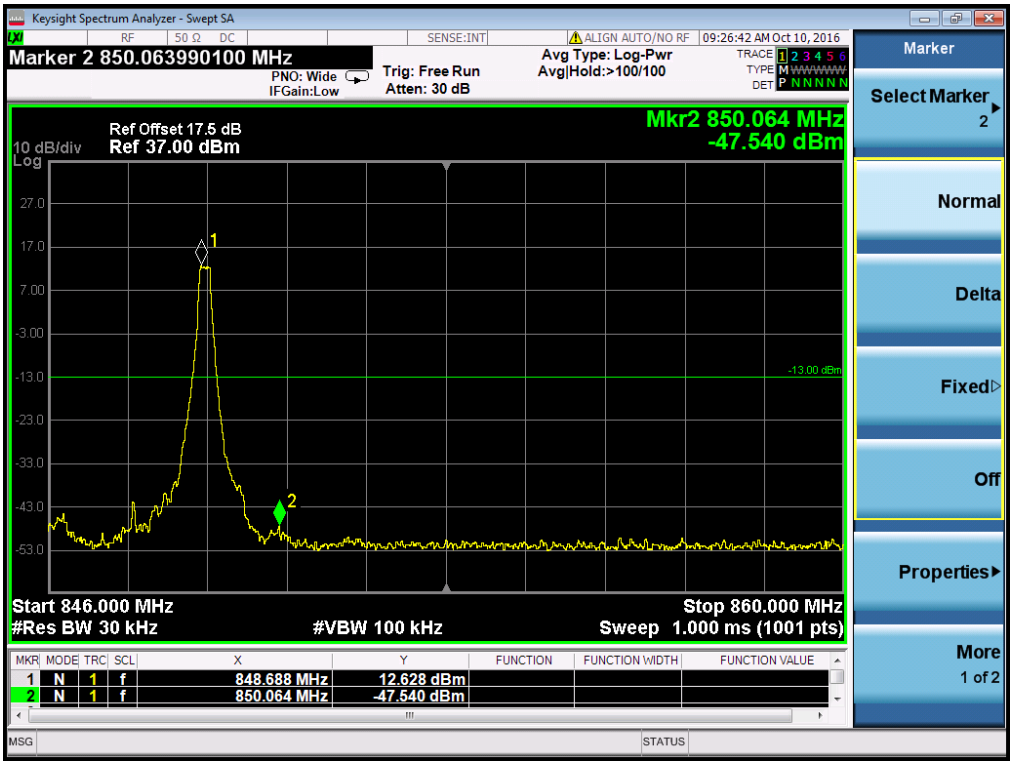
Higher Band Edge Plot for 16QAM -RB Size 6, RB Offset 0

Band	LTE Band 5	Modulation	QPSK
Bandwidth	3MHz		



Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0

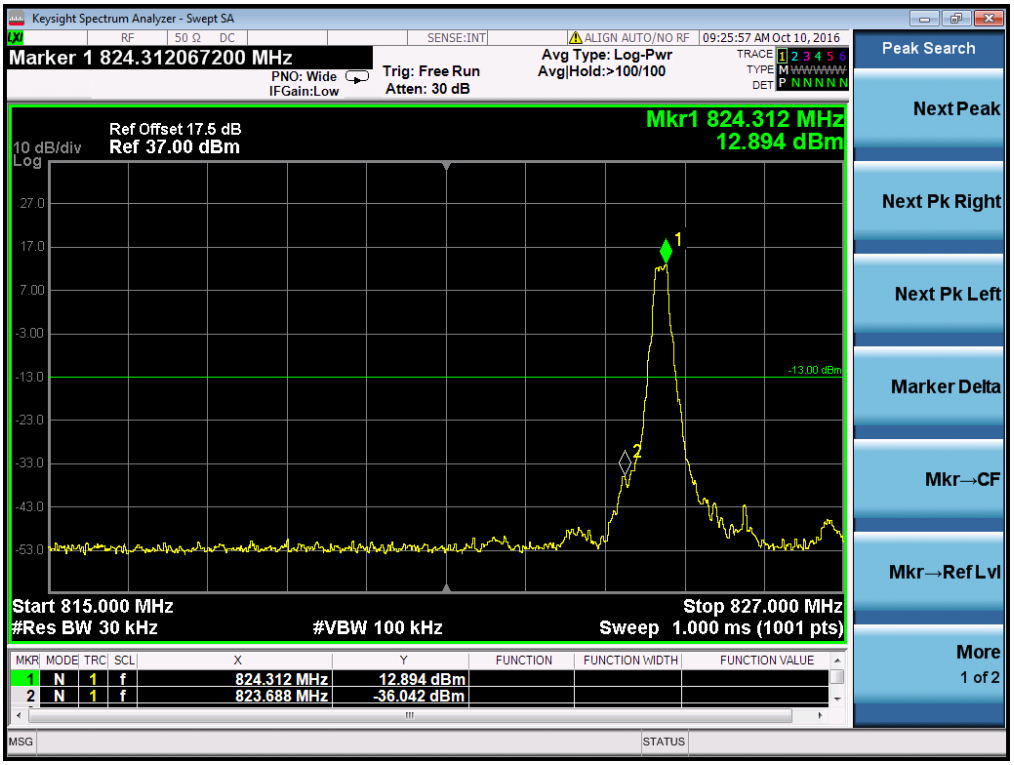
Lower Band Edge Plot for QPSK-RB Size 15, RB Offset 0



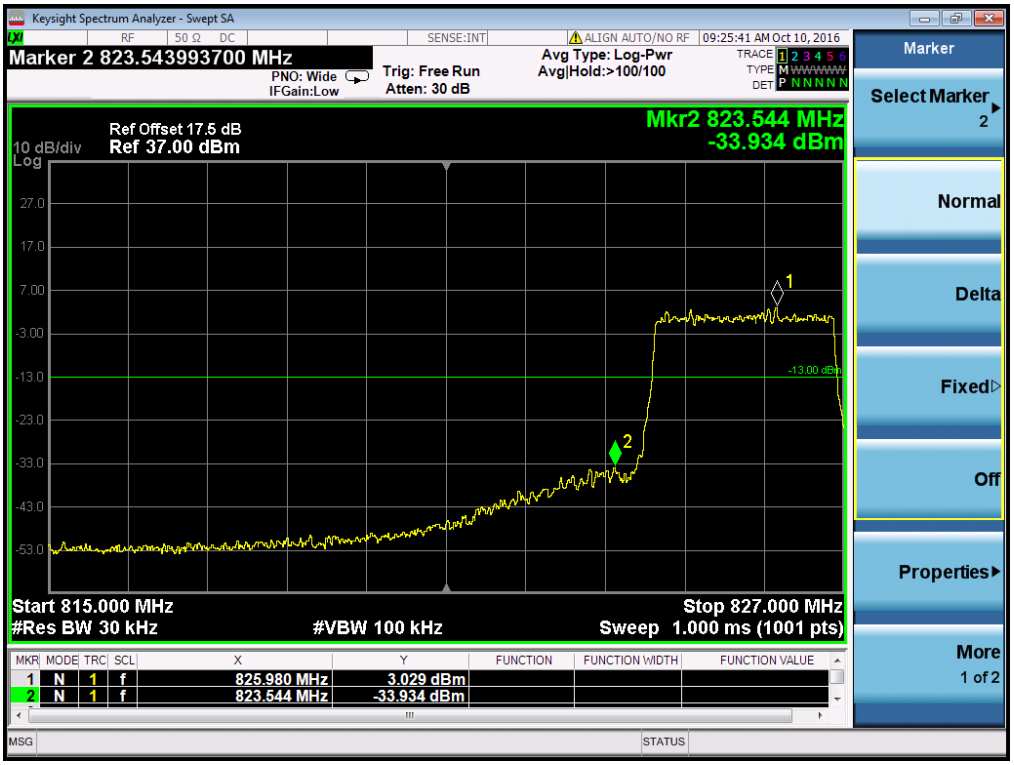
Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 14

Higher Band Edge Plot for QPSK-RB Size 15, RB Offset 0

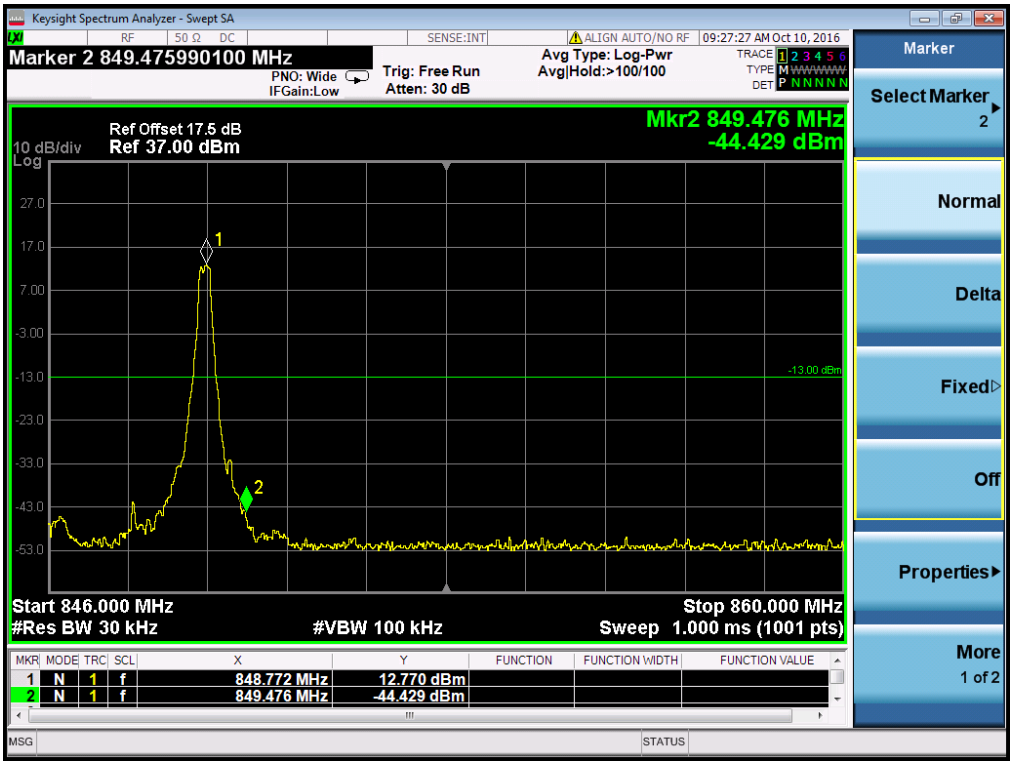
Band	LTE Band 5	Modulation	16QAM
Bandwidth	3MHz		



Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



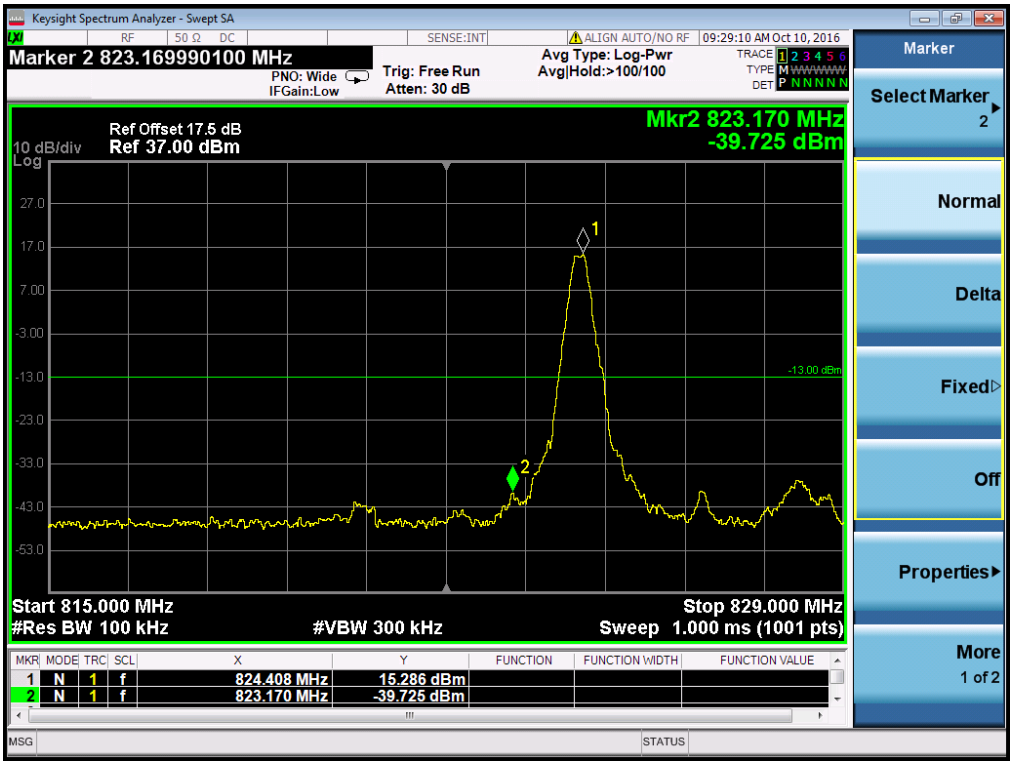
Lower Band Edge Plot for 16QAM -RB Size 15, RB Offset 0



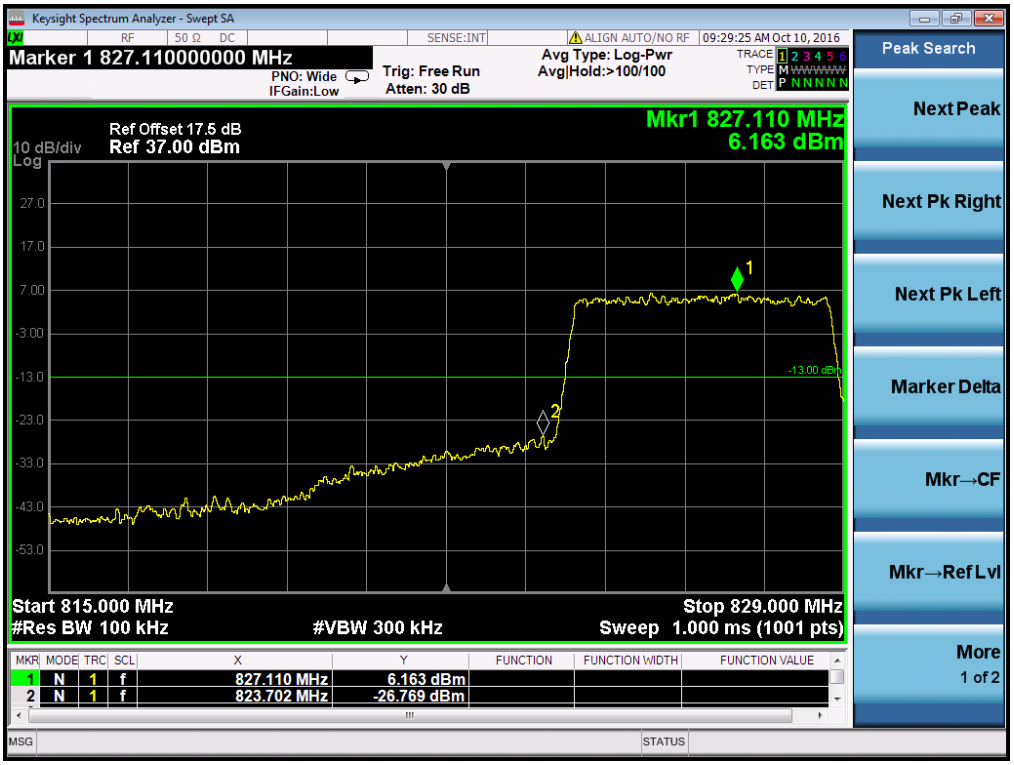
Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 14

Higher Band Edge Plot for 16QAM -RB Size 15, RB Offset 0

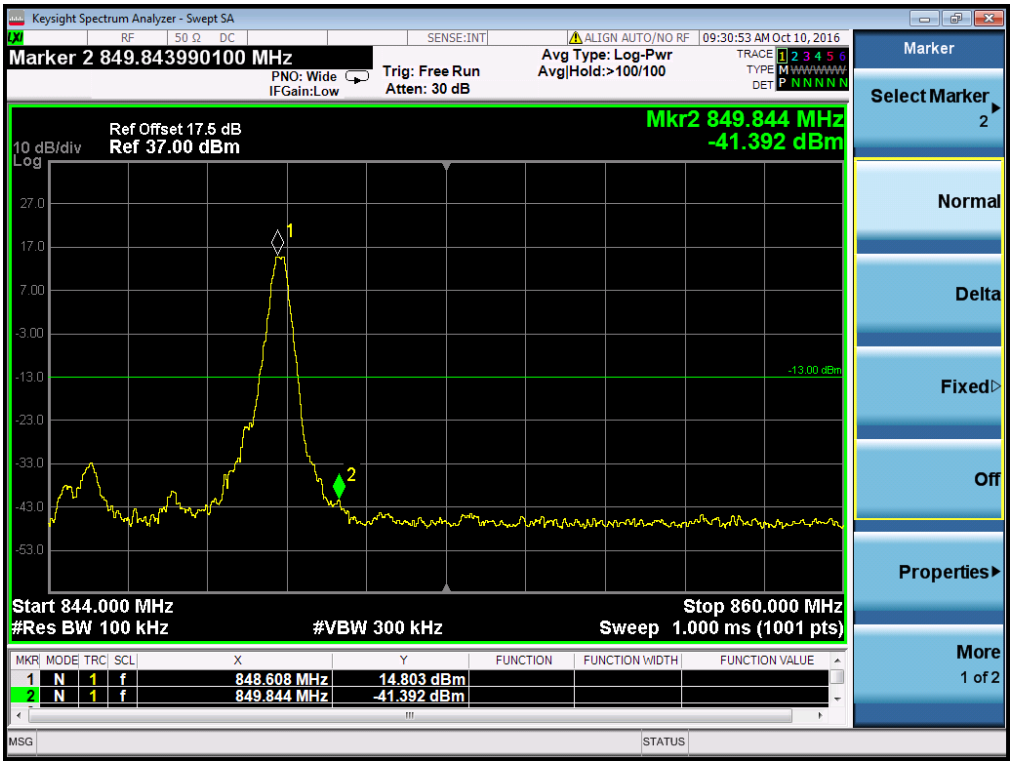
Band	LTE Band 5	Modulation	QPSK
Bandwidth	5MHz		



Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



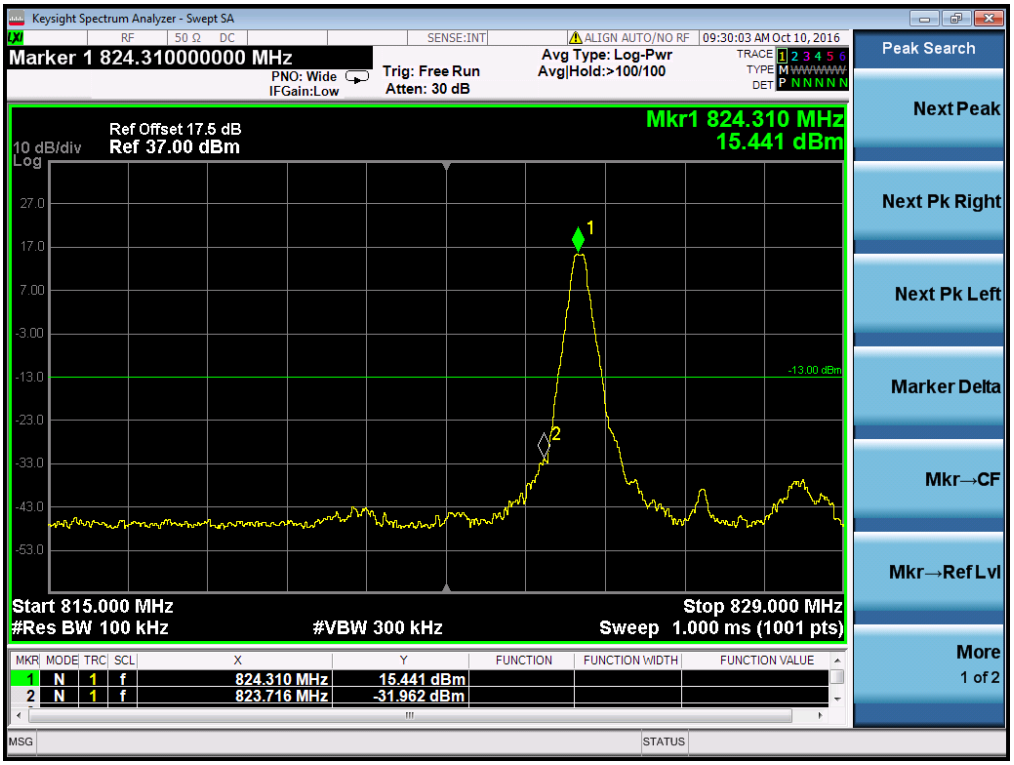
Lower Band Edge Plot for QPSK-RB Size 25, RB Offset 0



Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 24

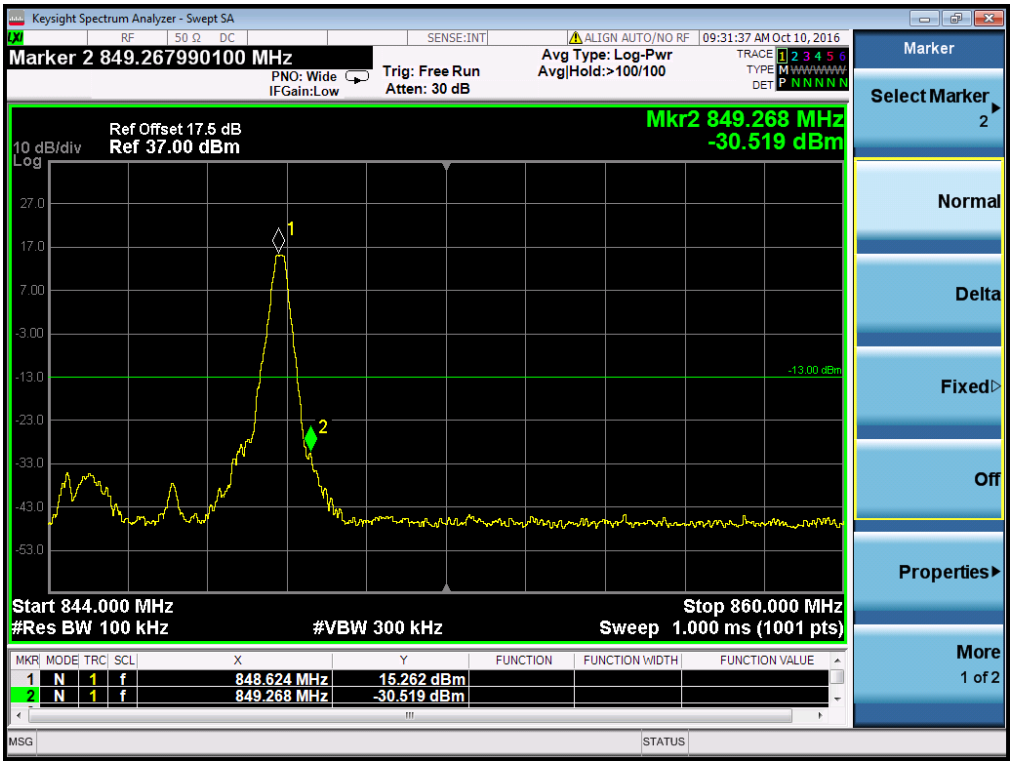
Higher Band Edge Plot for QPSK-RB Size 25, RB Offset 0

Band	LTE Band 5	Modulation	16QAM
Bandwidth	5MHz		



Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0

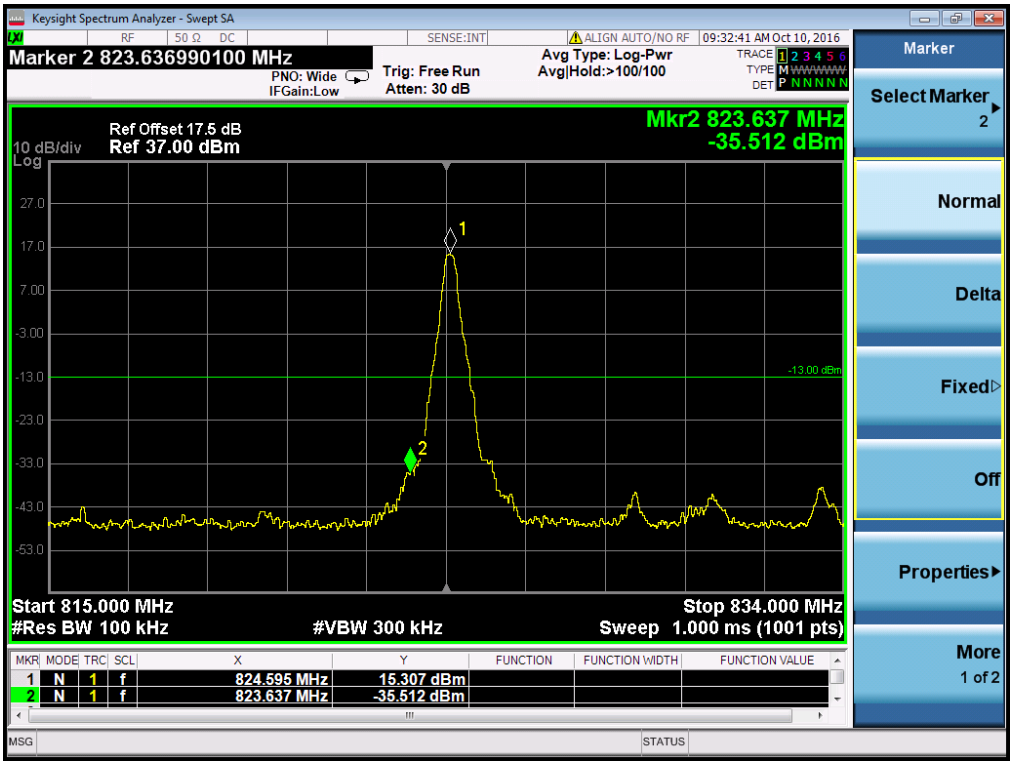
Lower Band Edge Plot for 16QAM -RB Size 25, RB Offset 0



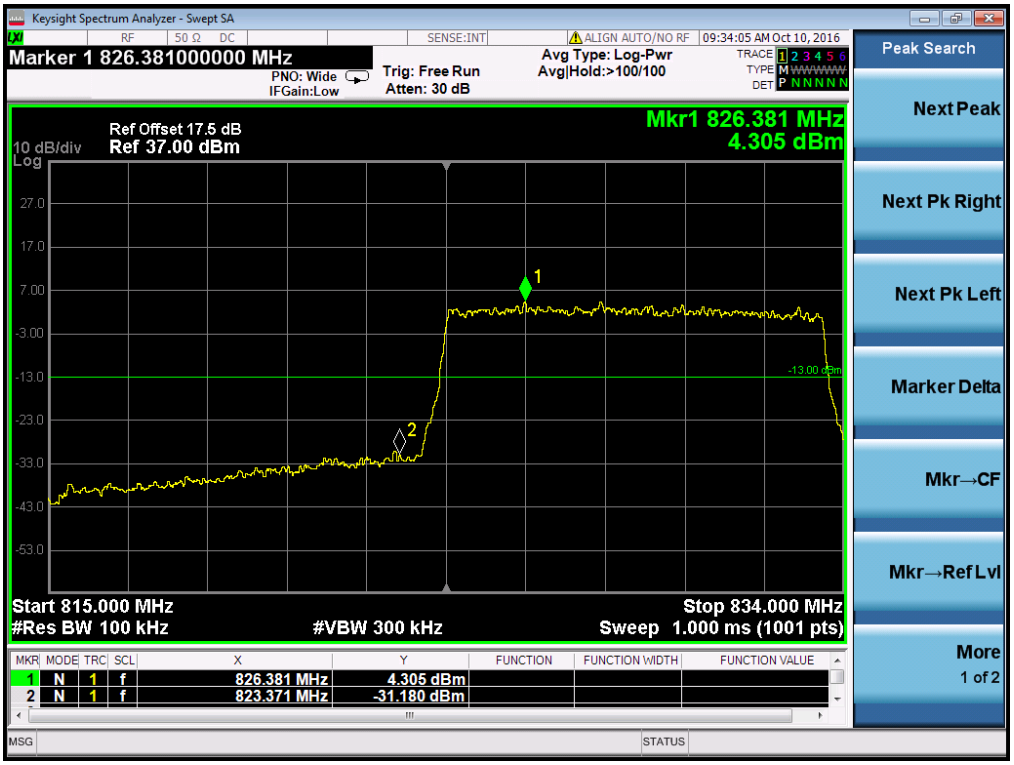
Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 24

Higher Band Edge Plot for 16QAM -RB Size 25, RB Offset 0

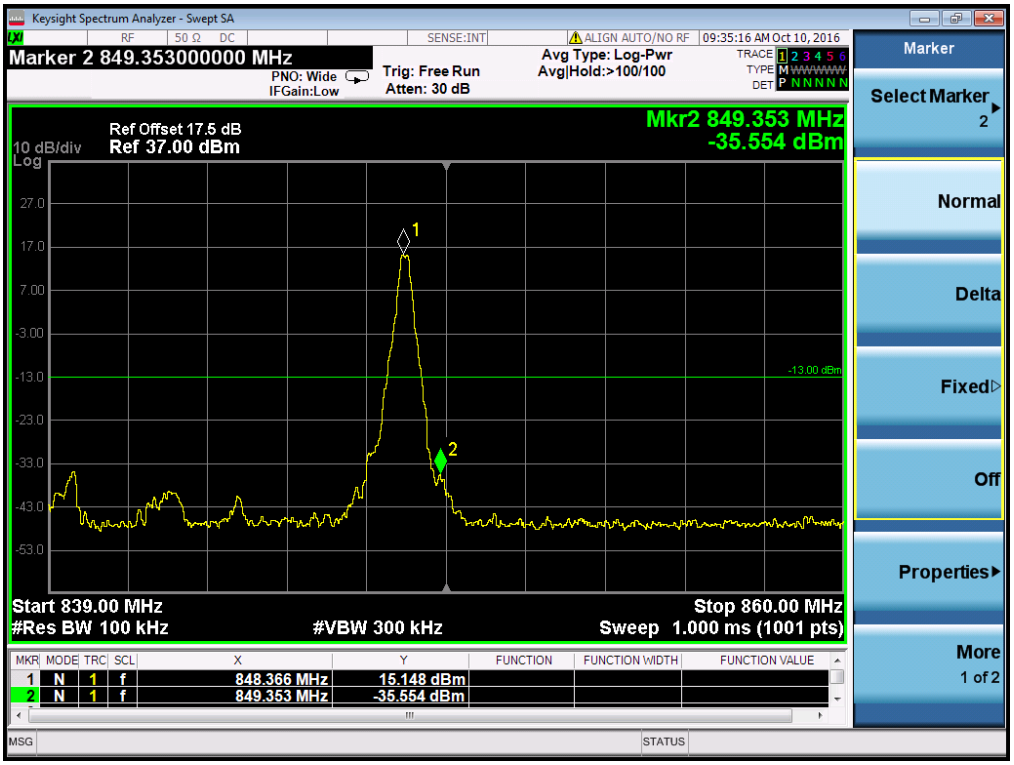
Band	LTE Band 5	Modulation	QPSK
Bandwidth	10MHz		



Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



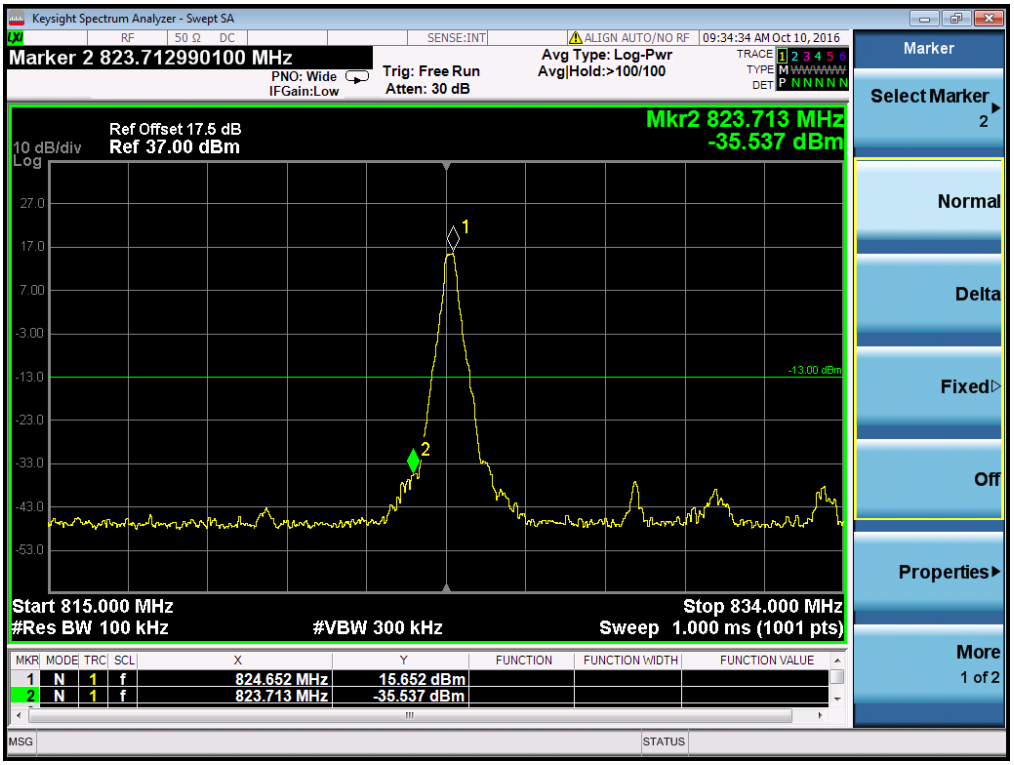
Lower Band Edge Plot for QPSK-RB Size 50, RB Offset 0



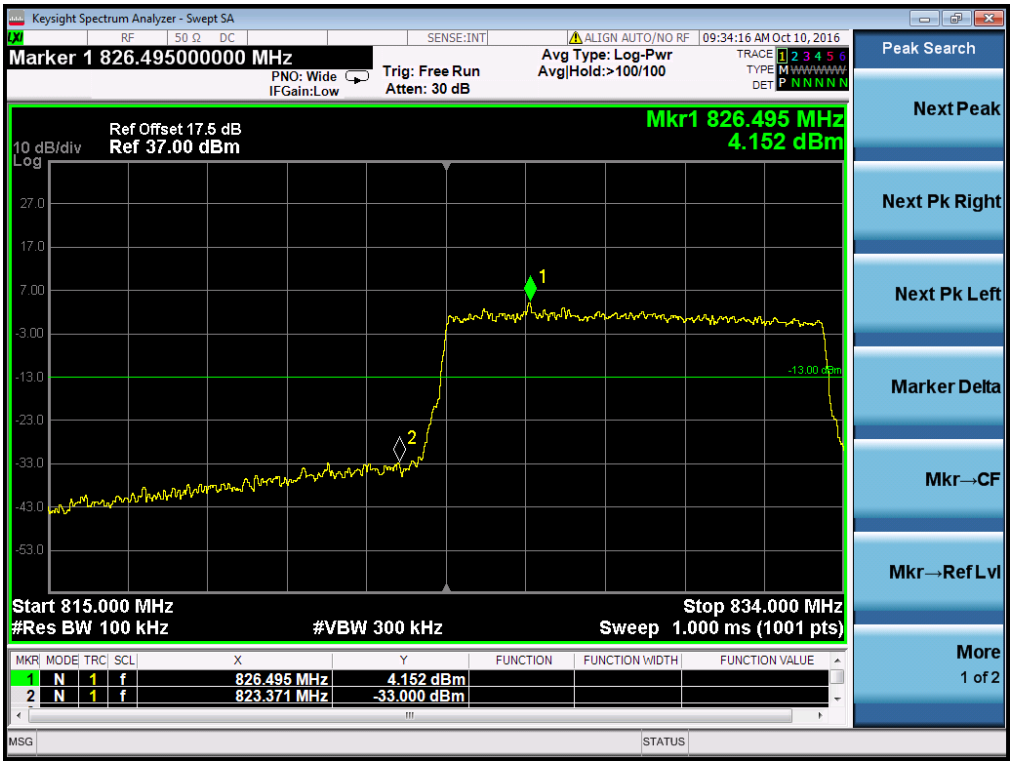
Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 49

Higher Band Edge Plot for QPSK-RB Size 50, RB Offset 0

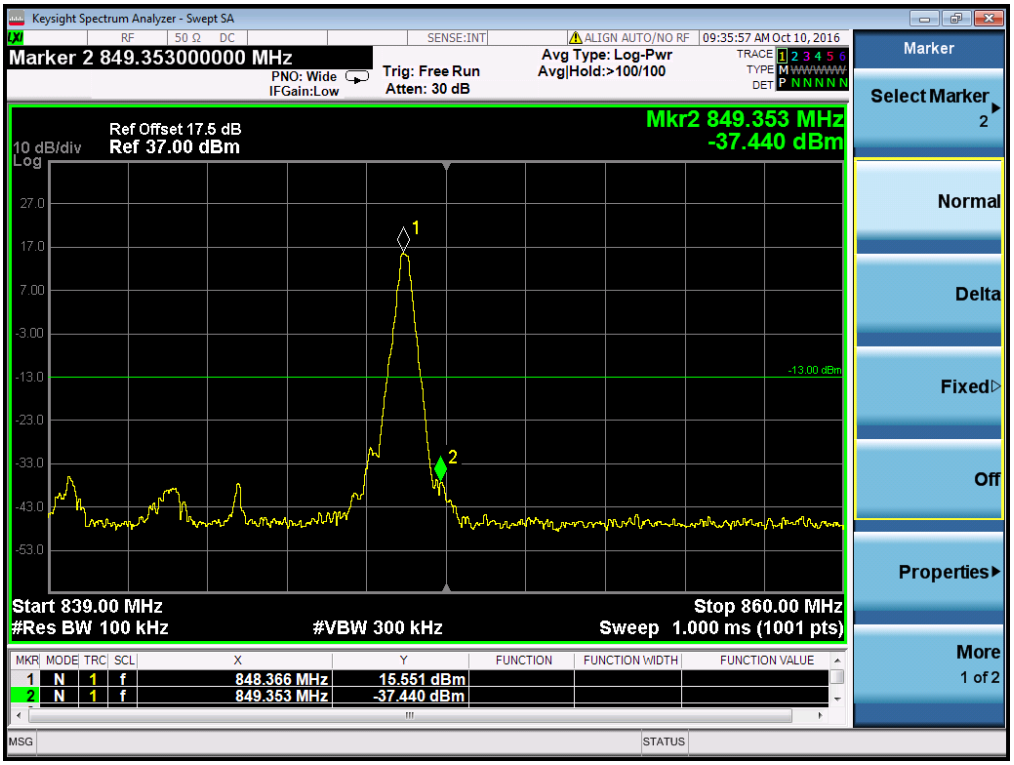
Band	LTE Band 5	Modulation	16QAM
Bandwidth	10MHz		



Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



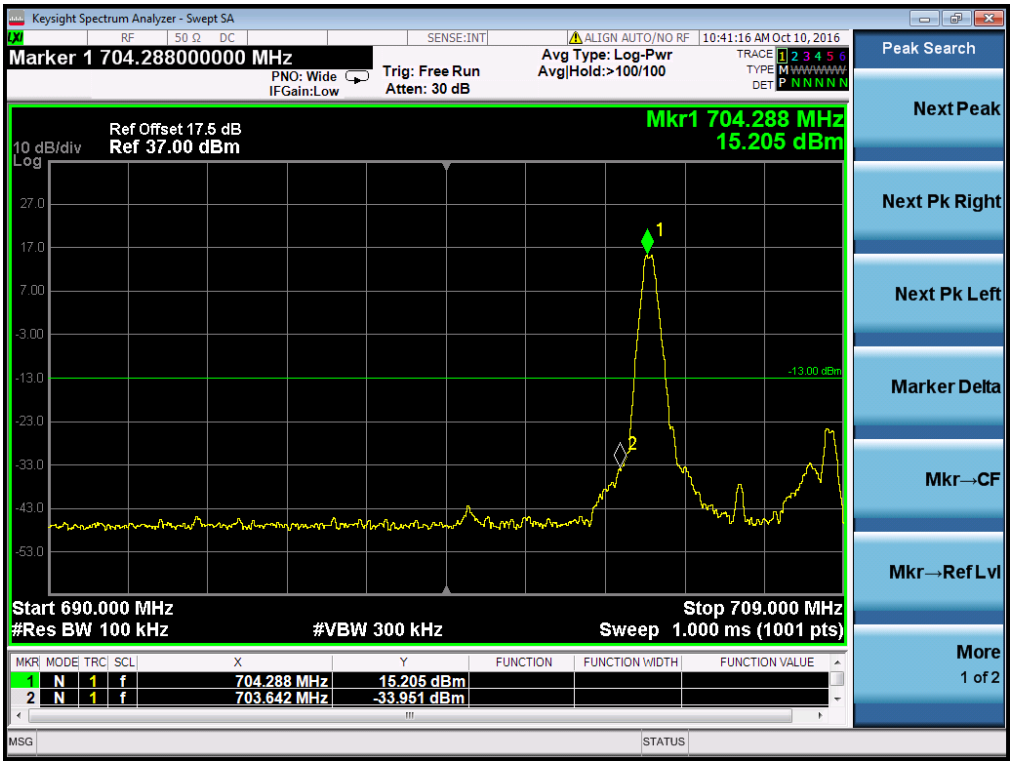
Lower Band Edge Plot for 16QAM -RB Size 50, RB Offset 0



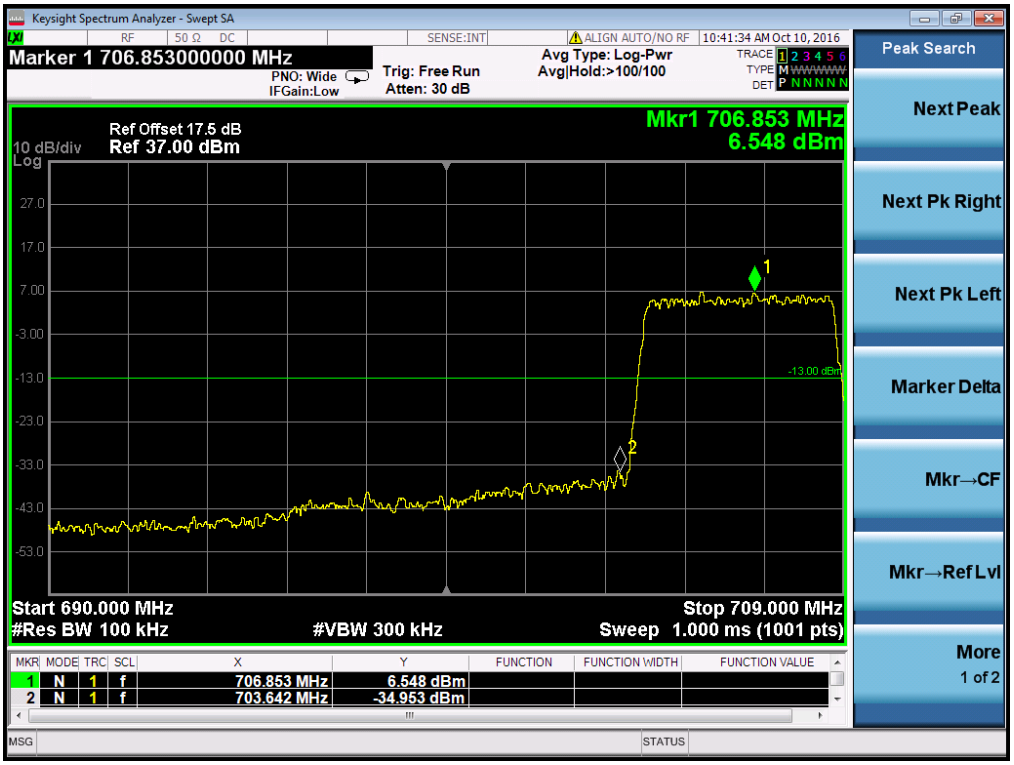
Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 49

Higher Band Edge Plot for 16QAM -RB Size 50, RB Offset 0

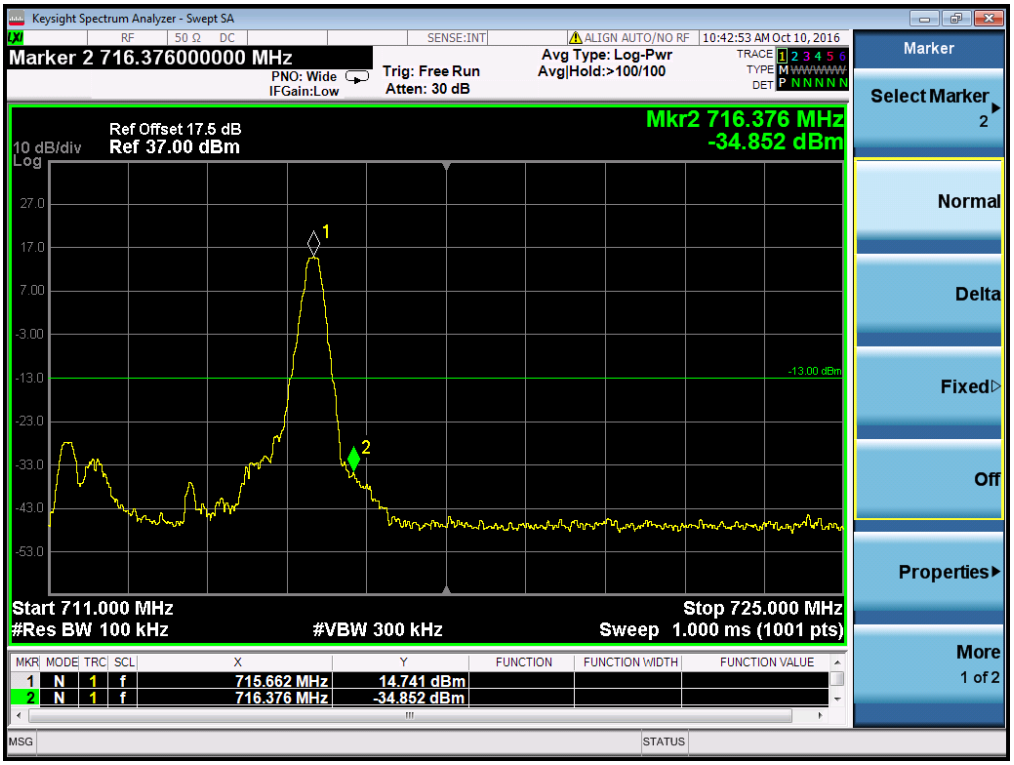
Band	LTE Band 17	Modulation	QPSK
Bandwidth	5MHz		



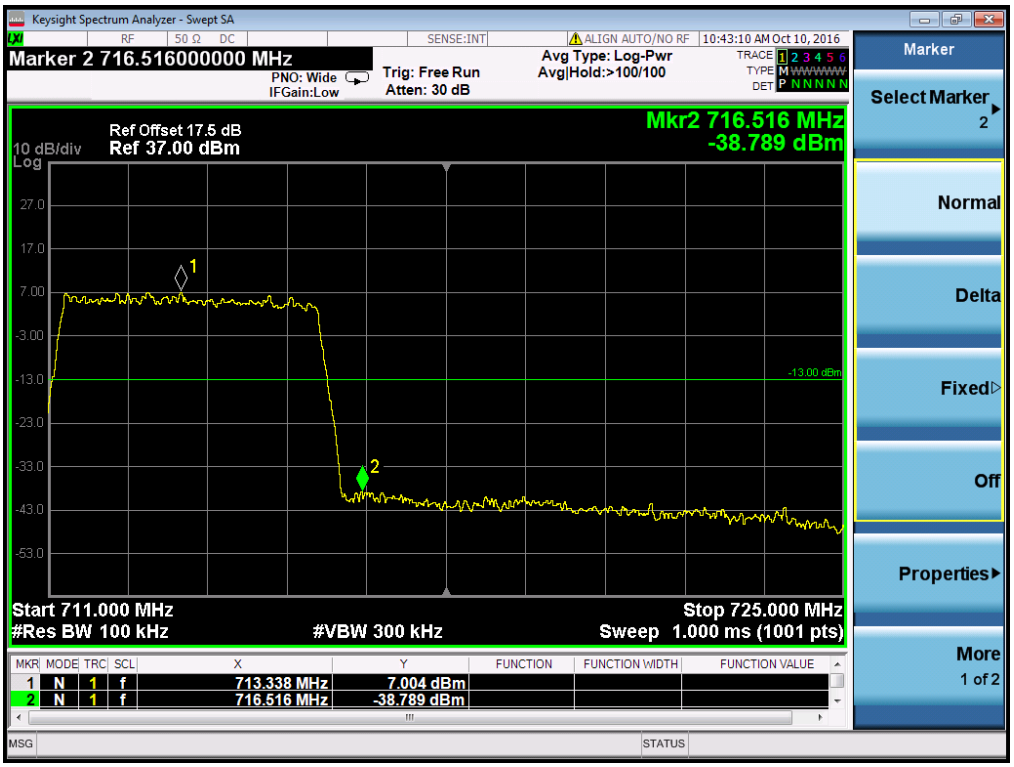
Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Lower Band Edge Plot for QPSK-RB Size 25, RB Offset 0

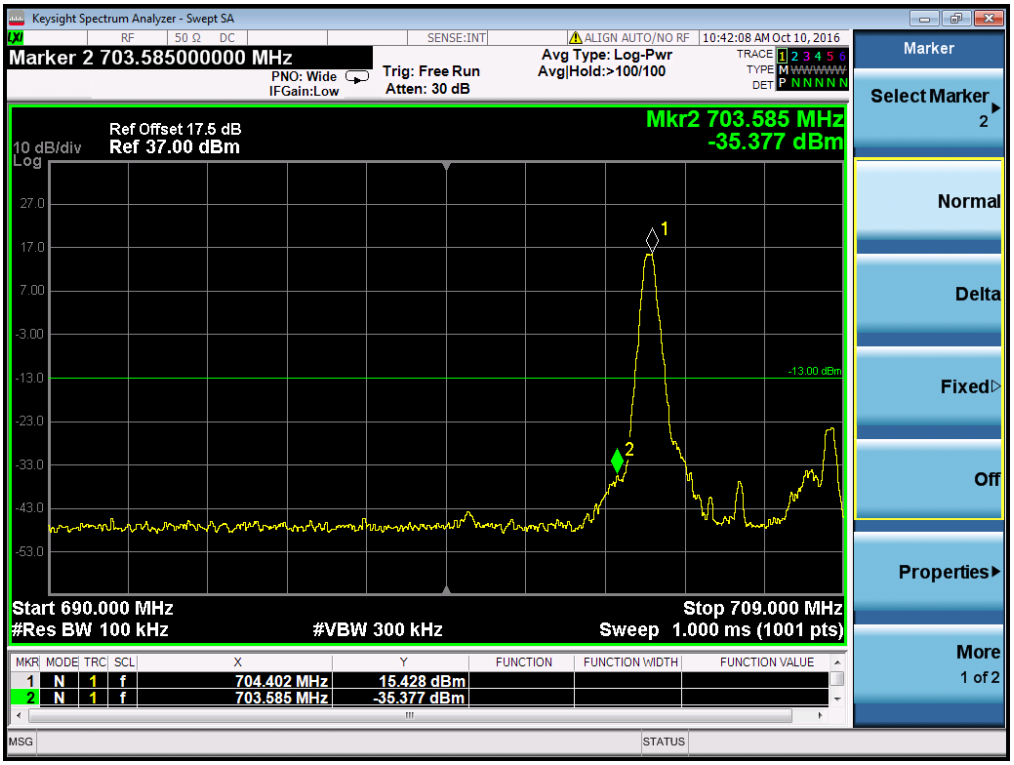


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 24

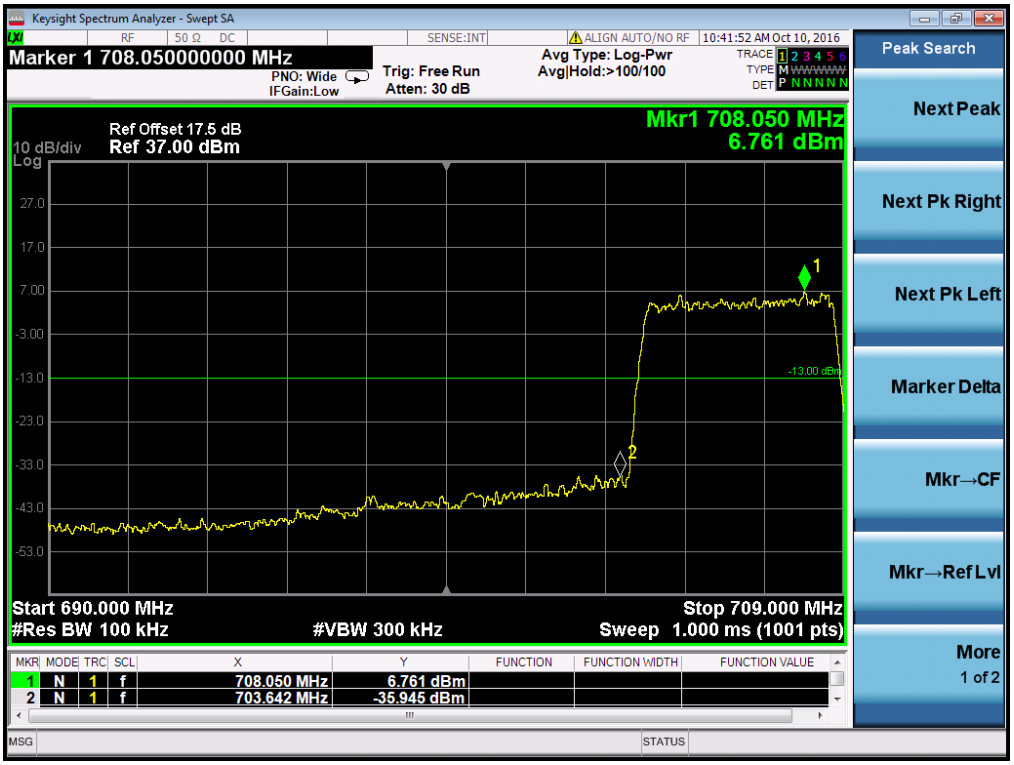


Higher Band Edge Plot for QPSK-RB Size 25, RB Offset 0

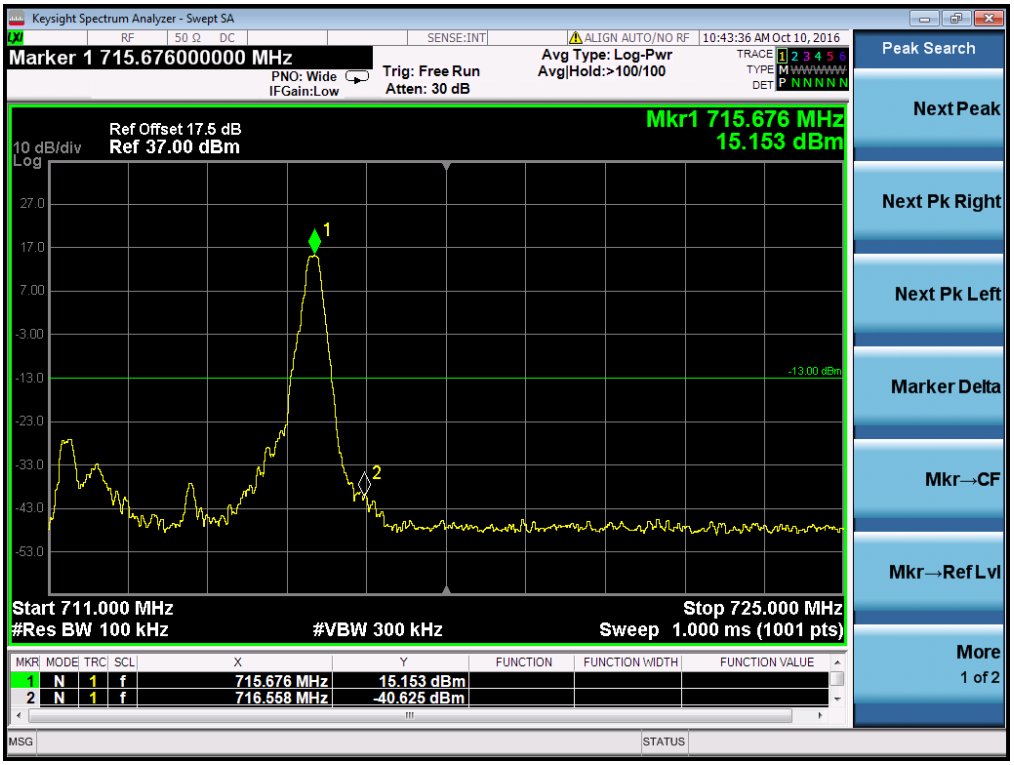
Band	LTE Band 17	Modulation	16QAM
Bandwidth	5MHz		



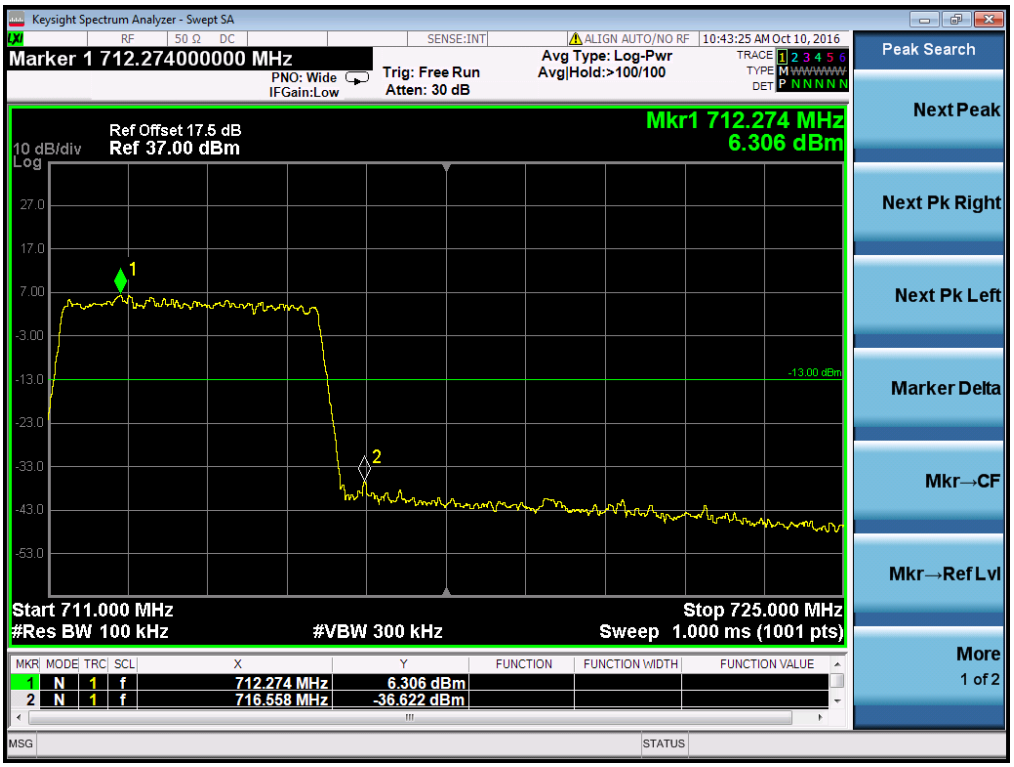
Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Lower Band Edge Plot for 16QAM -RB Size 25, RB Offset 0

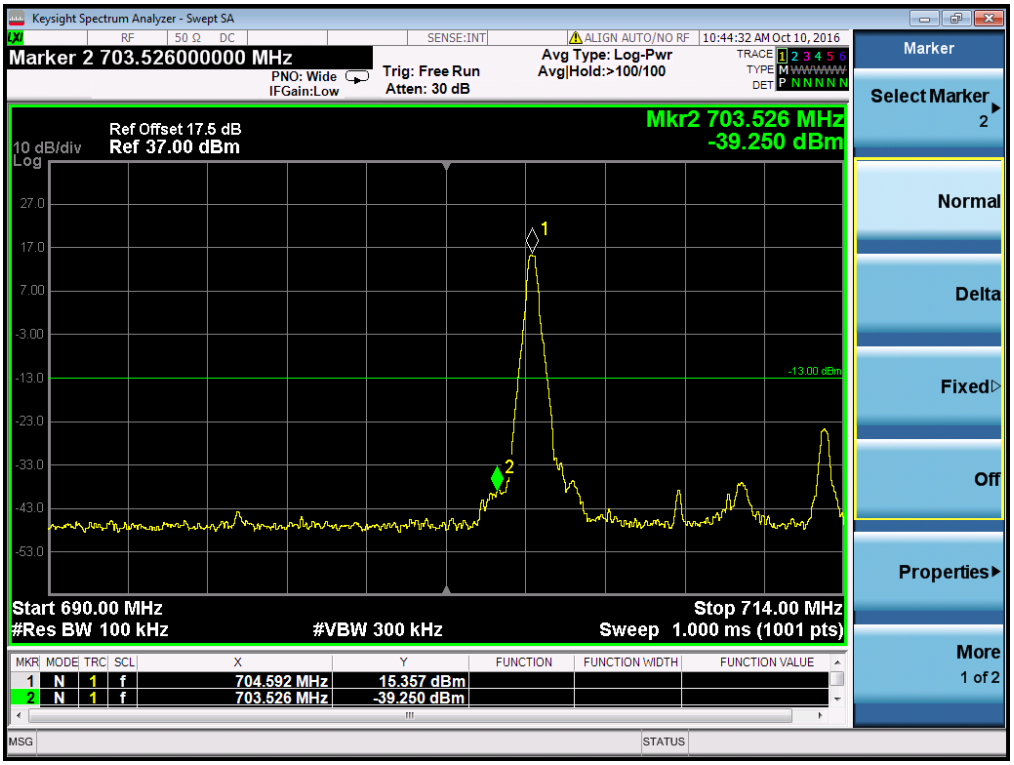


Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 24

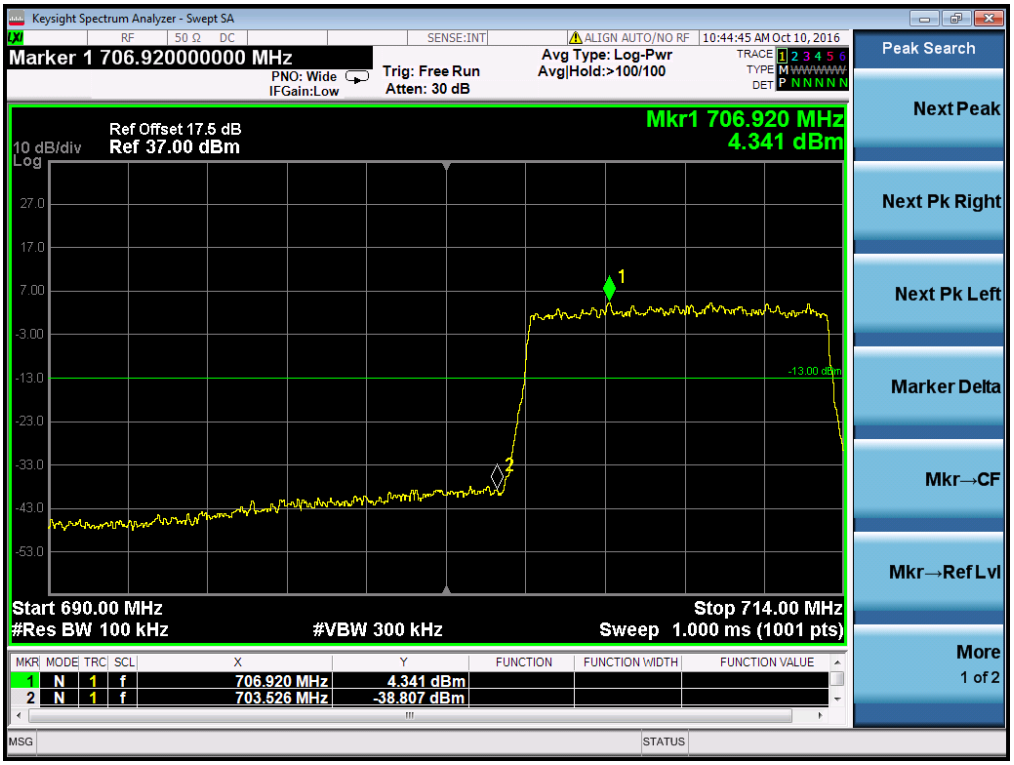


Higher Band Edge Plot for 16QAM -RB Size 25, RB Offset 0

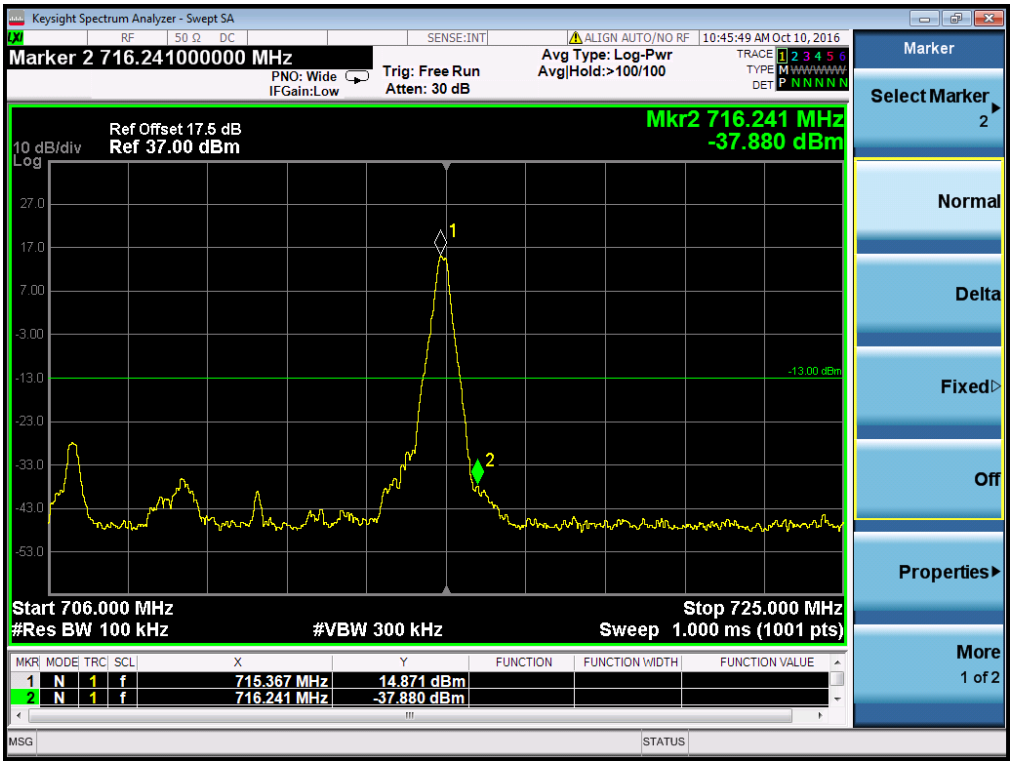
Band	LTE Band 17	Modulation	QPSK
Bandwidth	10MHz		



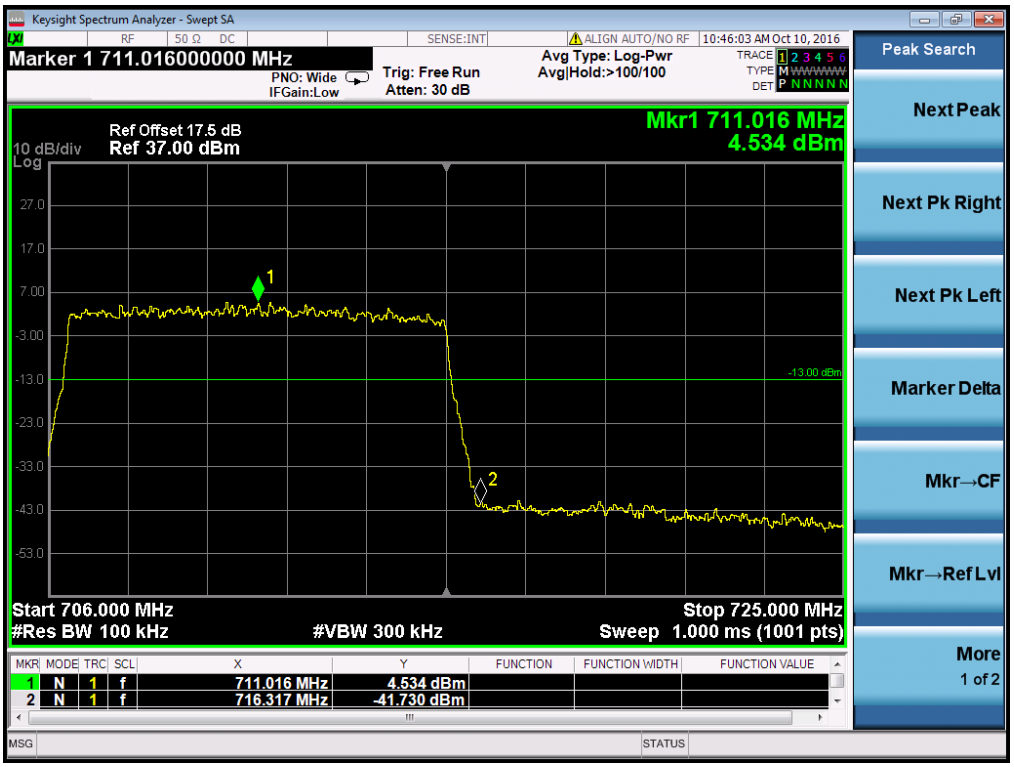
Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Lower Band Edge Plot for QPSK-RB Size 50, RB Offset 0

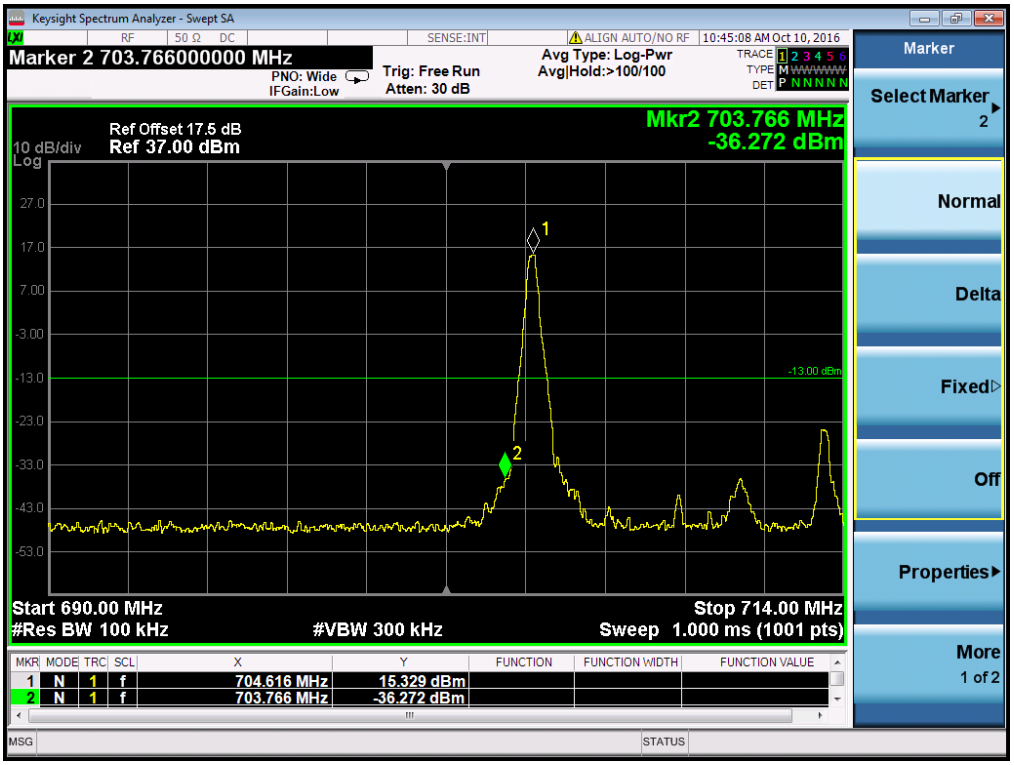


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 49

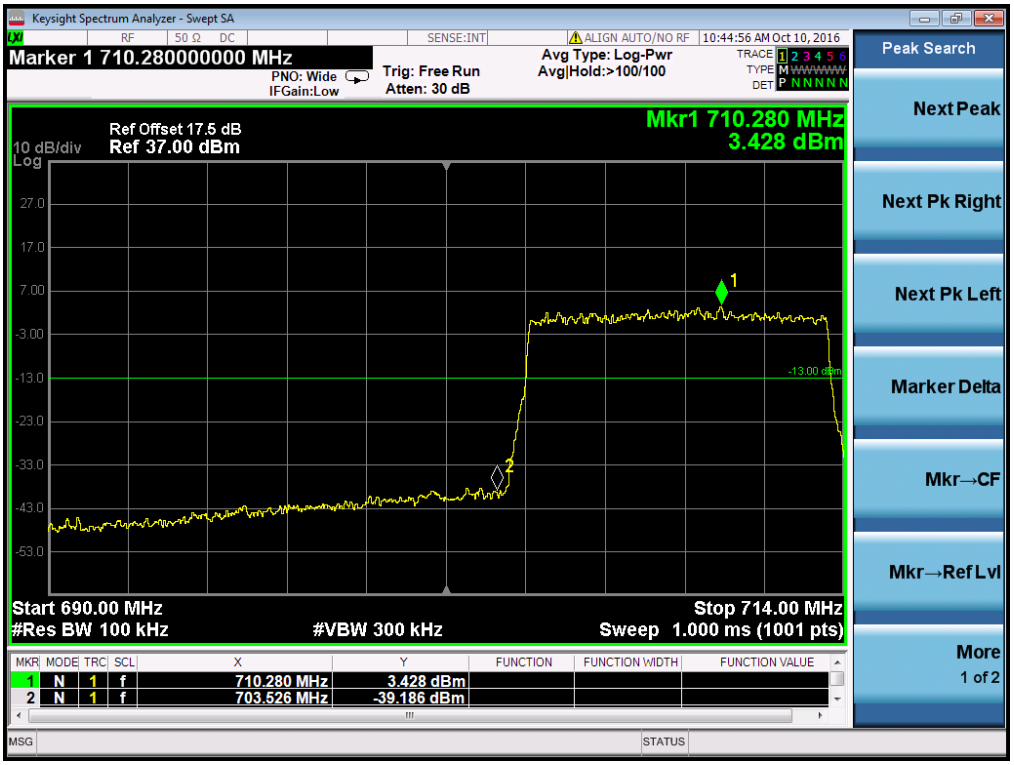


Higher Band Edge Plot for QPSK-RB Size 50, RB Offset 0

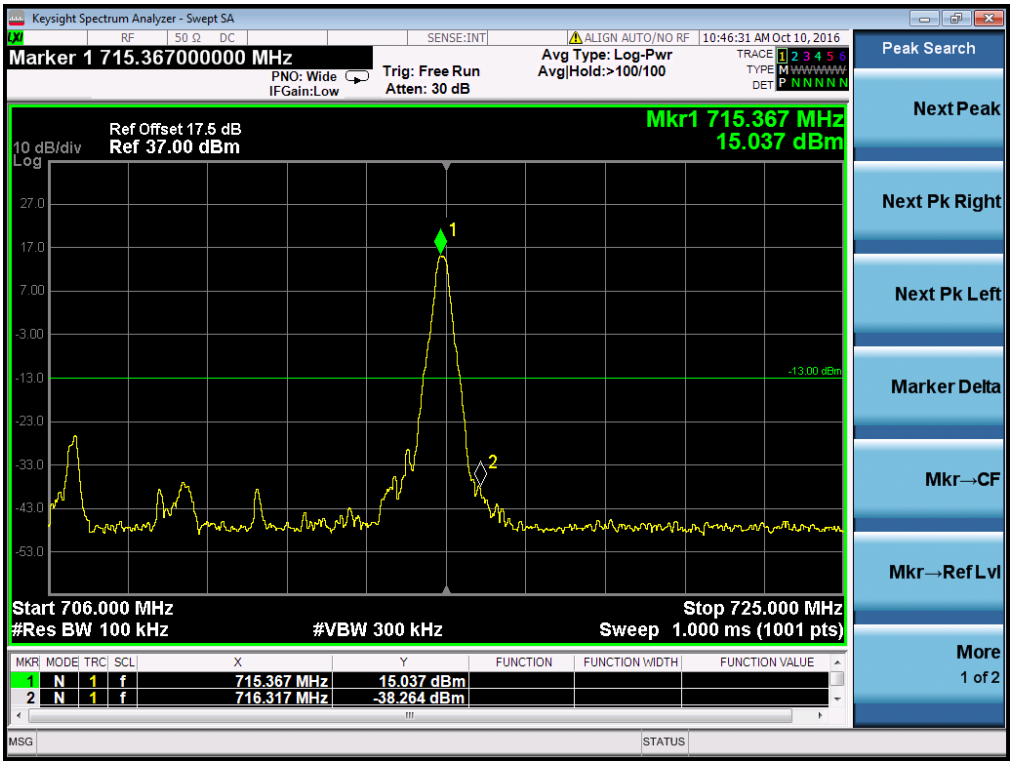
Band	LTE Band 17	Modulation	16QAM
Bandwidth	10MHz		



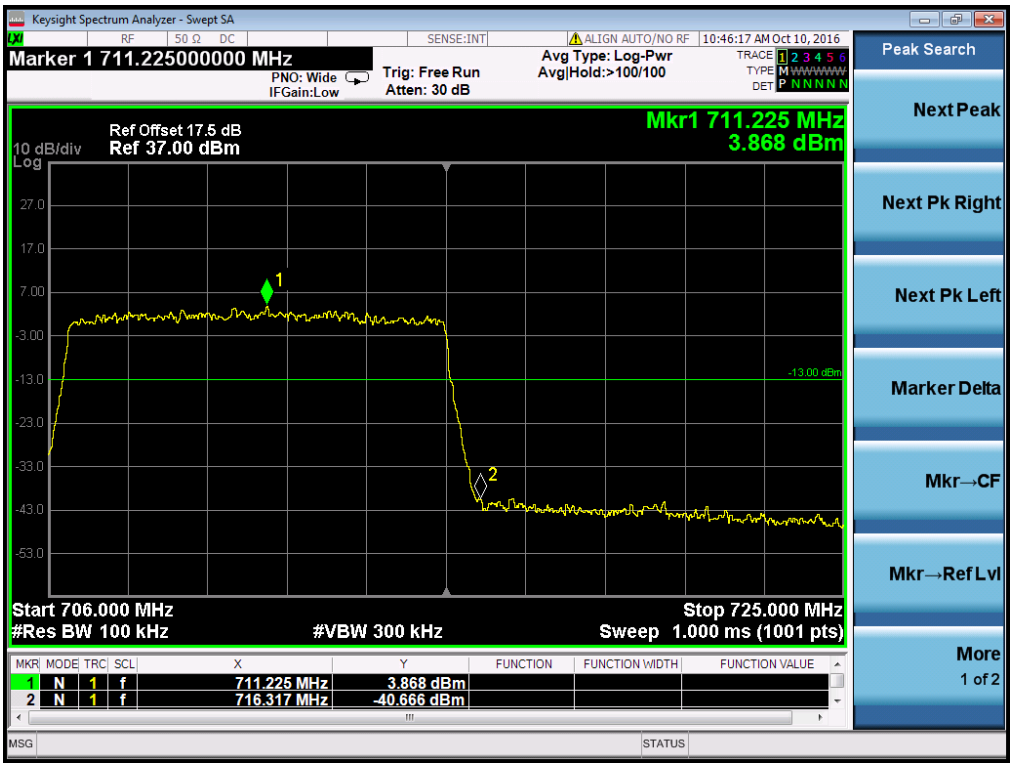
Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Lower Band Edge Plot for 16QAM -RB Size 50, RB Offset 0

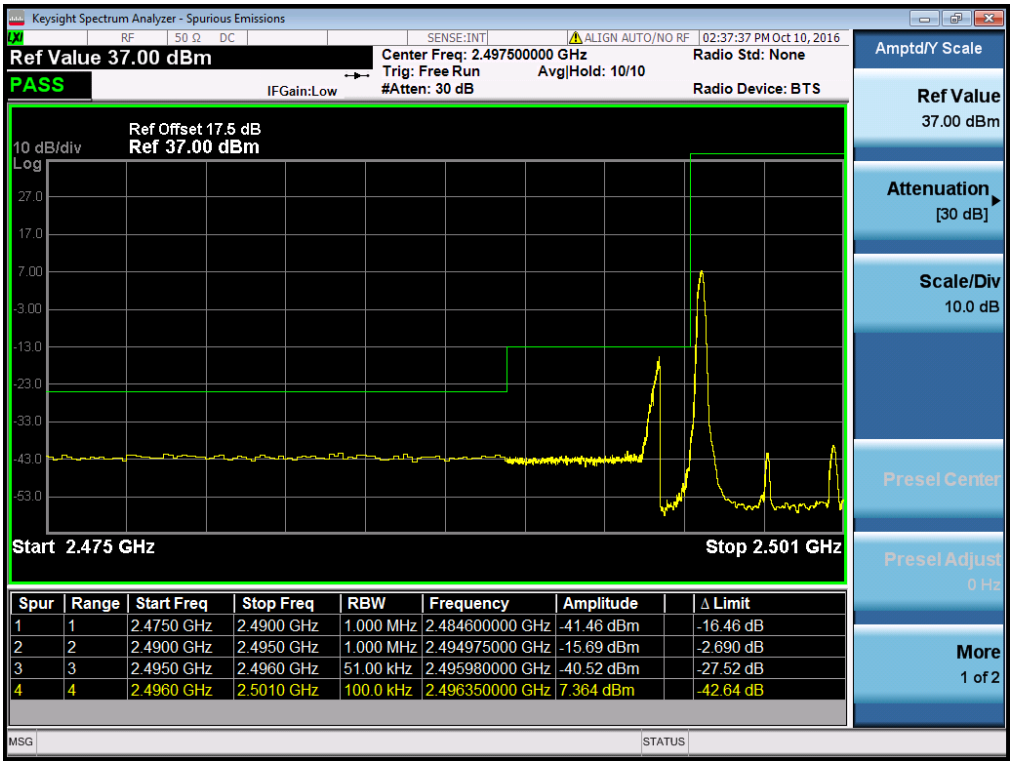


Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 49

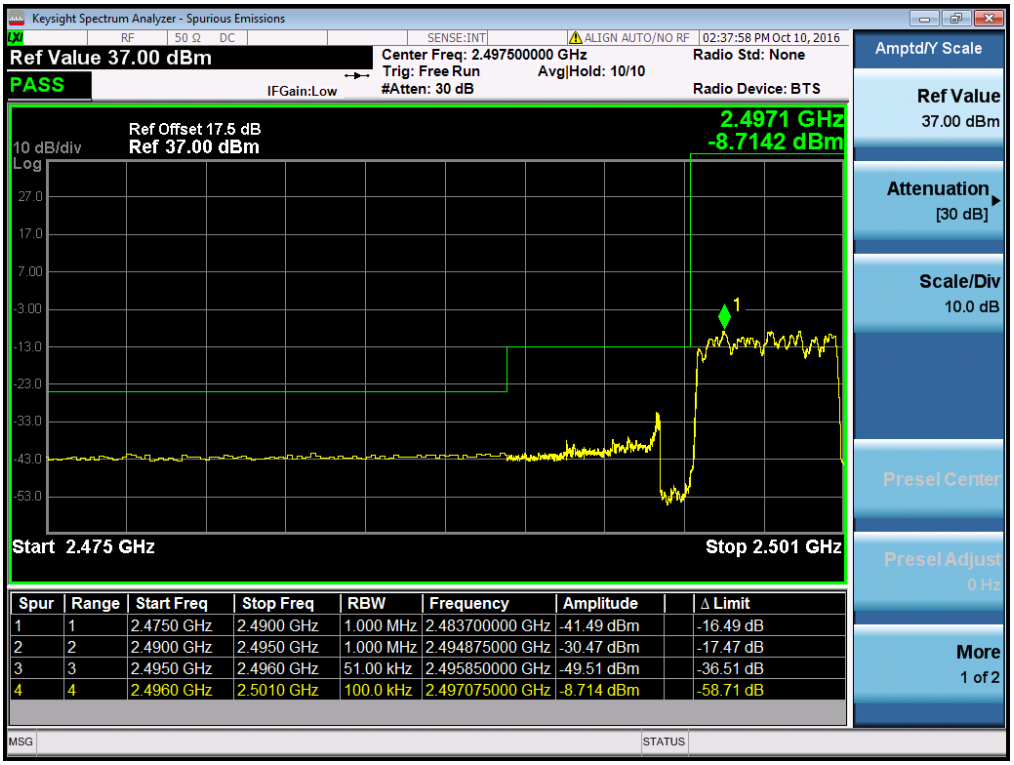


Higher Band Edge Plot for 16QAM -RB Size 50, RB Offset 0

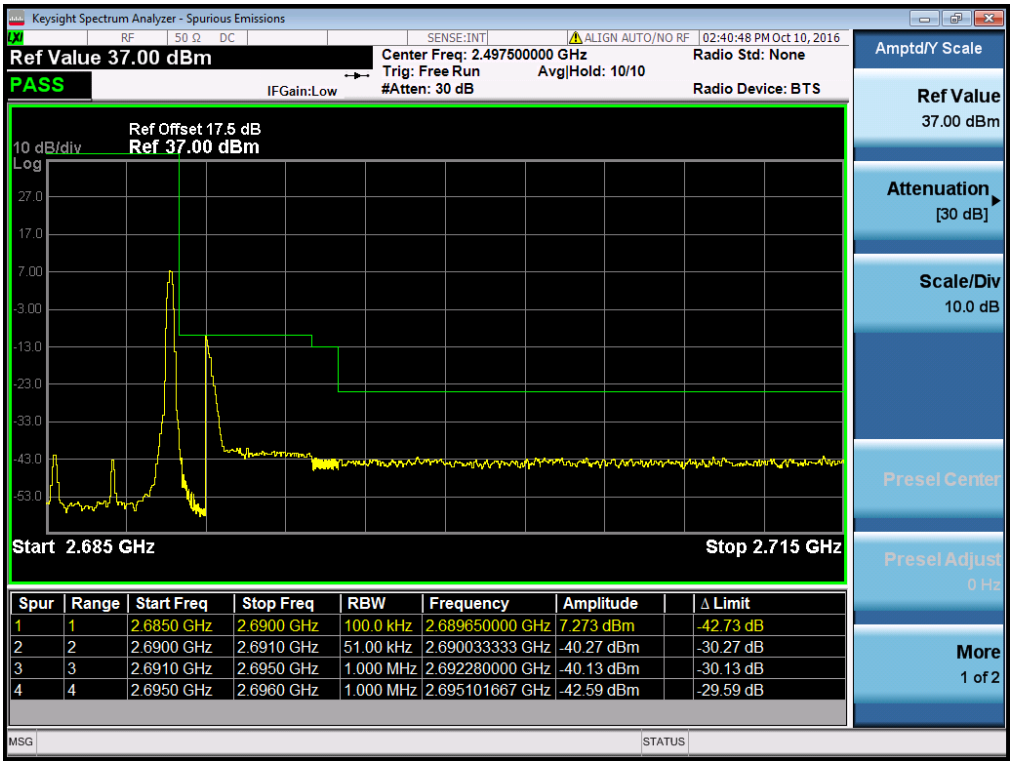
Band	LTE Band 41	Modulation	QPSK
Bandwidth	5MHz		



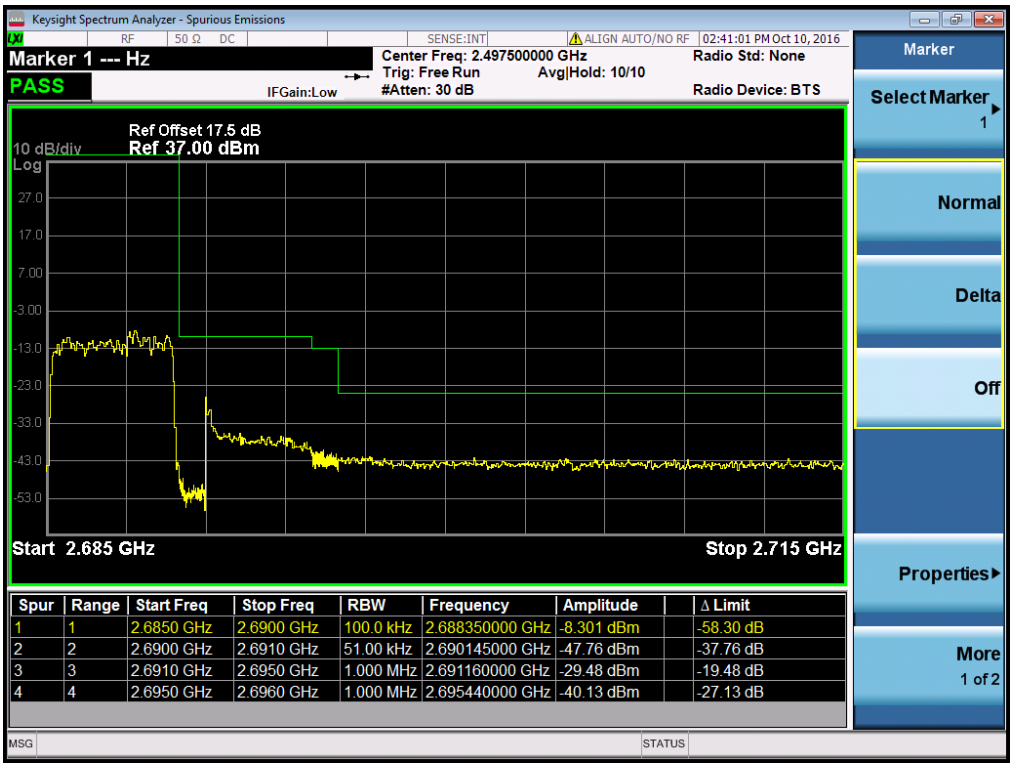
Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Lower Band Edge Plot for QPSK-RB Size 25, RB Offset 0

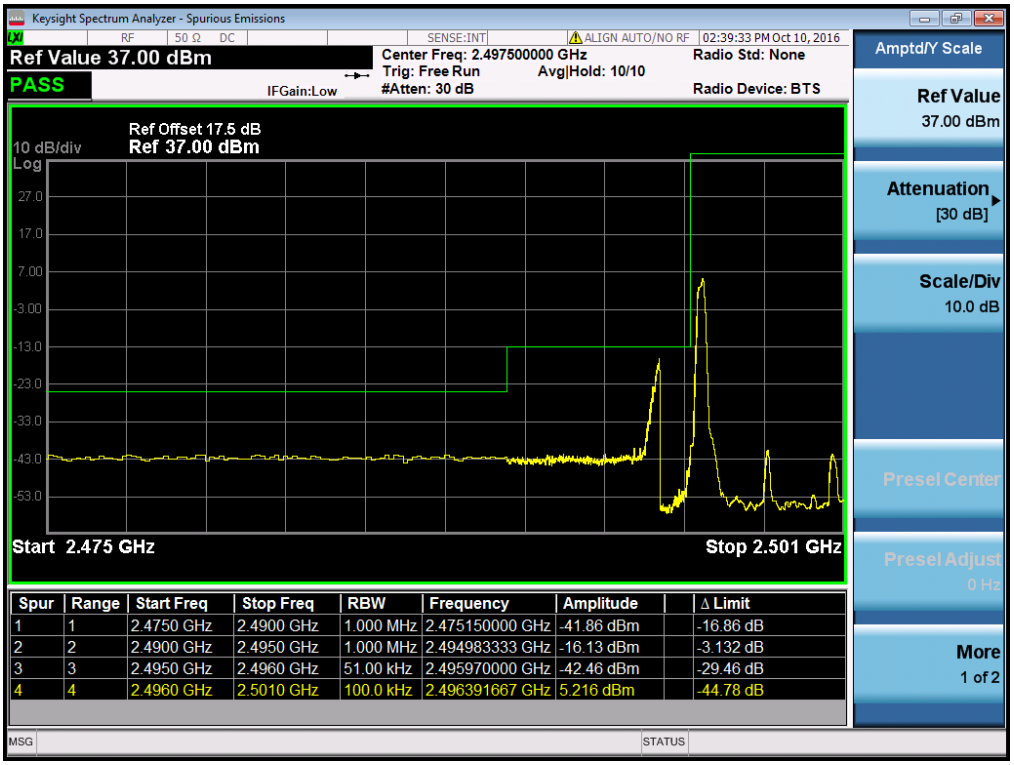


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 24



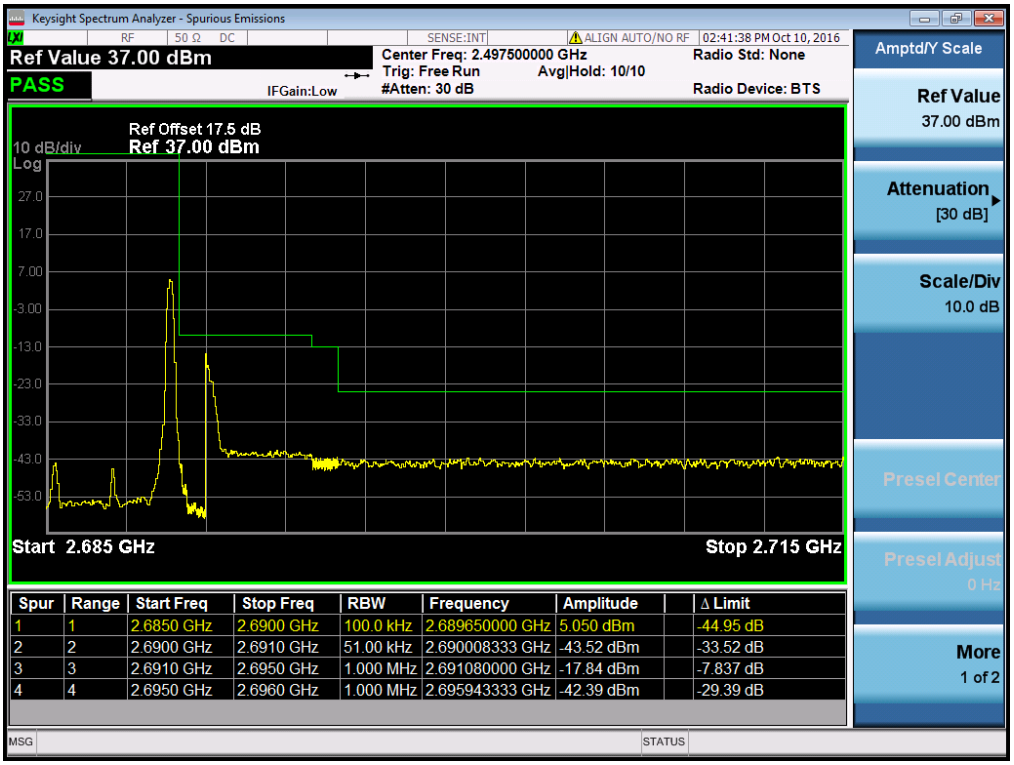
Higher Band Edge Plot for QPSK-RB Size 25, RB Offset 0

Band	LTE Band 41	Modulation	16QAM
Bandwidth	5MHz		

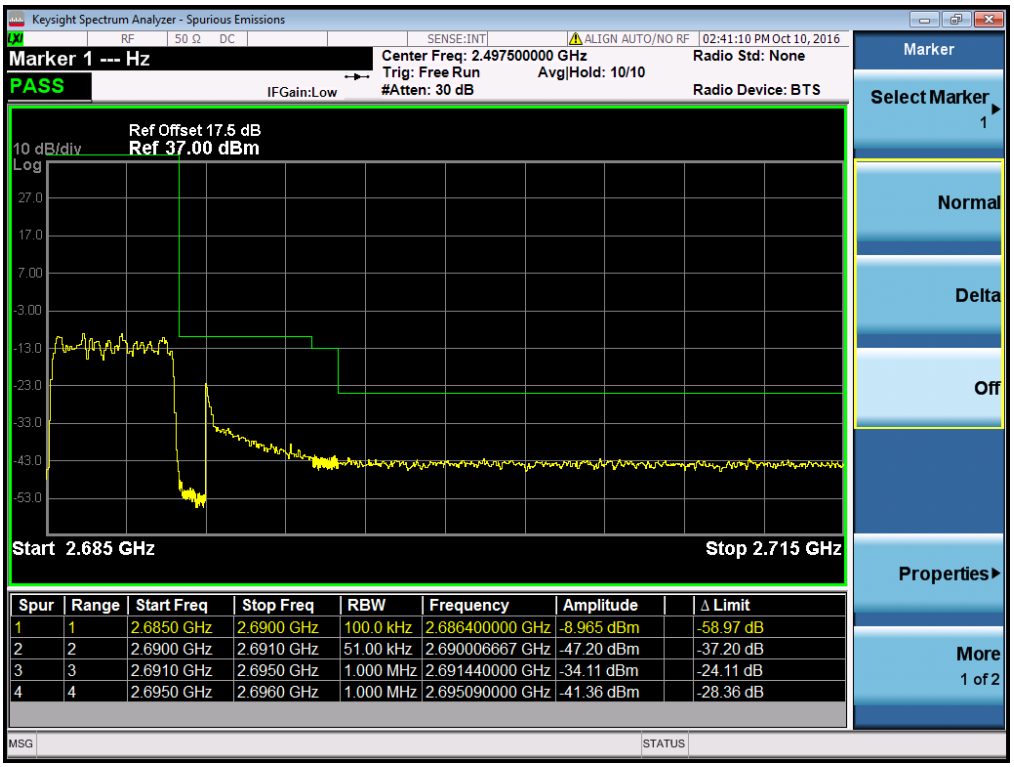


Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0

Lower Band Edge Plot for 16QAM -RB Size 25, RB Offset 0

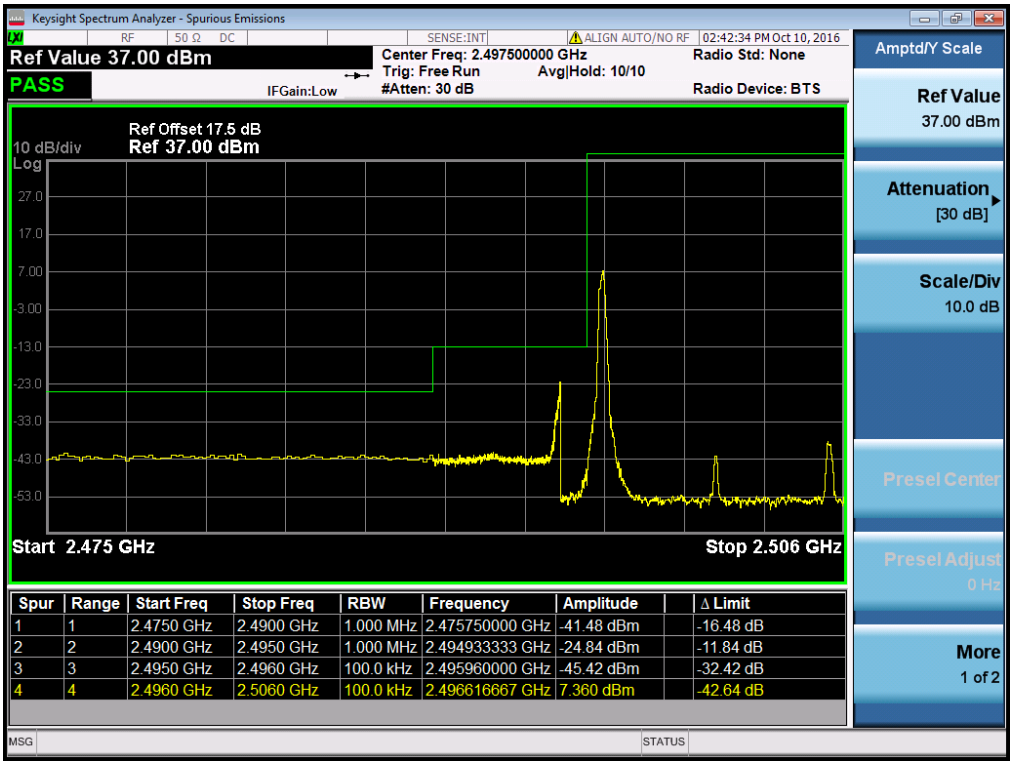


Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 24

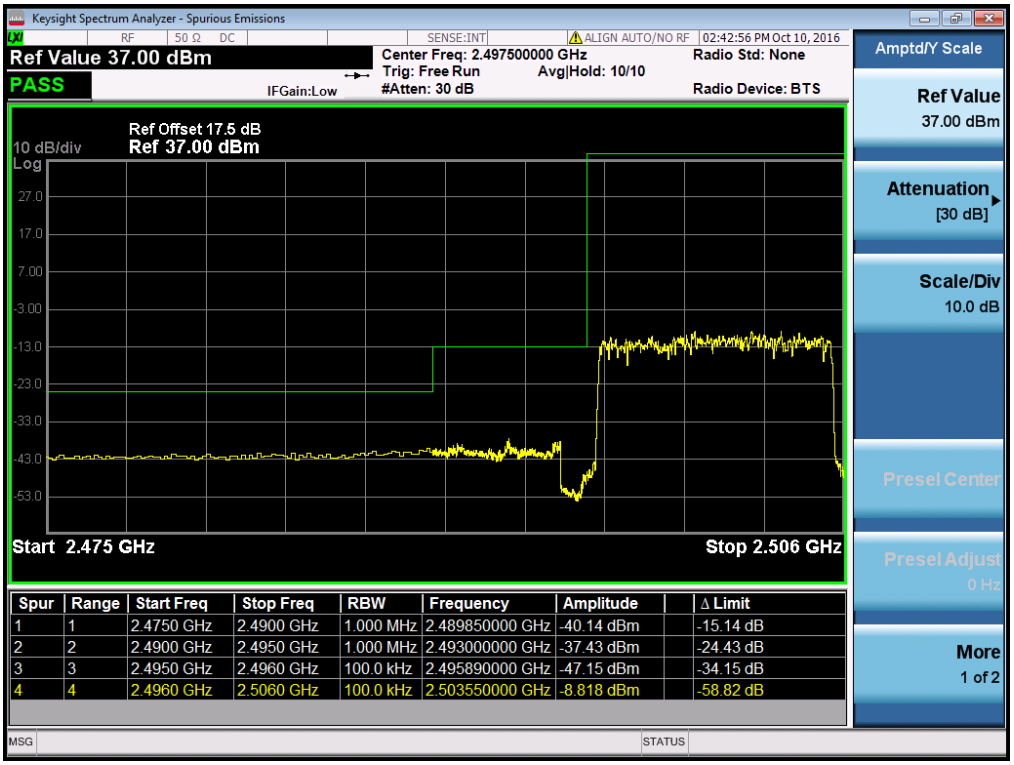


Higher Band Edge Plot for 16QAM -RB Size 25, RB Offset 0

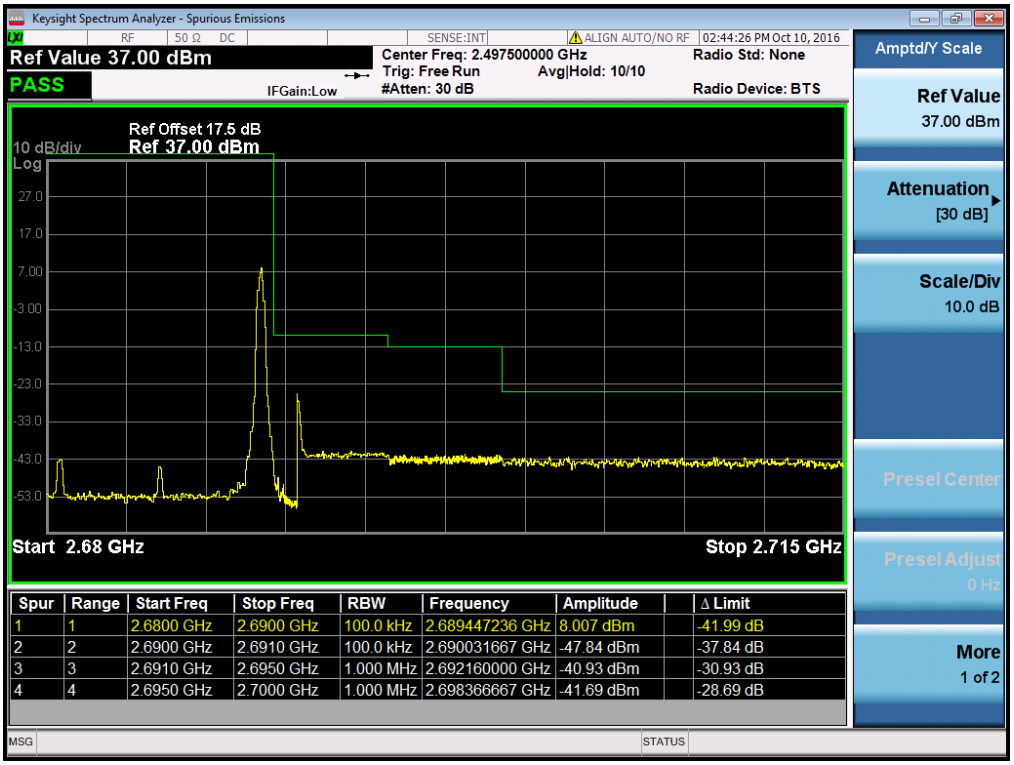
Band	LTE Band 41	Modulation	QPSK
Bandwidth	10MHz		



Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Lower Band Edge Plot for QPSK-RB Size 50, RB Offset 0



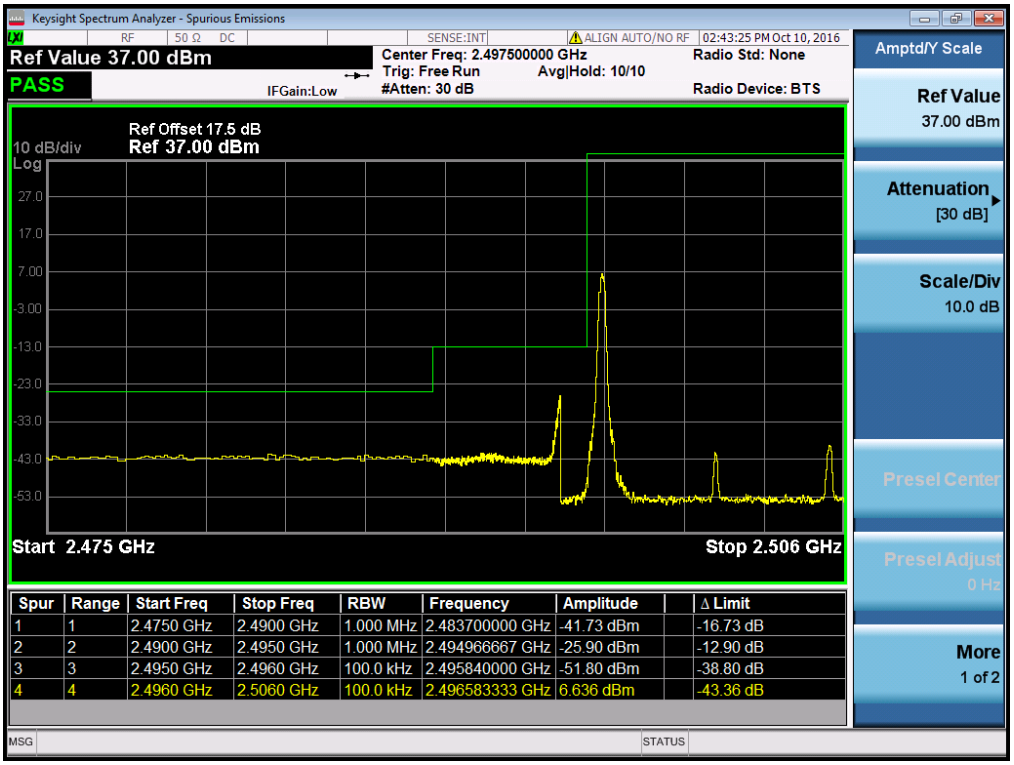
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6800 GHz	2.6900 GHz	100.0 kHz	2.689447236 GHz	8.007 dBm	-41.99 dB
2	2	2.6900 GHz	2.6910 GHz	100.0 kHz	2.690031667 GHz	-47.84 dBm	-37.84 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.692160000 GHz	-40.93 dBm	-30.93 dB
4	4	2.6950 GHz	2.7000 GHz	1.000 MHz	2.698366667 GHz	-41.69 dBm	-28.69 dB

Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 49

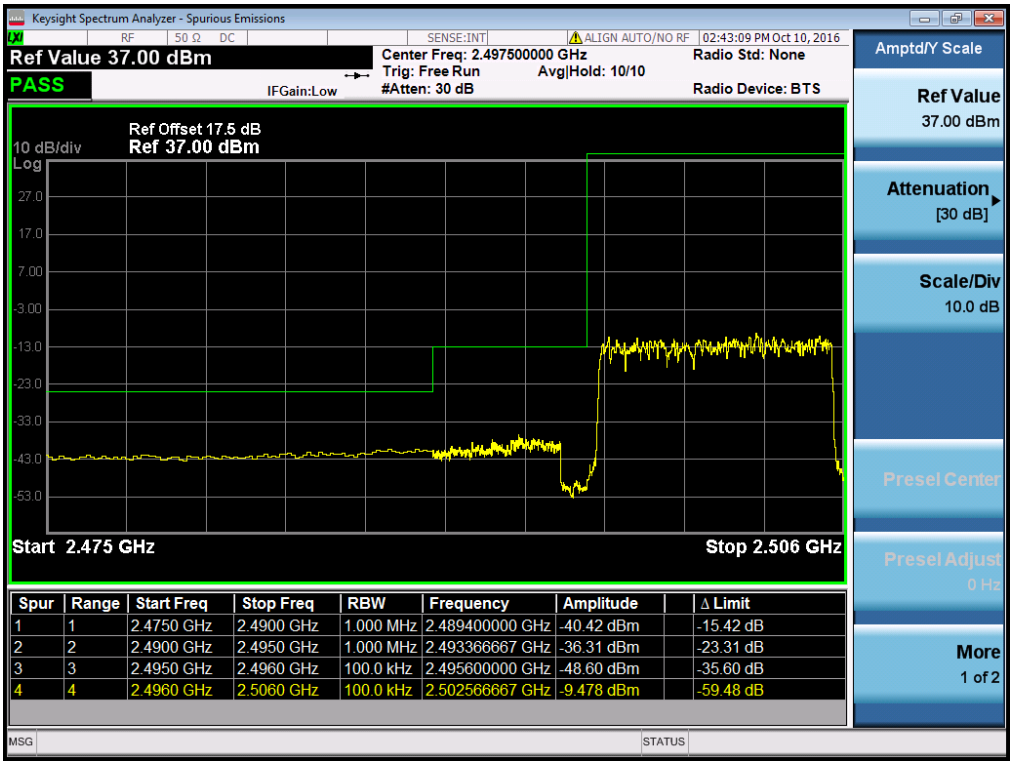
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6800 GHz	2.6900 GHz	100.0 kHz	2.683366834 GHz	-7.263 dBm	-57.26 dB
2	2	2.6900 GHz	2.6910 GHz	100.0 kHz	2.690533333 GHz	-48.97 dBm	-38.97 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691240000 GHz	-35.80 dBm	-25.80 dB
4	4	2.6950 GHz	2.7000 GHz	1.000 MHz	2.696800000 GHz	-39.66 dBm	-26.66 dB

Higher Band Edge Plot for QPSK-RB Size 50, RB Offset 0

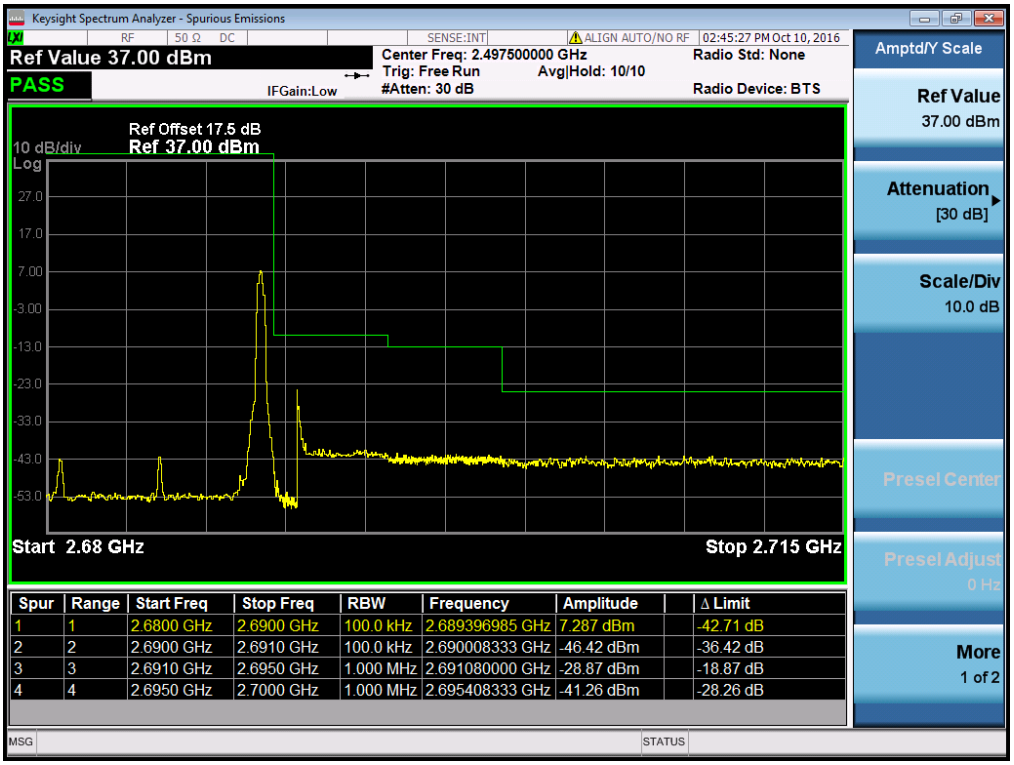
Band	LTE Band 41	Modulation	16QAM
Bandwidth	10MHz		



Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0

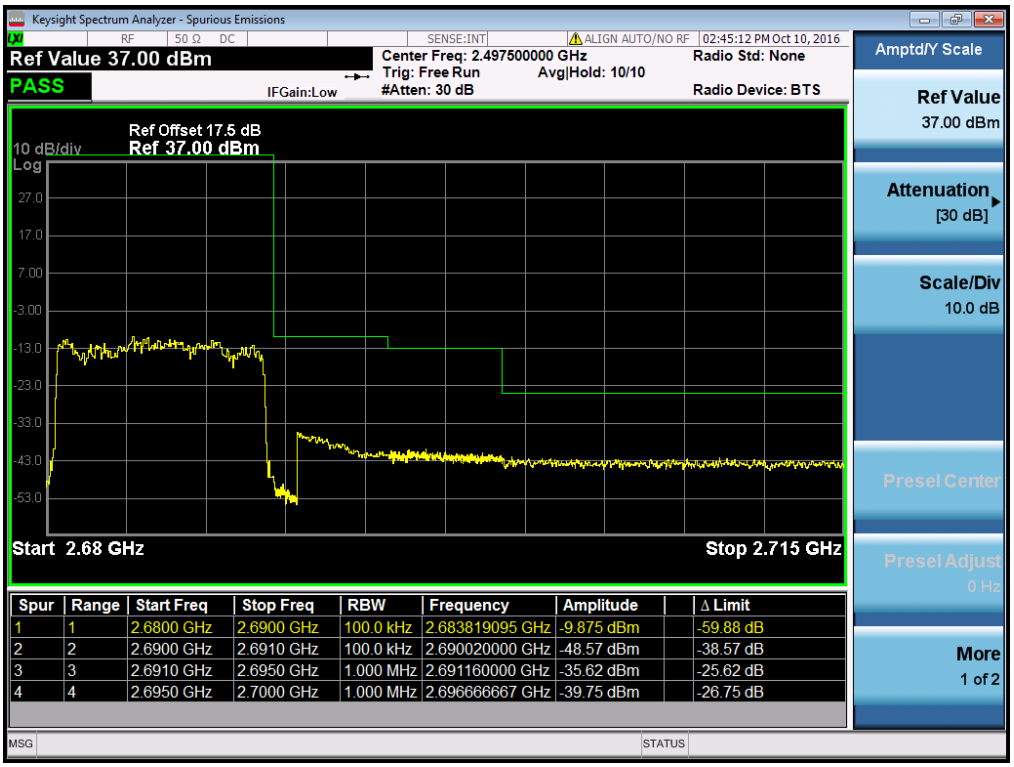


Lower Band Edge Plot for 16QAM -RB Size 50, RB Offset 0



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6800 GHz	2.6900 GHz	100.0 kHz	2.689396985 GHz	7.287 dBm	-42.71 dB
2	2	2.6900 GHz	2.6910 GHz	100.0 kHz	2.690008333 GHz	-46.42 dBm	-36.42 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691080000 GHz	-28.87 dBm	-18.87 dB
4	4	2.6950 GHz	2.7000 GHz	1.000 MHz	2.695408333 GHz	-41.26 dBm	-28.26 dB

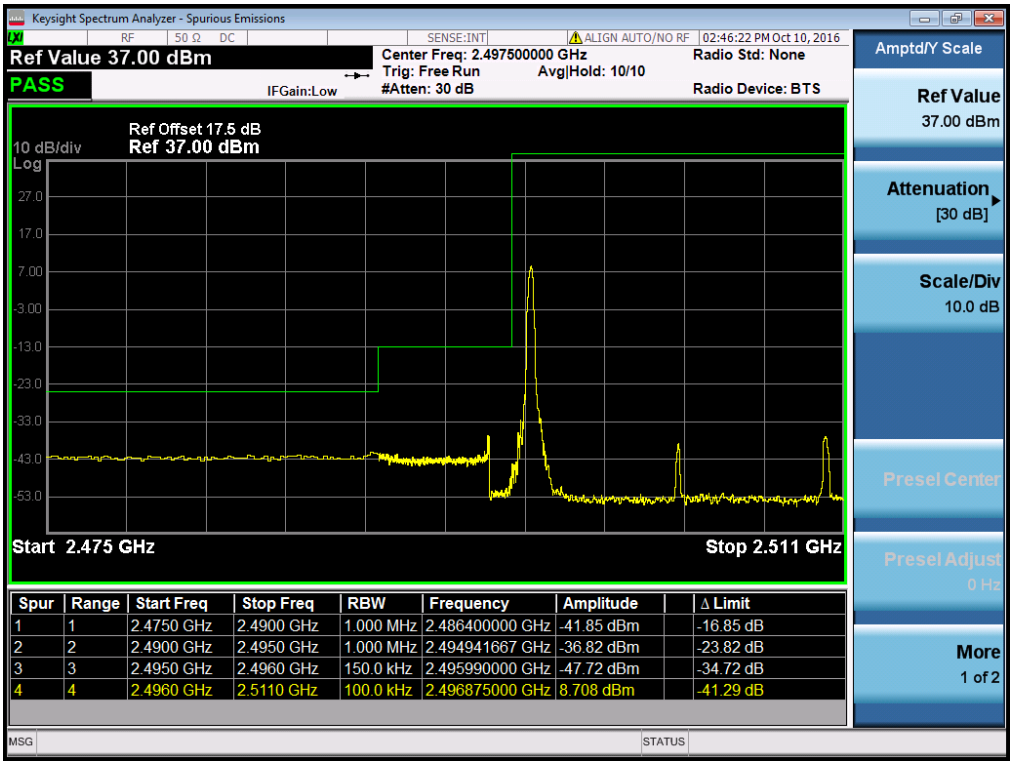
Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 49



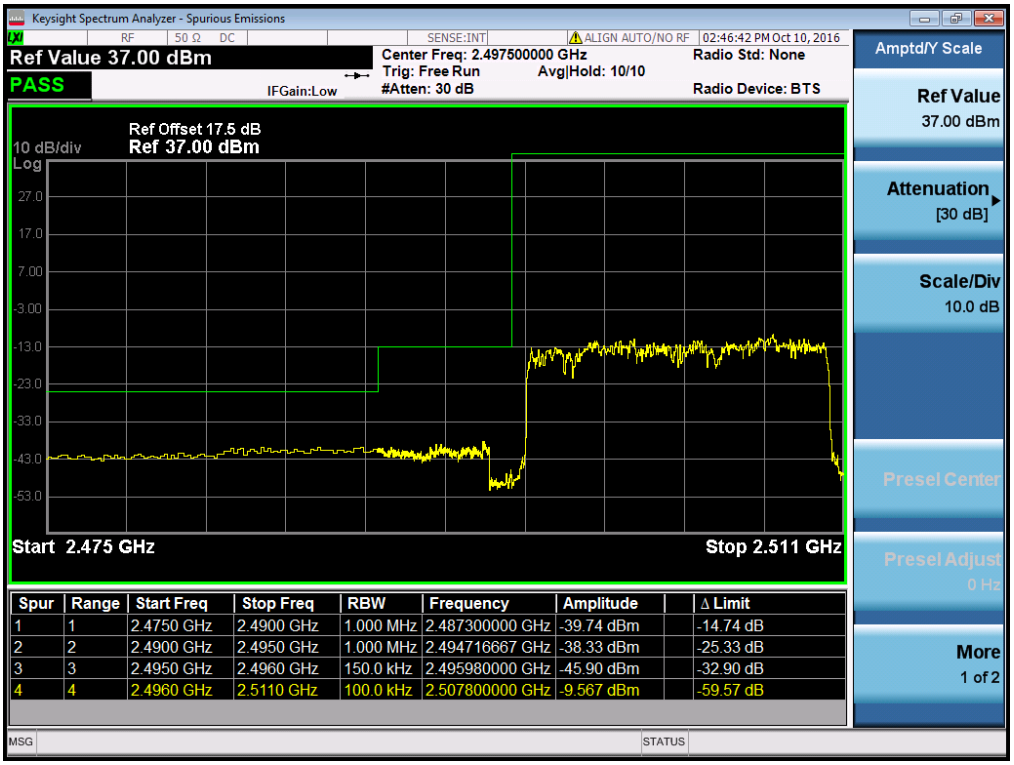
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6800 GHz	2.6900 GHz	100.0 kHz	2.683819095 GHz	-9.875 dBm	-59.88 dB
2	2	2.6900 GHz	2.6910 GHz	100.0 kHz	2.690020000 GHz	-48.57 dBm	-38.57 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691160000 GHz	-35.62 dBm	-25.62 dB
4	4	2.6950 GHz	2.7000 GHz	1.000 MHz	2.696666667 GHz	-39.75 dBm	-26.75 dB

Higher Band Edge Plot for 16QAM -RB Size 50, RB Offset 0

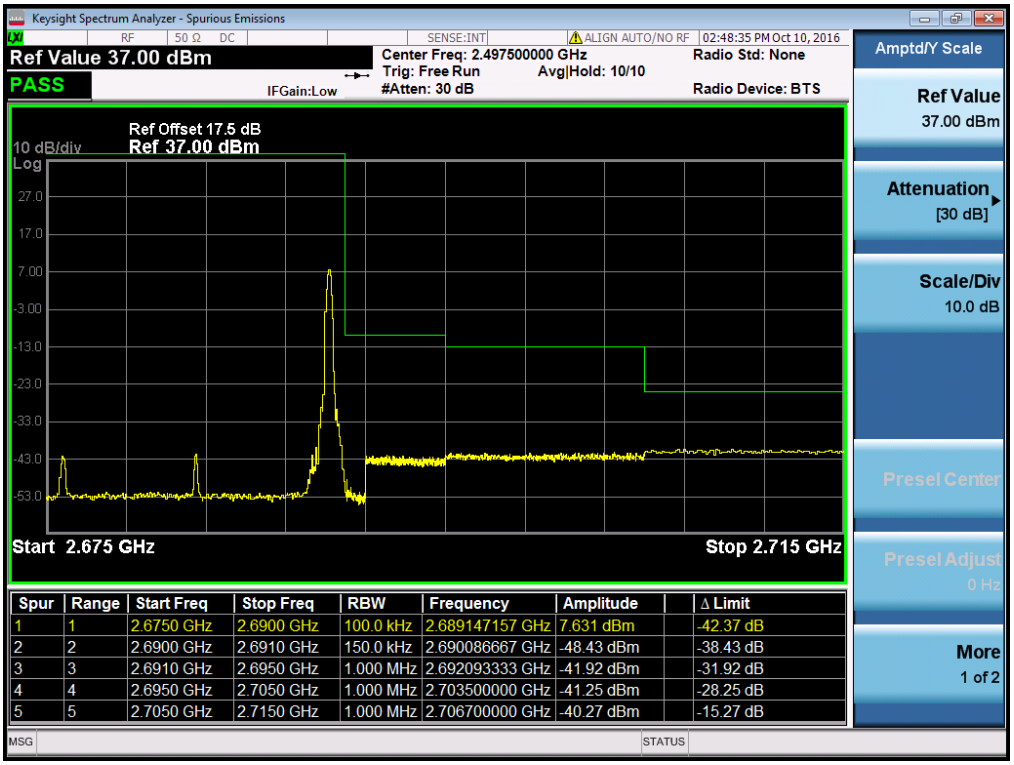
Band	LTE Band 41	Modulation	QPSK
Bandwidth	15MHz		



Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Lower Band Edge Plot for QPSK-RB Size 75, RB Offset 0



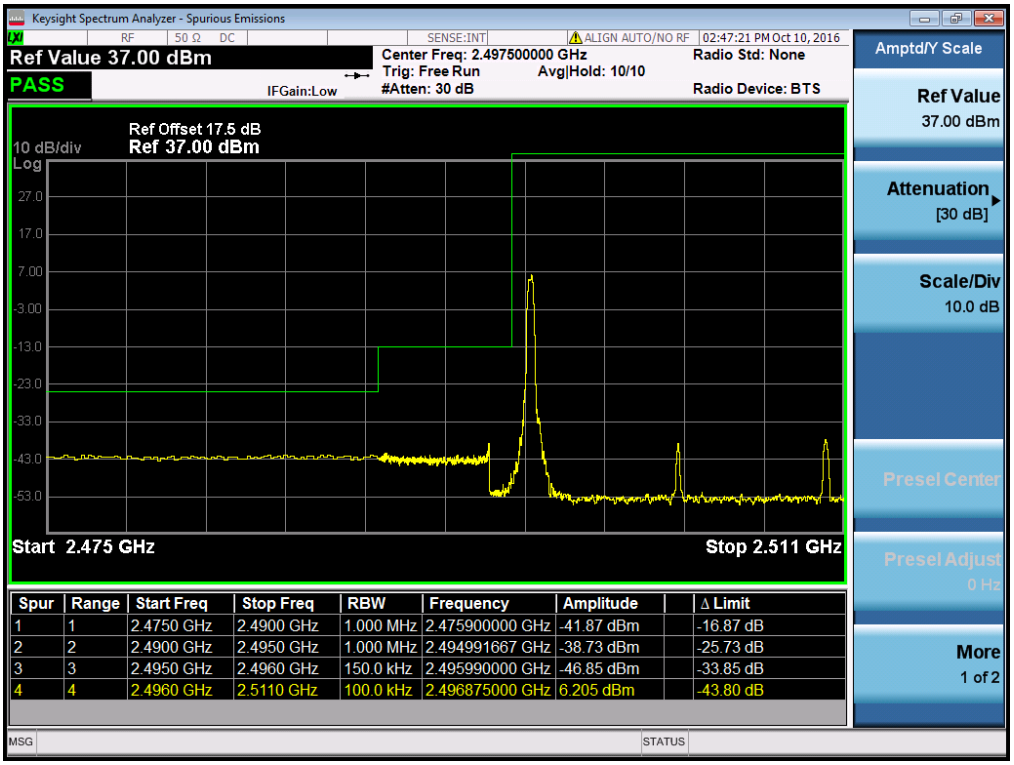
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6750 GHz	2.6900 GHz	100.0 kHz	2.689147157 GHz	7.631 dBm	-42.37 dB
2	2	2.6900 GHz	2.6910 GHz	150.0 kHz	2.690086667 GHz	-48.43 dBm	-38.43 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.692093333 GHz	-41.92 dBm	-31.92 dB
4	4	2.6950 GHz	2.7050 GHz	1.000 MHz	2.703500000 GHz	-41.25 dBm	-28.25 dB
5	5	2.7050 GHz	2.7150 GHz	1.000 MHz	2.706700000 GHz	-40.27 dBm	-15.27 dB

Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 74

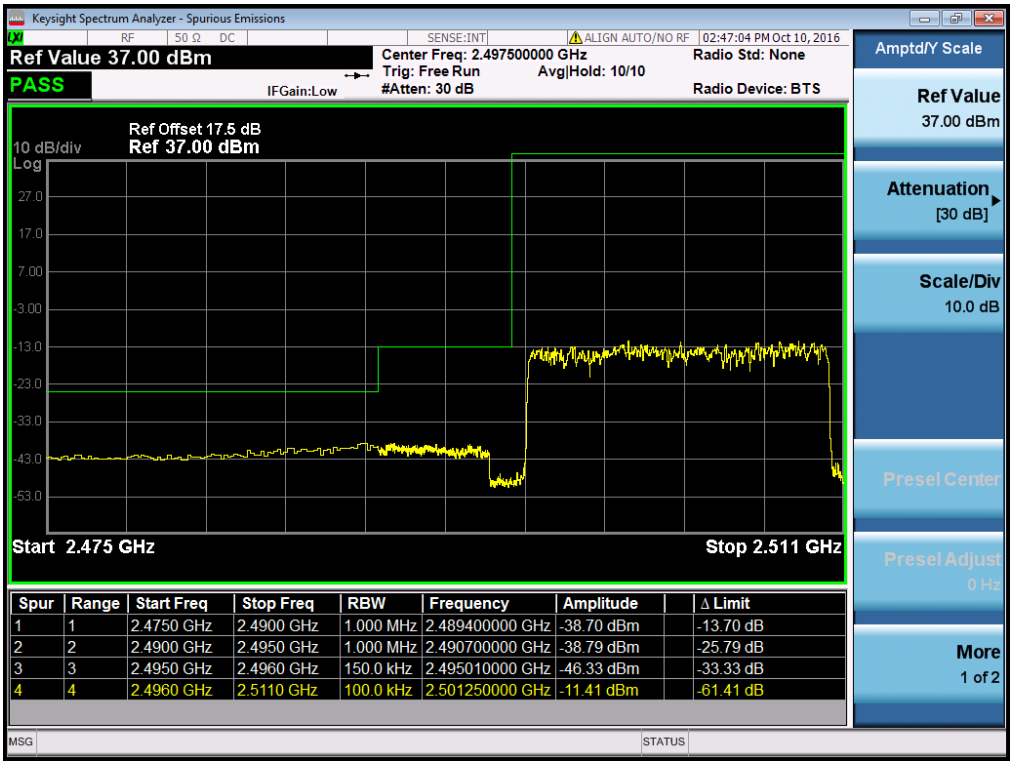
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6750 GHz	2.6900 GHz	100.0 kHz	2.679063545 GHz	-9.117 dBm	-59.12 dB
2	2	2.6900 GHz	2.6910 GHz	150.0 kHz	2.690291667 GHz	-47.59 dBm	-37.59 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.692113333 GHz	-36.47 dBm	-26.47 dB
4	4	2.6950 GHz	2.7050 GHz	1.000 MHz	2.698183333 GHz	-36.80 dBm	-23.80 dB
5	5	2.7050 GHz	2.7150 GHz	1.000 MHz	2.705500000 GHz	-39.09 dBm	-14.09 dB

Higher Band Edge Plot for QPSK-RB Size 75, RB Offset 0

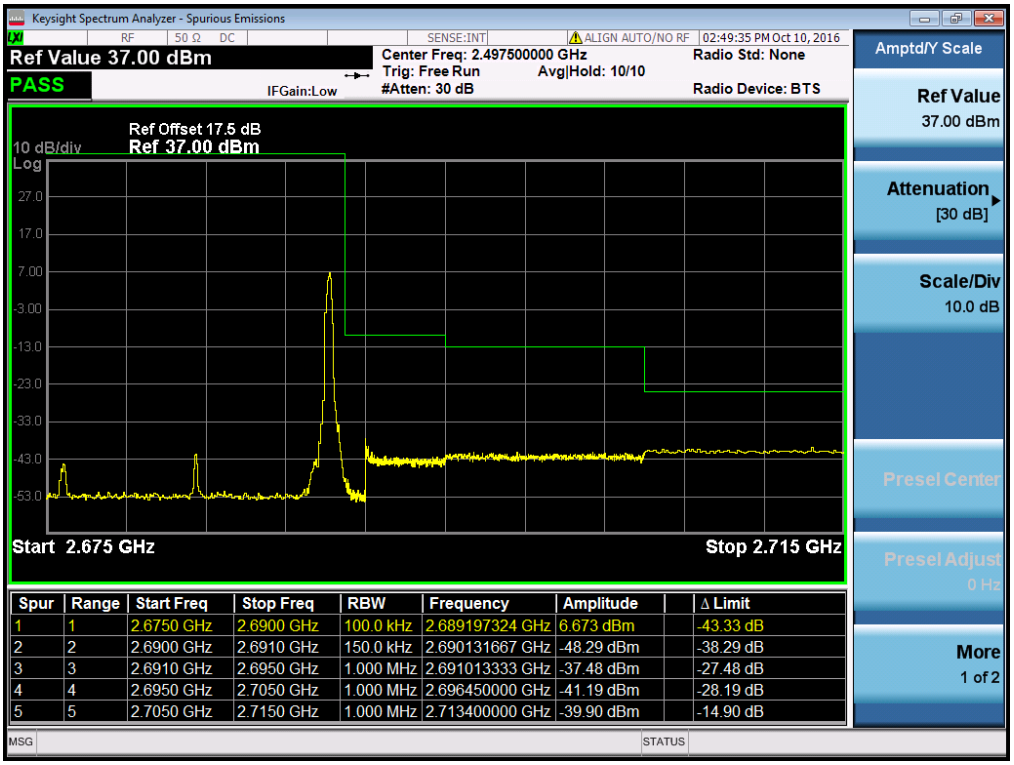
Band	LTE Band 41	Modulation	16QAM
Bandwidth	15MHz		



Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0

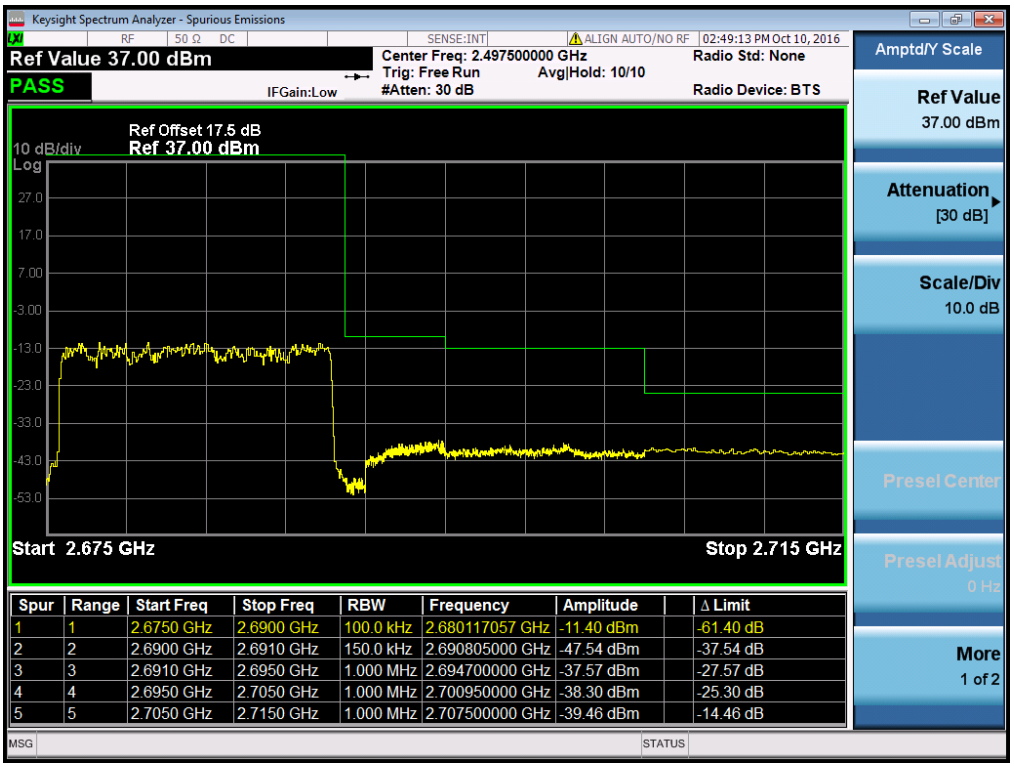


Lower Band Edge Plot for 16QAM-RB Size 75, RB Offset 0



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude		Δ Limit
1	1	2.6750 GHz	2.6900 GHz	100.0 kHz	2.689197324 GHz	6.673 dBm		-43.33 dB
2	2	2.6900 GHz	2.6910 GHz	150.0 kHz	2.690131667 GHz	-48.29 dBm		-38.29 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691013333 GHz	-37.48 dBm		-27.48 dB
4	4	2.6950 GHz	2.7050 GHz	1.000 MHz	2.696450000 GHz	-41.19 dBm		-28.19 dB
5	5	2.7050 GHz	2.7150 GHz	1.000 MHz	2.713400000 GHz	-39.90 dBm		-14.90 dB

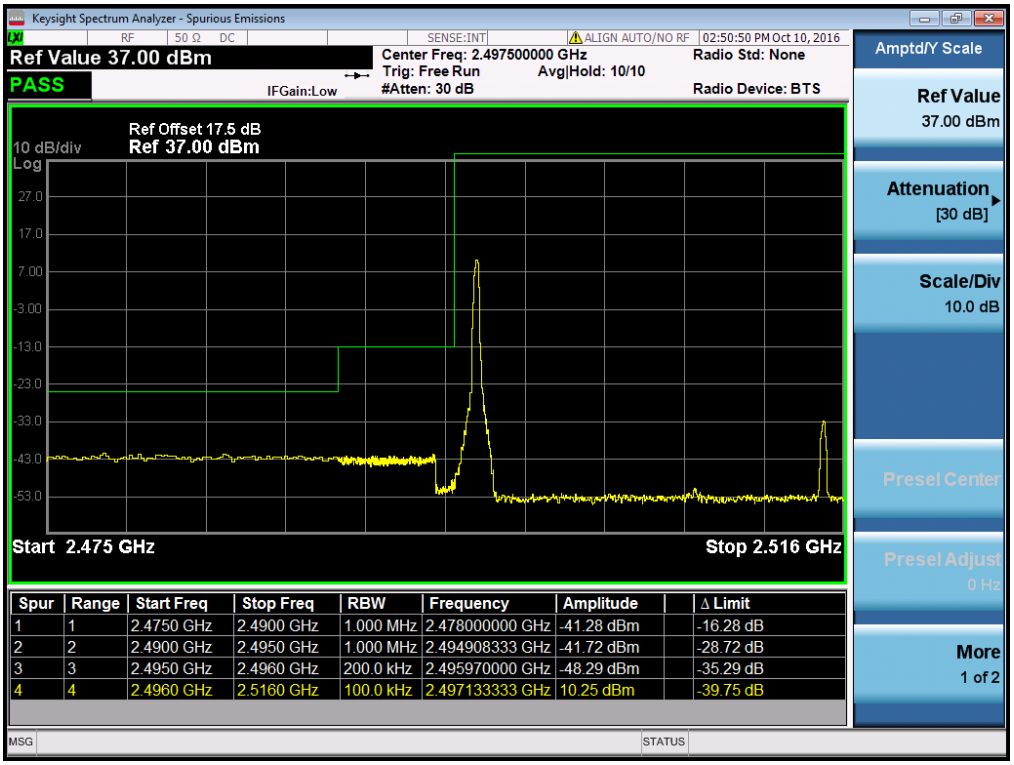
Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 74



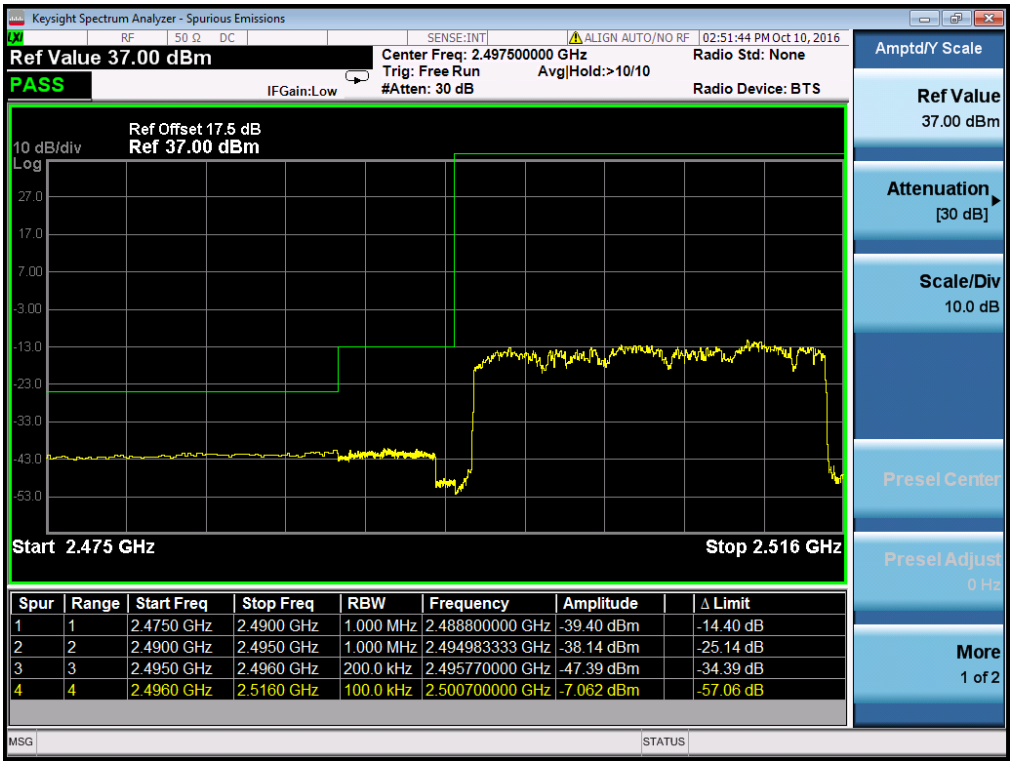
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude		Δ Limit
1	1	2.6750 GHz	2.6900 GHz	100.0 kHz	2.680117057 GHz	-11.40 dBm		-61.40 dB
2	2	2.6900 GHz	2.6910 GHz	150.0 kHz	2.690805000 GHz	-47.54 dBm		-37.54 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.694700000 GHz	-37.57 dBm		-27.57 dB
4	4	2.6950 GHz	2.7050 GHz	1.000 MHz	2.700950000 GHz	-38.30 dBm		-25.30 dB
5	5	2.7050 GHz	2.7150 GHz	1.000 MHz	2.707500000 GHz	-39.46 dBm		-14.46 dB

Higher Band Edge Plot for 16QAM-RB Size 75, RB Offset 0

Band	LTE Band 41	Modulation	QPSK
Bandwidth	20MHz		



Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Lower Band Edge Plot for QPSK-RB Size 100, RB Offset 0