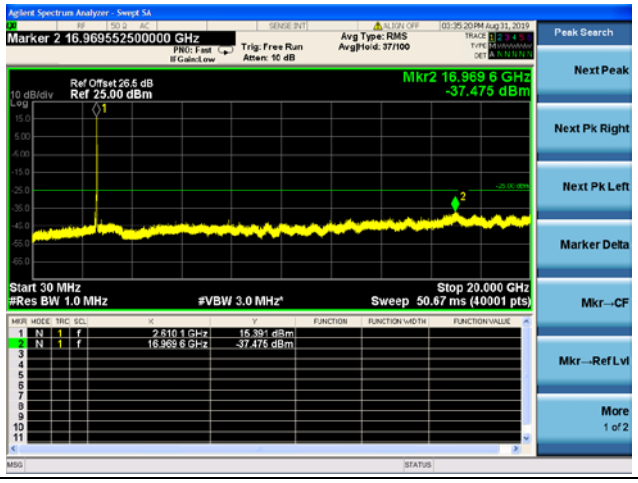
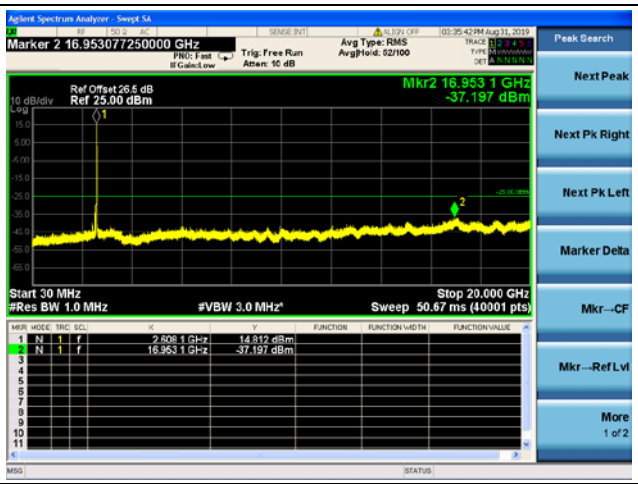
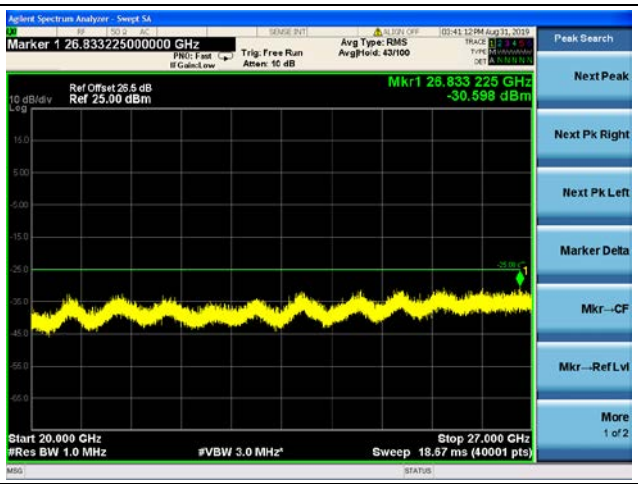
15MHz/QPSK/Mid CH

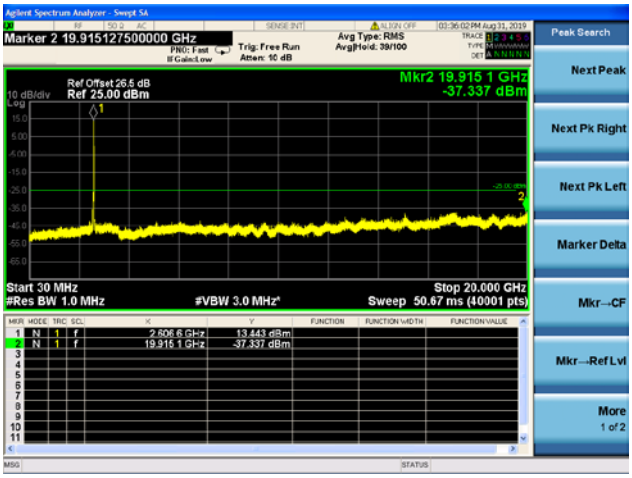


15MHz/16QAM/Mid CH

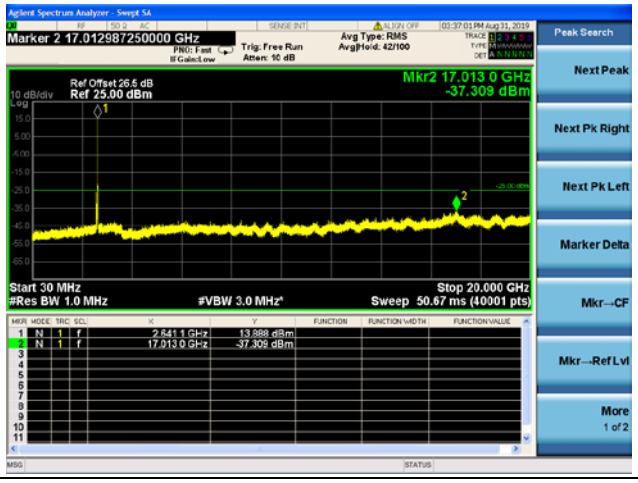


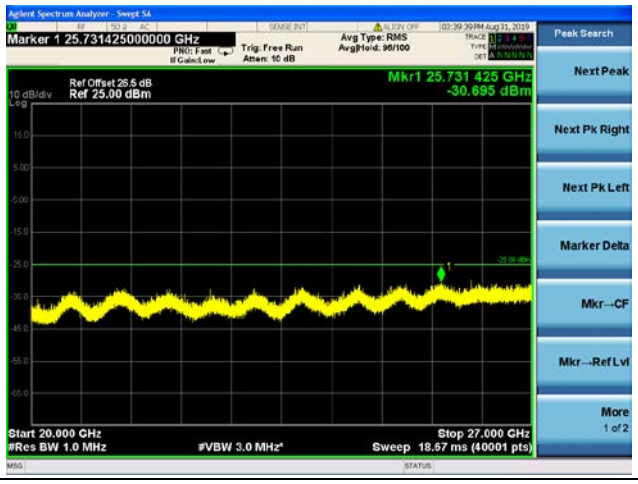


15MHz/64QAM/Mid CH

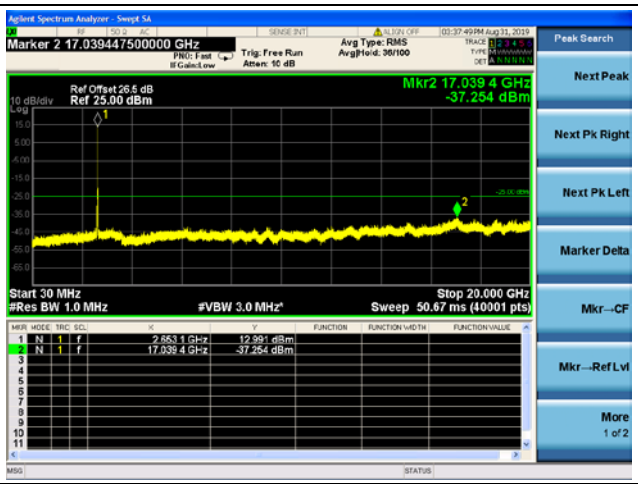


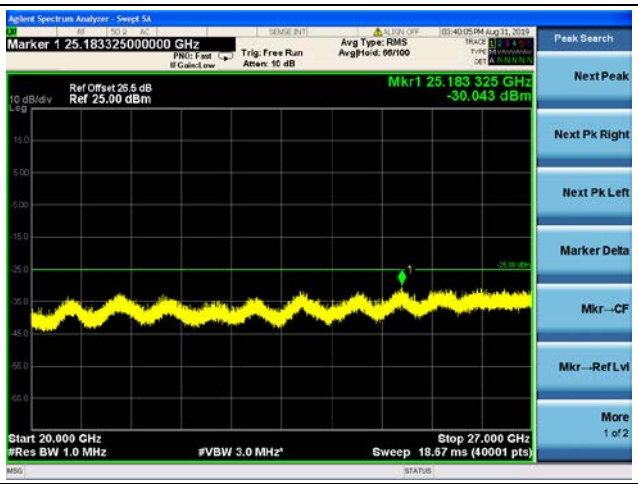
15MHz/QPSK/High CH



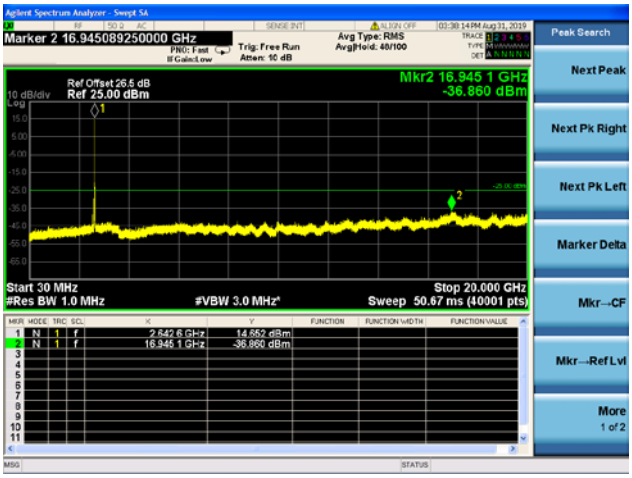


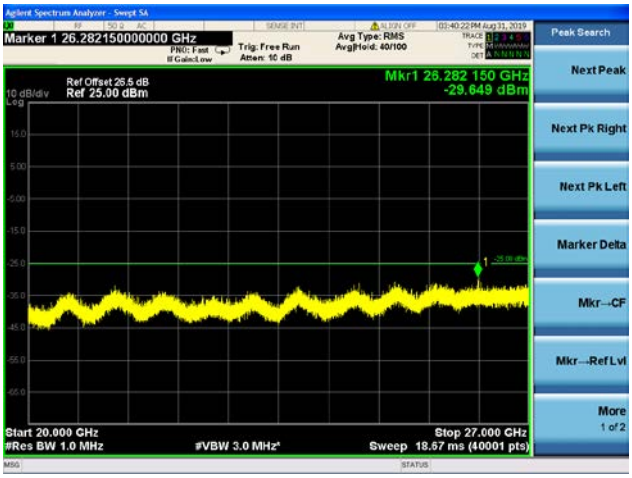
15MHz/16QAM/High CH



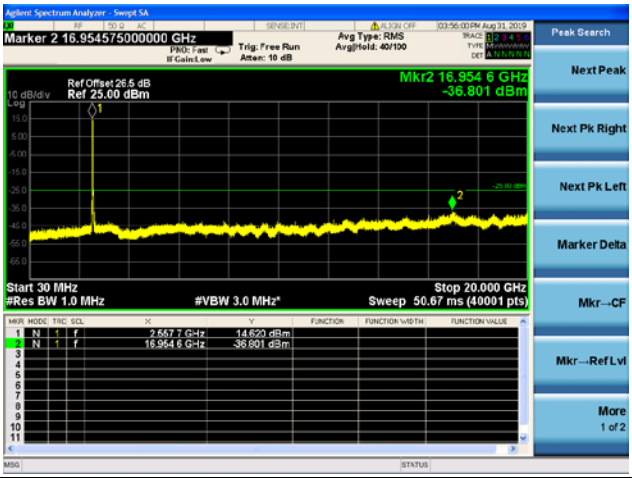


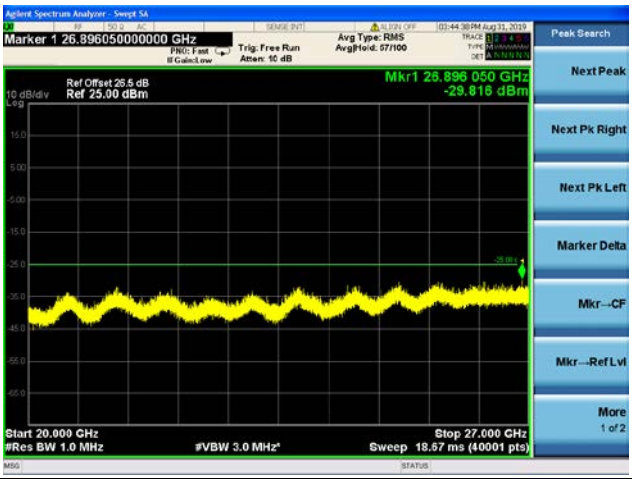
15MHz/64QAM/High CH



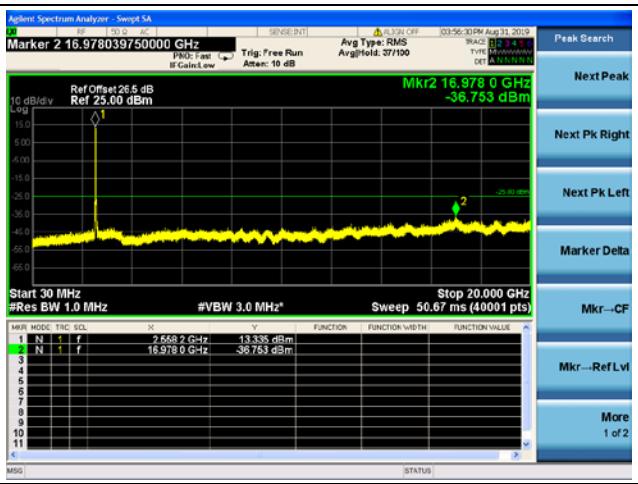


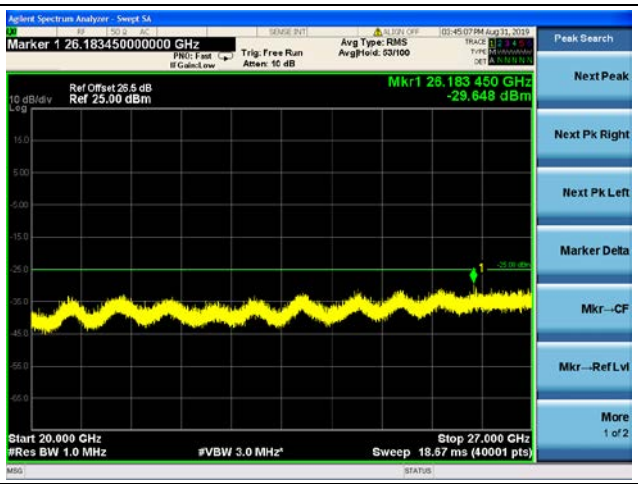
20MHz/QPSK/Low CH



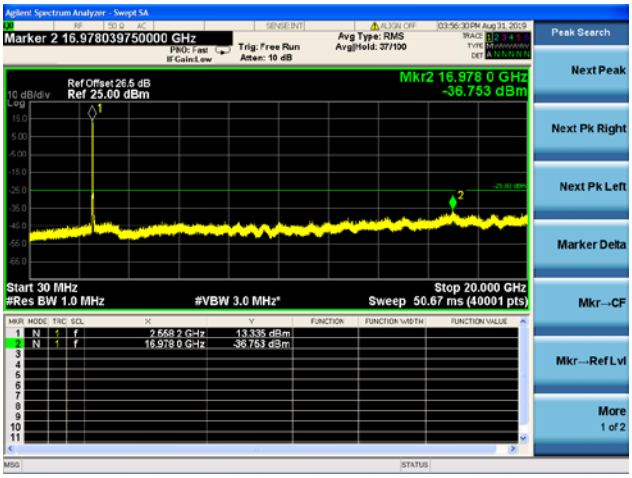


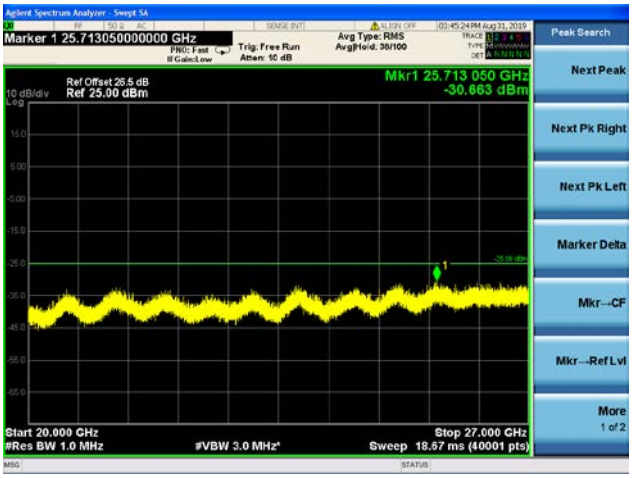
20MHz/16QAM/Low CH



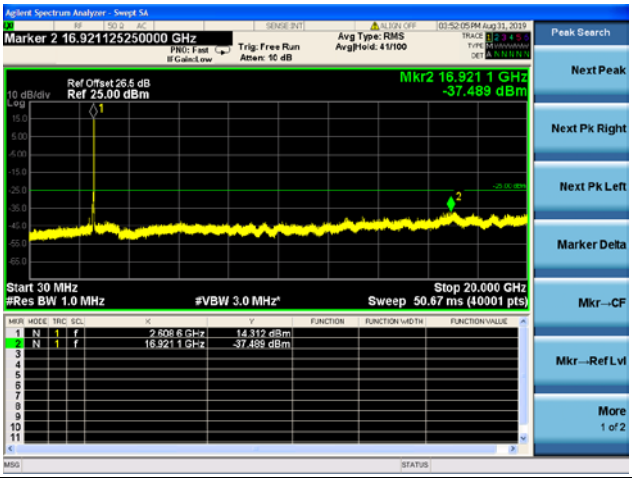


20MHz/64QAM/Low CH

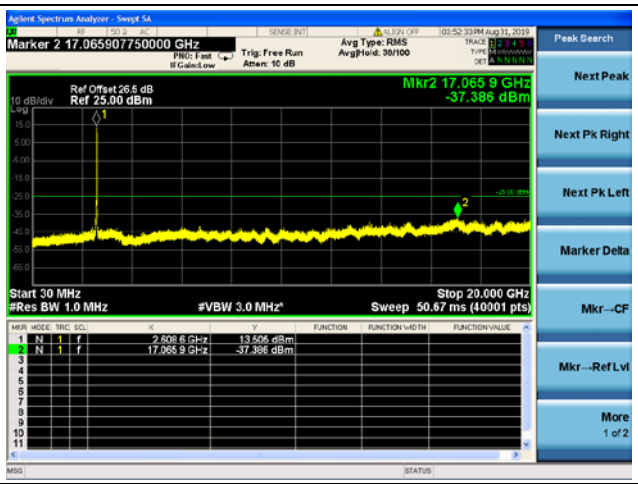


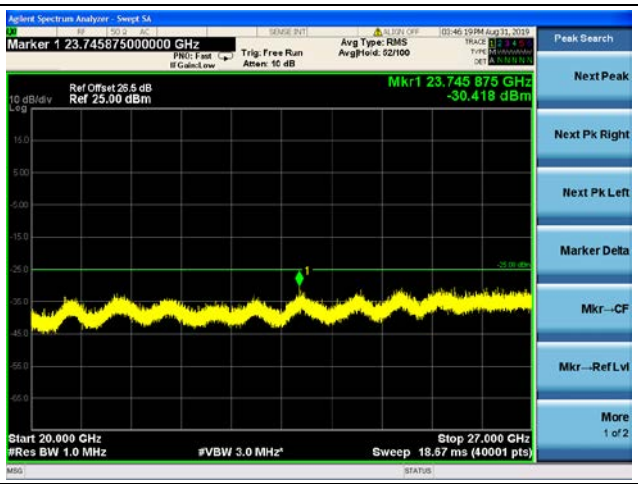


20MHz/QPSK/Mid CH

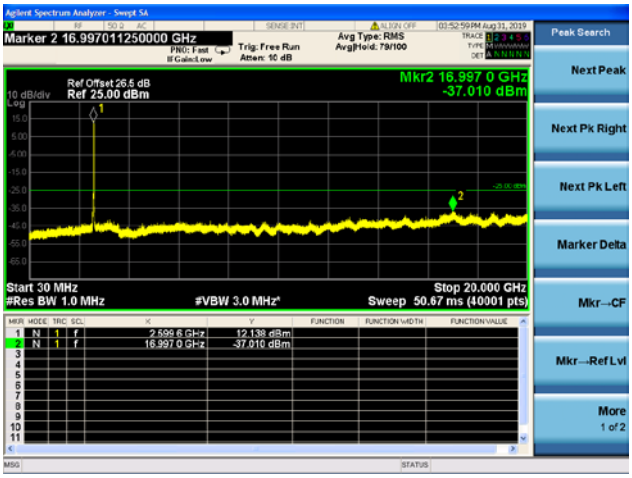


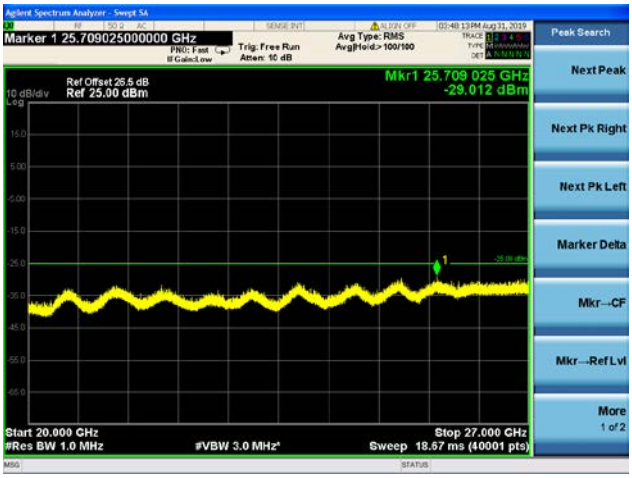
20MHz/16QAM/Mid CH



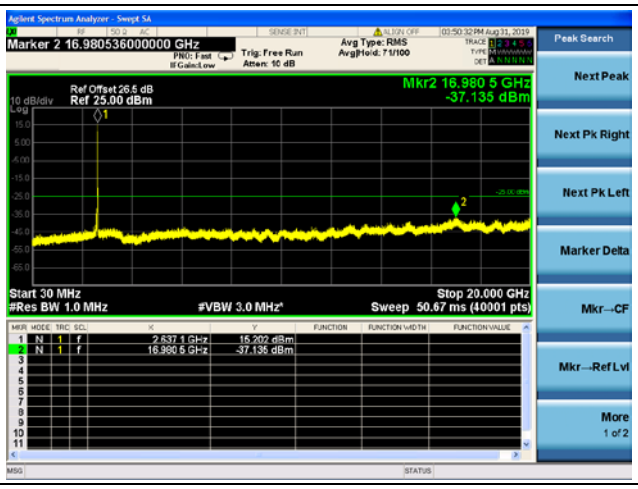


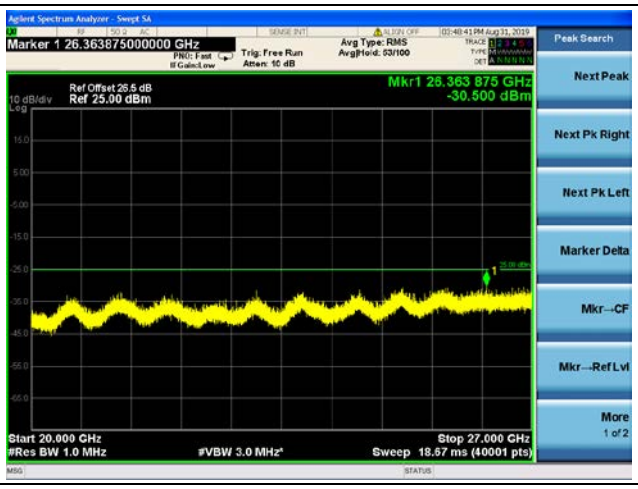
20MHz/64QAM/Mid CH



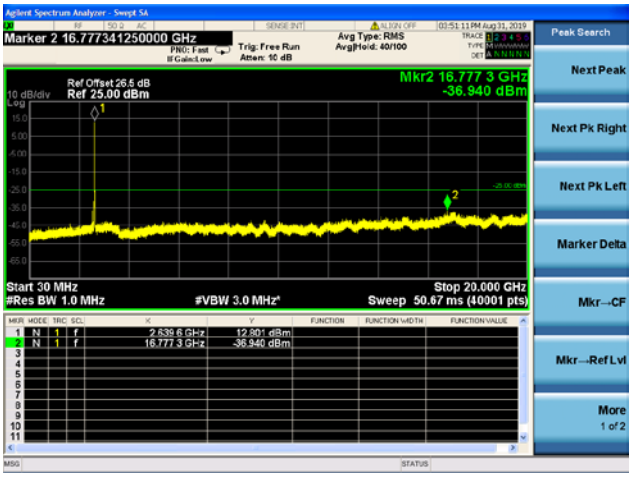


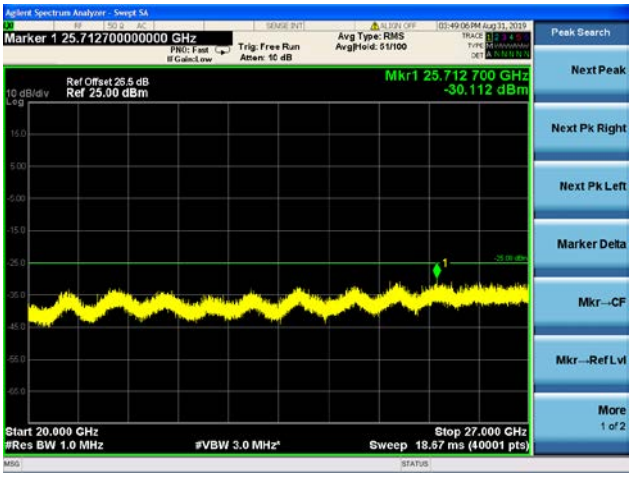
20MHz/QPSK/High CH



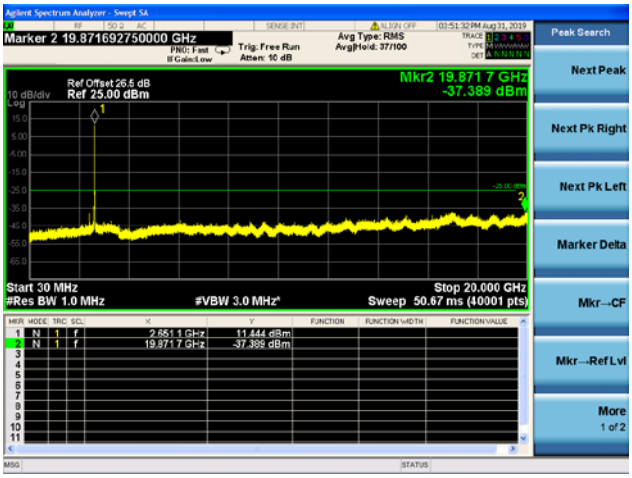


20MHz/16QAM/High CH





20MHz/64QAM/High CH



2.6. Band Edge

2.6.1. Requirement

According to FCC section 22.917(a), the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

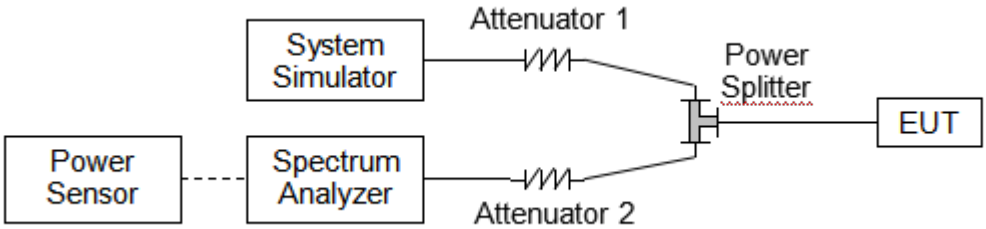
According to FCC section 24.238(a),The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

According to FCC section 27.53(g), For operations in the 698–746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

According to FCC section 27.53(h), For operations in the 1710–1755MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least 43 + 10 log10(P) dB.

According to FCC section 27.53(m) (4), 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. Test Description



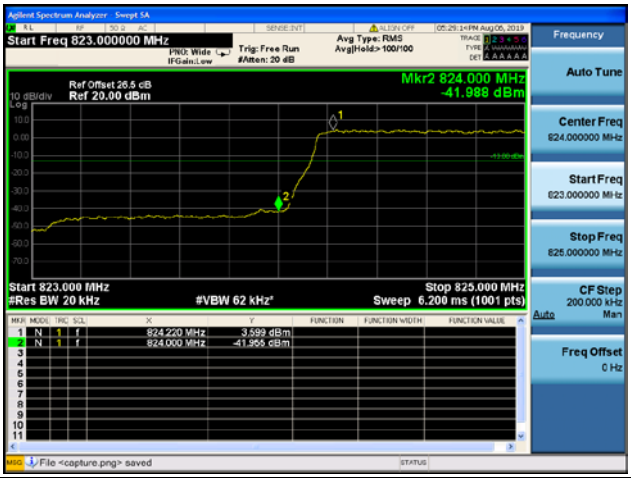
The EUTis coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

2.6.3. Test procedure

KDB 971168 D01v03 Section 6.0 and ANSI/TIA-603-E-2016.

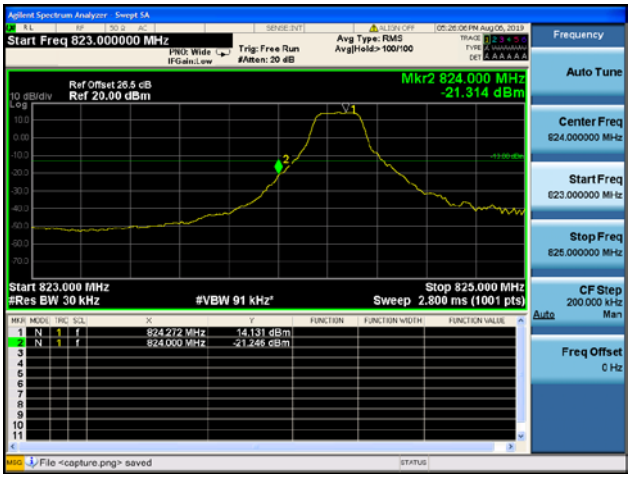
2.6.4. Test Result

The center frequency of spectrum is the band edge frequency and span is 2MHz, Record the max trace into the test report.

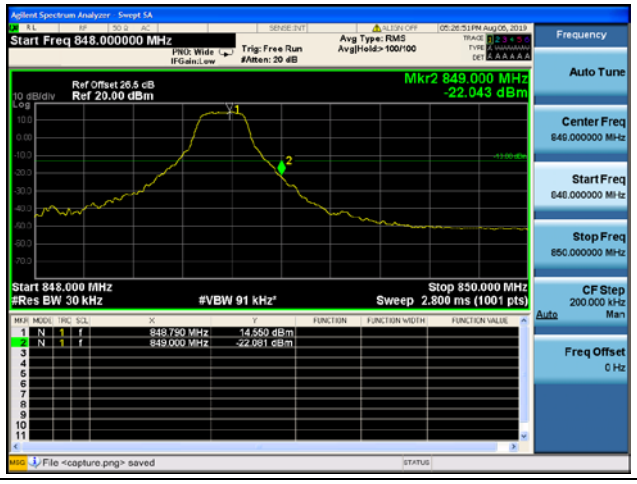
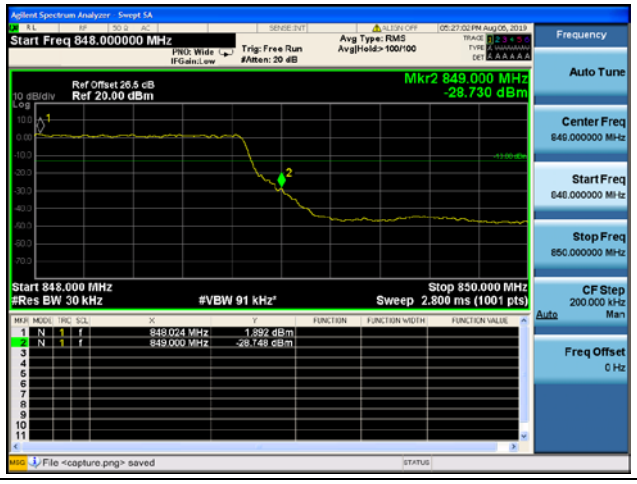
LTE Band 5					
Channel Bandwidth: 1.4MHz					
Channel	20407	1RB	Channel	20407	FULL RB
					
Channel Bandwidth: 1.4MHz					
Channel	20643	1RB	Channel	20643	FULL RB

LTE Band 5

Channel Bandwidth: 3MHz

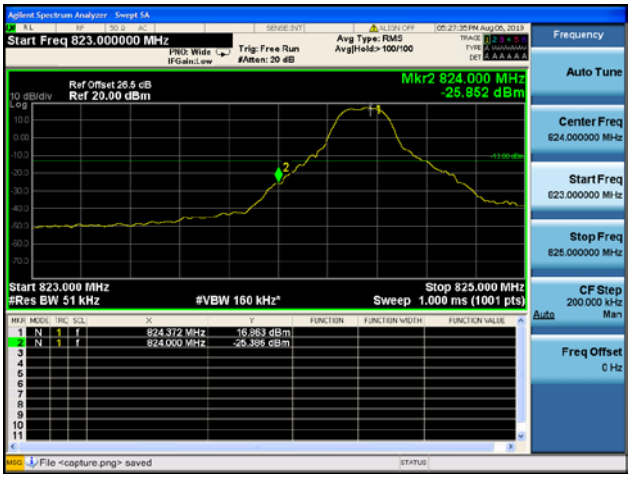
Channel	20415	1RB	Channel	20415	FULL RB
					

Channel Bandwidth: 3MHz

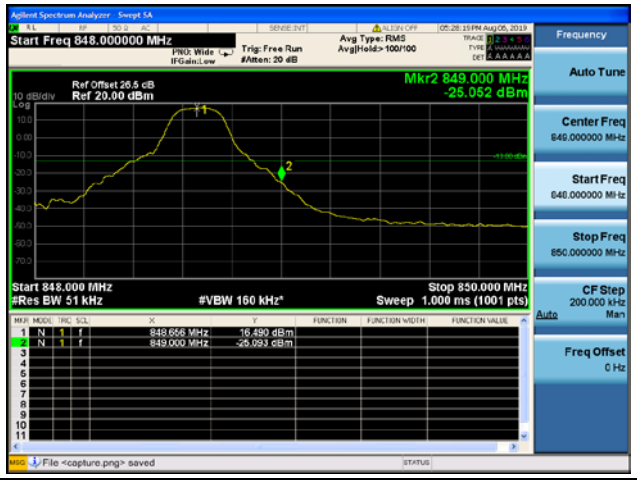
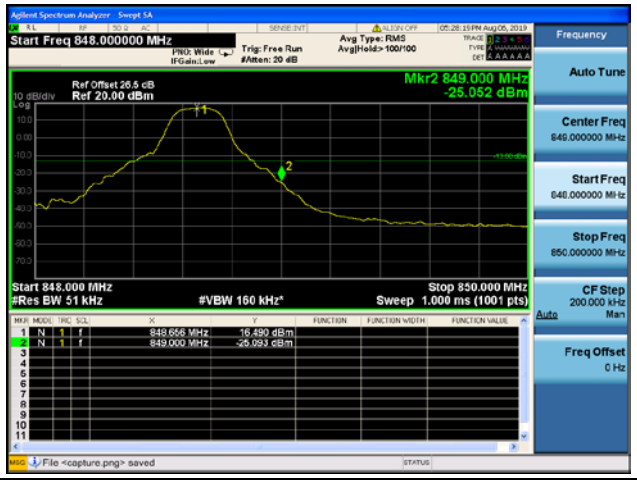
Channel	20635	1RB	Channel	20635	FULL RB
					

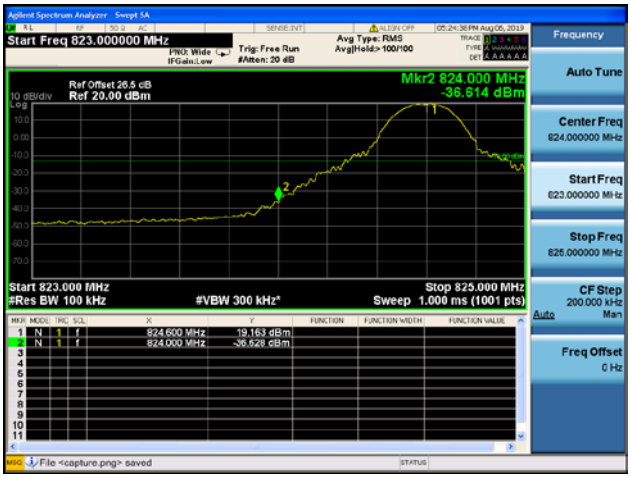
LTE Band 5

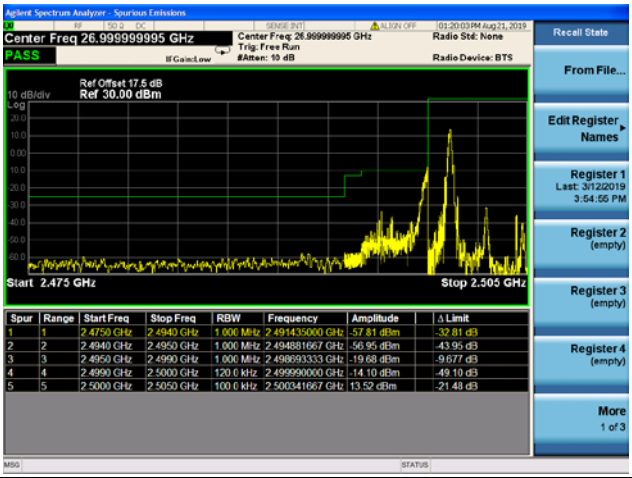
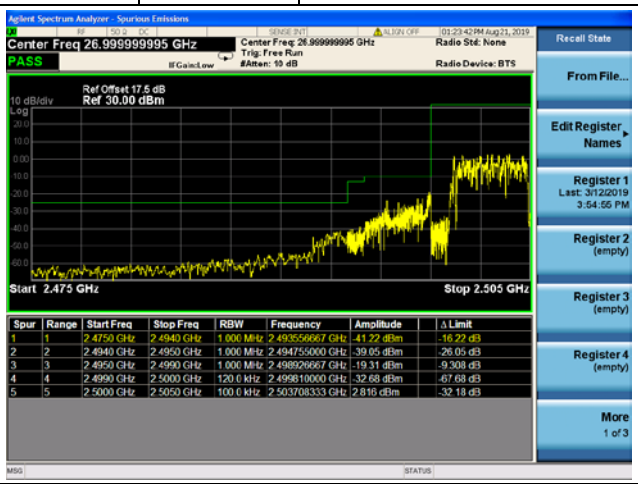
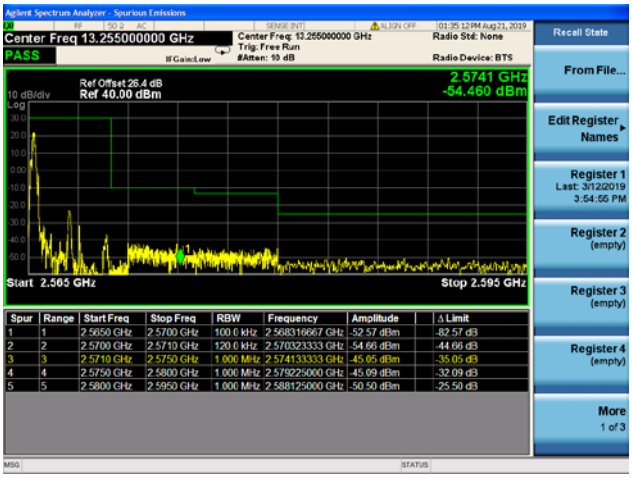
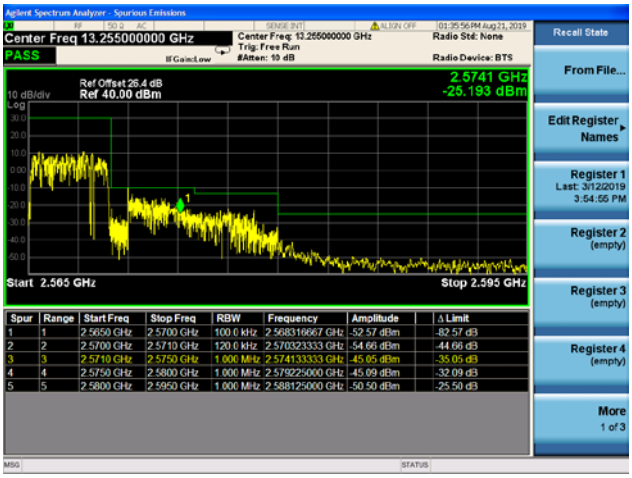
Channel Bandwidth: 5MHz

Channel	20425	1RB	Channel	20425	FULL RB
					

Channel Bandwidth: 5MHz

Channel	20625	1RB	Channel	20625	FULL RB
					

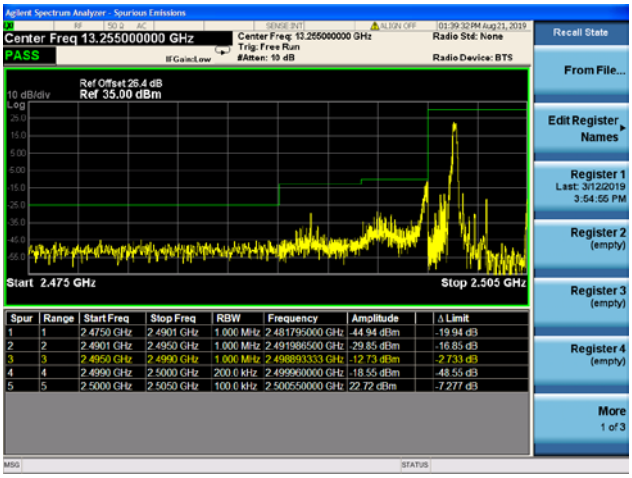
LTE Band 5					
Channel Bandwidth: 10MHz					
Channel	20450	1RB	Channel	20600	FULL RB
					
Channel Bandwidth: 10MHz					
Channel	20600	1RB	Channel	20600	FULL RB

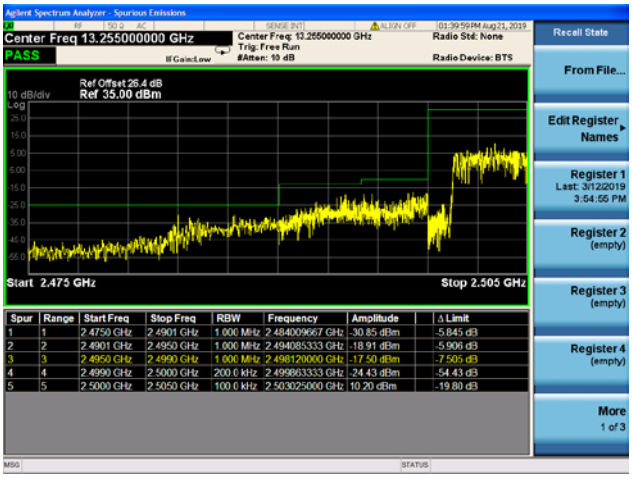
LTE Band 7					
Channel Bandwidth: 5MHz					
Channel	20775	1RB	Channel	20775	FULL RB
					
Channel Bandwidth: 5MHz					
Channel	21425	1RB	Channel	21425	FULL RB
					

LTE Band 7

Channel Bandwidth: 10MHz

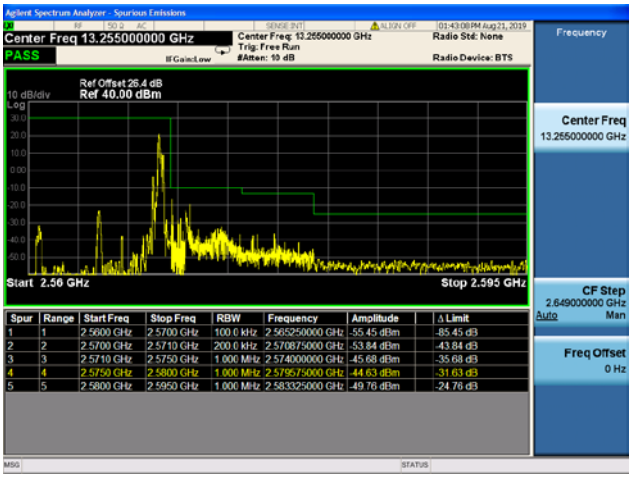
Channel	20800	1RB	Channel	20800	FULL RB

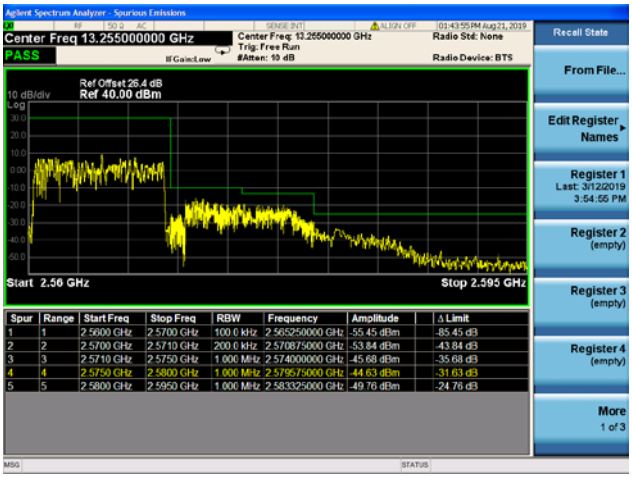




Channel Bandwidth: 10MHz

Channel	21425	1RB	Channel	21425	FULL RB

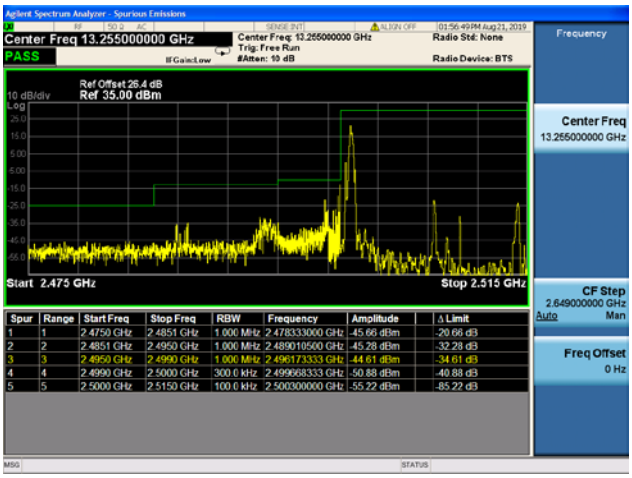




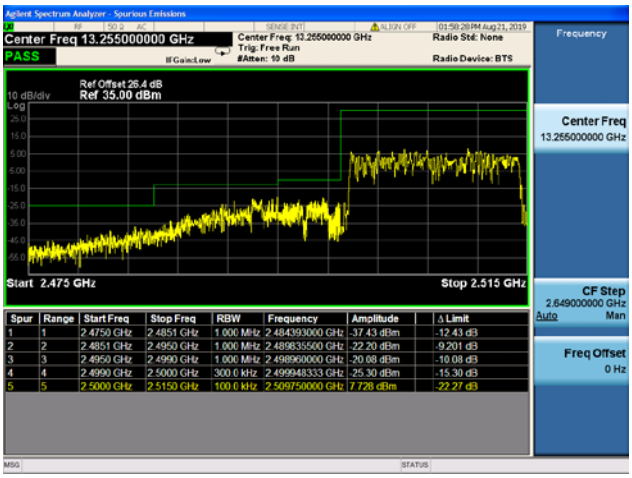
LTE Band 7

Channel Bandwidth: 15MHz

Channel	20825	1RB	Channel	20825	FULL RB



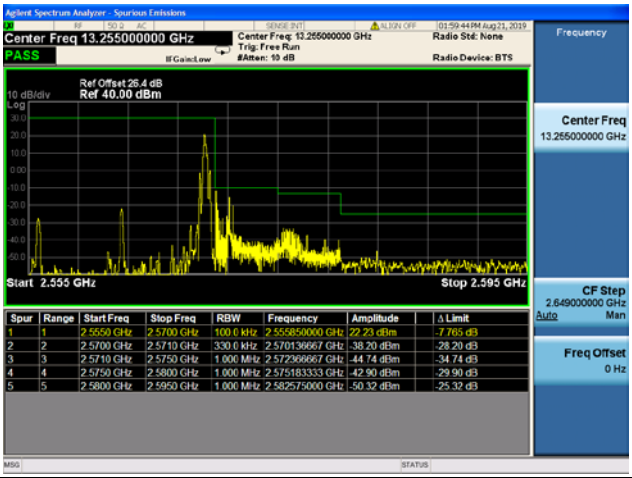
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4851 GHz	1.000 MHz	2.478333000 GHz	-45.66 dBm	-20.66 dB
2	2	2.4851 GHz	2.4950 GHz	1.000 MHz	2.489010500 GHz	-45.28 dBm	-32.28 dB
3	3	2.4950 GHz	2.4990 GHz	1.000 MHz	2.496173333 GHz	-44.61 dBm	-34.61 dB
4	4	2.4990 GHz	2.5000 GHz	300.0 kHz	2.499968333 GHz	-50.88 dBm	-40.88 dB
5	5	2.5000 GHz	2.5150 GHz	100.0 kHz	2.500300000 GHz	-55.22 dBm	-85.22 dB



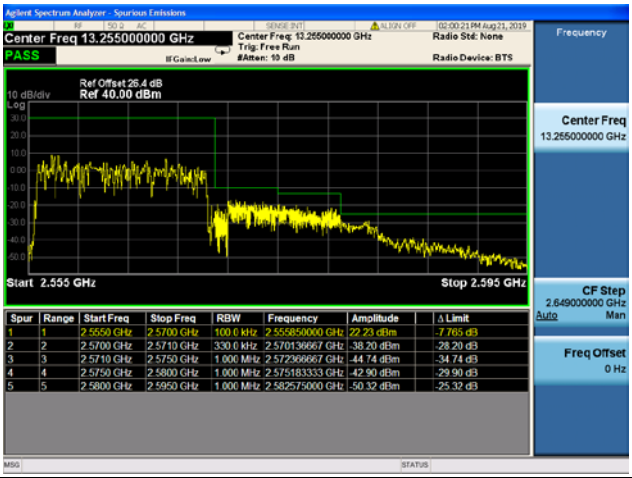
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4851 GHz	1.000 MHz	2.484393000 GHz	-37.43 dBm	-12.43 dB
2	2	2.4851 GHz	2.4950 GHz	1.000 MHz	2.489835500 GHz	-22.20 dBm	-9.201 dB
3	3	2.4950 GHz	2.4990 GHz	1.000 MHz	2.498960000 GHz	-20.08 dBm	-10.08 dB
4	4	2.4990 GHz	2.5000 GHz	300.0 kHz	2.499948333 GHz	-25.30 dBm	-15.30 dB
5	5	2.5000 GHz	2.5150 GHz	100.0 kHz	2.509750000 GHz	7.728 dBm	-22.27 dB

Channel Bandwidth: 15MHz

Channel	21375	1RB	Channel	21375	FULL RB



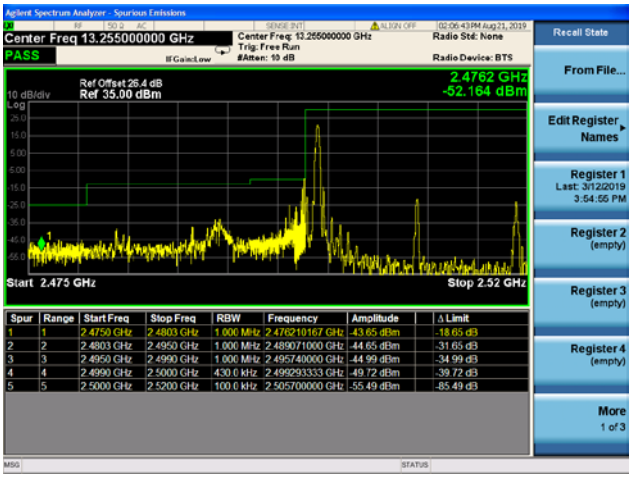
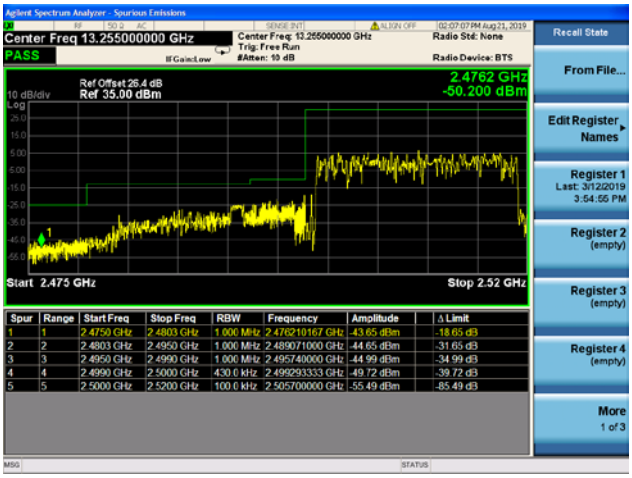
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5550 GHz	2.5700 GHz	100.0 kHz	2.555850000 GHz	22.23 dBm	-7.765 dB
2	2	2.5700 GHz	2.5710 GHz	330.0 kHz	2.570136667 GHz	-38.20 dBm	-28.20 dB
3	3	2.5710 GHz	2.5750 GHz	1.000 MHz	2.572366667 GHz	-44.74 dBm	-34.74 dB
4	4	2.5750 GHz	2.5800 GHz	1.000 MHz	2.575183333 GHz	-42.90 dBm	-29.90 dB
5	5	2.5800 GHz	2.5950 GHz	1.000 MHz	2.582575000 GHz	-50.32 dBm	-25.32 dB



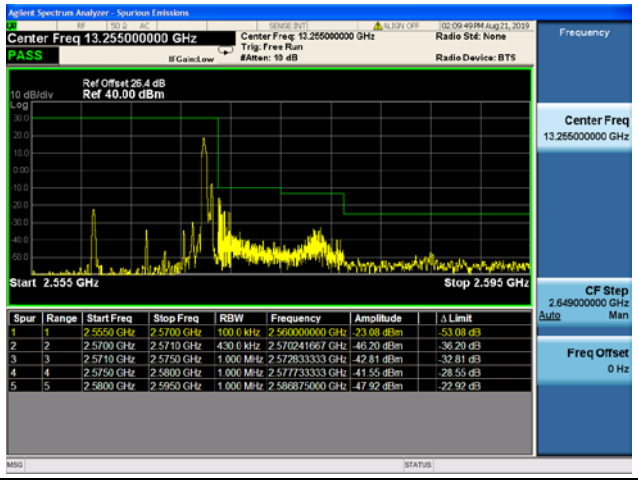
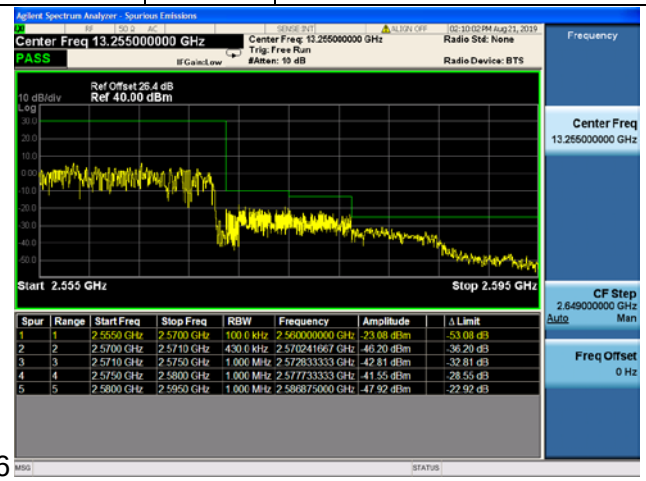
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5550 GHz	2.5700 GHz	100.0 kHz	2.555850000 GHz	22.23 dBm	-7.765 dB
2	2	2.5700 GHz	2.5710 GHz	330.0 kHz	2.570136667 GHz	-38.20 dBm	-28.20 dB
3	3	2.5710 GHz	2.5750 GHz	1.000 MHz	2.572366667 GHz	-44.74 dBm	-34.74 dB
4	4	2.5750 GHz	2.5800 GHz	1.000 MHz	2.575183333 GHz	-42.90 dBm	-29.90 dB
5	5	2.5800 GHz	2.5950 GHz	1.000 MHz	2.582575000 GHz	-50.32 dBm	-25.32 dB

LTE Band 7

Channel Bandwidth: 20MHz

Channel	20850	1RB	Channel	20850	FULL RB
					

Channel Bandwidth: 20MHz

Channel	21350	1RB	Channel	21350	FULL RB
					

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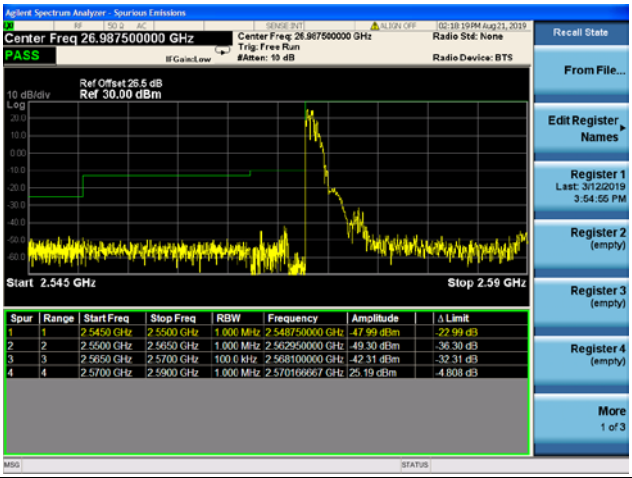
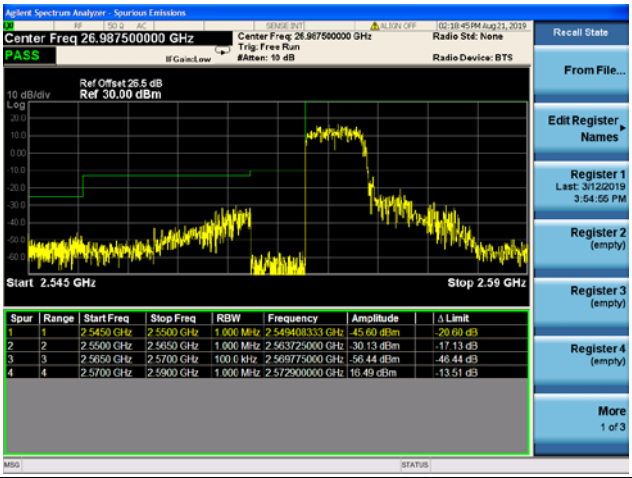
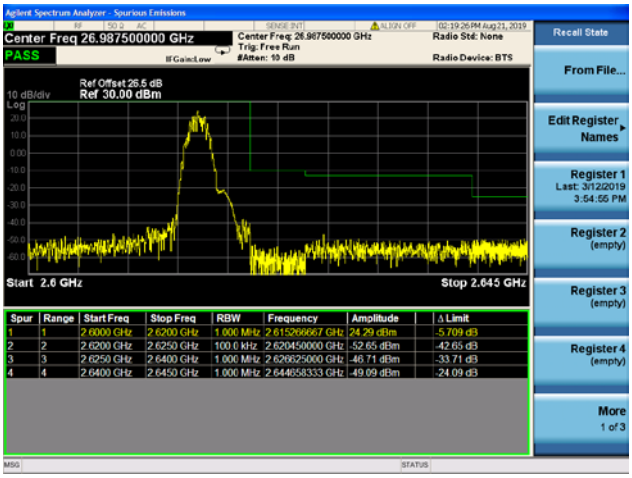
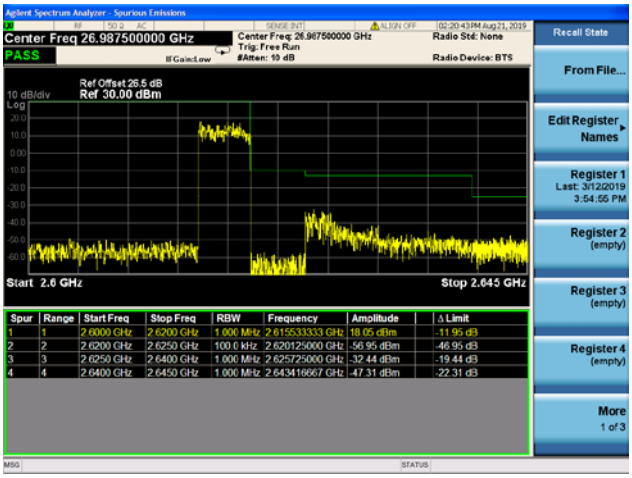
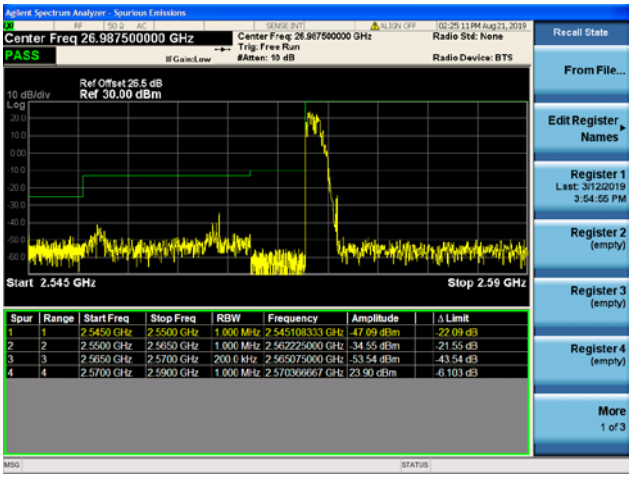
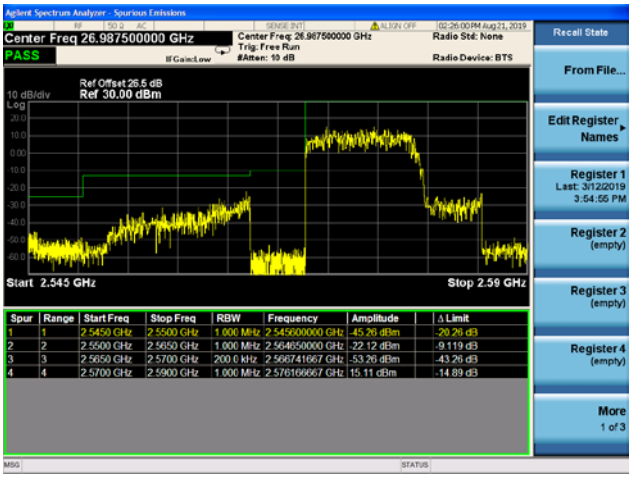
LTE Band 38					
Channel Bandwidth: 5MHz					
Channel	37775	1RB	Channel	37775	FULL RB
					
Channel Bandwidth: 5MHz					
Channel	38225	1RB	Channel	38225	FULL RB
					

LTE Band 38

Channel Bandwidth: 10MHz

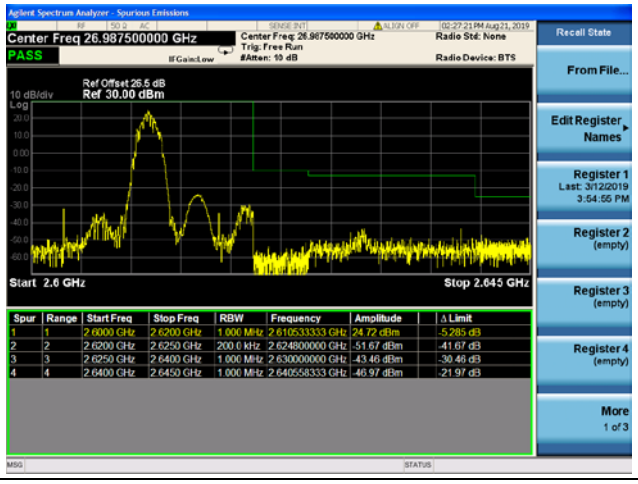
Channel	37800	1RB	Channel	37800	FULL RB

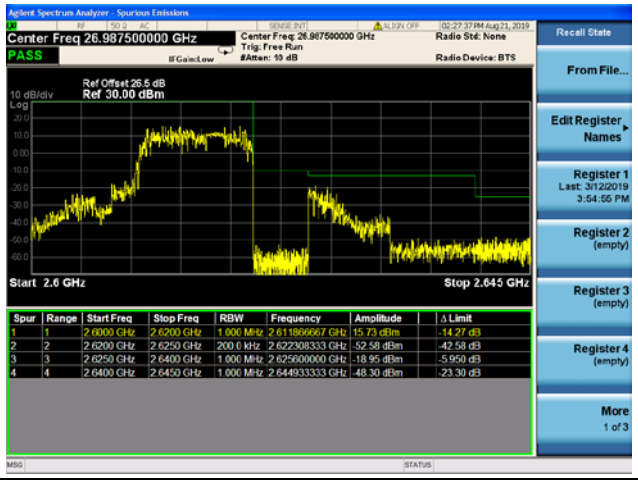




Channel Bandwidth: 10MHz

Channel	38200	1RB	Channel	38200	FULL RB

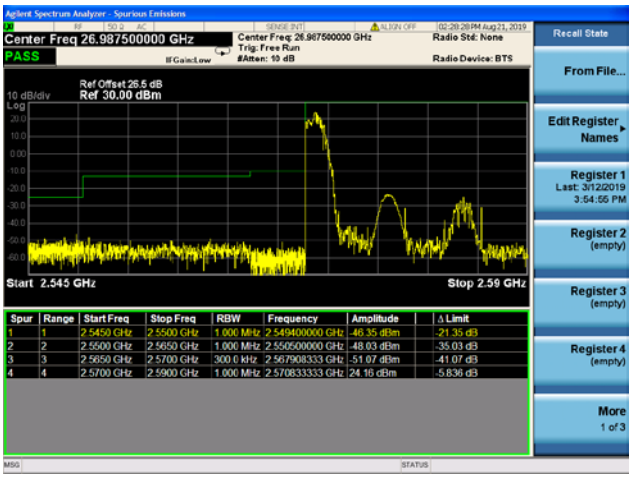


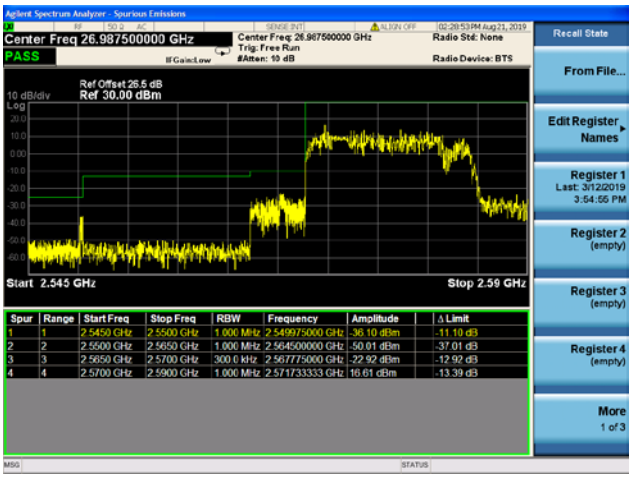


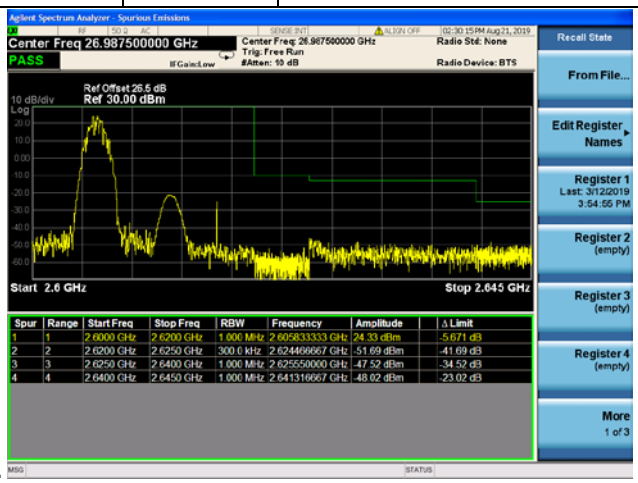
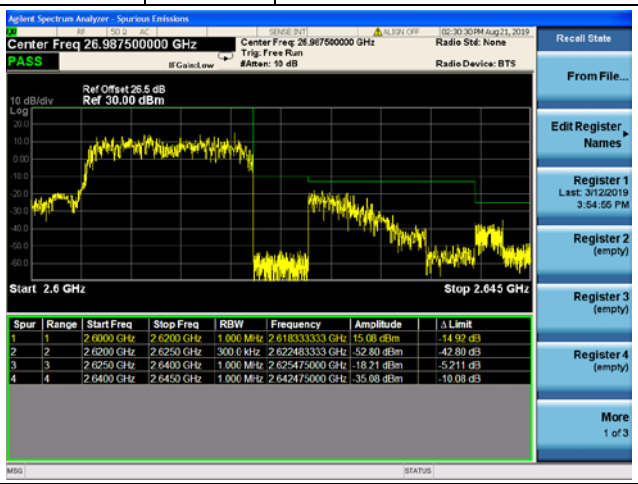
LTE Band 38

Channel Bandwidth: 15MHz

Channel	37825	1RB	Channel	37825	FULL RB





Channel Bandwidth: 15MHz

Channel	38175	1RB	Channel	38175	FULL RB