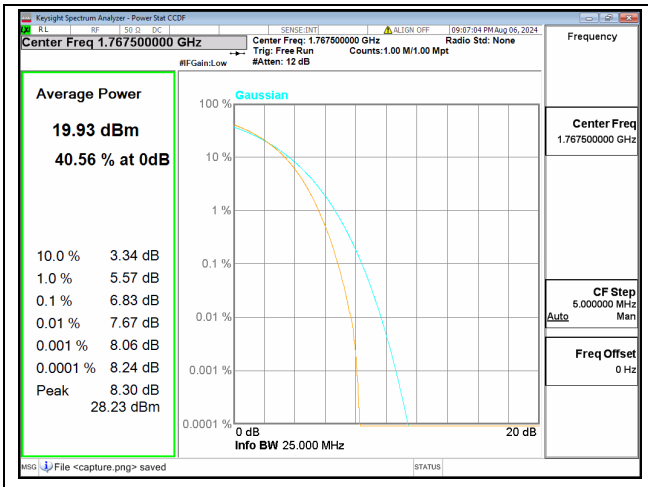
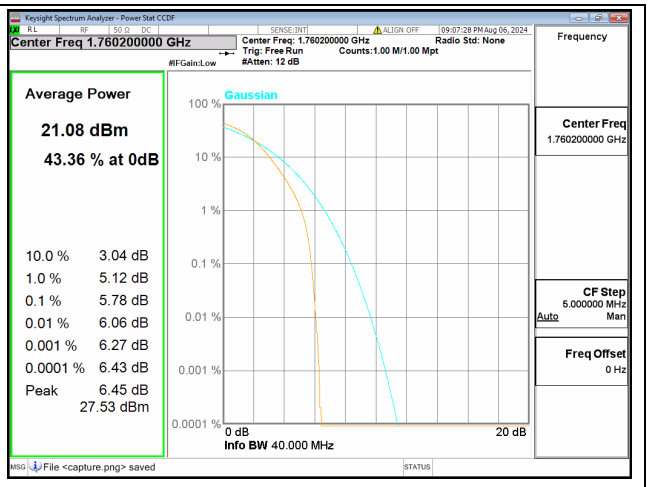
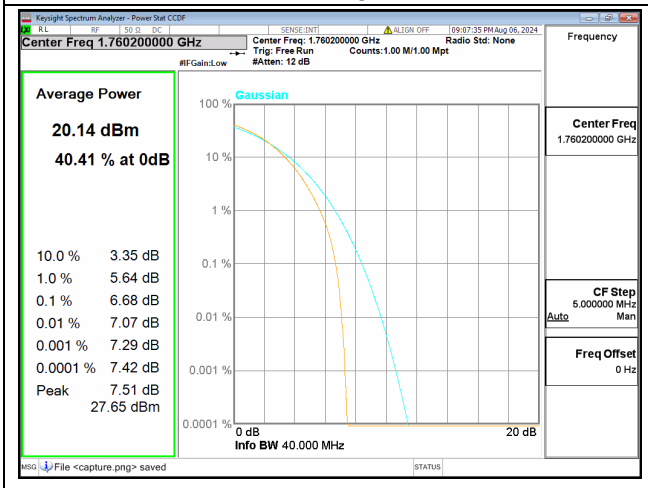


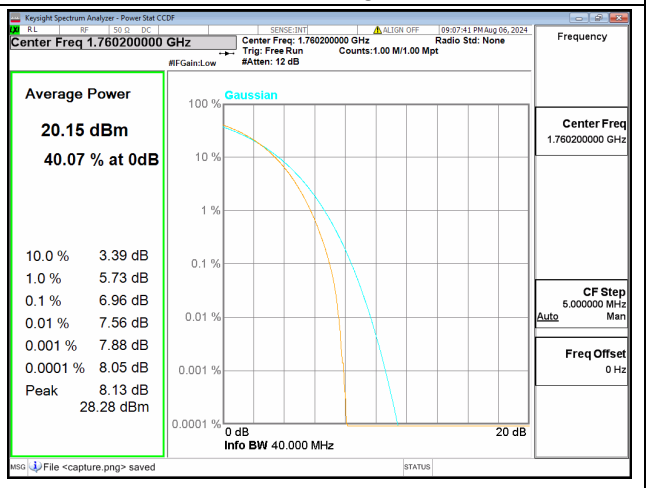
66C / 20+5MHz / High CH / 64QAM



66C / 20+20MHz / High CH / QPSK



66C / 20+20MHz / High CH / 16QAM



66C / 20+20MHz / High CH / 64QAM

2.5. Band Edge

2.5.1. Requirement

Band 5

According to FCC section 22.917(a),for operations in the 824–849MHz bands, 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) dBm a 100kHz bandwidth. However, in the 1 MHz 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.

Band 48

Part 96.41(e)(1)(i)

For channel and frequency assignments made by the SAS to CBSDs, the conducted power of any CBSD emission outside the fundamental emission bandwidth as specified in paragraph (e)(3) of this section (whether the emission is inside or outside of the authorized band) shall not exceed −13 dBm/MHz within 0-10 megahertz above the upper SAS-assigned channel edge and within 0-10 megahertz below the lower SAS-assigned channel edge. At all frequencies greater than 10 megahertz above the upper SAS assigned channel edge and less than 10 MHz below the lower SAS assigned channel edge, the conducted power of any CBSD emission shall not exceed −25 dBm/MHz.

Part 96.41(e)(1)(ii)

For channel and frequency assignments made by a CBSD to End User Devices, the conducted power of any End User Device emission outside the fundamental emission (whether in or outside of the authorized band) shall not exceed −13 dBm/MHz within 0 to B megahertz (where B is the bandwidth in megahertz of the assigned channel or multiple contiguous channels of the End User Device) above the upper CBSD-assigned channel edge and within 0 to B megahertz below the lower CBSD-assigned channel edge. At all frequencies greater than B megahertz above the upper CBSD assigned channel edge and less than B megahertz below the lower CBSD-assigned channel edge, the conducted power of any End User Device emission shall not exceed −25 dBm/MHz.

Part 96.41(e)(2)

For CBSDs and End User Devices, the conducted power of emissions below 3540 MHz or above 3710 MHz shall not exceed −25 dBm/MHz, and the conducted power of emissions below 3530 MHz or above 3720 MHz shall not exceed −40dBm/MHz.

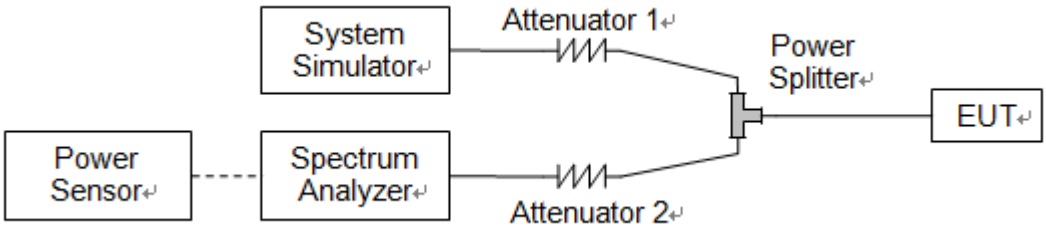
Band 66

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) dBm 1MHz bandwidth. However, in the 1 MHz 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.

Band 7

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.

2.5.2. Test Description

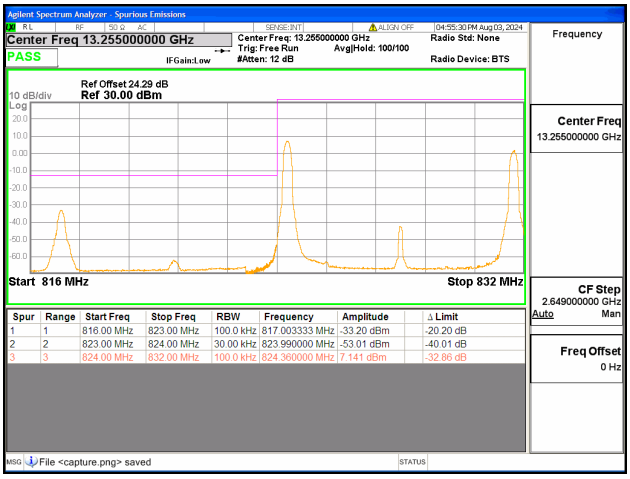


The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum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

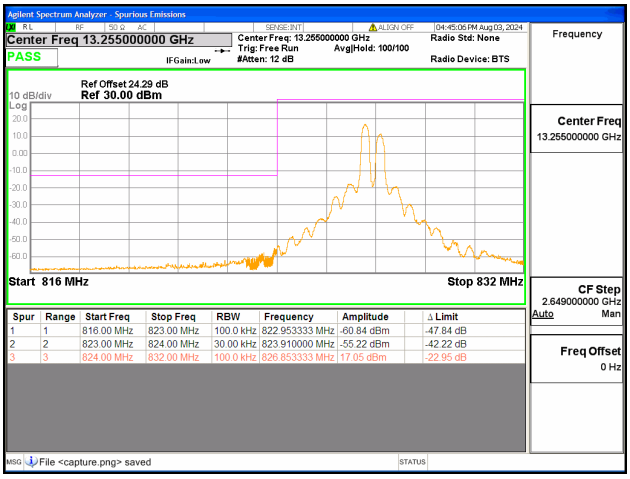
2.5.3. Test Procedure

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

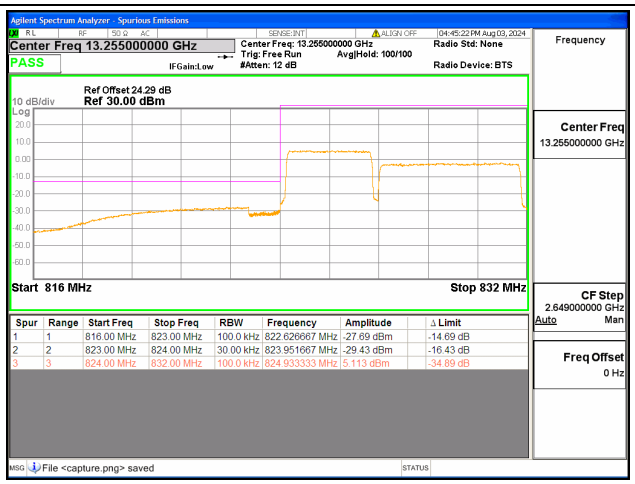
2.5.4. Test Result



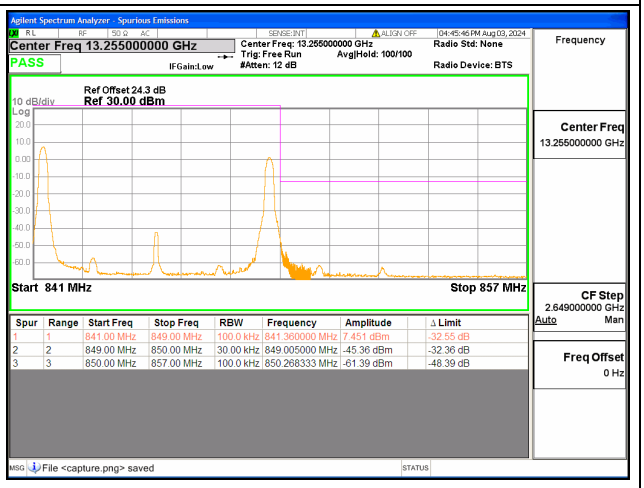
5B / 3+5MHz / Low CH / QPSK / 1#0-1#24



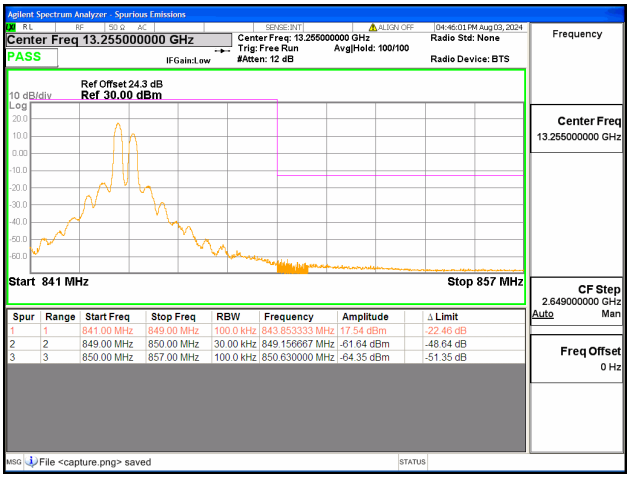
5B / 3+5MHz / Low CH / QPSK / 1#14-1#0



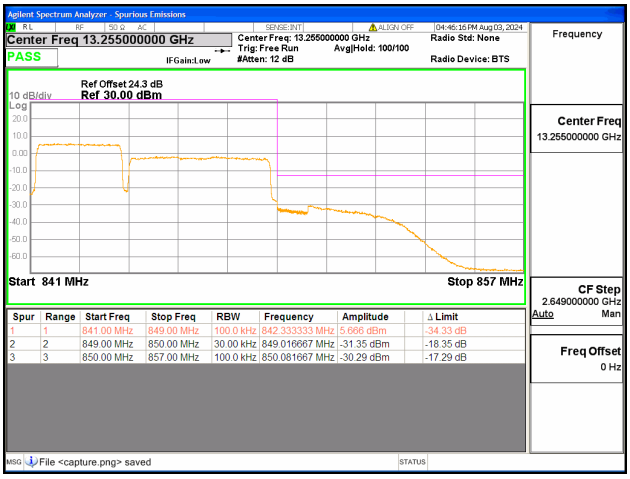
5B / 3+5MHz / Low CH / QPSK / 15#0-25#0



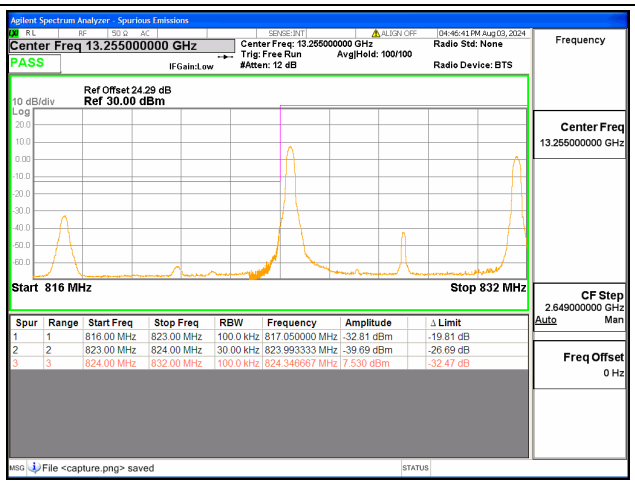
5B / 3+5MHz / High CH / QPSK / 1#0-1#24



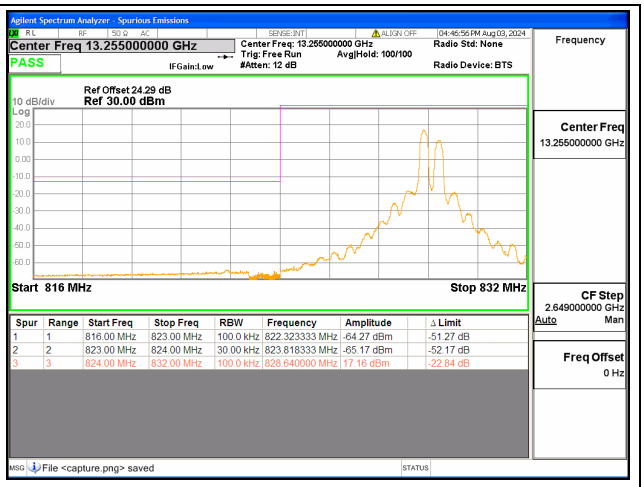
5B / 3+5MHz / High CH / QPSK / 1#14-1#0



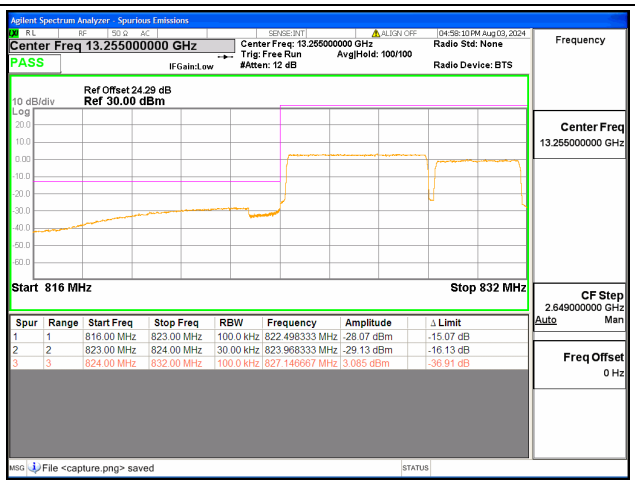
5B / 3+5MHz / High CH / QPSK / 15#0-25#0



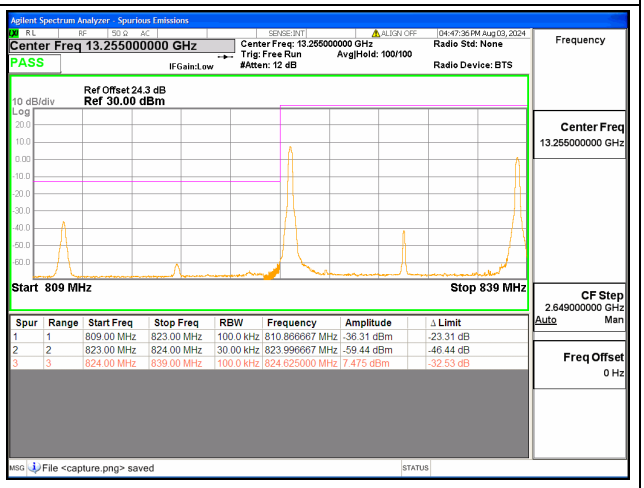
5B / 5+3MHz / Low CH / QPSK / 1#0-1#14



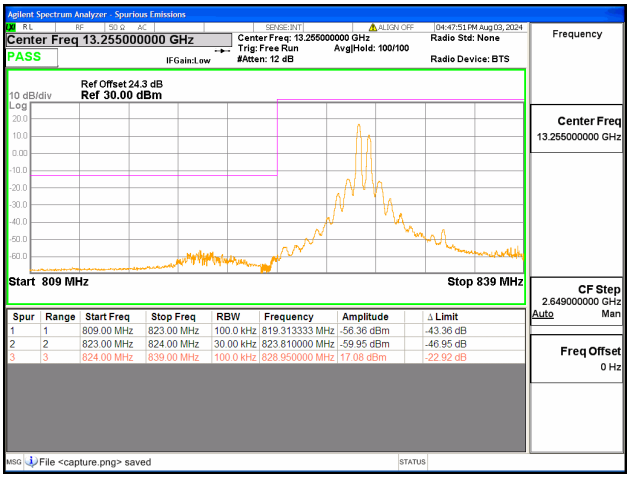
5B / 5+3MHz / Low CH / QPSK / 1#24-1#0



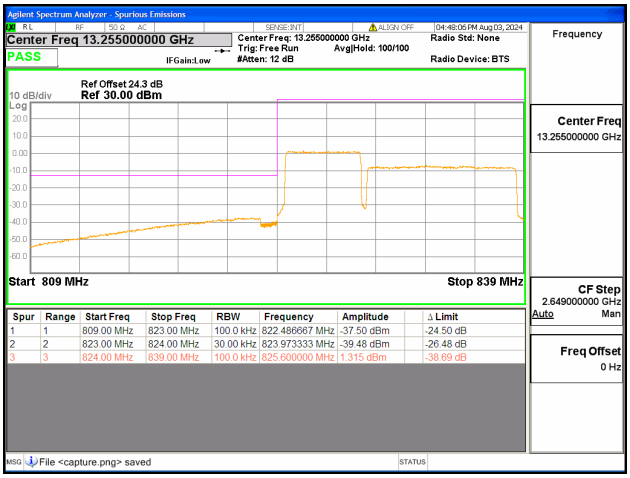
5B / 5+3MHz / Low CH / QPSK / 25#0-15#0



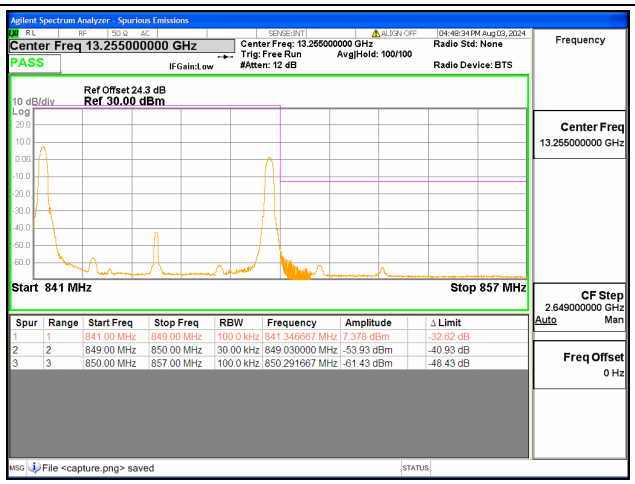
5B / 5+10MHz / Low CH / QPSK / 1#0-1#49



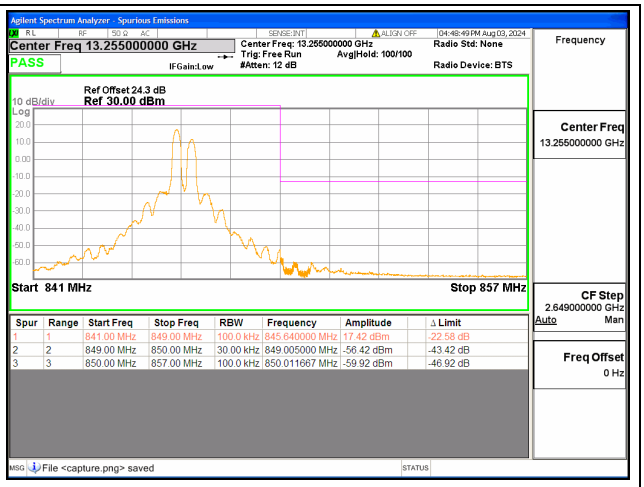
5B / 5+10MHz / Low CH / QPSK / 1#24-1#0



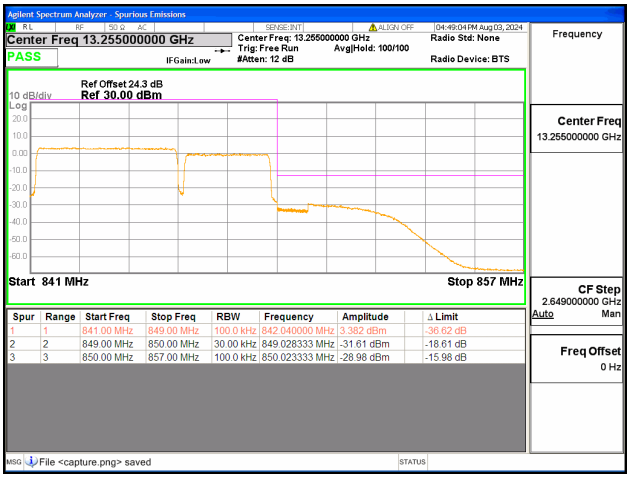
5B / 5+10MHz / Low CH / QPSK / 25#0-50#0



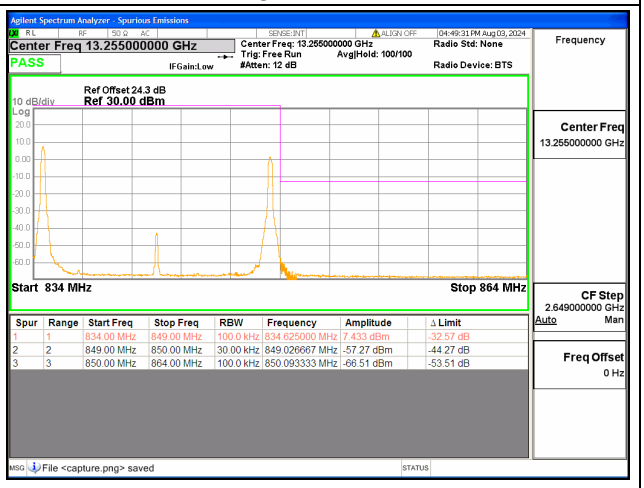
5B / 5+3MHz / High CH / QPSK / 1#0-1#14



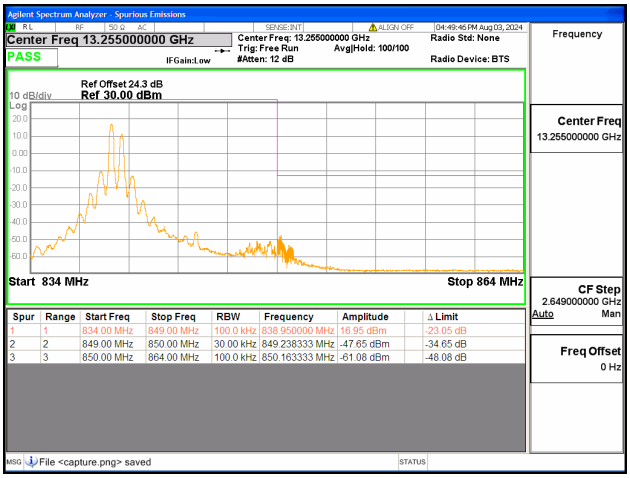
5B / 5+3MHz / High CH / QPSK / 1#24-1#0



5B / 5+3MHz / High CH / QPSK / 25#0-15#0



5B / 5+10MHz / High CH / QPSK / 1#0-1#49



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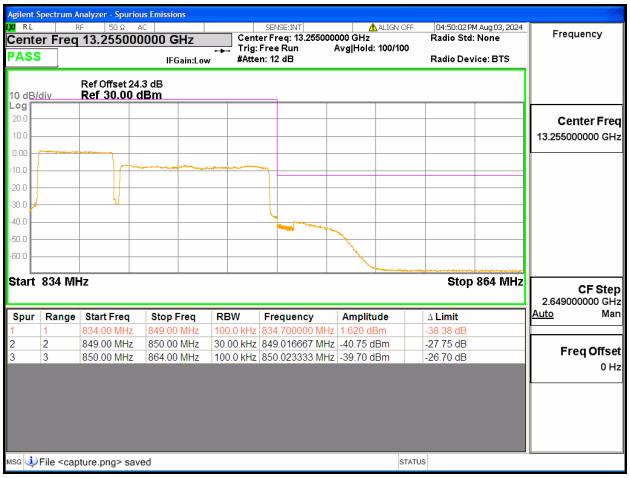
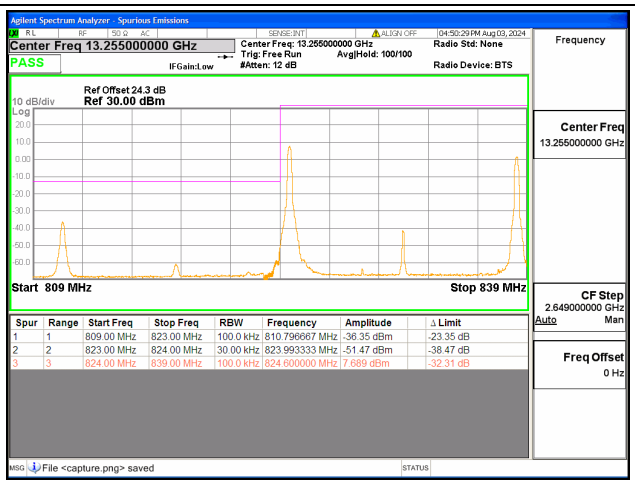
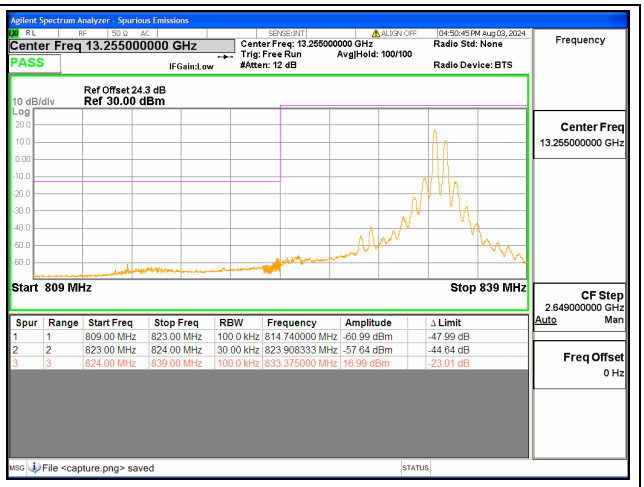


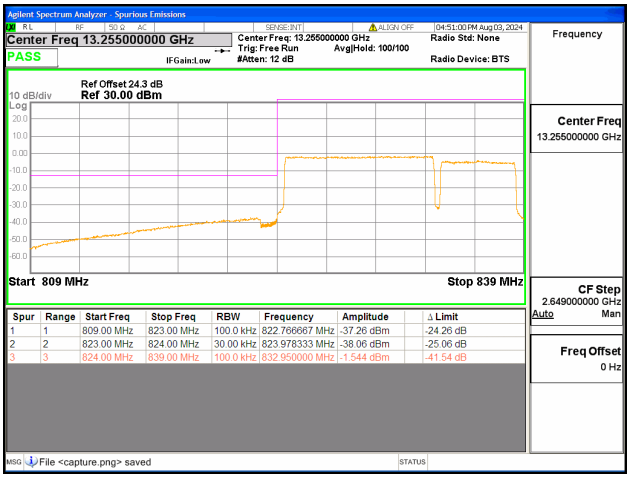
5B / 5+10MHz / High CH / QPSK / 25#0-50#0



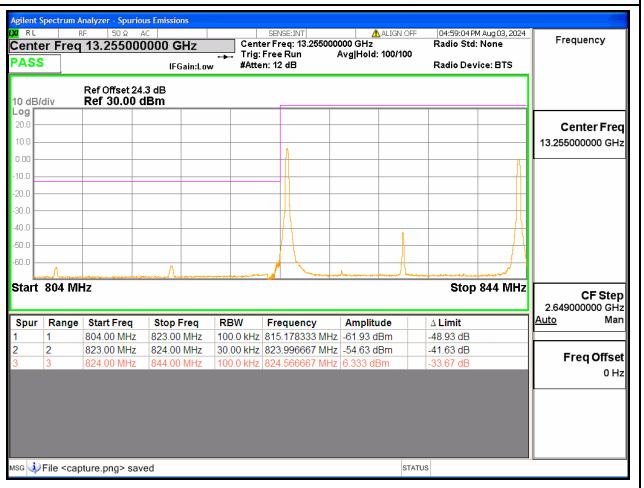
5B / 10+5MHz / Low CH / QPSK / 1#0-1#24



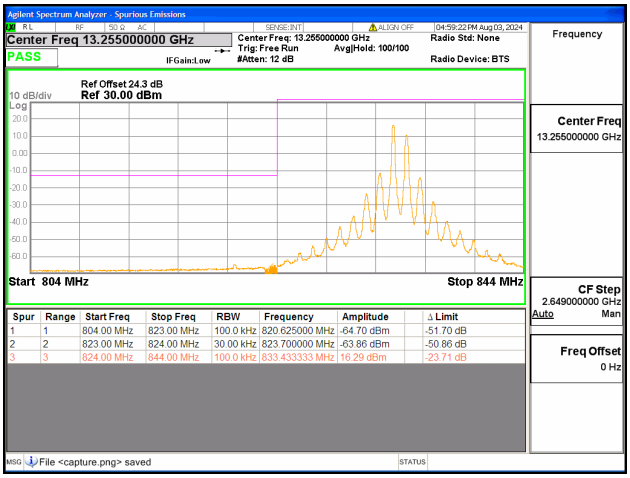
5B / 10+5MHz / Low CH / QPSK / 1#49-1#0



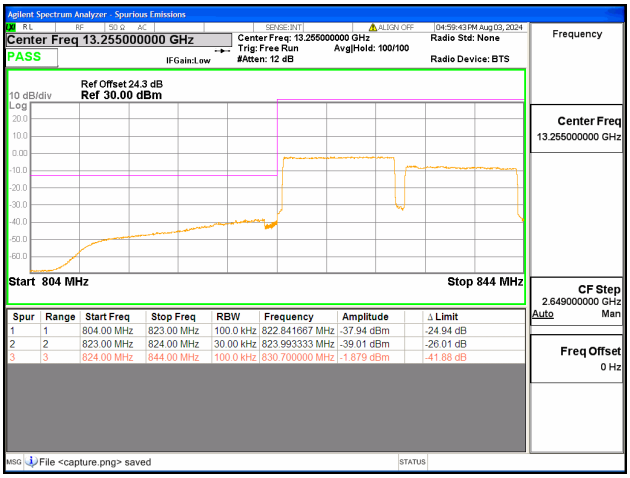
5B / 10+5MHz / Low CH / QPSK / 50#0-25#0



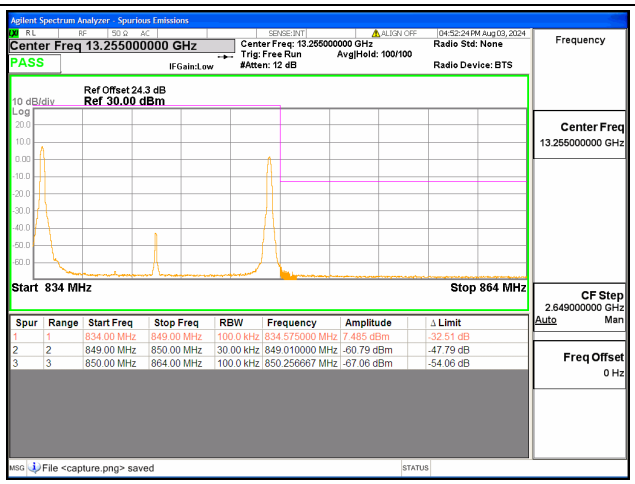
5B / 10+10MHz / Low CH / QPSK / 1#0-1#49



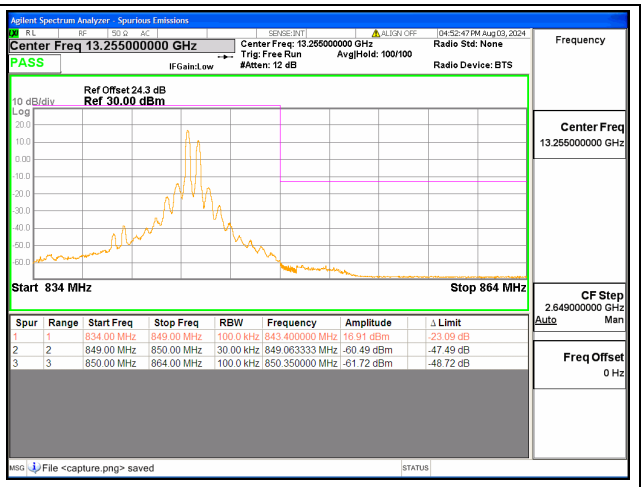
5B / 10+10MHz / Low CH / QPSK / 1#49-1#0



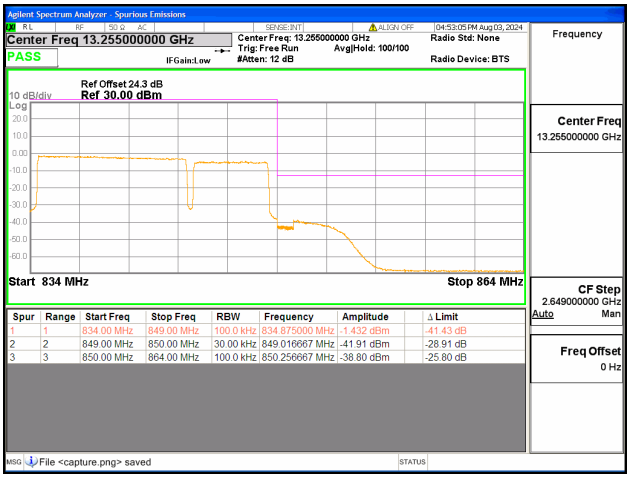
5B / 10+10MHz / Low CH / QPSK / 50#0-50#0



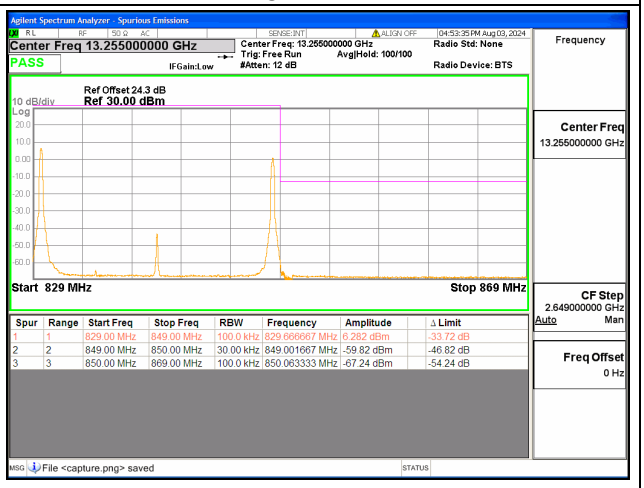
5B / 10+5MHz / High CH / QPSK / 1#0-1#24



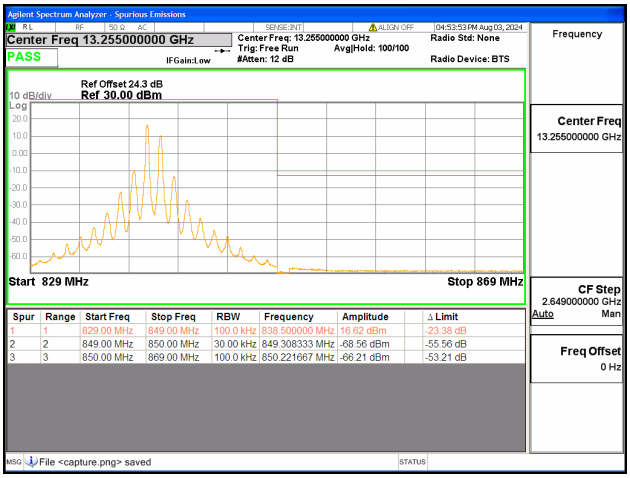
5B / 10+5MHz / High CH / QPSK / 1#49-1#0



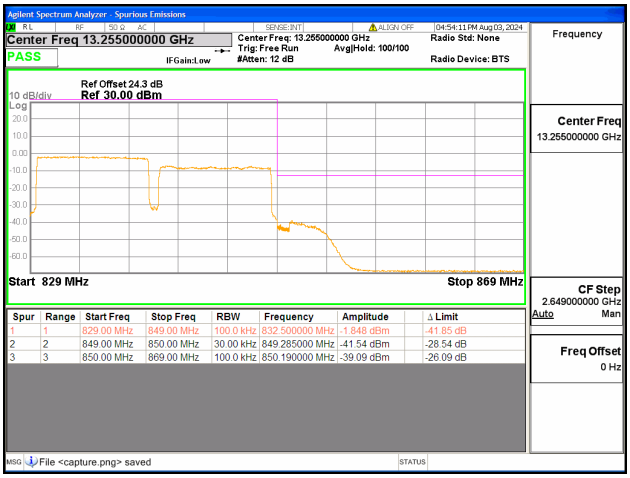
5B / 10+5MHz / High CH / QPSK / 50#0-25#0



5B / 10+10MHz / High CH / QPSK / 1#0-1#49



5B / 10+10MHz / High CH / QPSK / 1#49-1#0



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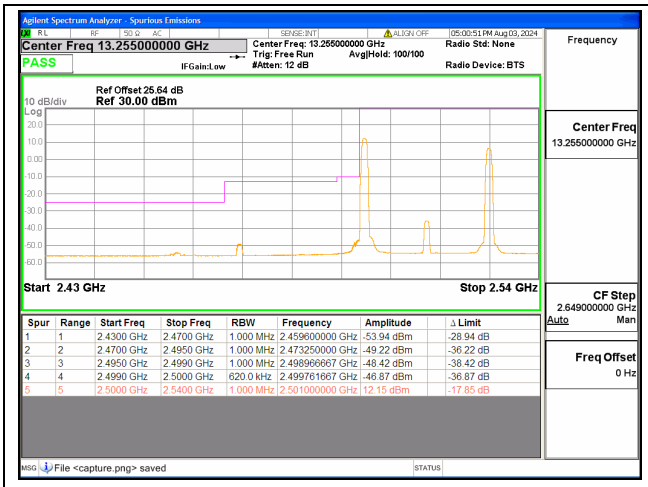
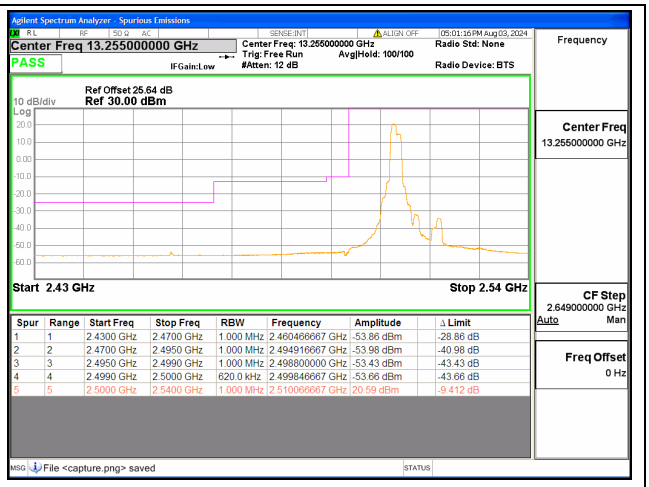
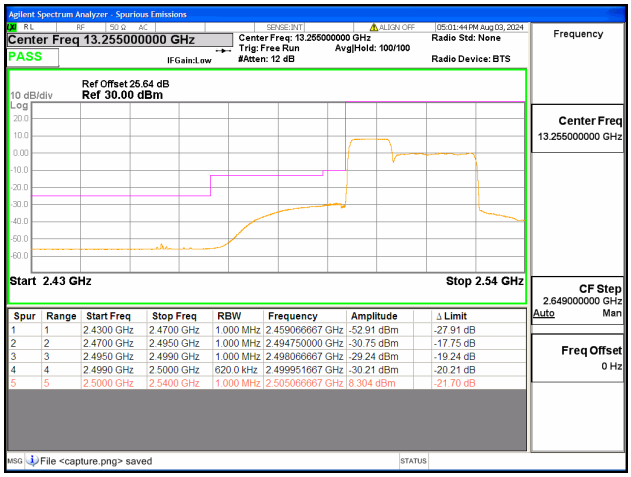


7C / 10+20MHz / Low CH / QPSK / 1#0-1#99



7C / 10+20MHz / Low CH / QPSK / 1#49-1#0



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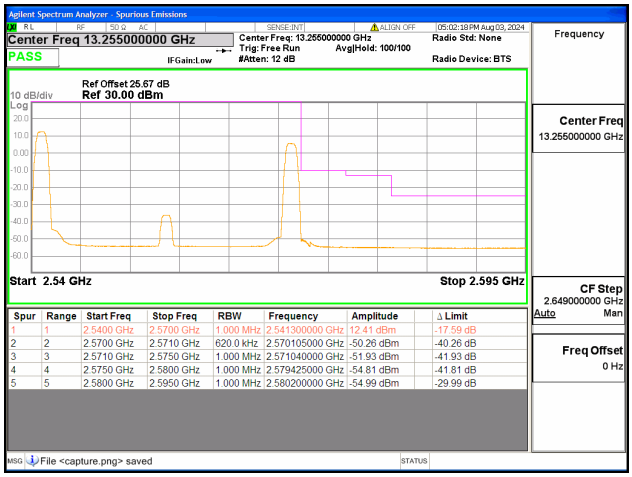
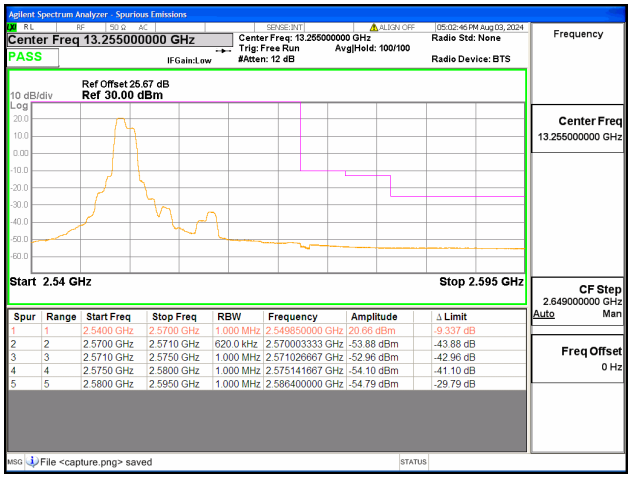
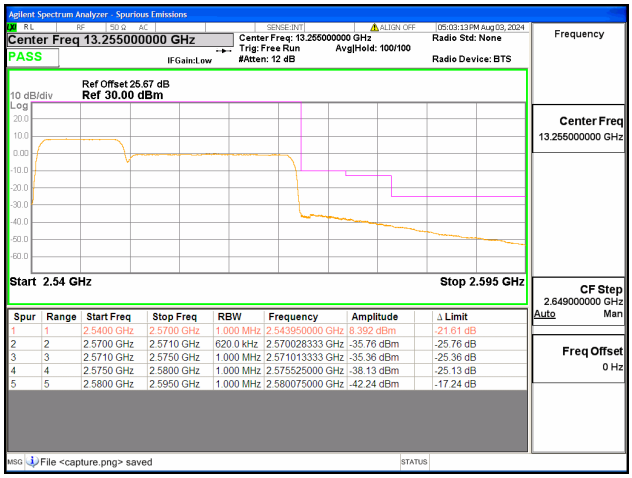


7C / 10+20MHz / High CH / QPSK / 1#0-1#99



7C / 10+20MHz / High CH / QPSK / 1#49-1#0



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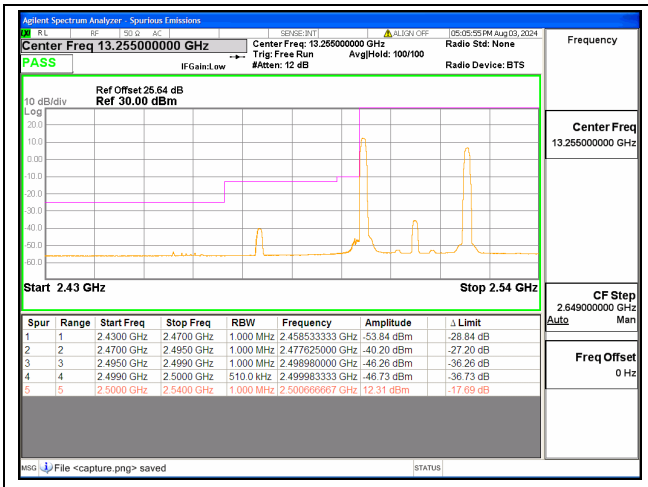
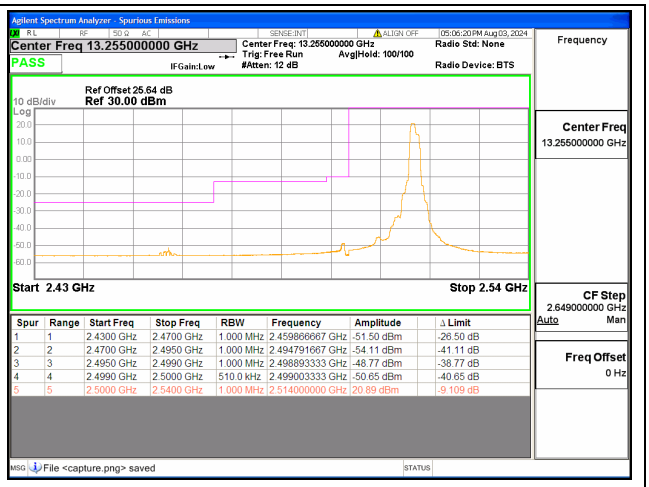


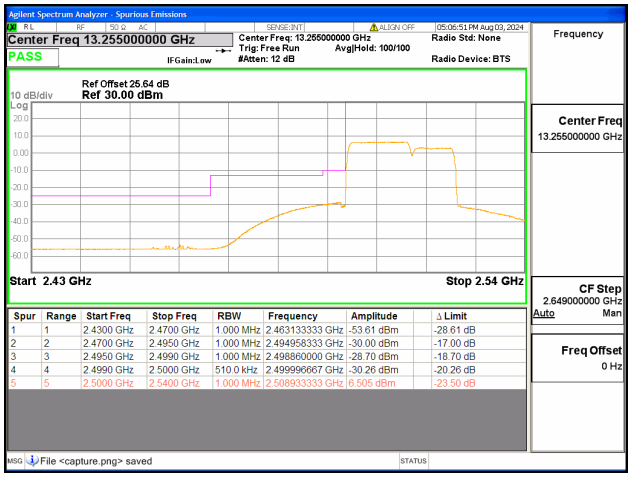
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4300 GHz	2.4700 GHz	1.000 MHz	2.458533333 GHz	-53.84 dBm	-28.84 dB
2	2	2.4700 GHz	2.4950 GHz	1.000 MHz	2.477625000 GHz	-40.20 dBm	-27.20 dB
3	3	2.4950 GHz	2.4990 GHz	1.000 MHz	2.498980000 GHz	-46.26 dBm	-36.26 dB
4	4	2.4990 GHz	2.5000 GHz	510.0 kHz	2.499983333 GHz	-46.73 dBm	-36.73 dB
5	5	2.5000 GHz	2.5400 GHz	1.000 MHz	2.500666667 GHz	12.31 dBm	-17.69 dB

7C / 15+10MHz / Low CH / QPSK / 1#0-1#49



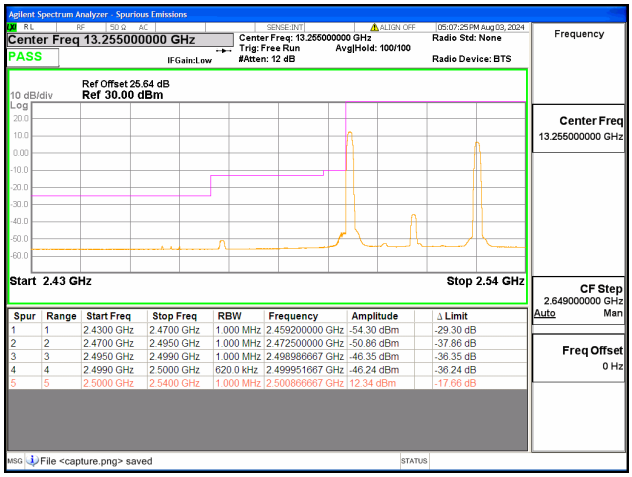
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4300 GHz	2.4700 GHz	1.000 MHz	2.459866667 GHz	-51.50 dBm	-26.50 dB
2	2	2.4700 GHz	2.4950 GHz	1.000 MHz	2.494791667 GHz	-54.11 dBm	-41.11 dB
3	3	2.4950 GHz	2.4990 GHz	1.000 MHz	2.498893333 GHz	-48.77 dBm	-38.77 dB
4	4	2.4990 GHz	2.5000 GHz	510.0 kHz	2.499003333 GHz	-50.65 dBm	-40.65 dB
5	5	2.5000 GHz	2.5400 GHz	1.000 MHz	2.514000000 GHz	20.89 dBm	-9.109 dB

7C / 15+10MHz / Low CH / QPSK / 1#74-1#0



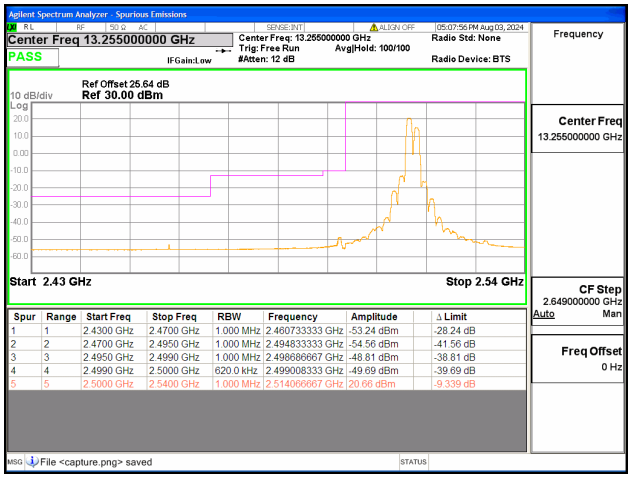
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4300 GHz	2.4700 GHz	1.000 MHz	2.463133333 GHz	-53.61 dBm	-28.61 dB
2	2	2.4700 GHz	2.4950 GHz	1.000 MHz	2.494958333 GHz	-30.00 dBm	-17.00 dB
3	3	2.4950 GHz	2.4990 GHz	1.000 MHz	2.498860000 GHz	-28.70 dBm	-18.70 dB
4	4	2.4990 GHz	2.5000 GHz	510.0 kHz	2.499996667 GHz	-30.26 dBm	-20.26 dB
5	5	2.5000 GHz	2.5400 GHz	1.000 MHz	2.508933333 GHz	6.505 dBm	-23.50 dB

7C / 15+10MHz / Low CH / QPSK / 75#0-50#0



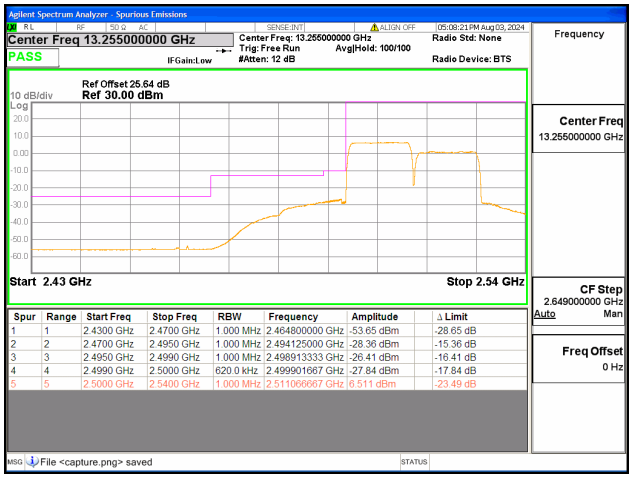
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4300 GHz	2.4700 GHz	1.000 MHz	2.459200000 GHz	-54.30 dBm	-29.30 dB
2	2	2.4700 GHz	2.4950 GHz	1.000 MHz	2.472500000 GHz	-50.86 dBm	-37.86 dB
3	3	2.4950 GHz	2.4990 GHz	1.000 MHz	2.498986667 GHz	-46.35 dBm	-36.35 dB
4	4	2.4990 GHz	2.5000 GHz	620.0 kHz	2.499951667 GHz	-46.24 dBm	-36.24 dB
5	5	2.5000 GHz	2.5400 GHz	1.000 MHz	2.500866667 GHz	12.34 dBm	-17.66 dB

7C / 15+15MHz / Low CH / QPSK / 1#0-1#74



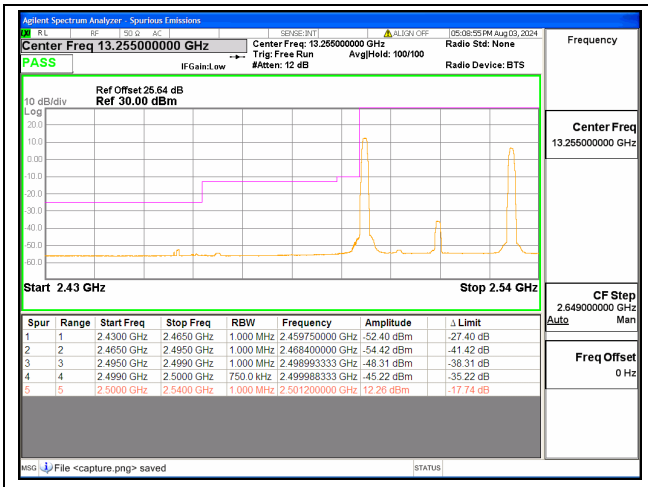
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4300 GHz	2.4700 GHz	1.000 MHz	2.460733333 GHz	-53.24 dBm	-28.24 dB
2	2	2.4700 GHz	2.4950 GHz	1.000 MHz	2.494833333 GHz	-54.56 dBm	-41.56 dB
3	3	2.4950 GHz	2.4990 GHz	1.000 MHz	2.498686667 GHz	-48.81 dBm	-38.81 dB
4	4	2.4990 GHz	2.5000 GHz	620.0 kHz	2.499008333 GHz	-49.69 dBm	-39.69 dB
5	5	2.5000 GHz	2.5400 GHz	1.000 MHz	2.514066667 GHz	20.66 dBm	-9.339 dB

7C / 15+15MHz / Low CH / QPSK / 1#74-1#0

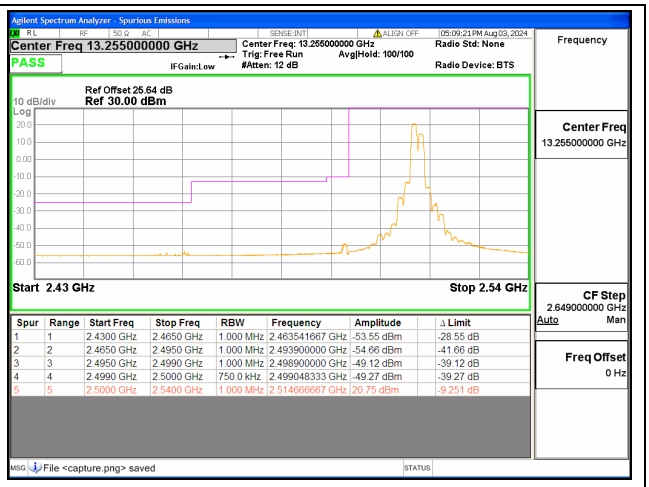


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4300 GHz	2.4700 GHz	1.000 MHz	2.464800000 GHz	-53.65 dBm	-28.65 dB
2	2	2.4700 GHz	2.4950 GHz	1.000 MHz	2.494125000 GHz	-28.36 dBm	-15.36 dB
3	3	2.4950 GHz	2.4990 GHz	1.000 MHz	2.498913333 GHz	-26.41 dBm	-16.41 dB
4	4	2.4990 GHz	2.5000 GHz	620.0 kHz	2.499901667 GHz	-27.84 dBm	-17.84 dB
5	5	2.5000 GHz	2.5400 GHz	1.000 MHz	2.511066667 GHz	6.511 dBm	-23.49 dB

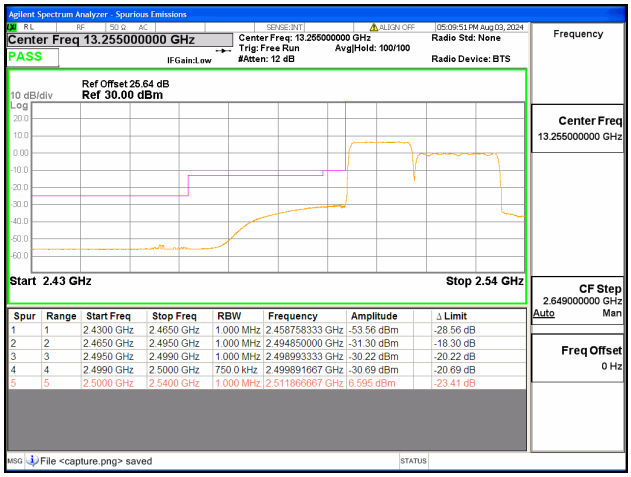
7C / 15+15MHz / Low CH / QPSK / 75#0-75#0



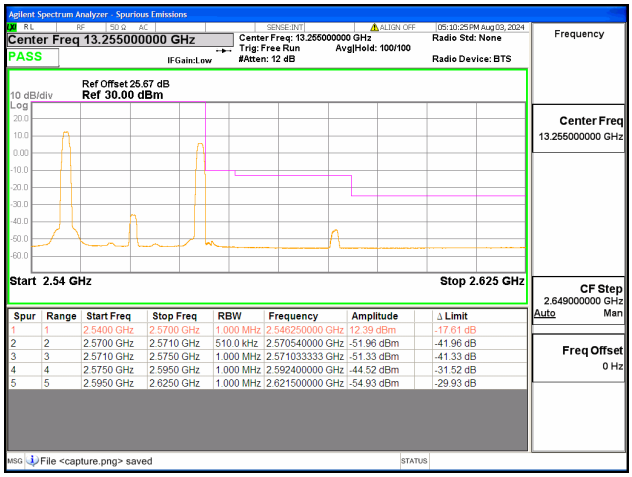
7C / 15+20MHz / Low CH / QPSK / 1#0-1#99



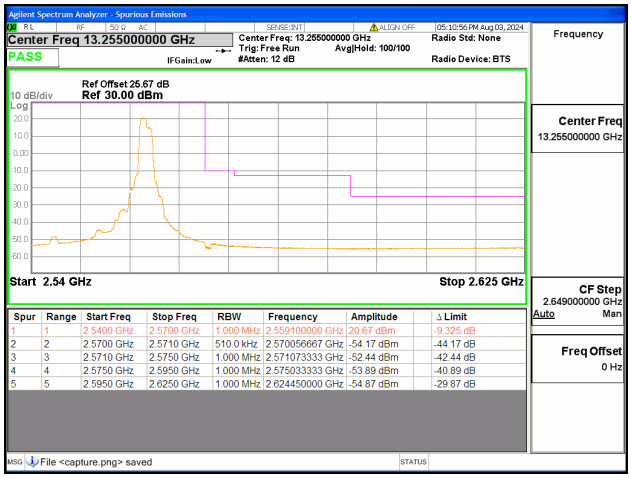
7C / 15+20MHz / Low CH / QPSK / 1#74-1#0



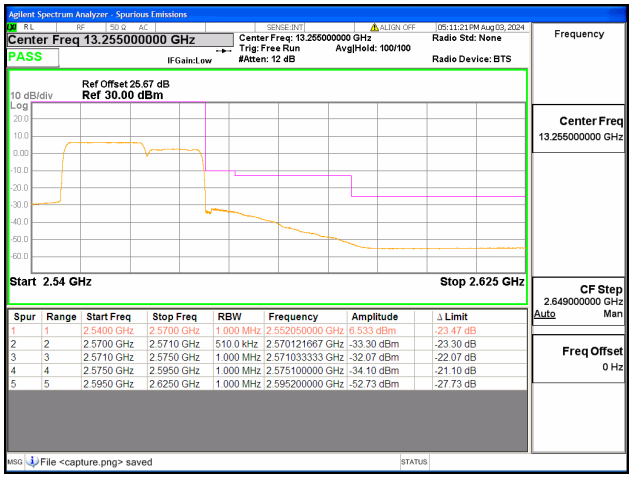
7C / 15+20MHz / Low CH / QPSK / 75#0-100#0



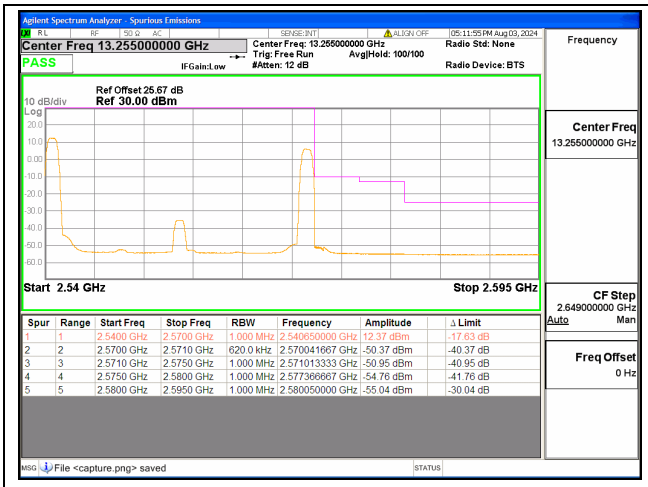
7C / 15+10MHz / High CH / QPSK / 1#0-1#49



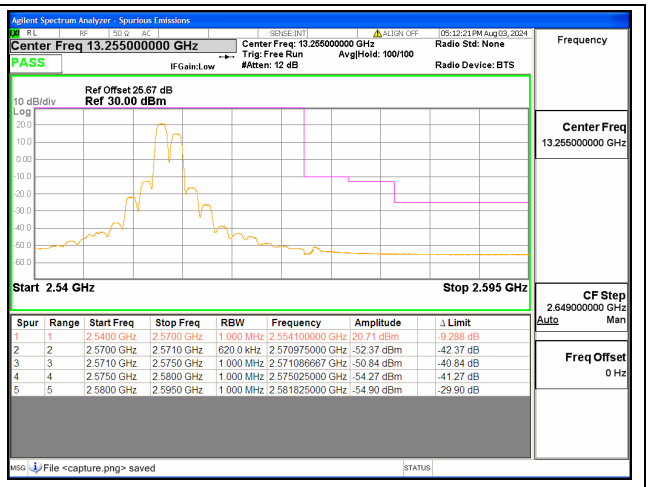
7C / 15+10MHz / High CH / QPSK / 1#74-1#0



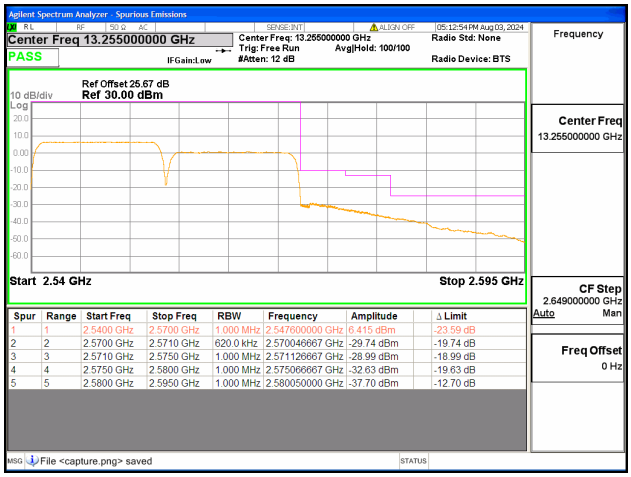
7C / 15+10MHz / High CH / QPSK / 75#0-50#0



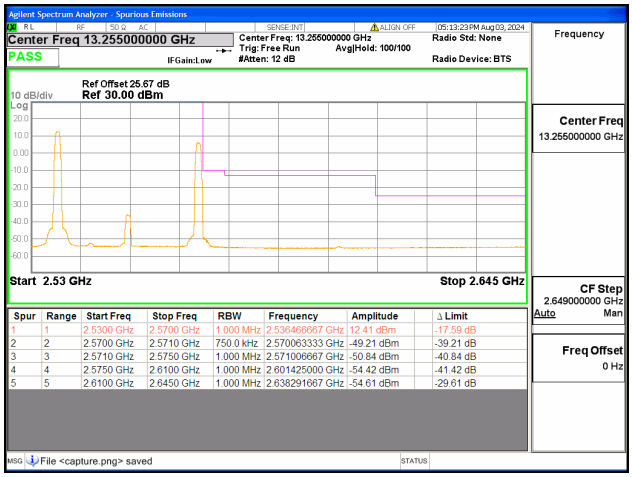
7C / 15+15MHz / High CH / QPSK / 1#0-1#74



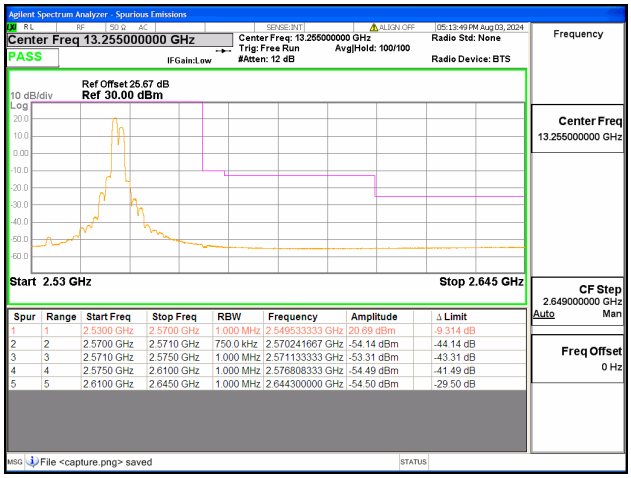
7C / 15+15MHz / High CH / QPSK / 1#74-1#0



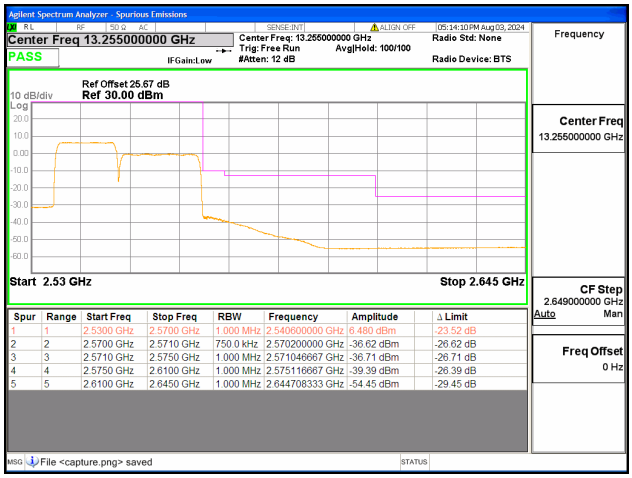
7C / 15+15MHz / High CH / QPSK / 75#0-75#0



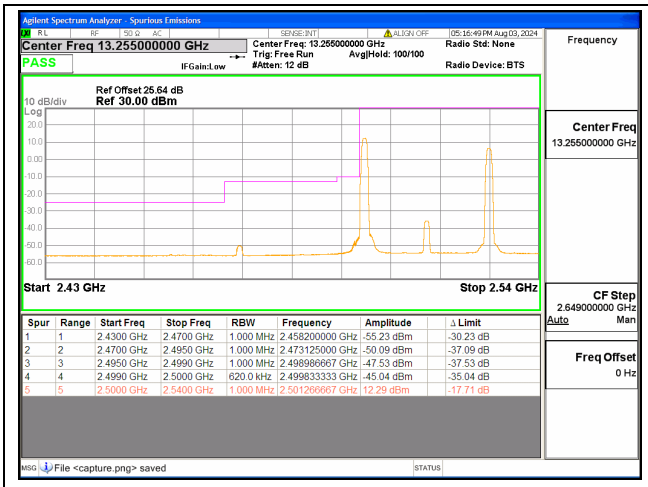
7C / 15+20MHz / High CH / QPSK / 1#0-1#99



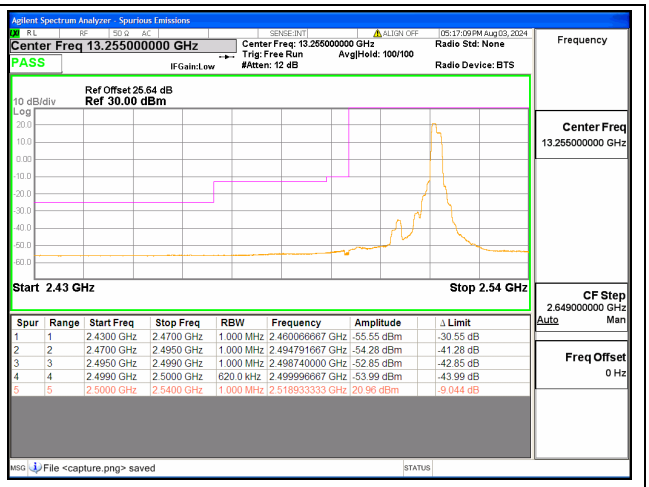
7C / 15+20MHz / High CH / QPSK / 1#74-1#0



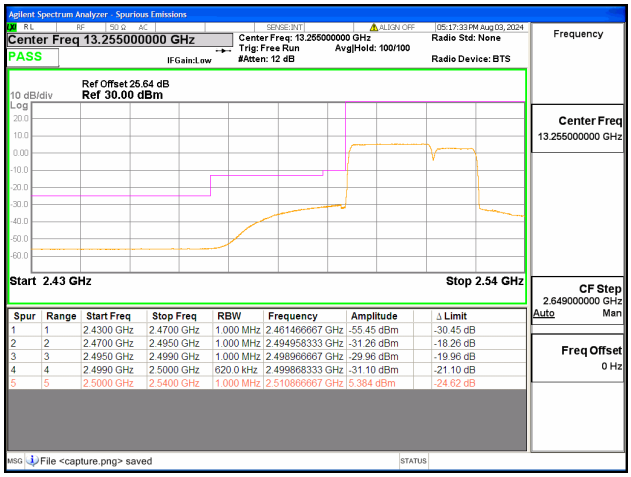
7C / 15+20MHz / High CH / QPSK / 75#0-100#0



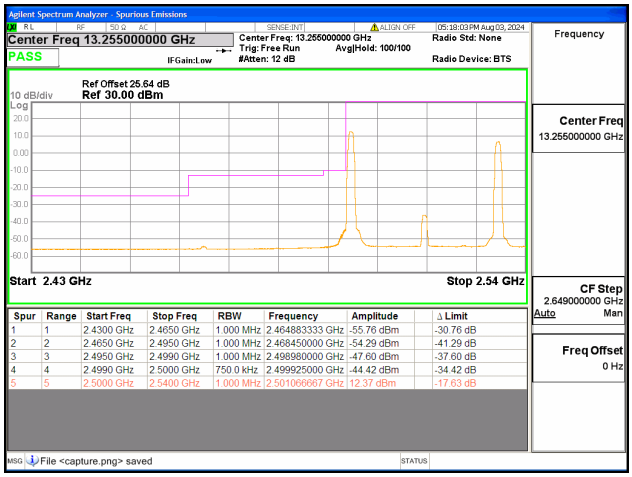
7C / 20+10MHz / Low CH / QPSK / 1#0-1#49



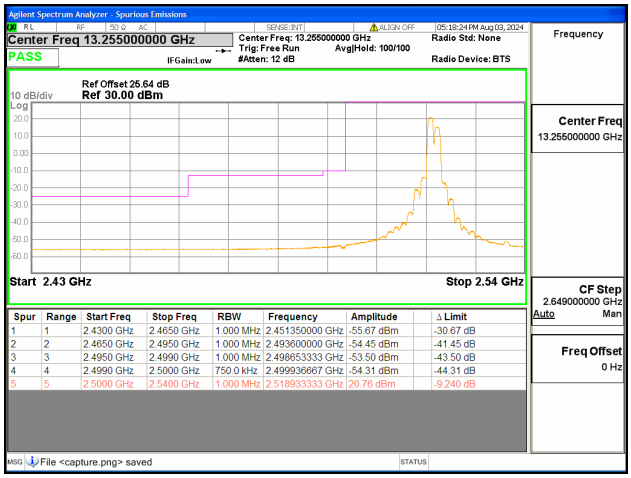
7C / 20+10MHz / Low CH / QPSK / 1#99-1#0



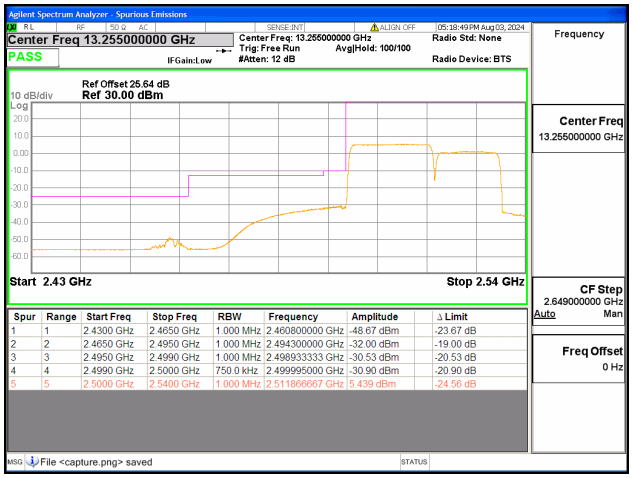
7C / 20+10MHz / Low CH / QPSK / 100#0-50#0



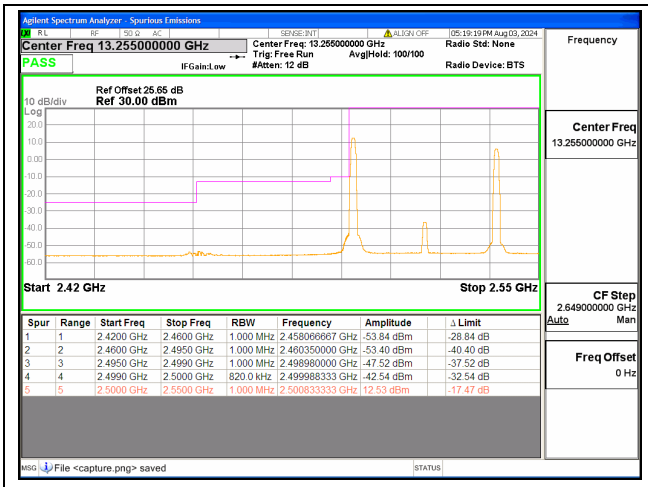
7C / 20+15MHz / Low CH / QPSK / 1#0-1#74



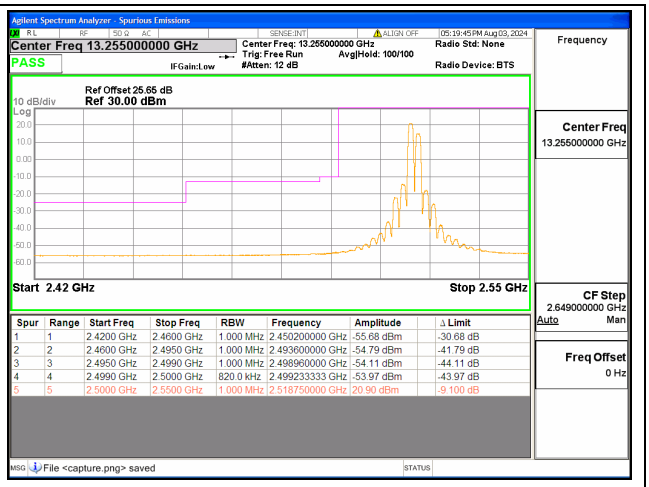
7C / 20+15MHz / Low CH / QPSK / 1#99-1#0



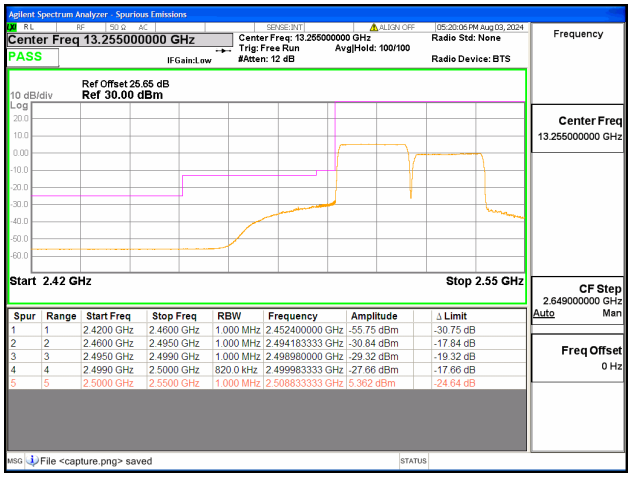
7C / 20+15MHz / Low CH / QPSK / 100#0-75#0



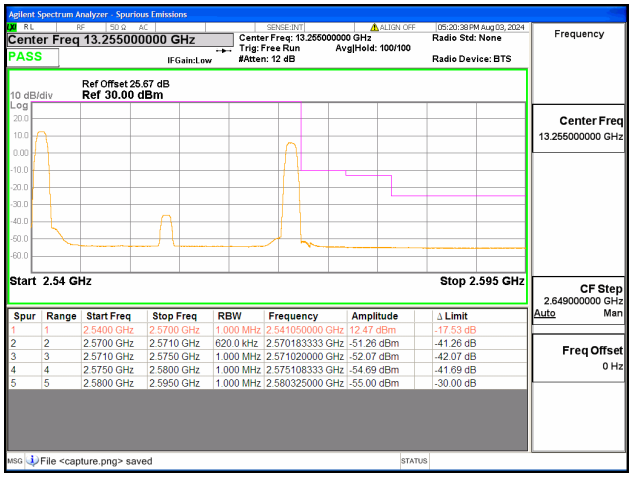
7C / 20+20MHz / Low CH / QPSK / 1#0-1#99



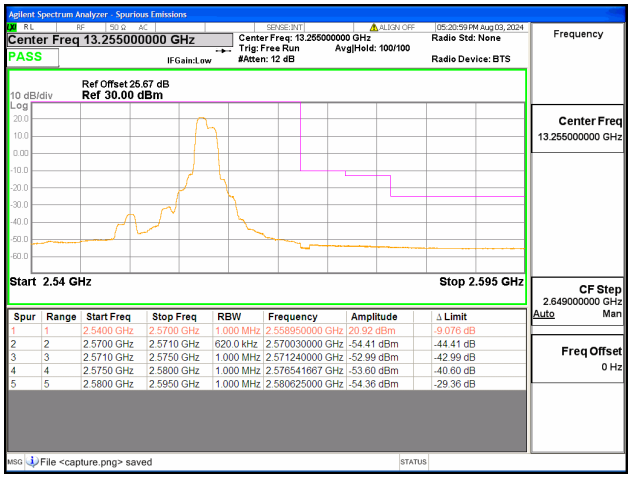
7C / 20+20MHz / Low CH / QPSK / 1#99-1#0



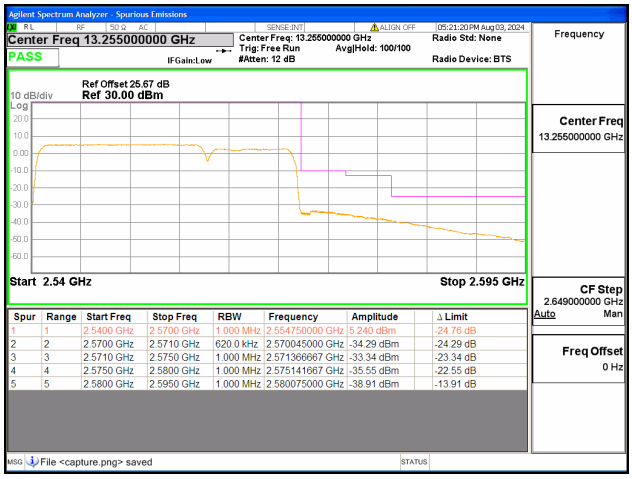
7C / 20+20MHz / Low CH / QPSK / 100#0-100#0



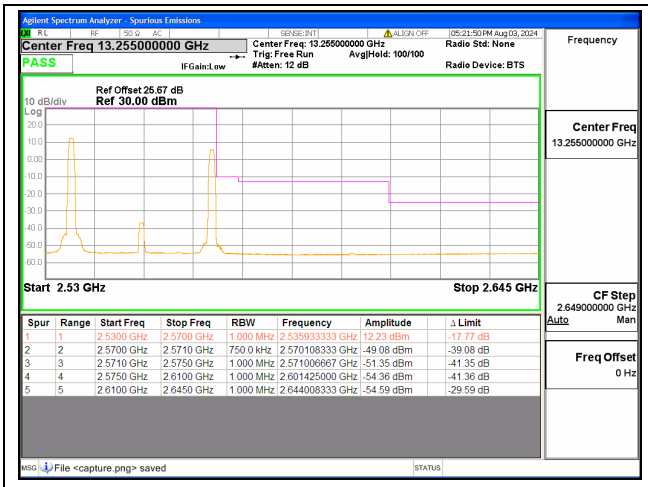
7C / 20+10MHz / High CH / QPSK / 1#0-1#49



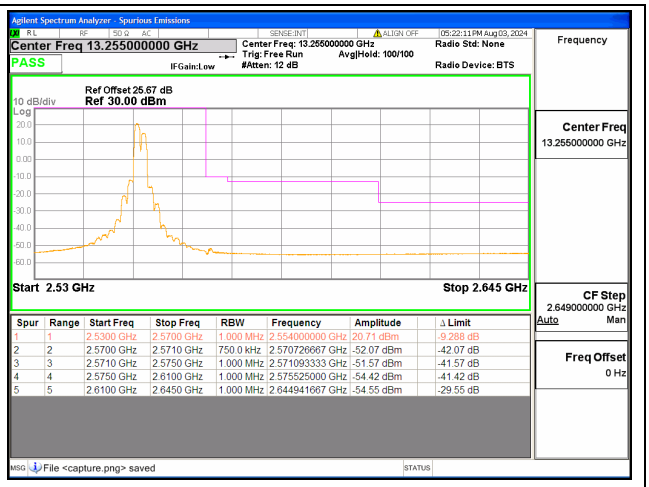
7C / 20+10MHz / High CH / QPSK / 1#99-1#0



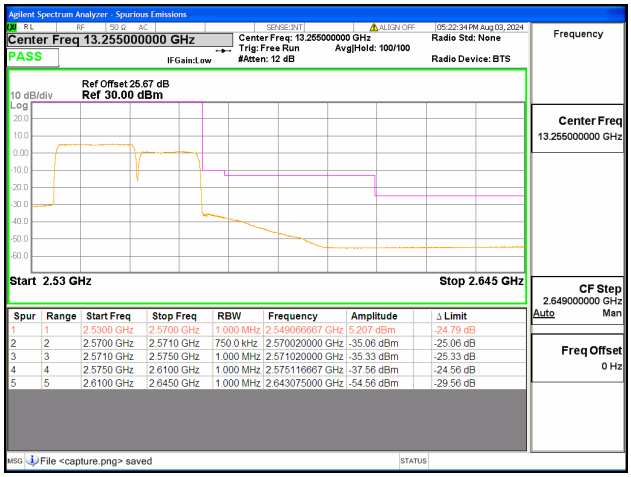
7C / 20+10MHz / High CH / QPSK / 100#0-50#0



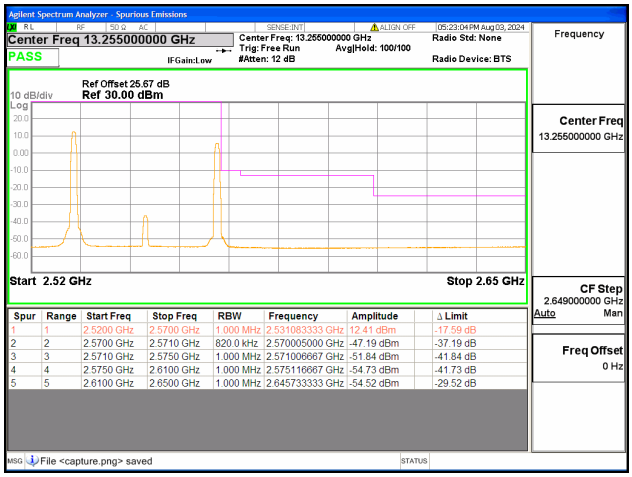
7C / 20+15MHz / High CH / QPSK / 1#0-1#74



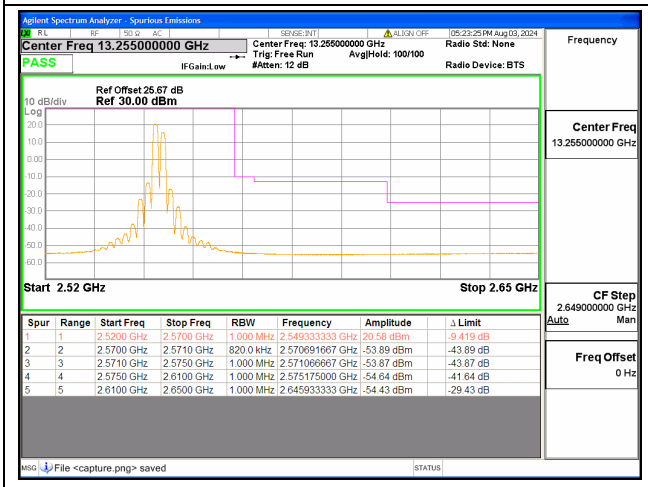
7C / 20+15MHz / High CH / QPSK / 1#99-1#0



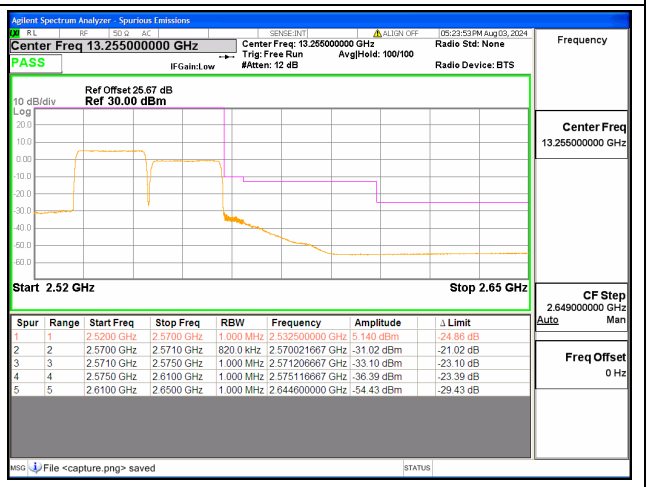
7C / 20+15MHz / High CH / QPSK / 100#0-75#0



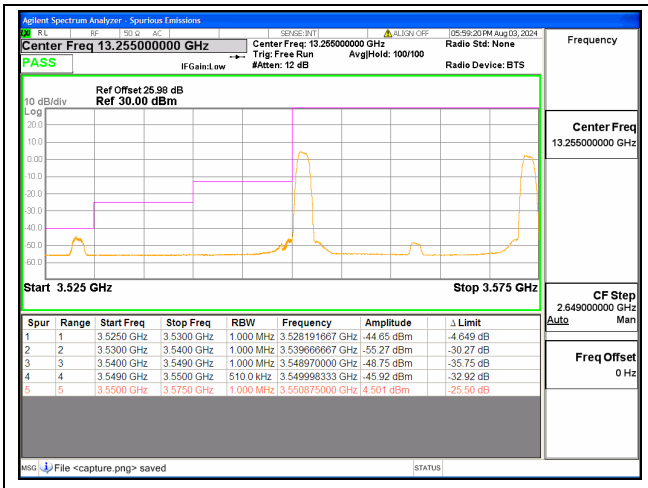
7C / 20+20MHz / High CH / QPSK / 1#0-1#99



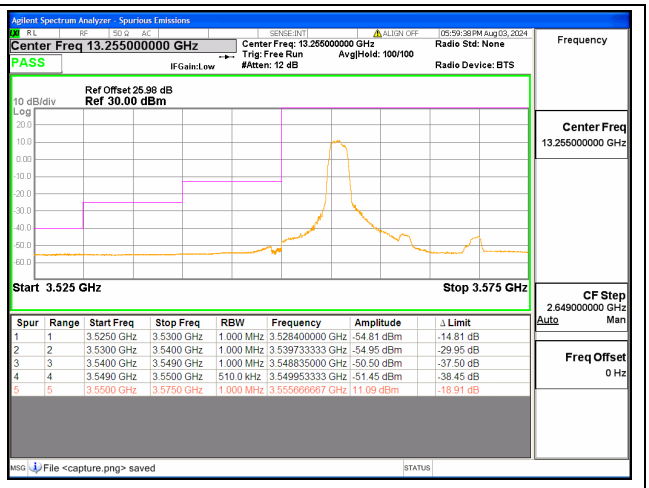
7C / 20+20MHz / High CH / QPSK / 1#99-1#0



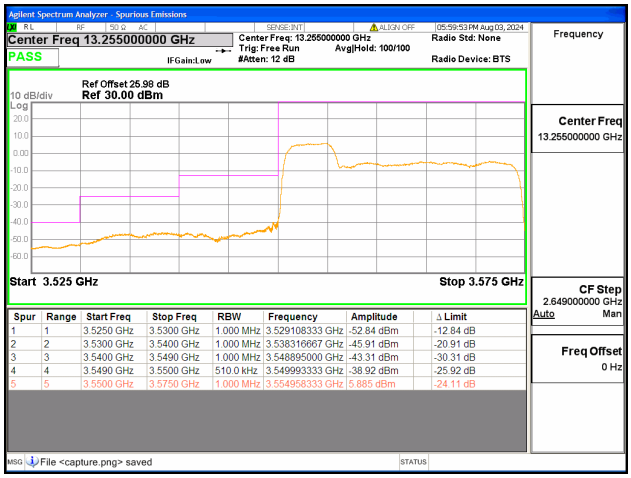
7C / 20+20MHz / High CH / QPSK / 100#0-100#0



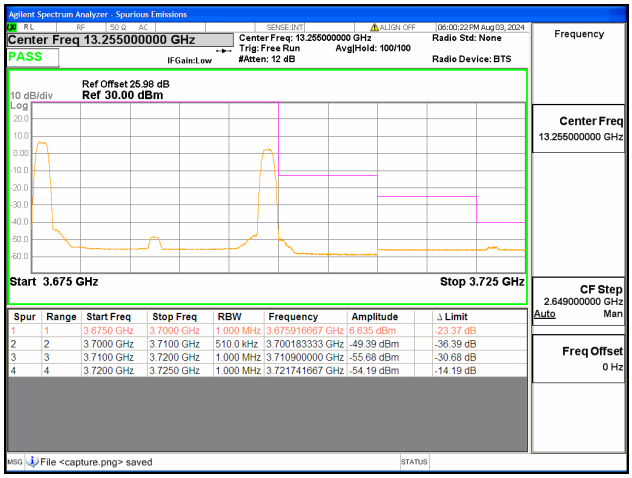
48C / 5+20MHz / Low CH / QPSK / 1#0-1#99



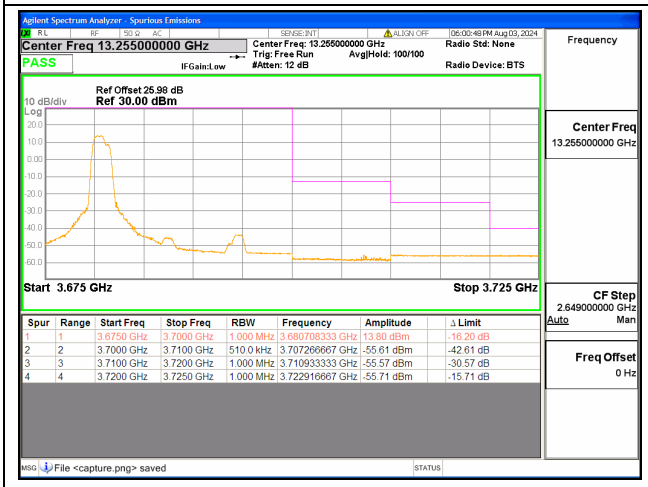
48C / 5+20MHz / Low CH / QPSK / 1#24-1#0



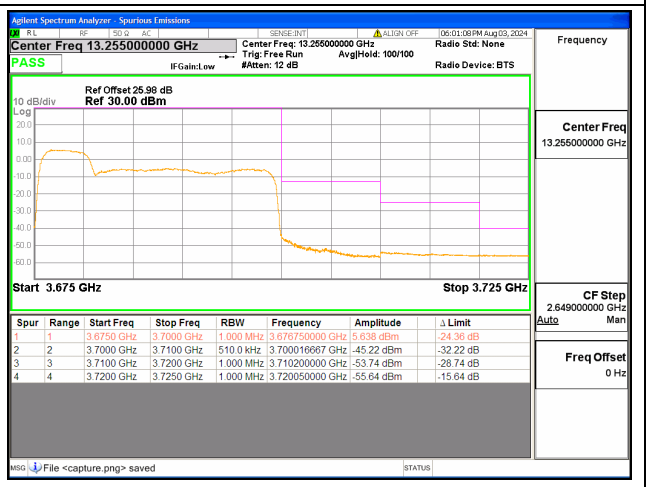
48C / 5+20MHz / Low CH / QPSK / 25#0-100#0



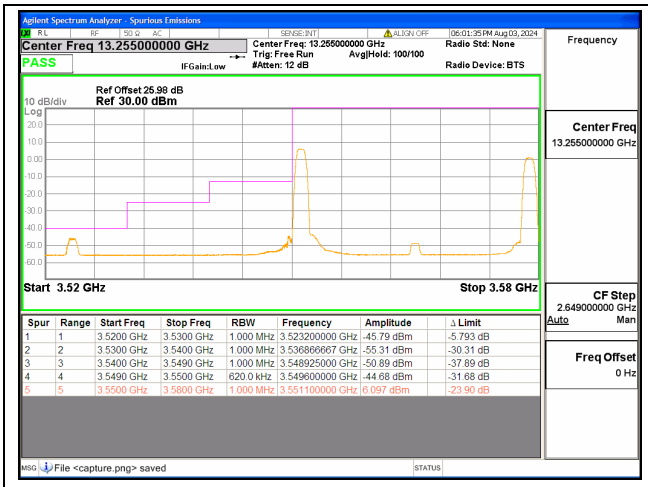
48C / 5+20MHz / High CH / QPSK / 1#0-1#99



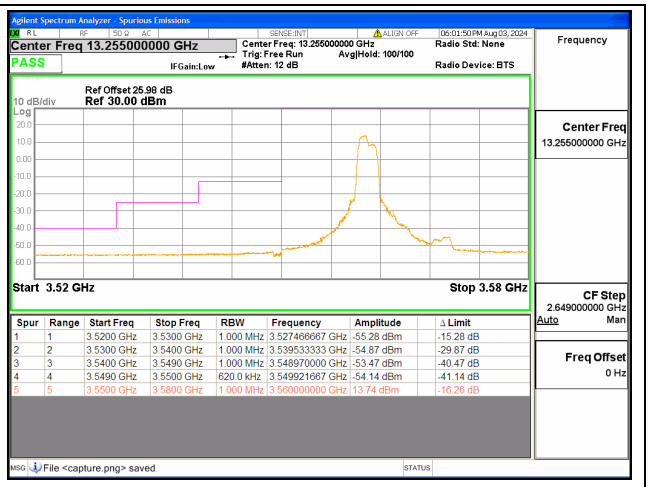
48C / 5+20MHz / High CH / QPSK / 1#24-1#0



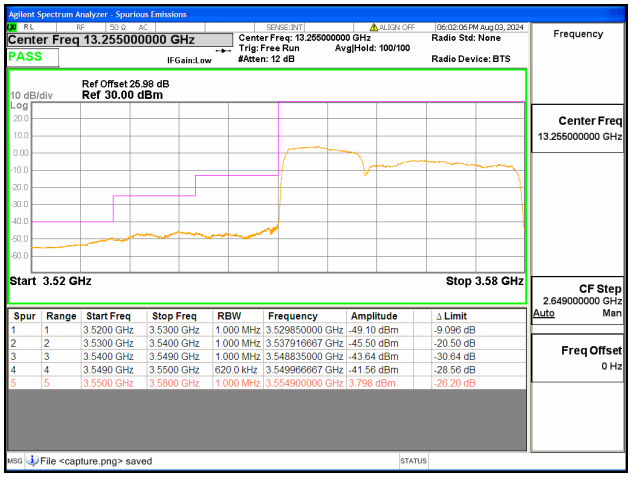
48C / 5+20MHz / High CH / QPSK / 25#0-100#0



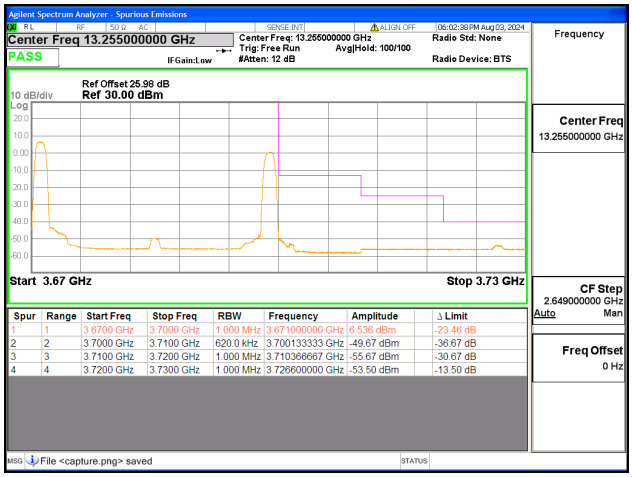
48C / 10+20MHz / Low CH / QPSK / 1#0-1#99



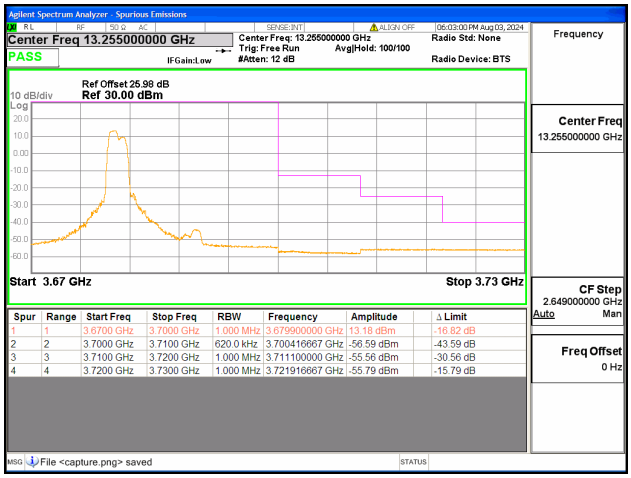
48C / 10+20MHz / Low CH / QPSK / 1#49-1#0



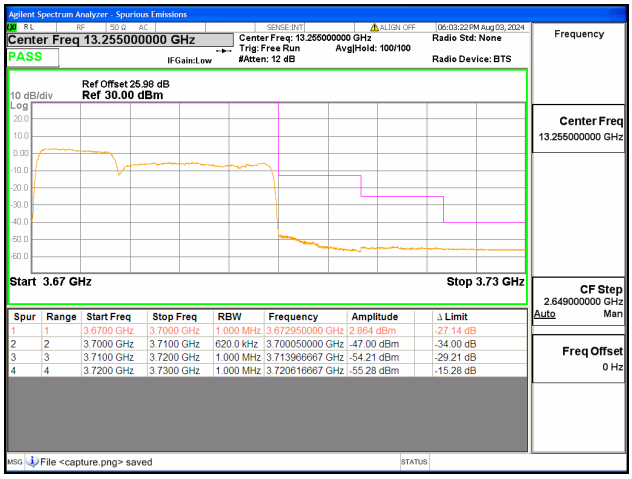
48C / 10+20MHz / Low CH / QPSK / 50#0-100#0



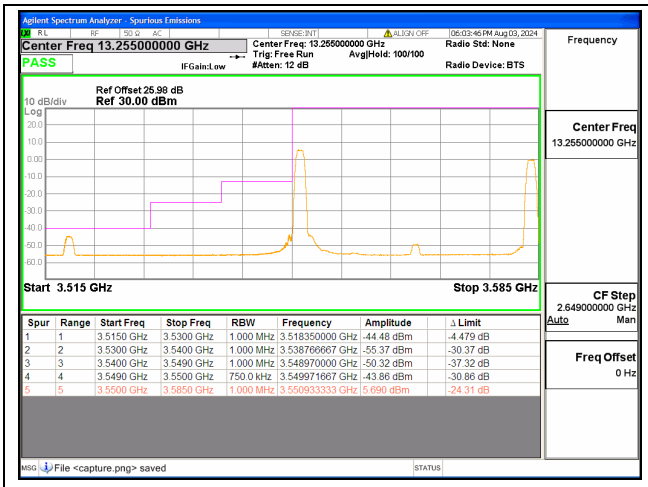
48C / 10+20MHz / High CH / QPSK / 1#0-1#99



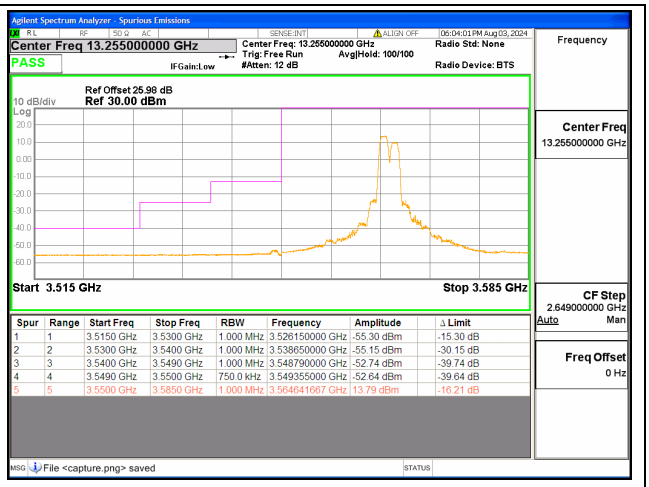
48C / 10+20MHz / High CH / QPSK / 1#49-1#0



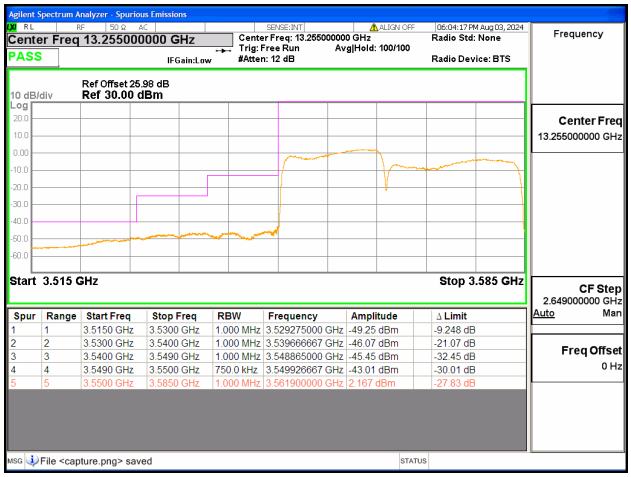
48C / 10+20MHz / High CH / QPSK / 50#0-100#0



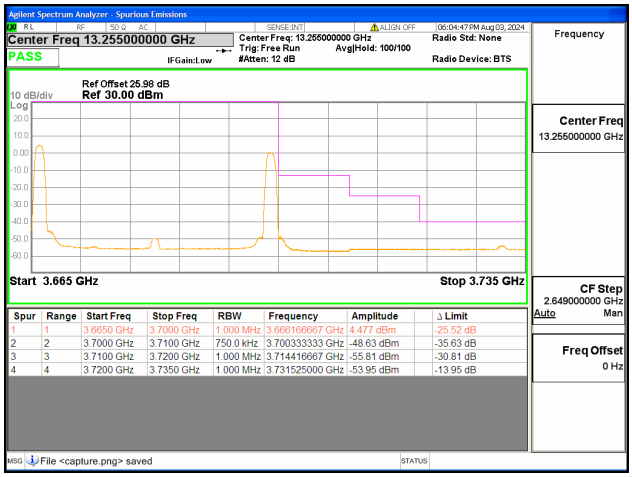
48C / 15+20MHz / Low CH / QPSK / 1#0-1#99



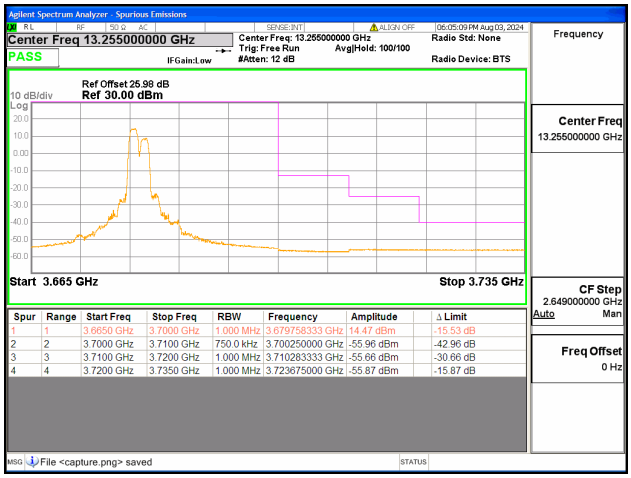
48C / 15+20MHz / Low CH / QPSK / 1#74-1#0



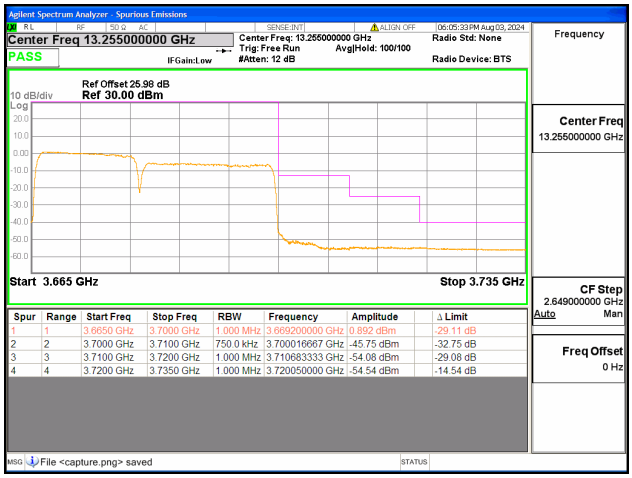
48C / 15+20MHz / Low CH / QPSK / 75#0-100#0



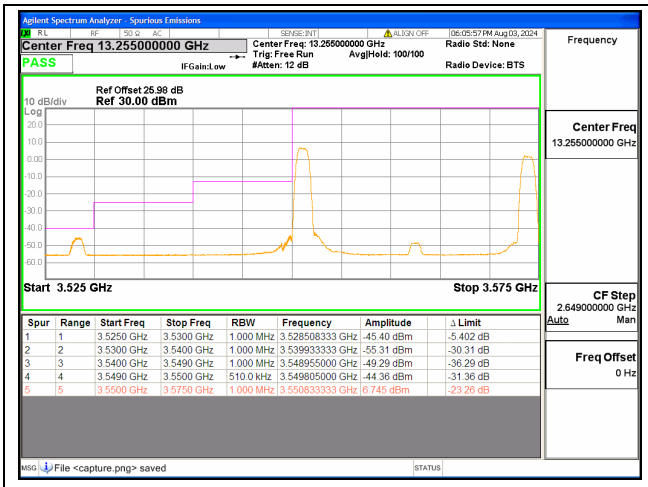
48C / 15+20MHz / High CH / QPSK / 1#0-1#99



48C / 15+20MHz / High CH / QPSK / 1#74-1#0

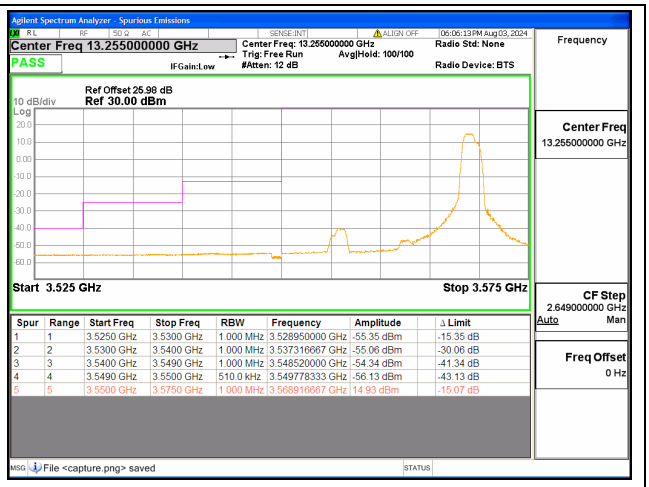


48C / 15+20MHz / High CH / QPSK / 75#0-100#0



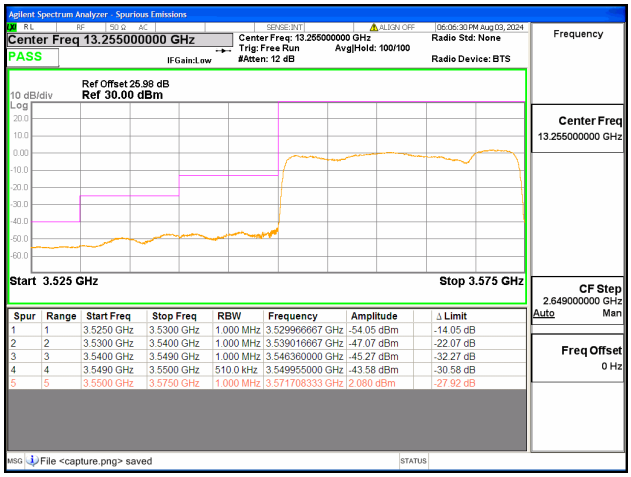
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.5250 GHz	3.5300 GHz	1.000 MHz	3.528508333 GHz	-45.40 dBm	-5.402 dB
2	2	3.5300 GHz	3.5400 GHz	1.000 MHz	3.539933333 GHz	-55.31 dBm	-30.31 dB
3	3	3.5400 GHz	3.5490 GHz	1.000 MHz	3.548955000 GHz	-49.29 dBm	-36.29 dB
4	4	3.5490 GHz	3.5500 GHz	510.0 kHz	3.549805000 GHz	-44.36 dBm	-31.36 dB
5	5	3.5500 GHz	3.5750 GHz	1.000 MHz	3.550833333 GHz	6.745 dBm	-23.26 dB

48C / 20+5MHz / Low CH / QPSK / 1#0-1#24



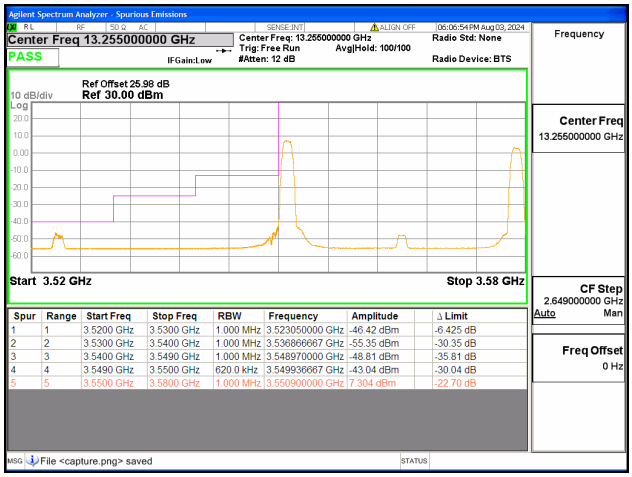
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.5250 GHz	3.5300 GHz	1.000 MHz	3.528950000 GHz	-55.35 dBm	-15.35 dB
2	2	3.5300 GHz	3.5400 GHz	1.000 MHz	3.537316667 GHz	-55.06 dBm	-30.06 dB
3	3	3.5400 GHz	3.5490 GHz	1.000 MHz	3.548520000 GHz	-54.34 dBm	-41.34 dB
4	4	3.5490 GHz	3.5500 GHz	510.0 kHz	3.549778333 GHz	-56.13 dBm	-43.13 dB
5	5	3.5500 GHz	3.5750 GHz	1.000 MHz	3.568916667 GHz	14.93 dBm	-15.07 dB

48C / 20+5MHz / Low CH / QPSK / 1#99-1#0



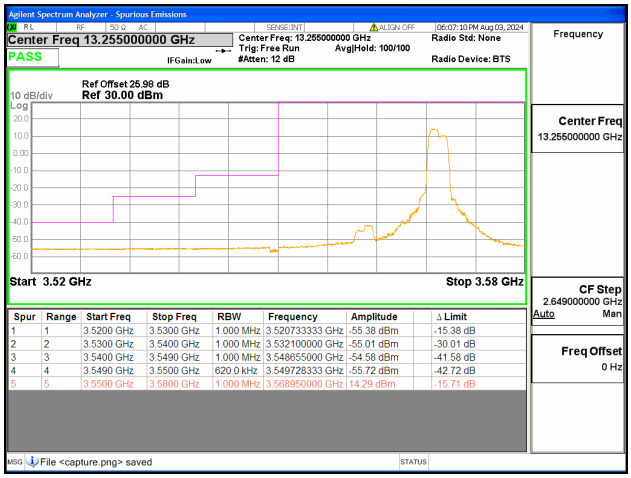
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.5250 GHz	3.5300 GHz	1.000 MHz	3.529966667 GHz	-54.05 dBm	-14.05 dB
2	2	3.5300 GHz	3.5400 GHz	1.000 MHz	3.539016667 GHz	-47.07 dBm	-22.07 dB
3	3	3.5400 GHz	3.5490 GHz	1.000 MHz	3.546360000 GHz	-45.27 dBm	-32.27 dB
4	4	3.5490 GHz	3.5500 GHz	510.0 kHz	3.549955000 GHz	-43.58 dBm	-30.58 dB
5	5	3.5500 GHz	3.5750 GHz	1.000 MHz	3.571708333 GHz	2.080 dBm	-27.92 dB

48C / 20+5MHz / Low CH / QPSK / 100#0-25#0



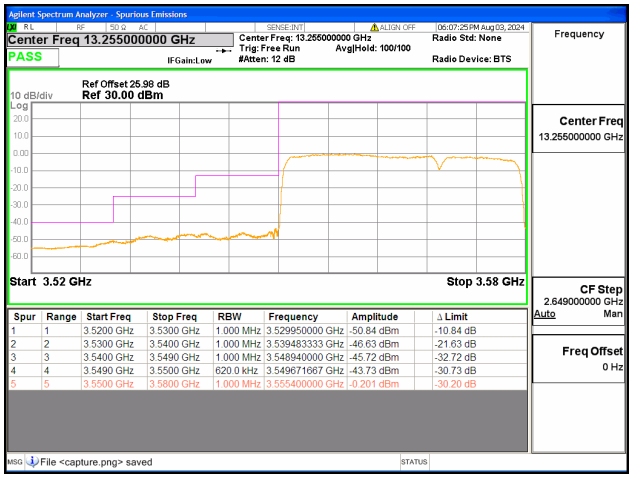
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.5200 GHz	3.5300 GHz	1.000 MHz	3.523050000 GHz	-46.42 dBm	-6.425 dB
2	2	3.5300 GHz	3.5400 GHz	1.000 MHz	3.536866667 GHz	-55.35 dBm	-30.35 dB
3	3	3.5400 GHz	3.5490 GHz	1.000 MHz	3.548970000 GHz	-48.81 dBm	-35.81 dB
4	4	3.5490 GHz	3.5500 GHz	620.0 kHz	3.549936667 GHz	-43.04 dBm	-30.04 dB
5	5	3.5500 GHz	3.5800 GHz	1.000 MHz	3.550900000 GHz	7.304 dBm	-22.70 dB

48C / 20+10MHz / Low CH / QPSK / 1#0-1#49



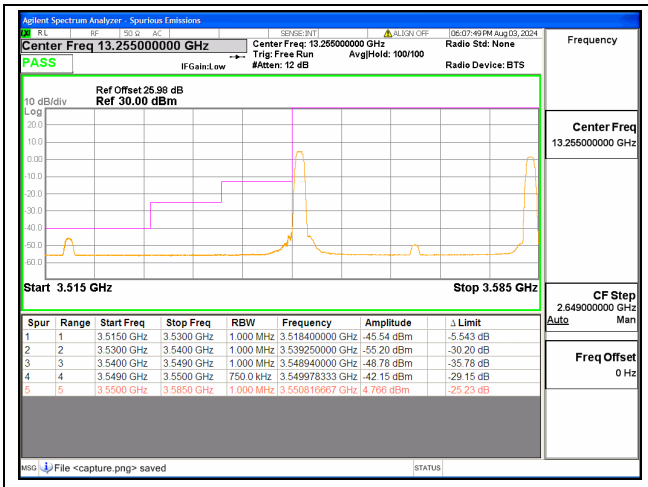
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.5200 GHz	3.5300 GHz	1.000 MHz	3.520733333 GHz	-55.38 dBm	-15.38 dB
2	2	3.5300 GHz	3.5400 GHz	1.000 MHz	3.532100000 GHz	-55.01 dBm	-30.01 dB
3	3	3.5400 GHz	3.5490 GHz	1.000 MHz	3.548655000 GHz	-54.58 dBm	-41.58 dB
4	4	3.5490 GHz	3.5500 GHz	620.0 kHz	3.549728333 GHz	-55.72 dBm	-42.72 dB
5	5	3.5500 GHz	3.5800 GHz	1.000 MHz	3.568950000 GHz	14.29 dBm	-15.71 dB

48C / 20+10MHz / Low CH / QPSK / 1#99-1#0

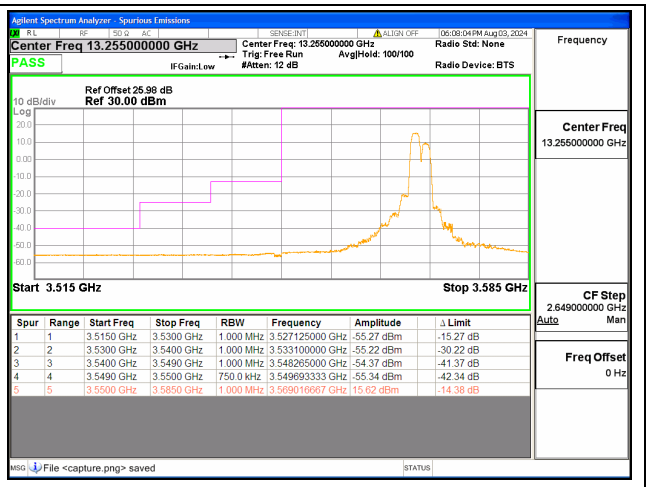


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.5200 GHz	3.5300 GHz	1.000 MHz	3.529950000 GHz	-50.84 dBm	-10.84 dB
2	2	3.5300 GHz	3.5400 GHz	1.000 MHz	3.539483333 GHz	-46.63 dBm	-21.63 dB
3	3	3.5400 GHz	3.5490 GHz	1.000 MHz	3.548940000 GHz	-45.72 dBm	-32.72 dB
4	4	3.5490 GHz	3.5500 GHz	620.0 kHz	3.549671667 GHz	-43.73 dBm	-30.73 dB
5	5	3.5500 GHz	3.5800 GHz	1.000 MHz	3.555400000 GHz	-0.201 dBm	-30.20 dB

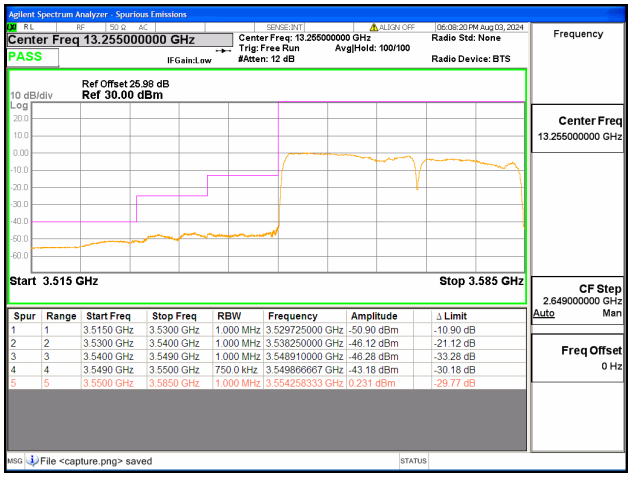
48C / 20+10MHz / Low CH / QPSK / 100#0-50#0



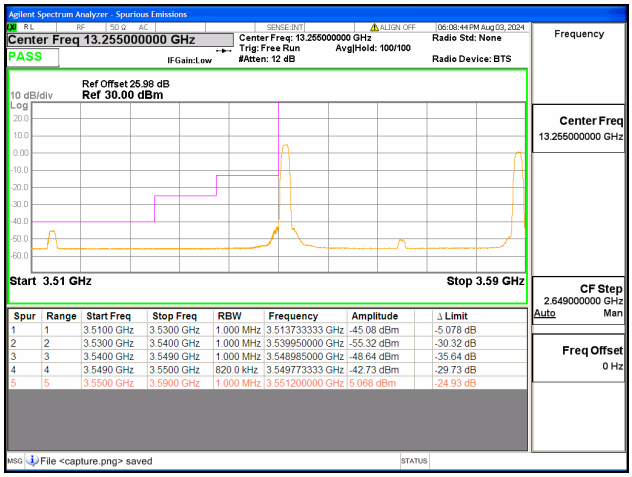
48C / 20+15MHz / Low CH / QPSK / 1#0-1#74



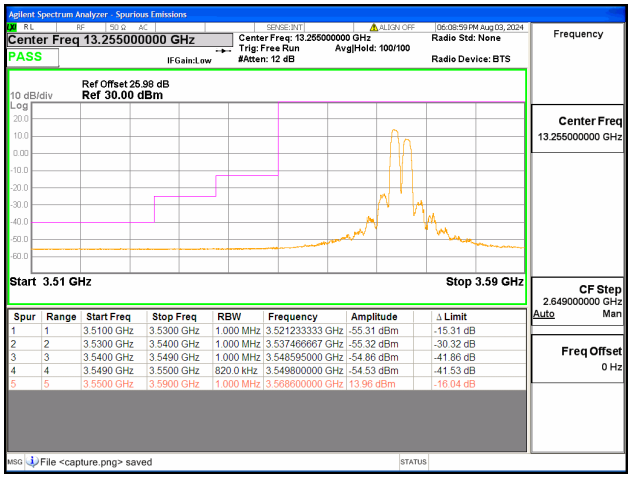
48C / 20+15MHz / Low CH / QPSK / 1#99-1#0



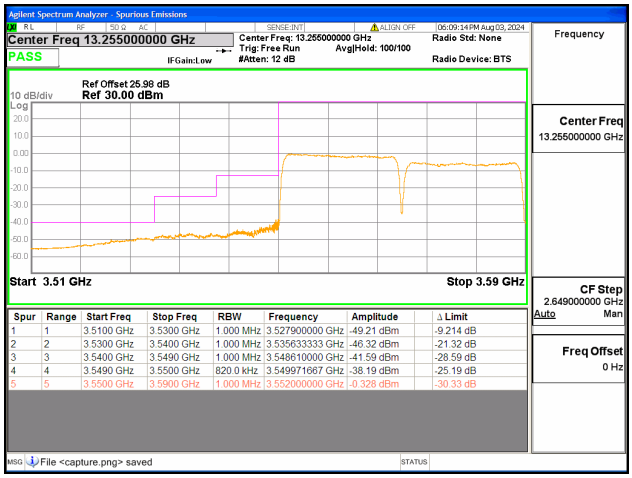
48C / 20+15MHz / Low CH / QPSK / 100#0-75#0



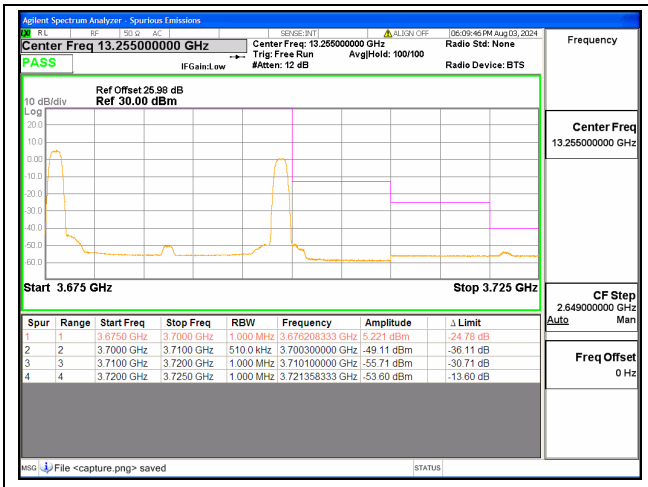
48C / 20+20MHz / Low CH / QPSK / 1#0-1#99



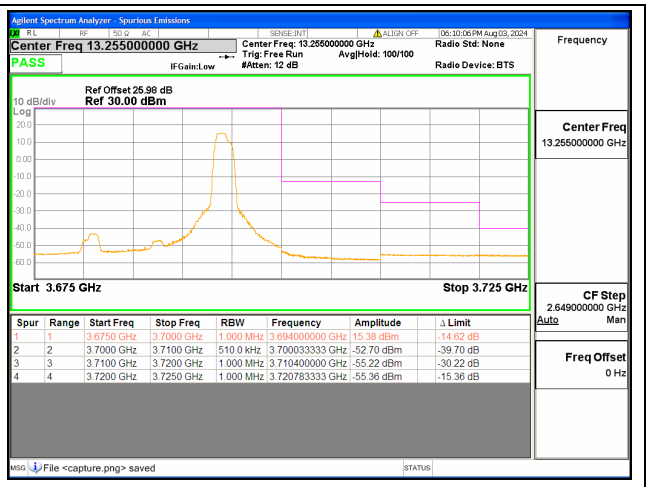
48C / 20+20MHz / Low CH / QPSK / 1#99-1#0



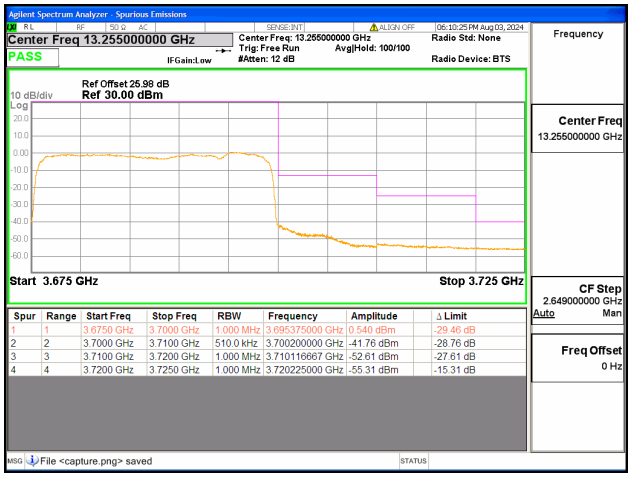
48C / 20+20MHz / Low CH / QPSK / 100#0-100#0



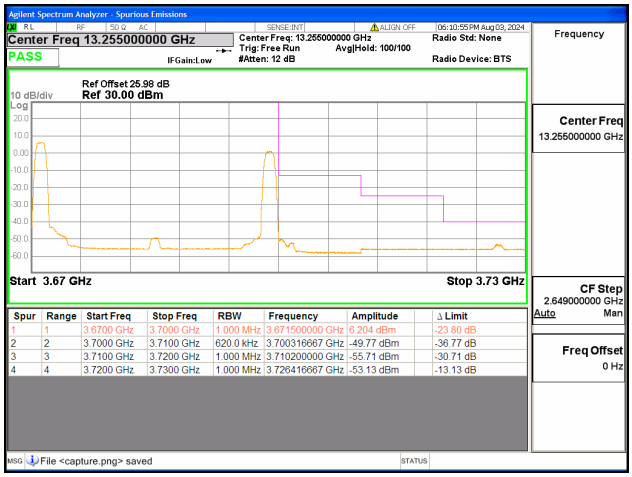
48C / 20+5MHz / High CH / QPSK / 1#0-1#24



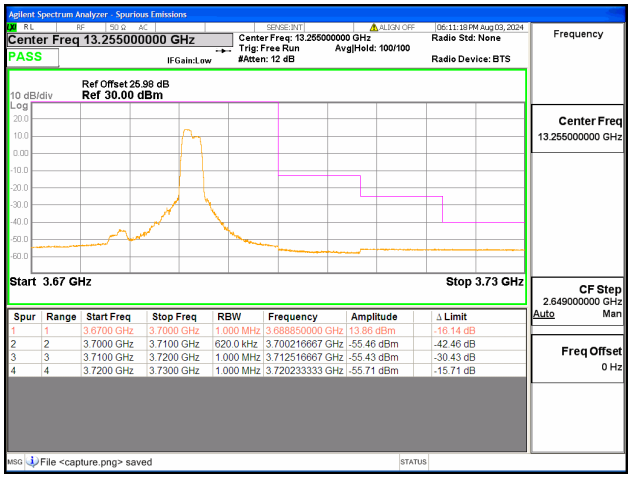
48C / 20+5MHz / High CH / QPSK / 1#99-1#0



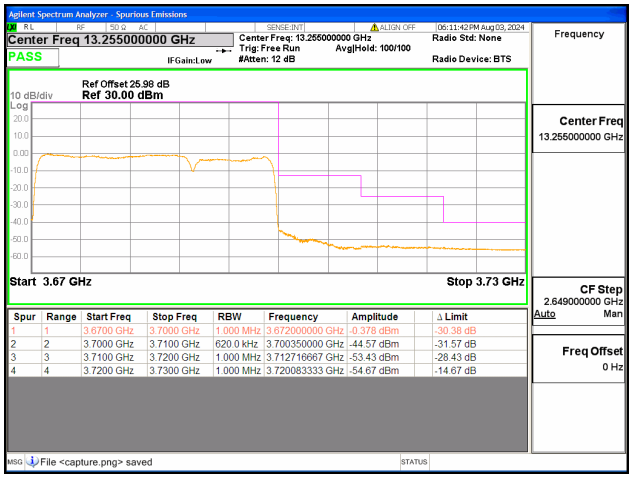
48C / 20+5MHz / High CH / QPSK / 100#0-25#0



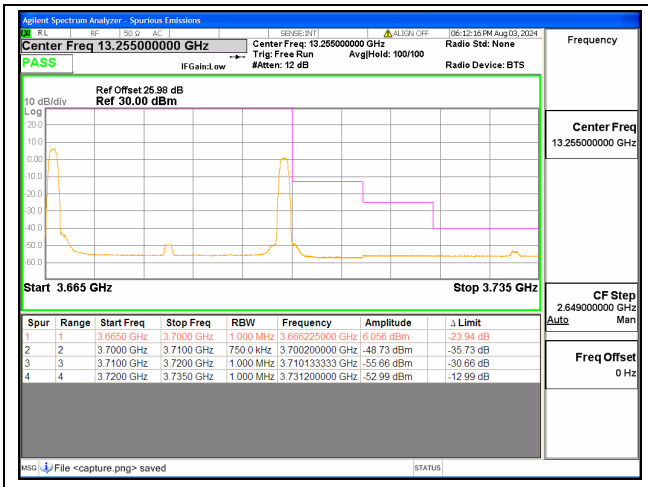
48C / 20+10MHz / High CH / QPSK / 1#0-1#49



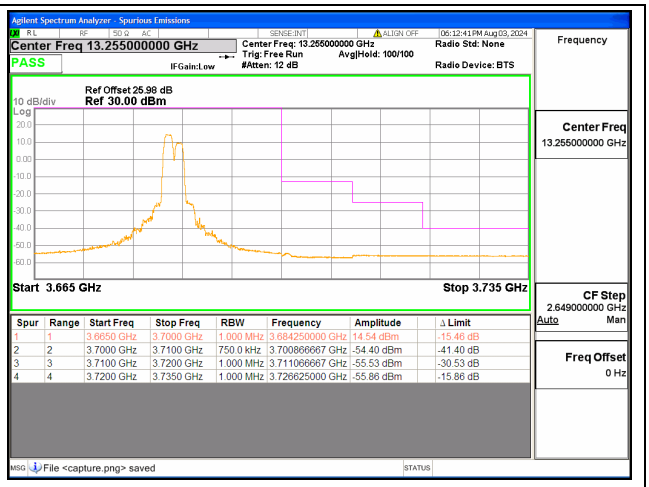
48C / 20+10MHz / High CH / QPSK / 1#99-1#0



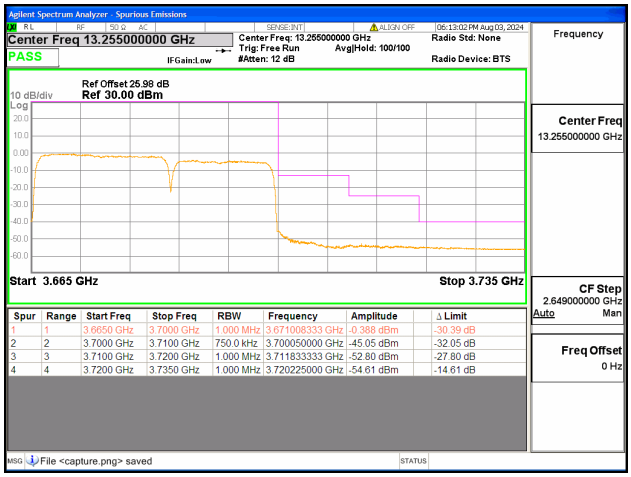
48C / 20+10MHz / High CH / QPSK / 100#0-50#0



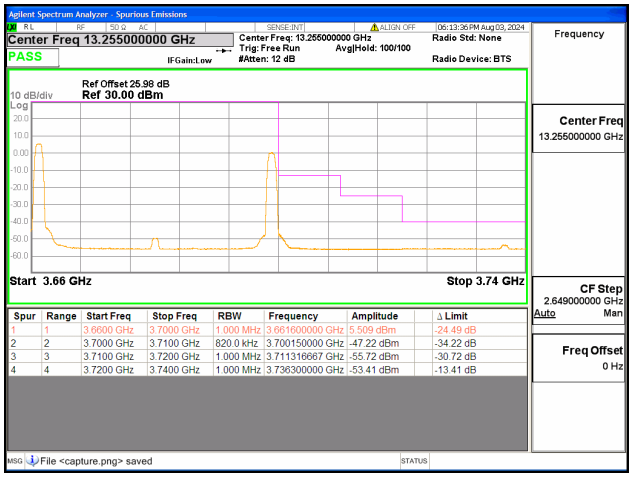
48C / 20+15MHz / High CH / QPSK / 1#0-1#74



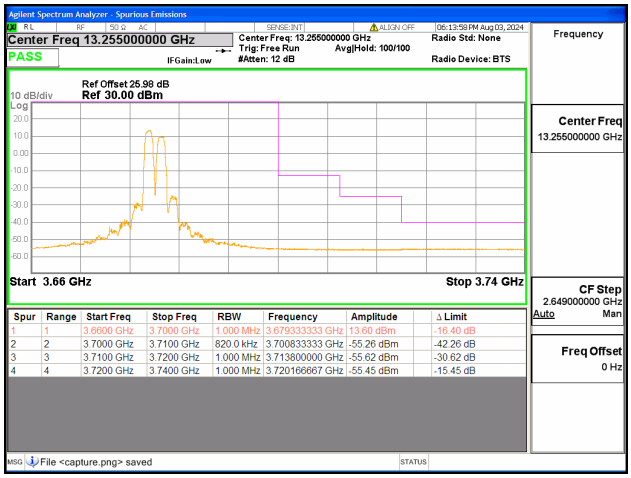
48C / 20+15MHz / High CH / QPSK / 1#99-1#0



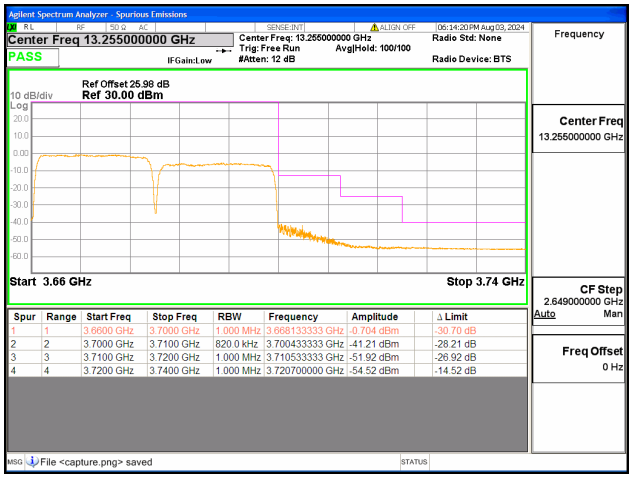
48C / 20+15MHz / High CH / QPSK / 100#0-75#0



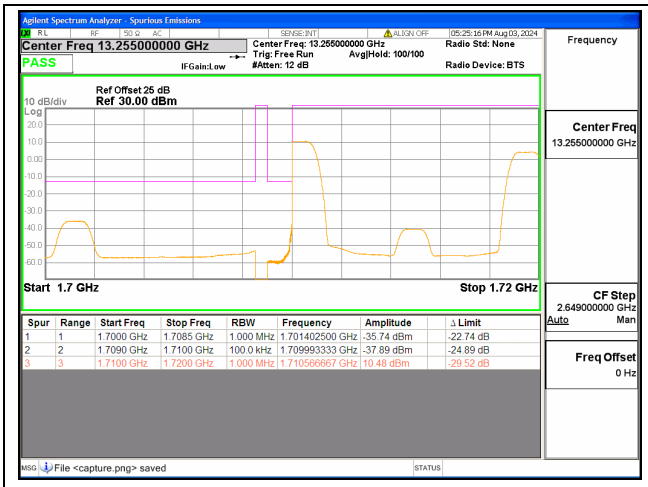
48C / 20+20MHz / High CH / QPSK / 1#0-1#99



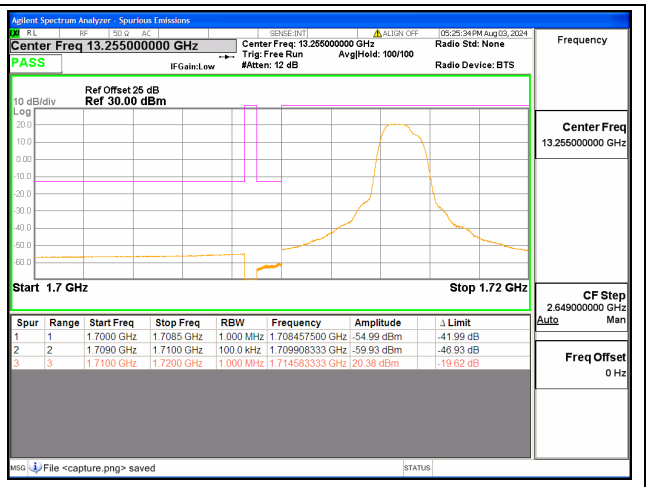
48C / 20+20MHz / High CH / QPSK / 1#99-1#0



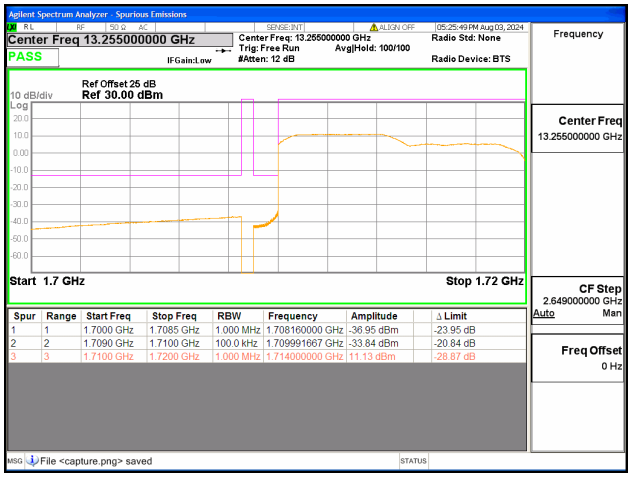
48C / 20+20MHz / High CH / QPSK / 100#0-100#0



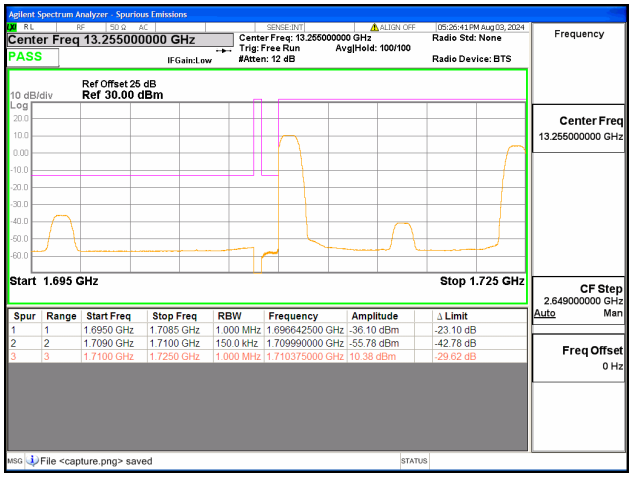
66B / 5+5MHz / Low CH / QPSK / 1#0-1#24



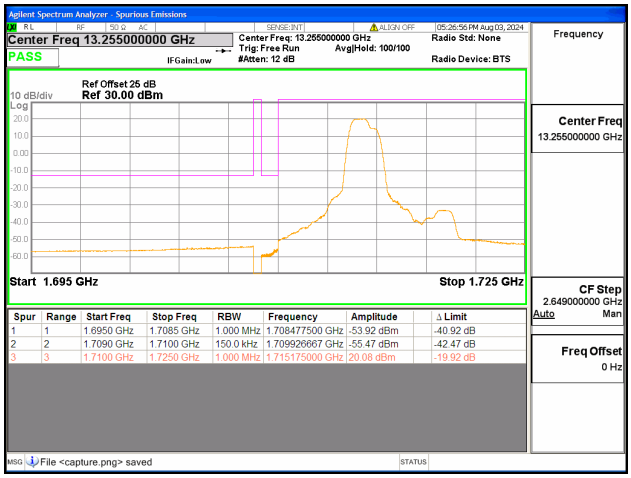
66B / 5+5MHz / Low CH / QPSK / 1#24-1#0



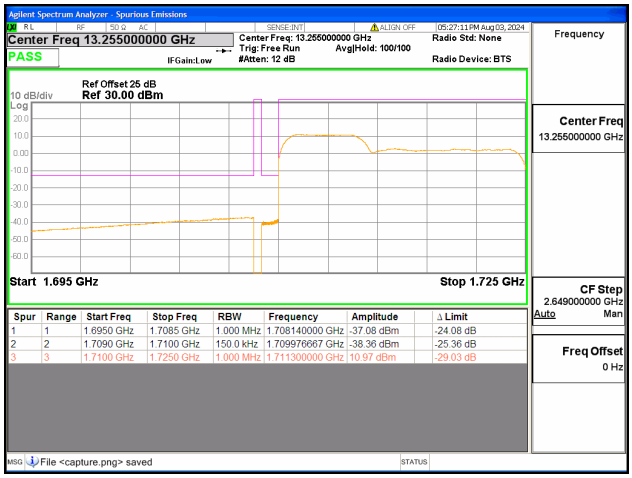
66B / 5+5MHz / Low CH / QPSK / 25#0-25#0



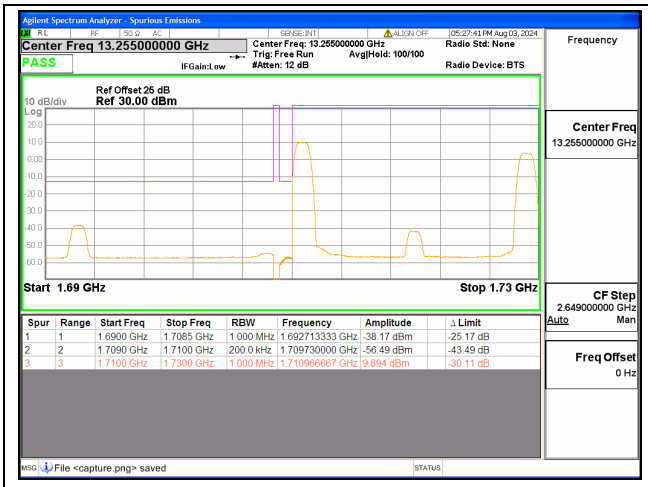
66B / 5+10MHz / Low CH / QPSK / 1#0-1#49



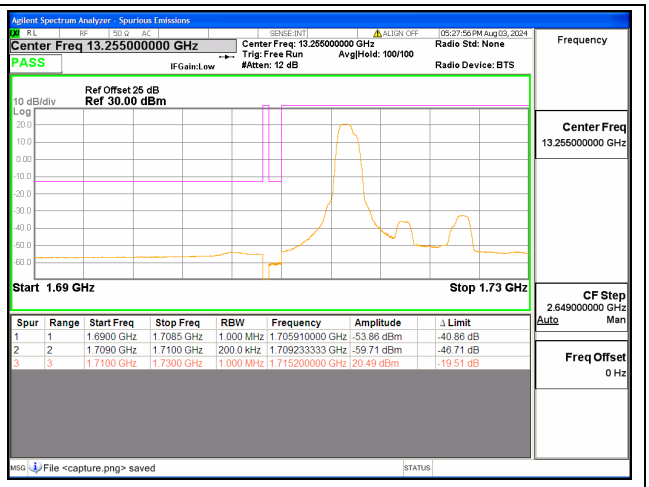
66B / 5+10MHz / Low CH / QPSK / 1#24-1#0



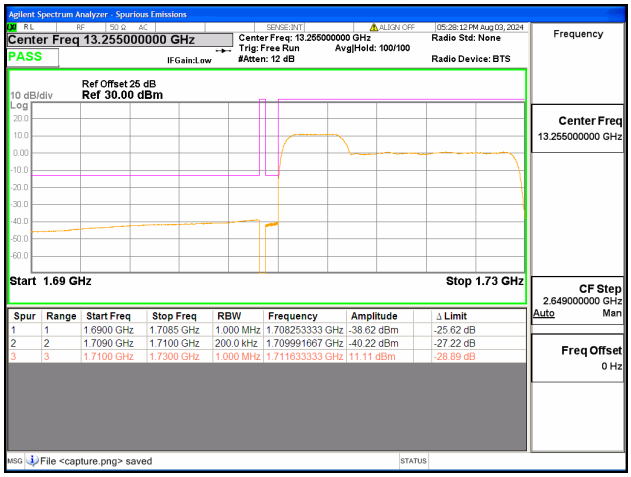
66B / 5+10MHz / Low CH / QPSK / 25#0-50#0



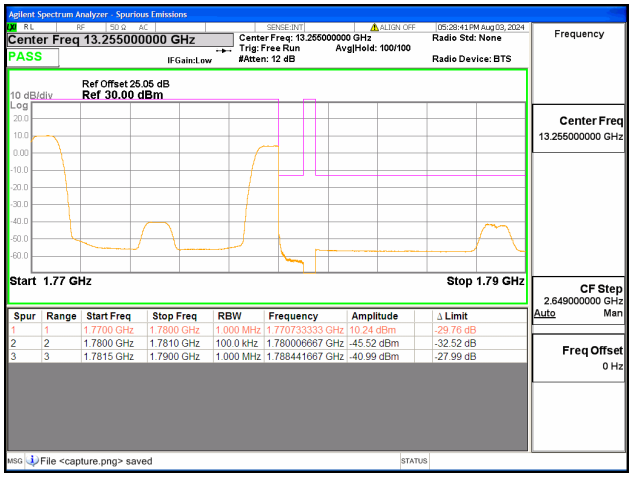
66B / 5+15MHz / Low CH / QPSK / 1#0-1#74



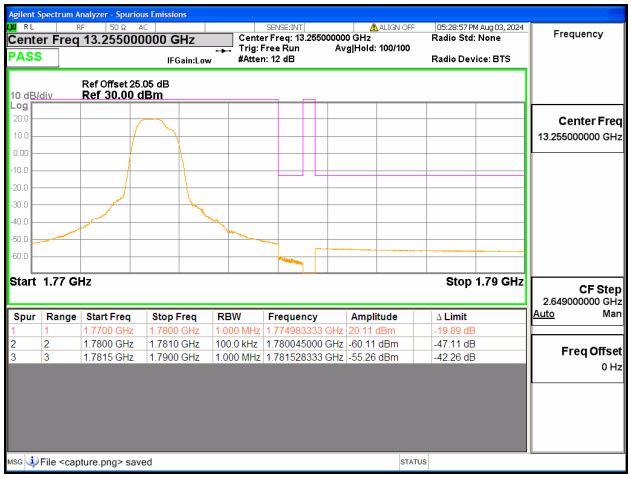
66B / 5+15MHz / Low CH / QPSK / 1#24-1#0



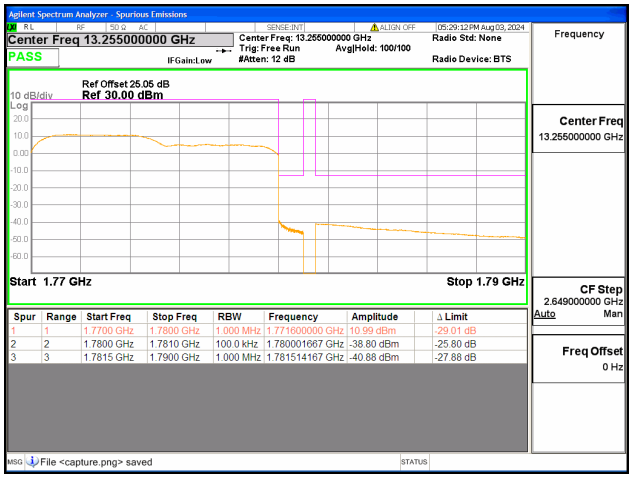
66B / 5+15MHz / Low CH / QPSK / 25#0-75#0



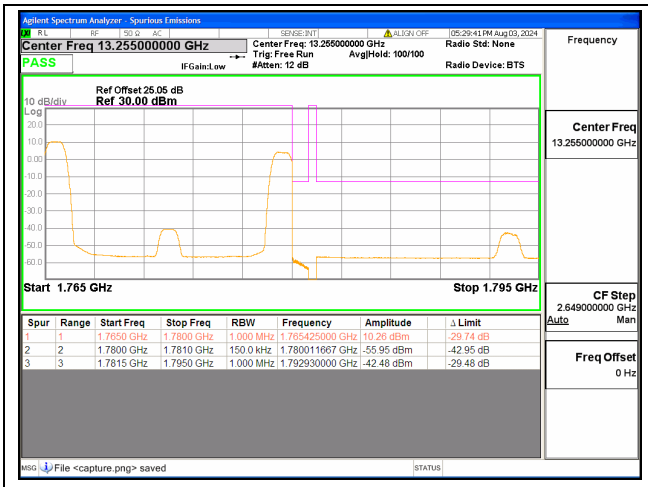
66B / 5+5MHz / High CH / QPSK / 1#0-1#24



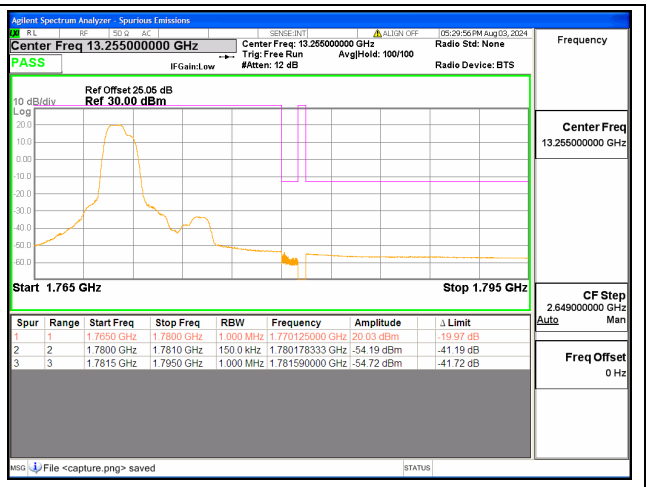
66B / 5+5MHz / High CH / QPSK / 1#24-1#0



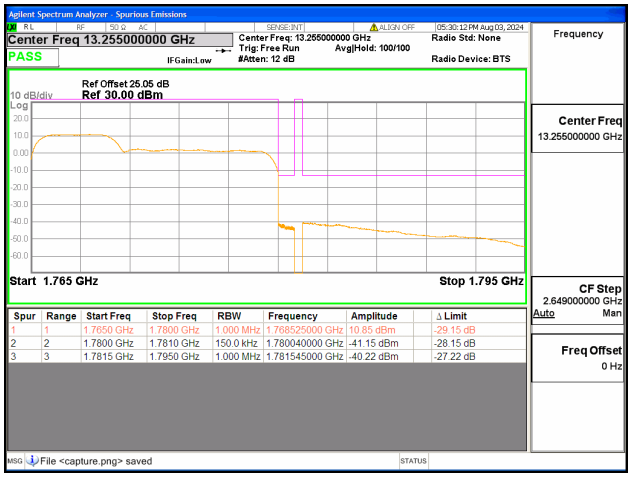
66B / 5+5MHz / High CH / QPSK / 25#0-25#0



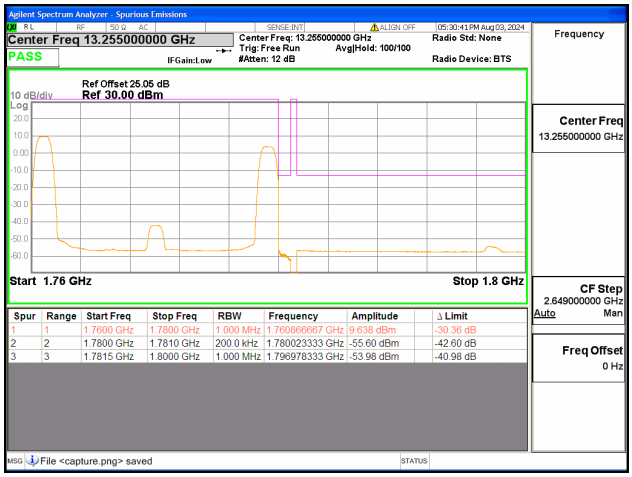
66B / 5+10MHz / High CH / QPSK / 1#0-1#49



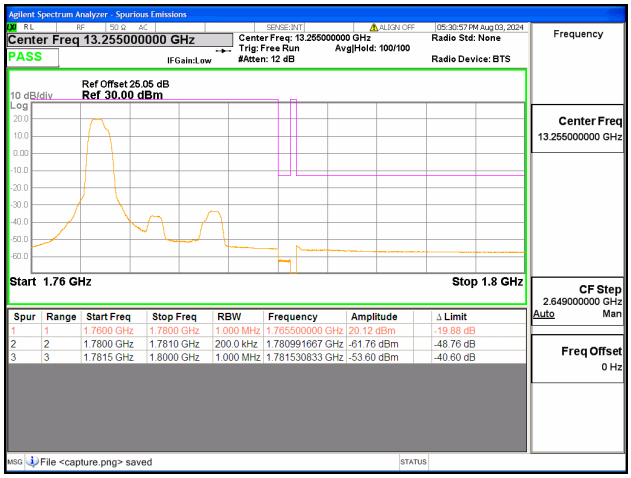
66B / 5+10MHz / High CH / QPSK / 1#24-1#0



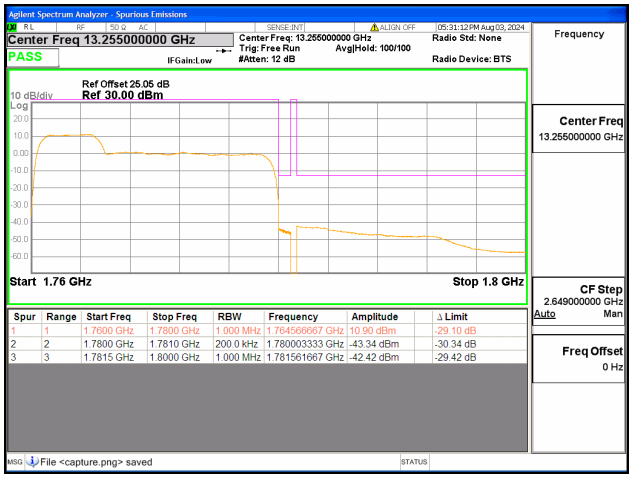
66B / 5+10MHz / High CH / QPSK / 25#0-50#0



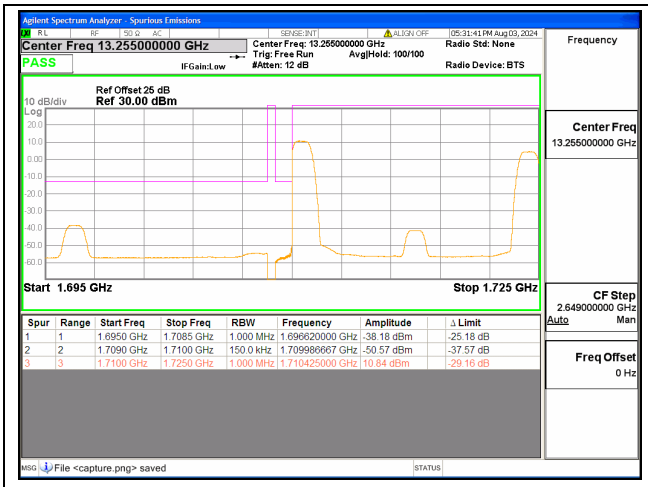
66B / 5+15MHz / High CH / QPSK / 1#0-1#74



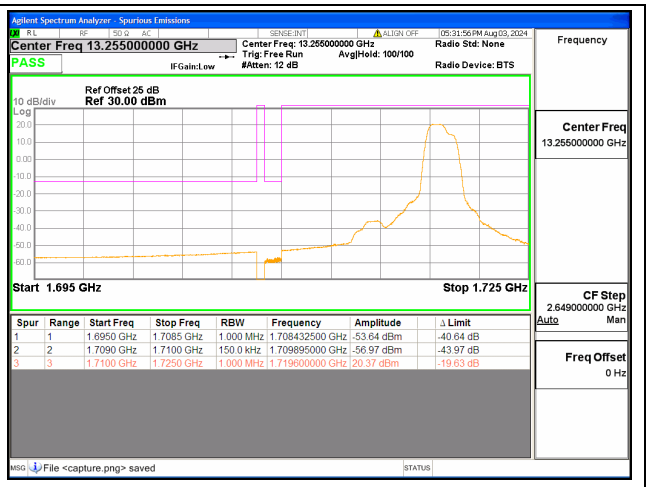
66B / 5+15MHz / High CH / QPSK / 1#24-1#0



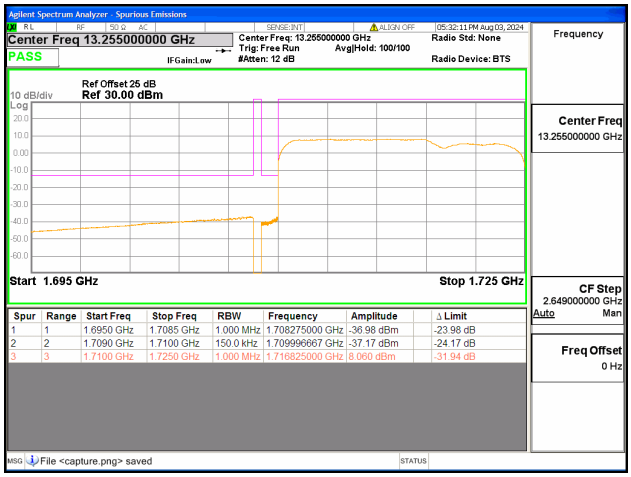
66B / 5+15MHz / High CH / QPSK / 25#0-75#0



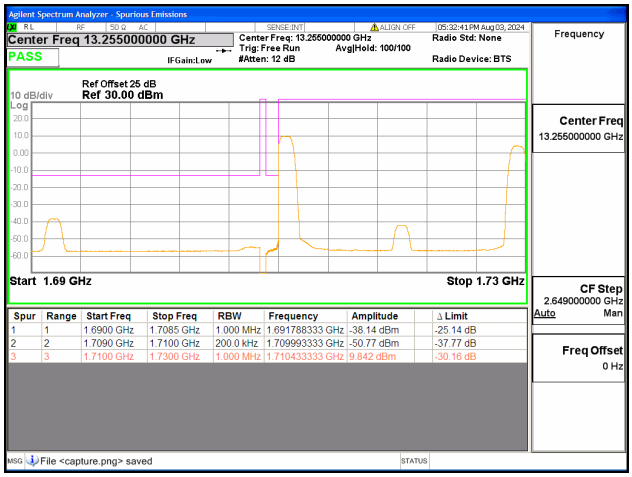
66B / 10+5MHz / Low CH / QPSK / 1#0-1#24



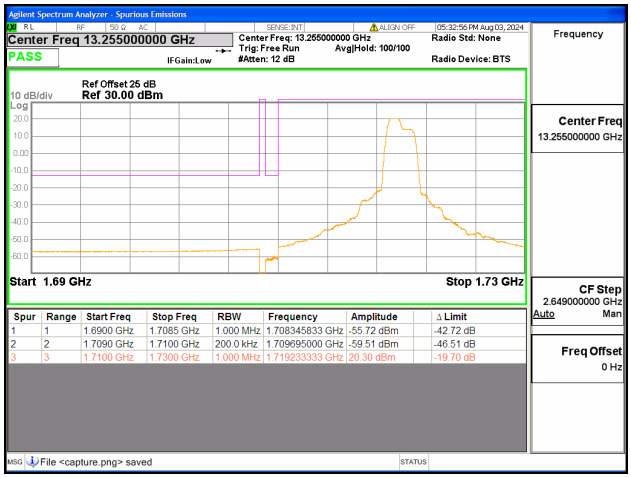
66B / 10+5MHz / Low CH / QPSK / 1#49-1#0



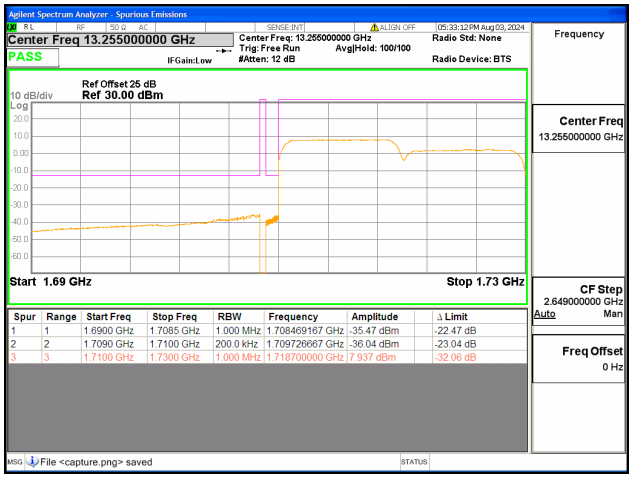
66B / 10+5MHz / Low CH / QPSK / 50#0-25#0



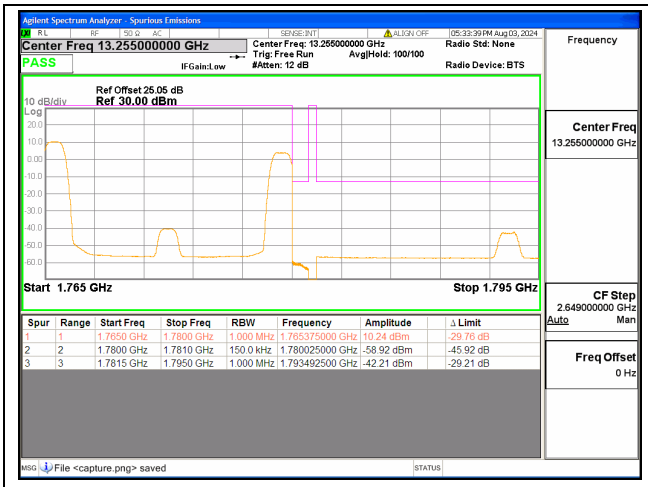
66B / 10+10MHz / Low CH / QPSK / 1#0-1#49



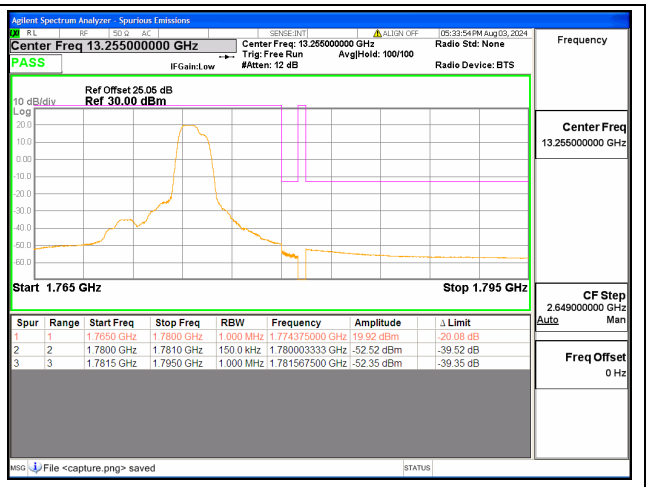
66B / 10+10MHz / Low CH / QPSK / 1#49-1#0



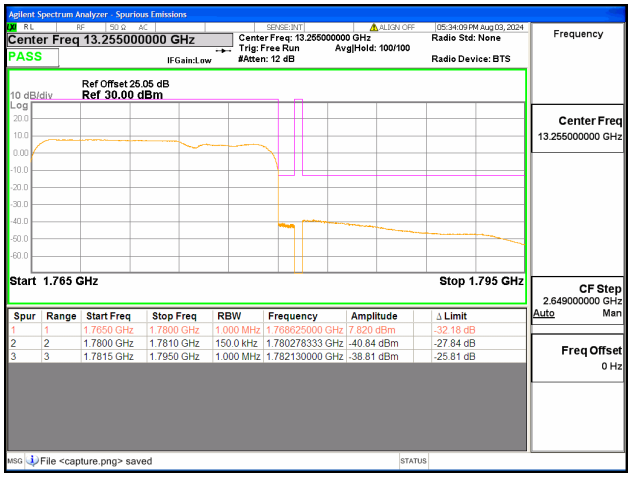
66B / 10+10MHz / Low CH / QPSK / 50#0-50#0



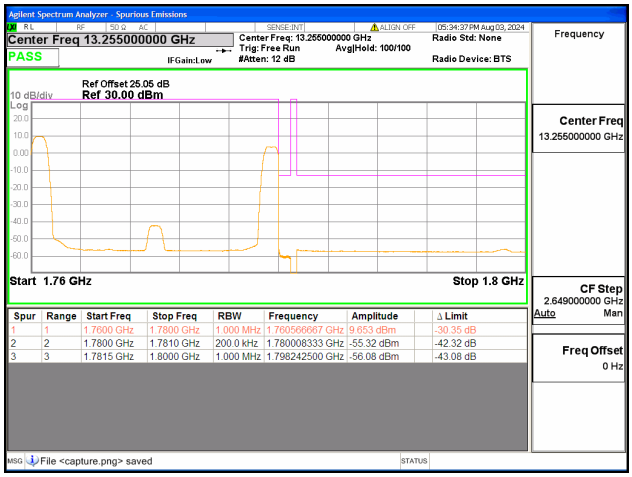
66B / 10+5MHz / High CH / QPSK / 1#0-1#24



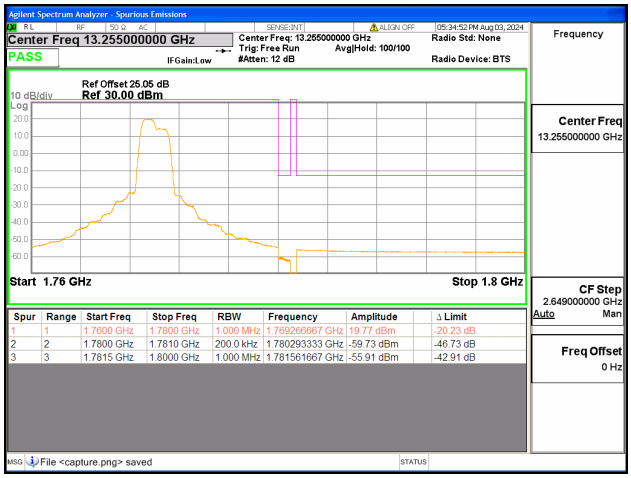
66B / 10+5MHz / High CH / QPSK / 1#49-1#0



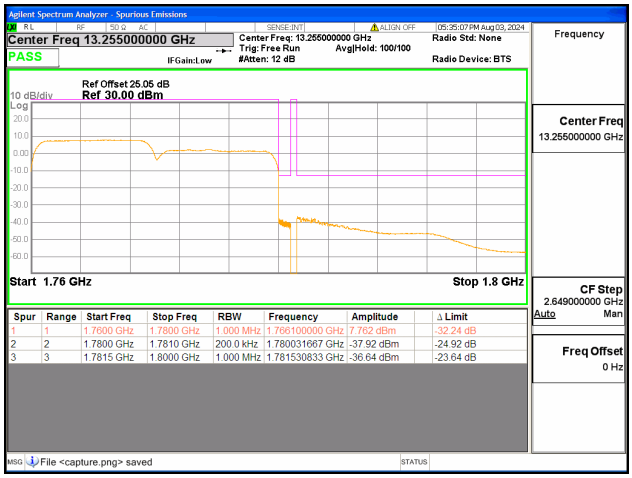
66B / 10+5MHz / High CH / QPSK / 50#0-25#0



66B / 10+10MHz / High CH / QPSK / 1#0-1#49



66B / 10+10MHz / High CH / QPSK / 1#49-1#0



66B / 10+10MHz / High CH / QPSK / 50#0-50#0