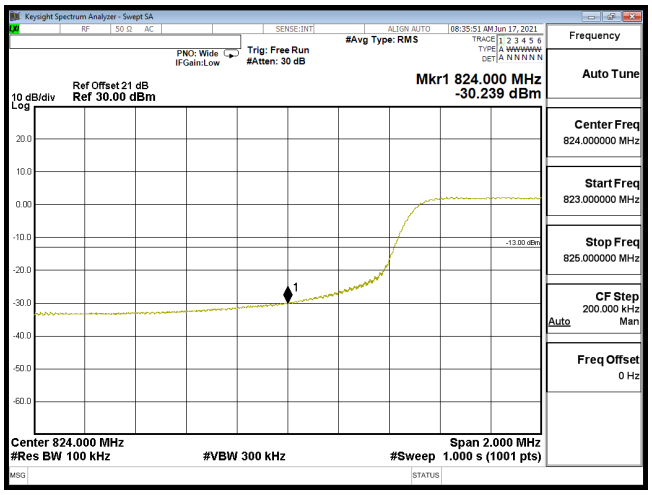
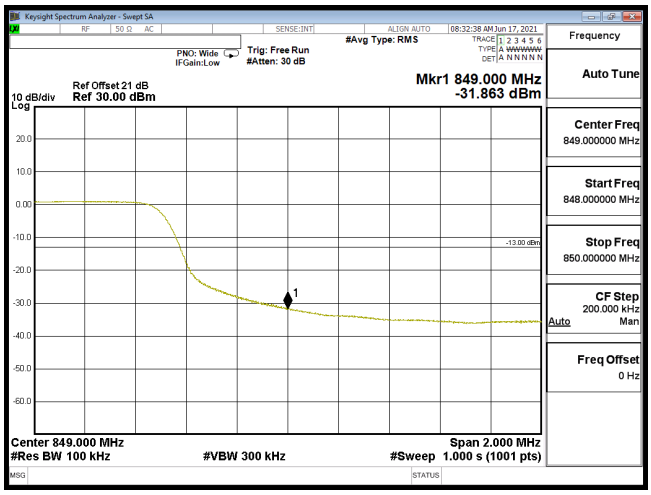
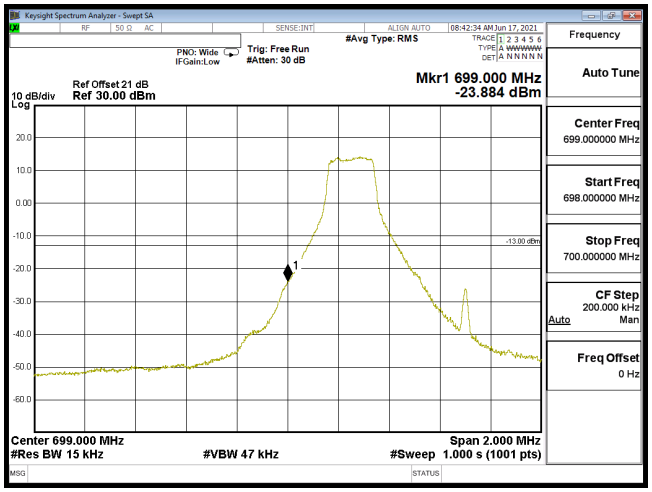


EDGE B5 10M CH20450 16QAM(50,0)

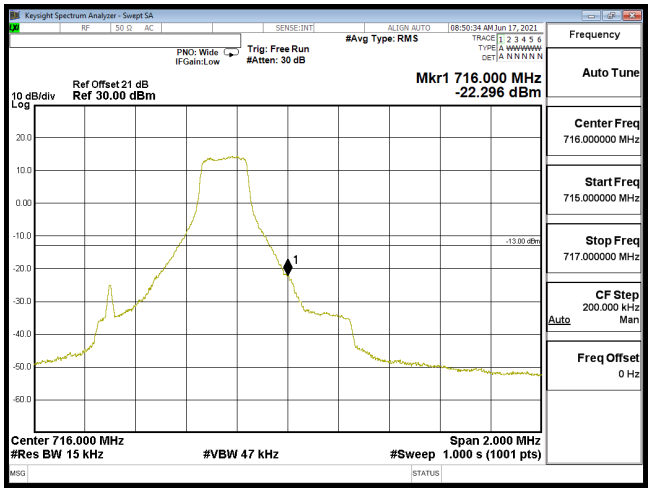


EDGE B5 10M CH20600 16QAM(50,0)

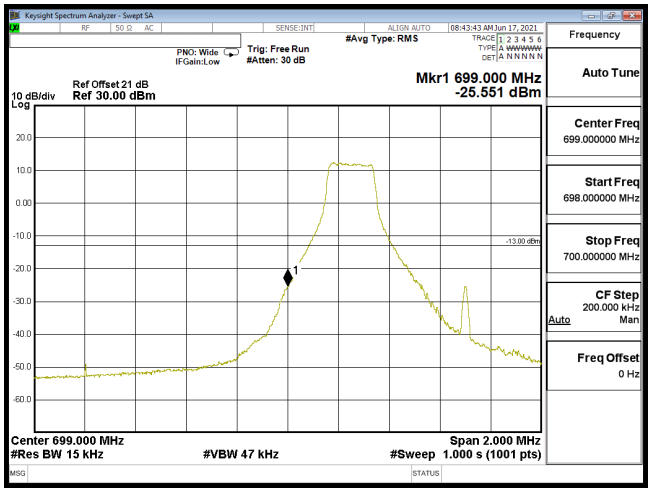
Product	WCDMA/LTE Mobile Phone		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2021/06/17	Test Site	CTR
Test Condition	Block Edge Test (LTE Band 12)		



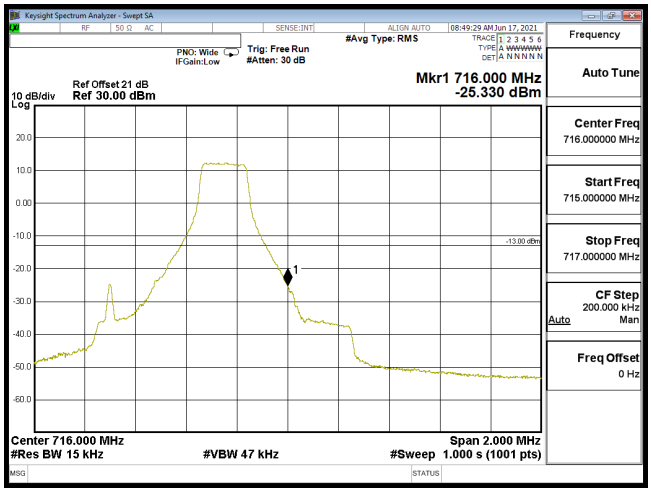
EDGE B12 1.4M CH23017 QPSK(1,0)



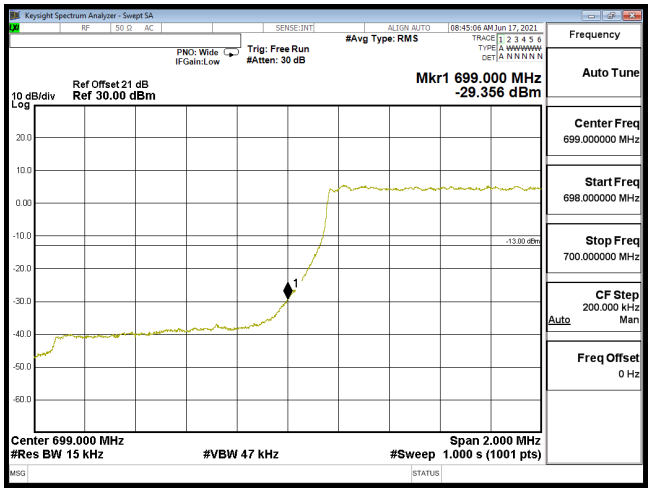
EDGE B12 1.4M CH23173 QPSK(1,5)



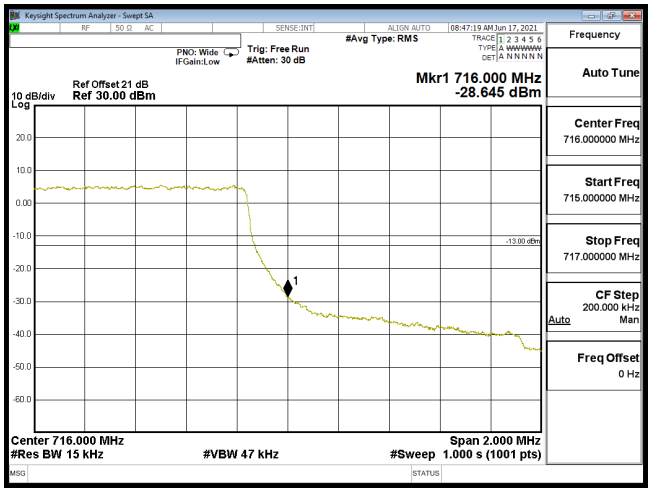
EDGE B12 1.4M CH23017 16QAM(1,0)



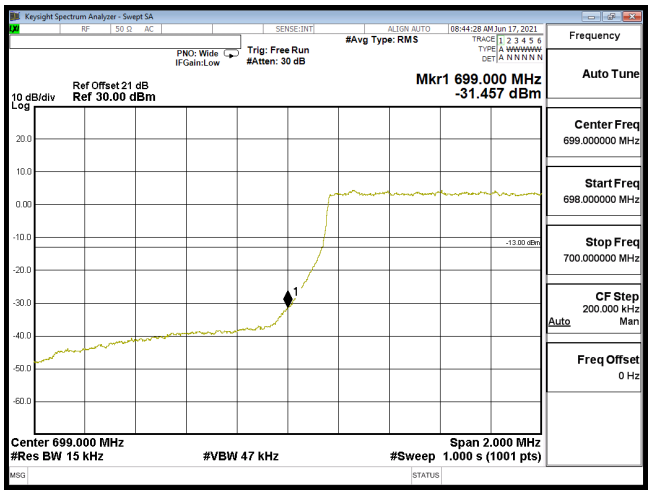
EDGE B12 1.4M CH23173 16QAM(1,5)



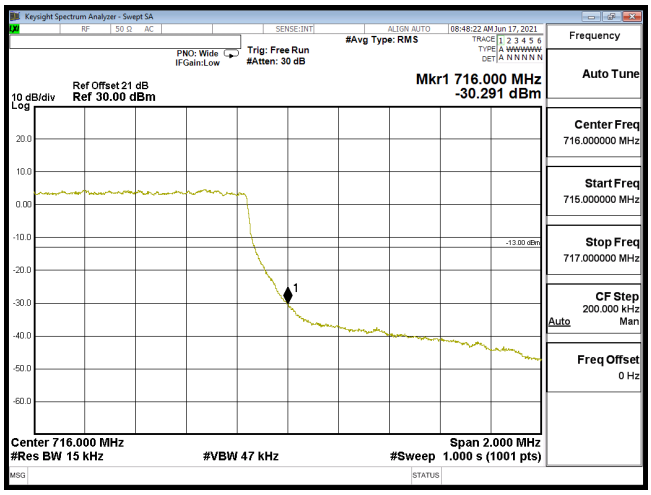
EDGE B12 1.4M CH23017 QPSK(6,0)



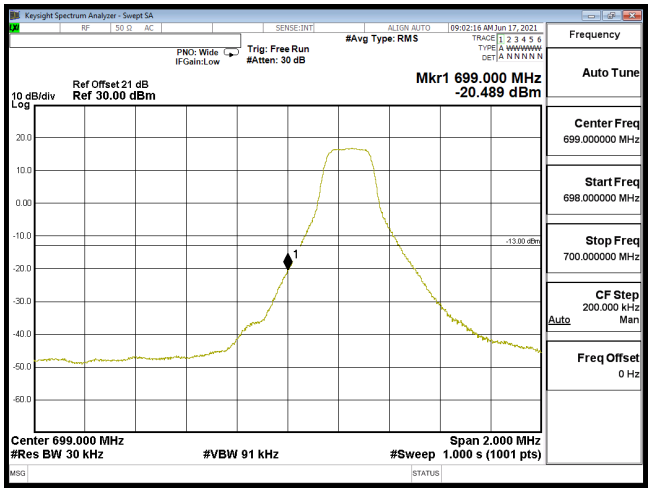
EDGE B12 1.4M CH23173 QPSK(6,0)



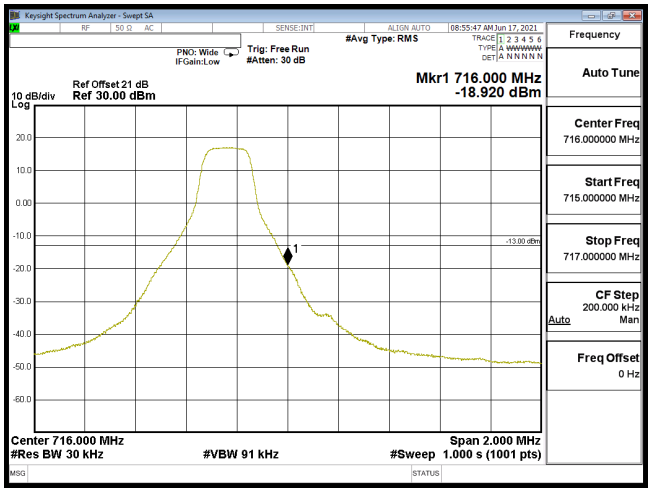
EDGE B12 1.4M CH23017 16QAM(6,0)



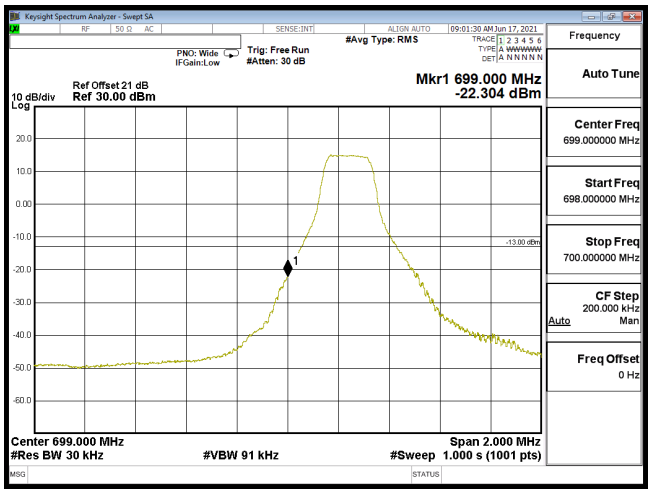
EDGE B12 1.4M CH23173 16QAM(6,0)



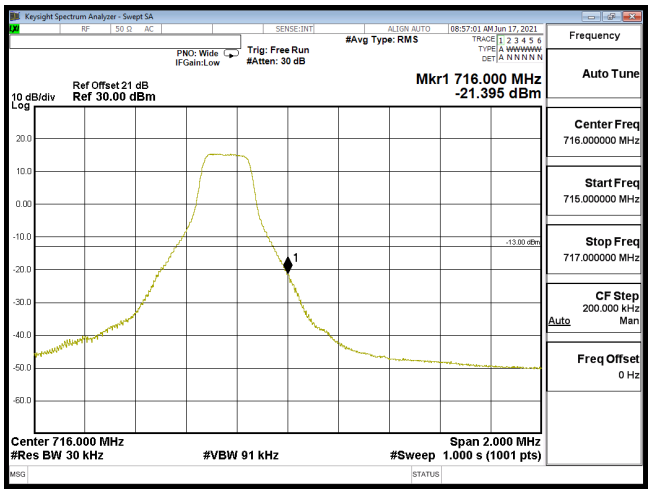
EDGE B12 3M CH23025 QPSK(1,0)



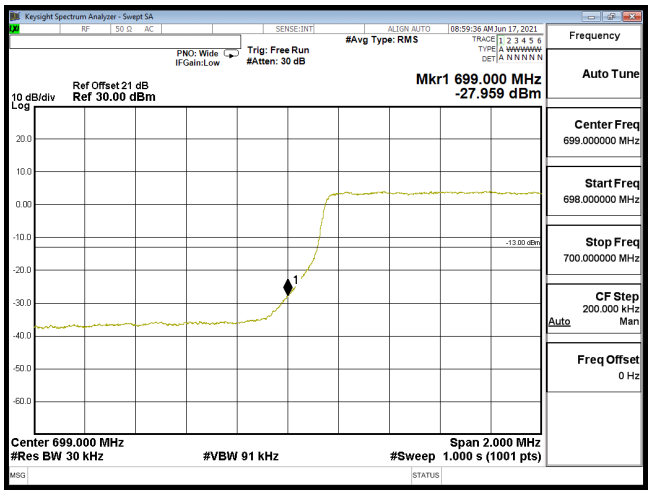
EDGE B12 3M CH23165 QPSK(1,14)



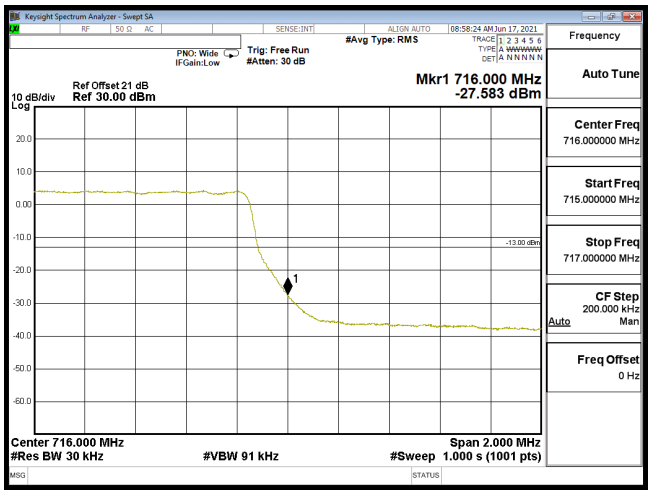
EDGE B12 3M CH23025 16QAM(1,0)



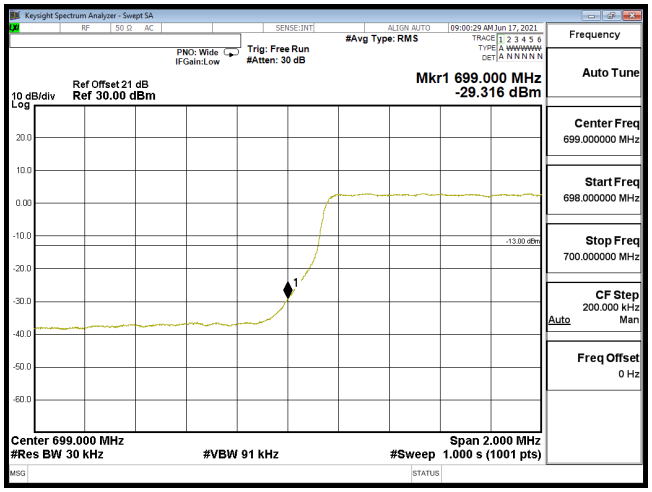
EDGE B12 3M CH23165 16QAM(1,14)



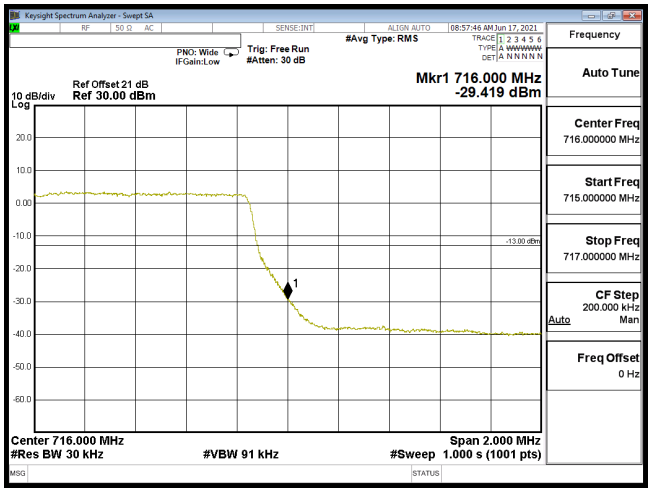
EDGE B12 3M CH23025 QPSK(15,0)



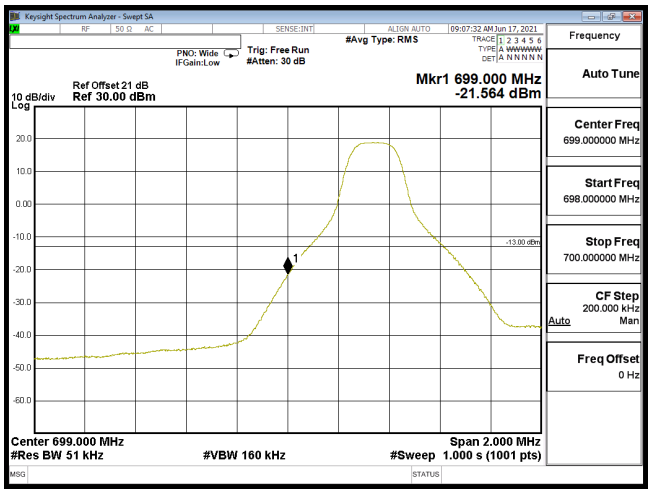
EDGE B12 3M CH23165 QPSK(15,0)



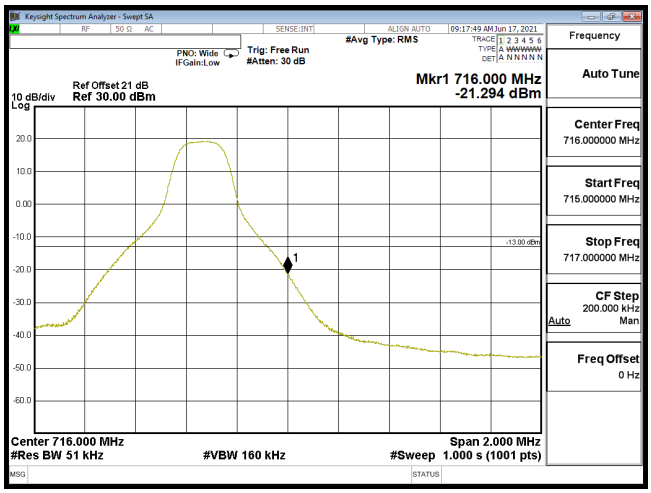
EDGE B12 3M CH23025 16QAM(15,0)



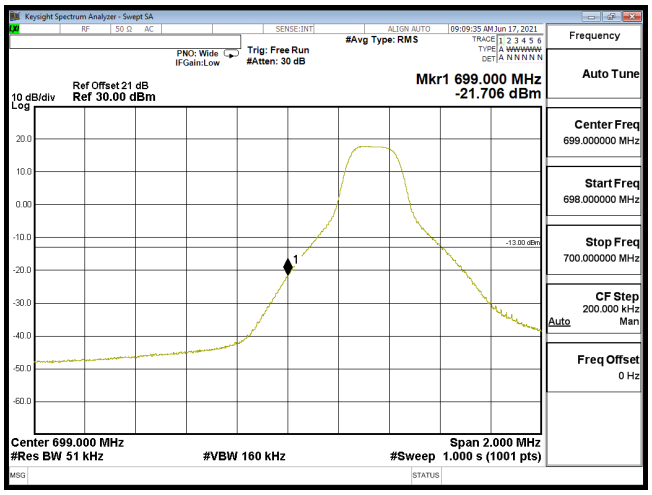
EDGE B12 3M CH23165 16QAM(15,0)



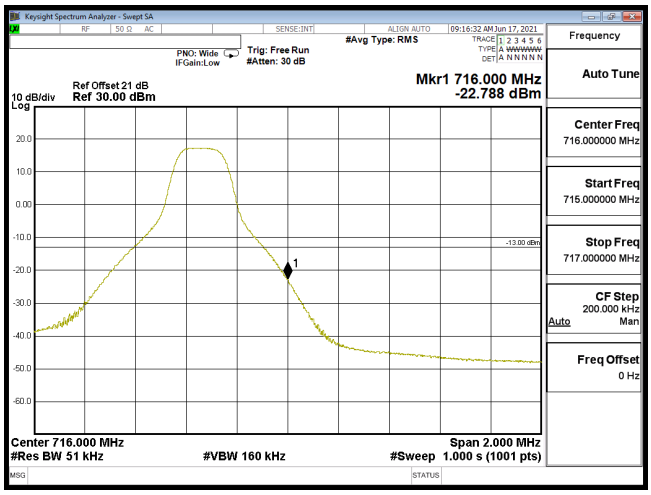
EDGE B12 5M CH23035 QPSK(1,0)



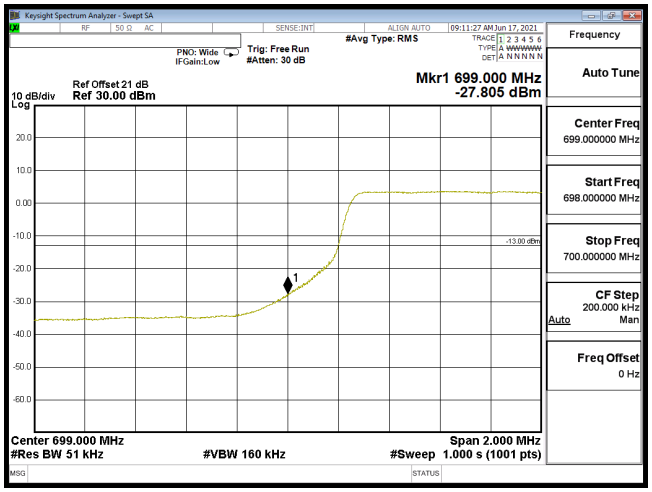
EDGE B12 5M CH23155 QPSK(1,24)



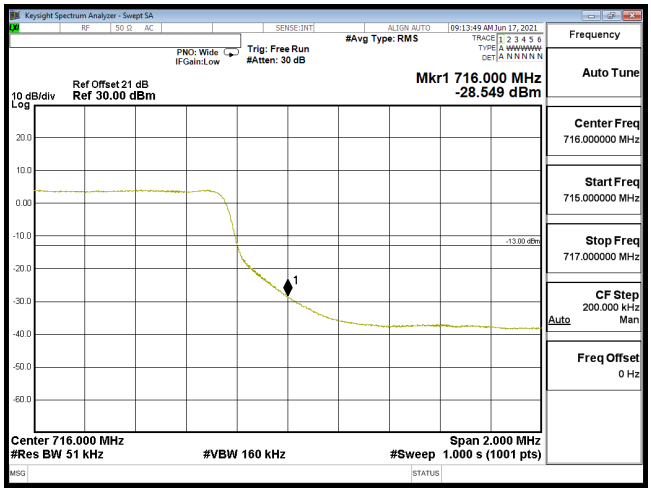
EDGE B12 5M CH23035 16QAM(1,0)



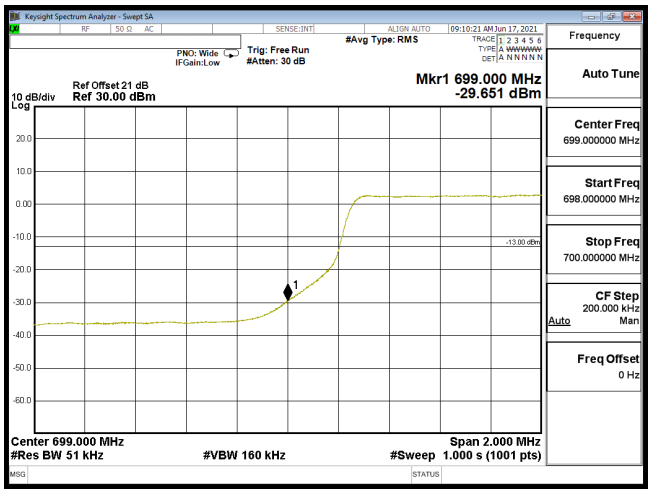
EDGE B12 5M CH23155 16QAM(1,24)



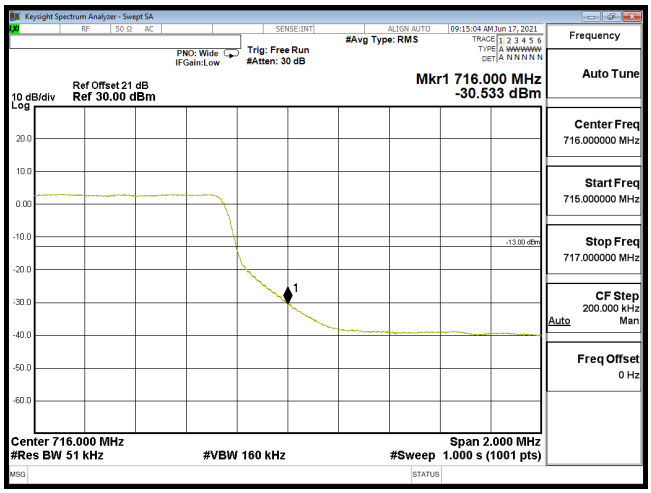
EDGE B12 5M CH23035 QPSK(25,0)



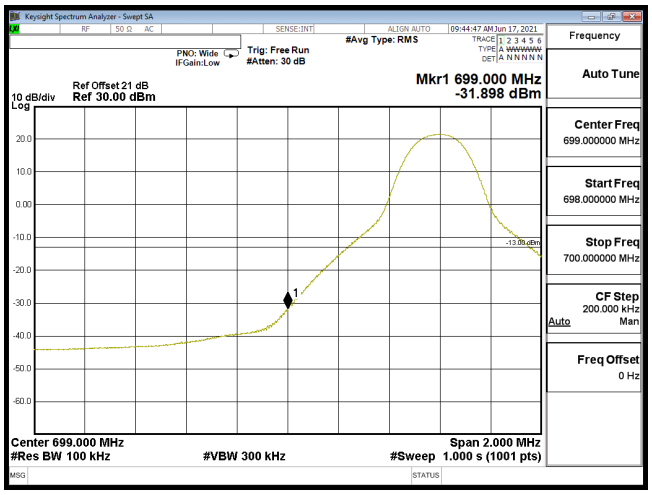
EDGE B12 5M CH23155 QPSK(25,0)



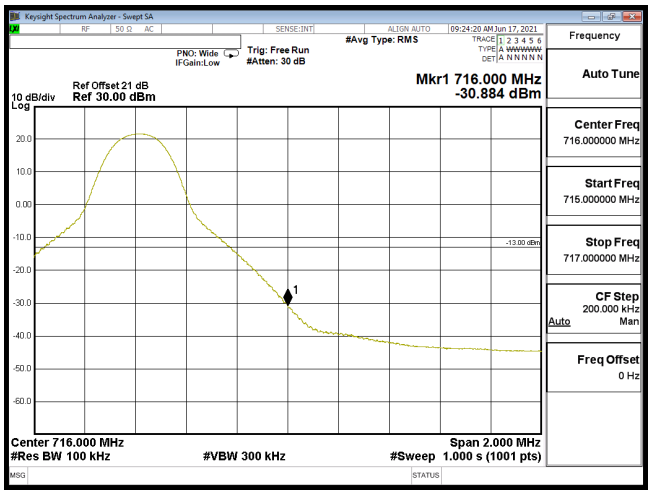
EDGE B12 5M CH23035 16QAM(25,0)



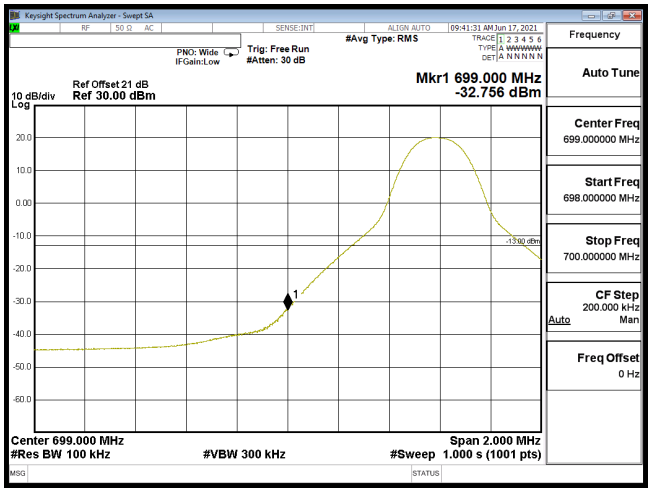
EDGE B12 5M CH23155 16QAM(25,0)



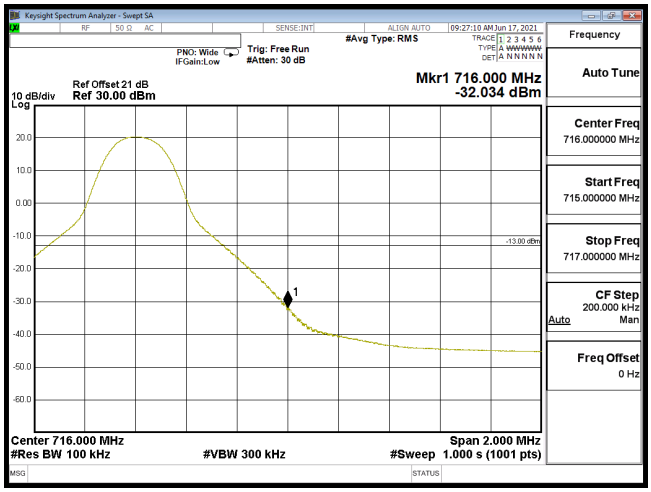
EDGE B12 10M CH23060 QPSK(1,0)



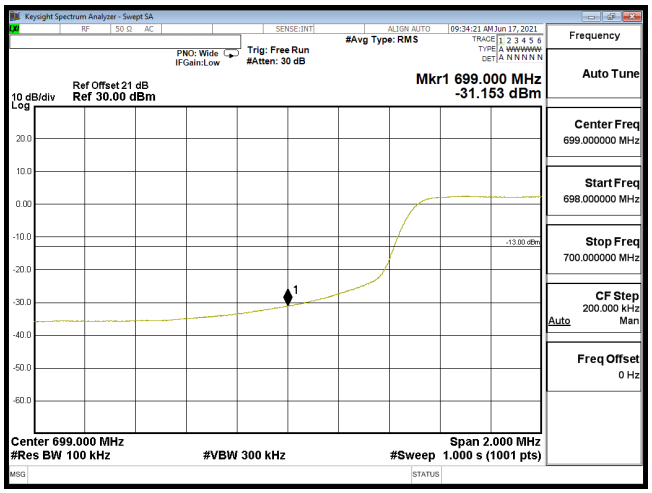
EDGE B12 10M CH23130 QPSK(1,49)



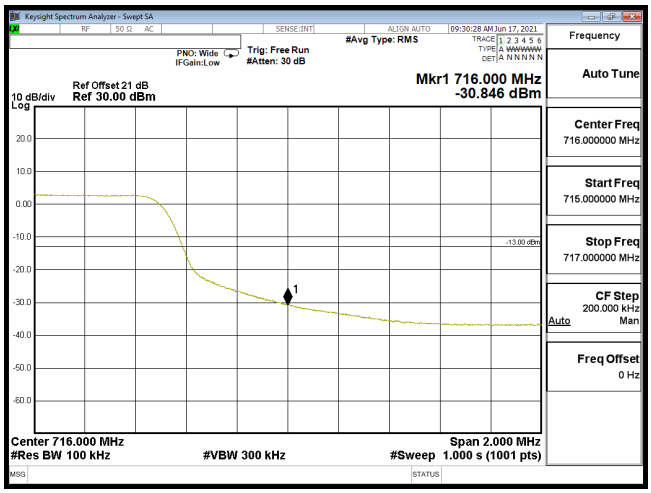
EDGE B12 10M CH23060 16QAM(1,0)



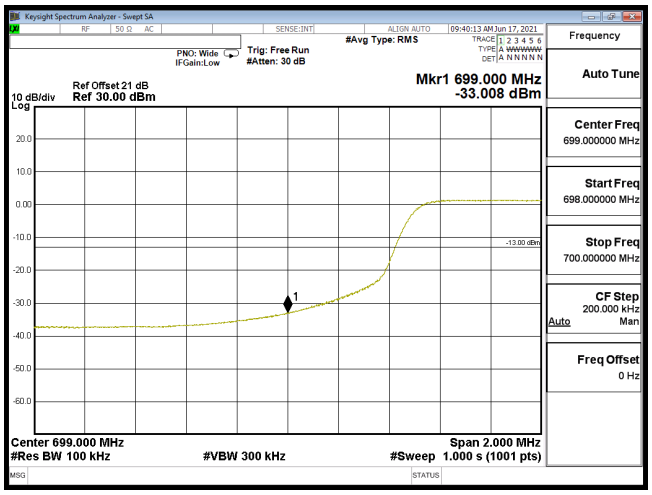
EDGE B12 10M CH23130 16QAM(1,49)



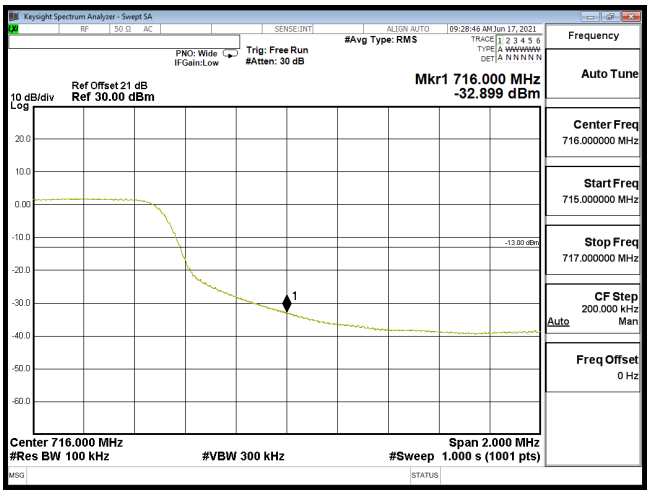
EDGE B12 10M CH23060 QPSK(50,0)



EDGE B12 10M CH23130 QPSK(50,0)

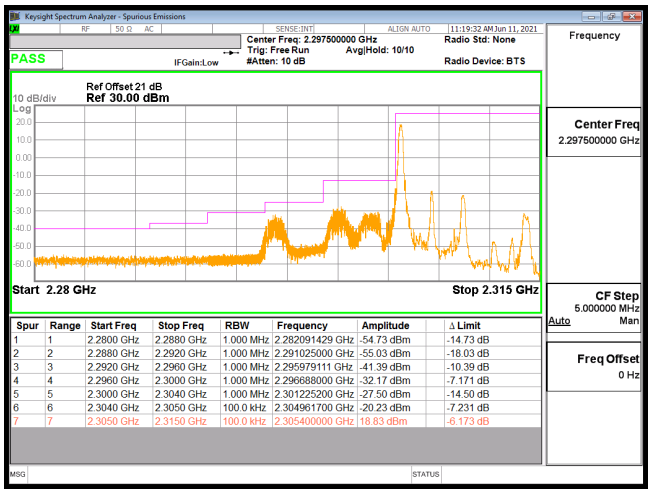


EDGE B12 10M CH23060 16QAM(50,0)

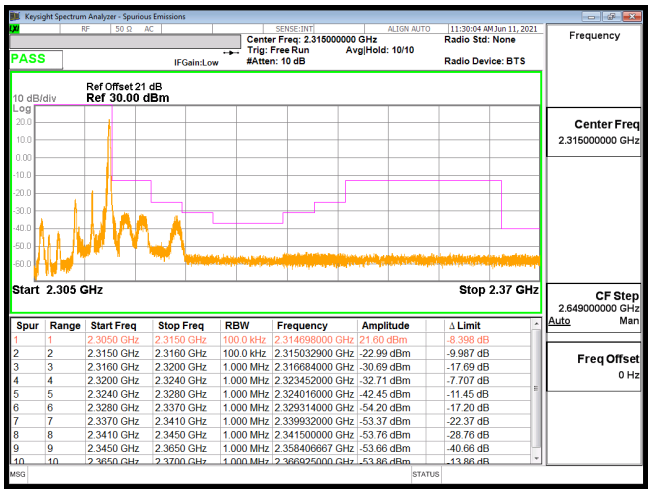


EDGE B12 10M CH23130 16QAM(50,0)

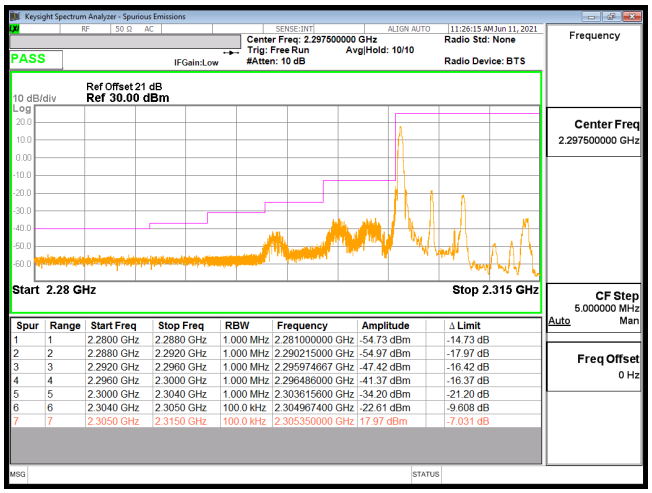
Product	WCDMA/LTE Mobile Phone		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2021/06/11	Test Site	CTR
Test Condition	Block Edge Test (LTE Band 30)		



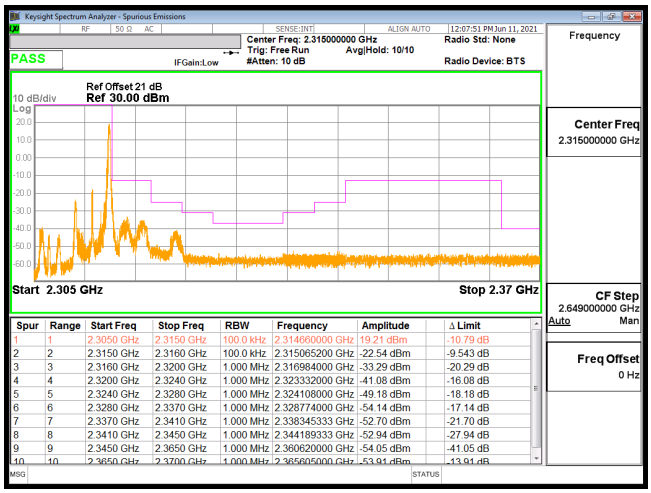
EDGE B30 5M CH27685 QPSK(1,0)



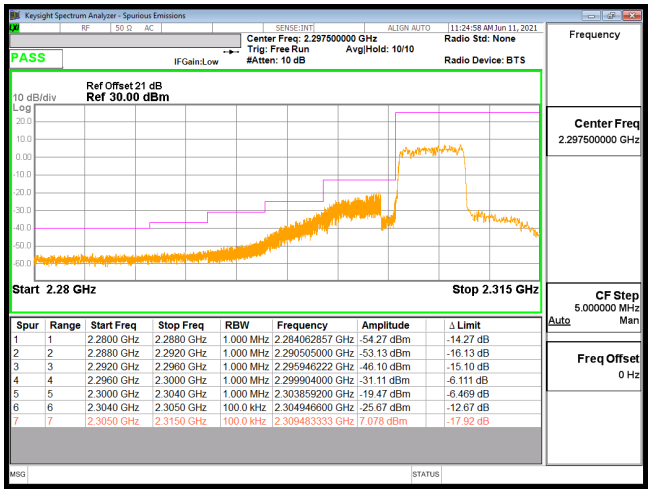
EDGE B30 5M CH27735 QPSK(1,24)



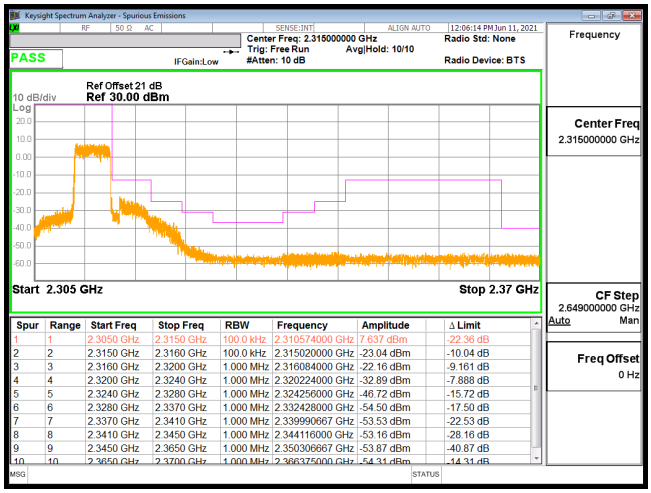
EDGE B30 5M CH27685 16QAM(1,0)



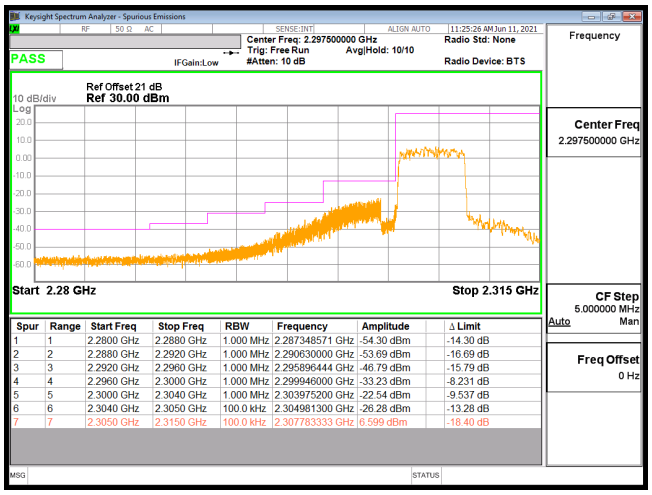
EDGE B30 5M CH27735 16QAM(1,24)



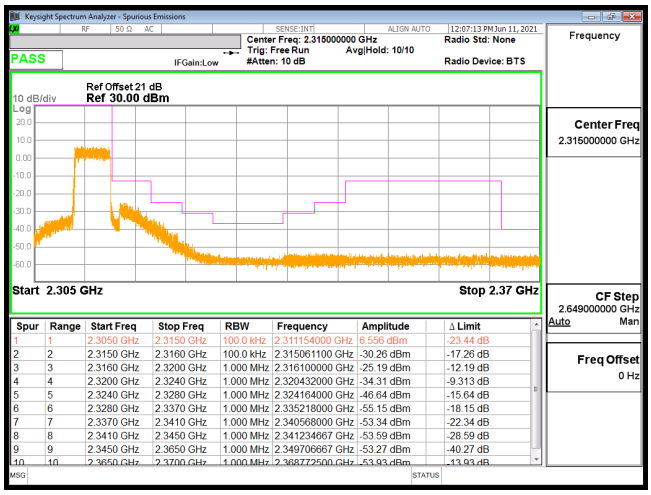
EDGE B30 5M CH27685 QPSK(25,0)



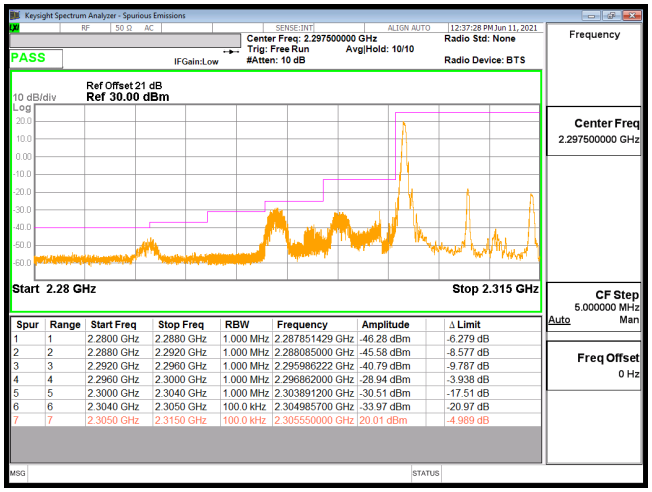
EDGE B30 5M CH27735 QPSK(25,0)



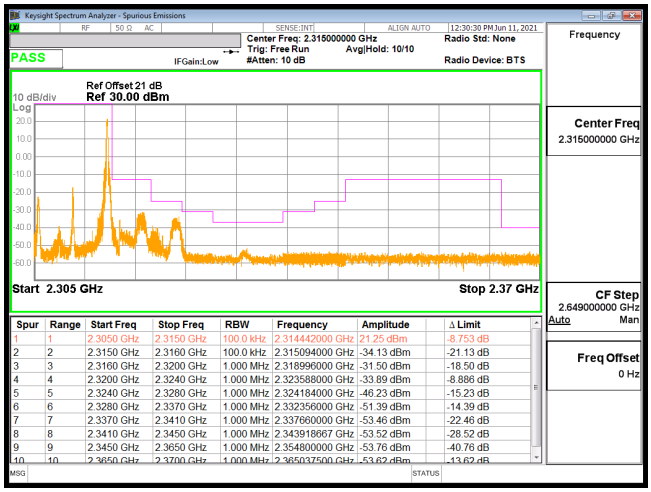
EDGE B30 5M CH27685 16QAM(25,0)



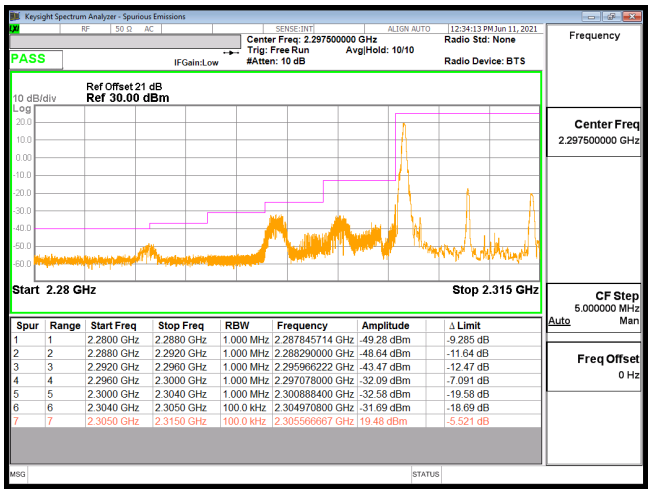
EDGE B30 5M CH27735 16QAM(25,0)



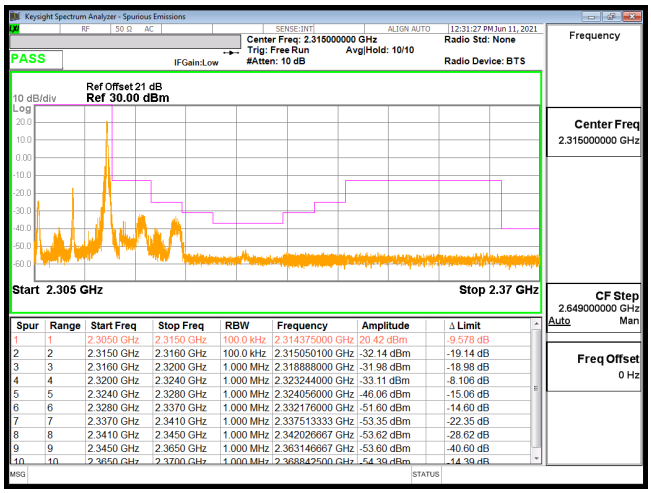
EDGE B30 10M CH27710 QPSK(1,0)



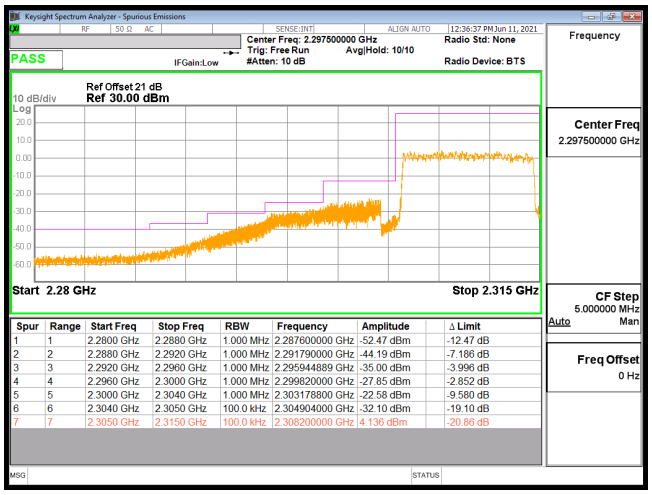
EDGE B30 10M CH27710 QPSK(1,49)



EDGE B30 10M CH27710 16QAM(1,0)

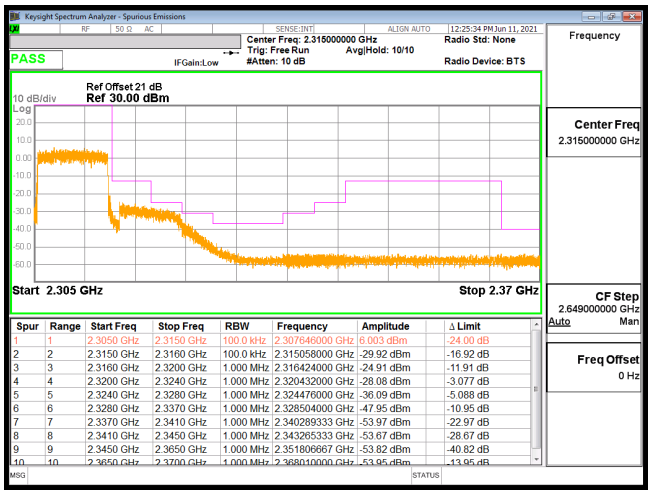


EDGE B30 10M CH27710 16QAM(1,49)



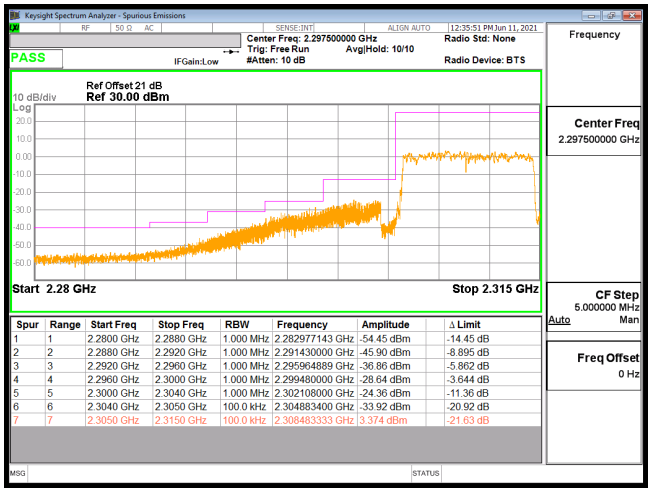
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.2800 GHz	2.2880 GHz	1.000 MHz	2.287600000 GHz	-52.47 dBm	-12.47 dB
2	2	2.2880 GHz	2.2920 GHz	1.000 MHz	2.291790000 GHz	-44.19 dBm	-7.186 dB
3	3	2.2920 GHz	2.2960 GHz	1.000 MHz	2.295944889 GHz	-35.00 dBm	-3.996 dB
4	4	2.2960 GHz	2.3000 GHz	1.000 MHz	2.299820000 GHz	-27.85 dBm	-2.852 dB
5	5	2.3000 GHz	2.3040 GHz	1.000 MHz	2.303178800 GHz	-22.58 dBm	-9.580 dB
6	6	2.3040 GHz	2.3050 GHz	100.0 kHz	2.304904000 GHz	-32.10 dBm	-19.10 dB
7	7	2.3050 GHz	2.3150 GHz	100.0 kHz	2.308200000 GHz	4.136 dBm	-20.86 dB

EDGE B30 10M CH27710 QPSK(50,0)



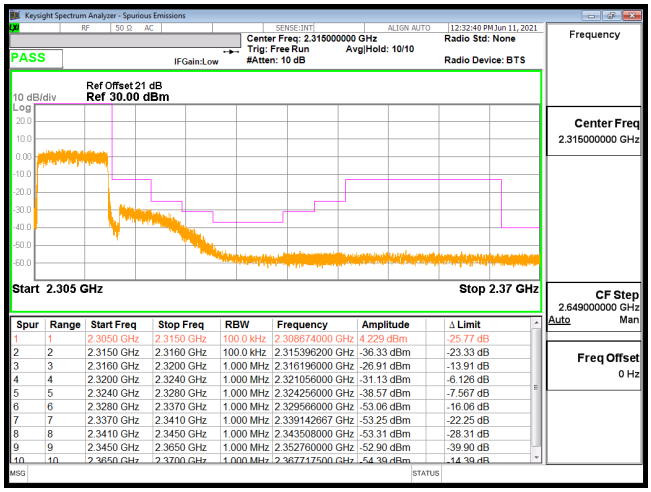
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.3050 GHz	2.3150 GHz	100.0 kHz	2.307646000 GHz	6.003 dBm	-24.00 dB
2	2	2.3150 GHz	2.3160 GHz	100.0 kHz	2.315058000 GHz	-29.92 dBm	-16.92 dB
3	3	2.3160 GHz	2.3200 GHz	1.000 MHz	2.316424000 GHz	-24.91 dBm	-11.91 dB
4	4	2.3200 GHz	2.3240 GHz	1.000 MHz	2.320432000 GHz	-28.08 dBm	-3.077 dB
5	5	2.3240 GHz	2.3280 GHz	1.000 MHz	2.324476000 GHz	-36.09 dBm	-5.088 dB
6	6	2.3280 GHz	2.3370 GHz	1.000 MHz	2.328504000 GHz	-47.95 dBm	-10.95 dB
7	7	2.3370 GHz	2.3410 GHz	1.000 MHz	2.340289333 GHz	-53.97 dBm	-22.97 dB
8	8	2.3410 GHz	2.3450 GHz	1.000 MHz	2.343265333 GHz	-53.67 dBm	-28.67 dB
9	9	2.3450 GHz	2.3650 GHz	1.000 MHz	2.351806667 GHz	-53.82 dBm	-40.82 dB
10	10	2.3650 GHz	2.3700 GHz	1.000 MHz	2.368010000 GHz	-53.95 dBm	-13.95 dB

EDGE B30 10M CH27710 QPSK(50,0)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.2800 GHz	2.2880 GHz	1.000 MHz	2.282977143 GHz	-54.45 dBm	-14.45 dB
2	2	2.2880 GHz	2.2920 GHz	1.000 MHz	2.291430000 GHz	-45.90 dBm	-8.895 dB
3	3	2.2920 GHz	2.2960 GHz	1.000 MHz	2.295964889 GHz	-36.86 dBm	-5.862 dB
4	4	2.2960 GHz	2.3000 GHz	1.000 MHz	2.299480000 GHz	-28.64 dBm	-3.644 dB
5	5	2.3000 GHz	2.3040 GHz	1.000 MHz	2.302108000 GHz	-24.36 dBm	-11.36 dB
6	6	2.3040 GHz	2.3050 GHz	100.0 kHz	2.304883400 GHz	-33.92 dBm	-20.92 dB
7	7	2.3050 GHz	2.3150 GHz	100.0 kHz	2.308483333 GHz	3.374 dBm	-21.63 dB

EDGE B30 10M CH27710 16QAM(50,0)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.3050 GHz	2.3150 GHz	100.0 kHz	2.308674000 GHz	4.229 dBm	-25.77 dB
2	2	2.3150 GHz	2.3160 GHz	100.0 kHz	2.315396200 GHz	-36.33 dBm	-23.33 dB
3	3	2.3160 GHz	2.3200 GHz	1.000 MHz	2.316196000 GHz	-26.91 dBm	-13.91 dB
4	4	2.3200 GHz	2.3240 GHz	1.000 MHz	2.321056000 GHz	-31.13 dBm	-6.126 dB
5	5	2.3240 GHz	2.3280 GHz	1.000 MHz	2.324256000 GHz	-38.57 dBm	-7.567 dB
6	6	2.3280 GHz	2.3370 GHz	1.000 MHz	2.329566000 GHz	-53.06 dBm	-16.06 dB
7	7	2.3370 GHz	2.3410 GHz	1.000 MHz	2.339142667 GHz	-53.25 dBm	-22.25 dB
8	8	2.3410 GHz	2.3450 GHz	1.000 MHz	2.343508000 GHz	-53.31 dBm	-28.31 dB
9	9	2.3450 GHz	2.3650 GHz	1.000 MHz	2.352760000 GHz	-52.90 dBm	-39.90 dB
10	10	2.3650 GHz	2.3700 GHz	1.000 MHz	2.367717500 GHz	-54.39 dBm	-14.39 dB

EDGE B30 10M CH27710 16QAM(50,0)

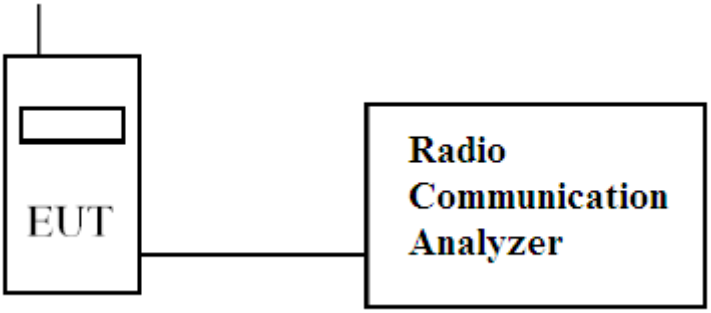
6. Spurious Emission

6.1. Test Specification

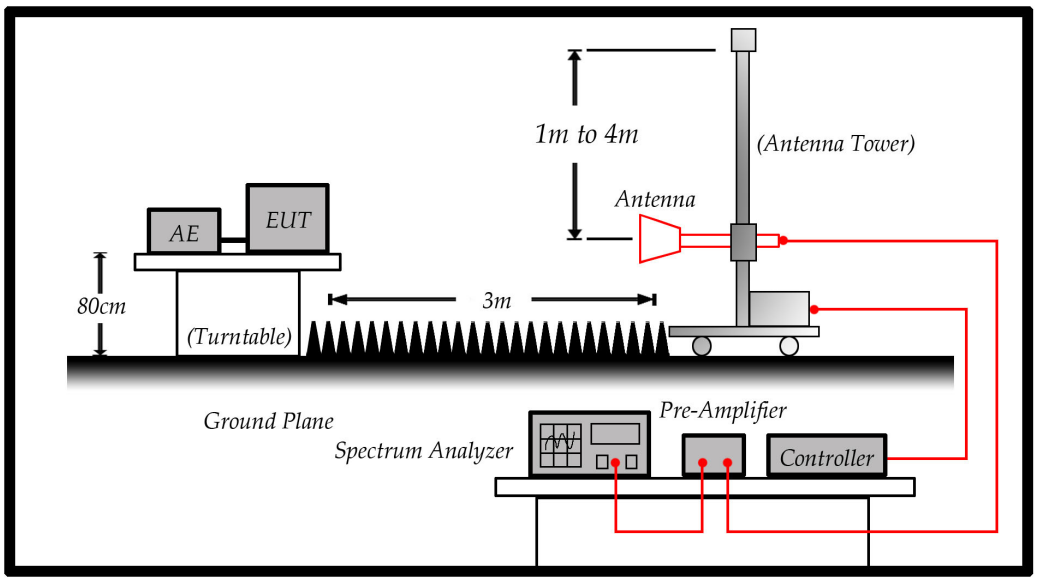
According to Part 2.1051, 2.1053, 22.917, 24.238, 27.53

6.2. Test Setup

6.2.1 Spurious emissions at antenna terminals.



6.2.2 Field strength of spurious radiation.



6.3. Limits

Limit	<-13dBm

43 + 10Log(P) down on the carrier where P is the power in Watts.

For LTE Band 30:

Limit	<-40dBm

70 + 10Log(P) down on the carrier where P is the power in Watts.

6.4. Test Procedure

In accordance with Part 2.1051, 2.1053, 22.917, 24.238, 27.53, the spurious emissions from the antenna terminal were measured. The transmitter output power was attenuated using a combination of filters and attenuators and the frequency spectrum investigated from 30MHz to 20GHz. The EUT was set to transmit on full power. The EUT was tested on Low, middle and High channels for both power levels. The resolution and video bandwidth was set to 1MHz/3MHz in accordance with Part 2.1051, 2.1053, 22.917, 24.238, 27.53. The spectrum analyzer detector was set to Max Hold. In addition, measurements were made up to the 10^{th} harmonic of the fundamental. The device was then replaced with a substitution antenna, which input signal was adjusted until the received level matched that of the previously detected emission.

(1) The EUT is tested with maximum rated TX power via the Base Station simulator.

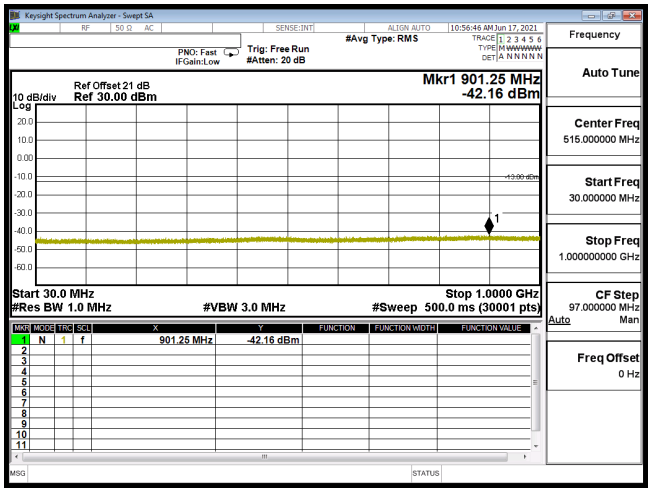
(2) The EUT is tested in three orthogonal planes, The worst case was showing in this report.

The EUT is placed on a turn table which is 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

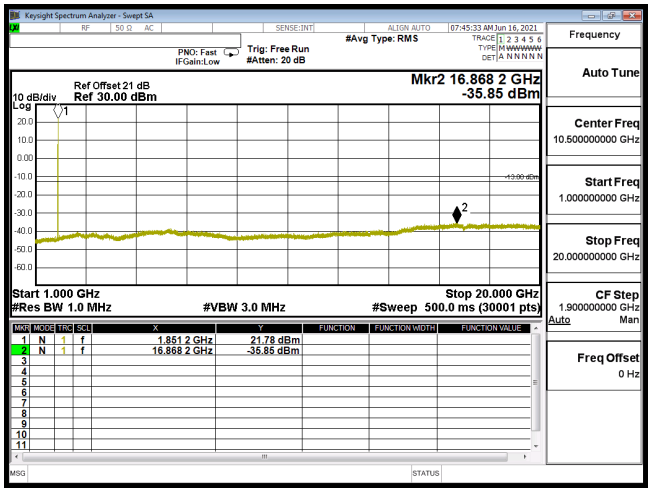
Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to TIA/EIA 603-E on radiated measurement.

6.5. Test Result of Spurious Emission

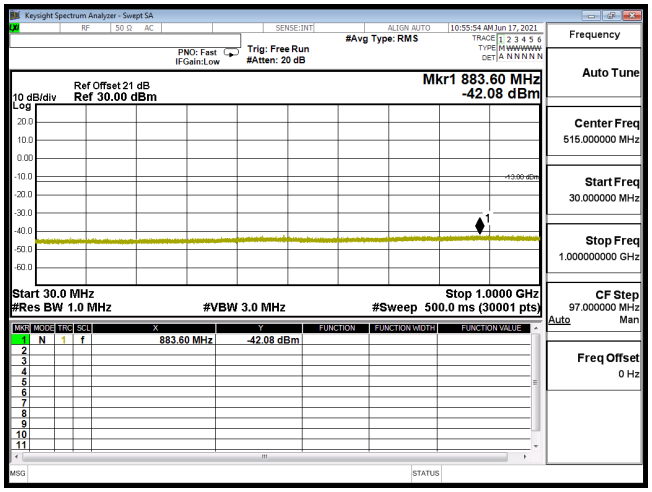
Product	WCDMA/LTE Mobile Phone		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2021/06/17	Test Site	CTR
Test Condition	LTE-Band 2	Test Range	30MHz~20GHz



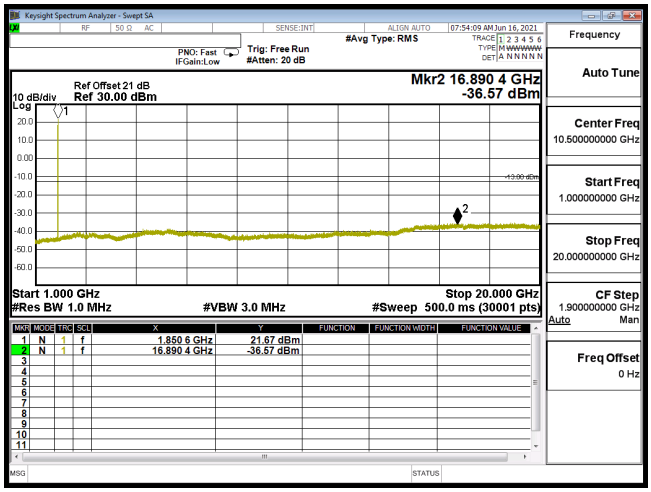
CSE B2 1.4M CH18607 QPSK(1,5) 30M-1G



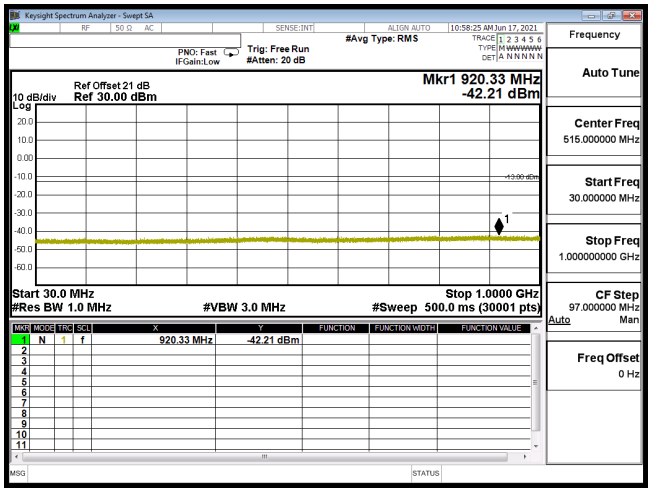
CSE B2 1.4M CH18607 QPSK(1,5) 1G-20G



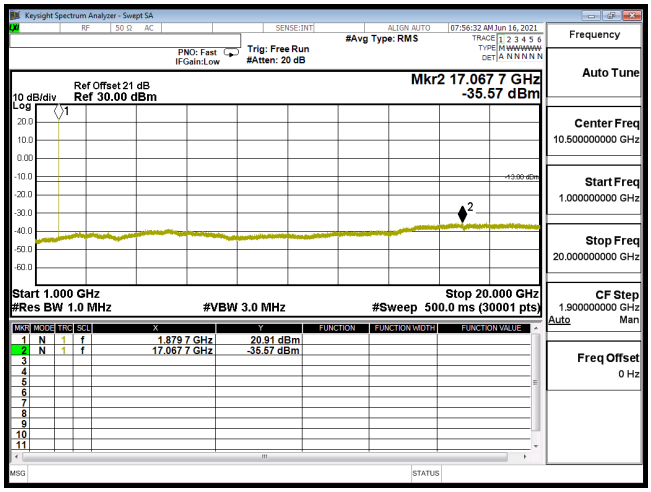
CSE B2 1.4M CH18607 16QAM(1,2) 30M-1G



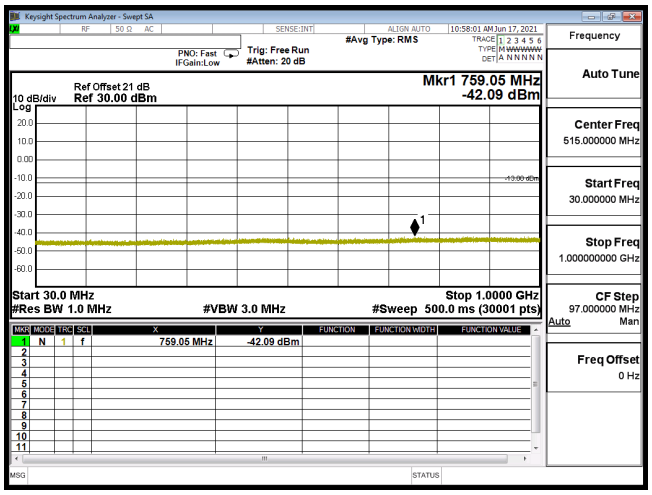
CSE B2 1.4M CH18607 16QAM(1,2) 1G-20G



CSE B2 1.4M CH18900 QPSK(1,0) 30M-1G



CSE B2 1.4M CH18900 QPSK(1,0) 1G-20G



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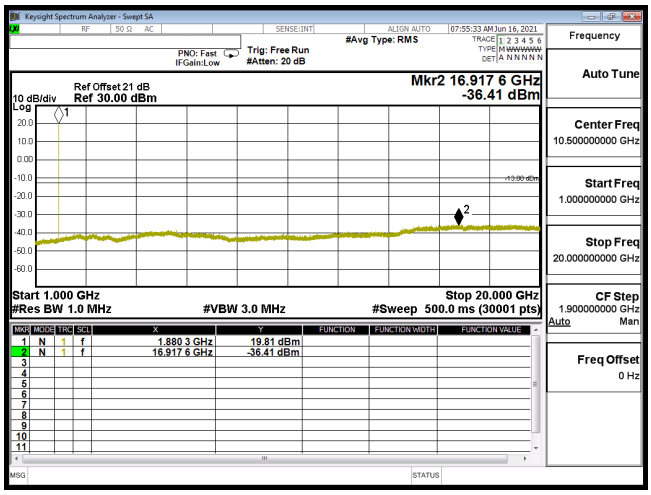

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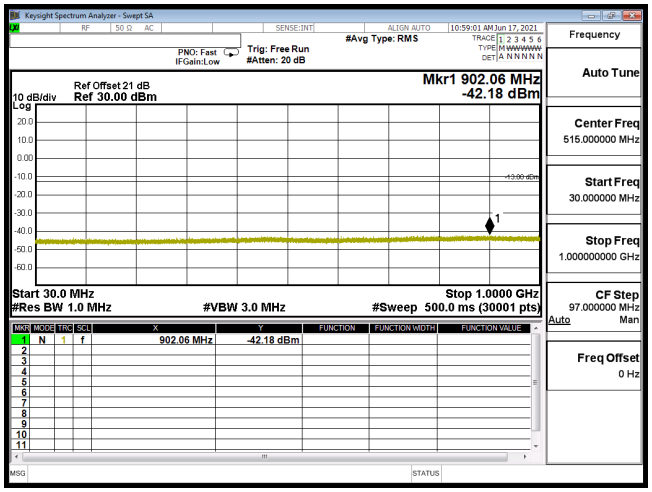

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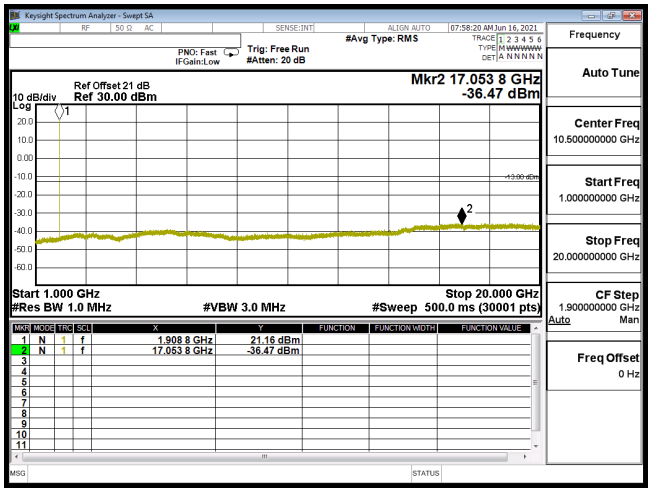

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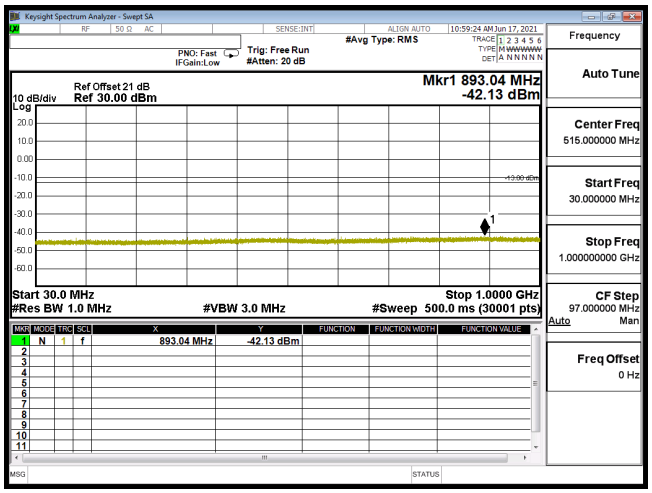
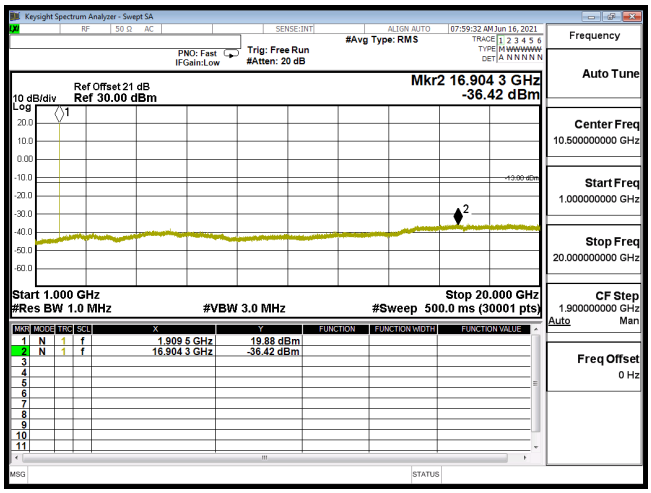
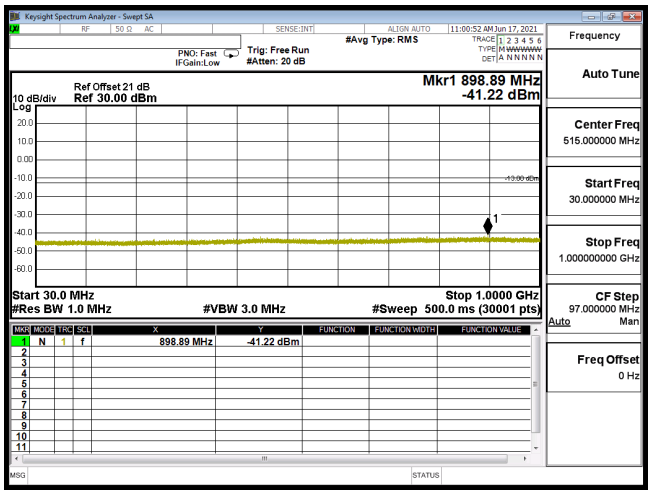


CSE B2 1.4M CH19193 16QAM(3,2) 30M-1G



CSE B2 1.4M CH19193 16QAM(3,2) 1G-20G



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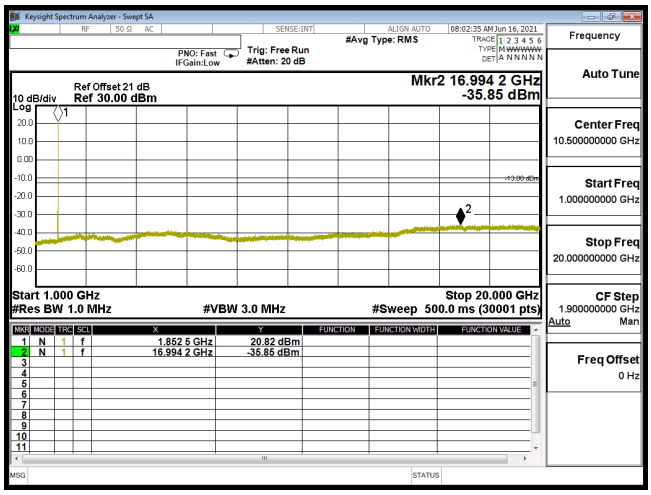

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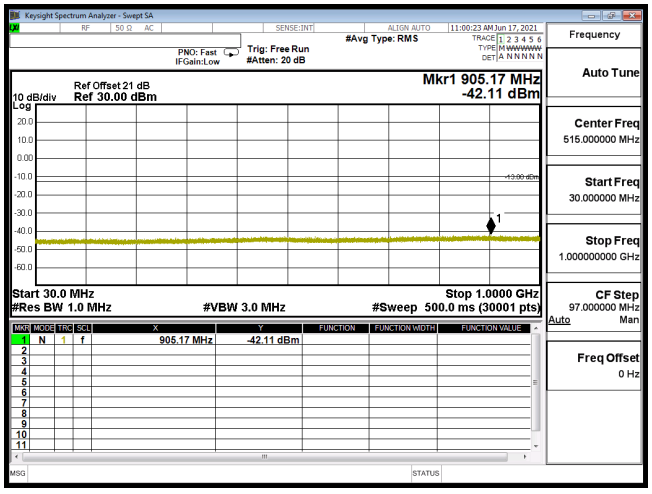

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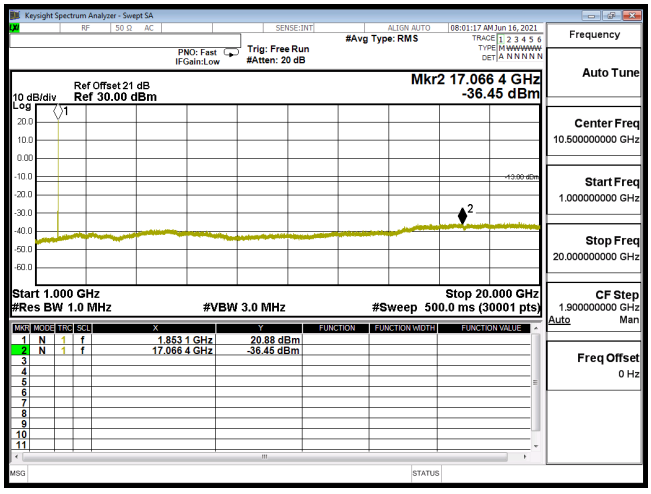
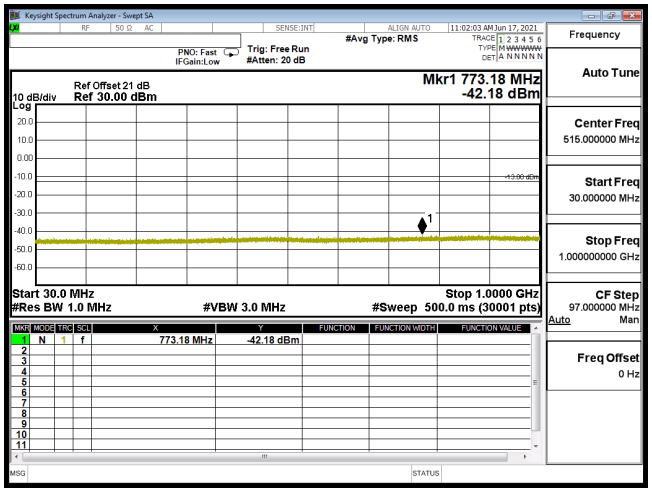
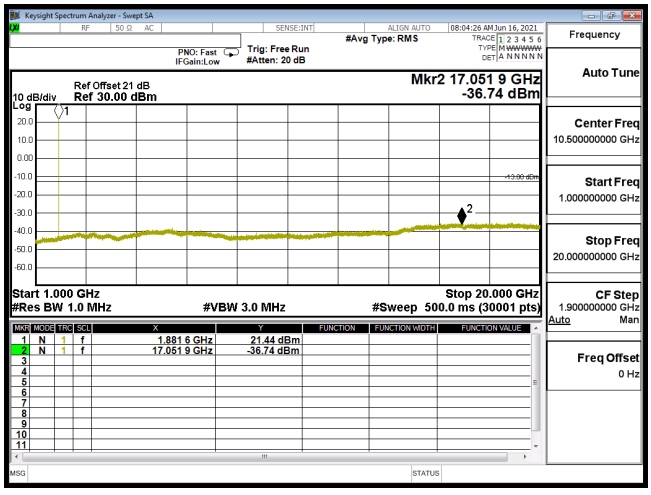


CSE B2 3M CH18615 16QAM(1,14) 1G-20G



CSE B2 3M CH18900 QPSK(1,14) 30M-1G



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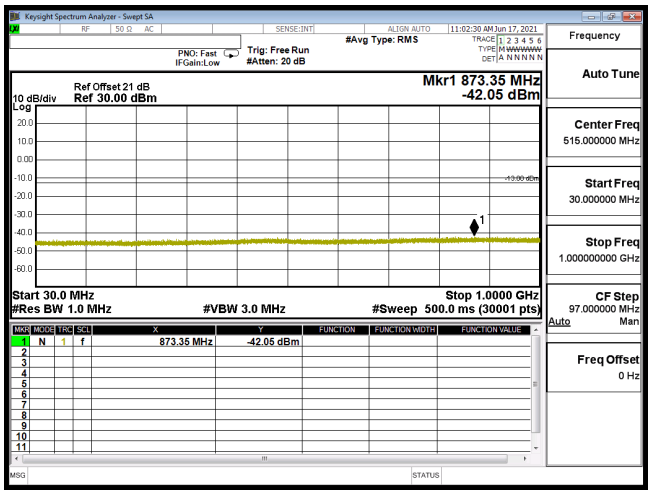

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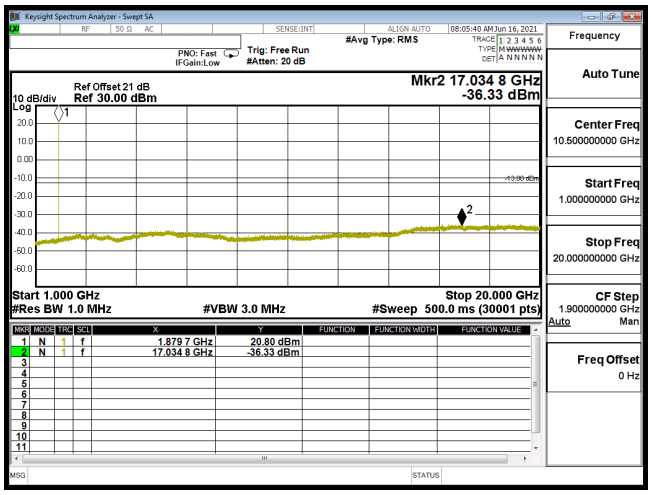
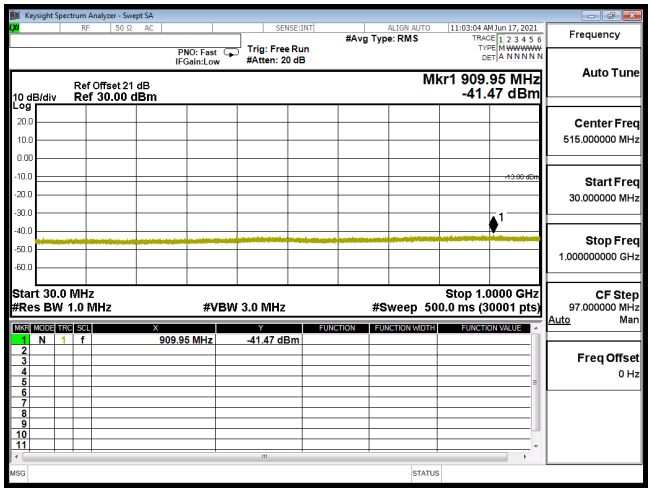


CSE B2 3M CH18900 16QAM(1,7) 1G-20G



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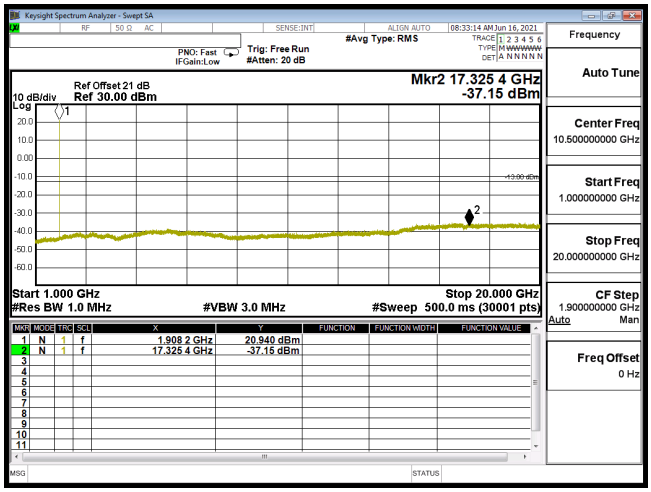

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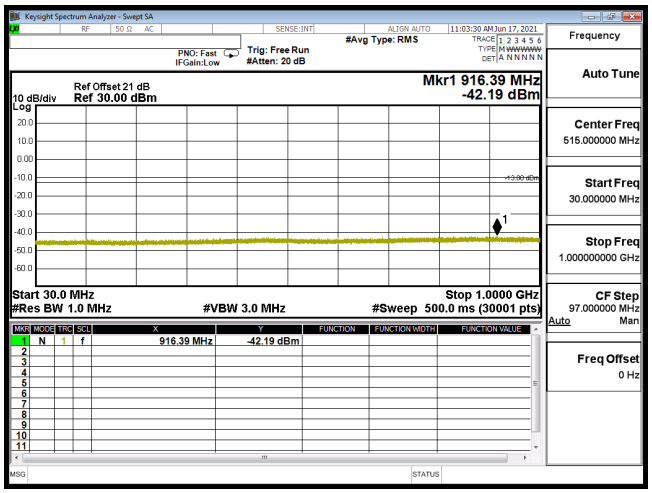

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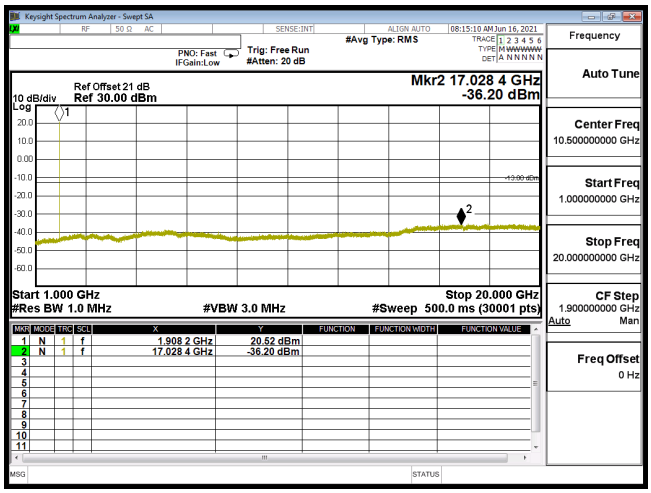

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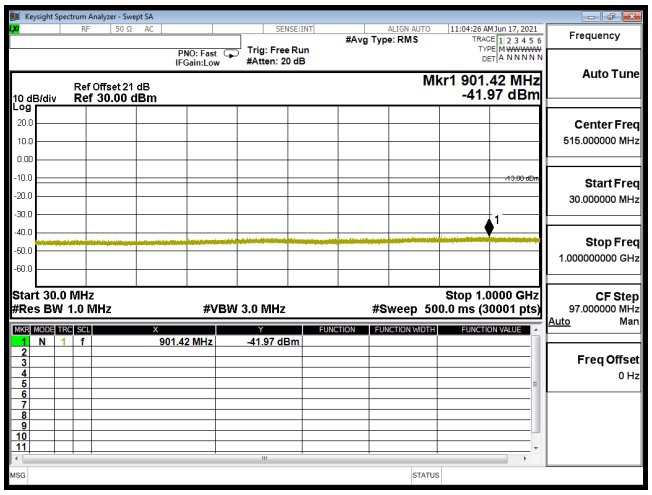

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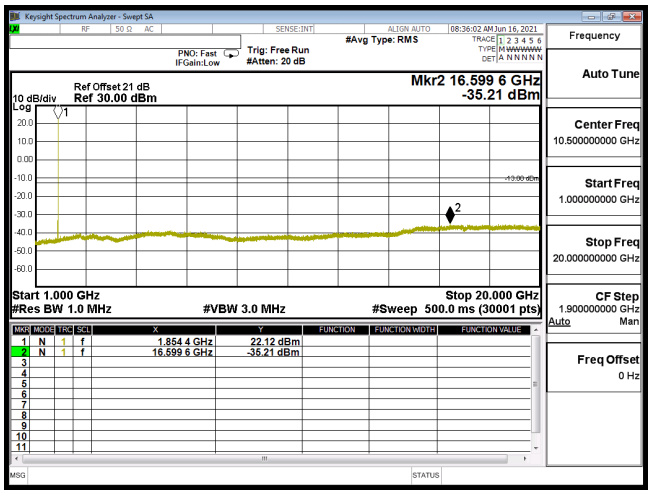

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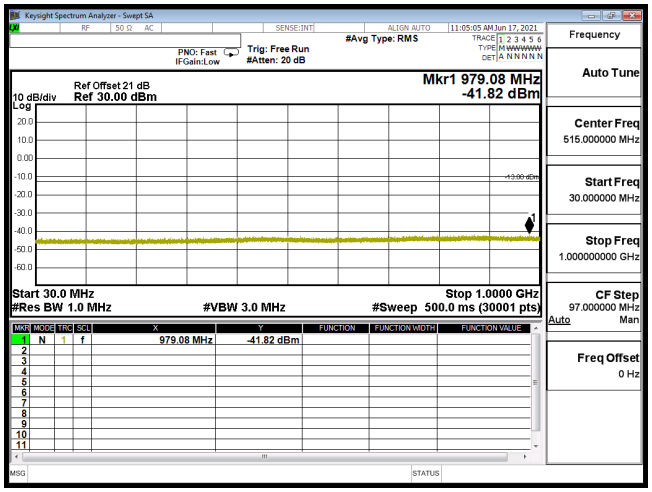

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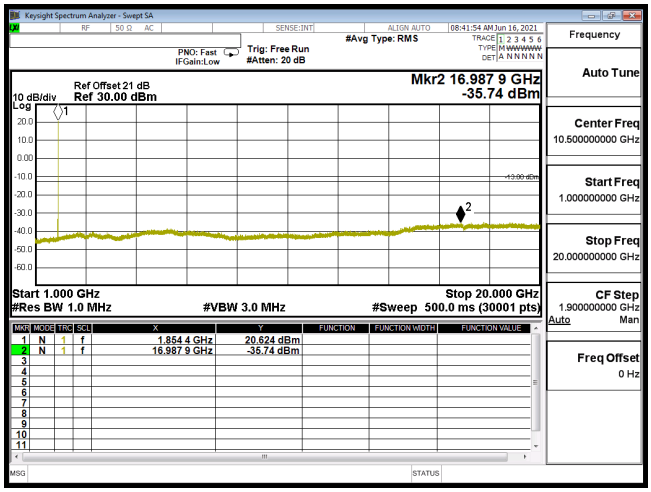

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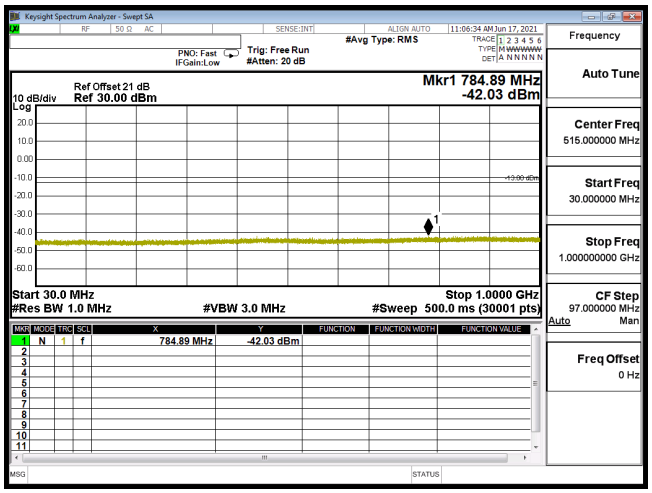

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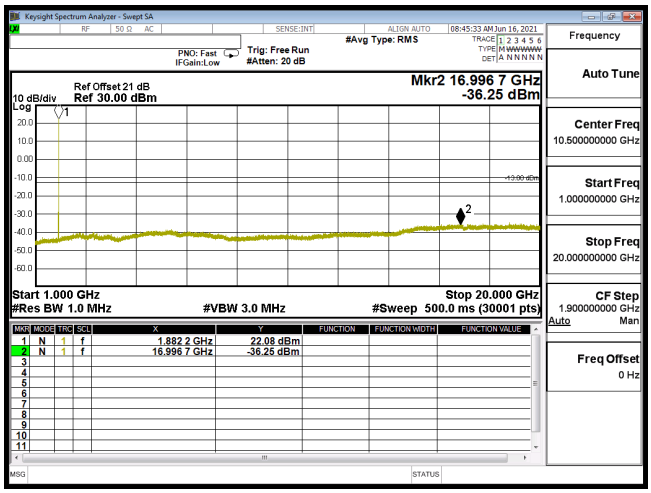

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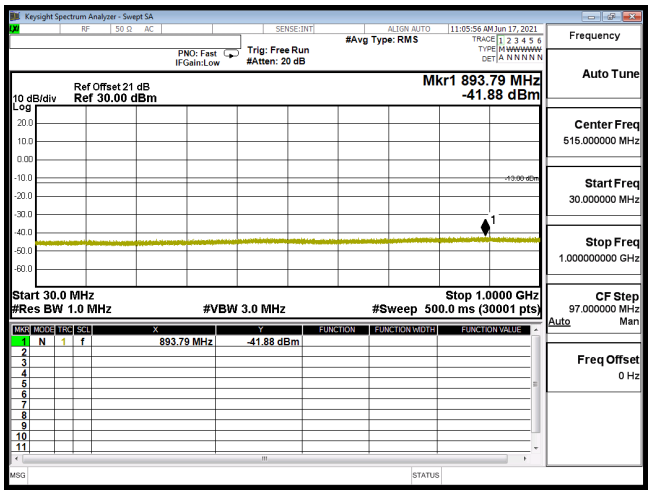
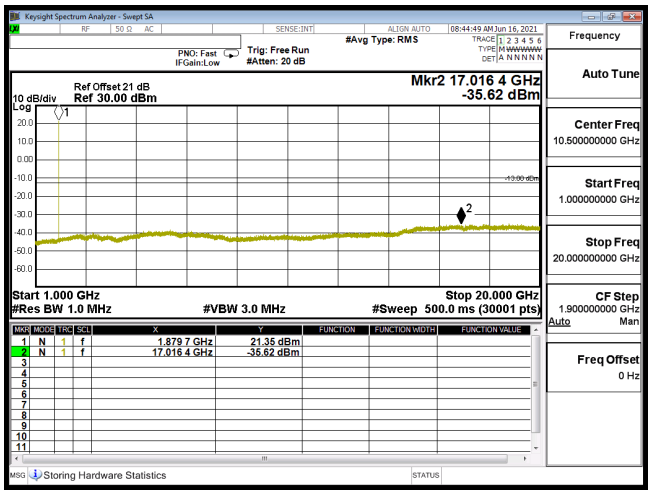
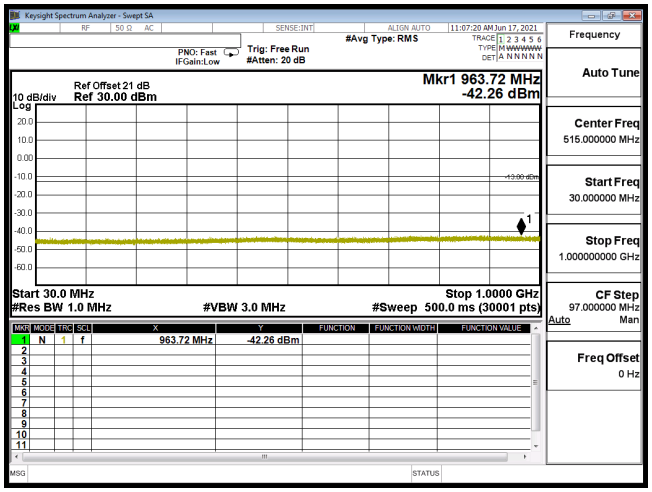


CSE B2 5M CH18900 16QAM(1,12) 30M-1G



CSE B2 5M CH18900 16QAM(1,12) 1G-20G



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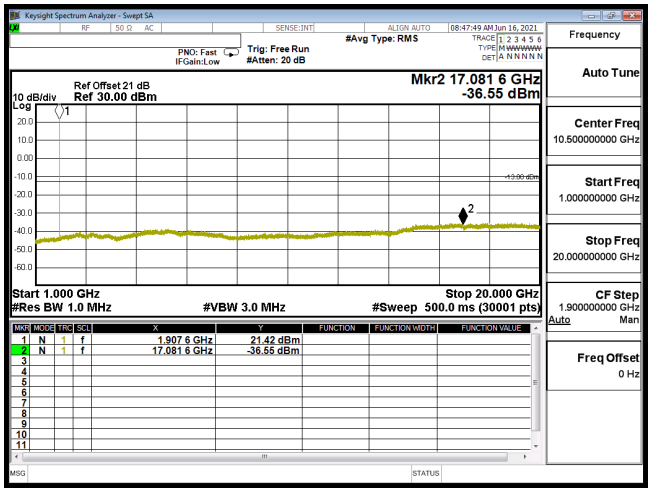

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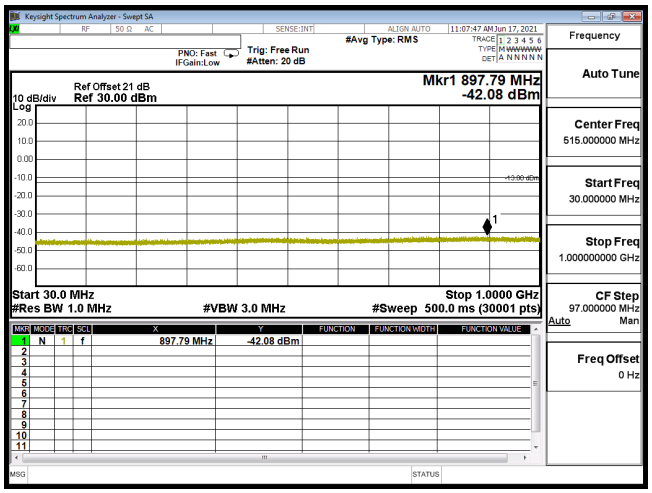

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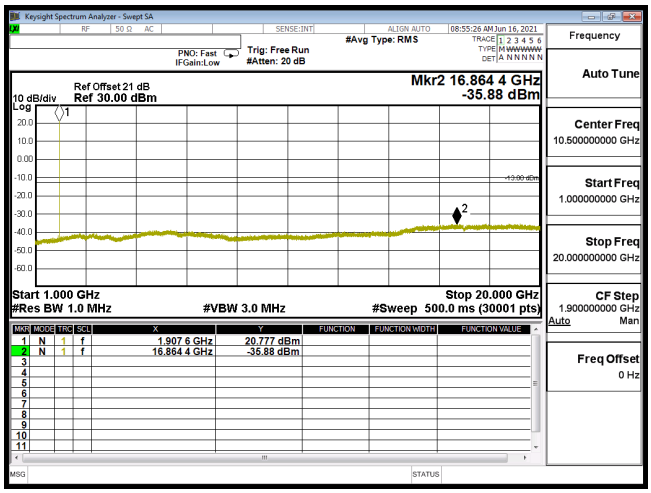

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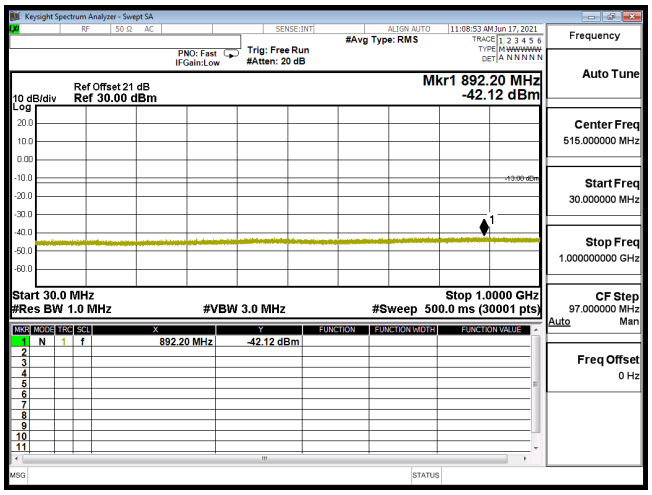
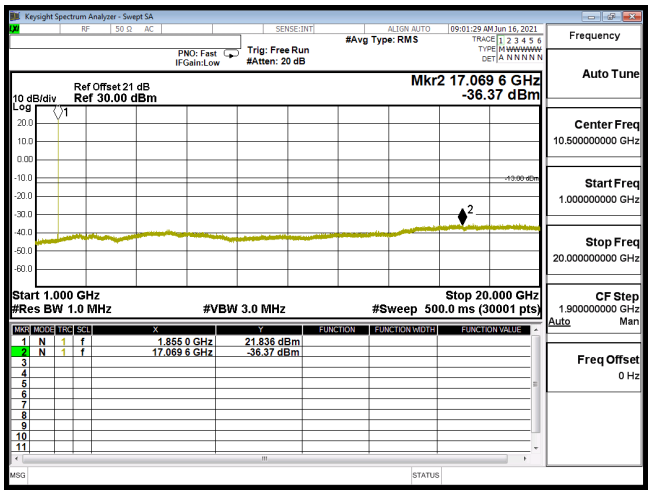
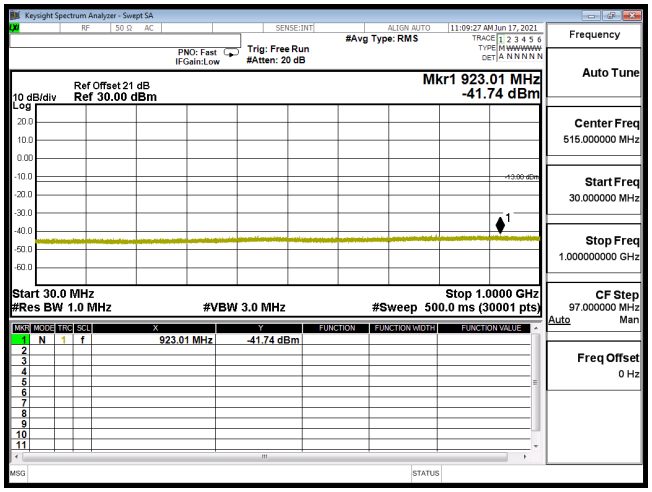


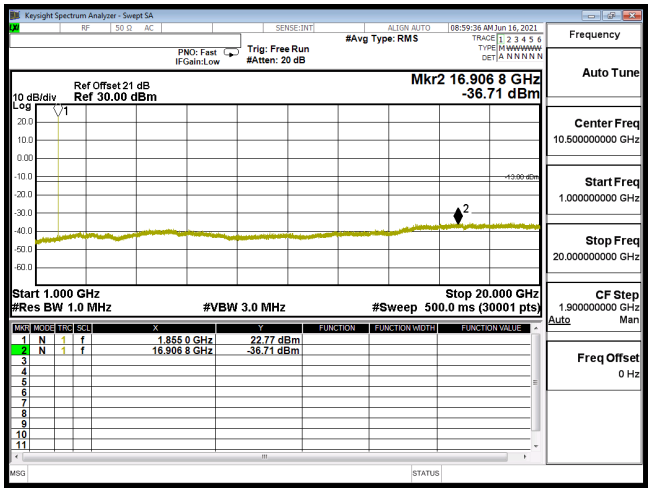
CSE B2 10M CH18650 QPSK(1,25) 30M-1G



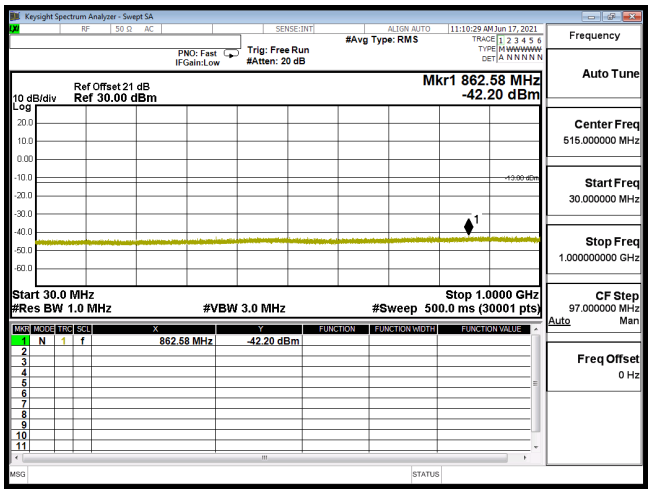
CSE B2 10M CH18650 QPSK(1,25) 1G-20G



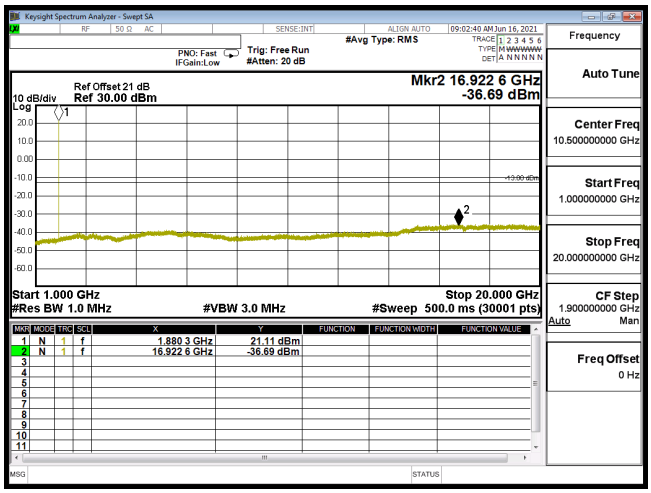
CSE B2 10M CH18650 16QAM(1,25) 30M-1G



CSE B2 10M CH18650 16QAM(1,25) 1G-20G



CSE B2 10M CH18900 QPSK(1,25) 30M-1G



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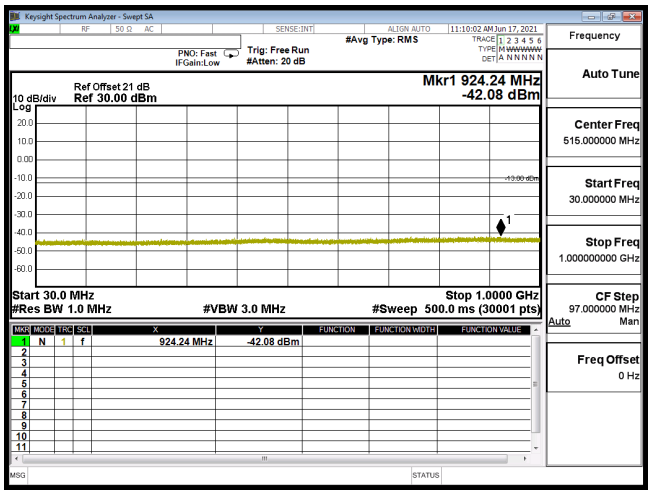

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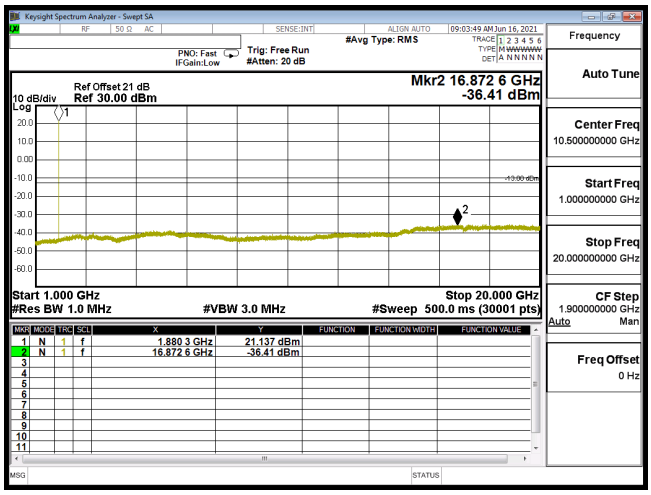

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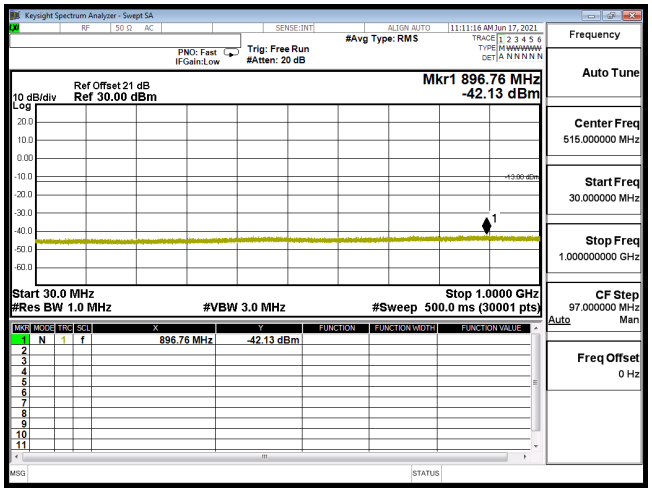

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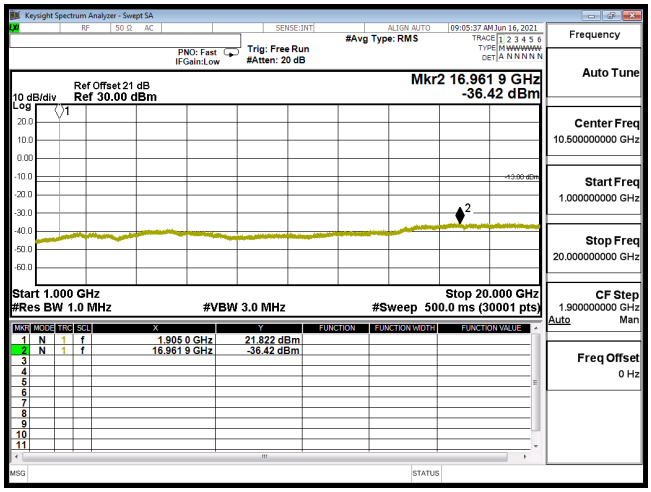

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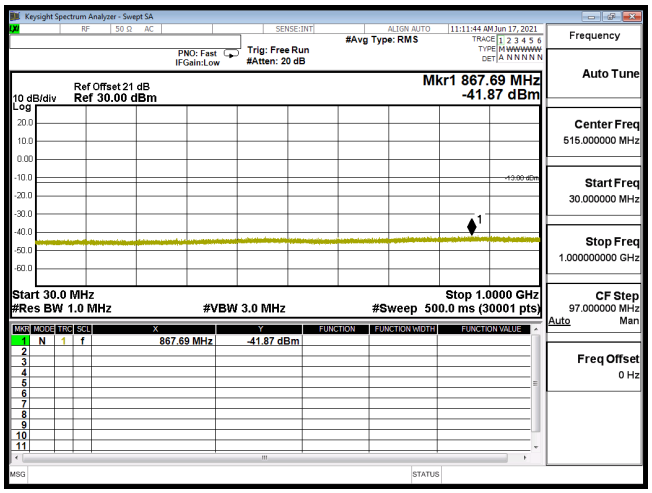

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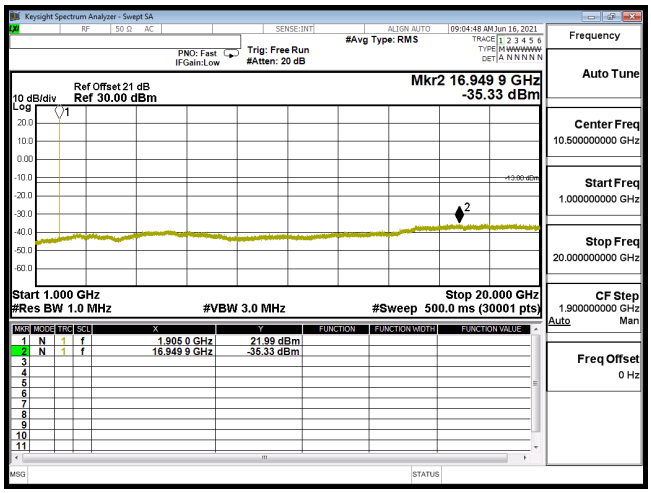

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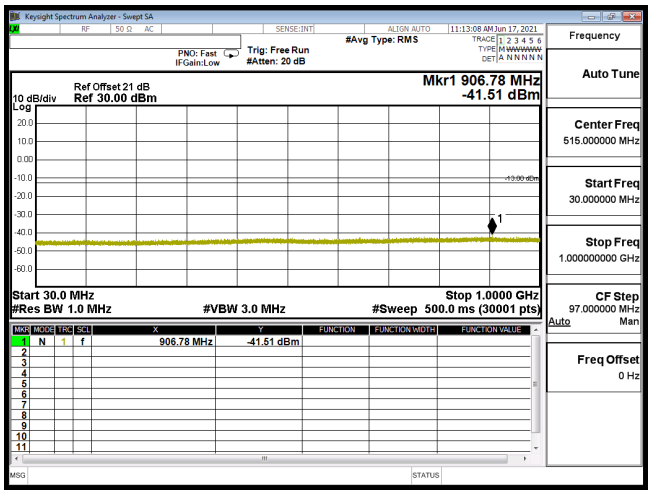

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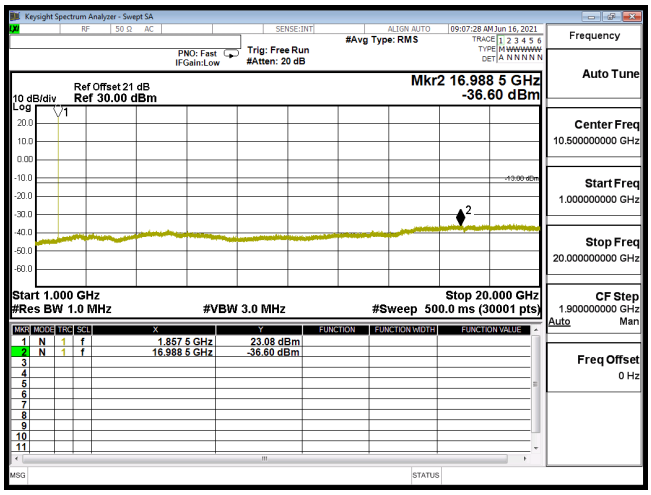

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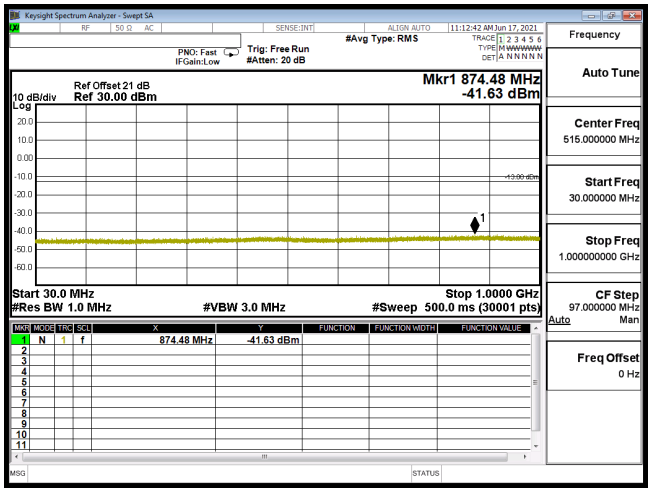

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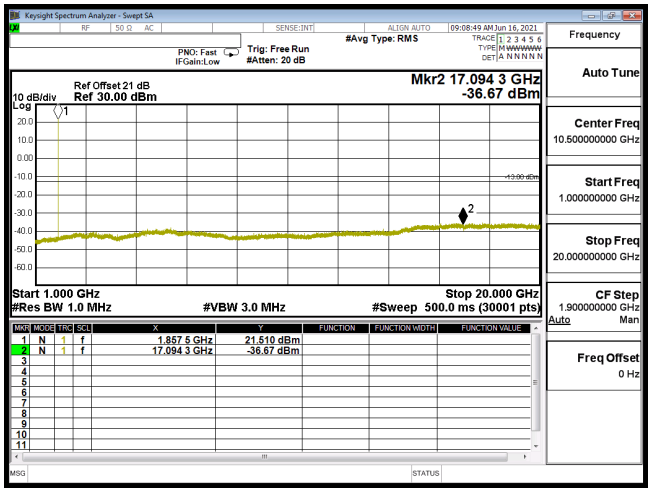

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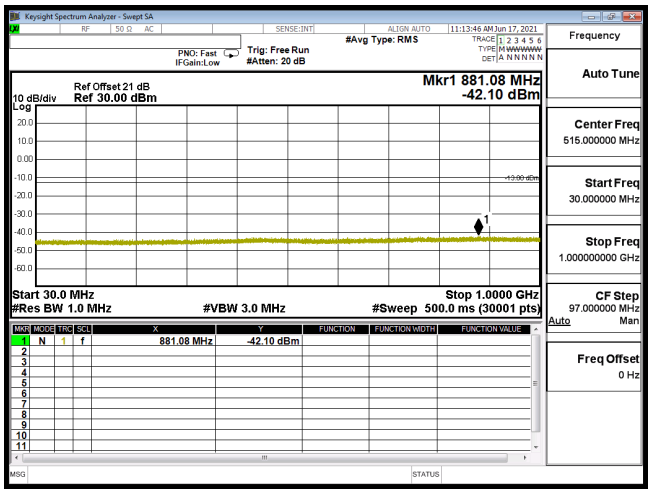

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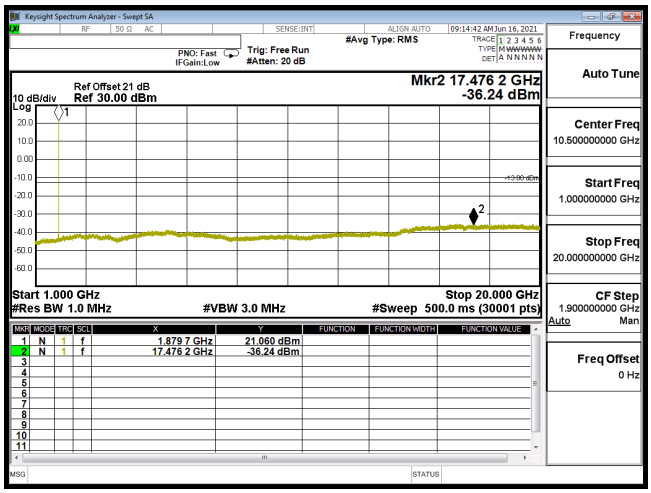

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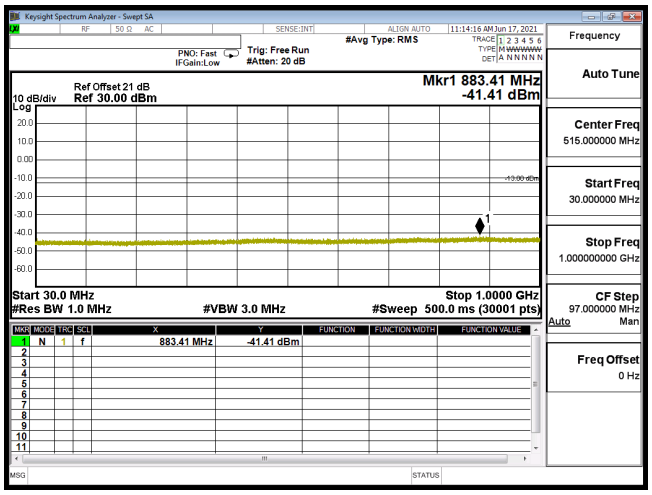

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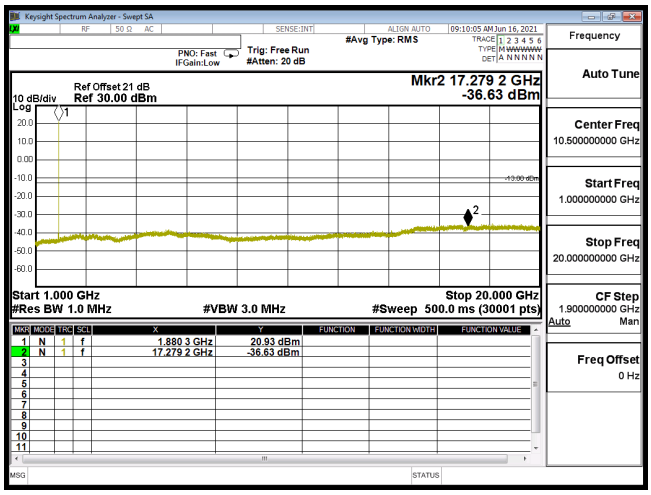

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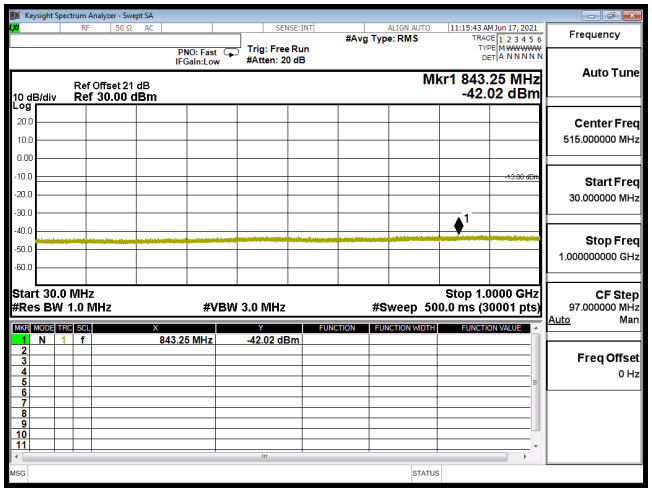

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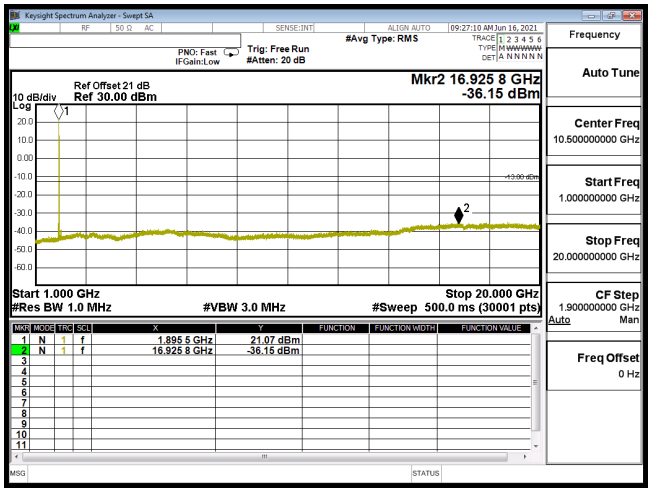

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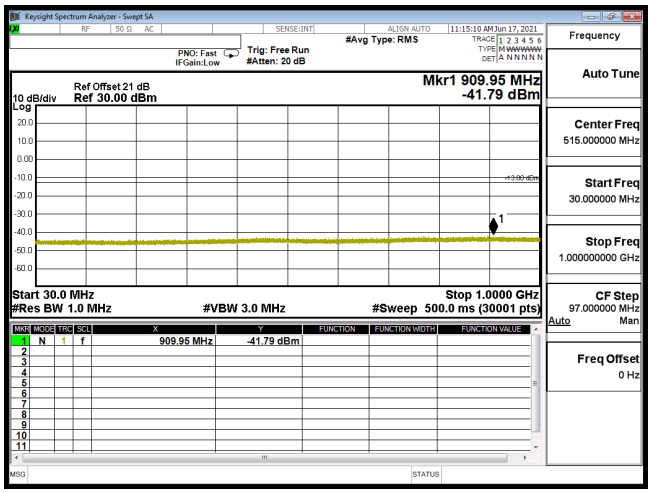

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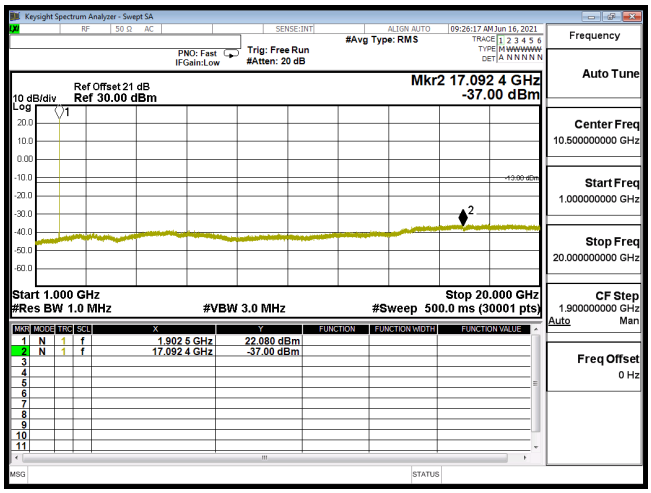

CSE B2 15M CH19125 16QAM(1,37) 1G-20G