3.2 CONDUCTED EMISSION MEASUREMENT

3.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56	56 to 46
0.5 ~ 5	56	46
5 ~ 30	60	50

NOTE: 1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.
3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

3.2.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR3	101900	Feb. 14,23	Feb. 13,24
EMC32 test software	Rohde&Schwarz	EMC32	NA	NA	NA
LISN network	Rohde&Schwarz	ENV216	101922	Mar. 03,23	Mar. 02,24

NOTE:
1. The test was performed in CE shielded room.
2. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.

3.2.3 TEST PROCEDURES

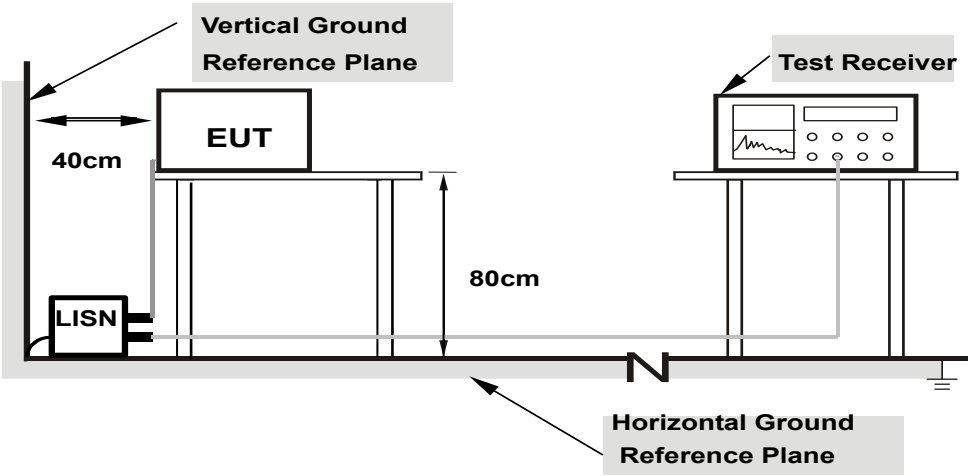
a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

NOTE: All modes of operation were investigated and the worst-case emissions are reported.

3.2.4 DEVIATION FROM TEST STANDARD

No deviation.

3.2.5 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

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

3.2.6 EUT OPERATING CONDITIONS

Same as 3.1.7.

3.2.7 TEST RESULTS

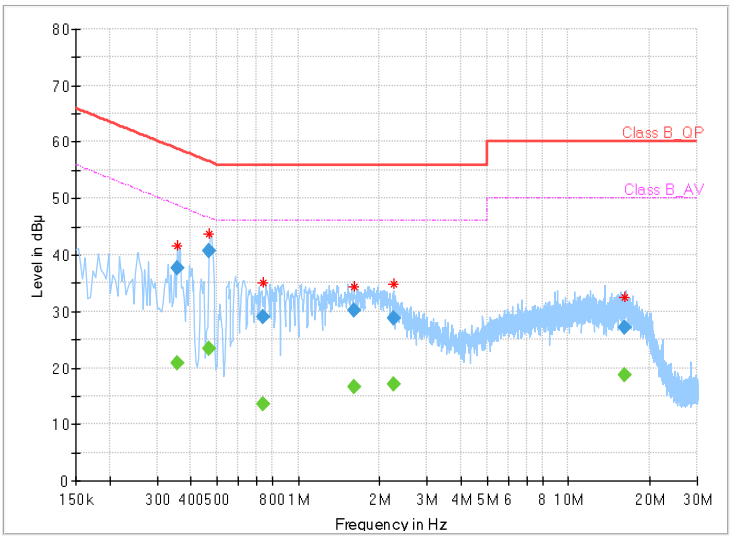
CONDUCTED WORST-CASE DATA:

Frequency Range	150KHz ~ 30MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120Vac, 60Hz	**Environmental Conditions**	26deg. C, 51%RH
Tested By	Carl Xie		

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.356000	---	20.90	48.82	27.92	L1	ON	9.7
0.356000	37.57	---	58.82	21.25	L1	ON	9.7
0.468000	---	23.44	46.55	23.11	L1	ON	9.7
0.468000	40.64	---	56.55	15.91	L1	ON	9.7
0.744000	---	13.67	46.00	32.33	L1	ON	9.7
0.744000	28.98	---	56.00	27.02	L1	ON	9.7
1.608000	---	16.52	46.00	29.48	L1	ON	9.7
1.608000	30.16	---	56.00	25.84	L1	ON	9.7
2.248000	---	17.15	46.00	28.85	L1	ON	9.7
2.248000	28.85	---	56.00	27.15	L1	ON	9.7
16.152000	---	18.79	50.00	31.21	L1	ON	9.8
16.152000	27.22	---	60.00	32.78	L1	ON	9.8

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Limit value - Emission level
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.

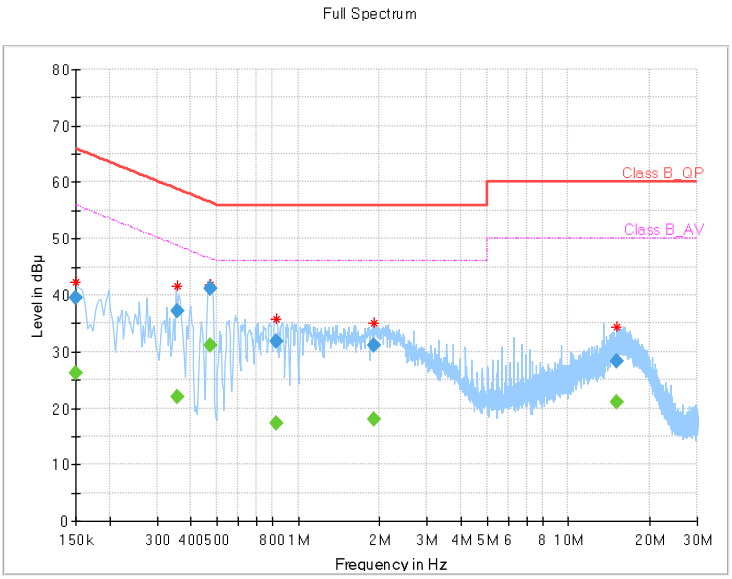
Full Spectrum



Frequency Range	150KHz ~ 30MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120Vac, 60Hz	**Environmental Conditions**	26deg. C, 51%RH
Tested By	Carl Xie		

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	---	26.21	56.00	29.79	N	ON	9.7
0.150000	39.49	---	66.00	26.51	N	ON	9.7
0.356000	---	21.94	48.82	26.88	N	ON	9.7
0.356000	37.18	---	58.82	21.64	N	ON	9.7
0.472000	---	31.21	46.48	15.27	N	ON	9.7
0.472000	41.26	---	56.48	15.22	N	ON	9.7
0.828000	---	17.24	46.00	28.76	N	ON	9.7
0.828000	31.79	---	56.00	24.21	N	ON	9.7
1.908000	---	18.05	46.00	27.95	N	ON	9.8
1.908000	31.06	---	56.00	24.94	N	ON	9.8
15.132000	---	21.06	50.00	28.94	N	ON	9.8
15.132000	28.26	---	60.00	31.74	N	ON	9.8

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Limit value - Emission level
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



3.3 MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

3.3.1 LIMITS OF MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

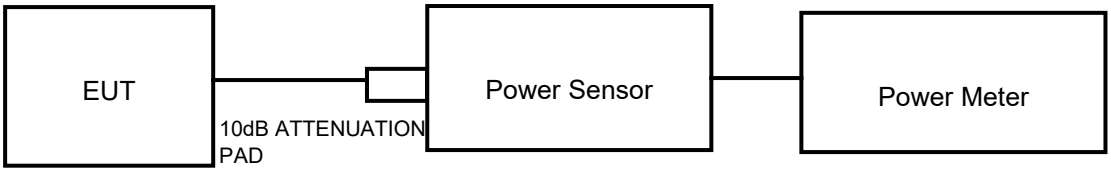
Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p ≦ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
		Indoor Access Point	1 Watt (30 dBm)
	√	Client devices	250mW (24 dBm)
U-NII-2A	√		250mW (24 dBm) or 11 dBm+10 log B*
U-NII-2C	√		250mW (24 dBm) or 11 dBm+10 log B*
U-NII-3	√		1 Watt (30 dBm)

NOTE: Where B is the 26dB emission bandwidth in MHz.

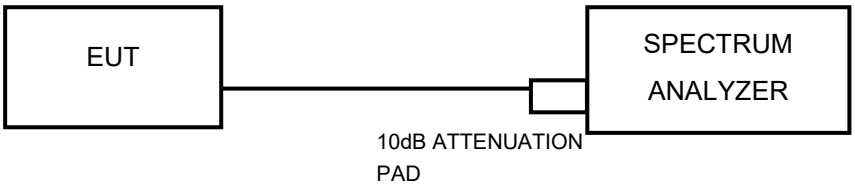
3.3.2 TEST SETUP

FOR POWER OUTPUT MEASUREMENT

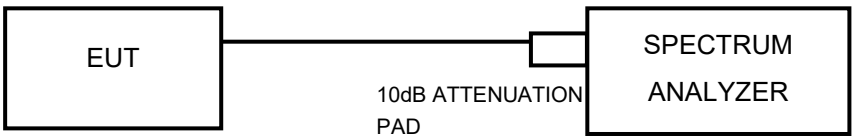
802.11a, 802.11n/ac/ax (20MHz), 802.11 n/ac/ax (40MHz) TEST CONFIGURATION



802.11ac/ax (80MHz) TEST CONFIGURATION



FOR 26dB BANDWIDTH



3.3.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Power Meter	ANRITSU	ML2495A	1506002	Feb. 14,23	Feb. 13,24
EXA Signal Analyzer	KEYSIGHT	N9010A-526	MY54510322	Feb. 17,23	Feb. 16,24
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	May.14,22	May.13,23
Power Sensor	ANRITSU	MA2411B	1339352	Feb. 14,23	Feb. 13,24

NOTE:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
2. The test was performed in RF Oven room.

3.3.4 TEST PROCEDURE

FOR POWER MEASUREMENT

For 802.11a, 802.11 n/ac/ax (20MHz), 802.11 n/ac/ax (40MHz)

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

For 802.11ac/ax (80MHz)

1. Measure the duty cycle, x, of the transmitter output signal as described in II.B.
2. Set span to encompass the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
3. Set RBW = 1 MHz.
4. Set VBW ≥ 3 MHz.
5. Number of points in sweep ≥ 2 × span / RBW. (This ensures that bin-to-bin spacing is ≤ RBW/2, so that narrowband signals are not lost between frequency bins.)
6. Sweep time = auto.
7. Detector = power averaging (rms), if available. Otherwise, use sample detector mode.
8. Do not use sweep triggering. Allow the sweep to “free run.”
9. Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 as needed to ensure that the average accurately represents the true average over the on and off periods of the transmitter.
10. Add 10 log (1/x), where x is the duty cycle, to the measured power to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission). For example, add 10 log (1/0.25) = 6 dB if the duty cycle is 25%.

FOR 99 PERCENT OCCUPIED BANDWIDTH

The following procedure shall be used for measuring (99 %) power bandwidth:

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW ≥ 3 · RBW
5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

FOR 26dB BANDWIDTH

1) Set RBW = approximately 1% of the emission bandwidth.
2) Set the VBW > RBW.
3) Detector = Peak.
4) Trace mode = max hold.
5) Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

FOR 6dB BANDWIDTH

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

3.3.5 DEVIATION FROM TEST STANDARD

No deviation.

3.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

3.3.7 TEST RESULTS

Please Refer to Appendix Of this test report.

3.4 MAXIMUM POWER SPECTRAL DENSITY MEASUREMENT

3.4.1 LIMITS OF MAXIMUM POWER SPECTRAL DENSITY MEASUREMENT

Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	17dBm/ MHz
		Fixed point-to-point Access Point	
		Indoor Access Point	
	√	Client devices	11dBm/ MHz
U-NII-2A	√		11dBm/ MHz
U-NII-2C	√		11dBm/ MHz
U-NII-3	√		30dBm/ 500kHz

3.4.2 TEST SETUP

3.4.3 TEST INSTRUMENTS

Refer to section 3.3.3 to get information of above instrument.

3.4.4 TEST PROCEDURES

Using method SA-2(Band1/2/3)

1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 1 MHz, Set VBW ≥ 3 MHz, Detector = RMS
3) Set Channel power measure = 1MHz
4) Sweep time = auto, trigger set to “free run”.
5) Trace average at least 100 traces in power averaging mode.
6) Add 10 log (1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission).
7) Record the max value

Using method SA-2 (Band4)

1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 300 KHz, Set VBW ≥ 1 MHz, Detector = RMS
3) Set Channel power measure = 1MHz
4) Sweep time = auto, trigger set to “free run”.
5) Trace average at least 100 traces in power averaging mode.
6) Add 10 log(500kHz/RBW) to the test result. 10 log(500kHz/300KHZ) = 2.22dBm
7) Add 10 log (1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission).
8) Record the max value

3.4.5 DEVIATION FROM TEST STANDARD

No deviation.

3.4.6 EUT OPERATING CONDITIONS

Same as 3.1.7.

3.4.7 TEST RESULTS

Please Refer to Appendix Of this test report.

3.5 AUTOMATICALLY DISCONTINUE TRANSMISSION

3.5.1 LIMIT OF AUTOMATICALLY DISCONTINUE TRANSMISSION

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signalling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met.

3.5.2 TEST INSTRUMENTS

Refer to section 3.3.3 to get information of above instrument.

3.5.3 TEST RESULT

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving。 The EUT can detect the controlling of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission

3.6 ANTENNA REQUIREMENTS

3.6.1 STANDARD APPLICABLE

If transmitting antenna directional gain is greater than 6 dBi, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.6.2 ANTENNA CONNECTED CONSTRUCTION

An embedded-in antenna design is used.

3.6.3 ANTENNA GAIN

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit and PSD limit

4 PHOTOGRAPHS OF THE TEST CONFIGURATION

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

5 MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No modifications were made to the EUT by the lab during the test.

6 APPENDIX: RLAN

EMISSION BANDWIDTH

TEST RESULT

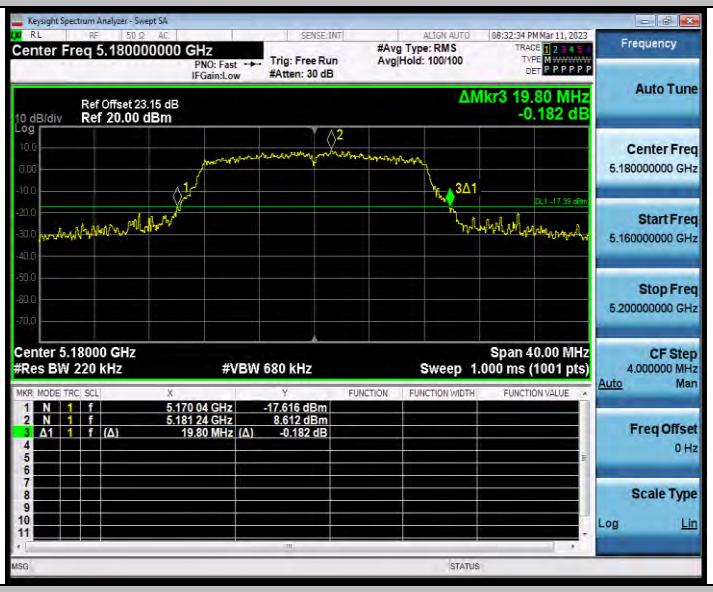
TestMode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	19.800	5170.040	5189.840	---	---
		5200	20.400	5189.440	5209.840	---	---
		5240	20.040	5229.920	5249.960	---	---
		5260	19.840	5249.960	5269.800	---	---
		5300	19.880	5290.160	5310.040	---	---
		5320	20.160	5309.960	5330.120	---	---
		5500	19.960	5490.000	5509.960	---	---
		5580	22.920	5570.000	5592.920	---	---
		5700	20.320	5690.000	5710.320	---	---
		5720	20.200	5710.200	5730.400	---	---
		5720_UNII-2C	14.8	5710.200	5725	---	---
		5720_UNII-3	5.4	5725	5730.400	---	---
		5745	19.840	5735.080	5754.920	---	---
		5785	21.440	5773.600	5795.040	---	---
		5825	20.000	5815.080	5835.080	---	---
11N20SISO	Ant1	5180	19.920	5170.080	5190.000	---	---
		5200	20.040	5190.040	5210.080	---	---
		5240	20.240	5229.840	5250.080	---	---
		5260	20.040	5250.040	5270.080	---	---
		5300	20.080	5290.040	5310.120	---	---
		5320	19.920	5310.160	5330.080	---	---
		5500	20.800	5489.440	5510.240	---	---
		5580	20.120	5569.880	5590.000	---	---
		5700	20.760	5689.240	5710.000	---	---
		5720	20.240	5709.800	5730.040	---	---
		5720_UNII-2C	15.2	5709.800	5725	---	---
		5720_UNII-3	5.04	5725	5730.040	---	---
		5745	20.240	5734.800	5755.040	---	---
		5785	20.600	5774.920	5795.520	---	---
		5825	20.280	5814.800	5835.080	---	---

11N40SISO	Ant1	5190	41.200	5169.440	5210.640	---	---
		5230	40.400	5209.840	5250.240	---	---
		5270	40.640	5249.840	5290.480	---	---
		5310	40.800	5289.520	5330.320	---	---
		5510	40.320	5489.840	5530.160	---	---
		5550	40.480	5529.920	5570.400	---	---
		5670	40.320	5650.000	5690.320	---	---
		5710	40.320	5689.840	5730.160	---	---
		5710_UNII-2C	35.16	5689.840	5725	---	---
		5710_UNII-3	5.16	5725	5730.160	---	---
		5755	40.560	5734.920	5775.480	---	---
		5795	41.120	5774.440	5815.560	---	---
11AC20SISO	Ant1	5180	20.320	5169.920	5190.240	---	---
		5200	20.120	5190.080	5210.200	---	---
		5240	20.120	5229.840	5249.960	---	---
		5260	20.320	5249.880	5270.200	---	---
		5300	20.160	5289.880	5310.040	---	---
		5320	20.280	5309.840	5330.120	---	---
		5500	20.240	5489.840	5510.080	---	---
		5580	20.160	5569.880	5590.040	---	---
		5700	20.120	5689.960	5710.080	---	---
		5720	20.200	5709.840	5730.040	---	---
		5720_UNII-2C	15.16	5709.840	5725	---	---
		5720_UNII-3	5.04	5725	5730.040	---	---
		5745	20.320	5734.880	5755.200	---	---
		5785	20.440	5774.840	5795.280	---	---
		5825	20.400	5814.880	5835.280	---	---
11AC40SISO	Ant1	5190	40.000	5170.160	5210.160	---	---
		5230	40.160	5210.080	5250.240	---	---
		5270	40.000	5250.000	5290.000	---	---
		5310	40.400	5289.840	5330.240	---	---
		5510	40.160	5490.000	5530.160	---	---
		5550	40.480	5529.920	5570.400	---	---
		5670	40.080	5649.840	5689.920	---	---
		5710	40.640	5689.600	5730.240	---	---

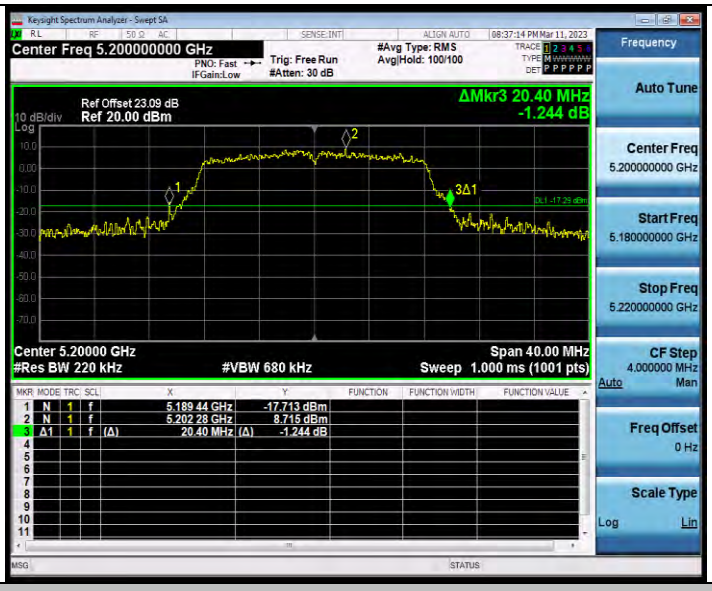
11AC40SISO	Ant1	5710_UNII-2C	35.4	5689.600	5725	---	---
		5710_UNII-3	5.24	5725	5730.240	---	---
		5755	40.320	5734.840	5775.160	---	---
		5795	40.560	5774.920	5815.480	---	---
11AC80SISO	Ant1	5210	81.920	5169.360	5251.280	---	---
		5290	80.480	5249.840	5330.320	---	---
		5530	80.320	5490.160	5570.480	---	---
		5610	81.280	5569.360	5650.640	---	---
		5690	80.640	5649.840	5730.480	---	---
		5690_UNII-2C	75.16	5649.840	5725	---	---
		5690_UNII-3	5.48	5725	5730.480	---	---
		5775	81.280	5734.520	5815.800	---	---

TEST GRAPHS

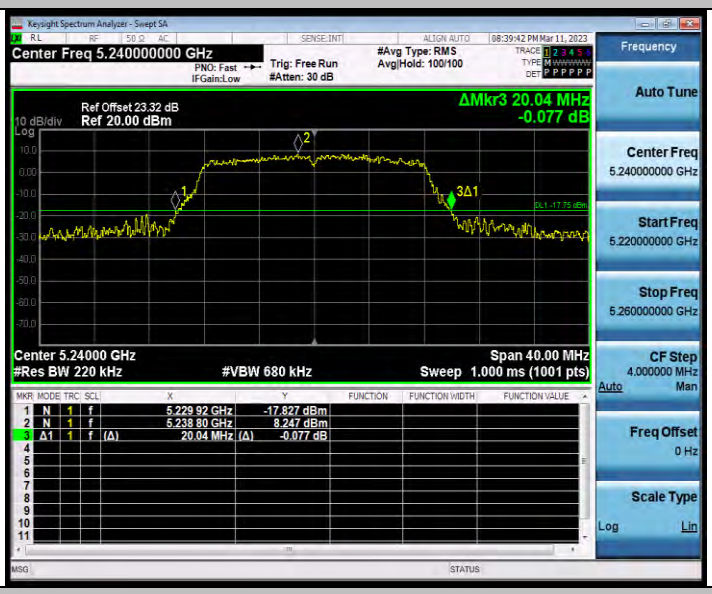
11A_Ant1_5180



11A_Ant1_5200

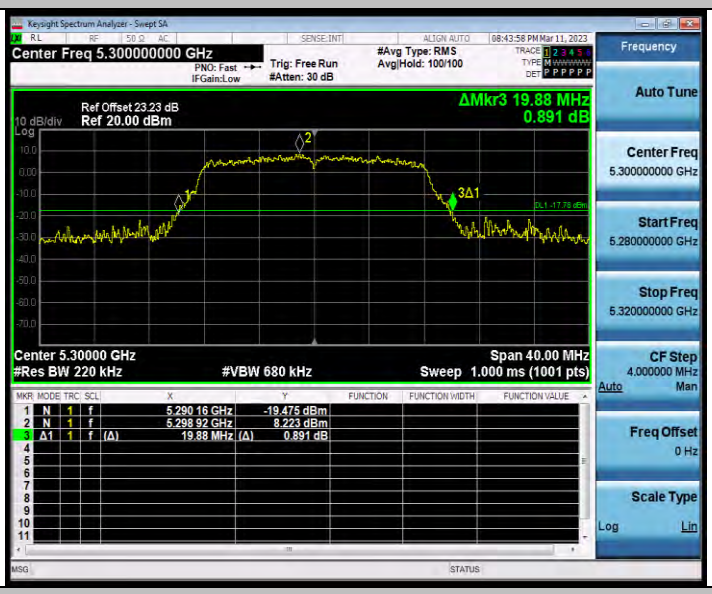


11A_Ant1_5240

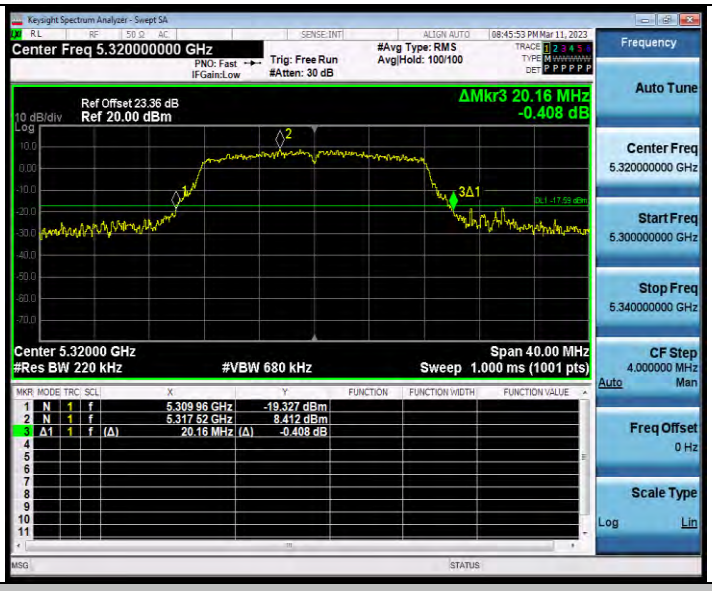


11A_Ant1_5260

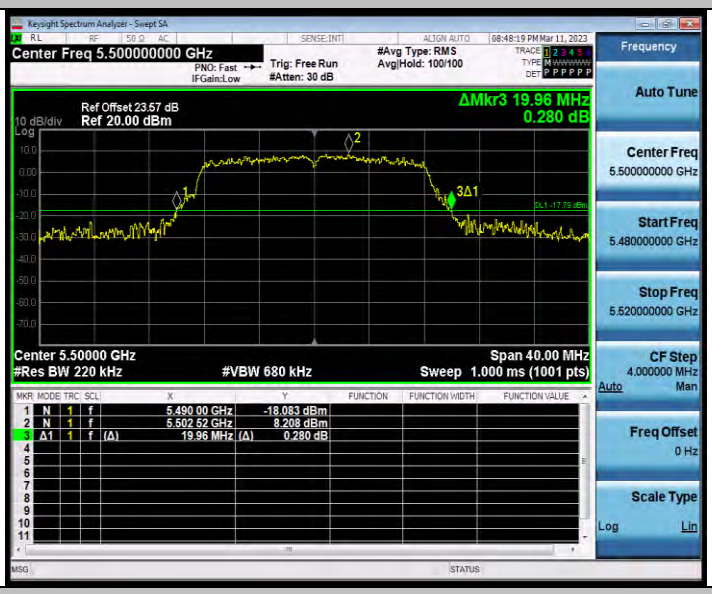
11A_Ant1_5300



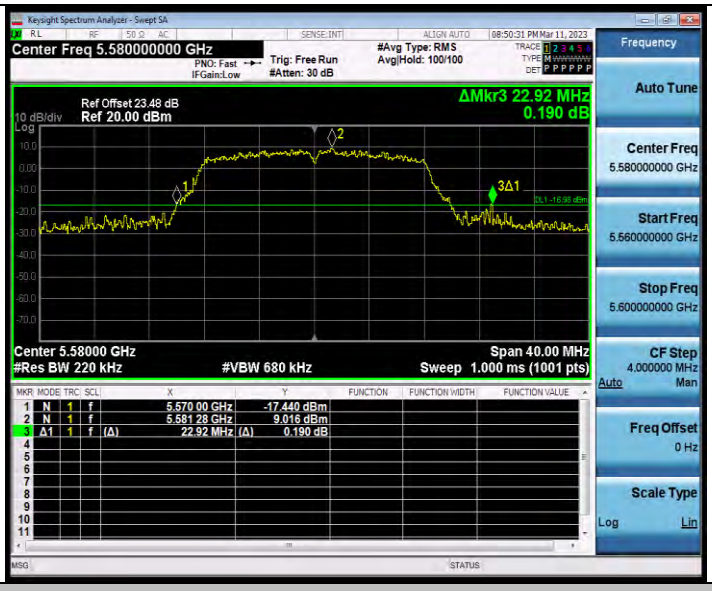
11A_Ant1_5320



11A_Ant1_5500



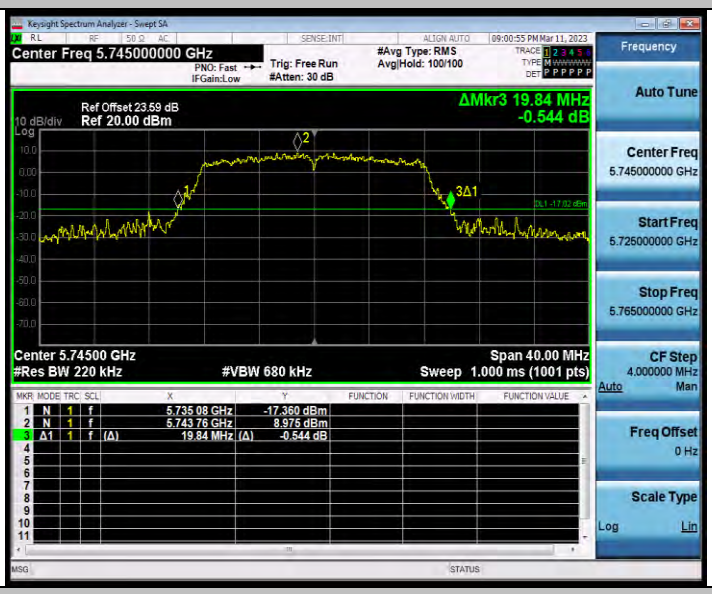
11A_Ant1_5580



11A_Ant1_5700

11A_Ant1_5720

11A_Ant1_5745



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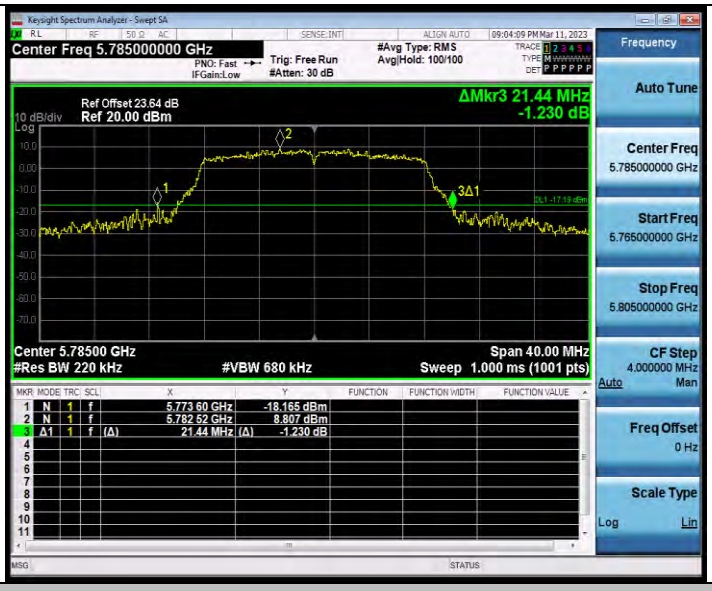
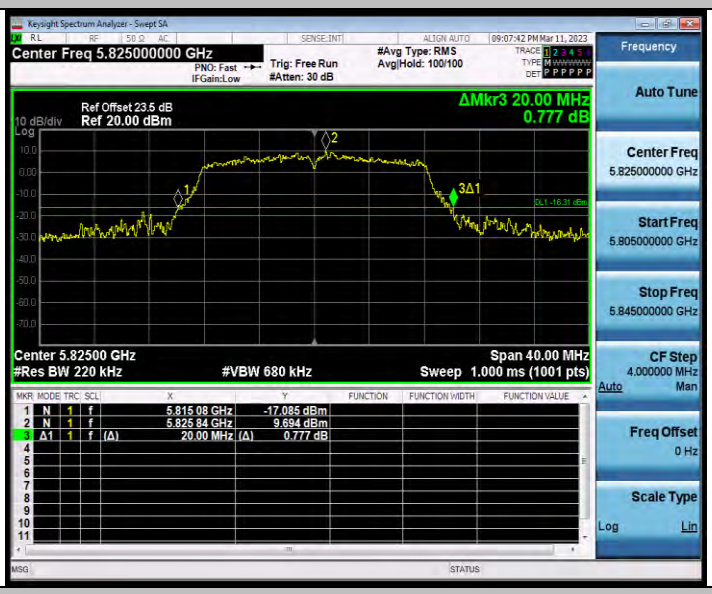


11A_Ant1_5825



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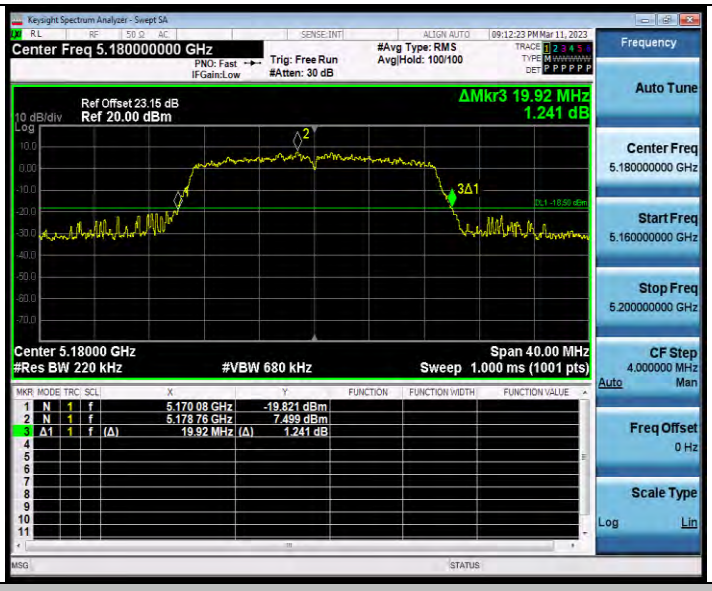

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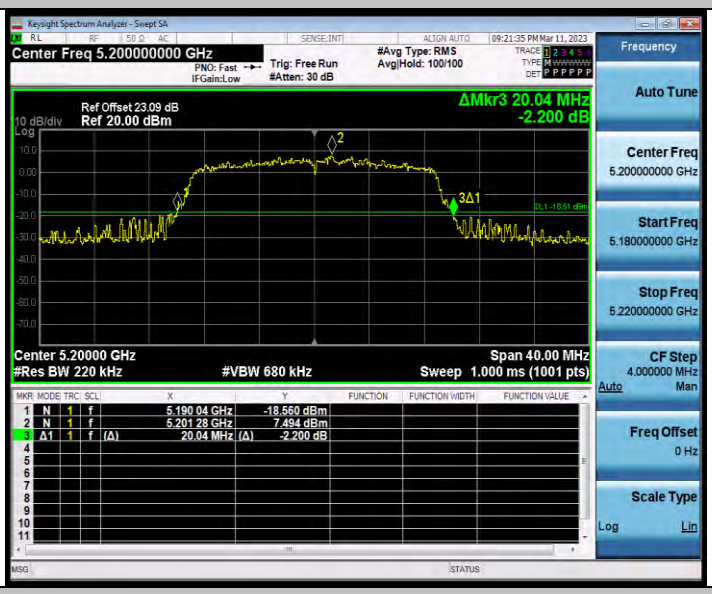

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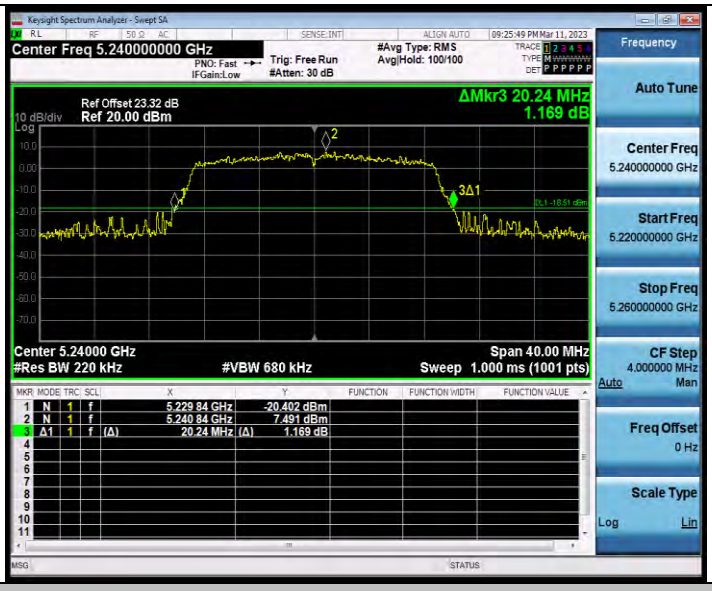

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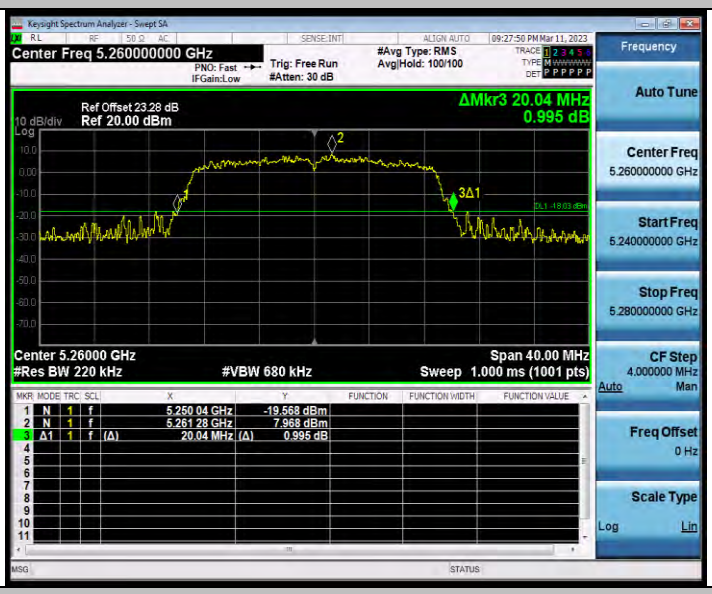
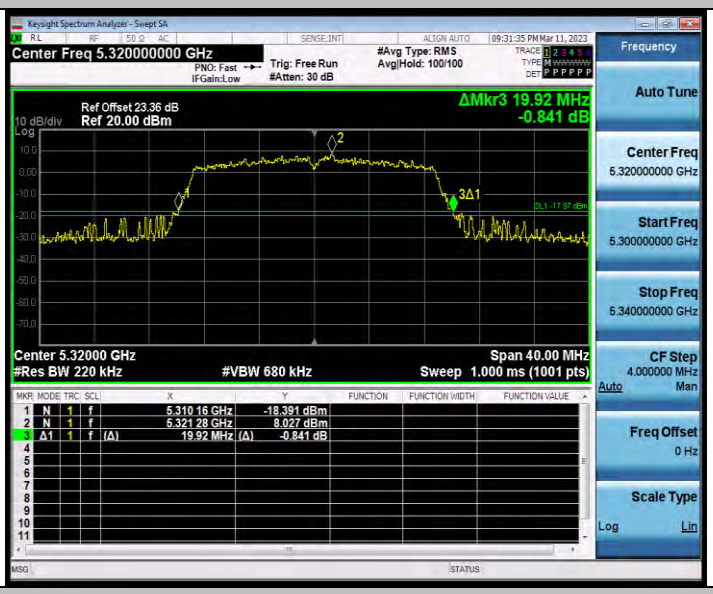


11N20SISO_Ant1_5300

11N20SISO_Ant1_5320



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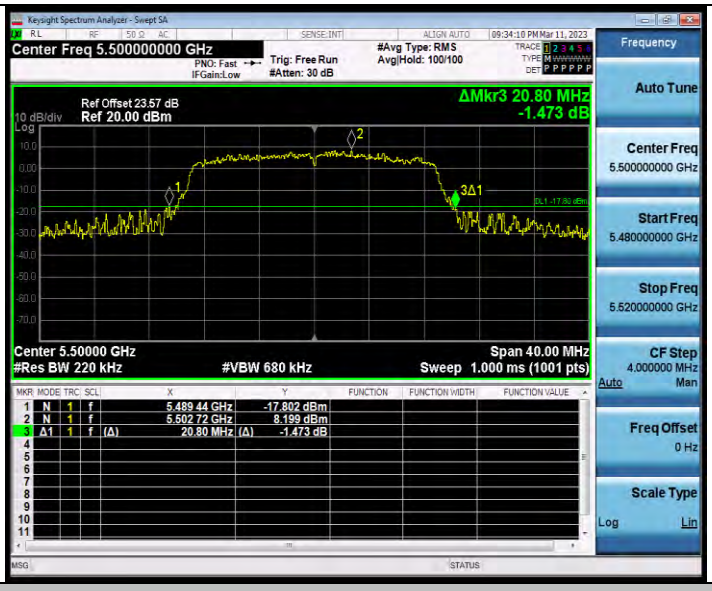

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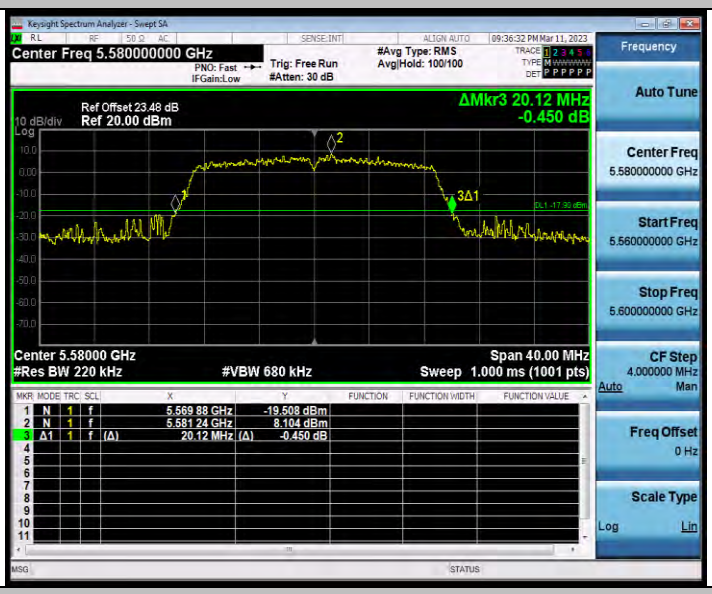

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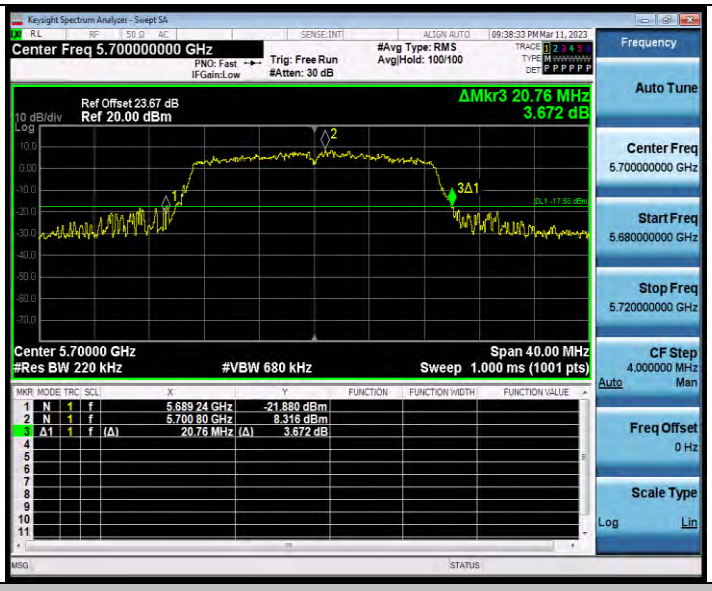

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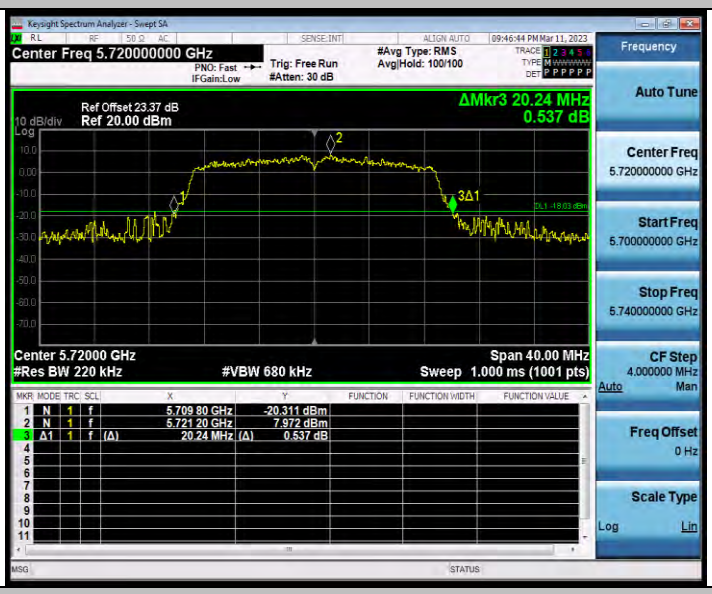

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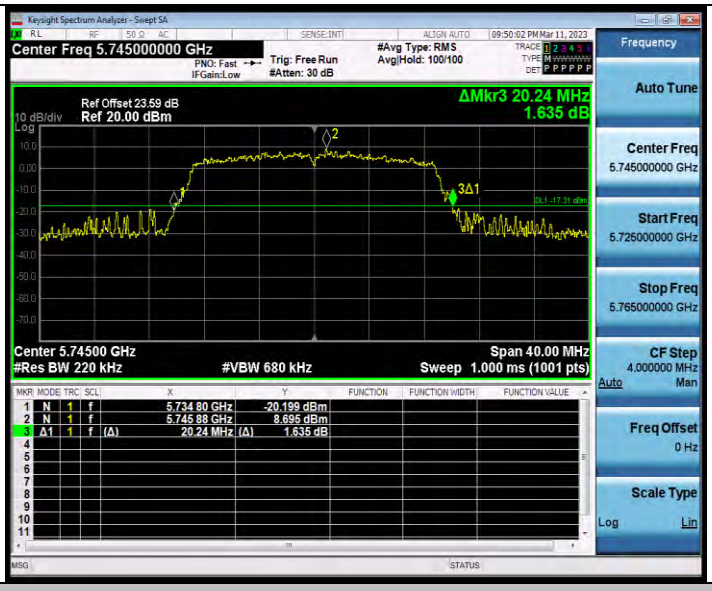

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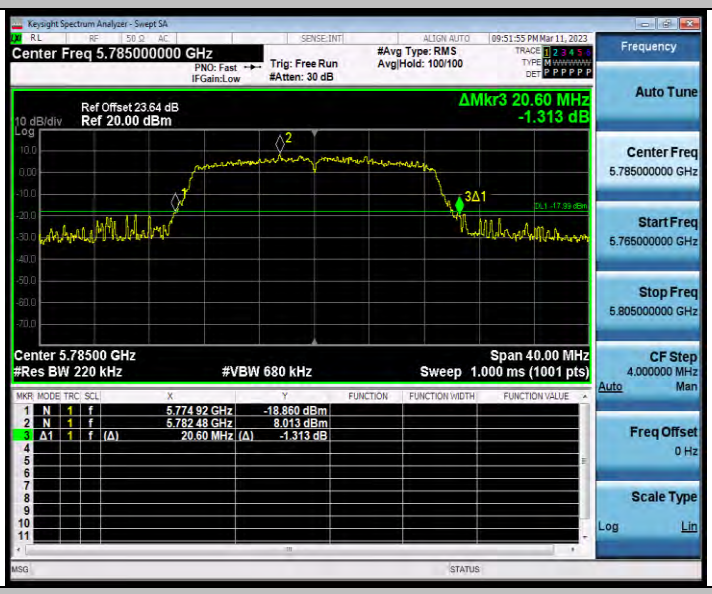

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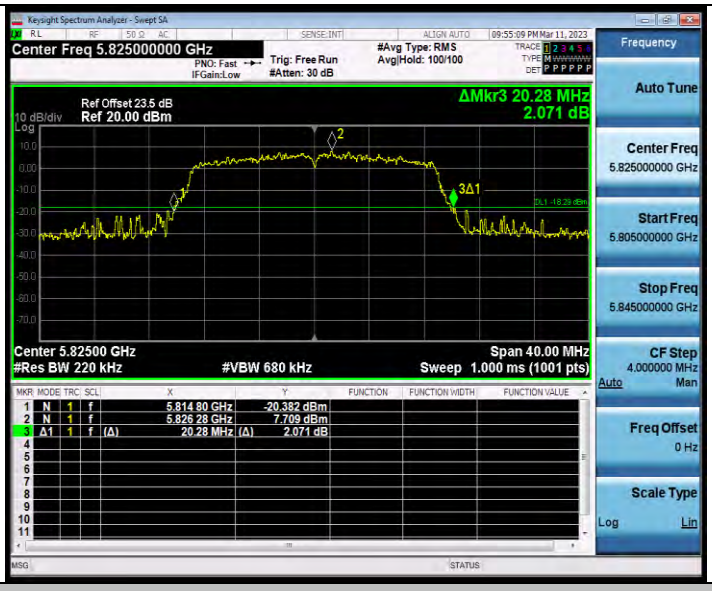

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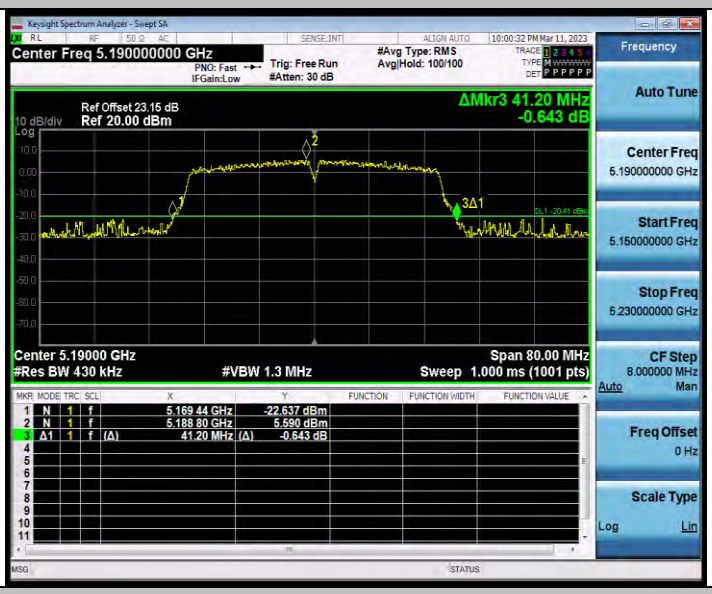

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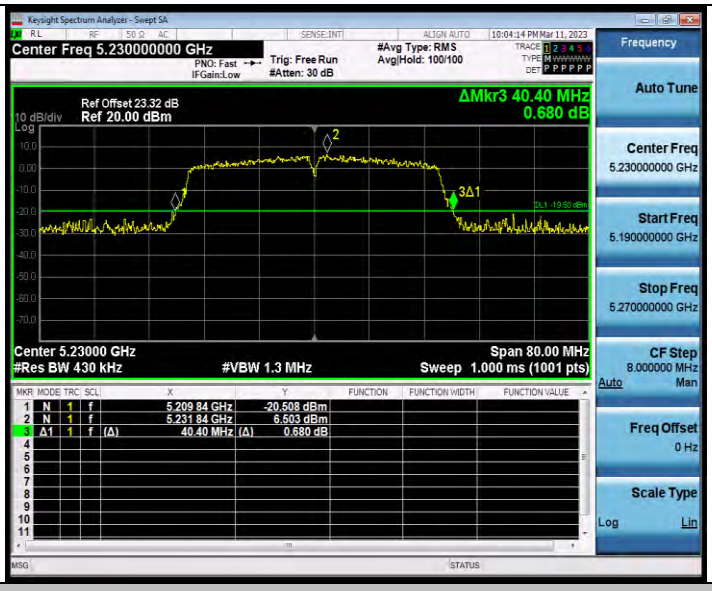

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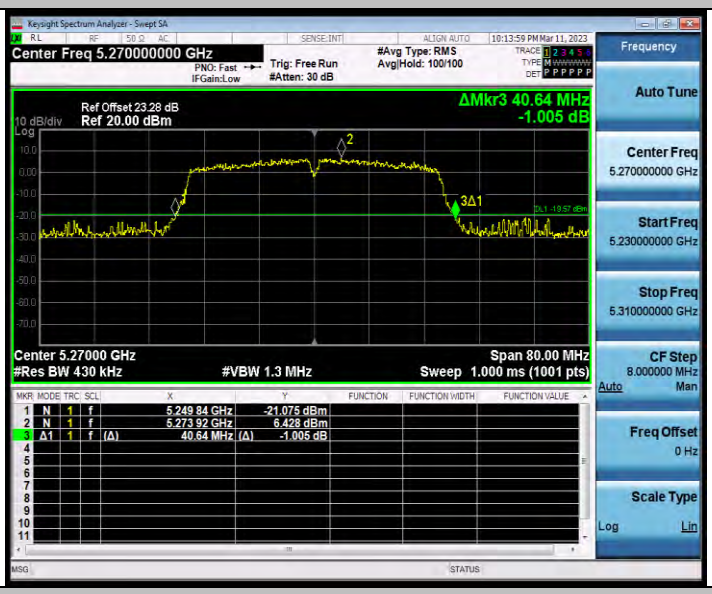

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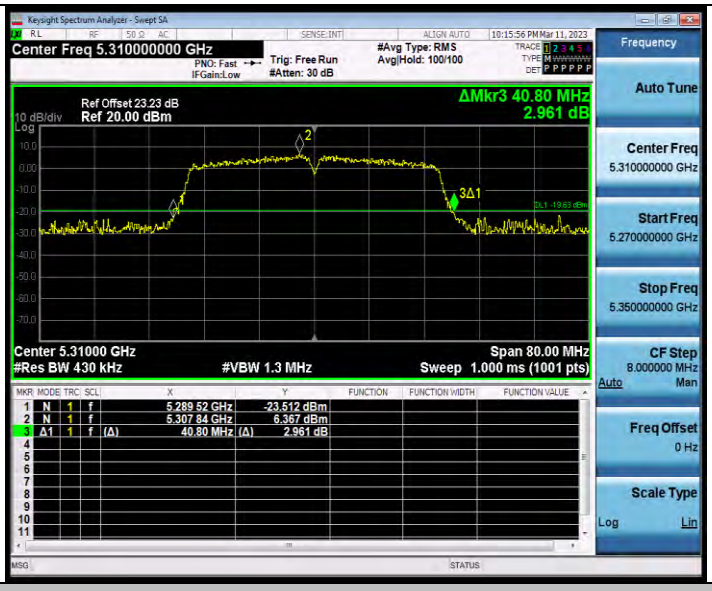

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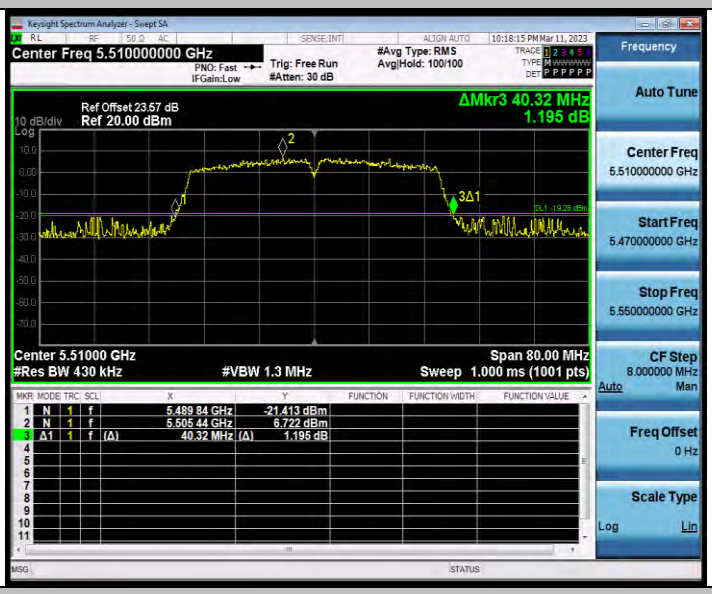

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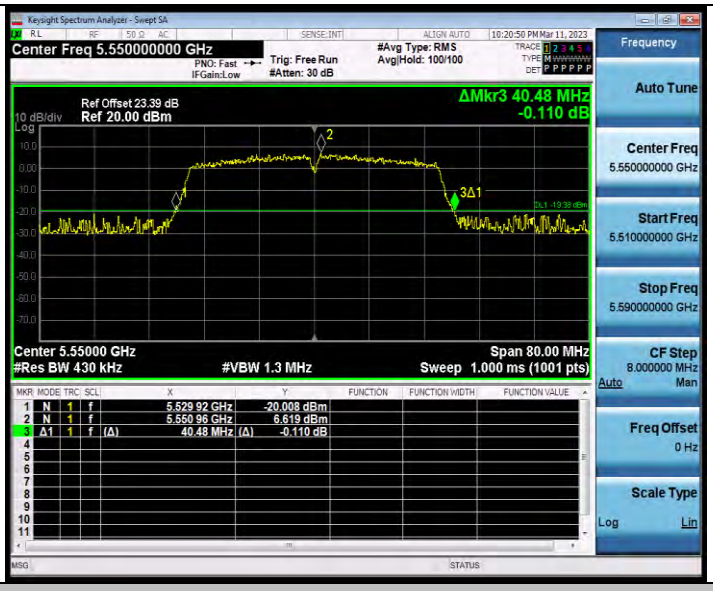

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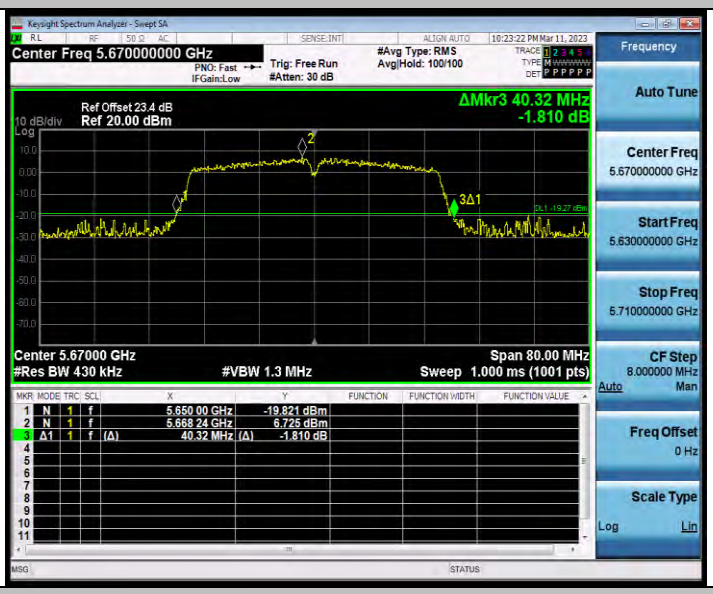

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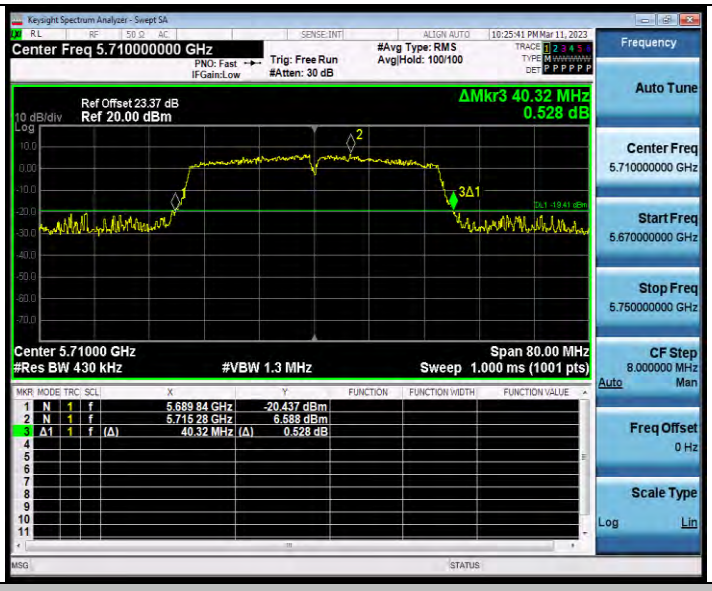

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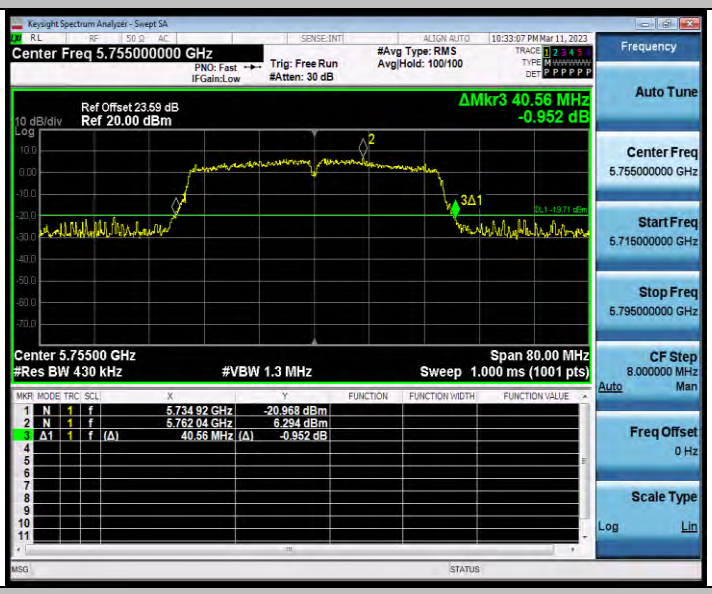

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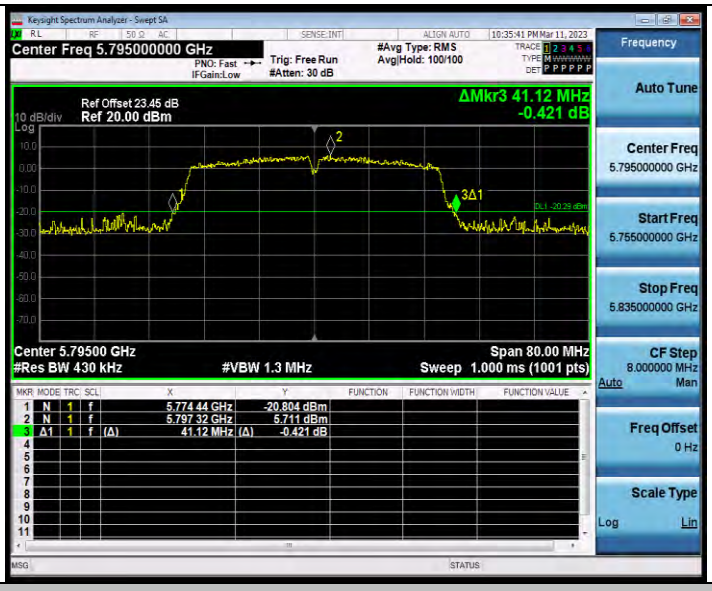

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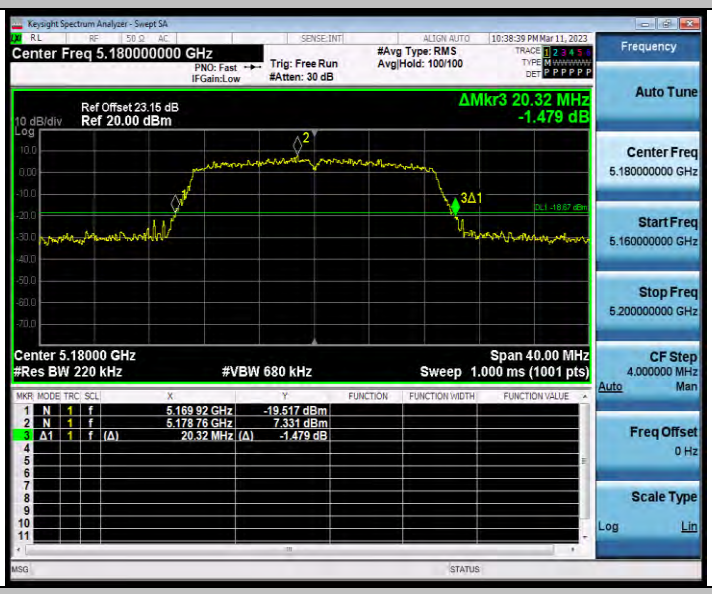

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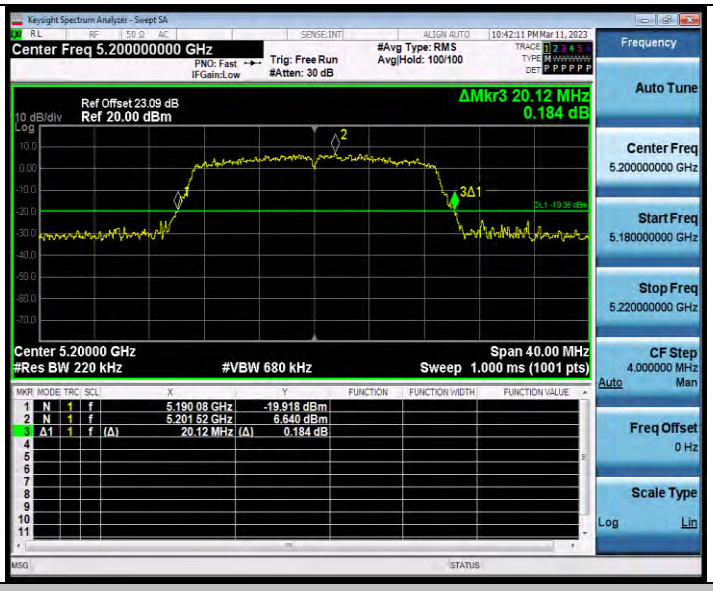

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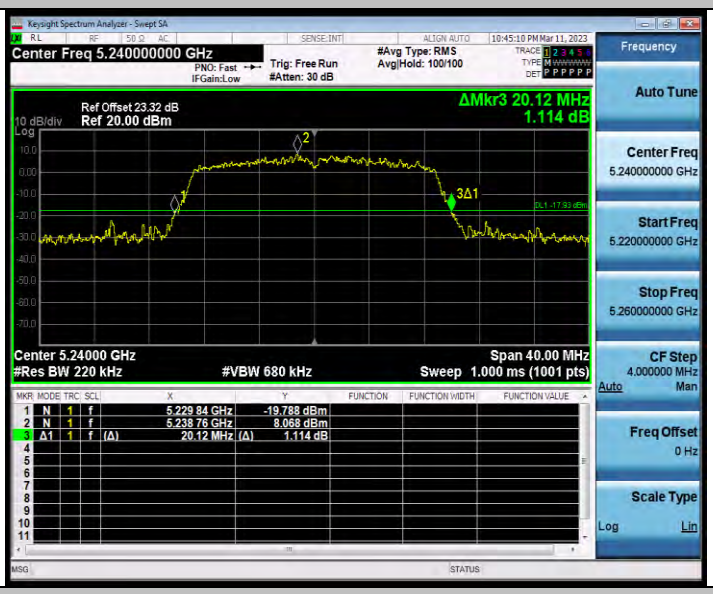

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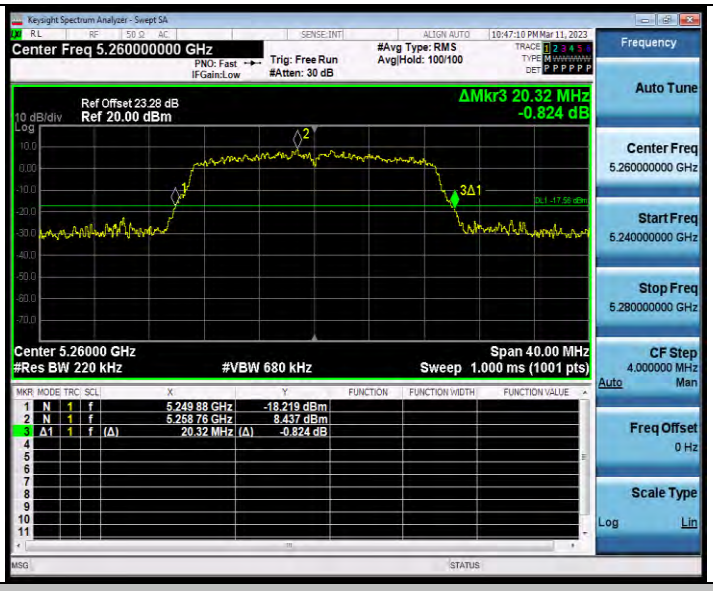

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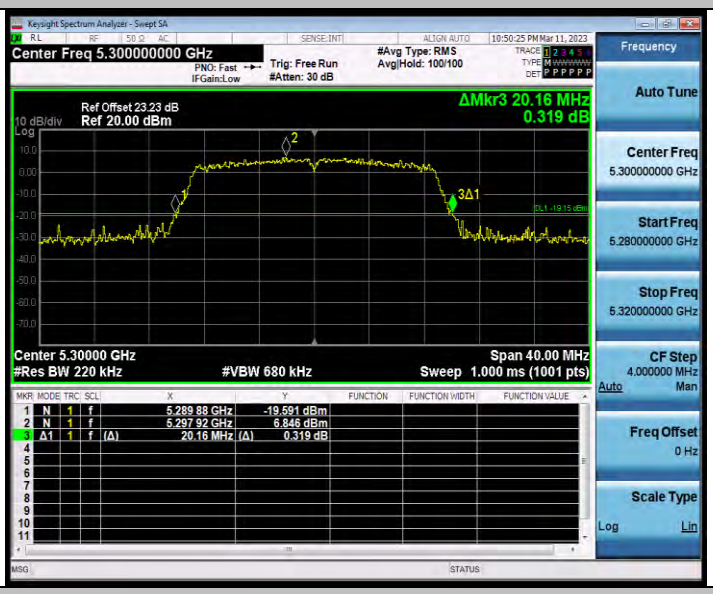

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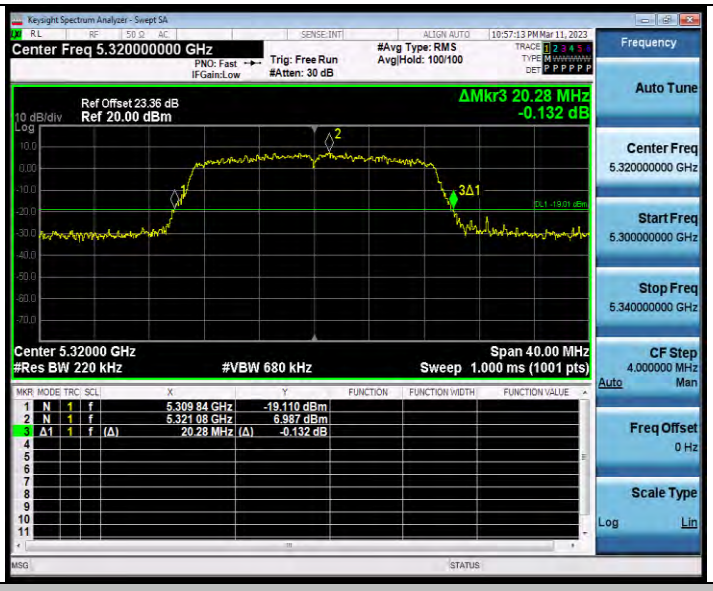

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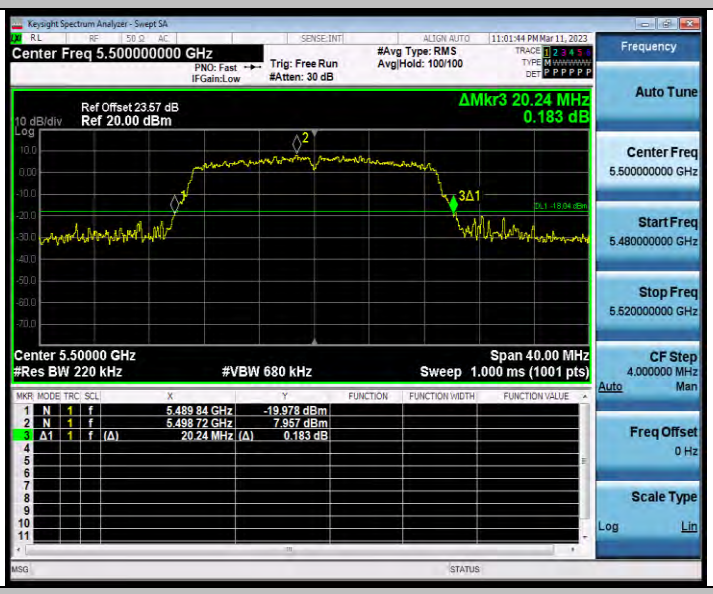

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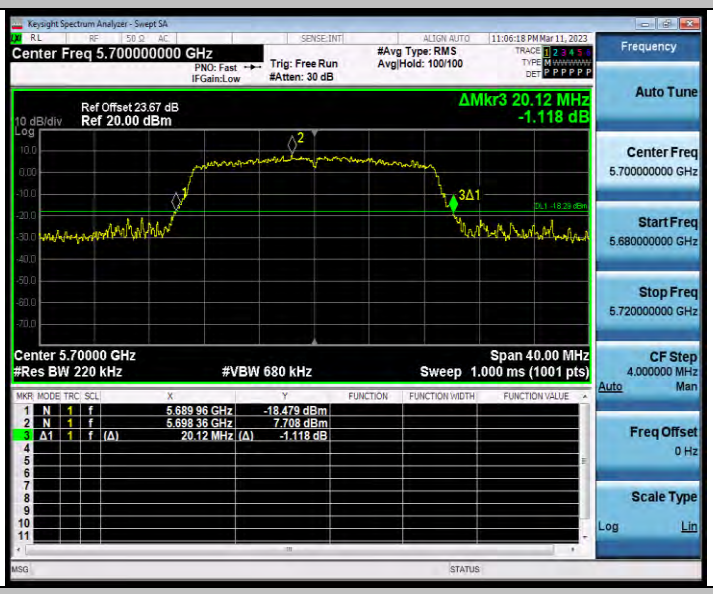

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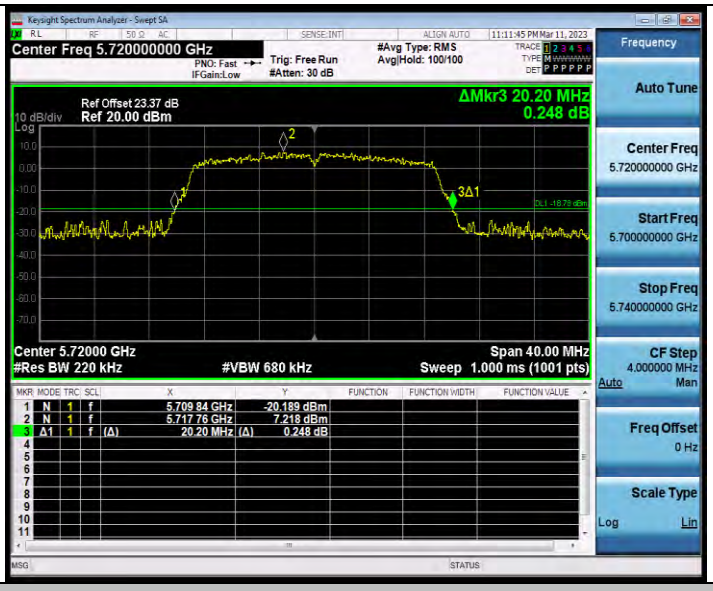

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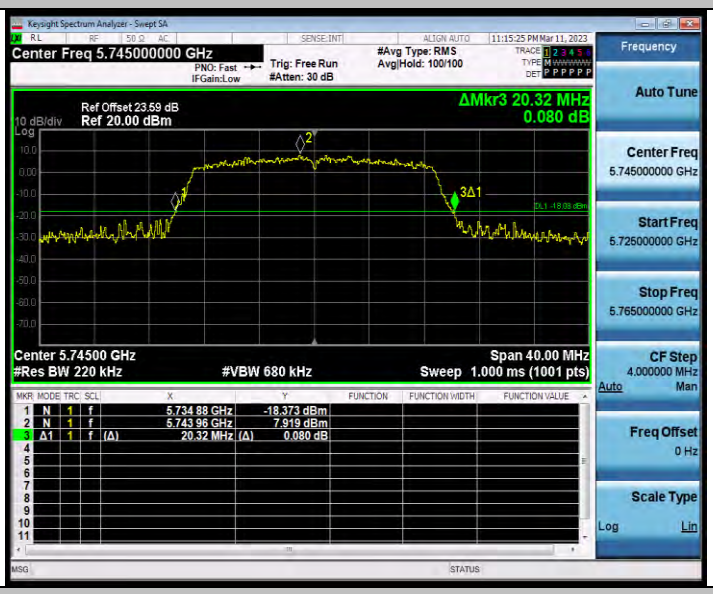

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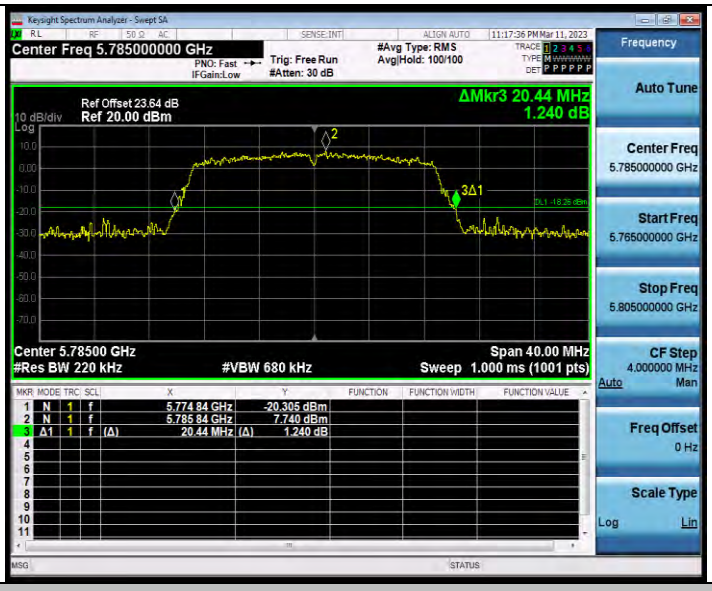

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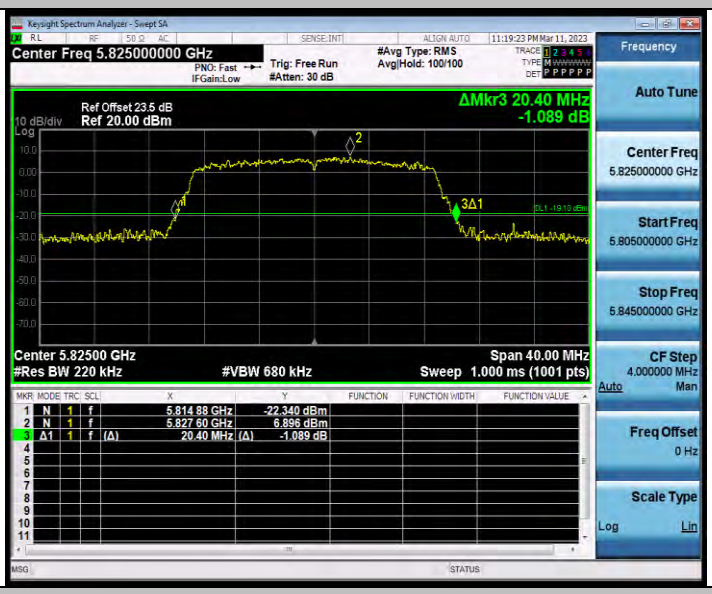

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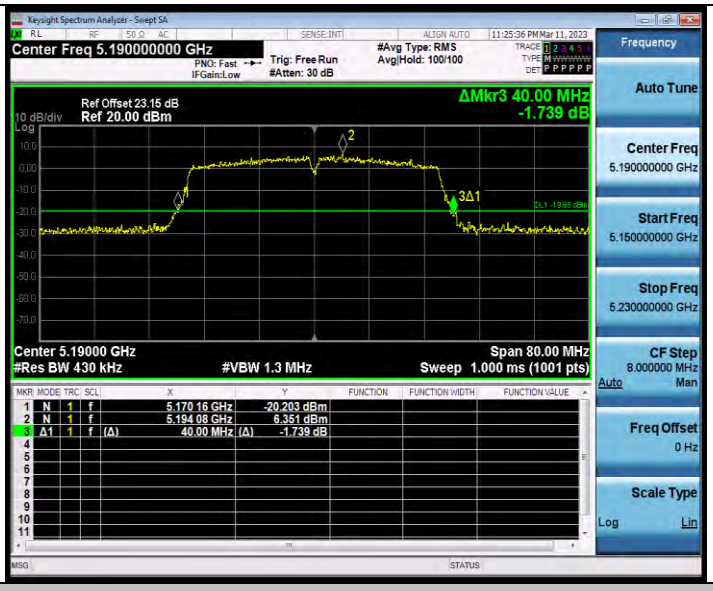

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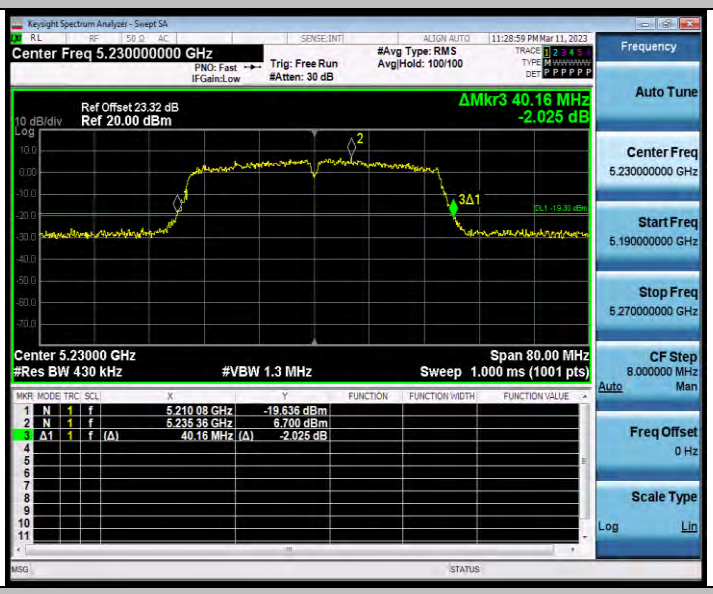

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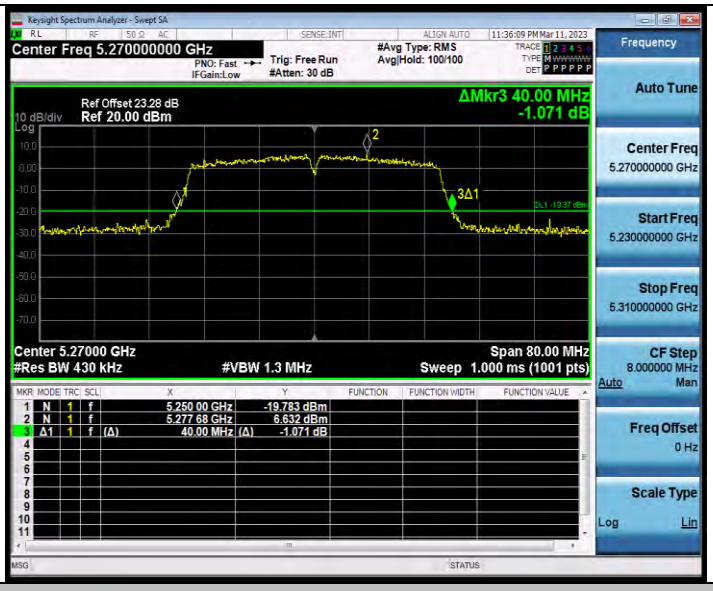

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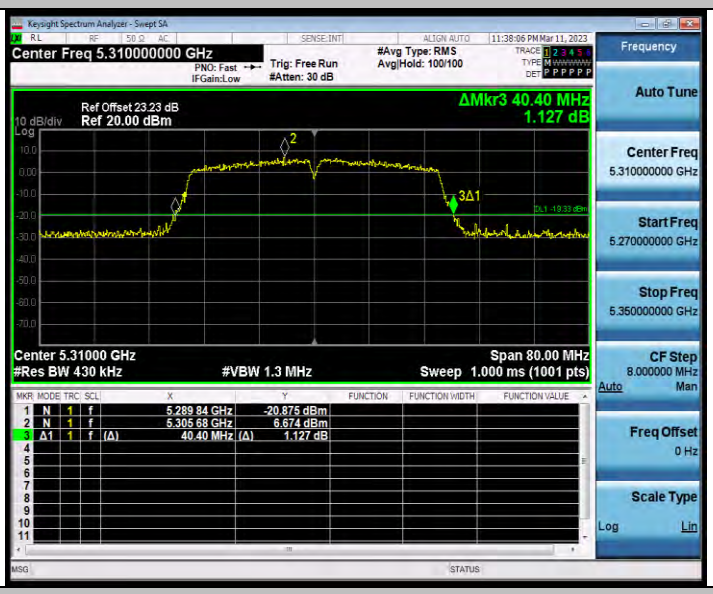

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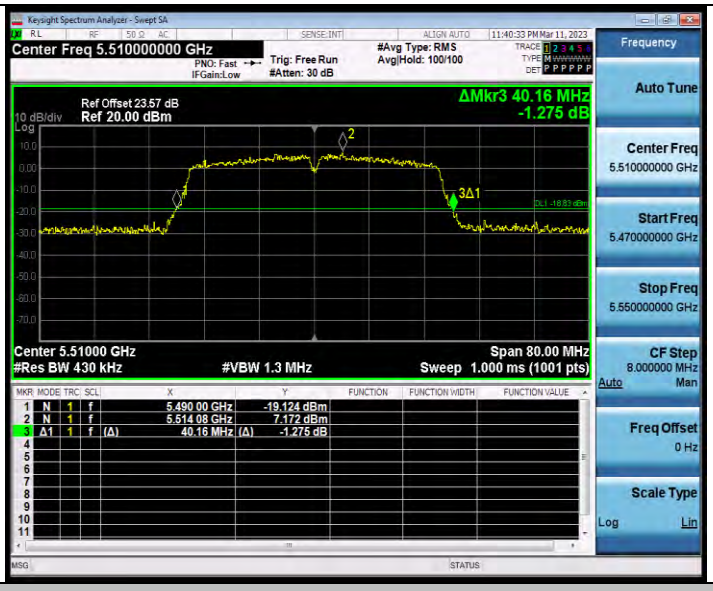

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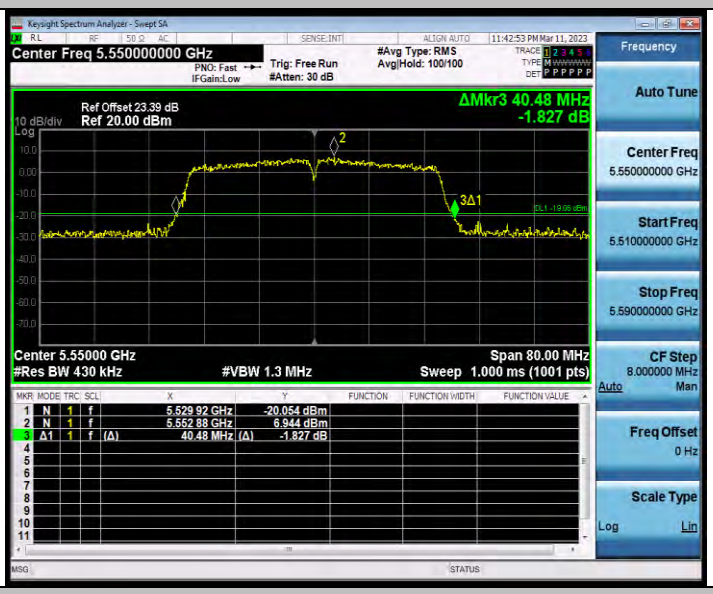

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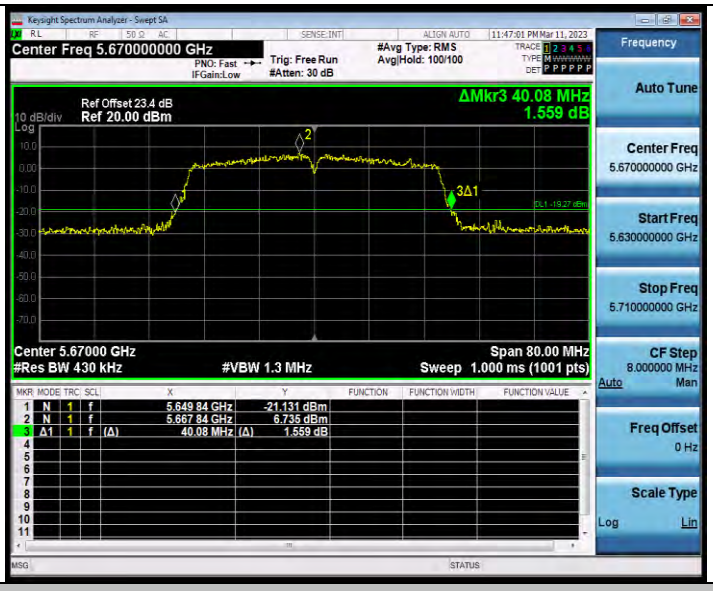

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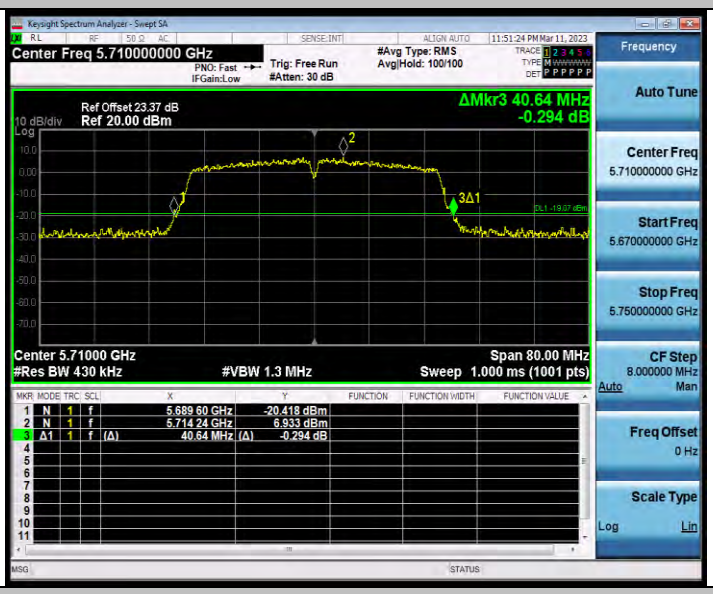

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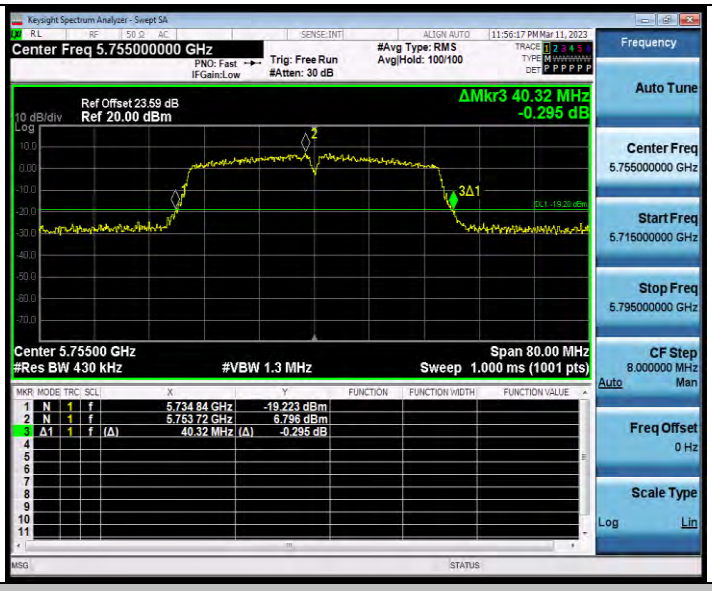

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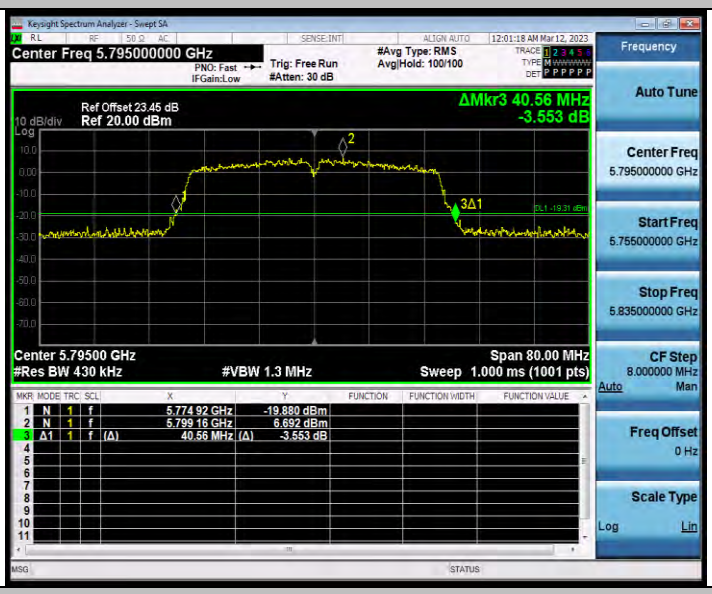

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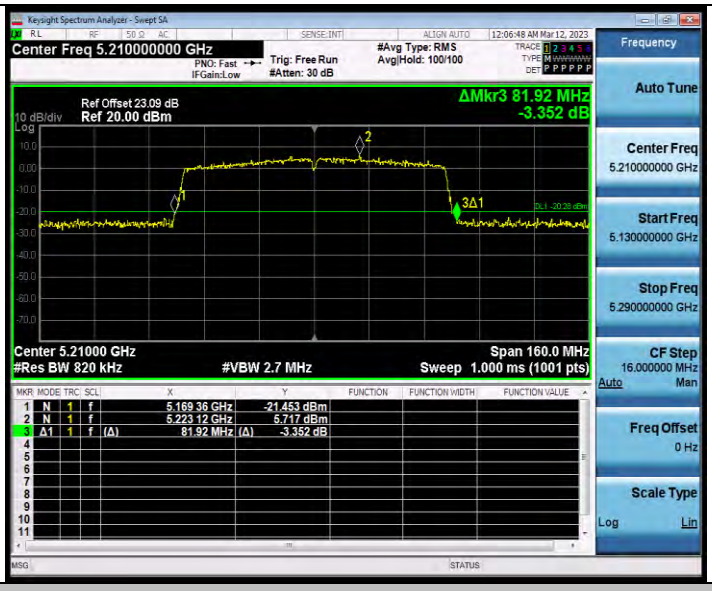

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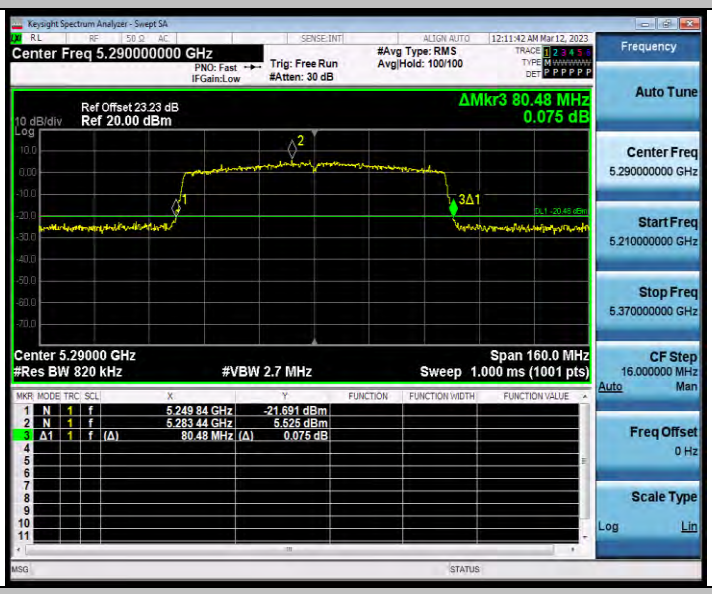

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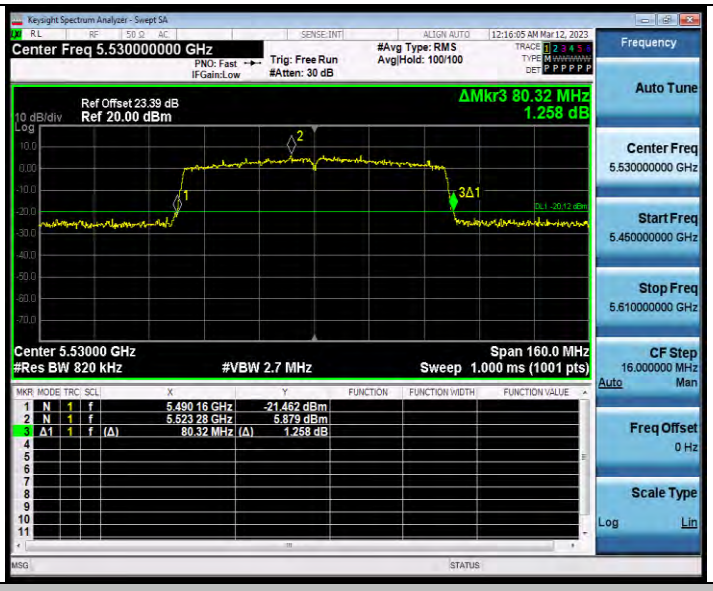
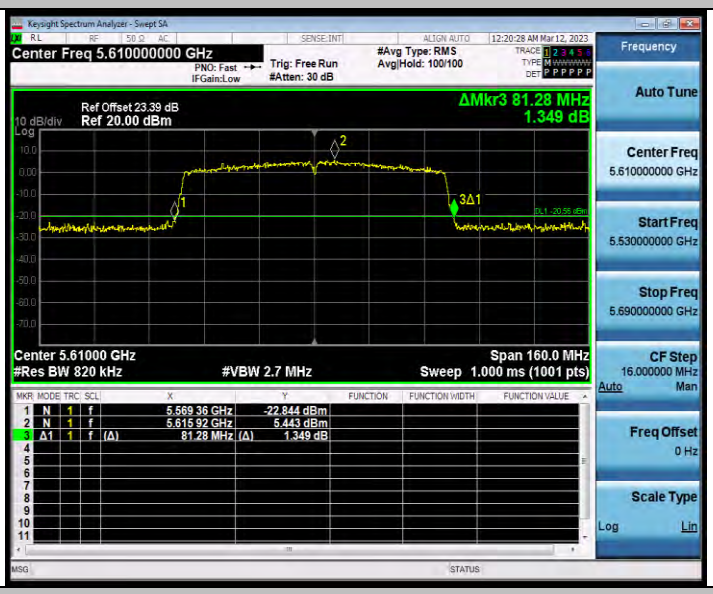
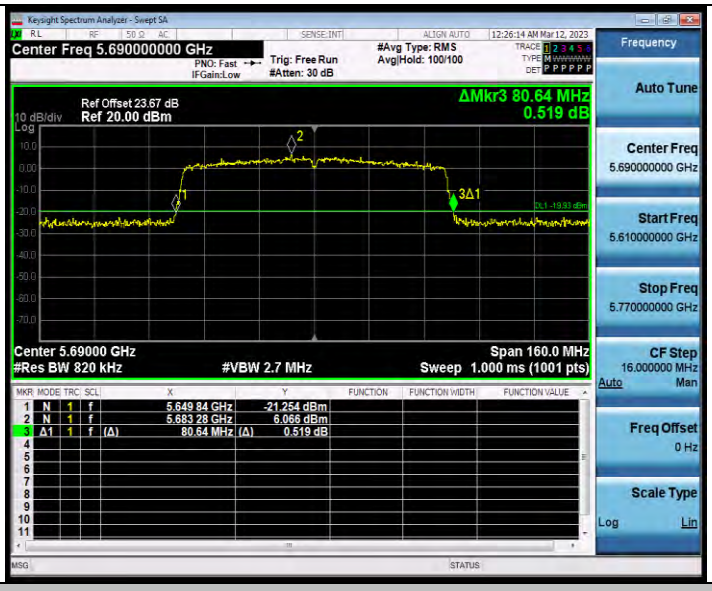


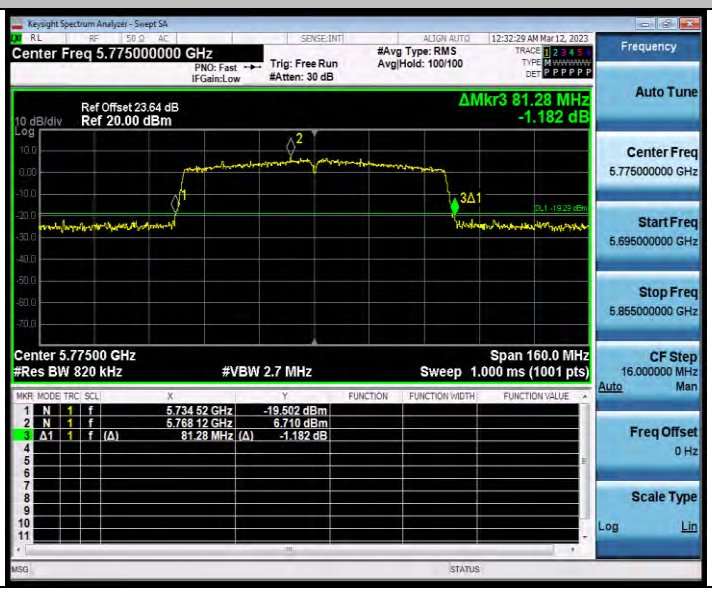
11AC80SISO_Ant1_5610



11AC80SISO_Ant1_5690



11AC80SISO_Ant1_5775



OCCUPIED CHANNEL BANDWIDTH

TEST RESULT

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	16.981	5171.5192	5188.5002	---	---
		5200	17.026	5191.4882	5208.5142	---	---
		5240	16.968	5231.5261	5248.4941	---	---
		5260	16.942	5251.5437	5268.4857	---	---
		5300	16.976	5291.5105	5308.4865	---	---
		5320	16.994	5311.5389	5328.5329	---	---
		5500	16.964	5491.5324	5508.4964	---	---
		5580	16.997	5571.5274	5588.5244	---	---
		5700	17.019	5691.4885	5708.5075	---	---
		5720	17.007	5711.4763	5728.4833	---	---
		5720_UNII-2C	13.524	5711.4763	5725	---	---
		5720_UNII-3	3.483	5725	5728.4833	---	---
		5745	16.989	5736.4979	5753.4869	---	---
		5785	16.985	5776.5065	5793.4915	---	---
		5825	16.959	5816.5410	5833.5000	---	---
11N20SISO	Ant1	5180	17.982	5170.9945	5188.9765	---	---
		5200	17.951	5191.0183	5208.9693	---	---
		5240	17.918	5231.0408	5248.9588	---	---
		5260	17.948	5251.0354	5268.9834	---	---
		5300	17.975	5291.0007	5308.9757	---	---
		5320	17.973	5310.9894	5328.9624	---	---
		5500	17.962	5490.9971	5508.9591	---	---
		5580	17.964	5571.0175	5588.9815	---	---
		5700	17.939	5691.0342	5708.9732	---	---
		5720	18.001	5711.0044	5729.0054	---	---
		5720_UNII-2C	13.996	5711.0044	5725	---	---
		5720_UNII-3	4.005	5725	5729.0054	---	---
		5745	17.985	5735.9798	5753.9648	---	---
		5785	17.920	5776.0072	5793.9272	---	---
		5825	17.932	5816.0404	5833.9724	---	---

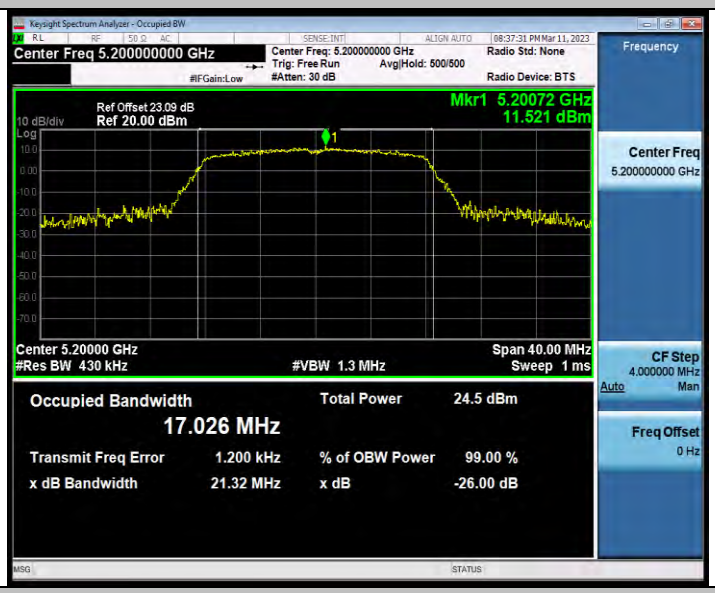
11N40SISO	Ant1	5190	36.519	5171.8147	5208.3337	---	---
		5230	36.392	5211.8877	5248.2797	---	---
		5270	36.412	5251.8536	5288.2656	---	---
		5310	36.342	5291.8879	5328.2299	---	---
		5510	36.456	5491.8096	5528.2656	---	---
		5550	36.525	5531.8275	5568.3525	---	---
		5670	36.425	5651.7830	5688.2080	---	---
		5710	36.516	5691.7558	5728.2718	---	---
		5710_UNII-2C	33.244	5691.7558	5725	---	---
		5710_UNII-3	3.272	5725	5728.2718	---	---
		5755	36.597	5736.6678	5773.2648	---	---
		5795	36.483	5776.7450	5813.2280	---	---
11AC20SISO	Ant1	5180	17.894	5171.0530	5188.9470	---	---
		5200	17.868	5191.0702	5208.9382	---	---
		5240	17.895	5231.0586	5248.9536	---	---
		5260	17.865	5251.0991	5268.9641	---	---
		5300	17.887	5291.0716	5308.9586	---	---
		5320	17.896	5311.0830	5328.9790	---	---
		5500	17.892	5491.0724	5508.9644	---	---
		5580	17.872	5571.0694	5588.9414	---	---
		5700	17.869	5691.0674	5708.9364	---	---
		5720	17.829	5711.0783	5728.9073	---	---
		5720_UNII-2C	13.922	5711.0783	5725	---	---
		5720_UNII-3	3.907	5725	5728.9073	---	---
		5745	17.860	5736.0572	5753.9172	---	---
		5785	17.832	5776.0823	5793.9143	---	---
		5825	17.924	5816.0503	5833.9743	---	---
11AC40SISO	Ant1	5190	36.335	5171.8920	5208.2270	---	---
		5230	36.311	5211.9127	5248.2237	---	---
		5270	36.313	5251.8931	5288.2061	---	---
		5310	36.254	5291.9018	5328.1558	---	---
		5510	36.304	5491.9441	5528.2481	---	---
		5550	36.330	5531.8812	5568.2112	---	---
		5670	36.260	5651.9104	5688.1704	---	---

11AC40SISO	Ant1	5710	36.264	5691.8780	5728.1420	---	---
		5710_UNII-2C	33.122	5691.8780	5725	---	---
		5710_UNII-3	3.142	5725	5728.1420	---	---
		5755	36.361	5736.7948	5773.1558	---	---
		5795	36.239	5776.9054	5813.1444	---	---
11AC80SISO	Ant1	5210	75.442	5172.4181	5247.8601	---	---
		5290	75.310	5252.4436	5327.7536	---	---
		5530	75.424	5492.4151	5567.8391	---	---
		5610	75.280	5572.4247	5647.7047	---	---
		5690	75.456	5652.2962	5727.7522	---	---
		5690_UNII-2C	72.704	5652.2962	5725	---	---
		5690_UNII-3	2.752	5725	5727.7522	---	---
		5775	75.463	5737.2873	5812.7503	---	---

TEST GRAPHS

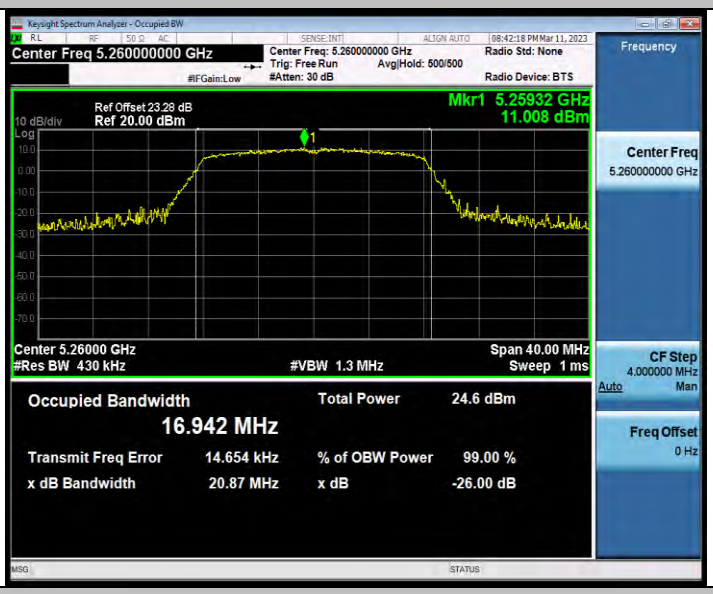
11A_Ant1_5180

11A_Ant1_5200



11A_Ant1_5240

11A_Ant1_5260



11A_Ant1_5300