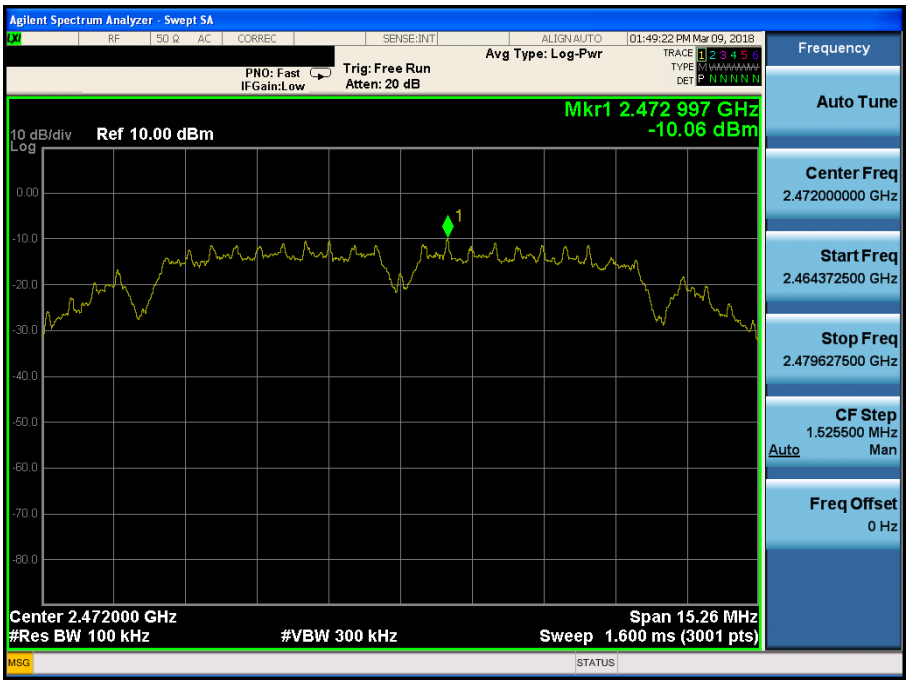
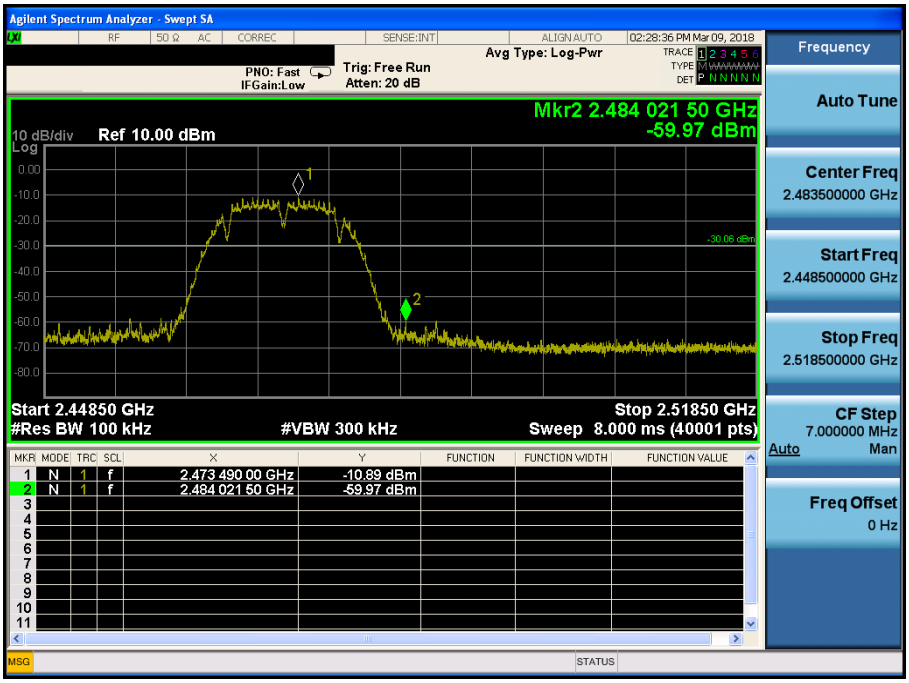
TM 5 & ANT 2 & 2472

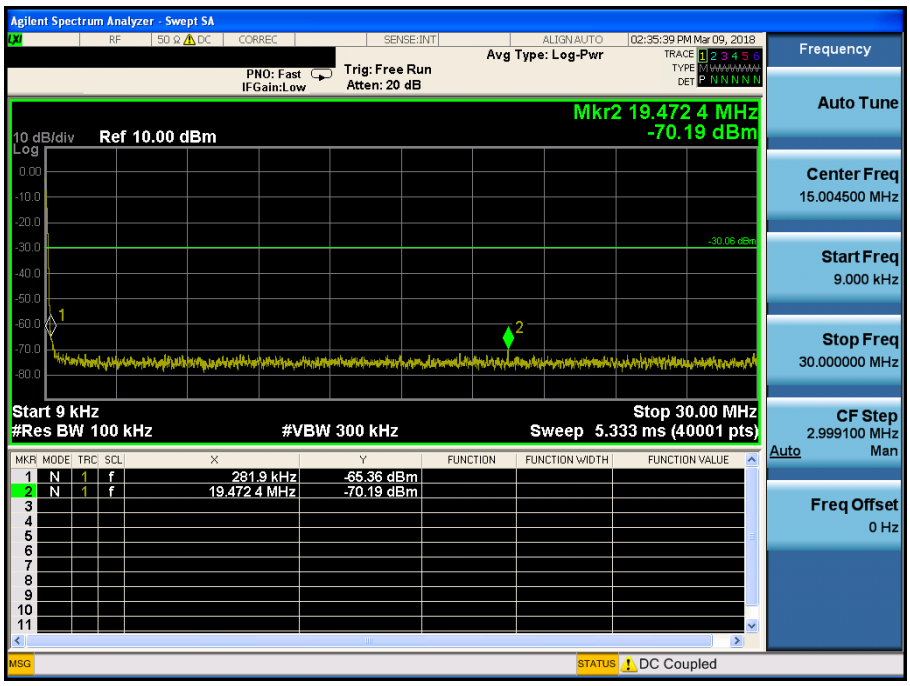
Reference

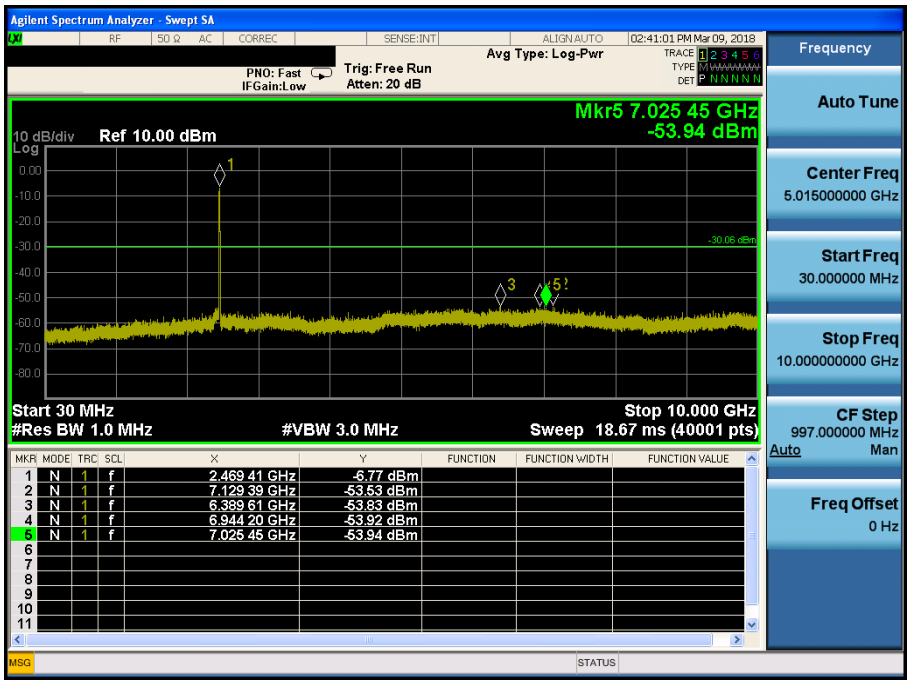


High Band-edge

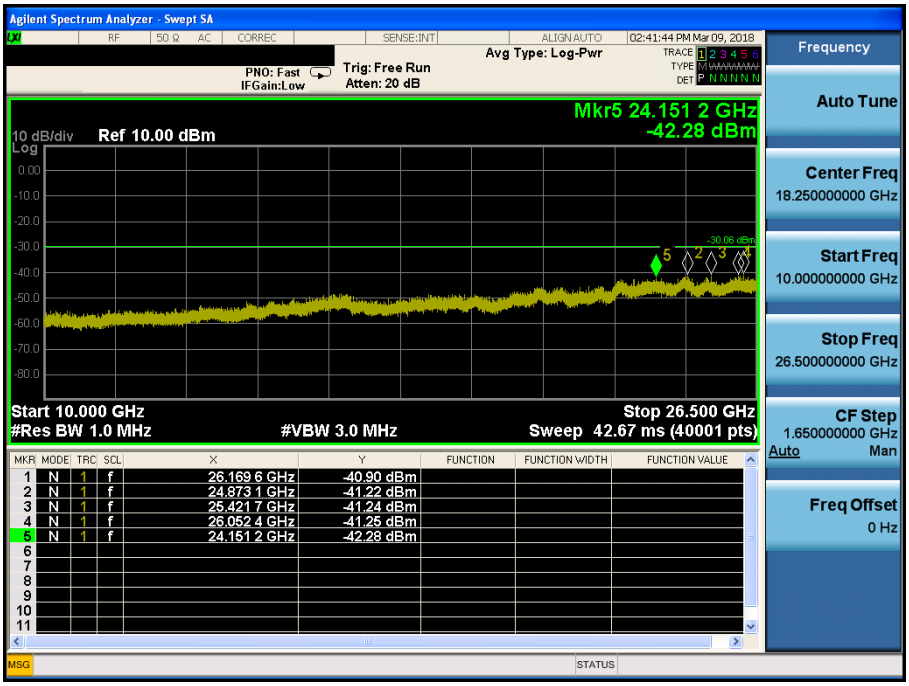


Conducted Spurious Emissions





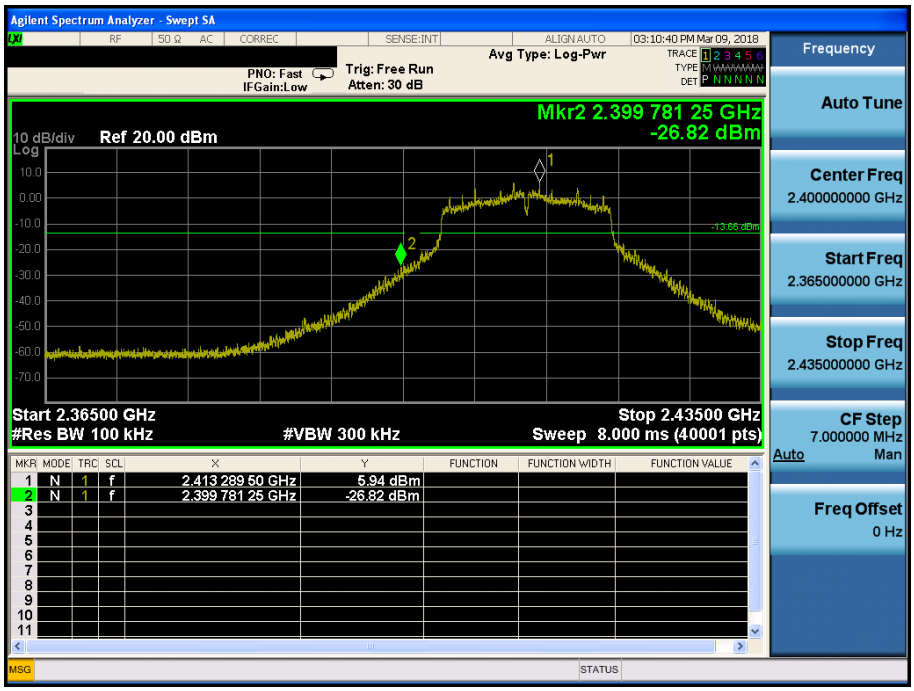
Conducted Spurious Emissions



TM 6 & ANT 2 & 2412

Reference

Low Band-edge



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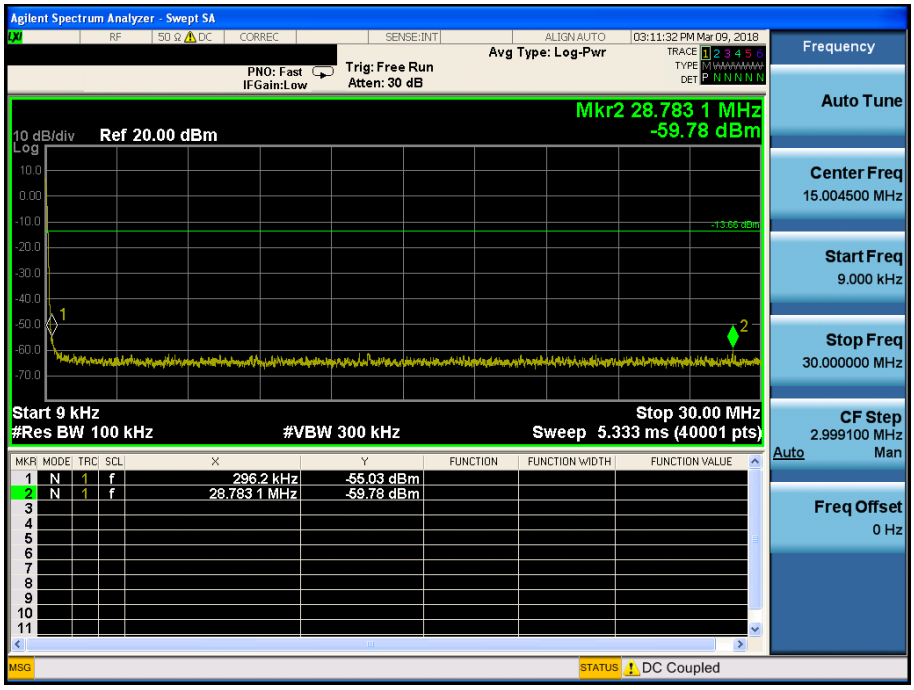

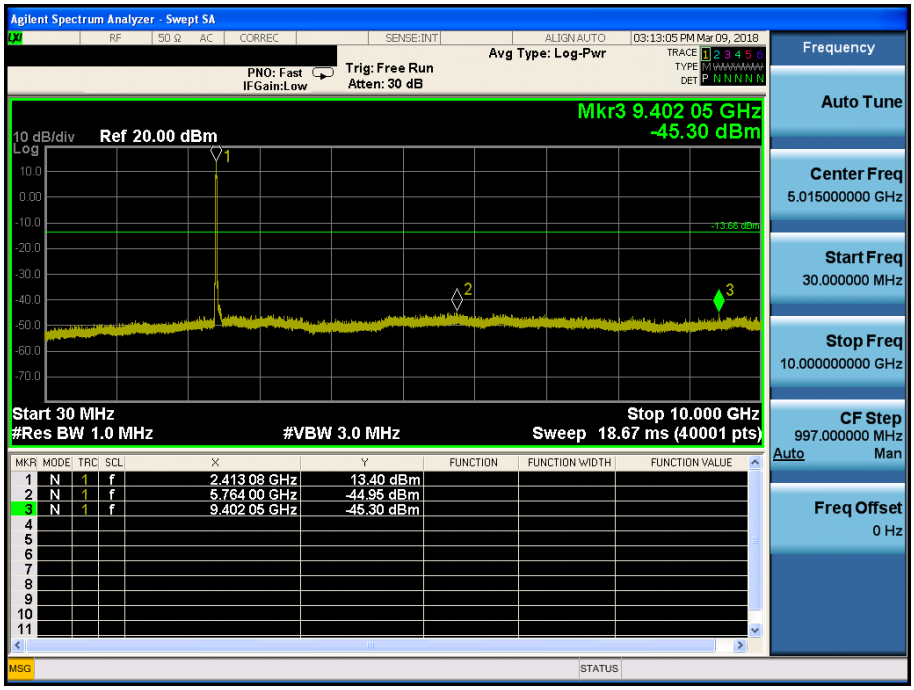

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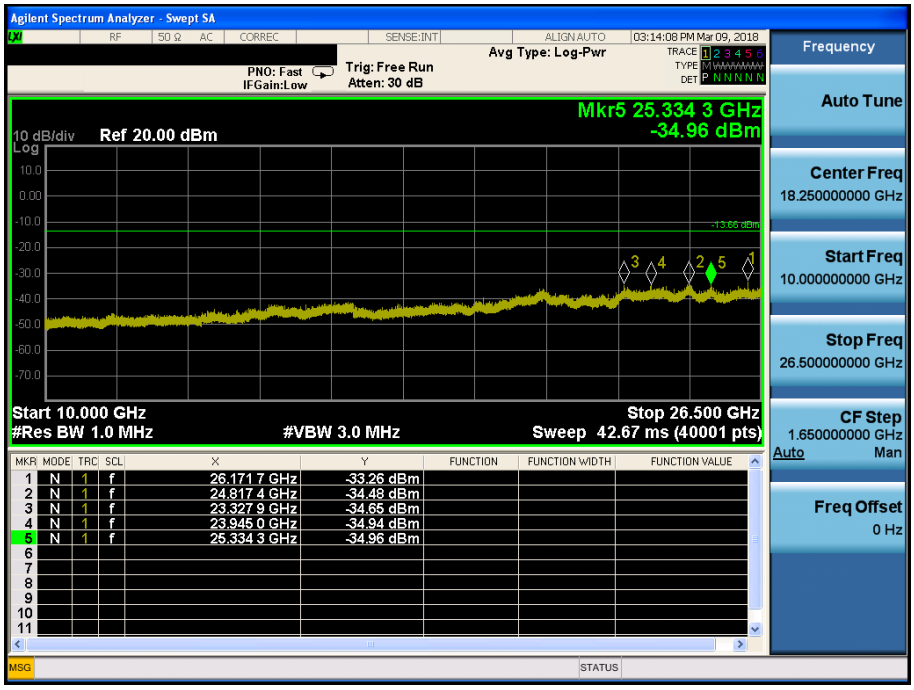
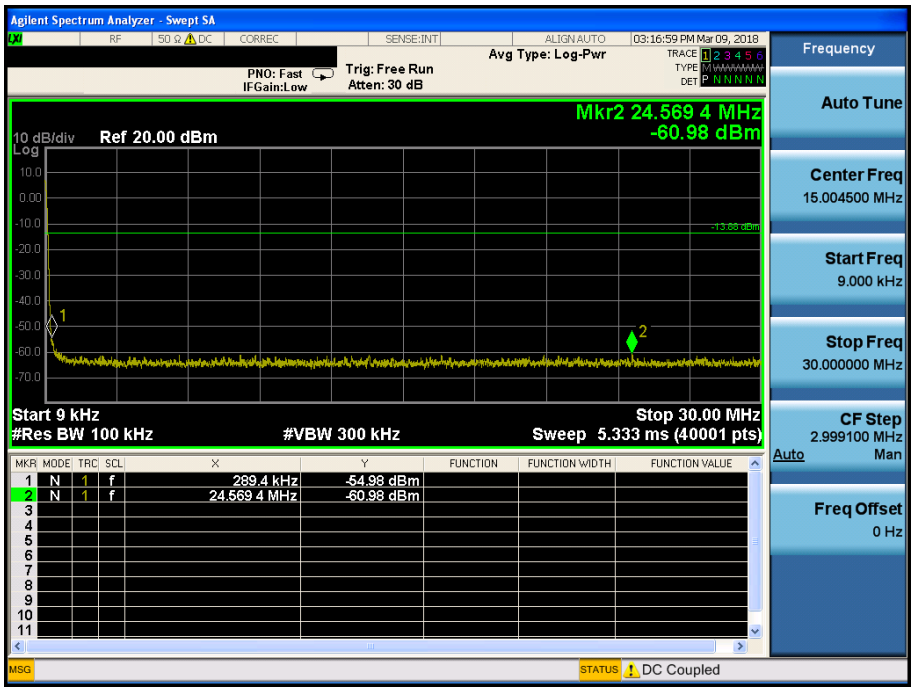


TM 6 & ANT 2 & 2437

Reference

Conducted Spurious Emissions



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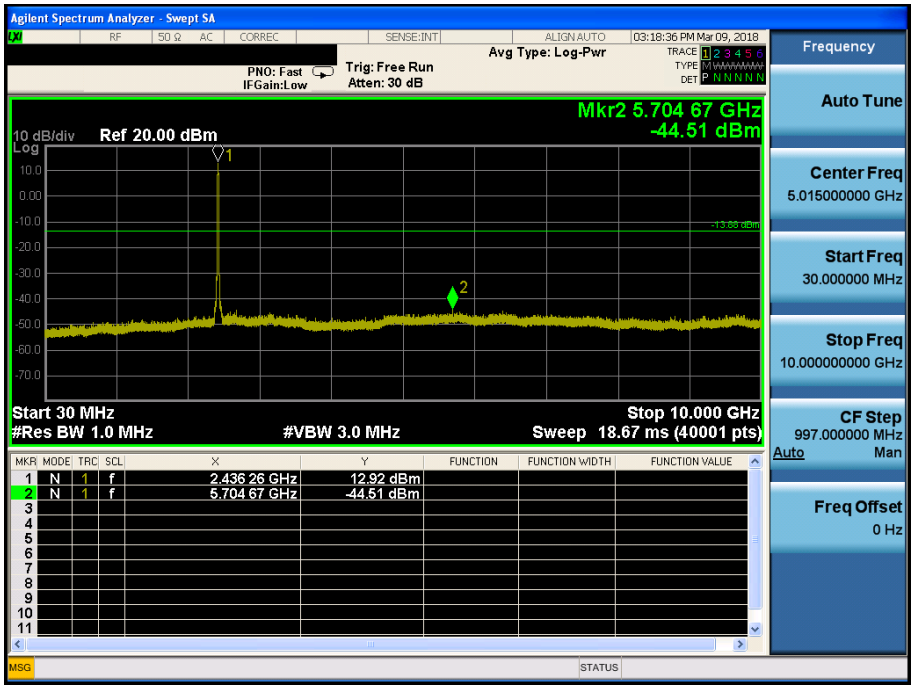
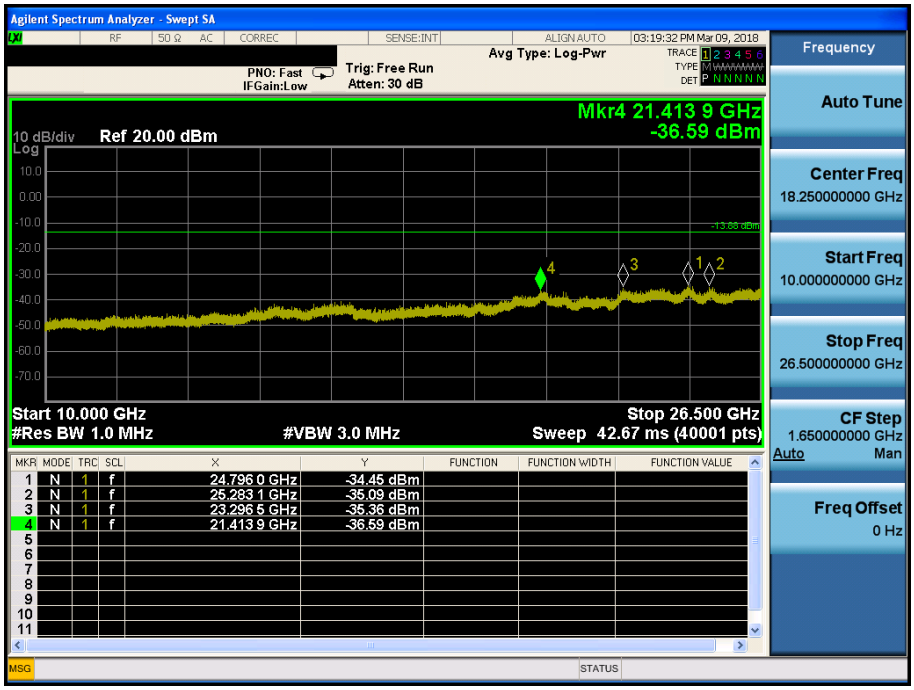
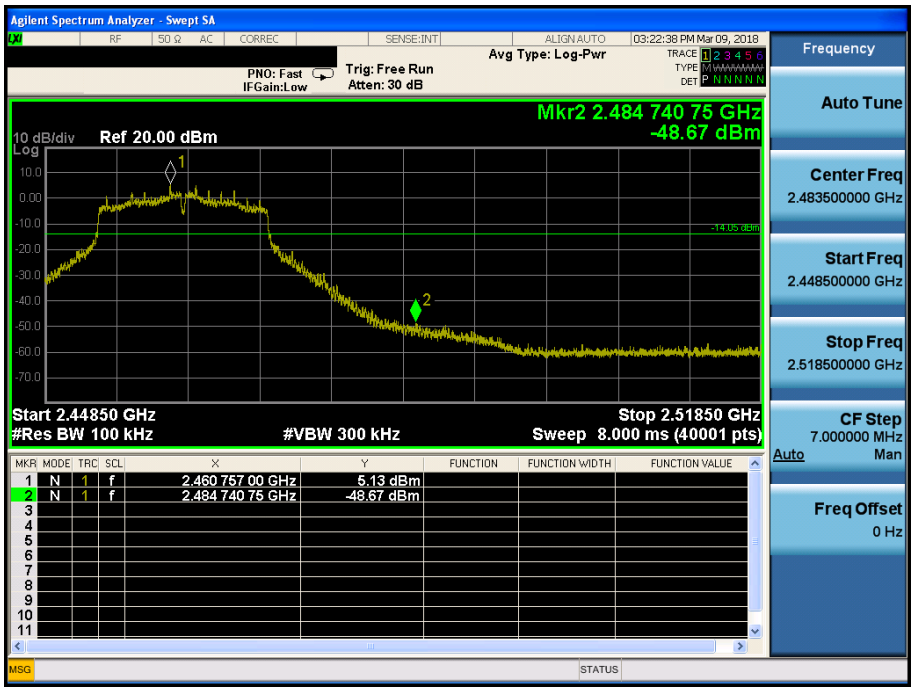




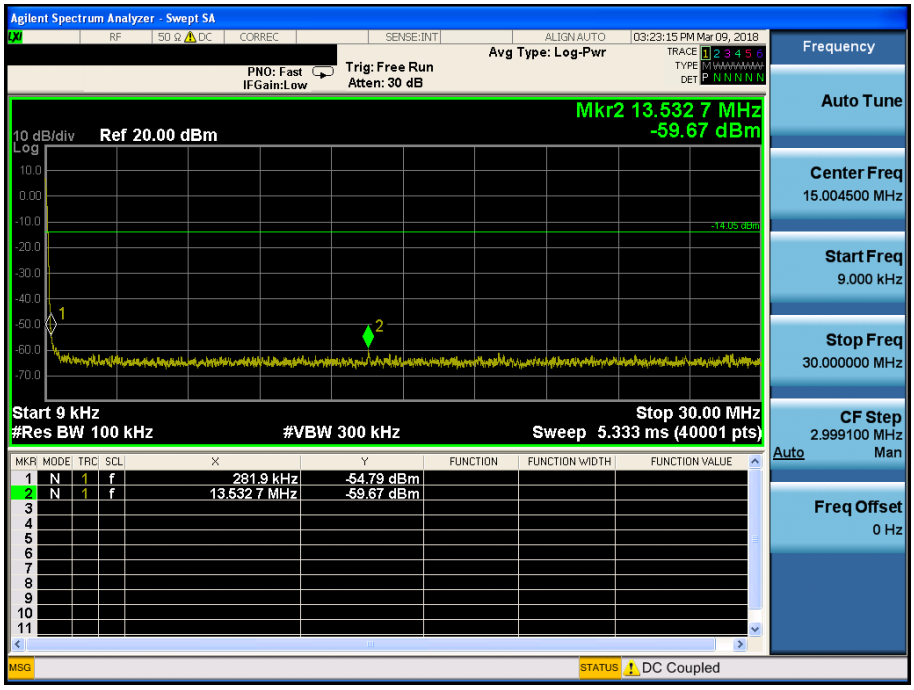
TM 6 & ANT 2 & 2462

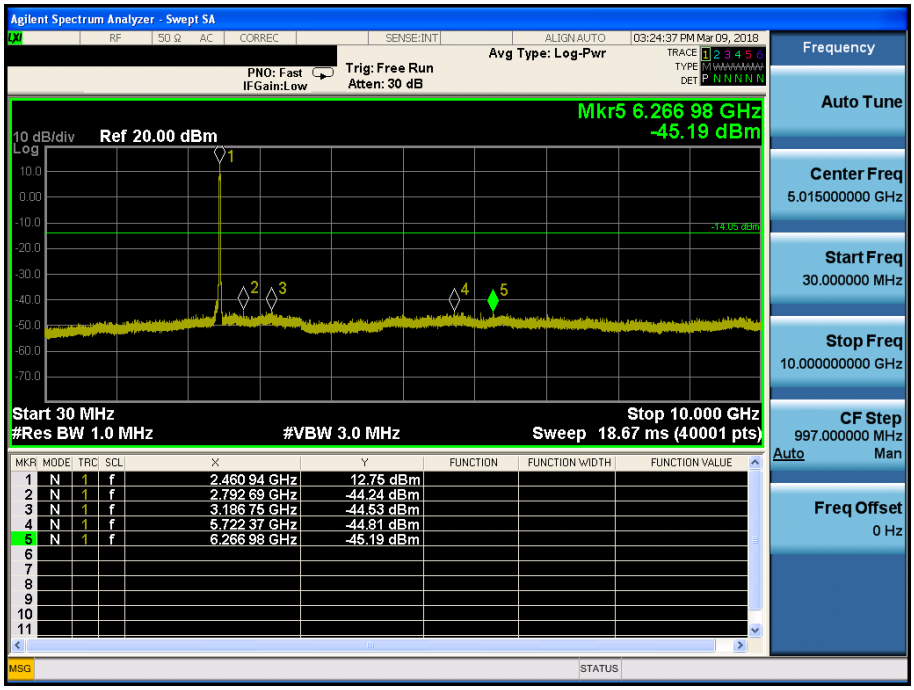
Reference

High Band-edge



Conducted Spurious Emissions





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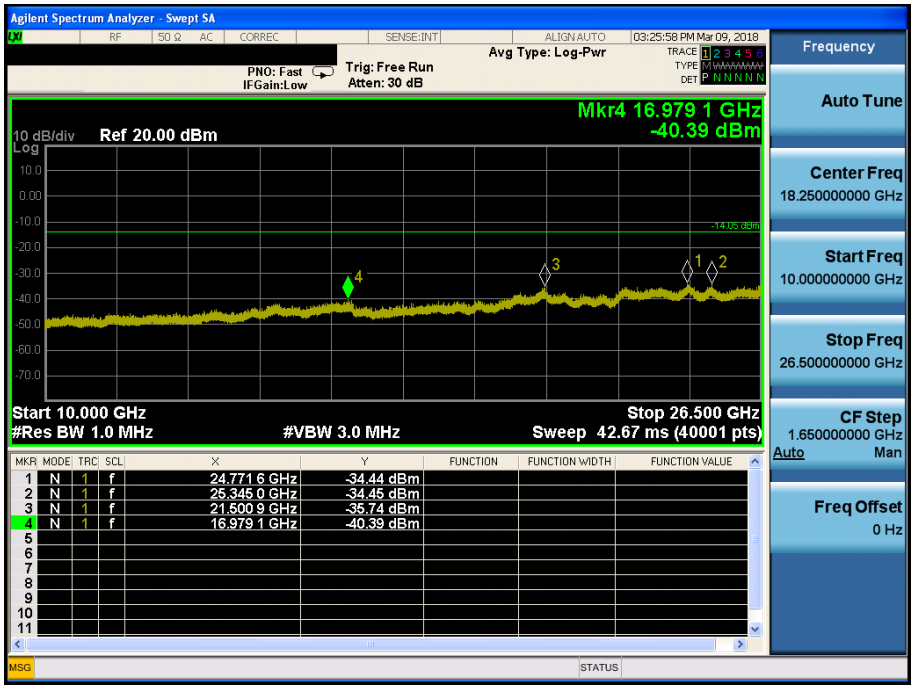
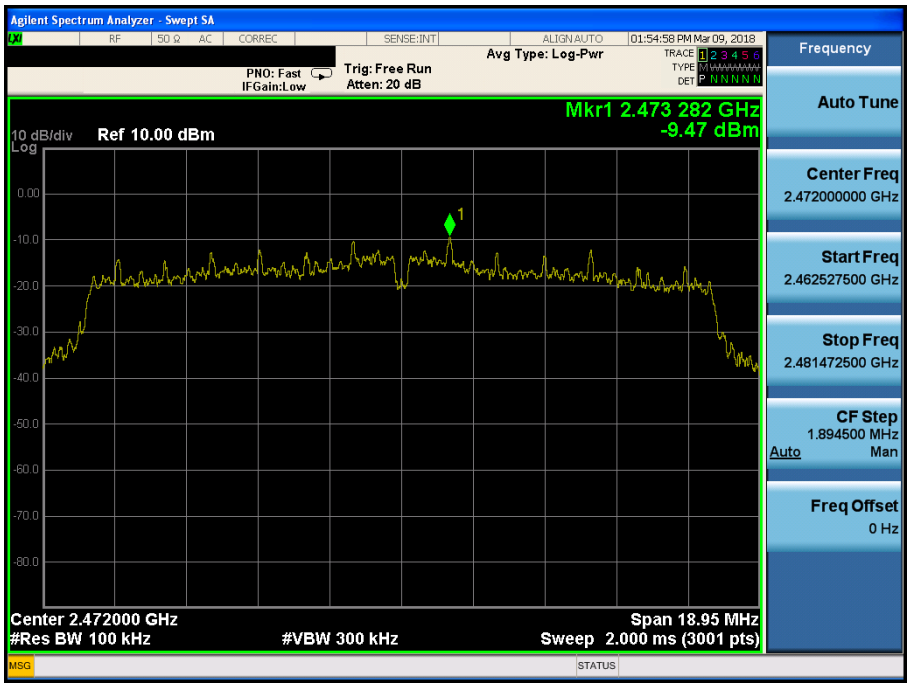
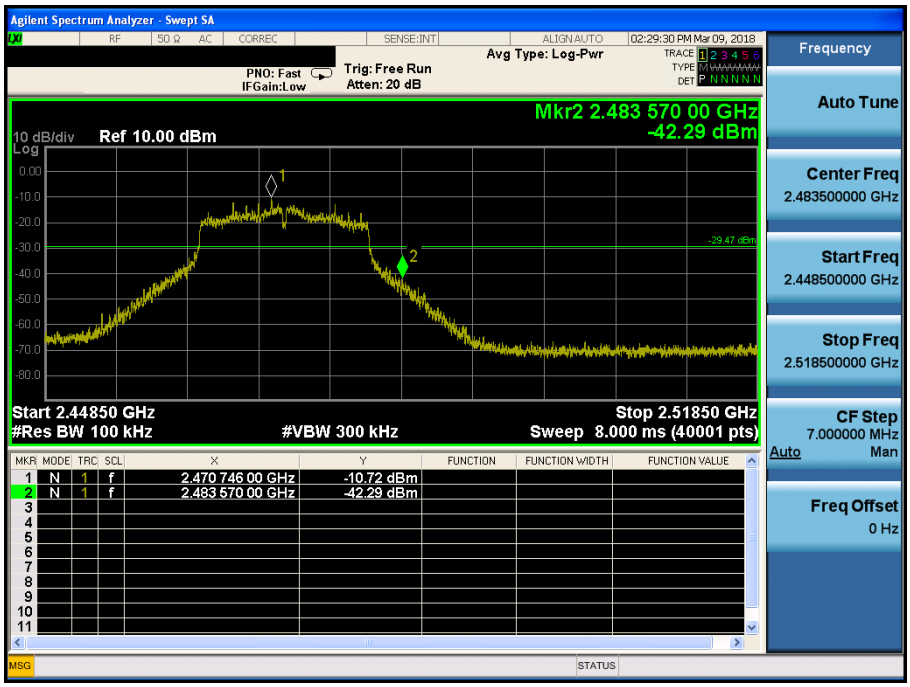


TM 6 & ANT 2 & 2472

Reference



High Band-edge



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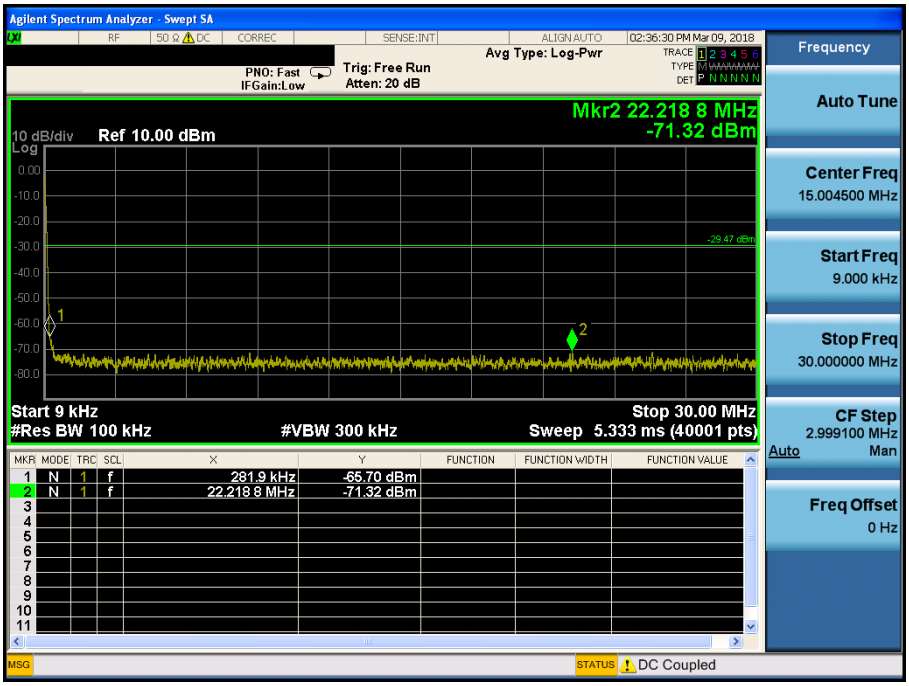

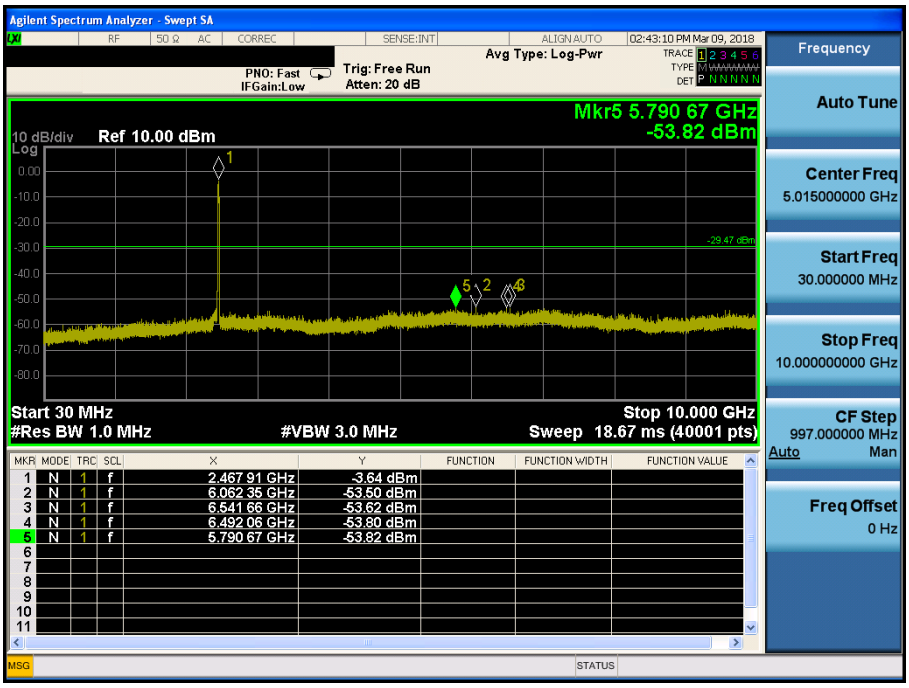

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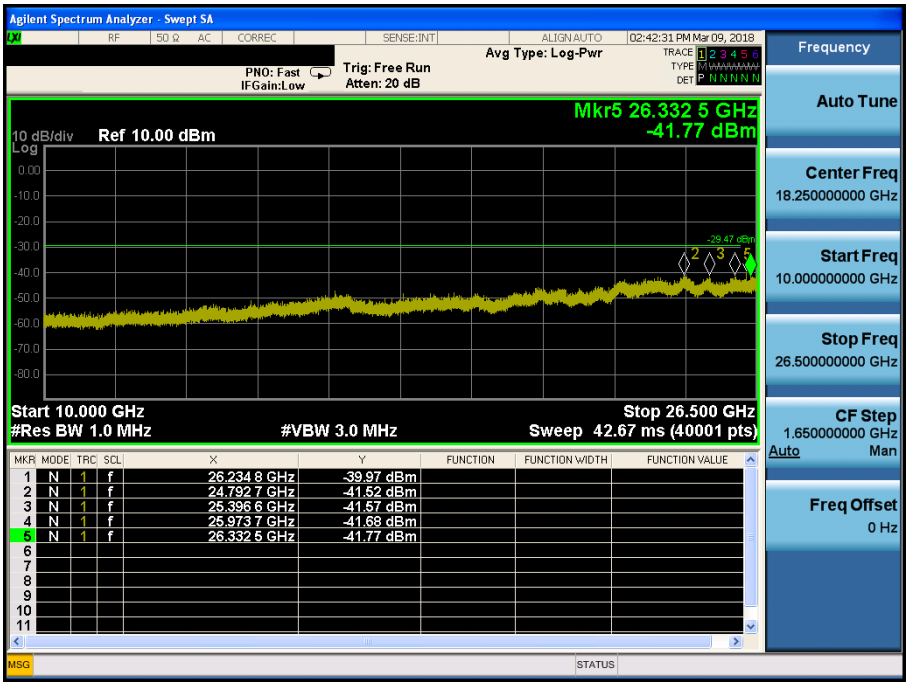
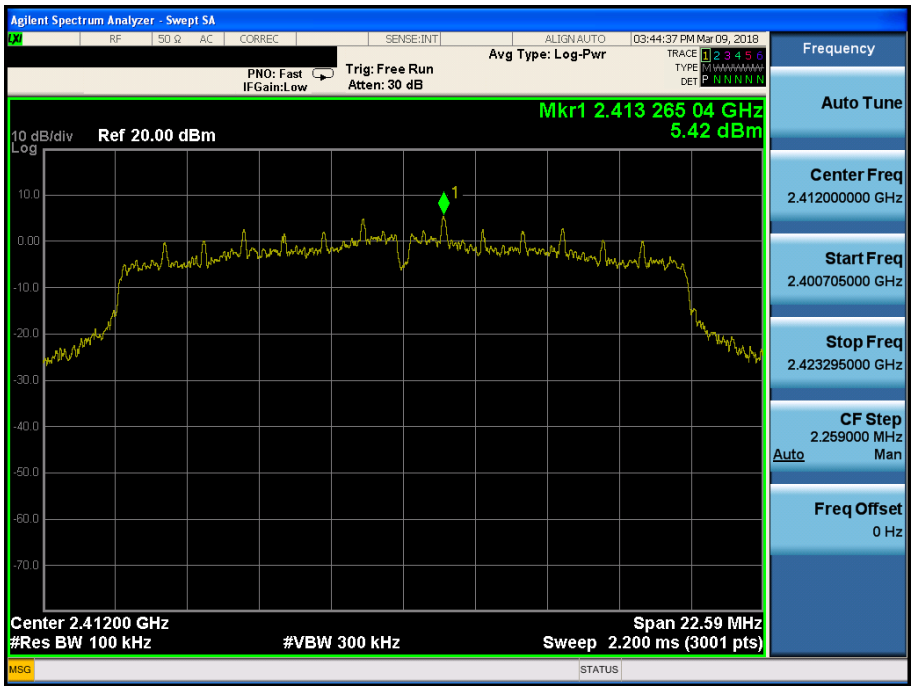
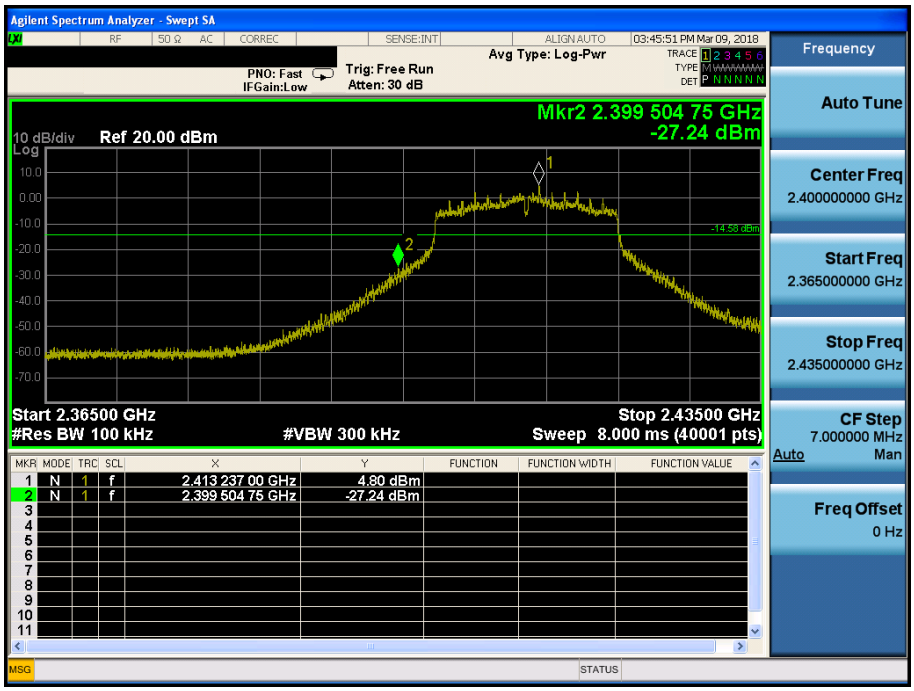


TM 7 & ANT 2 & 2412

Reference



Low Band-edge



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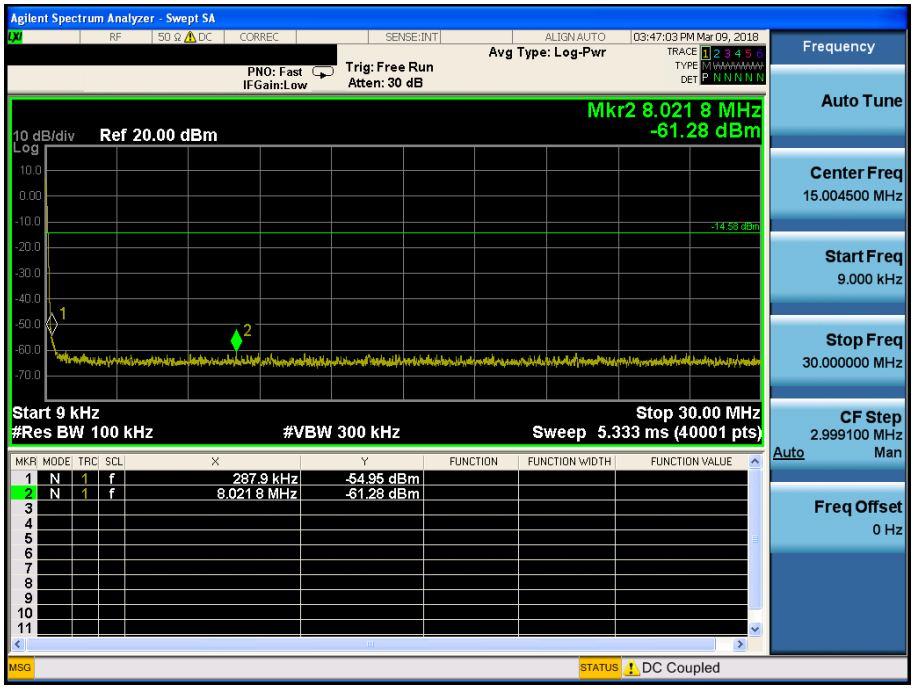
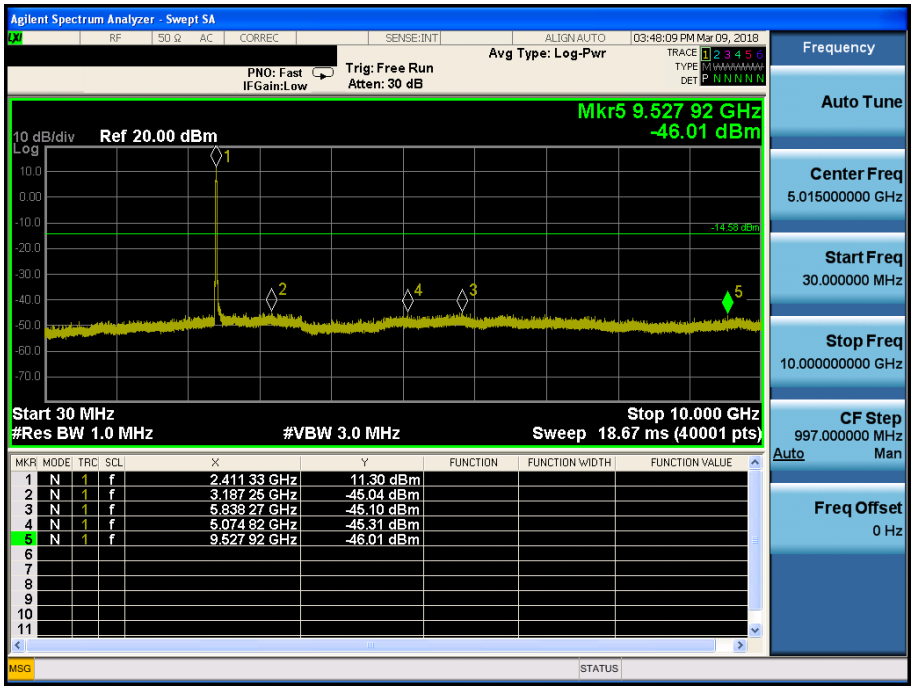
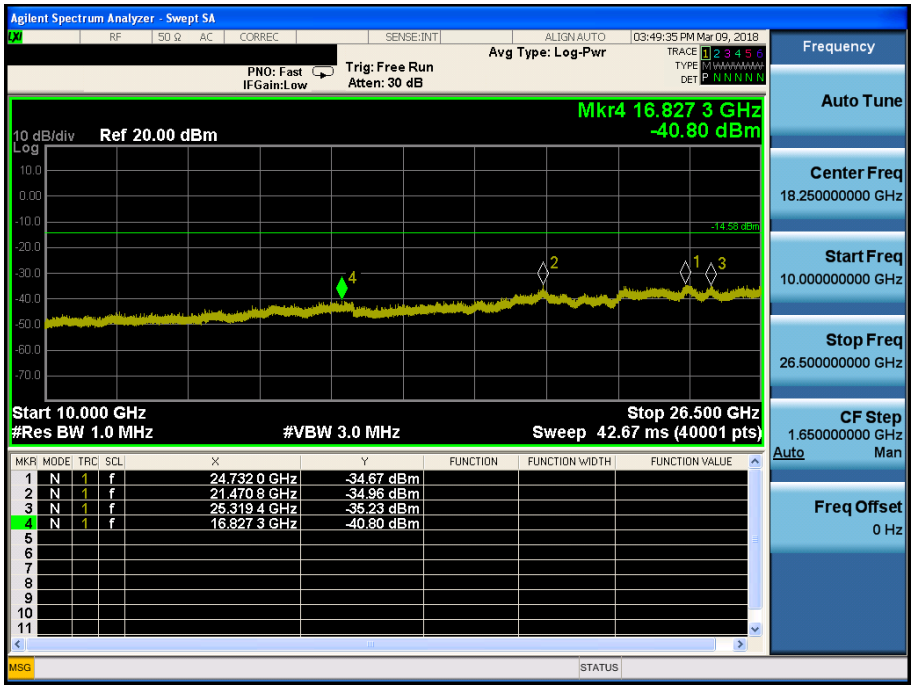


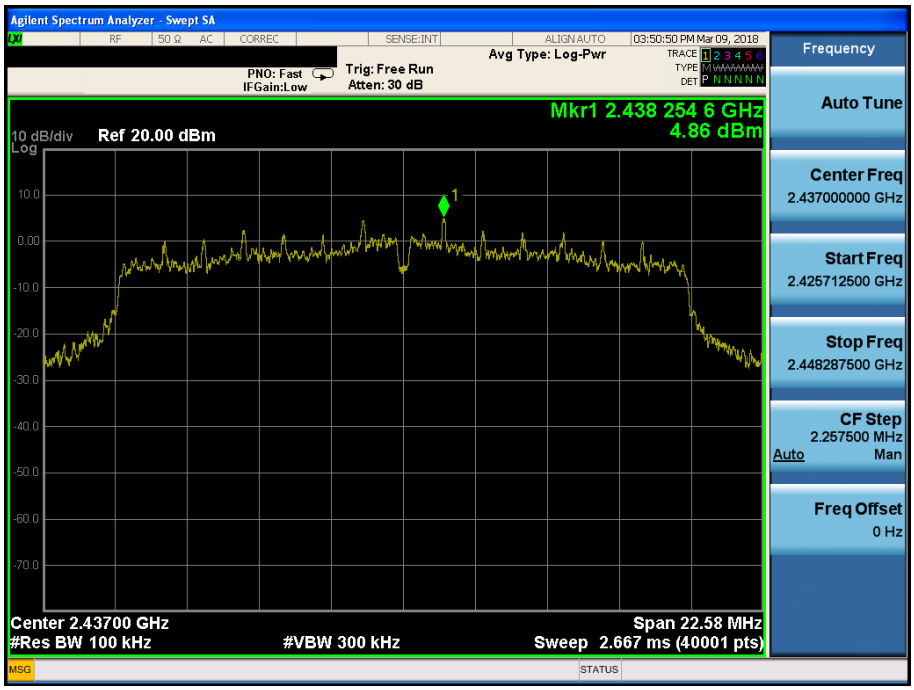


Conducted Spurious Emissions



TM 7 & ANT 2 & 2437

Reference



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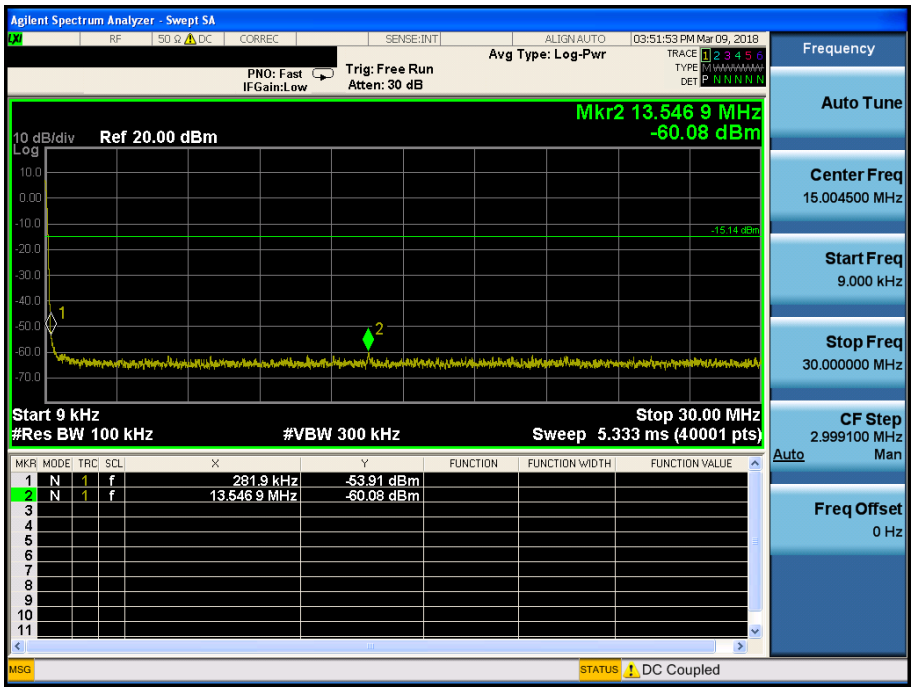

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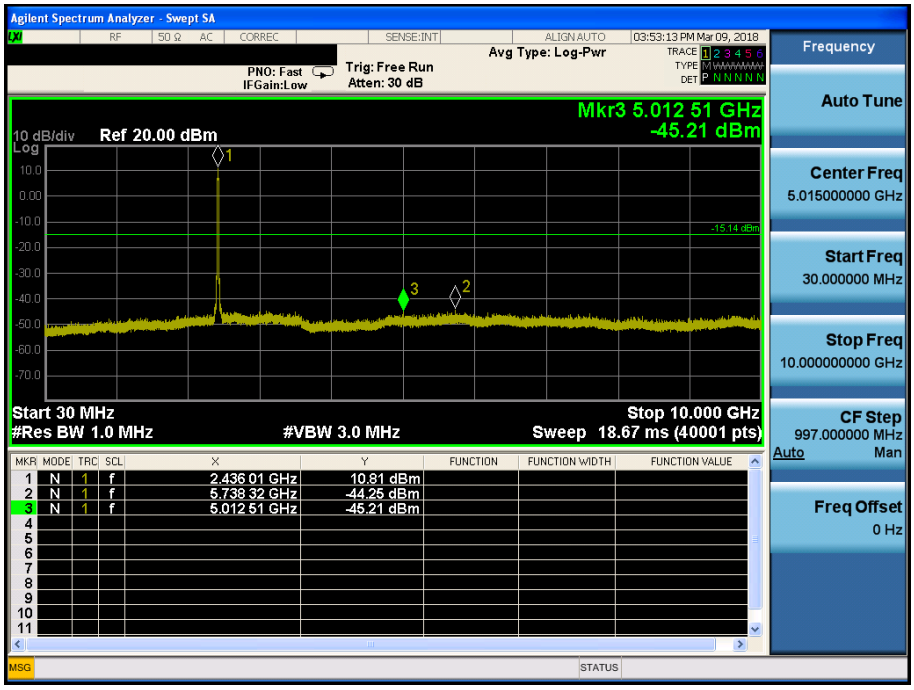
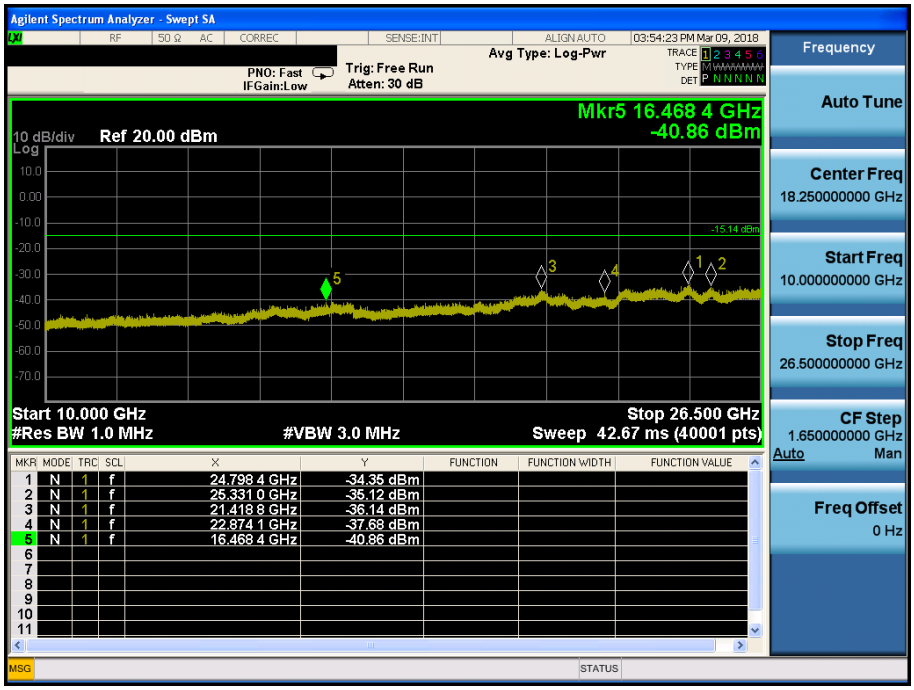
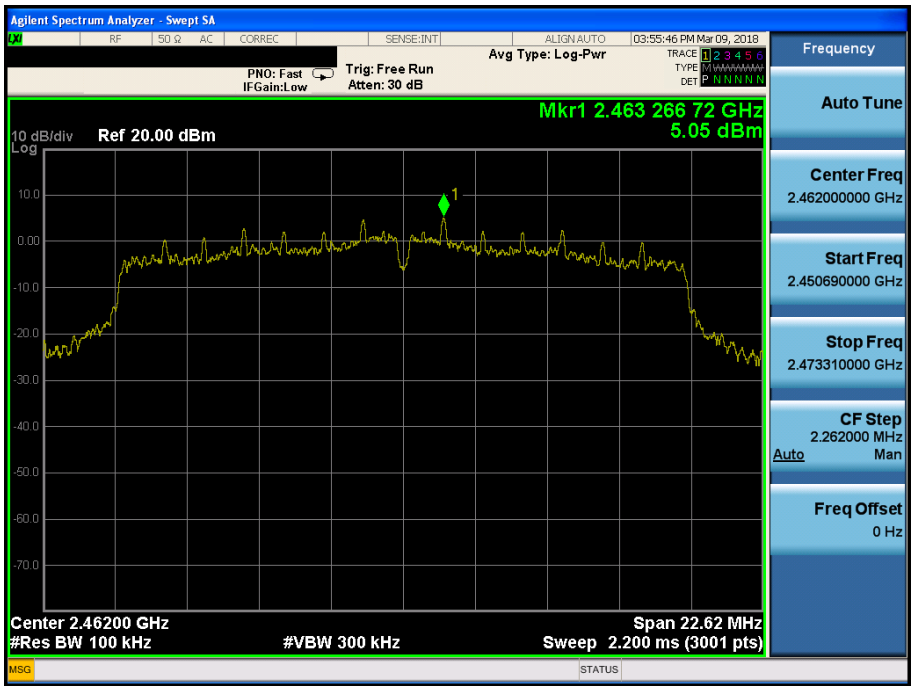




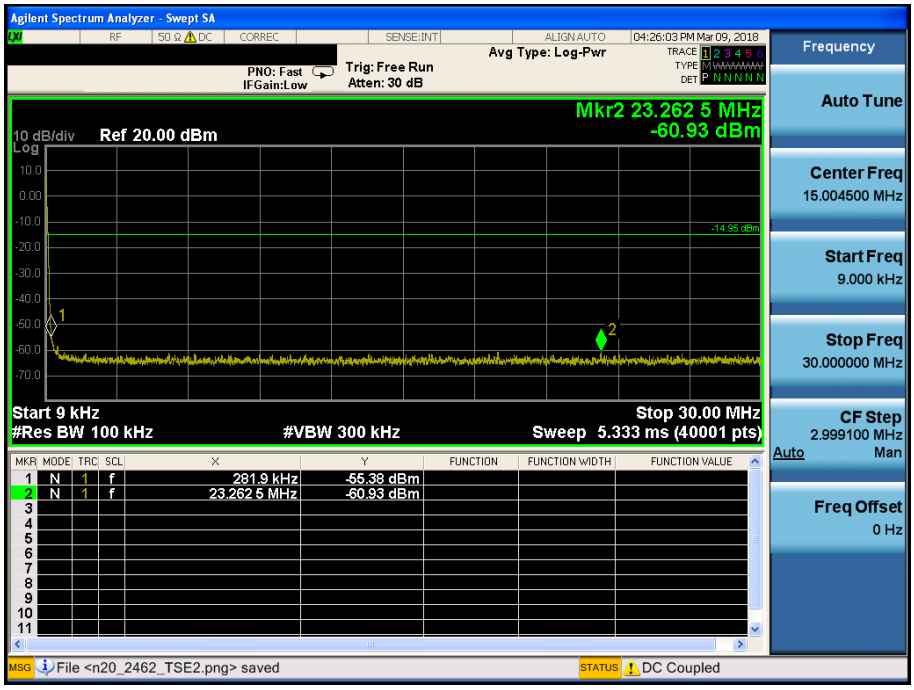
TM 7 & ANT 2 & 2462

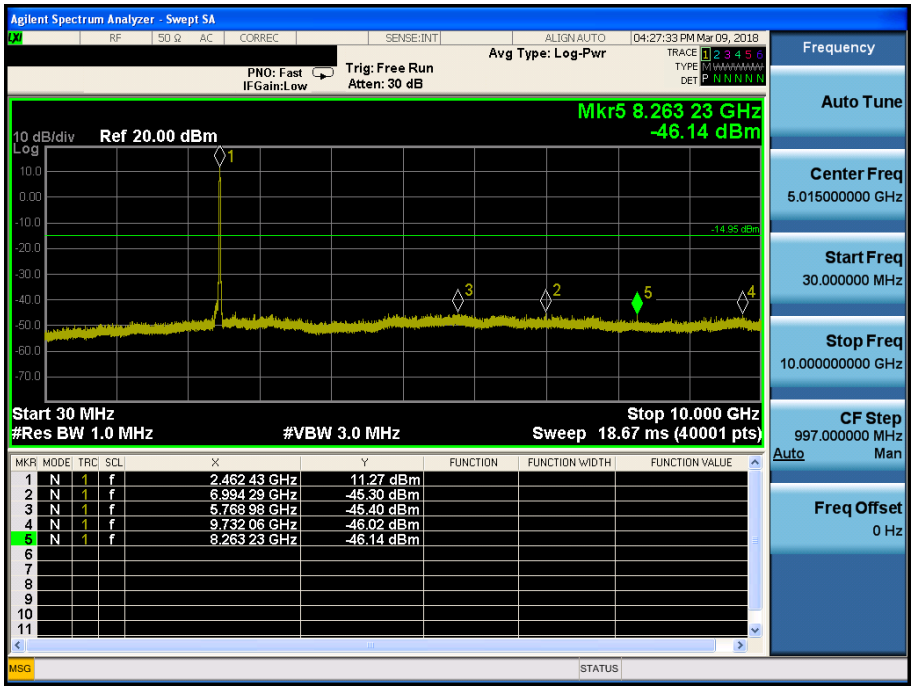
Reference



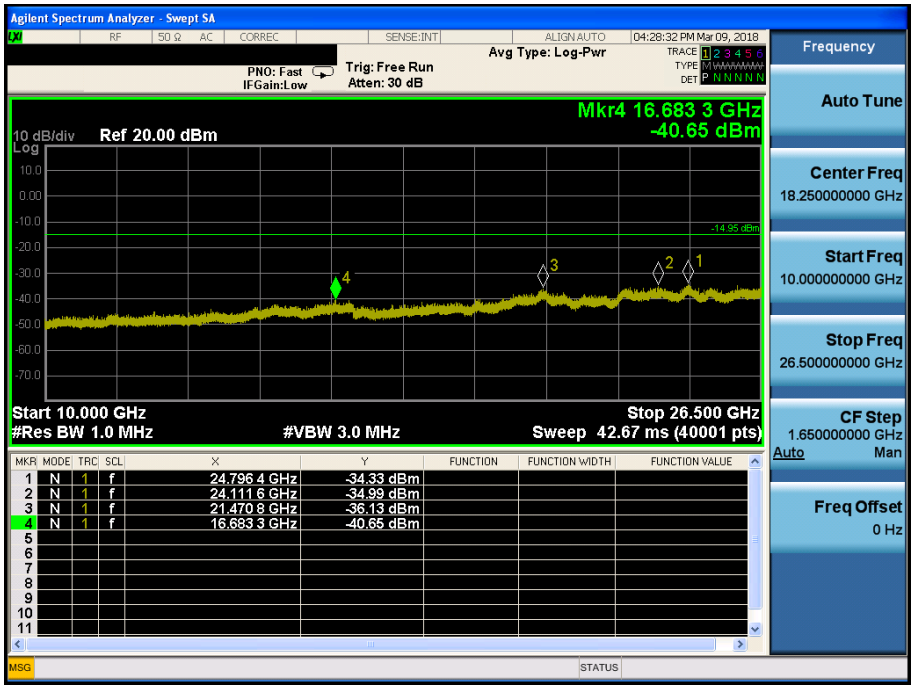
High Band-edge

Conducted Spurious Emissions



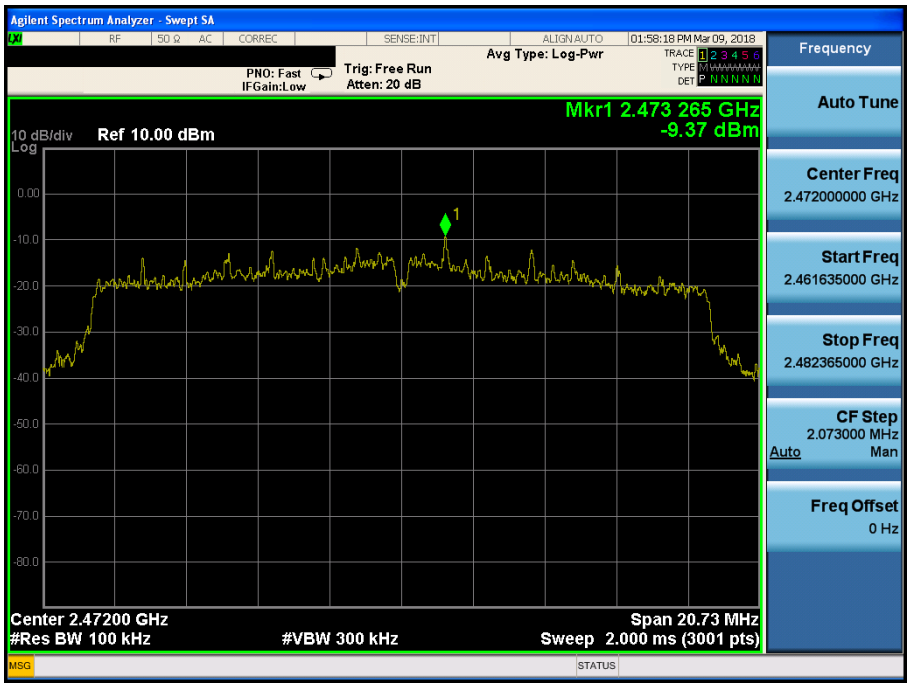


Conducted Spurious Emissions

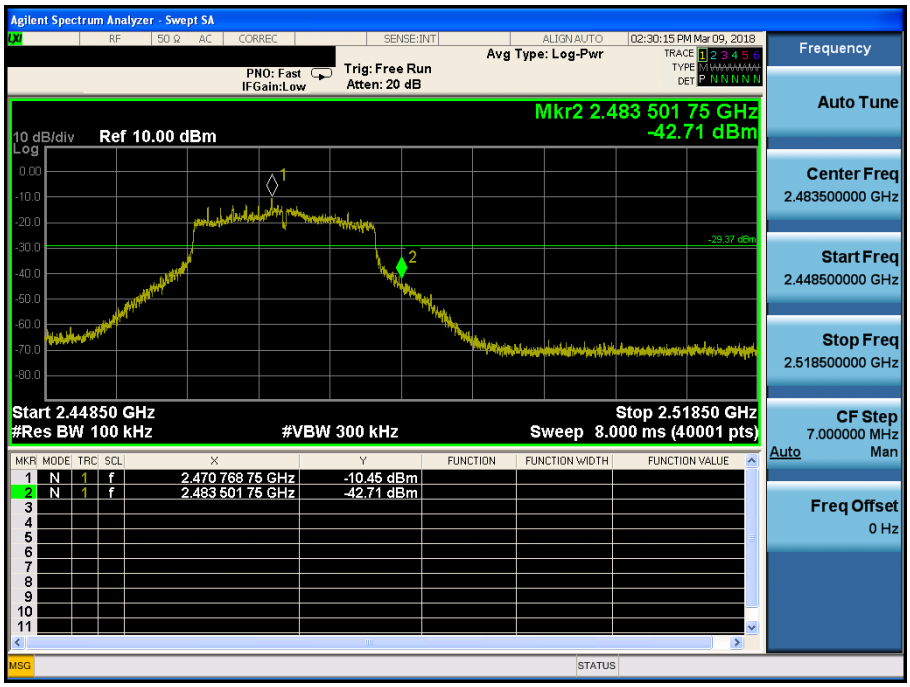


TM 7 & ANT 2 & 2472

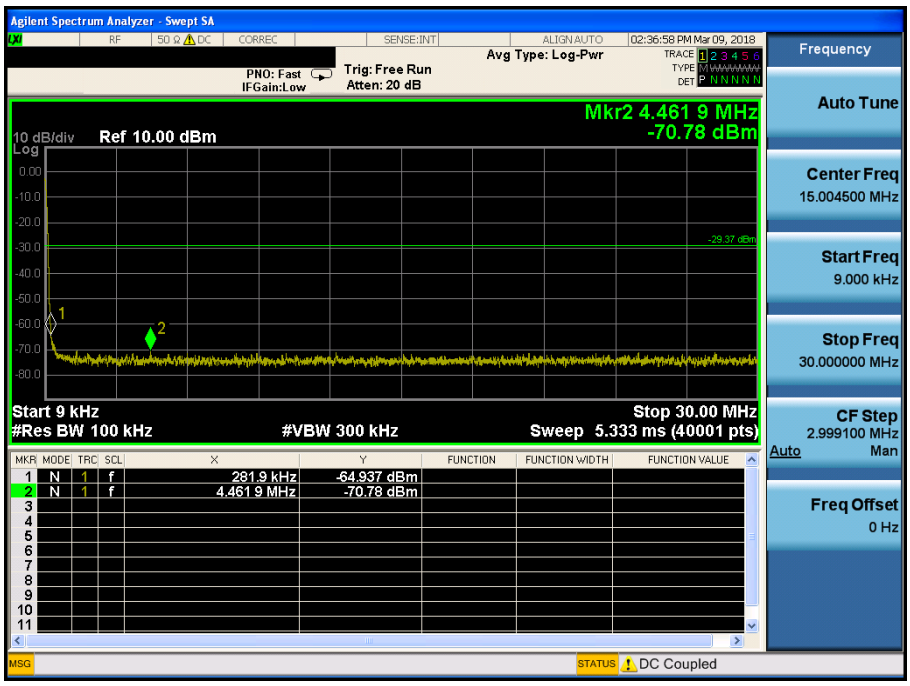
Reference

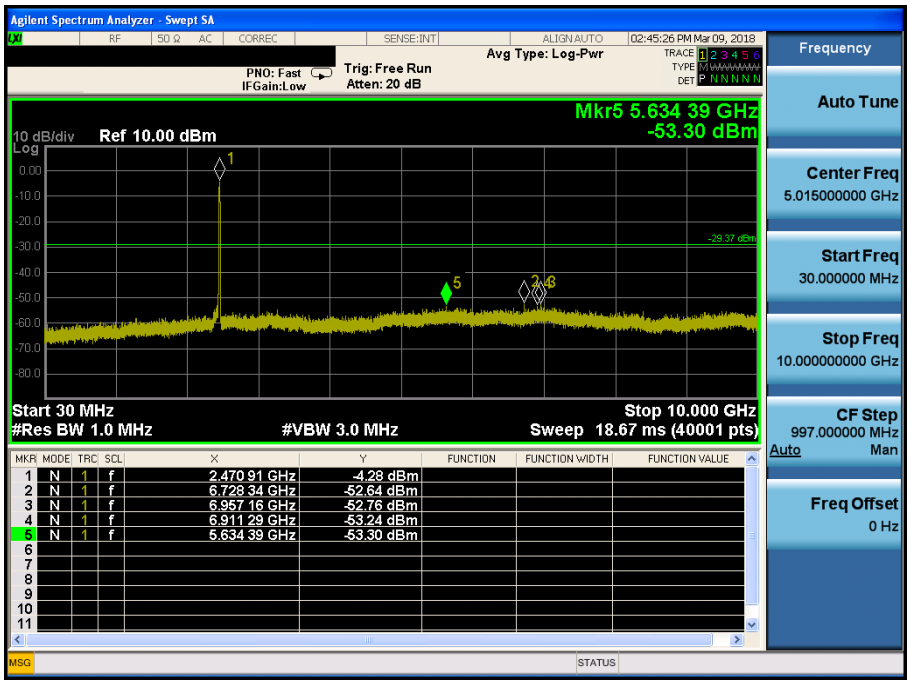


High Band-edge



Conducted Spurious Emissions





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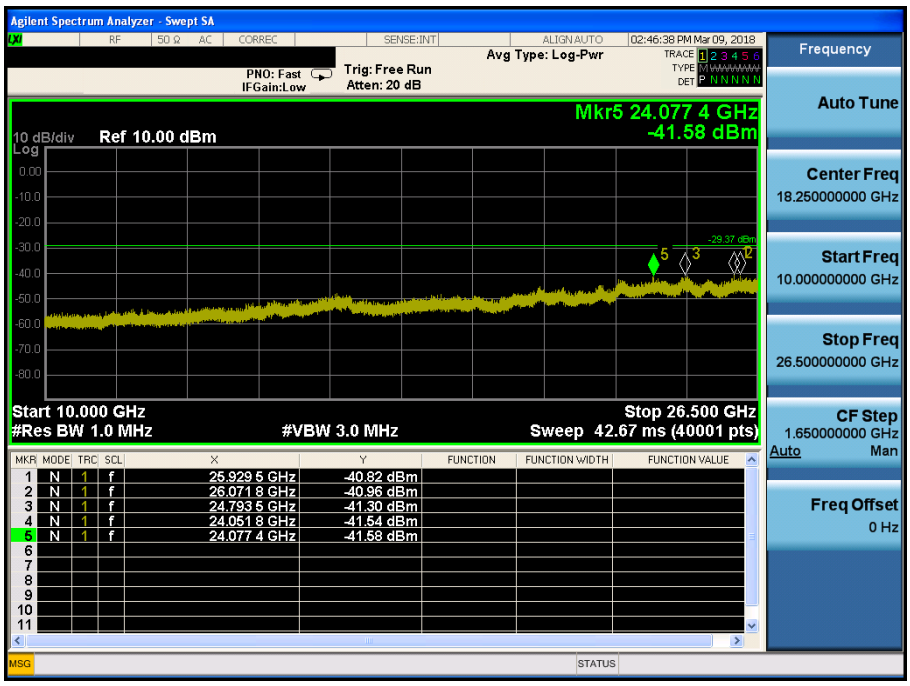
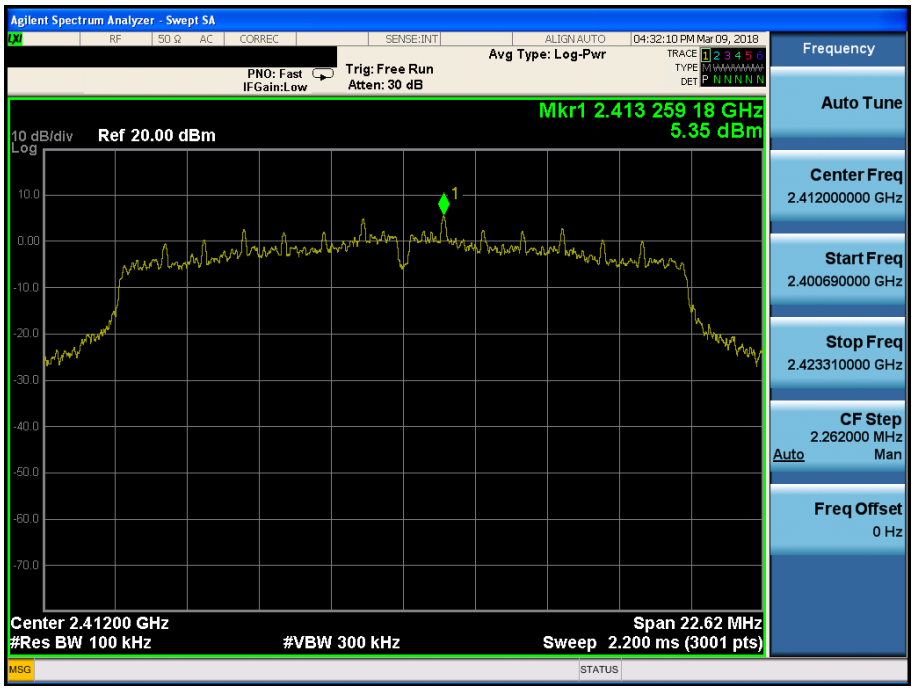
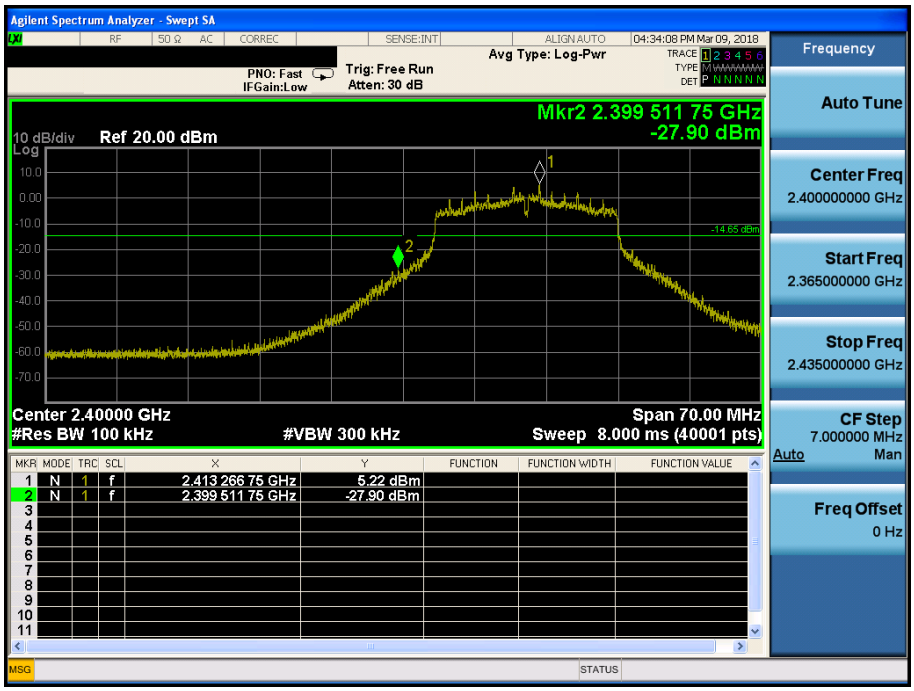


TM 8 & ANT 2 & 2412

Reference



Low Band-edge



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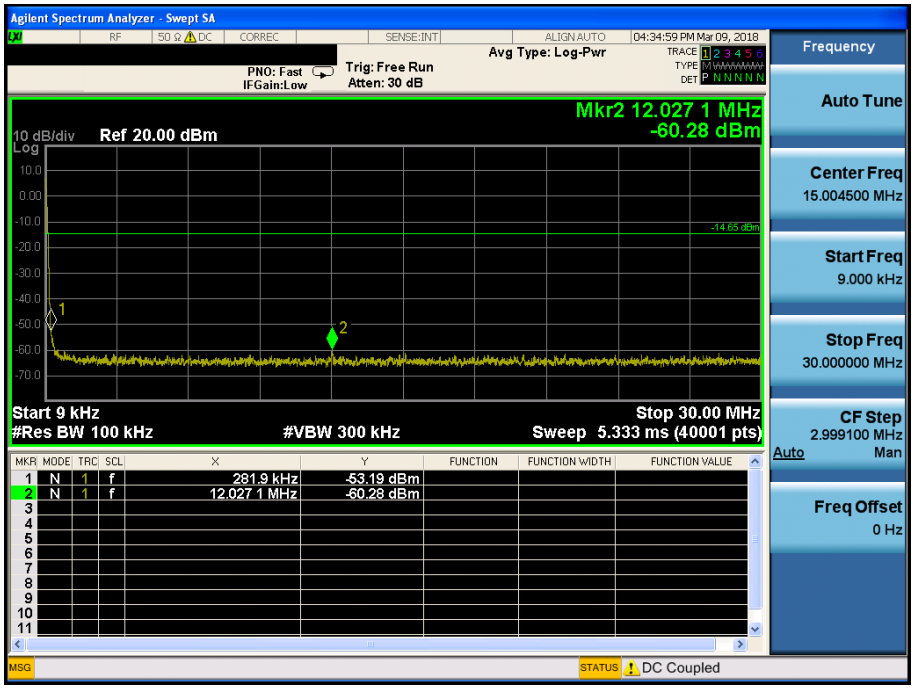

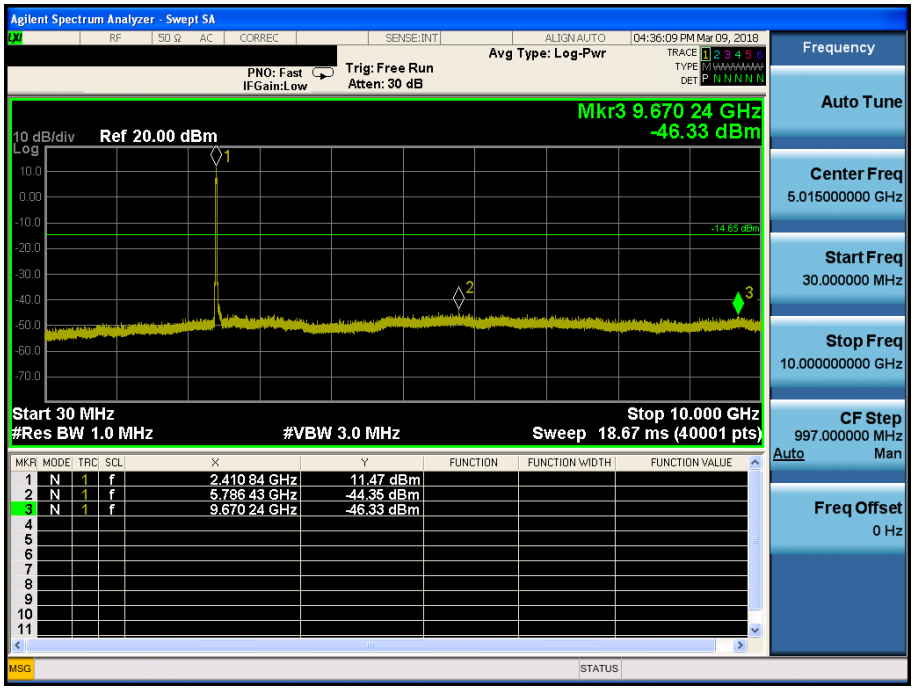

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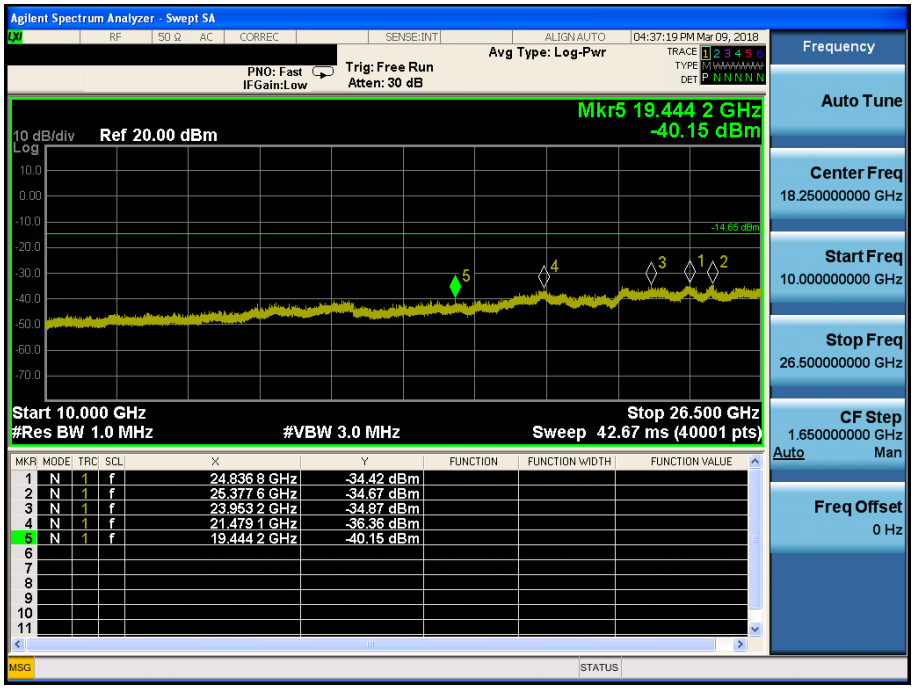
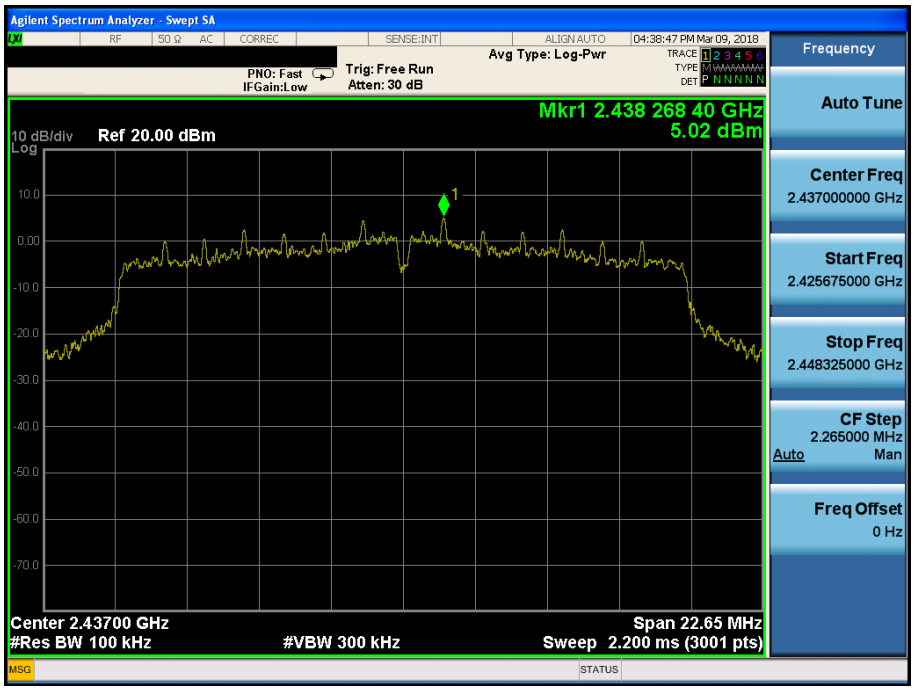
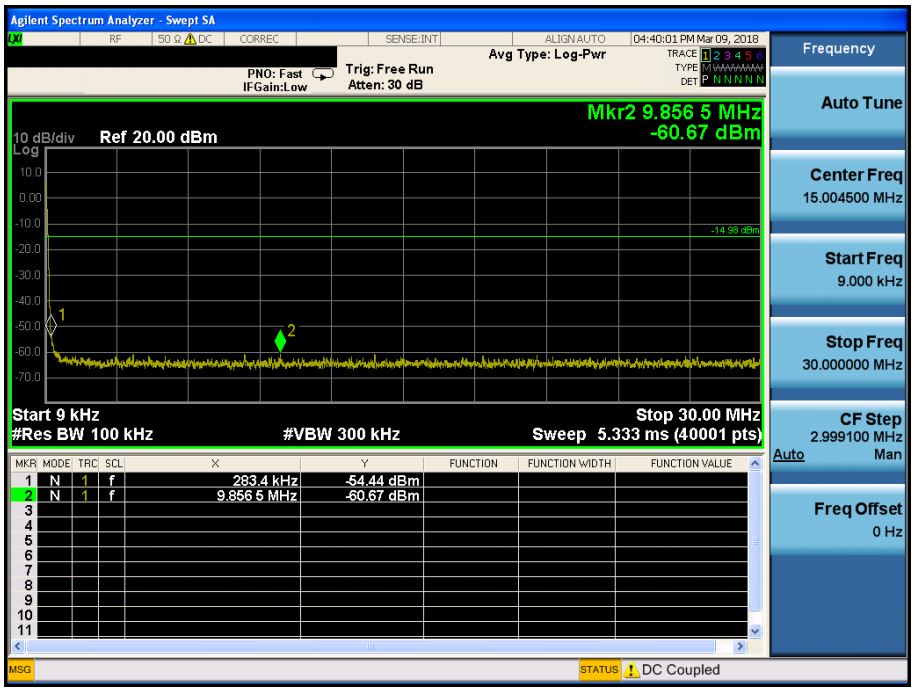


TM 8 & ANT 2 & 2437

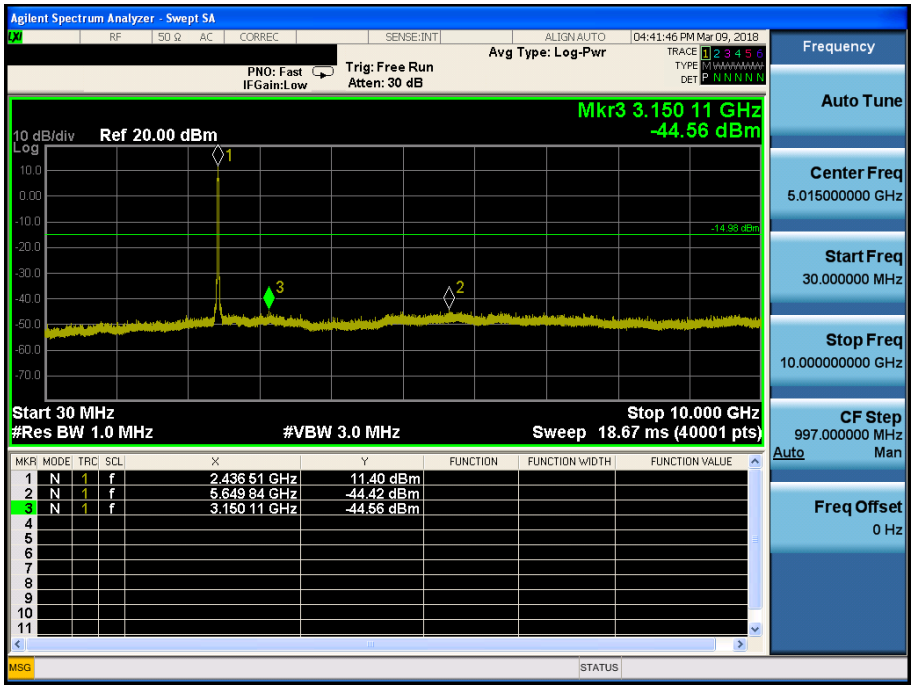
Reference

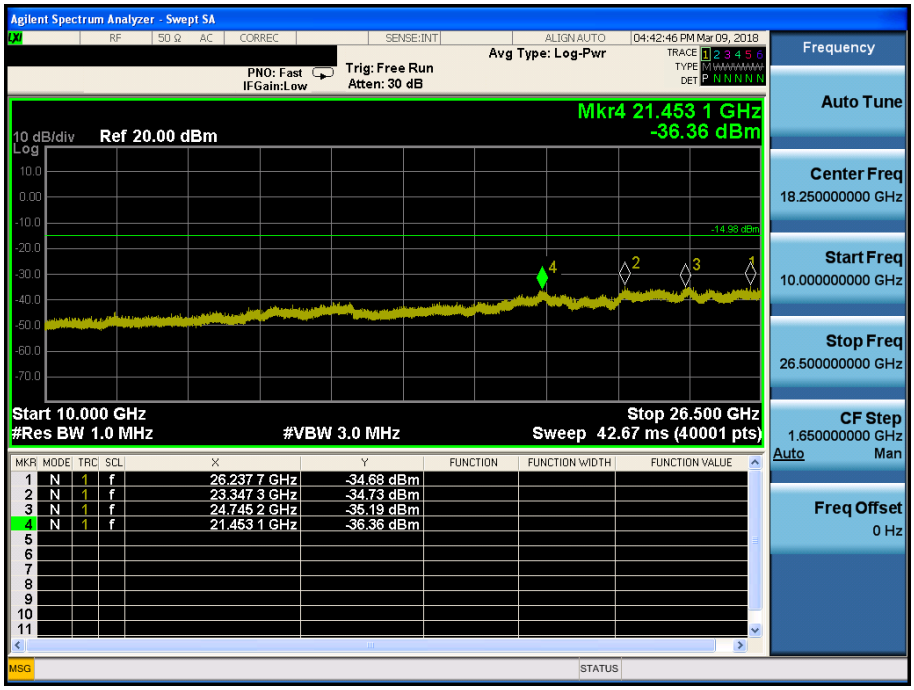


Conducted Spurious Emissions



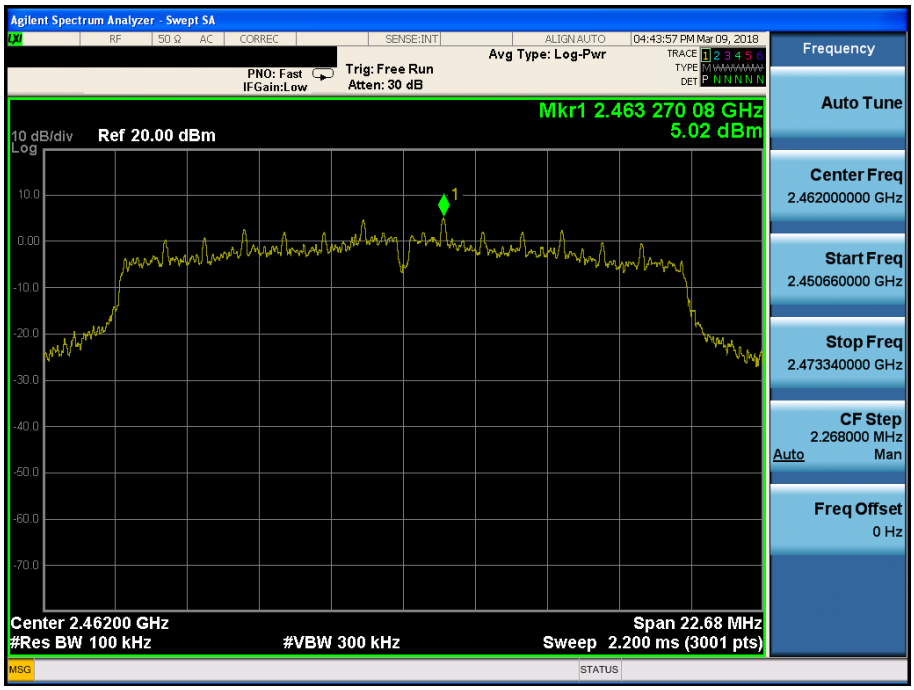
Conducted Spurious Emissions





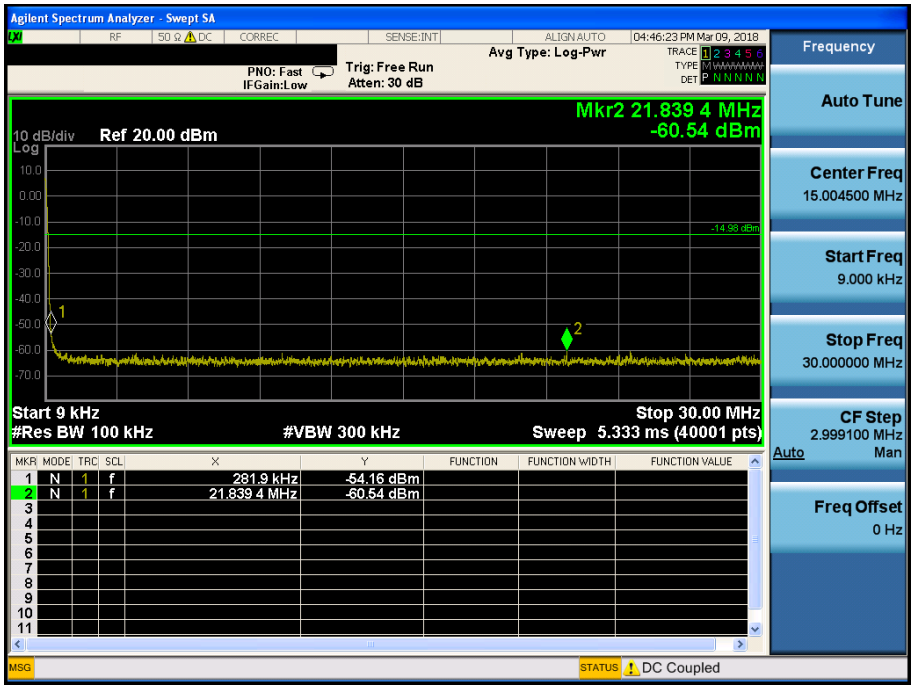
TM 8 & ANT 2 & 2462

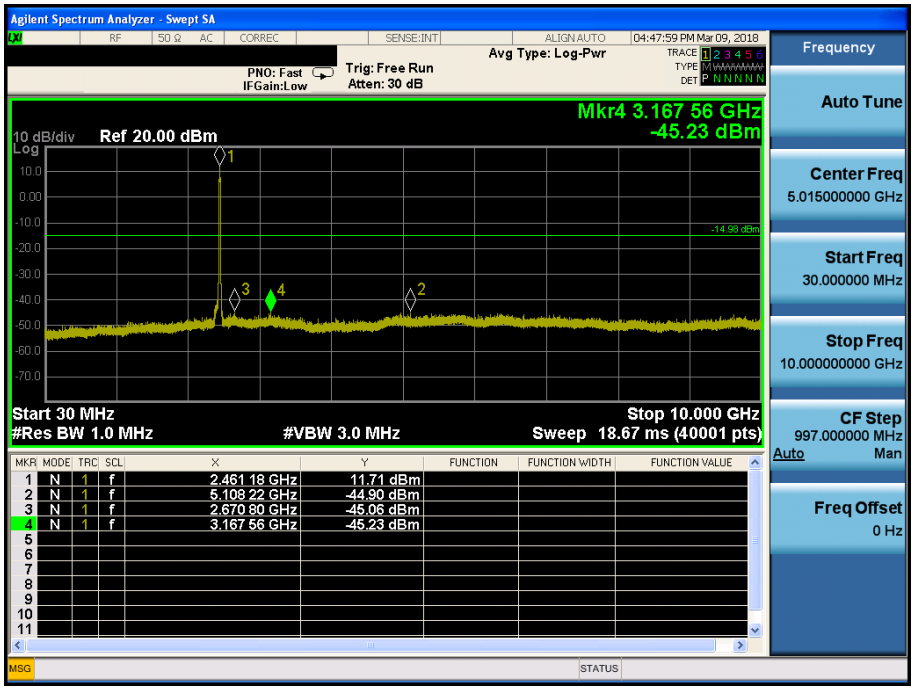
Reference



High Band-edge

Conducted Spurious Emissions





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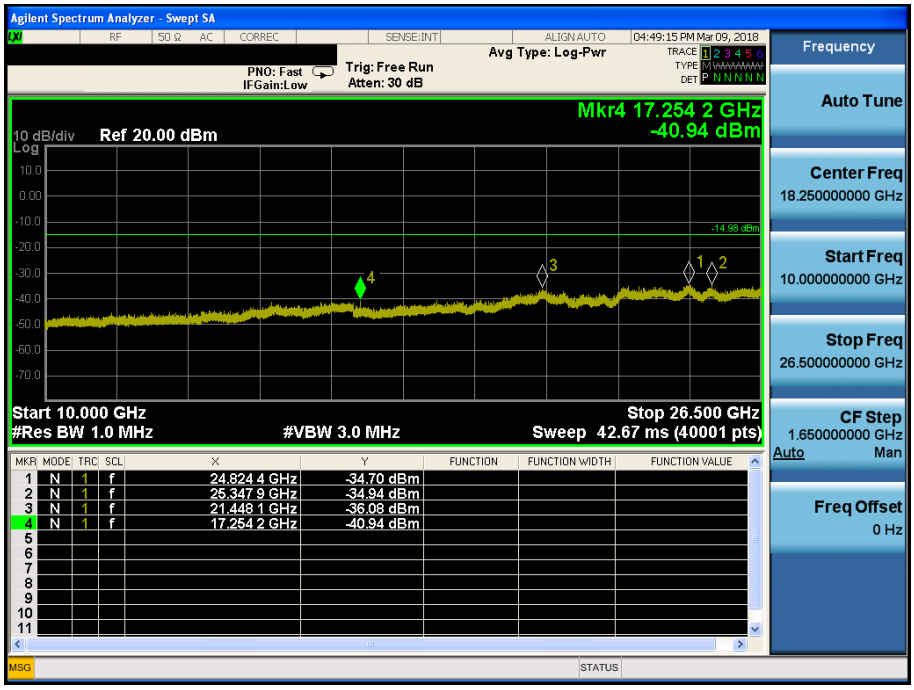

TM 8 & ANT 2 & 2472

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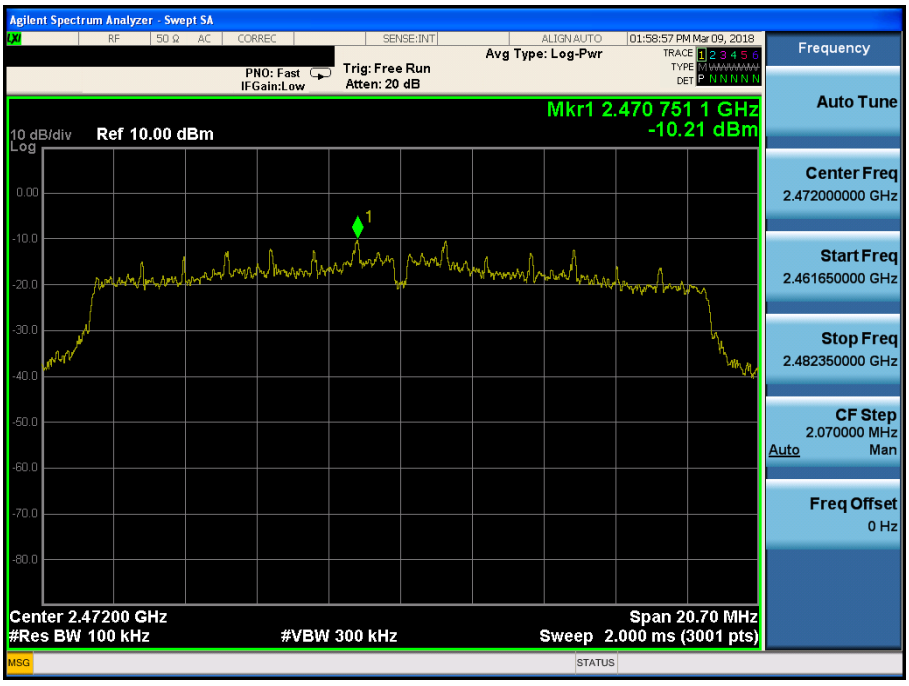
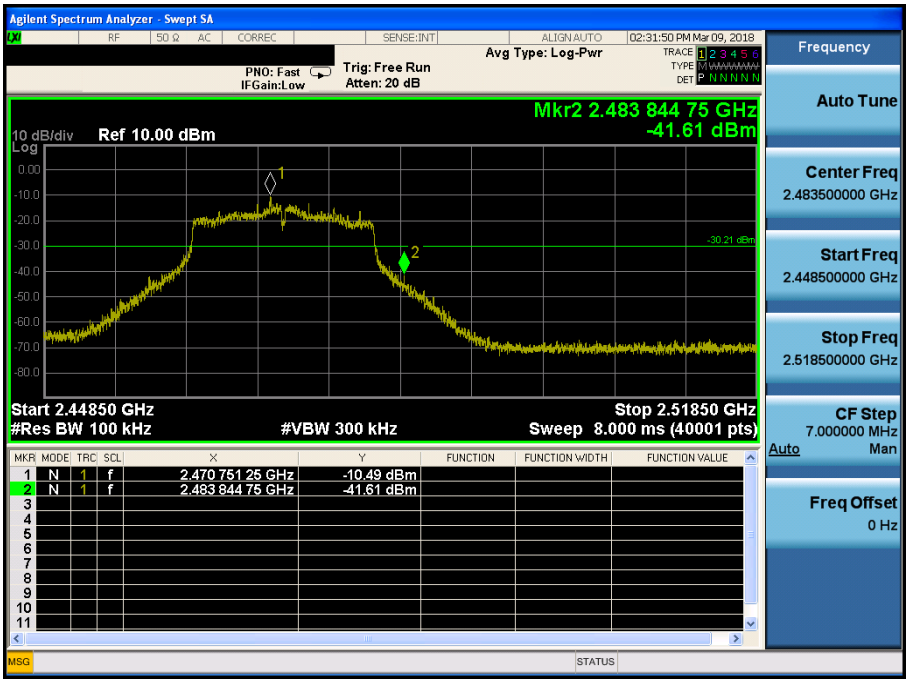
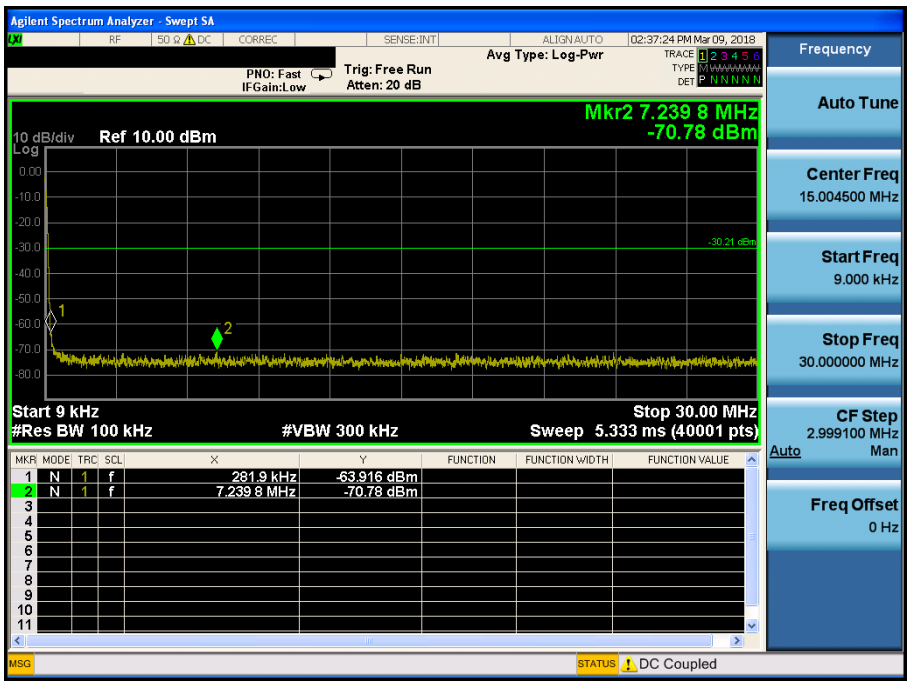
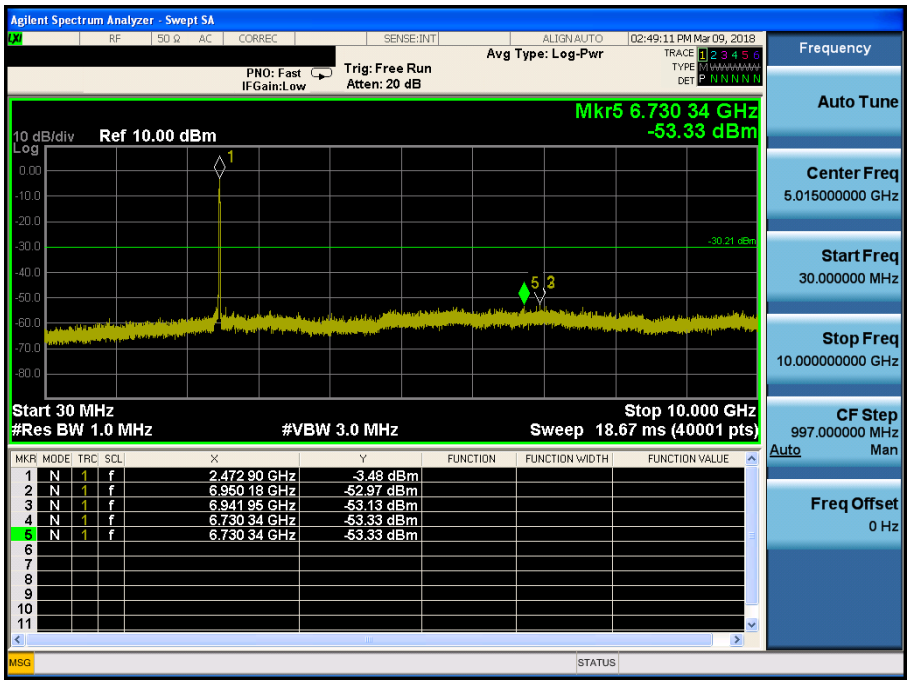


High Band-edge

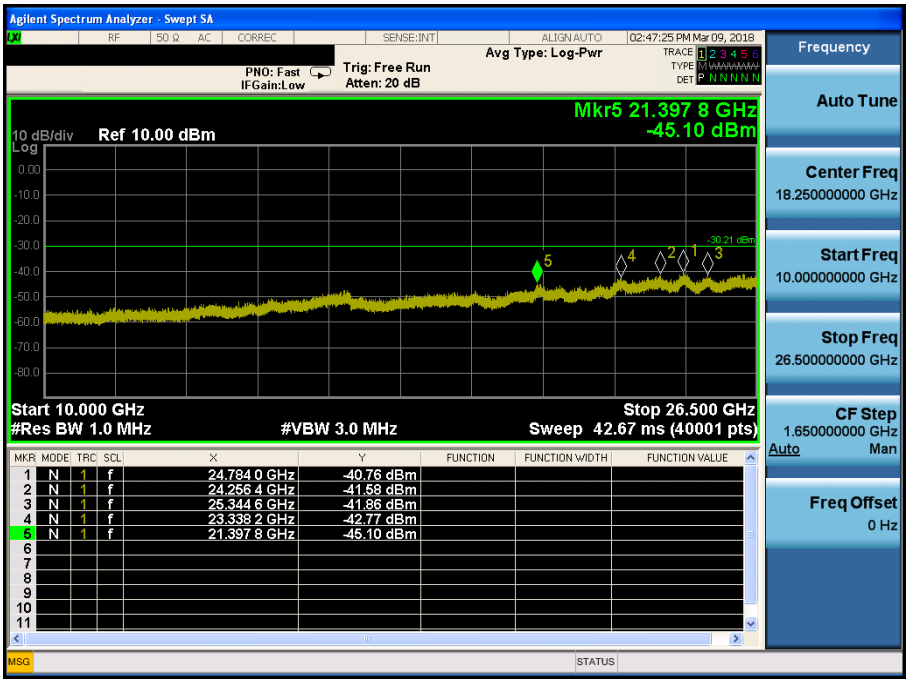


Conducted Spurious Emissions



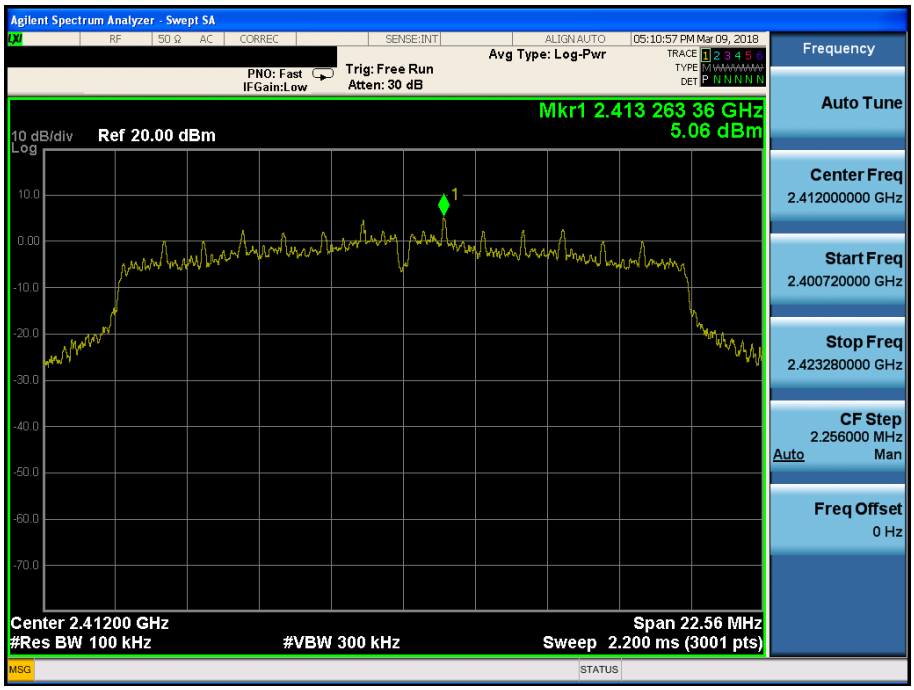


Conducted Spurious Emissions

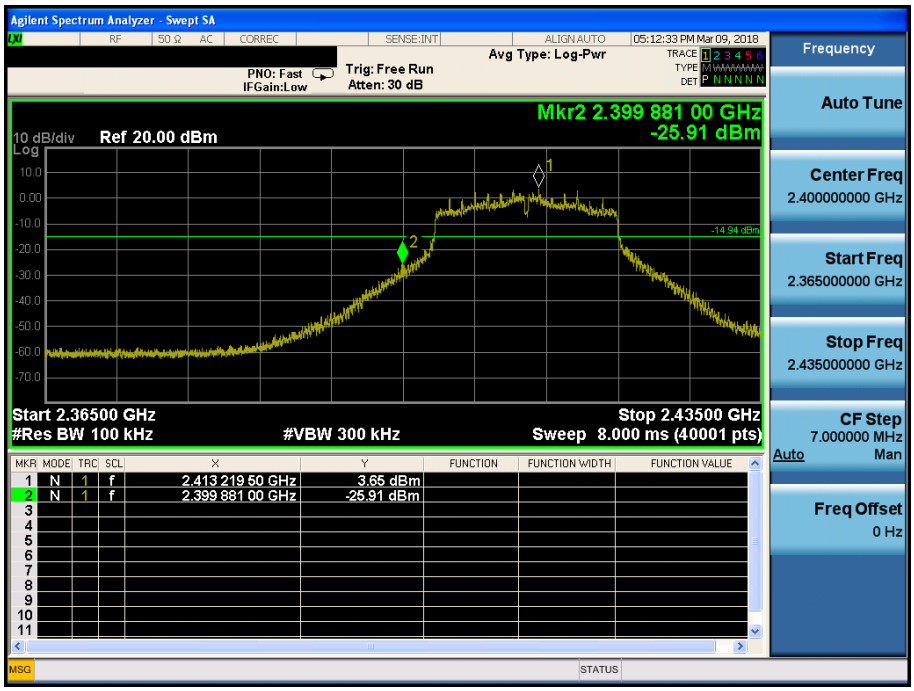


TM 9 & ANT 2 & 2412

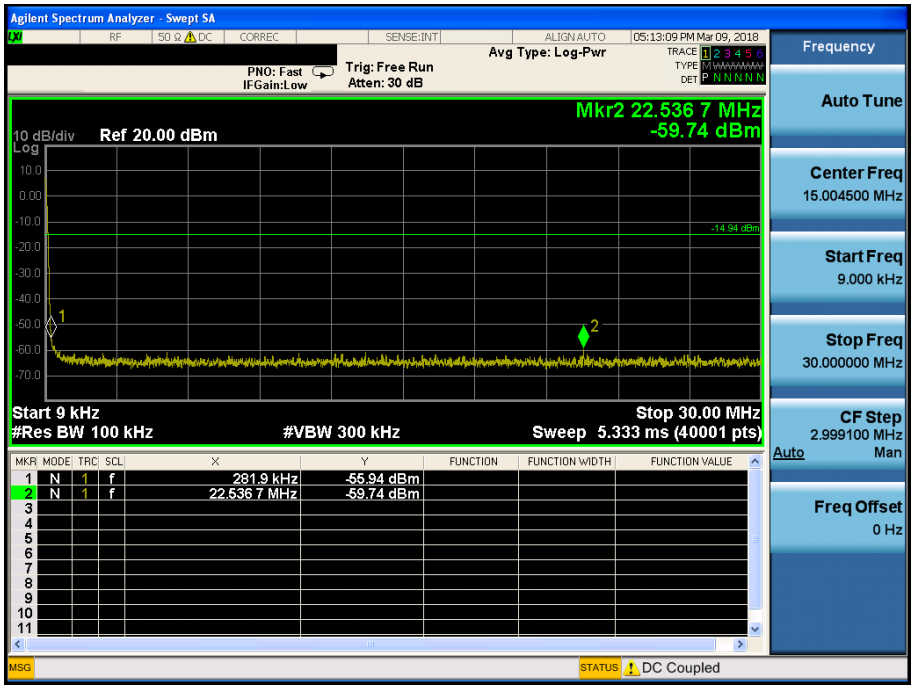
Reference

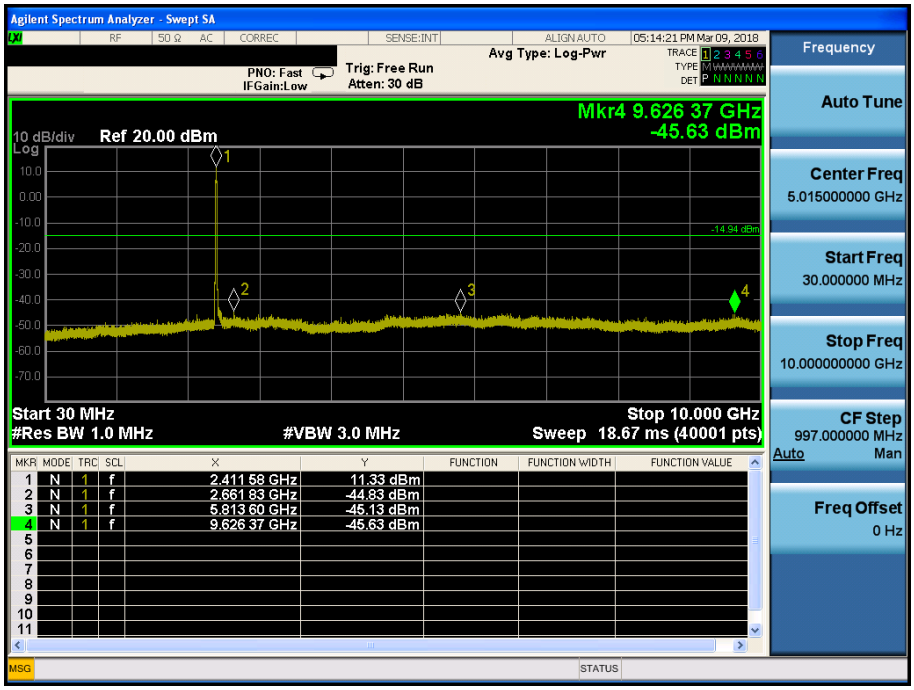


Low Band-edge



Conducted Spurious Emissions





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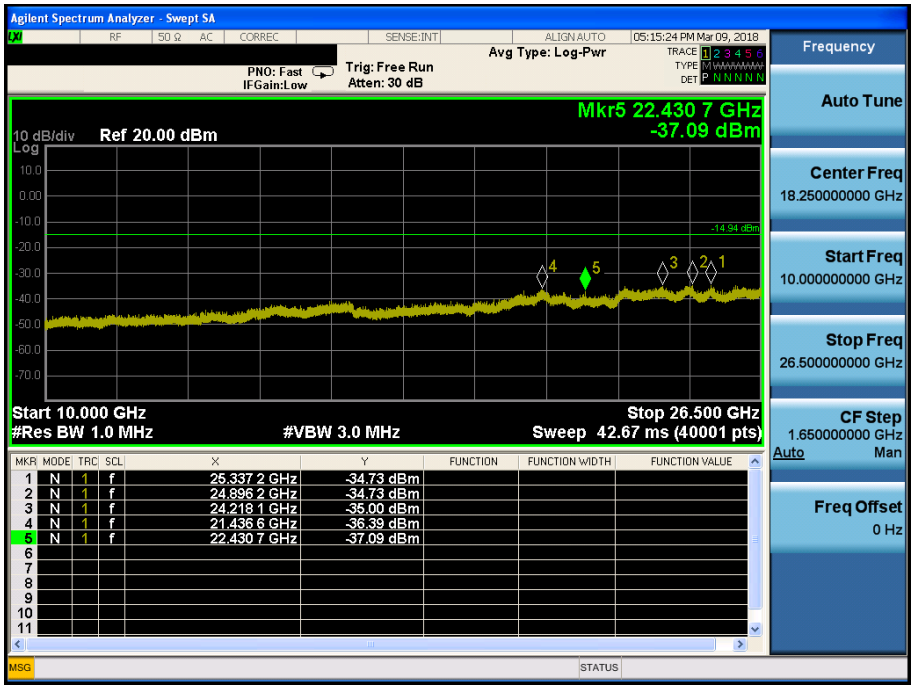
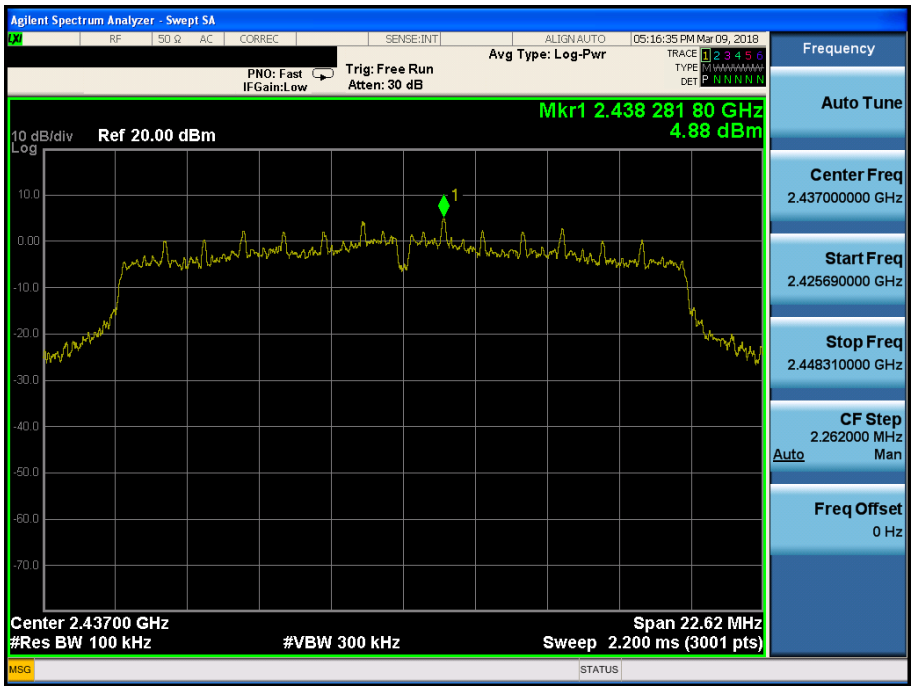


TM 9 & ANT 2 & 2437

Reference



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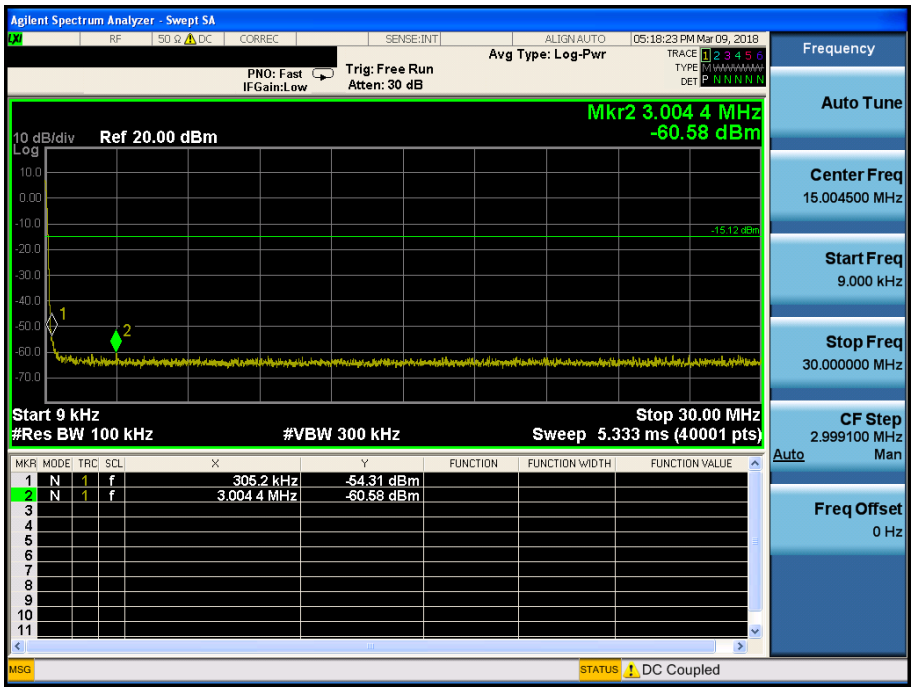

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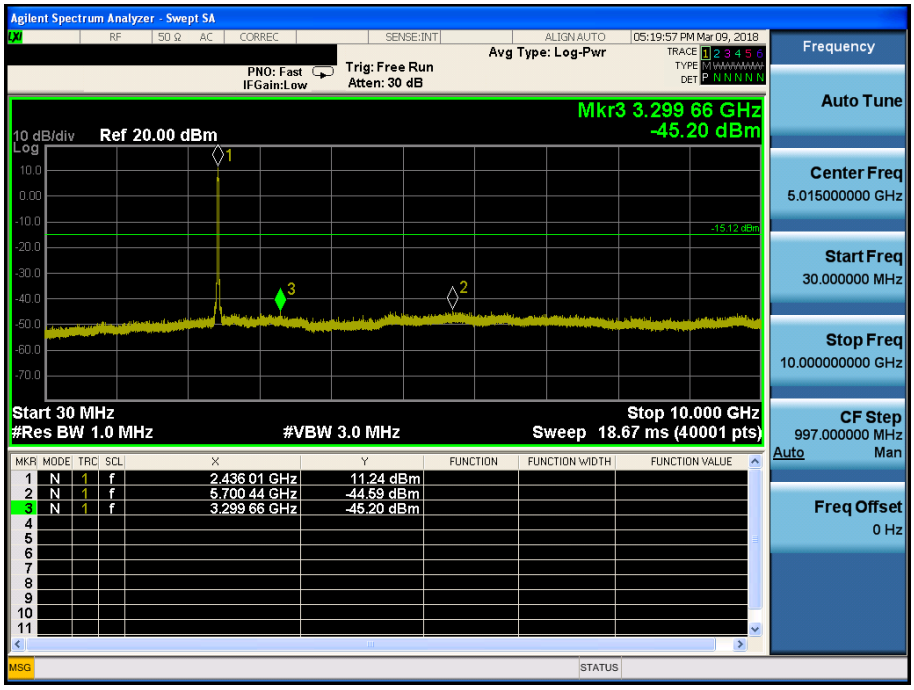
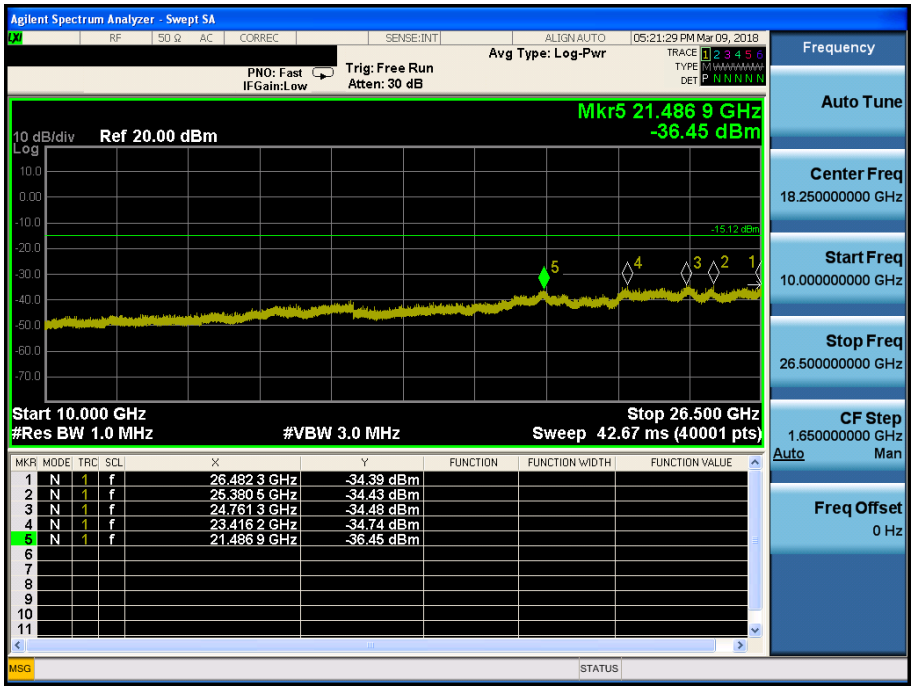
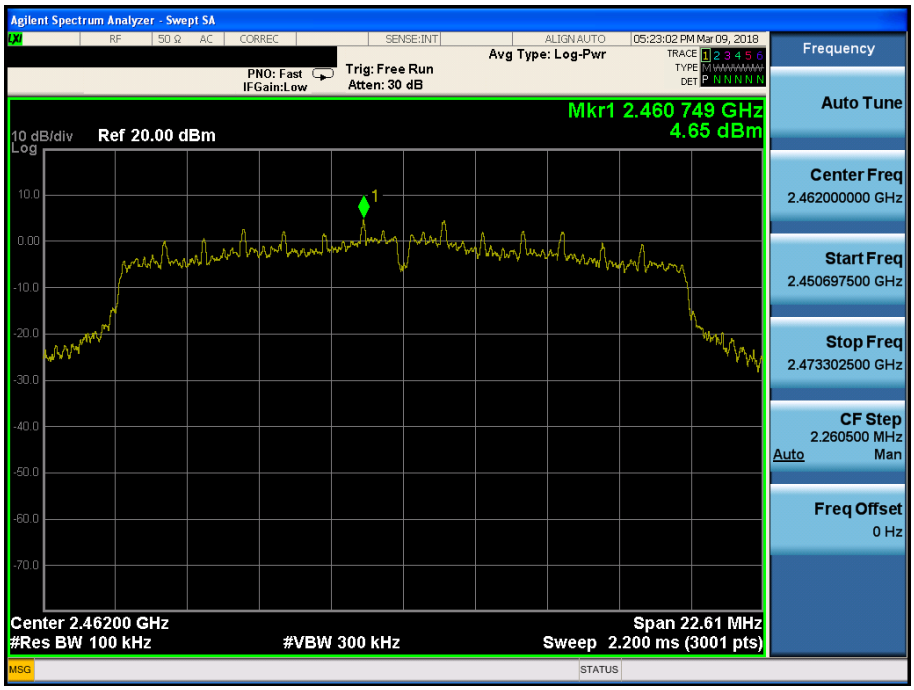




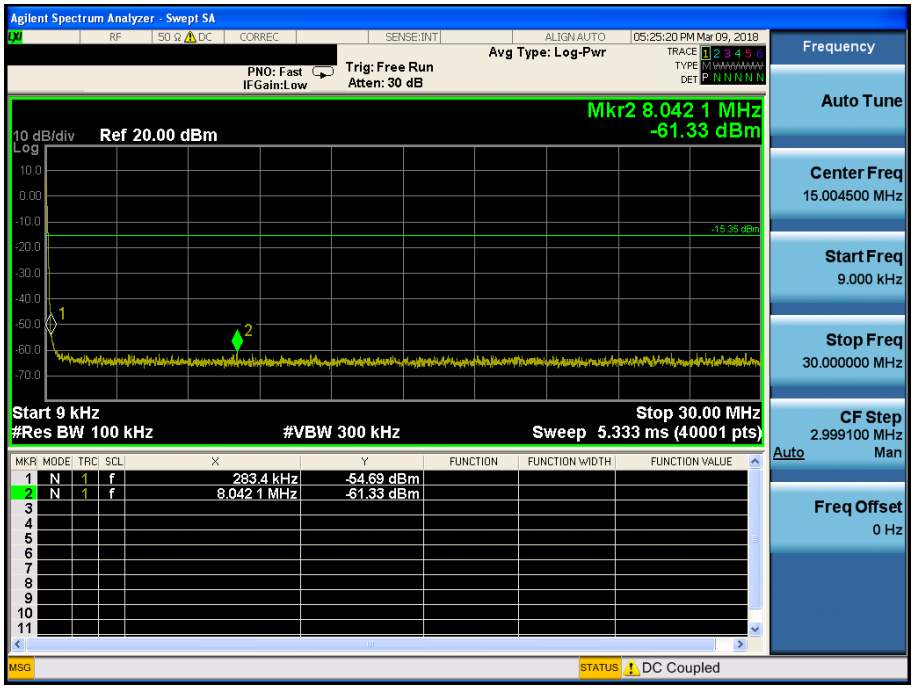
TM 9 & ANT 2 & 2462

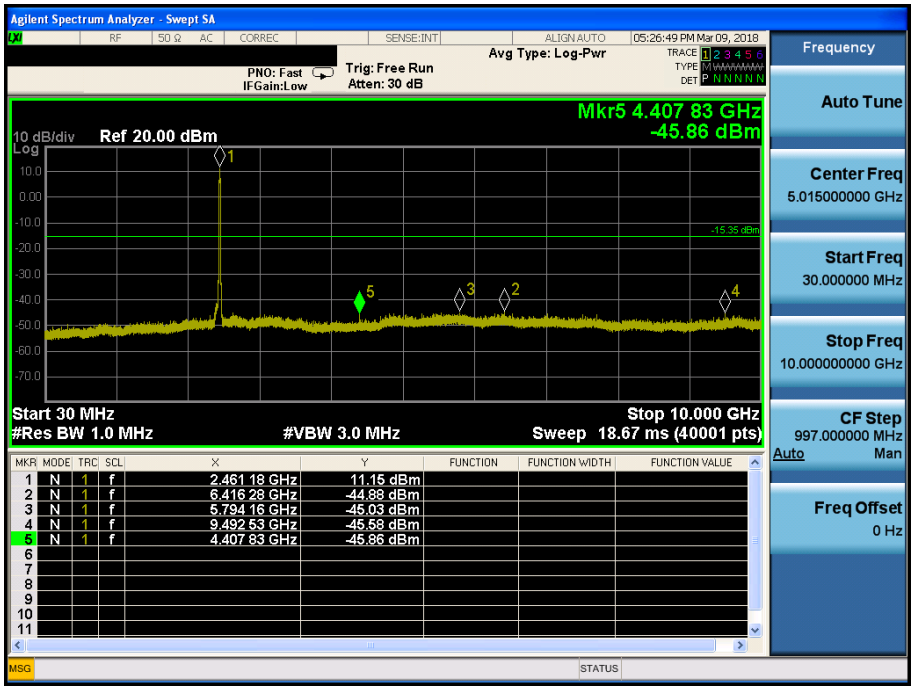
Reference



High Band-edge

Conducted Spurious Emissions





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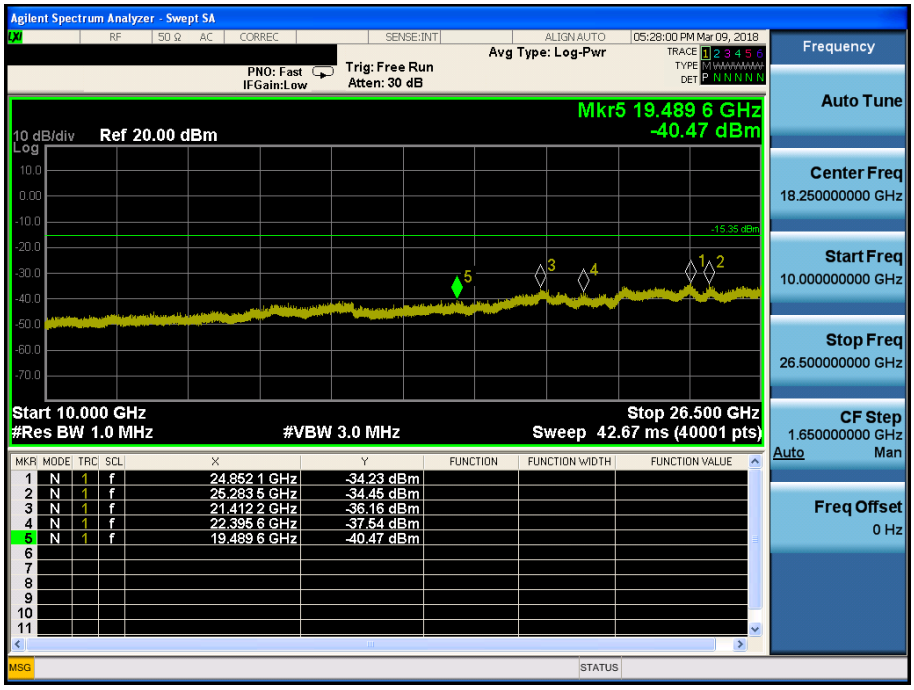
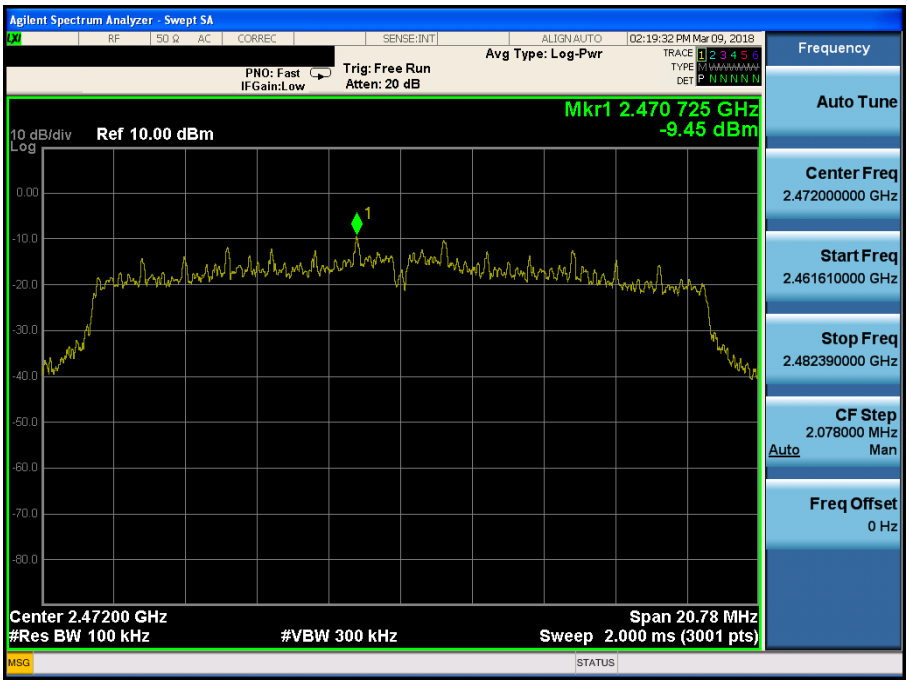
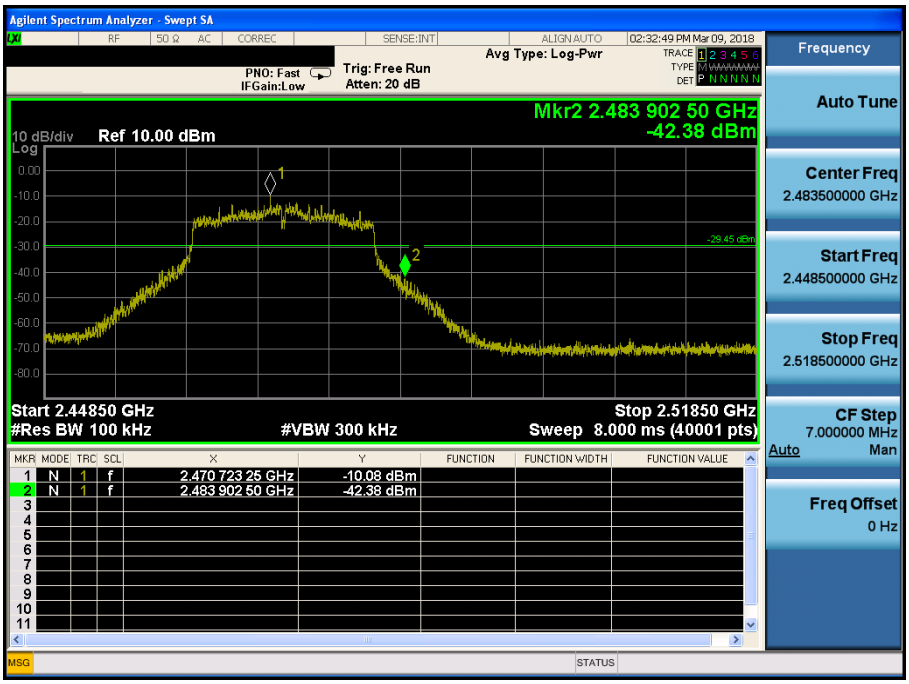


TM 9 & ANT 2 & 2472

Reference



High Band-edge



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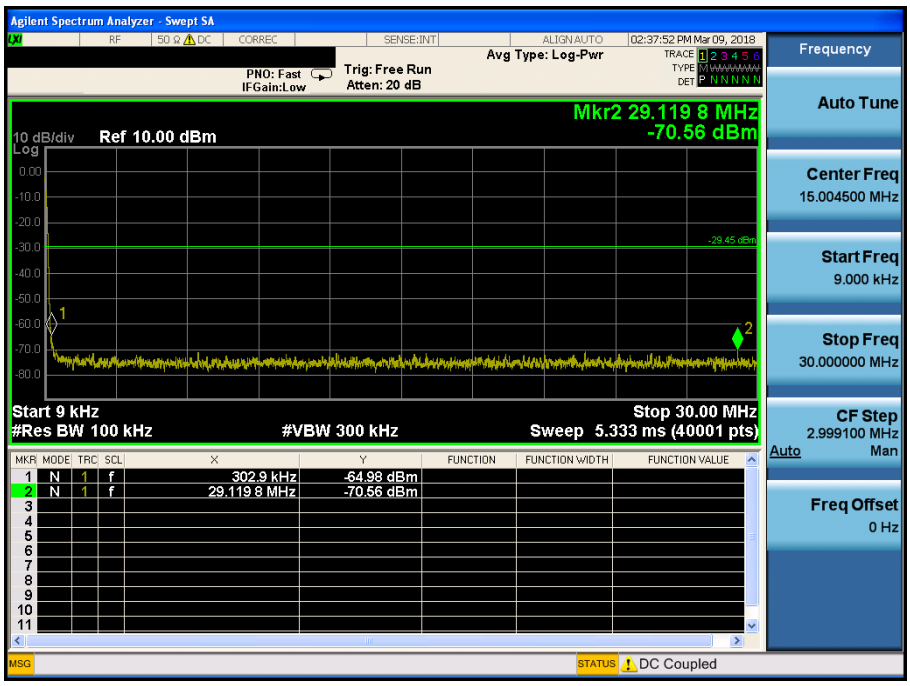

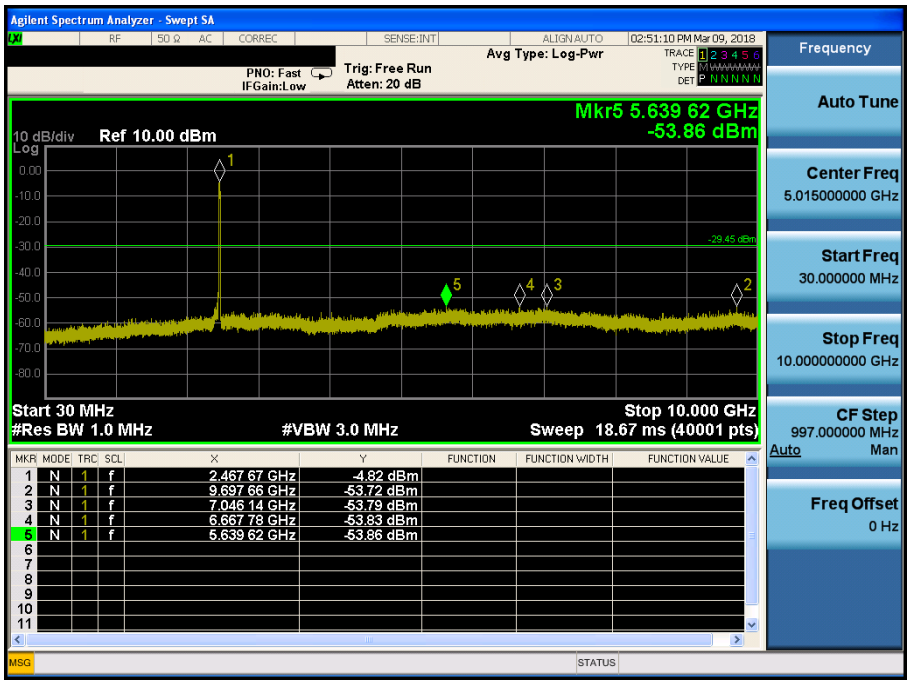

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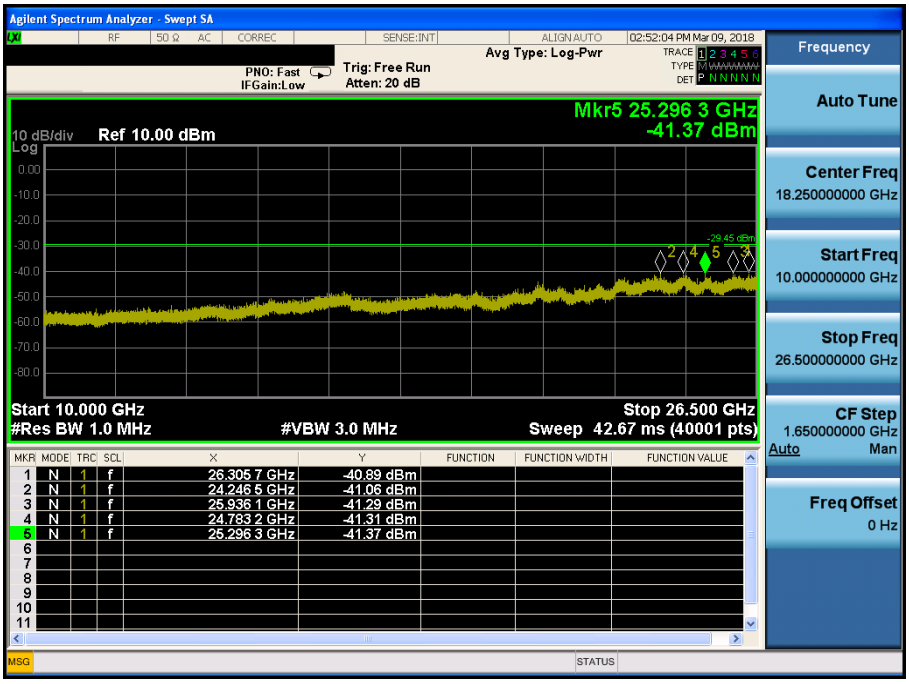
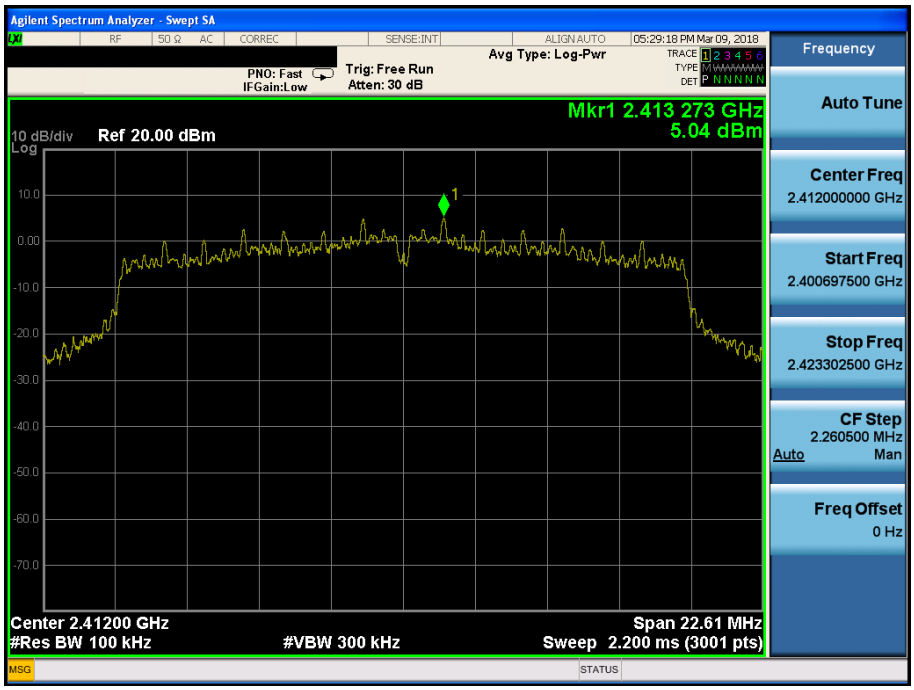
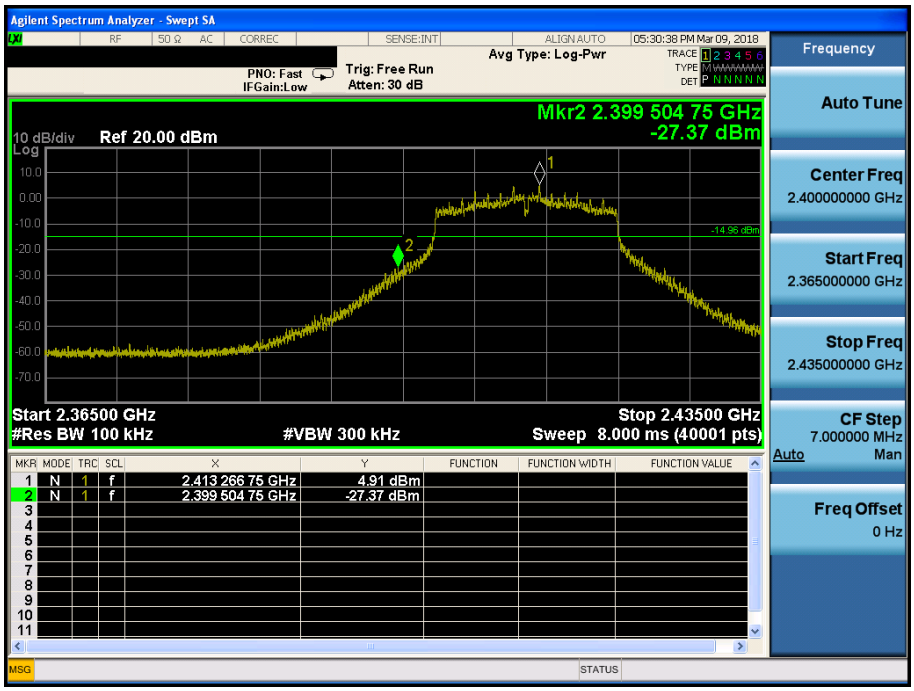


TM 10 & ANT 2 & 2412

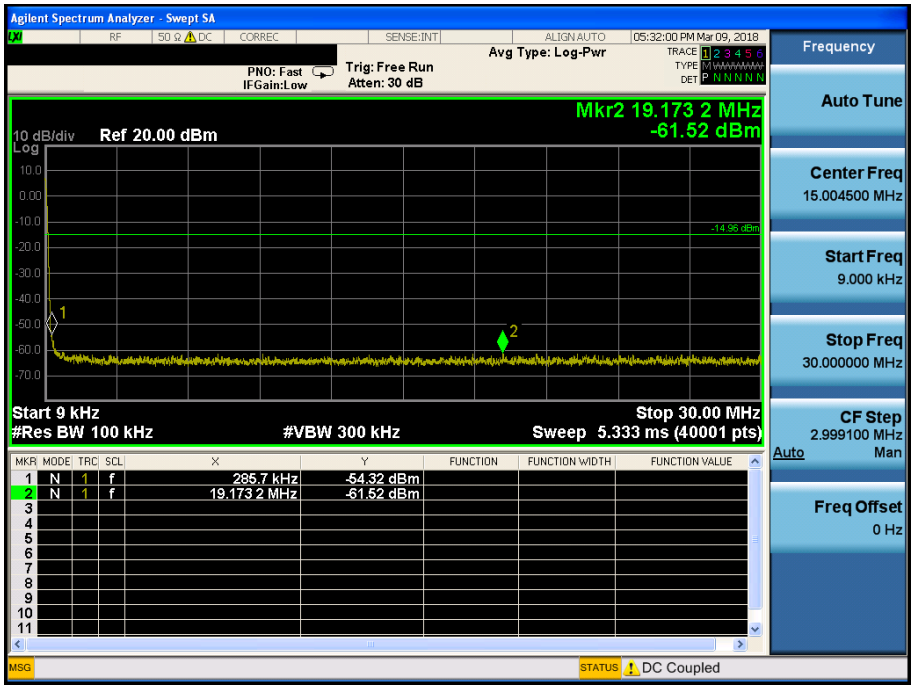
Reference

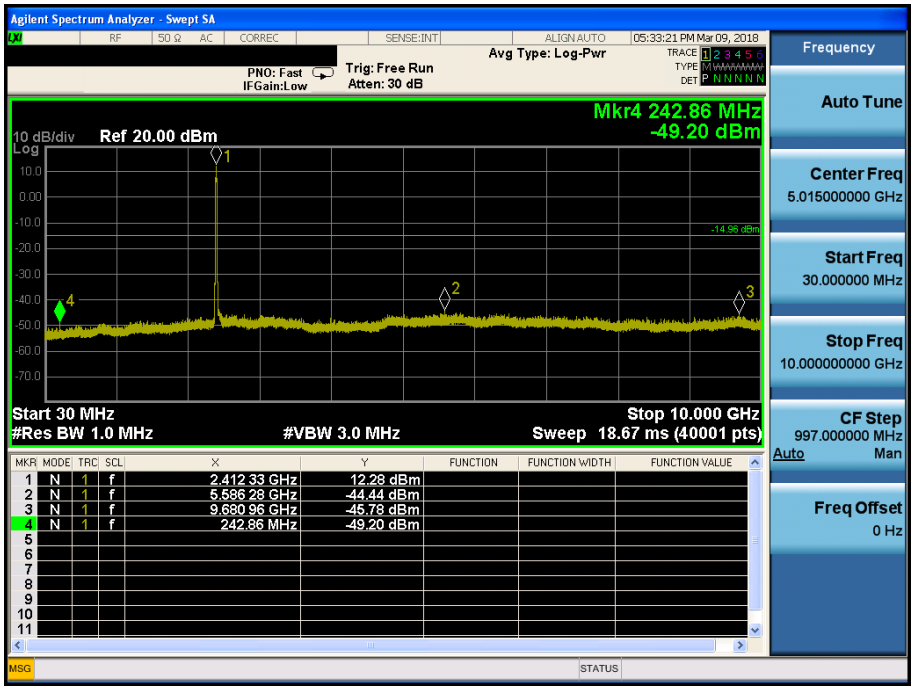


Low Band-edge

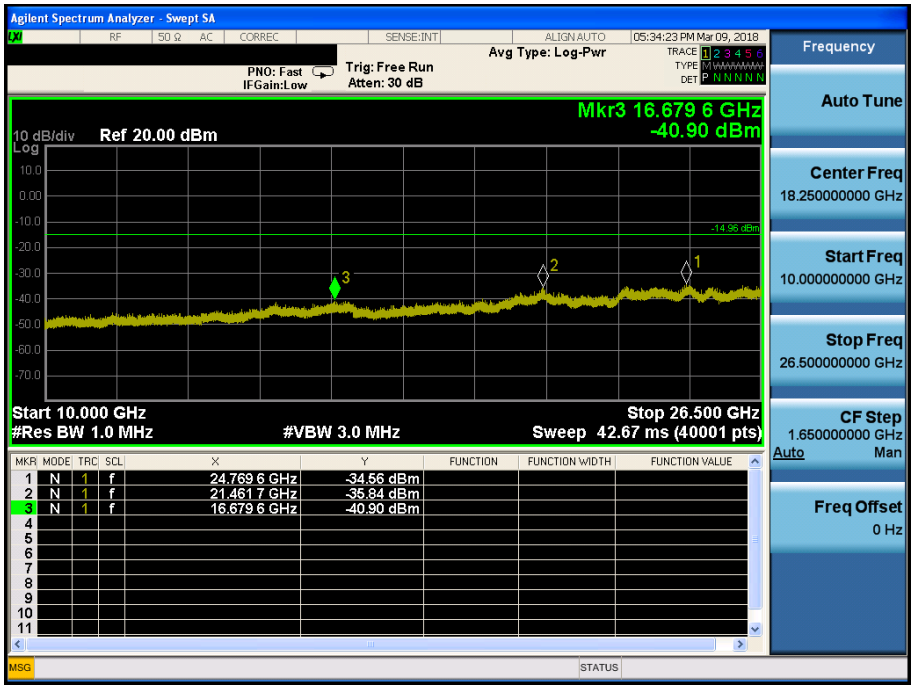


Conducted Spurious Emissions



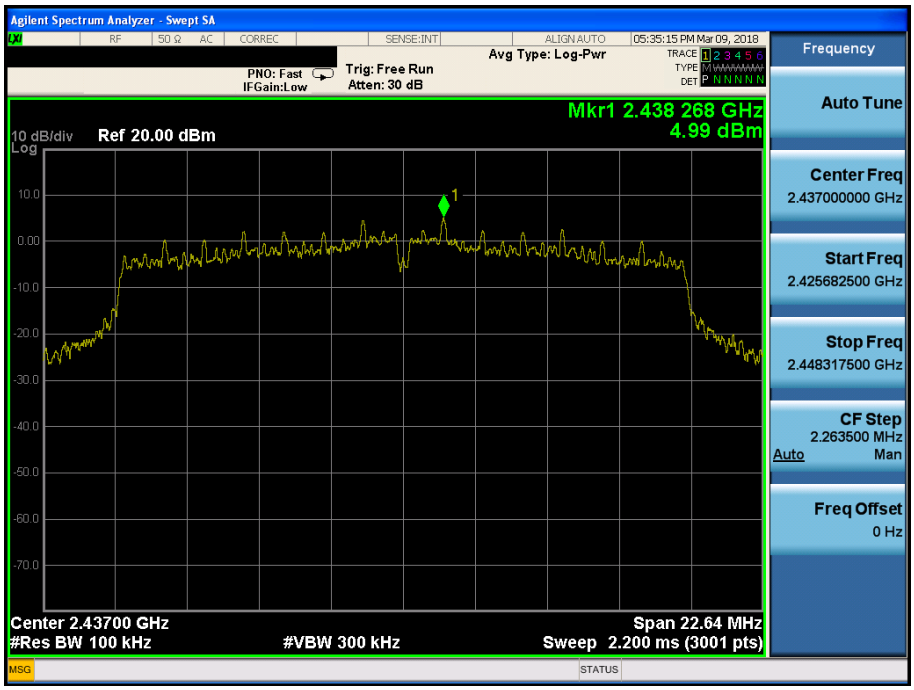


Conducted Spurious Emissions

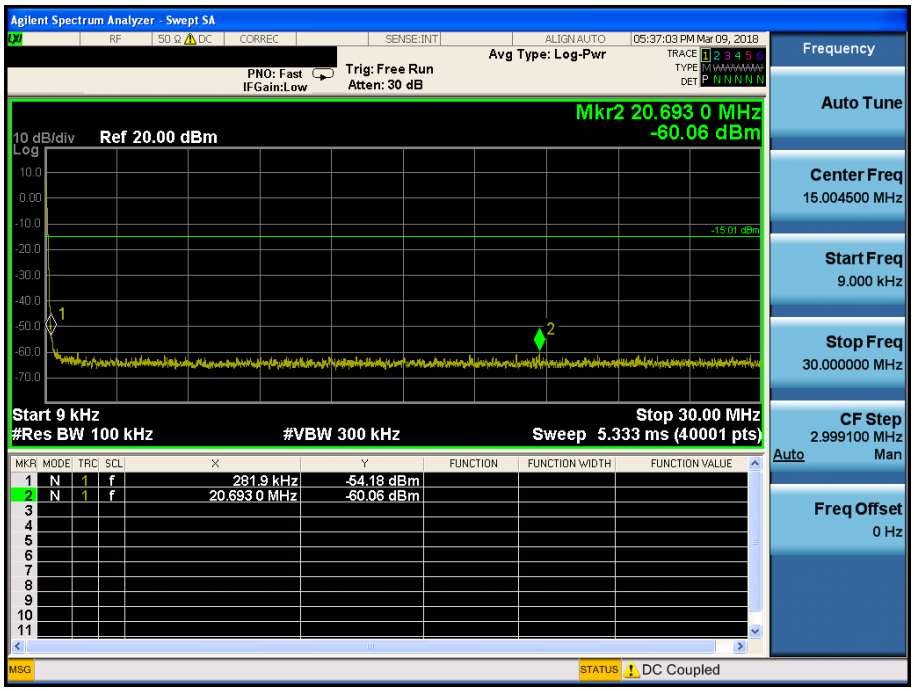


TM 10 & ANT 2 & 2437

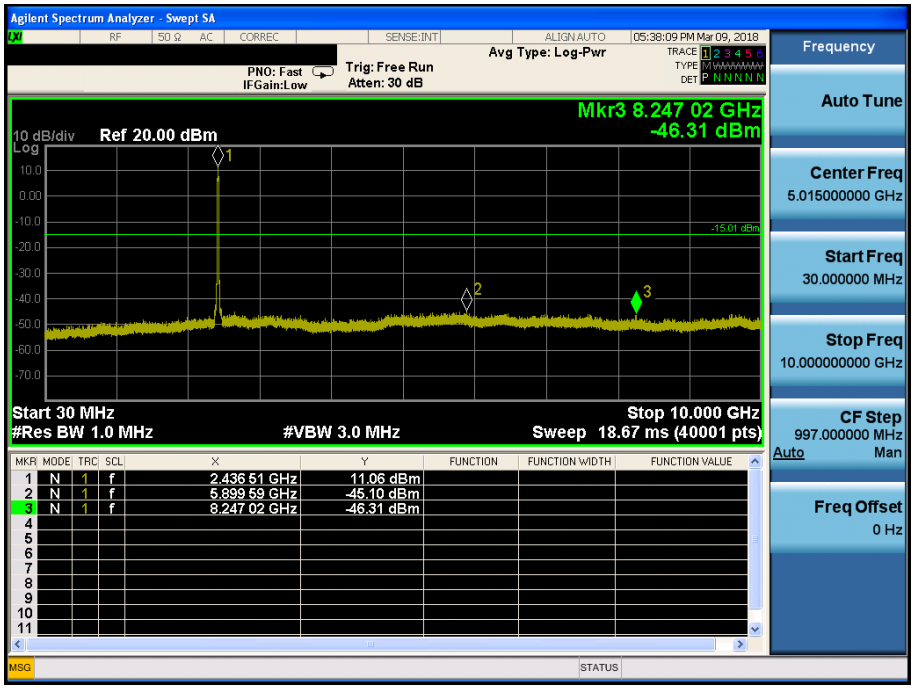
Reference

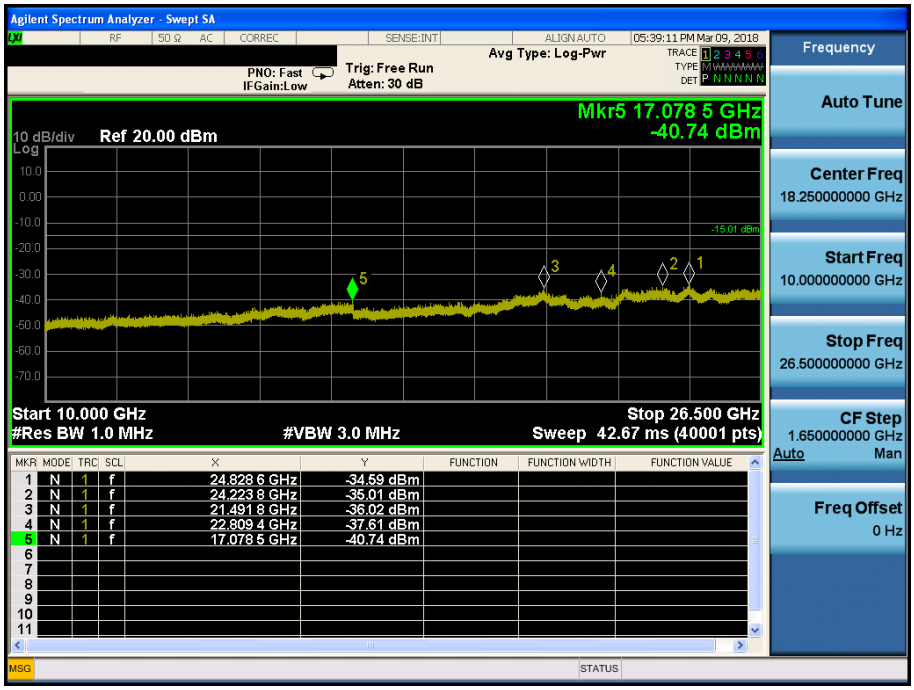


Conducted Spurious Emissions



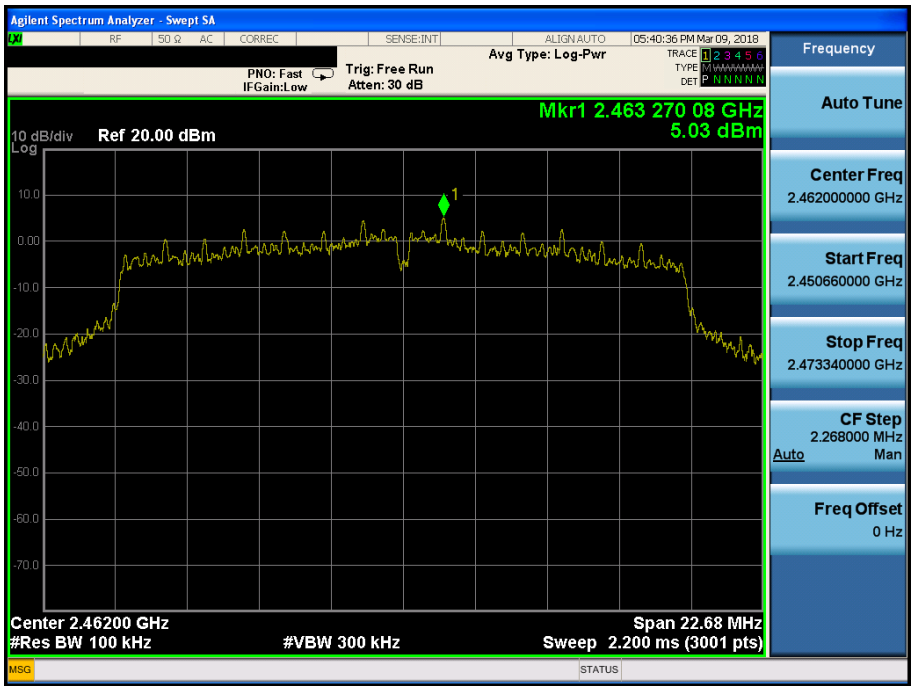
Conducted Spurious Emissions



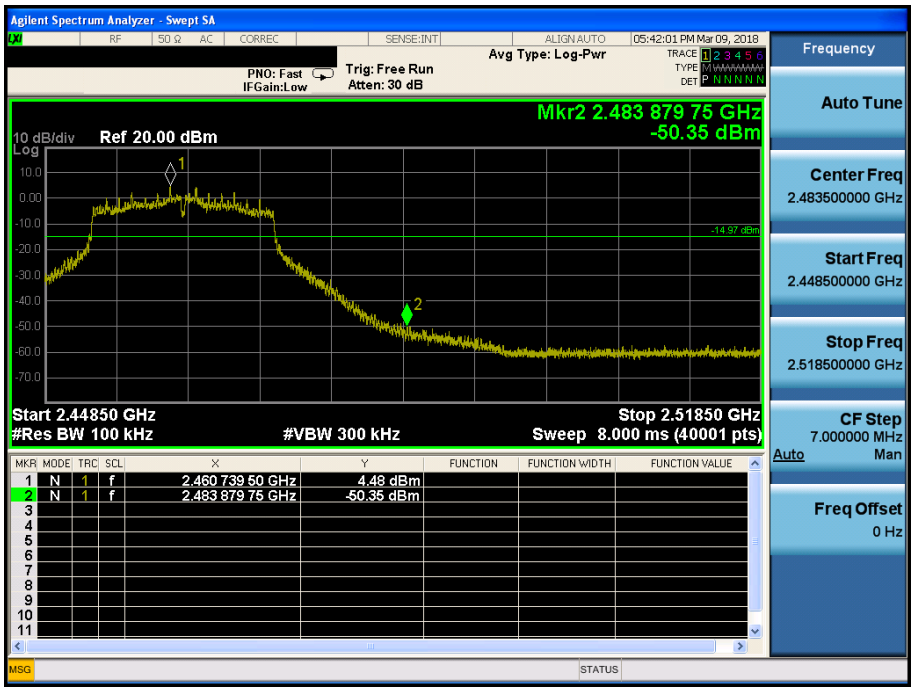


TM 10 & ANT 2 & 2462

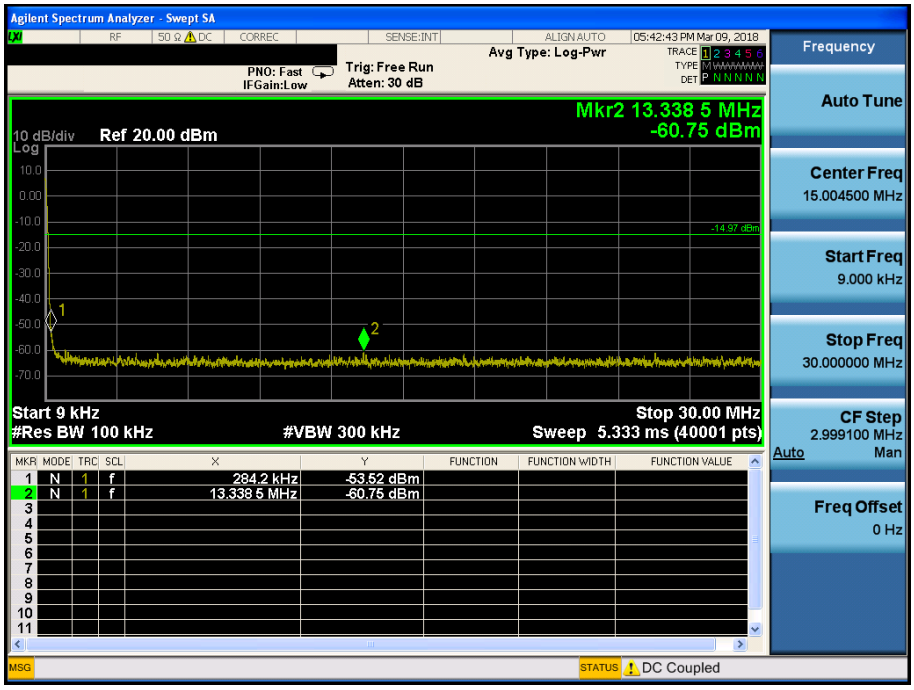
Reference

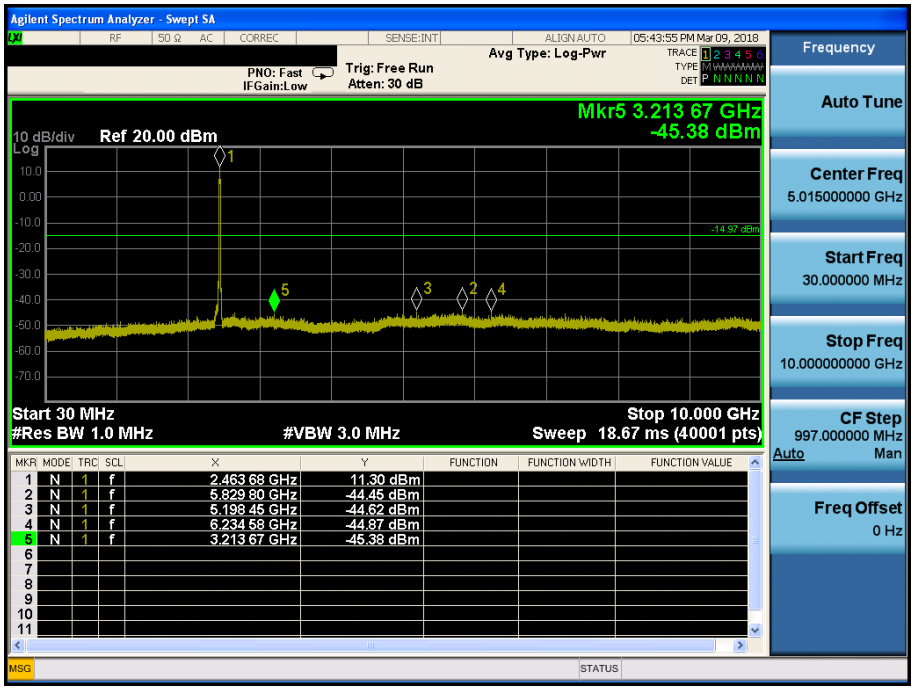


High Band-edge



Conducted Spurious Emissions





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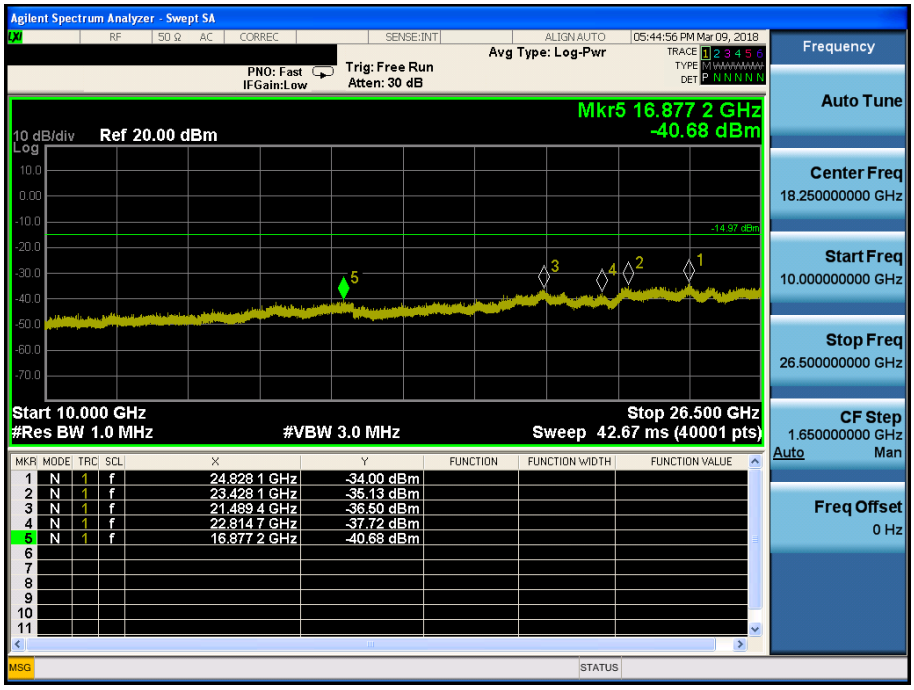
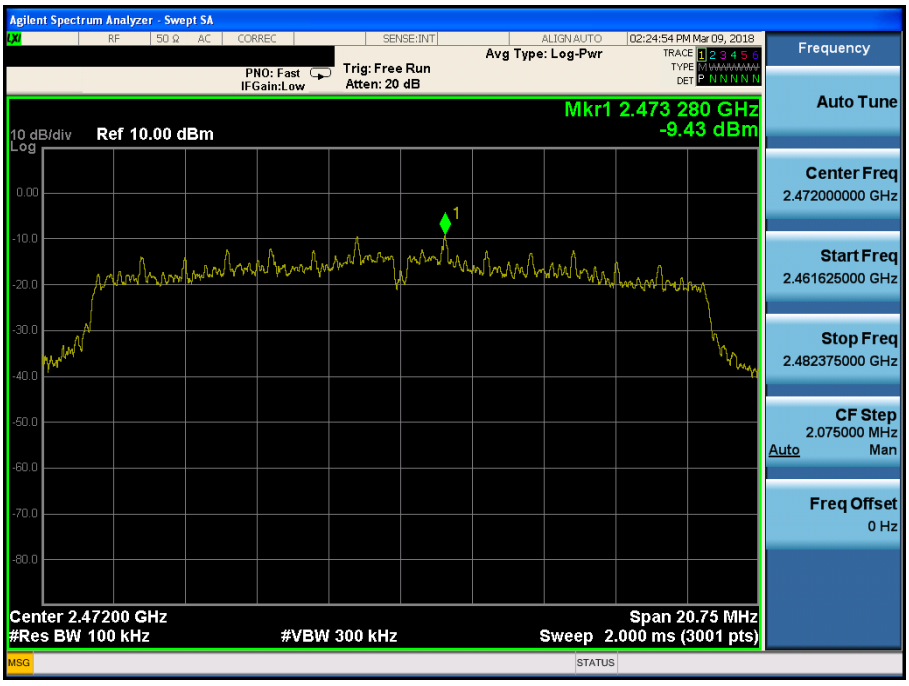
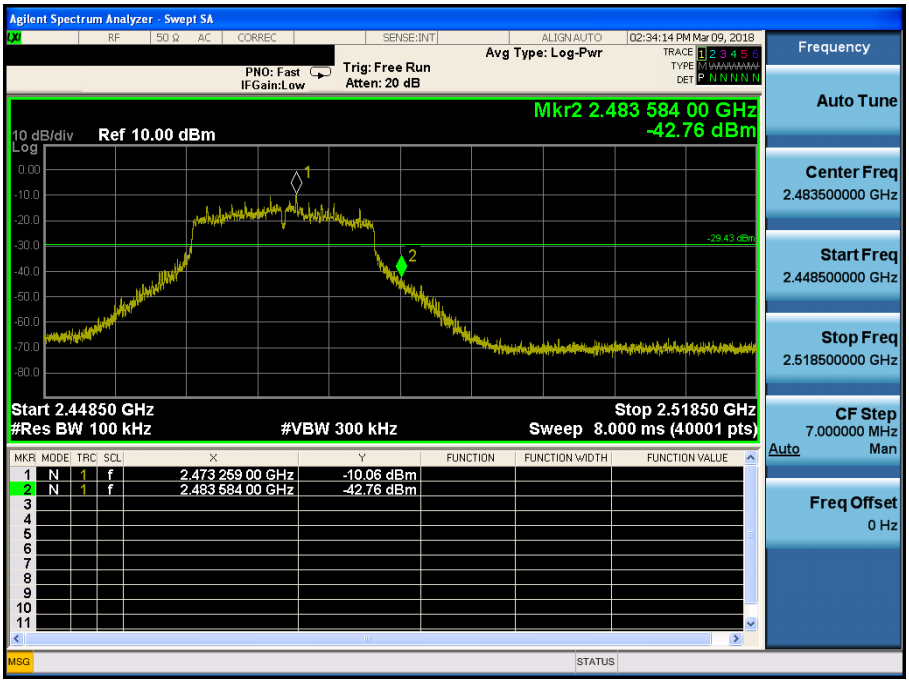


TM 10 & ANT 2 & 2472

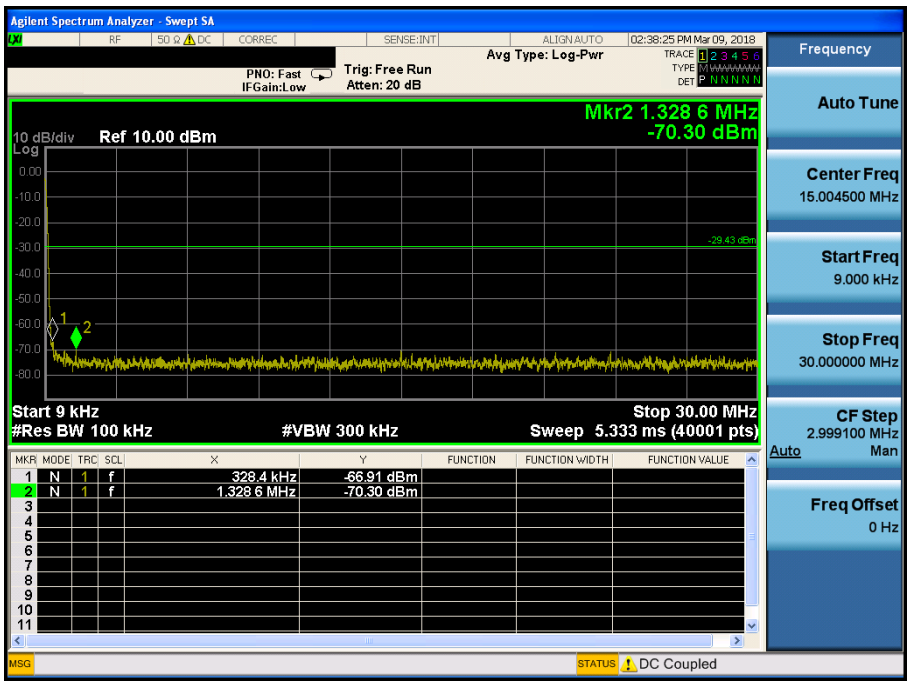
Reference

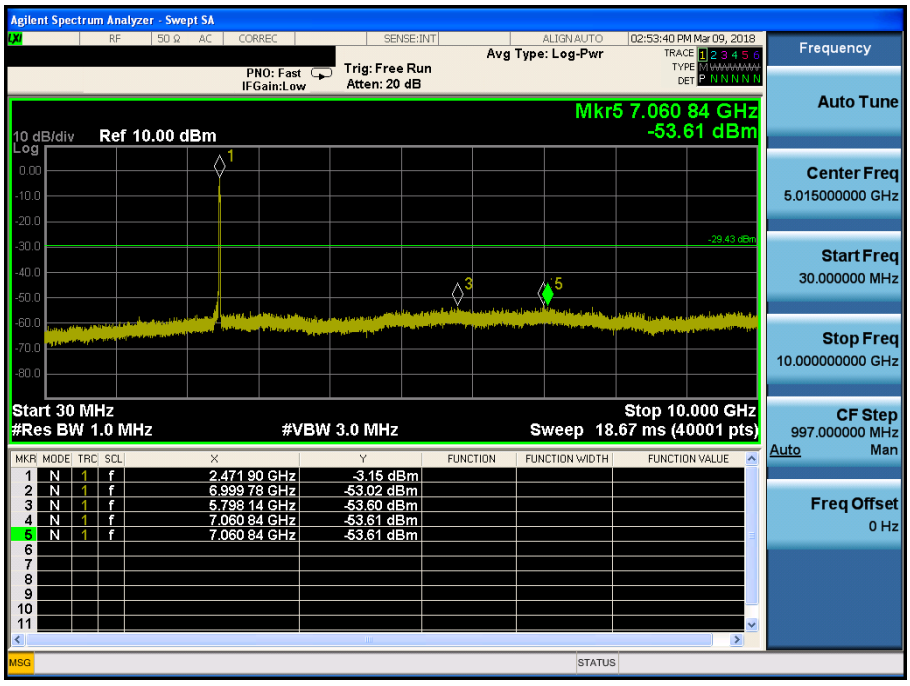


High Band-edge

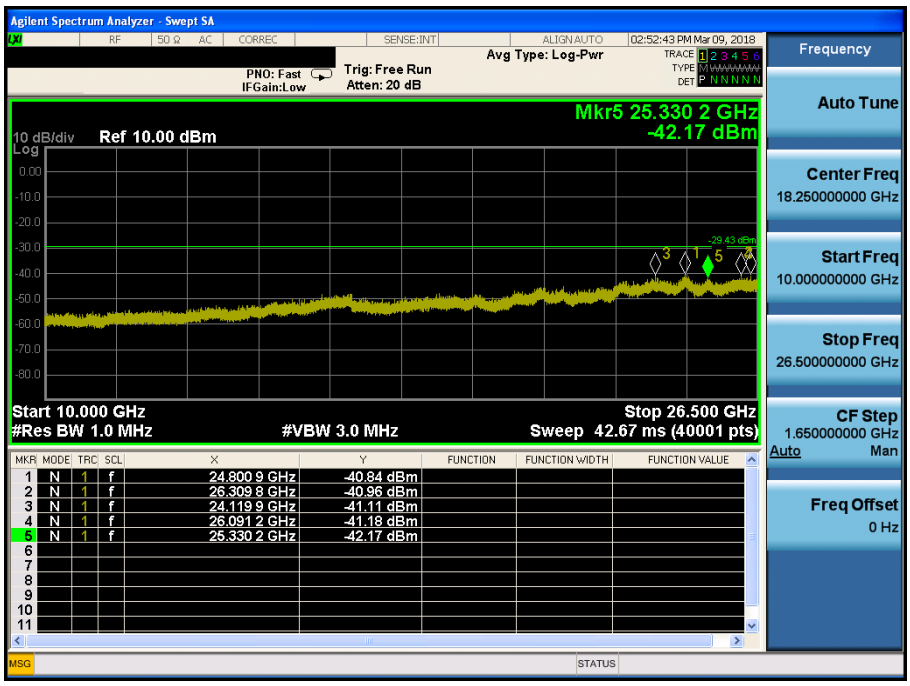


Conducted Spurious Emissions





Conducted Spurious Emissions



8.5 Radiated spurious emissions

▣ **Test Requirements and limit, §15.247(d), §15.205, §15.209**

In any 100 kHz bandwidth outside the operating frequency band, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 KHz bandwidth within the band. In case the emission fall within the restricted band specified on 15.205(a) and (b), then the 15.209(a) limit in the table below has to be followed.

▪ **FCC Part 15.209(a) and (b)**

Frequency (MHz)	Limit (uV/m)	Measurement Distance (meter)
0.009 – 0.490	2400/F (kHz)	300
0.490 – 1.705	24000/F (kHz)	30
1.705 – 30.0	30	30
30 ~ 88	100 **	3
88 ~ 216	150 **	3
216 ~ 960	200 **	3
Above 960	500	3

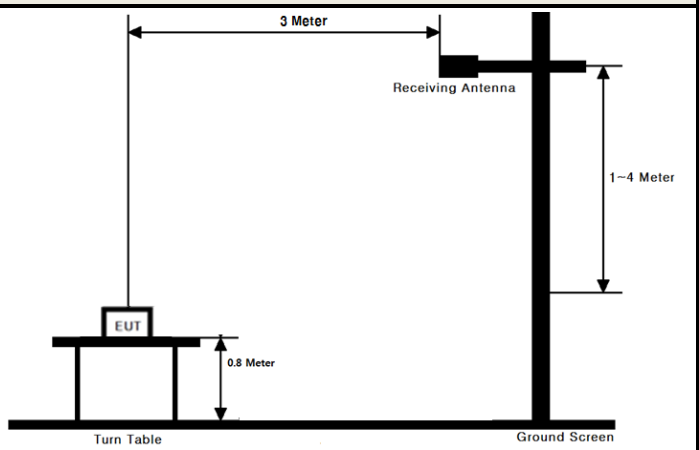
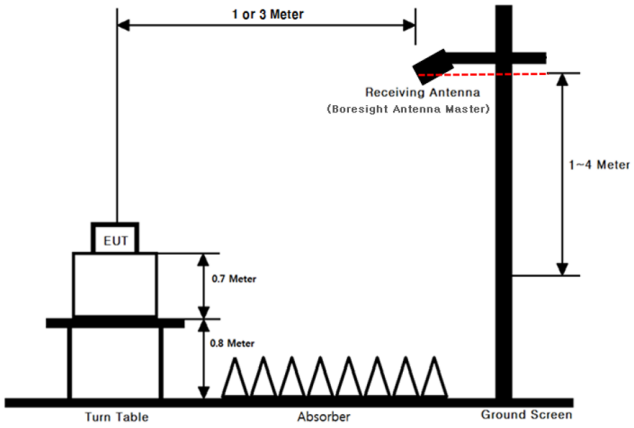
** Except as provided in 15.209(g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g. 15.231 and 15.241.

▪ **FCC Part 15.205 (a):** Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	MHz	GHz	GHz
0.009 ~ 0.110	8.41425 ~ 8.41475	108 ~ 121.94	1300 ~ 1427	4.5 ~ 5.15	14.47 ~ 14.5
0.495 ~ 0.505	12.29 ~ 12.293	123 ~ 138	1435 ~ 1626.5	5.35 ~ 5.46	15.35 ~ 16.2
2.1735 ~ 2.1905	12.51975 ~ 12.52025	149.9 ~ 150.05	1645.5 ~ 1646.5	7.25 ~ 7.75	17.7 ~ 21.4
4.125 ~ 4.128	12.57675 ~ 12.57725	156.52475 ~	1660 ~ 1710	8.025 ~ 8.5	22.01 ~ 23.12
4.17725 ~ 4.17775	13.36 ~ 13.41	156.52525	1718.8 ~ 1722.2	9.0 ~ 9.2	23.6 ~ 24.0
4.20725 ~ 4.20775	16.42 ~ 16.423	156.7 ~ 156.9	2200 ~ 2300	9.3 ~ 9.5	31.2 ~ 31.8
6.215 ~ 6.218	16.69475 ~ 16.69525	162.0125 ~ 167.17	2310 ~ 2390	10.6 ~ 12.7	36.43 ~ 36.5
6.26775 ~ 6.26825	16.80425 ~ 16.80475	167.72 ~ 173.2	2483.5 ~ 2500	13.25 ~ 13.4	Above 38.6
6.31175 ~ 6.31225	25.5 ~ 25.67	240 ~ 285	2655 ~ 2900		
8.291 ~ 8.294	37.5 ~ 38.25	322 ~ 335.4	3260 ~ 3267		
8.362 ~ 8.366	73 ~ 74.6	399.90 ~ 410	3332 ~ 3339		
8.37625 ~ 8.38675	74.8 ~ 75.2	608 ~ 614	3345.8 ~ 3358		
		960 ~ 1240	3600 ~ 4400		

▪ **FCC Part 15.205(b):** The field strength of emissions appearing within these frequency bands shall not exceed the limits shown in §15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in §15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector.
Above 1000 MHz, compliance with the emission limits in §15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in §15.35 apply to these measurements.

▣ Test Configuration

Below 1GHz	Above 1GHz
	

▣ Test Procedure

1. The EUT is placed on a non-conductive table, emission measurements at below 1 GHz, the table height is 80 cm and above 1 GHz, the table height is 1.5 m.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 1 or 3 m away from the receiving antenna, which is varied from 1 m to 4 m to find out the 2462 emissions.
4. Maximum procedure was performed on the six 2462 emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Repeat above procedures until the measurements for all frequencies are complete.

▣ Measurement Instrument Setting for Radiated Emission Measurements.

The radiated emission was tested according to the section 6.3, 6.4, 6.5 and 6.6 of the ANSI C63.10-2013 with following settings.

Peak Measurement

RBW = As specified in below table, VBW ≥ 3 x RBW, Sweep = Auto, Detector = Peak, Trace mode = Max Hold until the trace stabilizes.

Frequency	RBW
9-150 kHz	200-300 Hz
0.15-30 MHz	9-10 kHz
30-1000 MHz	100-120 kHz
> 1000 MHz	1 MHz

Average Measurement:

1. RBW = 1 MHz (unless otherwise specified).
2. VBW ≥ 3 x RBW.
3. Detector = RMS (Number of points ≥ 2 x Span / RBW)
4. Averaging type = power. (i.e., RMS)
5. Sweep time = auto.
6. Perform a trace average of at least 100 traces.
7. A correction factor shall be added to the measurement results prior to comparing to the emission limit in order to compute the emission level that would have been measured had the test been performed at 100 percent duty cycle. The correction factor is computed as follows:

1) If power averaging (RMS) mode was used in step 4, then the applicable correction factor is 10 log(1/x), where x is the duty cycle.
2) If linear voltage averaging mode was used in step 4, then the applicable correction factor is 20 log(1/x), where x is the duty cycle.
3) If a specific emission is demonstrated to be continuous (≥ 98 percent duty cycle) rather than turning on and off with the transmit cycle, then no duty cycle correction is required for that emission.

Duty Cycle Correction factor

Test Mode	Date rate	Duty Cycle (%)	Duty Cycle Correction Factor (dB)
TM 1	1 Mbps	-	-
TM 2	6 Mbps	-	-
TM 3	MCS 0	-	-
TM 4	NSS1 MCS 0	-	-
TM 5	1 Mbps	99.19	-
TM 6	6 Mbps	98.06	-
TM 7	MCS 0	98.13	-
TM 8	NSS1 MCS 0	97.93	0.10
TM 9	MCS 8	98.03	-
TM 10	NSS2 MCS 0	96.34	0.17

▣ Test Results: Comply

Please refer to next page for data table and the appendix I for worst data plots.

Radiated Spurious Emissions data(9 kHz ~ 25 GHz) : *Test Mode 5(TM 5)* _ Normal

Tested Frequency	Frequency (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
2412	2383.31	V	Y	PK	50.08	2.12	N/A	N/A	52.20	74.00	21.80
	2383.20	V	Y	AV	38.48	2.12	N/A	N/A	40.60	54.00	13.40
	4824.09	H	X	PK	44.42	6.10	N/A	N/A	50.52	74.00	23.48
	4823.55	H	X	AV	33.96	6.10	N/A	N/A	40.06	54.00	13.94
2437	4873.67	H	X	PK	44.65	6.42	N/A	N/A	51.07	74.00	22.93
	4874.49	H	X	AV	34.62	6.42	N/A	N/A	41.04	54.00	12.96
2462	2484.84	H	Y	PK	49.16	2.38	N/A	N/A	51.54	74.00	22.46
	2485.02	H	Y	AV	38.95	2.38	N/A	N/A	41.33	54.00	12.67
	4924.45	H	X	PK	45.05	6.57	N/A	N/A	51.62	74.00	22.38
	4924.40	H	X	AV	34.31	6.57	N/A	N/A	40.88	54.00	13.12
2472	2486.37	H	Y	PK	45.79	2.38	N/A	N/A	48.17	74.00	25.83
	2486.74	H	Y	AV	35.04	2.38	N/A	N/A	37.42	54.00	16.58
	4943.58	H	X	PK	44.36	6.79	N/A	N/A	51.15	74.00	22.85
	4943.55	H	X	AV	34.19	6.79	N/A	N/A	40.98	54.00	13.02

Note.

1. The radiated emissions were investigated up to 25GHz. And no other spurious and harmonic emissions were found above listed frequencies.
2. This device was tested under MIMO Multiple transmitting (Ant 1, 2) and the worst case data are reported in the table above.
3. Sample Calculation.
   Margin = Limit – Result / Result = Reading + T.F+ DCCF + DCF / T.F = AF + CL – AG
   Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain,
   DCCF = Duty Cycle Correction Factor, DCF = Distance Correction Factor
4. Information of Distance Factor

   For finding emissions, the test distance might be reduced from 3m to 1m. In this case, the distance factor(-9.54dB) is applied to the result.

   - Calculation of distance factor = 20 log(applied distance / required distance) = 20 log(1 m / 3 m) = -9.54 dB

   When distance factor is “N/A”, the distance is 3 m and distance factor is not applied.

Radiated Spurious Emissions data(9 kHz ~ 25 GHz) : *Test Mode 6(TM 6)* _ Normal

Tested Frequency	Frequency (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
2412	2389.84	V	Y	PK	53.72	2.14	N/A	N/A	55.86	74.00	18.14
	2389.79	V	Y	AV	43.72	2.14	N/A	N/A	45.86	54.00	8.14
	4824.43	H	X	PK	44.71	6.10	N/A	N/A	50.81	74.00	23.19
	4823.71	H	X	AV	33.77	6.10	N/A	N/A	39.87	54.00	14.13
2437	4874.16	H	X	PK	45.00	6.42	N/A	N/A	51.42	74.00	22.58
	4874.50	H	X	AV	34.44	6.42	N/A	N/A	40.86	54.00	13.14
2462	2484.95	H	Y	PK	59.03	2.38	N/A	N/A	61.41	74.00	12.59
	2485.31	H	Y	AV	45.95	2.38	N/A	N/A	48.33	54.00	5.67
	4823.07	H	X	PK	44.99	6.57	N/A	N/A	51.56	74.00	22.44
	4923.26	H	X	AV	34.22	6.57	N/A	N/A	40.79	54.00	13.21
2472	2483.52	H	Y	PK	62.15	2.38	N/A	N/A	64.53	74.00	9.47
	2483.62	H	Y	AV	47.64	2.38	N/A	N/A	50.02	54.00	3.98
	4942.91	H	X	PK	44.17	6.79	N/A	N/A	50.96	74.00	23.04
	4942.00	H	X	AV	33.75	6.79	N/A	N/A	40.54	54.00	13.46

Note.

1. The radiated emissions were investigated up to 25GHz. And no other spurious and harmonic emissions were found above listed frequencies.
2. This device was tested under MIMO Multiple transmitting (Ant 1, 2) and the worst case data are reported in the table above.
3. Sample Calculation.
   Margin = Limit – Result / Result = Reading + T.F+ DCCF + DCF / T.F = AF + CL – AG
   Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain,
   DCCF = Duty Cycle Correction Factor, DCF = Distance Correction Factor
4. Information of Distance Factor

   For finding emissions, the test distance might be reduced from 3m to 1m. In this case, the distance factor(-9.54dB) is applied to the result.

   - Calculation of distance factor = 20 log(applied distance / required distance) = 20 log(1 m / 3 m) = -9.54 dB

   When distance factor is “N/A”, the distance is 3 m and distance factor is not applied.

Radiated Spurious Emissions data(9 kHz ~ 25 GHz) : *Test Mode 7(TM 7)* _ Normal

Tested Frequency	Frequency (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
2412	2387.90	H	X	PK	53.44	2.14	N/A	N/A	55.58	74.00	18.42
	2388.11	H	X	AV	41.96	2.14	N/A	N/A	44.10	54.00	9.90
	4823.66	H	X	PK	44.54	6.10	N/A	N/A	50.64	74.00	23.36
	4824.02	H	X	AV	33.69	6.10	N/A	N/A	39.79	54.00	14.21
2437	4873.91	H	X	PK	45.60	6.42	N/A	N/A	52.02	74.00	21.98
	4873.65	H	X	AV	34.05	6.42	N/A	N/A	40.47	54.00	13.53
2462	2483.69	H	Y	PK	55.65	2.38	N/A	N/A	58.03	74.00	15.97
	2483.75	H	Y	AV	45.08	2.38	N/A	N/A	47.46	54.00	6.54
	4924.22	H	X	PK	45.26	6.57	N/A	N/A	51.83	74.00	22.17
	4924.41	H	X	AV	34.44	6.57	N/A	N/A	41.01	54.00	12.99
2472	2483.68	H	Y	PK	60.96	2.38	N/A	N/A	63.34	74.00	10.66
	2483.52	H	Y	AV	48.12	2.38	N/A	N/A	50.50	54.00	3.50
	4944.08	H	X	PK	43.95	6.79	N/A	N/A	50.74	74.00	23.26
	4943.93	H	X	AV	33.71	6.79	N/A	N/A	40.50	54.00	13.50

Note.

1. The radiated emissions were investigated up to 25GHz. And no other spurious and harmonic emissions were found above listed frequencies.
2. This device was tested under MIMO Multiple transmitting (Ant 1, 2) and the worst case data are reported in the table above.
3. Sample Calculation.
   Margin = Limit – Result / Result = Reading + T.F+ DCCF + DCF / T.F = AF + CL – AG
   Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain,
   DCCF = Duty Cycle Correction Factor, DCF = Distance Correction Factor
4. Information of Distance Factor

   For finding emissions, the test distance might be reduced from 3m to 1m. In this case, the distance factor(-9.54dB) is applied to the result.

   - Calculation of distance factor = 20 log(applied distance / required distance) = 20 log(1 m / 3 m) = -9.54 dB

   When distance factor is “N/A”, the distance is 3 m and distance factor is not applied.

Radiated Spurious Emissions data(9 kHz ~ 25 GHz) : *Test Mode 8(TM 8)* _ Normal

Tested Frequency	Frequency (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
2412	2389.76	H	X	PK	51.91	2.14	N/A	N/A	54.05	74.00	19.95
	2389.41	H	X	AV	41.87	2.14	0.10	N/A	44.11	54.00	9.89
	4824.18	H	X	PK	45.21	6.10	N/A	N/A	51.31	74.00	22.69
	4823.81	H	X	AV	33.89	6.10	0.10	N/A	40.09	54.00	13.91
2437	4874.44	H	X	PK	44.77	6.42	N/A	N/A	51.19	74.00	22.81
	4873.89	H	X	AV	34.50	6.42	0.10	N/A	41.02	54.00	12.98
2462	2483.68	H	Y	PK	58.60	2.38	N/A	N/A	60.98	74.00	13.02
	2483.63	H	Y	AV	47.00	2.38	0.10	N/A	49.48	54.00	4.52
	4923.67	H	X	PK	44.46	6.57	N/A	N/A	51.03	74.00	22.97
	4924.20	H	X	AV	34.50	6.57	0.10	N/A	41.17	54.00	12.83
2472	2483.80	V	Z	PK	59.53	2.38	N/A	N/A	61.91	74.00	12.09
	2483.58	V	Z	AV	47.76	2.38	0.10	N/A	50.24	54.00	3.76
	4945.86	H	X	PK	44.88	6.79	N/A	N/A	51.67	74.00	22.33
	4945.00	H	X	AV	33.48	6.79	0.10	N/A	40.37	54.00	13.63

Note.

1. The radiated emissions were investigated up to 25GHz. And no other spurious and harmonic emissions were found above listed frequencies.
2. This device was tested under MIMO Multiple transmitting (Ant 1, 2) and the worst case data are reported in the table above.
3. Sample Calculation.
   Margin = Limit – Result / Result = Reading + T.F+ DCCF + DCF / T.F = AF + CL – AG
   Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain,
   DCCF = Duty Cycle Correction Factor, DCF = Distance Correction Factor
4. Information of Distance Factor

   For finding emissions, the test distance might be reduced from 3m to 1m. In this case, the distance factor(-9.54dB) is applied to the result.

   - Calculation of distance factor = 20 log(applied distance / required distance) = 20 log(1 m / 3 m) = -9.54 dB

   When distance factor is “N/A”, the distance is 3 m and distance factor is not applied.

Radiated Spurious Emissions data(9 kHz ~ 25 GHz) : *Test Mode 9(TM 9)* _ Normal

Tested Frequency	Frequency (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
2412	2388.61	H	Y	PK	52.20	2.14	N/A	N/A	54.34	74.00	19.66
	2388.93	H	Y	AV	41.32	2.14	N/A	N/A	43.46	54.00	10.54
	4824.02	H	X	PK	44.66	6.58	N/A	N/A	51.24	74.00	22.76
	4823.63	H	X	AV	34.07	6.58	N/A	N/A	40.65	54.00	13.35
2437	4873.78	H	X	PK	45.37	6.57	N/A	N/A	51.94	74.00	22.06
	4873.76	H	X	AV	34.31	6.57	N/A	N/A	40.88	54.00	13.12
2462	2484.17	H	Y	PK	55.22	2.37	N/A	N/A	57.59	74.00	16.41
	2484.12	H	Y	AV	44.49	2.37	N/A	N/A	46.86	54.00	7.14
	4924.24	H	X	PK	44.45	6.74	N/A	N/A	51.19	74.00	22.81
	4923.85	H	X	AV	34.28	6.74	N/A	N/A	41.02	54.00	12.98
2472	2484.06	H	Y	PK	63.92	2.37	N/A	N/A	66.29	74.00	7.71
	2483.53	H	Y	AV	48.51	2.37	N/A	N/A	50.88	54.00	3.12
	4944.78	H	X	PK	43.85	6.79	N/A	N/A	50.64	74.00	23.36
	4944.00	H	X	AV	33.73	6.79	N/A	N/A	40.52	54.00	13.48

Note.

1. The radiated emissions were investigated up to 25GHz. And no other spurious and harmonic emissions were found above listed frequencies.
2. This device was tested under MIMO Multiple transmitting (Ant 1, 2) and the worst case data are reported in the table above.
3. Sample Calculation.
   Margin = Limit – Result / Result = Reading + T.F+ DCCF + DCF / T.F = AF + CL – AG
   Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain,
   DCCF = Duty Cycle Correction Factor, DCF = Distance Correction Factor
4. Information of Distance Factor

   For finding emissions, the test distance might be reduced from 3m to 1m. In this case, the distance factor(-9.54dB) is applied to the result.

   - Calculation of distance factor = 20 log(applied distance / required distance) = 20 log(1 m / 3 m) = -9.54 dB

   When distance factor is “N/A”, the distance is 3 m and distance factor is not applied.

Radiated Spurious Emissions data(9 kHz ~ 25 GHz) : *Test Mode 10(TM 10)* _ Normal

Tested Frequency	Frequency (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
2412	2389.99	H	Y	PK	54.72	2.14	N/A	N/A	56.86	74.00	17.14
	2389.92	H	Y	AV	43.89	2.14	0.17	N/A	46.20	54.00	7.80
	4824.30	H	X	PK	45.24	6.58	N/A	N/A	51.82	74.00	22.18
	4823.90	H	X	AV	33.76	6.58	0.17	N/A	40.51	54.00	13.49
2437	4873.95	H	X	PK	44.62	6.57	N/A	N/A	51.19	74.00	22.81
	4874.00	H	X	AV	34.57	6.57	0.17	N/A	41.31	54.00	12.69
2462	2483.82	H	Y	PK	56.68	2.37	N/A	N/A	59.05	74.00	14.95
	2483.88	H	Y	AV	45.62	2.37	0.17	N/A	48.16	54.00	5.84
	4924.54	H	X	PK	45.42	6.74	N/A	N/A	52.16	74.00	21.84
	4924.45	H	X	AV	34.48	6.74	0.17	N/A	41.39	54.00	12.61
2472	2483.53	V	Z	PK	59.98	2.37	N/A	N/A	62.35	74.00	11.65
	2483.54	V	Z	AV	47.94	2.37	0.17	N/A	50.48	54.00	3.52
	4942.53	H	X	PK	44.39	6.79	N/A	N/A	51.18	74.00	22.82
	4942.53	H	X	AV	33.39	6.79	0.17	N/A	40.35	54.00	13.65

Note.

1. The radiated emissions were investigated up to 25GHz. And no other spurious and harmonic emissions were found above listed frequencies.
2. This device was tested under MIMO Multiple transmitting (Ant 1, 2) and the worst case data are reported in the table above.
3. Sample Calculation.
   Margin = Limit – Result / Result = Reading + T.F+ DCCF + DCF / T.F = AF + CL – AG
   Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain,
   DCCF = Duty Cycle Correction Factor, DCF = Distance Correction Factor
4. Information of Distance Factor

   For finding emissions, the test distance might be reduced from 3m to 1m. In this case, the distance factor(-9.54dB) is applied to the result.

   - Calculation of distance factor = 20 log(applied distance / required distance) = 20 log(1 m / 3 m) = -9.54 dB

   When distance factor is “N/A”, the distance is 3 m and distance factor is not applied.

Radiated Spurious Emissions data(9 kHz ~ 25 GHz) : *Test Mode 5(TM 5)* _ Wireless Charging

Tested Frequency	Frequency (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
2412	2385.91	H	X	PK	49.08	2.13	N/A	N/A	51.21	74.00	22.79
	2386.07	H	X	AV	38.59	2.13	N/A	N/A	40.72	54.00	13.28
	4823.80	H	X	PK	45.02	6.10	N/A	N/A	51.12	74.00	22.88
	4824.03	H	X	AV	34.05	6.10	N/A	N/A	40.15	54.00	13.85
2437	4873.92	H	X	PK	45.25	6.42	N/A	N/A	51.67	74.00	22.33
	4873.84	H	X	AV	34.44	6.42	N/A	N/A	40.86	54.00	13.14
2462	2485.71	H	X	PK	49.85	2.38	N/A	N/A	52.23	74.00	21.77
	2485.57	H	X	AV	39.02	2.38	N/A	N/A	41.40	54.00	12.60
	4923.52	H	X	PK	45.30	6.57	N/A	N/A	51.87	74.00	22.13
	4923.86	H	X	AV	34.35	6.57	N/A	N/A	40.92	54.00	13.08
2472	2485.02	H	X	PK	45.62	2.38	N/A	N/A	48.00	74.00	26.00
	2485.01	H	X	AV	34.71	2.38	N/A	N/A	37.09	54.00	16.91
	4944.26	H	X	PK	44.36	6.79	N/A	N/A	51.15	74.00	22.85
	4944.24	H	X	AV	33.71	6.79	N/A	N/A	40.50	54.00	13.50

Note.

1. The radiated emissions were investigated up to 25GHz. And no other spurious and harmonic emissions were found above listed frequencies.
2. This device was tested under MIMO Multiple transmitting (Ant 1, 2) and the worst case data are reported in the table above.
3. Sample Calculation.
   Margin = Limit – Result / Result = Reading + T.F+ DCCF + DCF / T.F = AF + CL – AG
   Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain,
   DCCF = Duty Cycle Correction Factor, DCF = Distance Correction Factor
4. Information of Distance Factor

   For finding emissions, the test distance might be reduced from 3m to 1m. In this case, the distance factor(-9.54dB) is applied to the result.

   - Calculation of distance factor = 20 log(applied distance / required distance) = 20 log(1 m / 3 m) = -9.54 dB

   When distance factor is “N/A”, the distance is 3 m and distance factor is not applied.

Radiated Spurious Emissions data(9 kHz ~ 25 GHz) : *Test Mode 6(TM 6)* _ Wireless Charging

Tested Frequency	Frequency (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
2412	2388.98	H	X	PK	56.51	2.14	N/A	N/A	58.65	74.00	15.35
	2389.14	H	X	AV	44.86	2.14	N/A	N/A	47.00	54.00	7.00
	4823.84	H	X	PK	45.40	6.10	N/A	N/A	51.50	74.00	22.50
	4824.03	H	X	AV	34.13	6.10	N/A	N/A	40.23	54.00	13.77
2437	4874.14	H	X	PK	46.10	6.42	N/A	N/A	52.52	74.00	21.48
	4873.85	H	X	AV	34.33	6.42	N/A	N/A	40.75	54.00	13.25
2462	2485.33	H	X	PK	54.48	2.38	N/A	N/A	56.86	74.00	17.14
	2485.99	H	X	AV	43.39	2.38	N/A	N/A	45.77	54.00	8.23
	4923.97	H	X	PK	45.28	6.57	N/A	N/A	51.85	74.00	22.15
	4923.91	H	X	AV	34.52	6.57	N/A	N/A	41.09	54.00	12.91
2472	2485.33	H	X	PK	55.44	2.38	N/A	N/A	57.82	74.00	16.18
	2485.35	H	X	AV	43.60	2.38	N/A	N/A	45.98	54.00	8.02
	4944.82	H	X	PK	44.25	6.79	N/A	N/A	51.04	74.00	22.96
	4944.82	H	X	AV	33.77	6.79	N/A	N/A	40.56	54.00	13.44

Note.

1. The radiated emissions were investigated up to 25GHz. And no other spurious and harmonic emissions were found above listed frequencies.
2. This device was tested under MIMO Multiple transmitting (Ant 1, 2) and the worst case data are reported in the table above.
3. Sample Calculation.
   Margin = Limit – Result / Result = Reading + T.F+ DCCF + DCF / T.F = AF + CL – AG
   Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain,
   DCCF = Duty Cycle Correction Factor, DCF = Distance Correction Factor
4. Information of Distance Factor

   For finding emissions, the test distance might be reduced from 3m to 1m. In this case, the distance factor(-9.54dB) is applied to the result.

   - Calculation of distance factor = 20 log(applied distance / required distance) = 20 log(1 m / 3 m) = -9.54 dB

   When distance factor is “N/A”, the distance is 3 m and distance factor is not applied.

Radiated Spurious Emissions data(9 kHz ~ 25 GHz) : *Test Mode 7(TM 7)* _ Wireless Charging

Tested Frequency	Frequency (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
2412	2389.65	H	X	PK	51.63	2.14	N/A	N/A	53.77	74.00	20.23
	2389.60	H	X	AV	41.10	2.14	N/A	N/A	43.24	54.00	10.76
	4823.97	H	X	PK	44.92	6.10	N/A	N/A	51.02	74.00	22.98
	4823.62	H	X	AV	33.97	6.10	N/A	N/A	40.07	54.00	13.93
2437	4874.47	H	X	PK	44.82	6.42	N/A	N/A	51.24	74.00	22.76
	4874.47	H	X	AV	34.47	6.42	N/A	N/A	40.89	54.00	13.11
2462	2483.56	H	X	PK	54.39	2.38	N/A	N/A	56.77	74.00	17.23
	2483.69	H	X	AV	43.42	2.38	N/A	N/A	45.80	54.00	8.20
	4923.65	H	X	PK	45.23	6.57	N/A	N/A	51.80	74.00	22.20
	4924.50	H	X	AV	34.16	6.57	N/A	N/A	40.73	54.00	13.27
2472	2483.61	H	X	PK	60.45	2.38	N/A	N/A	62.83	74.00	11.17
	2483.97	H	X	AV	47.85	2.38	N/A	N/A	50.23	54.00	3.77
	4944.49	H	X	PK	44.85	6.79	N/A	N/A	51.64	74.00	22.36
	4944.42	H	X	AV	33.68	6.79	N/A	N/A	40.47	54.00	13.53

Note.

1. The radiated emissions were investigated up to 25GHz. And no other spurious and harmonic emissions were found above listed frequencies.
2. This device was tested under MIMO Multiple transmitting (Ant 1, 2) and the worst case data are reported in the table above.
3. Sample Calculation.
   Margin = Limit – Result / Result = Reading + T.F+ DCCF + DCF / T.F = AF + CL – AG
   Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain,
   DCCF = Duty Cycle Correction Factor, DCF = Distance Correction Factor
4. Information of Distance Factor

   For finding emissions, the test distance might be reduced from 3m to 1m. In this case, the distance factor(-9.54dB) is applied to the result.

   - Calculation of distance factor = 20 log(applied distance / required distance) = 20 log(1 m / 3 m) = -9.54 dB

   When distance factor is “N/A”, the distance is 3 m and distance factor is not applied.