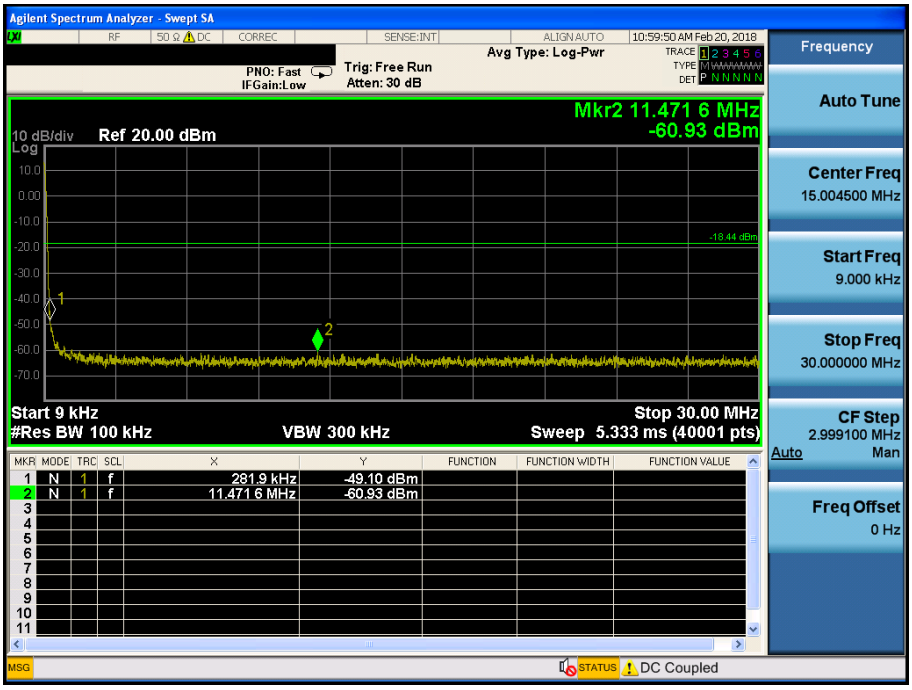
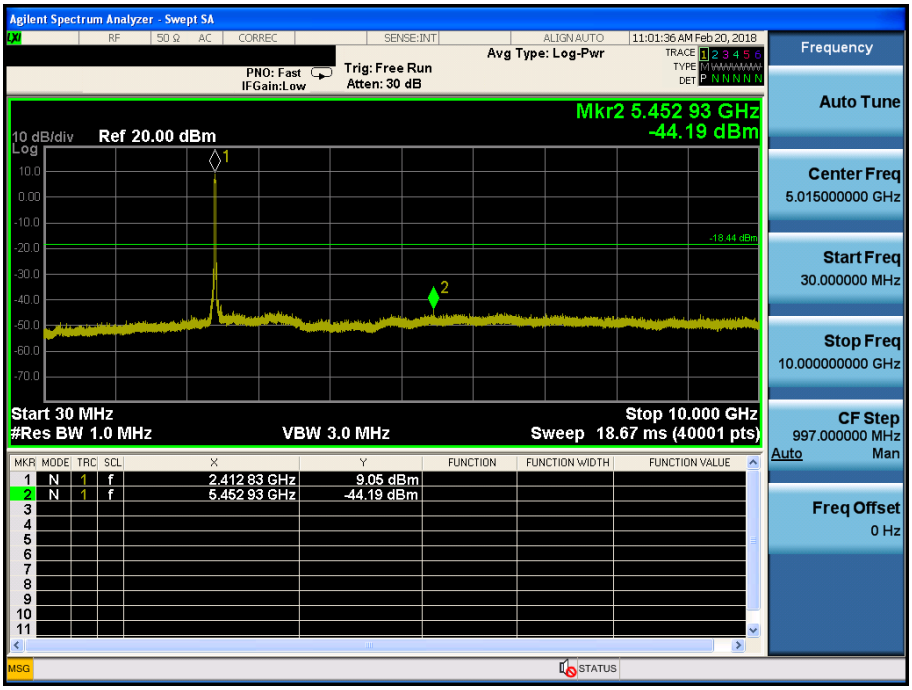
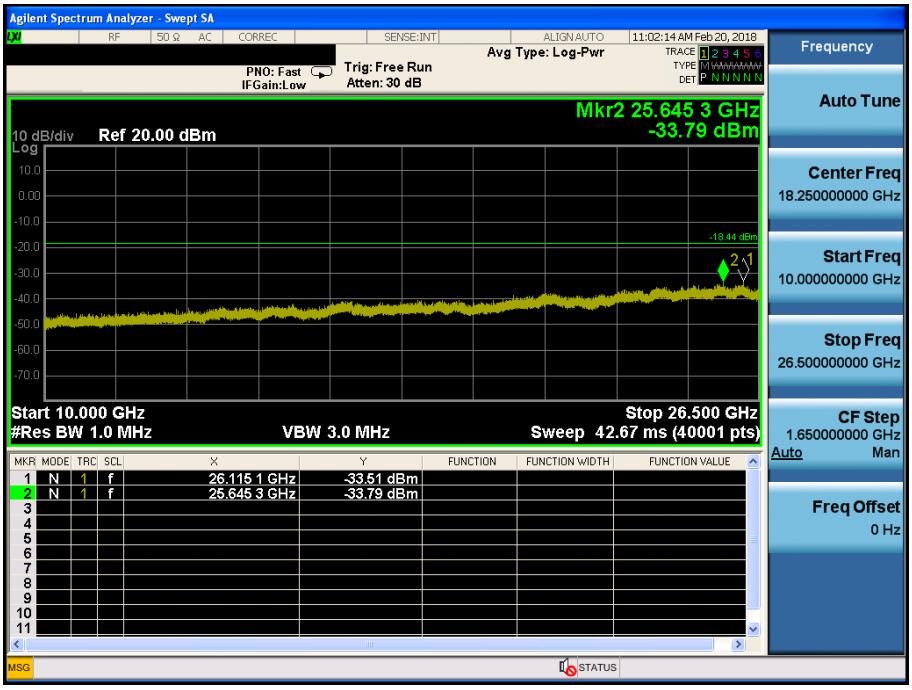
Conducted Spurious Emissions



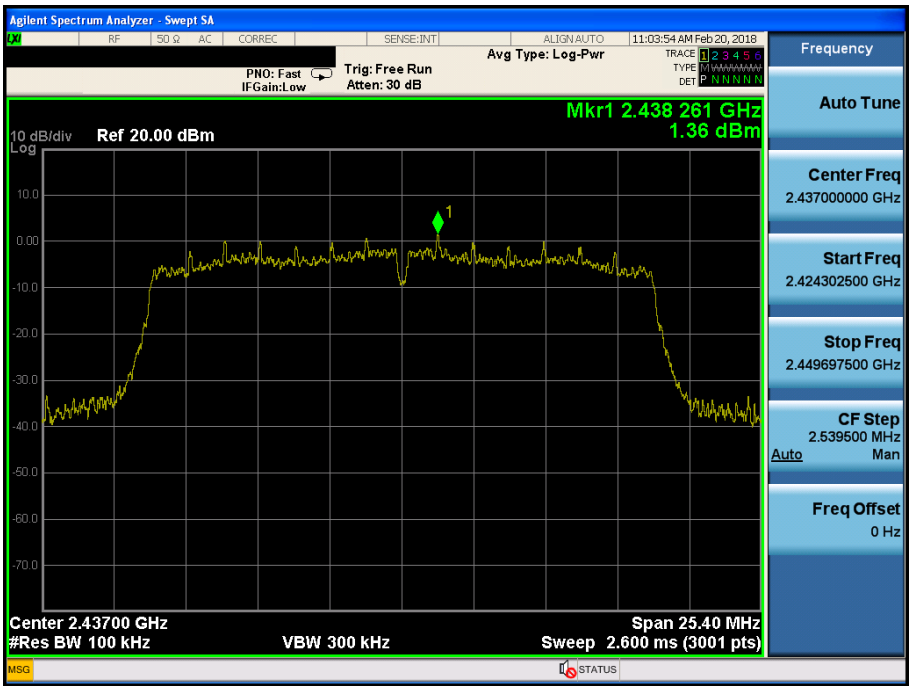


Conducted Spurious Emissions



TM 3 & Middle

Reference



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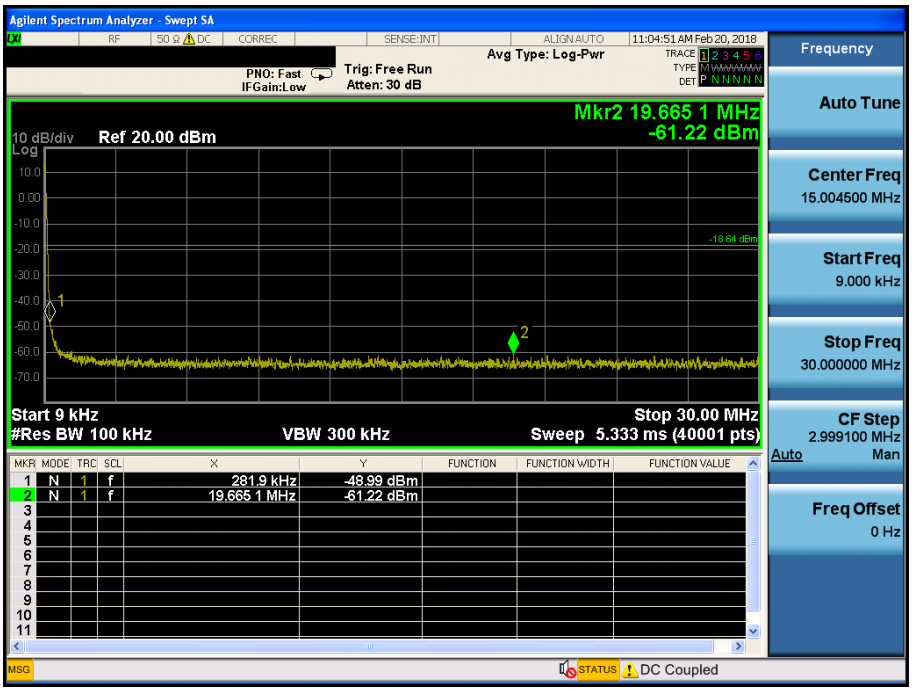

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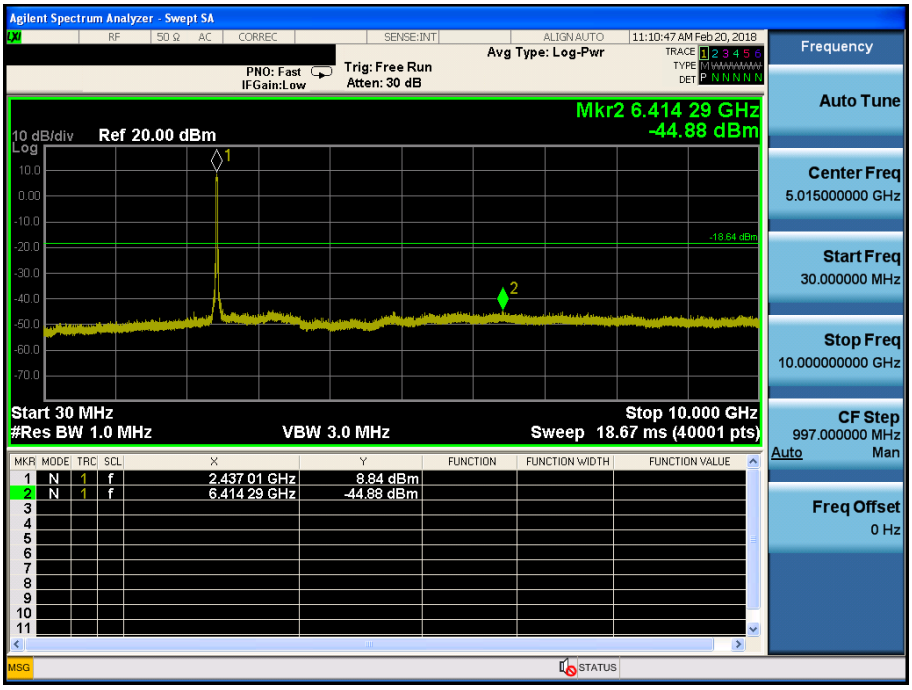

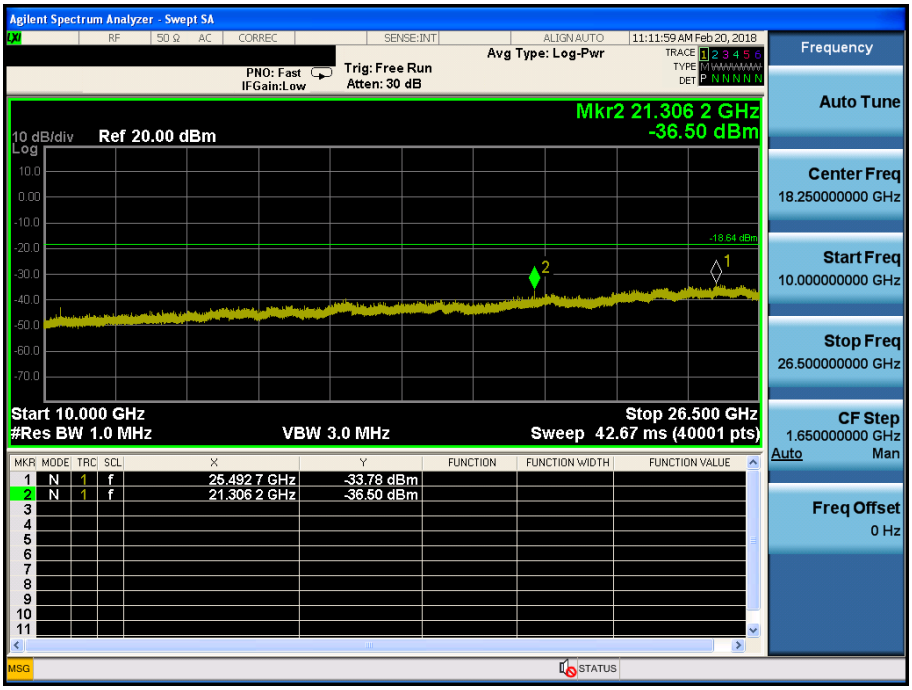

TM 3 & Highest

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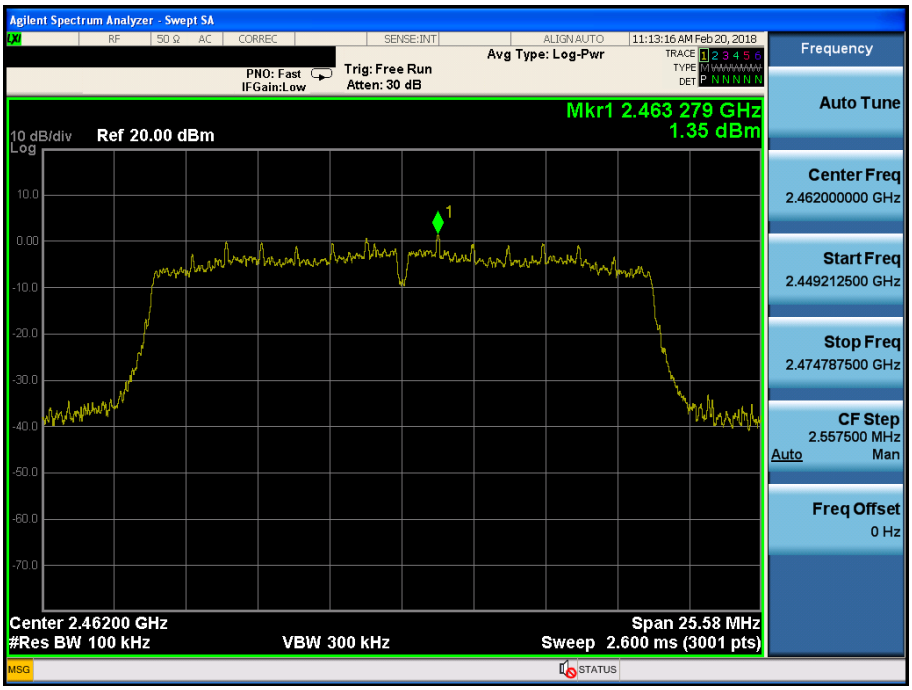
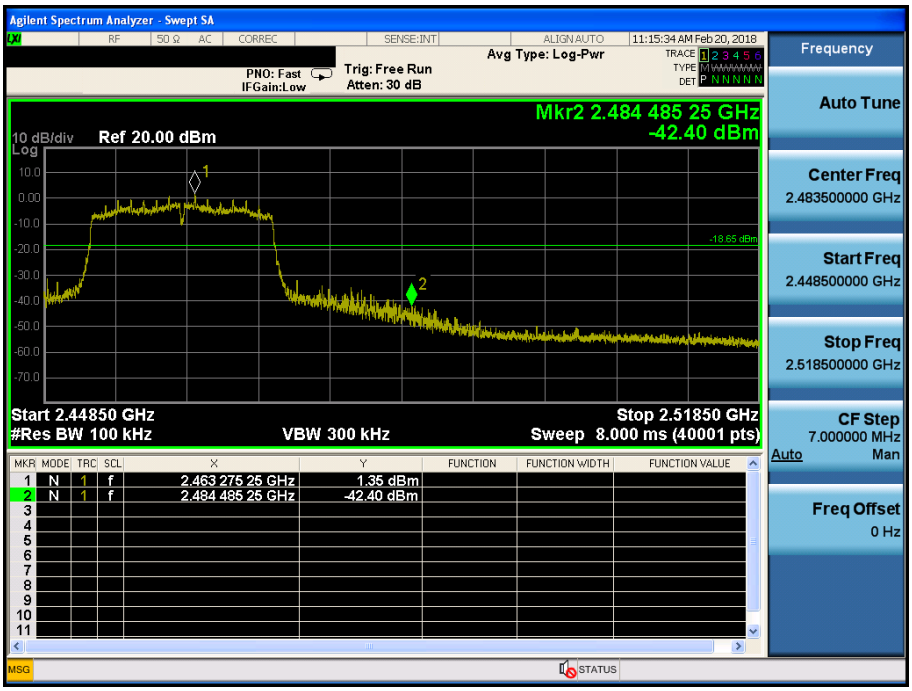


High Band-edge



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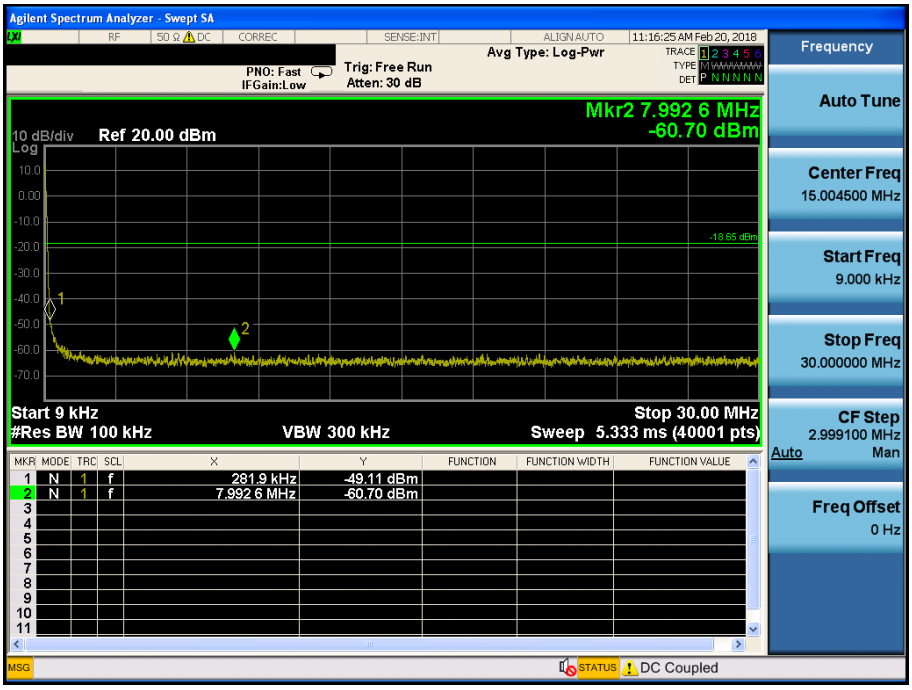

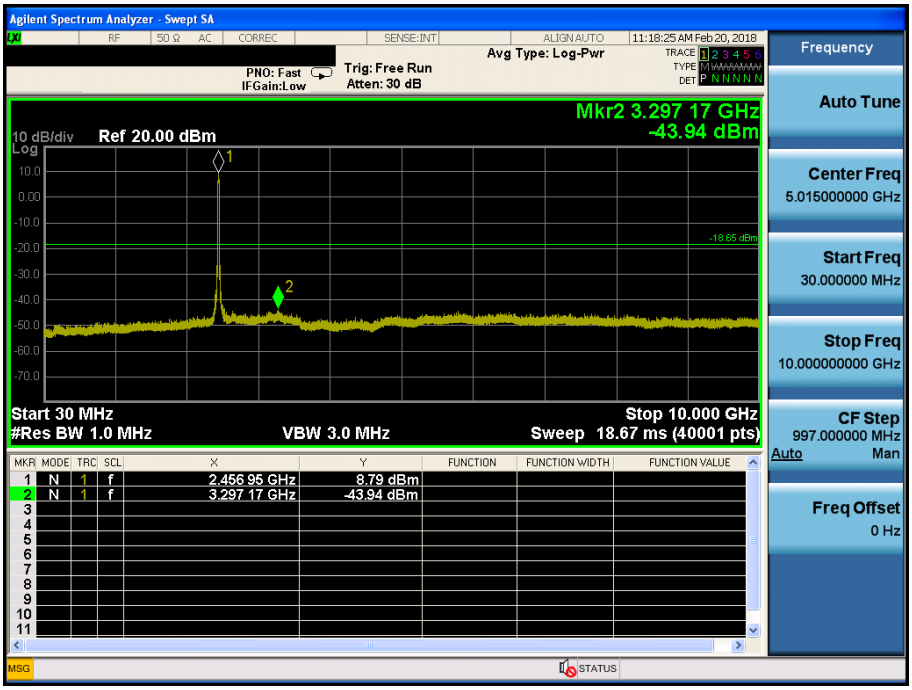

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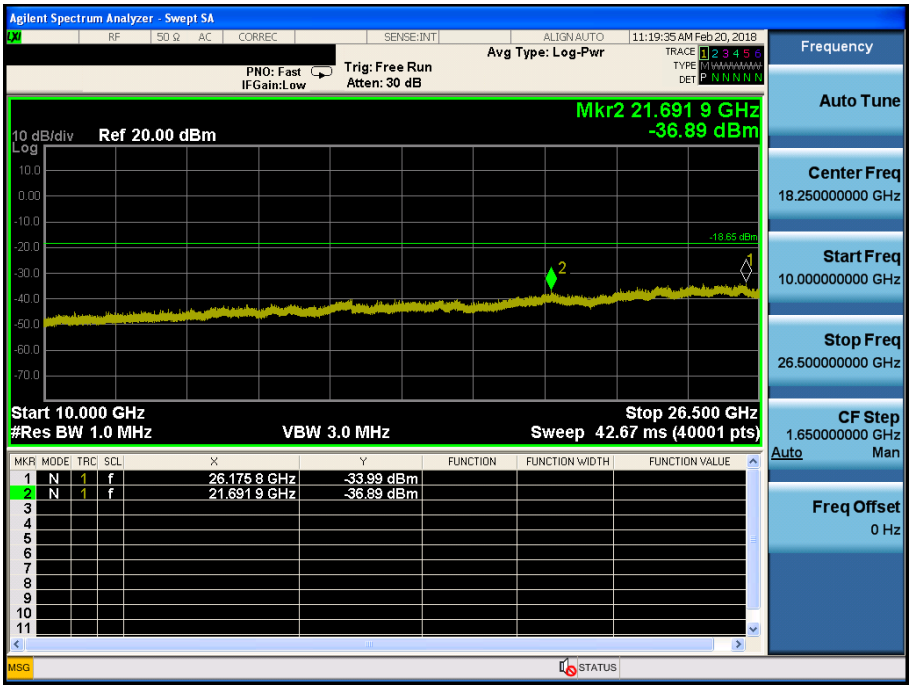

TM 4 & Lowest

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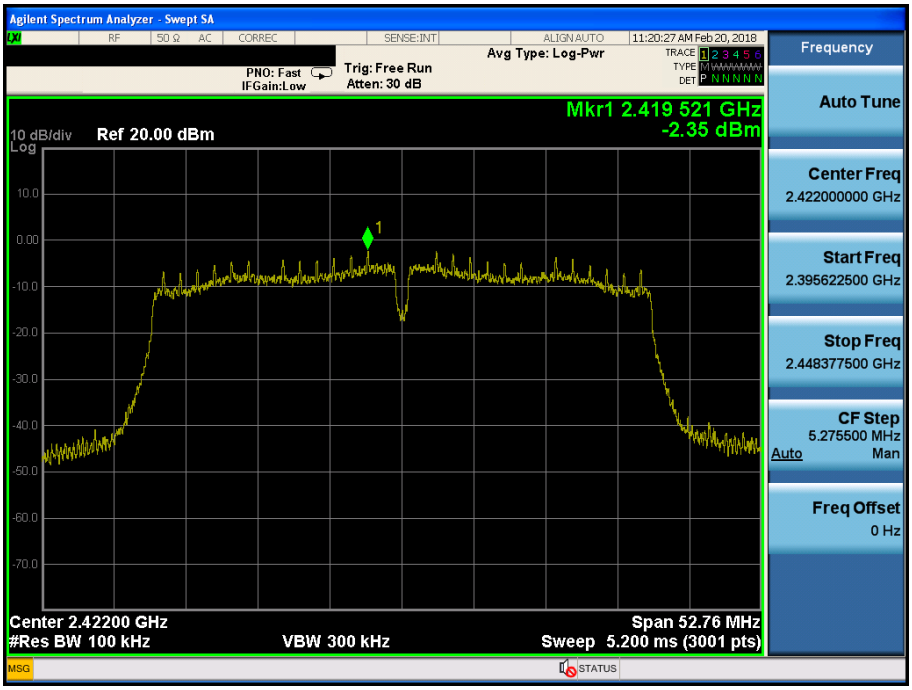

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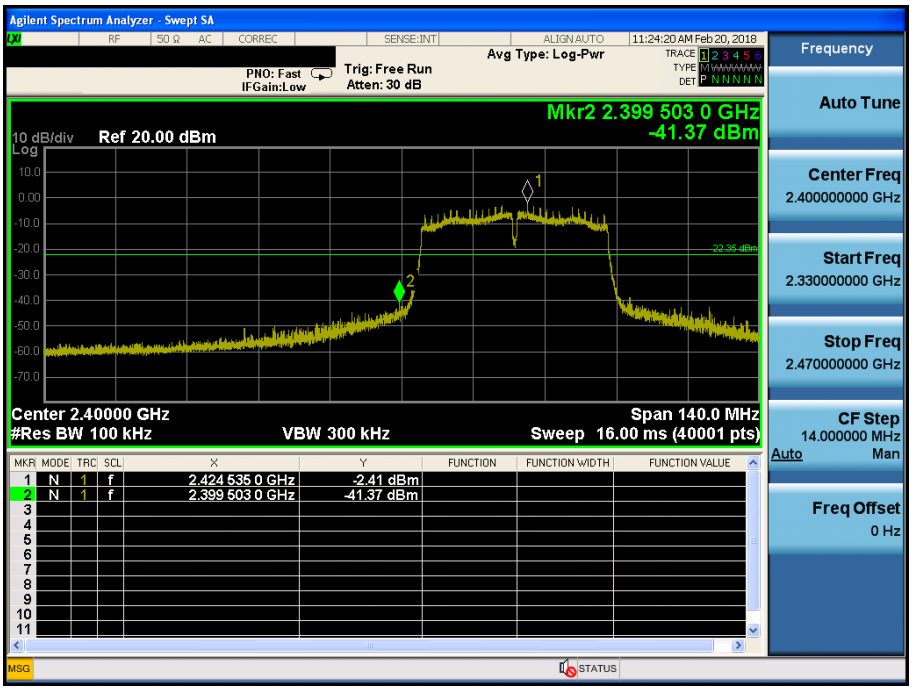

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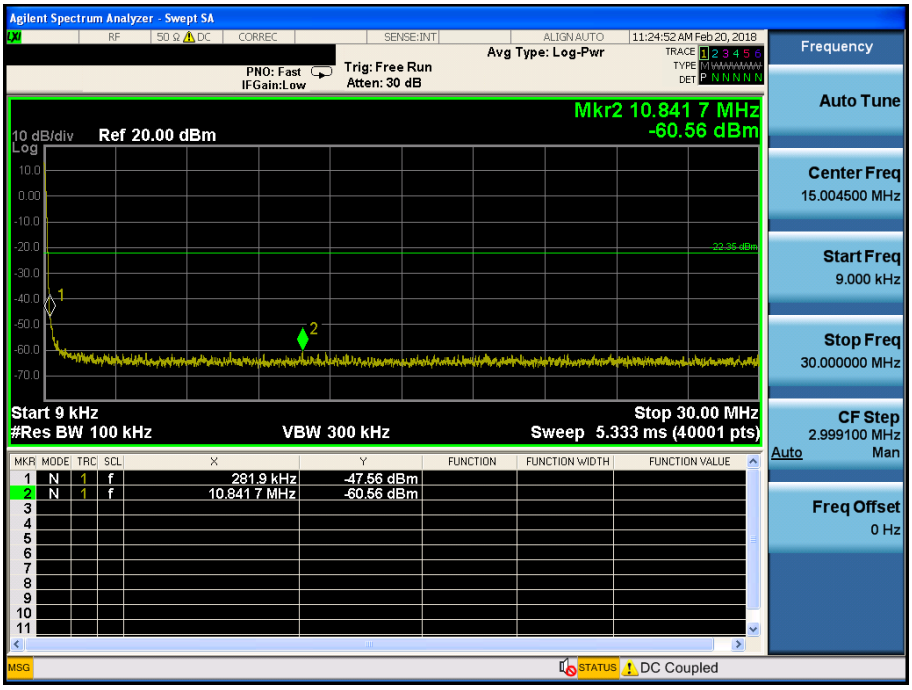

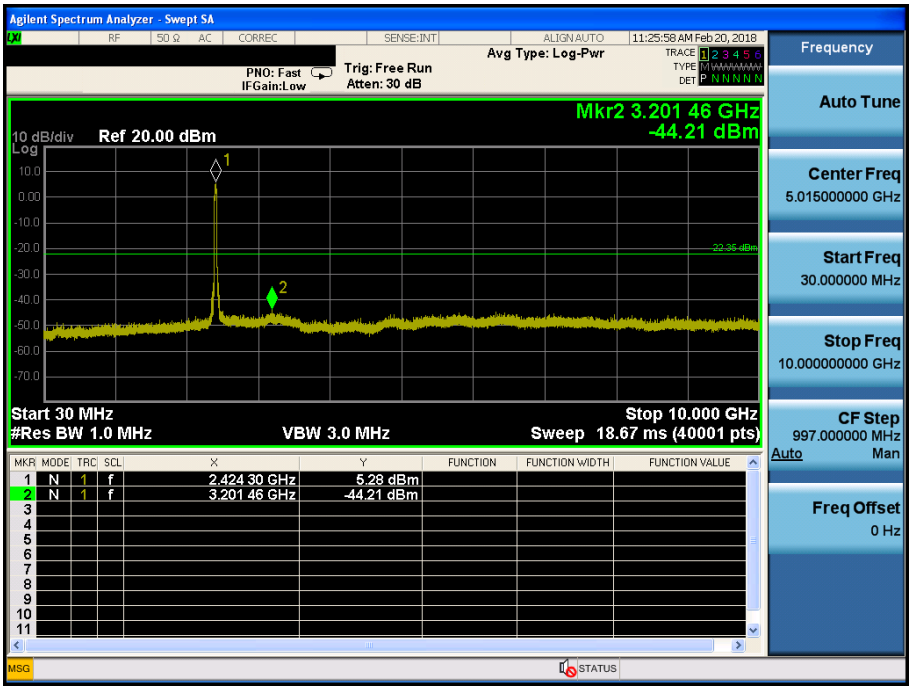

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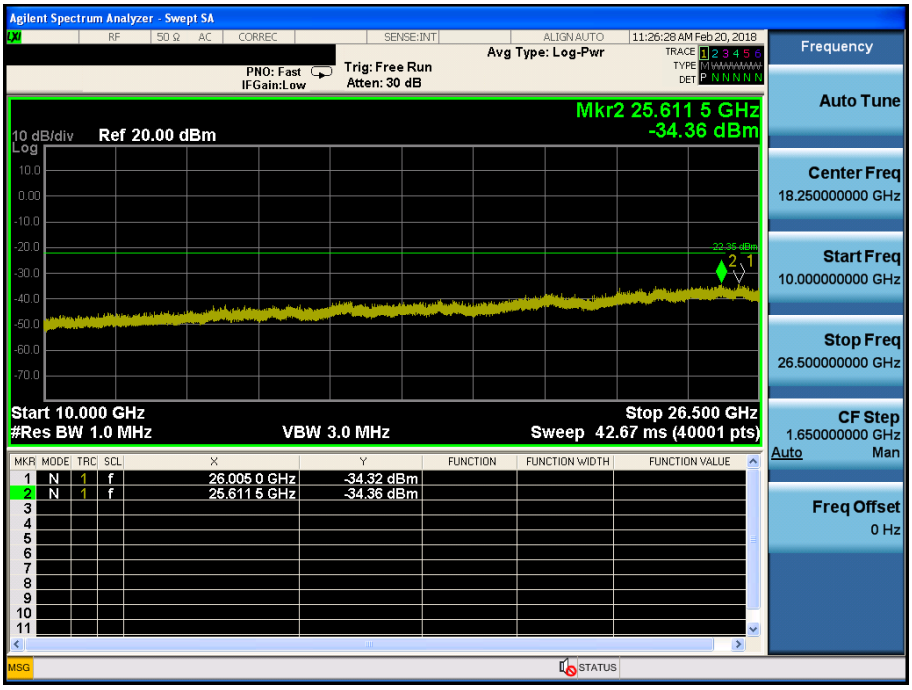
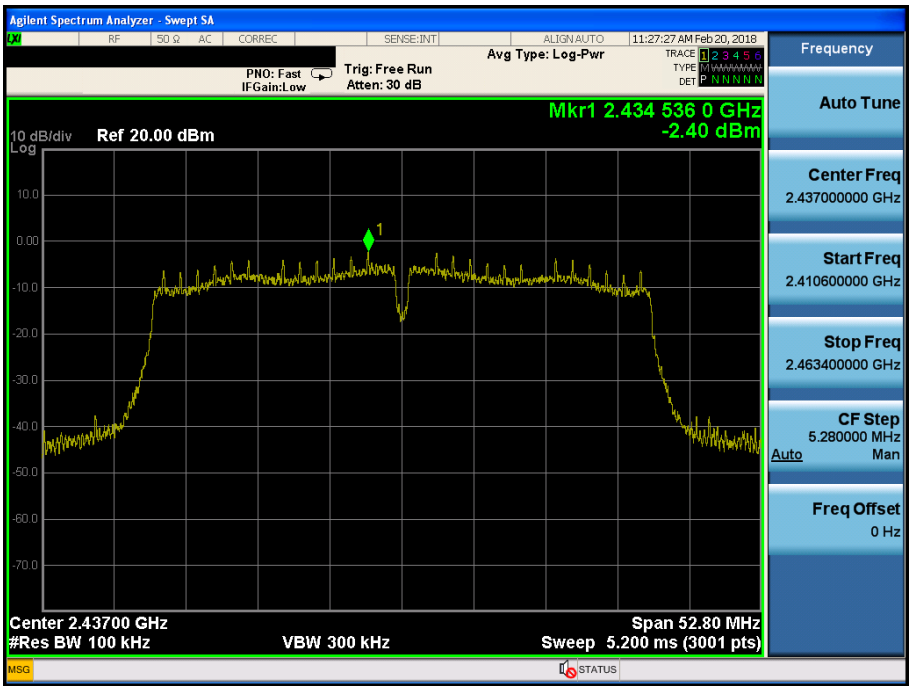


TM 4 & Middle

Reference



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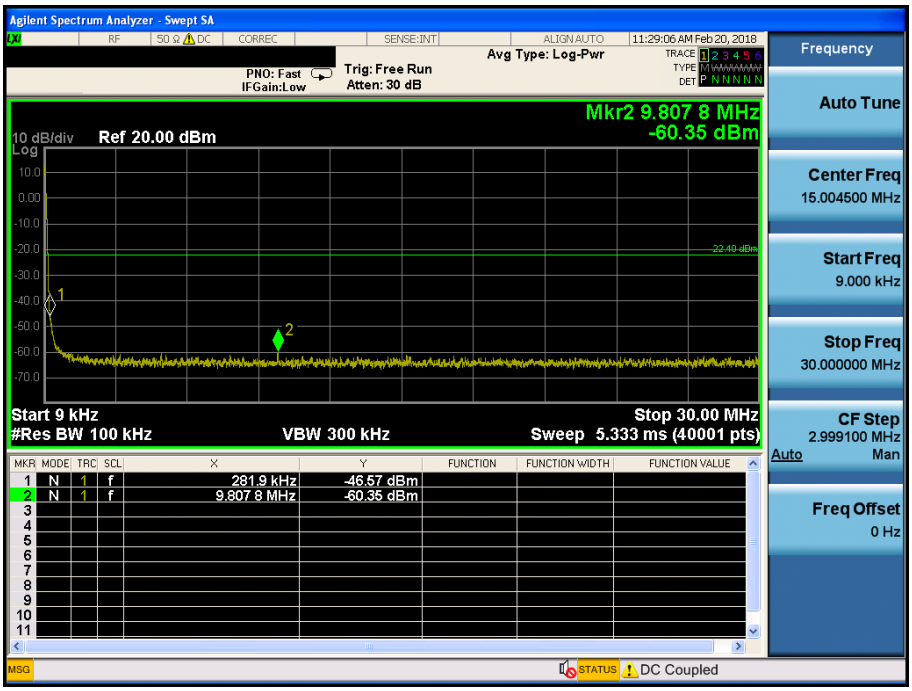

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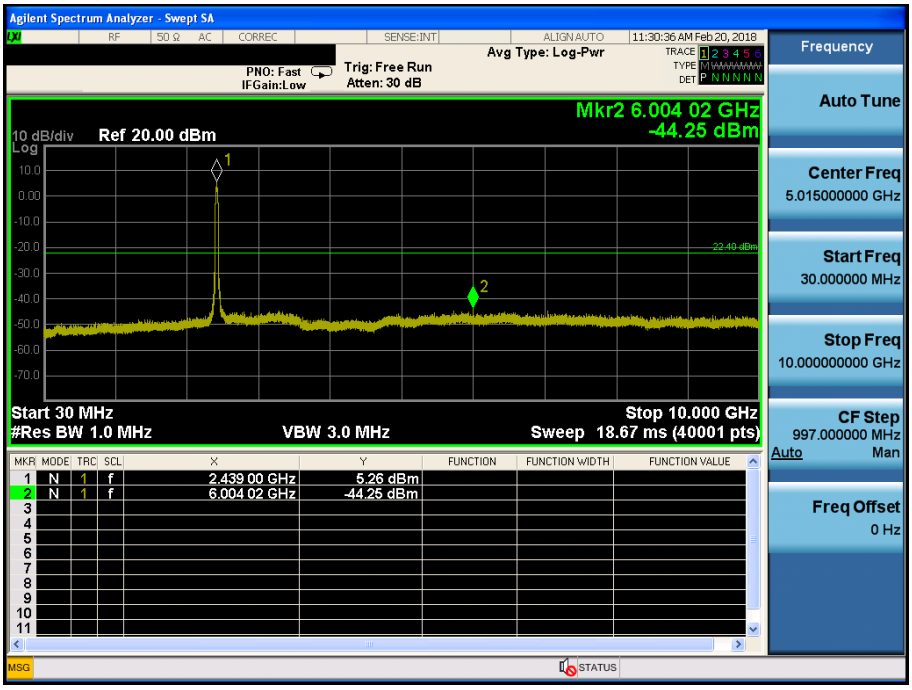
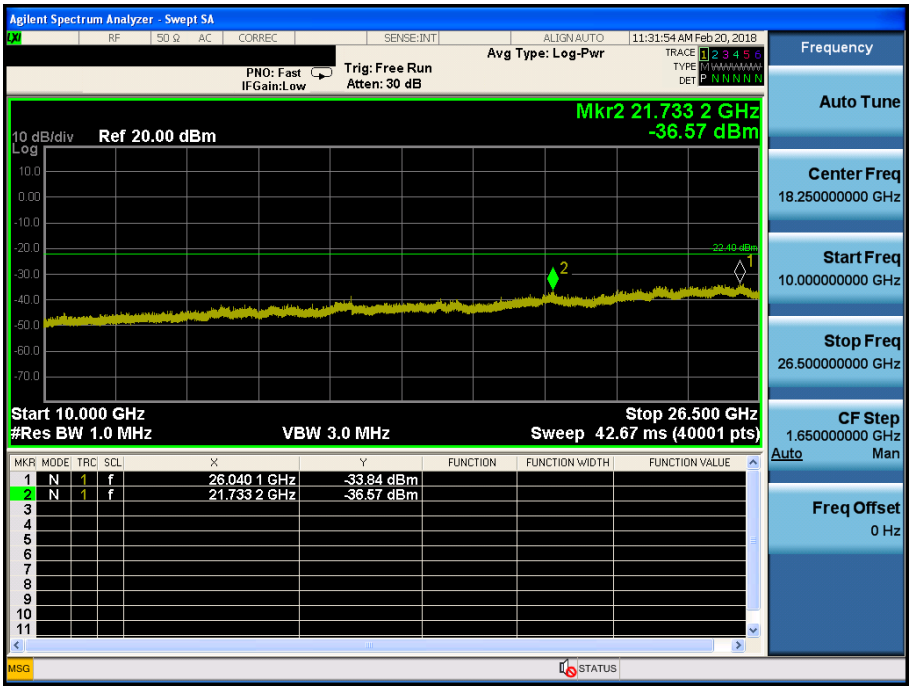
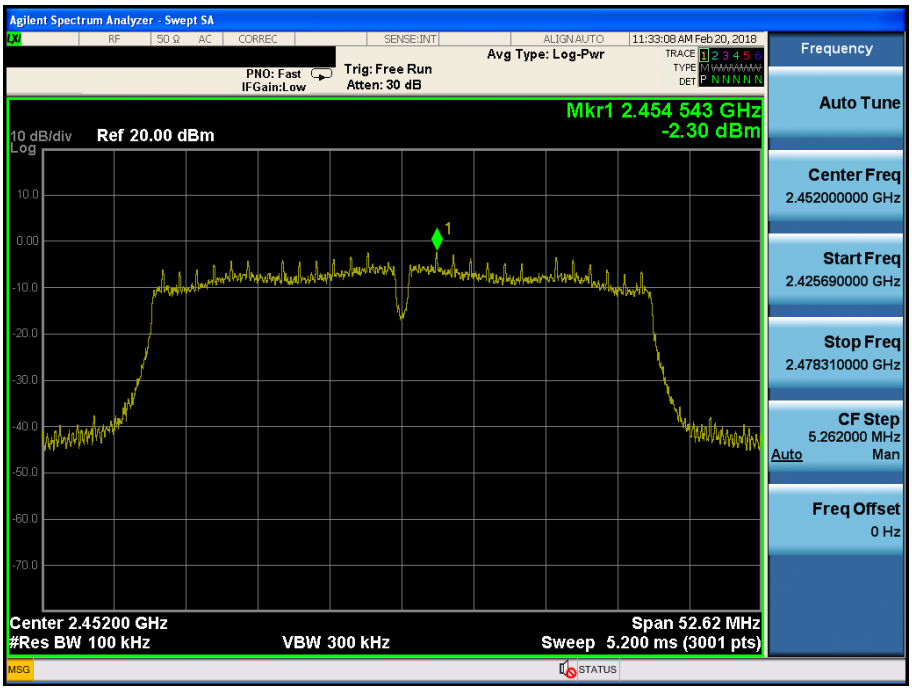


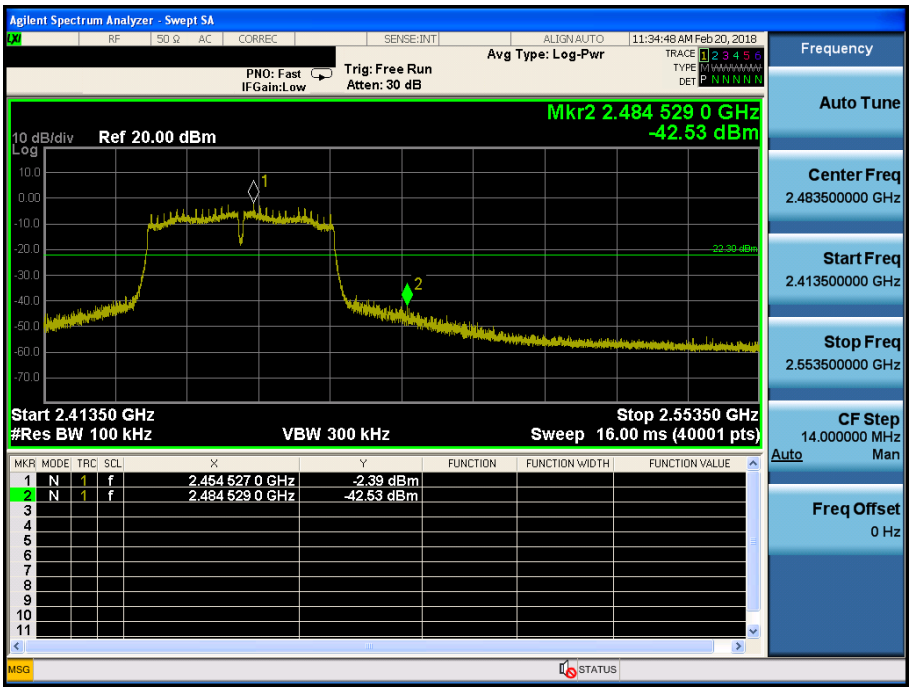


TM 4 & Highest

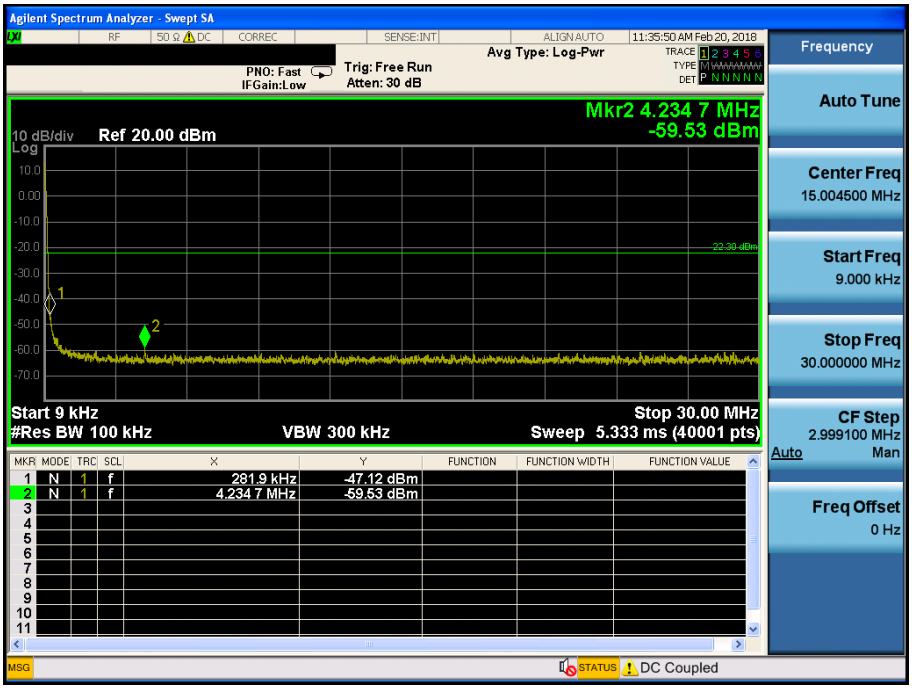
Reference

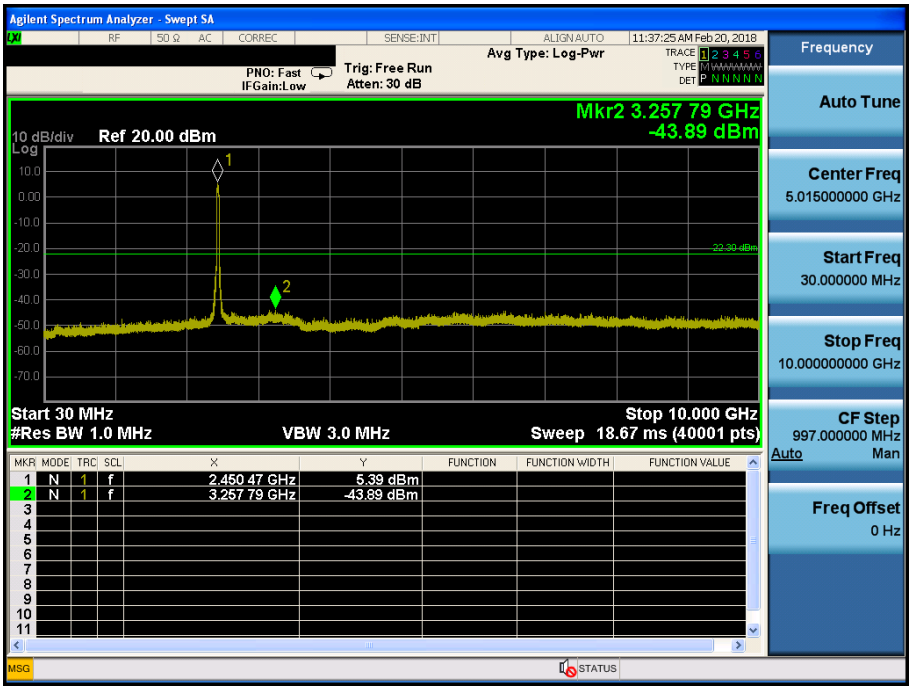


High Band-edge



Conducted Spurious Emissions





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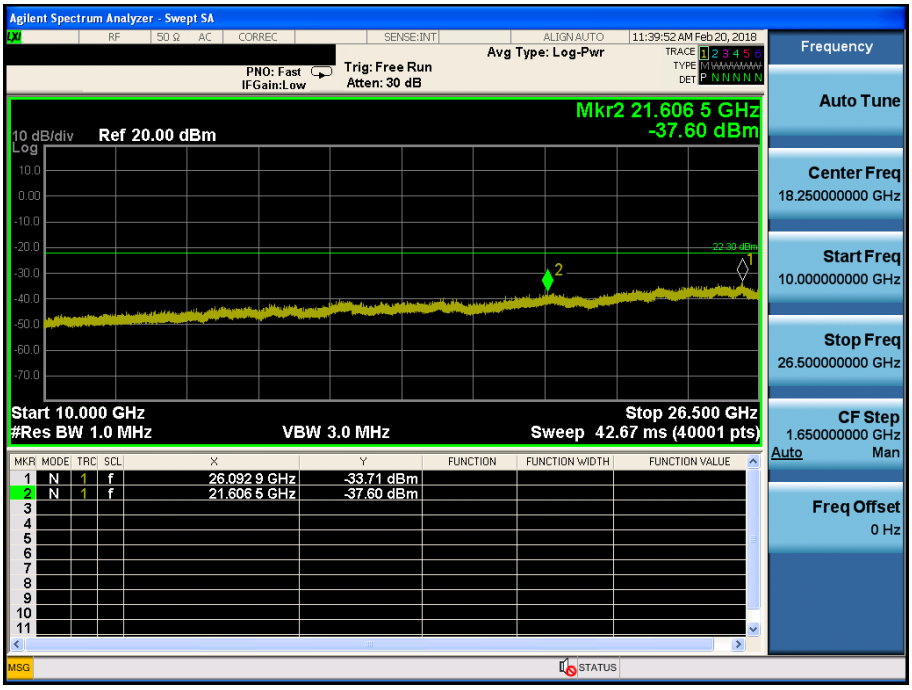


8.5 Radiated spurious emissions

▣ **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

Refer to the APPENDIX I.

▣ 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 highest emissions.
4. Maximum procedure was performed on the six highest 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	11Mbps	93.37	0.30
TM 2	6Mbps	95.95	0.18
TM 3	MCS0	95.82	0.19
TM 4	MCS0	91.74	0.37

▣ Test Results: Comply

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

Radiated Spurious Emissions data(9 kHz ~ 25 GHz) : *Test Mode 1(TM 1)*

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)
Lowest	2389.19	H	X	PK	59.92	0.70	N/A	N/A	60.62	74.00	13.38
	2389.74	H	X	AV	43.74	0.70	0.30	N/A	44.74	54.00	9.26
	4824.18	H	X	PK	48.04	4.86	N/A	N/A	52.90	74.00	21.10
	4824.16	H	X	AV	36.79	4.86	0.30	N/A	41.95	54.00	12.05
Middle	4873.97	H	X	PK	46.91	5.07	N/A	N/A	51.98	74.00	22.02
	4873.97	H	X	AV	35.99	5.07	0.30	N/A	41.36	54.00	12.64
Highest	2483.71	H	X	PK	61.37	0.94	N/A	N/A	62.31	74.00	11.69
	2483.77	H	X	AV	44.95	0.94	0.30	N/A	46.19	54.00	7.81
	4923.71	H	X	PK	47.05	5.23	N/A	N/A	52.28	74.00	21.72
	4924.09	H	X	AV	36.66	5.23	0.30	N/A	42.19	54.00	11.81

Note.

1. The radiated emissions were investigated 9kHz to 25GHz. And no other spurious and harmonic emissions were found above listed frequencies.
2. 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
3. Measurement Distance = 3 m for below 10 GHz, Measurement Distance = 1 m for above 10 GHz.
   Therefore Distance Correction Factor(DCF) : - 9.54 dB = 20*log(1m/3m)

Radiated Spurious Emissions data(9 kHz ~ 25 GHz) : ***Test Mode 2(TM 2)***

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)
Lowest	2389.22	H	X	PK	69.66	0.70	N/A	N/A	70.36	74.00	3.64
	2388.94	H	X	AV	49.62	0.70	0.18	N/A	50.50	54.00	3.50
	4823.94	H	X	PK	45.07	4.86	N/A	N/A	49.93	74.00	24.07
	4824.14	H	X	AV	34.57	4.86	0.18	N/A	39.61	54.00	14.39
Middle	4874.22	H	X	PK	45.67	5.07	N/A	N/A	50.74	74.00	23.26
	4873.44	H	X	AV	34.63	5.07	0.18	N/A	39.88	54.00	14.12
Highest	2484.38	H	X	PK	69.15	0.94	N/A	N/A	70.09	74.00	3.91
	2483.89	H	X	AV	50.45	0.94	0.18	N/A	51.57	54.00	2.43
	4924.84	H	X	PK	45.36	5.24	N/A	N/A	50.60	74.00	23.40
	4924.19	H	X	AV	34.57	5.23	0.18	N/A	39.98	54.00	14.02

Note.

1. The radiated emissions were investigated 9kHz to 25GHz. And no other spurious and harmonic emissions were found above listed frequencies.
2. 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
3. Measurement Distance = 3 m for below 10 GHz, Measurement Distance = 1 m for above 10 GHz.
   Therefore Distance Correction Factor(DCF) : - 9.54 dB = 20*log(1m/3m)

Radiated Spurious Emissions data(9 kHz ~ 25 GHz) : ***Test Mode 3(TM 3)***

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)
Lowest	2388.55	H	X	PK	70.27	0.70	N/A	N/A	70.97	74.00	3.03
	2389.95	H	X	AV	50.72	0.70	0.19	N/A	51.61	54.00	2.39
	4823.33	H	X	PK	45.41	4.85	N/A	N/A	50.26	74.00	23.74
	4824.33	H	X	AV	34.48	4.86	0.19	N/A	39.53	54.00	14.47
Middle	4873.23	H	X	PK	45.30	5.07	N/A	N/A	50.37	74.00	23.63
	4873.61	H	X	AV	34.84	5.07	0.19	N/A	40.10	54.00	13.90
Highest	2484.65	H	X	PK	68.84	0.95	N/A	N/A	69.79	74.00	4.21
	2483.54	H	X	AV	50.53	0.94	0.19	N/A	51.66	54.00	2.34
	4924.78	H	X	PK	46.45	5.23	N/A	N/A	51.68	74.00	22.32
	4924.63	H	X	AV	34.62	5.23	0.19	N/A	40.04	54.00	13.96

Note.

1. The radiated emissions were investigated 9kHz to 25GHz. And no other spurious and harmonic emissions were found above listed frequencies.
2. 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
3. Measurement Distance = 3 m for below 10 GHz, Measurement Distance = 1 m for above 10 GHz.
   Therefore Distance Correction Factor(DCF) : - 9.54 dB = 20*log(1m/3m)

Radiated Spurious Emissions data(9 kHz ~ 25 GHz) : *Test Mode 4(TM 4)*

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)
Lowest	2389.92	H	X	PK	67.75	0.70	N/A	N/A	68.45	74.00	5.55
	2390.00	H	X	AV	51.29	0.70	0.37	N/A	52.36	54.00	1.64
	4844.74	H	X	PK	46.02	4.95	N/A	N/A	50.97	74.00	23.03
	4844.20	H	X	AV	34.56	4.94	0.37	N/A	39.87	54.00	14.13
Middle	4874.00	H	X	PK	46.54	5.07	N/A	N/A	51.61	74.00	22.39
	4874.00	H	X	AV	34.50	5.07	0.37	N/A	39.94	54.00	14.06
Highest	2485.33	H	X	PK	67.50	0.95	N/A	N/A	68.45	74.00	5.55
	2483.67	H	X	AV	49.77	0.94	0.37	N/A	51.08	54.00	2.92
	4904.71	H	X	PK	45.07	5.17	N/A	N/A	50.24	74.00	23.76
	4903.75	H	X	AV	34.71	5.17	0.37	N/A	40.25	54.00	13.75

Note.

1. The radiated emissions were investigated 9kHz to 25GHz. And no other spurious and harmonic emissions were found above listed frequencies.
2. 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
3. Measurement Distance = 3 m for below 10 GHz, Measurement Distance = 1 m for above 10 GHz.
   Therefore Distance Correction Factor(DCF) : - 9.54 dB = 20*log(1m/3m)

8.6 Power-line conducted emissions

▣ Test Requirements and limit, §15.207

For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 uH/50 ohm line impedance stabilization network(LISN).

Compliance with the provision of this paragraph shall on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower applies at the boundary between the frequency ranges.

Frequency Range (MHz)	Conducted Limit (dBuV)	
	Quasi-Peak	Average
0.15 ~ 0.5	66 to 56 *	56 to 46 *
0.5 ~ 5	56	46
5 ~ 30	60	50

* Decreases with the logarithm of the frequency

Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

▣ Test Procedure

1. The EUT is placed on a wooden table 80 cm above the reference ground plane.
2. The EUT is connected via LISN to the test power supply.
3. The measurement results are obtained as described below:
4. Detectors – Quasi Peak and Average Detector.

▣ Test Results: NA

8.7 Occupied Bandwidth

Test Requirements, RSS-Gen [6.6]

When an occupied bandwidth value is not specified in the applicable RSS, the transmitted signal bandwidth to be reported is to be its 99 % emission bandwidth, as calculated or measured.

▣ TEST CONFIGURATION

Refer to the APPENDIX I.

▣ TEST PROCEDURE

- The transmitter shall be operated at its maximum carrier power measured under normal test conditions.
- The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts.
- The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the occupied bandwidth (OBW) and video bandwidth (VBW) shall be approximately 3x RBW.

▣ TEST RESULTS: Comply

Test Mode	Data Rate	Frequency [MHz]	Test Results [MHz]
802.11b	11 Mbps	2412	12.028
		2437	12.042
		2462	12.069
802.11g	6 Mbps	2412	16.576
		2437	16.632
		2462	16.625
802.11n (HT20)	MCS 0	2412	17.593
		2437	17.579
		2462	17.600
802.11n (HT40)	MCS 0	2422	35.953
		2437	36.002
		2452	36.092

▣ RESULT PLOTS

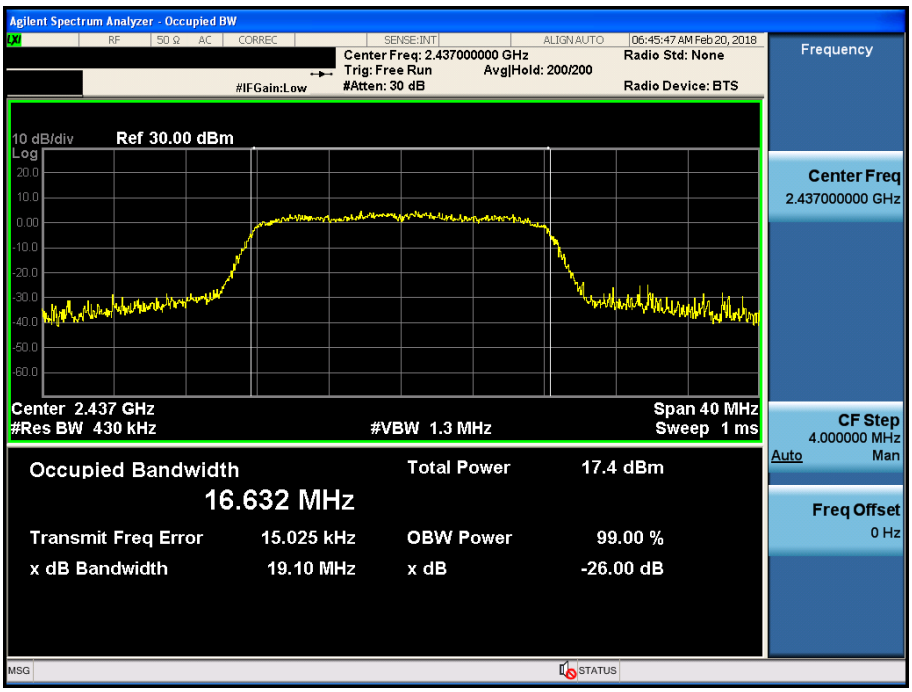
Occupied Bandwidth Test Mode: 802.11b & 1 Mbps & 2412 MHz

Occupied Bandwidth Test Mode: 802.11b & 1 Mbps & 2437 MHz

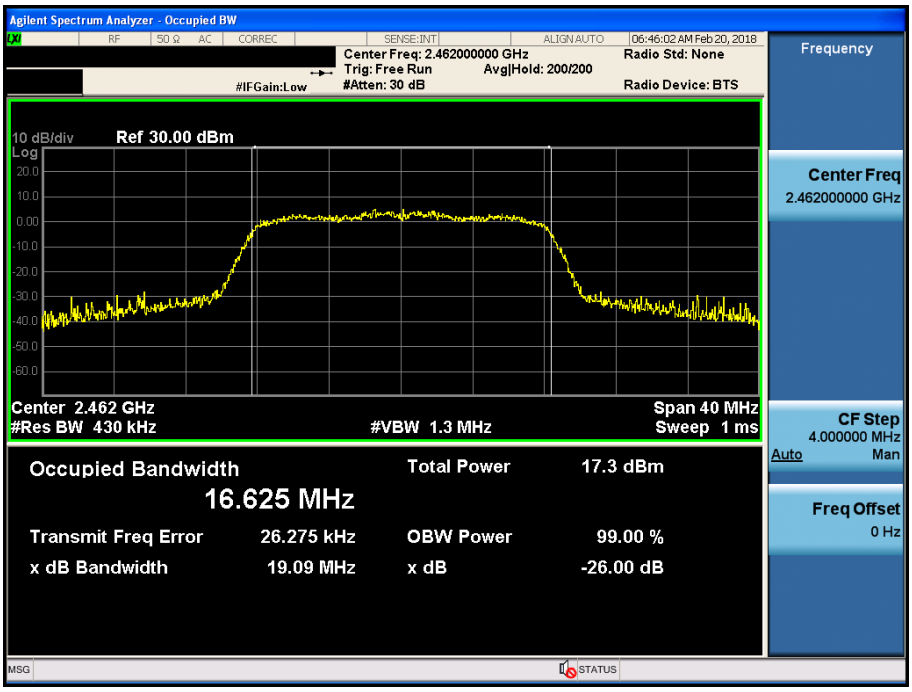
Occupied Bandwidth Test Mode: 802.11b & 1 Mbps & 2462 MHz

Occupied Bandwidth Test Mode: 802.11g & 6 Mbps & 2412 MHz

Occupied Bandwidth Test Mode: 802.11g & 6 Mbps & 2437 MHz

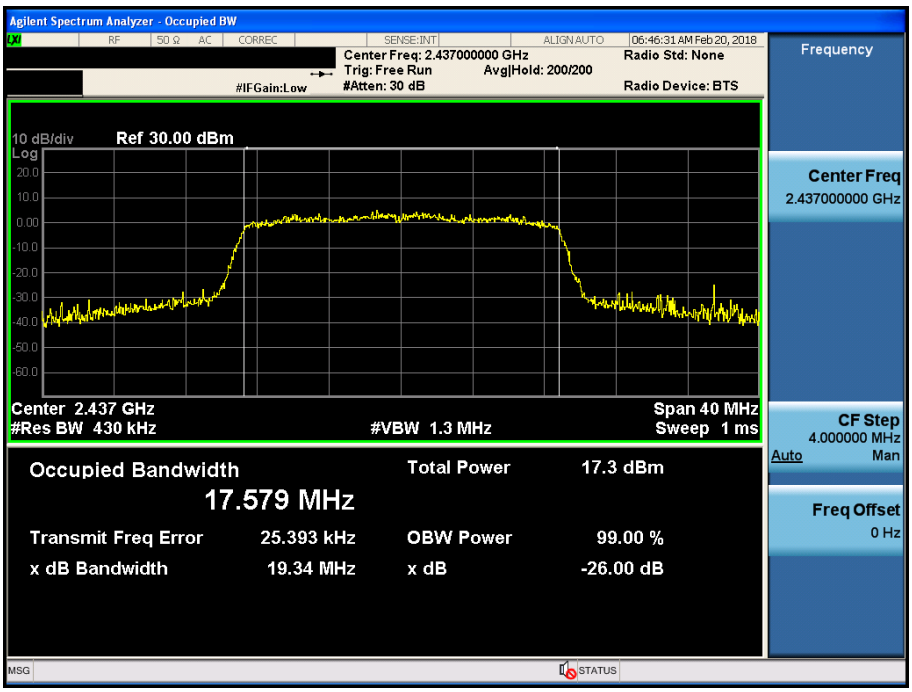


Occupied Bandwidth Test Mode: 802.11g & 6 Mbps & 2462 MHz



Occupied Bandwidth Test Mode: 802.11n(HT20) & MCS 0 & 2412 MHz

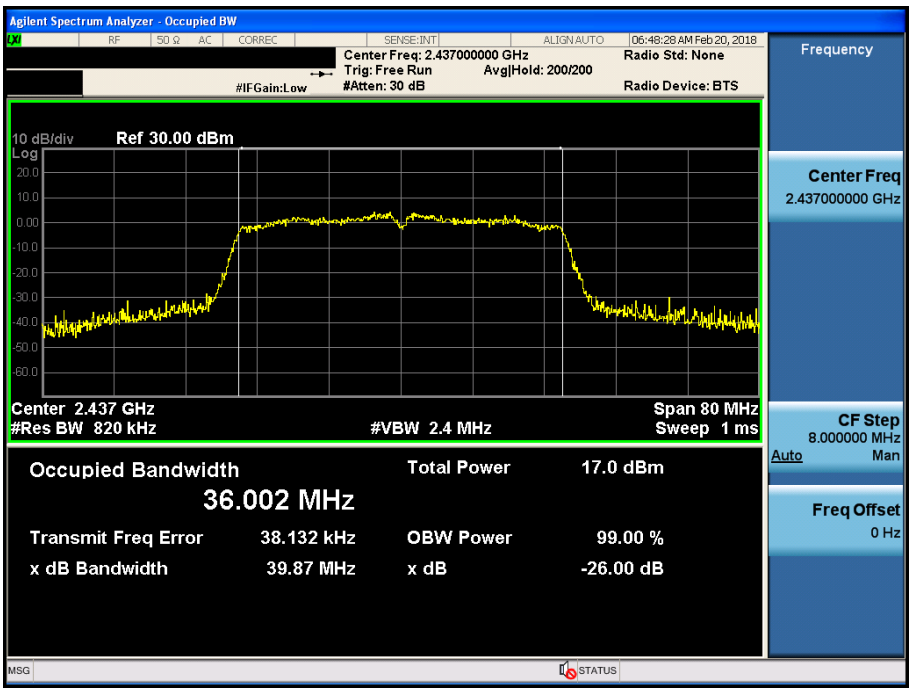
Occupied Bandwidth Test Mode: 802.11n(HT20) & MCS 0 & 2437 MHz



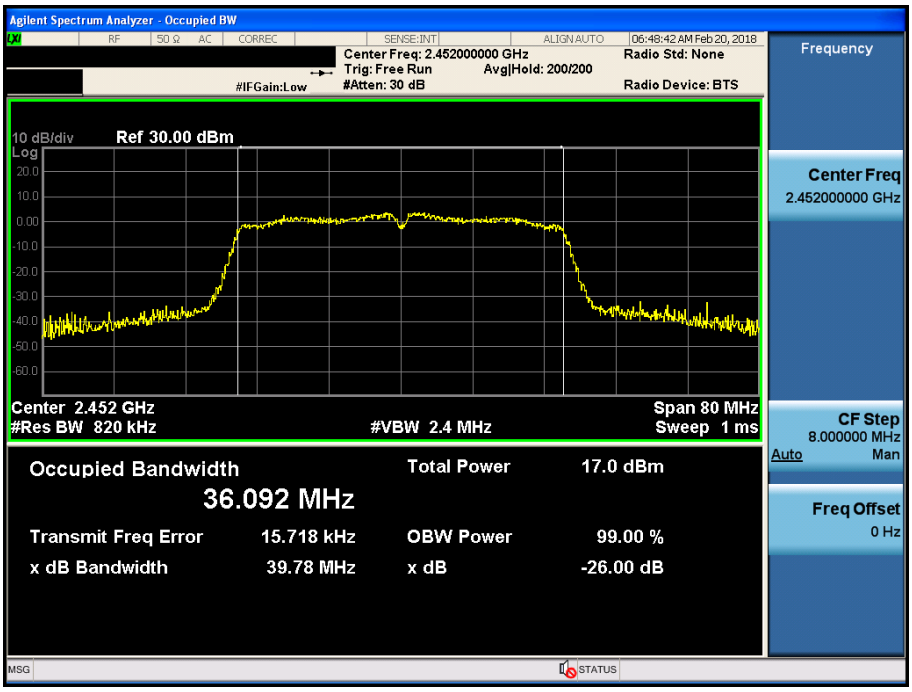
Occupied Bandwidth Test Mode: 802.11n(HT20) & MCS 0 & 2462 MHz

Occupied Bandwidth Test Mode: 802.11n(HT40) & MCS 0 & 2422 MHz

Occupied Bandwidth Test Mode: 802.11n(HT40) & MCS 0 & 2437 MHz



Occupied Bandwidth Test Mode: 802.11n(HT40) & MCS 0 & 2452 MHz



9. LIST OF TEST EQUIPMENT

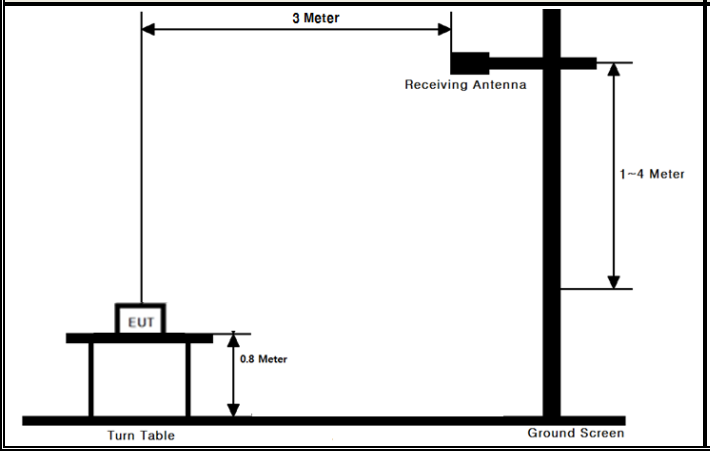
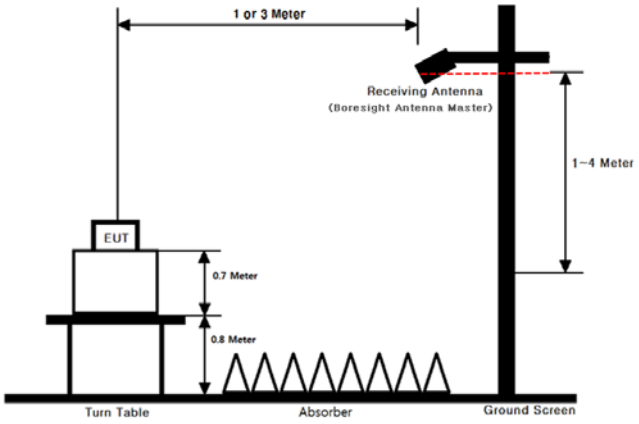
Type	Manufacturer	Model	Cal.Date (yy/mm/dd)	Next.Cal.Date (yy/mm/dd)	S/N
Spectrum Analyzer	Agilent Technologies	N9020A	17/07/12	18/07/12	MY46471601
Spectrum Analyzer	Agilent Technologies	N9020A	17/09/05	18/09/05	MY46471251
DC Power Supply	Agilent Technologies	66332A	17/09/05	18/09/05	MY43000211
DC Power Supply	SM techno	SDP30-5D	17/04/12	18/04/12	305DKA013
Multimeter	FLUKE	17B	17/04/12	18/04/12	26030065WS
Thermohygrometer	BODYCOM	BJ5478	17/04/11	18/04/11	120612-2
Signal Generator	R&S	SMBV100A	17/12/27	18/12/27	255571
Signal Generator	R&S	SMF100A	17/04/21	18/04/21	102341
Loop Antenna	Schwarzbeck	FMZB1513	16/04/22	18/04/22	1513-128
Bilog Antenna	Schwarzbeck	VULB9160	16/11/11	18/11/11	3151
HORN ANT	ETS-LINDGREN	3117	16/05/03	18/05/03	00140394
HORN ANT	A.H.Systems	SAS-574	17/07/17	19/07/17	155
High-pass filter	Wainwright	WHKX12-2580-3000-18000-80SS	17/09/05	18/09/05	3
High-pass Filter	Wainwright Instruments	WHNX6-6320-8000-26500-40CC	17/09/05	18/09/05	1
PreAmplifier	TSJ	MLA-010K01-B01-27	17/03/06	18/03/06	1844538
Amplifier	Agilent	8449B	17/09/05	18/09/05	3008A02108
EMI Test Receiver	Rohde Schwarz	ESR7	17/02/16 18/02/13	18/02/16 19/02/13	101109
Power Meter & Wide Bandwidth Sensor	Anritsu	ML2495A	17/04/11	18/04/11	1306007
		MA2490A	17/04/11	18/04/11	1249001

Note: The measurement antennas were calibrated in accordance to the requirements of ANSI C63.5-2017.

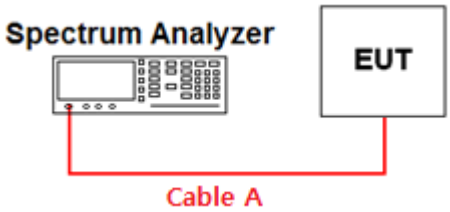
APPENDIX I

Test set up diagrams

- **Radiated Measurement**

Below 1GHz	Above 1GHz
	

- **Conducted Measurement**



Path loss information

Frequency (GHz)	Path Loss (dB)	Frequency (GHz)	Path Loss (dB)
0.03	0.44	15	3.32
1	0.74	20	4.21
2.412 & 2.422 & 2.437 & 2.452 & 2.462	1.34	25	4.62
5	1.87	-	-
10	2.48	-	-

Note 1: The path loss from EUT to Spectrum analyzer was measured and used for test.
Path loss (S/A's correction factor) = Cable A
(Attenuator, Applied only when it was used externally)

APPENDIX II

Duty cycle plots

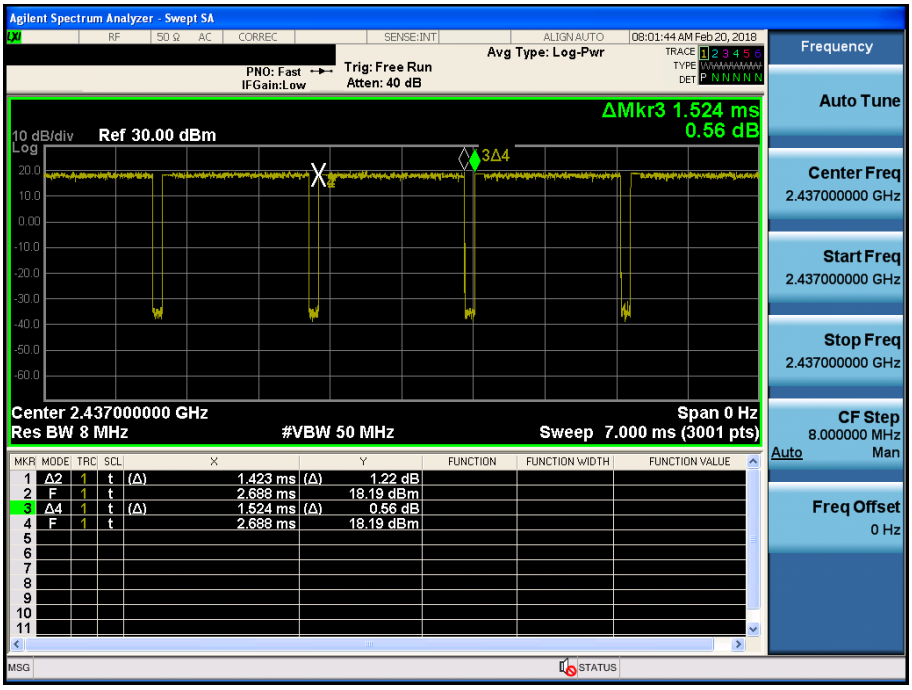
▪ Test Procedure

Duty Cycle was measured using **section 6.0 b) of KDB558074 D01V04 :**

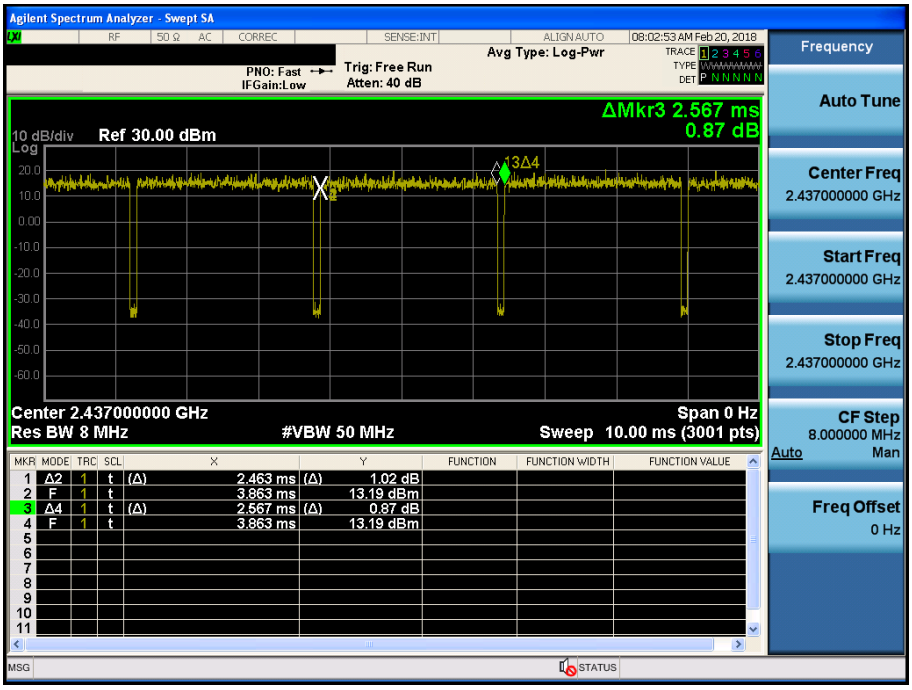
The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the on and off times of the transmitted signal. Set the center frequency of the instrument to the center frequency of the transmission. Set RBW ≥ OBW if possible; otherwise, set RBW to the largest available value. Set VBW ≥ RBW. Set detector = peak or average.

The zero-span measurement method shall not be used unless both RBW and VBW are > 50/T and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring duty cycle shall not be used if T ≤ 16.7 microseconds.)

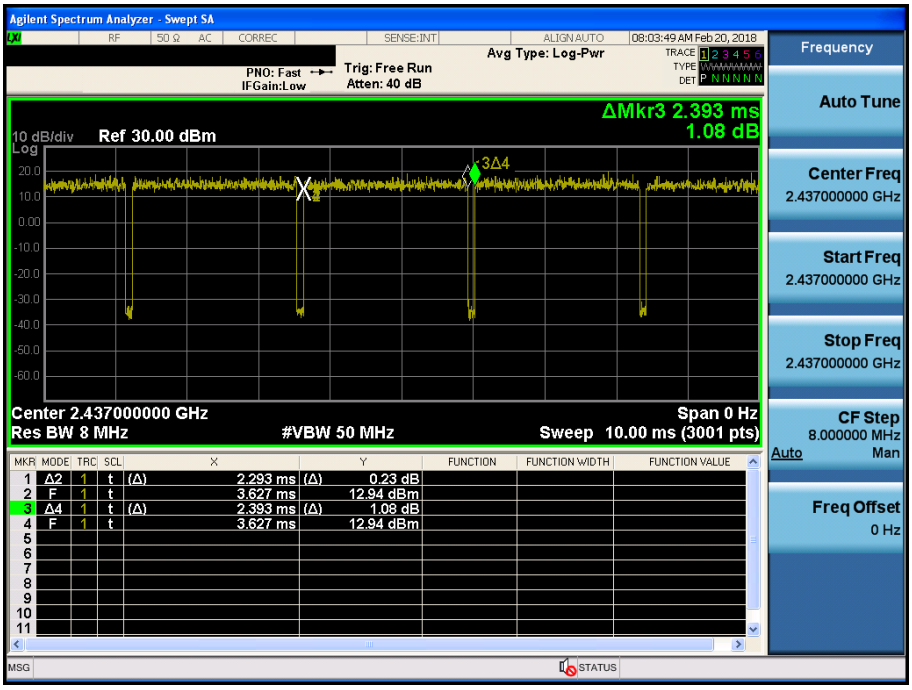
Duty Cycle TM 1 & Middle



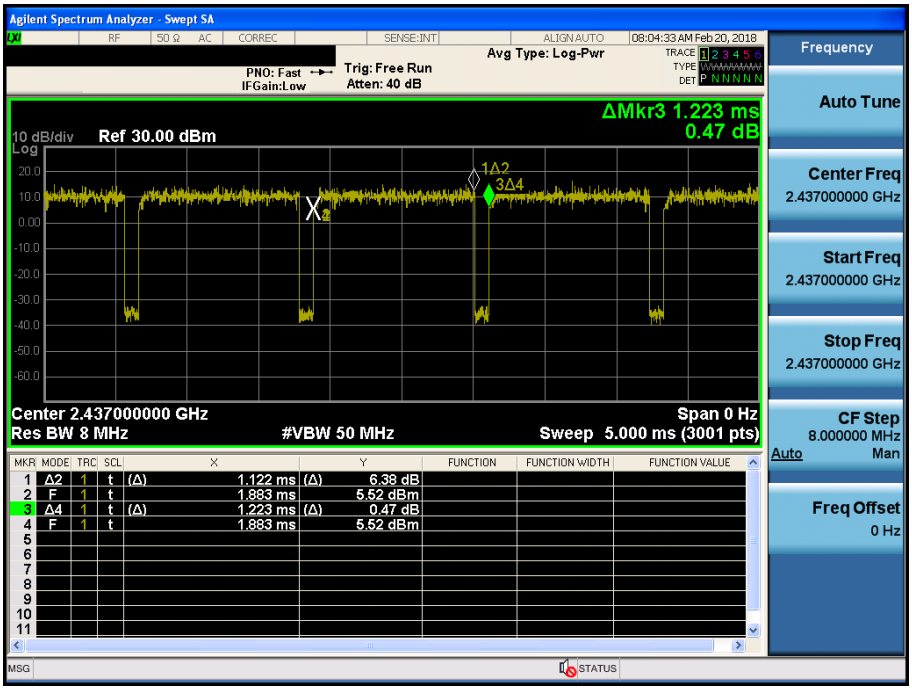
Duty Cycle TM 2 & Middle



Duty Cycle TM 3 & Middle



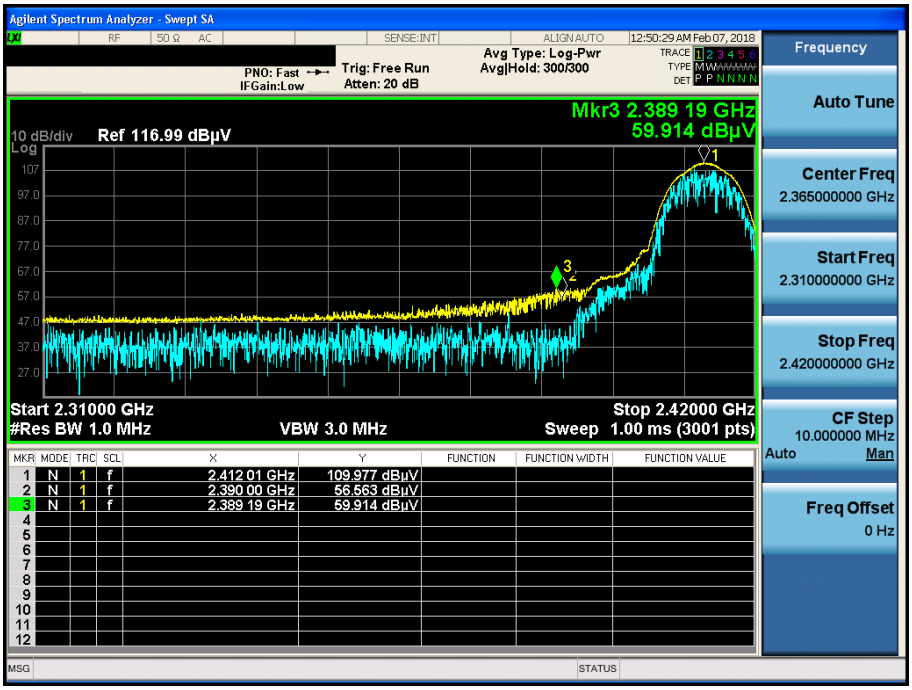
Duty Cycle TM 4 & Middle



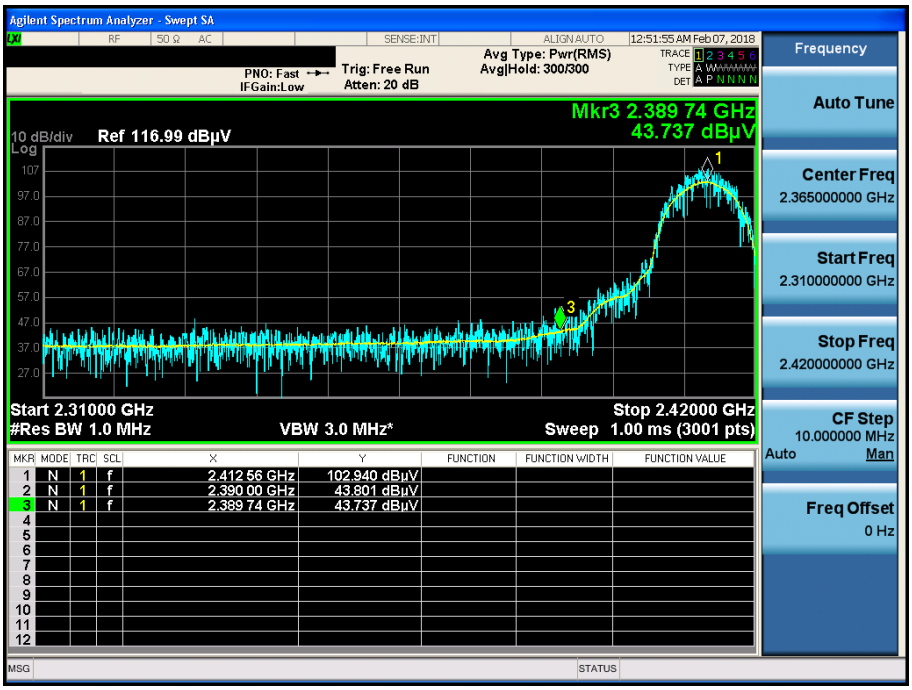
APPENDIX III

Unwanted Emissions (Radiated) Test Plot

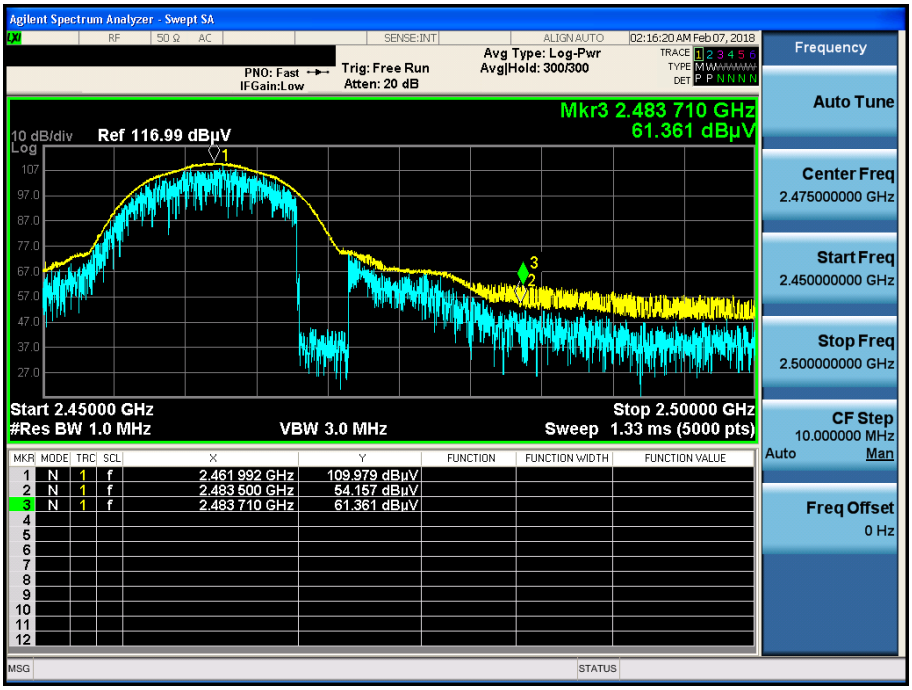
TM 1 & Lowest & X axis & Hor **Detector Mode : PK**



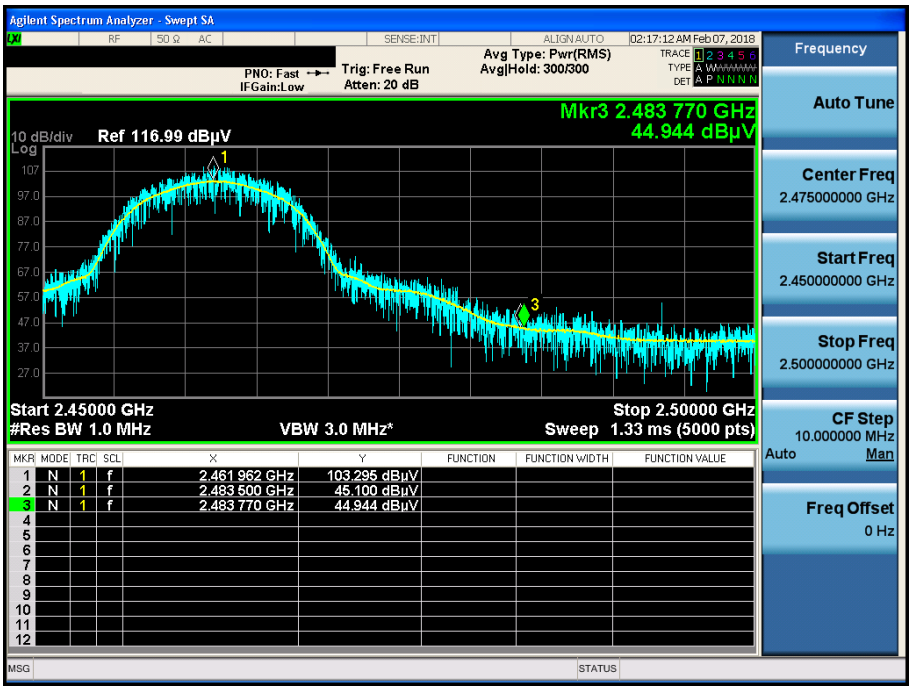
TM 1 & Lowest & X axis & Hor **Detector Mode : AV**



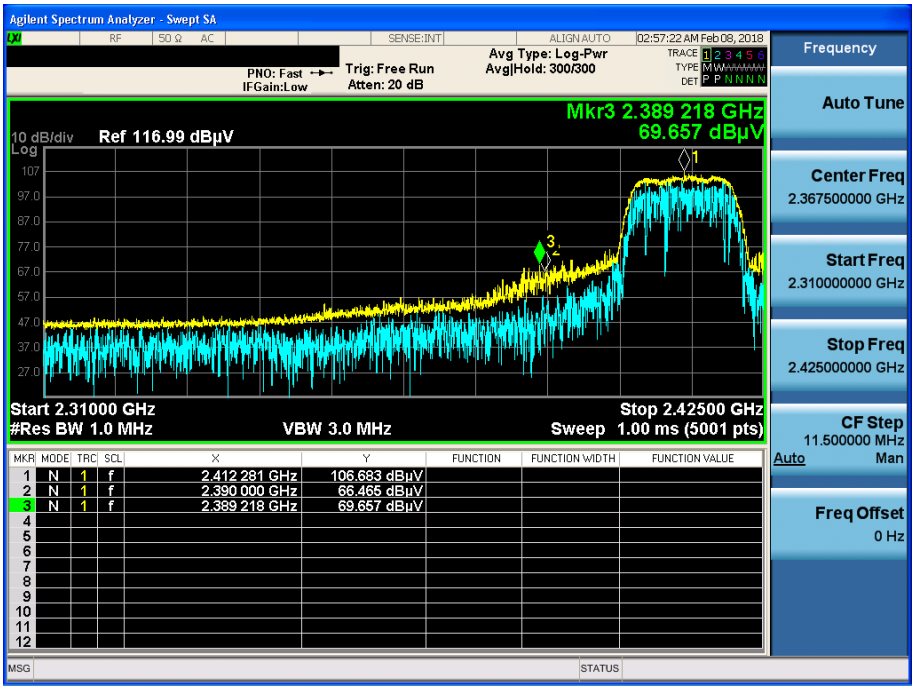
TM 1 & Highest & X axis & Hor **Detector Mode : PK**



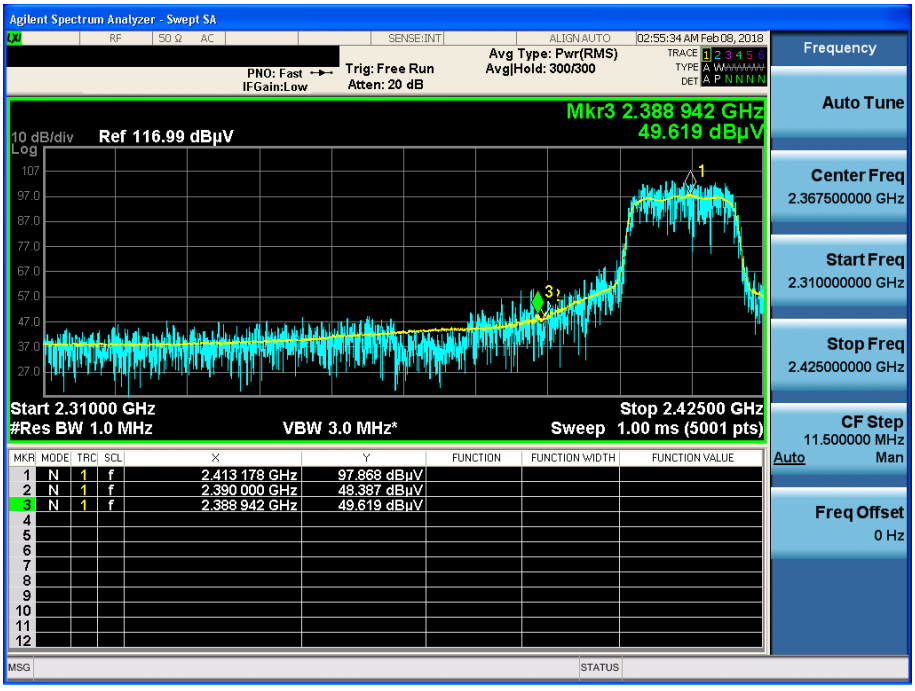
TM 1 & Highest & X axis & Hor **Detector Mode : AV**



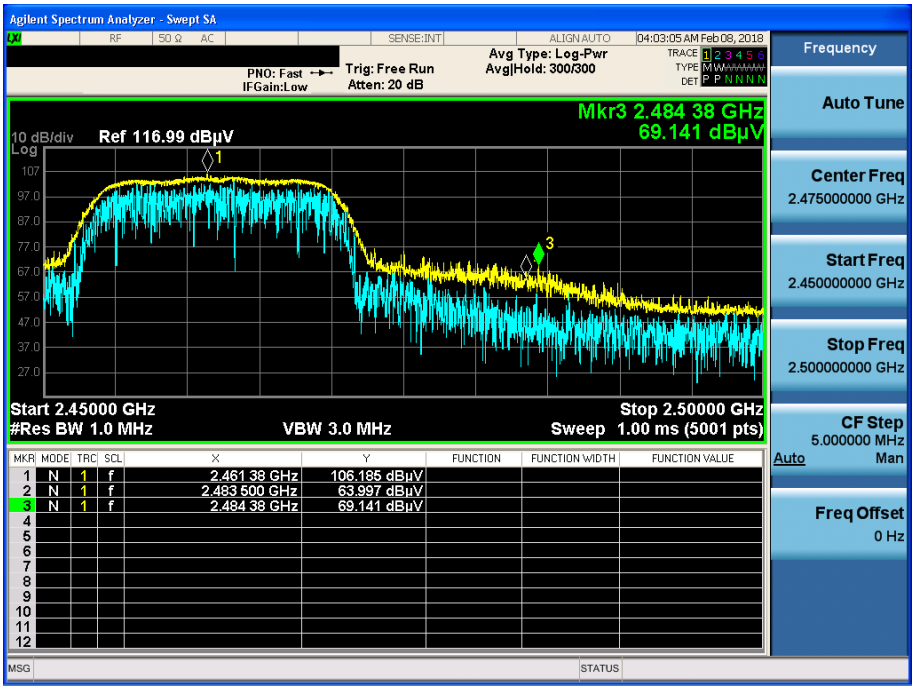
TM 2 & Lowest & X axis & Hor **Detector Mode : PK**



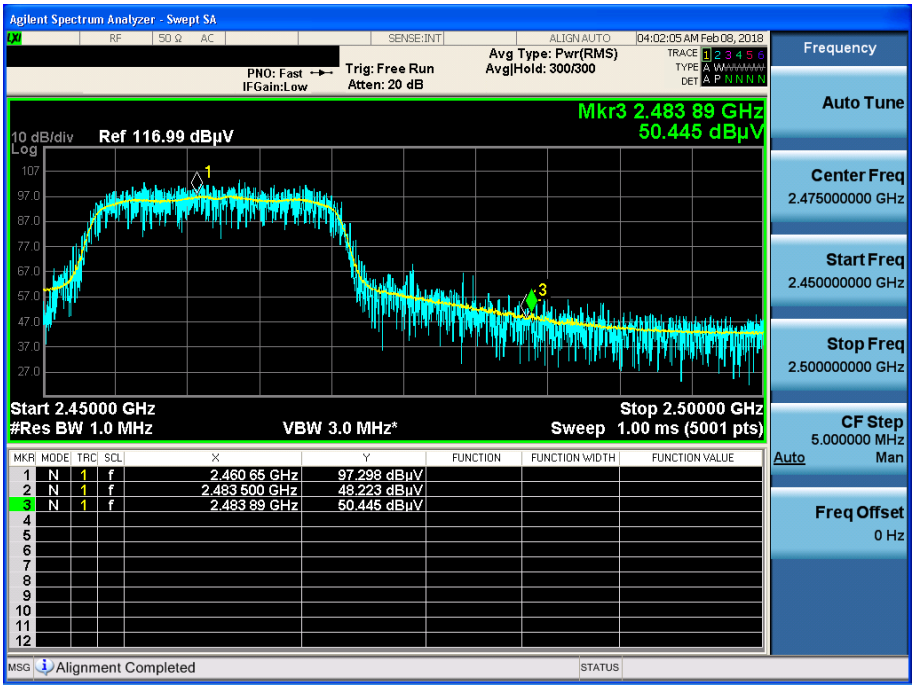
TM 2 & Lowest & X axis & Hor **Detector Mode : AV**



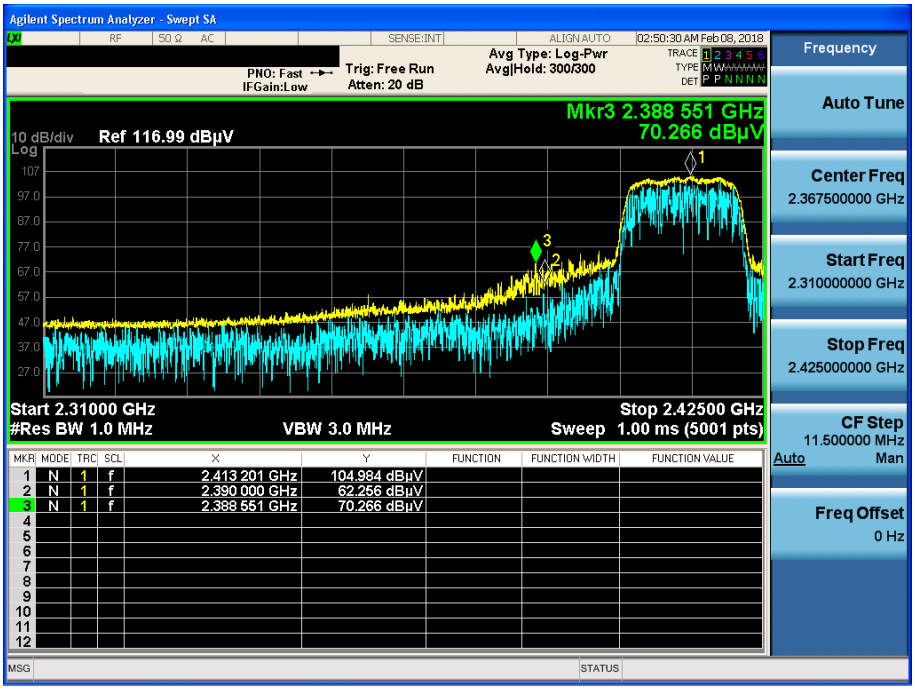
TM 2 & Highest & X axis & Hor **Detector Mode : PK**



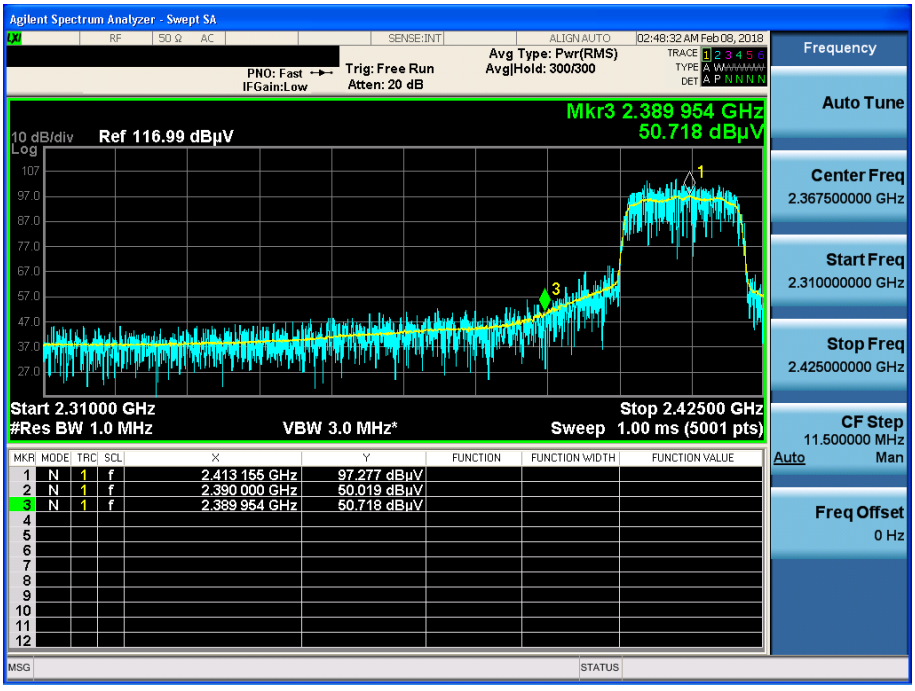
TM 2 & Highest & X axis & Hor **Detector Mode : AV**



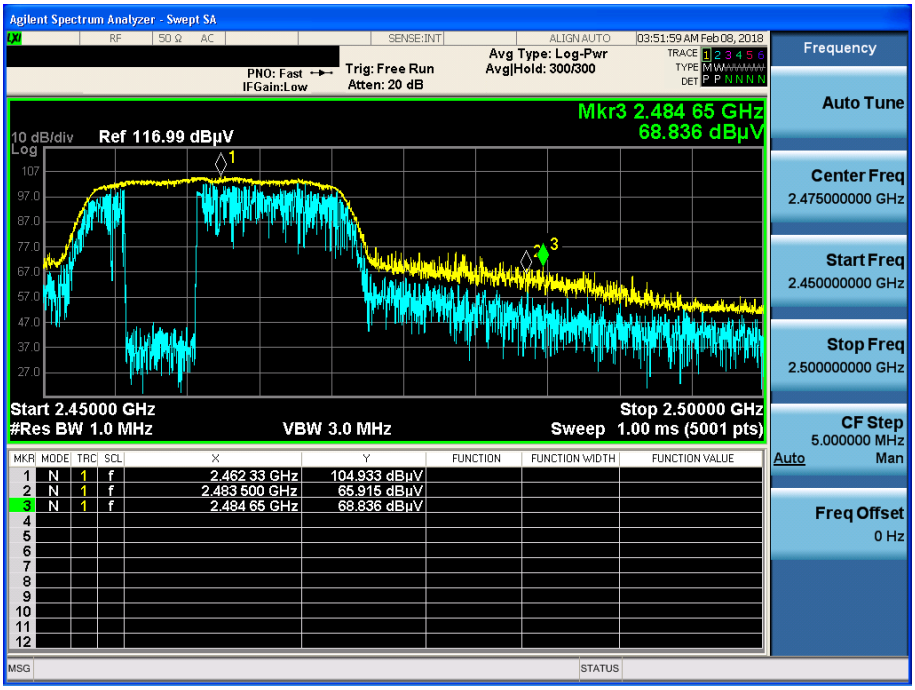
TM 3 & Lowest & X axis & Hor **Detector Mode : PK**



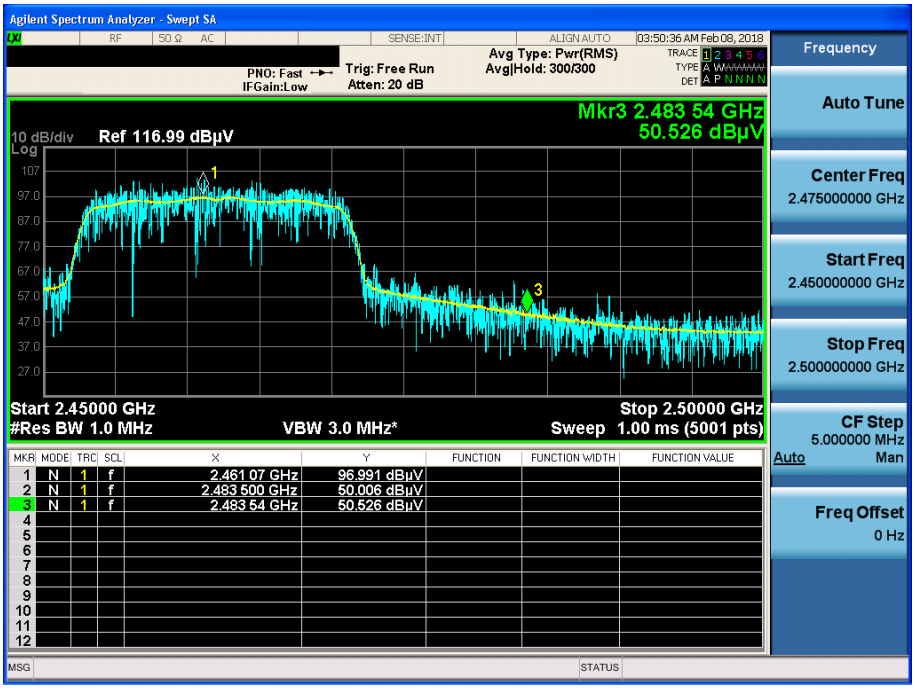
TM 3 & Lowest & X axis & Hor **Detector Mode : AV**



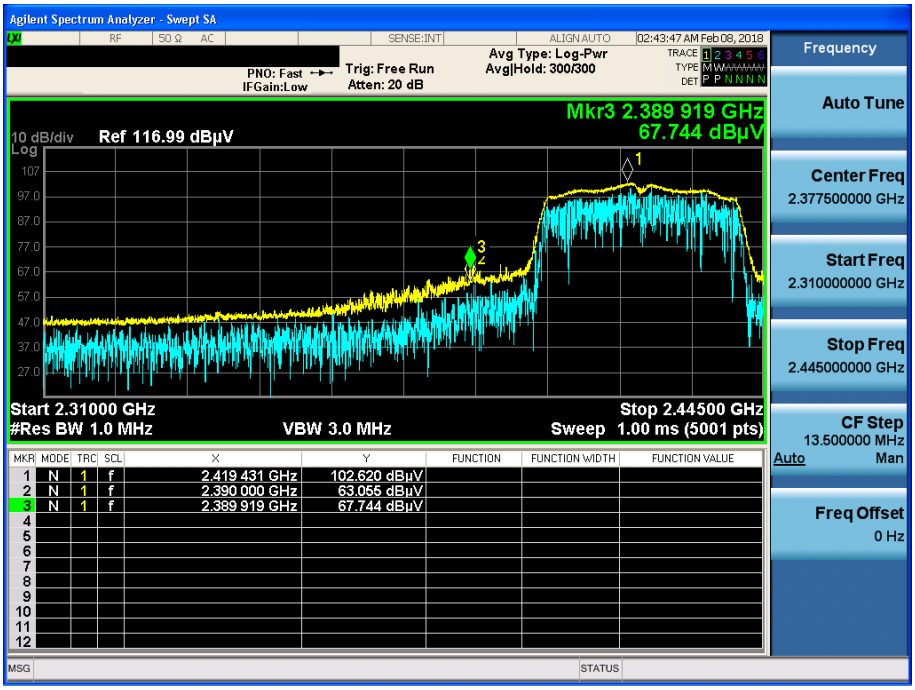
TM 3 & Highest & X axis & Hor **Detector Mode : PK**



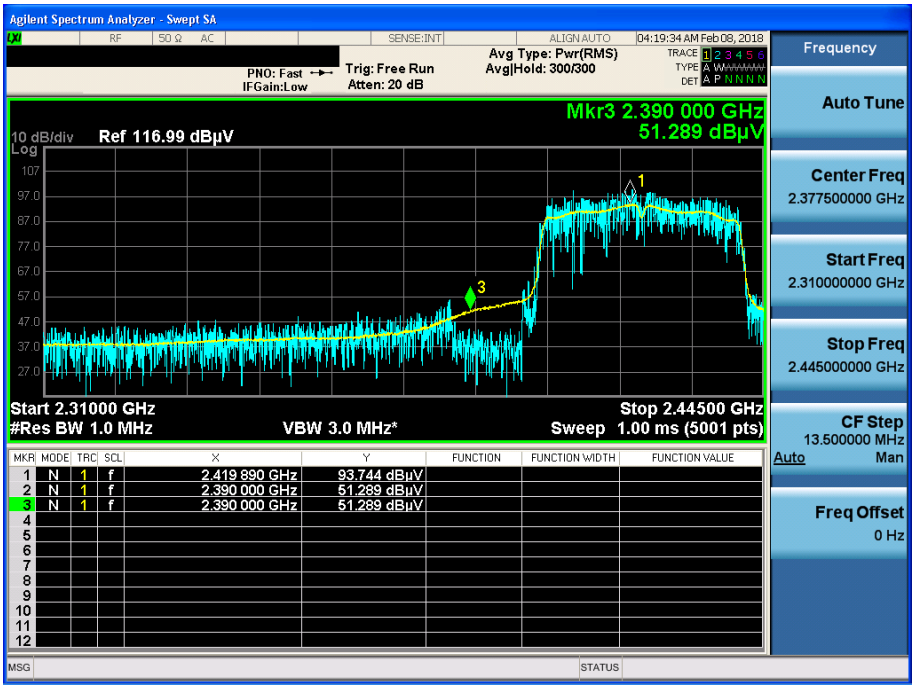
TM 3 & Highest & X axis & Hor **Detector Mode : AV**



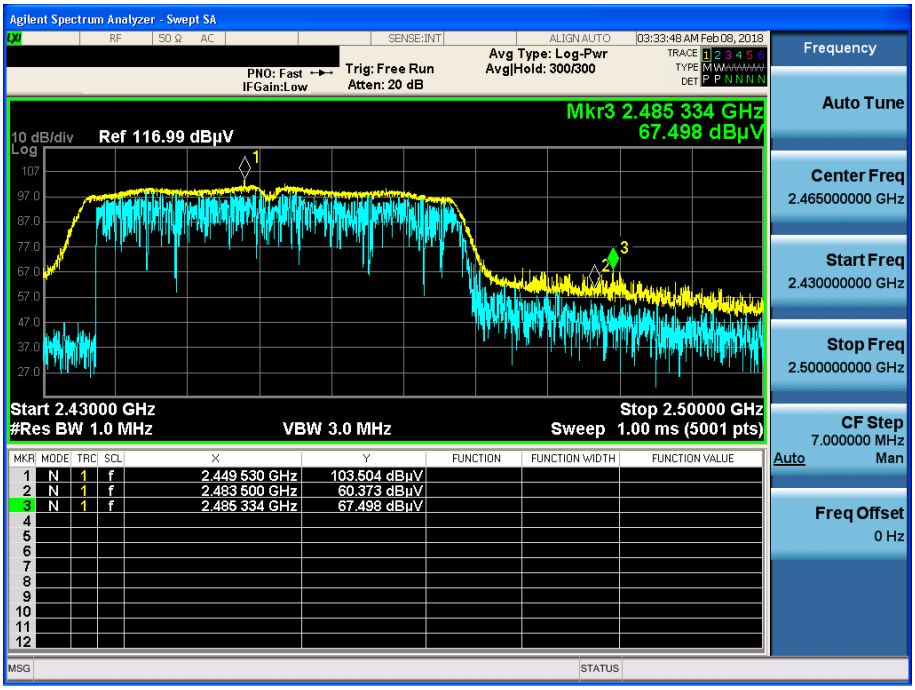
TM 4 & Lowest & X axis & Hor **Detector Mode : PK**



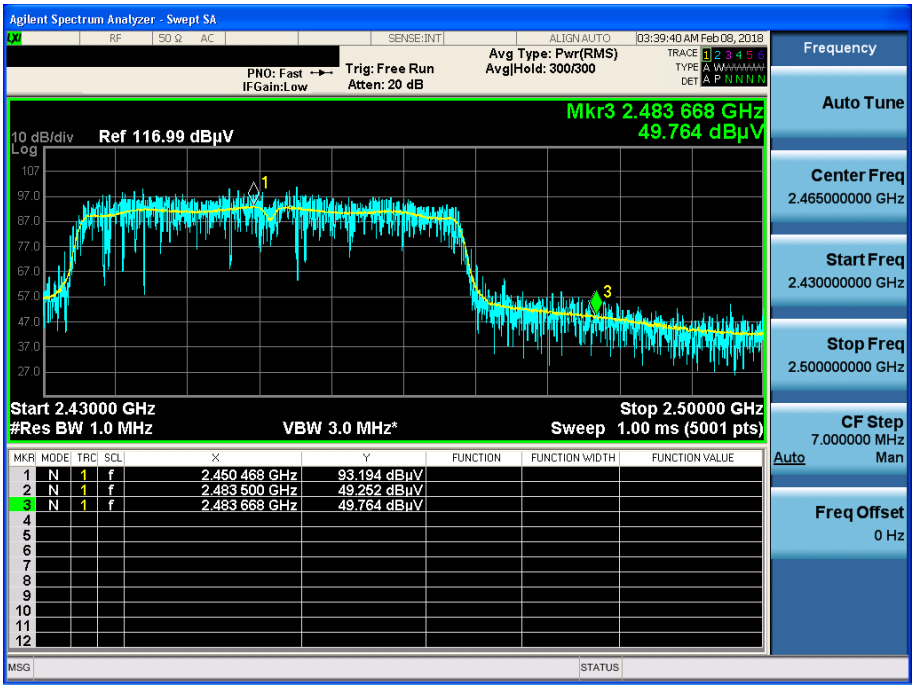
TM 4 & Lowest & X axis & Hor **Detector Mode : AV**



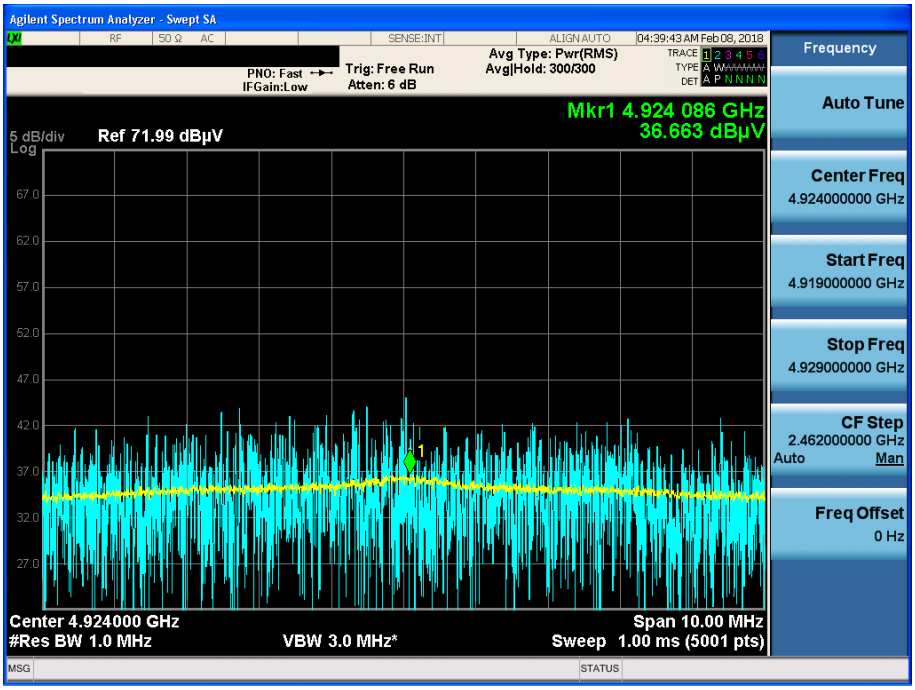
TM 4 & Highest & X axis & Hor **Detector Mode : PK**



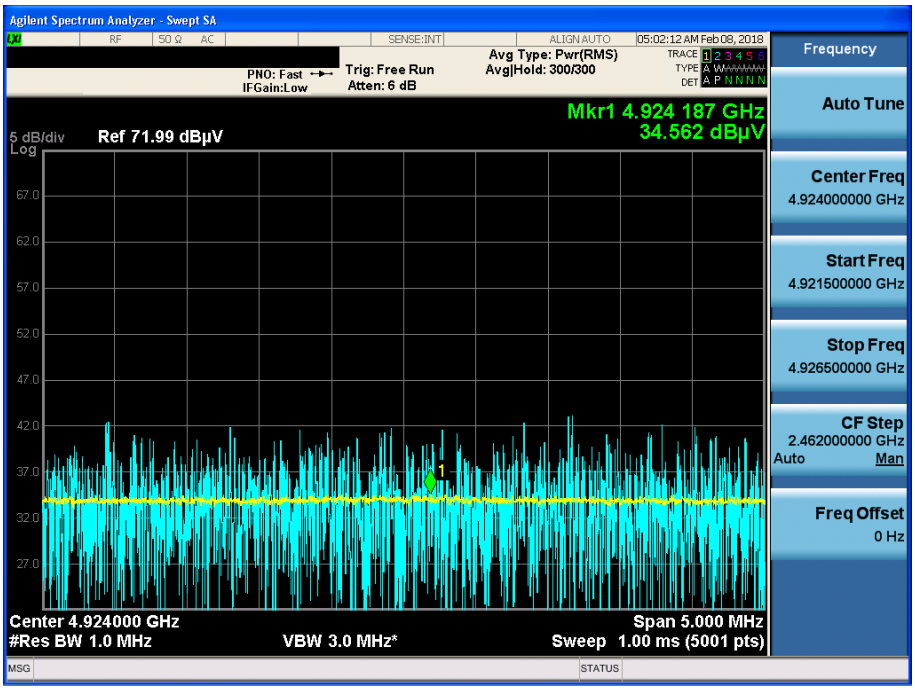
TM 4 & Highest & X axis & Hor **Detector Mode : AV**



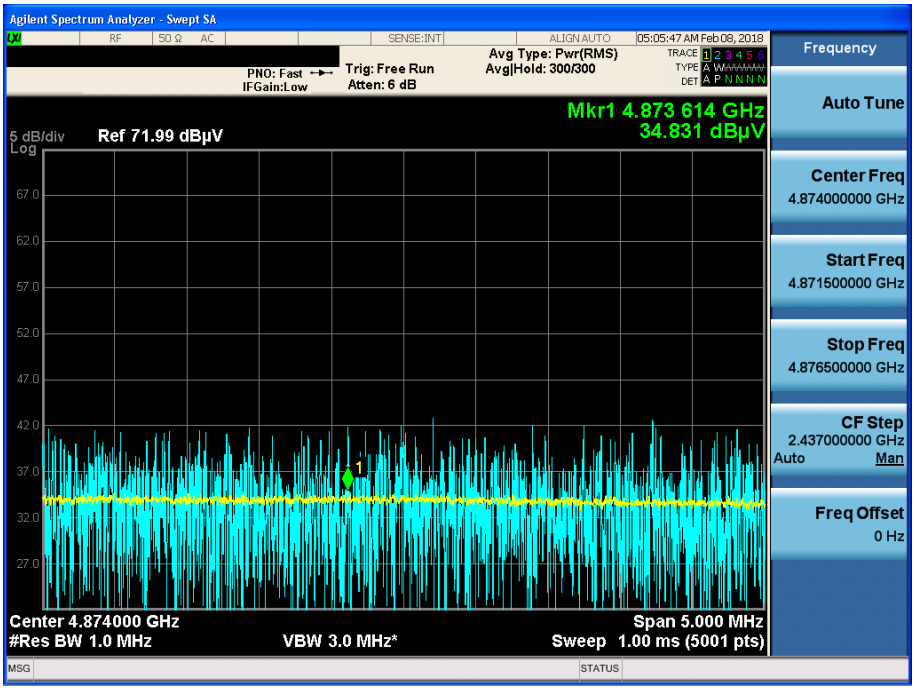
TM 1 & Highest & X axis & Hor **Detector Mode : AV**



TM 2 & Highest & X axis & Hor **Detector Mode : AV**



TM 3 & Middle & X axis & Hor **Detector Mode : AV**



TM 4 & Highest & X axis & Hor **Detector Mode : AV**