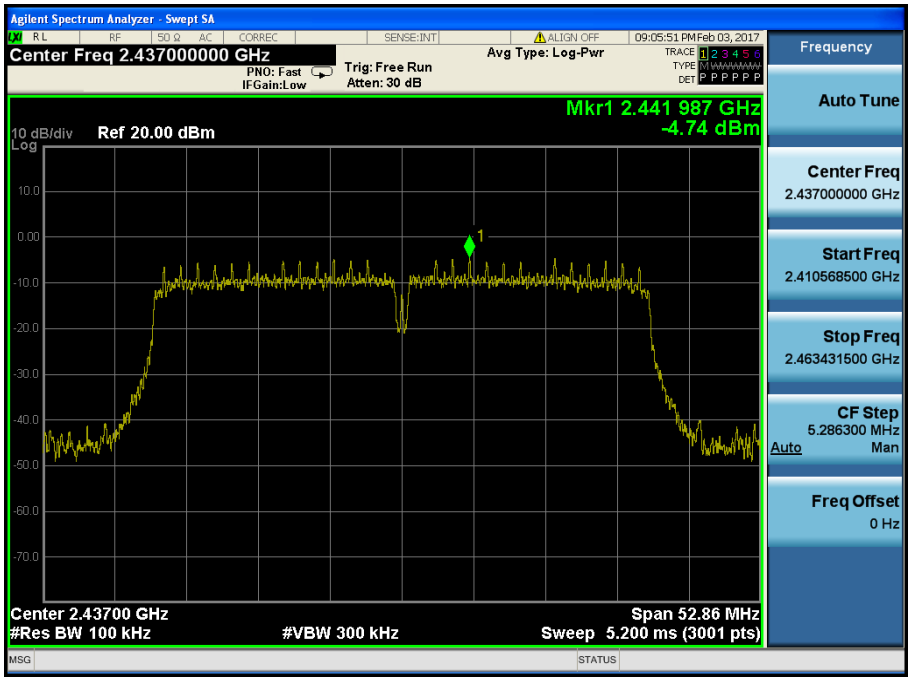
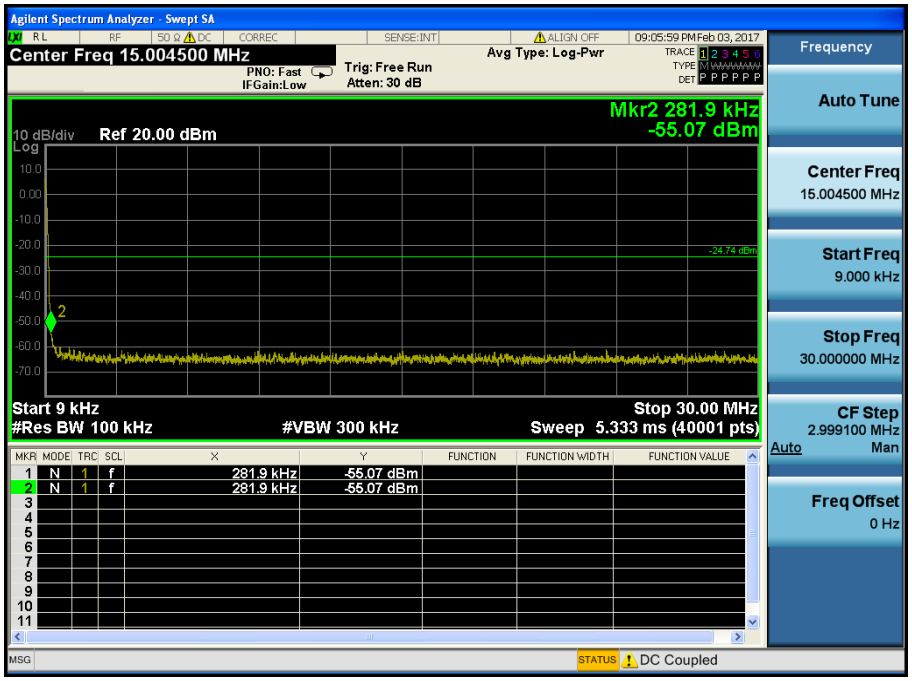
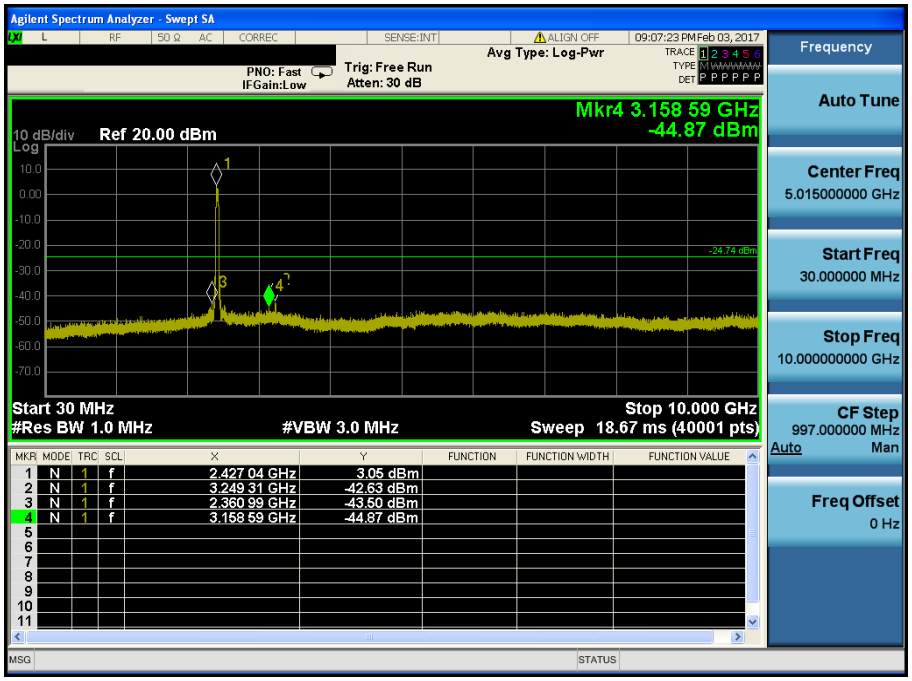
Reference (Test Channel : Middle)



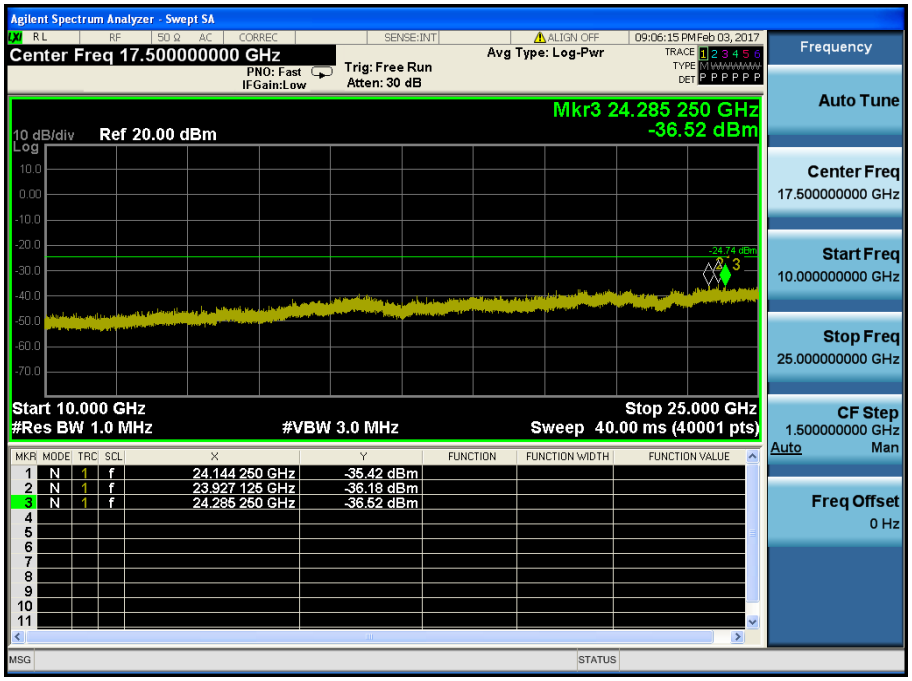
Conducted Spurious Emissions 1 (Test Channel : Middle)



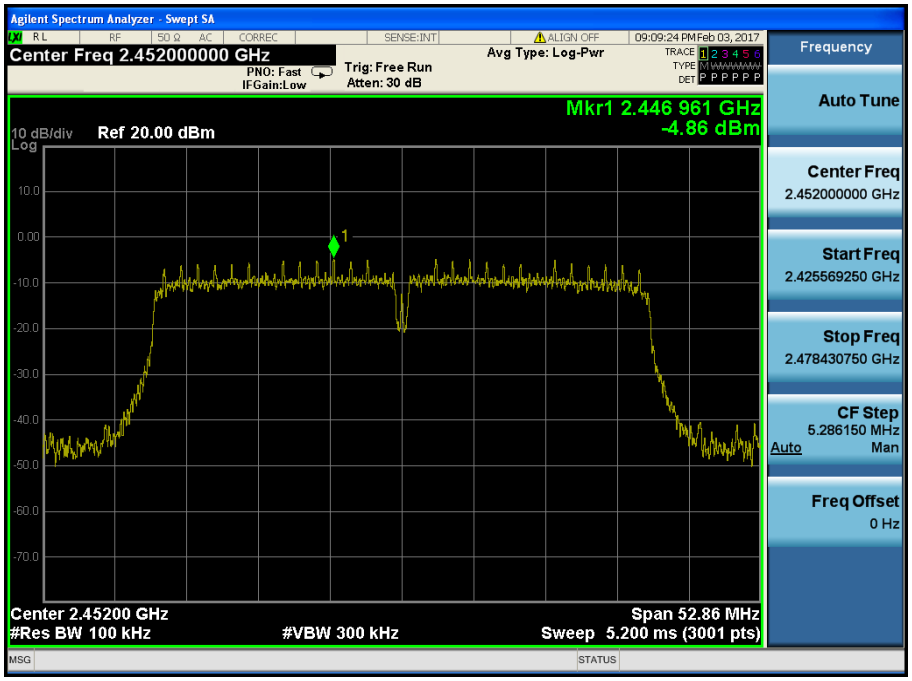
Conducted Spurious Emissions 2 (Test Channel : Middle)



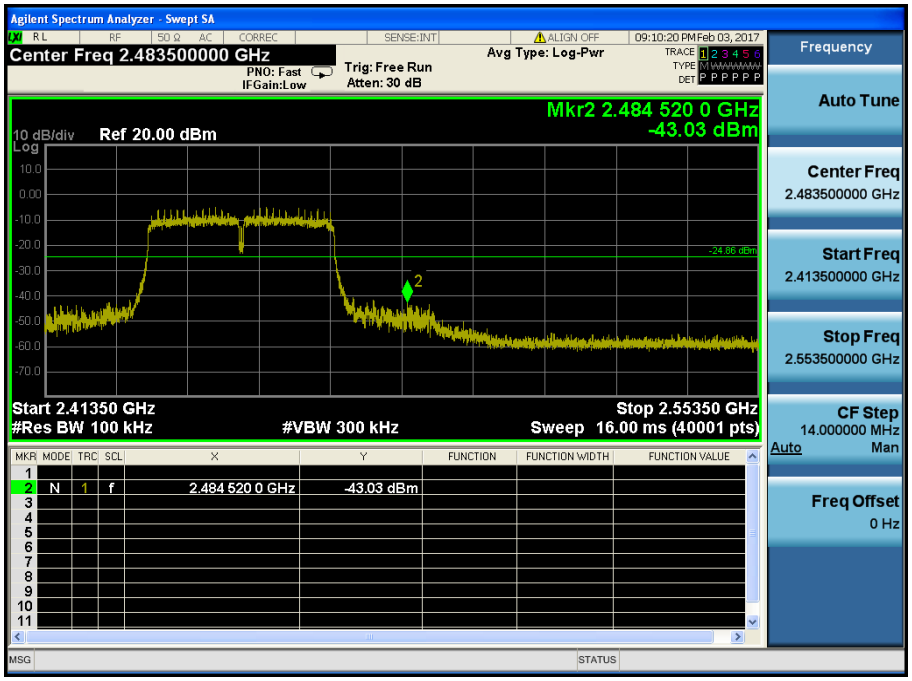
Conducted Spurious Emissions 3 (Test Channel : Middle)



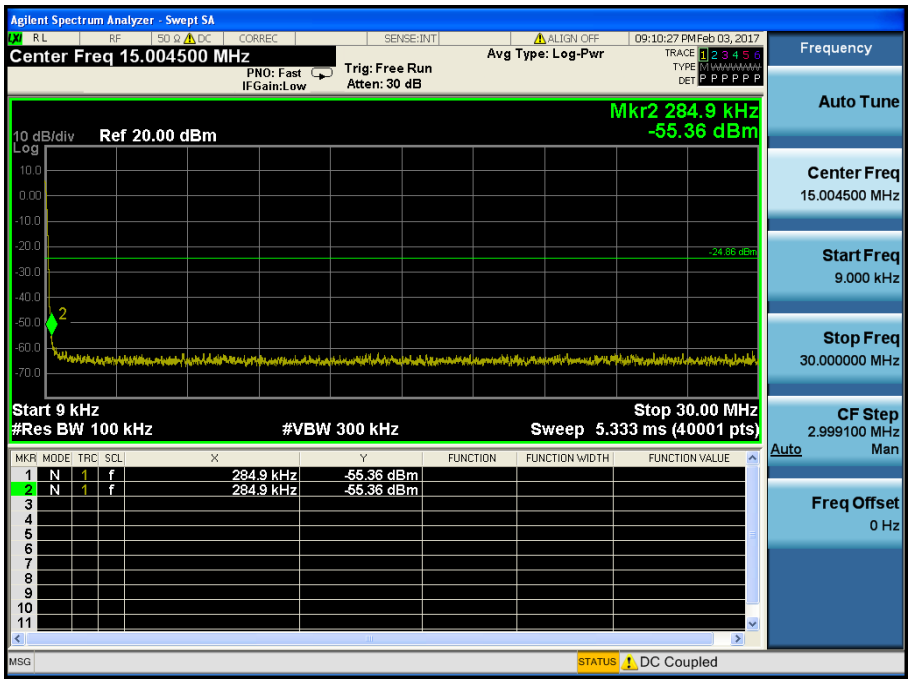
Reference (Test Channel : Highest)



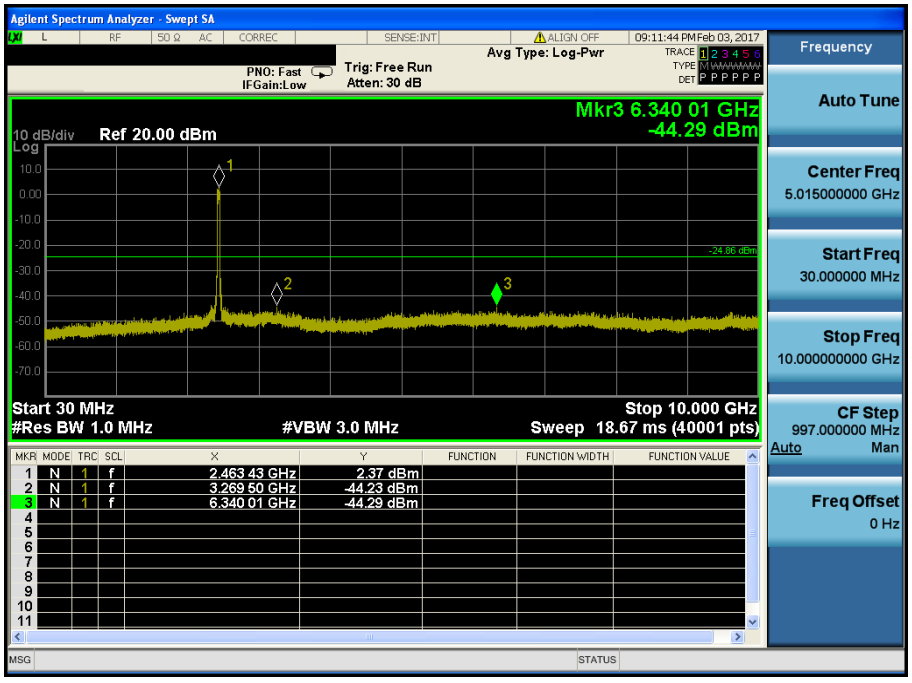
High Band-edge (Test Channel : Highest)



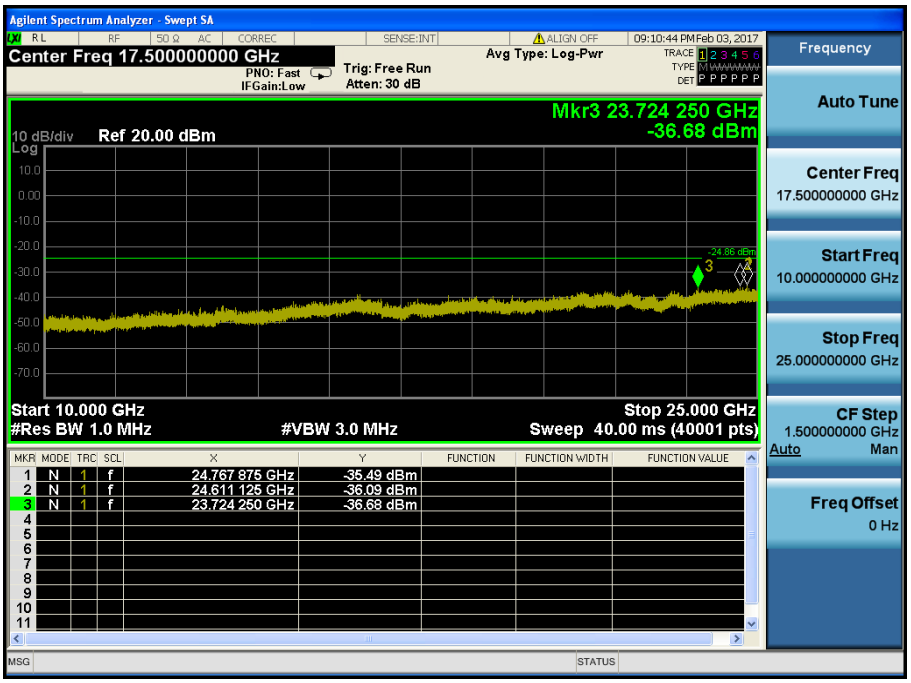
Conducted Spurious Emissions 1 (Test Channel : Highest)



Conducted Spurious Emissions 2 (Test Channel : Highest)

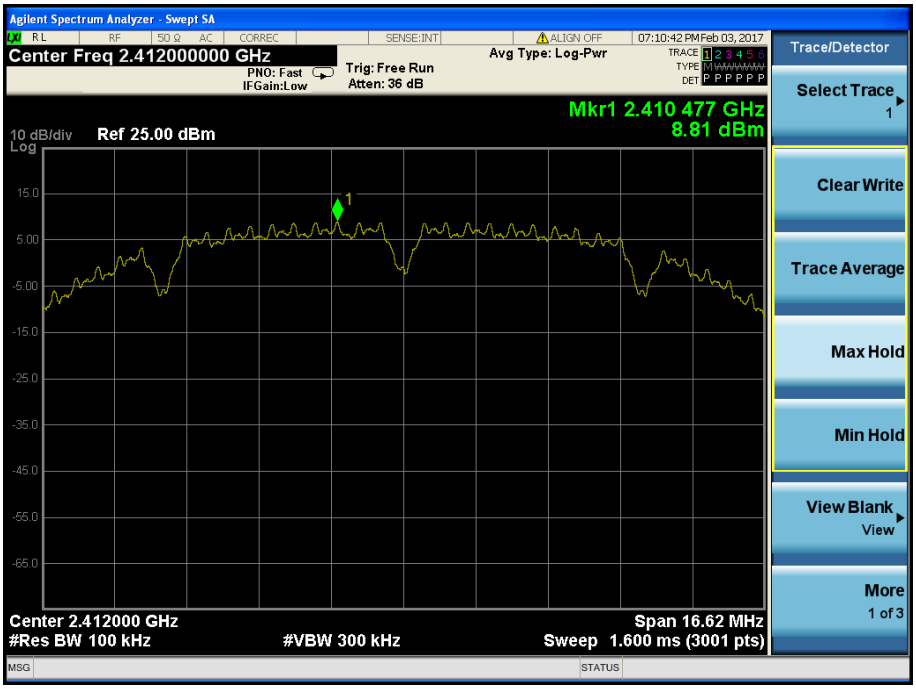


Conducted Spurious Emissions 3 (Test Channel : Highest)



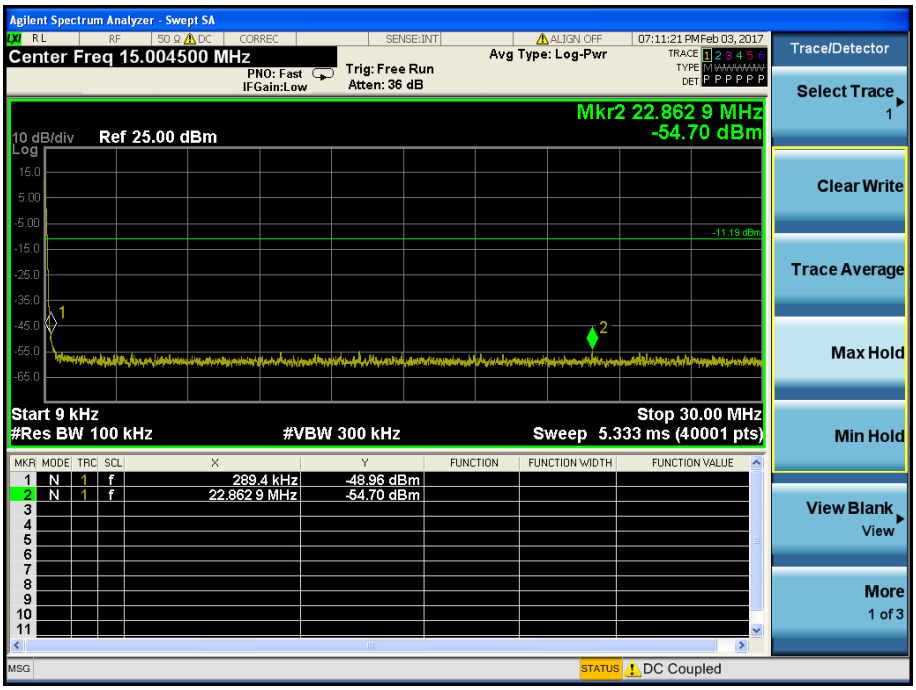
<TM 1 & ANT 2>

Reference (Test Channel : Lowest)

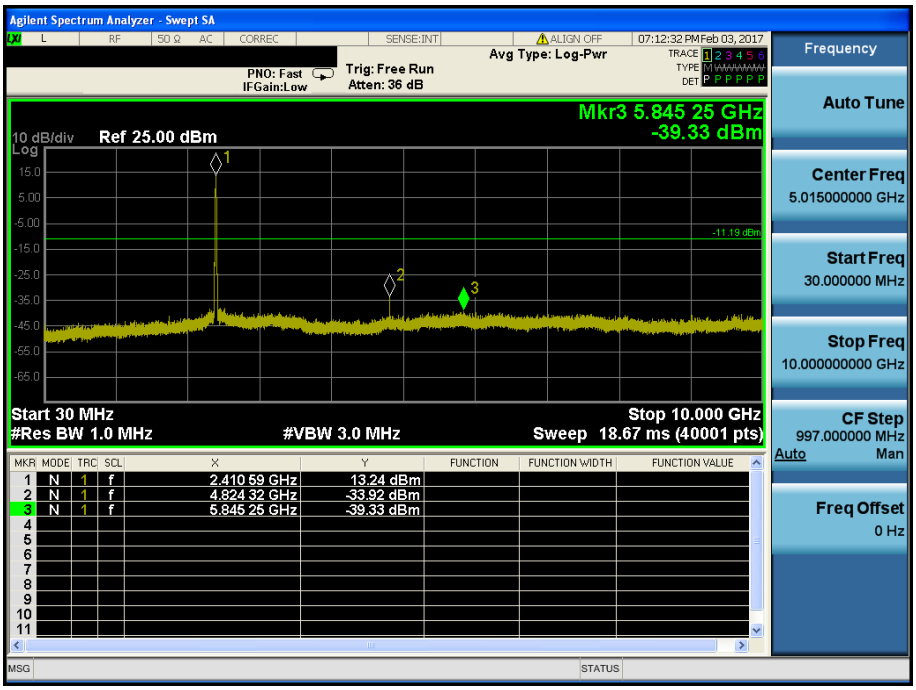


Low Band-edge (Test Channel : Lowest)

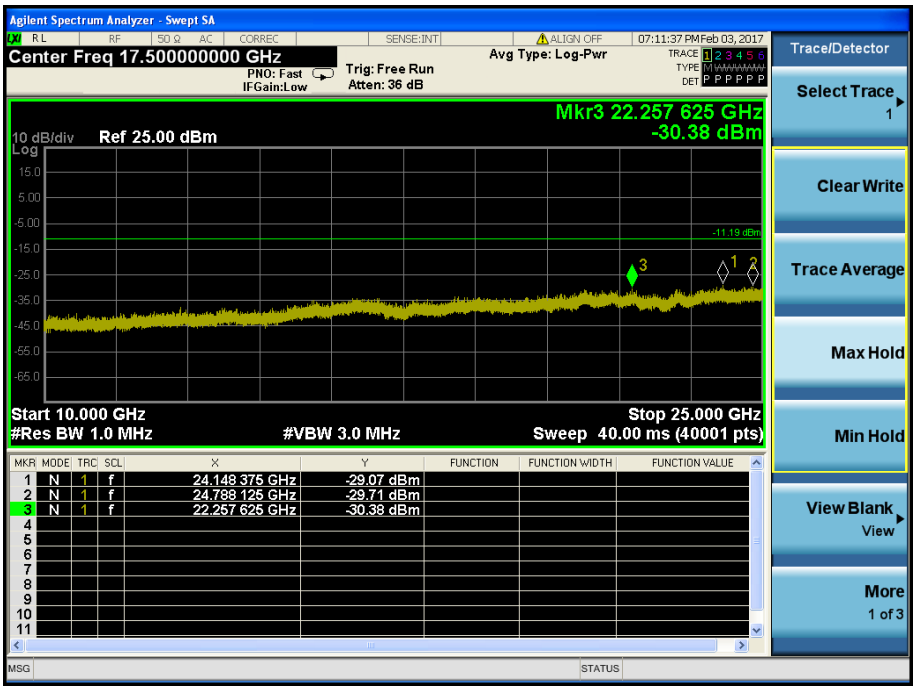
Conducted Spurious Emissions 1 (Test Channel : Lowest)



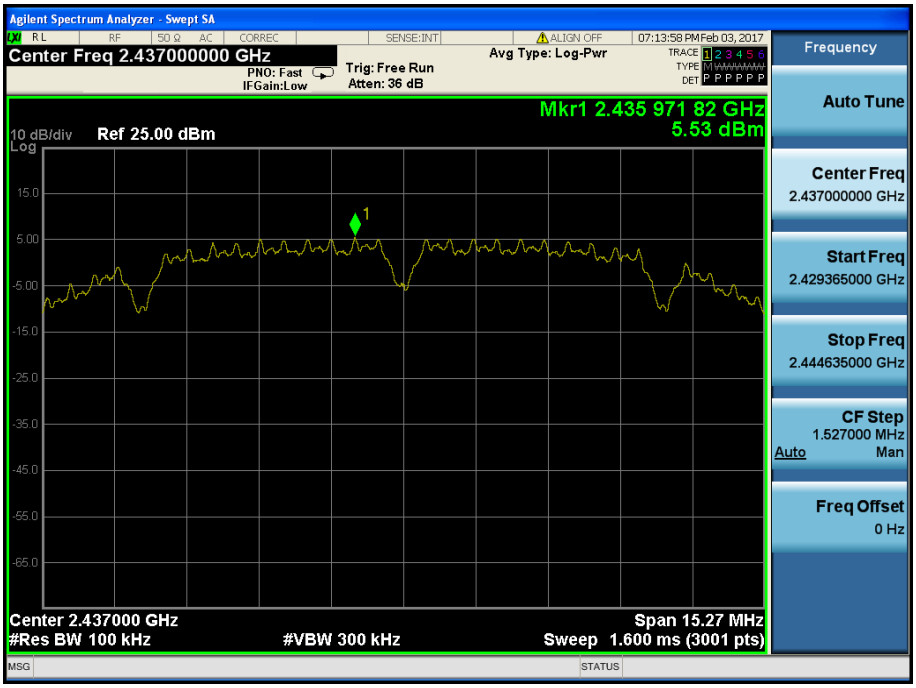
Conducted Spurious Emissions 2 (Test Channel : Lowest)



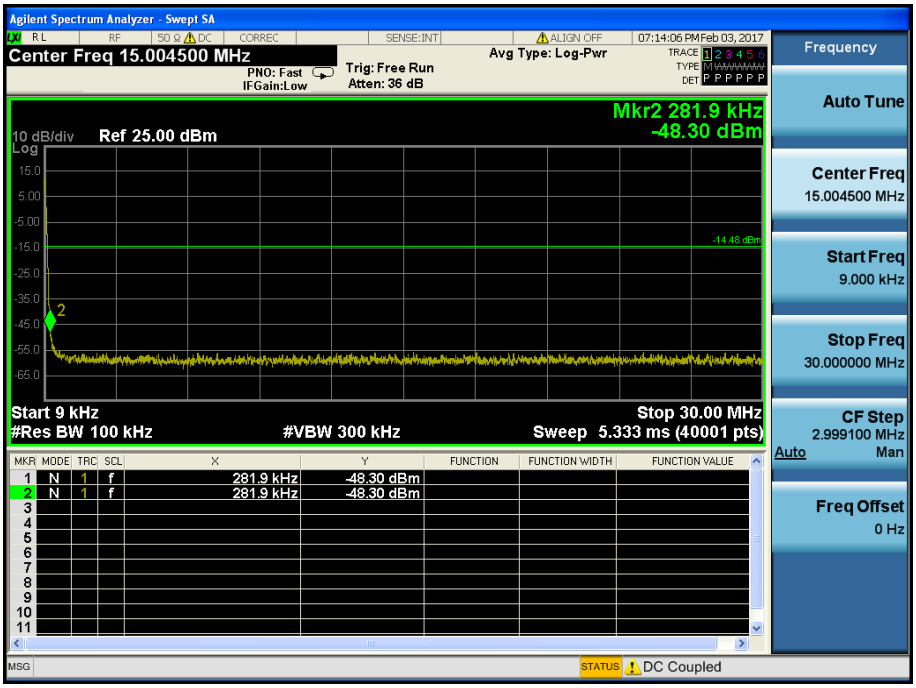
Conducted Spurious Emissions 3 (Test Channel : Lowest)



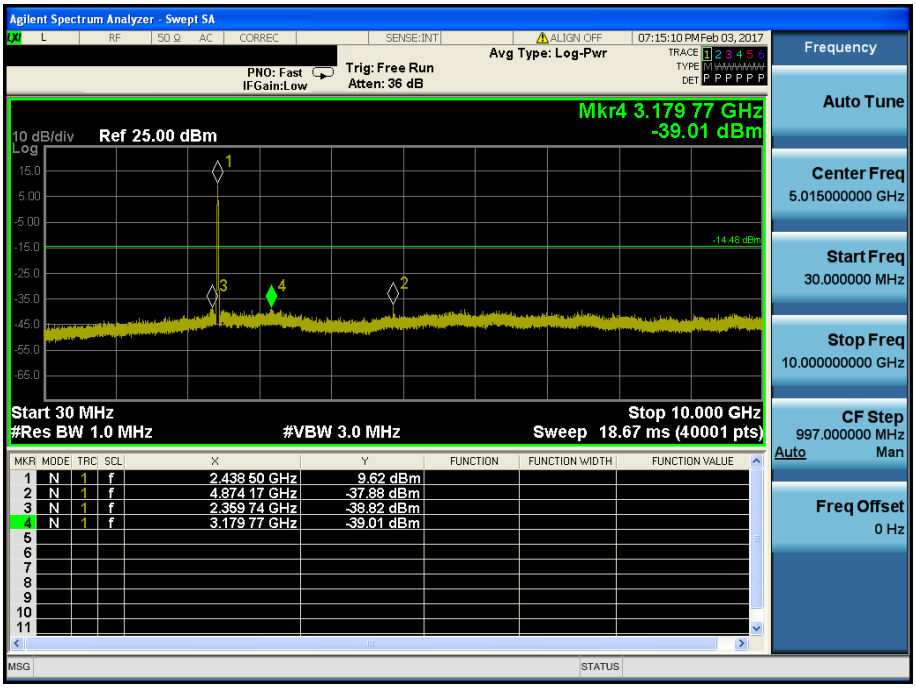
Reference (Test Channel : Middle)



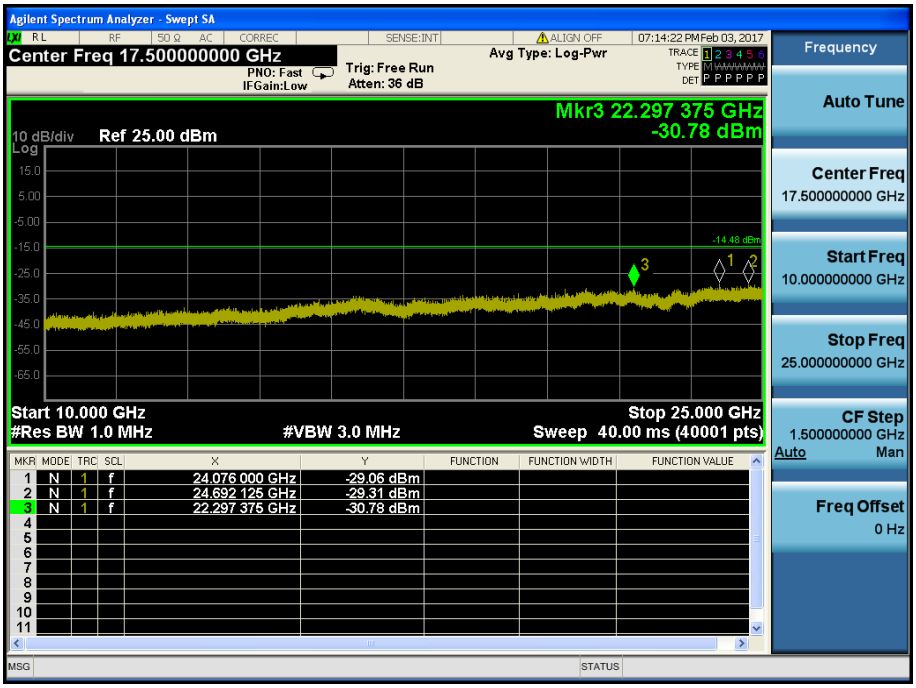
Conducted Spurious Emissions 1 (Test Channel : Middle)



Conducted Spurious Emissions 2 (Test Channel : Middle)

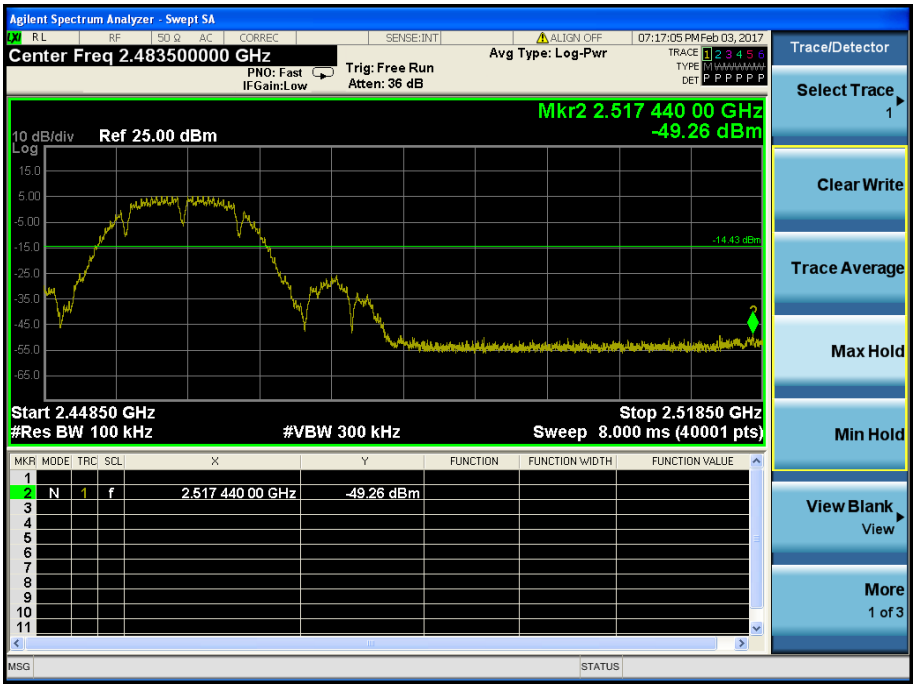


Conducted Spurious Emissions 3 (Test Channel : Middle)

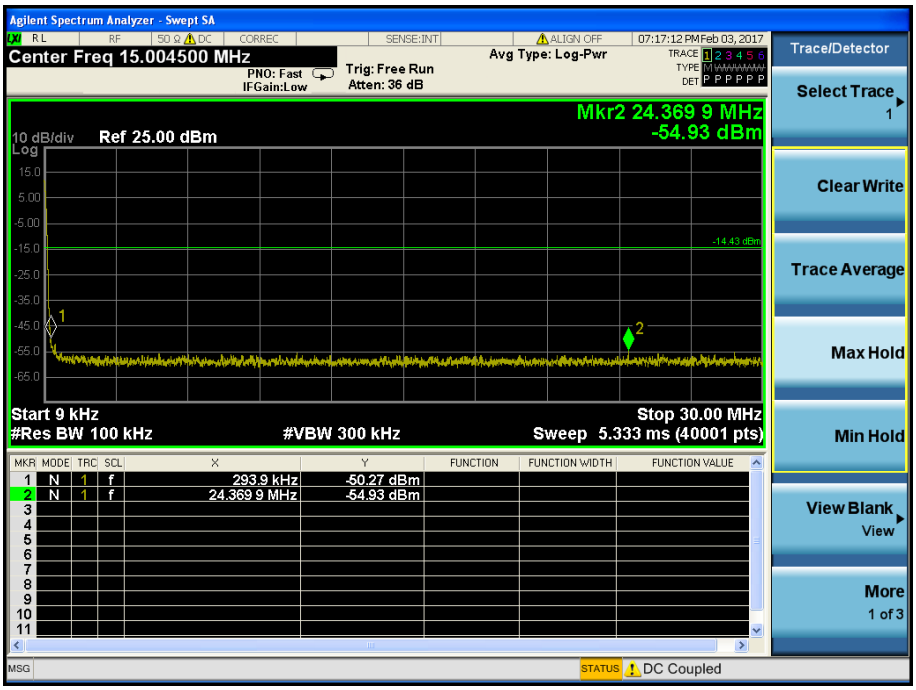


Reference (Test Channel : Highest)

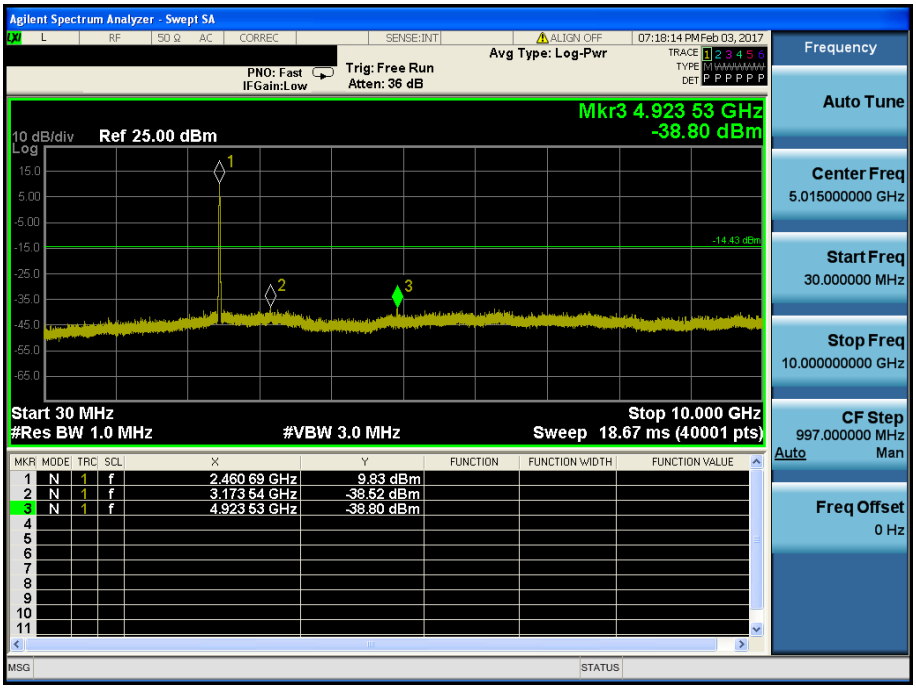
High Band-edge (Test Channel : Highest)



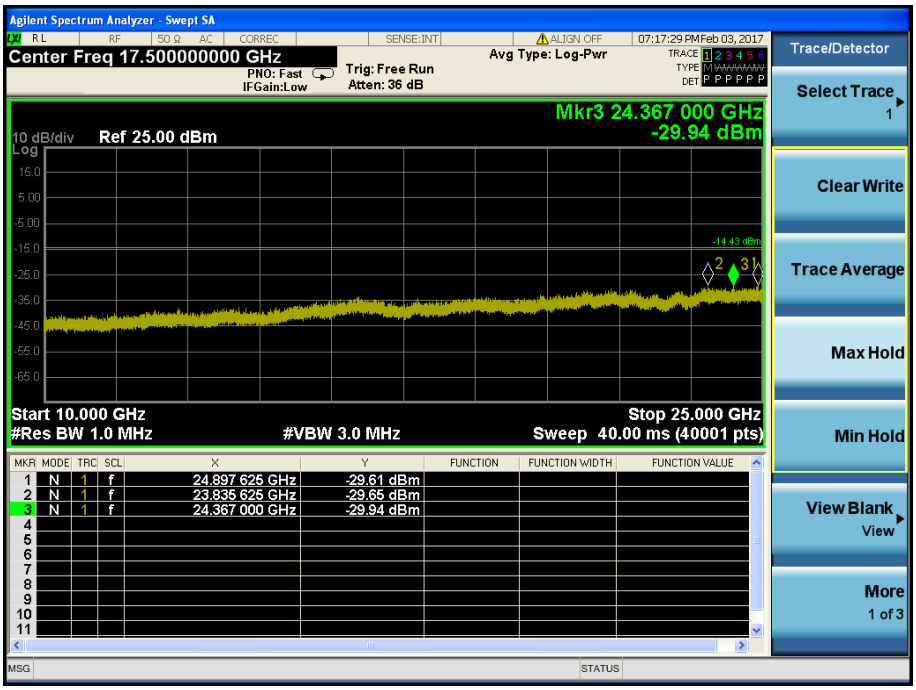
Conducted Spurious Emissions 1 (Test Channel : Highest)



Conducted Spurious Emissions 2 (Test Channel : Highest)

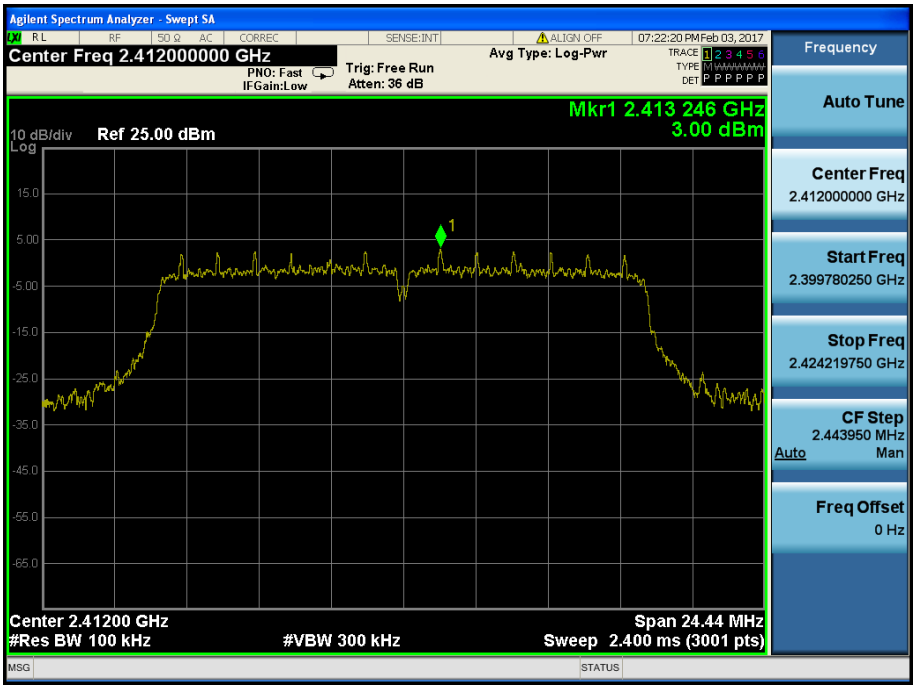


Conducted Spurious Emissions 3 (Test Channel : Highest)

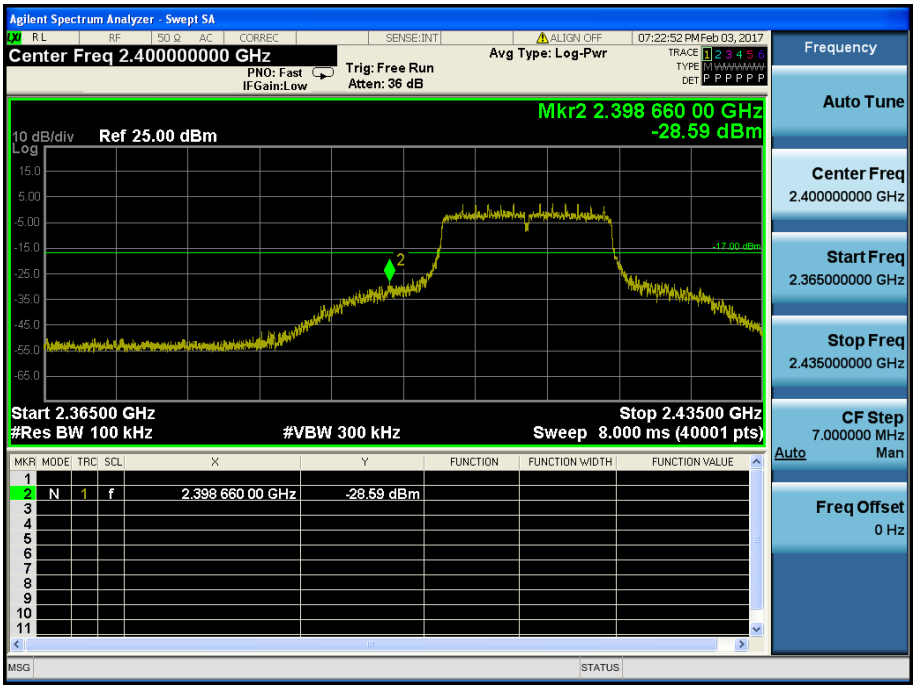


<TM 2 & ANT 2>

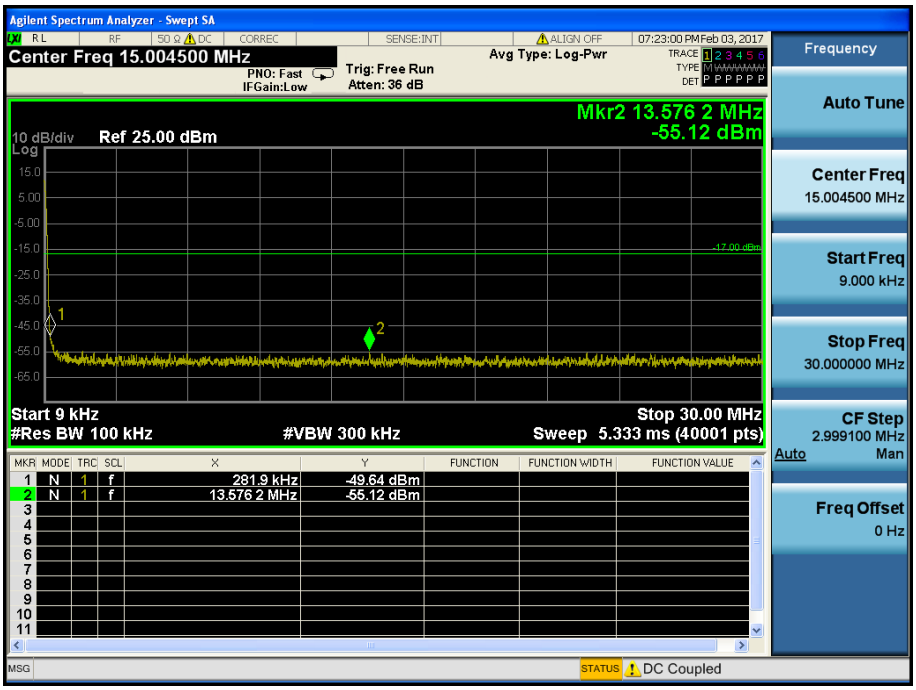
Reference (Test Channel : Lowest)



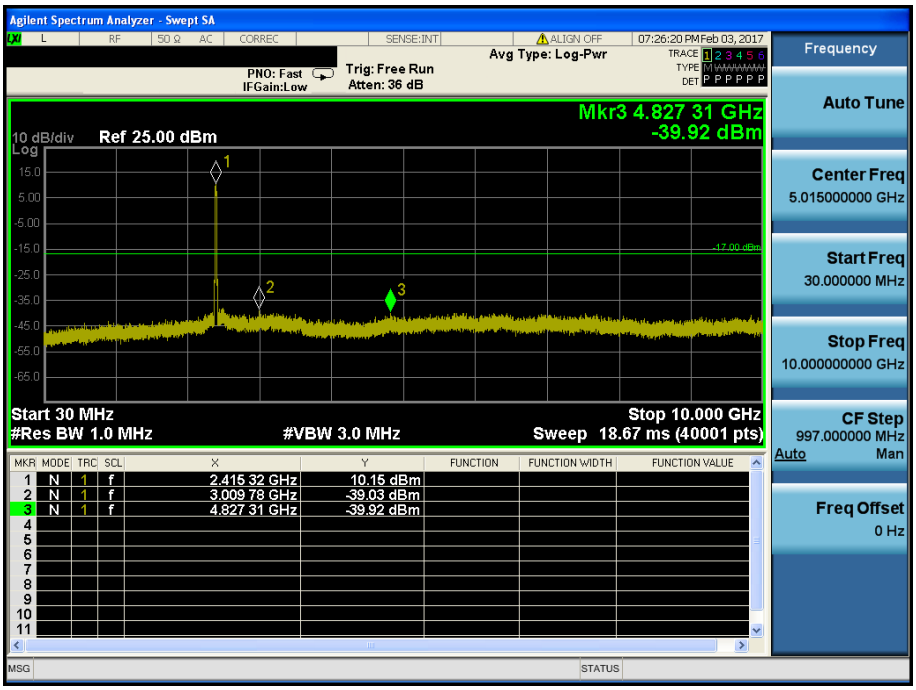
Low Band-edge (Test Channel : Lowest)



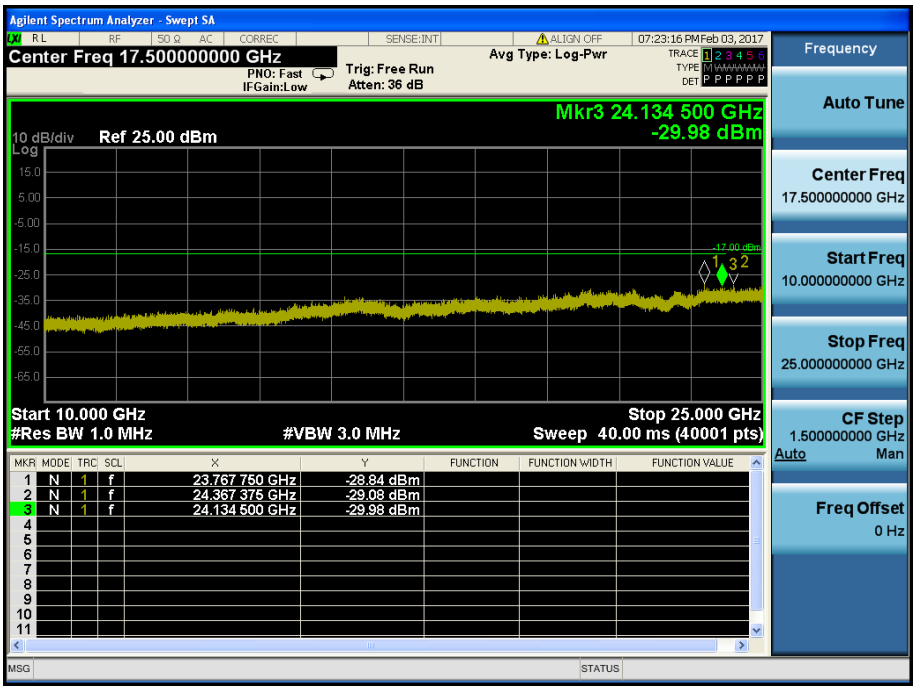
Conducted Spurious Emissions 1 (Test Channel : Lowest)



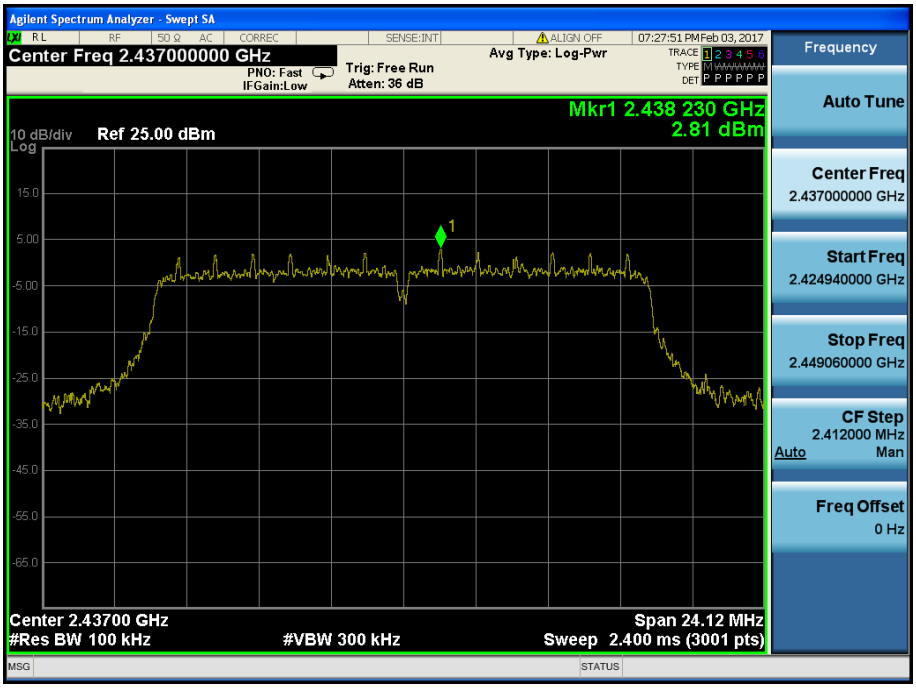
Conducted Spurious Emissions 2 (Test Channel : Lowest)



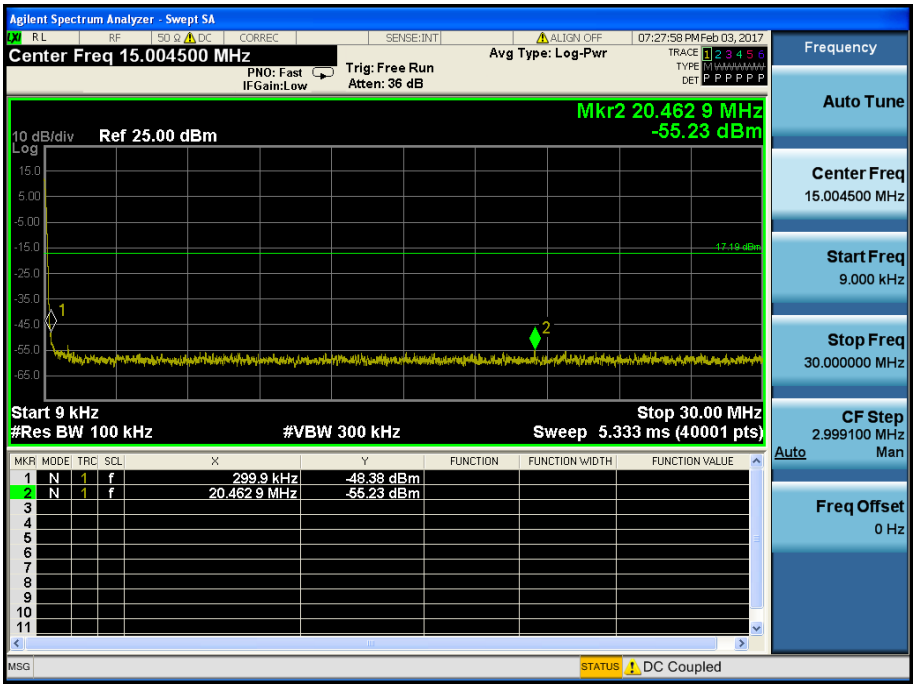
Conducted Spurious Emissions 3 (Test Channel : Lowest)



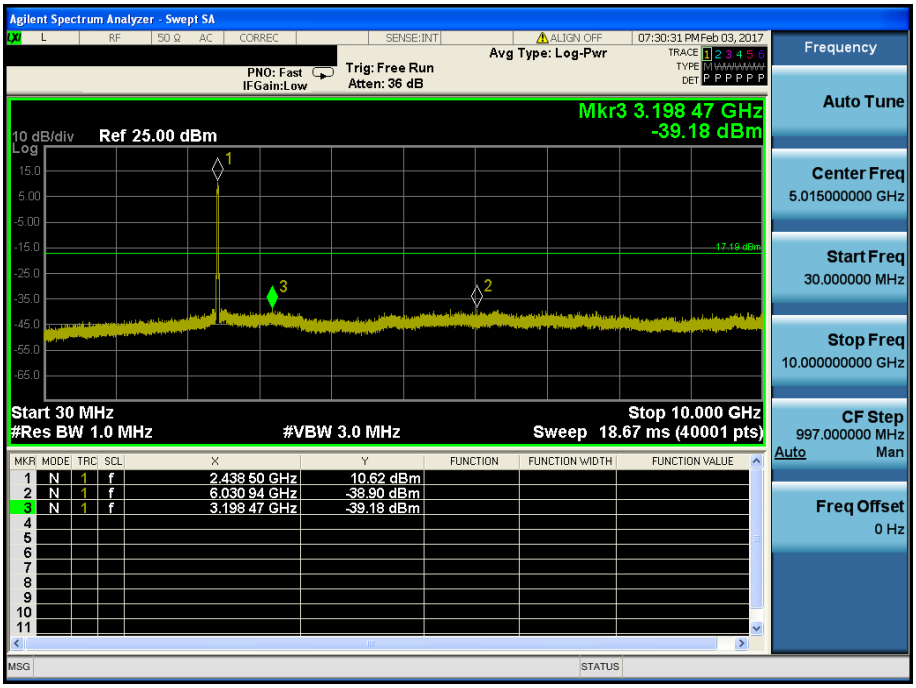
Reference (Test Channel : Middle)



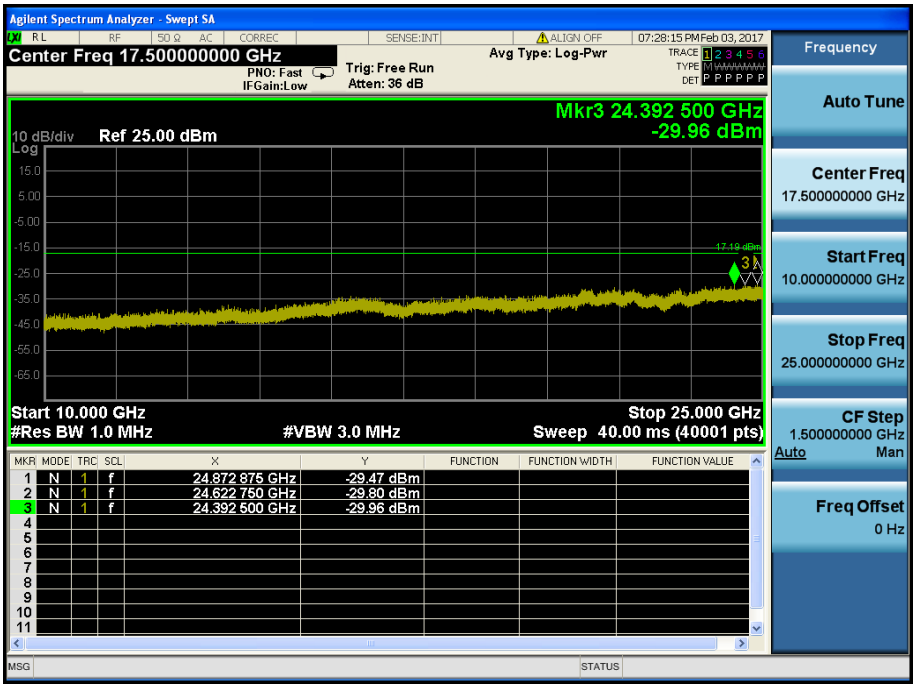
Conducted Spurious Emissions 1 (Test Channel : Middle)



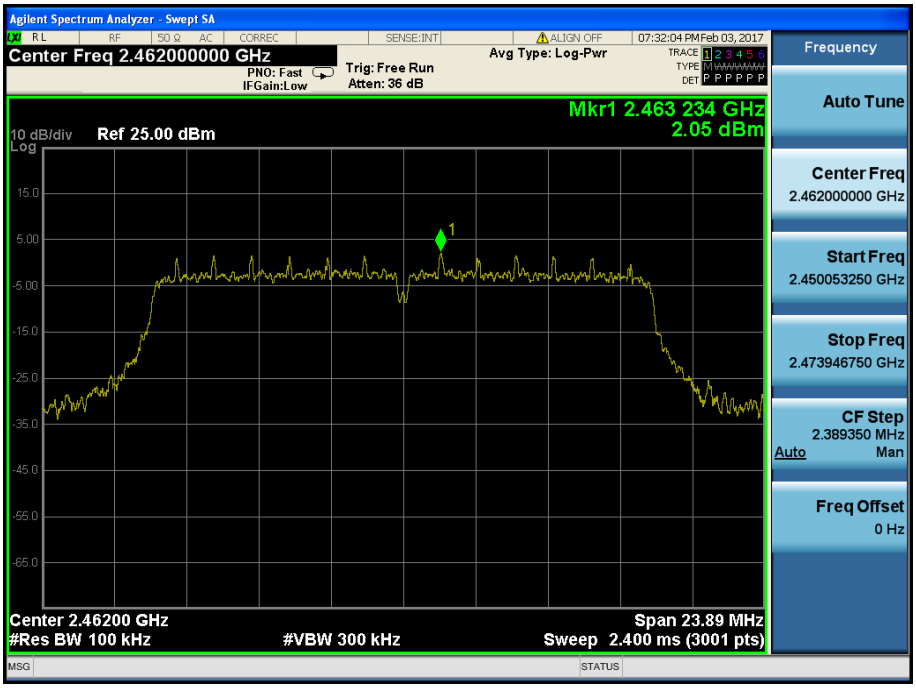
Conducted Spurious Emissions 2 (Test Channel : Middle)



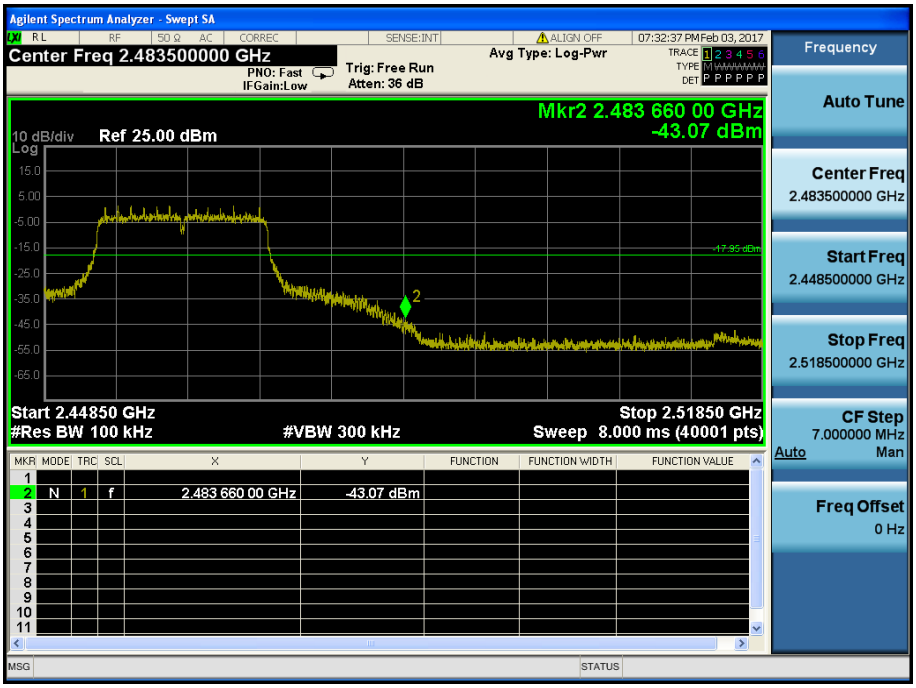
Conducted Spurious Emissions 3 (Test Channel : Middle)



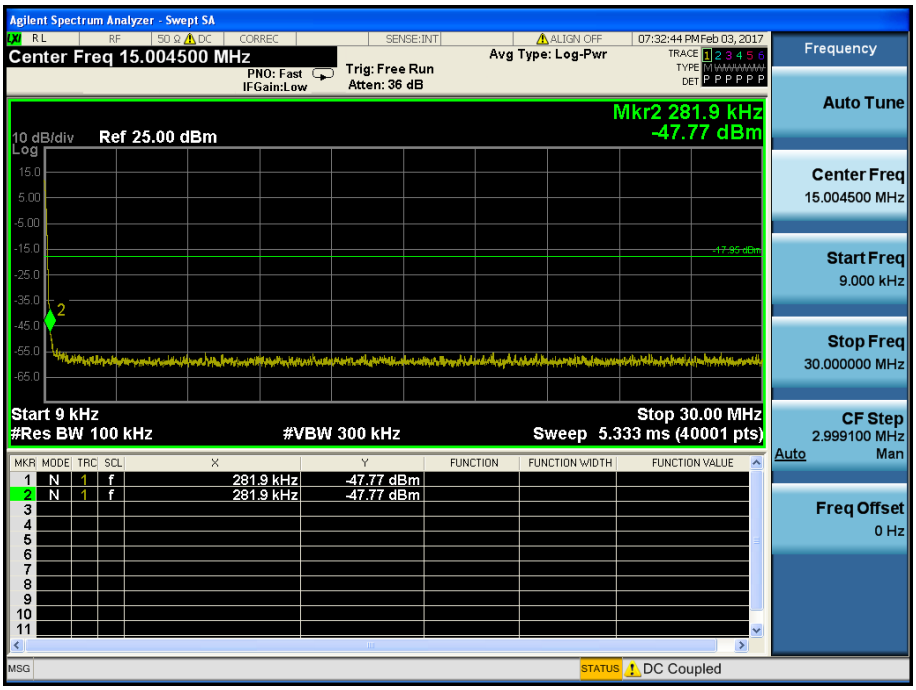
Reference (Test Channel : Highest)



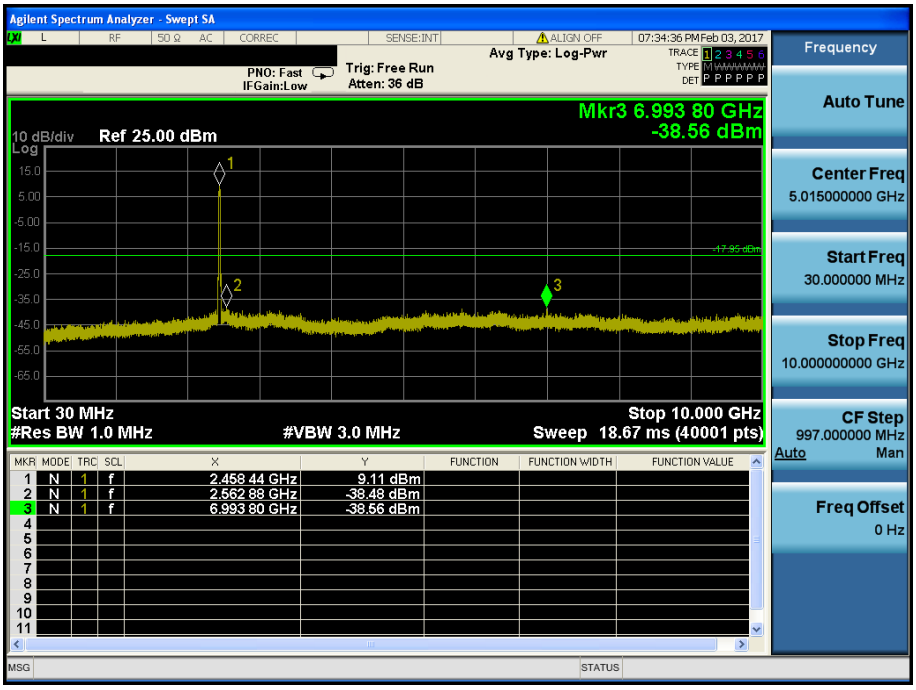
High Band-edge (Test Channel : Highest)



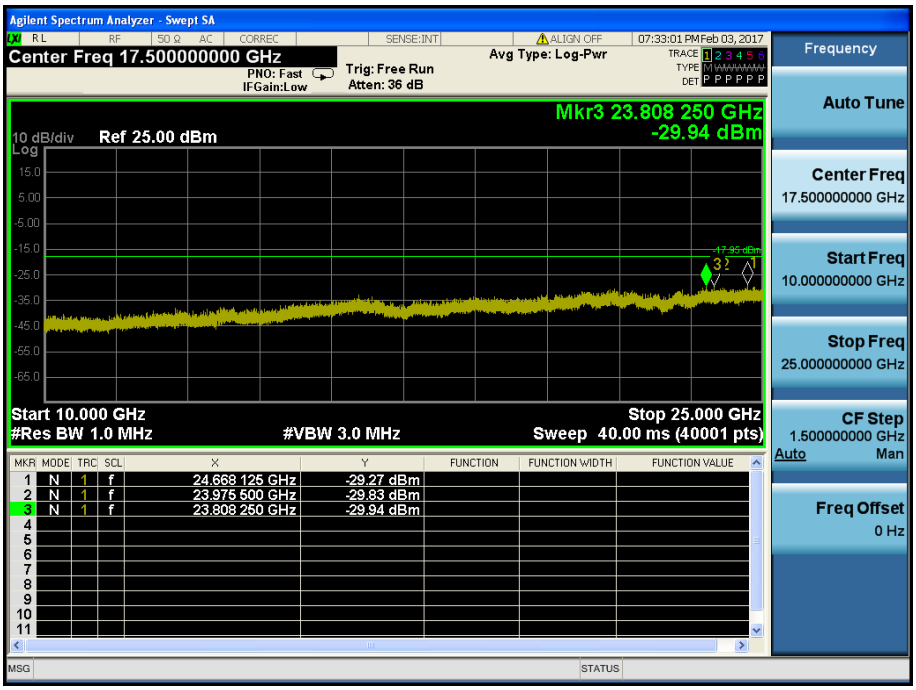
Conducted Spurious Emissions 1 (Test Channel : Highest)



Conducted Spurious Emissions 2 (Test Channel : Highest)

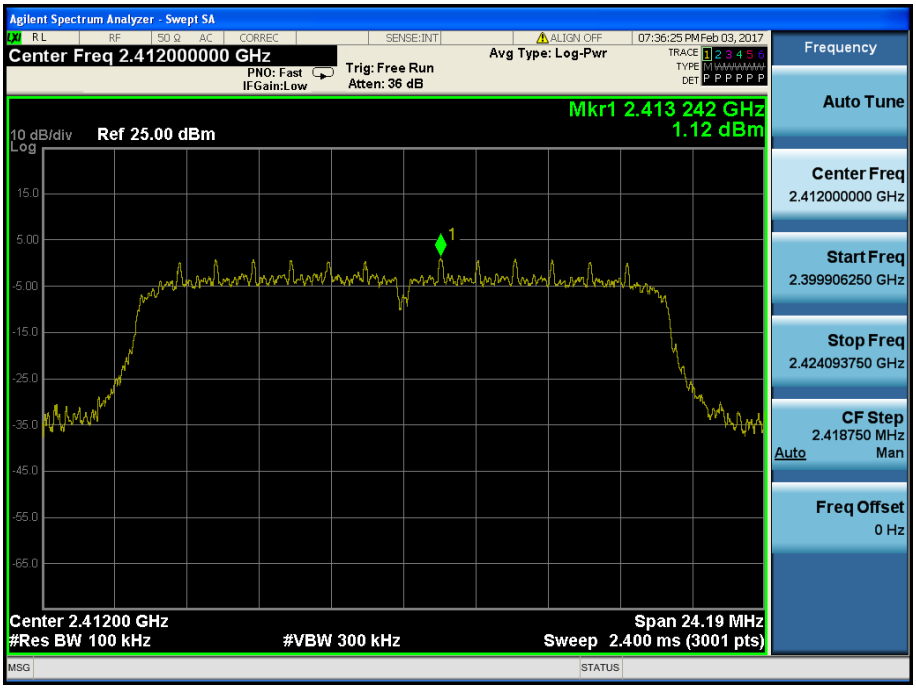


Conducted Spurious Emissions 3 (Test Channel : Highest)

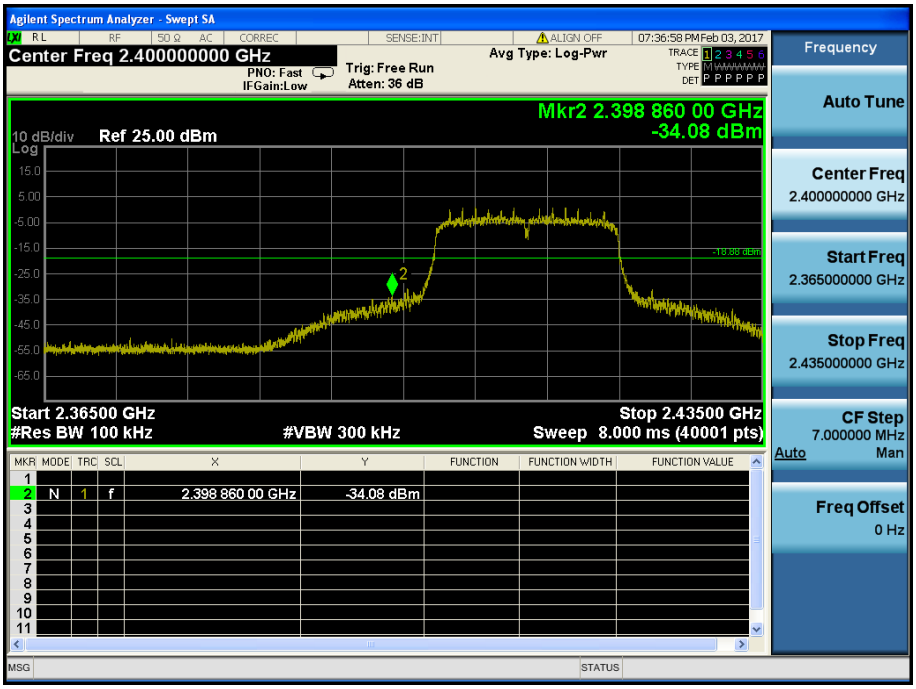


<TM 3 & ANT 2>

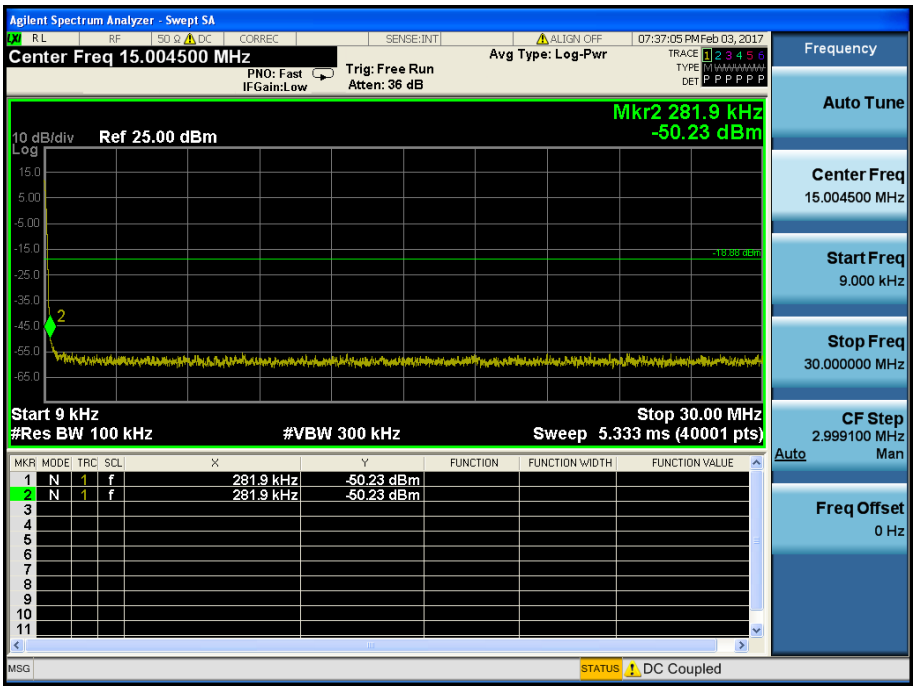
Reference (Test Channel : Lowest)



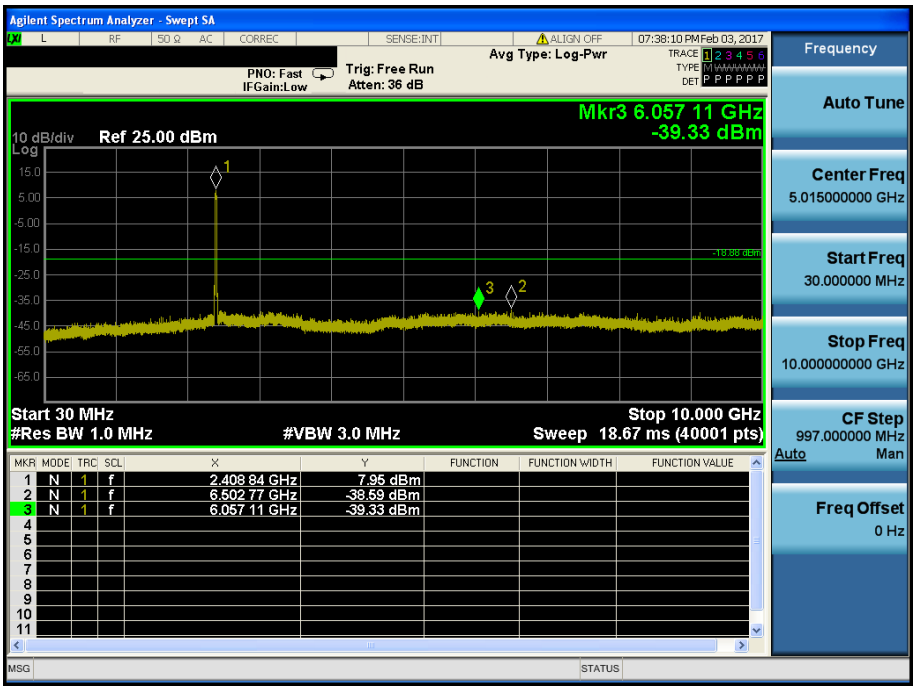
Low Band-edge (Test Channel : Lowest)



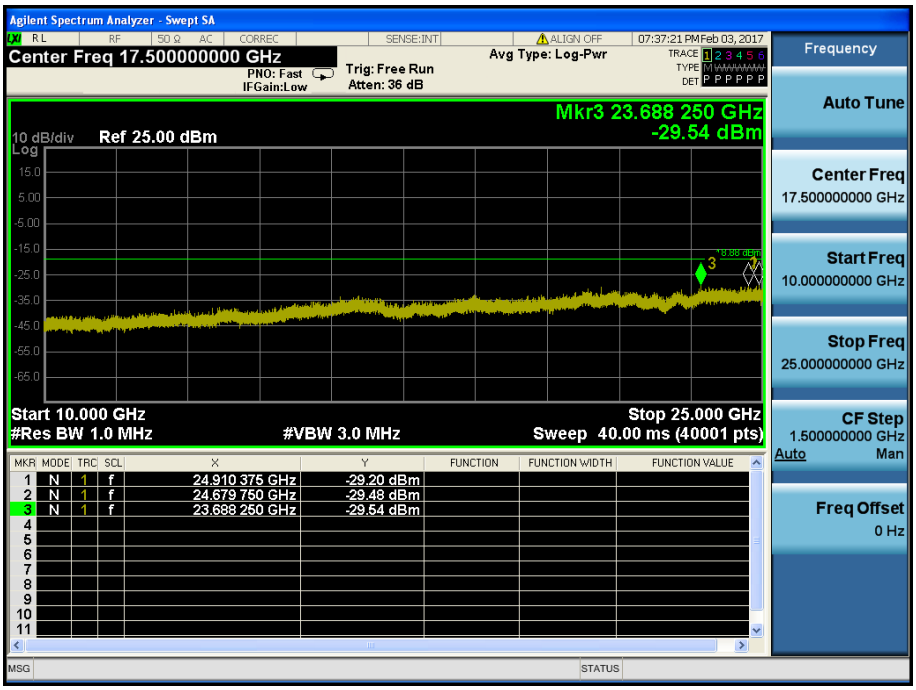
Conducted Spurious Emissions 1 (Test Channel : Lowest)



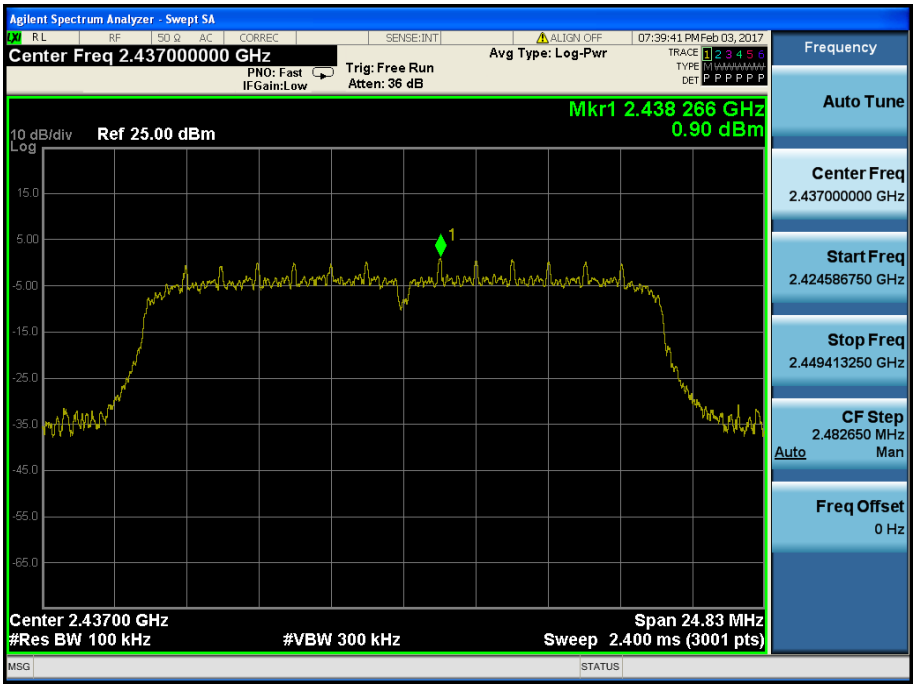
Conducted Spurious Emissions 2 (Test Channel : Lowest)



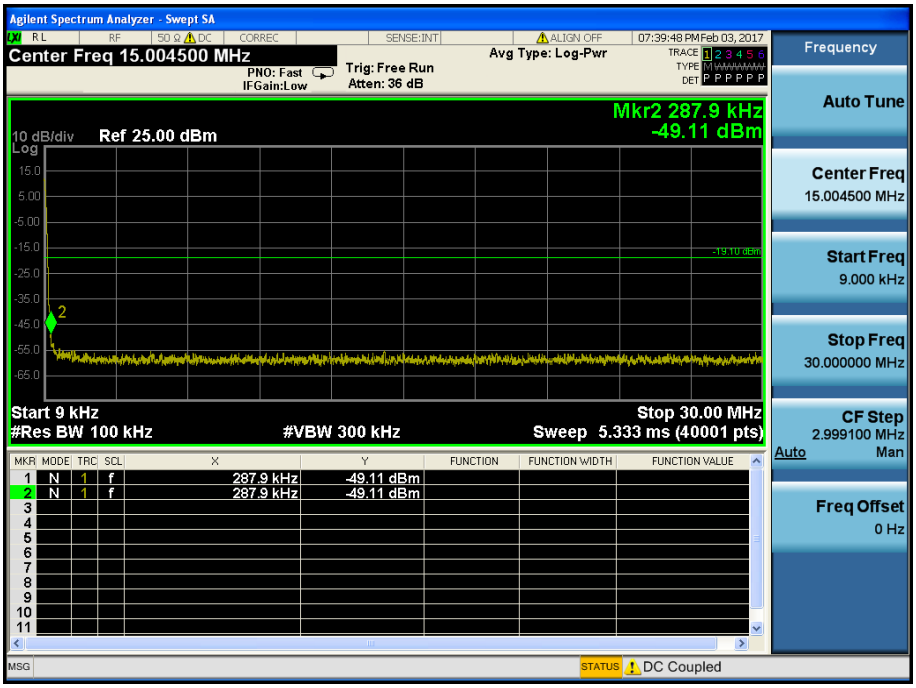
Conducted Spurious Emissions 3 (Test Channel : Lowest)



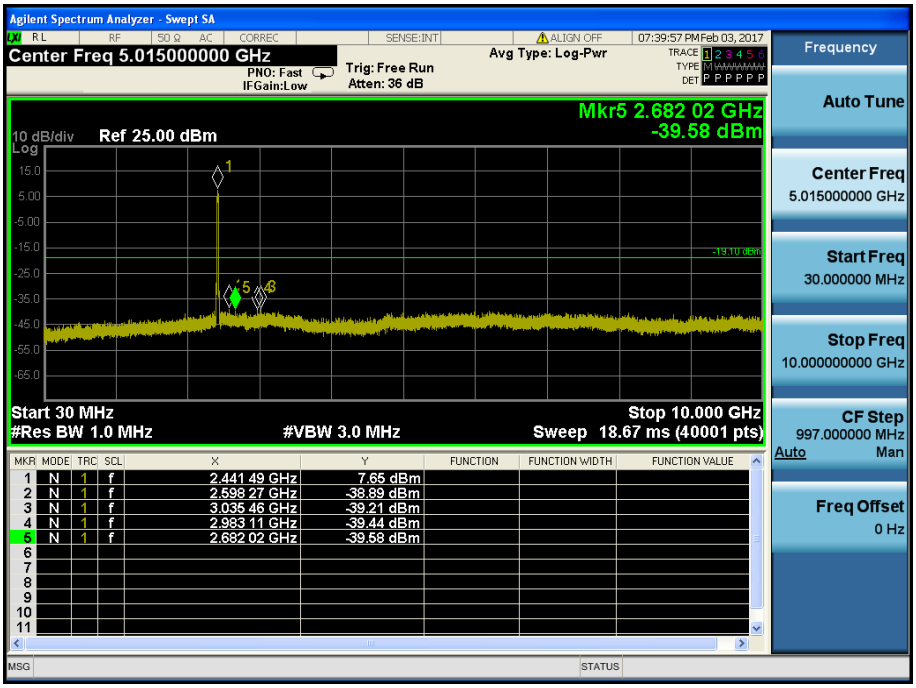
Reference (Test Channel : Middle)



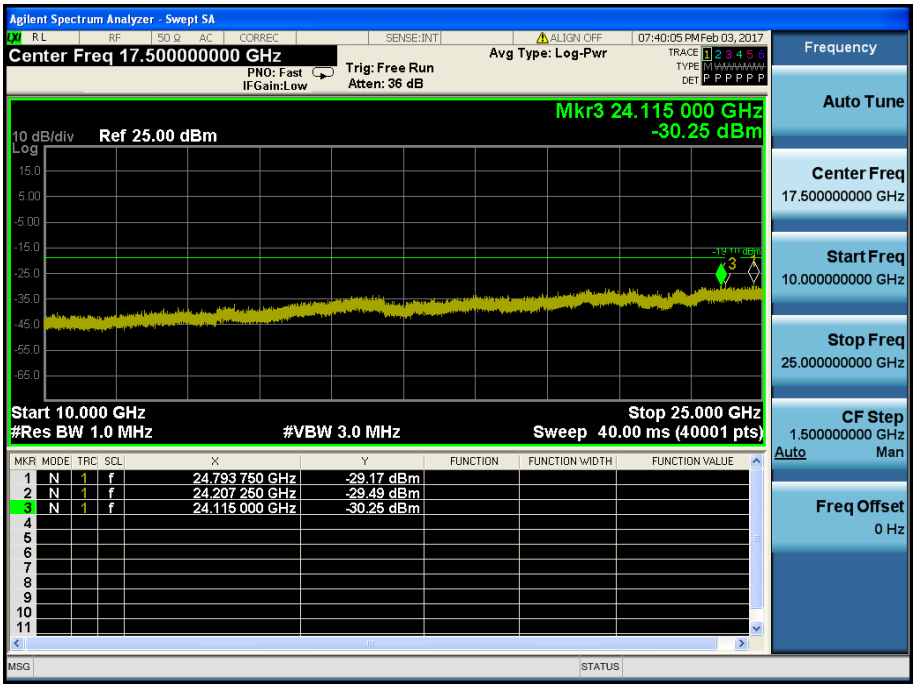
Conducted Spurious Emissions 1 (Test Channel : Middle)



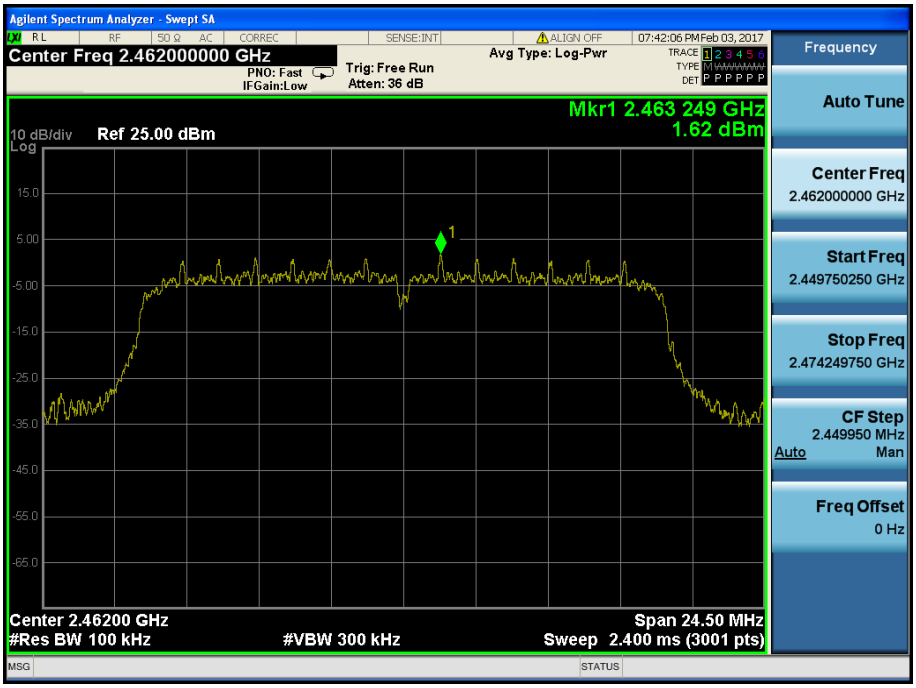
Conducted Spurious Emissions 2 (Test Channel : Middle)



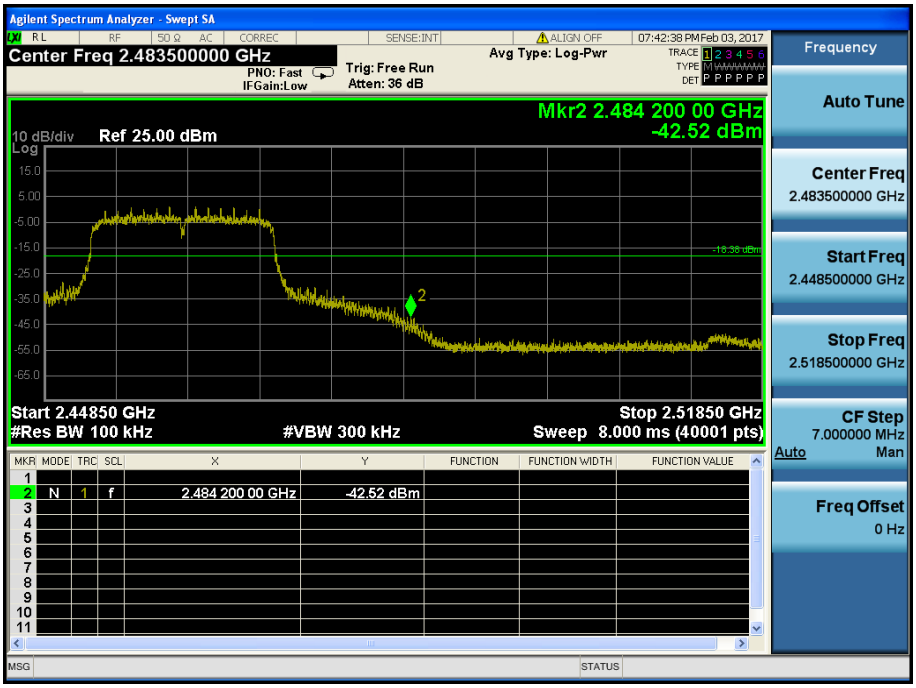
Conducted Spurious Emissions 3 (Test Channel : Middle)



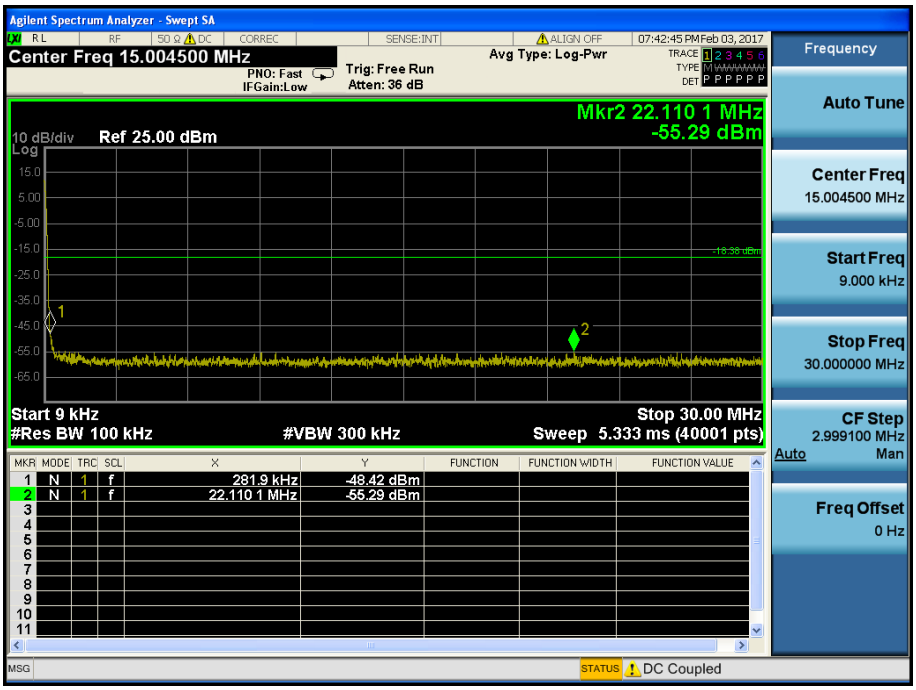
Reference (Test Channel : Highest)



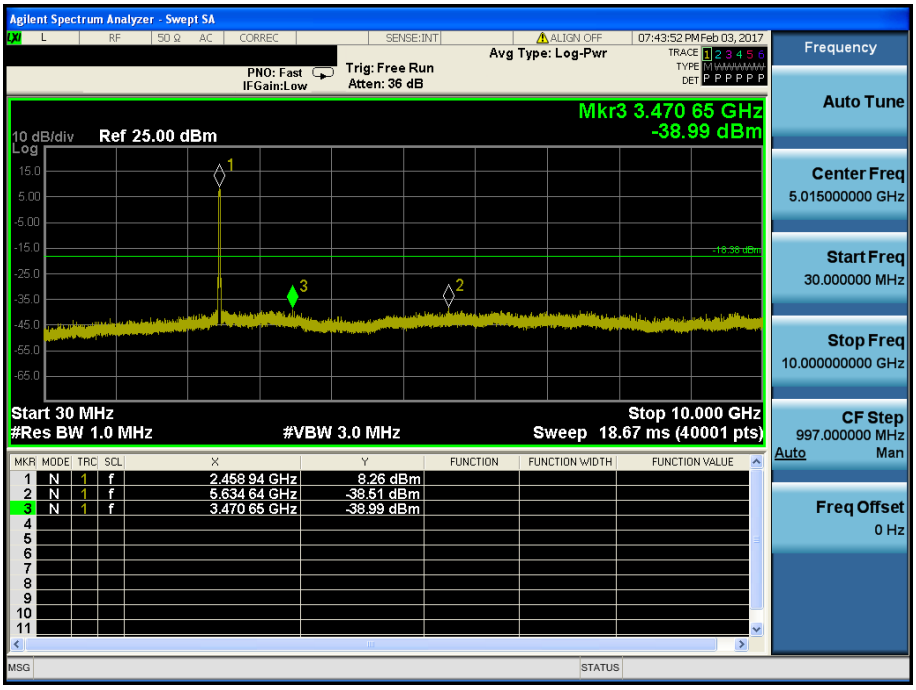
High Band-edge (Test Channel : Highest)



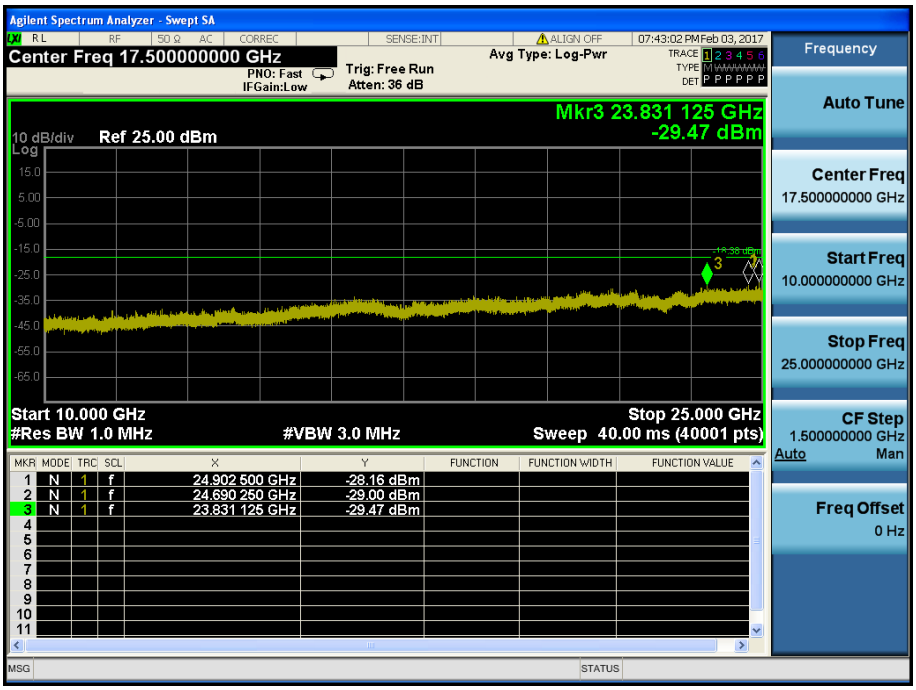
Conducted Spurious Emissions 1 (Test Channel : Highest)



Conducted Spurious Emissions 2 (Test Channel : Highest)

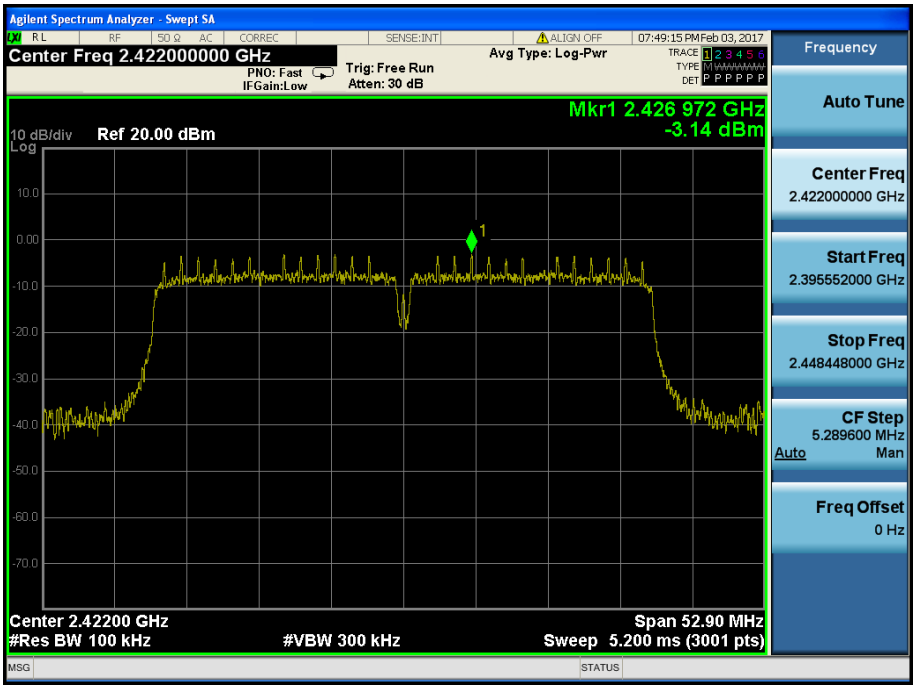


Conducted Spurious Emissions 3 (Test Channel : Highest)

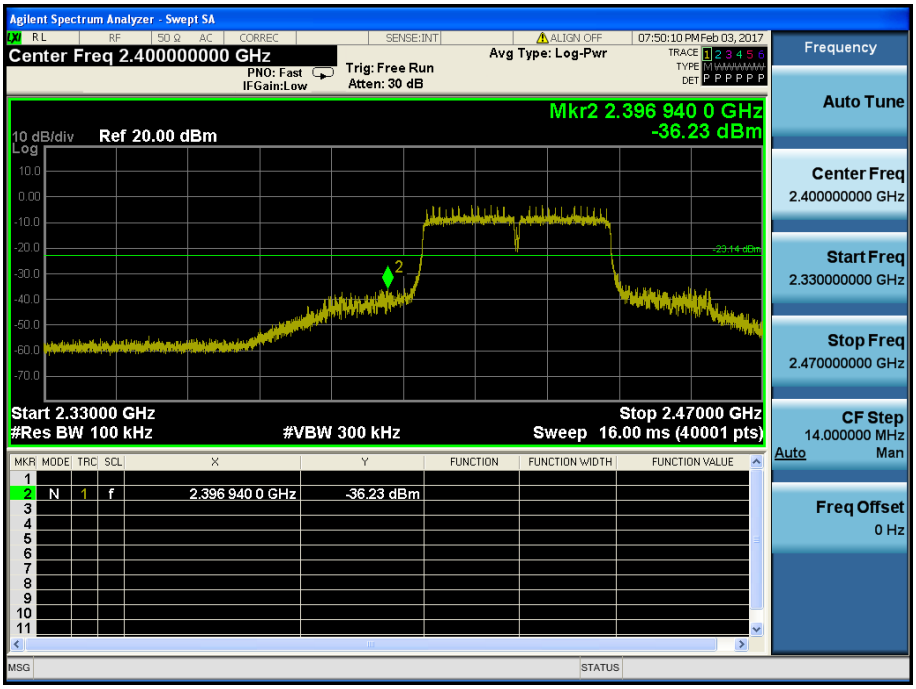


<TM 4 & ANT 2>

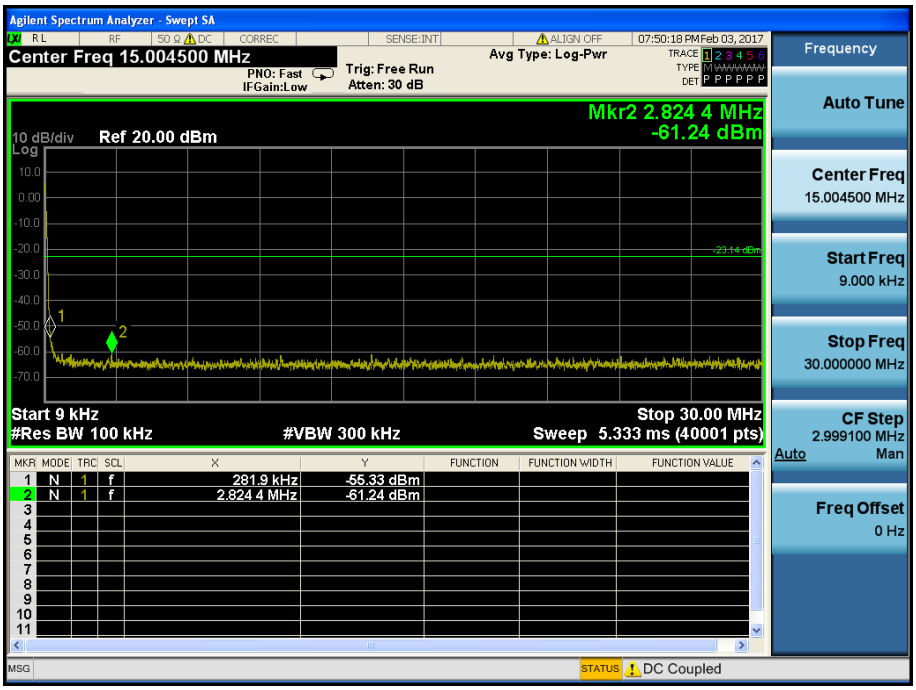
Reference (Test Channel : Lowest)



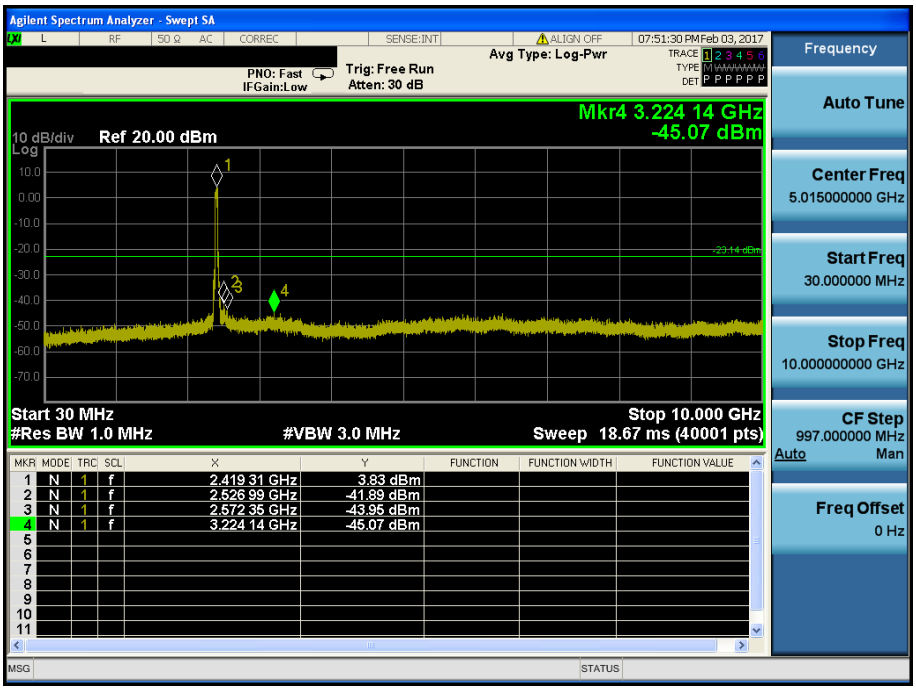
Low Band-edge (Test Channel : Lowest)



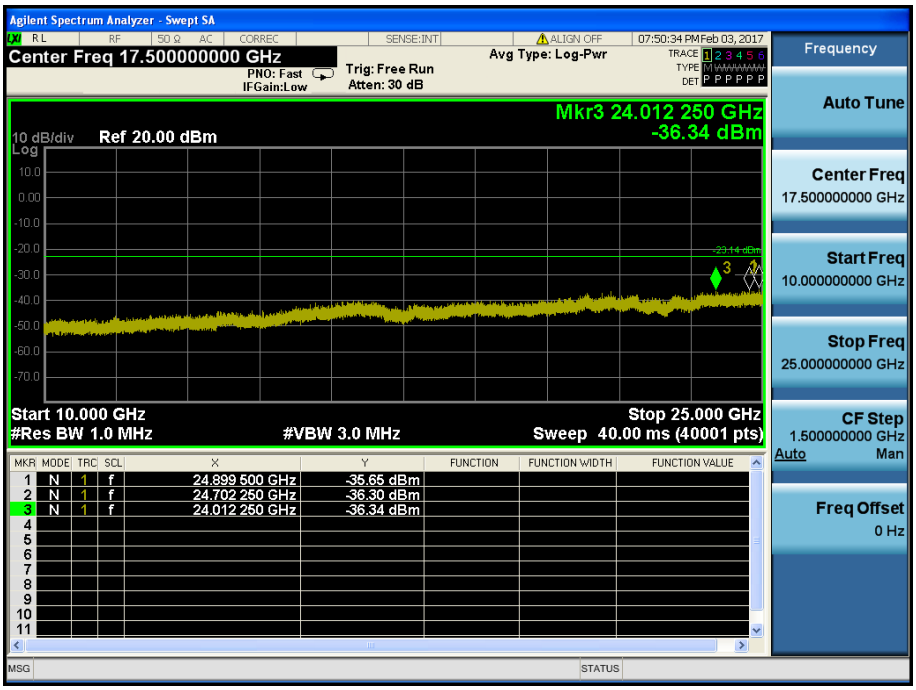
Conducted Spurious Emissions 1 (Test Channel : Lowest)



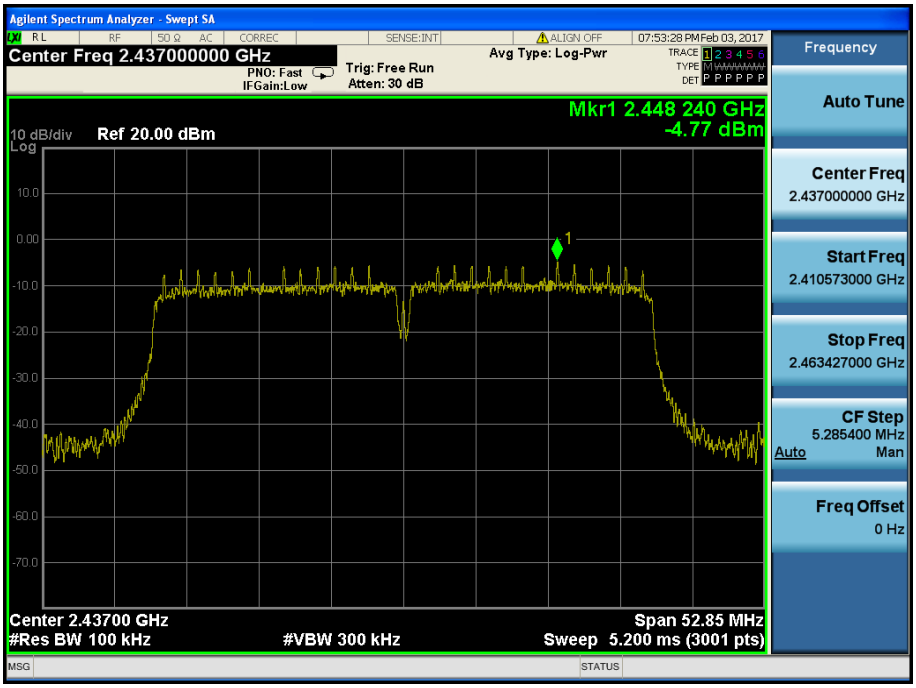
Conducted Spurious Emissions 2 (Test Channel : Lowest)



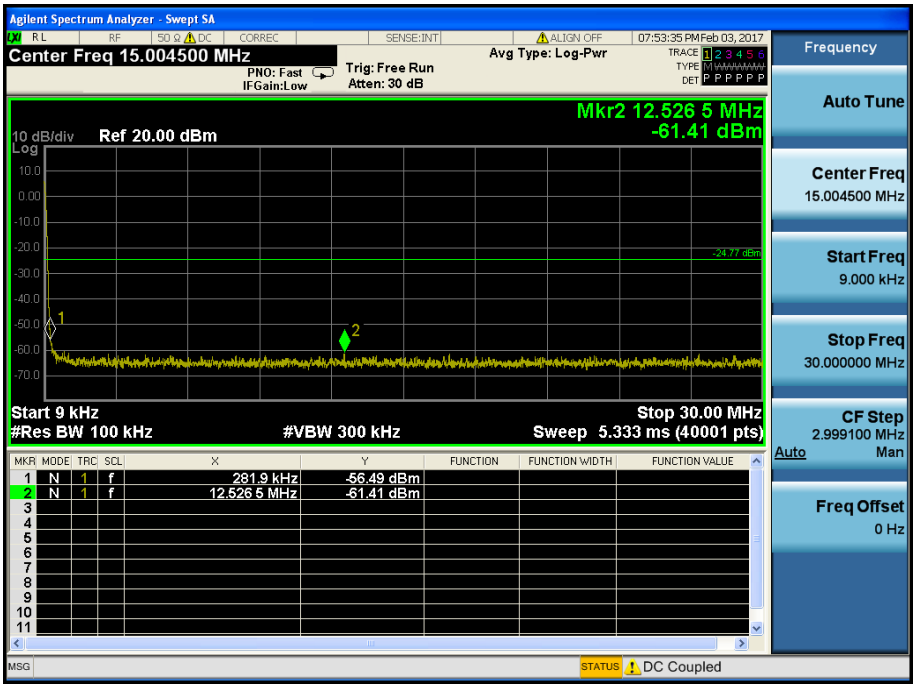
Conducted Spurious Emissions 3 (Test Channel : Lowest)



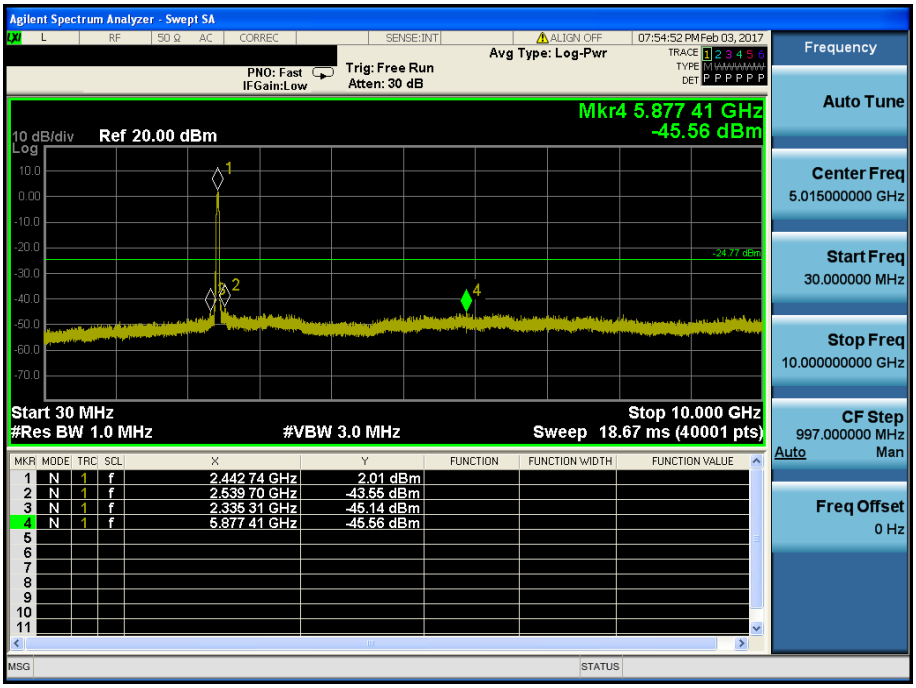
Reference (Test Channel : Middle)



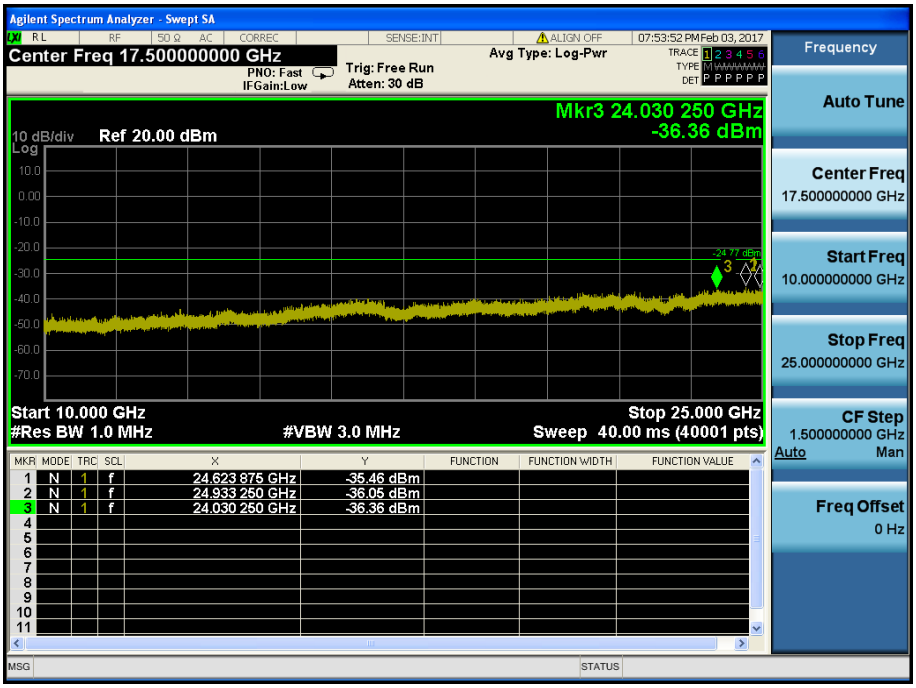
Conducted Spurious Emissions 1 (Test Channel : Middle)



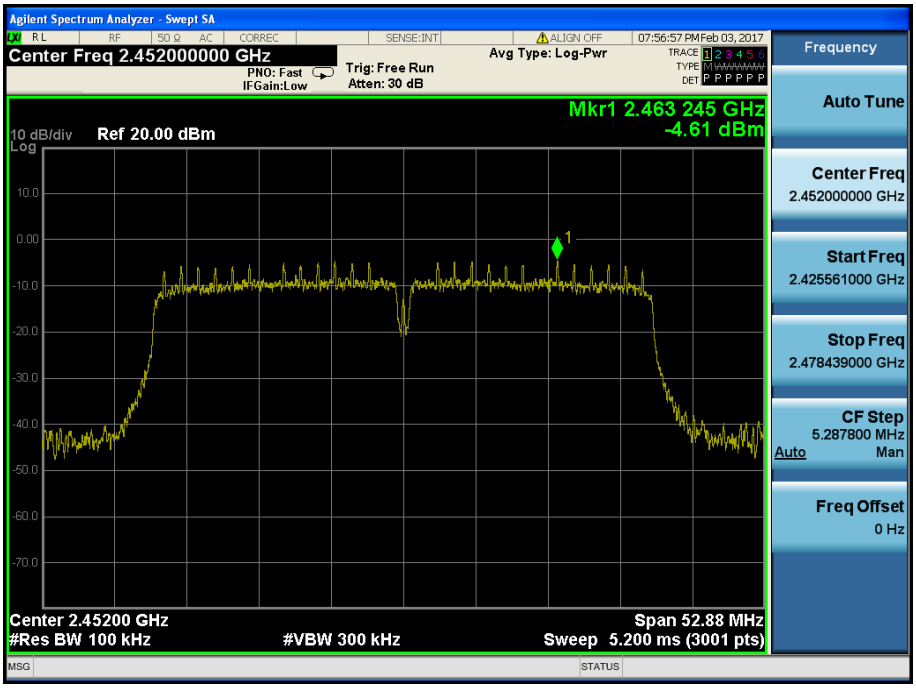
Conducted Spurious Emissions 2 (Test Channel : Middle)



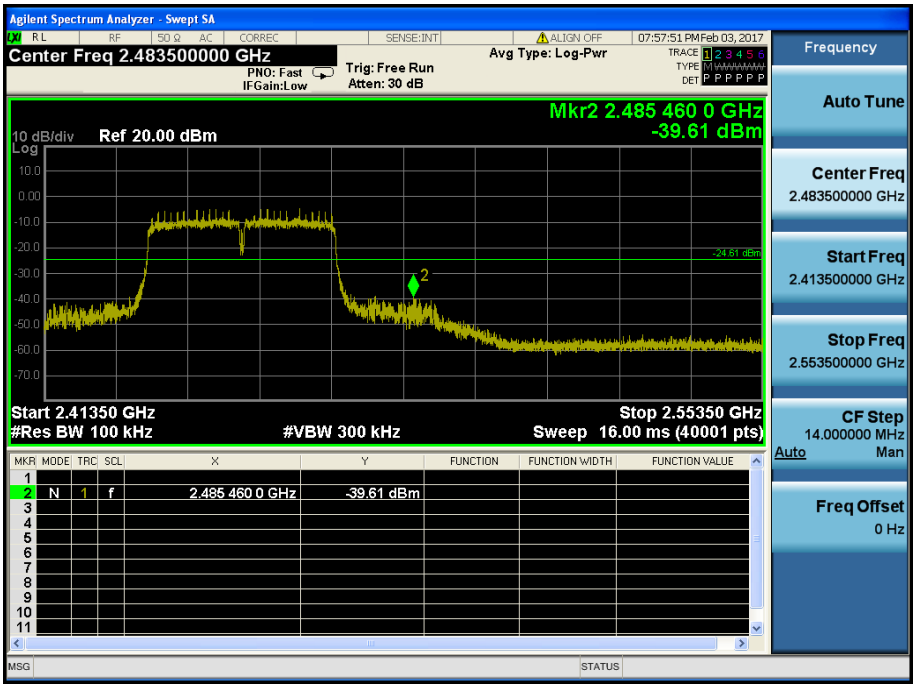
Conducted Spurious Emissions 3 (Test Channel : Middle)



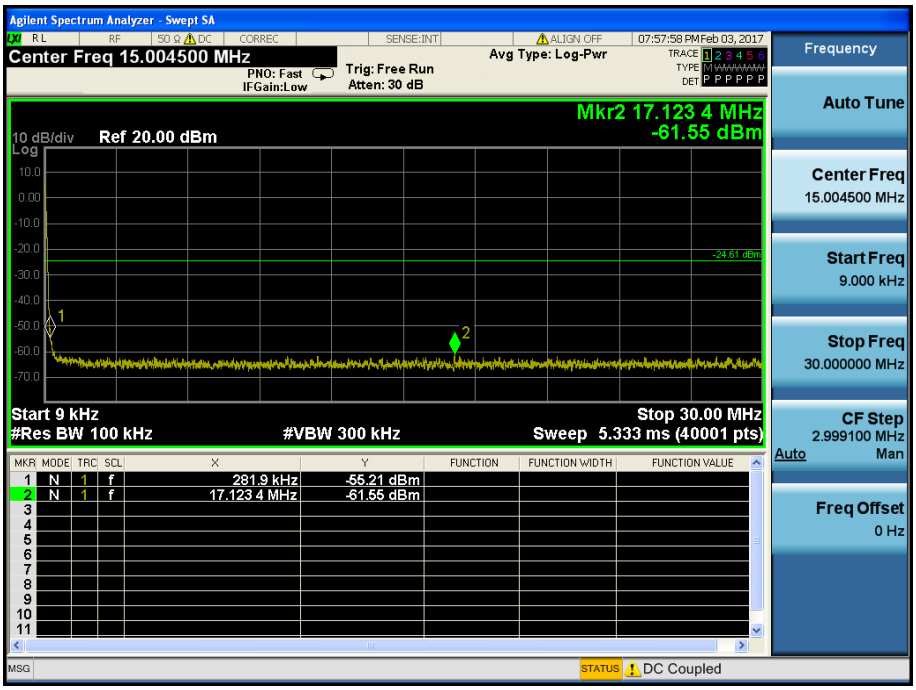
Reference (Test Channel : Highest)



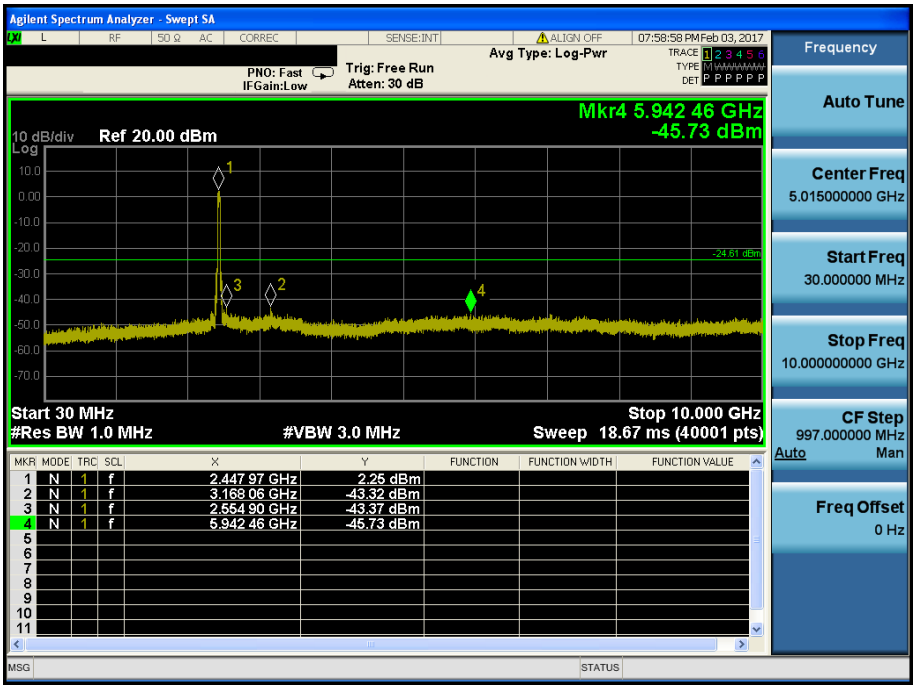
High Band-edge (Test Channel : Highest)



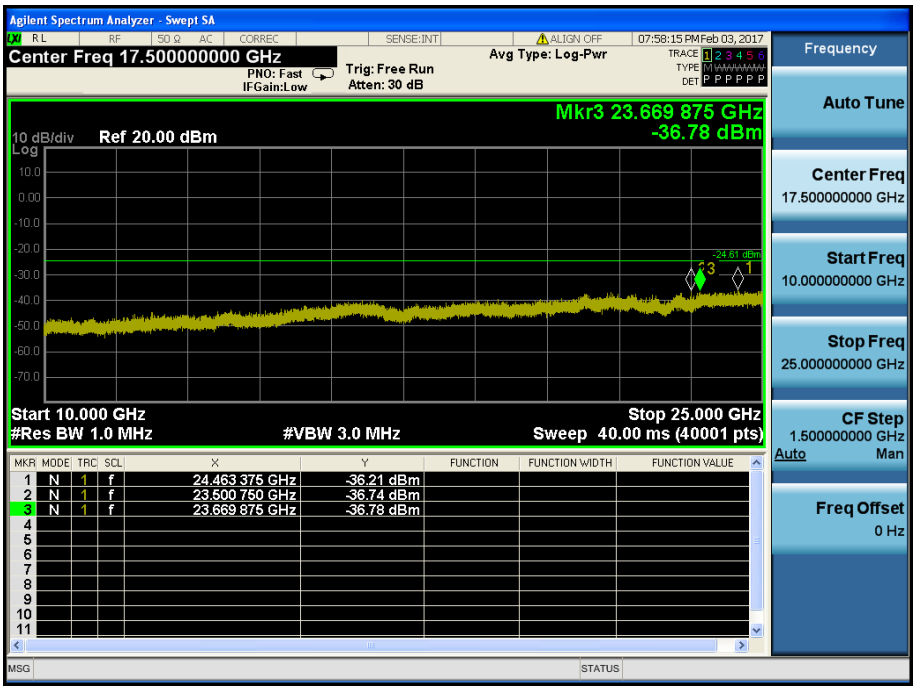
Conducted Spurious Emissions 1 (Test Channel : Highest)



Conducted Spurious Emissions 2 (Test Channel : Highest)



Conducted Spurious Emissions 3 (Test Channel : Highest)



8.5 Radiated spurious emissions

▣ **Test Requirements and limit, §15.247(d), §15.205, §15.209 & RSS-247 [5.5], RSS-Gen [8.9], RSS-Gen [8.10]**

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

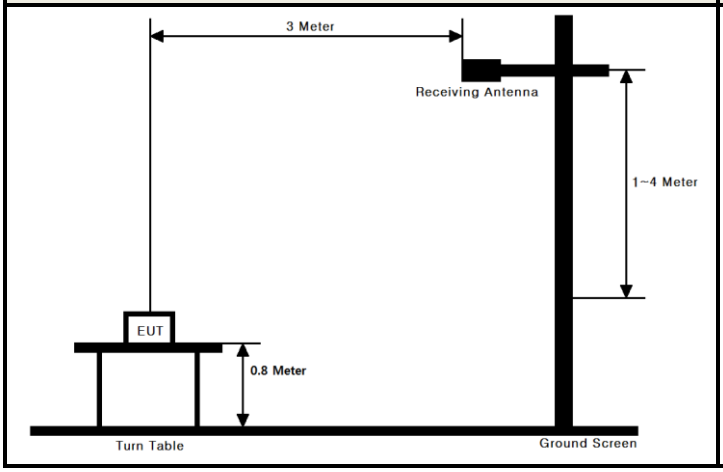
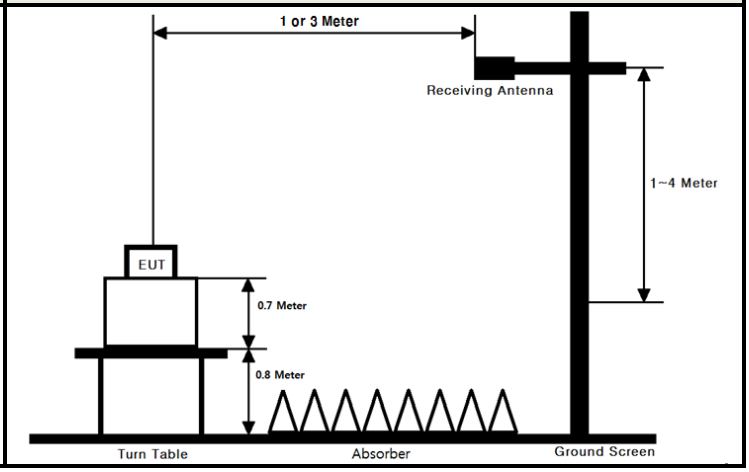
** Except as provided in 15.209(g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, 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 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 Corrections (Refer to appendix II for duty cycle measurement procedure and plots)

Test Mode	Date rate	Duty Cycle (%)	Duty Cycle Correction Factor (dB)
TM 1	1 Mbps	97.75	0.10
TM 2	MCS 6	87.64	0.58
TM 3	MCS 8	77.37	1.12
TM 4	MCS 8	63.67	1.97

Note: Please refer to Appendix I for detailed information.

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)	Test Ant of Worst data[Note2]
Lowest	2386.86	H	Y	PK	50.78	0.78	N/A	N/A	51.56	74.00	22.44	Ant 1
	2387.09	H	Y	AV	40.83	0.78	0.10	N/A	41.71	54.00	12.29	Ant 1
	4824.00	H	Y	PK	47.98	7.60	N/A	N/A	55.58	74.00	18.42	Ant 1
	4823.89	H	Y	AV	42.71	7.60	0.10	N/A	50.41	54.00	3.59	Ant 1
Middle	4873.74	H	Y	PK	48.29	7.54	N/A	N/A	55.83	74.00	18.17	Ant 1
	4873.83	H	Y	AV	42.42	7.54	0.10	N/A	50.06	54.00	3.94	Ant 1
Highest	2484.07	H	Y	PK	54.81	1.16	N/A	N/A	55.97	74.00	18.03	Ant 1
	2483.58	H	Y	AV	48.98	1.16	0.10	N/A	50.24	54.00	3.76	Ant 1
	4924.17	H	Y	PK	46.55	7.40	N/A	N/A	53.95	74.00	20.05	Ant 1
	4923.94	H	Y	AV	38.38	7.40	0.10	N/A	45.88	54.00	8.12	Ant 1

Note.

1. No other spurious and harmonic emissions were found greater than listed emissions on above table.
2. This device was tested under single 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. 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)	DCF (dB)	Distance F (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Test Ant of Worst data[Note2]
Lowest	2389.54	H	Y	PK	51.51	0.78	N/A	N/A	52.29	74.00	21.71	Ant 1
	2389.04	H	Y	AV	36.64	0.78	0.58	N/A	38.00	54.00	16.00	Ant 1
	4826.54	H	Y	PK	43.89	7.60	N/A	N/A	51.49	74.00	22.51	Ant 1
	4826.54	H	Y	AV	34.41	7.60	0.58	N/A	42.59	54.00	11.41	Ant 1
Middle	4874.47	H	Y	PK	44.52	7.54	N/A	N/A	52.06	74.00	21.94	Ant 1
	4874.75	H	Y	AV	34.11	7.54	0.58	N/A	42.23	54.00	11.77	Ant 1
Highest	2483.93	H	Y	PK	56.16	1.16	N/A	N/A	57.32	74.00	16.68	Ant 1
	2483.58	H	Y	AV	41.00	1.16	0.58	N/A	42.74	54.00	11.26	Ant 1
	4925.23	H	Y	PK	44.48	7.40	N/A	N/A	51.88	74.00	22.12	Ant 1
	4924.83	H	Y	AV	34.48	7.40	0.58	N/A	42.46	54.00	11.54	Ant 1

Note.

1. No other spurious and harmonic emissions were found greater than listed emissions on above table.
2. This device was tested under single 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. 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)	DCF (dB)	Distance F (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Test Ant of Worst data[Note2]
Lowest	2389.58	H	Y	PK	58.72	0.78	N/A	N/A	59.50	74.00	14.50	Ant 1+Ant 2
	2389.85	H	Y	AV	42.74	0.78	1.12	N/A	44.64	54.00	9.36	Ant 1+Ant 2
	4822.56	H	Y	PK	44.36	7.60	N/A	N/A	51.96	74.00	22.04	Ant 1+Ant 2
	4822.12	H	Y	AV	34.50	7.60	1.12	N/A	43.22	54.00	10.78	Ant 1+Ant 2
Middle	4875.64	H	Y	PK	44.84	7.54	N/A	N/A	52.38	74.00	21.62	Ant 1+Ant 2
	4875.19	H	Y	AV	34.02	7.54	1.12	N/A	42.68	54.00	11.32	Ant 1+Ant 2
Highest	2483.82	H	Y	PK	65.24	1.16	N/A	N/A	66.40	74.00	7.60	Ant 1+Ant 2
	2483.65	H	Y	AV	49.29	1.16	1.12	N/A	51.57	54.00	2.43	Ant 1+Ant 2
	4925.23	H	Y	PK	45.31	7.40	N/A	N/A	52.71	74.00	21.29	Ant 1+Ant 2
	4924.95	H	Y	AV	34.66	7.40	1.12	N/A	43.18	54.00	10.82	Ant 1+Ant 2

Note.

1. No other spurious and harmonic emissions were found greater than listed emissions on above table.
2. This device was tested under single transmitting (Ant 1, 2) and 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. 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)	DCF (dB)	Distance F (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Test Ant of Worst data[Note2]
Lowest	2389.92	H	Y	PK	57.54	0.78	N/A	N/A	58.32	74.00	15.68	Ant 1+Ant 2
	2389.54	H	Y	AV	39.67	0.78	1.97	N/A	42.42	54.00	11.58	Ant 1+Ant 2
	4841.43	H	Y	PK	45.06	7.58	N/A	N/A	52.64	74.00	21.36	Ant 1+Ant 2
	4840.91	H	Y	AV	34.80	7.58	1.97	N/A	44.35	54.00	9.65	Ant 1+Ant 2
Middle	4877.73	H	Y	PK	44.31	7.54	N/A	N/A	51.85	74.00	22.15	Ant 1+Ant 2
	4877.45	H	Y	AV	34.12	7.54	1.97	N/A	43.63	54.00	10.37	Ant 1+Ant 2
Highest	2485.38	H	Y	PK	69.11	1.16	N/A	N/A	70.27	74.00	3.73	Ant 1+Ant 2
	2485.85	H	Y	AV	48.60	1.16	1.97	N/A	51.73	54.00	2.27	Ant 1+Ant 2
	4903.79	H	Y	PK	45.10	7.35	N/A	N/A	52.45	74.00	21.55	Ant 1+Ant 2
	4903.40	H	Y	AV	34.27	7.35	1.97	N/A	43.59	54.00	10.41	Ant 1+Ant 2

Note.

1. No other spurious and harmonic emissions were found greater than listed emissions on above table.
2. This device was tested under single transmitting (Ant 1, 2) and 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. 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 & RSS-Gen [8.8]

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.

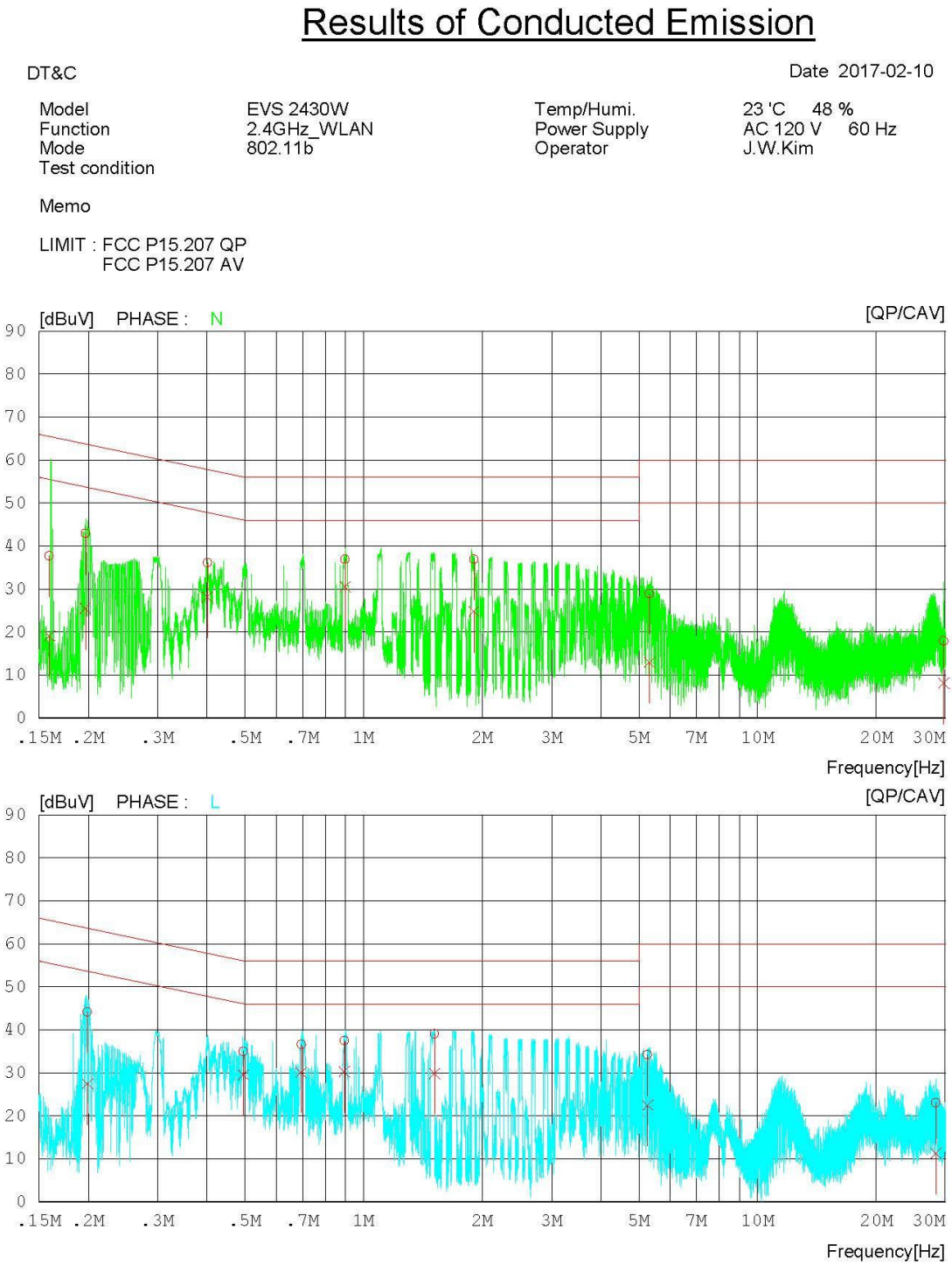
▣ Test Results: Comply(Refer to next page.)

The worst data was reported.

▣ RESULT PLOTS

AC Line Conducted Emissions (Graph)

Test mode 1(TM 1) & Middle



AC Line Conducted Emissions (List)

Test mode 4(TM 4) & Middle

Results of Conducted Emission

DT&C Date 2017-02-10

Model	EVS 2430W	Temp/Humi.	23 'C 48 %
Function	2.4GHz_WLAN	Power Supply	AC 120 V 60 Hz
Mode	802.11b	Operator	J.W.Kim
Test condition			

Memo

LIMIT : FCC P15.207 QP
FCC P15.207 AV

NO	FREQ	READING QP	READING CAV	C.FACTOR	RESULT QP	RESULT CAV	LIMIT QP	LIMIT CAV	MARGIN QP	MARGIN CAV	PHASE
	[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	
1	0.15949	34.67	16.06	3.03	37.70	19.09	65.49	55.49	27.79	36.40	N
2	0.19653	40.79	23.39	2.12	42.91	25.51	63.76	53.76	20.85	28.25	N
3	0.40134	35.32	27.23	0.87	36.19	28.10	57.83	47.83	21.64	19.73	N
4	0.89806	36.58	30.04	0.43	37.01	30.47	56.00	46.00	18.99	15.53	N
5	1.90560	36.66	24.50	0.33	36.99	24.83	56.00	46.00	19.01	21.17	N
6	5.31680	28.63	12.60	0.34	28.97	12.94	60.00	50.00	31.03	37.06	N
7	29.69260	17.40	7.48	0.61	18.01	8.09	60.00	50.00	41.99	41.91	N
8	0.19916	42.07	25.34	2.10	44.17	27.44	63.65	53.65	19.48	26.21	L
9	0.49550	34.18	28.79	0.72	34.90	29.51	56.08	46.08	21.18	16.57	L
10	0.69450	35.98	29.54	0.53	36.51	30.07	56.00	46.00	19.49	15.93	L
11	0.89379	37.05	29.80	0.45	37.50	30.25	56.00	46.00	18.50	15.75	L
12	1.51400	38.64	29.41	0.38	39.02	29.79	56.00	46.00	16.98	16.21	L
13	5.25580	33.74	22.08	0.38	34.12	22.46	60.00	50.00	25.88	27.54	L
14	28.36560	22.27	10.52	0.76	23.03	11.28	60.00	50.00	36.97	38.72	L

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: NA

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	16/09/09	17/09/09	MY50200834
Digital Multimeter	Agilent Technologies	34401A	16/01/05	17/01/05	US36099541
			17/01/04	18/01/04	
DC Power Supply	SM techno	SDP30-5D	16/01/05	17/01/05	305DLJ204
			17/01/05	18/01/05	
Signal Generator	Rohde Schwarz	SMBV100A	16/01/05	17/01/05	255571
			17/01/04	08/01/04	
Signal Generator	Rohde Schwarz	SMF100A	16/06/23	17/06/23	102341
Thermohygrometer	BODYCOM	BJ5478	16/04/22	17/04/22	120612-2
Loop Antenna	Schwarzbeck	FMZB1513	16/04/22	18/04/22	1513-128
Bilog Antenna	SCHAFFNER	CBL6112B	16/05/23	18/05/23	2737
Horn Antenna	ETS-LINDGREN	3117	16/05/03	18/05/03	00140394
Horn Antenna	A.H.Systems Inc.	SAS-574	15/09/03	17/09/03	155
PreAmplifier	Agilent	8449B	16/02/24	17/02/24	3008A00370
PreAmplifier	tsj	MLA-010K01-B01-27	16/03/10	17/03/10	1844539
EMI TEST RECEIVER	Rohde Schwarz	ESU	16/07/18	17/07/18	100469
EMI TEST RECEIVER	Rohde Schwarz	ESCI	16/02/25	17/02/25	100364
Highpass Filter	Wainwright Instruments	WHKX12-2580-3000-18000-80SS	16/09/09	17/09/09	3
Highpass Filter	Wainwright Instruments	WHNX6-6320-8000-26500-40CC	16/09/13	17/09/13	1
ARTIFICIAL MAINS NETWORK	Narda S.T.S. / PMM	PMM L2-16B	16/06/22	17/06/22	000WX20305
SINGLE-PHASE MASTER	NF	4420	16/09/08	17/09/08	3049354420023
Attenuator	SMAJK	SMAJK-50-10	16/09/08	17/09/08	15081901
Power Meter	Anritsu	ML2496A	16/06/23	17/06/23	1338004
Wide Bandwidth Sensor	Anritsu	MA2411B	16/06/23	17/06/23	1306053

APPENDIX I

Duty cycle information

▣ Test Procedure

Duty cycle measured using **section 6.0 b) of KDB 558074 D01 DTS Meas. Guidance v03r5 :**

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.

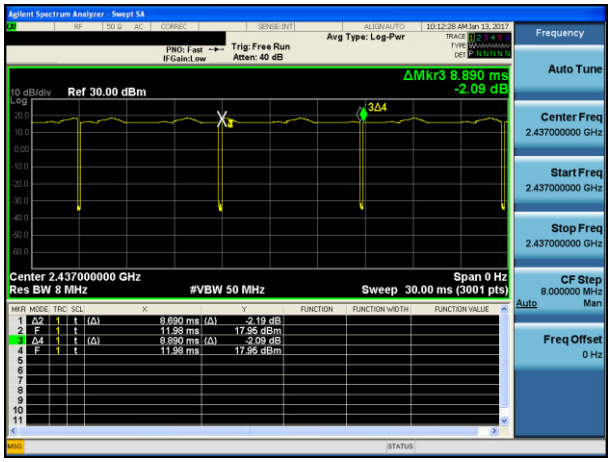
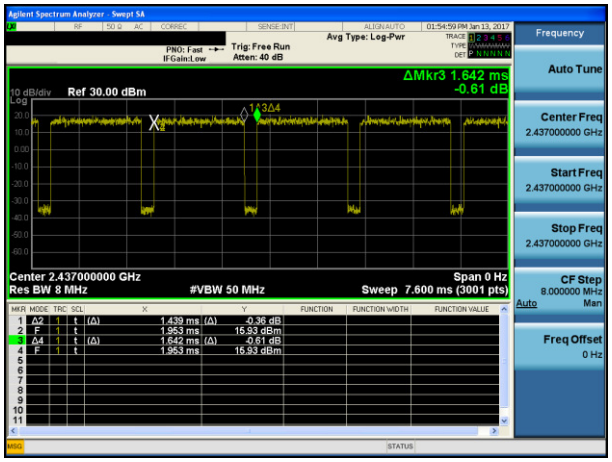
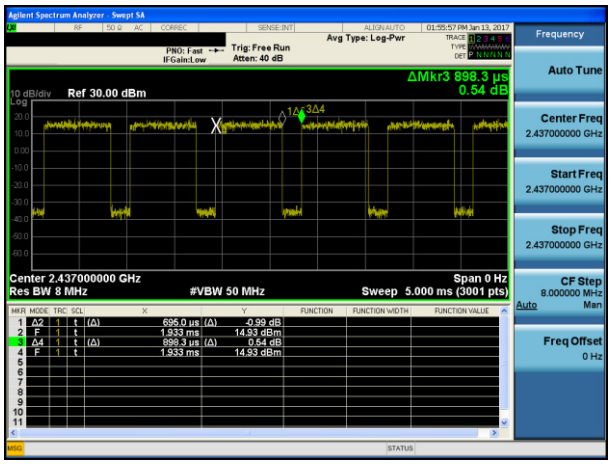
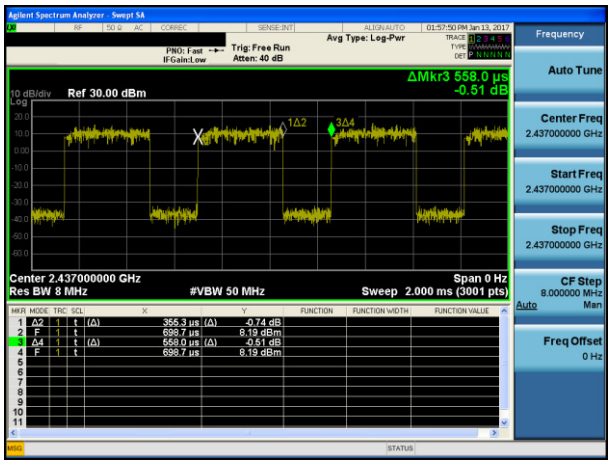
Set the center frequency of the instrument to the center frequency of the transmission. Set RBW ≥ OBW if possible; otherwise, set RBW to the largest available value. Set VBW ≥ RBW. Set detector = peak or average.

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.)

▣ Test Data

Test Mode	Date rate	Tested frequency	T_{ON} (ms)	T_{ON+OFF} (ms)	Duty Cycle (%)	Duty Cycle Correction Factor(dB)
TM 1	1 Mbps	Middle	8.69	8.89	97.75	0.10
TM 2	6 Mbps	Middle	1.439	1.642	87.64	0.58
TM 3	MCS 8	Middle	0.6950	0.8983	77.37	1.12
TM 4	MCS 8	Middle	0.3553	0.5580	63.67	1.97

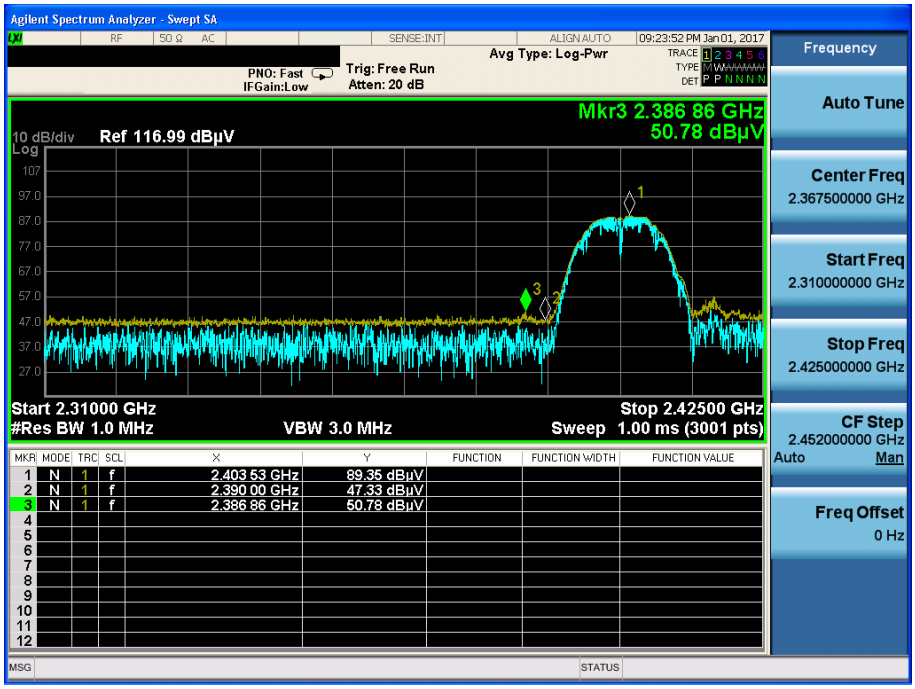
▣ Result Plots

Duty cycle data : **TM 1** & **1 Mbps** & **Middle**	Duty cycle data : **TM 2** & **6 Mbps** & **Middle**
	
Duty cycle data : **TM 3** & **MCS 8** & **Middle**	Duty cycle data : **TM 4** & **MCS 8** & **Middle**
	

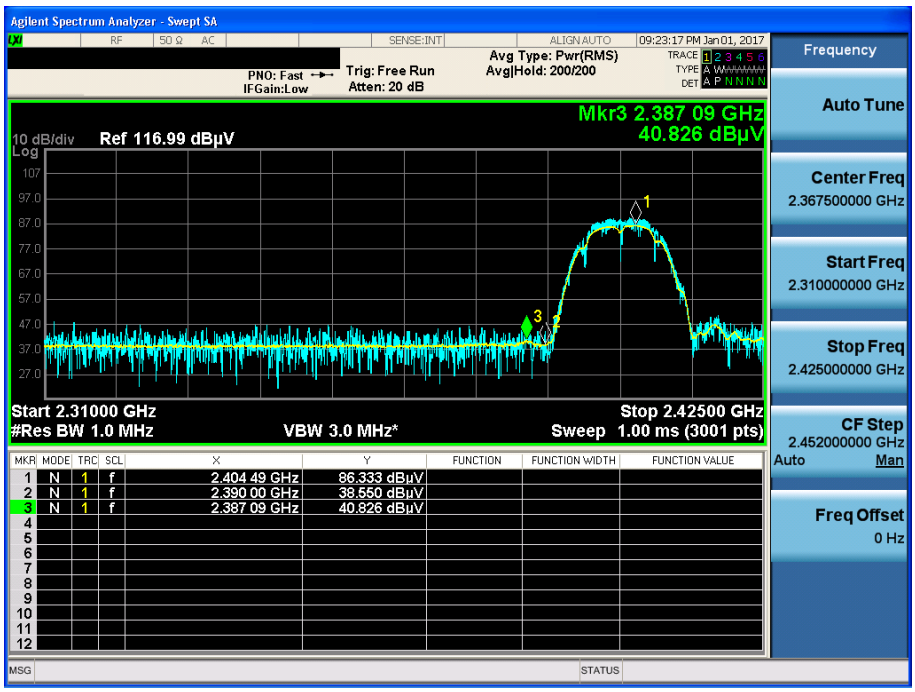
APPENDIX II

Unwanted Emissions (Radiated) Test Plot

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



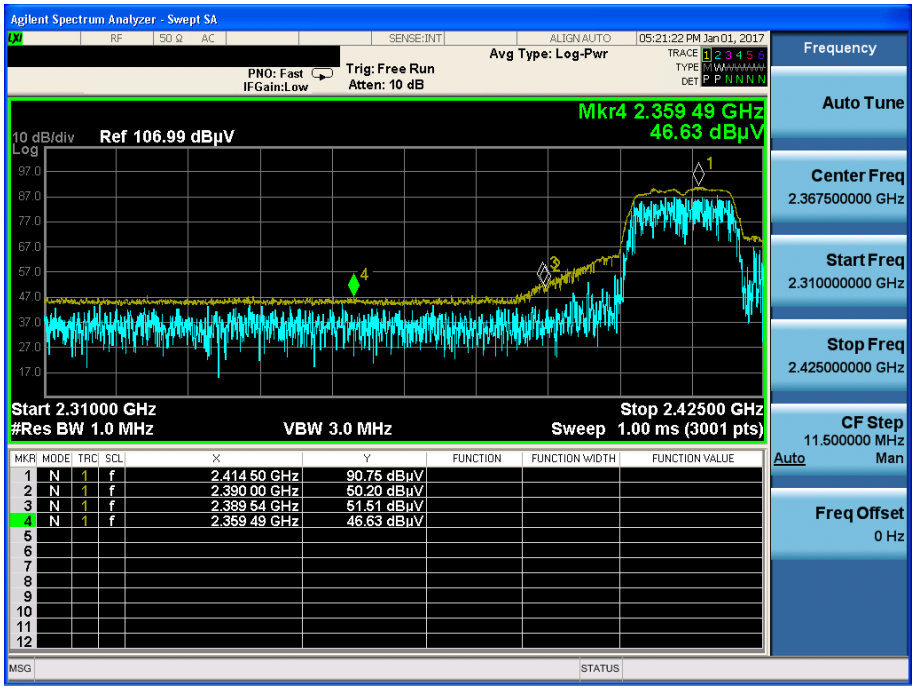
TM 1 & Lowest & Y axis & Hor **Detector Mode : AV**



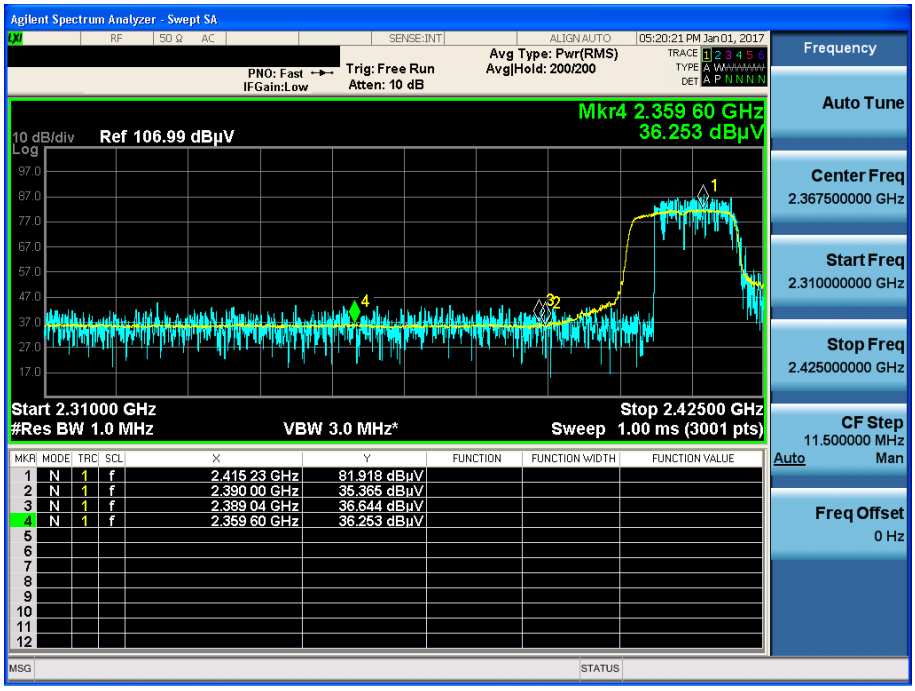
TM 1 & Highest & Y axis & Hor **Detector Mode : PK**

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

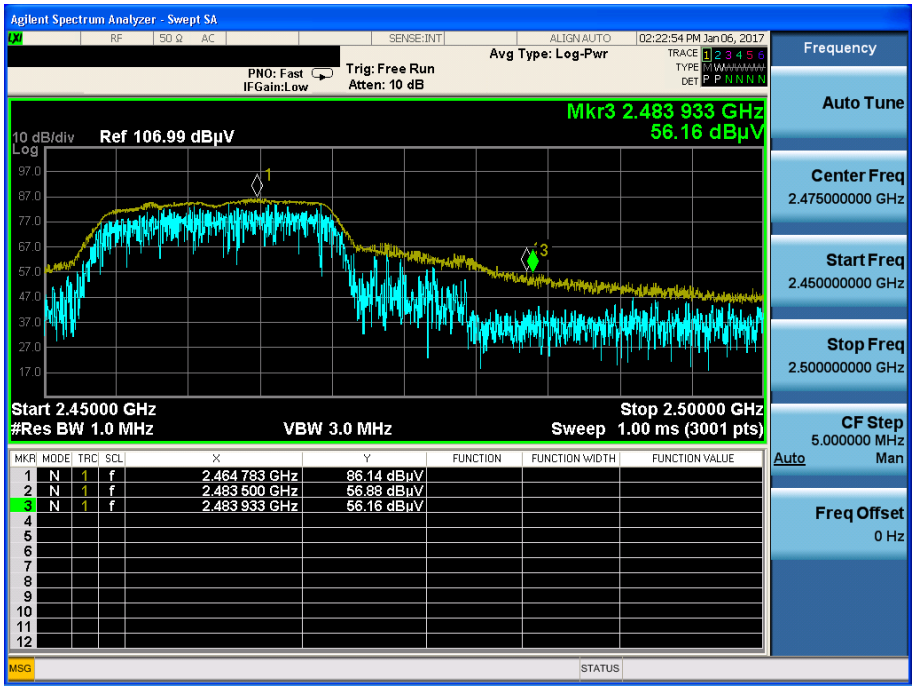
TM 2 & Lowest & Y axis & Hor **Detector Mode : PK**



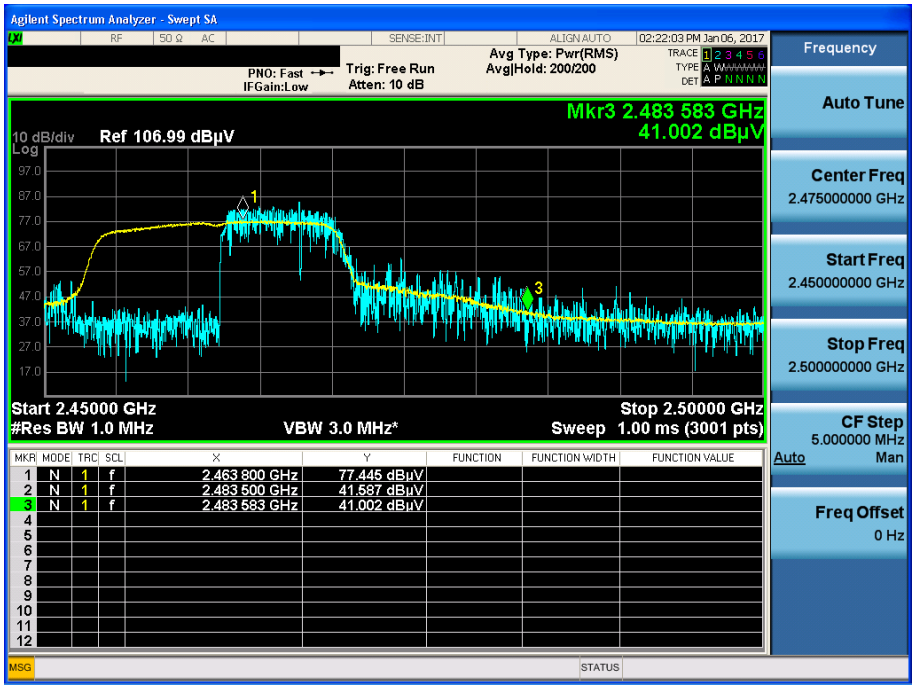
TM 2 & Lowest & Y axis & Hor **Detector Mode : AV**



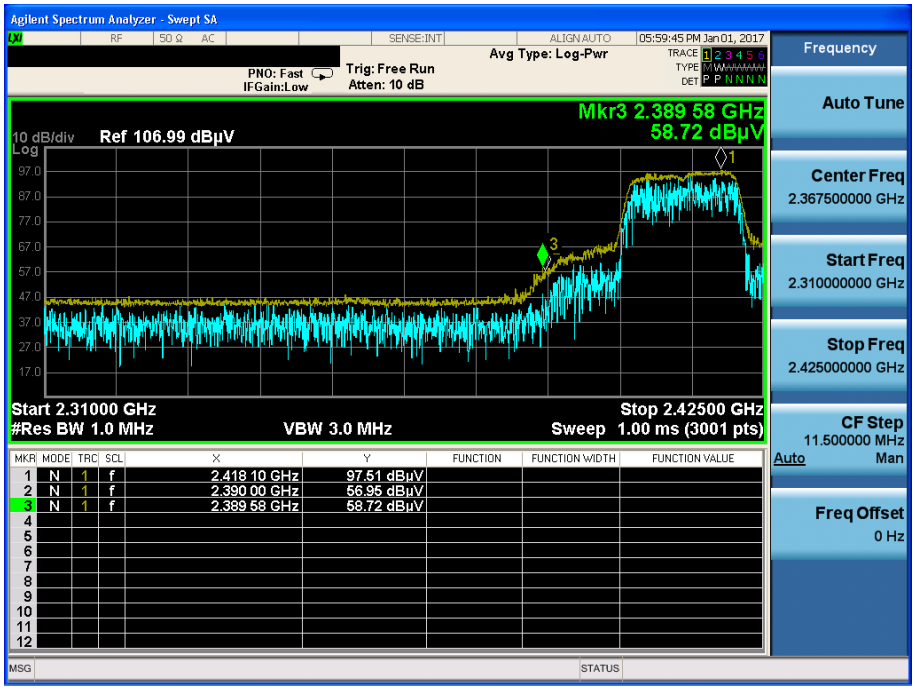
TM 2 & Highest & Y axis & Hor **Detector Mode : PK**



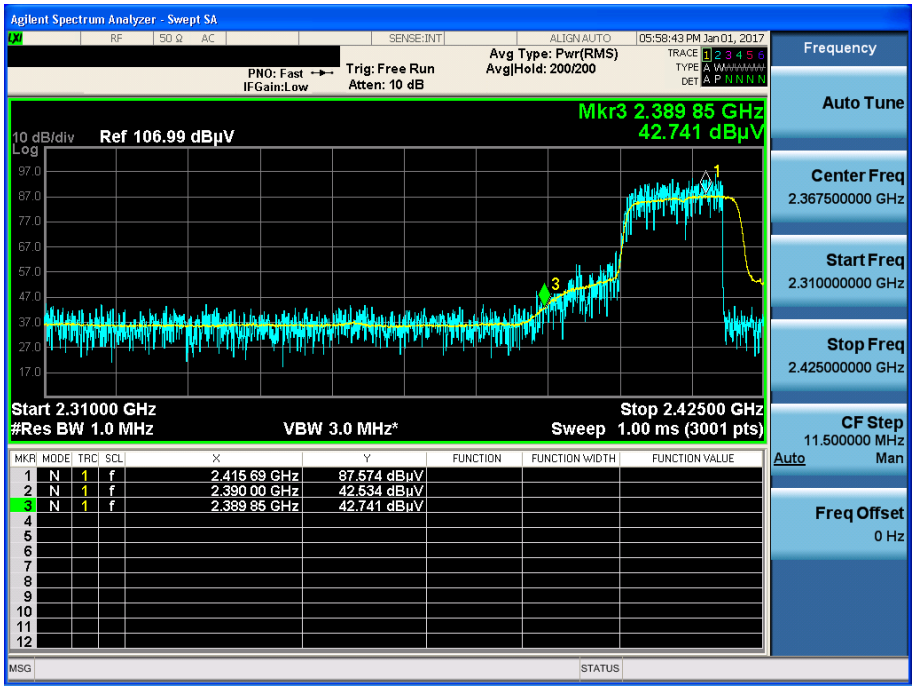
TM 2 & Highest & Y axis & Hor **Detector Mode : AV**



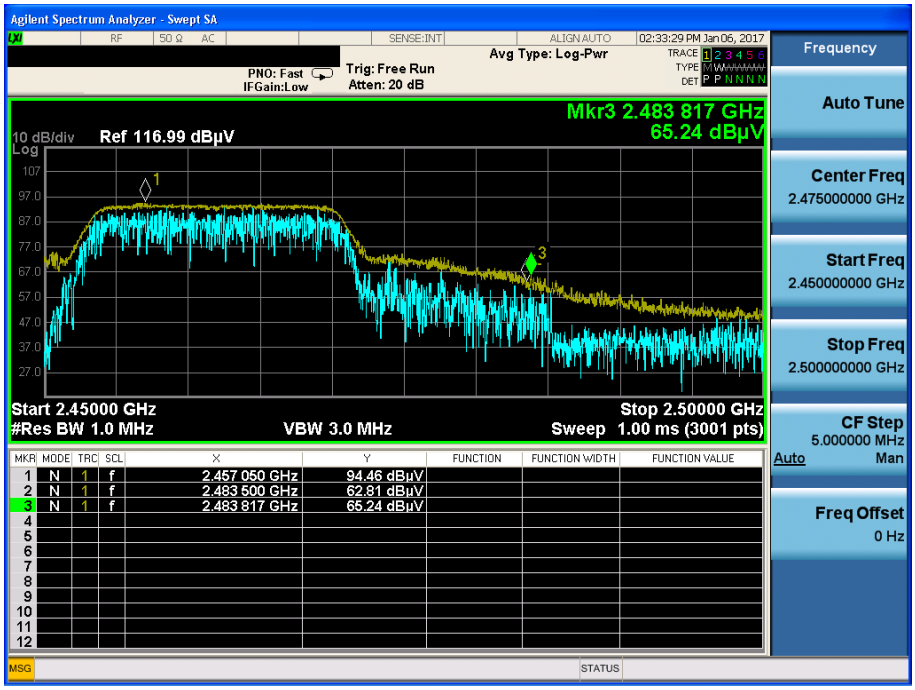
TM 3 & Lowest & Y axis & Hor **Detector Mode : PK**



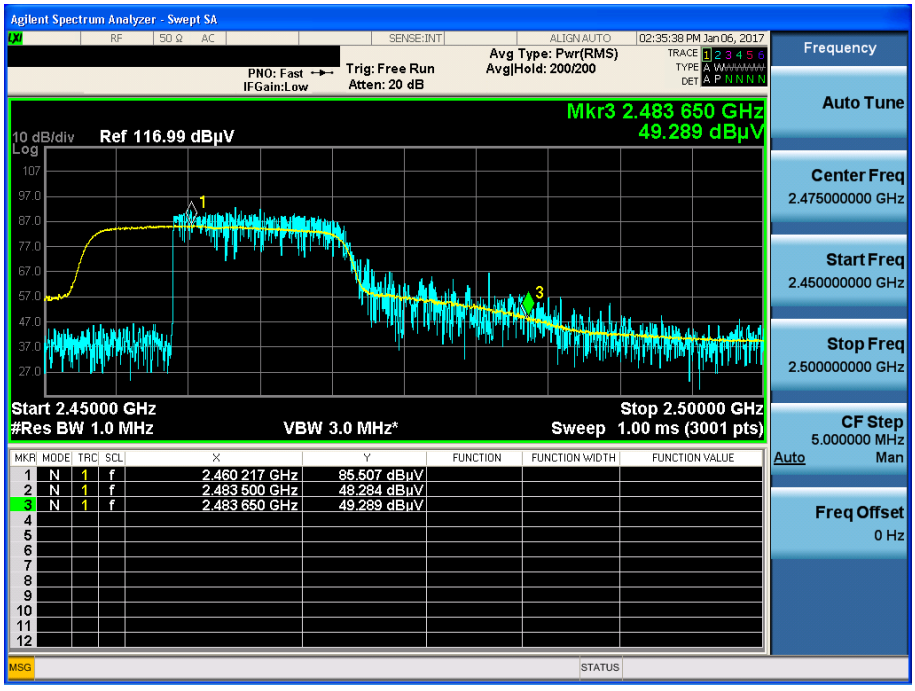
TM 3 & Lowest & Y axis & Hor **Detector Mode : AV**



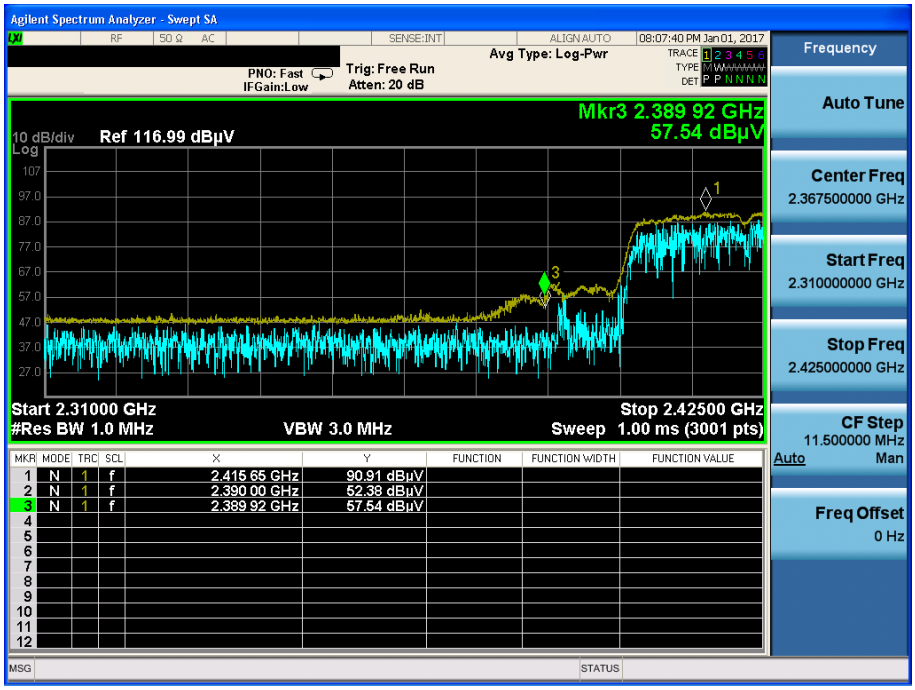
TM 3 & Highest & Y axis & Hor **Detector Mode : PK**



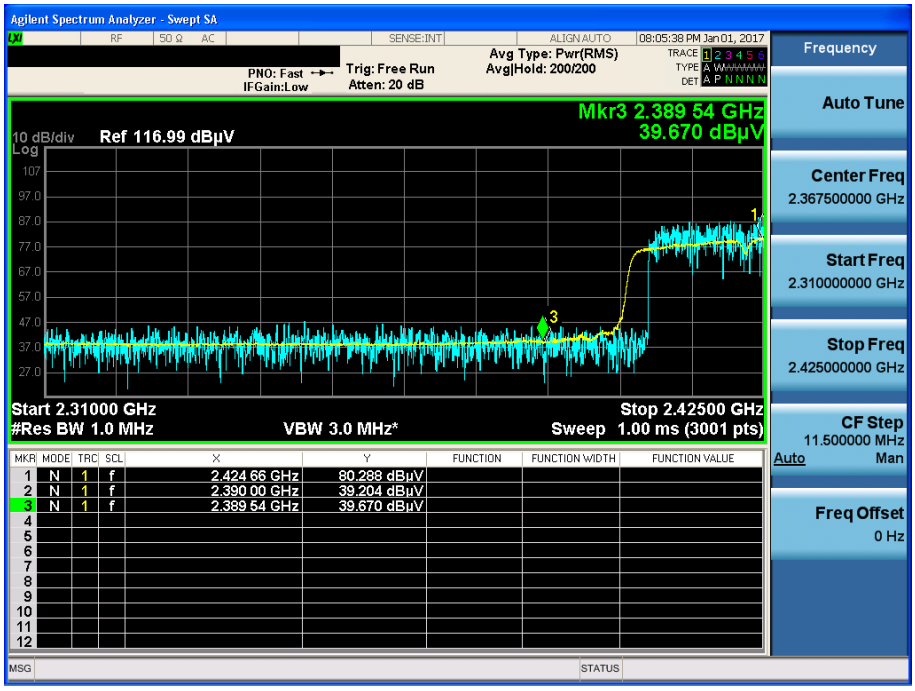
TM 3 & Highest & Y axis & Hor **Detector Mode : AV**



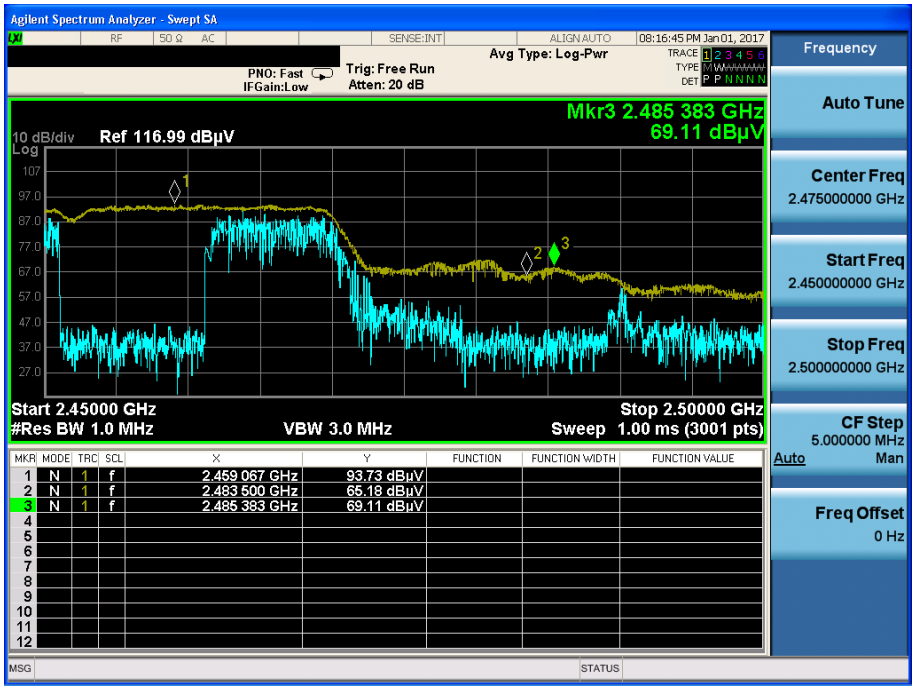
TM 4 & Lowest & Y axis & Hor **Detector Mode : PK**



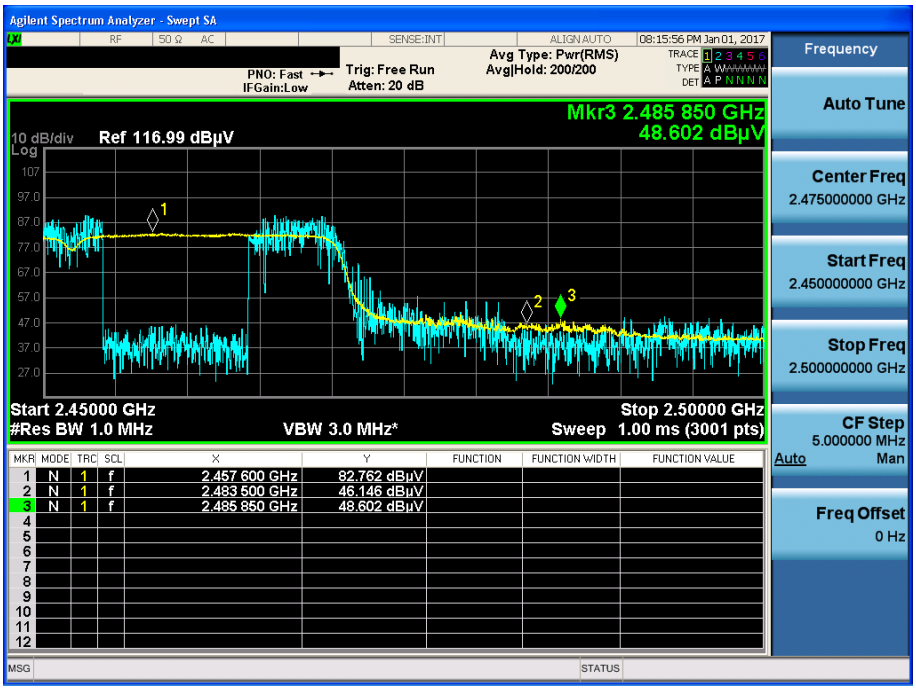
TM 4 & Lowest & Y axis & Hor **Detector Mode : AV**



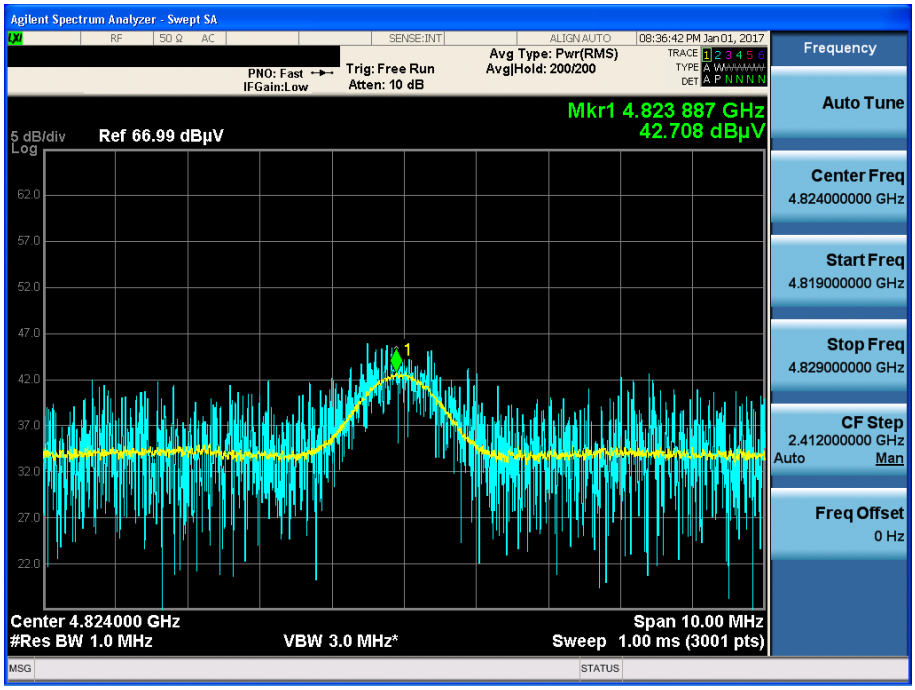
TM 4 & Highest & Y axis & Hor **Detector Mode : PK**



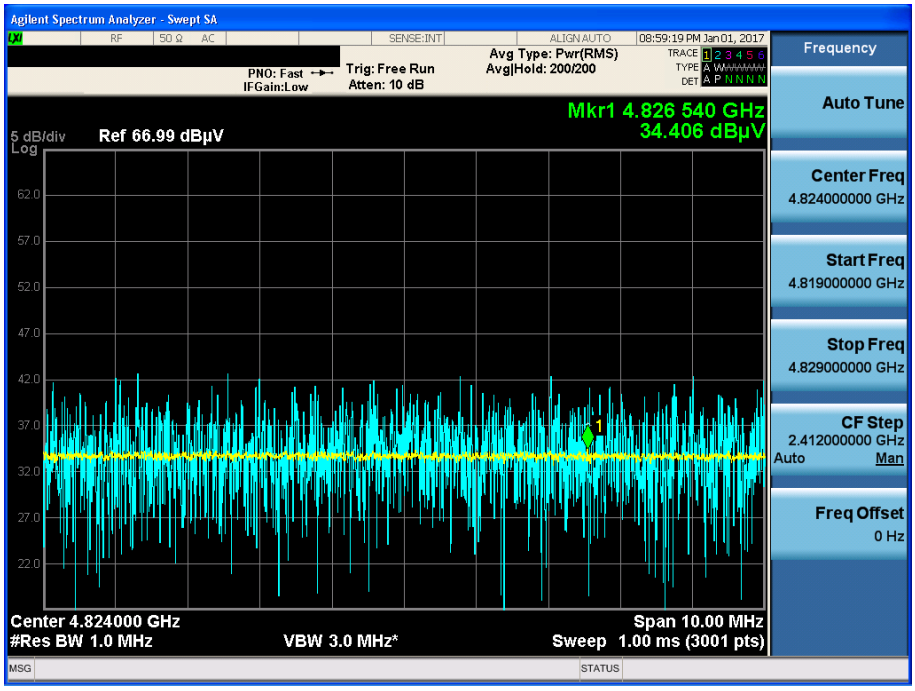
TM 4 & Highest & Y axis & Hor **Detector Mode : AV**



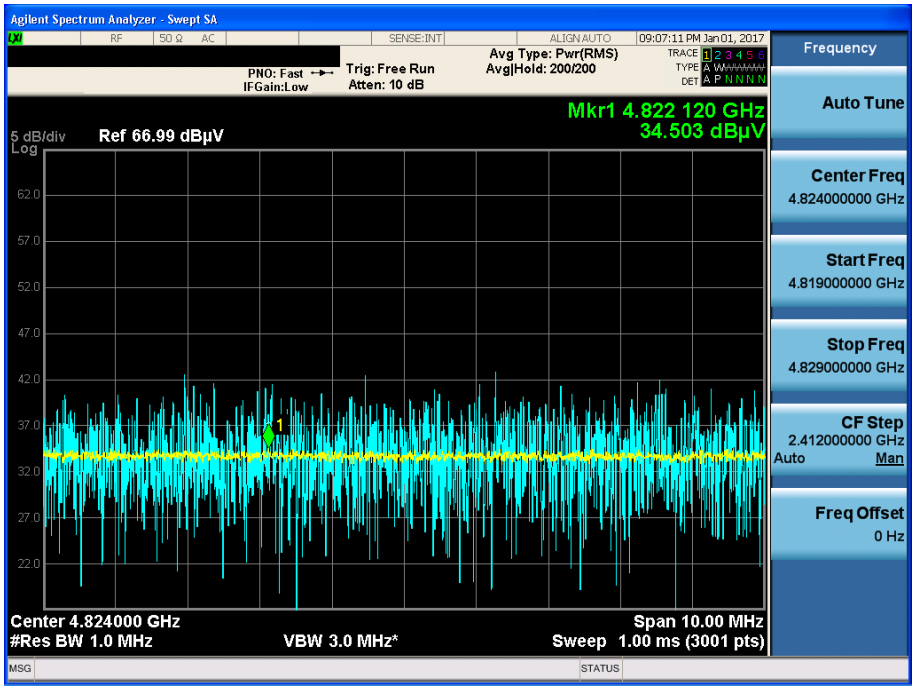
TM 1 & Lowest & Y axis & Hor **Detector Mode : AV**



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



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



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