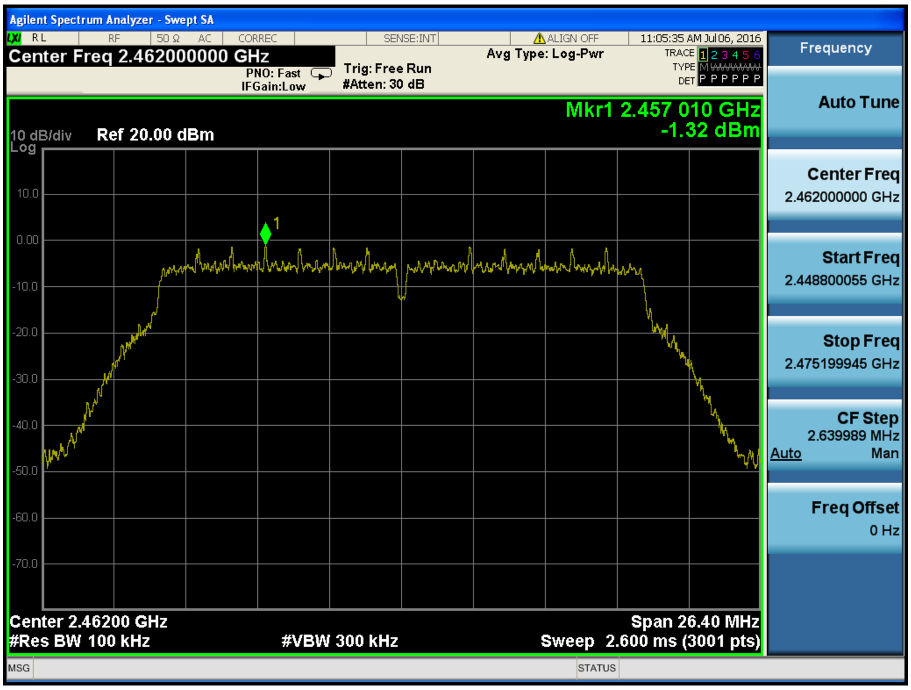
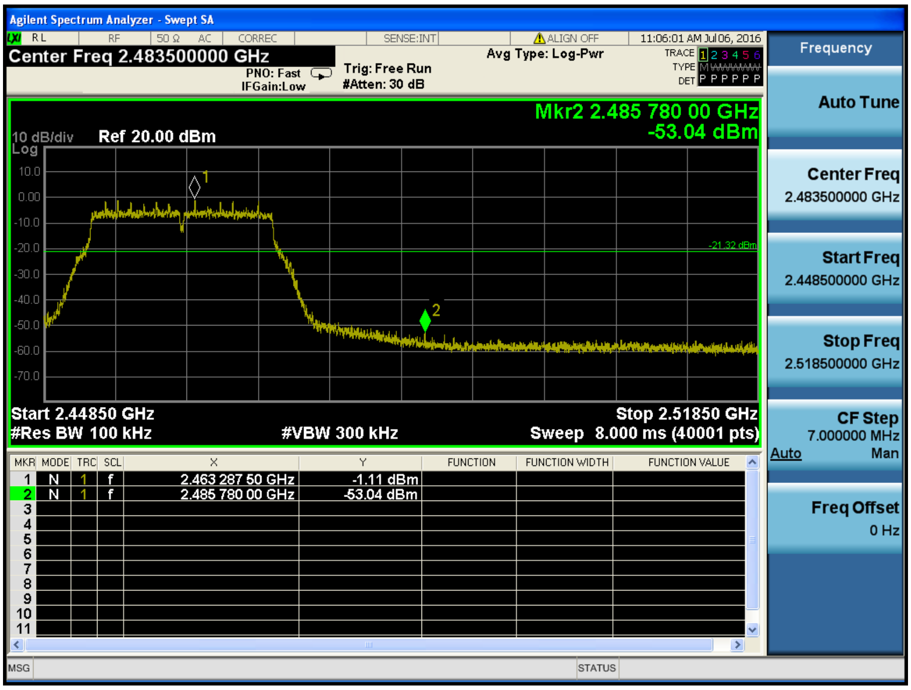
TM 3 & ANT 1 & Highest

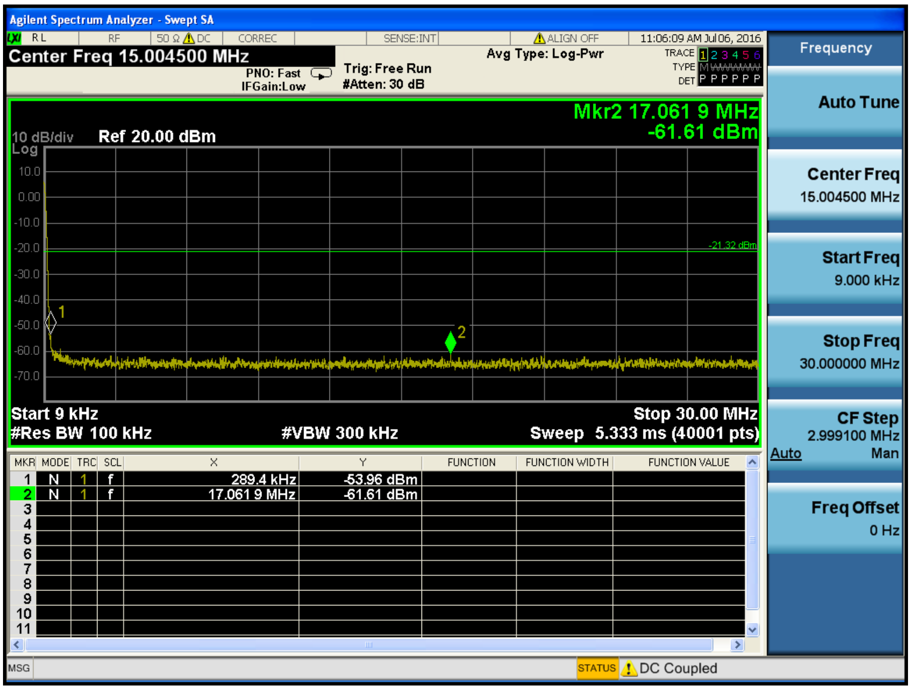
Reference

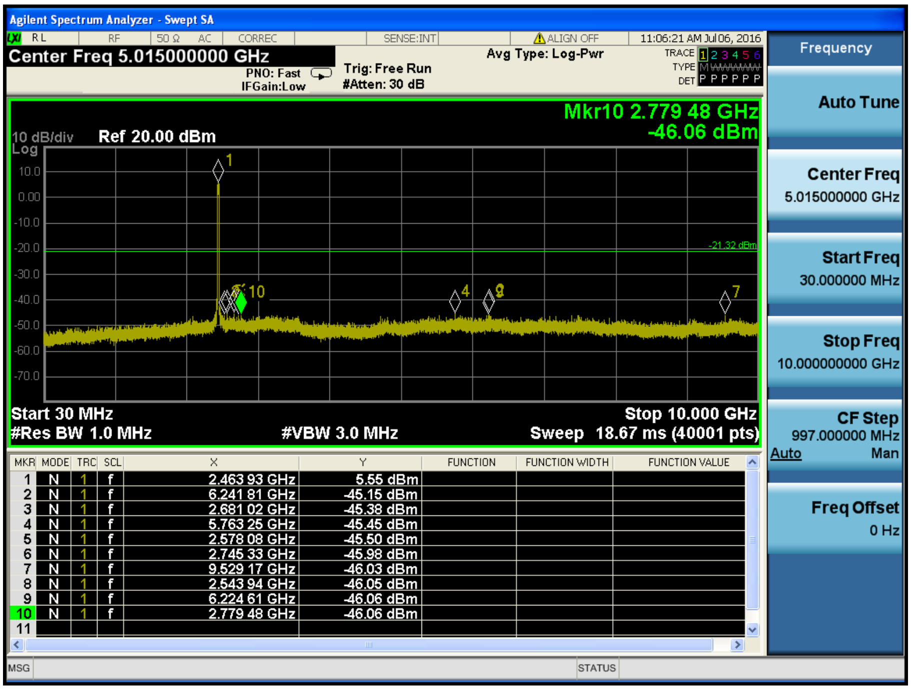


High Band-edge



Conducted Spurious Emissions





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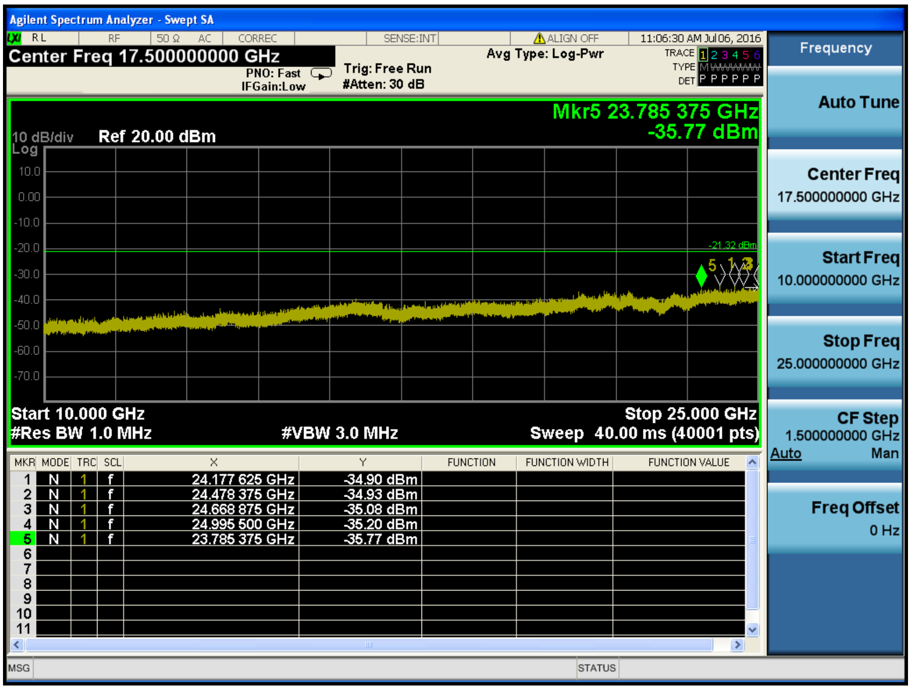

TM 1 & ANT 2 & Lowest

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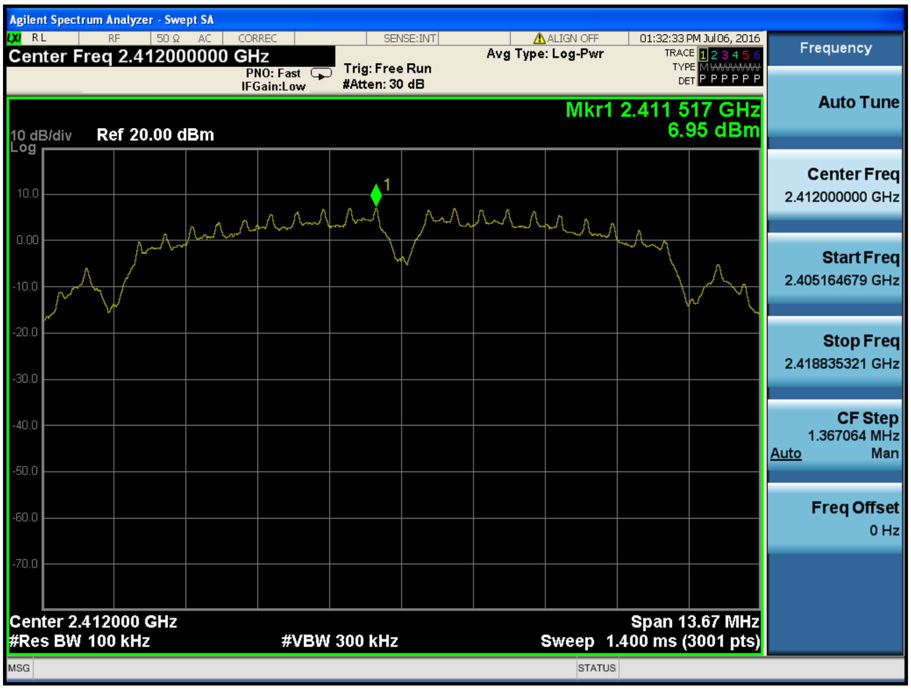
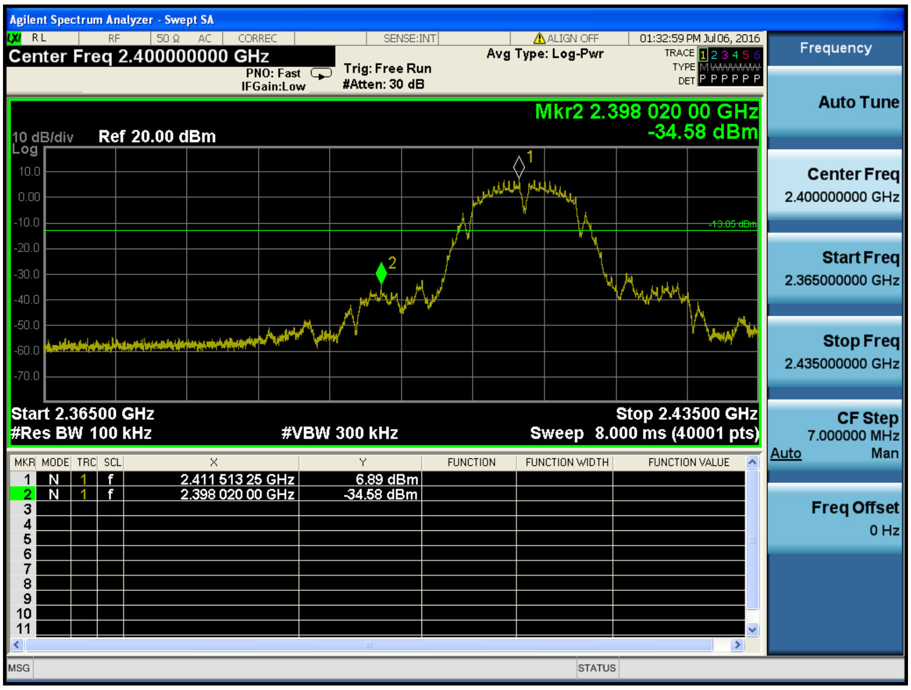


Low Band-edge



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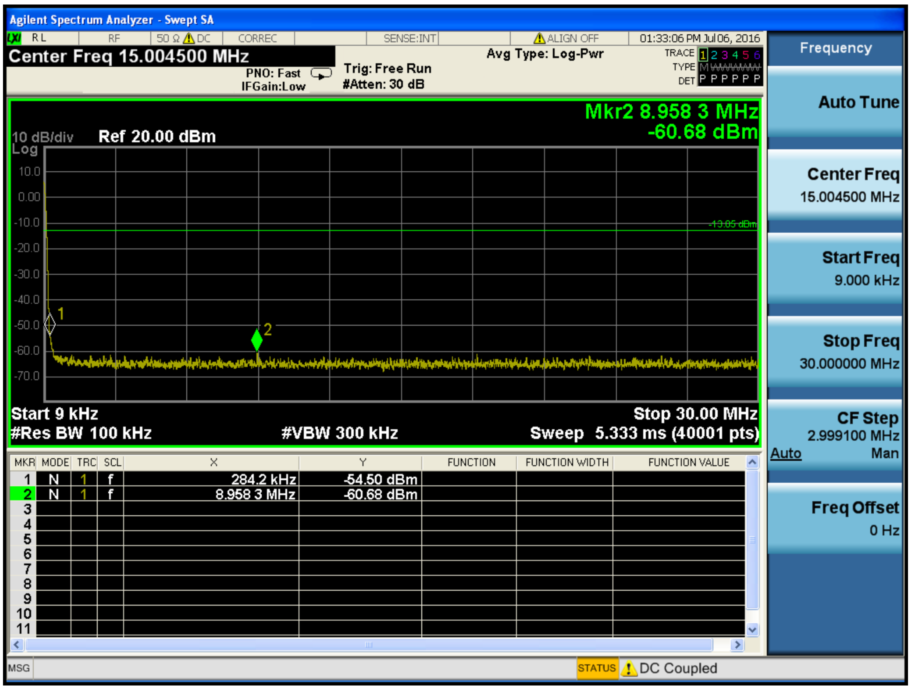

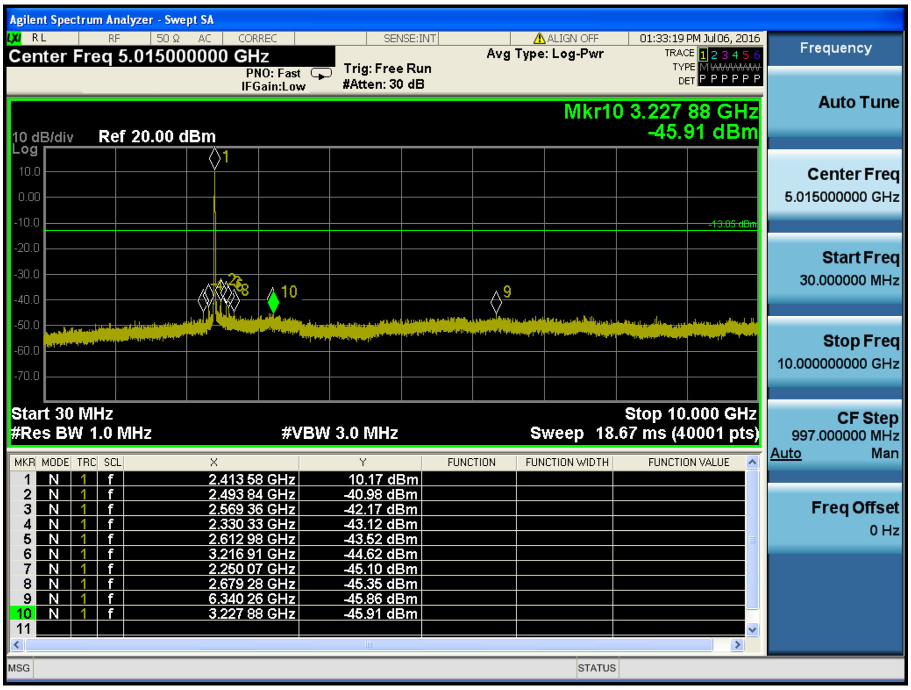

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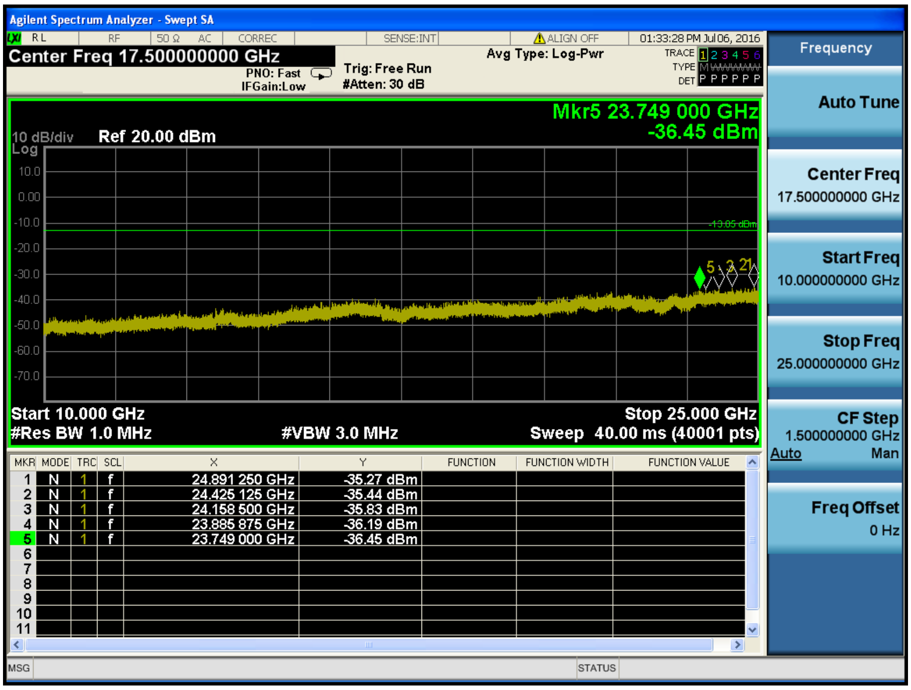

TM 1 & ANT 2 & Middle

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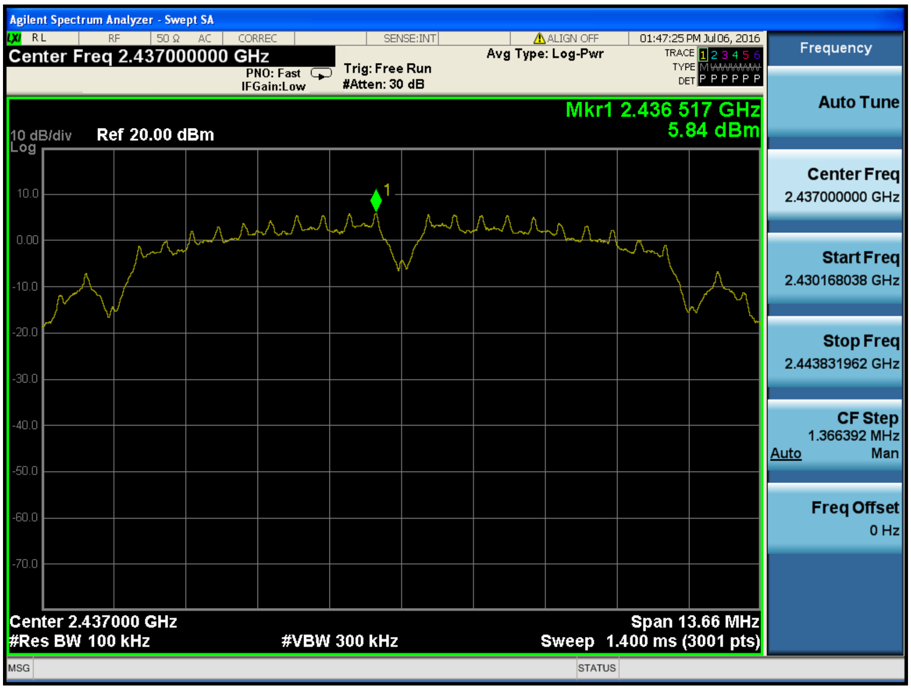

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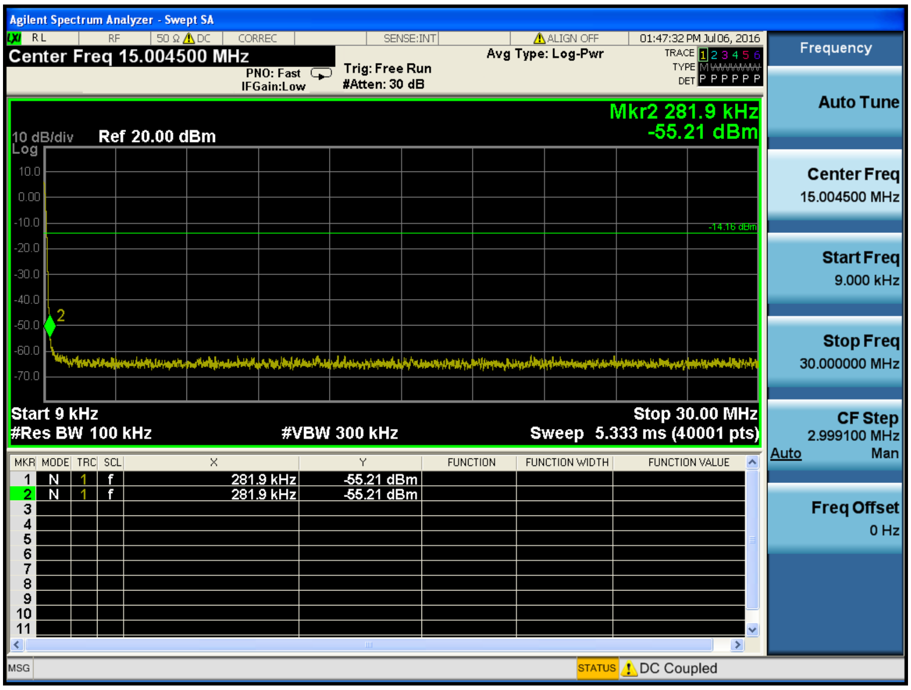

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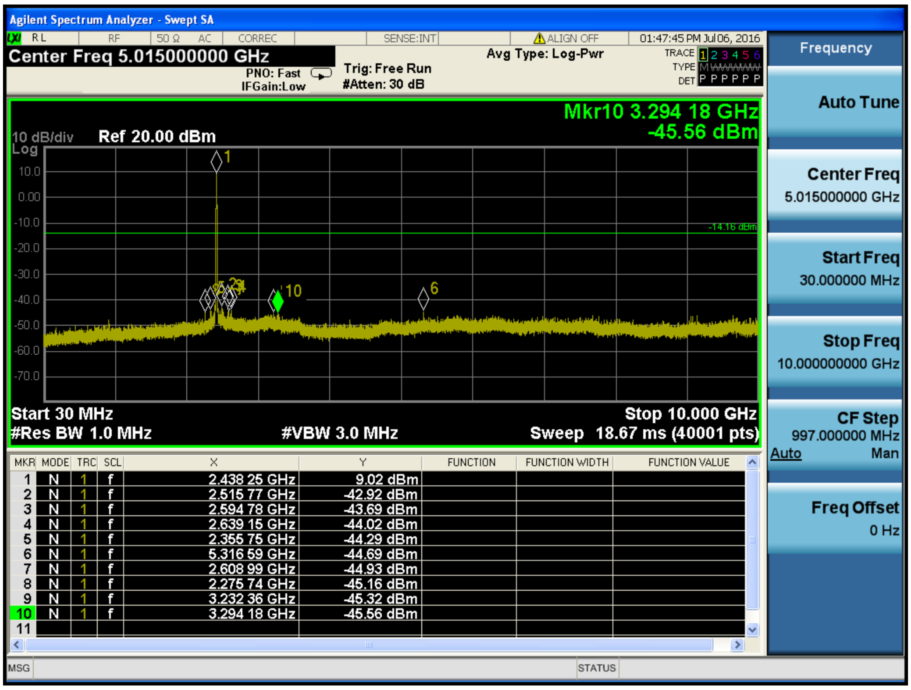

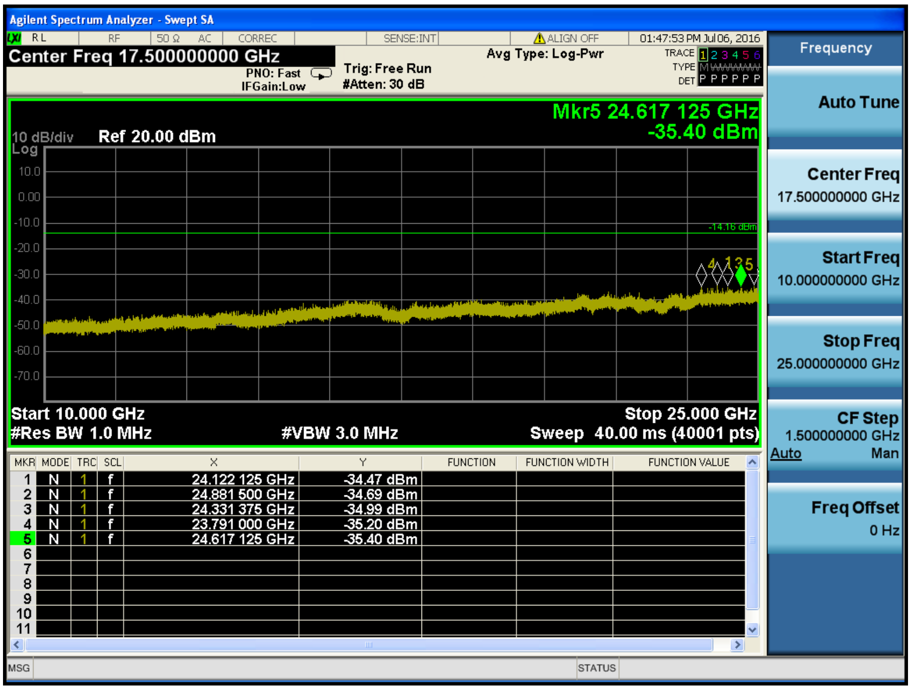

TM 1 & ANT 2 & Highest

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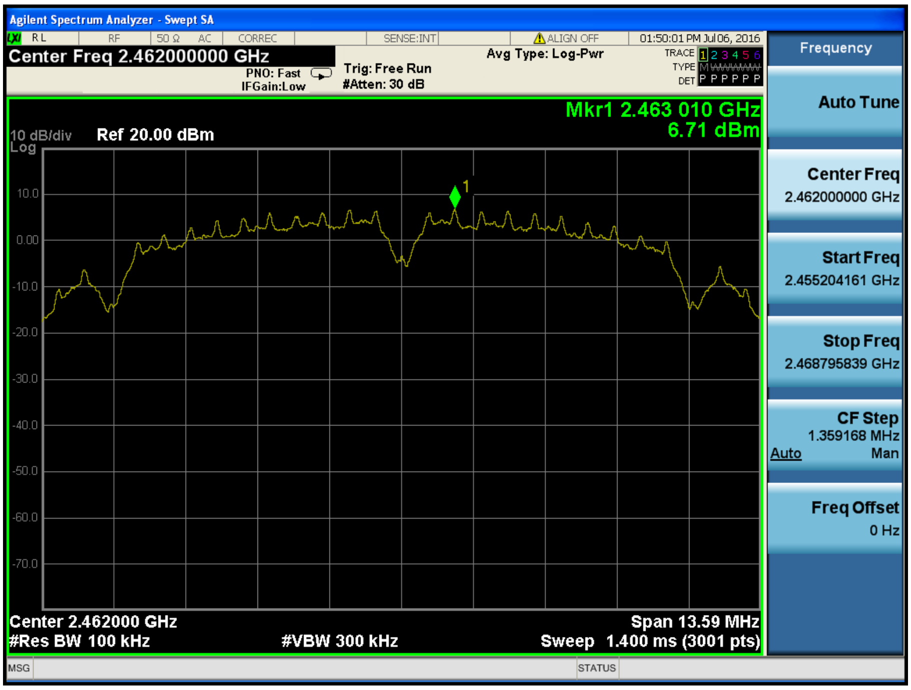

High Band-edge

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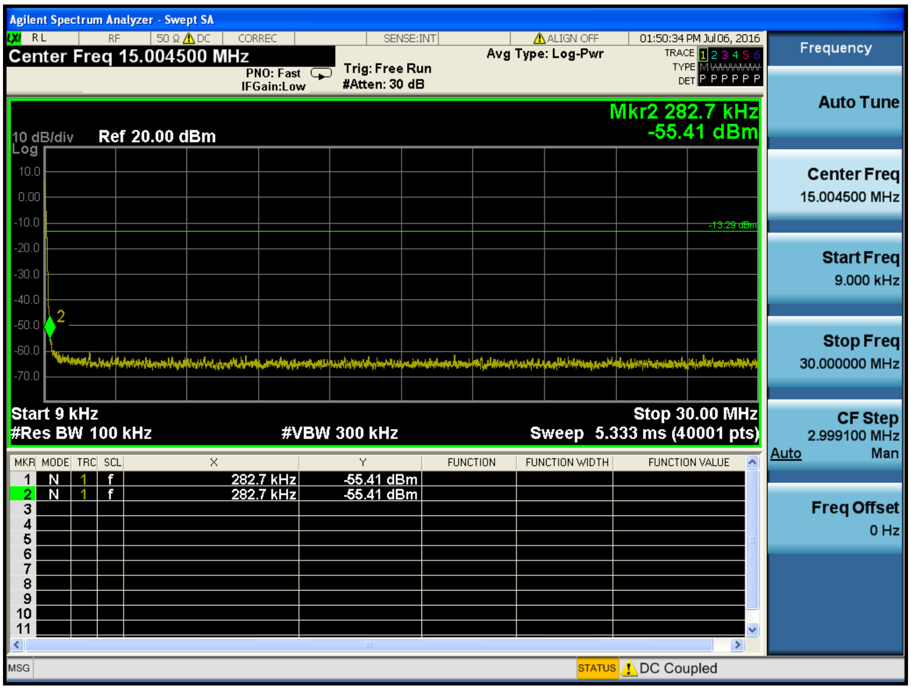

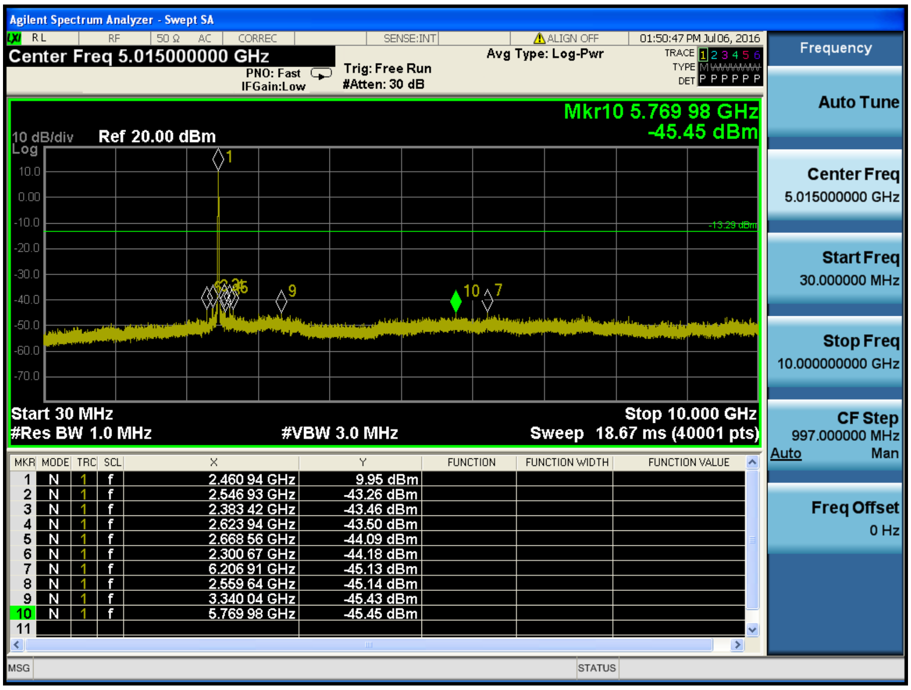

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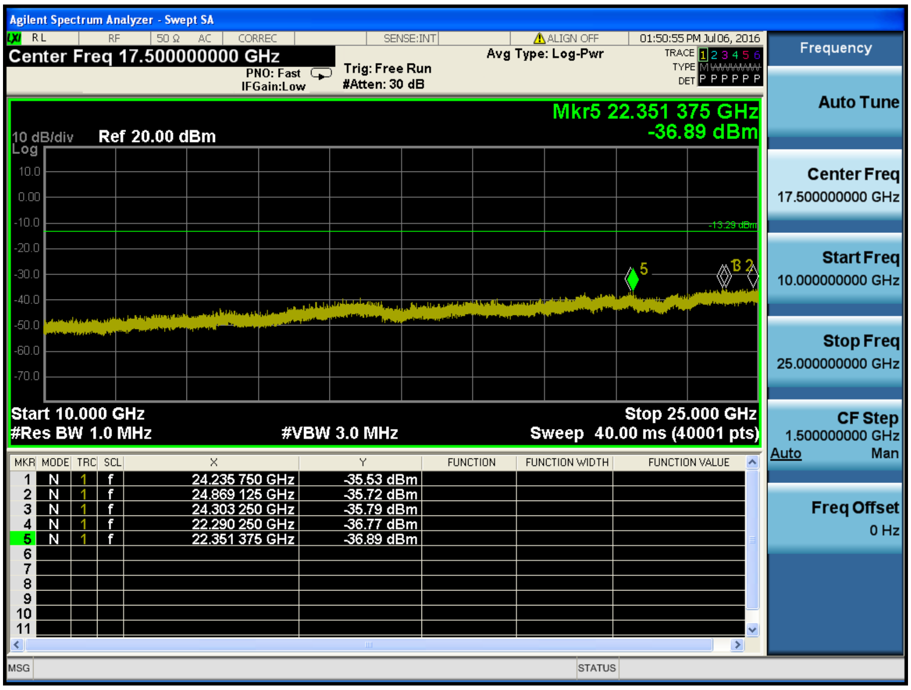

TM 2 & ANT 2 & Lowest

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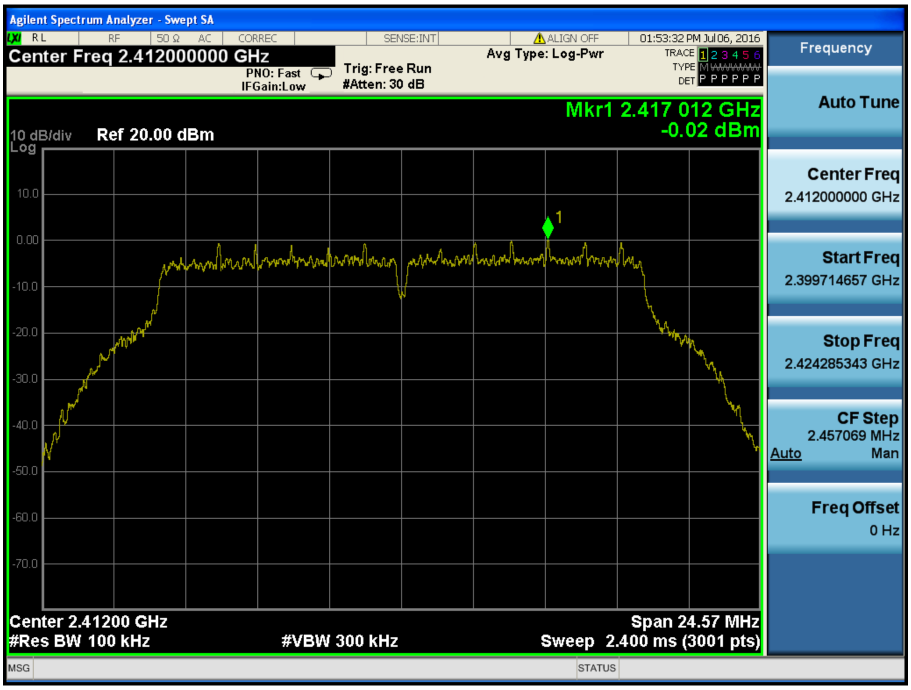
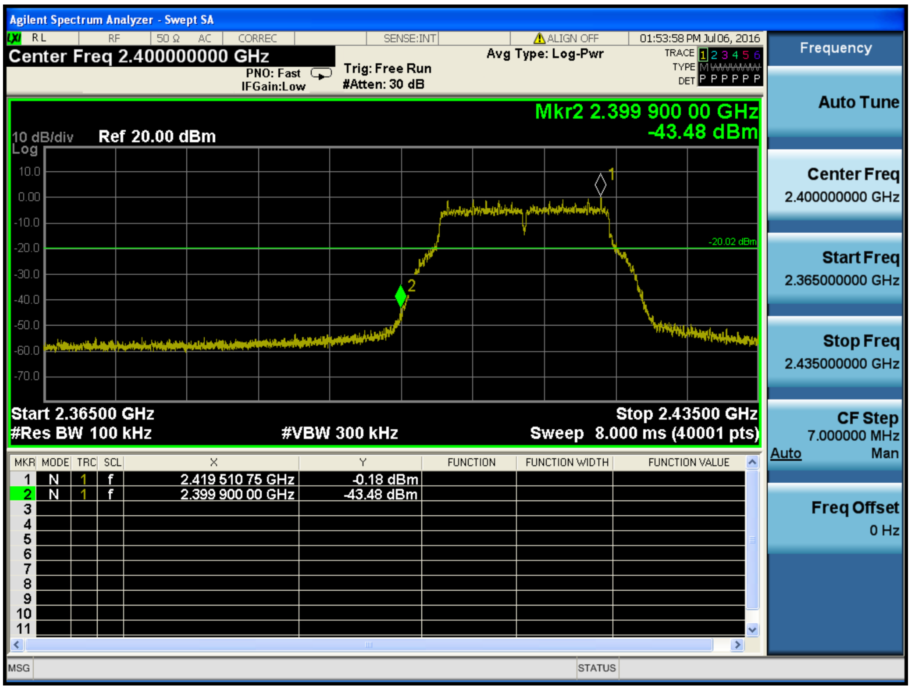


Low Band-edge



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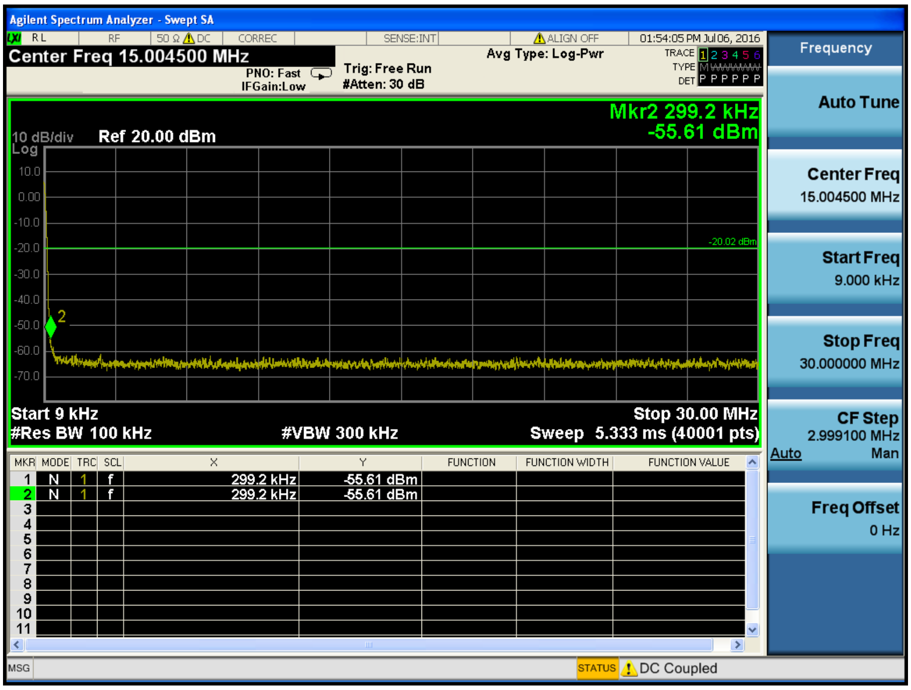

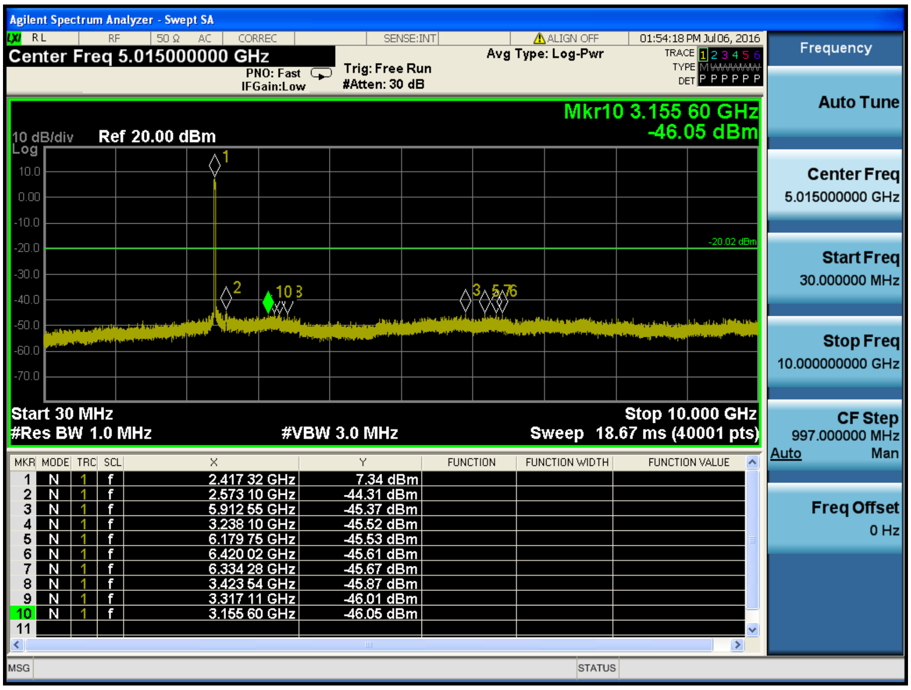

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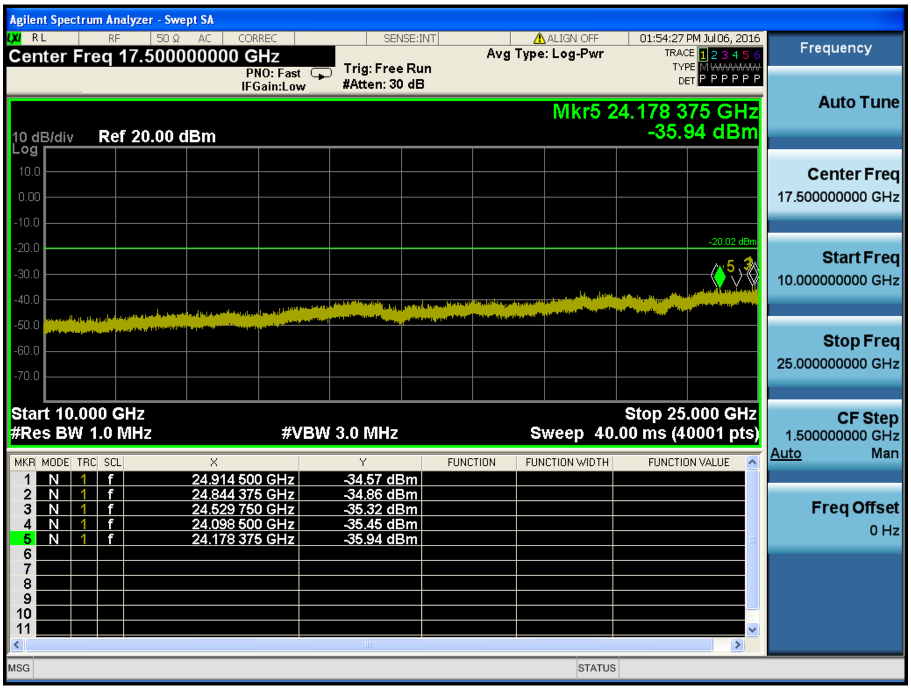

TM 2 & ANT 2 & Middle

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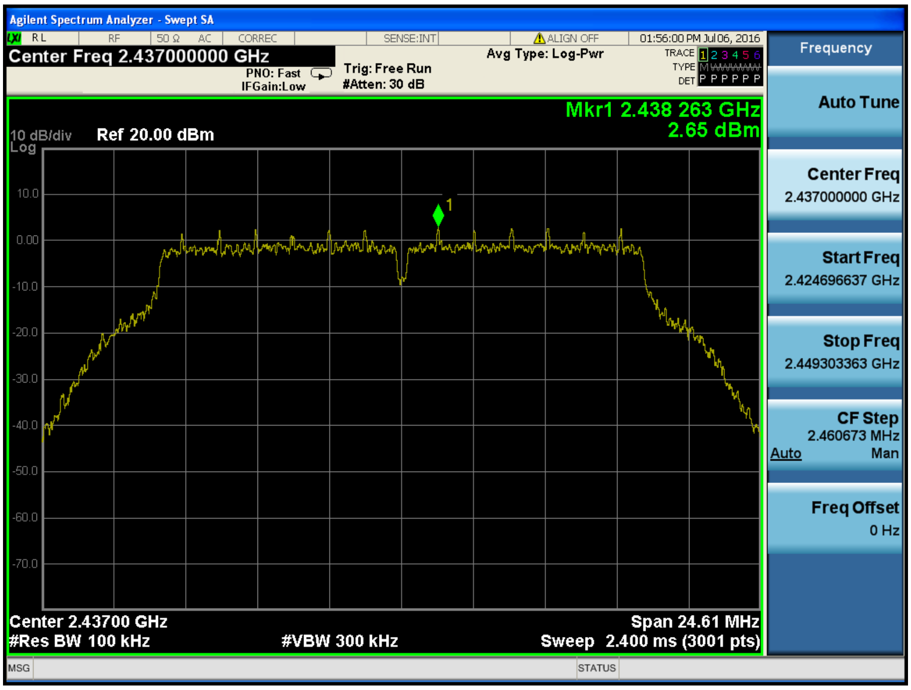

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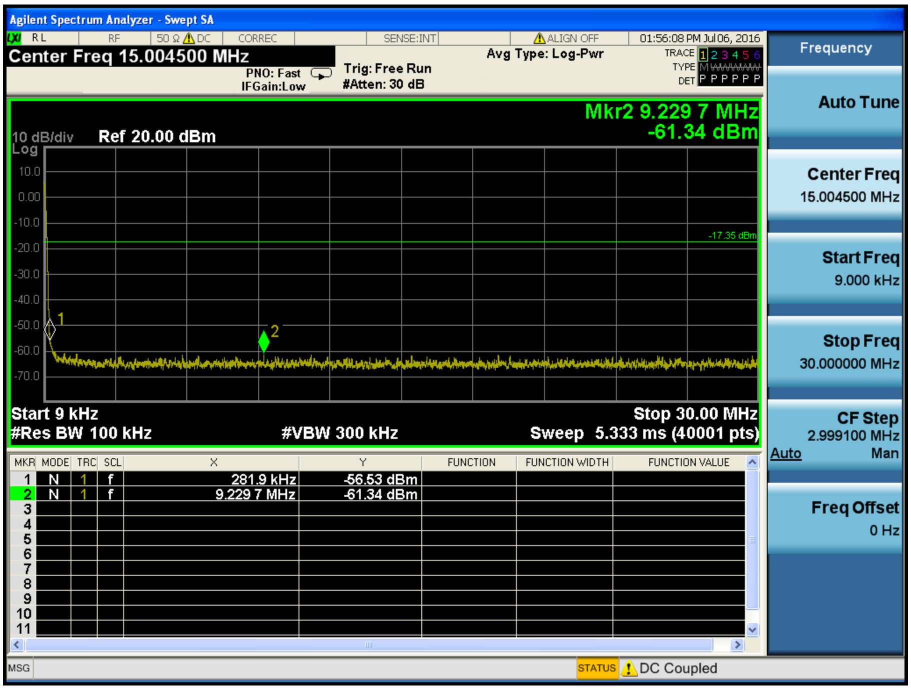

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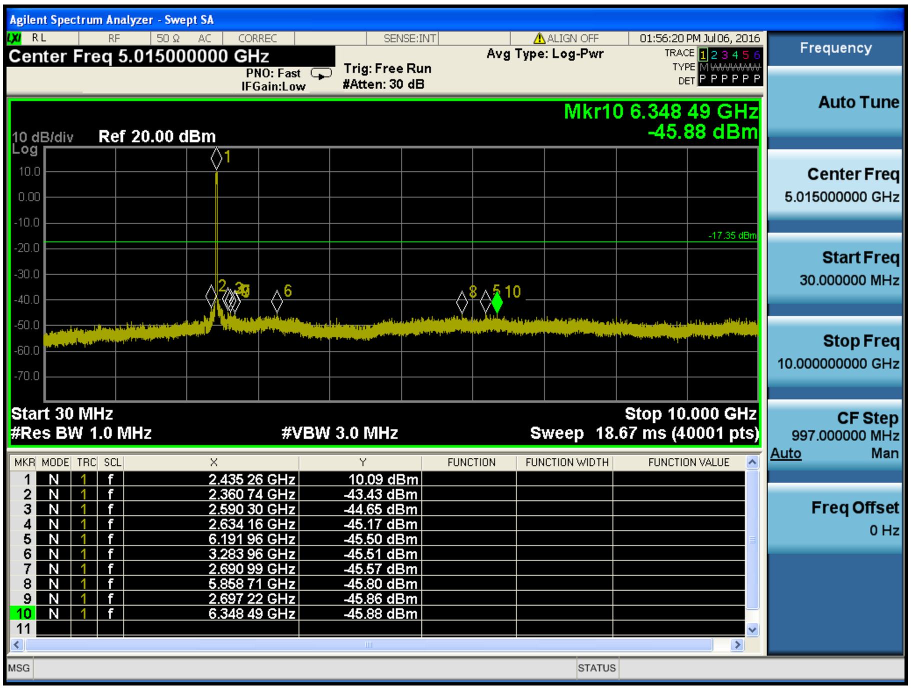
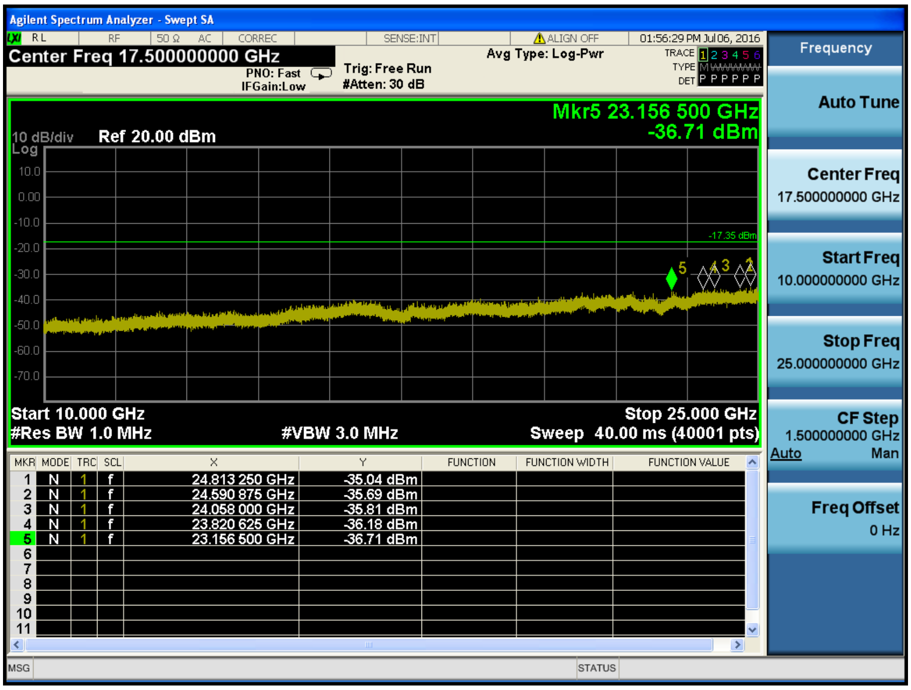
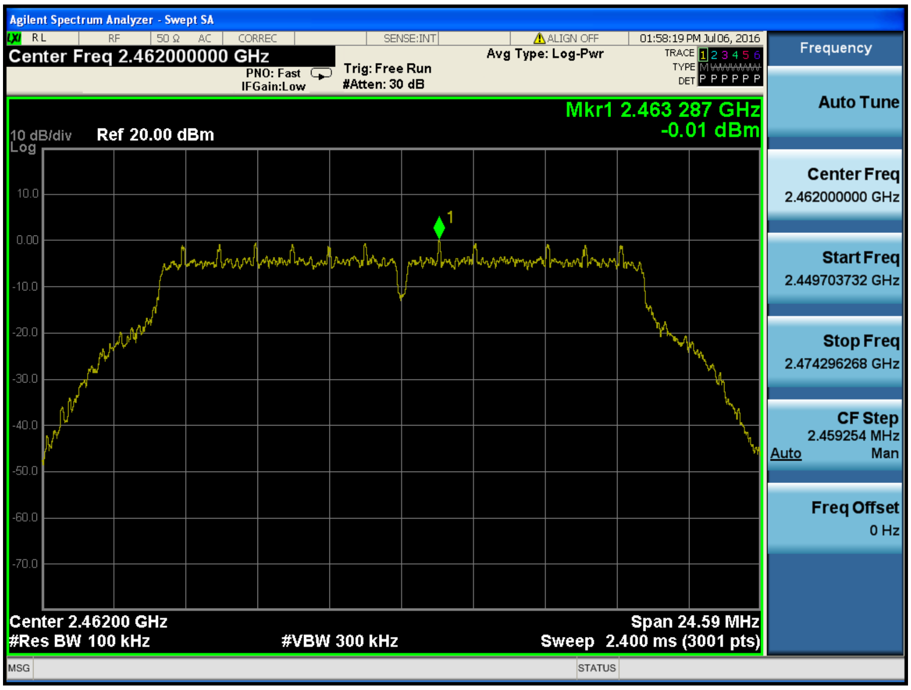


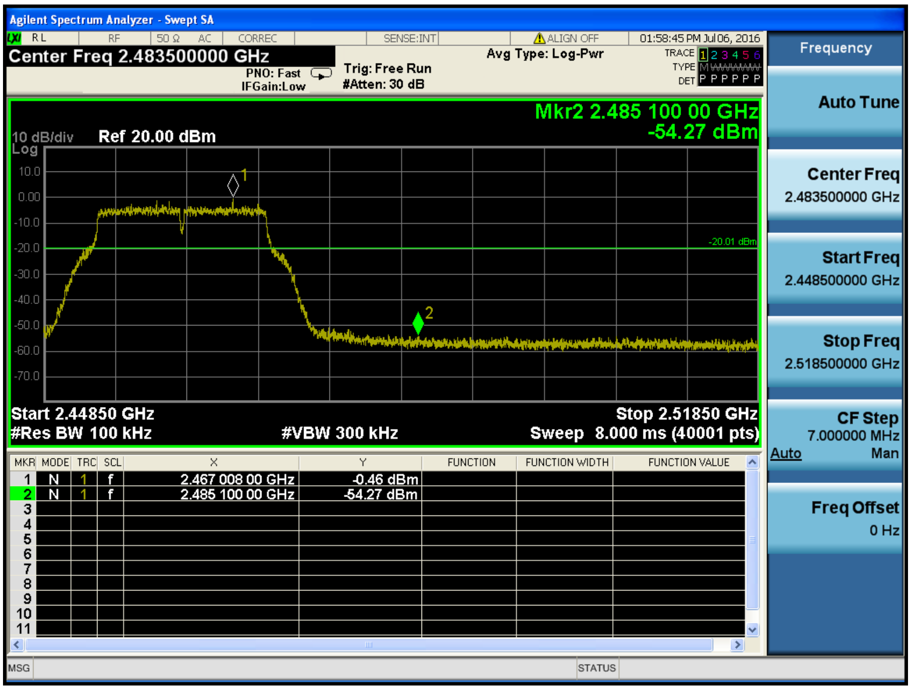


TM 2 & ANT 2 & Highest

Reference



High Band-edge



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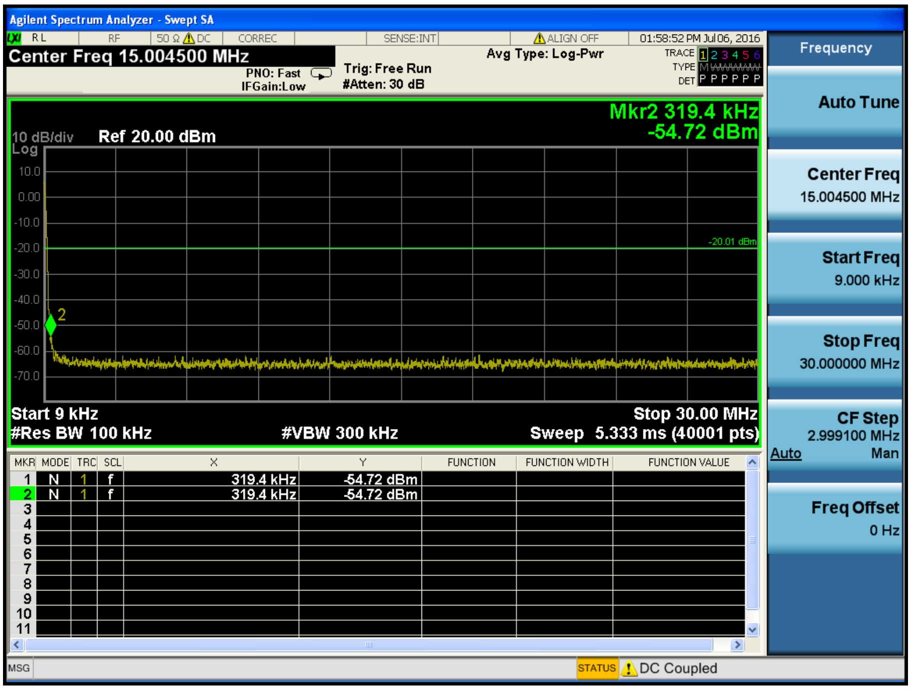

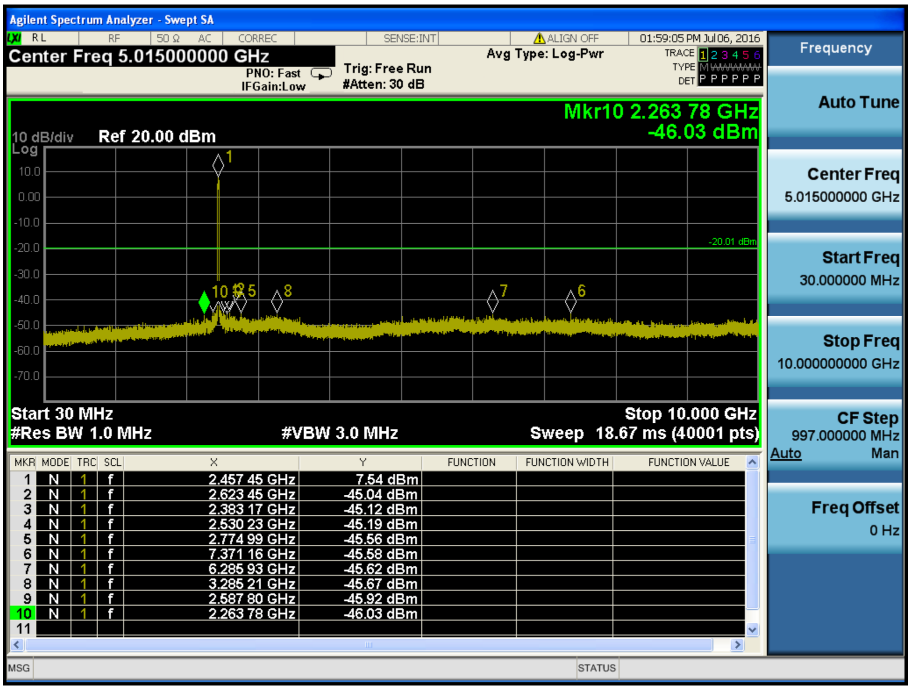

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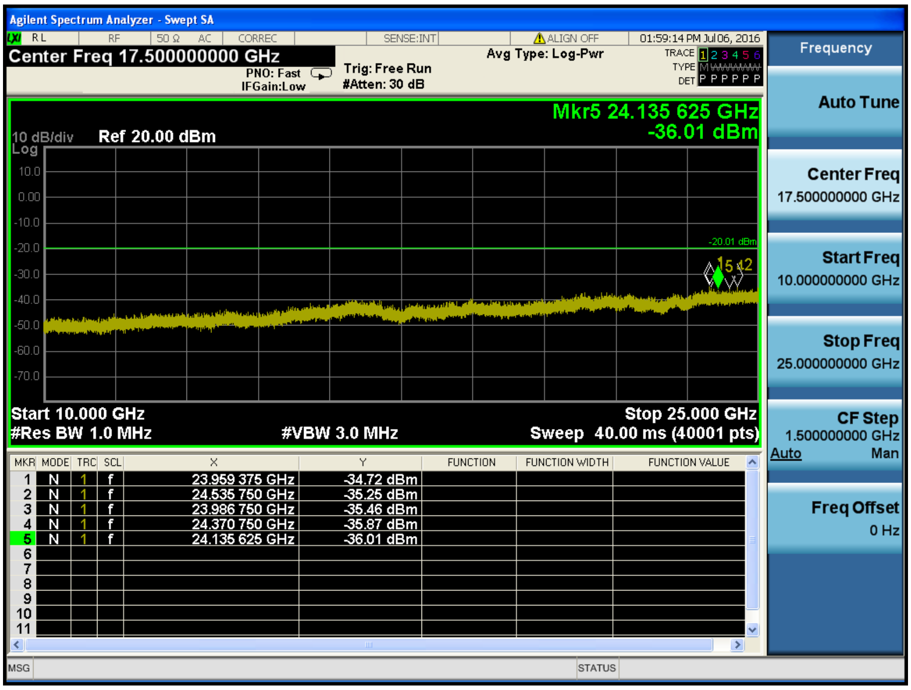
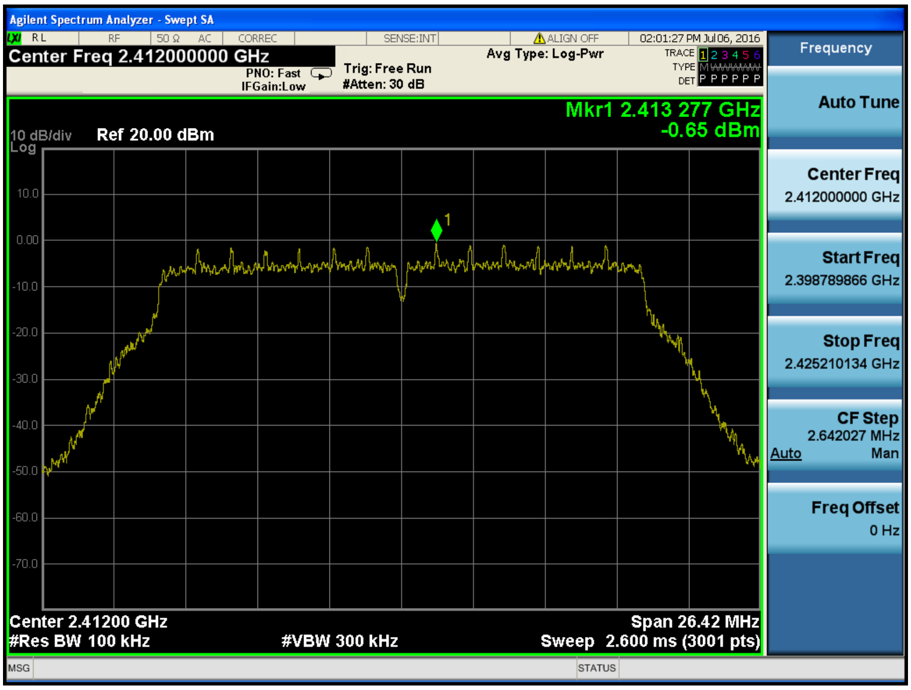


TM 3 & ANT 2 & Lowest

Reference



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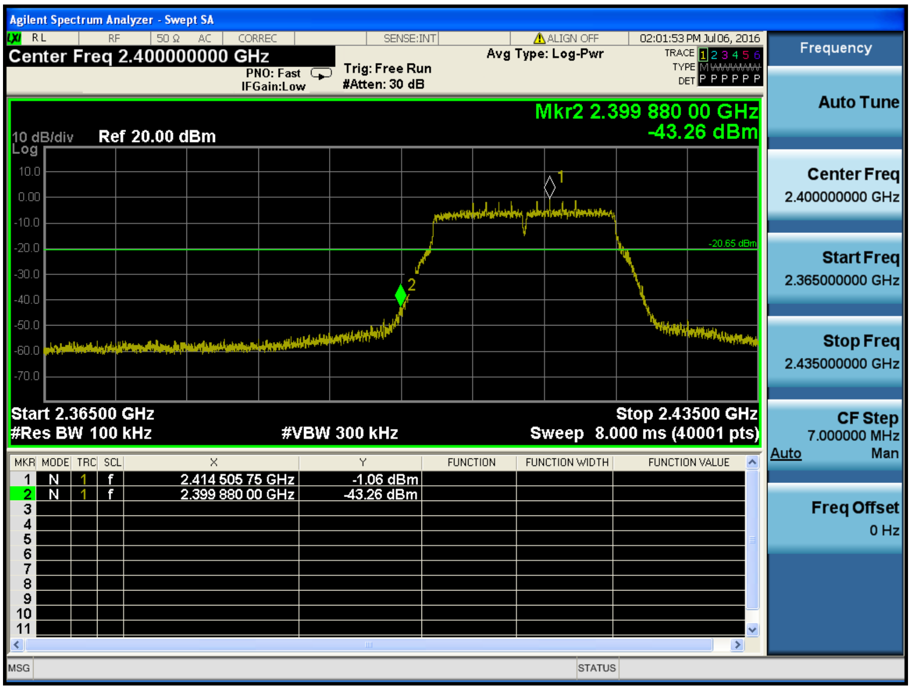

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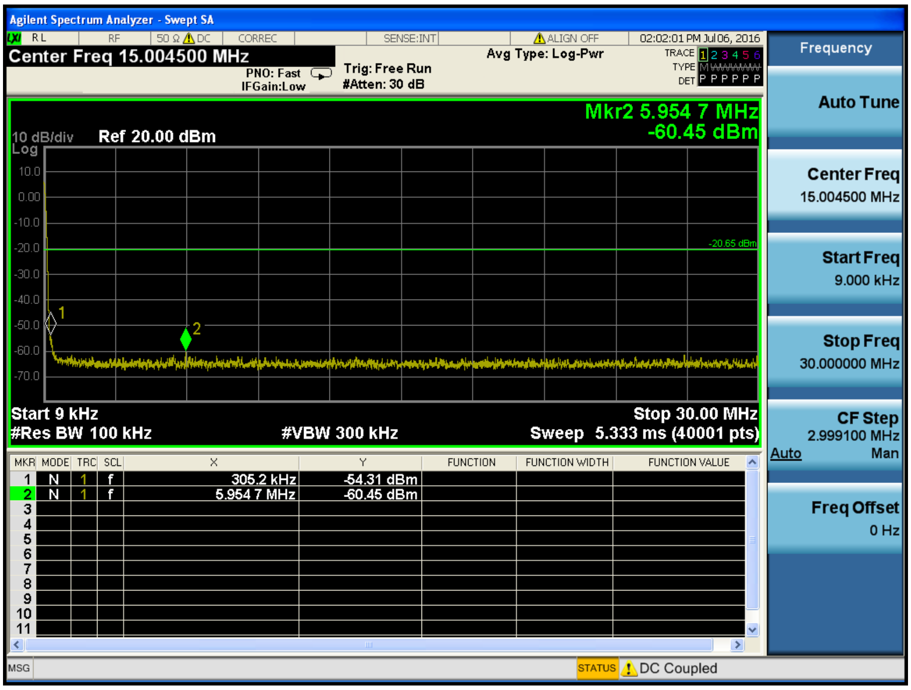

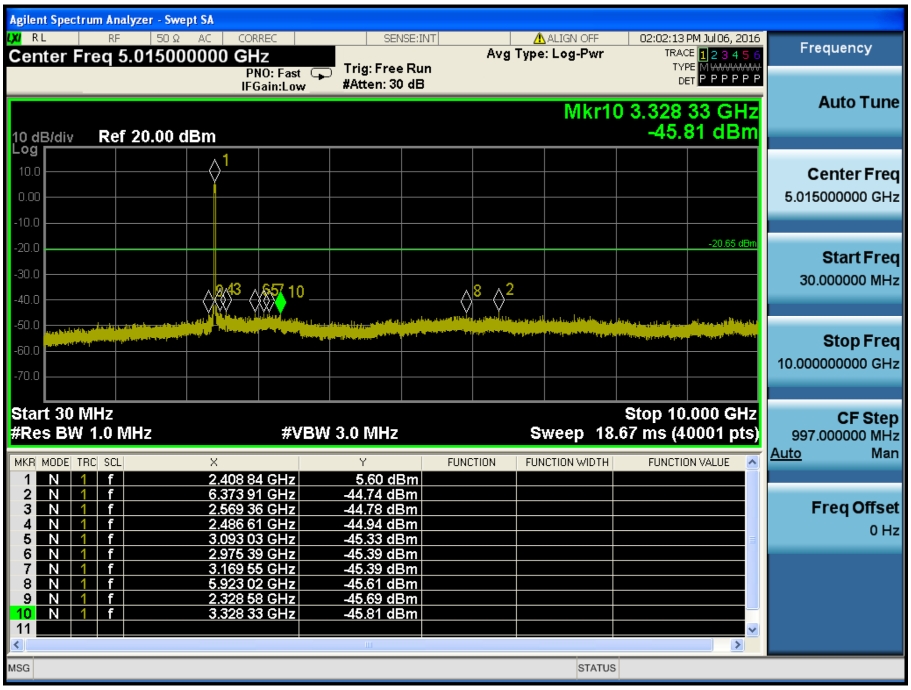

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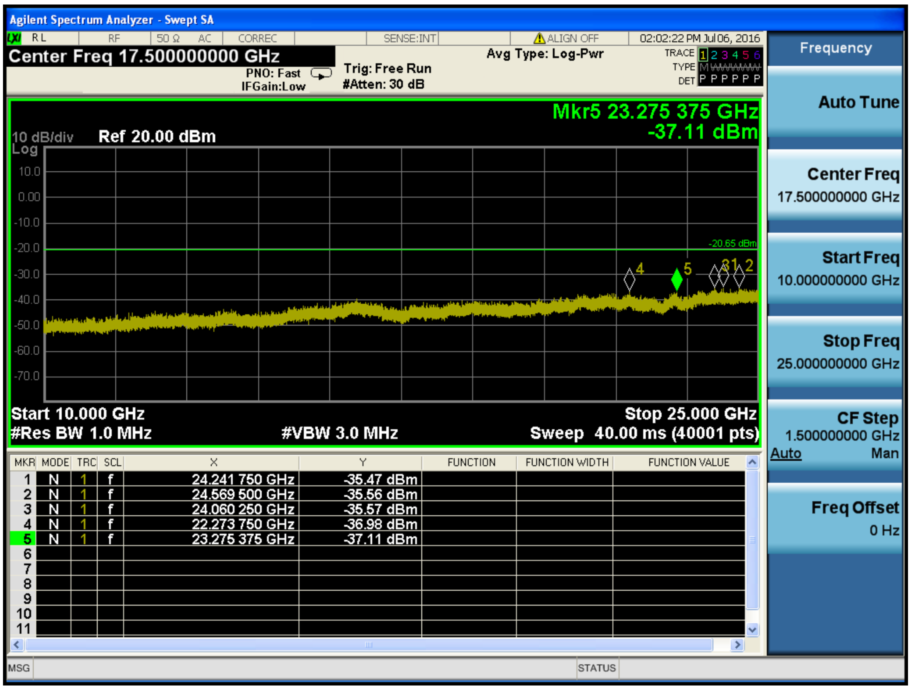

TM 3 & ANT 2 & Middle

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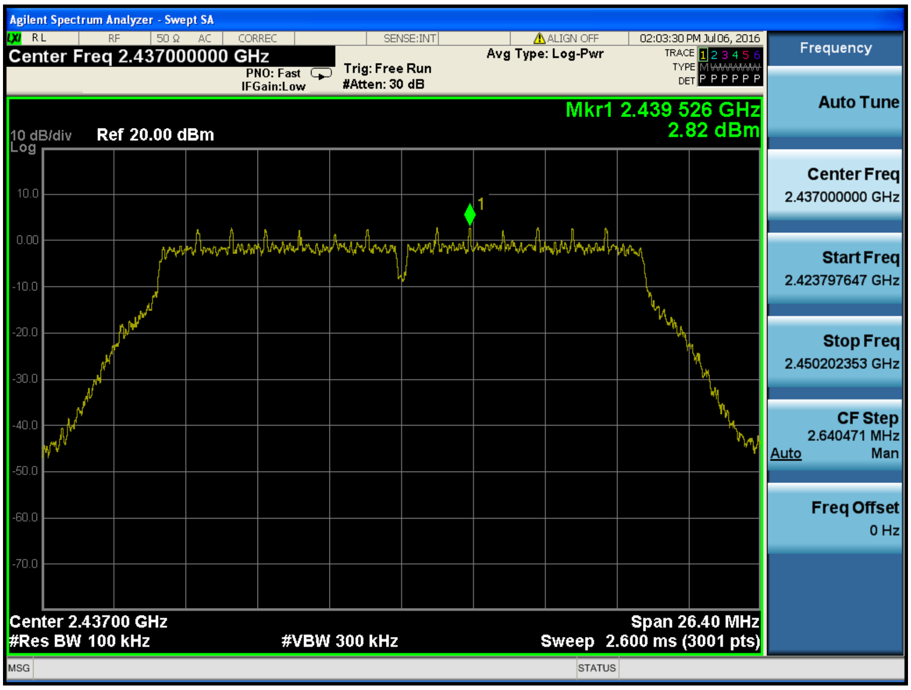

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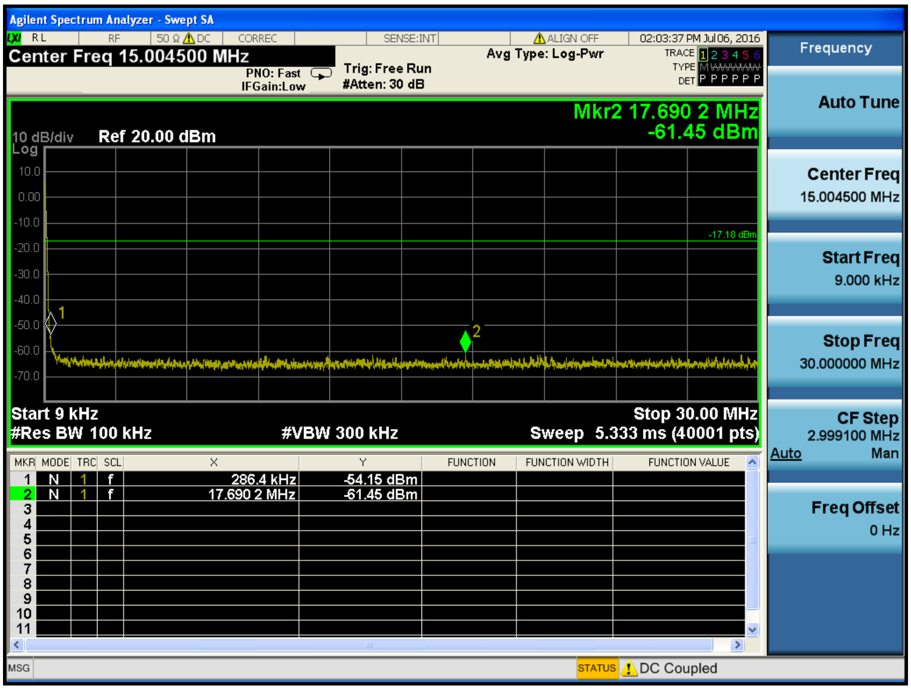

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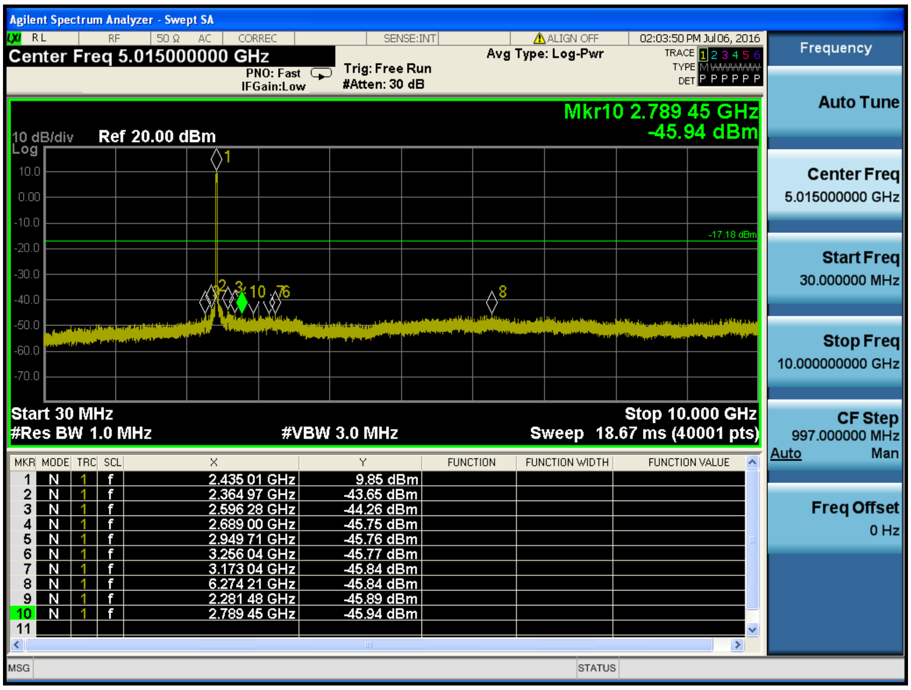

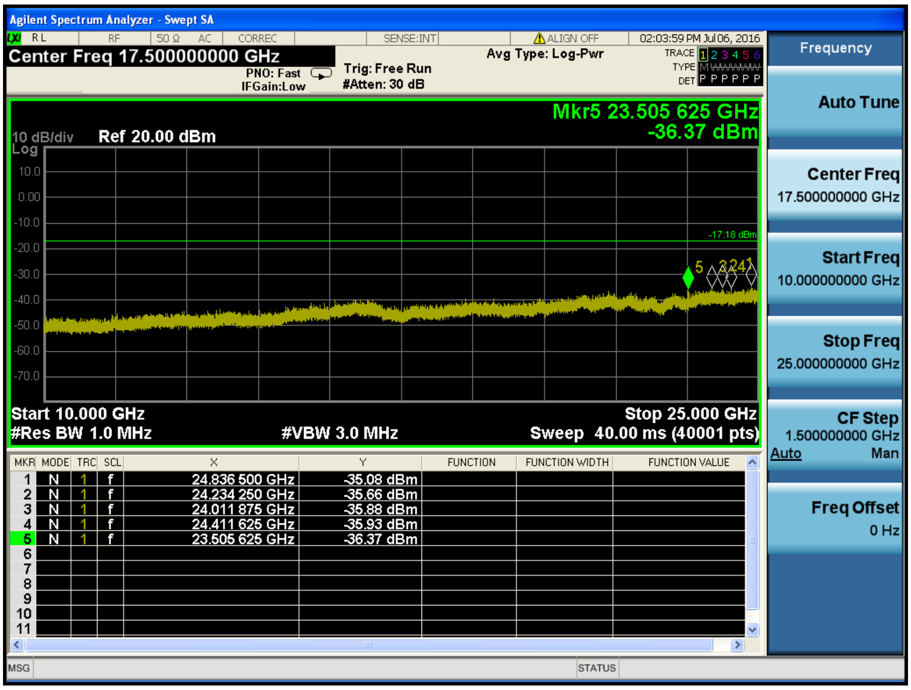

TM 3 & ANT 2 & Highest

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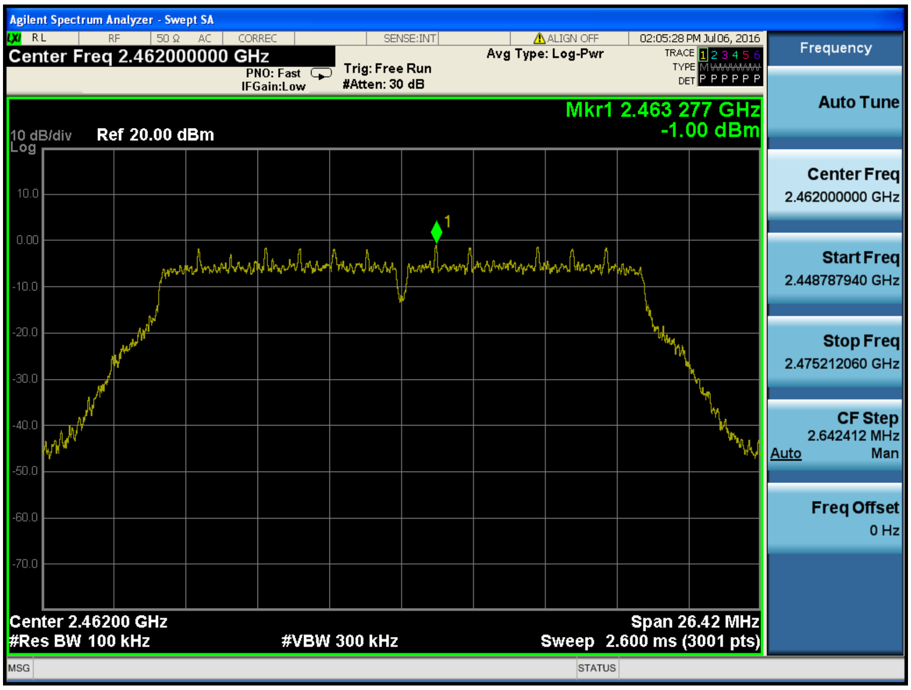
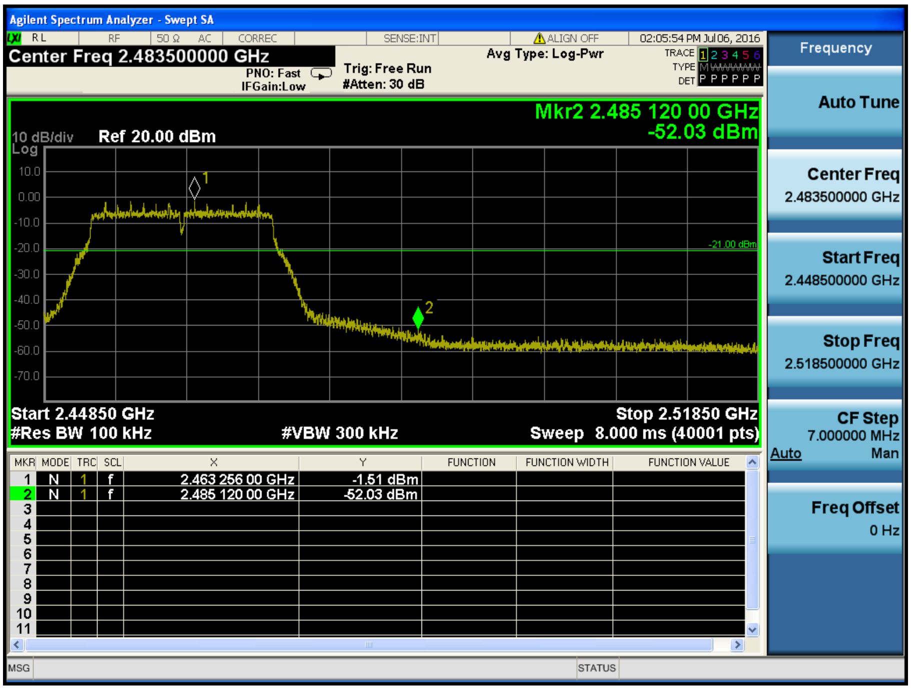


High Band-edge



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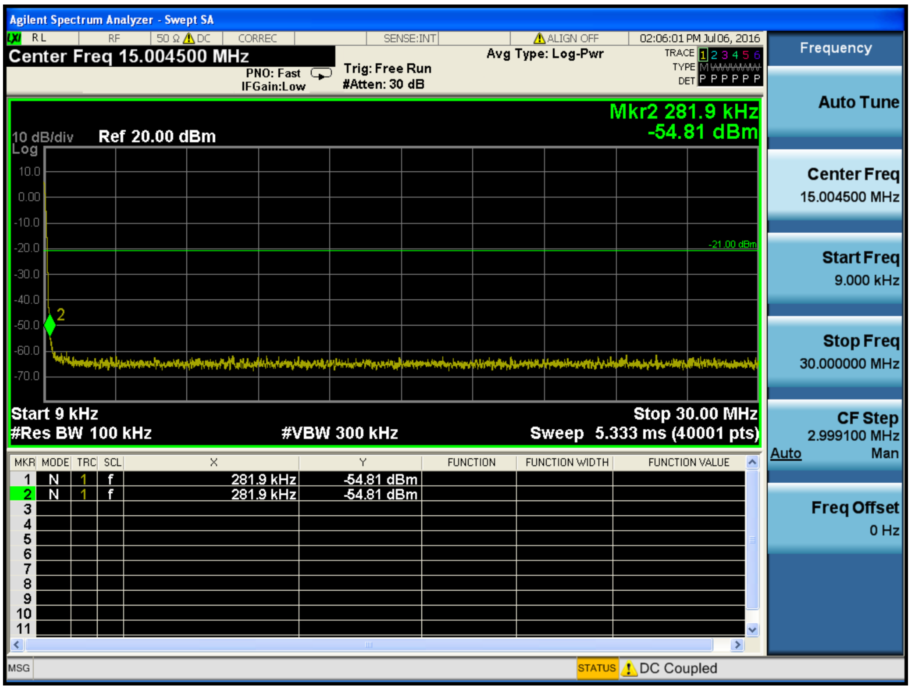
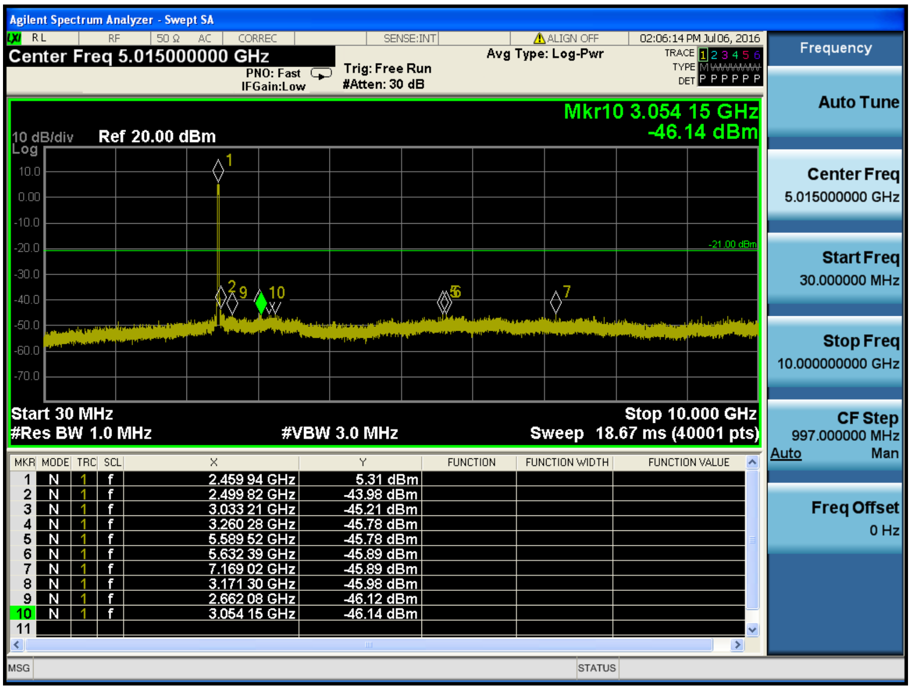
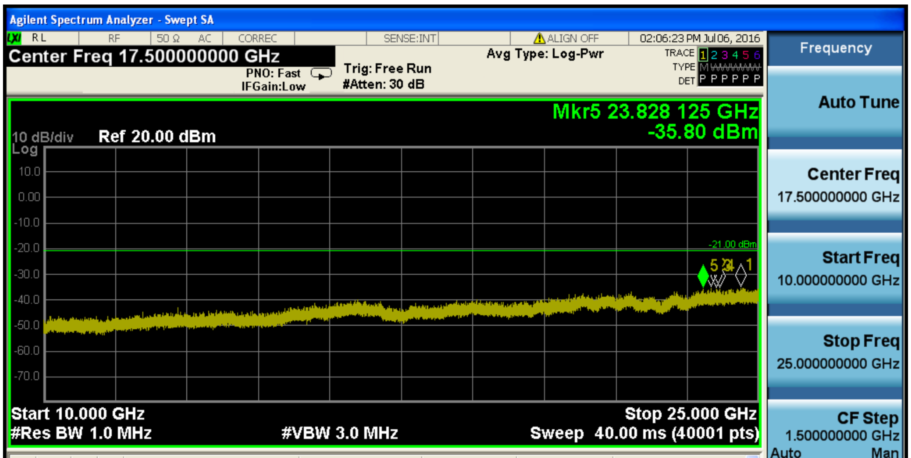




Conducted Spurious Emissions



MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	24.613 750 GHz	-35.42 dBm			
2	N	1	f	23.987 875 GHz	-35.46 dBm			
3	N	1	f	24.107 125 GHz	-35.65 dBm			
4	N	1	f	24.178 375 GHz	-35.76 dBm			
5	N	1	f	23.828 125 GHz	-35.80 dBm			
6								
7								
8								
9								
10								
11								

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

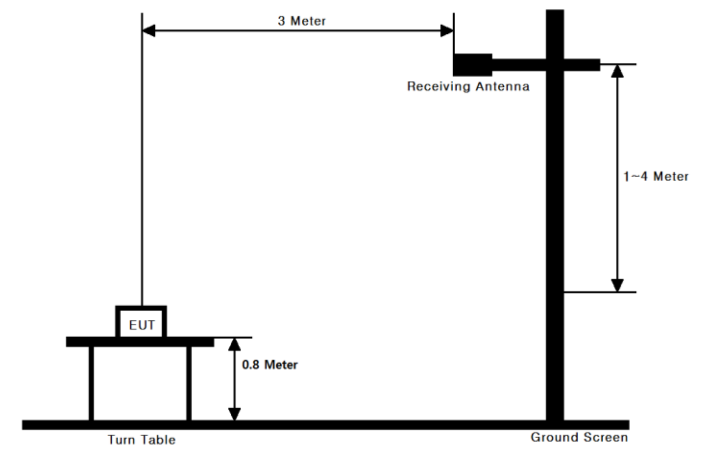
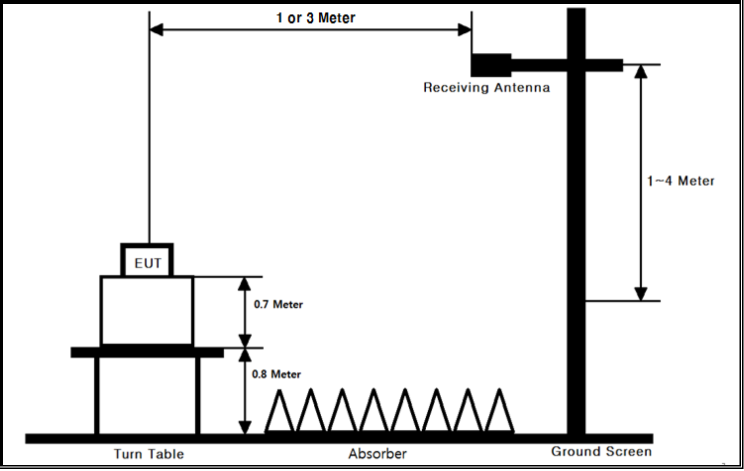
** Except as provided in 15.209(g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, 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 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	95.02	0.23
TM 2	6 Mbps	95.39	0.21
TM 3	MCS 8	90.78	**0.42**

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	2389.85	Y	H	PK	54.50	0.78	N/A	N/A	55.28	74.00	18.72	Ant 1
	2389.93	Y	H	AV	46.16	0.78	0.23	N/A	47.17	54.00	6.83	Ant 1
	4824.13	Z	H	PK	47.52	7.60	N/A	N/A	55.12	74.00	18.88	Ant 1
	4823.93	Z	H	AV	40.83	7.60	0.23	N/A	48.66	54.00	5.34	Ant 1
Middle	4874.29	Z	H	PK	45.02	7.54	N/A	N/A	52.56	74.00	21.44	Ant 1
	4873.94	Z	H	AV	37.36	7.54	0.23	N/A	45.13	54.00	8.87	Ant 1
Highest	2483.57	Y	H	PK	55.18	1.16	N/A	N/A	56.34	74.00	17.66	Ant 1
	2483.57	Y	H	AV	46.07	1.16	0.23	N/A	47.46	54.00	6.54	Ant 1
	4923.89	Z	H	PK	44.45	7.40	N/A	N/A	51.85	74.00	22.15	Ant 1
	4924.16	Z	H	AV	33.95	7.40	0.23	N/A	41.58	54.00	12.42	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 L
   oss, 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)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Test Ant of Worst data[Note2]
Lowest	2389.30	Y	H	PK	60.39	0.78	N/A	N/A	61.17	74.00	12.83	Ant 1+Ant 2
	2389.71	Y	H	AV	47.80	0.78	0.21	N/A	48.79	54.00	5.21	Ant 1+Ant 2
	4824.38	Z	H	PK	43.62	7.60	N/A	N/A	51.22	74.00	22.78	Ant 1+Ant 2
	4824.79	Z	H	AV	32.88	7.60	0.21	N/A	40.69	54.00	13.31	Ant 1+Ant 2
Middle	4873.54	Z	H	PK	43.19	7.54	N/A	N/A	50.73	74.00	23.27	Ant 1+Ant 2
	4873.72	Z	H	AV	32.54	7.54	0.21	N/A	40.29	54.00	13.71	Ant 1+Ant 2
Highest	2483.52	Y	H	PK	55.92	1.16	N/A	N/A	57.08	74.00	16.92	Ant 1+Ant 2
	2483.53	Y	H	AV	43.76	1.16	0.21	N/A	45.13	54.00	8.87	Ant 1+Ant 2
	4923.15	Z	H	PK	43.22	7.40	N/A	N/A	50.62	74.00	23.38	Ant 1+Ant 2
	4923.76	Z	H	AV	32.60	7.40	0.21	N/A	40.21	54.00	13.79	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 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	2388.94	Y	H	PK	57.96	0.78	N/A	N/A	58.74	74.00	15.26	Ant 1+Ant 2
	2389.56	Y	H	AV	44.83	0.78	0.42	N/A	46.03	54.00	7.97	Ant 1+Ant 2
	4823.99	Z	H	PK	44.01	7.60	N/A	N/A	51.61	74.00	22.39	Ant 1+Ant 2
	4824.60	Z	H	AV	32.95	7.60	0.42	N/A	40.97	54.00	13.03	Ant 1+Ant 2
Middle	4874.24	Z	H	PK	44.06	7.54	N/A	N/A	51.60	74.00	22.40	Ant 1+Ant 2
	4873.67	Z	H	AV	32.80	7.54	0.42	N/A	40.76	54.00	13.24	Ant 1+Ant 2
Highest	2483.52	Y	H	PK	57.08	1.16	N/A	N/A	58.24	74.00	15.76	Ant 1+Ant 2
	2483.53	Y	H	AV	42.77	1.16	0.42	N/A	44.35	54.00	9.65	Ant 1+Ant 2
	4924.06	Z	H	PK	43.63	7.40	N/A	N/A	51.03	74.00	22.97	Ant 1+Ant 2
	4923.78	Z	H	AV	32.62	7.40	0.42	N/A	40.44	54.00	13.56	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**

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 3(TM 3) & Middle

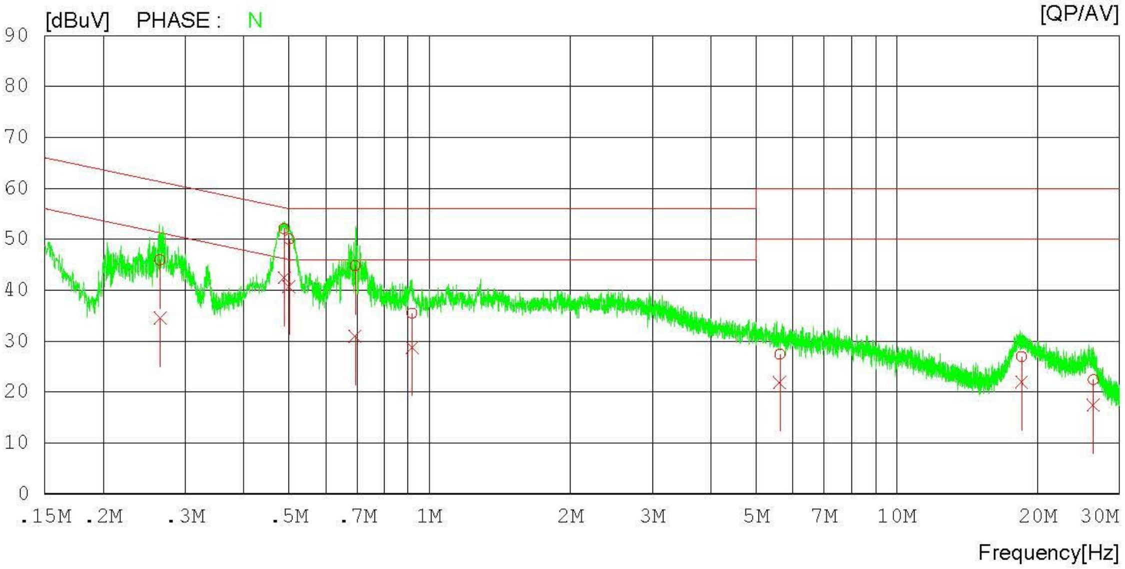
Results of Conducted Emission

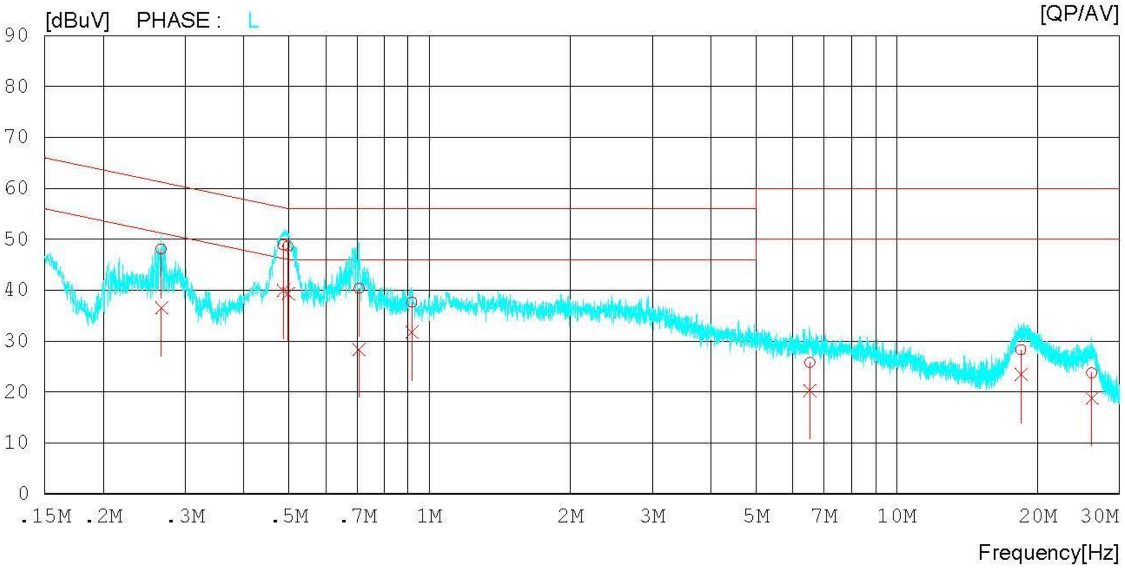
DTNC Date : 2016-07-20

Order No.	:	Referrence No.	:
Model No.	: LGSWFAC73	Power Supply	: 120V 60Hz
Serial No.	: Identical prototype	Temp/Humi.	: 23 'C 44 % R.H.
Test Condition	: 2.4GHz_802.11n(HT20)	Operator	: J.W.Kim

Memo :

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





AC Line Conducted Emissions (List)

Test mode 3(TM 3) & Middle

Results of Conducted Emission

DTNC Date : 2016-07-20

Order No.	:	Referrence No.	:
Model No.	: LGSWFAC73	Power Supply	: 120V 60Hz
Serial No.	: Identical prototype	Temp/Humi.	: 23 'C 44 % R.H.
Test Condition	: 2.4GHz_802.11n(HT20)	Operator	: J.W.Kim

Memo :

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

NO	FREQ [MHz]	READING QP [dBuV]	READING AV [dBuV]	C.FACTOR [dB]	RESULT QP [dBuV]	RESULT AV [dBuV]	LIMIT QP [dBuV]	LIMIT AV [dBuV]	MARGIN QP [dBuV]	MARGIN AV [dBuV]	PHASE
1	0.26498	35.8	24.4	10.1	45.9	34.5	61.3	51.3	15.4	16.8	N
2	0.48855	41.9	32.4	10.1	52.0	42.5	56.2	46.2	4.2	3.7	N
3	0.50047	40.0	30.6	10.1	50.1	40.7	56.0	46.0	5.9	5.3	N
4	0.69302	34.6	20.9	10.1	44.7	31.0	56.0	46.0	11.3	15.0	N
5	0.91752	25.4	18.7	10.1	35.5	28.8	56.0	46.0	20.5	17.2	N
6	5.62200	17.0	11.5	10.4	27.4	21.9	60.0	50.0	32.6	28.1	N
7	18.51920	16.2	11.3	10.7	26.9	22.0	60.0	50.0	33.1	28.0	N
8	26.34280	11.5	6.6	10.8	22.3	17.4	60.0	50.0	37.7	32.6	N
9	0.26664	37.9	26.4	10.1	48.0	36.5	61.2	51.2	13.2	14.7	L
10	0.48702	38.8	29.8	10.1	48.9	39.9	56.2	46.2	7.3	6.3	L
11	0.49850	38.5	29.2	10.1	48.6	39.3	56.0	46.0	7.4	6.7	L
12	0.70681	30.2	18.2	10.1	40.3	28.3	56.0	46.0	15.7	17.7	L
13	0.91650	27.4	21.6	10.1	37.5	31.7	56.0	46.0	18.5	14.3	L
14	6.52140	15.4	9.8	10.4	25.8	20.2	60.0	50.0	34.2	29.8	L
15	18.48760	17.5	12.6	10.8	28.3	23.4	60.0	50.0	31.7	26.6	L
16	26.16280	12.6	7.6	11.2	23.8	18.8	60.0	50.0	36.2	31.2	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

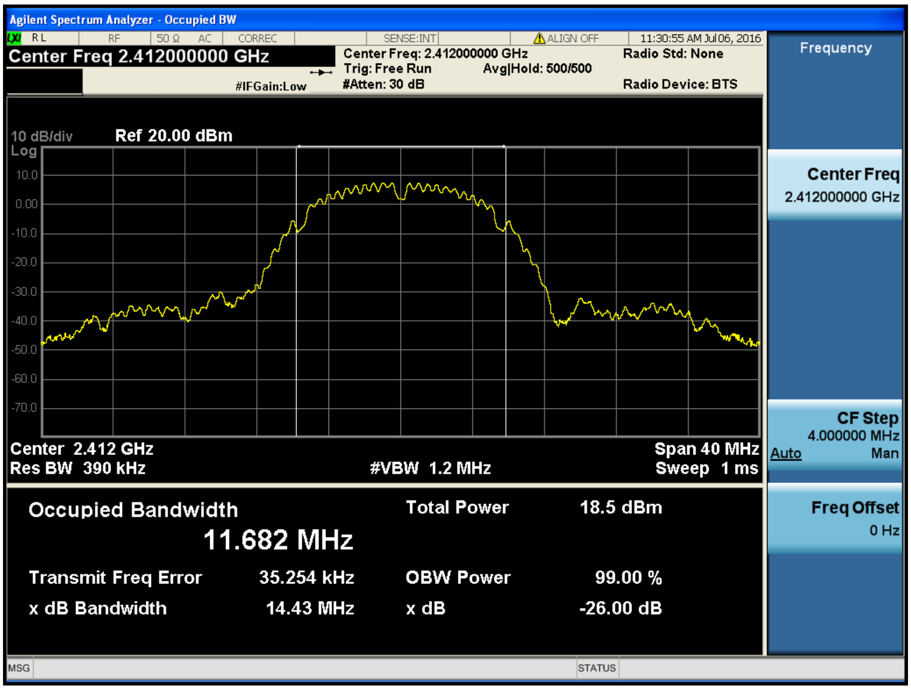
- The transmitter shall be operated at its maximum carrier power measured under normal test conditions.
- The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts.
- The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the occupied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

▣ TEST RESULTS: Comply

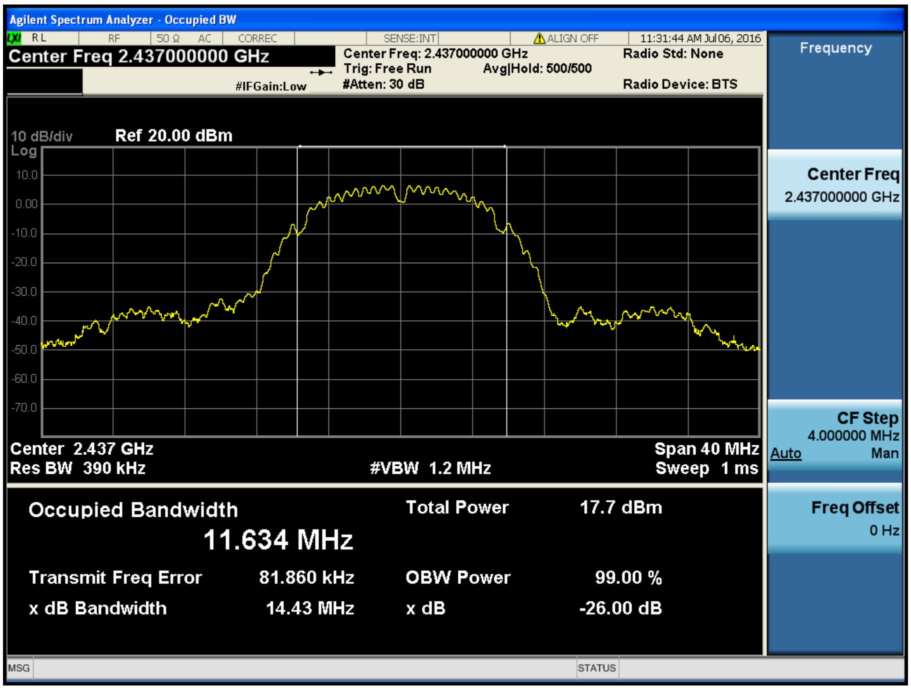
Test Mode	Frequency	Test Results[MHz]	
		ANT 1	ANT 2
TM 1	Lowest	11.682	11.824
	Middle	11.634	11.802
	Highest	11.631	11.834
TM 2	Lowest	17.328	17.292
	Middle	17.313	17.317
	Highest	17.393	17.324
TM 3	Lowest	18.331	18.311
	Middle	18.318	18.368
	Highest	18.335	18.311

▣ RESULT PLOTS

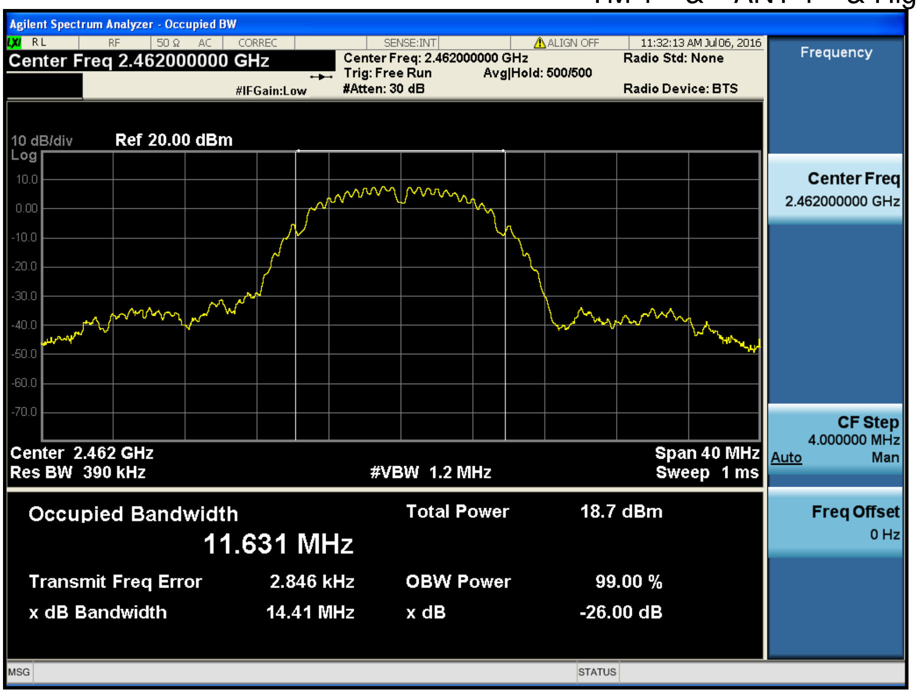
Occupied Bandwidth TM 1 & ANT 1 & Lowest



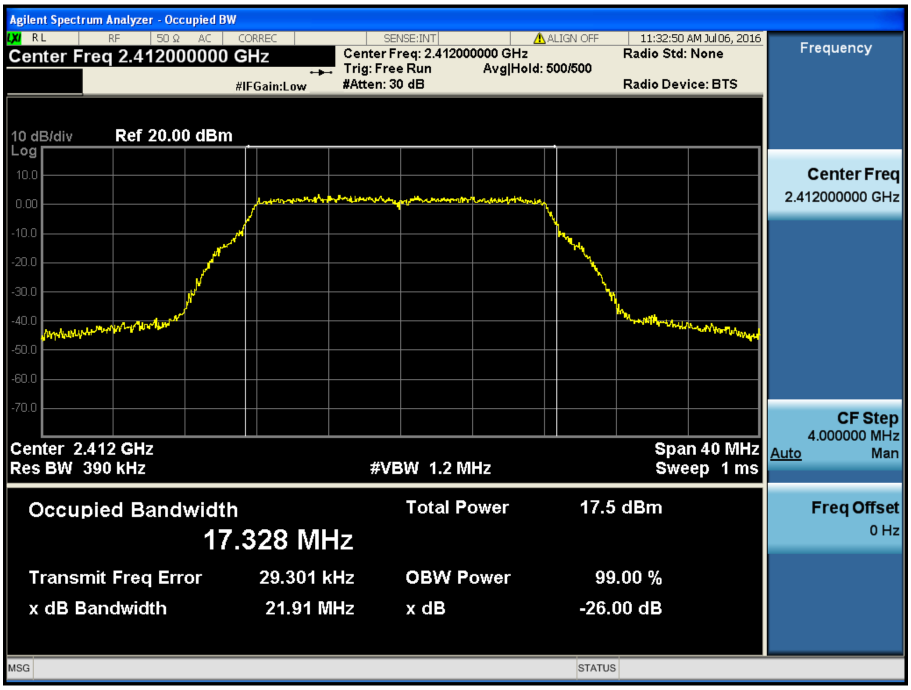
Occupied Bandwidth TM 1 & ANT 1 & Middle



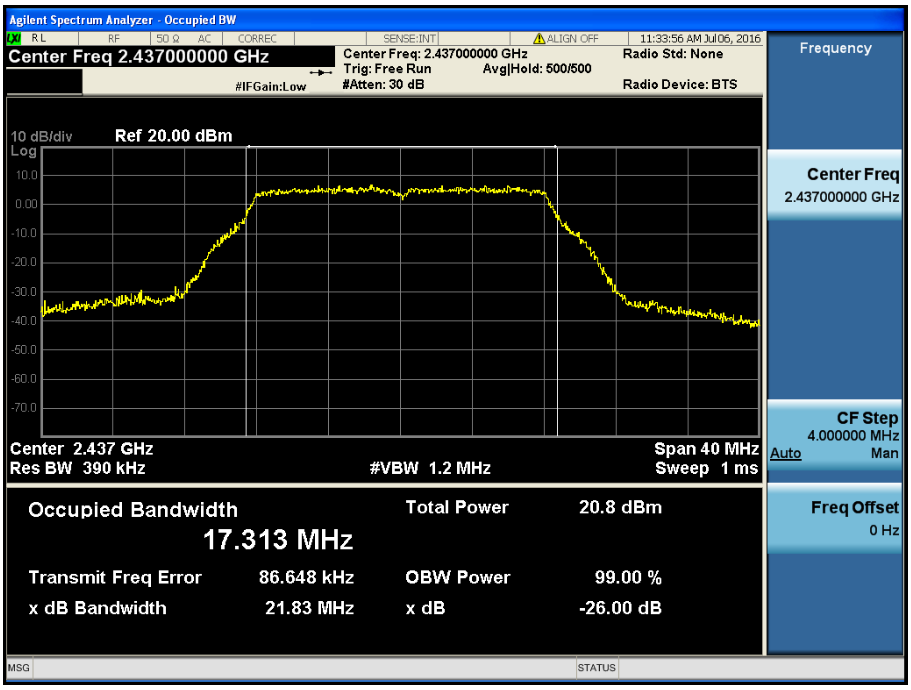
Occupied Bandwidth TM 1 & ANT 1 & Highest



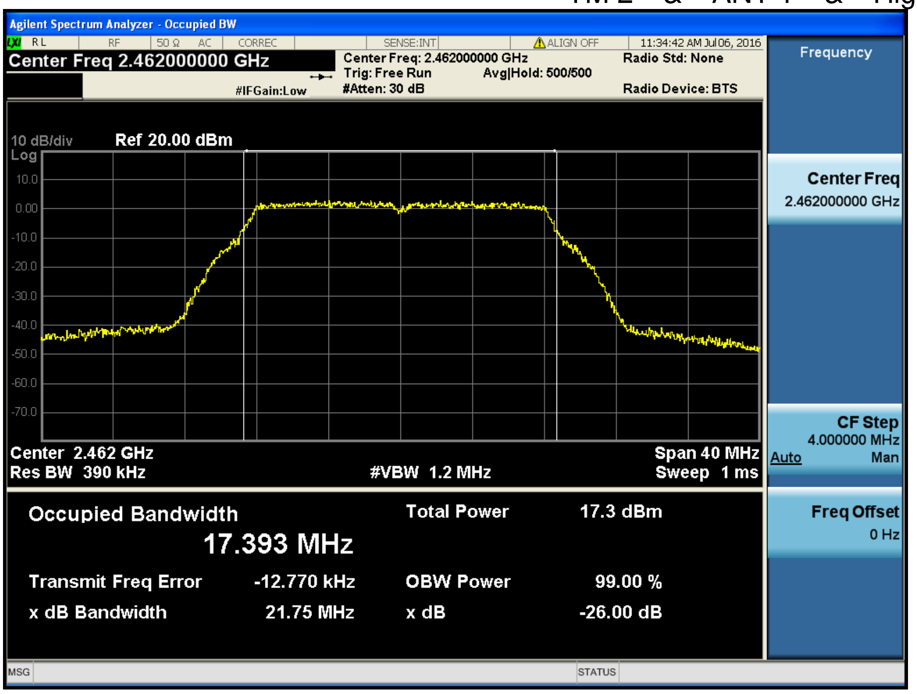
Occupied Bandwidth TM 2 & ANT 1 & Lowest



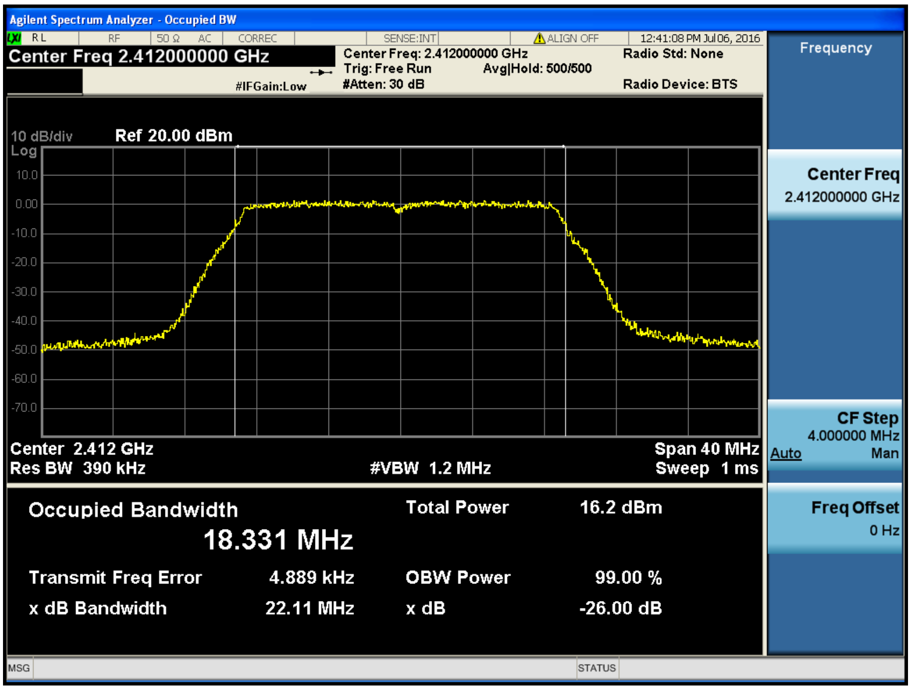
Occupied Bandwidth TM 2 & ANT 1 & Middle



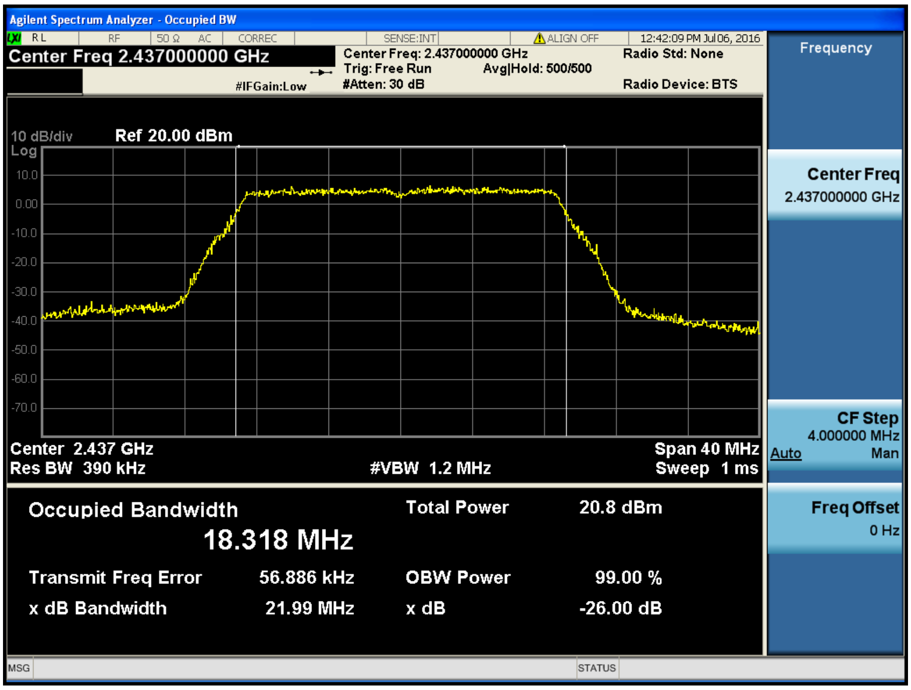
Occupied Bandwidth TM 2 & ANT 1 & Highest



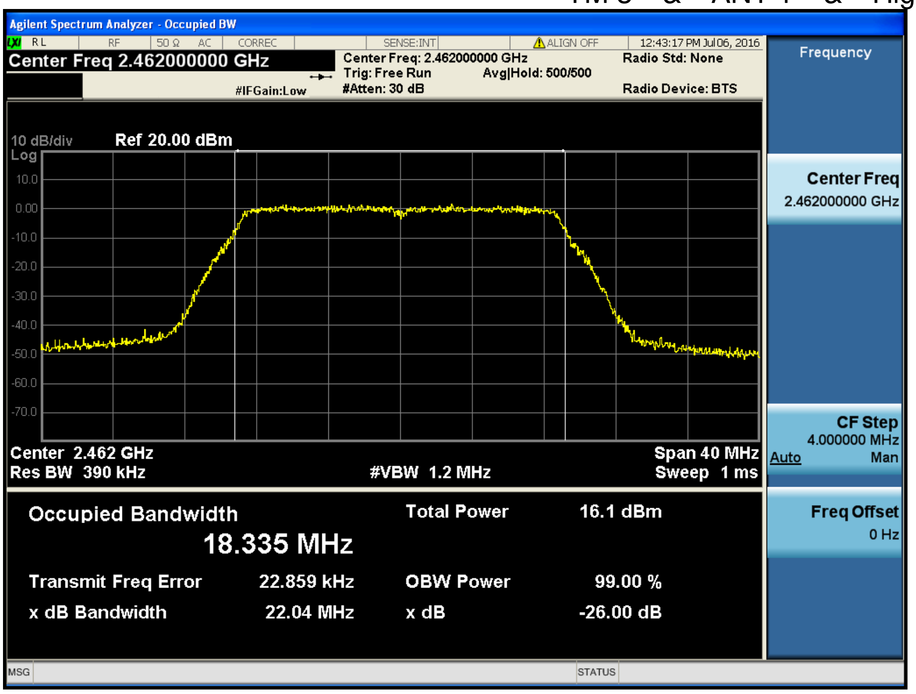
Occupied Bandwidth TM 3 & ANT 1 & Lowest



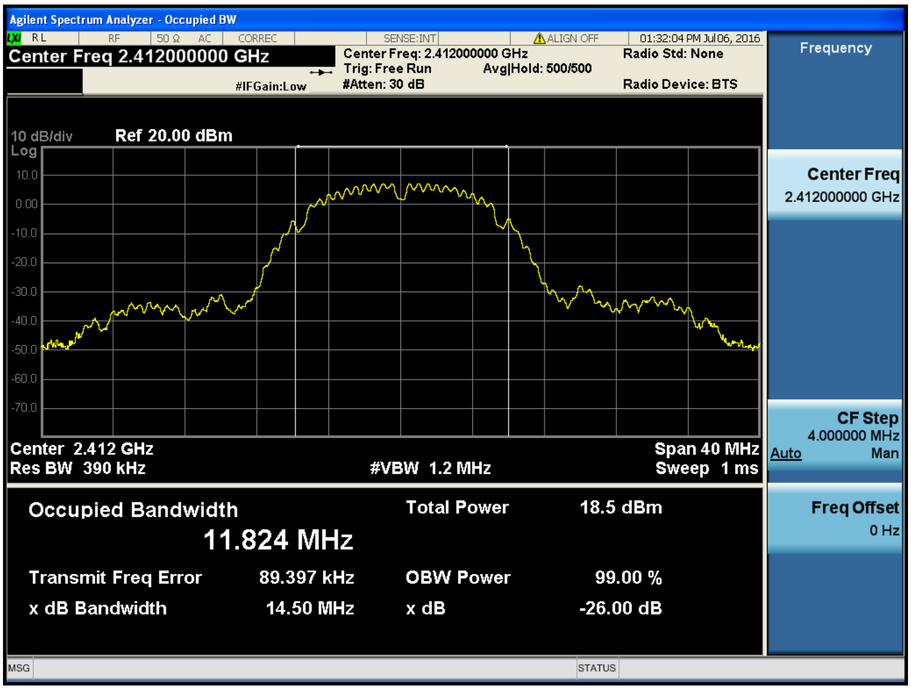
Occupied Bandwidth TM 3 & ANT 1 & Middle



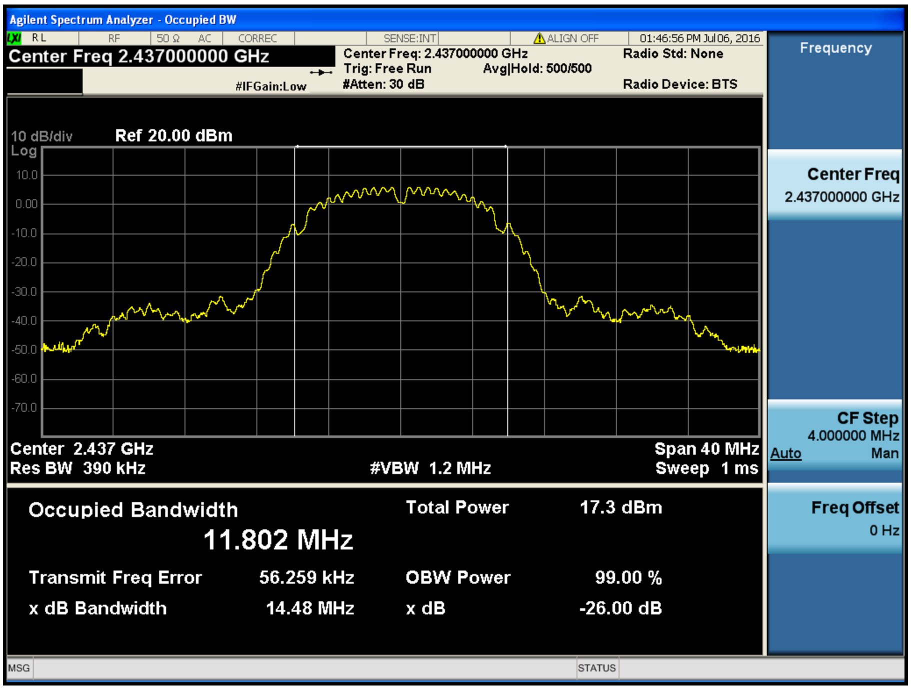
Occupied Bandwidth TM 3 & ANT 1 & Highest



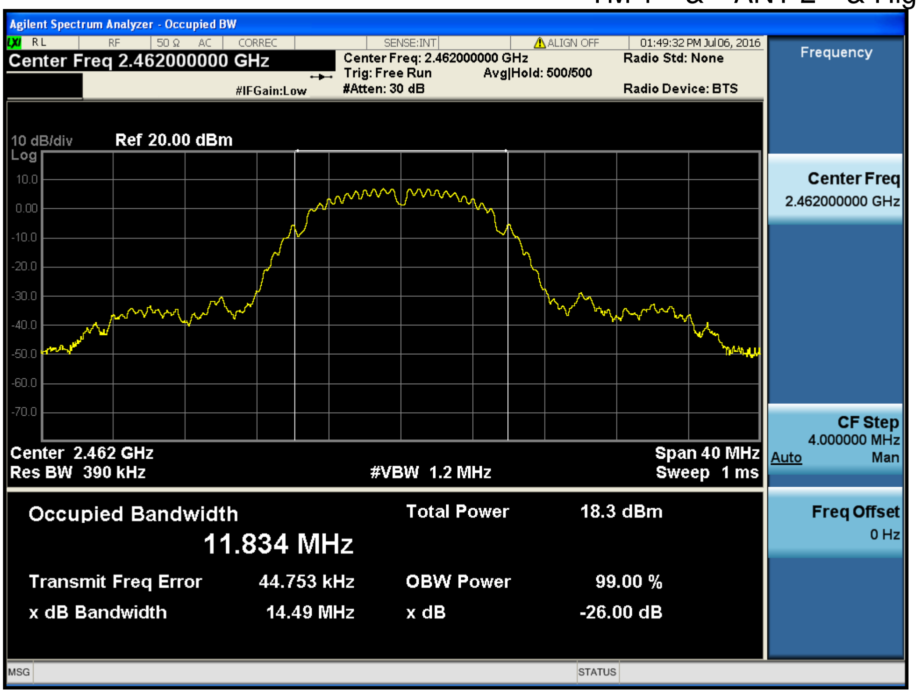
Occupied Bandwidth TM 1 & ANT 2 & Lowest



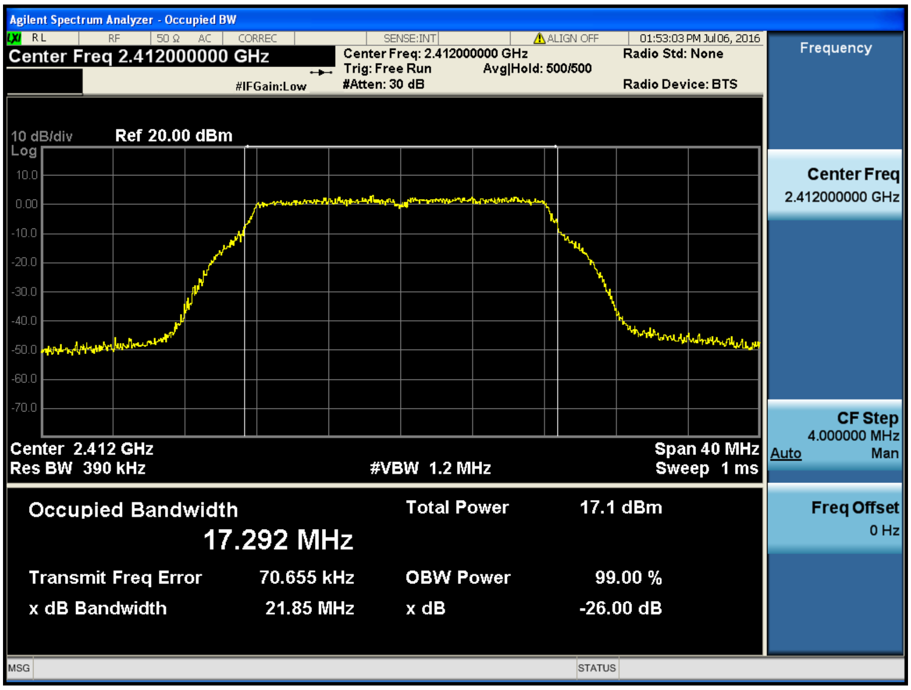
Occupied Bandwidth TM 1 & ANT 2 & Middle



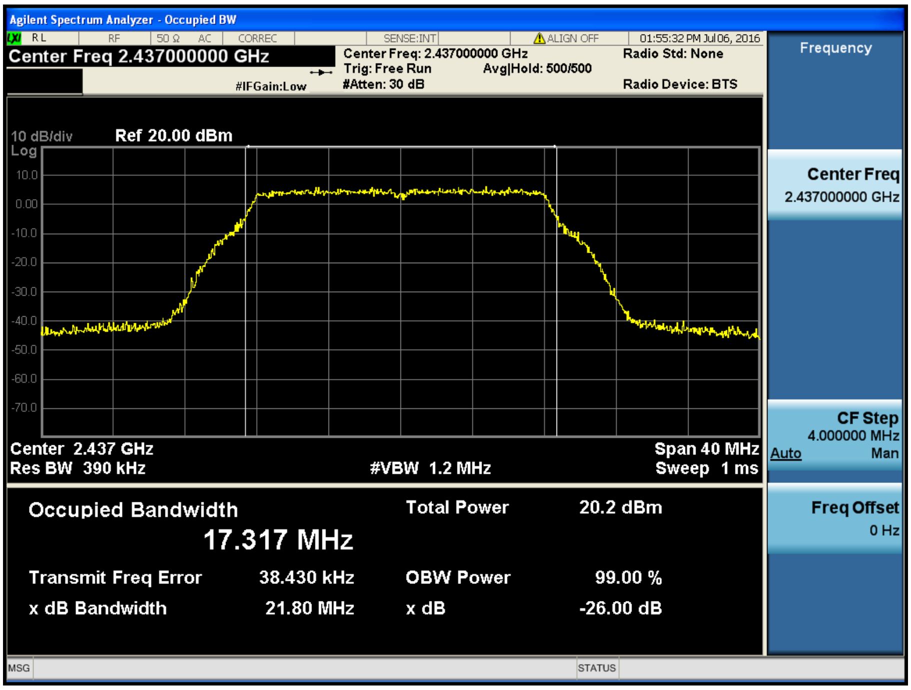
Occupied Bandwidth TM 1 & ANT 2 & Highest



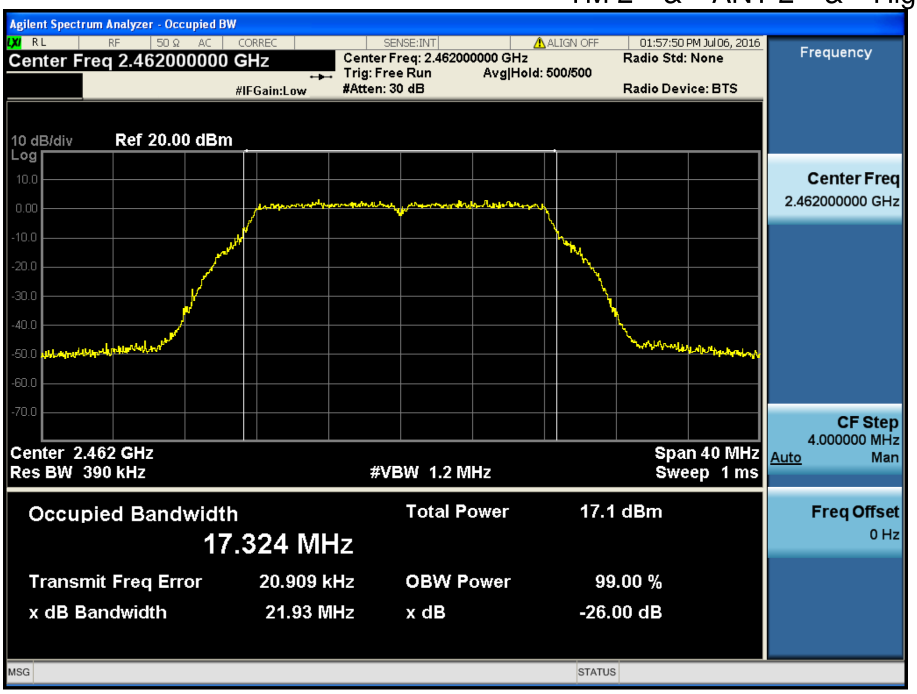
Occupied Bandwidth TM 2 & ANT 2 & Lowest



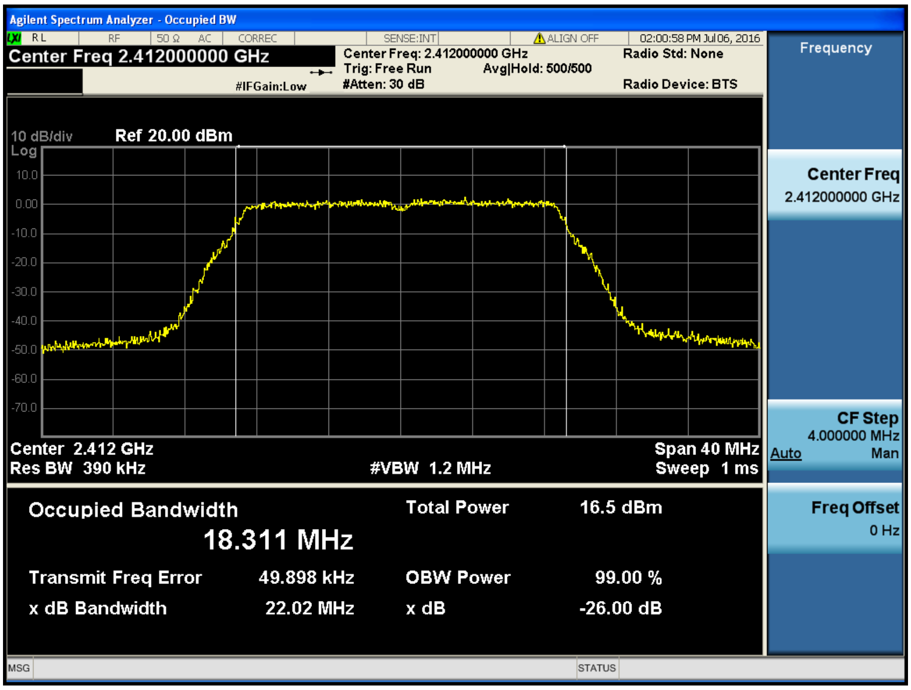
Occupied Bandwidth TM 2 & ANT 2 & Middle



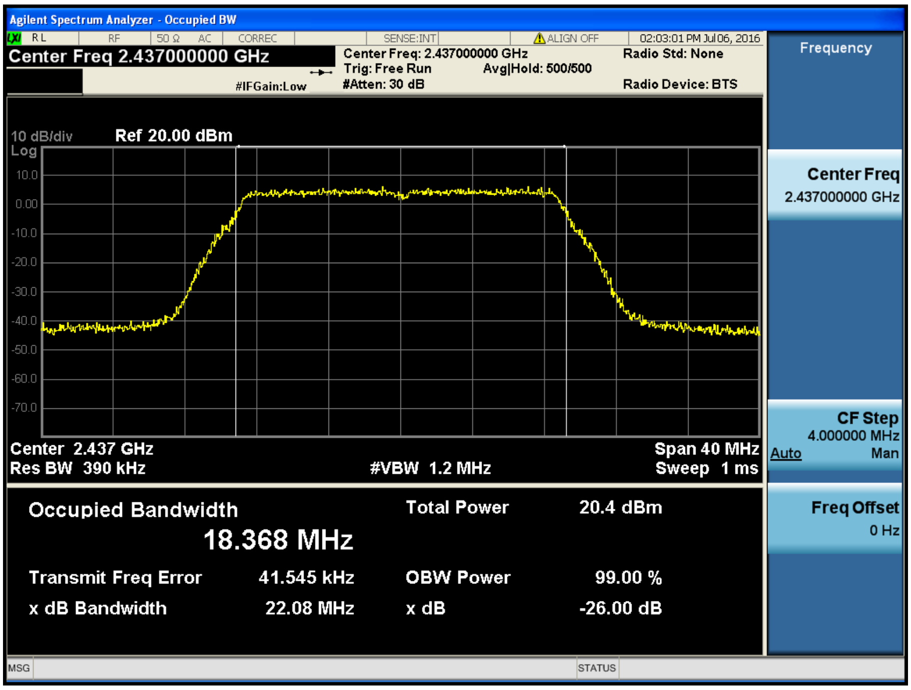
Occupied Bandwidth TM 2 & ANT 2 & Highest



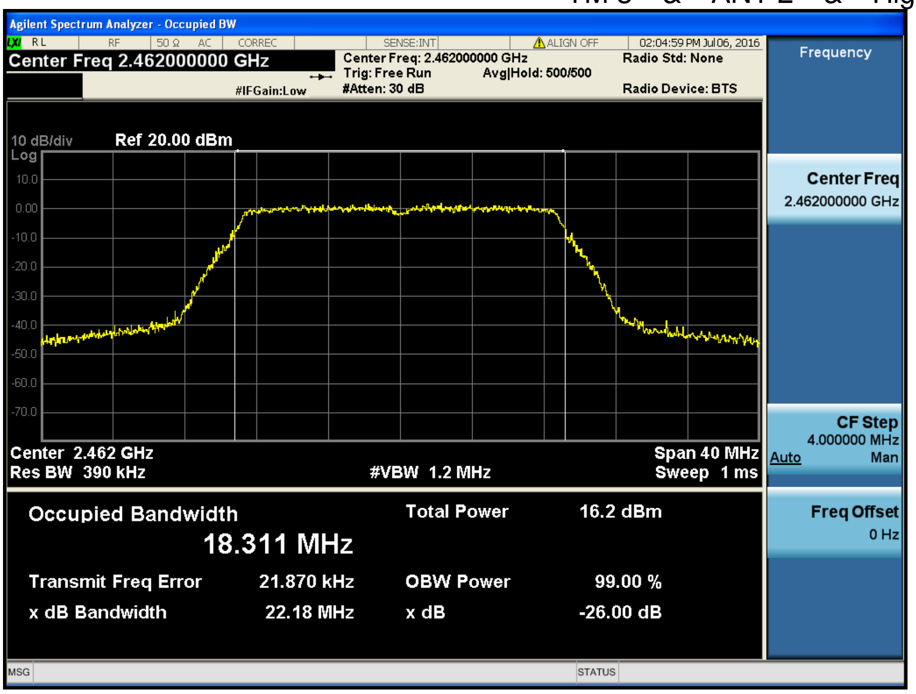
Occupied Bandwidth TM 3 & ANT 2 & Lowest



Occupied Bandwidth TM 3 & ANT 2 & Middle



Occupied Bandwidth TM 3 & ANT 2 & Highest



9. LIST OF TEST EQUIPMENT

Type	Manufacturer	Model	Cal.Date (yy/mm/dd)	Next.Cal.Date (yy/mm/dd)	S/N
MXA Signal Analyzer	Agilent	N9020A	15/09/14	16/09/14	MY50200834
DIGITAL MULTIMETER	Agilent	34401A	16/01/05	17/01/05	US36099541
Dynamic Measurement DC Source	Agilent	66332A	15/09/23	16/09/23	US37473305
Vector Signal Generator	Rohde Schwarz	SMBV100A	16/01/05	17/01/05	255571
Signal Generator	Rohde Schwarz	SMF100A	15/06/29	16/06/29	102341
			16/06/23	17/06/23	
Thermohygrometer	BODYCOM	BJ5478	16/04/22	17/04/22	120612-2
Loop Antenna	Schwarzbeck	FMZB1513	16/04/22	18/04/22	1513-128
TRILOG Broadband Test-Antenna(30MHz-1GHz)	SCHWARZBECK	VULB 9160	16/05/13	18/05/13	3357
Horn Antenna(1~18GHz)	ETS-LINDGREN	3115	15/02/09	17/02/09	9202-3820
Horn Antenna(18~40GHz)	A.H.Systems Inc.	SAS-574	15/09/03	17/09/03	155
PreAmplifier	Agilent	8449B	16/02/24	17/02/24	3008A00370
Low Noise Pre Amplifier(10kHz-1GHz)	tsj	MLA-010K01-B01-27	16/03/10	17/03/10	1844539
EMI TEST RECEIVER	ROHDE&SCHWARZ	ESR7	16/02/25	17/02/25	101061
EMI TEST RECEIVER	R&S	ESCI	16/02/25	17/02/25	100364
Highpass Filter	Wainwright Instruments	WHKX12-2580-3000-18000-80SS	15/09/23	16/09/23	3
Highpass Filter	Wainwright Instruments	WHNX6-6320-8000-26500-40CC	15/09/23	16/09/23	1
Power Meter & Wide Bandwidth Sensor	Anritsu	ML2495A	16/05/02	17/05/02	1306007
Power Meter & Wide Bandwidth Sensor	Anritsu	MA2490A	16/05/02	17/05/02	1249001
ARTIFICIAL MAINS NETWORK	Narda S.T.S. / PMM	PMM L2-16B	16/06/22	17/06/22	000WX20305
SINGLE-PHASE MASTER	NF	4420	15/09/09	16/09/09	3049354420023

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.

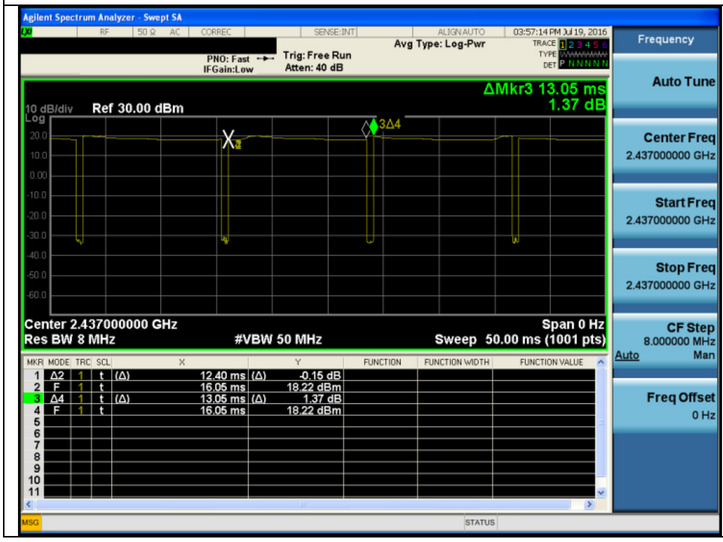
The zero-span measurement method shall not be used unless both RBW and VBW are > 50/T and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring duty cycle shall not be used if T ≤ 16.7 microseconds.)

▣ Test Data

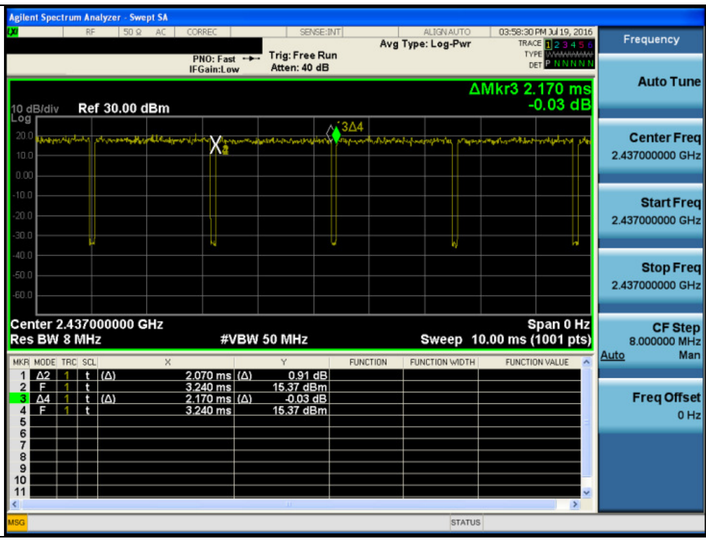
Test Mode	Date rate	Tested frequency	T_{ON} (ms)	T_{ON+OFF} (ms)	Duty Cycle (%)	Duty Cycle Correction Factor(dB)
TM 1	1 Mbps	Middle	12.4	13.05	95.02	0.23
TM 2	6 Mbps	Middle	2.07	2.17	95.39	0.21
TM 3	MCS 8	Middle	0.985	1.085	90.78	**0.42**

▣ Result Plots

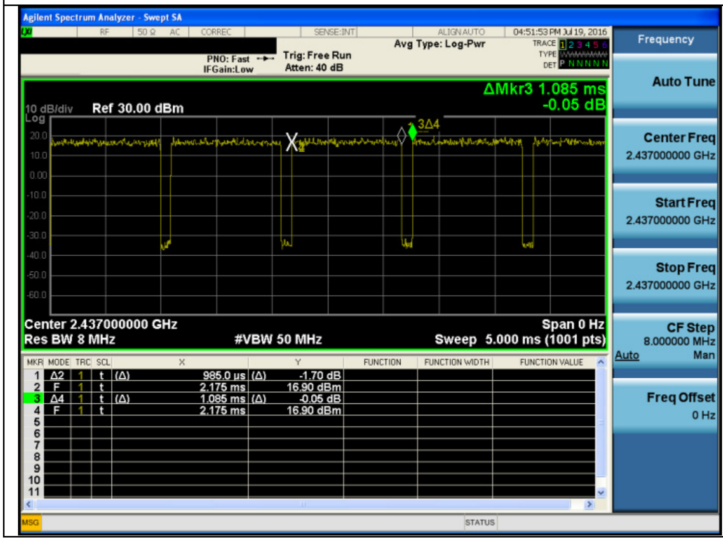
Duty cycle data : **TM 1** & **1 Mbps** & **Middle**



Duty cycle data : **TM 2** & **6 Mbps** & **Middle**



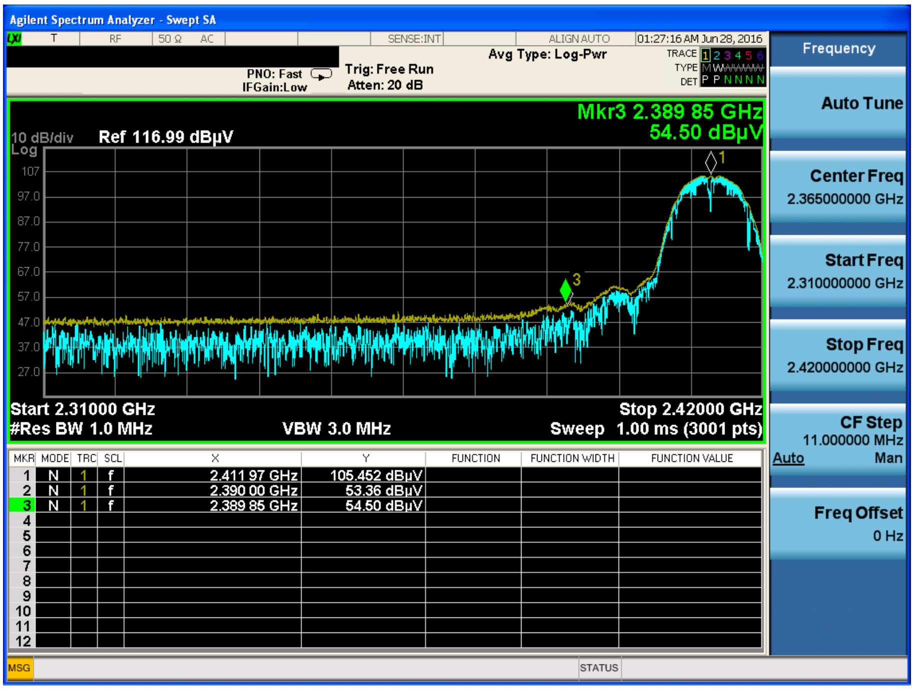
Duty cycle data : **TM 3** & **MCS 8** & **Middle**



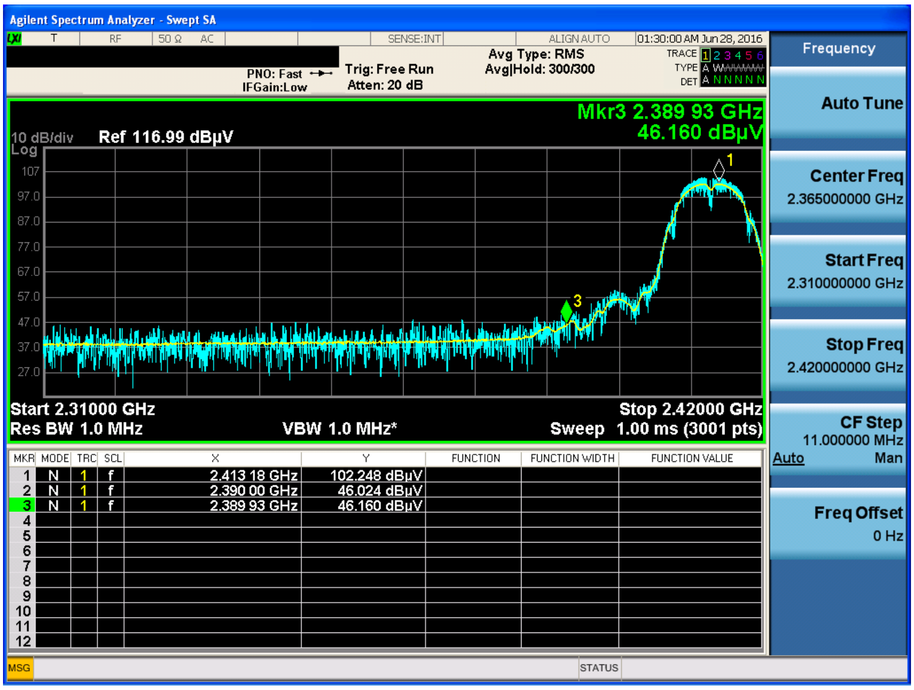
APPENDIX II

Unwanted Emissions (Radiated) Test Plot

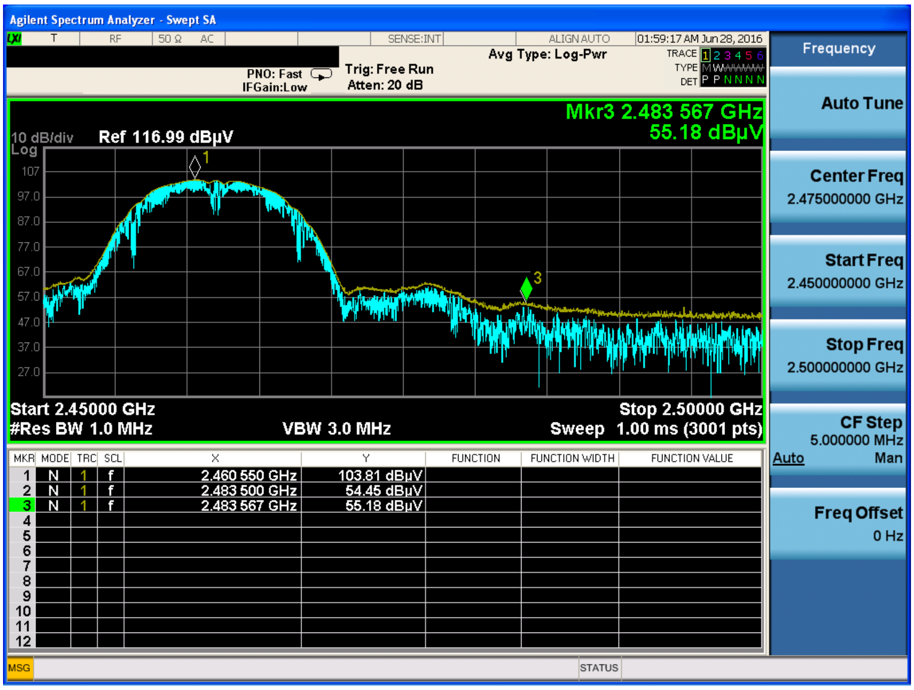
TM 1 & Lowest & Y axis & Hor Detector Mode : PK



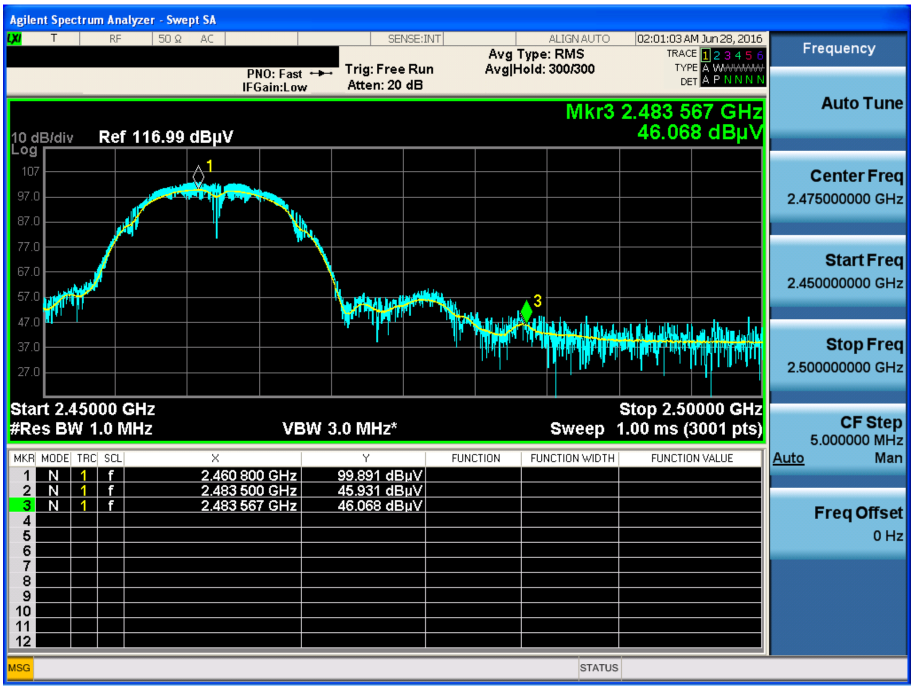
TM 1 & Lowest & Y axis & Hor Detector Mode : AV



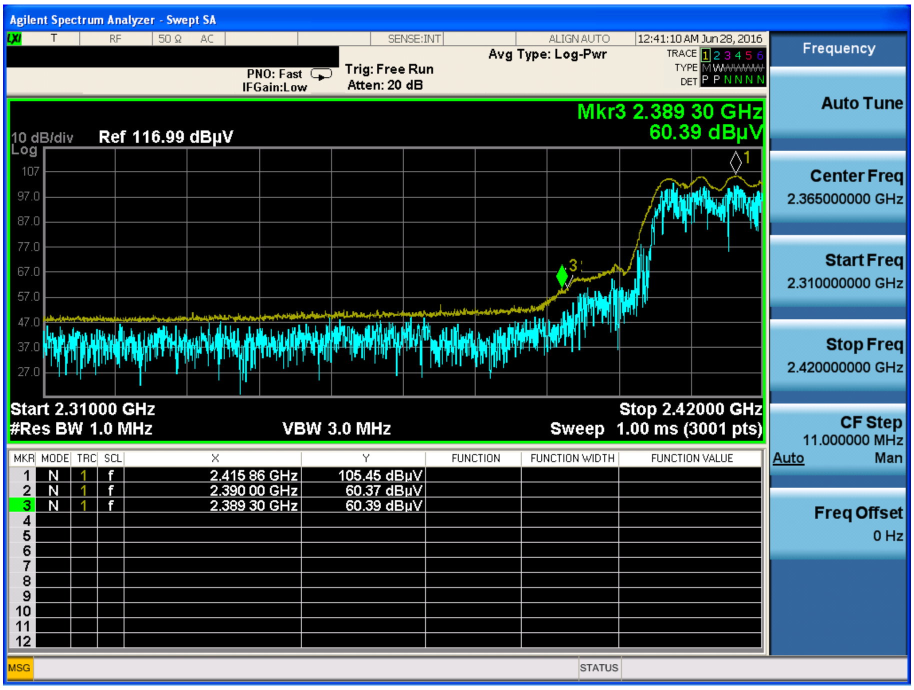
TM 1 & Highest & Y axis & Hor **Detector Mode : PK**



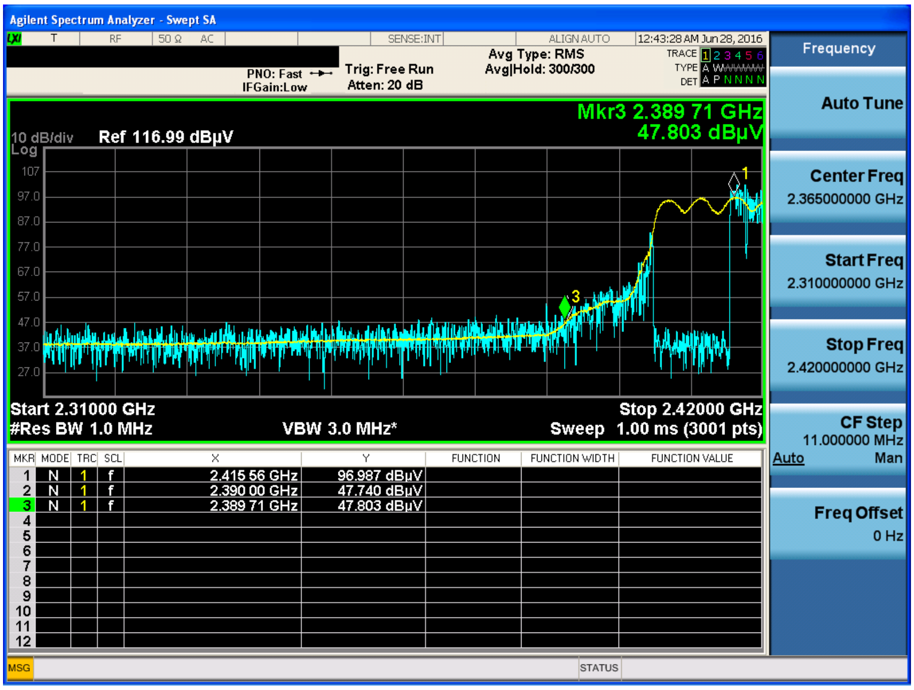
TM 1 & Highest & Y axis & Hor **Detector Mode : AV**



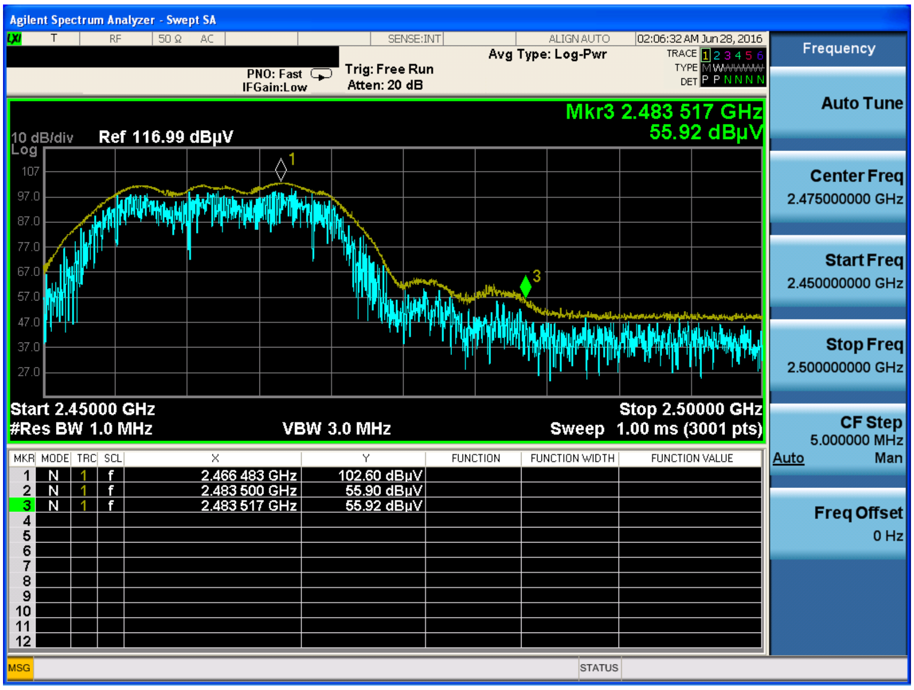
TM 2 & Lowest & Y axis & Hor **Detector Mode : PK**



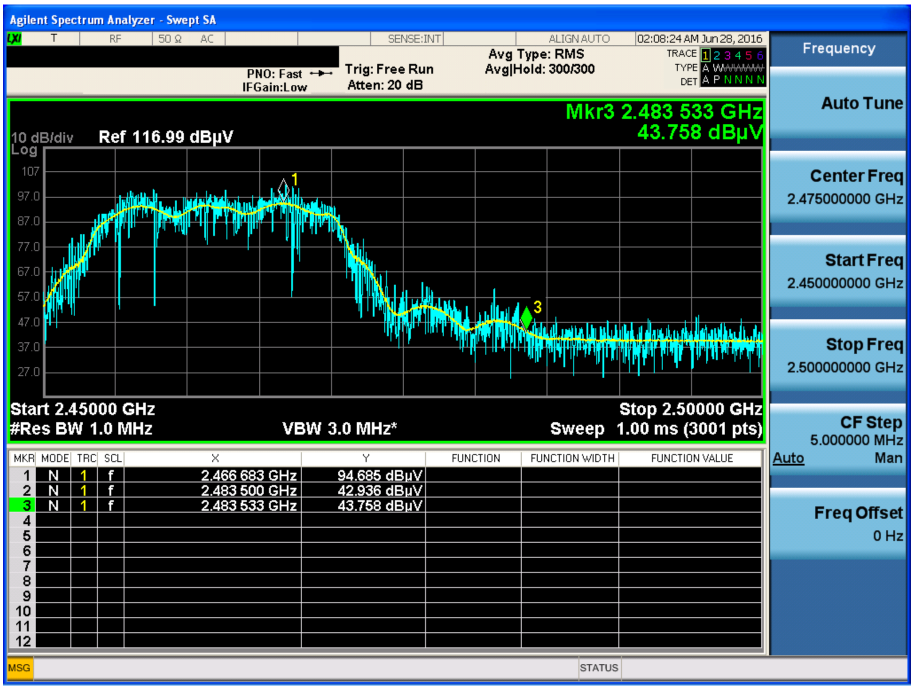
TM 2 & Lowest & Y axis & Hor **Detector Mode : AV**



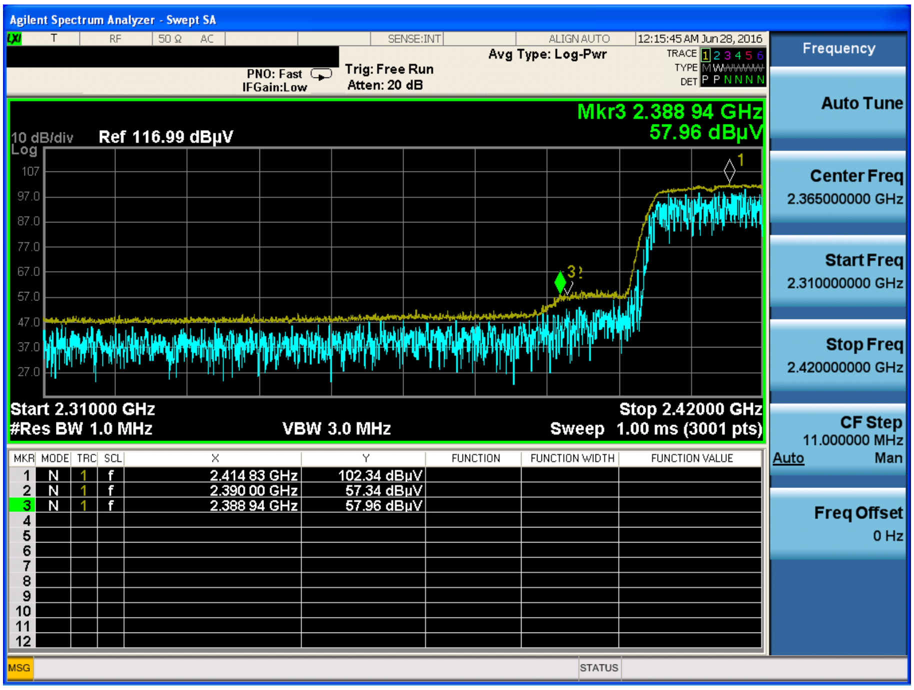
TM 2 & Highest & Y axis & Hor **Detector Mode : PK**



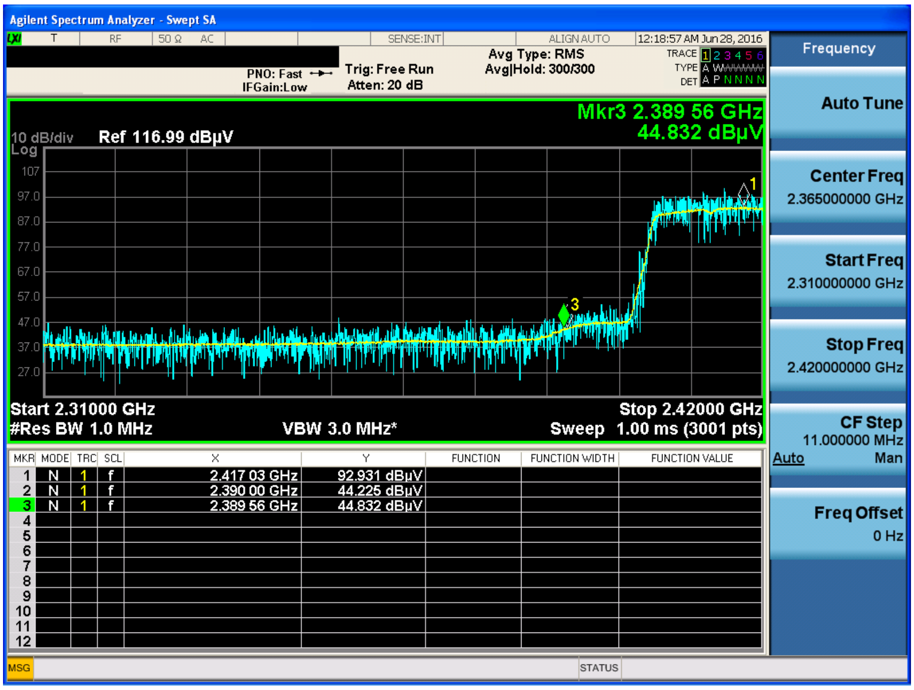
TM 2 & Highest & Y axis & Hor **Detector Mode : AV**



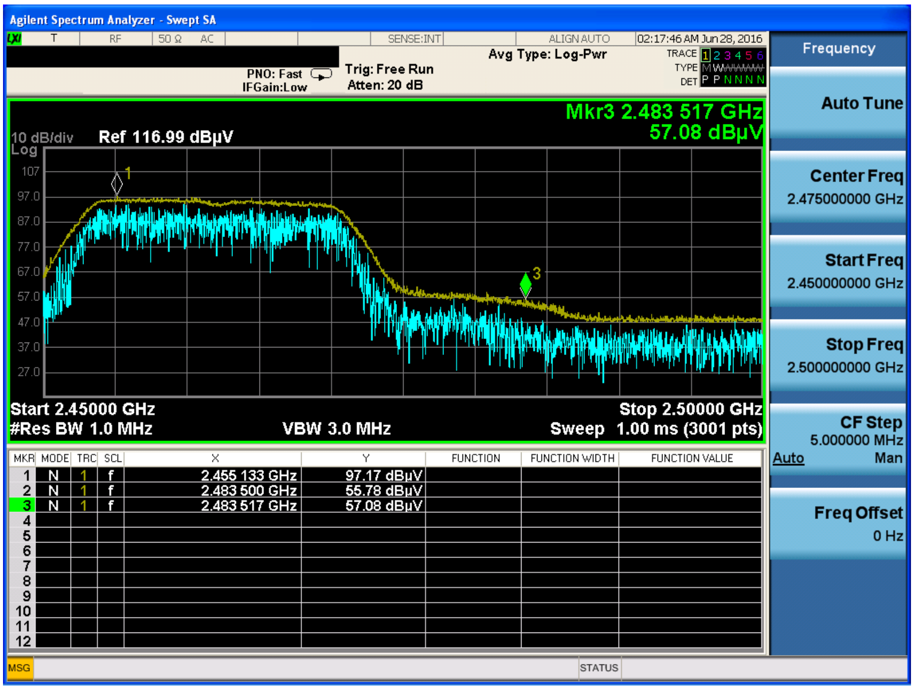
TM 3 & Lowest & Y axis & Hor **Detector Mode : PK**



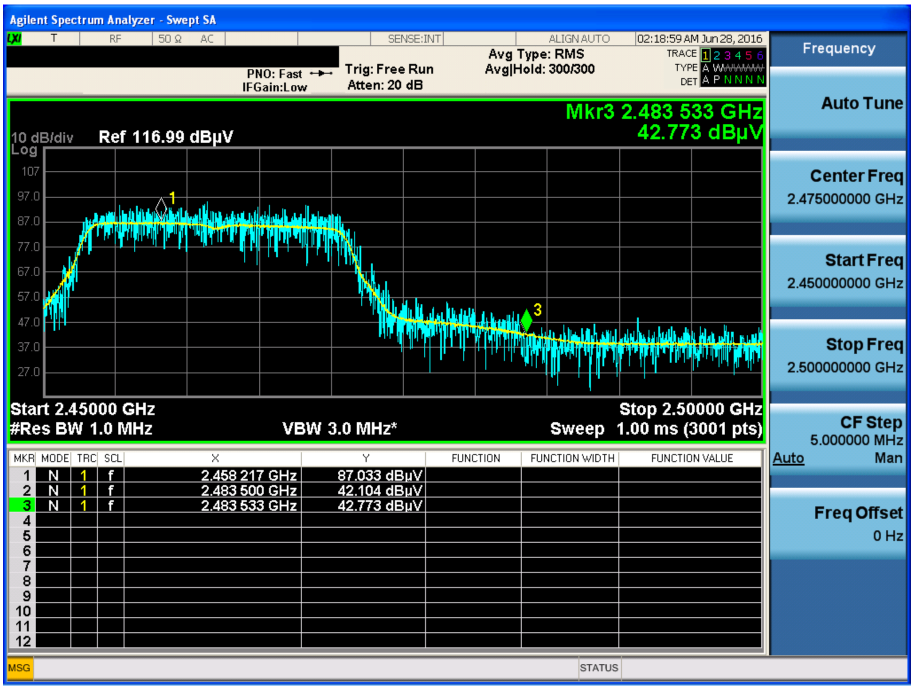
TM 3 & Lowest & Y axis & Hor **Detector Mode : AV**



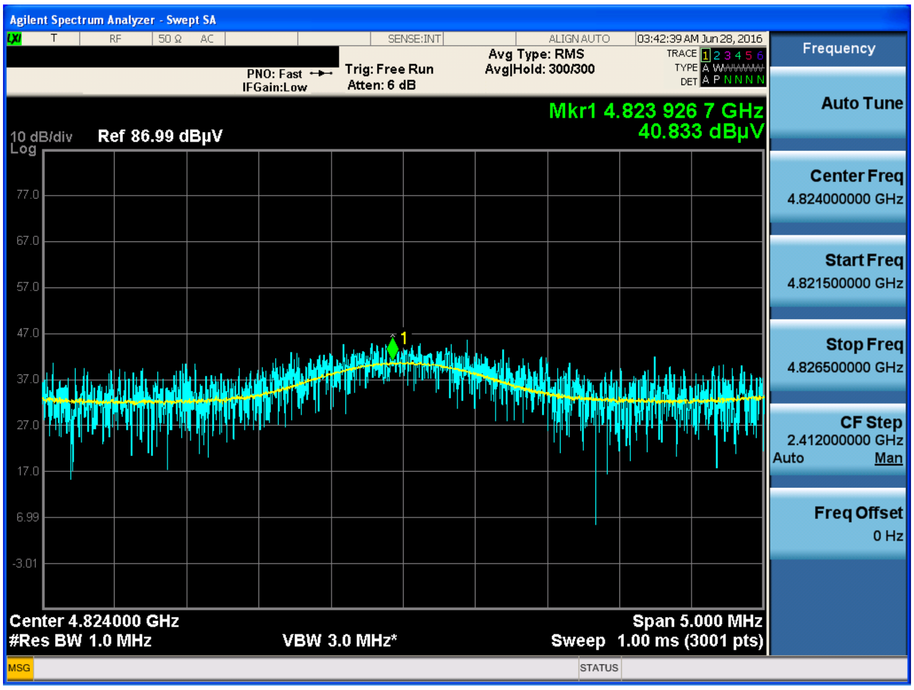
TM 5 & Highest & Y axis & Hor **Detector Mode : PK**



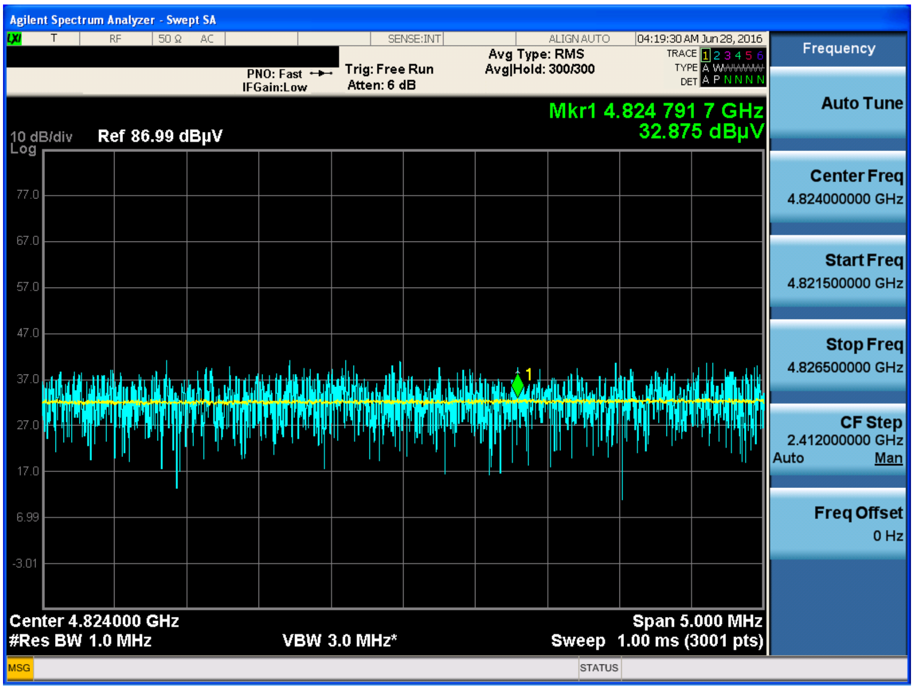
TM 5 & Highest & Y axis & Hor **Detector Mode : AV**



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



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



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