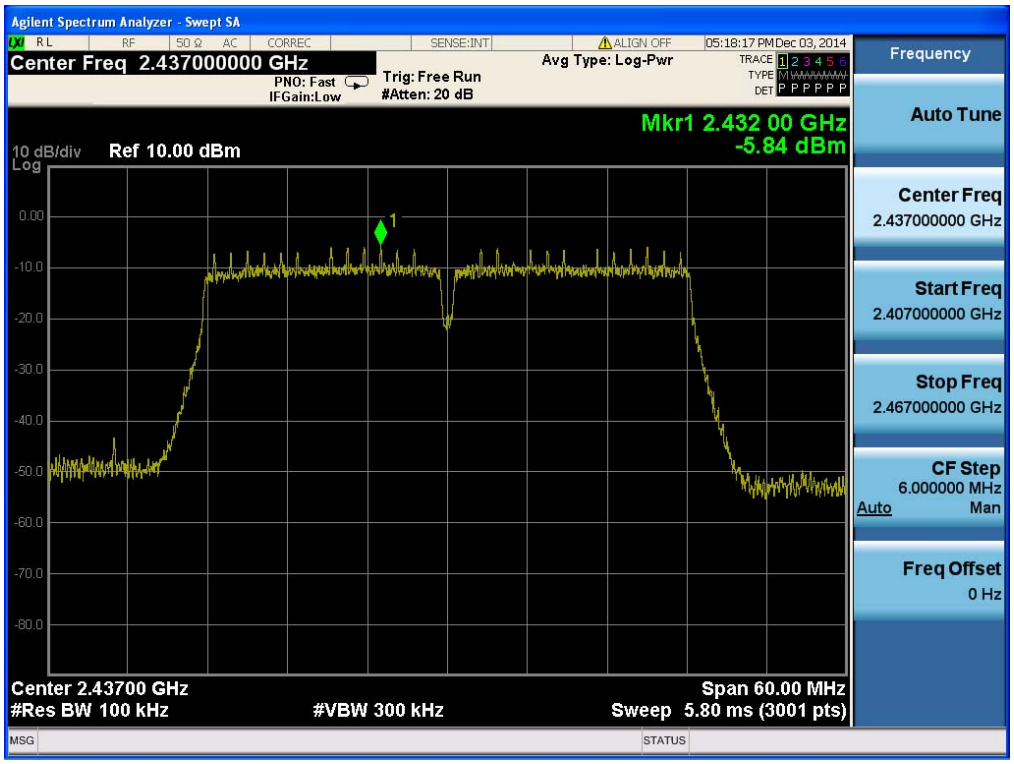
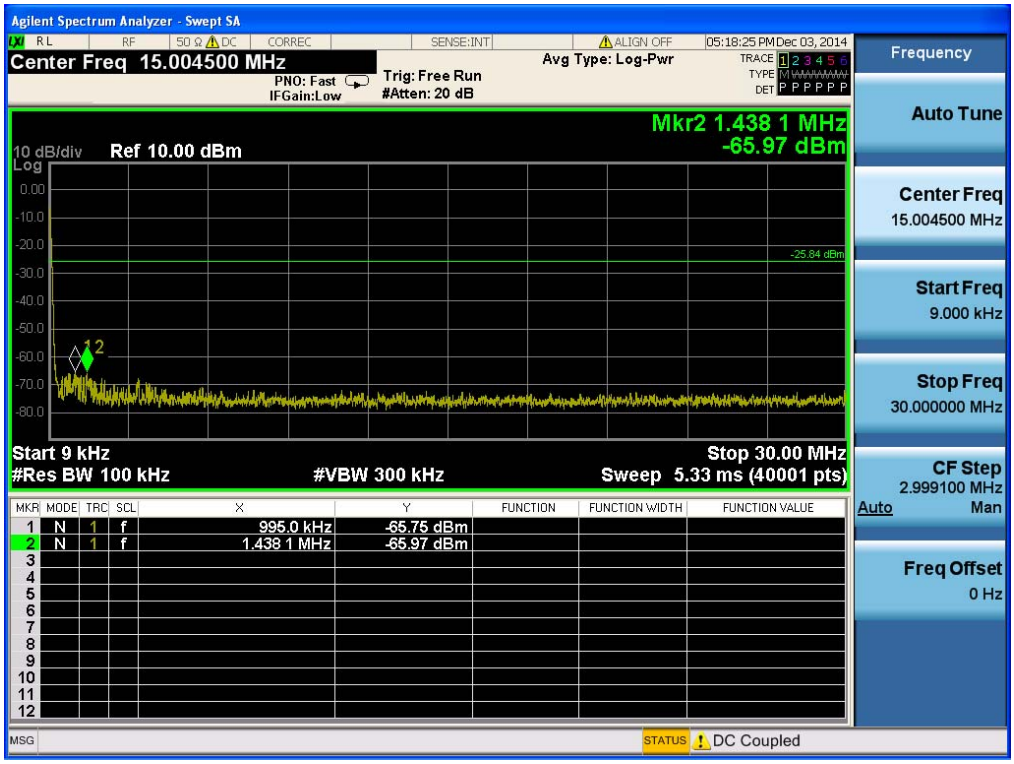
TM 4 & ANT 1 & Middle

Reference



Conducted Spurious Emissions



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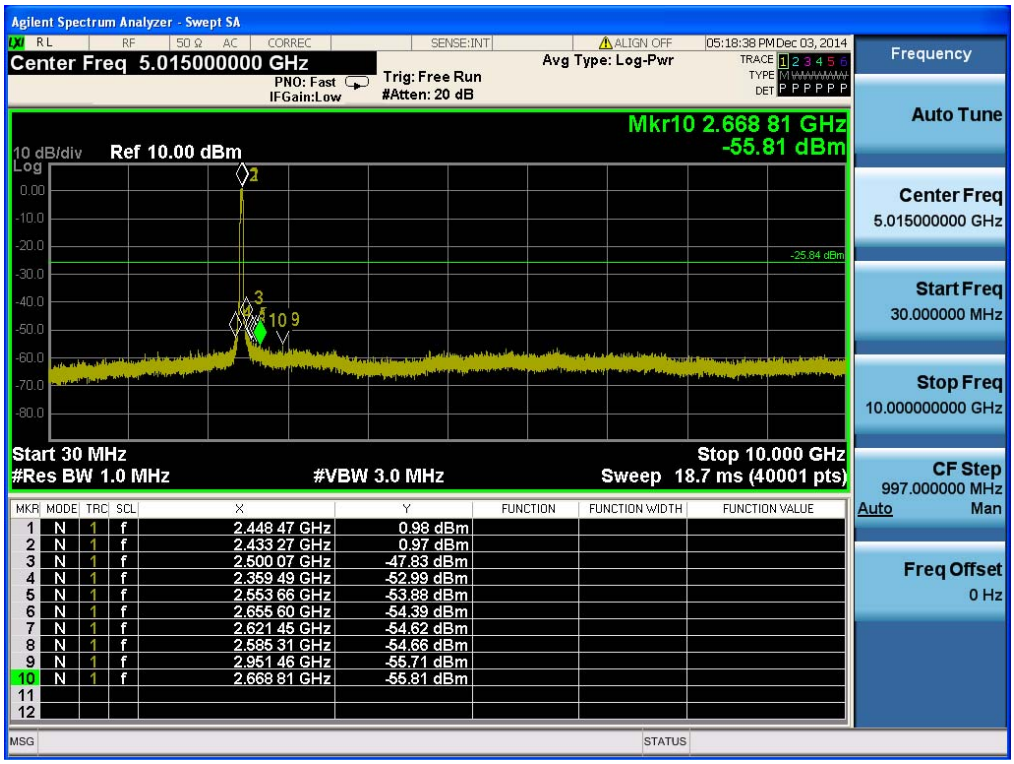

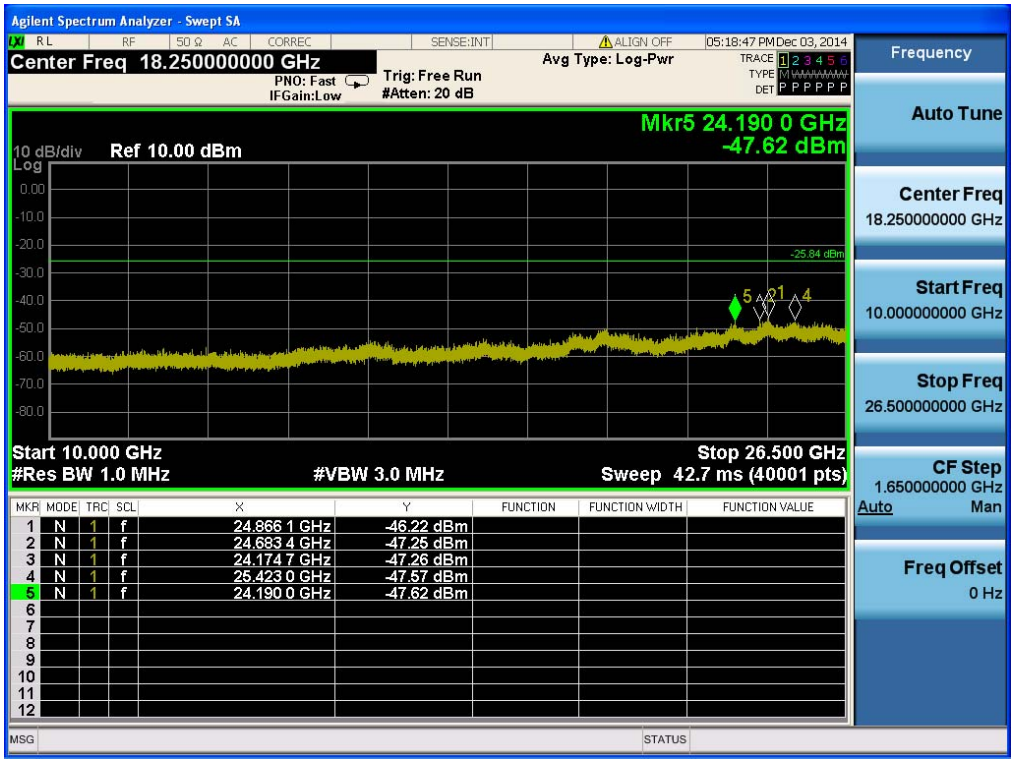

TM 4 & ANT 1 & Highest

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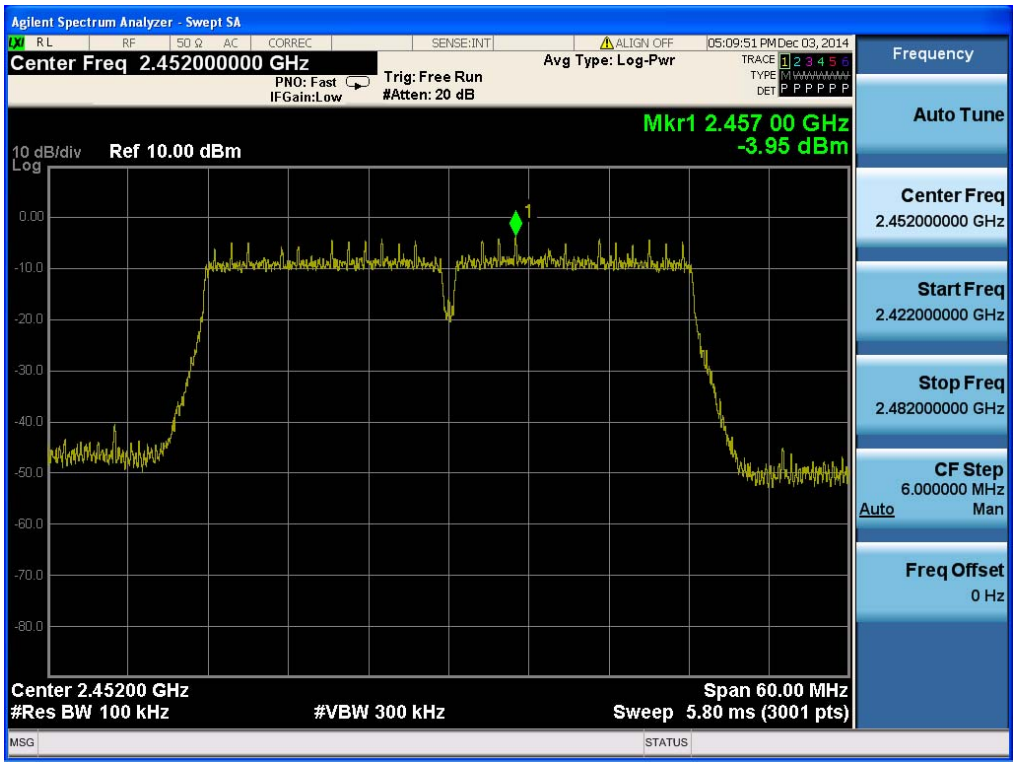
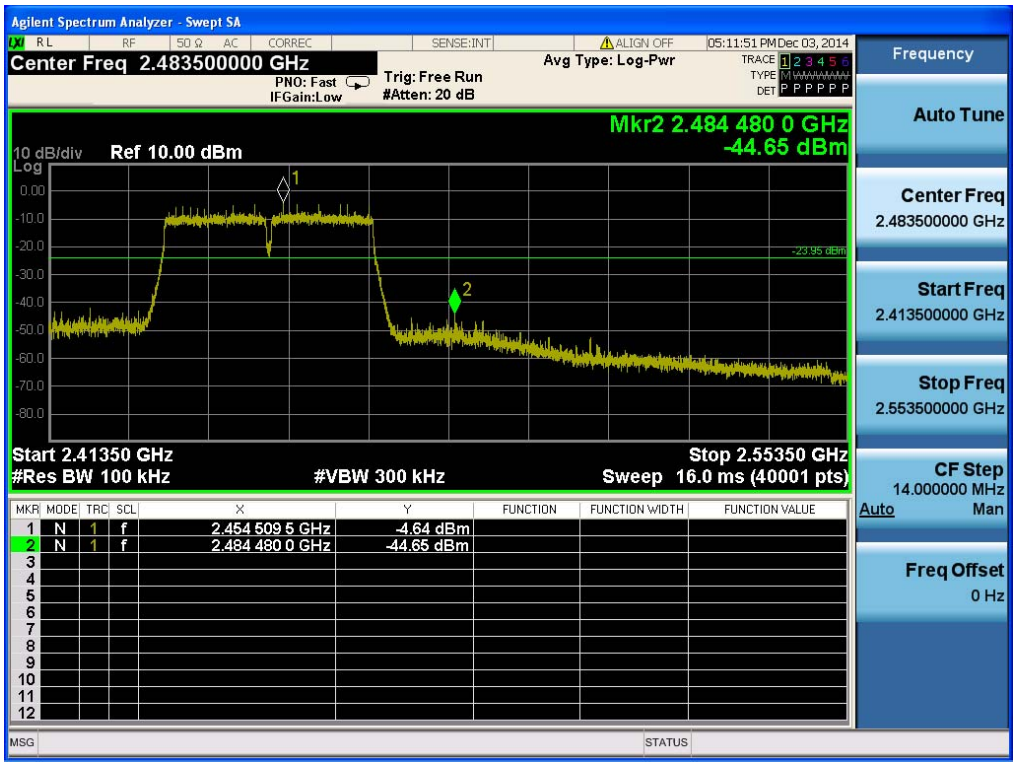


High Band-edge



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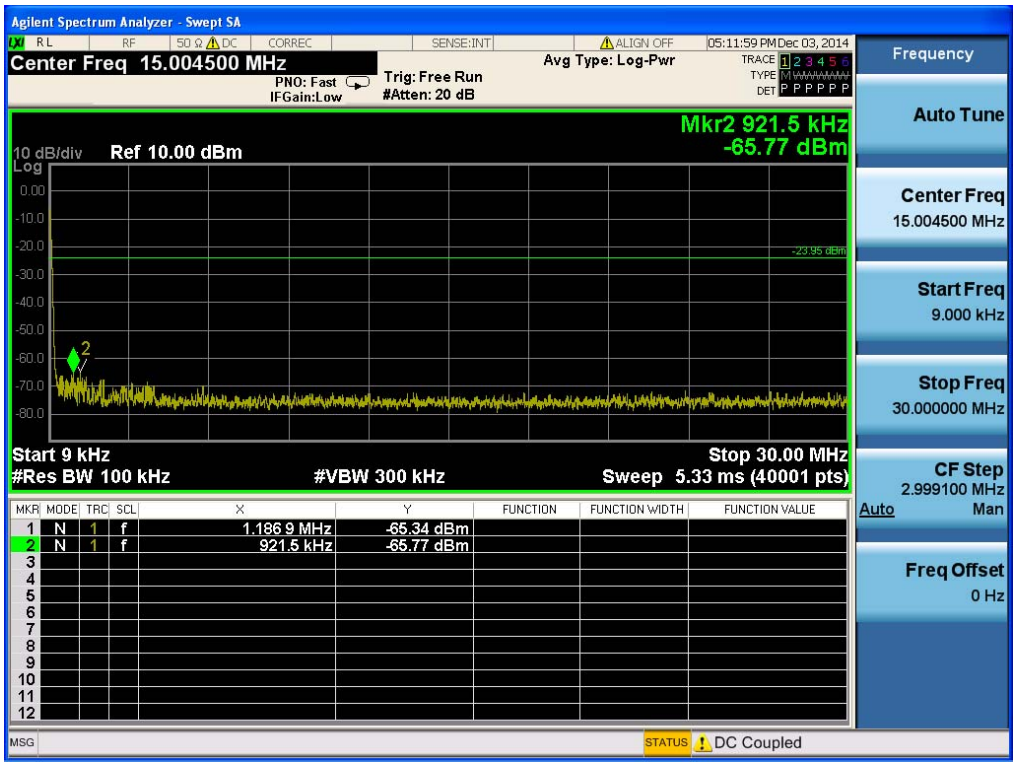
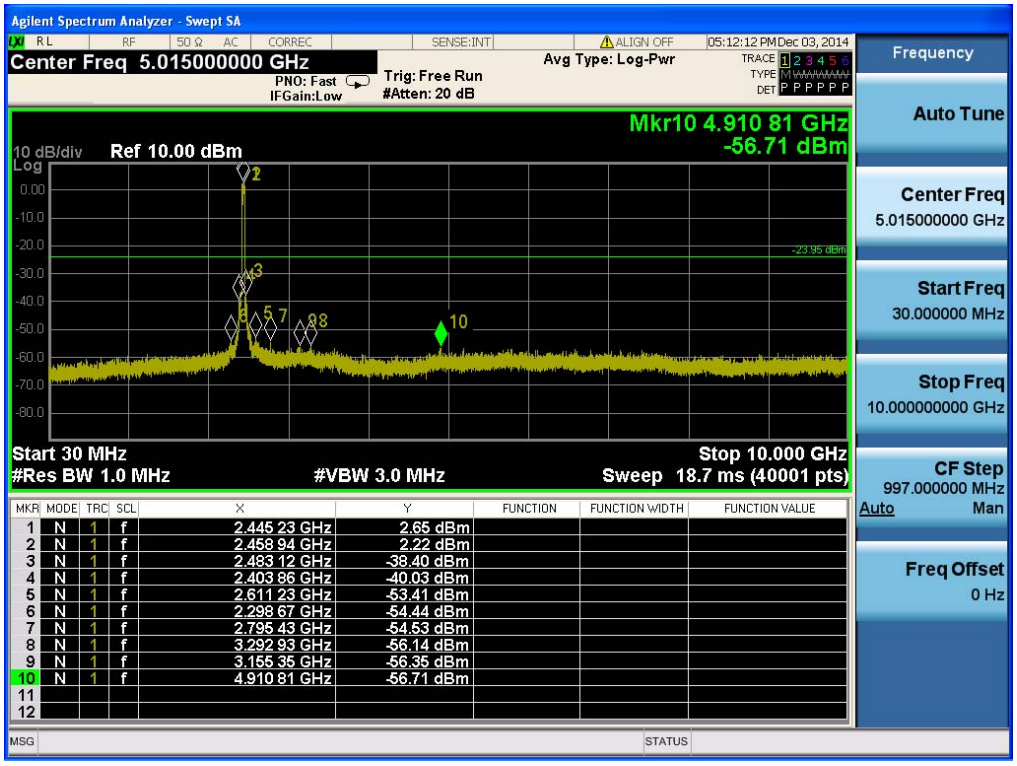
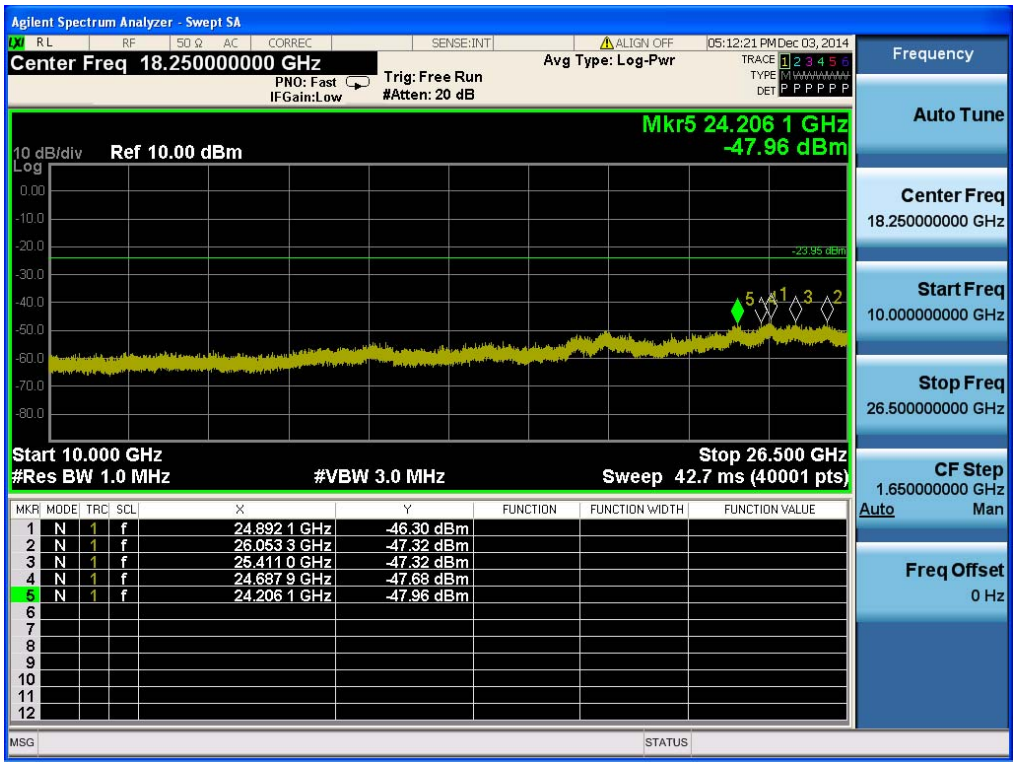


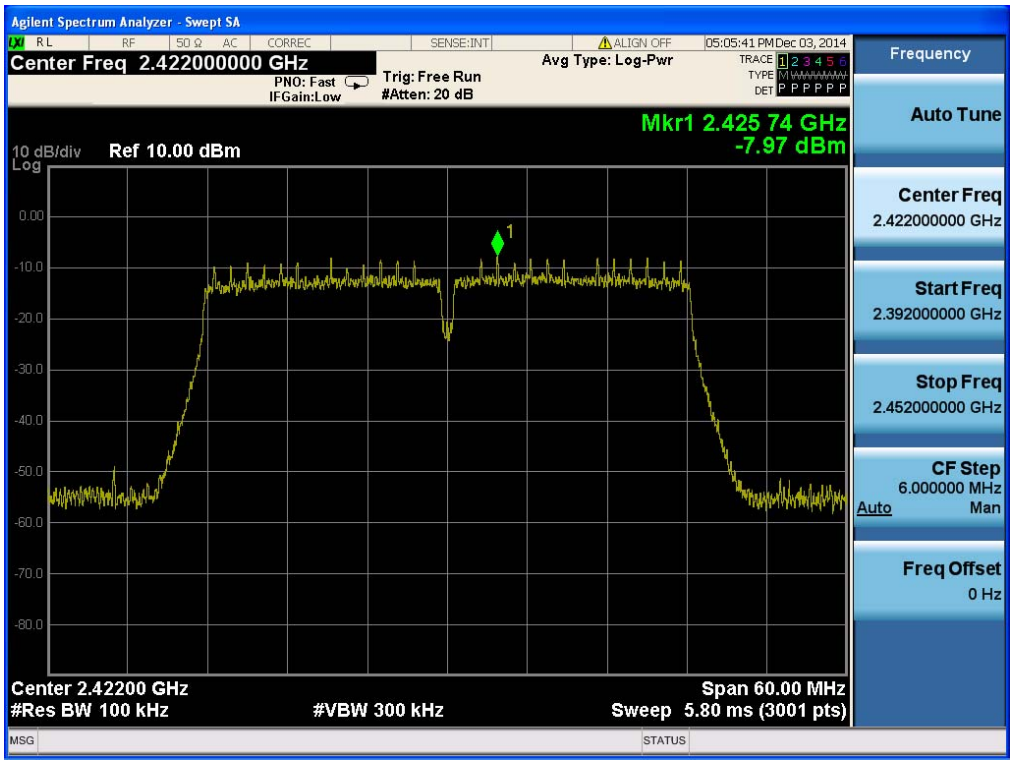


Conducted Spurious Emissions

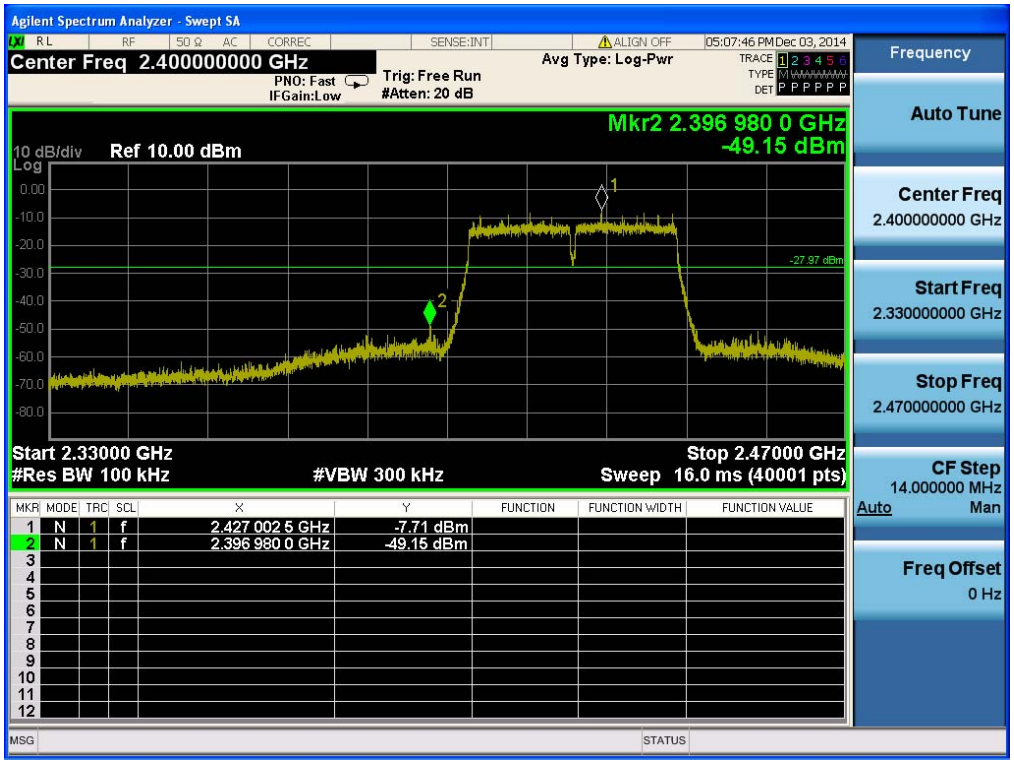


TM 4 & ANT 2 & Lowest

Reference



Low Band-edge



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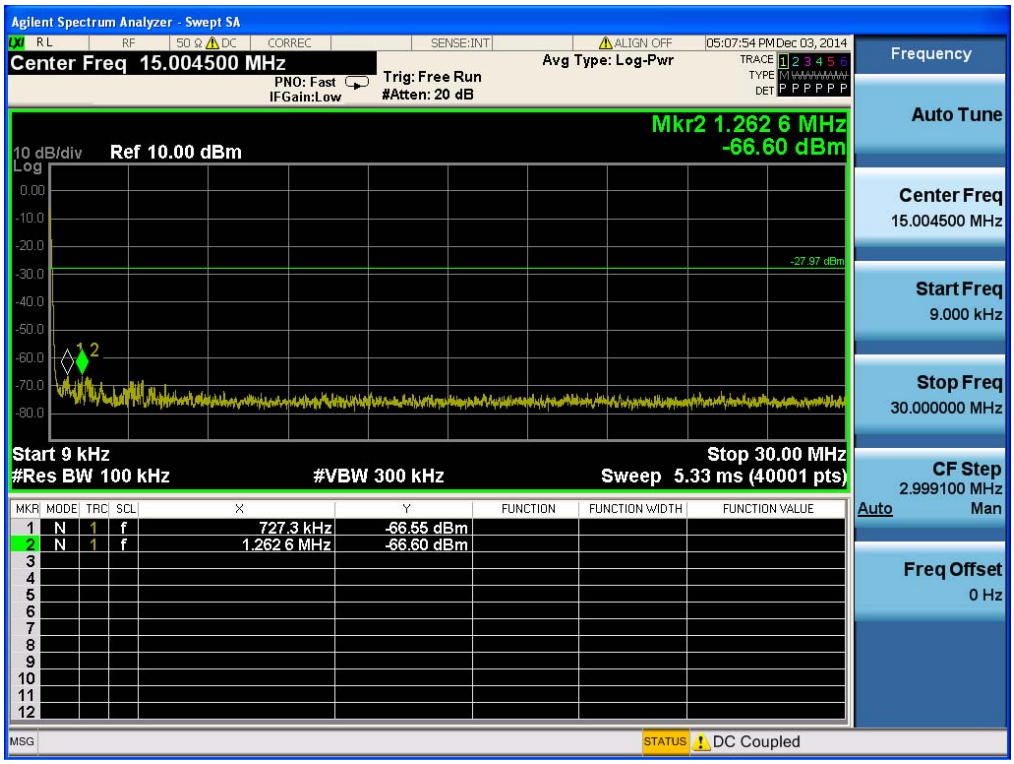

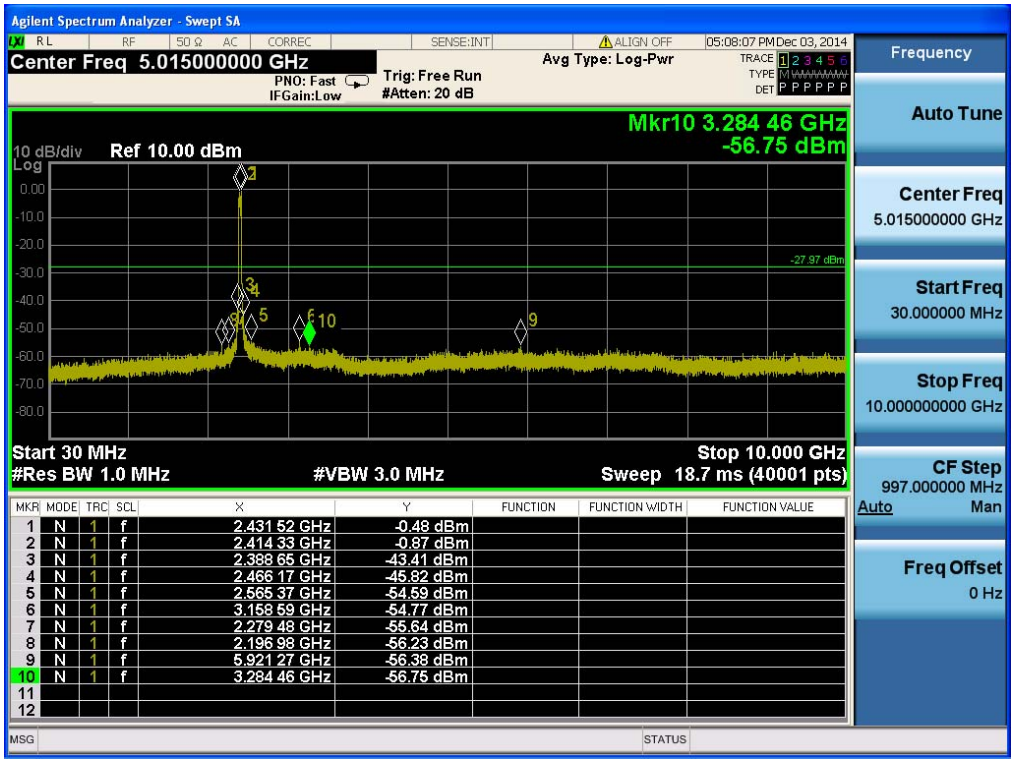

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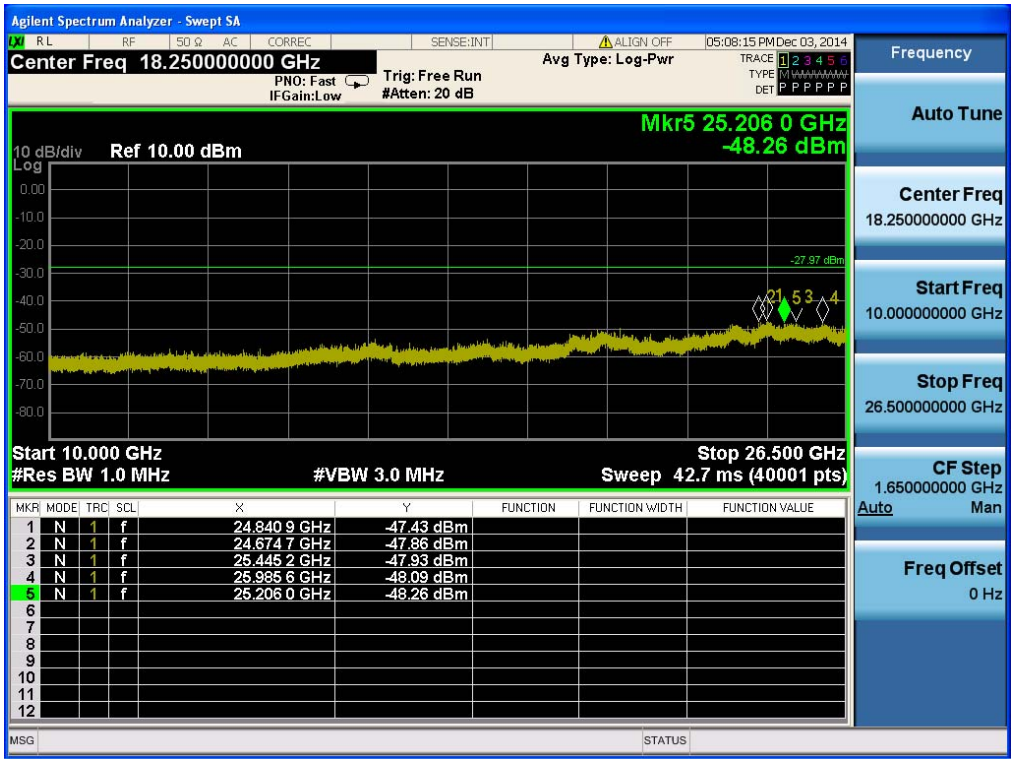
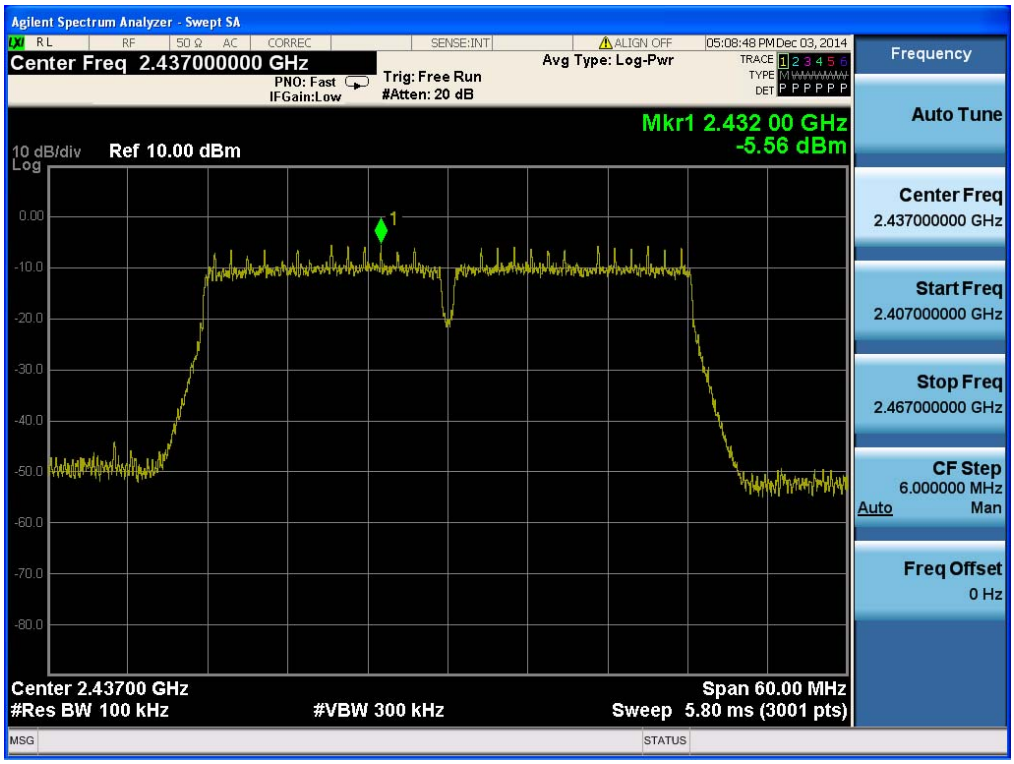


TM 4 & ANT 2 & Middle

Reference



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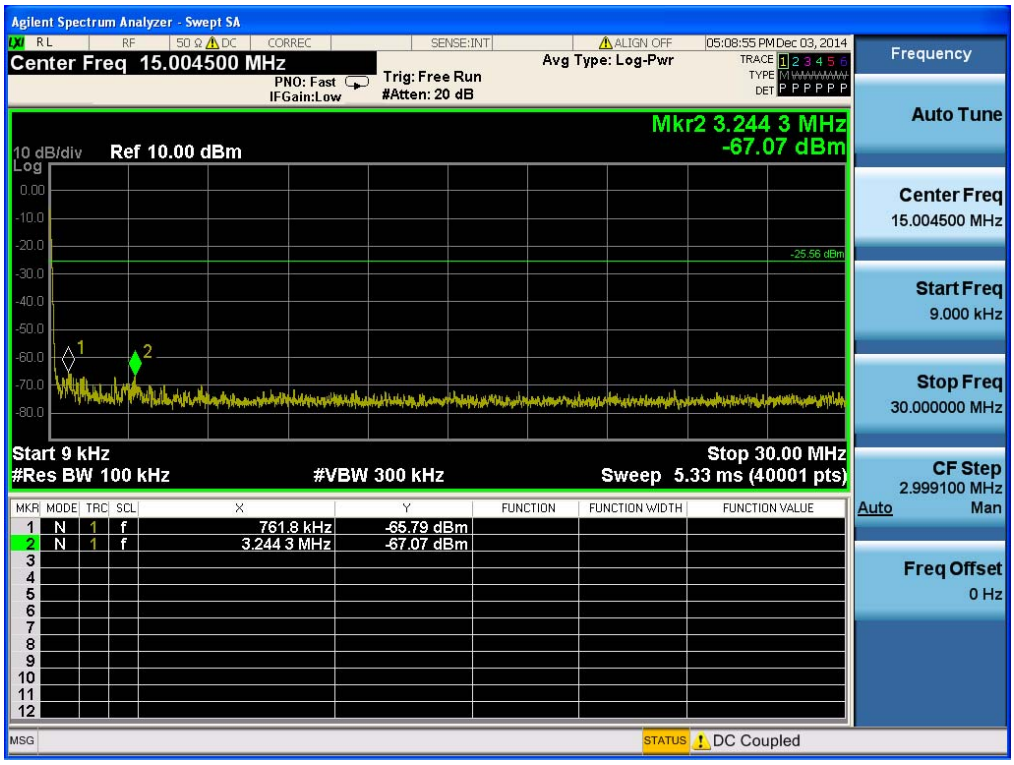
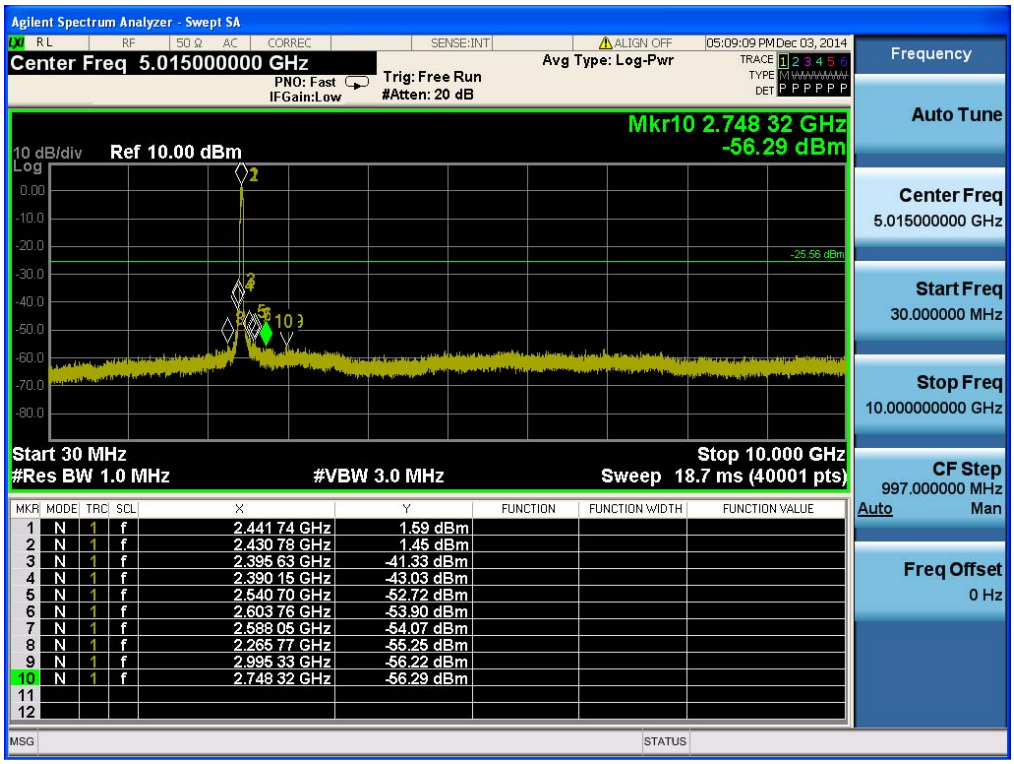
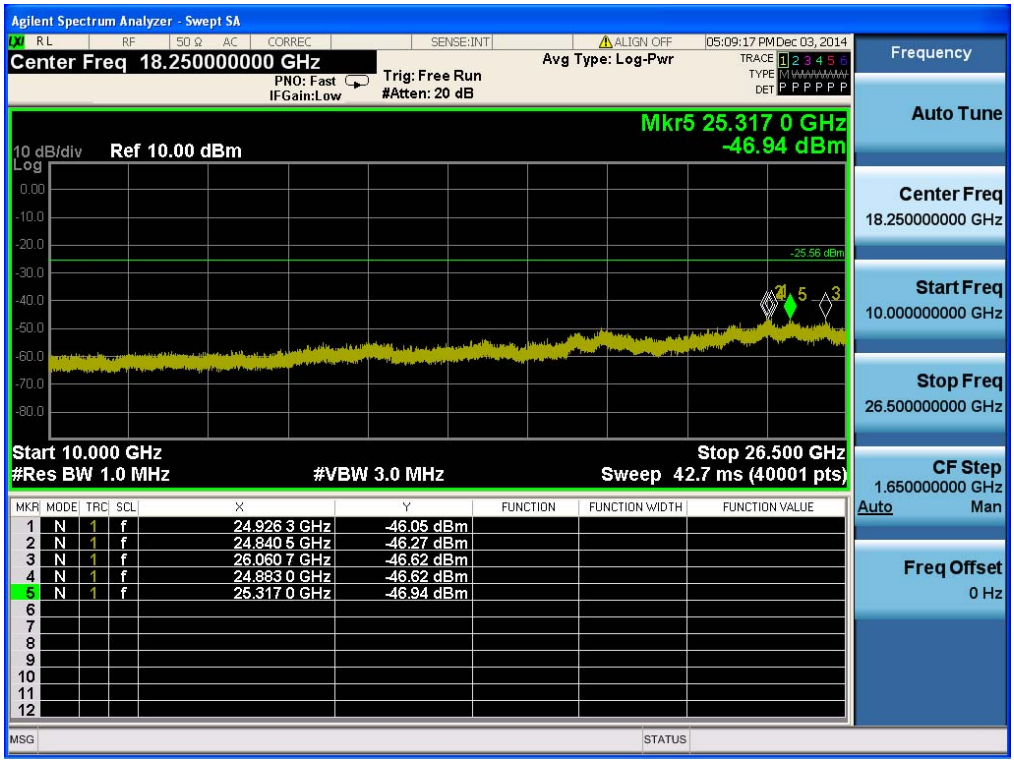


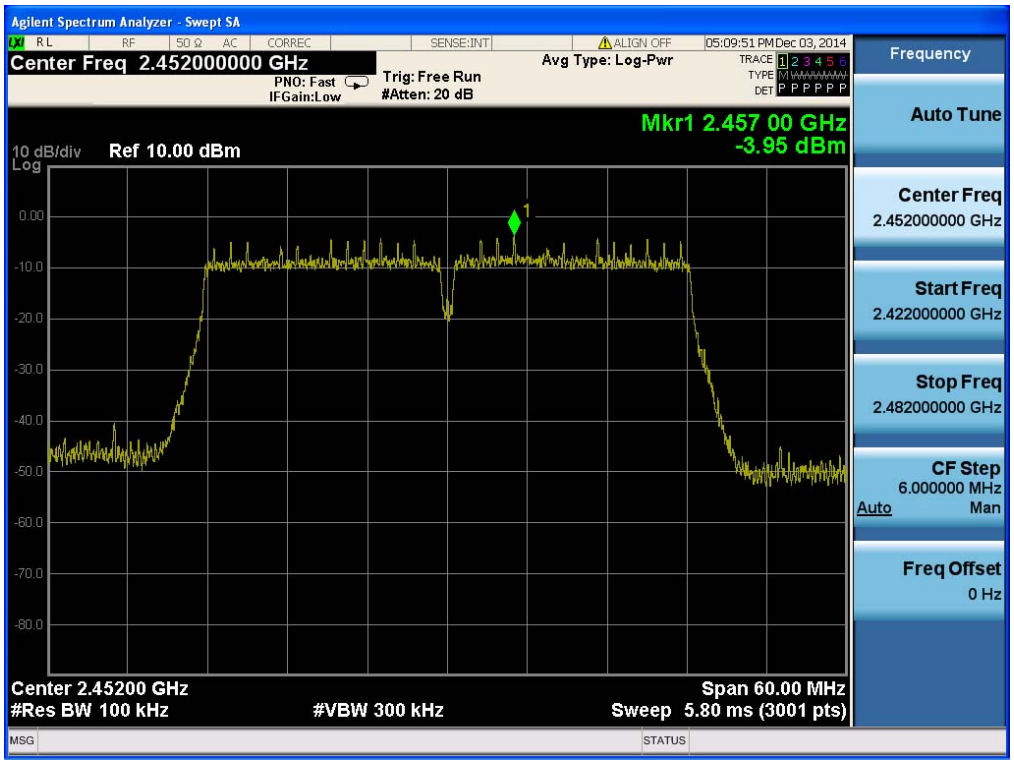
Conducted Spurious Emissions



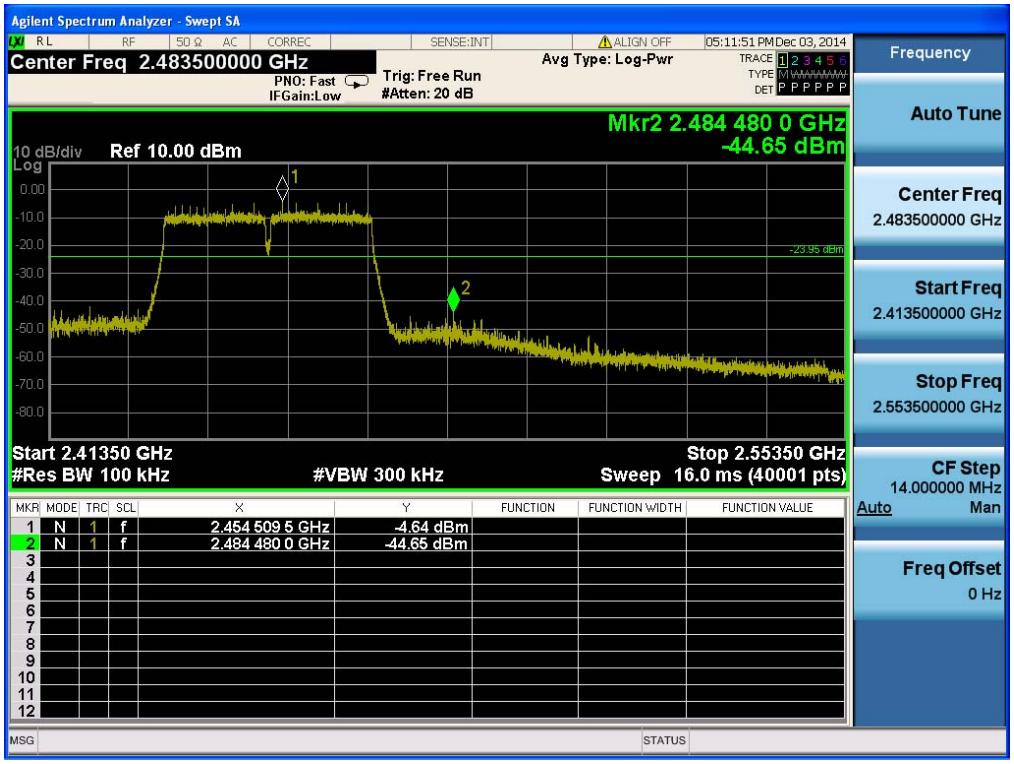


TM 4 & ANT 2 & Highest

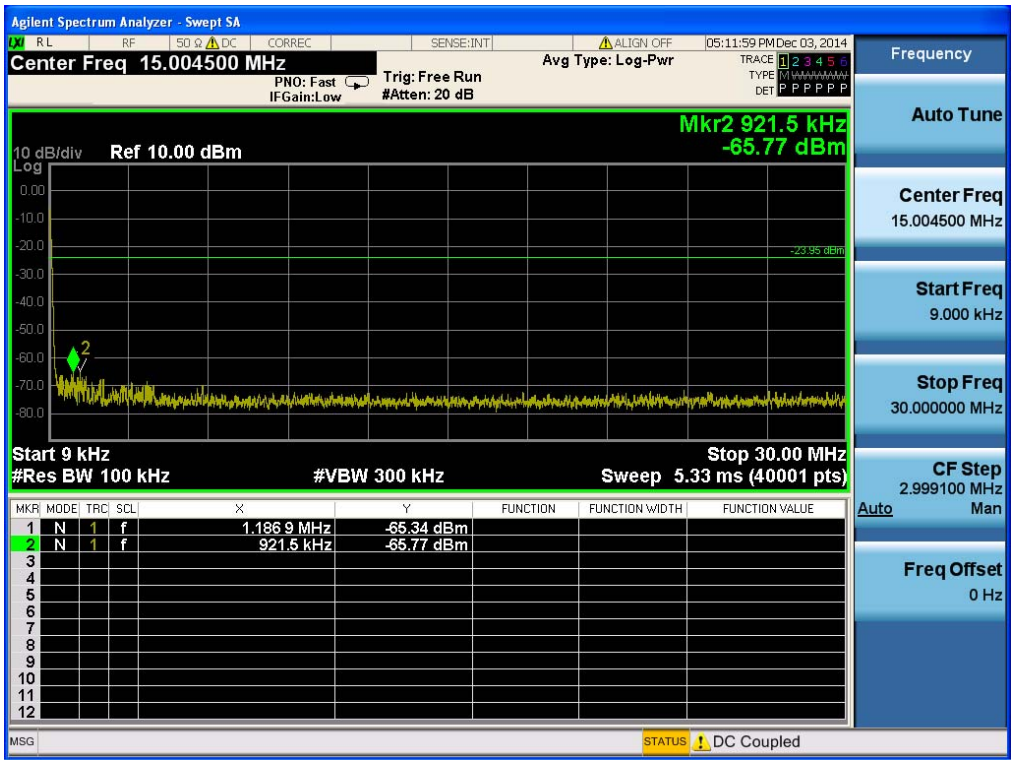
Reference

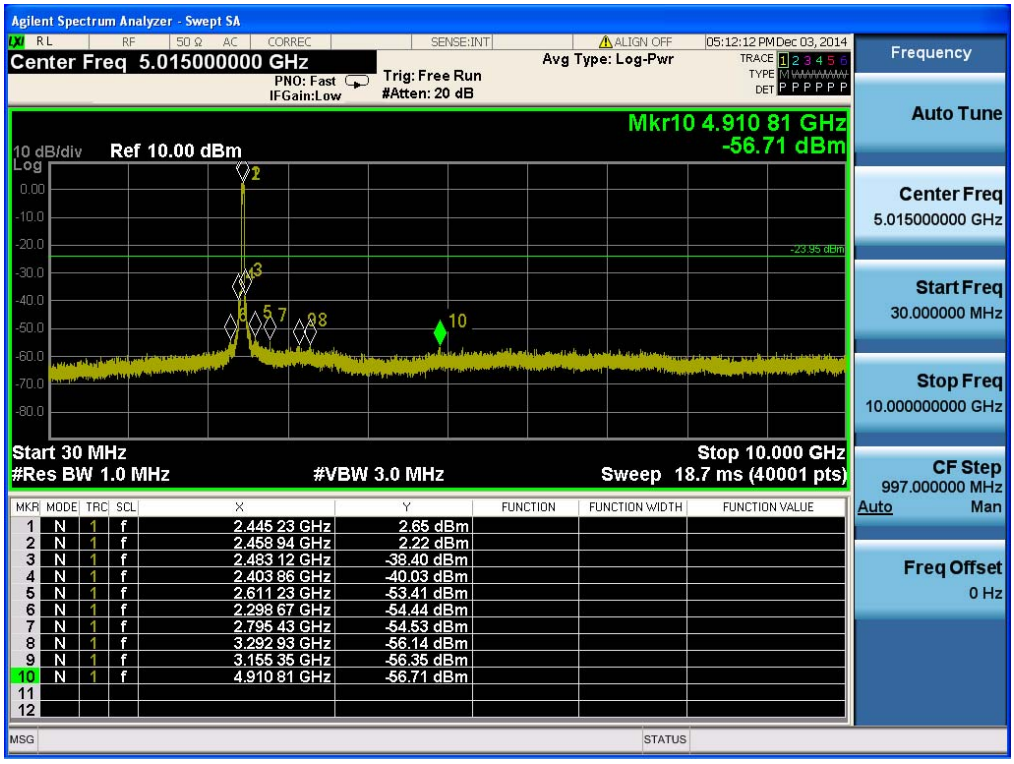


High Band-edge



Conducted Spurious Emissions





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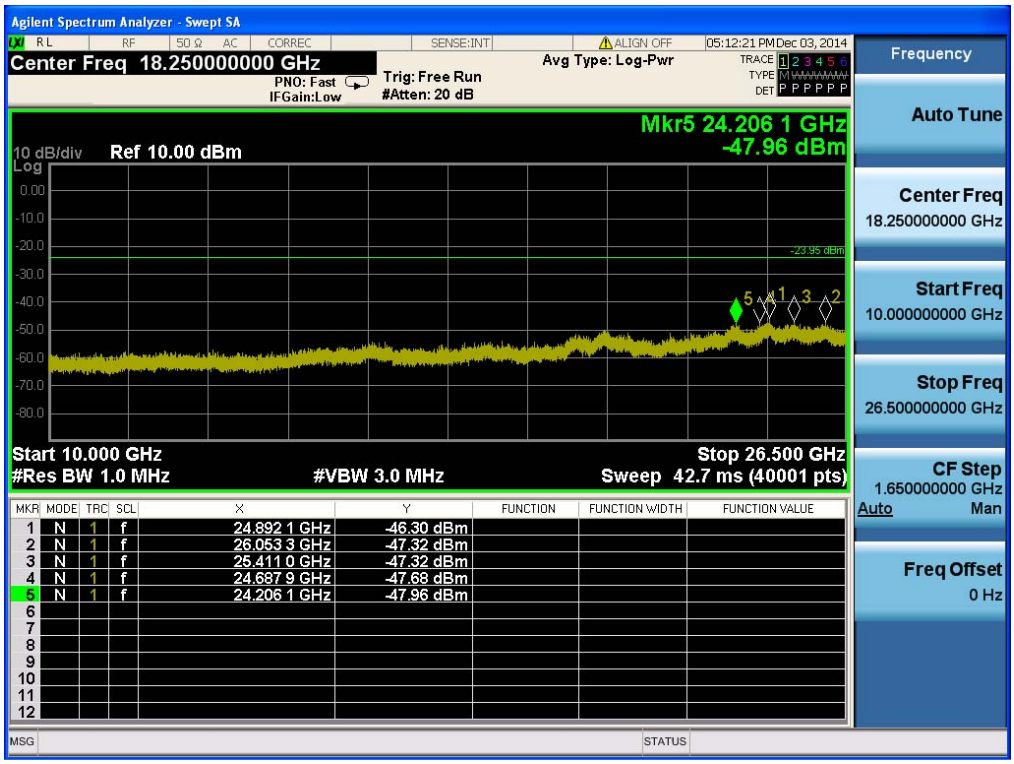


8.5 Radiated spurious emissions

▣ **Test Requirements and limit, §15.247(d), §15.205, §15.209& RSS-210 [A8.5], RSS-GEN [8.9], RSS-GEN [8.10]**

In any 100 kHz bandwidth outside the operating frequency 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

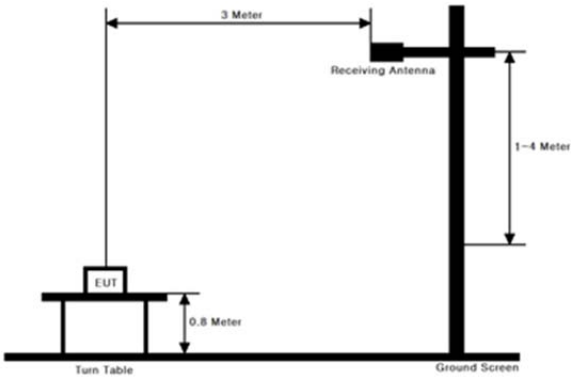
** Except as provided in 15.209(g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88MHz, 174-216MHz or 470-806MHz. However, operation within these frequency bands is permitted under other sections of this Part,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



▣ Test Procedure

1. The EUT is placed on a non-conductive table, which is 0.8 m above ground plane.
2. The turn table shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3 m away from the receiving antenna, which is varied from 1m to 4m 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.

Peak Measurement: *12.2.4 of KDB 558074 D01 DTS Meas Guidance v03r2*

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: *12.2.5.2 of KDB 558074 D01 DTS Meas. Guidance v03r2*

1. RBW = 1MHz(unless otherwise specified)
2. VBW ≥ 3 X RBW
3. Detector = RMS, if span / sweep point ≤ (RBW/2)
4. Averaging type = Power
5. Sweep time = auto
6. Trace average = At least 100 traces
7. A duty cycle correction factor(10log(1/x), where x is the duty cycle) 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.

Test Mode	Duty Cycle (%)	Duty Cycle Correction Factor (dB)
TM 1	91.85	0.37
TM 2	94.95	0.23
TM 3	95.05	0.23
TM 4	90.38	0.44

Note: Please refer to Appendix I for detailed information.

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

Tested ANT	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)
ANT 1	Lowest	2389.36	H	Y	PK	56.05	2.51	N/A	N/A	58.56	74.00	15.44
		2390.00	H	Y	AV	48.05	2.51	0.23	N/A	50.79	54.00	3.21
		4823.62	V	Z	PK	45.10	8.70	N/A	N/A	53.80	74.00	20.20
		4823.92	V	Z	AV	35.91	8.70	0.23	N/A	44.84	54.00	9.16
		7234.51	V	Z	PK	46.05	12.57	N/A	N/A	58.62	90.79	32.17
		7234.90	V	Z	AV	37.58	12.57	0.23	N/A	50.38	90.79	40.41
		-	-	-	-	-	-	-	-	-	-	-
	Middle	4873.40	V	Z	PK	45.02	8.71	N/A	N/A	53.73	74.00	20.27
		4873.90	V	Z	AV	36.27	8.71	0.23	N/A	45.21	54.00	8.79
		7312.55	V	Y	PK	44.82	12.69	N/A	N/A	57.51	74.00	16.49
		7310.12	V	Y	AV	36.62	12.69	0.23	N/A	49.54	54.00	4.46
		-	-	-	-	-	-	-	-	-	-	-
	Highest	2483.76	H	Y	PK	54.11	3.09	N/A	N/A	57.20	74.00	16.80
		2483.54	H	Y	AV	46.60	3.09	0.23	N/A	49.92	54.00	4.08
		4924.01	V	Z	PK	46.18	8.72	N/A	N/A	54.90	74.00	19.10
		4924.03	V	Z	AV	36.88	8.72	0.23	N/A	45.83	54.00	8.17
		7383.53	V	Y	PK	45.29	12.89	N/A	N/A	58.18	74.00	15.82
		7384.93	V	Y	AV	37.15	12.89	0.23	N/A	50.27	54.00	3.73
		-	-	-	-	-	-	-	-	-	-	-

Note.

1. No other spurious and harmonic emissions were found greater than listed emissions on above table.
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 ANT	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)
ANT 1	Lowest	2389.74	H	Y	PK	58.65	2.51	N/A	N/A	61.16	74.00	12.84
		2389.92	H	Y	AV	48.19	2.51	0.23	N/A	50.93	54.00	3.07
		-	-	-	-	-	-	-	-	-	-	-
	Middle	7314.32	H	Z	PK	51.61	12.69	N/A	-9.54	54.76	74.00	19.24
		7312.72	H	Z	AV	39.41	12.69	0.23	-9.54	42.79	54.00	11.21
		-	-	-	-	-	-	-	-	-	-	-
	Highest	2483.96	H	Y	PK	57.79	3.09	N/A	N/A	60.88	74.00	13.12
		2483.72	H	Y	AV	46.68	3.09	0.23	N/A	50.00	54.00	4.00
		-	-	-	-	-	-	-	-	-	-	-

Note.

1. No other spurious and harmonic emissions were found greater than listed emissions on above table.
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 ANT	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)
ANT 1	Lowest	2389.63	H	Y	PK	59.72	2.51	N/A	N/A	62.23	74.00	11.77
		2389.92	H	Y	AV	47.41	2.51	0.23	N/A	50.15	54.00	3.85
		-	-	-	-	-	-	-	-	-	-	-
	Middle	7311.31	V	Z	PK	48.49	12.69	N/A	-9.54	51.64	74.00	22.36
		7311.15	V	Z	AV	38.57	12.69	0.23	-9.54	41.95	54.00	12.05
		-	-	-	-	-	-	-	-	-	-	-
	Highest	2483.67	V	Z	PK	57.76	3.09	N/A	N/A	60.85	74.00	13.15
		2483.66	V	Z	AV	44.09	3.09	0.23	N/A	47.41	54.00	6.59
		-	-	-	-	-	-	-	-	-	-	-
ANT 2	Lowest	2389.70	H	X	PK	60.10	2.51	N/A	N/A	62.61	74.00	11.39
		2390.00	H	X	AV	48.04	2.51	0.23	N/A	50.78	54.00	3.22
		-	-	-	-	-	-	-	-	-	-	-
	Middle	7311.08	H	Y	PK	48.65	12.69	N/A	-9.54	51.80	74.00	22.20
		7311.09	H	Y	AV	38.51	12.69	0.23	-9.54	41.89	54.00	12.11
		-	-	-	-	-	-	-	-	-	-	-
	Highest	2483.58	V	Z	PK	60.21	3.09	N/A	N/A	63.30	74.00	10.70
		2483.50	V	Z	AV	46.86	3.09	0.23	N/A	50.18	54.00	3.82
		-	-	-	-	-	-	-	-	-	-	-

Note.

1. No other spurious and harmonic emissions were found greater than listed emissions on above table.
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 ANT	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)
ANT 1	Lowest	2383.82	H	X	PK	58.05	2.51	N/A	N/A	60.56	74.00	13.44
		2385.78	H	X	AV	47.59	2.51	0.44	N/A	50.54	54.00	3.46
		-	-	-	-	-	-	-	-	-	-	-
	Middle	2389.65	V	Z	PK	58.90	2.51	N/A	N/A	61.41	74.00	12.59
		2389.22	V	Z	AV	46.72	2.51	0.44	N/A	49.67	54.00	4.33
		-	-	-	-	-	-	-	-	-	-	-
	Highest	2483.92	H	Y	PK	58.53	3.09	N/A	N/A	61.62	74.00	12.38
		2484.03	H	Y	AV	47.43	3.09	0.44	N/A	50.96	54.00	3.04
		-	-	-	-	-	-	-	-	-	-	-
ANT 2	Lowest	2389.81	H	X	PK	57.91	2.51	N/A	N/A	60.42	74.00	13.58
		2389.82	H	X	AV	47.70	2.51	0.44	N/A	50.65	54.00	3.35
		-	-	-	-	-	-	-	-	-	-	-
	Middle	2385.65	V	Z	PK	51.06	2.51	N/A	N/A	53.57	74.00	20.43
		2388.86	V	Z	AV	40.39	2.51	0.44	N/A	43.34	54.00	10.66
		-	-	-	-	-	-	-	-	-	-	-
	Highest	2483.61	H	X	PK	57.87	3.09	N/A	N/A	60.96	74.00	13.04
		2484.49	H	X	AV	46.77	3.09	0.44	N/A	50.30	54.00	3.70
		-	-	-	-	-	-	-	-	-	-	-

Note.

1. No other spurious and harmonic emissions were found greater than listed emissions on above table.
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& 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 250 microvolts (The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz). The limits at specific frequency range is listed as follows:

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.

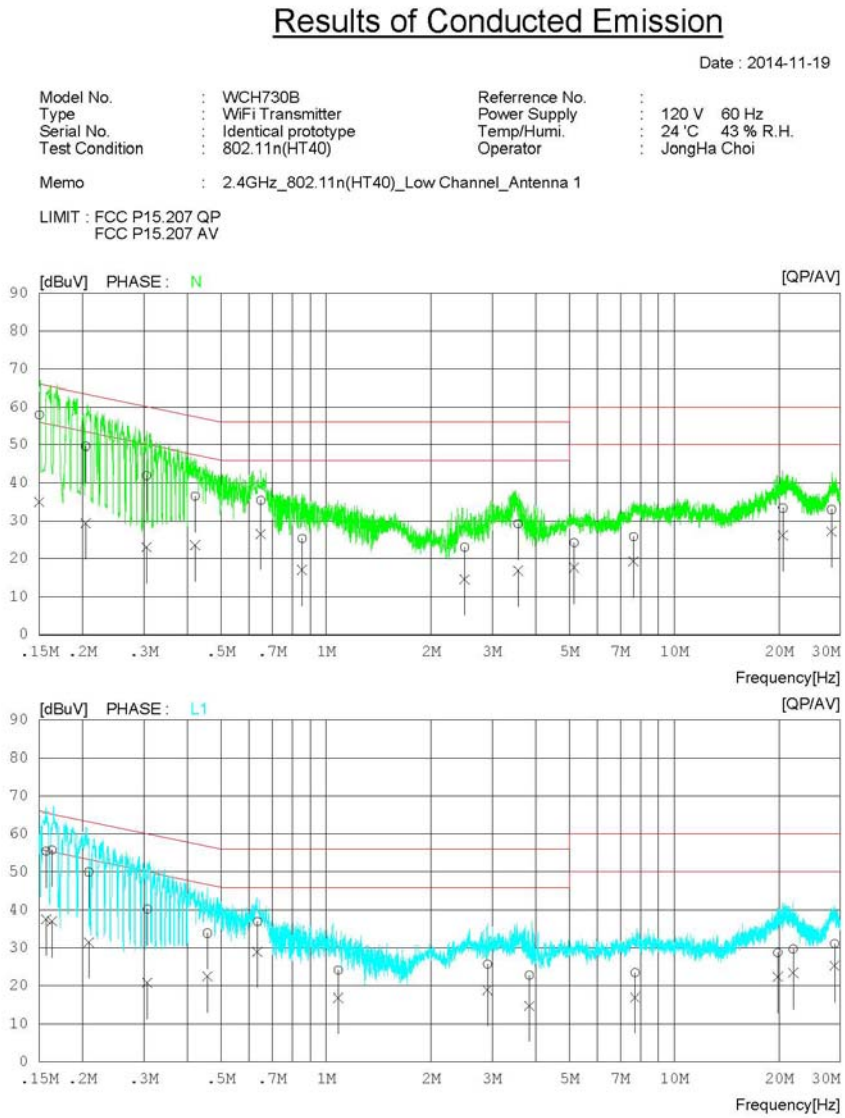
▣ Test Results: Comply

- Note: The worst case data was reported. Please refer to next page.

▣ Result Plots

AC Line Conducted Emissions (Graph)

Test mode 4(TM 4) & ANT 1 & Middle



AC Line Conducted Emissions (List)

Test mode 4(TM 4) & ANT 1 & Middle

Results of Conducted Emission

Date : 2014-11-19

Model No.	: WCH730B	Referrence No.	:
Type	: WiFi Transmitter	Power Supply	: 120 V 60 Hz
Serial No.	: Identical prototype	Temp/Humi.	: 24 'C 43 % R.H.
Test Condition	: 802.11n(HT40)	Operator	: JongHa Choi

Memo : 2.4GHz_802.11n(HT40)_Low Channel_Antenna 1

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

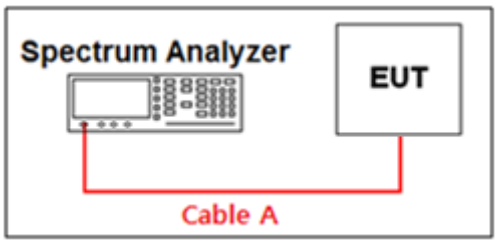
NO	FREQ	READING QP	READING AV	C.FACTOR	RESULT QP	RESULT AV	LIMIT QP	LIMIT AV	MARGIN QP	MARGIN AV	PHASE
	[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	
1	0.15006	48.0	25.0	9.9	57.9	34.9	66.0	56.0	8.1	21.1	N
2	0.20385	39.7	19.5	9.9	49.6	29.4	63.5	53.5	13.9	24.1	N
3	0.30471	32.0	13.1	9.9	41.9	23.0	60.1	50.1	18.2	27.1	N
4	0.42034	26.5	13.7	9.9	36.4	23.6	57.4	47.4	21.0	23.8	N
5	0.64911	25.4	16.6	9.9	35.3	26.5	56.0	46.0	20.7	19.5	N
6	0.85375	15.4	7.2	9.9	25.3	17.1	56.0	46.0	30.7	28.9	N
7	2.49960	13.0	4.6	10.0	23.0	14.6	56.0	46.0	33.0	31.4	N
8	3.55920	19.1	6.8	10.1	29.2	16.9	56.0	46.0	26.8	29.1	N
9	5.16140	14.1	7.5	10.1	24.2	17.6	60.0	50.0	35.8	32.4	N
10	7.63740	15.6	9.0	10.2	25.8	19.2	60.0	50.0	34.2	30.8	N
11	20.51080	22.9	15.8	10.4	33.3	26.2	60.0	50.0	26.7	23.8	N
12	28.28400	22.3	16.6	10.6	32.9	27.2	60.0	50.0	27.1	22.8	N
13	0.15682	45.5	27.6	9.9	55.4	37.5	65.6	55.6	10.2	18.1	L1
14	0.16320	45.9	27.1	9.9	55.8	37.0	65.3	55.3	9.5	18.3	L1
15	0.20821	40.1	21.6	9.9	50.0	31.5	63.3	53.3	13.3	21.8	L1
16	0.30668	30.3	10.8	9.9	40.2	20.7	60.1	50.1	19.9	29.4	L1
17	0.45599	23.9	12.5	9.9	33.8	22.4	56.8	46.8	23.0	24.4	L1
18	0.63541	27.0	19.1	9.9	36.9	29.0	56.0	46.0	19.1	17.0	L1
19	1.08360	14.2	6.9	9.9	24.1	16.8	56.0	46.0	31.9	29.2	L1
20	2.90760	15.6	8.8	10.1	25.7	18.9	56.0	46.0	30.3	27.1	L1
21	3.83680	12.6	4.6	10.1	22.7	14.7	56.0	46.0	33.3	31.3	L1
22	7.72080	13.2	6.8	10.2	23.4	17.0	60.0	50.0	36.6	33.0	L1
23	19.82280	18.4	11.9	10.4	28.8	22.3	60.0	50.0	31.2	27.7	L1
24	21.96400	19.3	13.0	10.4	29.7	23.4	60.0	50.0	30.3	26.6	L1
25	28.87180	20.6	14.6	10.6	31.2	25.2	60.0	50.0	28.8	24.8	L1

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



▣ Test Procedure

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 3 X RBW. Video averaging is not permitted. A peak, or peak hold, may be used in place of the sampling detector as this may produce a wider bandwidth than the actual bandwidth (worst-case measurement). Use of a peak hold may be necessary to determine the occupied bandwidth if the device is not transmitting continuously.

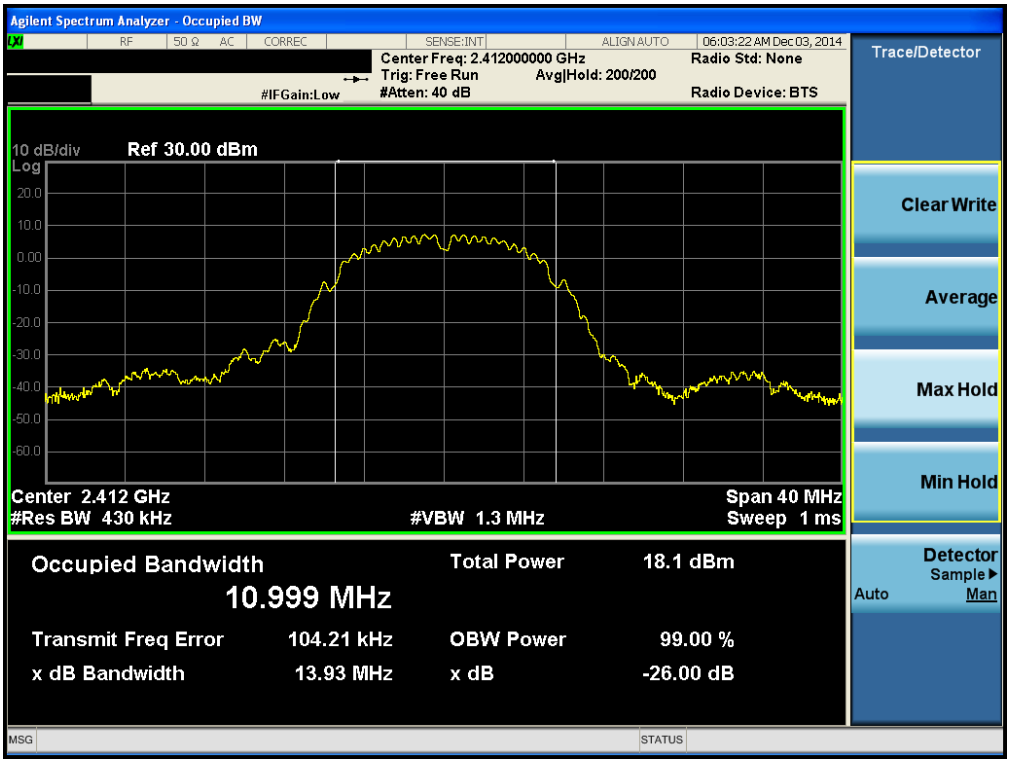
▣ Test Results: Comply

Test Mode	Frequency	Test Results[MHz]	
		ANT 1	ANT 2
TM 1	Lowest	10.999	-
	Middle	11.536	-
	Highest	11.543	-
TM 2	Lowest	17.331	-
	Middle	17.314	-
	Highest	17.323	-
TM 3	Lowest	18.339	18.325
	Middle	18.355	18.286
	Highest	18.315	18.307
TM 4	Lowest	36.429	36.441
	Middle	36.351	36.434
	Highest	36.525	36.426

▣ Result Plots

Occupied Bandwidth (99%)

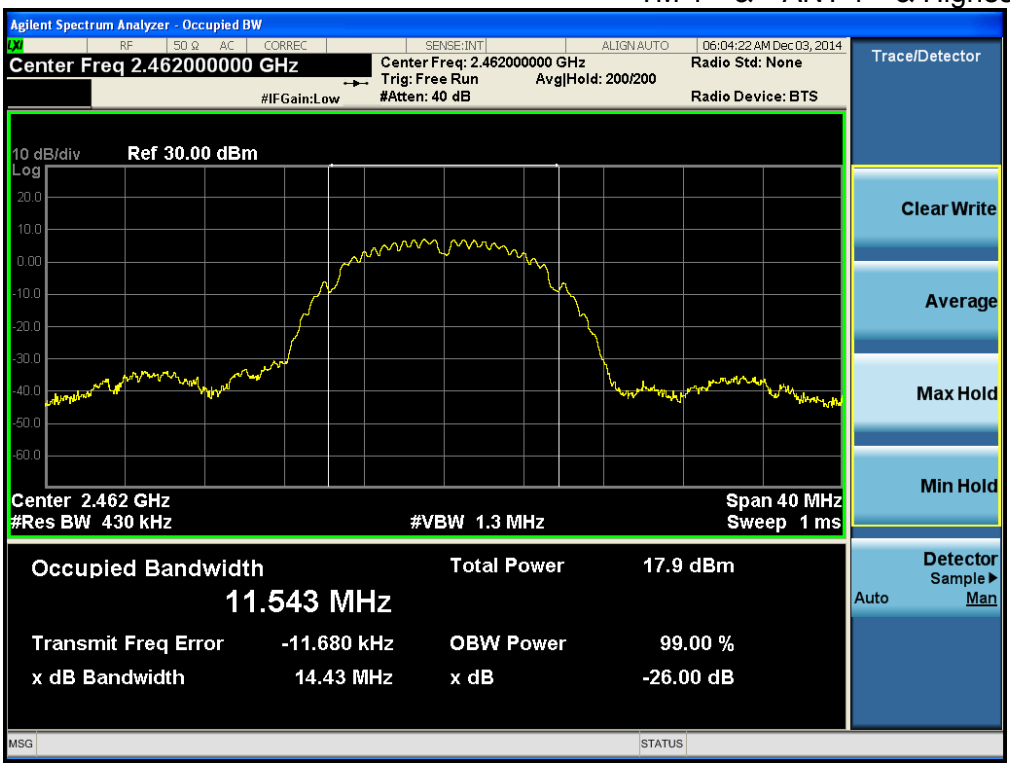
TM 1 & ANT 1 & Lowest



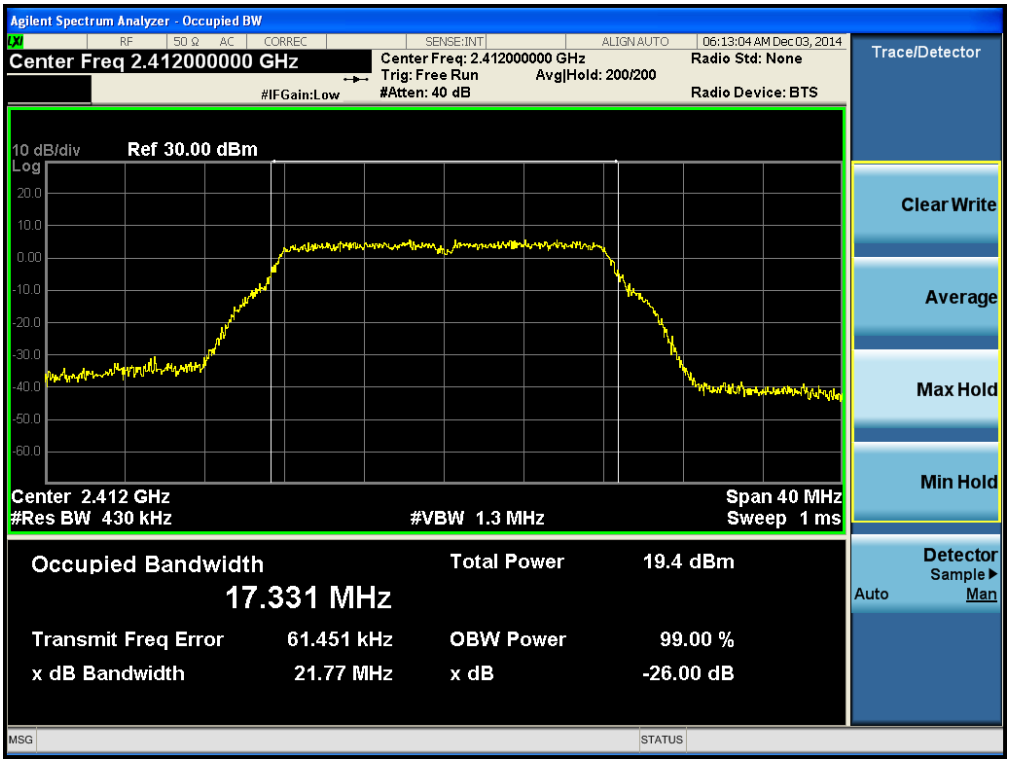
Occupied Bandwidth (99%)

TM 1 & ANT 1 & Middle

Occupied Bandwidth (99%) TM 1 & ANT 1 & Highest

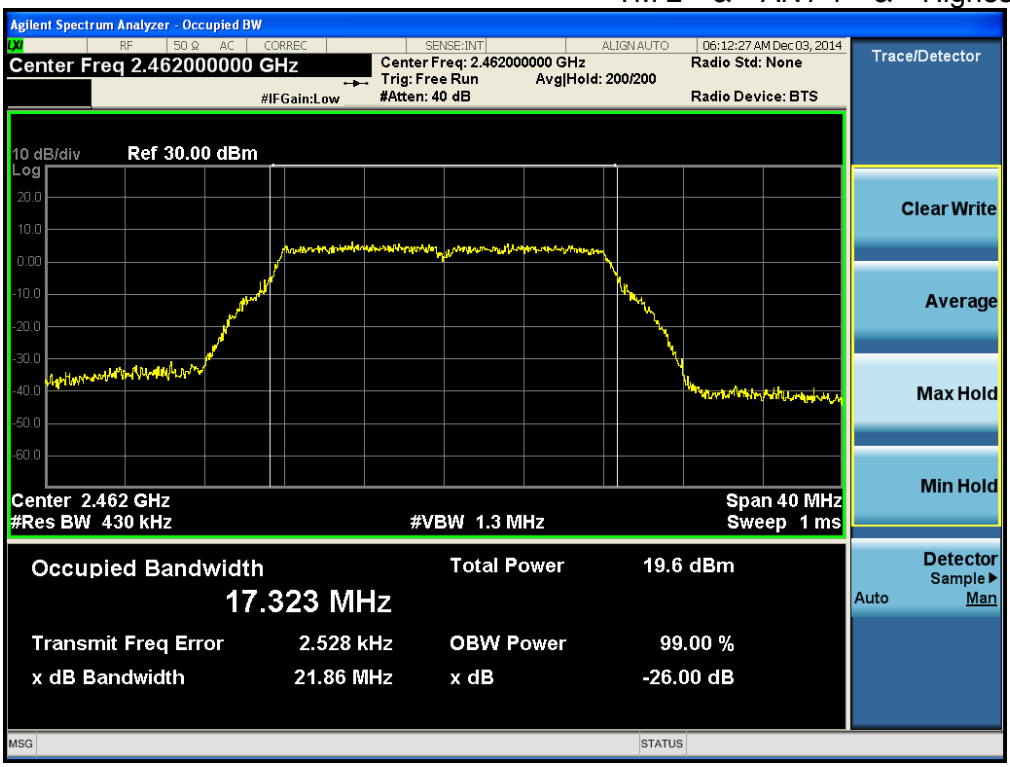


Occupied Bandwidth (99%) TM 2 & ANT 1 & Lowest

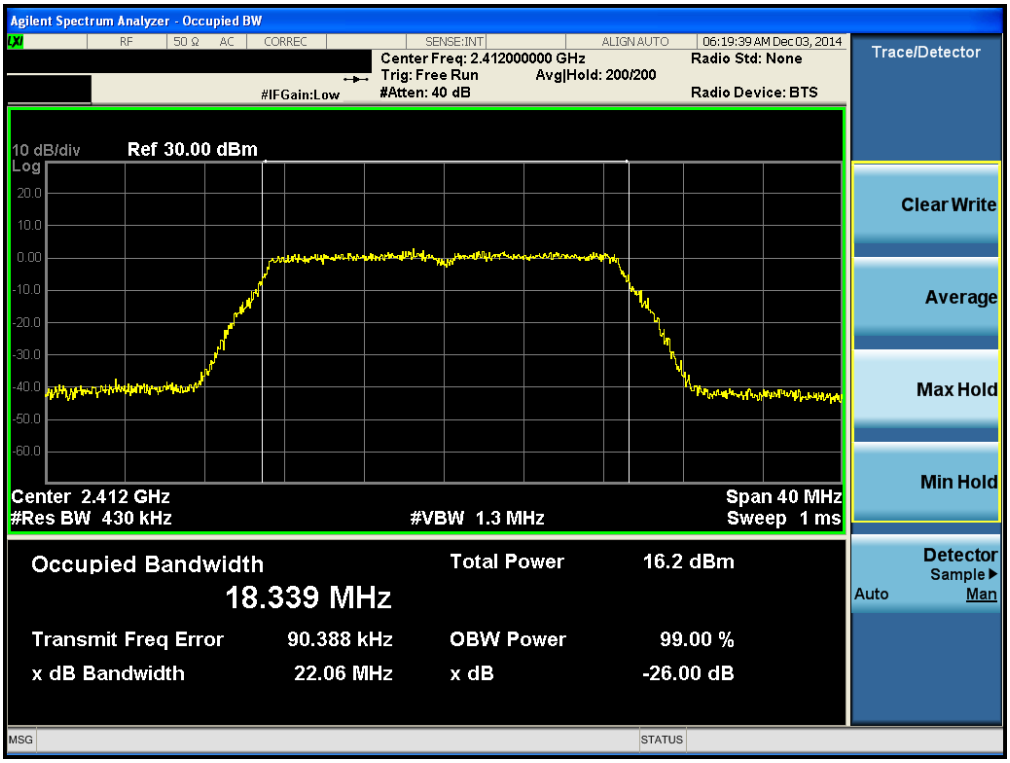


Occupied Bandwidth (99%) TM 2 & ANT 1 & Middle

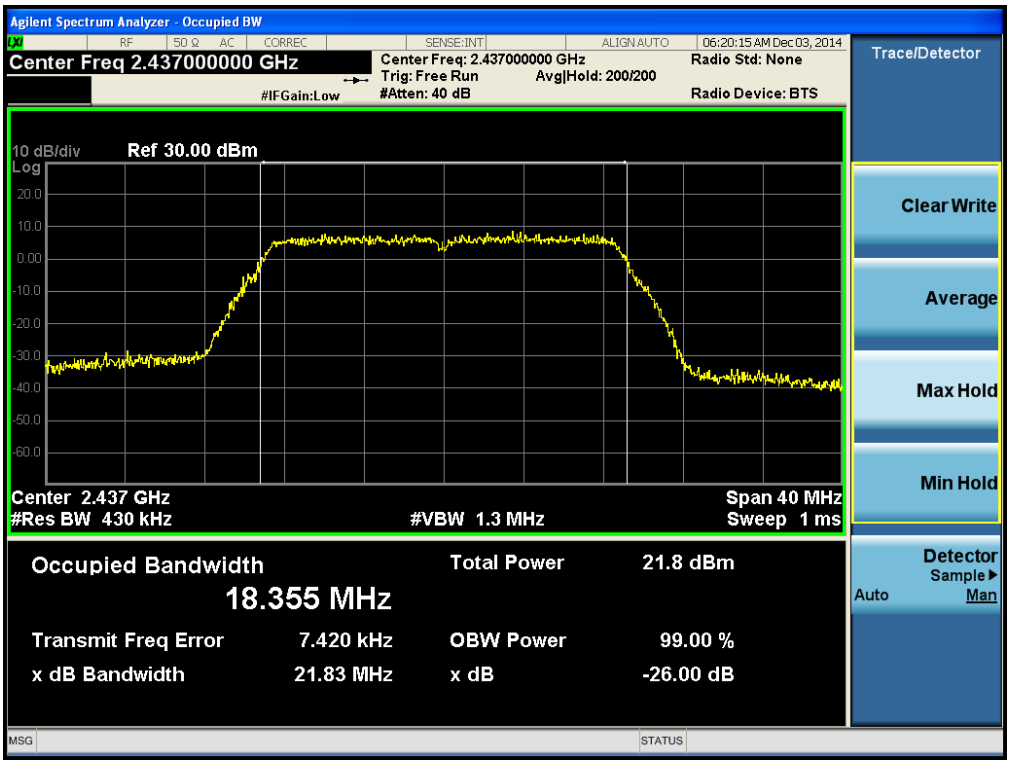
Occupied Bandwidth (99%) TM 2 & ANT 1 & Highest



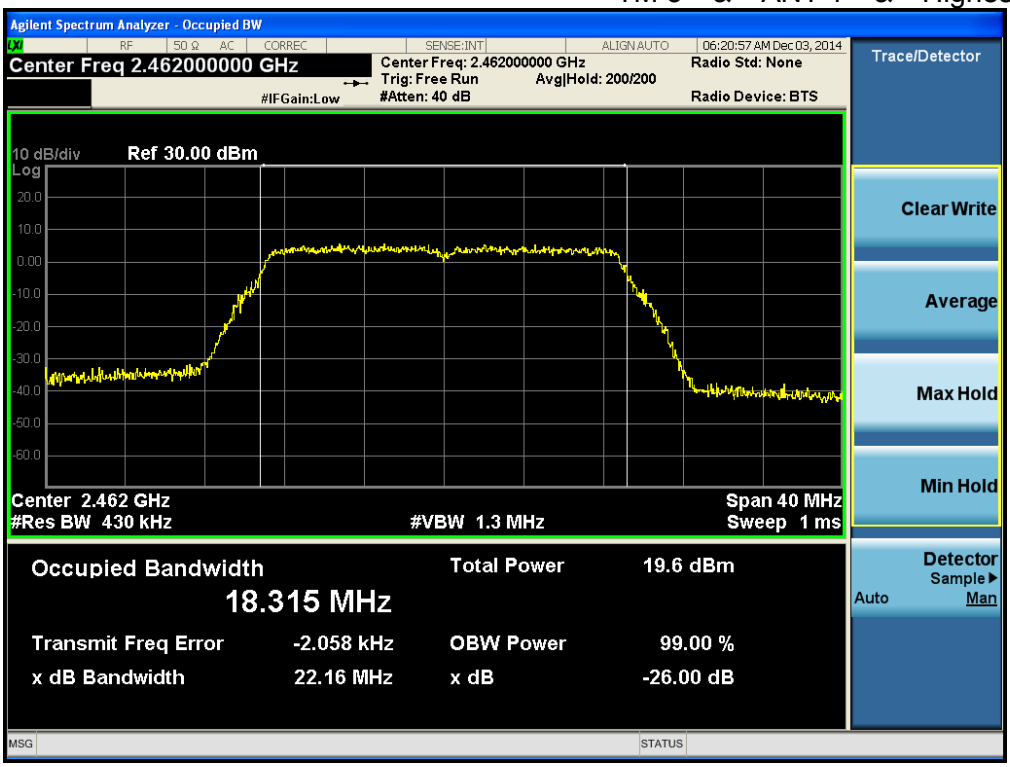
Occupied Bandwidth (99%) TM 3 & ANT 1 & Lowest



Occupied Bandwidth (99%) TM 3 & ANT 1 & Middle

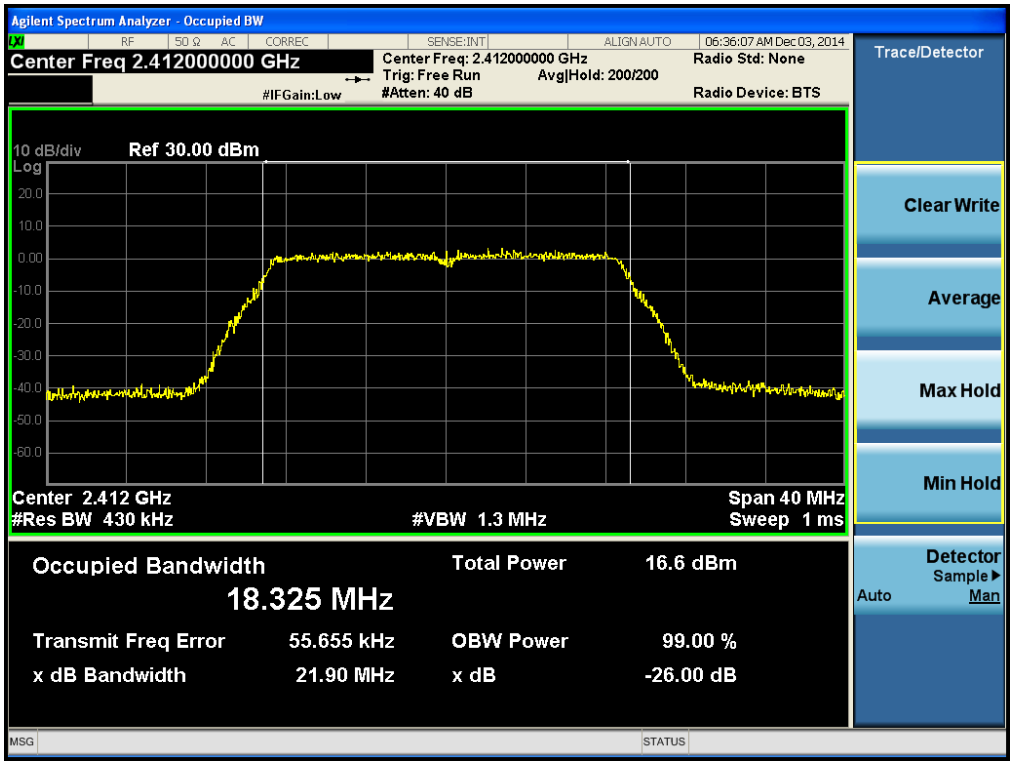


Occupied Bandwidth (99%) TM 3 & ANT 1 & Highest



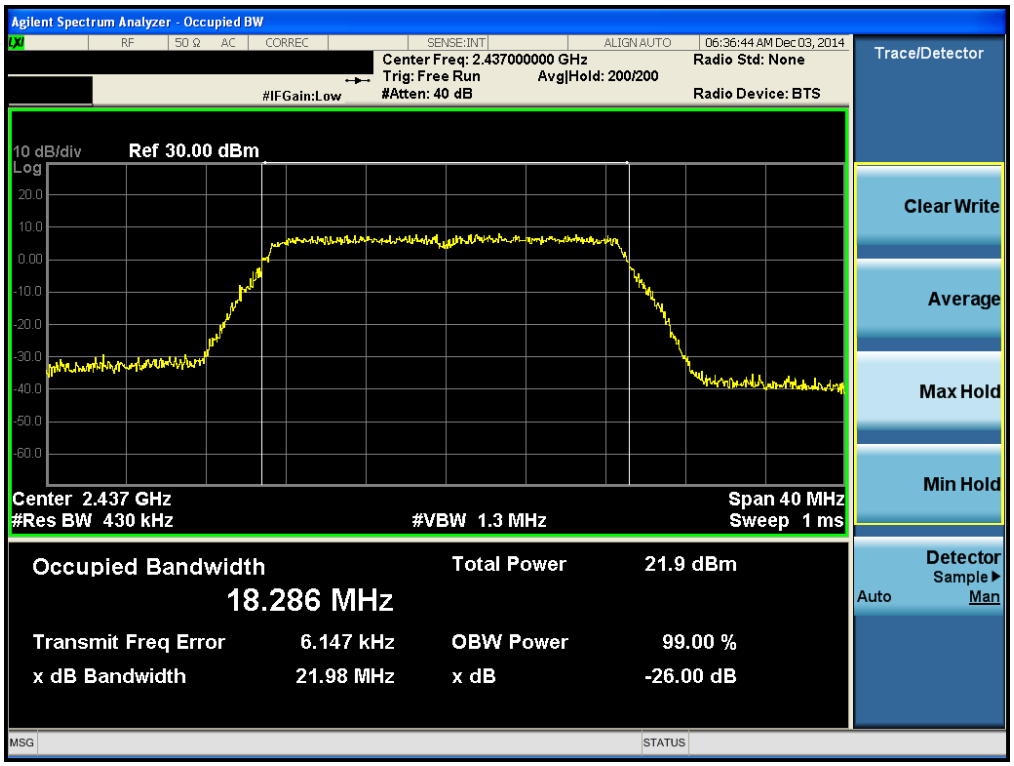
Occupied Bandwidth (99%)

TM 3 & ANT 2 & Lowest

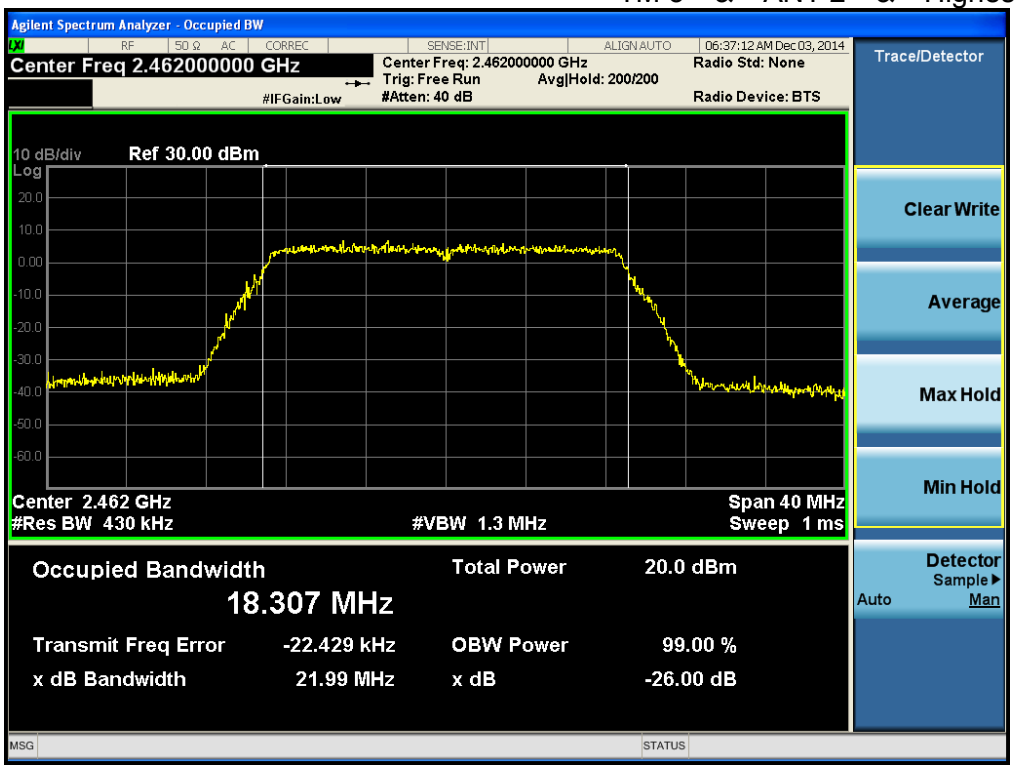


Occupied Bandwidth (99%)

TM 3 & ANT 2 & Middle

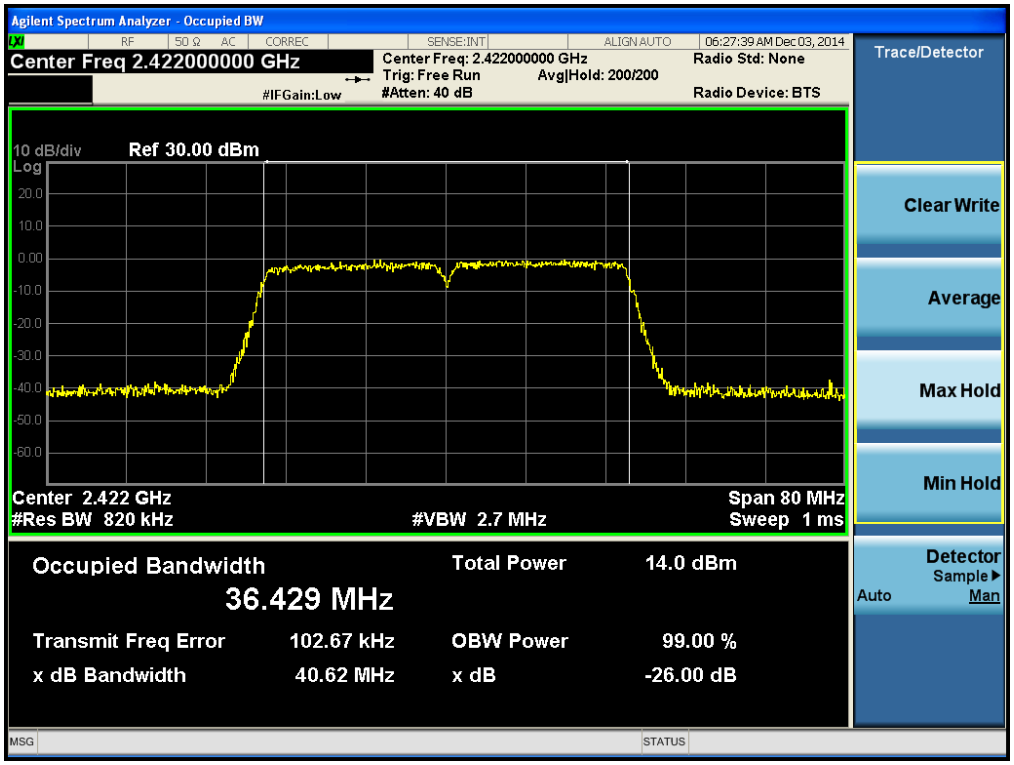


Occupied Bandwidth (99%) TM 3 & ANT 2 & Highest



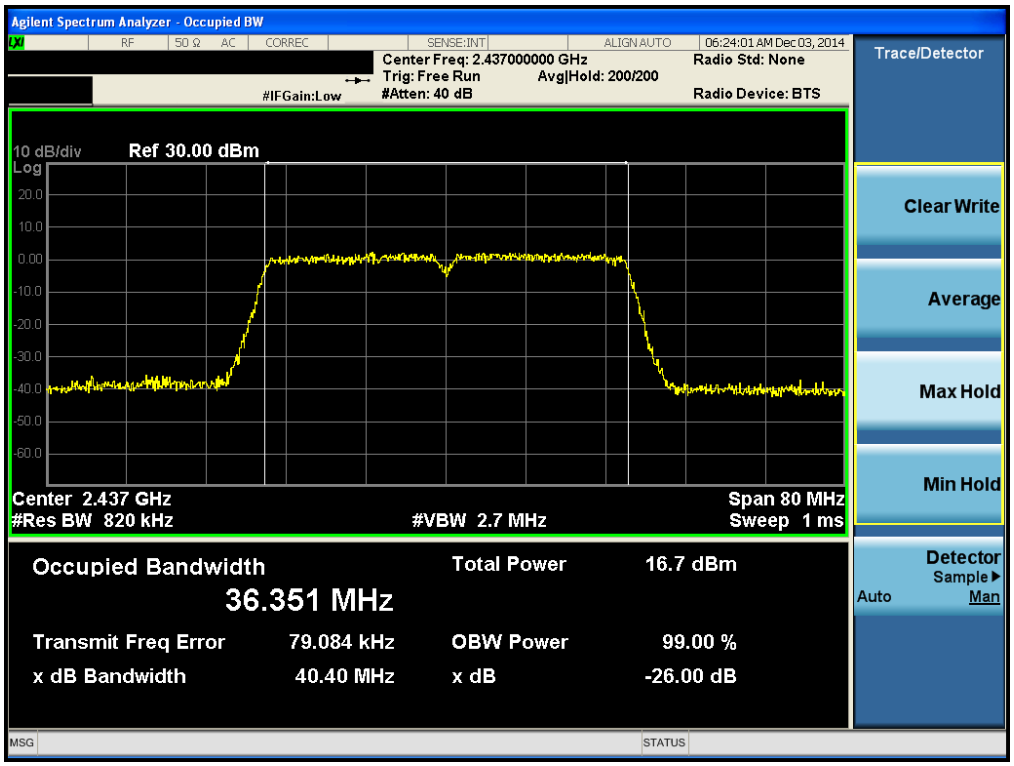
Occupied Bandwidth (99%)

TM 4 & ANT 1 & Lowest

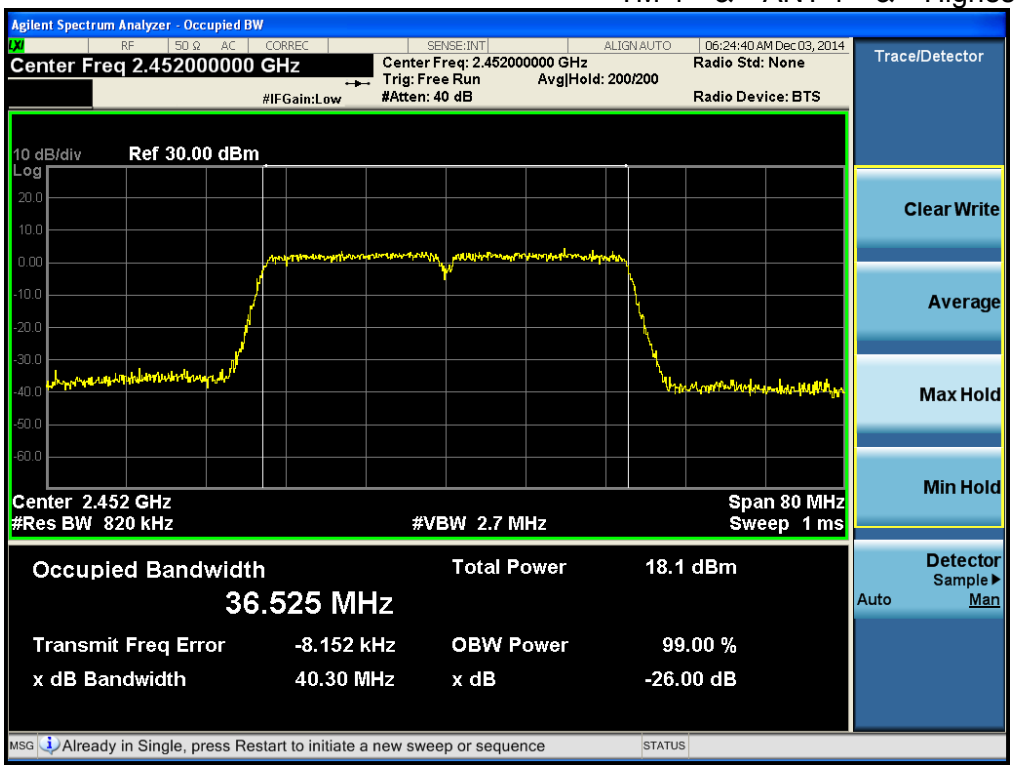


Occupied Bandwidth (99%)

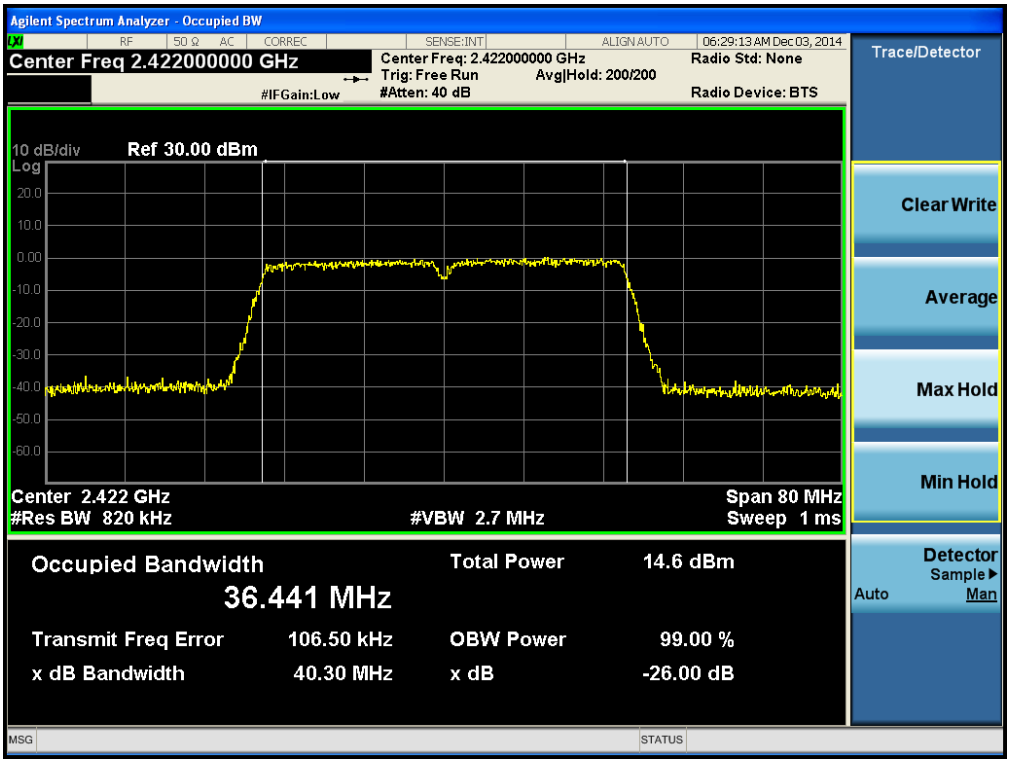
TM 4 & ANT 1 & Middle



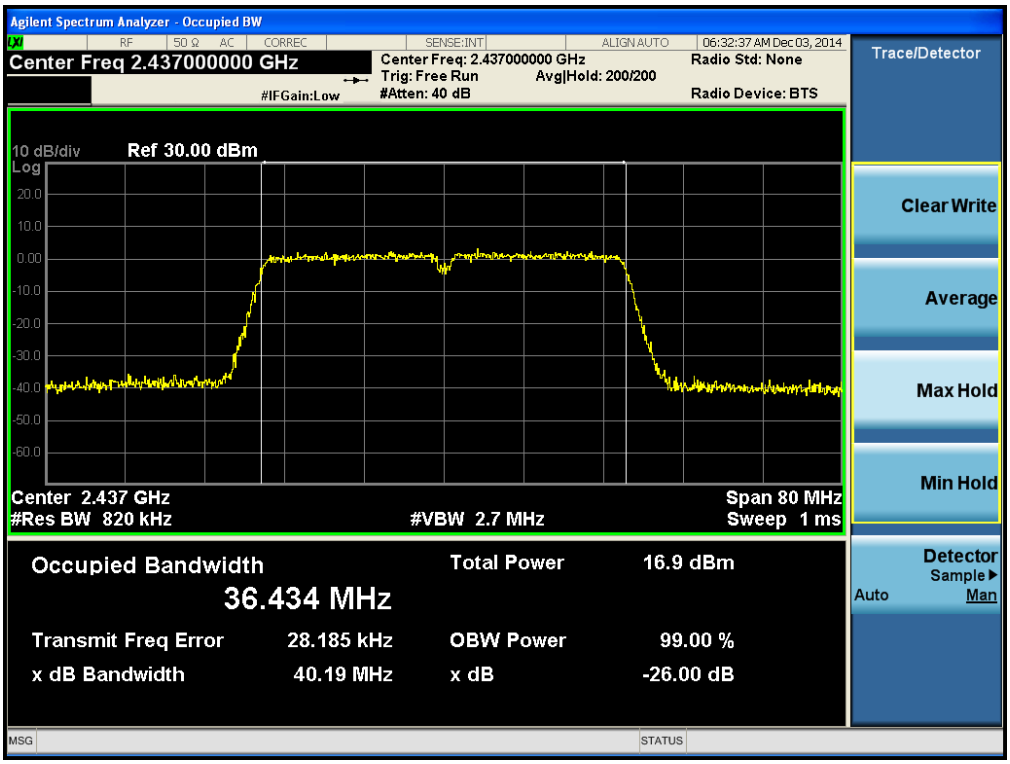
Occupied Bandwidth (99%) TM 4 & ANT 1 & Highest



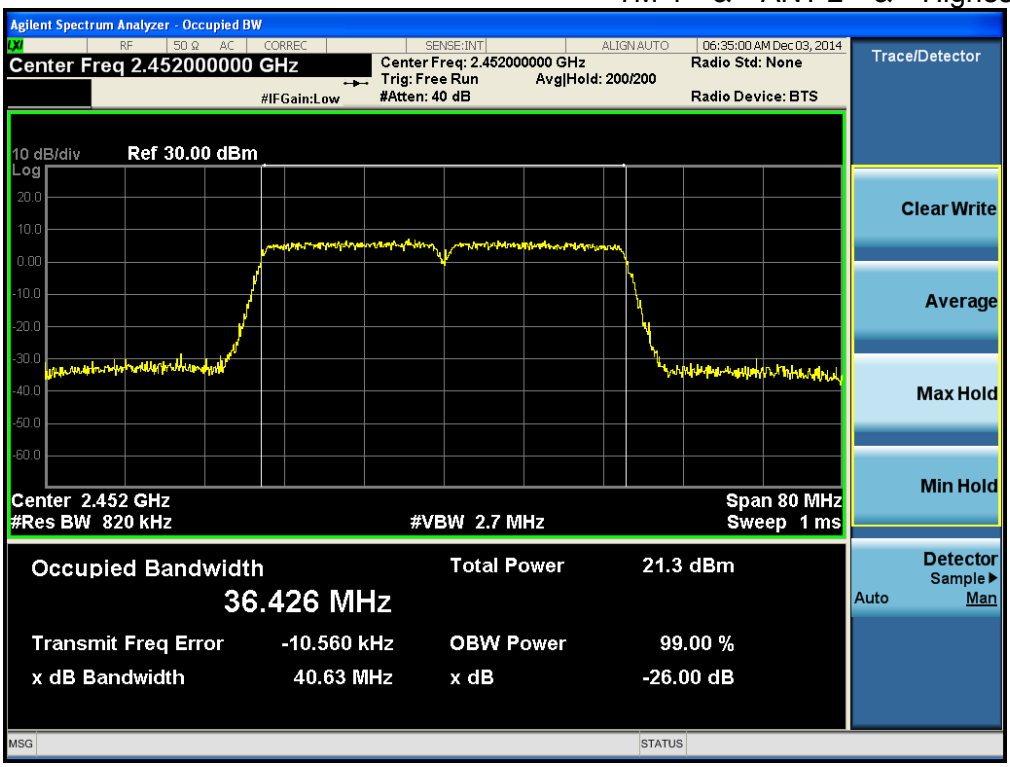
Occupied Bandwidth (99%) TM 4 & ANT 2 & Lowest



Occupied Bandwidth (99%) TM 4 & ANT 2 & Middle



Occupied Bandwidth (99%) TM 4 & 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	14/09/15	15/09/15	MY50410163
MXA Signal Analyzer	Agilent	N9020A	14/03/28	15/03/28	MY50200828
Digital Multimeter	H.P	34401A	14/02/27	15/02/27	3146A13475
Dynamic Measurement DC Source	Agilent	66332A	14/09/11	15/09/11	US37473627
Thermohygrometer	BODYCOM	BJ5478	14/03/03	15/03/03	1209
Vector Signal Generator	Rohde Schwarz	SMJ100A	14/01/07	15/01/07	100148
Signal Generator	Rohde Schwarz	SMF100A	14/07/01	15/07/01	102341
Attenuator(3dB)	SMAJK	SMAJK-2-3	14/10/21	15/10/21	3
High-pass filter	Wainwright	WHKX3.0	14/09/11	15/09/11	9
High-pass filter	Wainwright	WHNX8.0	14/01/08	15/01/08	3
LOOP Antenna	Schwarzbeck	FMZB1513	14/04/29	16/04/29	1513-128
BILOG Antenna	Schwarzbeck	VULB 9160	14/04/04	16/04/04	3357
Horn Antenna	ETS-LINDGREN	3117	14/05/12	16/05/12	00140394
Horn Antenna	A.H.Systems	SAS-574	13/03/20	15/03/20	154
Amplifier (22dB)	H.P	8447E	14/01/07	15/01/07	2945A02865
Amplifier (30dB)	Agilent	8449B	14/02/27	15/02/27	3008A00370
EMI TEST RECEIVER	R&S	ESU	14/01/07	15/01/07	100014
EMI TEST RECEIVER	R&S	ESCI	14/02/27	15/02/27	100910
CVCF	NF	4420	14/05/26	15/05/26	3049354420023
Artificial Mains Network	Narda S.T.S. / PMM	PMM L2-16B	14/06/26	15/06/26	000WX20305
PULSE LIMITER	R&S	ESH3-Z2	14/01/08	15/01/08	101334

APPENDIX I

Duty cycle information

TEST PROCEDURE

Duty cycle measured using **section 6.0 b) of KDB 558074 D01 DTS Meas. Guidance v03r2 :**

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.

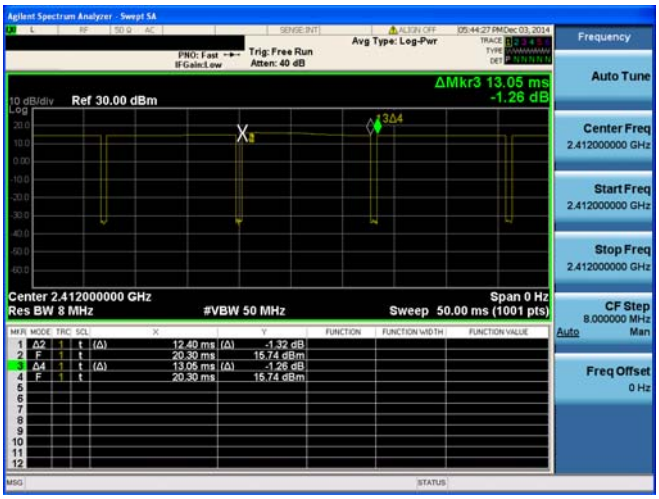
Set the center frequency of the instrument to the center frequency of the transmission. Set RBW ≥ OBW if possible; otherwise, set RBW to the largest available value. Set VBW ≥ RBW. Set detector = peak or average.

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	Tested frequency	T_{ON} (ms)	T_{ON+OFF} (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)
TM 1	Middle	12.40	13.05	95.02	0.23
TM 2	Middle	2.07	2.18	94.95	0.23
TM 3	Middle	1.92	2.02	95.05	0.23
TM 4	Middle	0.94	1.04	90.38	0.44

Please refer to next page for actual test plot.

Duty cycle data : **TM 1** & **ANT 1**	Duty cycle data : **TM 2** & **ANT 1**
	

Duty cycle data : **TM 3** & **ANT 1**	Duty cycle data : **TM 4** & **ANT 1**