



Appendix for Test report

Appendix A: DTS (6 dB) Bandwidth

In this document, the "DTS6dBBW" refers to the measured "DTS (6 dB) Bandwidth" value. In this Appendix, the "fc(DTS6dBBW)" refers to the centre of the measured "DTS6dBBW". The introduction of the "fc(DTS6dBBW)" is due to that other measurements use it as the spectrum analyzer setting.

For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain, and used as respective results for each chain.

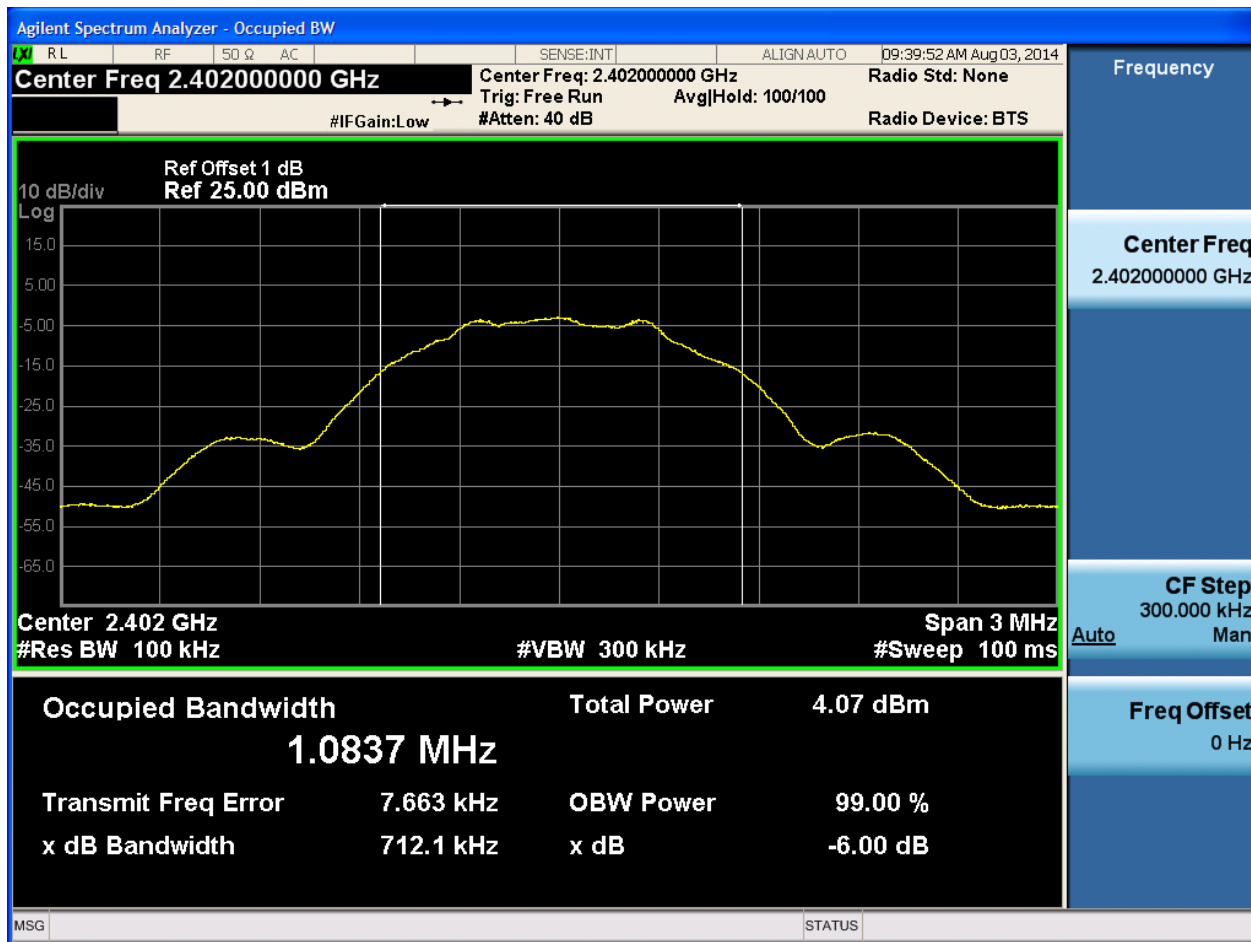
Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	DTS6dBBW[MHz]	Verdict
TM1_DH5_Ch0	L	2402	0.71	pass
TM1_DH5_Ch19	M	2440	0.72	pass
TM1_DH5_Ch39	H	2480	0.72	pass



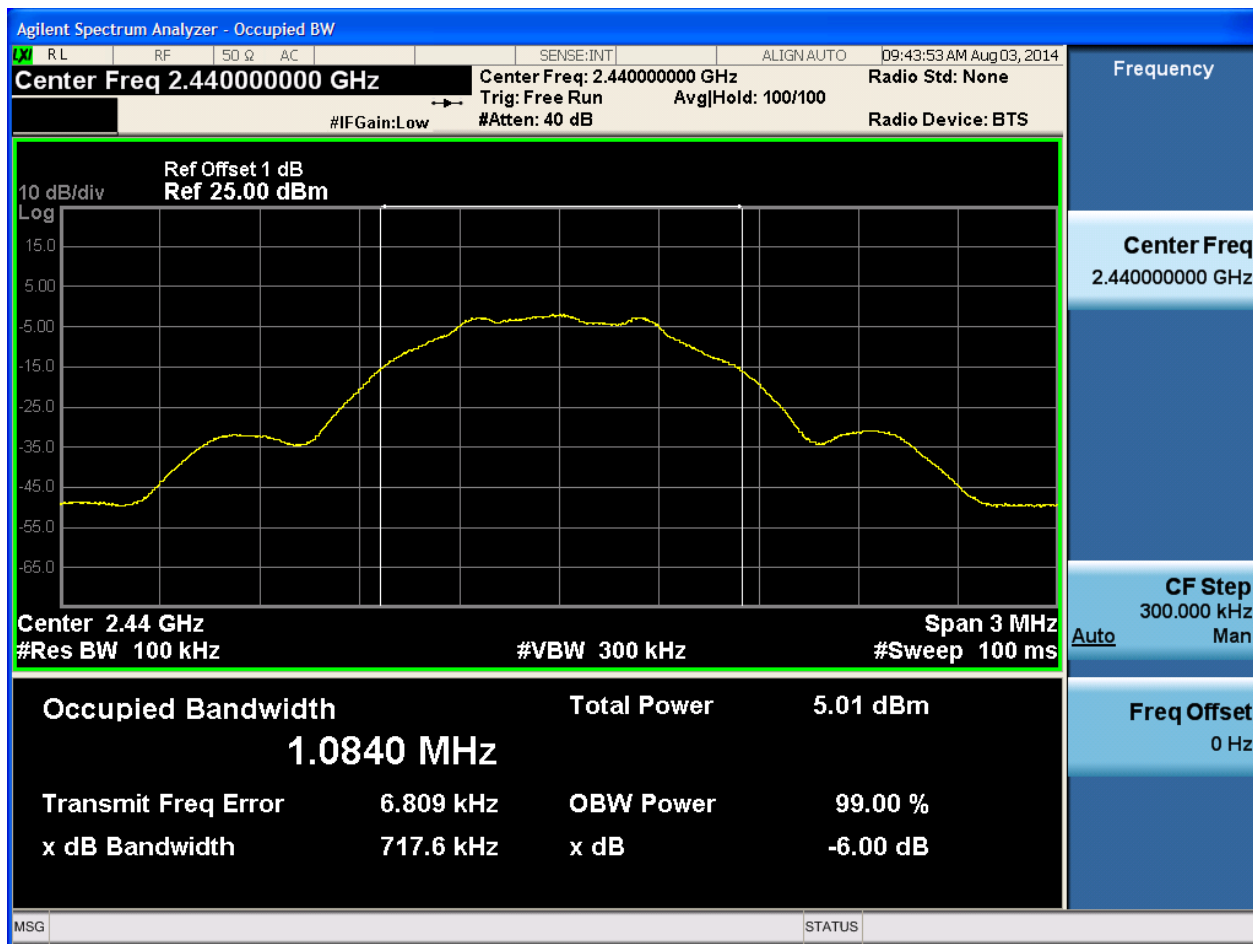
Part II - Test Plots

2.1 11B_L



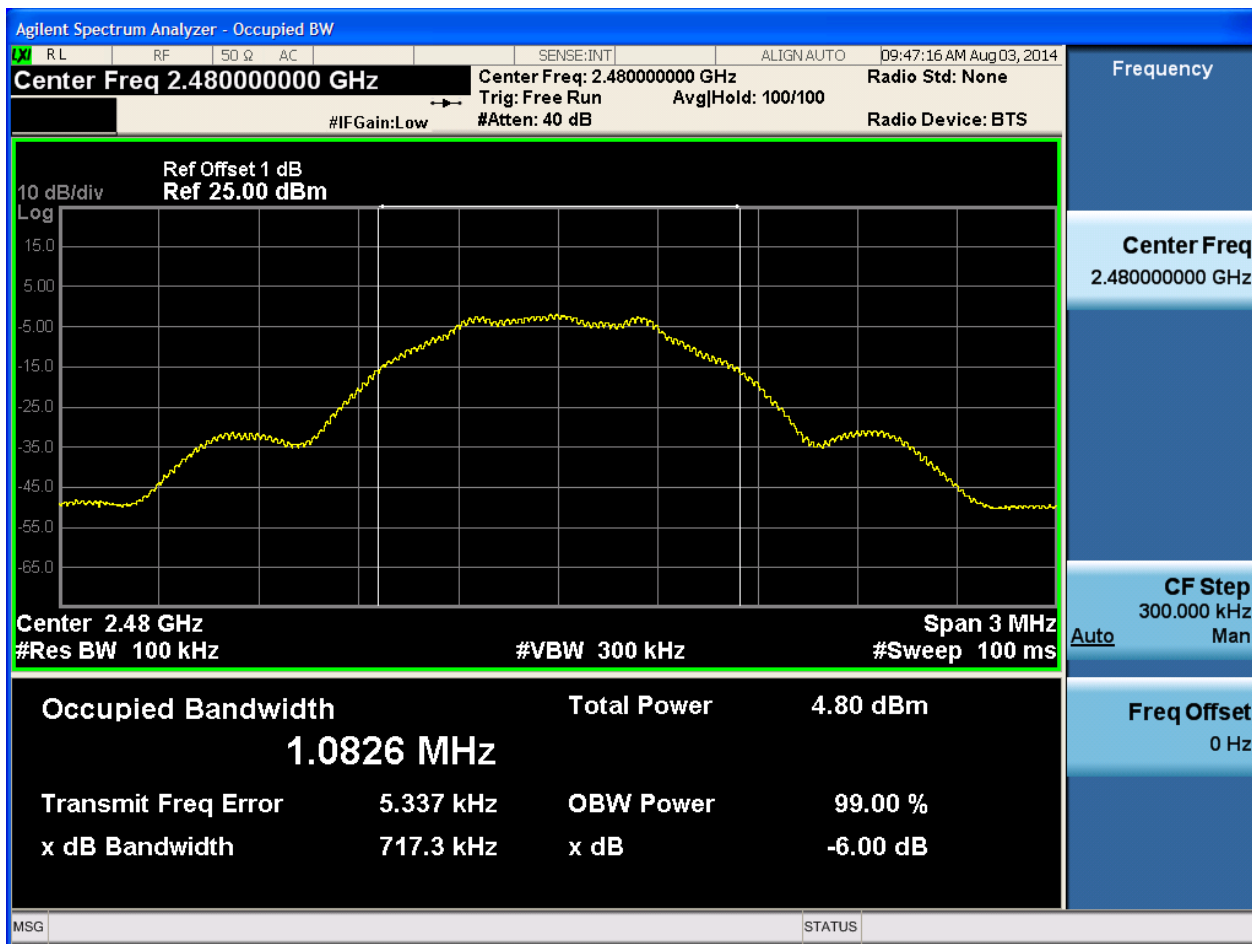


2.2 11B_M





2.3 11B_H



Appendix B: Maximum Conducted Power

Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Power [dBm]	Verdict
TM1_DH5_Ch0	L	2402	6.51	pass
TM1_DH5_Ch19	M	2440	7.27	pass
TM1_DH5_Ch39	H	2480	7.01	pass

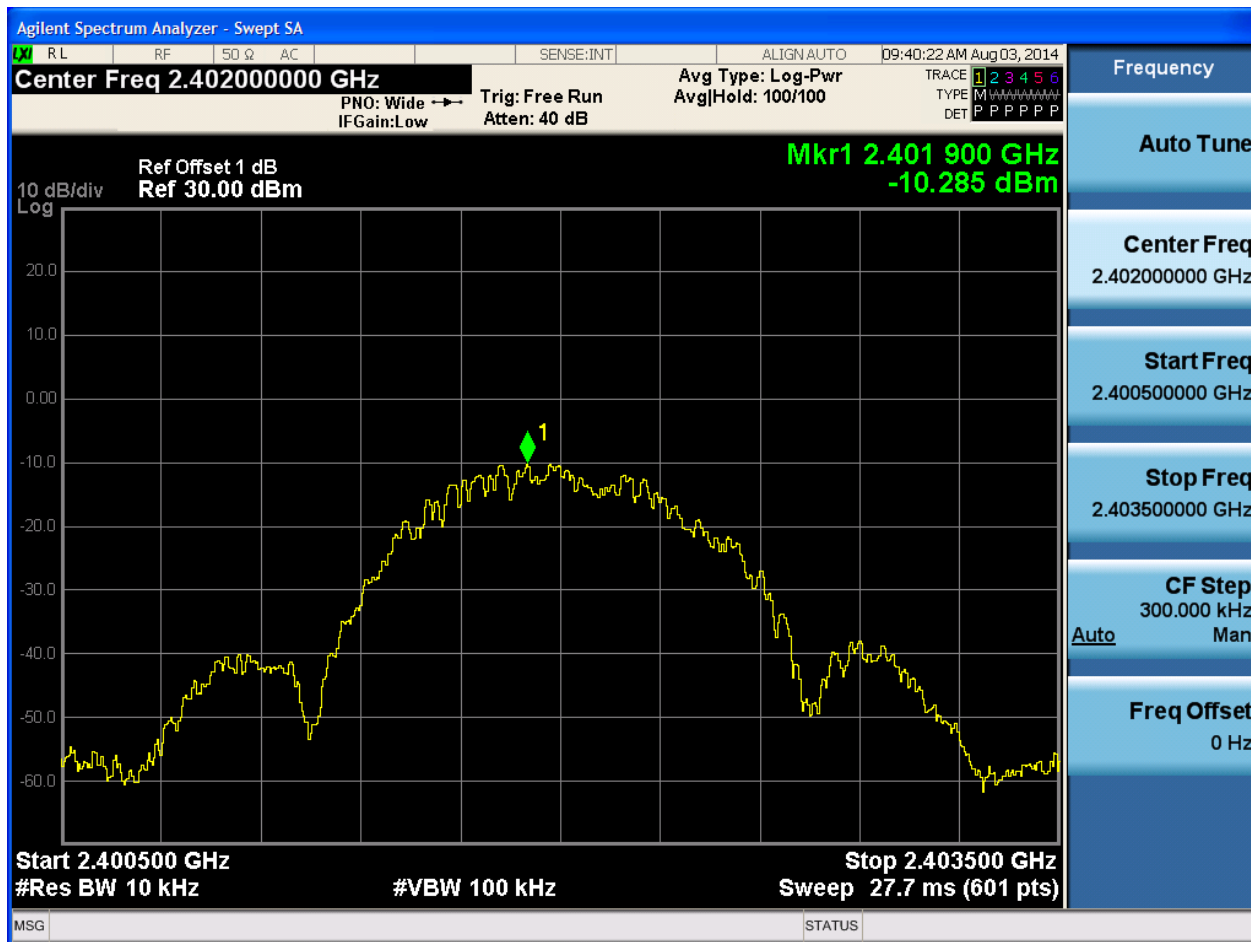
Appendix C: Maximum Power Spectral Density Level

Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	PD[dBm/MHz]	Verdict
TM1_DH5_Ch0	L	2402	-10.29	pass
TM1_DH5_Ch19	M	2440	-9.28	pass
TM1_DH5_Ch39	H	2480	-9.54	pass

Part II - Test Plots

2.1 11B_L





2.2 11B_M





2.3 11B_H



Appendix D: Band Edges Compliance

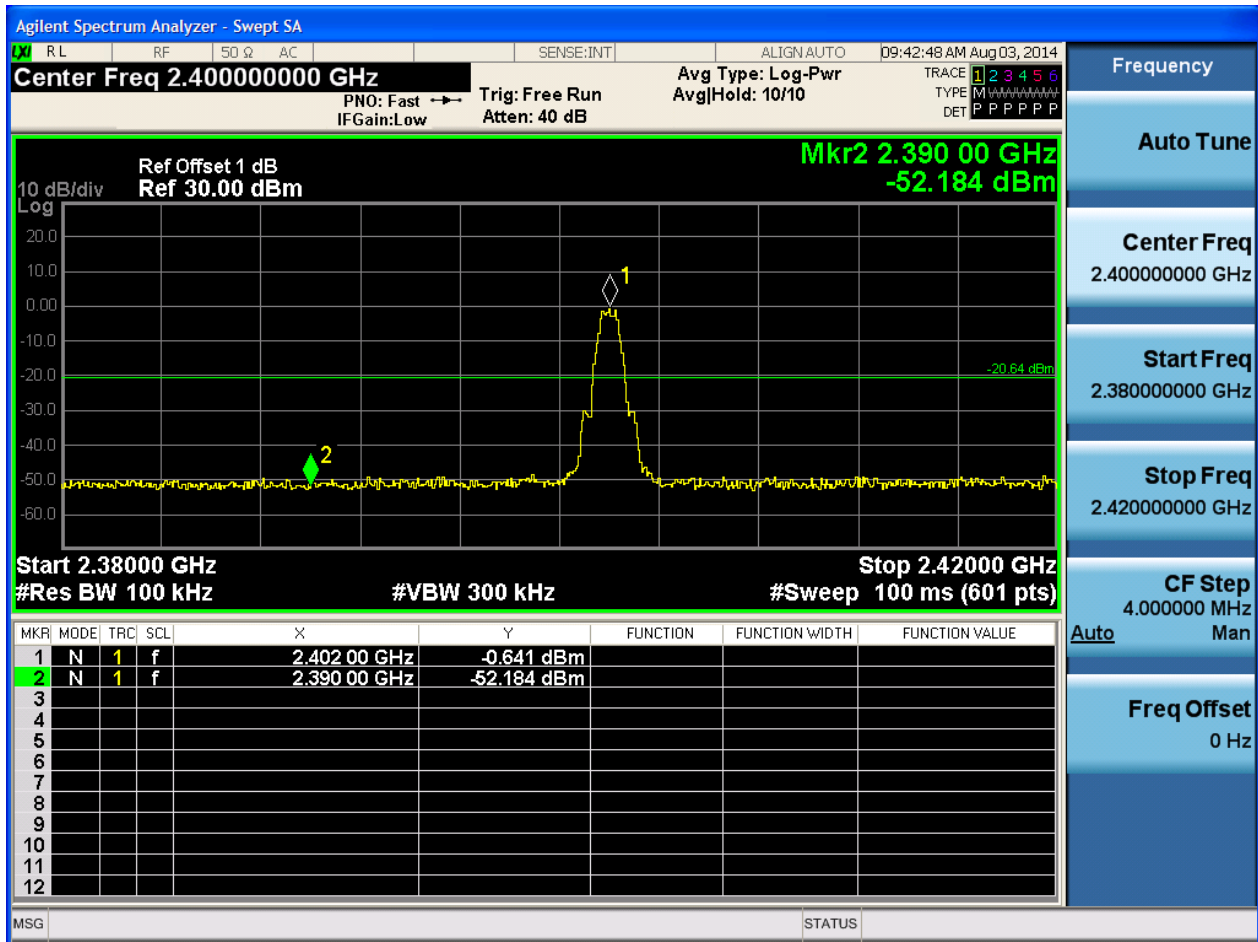
Part I - Test Results

Test Mode	Test Channel	Frequency[M Hz]	Carrier Power[dBm]	Max.Spurious Level[dBm]	Verdict
TM1_DH5_Ch0	L	2402	-0.64	-52.18	pass
TM1_DH5_Ch39	H	2480	0.44	-50.27	pass



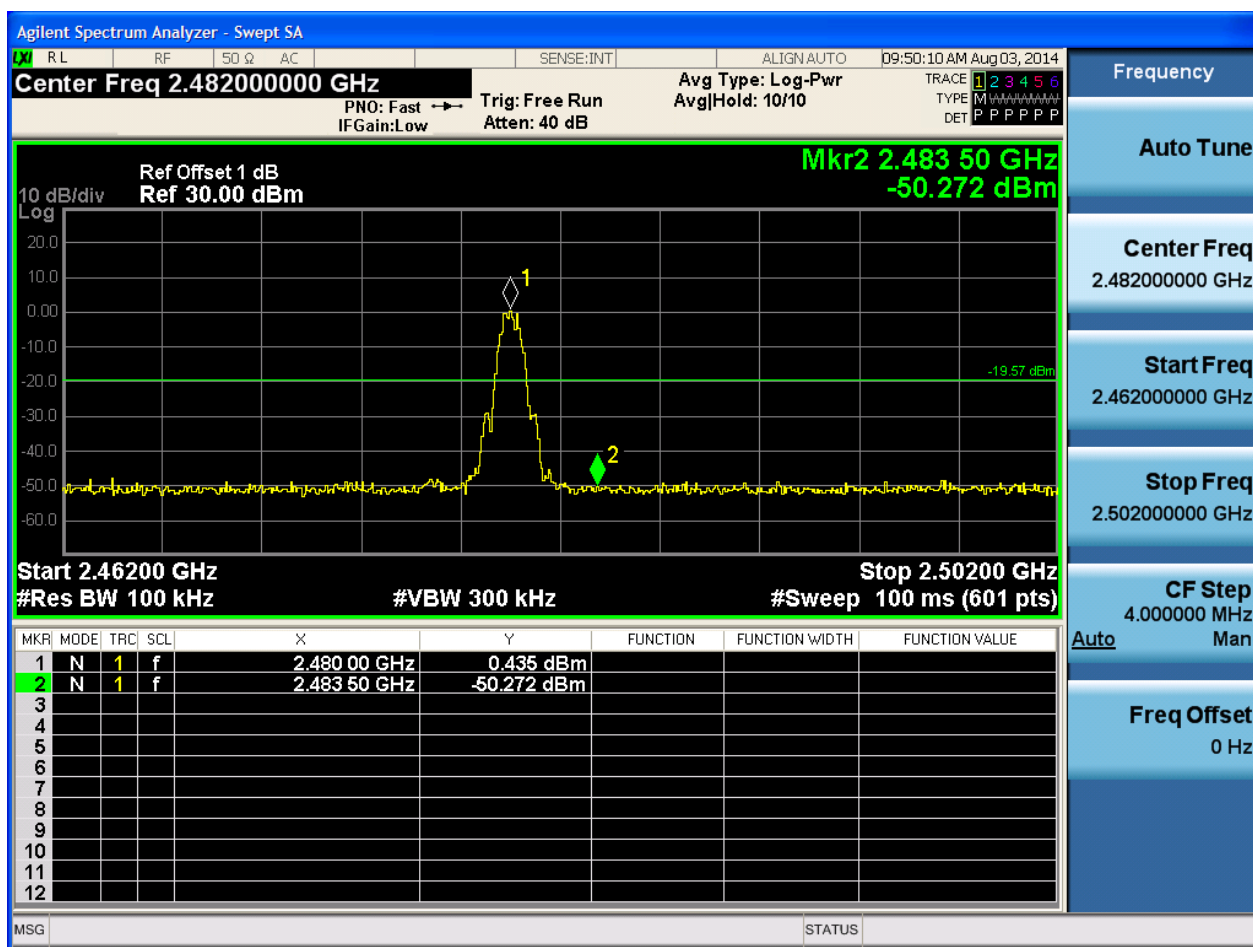
Part II - Test Plots

2.1 11B_L





2.2 11B_H



Appendix E: Unwanted Emissions into Non-Restricted Frequency

Bands

In this Appendix, the "Pref", which is used as the reference level, refers to the peak power level in any 100 kHz bandwidth within the fundamental emission, the "Puw" refers to the maximum emission power in 100 kHz band segments outside of the authorized frequency band.

Considering that the higher ratio of RBW to the span for the frequency ranges below 30 MHz makes the results determination be complicated, a narrower RBW other than 100 kHz is used for these ranges. The measured value should add a RBW correction factor (RBWCF) where $RBWCF [dB] = 10 \times \lg(100 [kHz]/\text{narrower RBW} [kHz])$. As to this Appendix, the narrower RBW is 1 kHz and RBWCF is 20 dB for the frequency 9 kHz to 150 kHz, and the narrower RBW is 10 kHz and RBWCF is 10 dB for the frequency 150 kHz to 30 MHz.

For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain and used as respective results for each chain, due to the relative-limit requirement.

In the result table, the "< Limit" denotes that "The Puw [dBm] is less than Pref[dBm]-20[dBm], see test plots for detailed".

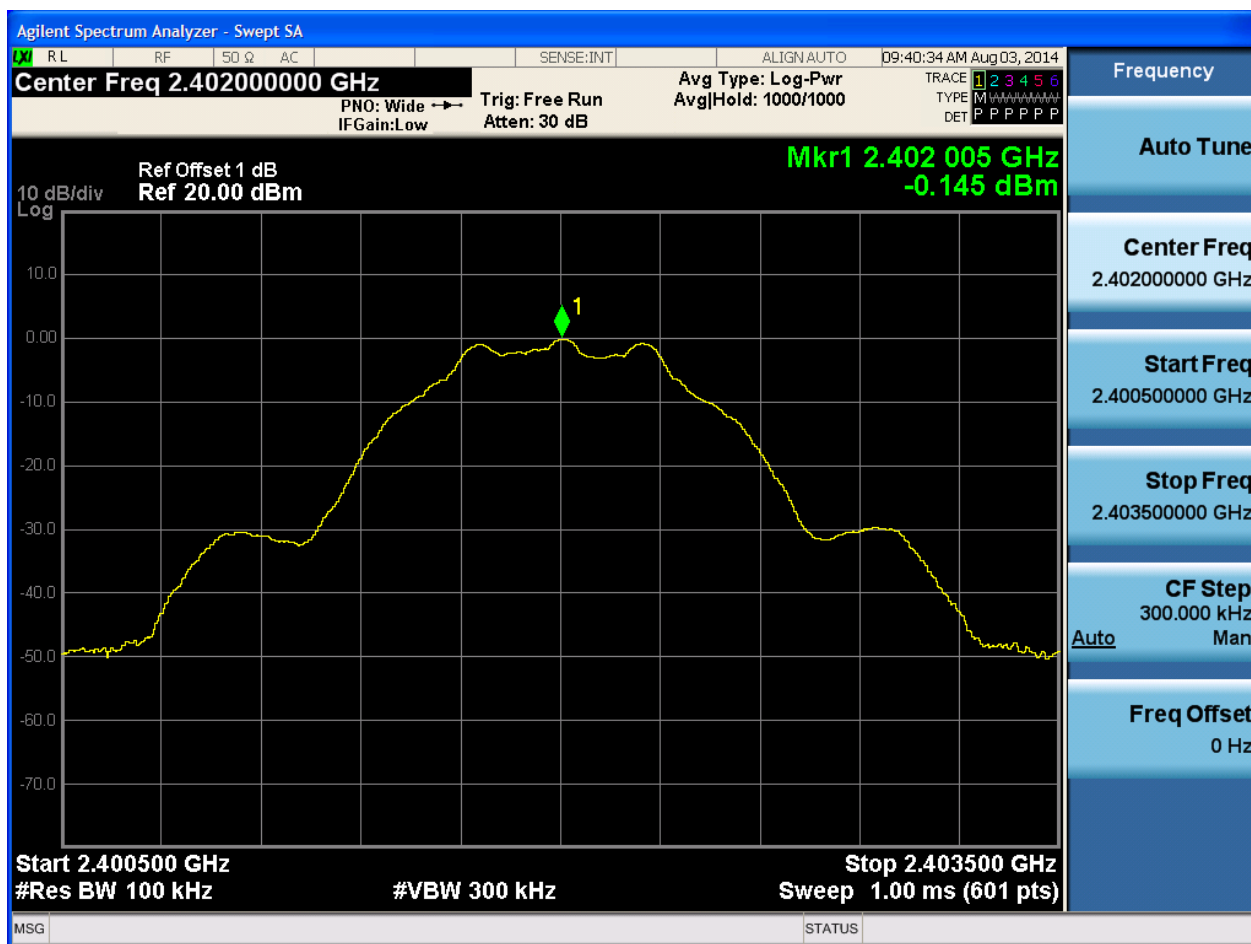
Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Pref[dBm]	Puw[dBm]	Verdict
TM1_DH5_Ch0	L	2402	-0.14	<limit	pass
TM1_DH5_Ch19	M	2440	0.83	<limit	pass
TM1_DH5_Ch39	H	2480	0.64	<limit	pass

Part II - Test Plots

2.1 11B_H

Pref:





Agilent Spectrum Analyzer - Swept SA

Center Freq 79.500 kHz

Ref Offset 1 dB
Ref 16.00 dBm

10 dB/div
Log

Start 9.00 kHz
#Res BW 1.0 kHz

Stop 150.00 kHz
Sweep 135 ms (601 pts)

#VBW 3.0 kHz

Mkr1 9.000 kHz
-49.459 dBm

-40.15 dBm

1

Trig: Free Run
#Atten: 30 dB

PNO: Wide
IFGain: Low

Avg Type: Log-Pwr
Avg/Hold: 50/50

ALIGN: AUTO

09:40:50 AM Aug 03, 2014

TRACE 1 2 3 4 5 6
TYPE M M M M M M M M
DET P P P P P P

Frequency

Auto Tune

Center Freq
79.500 kHz

Start Freq
9.000 kHz

Stop Freq
150.000 kHz

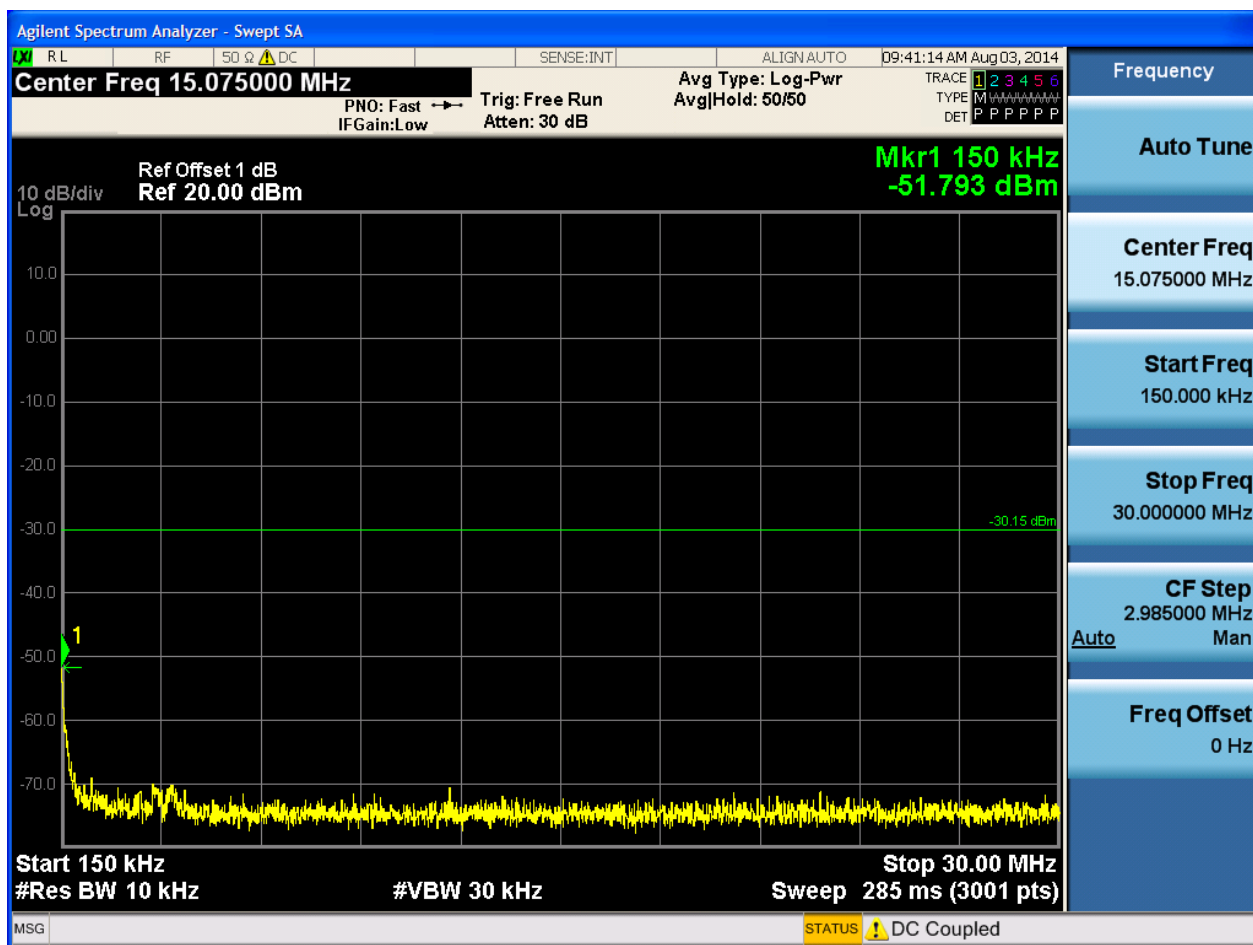
CF Step
14.100 kHz
Man

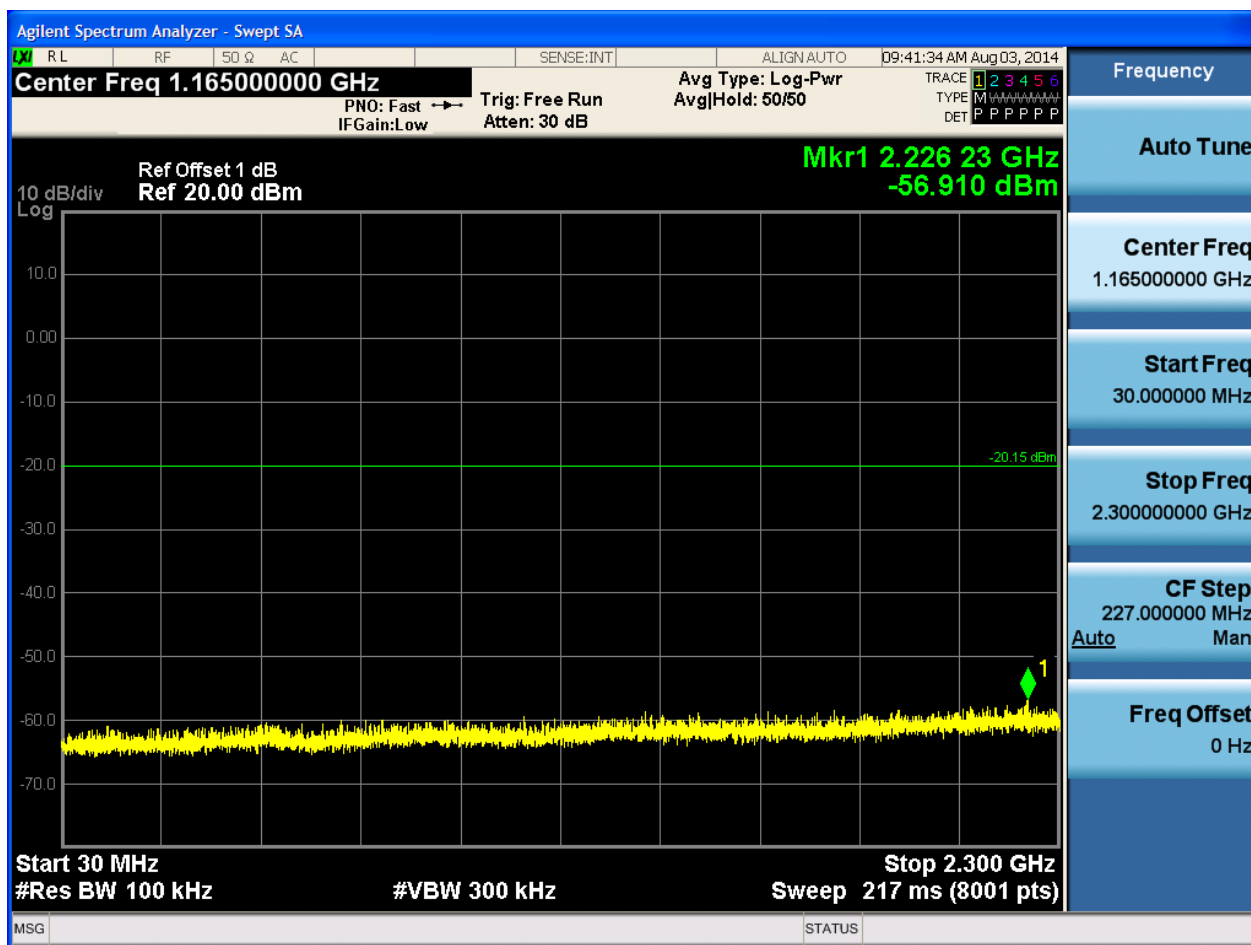
Auto

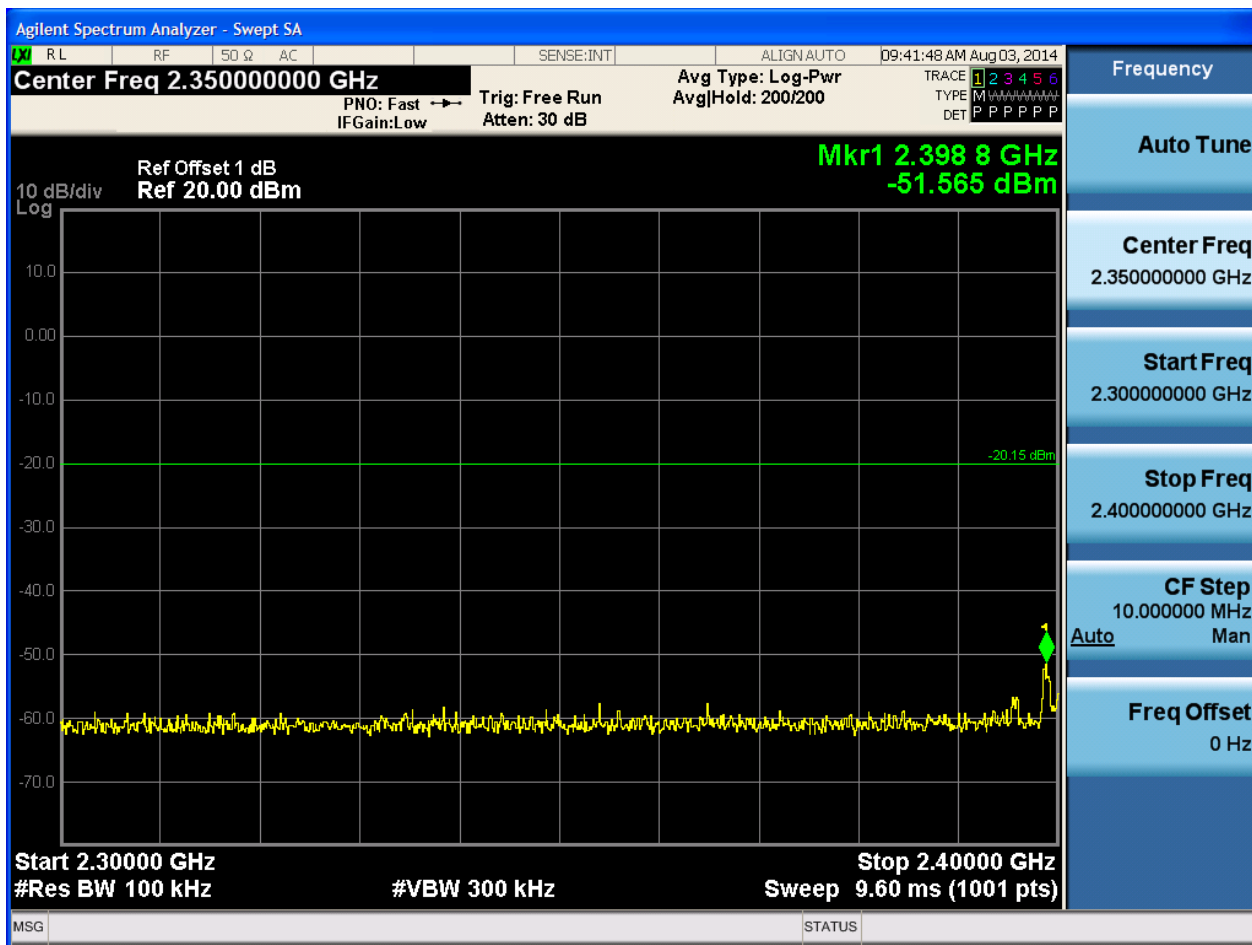
Freq Offset
0 Hz

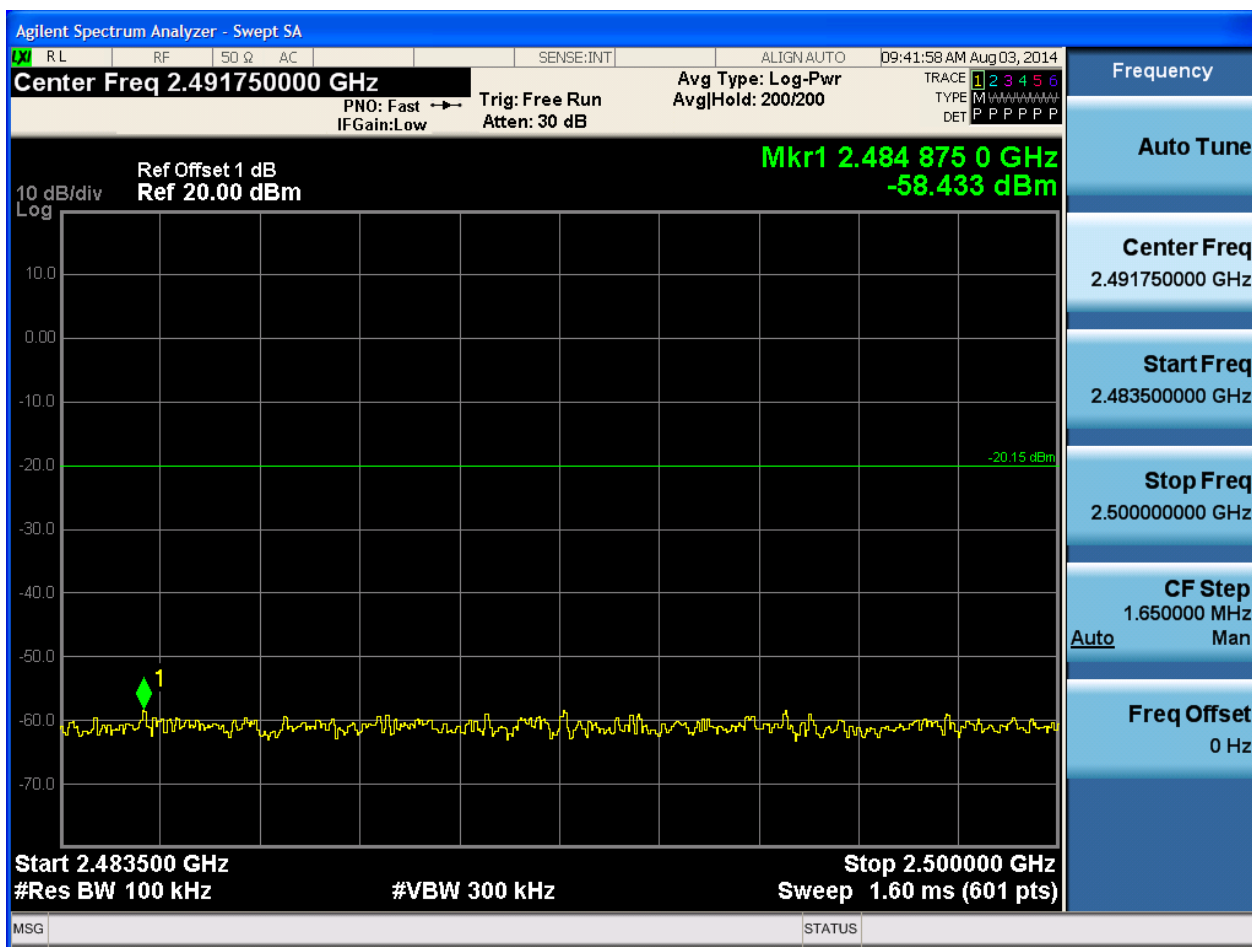
MSG

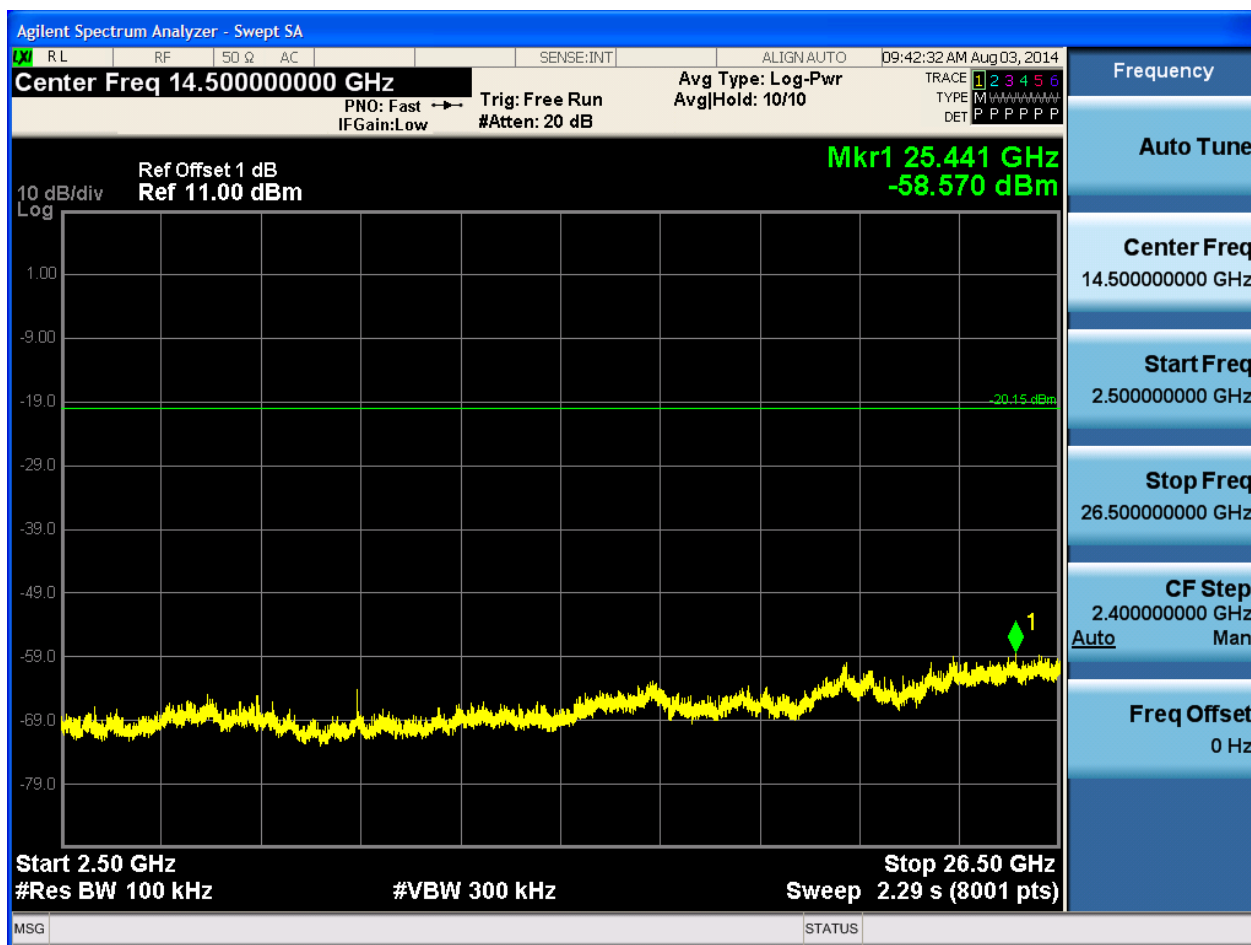
STATUS DC Coupled







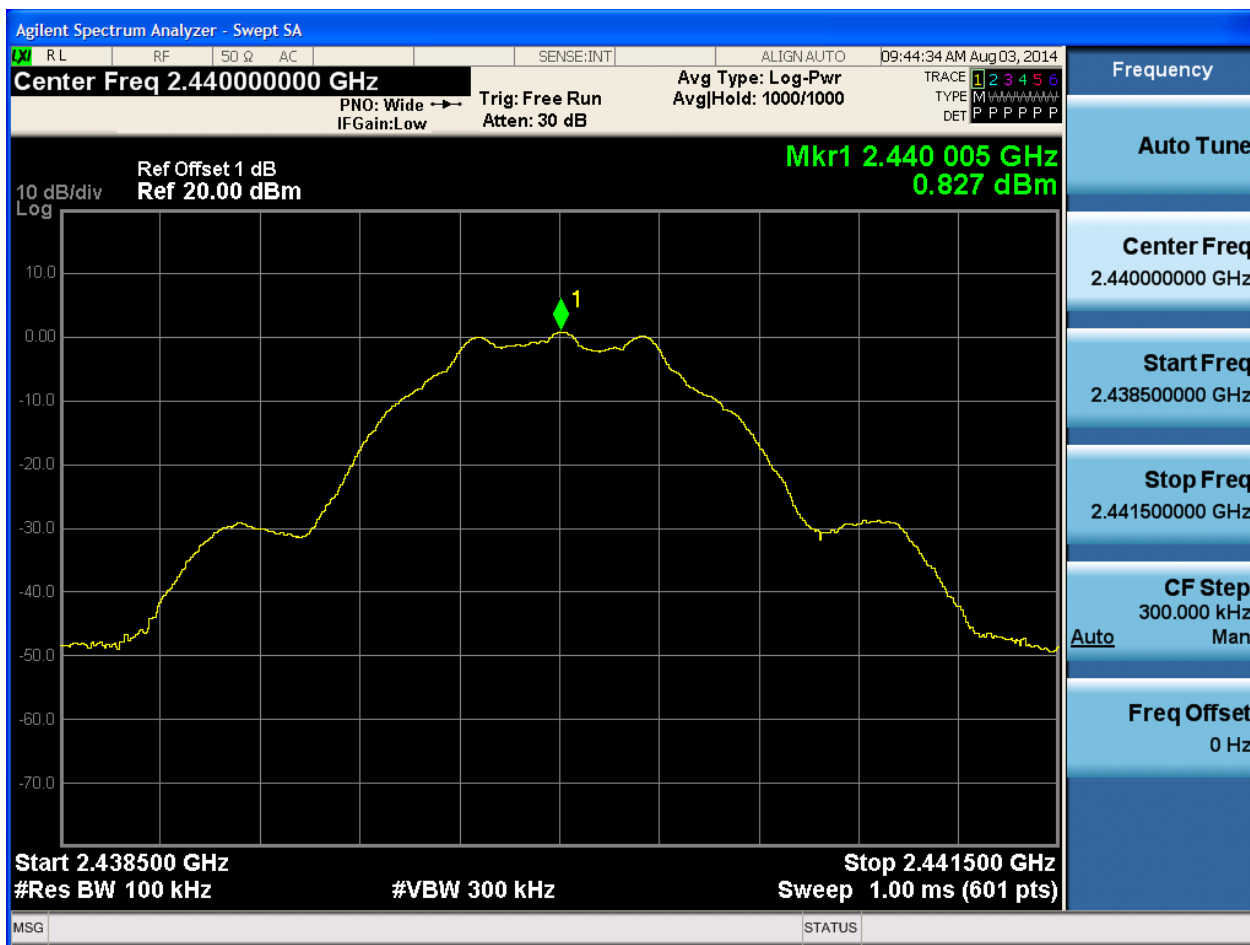






2.2 11B_H

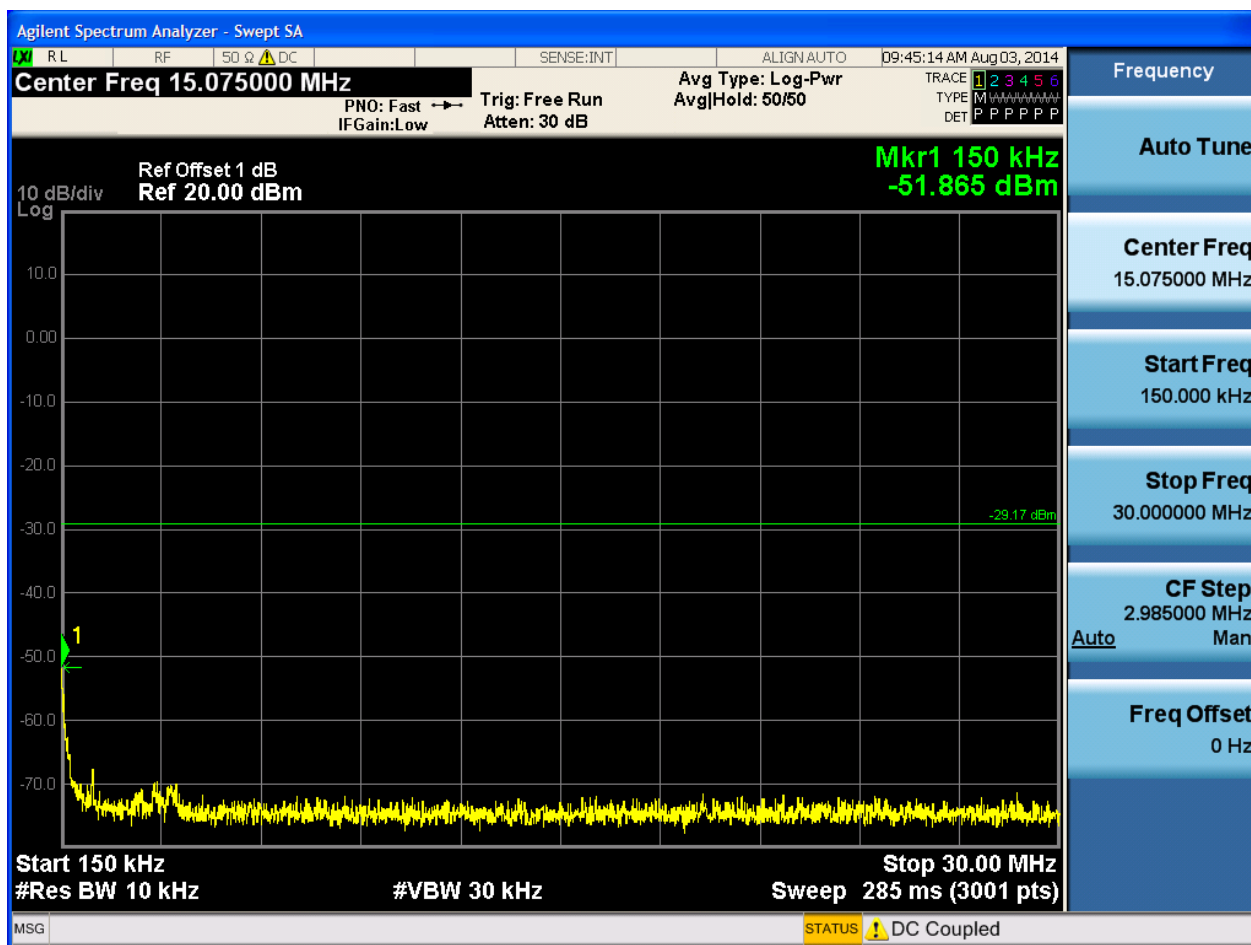
Pref:

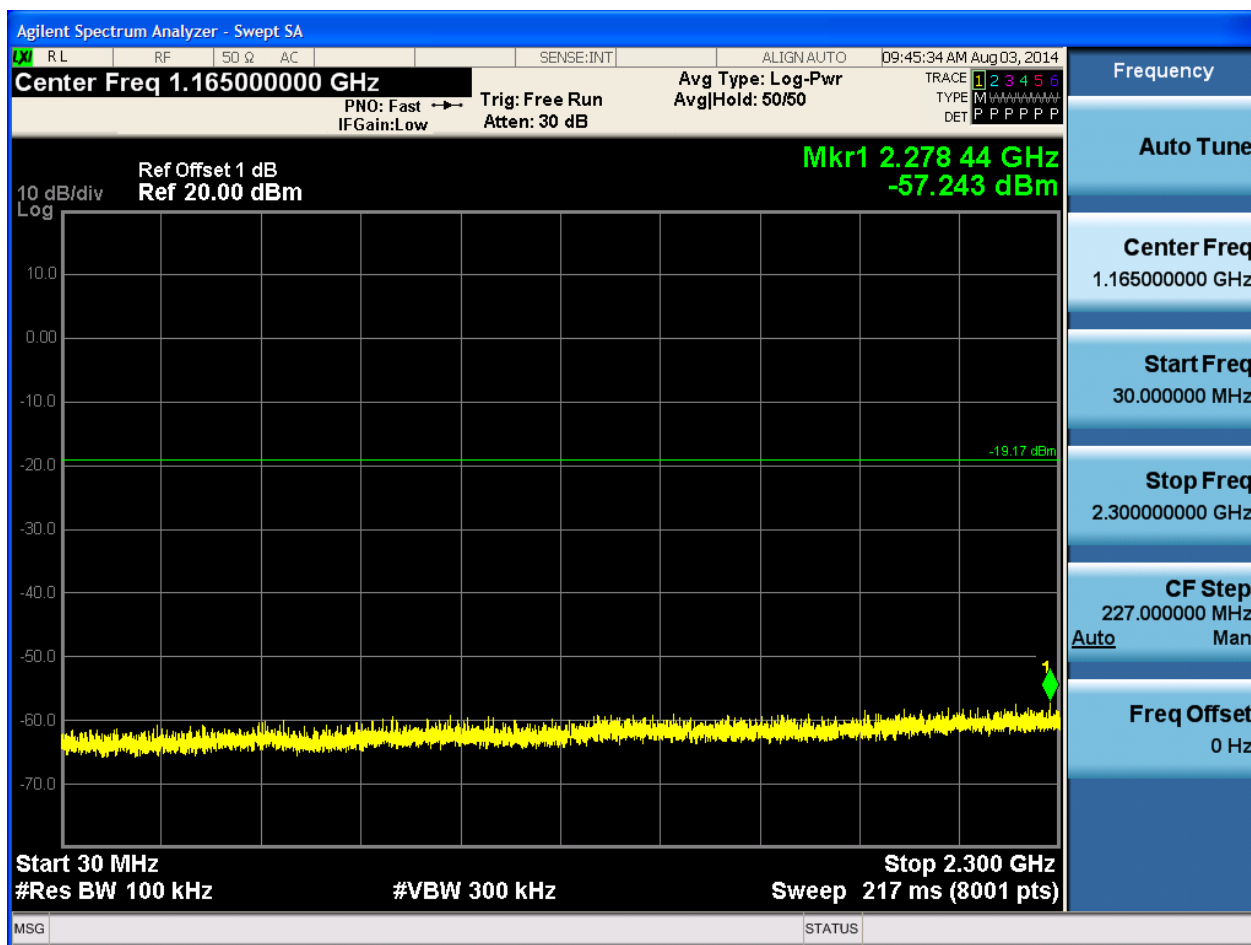


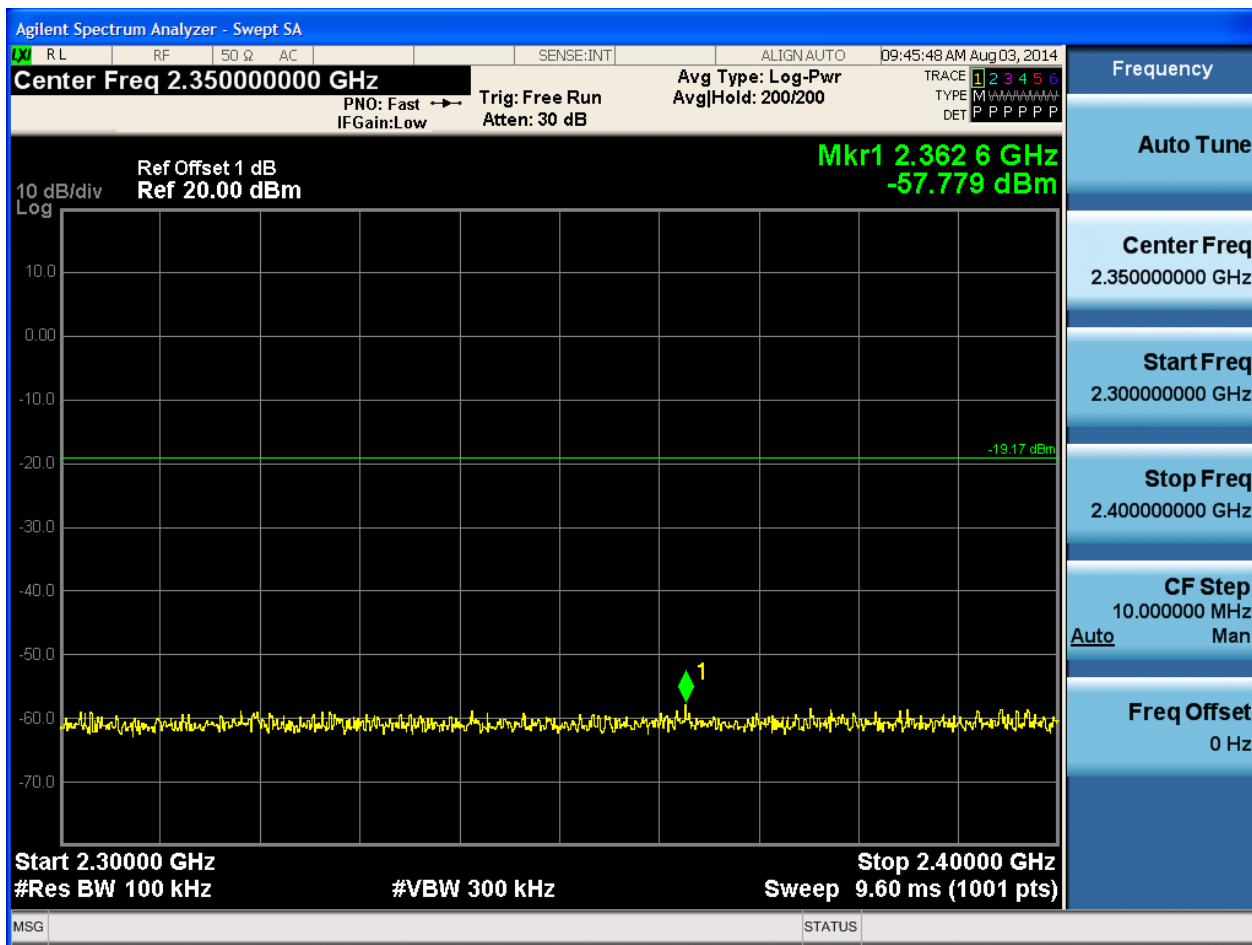


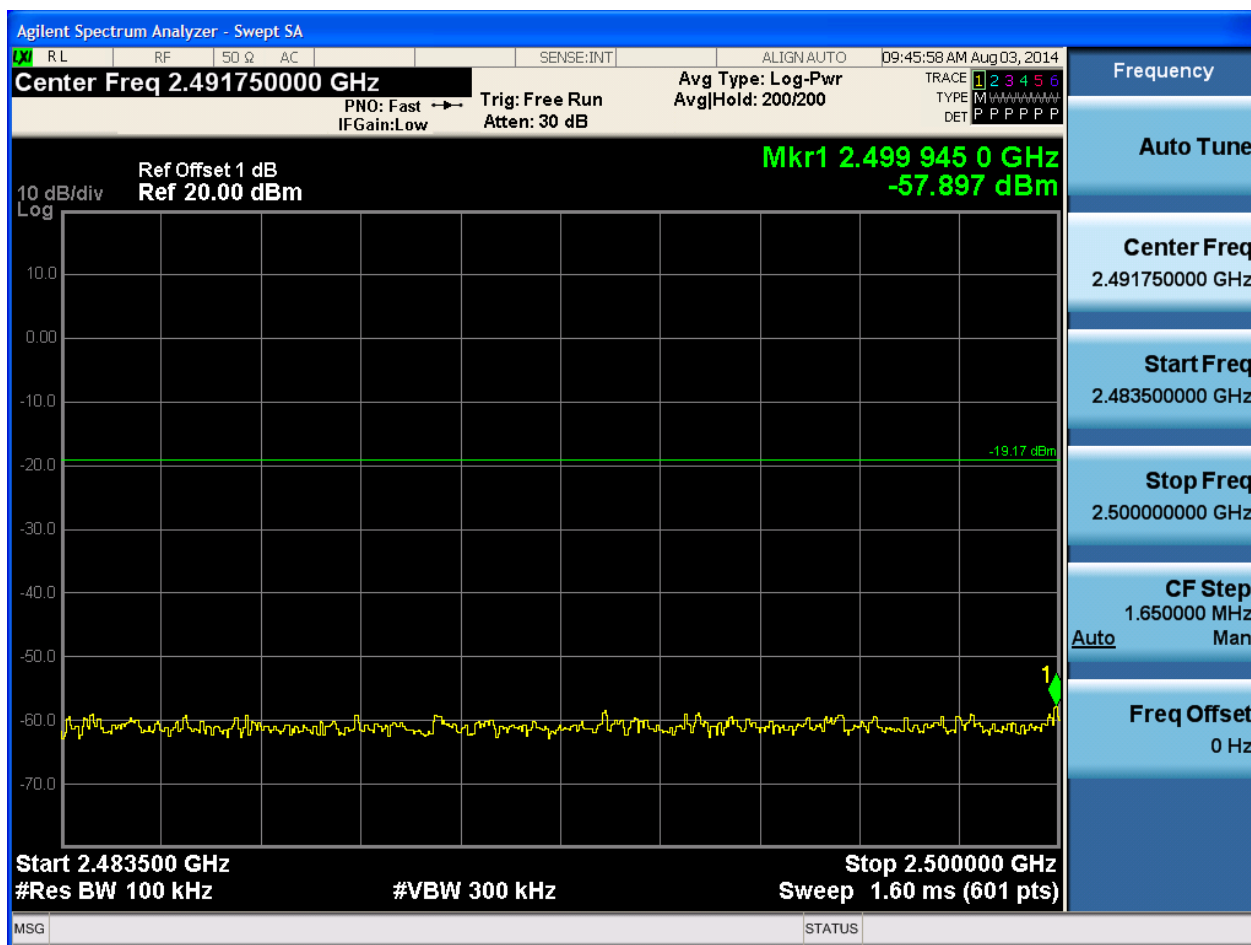
Puw:









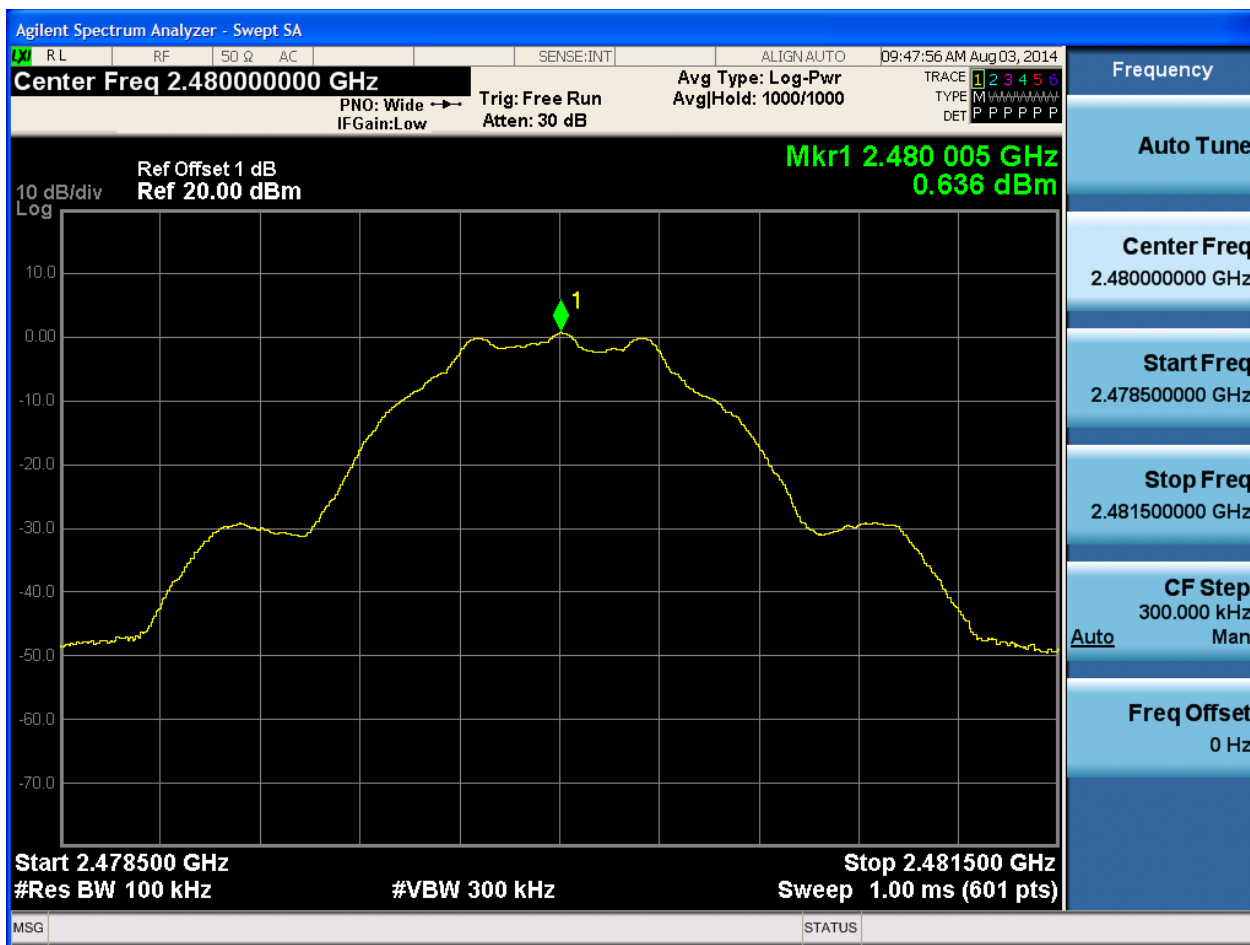






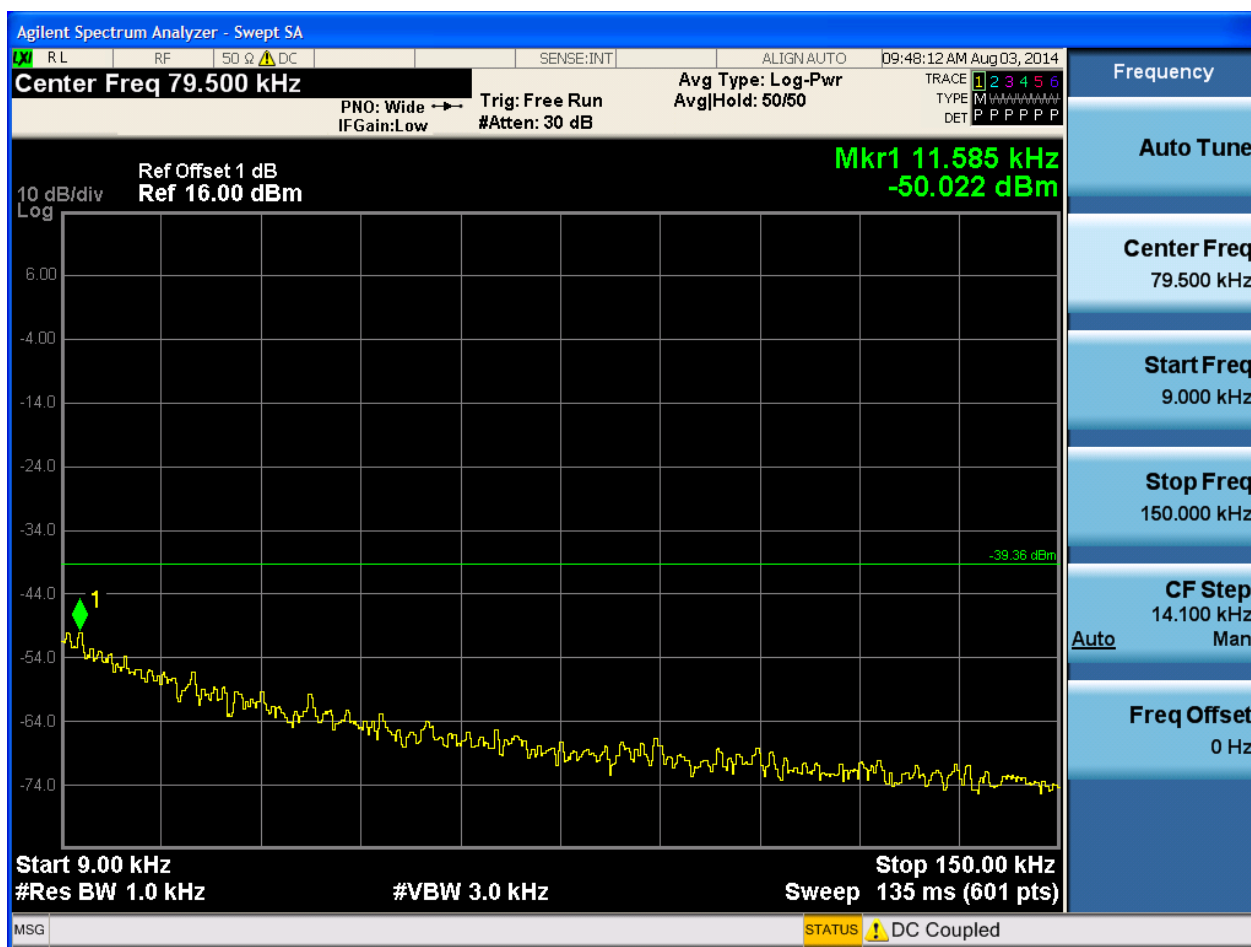
2.3 11B_H

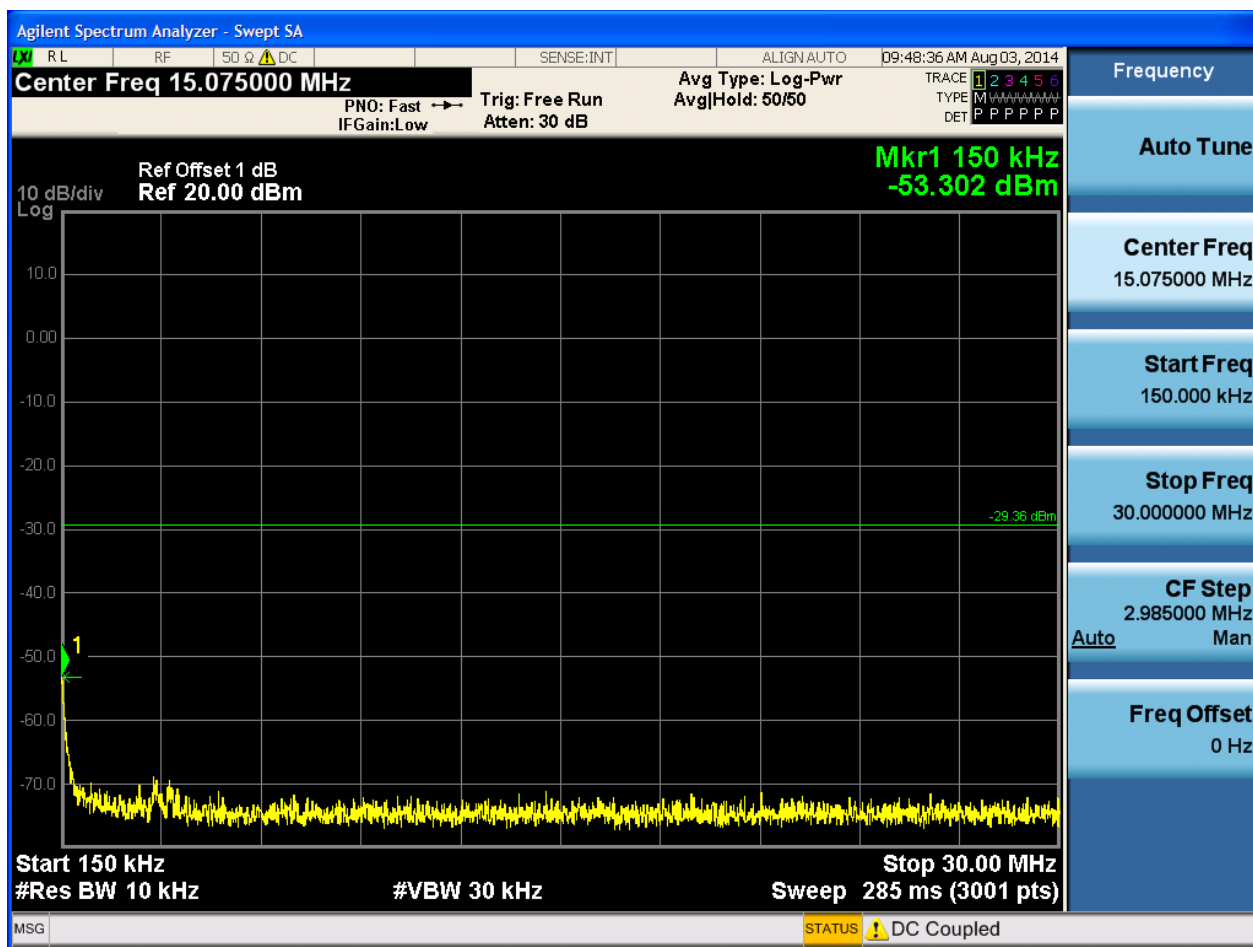
Pref:

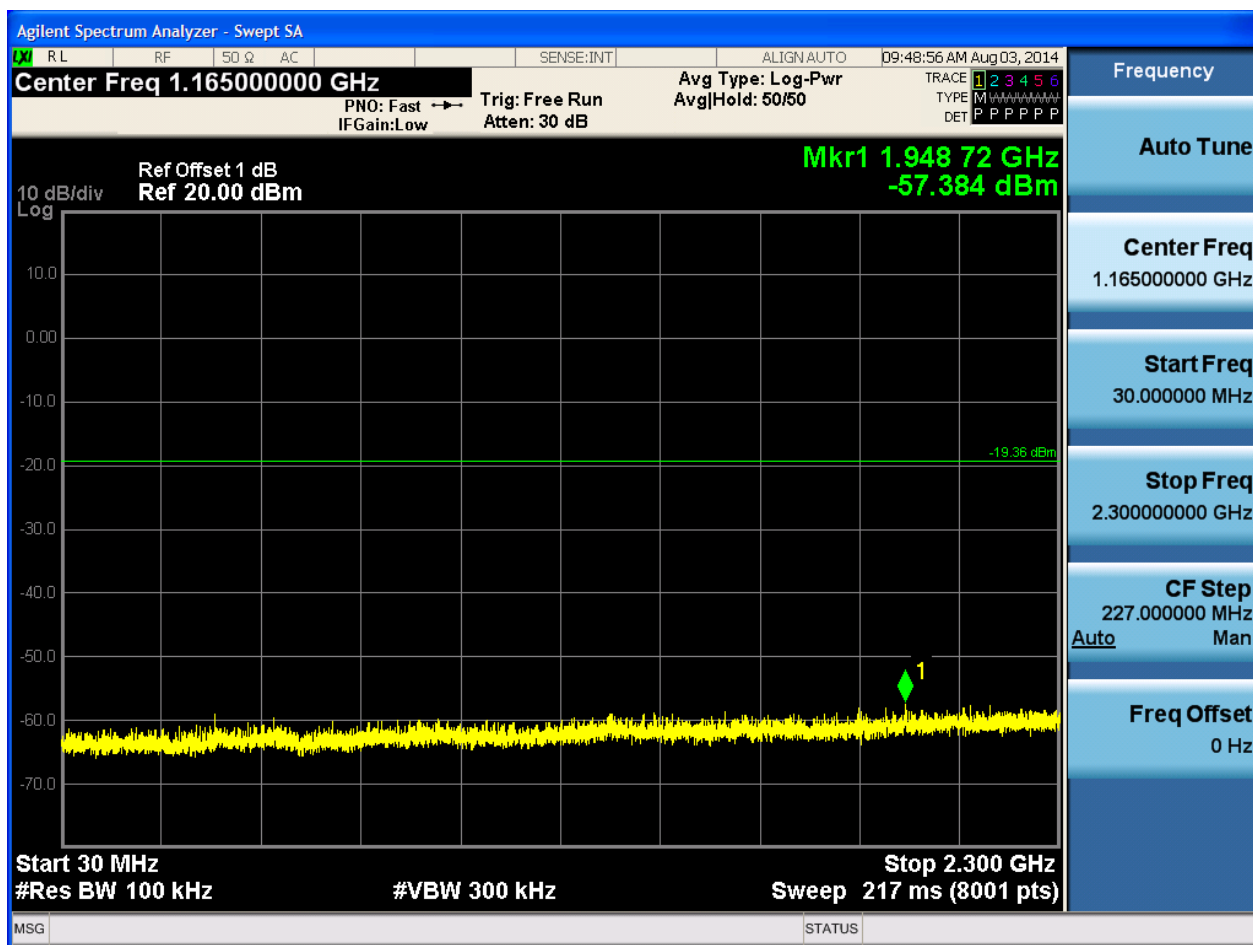


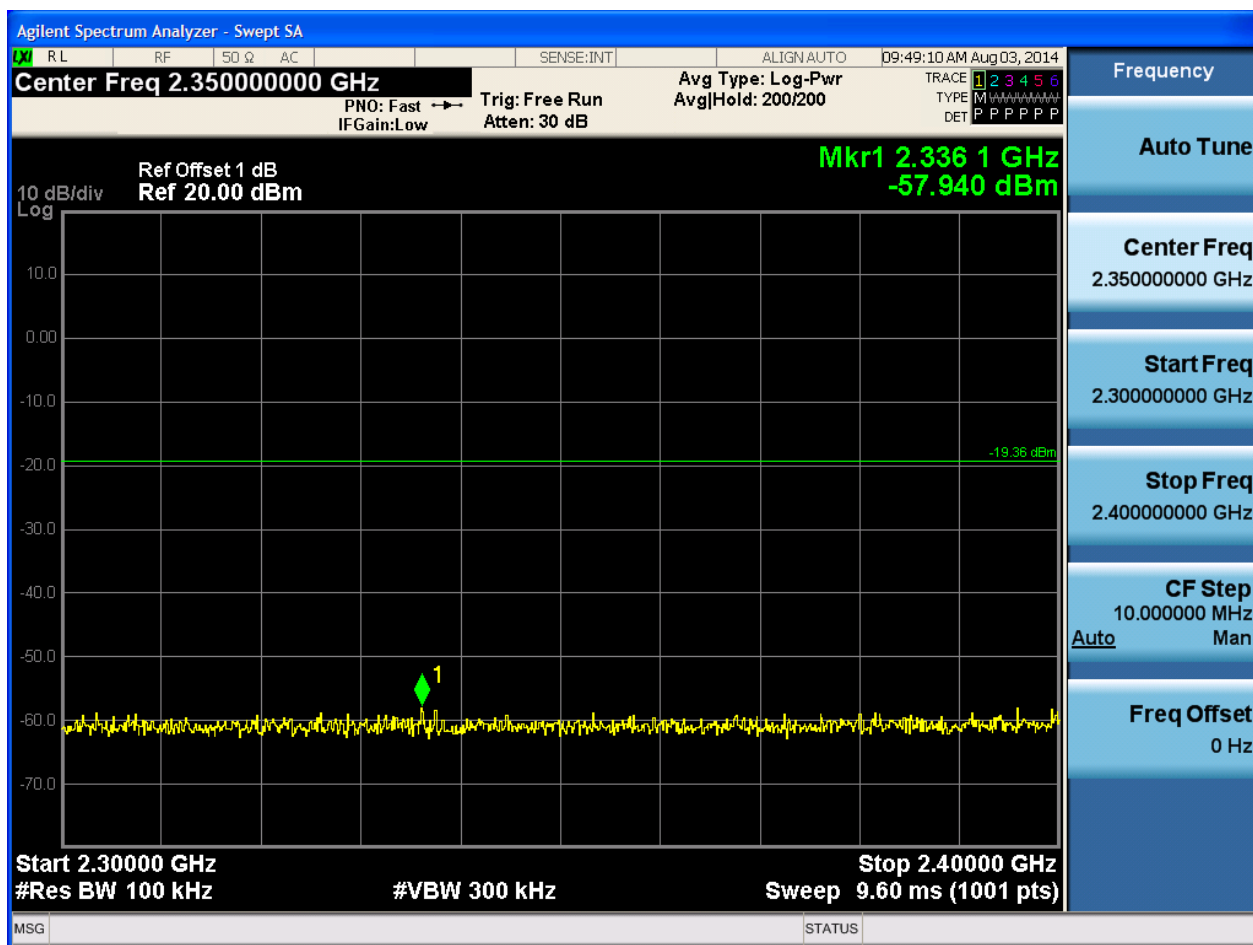


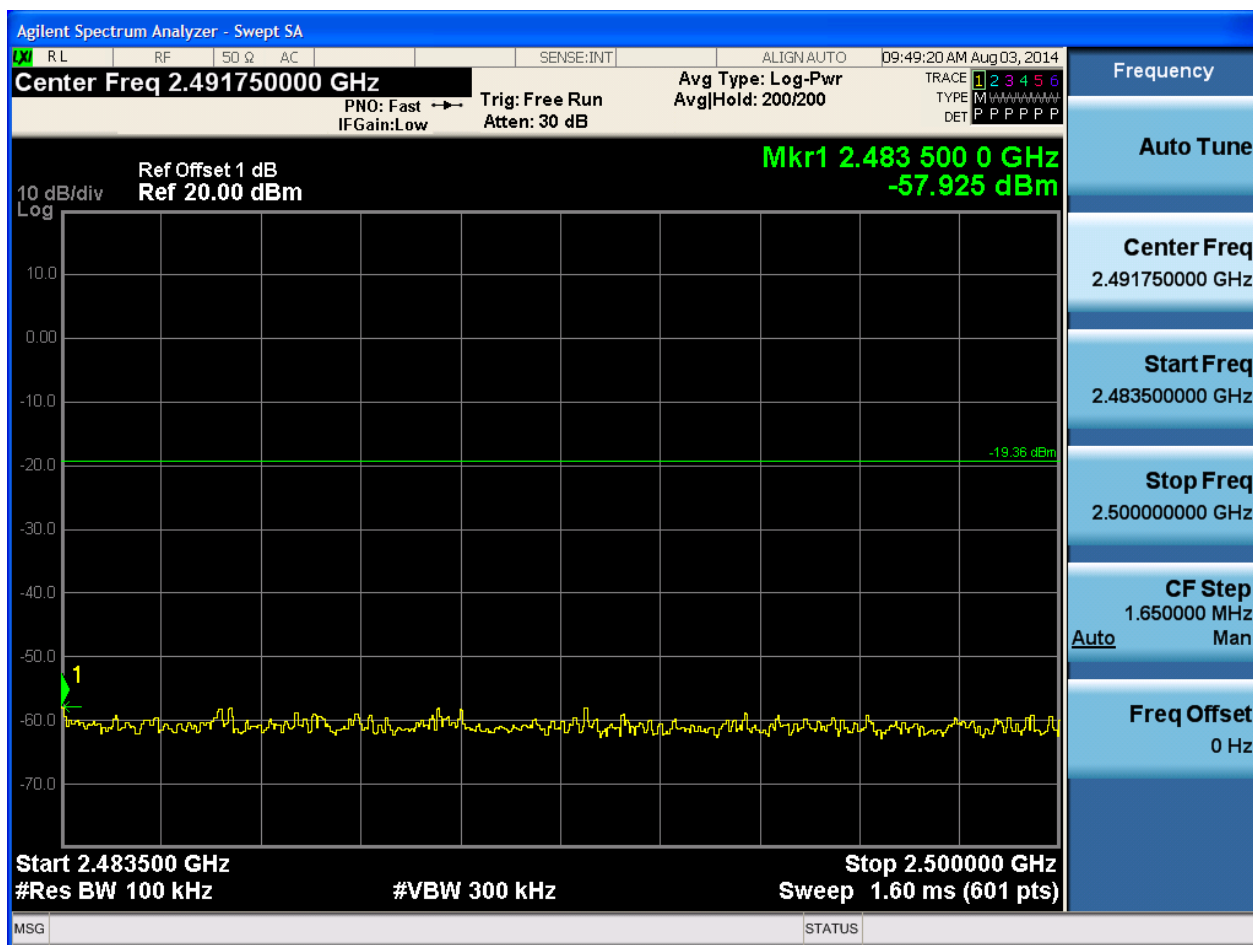
Puw:













Appendix F: Radiated Spurious Emission & Spurious in Restricted Band

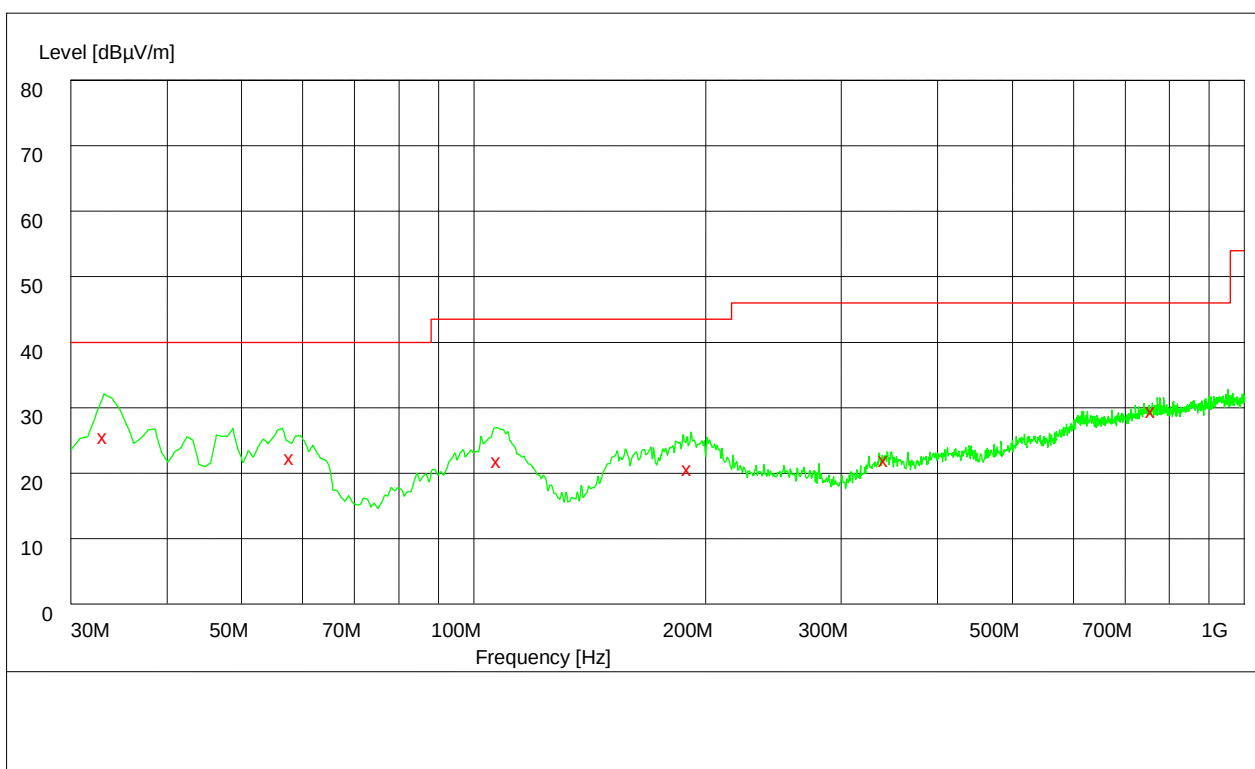
Note: Below 1GHz, RBW = 100 kHz, VBW = 300 kHz.

Above 1GHz, RBW = 1 MHz, VBW = 3 MHz.

The simultaneous transmission has been considered

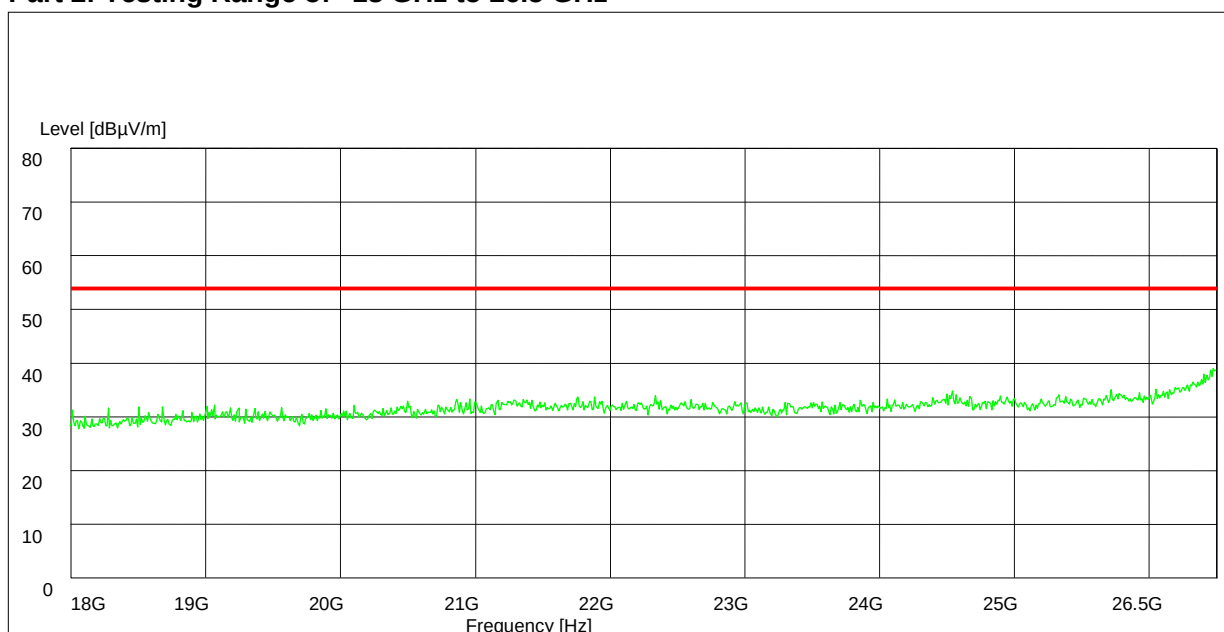
Part 1: Testing Range of “30 MHz to 1 GHz”

- Note 1: The test results and plot for testing range of “30 MHz to 1 GHz” showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.
- Note 2: The emissions in this range are mainly from the Platform Device (Notepad PC and its ancillary components).



Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Height cm	Azimuth deg	Plarization
33.180000	26.90	14.2	40.0	13.1	100.0	9.00	VERTICAL
58.080000	23.80	13.6	40.0	16.2	100.0	330.00	VERTICAL
107.700000	23.30	13.0	43.5	20.2	100.0	159.00	VERTICAL
190.560000	22.00	12.2	43.5	21.5	168.0	271.00	HORIZONTAL
342.720000	23.50	16.4	46.0	22.5	100.0	274.00	HORIZONTAL
760.740000	30.90	23.1	46.0	15.1	138.0	306.00	HORIZONTAL

Part 2: Testing Range of “18 GHz to 26.5 GHz”



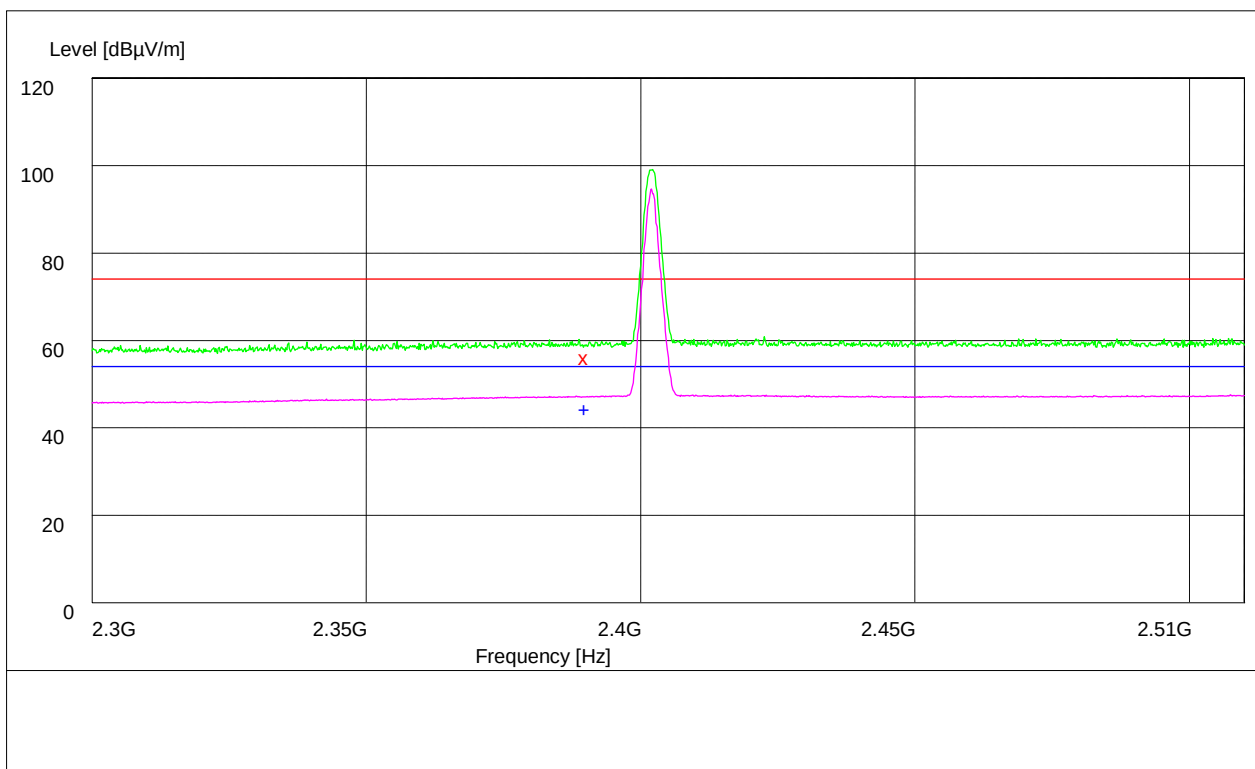
Note: No peak found in pre- test.

Part 3: Testing Range of “2.3GHz to 2.5GHz”

- Note 1: The testing range of “2.3 GHz to 2.5 GHz” is for checking radiated emissions located in restricted bands near the EUT operating bands.
- Note 2: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dBμV/m) and Average Limit (54 dBμV/m).
- Note 3: The peak spike exceeds the limit line is EUT’s operating frequency.

Test Mode:

Channel 0



Note: The peak exceeds the limit line is carrier frequency.

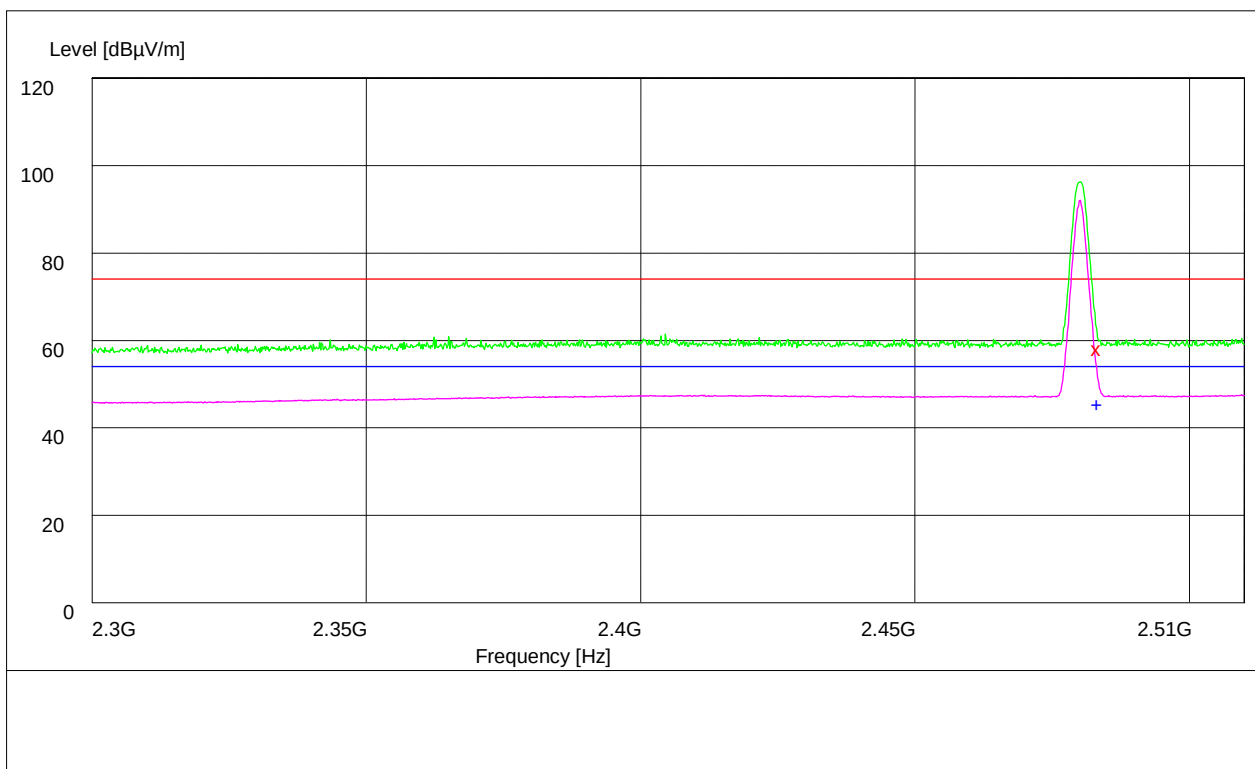
MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	57.30	34.7	74.0	16.7	100.0	0.00	HORIZONTAL

MEASUREMENT RESULT: AVDetector

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	45.60	34.7	54.0	8.4	188.0	57.00	VERTICAL

Channel 39



Note: The peak exceeds the limit line is carrier frequency.

MEASUREMENT RESULT: PK Detector

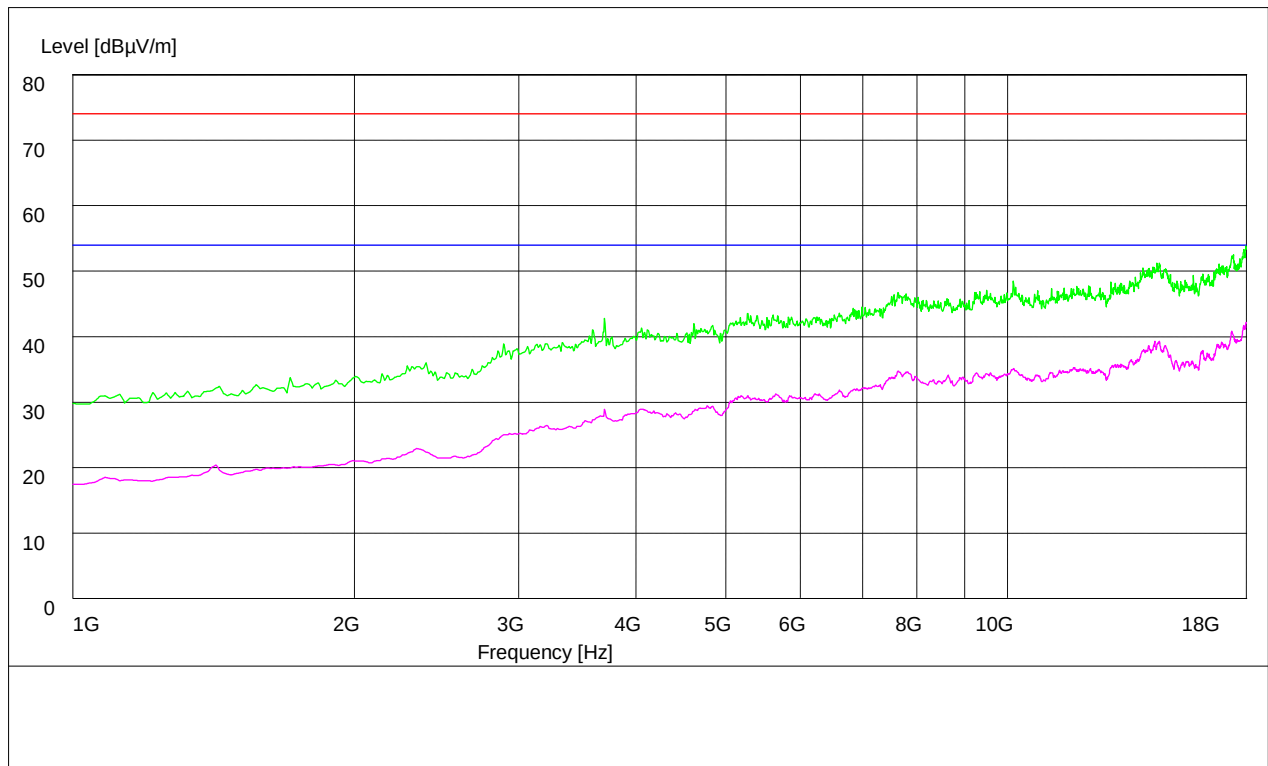
Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Height cm	Azimuth deg	Polarization
2483.500000	59.30	35.0	74.0	14.7	100.0	46.00	VERTICAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Height cm	Azimuth deg	Polarization
2483.500000	46.60	35.0	54.0	7.4	107.0	357.00	HORIZONTAL

Part 4: Testing Range of “1 GHz to 18 GHz”

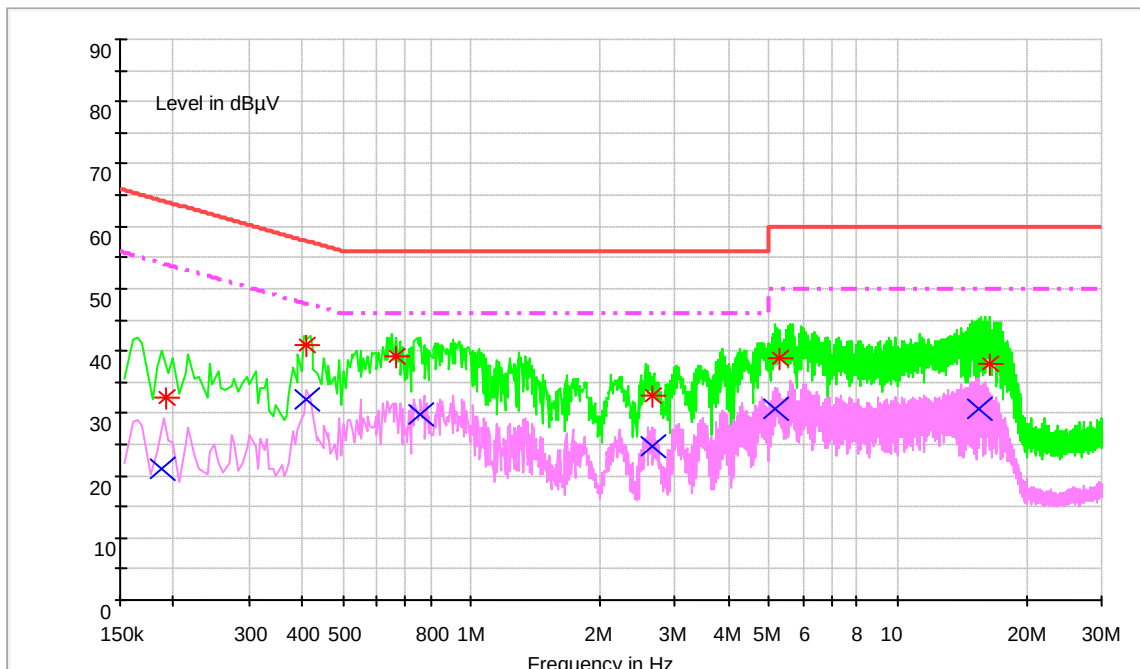
- Note 1: The test results and plot for testing range of “1 GHz to 18 GHz” showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.
- Note 2: The testing range of “1 GHz to 18 GHz” is for checking radiated emissions located in restricted bands faraway from the EUT operating bands.
- Note 3: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dB μ V/m) and Average Limit (54 dB μ V/m).



Appendix G: AC Power Line Conducted Emissions

Note: RBW = 9 kHz, VBW = 30 kHz

Channel 19



MEASUREMENT RESULT: QP Detector

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.191236	32.6	9.7	64	31.4	N	FLO
0.41169	40.8	9.7	57.6	16.8	N	FLO
0.662336	39.1	9.7	56	16.9	N	FLO
2.657175	32.9	9.7	56	23.1	L	FLO
5.291029	38.9	9.8	60	21.1	N	FLO
16.43205	37.9	10.1	60	22.1	N	FLO

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.187983	21.1	9.7	54.1	33	N	FLO
0.409636	32.2	9.7	47.7	15.5	L	FLO
0.758516	29.8	9.7	46	16.2	N	FLO
2.655488	24.6	9.7	46	21.4	N	FLO
5.17239	30.6	9.8	50	19.4	N	FLO
15.3821	30.6	10.1	50	19.4	N	FLO

Note: Level= Reading level+ Transd (cable loss + correction factor).The reading level is used to calculate by software which is not shown in the sheet.

END