



Appendix A: 20dB Emission Bandwidth (EBW)



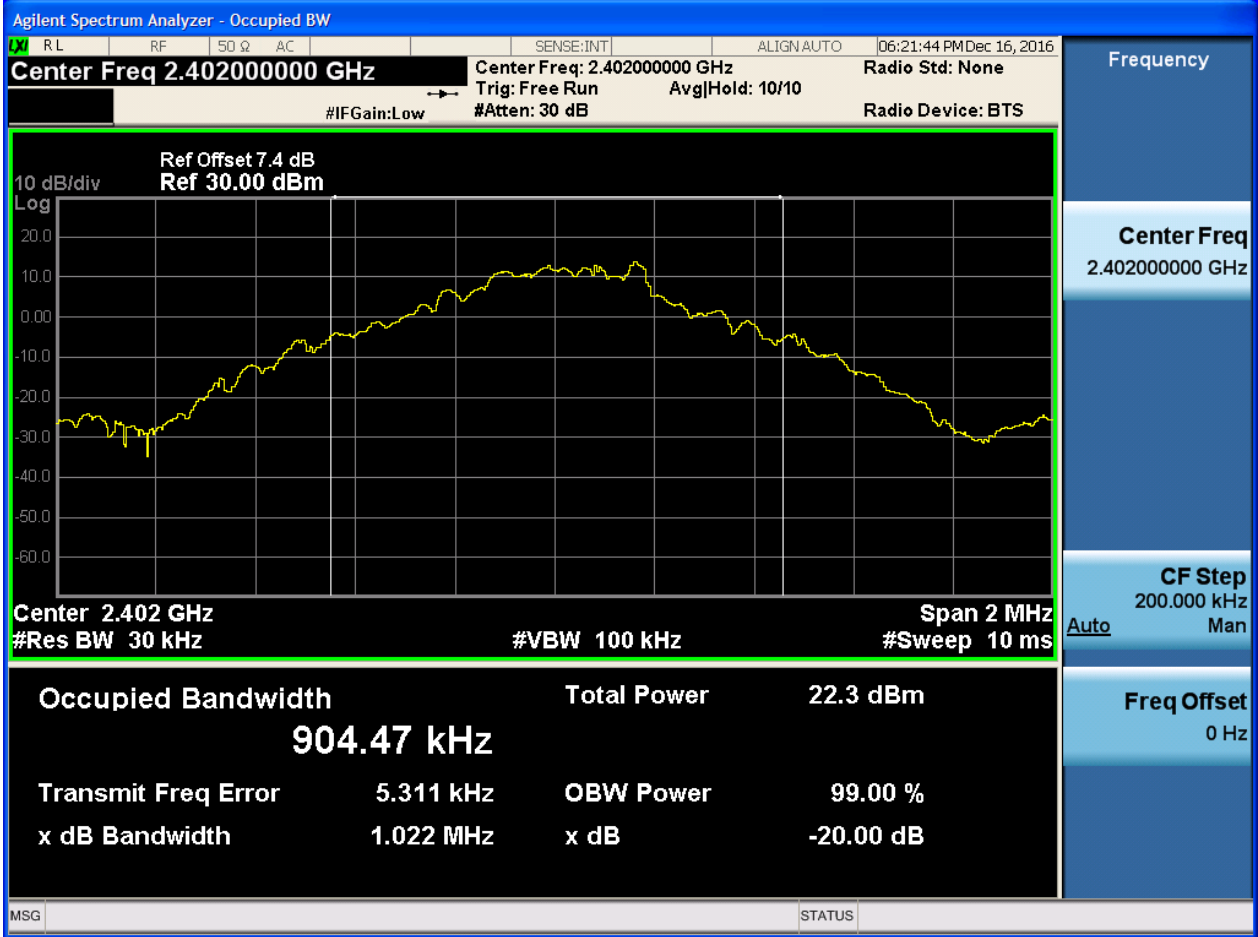
1 Result Table

EUT Conf.	EBW [MHz]	Verdict
TM1_DH5_Ch0	1.02	Pass
TM1_DH5_Ch39	1.01	Pass
TM1_DH5_Ch78	1.02	Pass
TM2_2DH5_Ch0	1.35	Pass
TM2_2DH5_Ch39	1.35	Pass
TM2_2DH5_Ch78	1.35	Pass
TM3_3DH5_Ch0	1.35	Pass
TM3_3DH5_Ch39	1.35	Pass
TM3_3DH5_Ch78	1.35	Pass



2 Test Plot

2.1 TM1_DH5_Ch0





2.2 TM1_DH5_Ch39



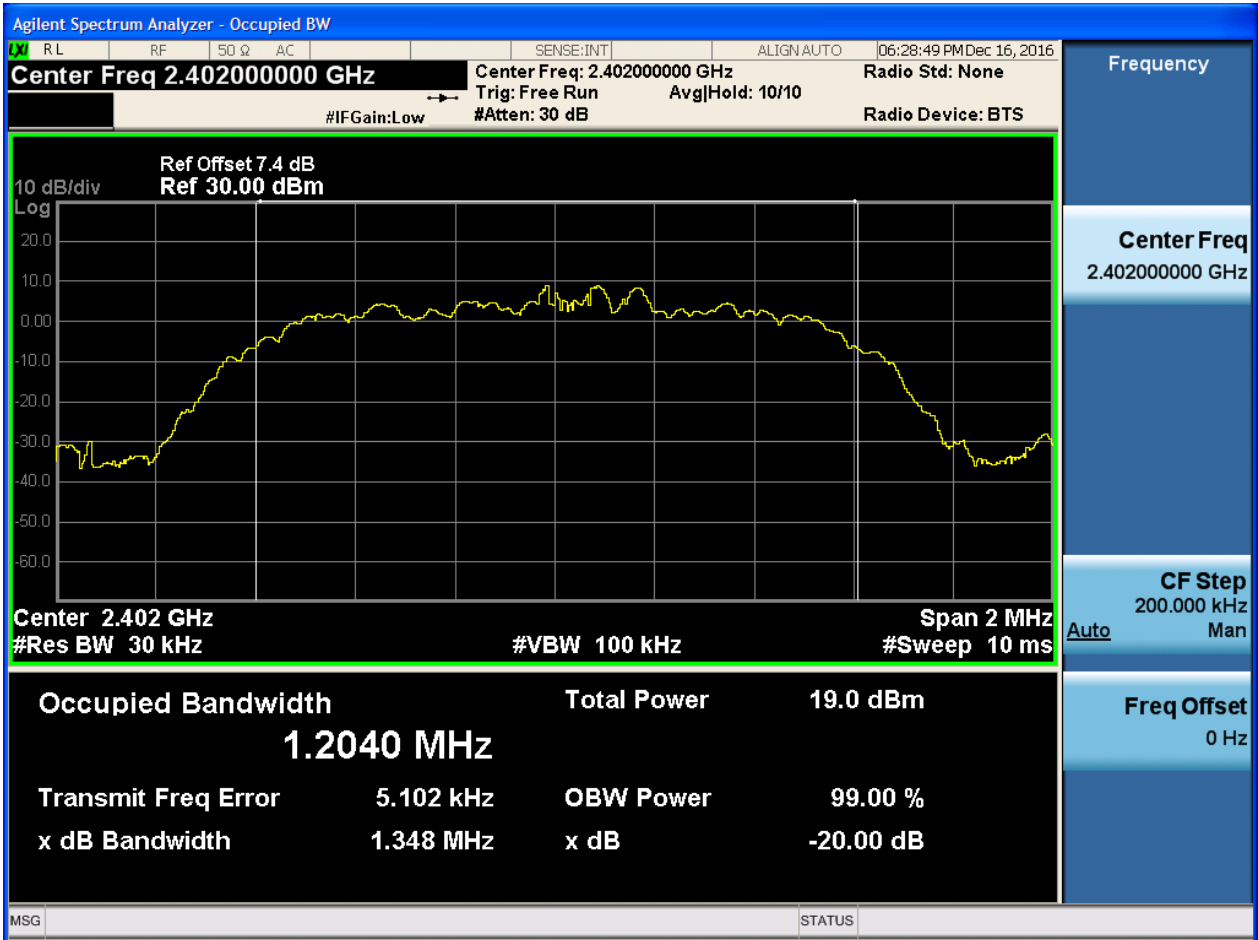


2.3 TM1_DH5_Ch78



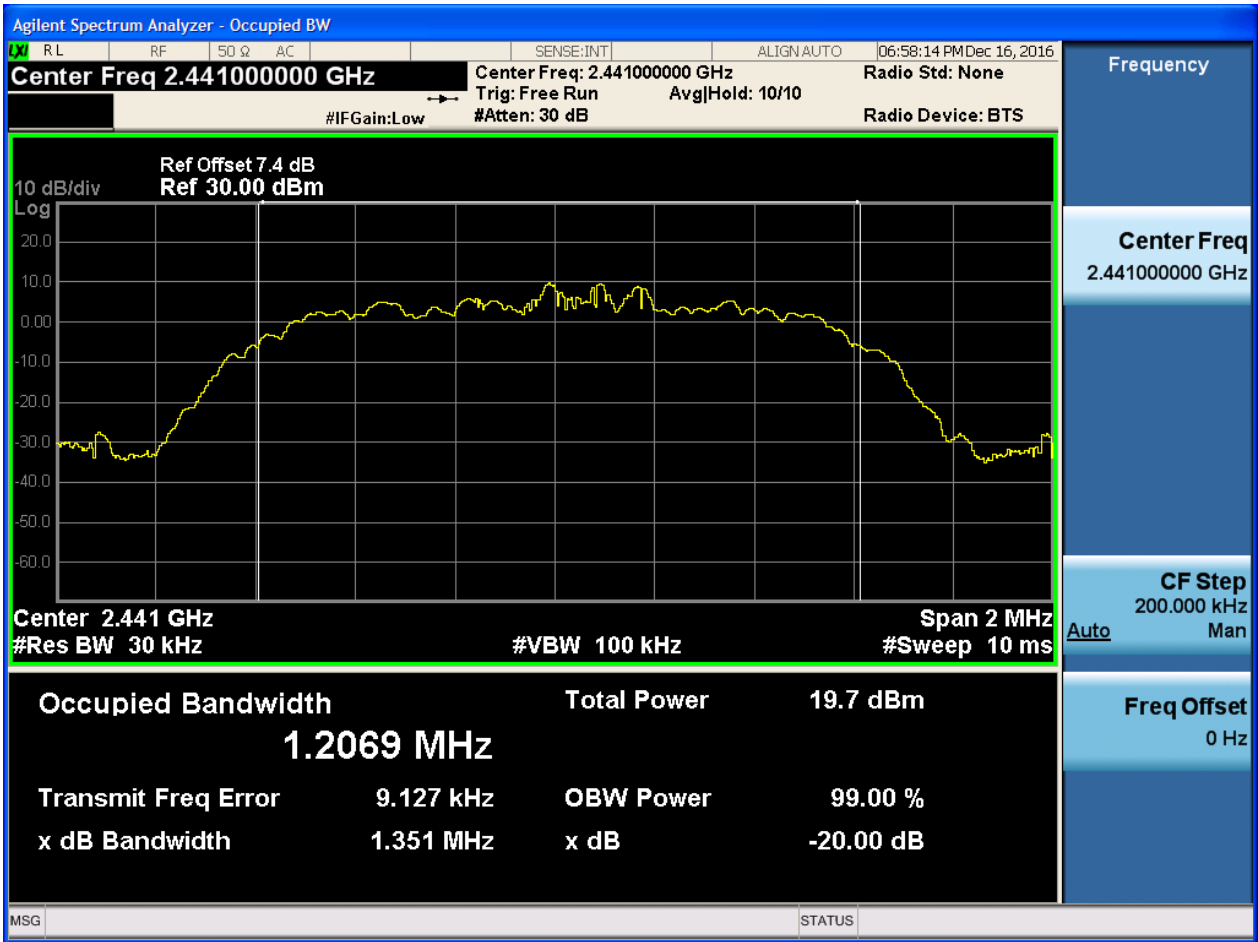


2.4 TM2_2DH5_Ch0



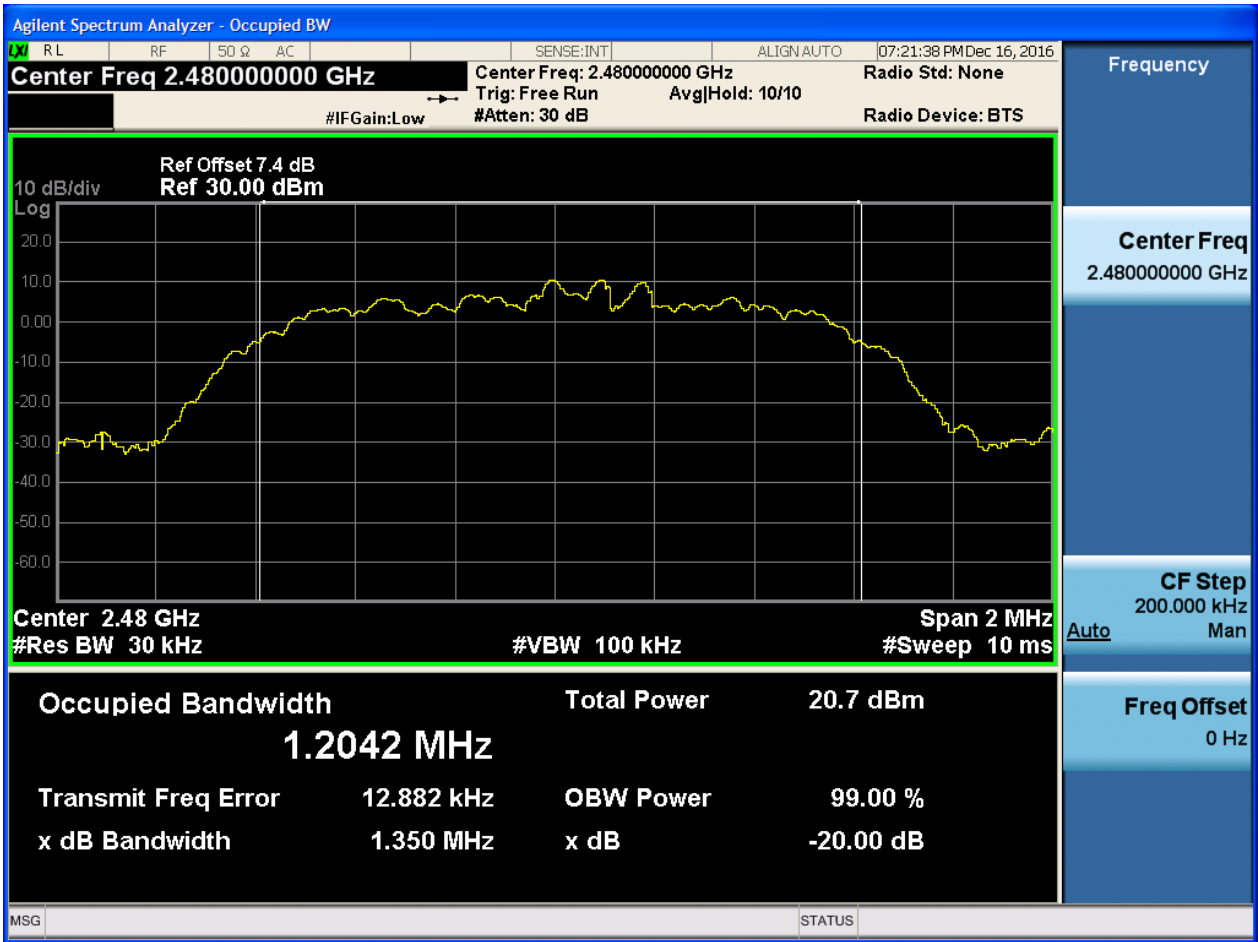


2.5 TM2_2DH5_Ch39



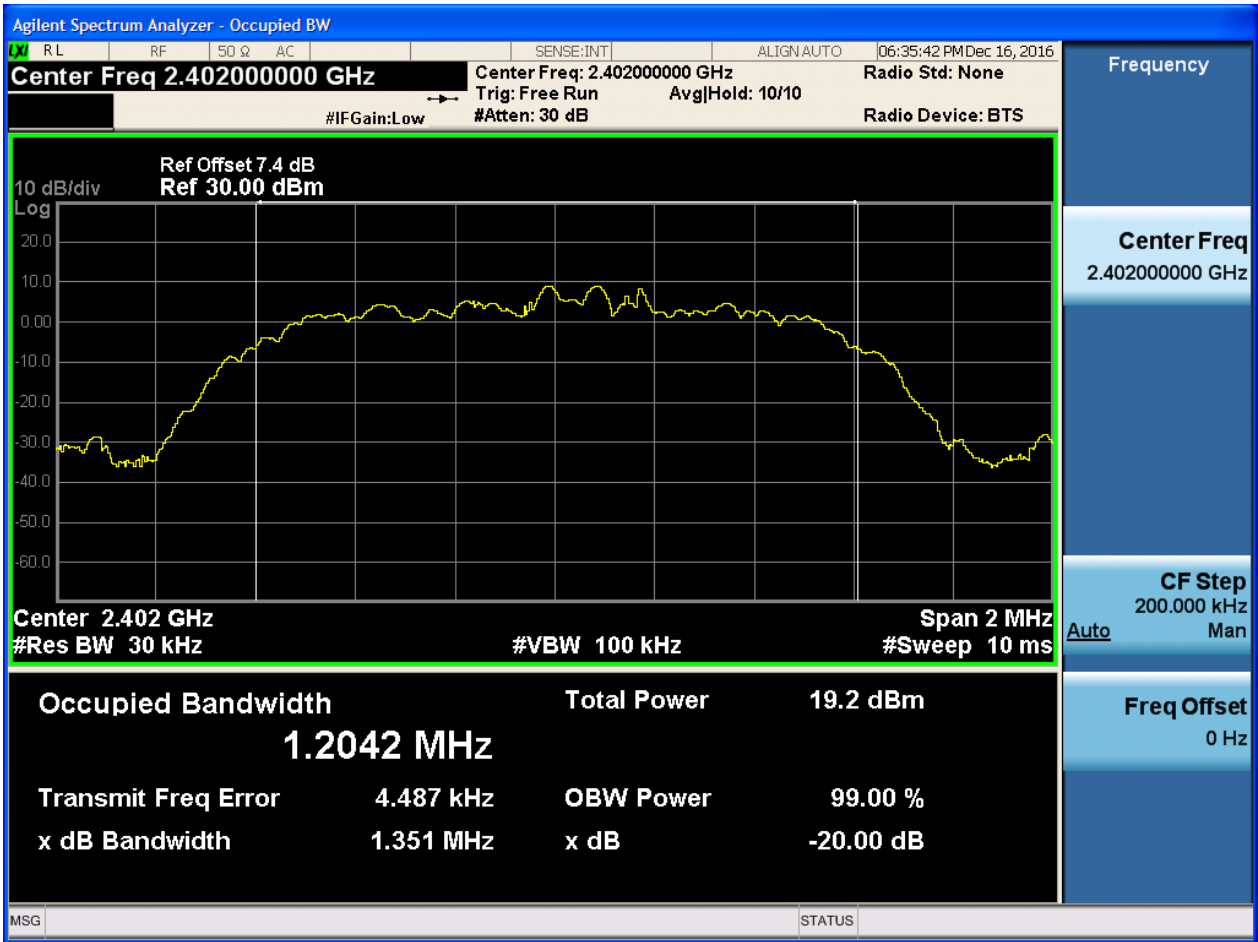


2.6 TM2_2DH5_Ch78



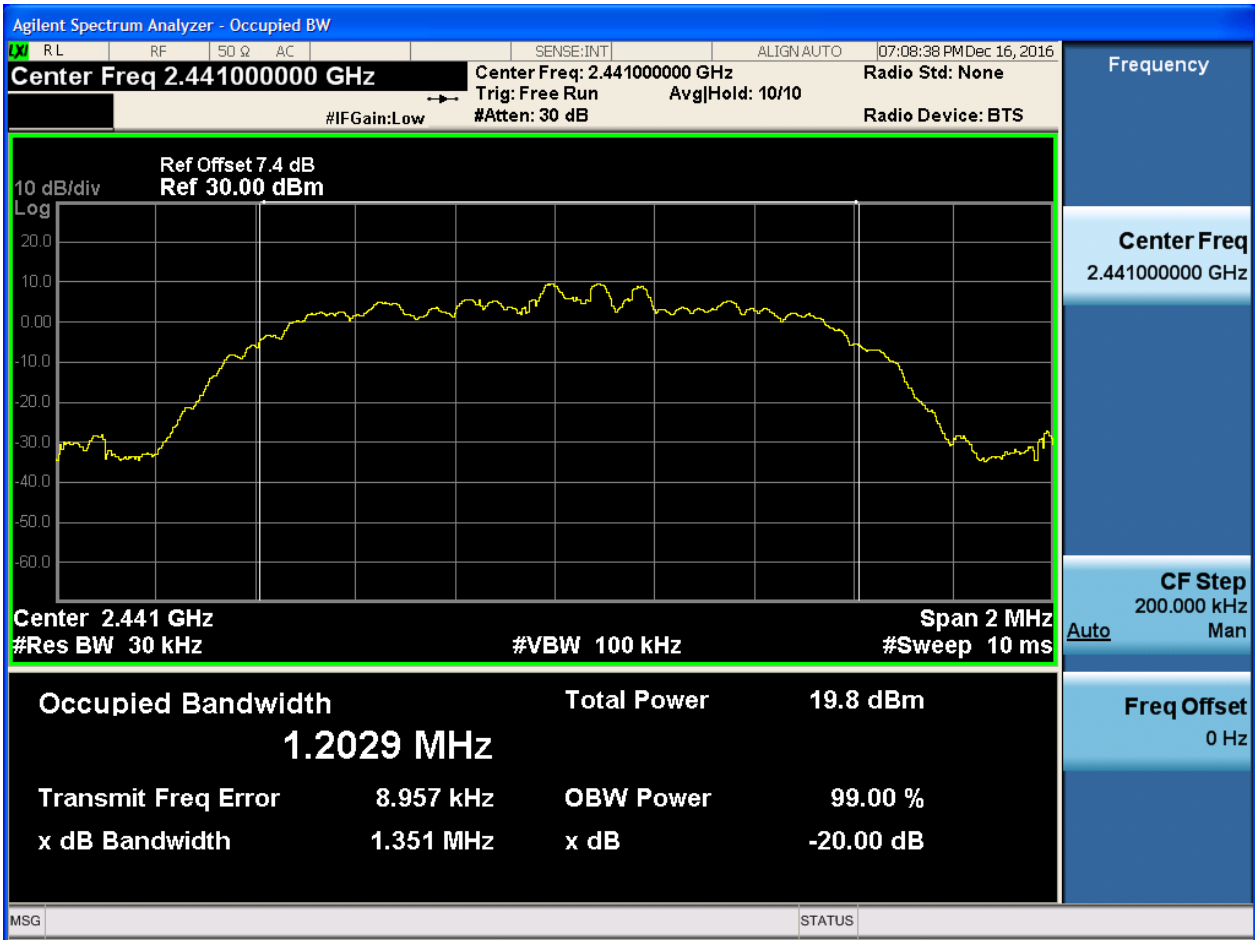


2.7 TM3_3DH5_Ch0



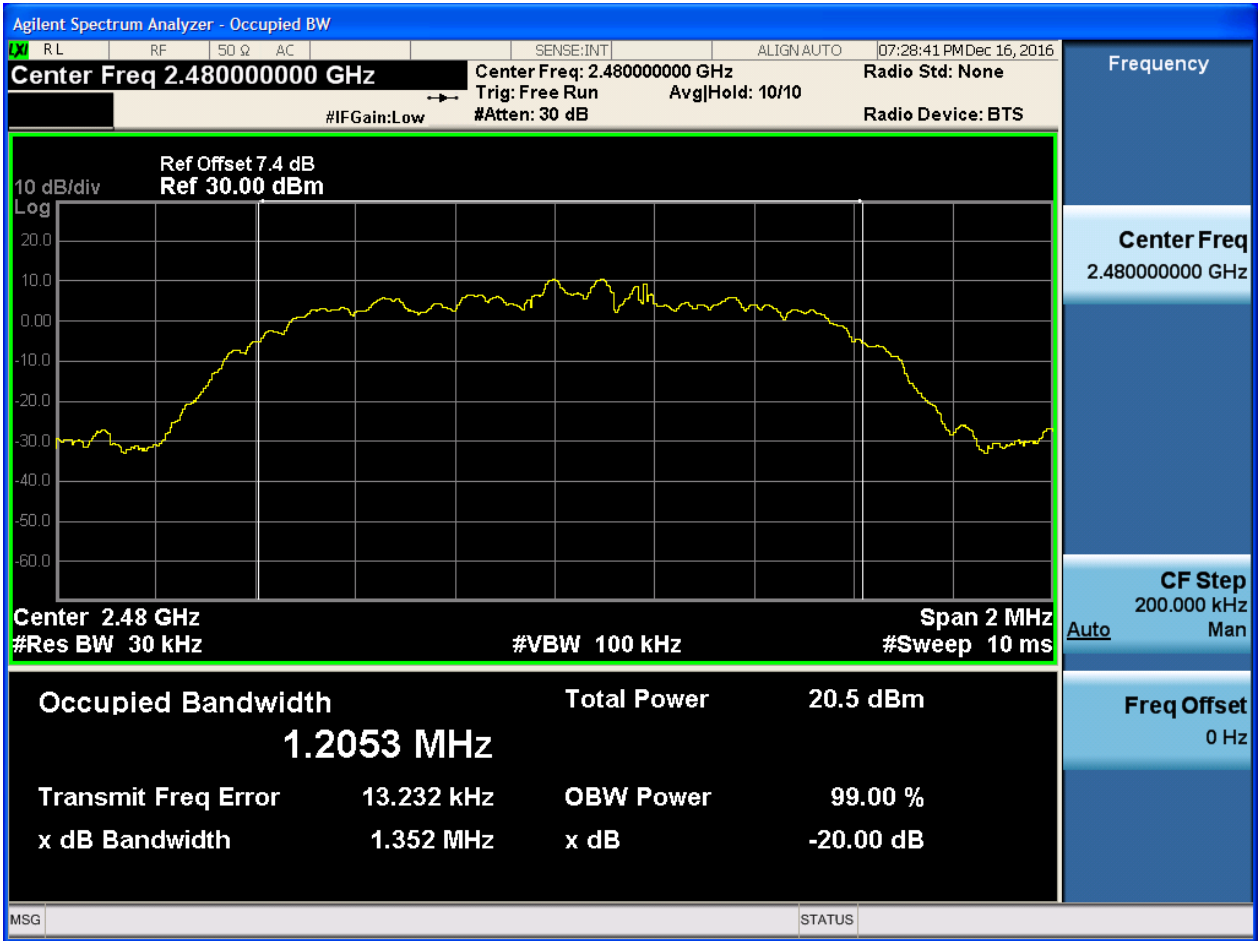


2.8 TM3_3DH5_Ch39





2.9 TM3_3DH5_Ch78





Appendix B: Carrier Frequency Separation



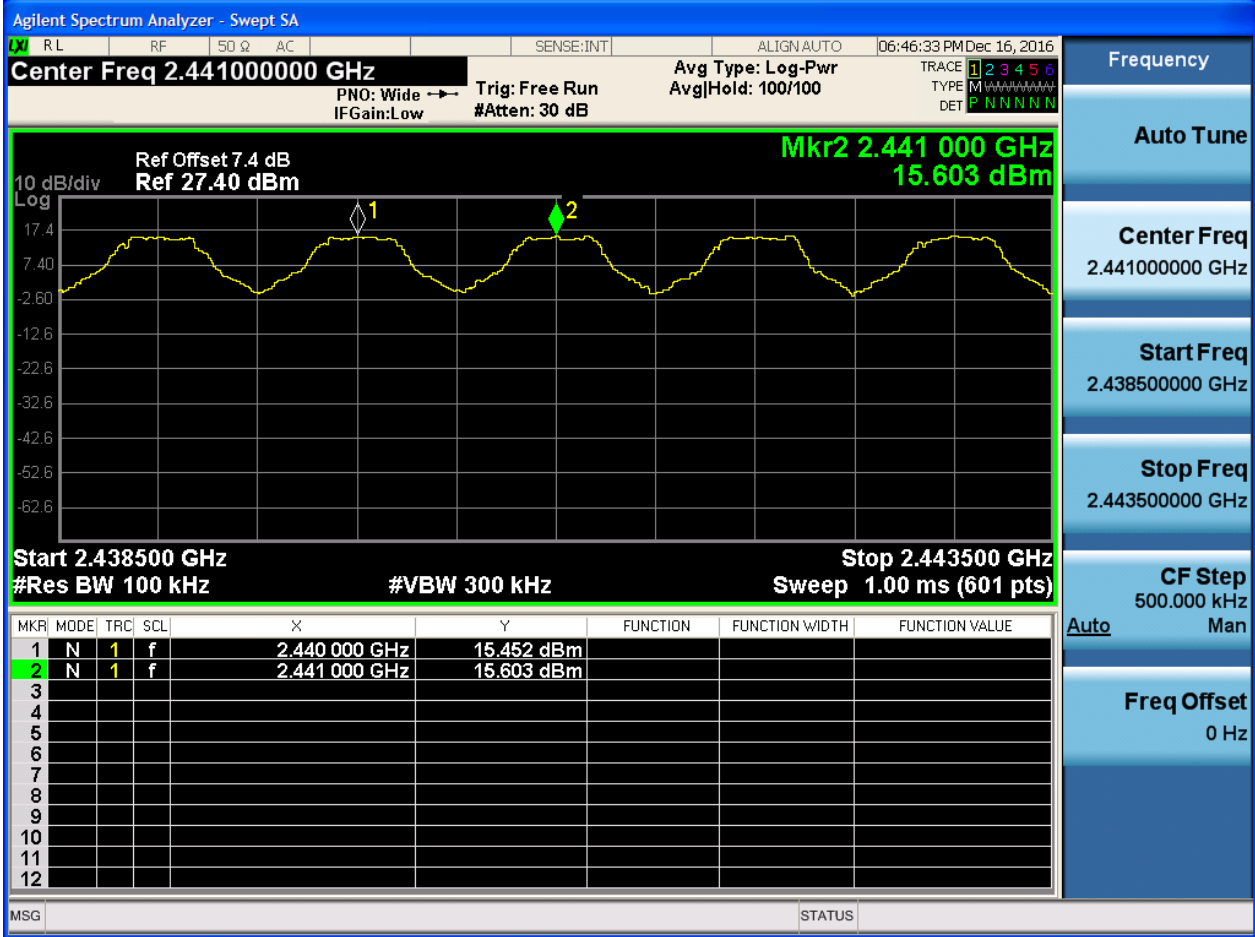
1 Result Table

EUT Conf.	Carrier Frequency Separation [MHz]	Verdict
TM1_DH5_Hop	1	Pass
TM2_2DH5_Hop	1.1	Pass
TM3_3DH5_Hop	0.95	Pass



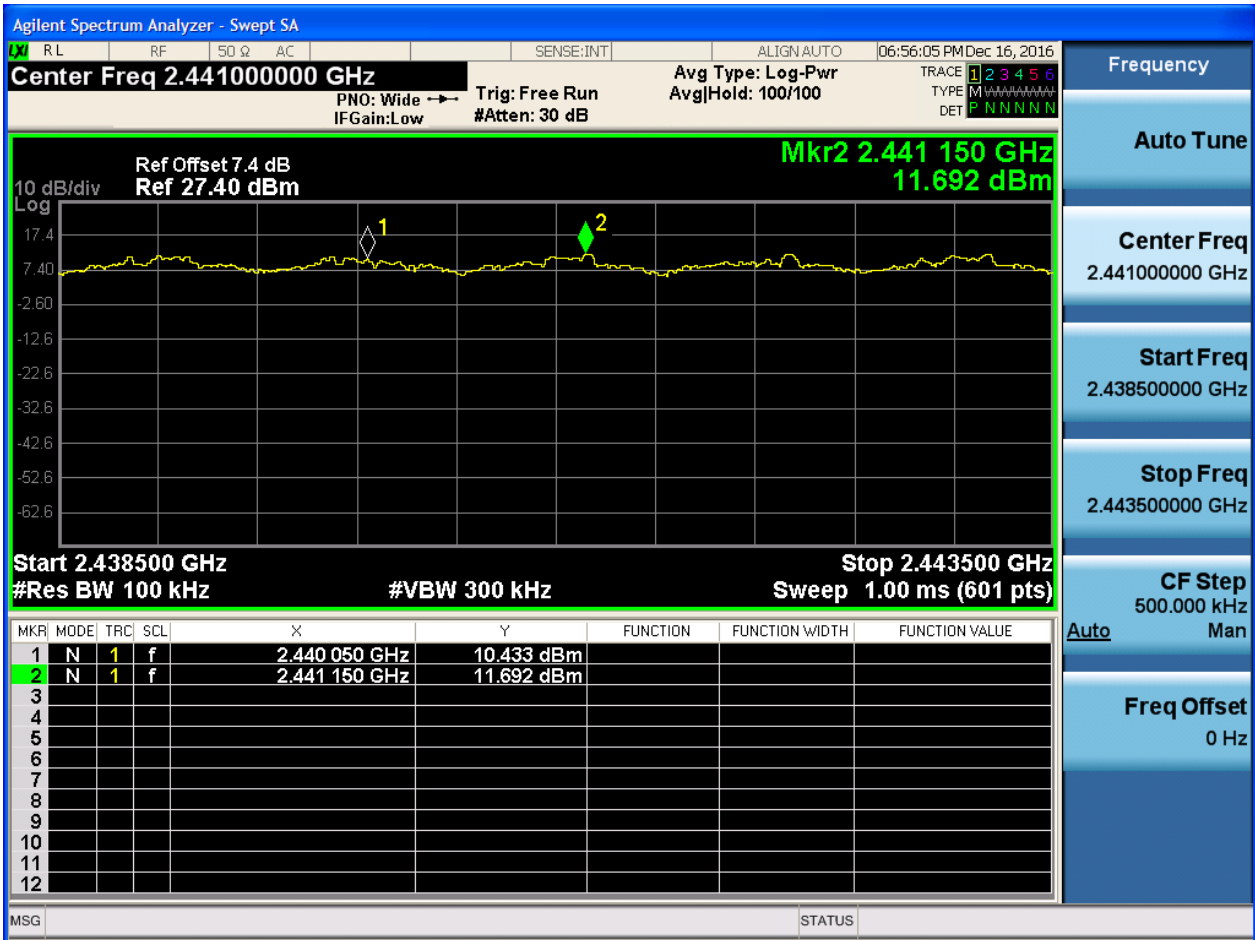
2 Test Plot

2.1 TM1_DH5_Hop



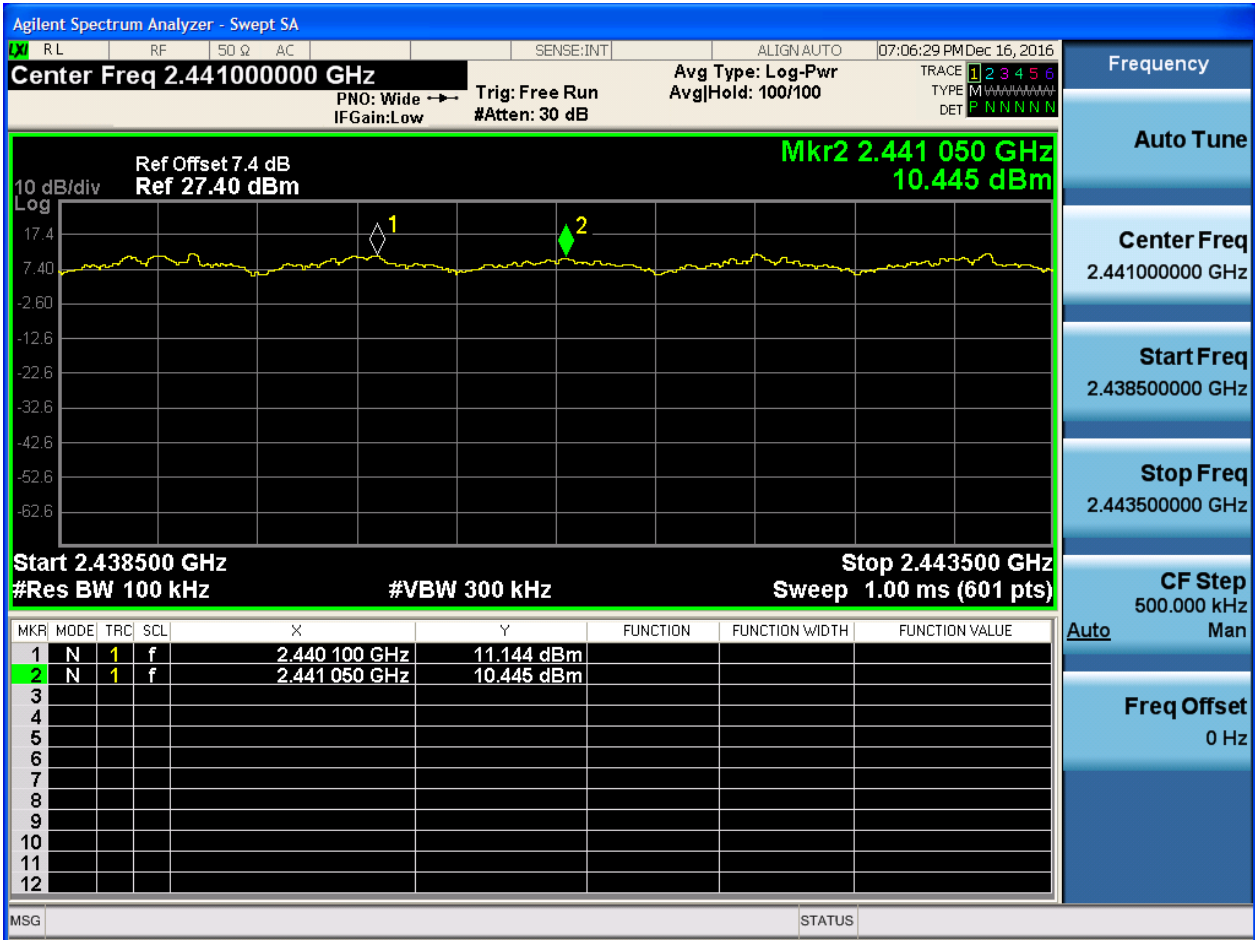


2.2 TM2_2DH5_Hop





2.3 TM3_3DH5_Hop





Appendix C: Number of Hopping Channel



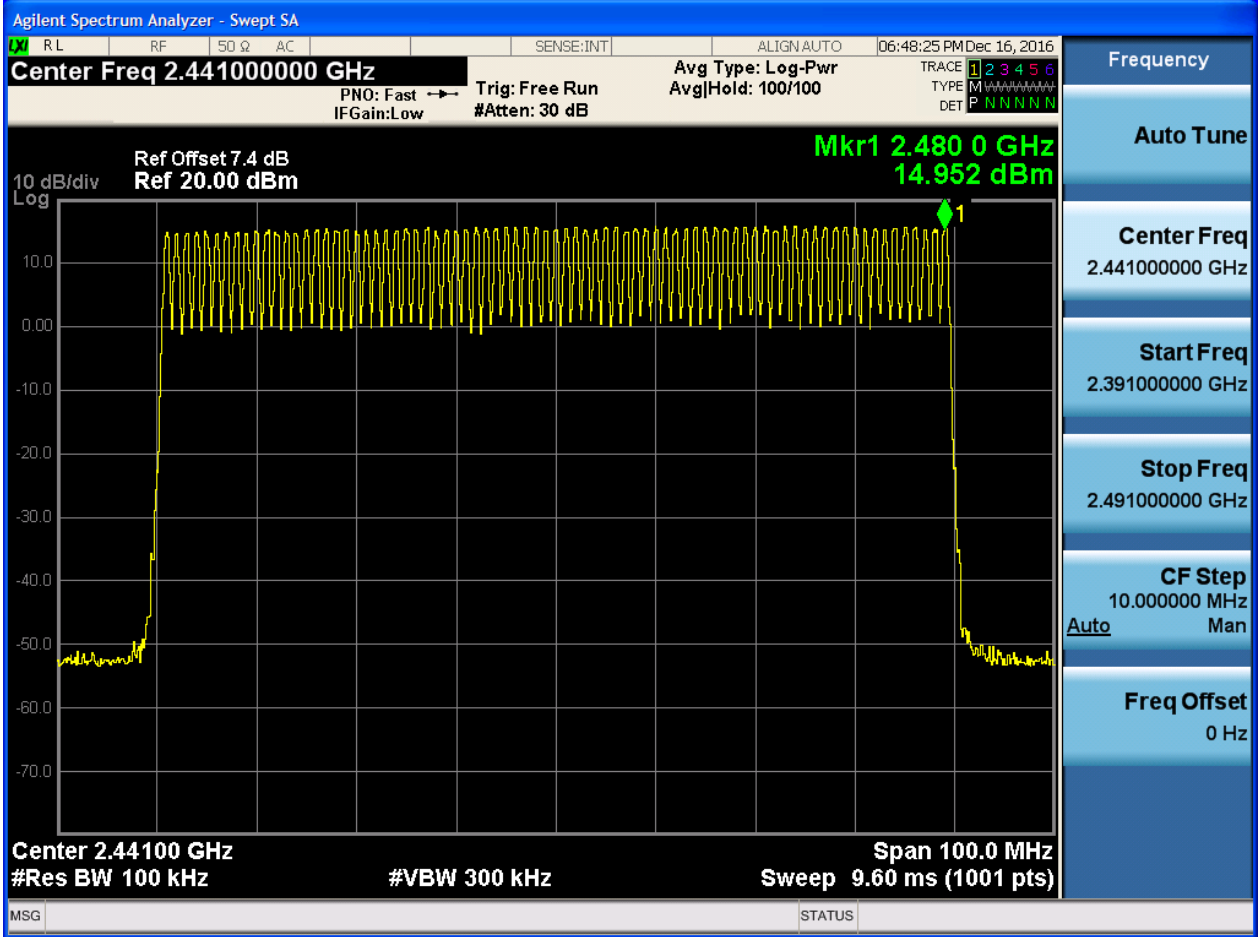
1 Result Table

EUT Conf.	Number of Hopping Channel	Verdict
TM1_DH5_Hop	79	Pass
TM2_2DH5_Hop	79	Pass
TM3_3DH5_Hop	79	Pass



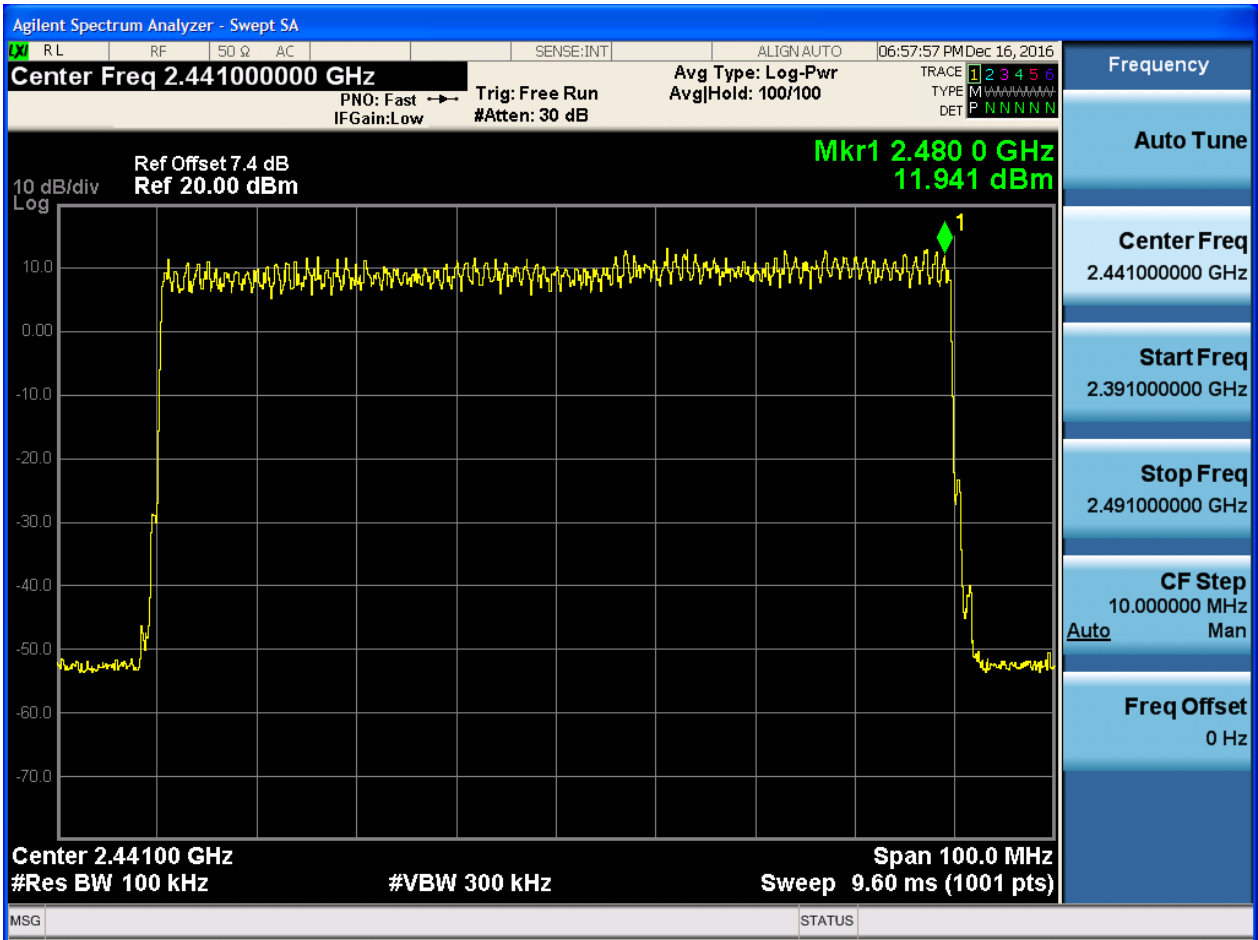
2 Test Plot

2.1 TM1_DH5_Hop



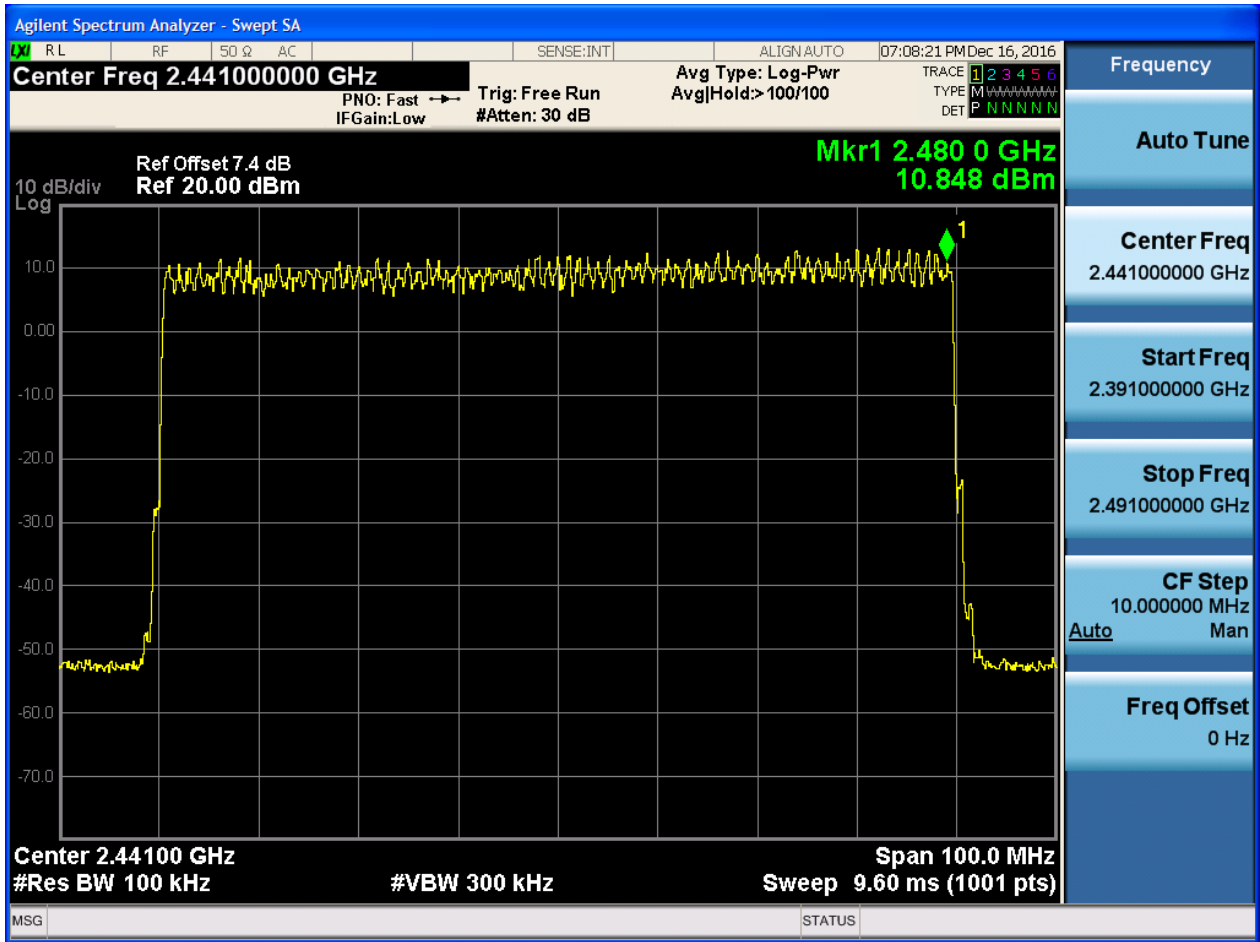


2.2 TM2_2DH5_Hop





2.3 TM3_3DH5_Hop





Appendix D: Time of Occupancy (Dwell Time)



1 Result Table

The Dwell Time = Burst Width * Total Hops. The detailed calculations are showed as follows:

- The duration for dwell time calculation: $0.4 \text{ [s]} * \text{hopping number} = 0.4 \text{ [s]} * 79 \text{ [ch]} = 31.6 \text{ [s*ch]}$;
- The burst width [ms/hop/ch], which is directly measured, refers to the duration on one channel hop.
- The hops per second for all channels: The selected EUT Conf uses a slot type of 5-Tx&1-Rx and a hopping rate of 1600 [ch*hop/s] for all channels. So the final hopping rate for all channels is $1600 / 6 = 266.67 \text{ [ch*hop/s]}$;
- The hops per second on one channel: $266.67 \text{ [ch*hop/s]} / 79 \text{ [ch]} = 3.38 \text{ [hop/s]}$;
- The total hops for all channels within the dwell time calculation duration: $3.38 \text{ [hop/s]} * 31.6 \text{ [s*ch]} = 106.67 \text{ [hop*ch]}$;
- The dwell time for all channels hopping: $106.67 \text{ [hop*ch]} * \text{Burst Width [ms/hop/ch]}$.

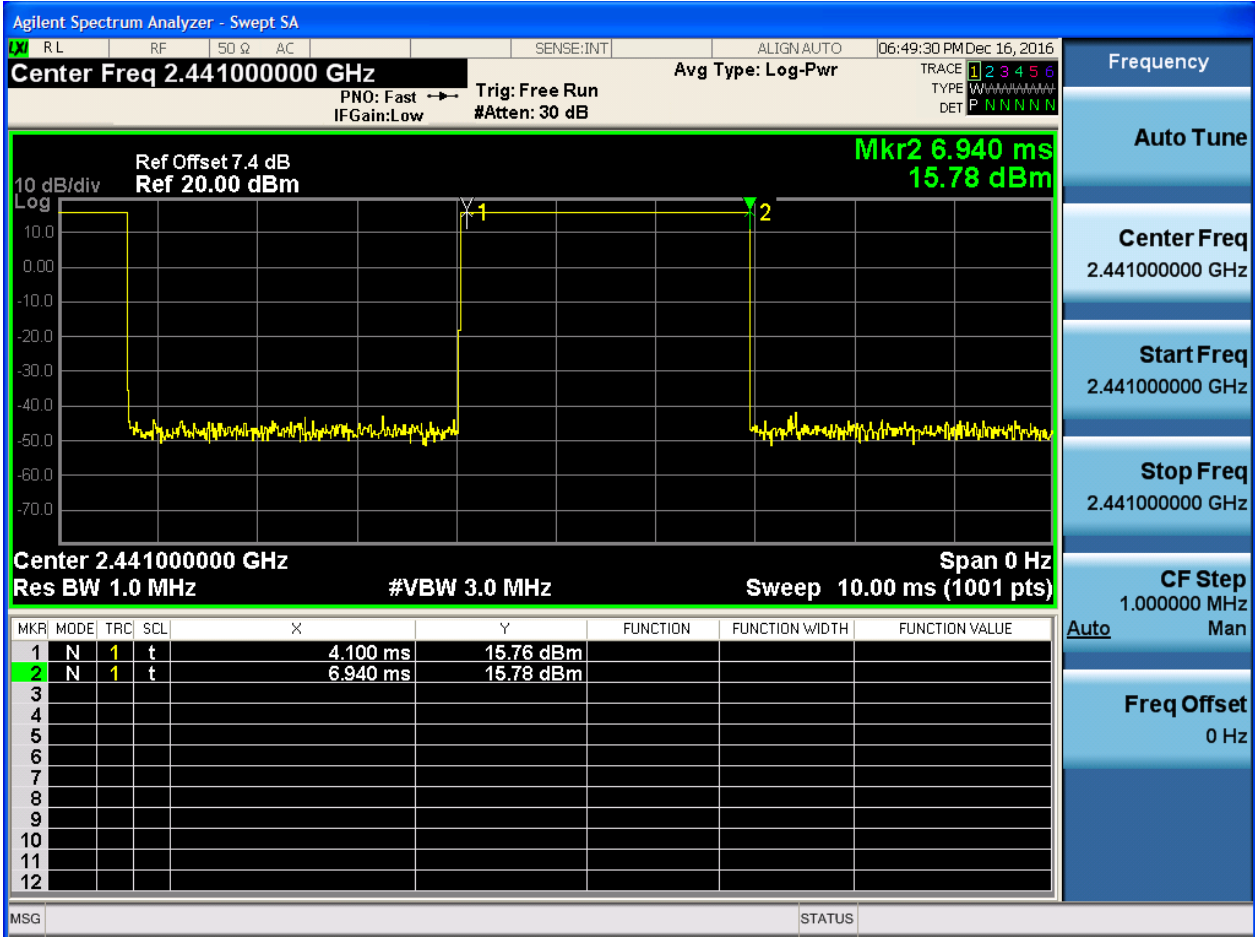
EUT Conf.	Burst Width [s/hop/ch]	Total Hops [hop*ch]	Dwell Time [s]	Verdict
TM1_DH5_Ch39	0.00284	106.67	0.303	Pass
TM2_2DH5_Ch39	0.00284	106.67	0.303	Pass
TM3_3DH5_Ch39	0.00288	106.67	0.307	Pass



2 Test Plot

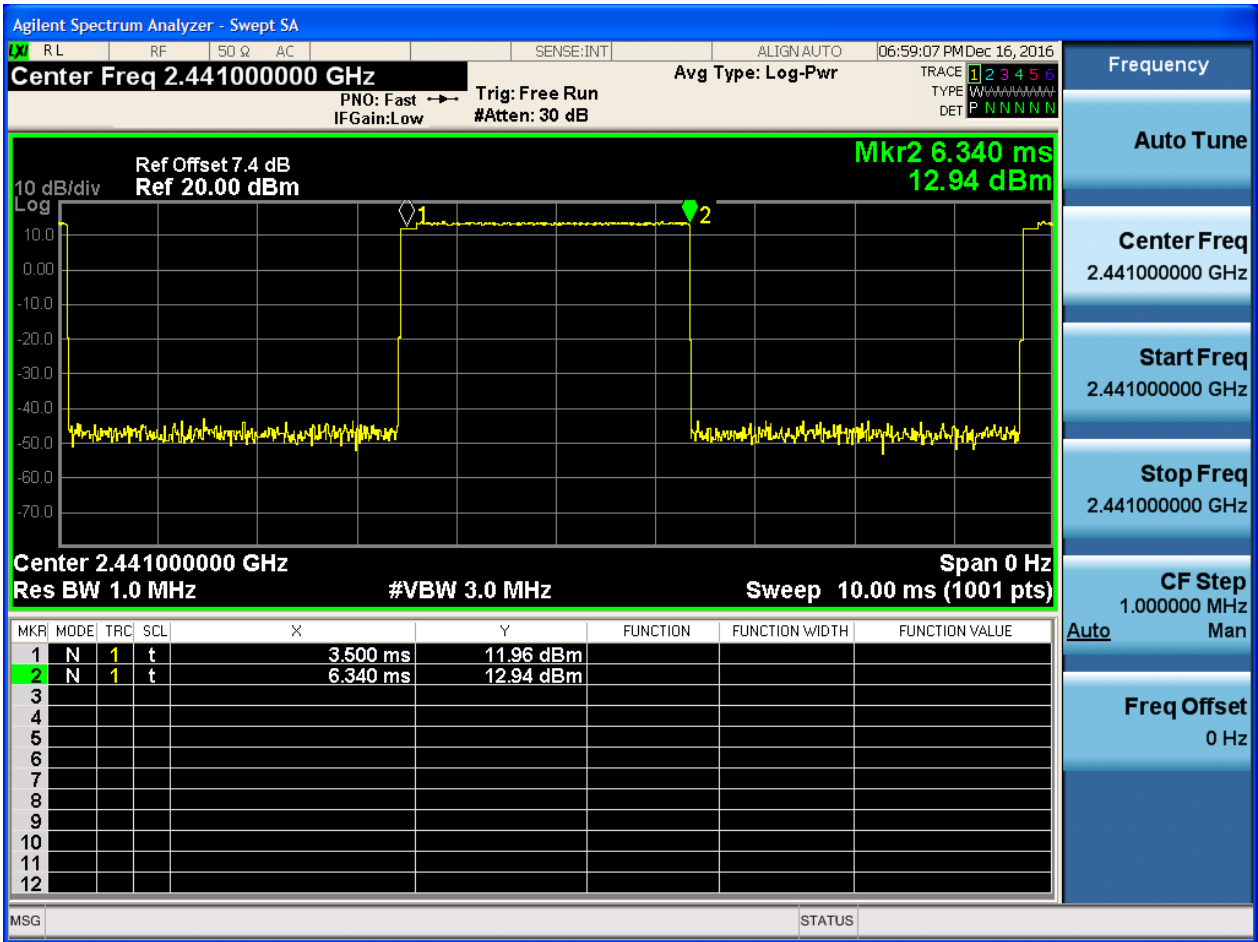
NOTE: The test plots are only for Burst Width measurements.

2.1 TM1_DH5_Ch39



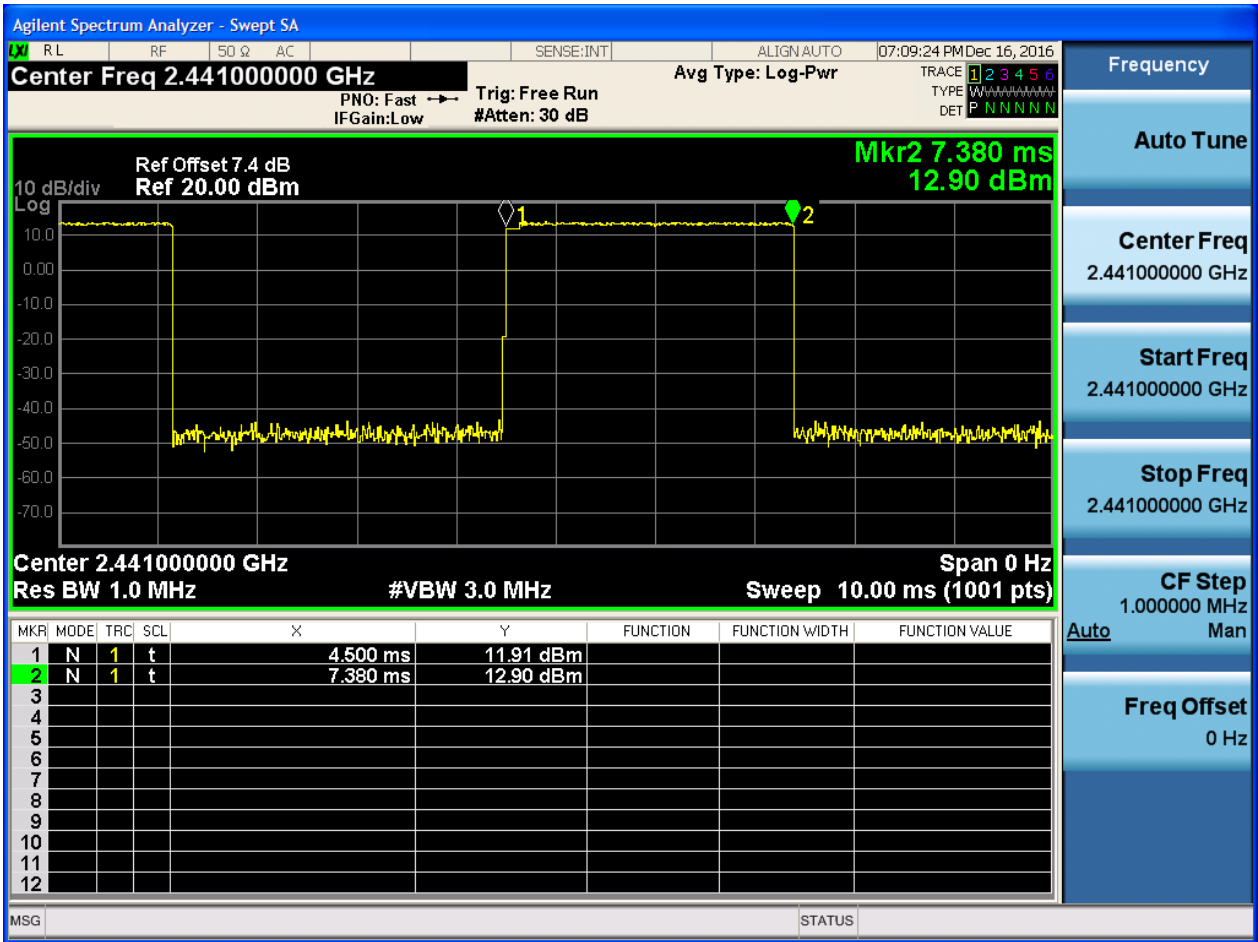


2.2 TM2_2DH5_Ch39





2.3 TM3_3DH5_Ch39





Appendix E: Maximum Peak Conducted Output Power



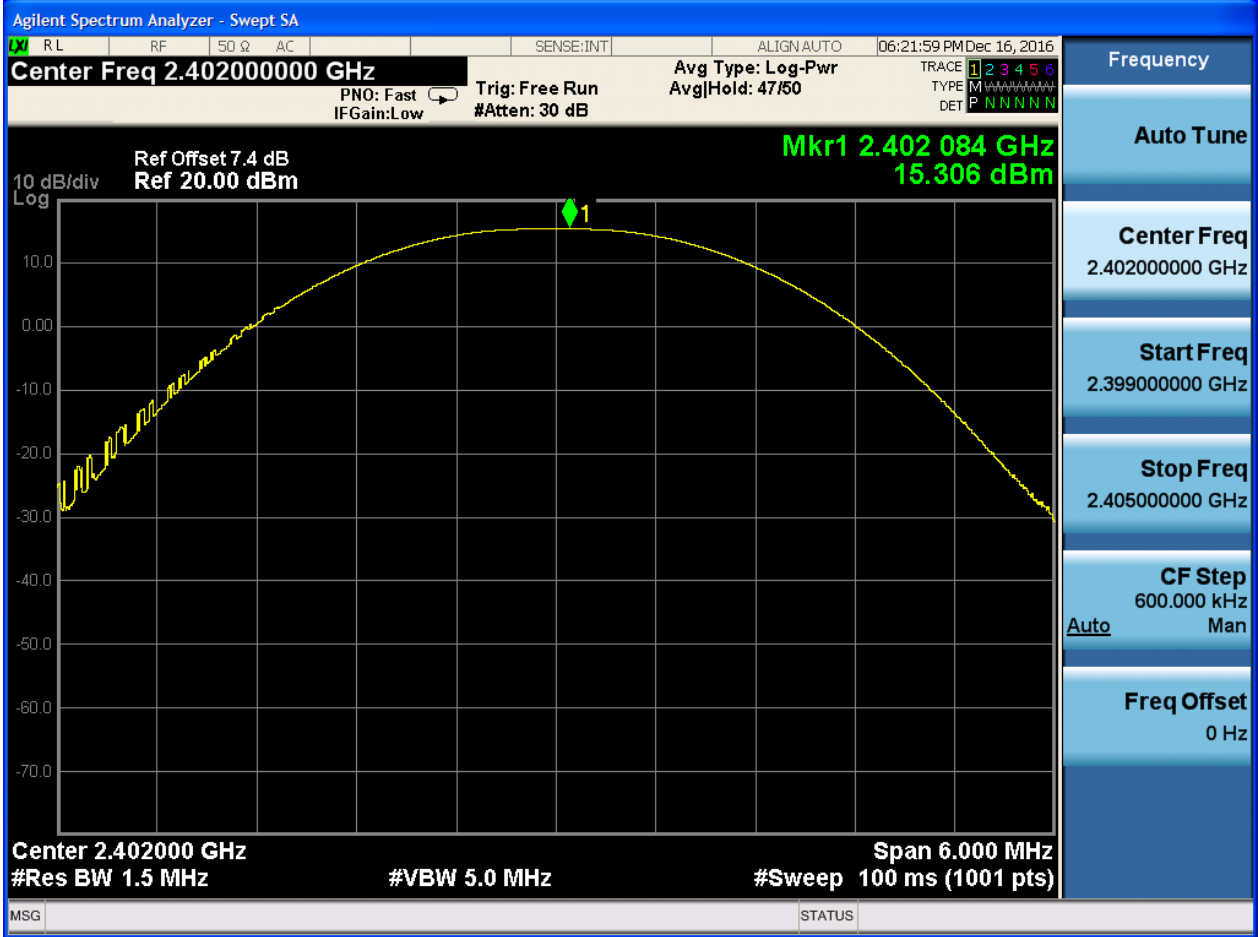
1 Result Table

EUT Conf.	Max. Peak Power [dBm]	Verdict
TM1_DH5_Ch0	15.306	Pass
TM1_DH5_Ch39	15.908	Pass
TM1_DH5_Ch78	15.951	Pass
TM2_2DH5_Ch0	13.583	Pass
TM2_2DH5_Ch39	14.261	Pass
TM2_2DH5_Ch78	15.011	Pass
TM3_3DH5_Ch0	13.671	Pass
TM3_3DH5_Ch39	14.209	Pass
TM3_3DH5_Ch78	14.91	Pass



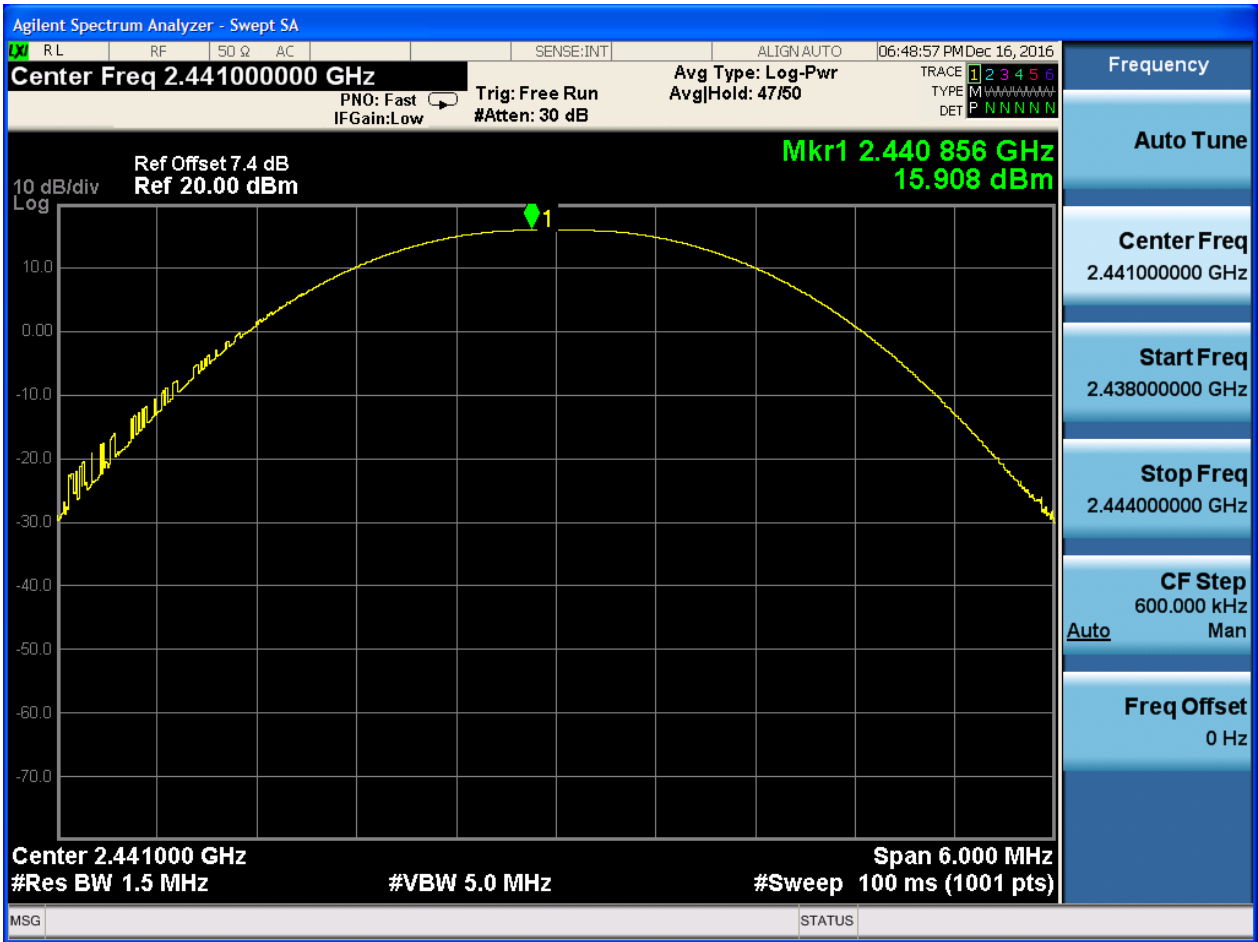
2 Test Plot

2.1 TM1_DH5_Ch0



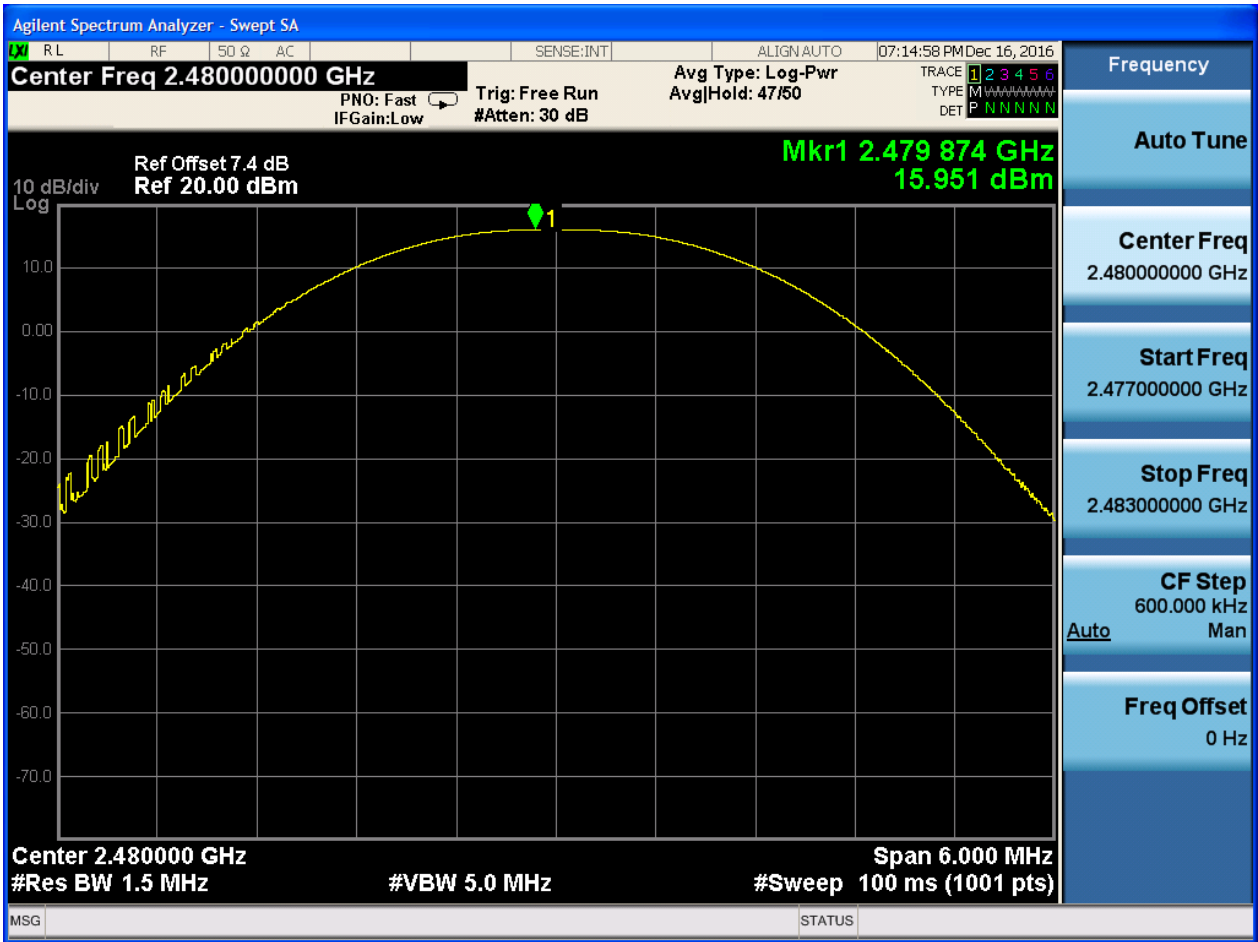


2.2 TM1_DH5_Ch39



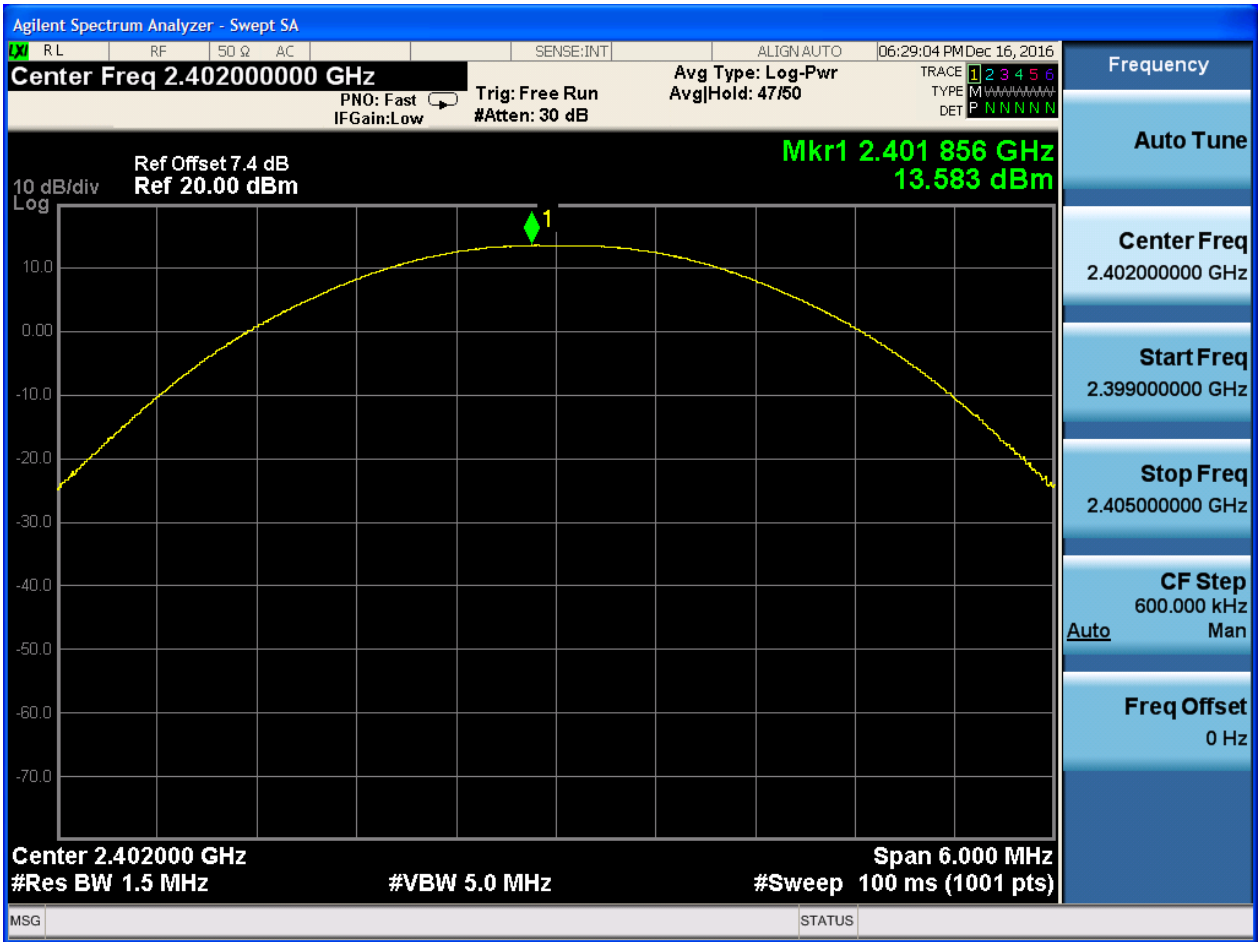


2.3 TM1_DH5_Ch78



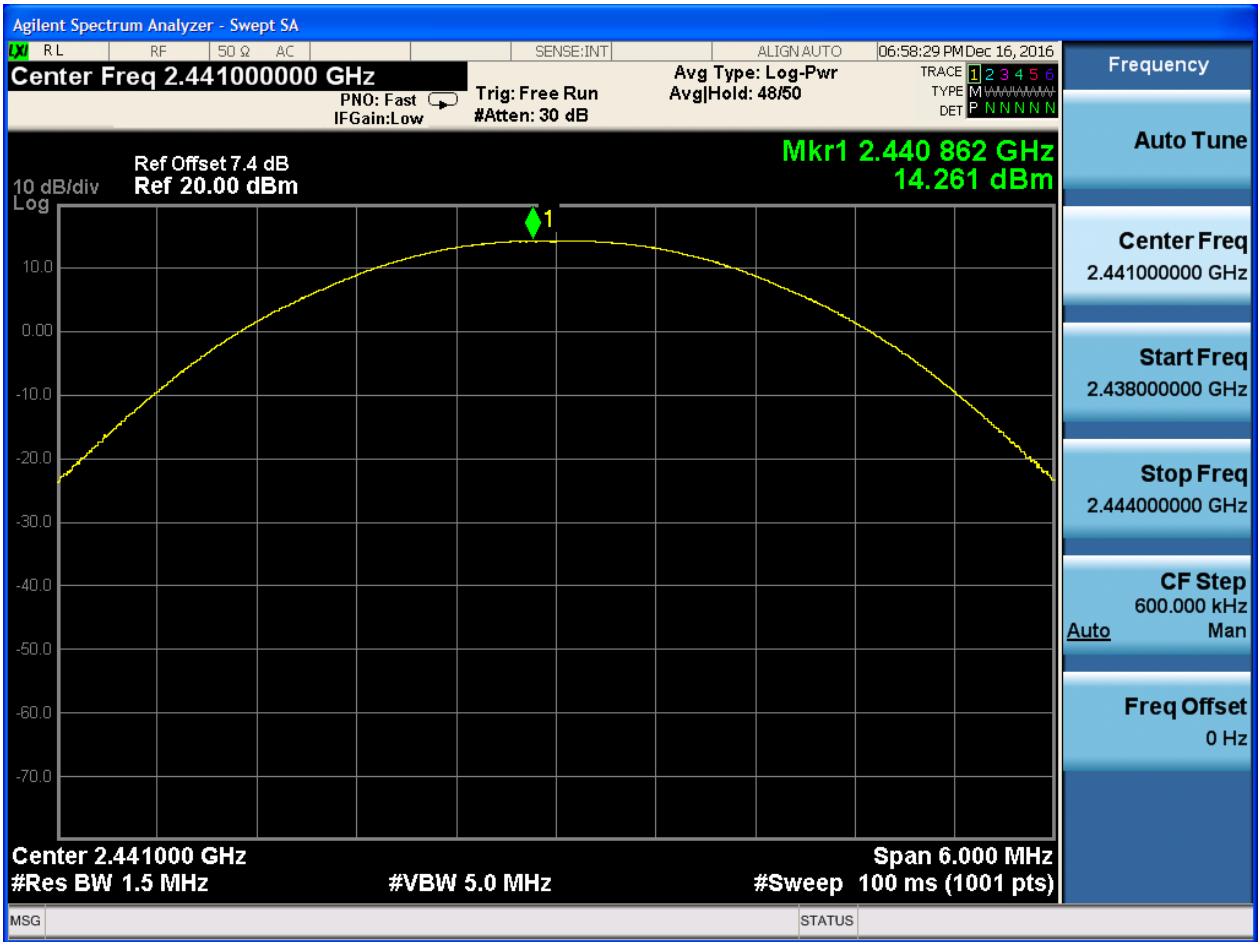


2.4 TM2_2DH5_Ch0



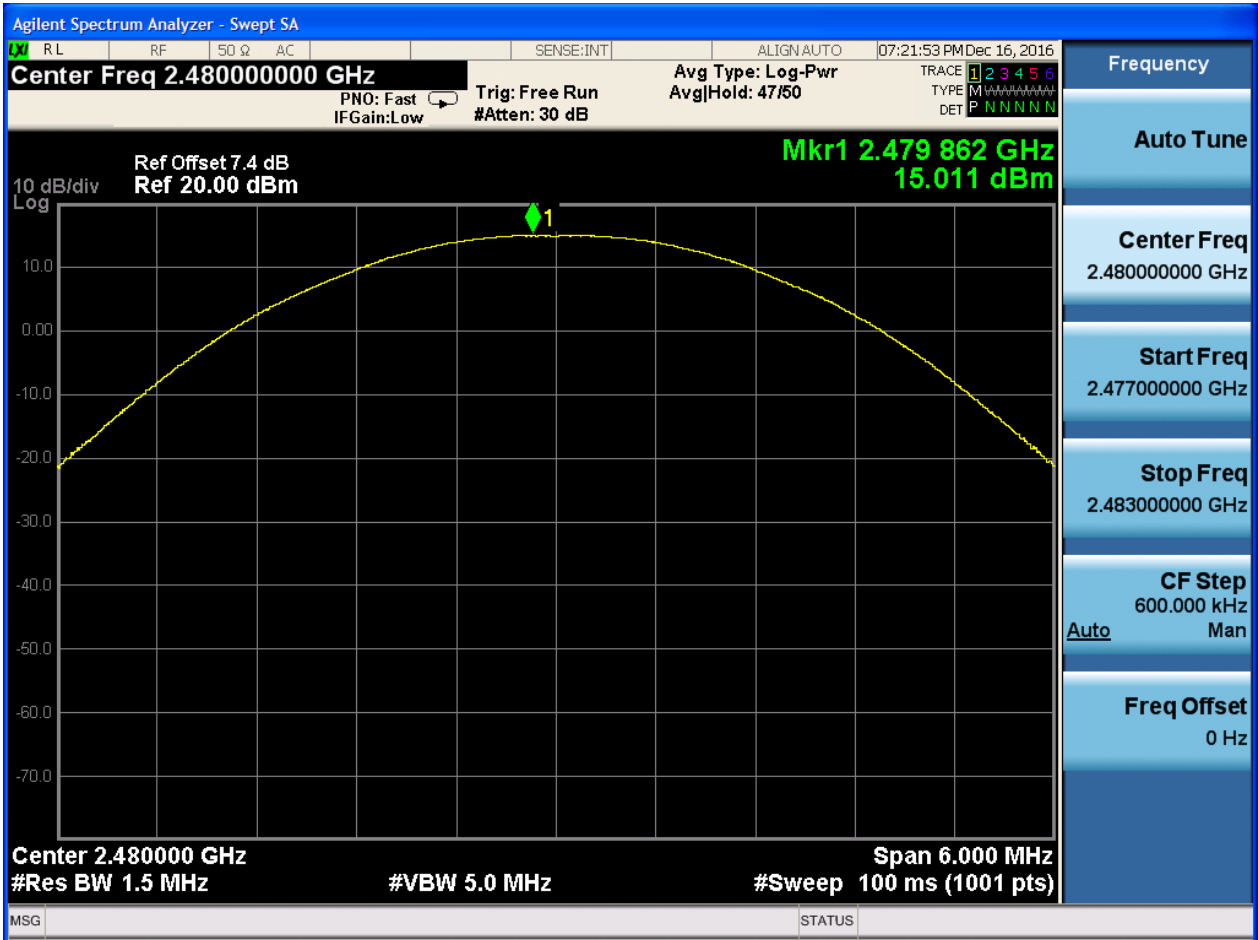


2.5 TM2_2DH5_Ch39



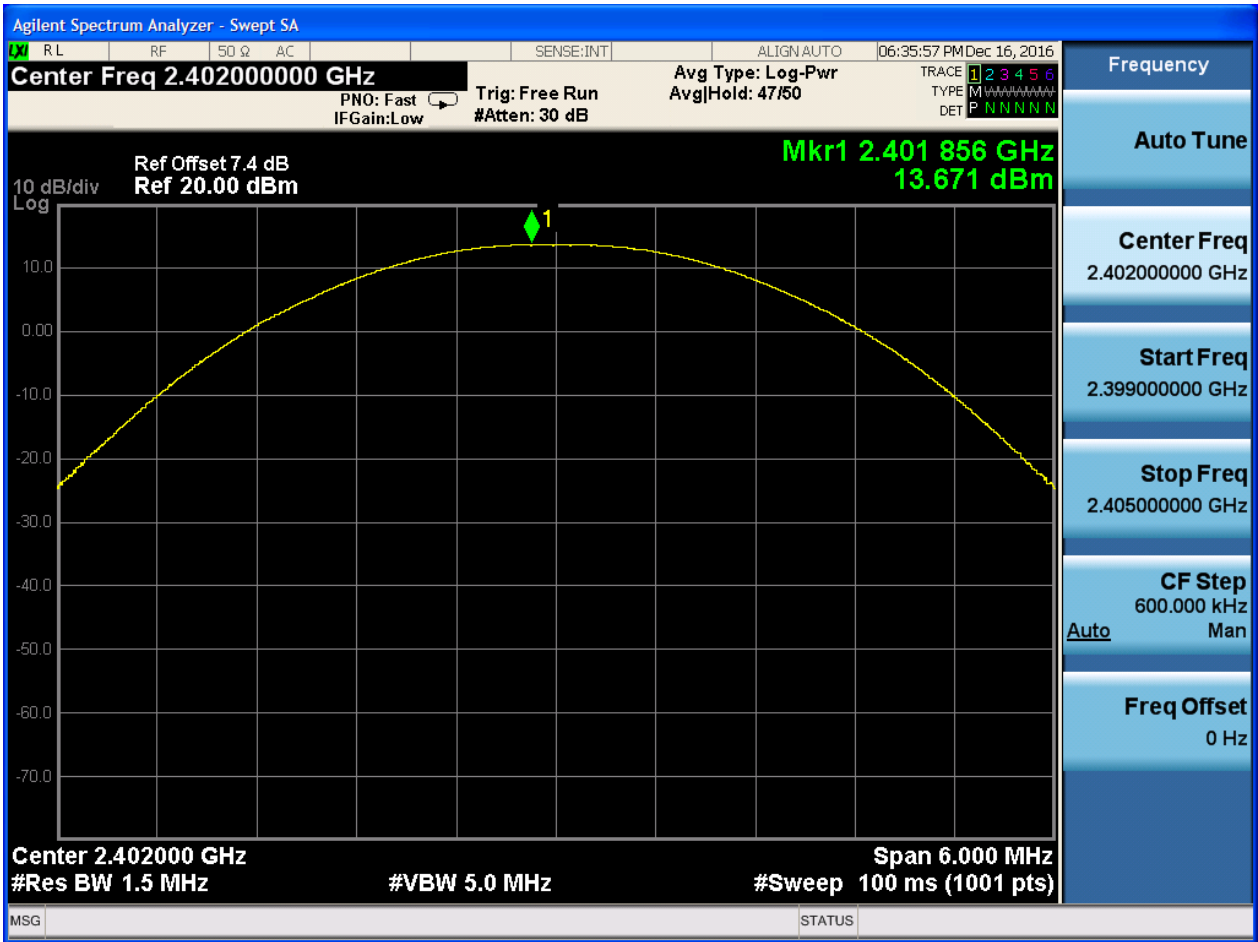


2.6 TM2_2DH5_Ch78



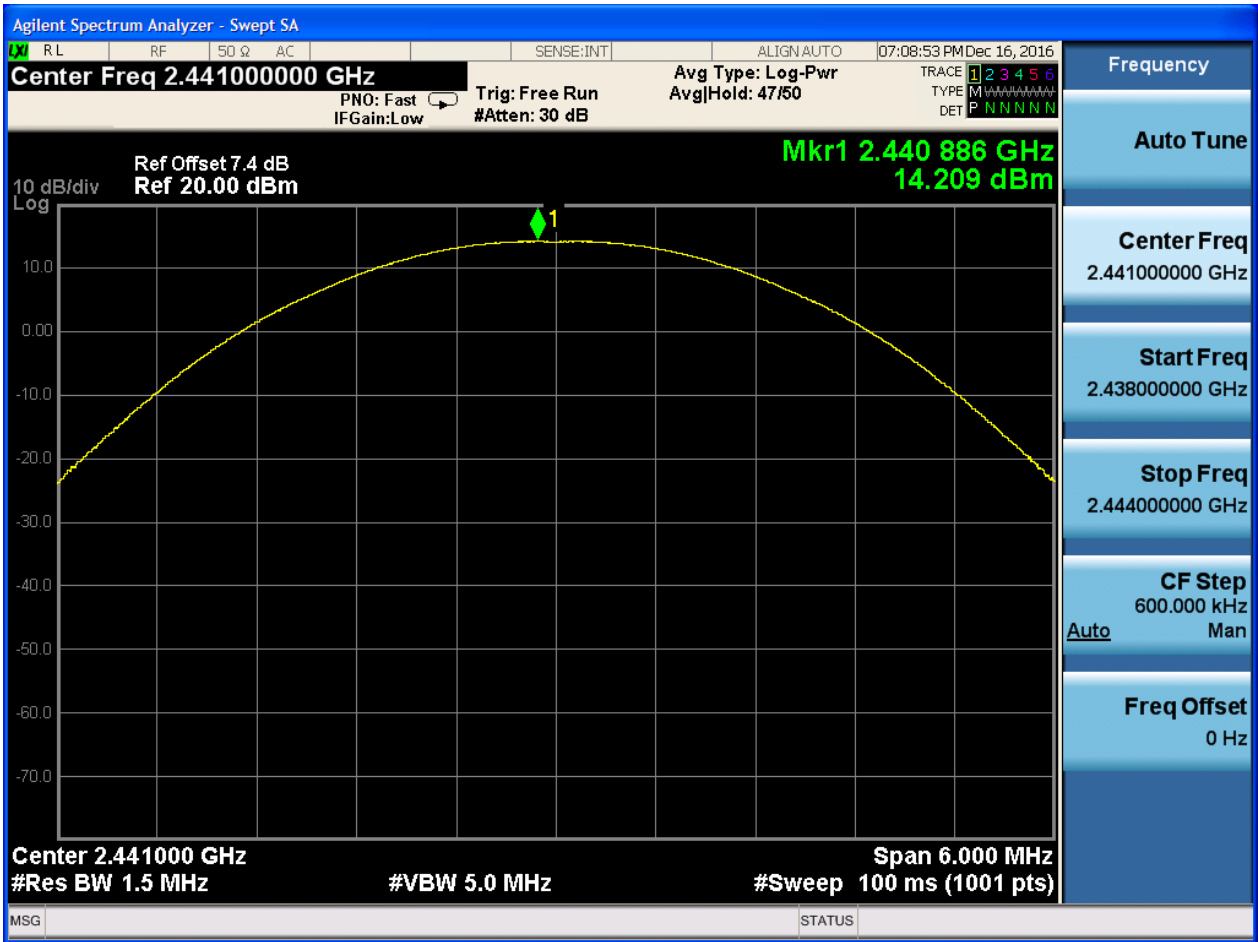


2.7 TM3_3DH5_Ch0





2.8 TM3_3DH5_Ch39





Appendix F: Band edge spurious emission

1 Result Table

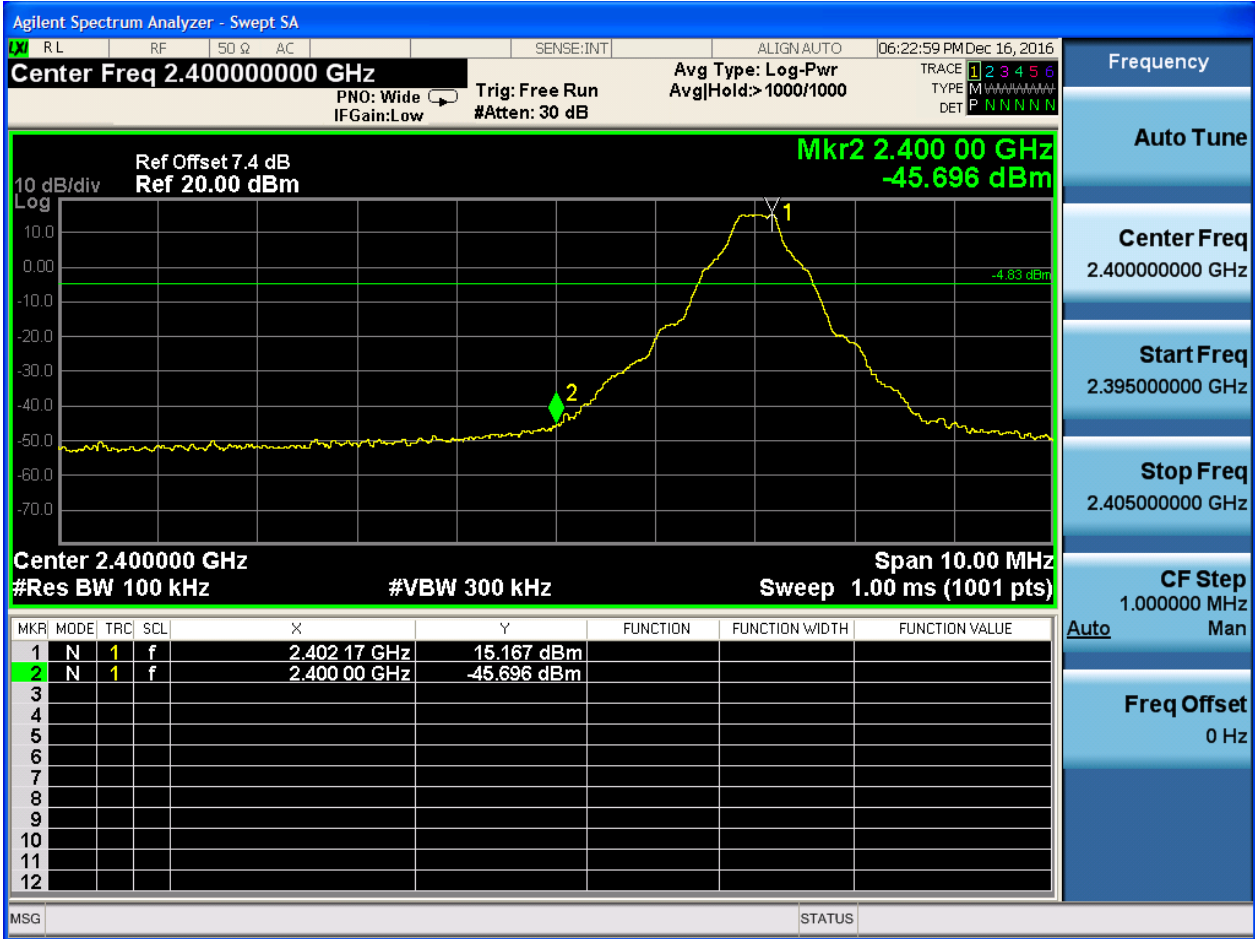
EUT Conf.	Channel No.	Carrier Frequency [MHz]	Max. Spurious Level [dBm]	Frequency Hopping	Carrier Power [dBm]	Limit [dBm]	Result
TM1_DH5_Ch0	0	2402	-45.696	Off	15.167	-4.833	Pass
	-	-	-48.737	On	14.912	-5.088	Pass
TM1_DH5_Ch78	78	2480	-49.205	Off	15.812	-4.188	Pass
	-	-	-51.048	On	15.484	-4.516	Pass
TM2_2DH_5_Ch0	0	2402	-46.568	Off	11.235	-8.765	Pass
	-	-	-48.522	On	10.734	-9.266	Pass
TM2_2DH_5_Ch78	78	2480	-49.597	Off	12.849	-7.151	Pass
	-	-	-50.255	On	12.163	-7.837	Pass
TM3_3DH_5_Ch0	0	2402	-46.554	Off	11.399	-8.601	Pass
	-	-	-47.882	On	10.079	-9.921	Pass
TM3_3DH_5_Ch78	78	2480	-48.649	Off	12.703	-7.297	Pass
	-	-	-51.129	On	12.56	-7.44	Pass



2 Test Plot

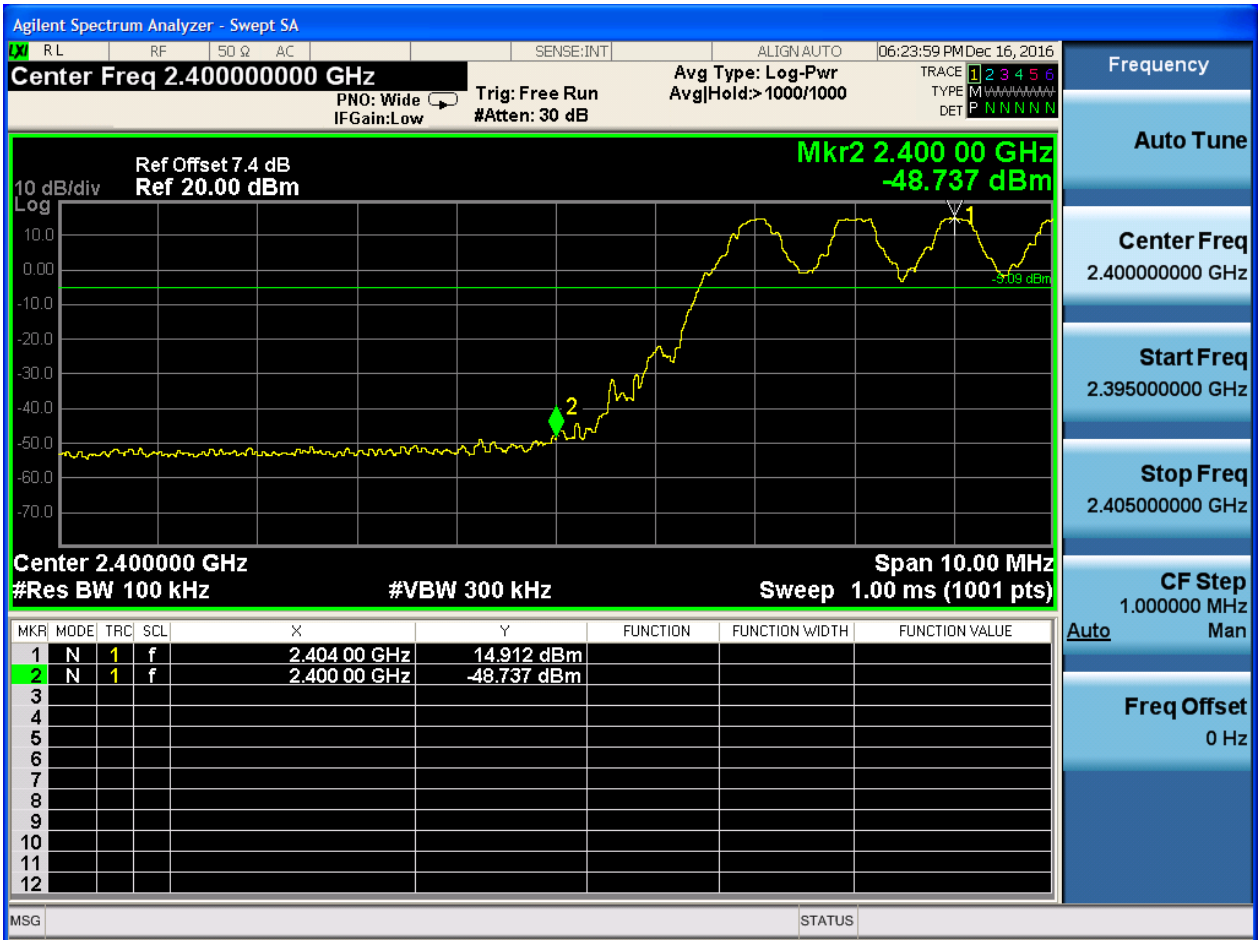
2.1 TM1_DH5_Ch0

No hopping





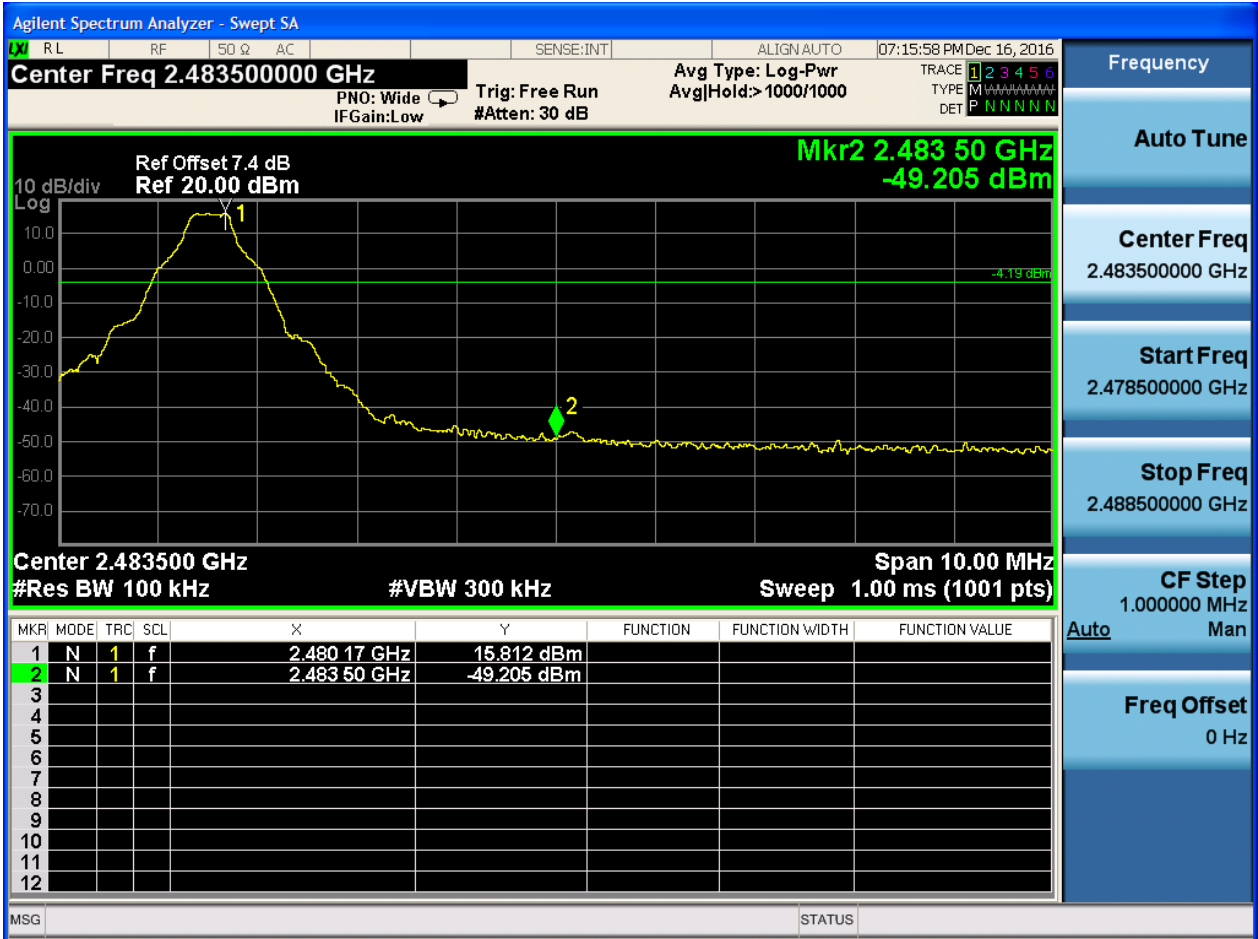
With hopping





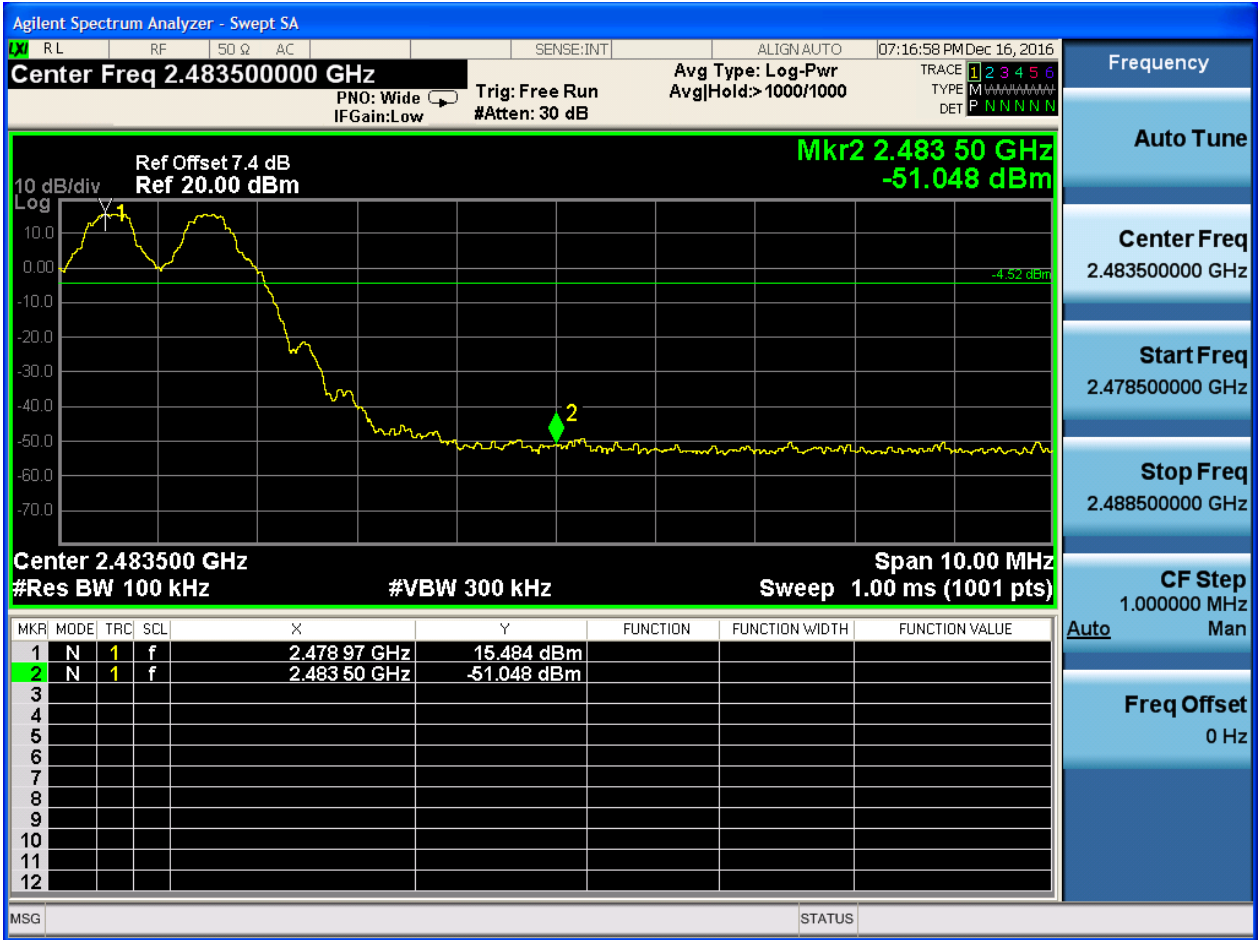
2.2 TM1_DH5_Ch78

No hopping





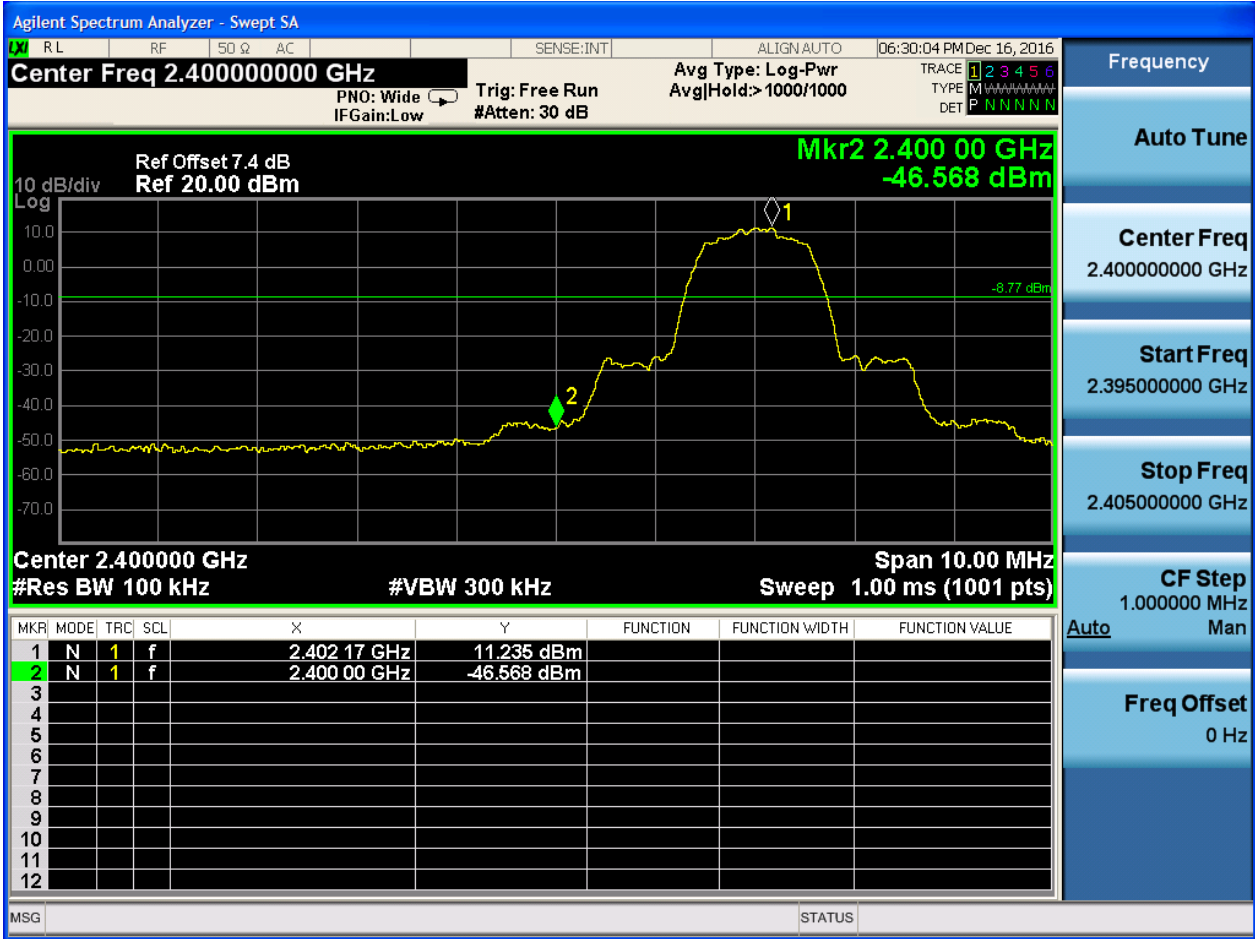
With hopping





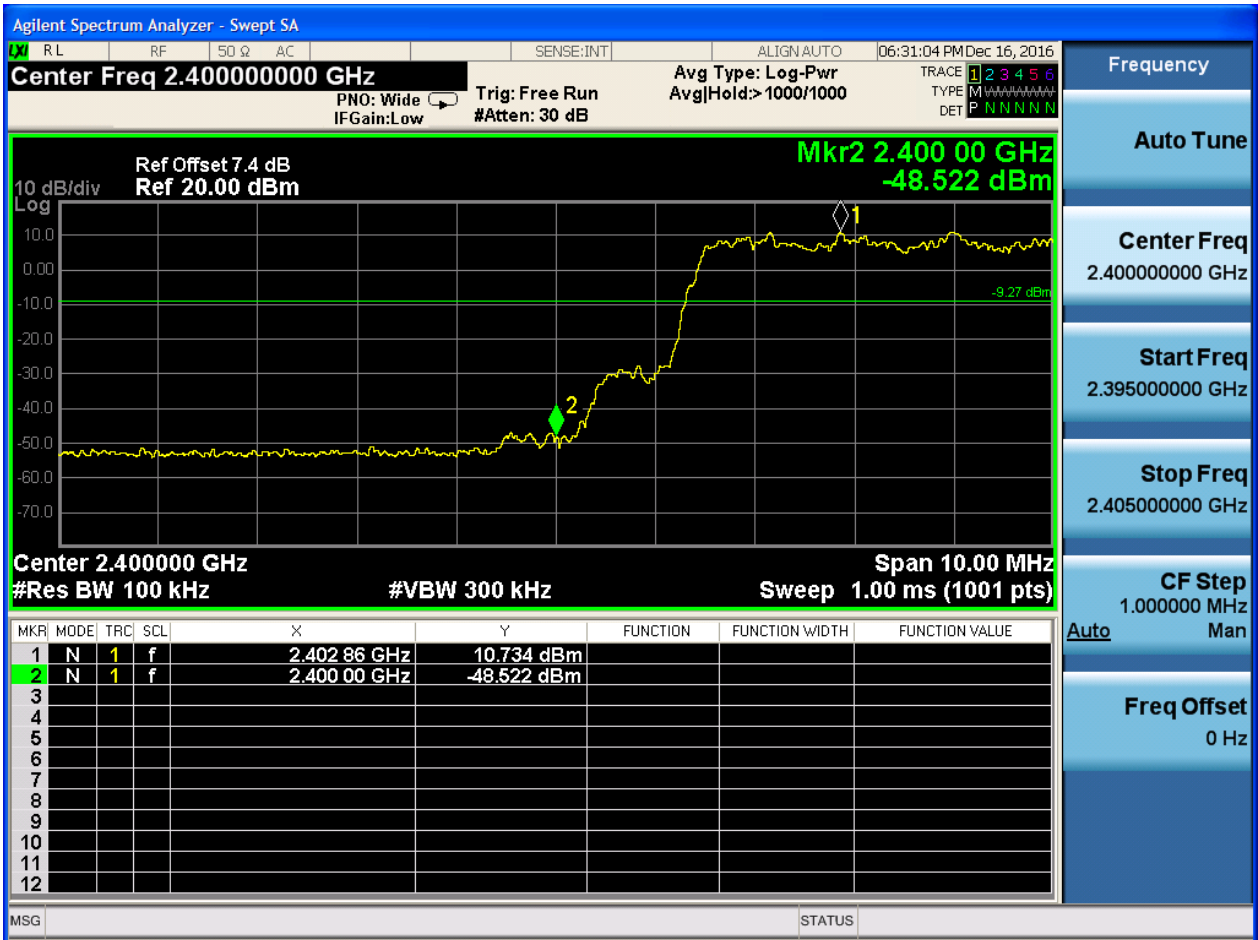
2.3 TM2_2DH5_Ch0

No hopping





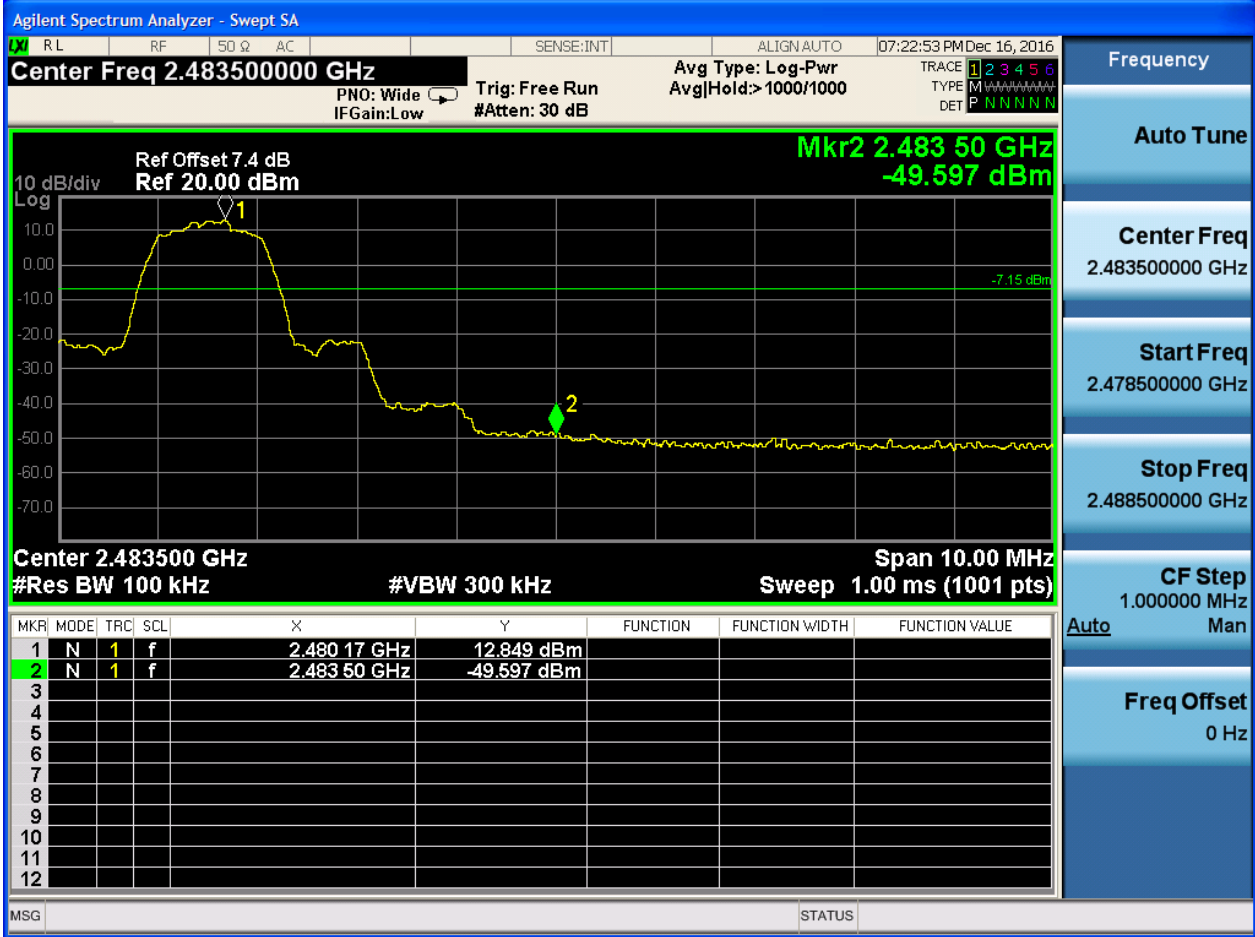
With hopping



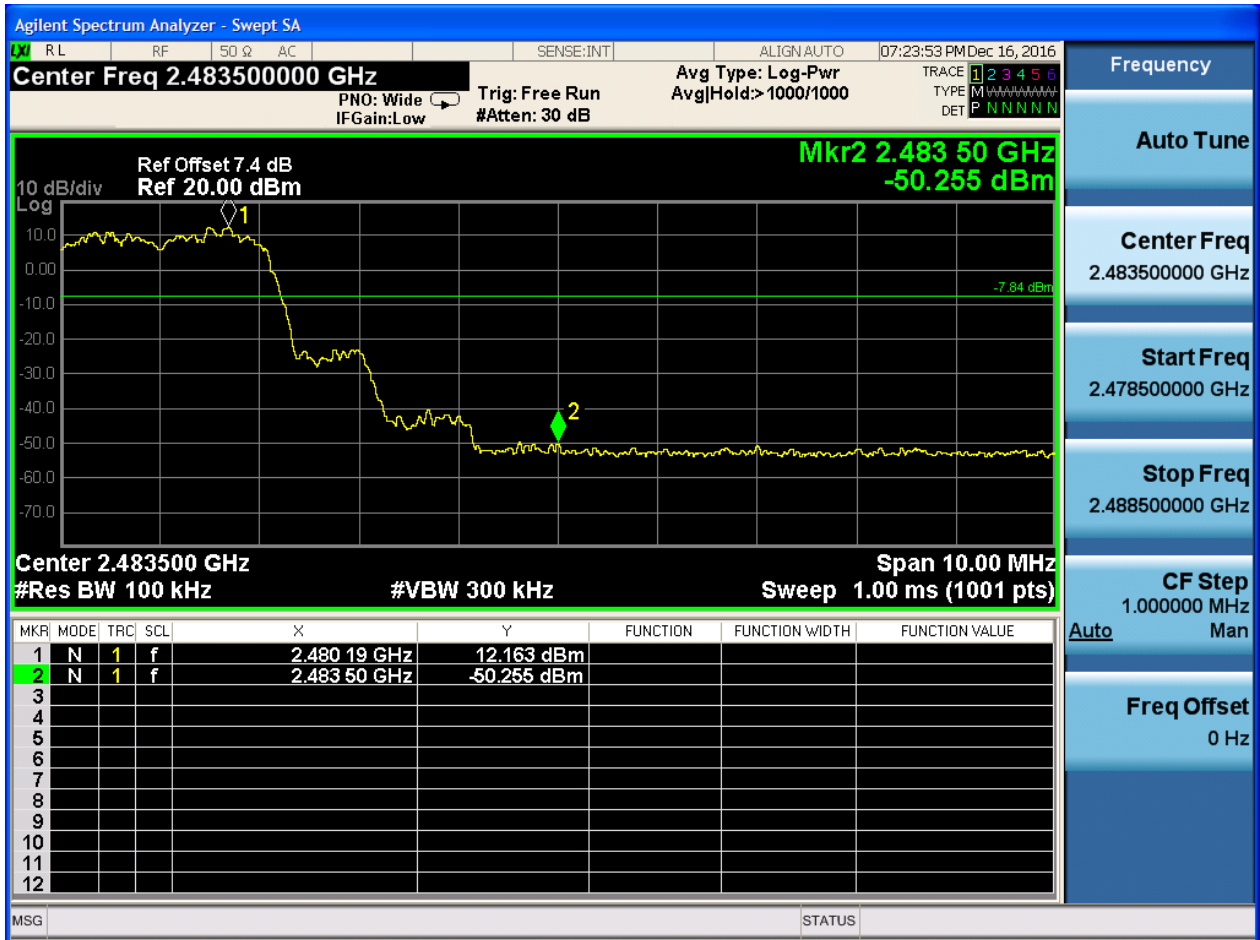


2.4 TM2_2DH5_Ch78

No hopping



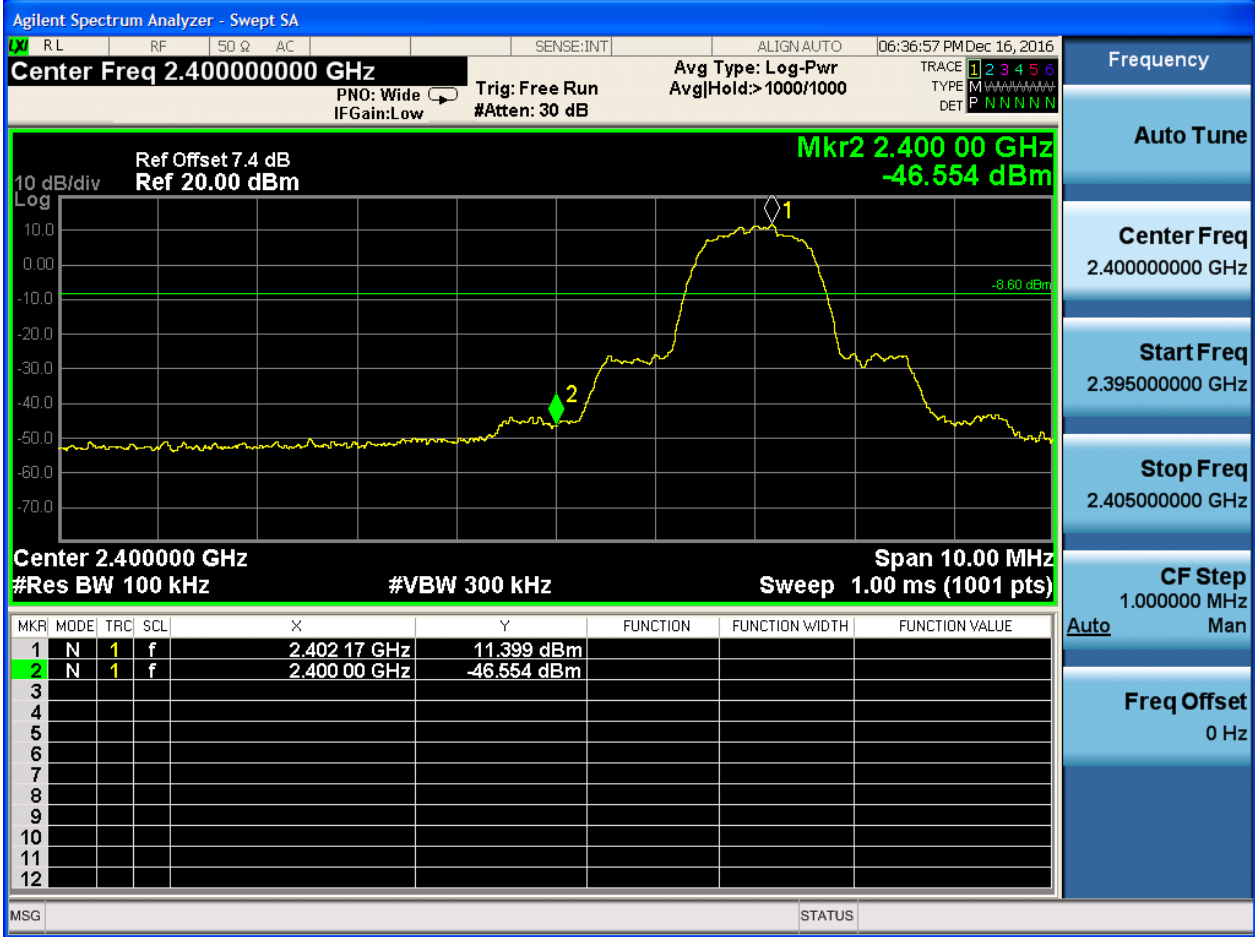
With hopping





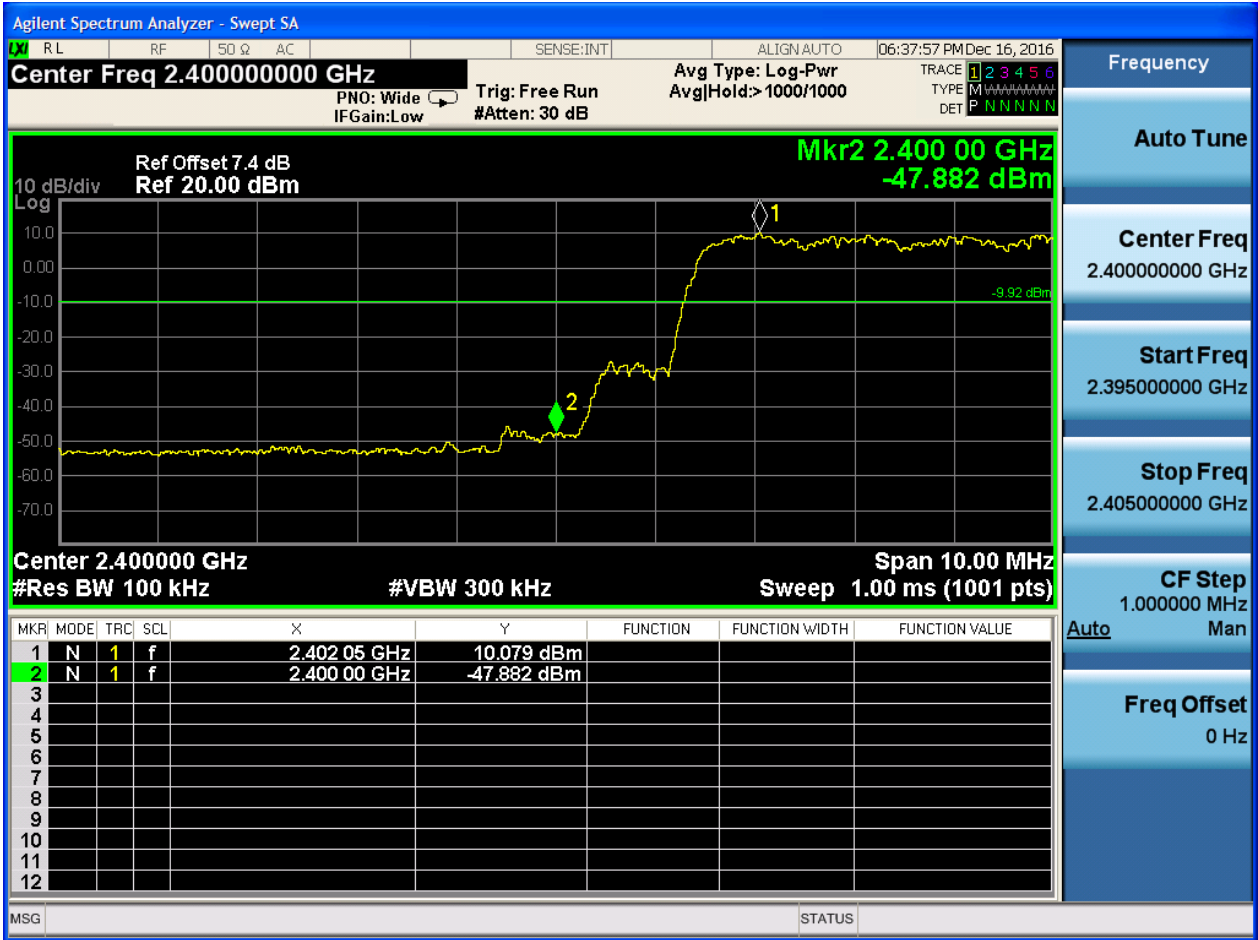
2.5 TM3_3DH5_Ch0

No hopping





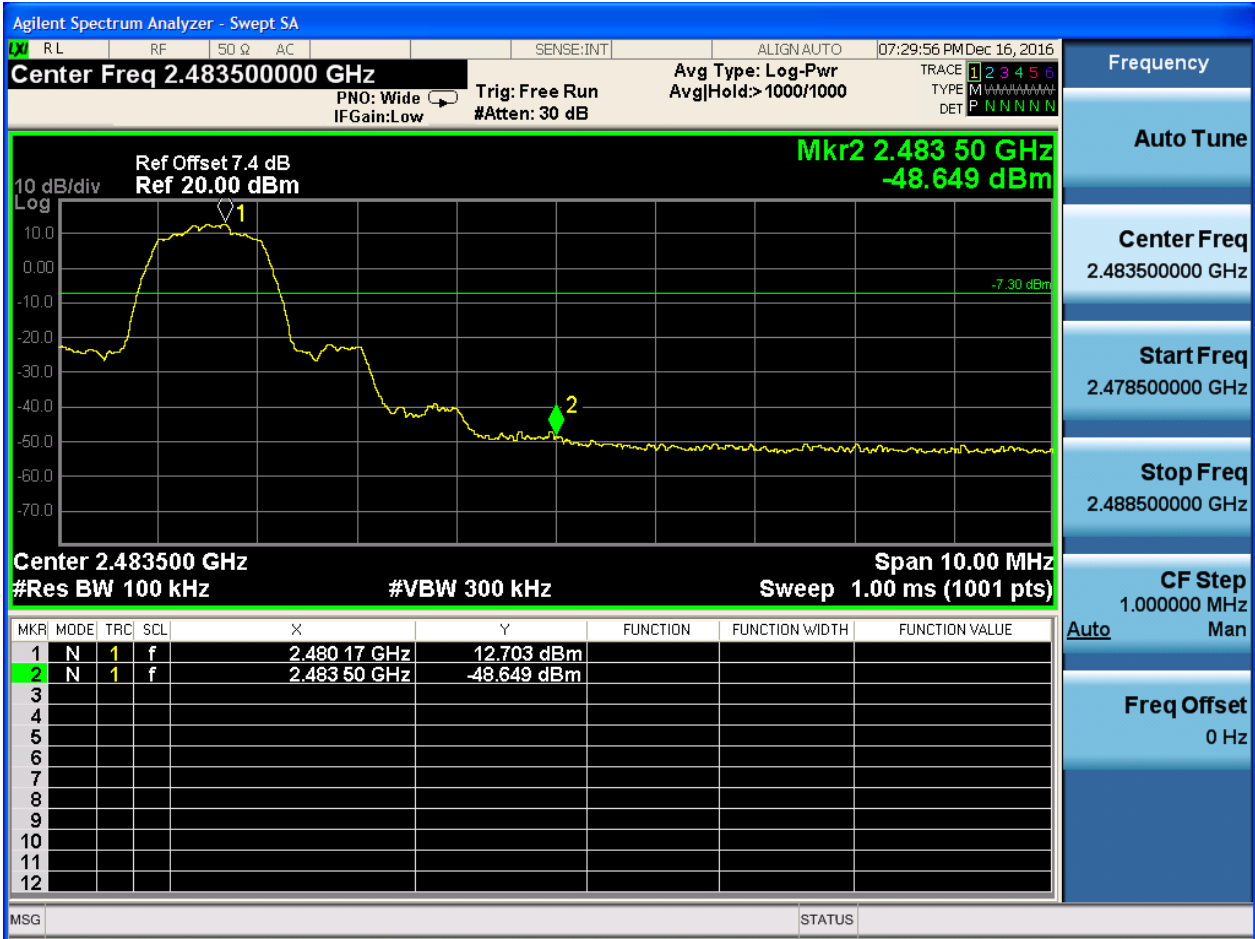
With hopping





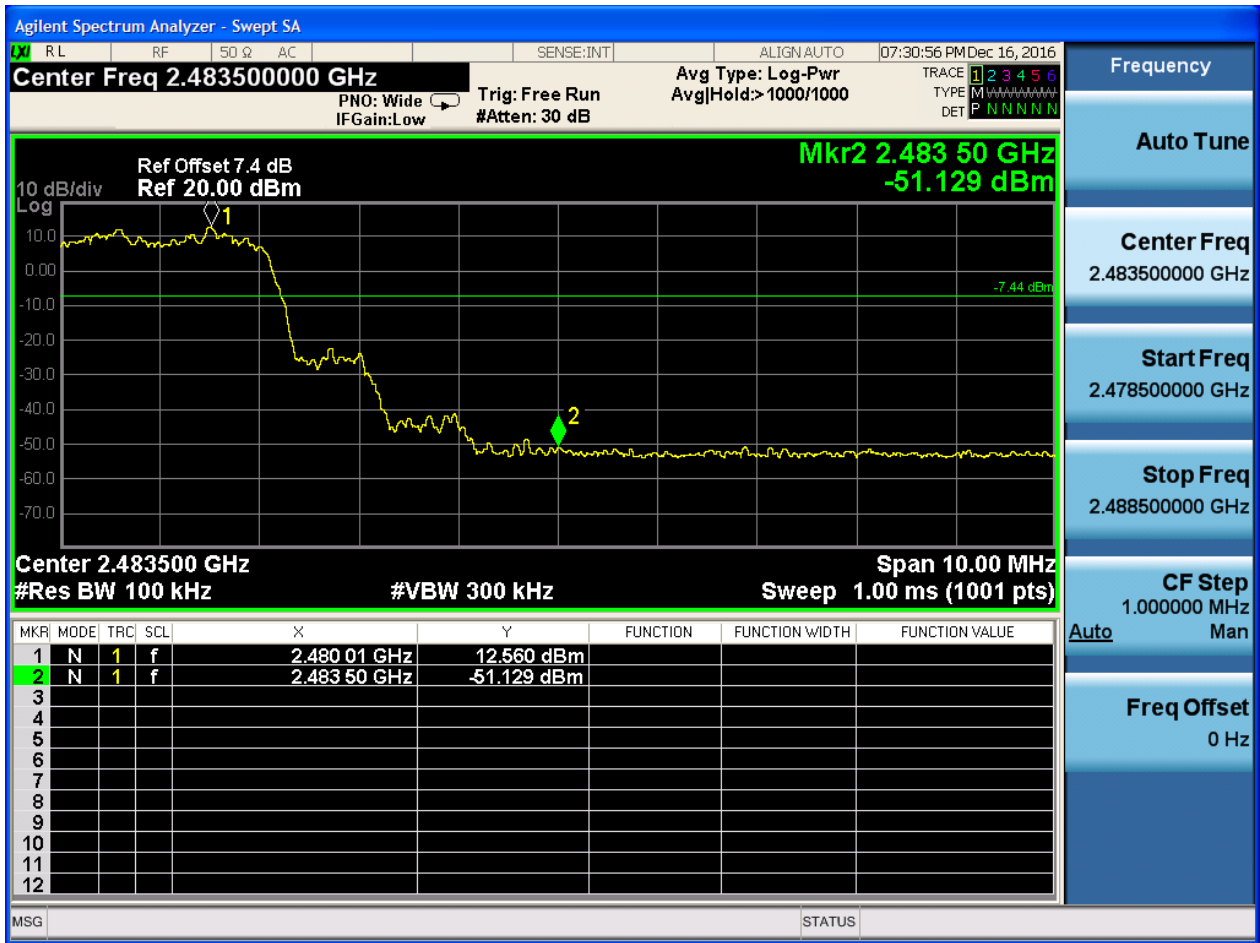
2.6 TM3_3DH5_Ch78

No hopping





With hopping





Appendix G: Conducted RF Spurious Emission



1 Result Table

In this Appendix, the “Pref” refers to the peak power level in any 100 kHz bandwidth within the fundamental emission which is used as the reference level, 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.

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

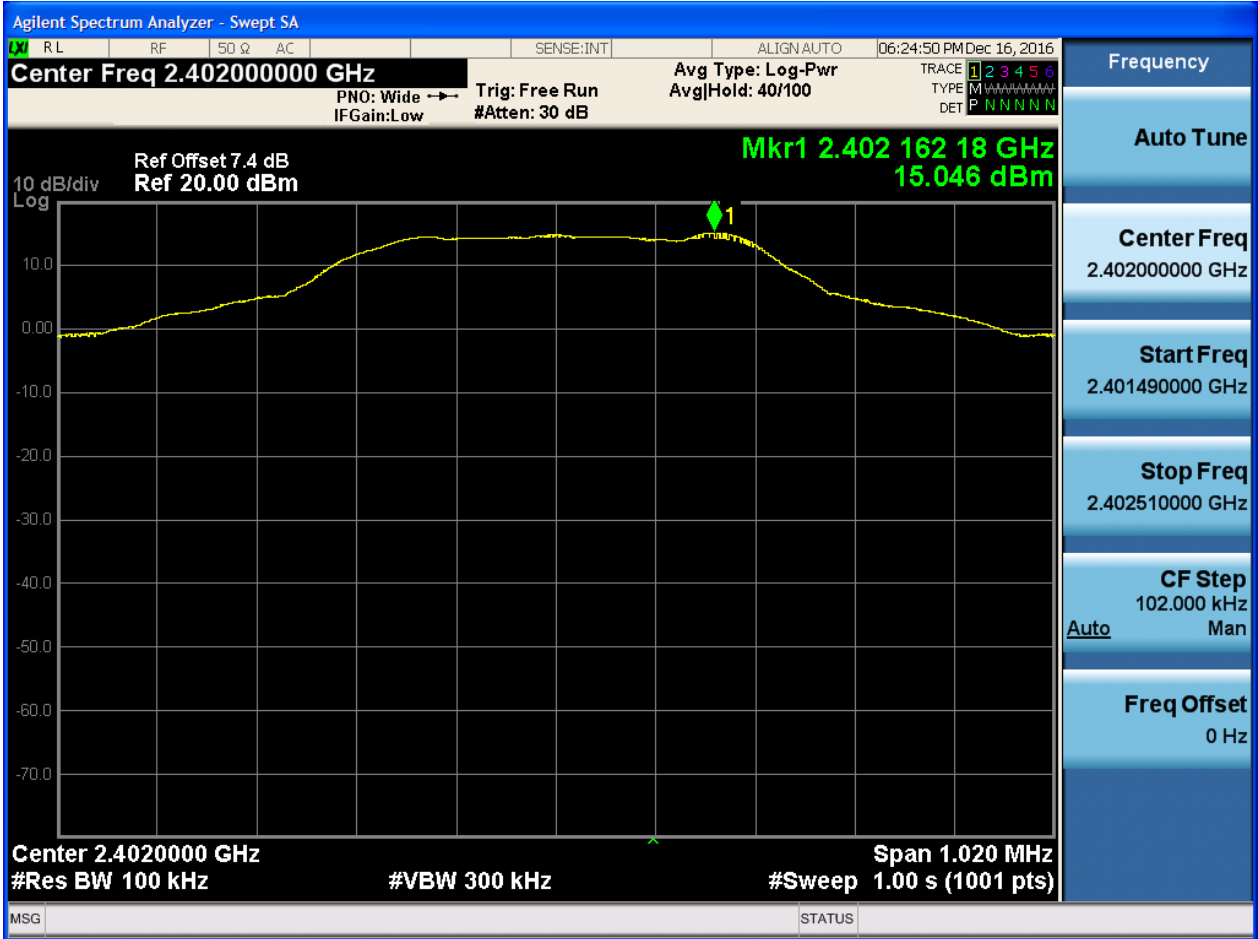
EUT Conf.	Pref [dBm/100 kHz]	Puw [dBm/100 kHz]	Verdict
TM1_DH5_Ch0	15.046	< Limit	Pass
TM1_DH5_Ch39	15.78	< Limit	Pass
TM1_DH5_Ch78	15.714	< Limit	Pass
TM2_2DH5_Ch0	11.206	< Limit	Pass
TM2_2DH5_Ch39	11.979	< Limit	Pass
TM2_2DH5_Ch78	12.816	< Limit	Pass
TM3_3DH5_Ch0	11.35	< Limit	Pass
TM3_3DH5_Ch39	11.928	< Limit	Pass
TM3_3DH5_Ch78	12.633	< Limit	Pass



2 Test Plot

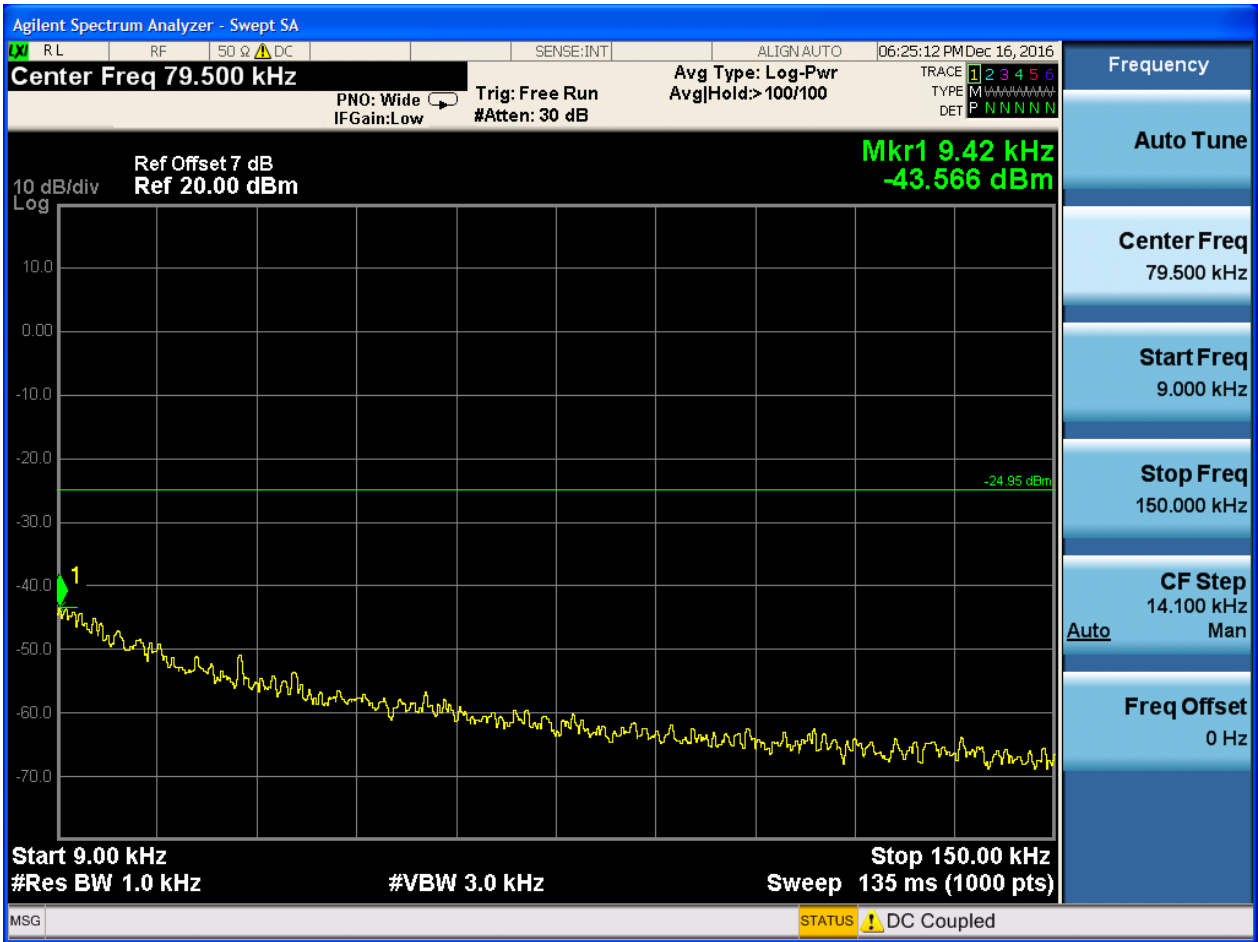
2.1 TM1_DH5_Ch0

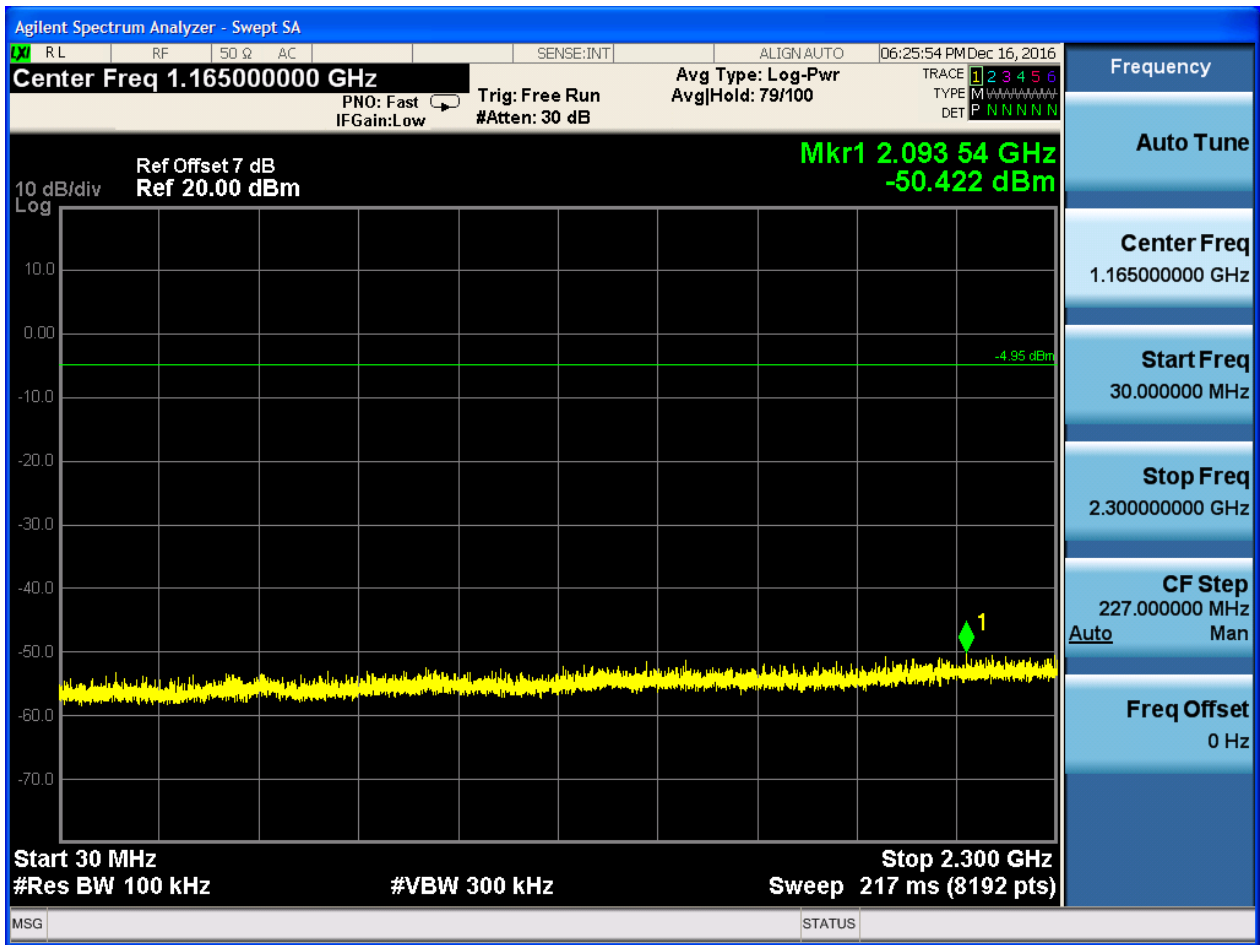
2.1.1 Pref

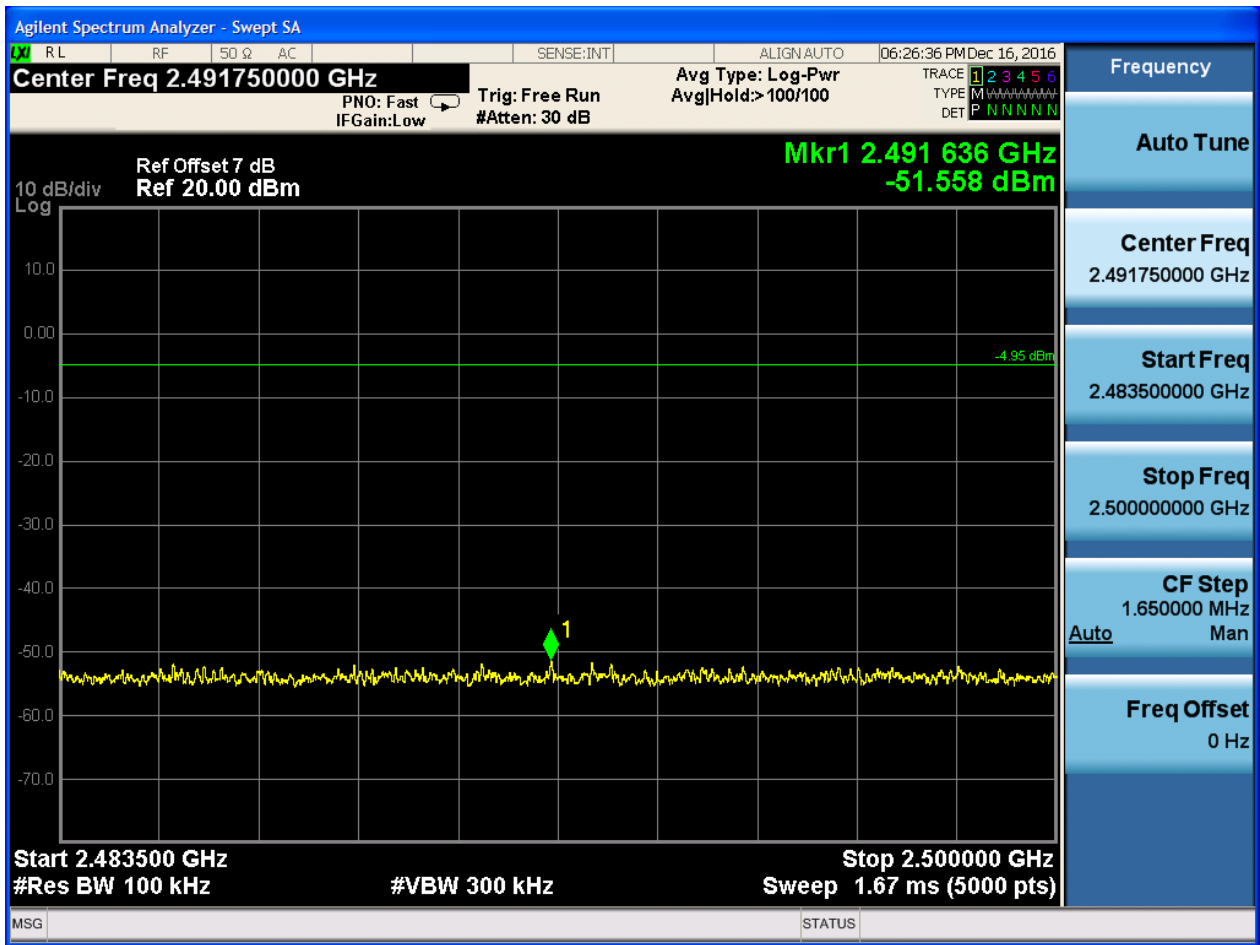


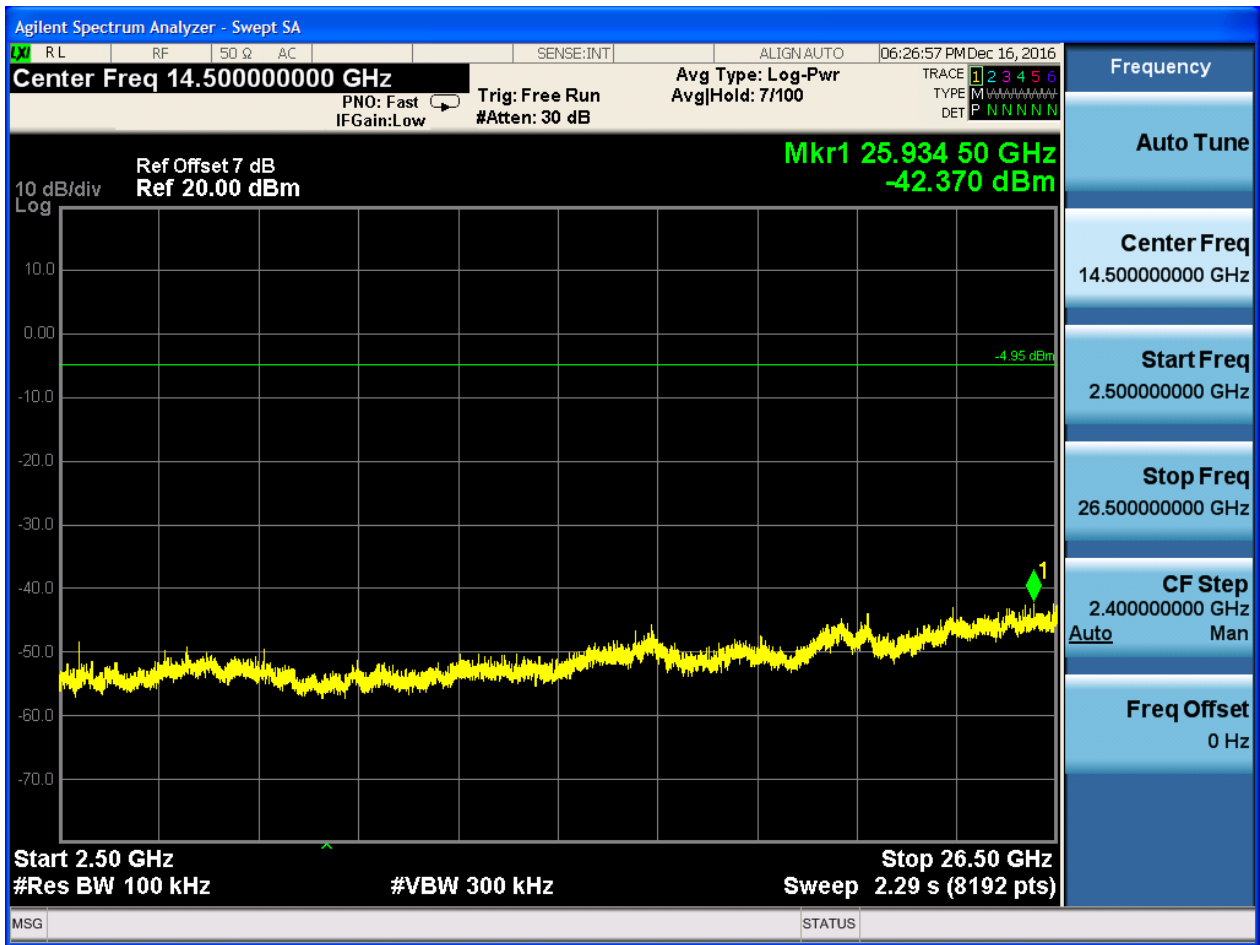


2.1.2 Puw











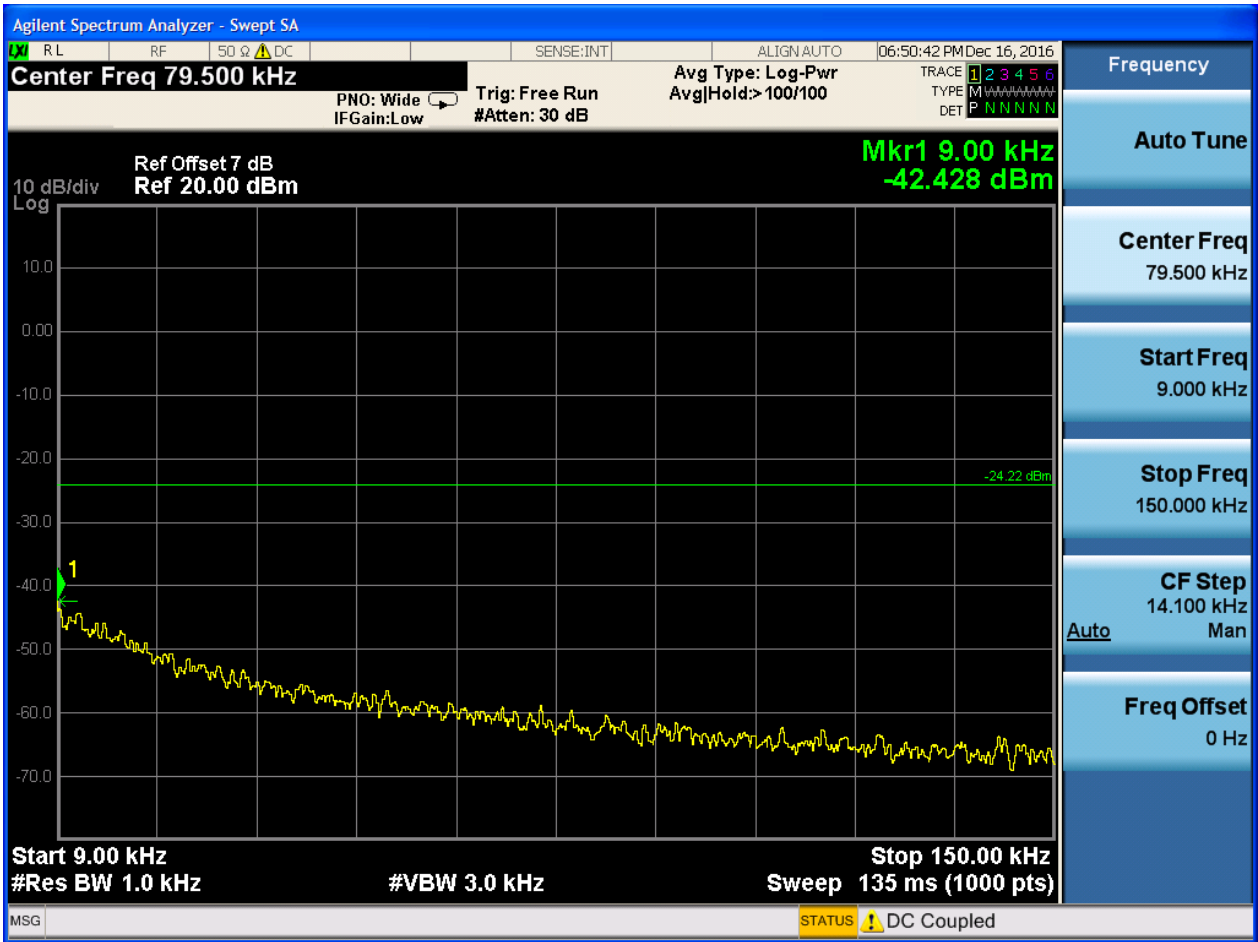
2.2 TM1_DH5_Ch39

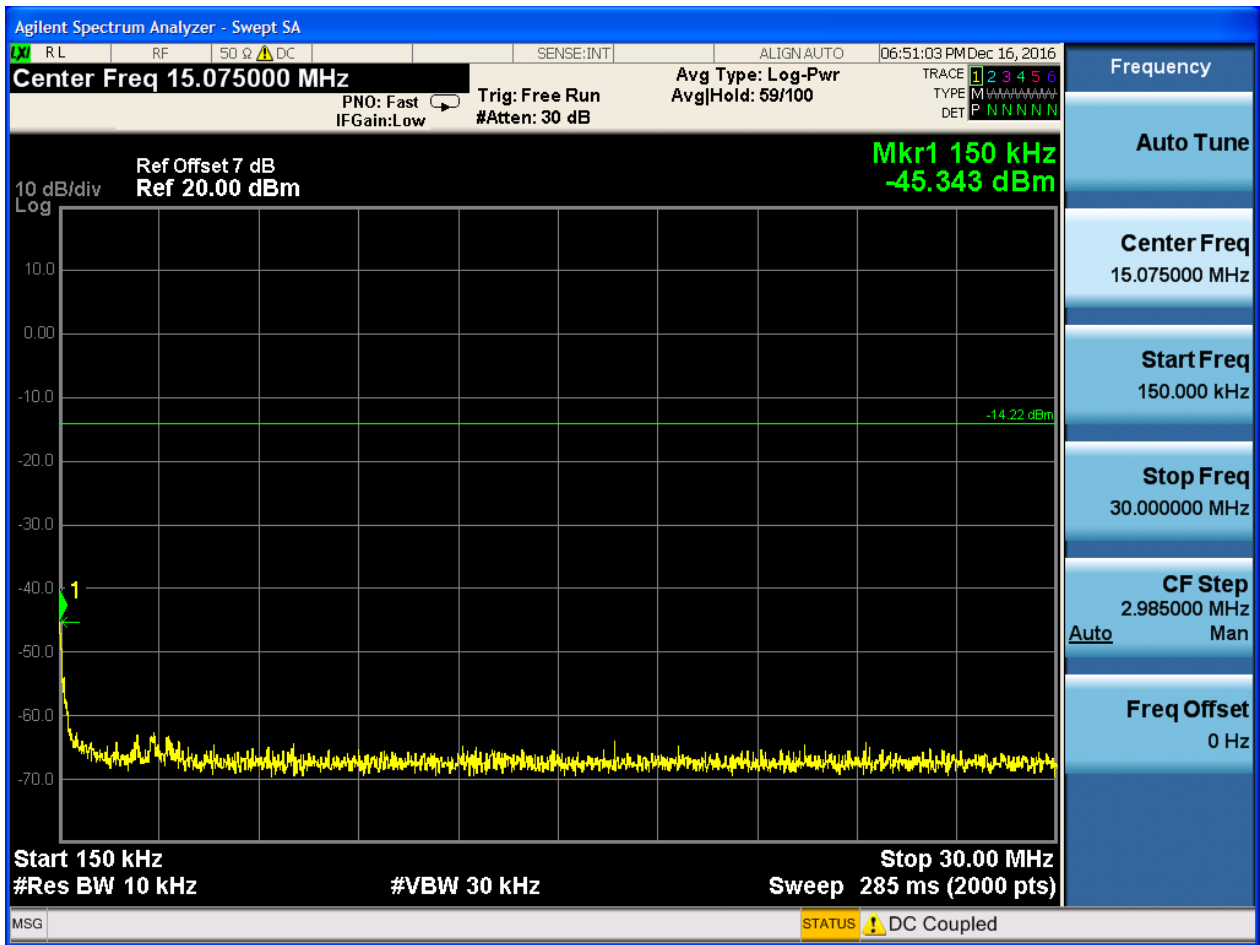
2.2.1 Pref

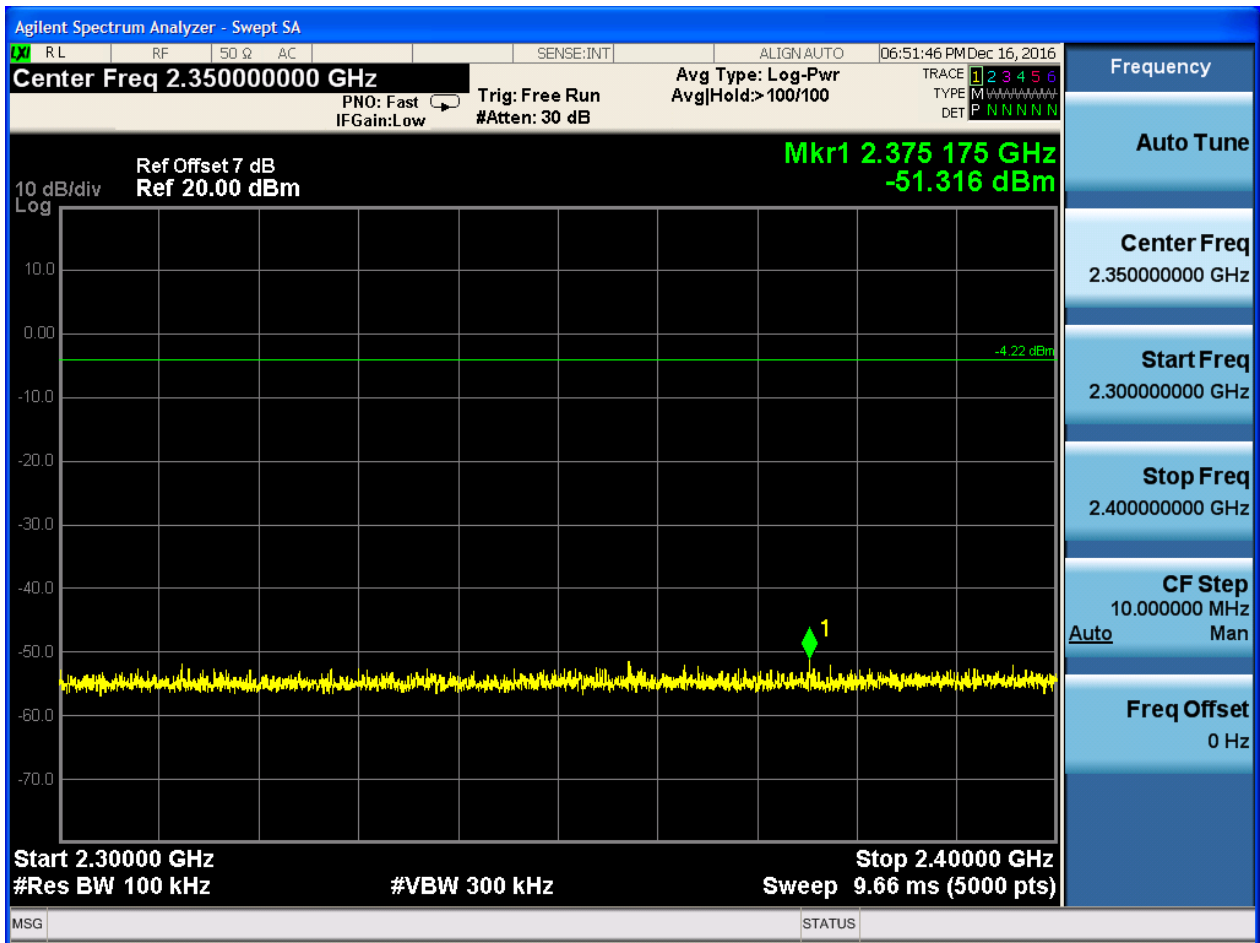


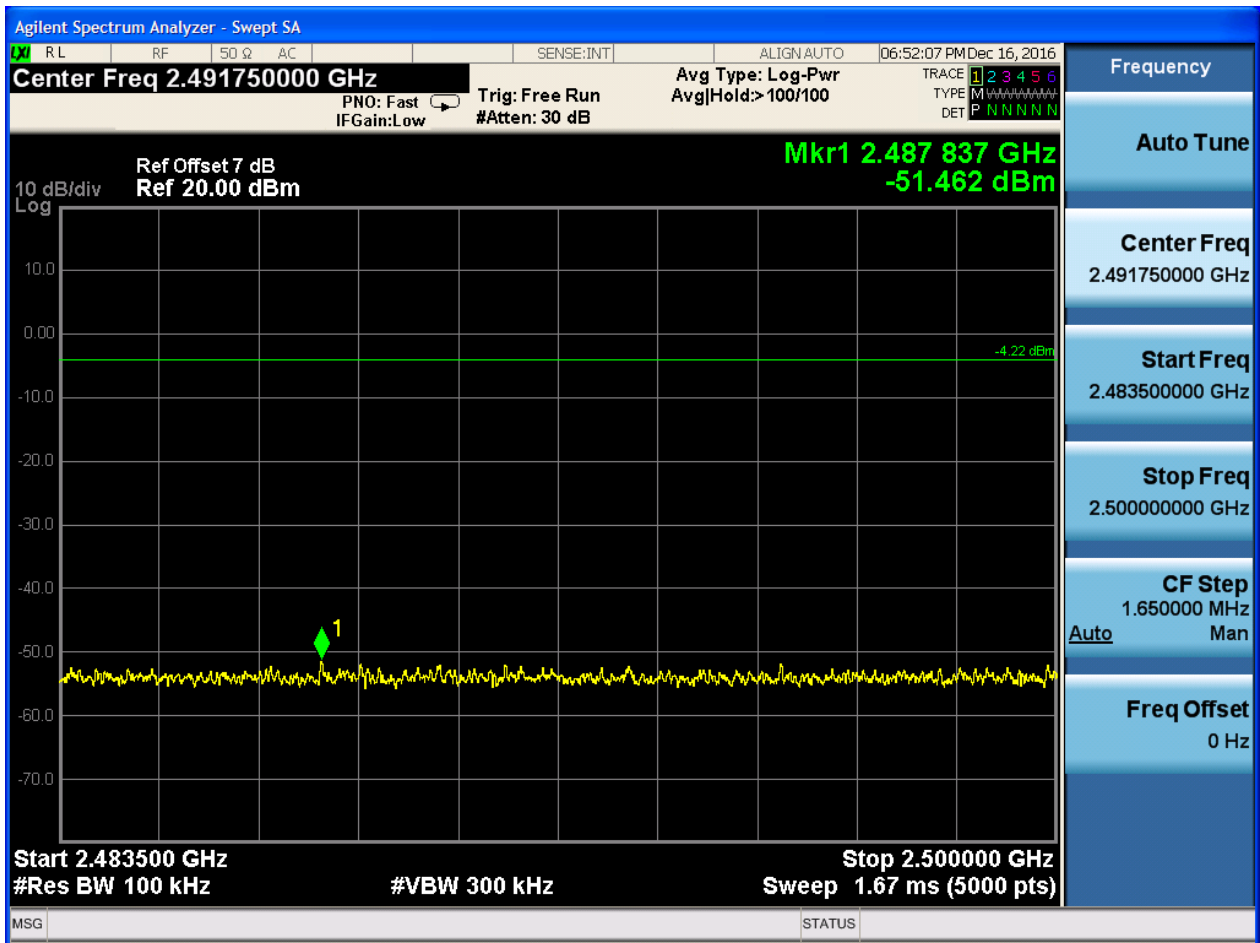


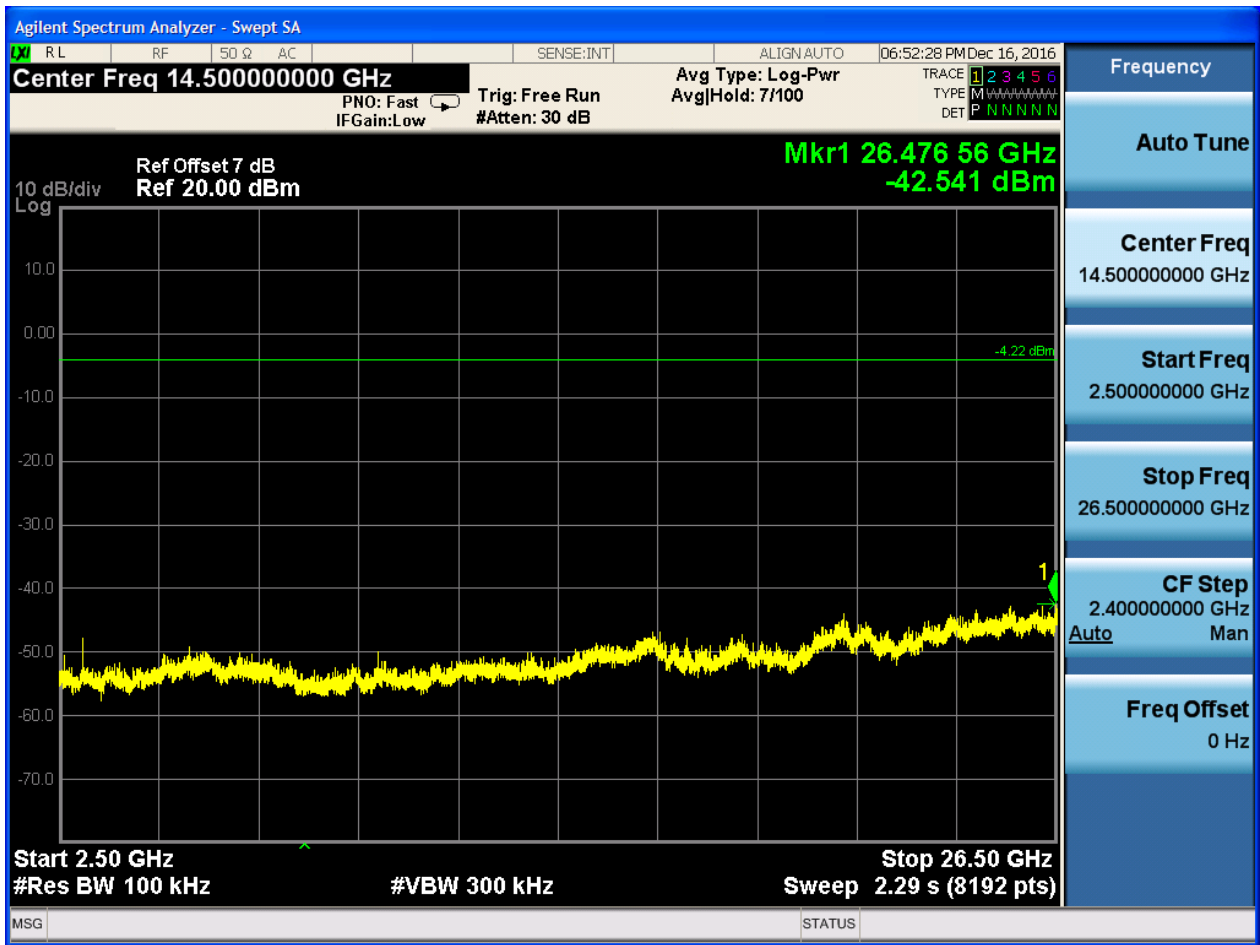
2.2.2 Puw







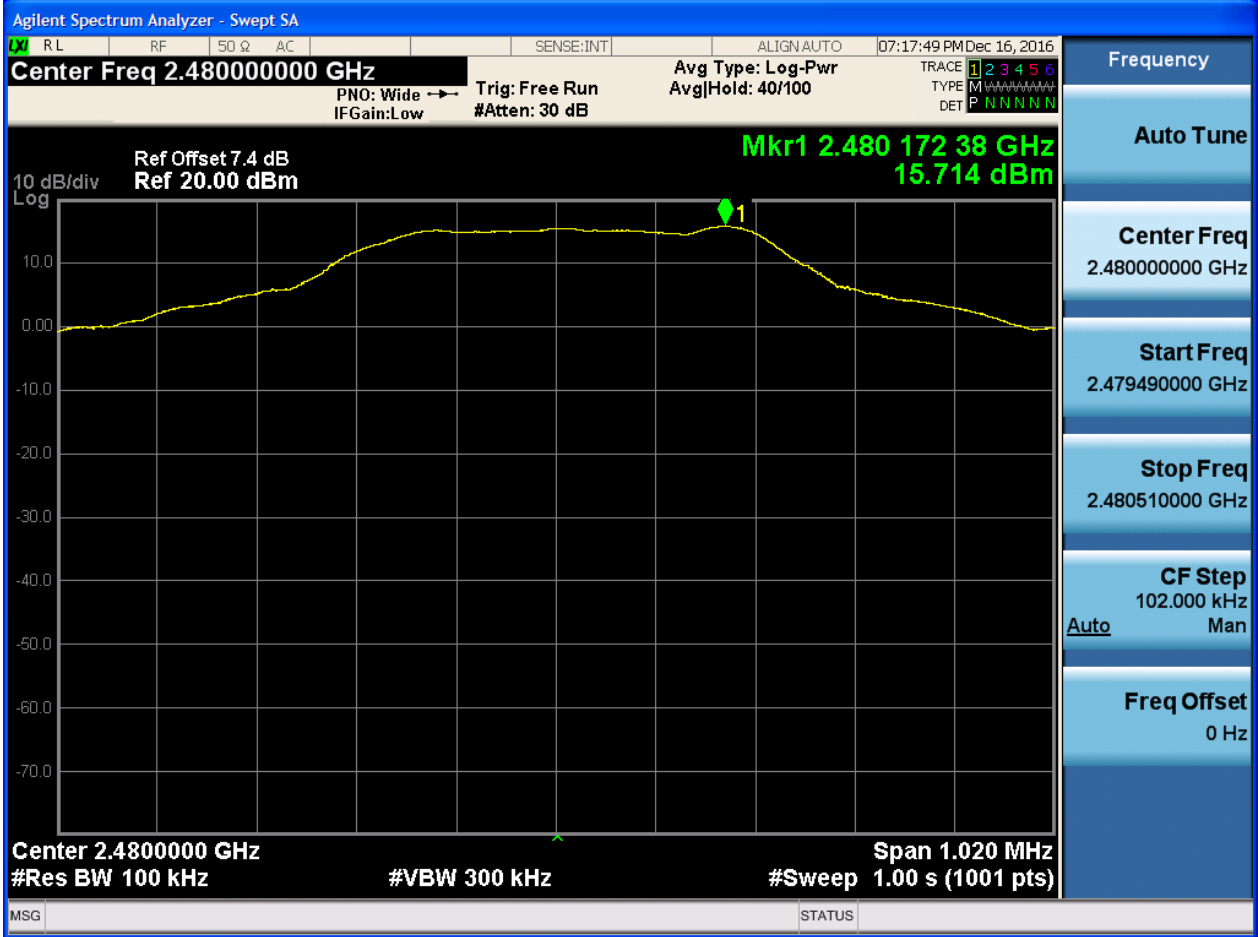






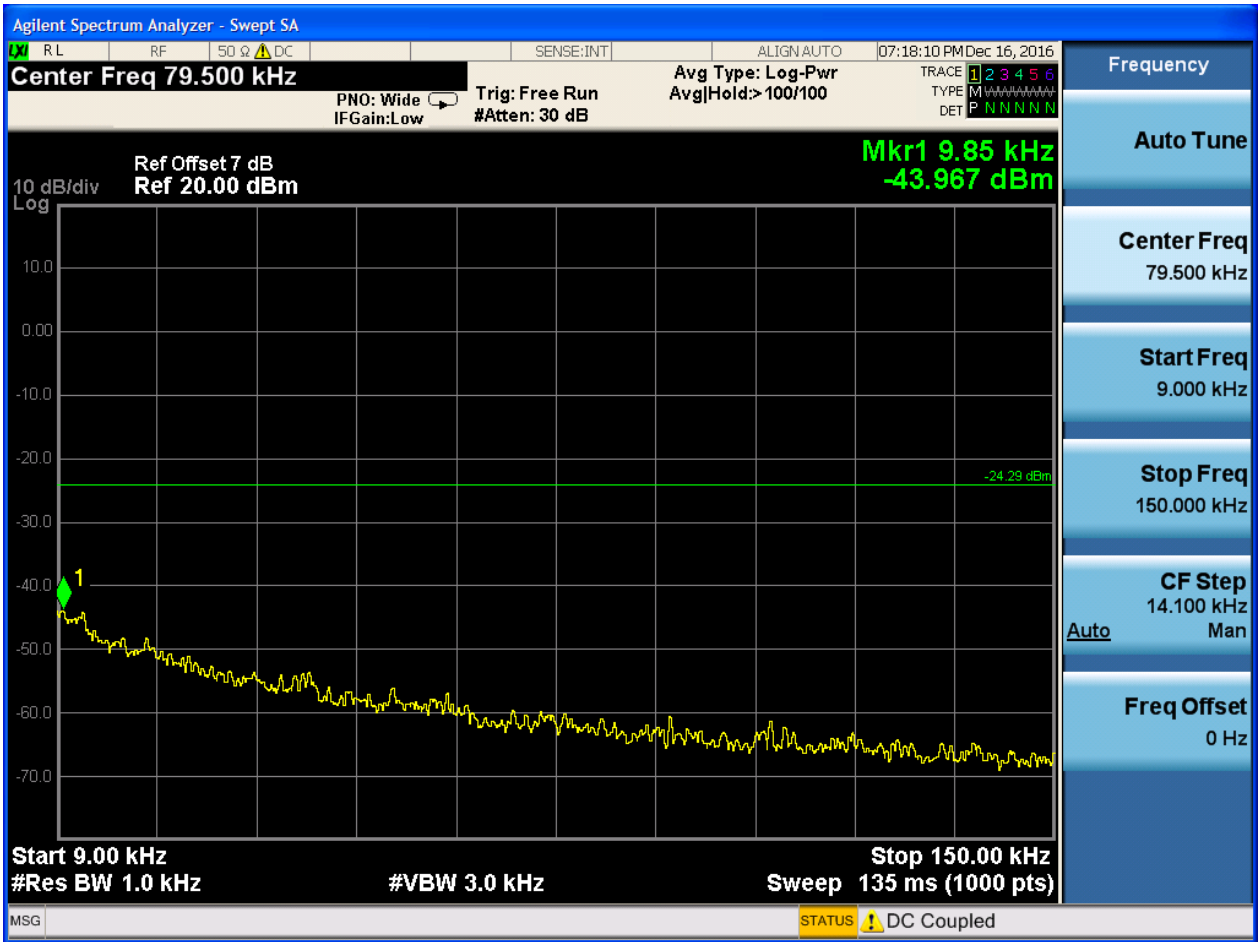
2.3 TM1_DH5_Ch78

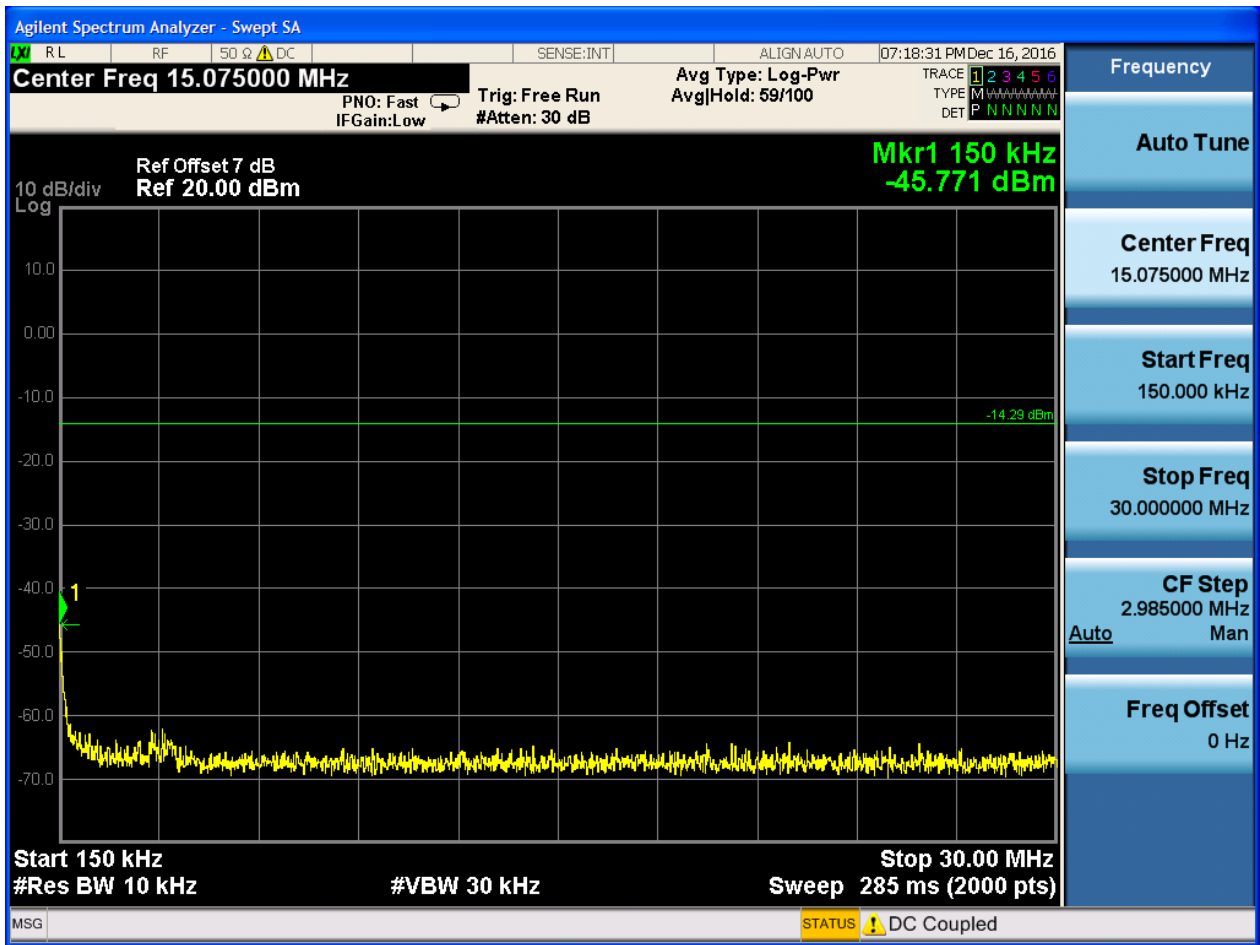
2.3.1 Pref

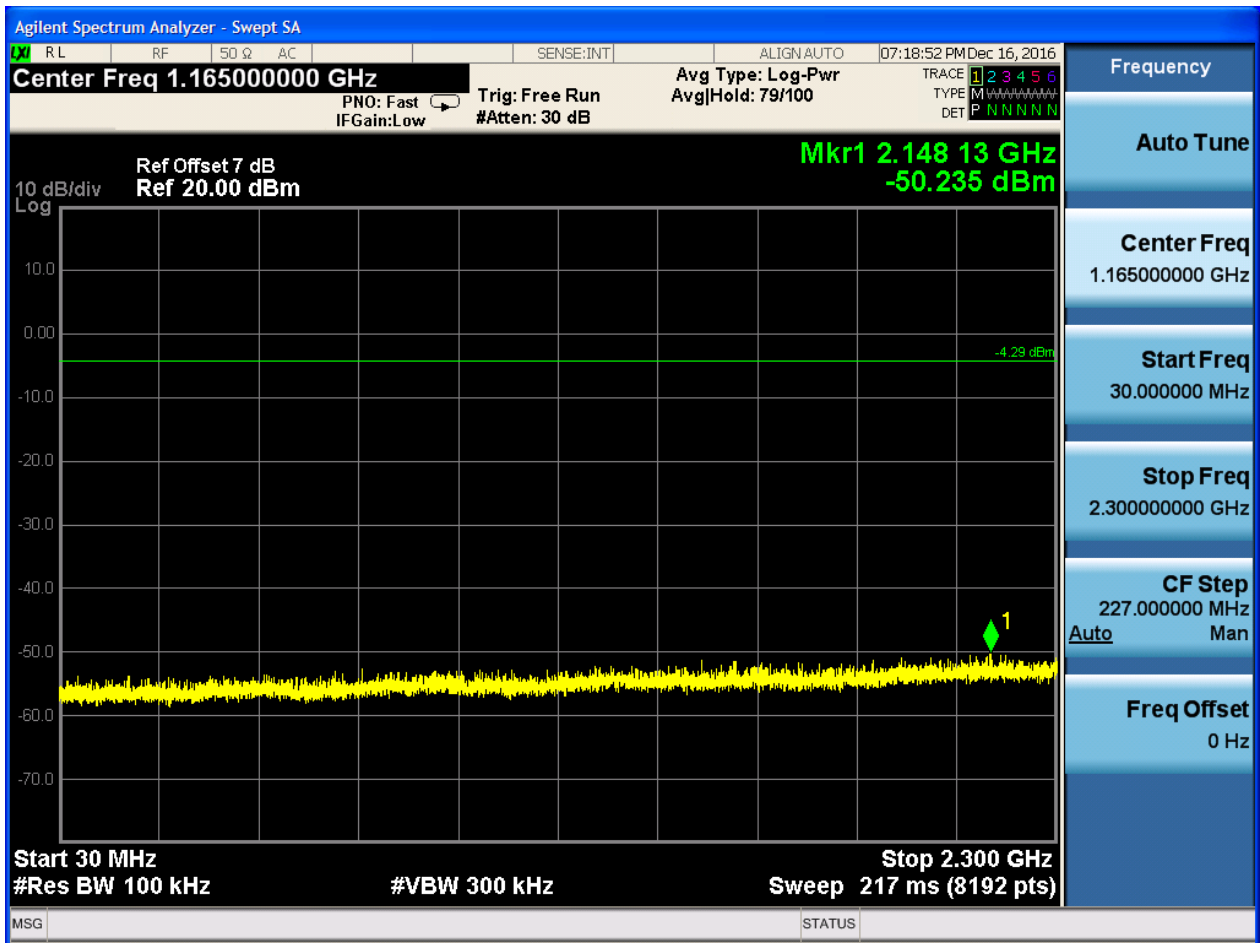


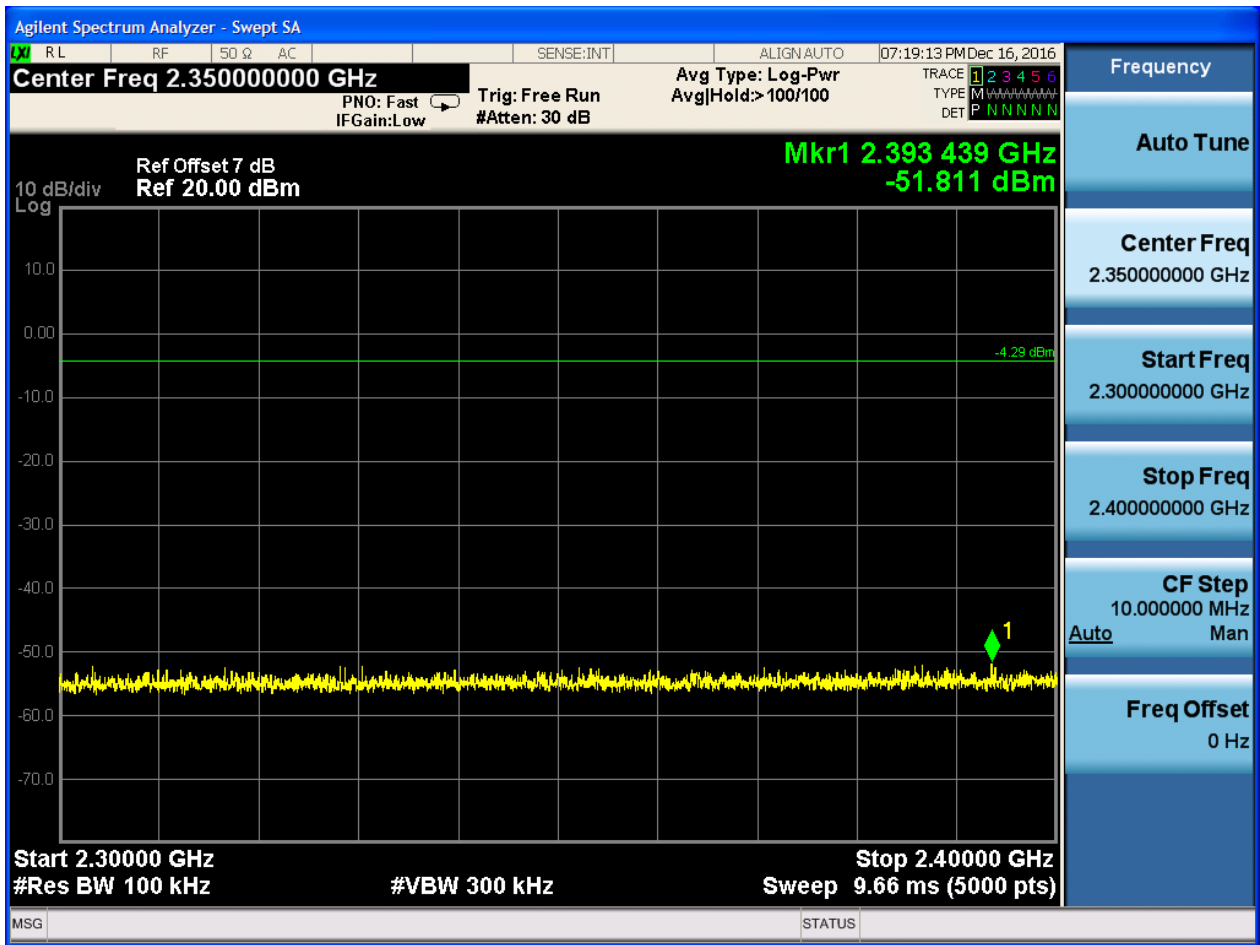


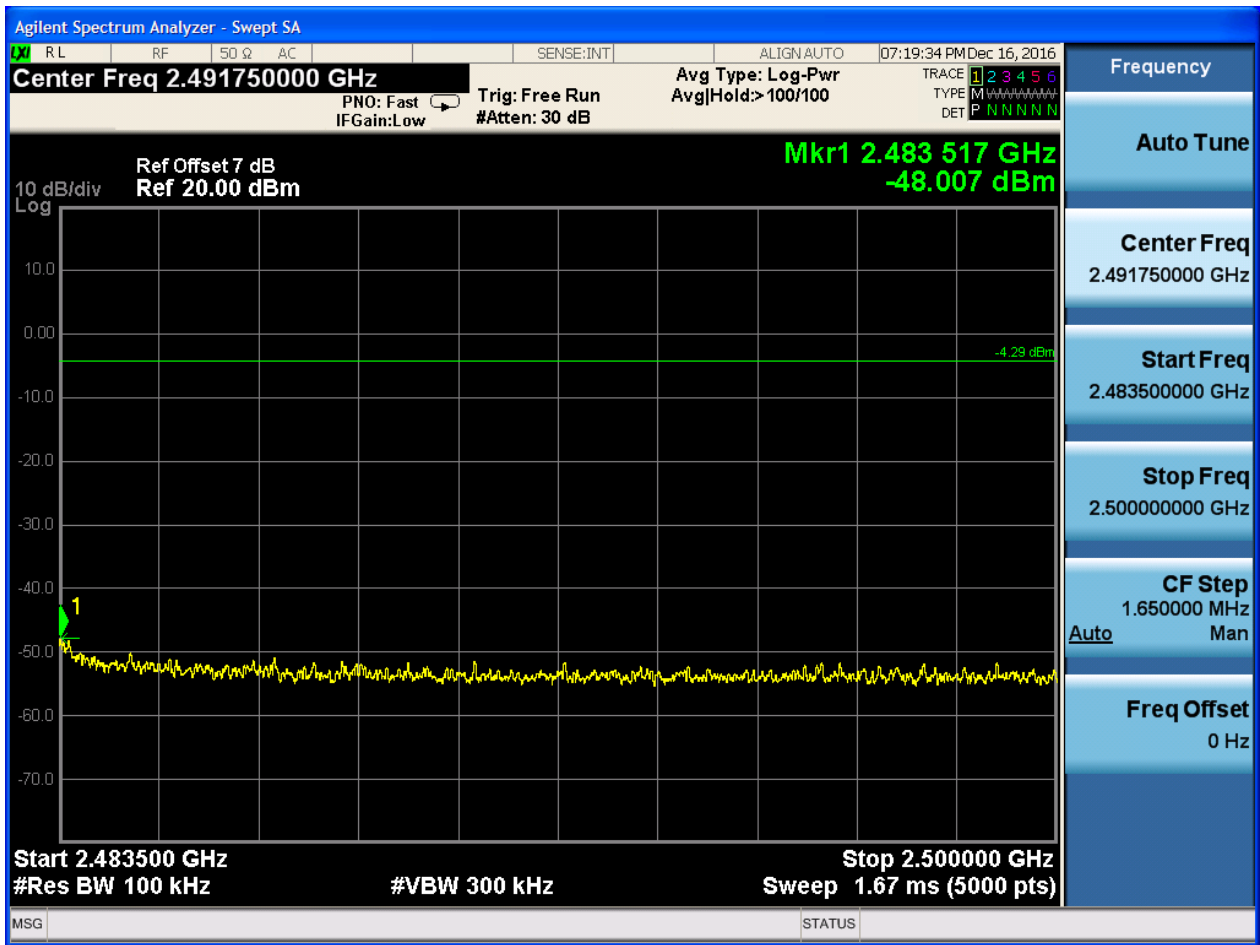
2.3.2 Puw

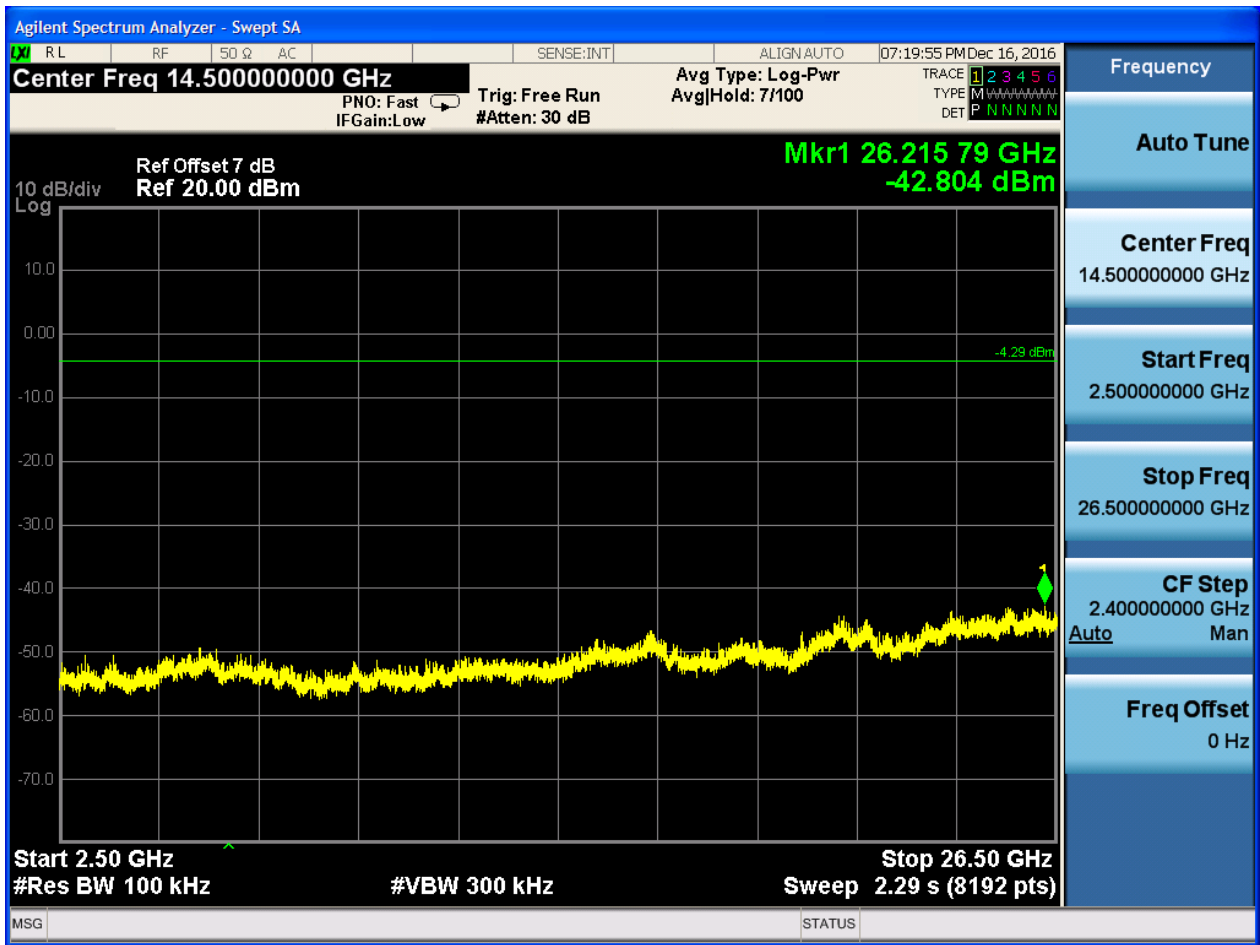








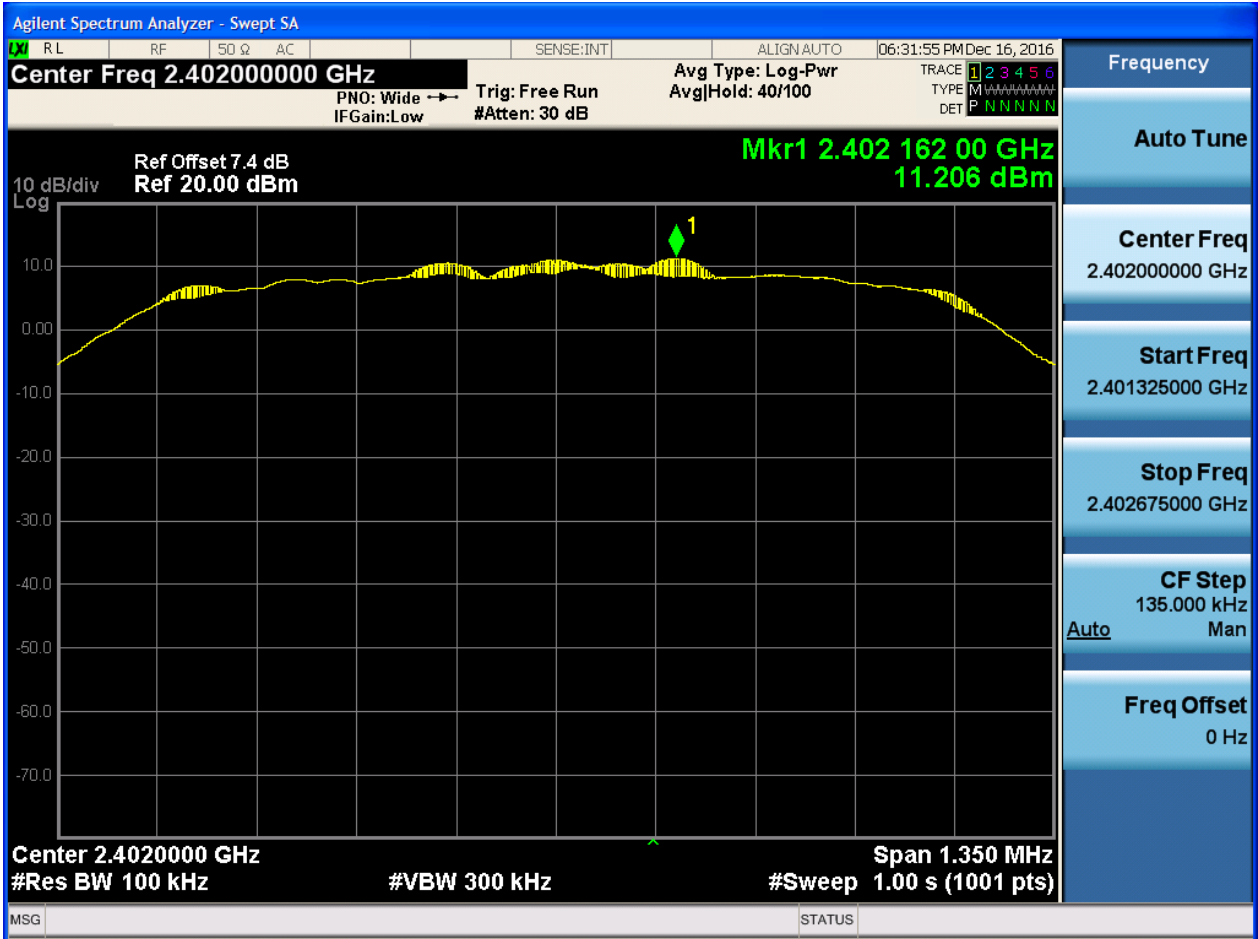




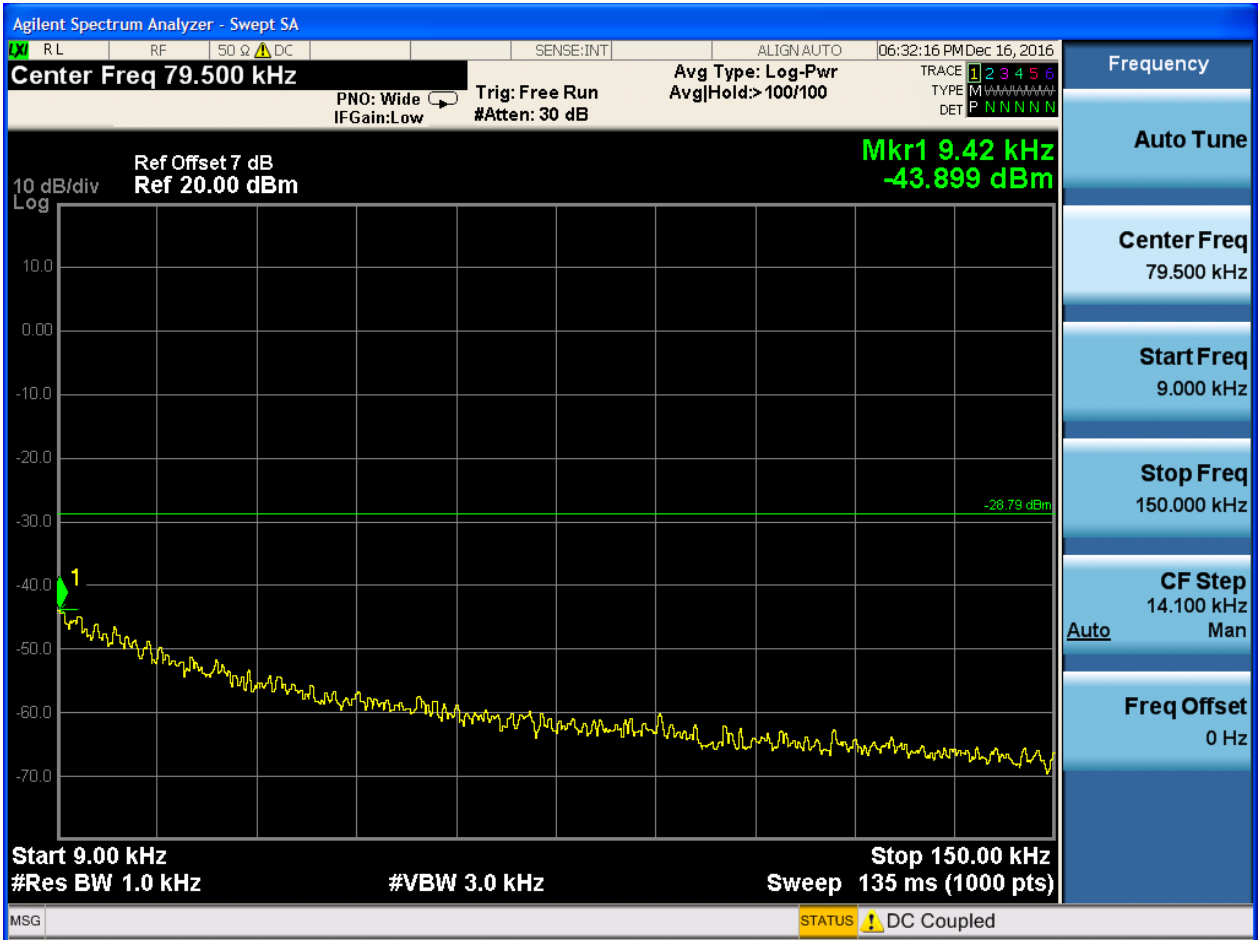


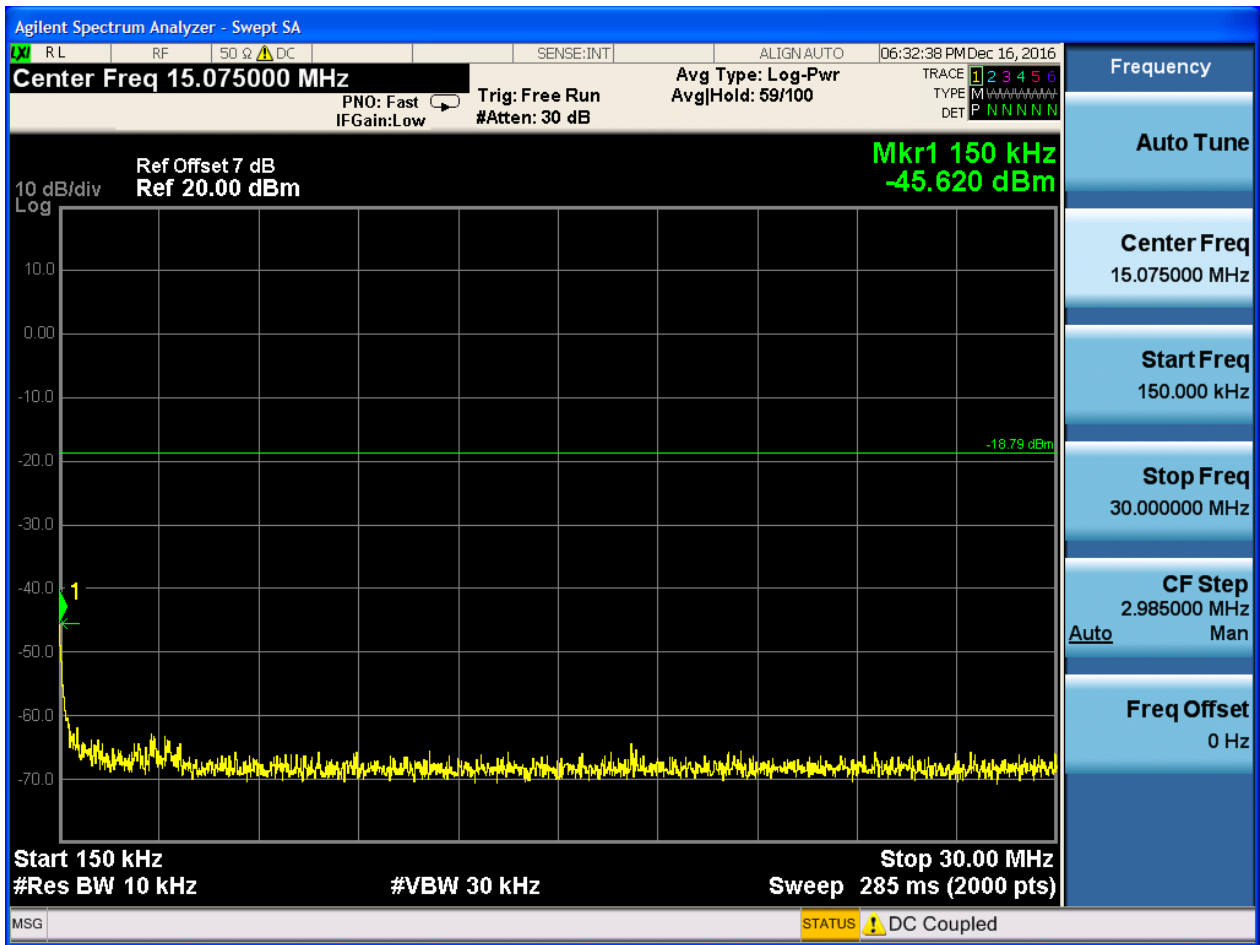
2.4 TM2_2DH5_Ch0

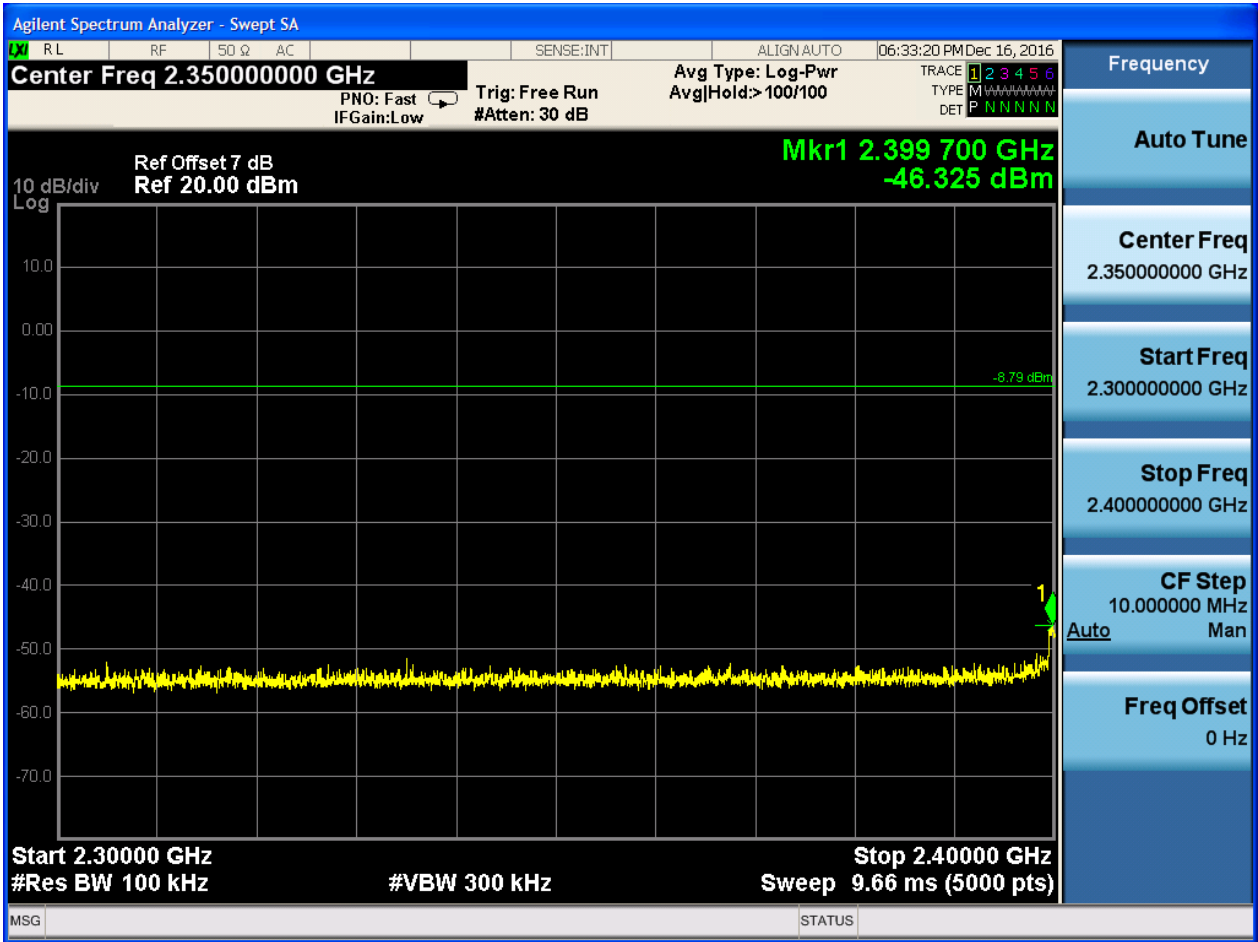
2.4.1 Pref

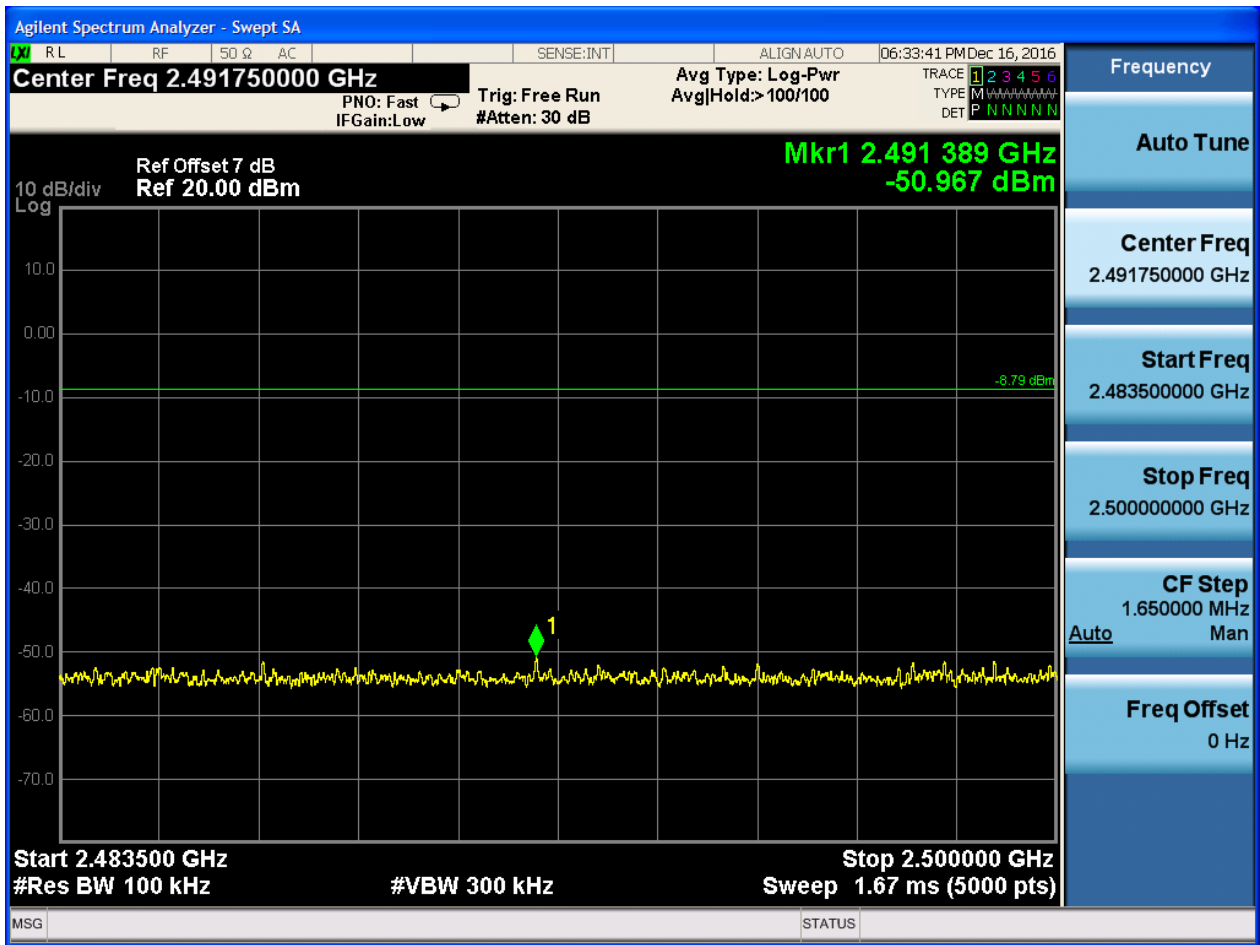


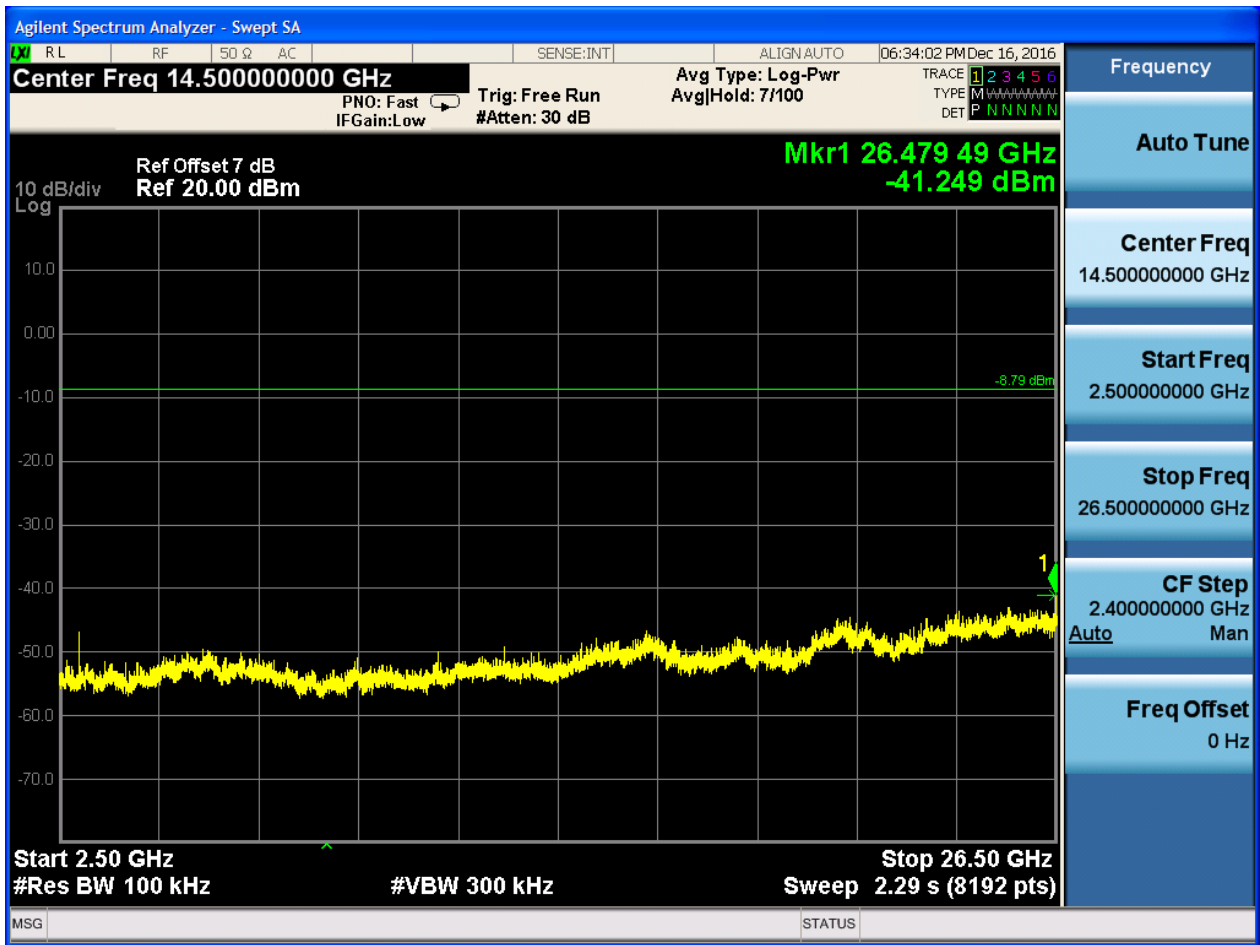
2.4.2 Puw







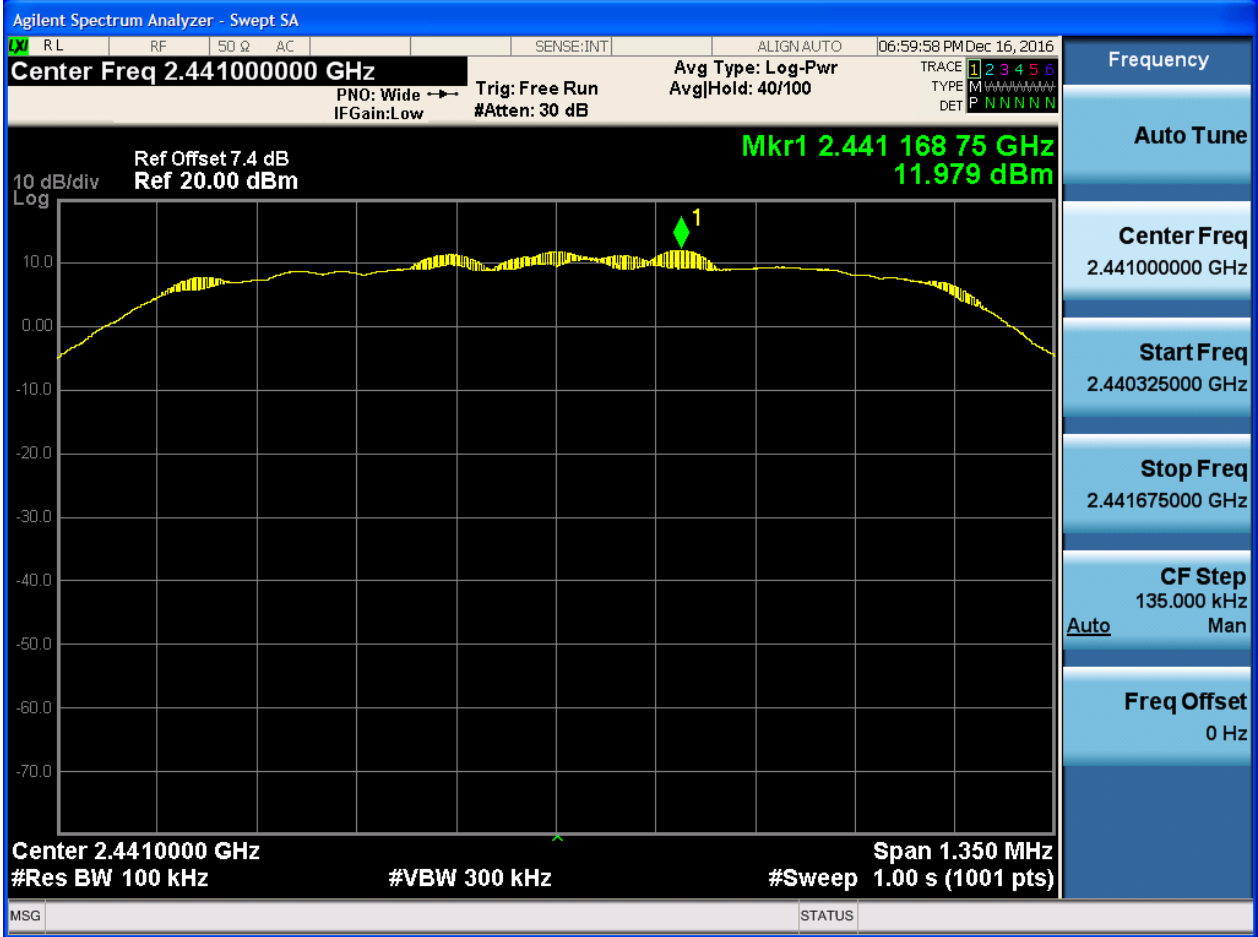




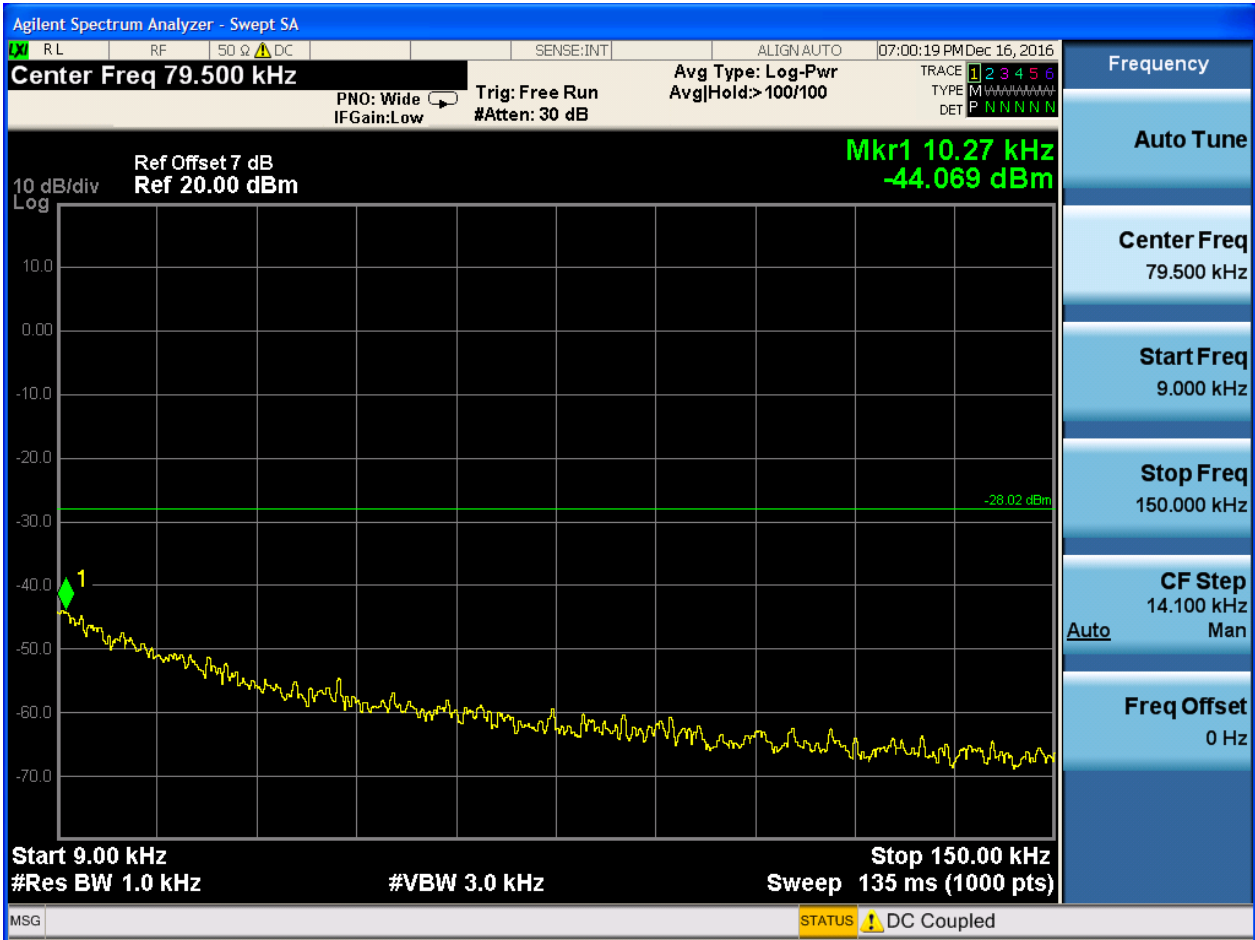


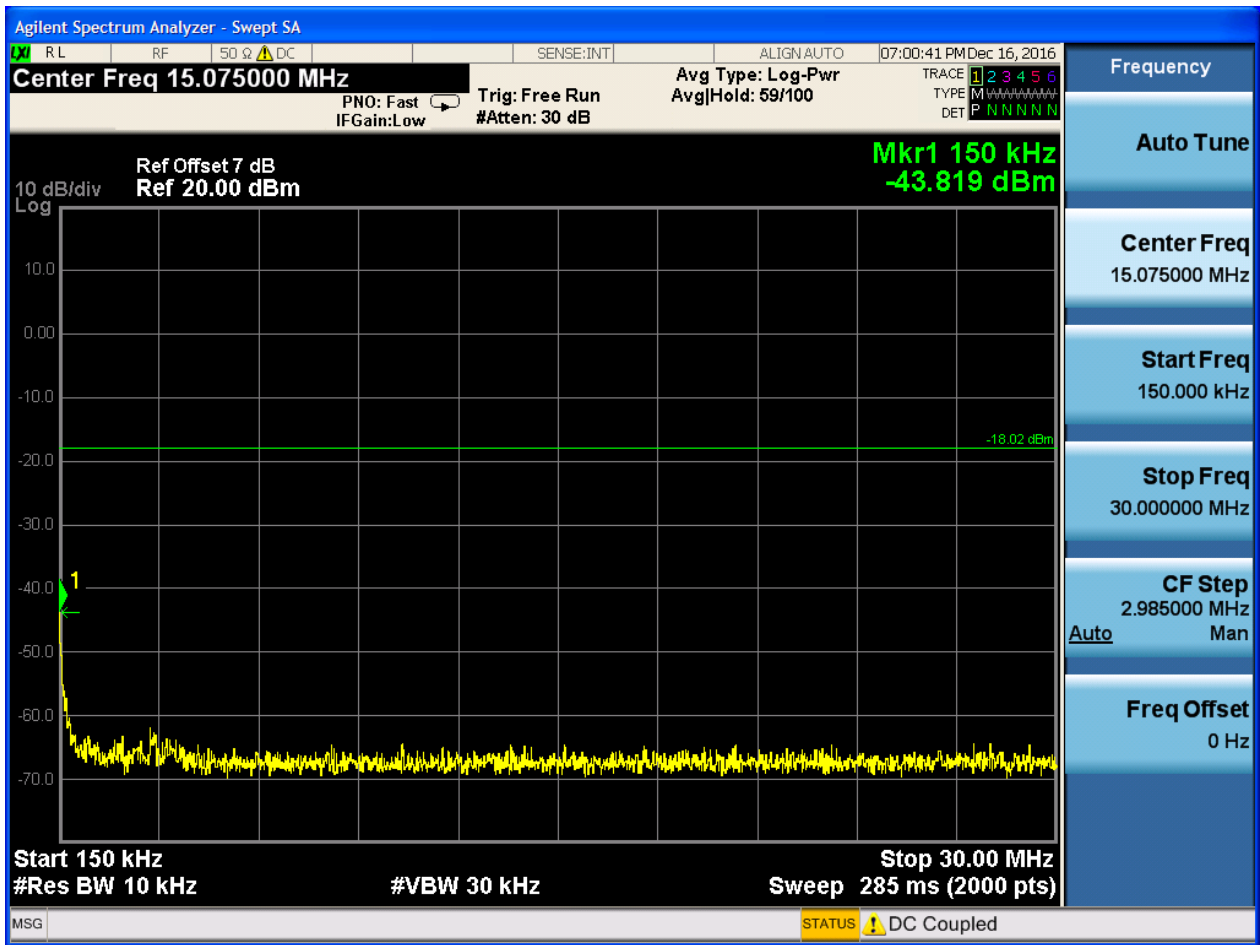
2.5 TM2_2DH5_Ch39

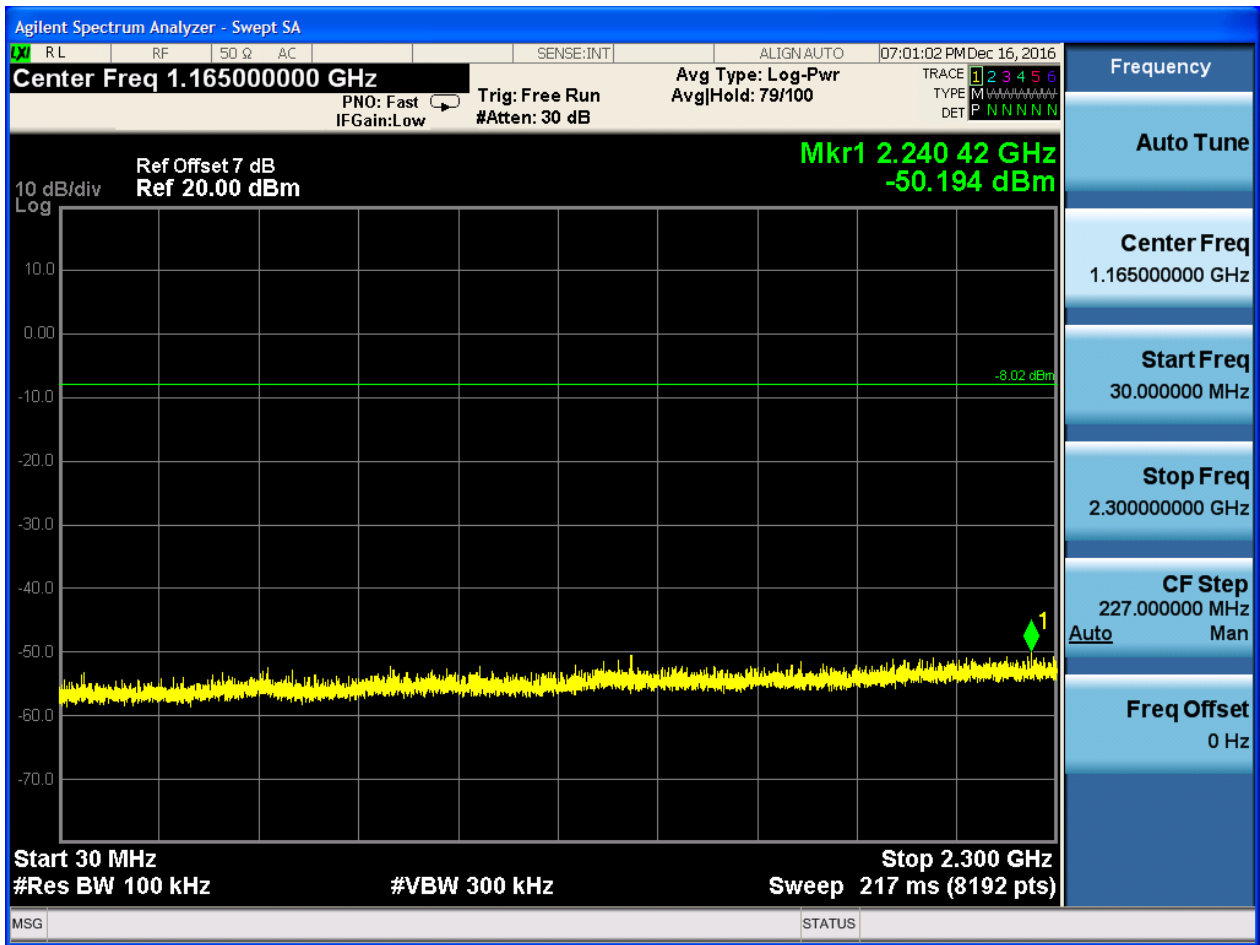
2.5.1 Pref

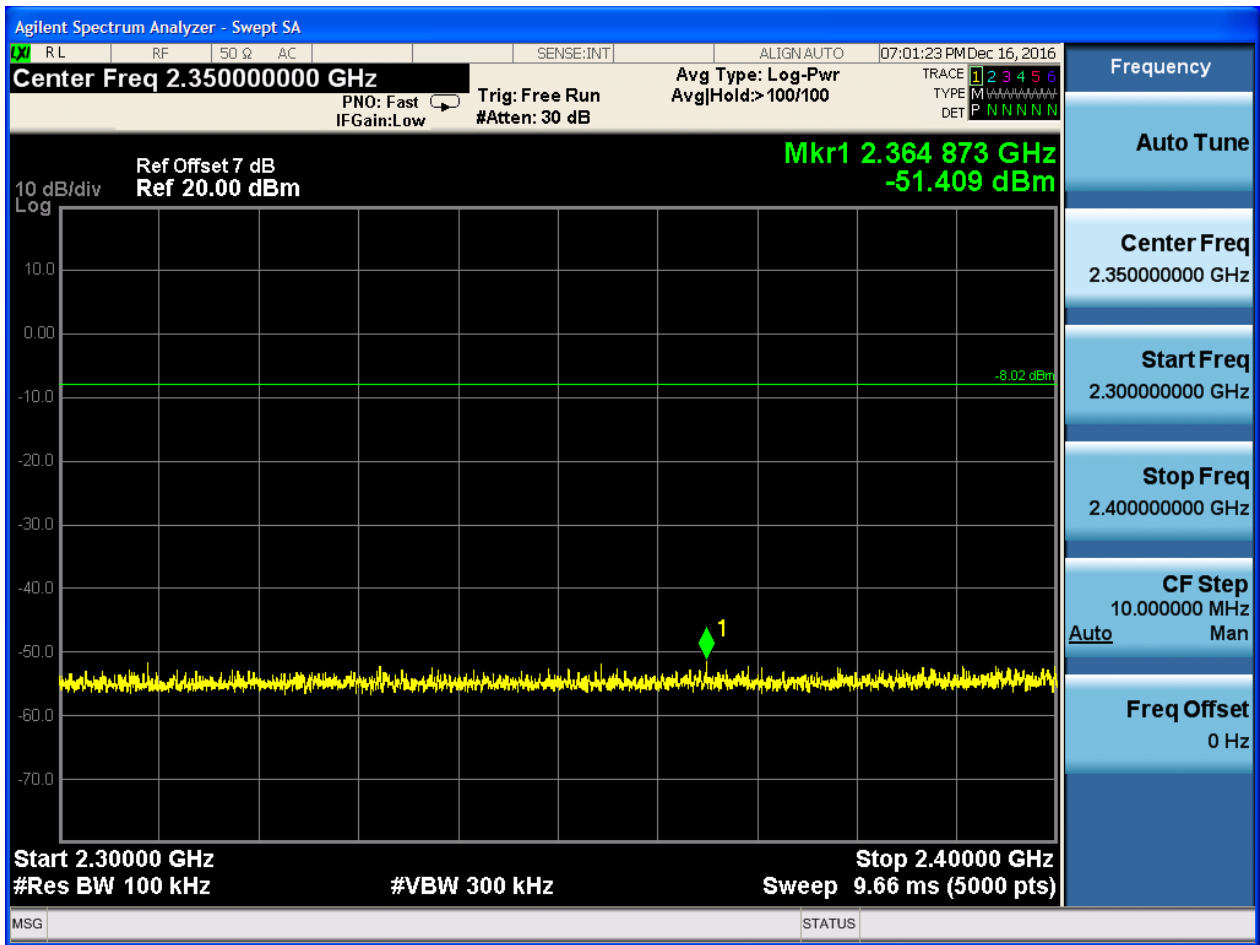


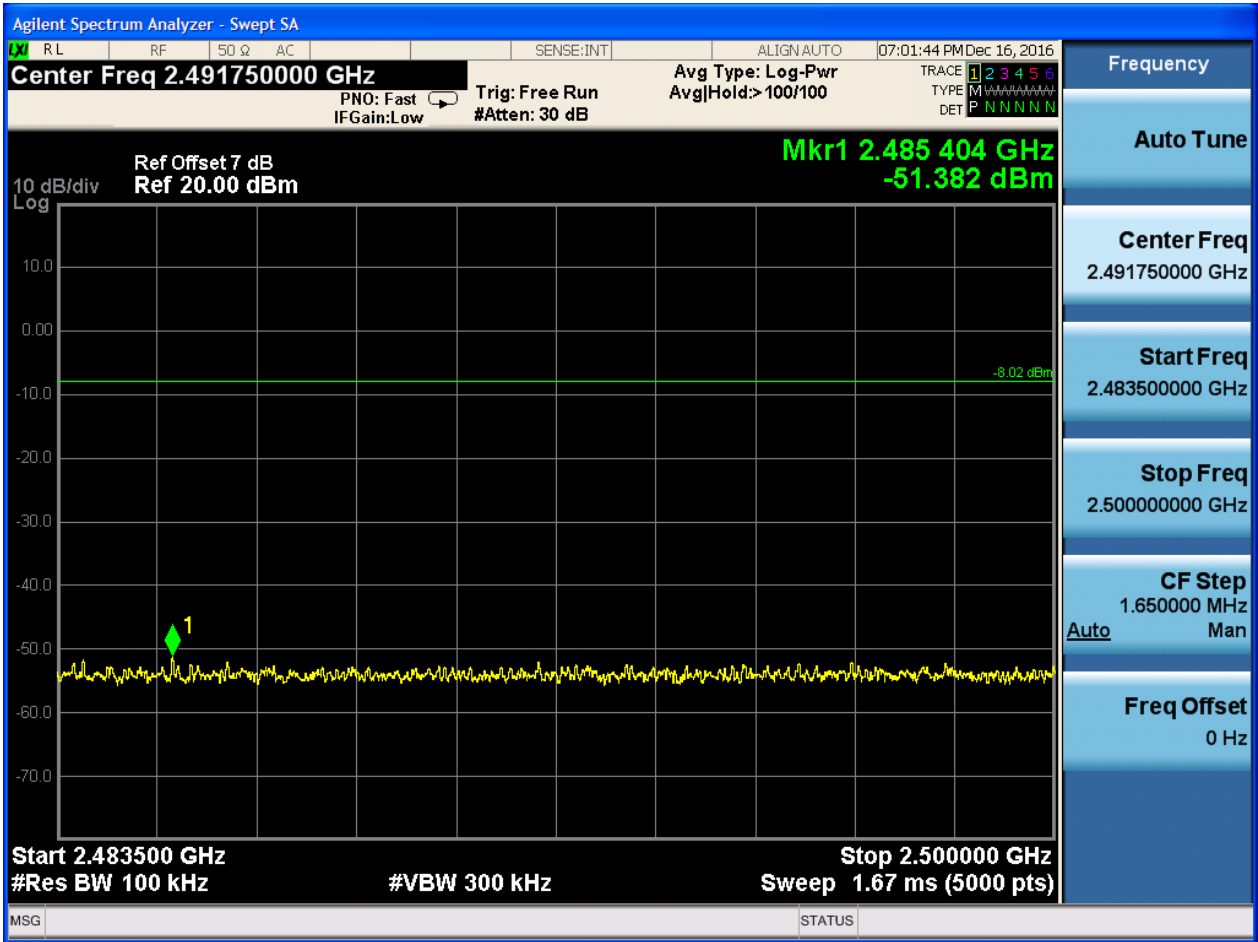
2.5.2 Puw

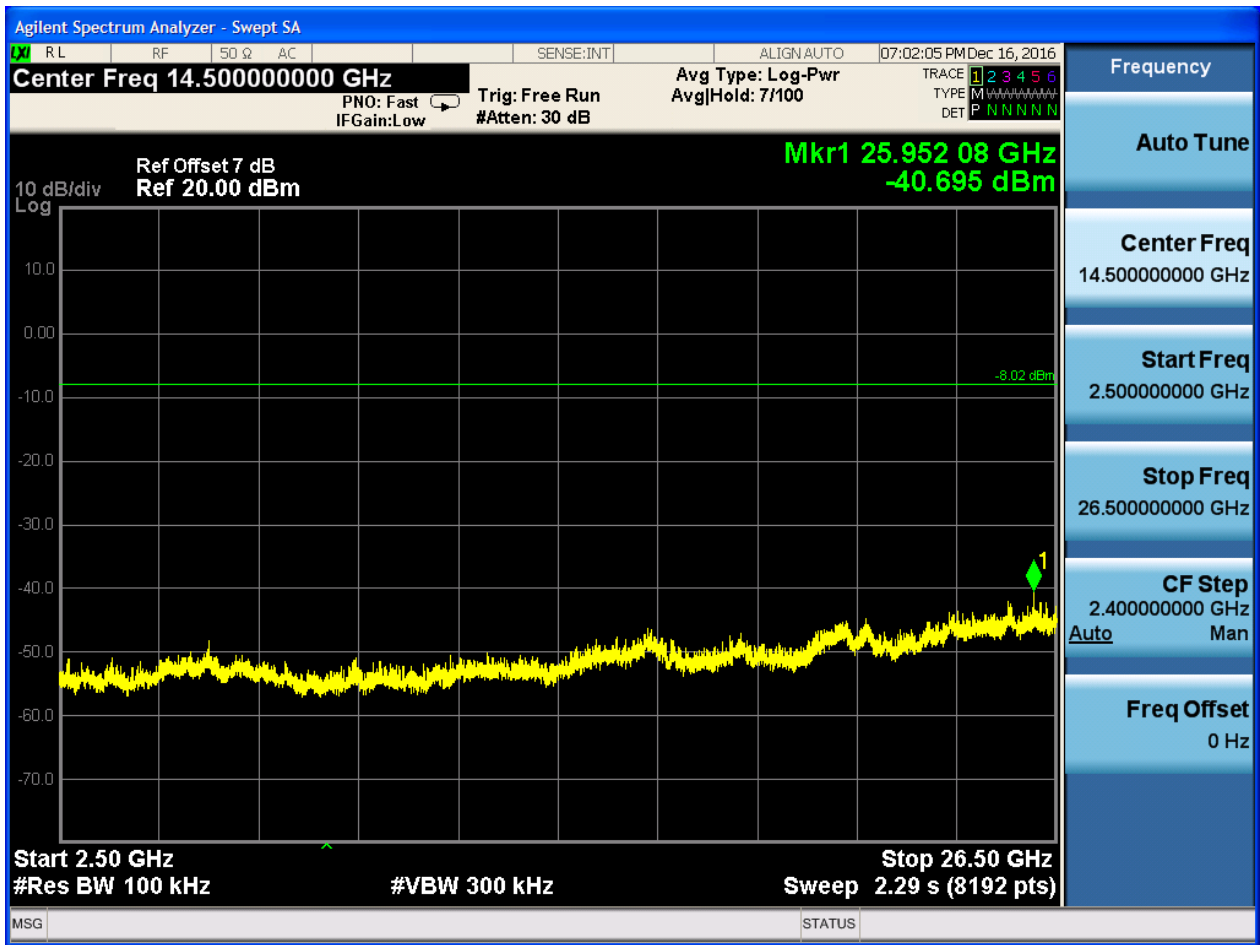






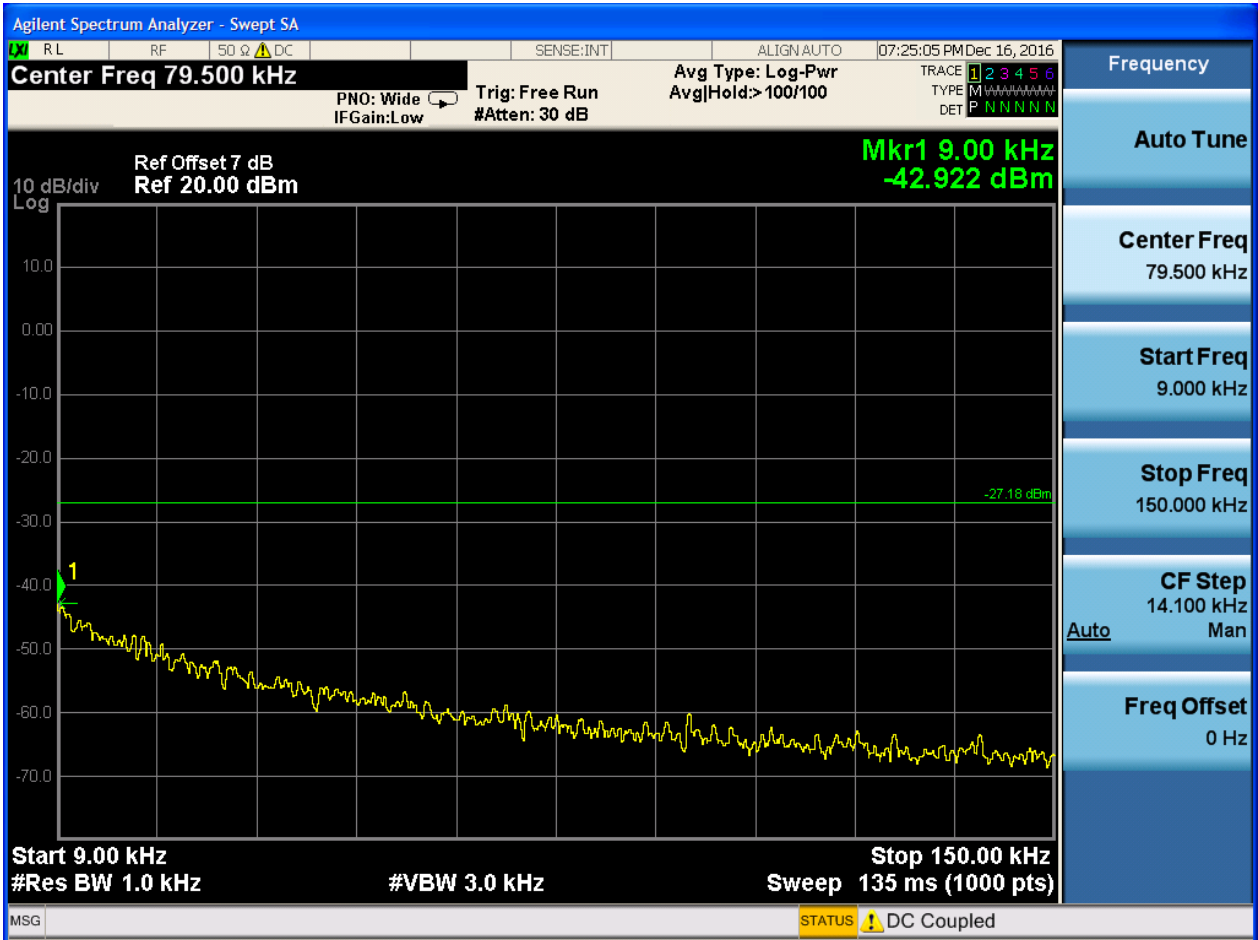


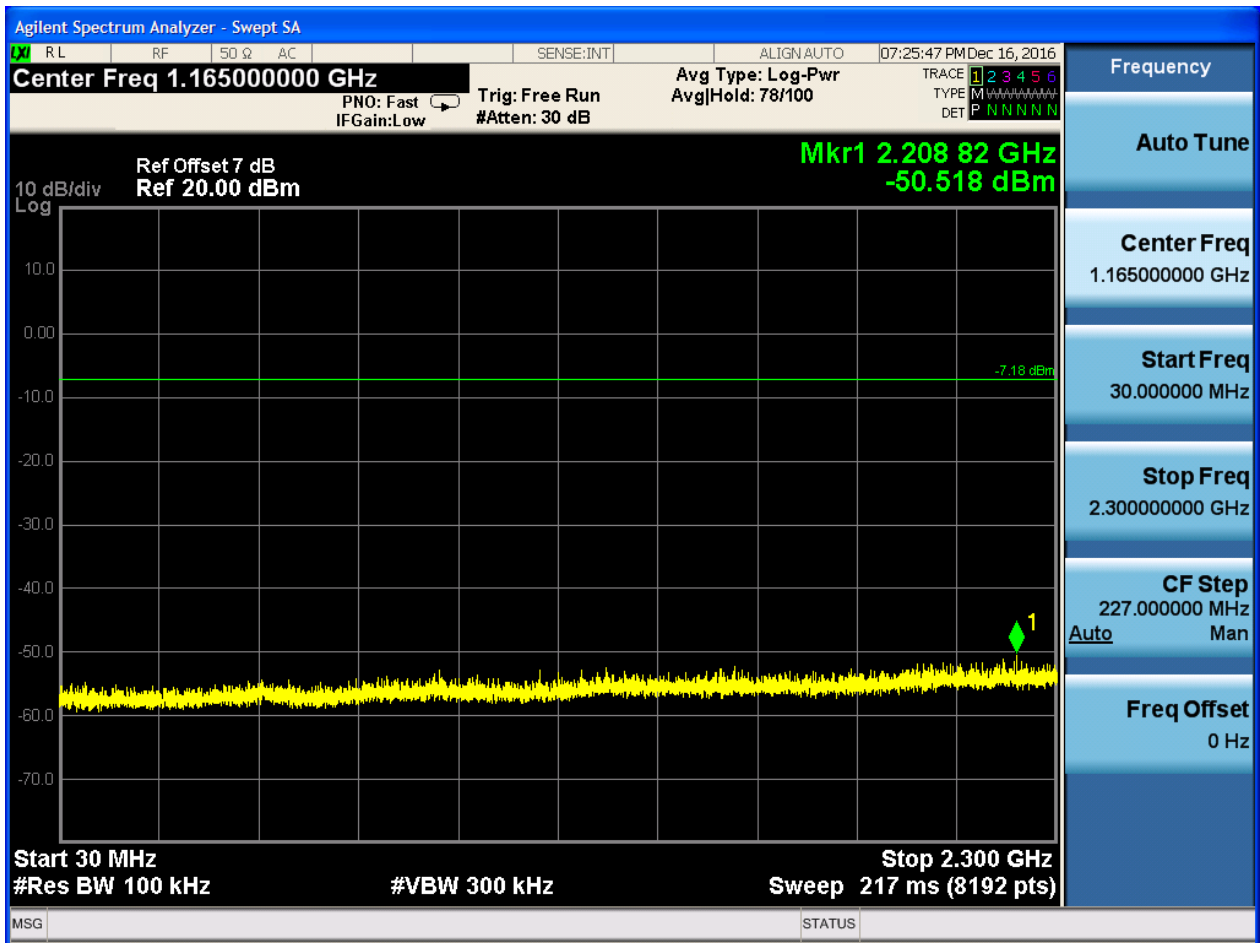


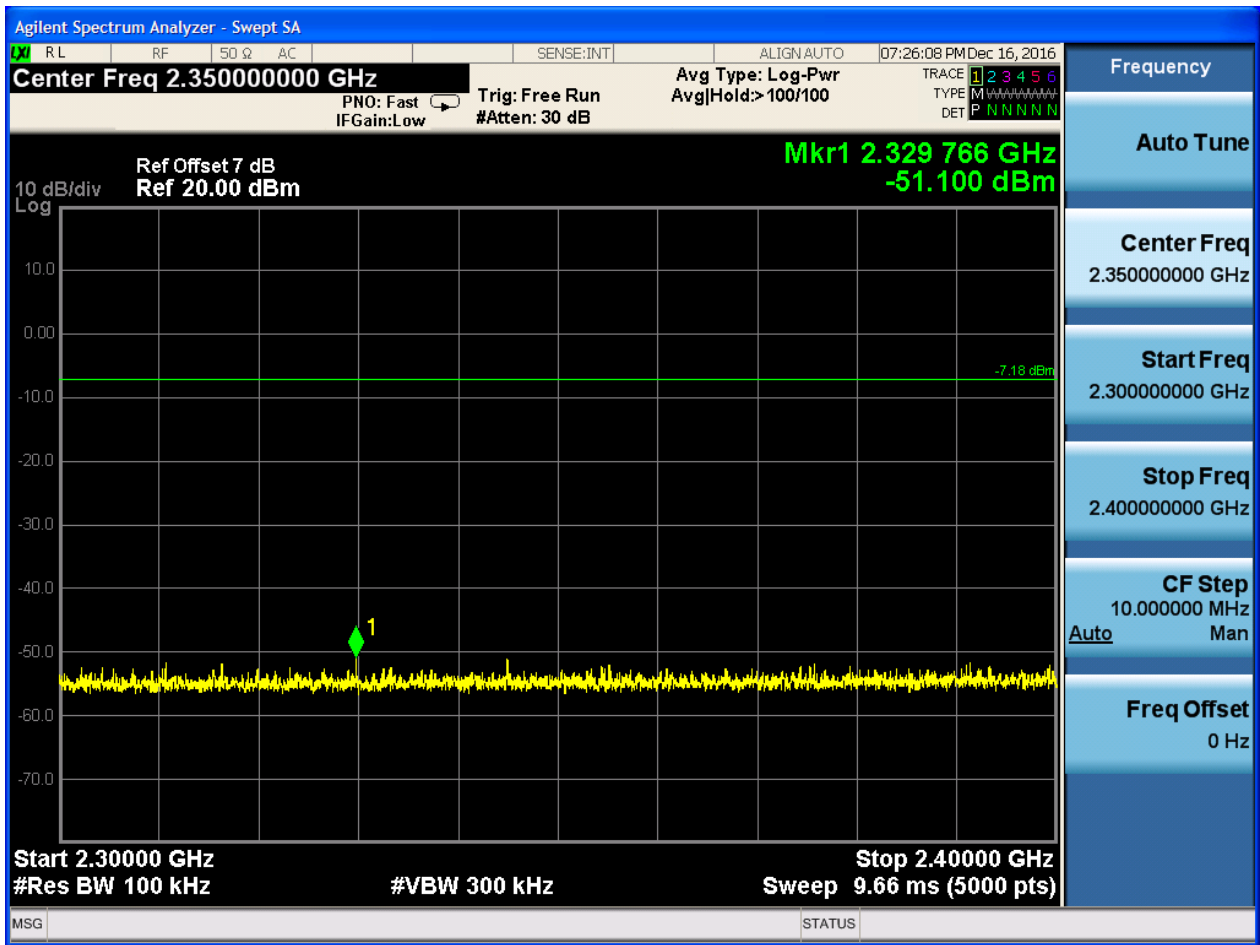


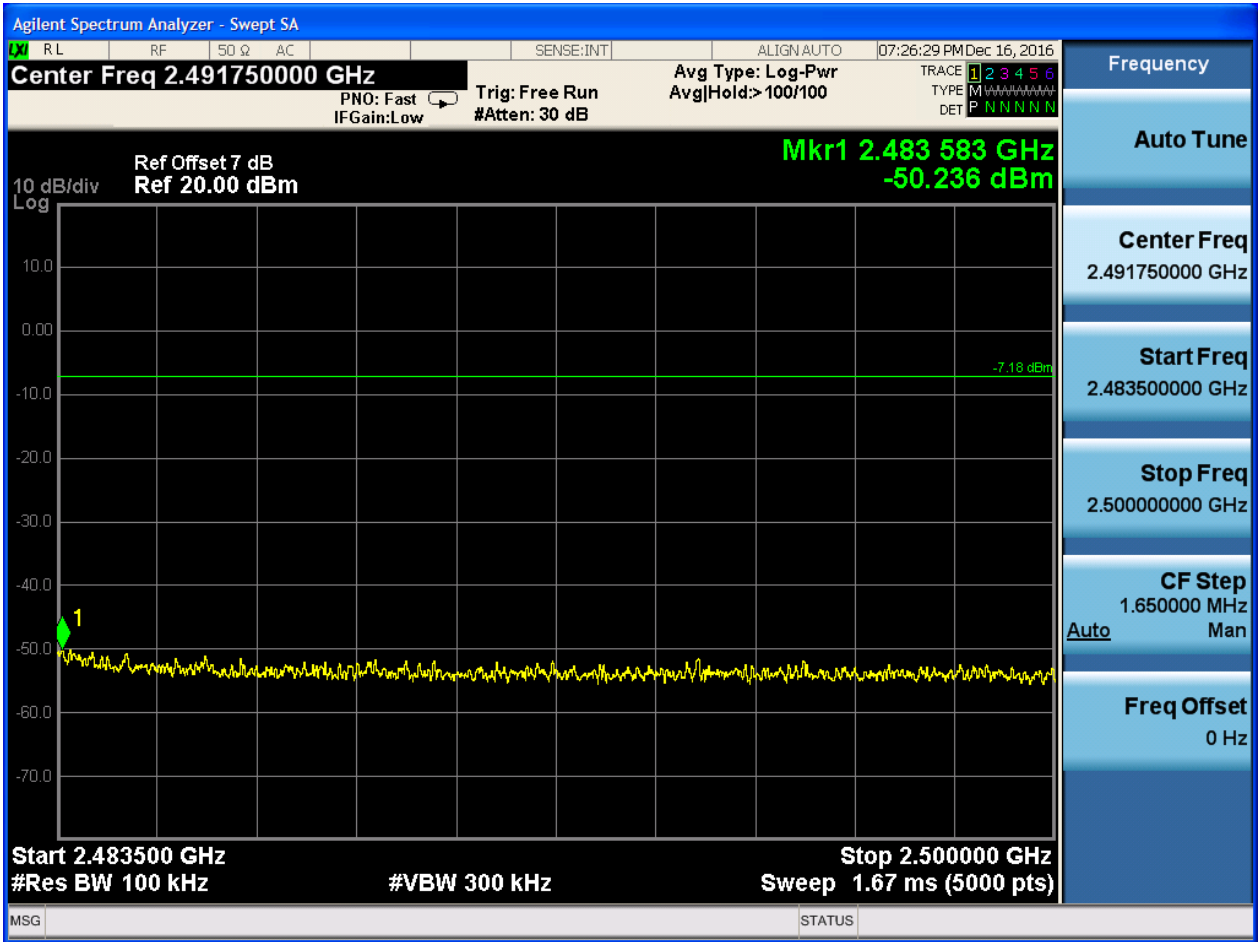


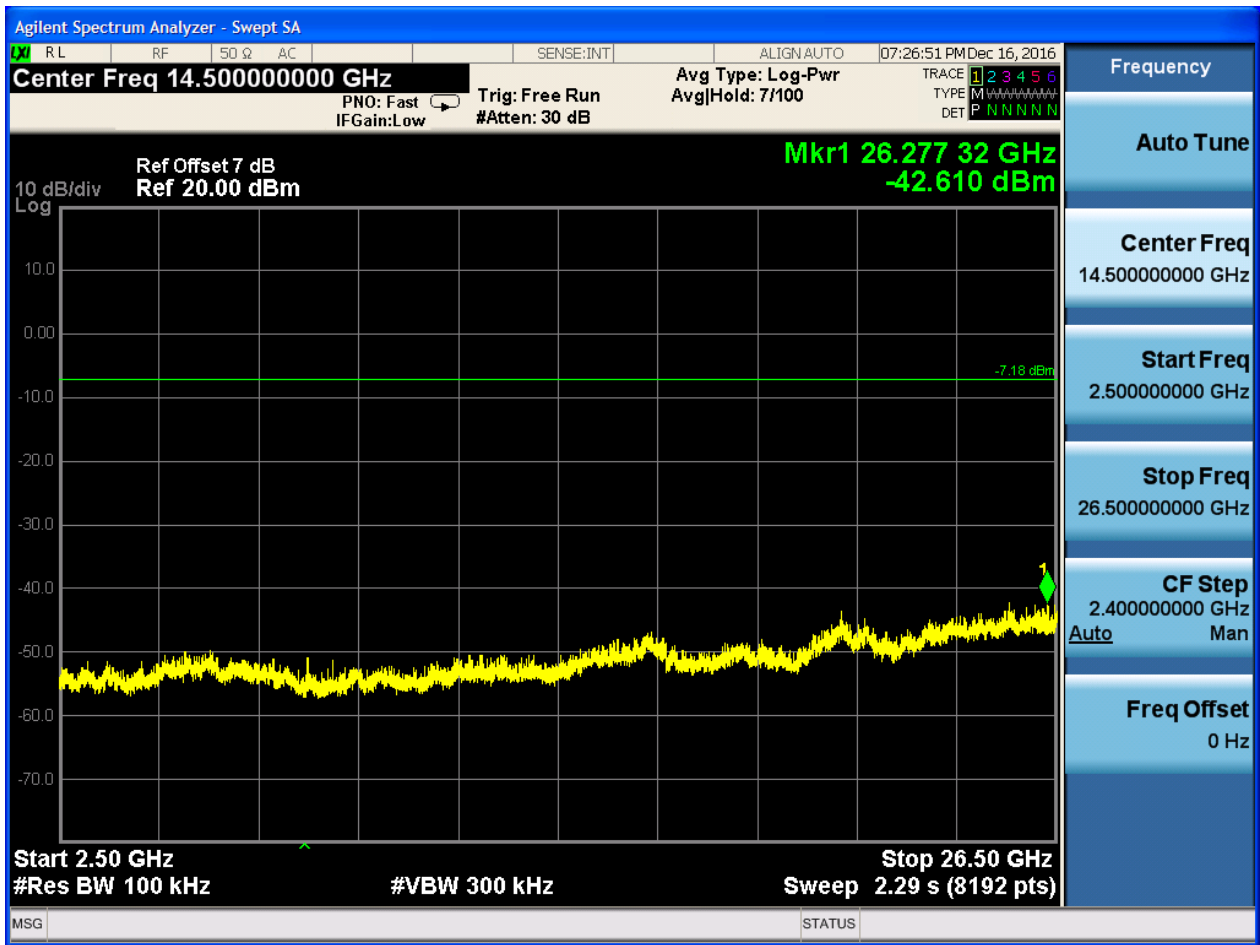
2.6.2 Puw







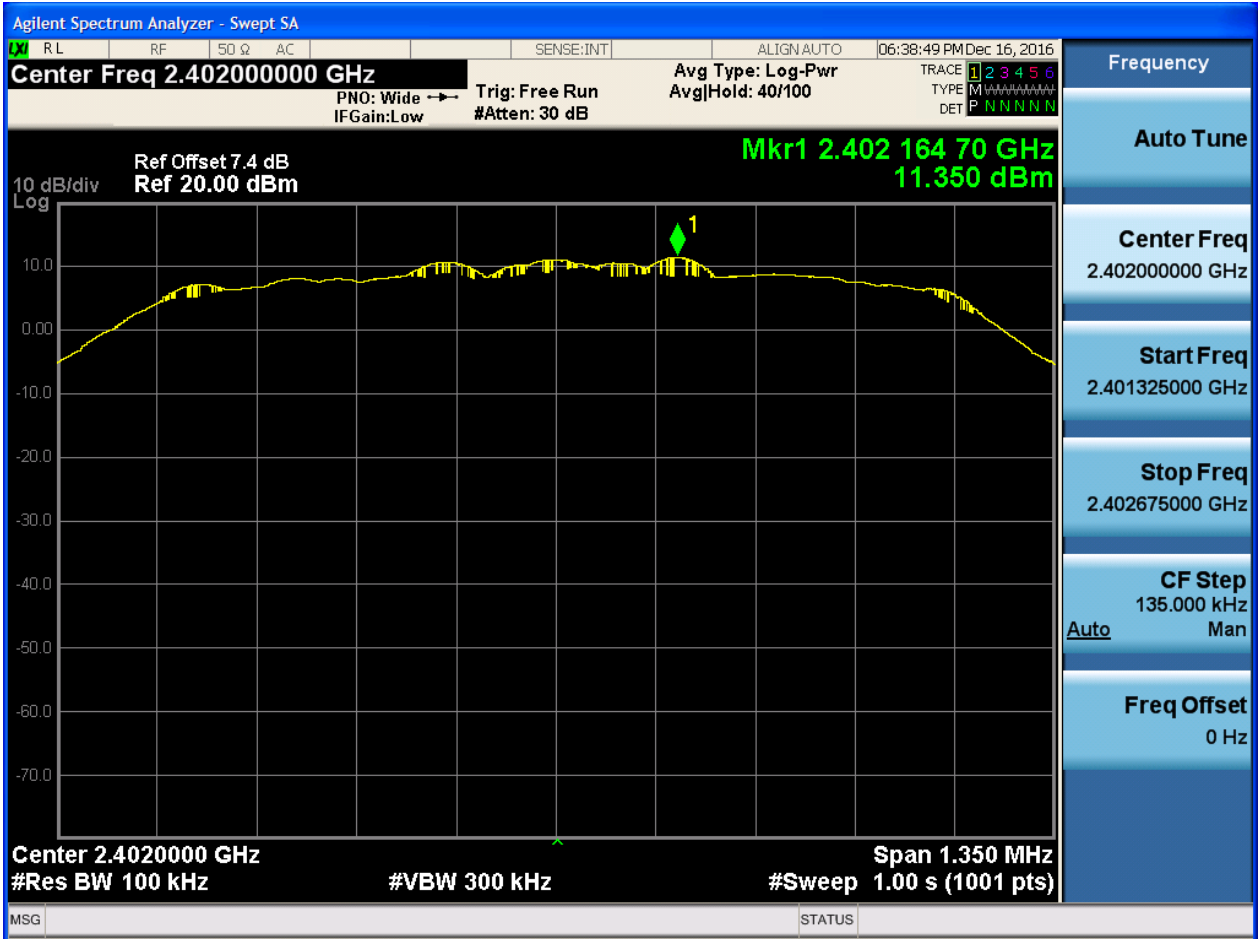






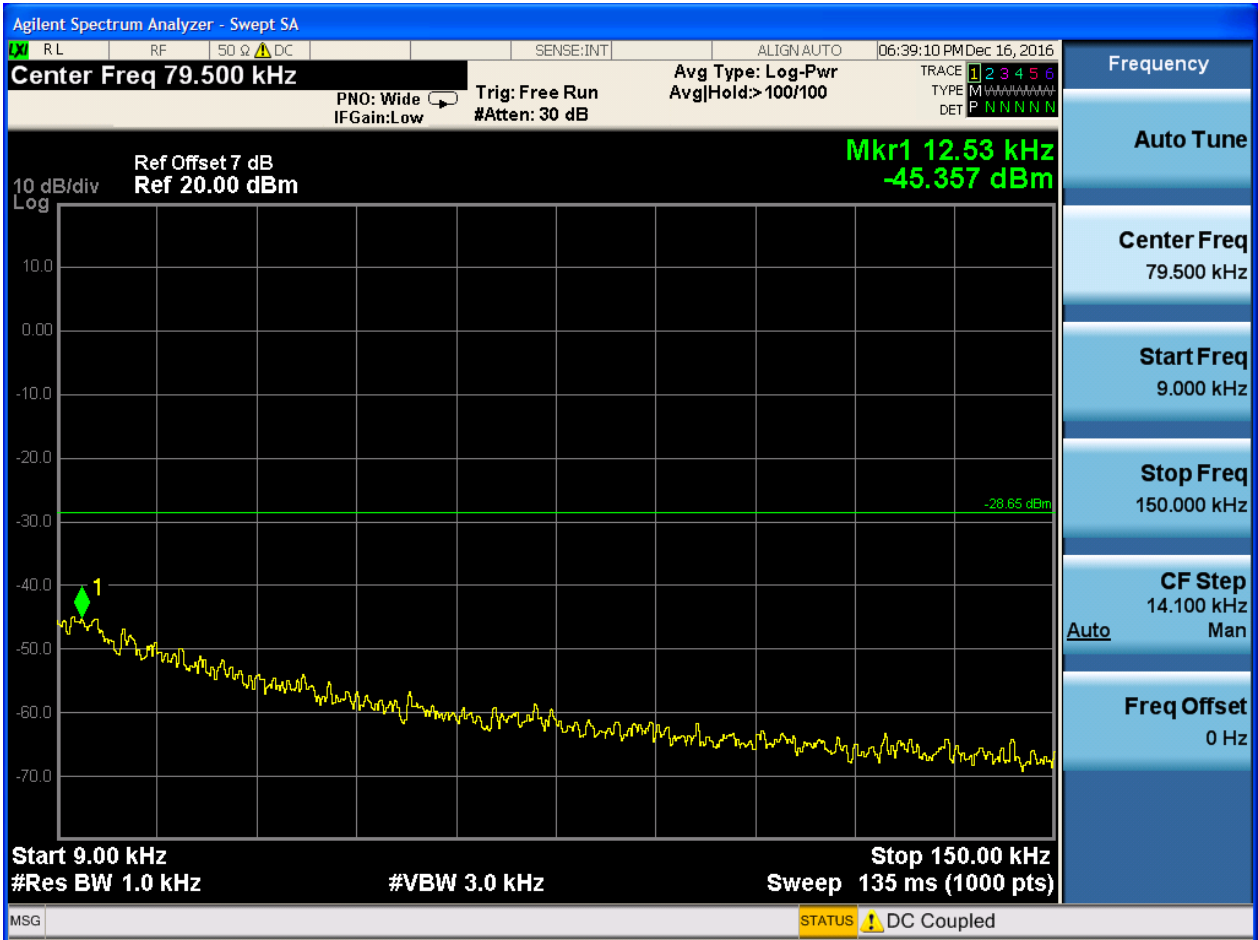
2.7 TM3_3DH5_Ch0

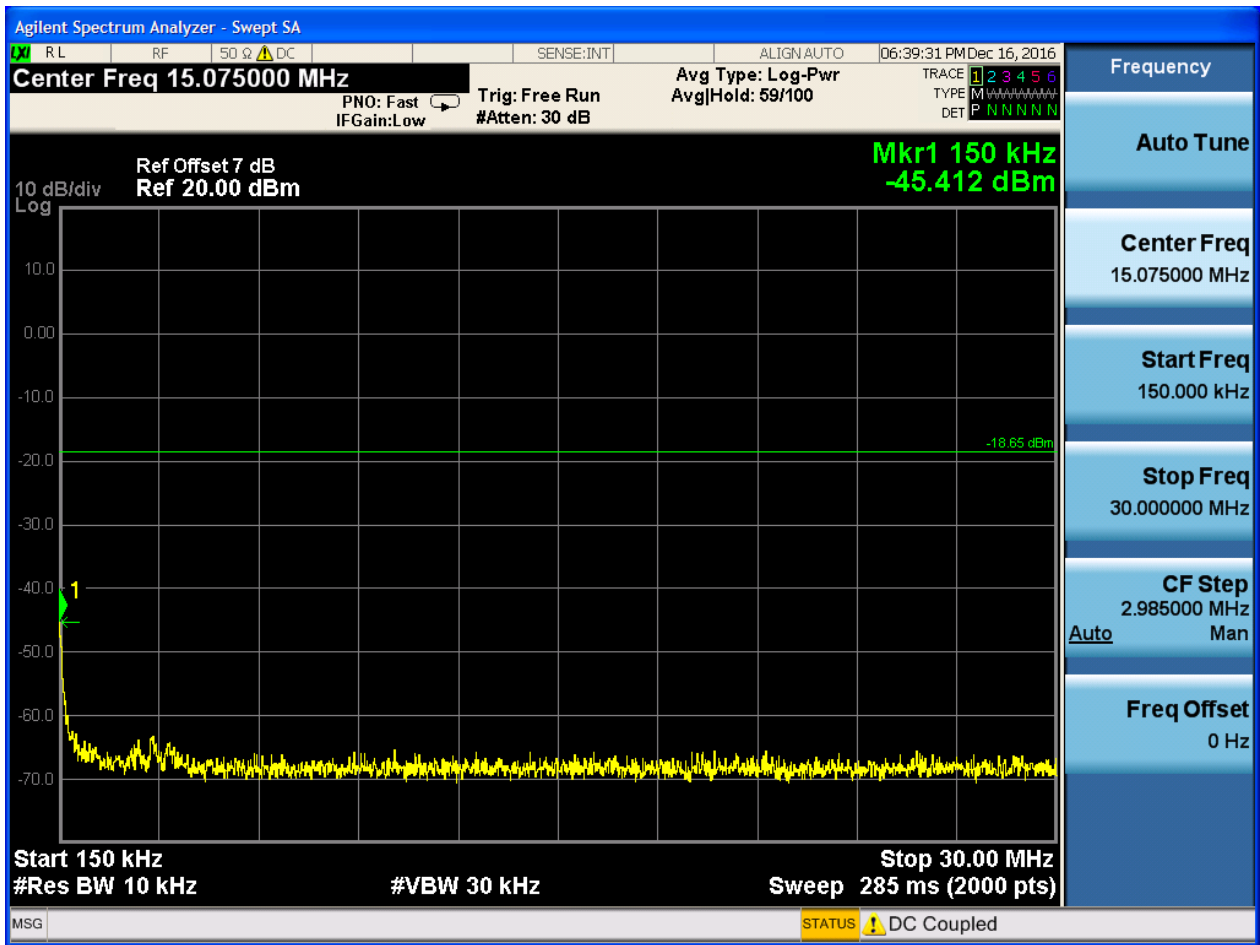
2.7.1 Pref

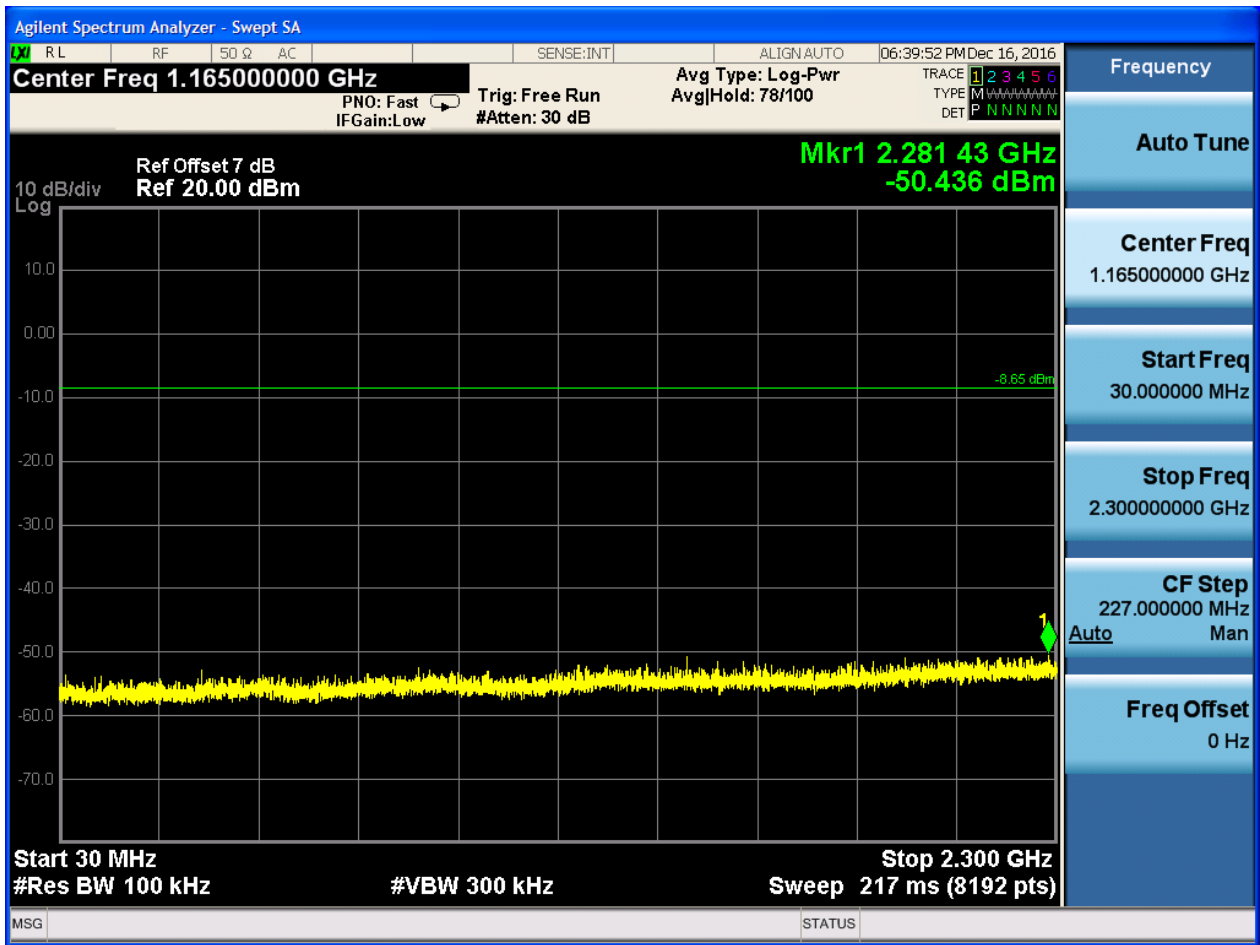


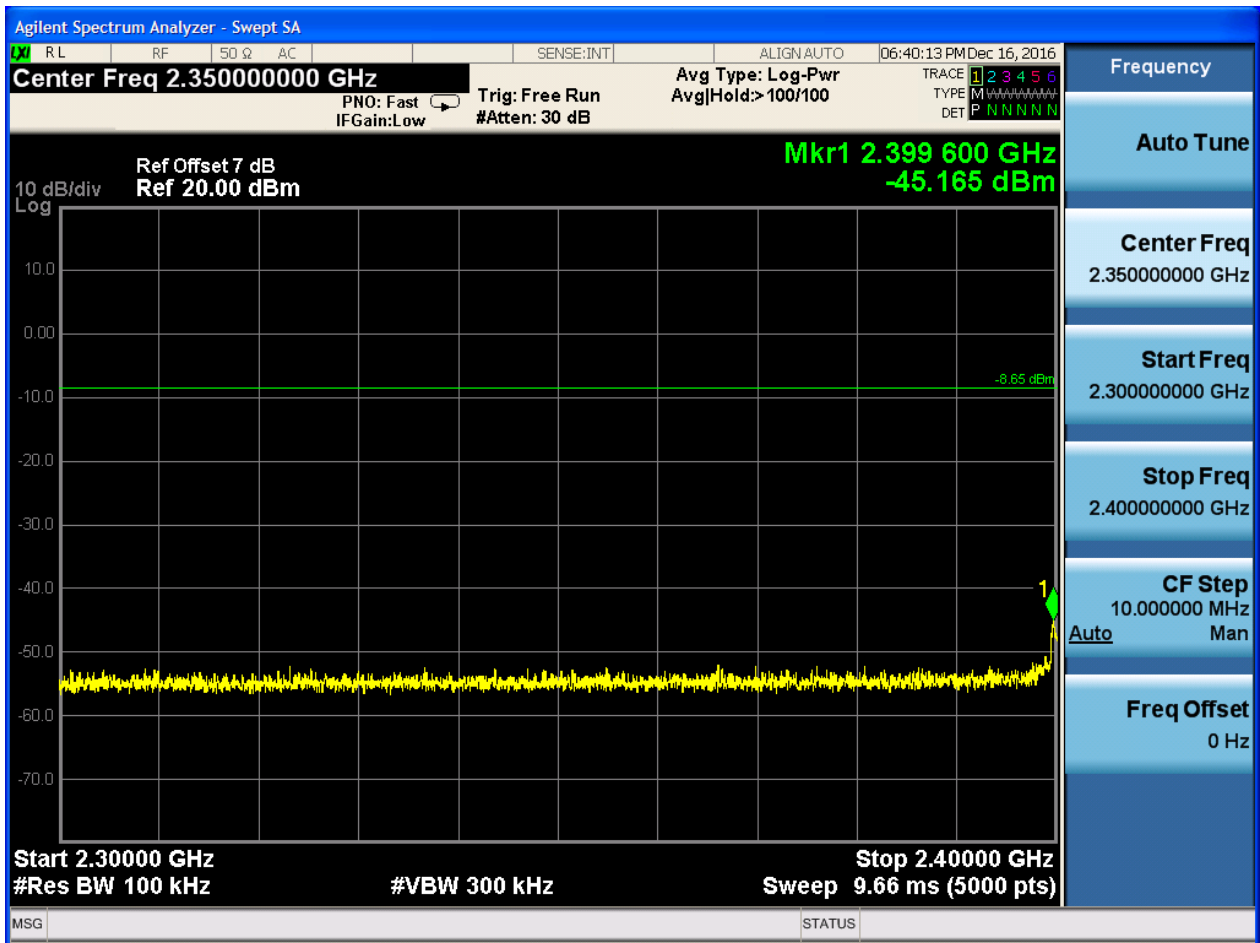


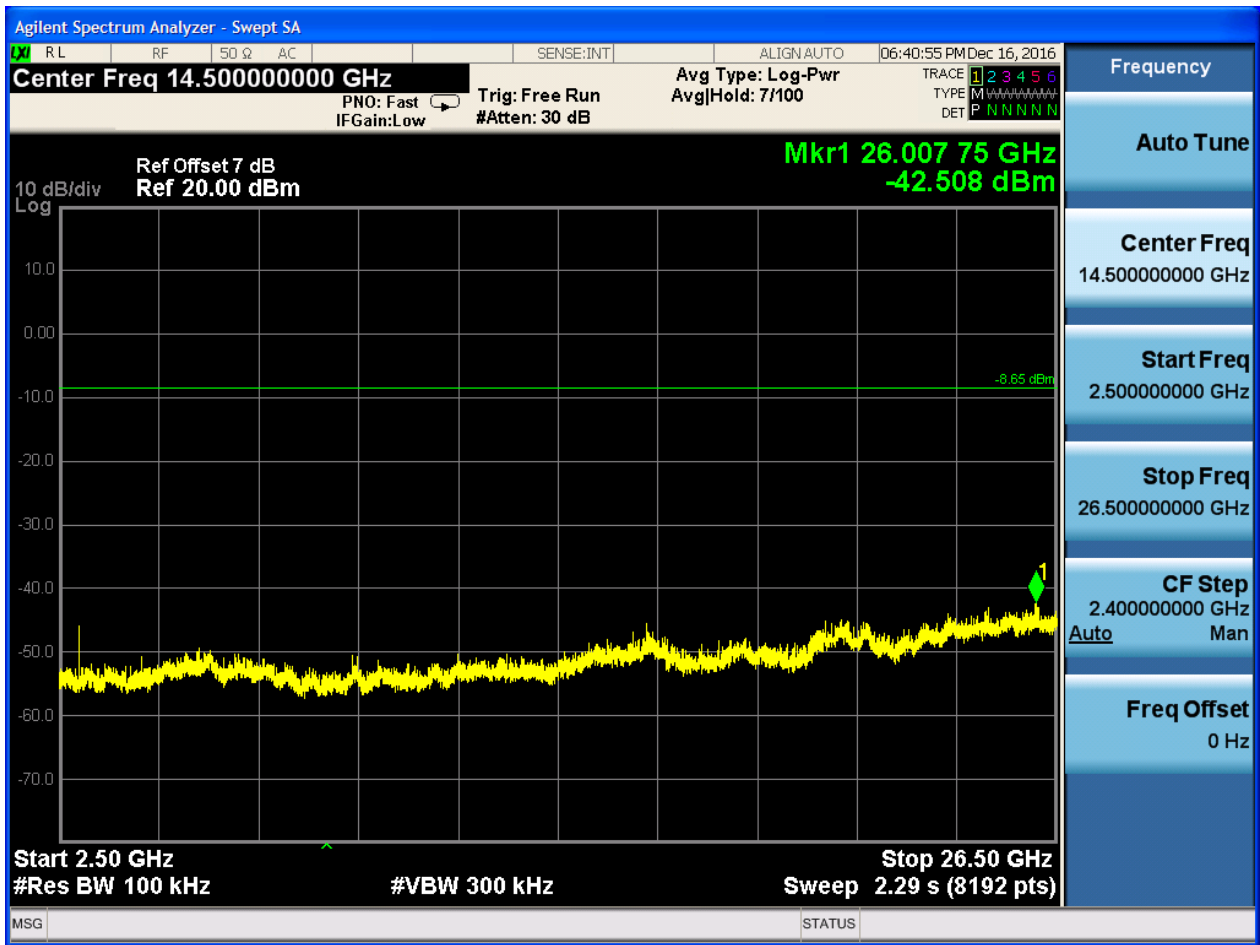
2.7.2 Puw













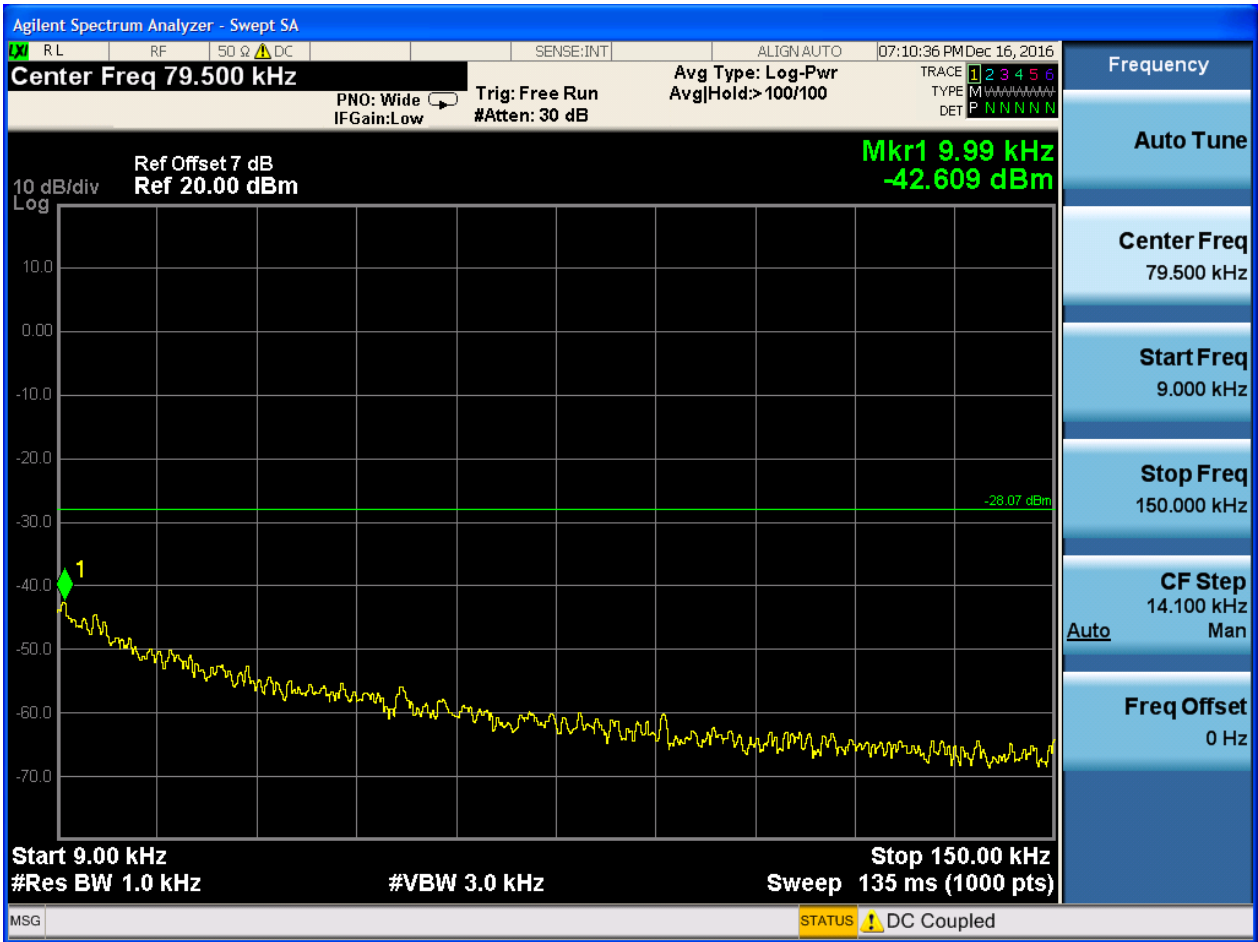
2.8 TM3_3DH5_Ch39

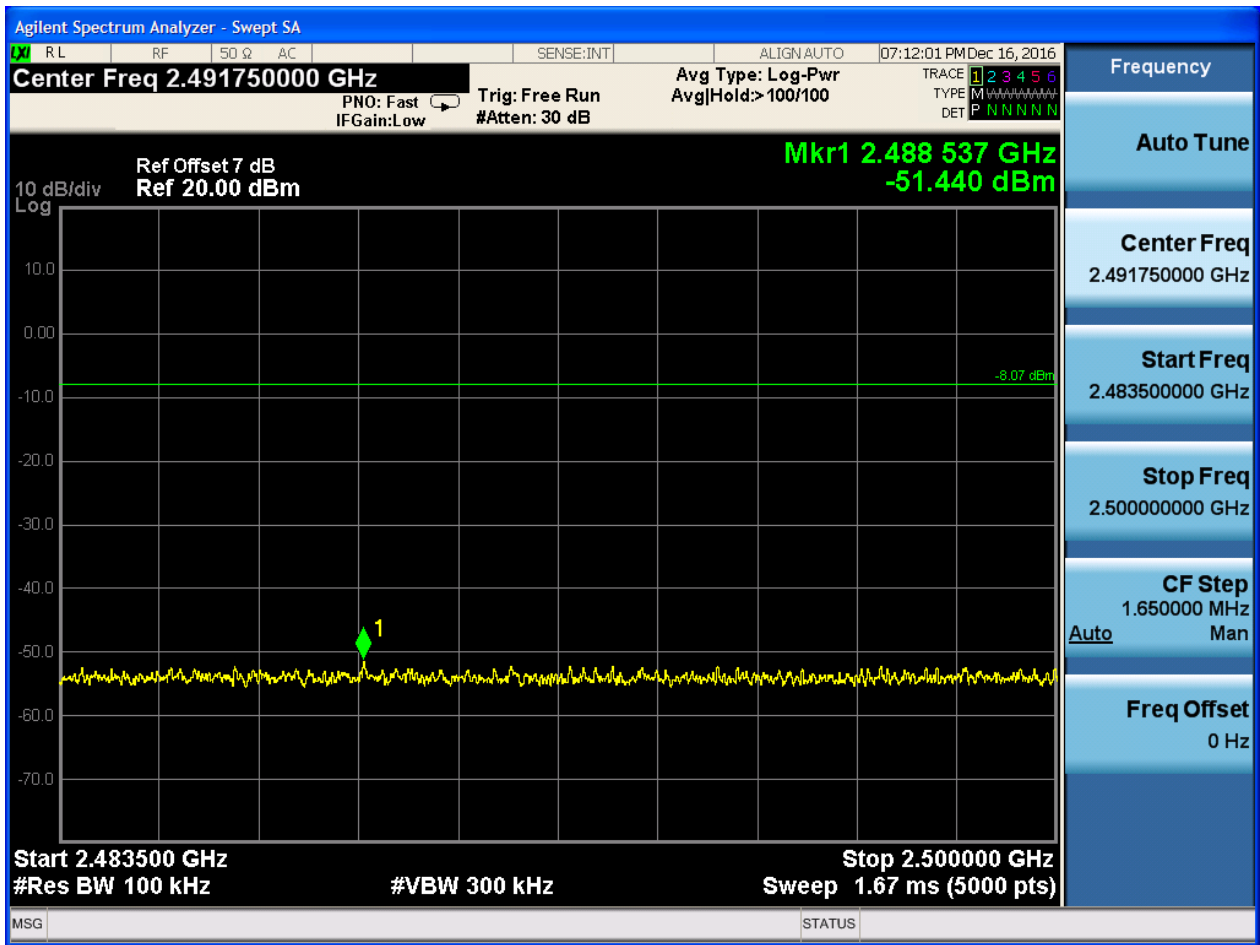
2.8.1 Pref





2.8.2 Puw

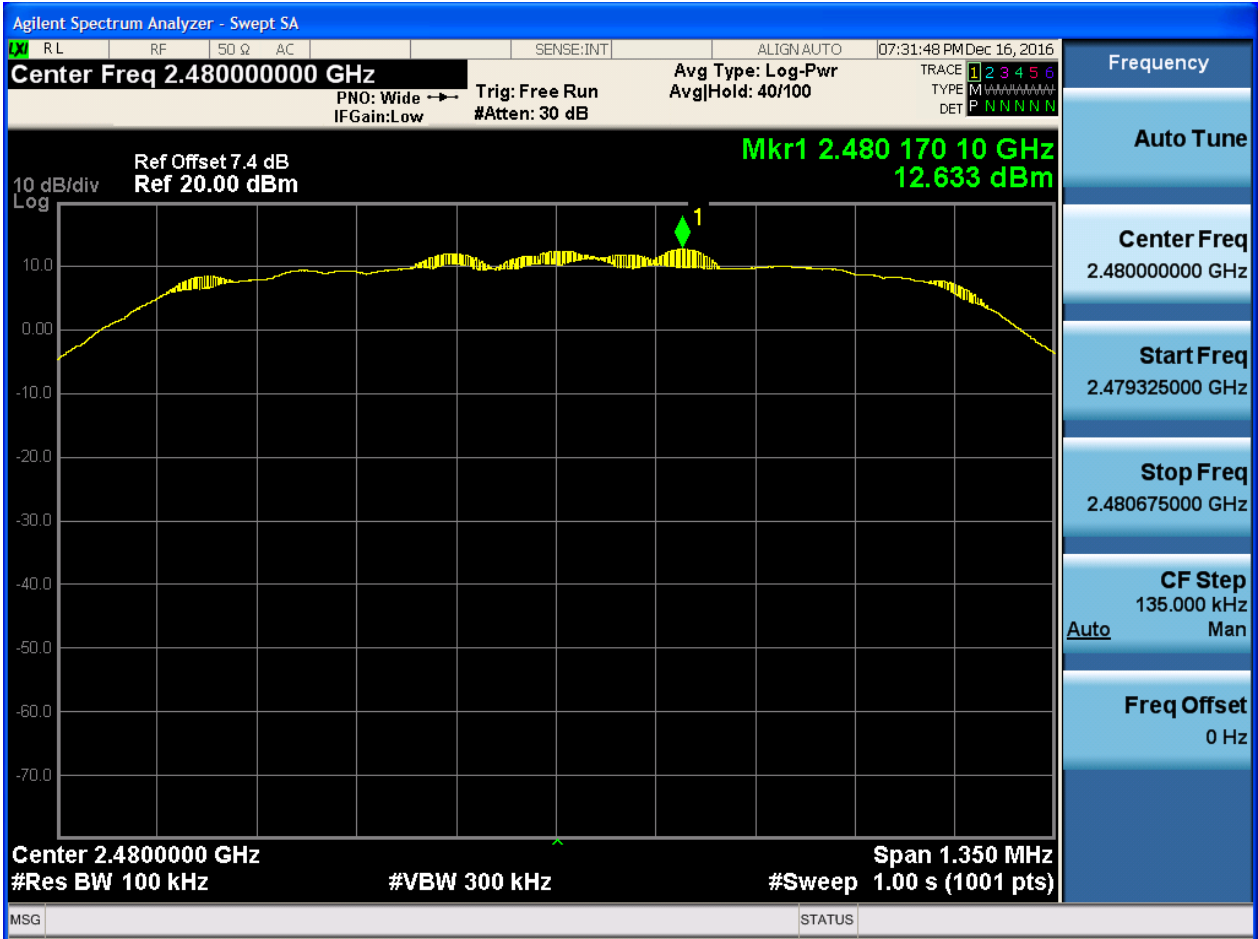






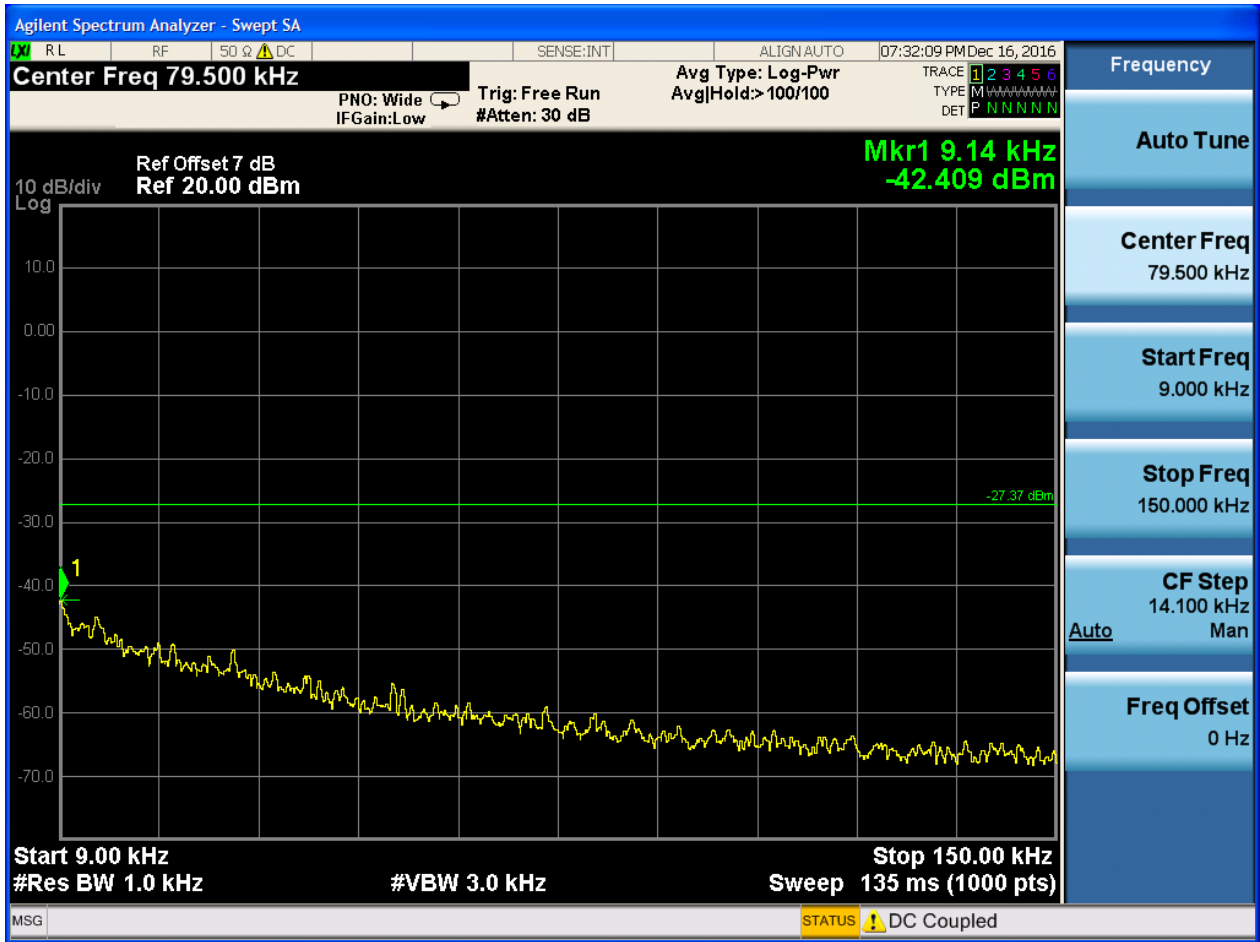
2.9 TM3_3DH5_Ch78

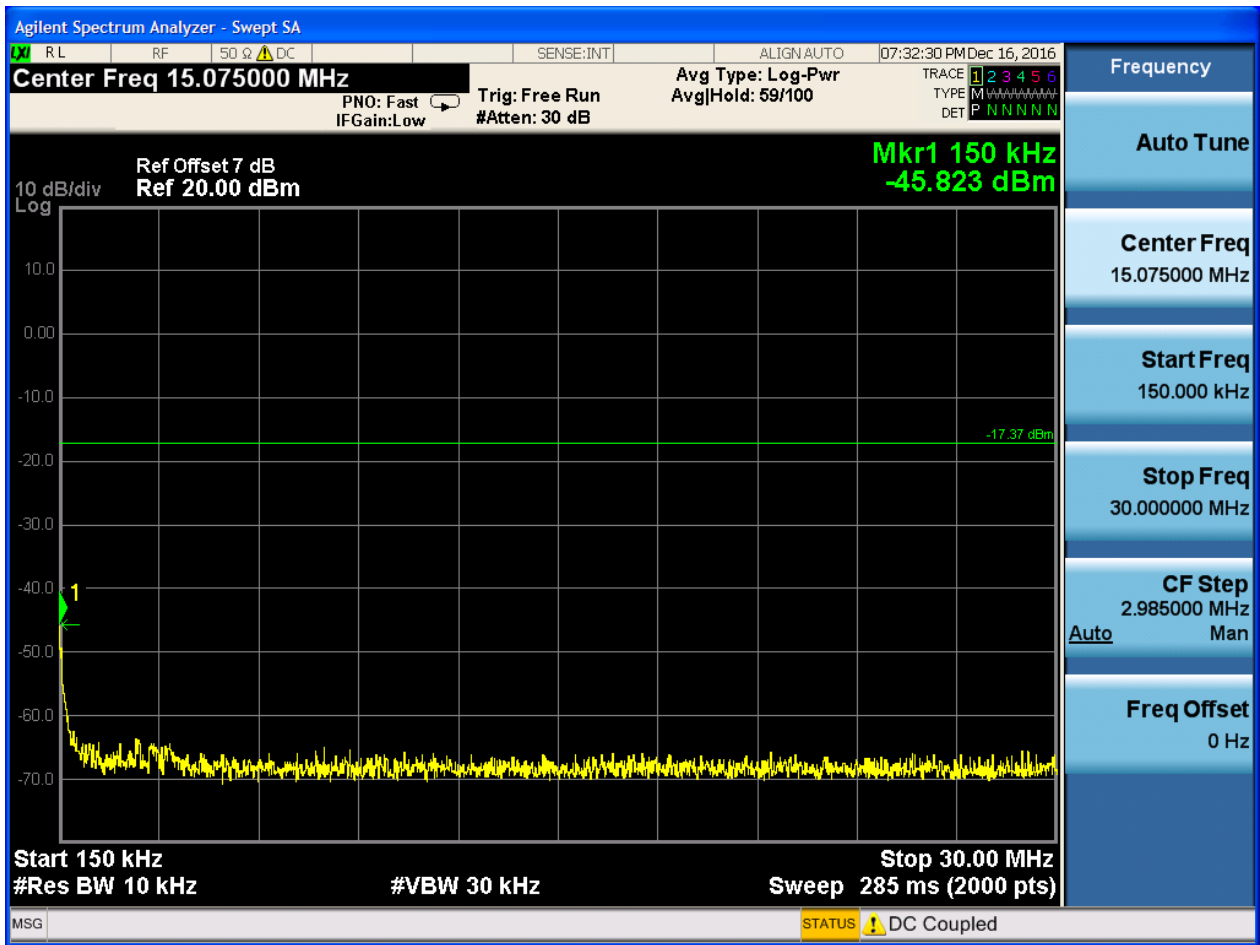
2.9.1 Pref

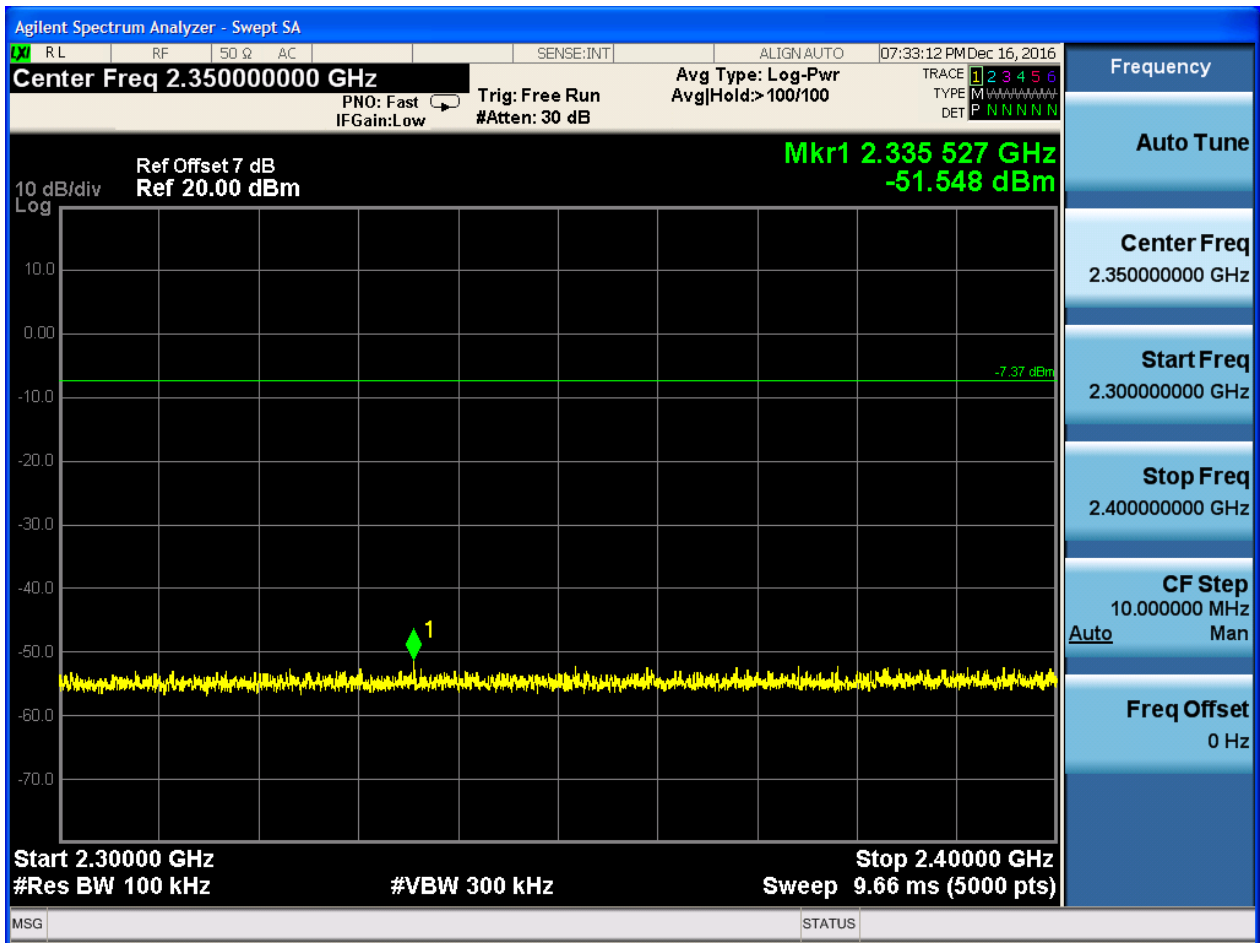


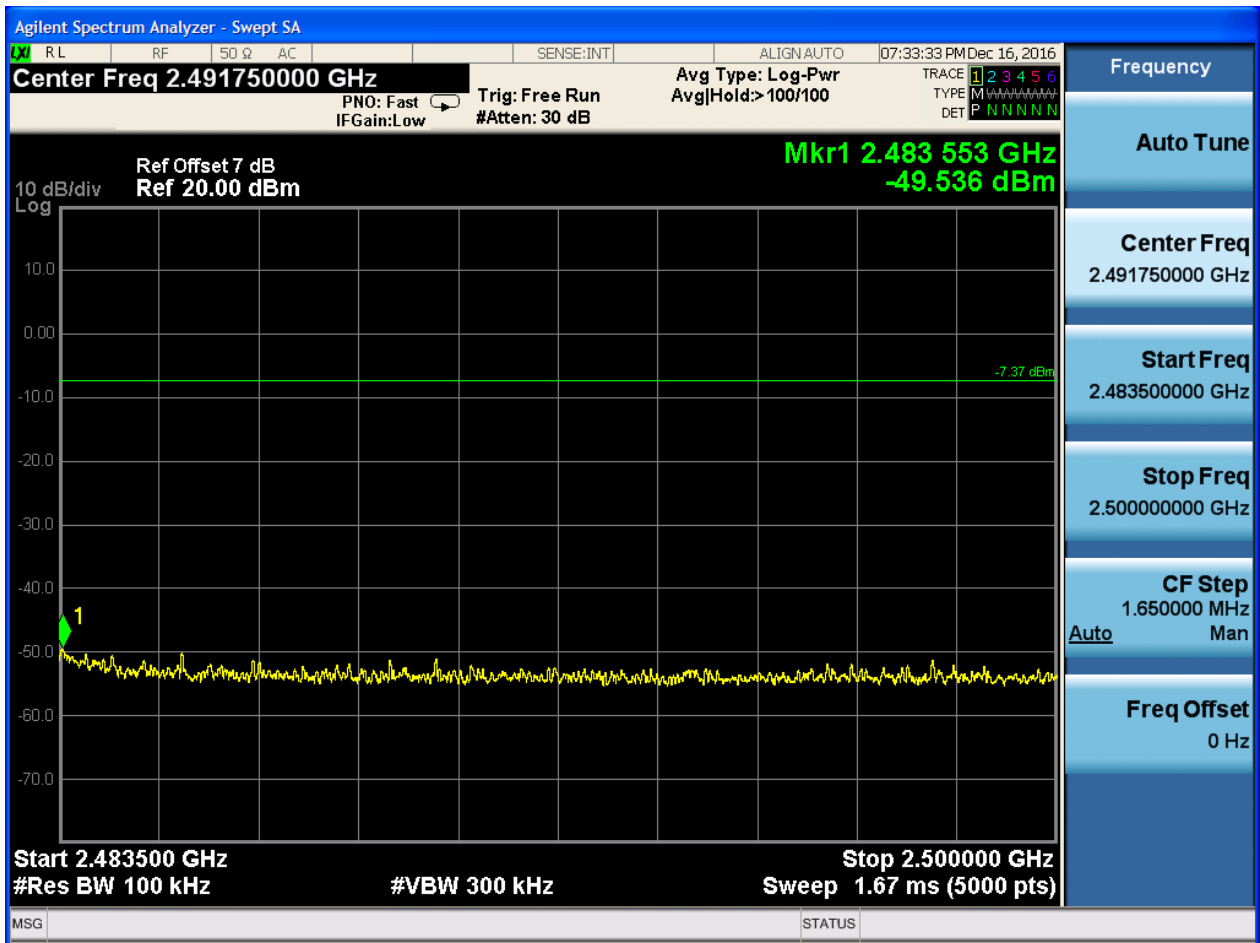


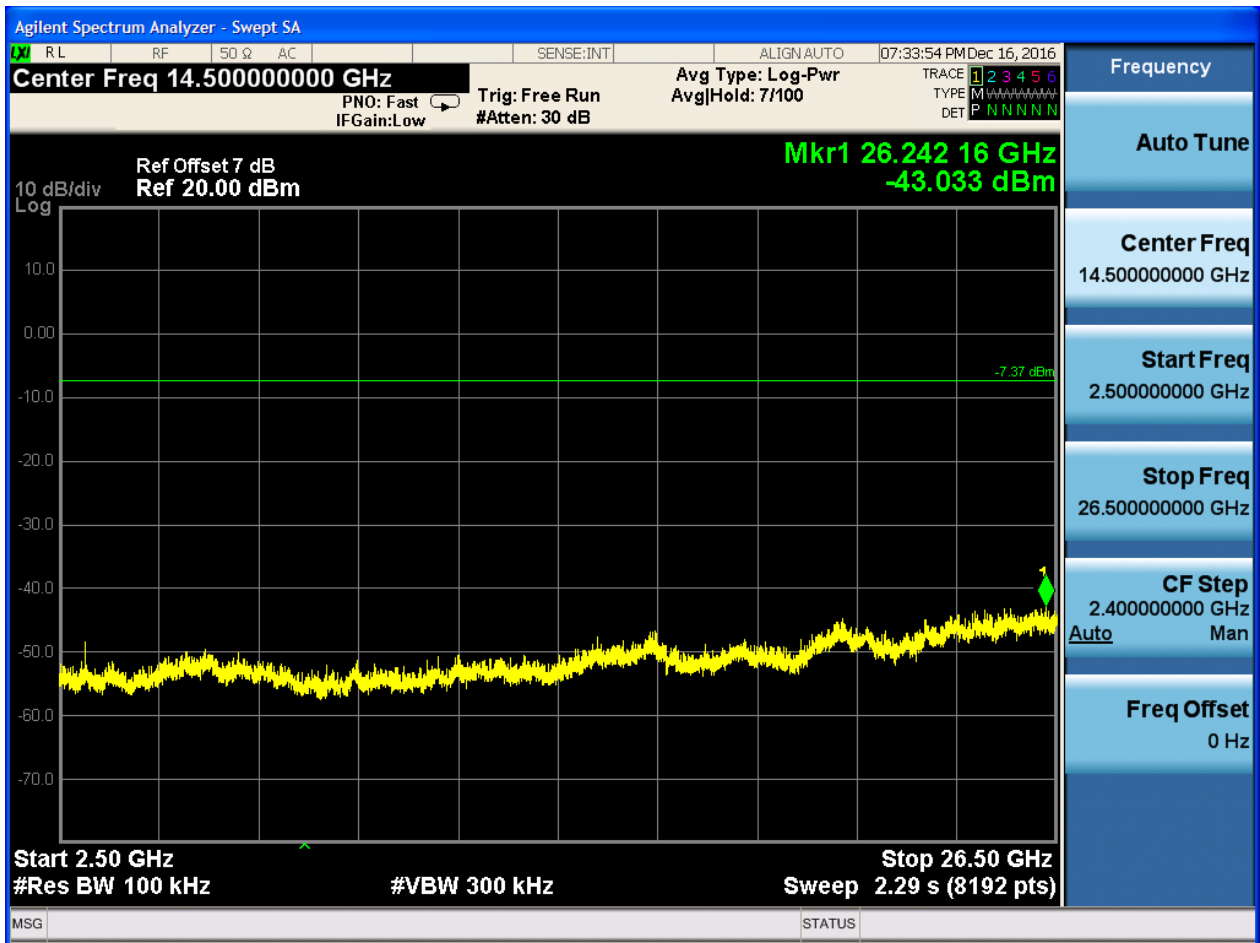
2.9.2 Puw













Appendix H: Radiated Emissions in the Restricted Bands



1 Result Table

The whole testing range is from “30 MHz to 26.5 GHz (10th harmonics)” is divided into 4 parts according to the test site settings, which are:

- (Part 1): Test range of “30 MHz to 1 GHz”,
- (Part 2): Test range of “18 GHz to 26.5 GHz”.
- (Part 3): Test range of “3 GHz to 18 GHz”, and
- (Part 4): Test range of “1 GHz to 3 GHz”.

In this Appendix, only the test results and plots under the worst case can be reported. In the result table, the “< Limit” denotes that “Not found obvious spikes or see marked spikes on plots and listed emissions records”.

Test Range	EUT Conf.	Emissions	Verdict
30 MHz to 1 GHz	TM1_DH5_Ch0 (Worst Conf.)	< Limit	Pass
1 GHz to 3 GHz	TM1_DH5_Ch0 (Worst Conf.)	< Limit	Pass
	TM1_DH5_Ch78 (Worst Conf.)	< Limit	Pass
3 GHz to 18 GHz	TM1_DH5_Ch0 (Worse Conf.)	< Limit	Pass
18 GHz to 26.5 GHz	TM1_DH5_Ch0 (Worst Conf.)	< Limit	Pass

2 Result Plot

2.1 Test range of “9KHz MHz to 30MHz”

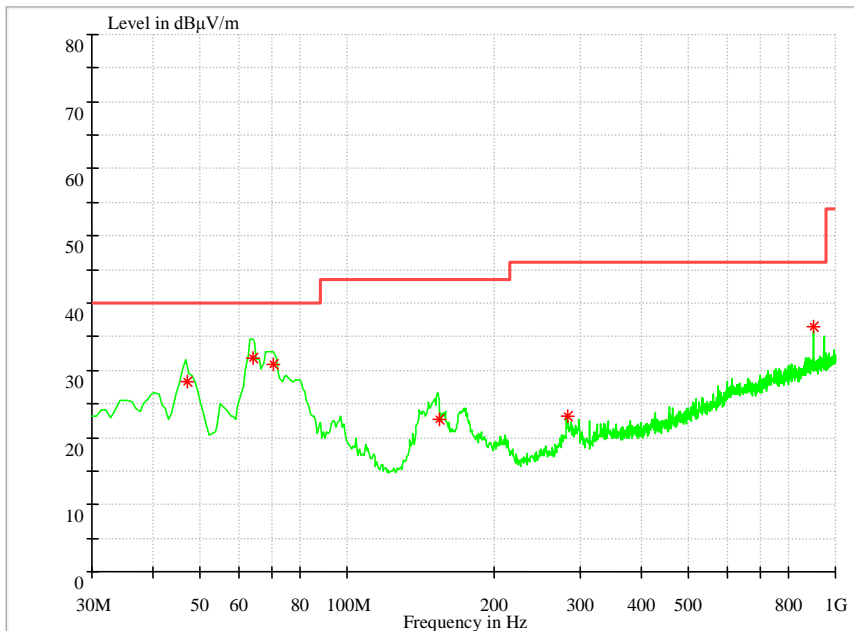
NOTE1: No peak found in the Test Range of “9 kHz to 30MHz”

2.2 Test 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).

2.2.1 TM1_DH5_Ch0 (Worst Conf.)



Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Transd. (dB)
47.141142	28.32	40.00	11.68	119.0	V	149.0	15.3
64.277429	31.73	40.00	8.27	100.0	V	149.0	11.7
70.479142	30.76	40.00	9.24	100.0	V	220.0	10.5
154.064000	22.72	43.50	20.78	100.0	V	282.0	10.1
282.270000	23.13	46.00	22.87	117.0	H	64.0	15.0
902.425714	36.44	46.00	9.56	177.0	H	261.0	25.2

Note:

1, Level = Reading level by receiver + Transd (Antenna factor + cable loss – preamplifier gain)

The reading level is calculated by software which is not shown in the sheet.

2, Margin = Limit - Level

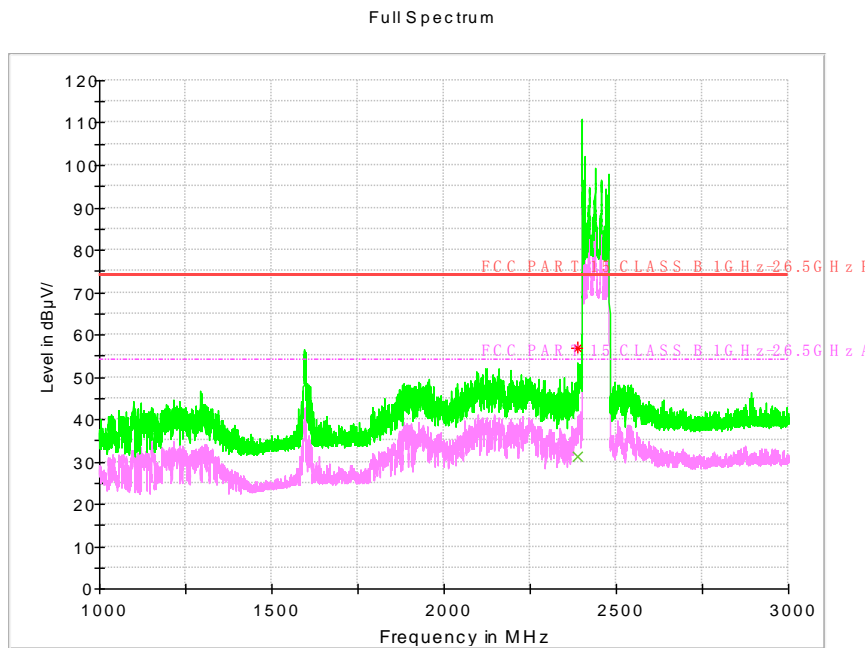
2.3 Test range of “1 GHz to 3 GHz”

Note 1: The testing range of “1 GHz to 3 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 dB μ V/m) and Average Limit (54 dB μ V/m).

Note 3: The peak spike exceeds the limit line is EUT’s operating frequency.

2.3.1 TM1_DH5_Ch0



MEASUREMENT RESULT: AV Detector

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth h	Transd. (dB)
2390.000000	31.22	54.00	22.78	100.0	V	313.0	-7.6

MEASUREMENT RESULT: PK Detector

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth h (deg)	Transd. (dB)
2390.000000	56.73	74.00	17.27	100.0	V	315.0	-7.6

Note2:

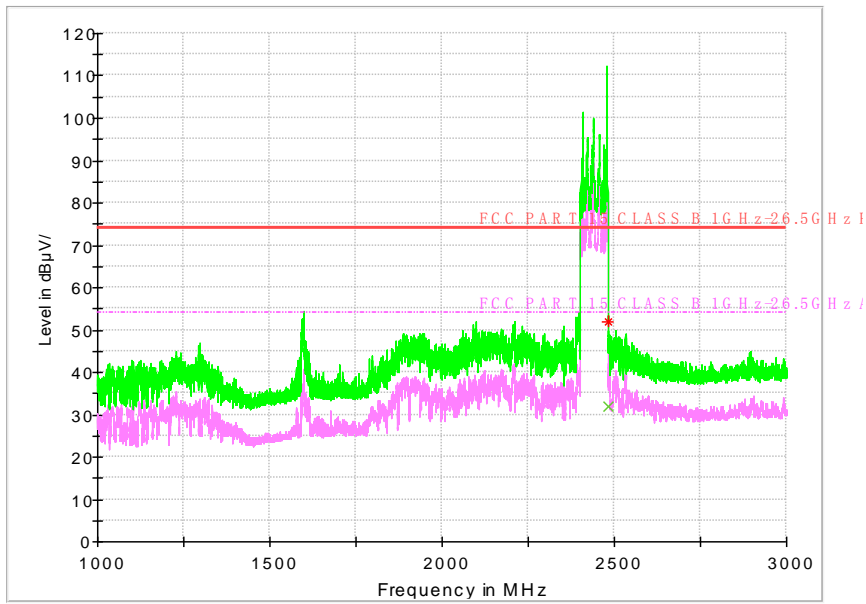
1, Level =Reading level by receiver + Transd (Antenna factor + cable loss – preamplifier gain)

The reading level is calculated by software which is not shown in the sheet.

2, Margin=Limit - Level

2.3.2 TM1_DH5_Ch78

Full Spectrum



MEASUREMENT RESULT: AV Detector

Frequency (MHz)	Level (dBµ V/m)	Limit (dBµ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth h	Transd. (dB)
2483.500000	31.76	54.00	22.24	100.0	V	253.0	-5.4

MEASUREMENT RESULT: PK Detector

Frequency (MHz)	Level (dBµ V/m)	Limit (dBµ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth h (deg)	Transd. (dB)
2483.500000	51.84	74.00	22.16	100.0	V	252.0	-5.4

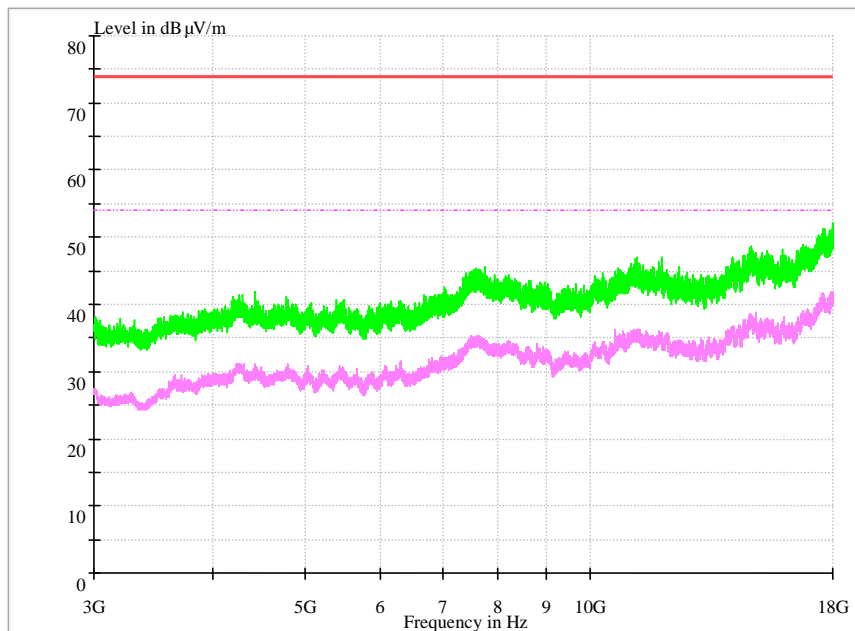
Note2:

- 1, Level =Reading level by receiver + Transd (Antenna factor + cable loss – preamplifier gain)
The reading level is calculated by software which is not shown in the sheet.
- 2, Margin=Limit - Level

2.4 Test range of “3 GHz to 18 GHz”

- Note 1: The test results and plot for testing range of “3 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 “3 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).

2.4.1 TM1_DH5_Ch0 (Worst Conf.)



2.5 Test range of “18 GHz to 26.5 GHz”

NOTE1: No peak found in the Test Range of “18 GHz to 26.5GHz”



Appendix I: AC Power Line Conducted Emissions



1 Result Table

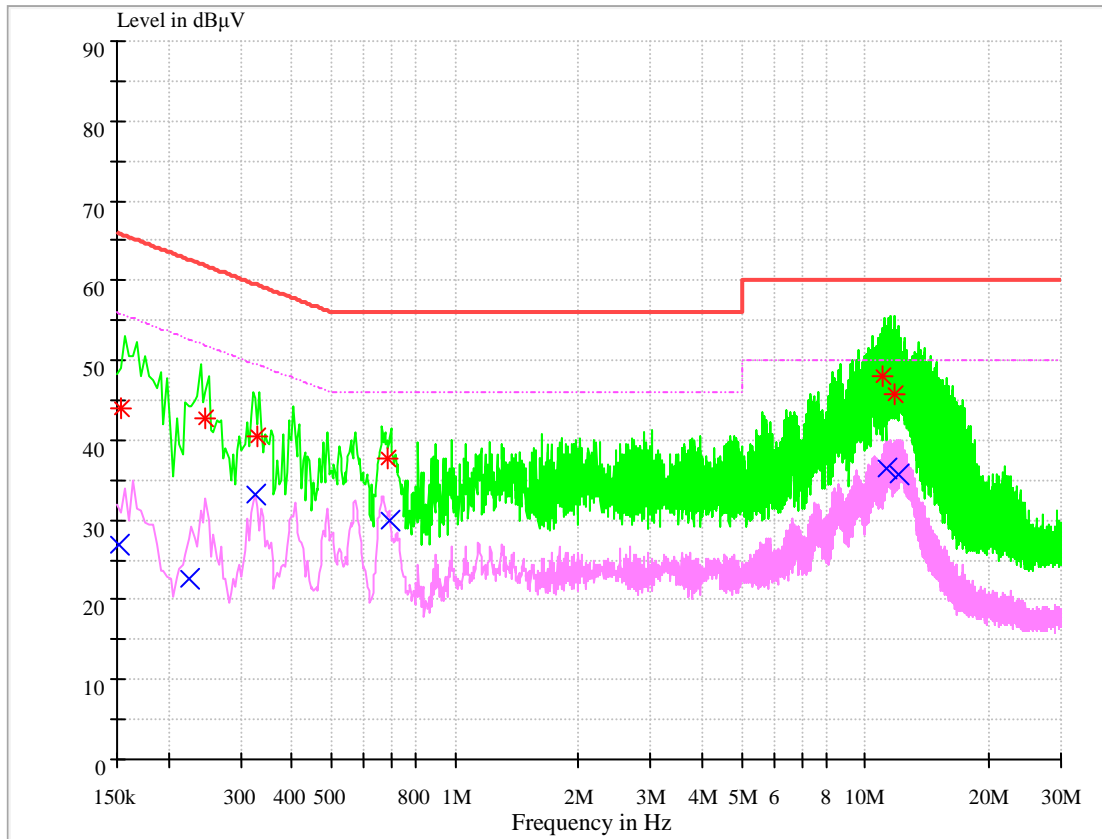
In this Appendix, only the test results and plots under the worst case can be reported.

EUT Conf.	Maximum Emissions	Verdict
TM1_DH5_Ch39	Not found obvious spikes or see marked spikes on plots and listed emissions records.	Pass

2 Result Plot

2.1 TM1_DH5_Ch39

Channel 39



**MEASUREMENT RESULT: AV Detector**

Frequency (MHz)	Level (dBμ V)	Limit (dBμ V)	Transd. (dB)	Margin (dB)	Line	PE
0.151902	26.94	55.9	9.7	28.96	L1	FLO
0.224757	22.57	52.64	9.7	30.07	L1	FLO
0.326159	33.28	49.55	9.7	16.27	L1	FLO
0.689562	29.94	46	9.7	16.06	L1	FLO
11.219021	36.35	50	10	13.65	N	FLO
12.09759	35.77	50	10	14.23	N	FLO

MEASUREMENT RESULT: PK Detector

Frequency (MHz)	Level (dBμ V)	Limit (dBμ V)	Transd. (dB)	Margin (dB)	Line	PE
0.15412	43.99	65.78	9.7	21.79	N	FLO
0.245234	42.72	61.92	9.7	19.2	N	FLO
0.329274	40.54	59.47	9.7	18.93	N	FLO
0.683306	37.78	56	9.7	18.22	L1	FLO
11.077846	47.94	60	10	12.06	N	FLO
11.838109	45.88	60	10	14.12	N	FLO

Note2:

1, Level =Reading level by receiver + Transd (Antenna factor + cable loss – preamplifier gain)

The reading level is calculated by software which is not shown in the sheet.

2, Margin=Limit - Level

END