Appendix A: 20dB Emission Bandwidth (EBW)

1 Result Table

EUT Conf.	EBW [MHz]	Verdict
TM1_DH5_Ch0	0.94	Pass
TM1_DH5_Ch39	0.95	Pass
TM1_DH5_Ch78	0.95	Pass
TM2_2DH5_Ch0	1.27	Pass
TM2_2DH5_Ch39	1.27	Pass
TM2_2DH5_Ch78	1.27	Pass
TM3_3DH5_Ch0	1.27	Pass
TM3_3DH5_Ch39	1.27	Pass
TM3_3DH5_Ch78	1.27	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

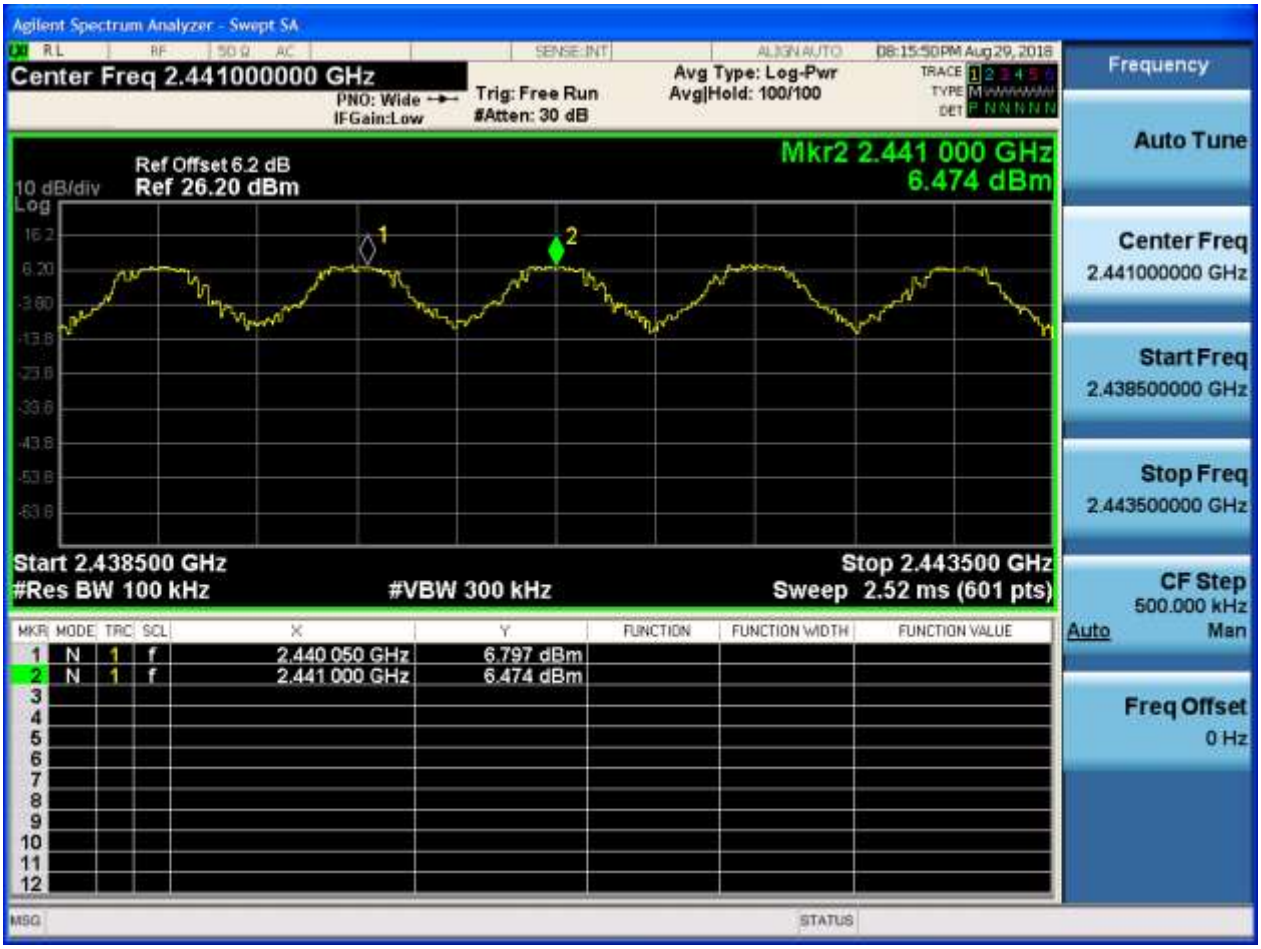
Appendix B: Carrier Frequency Separation

1 Result Table

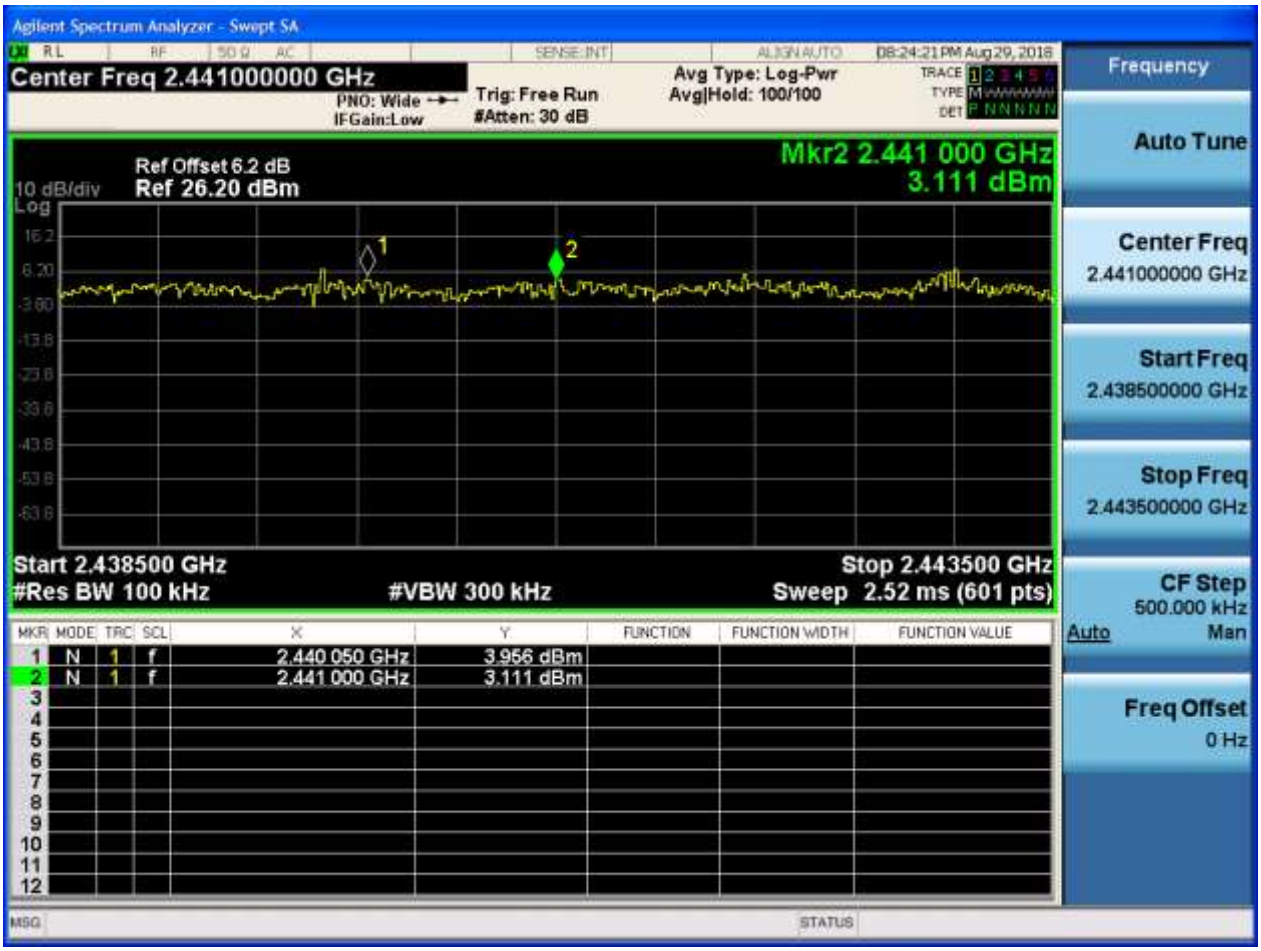
EUT Conf.	Carrier Frequency Separation [MHz]	Verdict
TM1_DH5_Hop	0.95	Pass
TM2_2DH5_Hop	0.95	Pass
TM3_3DH5_Hop	1.1	Pass

2 Test Plot

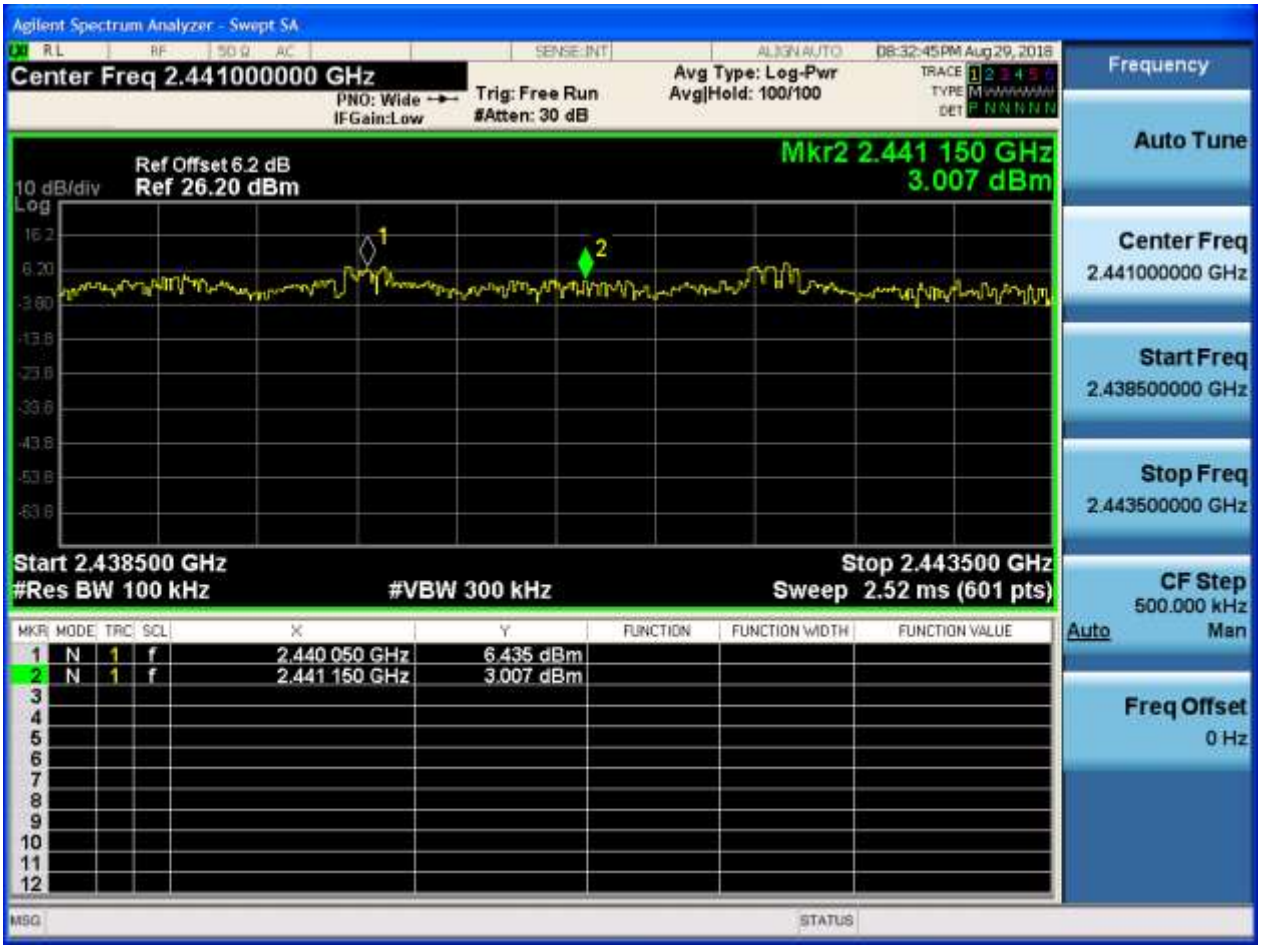
2.1 TM1_DH5_Hop



2.2 TM2_2DH5_Hop



2.3 TM3_3DH5_Hop



Appendix C: Number of Hopping Channel

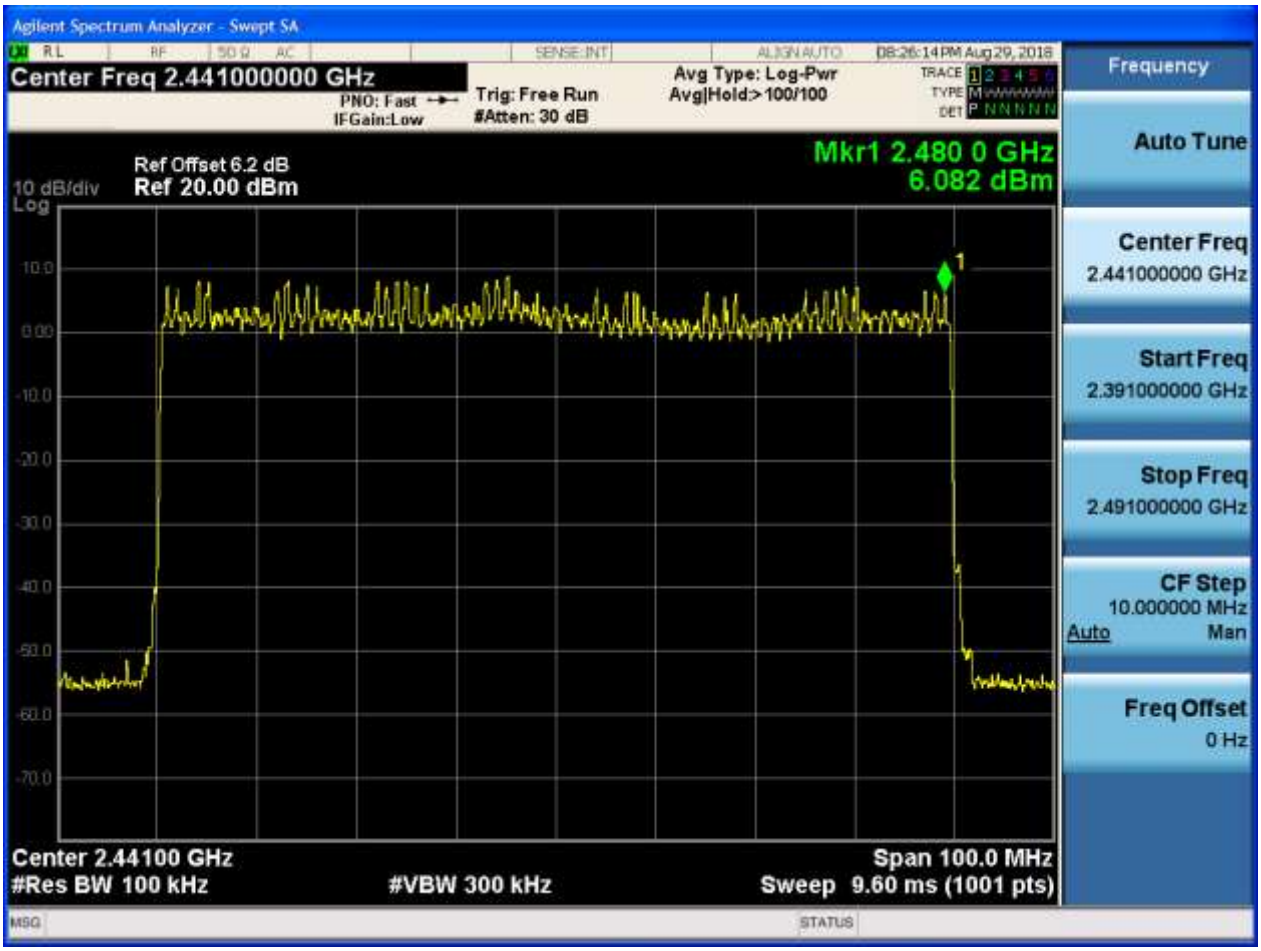
1 Result Table

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

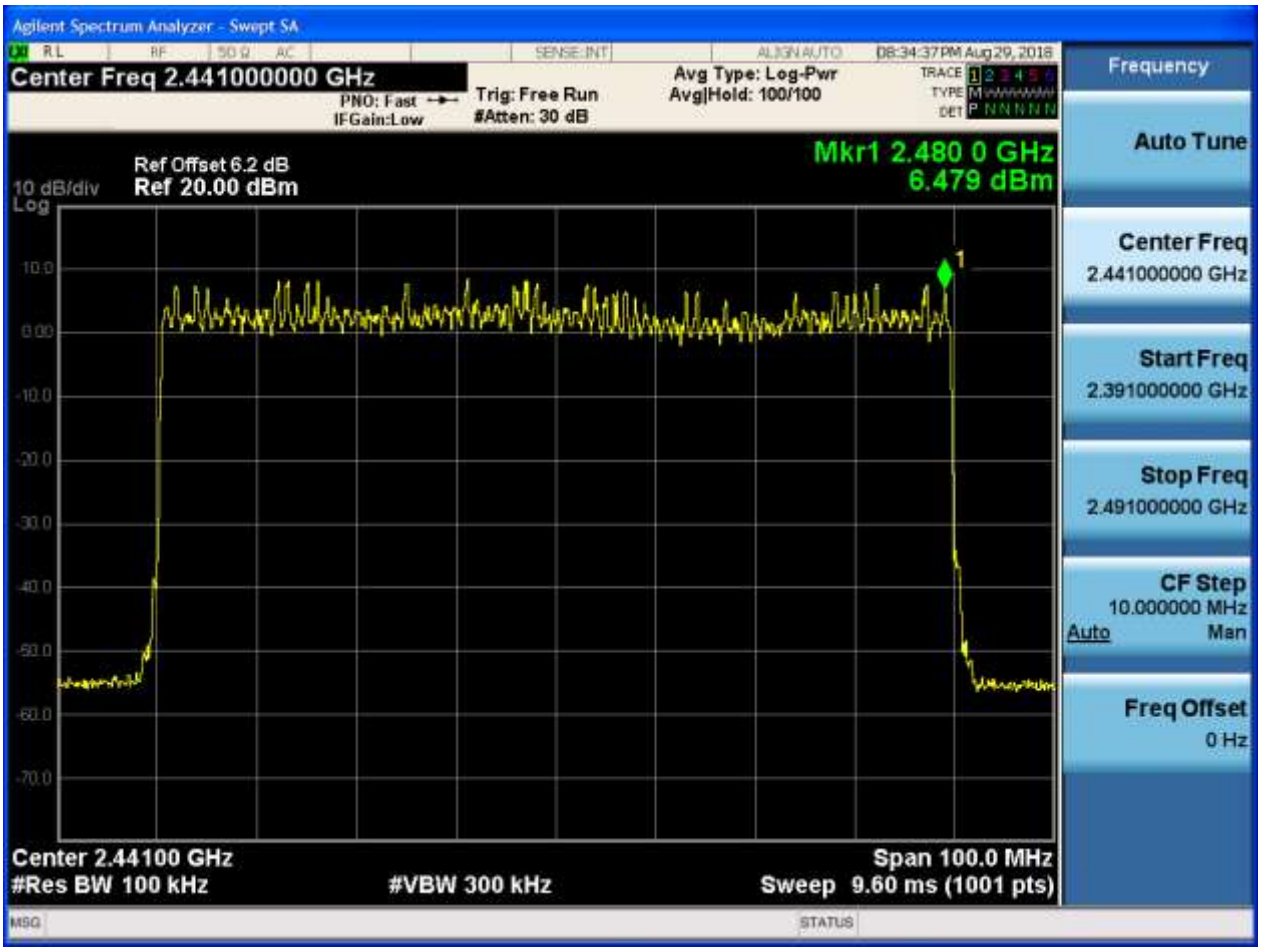
2 Test Plot

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:

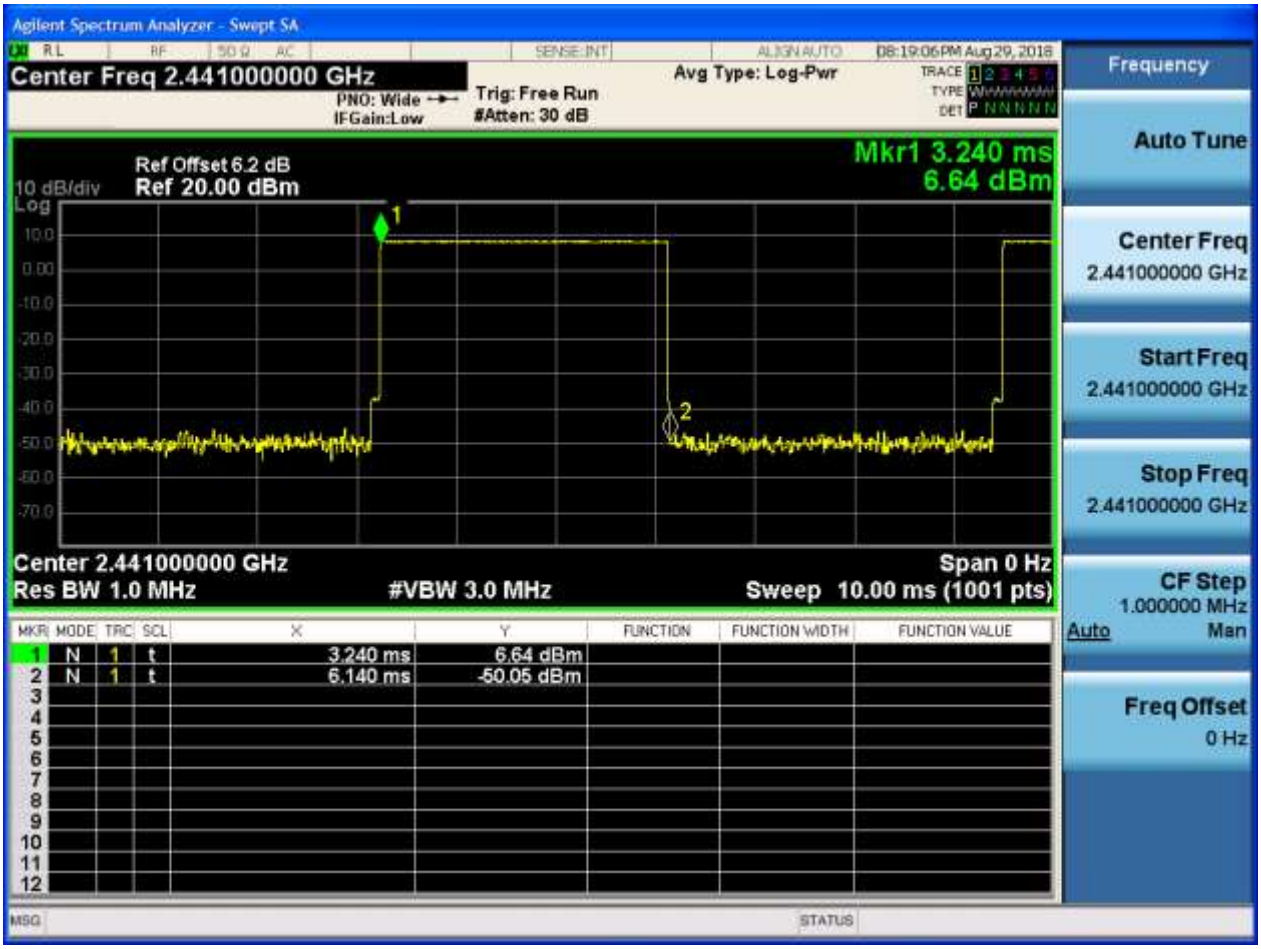
- The duration for dwell time calculation: 0.4 [s] * hopping number = 0.4 [s] * 79 [ch] = 31.6 [s*ch];
- The burst width [ms/hop/ch], which is directly measured, refers to the duration on one channel hop.
- The hops per second for all channels: The selected EUT Conf uses a slot type of 5-Tx&1-Rx and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

EUT Conf.	Burst Width [s/hop/ch]	Total Hops [hop*ch]	Dwell Time [ms]	Verdict
TM1_DH5_Ch39	0.0029	106.67	0.309	Pass
TM2_2DH5_Ch39	0.0029	106.67	0.309	Pass
TM3_3DH5_Ch39	0.0029	106.67	0.309	Pass

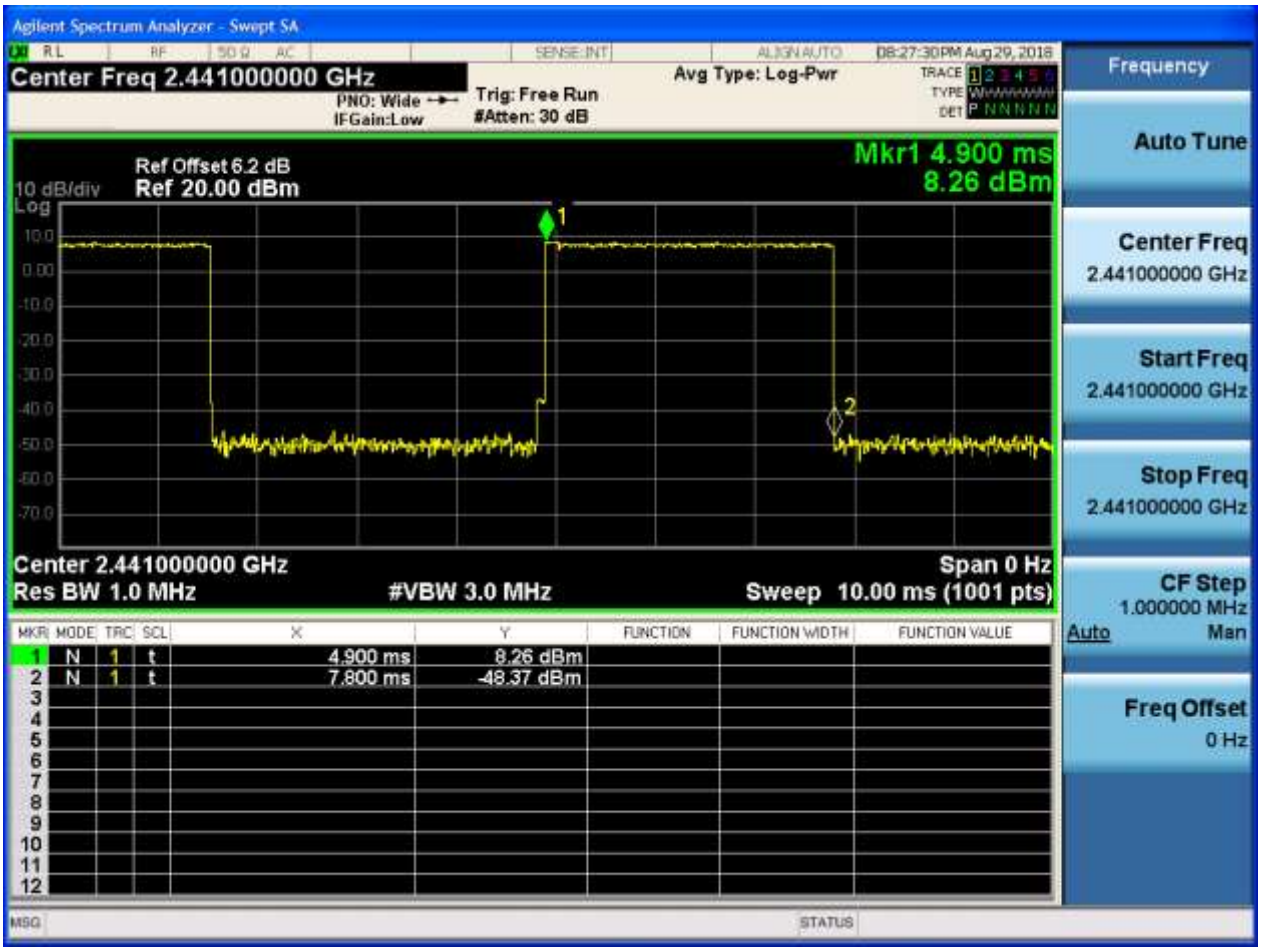
2 Test Plot

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

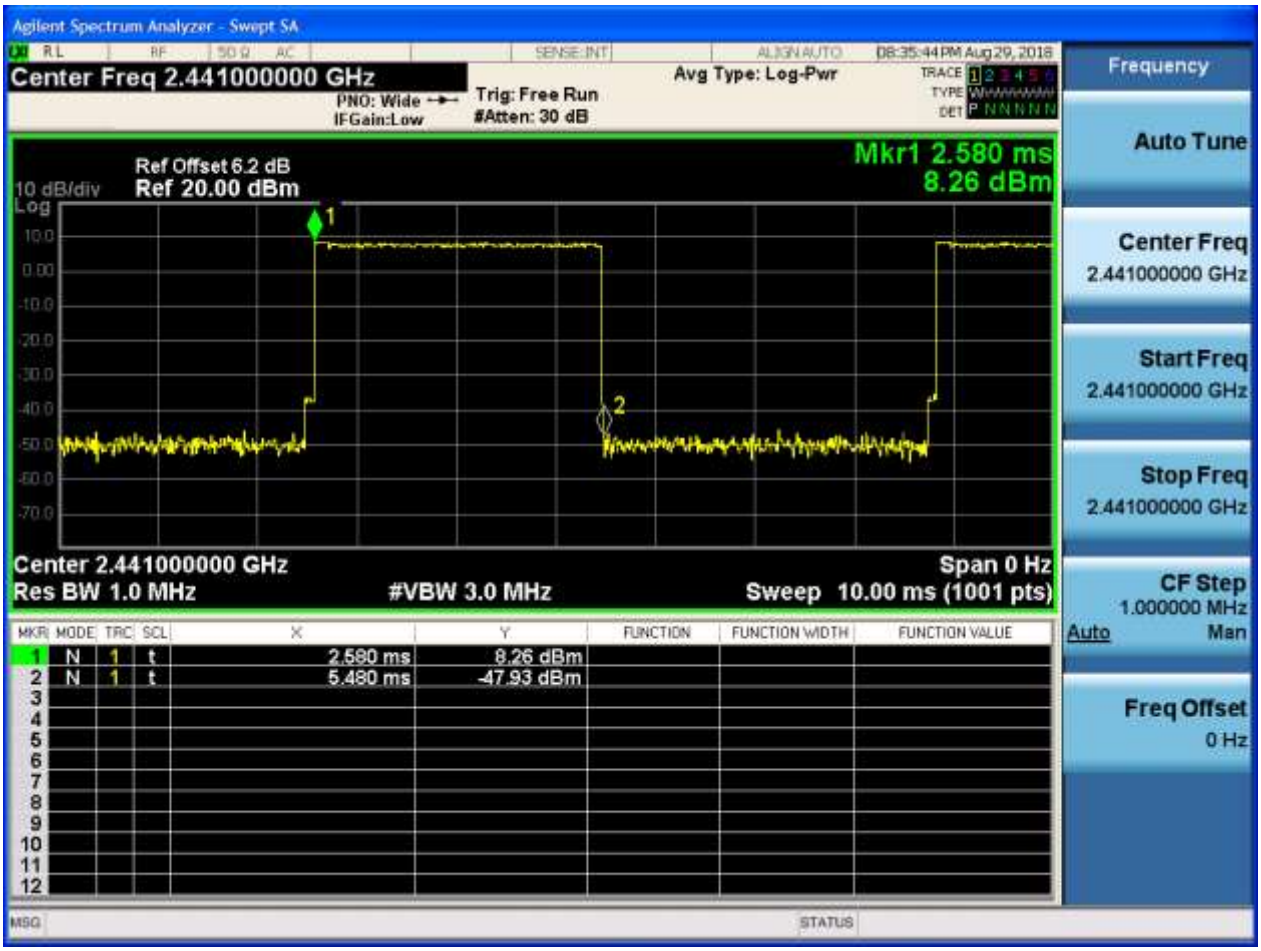
2.1 TM1_DH5_Ch39



2.2 TM2_2DH5_Ch39



2.3 TM3_3DH5_Ch39



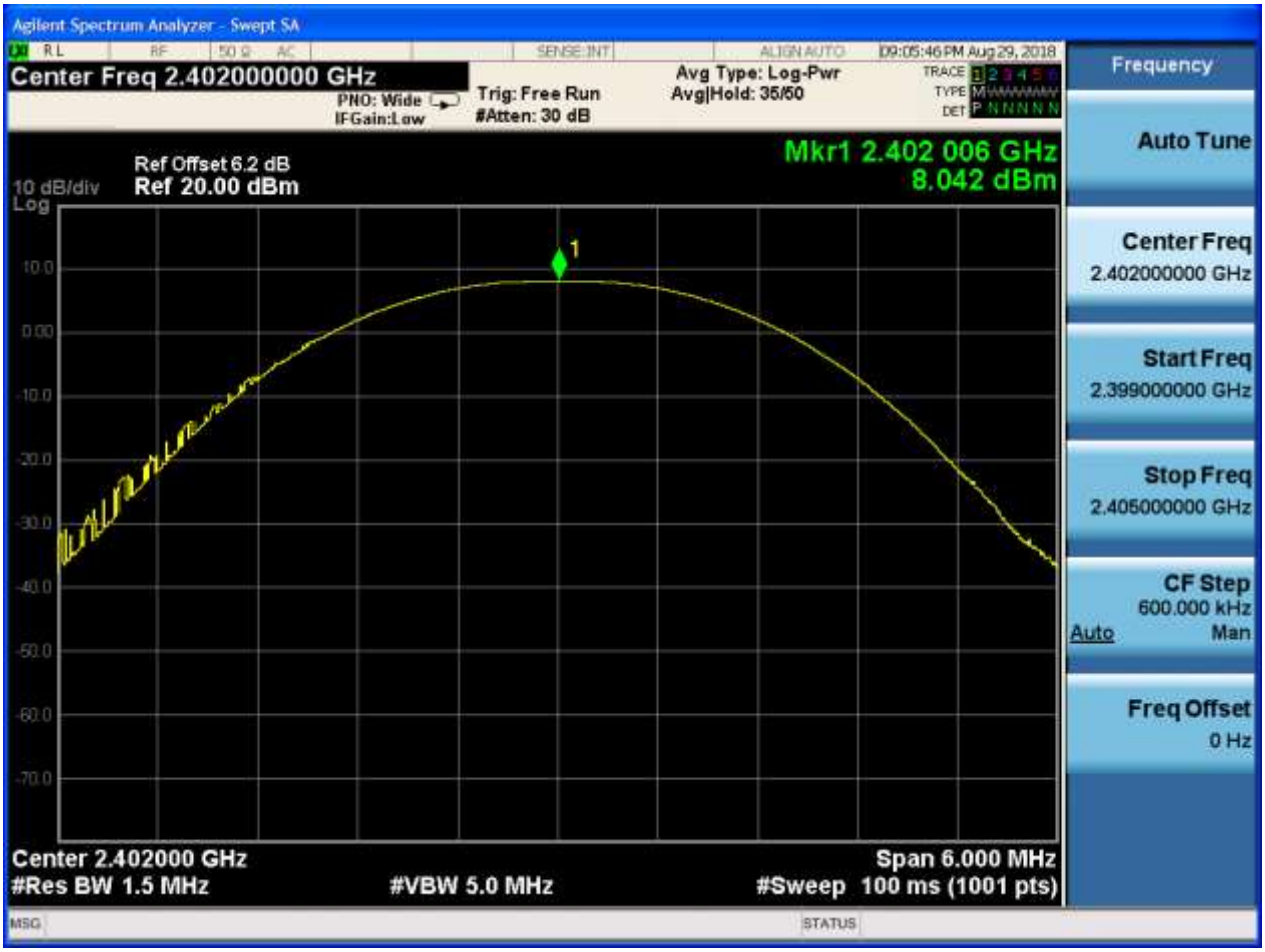
Appendix E: Maximum Peak Conducted Output Power

1 Result Table

EUT Conf.	Max. Peak Power [dBm]	Verdict
TM1_DH5_Ch0	8.042	Pass
TM1_DH5_Ch39	8.298	Pass
TM1_DH5_Ch78	7.436	Pass
TM2_2DH5_Ch0	8.378	Pass
TM2_2DH5_Ch39	8.714	Pass
TM2_2DH5_Ch78	7.754	Pass
TM3_3DH5_Ch0	8.373	Pass
TM3_3DH5_Ch39	8.726	Pass
TM3_3DH5_Ch78	7.767	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 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	-49.488	Off	7.686	-12.314	Pass
	-	-	-52.69	On	7.143	-12.857	Pass
TM1_DH5_Ch78	78	2480	-55.901	Off	6.992	-13.008	Pass
	-	-	-56.358	On	6.608	-13.392	Pass
TM2_2DH5_Ch0	0	2402	-49.201	Off	7.711	-12.289	Pass
	-	-	-51.948	On	7.098	-12.902	Pass
TM2_2DH5_Ch78	78	2480	-54.355	Off	7.105	-12.895	Pass
	-	-	-57.028	On	6.58	-13.42	Pass
TM3_3DH5_Ch0	0	2402	-49.225	Off	7.643	-12.357	Pass
	-	-	-52.113	On	6.947	-13.053	Pass
TM3_3DH5_Ch78	78	2480	-56.253	Off	7.068	-12.932	Pass
	-	-	-57.17	On	6.468	-13.532	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

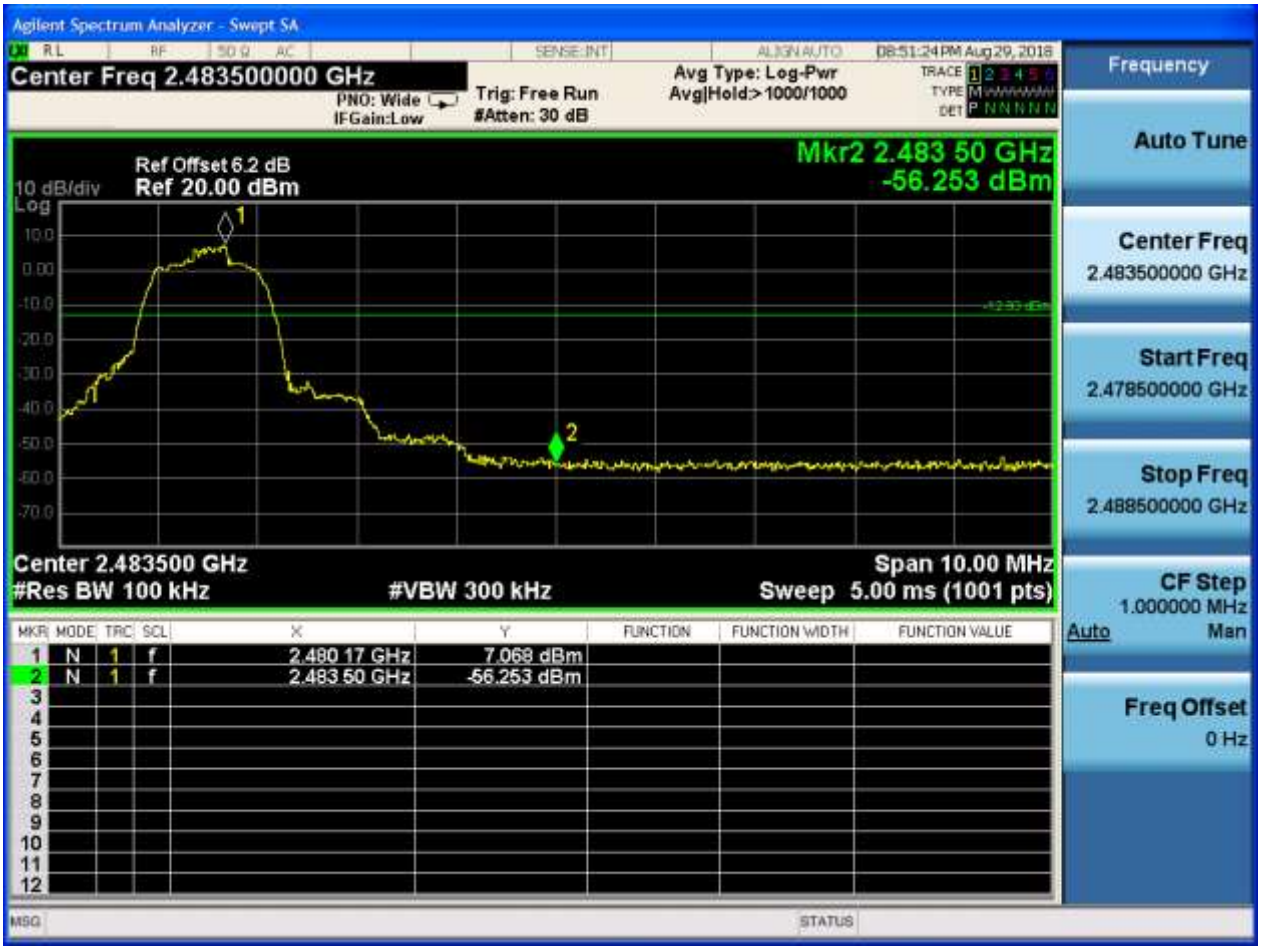
2.5 TM3_3DH5_Ch0

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” referrers 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 x lg(100 [kHz]/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”.

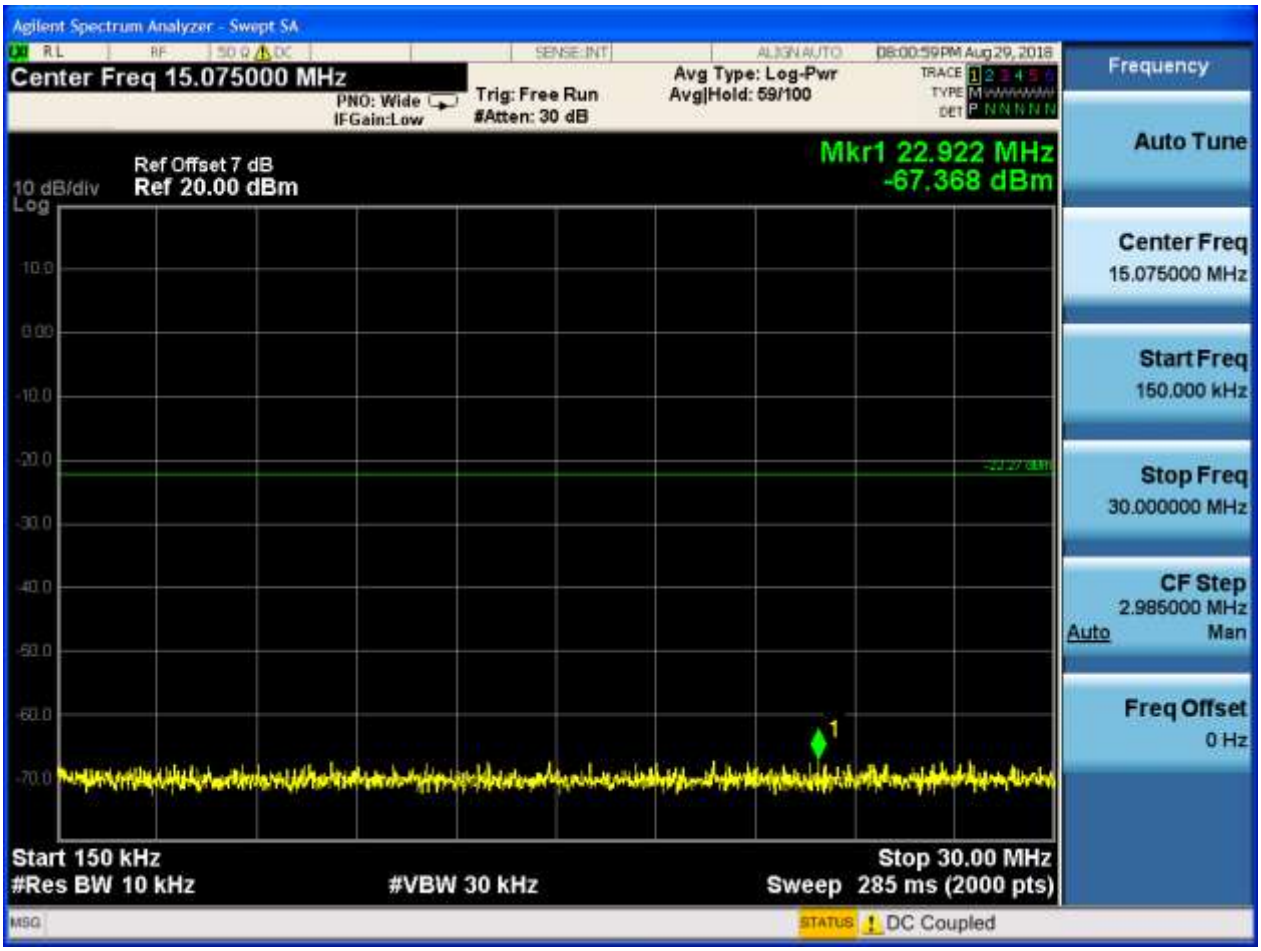
EUT Conf.	Pref [dBm/100 kHz]	Puw [dBm/100 kHz]	Verdict
TM1_DH5_Ch0	7.732	< Limit	Pass
TM1_DH5_Ch39	8.092	< Limit	Pass
TM1_DH5_Ch78	7.105	< Limit	Pass
TM2_2DH5_Ch0	7.726	< Limit	Pass
TM2_2DH5_Ch39	8.117	< Limit	Pass
TM2_2DH5_Ch78	7.141	< Limit	Pass
TM3_3DH5_Ch0	7.748	< Limit	Pass
TM3_3DH5_Ch39	8.175	< Limit	Pass
TM3_3DH5_Ch78	7.154	< Limit	Pass

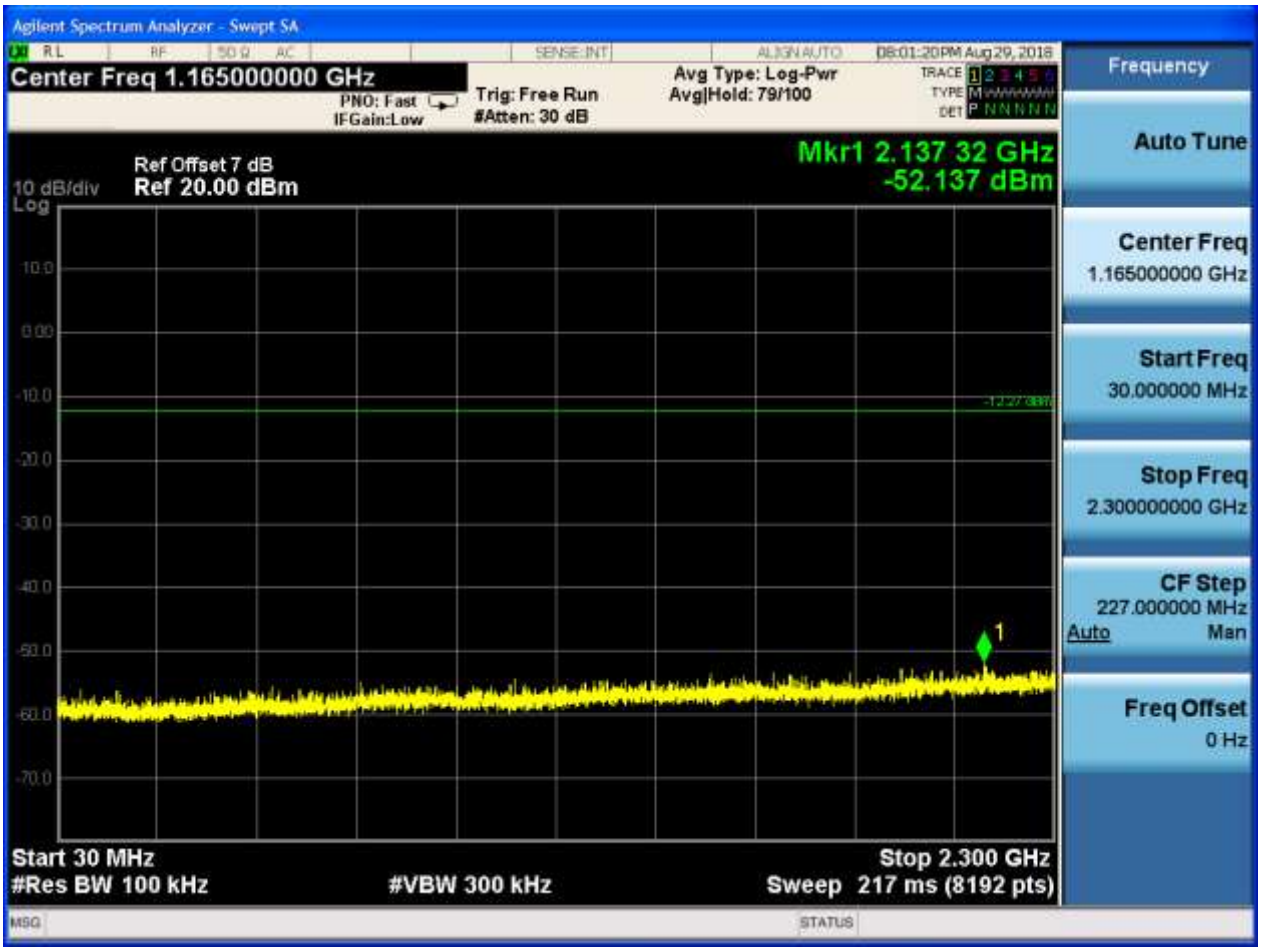
2 Test Plot

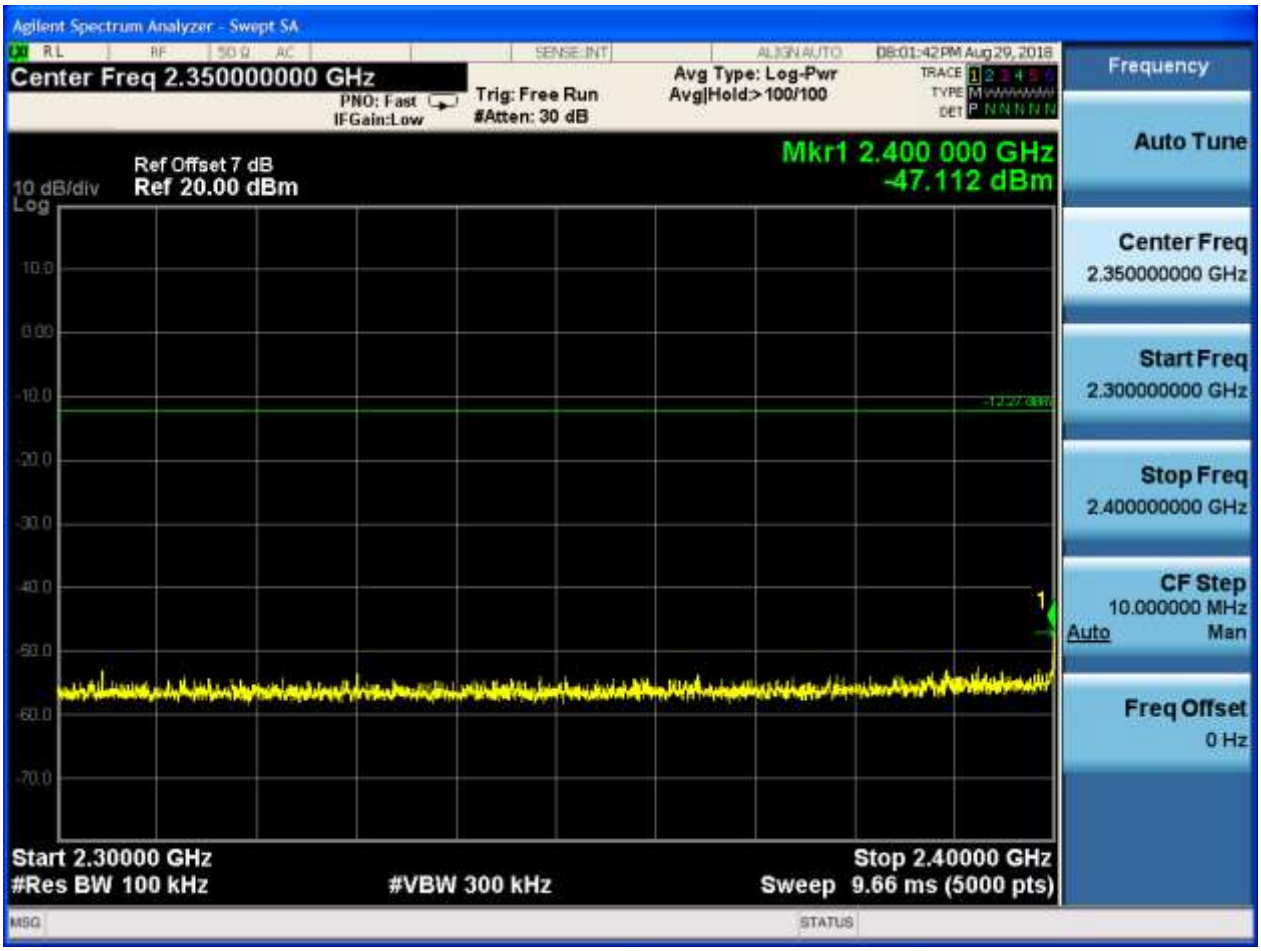
2.1 TM1_DH5_Ch0

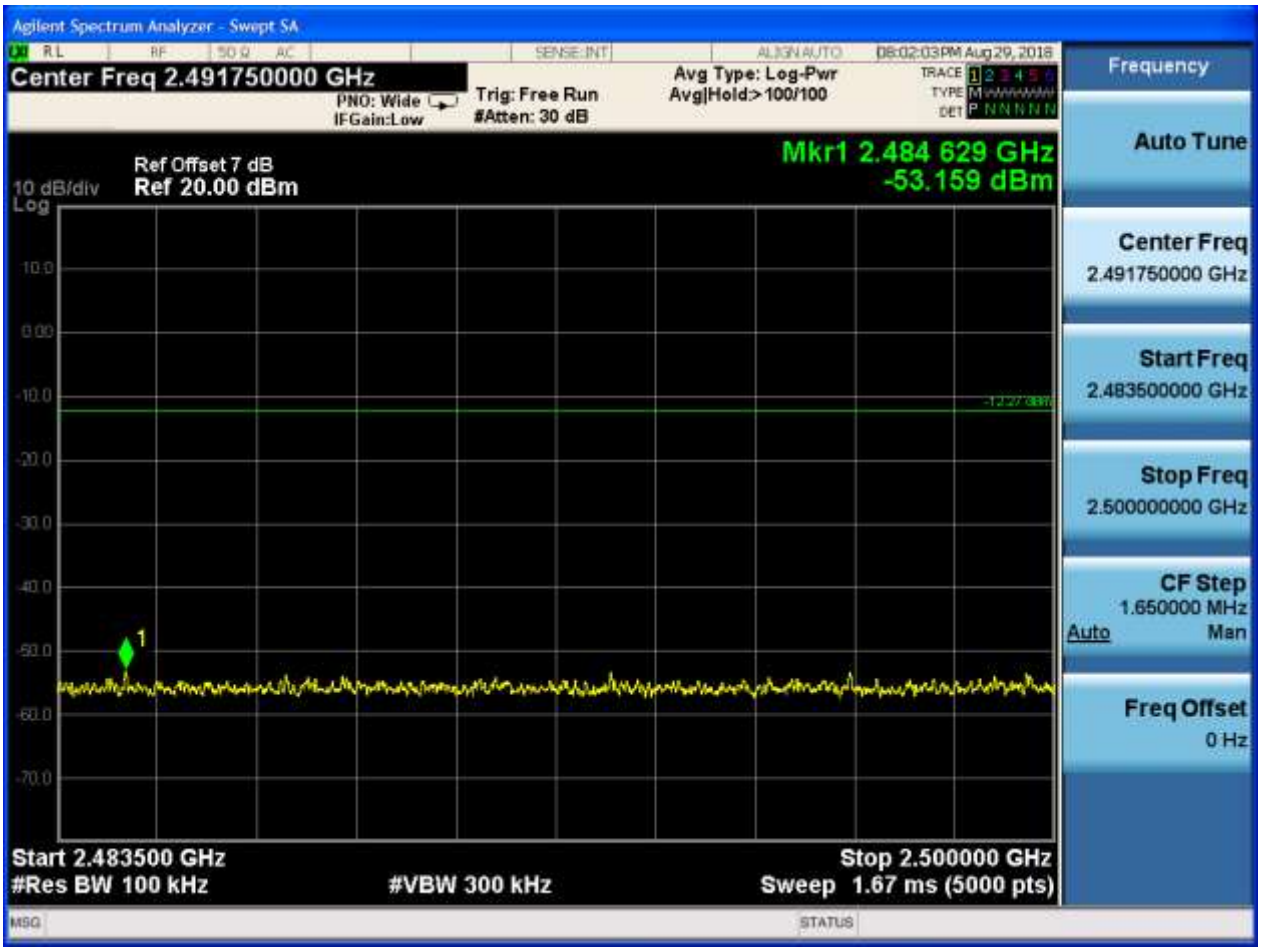
2.1.1 Pref

2.1.2 Puw





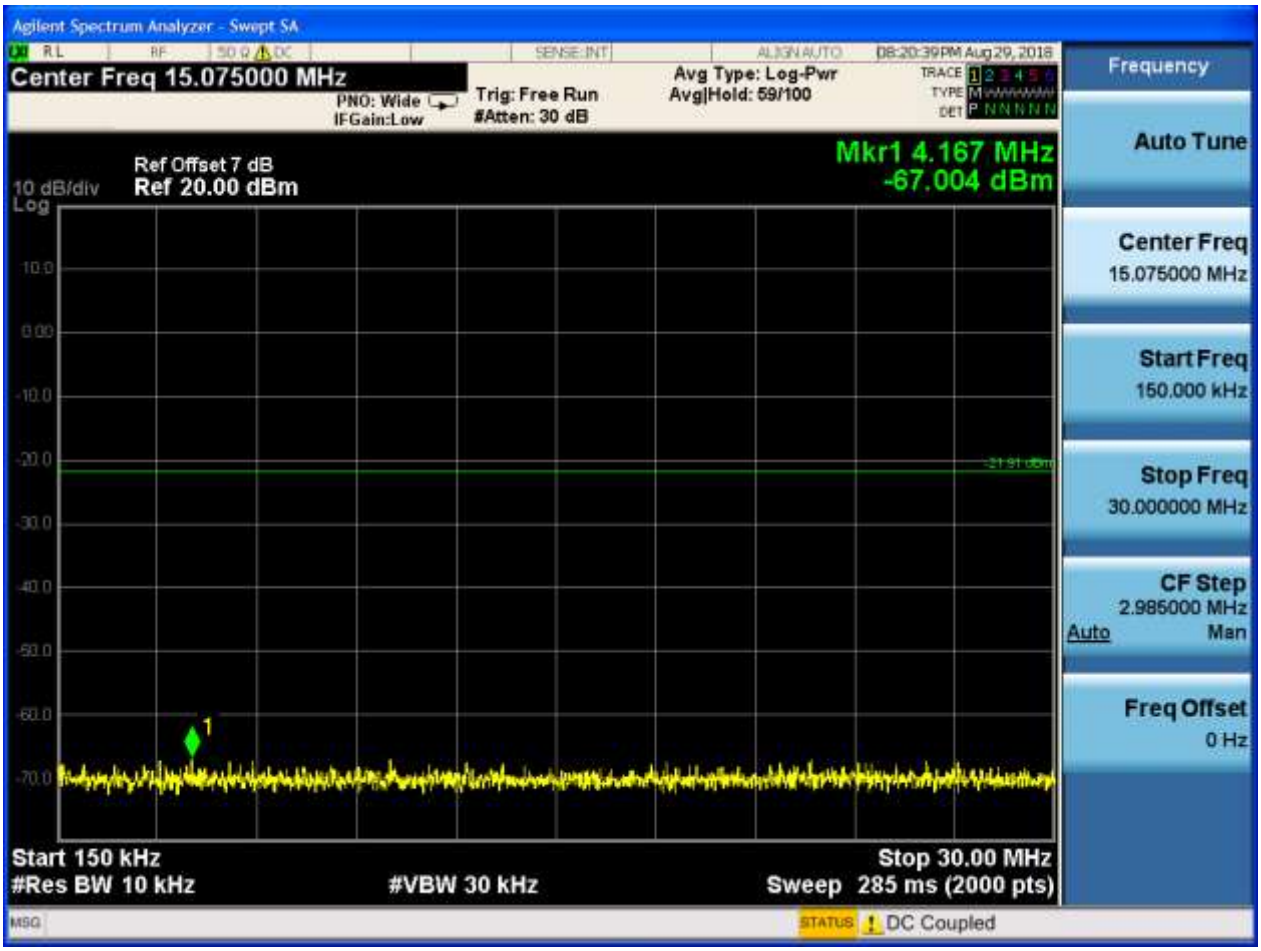


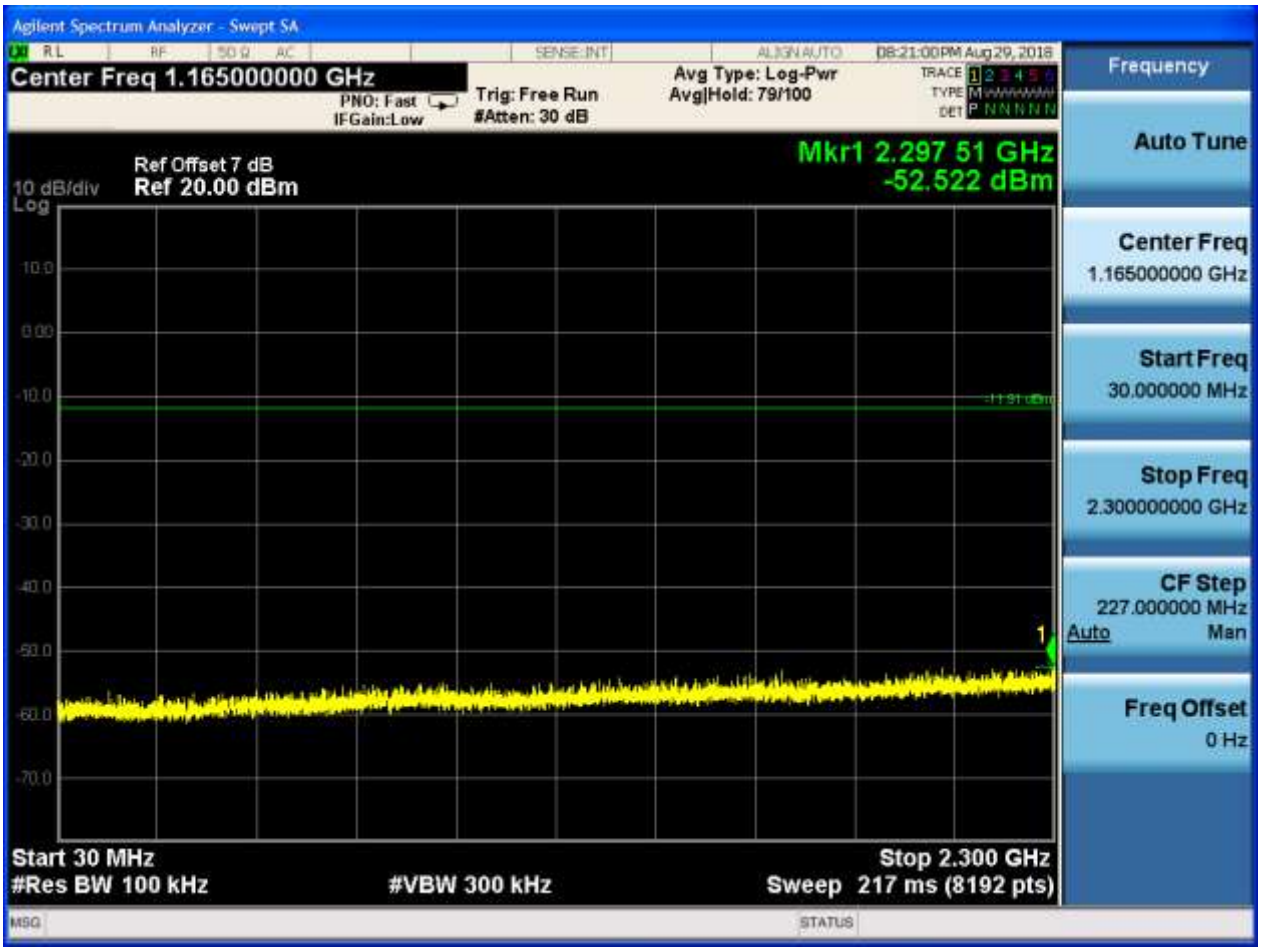


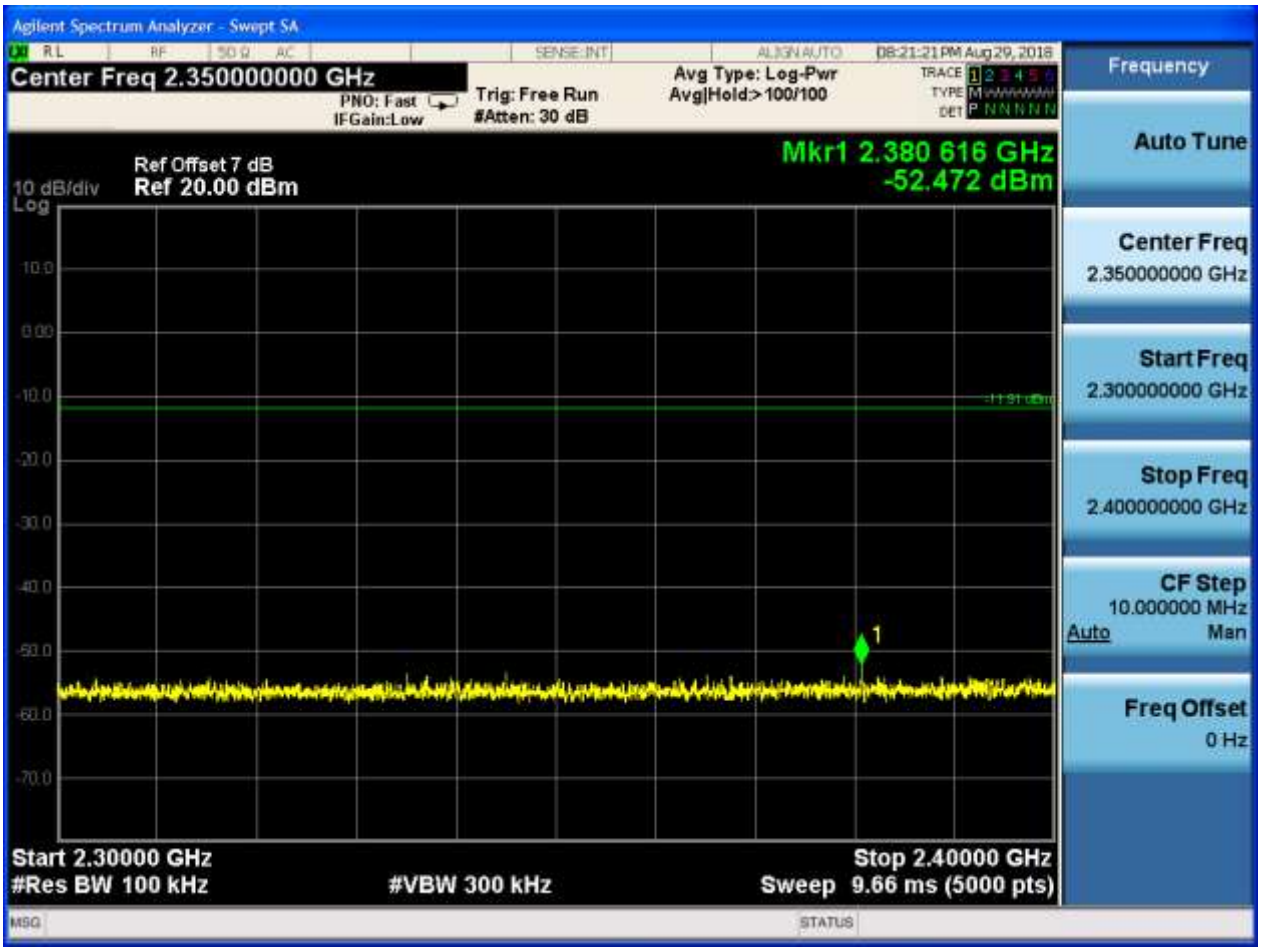
2.2 TM1_DH5_Ch39

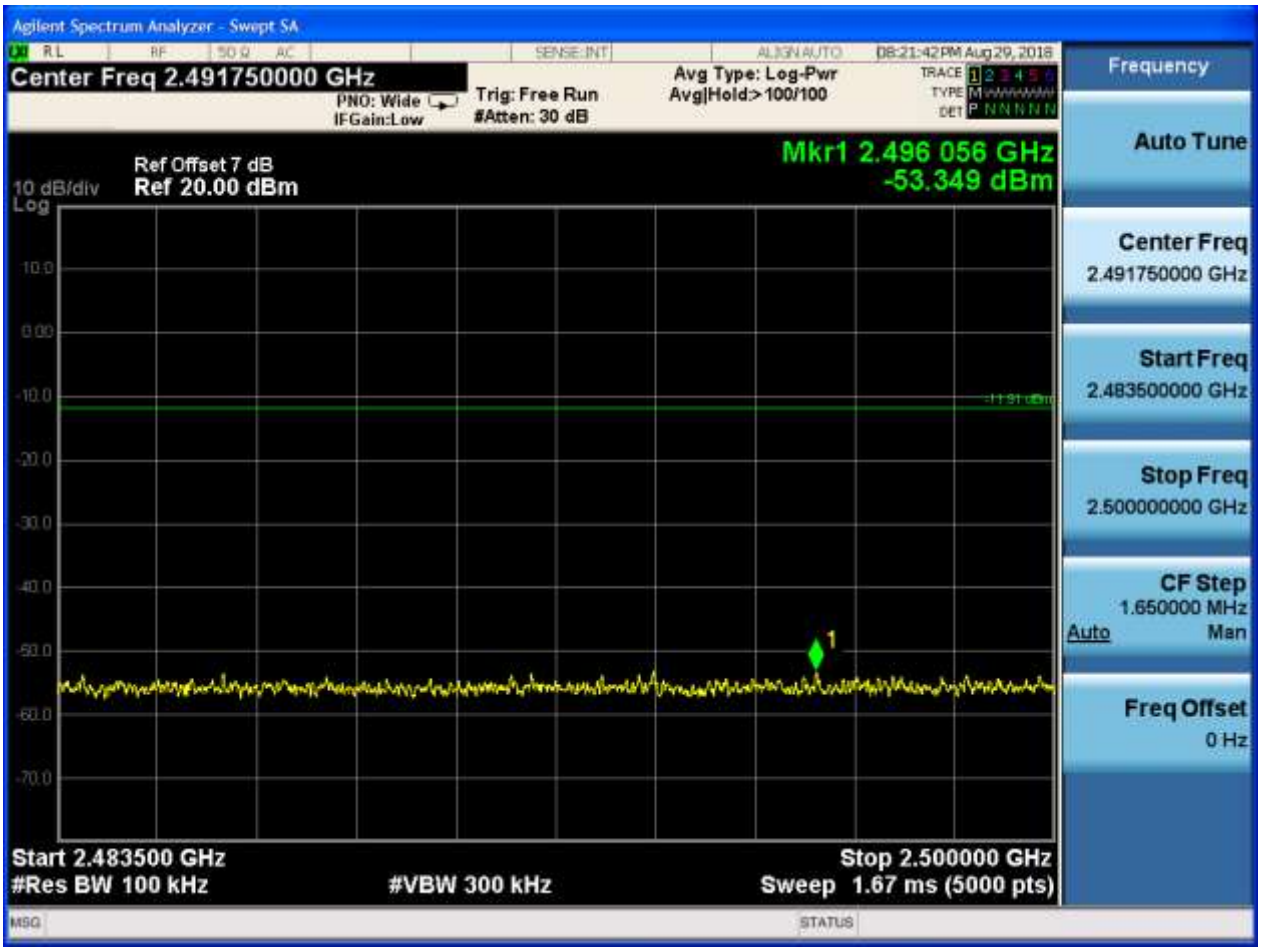
2.2.1 Pref

2.2.2 Puw





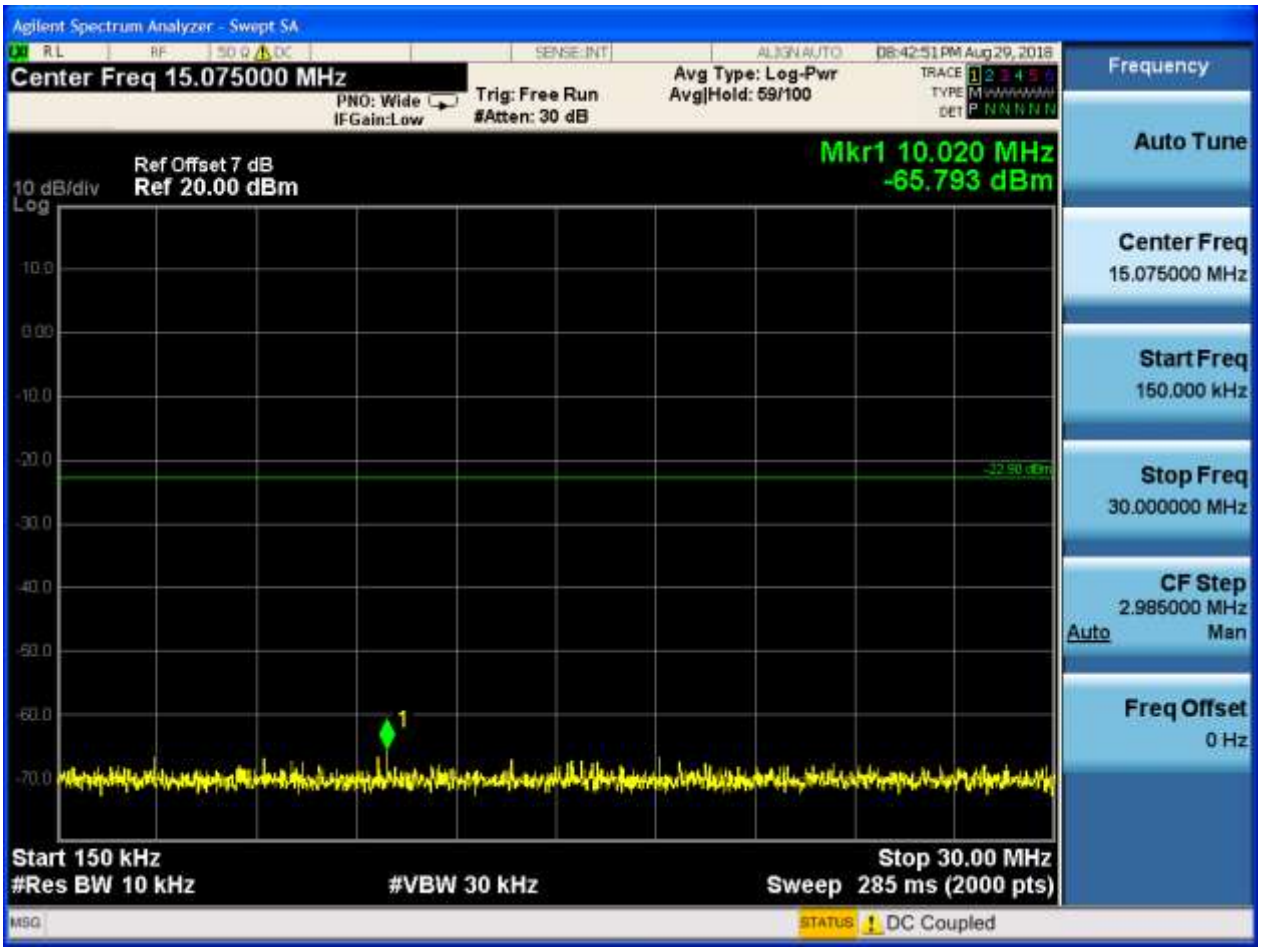


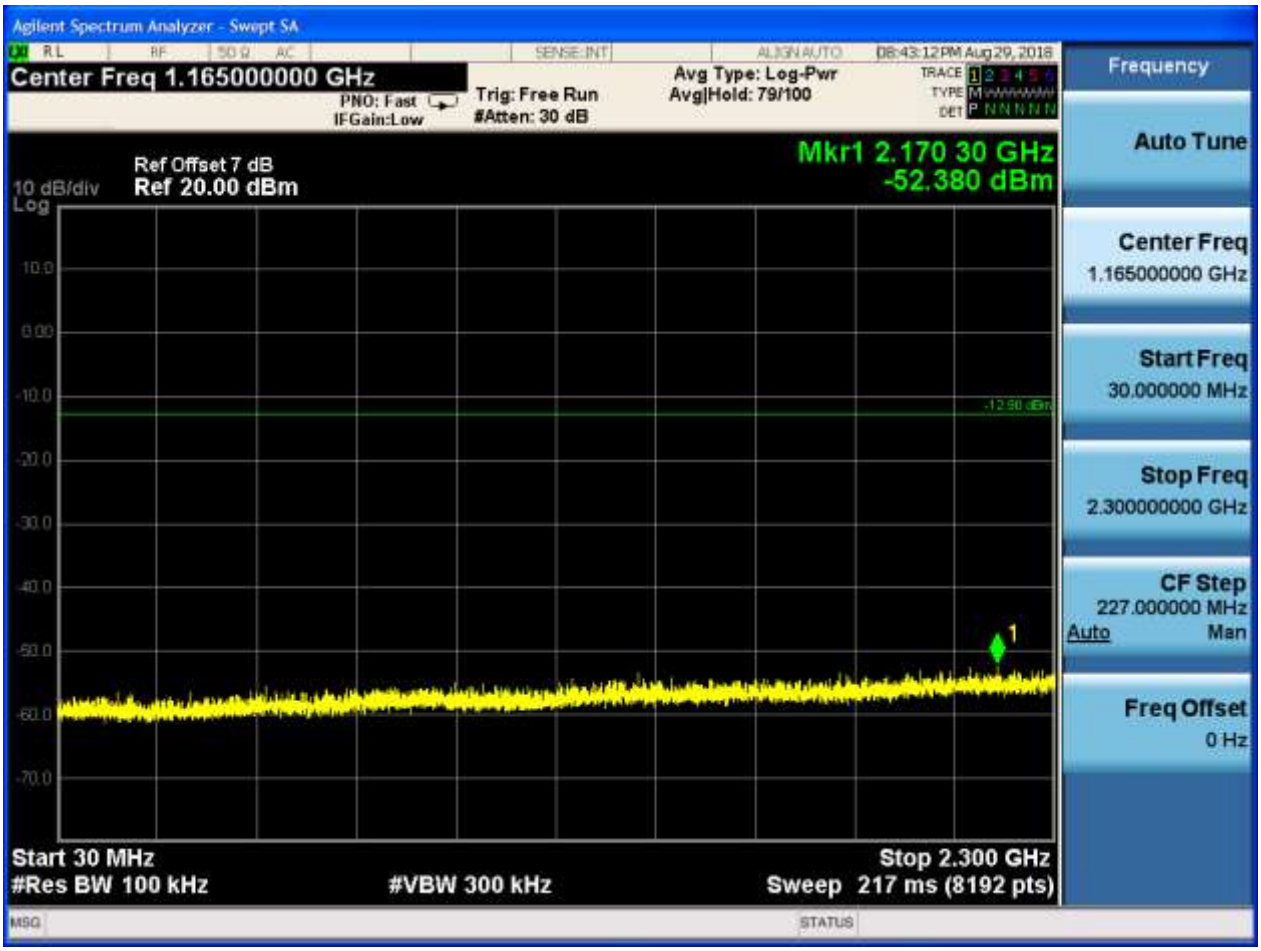


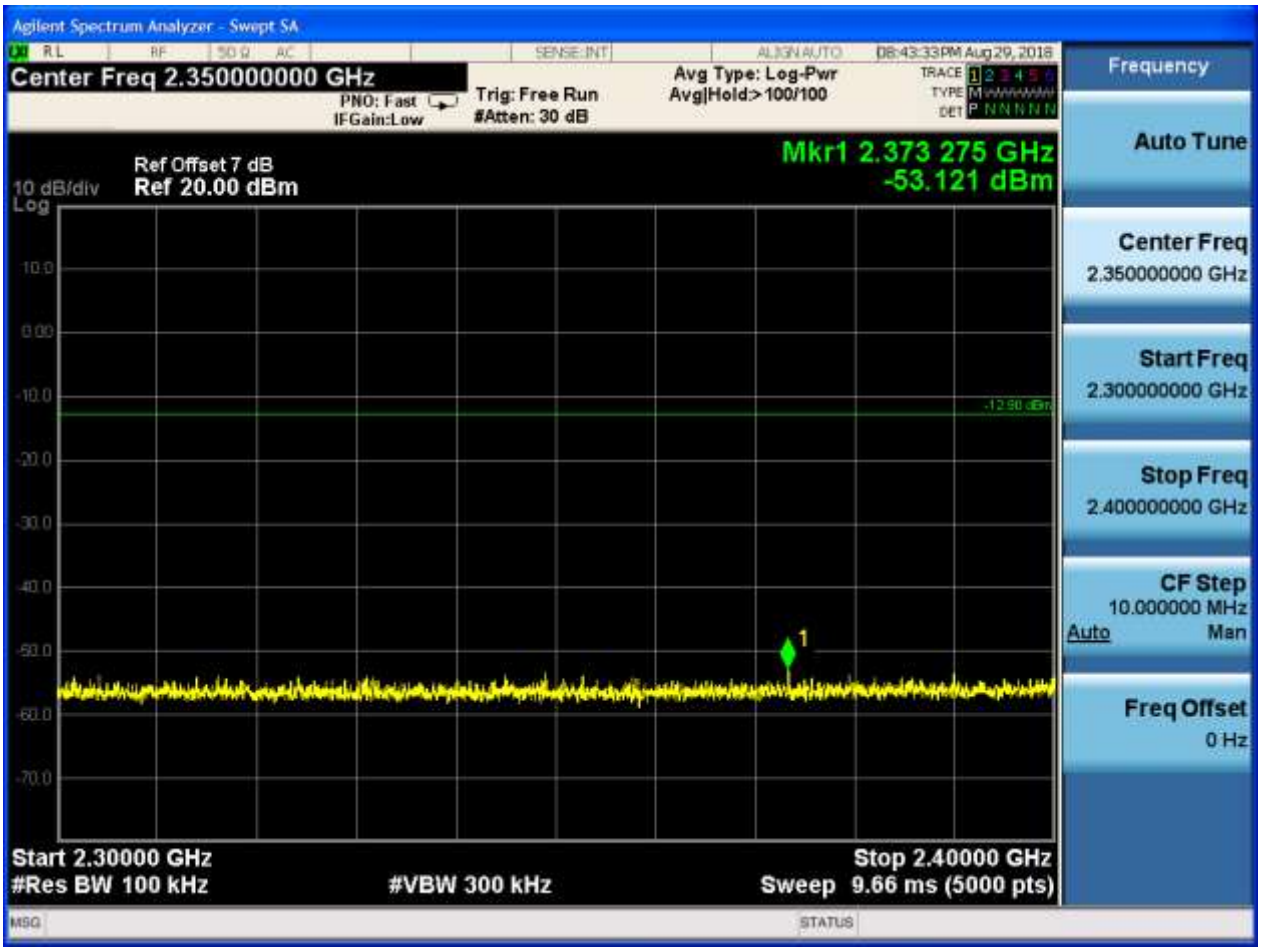
2.3 TM1_DH5_Ch78

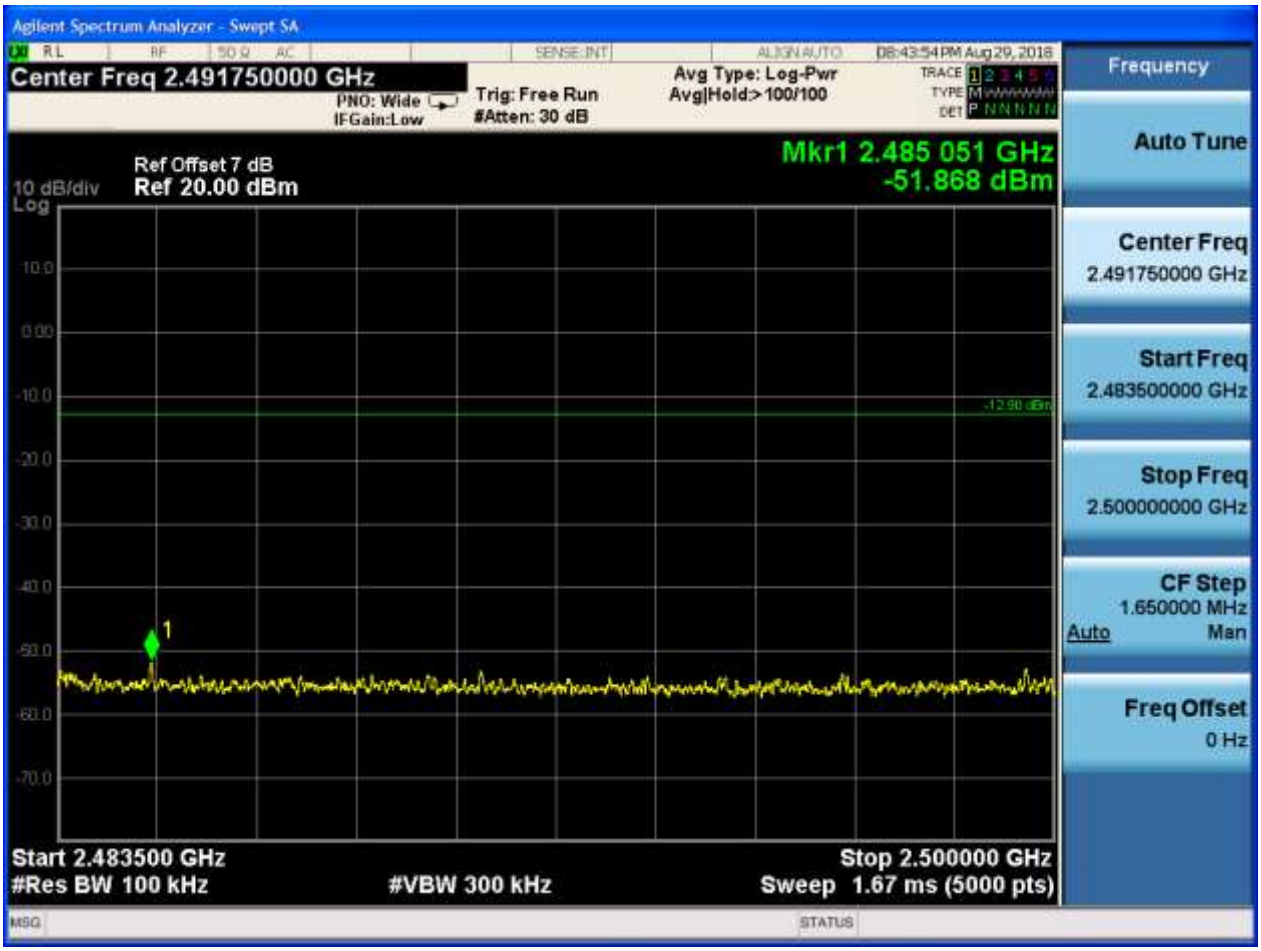
2.3.1 Pref

2.3.2 Puw



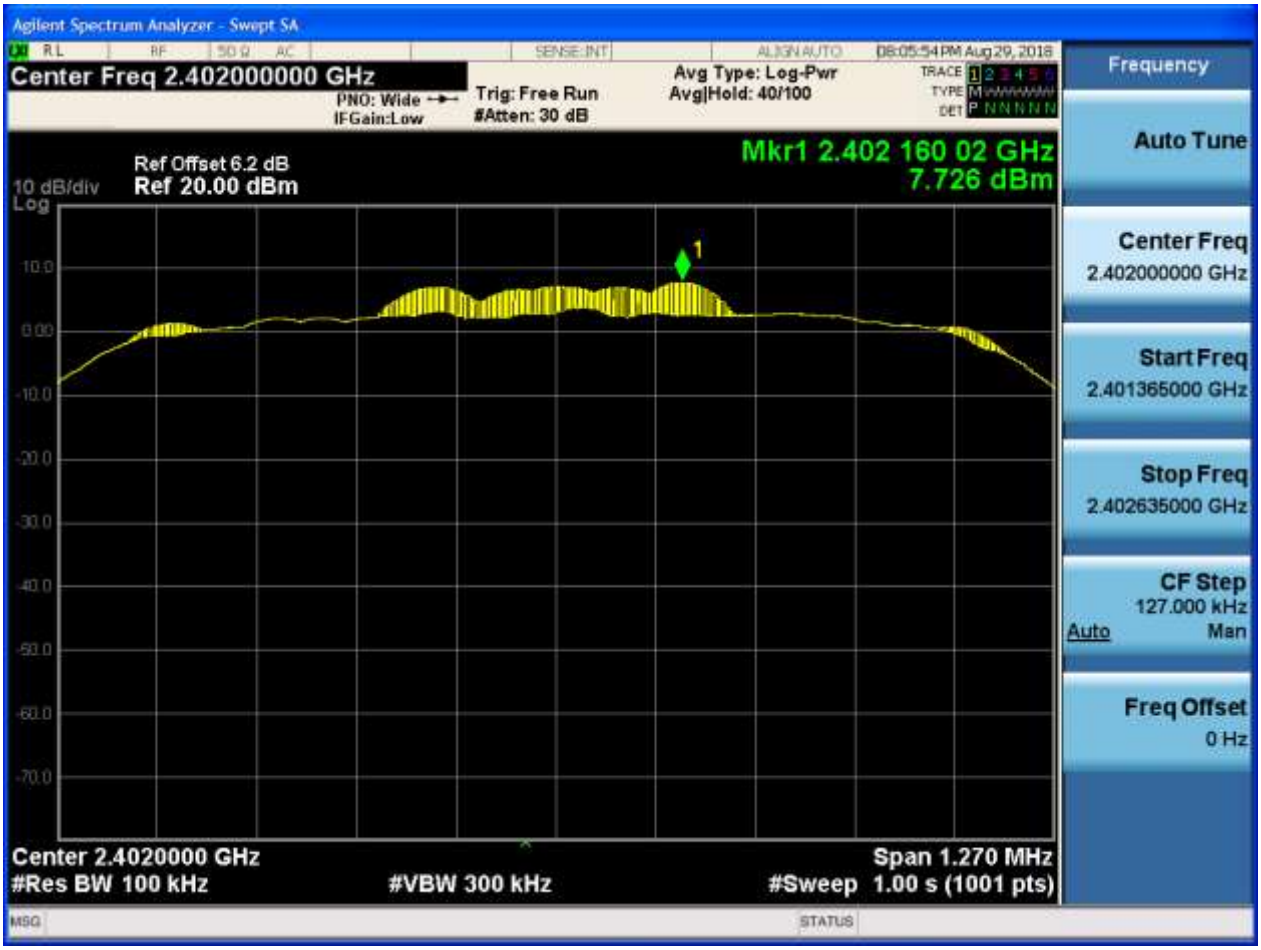




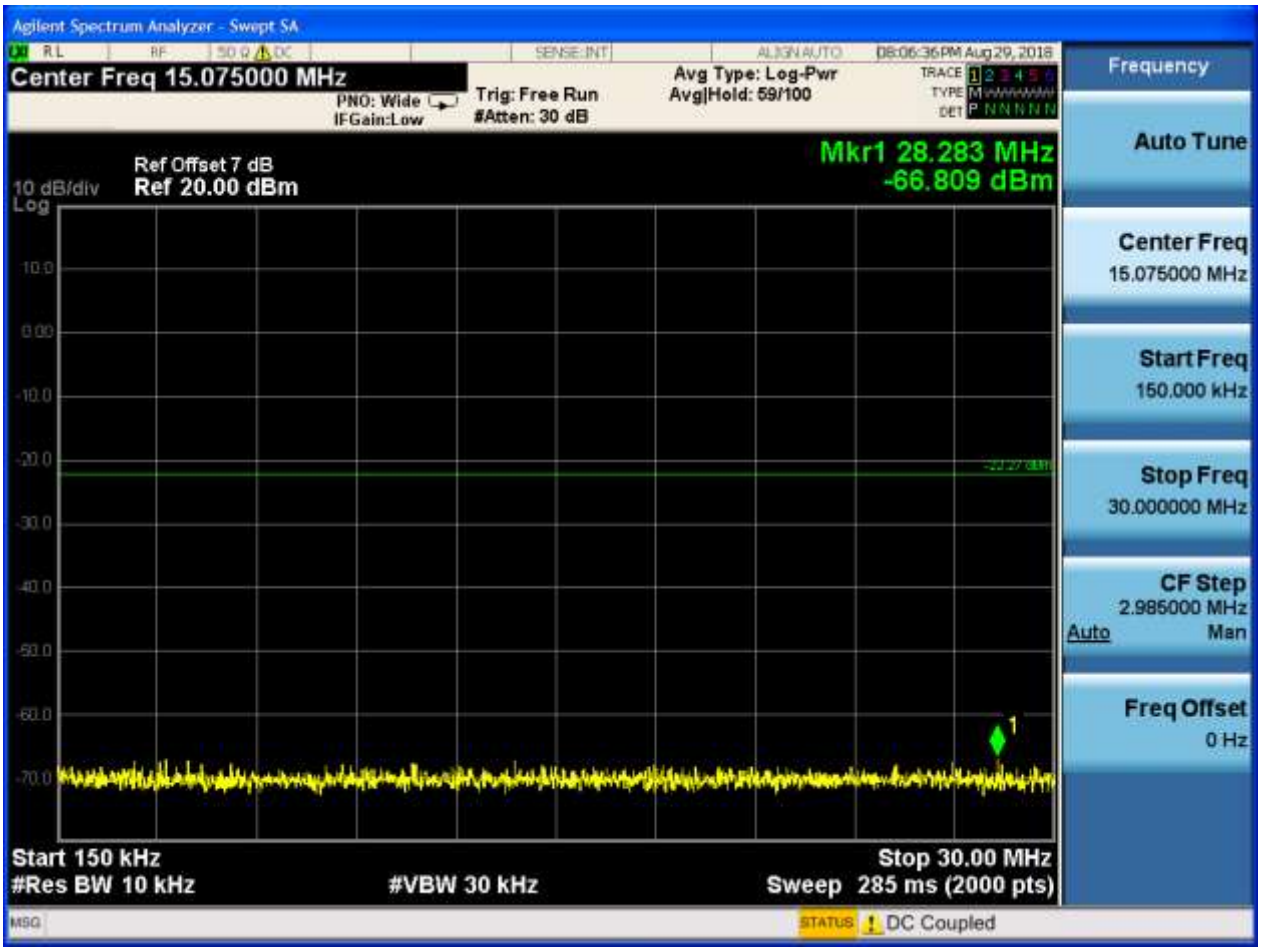


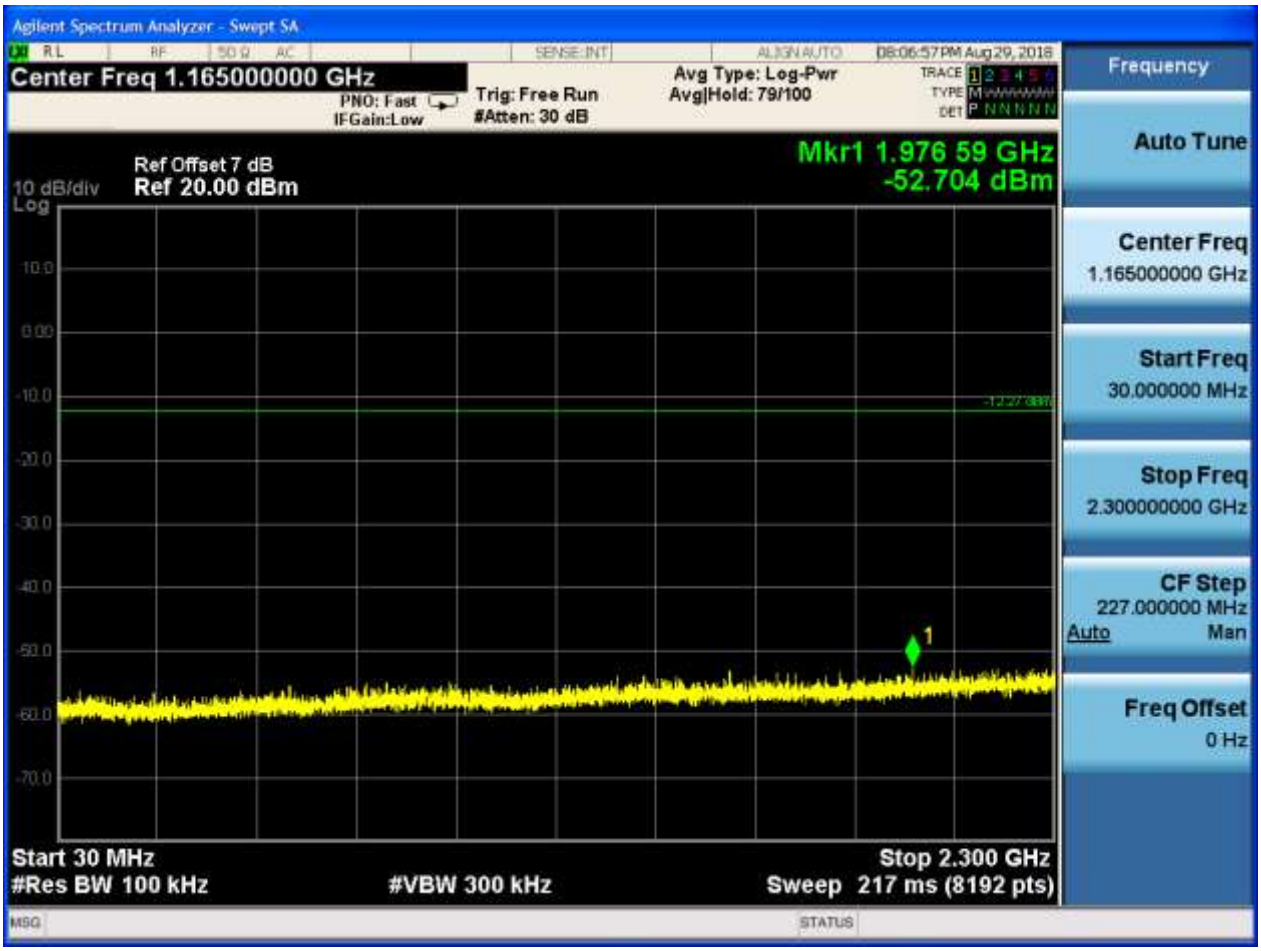
2.4 TM2_2DH5_Ch0

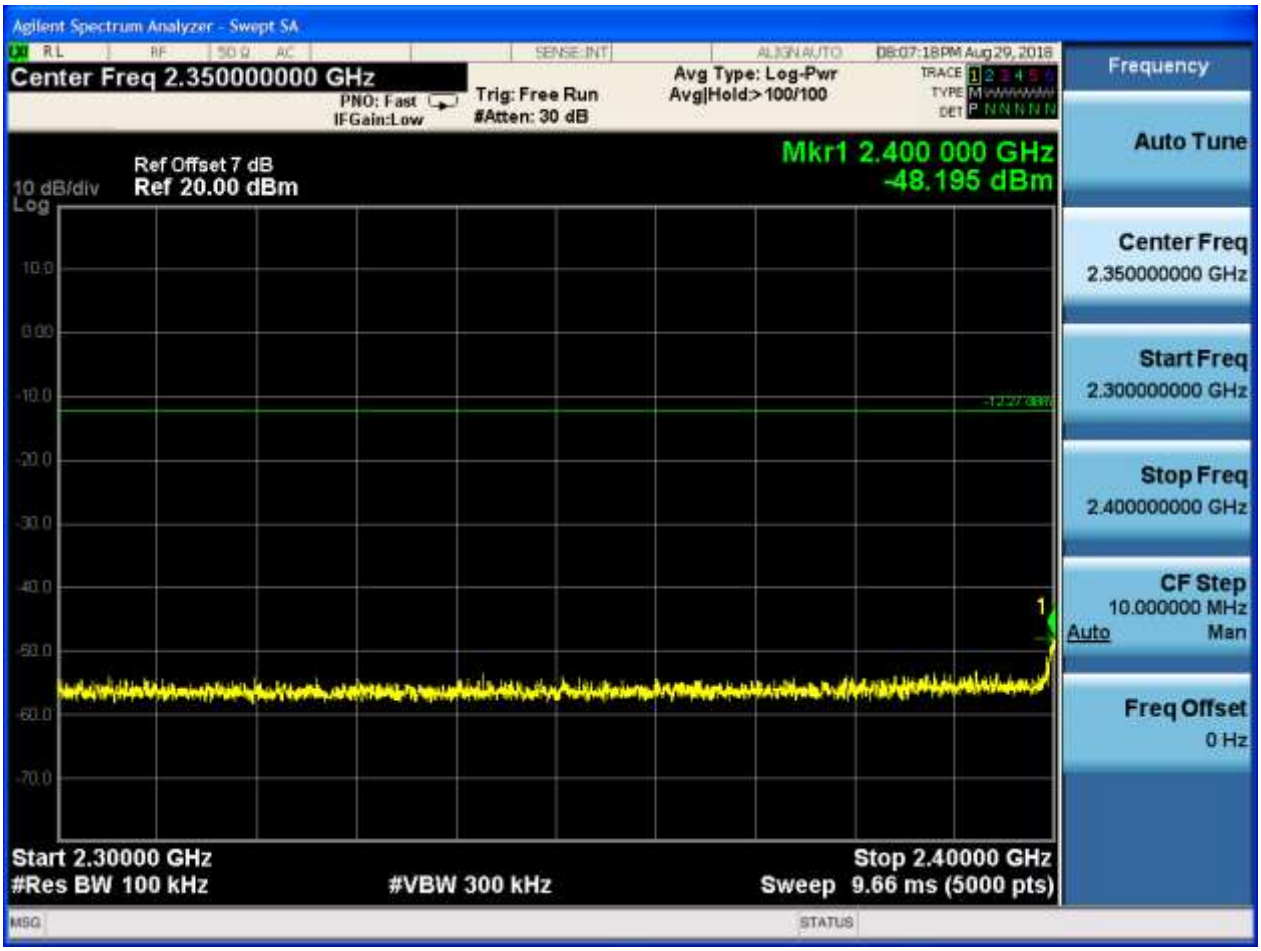
2.4.1 Pref

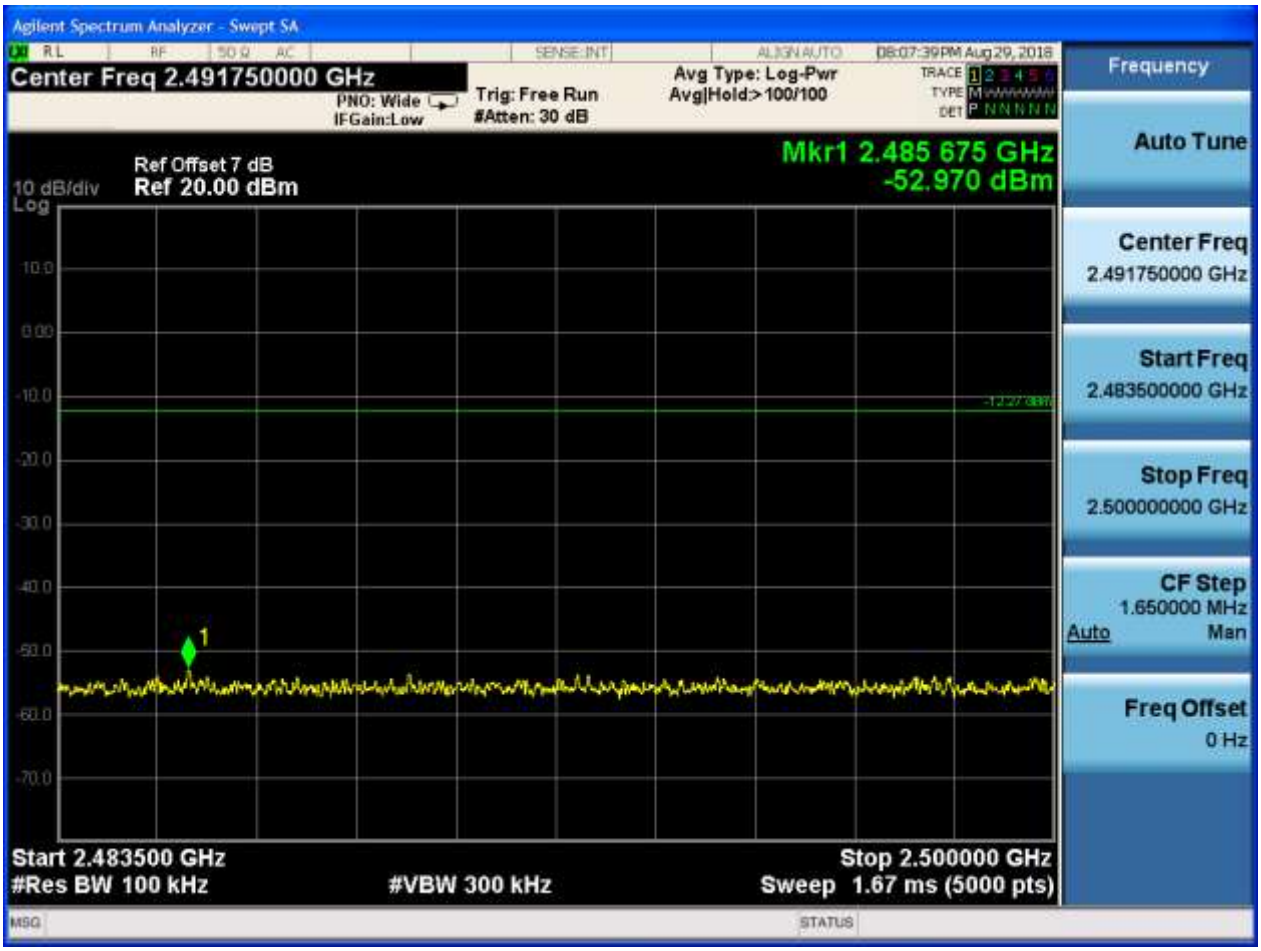


2.4.2 Puw





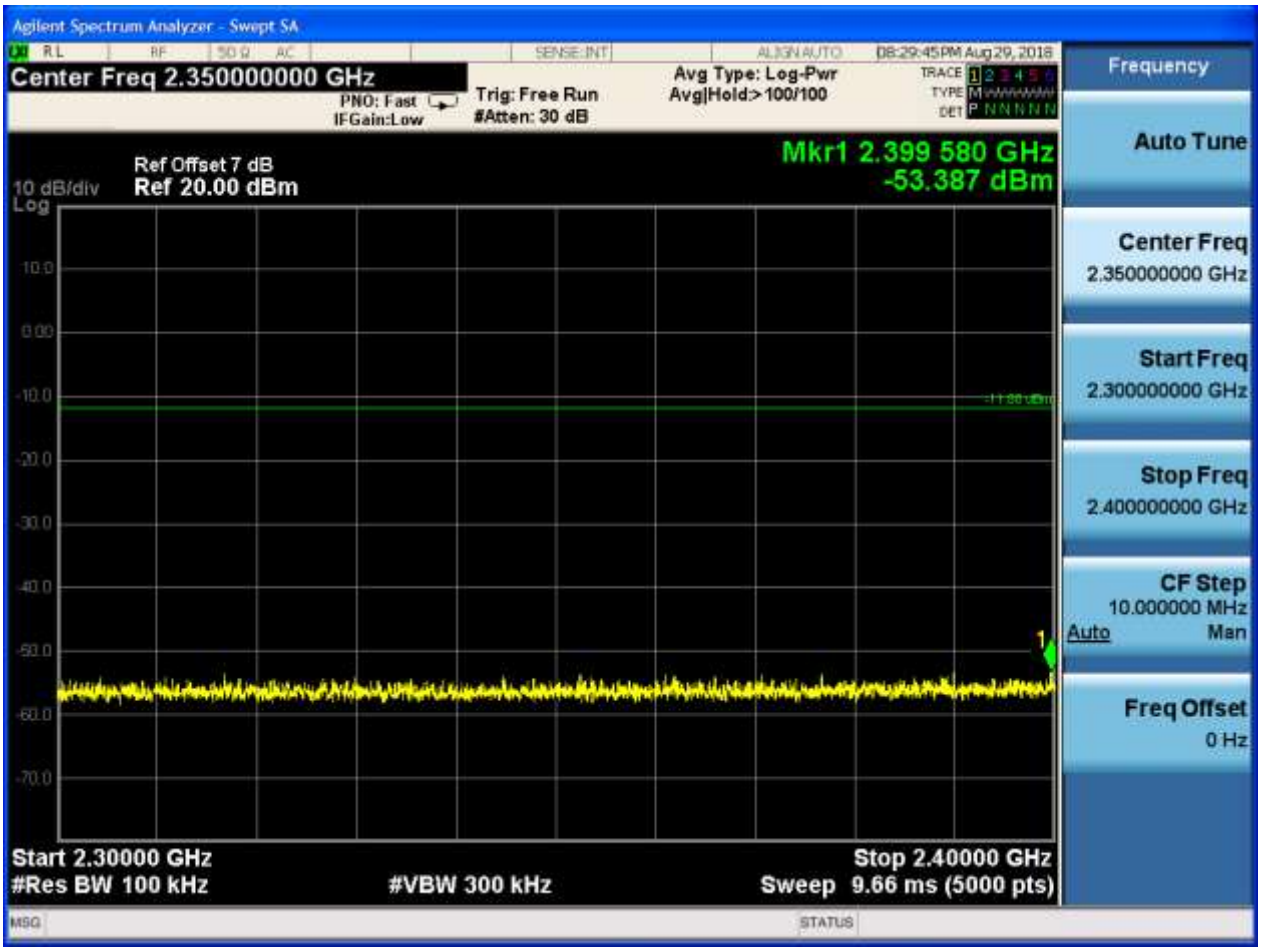


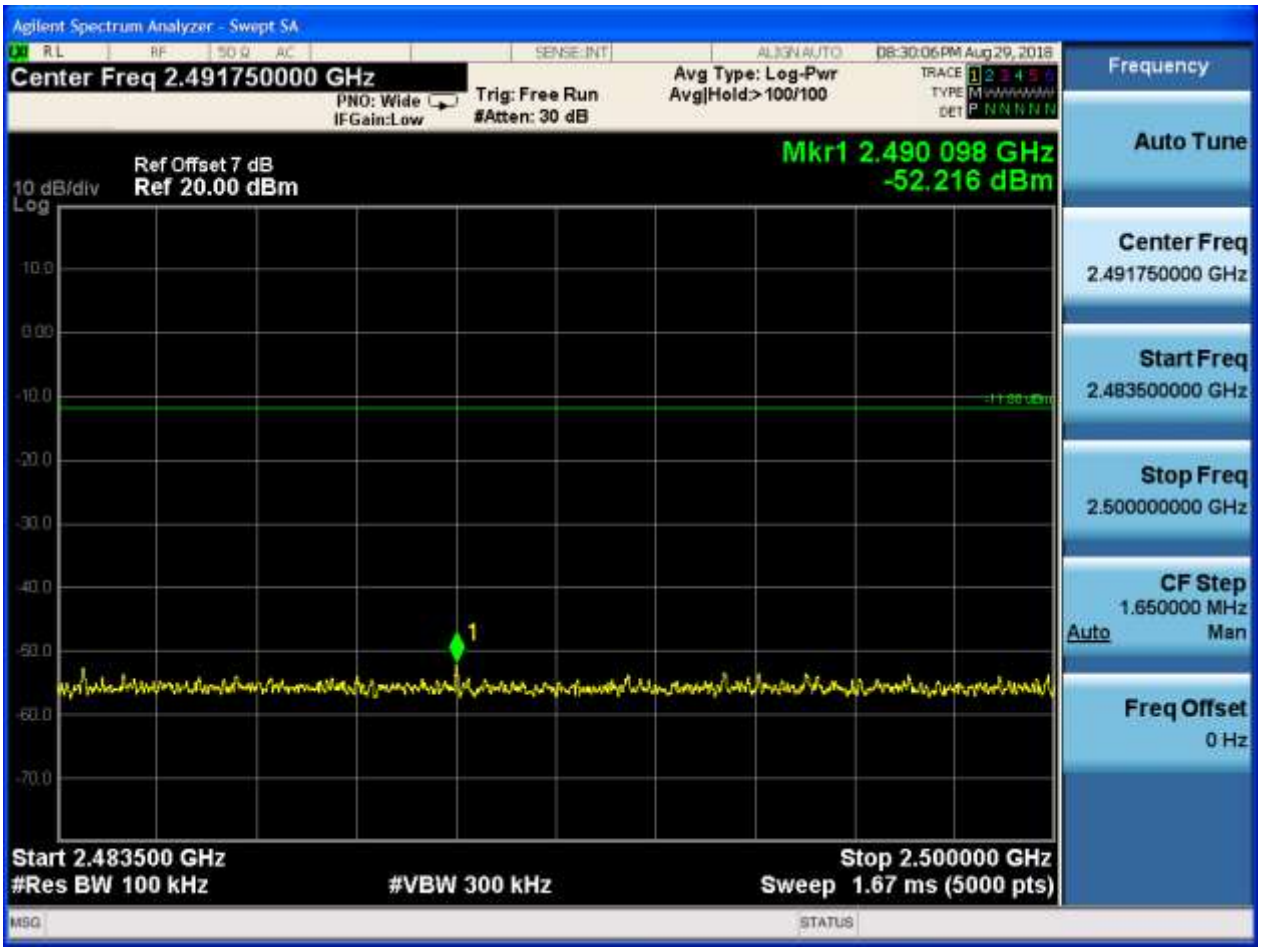


2.5 TM2_2DH5_Ch39

2.5.1 Pref

2.5.2 Puw

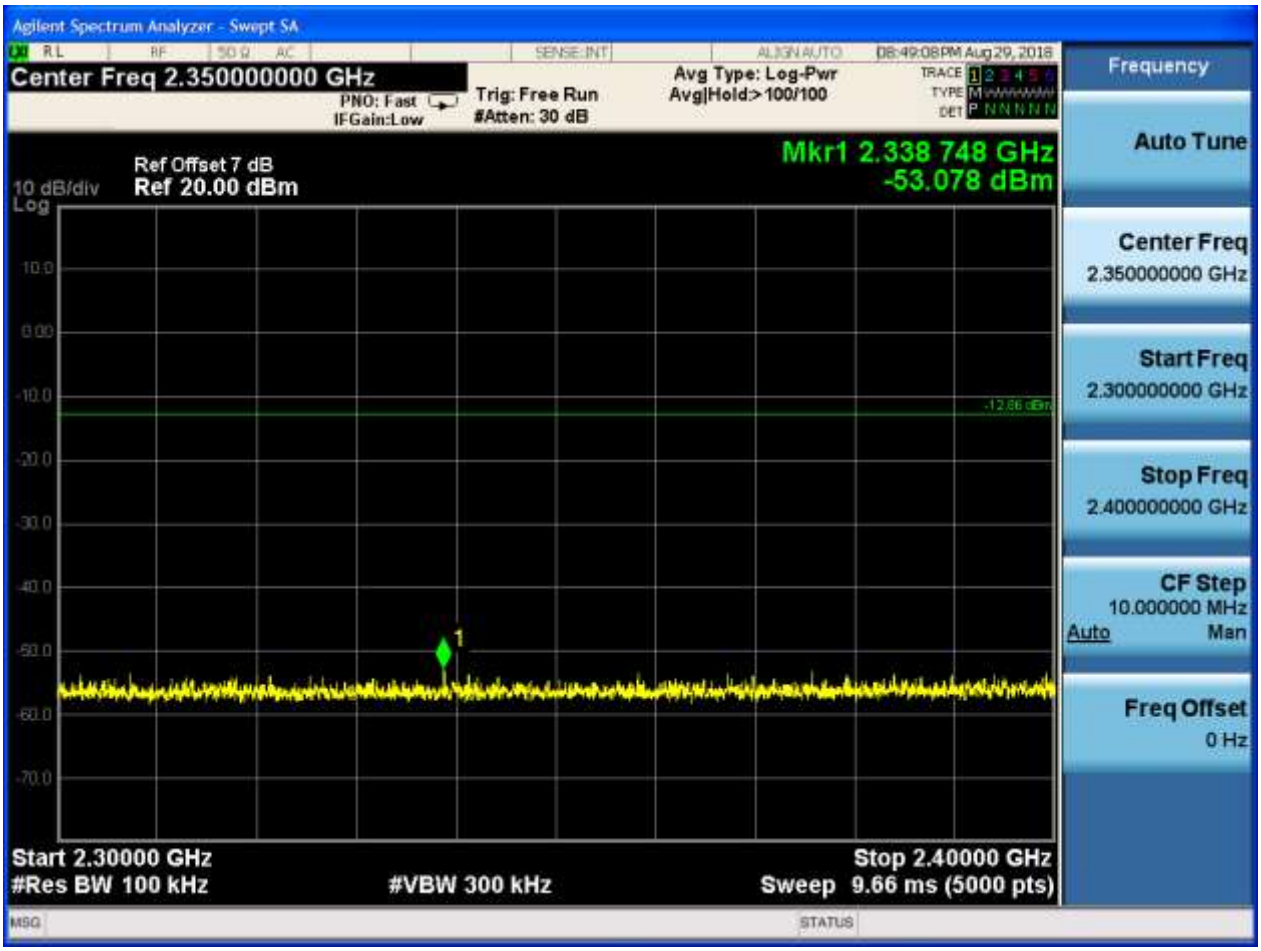


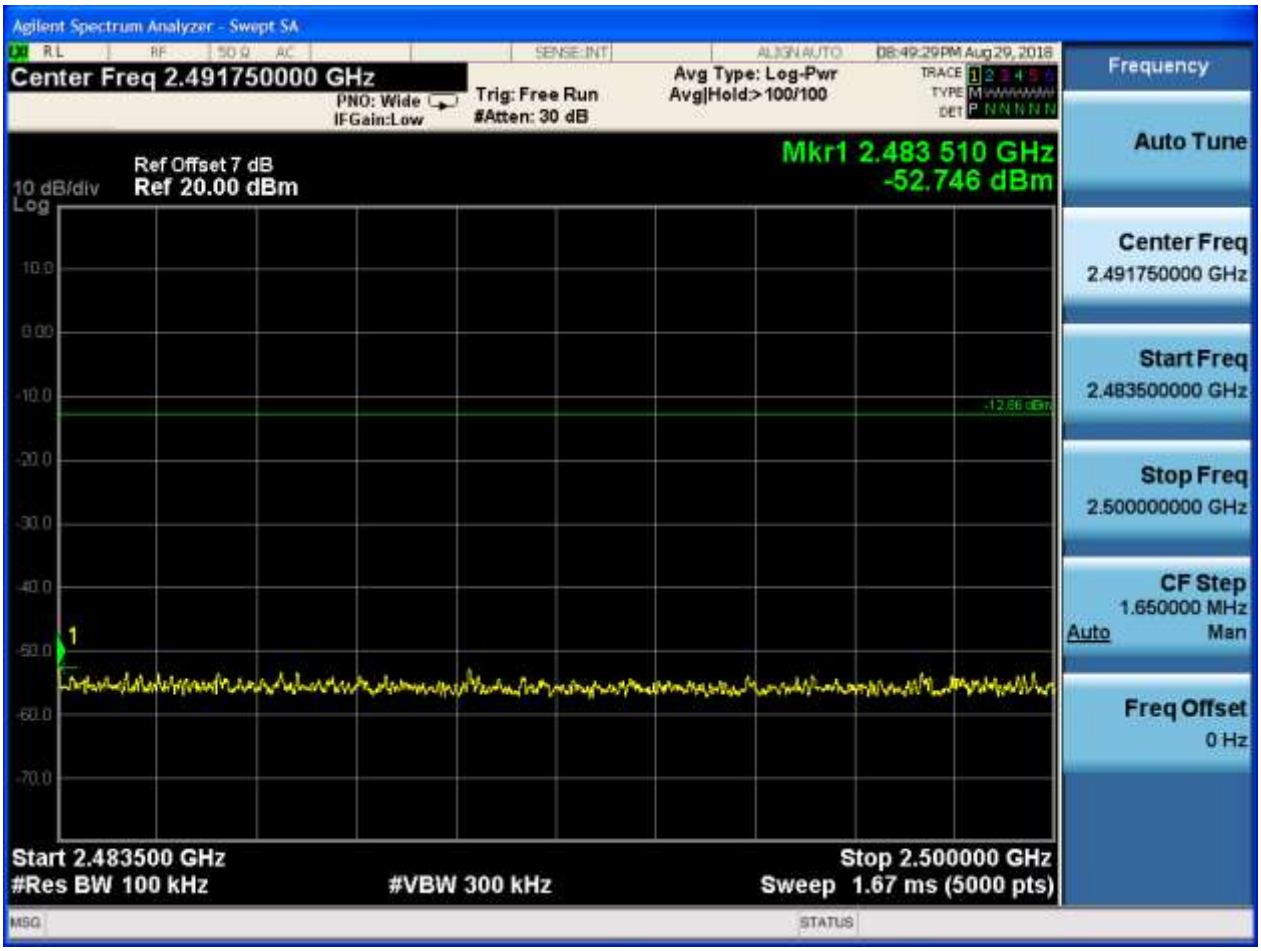


2.6 TM2_2DH5_Ch78

2.6.1 Pref

2.6.2 Puw

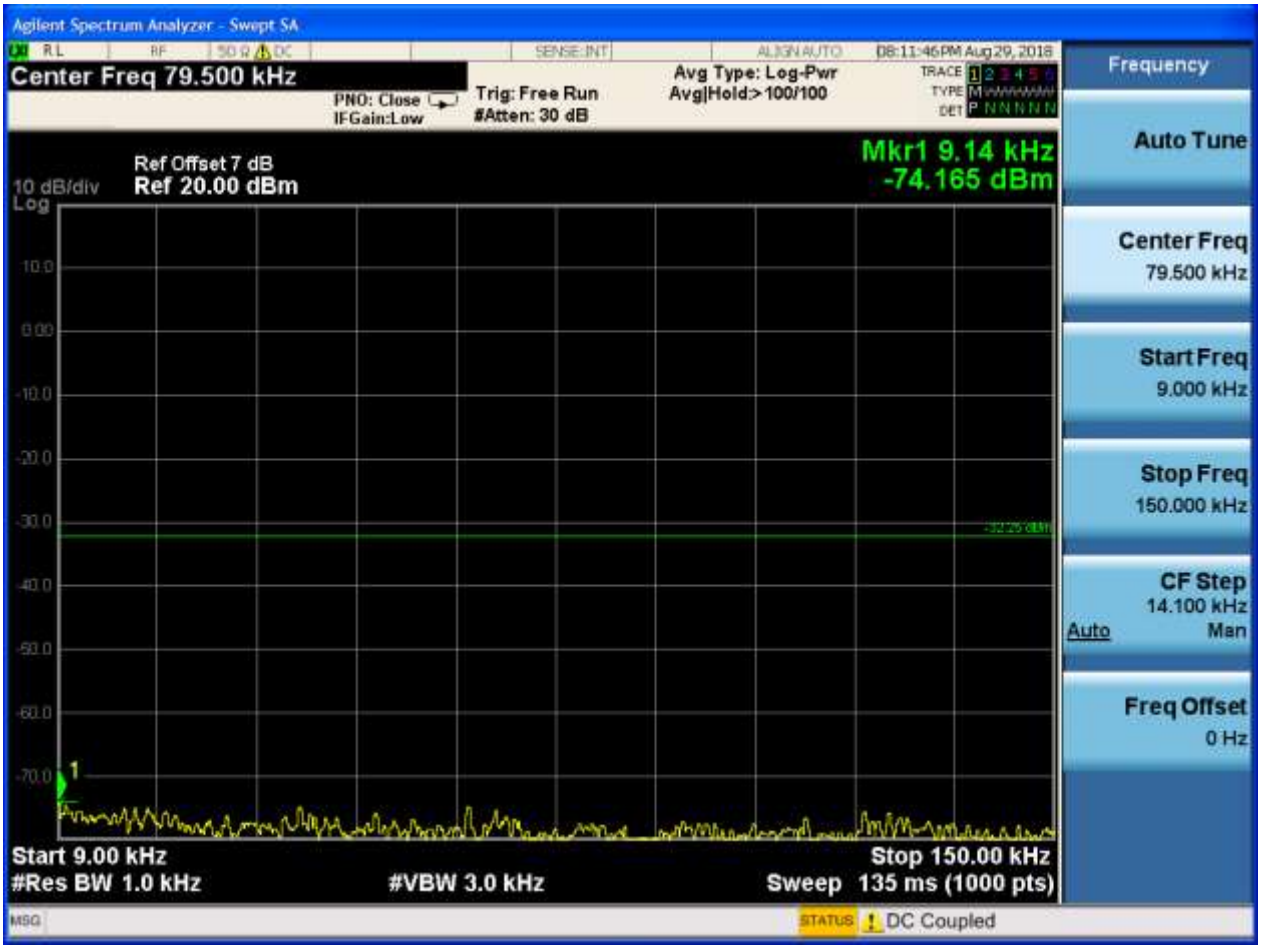


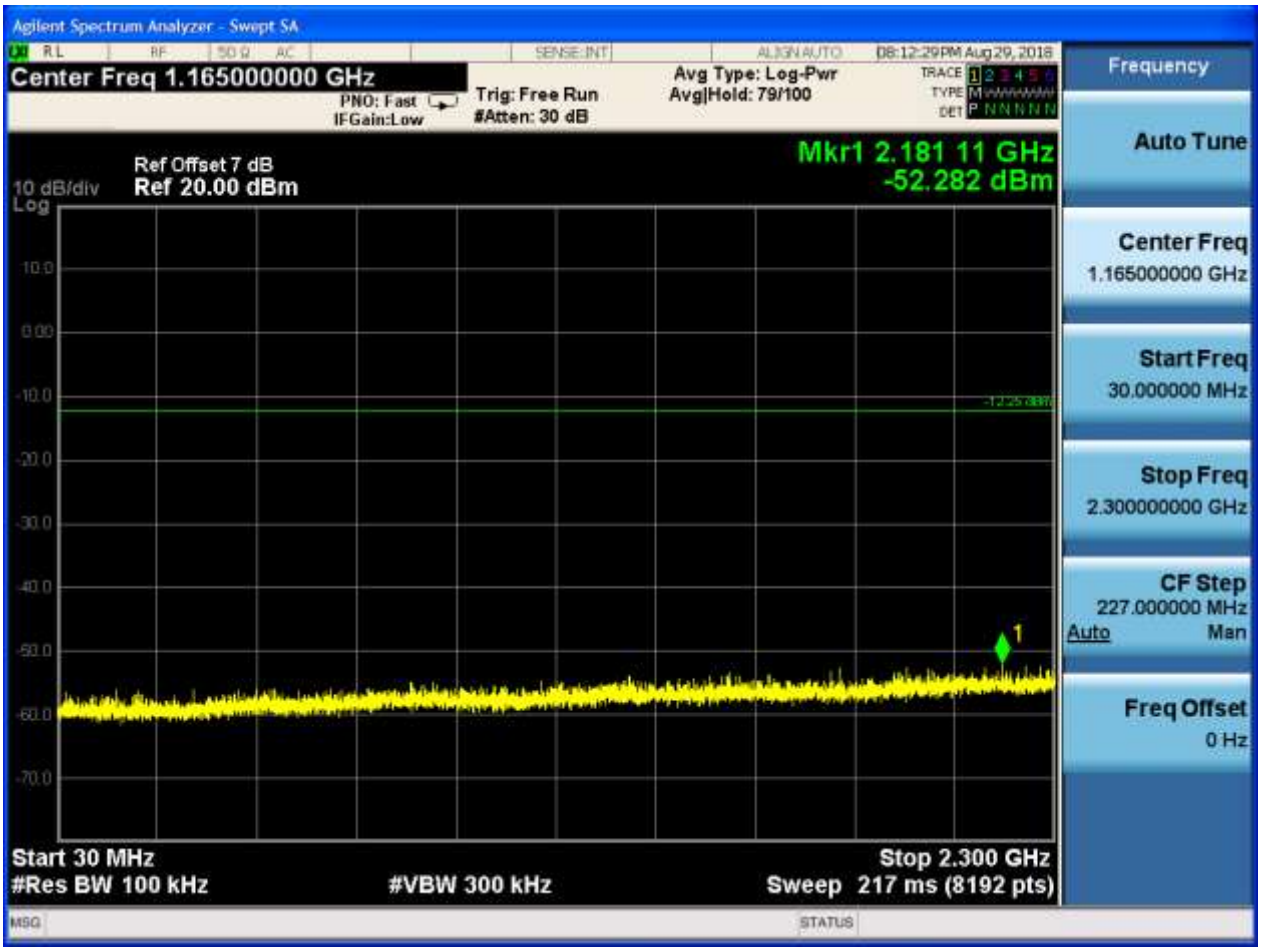


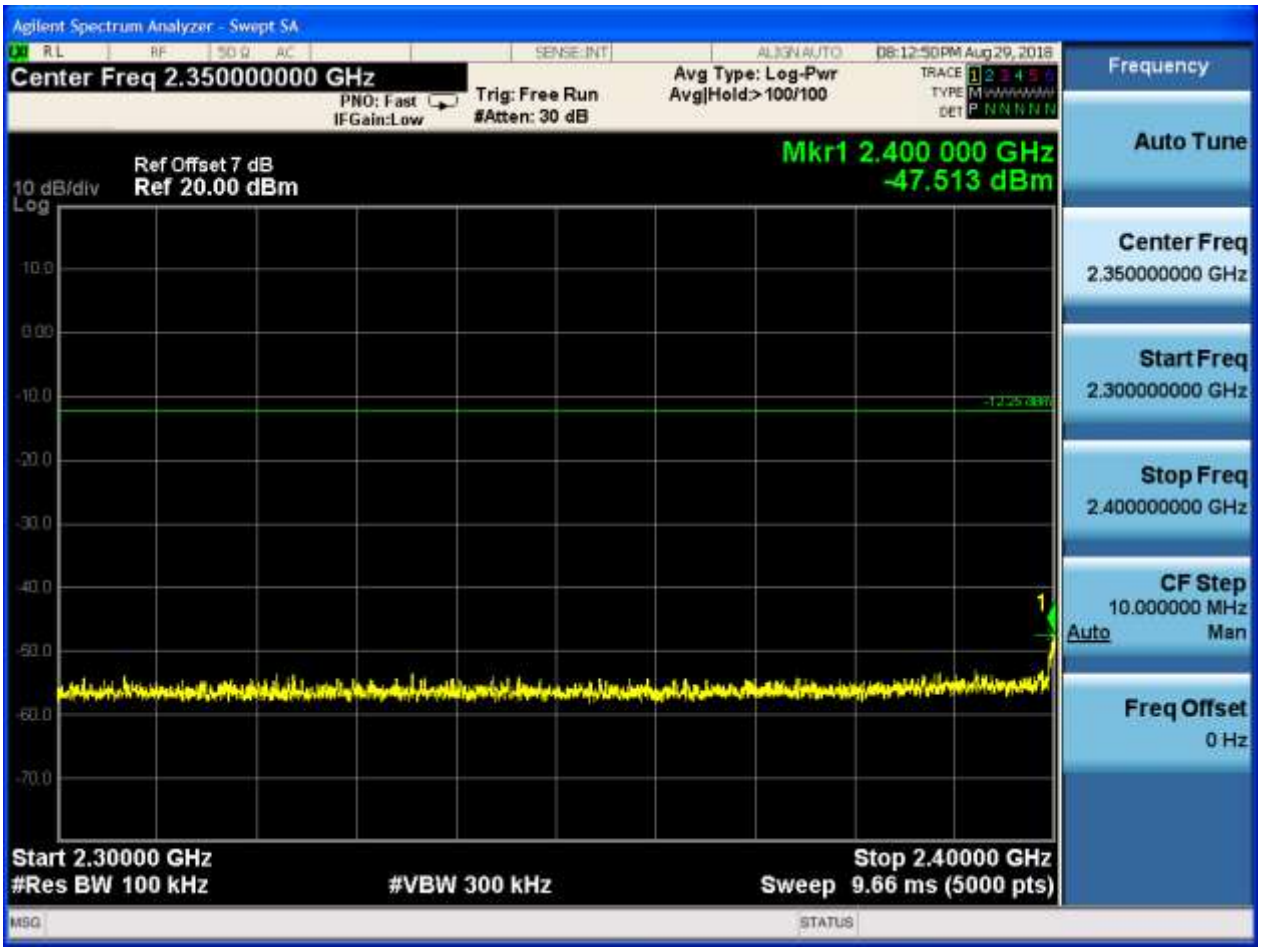
2.7 TM3_3DH5_Ch0

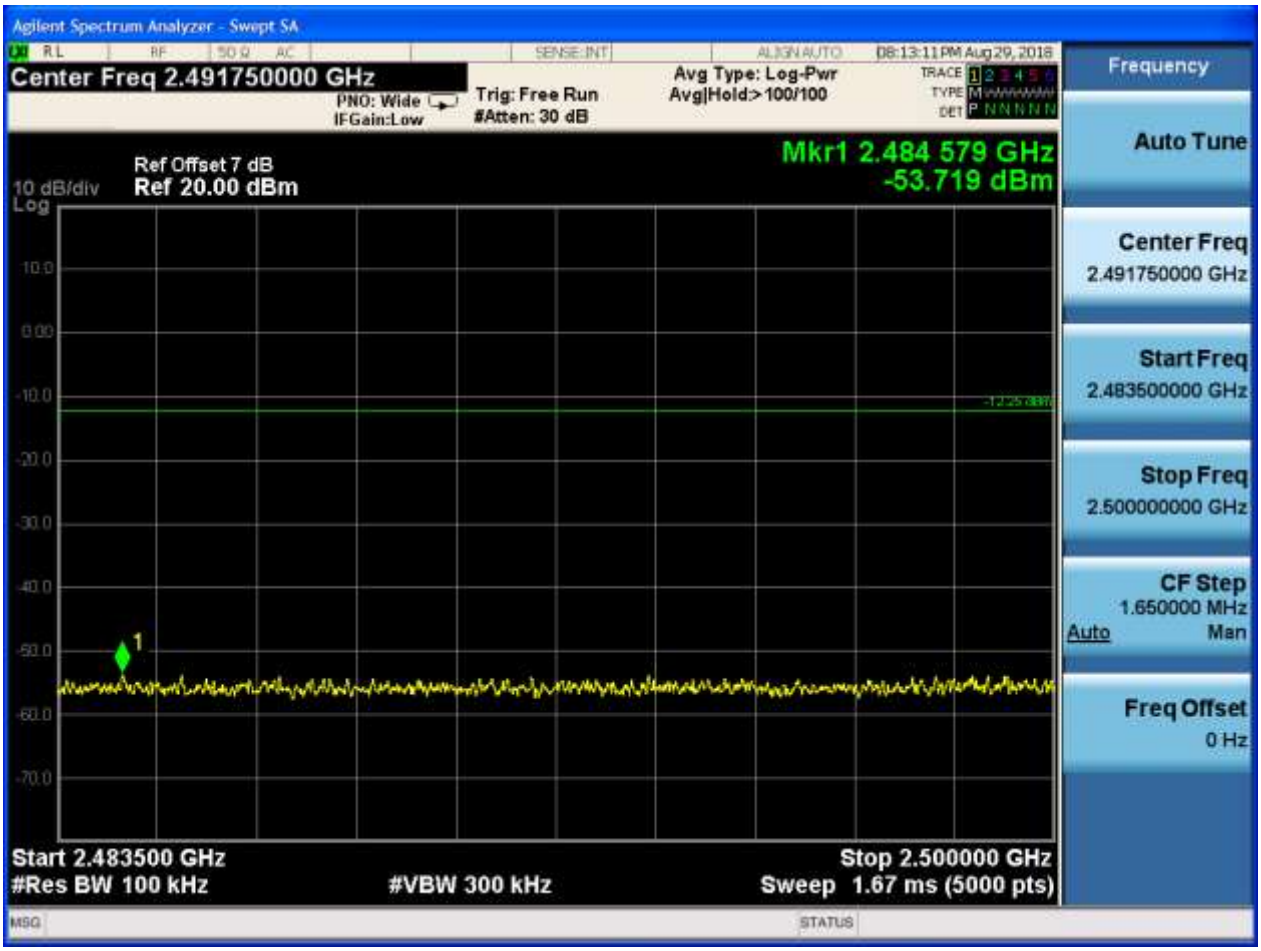
2.7.1 Pref

2.7.2 Puw



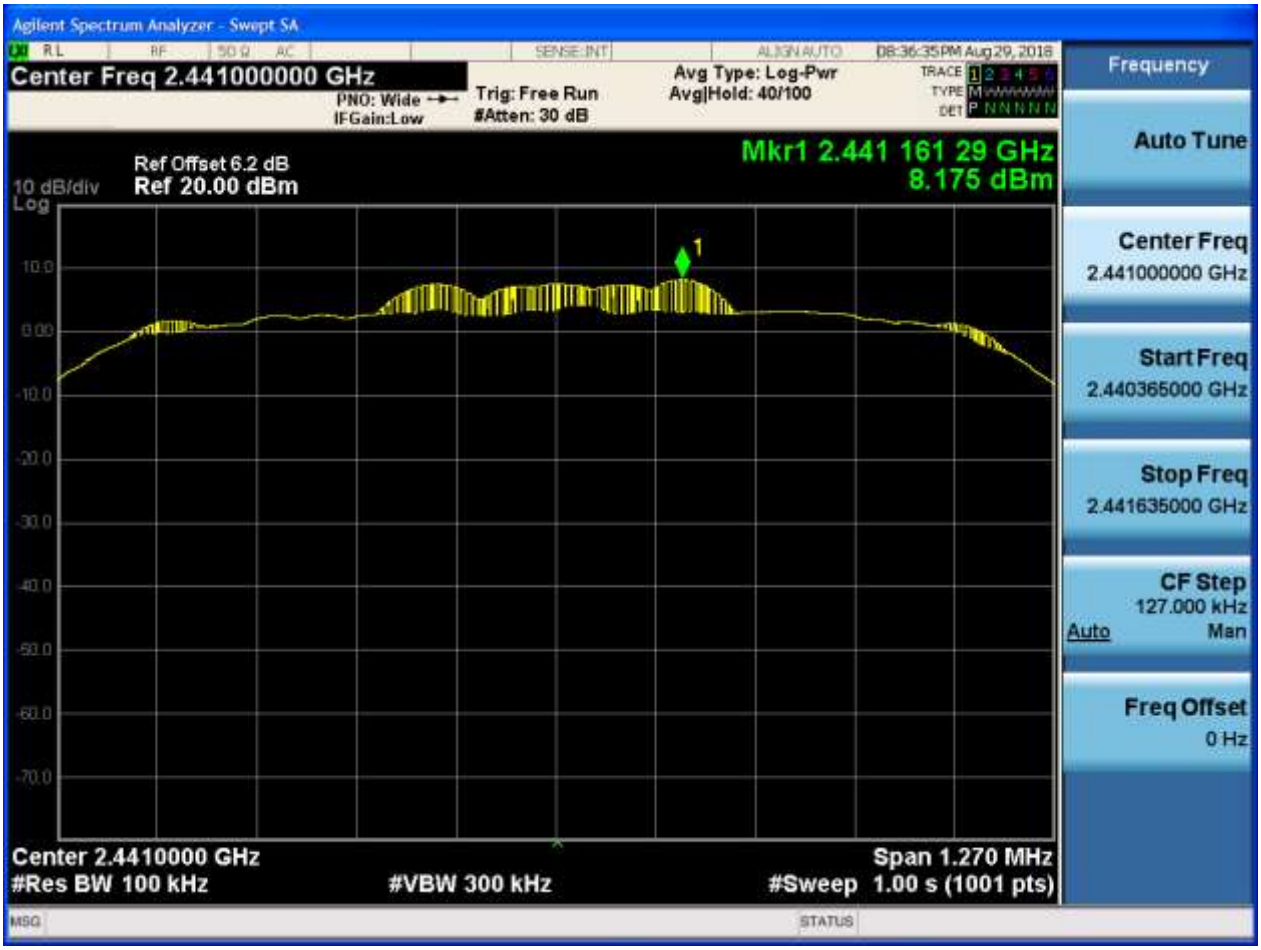




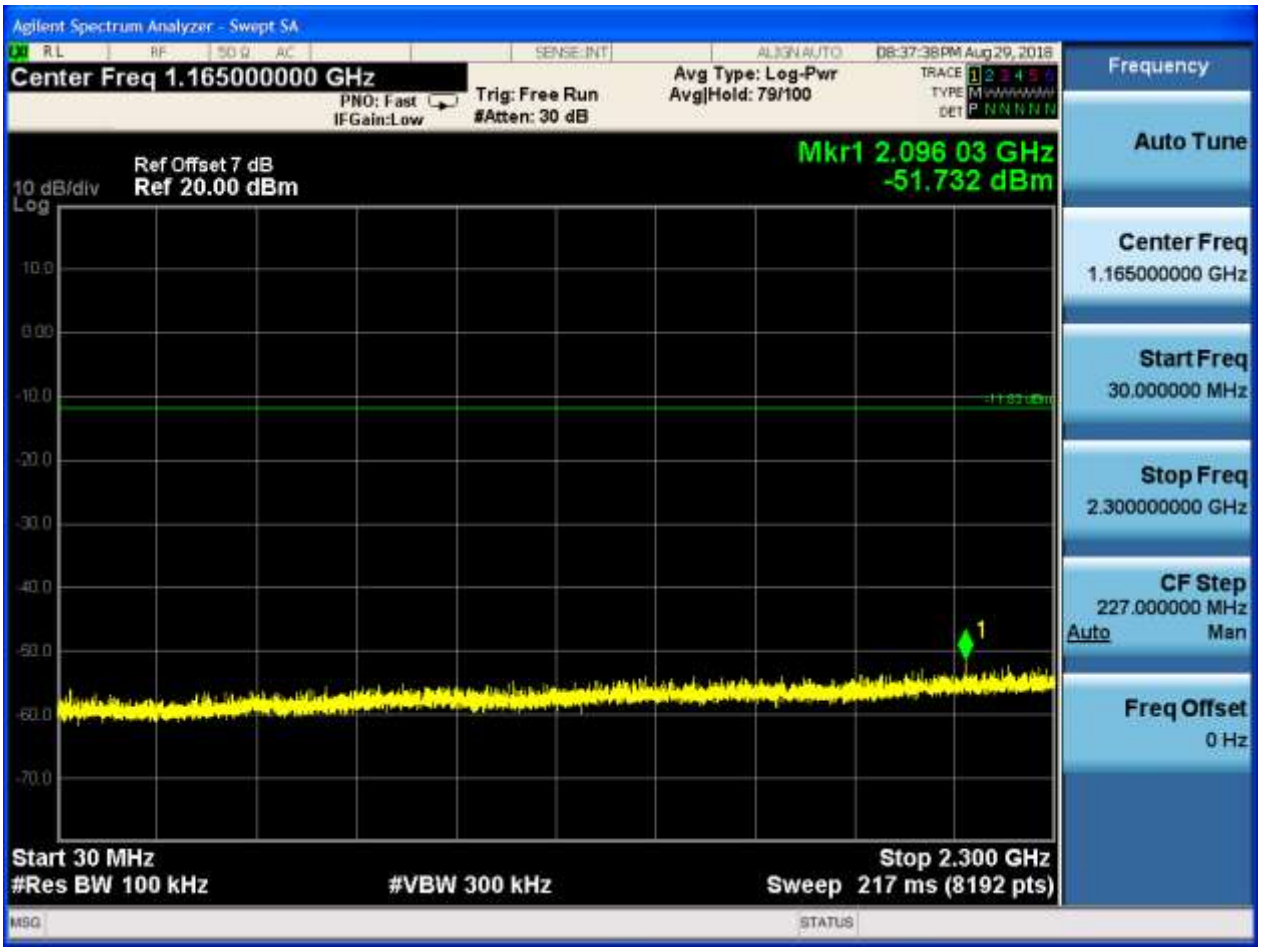


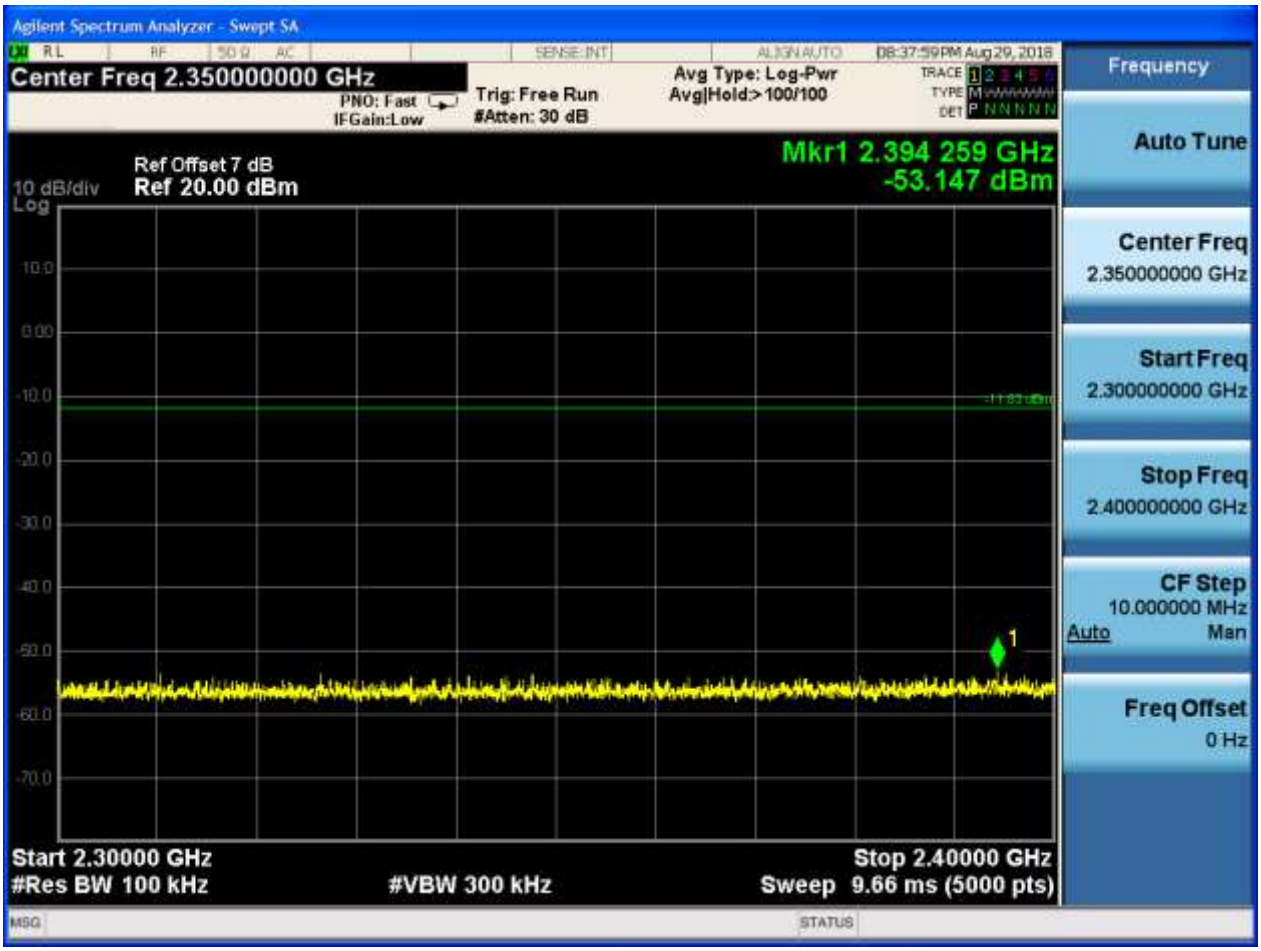
2.8 TM3_3DH5_Ch39

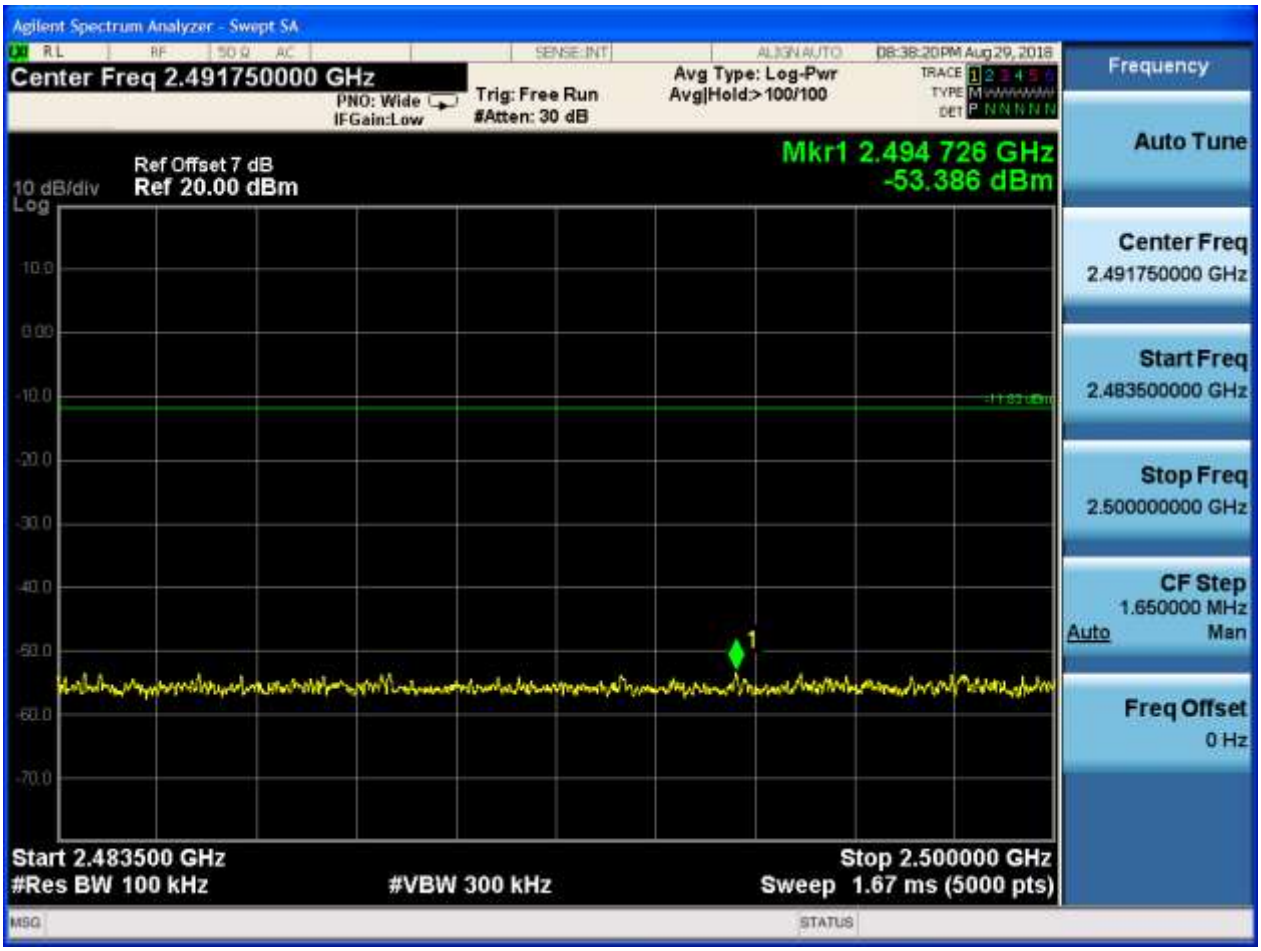
2.8.1 Pref



2.8.2 Puw



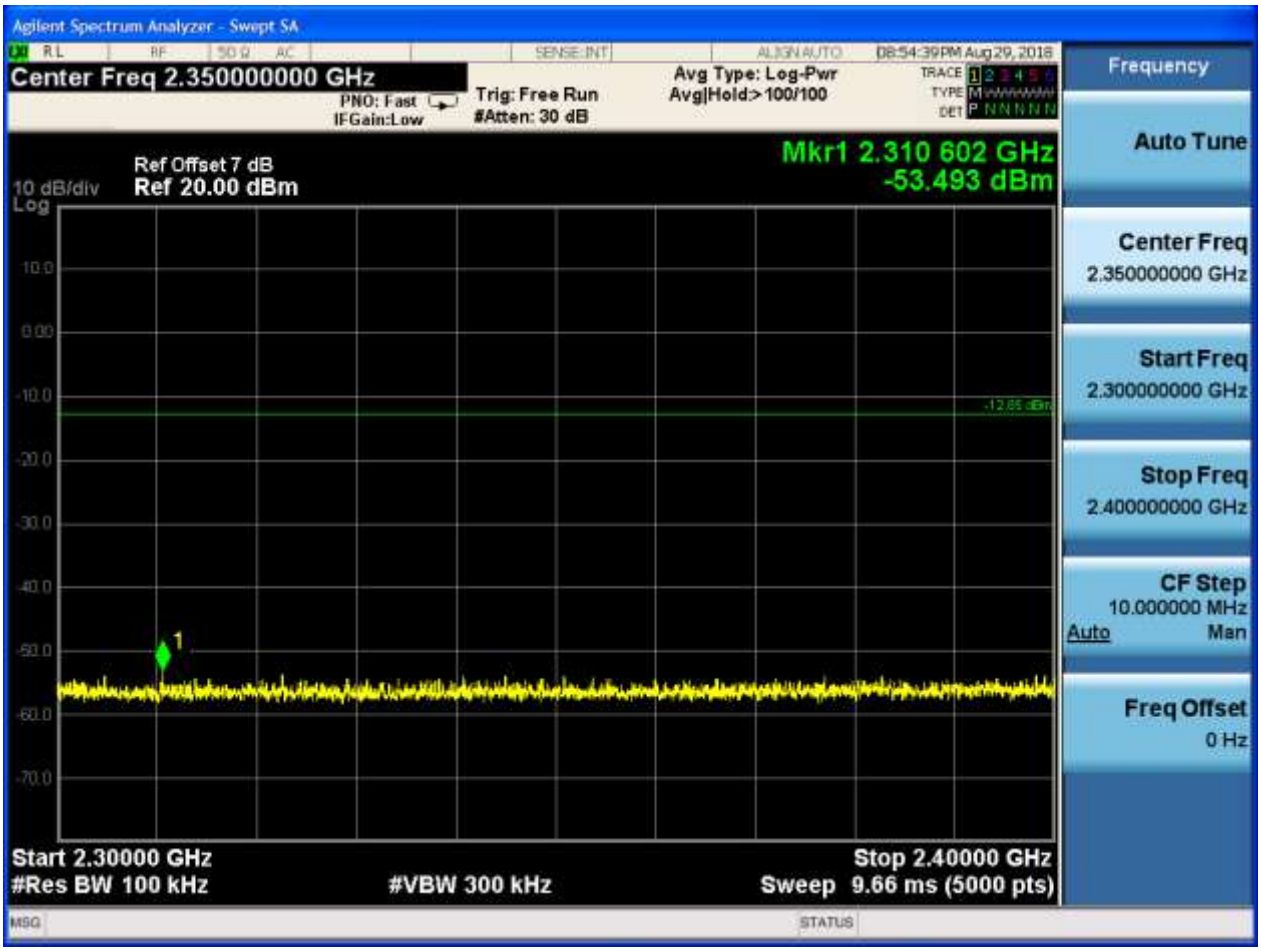




2.9 TM3_3DH5_Ch78

2.9.1 Pref

2.9.2 Puw



Appendix H: Radiated Emissions in the Restricted Bands

3 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 “9 KHz to 30 MHz”,
- (Part 2): Test range of “30 MHz to 1 GHz”,
- (Part 3): Test range of “1 GHz to 3 GHz”.
- (Part 4): Test range of “3 GHz to 18 GHz”,
- (Part 5): Test range of “18 GHz to 26.5 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”.

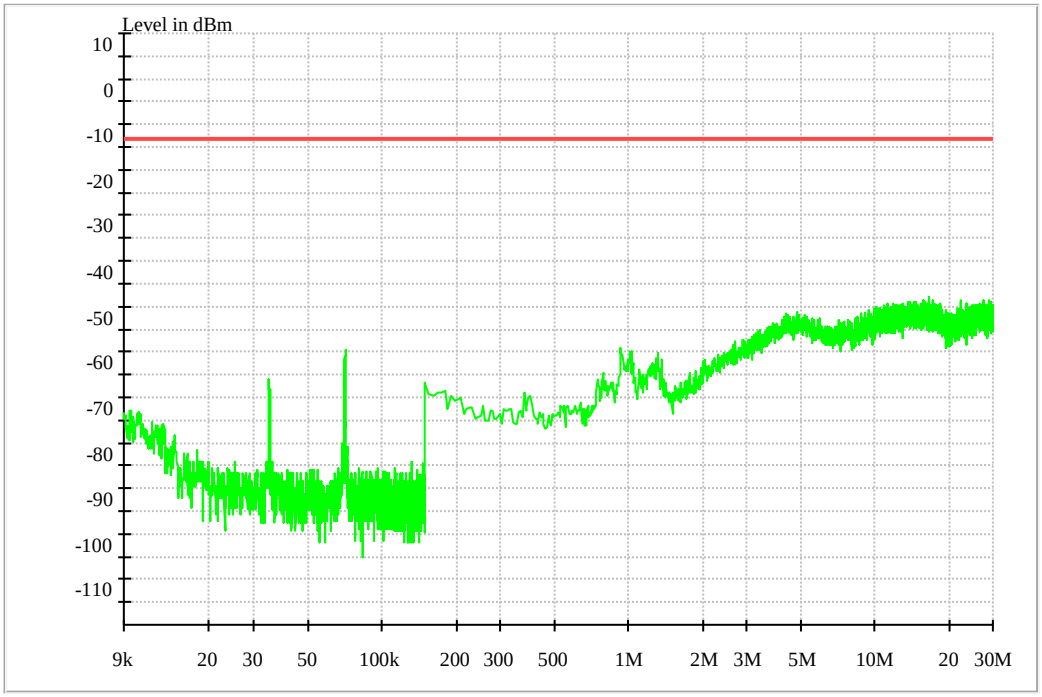
Test Range	EUT Conf.	Emissions	Verdict
30 MHz to 1 GHz	TM1_DH5_Ch0 (Worst Conf.)	< Limit	Pass
1 GHz to 3 GHz	TM1_DH5_Ch0 (Worst Conf.)	< Limit	Pass
	TM1_DH5_Ch78 (Worst Conf.)	< Limit	Pass
3 GHz to 18 GHz	TM1_DH5_Ch0 (Worse Conf.)	< Limit	Pass
18 GHz to 26.5 GHz	TM1_DH5_Ch0 (Worst Conf.)	< Limit	Pass

Note: We tested all modes, but the data presented below is the worst case.

4 Result Plot

Part 1: Testing Range of "9 kHz to 30MHz"

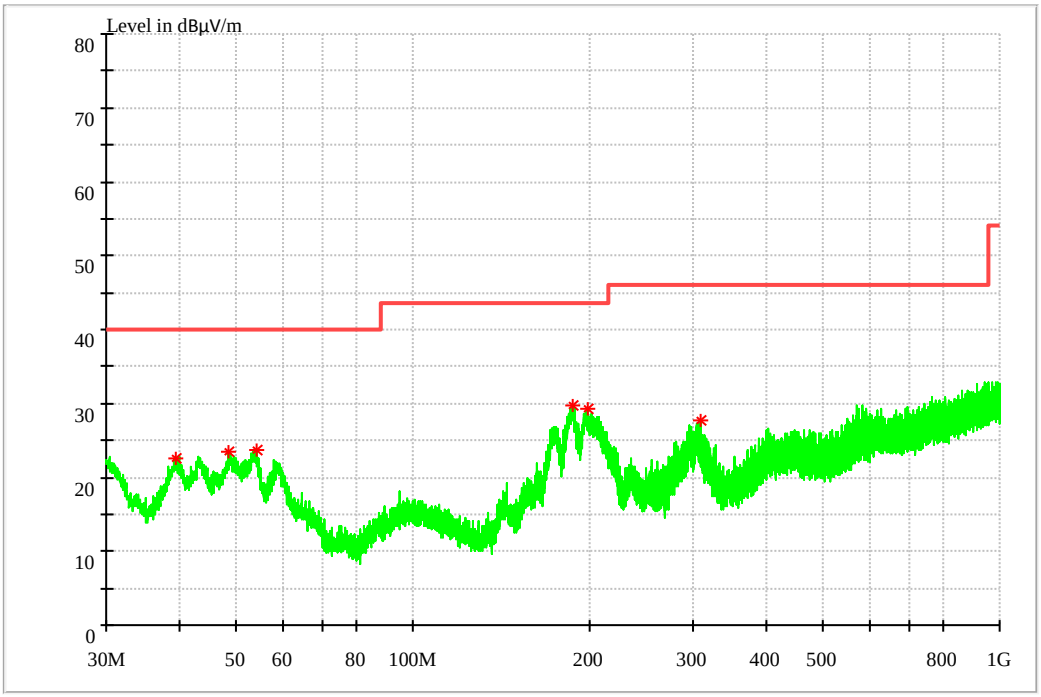
Note 1: The test results and plot for testing range of "9 KHz to 30 MHz" showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.



Part 2: 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).



MEASUREMENT RESULT: QP Detector

Frequency (MHz)	Level (dB µ V/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Transd. (dB)
39.473667	22.65	40.00	17.35	100.0	V	52.0	14.4
48.527000	23.52	40.00	16.48	100.0	V	10.0	14.4
53.991333	23.78	40.00	16.22	100.0	V	0.0	14.2
187.754333	29.71	43.50	13.79	100.0	V	168.0	12.6
198.165667	29.20	43.50	14.30	100.0	V	177.0	12.9
308.325333	27.75	46.00	18.25	100.0	H	112.0	16.2

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.

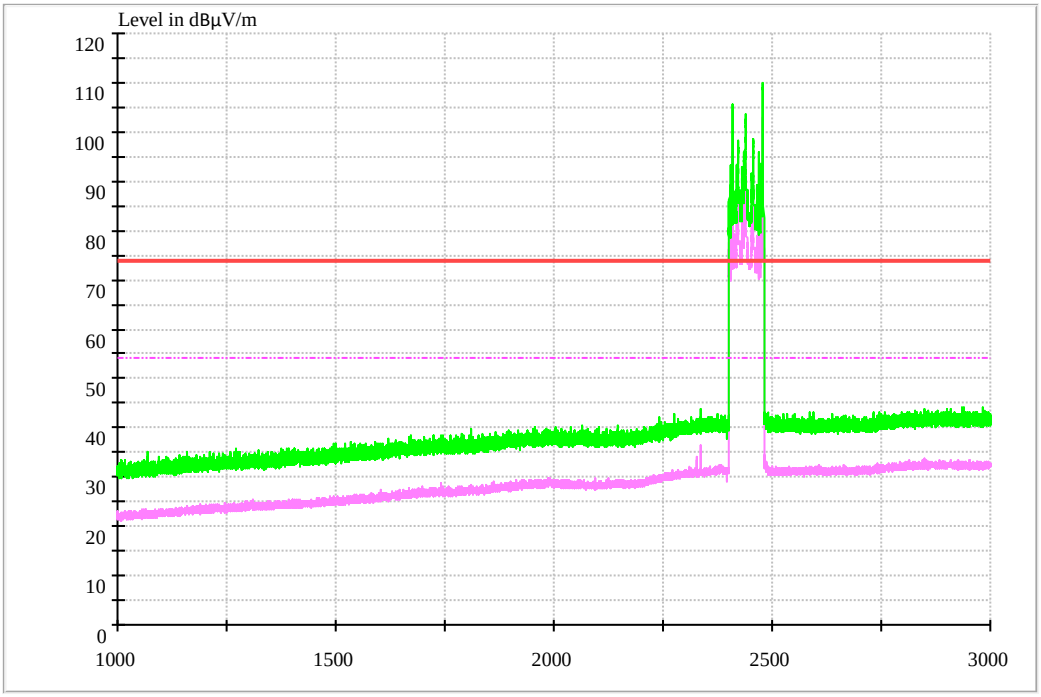
2, Margin=Limit - Level

Part 3: Testing Range of "1GHz to 3GHz"

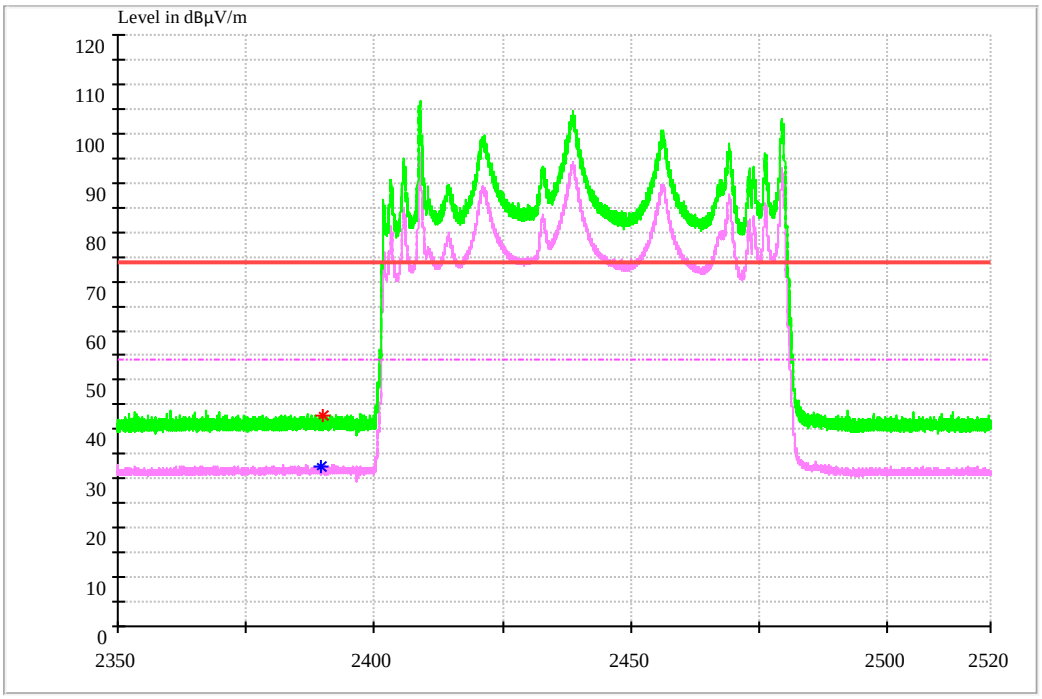
Note 1: The testing range of "1 GHz to 3 GHz" is for checking radiated emissions located in restricted bands near the EUT operating bands.

Note 2: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dBμV/m) and Average Limit (54 dBμV/m).

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



Channel 0



MEASUREMENT RESULT: AV Detector

Frequency (MHz)	Level (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth	Transd. (dB)
2389.576	32.56	54.00	21.44	100.0	V	2.0	-8.2

MEASUREMENT RESULT: PK Detector

Frequency (MHz)	Level (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Transd. (dB)
2389.814	42.94	74.00	31.06	150.0	V	80.0	-8.2

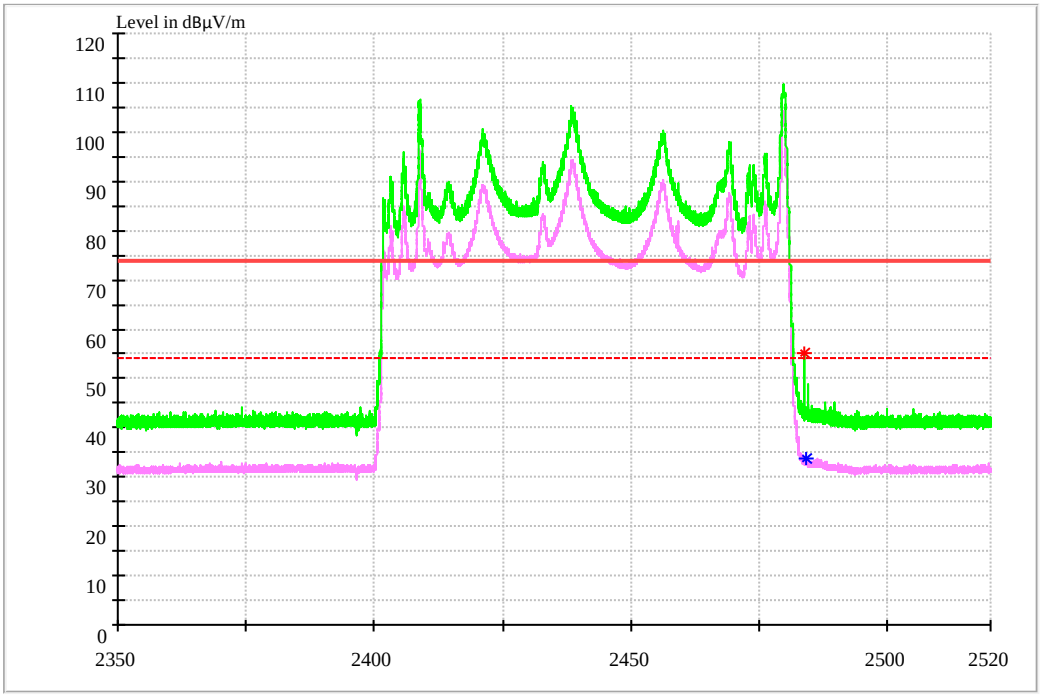
Note:

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

Channel 78



MEASUREMENT RESULT: AV Detector

Frequency (MHz)	Level (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth	Transd. (dB)
2484.232	33.68	54.00	20.32	100.0	H	87.0	-7.2

MEASUREMENT RESULT: PK Detector

Frequency (MHz)	Level (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Transd. (dB)
2483.603	55.00	74.00	19.00	100.0	H	0.0	-6.8

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.

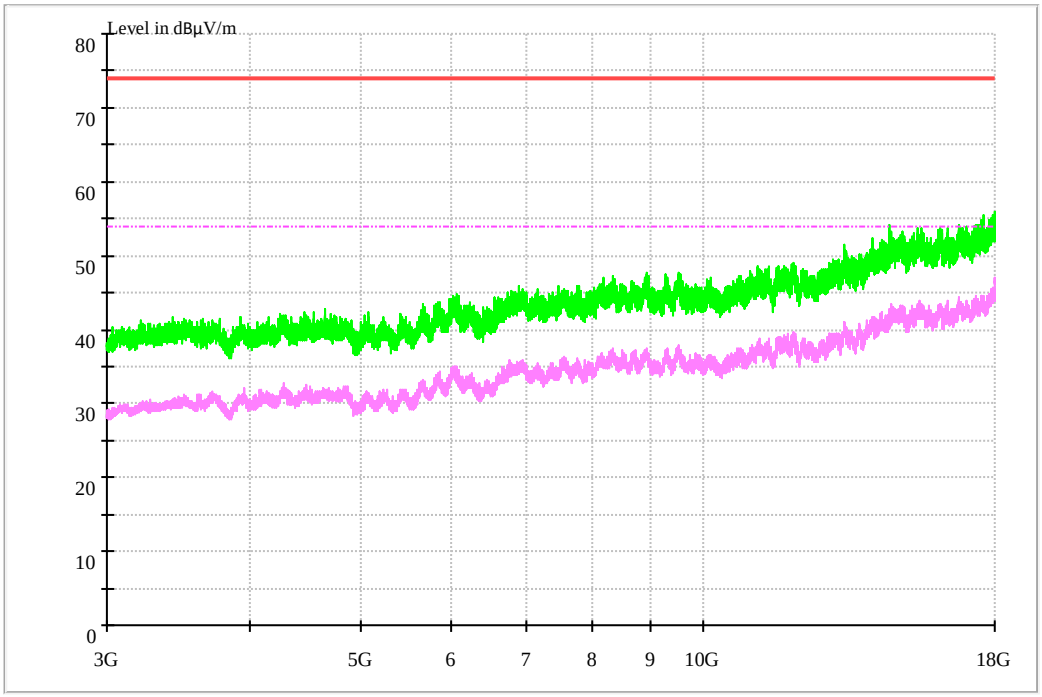
2, Margin=Limit - Level

Part 4: Testing 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 dBµV/m) and Average Limit (54 dBµV/m).

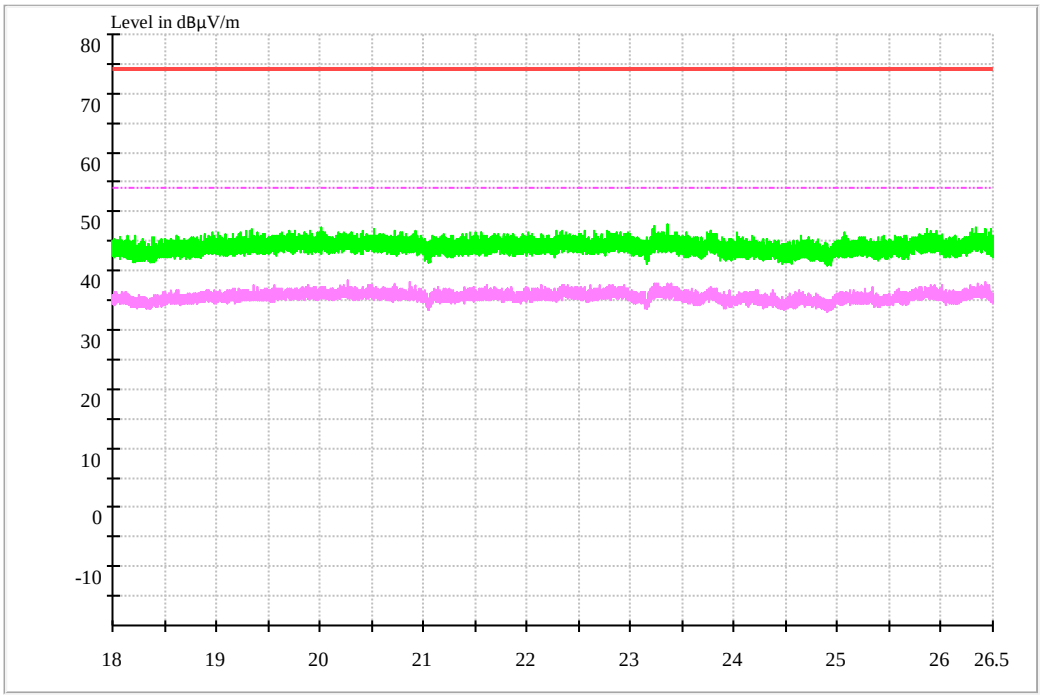


Part 5: Testing Range of "18 GHz to 26.5 GHz"

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.

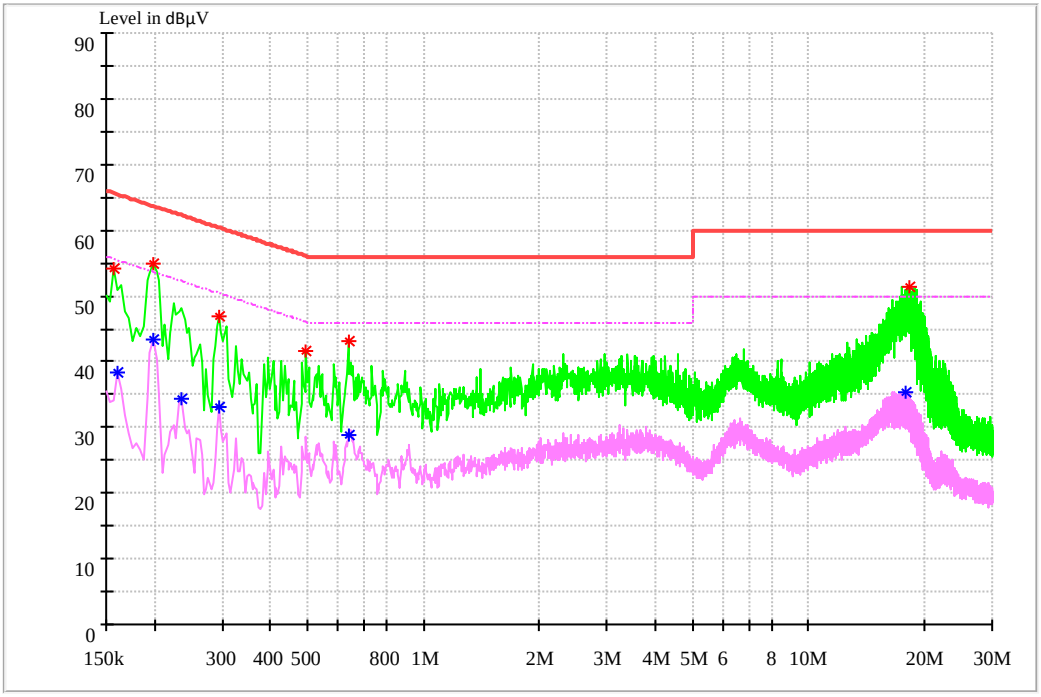
Note 3: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dBμV/m) and Average Limit (54 dBμV/m).



Appendix I: Conducted Emission at Power Port

Note: RBW =9 kHz, VBW = 30 kHz

Channel 39



MEASUREMENT RESULT: QP Detector

Frequency (MHz)	Level (dB µ V)	Limit (dB µ V)	Transd. (dB)	Margin (dB)	Line	PE
0.157462	54.10	65.60	9.7	11.50	L1	FLO
0.198506	54.88	63.67	9.7	8.79	N	FLO
0.295519	46.95	60.37	9.7	13.42	N	FLO
0.497006	41.50	56.05	9.7	14.55	N	FLO
0.638794	43.03	56.00	9.7	12.97	L1	FLO
18.336112	51.32	60.00	10.1	8.68	N	FLO

MEASUREMENT RESULT: AV Detector

Frequency (MHz)	Level (dB μ V)	Limit (dB μ V)	Transd. (dB)	Margin (dB)	Line	PE
0.161194	38.25	55.40	9.7	17.15	N	FLO
0.198506	43.42	53.67	9.7	10.25	N	FLO
0.235819	34.46	52.24	9.7	17.78	N	FLO
0.295519	33.18	50.37	9.7	17.19	N	FLO
0.642525	28.91	46.00	9.7	17.09	L1	FLO
17.914481	35.29	50.00	10.1	14.71	N	FLO

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

END