



# Appendix for Testreport

## 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.

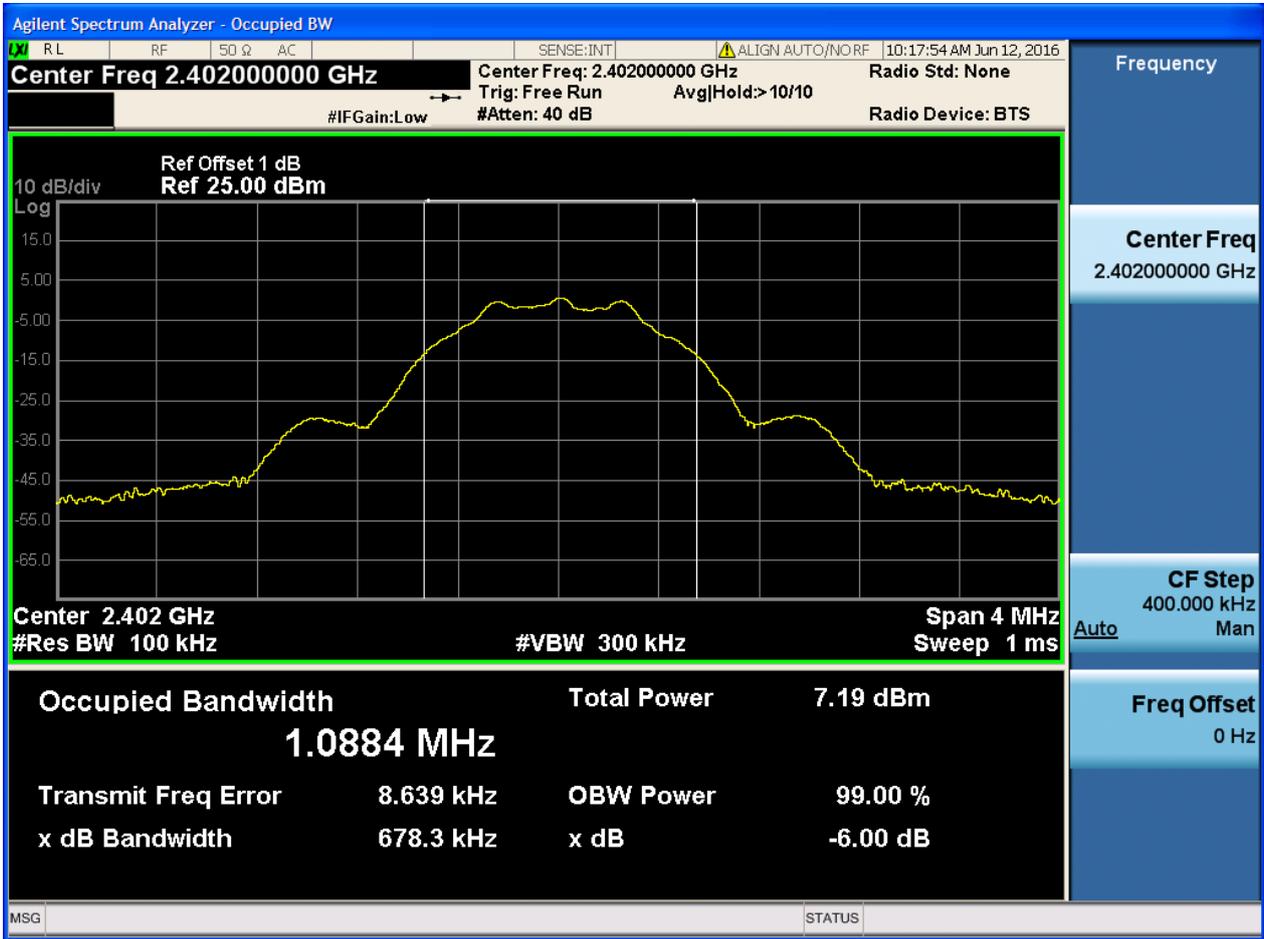
### Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	DTS6dBBW[MHz]	Verdict
TM1_Ch0	L	2402	0.68	pass
TM1_Ch19	M	2440	0.68	pass
TM1_Ch39	H	2480	0.68	pass



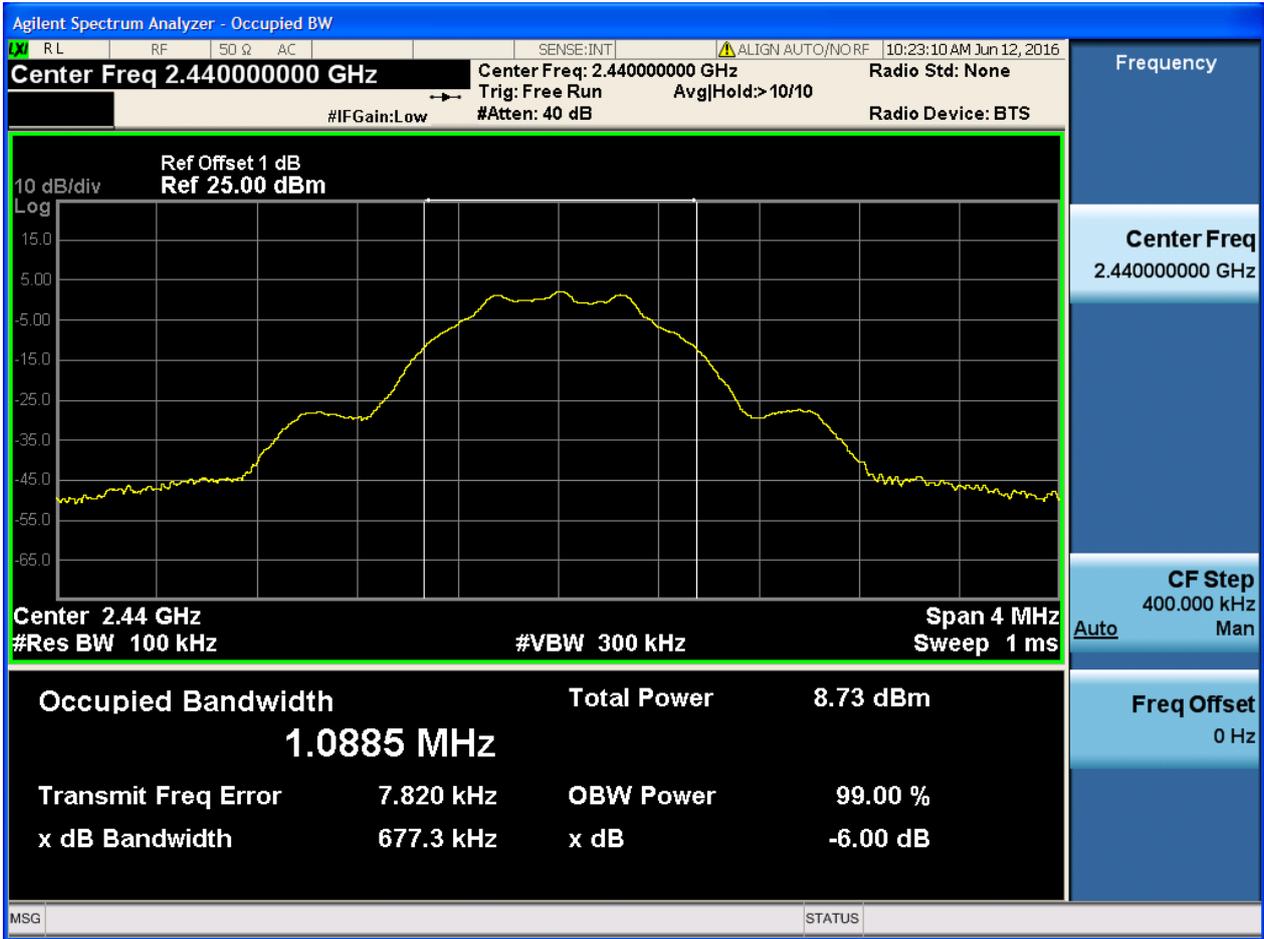
Part II - Test Plots

2.1 TM1\_Ch 0@Ant 1





2.3 TM1\_Ch 19@Ant 1







## Appendix B: Occupied Bandwidth

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.

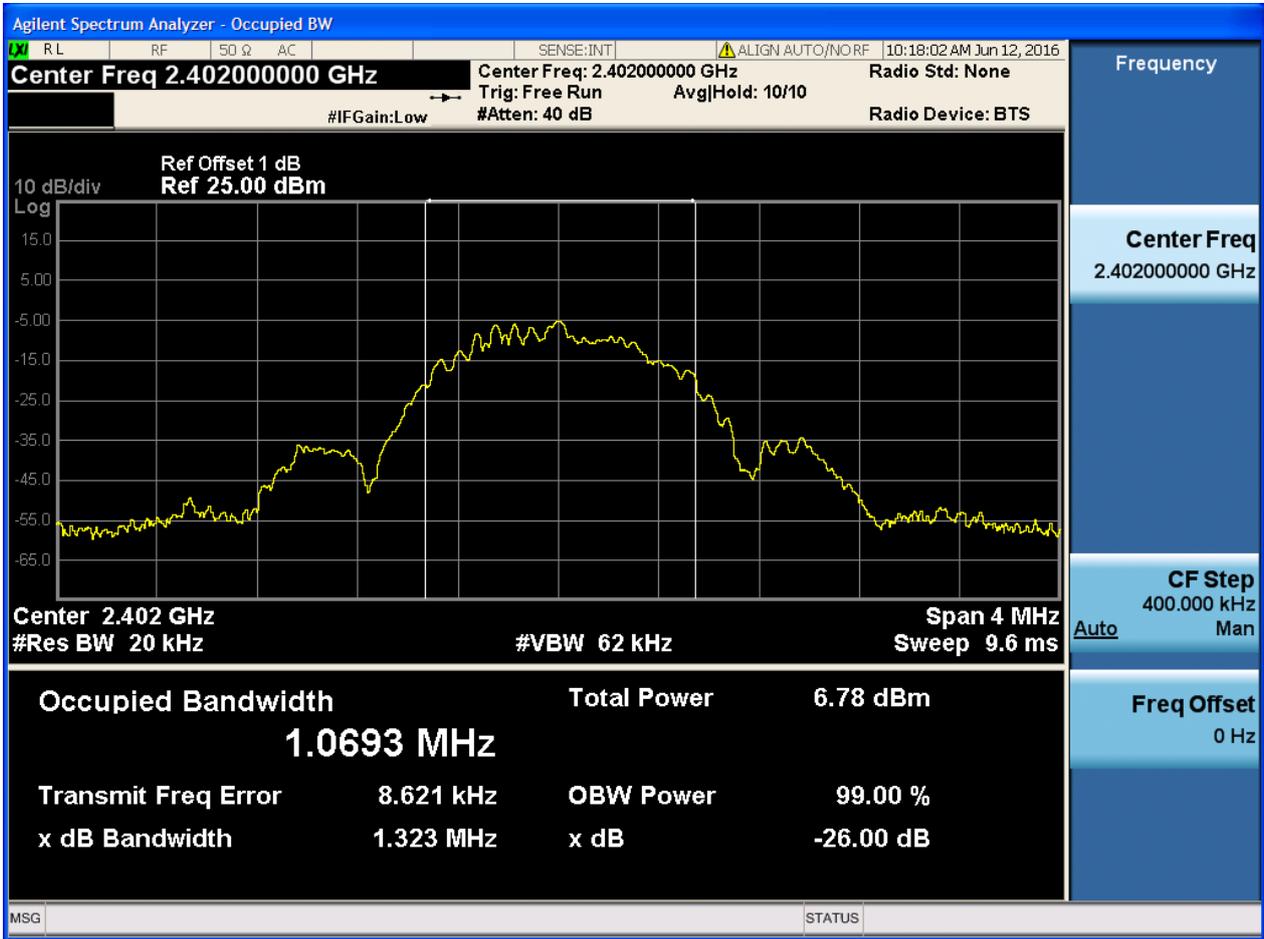
### Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Occupied Bandwidth [MHz]	Verdict
TM1_Ch0	L	2402	1.07	pass
TM1_Ch19	M	2440	1.07	pass
TM1_Ch39	H	2480	1.07	pass



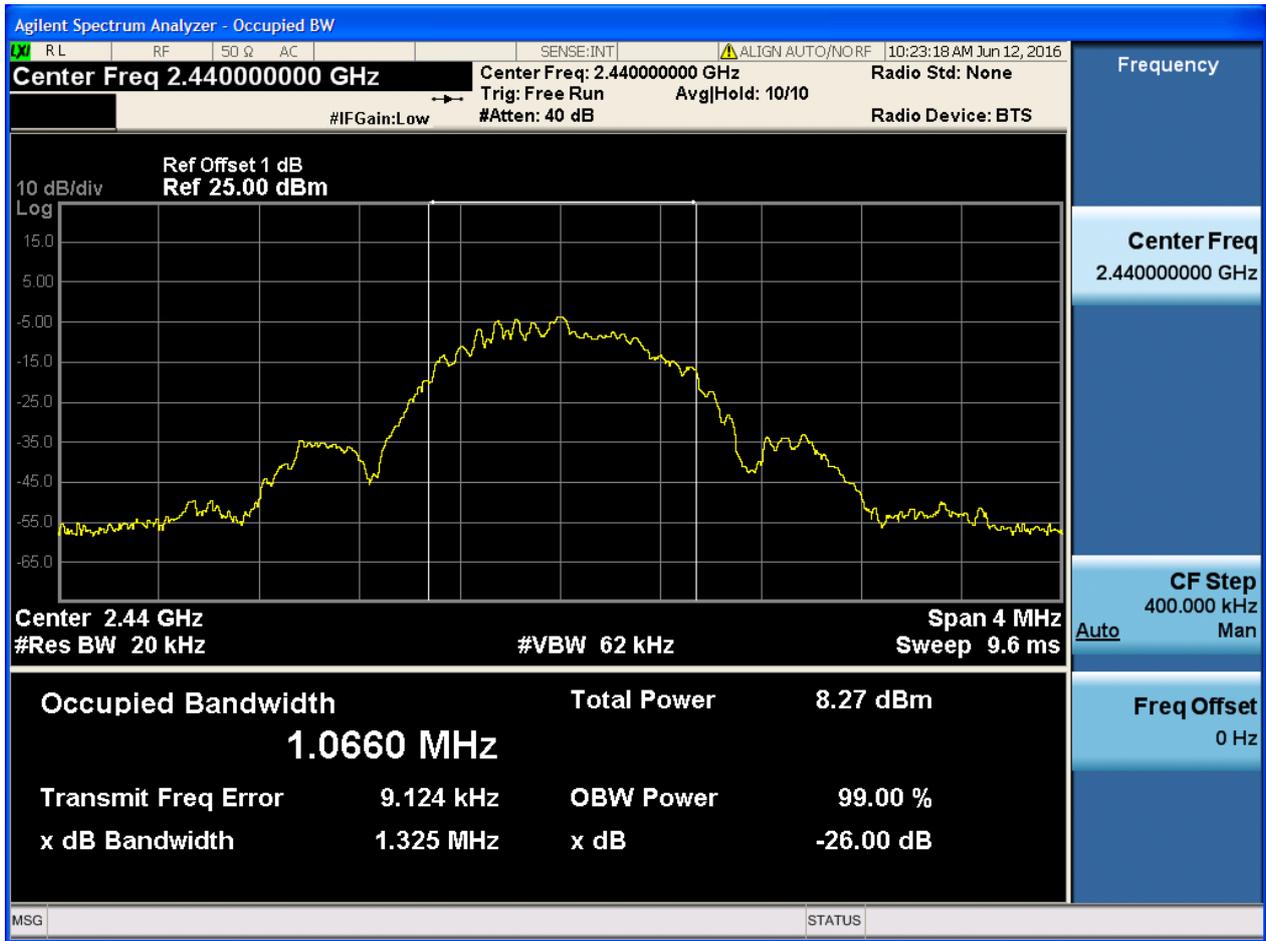
Part II - Test Plots

2.1 TM1\_Ch 0@Ant 1



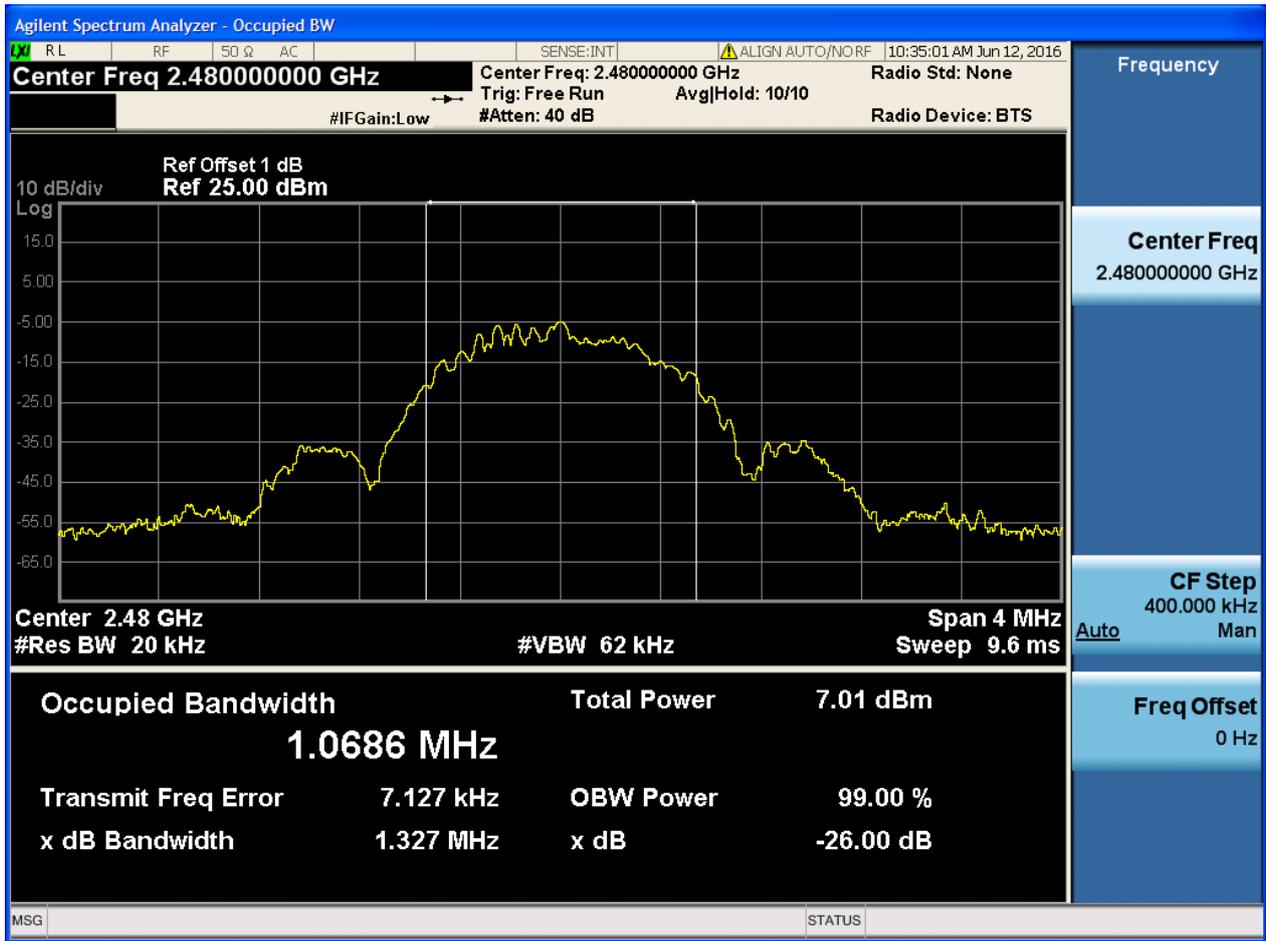


2.1 TM1\_Ch 19@Ant 1





### 2.1 TM1\_Ch 39@Ant 1



## Appendix C: Duty cycle

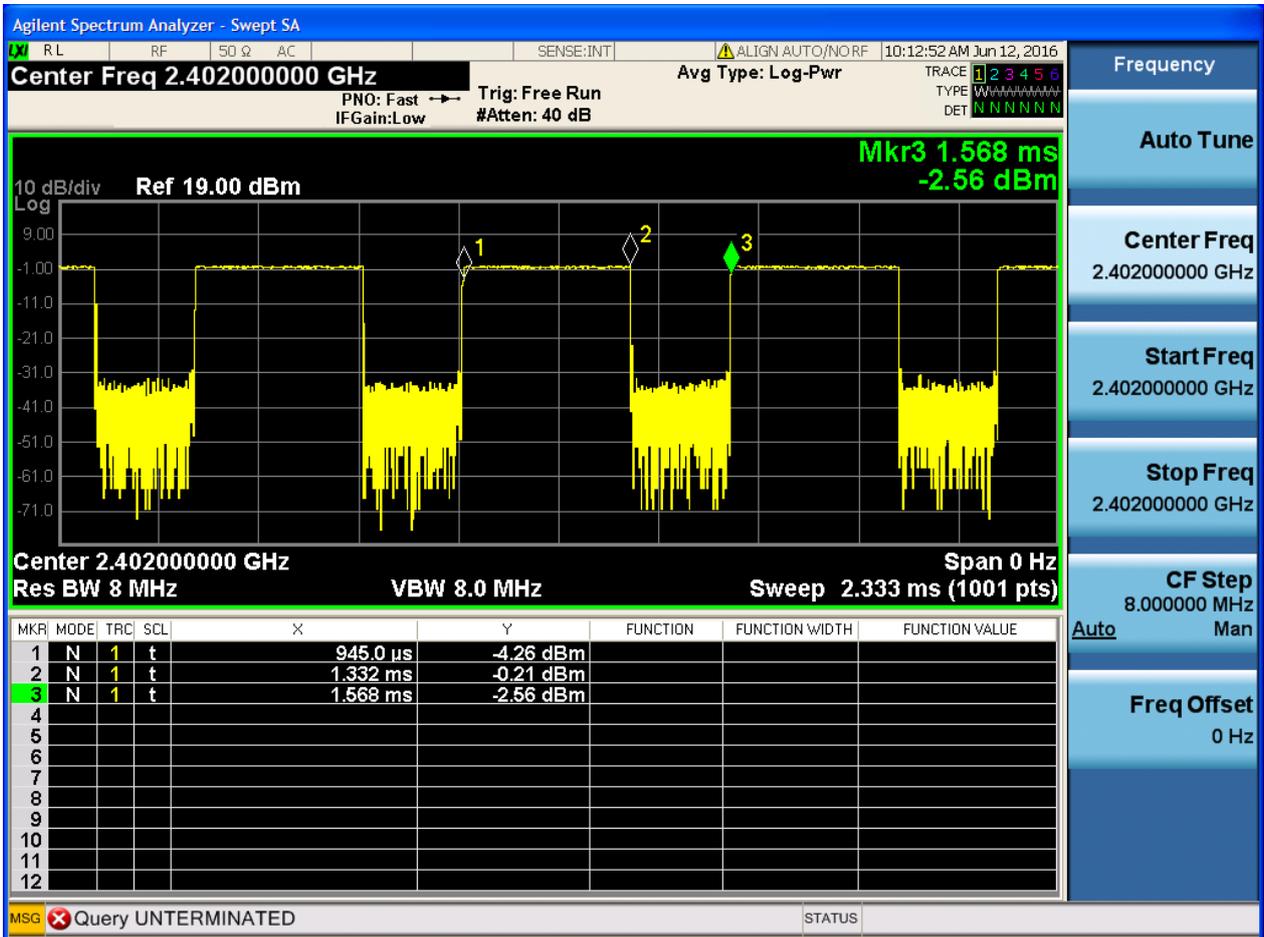
### Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Duty cycle [%]
TM1_Ch19	M	2440	62



Part II - Test Plots

2.1 TM1\_Ch19\_M



## Appendix D: Maximum Conducted Average Output Power

### Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Power[dBm]	Verdict
TM1_Ch0	L	2402	0.61	pass
TM1_Ch19	M	2440	2.08	pass
TM1_Ch39	H	2480	0.54	pass



### Part II - Test Plots

#### 2.1 TM1\_Ch 0@Ant 1





2.3 TM1\_Ch 19@Ant 1





### 2.5 TM1\_Ch 39@Ant 1



## Appendix E: Maximum Power Spectral Density Level

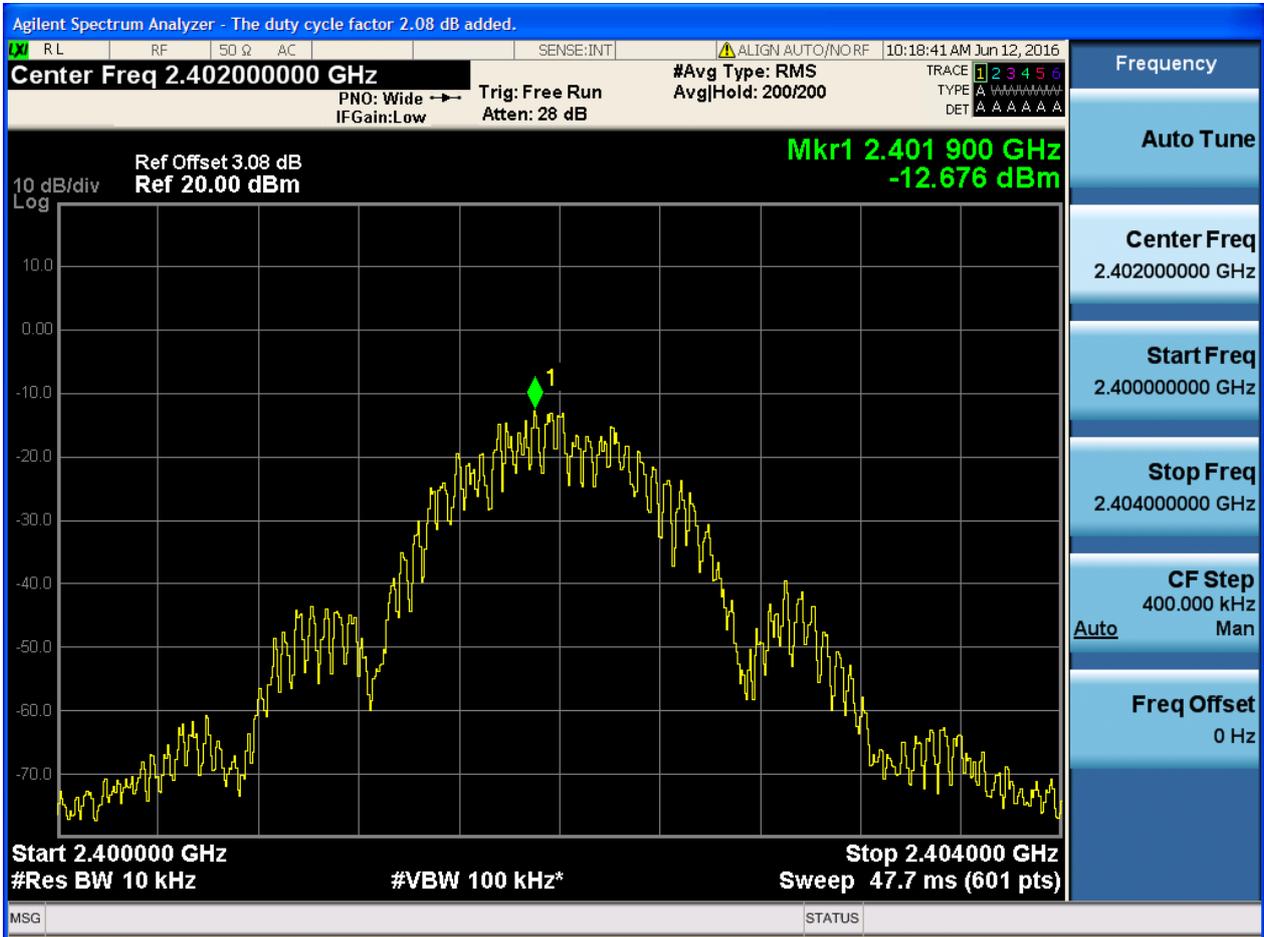
### Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	PD[MHz]	Verdict
TM1_Ch0	L	2402	-12.68	pass
TM1_Ch19	M	2440	-11.57	pass
TM1_Ch39	H	2480	-11.79	pass



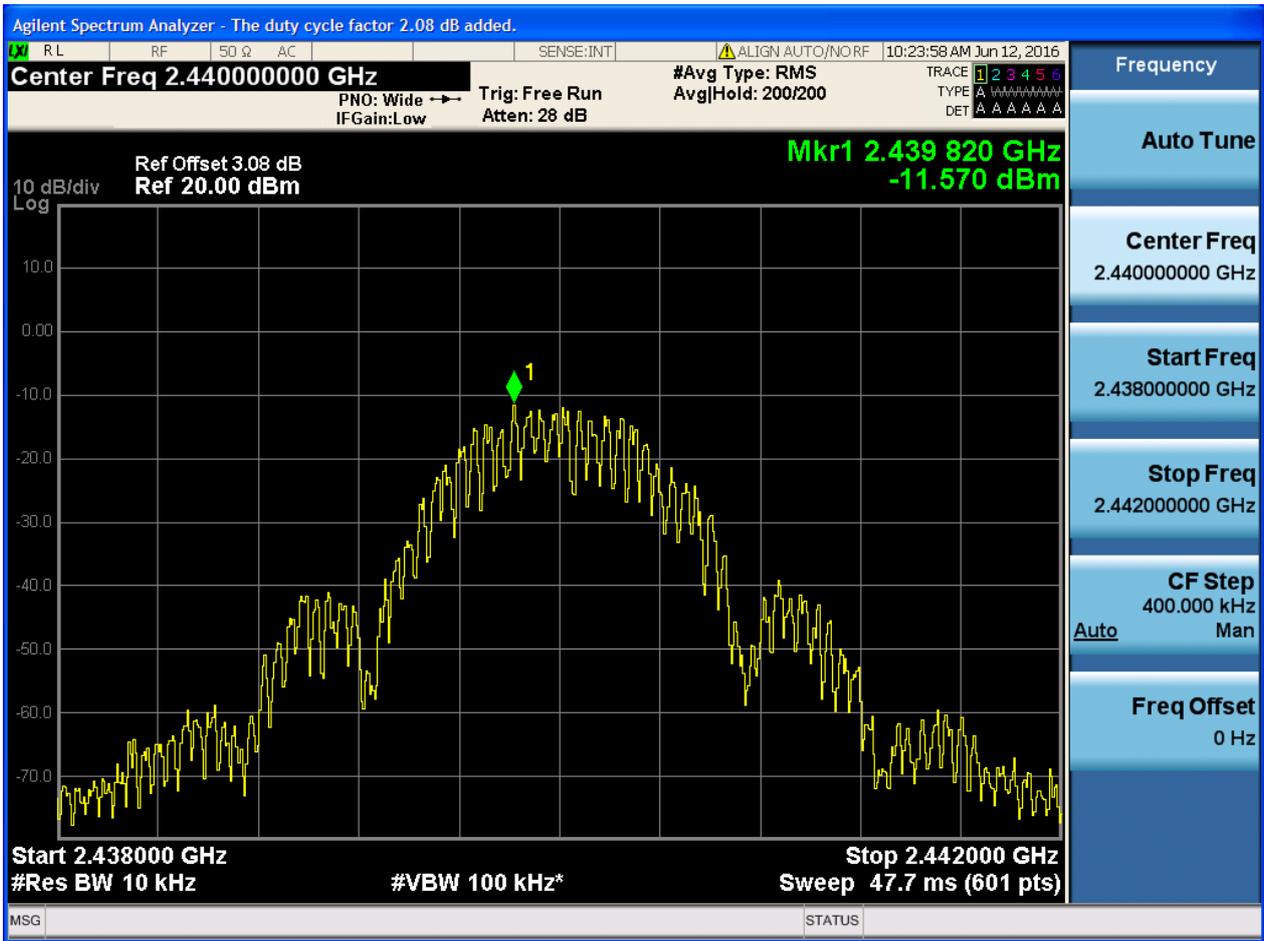
## Part II - Test Plots

### 2.1 TM1\_Ch 0@Ant 1





### 2.3 TM1\_Ch 19@Ant 1





### 2.5 TM1\_Ch 39@Ant 1





## Appendix F: Band Edges Compliance

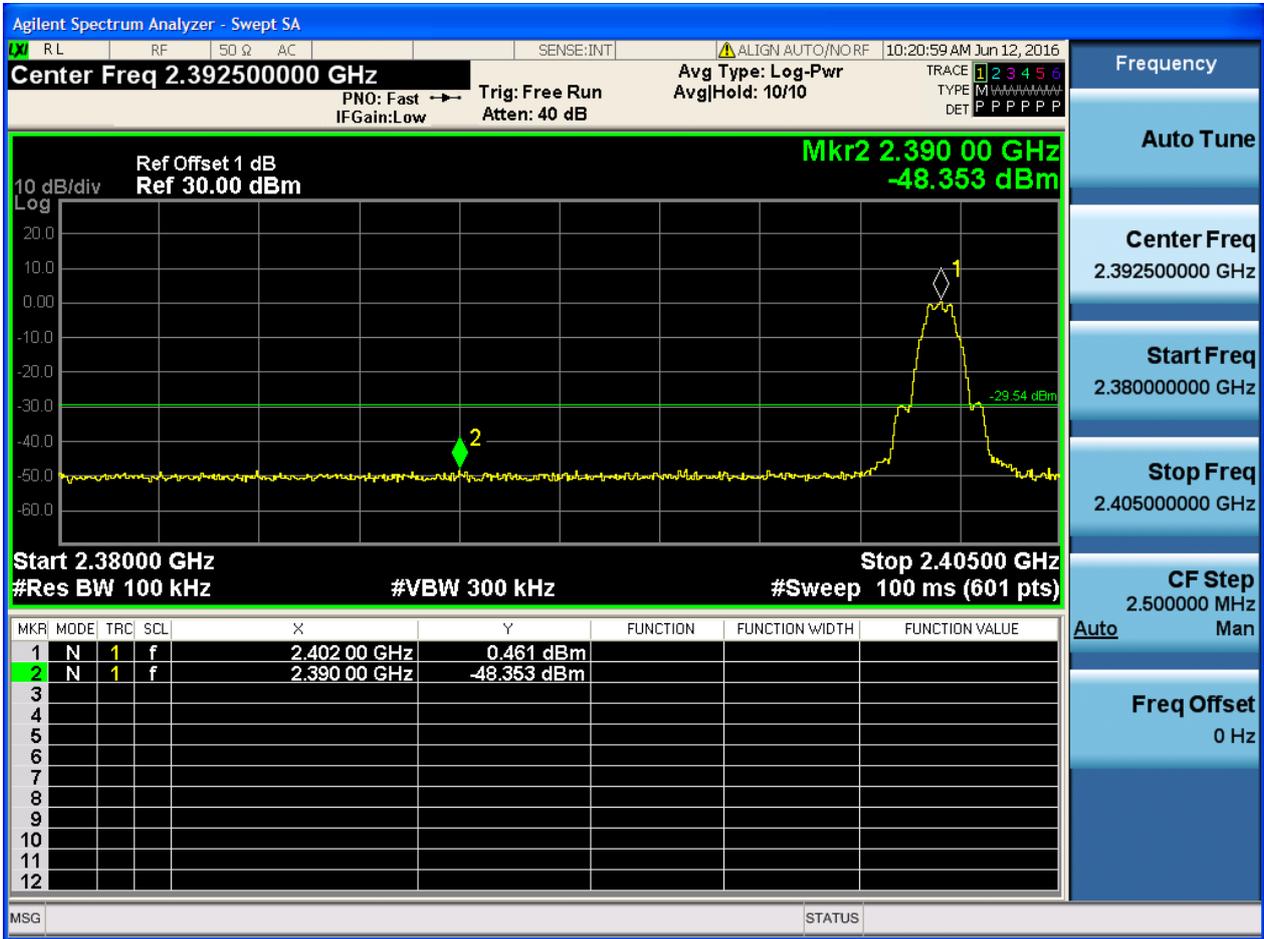
### Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Carrier Power[dBm]	Max.Spurious Level[dBm]	Verdict
TM1_Ch0	L	2402	0.46	-48.35	pass
TM1_Ch39	H	2480	0.69	-49.40	pass



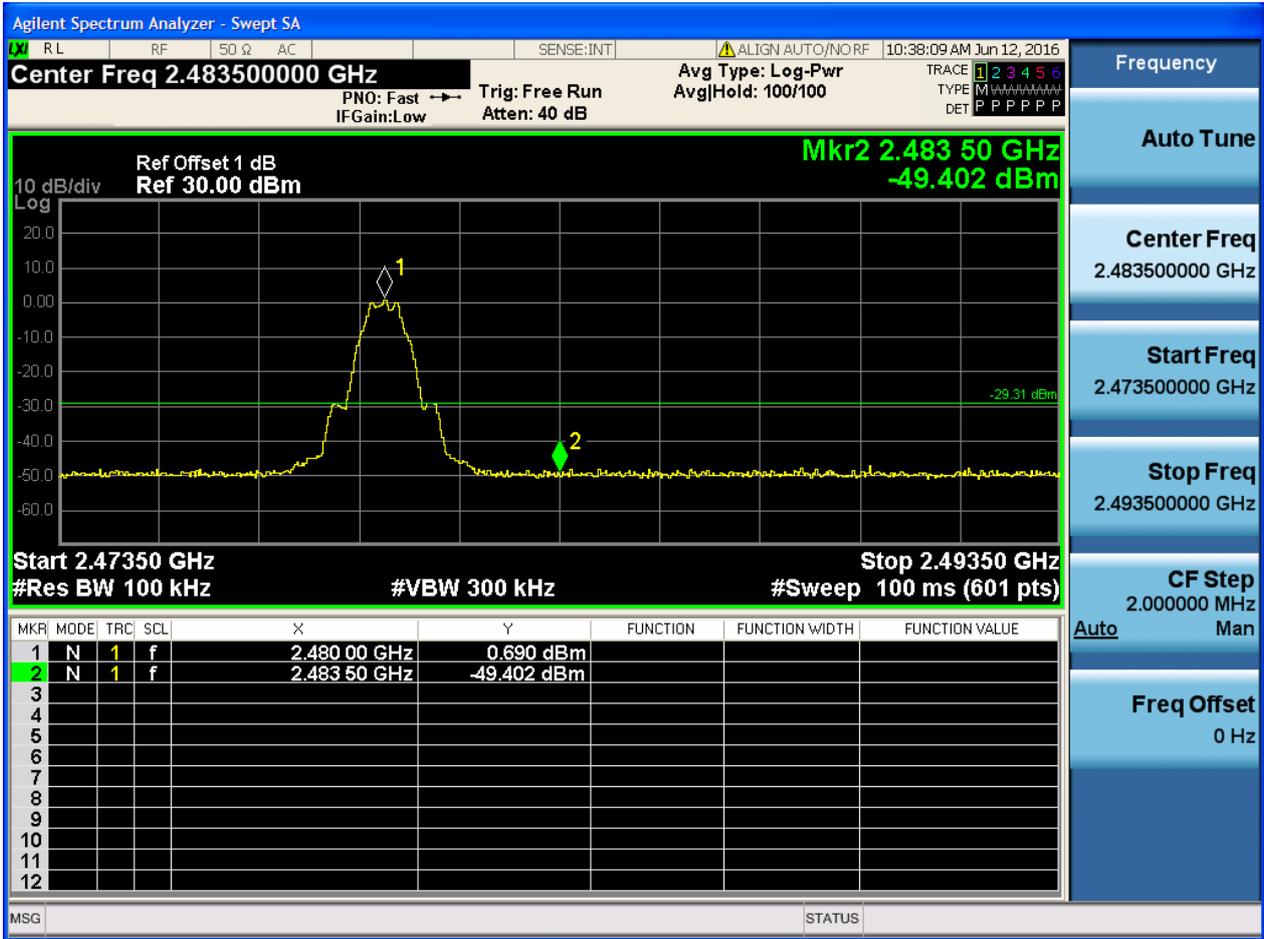
### Part II - Test Plots

#### 2.1 TM1\_Ch 0@Ant 1





### 2.3 TM1\_Ch 39@Ant 1



## Appendix G: 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]-30[dBm], see test plots for detailed".

#### Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Pref[dBm]	Puw[dBm]	Verdict
TM1_Ch0	L	2402	0.56	<limit	pass
TM1_Ch19	M	2440	2.10	<limit	pass
TM1_Ch39	H	2480	0.83	<limit	pass



Part II - Test Plots

2.1 TM1\_Ch 0@Ant 1

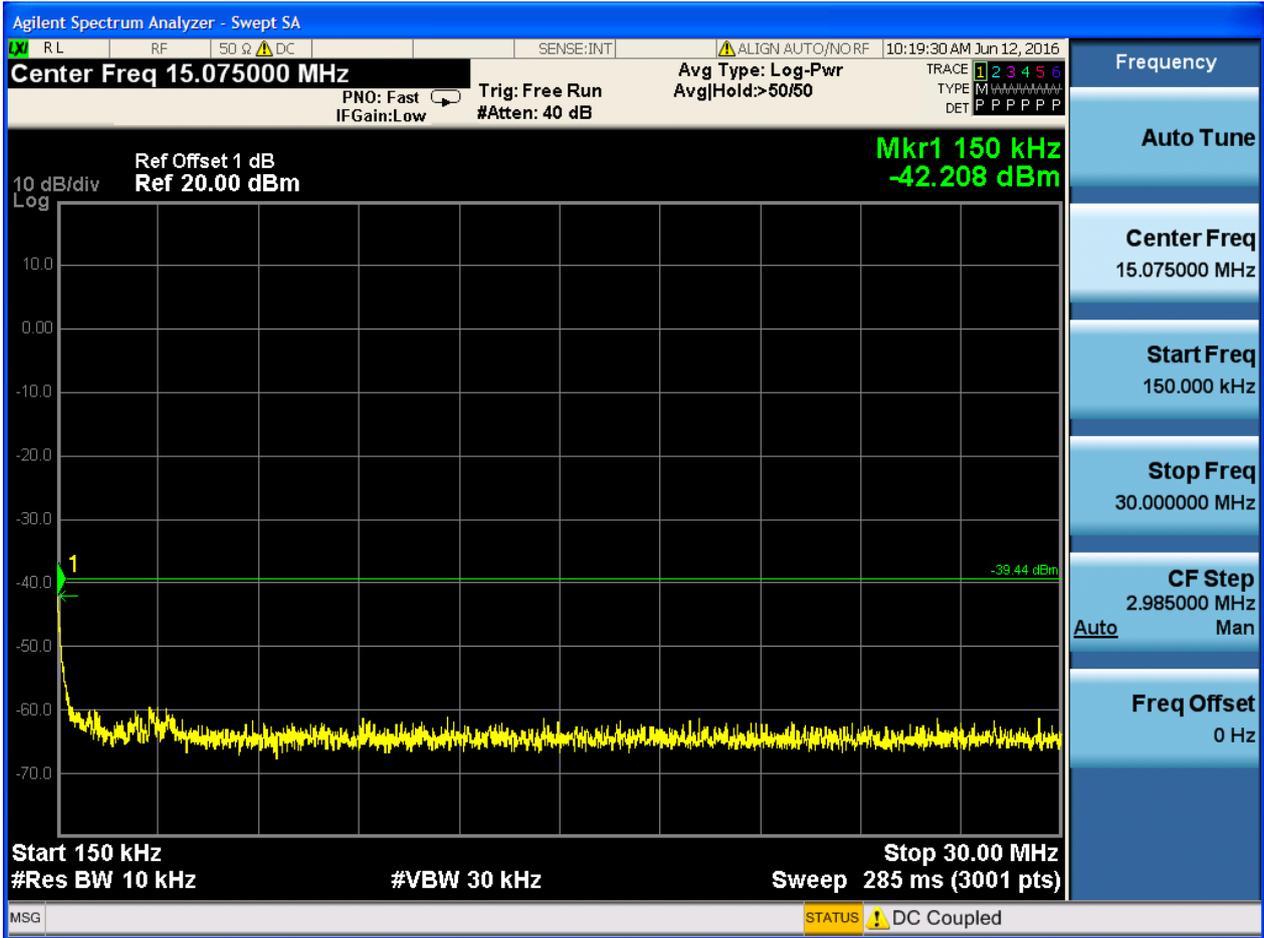
Pref:

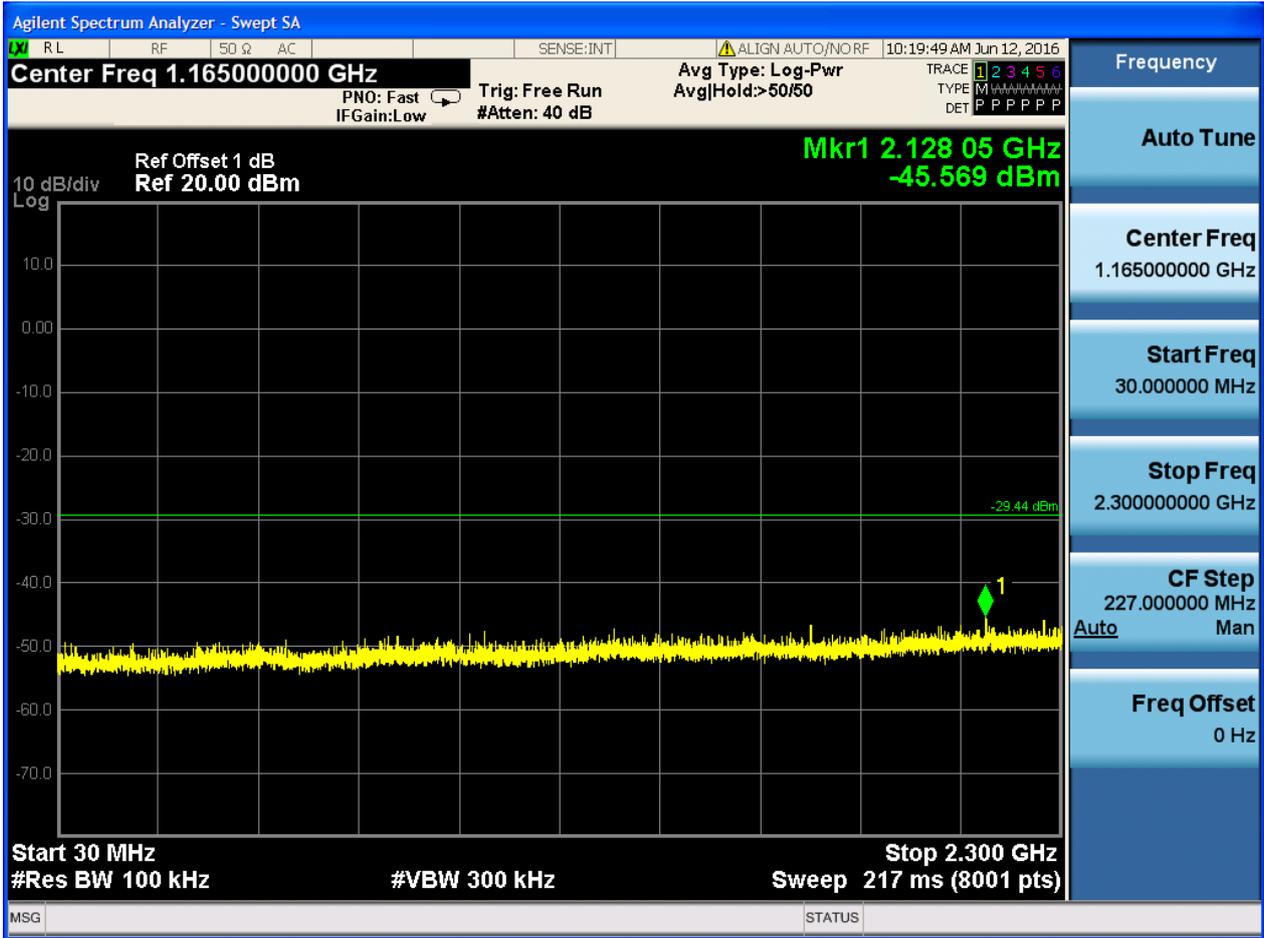


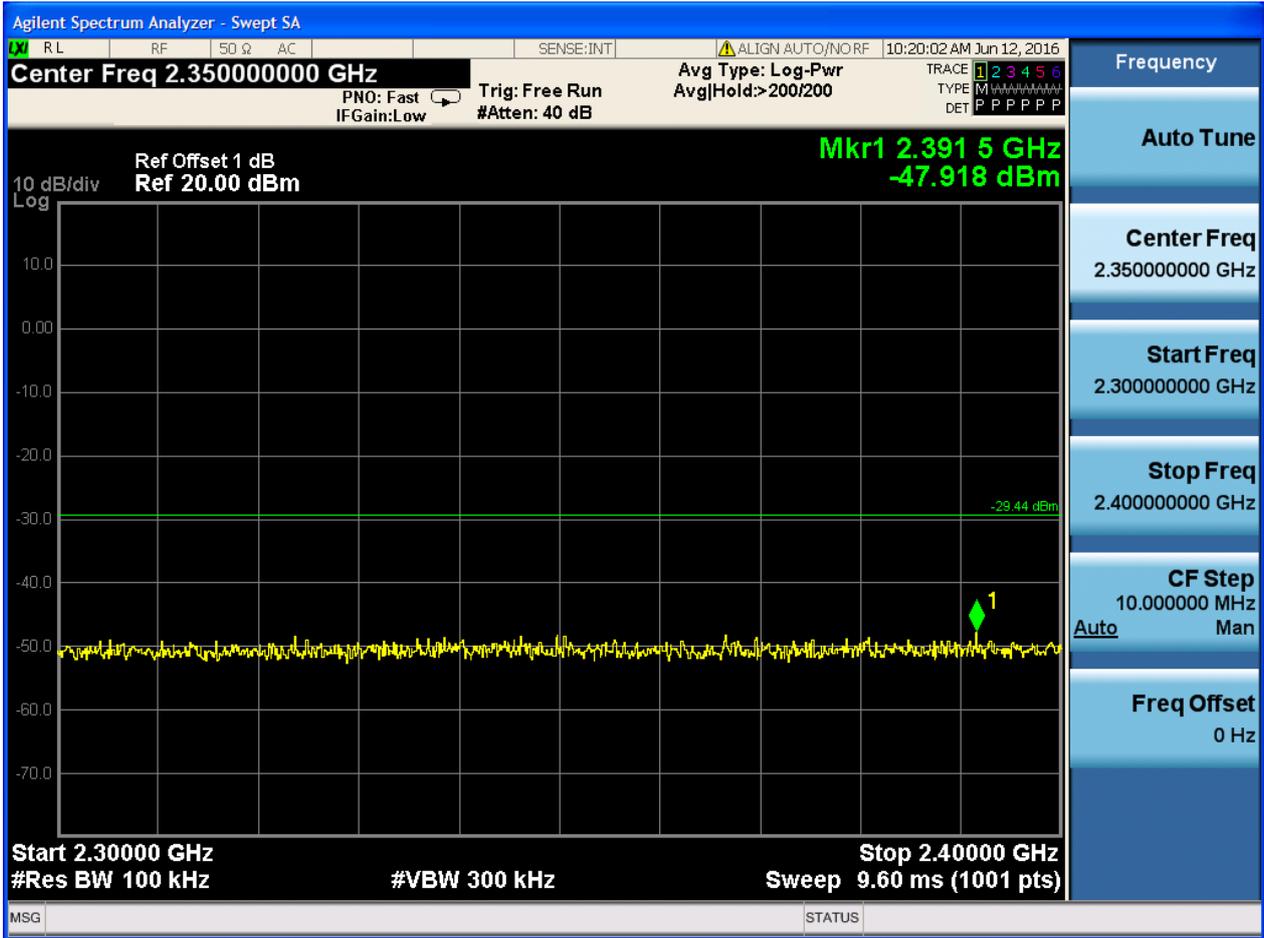


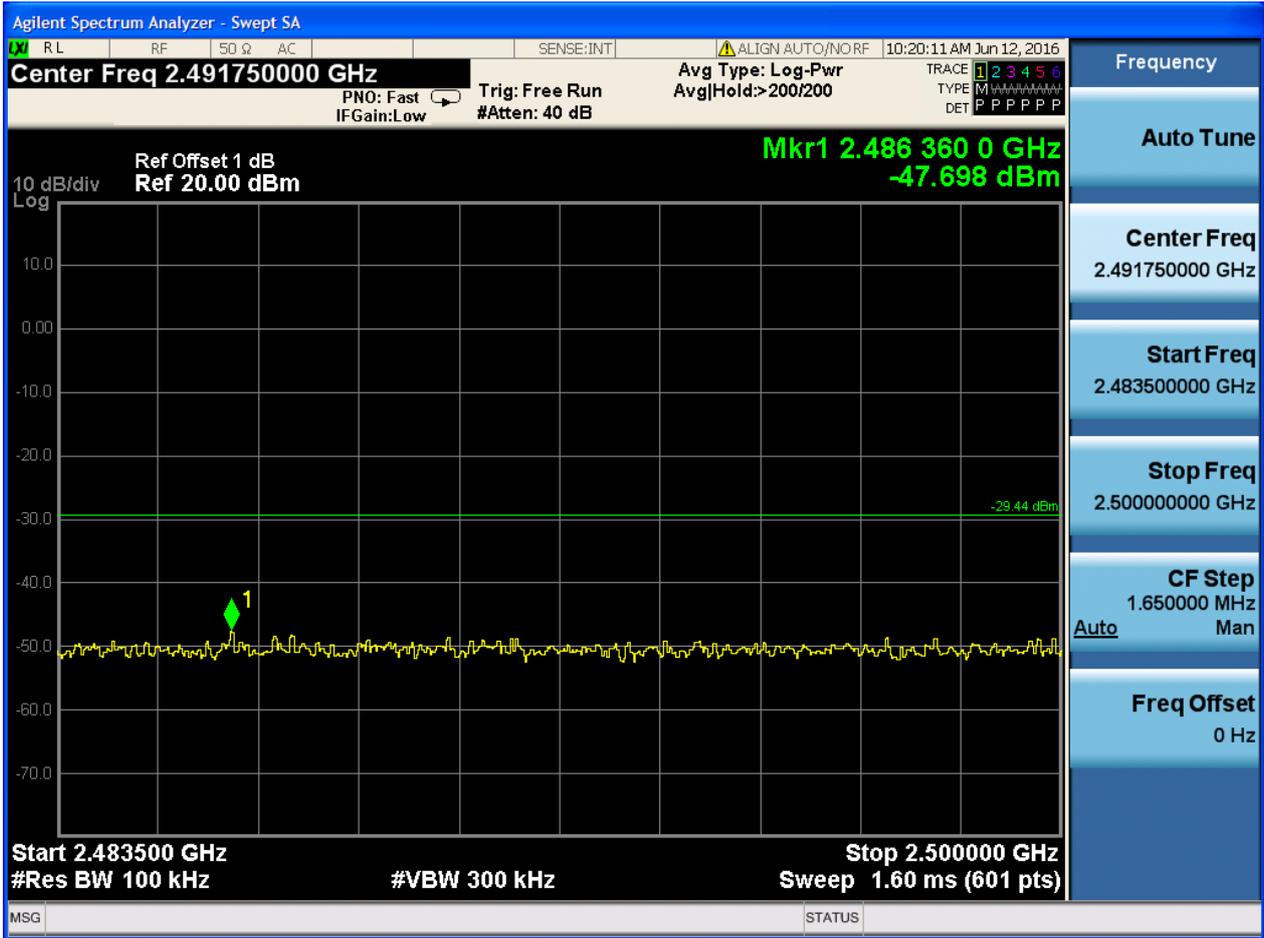
Puw:

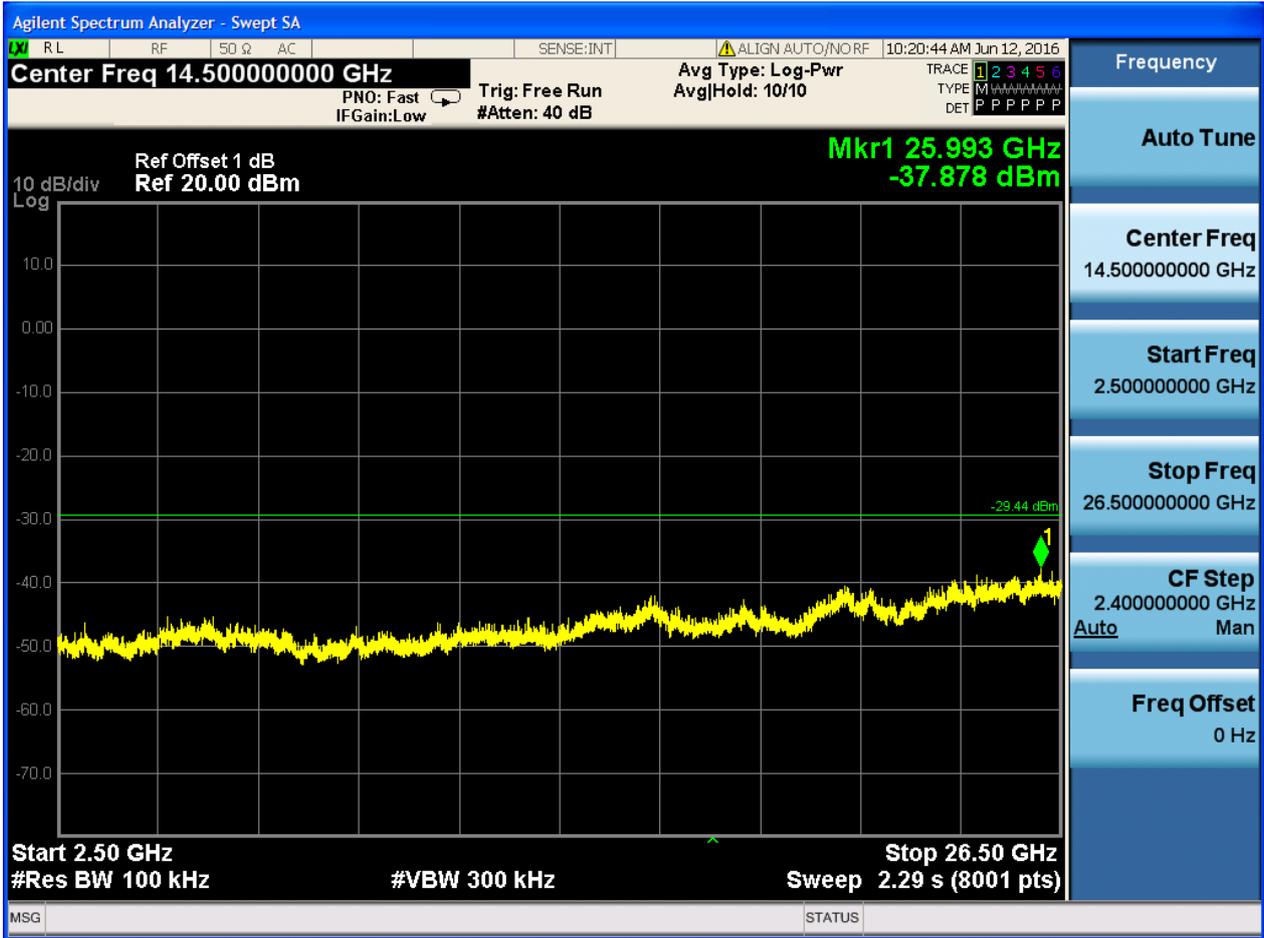












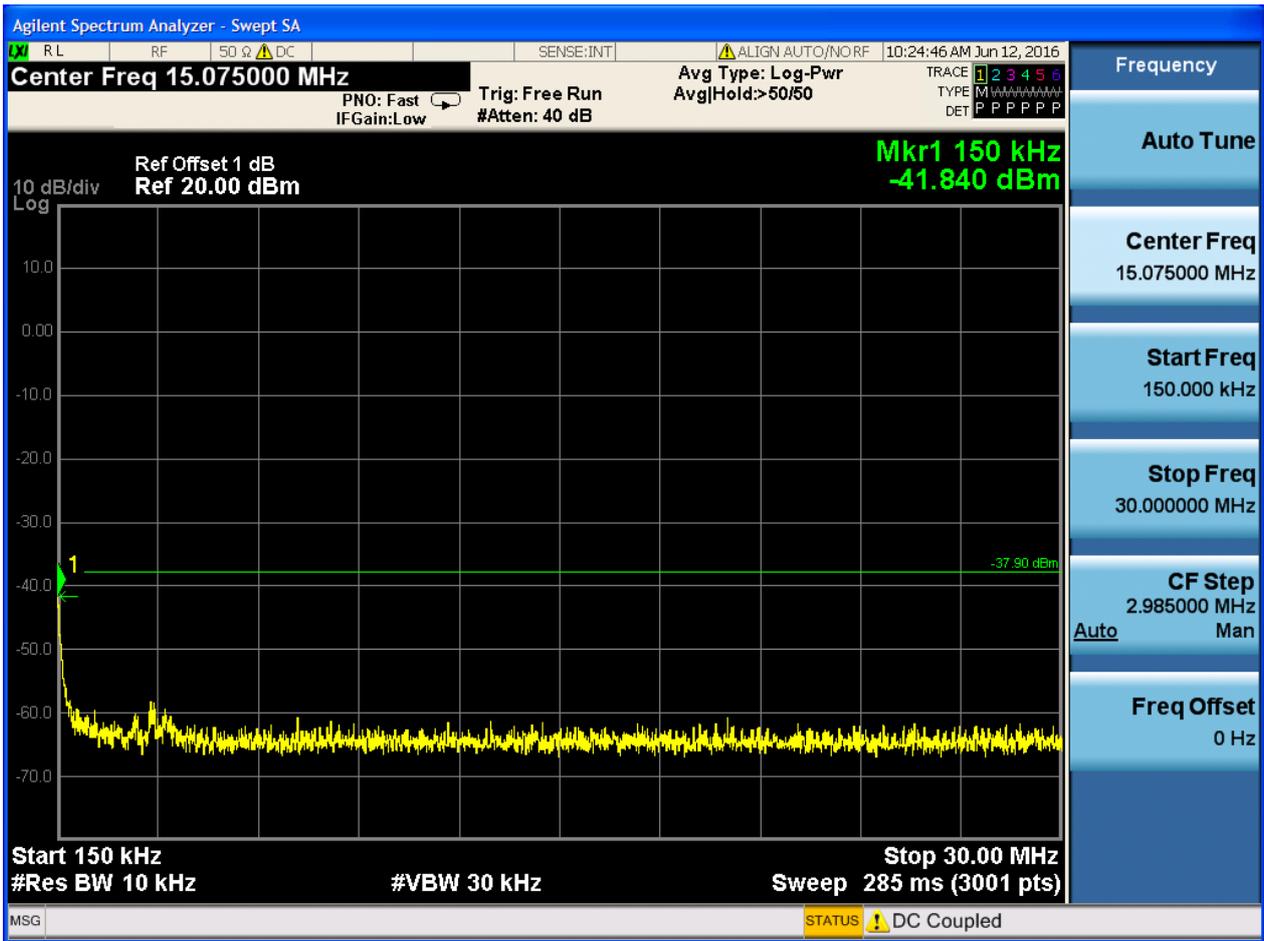


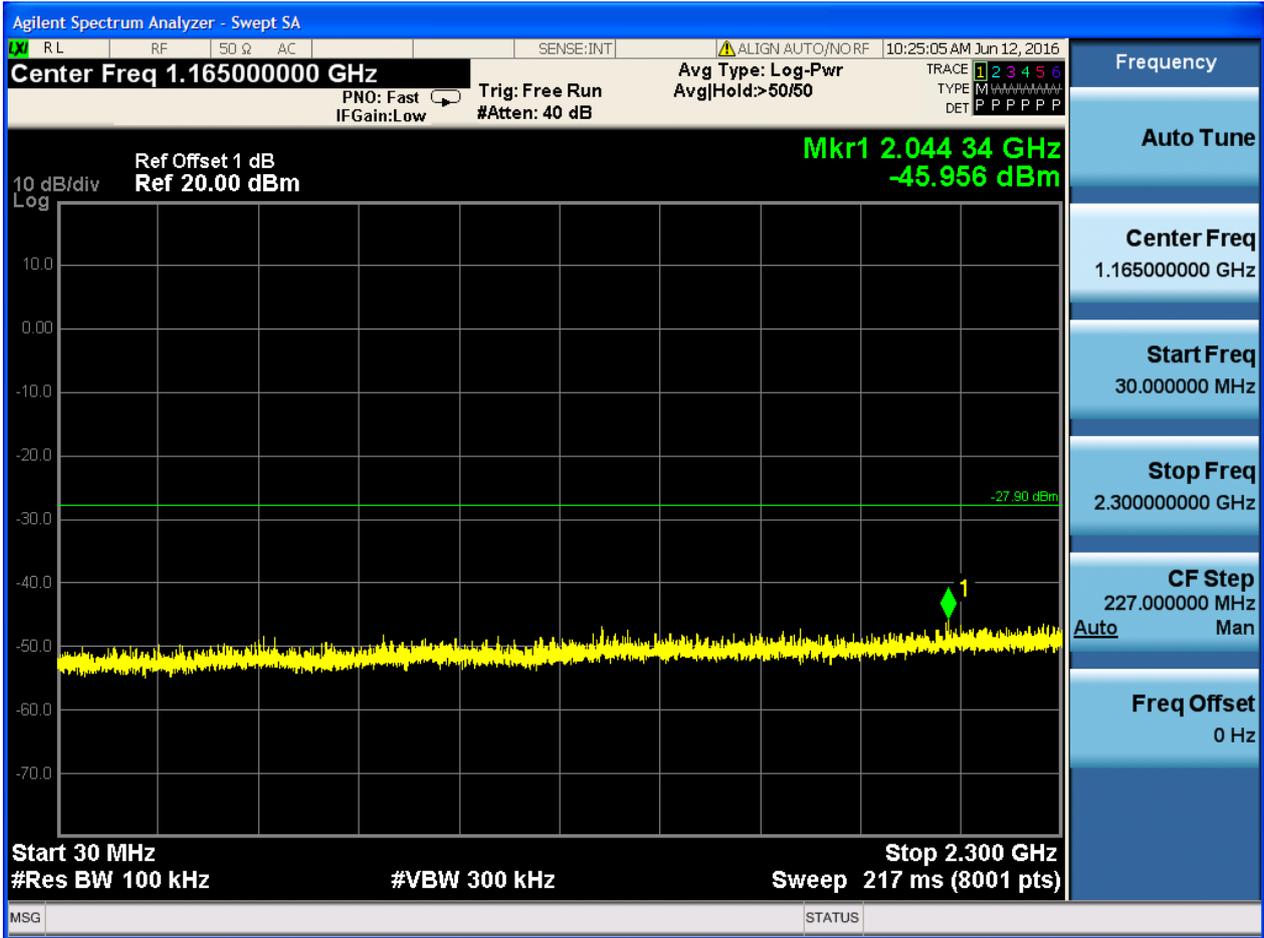
### 2.3 TM1\_Ch 19@Ant 1

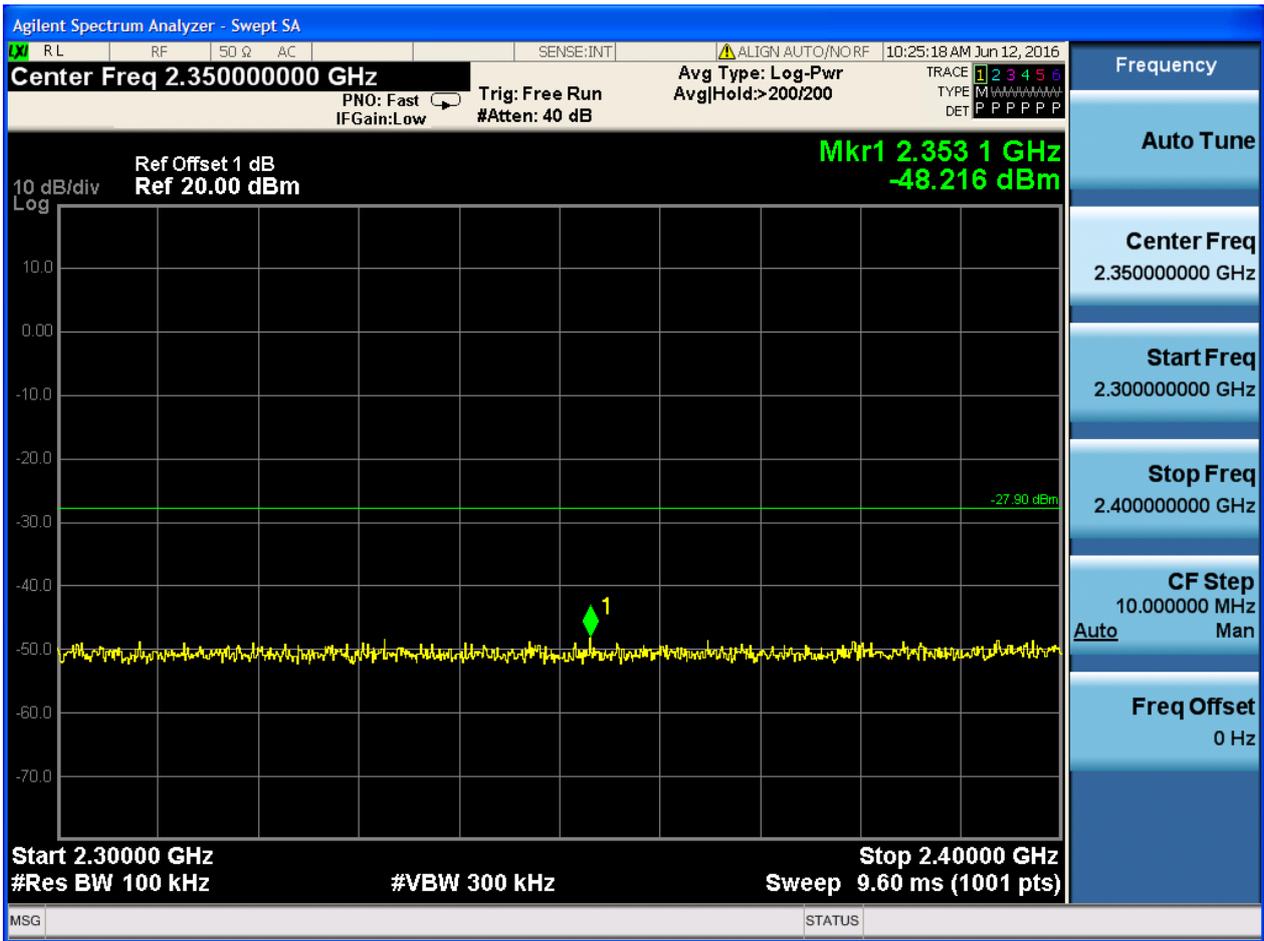
Pref:

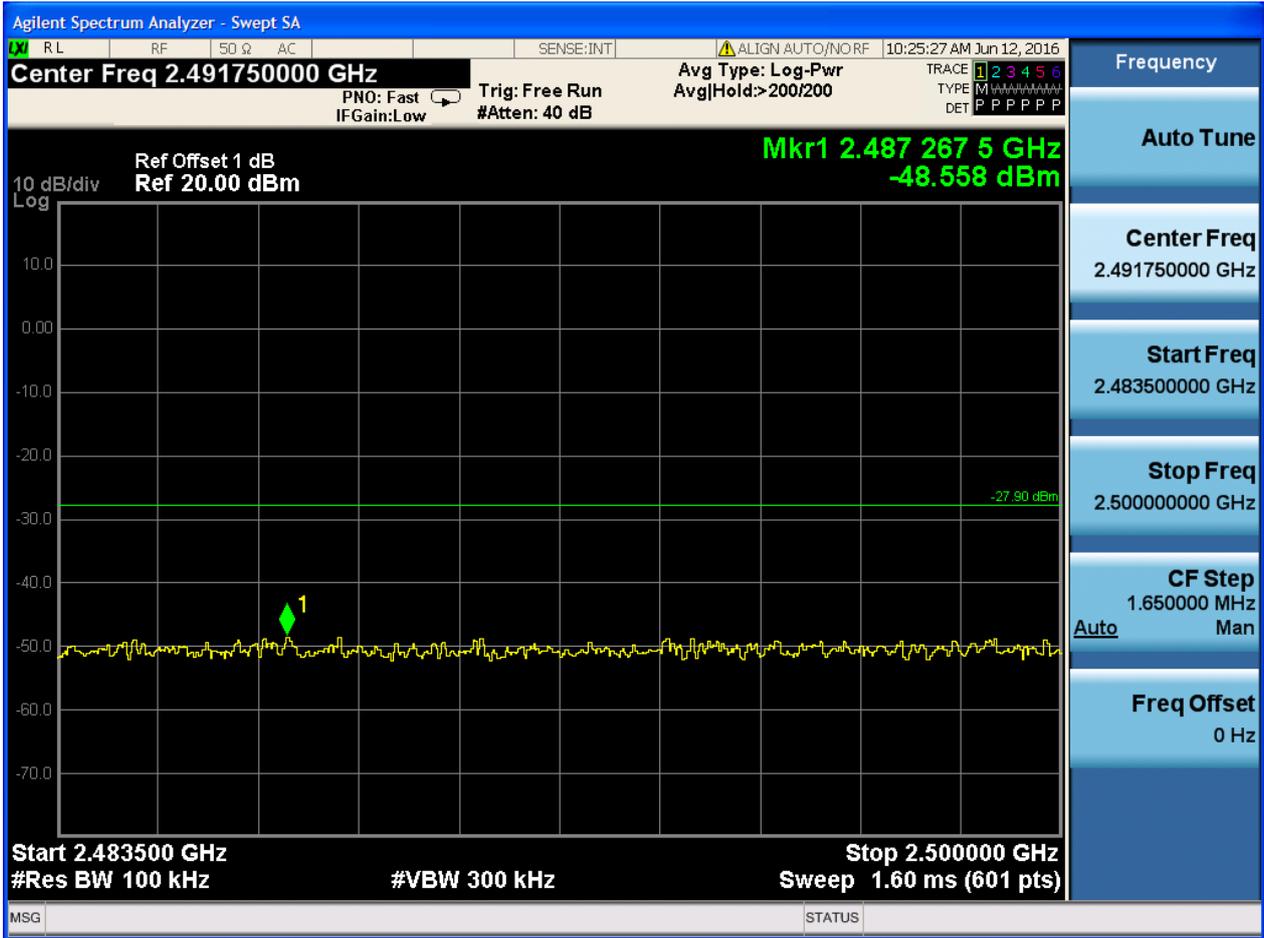


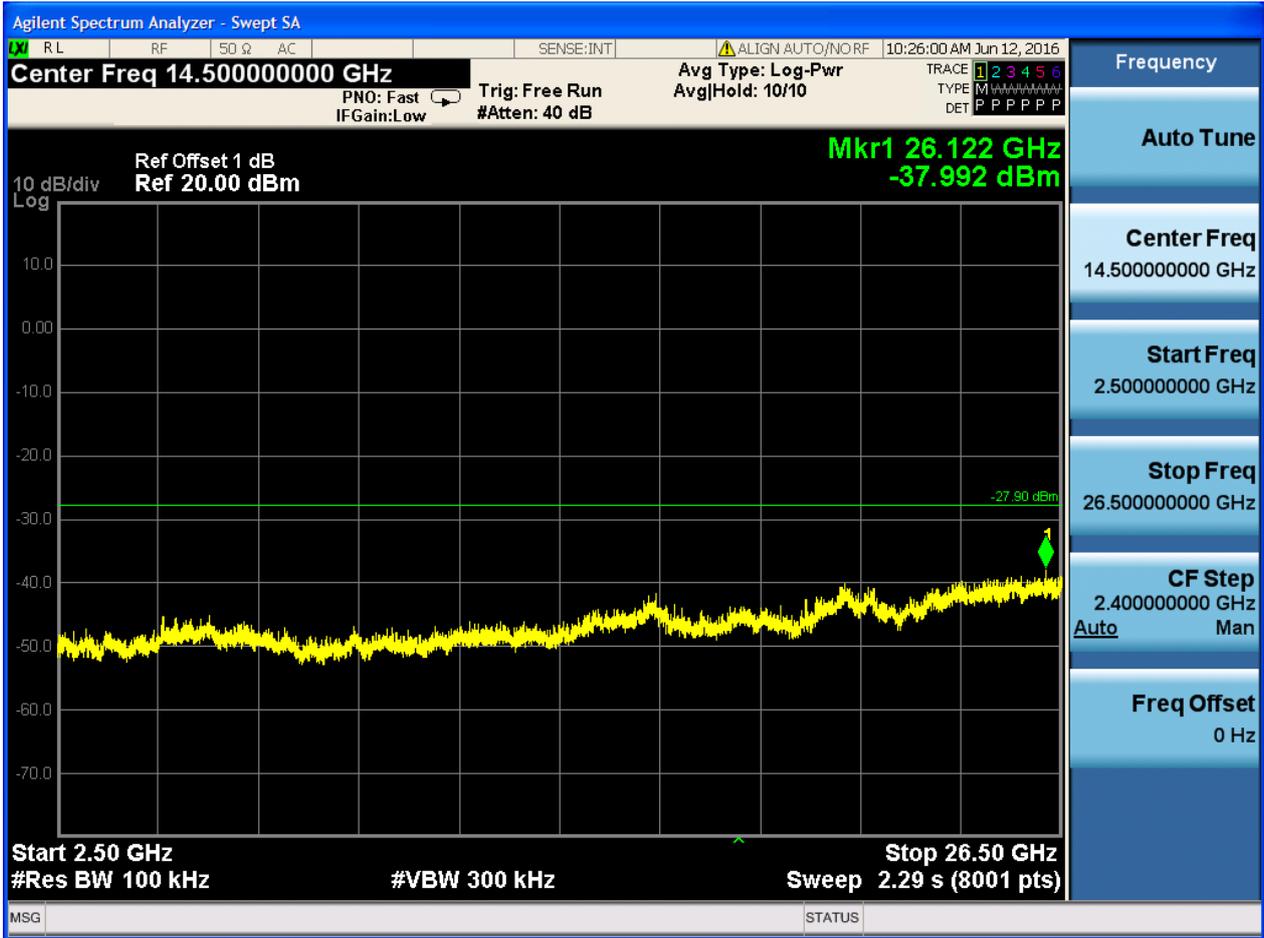














### 2.5 TM1\_Ch 39@Ant 1

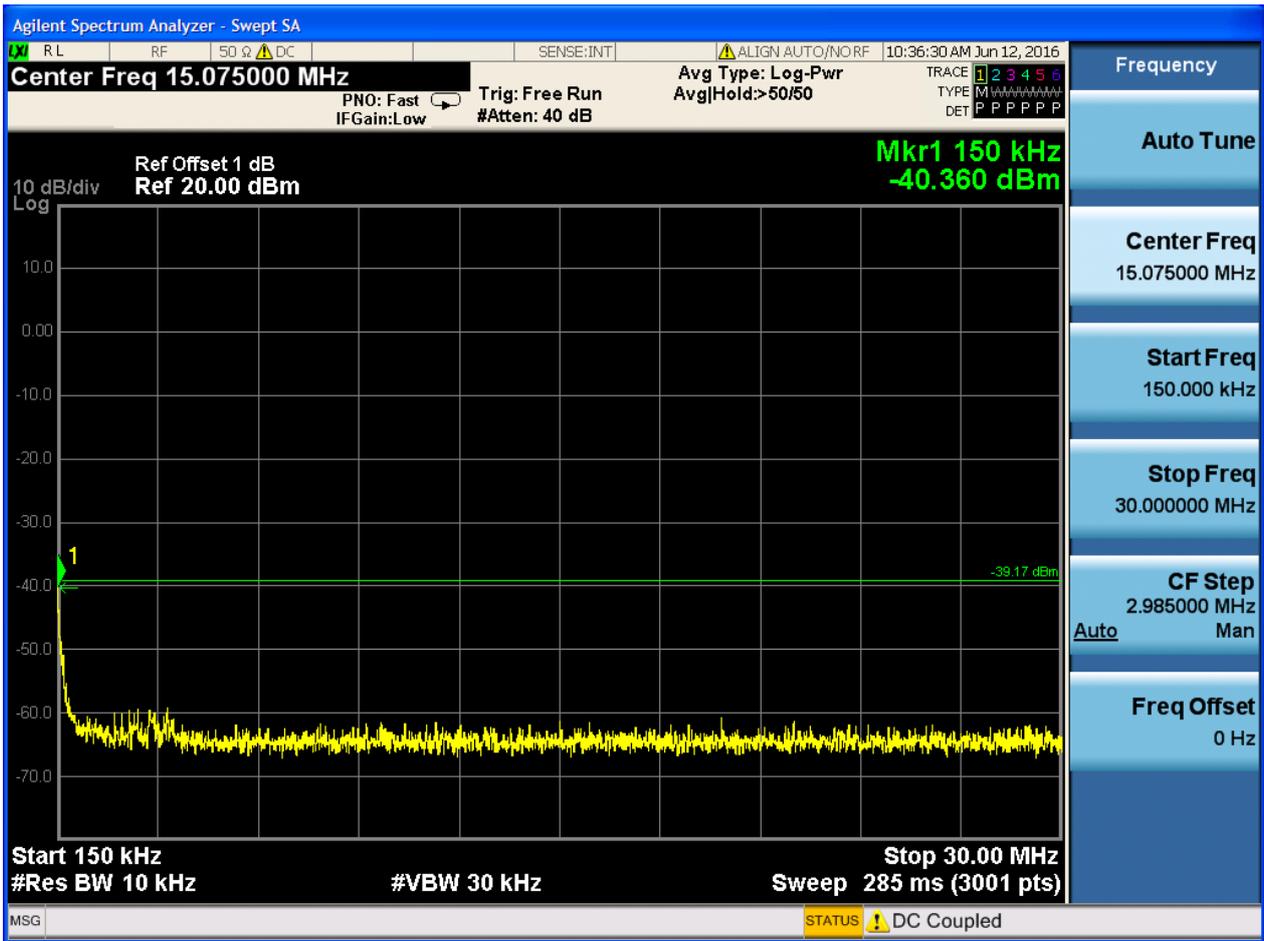
Pref:

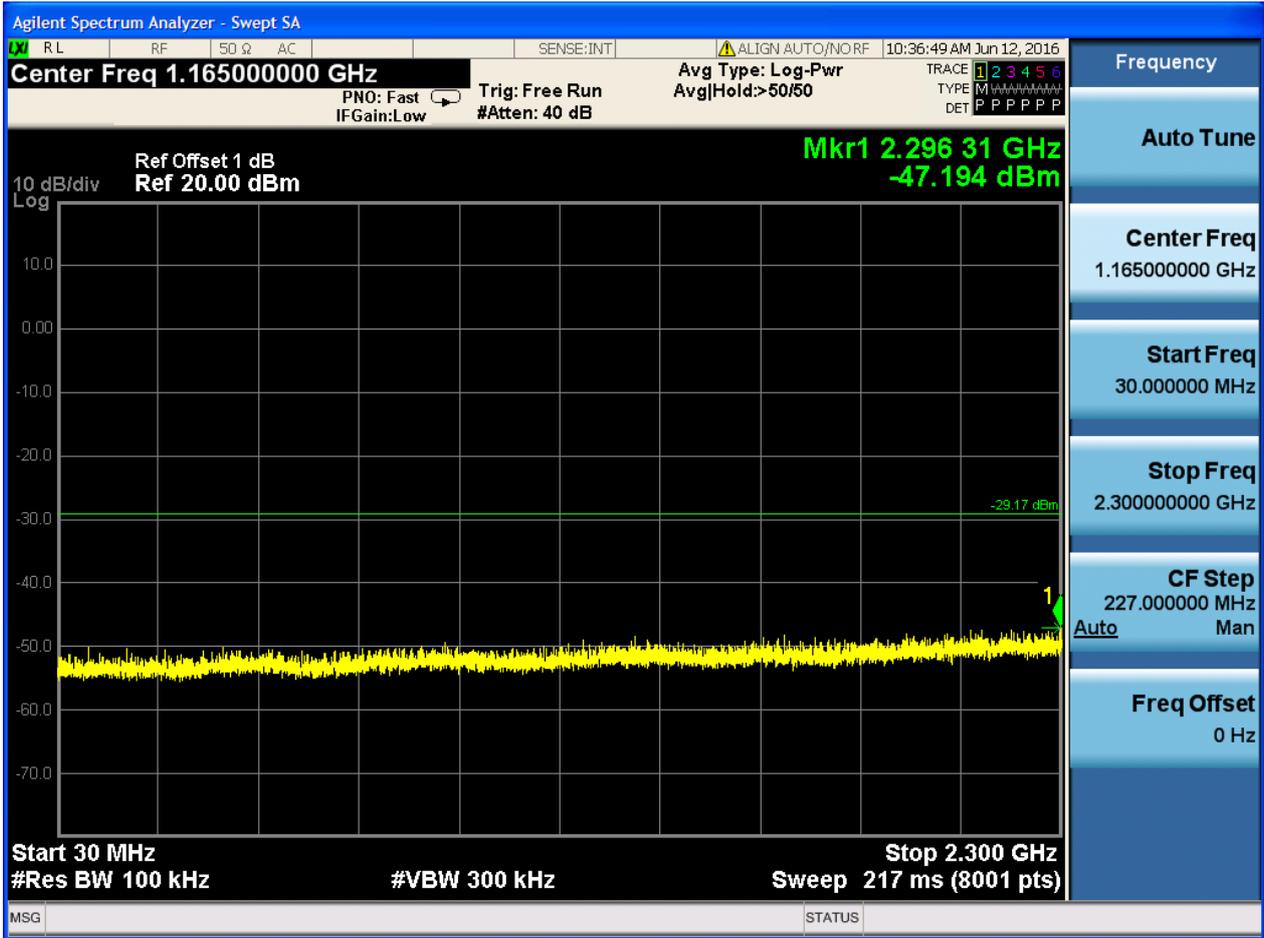


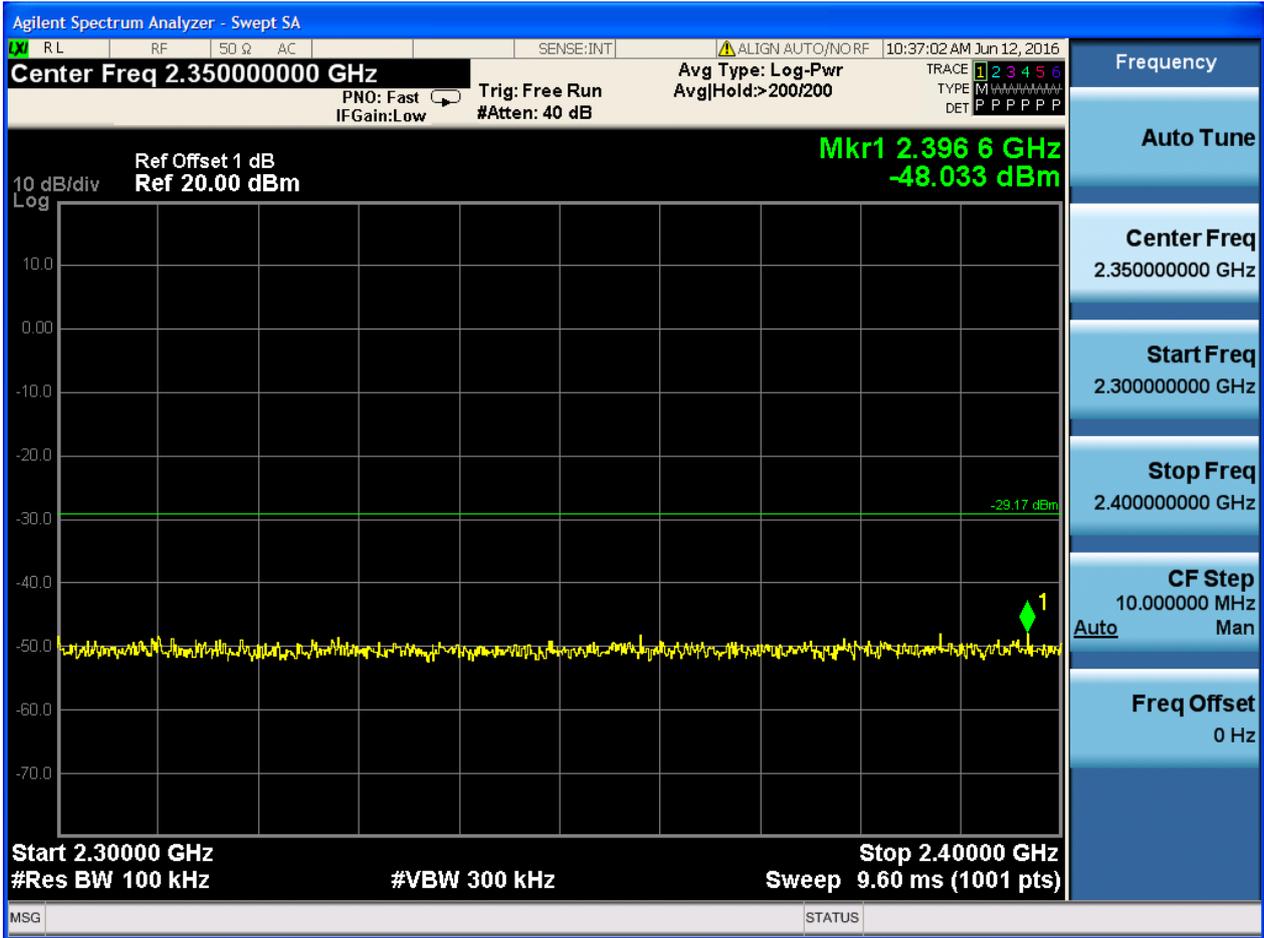


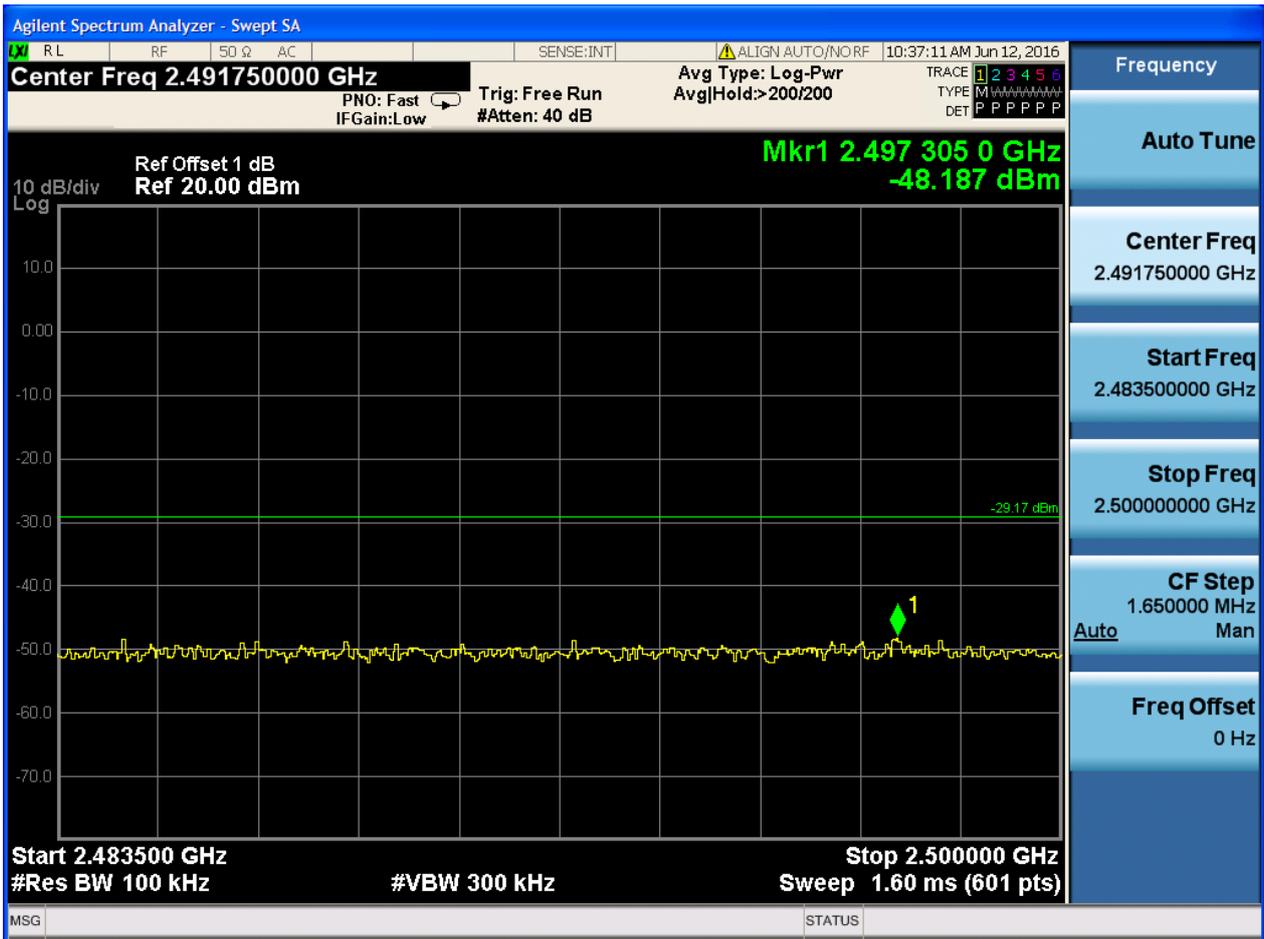
Puw:













## Appendix H: 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

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

### Part 1: Testing Range of “9 kHz to 30MHz”

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

### 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).





Frequency	Level	Limit	Margin	Height	Pol	Azimuth	Transd.
32.802050	23.73	40.00	-16.27	100.0	V	226.0	14.9
43.164150	29.18	40.00	-10.82	100.0	V	4.0	15.3
48.570950	32.80	40.00	-7.20	100.0	V	23.0	15.2
91.606700	22.79	43.50	-20.71	200.0	V	97.0	12.5
153.280600	27.25	43.50	-16.25	100.0	V	42.0	10.3
321.664400	24.06	46.00	-21.94	129.0	H	168.0	16.3

### Part 3: Testing Range of “18 GHz to 26.5 GHz”

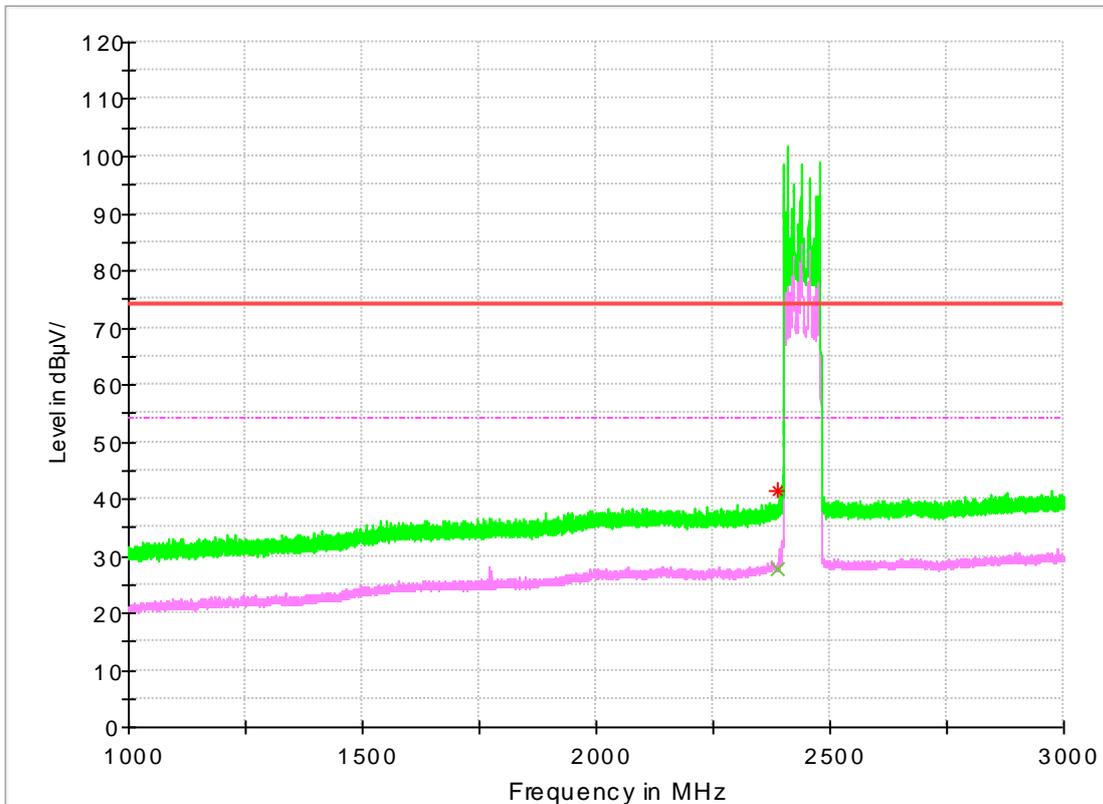
NOTE1: No peak found in the Test Range of “18 GHz to 26.5GHz”

**Part 4: 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 dB $\mu$ V/m) and Average Limit (54 dB $\mu$ V/m).
- Note 3: The peak spike exceeds the limit line is EUT’s operating frequency.

**Channel 0**

Full Spectrum



**MEASUREMENT RESULT: AV Detector**

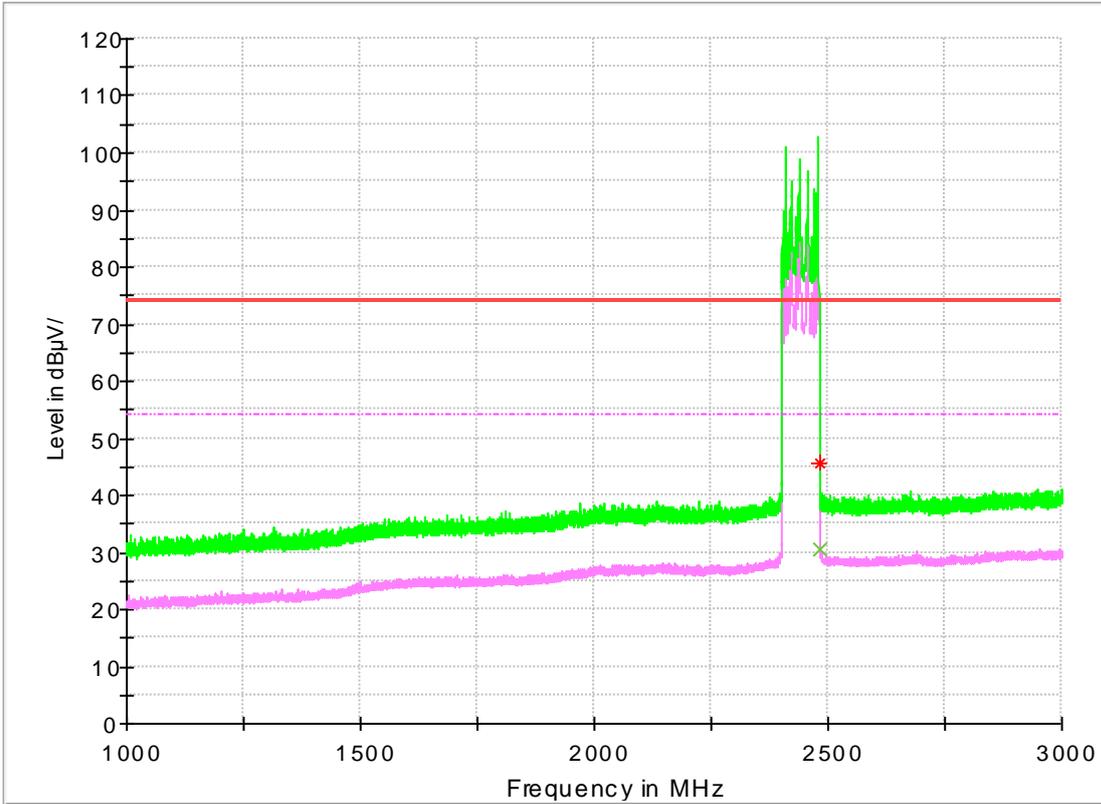
Frequency (MHz)	Level (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Transd. (dB)
2390.000000	27.73	54.00	-26.27	100.0	H	206.0	-7.6

**MEASUREMENT RESULT: PK Detector**

Frequency (MHz)	Level (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Transd. (dB)
2390.000000	41.42	74.00	-32.58	100.0	V	206.0	-7.6

**Channel 39**

Full Spectrum



**MEASUREMENT RESULT: AV Detector**

Frequency (MHz)	Level (dBµ V/m)	Limit (dBµ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Transd. (dB)
2483.500000	30.54	54.00	-23.46	150.0	H	195.0	-4.1

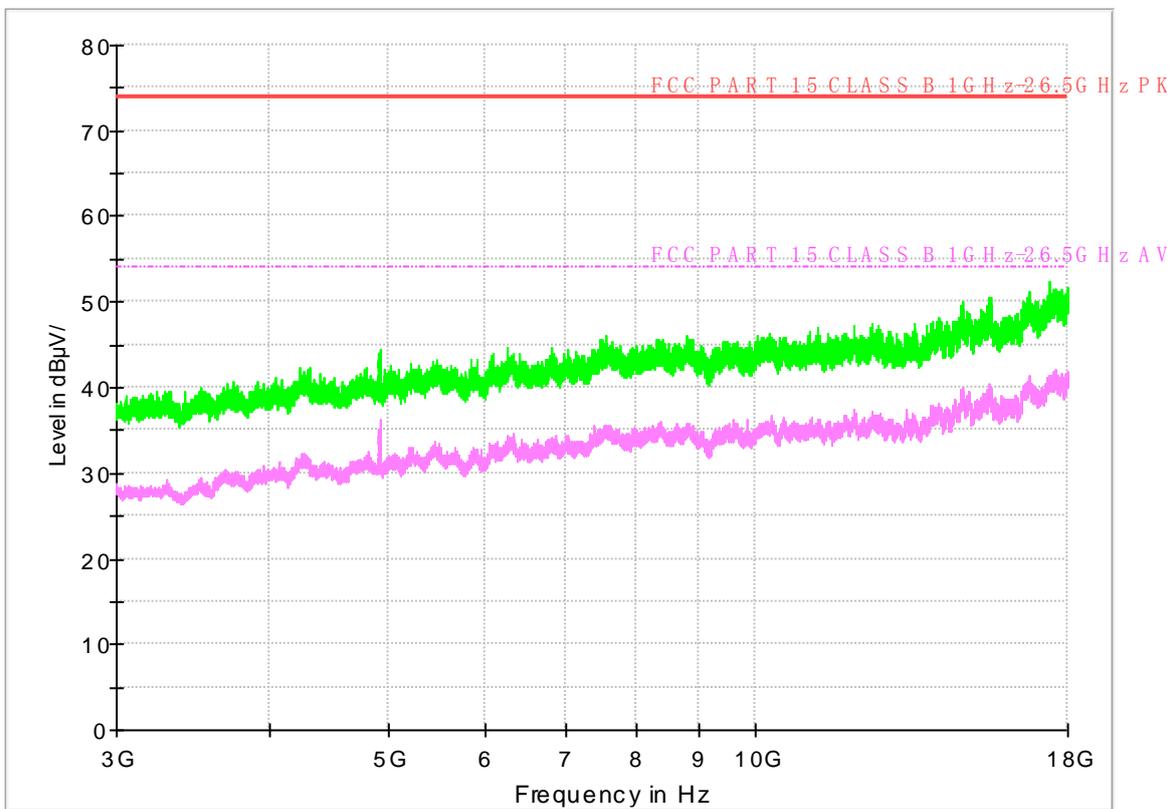
**MEASUREMENT RESULT: PK Detector**

Frequency (MHz)	Level (dBµ V/m)	Limit (dBµ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Transd. (dB)
2483.500000	45.49	74.00	-28.51	150.0	V	195.0	-4.3

### Part 5: Testing Range of “3 GHz to 18 GHz”

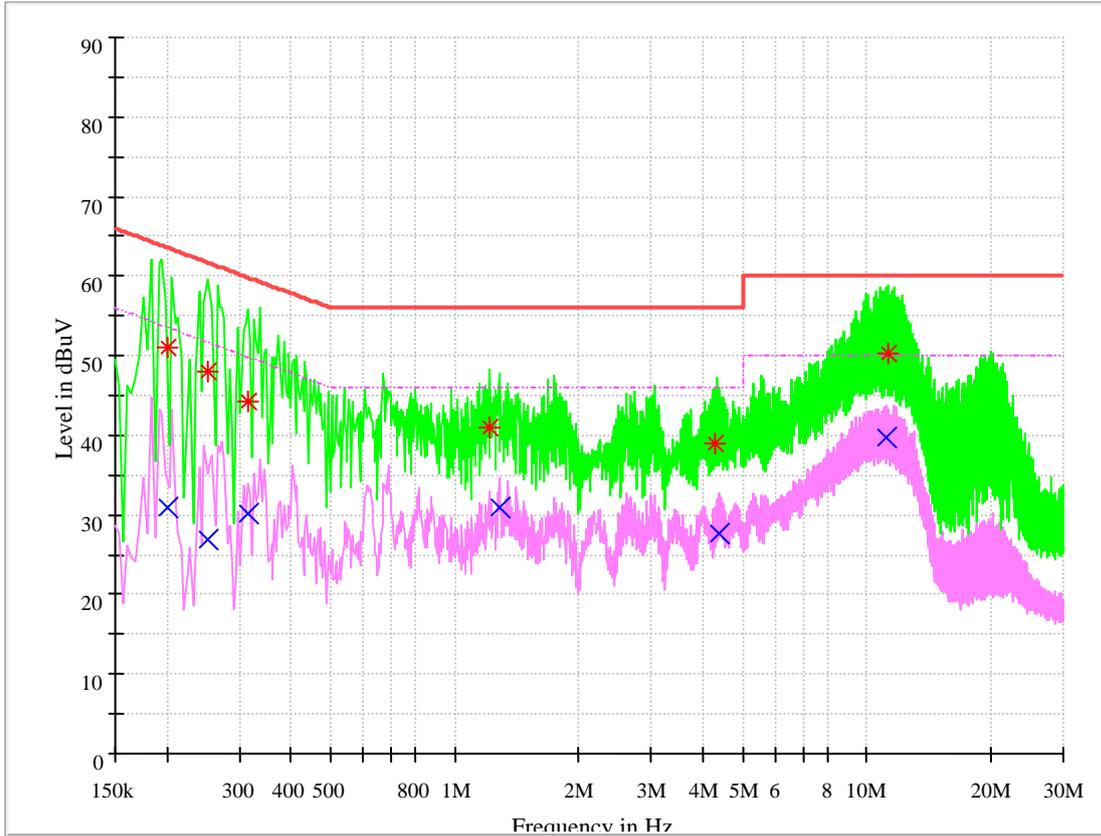
- Note 1: The test results and plot for testing range of “3 GHz to 18 GHz” showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.
- Note 2: The testing range of “3 GHz to 18 GHz” is for checking radiated emissions located 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 dB $\mu$ V/m) and Average Limit (54 dB $\mu$ V/m).

Full Spectrum



## Appendix I: Conducted Emission at Power Port

Note: RBW =9 kHz, VBW = 30 kHz



### MEASUREMENT RESULT: AV Detector

Frequency (MHz)	Level (dBμ V)	Limit (dBμ V)	Margin (dB)	Line	Transd. (dB)	PE
0.201722	30.91	53.54	-22.63	N	9.7	FLO
0.251278	26.83	51.72	-24.88	N	9.7	FLO
0.315738	30.23	49.82	-19.59	L1	9.7	FLO
1.286043	30.80	46.00	-15.20	N	9.7	FLO
4.368951	27.67	46.00	-18.33	N	9.8	FLO
11.134200	39.76	50.00	-10.24	N	10.0	FLO

**MEASUREMENT RESULT: PK Detector**

Frequency (MHz)	Level (dB $\mu$ V)	Limit (dB $\mu$ V)	Margin (dB)	Line	Transd. (dB)	PE
0.201640	50.98	63.54	-12.56	N	9.7	FLO
0.251817	48.12	61.70	-13.57	N	9.7	FLO
0.314496	44.27	59.85	-15.58	N	9.7	FLO
1.212260	41.10	56.00	-14.90	N	9.7	FLO
4.288324	39.04	56.00	-16.96	N	9.8	FLO
11.302469	50.19	60.00	-9.81	N	10.0	FLO

END