

RESULT PLOTS

AC Line Conducted Emissions (Graph)

Test mode 9(TM 9) & Middle

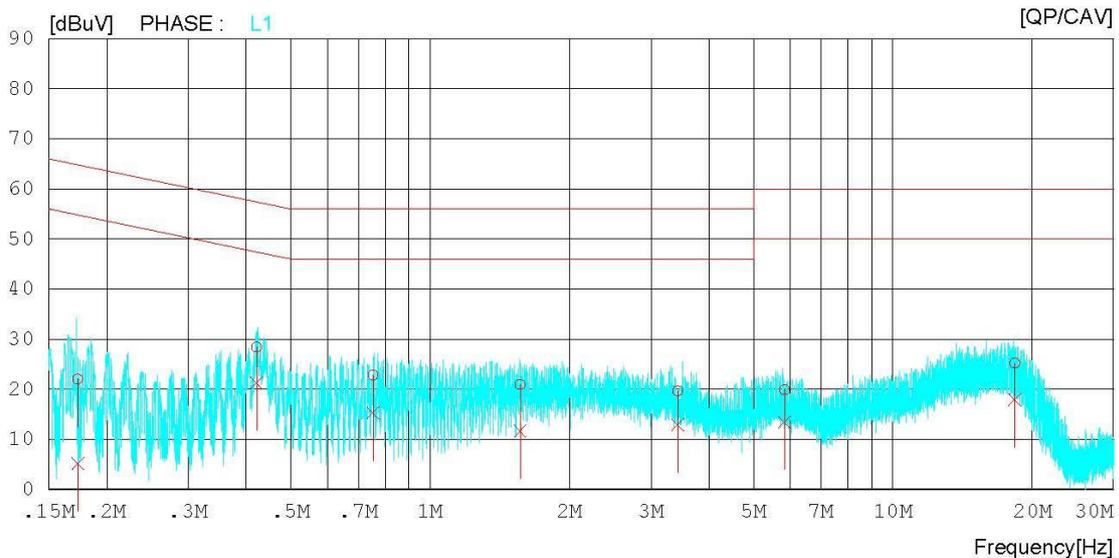
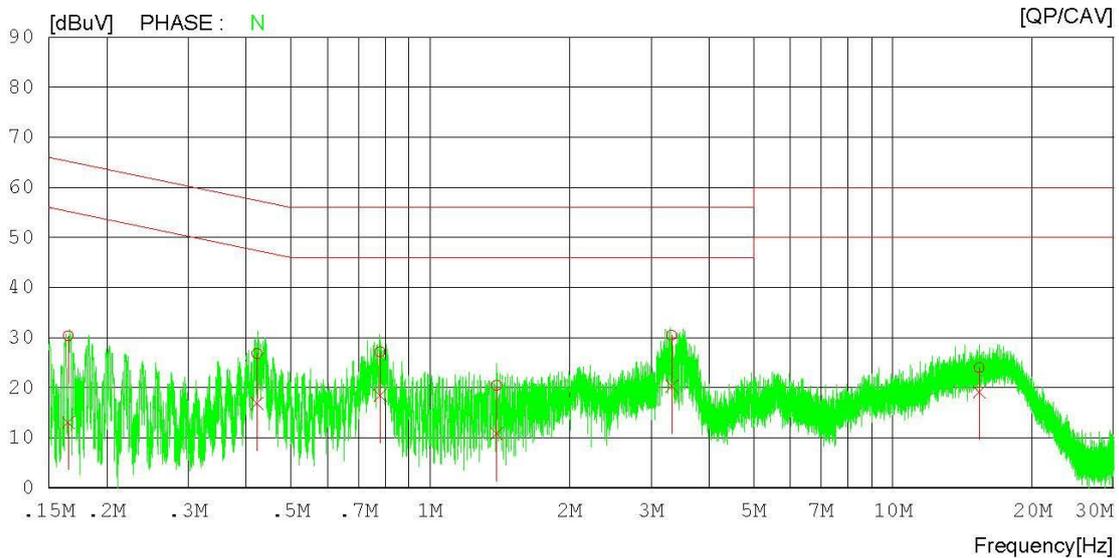
AC Line Conducted Emission

DT&C

Date 2017-09-05

Model QVR  
Power Supply 120 V 60Hz  
Temp/Humi/Atm 22 'C 40 %  
Test Condition WLAN(2.4GHz)  
Note 802.11n(SDM)/2437MHz

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



**AC Line Conducted Emissions (List)**

Test mode 9(TM 9) & Middle

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

NO	FREQ [MHz]	READING		C.FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	CAV [dBuV]		QP [dBuV]	CAV [dBuV]	QP [dBuV]	CAV [dBuV]			
1	0.16518	30.25	13.04	0.08	30.33	13.12	65.20	55.20	34.87	42.08	N
2	0.42261	26.78	16.81	0.08	26.86	16.89	57.40	47.40	30.54	30.51	N
3	0.77892	27.10	18.41	0.09	27.19	18.50	56.00	46.00	28.81	27.50	N
4	1.39180	20.37	10.73	0.11	20.48	10.84	56.00	46.00	35.52	35.16	N
5	3.33080	30.29	20.11	0.17	30.46	20.28	56.00	46.00	25.54	25.72	N
6	15.39640	23.63	18.82	0.35	23.98	19.17	60.00	50.00	36.02	30.83	N
7	0.17316	21.90	5.05	0.07	21.97	5.12	64.81	54.81	42.84	49.69	L1
8	0.42155	28.31	21.20	0.07	28.38	21.27	57.42	47.42	29.04	26.15	L1
9	0.75262	22.72	15.17	0.09	22.81	15.26	56.00	46.00	33.19	30.74	L1
10	1.56520	20.71	11.50	0.12	20.83	11.62	56.00	46.00	35.17	34.38	L1
11	3.42840	19.46	12.65	0.16	19.62	12.81	56.00	46.00	36.38	33.19	L1
12	5.83480	19.66	13.22	0.18	19.84	13.40	60.00	50.00	40.16	36.60	L1
13	18.34240	24.80	17.52	0.33	25.13	17.85	60.00	50.00	34.87	32.15	L1

## 9. LIST OF TEST EQUIPMENT

Type	Manufacturer	Model	Cal.Date (yy/mm/dd)	Next.Cal.Date (yy/mm/dd)	S/N
Spectrum Analyzer	Agilent Technologies	N9020A	17/07/12	18/07/12	MY46471601
Spectrum Analyzer	Agilent Technologies	N9020A	16/10/11	17/10/11	MY46471251
Multimeter	FLUKE	17B	17/04/12	18/04/12	26030065WS
DC Power Supply	Agilent	66332A	17/01/11	18/01/11	US37473831
Signal Generator	Rohde Schwarz	SMBV100A	17/01/04	18/01/04	255571
Signal Generator	Rohde Schwarz	SMF100A	17/04/21	18/04/21	102341
Thermohygrometer	BODYCOM	BJ5478	17/04/11	18/04/11	120612-2
50W 10dB ATT	SMAJK	SMAJK-50-10	16/10/18	17/10/18	2-50-10
Loop Antenna	Schwarzbeck	FMZB1513	16/04/22	18/04/22	1513-128
BILOG ANTENNA	Schwarzbeck	VULB 9160	16/05/13	18/05/13	3358
Horn Antenna	ETS-LINDGREN	3117	16/05/03	18/05/03	00140394
Horn Antenna	A.H.Systems Inc.	SAS-574	17/07/31	19/07/31	155
PreAmplifier	Agilent	8449B	17/01/11	18/01/11	3008A00370
PreAmplifier	TSJ	MLA-010K01- B01-27	17/03/06	18/03/06	1844539
EMI Test Receiver	Rohde Schwarz	ESR7	17/02/16	18/02/16	101061
High-pass filter	Wainwright	WHKX12-2580- 3000-18000- 80SS	16/09/09 17/09/05	17/09/09 18/09/05	3
High-pass filter	Wainwright	WHNX6-6320- 8000-26500- 40CC	16/09/13 17/09/05	17/09/13 18/09/05	1
Power Meter & Wide Bandwidth Sensor	Anritsu	ML2496A MA2411B	17/04/11	18/04/11	1338004 1306053
EMI Test Receiver	R&S	ESCI	17/02/26	18/02/16	100364
SINGLE-PHASE MASTER	NF	4420	17/09/01	18/09/01	3049354420023
LISN	SCHWARZBECK	NNLK 8121	17/04/03	18/04/03	6182

Note: The measurement antennas were calibrated in accordance to the requirements of ANSI C63.5-2006.

# APPENDIX I

## Duty cycle plots

### • Test Procedure

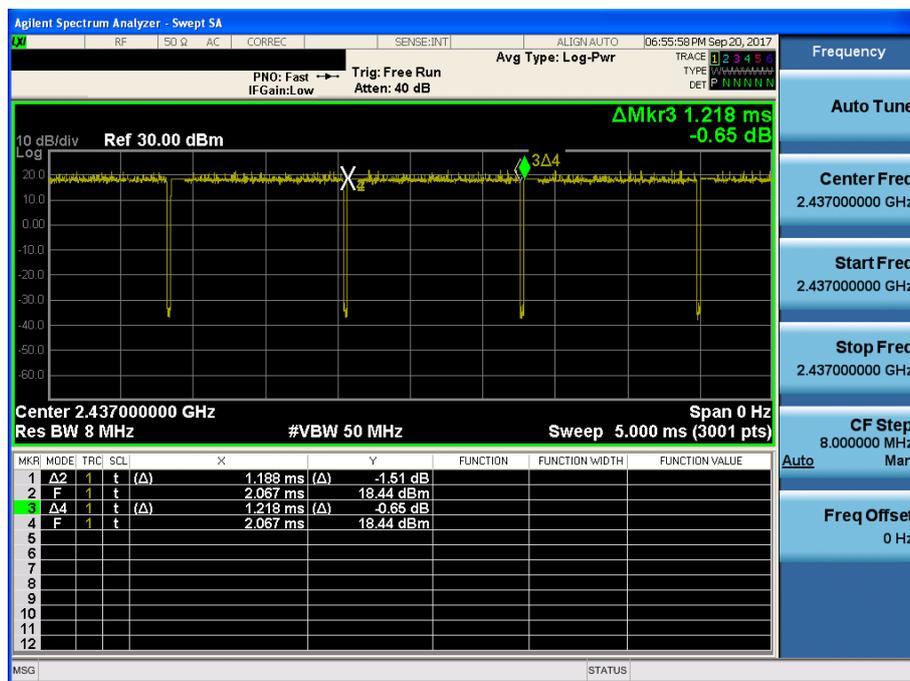
Duty Cycle was measured using **section 6.0 b) of KDB558074 D01V04** :

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  $RBW \geq OBW$  if possible; otherwise, set RBW to the largest available value. Set  $VBW \geq RBW$ . 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  $T \leq 16.7$  microseconds.)

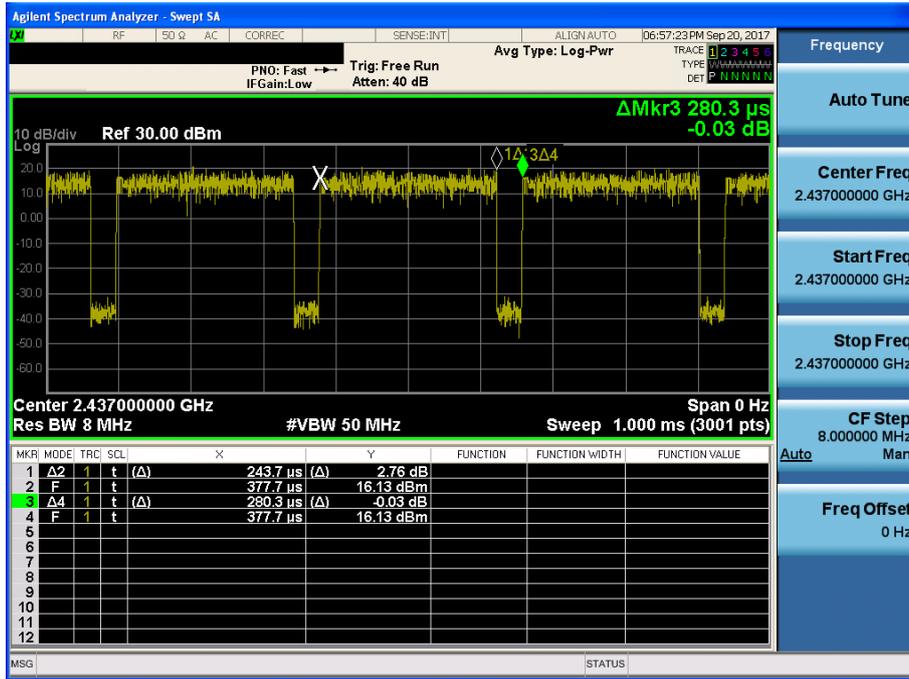
### Duty Cycle

TM 5 & ANT 1 & Middle



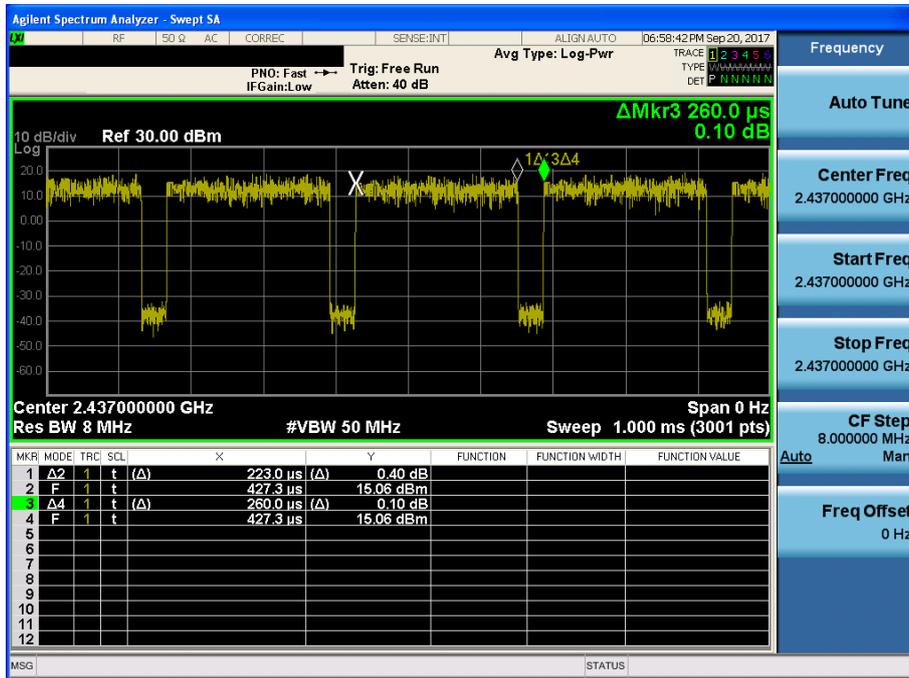
Duty Cycle

TM 6 & ANT 1 & Middle



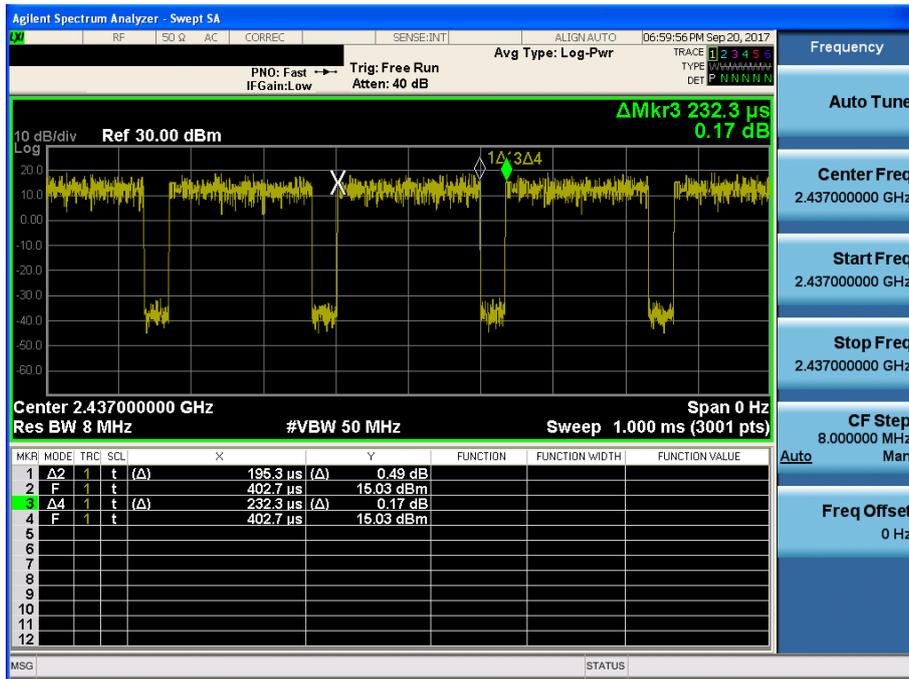
Duty Cycle

TM 7 & ANT 1 & Middle



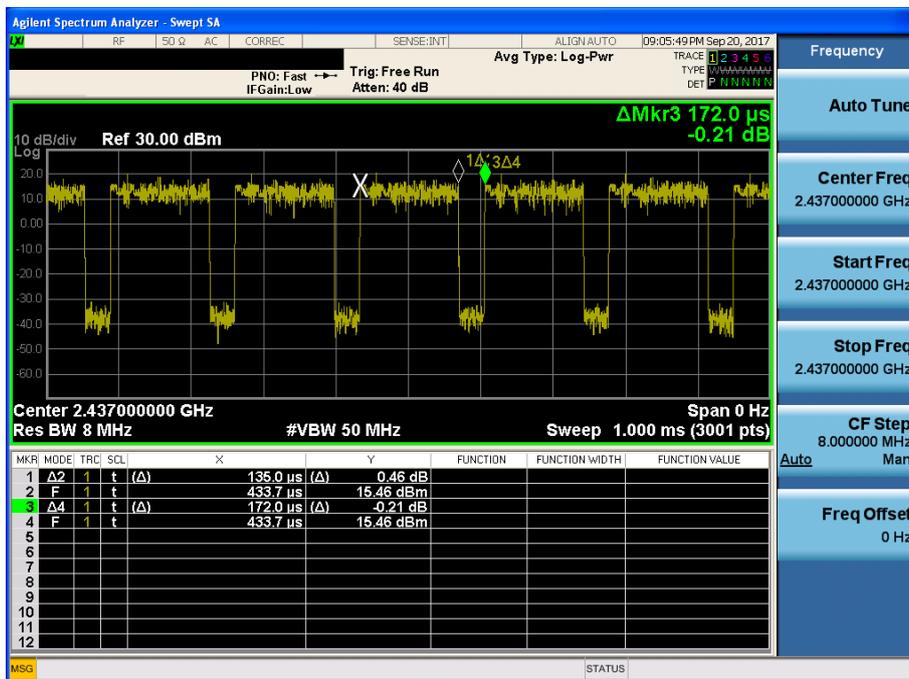
Duty Cycle

TM 8 & ANT 1 & Middle



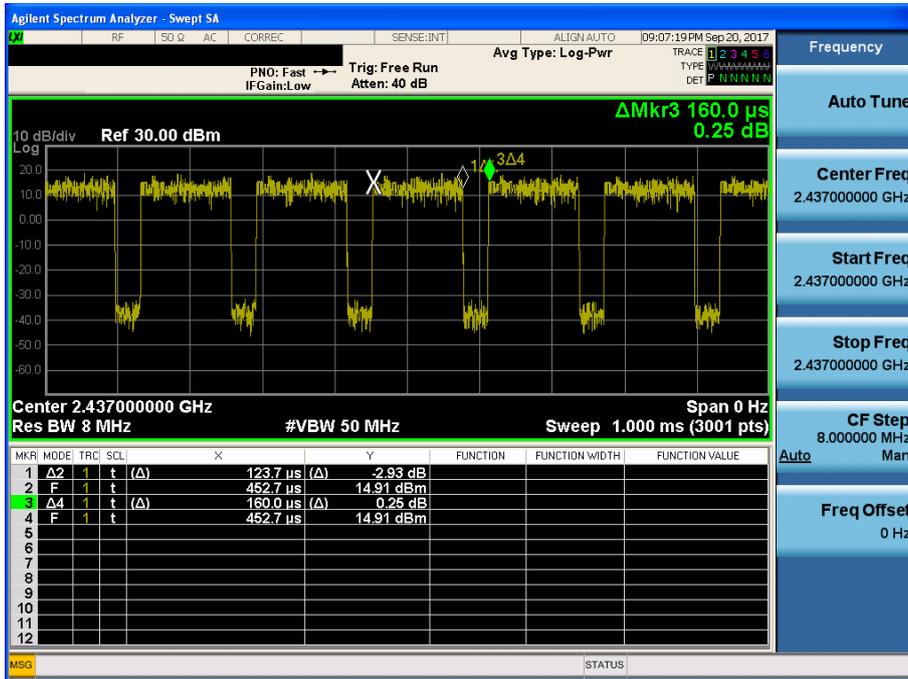
Duty Cycle

TM 9 & ANT 1 & Middle



Duty Cycle

TM 10 & ANT 1 & Middle

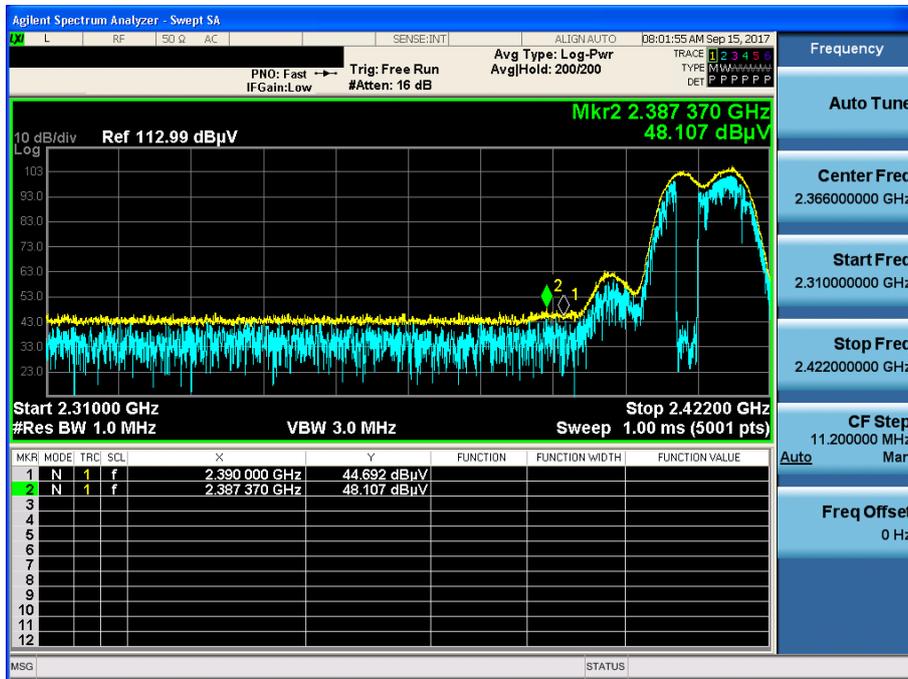


APPENDIX I

Unwanted Emissions (Radiated) Test Plot \_ Normal

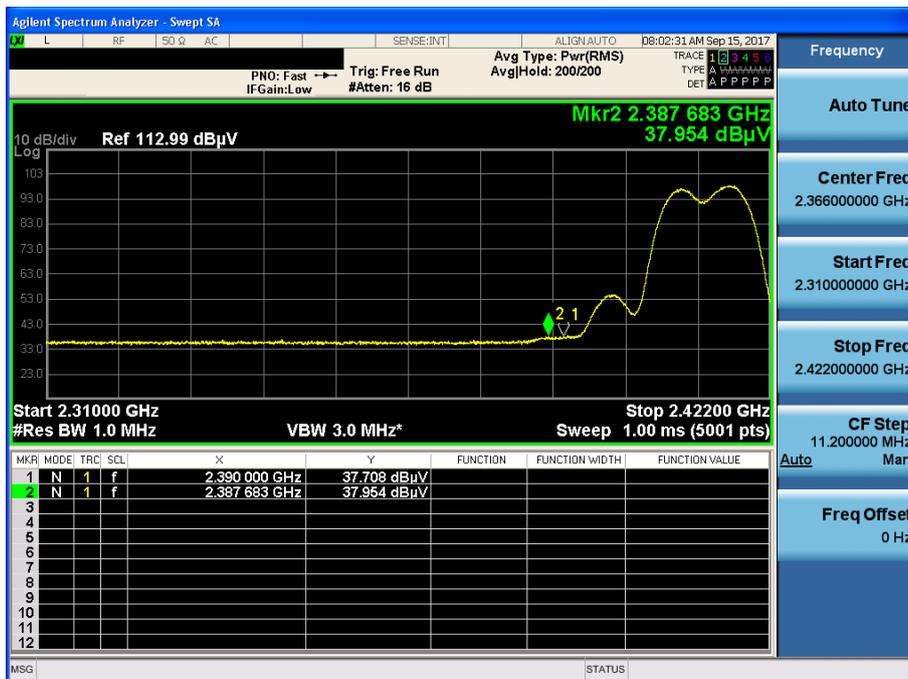
TM 5 & Lowest & Y axis & Hor

Detector Mode : PK



TM 5 & Lowest & Y axis & Hor

Detector Mode : AV



TM 5 & Highest & Y axis & Hor

Detector Mode : PK



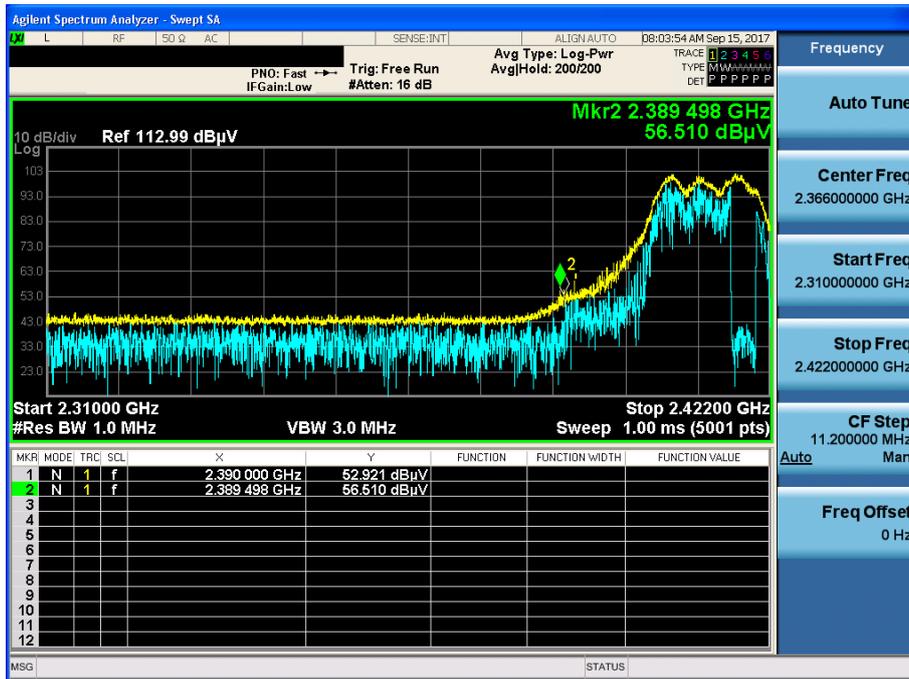
TM 5 & Highest & Y axis & Hor

Detector Mode : AV



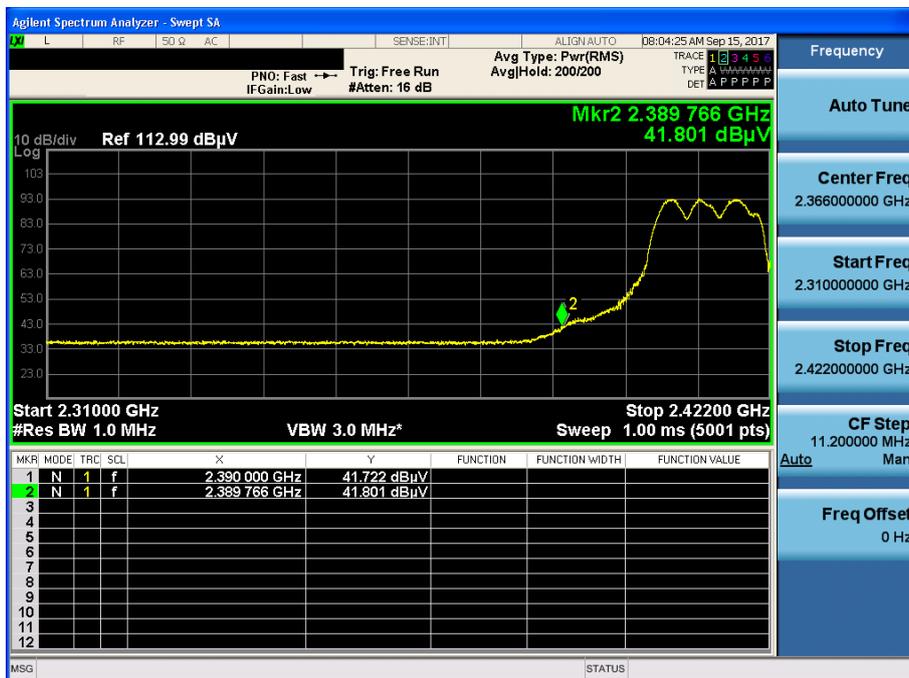
TM 6 & Lowest & Y axis & Hor

Detector Mode : PK



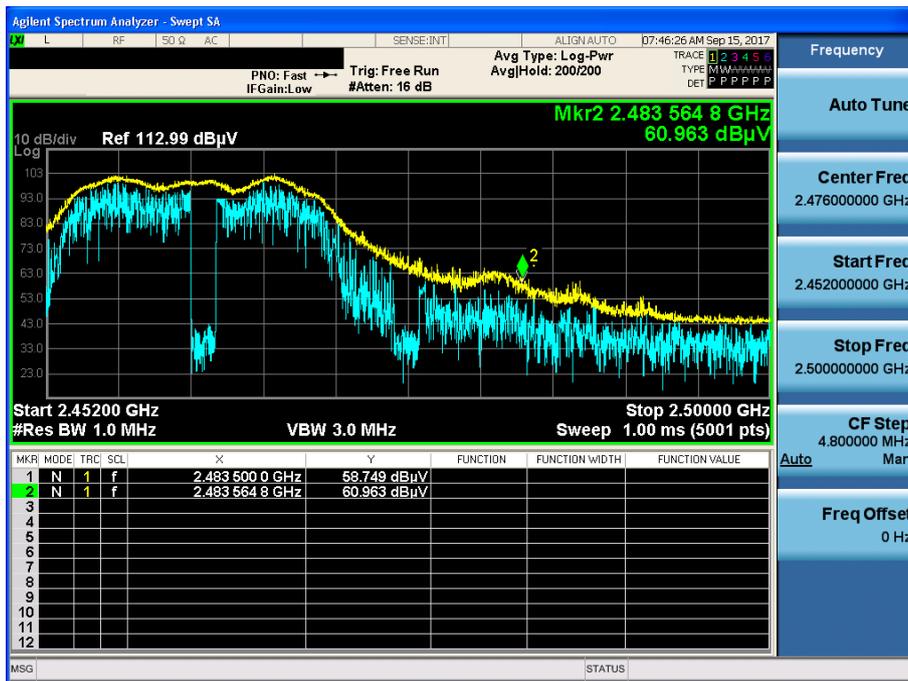
TM 6 & Lowest & Y axis & Hor

Detector Mode : AV



TM 6 & Highest & Y axis & Hor

Detector Mode : PK



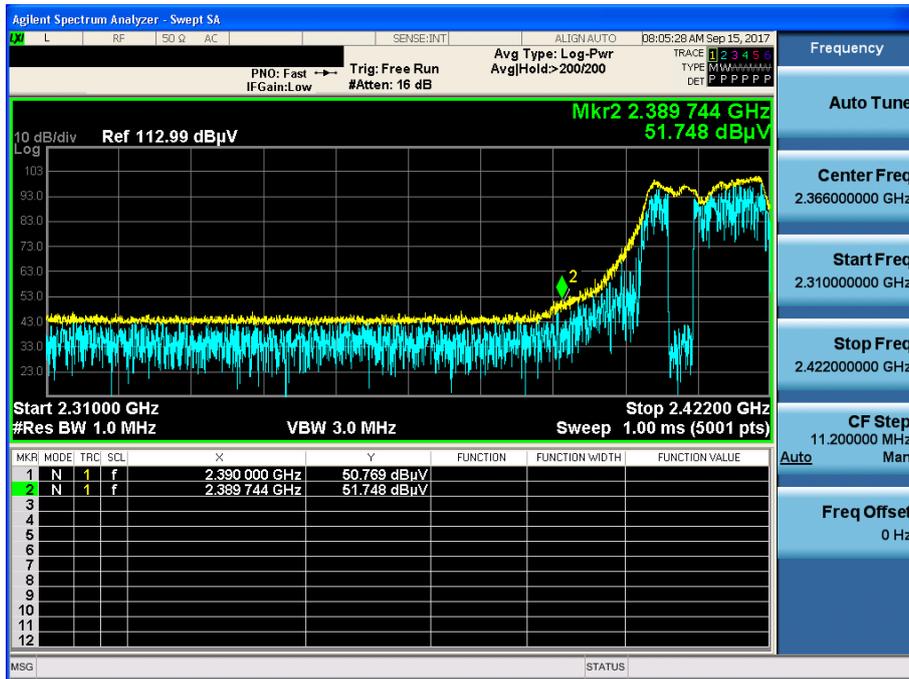
TM 6 & Highest & Y axis & Hor

Detector Mode : AV



TM 7 & Lowest & Y axis & Hor

Detector Mode : PK



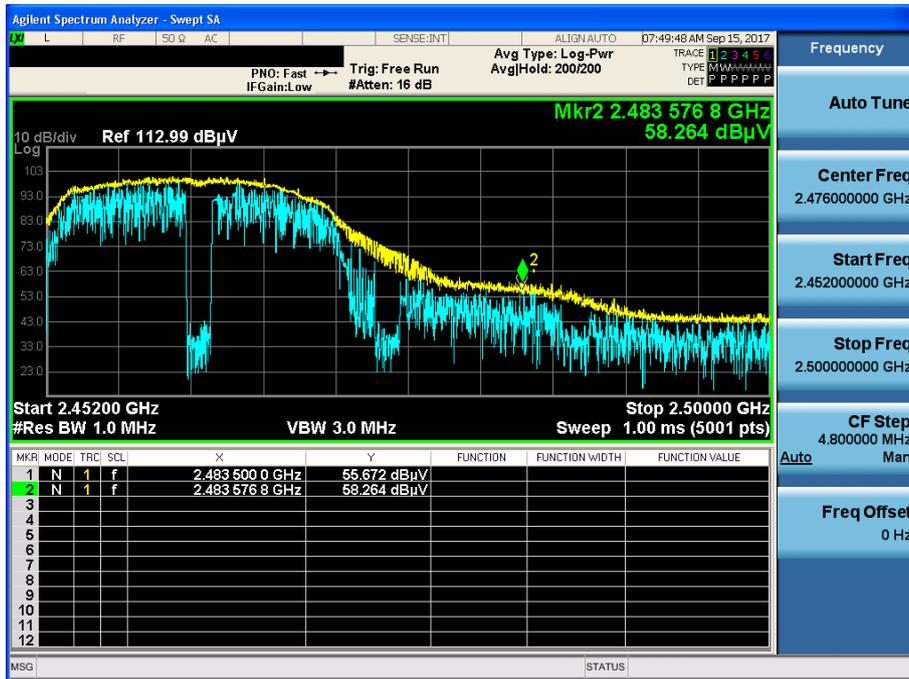
TM 7 & Lowest & Y axis & Hor

Detector Mode : AV



TM 7 & Highest & Y axis & Hor

Detector Mode : PK



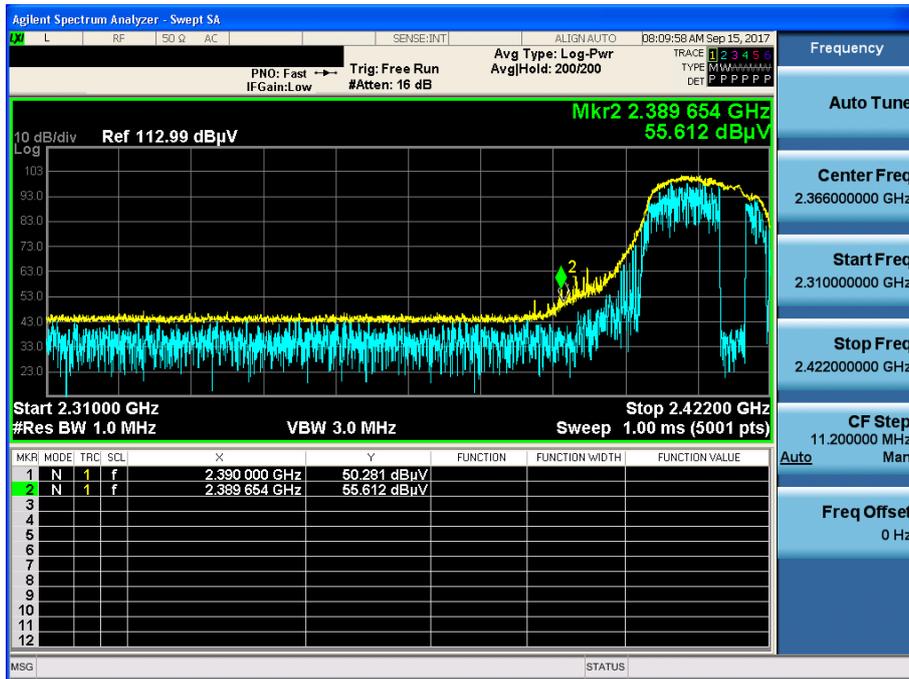
TM 7 & Highest & Y axis & Hor

Detector Mode : AV



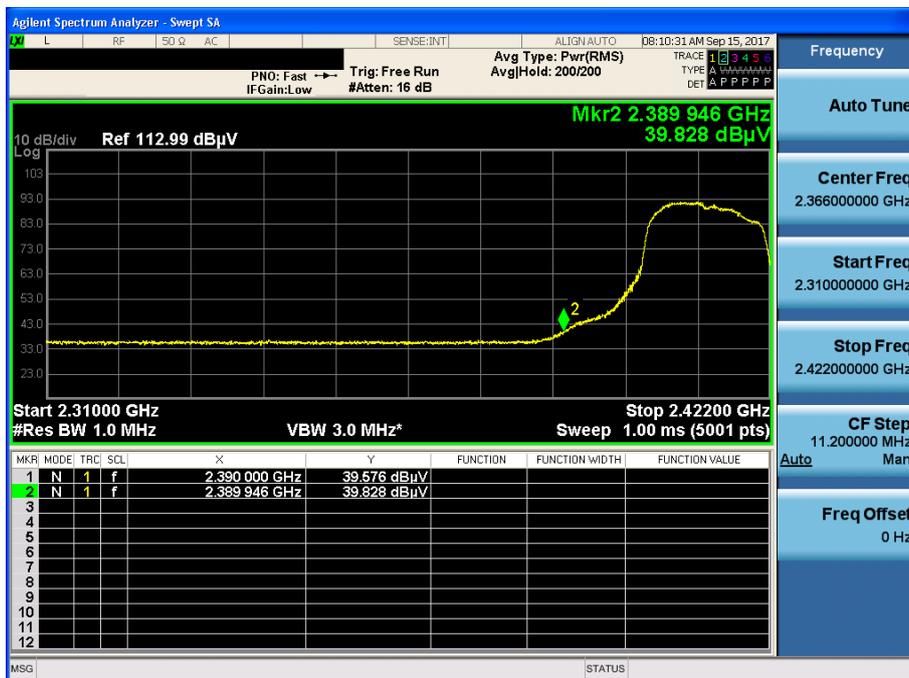
TM 8 & Lowest & Y axis & Hor

Detector Mode : PK



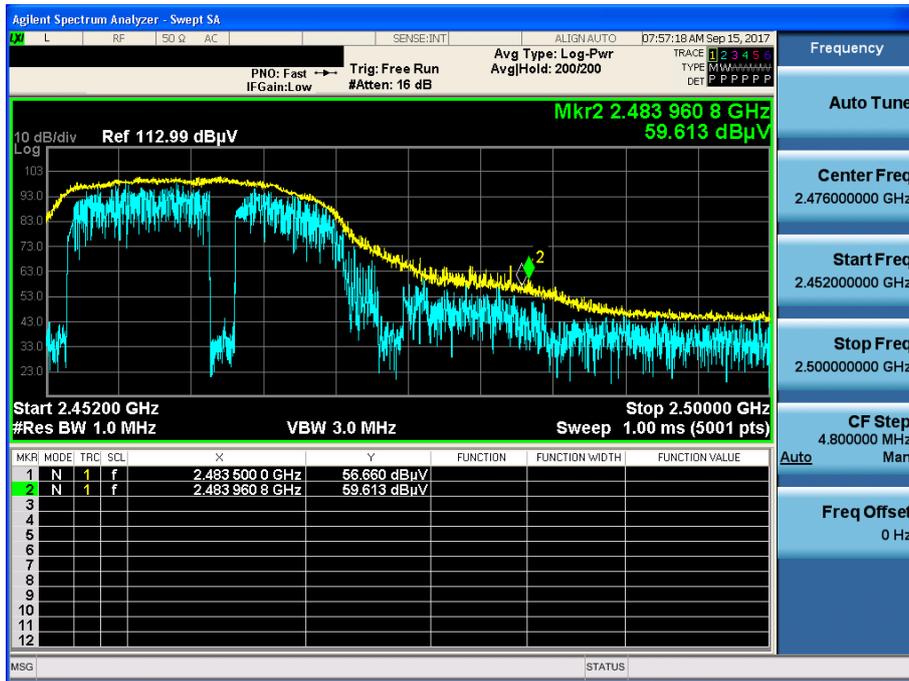
TM 8 & Lowest & Y axis & Hor

Detector Mode : AV



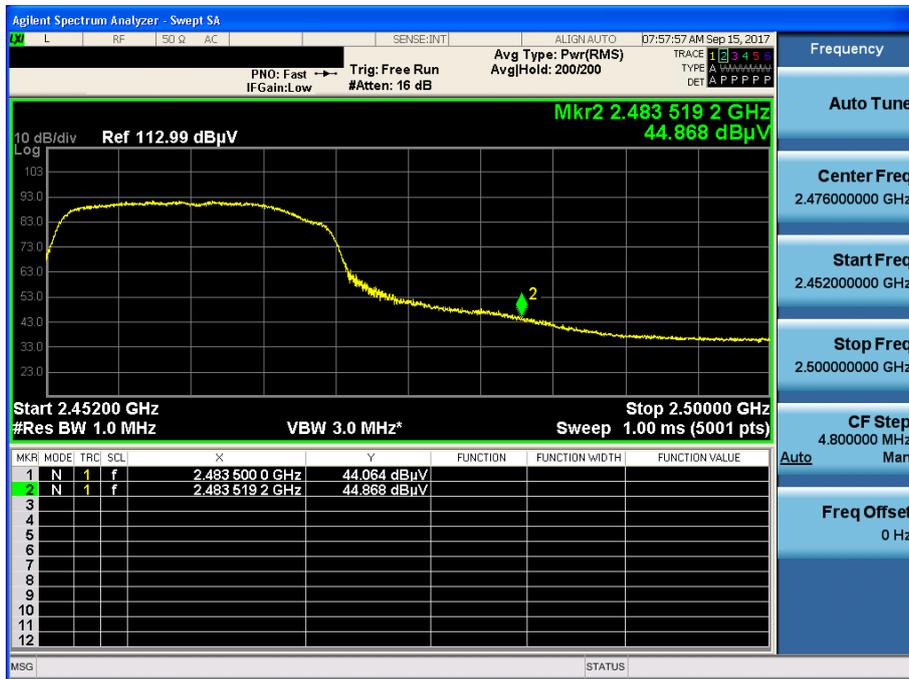
TM 8 & Highest & Y axis & Hor

Detector Mode : PK



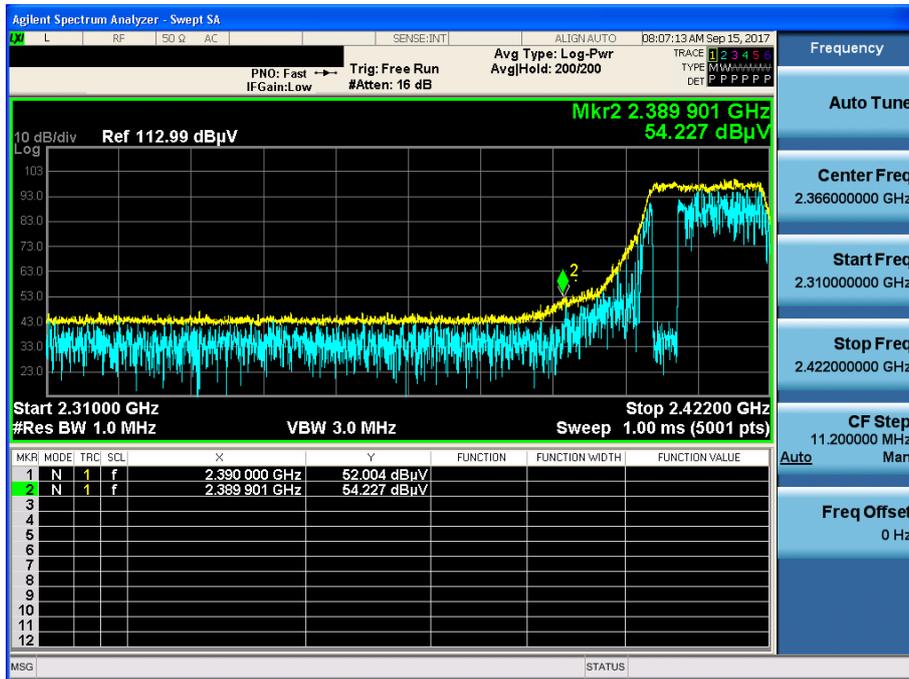
TM 8 & Highest & Y axis & Hor

Detector Mode : AV



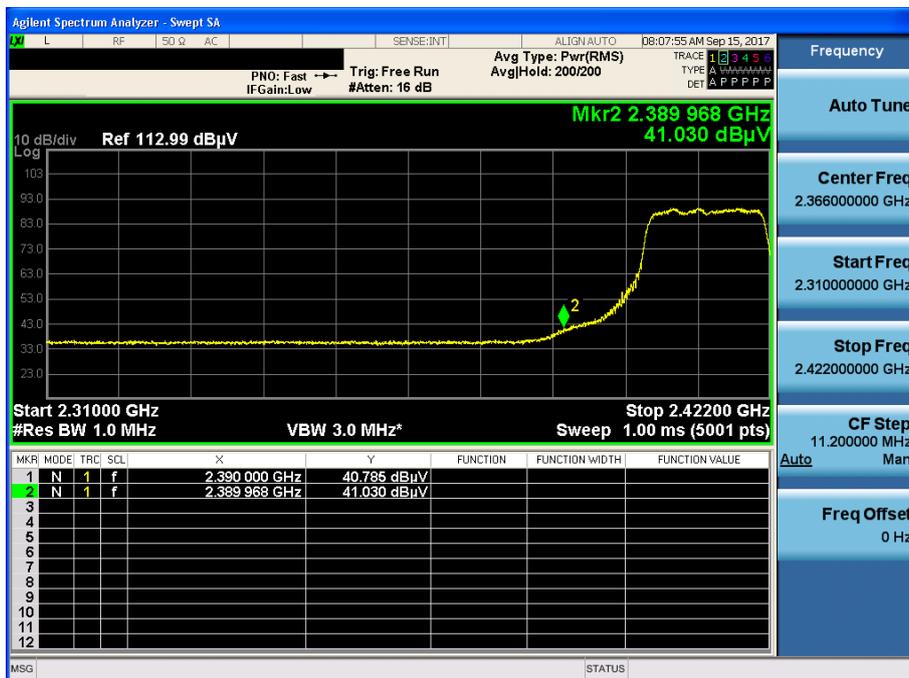
TM 9 & Lowest & Y axis & Hor

Detector Mode : PK



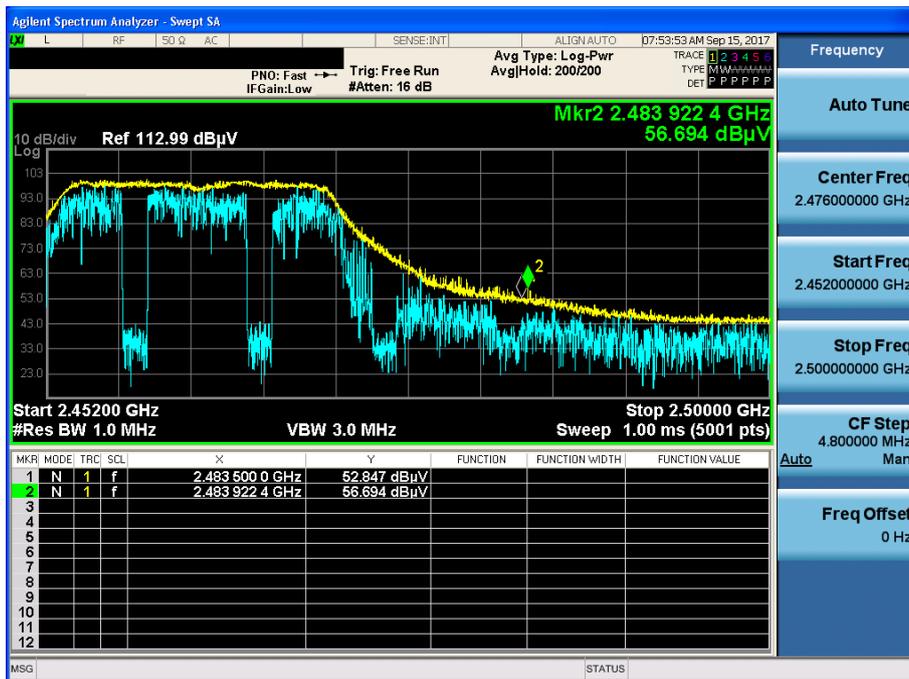
TM 9 & Lowest & Y axis & Hor

Detector Mode : AV



TM 9 & Highest & Y axis & Hor

Detector Mode : PK



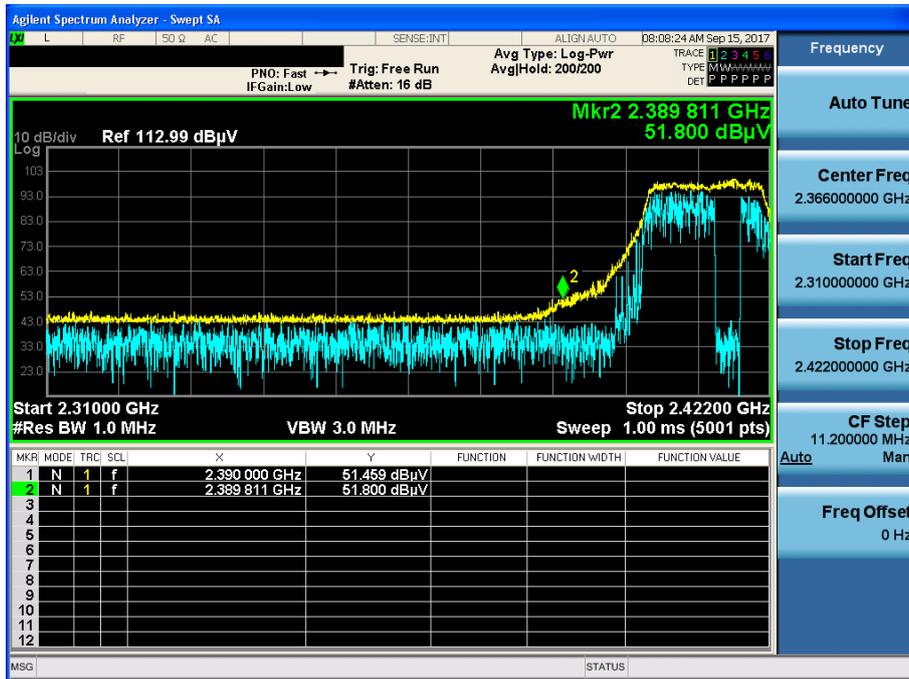
TM 9 & Highest & Y axis & Hor

Detector Mode : AV



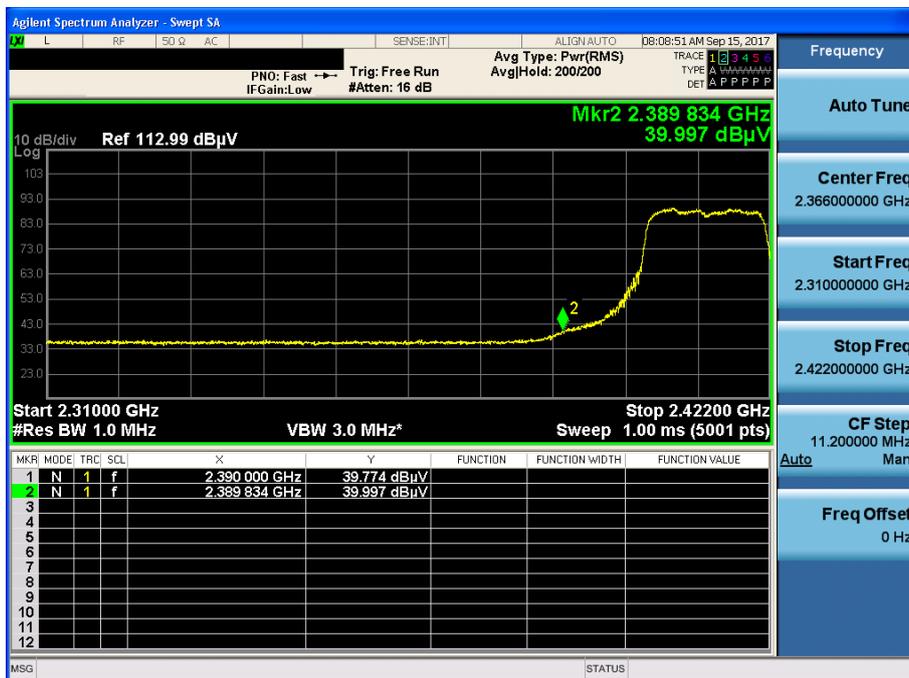
TM 10 & Lowest & Y axis & Hor

Detector Mode : PK



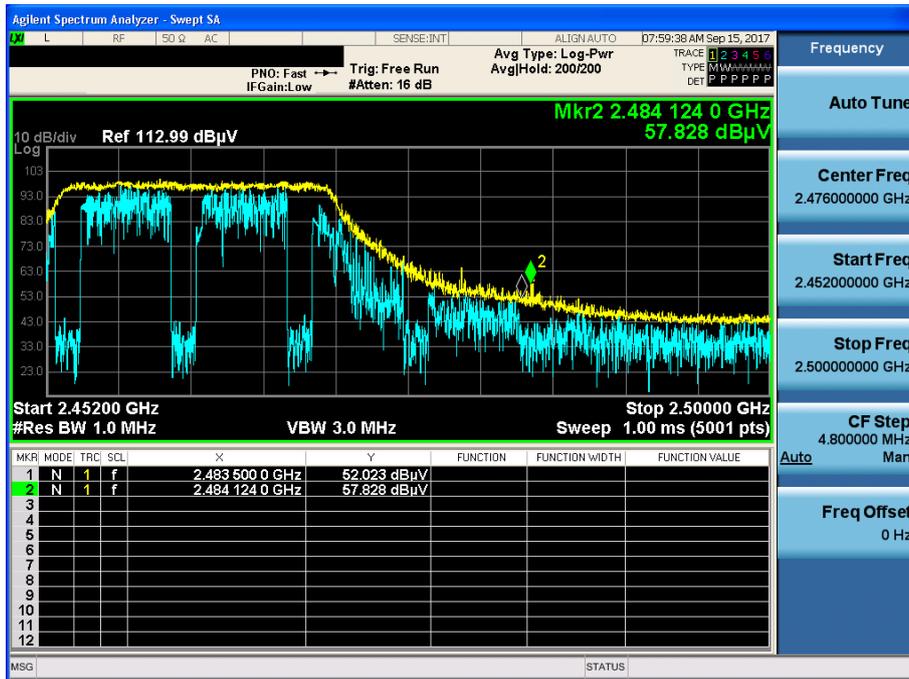
TM 10 & Lowest & Y axis & Hor

Detector Mode : AV



TM 10 & Highest & Y axis & Hor

Detector Mode : PK



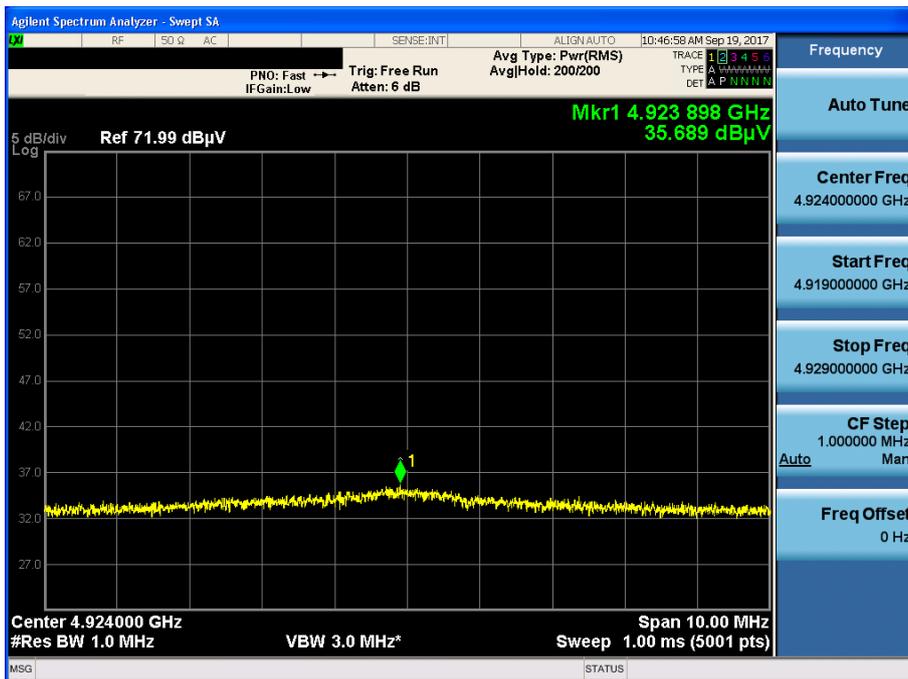
TM 10 & Highest & Y axis & Hor

Detector Mode : AV



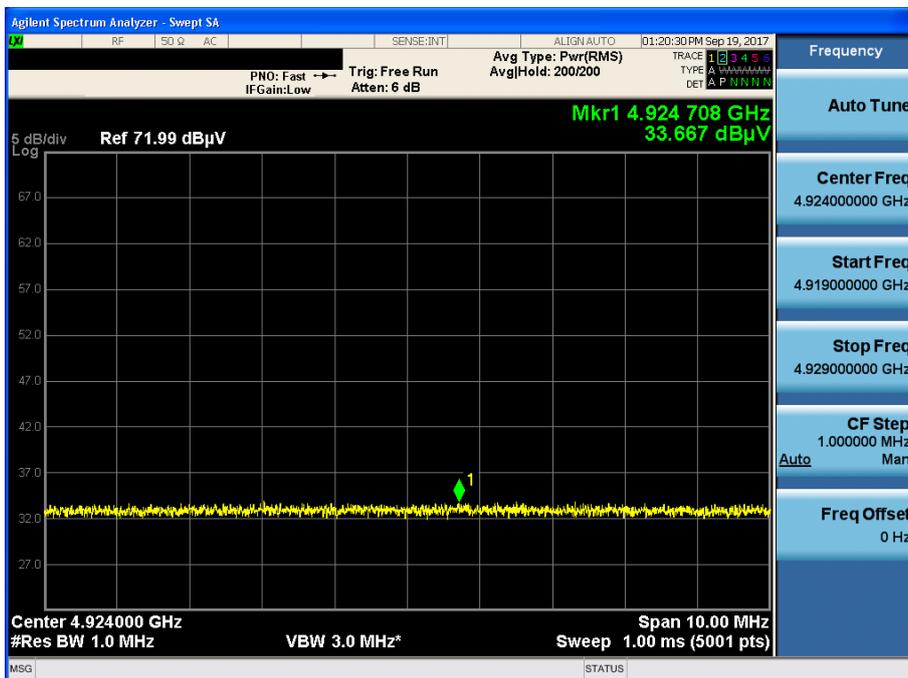
TM 5 & Highest & Z axis & Hor

Detector Mode : AV



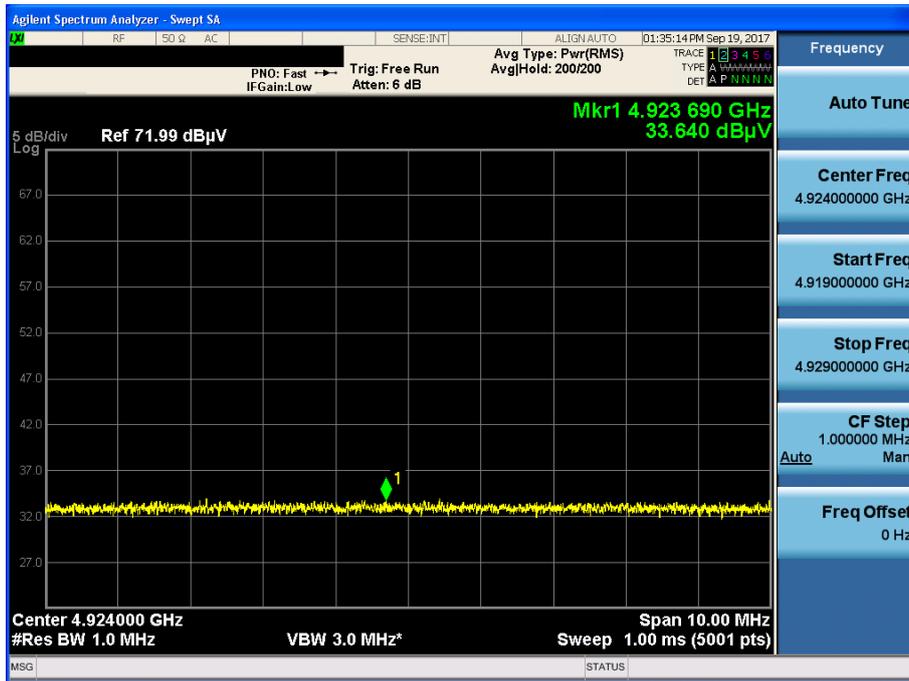
TM 6 & Highest & Z axis & Hor

Detector Mode : AV



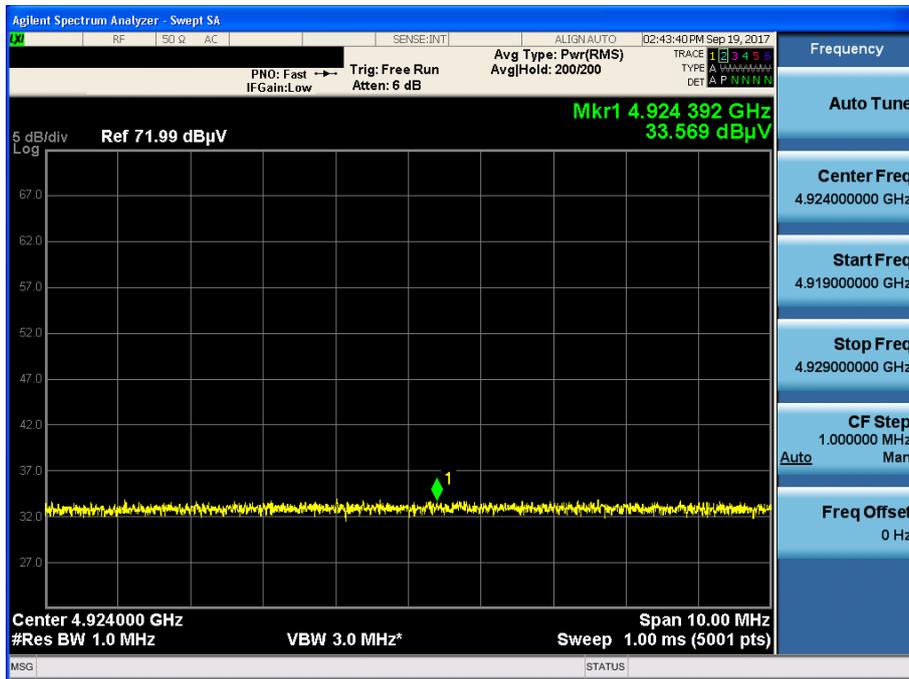
TM 7 & Highest & Z axis & Hor

Detector Mode : AV



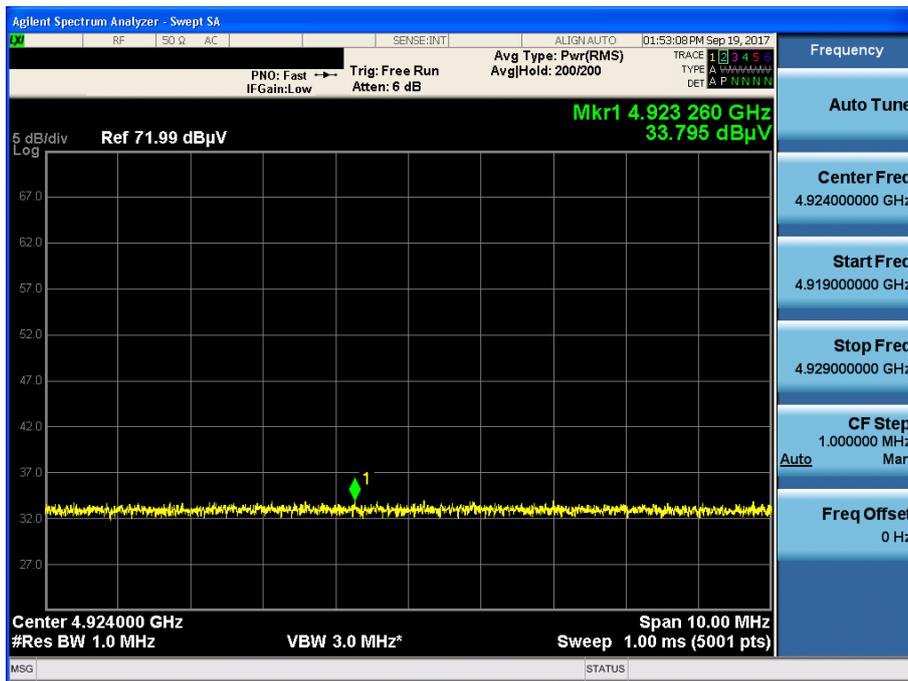
TM 8 & Highest & Z axis & Hor

Detector Mode : AV



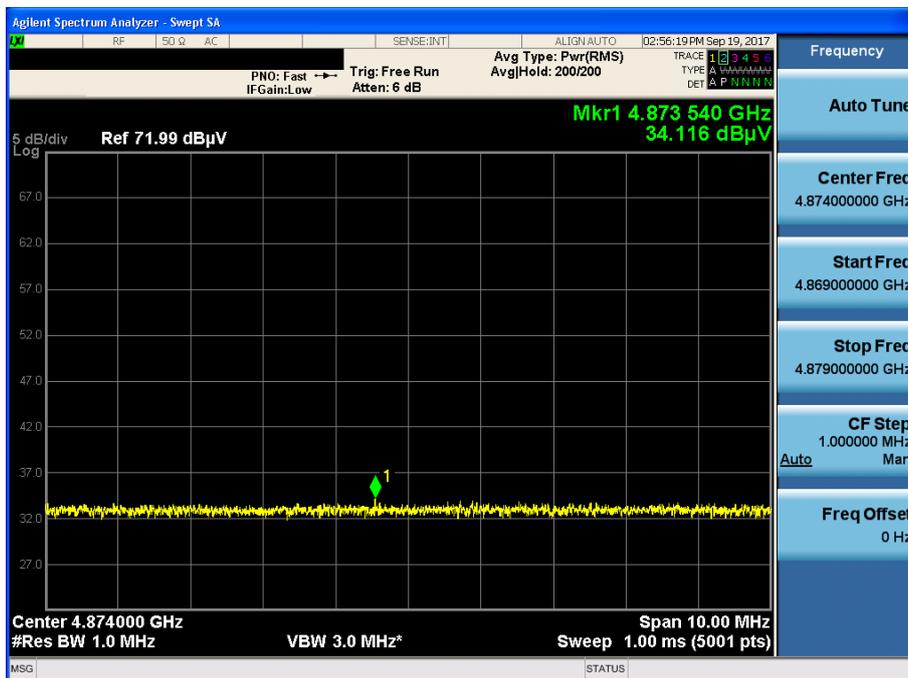
TM 9 & Highest & Z axis & Hor

Detector Mode : AV



TM 10 & Middle & Z axis & Hor

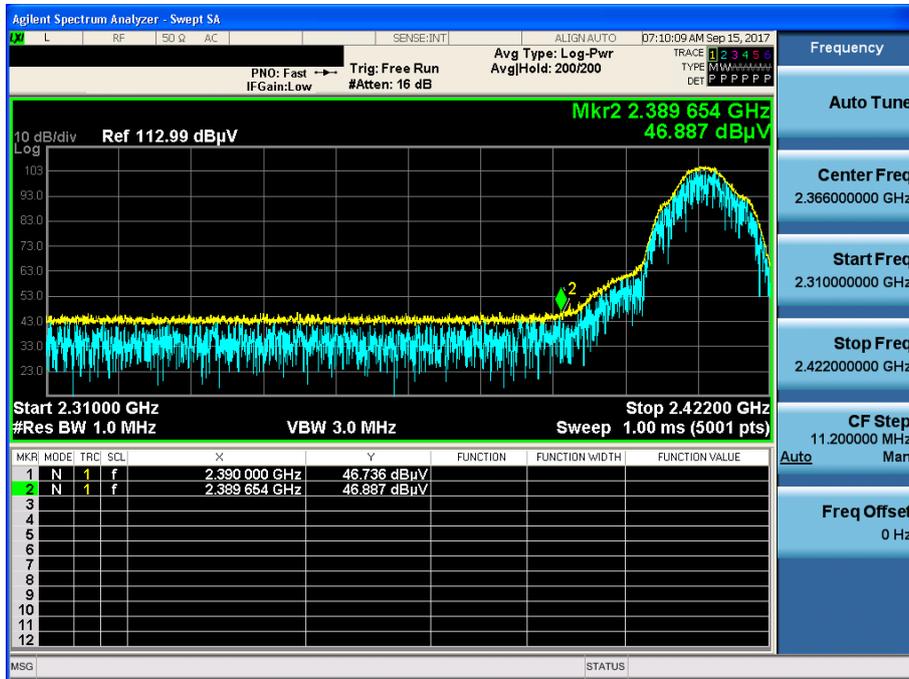
Detector Mode : AV



Unwanted Emissions (Radiated) Test Plot \_ Wireless Charging

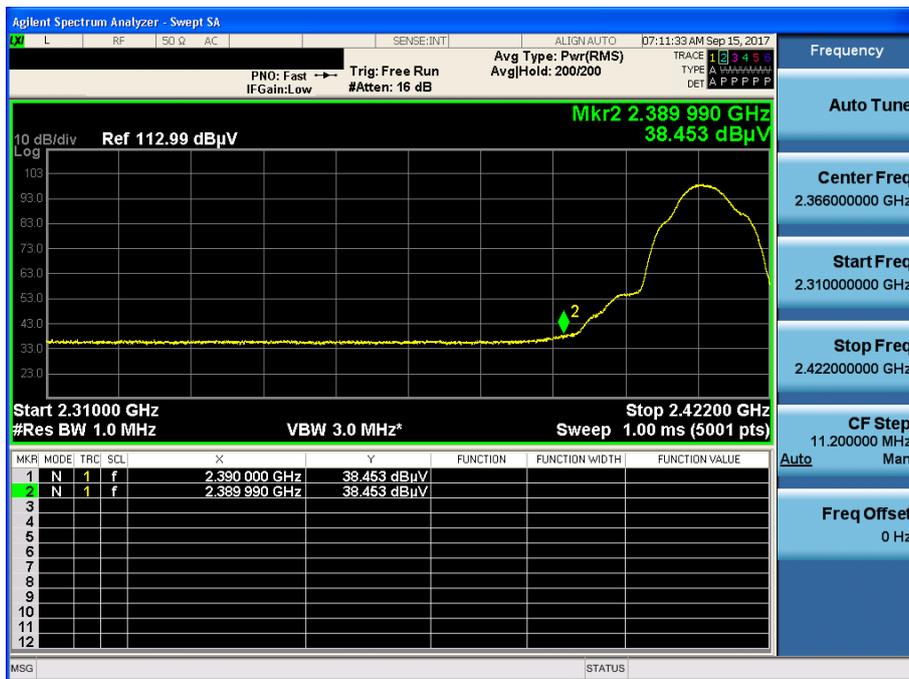
TM 5 & Lowest & X axis & Hor

Detector Mode : PK



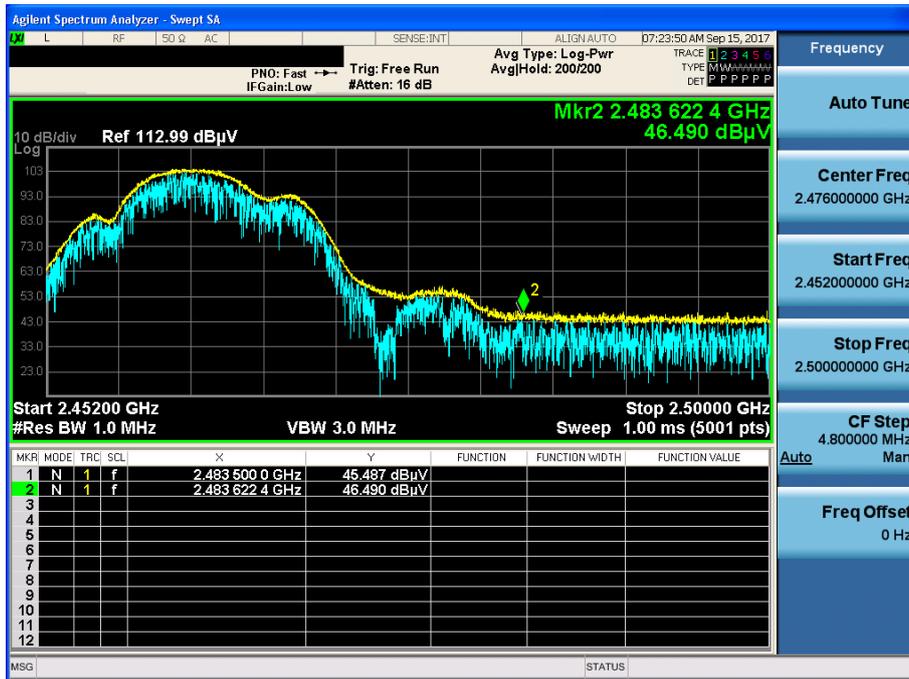
TM 5 & Lowest & X axis & Hor

Detector Mode : AV



TM 5 & Highest & X axis & Hor

Detector Mode : PK



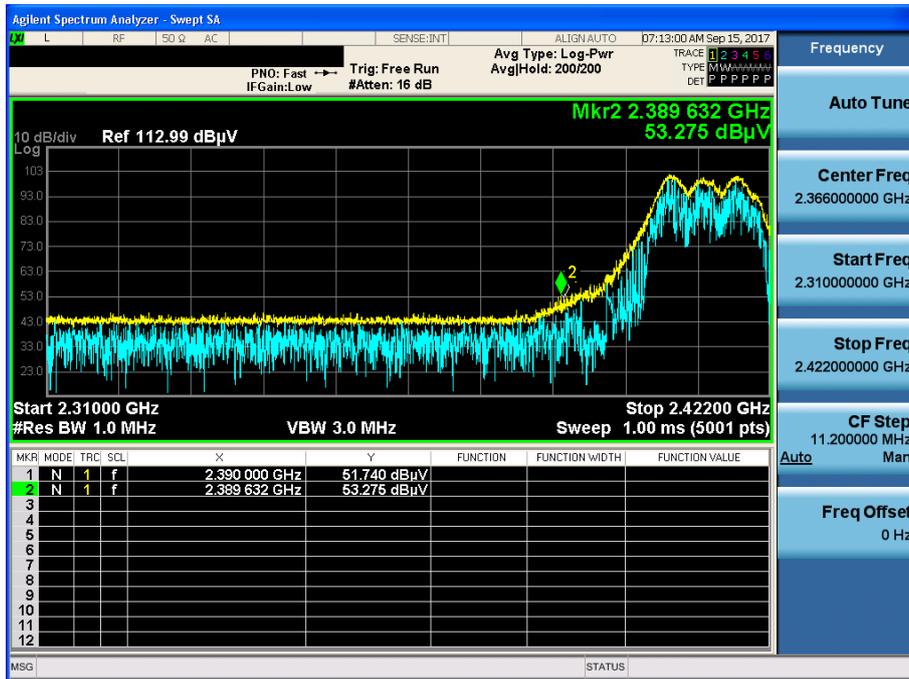
TM 5 & Highest & X axis & Hor

Detector Mode : AV



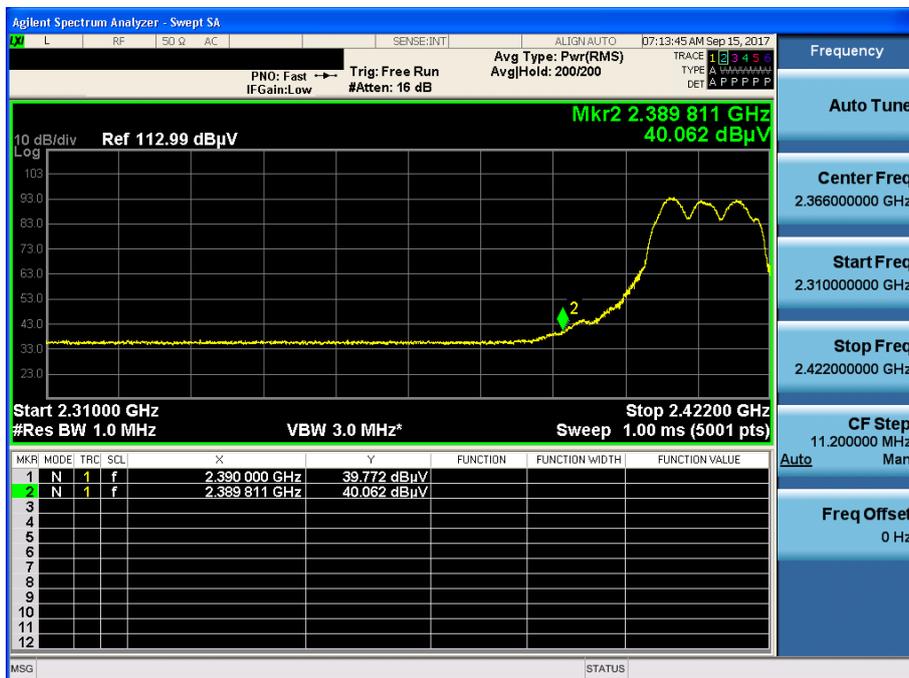
TM 6 & Lowest & X axis & Hor

Detector Mode : PK



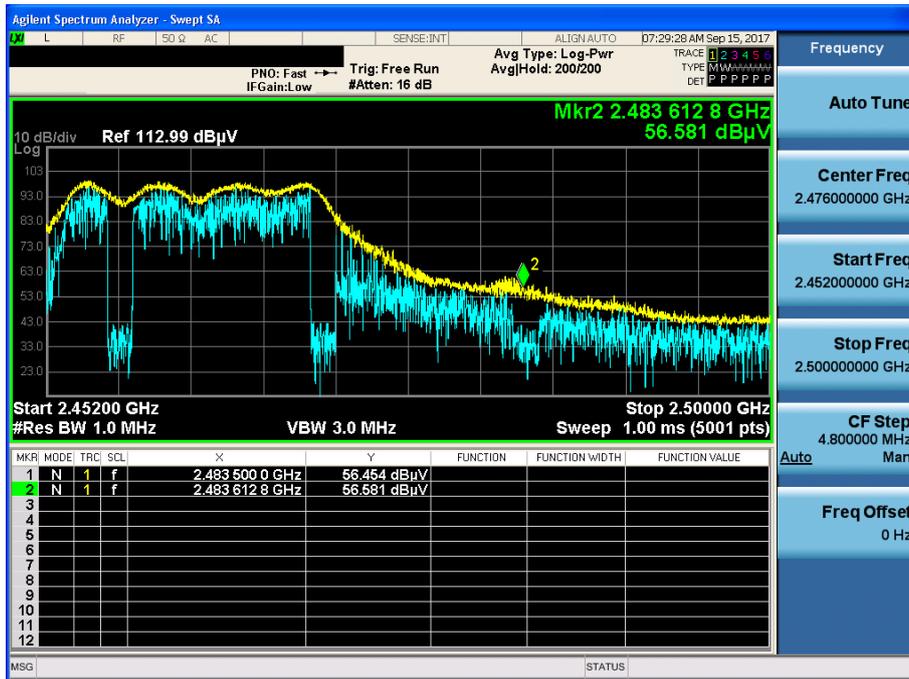
TM 6 & Lowest & X axis & Hor

Detector Mode : AV



TM 6 & Highest & X axis & Hor

Detector Mode : PK



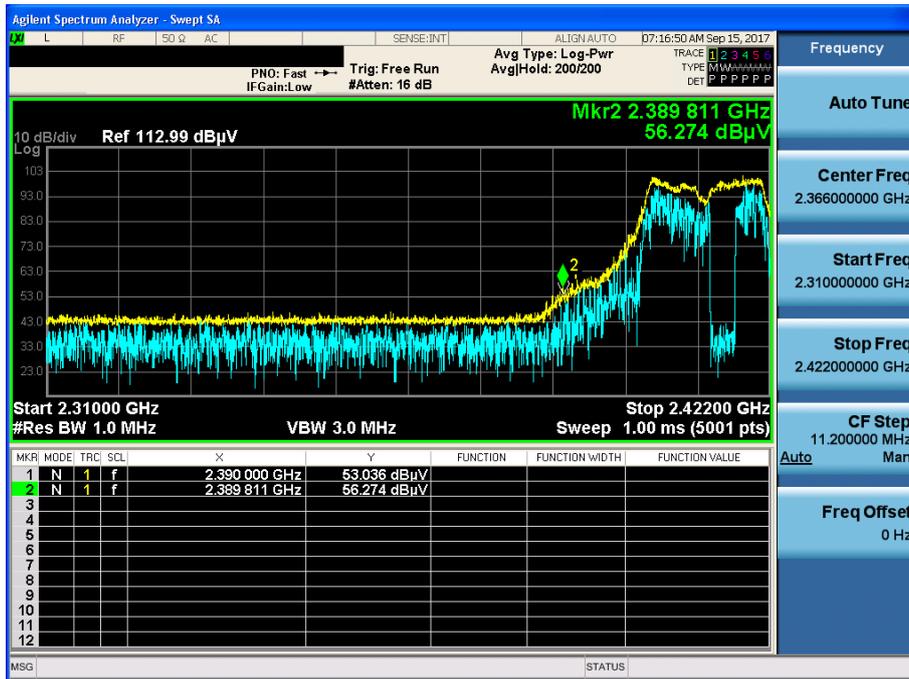
TM 6 & Highest & X axis & Hor

Detector Mode : AV



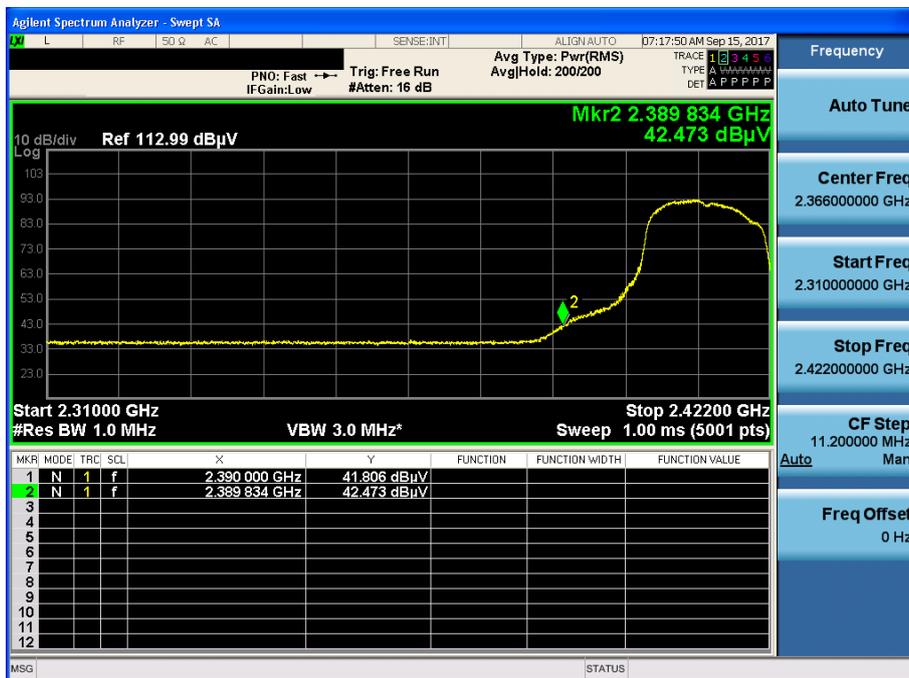
TM 7 & Lowest & X axis & Hor

Detector Mode : PK



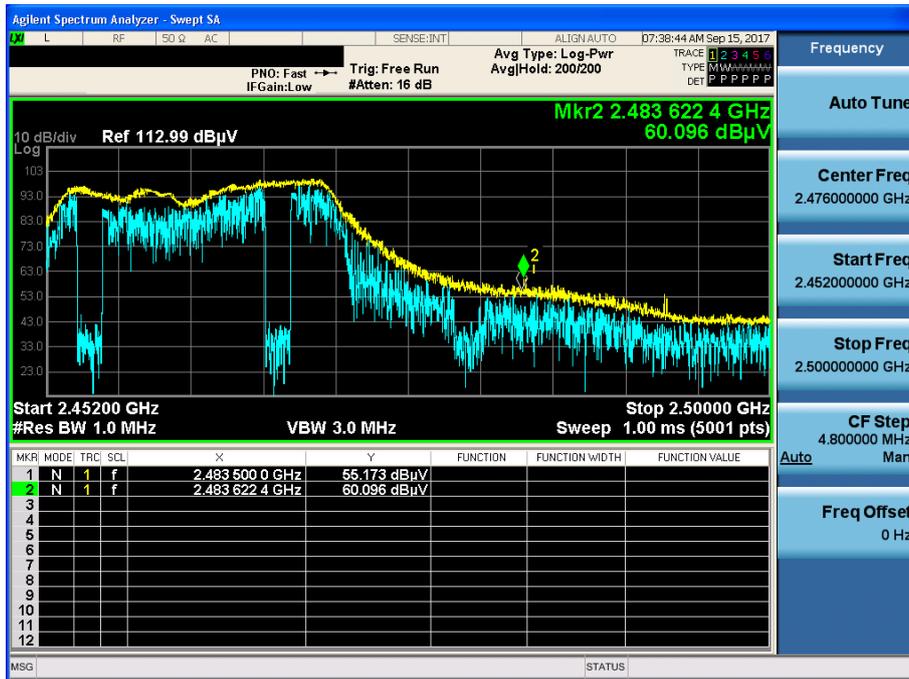
TM 7 & Lowest & X axis & Hor

Detector Mode : AV



TM 7 & Highest & X axis & Hor

Detector Mode : PK



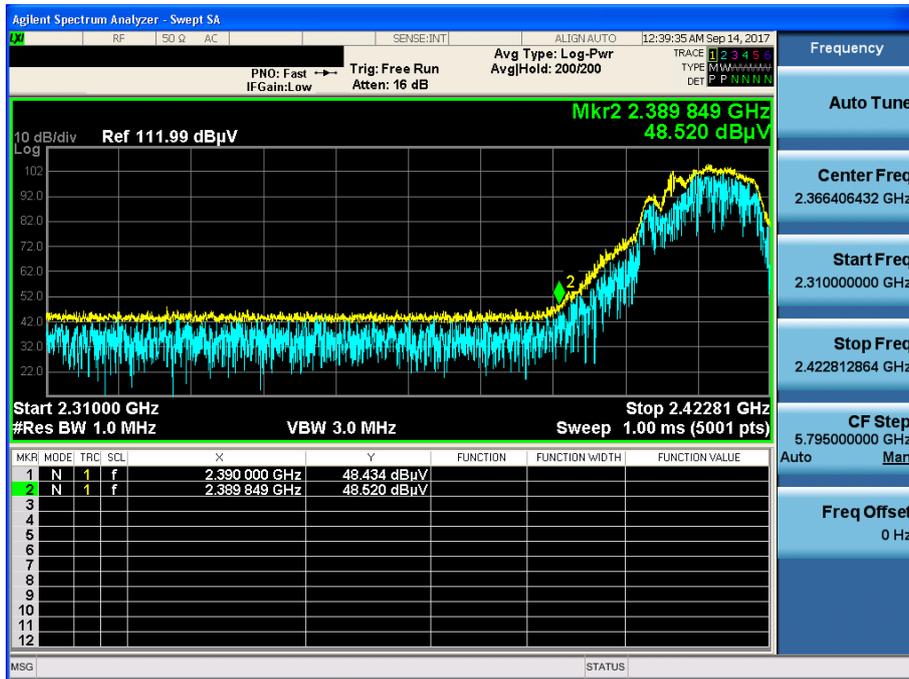
TM 7 & Highest & X axis & Hor

Detector Mode : AV



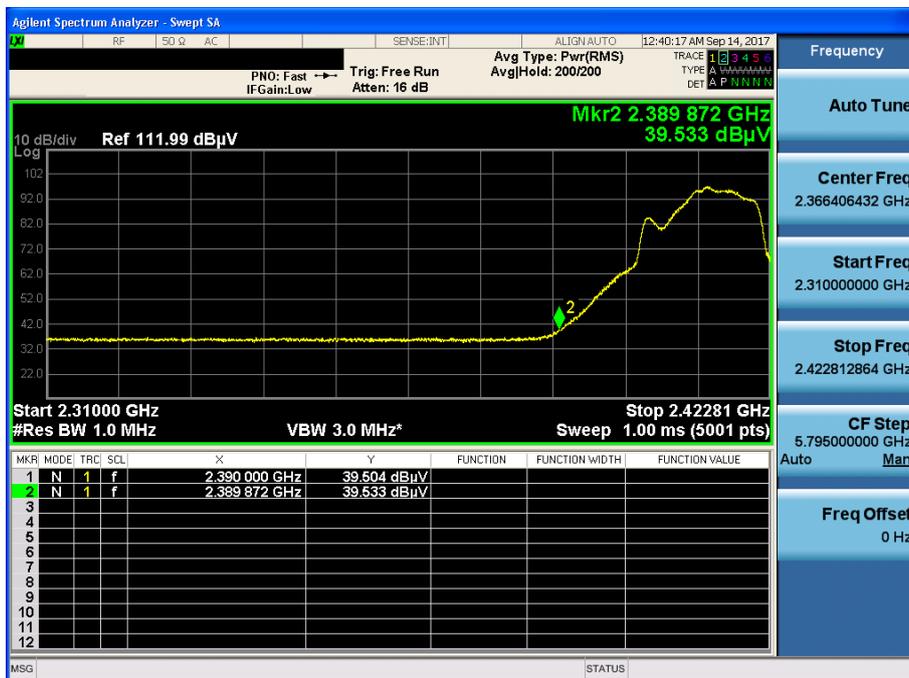
TM 8 & Lowest & X axis & Hor

Detector Mode : PK



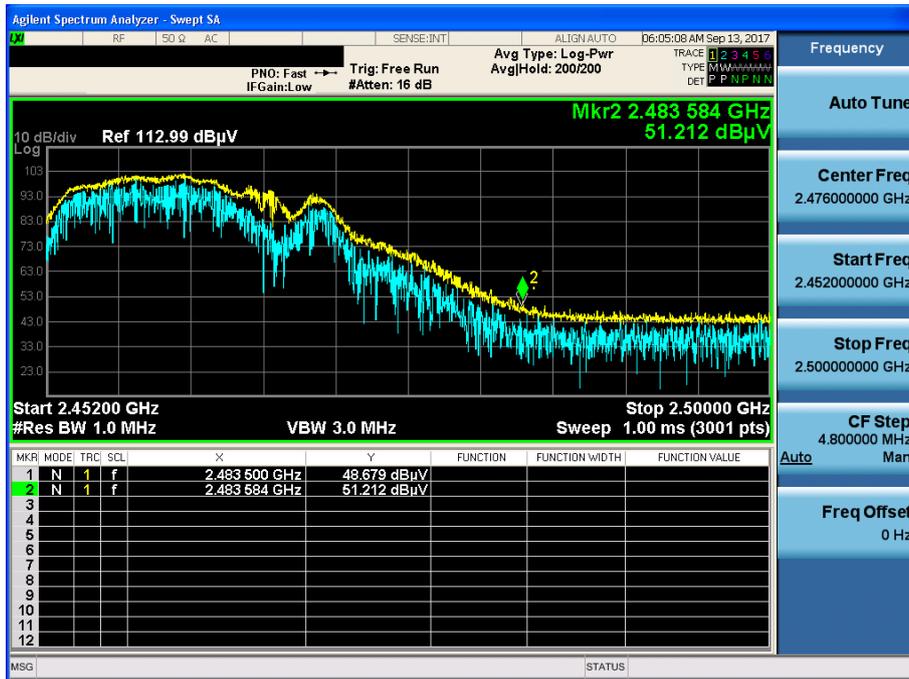
TM 8 & Lowest & X axis & Hor

Detector Mode : AV



TM 8 & Highest & X axis & Hor

Detector Mode : PK



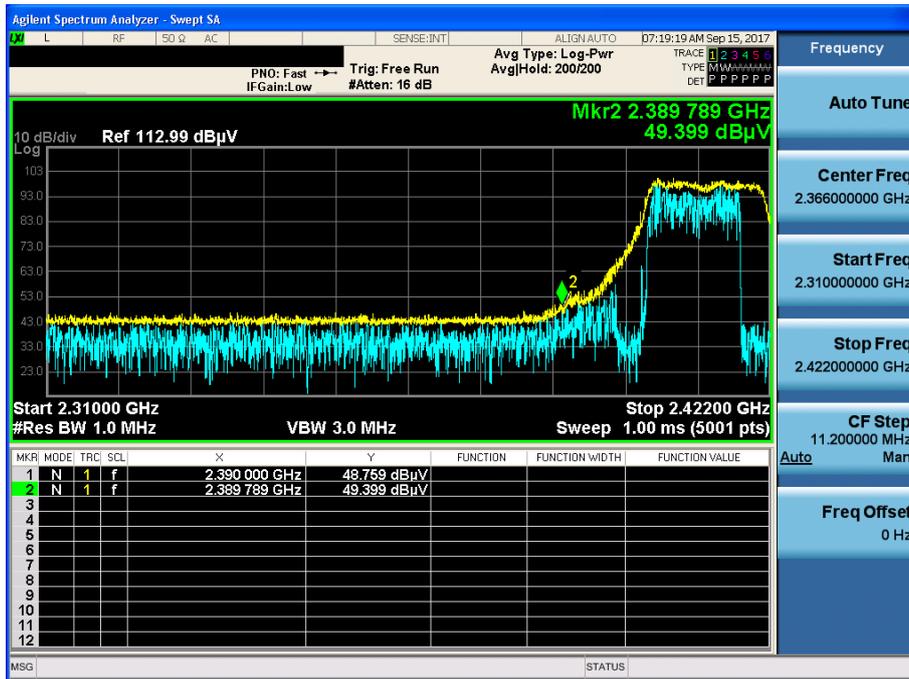
TM 8 & Highest & X axis & Hor

Detector Mode : AV



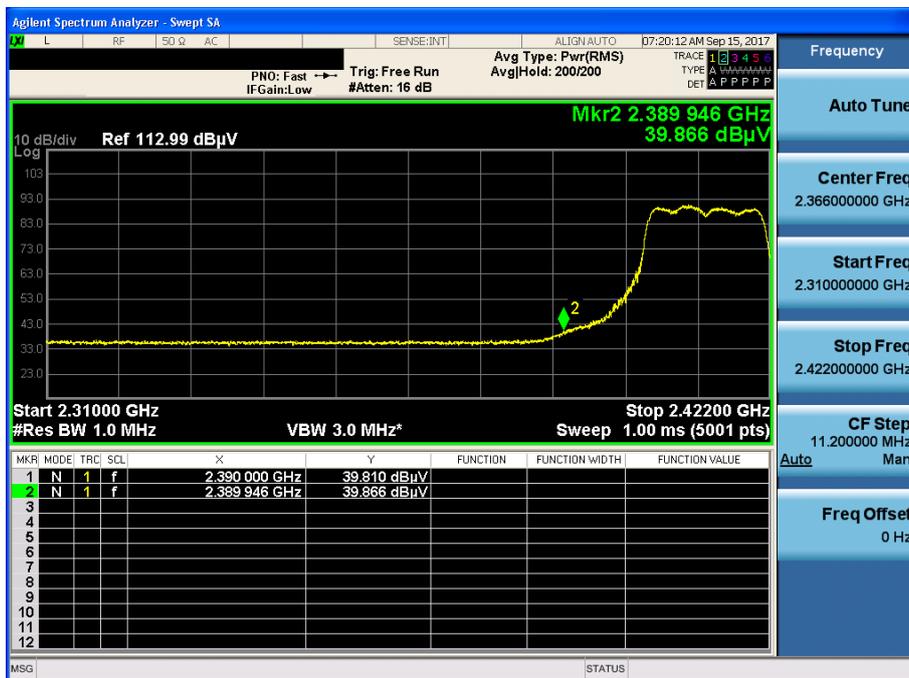
TM 9 & Lowest & X axis & Hor

Detector Mode : PK



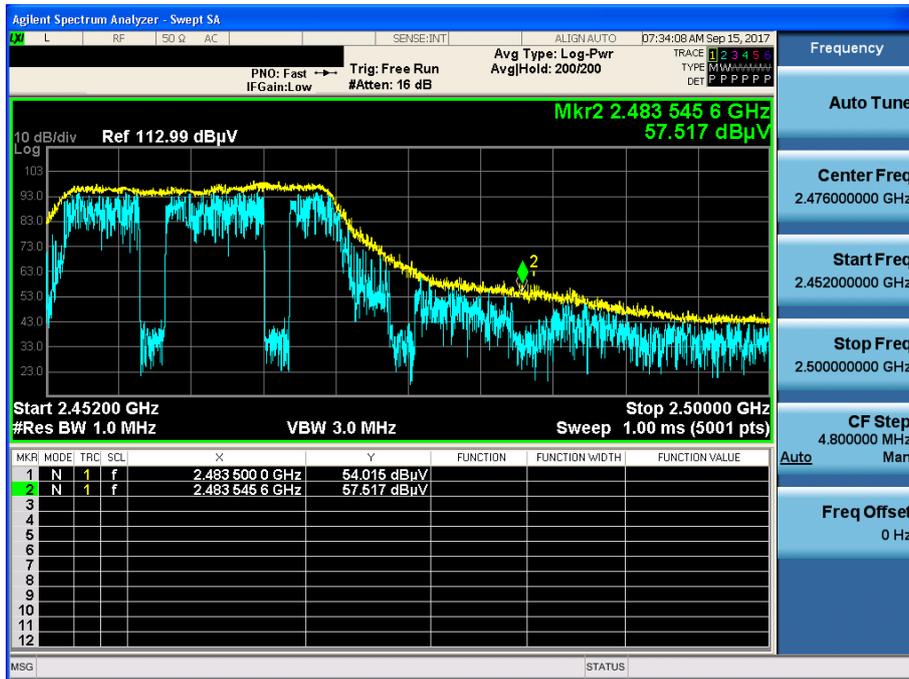
TM 9 & Lowest & X axis & Hor

Detector Mode : AV



TM 9 & Highest & X axis & Hor

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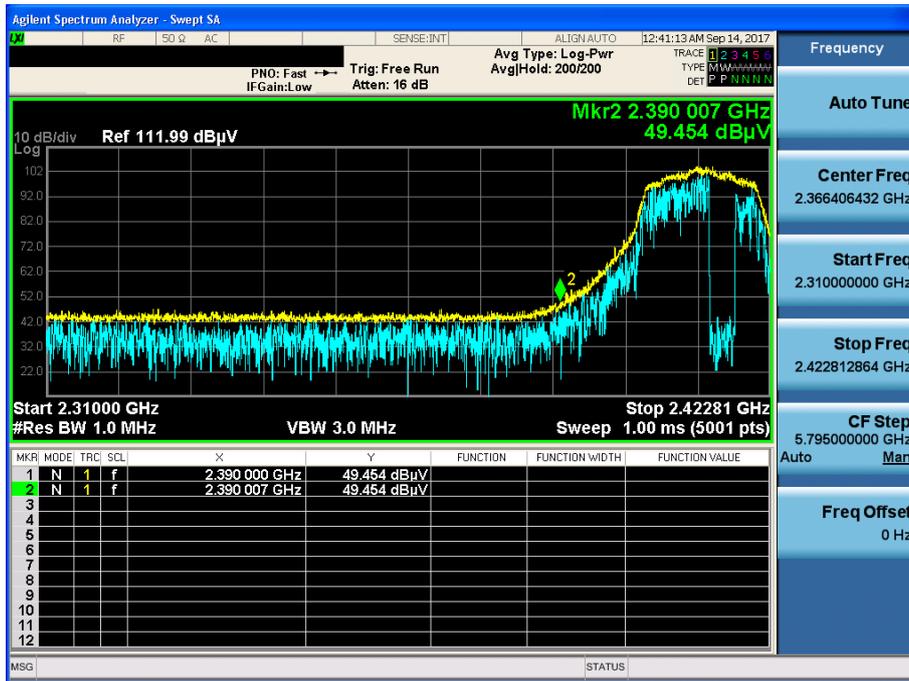
TM 9 & Highest & X axis & Hor

Detector Mode : AV



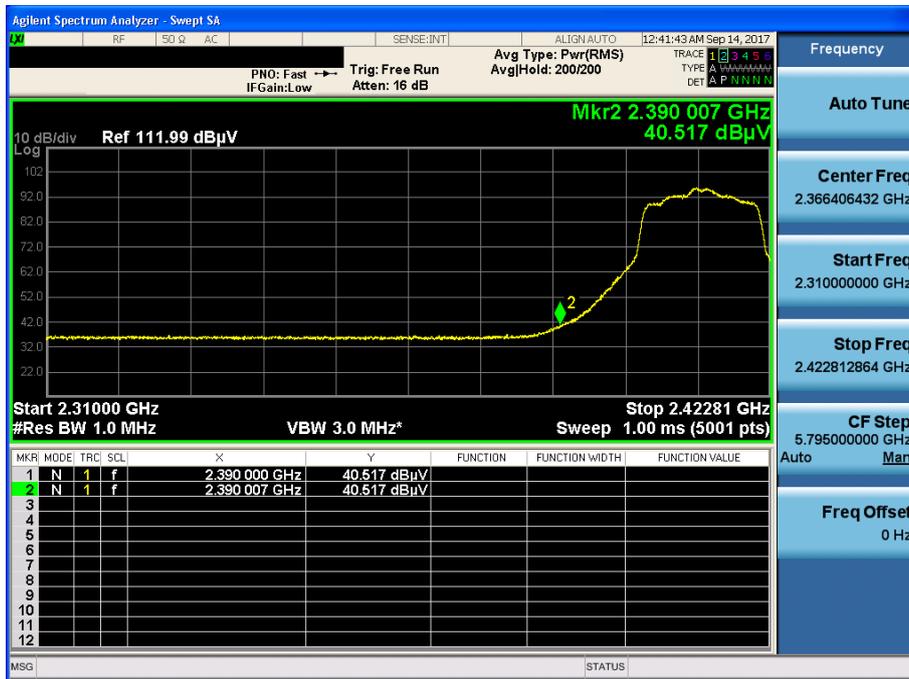
TM 10 & Lowest & X axis & Hor

Detector Mode : PK



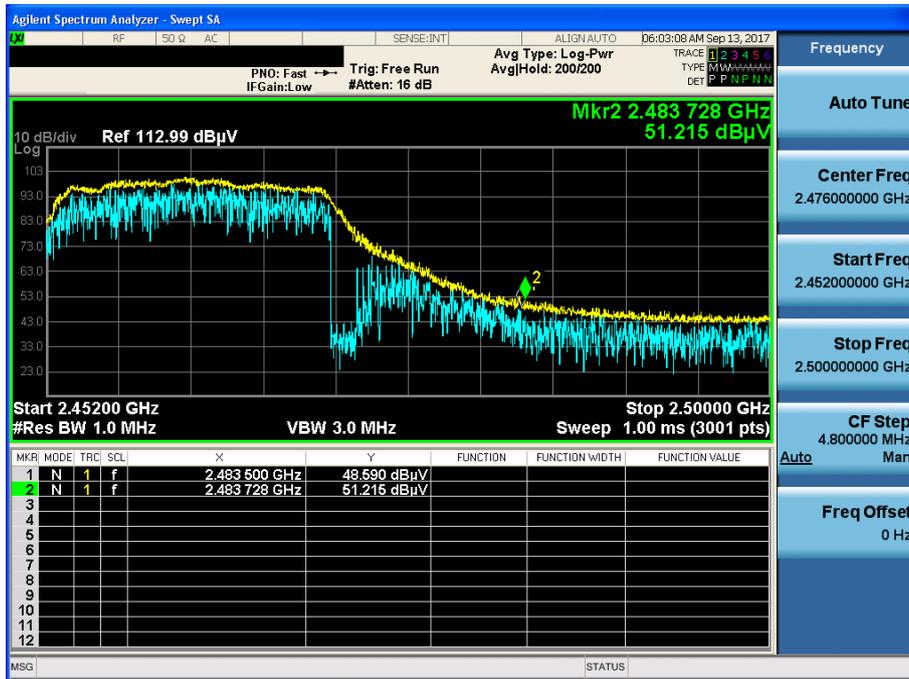
TM 10 & Lowest & X axis & Hor

Detector Mode : AV



TM 10 & Highest & X axis & Hor

Detector Mode : PK



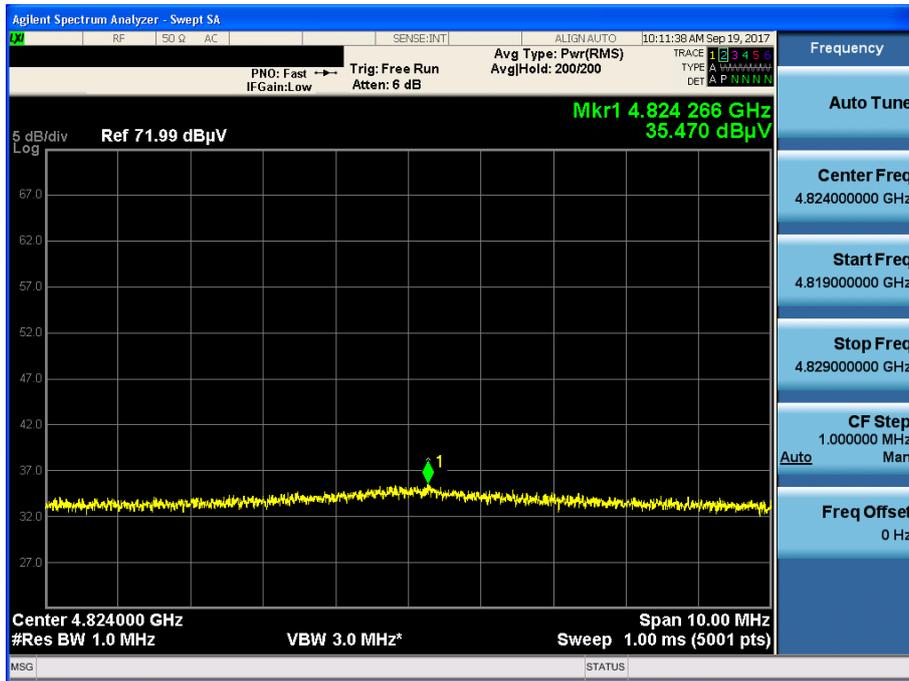
TM 10 & Highest & X axis & Hor

Detector Mode : AV



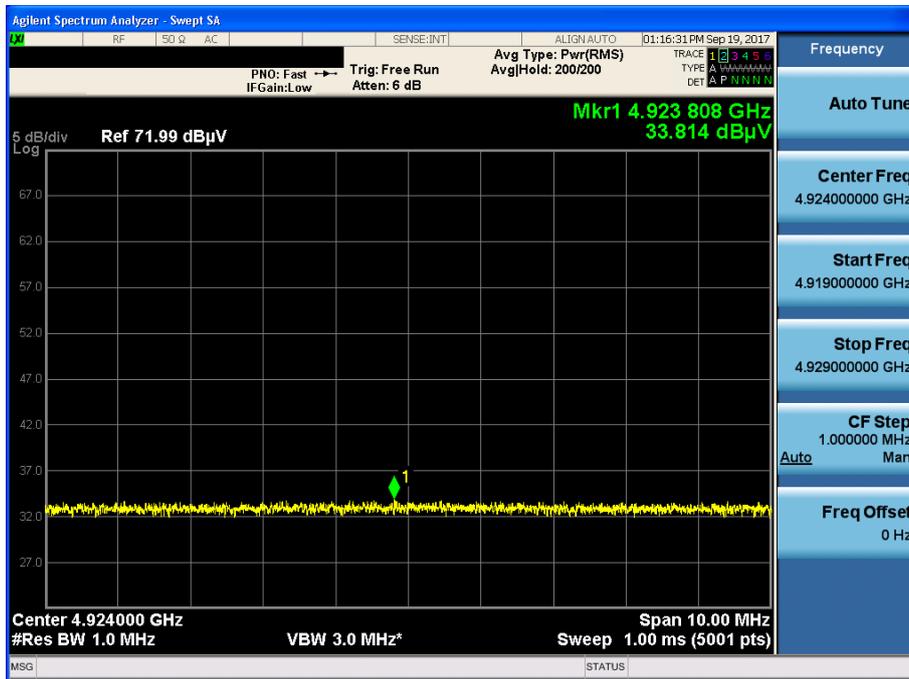
TM 5 & Lowest & X axis & Ver

Detector Mode : AV



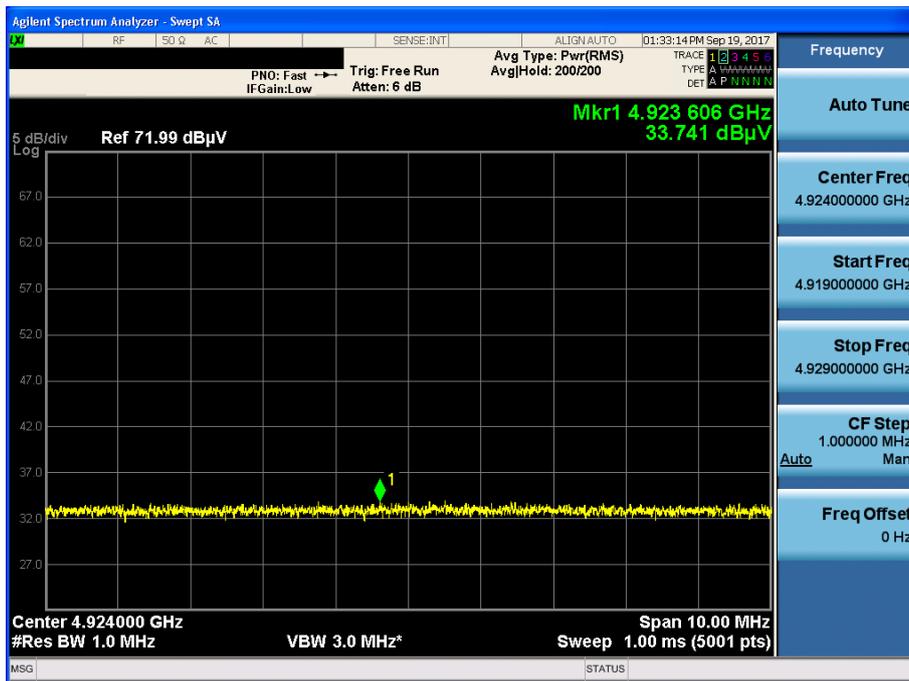
TM 6 & Highest & X axis & Ver

Detector Mode : AV



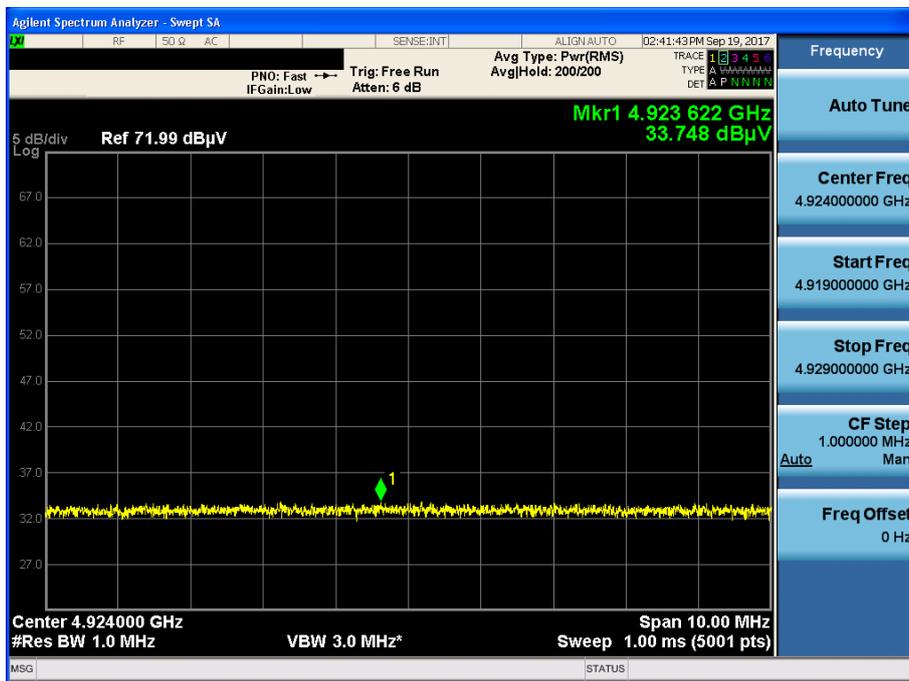
TM 7 & Highest & X axis & Ver

Detector Mode : AV



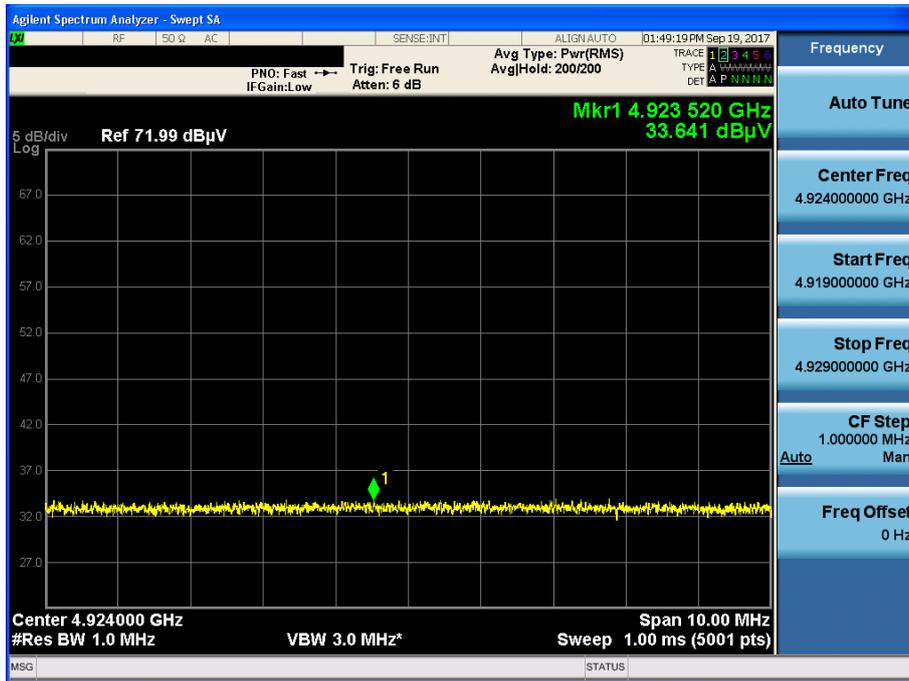
TM 8 & Highest & X axis & Ver

Detector Mode : AV



TM 9 & Highest & X axis & Ver

Detector Mode : AV



TM 10 & Middle & X axis & Ver

Detector Mode : AV

