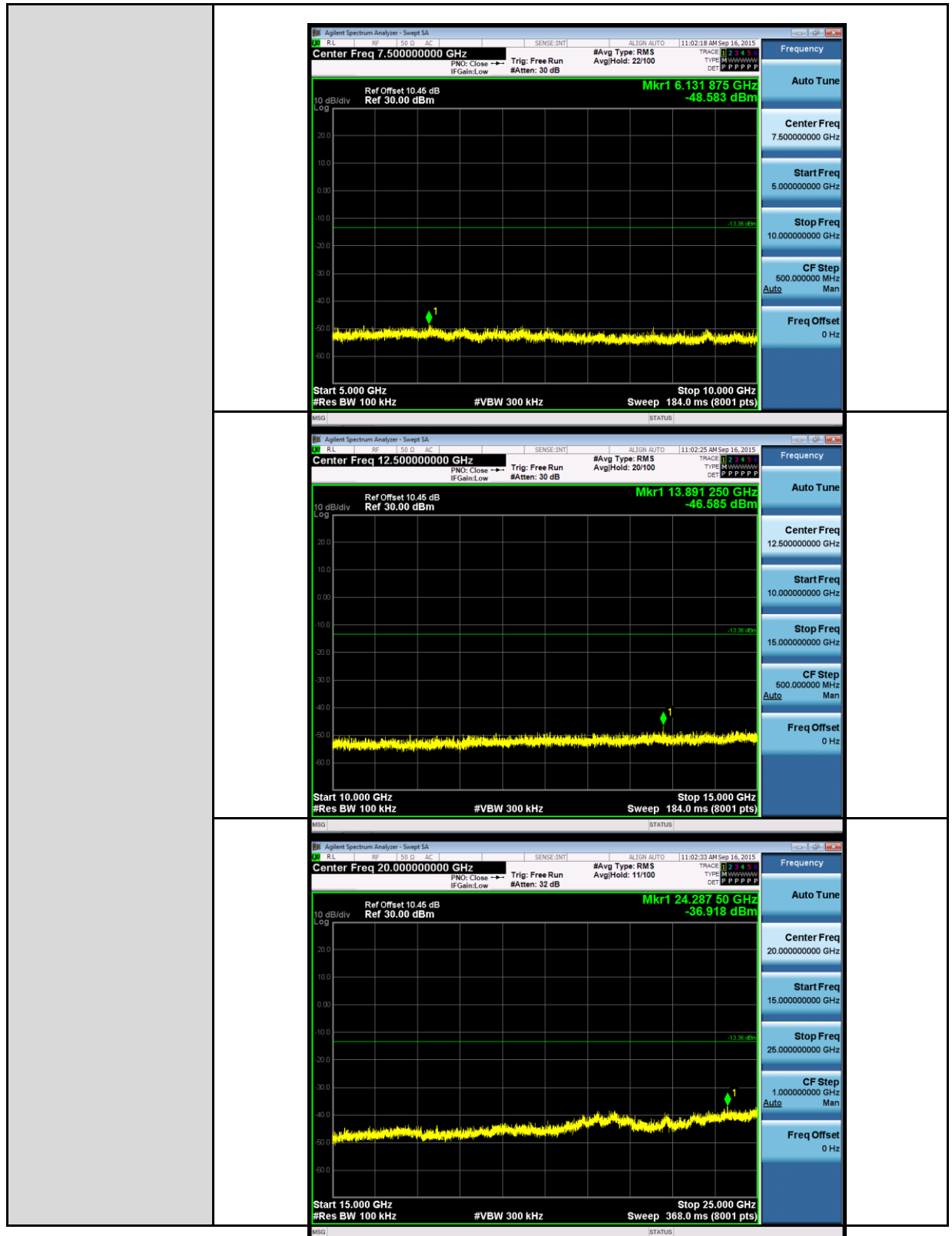




2441

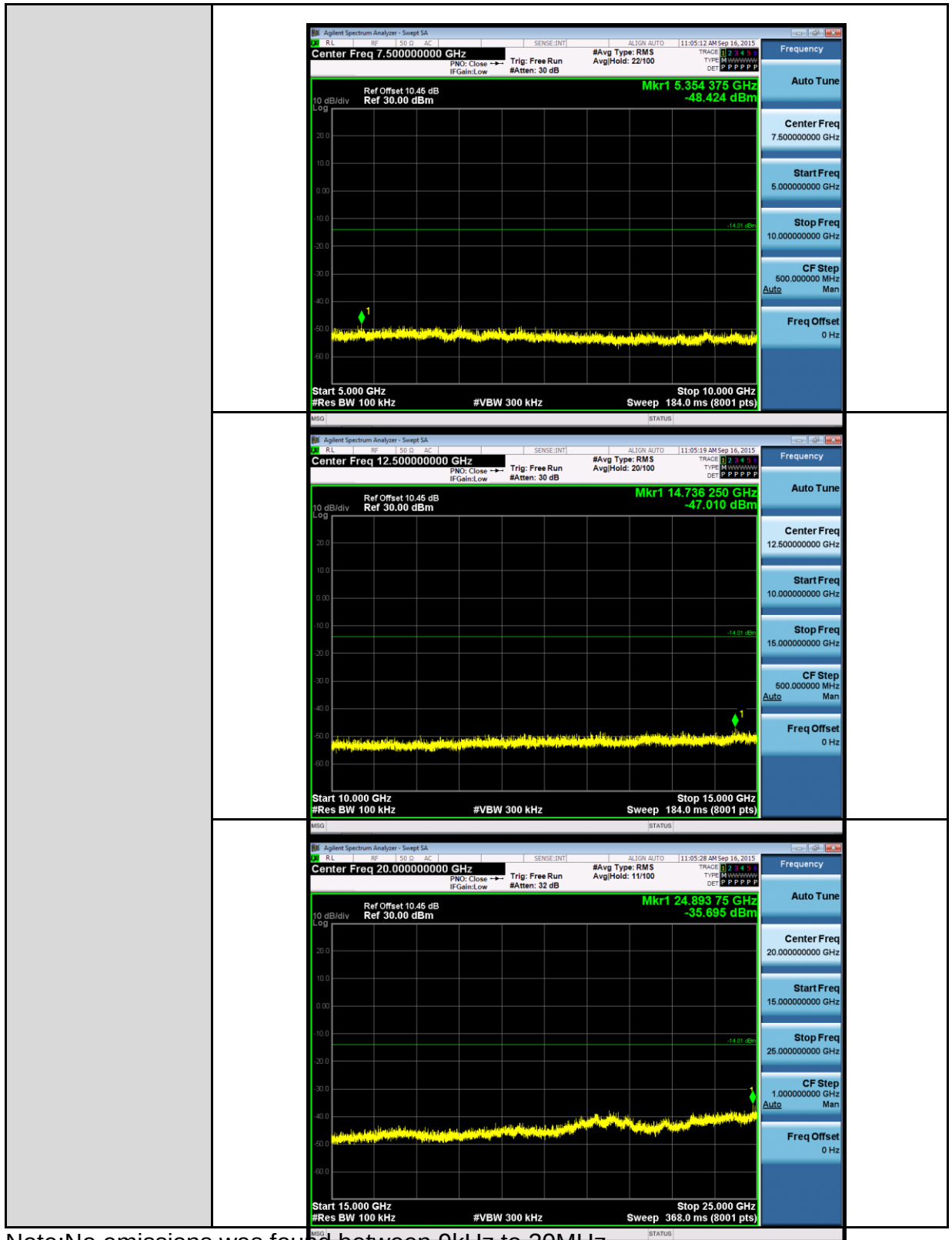






2480

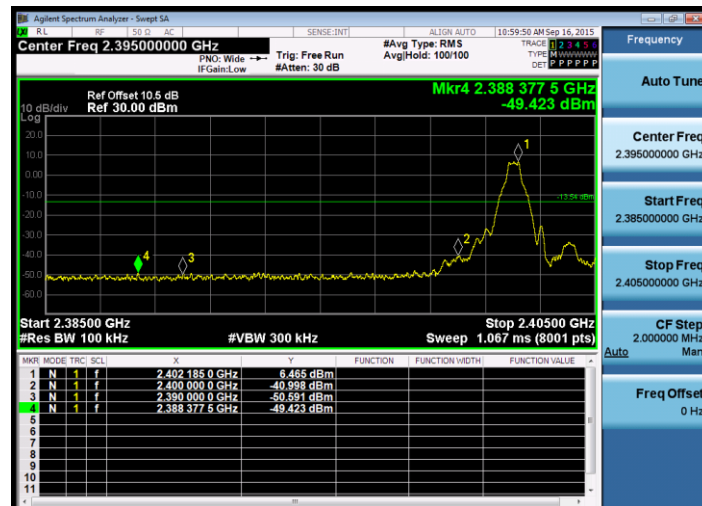




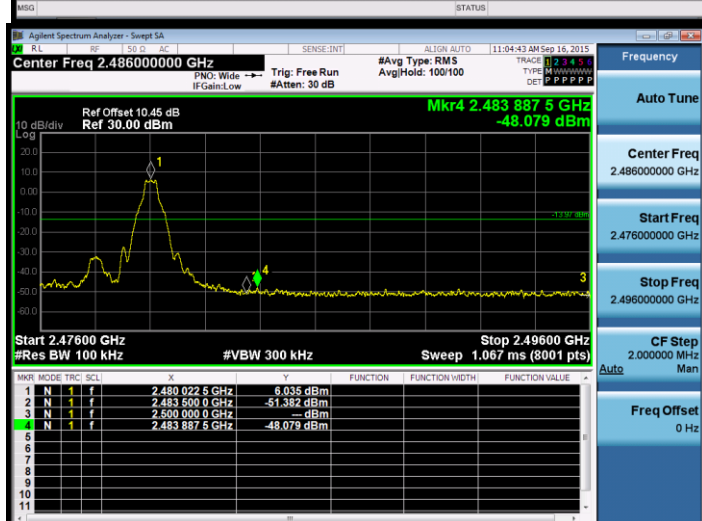
Note: No emissions were found between 9 kHz to 30 MHz.



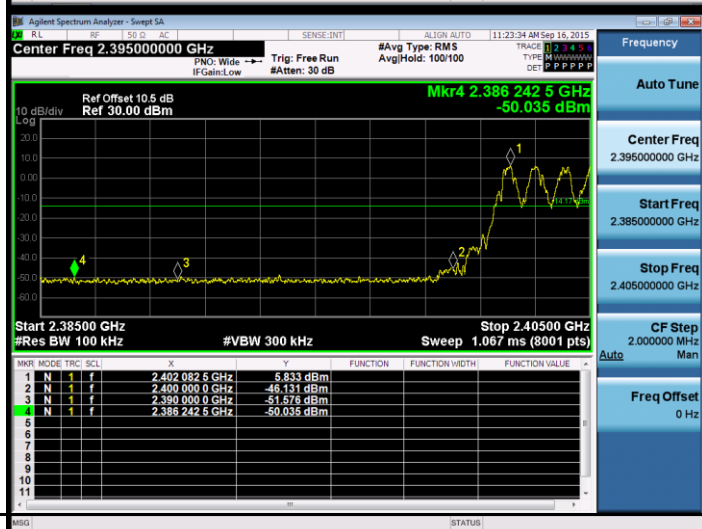
Mode 2/2402



Mode 2/2480

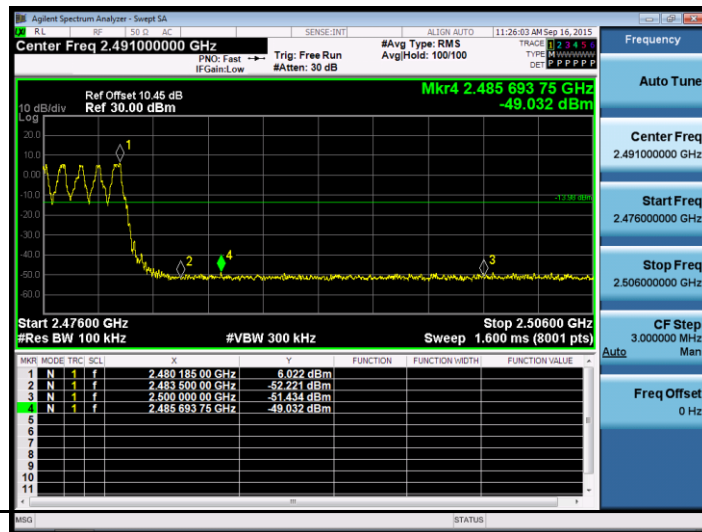


Mode 5/Hopping-2402





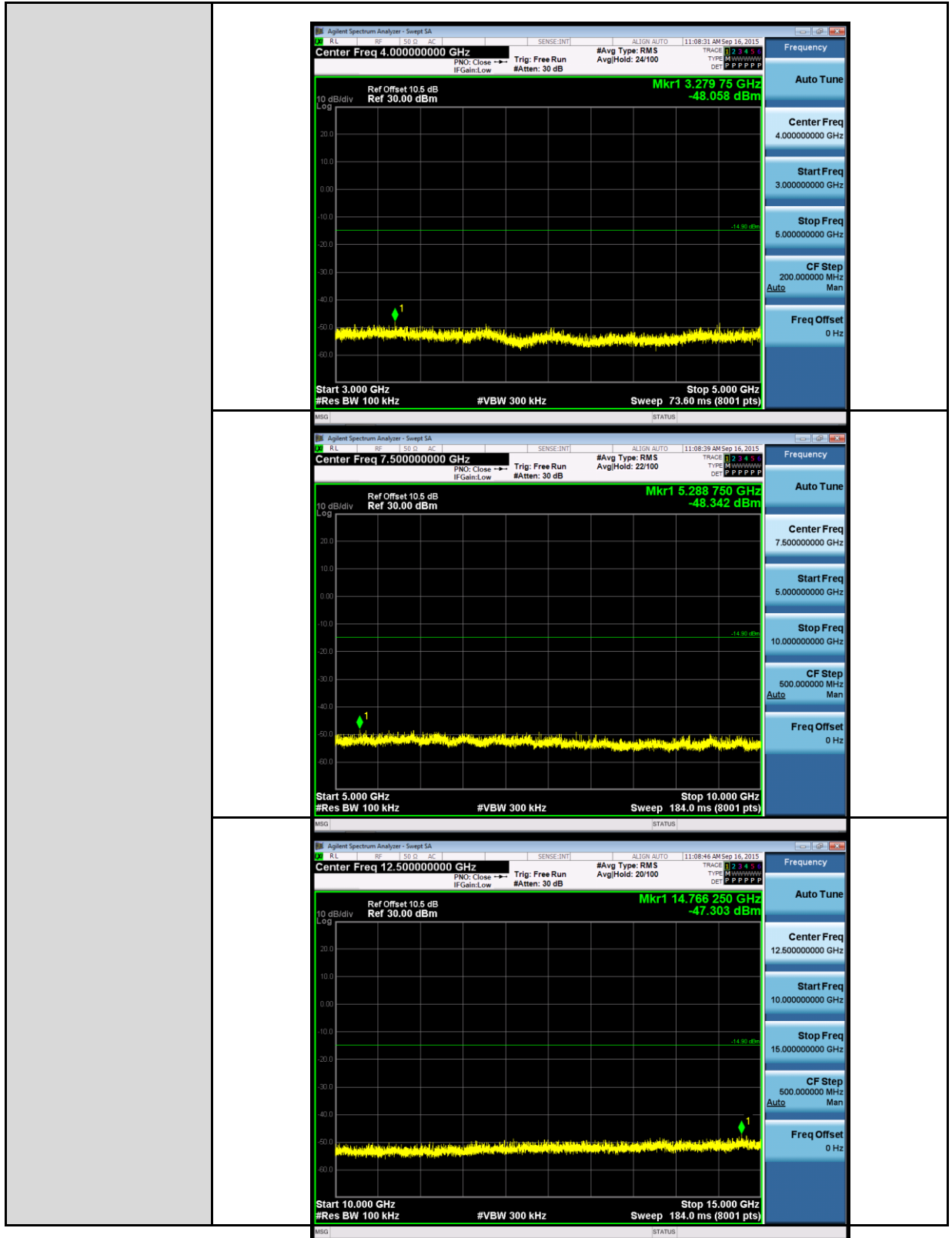
Mode 5/Hopping-2480



Mode 4

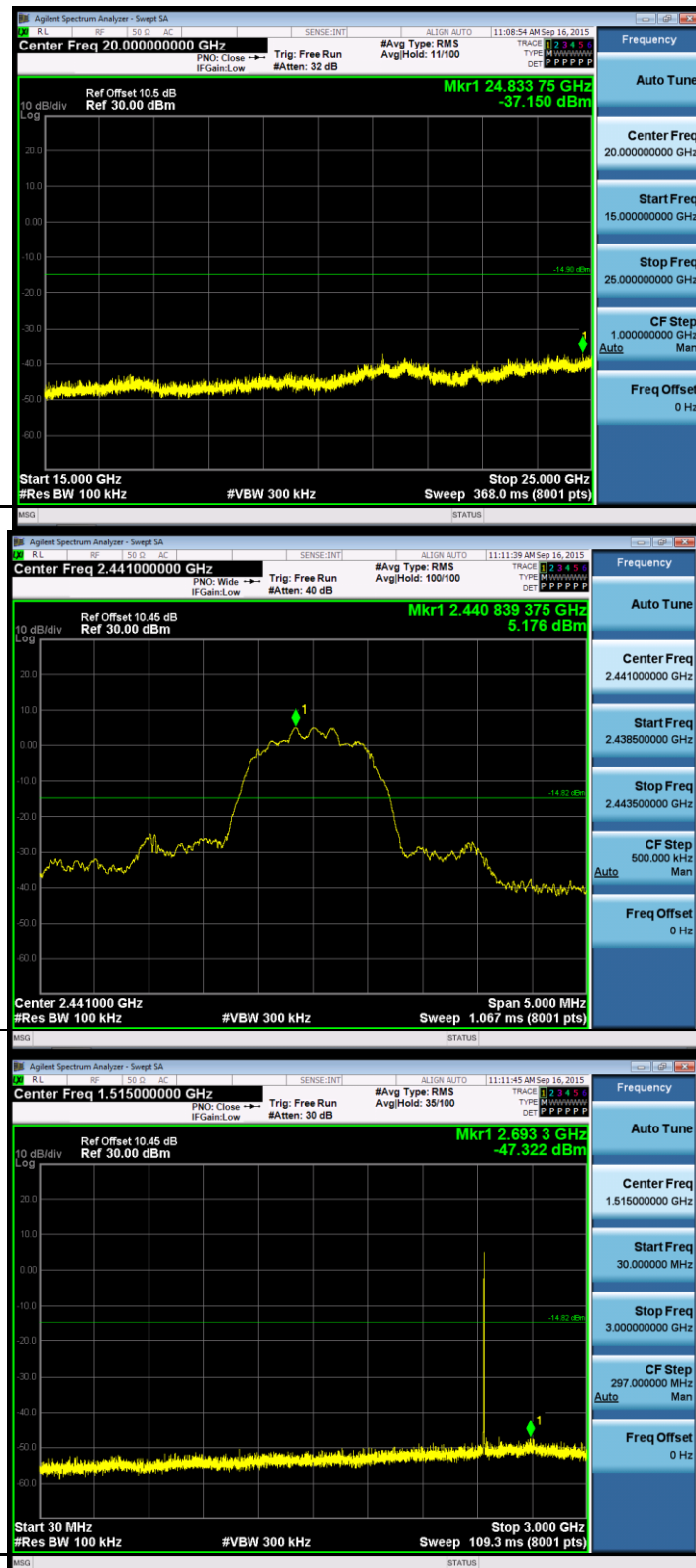
2402

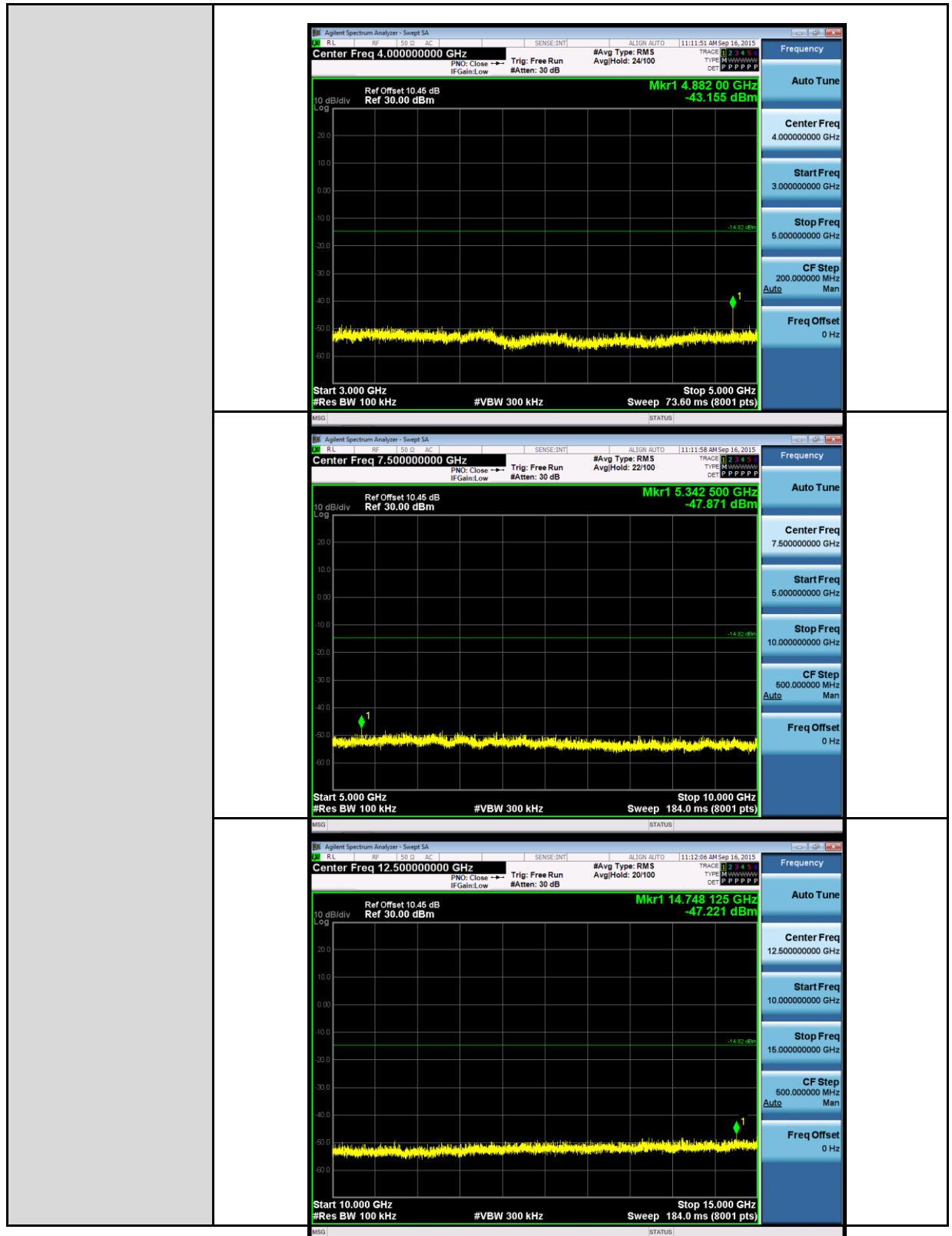


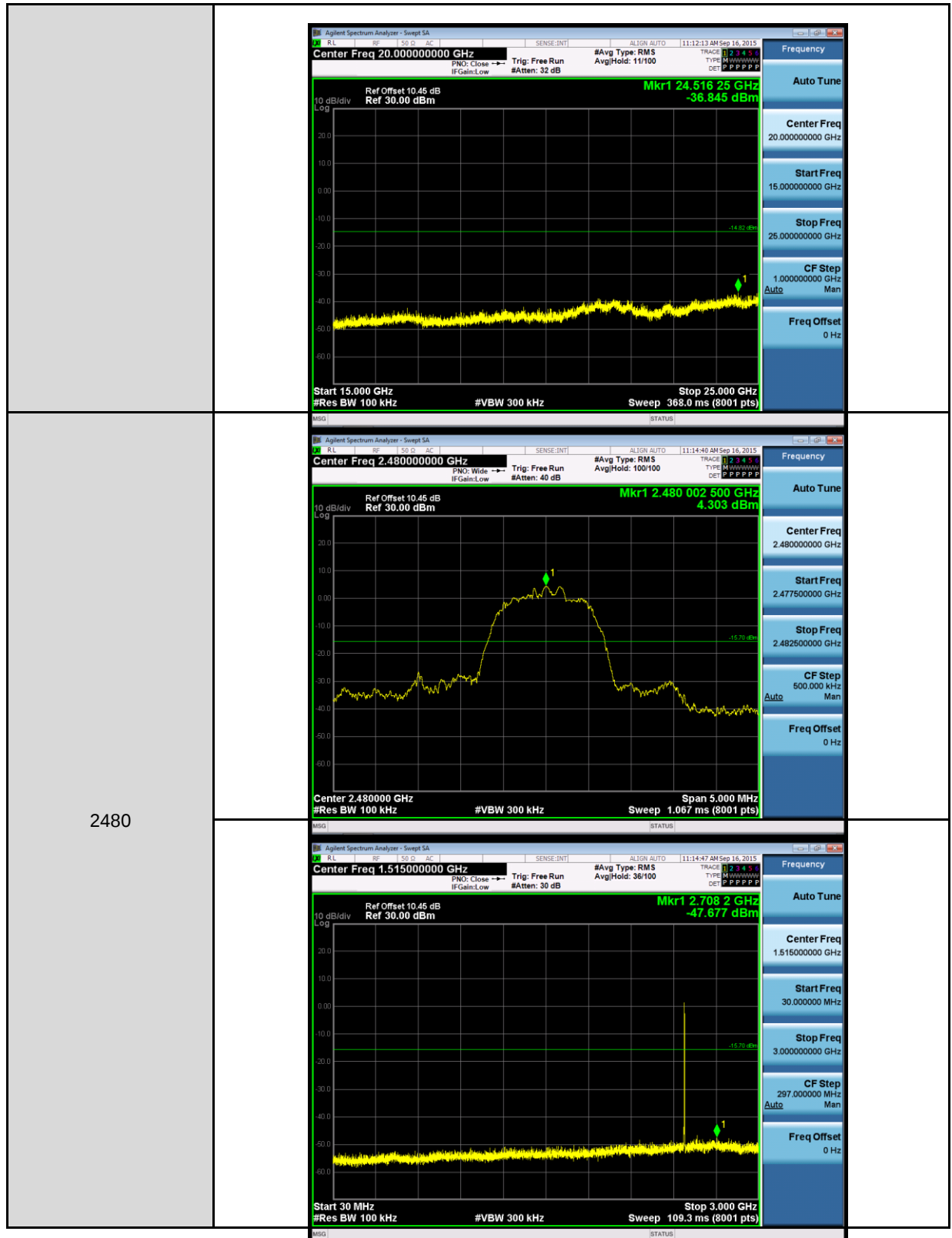


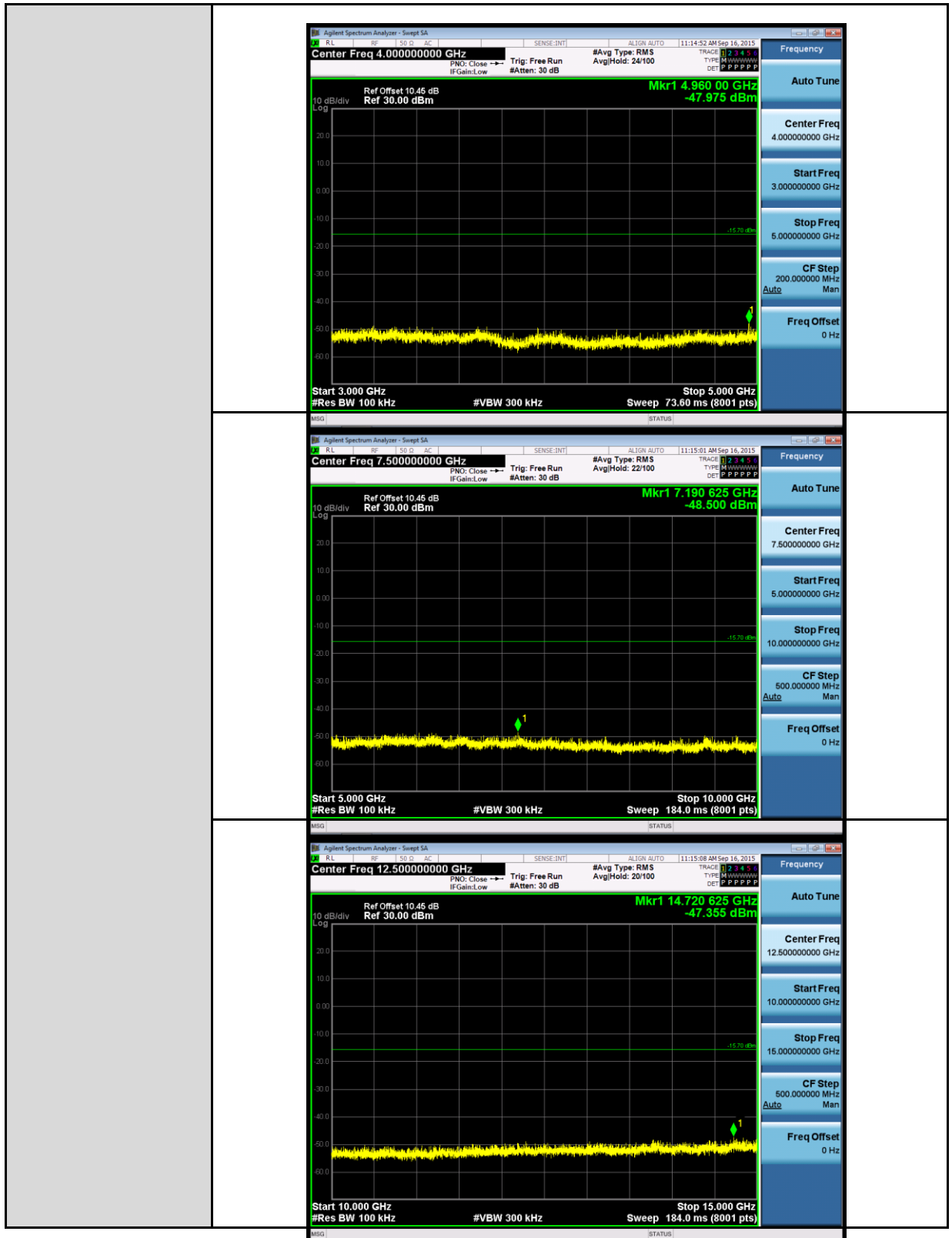


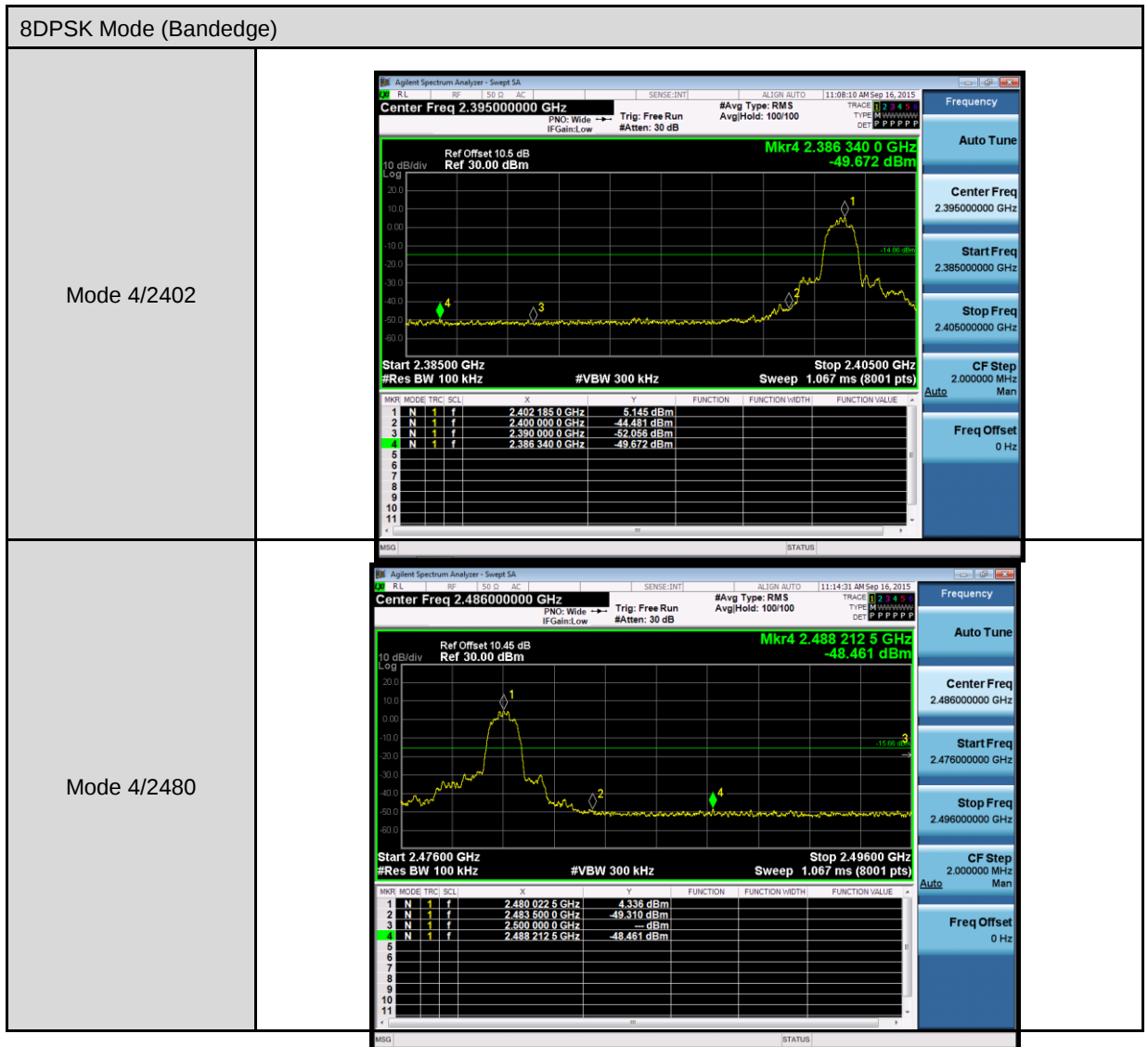
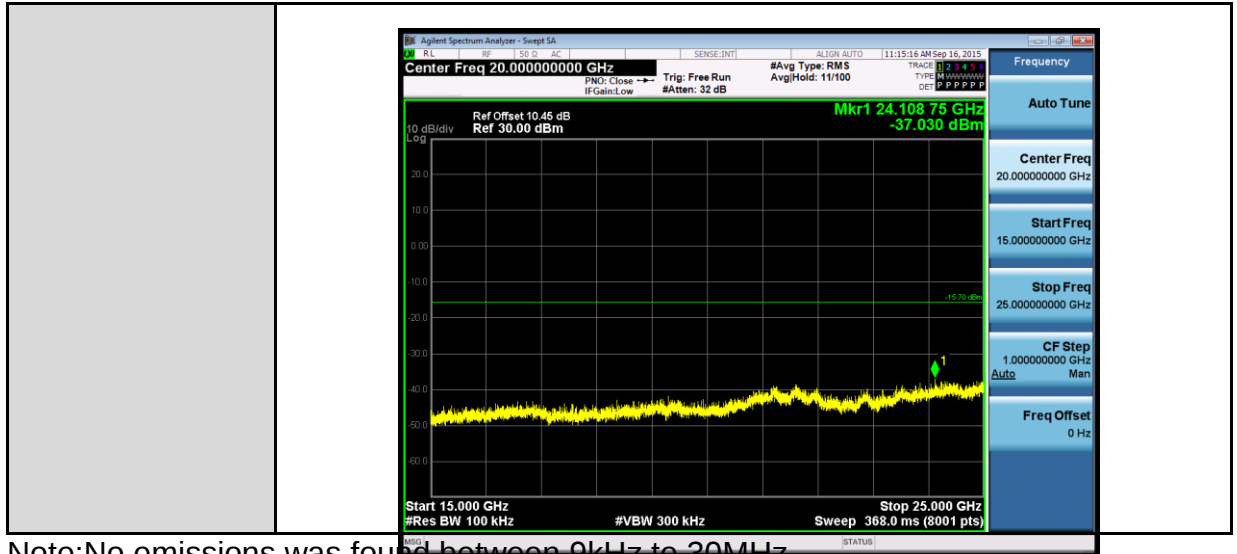
2441





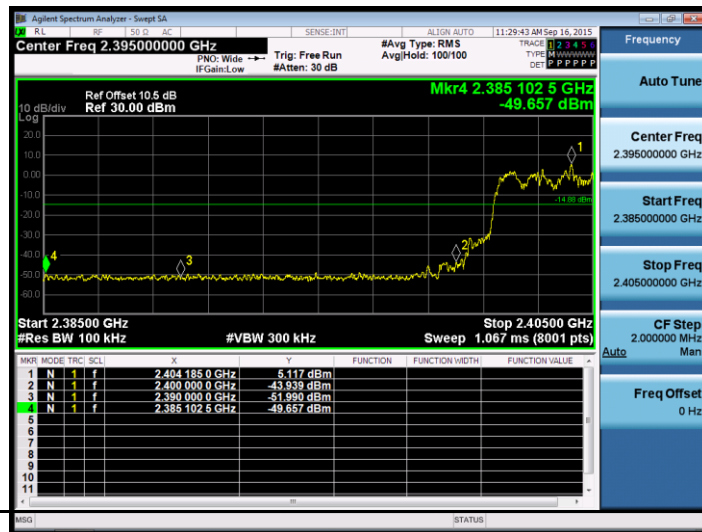




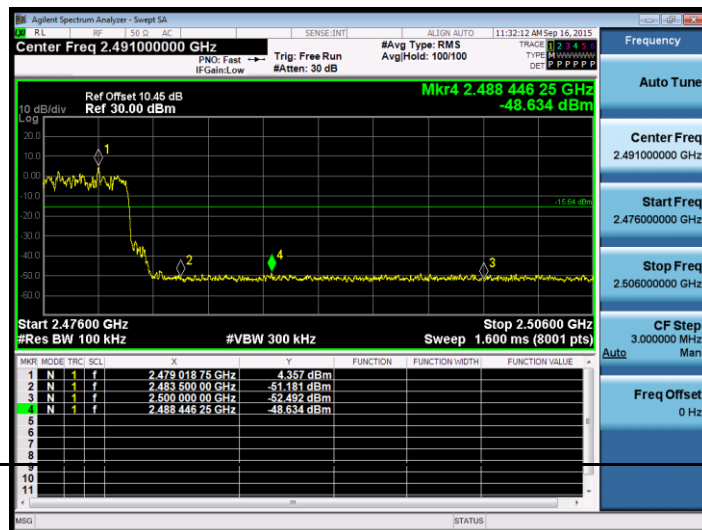




Mode 7/Hopping-2402



Mode 7/Hopping-2480

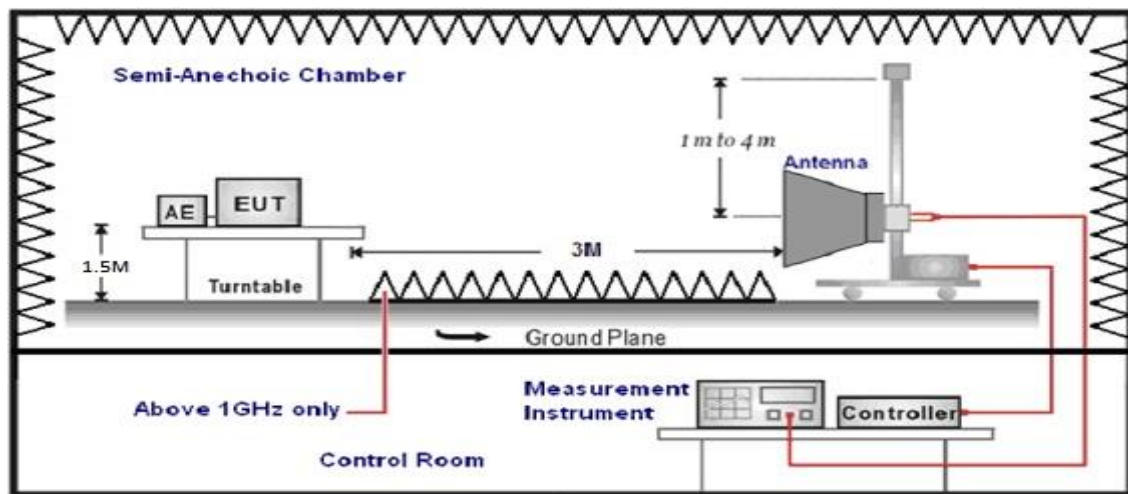


12 Band Edges Measurement

12.1. Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power

12.2. Test Setup



12.3. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4408B	MY45107753	07/14/2015	(1)
Pre Amplifier	Agilent	8449B	3008A02237	02/21/2015	(1)
Horn Antenna	SCHWARZBECK MESS-ELEKTRONIK	9120D	9120D-550	06/11/2015	(1)
Test Site	ATL	TE01	888001	08/28/2015	(1)
RF cable	WOKEN	---	C.10-07-07	10/24/2014	(1)
RF cable	WOKEN	---	C.10-07-08	10/24/2014	(1)
RF cable	WOKEN	---	C.10-07-09	10/24/2014	(1)

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.

NOTE: N.C.R. = No Calibration Request. All the RF cables apply to 9 KHz to 40GHz.



12.4. Test Procedure

Testing must be done according to this procedure. This is the only method recognized by the FCC. The emissions on the harmonics frequencies, the limits, and the margin of compliance are presented. These tests were made when the transmitter was in full radiated power. The additional test was performed to show compliance with the requirement at the band-edge frequency 2483.5 MHz and up to 2500 MHz and at 2390.0 MHz.

The transmitter was configured with the worst case antenna and setup to transmit at the highest channel. Then the field strength was measured at 2483.5 MHz.

The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel. Then the field strength was measured at 2390.0 MHz.

For measurements the resolution bandwidth is set to 1 MHz, and then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

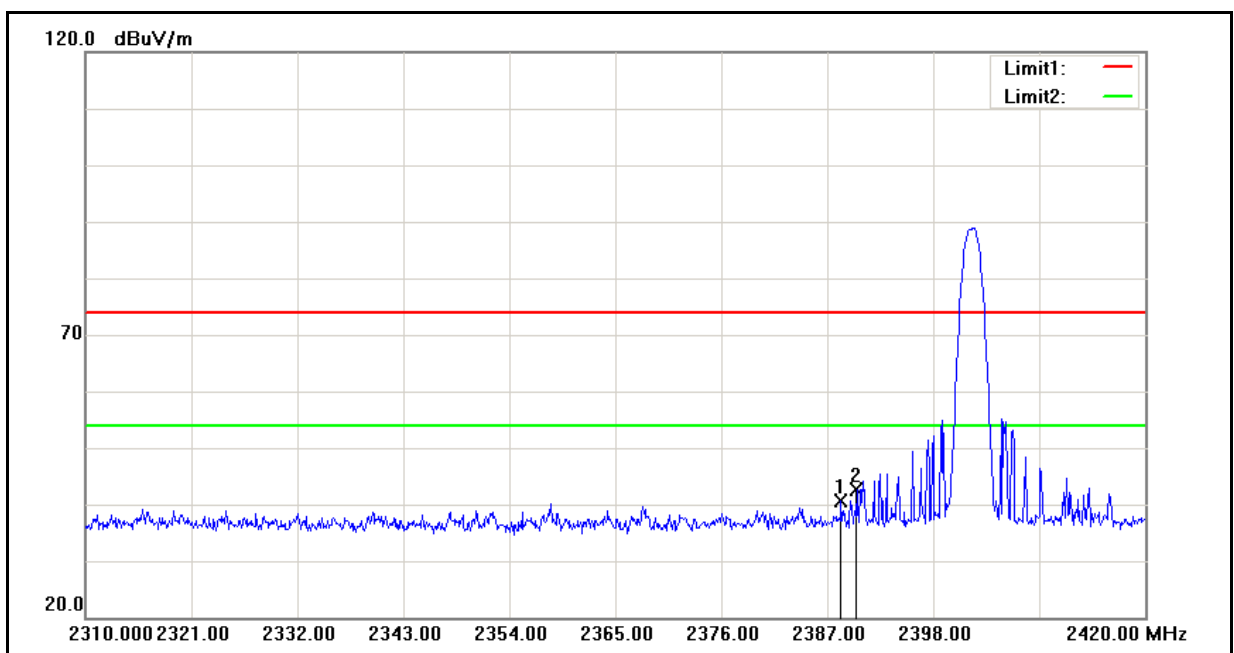
Note: We tests were performed in different modulation to find the worst case. And show the worst-case here.



12.5. Test Result

Note: We have test both un-hopping and hopping mode for the radiated bandedge test, and the un-hopping mode is worse case.

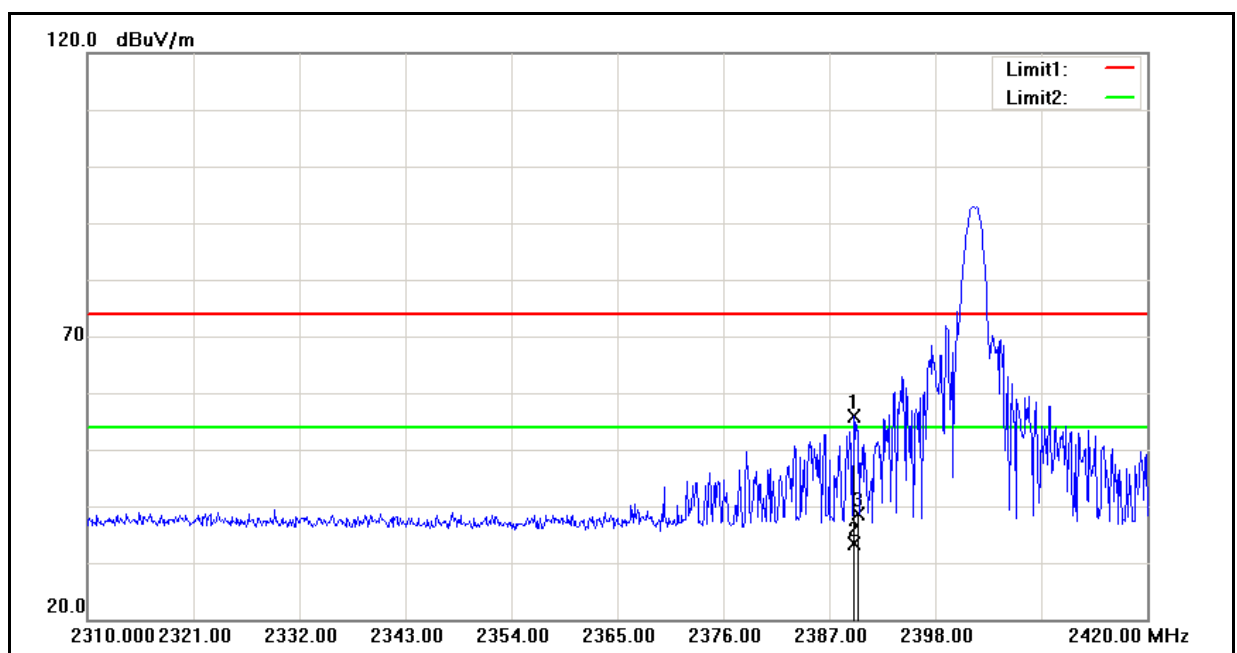
Standard:	FCC Part 15C	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.7V
Model Number:	ZeWatch ³	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 2	Date:	2015/9/24
Frequency:	2402 MHz	Test By:	Ricky
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.430	40.93	-0.19	40.74	74.00	-33.26	peak
2	2390.000	42.77	-0.19	42.58	74.00	-31.42	peak



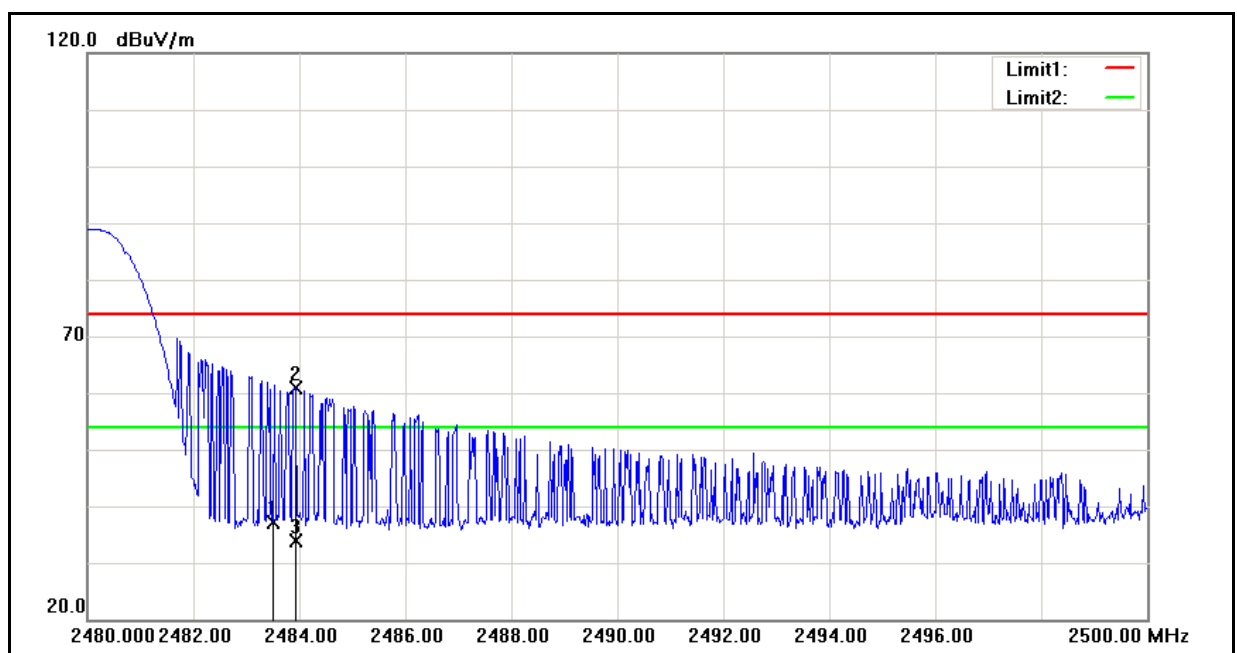
Standard:	FCC Part 15C	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.7V
Model Number:	ZeWatch ³	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 2	Date:	2015/9/24
Frequency:	2402 MHz	Test By:	Ricky
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.530	56.08	-0.19	55.89	74.00	-18.11	peak
2	2389.530	33.66	-0.19	33.47	54.00	-20.53	AVG
3	2390.000	38.77	-0.19	38.58	74.00	-35.42	peak



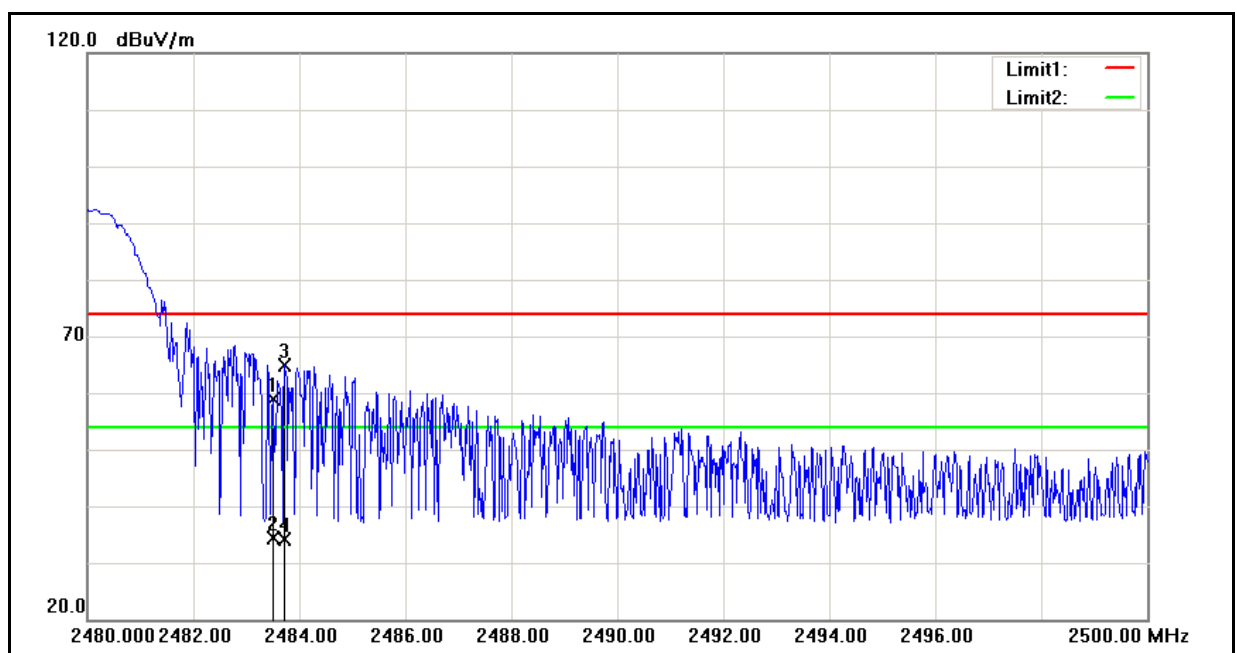
Standard:	FCC Part 15C	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.7V
Model Number:	ZeWatch ³	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 2	Date:	2015/9/24
Frequency:	2480 MHz	Test By:	Ricky
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	36.90	0.24	37.14	74.00	-36.86	peak
2	2483.920	60.59	0.24	60.83	74.00	-13.17	peak
3	2483.920	33.59	0.24	33.83	54.00	-20.17	AVG



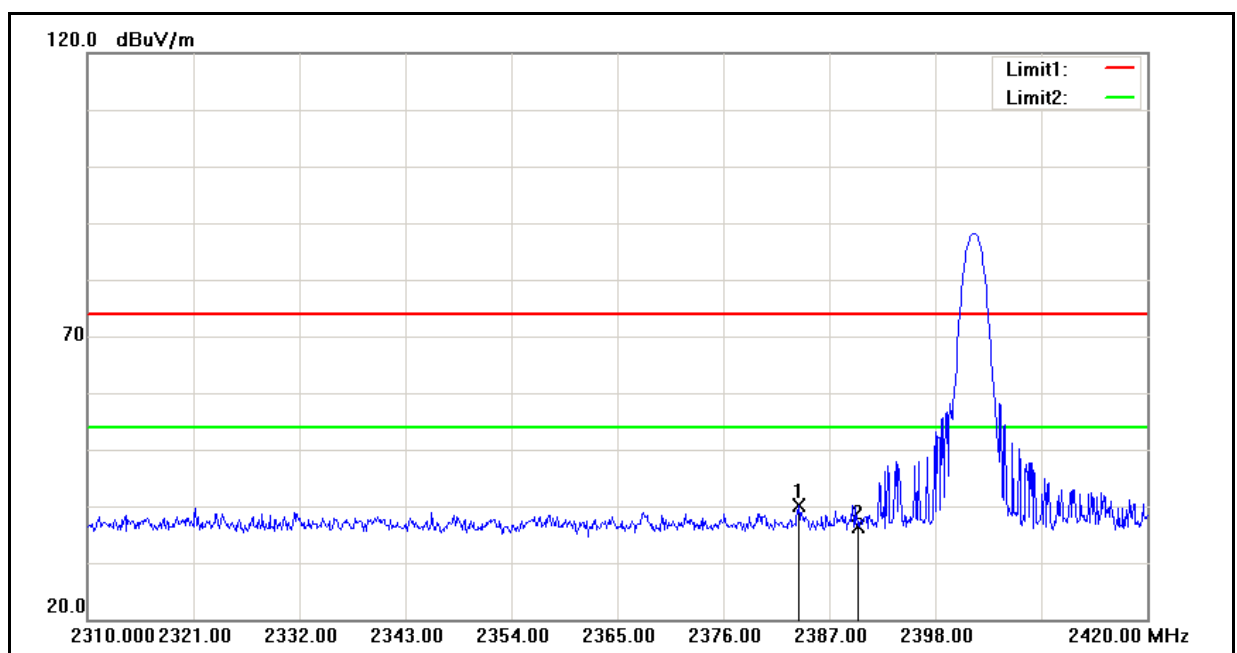
Standard:	FCC Part 15C	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.7V
Model Number:	ZeWatch ³	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 2	Date:	2015/9/24
Frequency:	2480 MHz	Test By:	Ricky
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	58.76	0.24	59.00	74.00	-15.00	peak
2	2483.500	34.02	0.24	34.26	54.00	-19.74	AVG
3	2483.720	64.65	0.24	64.89	74.00	-9.11	Peak
4	2483.720	33.97	0.24	34.21	54.00	-19.79	AVG



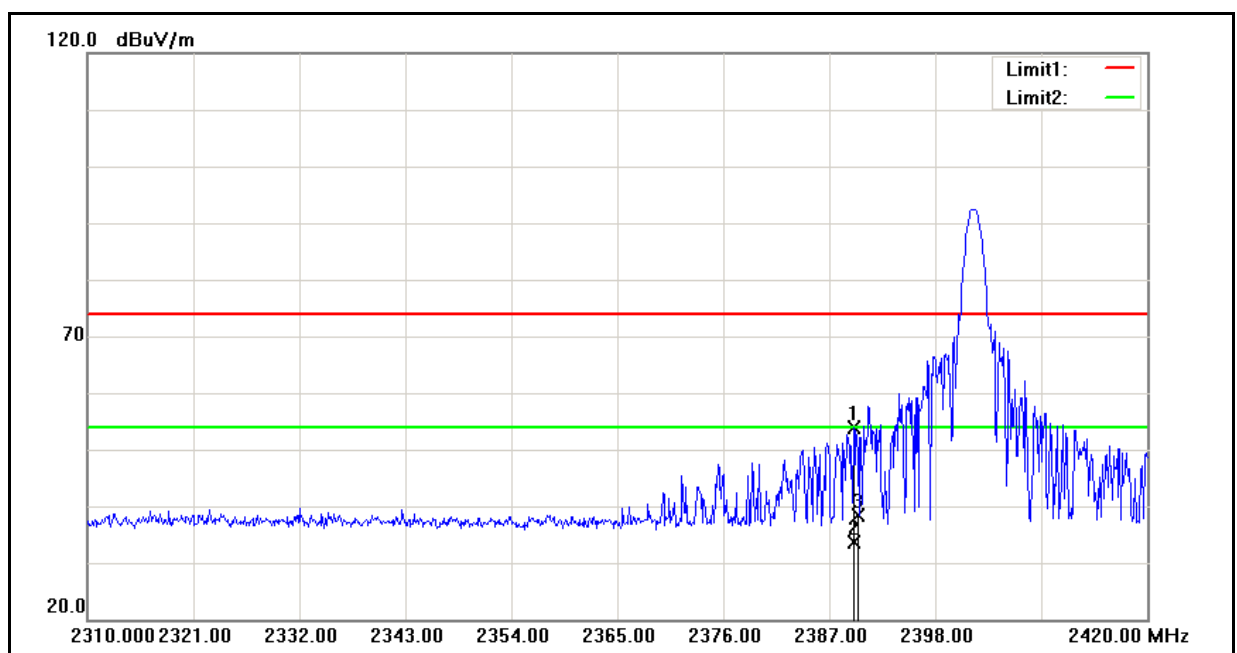
Standard:	FCC Part 15C	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.7V
Model Number:	ZeWatch ³	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4	Date:	2015/9/24
Frequency:	2402 MHz	Test By:	Ricky
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2383.810	40.29	-0.21	40.08	74.00	-33.92	peak
2	2390.000	36.68	-0.19	36.49	74.00	-37.51	peak



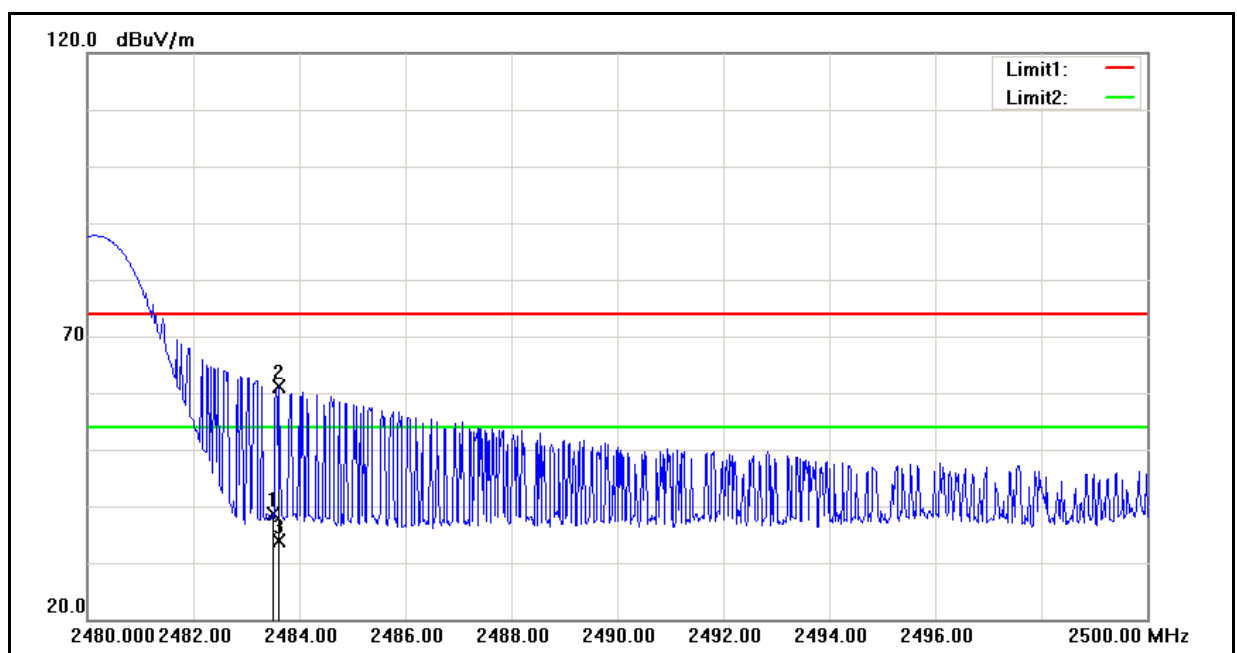
Standard:	FCC Part 15C	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.7V
Model Number:	ZeWatch ³	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4	Date:	2015/9/24
Frequency:	2402 MHz	Test By:	Ricky
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.530	54.16	-0.19	53.97	74.00	-20.03	peak
2	2389.530	33.90	-0.19	33.71	54.00	-20.29	AVG
3	2390.000	38.51	-0.19	38.32	74.00	-35.68	peak



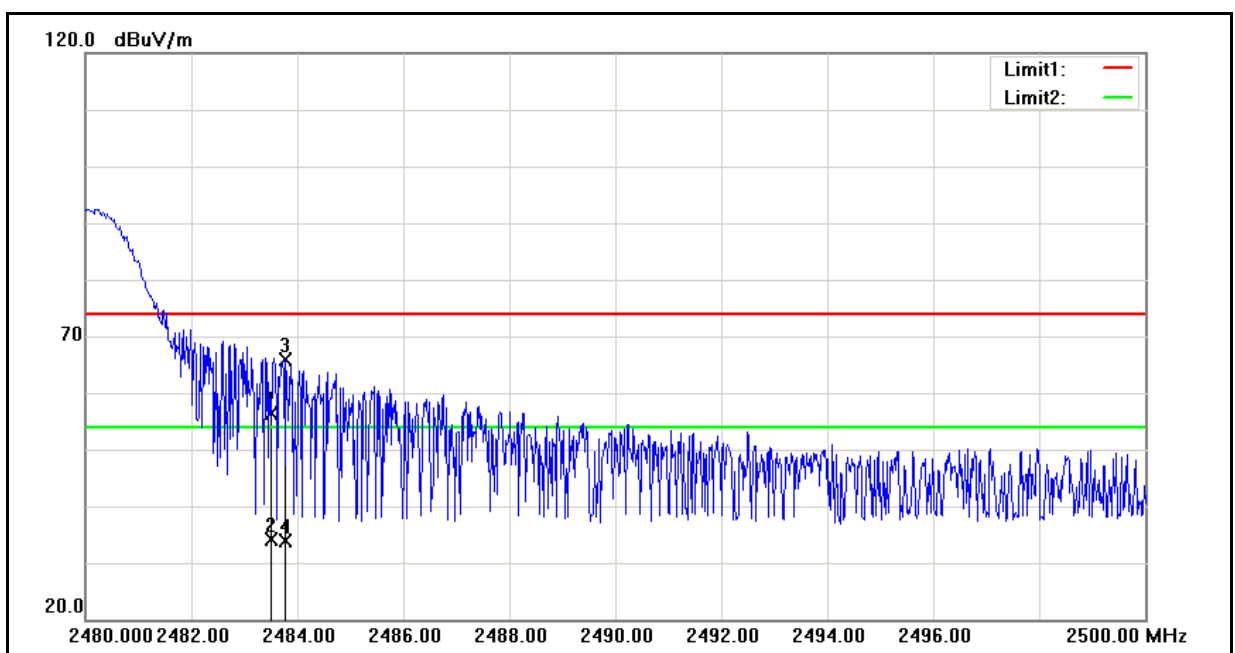
Standard:	FCC Part 15C	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.7V
Model Number:	ZeWatch ³	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4	Date:	2015/9/24
Frequency:	2480 MHz	Test By:	Ricky
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	38.43	0.24	38.67	74.00	-35.33	peak
2	2483.620	60.92	0.24	61.16	74.00	-12.84	peak
3	2483.620	33.54	0.24	33.78	54.00	-20.22	AVG



Standard:	FCC Part 15C	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.7V
Model Number:	ZeWatch ³	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	Mode 4	Date:	2015/9/25
Frequency:	2480 MHz	Test By:	Ricky
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	56.23	0.24	56.47	74.00	-17.53	Peak
2	2483.500	33.81	0.24	34.05	54.00	-19.95	AVG
3	2483.780	65.53	0.24	65.77	74.00	-8.23	peak
4	2483.780	33.74	0.24	33.98	54.00	-20.02	AVG

Note: 1. Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).



13 Antenna Measurement

13.1. Limit

For intentional device, according to 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And According to 15.247 (b), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

13.2. Antenna Connector Construction

The antenna used in this product is Integrated Antenna. And the maximum Gain of this antenna is only 0.50 dBi.

13.3. Antenna Gain

Mode 2: DH5	Low channel	Middle channel	High channel
Conducted power (dBm)	6.675	6.932	6.309
Radiated Power (dBm)	7.153	7.432	6.778
Gain (dBi)	0.48	0.50	0.47
Measurement uncertainty	$\pm 1.5\text{dB(Cond.)}/3\text{dB(Rad.)}$		

--END OF REPORT--