

FCC 15.247
TEST REPORT

for

ECOLINK PET IMMUNE MOTION DETECTOR
MODEL: PIRZB1-ECO

Prepared for

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2055 CORTE DEL NOGAL
CARLSBAD, CALIFORNIA 92011

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DATE: MAY 15, 2017

	REPORT	APPENDICES					TOTAL
	BODY	A	B	C	D	E	
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GENERAL REPORT SUMMARY

This electromagnetic emission test report is generated by Compatible Electronics Inc., which is an independent testing and consulting firm. The test report is based on testing performed by Compatible Electronics personnel according to the measurement procedures described in the test specifications given below and in the "Test Procedures" section of this report.

The measurement data and conclusions appearing herein relate only to the sample tested and this report may not be reproduced without the written permission of Compatible Electronics, unless done so in full.

This report must not be used to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the federal government.

Device Tested: Ecolink Pet Immune Motion Detector
Model: PIRZB1-ECO
S/N: N/A

Product Description: The EUT is a wireless device used to detect motion inside homes.

Modifications: The EUT was not modified during the testing.

Customer: Ecolink Intelligent Technology, Inc.
2055 Corte Del Nogal
Carlsbad, California 92011

Test Dates: May 1, 2, 3, and 5, 2017

Test Specification covered by accreditation:



Test Specifications: Emissions requirements
CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.247

Test Procedure: ANSI C63.4, ANSI C63.10

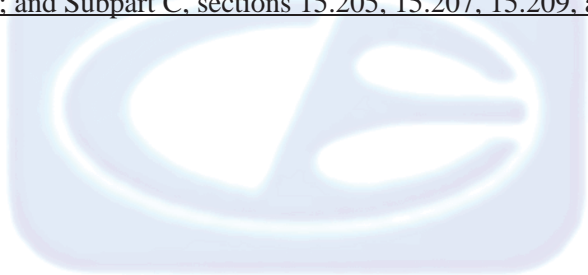
Test Deviations: The test procedure was not deviated from during the testing.

SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Conducted RF Emissions, 150 kHz – 30 MHz	This test was not performed because the EUT is battery powered only and cannot be connected to the AC public mains.
2	Fundamental and Emissions produced by the intentional radiator in non-restricted bands, 9 kHz – 25 GHz	Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.247(d)
3	Emissions produced by the intentional radiator in restricted bands, 9 kHz – 25 GHz	Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.205, 15.209, and section 15.247 (d)
4	DTS Bandwidth	Complies with the relevant requirements of FCC Title 47, Part 15, Subpart C, section 15.247 (a)(2)
5	Peak Power Output	Complies with the relevant requirements of FCC Title 47, Part 15, Subpart C, section 15.247 (b)(3)
6	RF Conducted Antenna Test	Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.247 (d)
7	Peak Power Spectral Density from the Intentional Radiator to the Antenna	Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.247 (e)

1. PURPOSE

This document is a qualification test report based on the emissions tests performed on the Ecolink Pet Immune Motion Detector, Model: PIRZB1-ECO. The emissions measurements were performed according to the measurement procedure described in ANSI C63.10 and ANSI C63.4. The tests were performed in order to determine whether the electromagnetic emissions from the equipment under test, referred to as EUT hereafter, are within the Class B specification limits defined by CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.207, 15.209, and 15.247.



2. ADMINISTRATIVE DATA

2.1 Location of Testing

The emissions tests described herein were performed at the test facility of Compatible Electronics, 114 Olinda Drive, Brea, California 92823.

2.2 Traceability Statement

The calibration certificates of all test equipment used during the test are on file at the location of the test. The calibration is traceable to the National Institute of Standards and Technology (NIST).

2.3 Cognizant Personnel

Ecolink Intelligent Technology, Inc.

Mike Archbold	Product Development Engineer
Mike Bailey	VP of Operations and Product Development

Compatible Electronics Inc.

Kyle Fujimoto	Test Engineer
James Ross	Test Engineer

2.4 Date Test Sample was Received

The test sample was received on May 1, 2017.

2.5 Disposition of the Test Sample

The test sample has not been returned to Ecolink Intelligent Technology, Inc. as of the date of this test report.

2.6 Abbreviations and Acronyms

The following abbreviations and acronyms may be used in this document.

RF	Radio Frequency
EMI	Electromagnetic Interference
EUT	Equipment Under Test
P/N	Part Number
S/N	Serial Number
HP	Hewlett Packard
ITE	Information Technology Equipment
CML	Corrected Meter Limit
LISN	Line Impedance Stabilization Network
N/A	Not Applicable
VP	Vice President

3. APPLICABLE DOCUMENTS

The following documents are referenced or used in the preparation of this emissions Test Report.

SPEC	TITLE
FCC Title 47, Part 15 Subpart C	FCC Rules - Radio frequency devices (including digital devices) – Intentional Radiators
ANSI C63.4 2014	Methods of measurement of radio-noise emissions from low-voltage electrical and electronic equipment in the range of 9 kHz to 40 GHz
ANSI C63.10 2013	American National Standard for Testing Unlicensed Wireless Devices
FCC Title 47, Part 15 Subpart B	FCC Rules - Radio frequency devices (including digital devices) – Unintentional Radiators
558074 D01 DTS Meas Guidance v04	Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating under 15.247

4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description of Test Configuration – Emissions

The Ecolink Pet Immune Motion Detector, Model: PIRZB1-ECO (EUT) was tested as a stand-alone unit. The EUT was continuously transmitting on the selected antenna.

The EUT was tested in the X, Y and Z axis. The X orientation is when the EUT is parallel to the ground. The Y orientation is when the EUT is perpendicular to the ground mounted vertically. The Z orientation is when the EUT is perpendicular to the ground mounted horizontally.

The EUT was tested with a fresh set of batteries.

It was determined that the emissions were at their highest level when the EUT was operating in the above configuration. The final emissions data was taken in this mode of operation and any cables were maximized. All initial investigations were performed with the measurement receiver in manual mode scanning the frequency range continuously. Photographs of the test setup are in Appendix D of this report.

4.1.1 Cable Construction and Termination

The EUT has no external cables.

5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT**5.1 EUT and Accessory List**

EQUIPMENT	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	FCC ID
ECOLINK PET IMMUNE MOTION DETECTOR	ECOLINK INTELLIGENT TECHNOLOGY, INC.	PIRZB1-ECO	N/A	XQC-PIRZB1EC0

5.2 Emissions Test Equipment

EQUIPMENT TYPE	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	CALIBRATION DATE	CAL. CYCLE
GENERAL TEST EQUIPMENT USED IN LAB D					
TDK TestLab	TDK RF Solutions, Inc.	9.22	700145	N/A	N/A
Computer	Hewlett Packard	p6716f	MXX1030PX0	N/A	N/A
LCD Monitor	Hewlett Packard	52031a	3CQ046N3MG	N/A	N/A
EMI Receiver, 20 Hz – 26.5 GHz	Keysight	N9038A	MY51210150	December 29, 2015	2 Year
RF RADIATED EMISSIONS TEST EQUIPMENT					
CombiLog Antenna	Com-Power	AC-220	61060	September 3, 2015	2 Year
Preamplifier	Com-Power	PAM-118A	551024	May 12, 2016	2 Year
Preamplifier	Com-Power	PA-840	711013	May 13, 2016	2 Year
Loop Antenna	Com-Power	AL-130R	121090	February 9, 2017	2 Year
Horn Antenna	Com-Power	AH-826	71957	N/A	N/A
Horn Antenna	Com-Power	AH-118	071175	February 26, 2016	2 Year
Antenna Mast	Com Power	AM-100	N/A	N/A	N/A
System Controller	Sunol Sciences Corporation	SC110V	112213-1	N/A	N/A
Turntable	Sunol Sciences Corporation	2011VS	N/A	N/A	N/A
Antenna-Mast	Sunol Sciences Corporation	TWR95-4	112213-3	N/A	N/A

6. TEST SITE DESCRIPTION

6.1 Test Facility Description

Please refer to section 2.1 and 7.1 of this report for emissions test location.

6.2 EUT Mounting, Bonding and Grounding

For frequencies 1 GHz and below: The EUT was mounted on a 1.0 by 1.5 meter non-conductive table 0.8 meters above the ground plane.

For frequencies above 1 GHz: The EUT was mounted on a 1.0 by 1.5 meter non-conductive table 1.5 meters above the ground plane.

The EUT was not grounded.

7. CHARACTERISTICS OF THE TRANSMITTER

7.1 Channel Description and Frequencies

The lowest frequency the EUT will use is 2405 MHz and the highest frequency the EUT will use is 2480 MHz. The EUT will be able to be tuned every 5 MHz between the lowest frequency and the highest frequency.

The power level was -7 was used for testing at 2405 MHz, 2440 MHz, and for testing the band edge at 2475 MHz. The power level was -15 for testing at 2480 MHz.

7.2 Antenna Gain

The EUT utilizes two internal inverted-F PCB trace antennas. The first antenna has a gain of -1.6 dBi and the second antenna has a gain of -3.9 dBi.

8. TEST PROCEDURES

The following sections describe the test methods and the specifications for the tests. Test results are also included in this section.

8.1 RF Emissions

8.1.1 Conducted Emissions Test

The spectrum analyzer was used as a measuring meter. The data was collected with the spectrum analyzer in the peak detect mode with the "Max Hold" feature activated. The quasi-peak was used only where indicated in the data sheets. A transient limiter was used for the protection of the spectrum analyzer input stage, and the offset was adjusted accordingly to read the actual data measured. The LISN output was measured using the spectrum analyzer. The output of the second LISN was terminated by a 50 ohm termination. The effective measurement bandwidth used for this test was 9 kHz.

Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The EUT was powered through the LISN, which was bonded to the ground plane. The LISN power was filtered and the filter was bonded to the ground plane. The EUT was set up with the minimum distances from any conductive surfaces as specified in ANSI C63.4. The excess power cord was wrapped in a figure eight pattern to form a bundle not exceeding 0.4 meters in length.

The conducted emissions from the EUT were maximized for operating mode as well as cable placement. The final data was collected under program control by the Compatible Electronics conducted emissions software in several overlapping sweeps by running the spectrum analyzer at a minimum scan rate of 10 seconds per octave. The final qualification data is located in Appendix E.

Test Results:

This test was not performed because the EUT is battery powered only and cannot be connected to the AC public mains.

8.1.2 Radiated Emissions (Spurious and Harmonics) Test

The EMI Receiver was used as the measuring meter. Below 1 GHz, a built-in, internal preamplifier was used to increase the sensitivity of the instrument. The EMI Receiver was initially used with the Analyzer mode feature activated. In this mode, the EMI receiver can then record the actual frequency to be measured. This final reading is then taken accurately in the EMI Receiver mode, which takes into account the cable loss, amplifier gain and antenna factors, so that a true reading is compared to the true limit.

The frequencies above 1 GHz were averaged by using a duty cycle correction factor.

The measurement bandwidths and transducers used for the radiated emissions test were:

FREQUENCY RANGE	EFFECTIVE MEASUREMENT BANDWIDTH	TRANSDUCER
9 kHz to 150 kHz	200 Hz	Loop Antenna
150 kHz to 30 MHz	9 kHz	Loop Antenna
30 MHz to 1 GHz	120 kHz	Combilog Antenna
1 GHz to 25 GHz	1 MHz	Horn Antenna

The EMI test chamber of Compatible Electronics, Inc. was used for radiated emissions testing. This test site is in full compliance with ANSI C63.4. Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The turntable supporting the EUT is remote controlled using a motor. The turntable permits EUT rotation of 360 degrees in order to maximize emissions. Also, the antenna mast allows height variation of the antenna from 1 meter to 4 meters. Data was collected in the worst case (highest emission) configuration of the EUT. At each reading, the EUT was rotated 360 degrees and the antenna height was varied from 1 to 4 meters (for E field radiated field strength). The gunsight method was used when measuring with the horn antenna in order to ensure accurate results.

Test Results:

The EUT complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B; and the limits of CFR Title 47, Part 15, Subpart C, Sections 15.209 and 15.247 (d) for radiated emissions. Please see Appendix E for the data sheets.

8.2 DTS Bandwidth

The DTS Bandwidth was measured using the EMI Receiver. The bandwidth was measured using a direct connection from the RF output of the EUT. The following steps were performed for measuring the DTS Bandwidth.

1. Set RBW = 100 kHz
2. Set the video bandwidth (VBW) to equal or greater than 3 times the RBW
3. Detector = Peak
4. Trace Mode = Max Hold
5. Sweep = Auto Couple
6. Allow the trace to stabilize
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (a)(2).

8.3 Peak Output Power

The Peak Output Power was measured using the EMI Receiver. The peak output power was measured using a direct connection from the RF output of the EUT. The resolution bandwidth was 8 MHz and the video bandwidth was 50 MHz. The cable loss was also added back into the reading using the reference level offset. The Peak Output Power was then taken.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (b)(3).

8.4 Emissions in Non-Restricted Bands

The emissions in the non-restricted frequency bands measurements were performed using the EMI Receiver. The emissions were measured using a direct connection from the RF output of the EUT. The reference level was established by setting the instrument center frequency to DTS channel center frequency. A peak detector was used with sweep set to auto. A max hold trace was used and allowed to fully stabilize. The peak marker function was used to determine the level and 20 dB below that was the reference level. For emission level measurement, the center frequency and span were set to encompass the frequency range to be measured. A peak detector was used with a sweep time set to auto. The number of measurement points were greater than the span/RBW. A max hold trace was used and allowed to fully stabilize. The peak marker function was used to determine the maximum amplitude level. The final qualification data sheets are located in Appendix E.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (d). The RF power that is produced by the intentional radiator is at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of desired power. Please see the radiated emission data sheets located in Appendix E.

8.5 RF Band Edges

The RF band edges were taken at 2390 MHz when the EUT was on the low channel and 2483.5 MHz when the EUT was on the high channel using the EMI Receiver. A preamplifier was used to boost the signal level, with the plots being taken at a 3 meter test distance. The radiated emissions test procedure as describe in section 8.1.2 of this test report was used to maximize the emission.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (d). The RF power at the restricted bands closest to the band edges at 2390 MHz and 2483.5 MHz also meet the limits of section 15.209. Please see the data sheets located in Appendix E.

8.6 Spectral Density Test

The spectrum density output was measured using the EMI Receiver. The spectral density output was measured using a direct connection from the RF out on the EUT into the input of the EMI Receiver. The following steps were performed for measuring the spectral density.

1. Set analyzer center frequency to DTS channel center frequency
2. Set the span to 1.5 times the DTS bandwidth.
3. Set the RBW to $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$
4. Set the VBW $\geq 3 \times \text{RBW}$
5. Detector = peak
6. Sweep time = auto couple
7. Trace mode = max hold
8. Allow trace to fully stabilize
9. Use the peak marker function to determine the maximum amplitude level within the RBW
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat..

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (e).

8.7 Duty Cycle Calculation

The fundamental and harmonics were measured at a 3-meter test distance. The EMI Receiver was used to obtain the final test data. The final qualification data sheets are located in Appendix E.

Where

$$\delta(\text{dB}) = 20 \log \left[\frac{\sum (nt_1 + mt_2 + \dots + \xi t_x)}{T} \right]$$

n is the number of pulses of duration t_1

m is the number of pulses of duration t_2

ξ is the number of pulses of duration t_x

T is the period of the pulse train or 100 ms if the pulse train length is greater than 100 ms

Attempting to pair when the control device is off is the worst case mode:

Duty Cycle Correction Factor = -11.95 dB

Pulse = 3.125 ms + 3.250 ms + 3.250 ms + 3.250 ms + 6.125 ms + 6.250 ms

Total On Time = 25.25 ms

Only one pulse during the 100 ms interval, so the maximum 100 ms interval can be used.

25.25 ms / 100 ms = 0.2525

20 log (0.2525) = -11.95 dB correction factor

9. CONCLUSIONS

The Ecolink Pet Immune Motion Detector, Model: PIRZB1-ECO (EUT), as tested, meets all of the specification limits defined in FCC Title 47, Part 15, Subpart B, and Subpart C, sections 15.205, 15.209, 15.207, and 15.247.





APPENDIX A

LABORATORY ACCREDITATIONS AND RECOGNITIONS

Brea Division
114 Olinda Drive
Brea, CA 92823
(714) 579-0500

Newbury Park Division
1050 Lawrence Drive
Newbury Park, CA 91320
(805) 480-4044

Lake Forest Division
20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400

LABORATORY ACCREDITATIONS AND RECOGNITIONS



NVLAP LAB CODE 200528-0

® For US, Canada, Australia/New Zealand, Japan, Taiwan, Korea, and the European Union, Compatible Electronics is currently accredited by NVLAP to ISO/IEC 17025.

For the most up-to-date version of our scopes and certificates please visit

<http://celectronics.com/quality/scope/>

Quote from ISO-ILAC-IAF Communiqué on 17025:

"A laboratory's fulfilment of the requirements of ISO/IEC 17025:2005 means the laboratory meets both the technical competence requirements and management system requirements that are necessary for it to consistently deliver technically valid test results and calibrations. The management system requirements in ISO/IEC 17025:2005 (Section 4) are written in language relevant to laboratory operations and meet the principles of ISO 9001:2008 Quality Management Systems — Requirements."



FCC Listing, from FCC OET site

[FCC test lab search](https://fjallfoss.fcc.gov/oetcf/eas/reports/TestFirmSearch.cfm) <https://fjallfoss.fcc.gov/oetcf/eas/reports/TestFirmSearch.cfm>





APPENDIX B

MODIFICATIONS TO THE EUT

MODIFICATIONS TO THE EUT

The modifications listed below were made to the EUT to pass FCC Subpart B and FCC 15.247 specifications.

All the rework described below was implemented during the test in a method that could be reproduced in all the units by the manufacturer.

The EUT was not modified during the testing.





APPENDIX C

***ADDITIONAL MODELS COVERED
UNDER THIS REPORT***

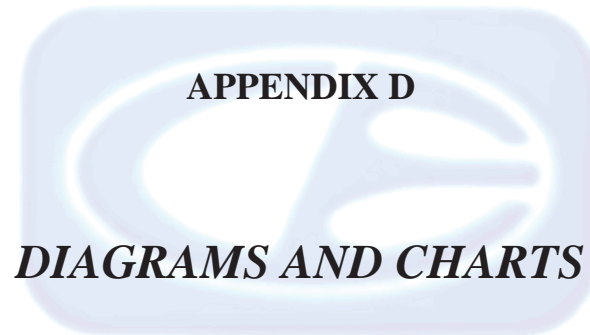
ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST

Ecolink Pet Immune Motion Detector
Model: PIRZB1-ECO
S/N: N/A

There were no additional models covered under this report.





APPENDIX D

DIAGRAMS AND CHARTS

FIGURE 1: LAYOUT OF THE SEMI-ANECHOIC TEST CHAMBER

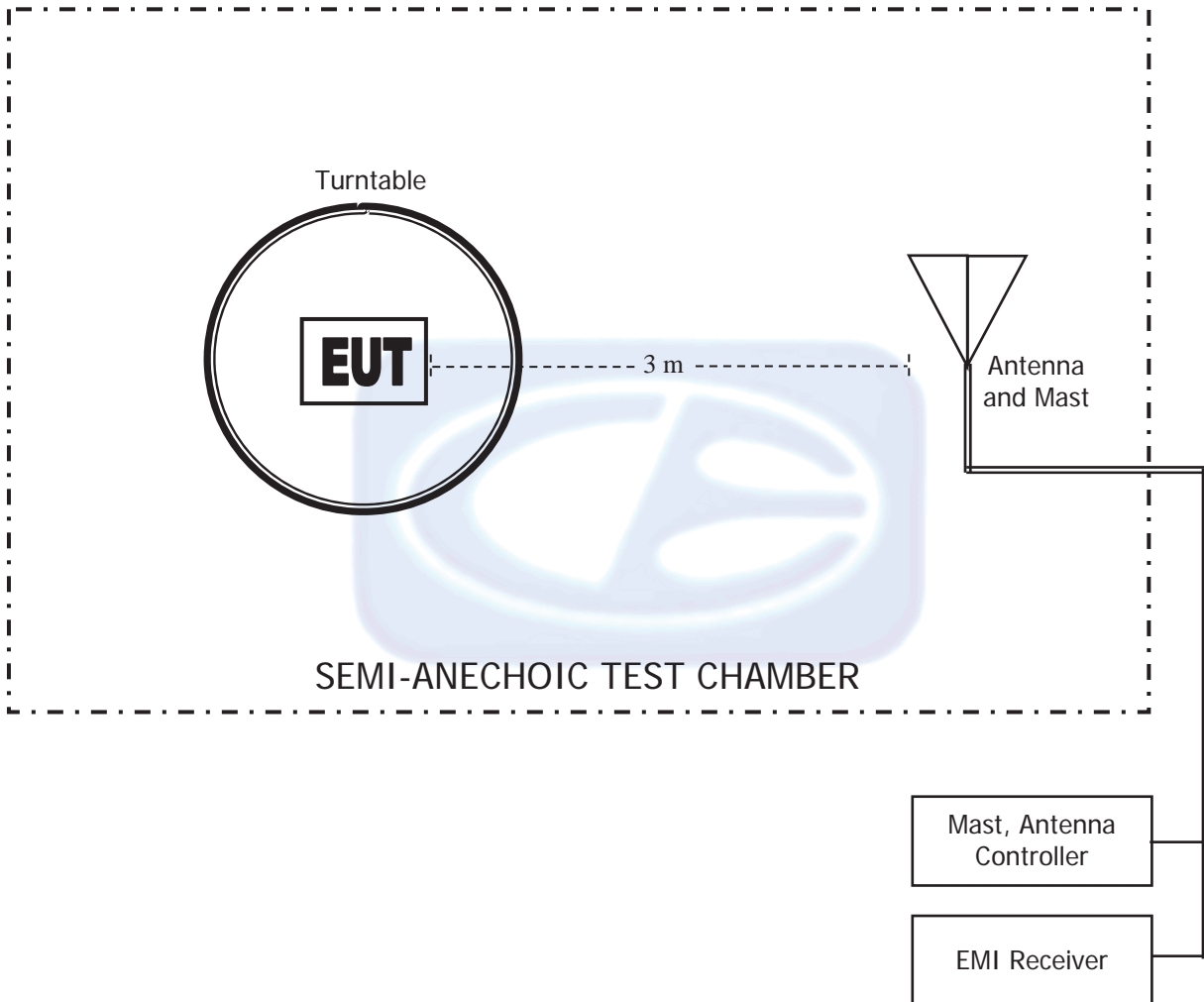
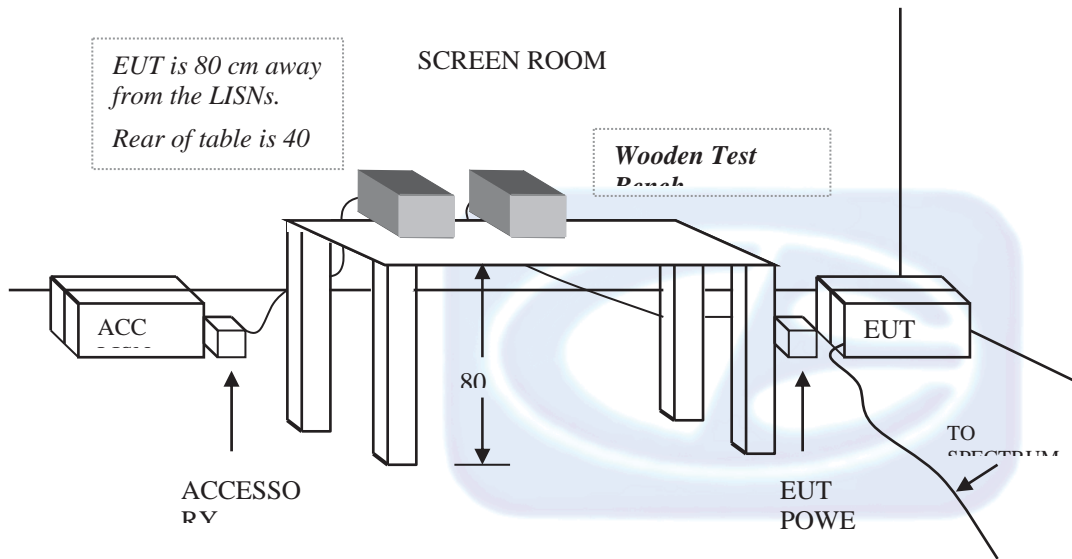


FIGURE 2: CONDUCTED EMISSIONS TEST SETUP



COM-POWER AL-130R**LOOP ANTENNA**

S/N: 121090

CALIBRATION DATE: FEBRUARY 9, 2017

FREQUENCY (MHz)	MAGNETIC (dB/m)	ELECTRIC (dB/m)
0.009	-36.17	15.33
0.01	-35.86	15.64
0.02	-37.30	14.20
0.03	-36.58	14.92
0.04	-36.99	14.51
0.05	-37.66	13.84
0.06	-37.53	13.97
0.07	-37.64	13.86
0.08	-37.52	13.98
0.09	-37.62	13.88
0.1	-37.59	13.91
0.2	-37.79	13.71
0.3	-37.80	13.70
0.4	-37.70	13.80
0.5	-37.79	13.71
0.6	-37.79	13.71
0.7	-37.69	13.81
0.8	-37.49	14.01
0.9	-37.39	14.11
1	-37.39	14.11
2	-37.09	14.41
3	-37.09	14.41
4	-37.19	14.31
5	-36.98	14.52
6	-37.17	14.33
7	-37.05	14.45
8	-36.85	14.65
9	-36.84	14.66
10	-36.75	14.75
15	-37.16	14.34
20	-36.44	15.06
25	-37.88	13.62
30	-39.14	12.36

COM-POWER AC-220**COMBILOG ANTENNA****S/N: 61060****CALIBRATION DATE: SEPTEMBER 3, 2015**

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	24.00	200	13.00
35	24.30	250	15.30
40	25.40	300	18.20
45	21.50	350	17.90
50	22.50	400	18.60
60	15.40	450	19.80
70	12.70	500	21.60
80	11.10	550	22.40
90	13.40	600	23.70
100	13.80	650	24.30
120	15.40	700	24.00
125	15.40	750	24.50
140	13.10	800	24.30
150	17.20	850	26.30
160	13.20	900	26.90
175	14.20	950	26.00
180	14.30	1000	25.60

COM POWER AH-118**HORN ANTENNA**

S/N: 071175

CALIBRATION DATE: FEBRUARY 26, 2016

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	23.93	10.0	39.33
1.5	25.54	10.5	39.64
2.0	28.09	11.0	41.04
2.5	30.21	11.5	44.29
3.0	30.15	12.0	41.22
3.5	30.17	12.5	41.50
4.0	31.90	13.0	41.62
4.5	33.51	13.5	40.63
5.0	33.87	14.0	39.94
5.5	35.08	14.5	41.84
6.0	34.81	15.0	42.69
6.5	34.26	15.5	39.03
7.0	36.33	16.0	39.07
7.5	37.03	16.5	41.40
8.0	37.56	17.0	43.18
8.5	40.07	17.5	47.01
9.0	38.92	18.0	46.48
9.5	38.21		

COM-POWER PA-118**PREAMPLIFIER**

S/N: 551024

CALIBRATION DATE: MAY 12, 2016

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	39.84	6.0	39.05
1.1	39.40	6.5	38.94
1.2	39.58	7.0	39.25
1.3	39.68	7.5	39.09
1.4	39.91	8.0	39.01
1.5	39.78	8.5	38.60
1.6	39.50	9.0	38.64
1.7	39.81	9.5	39.67
1.8	39.89	10.0	39.30
1.9	39.94	11.0	39.15
2.0	39.57	12.0	39.24
2.5	40.39	13.0	39.49
3.0	40.63	14.0	39.44
3.5	40.80	15.0	39.94
4.0	40.86	16.0	40.09
4.5	39.94	17.0	40.06
5.0	34.47	18.0	39.76
5.5	39.32		

COM-POWER AH-826**HORN ANTENNA**

S/N: 71957

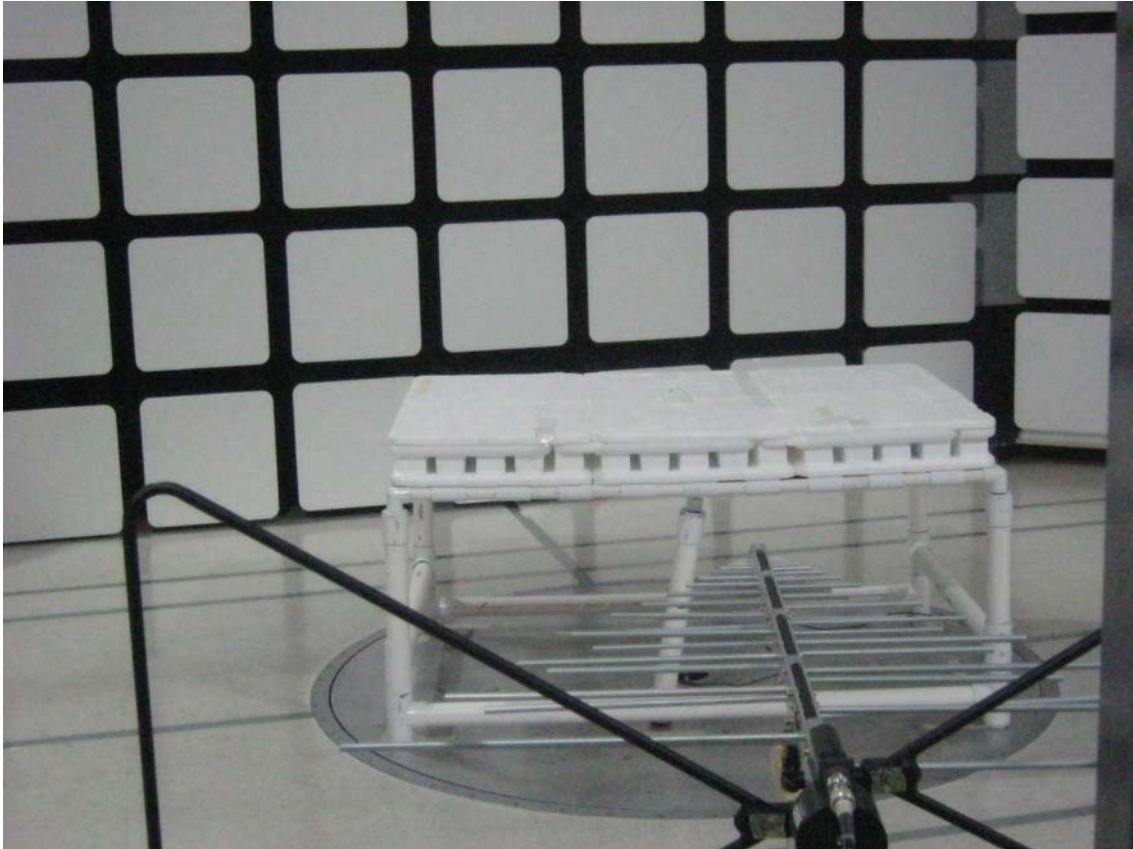
FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
18.0	33.5	22.5	35.5
18.5	33.5	23.0	35.9
19.0	34.0	23.5	35.7
19.5	34.0	24.0	35.6
20.0	34.3	24.5	36.0
20.5	34.9	25.0	36.2
21.0	34.7	25.5	36.1
21.5	35.0	26.0	36.2
22.0	35.0	26.5	35.7

COM-POWER PA-840**MICROWAVE PREAMPLIFIER**

S/N: 711013

CALIBRATION DATE: MAY 13, 2016

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
18.0	25.19	31.0	25.69
19.0	24.48	31.5	25.74
20.0	24.39	32.0	26.35
21.0	24.73	32.5	26.64
22.0	23.49	33.0	25.98
23.0	24.23	33.5	24.68
24.0	24.59	34.0	24.61
25.0	25.32	34.5	23.78
26.0	25.66	35.0	24.74
26.5	25.99	35.5	24.39
27.0	26.26	36.0	23.46
27.5	25.33	36.5	23.71
28.0	24.49	37.0	26.35
28.5	24.74	37.5	23.49
29.0	25.93	38.0	25.42
29.5	26.28	38.5	24.87
30.0	26.17	39.0	22.60
30.5	26.11	39.5	20.57
		40.0	19.15

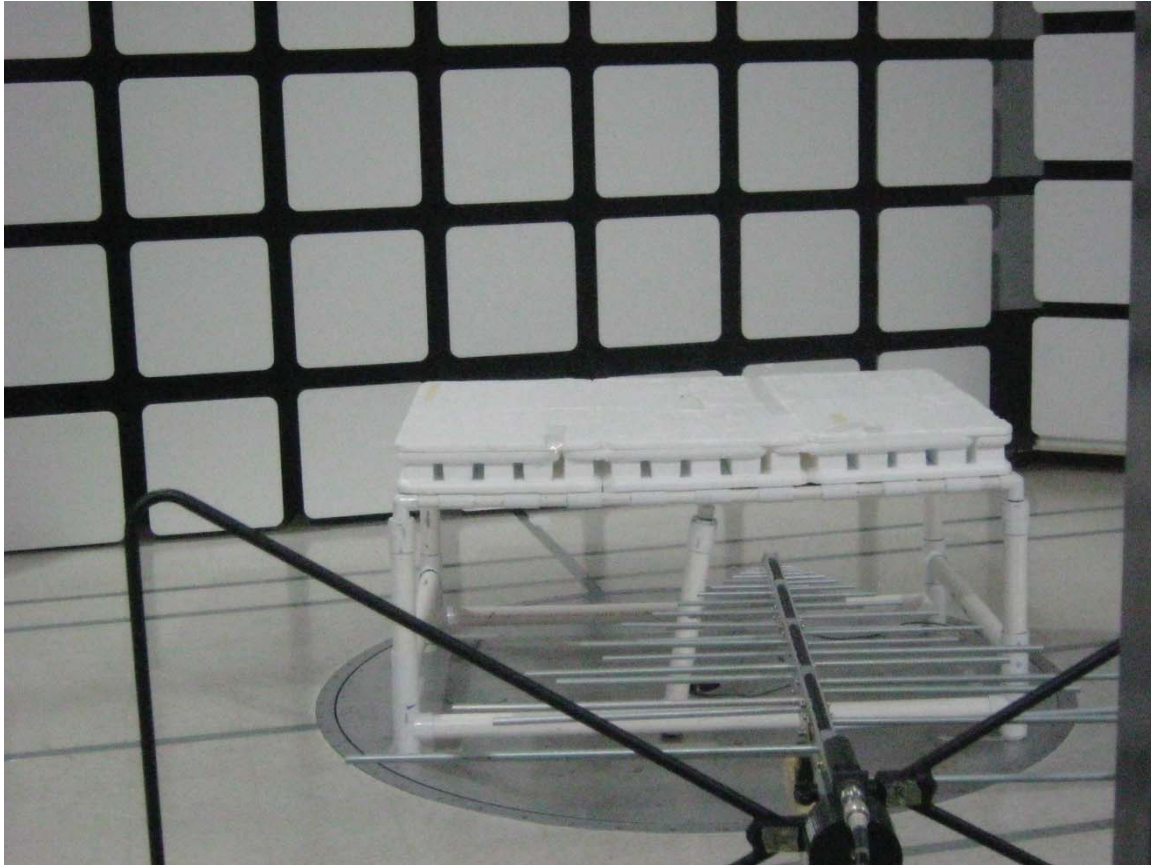


FRONT VIEW

ECOLINK INTELLIGENT TECHNOLOGY, INC.
ECOLINK PET IMMUNE MOTION DETECTOR
MODEL: PIRZB1-ECO

FCC SUBPART B AND C – RADIATED EMISSIONS – BELOW 1 GHz

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



REAR VIEW

ECOLINK INTELLIGENT TECHNOLOGY, INC.
ECOLINK PET IMMUNE MOTION DETECTOR
MODEL: PIRZB1-ECO

FCC SUBPART B AND C – RADIATED EMISSIONS – BELOW 1 GHz

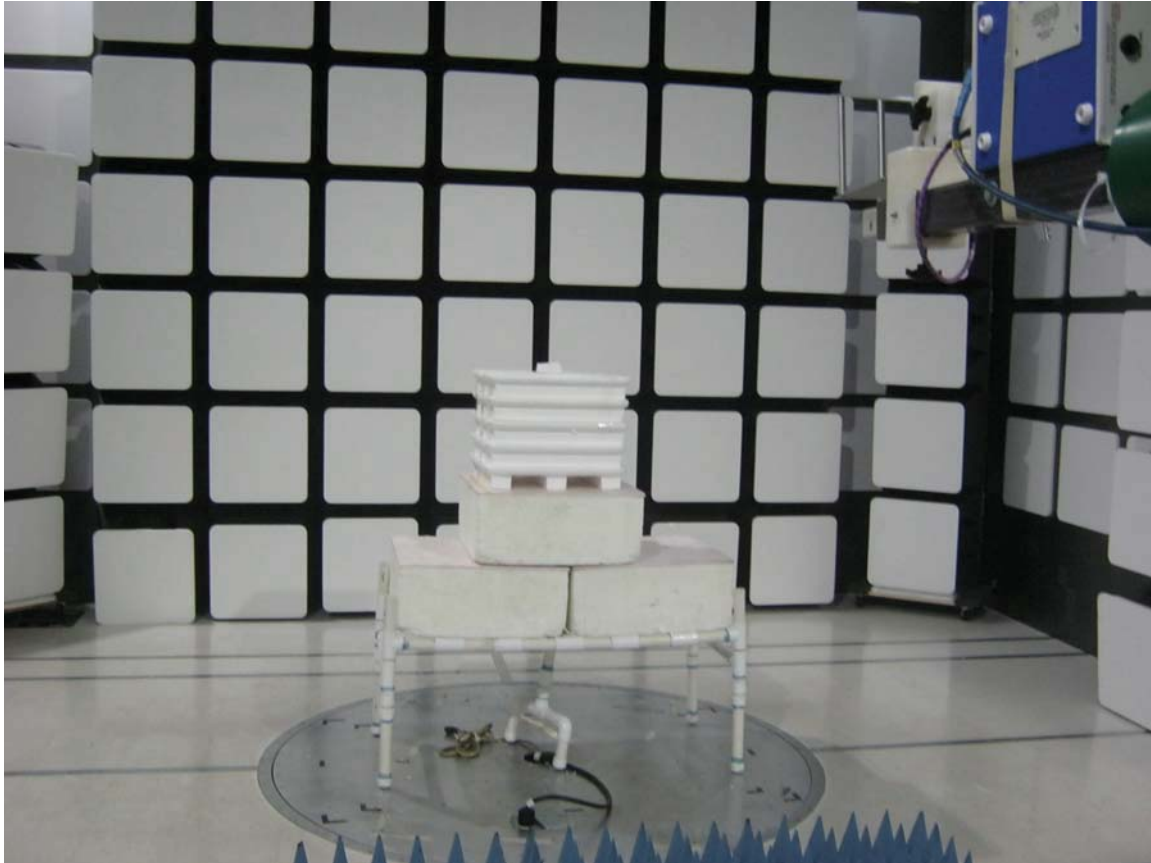
**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



FRONT VIEW

ECOLINK INTELLIGENT TECHNOLOGY, INC.
ECOLINK PET IMMUNE MOTION DETECTOR
MODEL: PIRZB1-ECO
FCC SUBPART B AND C – RADIATED EMISSIONS – ABOVE 1 GHz

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**

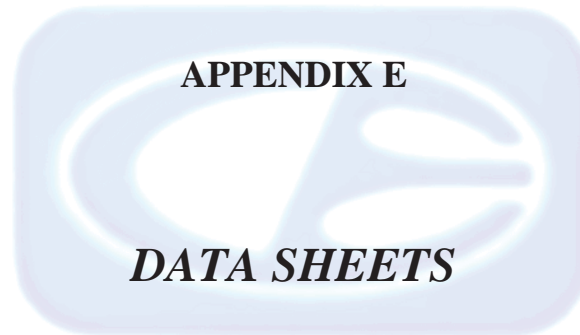


REAR VIEW

ECOLINK INTELLIGENT TECHNOLOGY, INC.
ECOLINK PET IMMUNE MOTION DETECTOR
MODEL: PIRZB1-ECO

FCC SUBPART B AND C – RADIATED EMISSIONS – ABOVE 1 GHz

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**





***RADIATED EMISSIONS
DATA SHEETS***

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - Low Channel - Power Level -7
X-Axis - Antenna #1

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4810	58.94	V	73.97	-15.03	Peak	192.25	159.28	
4810	46.99	V	53.97	-6.98	Avg	192.25	159.28	
7215								Not in Restrected Band
7215								Done via Conducted
9620								Not in Restrected Band
9620								Done via Conducted
12025								No Emissions
12025								Detected
14430								No Emissions
14430								Detected
16835								No Emissions
16835								Detected
19240								No Emissions
19240								Detected
21645								No Emissions
21645								Detected
24050								No Emissions
24050								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - Low Channel - Power Level -7
X-Axis - Antenna #1

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4810	55.30	H	73.97	-18.67	Peak	50.75	175.34	
4810	43.35	H	53.97	-10.62	Avg	50.75	175.34	
7215								Not in Restricted Band
7215								Done via Conducted
9620								Not in Restricted Band
9620								Done via Conducted
12025								No Emissions
12025								Detected
14430								No Emissions
14430								Detected
16835								No Emissions
16835								Detected
19240								No Emissions
19240								Detected
21645								No Emissions
21645								Detected
24050								No Emissions
24050								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - Low Channel - Power Level -7
Y-Axis - Antenna #1

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4810	55.80	V	73.97	-18.17	Peak	282.00	143.28	
4810	43.85	V	53.97	-10.12	Avg	282.00	143.28	
7215								Not in Restricted Band
7215								Done via Conducted
9620								Not in Restricted Band
9620								Done via Conducted
12025								No Emissions
12025								Detected
14430								No Emissions
14430								Detected
16835								No Emissions
16835								Detected
19240								No Emissions
19240								Detected
21645								No Emissions
21645								Detected
24050								No Emissions
24050								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - Low Channel - Power Level -7
Y-Axis - Antenna #1

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4810	59.68	H	73.97	-14.29	Peak	27.00	127.64	
4810	47.73	H	53.97	-6.24	Avg	27.00	127.64	
7215								Not in Restricted Band
7215								Done via Conducted
9620								Not in Restricted Band
9620								Done via Conducted
12025								No Emissions
12025								Detected
14430								No Emissions
14430								Detected
16835								No Emissions
16835								Detected
19240								No Emissions
19240								Detected
21645								No Emissions
21645								Detected
24050								No Emissions
24050								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - Low Channel - Power Level -7
Z-Axis - Antenna #1

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4810	56.52	V	73.97	-17.45	Peak	331.00	143.34	
4810	44.57	V	53.97	-9.40	Avg	331.00	143.34	
7215								Not in Restricted Band
7215								Done via Conducted
9620								Not in Restricted Band
9620								Done via Conducted
12025								No Emissions
12025								Detected
14430								No Emissions
14430								Detected
16835								No Emissions
16835								Detected
19240								No Emissions
19240								Detected
21645								No Emissions
21645								Detected
24050								No Emissions
24050								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

**Harmonics - Low Channel - Power Level -7
 Z-Axis - Antenna #1**

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4810	56.39	H	73.97	-17.58	Peak	300.75	127.52	
4810	44.44	H	53.97	-9.53	Avg	300.75	127.52	
7215								Not in Restricted Band
7215								Done via Conducted
9620								Not in Restricted Band
9620								Done via Conducted
12025								No Emissions
12025								Detected
14430								No Emissions
14430								Detected
16835								No Emissions
16835								Detected
19240								No Emissions
19240								Detected
21645								No Emissions
21645								Detected
24050								No Emissions
24050								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - Middle Channel - Power Level -7
X-Axis - Antenna #1

Freq. (MHz)	Level (dBUV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	57.48	V	73.97	-16.49	Peak	54.50	127.70	
4880	45.53	V	53.97	-8.44	Avg	54.50	127.70	
7320	61.94	V	73.97	-12.03	Peak	355.50	127.22	
7320	49.99	V	53.97	-3.98	Avg	355.50	127.22	
9760								Not in Restricted Band
9760								Done via Conducted
12200								No Emissions
12200								Detected
14640								No Emissions
14640								Detected
17080								No Emissions
17080								Detected
19520								No Emissions
19520								Detected
21960								No Emissions
21960								Detected
24400								No Emissions
24400								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - Middle Channel - Power Level -7
X-Axis - Antenna #1

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	60.76	H	73.97	-13.21	Peak	191.25	128.83	
4880	48.81	H	53.97	-5.16	Avg	191.25	128.83	
7320	61.33	H	73.97	-12.64	Peak	216.25	128.23	
7320	49.38	H	53.97	-4.59	Avg	216.25	128.23	
9760								Not in Restricted Band
9760								Done via Conducted
12200								No Emissions
12200								Detected
14640								No Emissions
14640								Detected
17080								No Emissions
17080								Detected
19520								No Emissions
19520								Detected
21960								No Emissions
21960								Detected
24400								No Emissions
24400								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - Middle Channel - Power Level -7
Y-Axis - Antenna #1

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	56.03	V	73.97	-17.94	Peak	339.50	127.40	
4880	44.08	V	53.97	-9.89	Avg	339.50	127.40	
7320	59.36	V	73.97	-14.61	Peak	222.75	225.13	
7320	47.41	V	53.97	-6.56	Avg	222.75	225.13	
9760								Not in Restricted Band
9760								Done via Conducted
12200								No Emissions
12200								Detected
14640								No Emissions
14640								Detected
17080								No Emissions
17080								Detected
19520								No Emissions
19520								Detected
21960								No Emissions
21960								Detected
24400								No Emissions
24400								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - Middle Channel - Power Level -7
Y-Axis - Antenna #1

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	60.58	H	73.97	-13.39	Peak	22.50	127.34	
4880	48.63	H	53.97	-5.34	Avg	22.52	127.34	
7320	55.43	H	73.97	-18.54	Peak	174.00	111.52	
7320	43.48	H	53.97	-10.49	Avg	174.00	111.52	
9760								Not in Restricted Band
9760								Done via Conducted
12200								No Emissions
12200								Detected
14640								No Emissions
14640								Detected
17080								No Emissions
17080								Detected
19520								No Emissions
19520								Detected
21960								No Emissions
21960								Detected
24400								No Emissions
24400								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - Middle Channel - Power Level -7
Z-Axis - Antenna #1

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	59.17	V	73.97	-14.80	Peak	333.50	113.07	
4880	47.22	V	53.97	-6.75	Avg	333.50	113.07	
7320	55.61	V	73.97	-18.36	Peak	191.50	127.52	
7320	43.66	V	53.97	-10.31	Avg	191.50	127.52	
9760								Not in Restricted Band
9760								Done via Conducted
12200								No Emissions
12200								Detected
14640								No Emissions
14640								Detected
17080								No Emissions
17080								Detected
19520								No Emissions
19520								Detected
21960								No Emissions
21960								Detected
24400								No Emissions
24400								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - Middle Channel - Power Level -7
Z-Axis - Antenna #1

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	58.01	H	73.97	-15.96	Peak	110.00	143.40	
4880	46.06	H	53.97	-7.91	Avg	110.00	143.40	
7320	60.81	H	73.97	-13.16	Peak	107.25	159.46	
7320	48.86	H	53.97	-5.11	Avg	107.25	159.46	
9760								Not in Restricted Band
9760								Done via Conducted
12200								No Emissions
12200								Detected
14640								No Emissions
14640								Detected
17080								No Emissions
17080								Detected
19520								No Emissions
19520								Detected
21960								No Emissions
21960								Detected
24400								No Emissions
24400								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - High Channel - Power Level -15
X-Axis - Antenna #1

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960	59.96	V	73.97	-14.01	Peak	212.75	112.77	
4960	48.01	V	53.97	-5.96	Avg	212.75	112.77	
7440	58.41	V	73.97	-15.56	Peak	39.75	113.13	
7440	46.46	V	53.97	-7.51	Avg	39.75	113.13	
9920								Not in Restricted Band
9920								Done via Conducted
12400								No Emissions
12400								Detected
14880								No Emissions
14880								Detected
17360								No Emissions
17360								Detected
19840								No Emissions
19840								Detected
22320								No Emissions
22320								Detected
24800								No Emissions
24800								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - High Channel - Power Level -15
X-Axis - Antenna #1

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960	51.33	H	73.97	-22.64	Peak	337.25	191.22	
4960	39.38	H	53.97	-14.59	Avg	337.25	191.22	
7440	55.45	H	73.97	-18.52	Peak	299.75	193.01	
7440	43.50	H	53.97	-10.47	Avg	299.75	193.01	
9920								Not in Restricted Band
9920								Done via Conducted
12400								No Emissions
12400								Detected
14880								No Emissions
14880								Detected
17360								No Emissions
17360								Detected
19840								No Emissions
19840								Detected
22320								No Emissions
22320								Detected
24800								No Emissions
24800								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - High Channel - Power Level -15
Y-Axis - Antenna #1

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960	55.76	V	73.97	-18.21	Peak	224.25	160.89	
4960	43.81	V	53.97	-10.16	Avg	224.25	160.89	
7440	55.21	V	73.97	-18.76	Peak	318.25	144.95	
7440	43.26	V	53.97	-10.71	Avg	318.25	144.95	
9920								Not in Restricted Band
9920								Done via Conducted
12400								No Emissions
12400								Detected
14880								No Emissions
14880								Detected
17360								No Emissions
17360								Detected
19840								No Emissions
19840								Detected
22320								No Emissions
22320								Detected
24800								No Emissions
24800								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - High Channel - Power Level -15
Y-Axis - Antenna #1

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960	59.56	H	73.97	-14.41	Peak	201.50	113.07	
4960	47.61	H	53.97	-6.36	Avg	201.50	113.07	
7440	54.85	H	73.97	-19.12	Peak	304.50	144.95	
7440	42.90	H	53.97	-11.07	Avg	304.50	144.95	
9920								Not in Restricted Band
9920								Done via Conducted
12400								No Emissions
12400								Detected
14880								No Emissions
14880								Detected
17360								No Emissions
17360								Detected
19840								No Emissions
19840								Detected
22320								No Emissions
22320								Detected
24800								No Emissions
24800								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - High Channel - Power Level -15
Z-Axis - Antenna #1

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960	58.10	V	73.97	-15.87	Peak	275.50	128.83	
4960	46.15	V	53.97	-7.82	Avg	275.50	128.83	
7440	56.70	V	73.97	-17.27	Peak	62.25	128.95	
7440	44.75	V	53.97	-9.22	Avg	62.25	128.95	
9920								Not in Restricted Band
9920								Done via Conducted
12400								No Emissions
12400								Detected
14880								No Emissions
14880								Detected
17360								No Emissions
17360								Detected
19840								No Emissions
19840								Detected
22320								No Emissions
22320								Detected
24800								No Emissions
24800								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - High Channel - Power Level -15
Z-Axis - Antenna #1

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960	59.34	H	73.97	-14.63	Peak	212.00	144.71	
4960	47.39	H	53.97	-6.58	Avg	212.00	144.71	
7440	55.73	H	73.97	-18.24	Peak	319.00	177.07	
7440	43.78	H	53.97	-10.19	Avg	319.00	177.07	
9920								Not in Restricted Band
9920								Done via Conducted
12400								No Emissions
12400								Detected
14880								No Emissions
14880								Detected
17360								No Emissions
17360								Detected
19840								No Emissions
19840								Detected
22320								No Emissions
22320								Detected
24800								No Emissions
24800								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - Low Channel - Power Level -7
X-Axis - Antenna #2

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4810	55.98	V	73.97	-17.99	Peak	192.50	175.22	
4810	44.03	V	53.97	-9.94	Avg	192.50	175.22	
7215								Not in Restricted Band
7215								Done via Conducted
9620								Not in Restricted Band
9620								Done via Conducted
12025								No Emissions
12025								Detected
14430								No Emissions
14430								Detected
16835								No Emissions
16835								Detected
19240								No Emissions
19240								Detected
21645								No Emissions
21645								Detected
24050								No Emissions
24050								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - Low Channel - Power Level -7
X-Axis - Antenna #2

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4810	53.48	H	73.97	-20.49	Peak	127.50	127.22	
4810	41.53	H	53.97	-12.44	Avg	127.50	127.22	
7215								Not in Restricted Band
7215								Done via Conducted
9620								Not in Restricted Band
9620								Done via Conducted
12025								No Emissions
12025								Detected
14430								No Emissions
14430								Detected
16835								No Emissions
16835								Detected
19240								No Emissions
19240								Detected
21645								No Emissions
21645								Detected
24050								No Emissions
24050								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - Low Channel - Power Level -7
Y-Axis - Antenna #2

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4810	55.75	V	73.97	-18.22	Peak	320.00	239.40	
4810	43.80	V	53.97	-10.17	Avg	320.00	239.40	
7215								Not in Restricted Band
7215								Done via Conducted
9620								Not in Restricted Band
9620								Done via Conducted
12025								No Emissions
12025								Detected
14430								No Emissions
14430								Detected
16835								No Emissions
16835								Detected
19240								No Emissions
19240								Detected
21645								No Emissions
21645								Detected
24050								No Emissions
24050								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - Low Channel - Power Level -7
Y-Axis - Antenna #2

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4810	58.58	H	73.97	-15.39	Peak	205.50	127.34	
4810	46.63	H	53.97	-7.34	Avg	205.50	127.34	
7215								Not in Restricted Band
7215								Done via Conducted
9620								Not in Restricted Band
9620								Done via Conducted
12025								No Emissions Detected
12025								Detected
14430								No Emissions Detected
14430								Detected
16835								No Emissions Detected
16835								Detected
19240								No Emissions Detected
19240								Detected
21645								No Emissions Detected
21645								Detected
24050								No Emissions Detected
24050								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - Low Channel - Power Level -7
Z-Axis - Antenna #2

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4810	53.52	V	73.97	-20.45	Peak	130.25	159.46	
4810	41.57	V	53.97	-12.40	Avg	130.25	159.46	
7215								Not in Restricted Band
7215								Done via Conducted
9620								Not in Restricted Band
9620								Done via Conducted
12025								No Emissions
12025								Detected
14430								No Emissions
14430								Detected
16835								No Emissions
16835								Detected
19240								No Emissions
19240								Detected
21645								No Emissions
21645								Detected
24050								No Emissions
24050								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - Low Channel - Power Level -7
Z-Axis - Antenna #2

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4810	58.42	H	73.97	-15.55	Peak	299.25	143.34	
4810	46.47	H	53.97	-7.50	Avg	299.25	143.34	
7215								Not in Restricted Band
7215								Done via Conducted
9620								Not in Restricted Band
9620								Done via Conducted
12025								No Emissions Detected
12025								Detected
14430								No Emissions Detected
14430								Detected
16835								No Emissions Detected
16835								Detected
19240								No Emissions Detected
19240								Detected
21645								No Emissions Detected
21645								Detected
24050								No Emissions Detected
24050								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - Middle Channel - Power Level -7
X-Axis - Antenna #2

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	57.80	V	73.97	-16.17	Peak	36.50	111.46	
4880	45.85	V	53.97	-8.12	Avg	36.50	111.46	
7320	60.41	V	73.97	-13.56	Peak	212.25	127.26	
7320	48.46	V	53.97	-5.51	Avg	212.25	127.26	
9760								Not in Restricted Band
9760								Done via Conducted
12200								No Emissions
12200								Detected
14640								No Emissions
14640								Detected
17080								No Emissions
17080								Detected
19520								No Emissions
19520								Detected
21960								No Emissions
21960								Detected
24400								No Emissions
24400								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - Middle Channel - Power Level -7
X-Axis - Antenna #2

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	54.78	H	73.97	-19.19	Peak	129.00	111.28	
4880	42.83	H	53.97	-11.14	Avg	129.00	111.28	
7320	58.67	H	73.97	-15.30	Peak	116.25	127.40	
7320	46.72	H	53.97	-7.25	Avg	116.25	127.40	
9760								Not in Restricted Band
9760								Done via Conducted
12200								No Emissions
12200								Detected
14640								No Emissions
14640								Detected
17080								No Emissions
17080								Detected
19520								No Emissions
19520								Detected
21960								No Emissions
21960								Detected
24400								No Emissions
24400								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - Middle Channel - Power Level -7
Y-Axis - Antenna #2

Freq. (MHz)	Level (dBUV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	57.29	V	73.97	-16.68	Peak	188.75	111.46	
4880	45.34	V	53.97	-8.63	Avg	188.75	111.46	
7320	58.02	V	73.97	-15.95	Peak	10.50	111.28	
7320	46.07	V	53.97	-7.90	Avg	10.50	111.28	
9760								Not in Restricted Band
9760								Done via Conducted
12200								No Emissions
12200								Detected
14640								No Emissions
14640								Detected
17080								No Emissions
17080								Detected
19520								No Emissions
19520								Detected
21960								No Emissions
21960								Detected
24400								No Emissions
24400								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - Middle Channel - Power Level -7
Y-Axis - Antenna #2

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	58.60	H	73.97	-15.37	Peak	297.25	111.34	
4880	46.65	H	53.97	-7.32	Avg	297.25	111.34	
7320	58.65	H	73.97	-15.32	Peak	286.75	127.28	
7320	46.70	H	53.97	-7.27	Avg	286.75	127.28	
9760								Not in Restricted Band
9760								Done via Conducted
12200								No Emissions
12200								Detected
14640								No Emissions
14640								Detected
17080								No Emissions
17080								Detected
19520								No Emissions
19520								Detected
21960								No Emissions
21960								Detected
24400								No Emissions
24400								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - Middle Channel - Power Level -7
Z-Axis - Antenna #2

Freq. (MHz)	Level (dBUV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	55.70	V	73.97	-18.27	Peak	148.00	175.40	
4880	43.75	V	53.97	-10.22	Avg	148.00	175.40	
7320	57.84	V	73.97	-16.13	Peak	138.50	111.28	
7320	45.89	V	53.97	-8.08	Avg	138.50	111.28	
9760								Not in Restricted Band
9760								Done via Conducted
12200								No Emissions
12200								Detected
14640								No Emissions
14640								Detected
17080								No Emissions
17080								Detected
19520								No Emissions
19520								Detected
21960								No Emissions
21960								Detected
24400								No Emissions
24400								Detected

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - Middle Channel - Power Level -7
Z-Axis - Antenna #2

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	60.06	H	73.97	-13.91	Peak	198.00	127.46	
4880	48.11	H	53.97	-5.86	Avg	198.00	127.46	
7320	55.47	H	73.97	-18.50	Peak	43.00	143.22	
7320	43.52	H	53.97	-10.45	Avg	43.00	143.22	
9760								Not in Restricted Band
9760								Done via Conducted
12200								No Emissions
12200								Detected
14640								No Emissions
14640								Detected
17080								No Emissions
17080								Detected
19520								No Emissions
19520								Detected
21960								No Emissions
21960								Detected
24400								No Emissions
24400								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - High Channel - Power Level -15
X-Axis - Antenna #2

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960	50.59	V	73.97	-23.38	Peak	315.75	111.46	
4960	38.64	V	53.97	-15.33	Avg	315.75	111.46	
7440	55.32	V	73.97	-18.65	Peak	331.75	191.46	
7440	43.37	V	53.97	-10.60	Avg	331.75	191.46	
9920								Not in Restricted Band
9920								Done via Conducted
12400								No Emissions
12400								Detected
14880								No Emissions
14880								Detected
17360								No Emissions
17360								Detected
19840								No Emissions
19840								Detected
22320								No Emissions
22320								Detected
24800								No Emissions
24800								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - High Channel - Power Level -15
X-Axis - Antenna #2

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960	50.75	H	73.97	-23.22	Peak	80.25	175.34	
4960	38.80	H	53.97	-15.17	Avg	80.25	175.34	
7440	55.25	H	73.97	-18.72	Peak	281.25	239.64	
7440	43.30	H	53.97	-10.67	Avg	281.25	239.64	
9920								Not in Restricted Band
9920								Done via Conducted
12400								No Emissions
12400								Detected
14880								No Emissions
14880								Detected
17360								No Emissions
17360								Detected
19840								No Emissions
19840								Detected
22320								No Emissions
22320								Detected
24800								No Emissions
24800								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - High Channel - Power Level -15
Y-Axis - Antenna #2

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960	51.13	V	73.97	-22.84	Peak	147.50	175.28	
4960	39.18	V	53.97	-14.79	Avg	147.50	175.28	
7440	54.26	V	73.97	-19.71	Peak	281.25	239.64	
7440	42.31	V	53.97	-11.66	Avg	281.25	239.64	
9920								Not in Restricted Band
9920								Done via Conducted
12400								No Emissions
12400								Detected
14880								No Emissions
14880								Detected
17360								No Emissions
17360								Detected
19840								No Emissions
19840								Detected
22320								No Emissions
22320								Detected
24800								No Emissions
24800								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - High Channel - Power Level -15
Y-Axis - Antenna #2

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960	50.63	H	73.97	-23.34	Peak	224.25	159.28	
4960	38.68	H	53.97	-15.29	Avg	224.25	159.28	
7440	55.39	H	73.97	-18.58	Peak	49.75	111.46	
7440	43.44	H	53.97	-10.53	Avg	49.75	111.46	
9920								Not in Restricted Band
9920								Done via Conducted
12400								No Emissions
12400								Detected
14880								No Emissions
14880								Detected
17360								No Emissions
17360								Detected
19840								No Emissions
19840								Detected
22320								No Emissions
22320								Detected
24800								No Emissions
24800								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - High Channel - Power Level -15
Z-Axis - Antenna #2

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960	57.90	V	73.97	-16.07	Peak	52.25	143.40	
4960	45.95	V	53.97	-8.02	Avg	52.25	143.40	
7440	55.70	V	73.97	-18.27	Peak	260.75	223.52	
7440	43.75	V	53.97	-10.22	Avg	260.75	223.52	
9920								Not in Restricted Band
9920								Done via Conducted
12400								No Emissions
12400								Detected
14880								No Emissions
14880								Detected
17360								No Emissions
17360								Detected
19840								No Emissions
19840								Detected
22320								No Emissions
22320								Detected
24800								No Emissions
24800								Detected

FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Harmonics - High Channel - Power Level -15
Z-Axis - Antenna #2

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960	50.31	H	73.97	-23.66	Peak	310.00	161.01	
4960	38.36	H	53.97	-15.61	Avg	310.00	161.01	
7440	54.96	H	73.97	-19.01	Peak	164.75	175.40	
7440	43.01	H	53.97	-10.96	Avg	164.75	175.40	
9920								Not in Restricted Band
9920								Done via Conducted
12400								No Emissions
12400								Detected
14880								No Emissions
14880								Detected
17360								No Emissions
17360								Detected
19840								No Emissions
19840								Detected
22320								No Emissions
22320								Detected
24800								No Emissions
24800								Detected

FCC Class B and FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

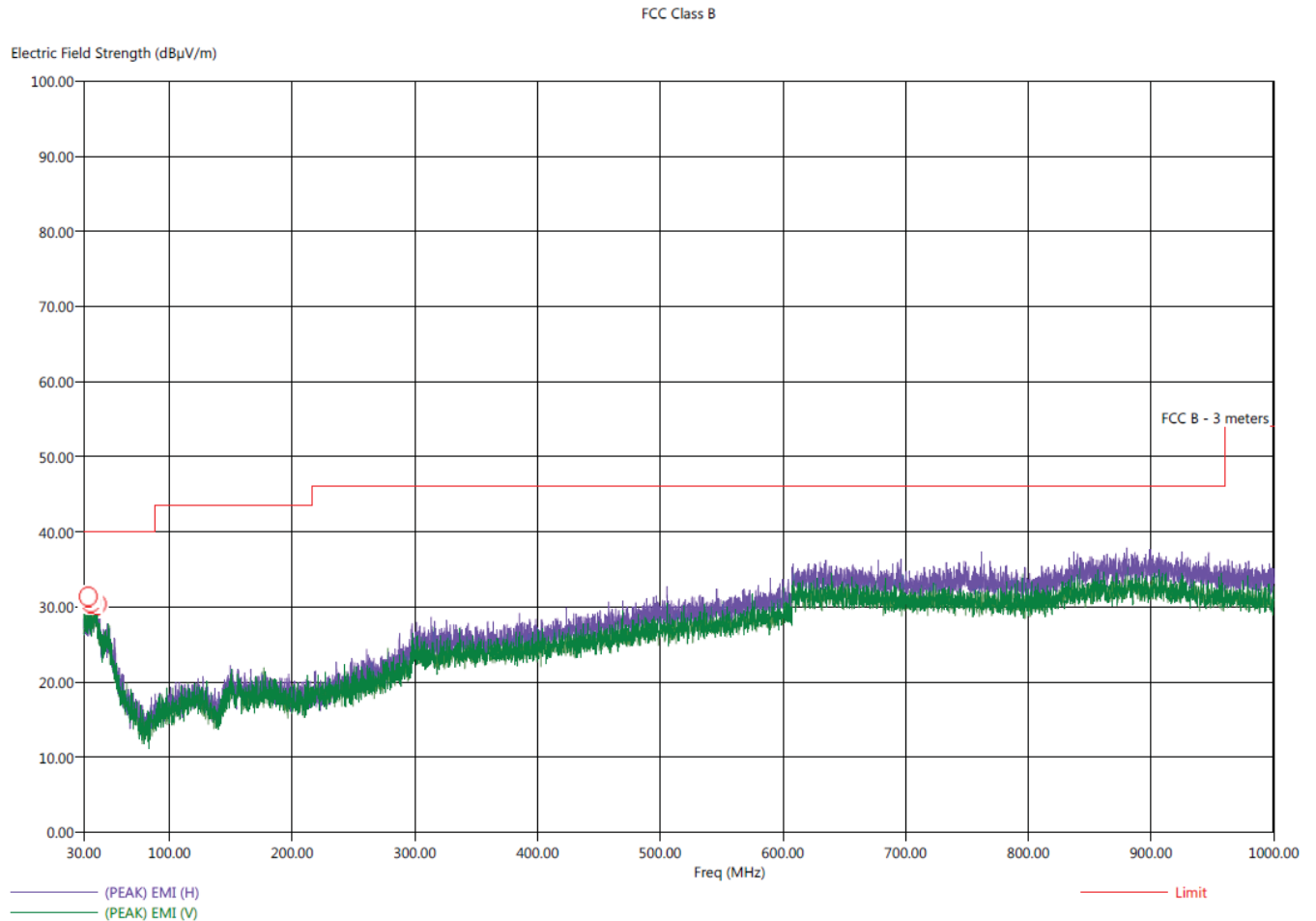
Date: 05/01/2017
 Lab: D
 Tested By: Kyle Fujimoto

Digital Portion and Non-Harmonic Emissions from the Transmitter
9 kHz to 30 MHz and 1 GHz to 25 GHz
Antenna #2

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
								No Emissions Detected from 9 kHz to 30 MHz for the Digital Portion for both the Vertical and Horizontal Polarizations.
								No Emissions Detected from 9 kHz to 30 MHz for the Non-Harmonic Emissions from the Tx for the EUT for both the Vertical and Horizontal Polarizations.
								Investigated in the X, Y, and Z-Axis
								No Emissions Detected from 1 GHz to 25 GHz for the Digital Portion for both the Vertical and Horizontal Polarizations.
								No Emissions Detected from 1 GHz to 25 GHz for the Non-Harmonic Emissions from the Tx for the EUT for both the Vertical and Horizontal Polarizations.
								Investigated in the X, Y, and Z-Axis

Title: Pre-Scan - FCC Class B
File: Agilent - Pre-Scan - Antenna 1 - X-Axis - FCC Class B - 30 MHz to 1000 MHz.set
Operator: Kyle Fujimoto
EUT Type: EcoLink Pet Immune Motion Detector
EUT Condition: The EUT is continuously transmitting at low channel - Antenna 1 - X-Axis Worst Case
Comments: Company: Ecolink Intelligent Technology, Inc.
Model: PIRZB1-ECO

5/5/2017 8:13:14 AM
Sequence: Preliminary Scan



No additional emissions, except for harmonics, were found between 9 kHz – 30 MHz and 1 GHz – 25 GHz.

Title: Radiated Final - FCC Class B
 File: Agilent - Final Scan - Antenna 1 - FCC Class B - 30 MHz to 1000 MHz.set
 Operator: Kyle Fujimoto
 EUT Type: EcoLink Pet Immune Motion Detector
 EUT Condition: The EUT is cotinuously transmitting at low channel - Antenna 1 - X-Axis Worst Case
 Comments: Company: Ecolink Intelligent Technology, Inc.
 Model: PIRZB1-ECO

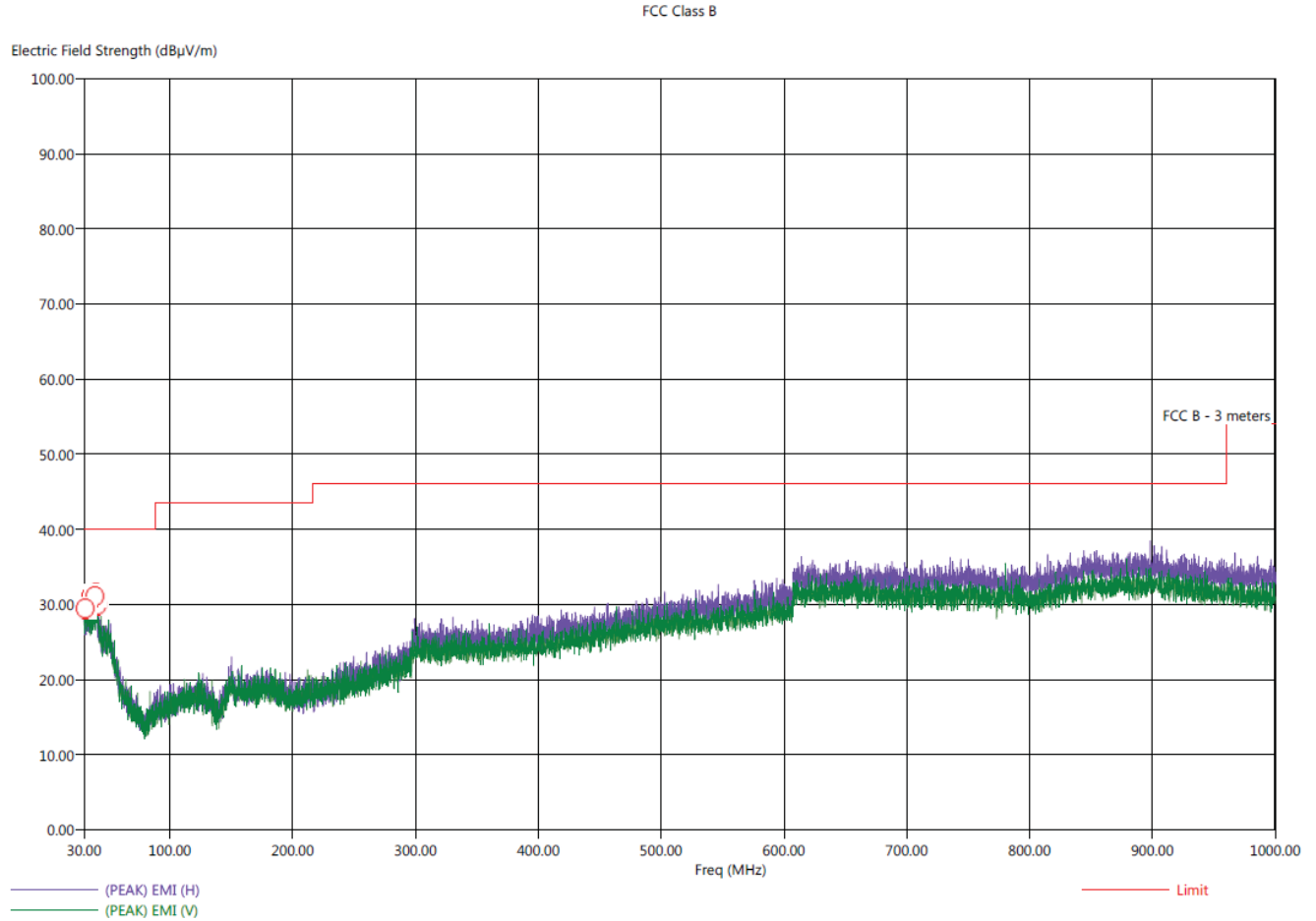
5/5/2017 8:47:49 AM
 Sequence: Final Measurements

FCC Class B										
Freq (MHz)	Pol	(PEAK) EMI (dBμV/m)	(OP) EMI (dBμV/m)	(PEAK) Margin (dB)	(QP) Margin (dB)	Limit (dBμV/m)	Transducer (dB)	Cable (dB)	Ttbl Aql (dea)	Twr Ht (cm)
33.90	V	31.35	26.30	-8.65	-13.70	40.00	24.23	0.34	158.75	223.70
35.90	V	31.56	26.45	-8.44	-13.55	40.00	24.49	0.36	164.25	336.71
36.60	H	31.47	26.47	-8.53	-13.53	40.00	24.72	0.37	302.50	111.58
38.40	H	32.20	26.89	-7.80	-13.11	40.00	25.08	0.39	108.50	304.65
39.90	H	32.23	27.08	-7.77	-12.92	40.00	25.29	0.40	133.25	175.64
41.20	V	32.35	26.63	-7.65	-13.37	40.00	24.37	0.40	208.50	368.35



Title: Pre-Scan - FCC Class B
File: Agilent - Pre-Scan - Antenna 2 - X-Axis - FCC Class B - 30 MHz to 1000 MHz.set
Operator: Kyle Fujimoto
EUT Type: Ecolink Pet Immune Motion Detector
EUT Condition: The EUT is continuously transmitting at low channel - Antenna 2 - X-Axis Worst Case
Comments: Company: Ecolink Intelligent Technology, Inc.
Model: PIRZB1-ECO

5/5/2017 9:07:27 AM
Sequence: Preliminary Scan



No additional emissions, except for harmonics, were found between 9 kHz – 30 MHz and 1 GHz – 25 GHz.

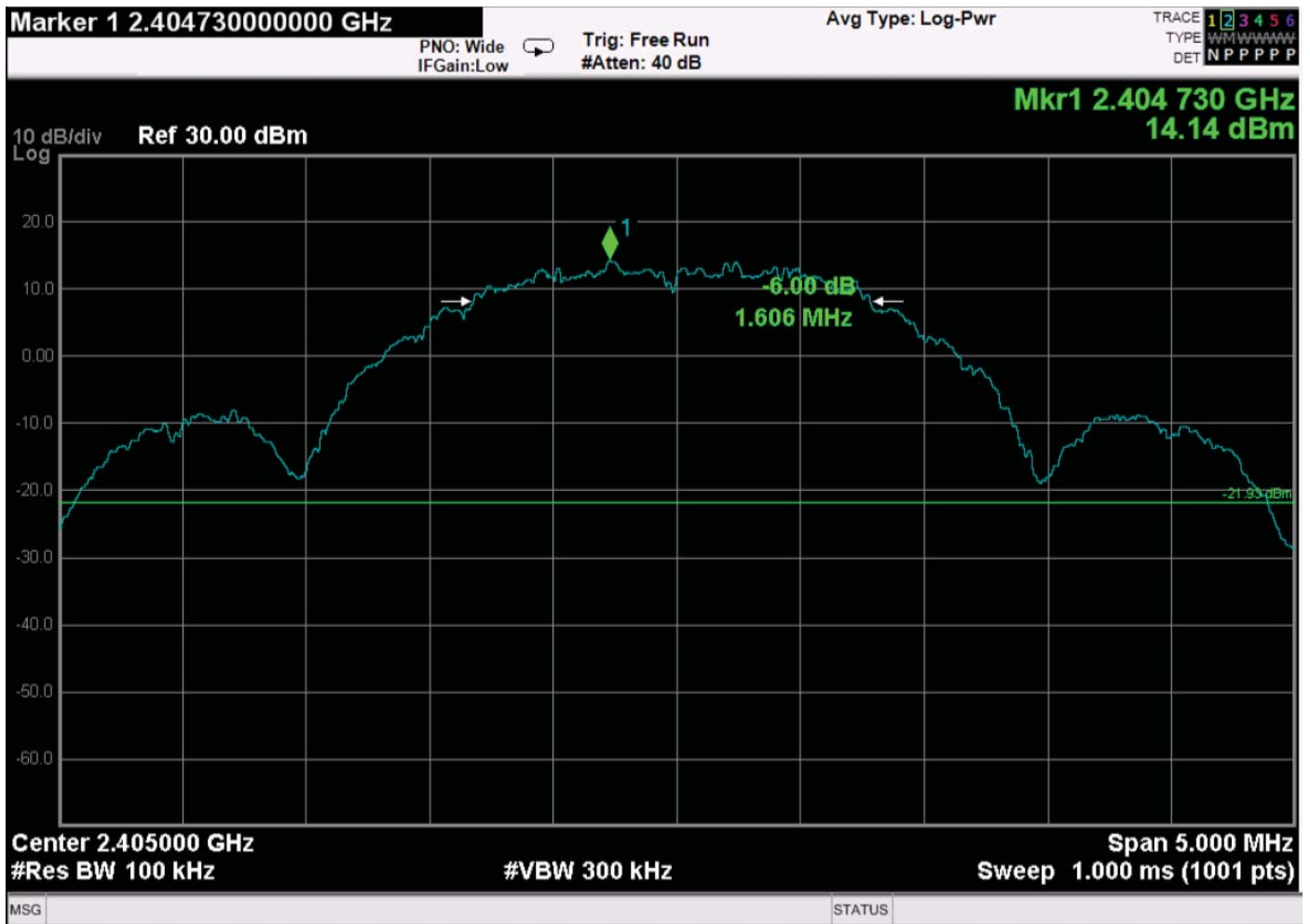
Title: Radiated Final - FCC Class B
 File: Agilent - Final Scan - Antenna 2 - FCC Class B - 30 MHz to 1000 MHz.set
 Operator: Kyle Fujimoto
 EUT Type: EcoLink Pet Immune Motion Detector
 EUT Condition: The EUT is cotinuously transmitting at low channel - Antenna 2 - X-Axis Worst Case
 Comments: Company: Ecolink Intelligent Technology, Inc.
 Model: PIRZB1-ECO

5/5/2017 9:38:40 AM
 Sequence: Final Measurements

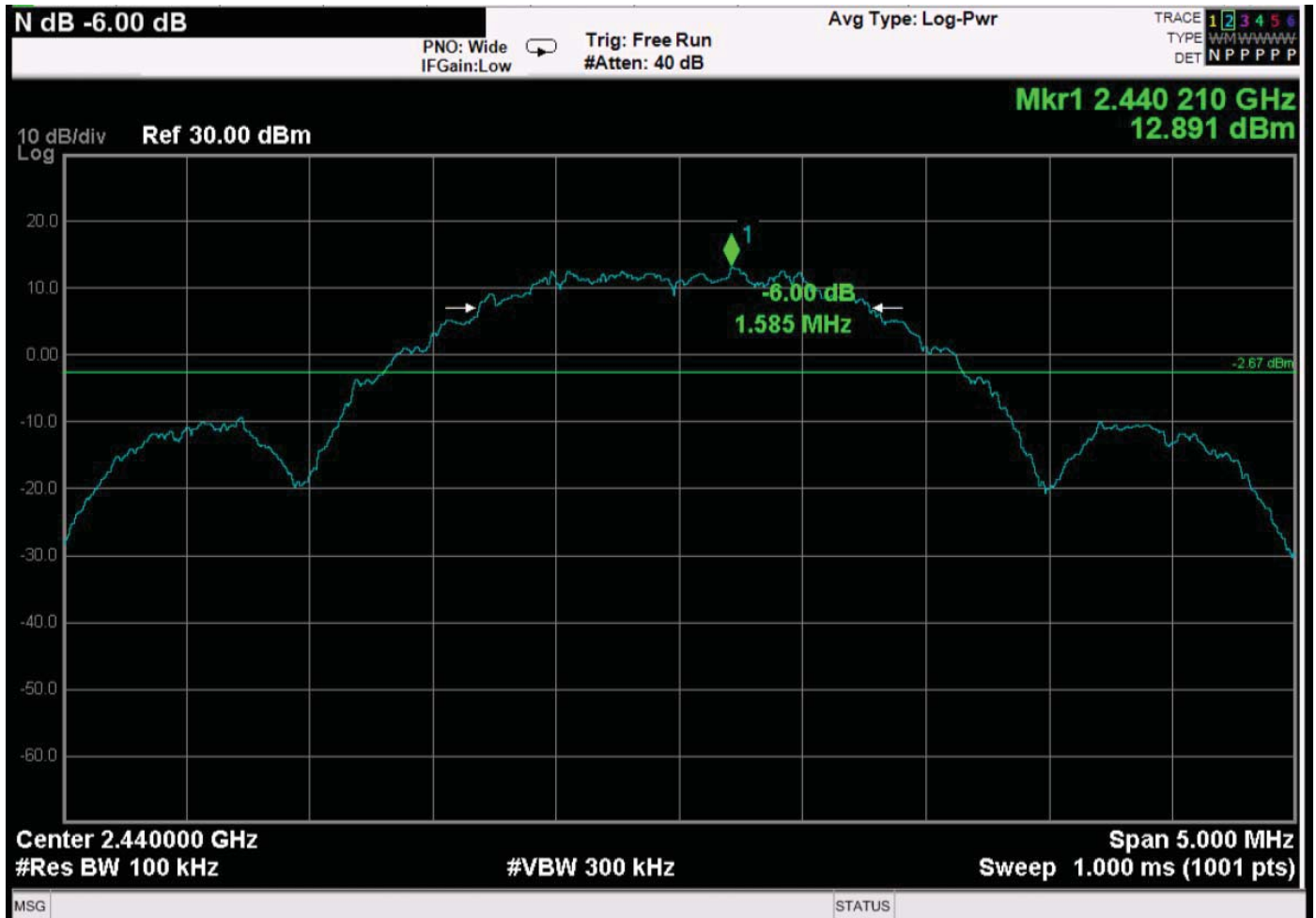
FCC Class B										
Freq (MHz)	Pol	(PEAK) EMI (dB μ V/m)	(QP) EMI (dB μ V/m)	(PEAK) Margin (dB)	(QP) Margin (dB)	Limit (dB μ V/m)	Transducer (dB)	Cable (dB)	Ttbl Aql (deg)	Twr Ht (cm)
34.00	V	31.19	26.42	-8.81	-13.58	40.00	24.24	0.34	33.25	304.29
39.70	H	32.61	27.48	-7.39	-12.52	40.00	25.33	0.40	210.50	255.64
42.10	H	30.90	25.77	-9.10	-14.23	40.00	23.72	0.40	146.00	175.76
723.00	H	36.03	31.01	-9.97	-14.99	46.00	24.23	2.44	173.75	287.94
846.50	H	37.39	32.44	-8.61	-13.56	46.00	26.16	2.59	103.00	239.82
877.90	H	37.76	32.72	-8.24	-13.28	46.00	26.64	2.60	268.50	320.41



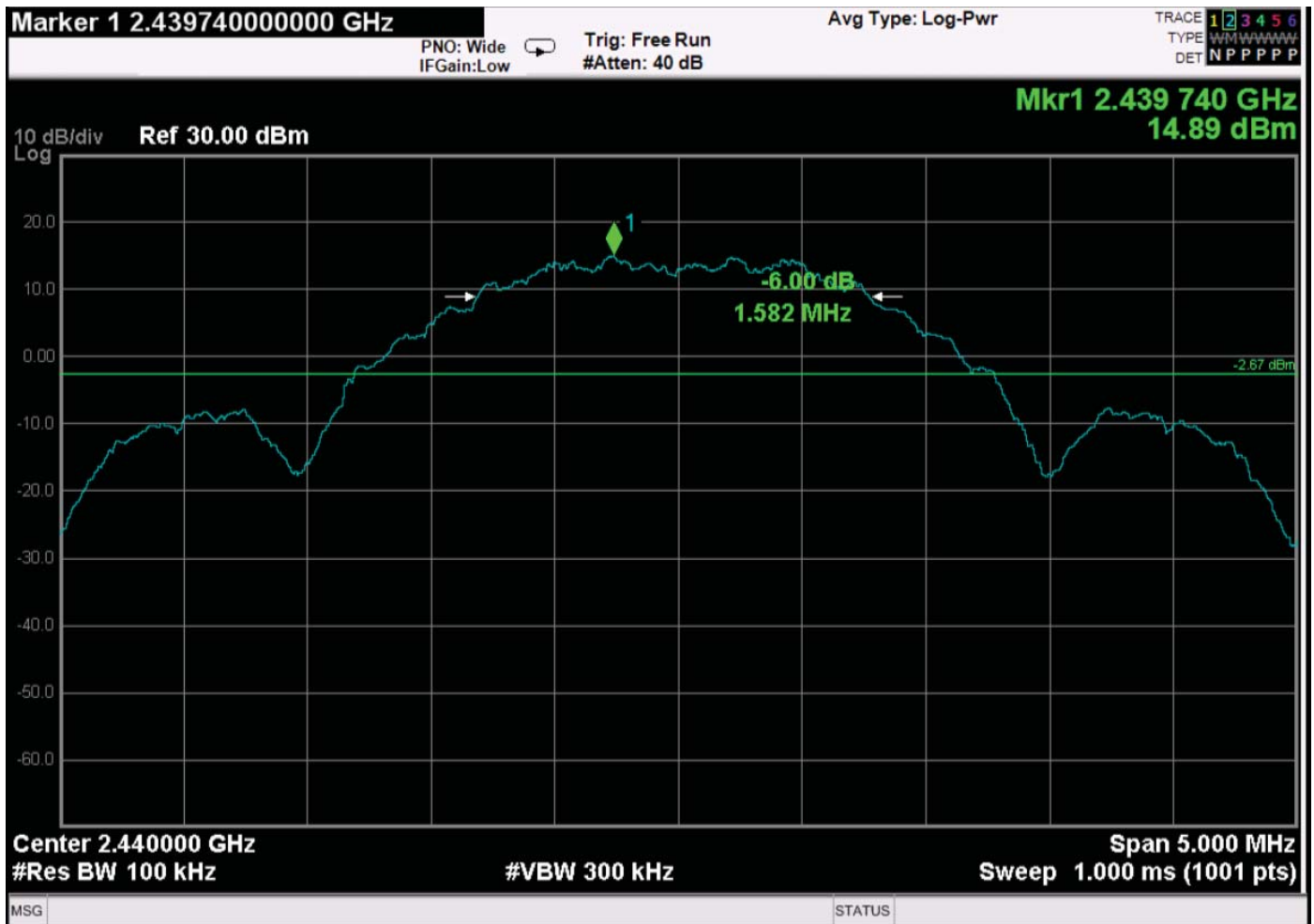




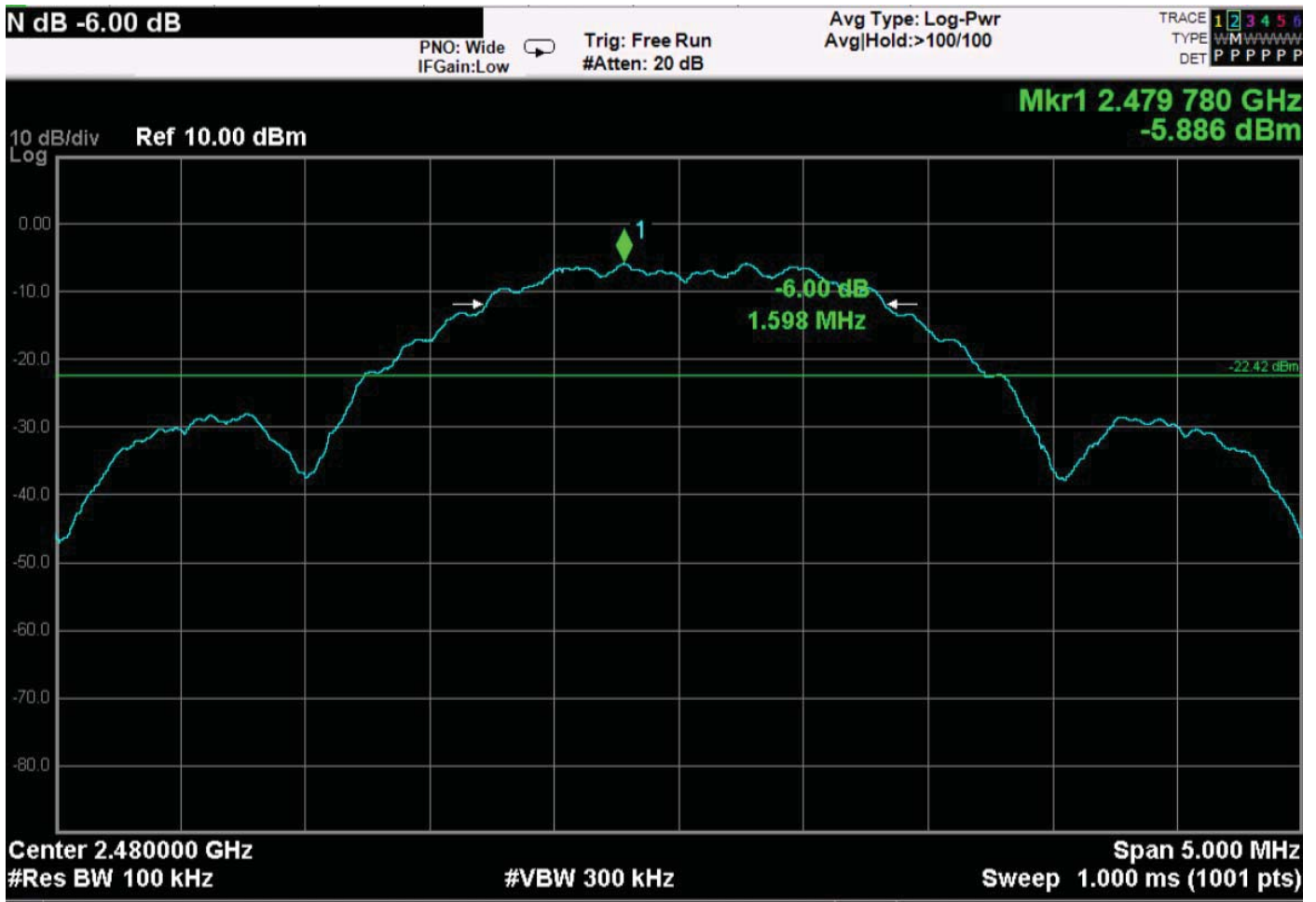
-6 dB Bandwidth – Low Channel – Antenna #2



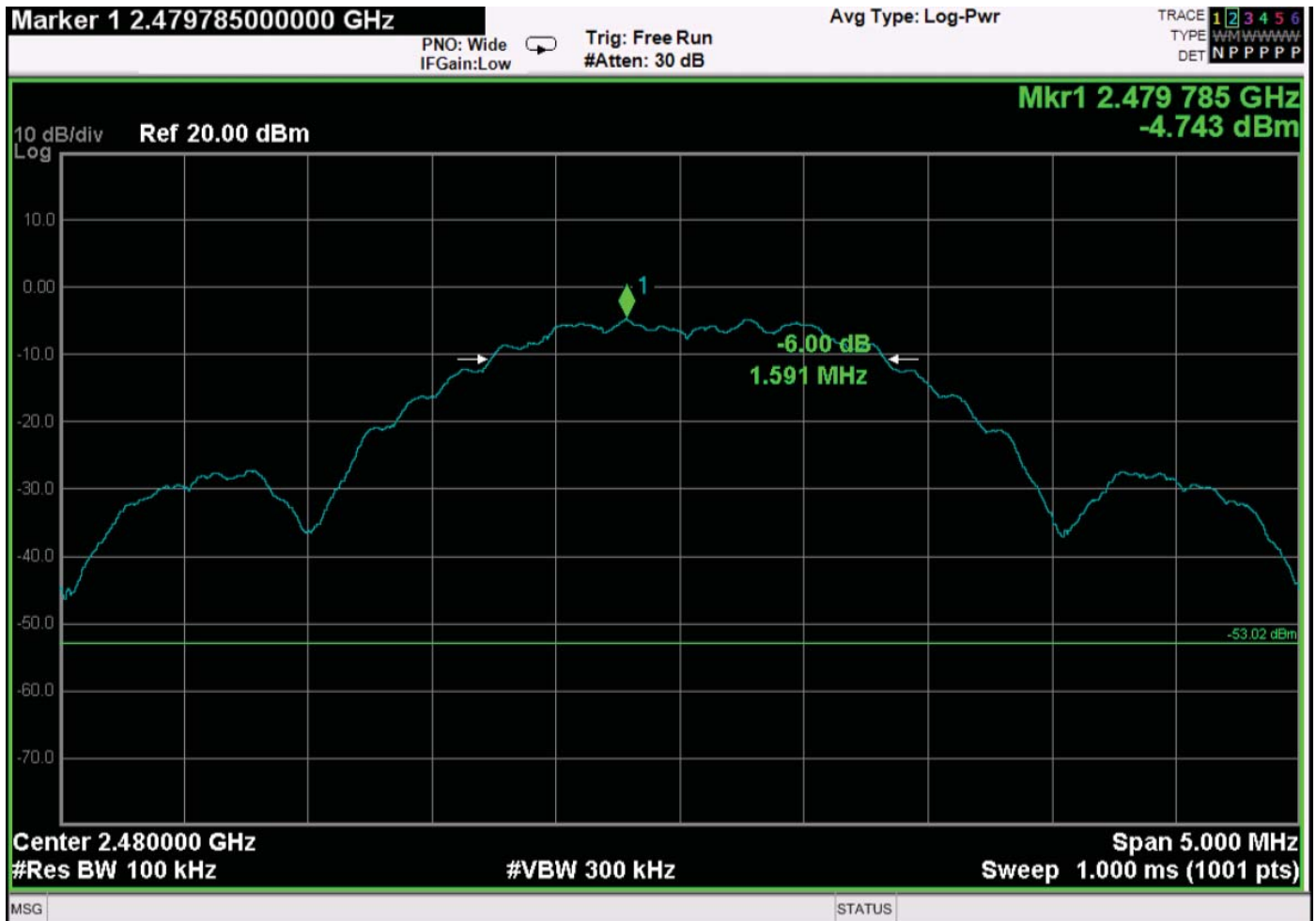
-6 dB Bandwidth – Middle Channel – Antenna #1



-6 dB Bandwidth – Middle Channel – Antenna #2

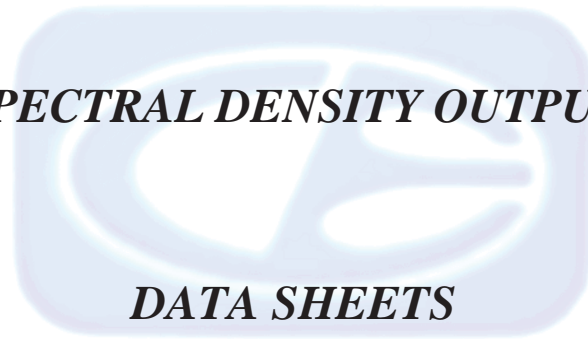


-6 dB Bandwidth – High Channel – Antenna #1

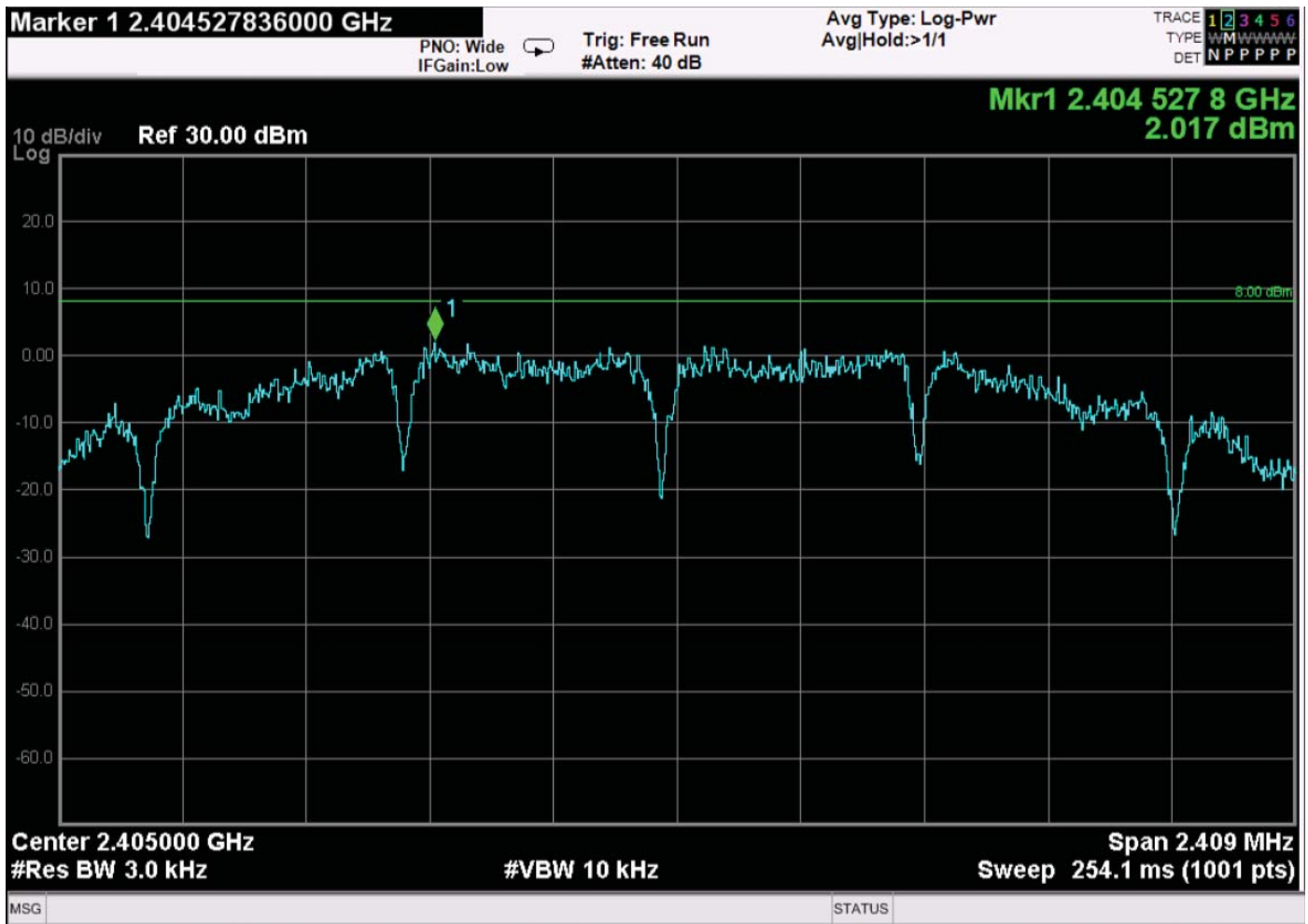


-6 dB Bandwidth – High Channel – Antenna #2

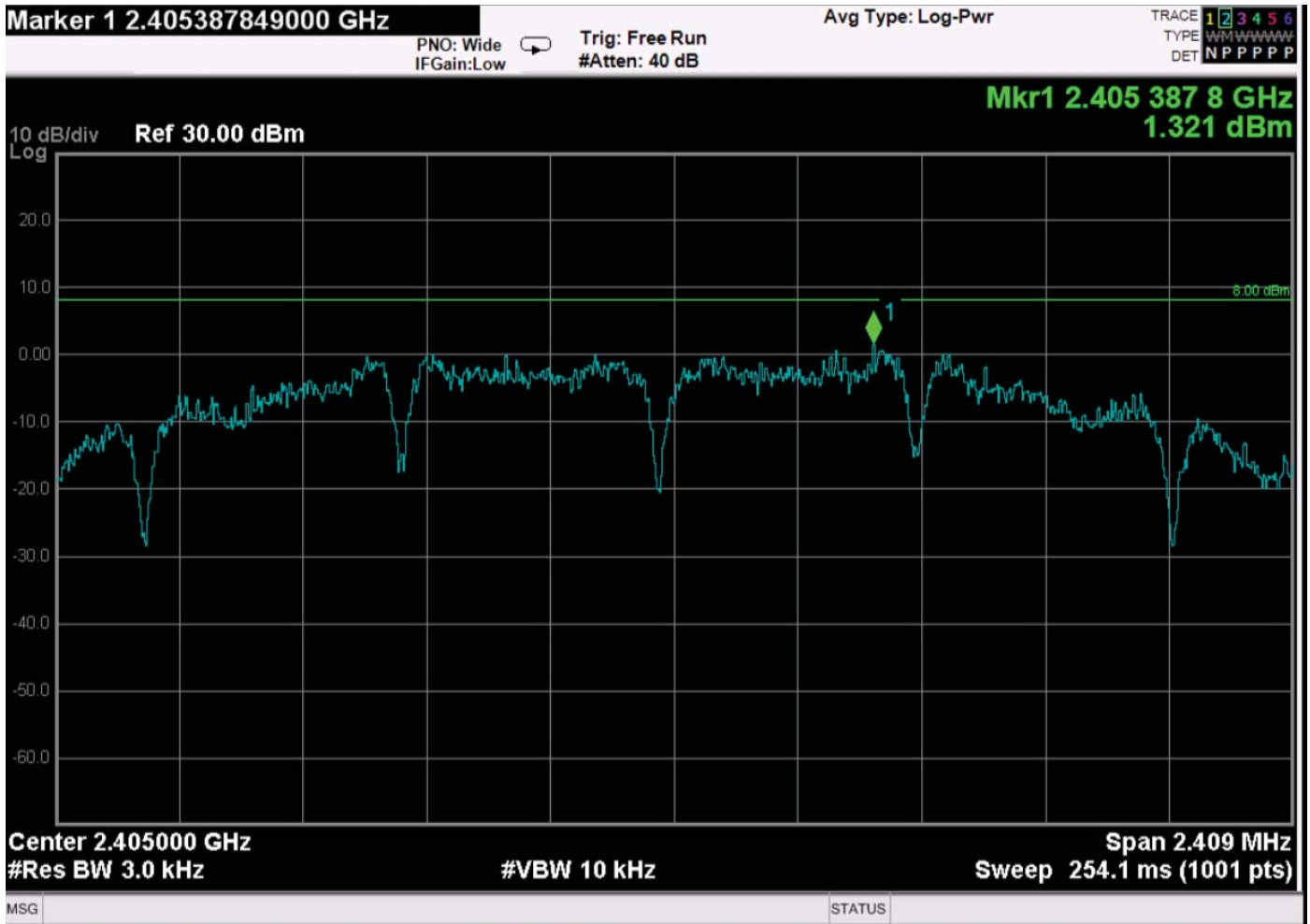
SPECTRAL DENSITY OUTPUT



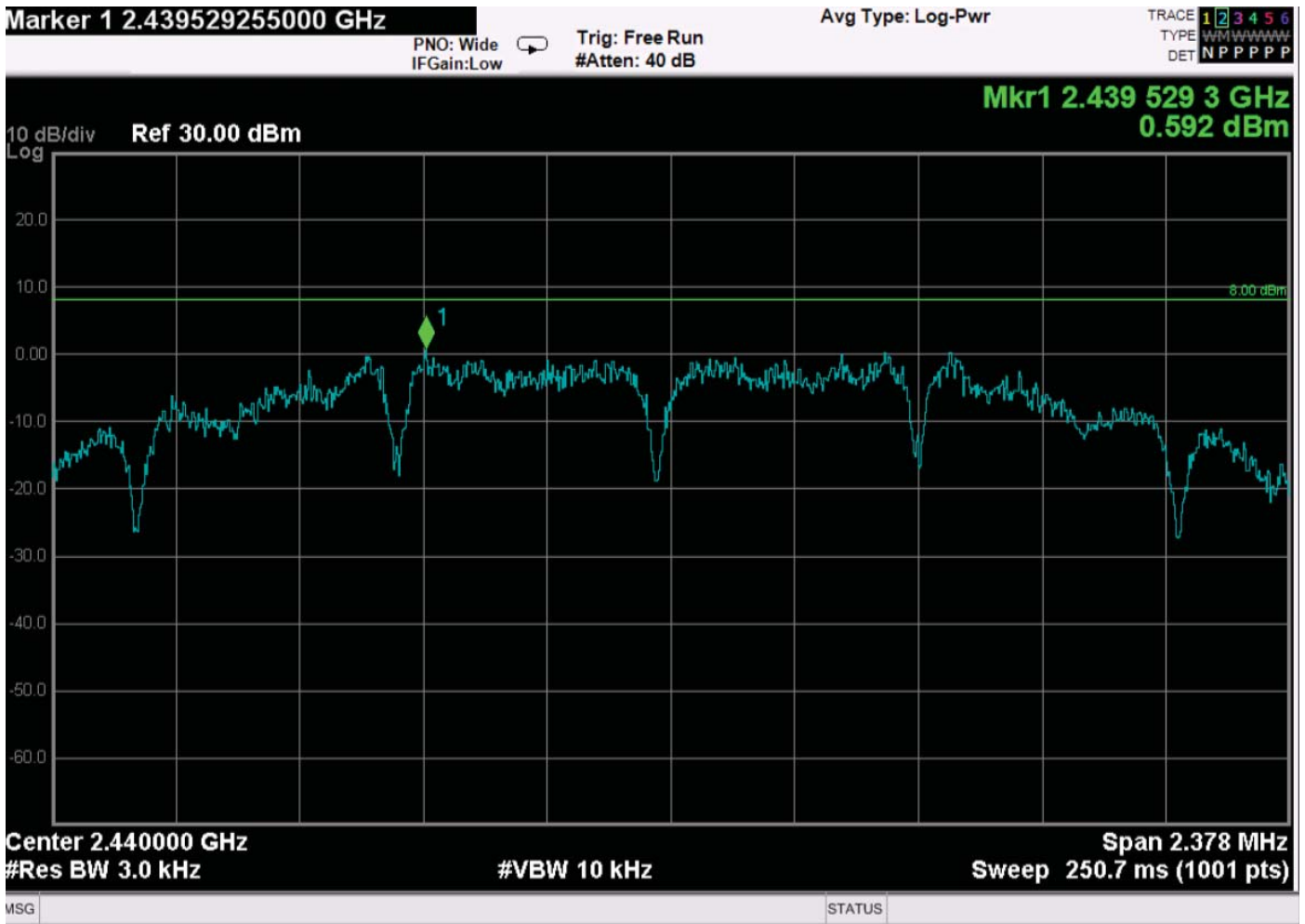
DATA SHEETS



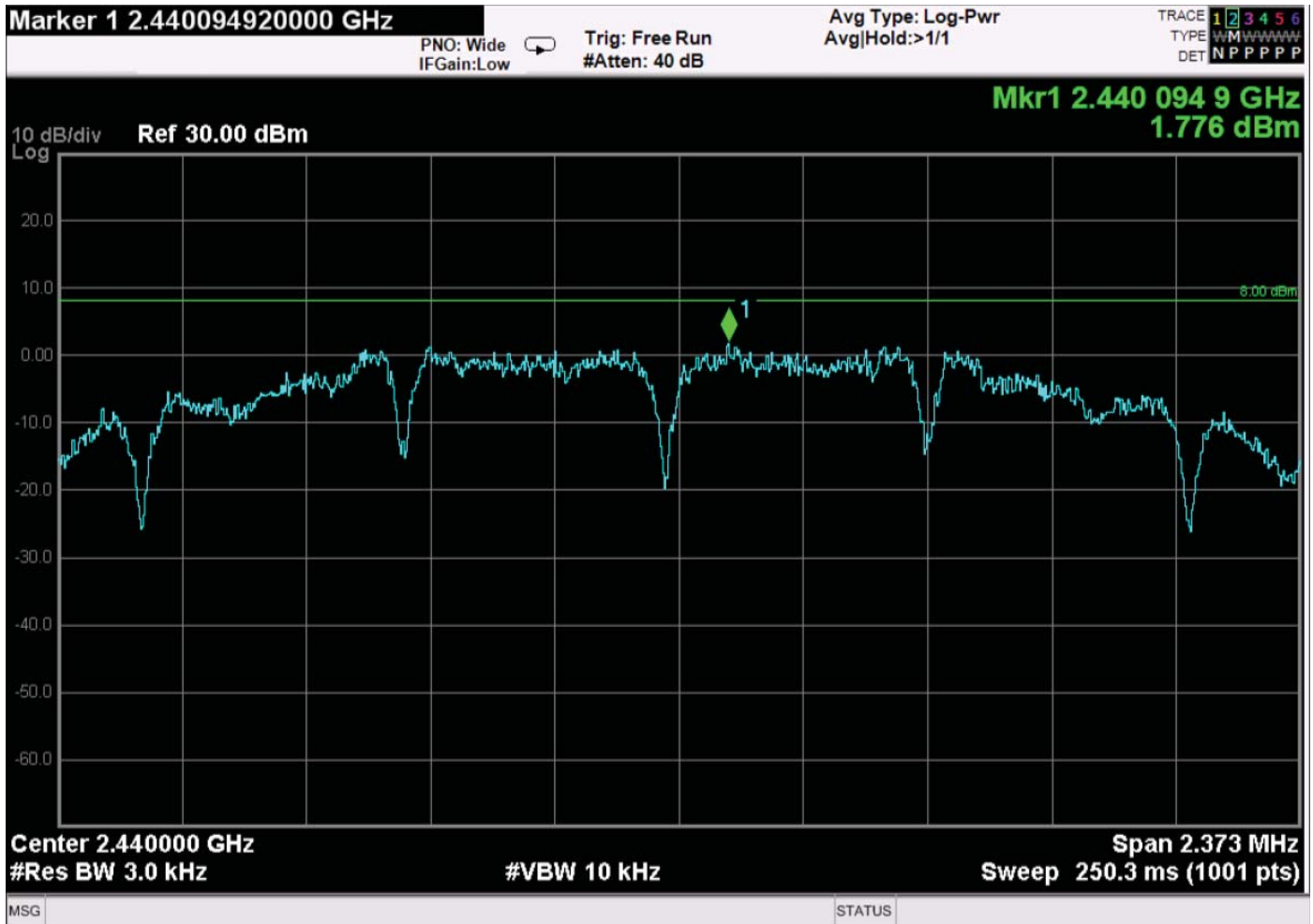
Spectral Density – Low Channel – Antenna #1



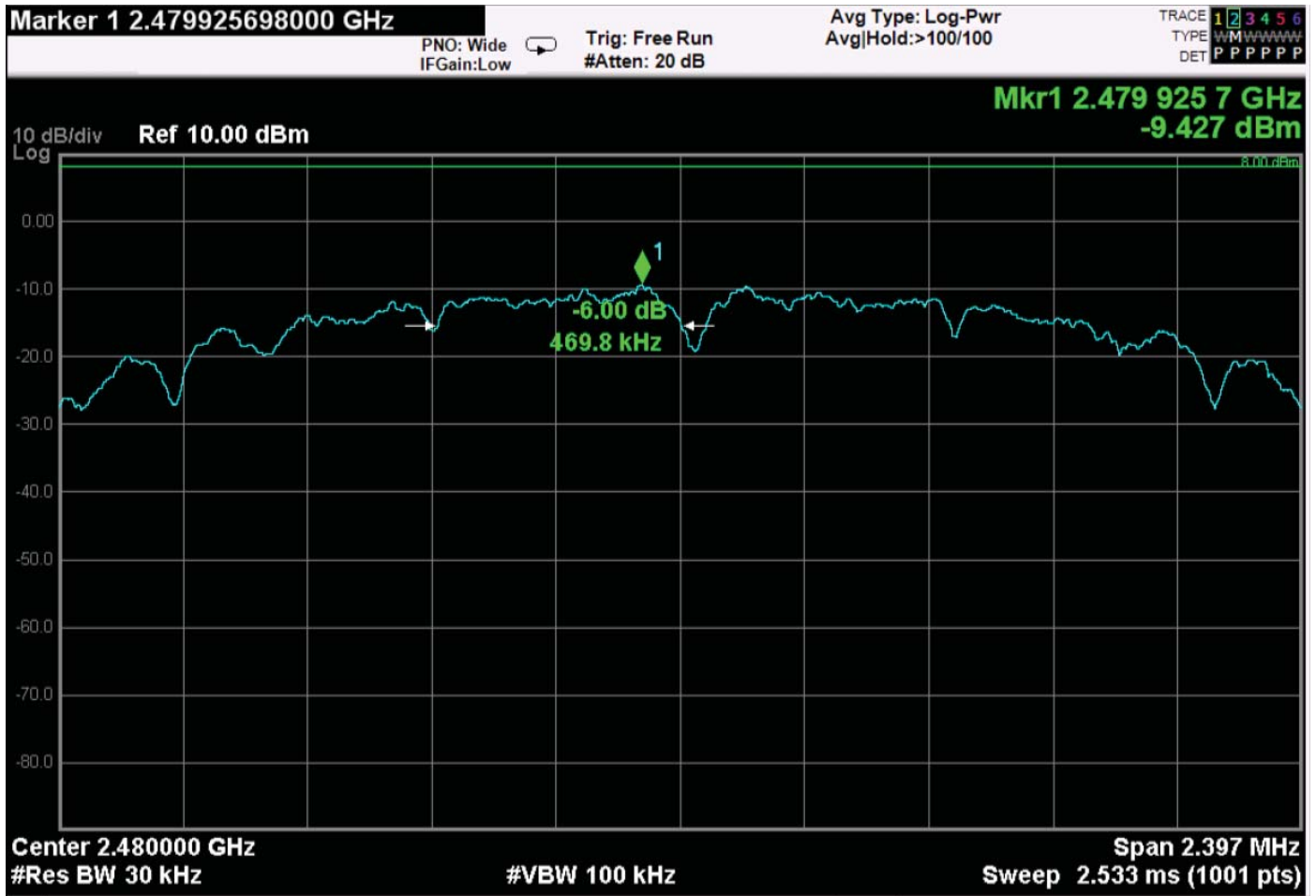
Spectral Density – Low Channel – Antenna #2



Spectral Density – Middle Channel – Antenna #1



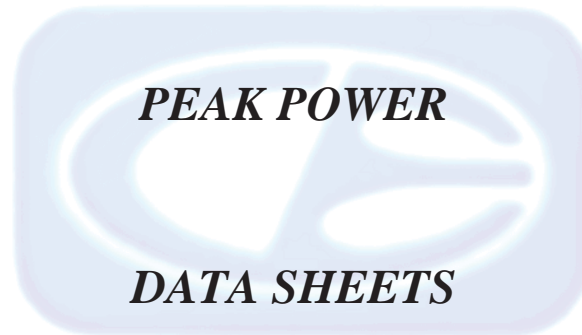
Spectral Density – Middle Channel – Antenna #2

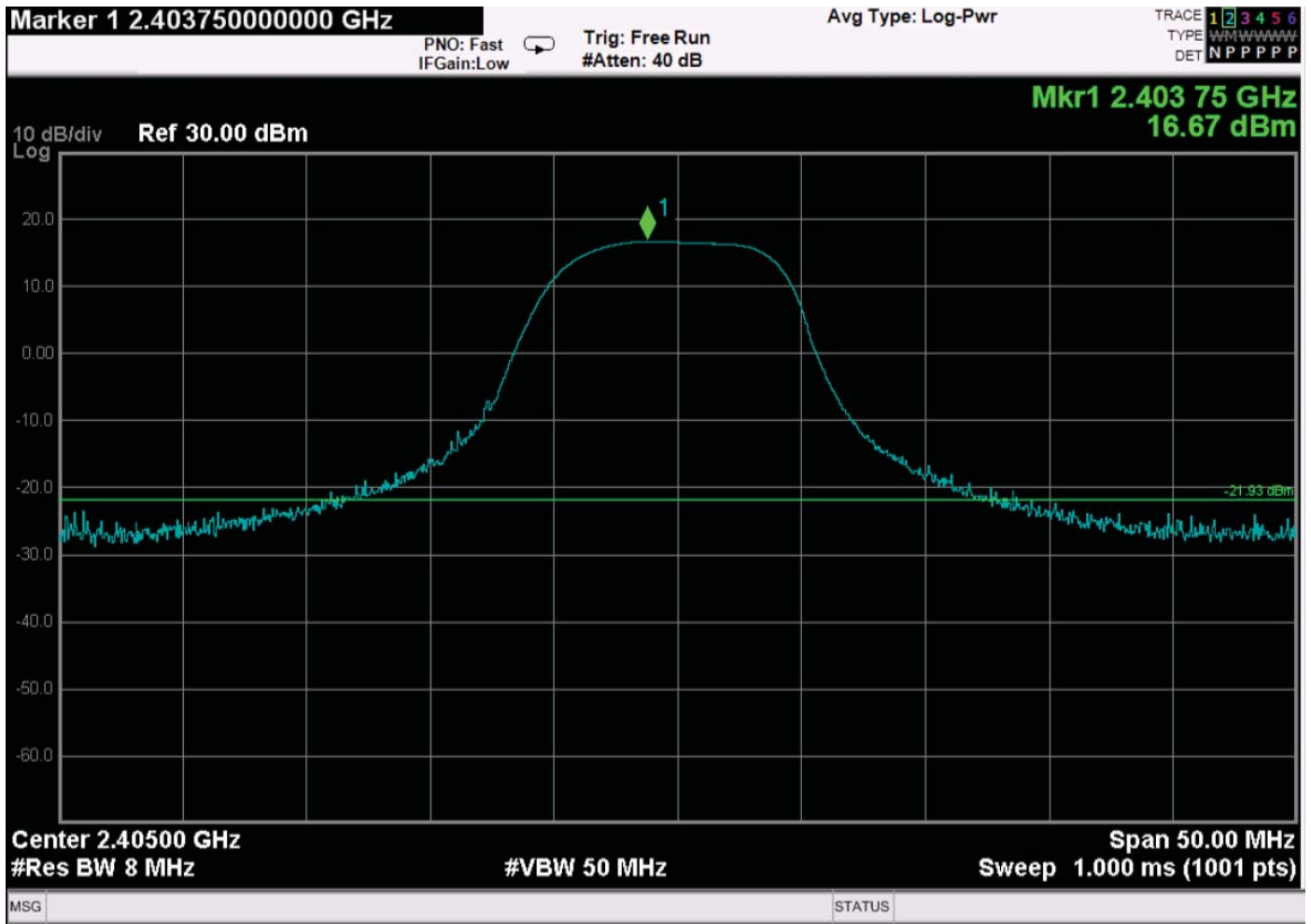


Spectral Density – High Channel – Antenna #1

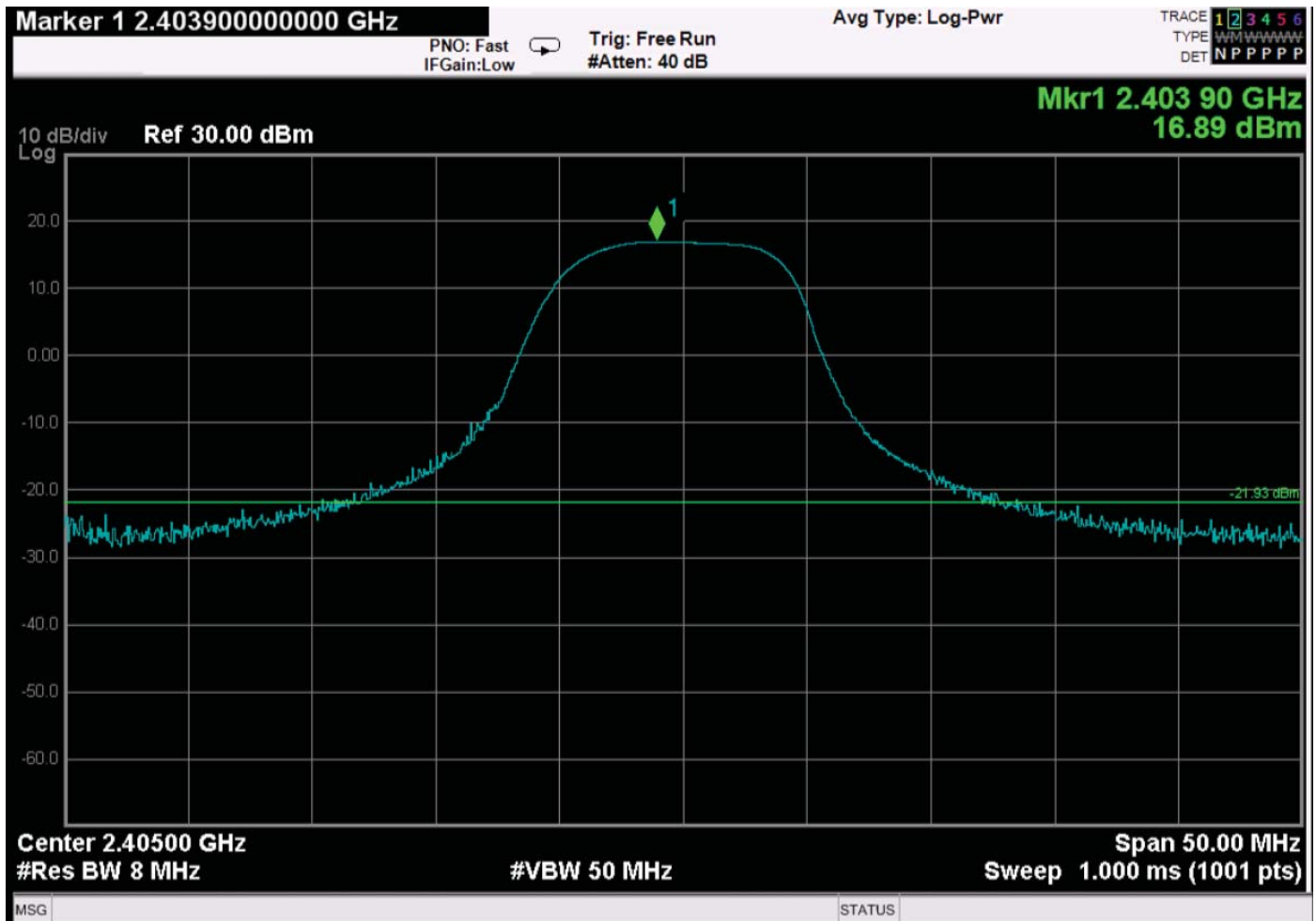


Spectral Density – High Channel – Antenna #2

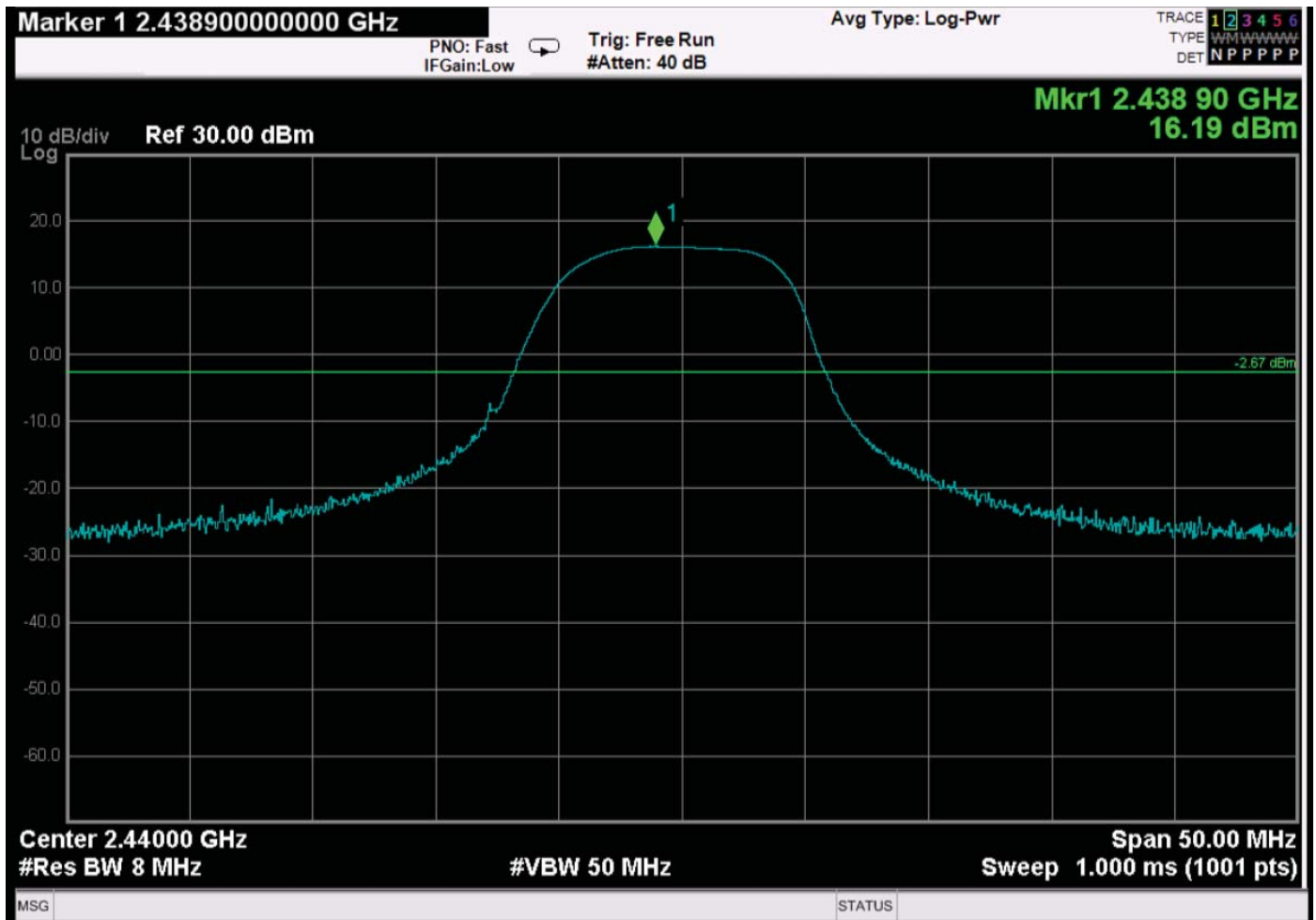




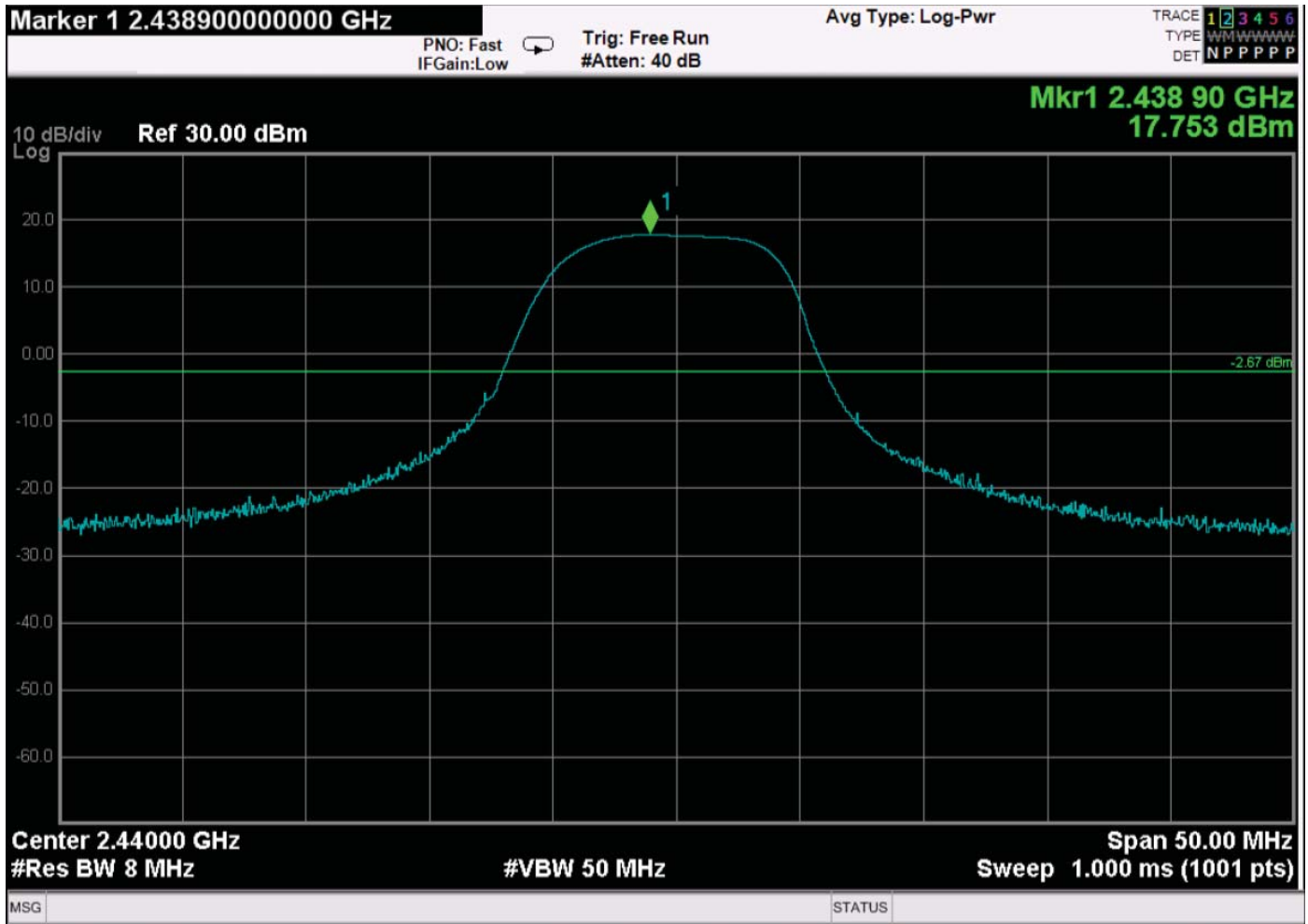
Peak Power Output – Low Channel – Antenna #1



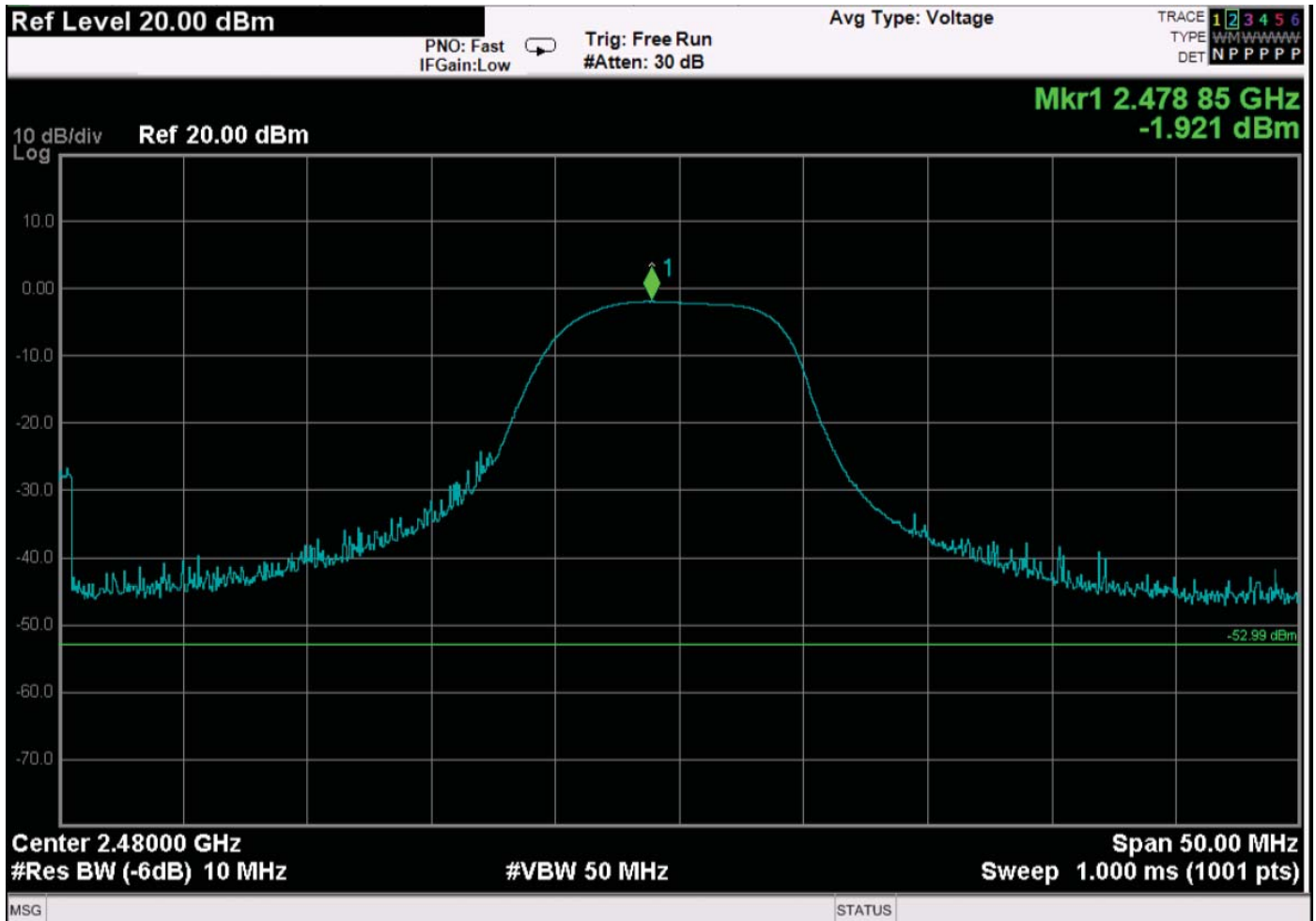
Peak Power Output – Low Channel – Antenna #2



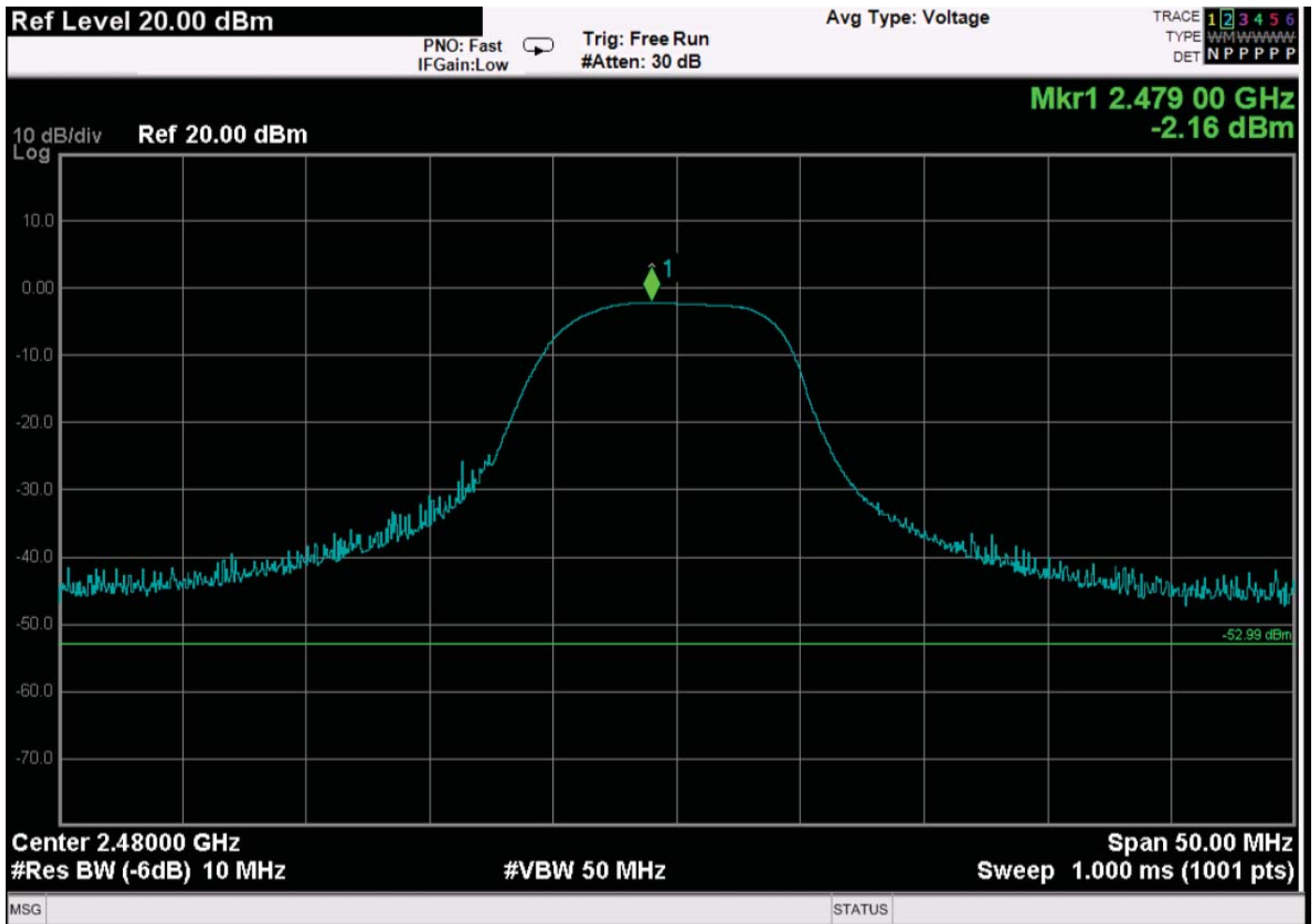
Peak Power Output – Middle Channel – Antenna #1



Peak Power Output – Middle Channel – Antenna #2

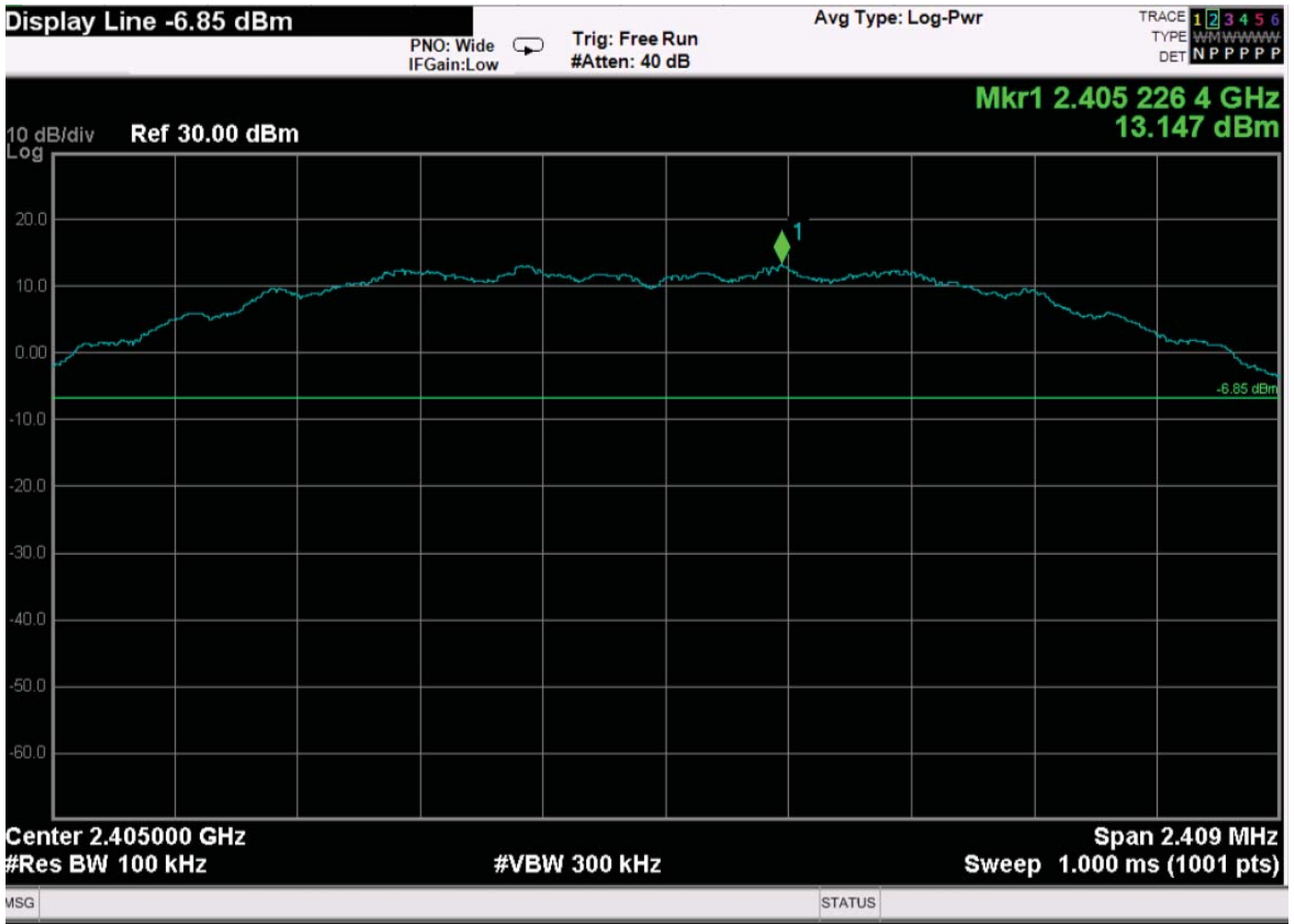


Peak Power Output – High Channel – Antenna #1



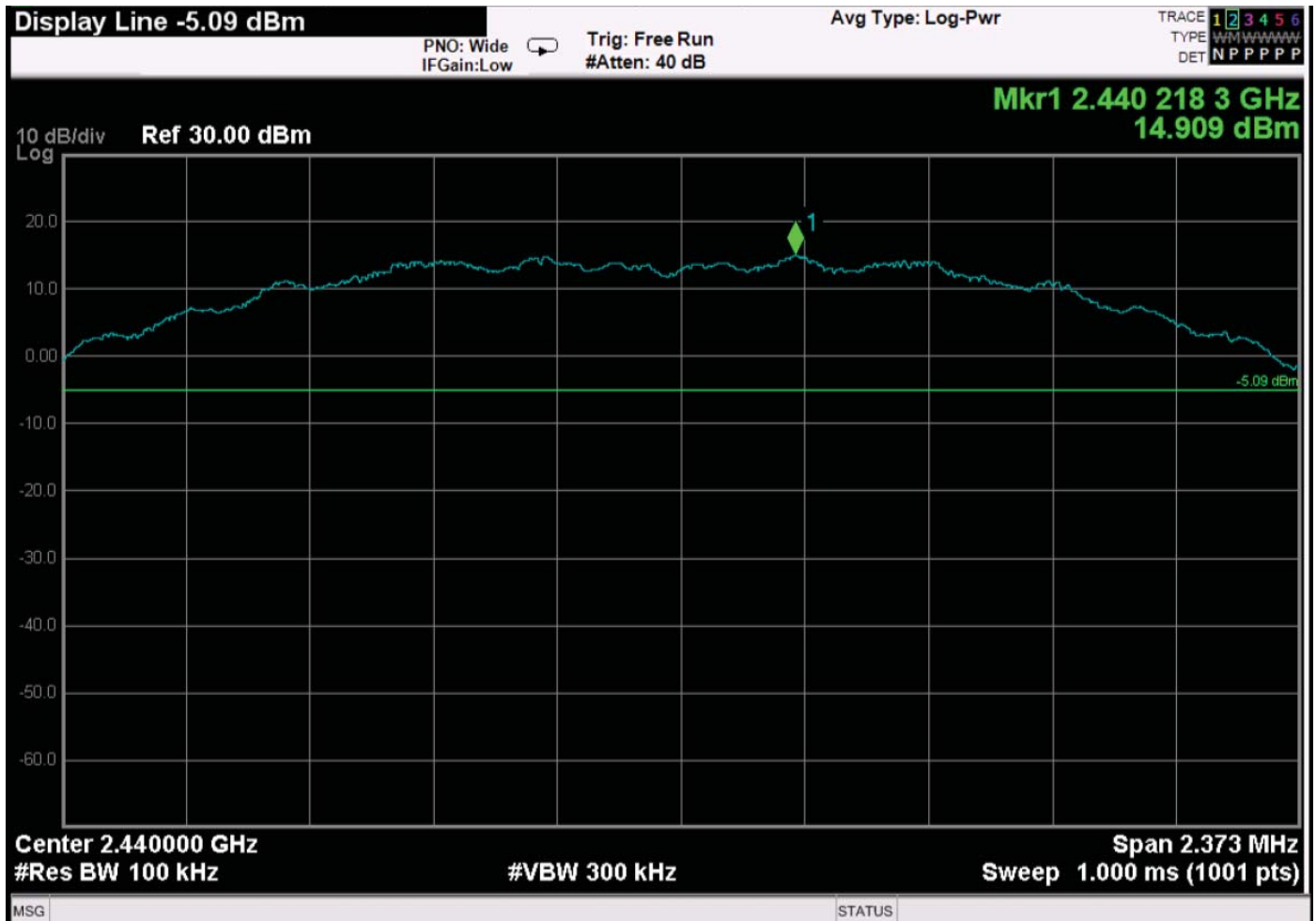
Peak Power Output – High Channel – Antenna #2

***HARMONIC EMISSIONS IN NON-RESTRICTED
FREQUENCY BANDS
DATA SHEETS***



RF Antenna Conducted – Reference Level – Low Channel (Worst Case) – Antenna #1

Note: Per Section 11.2 of KDB 558074 D01 DTS Meas Guidance v04, “Note that the channel found to contain the maximum PSD level can be used to establish the reference level.”



RF Antenna Conducted – Reference Level – Middle Channel (Worst Case) – Antenna #2

Note: Per Section 11.2 of KDB 558074 D01 DTS Meas Guidance v04, “Note that the channel found to contain the maximum PSD level can be used to establish the reference level.”

FCC 15.247Ecolink Intelligent Technology, Inc.
Ecolink Pet Immune Motion Detector
Model: PIRZB1-ECODate: 05/08/2017
Lab: D
Tested By: Kyle Fujimoto**Harmonic Emissions in Non-Restricted
Frequency Bands – Antenna #1**

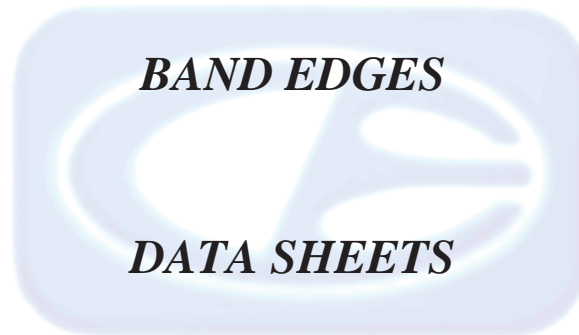
Freq. (MHz)	Level (dBm)	Antenna	Limit	Margin	Peak / QP / Avg	Comments
9618	-49.42	1	-6.853	-42.567	Peak	
9768	-41.95	1	-6.853	-35.097	Peak	
9920	-48.58	1	-6.853	-41.727	Peak	

Highest Three Non-Restricted Band Harmonics for Antenna #1

FCC 15.247Ecolink Intelligent Technology, Inc.
Ecolink Pet Immune Motion Detector
Model: PIRZB1-ECODate: 05/08/2017
Lab: D
Tested By: Kyle Fujimoto**Harmonic Emissions in Non-Restricted
Frequency Bands – Antenna #2**

Freq. (MHz)	Level (dBm)	Antenna	Limit	Margin	Peak / QP / Avg	Comments
9618	-47.38	2	-5.091	-42.289	Peak	
9768	-46.52	2	-5.091	-41.43	Peak	
9920	-49.56	2	-5.091	-44.469	Peak	

Highest Three Non-Restricted Band Harmonics for Antenna #2



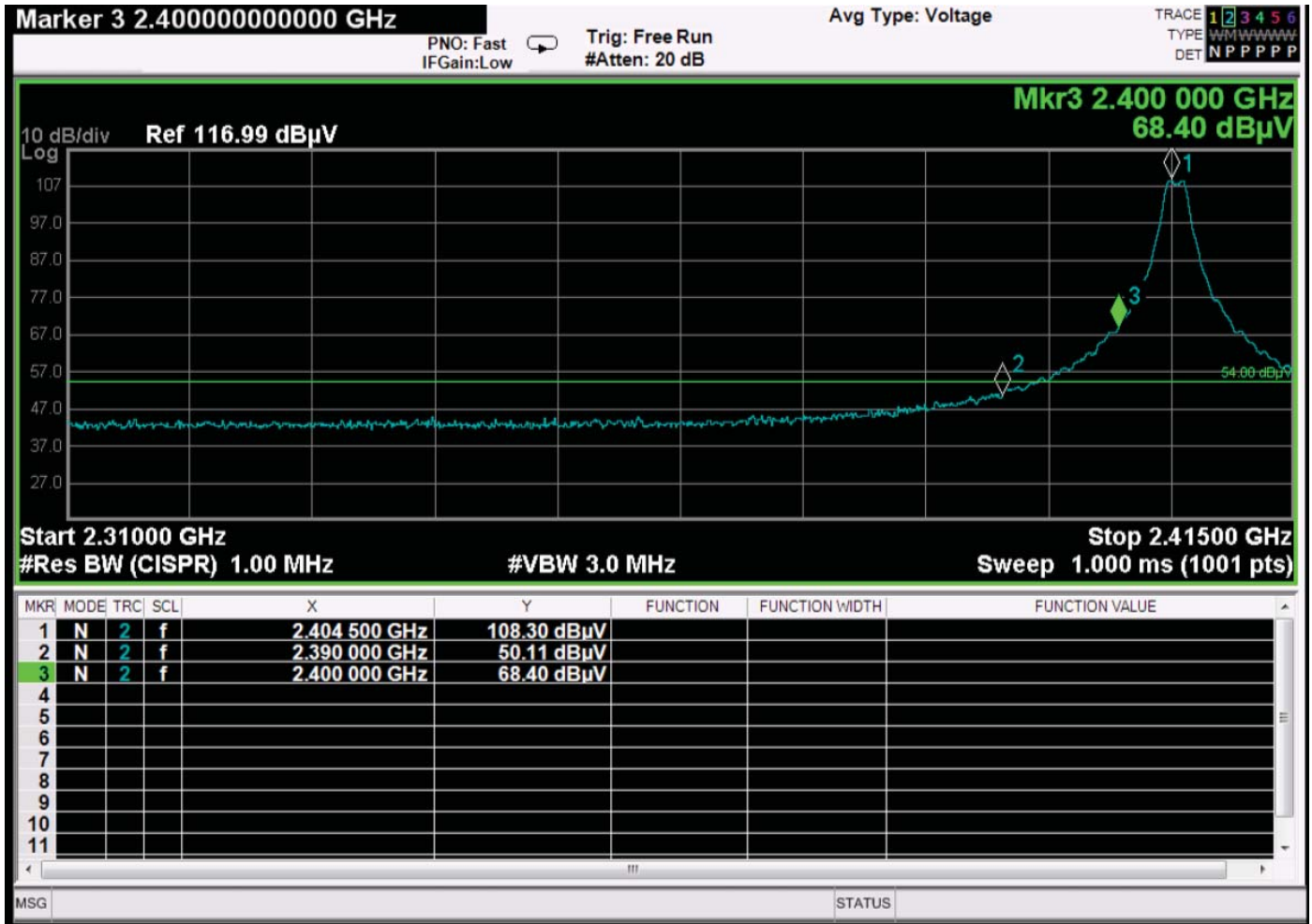
FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

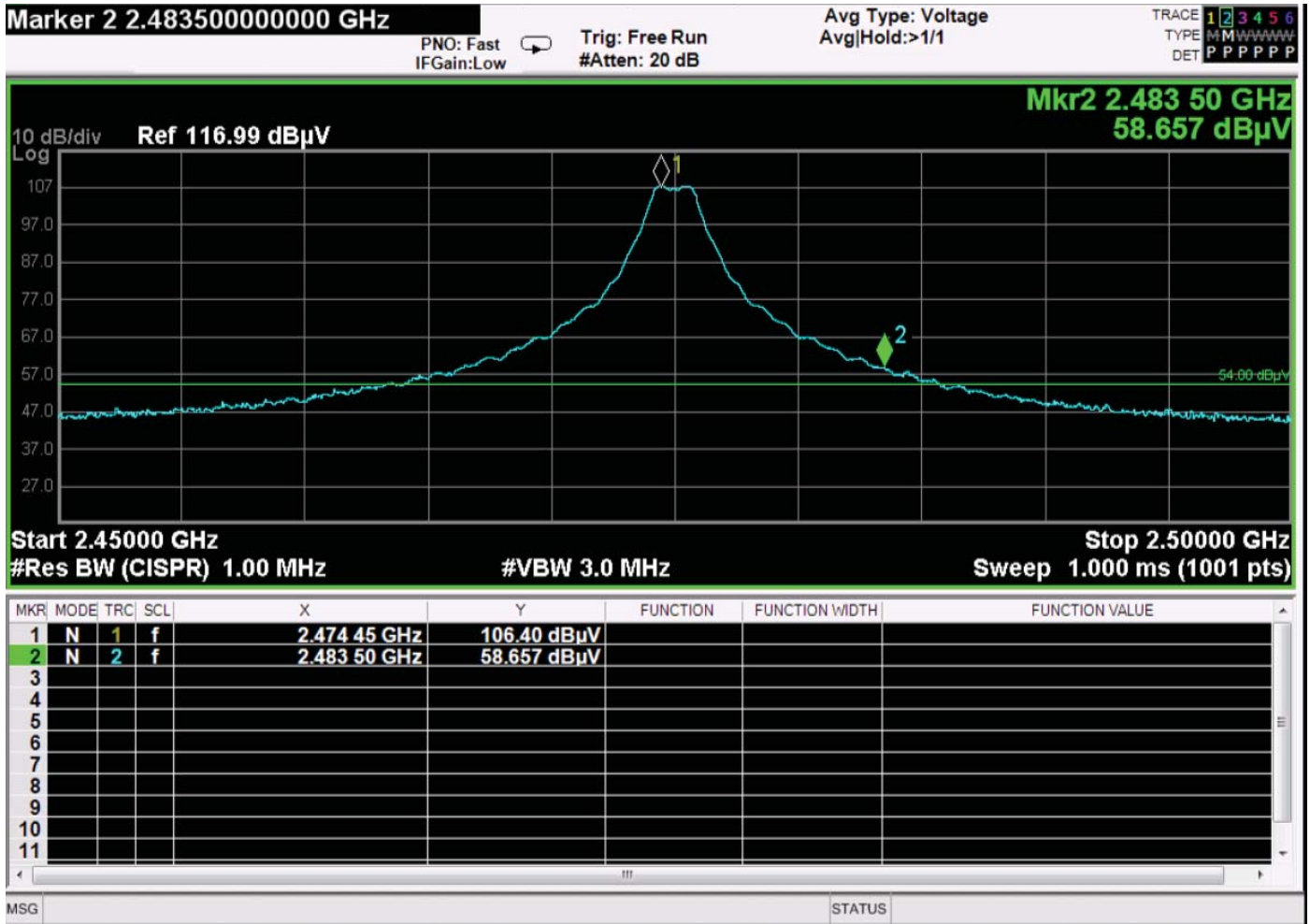
Date: 05/04/2017
 Lab: D
 Tested By: Kyle Fujimoto

Band Edge - High Channel - Antenna #1

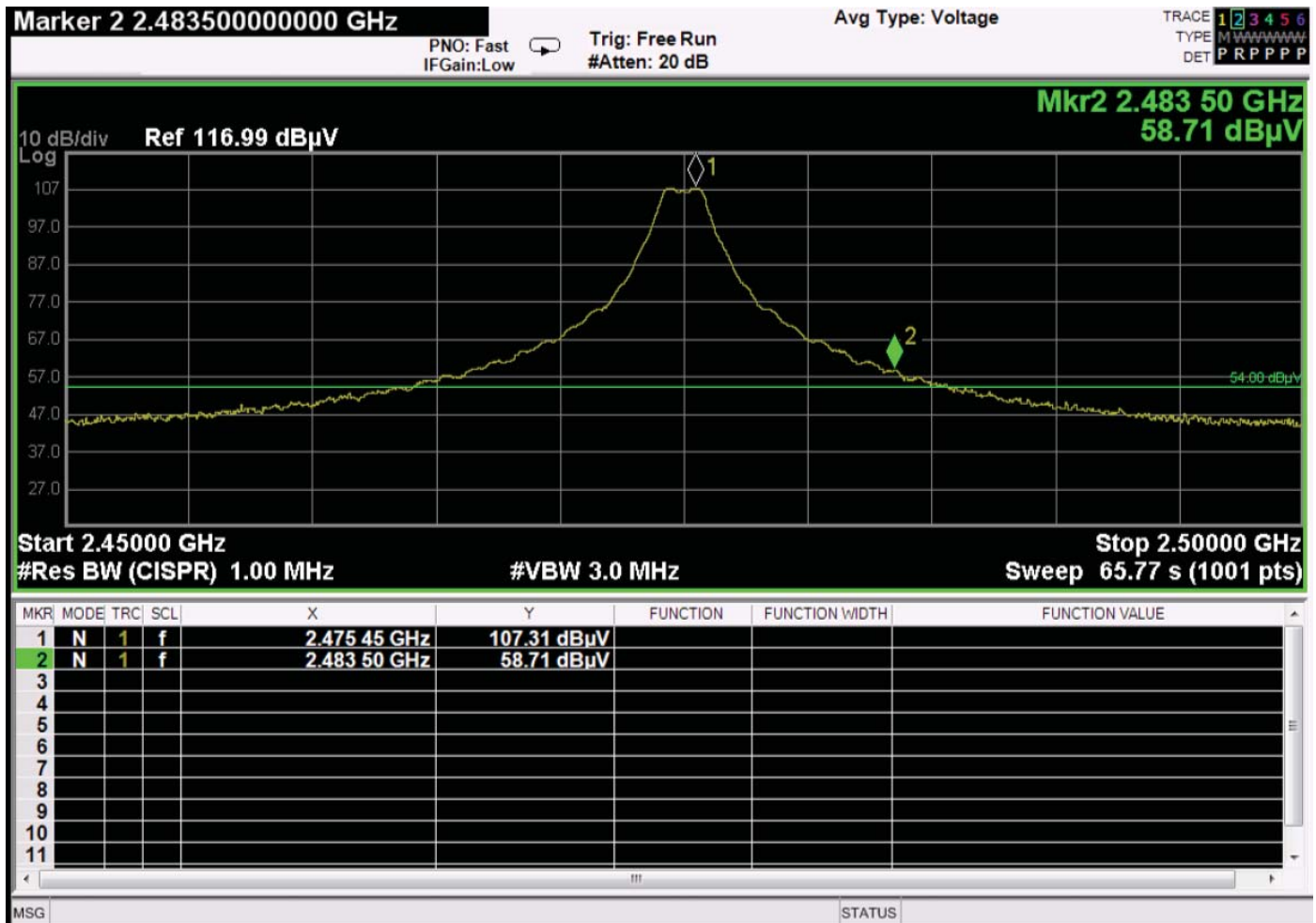
Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2480	94.47	V	113.97	-19.51	Peak	160.50	134.50	Fund. of High Channel
2480	82.52	V	93.97	-11.46	Avg	160.50	134.50	Y-Axis Worst Case
2483.5	62.20	V	73.97	-11.77	Peak	160.50	134.50	Band Edge of High Ch.
2483.5	50.25	V	53.97	-3.72	Avg	160.50	134.50	Y-Axis Worst Case
2480	94.27	H	113.97	-19.70	Peak	355.00	143.64	Fund. of High Channel
2480	82.32	H	93.97	-11.65	Avg	355.00	143.64	X-Axis Worst Case
2483.5	62.08	H	73.97	-11.89	Peak	355.00	143.64	Fund. of High Channel
2483.5	50.13	H	53.97	-3.84	Avg	355.00	143.64	X-Axis Worst Case
2475	106.40	V	--	--	Peak	190.00	165.49	Fundamental
2475	94.45	V	--	--	Avg	190.00	165.49	Y-Axis Worst Case
2483.5	58.66	V	73.97	-15.31	Peak	190.00	165.49	Band Edge
2483.5	46.71	V	53.97	-7.26	Avg	190.00	165.49	Y-Axis Worst Case
2475	107.31	H	--	--	Peak	281.25	188.47	Fundamental
2475	95.36	H	--	--	Avg	281.25	188.47	X-Axis Worst Case
2483.5	58.71	H	73.97	-15.26	Peak	281.25	188.47	Band Edge
2483.5	46.76	H	53.97	-7.21	Avg	281.25	188.47	X-Axis Worst Case



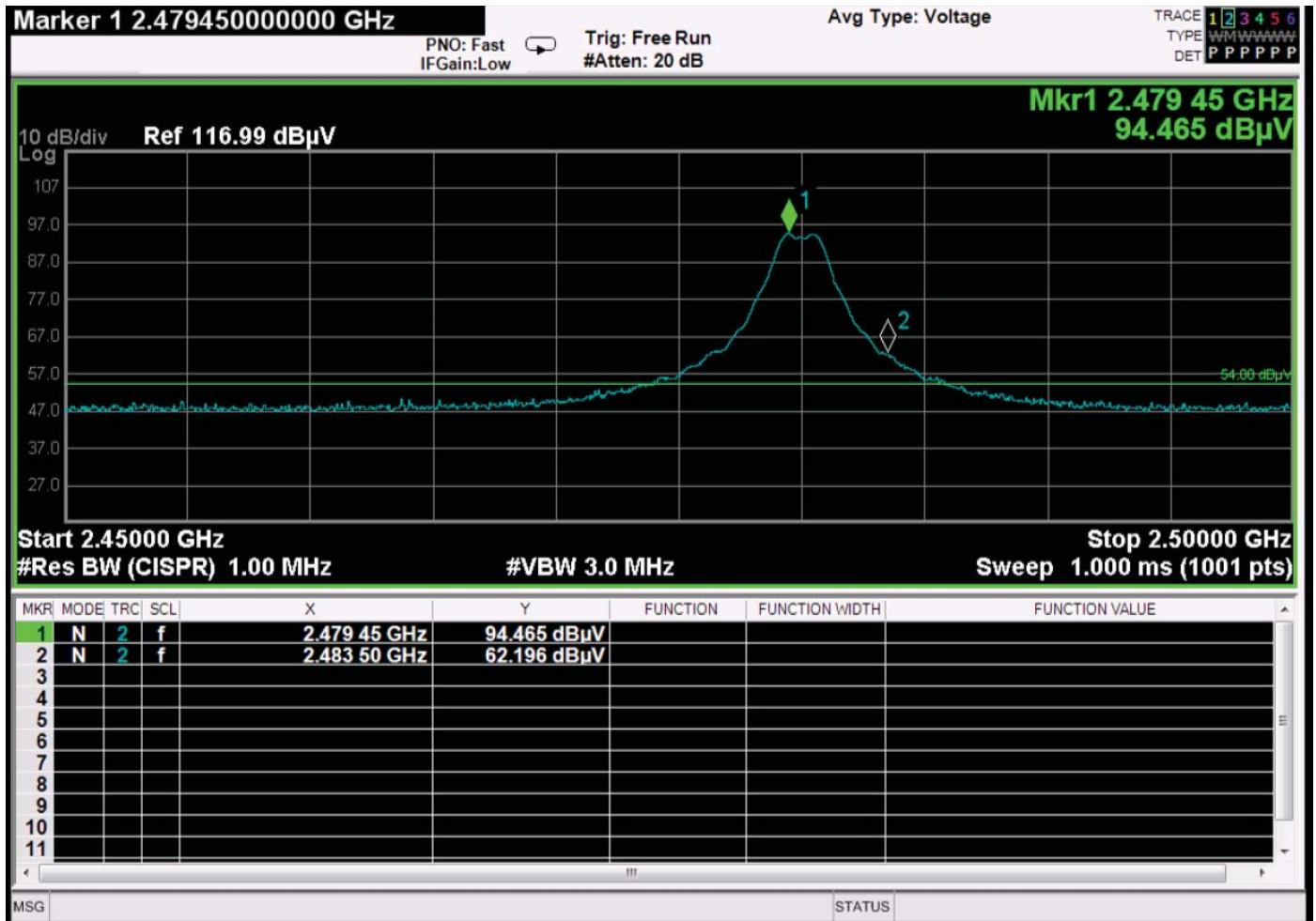
Band Edge – Low Channel – Horizontal – X-Axis – Worst Case – Antenna #1



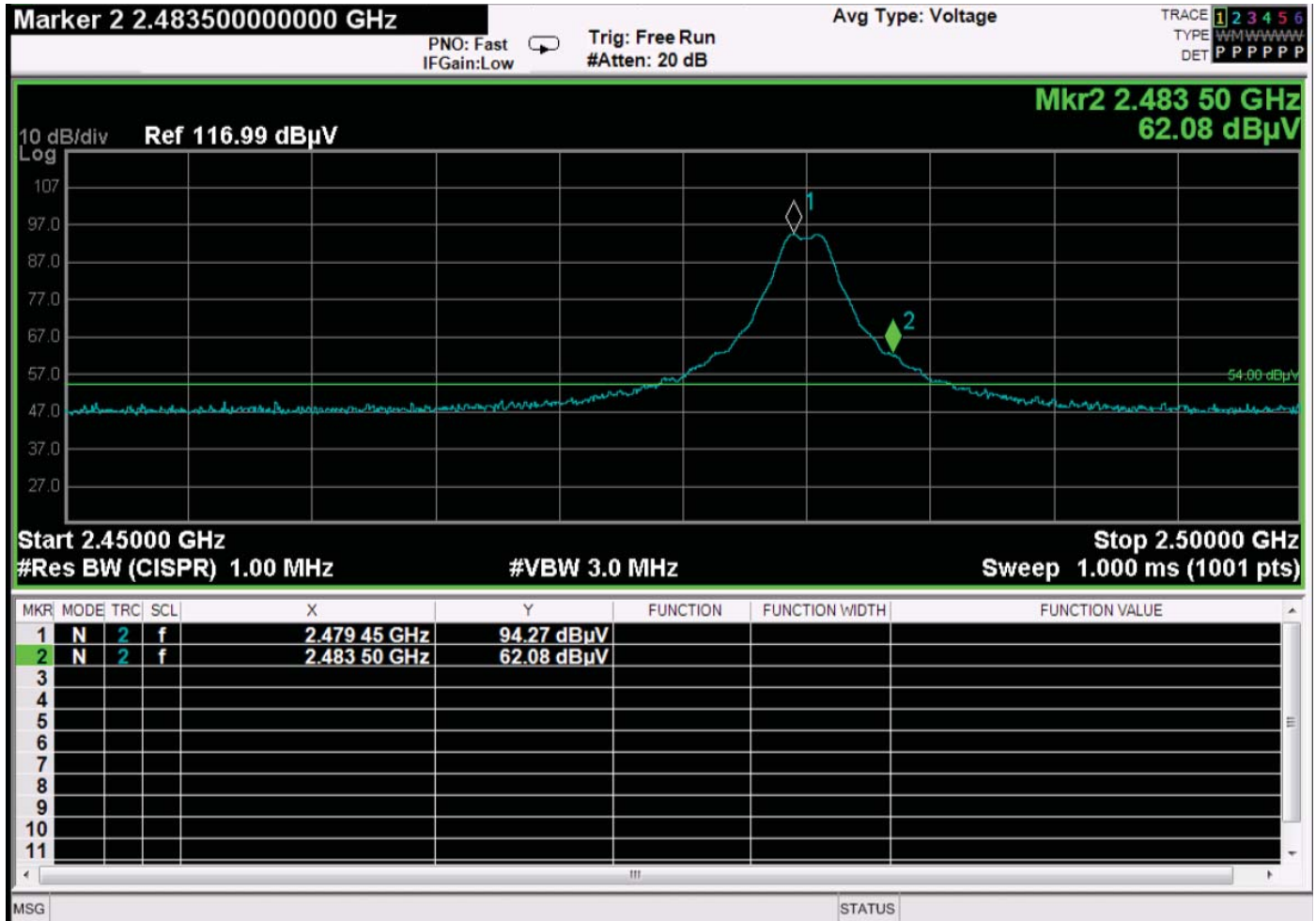
Band Edge – High Channel (2475 MHz) – Vertical – Y-Axis – Worst Case – Antenna #1



Band Edge – High Channel (2475 MHz) – Horizontal – X-Axis – Worst Case – Antenna #1



Band Edge – High Channel (2480 MHz) – Vertical – Y-Axis – Worst Case – Antenna #1



Band Edge – High Channel (2480 MHz) – Horizontal – X-Axis – Worst Case – Antenna #1

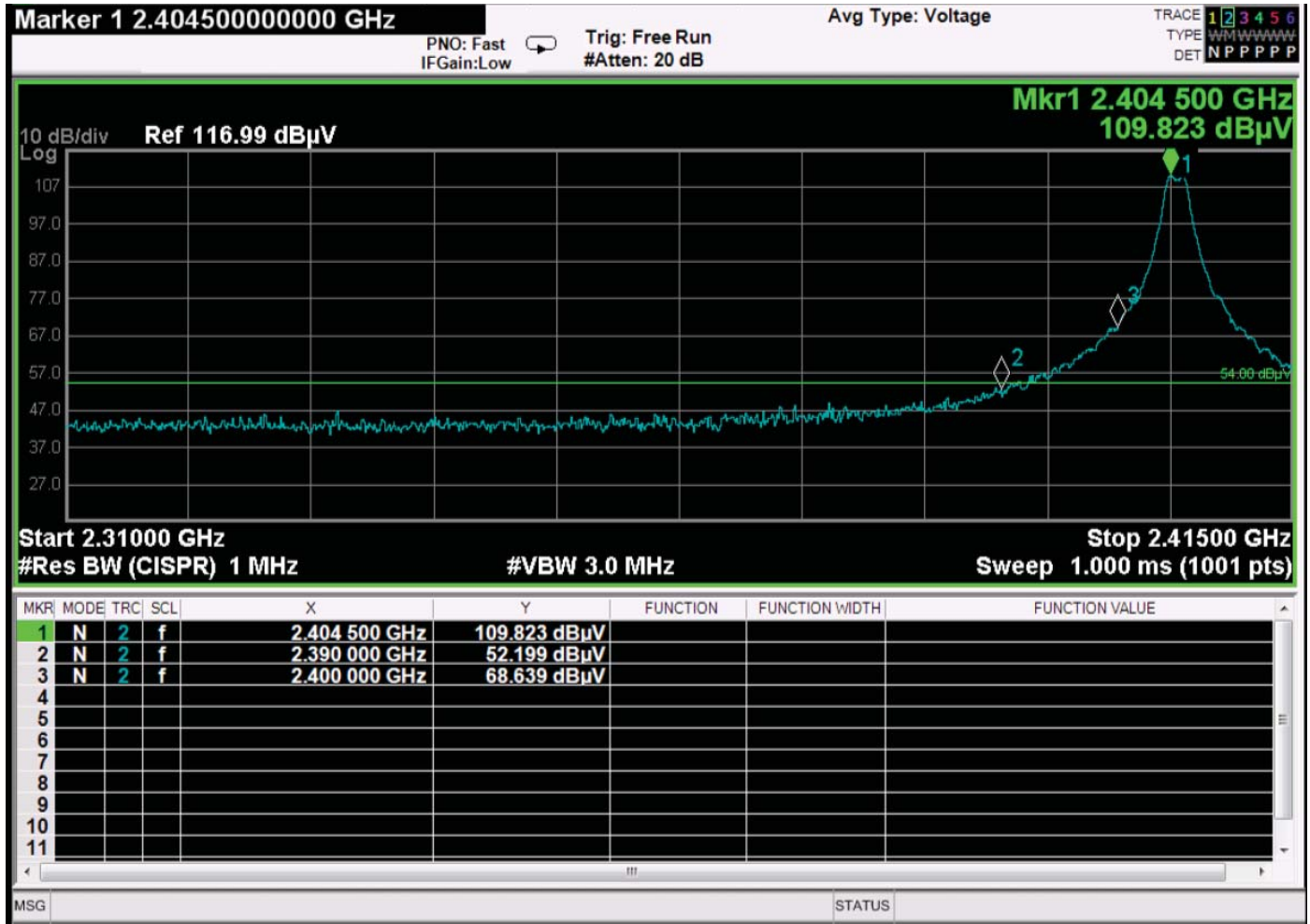
FCC 15.247

Ecolink Intelligent Technology, Inc.
 Ecolink Pet Immune Motion Detector
 Model: PIRZB1-ECO

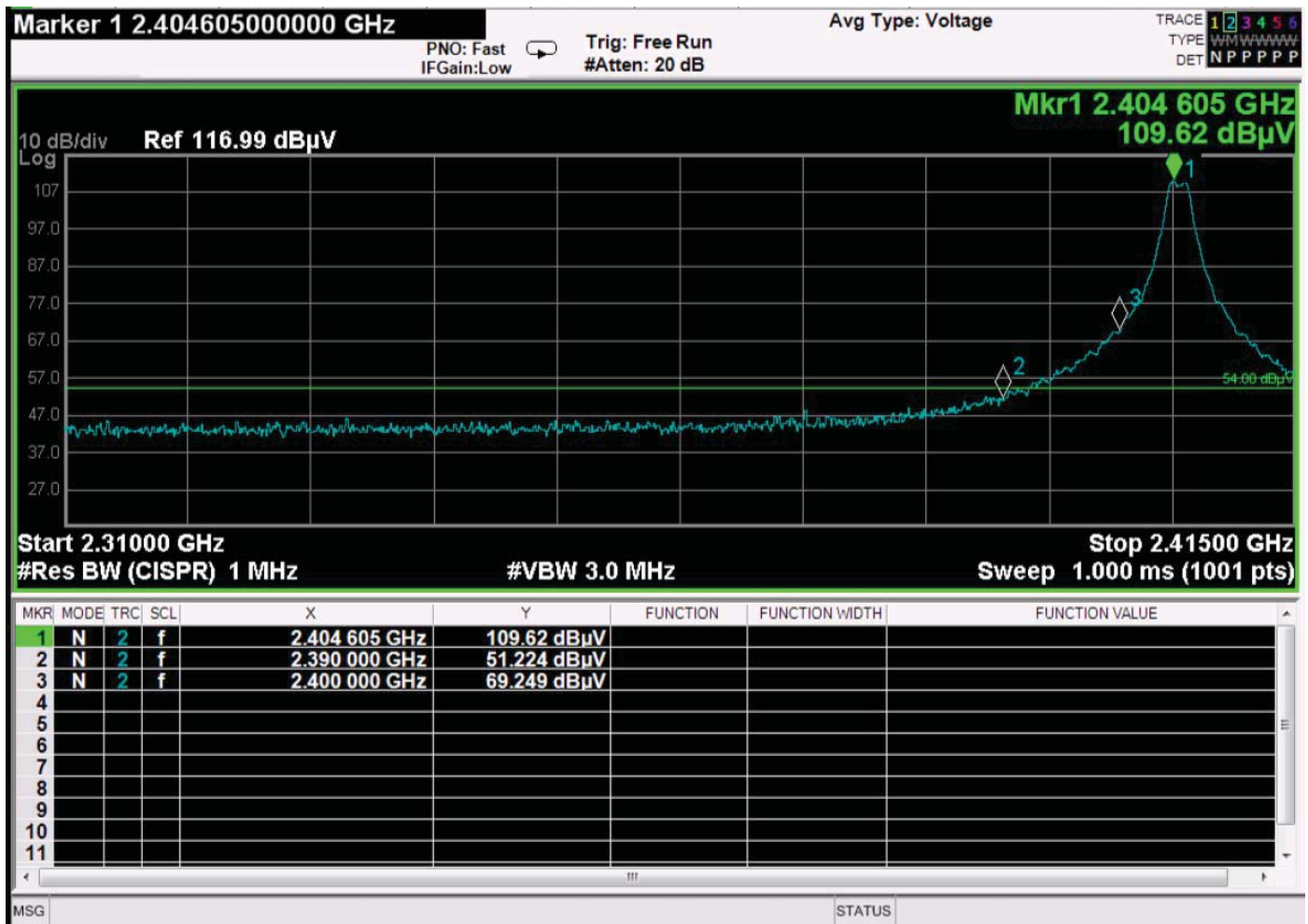
Date: 05/04/2017
 Lab: D
 Tested By: Kyle Fujimoto

Band Edge - High Channel - Antenna #2

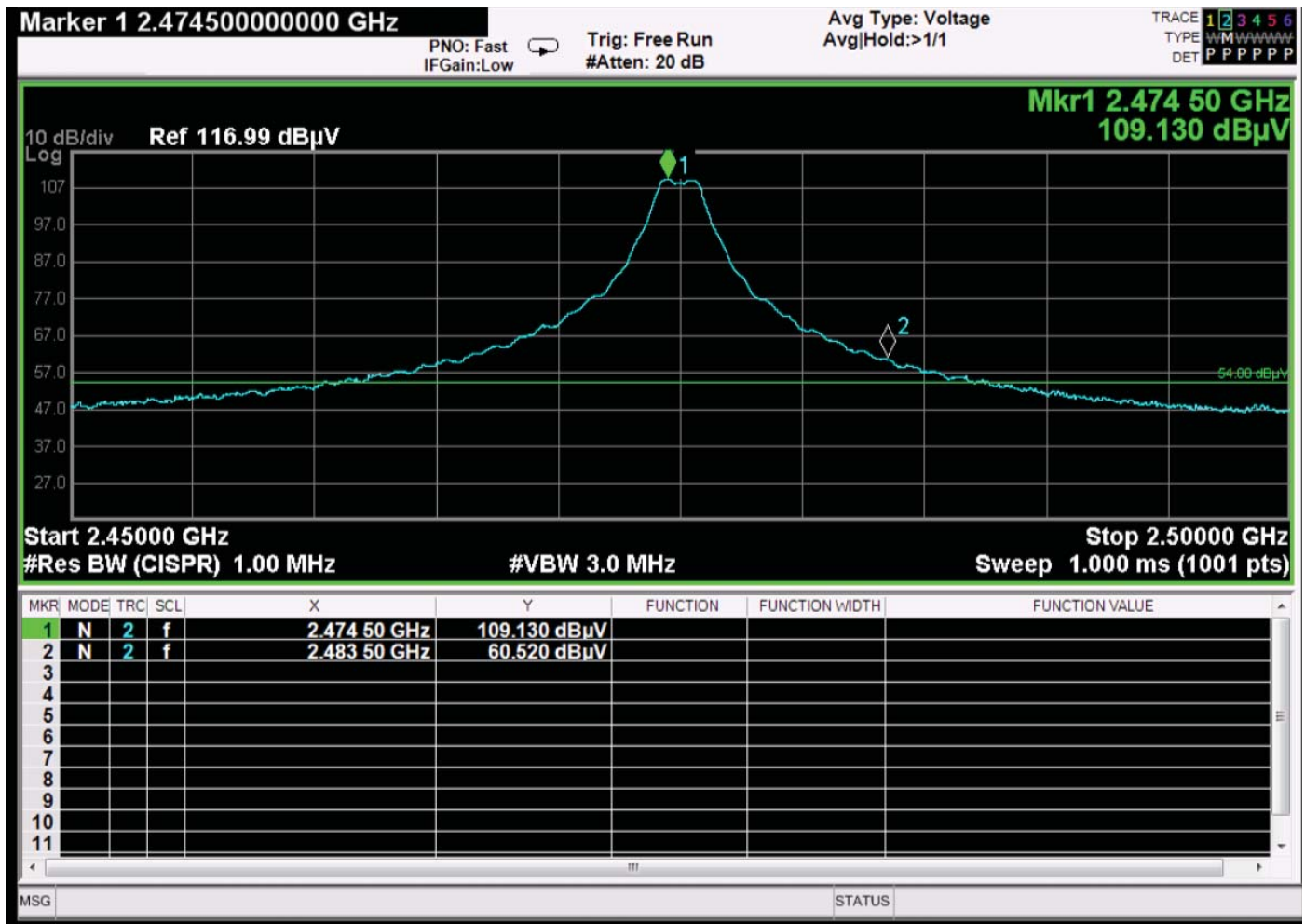
Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2480	95.74	V	113.97	-18.23	Peak	350.00	172.11	Fund. of High Channel
2480	83.79	V	93.97	-10.18	Avg	350.00	172.11	Y-Axis Worst Case
2483.5	63.37	V	73.97	-10.60	Peak	350.00	172.11	Band Edge of High Ch.
2483.5	51.42	V	53.97	-2.55	Avg	350.00	172.11	Y-Axis Worst Case
2480	94.71	H	113.97	-19.26	Peak	144.75	137.49	Fund. of High Channel
2480	82.76	H	93.97	-11.21	Avg	144.75	137.49	X-Axis Worst Case
2483.5	61.79	H	73.97	-12.18	Peak	144.75	137.49	Fund. of High Channel
2483.5	49.84	H	53.97	-4.13	Avg	144.75	137.49	X-Axis Worst Case
2475	109.13	V	--	--	Peak	123.50	153.31	Fundamental
2475	97.18	V	--	--	Avg	123.50	153.31	Y-Axis Worst Case
2483.5	60.52	V	73.97	-13.45	Peak	123.50	153.31	Band Edge
2483.5	48.57	V	53.97	-5.40	Avg	123.50	153.31	Y-Axis Worst Case
2475	108.70	H	--	--	Peak	136.75	152.35	Fundamental
2475	96.75	H	--	--	Avg	136.75	152.35	X-Axis Worst Case
2483.5	59.70	H	73.97	-14.27	Peak	136.75	152.35	Band Edge
2483.5	47.75	H	53.97	-6.22	Avg	136.75	152.35	X-Axis Worst Case



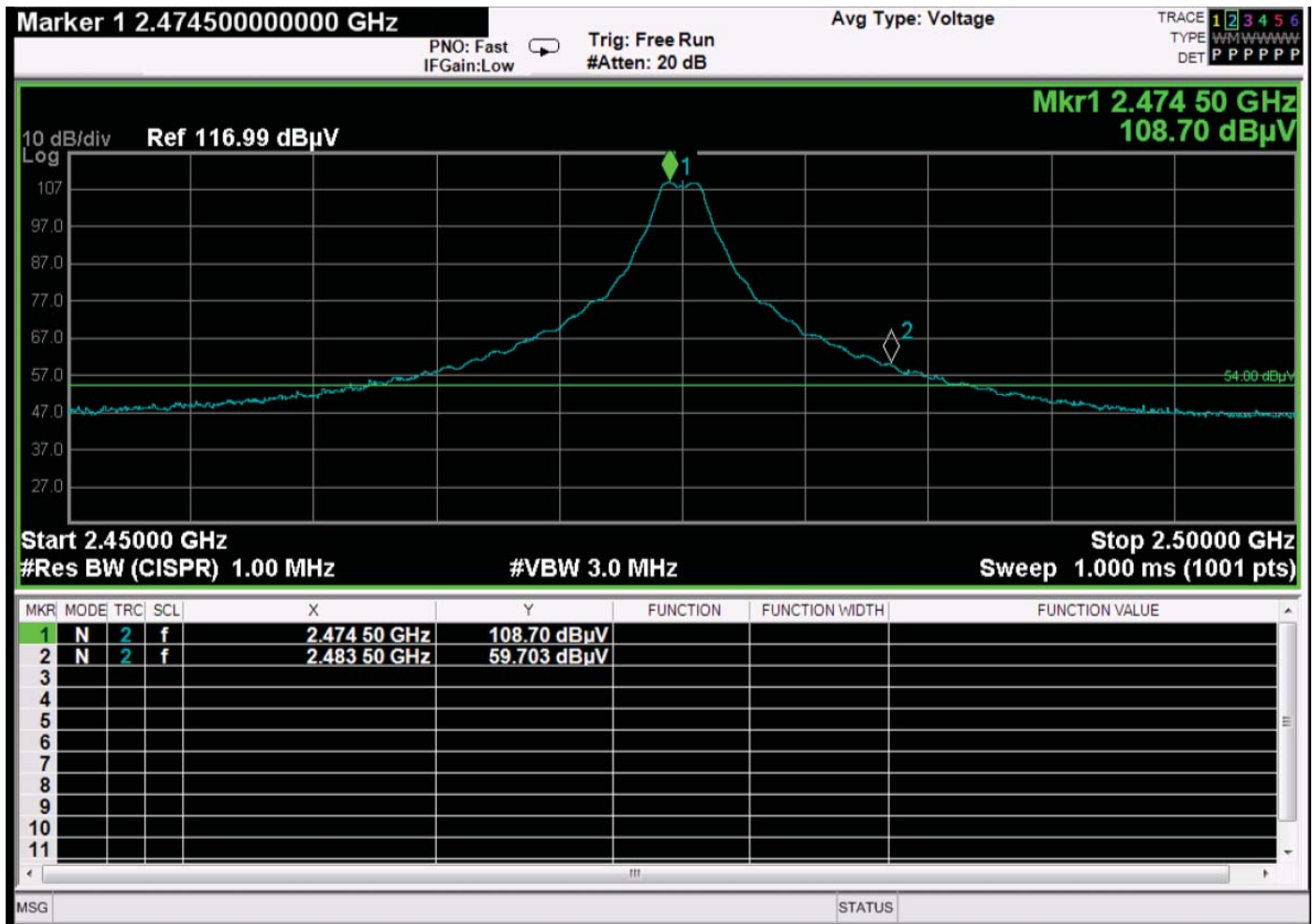
Band Edge – Low Channel – Vertical – Z-Axis – Worst Case – Antenna #2



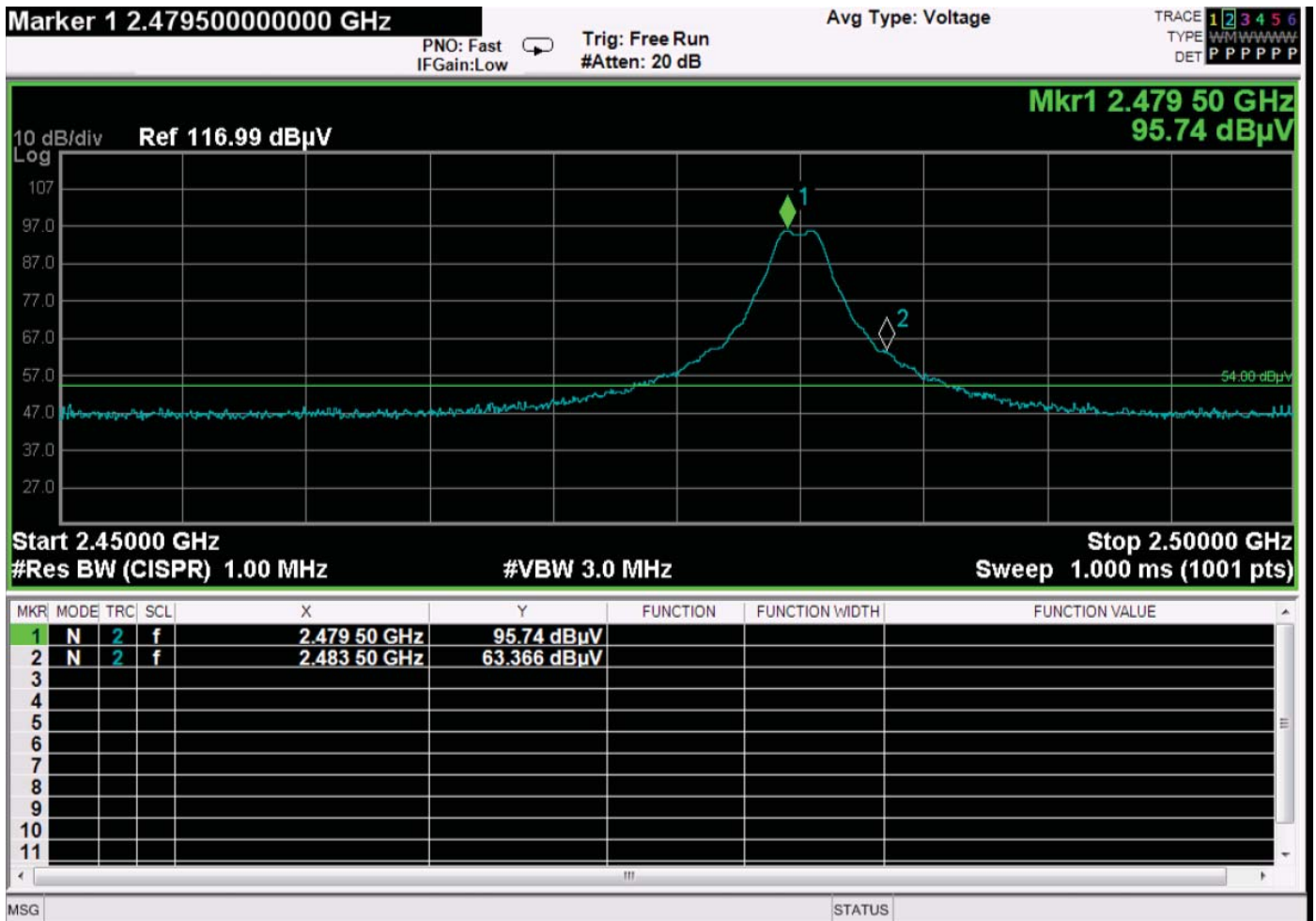
Band Edge – Low Channel – Horizontal – X-Axis – Worst Case – Antenna #2



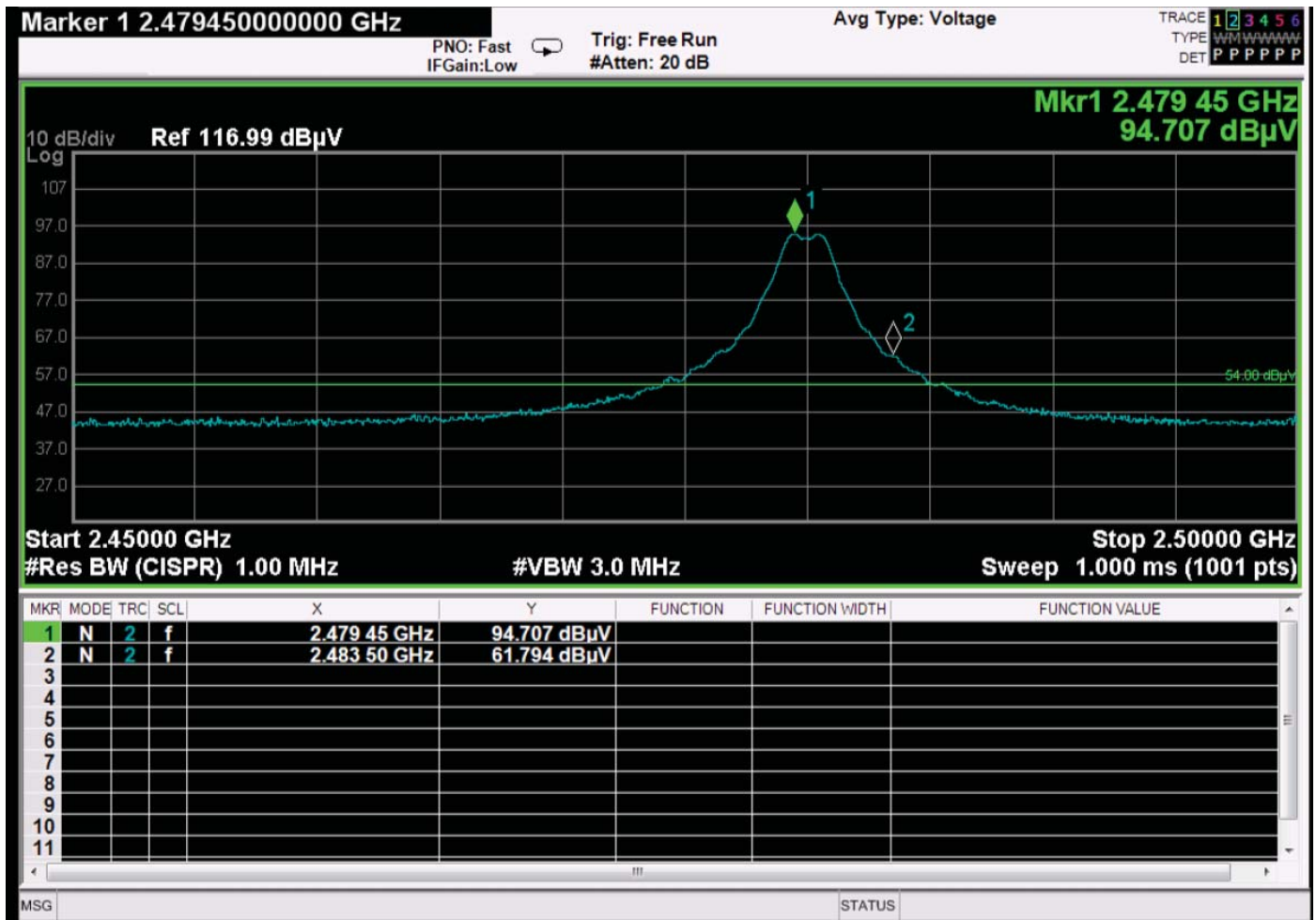
Band Edge – High Channel (2475 MHz) – Vertical – Y-Axis – Worst Case – Antenna #2



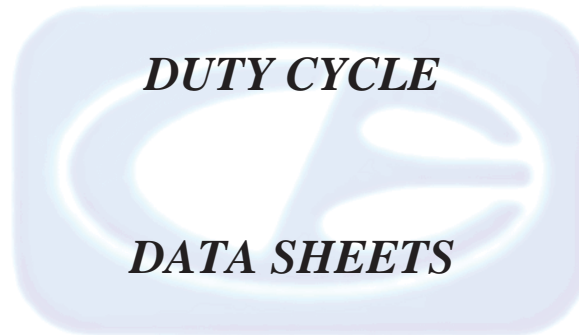
Band Edge – High Channel (2475 MHz) – Horizontal – X-Axis – Worst Case – Antenna #2

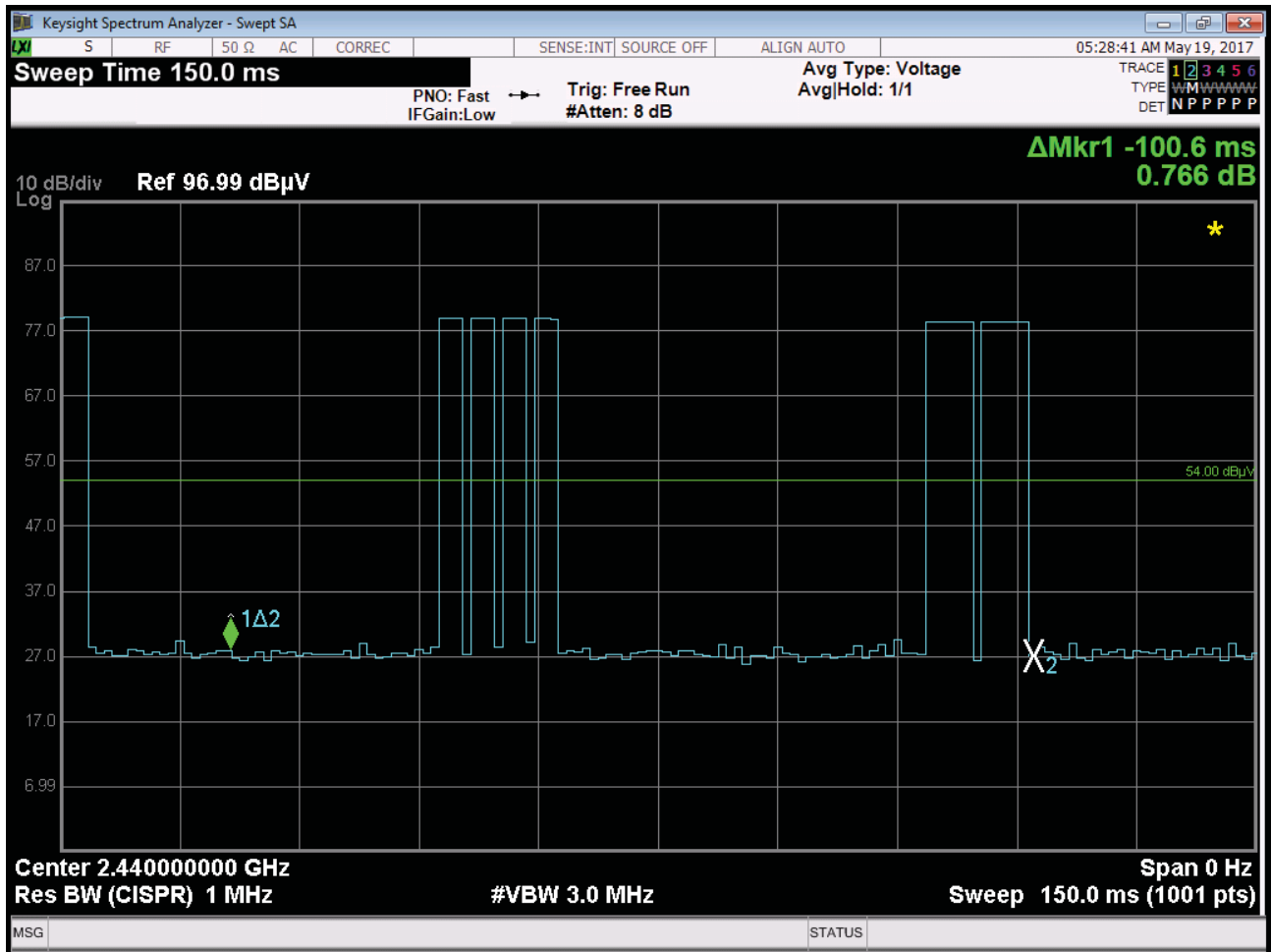


Band Edge – High Channel (2480 MHz) – Vertical – Y-Axis – Worst Case – Antenna #2

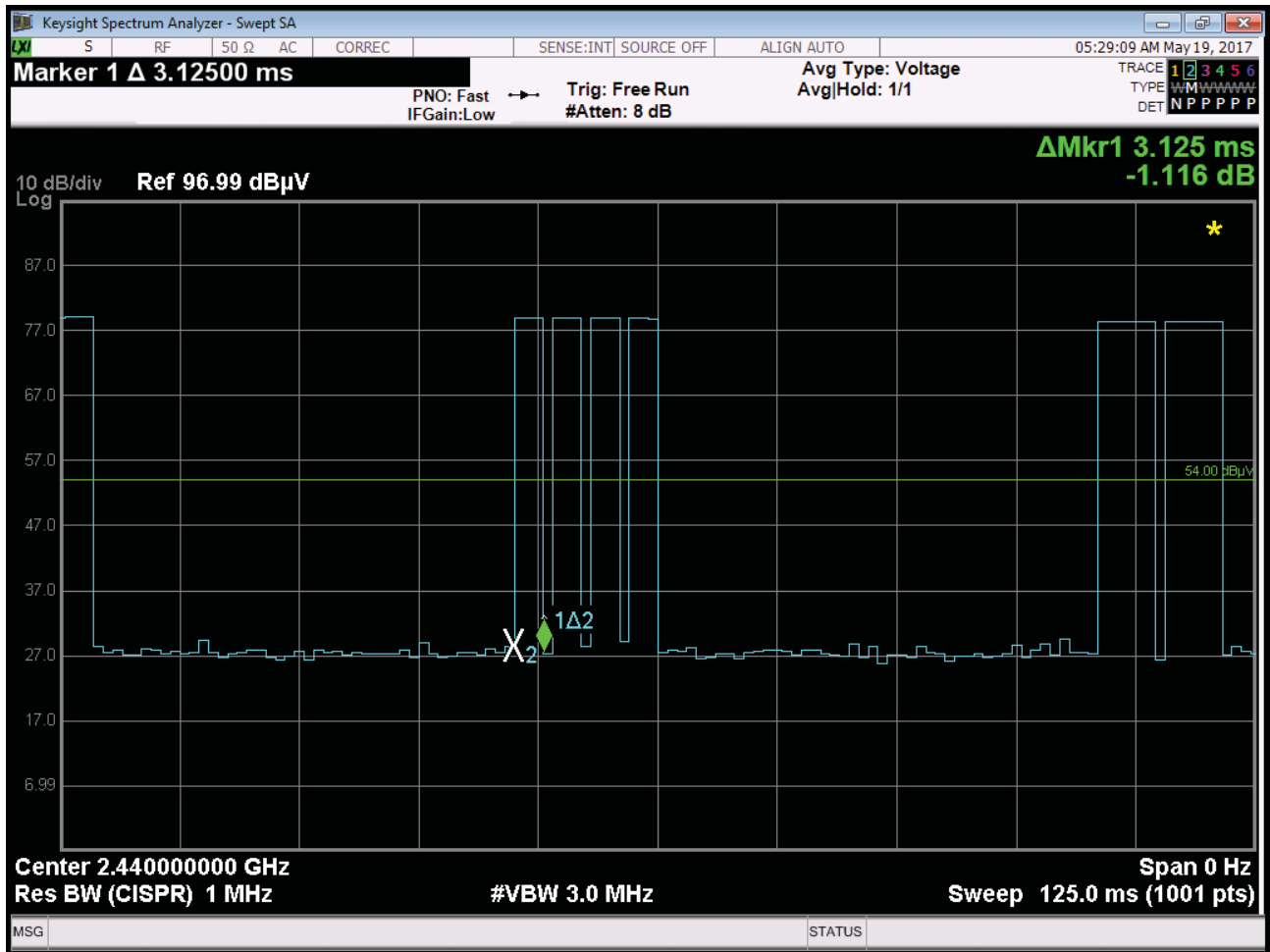


Band Edge – High Channel (2480 MHz) – Horizontal – X-Axis – Worst Case – Antenna #2

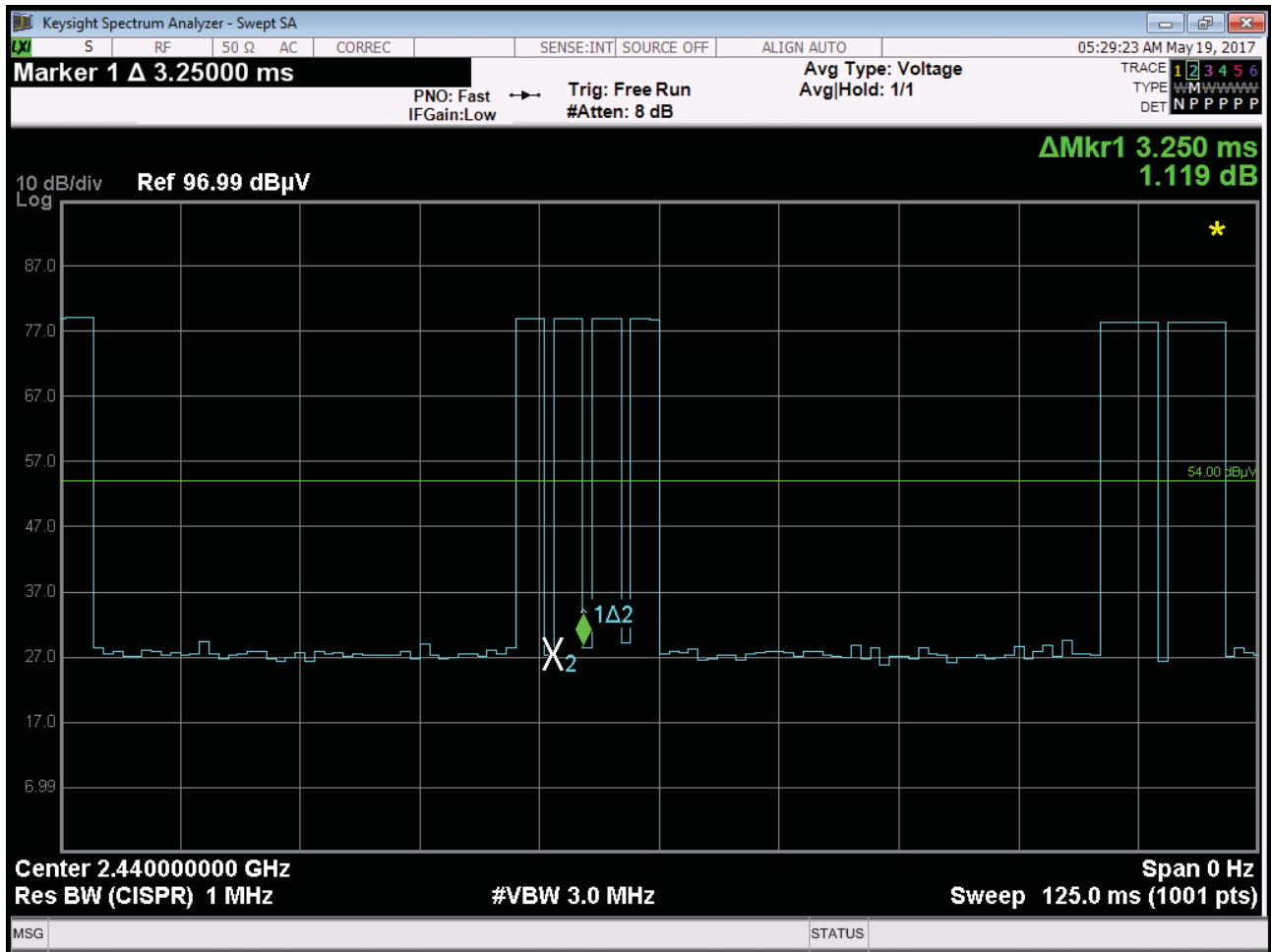




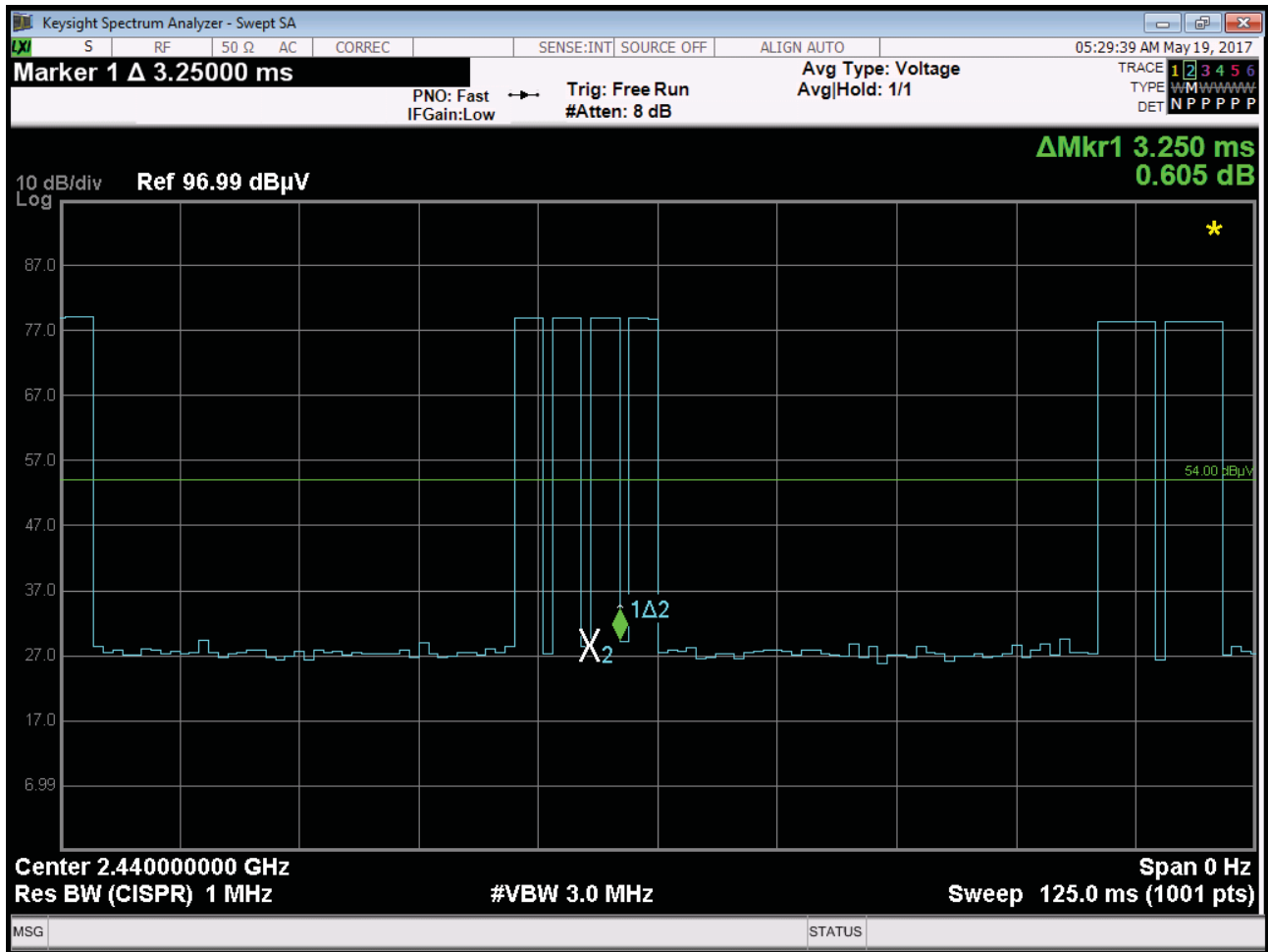
Worst Case 100 ms – Attempting to Pair when Control Device is Off



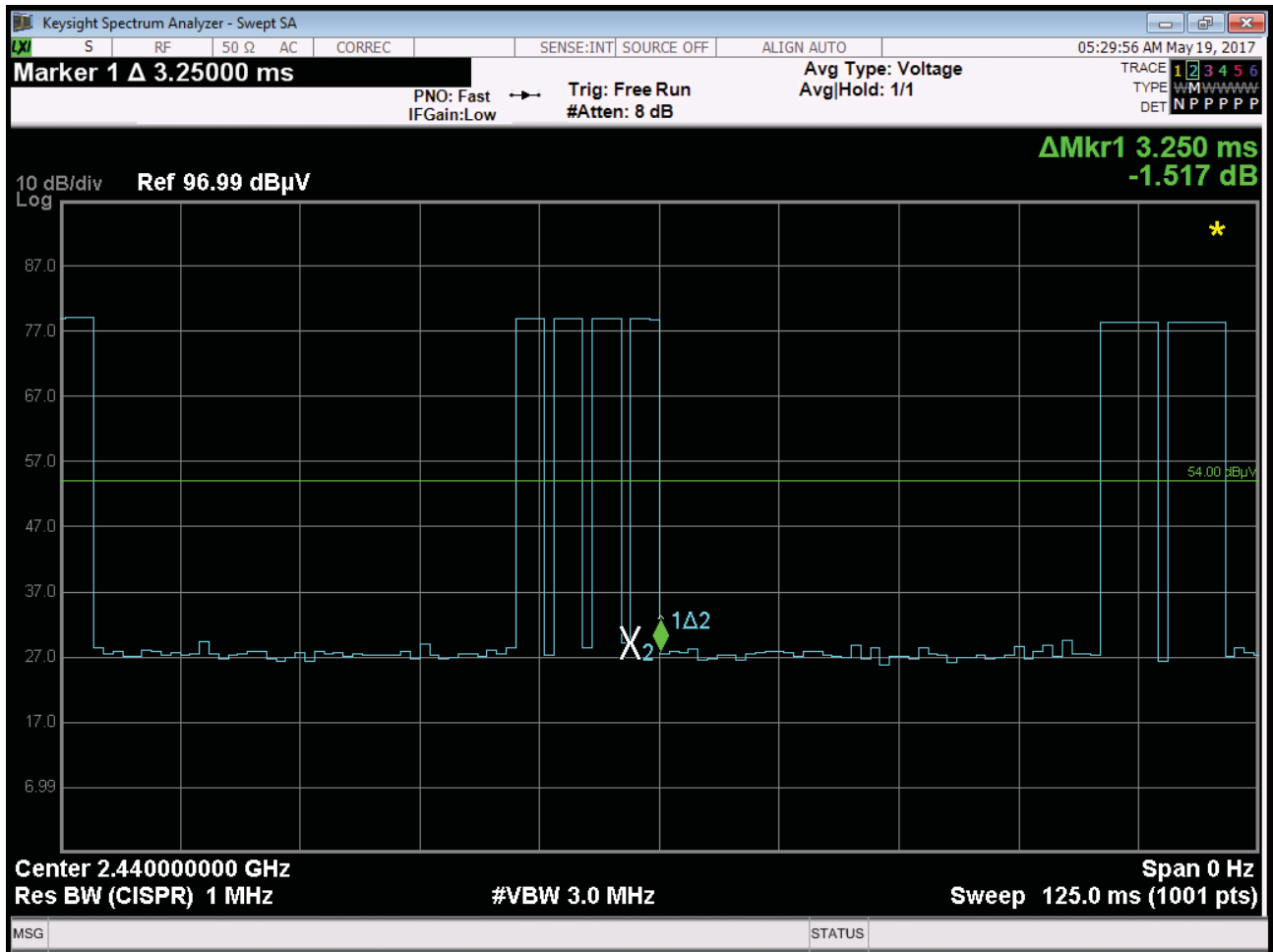
Pulse #1 – 3.125 ms – Attempting to Pair when Control Device is Off



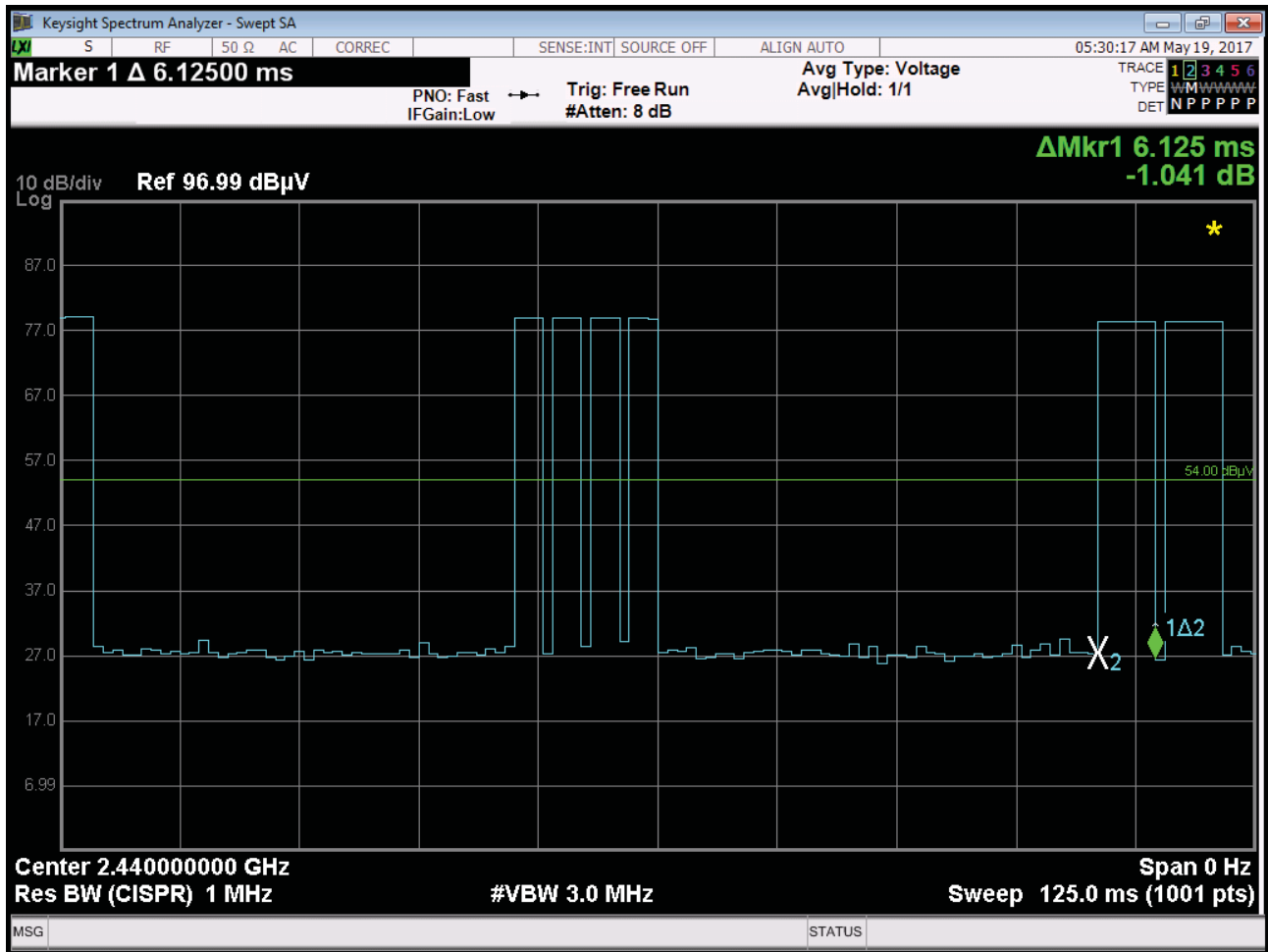
Pulse #2 – 3.25 ms – Attempting to Pair when Control Device is Off



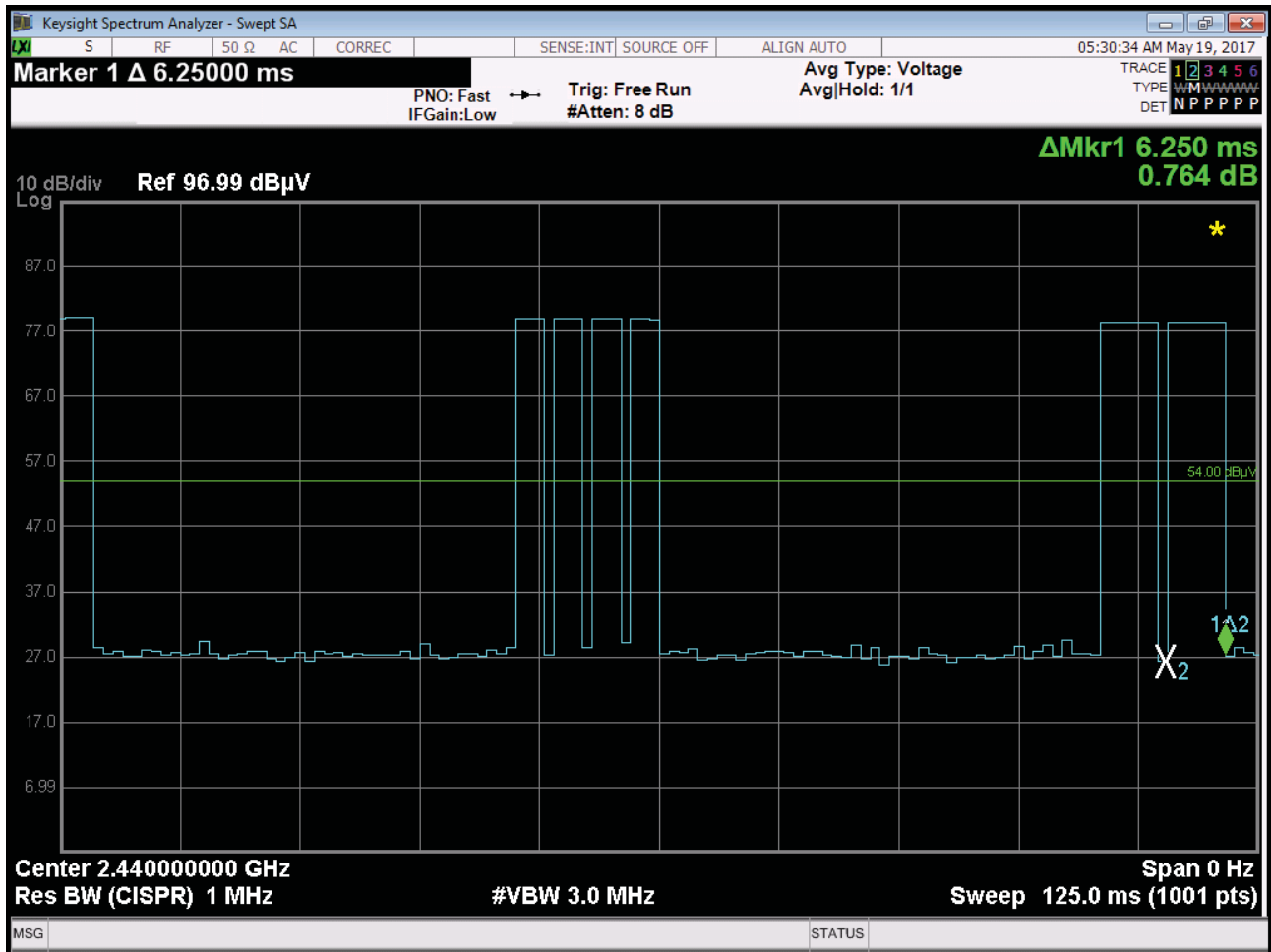
Pulse #3 – 3.25 ms – Attempting to Pair when Control Device is Off



Pulse #4 – 3.25 ms – Attempting to Pair when Control Device is Off



Pulse #5 – 6.125 ms – Attempting to Pair when Control Device is Off



Pulse #6 – 6.25 ms – Attempting to Pair when Control Device is Off

Total On Time = 25.25 ms
 Total Duty Cycle = 25.25 ms / 100 ms = 25.25%
 Peak to Average Ratio = -11.95 dB