

*FCC PART 15, SUBPART B and C
TEST REPORT**for***GEN1+ RFRX MOTOR ACTUATION CONTROLLER****MODEL: 105143**

Prepared for

LINX TECHNOLOGIES
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DATE: OCTOBER 18, 2017

	REPORT BODY	APPENDICES					TOTAL
		A	B	C	D	E	
PAGES	20	2	2	2	10	54	91

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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: Gen1+ RFRX Motor Actuation Controller
Model: 105143
S/N: N/A

Product Description: The EUT is a relay controller using a 900 MHz transceiver. It was powered by an external power supply at 24 VDC.

Modifications: The EUT was not modified in order to meet the specifications.

Customer: Linx Technologies
159 Ort Lane
Merlin, Oregon 97532

Test Dates: August 16 and 17, 2017



Test Specification covered by accreditation:

Test Specifications: Emissions requirements
CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.207, 15.209, 15.247, 15.109, and 15.107

Test Procedure: ANSI C63.4: 2014, ANSI C63.10: 2013

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

SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Radiated RF Emissions, 9 kHz – 9300 MHz	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, 15.205, 15.209 and 15.247 (d) Highest reading in relation to spec limit: 49.85 dBuV @ 7413.22 MHz (*U = 3.70 dB)
2	20 dB Bandwidth	Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.247 (a)(1)(i)
3	Peak Power Output	Complies with the relevant requirements of FCC Title 47, Part 15, Subpart C, section 15.247 (b)(2)
4	RF Conducted Antenna Test	Complies with the relevant requirements of FCC Title 47, Part 15, Subpart C, section 15.247 (d)
5	Carrier Frequency Separation	Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.247 (a)(1)
6	Average Time of Occupancy	Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.247 (a)(1)(i)
7	Peak Power Spectral Density from the International Radiator to the Antenna	This test was not performed because the EUT is a frequency hopper.

1. PURPOSE

This document is a qualification test report based on the emissions tests performed on the Gen1+ RFRX Motor Actuation Controller, Model: 105143. The emissions measurements were performed according to the measurement procedure described in ANSI C63.4 and ANSI C63.10. 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

Linx Technologies

Cristin Dziekonski

Director of Embedded Engineering

Compatible Electronics Inc.

Kyle Fujimoto

Test Engineer

Kyle Haag

Test Technician

2.4 Date Test Sample was Received

The test sample was received on August 16, 2017

2.5 Disposition of the Test Sample

The test sample has not been returned to Linx Technologies 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
LISN	Line Impedance Stabilization Network
N/A	Not Applicable
Tx	Transmit
Rx	Receive
LO	Local Oscillator

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
FCC Title 47, Part 15 Subpart B	FCC Rules – Radio frequency devices (including digital devices) – Unintentional Radiators
EN 50147-2: 1997	Anechoic chambers. Alternative test site suitability with respect to site attenuation
ANSI C63.4 2014	American National Standard for 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

4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description of Test Configuration – Emissions

The Gen1+ RFRX Motor Actuation Controller, Model: 105143 (EUT) was connected to a 24 volt DC power supply by two 1-meter banana cables. Also, there were two 1-meter unterminated connected to the O and C ports. The EUT was tested while transmitting continuously at full power, frequency hopping, as well as receive mode.

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 input voltage was varied by $\pm 15\%$ and the fundamental was verified to not change.

The final radiated data for the EUT as well as the conducted data was taken in modes above. Please see Appendix E for the data sheets.

4.1.1 Cable Construction and Termination

- Cable 1** This is a 1 meter unshielded cable supplying the EUT with 24 volts DC. It was plugged into a DC power supply by a banana connector and clamped on to the high side of the EUT with an alligator clip.
- Cable 2** This is a 1 meter unshielded cable connecting the EUT's return to the DC power supply. It was plugged into the power supply by a banana connector and clamped on to the return of the EUT with an alligator clip.
- Cable 3** This is a 1 meter unshielded unterminated cable connecting to the EUT's "C" port. The cable is hard wired at the EUT end.
- Cable 4** This is a 1 meter unshielded unterminated cable connecting to the EUT's "O" port. The cable is hard wired at the EUT end.

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

EQUIPMENT	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	FCC ID
GEN1+ RFRX MOTOR ACTUATION CONTROLLER (EUT)	LINX TECHNOLOGIES	105143	NA	OJM-RRRXGEN1
DC POWER SUPPLY	HQ	PS603U	NA	NA

5.2 Emissions Test Equipment

EQUIPMENT TYPE	MANU-FACTURER	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	July 27, 2017	1 Year
Preamplifier	Com-Power	PAM-118A	551024	May 12, 2016	2 Year
Loop Antenna	Com-Power	AL-130R	121090	February 9, 2017	2 Year
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.

6.3 Measurement Uncertainty

The uncertainty values are in the table below.

The uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level, using a coverage factor of k=2

MEASUREMENT TYPE	PARTICULAR CONFIGURATION	UNCERTAINTY VALUES
RADIATED EMISSIONS	3-METER CHAMBER, COMBILOG ANTENNA	4.54 dB
RADIATED EMISSIONS	3-METER CHAMBER, HORN ANTENNA	3.70 dB

7. CHARACTERISTICS OF THE TRANSMITTER

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

7.1 Channel Number and Frequencies

The FHSS uses a minimum of 50 channels.

Transmit frequency = 902.971 MHz-926.653 MHz

Receive frequency = 902.666332 MHz-926.348332MHz

See Appendix E for the plot showing the total number of channels in each subband.

7.2 Antenna

The antenna is made up of a usplatch antenna which is located on the PCB and has a gain of 0.3 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 Radiated Emissions Test

The EMI Receiver was used as the measuring meter. 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. A quasi-peak reading was taken only for those readings, which are marked accordingly on the data sheets. The effective measurement bandwidth used for the radiated emissions test was according to the frequency measured (200 Hz for 9 kHz to 150 kHz, 9 kHz for 150 kHz to 30 MHz, 120 kHz for 30 MHz to 1 GHz and 1 MHz for 1 GHz to 9.3 GHz).

The frequencies above 1 GHz were averaged by using the RMS detector function on the EMI Receiver.

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.

Radiated Emissions Test (continued)

The EUT was tested at a 3-meter test distance. The six highest emissions are listed in Table 1.0.

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 9.3 GHz	1 MHz	Horn Antenna

Test Results:

The EUT complies with the **Class B** limits of **CFR** Title 47, Part 15, Subpart B; and Subpart C sections 15.205, 15.209, and 15.247 (d) for radiated emissions.

8.1.2 RF Emissions Test Results

Table 1.0 RADIATED EMISSION RESULTS
Gen1+ RFRX Motor Actuation Controller
Model: 105143

Frequency MHz	EMI Reading (dBuV/m)	Specification Limit (dBuV/m)	Delta (Cor. Reading – Spec. Limit) dB
7413.22 (H) (Y-Axis)	49.85	53.97	-4.12
7413.22 (H) (Z-Axis)	49.57	53.97	-4.40
7413.22 (V) (X-Axis)	48.80	59.97	-5.17
5417.83 (V) (X-Axis)	48.50	53.97	-5.47
7413.22 (V) (Y-Axis)	48.44	53.97	-5.53
5417.83 (H) (Z-Axis)	48.43	53.97	-5.54

Notes:

- * The complete emissions data is given in Appendix E of this report.
- (V) Vertical
- (H) Horizontal

8.2 20 dB Bandwidth

The 20 dB Bandwidth was measured using the EMI Receiver. The bandwidth was measured using a direct connection from the RF output of the EUT. The resolution bandwidth was $\geq 1\%$ of the bandwidth and the video bandwidth was $\geq$ RBW.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (a)(1)(i). The 20 dB bandwidth is less than the separation between channels. Please see the data sheets located in Appendix E.

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 greater than 20 dB bandwidth and the video bandwidth was $\geq$ RBW. The cable loss was also added back into the reading using the reference level offset.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (b)(2). The maximum peak output power is less than 1 Watt. Please see the data sheets located in Appendix E.

8.4 RF Antenna Conducted Test

The RF antenna conducted test was performed using the EMI Receiver. The RF antenna conducted test measured using a direct connection from the RF out on the EUT into the input of the EMI Receiver. The resolution bandwidth was 100 kHz, and the video bandwidth was 300 kHz. The spans were wide enough to include all the harmonics and emissions that were produced by the intentional radiator.

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 the edges of the ISM spectrum (902 MHz when the EUT was on the low channel and 928 MHz when the EUT was on the high channel) using the EMI Receiver. The RBW was set to 100 kHz and the VBW was set to at least three times the RBW. Plots of the fundamental were taken to ensure the amplitude at the band edges were at least 20 dB down from the peak of the fundamental emission. The plots were taken in both frequency hopping mode and single channel mode.

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 band edges at 902 MHz and 928 MHz meet the requirements of FCC Title 47, Part 15, Subpart C section 15.247 (d). Please see the data sheets located in Appendix E.

8.6 Carrier Frequency Separation

The Channel Hopping Separation Test was measured using the EMI Receiver. The EUT was operating in its normal operating mode. The resolution bandwidth was approximately 30% of the channel spacing, and the video bandwidth $\geq$ RBW. The frequency span was wide enough to include the peaks of two adjacent channels.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (a)(1). The Channel Hopping Separation is greater than the 20 dB bandwidth. Please see the data sheets located in Appendix E.

8.7 Number of Hopping Frequencies

The Number of Hopping Frequencies was measured using the EMI Receiver. The EUT was operating in its normal operating mode. The resolution bandwidth was set to approximately 30% of the channel spacing, and the video bandwidth was $\geq$ RBW. The frequency span was wide enough to include all of the peaks in the frequency band of operation.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (a)(1) and 15.247 (a)(1)(i). Please see the data sheets located in Appendix E.

8.8 Average Time of Occupancy Test

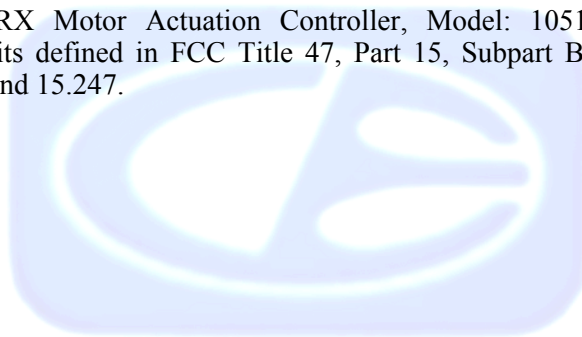
The Average Time of Occupancy Test was measured using the EMI Receiver. The EUT was operating in normal operating mode. The frequency span was taken to 0 Hz to determine the time for each transmission and the number of transmissions over a 10 second period. The RBW was set to be less than the channel spacing.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (a)(1)(i). Please see the data sheets located in Appendix E.

9. CONCLUSIONS

The Gen1+ RFRX Motor Actuation Controller, Model: 105143, as tested, meets all of the specification limits defined in FCC Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.207, 15.209, and 15.247.



APPENDIX A

LABORATORY ACCREDITATIONS AND RECOGNITIONS

LABORATORY ACCREDITATIONS AND RECOGNITIONS



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."



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.

No modifications were made to the EUT during the testing.



APPENDIX C

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

ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST

Gen1+ RFRX Motor Actuation Controller
Model: 105143
S/N: N/A

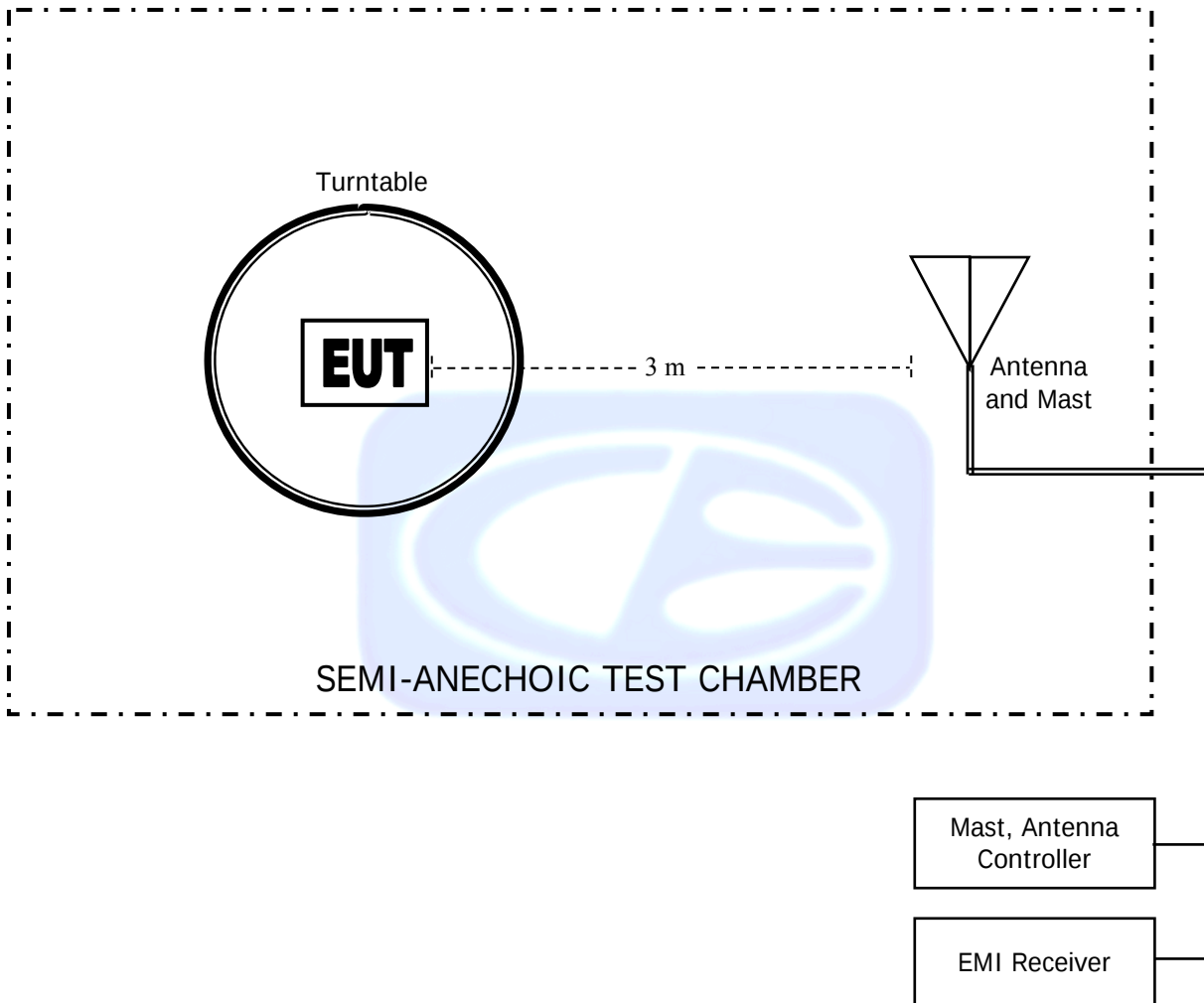
There are no additional models covered under this report.



APPENDIX D

DIAGRAMS AND CHARTS

***FIGURE 1: LAYOUT OF THE SEMI-ANECHOIC
TEST CHAMBER***



COM-POWER AL-130**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: JULY 27, 2017**

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	23.80	200	14.10
35	24.00	250	15.30
40	24.70	300	17.70
45	22.90	350	17.70
50	22.10	400	19.00
60	17.60	450	21.30
70	12.70	500	21.00
80	11.20	550	22.30
90	13.10	600	23.40
100	14.40	650	22.90
120	15.30	700	24.60
125	15.00	750	24.50
140	12.80	800	25.40
150	16.50	850	26.40
160	12.90	900	27.20
175	14.30	950	27.80
180	14.50	1000	26.80

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 PAM-118A**PREAMPLIFIER**

S/N: 551024

CALIBRATION DATE: MAY 12, 2016

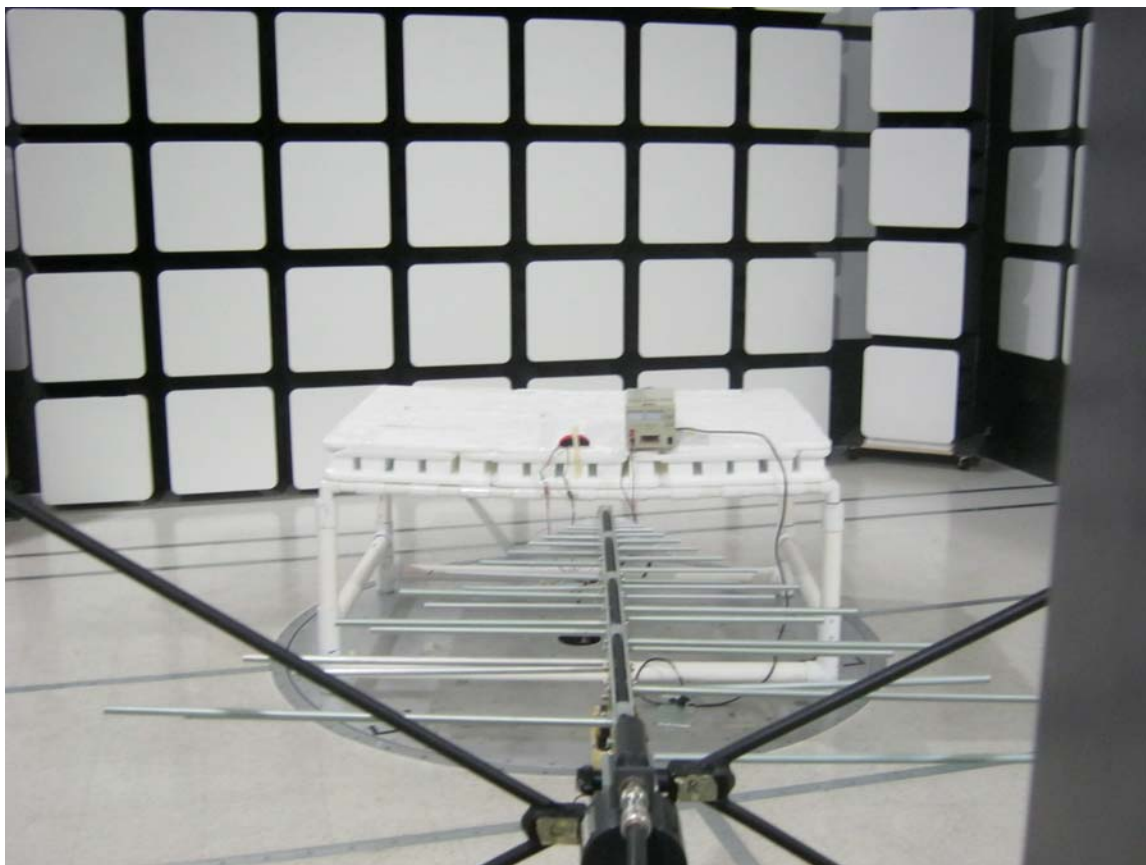
FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	39.84	6.0	39.05
1.1	39.40	6.5	38.94
1.2	39.58	7.0	39.25
1.3	39.68	7.5	39.09
1.4	39.91	8.0	39.01
1.5	39.78	8.5	38.60
1.6	39.50	9.0	38.64
1.7	39.81	9.5	39.67
1.8	39.89	10.0	39.30
1.9	39.94	11.0	39.15
2.0	39.57	12.0	39.24
2.5	40.39	13.0	39.49
3.0	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		



FRONT VIEW

**LINK TECHNOLOGIES
GEN1+ RFRX MOTOR ACTUATION CONTROLLER
MODEL: 105143
FCC SUBPART B AND C – RADIATED EMISSIONS – BELOW 1 GHz**

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



REAR VIEW

**LINK TECHNOLOGIES
GEN1+ RFRX MOTOR ACTUATION CONTROLLER
MODEL: 105143
FCC SUBPART B AND C – RADIATED EMISSIONS – BELOW 1 GHz**

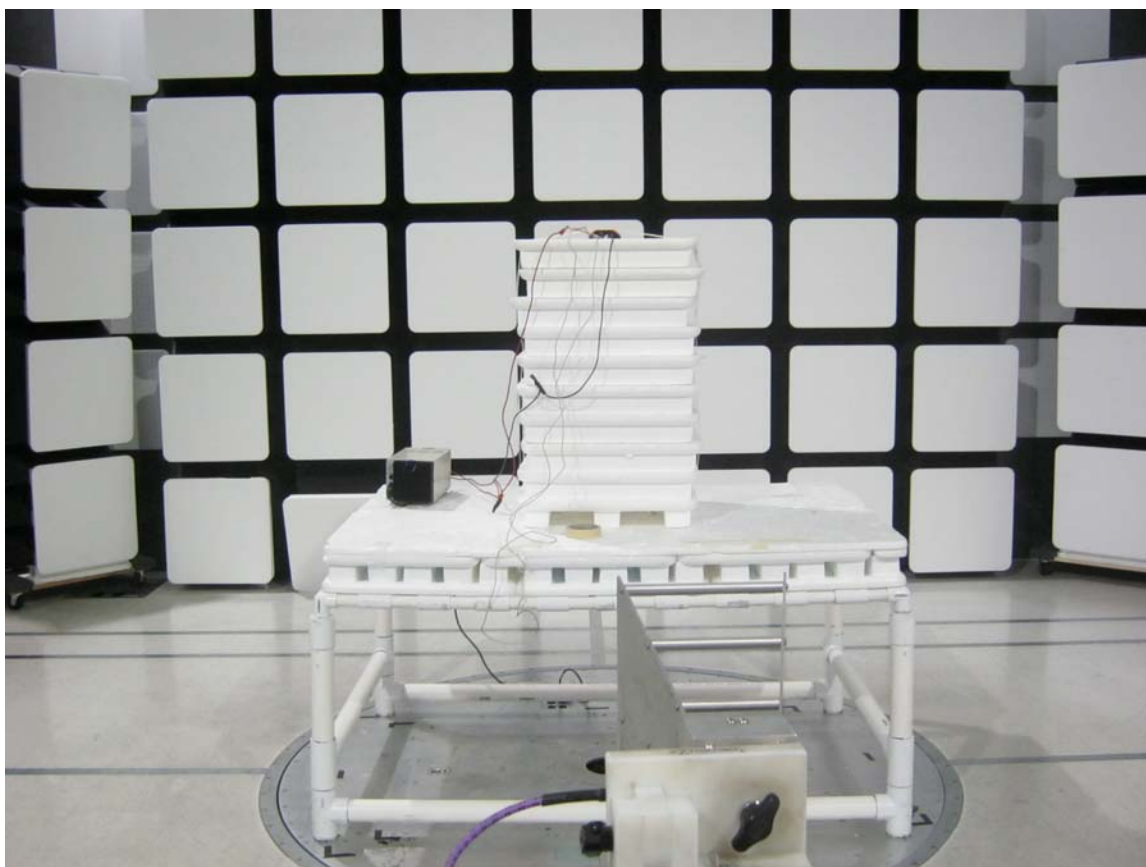
**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



FRONT VIEW

LINX TECHNOLOGIES
GEN1+ RFRX MOTOR ACTUATION CONTROLLER
MODEL: 105143
FCC SUBPART B AND C – RADIATED EMISSIONS ABOVE 1GHz

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



REAR VIEW

**LINK TECHNOLOGIES
GEN1+ RFRX MOTOR ACTUATION CONTROLLER
MODEL: 105143
FCC SUBPART B AND C – RADIATED EMISSIONS –ABOVE 1GHZ**

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

APPENDIX E

DATA SHEETS

***RADIATED EMISSIONS
DATA SHEETS***

FCC 15.247

Linx Technologies
Gen1+ RFRX Motor Actuation Controller
Model: 105143

Date: 08/16/2017
Lab: D
Tested By: Kyle Fujimoto

Transmit Mode
Low Channel - X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
1805.94		V	--	--	Peak			Not in Restricted
1805.94		V	--	--	Avg			Band - Done via Conducted
2708.91	38.42	V	73.97	-35.55	Peak	188.75	170.29	
2708.91	27.54	V	53.97	-26.43	Avg	188.75	170.29	
3611.88	42.90	V	73.97	-31.07	Peak	262.25	153.94	
3611.88	36.69	V	53.97	-17.28	Avg	262.25	153.94	
4514.86	45.14	V	73.97	-28.83	Peak	140.75	193.76	
4514.86	35.95	V	53.97	-18.02	Avg	140.75	193.76	
5417.83	53.56	V	73.97	-20.41	Peak	280.75	169.46	
5417.83	48.50	V	53.97	-5.47	Avg	280.75	169.46	
6320.80		V	--	--	Peak			Not in Restricted
6320.80		V	--	--	Avg			Band - Done via Conducted
7223.77		V	--	--	Peak			Not in Restricted
7223.77		V	--	--	Avg			Band - Done via Conducted
8126.74	47.58	V	73.97	-26.39	Peak	222.75	169.04	
8126.74	36.40	V	53.97	-17.57	Avg	222.75	169.04	
9029.71	49.41	V	73.97	-24.56	Peak	278.50	194.41	
9029.71	37.92	V	53.97	-16.05	Avg	278.50	194.41	

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Transmit Mode
Low Channel - Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
1805.94		V	--	--	Peak			Not in Restricted
1805.94		V	--	--	Avg			Band - Done via Conducted
2708.91	38.24	V	73.97	-35.73	Peak	157.75	200.02	
2708.91	29.78	V	53.97	-24.19	Avg	157.75	200.02	
3611.88	40.23	V	73.97	-33.74	Peak	82.00	159.19	
3611.88	29.58	V	53.97	-24.39	Avg	82.00	159.19	
4514.86	42.50	V	73.97	-31.47	Peak	230.25	181.64	
4514.86	30.85	V	53.97	-23.12	Avg	230.25	181.64	
5417.83	51.34	V	73.97	-22.63	Peak	211.50	170.77	
5417.83	46.99	V	53.97	-6.98	Avg	211.50	170.77	
6320.80		V	--	--	Peak			Not in Restricted
6320.80		V	--	--	Avg			Band - Done via Conducted
7223.77		V	--	--	Peak			Not in Restricted
7223.77		V	--	--	Avg			Band - Done via Conducted
8126.74	47.20	V	73.97	-26.77	Peak	168.50	164.08	
8126.74	36.17	V	53.97	-17.80	Avg	168.50	164.08	
9029.71	49.06	V	73.97	-24.91	Peak	160.50	212.08	
9029.71	39.34	V	53.97	-14.63	Avg	160.50	212.08	

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Transmit Mode
Low Channel - Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
1805.94		V	--	--	Peak			Not in Restricted
1805.94		V	--	--	Avg			Band - Done via Conducted
2708.91	38.40	V	73.97	-35.57	Peak	336.00	131.85	
2708.91	27.71	V	53.97	-26.26	Avg	336.00	131.85	
3611.88	40.14	V	73.97	-33.83	Peak	102.00	222.29	
3611.88	31.33	V	53.97	-22.64	Avg	102.00	222.29	
4514.86	43.98	V	73.97	-29.99	Peak	210.25	173.10	
4514.86	35.59	V	53.97	-18.38	Avg	210.25	173.10	
5417.83	49.17	V	73.97	-24.80	Peak	50.00	176.32	
5417.83	41.27	V	53.97	-12.70	Avg	50.00	176.32	
6320.80		V	--	--	Peak			Not in Restricted
6320.80		V	--	--	Avg			Band - Done via Conducted
7223.77		V	--	--	Peak			Not in Restricted
7223.77		V	--	--	Avg			Band - Done via Conducted
8126.74	47.77	V	73.97	-26.20	Peak	210.75	133.76	
8126.74	36.43	V	53.97	-17.54	Avg	210.75	133.76	
9029.71	49.27	V	73.97	-24.70	Peak	98.50	177.22	
9029.71	38.69	V	53.97	-15.28	Avg	98.50	177.22	

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Transmit Mode
Low Channel - X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
1805.94		H	--	--	Peak			Not in Restricted
1805.94		H	--	--	Avg			Band - Done via Conducted
2708.91	38.87	H	73.97	-35.10	Peak	260.50	164.68	
2708.91	27.93	H	53.97	-26.04	Avg	360.50	164.68	
3611.88	40.74	H	73.97	-33.23	Peak	41.00	191.43	
3611.88	31.87	H	53.97	-22.10	Avg	41.00	191.43	
4514.86	42.50	H	73.97	-31.47	Peak	230.65	145.23	
4514.86	30.82	H	53.97	-23.15	Avg	230.65	145.23	
5417.83	48.98	H	73.97	-24.99	Peak	48.25	172.14	
5417.83	44.41	H	53.97	-9.56	Avg	48.25	172.14	
6320.80		H	--	--	Peak			Not in Restricted
6320.80		H	--	--	Avg			Band - Done via Conducted
7223.77		H	--	--	Peak			Not in Restricted
7223.77		H	--	--	Avg			Band - Done via Conducted
8126.74	48.11	H	73.97	-25.86	Peak	226.25	180.26	
8126.74	36.04	H	53.97	-17.93	Avg	226.25	180.26	
9029.71	49.20	H	73.97	-24.77	Peak	76.00	134.59	
9029.71	38.72	H	53.97	-15.25	Avg	76.00	134.59	

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Date: 08/16/2017
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Transmit Mode
Low Channel - Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
1805.94		H	--	--	Peak			Not in Restricted
1805.94		H	--	--	Avg			Band - Done via Conducted
2708.91	39.98	H	73.97	-33.99	Peak	273.25	172.08	
2708.91	31.00	H	53.97	-22.97	Avg	273.25	172.08	
3611.88	41.23	H	73.97	-32.74	Peak	40.50	173.25	
3611.88	34.95	H	53.97	-19.02	Avg	40.50	173.25	
4514.86	44.35	H	73.97	-29.62	Peak	348.75	178.05	
4514.86	35.51	H	53.97	-18.46	Avg	348.75	178.05	
5417.83	50.61	H	73.97	-23.36	Peak	142.00	196.98	
5417.83	45.81	H	53.97	-8.16	Avg	142.00	196.98	
6320.80		H	--	--	Peak			Not in Restricted
6320.80		H	--	--	Avg			Band - Done via Conducted
7223.77		H	--	--	Peak			Not in Restricted
7223.77		H	--	--	Avg			Band - Done via Conducted
8126.74	47.58	H	73.97	-26.39	Peak	125.25	166.11	
8126.74	36.19	H	53.97	-17.78	Avg	125.25	166.11	
9029.71	48.60	H	73.97	-25.37	Peak	188.25	155.97	
9029.71	36.71	H	53.97	-17.26	Avg	188.25	155.97	

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Transmit Mode
Low Channel - Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
1805.94		H	--	--	Peak			Not in Restricted
1805.94		H	--	--	Avg			Band - Done via Conducted
2708.91	39.51	H	73.97	-34.46	Peak	136.50	193.94	
2708.91	29.80	H	53.97	-24.17	Avg	136.50	193.94	
3611.88	41.83	H	73.97	-32.14	Peak	217.25	174.47	
3611.88	34.61	H	53.97	-19.36	Avg	217.25	174.47	
4514.86	42.91	H	73.97	-31.06	Peak	195.75	157.50	
4514.86	30.72	H	53.97	-23.25	Avg	195.75	157.50	
5417.83	52.58	H	73.97	-21.39	Peak	144.00	197.40	
5417.83	48.43	H	53.97	-5.54	Avg	144.00	197.40	
6320.80		H	--	--	Peak			Not in Restricted
6320.80		H	--	--	Avg			Band - Done via Conducted
7223.77		H	--	--	Peak			Not in Restricted
7223.77		H	--	--	Avg			Band - Done via Conducted
8126.74	47.16	H	73.97	-26.81	Peak	233.75	167.85	
8126.74	36.02	H	53.97	-17.95	Avg	233.75	167.85	
9029.71	48.72	H	73.97	-25.25	Peak	234.50	154.47	
9029.71	36.48	H	53.97	-17.49	Avg	234.50	154.47	

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Date: 08/16/2017
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Transmit Mode
Middle Channel - X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
1830.00		V	--	--	Peak			Not in Restricted
1830.00		V	--	--	Avg			Band - Done via Conducted
2745.00	38.79	V	73.97	-35.18	Peak	25.00	178.35	
2745.00	29.06	V	53.97	-24.91	Avg	25.00	178.35	
3660.00	42.01	V	73.97	-31.96	Peak	263.25	165.10	
3660.00	36.48	V	53.97	-17.49	Avg	263.25	165.10	
4575.00	44.33	V	73.97	-29.64	Peak	102.25	145.58	
4575.00	36.90	V	53.97	-17.07	Avg	102.25	145.58	
5490.00		V	--	--	Peak			Not in Restricted
5490.00		V	--	--	Avg			Band - Done via Conducted
6405.00		V	--	--	Peak			Not in Restricted
6405.00		V	--	--	Avg			Band - Done via Conducted
7320.00	52.41	V	73.97	-21.56	Peak	137.50	188.26	
7320.00	45.12	V	53.97	-8.85	Avg	137.50	188.26	
8235.00	48.44	V	73.97	-25.53	Peak	194.25	157.16	
8235.00	36.98	V	53.97	-16.99	Avg	194.25	157.16	
9150.00	51.37	V	73.97	-22.60	Peak	284.00	129.34	
9150.00	42.39	V	53.97	-11.58	Avg	284.00	129.34	

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Date: 08/16/2017
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Transmit Mode
Middle Channel - Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
1830.00		V	--	--	Peak			Not in Restricted
1830.00		V	--	--	Avg			Band - Done via Conducted
2745.00	38.31	V	73.97	-35.66	Peak	218.00	166.00	
2745.00	25.86	V	53.97	-28.11	Avg	218.00	166.00	
3660.00	42.56	V	73.97	-31.41	Peak	175.00	225.52	
3660.00	37.21	V	53.97	-16.76	Avg	175.00	225.52	
4575.00	43.09	V	73.97	-30.88	Peak	333.75	188.26	
4575.00	33.94	V	53.97	-20.03	Avg	333.75	188.26	
5490.00		V	--	--	Peak			Not in Restricted
5490.00		V	--	--	Avg			Band - Done via Conducted
6405.00		V	--	--	Peak			Not in Restricted
6405.00		V	--	--	Avg			Band - Done via Conducted
7320.00	50.33	V	73.97	-23.64	Peak	136.50	129.34	
7320.00	43.71	V	53.97	-10.26	Avg	136.50	129.34	
8235.00	47.90	V	73.97	-26.07	Peak	224.50	168.50	
8235.00	37.90	V	53.97	-16.07	Avg	224.50	168.50	
9150.00	50.18	V	73.97	-23.79	Peak	89.00	204.14	
9150.00	40.90	V	53.97	-13.07	Avg	89.00	204.14	

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Date: 08/16/2017
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Transmit Mode
Middle Channel - Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
1830.00		V	--	--	Peak			Not in Restricted
1830.00		V	--	--	Avg			Band - Done via Conducted
2745.00	39.77	V	73.97	-34.20	Peak	350.25	142.00	
2745.00	29.10	V	53.97	-24.87	Avg	350.25	142.00	
3660.00	40.56	V	73.97	-33.41	Peak	169.00	167.91	
3660.00	34.20	V	53.97	-19.77	Avg	169.00	167.91	
4575.00	49.94	V	73.97	-24.03	Peak	225.75	144.44	
4575.00	36.31	V	53.97	-17.66	Avg	225.75	144.44	
5490.00		V	--	--	Peak			Not in Restricted
5490.00		V	--	--	Avg			Band - Done via Conducted
6405.00		V	--	--	Peak			Not in Restricted
6405.00		V	--	--	Avg			Band - Done via Conducted
7320.00	51.55	V	73.97	-22.42	Peak	186.50	228.20	
7320.00	46.13	V	53.97	-7.84	Avg	186.50	228.20	
8235.00	47.19	V	73.97	-26.78	Peak	98.25	143.91	
8235.00	38.26	V	53.97	-15.71	Avg	98.25	143.91	
9150.00	49.02	V	73.97	-24.95	Peak	106.25	183.31	
9150.00	36.99	V	53.97	-16.98	Avg	106.25	183.31	

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Transmit Mode
Middle Channel - X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
1830.00		H	--	--	Peak			Not in Restricted
1830.00		H	--	--	Avg			Band - Done via Conducted
2745.00	38.10	H	73.97	-35.87	Peak	222.00	159.73	
2745.00	26.48	H	53.97	-27.49	Avg	222.00	159.73	
3660.00	40.28	H	73.97	-33.69	Peak	125.25	149.28	
3660.00	33.52	H	53.97	-20.45	Avg	125.25	149.28	
4575.00	43.32	H	73.97	-30.65	Peak	271.50	117.04	
4575.00	32.91	H	53.97	-21.06	Avg	271.50	117.04	
5490.00		H	--	--	Peak			Not in Restricted
5490.00		H	--	--	Avg			Band - Done via Conducted
6405.00		H	--	--	Peak			Not in Restricted
6405.00		H	--	--	Avg			Band - Done via Conducted
7320.00	50.92	H	73.97	-23.05	Peak	269.50	167.91	
7320.00	45.06	H	53.97	-8.91	Avg	269.50	167.91	
8235.00	48.20	H	73.97	-25.77	Peak	237.00	164.44	
8235.00	37.43	H	53.97	-16.54	Avg	237.00	164.44	
9150.00	51.76	H	73.97	-22.21	Peak	174.50	128.32	
9150.00	43.00	H	53.97	-10.97	Avg	174.50	128.32	

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Transmit Mode
Middle Channel - Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
1830.00		H	--	--	Peak			Not in Restricted
1830.00		H	--	--	Avg			Band - Done via Conducted
2745.00	39.05	H	73.97	-34.92	Peak	14.00	151.61	
2745.00	28.44	H	53.97	-25.53	Avg	14.00	151.61	
3660.00	41.34	H	73.97	-32.63	Peak	236.00	138.35	
3660.00	35.87	H	53.97	-18.10	Avg	236.00	138.35	
4575.00	45.10	H	73.97	-28.87	Peak	189.75	213.52	
4575.00	35.51	H	53.97	-18.46	Avg	189.75	213.52	
5490.00		H	--	--	Peak			Not in Restricted
5490.00		H	--	--	Avg			Band - Done via Conducted
6405.00		H	--	--	Peak			Not in Restricted
6405.00		H	--	--	Avg			Band - Done via Conducted
7320.00	51.20	H	73.97	-22.77	Peak	52.75	131.79	
7320.00	44.57	H	53.97	-9.40	Avg	52.75	131.79	
8235.00	49.18	H	73.97	-24.79	Peak	137.25	161.34	
8235.00	38.69	H	53.97	-15.28	Avg	137.25	161.34	
9150.00	49.32	H	73.97	-24.65	Peak	39.09	101.23	
9150.00	38.74	H	53.97	-15.23	Avg	39.09	101.23	

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Transmit Mode
Middle Channel - Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
1830.00		H	--	--	Peak			Not in Restricted
1830.00		H	--	--	Avg			Band - Done via Conducted
2745.00	38.42	H	73.97	-35.55	Peak	250.50	162.25	
2745.00	27.15	H	53.97	-26.82	Avg	250.50	162.25	
3660.00	40.67	H	73.97	-33.30	Peak	174.25	203.85	
3660.00	32.92	H	53.97	-21.05	Avg	174.25	203.85	
4575.00	44.17	H	73.97	-29.80	Peak	243.50	156.68	
4575.00	35.63	H	53.97	-18.34	Avg	243.50	156.68	
5490.00		H	--	--	Peak			Not in Restricted
5490.00		H	--	--	Avg			Band - Done via Conducted
6405.00		H	--	--	Peak			Not in Restricted
6405.00		H	--	--	Avg			Band - Done via Conducted
7320.00	51.28	H	73.97	-22.69	Peak	86.50	147.19	
7320.00	45.23	H	53.97	-8.74	Avg	86.50	147.19	
8235.00	48.33	H	73.97	-25.64	Peak	99.00	177.76	
8235.00	37.09	H	53.97	-16.88	Avg	99.00	177.76	
9150.00	50.56	H	73.97	-23.41	Peak	275.00	172.14	
9150.00	38.57	H	53.97	-15.40	Avg	275.00	172.14	

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Date: 08/16/2017
Lab: D
Tested By: Kyle Fujimoto

Transmit Mode
High Channel - X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
1853.31		V	--	--	Peak			Not in Restricted
1853.31		V	--	--	Avg			Band - Done via Conducted
2779.96	39.21	V	73.97	-34.76	Peak	306.75	168.32	
2779.96	27.66	V	53.97	-26.31	Avg	306.75	168.32	
3706.61	42.15	V	73.97	-31.82	Peak	79.25	152.62	
3706.61	36.10	V	53.97	-17.87	Avg	79.25	152.62	
4633.27	45.92	V	73.97	-28.05	Peak	198.25	145.16	
4633.27	39.12	V	53.97	-14.85	Avg	198.25	145.16	
5559.92		V	--	--	Peak			Not in Restricted
5559.92		V	--	--	Avg			Band - Done via Conducted
6486.57		V	--	--	Peak			Not in Restricted
6486.57		V	--	--	Avg			Band - Done via Conducted
7413.22	53.59	V	73.97	-20.38	Peak	289.50	152.92	
7413.22	48.80	V	53.97	-5.17	Avg	289.50	152.92	
8339.88	48.54	V	73.97	-25.43	Peak	206.00	171.31	
8339.88	37.19	V	53.97	-16.78	Avg	206.00	171.31	
9266.53		V	--	--	Peak			Not in Restricted
9266.53		V	--	--	Avg			Band - Done via Conducted

FCC 15.247

Linx Technologies
Gen1+ RFRX Motor Actuation Controller
Model: 105143

Date: 08/16/2017
Lab: D
Tested By: Kyle Fujimoto

Transmit Mode
High Channel - Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
1853.31		V	--	--	Peak			Not in Restricted
1853.31		V	--	--	Avg			Band - Done via Conducted
2779.96	39.24	V	73.97	-34.73	Peak	218.00	141.40	
2779.96	27.96	V	53.97	-26.01	Avg	218.00	141.40	
3706.61	40.10	V	73.97	-33.87	Peak	173.75	175.55	
3706.61	34.00	V	53.97	-19.97	Avg	173.75	175.55	
4633.27	42.70	V	73.97	-31.27	Peak	198.75	157.28	
4633.27	30.61	V	53.97	-23.36	Avg	198.75	157.28	
5559.92		V	--	--	Peak			Not in Restricted
5559.92		V	--	--	Avg			Band - Done via Conducted
6486.57		V	--	--	Peak			Not in Restricted
6486.57		V	--	--	Avg			Band - Done via Conducted
7413.22	53.99	V	73.97	-19.98	Peak	136.00	161.04	
7413.22	48.44	V	53.97	-5.53	Avg	136.00	161.04	
8339.88	48.57	V	73.97	-25.40	Peak	217.50	180.98	
8339.88	37.16	V	53.97	-16.81	Avg	217.50	180.98	
9266.53		V	--	--	Peak			Not in Restricted
9266.53		V	--	--	Avg			Band - Done via Conducted

FCC 15.247

Linx Technologies
Gen1+ RFRX Motor Actuation Controller
Model: 105143

Date: 08/16/2017
Lab: D
Tested By: Kyle Fujimoto

Transmit Mode
High Channel - Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
1853.31		V	--	--	Peak			Not in Restricted
1853.31		V	--	--	Avg			Band - Done via Conducted
2779.96	39.68	V	73.97	-34.29	Peak	203.75	182.71	
2779.96	29.63	V	53.97	-24.34	Avg	203.75	182.71	
3706.61	41.54	V	73.97	-32.43	Peak	170.25	175.55	
3706.61	35.59	V	53.97	-18.38	Avg	170.25	175.55	
4633.27	44.76	V	73.97	-29.21	Peak	155.25	176.68	
4633.27	36.54	V	53.97	-17.43	Avg	155.25	176.68	
5559.92		V	--	--	Peak			Not in Restricted
5559.92		V	--	--	Avg			Band - Done via Conducted
6486.57		V	--	--	Peak			Not in Restricted
6486.57		V	--	--	Avg			Band - Done via Conducted
7413.22	54.24	V	73.97	-19.73	Peak	219.75	107.37	
7413.22	47.53	V	53.97	-6.44	Avg	219.75	107.37	
8339.88	48.54	V	73.97	-25.43	Peak	169.50	178.23	
8339.88	36.63	V	53.97	-17.34	Avg	169.50	178.23	
9266.53		V	--	--	Peak			Not in Restricted
9266.53		V	--	--	Avg			Band - Done via Conducted

FCC 15.247

Linx Technologies
 Gen1+ RFRX Motor Actuation Controller
 Model: 105143

Date: 08/16/2017
 Lab: D
 Tested By: Kyle Fujimoto

Transmit Mode
High Channel - X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
1853.31		H	--	--	Peak			Not in Restricted
1853.31		H	--	--	Avg			Band - Done via Conducted
2779.96	39.25	H	73.97	-34.72	Peak	346.00	165.82	
2779.96	26.13	H	53.97	-27.84	Avg	346.00	165.82	
3706.61	40.08	H	73.97	-33.89	Peak	39.75	180.56	
3706.61	32.51	H	53.97	-21.46	Avg	39.75	180.56	
4633.27	44.36	H	73.97	-29.61	Peak	53.00	134.11	
4633.27	37.39	H	53.97	-16.58	Avg	53.00	134.11	
5559.92		H	--	--	Peak			Not in Restricted
5559.92		H	--	--	Avg			Band - Done via Conducted
6486.57		H	--	--	Peak			Not in Restricted
6486.57		H	--	--	Avg			Band - Done via Conducted
7413.22	51.76	H	73.97	-22.21	Peak	250.25	108.08	
7413.22	44.23	H	53.97	-9.74	Avg	250.25	108.08	
8339.88	48.48	H	73.97	-25.49	Peak	245.00	120.50	
8339.88	38.19	H	53.97	-15.78	Avg	245.00	120.50	
9266.53		H	--	--	Peak			Not in Restricted
9266.53		H	--	--	Avg			Band - Done via Conducted

FCC 15.247

Linx Technologies
 Gen1+ RFRX Motor Actuation Controller
 Model: 105143

Date: 08/16/2017
 Lab: D
 Tested By: Kyle Fujimoto

Transmit Mode
High Channel - Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
1853.31		H	--	--	Peak			Not in Restricted
1853.31		H	--	--	Avg			Band - Done via Conducted
2779.96	39.74	H	73.97	-34.23	Peak	234.50	161.52	
2779.96	30.40	H	53.97	-23.57	Avg	234.50	161.52	
3706.61	42.91	H	73.97	-31.06	Peak	178.25	180.50	
3706.61	36.37	H	53.97	-17.60	Avg	178.25	180.50	
4633.27	46.02	H	73.97	-27.95	Peak	226.75	152.92	
4633.27	38.49	H	53.97	-15.48	Avg	226.75	152.92	
5559.92		H	--	--	Peak			Not in Restricted
5559.92		H	--	--	Avg			Band - Done via Conducted
6486.57		H	--	--	Peak			Not in Restricted
6486.57		H	--	--	Avg			Band - Done via Conducted
7413.22	54.57	H	73.97	-19.40	Peak	223.25	189.10	
7413.22	49.85	H	53.97	-4.12	Avg	223.25	189.10	
8339.88	48.48	H	73.97	-25.49	Peak	164.25	176.98	
8339.88	36.86	H	53.97	-17.11	Avg	164.25	176.98	
9266.53		H	--	--	Peak			Not in Restricted
9266.53		H	--	--	Avg			Band - Done via Conducted

FCC 15.247

Linx Technologies
Gen1+ RFRX Motor Actuation Controller
Model: 105143

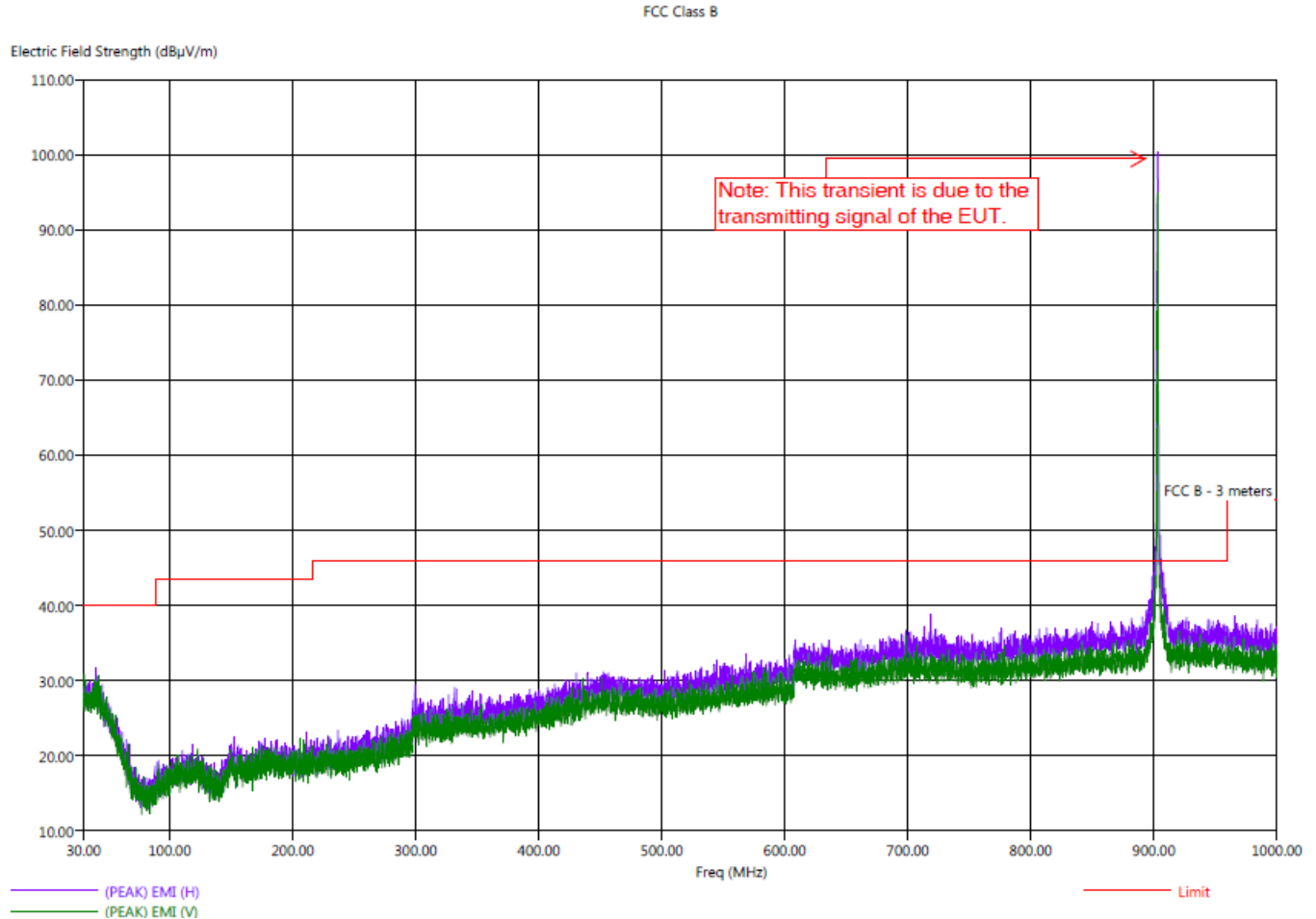
Date: 08/16/2017
Lab: D
Tested By: Kyle Fujimoto

Transmit Mode
High Channel - Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
1853.31		H	--	--	Peak			Not in Restricted
1853.31		H	--	--	Avg			Band - Done via Conducted
2779.96	39.50	H	73.97	-34.47	Peak	151.75	188.08	
2779.96	30.46	H	53.97	-23.51	Avg	151.75	188.08	
3706.61	42.41	H	73.97	-31.56	Peak	286.75	170.53	
3706.61	36.68	H	53.97	-17.29	Avg	286.75	170.53	
4633.27	44.92	H	73.97	-29.05	Peak	92.00	189.76	
4633.27	37.79	H	53.97	-16.18	Avg	92.00	189.76	
5559.92		H	--	--	Peak			Not in Restricted
5559.92		H	--	--	Avg			Band - Done via Conducted
6486.57		H	--	--	Peak			Not in Restricted
6486.57		H	--	--	Avg			Band - Done via Conducted
7413.22	55.81	H	73.97	-18.16	Peak	219.25	171.55	
7413.22	49.57	H	53.97	-4.40	Avg	219.25	171.55	
8339.88	48.66	H	73.97	-25.31	Peak	159.50	160.14	
8339.88	37.03	H	53.97	-16.94	Avg	159.50	160.14	
9266.53		H	--	--	Peak			Not in Restricted
9266.53		H	--	--	Avg			Band - Done via Conducted

Title: Pre-Scan - FCC Class B
File: Agilent - Pre-Scan - TX - Mode - Z-Axis - FCC Class B - 30 MHz to 1000 MHz.set
Operator: Kyle Haag
EUT Type: Gen1+ RFRX Motor Actuation Controller
EUT Condition: The EUT was set to the low channel in a continuous TX mode Z-Axis
Comments: Company: Linx Technologies
Model: 105143

8/17/2017 11:44:11 AM
Sequence: Preliminary Scan



Title: Radiated Final - FCC Class B
File: Agilent - Final-Scan - TX - Mode - Z-Axis - FCC Class B - 30 MHz to 1000 MHz.set
Operator: Kyle Haag
EUT Type: Gen1+ RFRX Motor Actuation Controller
EUT Condition: The EUT was set to the low channel in TX mode Z-Axis
Comments: Company: Linx Technologies
Model: 105143

8/17/2017 1:24:53 PM
Sequence: Final Measurements

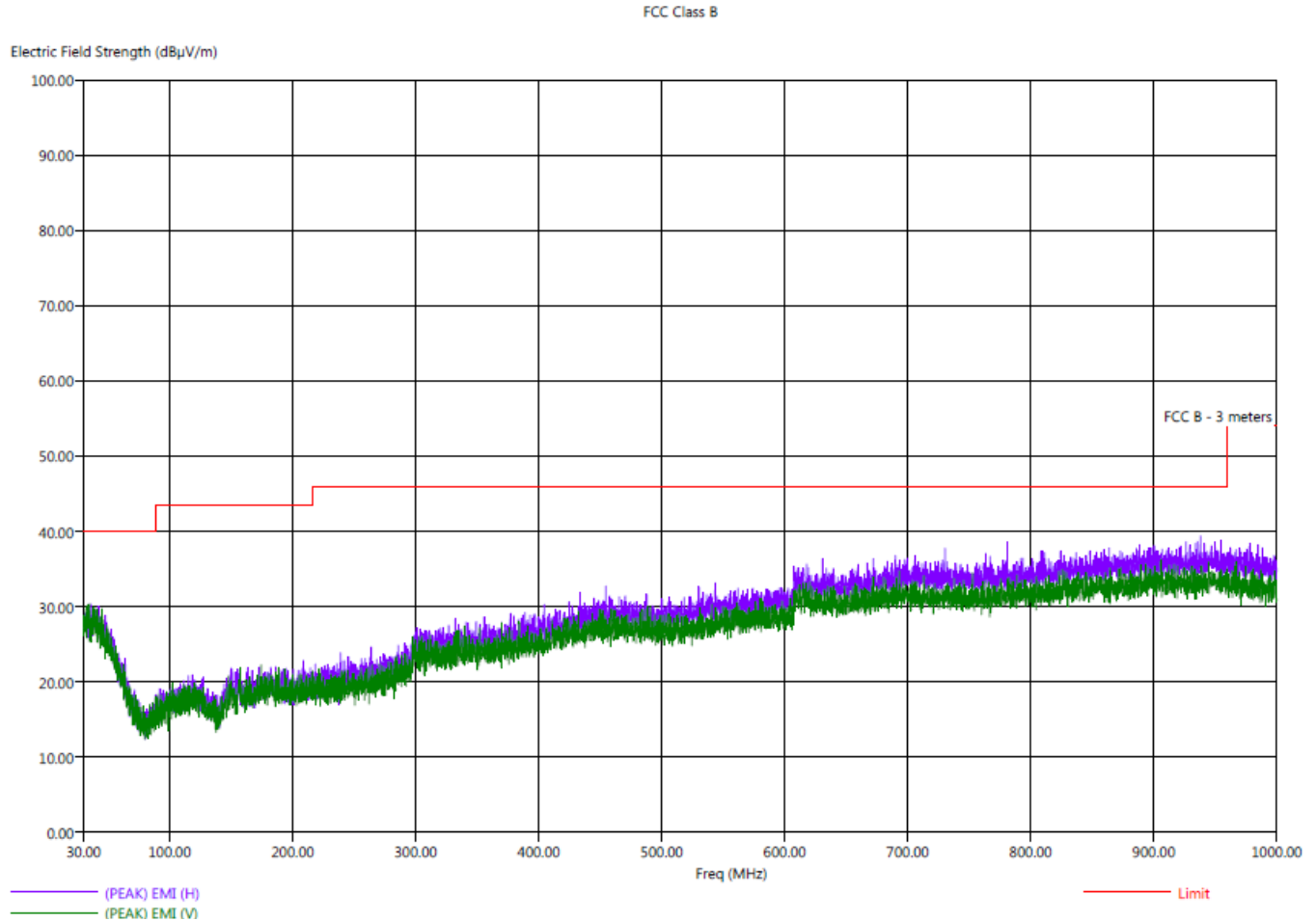
FCC Class B

Freq (MHz)	Pol	(PEAK) EMI (dBμV/m)	(QP) EMI (dBμV/m)	(PEAK) Margin (dB)	(QP) Margin (dB)	Limit (dBμV/m)	Transducer (dB)	Cable (dB)	Ttbl Aql (deq)	Twr Ht (cm)
31.30	V	31.73	26.18	-8.27	-13.82	40.00	23.85	0.31	122.25	238.59
39.00	V	31.91	26.77	-8.09	-13.23	40.00	24.59	0.39	55.25	127.19
39.90	H	31.59	26.87	-8.41	-13.13	40.00	24.66	0.40	226.25	238.59
40.70	H	31.43	26.53	-8.57	-13.47	40.00	24.41	0.40	0.00	318.35
41.80	V	31.67	26.05	-8.33	-13.95	40.00	24.02	0.40	336.00	270.47
45.20	H	30.13	24.90	-9.87	-15.10	40.00	22.87	0.40	346.25	366.05



Title: Pre-Scan - FCC Class B
File: Agilent - Pre-Scan - RX - Mode - Z-Axis - FCC Class B - 30 MHz to 1000 MHz.set
Operator: Kyle Haag
EUT Type: Gen1+ RFRX Motor Actuation Controller
EUT Condition: The EUT was set to the low channel in its RX mode Z-Axis
Comments: Company: Linx Technologies
Model: 105143

8/17/2017 11:06:38 AM
Sequence: Preliminary Scan



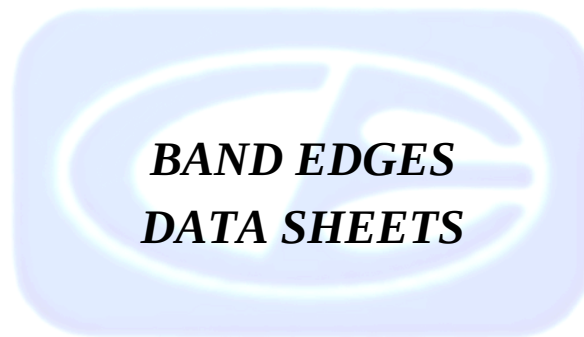
Title: Radiated Final - FCC Class B
File: Agilent - Final-Scan - RX - Mode - Z-Axis - FCC Class B - 30 MHz to 1000 MHz.set
Operator: Kyle Haag
EUT Type: Gen1+ RFRX Motor Actuation Controller
EUT Condition: The EUT was set to the low channel in RX mode Z-Axis
Comments: Company: Linx Technologies
Model: 105143

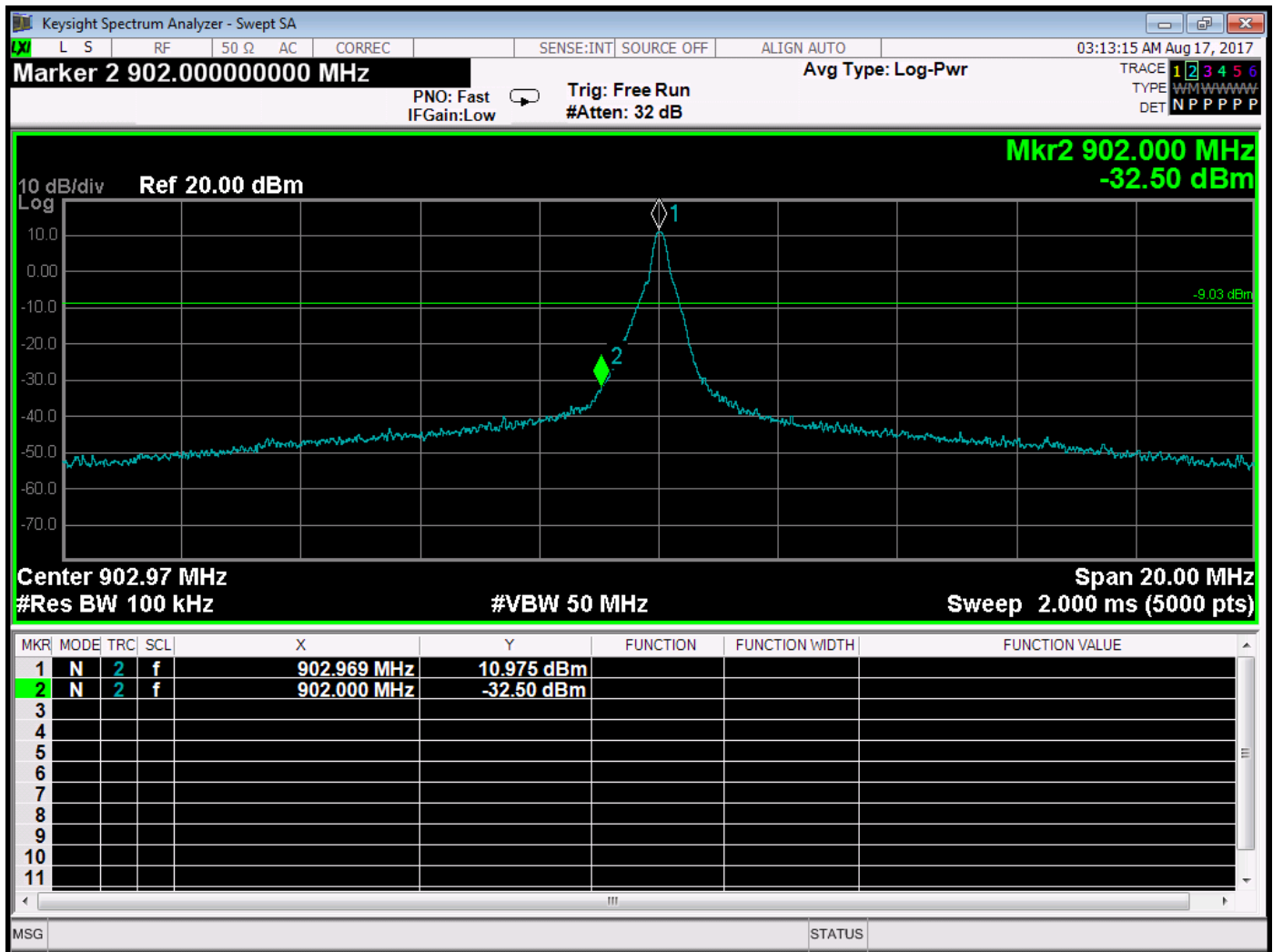
8/17/2017 11:23:45 AM
Sequence: Final Measurements

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)
32.00	V	31.83	26.21	-8.17	-13.79	40.00	23.88	0.32	120.25	398.59
33.20	V	31.58	26.21	-8.42	-13.79	40.00	23.93	0.33	303.00	159.19
33.70	H	31.88	26.69	-8.12	-13.31	40.00	23.96	0.34	109.50	127.49
34.30	V	31.65	26.18	-8.35	-13.82	40.00	23.98	0.35	10.50	127.25
35.80	H	31.84	26.24	-8.16	-13.76	40.00	24.11	0.36	226.75	350.77
41.80	H	32.80	26.13	-7.20	-13.87	40.00	24.09	0.40	9.00	111.55

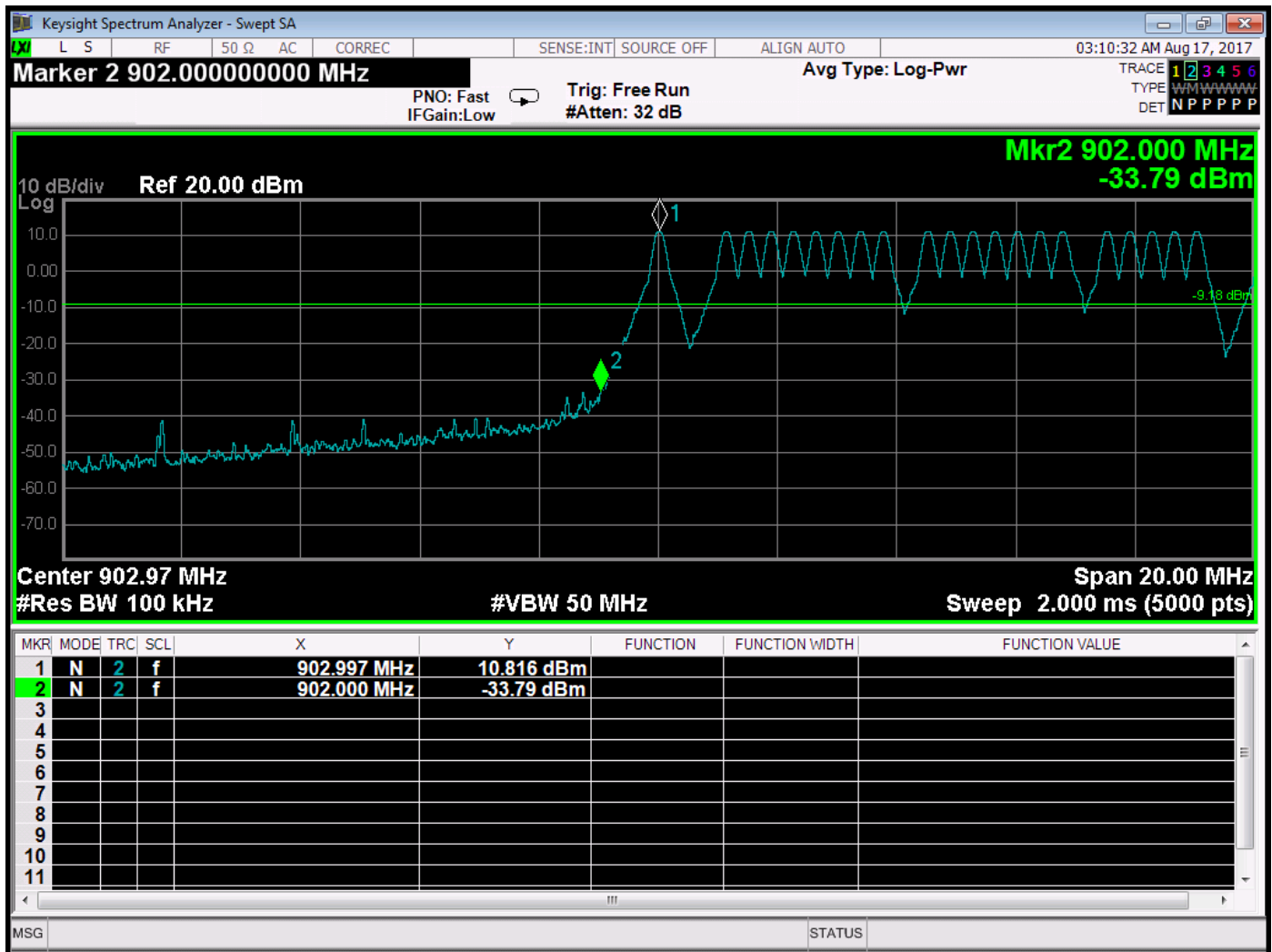
Note: A manual scan was performed from 1 GHz to 5 GHz. No emissions were detected.



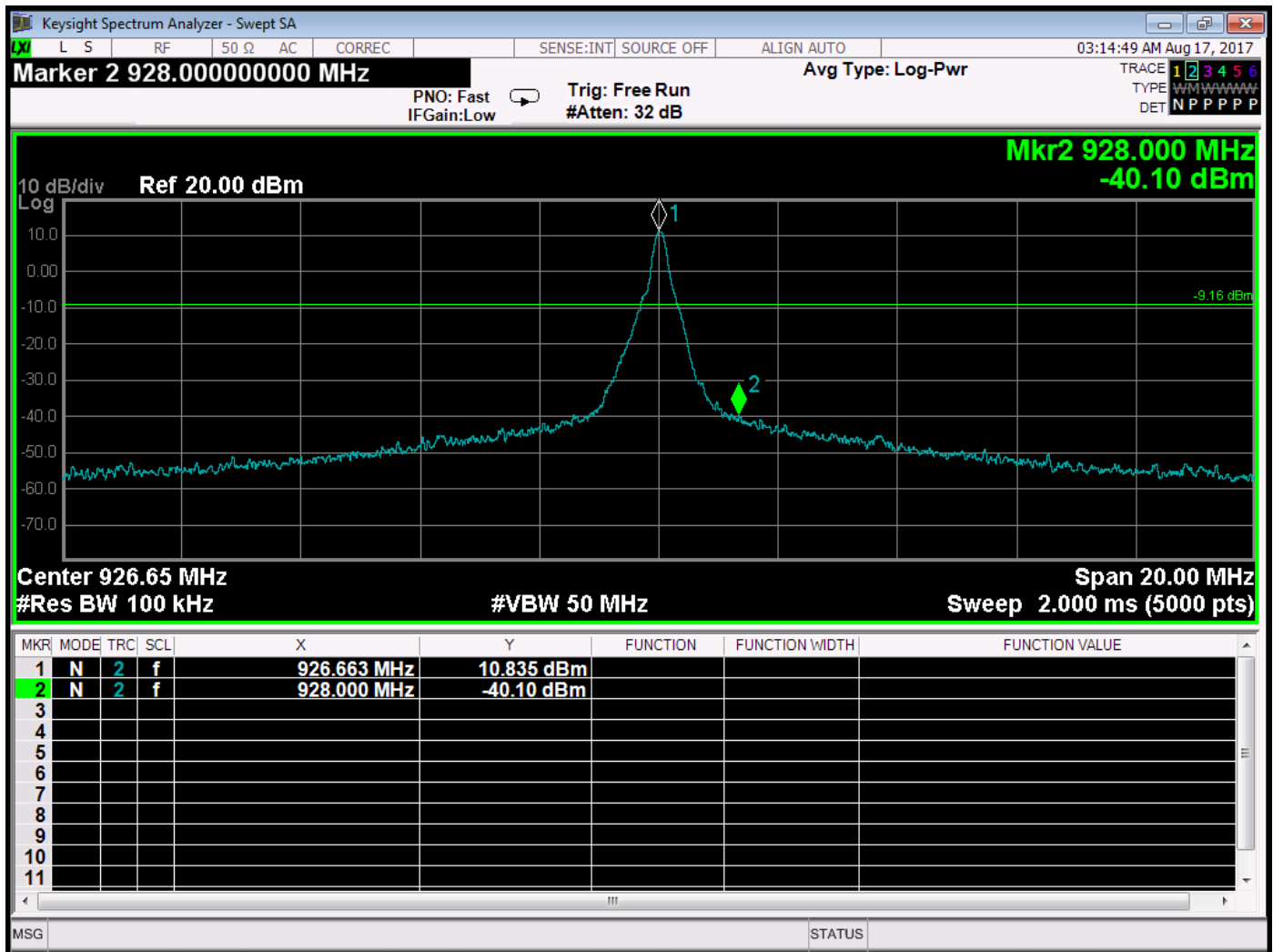




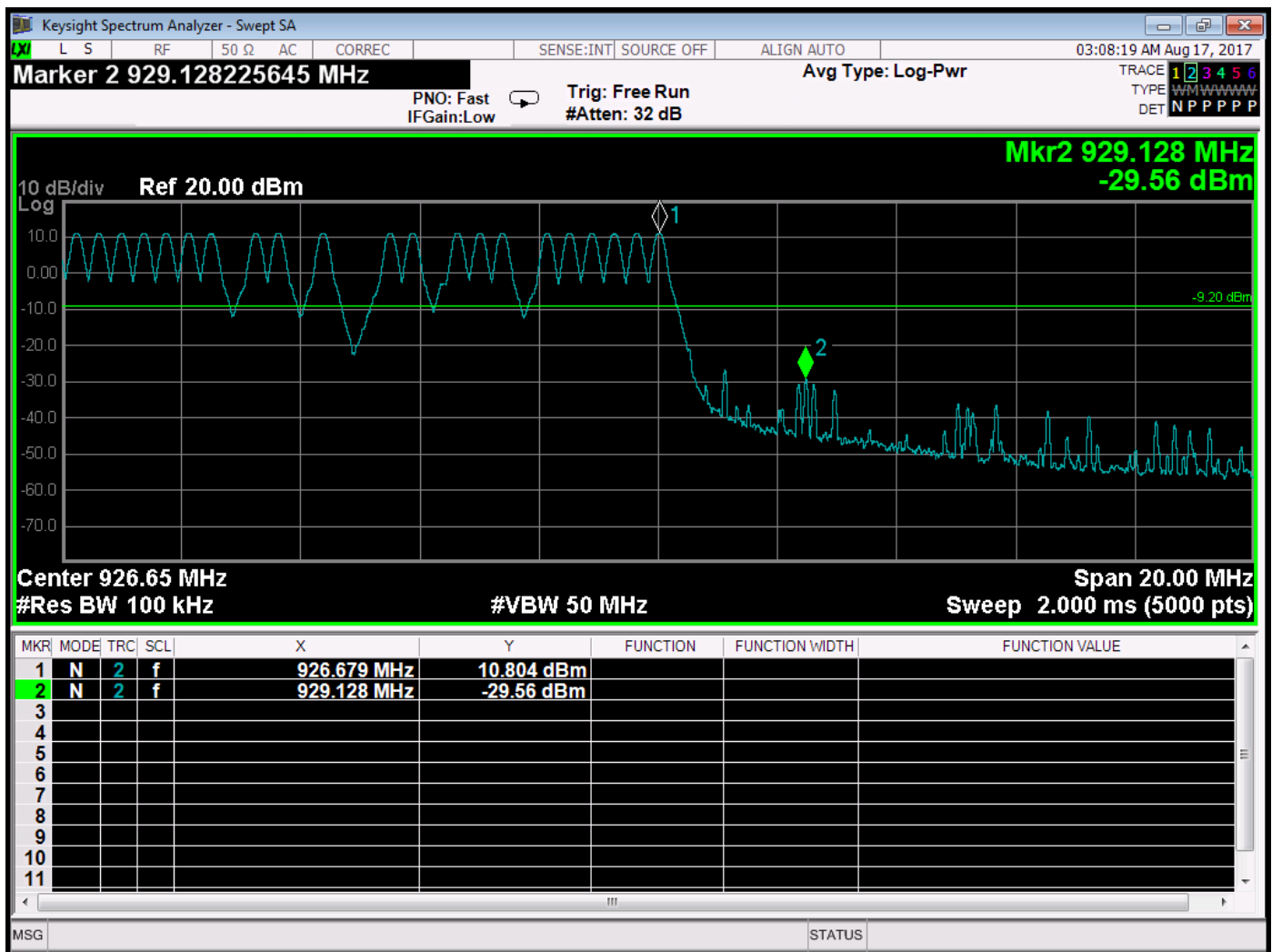
Band Edge – Low Channel – CW



Band Edge – Low Channel – Frequency Hopping

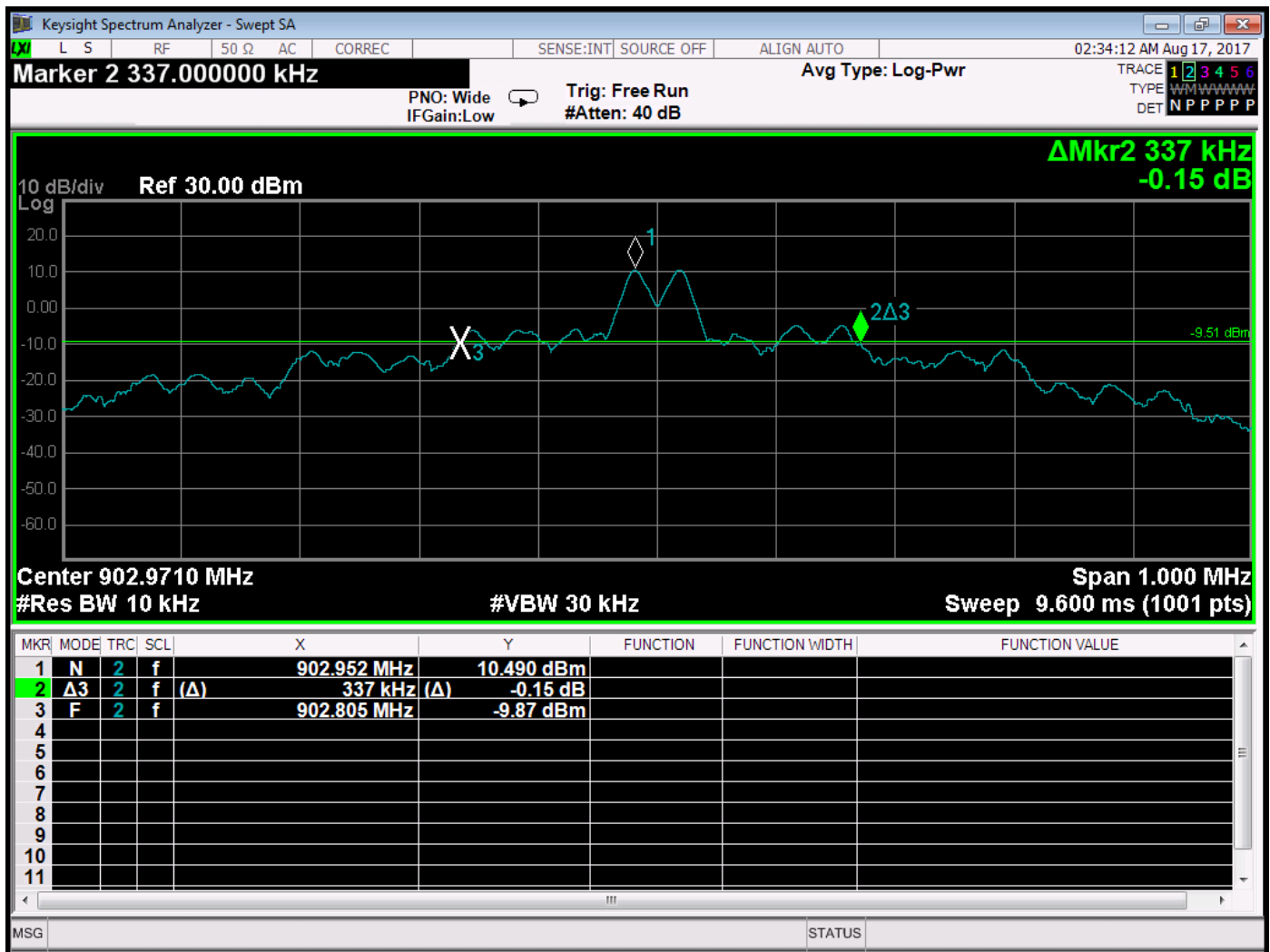


Band Edge – High Channel – CW



Band Edge – High Channel – Frequency Hopping Mode

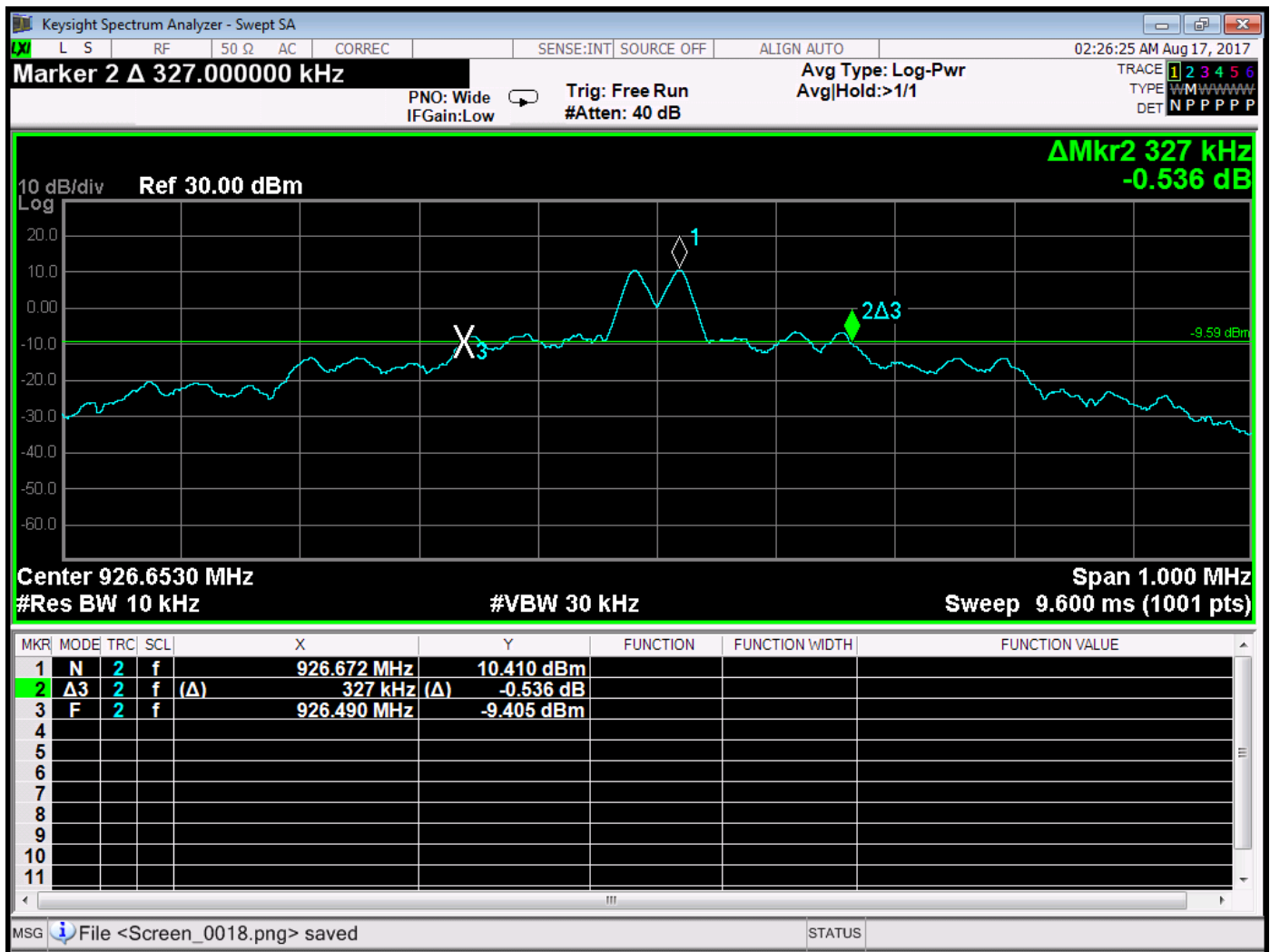
***-20 DB BANDWIDTH
DATA SHEETS***



-20 dB Bandwidth – Low Channel

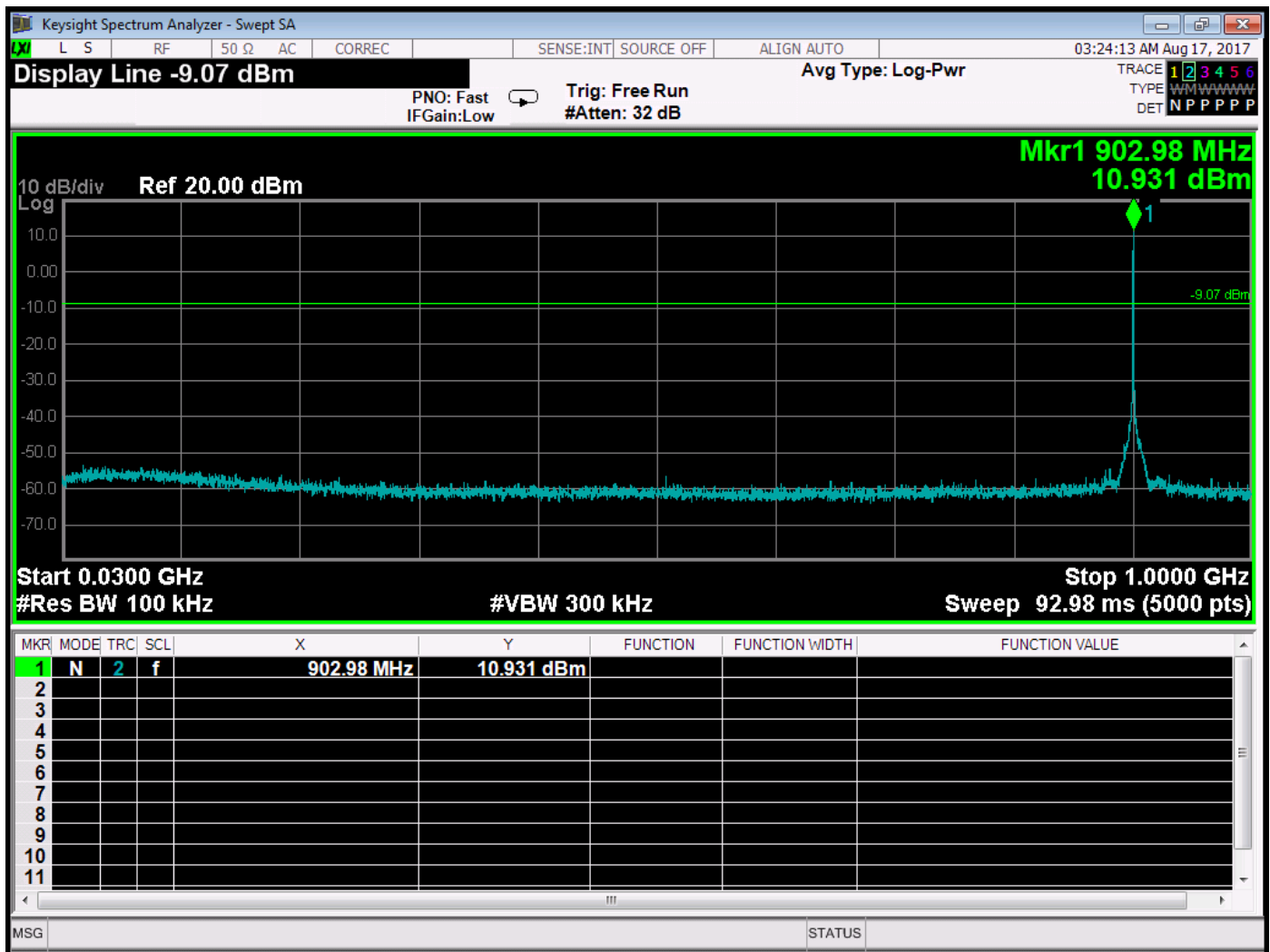


-20 dB Bandwidth – Middle Channel

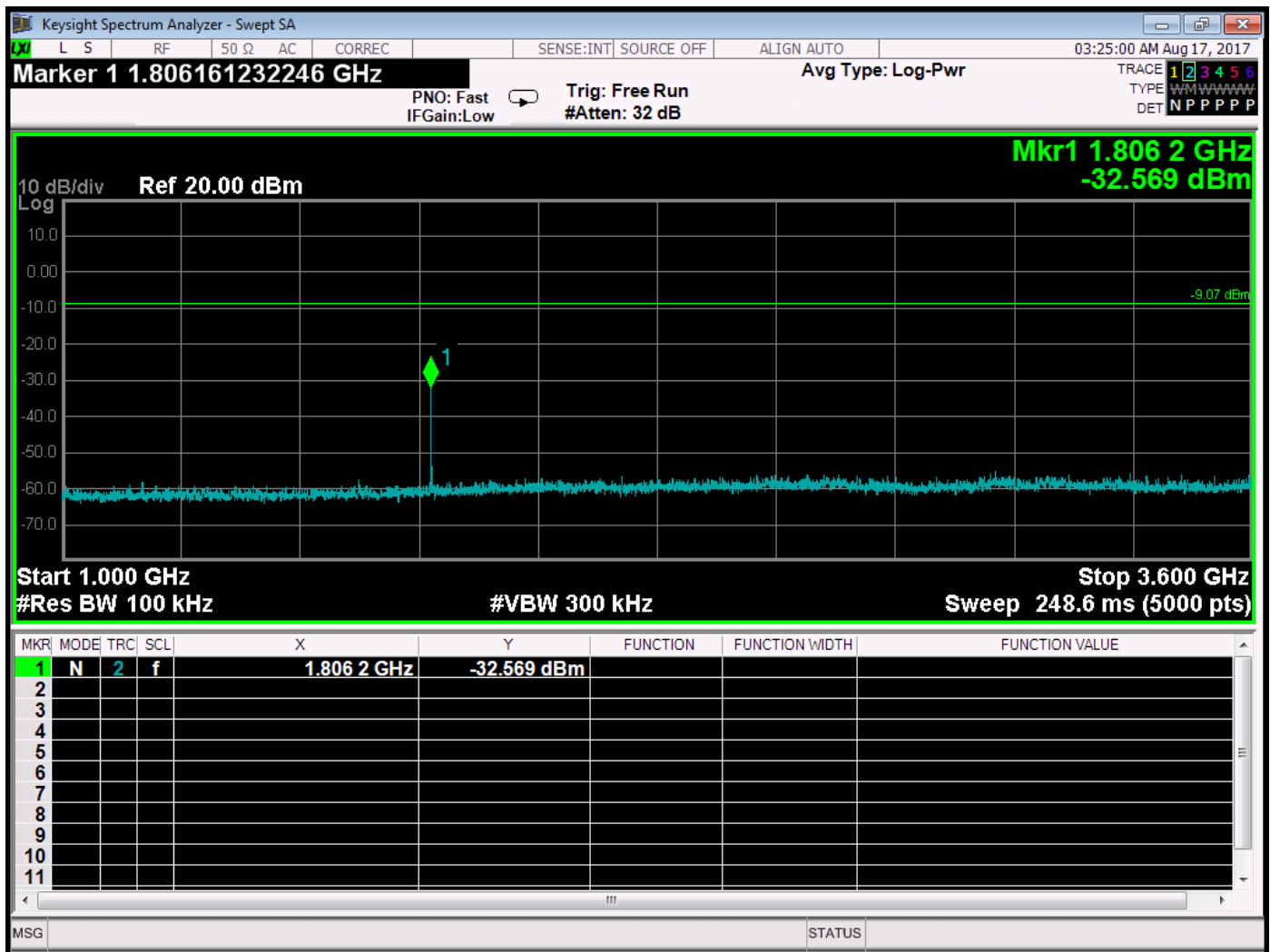


-20 dB Bandwidth – High Channel

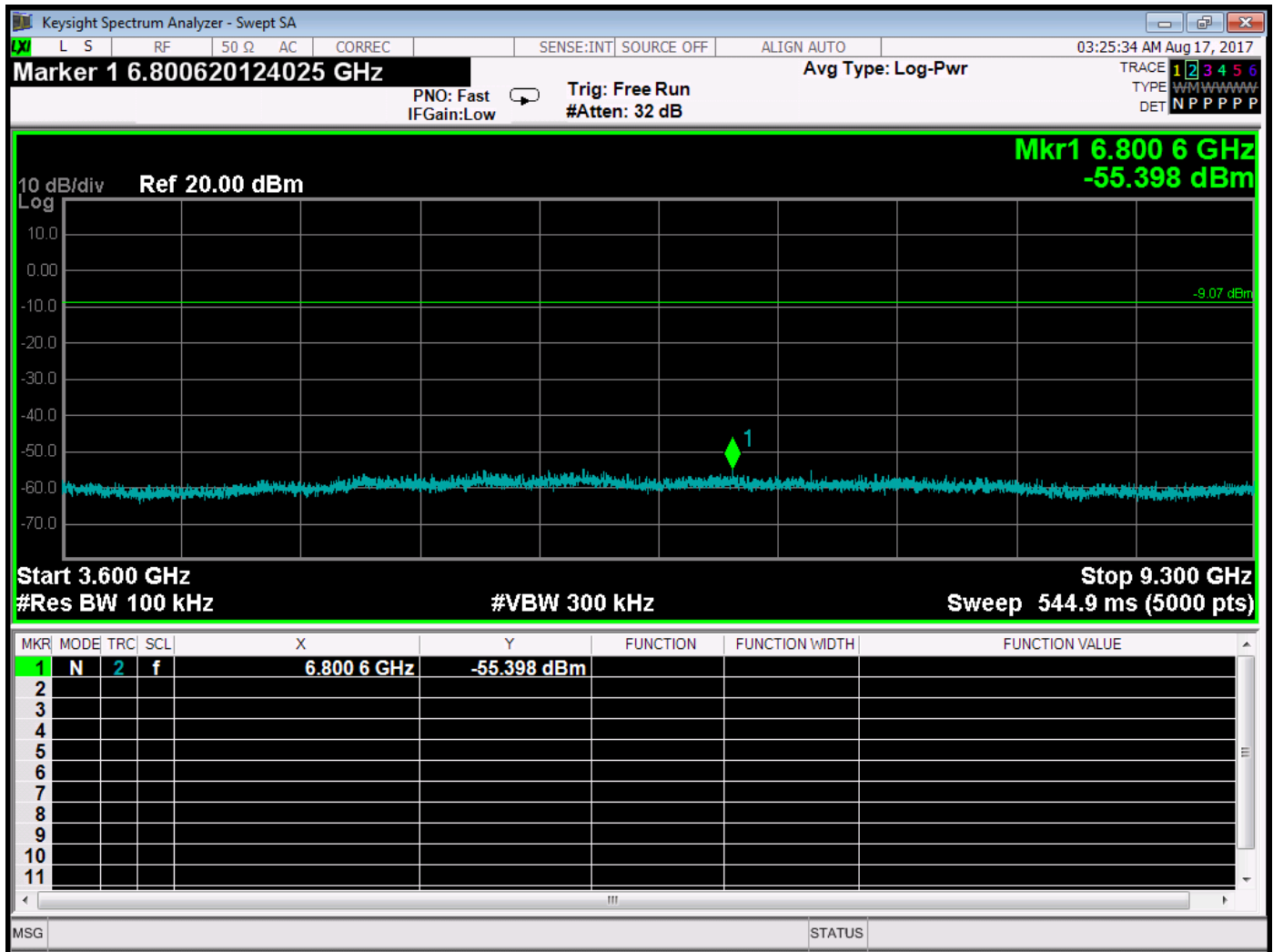
***RF ANTENNA CONDUCTED
DATA SHEETS***



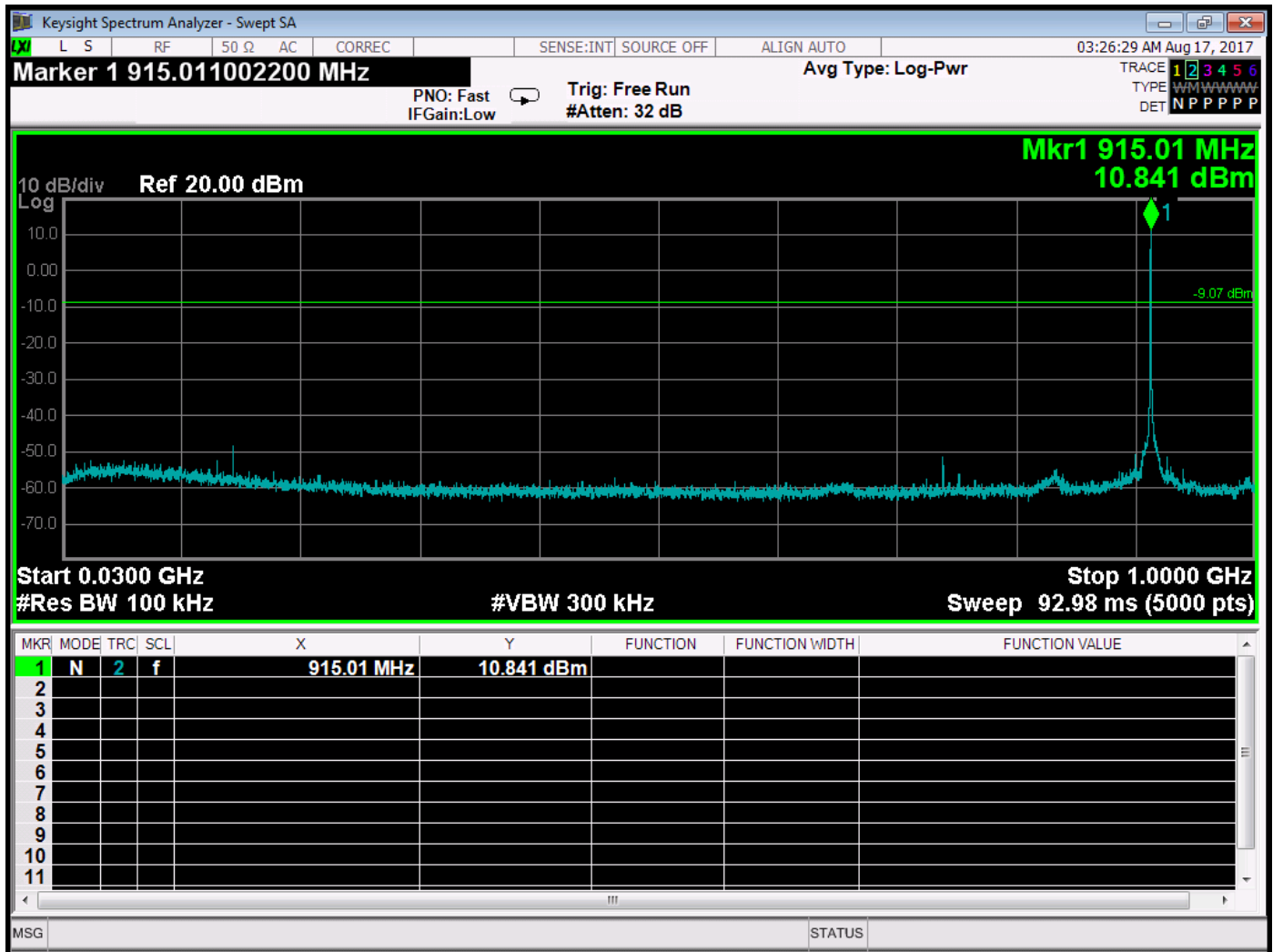
RF Antenna Conducted – Low Channel – 30 MHz to 1 GHz



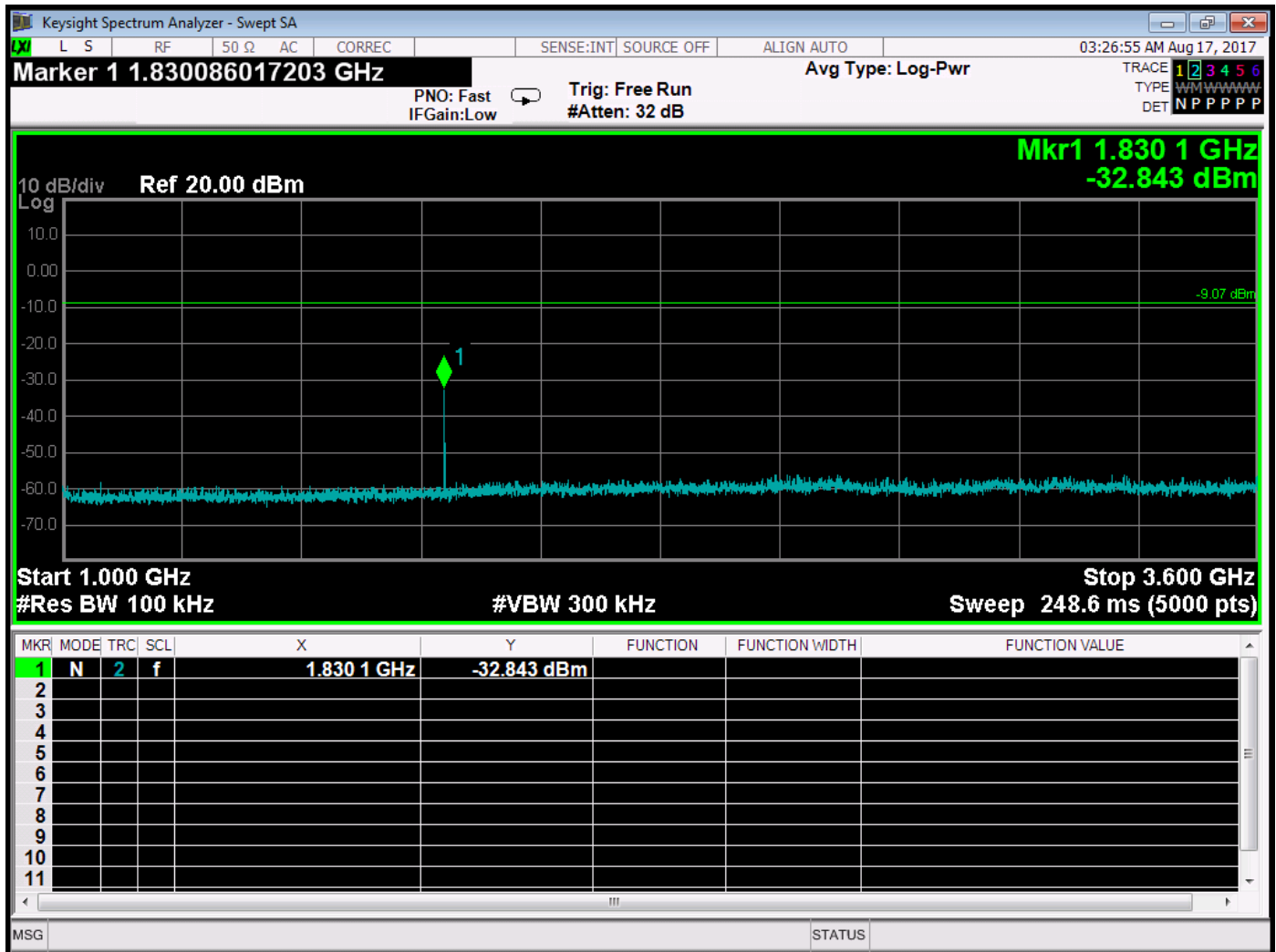
RF Antenna Conducted – Low Channel – 1 GHz to 3.6 GHz



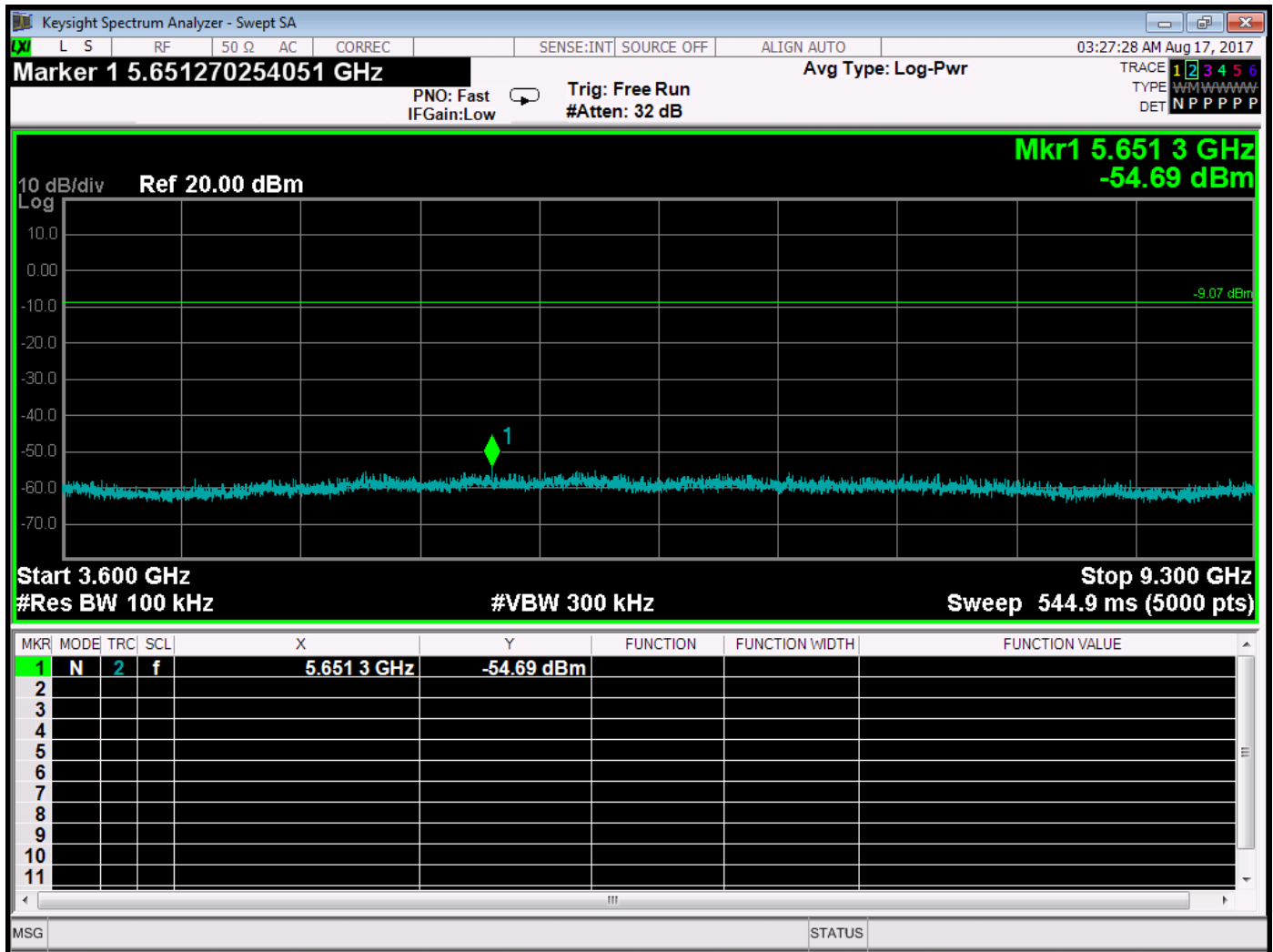
RF Antenna Conducted – Low Channel – 3.6 GHz to 9.3 GHz



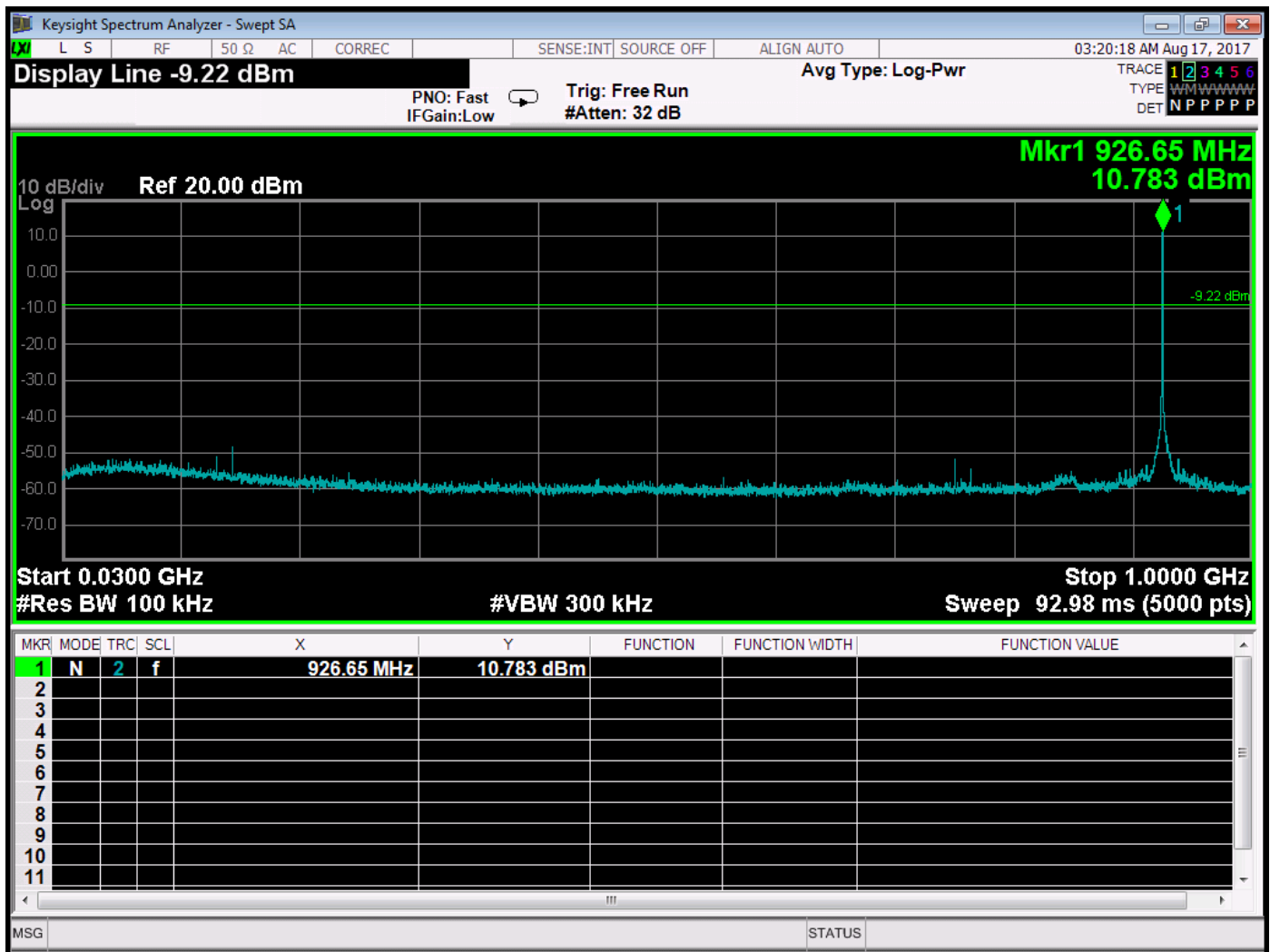
RF Antenna Conducted – Middle Channel – 30 MHz to 1 GHz



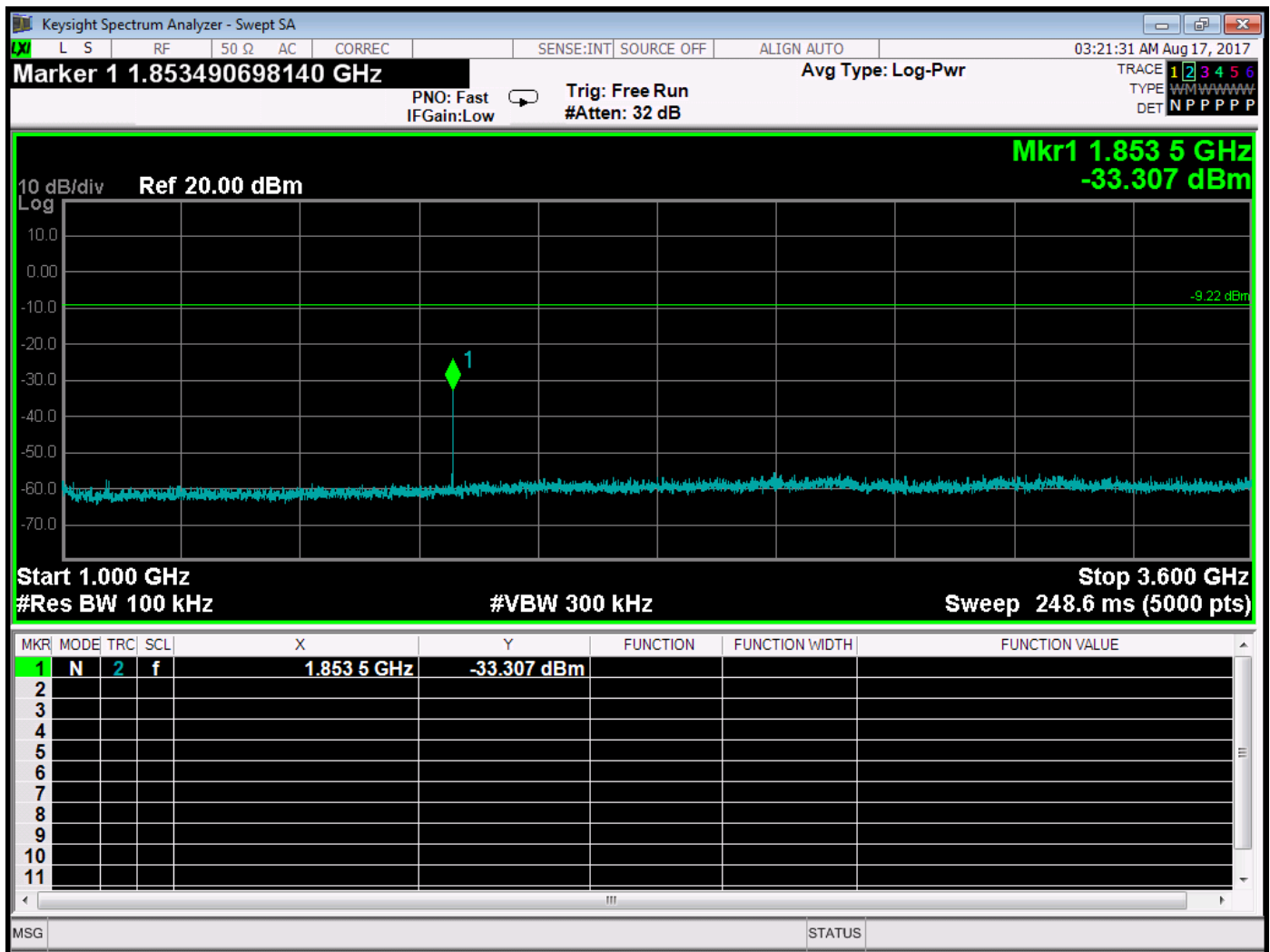
RF Antenna Conducted – Middle Channel – 1 GHz to 3.6 GHz



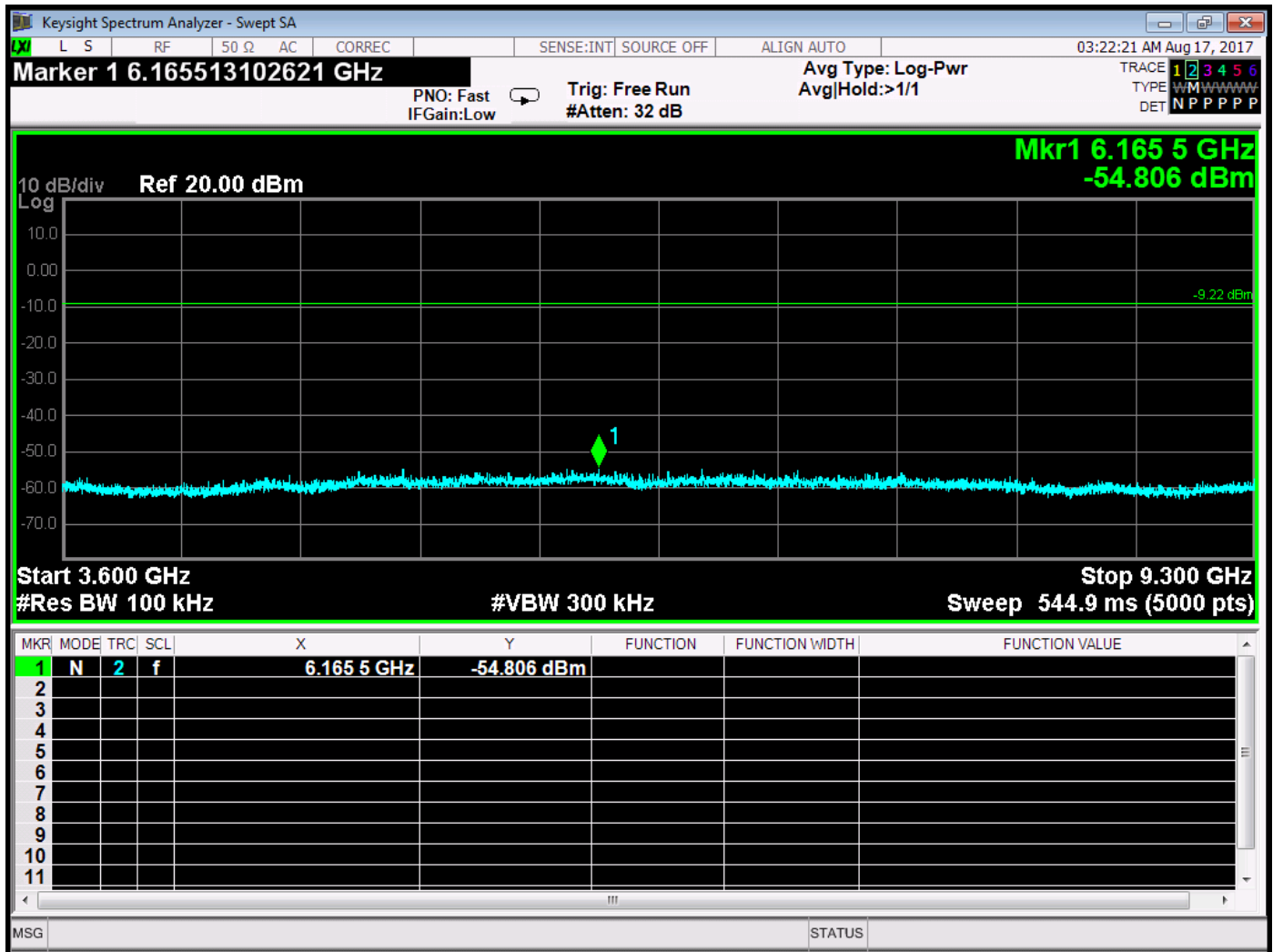
RF Antenna Conducted – Middle Channel – 3.6 GHz to 9.3 GHz



RF Antenna Conducted – High Channel – 30 MHz to 1 GHz

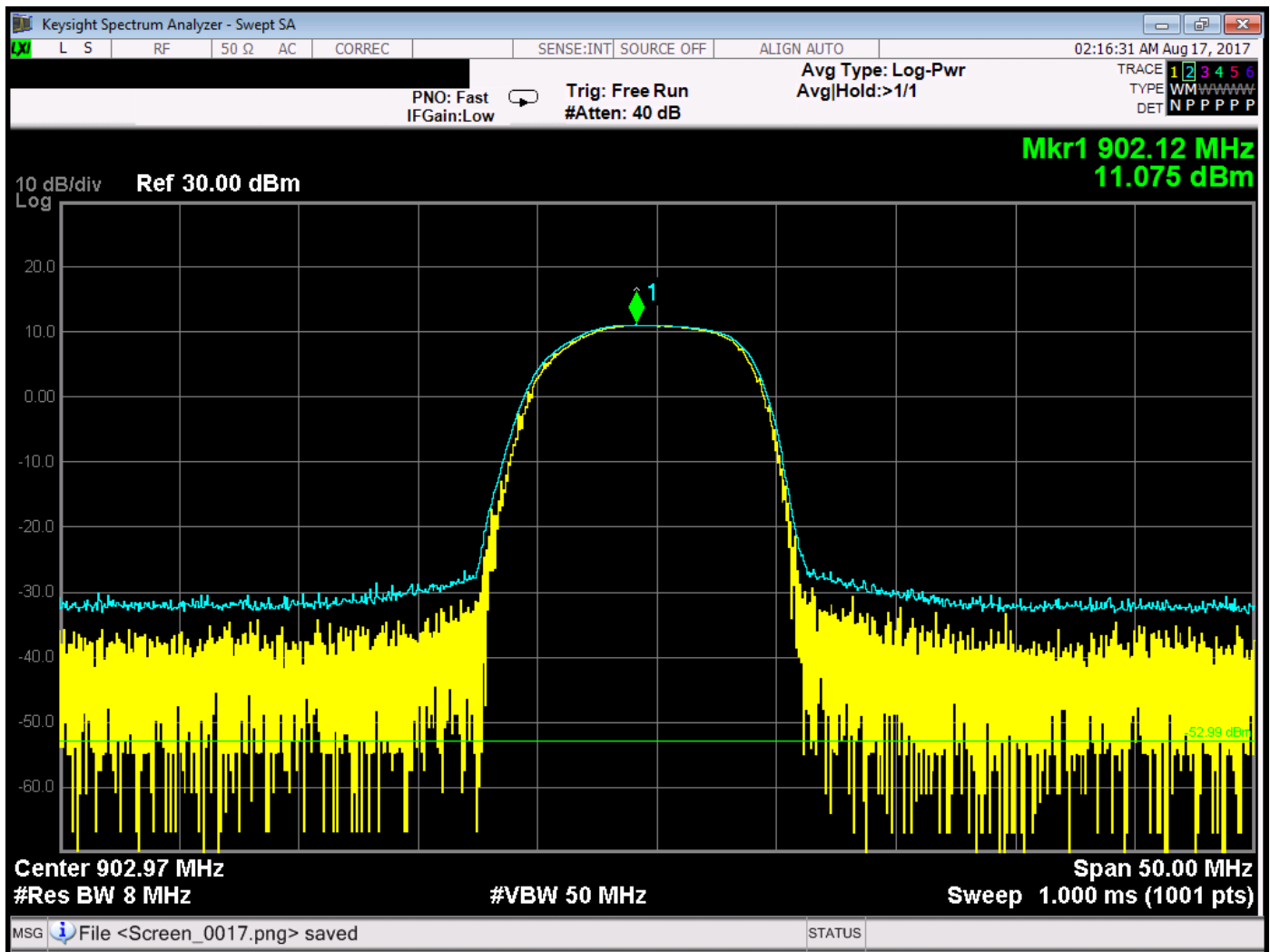


RF Antenna Conducted – High Channel – 1 GHz to 3.6 GHz

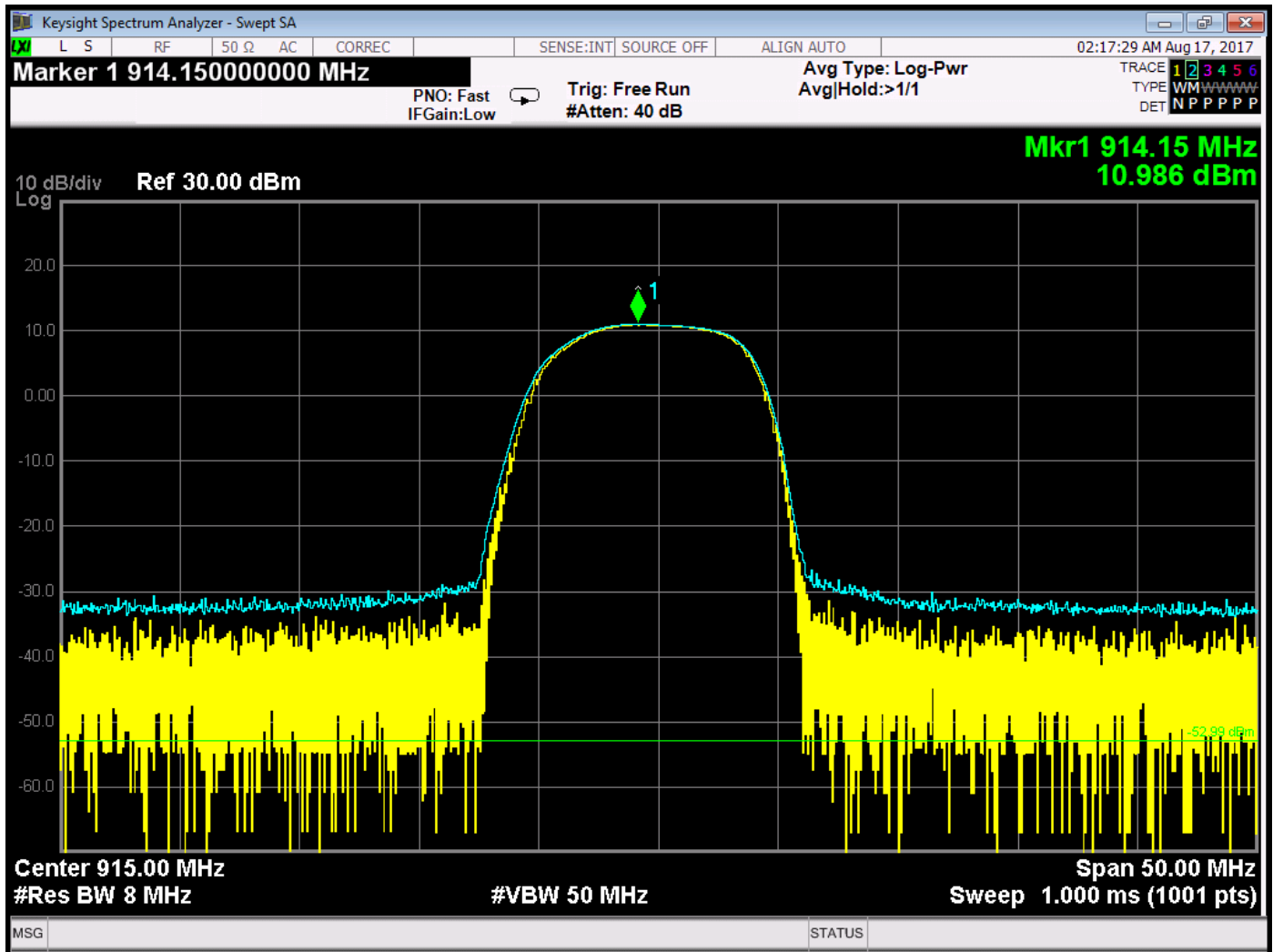


RF Antenna Conducted – High Channel – 3.6 GHz to 9.3 GHz

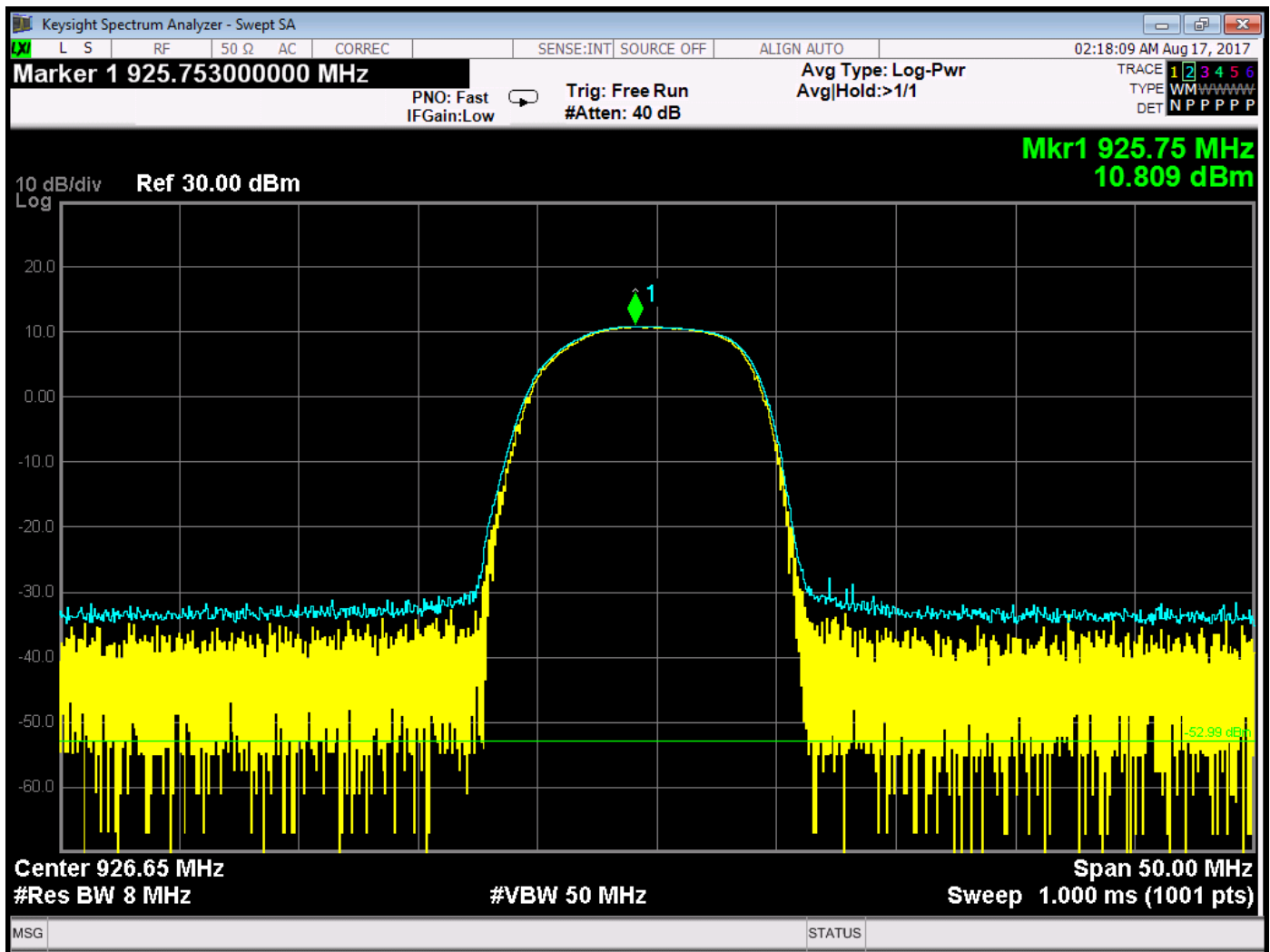
***PEAK POWER OUTPUT
DATA SHEETS***



Peak Power Output – Low Channel

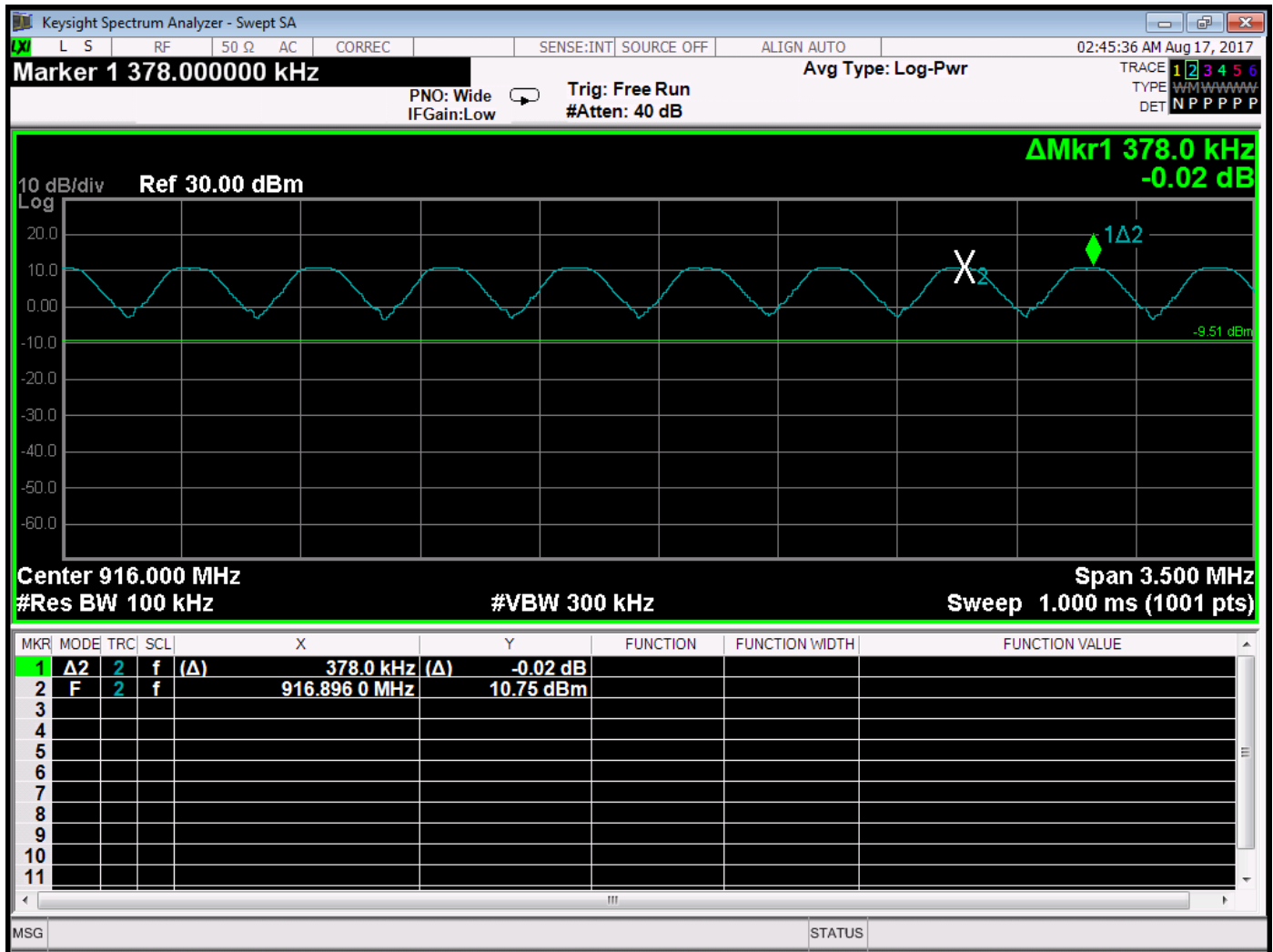


Peak Power Output – Middle Channel



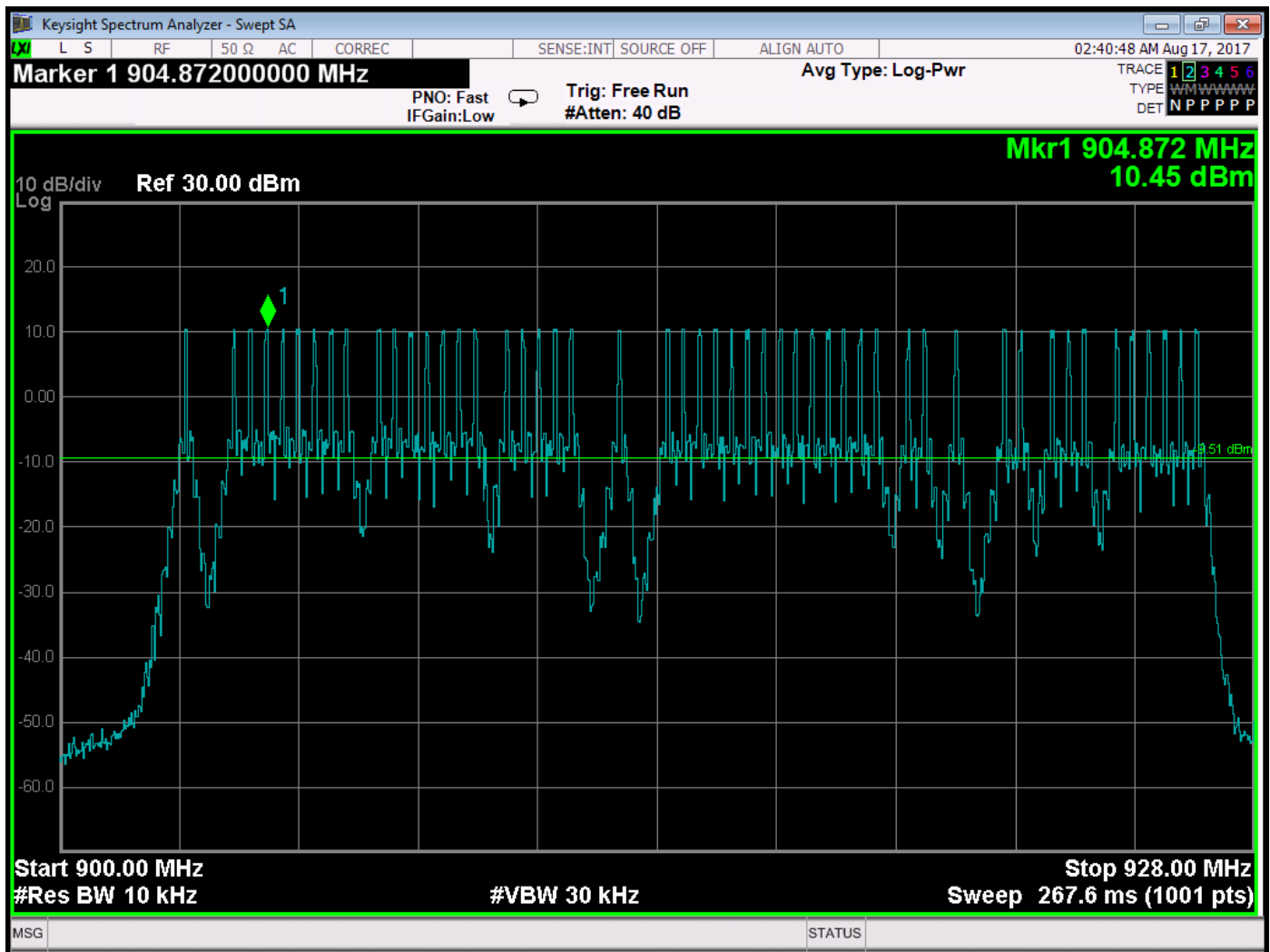
Peak Power Output – High Channel

***CHANNEL FREQUENCY SEPARATION
DATA SHEET***



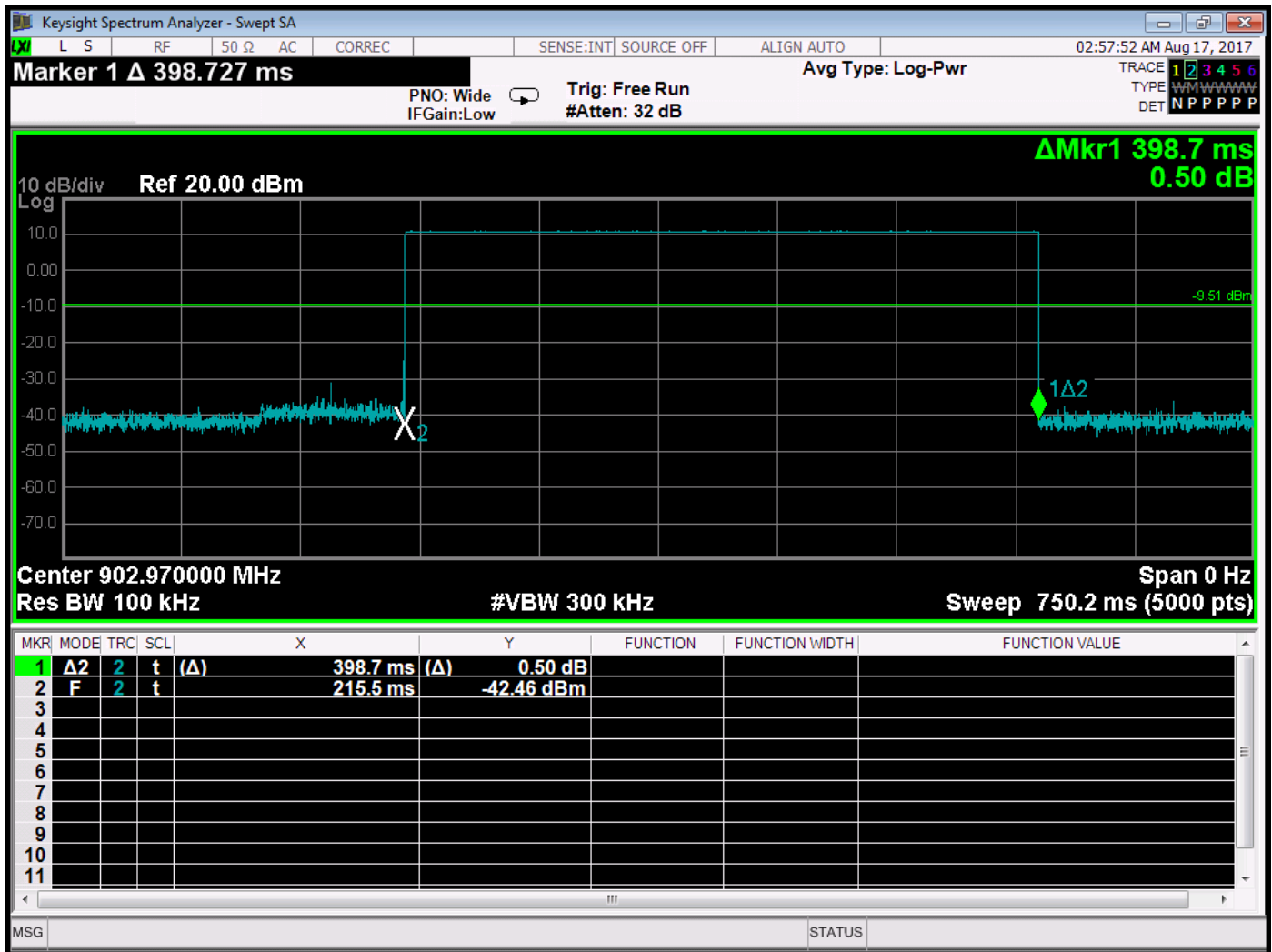
Channel Frequency Separation

***NUMBER OF FREQUENCIES
DATA SHEET***

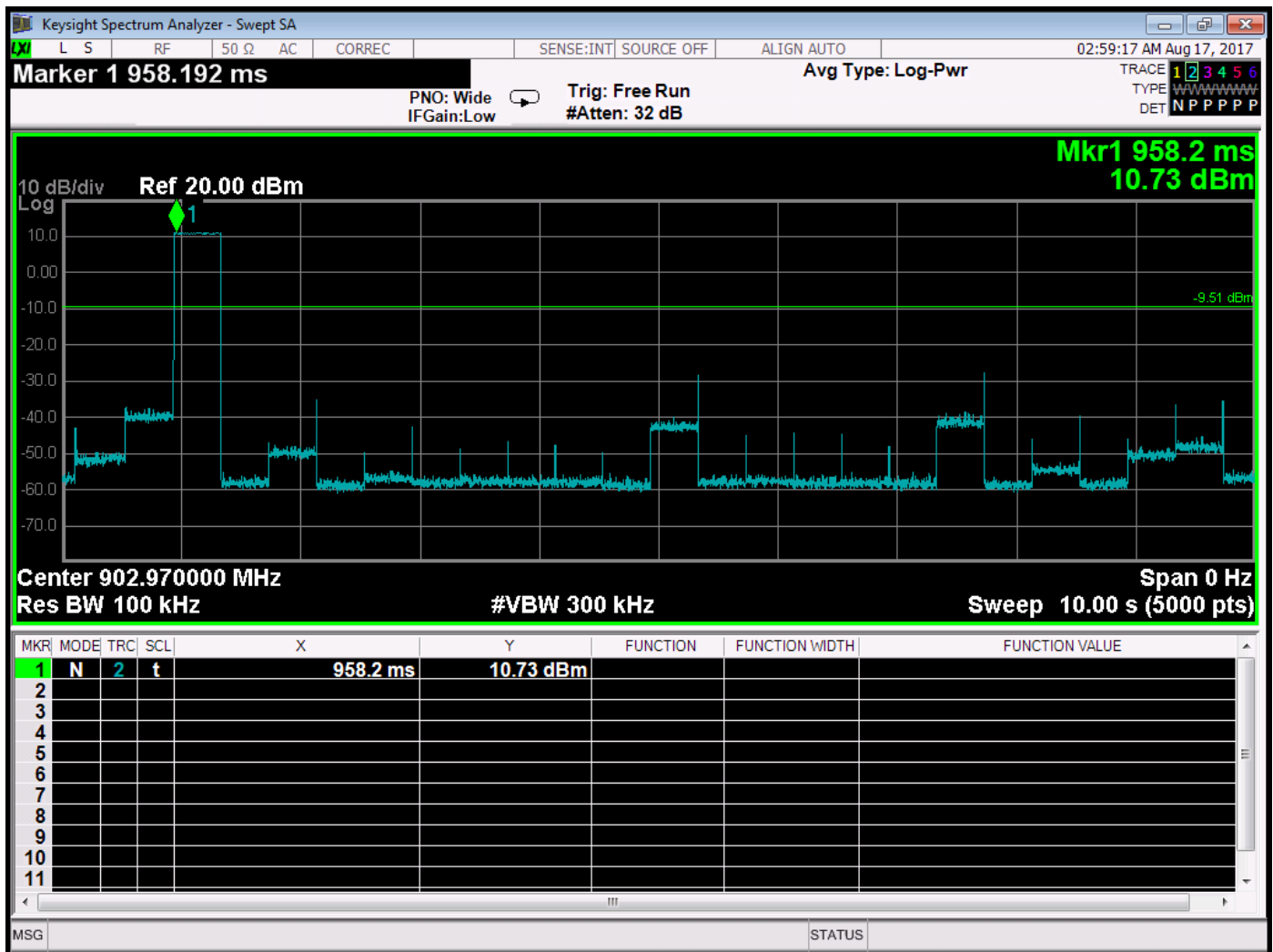


Number of Maximum Channels is 50

***TIME OF OCCUPANCY
DATA SHEETS***



Time of One Pulse – 398.70 ms



One Pulse Per 10 Seconds
 Total Time = 398.70 ms per 10 seconds
 Limit = 400 ms per 10 seconds