FCC PART 15, SUBPART B and C; RSS-247 and RSS-GEN
TEST REPORT

for

STREAMCASTER 4200 TACTICAL MIMO RADIO

MODEL: SC4210E-245-EB

Prepared for

SILVUS TECHNOLOGIES
10990 WILSHIRE BLVD., SUITE #1500
LOS ANGELES, CALIFORNIA 90024

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Approved by:_____

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DATE: JUNE 7, 2019

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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:	StreamCaster 4200 Tactical MIMO Radio Model: SC4210E-245-EB S/N: N/A
Product Description:	The EUT is a stand-alone IP based, 4 antenna MIMO (multiple input multiple output), Coded OFDM radio that provides improved LOS (line-of-sight) range, greater connectivity in NLOS (non-line-of-sight) environments and high data throughput rates.
Modifications:	The EUT was not modified during the testing.
Customer:	Silvus Technologies 10990 Wilshire Boluevard, Suite 1500 Los Angeles, California 90024
Test Dates:	March 25, 26, 27, 28, and 29, 2018; April 1, 2019; and June 7, 2019

Test Specifications covered by accreditation:

Emissions requirements
CFR Title 47, Part 15, Subpart B; and
Subpart C, sections 15.205, 15.207, 15.209, and 15.247
RSS-GEN, Issue 5; and RSS-247, Issue 2

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

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SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Conducted RF Emissions, 150 kHz – 30 MHz	The EUT complies with the **Class B** limits of CFR Title 47, Part 15 Subpart B; the limits of CFR Title 47, Part 15, Subpart C, section 15.207 and RSS-GEN
2	Spurious Radiated RF Emissions, 30 MHz – 1000 MHz	The EUT complies with the **Class B** limits of CFR Title 47, Part 15 Subpart B; the limits of CFR Title 47, Part 15, Subpart C, section 15.209 and RSS-247
3	Spurious Radiated RF Emissions, 9 kHz – 30 MHz and 1000 MHz – 25000 MHz	The EUT complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B; CFR Title 47, Part 15, Subpart C, section 15.247(d); and RSS-247
4	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) and RSS-247
5	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, section 15.247 (d) and RSS-247
6	DTS Bandwidth	Complies with the relevant requirements of FCC Title 47, Part 15, Subpart C, section 15.247 (a)(2) and RSS-247
7	Maximum Conducted Output Power	Complies with the relevant requirements of FCC Title 47, Part 15, Subpart C, section 15.247 (b)(3) and RSS-247
8	RF Conducted Antenna Test	Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.247 (d) and RSS-247
9	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) and RSS-247

1. PURPOSE

This document is a qualification test report based on the emissions tests performed on the StreamCaster 4200 Tactical MIMO Radio, Model: SC4210E-245-EB. 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; RSS-GEN and RSS-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

Silvus Technologies

Kathleen Smidt Cook	Vice President of Operations

Compatible Electronics Inc.

Thomas Szynal	Test Technician
Kyle Fujimoto	Test Engineer

2.4 Date Test Sample was Received

The test sample was received on March 23, 2019.

2.5 Disposition of the Test Sample

The test sample has not been returned to Silvus Technoloies 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

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
KDB 662911 D01 v02r01	Emissions Testing of Transmitters with Multiple Outputs in the Same Band (e.g., MIMO, Smart Antenna, etc)
KDB 558074 D01 v05r02	Guidance for Performing Compliance Measurements on Digital Transmission System, Frequency Hopping Spread Spectrum System, and Hybrid System Devices Operating Under Section 15.247 of the FCC Rules
RSS-GEN, Issue 5	General Requirements for Compliance of Radio Apparatus
RSS-247, Issue 2	Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices

4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description of Test Configuration – Emissions

The StreamCaster 4200 Tactical MIMO Radio Model: SC4210E-245-EB (EUT) was connected to a junction box, push to talk; USB stick and laptop via its PRI, PTT, and AUX ports, respectively. The junction box was also connected to an AC Adapter and laptop. The laptop was also connected to the AC Adapter, headphones, and mouse via its power, headphones, and mouse ports, respectively.

The EUT was continuously transmitting at 2430 MHz and 2440 MHz during the testing.

The EUT voltage was also varied between 85% and 115% using a variable transformer and the fundamental was verified to not change.

The firmware used for the EUT is stored on the company's servers.

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. 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

Cable 1 This is a 1-meter unshielded cable connecting the Push to Talk to the EUT. The cable has a 7-pin LEMO connector at the EUT end and is hard wired into the Push to Talk.

Cable 2 This is a 2-meter unshielded cable connecting the AC Adapter to the laptop. The cable has a 1/8 inch power connector at the laptop end and is hard wired into the AC Adapter.

Cable 3 This is a 1-meter unshielded cable connecting the headphones to the laptop. The cable has a 1/8 inch stereo connector at the laptop end and is hard wired into the headphones.

Cable 4 This is a 10-centimeter unshielded cable connecting the cable creation dongle to the laptop. The cable has a USB type 'A' connector the laptop end and is hard wired into the cable creation dongle.

Cable 5 This is a 1.25-meter foil shielded cable connecting the cable creation dongle to the junction box. The cable has an RJ-45 connector at the cable creation dongle end and is hard wired into the junction box. This cable along with cable #6 was bundled to a length of 1-meter. The shield of the cable was grounded to the chassis via the connector.

Cable 6 This is a 1.25-meter foil shielded cable connecting the junction box to the EUT. The cable is hard wired at the junction box end and has a 10-pin LEMO connector at the EUT end. The cable was bundled to a length of 1-meter. The shield of the cable was grounded to the chassis via the connectors.

Cable 7 This is a 20-centimeter foil shielded cable connecting the EUT to the USB stick. The cable has an 8-pin LEMO connector at the EUT end and a USB type 'A' connector at the USB stick end. The shield of the cable was grounded to the chassis via the connectors.

Cable 8 This is a 20-centimeter foil shielded cable connecting the EUT to cable #9. The cable has a 10-pin LEMO connector at the EUT end and a USB type 'A' connector at the cable #9 end. The shield of the cable was grounded to the chassis via the connectors.

Cable 9 This is a 2-meter braid shielded cable connecting cable #8 to the laptop. The cable has a USB type 'A' connector at each end. The cable was bundled to a length of 1-meter. The shield of the cable was grounded to the chassis via the connectors.

Cable 10 This is a 2-meter unshielded cable connecting the AC Adapter to the junction box. The cable is hard wired at each end. The cable is bundled to a length of 1-meter.

Cable 11 This is a 2-meter braid shielded cable connecting the mouse to the laptop. The cable has a USB type 'A' connector at the mouse end and is hard wired into the laptop. The shield of the cable is grounded to the chassis via the connector.

5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT

5.1 EUT and Accessory List

EQUIPMENT	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	FCC ID
STREAMCASTER 4200 TACTICAL MIMO RADIO	SILVUS TECHNOLOGIES	SC4210E-245-EB	N/A	N2S-SC42E-245
AC ADAPTER FOR LAPTOP	ASUS	N/A	N/A	N/A
USB STICK	COMPATIBLE ELECTRONICS, INC.	N/A	N/A	N/A
HEADPHONES	N/A	N/A	N/A	N/A
LAPTOP	ASUS	UX303U	GSNDCJ00L1869C	N/A
PUSH TO TALK	IMPACT	S2226	N/A	N/A
JUNCTION BOX	N/A	N/A	N/A	N/A
AC ADAPTER (EUT)	EDAC POWER ELECTRONICS	EA10523C-120	N/A	N/A
(2) OMNIDIRECTIONAL ANTENNAS – 2.15 dBi	SILVUS TECHNOLOGIES	AOV2D230515G – TM	N/A	N/A
(2) OMNIDIRECTIONAL ANTENNAS – 4 dBi	SILVUS TECHNOLOGIES	AOV45235S – TM	N/A	N/A
FIRMWARE FOR EUT*	SILVUS TECNOLOGIES	3.12.6.8	N/A	N/A
MOUSE	LOGITECH	M-U0026	N/A	N/A

*****Used to program the EUT to transmit at 2430 MHz and 2440 MHz on a continuous basis.

5.2 Emissions Test Equipment

EQUIPMENT TYPE	MANU-FACTURER	MODEL NUMBER	SERIAL NUMBER	CALIBRATION DATE	CAL. CYCLE
TDK TestLab	TDK RF Solutions, Inc.	9.22	700145	N/A	N/A
CombiLog Antenna	Com-Power	AC-220	61060	July 27, 2017	2 Year
Horn Antenna	Com-Power	AH-118	071175	February 22, 2018	2 Year
EMI Receiver, 20 Hz – 26.5 GHz	Keysight Technologies	N9038A	MY51210150	July 26, 2018	1 Year
Preamplifier	Com-Power	PA-840	711919	May 10, 2018	1 Year
Loop Antenna	Com-Power	AL-130R	121090	February 5, 2019	2 Year
Preamplifier	Com-Power	PAM-118A	551024	May 10, 2018	1 Year
Digital Multimeter	Fluke	115	36601149WS	September 20, 2018	2 Year
Variable Transformer	Superior Electric	Type: 11560	Spec: BP142056	N/A	N/A
Horn Antenna	Com-Power	AH-826	71957	N/A	N/A
Computer	Hewlett Packard	p6716f	MXX1030PX0	N/A	N/A
LCD Monitor	Hewlett Packard	52031a	3CQ046N3MG	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
Power Sensor	ETS-Lindgren	7002-006	00160367	April 19, 2018	2 Year
LISN (EUT)	Com-Power	LI-215A	191951	January 10, 2019	1 Year
LISN (ACC)	Com-Power	LI-215A	191952	June 28, 2018	1 Year
Attenuator, 10 dB	SureCall	SC-ATT-10	17100025	November 27, 2018	1 Year

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 grounded to earth ground via the safety ground of the AC Adapter.

7. CHARACTERISTICS OF THE TRANSMITTER

7.1 Channel Description and Frequencies

The EUT operates on two channels. The low channel is 2430 MHz and the high channel is 2440 MHz.

7.2 Antenna Gain

Configuration #1: The EUT utilizes two omnidirectional dipole antennas each antenna having 4.0 dBi gain. .

Configuration #2: The EUT utilizes two omnidirectional sleeve dipole antennas with each antenna having 2.15 dBi gain.

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 EMI Receiver was used as a measuring meter. A 10 dB Attenuator was used for the protection of the EMI Receiver input stage, and the offset was adjusted accordingly to read the actual data measured. The LISN output was measured using the EMI Receiver. 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 computer software. The final qualification data is located in Appendix E.

The six highest reading are listed in Table 1.0.

Test Results:

The EUT complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B; the limits of CFR Title 47, Part 15, Subpart C, Section 15.207; and RSS-GEN for conducted emissions. Please see Appendix E for the data sheets.

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. At frequencies above 1 GHz, external preamplifiers were used. 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 frequencies above 1 GHz were averaged by using the RMS detector function on the EMI Receiver.

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.

The six highest reading are listed in Table 2.0.

Test Results:

The EUT complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B; the limits of CFR Title 47, Part 15, Subpart C, Sections 15.209 and 15.247 (d); and RSS-GEN and RSS-247 for radiated emissions. Please see Appendix E for the data sheets.

8.1.3 RF Emissions Test Results

Table 1.0 CONDUCTED EMISSION RESULTS
StreamCaster 4200 Tactical MIMO Radio, Model: SC4210E-245-EB

Frequency MHz	Corrected Reading* dBuV	Specification Limit dBuV	Delta (Cor. Reading – Spec. Limit) dB
0.466 (BL) (4 dBi Antennas) (2440 MHz – 20 MHz BW)	36.36 (Avg)	46.53	-10.17
0.450 (BL) (4 dBi Antennas) (2440 MHz – 20 MHz BW)	36.01 (Avg)	46.54	-10.52
0.466 (WL) (4 dBi Antennas) (2440 MHz – 20 MHz BW)	35.44 (Avg)	46.54	-11.10
0.470 (WL) (4 dBi Antennas) (2440 MHz – 20 MHz BW)	34.92 (Avg)	46.58	-11.66
0.462 (WL) (4 dBi Antennas) (2440 MHz – 20 MHz BW)	34.64 (Avg)	46.62	-11.98
0.462 (BL) (4dBi Antennas) (2440 MHz – 20 MHz BW)	34.19 (Avg)	46.63	-12.44

BL Black Lead
WL White Lead
Avg Average
Tx Transmit
Rx Receive

Table 2.0 RADIATED EMISSION RESULTS
StreamCaster 4200 Tactical MIMO Radio, Model: SC4210E-245-EB

Frequency MHz	**Corrected Reading* dBuV/m**	**Specification Limit dBuV**	**Delta (Cor. Reading – Spec. Limit) dB**
78.80 (V) (4 dBi Antennas) (2430 MHz – 10 MHz BW)	35.350 (QP)	40.00	-4.70
78.40 (V) (4 dBi Antennas) (2440 MHz – 10 MHz BW)	35.23 (QP)	40.00	-4.77
77.30 (V) (4 dBi Antennas) (2430 MHz – 10 MHz BW)	35.03 (QP)	40.00	-4.97
79.20 (V) (4 dBi Antennas) (2430 MHz – 10 MHz BW)	34.75 (QP)	40.00	-5.25
81.10 (V) (4 dBi Antennas) (2430 MHz – 10 MHz BW)	34.68 (QP)	40.00	-5.32
82.20 (V) (4 dBi Antennas) (2440 MHz – 10 MHz BW)	34.65 (QP)	40.00	-5.35

QP Quasi-Peak Reading
Avg Average Reading
H Horizontal Polarization
V Vertical Polarization

8.2 DTS Bandwidth

The DTS Bandwidth was measured using the EMI Receiver. The bandwidth was measured using a direct connection from 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); and RSS-247.

8.3 Maximum Conducted Output Power

The Conducted Average Output Power was measured using the Power Meter. The average output power was measured using the average power measurement procedure described in section 8.3.2.3 of KDB 558074 v05r02. The Maximum Conducted Output Power was then taken.

The power at each port was summed per section (E)(1) of KDB 662911 D01 v02r01.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (b)(3); and RSS-247.

8.4 Emissions in Non-Restricted Bands

The emissions in the non-restricted frequency bands measurements were performed using the EMI receiver directly connected to the EUT. The reference level was established by setting the instrument center frequency to DTS channel center frequency. The span was set to ≥ 1.5 times the DTS bandwidth. The RBW was set to 100 kHz and the VBW was set to 300 kHz. 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 30 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. The RBW was set to 100 kHz and the VBW was set to 300 kHz. 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); and RSS-247.

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; and RSS-247. 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 at least 1.5 times the OBW.
3. Set the RBW to 3 kHz <= RBW <= 100 kHz
4. Set the VBW >= 3 X RBW
5. Detector = power averaging (RMS)
6. Ensure that the number of measurement points in the sweep >= 2 x span/RBW
7. Sweep time = auto couple
8. Employ trace averaging (RMS) mode over a minimum of 100 traces
9. Use the peak marker function to determine the maximum amplitude level
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

The spectral density at each port was summed per Section (E)(2)(c) of KDB 662911 D01 v02r01.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (e) and RSS-247.

8.7 Variation of the Input Power

The variation of the input power test was performed using the EMI Receiver. The EUT input power was varied between 85% and 115% of the nominal rated supply voltage. The carrier frequency was monitored for any change in amplitude.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart A section 15.31 (e) and RSS-GEN.

9. CONCLUSIONS

The StreamCaster 4200 Tactical MIMO Radio, Model: SC4210E-245-EB, 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; RSS-GEN and RSS-247.

APPENDIX A

LABORATORY ACCREDITATIONS AND RECOGNITIONS

LABORATORY ACCREDITATIONS AND RECOGNITIONS

NVLAP®
TESTING
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."

APPENDIX B

MODIFICATIONS TO THE EUT

MODIFICATIONS TO THE EUT

The modifications listed below were made to the EUT to pass FCC Subpart B, FCC 15.247, RSS-GEN and RSS-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

StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB
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

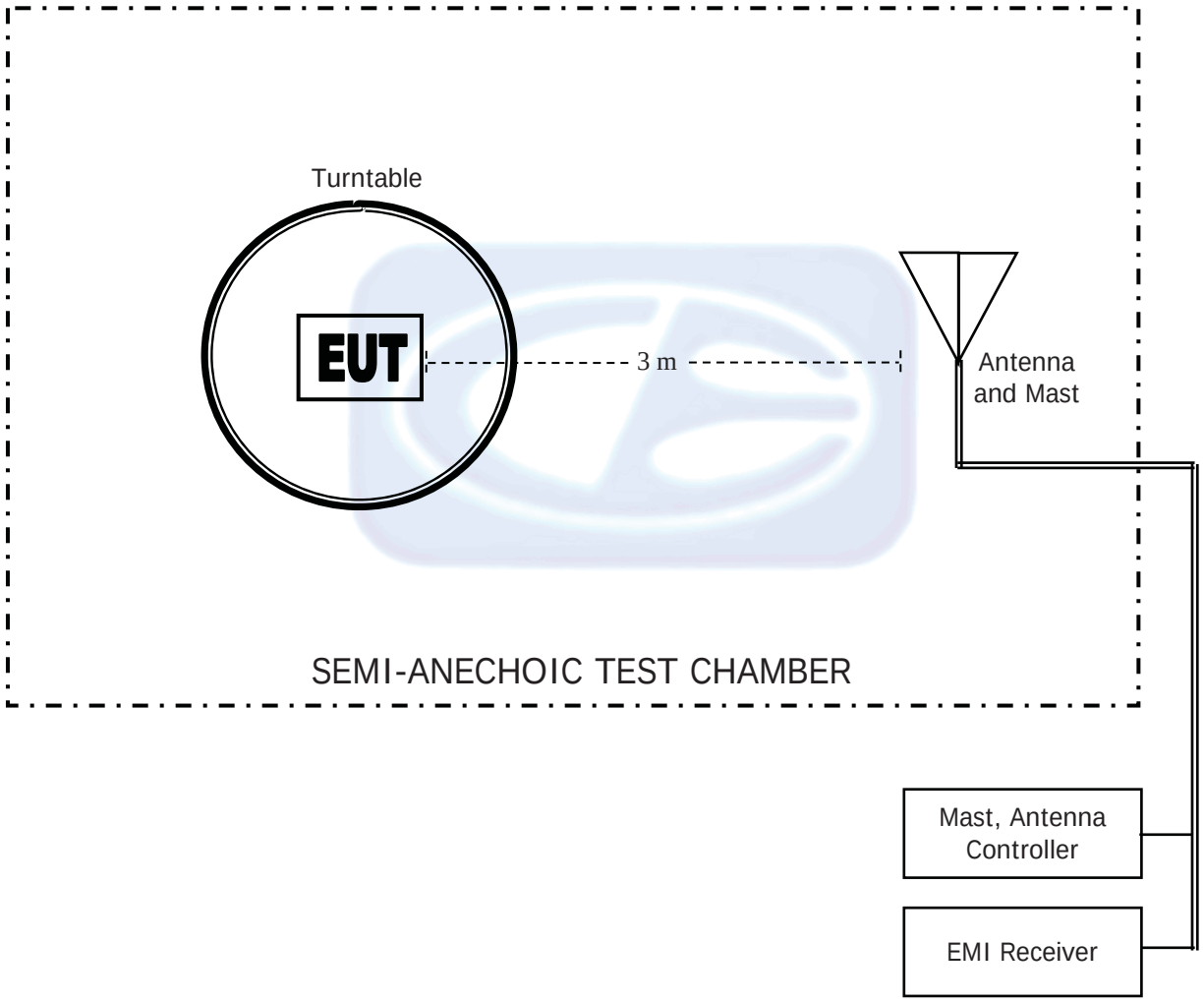
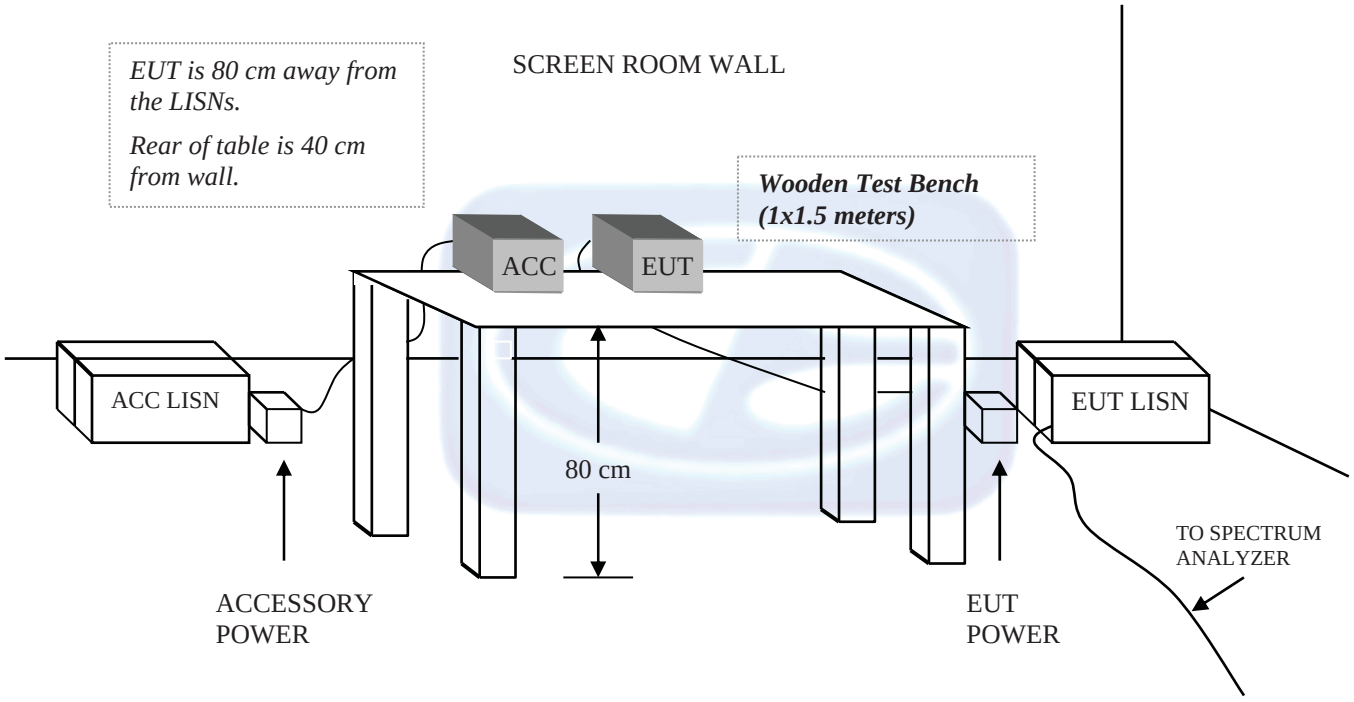


FIGURE 2: CONDUCTED EMISSIONS TEST SETUP



COM-POWER AL-130R

LOOP ANTENNA

S/N: 121090

CALIBRATION DATE: FEBRUARY 5, 2019

FREQUENCY (MHz)	MAGNETIC (dB/m)	ELECTRIC (dB/m)
0.01	15.6	-35.9
0.02	14.8	-36.7
0.03	15.6	-35.9
0.04	15.1	-36.4
0.05	14.4	-37.0
0.06	14.6	-36.9
0.07	14.4	-37.1
0.08	14.3	-37.1
0.09	14.5	-36.9
0.10	14.1	-37.3
0.20	14.1	-37.3
0.30	14.0	-37.4
0.40	14.0	-37.4
0.50	14.2	-37.2
0.60	14.2	-37.2
0.70	14.2	-37.2
0.80	14.2	-37.3
0.90	14.3	-37.2
1.00	14.5	-37.0
2.00	14.5	-36.9
3.00	14.5	-36.9
4.00	14.7	-36.8
5.00	14.6	-36.9
6.00	14.6	-36.9
7.00	14.6	-36.9
8.00	14.6	-36.9
9.00	14.6	-36.9
10.00	14.8	-36.6
11.00	14.9	-36.6
12.00	14.8	-36.6
13.00	14.8	-36.7
14.00	14.6	-36.8
15.00	14.5	-36.9
16.00	14.5	-37.0
17.00	14.6	-36.9
18.00	14.7	-36.7
19.00	14.8	-36.6
20.00	14.9	-36.6
21.00	14.6	-36.8
22.00	14.2	-37.2
23.00	13.7	-37.7
24.00	13.3	-38.2
25.00	13.0	-38.5
26.00	12.9	-38.6
27.00	13.0	-38.5
28.00	13.1	-38.4
29.00	13.1	-38.4
30.00	12.9	-38.5

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 22, 2018

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	23.71	10.0	40.08
1.5	25.46	10.5	40.75
2.0	29.26	11.0	41.78
2.5	27.95	11.5	41.02
3.0	29.03	12.0	40.32
3.5	29.70	12.5	40.96
4.0	30.71	13.0	40.29
4.5	31.62	13.5	39.48
5.0	33.23	14.0	39.89
5.5	35.07	14.5	42.75
6.0	34.43	15.0	40.98
6.5	34.98	15.5	38.54
7.0	36.75	16.0	39.40
7.5	37.10	16.5	39.40
8.0	37.66	17.0	41.74
8.5	39.29	17.5	42.58
9.0	37.75	18.0	44.68
9.5	38.23		

COM-POWER PAM-118A

PREAMPLIFIER

S/N: 551024

CALIBRATION DATE: MAY 10, 2018

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	40.99	6.0	39.01
1.1	39.77	6.5	39.00
1.2	39.02	7.0	39.69
1.3	39.44	7.5	38.96
1.4	39.64	8.0	38.57
1.5	40.23	8.5	39.17
1.6	40.17	9.0	38.82
1.7	40.23	9.5	39.30
1.8	39.48	10.0	38.90
1.9	39.85	11.0	38.86
2.0	39.99	12.0	39.87
2.5	40.38	13.0	39.55
3.0	40.64	14.0	38.92
3.5	40.68	15.0	39.33
4.0	40.87	16.0	39.60
4.5	40.04	17.0	40.28
5.0	39.54	18.0	39.58
5.5	39.58		

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

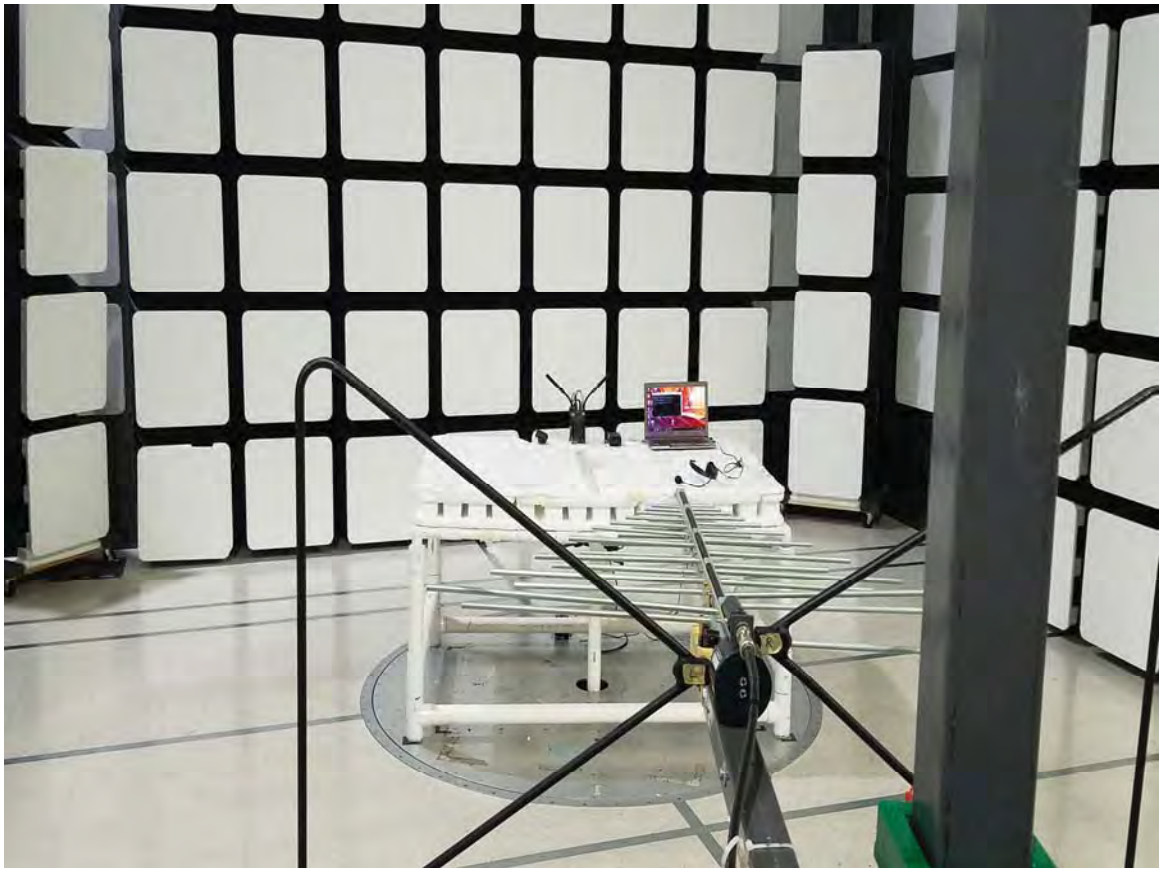
COM-POWER PA-840

MICROWAVE PREAMPLIFIER

S/N: 711919

CALIBRATION DATE: MAY 10, 2018

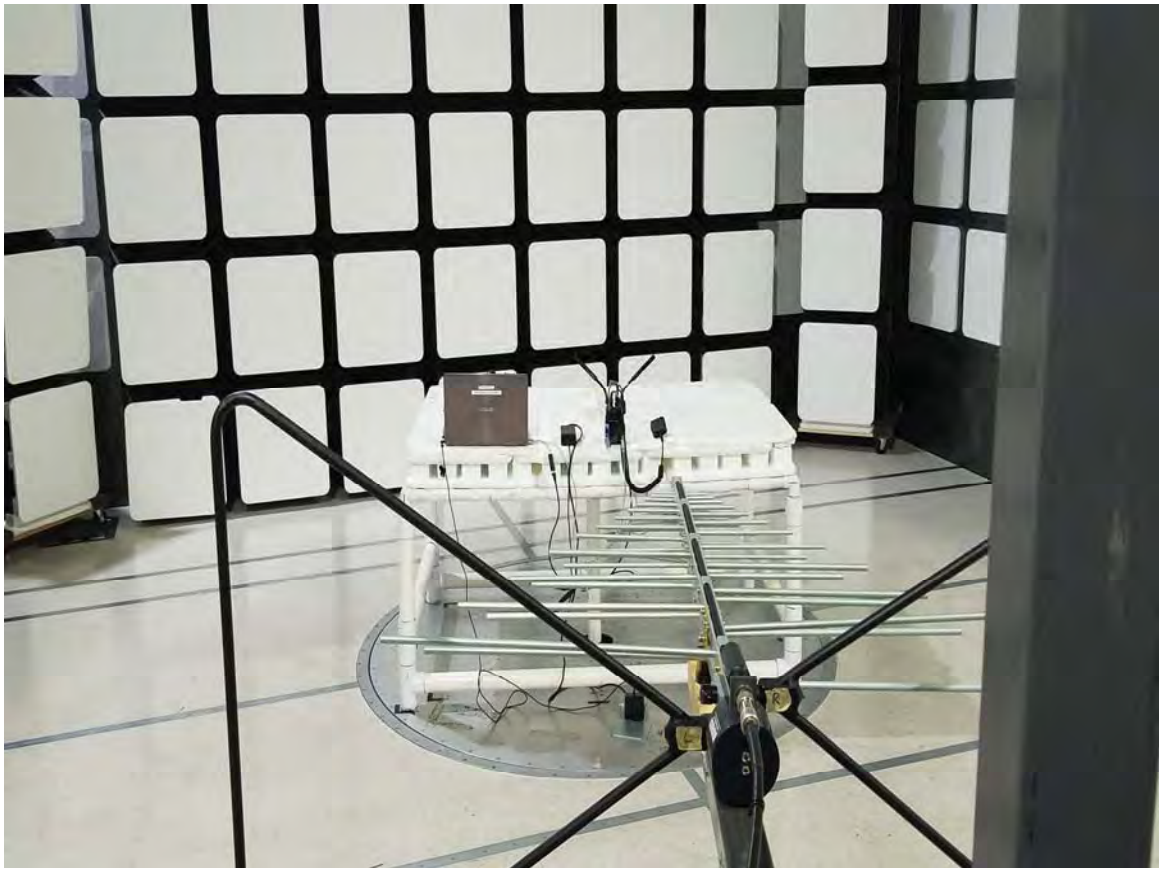
FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
18.0	27.17	31.0	28.04
19.0	28.16	31.5	27.69
20.0	29.34	32.0	27.07
21.0	28.08	32.5	26.90
22.0	27.07	33.0	27.39
23.0	27.23	33.5	26.29
24.0	26.89	34.0	26.79
25.0	28.43	34.5	26.38
26.0	27.29	35.0	26.01
26.5	28.40	35.5	25.27
27.0	26.68	36.0	27.18
27.5	26.63	36.5	26.28
28.0	27.28	37.0	26.45
28.5	27.47	37.5	25.99
29.0	27.12	38.0	27.91
29.5	27.04	38.5	28.41
30.0	27.42	39.0	28.97
30.5	27.70	39.5	28.66
		40.0	26.38



FRONT VIEW

SILVUS TECHNOLOGIES
STREAMCASTER 4200 TACTICAL MIMO RADIO
MODEL: SC4210E-245-EB
FCC SUBPART B AND C; AND RSS-247 – RADIATED EMISSIONS – 2.15 dBi ANTENNAS
BELOW 1 GHz

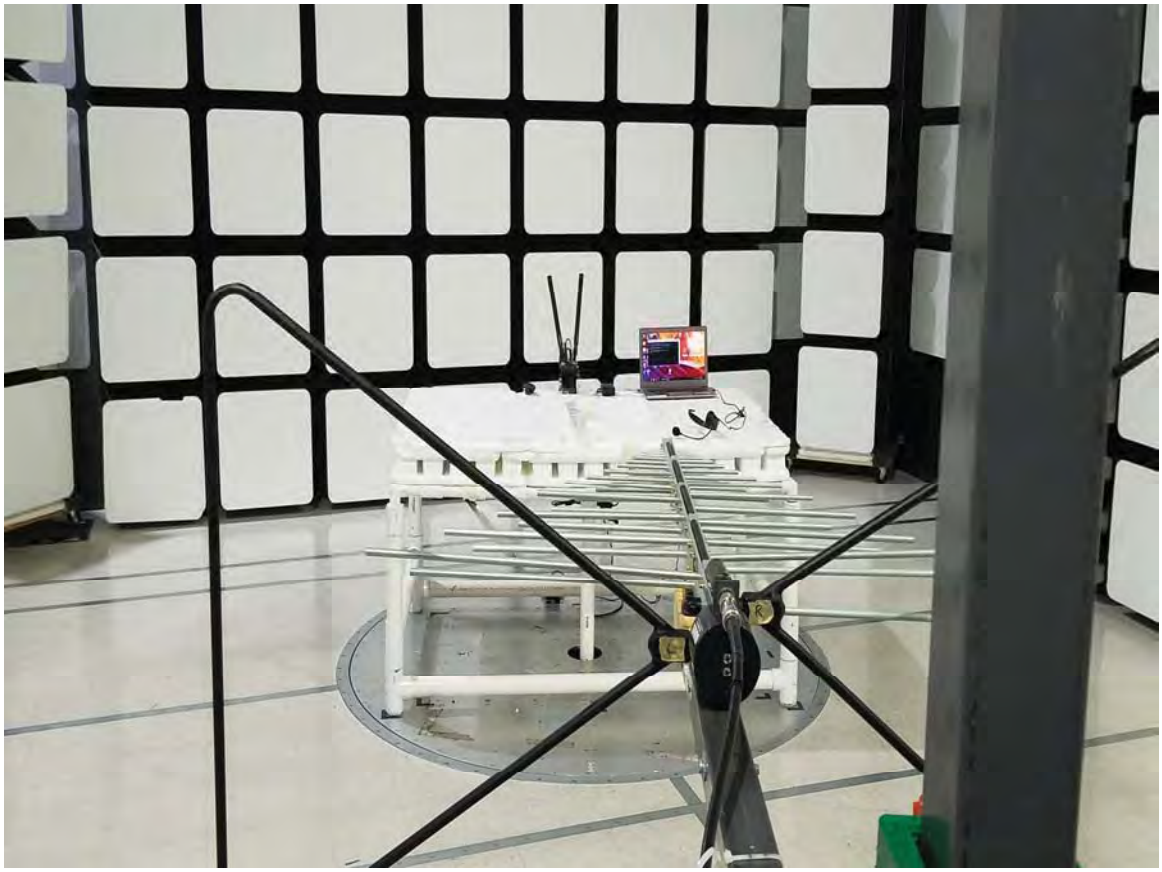
PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



REAR VIEW

SILVUS TECHNOLOGIES
STREAMCASTER 4200 TACTICAL MIMO RADIO
MODEL: SC4210E-245-EB
FCC SUBPART B AND C; AND RSS-247 – RADIATED EMISSIONS – 2.15 dBi ANTENNAS
BELOW 1 GHz

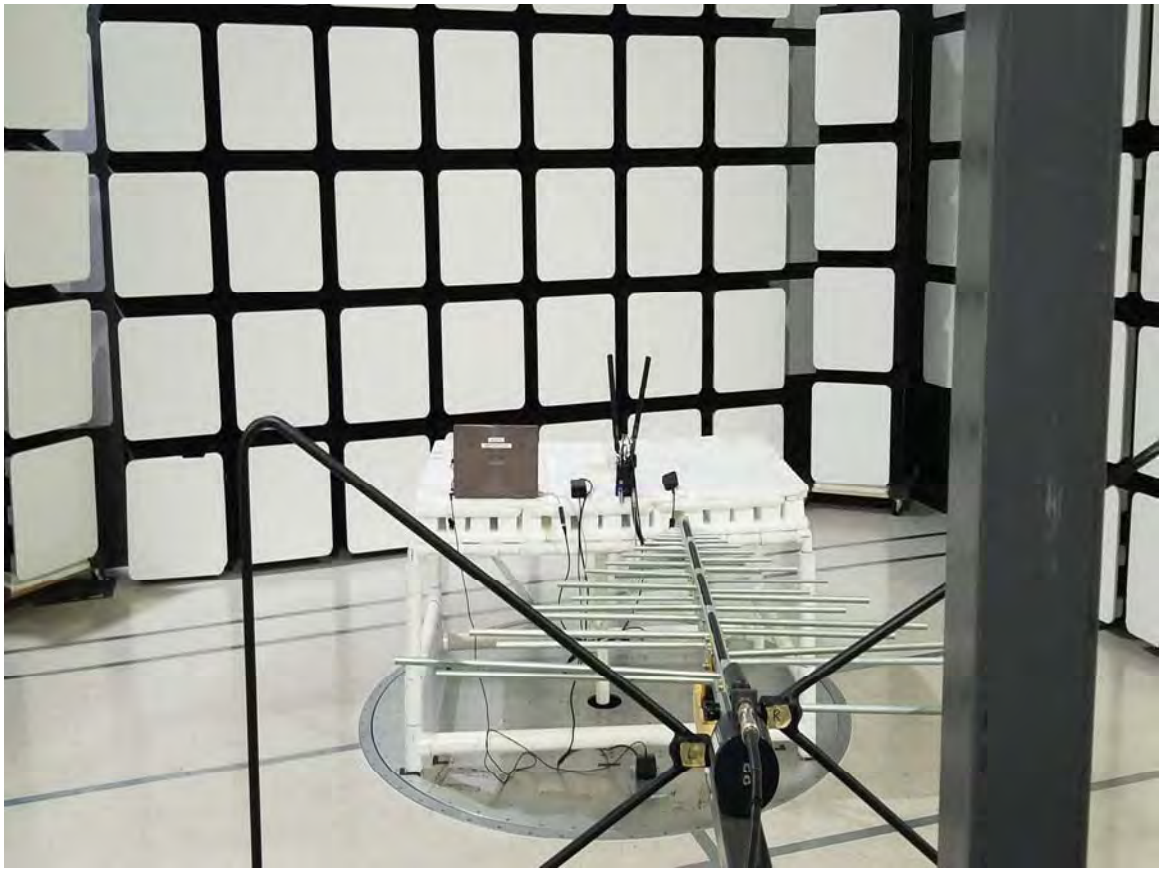
PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



FRONT VIEW

SILVUS TECHNOLOGIES
STREAMCASTER 4200 TACTICAL MIMO RADIO
MODEL: SC4210E-245-EB
FCC SUBPART B AND C; AND RSS-247 – RADIATED EMISSIONS – 4 dBi ANTENNAS
BELOW 1 GHz

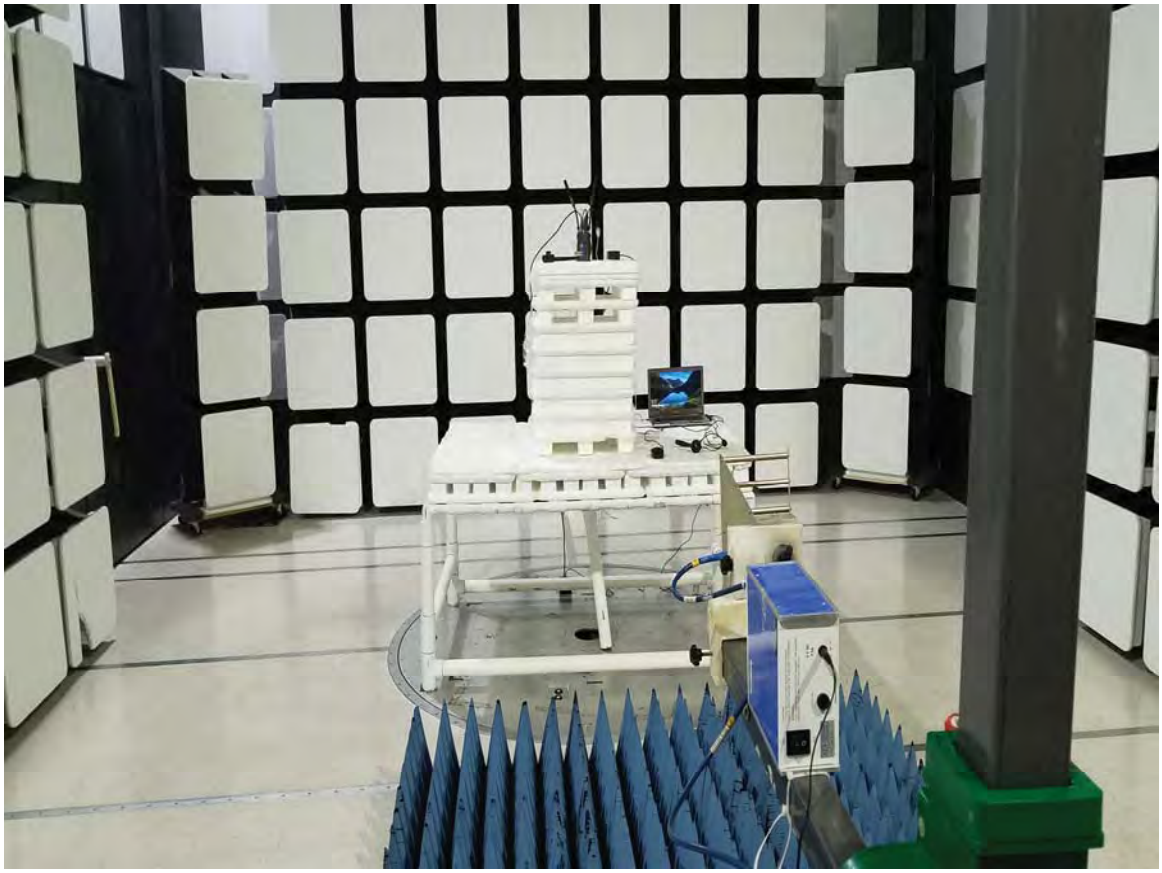
PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



REAR VIEW

SILVUS TECHNOLOGIES
STREAMCASTER 4200 TACTICAL MIMO RADIO
MODEL: SC4210E-245-EB
FCC SUBPART B AND C; AND RSS-247 – RADIATED EMISSIONS – 4 dBi ANTENNAS
BELOW 1 GHz

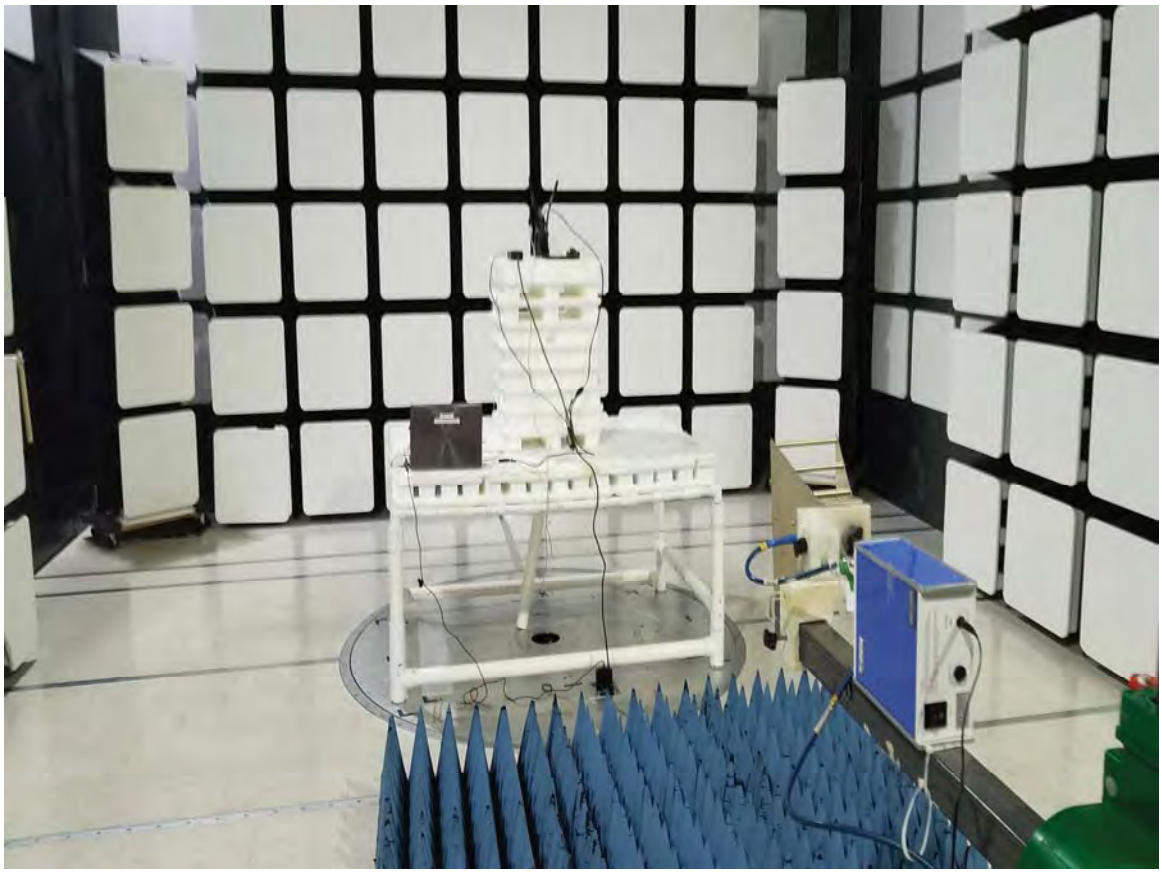
PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



FRONT VIEW

SILVUS TECHNOLOGIES
STREAMCASTER 4200 TACTICAL MIMO RADIO
MODEL: SC4210E-245-EB
FCC SUBPART B AND C; AND RSS-247 – RADIATED EMISSIONS – 2.15 dBi ANTENNAS
ABOVE 1 GHz

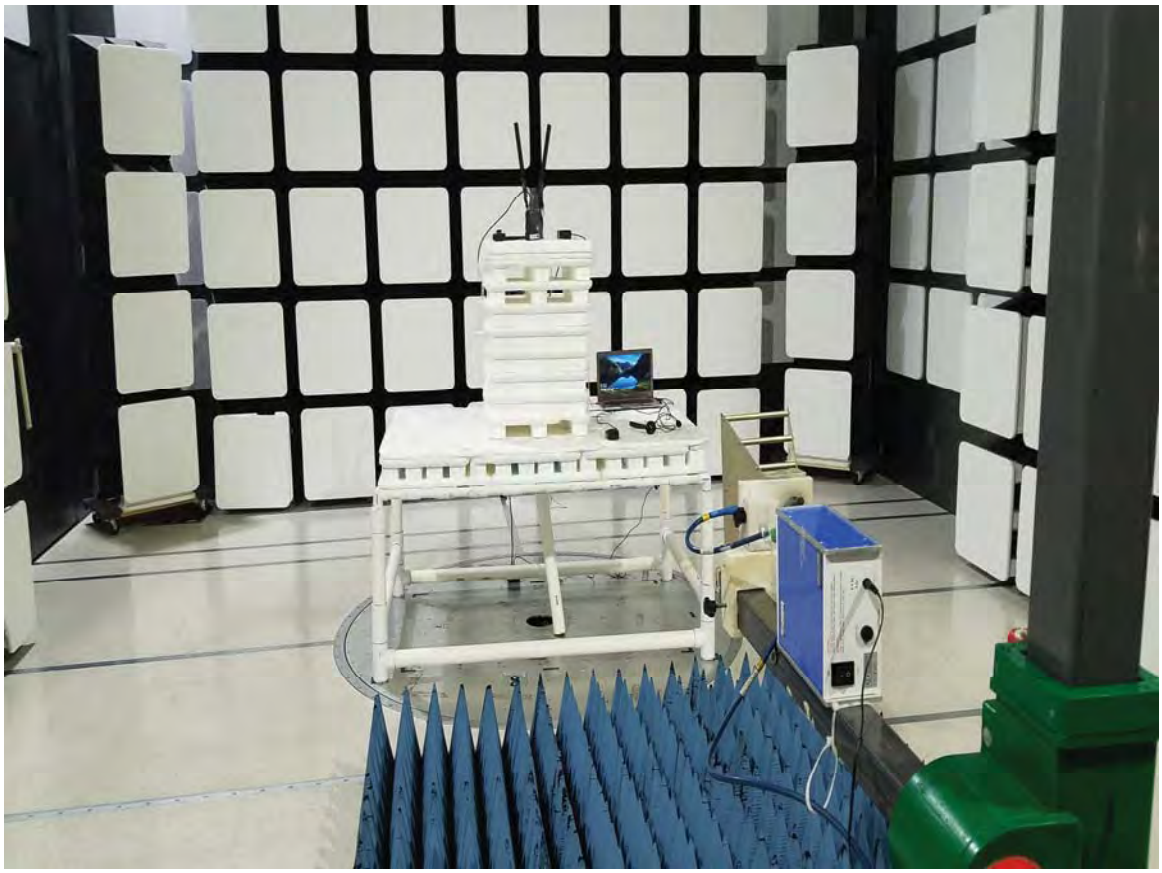
PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



REAR VIEW

SILVUS TECHNOLOGIES
STREAMCASTER 4200 TACTICAL MIMO RADIO
MODEL: SC4210E-245-EB
FCC SUBPART B AND C; AND RSS-247 – RADIATED EMISSIONS – 2.15 dBi ANTENNAS
ABOVE 1 GHz

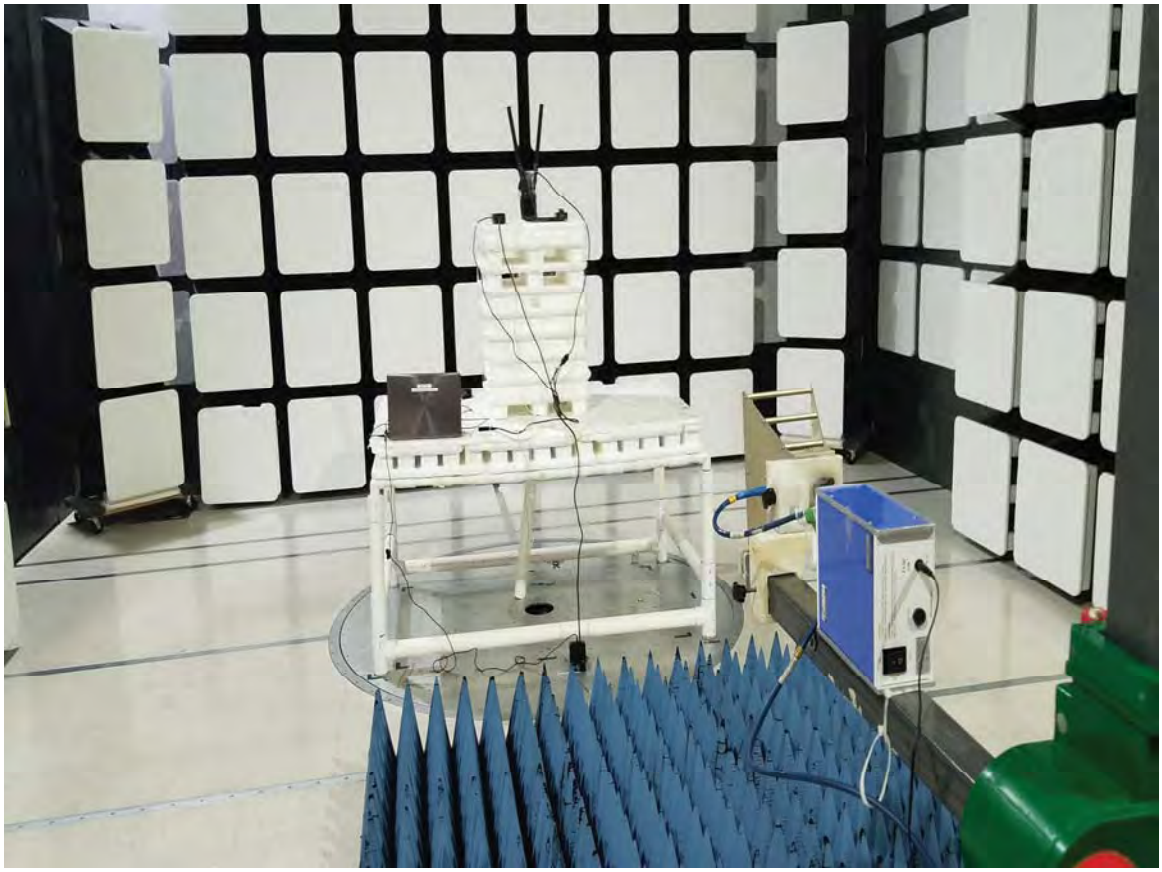
PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



FRONT VIEW

SILVUS TECHNOLOGIES
STREAMCASTER 4200 TACTICAL MIMO RADIO
MODEL: SC4210E-245-EB
FCC SUBPART B AND C; AND RSS-247 – RADIATED EMISSIONS – 4 dBi ANTENNAS
ABOVE 1 GHz

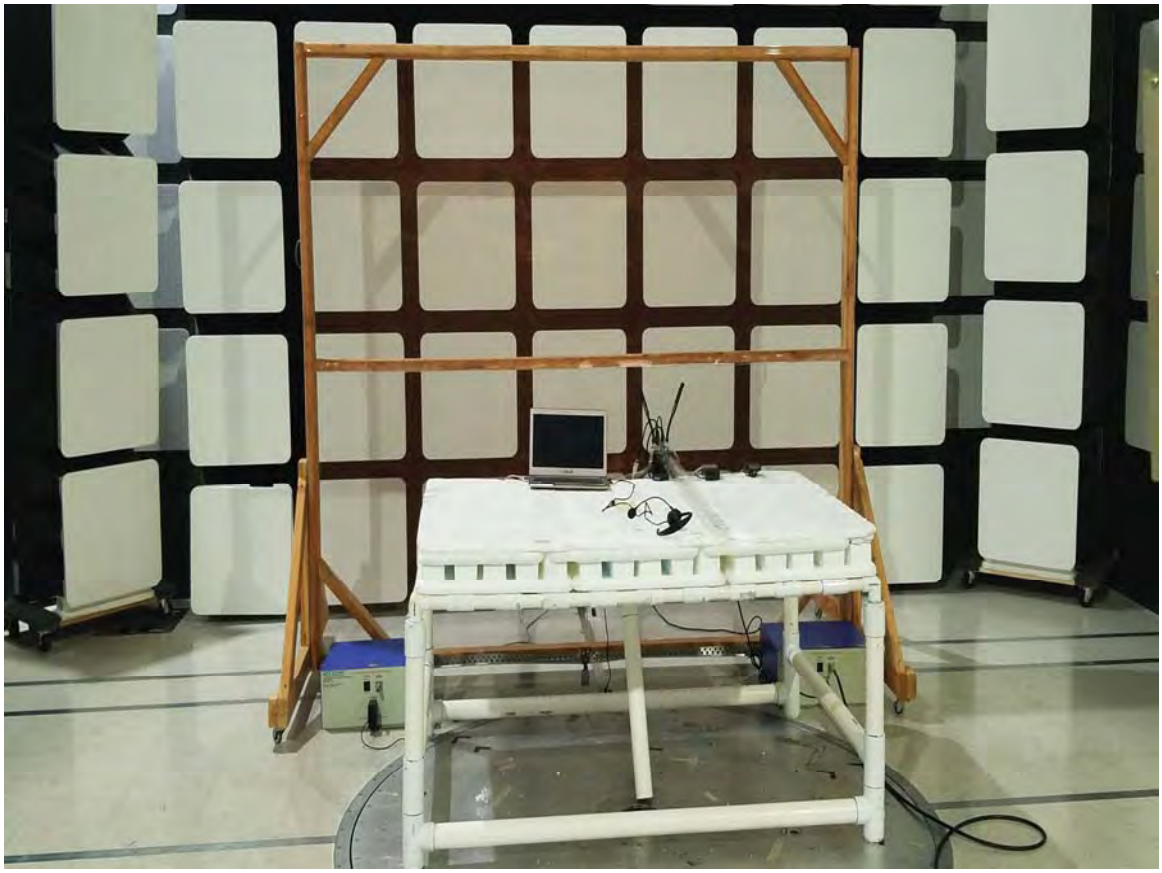
PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



REAR VIEW

SILVUS TECHNOLOGIES
STREAMCASTER 4200 TACTICAL MIMO RADIO
MODEL: SC4210E-245-EB
FCC SUBPART B AND C; AND RSS-247 – RADIATED EMISSIONS – 4 dBi ANTENNAS
ABOVE 1 GHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



FRONT VIEW

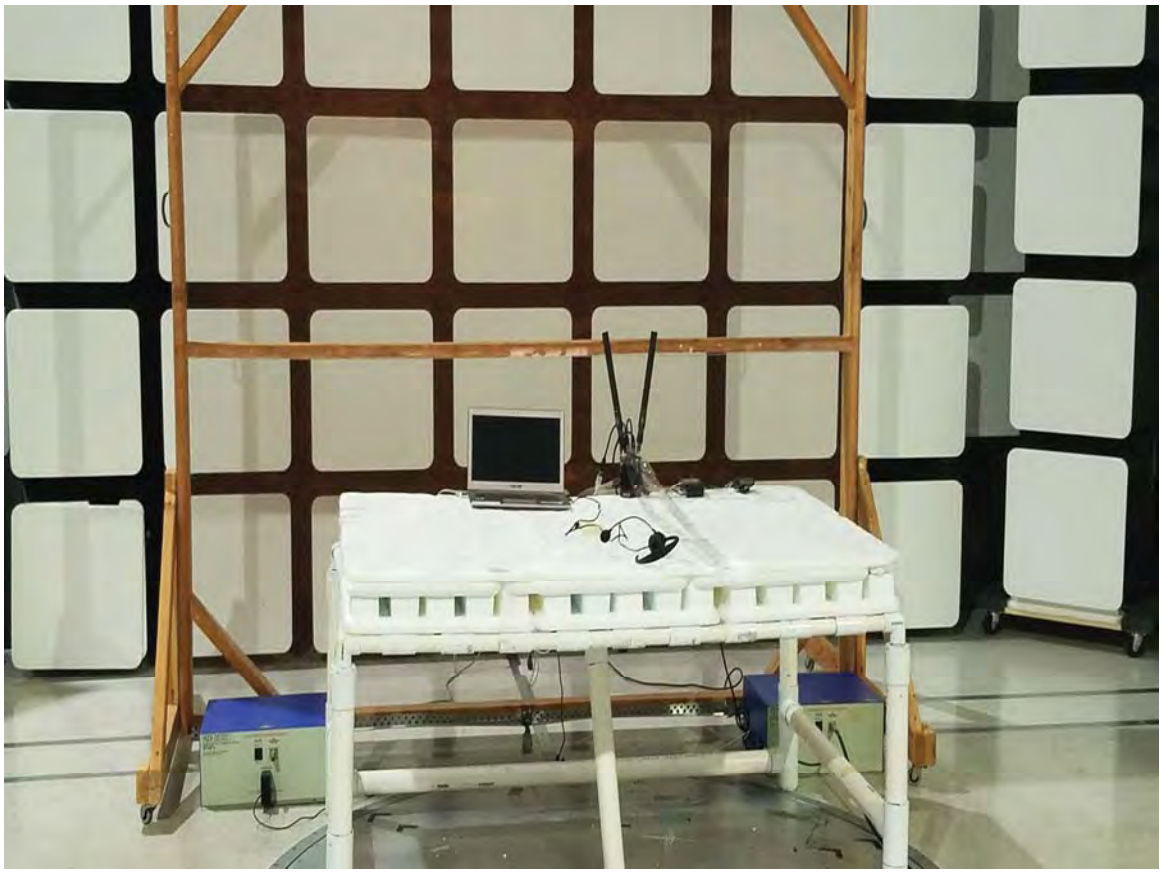
SILVUS TECHNOLOGIES
STREAMCASTER 4200 TACTICAL MIMO RADIO
MODEL: SC4210E-245-EB
FCC SUBPART B AND C; AND RSS-GEN – 2.15 dBi ANTENNAS – CONDUCTED EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

SILVUS TECHNOLOGIES
STREAMCASTER 4200 TACTICAL MIMO RADIO
MODEL: SC4210E-245-EB
FCC SUBPART B AND C; AND RSS-GEN – 2.15 dBi ANTENNAS – CONDUCTED EMISSIONS

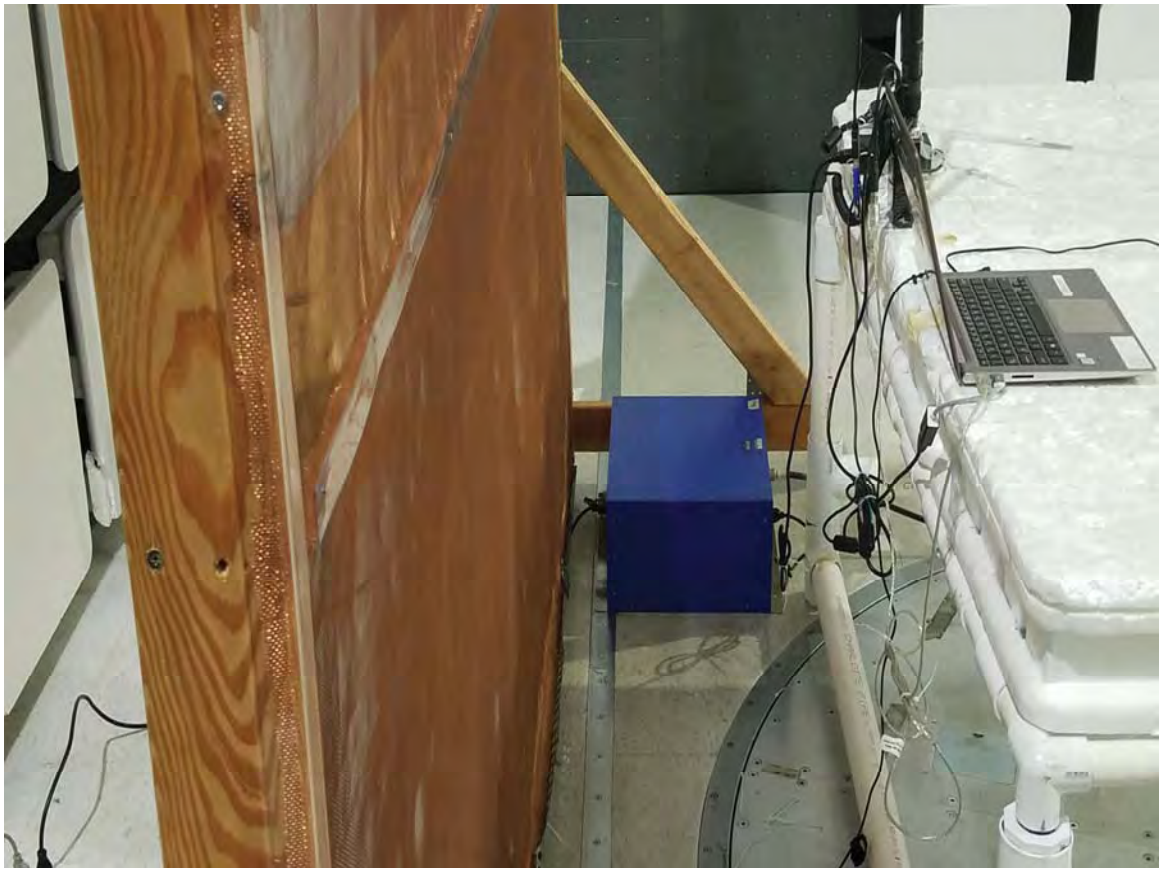
PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



FRONT VIEW

SILVUS TECHNOLOGIES
STREAMCASTER 4200 TACTICAL MIMO RADIO
MODEL: SC4210E-245-EB
FCC SUBPART B AND C; AND RSS-GEN – 4 dBi ANTENNAS – CONDUCTED EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



REAR VIEW

SILVUS TECHNOLOGIES
STREAMCASTER 4200 TACTICAL MIMO RADIO
MODEL: SC4210E-245-EB
FCC SUBPART B AND C; AND RSS-GEN – 4 dBi ANTENNAS – CONDUCTED EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

APPENDIX E

DATA SHEETS

RADIATED EMISSIONS

DATA SHEETS

FCC 15.247 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/28/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - X-Axis
2430 MHz Fundamental
10 MHz BW – 2.15 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4860	41.83	V	73.97	-32.14	Peak	57.00	111.20	
4860	30.89	V	53.97	-23.08	Avg	57.00	111.20	
7290	50.15	V	73.97	-23.82	Peak	62.25	127.20	
7290	39.53	V	53.97	-14.44	Avg	62.25	127.20	
9720								**Done Via Conducted**
9720								**Not in Restricted Band**
12150								**No Emissions**
12150								**Detected**
14580								**No Emissions**
14580								**Detected**
17010								**No Emissions**
17010								**Detected**
19440								**No Emissions**
19440								**Detected**
21870								**No Emissions**
21870								**Detected**
24300								**No Emissions**
24300								**Detected**

FCC 15.247 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/28/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Y-Axis
2430 MHz Fundamental
10 MHz BW – 2.15 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4860	41.23	V	73.97	-32.74	Peak	53.75	249.91	
4860	30.16	V	53.97	-23.81	Avg	53.75	249.91	
7290	49.74	V	73.97	-24.23	Peak	63.50	127.20	
7290	39.57	V	53.97	-14.40	Avg	63.50	127.20	
9720								**Done Via Conducted**
9720								**Not in Restricted Band**
12150								**No Emissions**
12150								**Detected**
14580								**No Emissions**
14580								**Detected**
17010								**No Emissions**
17010								**Detected**
19440								**No Emissions**
19440								**Detected**
21870								**No Emissions**
21870								**Detected**
24300								**No Emissions**
24300								**Detected**

FCC 15.247 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/28/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Z-Axis
2430 MHz Fundamental
10 MHz BW – 2.15 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4860	40.47	V	73.97	-33.50	Peak	144.00	249.91	
4860	29.97	V	53.97	-24.00	Avg	144.00	249.91	
7290	49.56	V	73.97	-24.41	Peak	59.00	127.14	
7290	39.01	V	53.97	-14.96	Avg	59.00	127.14	
9720								**Done Via Conducted**
9720								**Not in Restricted Band**
12150								**No Emissions**
12150								**Detected**
14580								**No Emissions**
14580								**Detected**
17010								**No Emissions**
17010								**Detected**
19440								**No Emissions**
19440								**Detected**
21870								**No Emissions**
21870								**Detected**
24300								**No Emissions**
24300								**Detected**

FCC 15.247 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/28/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - X-Axis
2430 MHz Fundamental
10 MHz BW - 2.15 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4860	41.18	H	73.97	-32.79	Peak	38.00	175.68	
4860	30.31	H	53.97	-23.66	Avg	38.00	175.68	
7290	44.98	H	73.97	-28.99	Peak	229.50	222.91	
7290	34.64	H	53.97	-19.33	Avg	229.50	222.91	
9720								**Done Via Conducted**
9720								**Not in Restricted Band**
12150								**No Emissions**
12150								**Detected**
14580								**No Emissions**
14580								**Detected**
17010								**No Emissions**
17010								**Detected**
19440								**No Emissions**
19440								**Detected**
21870								**No Emissions**
21870								**Detected**
24300								**No Emissions**
24300								**Detected**

FCC 15.247 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/28/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Y-Axis
2430 MHz Fundamental
10 MHz BW – 2.15 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4860	40.54	H	73.97	-33.43	Peak	359.50	127.68	
4860	30.23	H	53.97	-23.74	Avg	359.50	127.68	
7290	45.38	H	73.97	-28.59	Peak	94.25	158.85	
7290	34.90	H	53.97	-19.07	Avg	94.25	158.85	
9720								**Done Via Conducted**
9720								**Not in Restricted Band**
12150								**No Emissions**
12150								**Detected**
14580								**No Emissions**
14580								**Detected**
17010								**No Emissions**
17010								**Detected**
19440								**No Emissions**
19440								**Detected**
21870								**No Emissions**
21870								**Detected**
24300								**No Emissions**
24300								**Detected**

FCC 15.247 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/28/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Z-Axis
2430 MHz Fundamental
10 MHz BW – 2.15 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4860	43.99	H	73.97	-29.98	Peak	345.25	120.25	
4860	33.21	H	53.97	-23.74	Avg	345.25	120.25	
7290	46.38	H	73.97	-27.59	Peak	100.25	160.25	
7290	35.29	H	53.97	-18.68	Avg	100.25	160.25	
9720								**Done Via Conducted**
9720								**Not in Restricted Band**
12150								**No Emissions**
12150								**Detected**
14580								**No Emissions**
14580								**Detected**
17010								**No Emissions**
17010								**Detected**
19440								**No Emissions**
19440								**Detected**
21870								**No Emissions**
21870								**Detected**
24300								**No Emissions**
24300								**Detected**

FCC 15.247 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/28/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - X-Axis
2440 MHz Fundamental
10 MHz BW – 2.15 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	41.59	V	73.97	-32.38	Peak	60.00	159.14	
4880	31.16	V	53.97	-22.81	Avg	60.00	159.14	
7320	49.69	V	73.97	-24.28	Peak	61.25	143.38	
7320	38.90	V	53.97	-15.07	Avg	61.25	143.38	
9760								**Done Via Conducted**
9760								**Not in Restricted Band**
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 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/28/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Y-Axis
2440 MHz Fundamental
10 MHz BW – 2.15 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	41.51	V	73.97	-32.46	Peak	247.75	143.08	
4880	30.88	V	53.97	-23.09	Avg	247.75	143.08	
7320	50.00	V	73.97	-23.97	Peak	60.25	127.32	
7320	39.04	V	53.97	-14.93	Avg	60.25	127.32	
9760								**Done Via Conducted**
9760								**Not in Restricted Band**
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 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/28/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Z-Axis
2440 MHz Fundamental
10 MHz BW – 2.15 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	42.38	V	73.97	-31.59	Peak	177.00	190.01	
4880	31.08	V	53.97	-22.89	Avg	177.00	190.01	
7320	49.83	V	73.97	-24.14	Peak	59.75	127.08	
7320	38.83	V	53.97	-15.14	Avg	59.75	127.08	
9760								**Done Via Conducted**
9760								**Not in Restricted Band**
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 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/28/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - X-Axis
2440 MHz Fundamental
10 MHz BW – 2.15 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	41.44	H	73.97	-32.53	Peak	339.75	190.97	
4880	30.50	H	53.97	-23.47	Avg	339.75	190.97	
7320	46.03	H	73.97	-27.94	Peak	97.00	190.79	
7320	35.08	H	53.97	-18.89	Avg	97.00	190.79	
9760								**Done Via Conducted**
9760								**Not in Restricted Band**
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 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/28/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Y-Axis
2440 MHz Fundamental
10 MHz BW – 2.15 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	41.56	H	73.97	-32.41	Peak	256.25	207.20	
4880	30.50	H	53.97	-23.47	Avg	256.25	207.20	
7320	46.00	H	73.97	-27.97	Peak	245.75	175.20	
7320	35.43	H	53.97	-18.54	Avg	245.75	175.20	
9760								**Done Via Conducted**
9760								**Not in Restricted Band**
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 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/28/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Z-Axis
2440 MHz Fundamental
10 MHz BW – 2.15 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	43.59	H	73.97	-30.38	Peak	255.25	209.20	
4880	32.52	H	53.97	-21.45	Avg	255.25	209.20	
7320	48.32	H	73.97	-25.65	Peak	247.52	176.20	
7320	37.53	H	53.97	-16.44	Avg	247.52	176.20	
9760								**Done Via Conducted**
9760								**Not in Restricted Band**
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 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/28/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - X-Axis
2440 MHz Fundamental
20 MHz BW – 2.15 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	41.78	V	73.97	-32.19	Peak	108.00	249.91	
4880	30.71	V	53.97	-23.26	Avg	108.00	249.91	
7320	50.13	V	73.97	-23.84	Peak	59.25	127.38	
7320	39.21	V	53.97	-14.76	Avg	59.25	127.38	
9760								**Done Via Conducted**
9760								**Not in Restricted Band**
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 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/28/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Y-Axis
2440 MHz Fundamental
20 MHz BW – 2.15 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	41.22	V	73.97	-32.75	Peak	291.25	111.44	
4880	30.85	V	53.97	-23.12	Avg	291.25	111.44	
7320	50.93	V	73.97	-23.04	Peak	60.25	127.32	
7320	39.29	V	53.97	-14.68	Avg	60.25	127.32	
9760								Done Via Conducted
9760								Not in Restricted Band
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 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/28/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Z-Axis
2440 MHz Fundamental
20 MHz BW – 2.15 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	41.31	V	73.97	-32.66	Peak	241.75	111.56	
4880	30.60	V	53.97	-23.37	Avg	241.75	111.56	
7320	49.84	V	73.97	-24.13	Peak	63.00	127.32	
7320	39.63	V	53.97	-14.34	Avg	63.00	127.32	
9760								**Done Via Conducted**
9760								**Not in Restricted Band**
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 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/28/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - X-Axis
2440 MHz Fundamental
20 MHz BW – 2.15 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	41.53	H	73.97	-32.44	Peak	306.50	223.02	
4880	30.66	H	53.97	-23.31	Avg	306.50	223.02	
7320	45.53	H	73.97	-28.44	Peak	5.25	238.85	
7320	34.82	H	53.97	-19.15	Avg	5.25	238.85	
9760								**Done Via Conducted**
9760								**Not in Restricted Band**
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 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/28/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Y-Axis
2440 MHz Fundamental
20 MHz BW – 2.15 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	41.20	H	73.97	-32.77	Peak	228.50	159.14	
4880	30.69	H	53.97	-23.28	Avg	228.50	159.14	
7320	45.42	H	73.97	-28.55	Peak	181.50	111.38	
7320	34.70	H	53.97	-19.27	Avg	181.50	111.38	
9760								**Done Via Conducted**
9760								**Not in Restricted Band**
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 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/28/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Z-Axis
2440 MHz Fundamental
20 MHz BW – 2.15 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	43.25	H	73.97	-30.72	Peak	249.50	160.15	
4880	32.68	H	53.97	-21.29	Avg	249.50	160.15	
7320	47.39	H	73.97	-26.58	Peak	183.50	125.32	
7320	36.83	H	53.97	-17.14	Avg	183.50	125.32	
9760								**Done Via Conducted**
9760								**Not in Restricted Band**
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 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/28/2019
Lab: D
Tested By: Kyle Fujimoto

2.15 dBi Antennas
Non Harmonic Emissions from the Tx and Digital Portion - 9 kHz to 30 MHz
Non Harmonic Emissions from the Tx and Digital Portion - 1 GHz to 25 GHz

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
								No Emissions Found for the
								Digital Portion
								from 9 kHz to 30 MHz
								for both Vertical and Horizontal
								Polarizations
								No Non Harmonic Emissions Found
								for the Tx Mode
								from 9 kHz to 30 MHz
								for both Vertical and Horizontal
								Polarizations
								No Emissions Found for the
								Digital Portion
								from 1 GHz to 25 GHz
								for both Vertical and Horizontal
								Polarizations
								No Non Harmonic Emissions Found
								for the Tx Mode
								from 1 GHz to 25 GHz
								for both Vertical and Horizontal
								Polarizations
								Investigated in the X-Axis,
								Y-Axis, and Z-Axis
								Investigated at
								2430 MHz & 2440 MHz - 10 MHz BW
								and 2440 MHz - 20 MHz BW

FCC 15.247 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/25/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - X-Axis
2430 MHz Fundamental
10 MHz BW - 4 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4860	44.89	V	73.97	-29.08	Peak	183.25	111.26	
4860	34.33	V	53.97	-19.64	Avg	183.25	111.26	
7290	50.51	V	73.97	-23.46	Peak	65.50	127.14	
7290	39.64	V	53.97	-14.33	Avg	65.50	127.14	
9720								**Done Via Conducted**
9720								**Not in Restricted Band**
12150								**No Emissions**
12150								**Detected**
14580								**No Emissions**
14580								**Detected**
17010								**No Emissions**
17010								**Detected**
19440								**No Emissions**
19440								**Detected**
21870								**No Emissions**
21870								**Detected**
24300								**No Emissions**
24300								**Detected**

FCC 15.247 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/25/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Y-Axis
2430 MHz Fundamental
10 MHz BW - 4 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4860	45.36	V	73.97	-28.61	Peak	148.50	127.38	
4860	34.15	V	53.97	-19.82	Avg	148.50	127.38	
7290	50.35	V	73.97	-23.62	Peak	67.50	111.26	
7290	39.84	V	53.97	-14.13	Avg	67.50	111.26	
9720								**Done Via Conducted**
9720								**Not in Restricted Band**
12150								**No Emissions**
12150								**Detected**
14580								**No Emissions**
14580								**Detected**
17010								**No Emissions**
17010								**Detected**
19440								**No Emissions**
19440								**Detected**
21870								**No Emissions**
21870								**Detected**
24300								**No Emissions**
24300								**Detected**

FCC 15.247 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/25/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Z-Axis
2430 MHz Fundamental
10 MHz BW - 4 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4860	45.62	V	73.97	-28.35	Peak	124.00	159.14	
4860	34.65	V	53.97	-19.32	Avg	124.00	159.14	
7290	45.38	V	73.97	-28.59	Peak	67.00	239.02	
7290	34.79	V	53.97	-19.18	Avg	67.00	239.02	
9720								**Done Via Conducted**
9720								**Not in Restricted Band**
12150								**No Emissions**
12150								**Detected**
14580								**No Emissions**
14580								**Detected**
17010								**No Emissions**
17010								**Detected**
19440								**No Emissions**
19440								**Detected**
21870								**No Emissions**
21870								**Detected**
24300								**No Emissions**
24300								**Detected**

FCC 15.247 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/25/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - X-Axis
2430 MHz Fundamental
10 MHz BW - 4 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4860	41.69	H	73.97	-32.28	Peak	128.75	191.02	
4860	30.48	H	53.97	-23.49	Avg	128.75	191.02	
7290	46.45	H	73.97	-27.52	Peak	302.75	238.91	
7290	34.85	H	53.97	-19.12	Avg	302.75	238.91	
9720								Done Via Conducted
9720								Not in Restricted Band
12150								No Emissions
12150								Detected
14580								No Emissions
14580								Detected
17010								No Emissions
17010								Detected
19440								No Emissions
19440								Detected
21870								No Emissions
21870								Detected
24300								No Emissions
24300								Detected

FCC 15.247 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/25/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Y-Axis
2430 MHz Fundamental
10 MHz BW - 4 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4860	42.17	H	73.97	-31.80	Peak	288.75	111.50	
4860	31.17	H	53.97	-22.80	Avg	288.75	111.50	
7290	45.38	H	73.97	-28.59	Peak	134.25	239.08	
7290	34.57	H	53.97	-19.40	Avg	134.25	239.08	
9720								**Done Via Conducted**
9720								**Not in Restricted Band**
12150								**No Emissions**
12150								**Detected**
14580								**No Emissions**
14580								**Detected**
17010								**No Emissions**
17010								**Detected**
19440								**No Emissions**
19440								**Detected**
21870								**No Emissions**
21870								**Detected**
24300								**No Emissions**
24300								**Detected**

FCC 15.247 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 09/24/2018
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Z-Axis
2430 MHz Fundamental
10 MHz BW - 4 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4860	44.69	H	73.97	-29.28	Peak	302.75	125.50	
4860	33.58	H	53.97	-20.39	Avg	302.75	125.50	
7290	48.02	H	73.97	-25.95	Peak	144.25	245.09	
7290	38.21	H	53.97	-15.76	Avg	144.25	245.09	
9720								**Done Via Conducted**
9720								**Not in Restricted Band**
12150								**No Emissions**
12150								**Detected**
14580								**No Emissions**
14580								**Detected**
17010								**No Emissions**
17010								**Detected**
19440								**No Emissions**
19440								**Detected**
21870								**No Emissions**
21870								**Detected**
24300								**No Emissions**
24300								**Detected**

FCC 15.247
Silvus Technologies, Inc.
StreamCaster 4200 Tatical MIMO Radio
Model: SC4210E-245-EB

Date: 03/25/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - X-Axis
2440 MHz Fundamental
10 MHz BW - 4 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	45.02	V	73.97	-28.95	Peak	180.25	102.24	
4880	35.21	V	53.97	-18.76	Avg	180.25	102.24	
7320	51.02	V	73.97	-22.95	Peak	185.25	103.25	
7320	40.21	V	53.97	-13.76	Avg	185.25	103.25	
9760								**Done Via Conducted**
9760								**Not in Restricted Band**
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 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/25/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Y-Axis
2440 MHz Fundamental
10 MHz BW - 4 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	45.49	V	73.97	-28.48	Peak	150.25	124.25	
4880	34.29	V	53.97	-19.68	Avg	150.25	124.25	
7320	50.46	V	73.97	-23.51	Peak	65.25	112.25	
7320	39.97	V	53.97	-14.00	Avg	65.25	112.25	
9760								**Done Via Conducted**
9760								**Not in Restricted Band**
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 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/25/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Z-Axis
2440 MHz Fundamental
10 MHz BW - 4 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	45.85	V	73.97	-28.12	Peak	121.00	160.25	
4880	34.89	V	53.97	-19.08	Avg	121.00	160.25	
7320	45.48	V	73.97	-28.49	Peak	68.50	240.01	
7320	34.89	V	53.97	-19.08	Avg	68.50	240.01	
9760								**Done Via Conducted**
9760								**Not in Restricted Band**
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 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/25/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - X-Axis
2440 MHz Fundamental
10 MHz BW - 4 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	42.06	H	73.97	-32.28	Peak	130.25	193.05	
4880	34.89	H	53.97	-23.49	Avg	130.25	193.05	
7320	46.99	H	73.97	-27.52	Peak	303.25	29.95	
7320	35.87	H	53.97	-19.12	Avg	303.25	239.95	
9760								**Done Via Conducted**
9760								**Not in Restricted Band**
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 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/25/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Y-Axis
2440 MHz Fundamental
10 MHz BW - 4 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	43.58	H	73.97	-31.80	Peak	290.50	125.50	
4880	33.24	H	53.97	-22.80	Avg	290.50	125.50	
7320	46.25	H	73.97	-28.59	Peak	136.00	240.25	
7320	35.02	H	53.97	-19.40	Avg	136.00	240.25	
9760								**Done Via Conducted**
9760								**Not in Restricted Band**
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 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/25/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Z-Axis
2440 MHz Fundamental
10 MHz BW - 4 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	42.69	H	73.97	-31.28	Peak	303.25	111.24	
4880	31.29	H	53.97	-22.68	Avg	303.25	111.24	
7320	45.43	H	73.97	-28.54	Peak	124.25	237.15	
7320	34.69	H	53.97	-19.28	Avg	124.25	237.15	
9760								**Done Via Conducted**
9760								**Not in Restricted Band**
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 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/27/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - X-Axis
2440 MHz Fundamental
20 MHz BW - 4 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	40.95	V	73.97	-33.02	Peak	0.00	190.97	
4880	30.57	V	53.97	-23.40	Avg	0.00	190.97	
7320	45.37	V	73.97	-28.60	Peak	10.00	175.14	
7320	34.66	V	53.97	-19.31	Avg	10.00	175.14	
9760								**Done Via Conducted**
9760								**Not in Restricted Band**
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 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/27/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Y-Axis
2440 MHz Fundamental
20 MHz BW - 4 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	41.43	V	73.97	-32.54	Peak	176.50	175.02	
4880	30.46	V	53.97	-23.51	Avg	176.50	175.02	
7320	45.32	V	73.97	-28.65	Peak	275.75	127.26	
7320	34.89	V	53.97	-19.08	Avg	275.75	127.26	
9760								**Done Via Conducted**
9760								**Not in Restricted Band**
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 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/27/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Z-Axis
2440 MHz Fundamental
20 MHz BW - 4 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	42.59	V	73.97	-31.38	Peak	178.50	178.32	
4880	32.59	V	53.97	-21.38	Avg	178.50	178.32	
7320	46.58	V	73.97	-27.39	Peak	280.25	134.52	
7320	36.29	V	53.97	-17.68	Avg	280.25	134.52	
9760								**Done Via Conducted**
9760								**Not in Restricted Band**
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 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/27/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - X-Axis
2440 MHz Fundamental
20 MHz BW - 4 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	41.82	H	73.97	-32.15	Peak	103.25	222.97	
4880	30.47	H	53.97	-23.50	Avg	103.25	222.97	
7320	45.42	H	73.97	-28.55	Peak	123.75	223.08	
7320	34.67	H	53.97	-19.30	Avg	123.75	223.08	
9760								**Done Via Conducted**
9760								**Not in Restricted Band**
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 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/27/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Y-Axis
2440 MHz Fundamental
20 MHz BW - 4 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	41.52	H	73.97	-32.45	Peak	301.75	207.02	
4880	30.47	H	53.97	-23.50	Avg	301.75	207.02	
7320	45.13	H	73.97	-28.84	Peak	200.00	175.02	
7320	34.67	H	53.97	-19.30	Avg	200.00	175.02	
9760								**Done Via Conducted**
9760								**Not in Restricted Band**
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**

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FCC 15.247 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/27/2019
Lab: D
Tested By: Kyle Fujimoto

Harmonics - Z-Axis
2440 MHz Fundamental
20 MHz BW - 4 dBi Antennas

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	41.11	H	73.97	-32.86	Peak	0.25	143.32	
4880	30.39	H	53.97	-23.58	Avg	0.25	143.32	
7320	45.09	H	73.97	-28.88	Peak	94.00	238.97	
7320	34.79	H	53.97	-19.18	Avg	94.00	238.97	
9760								**Done Via Conducted**
9760								**Not in Restricted Band**
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 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

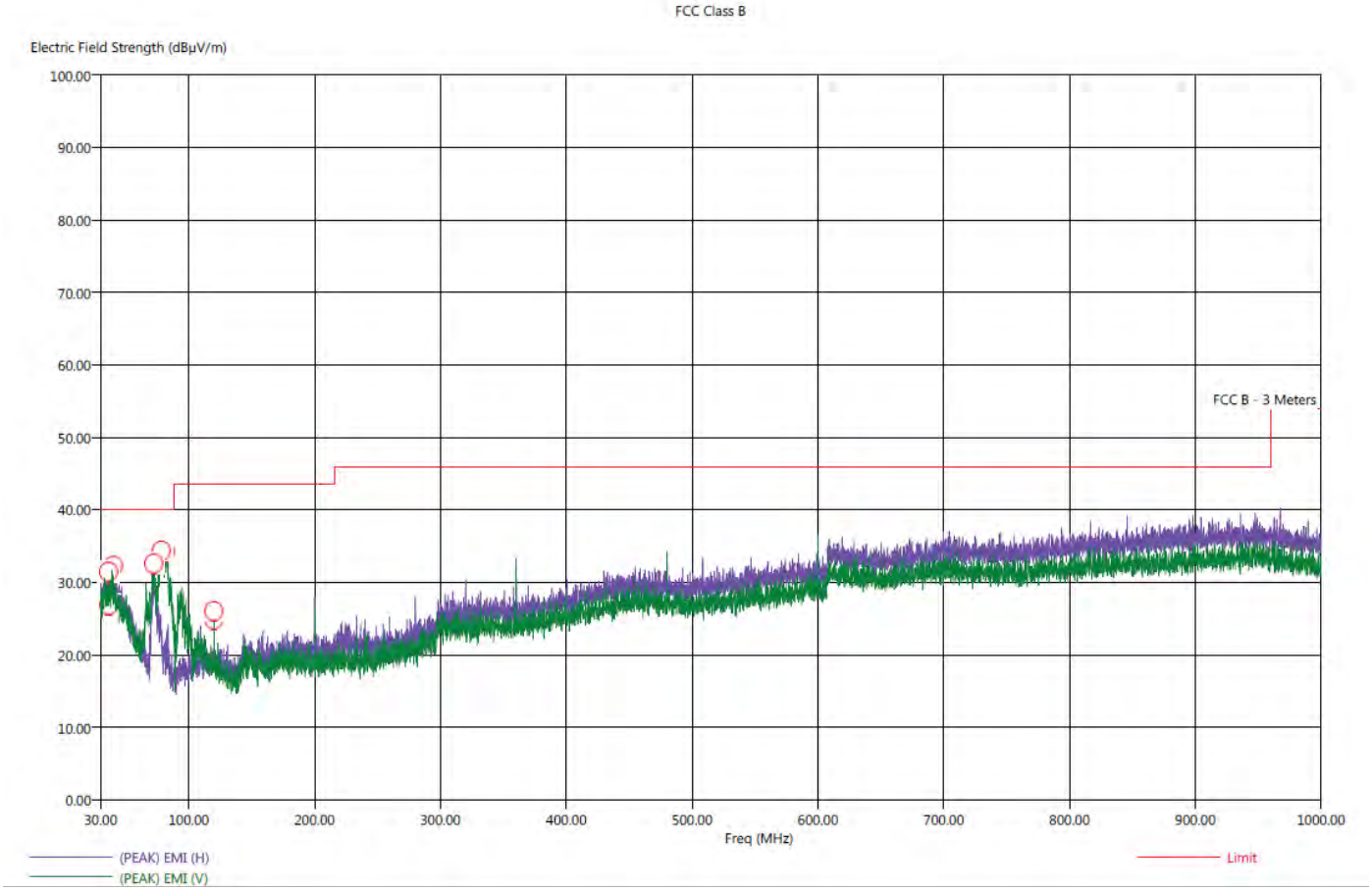
Date: 03/28/2019
Lab: D
Tested By: Kyle Fujimoto

4 dBi Antennas
Non Harmonic Emissions from the Tx and Digital Portion - 9 kHz to 30 MHz
Non Harmonic Emissions from the Tx and Digital Portion - 1 GHz to 25 GHz

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
								No Emissions Found for the
								Digital Portion
								from 9 kHz to 30 MHz
								for both Vertical and Horizontal
								Polarizations
								No Non Harmonic Emissions Found
								for the Tx Mode
								from 9 kHz to 30 MHz
								for both Vertical and Horizontal
								Polarizations
								No Emissions Found for the
								Digital Portion
								from 1 GHz to 25 GHz
								for both Vertical and Horizontal
								Polarizations
								No Non Harmonic Emissions Found
								for the Tx Mode
								from 1 GHz to 25 GHz
								for both Vertical and Horizontal
								Polarizations
								Investigated in the X-Axis,
								Y-Axis, and Z-Axis
								Investigated at
								2430 MHz & 2440 MHz - 10 MHz BW
								and 2440 MHz - 20 MHz BW

Title: Radiated Emissions - FCC Class B
File: 4 - Pre-Scan - 2.15 dBi Antennas. set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is transmitting at 2430 MHz at 10 MHz Bandwidth
Company: Silvus Technologies, Inc.
Model: SC4210E-245-EB
S/N: N/A
Y-Axis - Worst Case
2.15 dBi Antennas

3/25/2019 4:16:48 PM
Sequence: Preliminary Scan



Title: Radiated Emissions - FCC Class B
File: 4 - Final Scan - 2.15 dBi Antennas. set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is transmitting at 2430 MHz at 10 MHz Bandwidth
Company: Silvus Technologies, Inc.
M/N: SC4210E-245-EB
S/N: N/A
Y-Axis - Worst Case
2.15 dBi Antennas

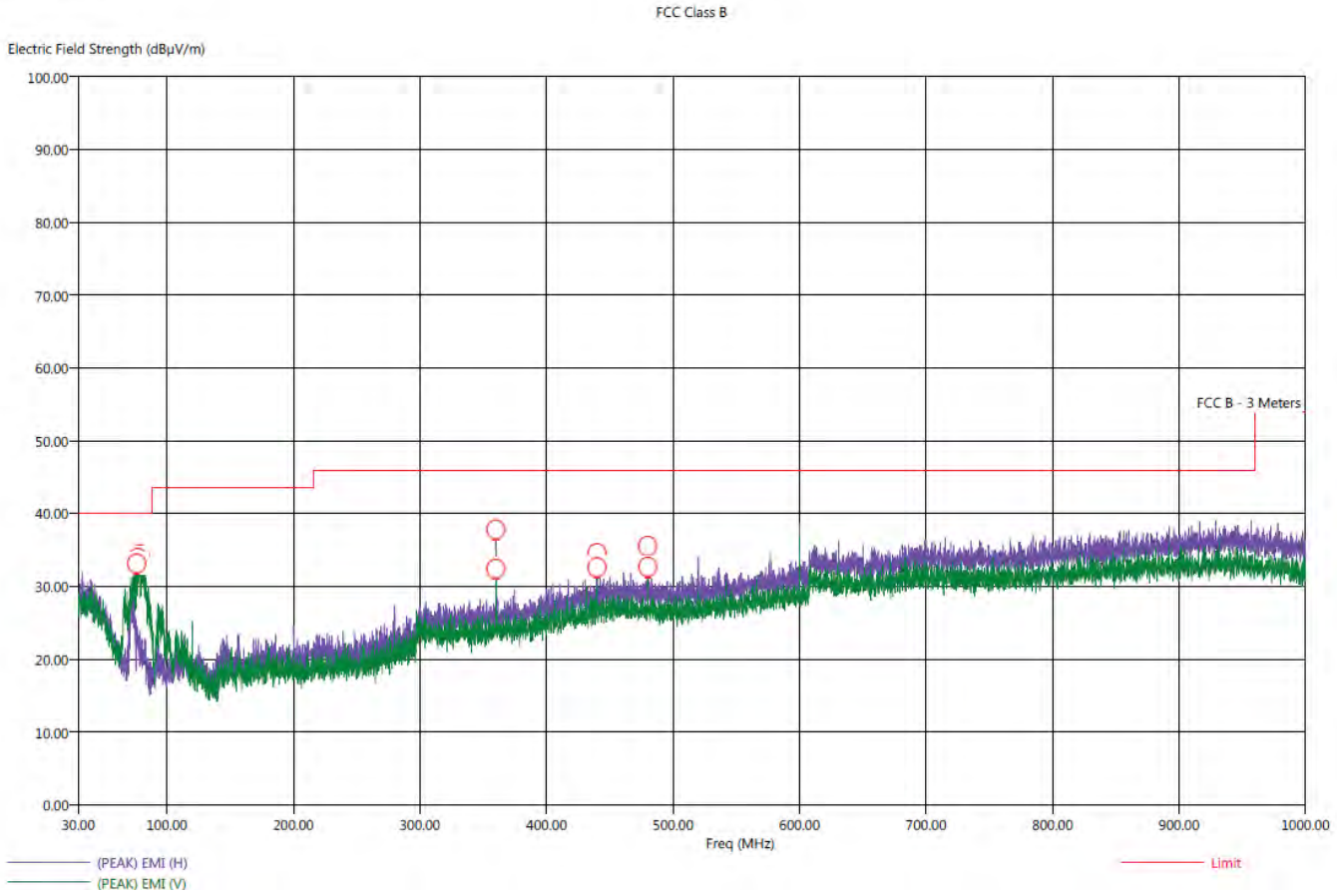
3/25/2019 4:25:21 PM
Sequence: Final Measurements

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 (deg)	Twr Ht (cm)
36.30	H	32.49	26.89	-7.51	-13.11	40.00	24.16	0.86	194.50	318.31
36.40	H	31.87	26.88	-8.13	-13.12	40.00	24.18	0.87	138.50	206.91
40.10	H	32.45	27.25	-7.55	-12.75	40.00	24.58	0.90	116.25	366.25
72.20	V	33.48	29.95	-6.52	-10.05	40.00	12.33	1.02	7.50	175.08
72.30	H	34.20	30.04	-5.80	-9.96	40.00	12.37	1.02	342.50	399.92
78.30	V	37.43	34.09	-2.57	-5.91	40.00	11.41	1.09	355.75	111.44
81.30	V	37.36	33.98	-2.64	-6.02	40.00	11.44	1.10	28.00	143.14
120.00	H	27.93	24.26	-15.57	-19.24	43.50	15.30	1.18	186.25	270.49
120.00	V	29.67	24.66	-13.83	-18.84	43.50	15.30	1.18	247.25	111.26

Title: Radiated Emissions - FCC Class B
File: 5 - Pre-Scan - 2 .15 dB Antenna.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is transmitting at 2440 MHz at 10 MHz Bandwidth
Company: Silvus Technologies, Inc.
Model: SC4210E-245-EB
S/N: N/A
Y-Axis - Worst Case
2.15 dBi Antennas

3/26/2019 8:11:47 AM
Sequence: Preliminary Scan



Title: Radiated Emissions - FCC Class B
File: 5 - Final Scan - 2.15 dBi Antenna.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is transmitting at 2440 MHz at 10 MHz Bandwidth
Company: Silvus Technologies, Inc.
M/N: SC4210E-245-EB
S/N: N/A
Y-Axis - Worst Case
2.15 dBi Antennas

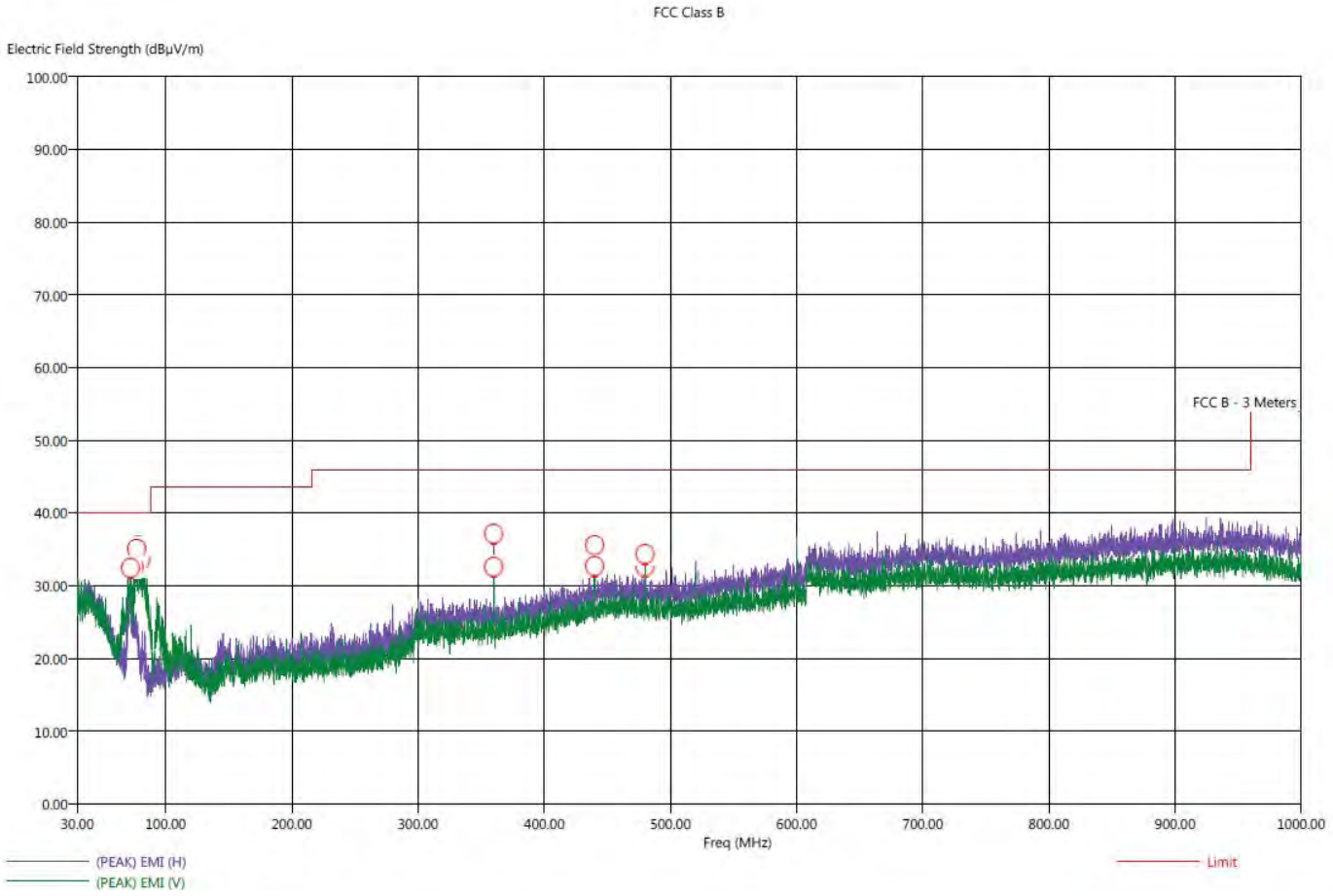
3/26/2019 8:20:56 AM
Sequence: Final Measurements

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 Agl (deg)	Twr Ht (cm)
76.10	V	35.84	31.67	-4.16	-8.33	40.00	11.76	1.06	328.50	127.14
77.10	V	35.47	31.92	-4.53	-8.08	40.00	11.59	1.07	0.50	206.85
78.60	V	37.11	33.40	-2.89	-6.60	40.00	11.43	1.08	320.25	143.32
79.30	V	37.34	32.98	-2.66	-7.02	40.00	11.29	1.09	310.50	190.97
80.70	V	36.91	32.58	-3.09	-7.42	40.00	11.37	1.10	310.25	127.14
360.00	H	38.43	36.69	-7.57	-9.31	46.00	17.97	1.94	283.25	110.49
360.00	V	36.82	31.38	-9.18	-14.62	46.00	17.98	1.94	70.00	127.26
440.00	H	37.45	34.95	-8.55	-11.05	46.00	20.86	2.18	194.50	127.08
440.00	V	38.80	36.60	-7.20	-9.40	46.00	20.86	2.18	64.25	111.38
479.90	H	38.02	32.42	-7.98	-13.58	46.00	21.12	2.20	1.75	127.20
480.10	V	38.28	34.59	-7.72	-11.41	46.00	21.12	2.20	360.00	111.44

Title: Radiated Emissions - FCC Class B
File: 6 - Pre-Scan - 2.15 dBi Antenna .set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is transmitting at 2440 MHz at 20 MHz Bandwidth
Company: Silvus Technologies, Inc.
Model: SC4210E-245-EB
S/N: N/A
Y-Axis - Worst Case
2.15 dBi Antennas

3/26/2019 8:48:26 AM
Sequence: Preliminary Scan



Title: Radiated Emissions - FCC Class B
File: 6 - Final Scan - 2.15 dBi Antenna
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is transmitting at 2440 MHz at 20 MHz Bandwidth
Company: Silvus Technologies, Inc.
M/N: SC4210E-245-EB
S/N: N/A
Y-Axis - Worst Case
2.15 dBi Antennas

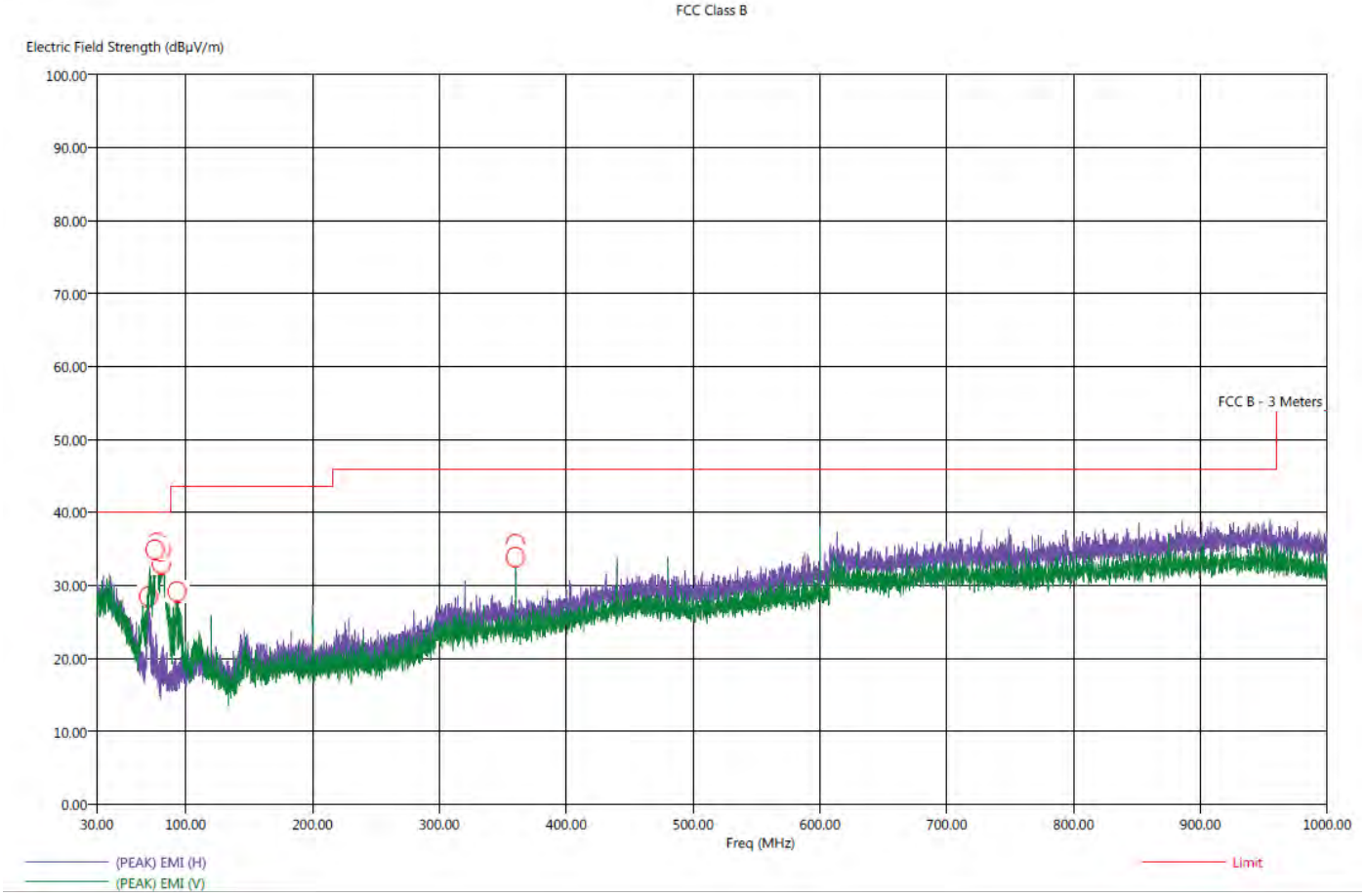
3/26/2019 8:57:37 AM
Sequence: Final Measurements

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 Agl (deg)	Twr Ht (cm)
72.20	V	34.07	30.33	-5.93	-9.67	40.00	12.32	1.03	14.00	127.02
75.00	V	34.36	30.77	-5.64	-9.23	40.00	11.90	1.05	354.25	159.14
77.10	V	37.04	33.55	-2.96	-6.45	40.00	11.59	1.07	14.75	111.38
78.00	V	37.02	33.61	-2.98	-6.39	40.00	11.51	1.08	325.00	175.14
80.50	V	34.82	31.03	-5.18	-8.97	40.00	11.32	1.10	0.25	206.91
360.00	H	36.60	29.48	-9.40	-16.52	46.00	17.97	1.94	306.25	270.49
360.00	V	37.08	34.55	-8.92	-11.45	46.00	17.97	1.94	67.25	127.14
440.00	H	38.30	36.26	-7.70	-9.74	46.00	20.86	2.18	198.00	111.44
440.00	V	38.08	35.35	-7.92	-10.65	46.00	20.86	2.18	58.00	111.44
480.00	H	37.00	32.99	-9.00	-13.01	46.00	21.12	2.20	208.50	111.32
480.00	V	38.84	35.50	-7.16	-10.50	46.00	21.12	2.20	359.75	111.26

Title: Radiated Emissions - FCC Class B
File: 1 - Pre-Scan - 4 dBi Antenna .set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is transmitting at 2440 MHz at 20 MHz Bandwidth
Company: Silvus Technologies, Inc.
Model: SC4210E-245-EB
S/N: N/A
Y-Axis - Worst Case
4 dBi Antennas

3/25/2019 2:34:03 PM
Sequence: Preliminary Scan



Title: Radiated Emissions - FCC Class B
File: 1 - Final Scan - 4 dBi Antenna.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is transmitting at 2440 MHz at 20 MHz Bandwidth
Company: Silvus Technologies, Inc.
M/N: SC4210E-245-EB
S/N: N/A
Y-Axis - Worst Case
4 dBi Antennas

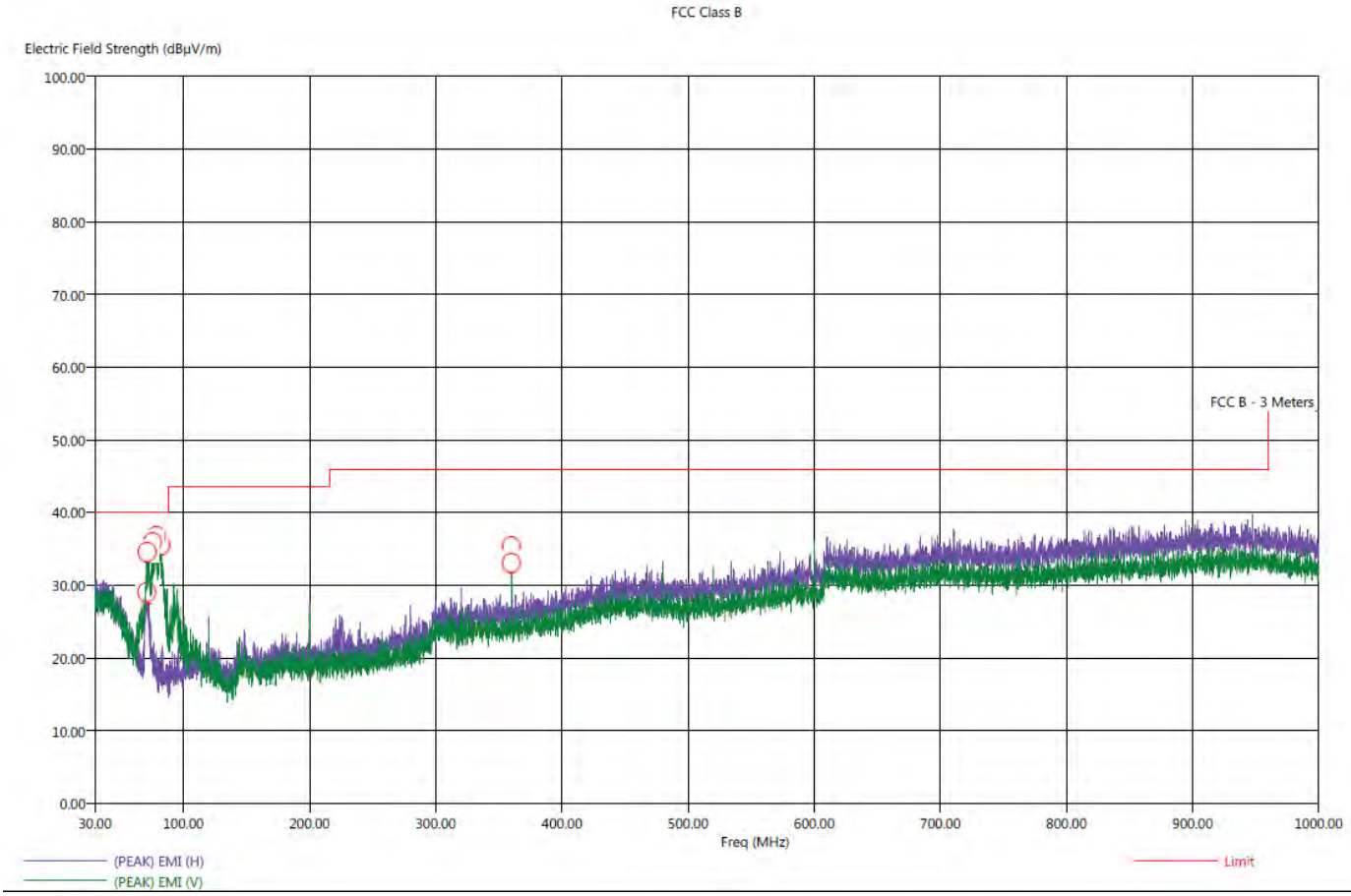
3/25/2019 2:45:21 PM
Sequence: Final Measurements

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 (deg)	Twr Ht (cm)
70.80	H	30.48	26.25	-9.52	-13.75	40.00	12.55	1.01	359.00	254.85
75.90	V	38.35	34.55	-1.65	-5.45	40.00	11.76	1.06	17.00	111.44
77.20	V	38.47	34.90	-1.53	-5.10	40.00	11.59	1.07	344.25	111.44
80.70	V	36.76	32.99	-3.24	-7.01	40.00	11.33	1.10	18.25	191.14
80.90	V	37.37	33.49	-2.63	-6.51	40.00	11.36	1.10	360.00	111.32
82.10	V	37.49	34.06	-2.51	-5.94	40.00	11.65	1.10	19.75	127.20
93.20	V	32.50	27.71	-11.00	-15.79	43.50	13.54	1.10	62.75	110.49
94.10	V	31.39	27.12	-12.11	-16.38	43.50	13.64	1.10	84.75	127.14
360.00	H	35.98	33.59	-10.02	-12.41	46.00	17.97	1.94	307.50	271.08
360.00	V	38.69	36.89	-7.31	-9.11	46.00	17.97	1.94	360.00	111.38

Title: Radiated Emissions - FCC Class B
File: 2 - Pre-Scan - 4 dBi Antenna.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is transmitting at 2440 MHz at 10 MHz Bandwidth
Company: Silvus Technologies, Inc.
Model: SC4210E-245-EB
S/N: N/A
Y-Axis - Worst Case
4 dBi Antennas

3/25/2019 3:11:40 PM
Sequence: Preliminary Scan



Title: Radiated Emissions - FCC Class B
File: 2 - Final Scan - 4 dBi Antenna.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is transmitting at 2440 MHz at 10 MHz Bandwidth
Company: Silvus Technologies, Inc.
M/N: SC4210E-245-EB
S/N: N/A
Y-Axis - Worst Case
4 dBi Antennas

3/25/2019 3:20:25 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 Agl (deg)	Twr Ht (cm)
71.00	H	30.98	25.69	-9.02	-14.31	40.00	12.50	1.01	2.00	366.19
71.40	V	36.68	32.62	-3.32	-7.38	40.00	12.41	1.02	0.00	143.26
72.00	H	29.50	25.36	-10.50	-14.64	40.00	12.41	1.02	342.00	286.67
75.50	V	38.03	34.54	-1.97	-5.46	40.00	11.80	1.06	355.25	111.38
78.40	V	38.40	35.23	-1.60	-4.77	40.00	11.45	1.08	20.50	111.32
82.20	V	37.84	34.65	-2.16	-5.35	40.00	11.60	1.10	357.00	159.08
360.00	H	34.54	32.12	-11.46	-13.88	46.00	17.97	1.94	304.75	207.32
360.00	V	38.68	37.60	-7.32	-8.40	46.00	17.97	1.94	18.75	111.26

Title: Radiated Emissions - FCC Class B
File: 3 - Pre-Scan - 4 dBi Antenna.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is transmitting at 2430 MHz at 10 MHz Bandwidth
Company: Silvus Technologies, Inc.
Model: SC4210E-245-EB
S/N: N/A
Y-Axis - Worst Case
4 dBi Antennas

3/25/2019 3:46:50 PM
Sequence: Preliminary Scan

Title: Radiated Emissions - FCC Class B
File: 3 - Final Scan - 4 dBi Antenna.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is transmitting at 2430 MHz at 10 MHz Bandwidth
Company: Silvus Technologies, Inc.
M/N: SC4210E-245-EB
S/N: N/A
Y-Axis - Worst Case
4 dBi Antennas

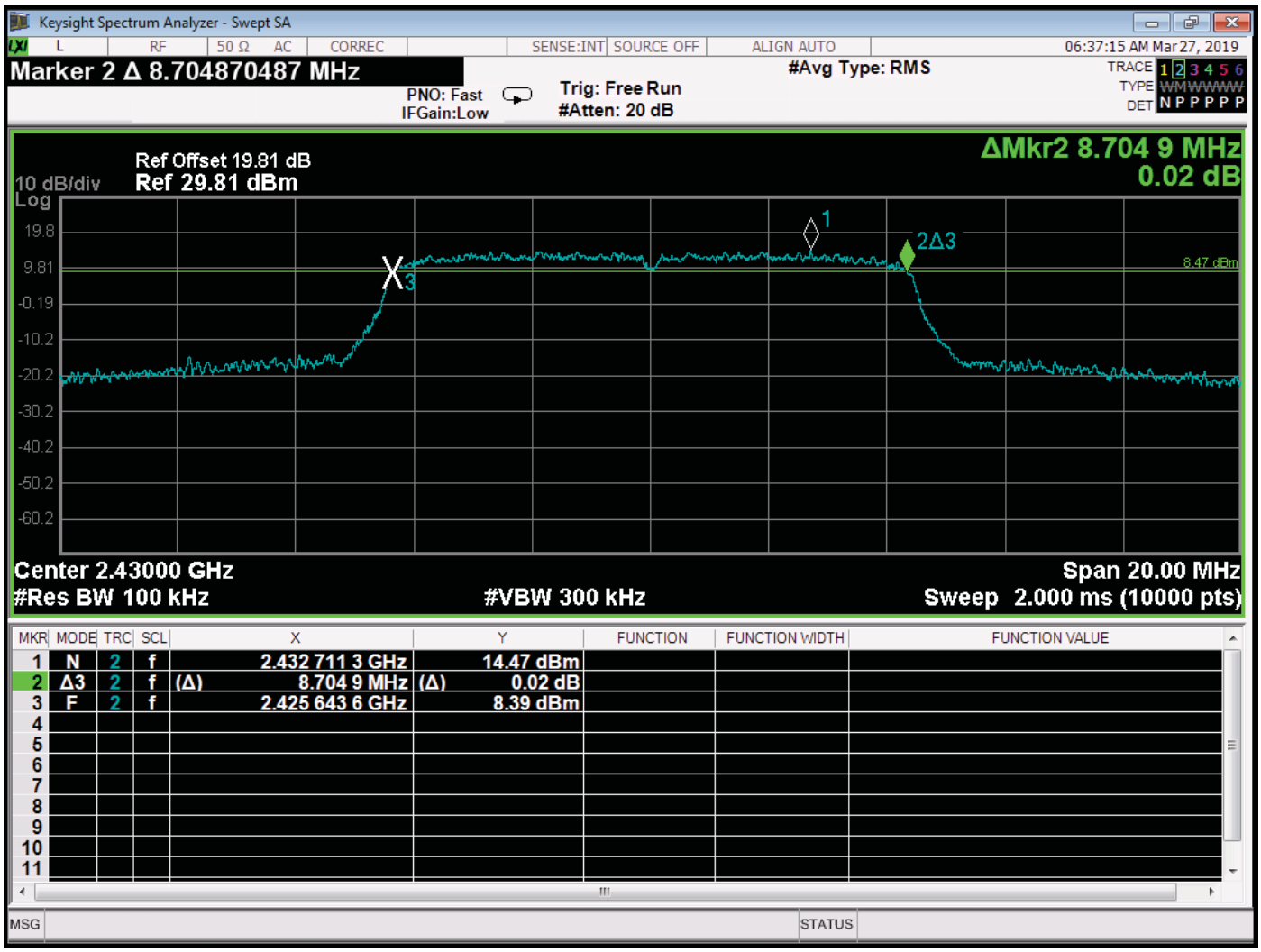
3/25/2019 3:55:22 PM
Sequence: Final Measurements

FCC Class B

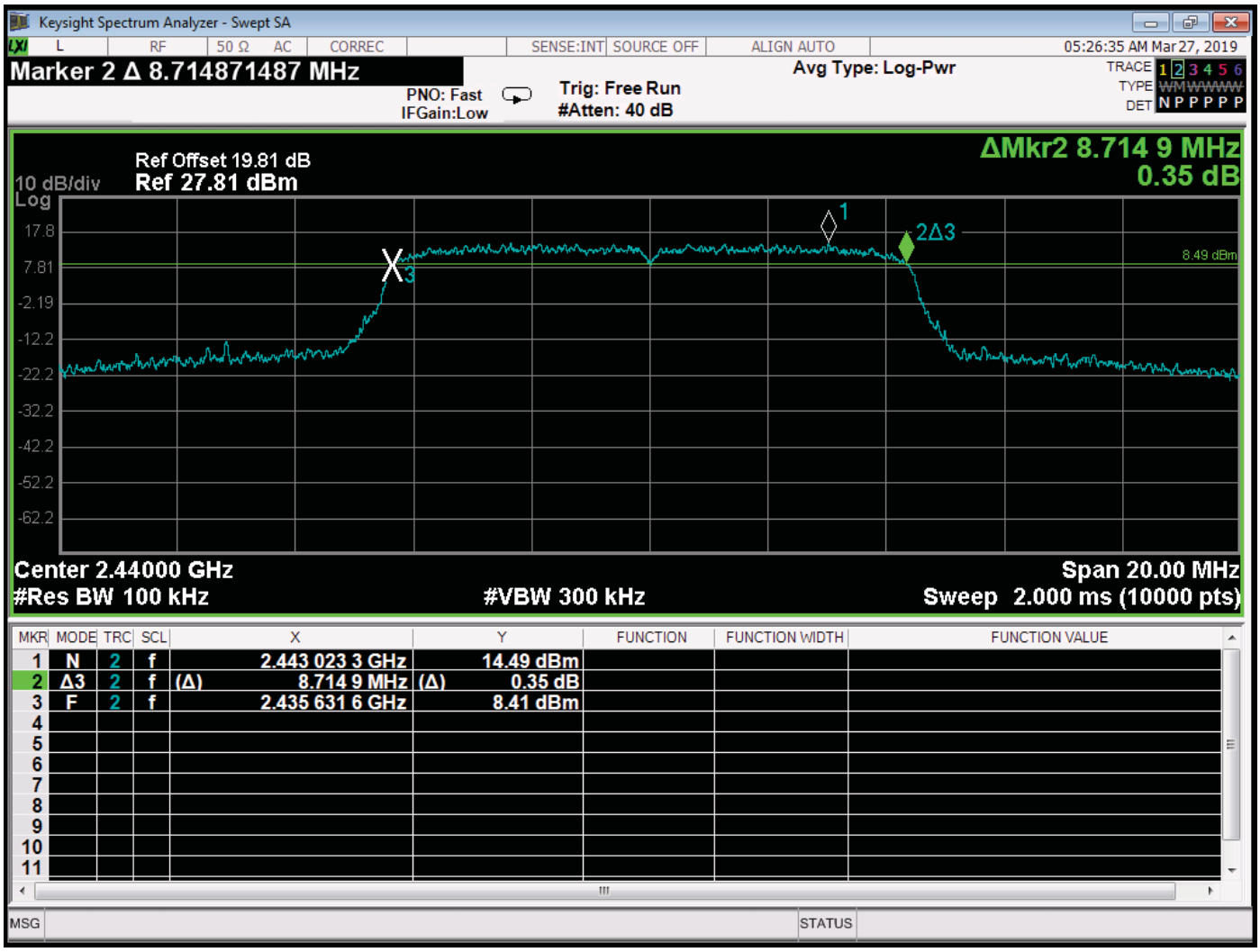
Freq (MHz)	Pol	(PEAK) EMI (dBµV/m)	(QP) EMI (dBµV/m)	(PEAK) Margin (dB)	(QP) Margin (dB)	Limit (dBµV/m)	Transducer (dB)	Cable (dB)	Ttbl Agl (deg)	Twr Ht (cm)
70.80	H	32.40	27.63	-7.60	-12.37	40.00	12.57	1.01	338.50	270.91
71.20	H	30.61	26.08	-9.39	-13.92	40.00	12.50	1.01	1.25	334.61
71.30	V	36.59	33.06	-3.41	-6.94	40.00	12.46	1.02	360.00	111.38
77.30	V	38.48	35.03	-1.52	-4.97	40.00	11.58	1.07	15.00	159.26
78.80	V	38.67	35.30	-1.33	-4.70	40.00	11.40	1.09	350.50	111.26
79.20	V	38.06	34.75	-1.94	-5.25	40.00	11.34	1.09	12.00	190.19
81.10	V	38.02	34.68	-1.98	-5.32	40.00	11.45	1.10	355.25	174.97
81.70	V	38.39	34.90	-1.61	-5.10	40.00	11.57	1.10	1.00	127.02

-6 dB BANDWIDTH

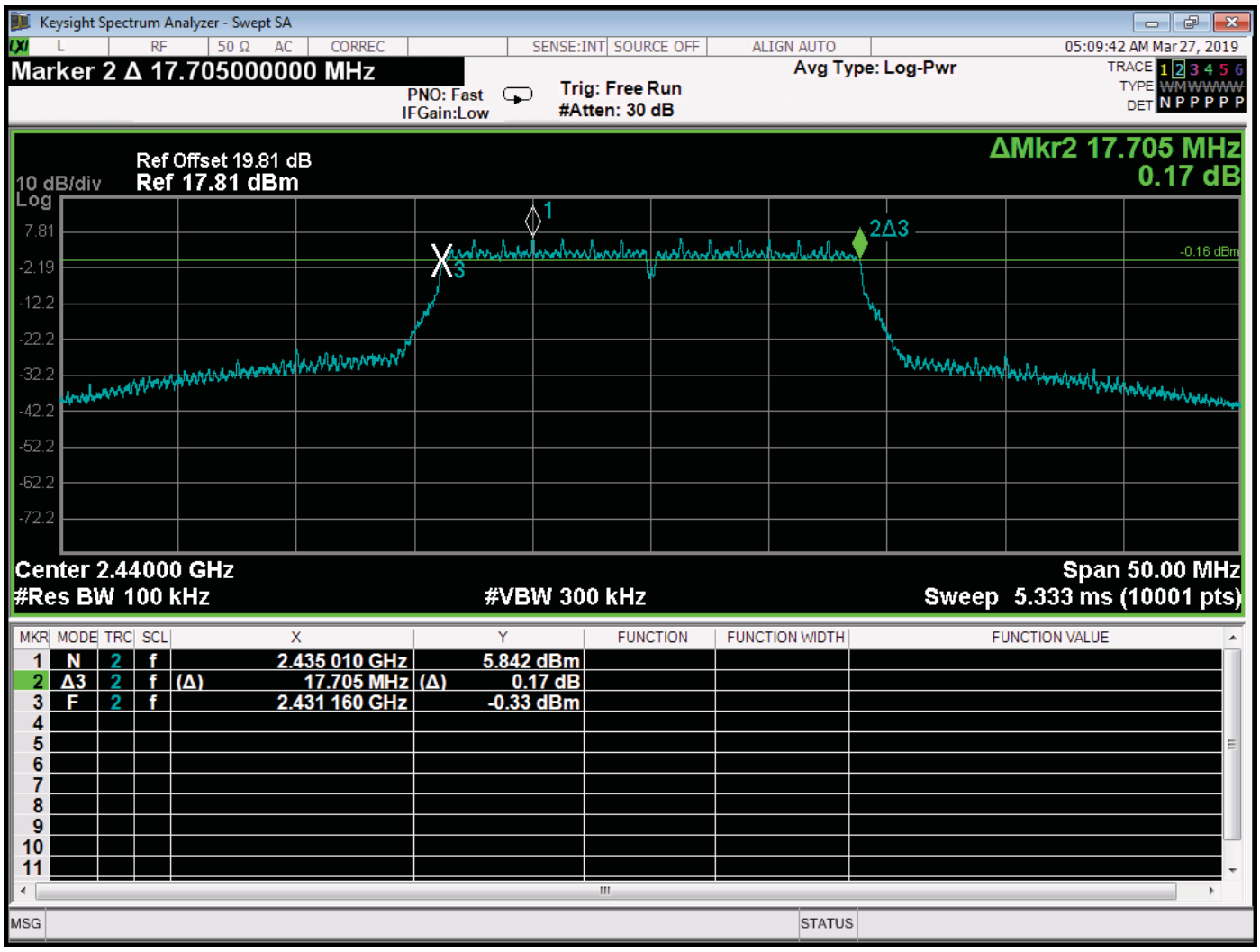
DATA SHEETS



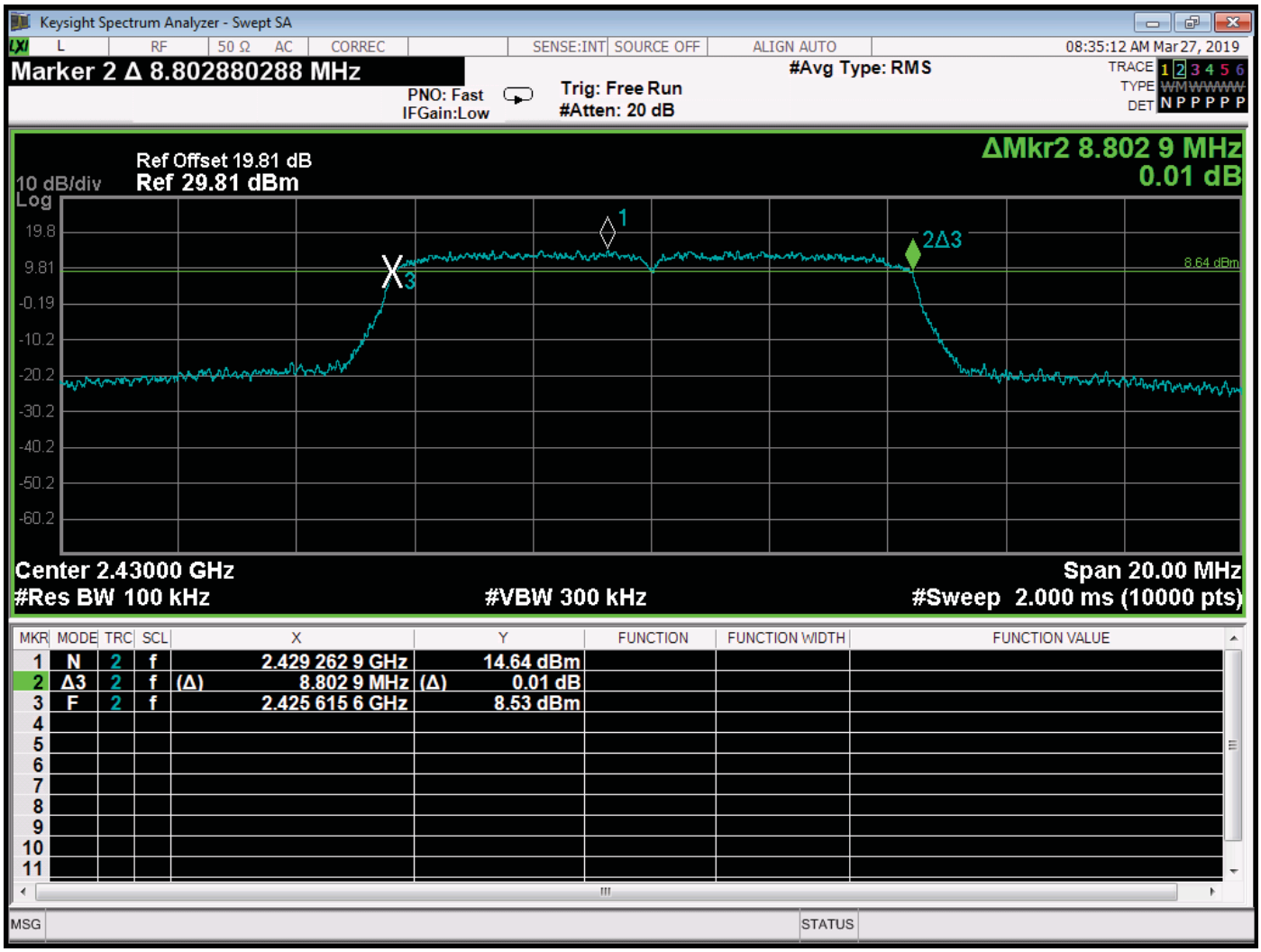
-6 dB Bandwidth – 2430 MHz – 10 MHz BW – Port #1



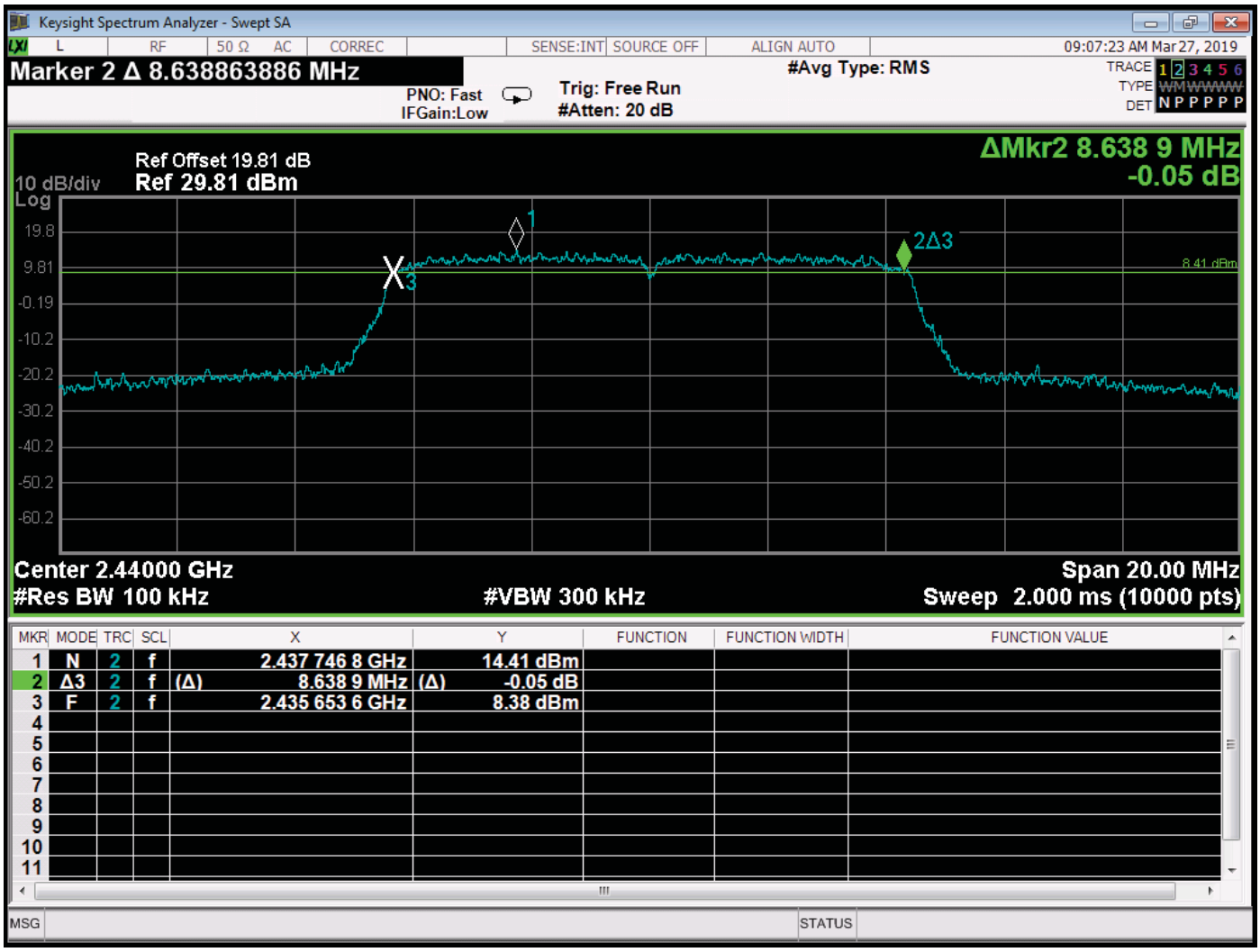
-6 dB Bandwidth – 2440 MHz – 10 MHz BW – Port #1



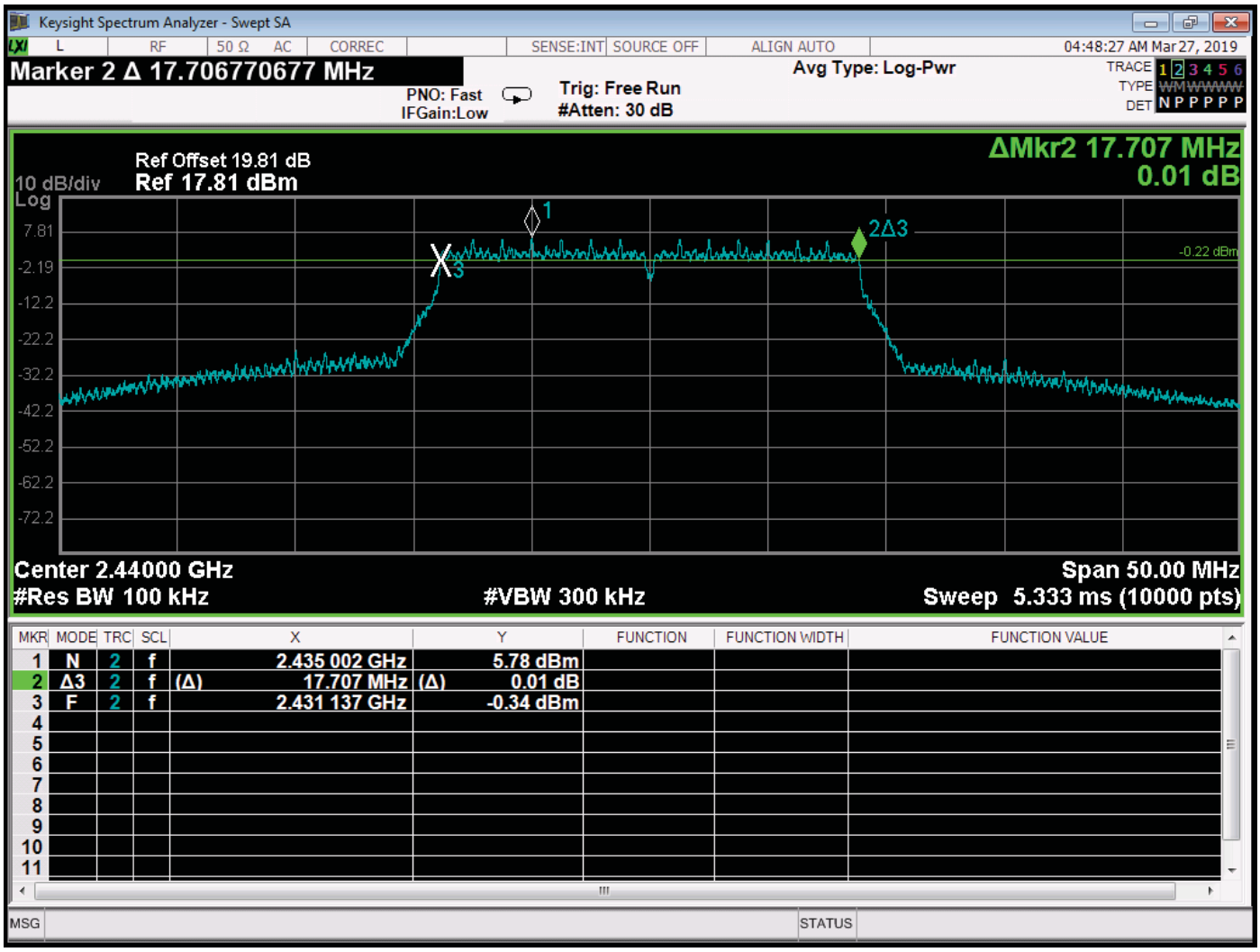
-6 dB Bandwidth – 2440 MHz – 20 MHz BW – Port #1



-6 dB Bandwidth – 2430 MHz – 10 MHz BW – Port #2



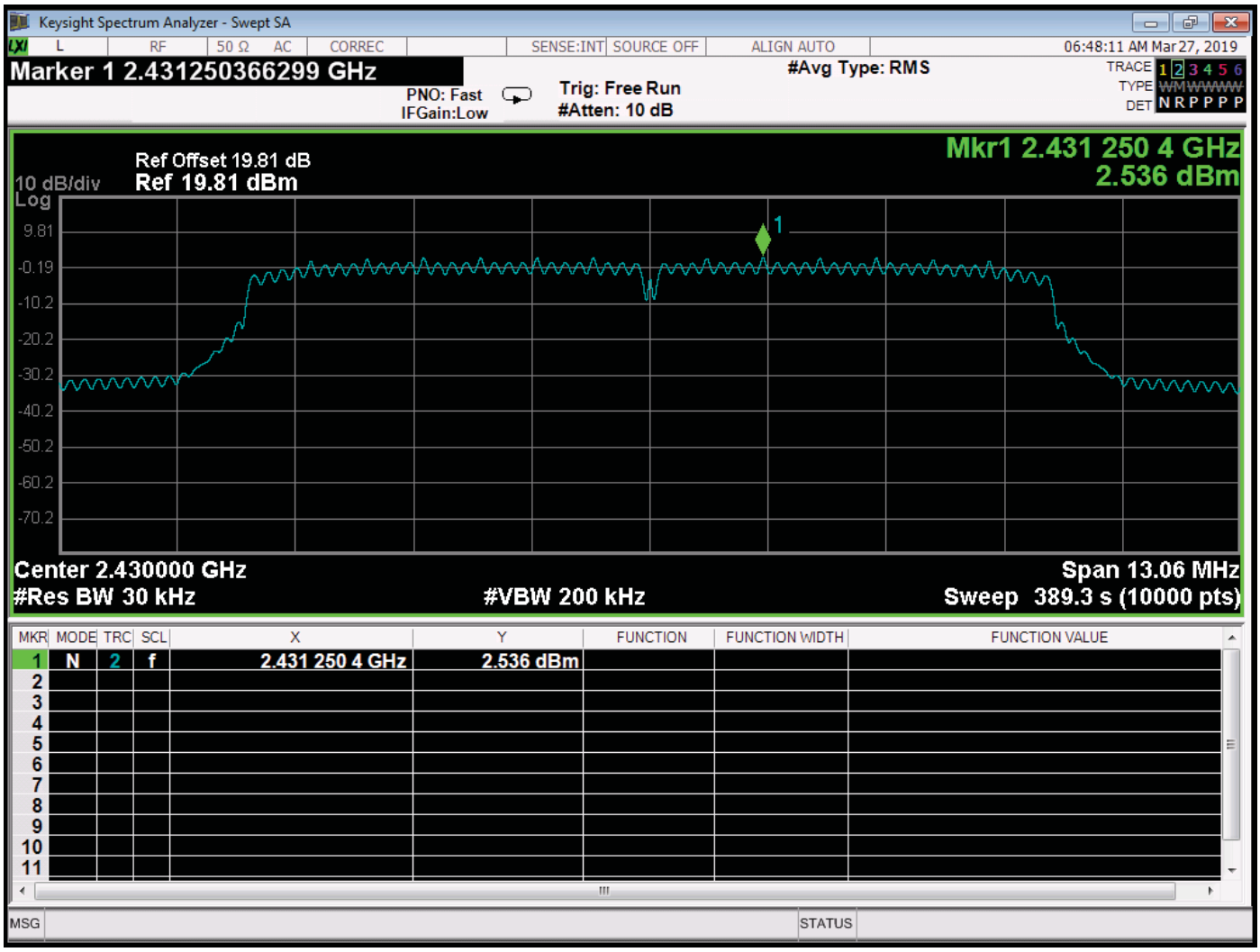
-6 dB Bandwidth – 2440 MHz – 10 MHz BW – Port #2



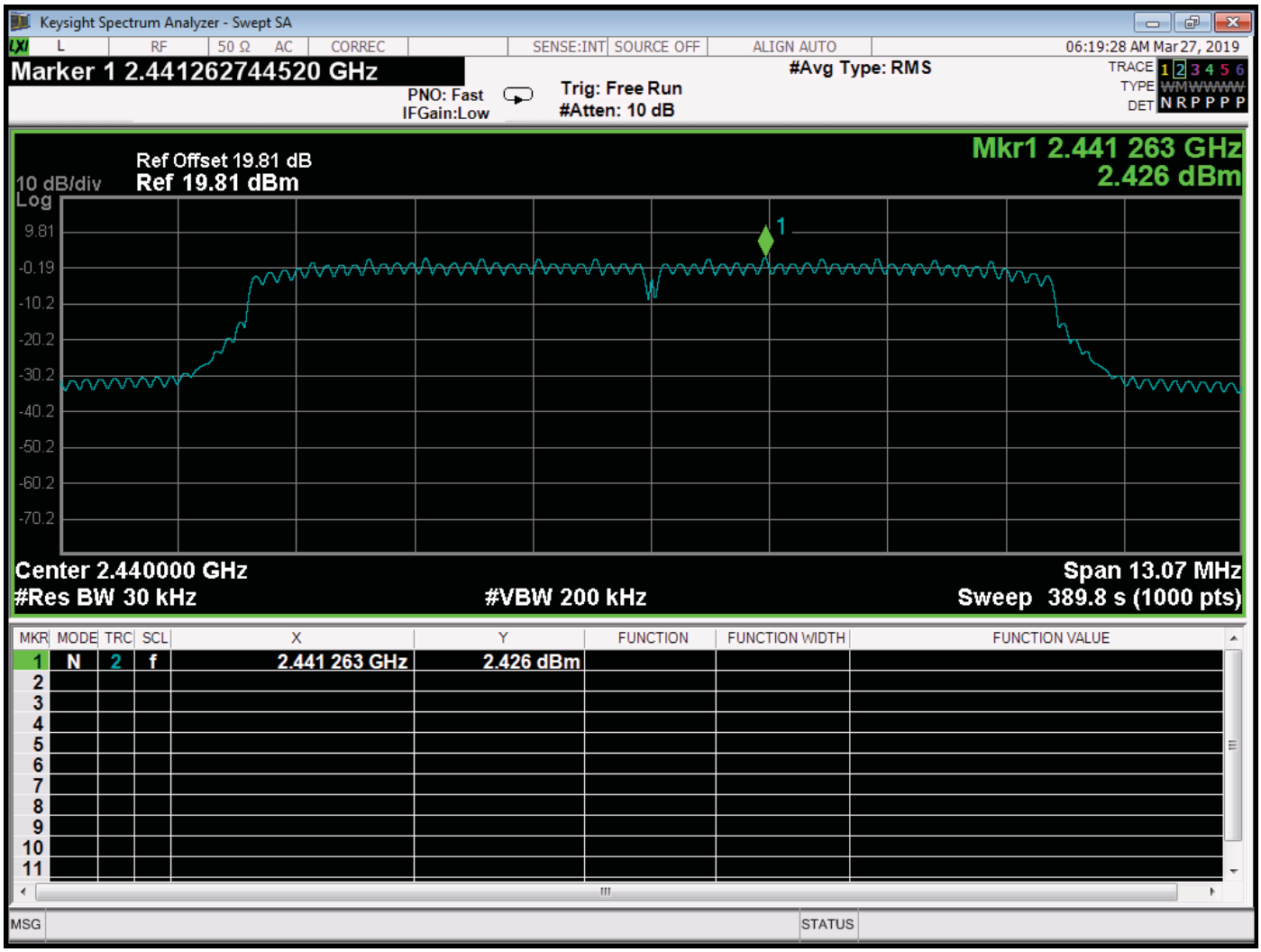
-6 dB Bandwidth – 2440 MHz – 20 MHz BW – Port #2

SPECTRAL DENSITY OUTPUT

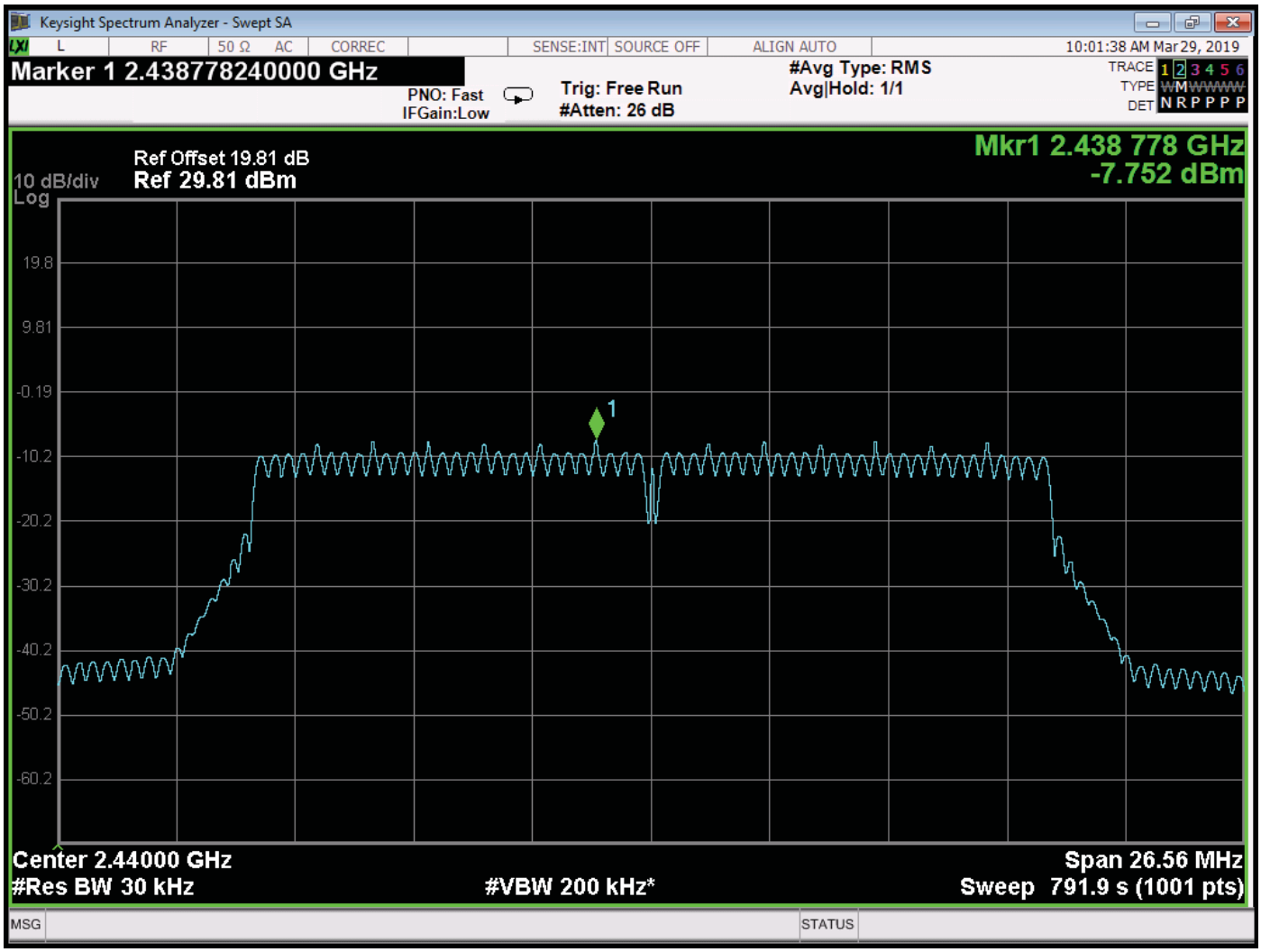
DATA SHEETS



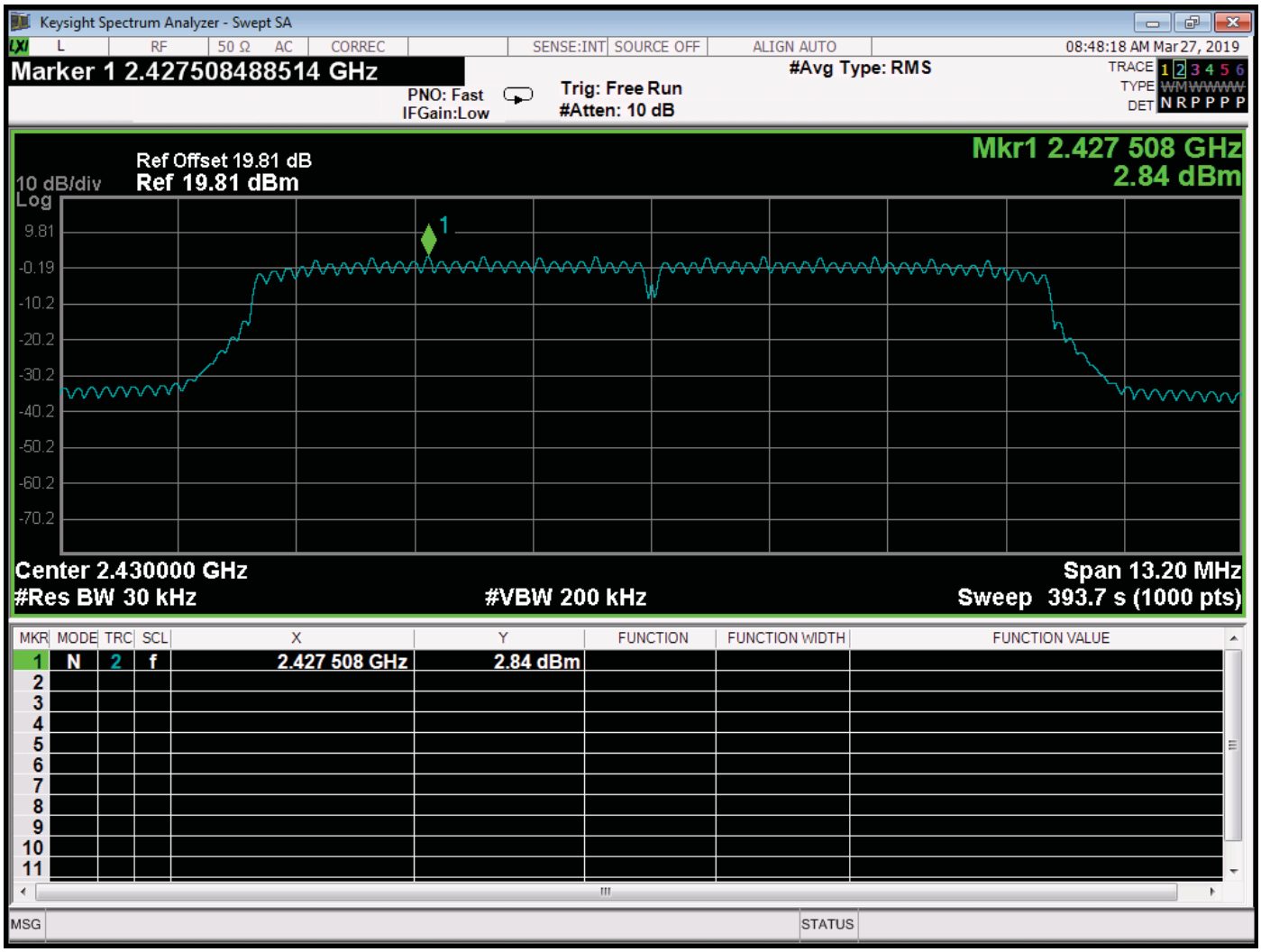
Spectral Density – 2430 MHz – 10 MHz BW – Port #1



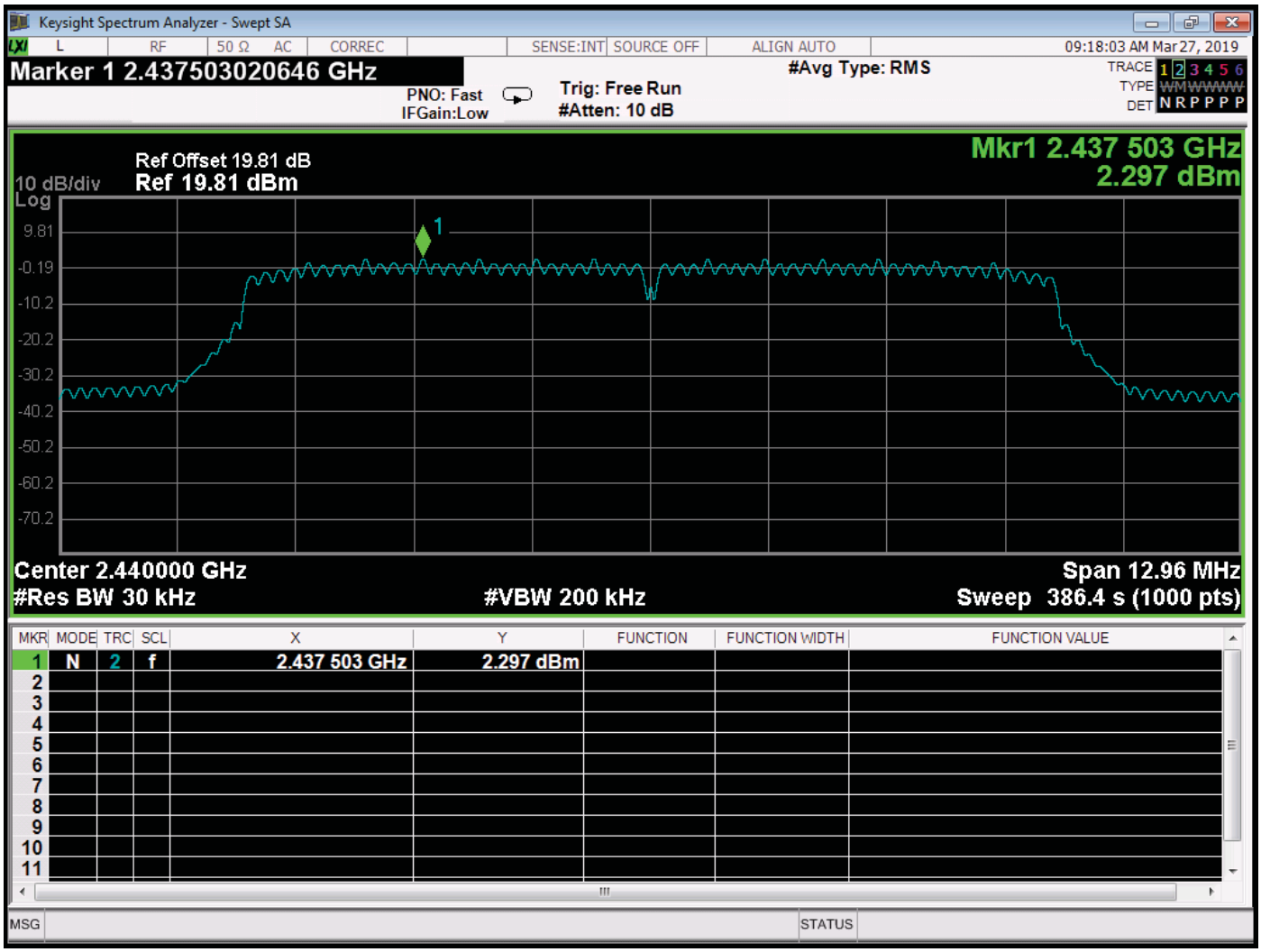
Spectral Density – 2440 MHz – 10 MHz BW – Port #1



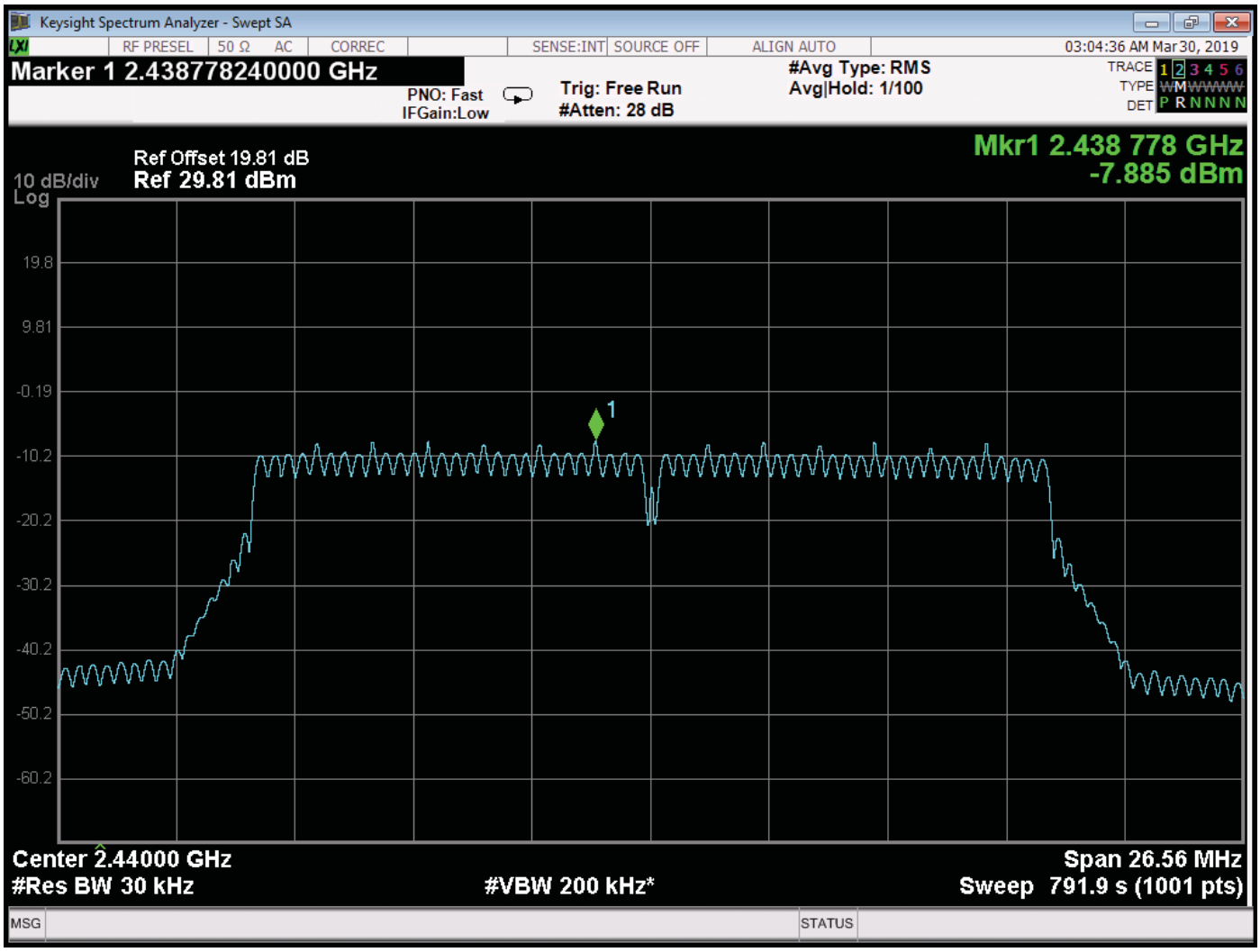
Spectral Density – 2440 MHz – 20 MHz BW – Port #1



Spectral Density – 2430 MHz – 10 MHz BW – Port #2



Spectral Density – 2440 MHz – 10 MHz BW – Port #2



Spectral Density – 2440 MHz – 20 MHz BW – Port #2

SPECTRAL DENSITY

StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

OMNIDIRECTIONAL ANTENNA – P/N: AOV4S235S-TM
SILVUS ANTENNA – P/N: AOV2D230515G-TM

Limit = 6.99 dBm

2430 MHz – 10 MHz BW

Port 1 Gain Setting = 48
Port 2 Gain Setting = 49

ANTENNA PORT	RMS SD (dBm)	10 LOG (N)	EFFECTIVE SD (dBm)	Limit (dBm)	Margin (dB)
1	2.536	3.01	5.546	6.99	-1.444
2	2.840	3.01	5.850	6.99	-1.140

SPECTRAL DENSITY

StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

OMNIDIRECTIONAL ANTENNA – P/N: AOV4S235S-TM
SILVUS ANTENNA – P/N: AOV2D230515G-TM

Limit = 6.99 dBm

2440 MHz – 10 MHz BW

Port 1 Gain Setting = 48
Port 2 Gain Setting = 49

ANTENNA PORT	RMS SD (dBm)	10 LOG (N)	EFFECTIVE SD (dBm)	Limit (dBm)	Margin (dB)
1	2.426	3.01	5.436	6.99	-1.554
2	2.297	3.01	5.307	6.99	-1.683

SPECTRAL DENSITY

StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

OMNIDIRECTIONAL ANTENNA – P/N: AOV4S235S-TM
SILVUS ANTENNA – P/N: AOV2D230515G-TM

Limit = 6.99 dBm

2440 MHz – 20 MHz BW

Port 1 Gain Setting = 39
Port 2 Gain Setting = 40

ANTENNA PORT	RMS SD (dBm)	10 LOG (N)	EFFECTIVE SD (dBm)	Limit (dBm)	Margin (dB)
1	-7.752	3.01	-4.742	6.99	-11.732
2	-7.885	3.01	-4.875	6.99	-11.865

AVERAGE POWER

DATA SHEETS

AVERAGE OUTPUT POWER

StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

OMNIDIRECTIONAL ANTENNA – P/N: AOV4S235S-TM
SILVUS ANTENNA – P/N: AOV2D230515G-TM

Limit = 28.99 dBm

2440 MHz – 20 MHz BW

Port 1 Gain Setting = 39
Port 2 Gain Setting = 40

ANTENNA PORT	PEAK POWER (dBm)	AVERAGE POWER (dBm)	PEAK POWER (mW)	AVERAGE POWER (mW)
1	18.34	18.07	68.23	64.12
2	18.03	17.76	63.53	59.70
Total Power:	21.20	20.93	131.76	123.82

AVERAGE OUTPUT POWER

StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

OMNIDIRECTIONAL ANTENNA – P/N: AOV4S235S-TM
SILVUS ANTENNA – P/N: AOV2D230515G-TM

Limit = 28.99 dBm

2440 MHz – 10 MHz BW

Port 1 Gain Setting = 48
Port 2 Gain Setting = 49

ANTENNA PORT	PEAK POWER (dBm)	AVERAGE POWER (dBm)	PEAK POWER (mW)	AVERAGE POWER (mW)
1	26.34	26.07	430.53	404.58
2	26.17	25.86	414.00	385.48
Total Power:	29.27	28.98	844.53	790.06

AVERAGE OUTPUT POWER

StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

OMNIDIRECTIONAL ANTENNA – P/N: AOV4S235S-TM
SILVUS ANTENNA – P/N: AOV2D230515G-TM

Limit = 28.99 dBm

2430 MHz – 10 MHz BW

Port 1 Gain Setting = 48
Port 2 Gain Setting = 49

ANTENNA PORT	PEAK POWER (dBm)	AVERAGE POWER (dBm)	PEAK POWER (mW)	AVERAGE POWER (mW)
1	26.26	25.99	422.67	397.19
2	26.20	25.94	416.87	392.65
Total Power:	29.24	28.98	839.54	789.84

BAND EDGES

DATA SHEETS

FCC 15.247 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/26/2019
Lab: D
Tested By: Kyle Fujimoto

Band Edges - 2430 MHz @ 10 MHz – 2.15 dBi Antennas

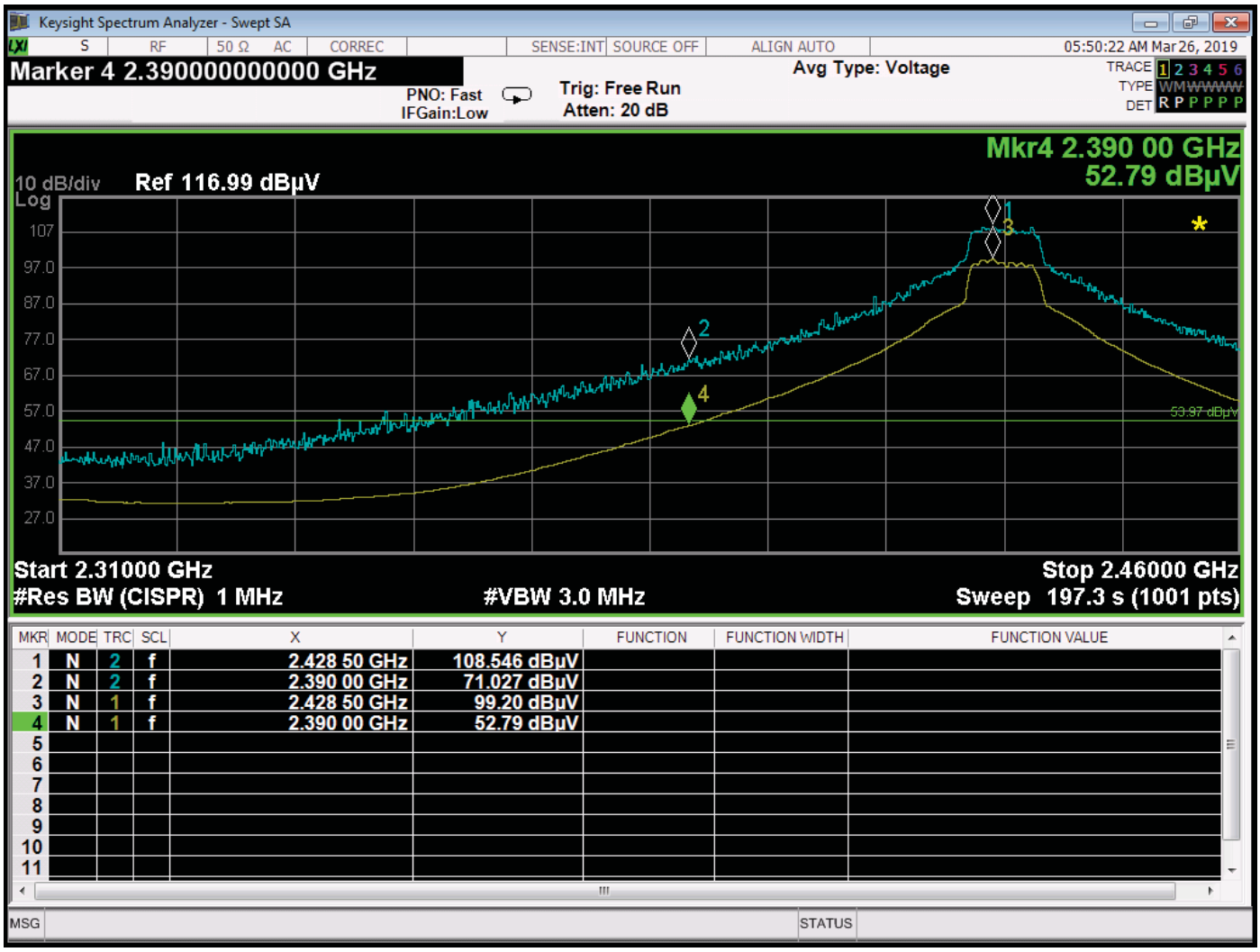
Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2430.00	108.55	V	--	--	Peak	345.25	173.21	**Fundamental**
2430.00	99.20	V	--	--	Avg	345.25	173.21	**2430 MHz - 10 MHz BW**
2390.00	71.03	V	73.97	-2.94	Peak	345.25	173.21	**Band Edge**
2390.00	52.79	V	53.97	-1.18	Avg	345.25	173.21	**2390.00 MHz**
2430.00	107.83	H	--	--	Peak	330.50	133.17	**Fundamental**
2430.00	98.85	H	--	--	Avg	330.50	133.17	**2430 MHz - 10 MHz BW**
2390.00	63.07	H	73.97	-10.90	Peak	330.50	133.17	**Band Edge**
2390.00	46.41	H	53.97	-7.56	Avg	330.50	133.17	**2390.00 MHz**
								X-Axis
								Worst Case

FCC 15.247 and RSS-247
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

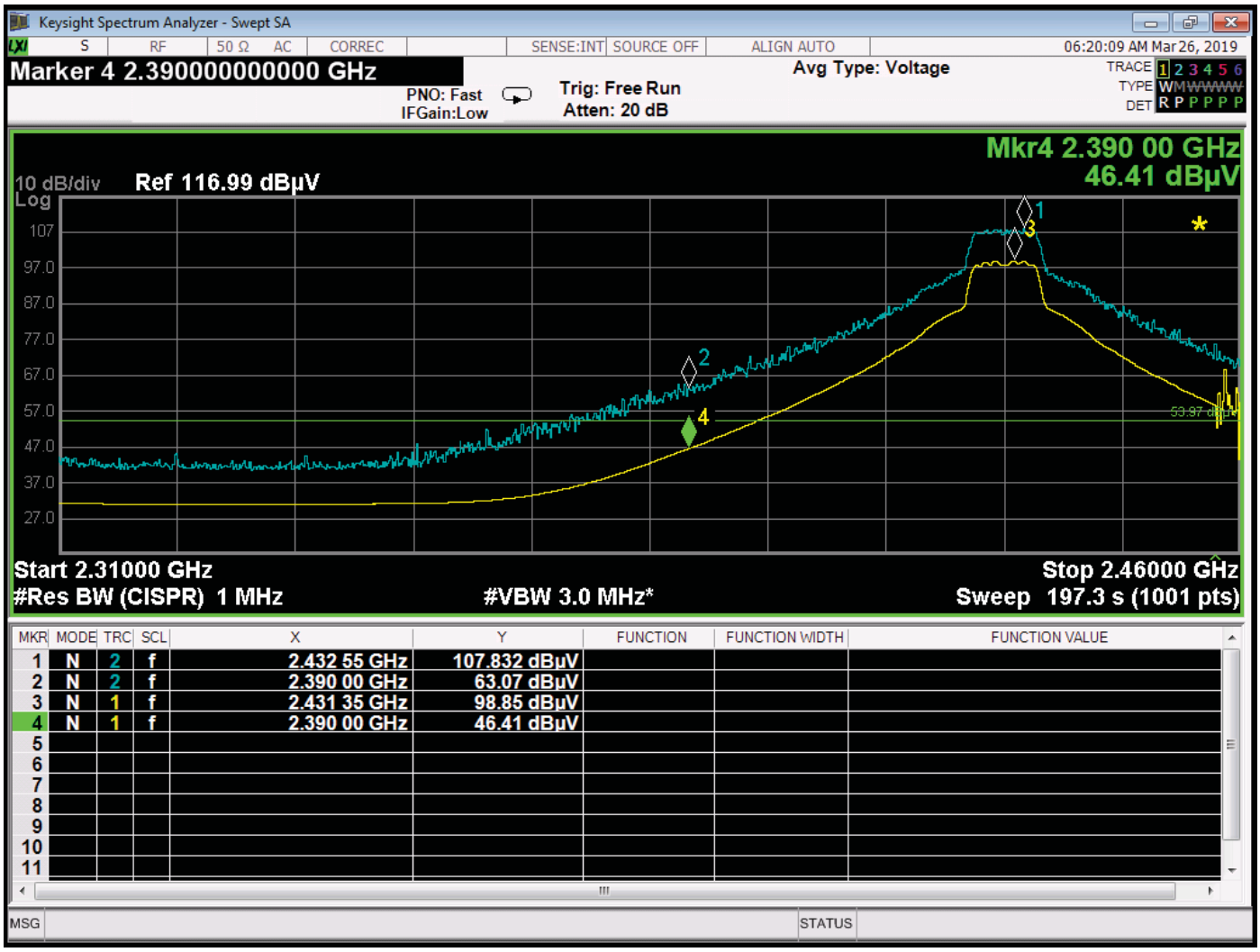
Date: 03/26/2019
Lab: D
Tested By: Kyle Fujimoto

Band Edges - 2440 MHz @ 10 MHz – 2.15 dBi Antennas

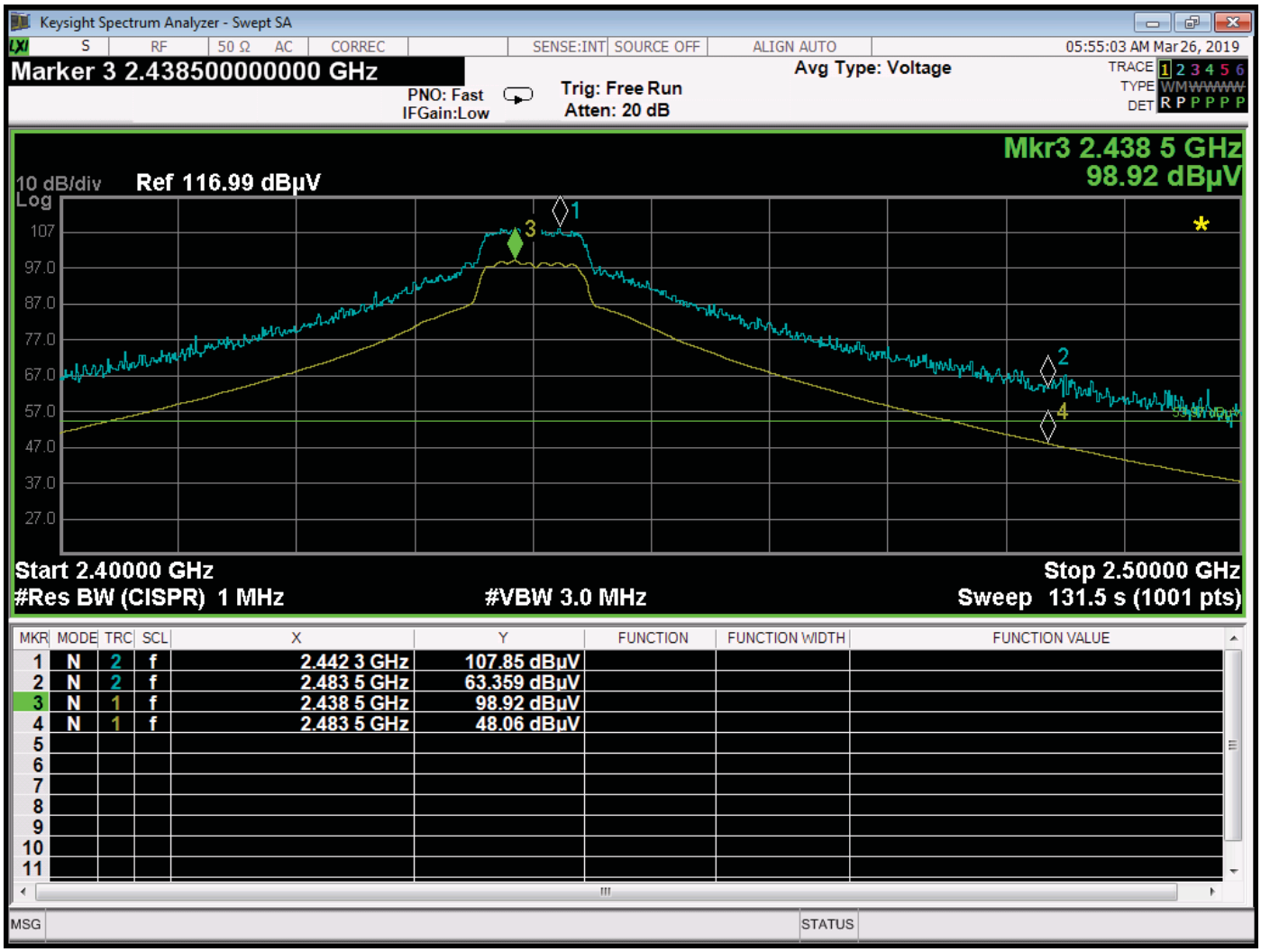
Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2440.00	107.85	V	--	--	Peak	352.25	175.68	**Fundamental**
2440.00	98.92	V	--	--	Avg	352.25	175.68	**2440 MHz - 10 MHz BW**
2483.50	63.36	V	73.97	-10.61	Peak	352.25	175.68	**Band Edge**
2483.50	48.06	V	53.97	-5.91	Avg	352.25	175.68	**2483.50 MHz**
2440.00	108.19	H	--	--	Peak	7.25	185.47	**Fundamental**
2440.00	98.75	H	--	--	Avg	7.25	185.47	**2440 MHz - 10 MHz BW**
2483.50	58.69	H	73.97	-15.28	Peak	7.25	185.47	**Band Edge**
2483.50	43.06	H	53.97	-10.91	Avg	7.25	185.47	**2483.50 MHz**
								X-Axis
								Worst Case



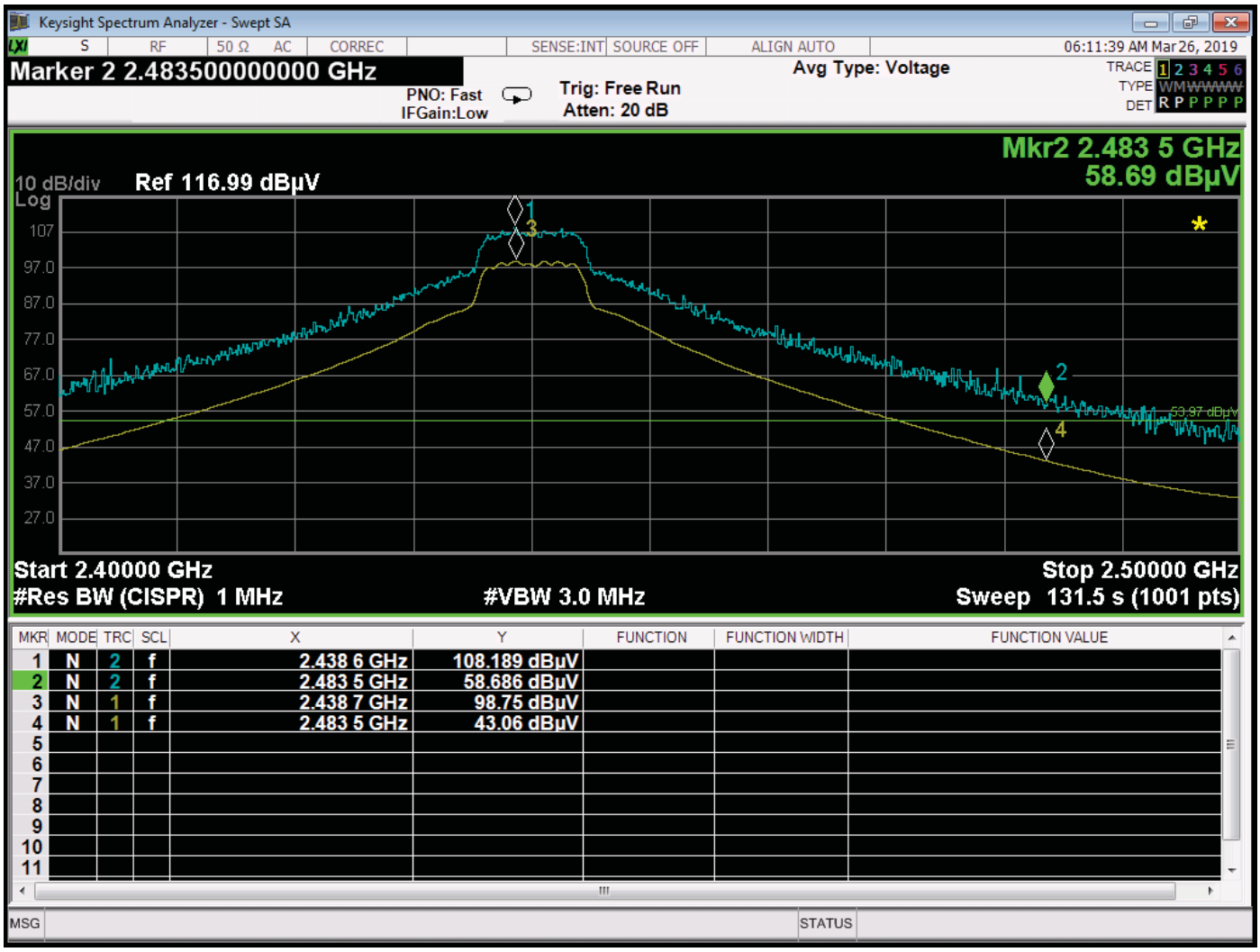
Band Edge – 2430 MHz – Vertical Polarization – 10 MHz BW – 2.15 dBi Antennas – X-Axis



Band Edge – 2430 MHz – Horizontal Polarization – 10 MHz BW – 2.15 dBi Antennas – X-Axis



Band Edge – 2440 MHz – Vertical Polarization – 10 MHz BW – 2.15 dBi Antennas – X-Axis



Band Edge – 2440 MHz – Horizontal Polarization – 10 MHz BW – 2.15 dBi Antennas – X-Axis

FCC 15.247 and RSS-GEN
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/26/2019
Lab: D
Tested By: Kyle Fujimoto

Band Edges - 2440 MHz @ 20 MHz – 2.15 dBi Antennas – X-Axis

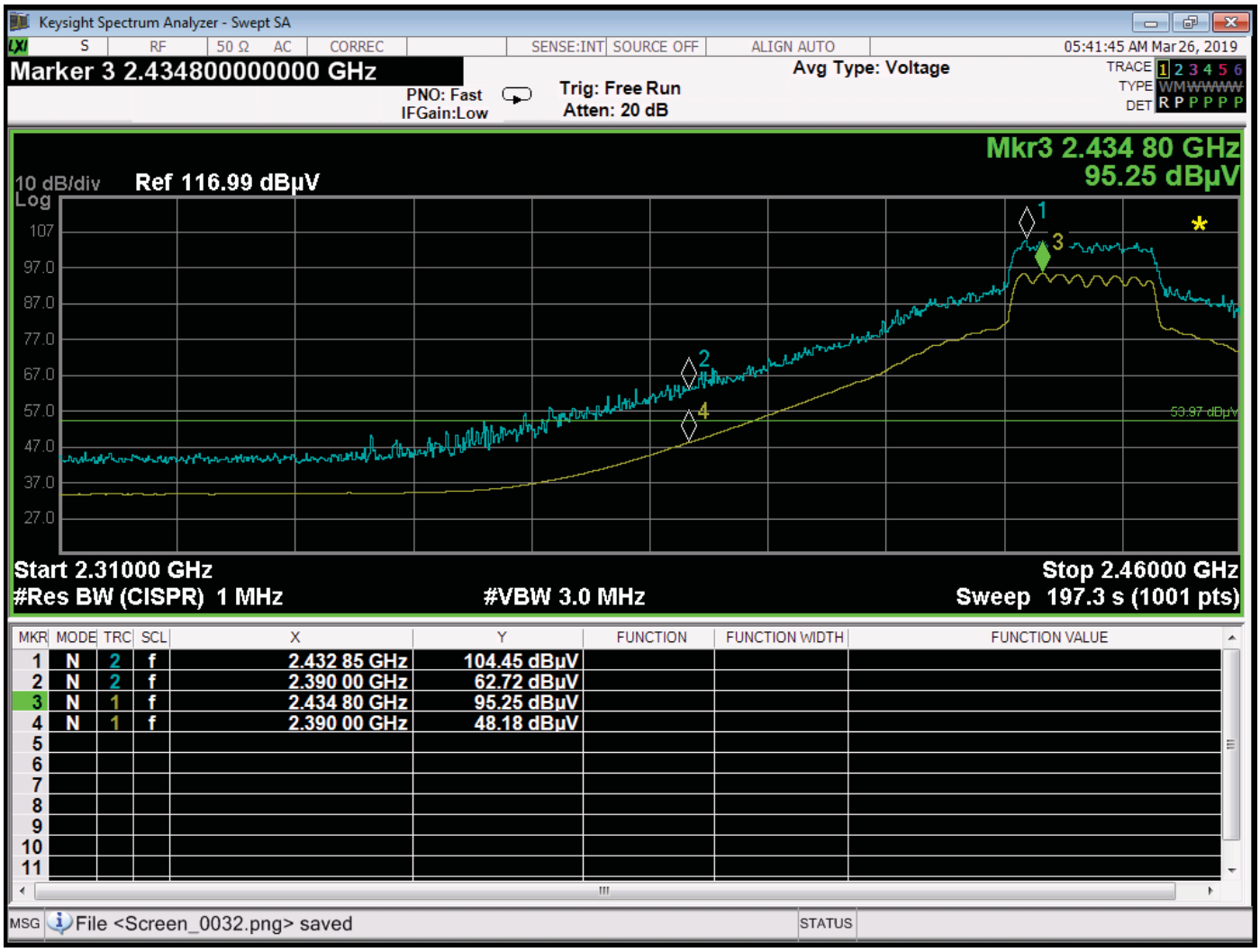
Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2440.00	104.45	V	--	--	Peak	352.25	175.68	**Fundamental**
2440.00	95.25	V	--	--	Avg	352.25	175.68	**2440 MHz - 20 MHz BW**
2390.00	62.72	V	73.97	-11.25	Peak	352.25	175.68	**Band Edge**
2390.00	48.18	V	53.97	-5.79	Avg	352.25	175.68	**2390.00 MHz**
2440.00	103.24	H	--	--	Peak	354.75	135.02	**Fundamental**
2440.00	94.14	H	--	--	Avg	354.75	135.02	**2440 MHz - 20 MHz BW**
2390.00	54.37	H	73.97	-19.60	Peak	354.75	135.02	**Band Edge**
2390.00	38.34	H	53.97	-15.63	Avg	354.75	135.02	**2390.00 MHz**
								X-Axis
								Worst Case

FCC 15.247 and RSS-GEN
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

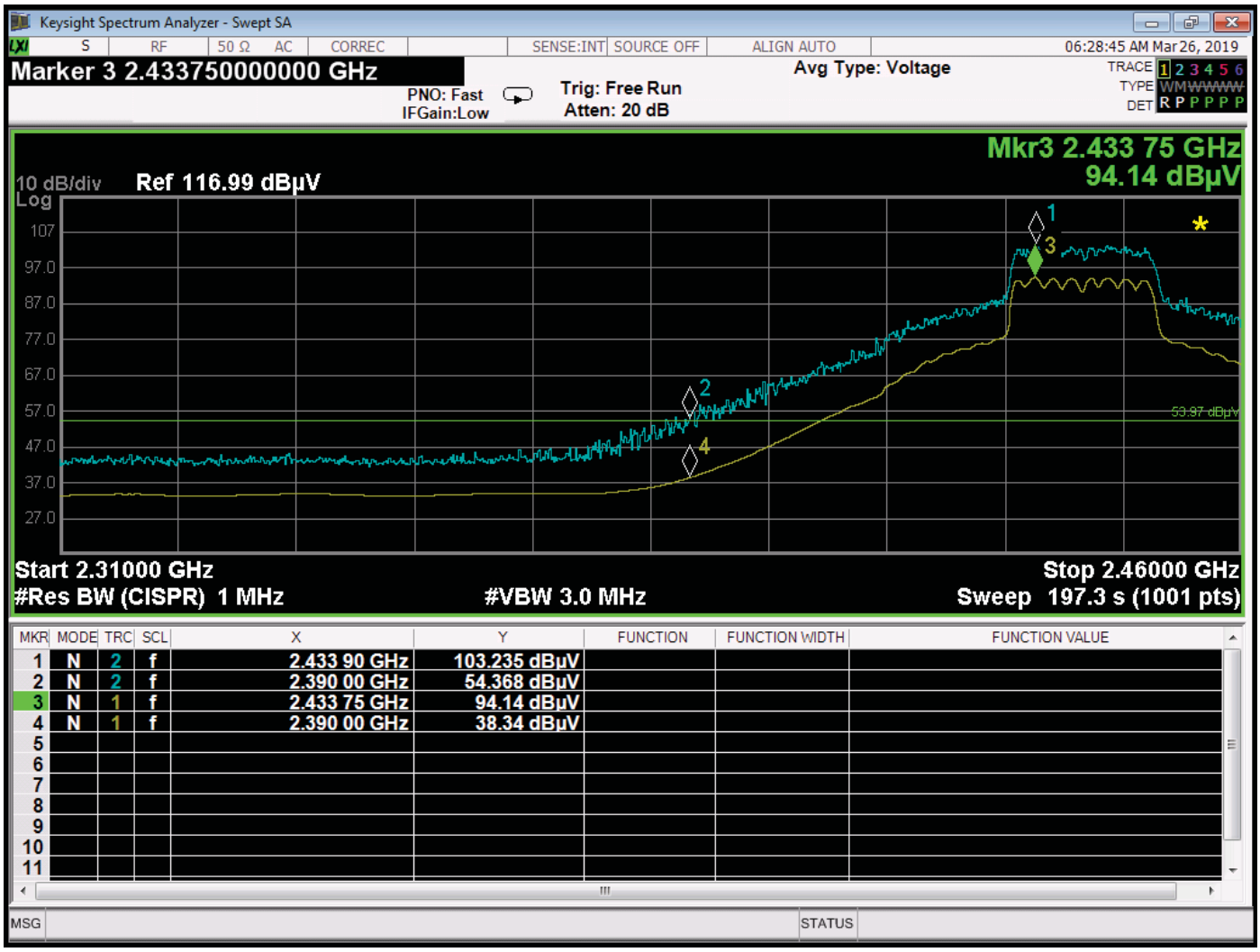
Date: 03/26/2019
Lab: D
Tested By: Kyle Fujimoto

Band Edges - 2440 MHz @ 20 MHz – 2.15 dBi Antennas – X-Axis

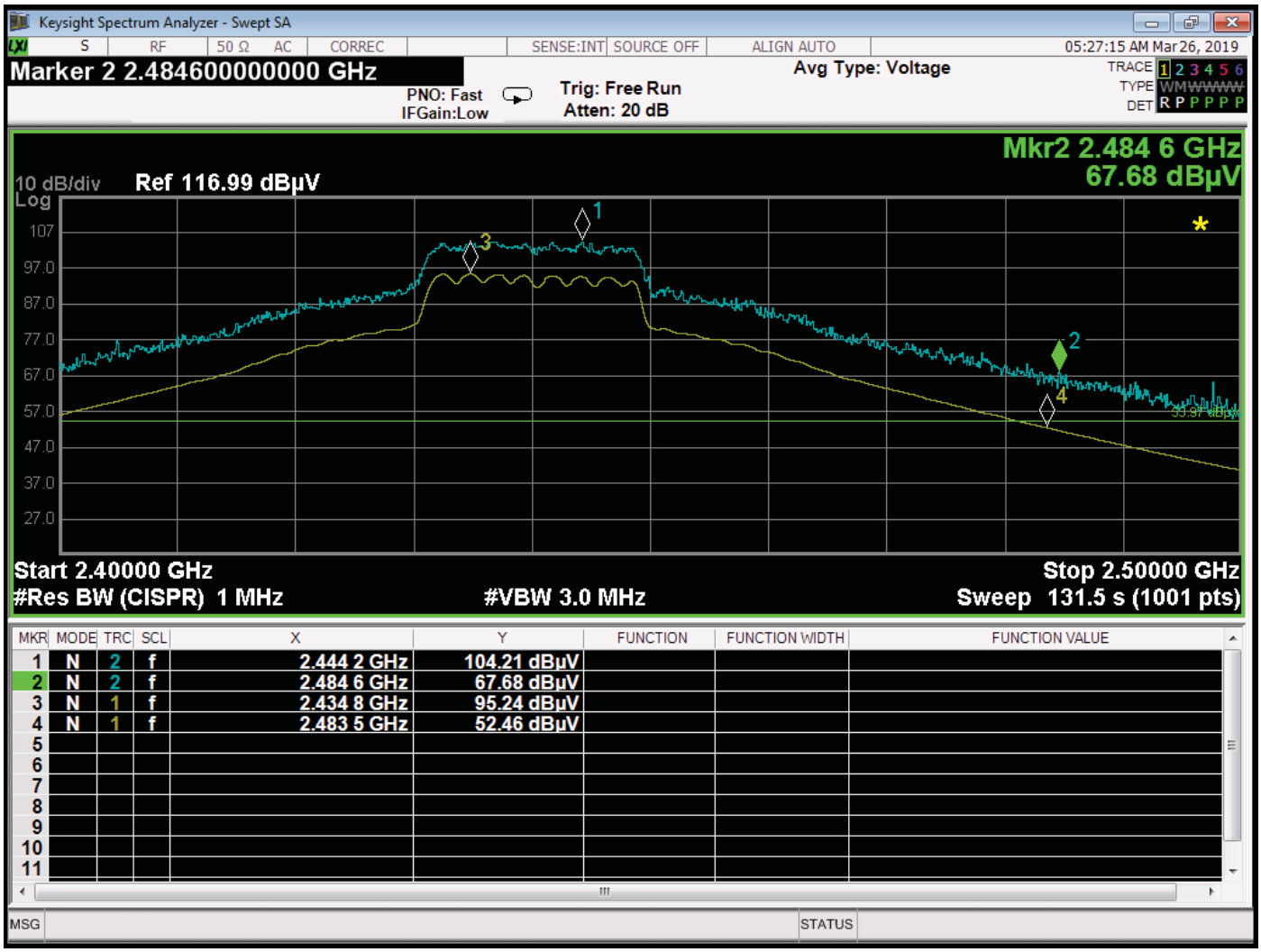
Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2440.00	104.21	V	--	--	Peak	352.25	175.68	**Fundamental**
2440.00	95.24	V	--	--	Avg	352.25	175.68	**2440 MHz - 20 MHz BW**
2483.50	67.68	V	73.97	-6.29	Peak	352.25	175.68	**Band Edge**
2483.50	52.46	V	53.97	-1.51	Avg	352.25	175.68	**2483.50 MHz**
2440.00	104.00	H	--	--	Peak	358.00	134.97	**Fundamental**
2440.00	94.38	H	--	--	Avg	358.00	134.97	**2440 MHz - 20 MHz BW**
2483.50	60.34	H	73.97	-13.63	Peak	358.00	134.97	**Band Edge**
2483.50	43.16	H	53.97	-10.81	Avg	358.00	134.97	**2483.50 MHz**
								X-Axis
								Worst Case



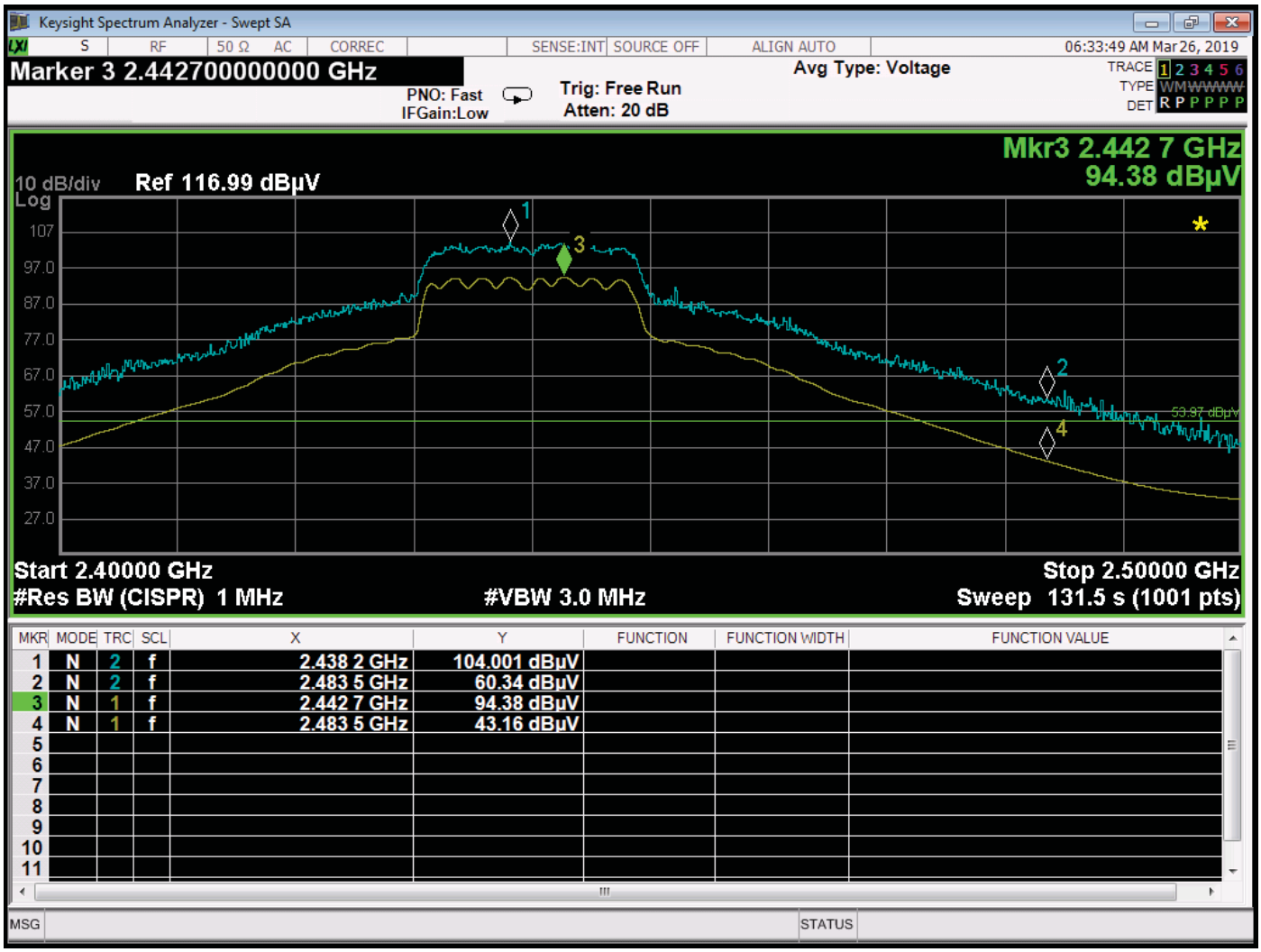
Lower Band Edge – 2440 MHz – Vertical Polarization – 20 MHz BW – 2.15 dBi Antennas – X-Axis



Lower Band Edge – 2440 MHz – Horizontal Polarization – 20 MHz BW – 2.15 dBi Antennas – X-Axis



Upper Band Edge – 2440 MHz – Vertical Polarization – 20 MHz BW – 2.15 dBi Antennas – X-Axis



Upper Band Edge – 2440 MHz – Horizontal Polarization – 20 MHz BW – 2.15 dBi Antennas – X-Axis

FCC 15.247 and RSS-GEN
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/26/2019
Lab: D
Tested By: Kyle Fujimoto

Band Edges - 2430 MHz @ 10 MHz - 4 dBi Antennas

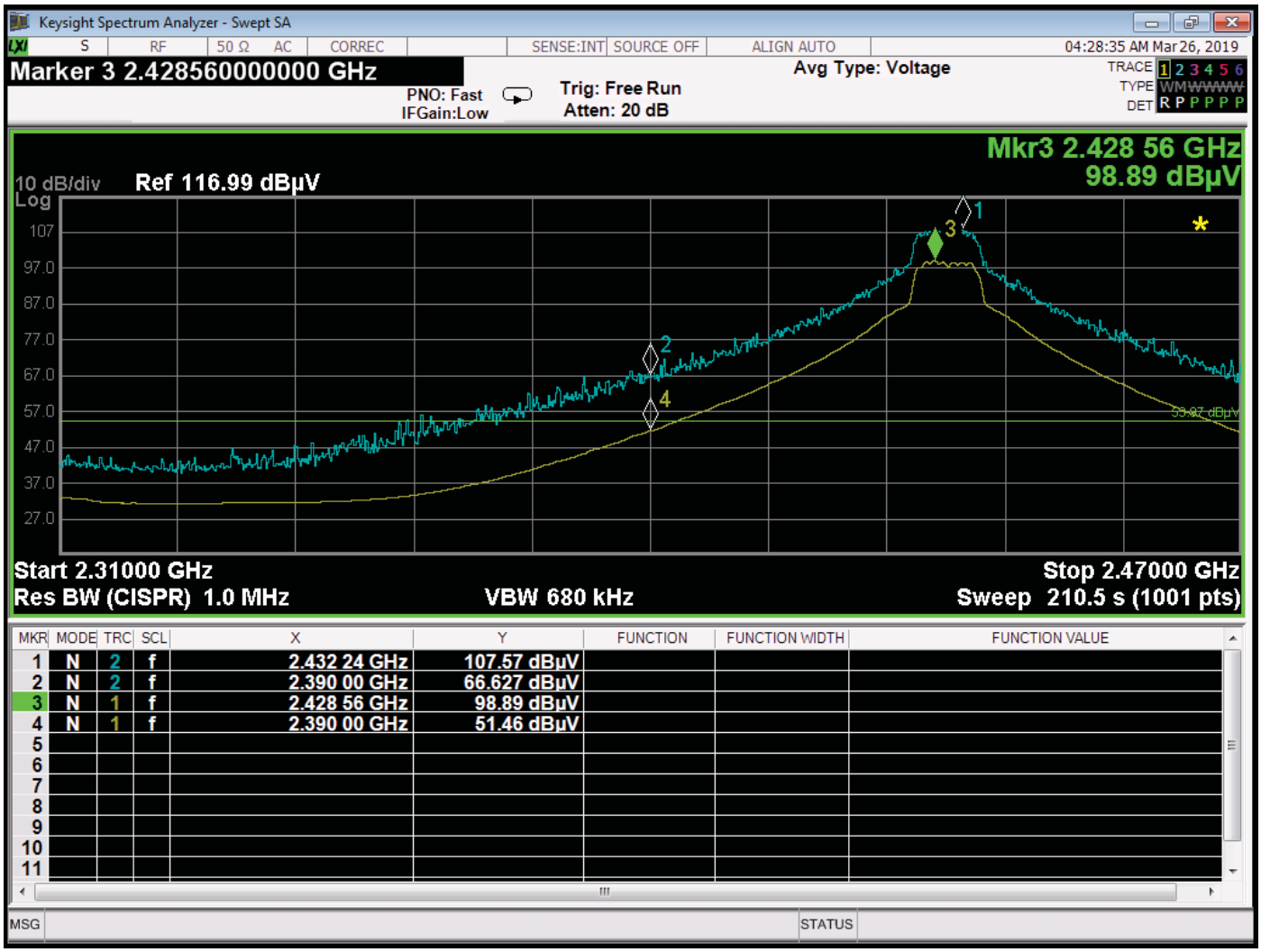
Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2430.00	107.57	V	--	--	Peak	158.50	135.74	**Fundamental**
2430.00	98.89	V	--	--	Avg	158.50	135.74	**2430 MHz - 10 MHz BW**
2390.00	66.63	V	73.97	-7.34	Peak	158.50	135.74	**Band Edge**
2390.00	51.46	V	53.97	-2.51	Avg	158.50	135.74	**2390 MHz**
2430.00	106.02	H	--	--	Peak	149.50	194.79	**Fundamental**
2430.00	96.29	H	--	--	Avg	149.50	194.79	**2430 MHz - 10 MHz BW**
2390.00	46.52	H	73.97	-27.45	Peak	149.50	194.79	**Band Edge**
2390.00	31.53	H	53.97	-22.44	Avg	149.50	194.79	**2390 MHz**
								X-Axis
								Worst Case

FCC 15.247 and RSS-GEN
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

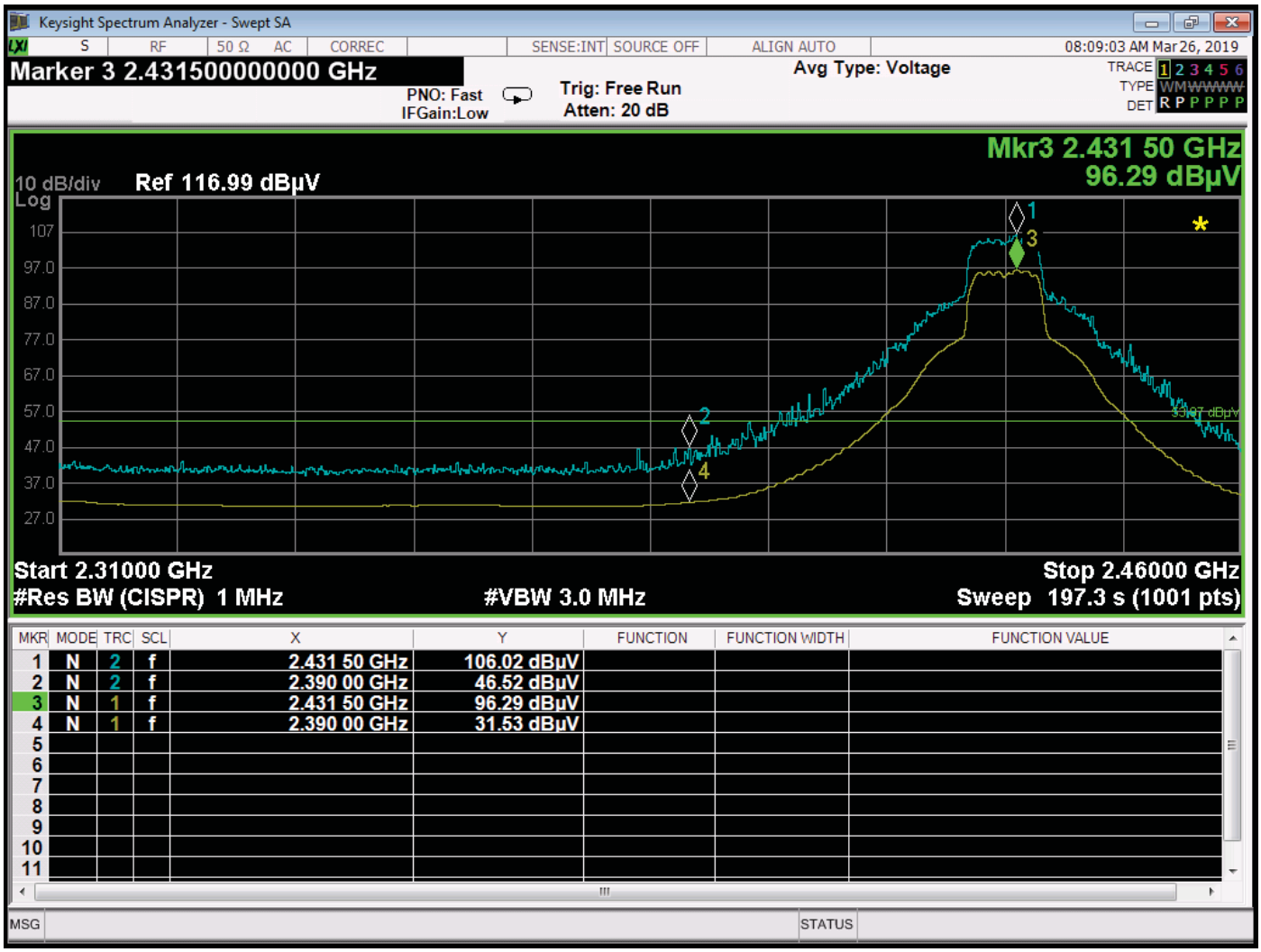
Date: 03/26/2019
Lab: D
Tested By: Kyle Fujimoto

Band Edges - 2440 MHz @ 10 MHz - 4 dBi Antennas

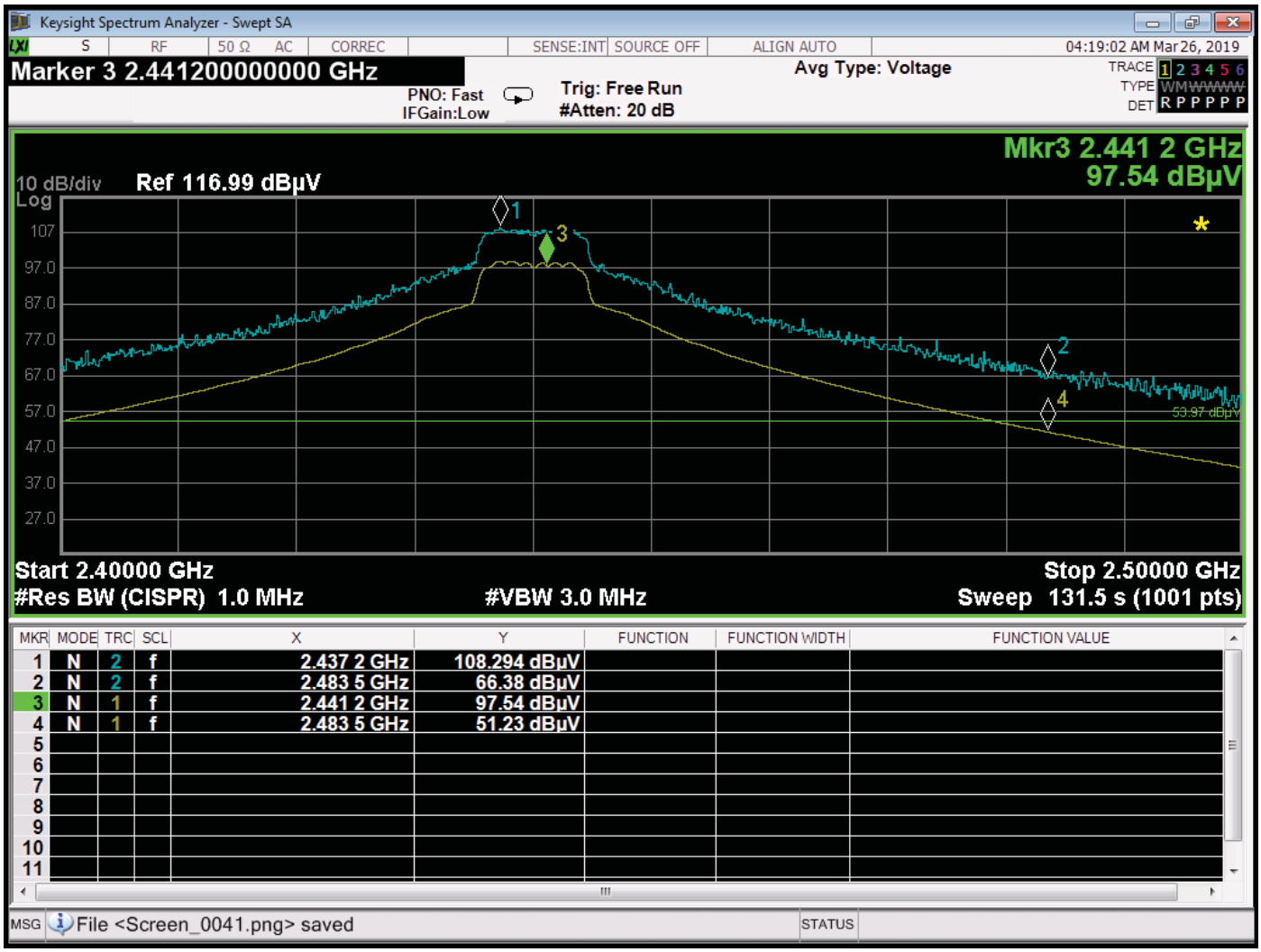
Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2440.00	108.29	V	--	--	Peak	5.25	154.19	**Fundamental**
2440.00	97.54	V	--	--	Avg	5.25	154.19	**2440 MHz - 10 MHz BW**
2483.50	66.38	V	73.97	-7.59	Peak	5.25	154.19	**Band Edge**
2483.50	51.23	V	53.97	-2.74	Avg	5.25	154.19	**2483.50 MHz**
2440.00	105.89	H	--	--	Peak	335.75	200.04	**Fundamental**
2440.00	97.04	H	--	--	Avg	335.75	200.04	**2440 MHz - 10 MHz BW**
2483.50	41.79	H	73.97	-32.18	Peak	335.75	200.04	**Band Edge**
2483.50	30.52	H	53.97	-23.45	Avg	335.75	200.04	**2483.50 MHz**
								X-Axis
								Worst Case



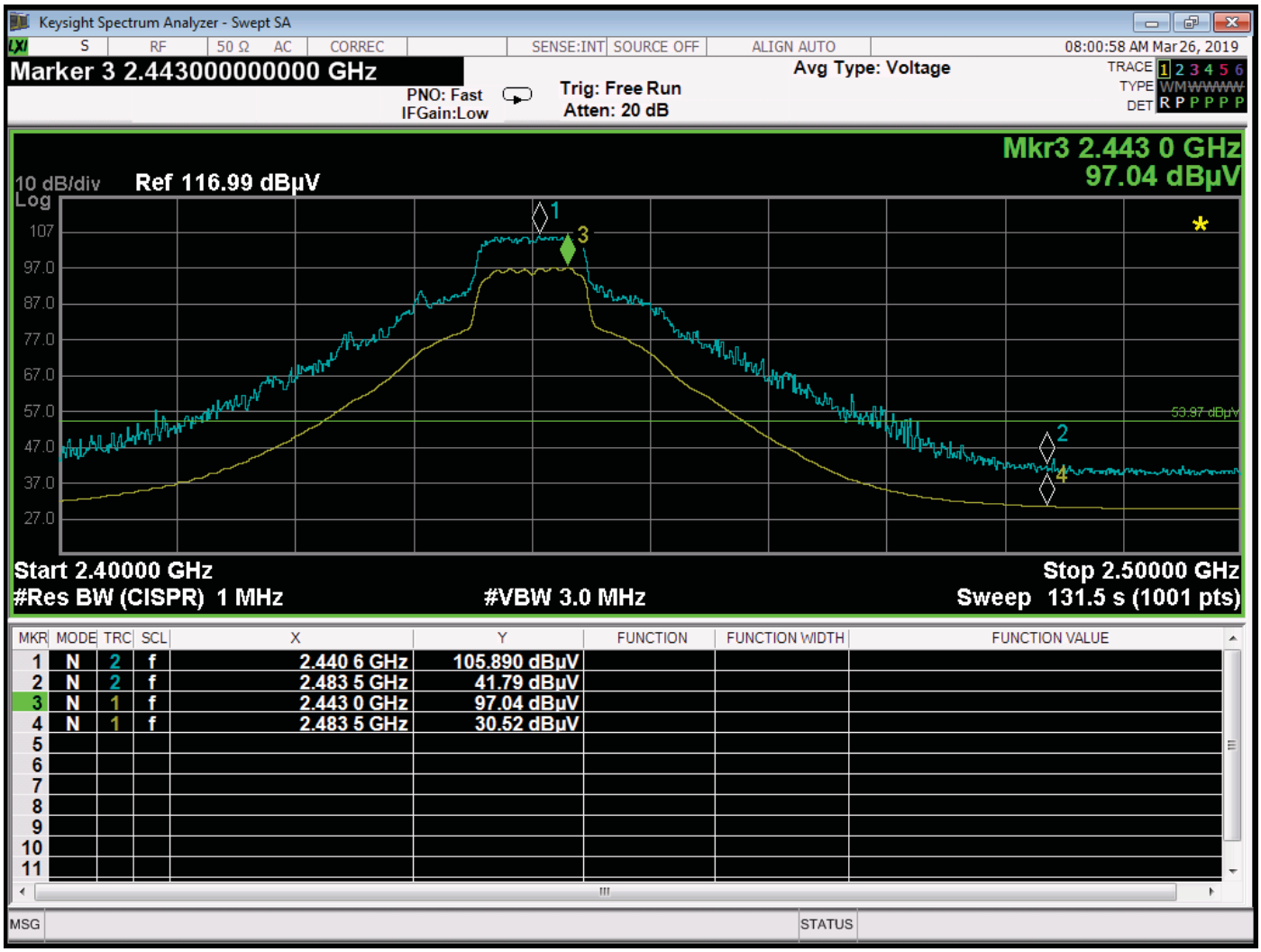
Lower Band Edge – 2430 MHz – Vertical Polarization – 10 MHz BW – 4 dBi Antennas – X-Axis



Lower Band Edge – 2430 MHz – Horizontal Polarization – 10 MHz BW – 4 dBi Antennas – X-Axis



Upper Band Edge – 2440 MHz – Vertical Polarization – 10 MHz BW – 4 dBi Antennas – X-Axis



Upper Band Edge – 2440 MHz – Horizontal Polarization – 10 MHz BW – 4 dBi Antennas – X-Axis

FCC 15.247 and RSS-GEN
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

Date: 03/26/2019
Lab: D
Tested By: Kyle Fujimoto

Band Edges - 2440 MHz @ 20 MHz - 4 dBi Antennas

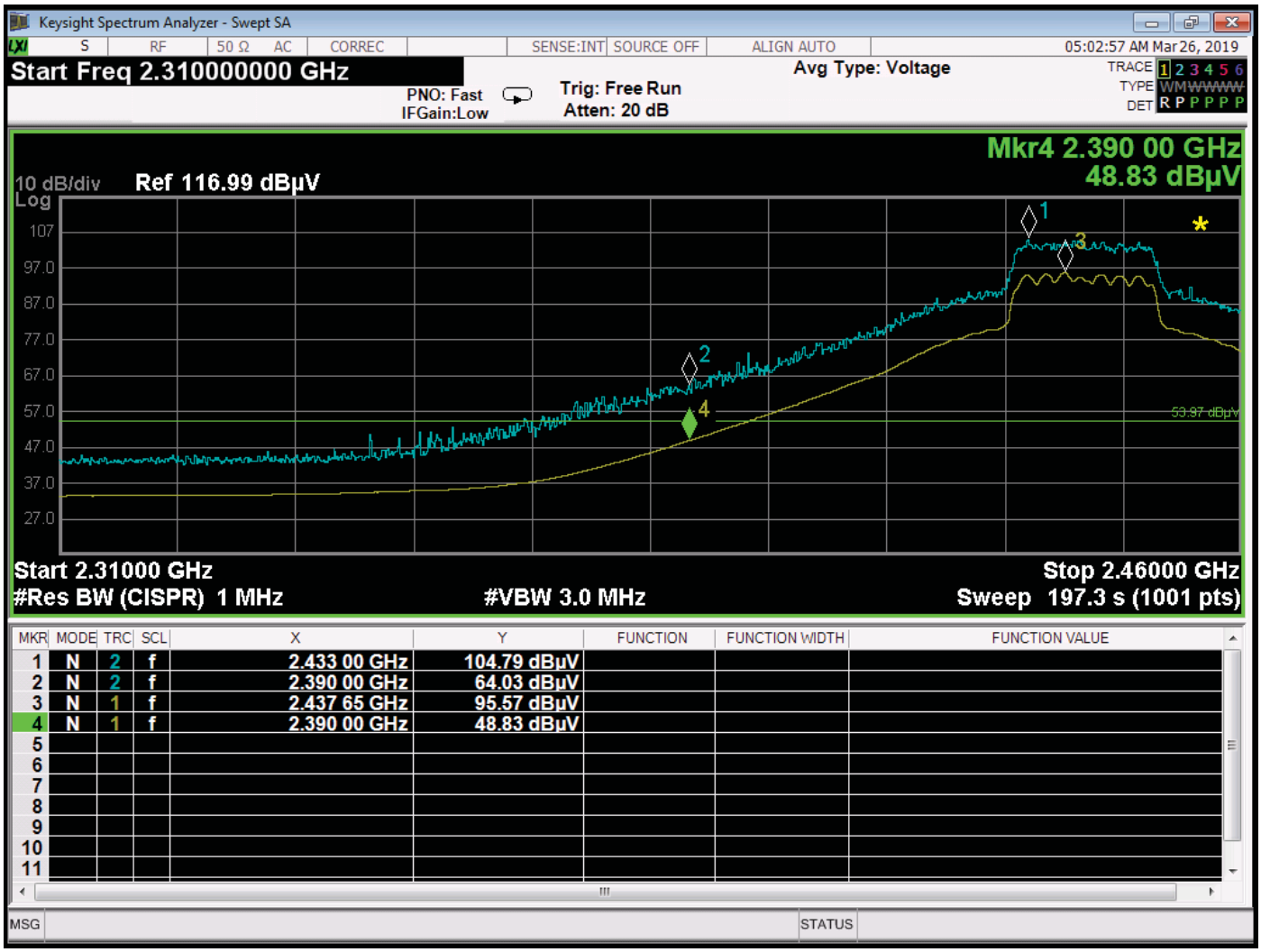
Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2440.00	104.79	V	--	--	Peak	5.25	154.19	**Fundamental**
2440.00	95.57	V	--	--	Avg	5.25	154.19	**2440 MHz - 20 MHz BW**
2390.00	64.03	V	73.97	-9.94	Peak	5.25	154.19	**Band Edge**
2390.00	48.83	V	53.97	-5.14	Avg	5.25	154.19	**2390.00 MHz**
2440.00	102.07	H	--	--	Peak	0.25	165.83	**Fundamental**
2440.00	92.83	H	--	--	Avg	0.25	165.83	**2440 MHz - 20 MHz BW**
2390.00	43.38	H	73.97	-30.59	Peak	0.25	165.83	**Band Edge**
2390.00	32.82	H	53.97	-21.15	Avg	0.25	165.83	**2390.00 MHz**
								X-Axis
								Worst Case

FCC 15.247 and RSS-GEN
Silvus Technologies, Inc.
StreamCaster 4200 Tactical MIMO Radio
Model: SC4210E-245-EB

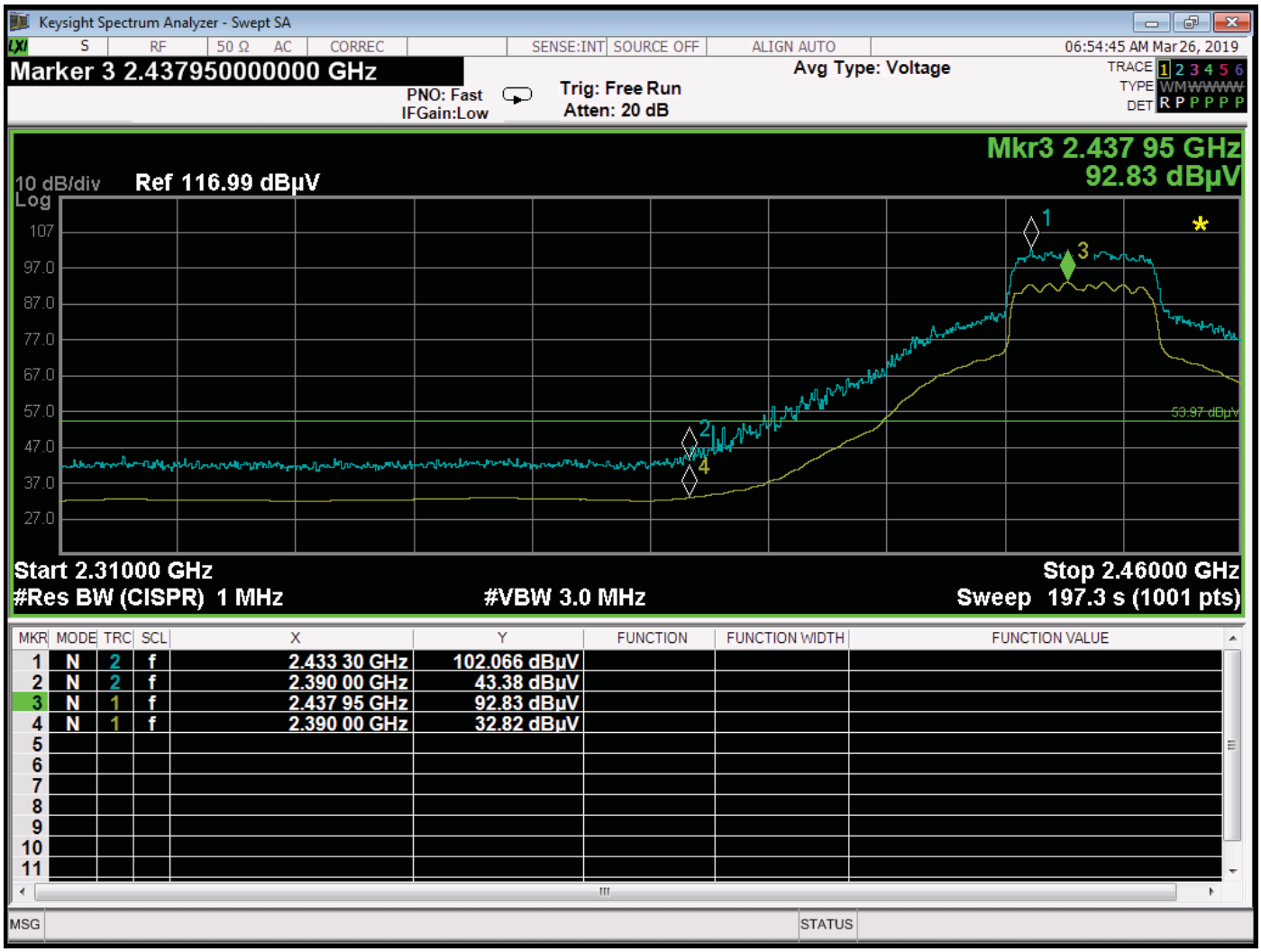
Date: 03/26/2019
Lab: D
Tested By: Kyle Fujimoto

Band Edges - 2440 MHz @ 20 MHz - 4 dBi Antennas

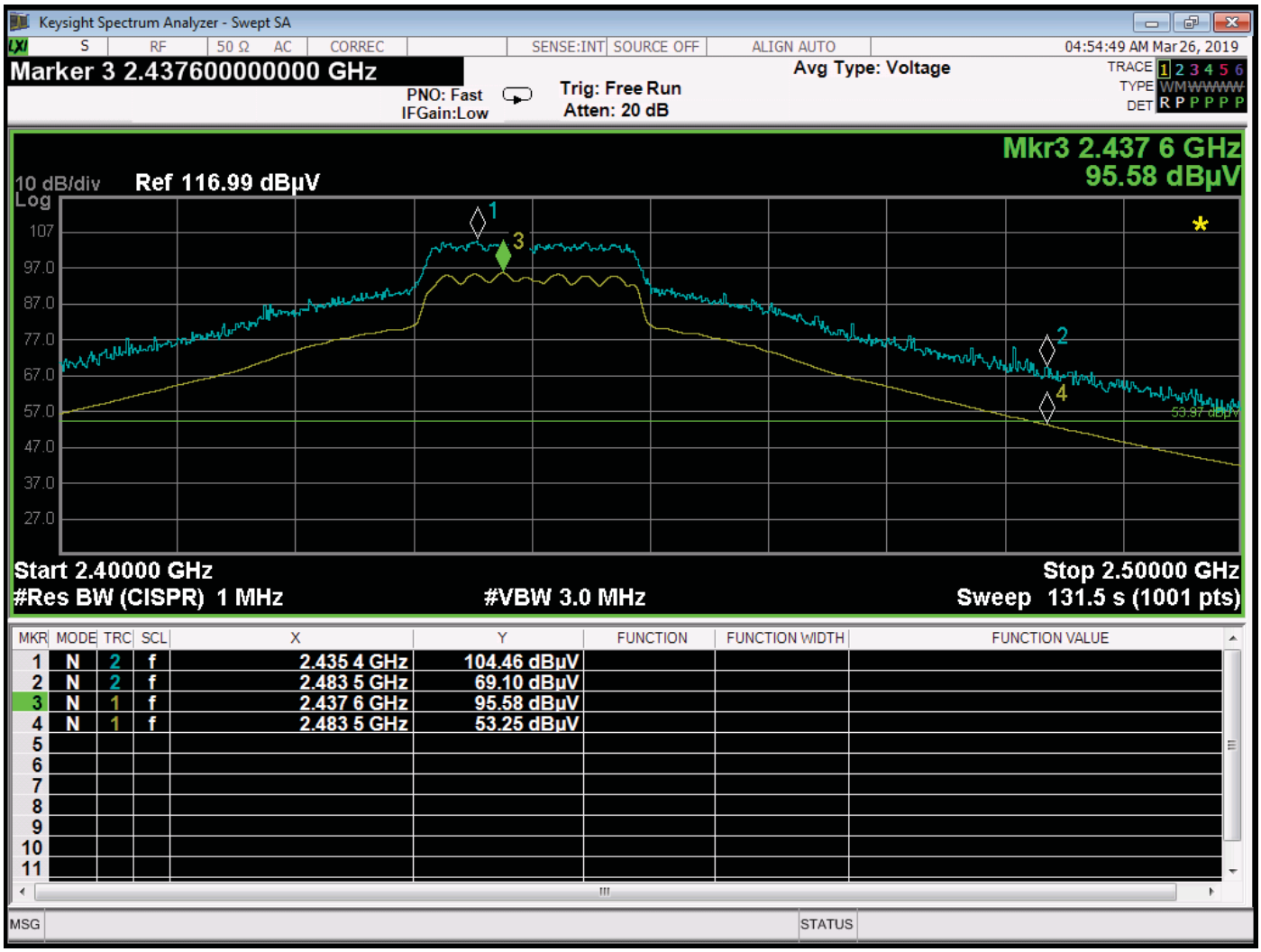
Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2440.00	104.46	V	--	--	Peak	5.25	154.19	**Fundamental**
2440.00	95.58	V	--	--	Avg	5.25	154.19	**2440 MHz - 20 MHz BW**
2483.50	69.10	V	73.97	-4.87	Peak	5.25	154.19	**Band Edge**
2483.50	53.25	V	53.97	-0.72	Avg	5.25	154.19	**2483.50 MHz**
2440.00	99.94	H	--	--	Peak	0.25	165.83	**Fundamental**
2440.00	89.83	H	--	--	Avg	0.25	165.83	**2440 MHz - 20 MHz BW**
2390.00	42.87	H	73.97	-31.10	Peak	0.25	165.83	**Band Edge**
2390.00	33.80	H	53.97	-20.17	Avg	0.25	165.83	**2483.50 MHz**
								X-Axis
								Worst Case



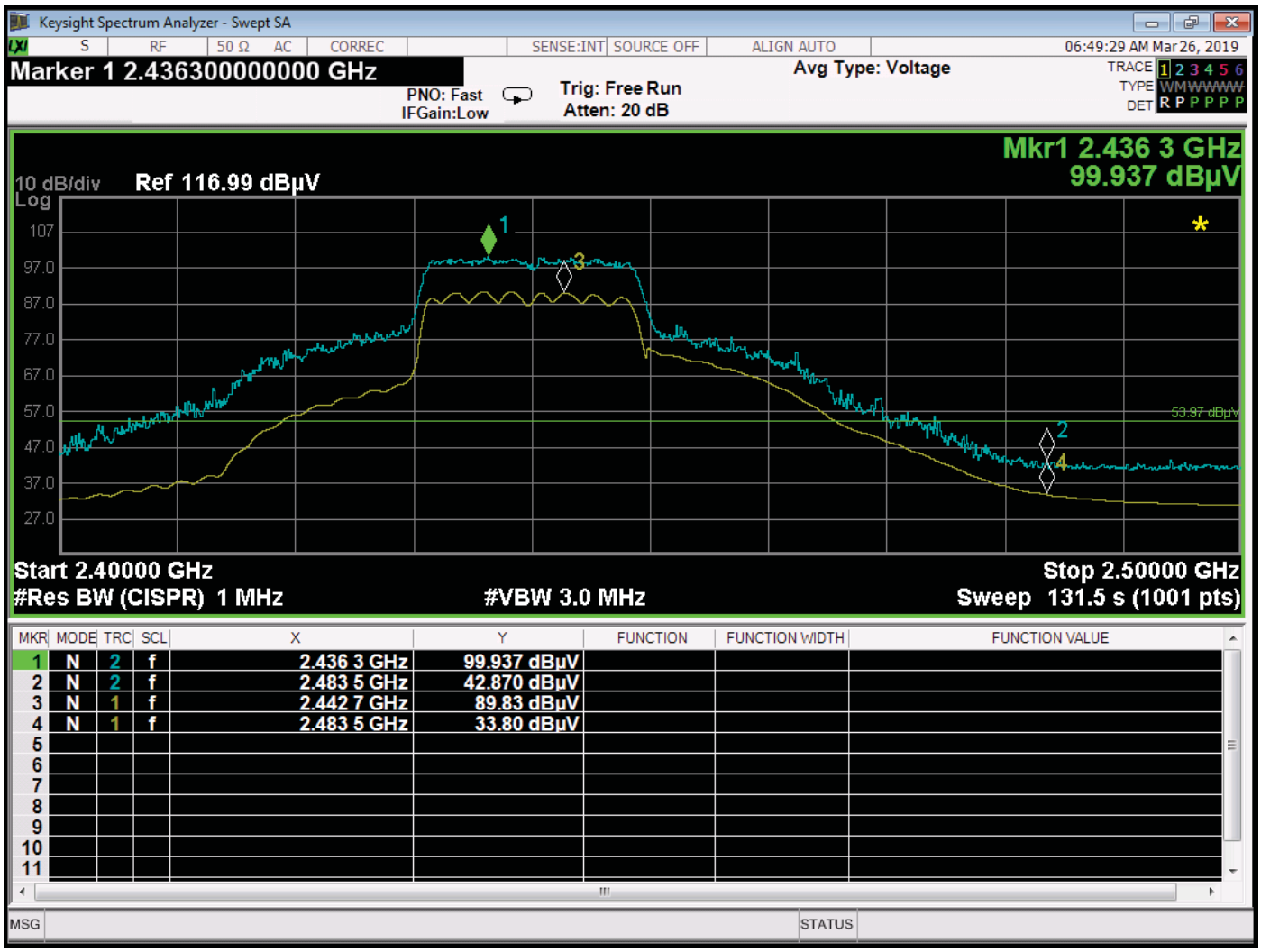
Lower Band Edge – 2440 MHz – Vertical Polarization – 20 MHz BW – 4 dBi Antennas – X-Axis



Lower Band Edge – 2440 MHz – Horizontal Polarization – 20 MHz BW – 4 dBi Antennas – X-Axis



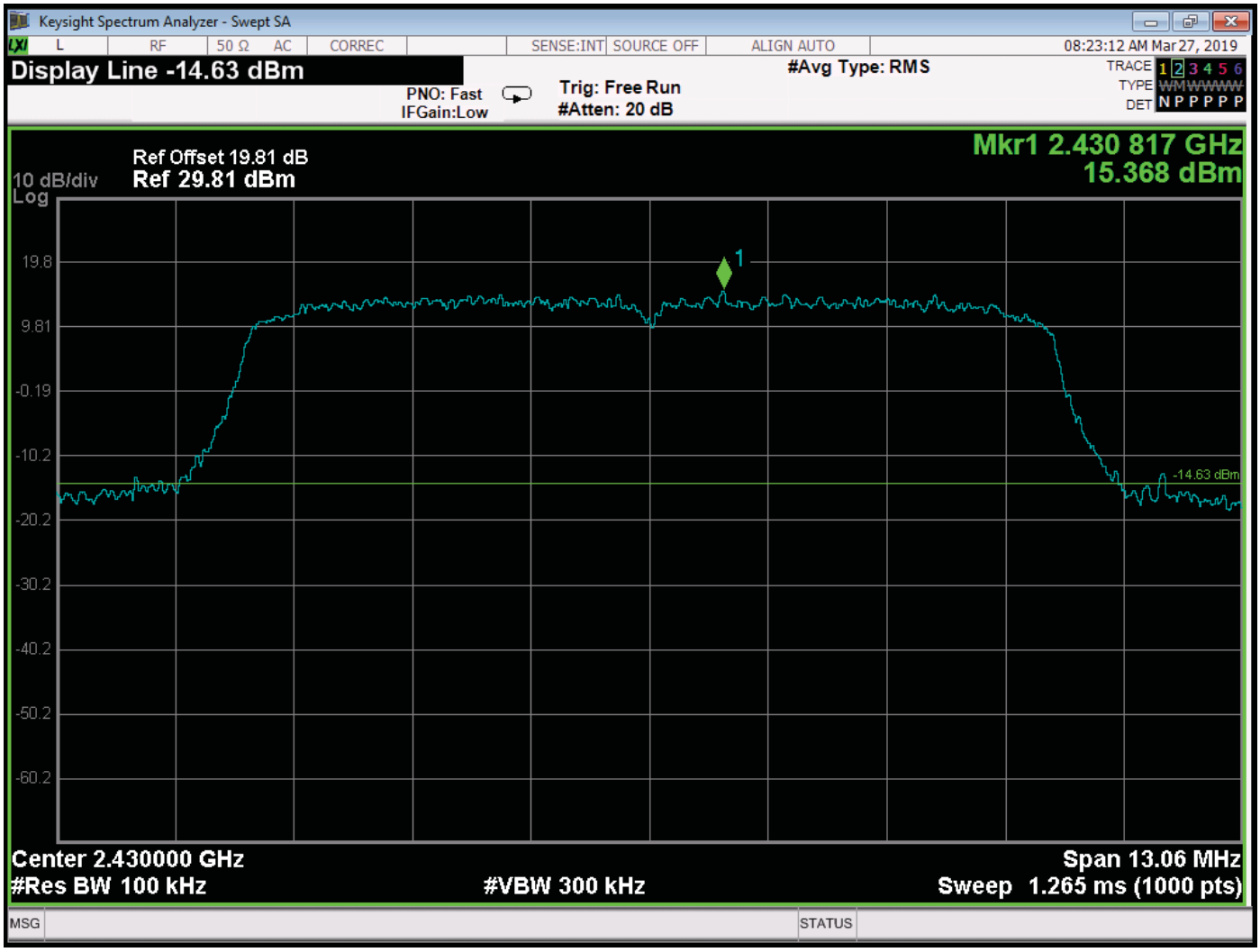
Upper Band Edge – 2440 MHz – Vertical Polarization – 20 MHz BW – 4 dBi Antennas – X-Axis



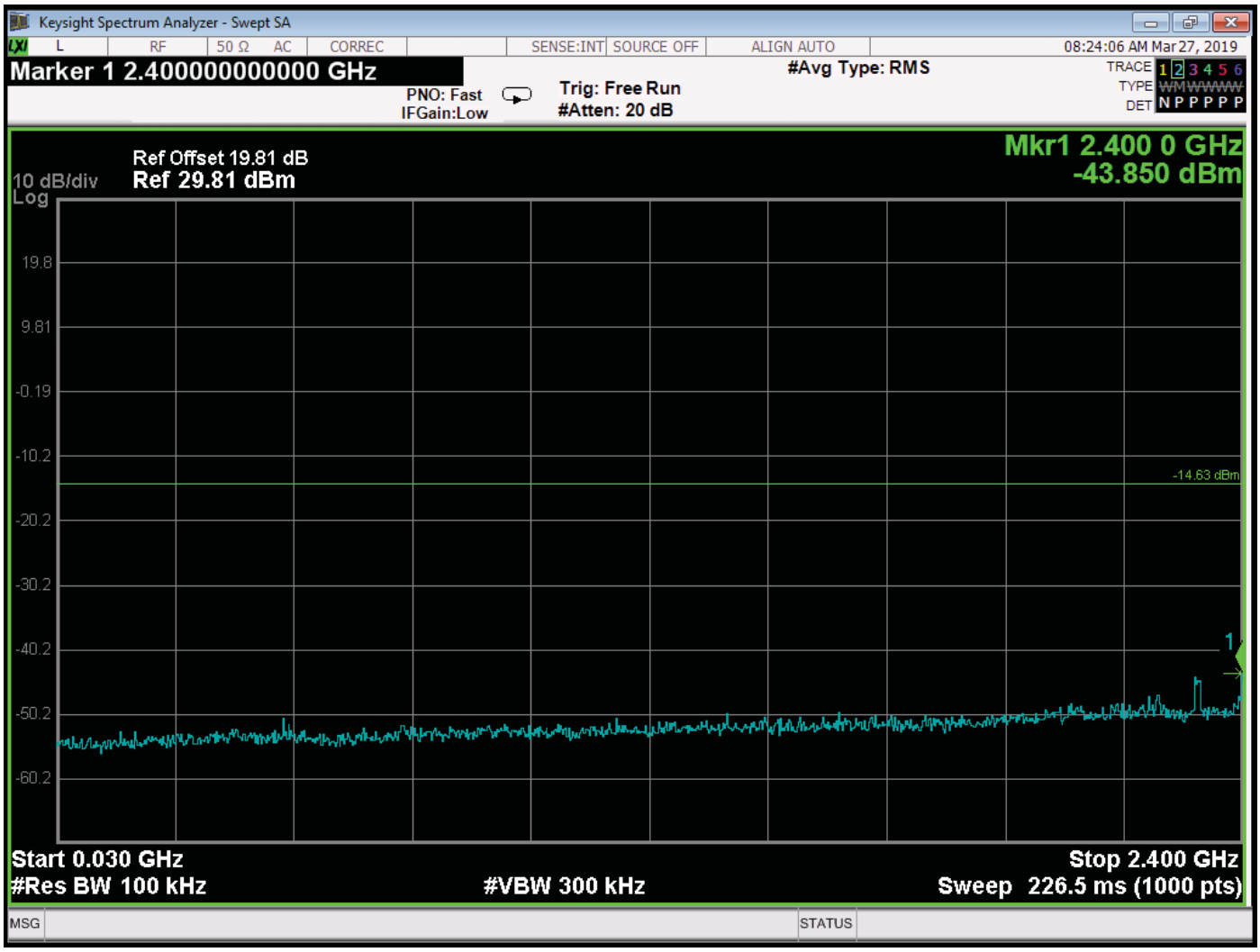
Upper Band Edge – 2440 MHz – Horizontal Polarization – 20 MHz BW – 4 dBi Antennas – X-Axis

EMISSIONS IN NON-RESRTICTED BANDS

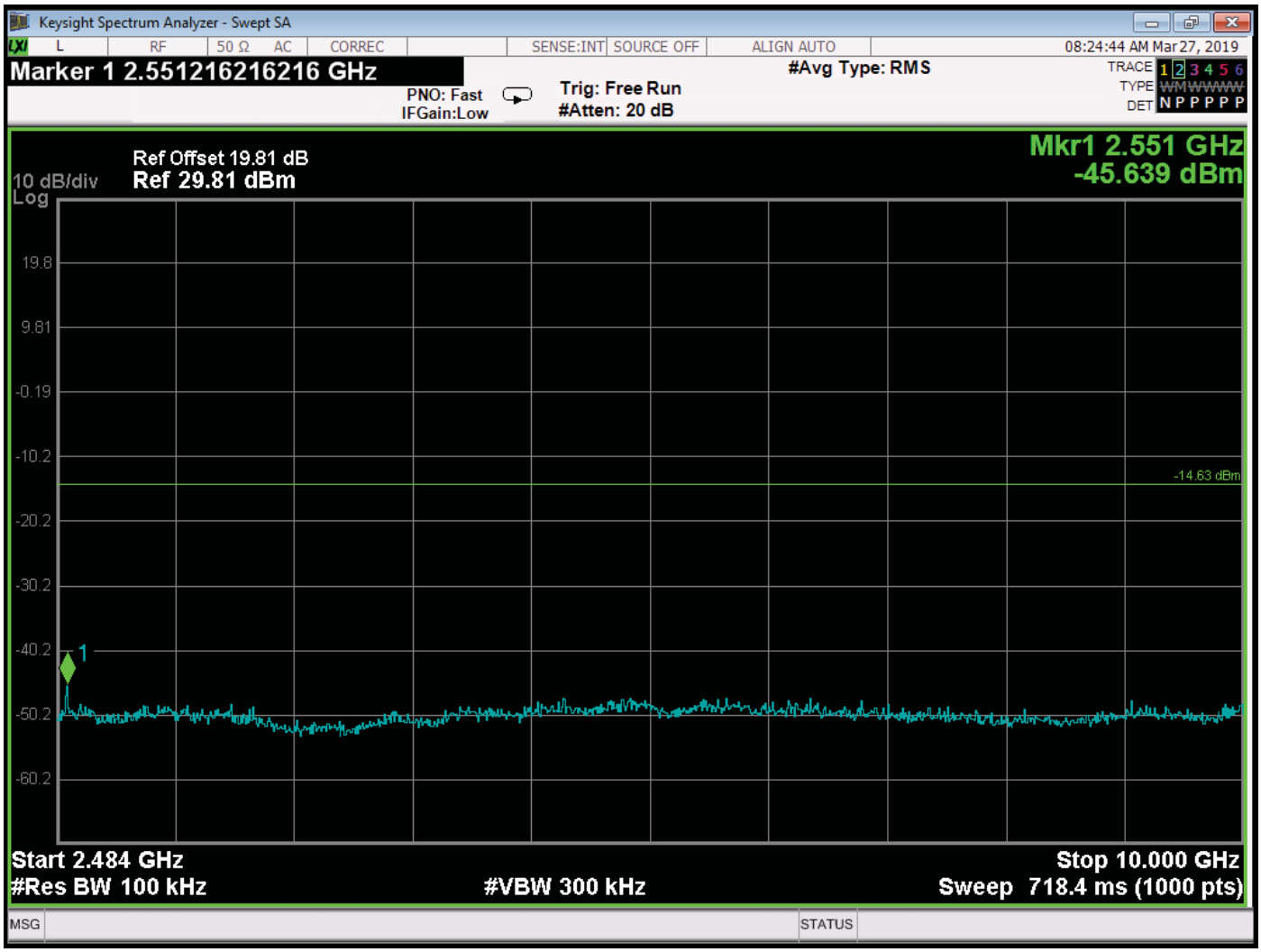
DATA SHEETS



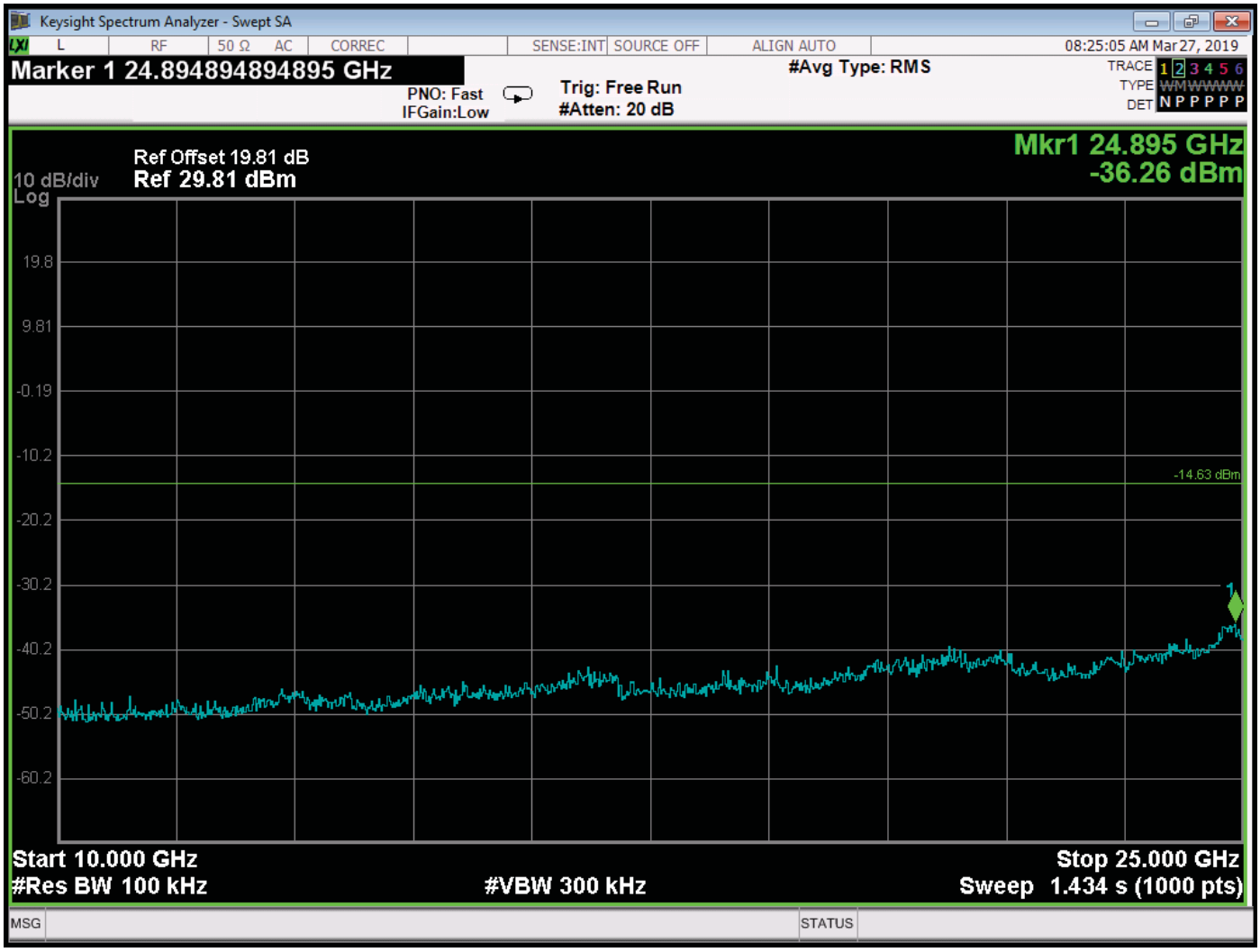
RF Antenna Conducted – Reference Level – 2430 MHz – 10 MHz BW – Port #1



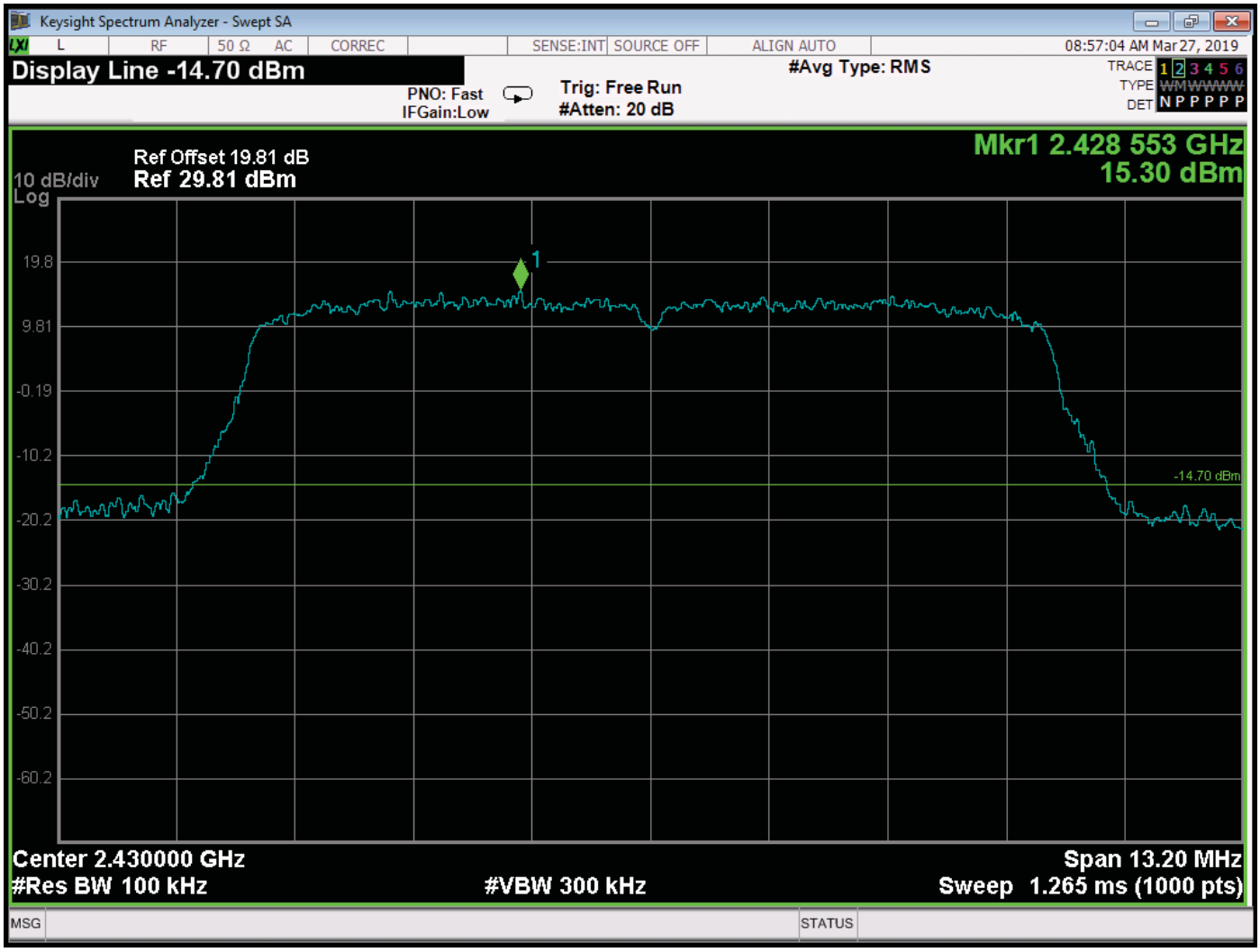
RF Antenna Conducted – 30 MHz to 2.4 GHz – 2430 MHz – 10 MHz BW – Port #1



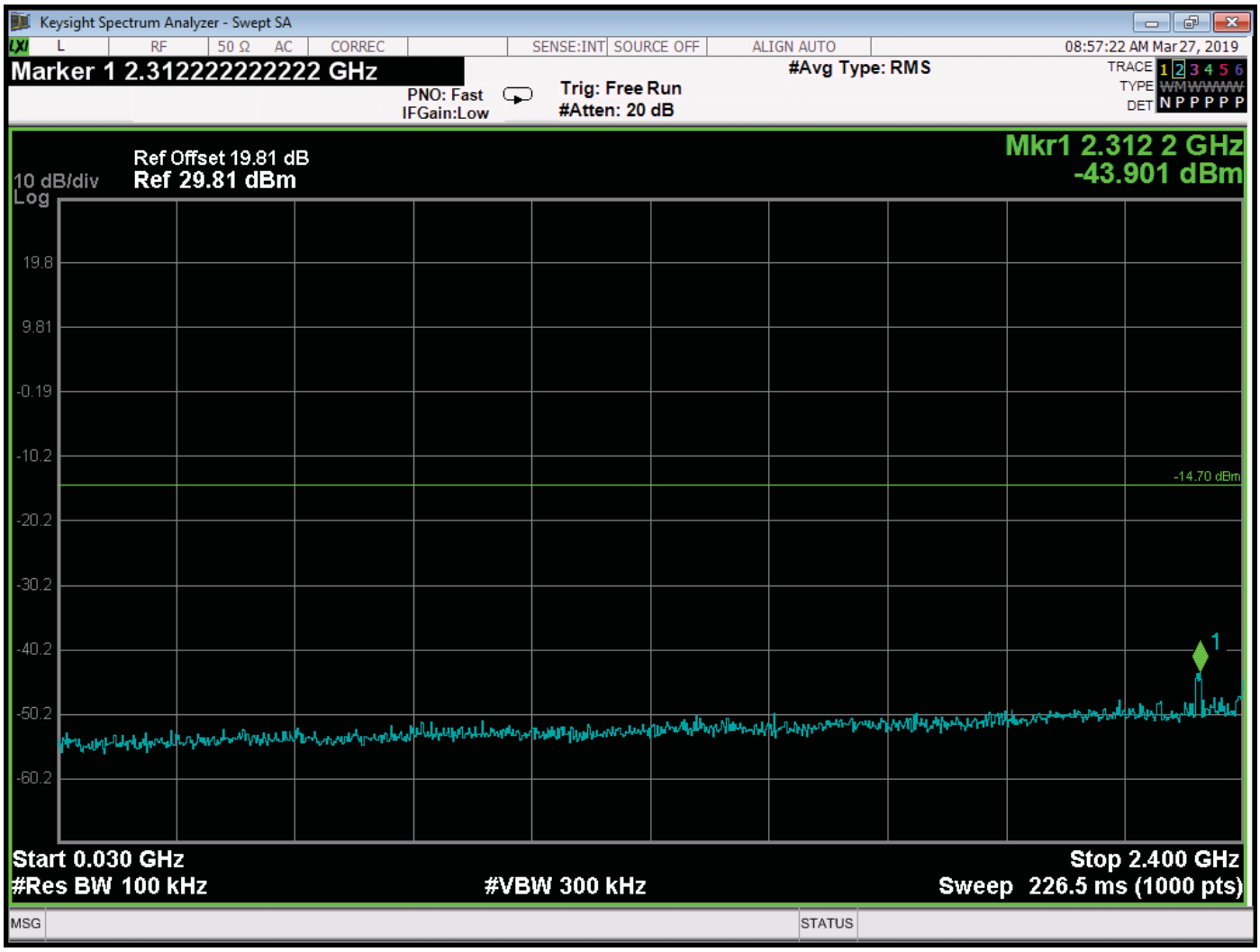
RF Antenna Conducted – 2483.5 MHz to 10 GHz – 2430 MHz – 10 MHz BW – Port #1



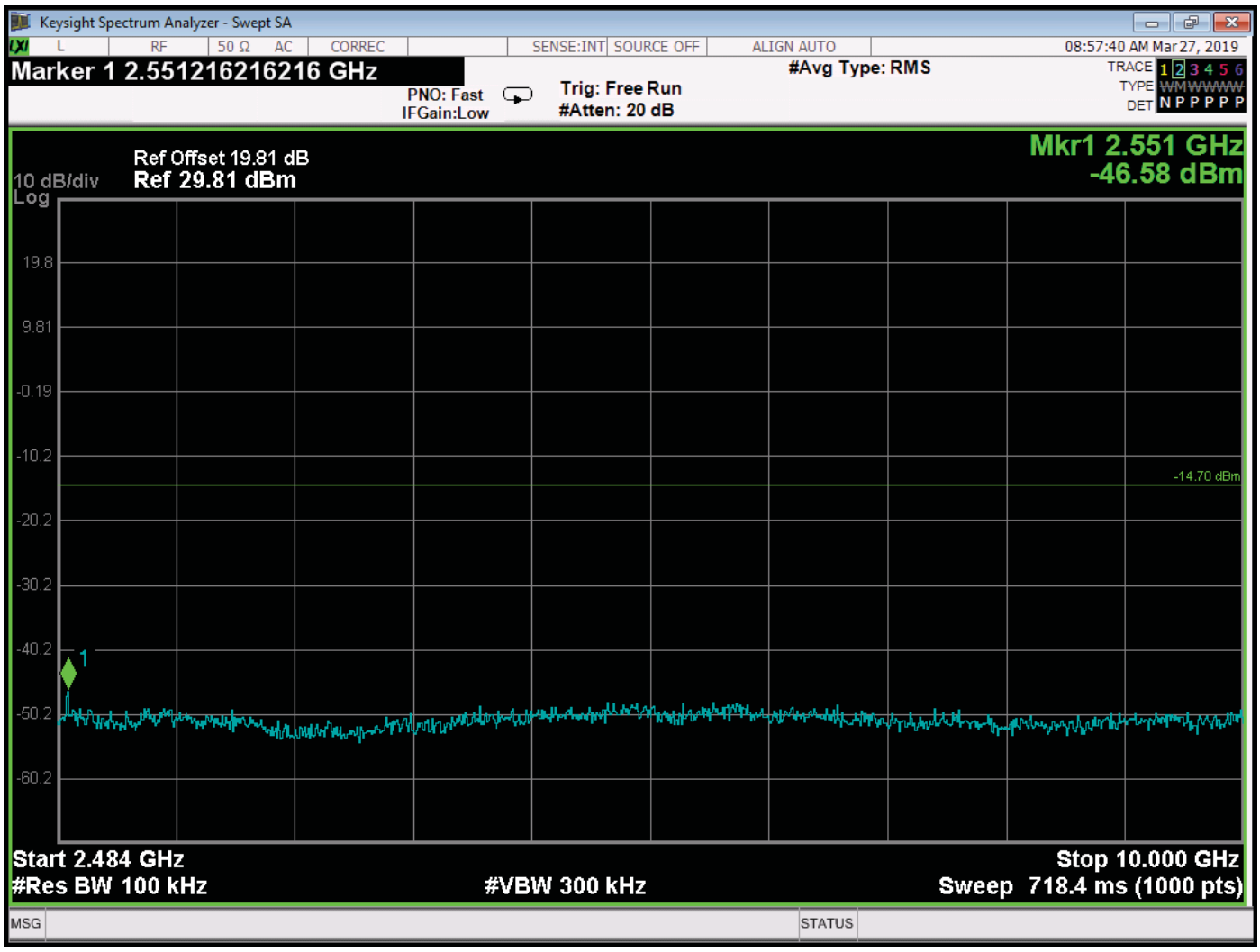
RF Antenna Conducted – 10 GHz to 25 GHz – 2430 MHz – 10 MHz BW – Port #1



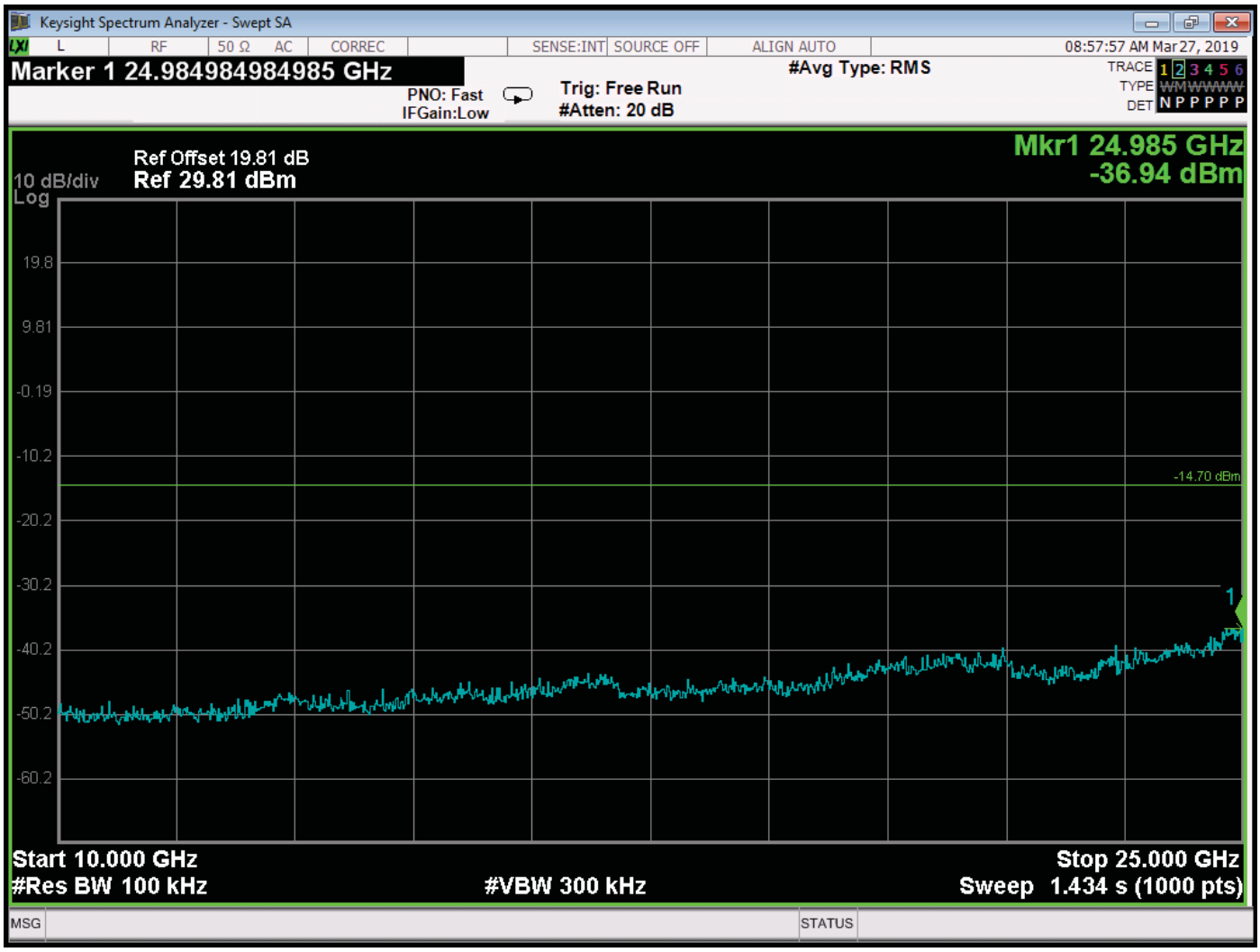
RF Antenna Conducted – Reference Level – 2430 MHz – 10 MHz BW – Port #2



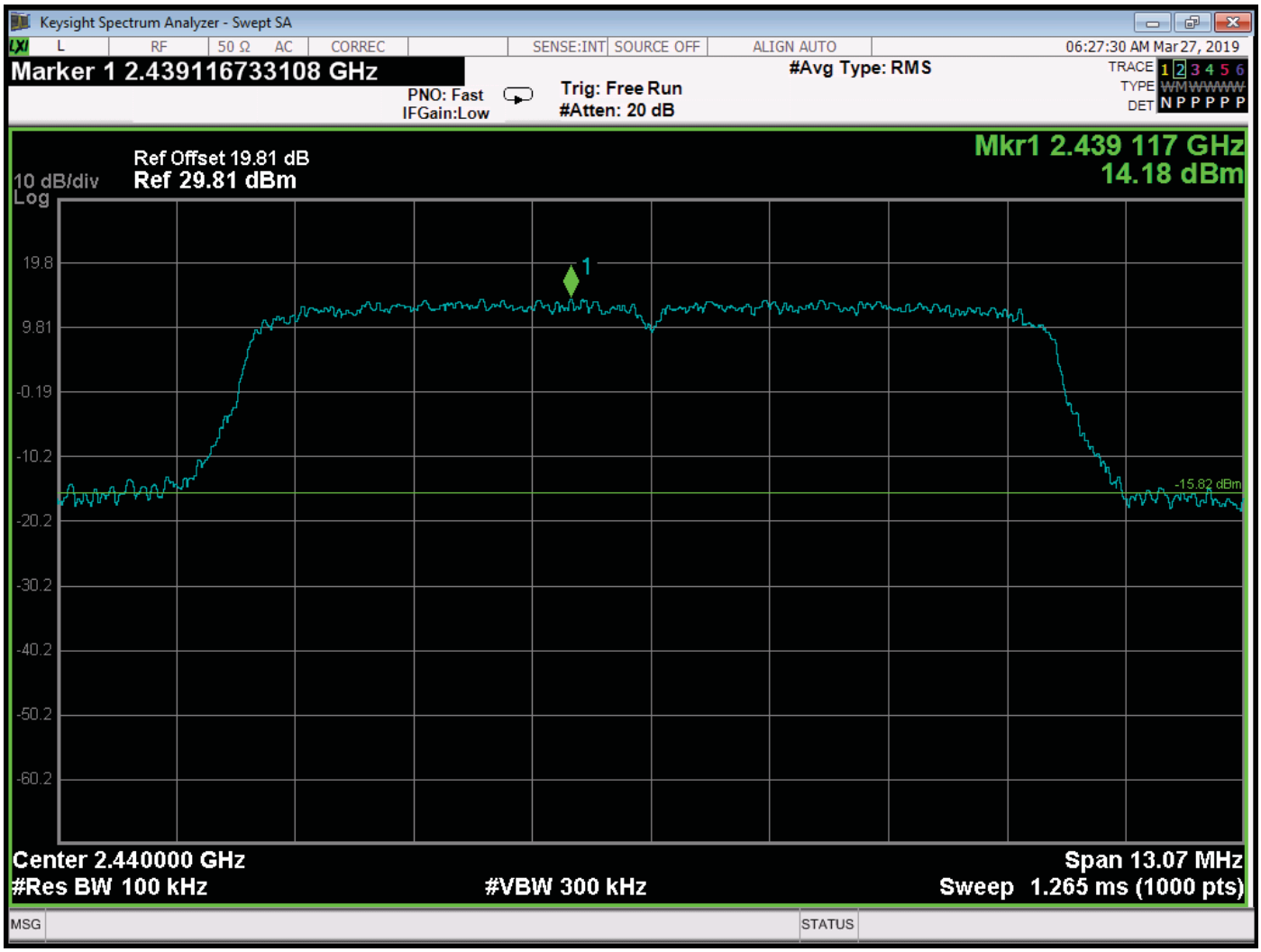
RF Antenna Conducted – 30 MHz to 2.4 GHz – 2430 MHz – 10 MHz BW – Port #2



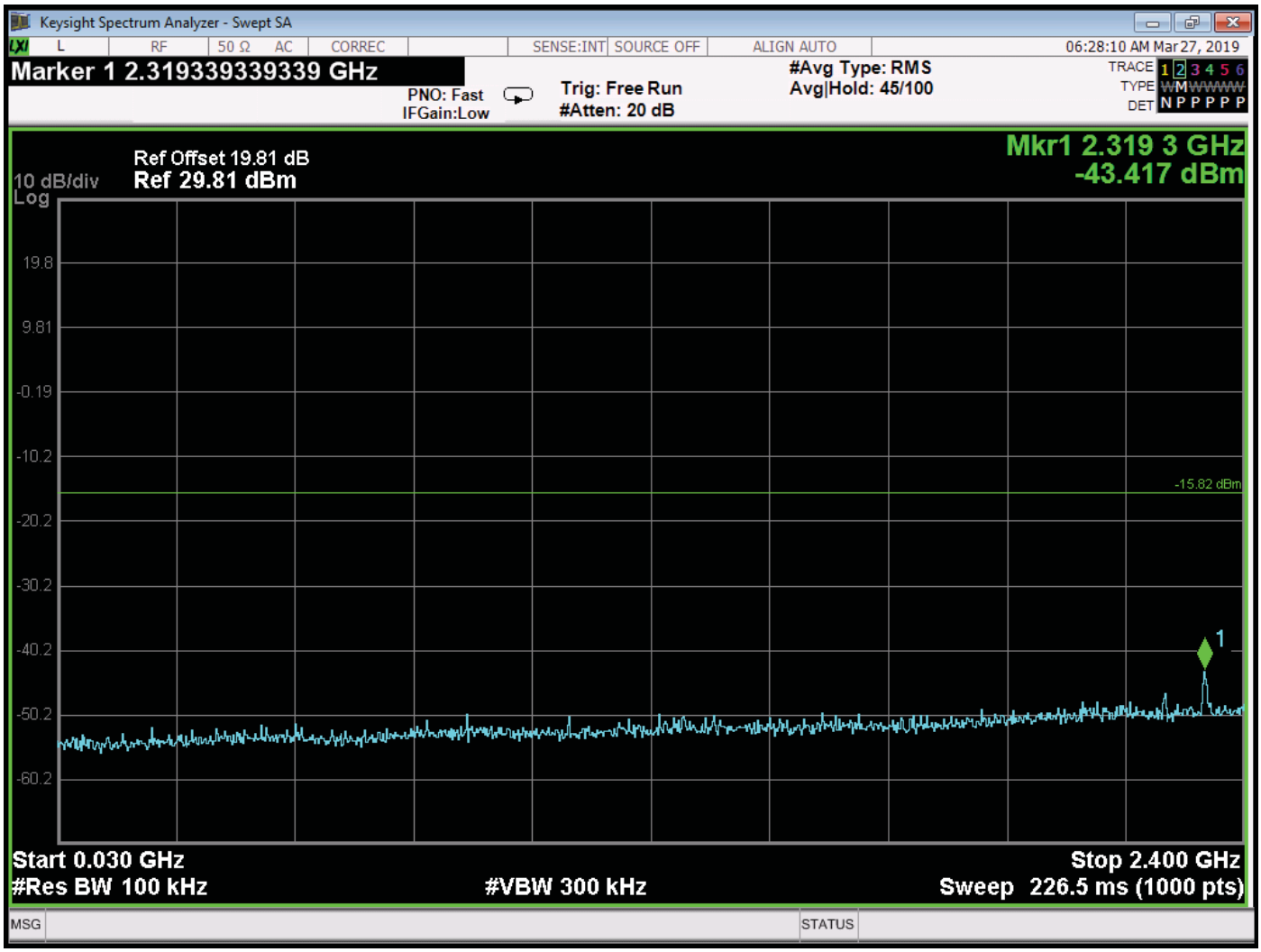
RF Antenna Conducted – 2483.5 MHz to 10 GHz – 2430 MHz – 10 MHz BW – Port #2



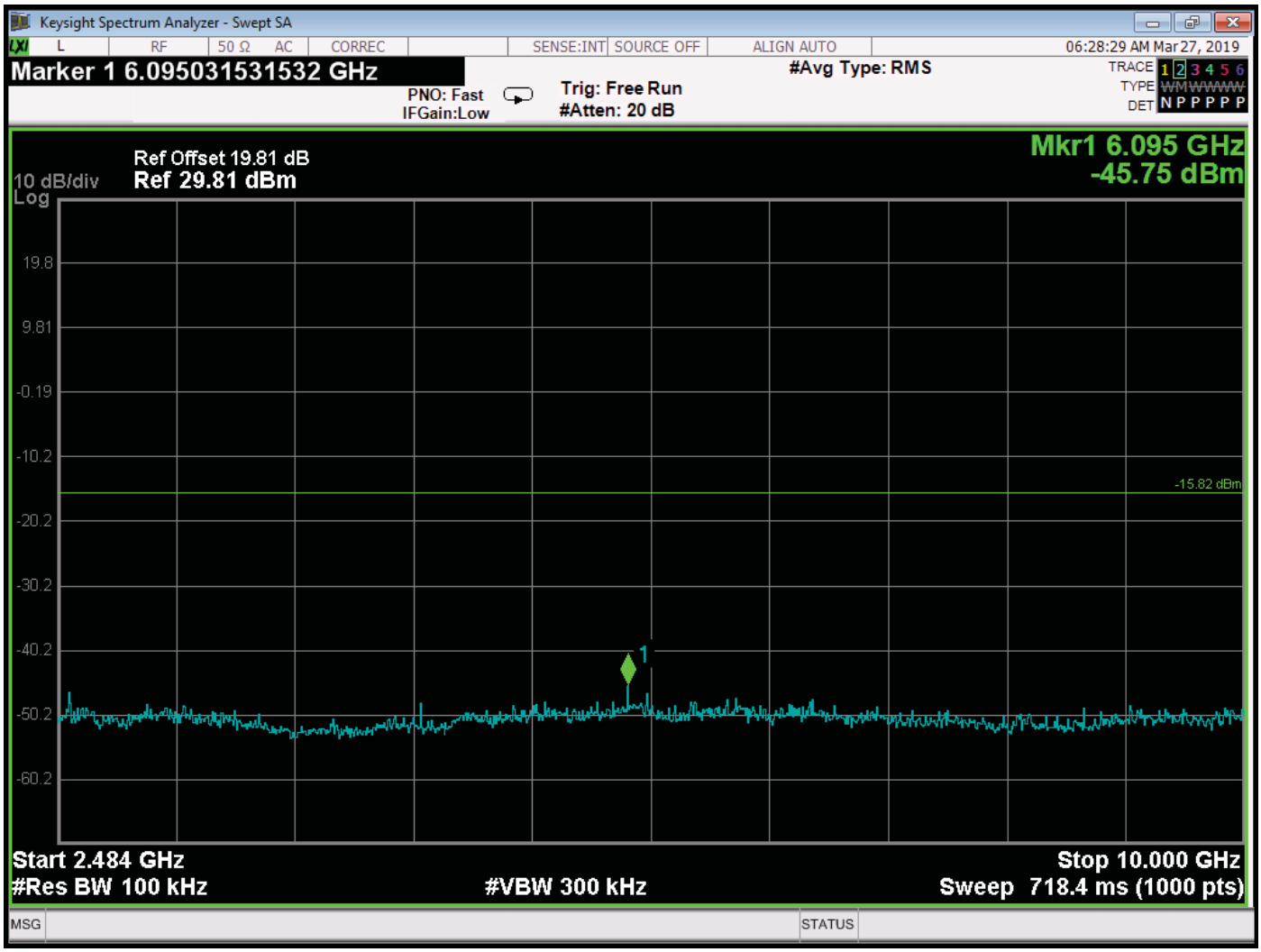
RF Antenna Conducted – 10 GHz to 25 GHz – 2430 MHz – 10 MHz BW – Port #2



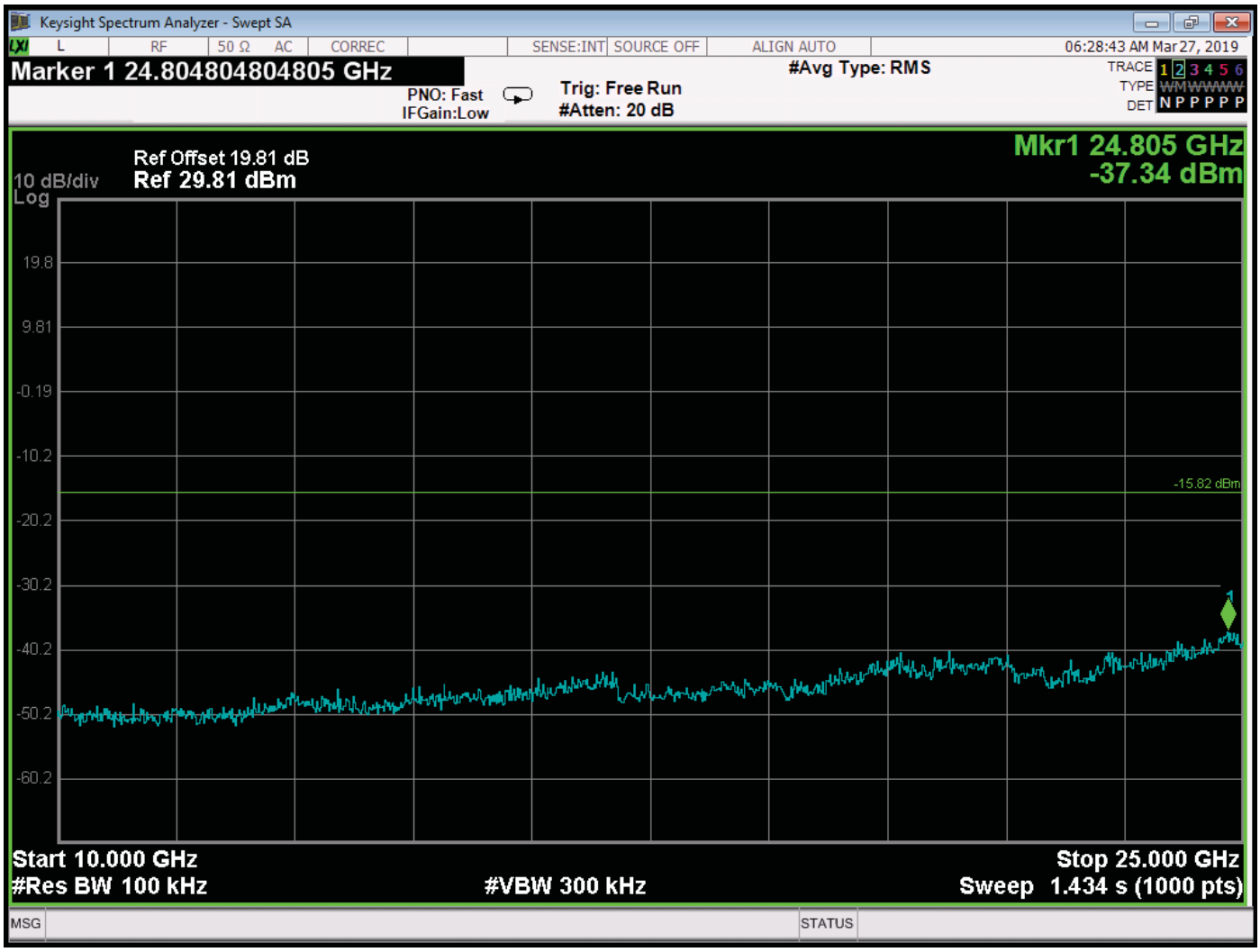
RF Antenna Conducted – Reference Level – 2440 MHz – 10 MHz BW – Port #1



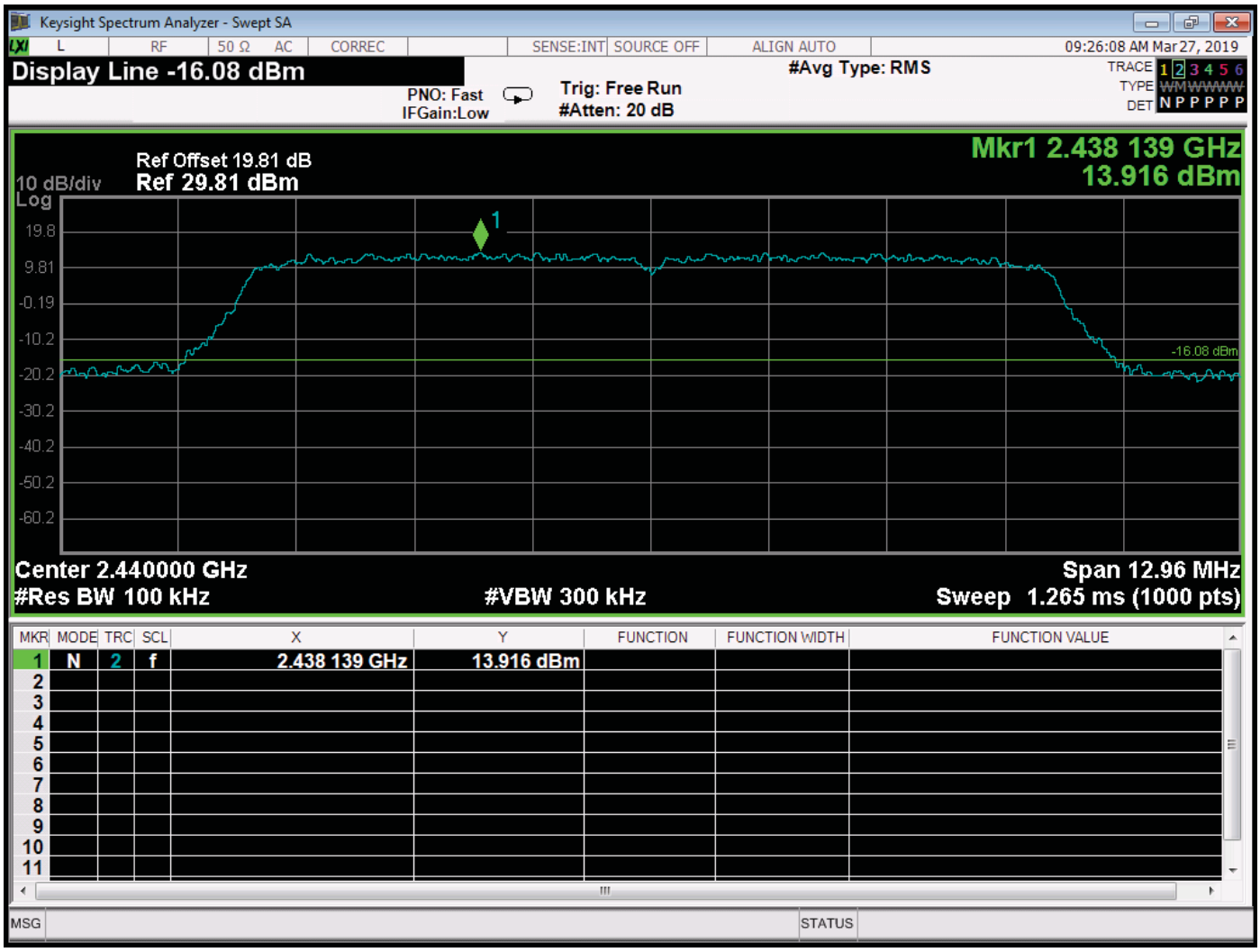
RF Antenna Conducted – 30 MHz to 2.4 GHz – 2440 MHz – 10 MHz BW – Port #1



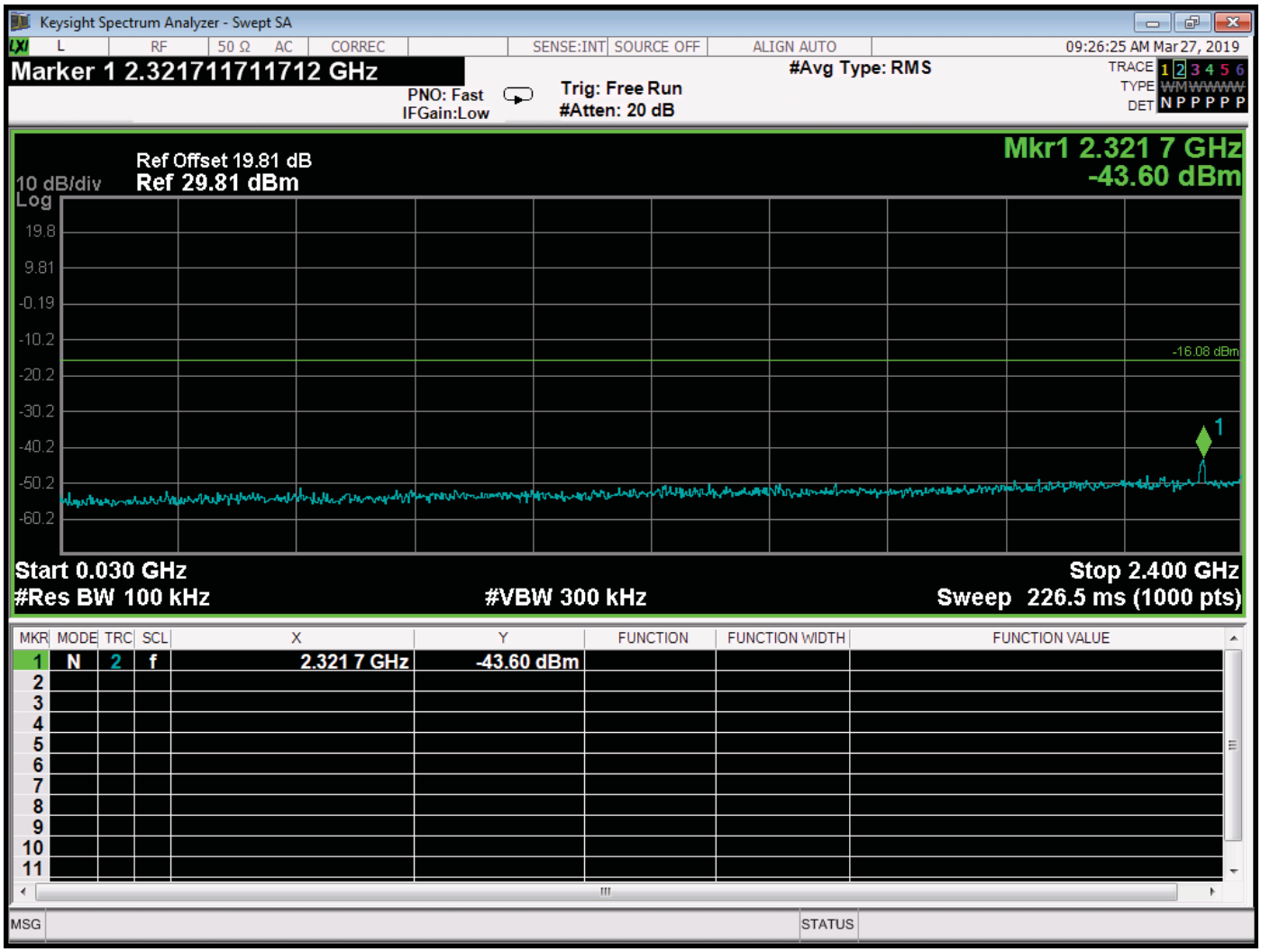
RF Antenna Conducted – 2483.5 MHz to 10 GHz – 2440 MHz – 10 MHz BW – Port #1



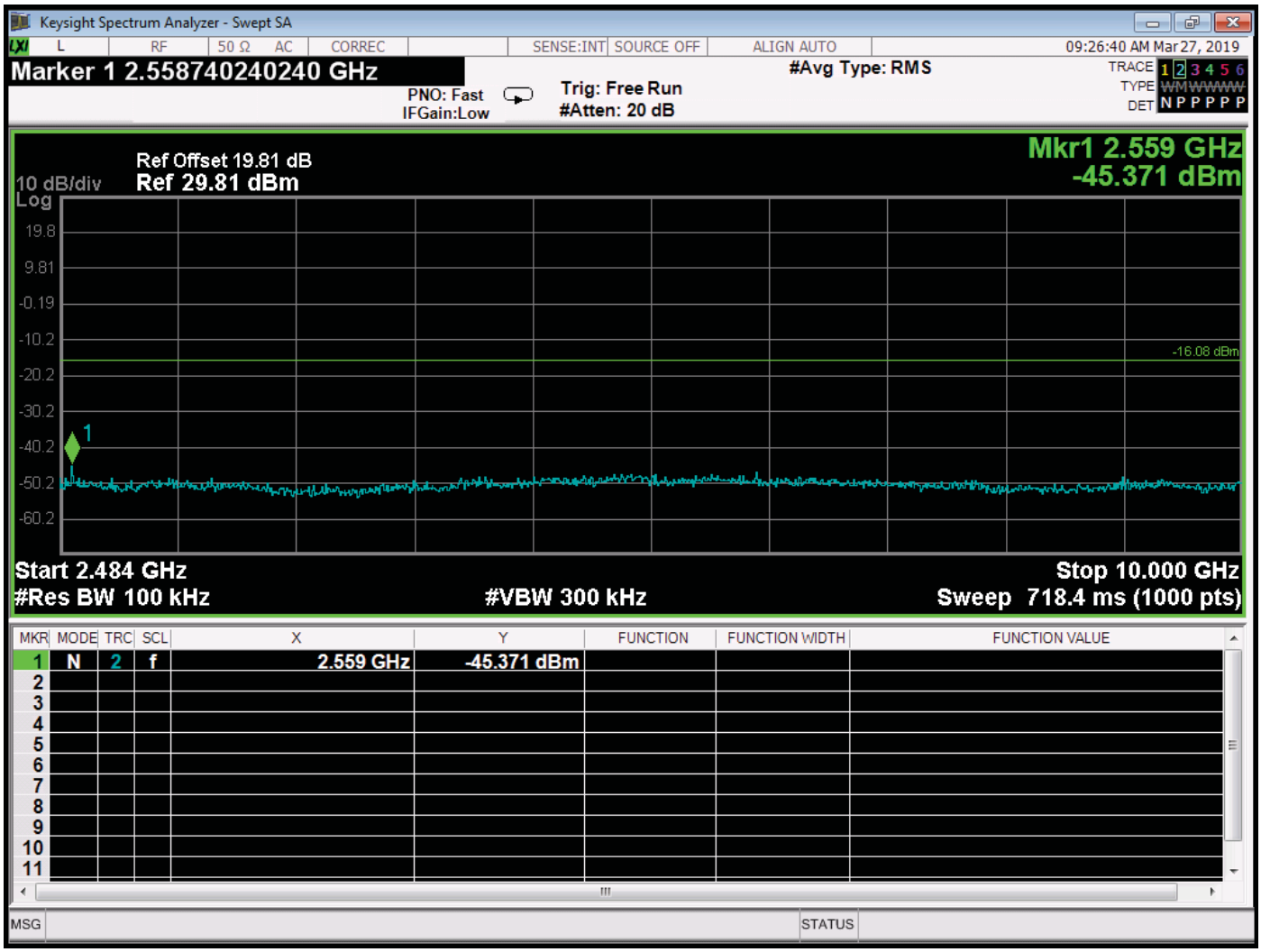
RF Antenna Conducted – 10 GHz to 25 GHz – 2440 MHz – 10 MHz BW – Port #1



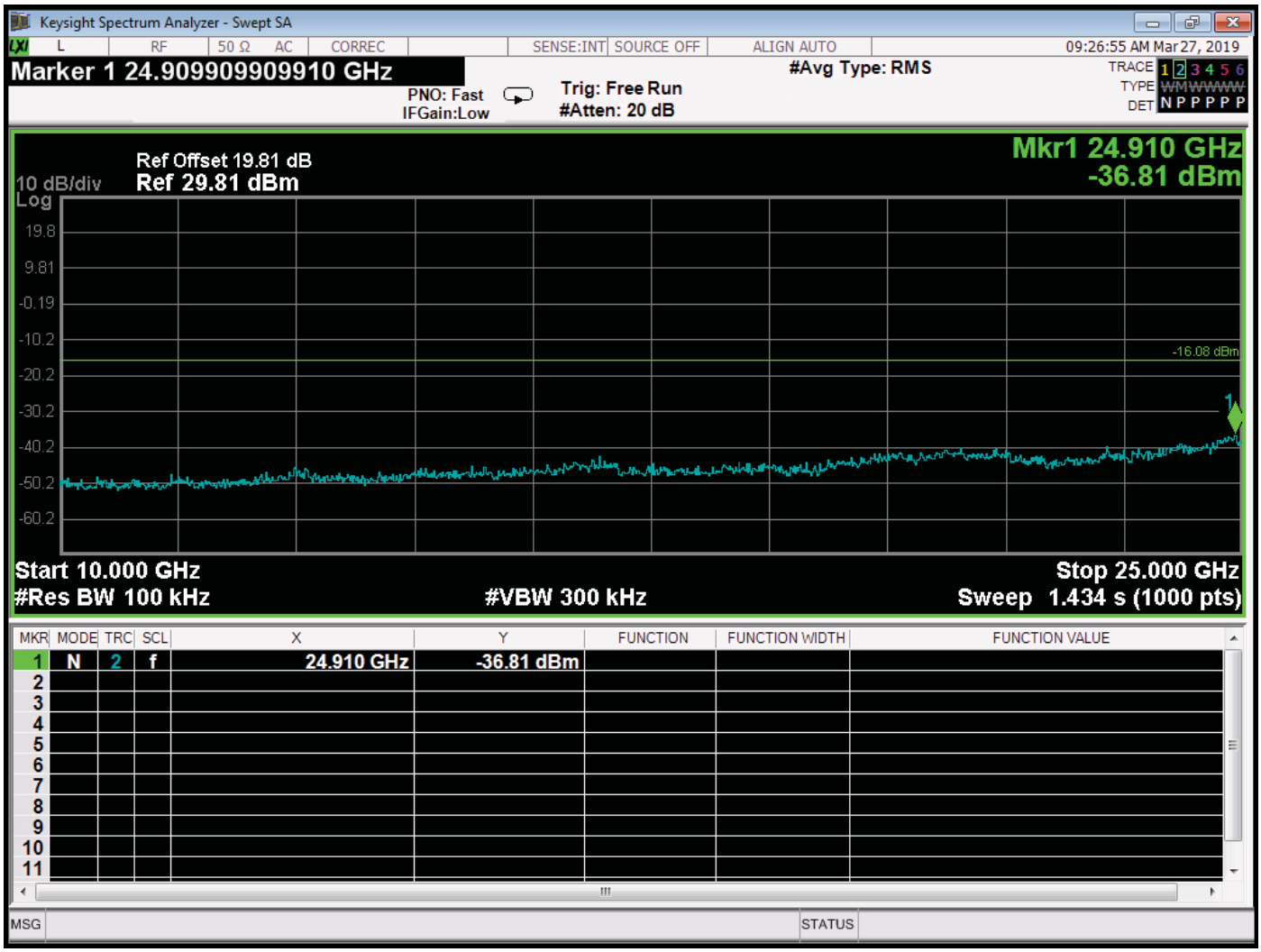
RF Antenna Conducted – Reference Level – 2440 MHz – 10 MHz BW – Port #2



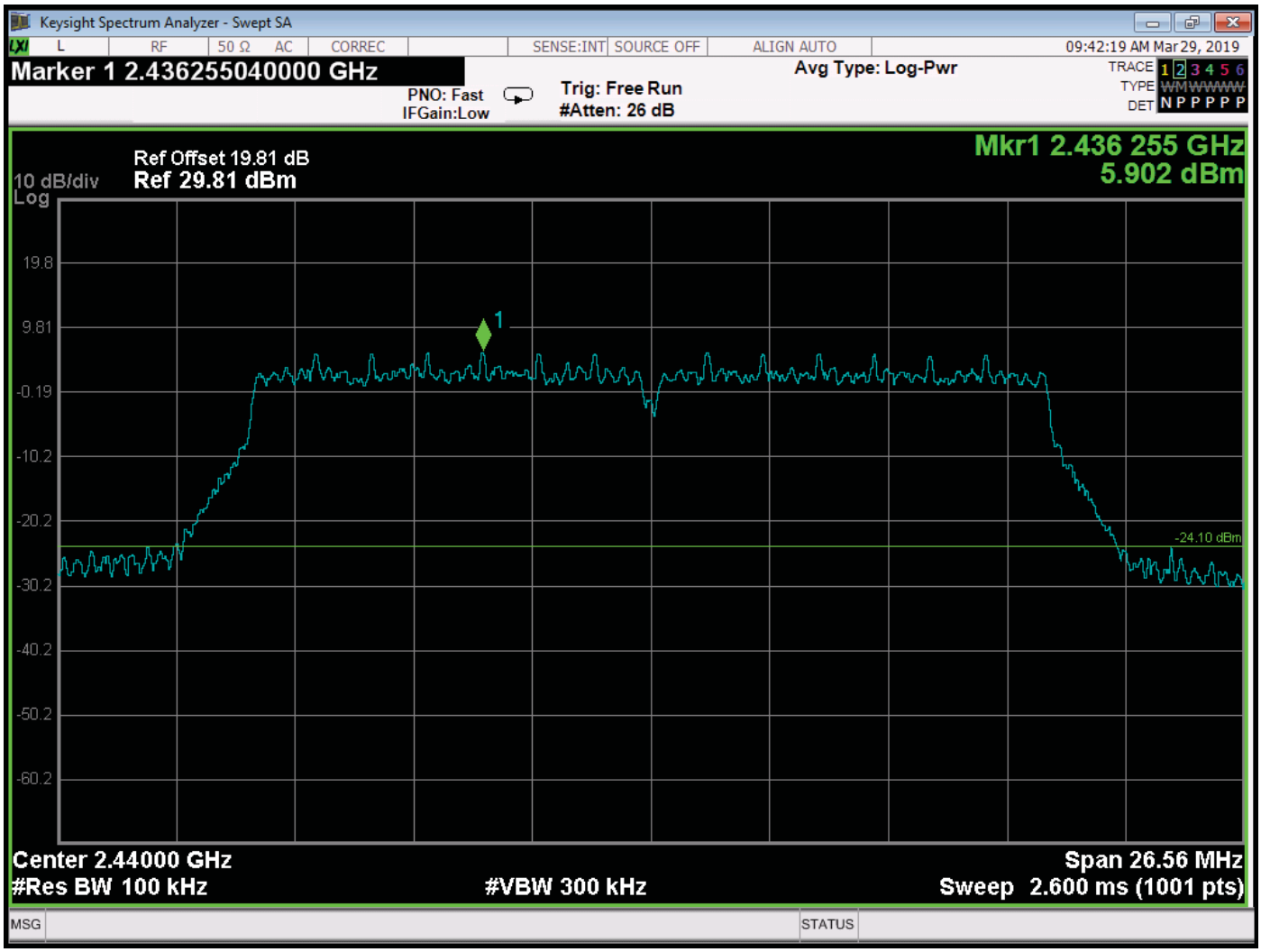
RF Antenna Conducted – 30 MHz to 2.4 GHz – 2440 MHz – 10 MHz BW – Port #2



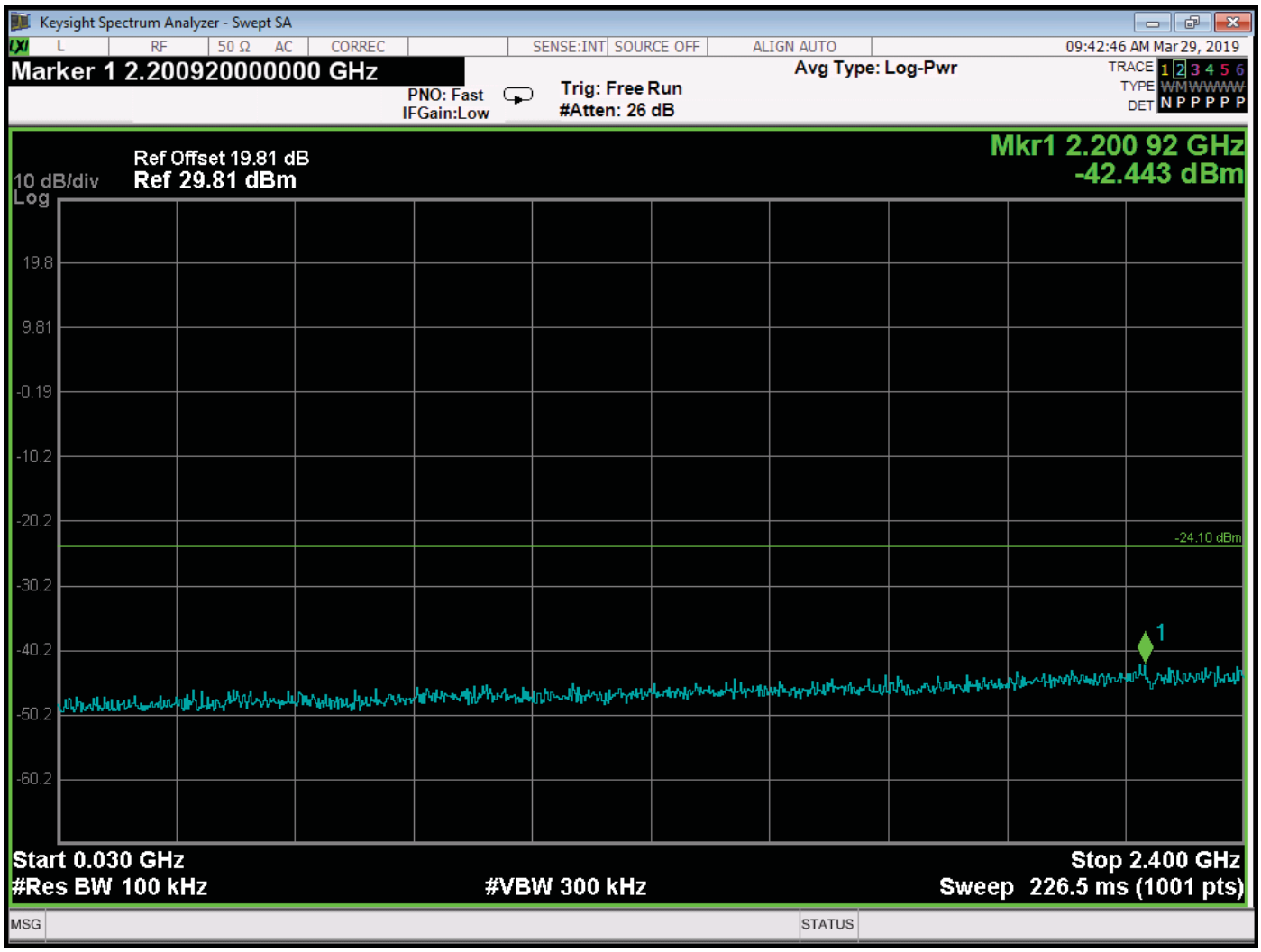
RF Antenna Conducted – 2483.5 MHz to 10 GHz – 2440 MHz – 10 MHz BW – Port #2



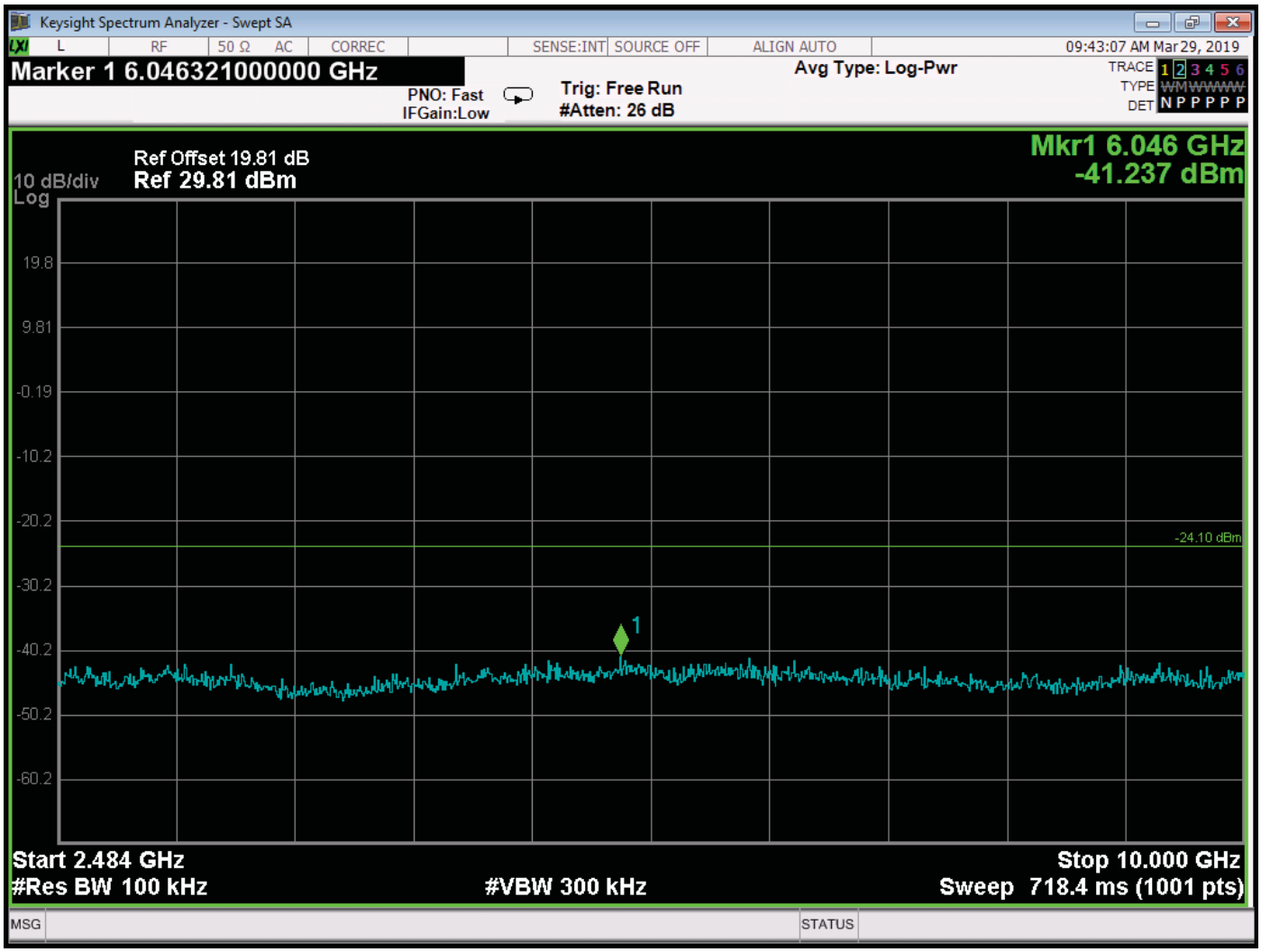
RF Antenna Conducted – 10 GHz to 25 GHz – 2440 MHz – 10 MHz BW – Port #2



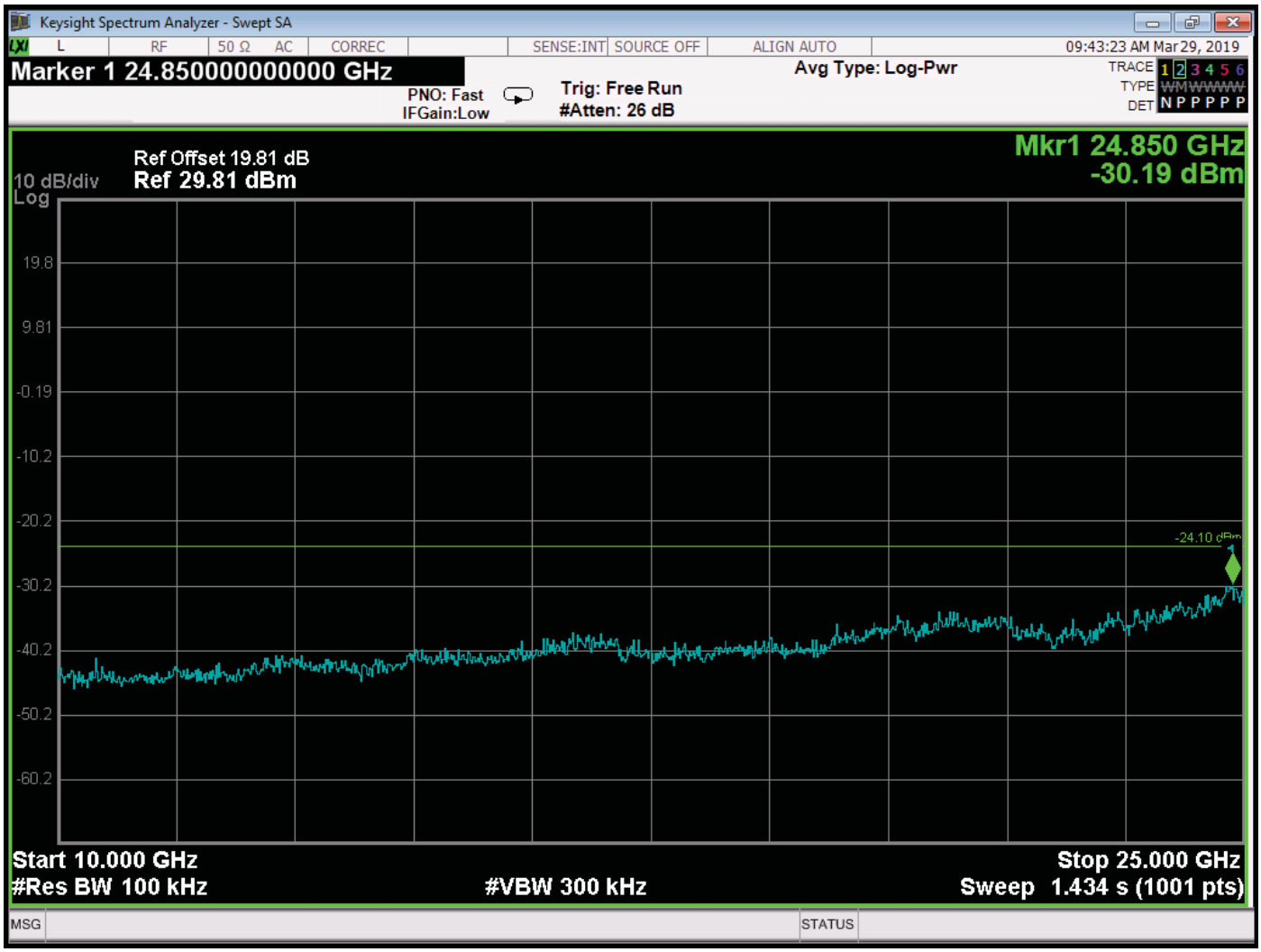
RF Antenna Conducted – Reference Level – 2440 MHz – 20 MHz BW – Port #1



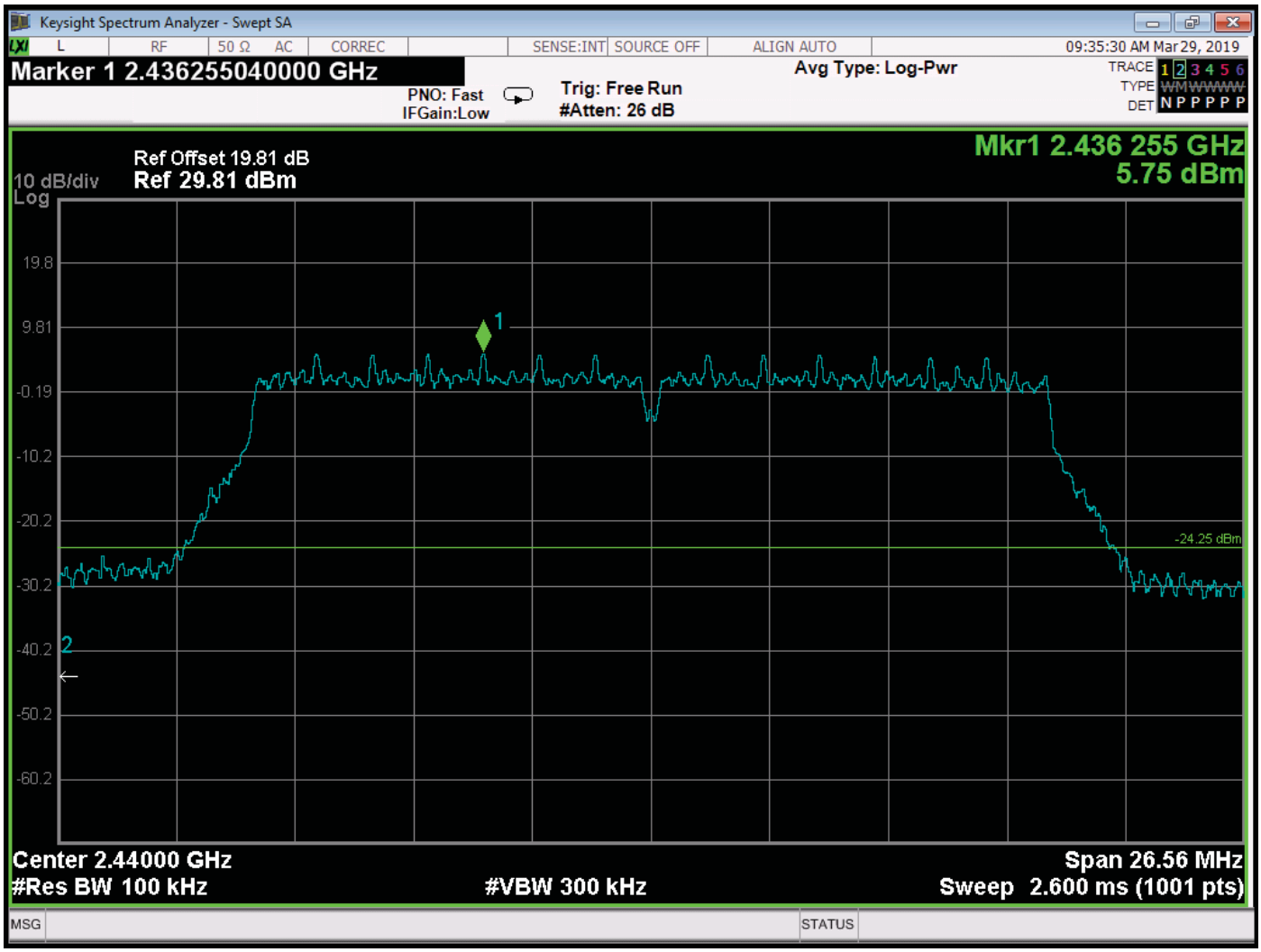
RF Antenna Conducted – 30 MHz to 2.4 GHz – 2440 MHz – 20 MHz BW – Port #1



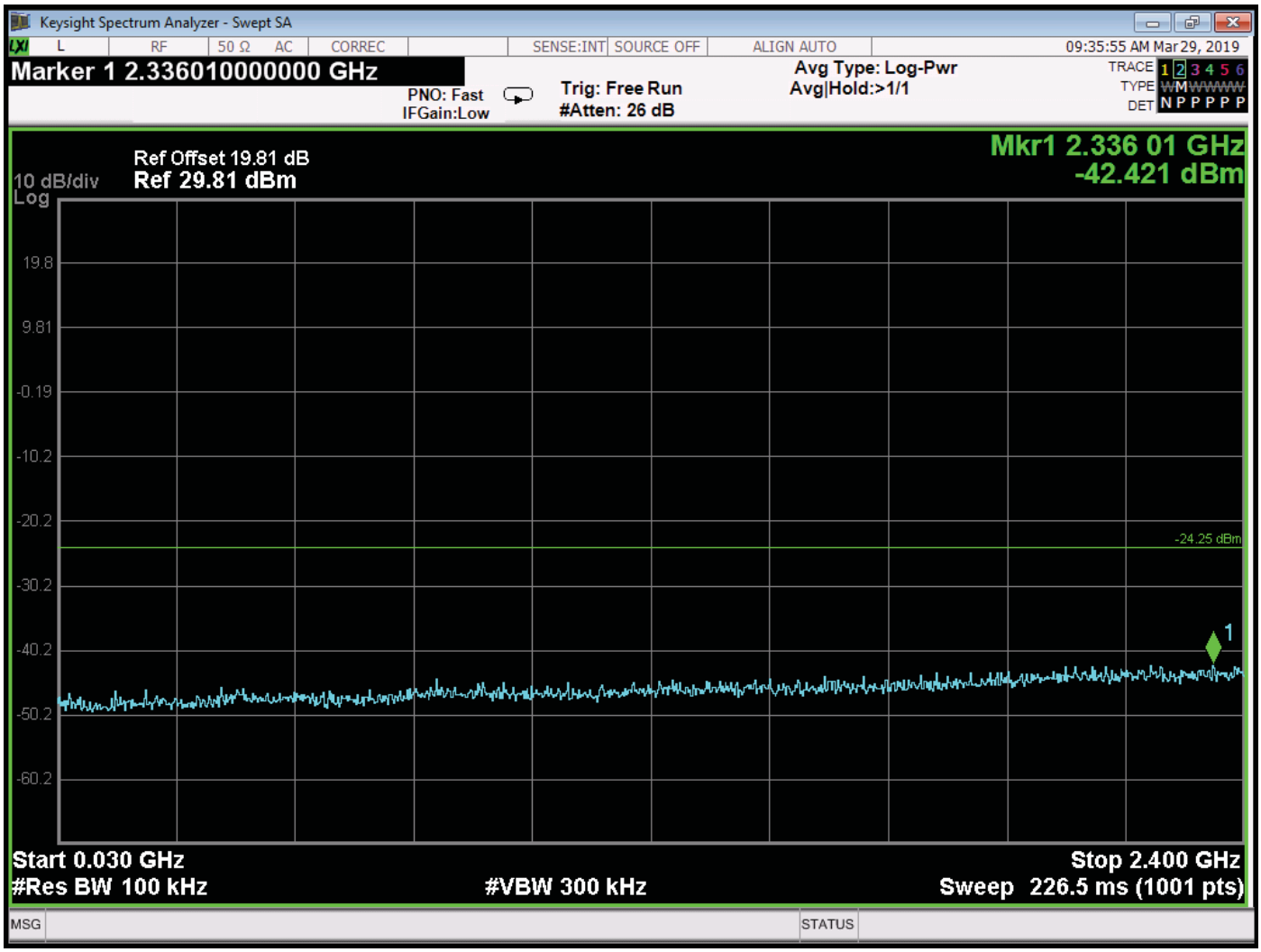
RF Antenna Conducted – 2483.5 MHz to 10 GHz – 2440 MHz – 20 MHz BW – Port #1



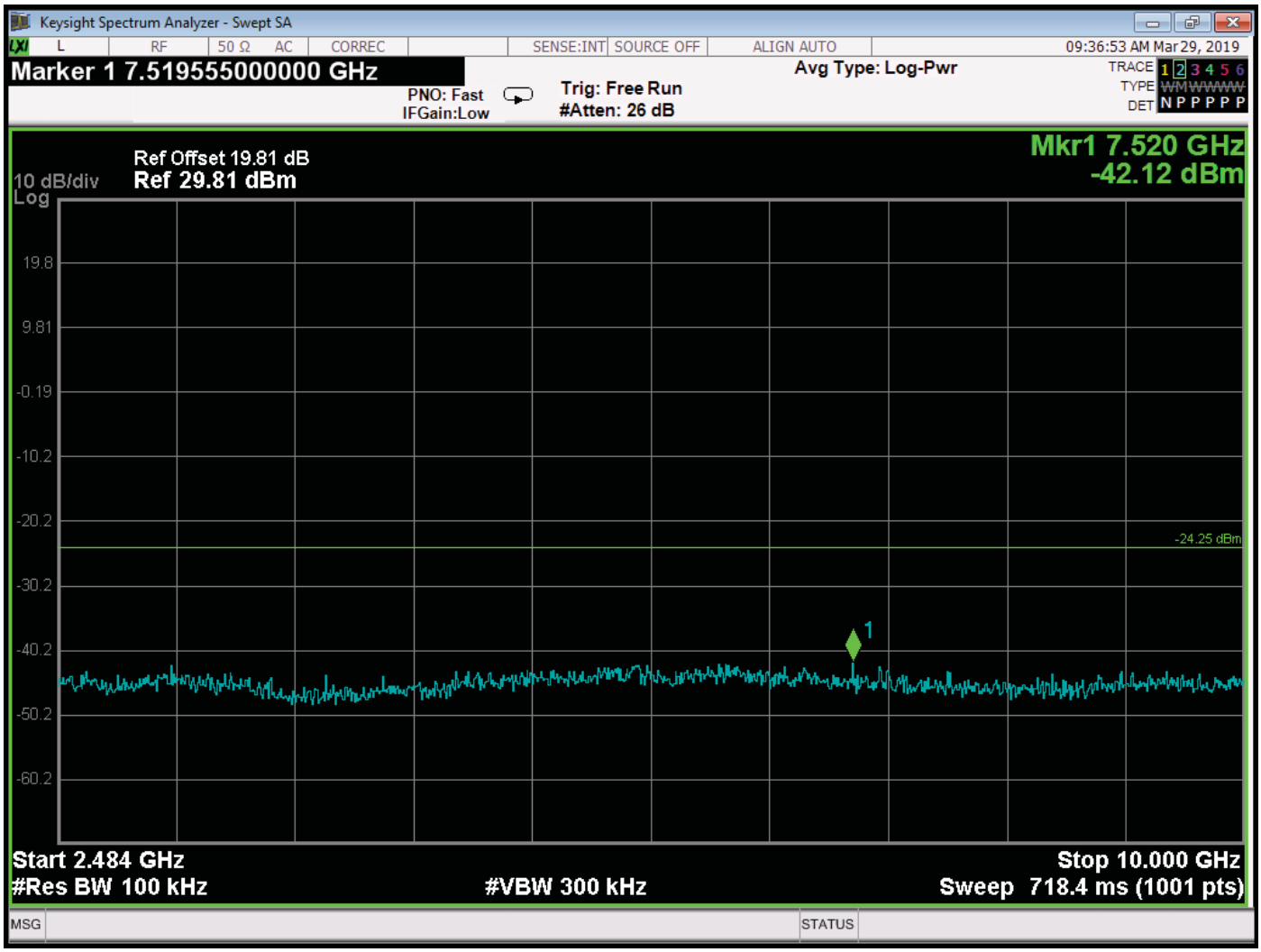
RF Antenna Conducted – 10 GHz to 25 GHz – 2440 MHz – 20 MHz BW – Port #1



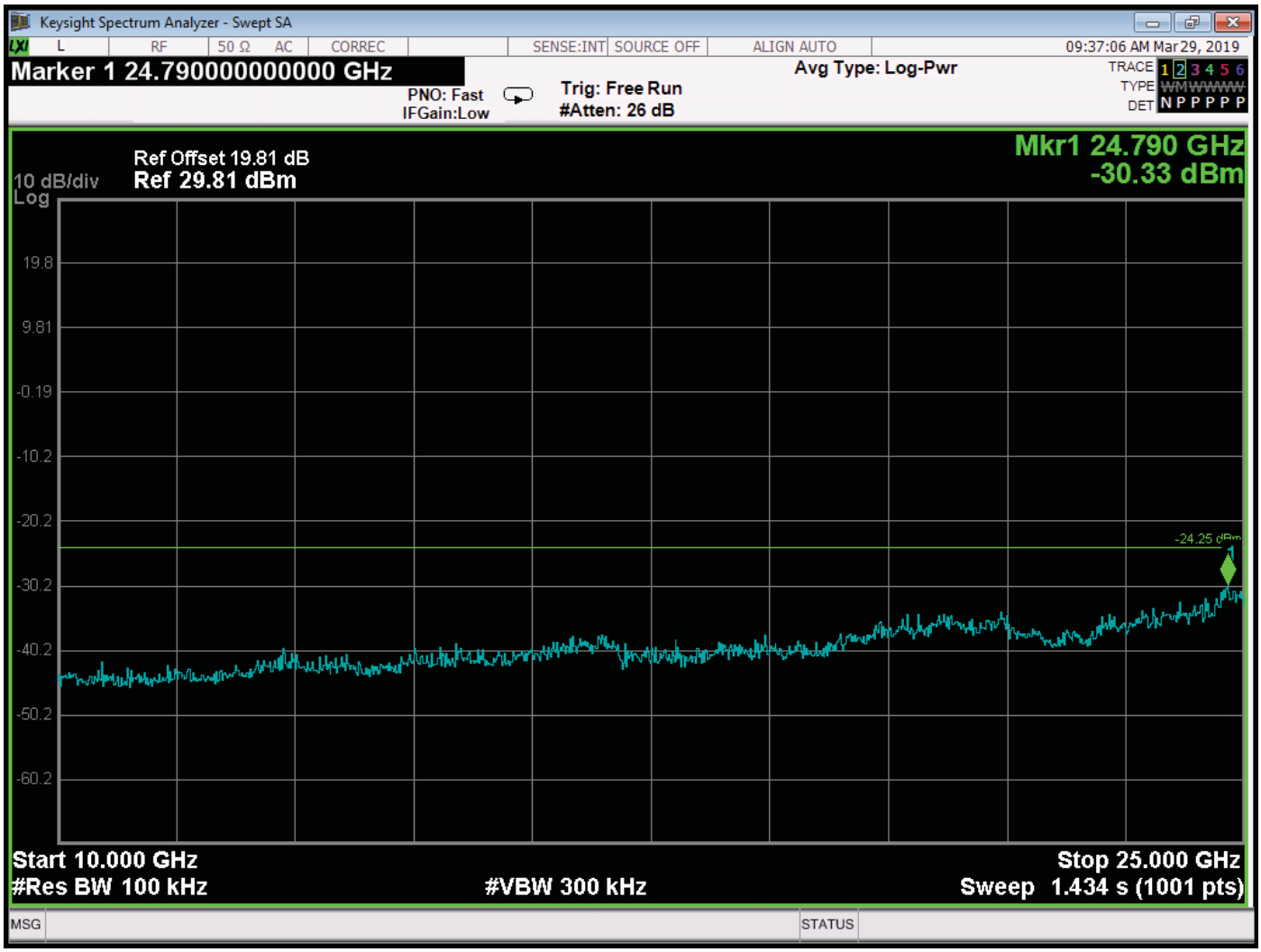
RF Antenna Conducted – Reference Level – 2440 MHz – 20 MHz BW – Port #2



RF Antenna Conducted – 30 MHz to 2.4 GHz – 2440 MHz – 20 MHz BW – Port #2



RF Antenna Conducted – 2483.5 MHz to 10 GHz – 2440 MHz – 20 MHz BW – Port #2



RF Antenna Conducted – 10 GHz to 25 GHz– 2440 MHz – 20 MHz BW – Port #2

SILVUS TECHNOLOGIES

STREAMCASTER 4200 TACTICAL MIMO RADIO

MODEL: SC4210E-245-EB

EMISSIONS IN NON-RESTRICTED BANDS

FREQUENCY (MHz)	LEVEL (dBm)	Limit* (dBm)	Margin (dB)
24790	-30.33	-24.25	-6.08
24850	-30.19	-24.10	-6.09
24910	-36.81	-16.08	-20.73

Note: All two ports were investigated during the testing. The three highest non-restricted emissions are reported.

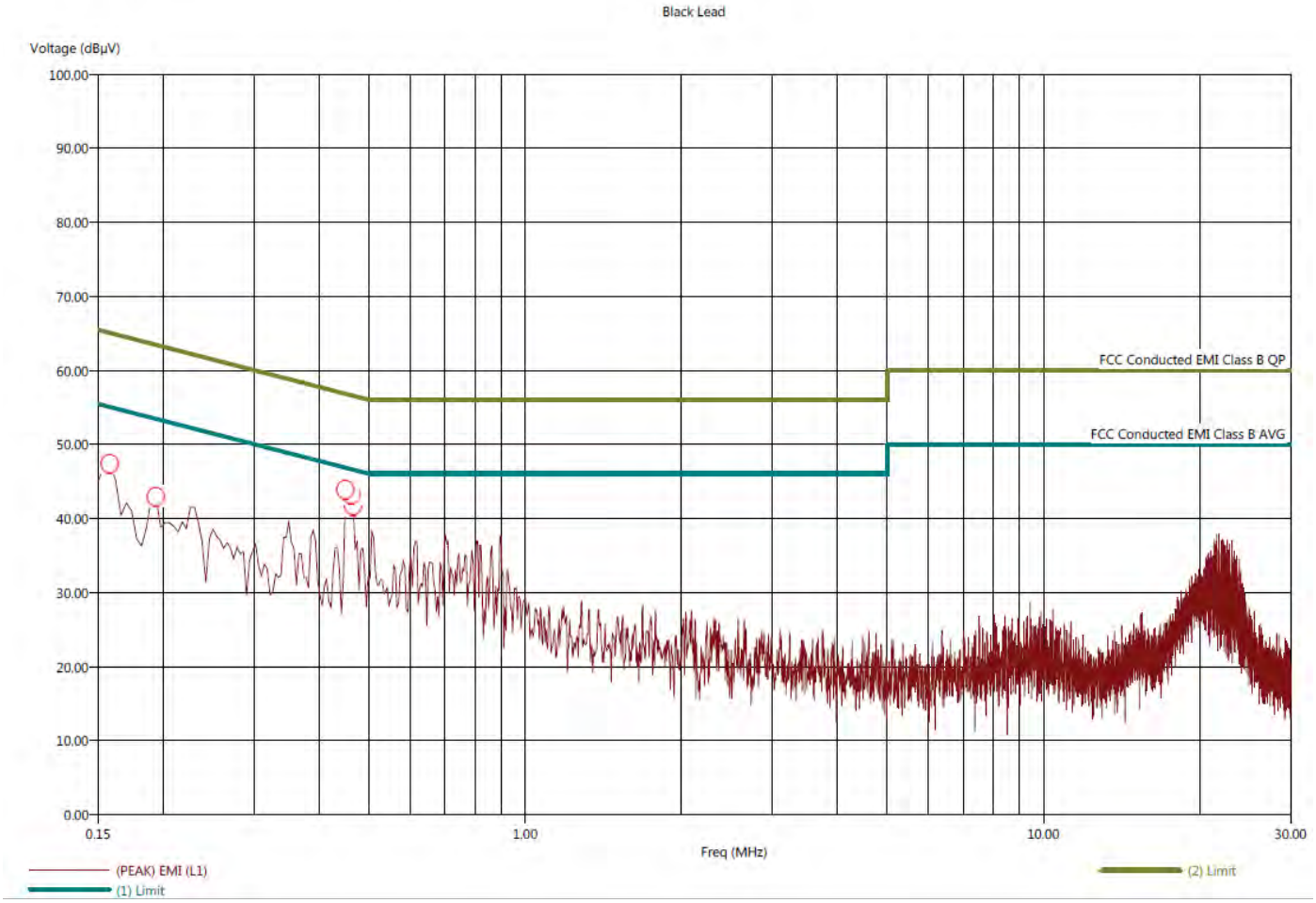
*The Limit is based on 30 dB below the reference levels obtained on the previous pages.

CONDUCTED EMISSIONS

DATA SHEETS

Title: FCC Class B and RSS-GEN - Black Lead
File: 1 - Pre-Scan - Black Lead - 4 dBi Antennas.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is continuously transmitting at 2440 MHz @ 20 MHz BW - 4 dBi Antennas
Company: Silvus Technologies, Inc.
M/N: SC4210E-245-EB
S/N: N/A

3/29/2019 3:41:17 PM
Sequence: Preliminary Scan



Title: FCC Class B and RSS-GEN - Black Lead
File: 1 - Final Scan - Black Lead - 4 dBi Antenna.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is continuously transmitting at 2440 MHz @ 20 MHz BW - 4 dBi Antennas
Company: Silvus Technologies, Inc.
Model: SC4210E-245-EB
S/N: N/A

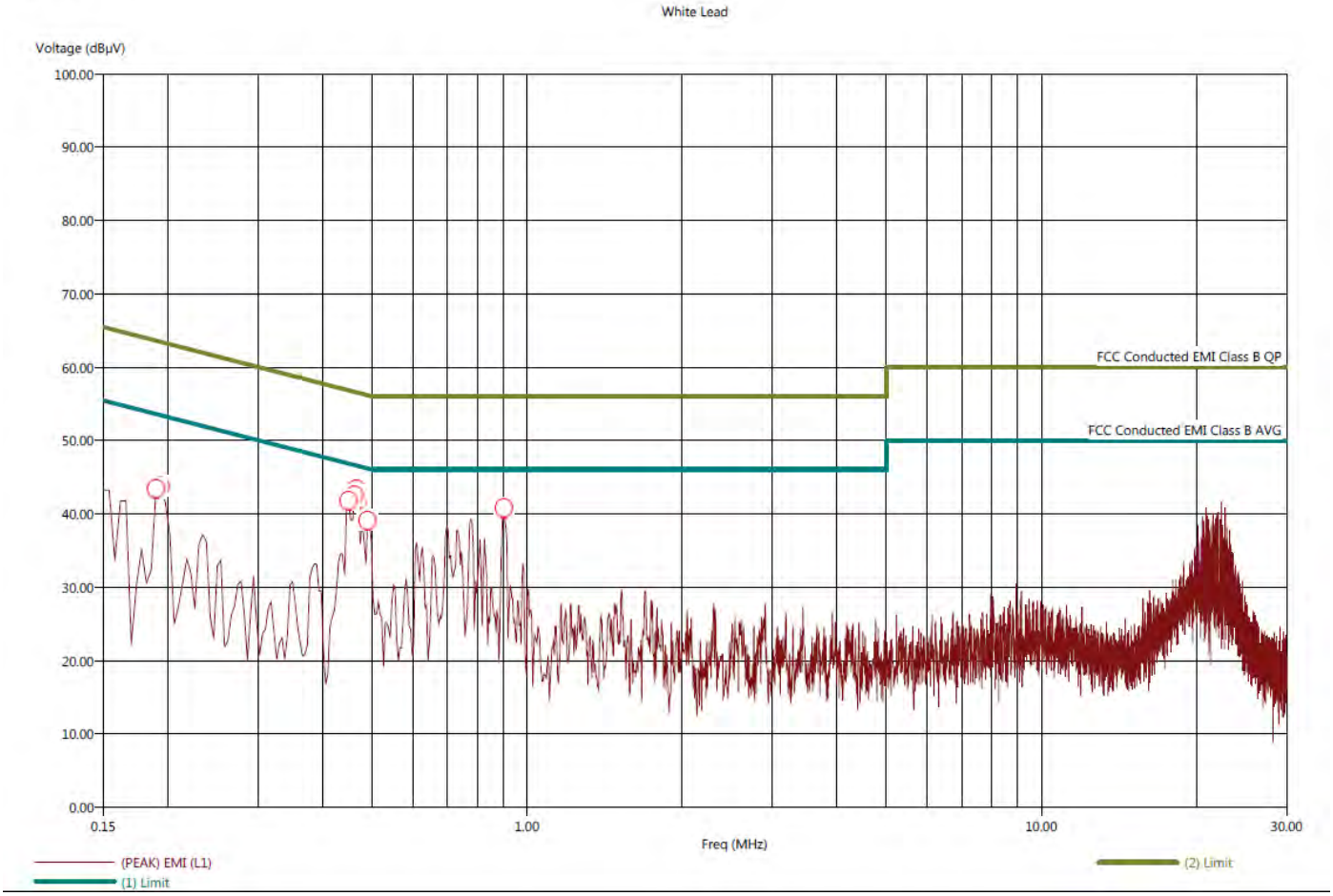
3/29/2019 3:43:11 PM
Sequence: Final Measurements

Black Lead

Freq (MHz)	(PEAK) EMI (dBµV)	(AVG) EMI (dBµV)	(PEAK) Margin (AVG) (dB)	(AVG) Margin (AVG) (dB)	(AVG) Limit (dBµV)	Cable (dB)	Transducer (dB)	Filter (dB)
0.158	49.54	40.55	-5.69	-14.68	55.22	0.00	0.41	9.80
0.194	47.14	36.20	-6.18	-17.12	53.33	0.00	0.30	9.80
0.450	45.46	36.01	-1.07	-10.52	46.54	0.00	0.03	9.71
0.454	44.91	31.34	-1.80	-15.37	46.71	0.00	0.03	9.71
0.462	45.73	34.19	-0.90	-12.44	46.63	0.00	0.03	9.71
0.466	45.52	36.36	-1.01	-10.17	46.53	0.00	0.03	9.71

Title: FCC Class B and RSS-GEN - White Lead
File: 2 - Pre-Scan - White Lead - 4 dBi Antenna .set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is continuously transmitting at 2440 MHz @ 20 MHz BW - 4 dBi Antennas
Company: Silvus Technologies, Inc.
M/N: SC4210E-245-EB
S/N: N/A

3/29/2019 3:58:21 PM
Sequence: Preliminary Scan



Title: FCC Class B and RSS-GEN - White Lead
File: 2 - Final Scan - White Lead - 4 dBi Antennaset
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is continuously transmitting at 2440 MHz @ 20 MHz BW - 4 dBi Antennas
Company: Silvus Technologies, Inc.
Model: SC4210E-245-EB
S/N: N/A

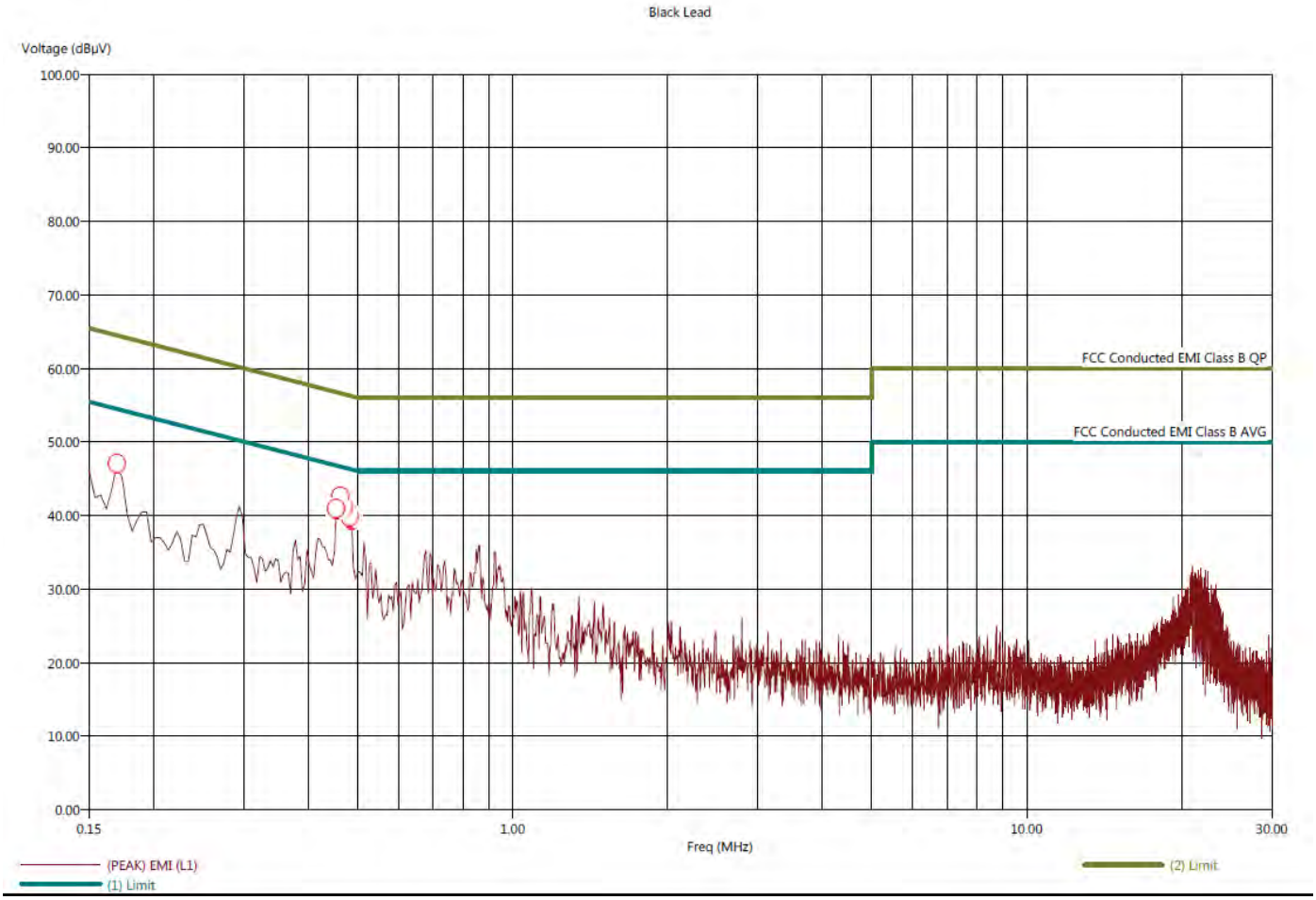
3/29/2019 3:59:40 PM
Sequence: Final Measurements

White Lead

Freq (MHz)	(PEAK) EMI (dBµV)	(AVG) EMI (dBµV)	(PEAK) Margin (AVG) (dB)	(AVG) Margin (AVG) (dB)	(AVG) Limit (dBµV)	Cable (dB)	Transducer (dB)	Filter (dB)
0.190	45.79	31.23	-7.52	-22.08	53.31	0.00	0.28	9.80
0.194	45.92	33.37	-7.53	-20.08	53.46	0.00	0.28	9.80
0.450	42.94	27.82	-3.84	-18.96	46.78	0.00	0.02	9.71
0.462	43.80	34.64	-2.82	-11.98	46.62	0.00	0.02	9.71
0.466	43.79	35.44	-2.75	-11.10	46.54	0.00	0.02	9.71
0.470	43.80	34.92	-2.78	-11.66	46.58	0.00	0.02	9.71
0.490	37.72	23.19	-8.32	-22.85	46.04	0.00	0.02	9.70
0.902	38.21	23.21	-7.79	-22.79	46.00	0.00	0.02	9.86

Title: FCC Class B and RSS-GEN - Black Lead
File: 3 - Pre-Scan - Black Lead - 4 dBi Antennas.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is continuously transmitting at 2430 MHz @ 10 MHz BW - 4 dBi Antennas
Company: Silvus Technologies, Inc.
M/N: SC4210E-245-EB
S/N: N/A

4/1/2019 11:30:20 AM
Sequence: Preliminary Scan



Title: FCC Class B and RSS-GEN - Black Lead
File: 4 - Final Scan - Black Lead - 4 dBi Antenna.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is continuously transmitting at 2430 MHz @ 10 MHz BW - 4 dBi Antennas
Company: Silvus Technologies, Inc.
Model: SC4210E-245-EB
S/N: N/A

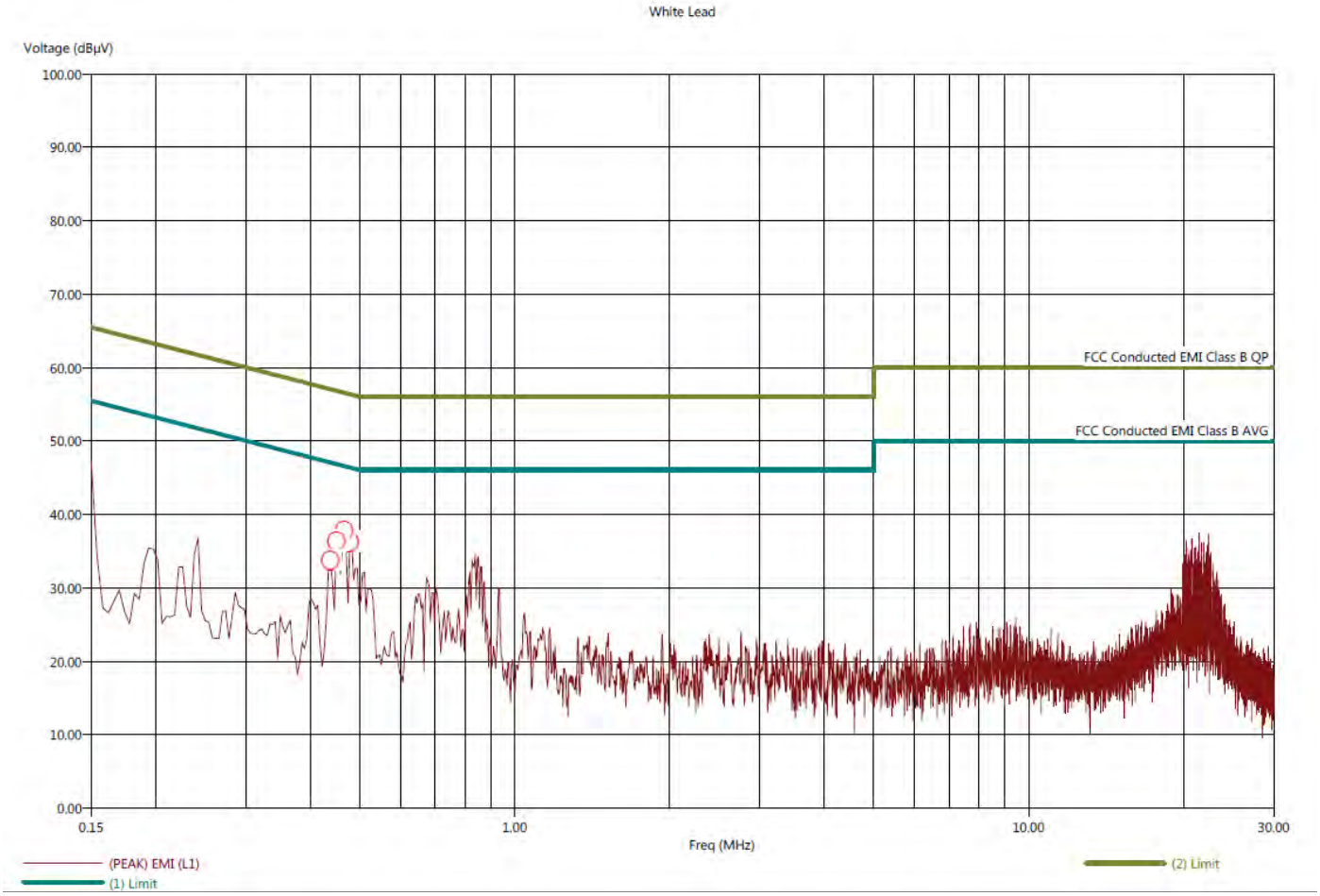
4/1/2019 11:34:35 AM
Sequence: Final Measurements

Black Lead

Freq (MHz)	(PEAK) EMI (dBµV)	(AVG) EMI (dBµV)	(PEAK) Margin (AVG) (dB)	(AVG) Margin (AVG) (dB)	(AVG) Limit (dBµV)	Cable (dB)	Transducer (dB)	Filter (dB)
0.170	46.05	35.00	-8.37	-19.42	54.42	0.00	0.36	9.80
0.454	43.36	32.40	-3.25	-14.21	46.61	0.00	0.03	9.71
0.462	43.07	31.94	-3.61	-14.74	46.68	0.00	0.03	9.71
0.470	42.20	31.15	-4.16	-15.21	46.36	0.00	0.04	9.70
0.474	42.43	30.99	-3.94	-15.38	46.37	0.00	0.04	9.71
0.482	42.98	30.96	-3.46	-15.48	46.44	0.00	0.03	9.71
0.486	41.99	30.87	-4.31	-15.43	46.30	0.00	0.04	9.70

Title: FCC Class B and RSS-GEN - White Lead
File: 4 - Pre-Scan - White Lead - 4 dBi Antenna.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is continuously transmitting at 2430 MHz @ 10 MHz BW - 4 dBi Antennas
Comments: Company: Silvus Technologies, Inc.
M/N: SC4210E-245-EB
S/N: N/A

4/1/2019 11:37:14 AM
Sequence: Preliminary Scan



Title: FCC Class B and RSS-GEN - White Lead
File: 4 - Final Scan - White Lead - 4 dBi Antenna.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is continuously transmitting at 2430 MHz @ 10 MHz BW - 4 dBi Antennas
Company: Silvus Technologies, Inc.
Model: SC4210E-245-EB
S/N: N/A

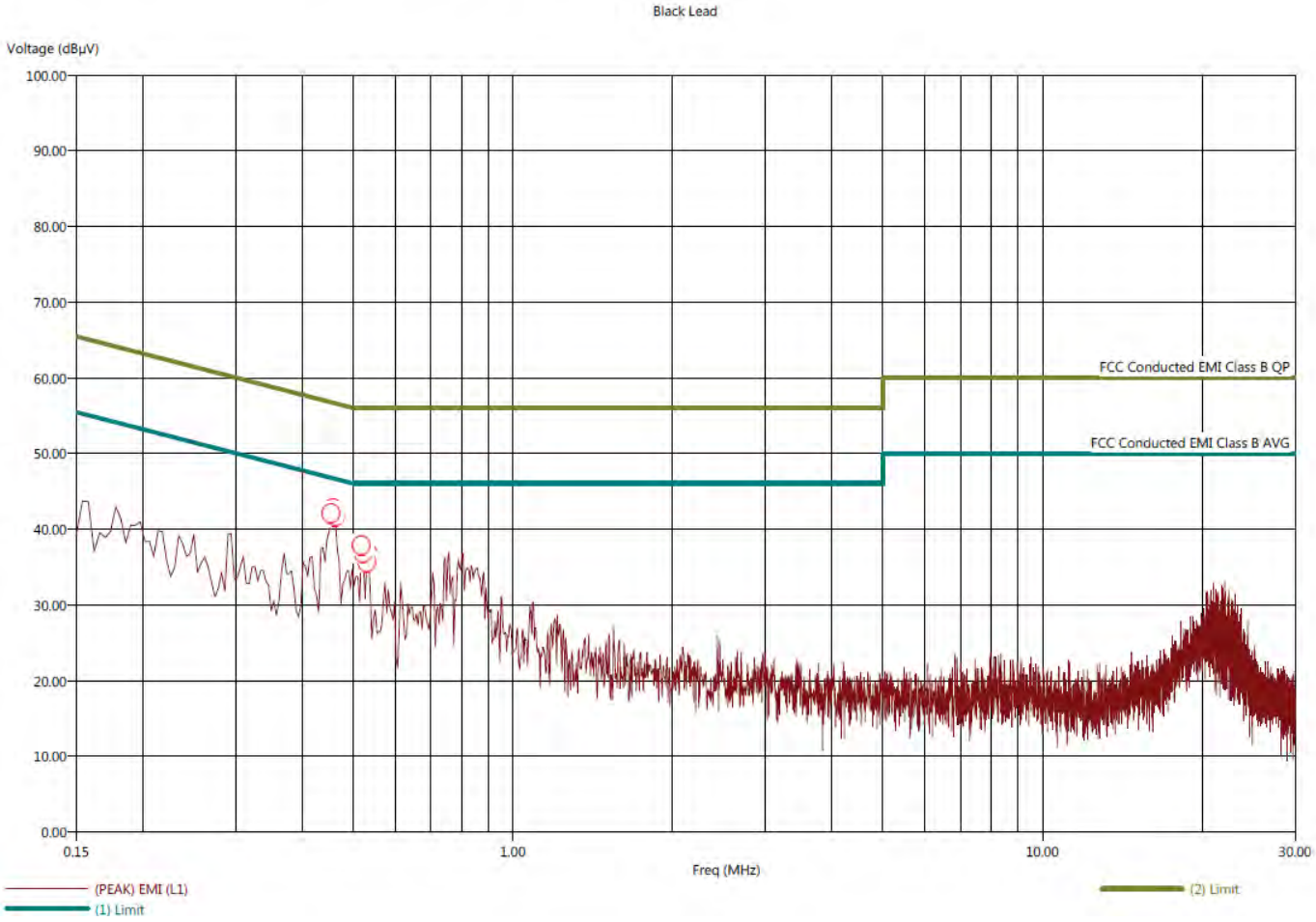
4/1/2019 11:38:14 AM
Sequence: Final Measurements

White Lead

Freq (MHz)	(PEAK) EMI (dBµV)	(AVG) EMI (dBµV)	(PEAK) Margin (AVG) (dB)	(AVG) Margin (AVG) (dB)	(AVG) Limit (dBµV)	Cable (dB)	Transducer (dB)	Filter (dB)
0.438	35.86	25.03	-11.15	-21.98	47.01	0.00	0.02	9.71
0.450	40.02	29.10	-6.70	-17.62	46.72	0.00	0.02	9.71
0.454	40.66	30.00	-6.01	-16.67	46.67	0.00	0.02	9.71
0.466	40.47	29.66	-6.10	-16.91	46.57	0.00	0.02	9.71
0.478	40.27	28.87	-6.10	-17.50	46.36	0.00	0.02	9.71
0.482	39.10	28.27	-7.17	-18.00	46.27	0.00	0.02	9.70

Title: FCC Class B and RSS-GEN- Black Lead
File: 5 - Pre-Scan - Black Lead - 4 dBi Antennas.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is continuously transmitting at 2440 MHz @ 10 MHz BW - 4 dBi Antennas
Company: Silvus Technologies, Inc.
M/N: SC4210E-245-EB
S/N: N/A

4/1/2019 11:40:21 AM
Sequence: Preliminary Scan



Title: FCC Class B and RSS-GEN - Black Lead
File: 5 - Final Scan - Black Lead - 4 dBi Antenna.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is continuously transmitting at 2440 MHz @ 10 MHz BW - 4 dBi Antennas
Company: Silvus Technologies, Inc.
Model: SC4210E-245-EB
S/N: N/A

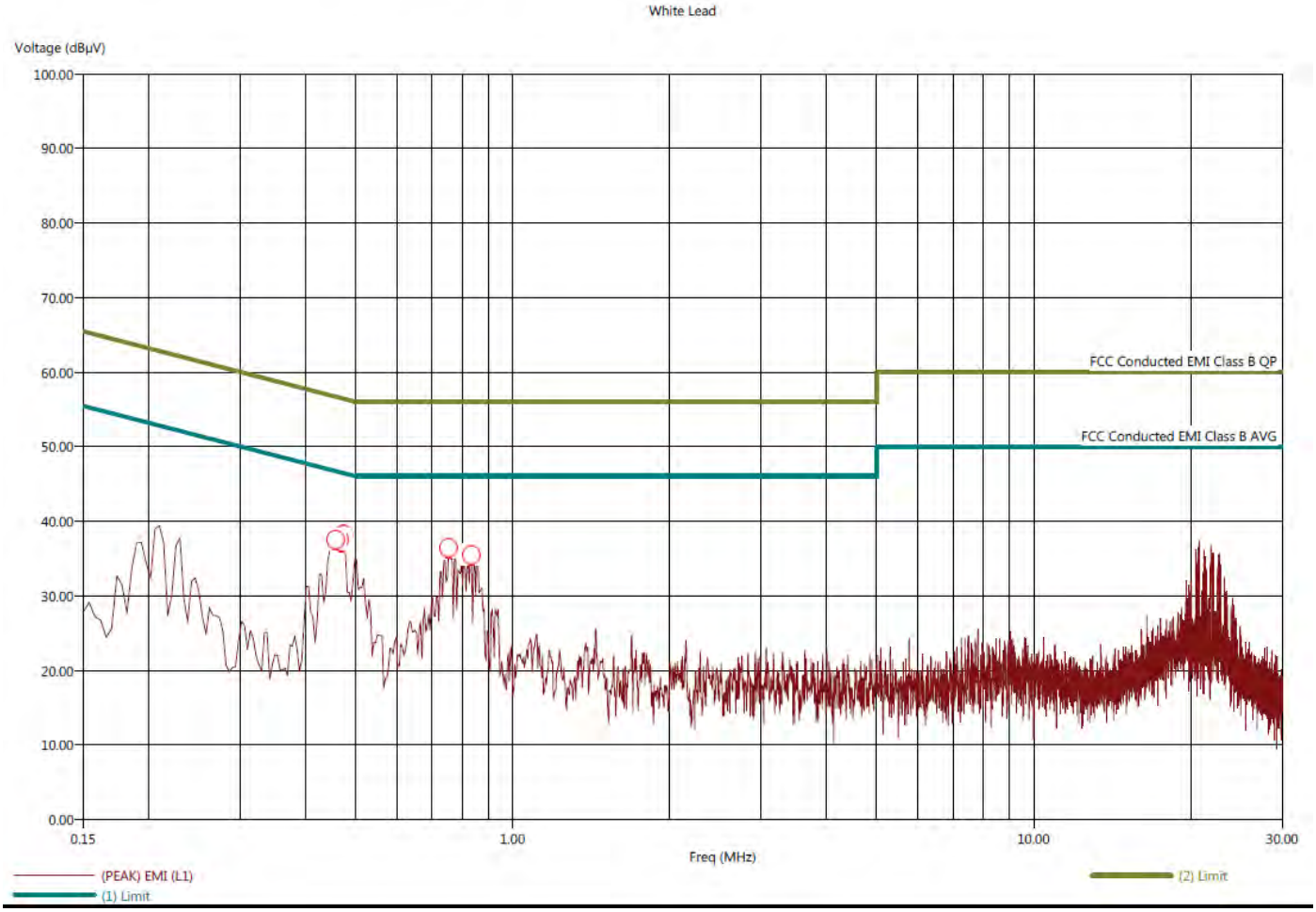
4/1/2019 11:43:10 AM
Sequence: Final Measurements

Black Lead

Freq (MHz)	(PEAK) EMI (dBµV)	(AVG) EMI (dBµV)	(PEAK) Margin (AVG) (dB)	(AVG) Margin (AVG) (dB)	(AVG) Limit (dBµV)	Cable (dB)	Transducer (dB)	Filter (dB)
0.454	43.49	32.28	-3.13	-14.34	46.62	0.00	0.03	9.71
0.458	42.20	29.92	-4.54	-16.82	46.74	0.00	0.03	9.71
0.462	42.61	31.25	-3.90	-15.26	46.51	0.00	0.03	9.71
0.518	36.17	23.90	-9.83	-22.10	46.00	0.00	0.04	9.71
0.522	34.11	21.08	-11.89	-24.92	46.00	0.00	0.04	9.71
0.530	33.23	21.43	-12.77	-24.57	46.00	0.00	0.04	9.72
0.534	33.04	22.10	-12.96	-23.90	46.00	0.00	0.04	9.72

Title: FCC Class B and RSS-GEN - White Lead
File: 6 - Pre-Scan - White Lead - 4 dBi Antenna.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is continuously transmitting at 2440 MHz @ 10 MHz BW - 4 dBi Antennas
Company: Silvus Technologies, Inc.
M/N: SC4210E-245-EB
S/N: N/A

4/1/2019 11:47:21 AM
Sequence: Preliminary Scan



Title: FCC Class B and RSS-GEN - White Lead
File: 6 - Final Scan - White Lead - 4 dBi Antenna.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is continuously transmitting at 2440 MHz @ 10 MHz BW - 4 dBi Antennas
Company: Silvus Technologies, Inc.
Model: SC4210E-245-EB
S/N: N/A

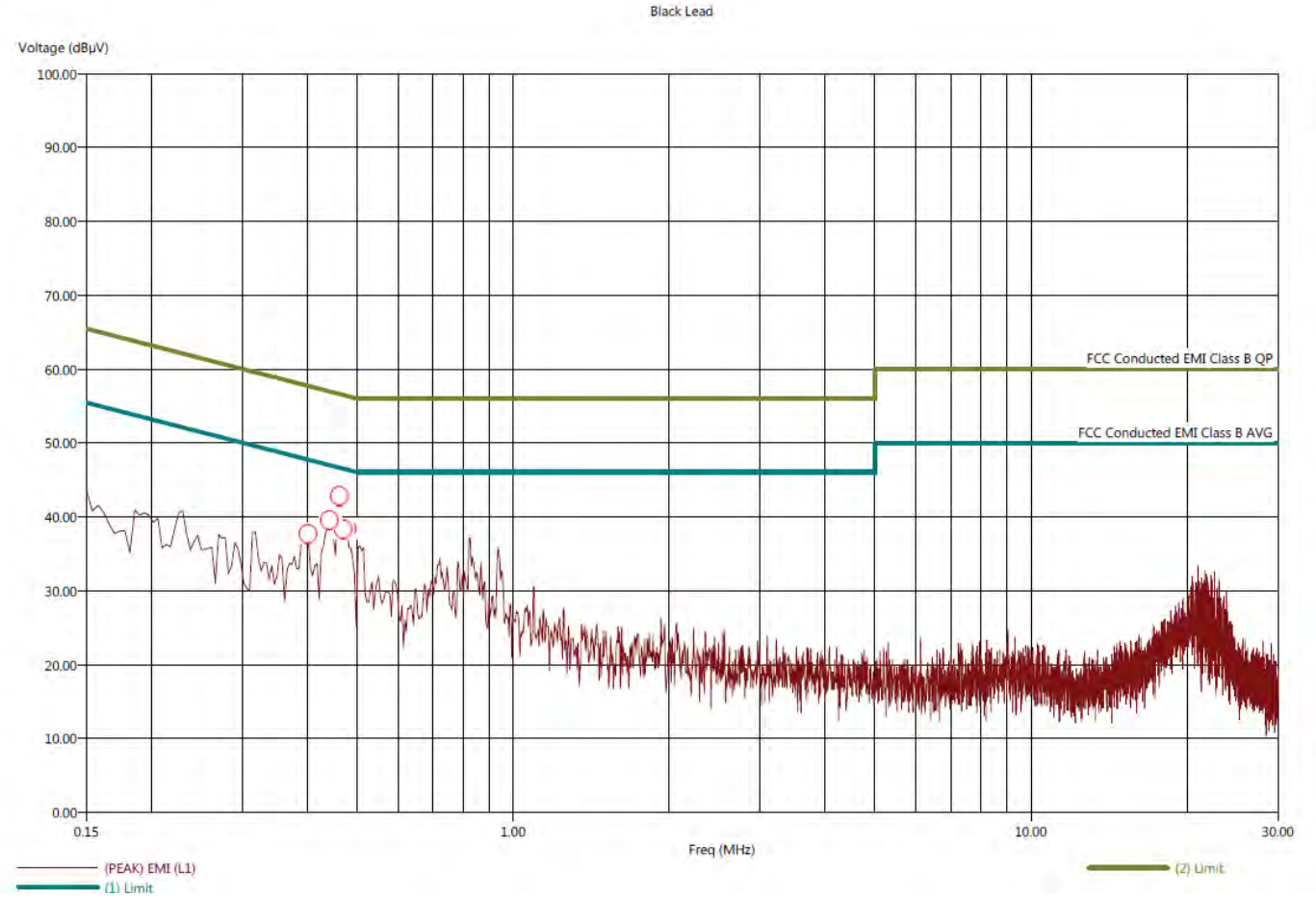
4/1/2019 11:48:25 AM
Sequence: Final Measurements

White Lead

Freq (MHz)	(PEAK) EMI (dBµV)	(AVG) EMI (dBµV)	(PEAK) Margin (AVG) (dB)	(AVG) Margin (AVG) (dB)	(AVG) Limit (dBµV)	Cable (dB)	Transducer (dB)	Filter (dB)
0.458	41.37	30.56	-5.23	-16.04	46.59	0.00	0.02	9.71
0.466	41.15	30.88	-5.50	-15.77	46.65	0.00	0.02	9.71
0.470	40.40	29.32	-6.09	-17.17	46.49	0.00	0.02	9.71
0.474	40.07	28.98	-6.37	-17.46	46.43	0.00	0.02	9.71
0.754	37.30	24.49	-8.70	-21.51	46.00	0.00	0.02	9.82
0.834	37.38	24.55	-8.62	-21.45	46.00	0.00	0.02	9.85

Title: FCC Class B and RSS-GEN - Black Lead
File: 7 - Pre-Scan - Black Lead - 2 dBi Antennas.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is continuously transmitting at 2440 MHz @ 20 MHz BW - 2 dBi Antennas
Company: Silvus Technologies, Inc.
M/N: SC4210E-245-EB
S/N: N/A

4/1/2019 12:01:24 PM
Sequence: Preliminary Scan



Title: FCC Class B and RSS-GEN - Black Lead
File: 7 - Final Scan - Black Lead - 2 dBi Antenna.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is continuously transmitting at 2440 MHz @ 20 MHz BW - 2 dBi Antennas
Company: Silvus Technologies, Inc.
Model: SC4210E-245-EB
S/N: N/A

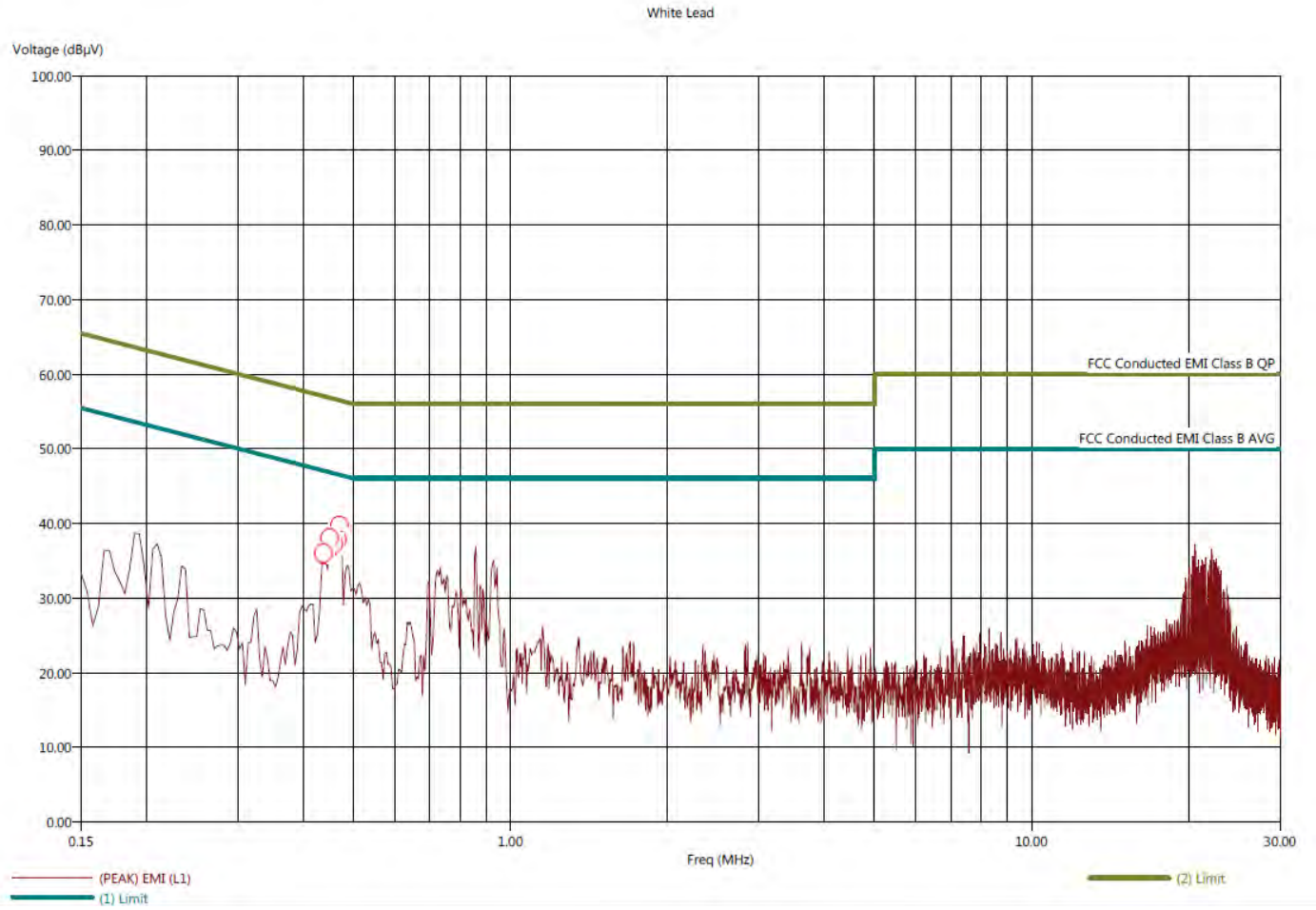
4/1/2019 12:04:02 PM
Sequence: Final Measurements

Black Lead

Freq (MHz)	(PEAK) EMI (dBµV)	(AVG) EMI (dBµV)	(PEAK) Margin (AVG) (dB)	(AVG) Margin (AVG) (dB)	(AVG) Limit (dBµV)	Cable (dB)	Transducer (dB)	Filter (dB)
0.402	33.40	21.70	-14.29	-25.99	47.69	0.00	0.04	9.72
0.442	43.56	32.82	-3.09	-13.83	46.66	0.00	0.03	9.71
0.446	43.38	32.19	-3.30	-14.49	46.68	0.00	0.03	9.71
0.462	43.32	31.74	-3.38	-14.96	46.70	0.00	0.03	9.71
0.470	43.68	32.55	-2.92	-14.05	46.60	0.00	0.03	9.71
0.478	39.44	28.84	-6.79	-17.39	46.23	0.00	0.04	9.70

Title: FCC Class B and RSS-GEN - White Lead
File: 8 - Pre-Scan - White Lead - 2 dBi Antenna.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is continuously transmitting at 2440 MHz @ 20 MHz BW - 2 dBi Antennas
Company: Silvus Technologies, Inc.
M/N: SC4210E-245-EB
S/N: N/A

4/1/2019 12:10:21 PM
Sequence: Preliminary Scan



Title: FCC Class B and RSS-GEN - White Lead
File: 8 - Final Scan - White Lead - 2 dBi Antenna.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is continuously transmitting at 2440 MHz @ 20 MHz BW - 2 dBi Antennas
Company: Silvus Technologies, Inc.
Model: SC4210E-245-EB
S/N: N/A

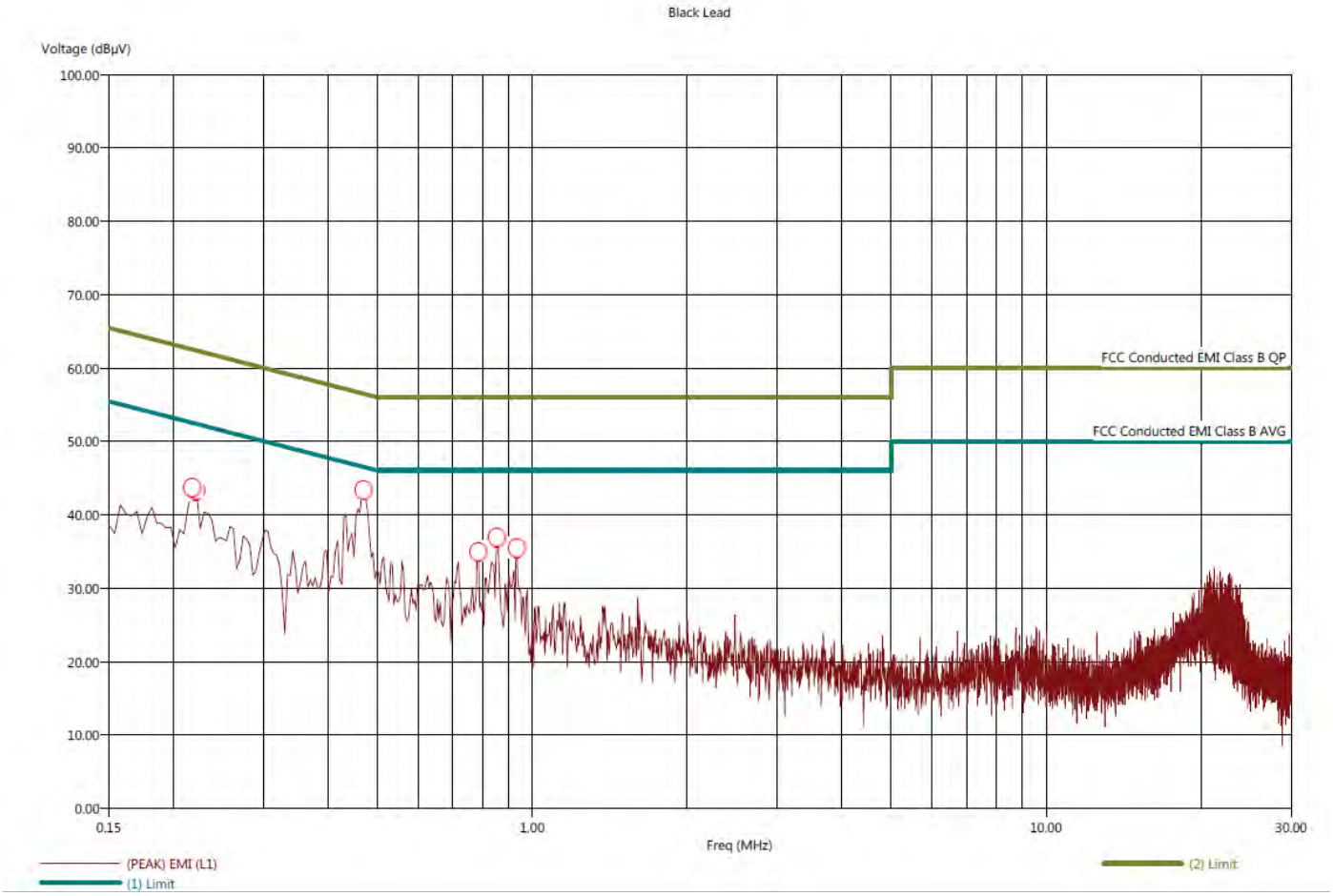
4/1/2019 12:11:29 PM
Sequence: Final Measurements

White Lead

Freq (MHz)	(PEAK) EMI (dBµV)	(AVG) EMI (dBµV)	(PEAK) Margin (AVG) (dB)	(AVG) Margin (AVG) (dB)	(AVG) Limit (dBµV)	Cable (dB)	Transducer (dB)	Filter (dB)
0.438	35.23	25.23	-11.88	-21.88	47.10	0.00	0.02	9.72
0.450	41.03	30.25	-5.69	-16.47	46.72	0.00	0.02	9.71
0.458	41.49	30.95	-5.12	-15.66	46.61	0.00	0.02	9.71
0.466	41.55	30.53	-5.15	-16.17	46.70	0.00	0.02	9.71
0.470	41.66	31.52	-4.95	-15.09	46.61	0.00	0.02	9.71
0.474	40.57	29.05	-5.83	-17.35	46.40	0.00	0.02	9.71

Title: FCC Class B and RSS-GEN- Black Lead
File: 9 - Pre-Scan - Black Lead - 2 dBi Antennas.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is continuously transmitting at 2430 MHz @ 10 MHz BW - 2 dBi Antennas
Company: Silvus Technologies, Inc.
M/N: SC4210E-245-EB
S/N: N/A

4/1/2019 1:40:47 PM
Sequence: Preliminary Scan



Title: FCC Class B and RSS-GEN - Black Lead
File: 9 - Final Scan - Black Lead - 2 dBi Antenna.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is continuously transmitting at 2430 MHz @ 10 MHz BW - 2 dBi Antennas
Company: Silvus Technologies, Inc.
Model: SC4210E-245-EB
S/N: N/A

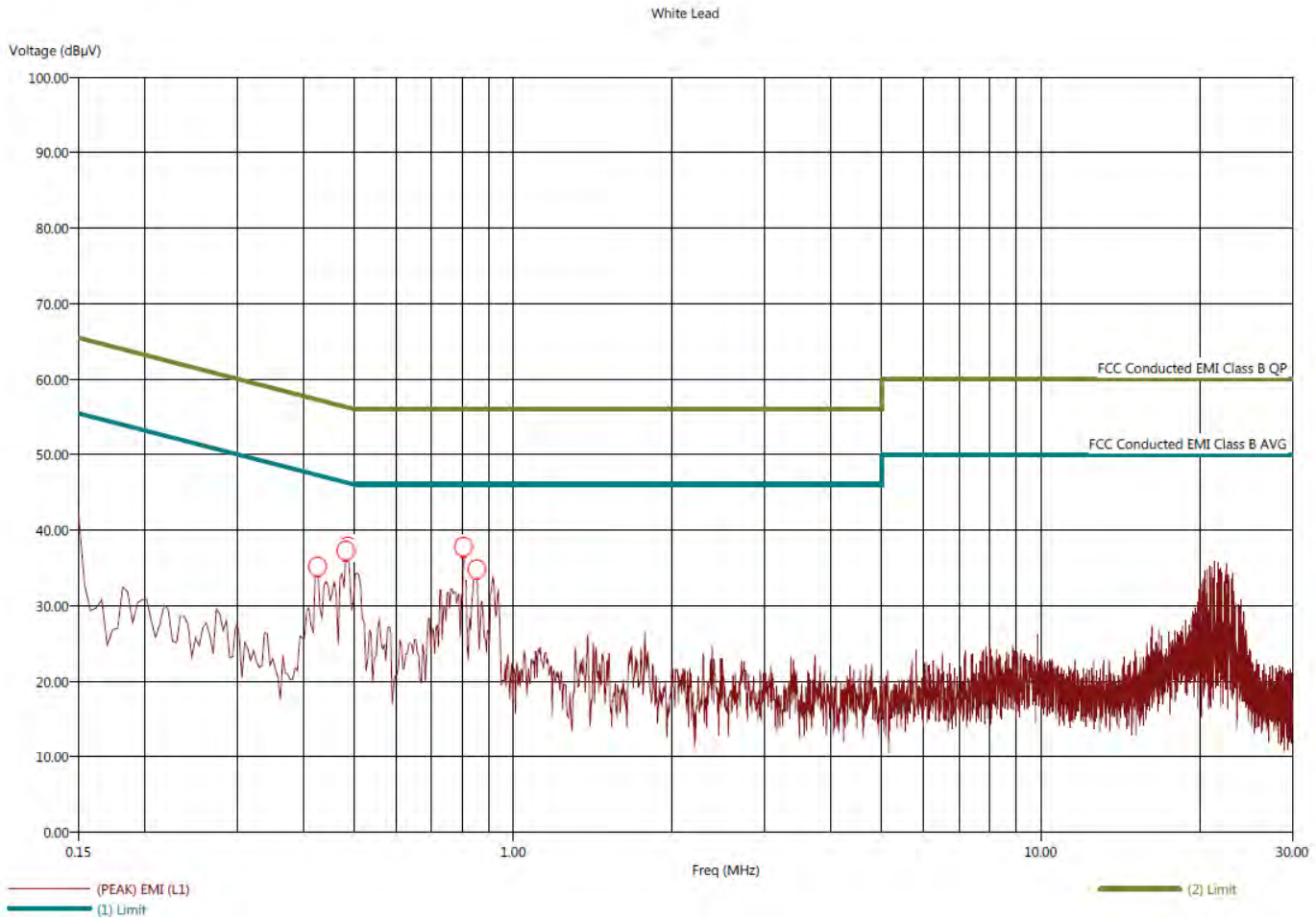
4/1/2019 1:41:47 PM
Sequence: Final Measurements

Black Lead

Freq (MHz)	(PEAK) EMI (dBµV)	(AVG) EMI (dBµV)	(PEAK) Margin (AVG) (dB)	(AVG) Margin (AVG) (dB)	(AVG) Limit (dBµV)	Cable (dB)	Transducer (dB)	Filter (dB)
0.218	45.79	32.56	-6.81	-20.04	52.61	0.00	0.26	9.79
0.222	45.50	31.99	-6.70	-20.21	52.20	0.00	0.24	9.79
0.470	44.24	33.45	-2.35	-13.14	46.60	0.00	0.03	9.71
0.786	37.87	24.25	-8.13	-21.75	46.00	0.00	0.04	9.83
0.854	36.01	23.51	-9.99	-22.49	46.00	0.00	0.04	9.85
0.934	38.57	24.52	-7.43	-21.48	46.00	0.00	0.04	9.88

Title: FCC Class B and RSS-GEN- White Lead
File: 10 - Pre-Scan - White Lead - 2 dBi Antenna.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is continuously transmitting at 2430 MHz @ 10 MHz BW - 2 dBi Antennas
Company: Silvus Technologies, Inc.
M/N: SC4210E-245-EB
S/N: N/A

4/1/2019 12:57:44 PM
Sequence: Preliminary Scan



Title: FCC Class B and RSS-GEN - White Lead
File: 10 - Final Scan - White Lead - 2 dBi Antenna.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is continuously transmitting at 2430 MHz @ 10 MHz BW - 2 dBi Antennas
Company: Silvus Technologies, Inc.
Model: SC4210E-245-EB
S/N: N/A

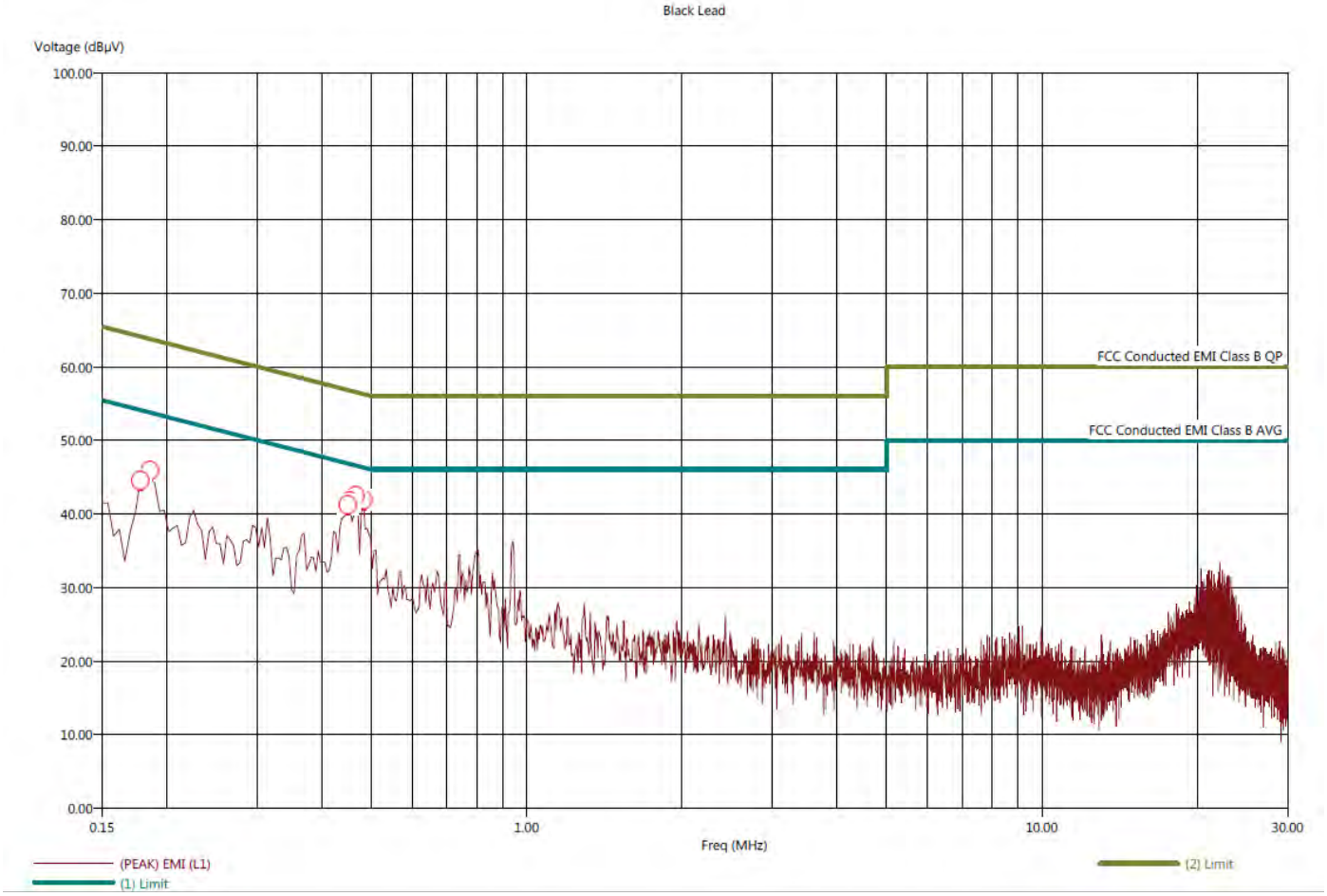
4/1/2019 12:58:59 PM
Sequence: Final Measurements

White Lead

Freq (MHz)	(PEAK) EMI (dBµV)	(AVG) EMI (dBµV)	(PEAK) Margin (AVG) (dB)	(AVG) Margin (AVG) (dB)	(AVG) Limit (dBµV)	Cable (dB)	Transducer (dB)	Filter (dB)
0.426	35.39	24.57	-11.85	-22.67	47.24	0.00	0.02	9.72
0.482	41.03	29.81	-5.38	-16.60	46.40	0.00	0.02	9.71
0.486	40.09	28.77	-6.24	-17.56	46.34	0.00	0.02	9.70
0.806	38.16	25.59	-7.84	-20.41	46.00	0.00	0.02	9.84
0.810	38.68	25.52	-7.32	-20.48	46.00	0.00	0.02	9.84
0.854	37.10	24.07	-8.90	-21.93	46.00	0.00	0.02	9.86

Title: FCC Class B and RSS-GEN- Black Lead
File: 11 - Pre-Scan - Black Lead - 2 dBi Antennas.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is continuously transmitting at 2440 MHz @ 10 MHz BW - 2 dBi Antennas
Company: Silvus Technologies, Inc.
M/N: SC4210E-245-EB
S/N: N/A

4/1/2019 2:20:42 PM
Sequence: Preliminary Scan



Title: FCC Class B and RSS-GEN - Black Lead
File: 11 - Final Scan - Black Lead - 2 dBi Antennas.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is continuously transmitting at 2440 MHz @ 10 MHz BW - 2 dBi Antennas
Company: Silvus Technologies, Inc.
Model: SC4210E-245-EB
S/N: N/A

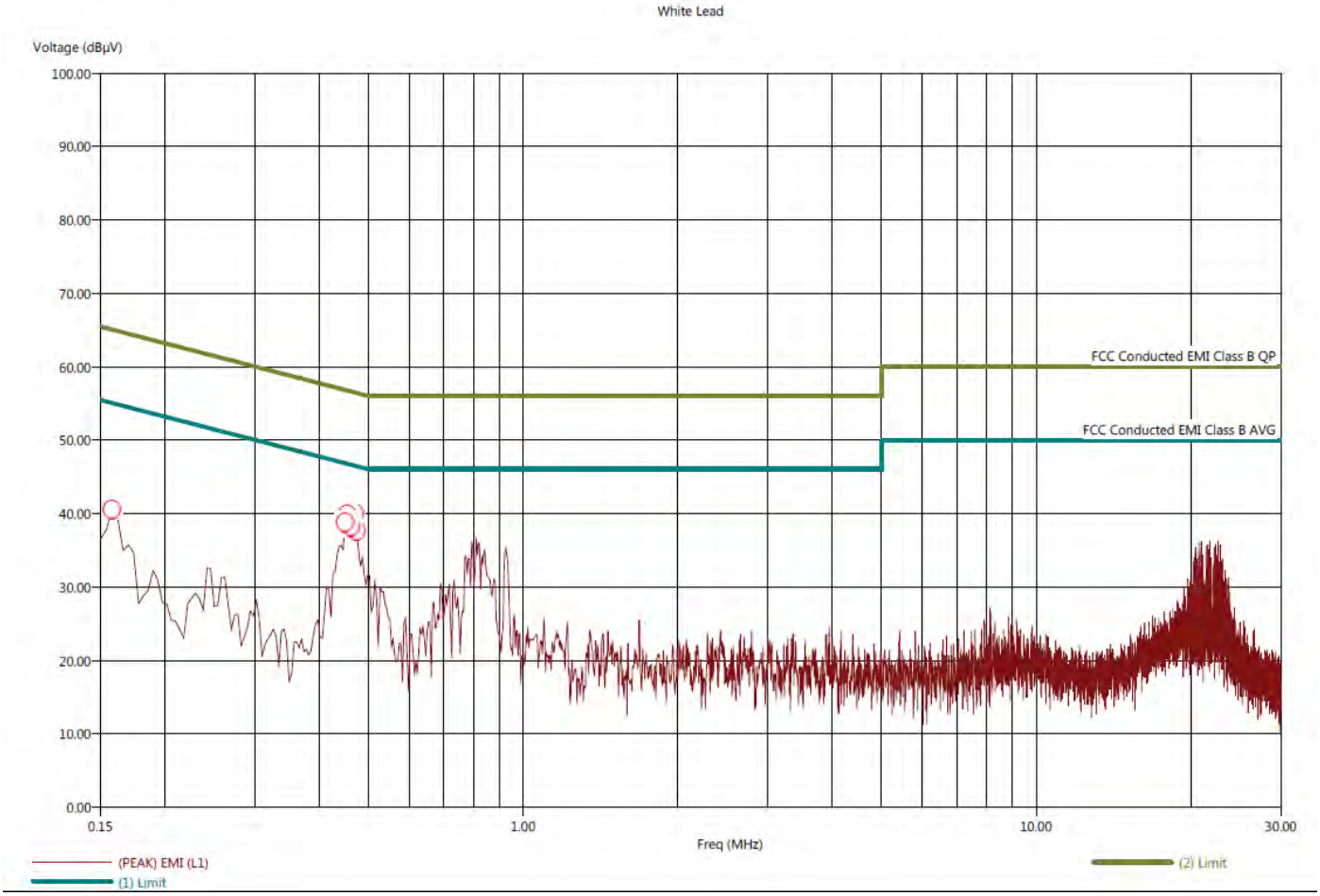
4/1/2019 2:22:14 PM
Sequence: Final Measurements

Black Lead

Freq (MHz)	(PEAK) EMI (dBµV)	(AVG) EMI (dBµV)	(PEAK) Margin (AVG) (dB)	(AVG) Margin (AVG) (dB)	(AVG) Limit (dBµV)	Cable (dB)	Transducer (dB)	Filter (dB)
0.178	46.25	34.58	-8.27	-19.94	54.52	0.00	0.37	9.80
0.186	47.02	33.82	-6.83	-20.03	53.85	0.00	0.33	9.80
0.450	44.35	33.22	-2.29	-13.42	46.64	0.00	0.03	9.71
0.454	44.00	32.61	-2.70	-14.09	46.70	0.00	0.03	9.71
0.466	44.24	33.57	-2.37	-13.04	46.61	0.00	0.03	9.71
0.482	43.53	31.91	-2.96	-14.58	46.49	0.00	0.03	9.71

Title: FCC Class B and RSS-GEN - White Lead
File: 12 - Pre-Scan - White Lead - 2 dBi Antenna.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is continuously transmitting at 2440 MHz @ 10 MHz BW - 2 dBi Antennas
Company: Silvus Technologies, Inc.
M/N: SC4210E-245-EB
S/N: N/A

4/1/2019 1:32:27 PM
Sequence: Preliminary Scan



Title: FCC Class B and RSS-GEN - White Lead
File: 12 - Final Scan - White Lead - 2 dBi Antenna.set
Operator: Kyle Fujimoto
EUT Type: StreamCaster 4200 Tactical MIMO Radio
EUT Condition: The EUT is continuously transmitting at 2440 MHz @ 10 MHz BW - 2 dBi Antennas
Company: Silvus Technologies, Inc.
Model: SC4210E-245-EB
S/N: N/A

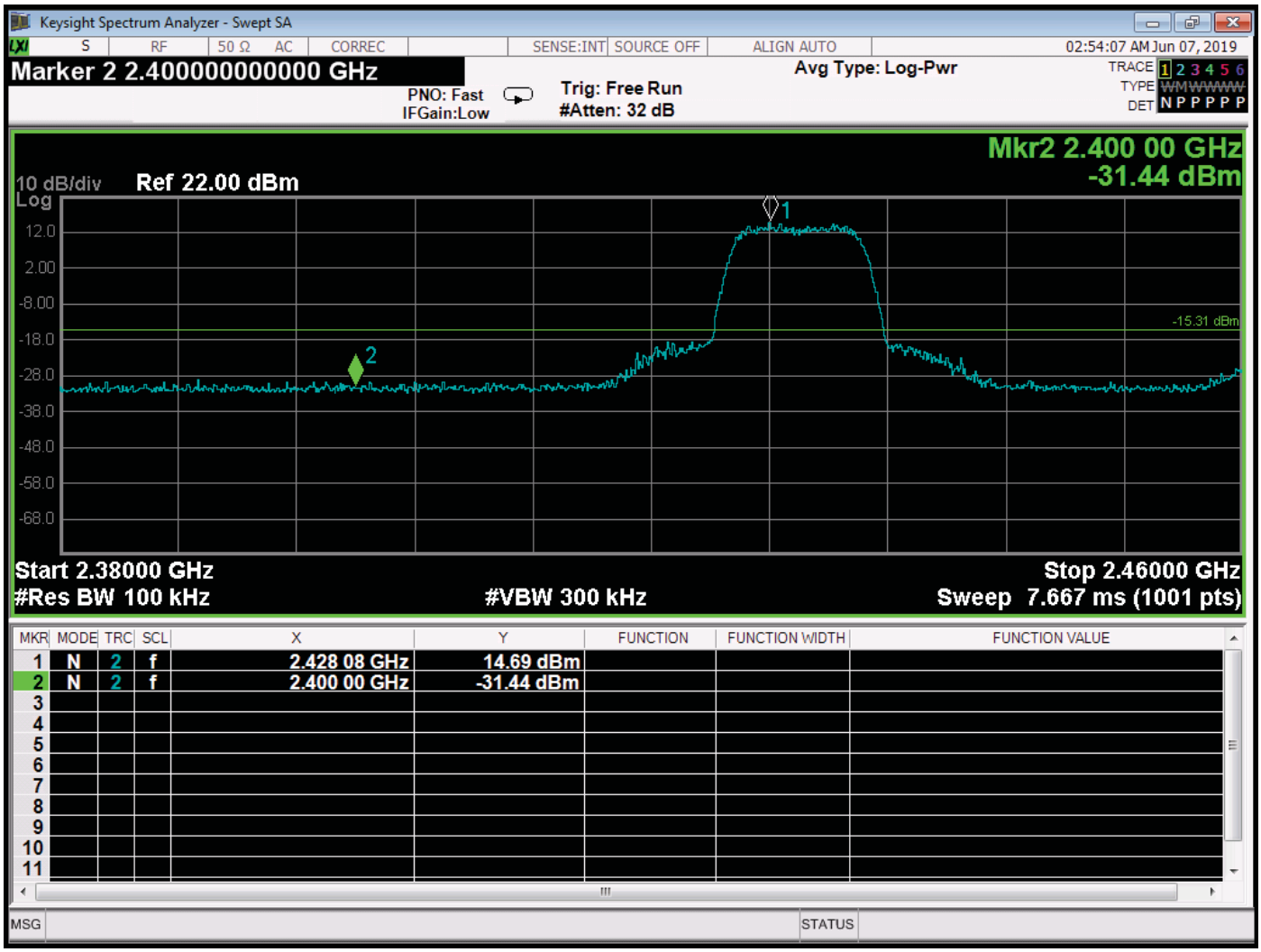
4/1/2019 1:33:26 PM
Sequence: Final Measurements

White Lead

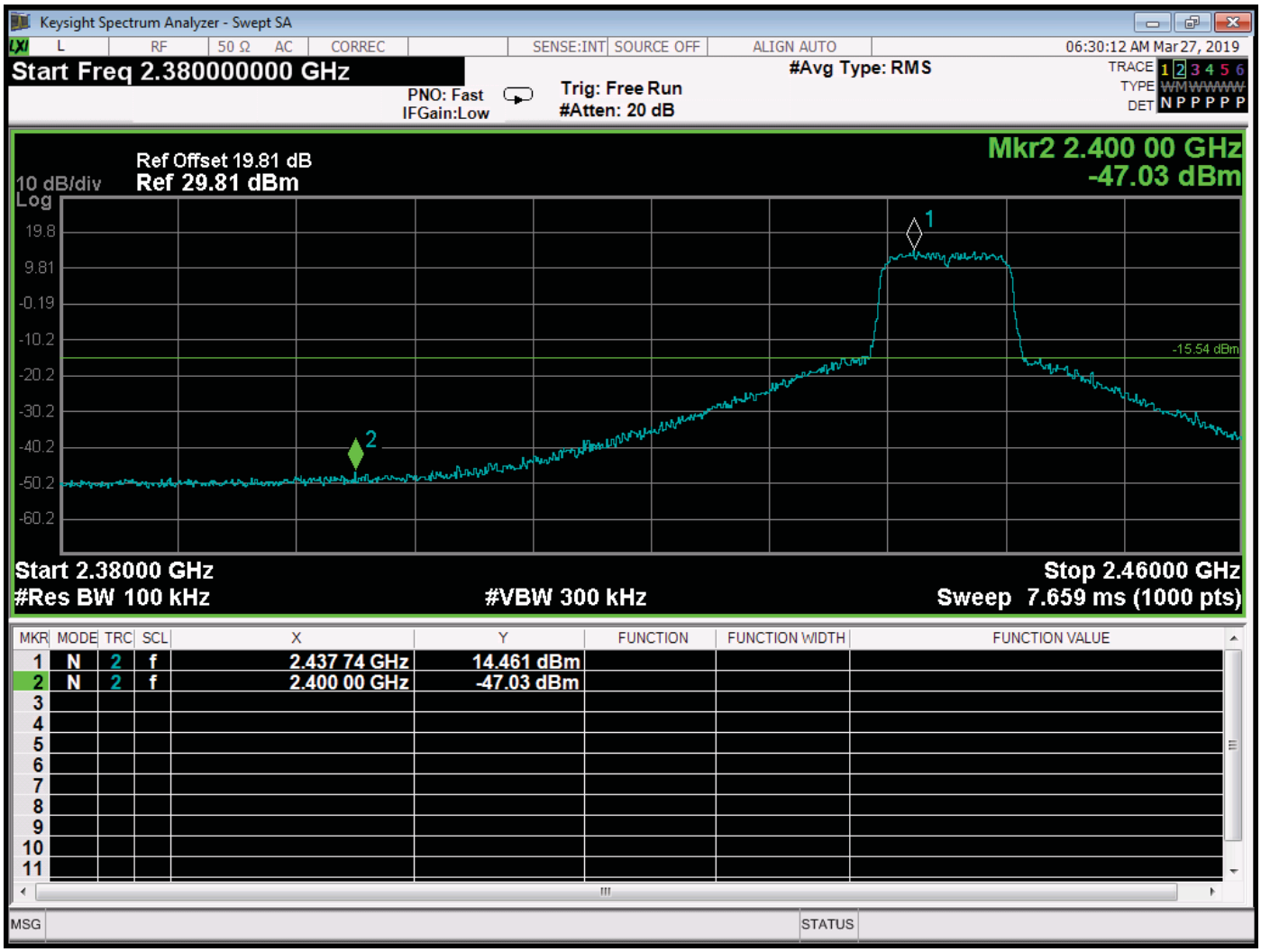
Freq (MHz)	(PEAK) EMI (dBµV)	(AVG) EMI (dBµV)	(PEAK) Margin (AVG) (dB)	(AVG) Margin (AVG) (dB)	(AVG) Limit (dBµV)	Cable (dB)	Transducer (dB)	Filter (dB)
0.158	44.26	29.83	-11.20	-25.63	55.46	0.00	0.40	9.80
0.450	38.65	27.97	-8.26	-18.94	46.91	0.00	0.02	9.71
0.454	42.13	31.37	-4.57	-15.33	46.70	0.00	0.02	9.71
0.462	41.14	30.88	-5.39	-15.65	46.52	0.00	0.02	9.71
0.470	41.43	30.89	-5.11	-15.65	46.54	0.00	0.02	9.71
0.474	40.08	29.07	-6.26	-17.27	46.34	0.00	0.02	9.70

BAND EDGE AT 2400 MHz

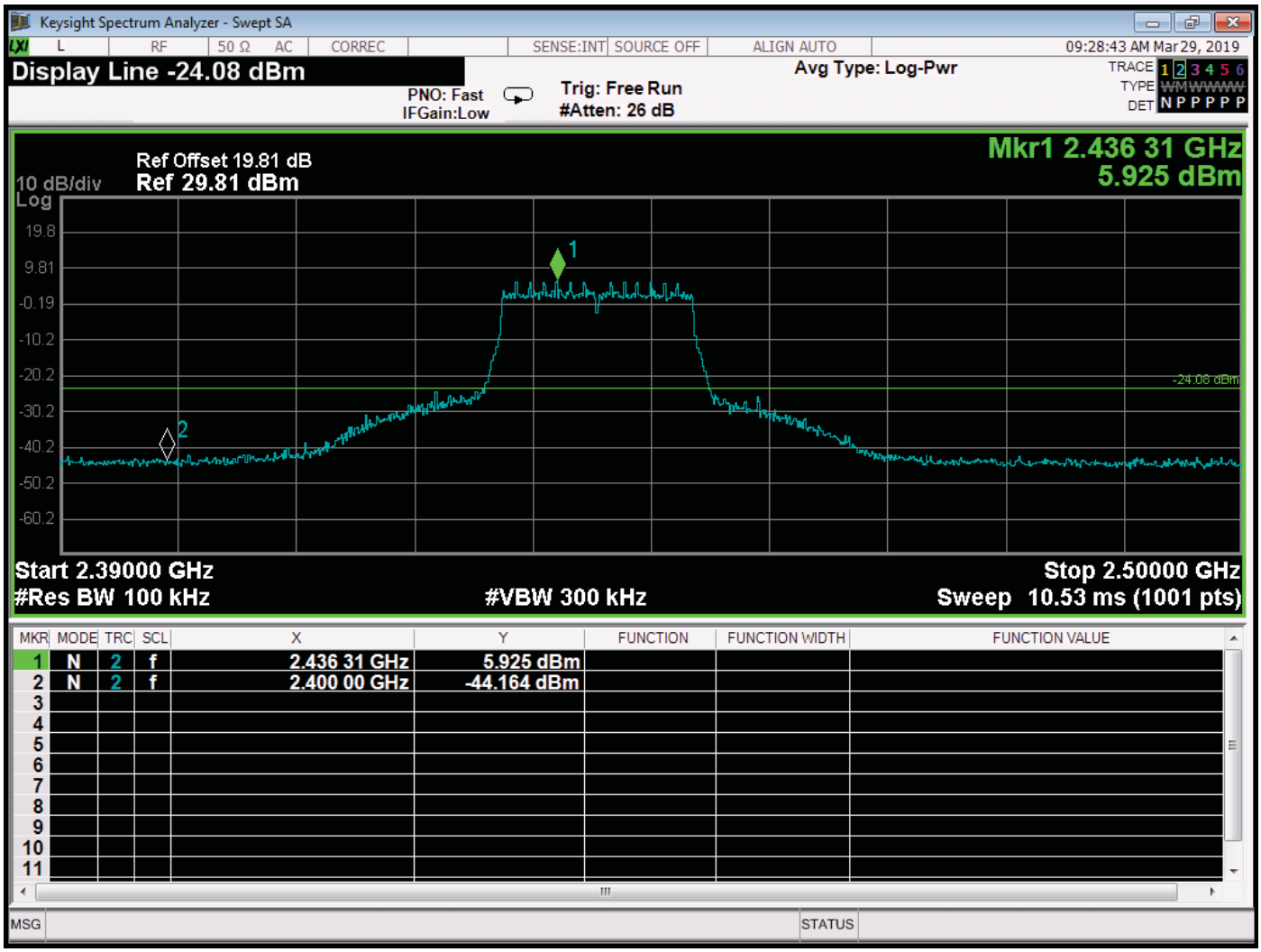
DATA SHEETS



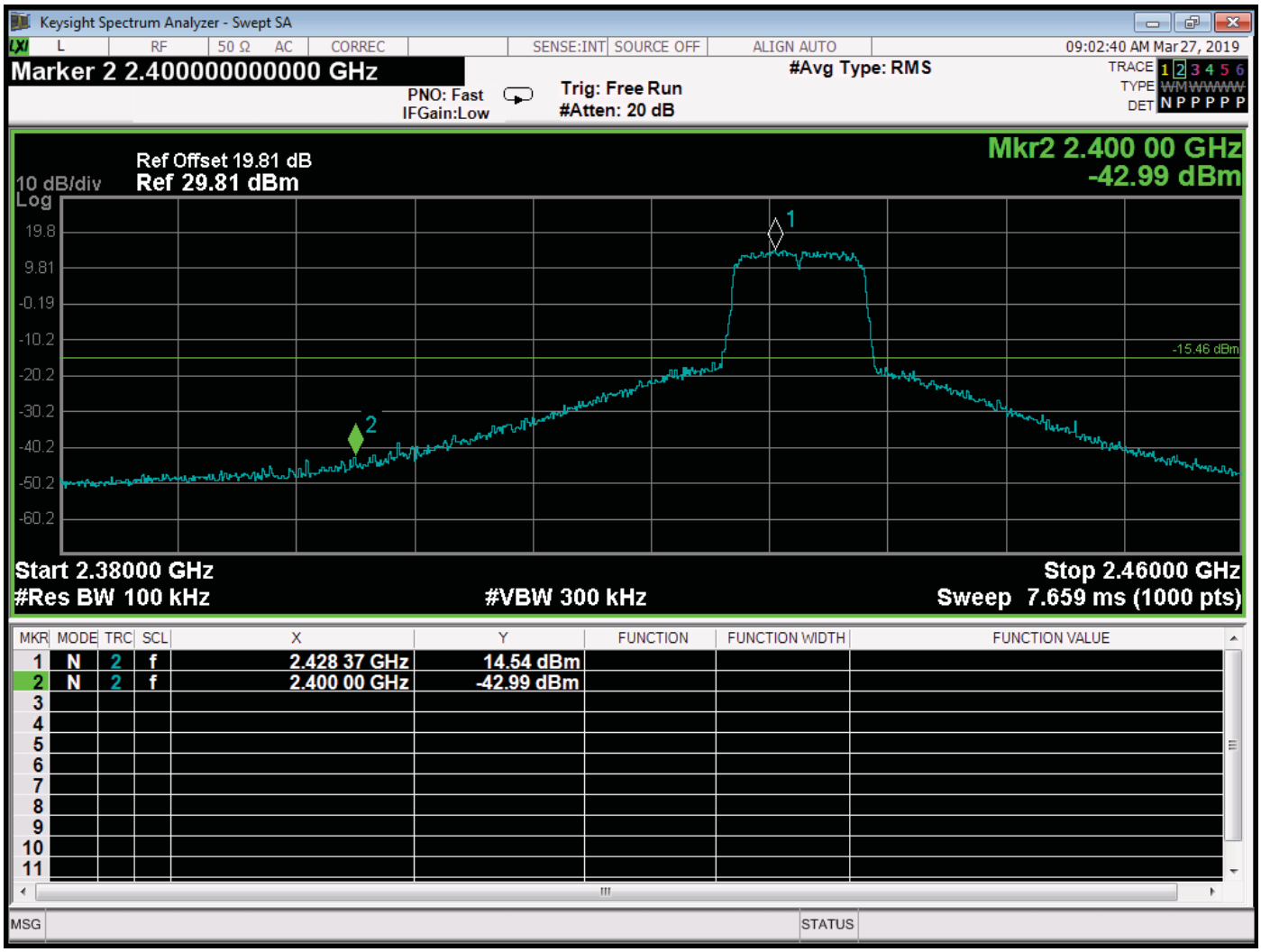
Band Edge at 2400 MHz – 2430 MHz Fundamental – 10 MHz Bandwidth – Port #1



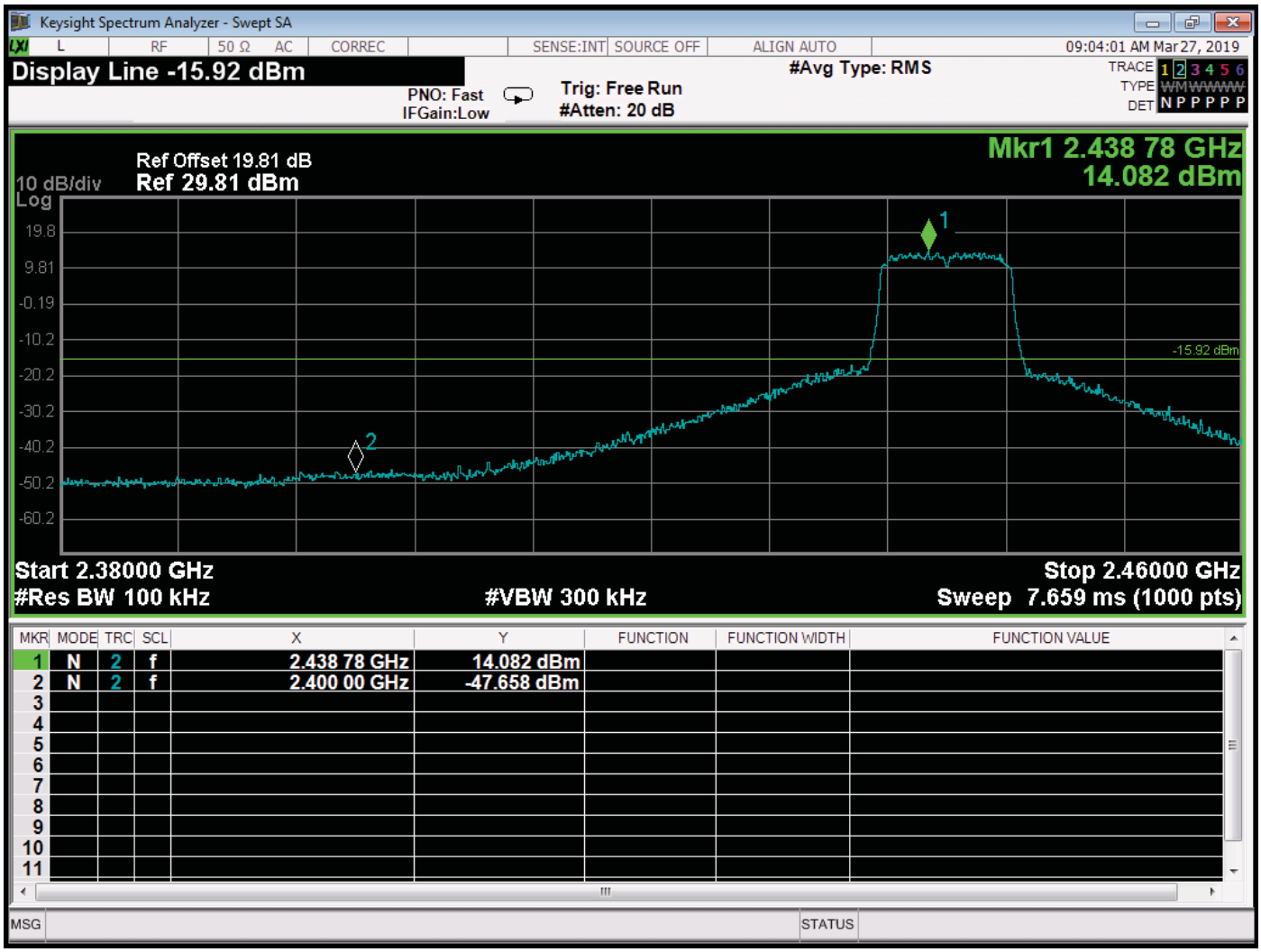
Band Edge at 2400 MHz – 2440 MHz Fundamental – 10 MHz Bandwidth – Port #1



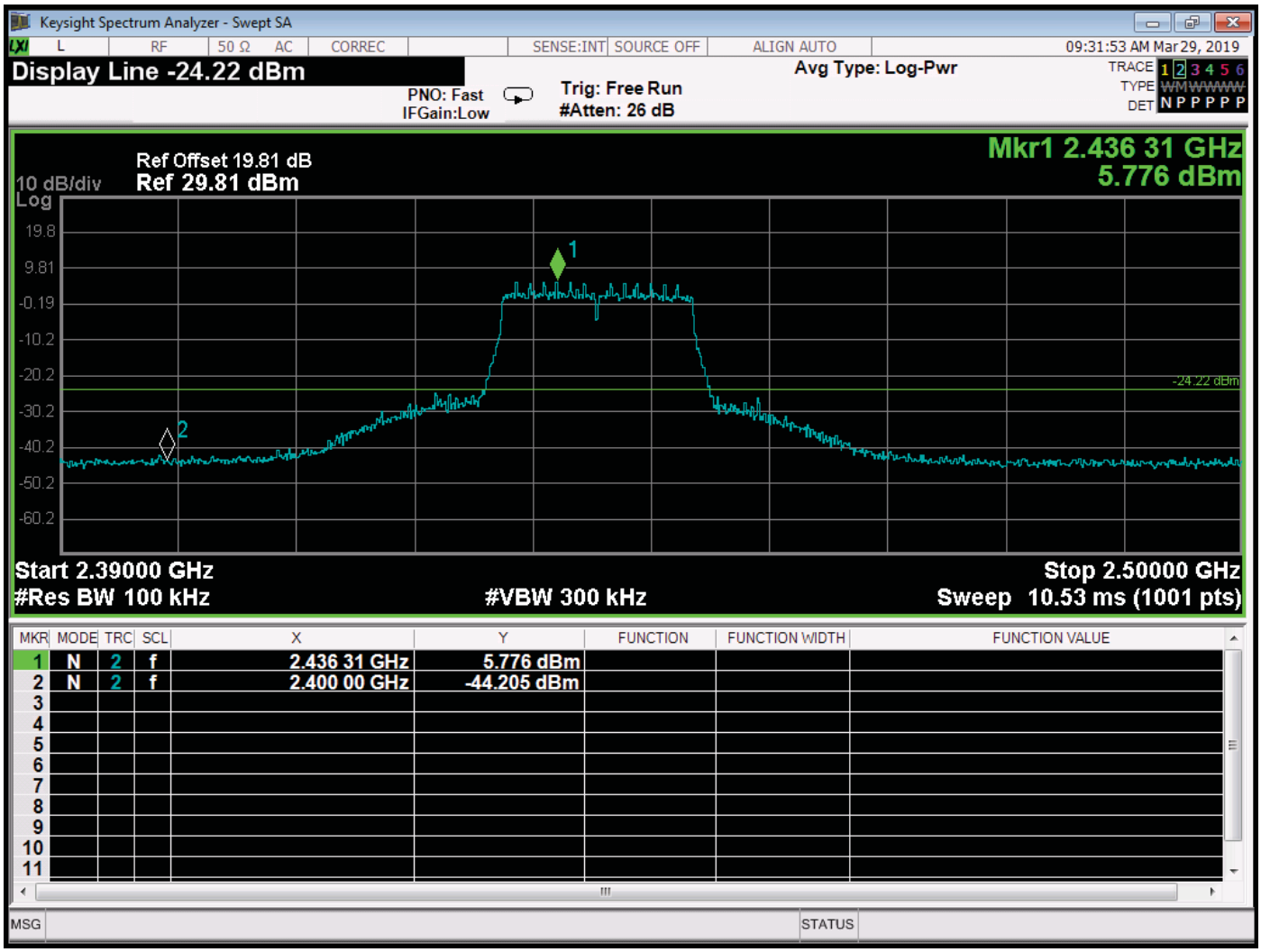
Band Edge at 2400 MHz – 2440 MHz Fundamental – 20 MHz Bandwidth – Port #1



Band Edge at 2400 MHz – 2430 MHz Fundamental – 10 MHz Bandwidth – Port #2



Band Edge at 2400 MHz – 2440 MHz Fundamental – 10 MHz Bandwidth – Port #2



Band Edge at 2400 MHz – 2440 MHz Fundamental – 20 MHz Bandwidth – Port #2