

*FCC PART 15, SUBPART B and C
TEST REPORT**for***BASE STATION****MODEL: SBS05-W**

Prepared for

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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 endorsement by NVLAP or any other agency of the U.S. Government.

Device Tested: Base Station
Model: SBS05-W
S/N: N/A

Product Description: See Expository Statement.

Modifications: The EUT was modified during the testing in order to meet the specifications. Please see the list located in Appendix B.

Manufacturer: WirelessWERX, Inc.
100 South Chaparral Court, Suite 100
Anaheim, CA 92808

Test Dates: November 3, 7, 9, 10, 14, and 15, 2011

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

Test Procedure: ANSI C63.4

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

SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Conducted RF Emissions, 150 kHz – 30 MHz	Complies with the Class B limits of CFR Title 47, Part 15 Subpart B; and the limits of CFR Title 47, Part 15, Subpart C, section 15.207
2	Spurious Radiated RF Emissions, 30 MHz – 1000 MHz	Complies with the Class B limits of CFR Title 47, Part 15 Subpart B; and the limits of CFR Title 47, Part 15, Subpart C, section 15.209
3	Spurious Radiated RF Emissions, 10 kHz – 30 MHz and 1000 MHz – 25000 MHz	Complies with the Class B limits of CFR Title 47, Part 15, Subpart B; and CFR Title 47, Part 15, Subpart C, section 15.247(d)
4	Fundamental and Emissions produced by the intentional radiator in non-restricted bands, 10 kHz – 25 GHz	Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.247(d)
5	Emissions produced by the intentional radiator in restricted bands, 10 kHz – 25 GHz	Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.205, 15.209, and section 15.247 (d)
6	20 dB Bandwidth	Complies with the relevant requirements of FCC Title 47, Part 15, Subpart C, section 15.247 (a)(1)
7	Peak Power Output	Complies with the relevant requirements of FCC Title 47, Part 15, Subpart C, section 15.247 (b)(1)
8	RF Conducted Antenna Test	Complies with the relevant requirements of FCC Title 47, Part 15, Subpart C, section 15.247 (d)
9	Carrier Frequency Separation	Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.247 (a)(1)
10	Average Time of Occupancy	Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.247 (a)(1)(iii)
11	Peak Power Spectral Density from the Intentional Radiator to the Antenna	Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.247 (f)

1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the Base Station, Model: SBS05-W. The EMI measurements were performed according to the measurement procedure described in 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, 15.209, and 15.247.

Note: For the unintentional radiator portion of the test, the EUT was within the **Class B** specification limits defined by CFR Title 47, Part 15, Subpart B.

This test report covers the Bluetooth testing. The testing for the 802.11 b/g compliance is in the test report **B11115D2**.

2. ADMINISTRATIVE DATA

2.1 Location of Testing

The EMI 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

WirelessWERX, Inc.

Jim Ashley, Jr.	Chief Technical Officer
Dalton Modesti	Engineer

Compatible Electronics Inc.

Alex Benitez	Test Technician
Kyle Fujimoto	Test Engineer
Michael Christensen	Lab Manager, Brea Division

2.4 Date Test Sample was Received

The test sample was received prior to the date of testing.

2.5 Disposition of the Test Sample

The test sample was returned to WirelessWERX, Inc. on December 10, 2011.

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 EMI Test Report.

SPEC	TITLE
FCC Title 47, Part 15 Subpart C	FCC Rules - Radio frequency devices (including digital devices) – Intentional Radiators
ANSI C63.4 2009	Methods of measurement of radio-noise emissions from low-voltage electrical and electronic equipment in the range of 9 kHz to 40 GHz
FCC Title 47, Part 15 Subpart B	FCC Rules - Radio frequency devices (including digital devices) – Unintentional Radiators

4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description of Test Configuration - EMI

Wireless Mode: The Base Station, Model: SBS05-W (EUT) was connected to a power supply via its power port.

The access point was connected to the laptop and its power supply via its ethernet and power ports, respectively. The laptop was also connected to its power supply via its power port. The laptop and access point were placed fifty feet away from the test site.

Wired Mode: The Base Station, Model: SBS05-W (EUT) was connected to a power supply and access point via its power and ethernet ports, respectively. The access point was also connected to the laptop and its power supply via its ethernet and power ports, respectively. The laptop was also connected to its power supply via its power port. The laptop and access point were placed fifty feet away from the test site.

Operation of the EUT during the testing:

For the intentional radiator portion of the test: The laptop had a program that locked one channel at a time so that the low, middle, and high channels could be tested. This allowed the EUT to be in a no hopping mode. The EUT was tested in two orthogonal axis. The carrier was modulated in the same way it would be when the EUT was in its normal frequency hopping mode.

A 1.5-meter cable was connected between the laptop and an ethernet PCB when programming the EUT to be in no hopping mode at the low, middle, or high channel. The ethernet PCB then directly connected to the EUT. This setup was removed after programming the EUT and will not be available to the end user.

For the unintentional radiator and conducted emission portion of the test: The laptop used a program that allowed the EUT to function as normal (the channels frequency hopping) on a continuous basis.

During the initial investigation, it was determined that the wired mode was worst case for the fundamental and harmonics of the Bluetooth and the final radiated data for the fundamental and spurious emissions of the Bluetooth were taken in this mode.

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

4.1.1 Cable Construction and Termination

- Cable 1** This is a 1-meter unshielded cable connecting the access point with the laptop. The cable has an RJ-45 connector at each end.
- Cable 2** **(For Wired Mode Only)** This is a 15-meter unshielded cable connecting the EUT to the access point. The cable has an RJ-45 connector at each end.
- Cable 3** This is a 2-meter unshielded cable connecting the laptop to the AC Adapter. The cable has a 1 pin power connector at the laptop end and is hard wired into the AC Adapter.
- Cable 4** **(For only to program the EUT for the intentional radiator portion):** This is a 1.5-meter unshielded cable connecting the laptop to the USB-SPI adapter. The cable has a USB type 'A' connector at the laptop end and a USB type 'B' connector at the USB-SPI adapter end.
- Cable 5** **(For only to program the EUT for the intentional radiator portion):** This is a 20-centimeter unshielded cable connecting the USB-SPI adapter to the ethernet PCB. The cable has an RJ-45 connector at each end. Note: The Ethernet PCB then directly connected to the EUT.
- Cable 6** This is a 2-meter unshielded cable connecting the access point to the AC Adapter. The cable has a 1/8 inch power connector at the access point end and is hard wired into the AC Adapter.
- Cable 7** This is a 2-meter unshielded cable connecting the EUT to the AC Adapter. The cable has a 2 pin power connector at the EUT end and is hard wired into the AC Adapter.

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

EQUIPMENT	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	FCC ID
BASE STATION (EUT)	WirelessWERX, Inc.	SBS05-W	N/A	S8PSBS05W
AC ADAPTER FOR EUT	JAMECO	S15AA033250	N/A	N/A
LAPTOP	DELL	PPO4X	N/A	E2KWM3945ABG
AC ADAPTER FOR LAPTOP	DELL	LA90PS0-00	N/A	N/A
USB-SPI CONVERTER*	CSR	USB-SPI	215904	N/A
AC ADAPTER FOR ACCESS POINT	LINKSYS	ENG-08-10-T1205A	N/A	N/A
ACCESS POINT	LINKSYS	WRT54GL v1.1	CL7C1HC07289	Q87-WT54GV40

*To program the EUT to be in no hopping mode only.

5.2 EMI Test Equipment

EQUIPMENT TYPE	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	CALIBRATION DATE	CALIBRATION DUE DATE
GENERAL TEST EQUIPMENT USED FOR ALL RF EMISSIONS TESTS					
Computer	Hewlett Packard	4530	US91912319	N/A	N/A
Spectrum Analyzer – Main Section	Hewlett Packard	8566B	2637A03618	May 27, 2011	May 27, 2012
Spectrum Analyzer – Display Section	Hewlett Packard	85662A	2648A13404	May 27, 2011	May 27, 2012
Quasi-Peak Adapter	Hewlett Packard	85650A	2430A00424	May 27, 2011	May 27, 2012
EMI Receiver	Rohde & Schwarz	ESIB40	100194	November 19, 2010	November 19, 2012
Monitor	Hewlett Packard	D5258A	TW74500641	N/A	N/A
RF RADIATED EMISSIONS TEST EQUIPMENT					
Loop Antenna	Com-Power	AL-130	17089	January 21, 2011	January 21, 2012
Biconical Antenna	Com Power	AB-900	15250	June 8, 2011	June 8, 2012
Log Periodic Antenna	Com Power	AL-100	16252	June 8, 2011	June 8, 2012
Horn Antenna	Com-Power	AH-118	071175	March 18, 2010	March 18, 2012
Horn Antenna	Com-Power	AH826	71957	NCR	N/A
Preamplifier	Com-Power	PA-102	1017	January 11, 2011	January 12, 2012
Microwave Preamplifier	Com-Power	PA-118	181656	December 22, 2010	December 22, 2011
Microwave Preamplifier	Com-Power	PA-840	711013	March 11, 2010	March 11, 2012
Antenna Mast	Com Power	AM-100	N/A	N/A	N/A
RF RADIATED EMISSIONS TEST EQUIPMENT					
Emissions Program	Compatible Electronics	2.3 (SR19)	N/A	N/A	N/A
LISN	Com Power	LI-215	12078	June 20, 2011	June 20, 2012
LISN	Com Power	LI-215	12082	June 20, 2011	June 20, 2012
Transient Limiter	Com Power	252A910	1	November 7, 2011	November 7, 2012

6. TEST SITE DESCRIPTION

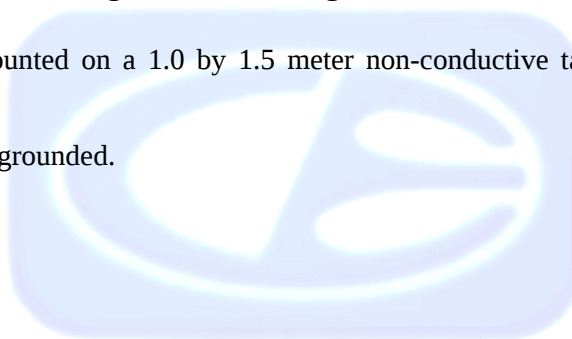
6.1 Test Facility Description

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

6.2 EUT Mounting, Bonding and Grounding

The EUT was mounted on a 1.0 by 1.5 meter non-conductive table 0.8 meters above the ground plane.

The EUT was not grounded.



7. CHARACTERISTICS OF THE TRANSMITTER

7.1 Transmitter Power

Transmit power is herein defined as the power delivered to a 50 ohm load at the RF output of the EUT.

Power	Channel
4.99 dBm	LOW
4.75 dBm	MIDDLE
3.96 dBm	HIGH

7.2 Channel Number and Frequencies

There are a total of 79 channels. The low channel is at 2402.0 MHz and the high channel is at 2480.0 MHz. There is a 1 MHz separation between channels.

Channel 1: 2402 MHz
Channel 2: 2403 MHz
(Etc.)

7.3 Antenna Gain

The antenna has a gain of 2 dBi.

8. TEST PROCEDURES

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

8.1 RF Emissions

8.1.1 Conducted Emissions Test

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

Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The EUT was powered through the LISN, which was bonded to the ground plane. The LISN power was filtered and the filter was bonded to the ground plane. The EUT was set up with the minimum distances from any conductive surfaces as specified in ANSI C63.4: 2003. The excess power cord was wrapped in a figure eight pattern to form a bundle not exceeding 0.4 meters in length.

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

Test Results:

Complies with the **Class B** limits of CFR Title 47, Part 15 Subpart B; and the limits of CFR Title 47, Part 15, Subpart C, section 15.207.

8.1.2 Radiated Emissions (Spurious and Harmonics) Test

The spectrum analyzer and EMI Receiver were used as a measuring meter along with the quasi-peak adapter. Amplifiers were used to increase the sensitivity of the instrument. The Com Power Preamplifier Model: PA-102 was used for frequencies from 30 MHz to 1 GHz, the Com Power Microwave Preamplifier Model: PA-118 was used for frequencies above 1 GHz, and the Com Power Microwave Preamplifier Model: PA-840 was used for frequencies above 18 GHz. The spectrum analyzer was used in the peak detect mode with the "Max Hold" feature activated. In this mode, the spectrum analyzer records the highest measured reading over all the sweeps.

The quasi-peak adapter was used only for those readings which are marked accordingly on the data sheets.

The frequencies above 1 GHz were averaged manually by narrowing the video filter down to 10 Hz and putting the sweep time on AUTO on the spectrum analyzer to keep the amplitude reading calibrated.

After the readings above 1 GHz were average manually, the reading was further adjusted by a "duty cycle correction factor", derived from $20 \log (\text{dwell time} / 100 \text{ ms})$. Since the duty cycle was below 10%, the maximum allowed 20 dB was subtracted from the peak reading. The duty cycle correction factor is explained in Appendix E.

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

FREQUENCY RANGE	EFFECTIVE MEASUREMENT BANDWIDTH	TRANSDUCER
10 kHz to 150 kHz	200 Hz	Active Loop Antenna
150 kHz to 30 MHz	9 kHz	Active Loop Antenna
30 MHz to 300 MHz	120 kHz	Biconical Antenna
300 MHz to 1 GHz	120 kHz	Log Periodic Antenna
1 GHz to 25 GHz	1 MHz	Horn Antenna

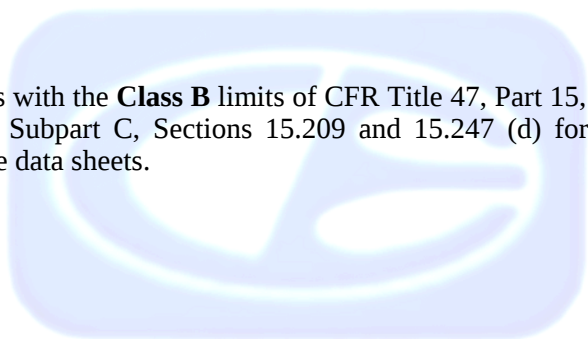
The open field test site of Compatible Electronics, Inc. was used for radiated emission testing. This test site is set up according to ANSI C63.4: 2003. Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The turntable supporting the EUT is remote controlled using a 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 by the Radiated Emission Manual Test software. At each reading, the EUT was rotated 360 degrees and the antenna height was varied from 1 to 4 meters (for E field radiated field strength). The gunsight method was used when measuring with the horn antenna in order to ensure accurate results.

Radiated Emissions (Spurious and Harmonics) Test (con't)

The presence of ambient signals was verified by turning the EUT off. In case an ambient signal was detected, the measurement bandwidth was reduced temporarily and verification was made that an additional adjacent peak did not exist. This ensures that the ambient signal does not hide any emissions from the EUT. The EUT was tested at a 3 meter test distance from 10 kHz to 25 GHz to obtain the final test data.

Test Results:

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



7.1.3 RF Emissions Test Results

Table 1.0 CONDUCTED EMISSION RESULTS
Base Station, Model: SB505-W

Frequency MHz	Corrected Reading* dBuV	Specification Limit dBuV	Delta (Cor. Reading – Spec. Limit) dB
1.297 (White) (Wired)	42.29	46.00	-3.71
0.899 (White) (Wired)	41.84	46.00	-4.16
1.230 (White) (Wired)	41.68	46.00	-4.32
0.338 (Black) (Wired)	44.86	49.26	-4.40
0.474 (White) (Wired)	41.88	46.45	-4.57
0.358 (Black) (Wired)	44.17	48.78	-4.61

Table 2.0 RADIATED EMISSION RESULTS
Base Station, Model: SB505-W

Frequency MHz	Corrected Reading* dBuV	Specification Limit dBuV	Delta (Cor. Reading – Spec. Limit) dB
2390 (Vertical)	52.44 (A)	54.00	-1.56
2483.5 (Vertical)	49.49 (A)	54.00	-4.51
249.989 (Vertical)	38.80	46.00	-7.20
499.976 (Horizontal)	38.80	46.00	-7.20
375.026 (Vertical)	38.01	46.00	-7.99
1601.8 (Horizontal)	45.04	54.00	-8.96

Notes:

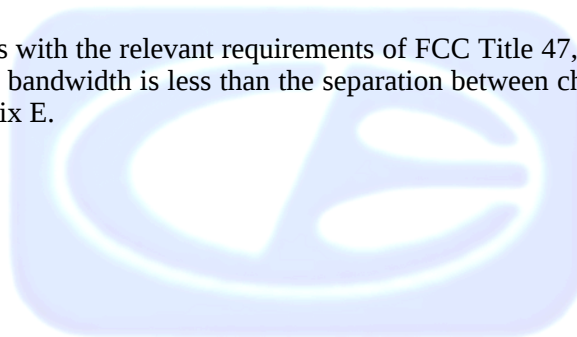
- * The complete emissions data is given in Appendix E of this report.
- A Average Reading

7.2 20 dB Bandwidth

The 20 dB Bandwidth was measured using the EMI Receiver. The bandwidth was measured using a direct connection from the RF output of the EUT. The resolution bandwidth was 30 kHz and the video bandwidth was 100 kHz.

Test Results:

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



7.3 Peak Output Power

The Peak Output Power was measured using the EMI Receiver. The peak output power was measured using a direct connection from the RF output of the EUT. The resolution bandwidth was 3 MHz and the video bandwidth was 10 MHz. The cable loss was also added back into the reading using the reference level offset.

Test Results:

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

7.4 RF Antenna Conducted Test

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

Test Results:

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

7.5 RF Band Edges

The RF band edges were taken at the edges of the ISM spectrum (2400 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 8.2 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 band edges at 2400 MHz and 2483.5 MHz meet the requirements of FCC Title 47, Part 15, Subpart C section 15.247 (d). Please see the data sheets located in Appendix E.

7.6 Carrier Frequency Separation

The Channel Hopping Separation Test was measured using the EMI Receiver. The EUT was operating in its normal operating mode. The resolution bandwidth was 1 MHz, and the video bandwidth 1 MHz. The frequency span was wide enough to include the peaks of two adjacent channels.

Test Results:

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

7.7 Number of Hopping Frequencies

The Channel Hopping Separation Test was measured using the EMI Receiver. The EUT was operating in its normal operating mode. The resolution bandwidth was 1 MHz, and the video bandwidth was 1 MHz. The frequency span was wide enough to include all of the peaks in the frequency band of operation.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (a)(1) and 15.247 (a)(1)(iii). The number of hopping frequencies is 79. Please see the data sheets located in Appendix E.

7.8 Average Time of Occupancy Test

The Average Time of Occupancy Test was measured using the EMI Receiver. The EUT was operating in normal operating mode. The frequency span was taken to 0 Hz with a sweep time of 5 msec to determine the time for each transmission.

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. This means the time of occupancy of any one channel cannot be greater than 0.4 seconds in a 31.6 second period (0.4 seconds * 79 channels).

The sweep time was then changed to 5 seconds and the number of pulses taken. The number of pulses was then multiplied by 6.32 to determine the number of pulses in a 31.6 second period. The number of pulses in a 31.6 second period was then multiplied by the time for each pulse to determine the average time of occupancy.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (a)(1)(iii). The EUT does not transmit for more than 400 msec in a 31.6 second period on any frequency. Please see the data sheets located in Appendix E.

7.9 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 resolution bandwidth 3 kHz, and the video bandwidth was 10 kHz. The highest 1.5 MHz of the signal was used as the frequency span with the sweep rate being 1 second for every 3 kHz of span.

Test Results:

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

8. CONCLUSIONS

The Base Station, Model: SBS05-W meets all of the specification limits defined in FCC Title 47, Part 15, Subpart C, sections 15.205, 15.209, and 15.247.

Note: For the unintentional radiator portion of the test, the EUT was within the **Class B** specification limits defined by CFR Title 47, Part 15, Subpart B.



APPENDIX A

LABORATORY ACCREDITATIONS AND RECOGNITIONS

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

Agoura Division
2337 Troutdale Drive
Agoura, CA 91301
(818) 597-0600

Silverado Division
19121 El Toro Road
Silverado, CA 92676
(949) 589-0700

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

LABORATORY ACCREDITATIONS AND RECOGNITIONS

NVLAP LAB CODES 200063-0,
200528-0, 200527-0

For US, Canada, Australia/New Zealand, Japan, Taiwan, Korea, and the European Union, Compatible Electronics is currently accredited by NVLAP to ISO/IEC 17025. Please follow the link to the NIST/NVLAP site for each of our facilities' NVLAP certificate and scope of accreditation

NVLAP listing links

[Agoura Division](#) / [Brea Division](#) / [Silverado/Lake Forest Division](#)

.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."

ANSI listing [CETCB](#)

Compatible Electronics has been nominated as a Conformity Assessment Body (CAB) for EMC under the US/EU Mutual Recognition Agreement (MRA).

US/EU MRA list [NIST MRA site](#)

Compatible Electronics has been nominated as a Conformity Assessment Body (CAB) for Taiwan/BSMI under the US/APEC (Asia-Pacific Economic Cooperation) Mutual Recognition Agreement (MRA).

APEC MRA list [NIST MRA site](#)

We are also listed for IT products by the following country/agency:

VCCI Support member: Please visit http://www.vcci.jp/vcci_e/

FCC Listing, from FCC OET site

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

Compatible Electronics IC listing can be found at:

<http://www.ic.gc.ca/eic/site/ic1.nsf/eng/home>

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

Agoura Division
2337 Troutdale Drive
Agoura, CA 91301
(818) 597-0600

Silverado Division
19121 El Toro Road
Silverado, CA 92676
(949) 589-0700

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

APPENDIX B

MODIFICATIONS TO THE EUT

MODIFICATIONS TO THE EUT

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

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

1. Add a ferrite (Fair-Rite P/N: 2643002402) to the antenna cable on the module side inside the EUT with 1 ½ turns.



APPENDIX C

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

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

Agoura Division
2337 Troutdale Drive
Agoura, CA 91301
(818) 597-0600

Silverado Division
19121 El Toro Road
Silverado, CA 92676
(949) 589-0700

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

ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST

Base Station
Model: SBS05-W
S/N: N/A

There were no additional models covered under this report.



APPENDIX D***DIAGRAMS, CHARTS, AND PHOTOS***

FIGURE 1: CONDUCTED EMISSIONS TEST SETUP

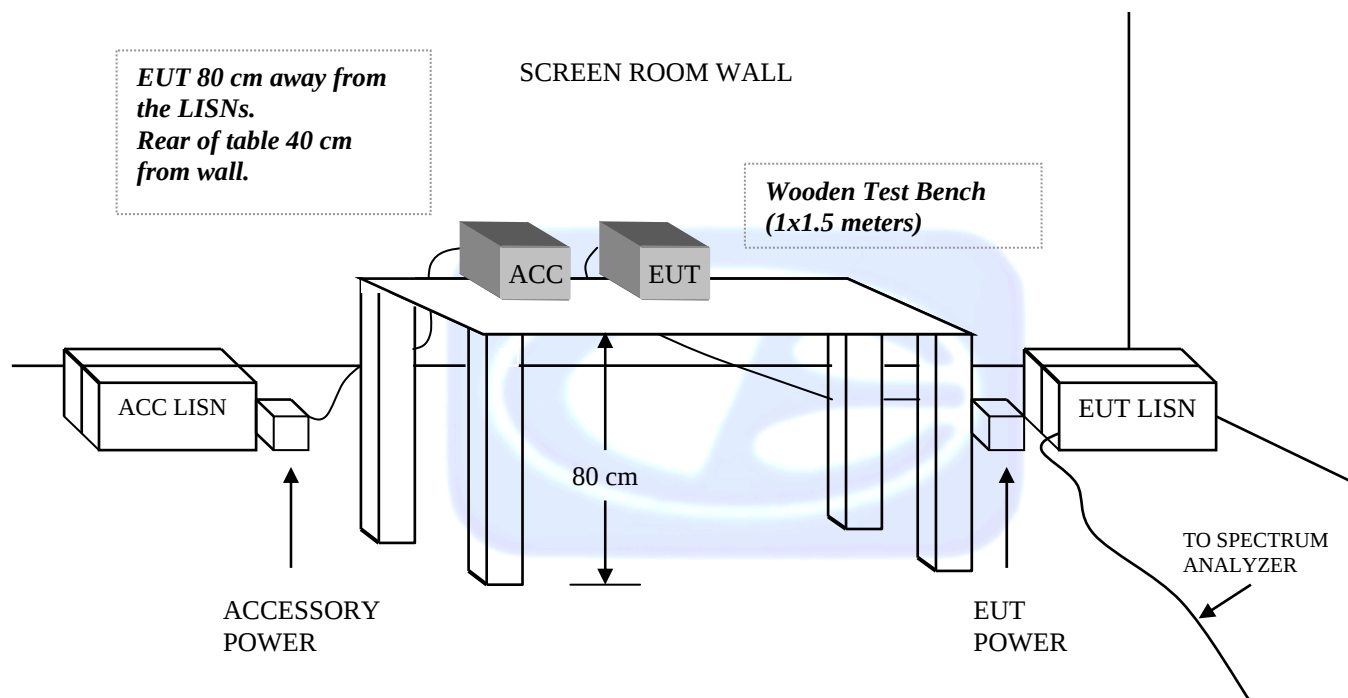
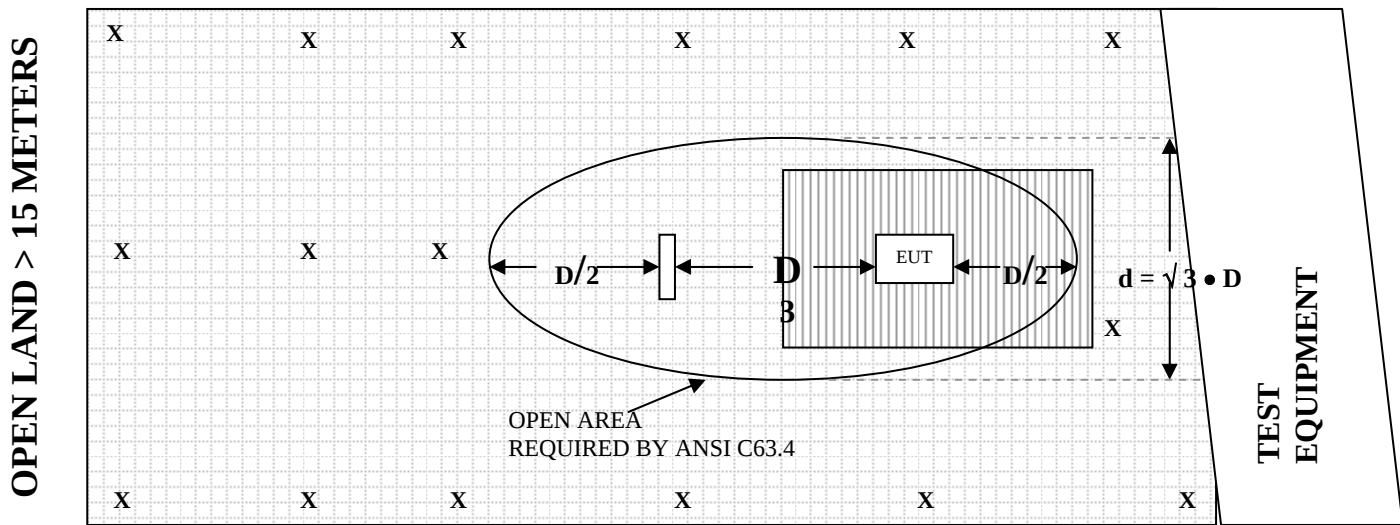


FIGURE 2: PLOT MAP AND LAYOUT OF RADIATED SITE

OPEN LAND > 15 METERS



OPEN LAND > 15 METERS

X	= GROUND RODS		= GROUND SCREEN
D	= TEST DISTANCE (meters)		= WOOD COVER

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

S/N: 17089

CALIBRATION DATE: JANUARY 21, 2011

FREQUENCY (MHz)	MAGNETIC (dB/m)	ELECTRIC (dB/m)
0.009	-41.9	9.6
0.01	-41.79	9.71
0.02	-41.43	10.07
0.05	-41.53	9.97
0.07	-41.47	10.03
0.1	-41.44	10.06
0.2	-41.61	9.89
0.3	-41.62	9.88
0.5	-41.66	9.84
0.7	-41.48	10.02
1	-41.13	10.37
2	-40.89	10.61
3	-41.00	10.50
4	-41.14	10.36
5	-41.02	10.48
10	-40.69	10.82
15	-40.41	11.09
20	-41.07	10.43
25	-42.10	9.40
30	-41.15	10.35

COM-POWER AB-900

BICONICAL ANTENNA

S/N: 15250

CALIBRATION DATE: JUNE 8, 2011

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	10.90	100	9.50
35	11.00	120	12.10
40	11.80	140	11.40
45	11.60	160	12.40
50	11.40	180	15.70
60	9.80	200	16.20
70	7.00	250	16.10
80	5.70	300	19.00
90	7.00		

COM-POWER AL-100

LOG PERIODIC ANTENNA

S/N: 16252

CALIBRATION DATE: JUNE 8, 2011

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
300	13.50	700	20.40
400	15.50	800	20.60
500	15.80	900	20.10
600	20.20	1000	22.80

COM POWER AH-118**HORN ANTENNA****S/N: 071175****CALIBRATION DATE: MARCH 18, 2010**

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	22.2	10.0	39.8
1.5	24.2	10.5	40.2
2.0	27.2	11.0	39.7
2.5	27.8	11.5	39.9
3.0	30.5	12.0	41.7
3.5	30.9	12.5	42.7
4.0	31.9	13.0	42.3
4.5	33.2	13.5	40.3
5.0	33.6	14.0	42.6
5.5	36.2	14.5	43.4
6.0	35.8	15.0	41.9
6.5	36.1	15.5	40.8
7.0	37.9	16.0	41.0
7.5	37.4	16.5	41.5
8.0	38.0	17.0	44.5
8.5	38.8	17.5	47.6
9.0	38.0	18.0	50.8
9.5	39.2		

COM-POWER AH826**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-102**PREAMPLIFIER**

S/N: 1017

CALIBRATION DATE: JANUARY 11, 2011

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	38.1	300	38.1
40	38.2	350	38.0
50	38.2	400	37.9
60	38.2	450	37.7
70	38.2	500	37.6
80	38.2	550	37.9
90	38.2	600	37.9
100	38.1	650	37.7
125	38.2	700	37.9
150	38.2	750	37.5
175	38.2	800	37.6
200	38.2	850	37.6
225	38.2	900	37.0
250	38.2	950	37.2
275	38.2	1000	36.8

COM-POWER PA-118**PREAMPLIFIER**

S/N: 181656

CALIBRATION DATE: DECEMBER 22, 2010

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	24.90	10.0	26.07
1.5	26.50	10.5	24.97
2.0	26.79	11.0	24.79
2.5	26.90	11.5	24.33
3.0	27.03	12.0	24.24
3.5	26.94	12.5	24.92
4.0	27.18	13.0	24.52
4.5	26.79	13.5	24.33
5.0	26.25	14.0	24.56
5.5	26.16	14.5	24.99
6.0	25.52	15.0	26.06
6.5	25.29	15.5	26.87
7.0	24.45	16.0	25.95
7.5	24.18	16.5	24.69
8.0	24.02	17.0	24.20
8.5	24.54	17.5	25.12
9.0	24.91	18.0	26.03
9.5	25.42		

COM-POWER PA-840**MICROWAVE PREAMPLIFIER****S/N: 711013****CALIBRATION DATE: MARCH 11, 2010**

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
18.0	24.36	29.5	23.52
18.5	24.54	30.0	21.73
19.0	24.06	30.5	22.34
19.5	23.71	31.0	20.06
20.0	23.42	31.5	20.02
20.5	22.87	32.0	18.11
21.0	22.60	32.5	19.35
21.5	21.08	33.0	17.50
22.0	22.13	33.5	17.49
22.5	22.42	34.0	17.48
23.0	22.85	34.5	18.57
23.5	22.85	35.0	18.64
24.0	23.82	35.5	18.82
24.5	22.33	36.0	19.14
25.0	24.09	36.5	18.58
25.5	23.20	37.0	15.07
26.0	23.18	37.5	17.29
26.5	23.50	38.0	20.82
27.0	24.25	38.5	19.96
27.5	23.58	39.0	20.66
28.0	23.81	39.5	21.41
28.5	23.76	40.0	18.89
29.0	24.83		



FRONT VIEW

WirelessWERX, INC.
BASE STATION
MODEL: SBS05-W

FCC SUBPART B AND C – WIRED MODE – RADIATED EMISSIONS

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

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

Agoura Division
2337 Troutdale Drive
Agoura, CA 91301
(818) 597-0600

Silverado Division
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Silverado, CA 92676
(949) 589-0700

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



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BASE STATION
MODEL: SBS05-W

FCC SUBPART B AND C – WIRED MODE – RADIATED EMISSIONS

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FRONT VIEW

WirelessWERX, INC.
BASE STATION
MODEL: SBS05-W

FCC SUBPART B AND C – WIRELESS MODE – RADIATED EMISSIONS

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REAR VIEW

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BASE STATION
MODEL: SBS05-W

FCC SUBPART B AND C – WIRELESS MODE – RADIATED EMISSIONS

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Lake Forest, CA 92630
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FRONT VIEW

WirelessWERX, INC.
BASE STATION
MODEL: SBS05-W

FCC SUBPART B AND C – WIRED MODE – CONDUCTED EMISSIONS

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REAR VIEW

WirelessWERX, INC.
BASE STATION
MODEL: SBS05-W

FCC SUBPART B AND C – WIRED MODE – CONDUCTED EMISSIONS

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FOR MAXIMUM EMISSIONS**

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FRONT VIEW

WirelessWERX, INC.
BASE STATION
MODEL: SBS05-W

FCC SUBPART B AND C – WIRELESS MODE – CONDUCTED EMISSIONS

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

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REAR VIEW

WirelessWERX, INC.
BASE STATION
MODEL: SBS05-W

FCC SUBPART B AND C – WIRELESS MODE – CONDUCTED EMISSIONS

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

Brea Division
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(818) 597-0600

Silverado Division
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(949) 589-0700

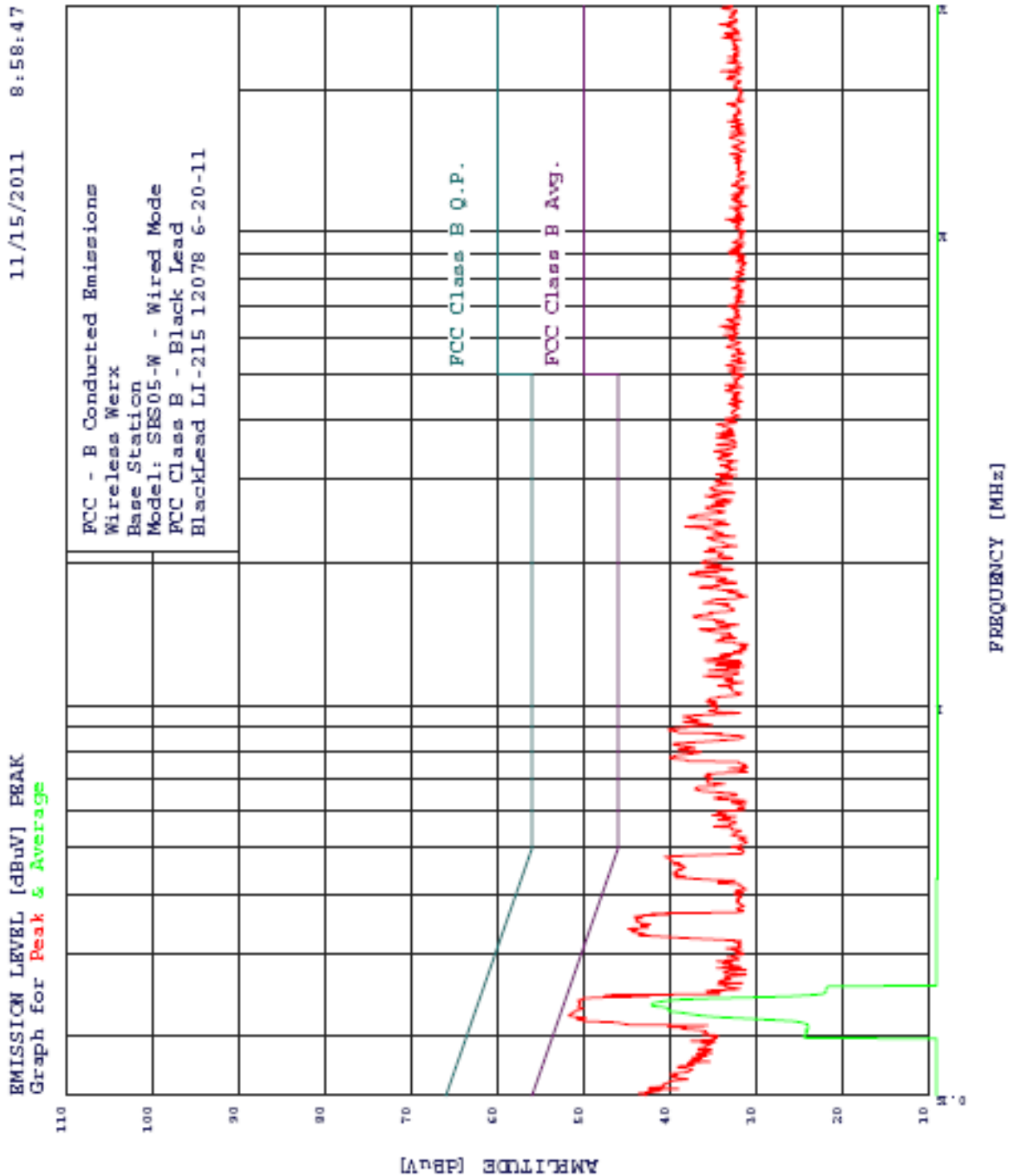
Lake Forest Division
20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400

APPENDIX E

DATA SHEETS

CONDUCTED EMISIONS

DATA SHEETS



FCC - B Conducted Emissions

Wireless Werx

Base Station

Model: SBS05-W - Wired Mode

FCC Class B - Black Lead

BlackLead LI-215 12078 6-20-11

TEST ENGINEER : Kyle Fujimoto

48 highest peaks above -50.00 dB of FCC Class B Avg. limit line

Peak criteria : 1.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.222	51.73	52.74	-1.01**
2	0.217	50.83	52.91	-2.09**
3	0.338	44.86	49.26	-4.40
4	0.244	47.54	51.95	-4.41**
5	0.358	44.17	48.78	-4.61
6	0.479	40.61	46.36	-5.75
7	0.890	40.20	46.00	-5.80
8	0.775	40.00	46.00	-6.00
9	0.826	39.60	46.00	-6.40
10	0.363	42.17	48.65	-6.48
11	0.805	39.00	46.00	-7.00
12	0.442	39.70	47.02	-7.32
13	0.924	38.50	46.00	-7.50
14	0.948	38.50	46.00	-7.50
15	2.384	38.21	46.00	-7.79
16	0.433	39.40	47.19	-7.79
17	2.501	37.92	46.00	-8.08
18	1.889	37.70	46.00	-8.30
19	1.544	37.30	46.00	-8.70
20	0.665	37.10	46.00	-8.90
21	1.918	36.90	46.00	-9.10
22	1.449	36.60	46.00	-9.40
23	1.772	36.60	46.00	-9.40
24	2.002	36.30	46.00	-9.70
25	1.154	36.10	46.00	-9.90
26	1.646	36.10	46.00	-9.90
27	2.111	36.00	46.00	-10.00
28	0.709	36.00	46.00	-10.00
29	1.249	36.00	46.00	-10.00
30	2.766	35.93	46.00	-10.07
31	1.960	35.90	46.00	-10.10
32	2.624	35.82	46.00	-10.18
33	1.021	35.80	46.00	-10.20
34	2.262	35.71	46.00	-10.29
35	1.236	35.70	46.00	-10.30
36	0.974	35.50	46.00	-10.50
37	1.184	35.50	46.00	-10.50
38	2.870	35.33	46.00	-10.67
39	2.651	35.12	46.00	-10.88
40	0.586	35.11	46.00	-10.89
41	2.298	35.01	46.00	-10.99
42	0.555	34.91	46.00	-11.09
43	0.637	34.91	46.00	-11.09
44	3.438	34.85	46.00	-11.15
45	2.423	34.81	46.00	-11.19
46	2.979	34.73	46.00	-11.27
47	2.693	34.72	46.00	-11.28
48	1.217	34.70	46.00	-11.30

** Please See the Average Readings on the Next Page and on the Plot

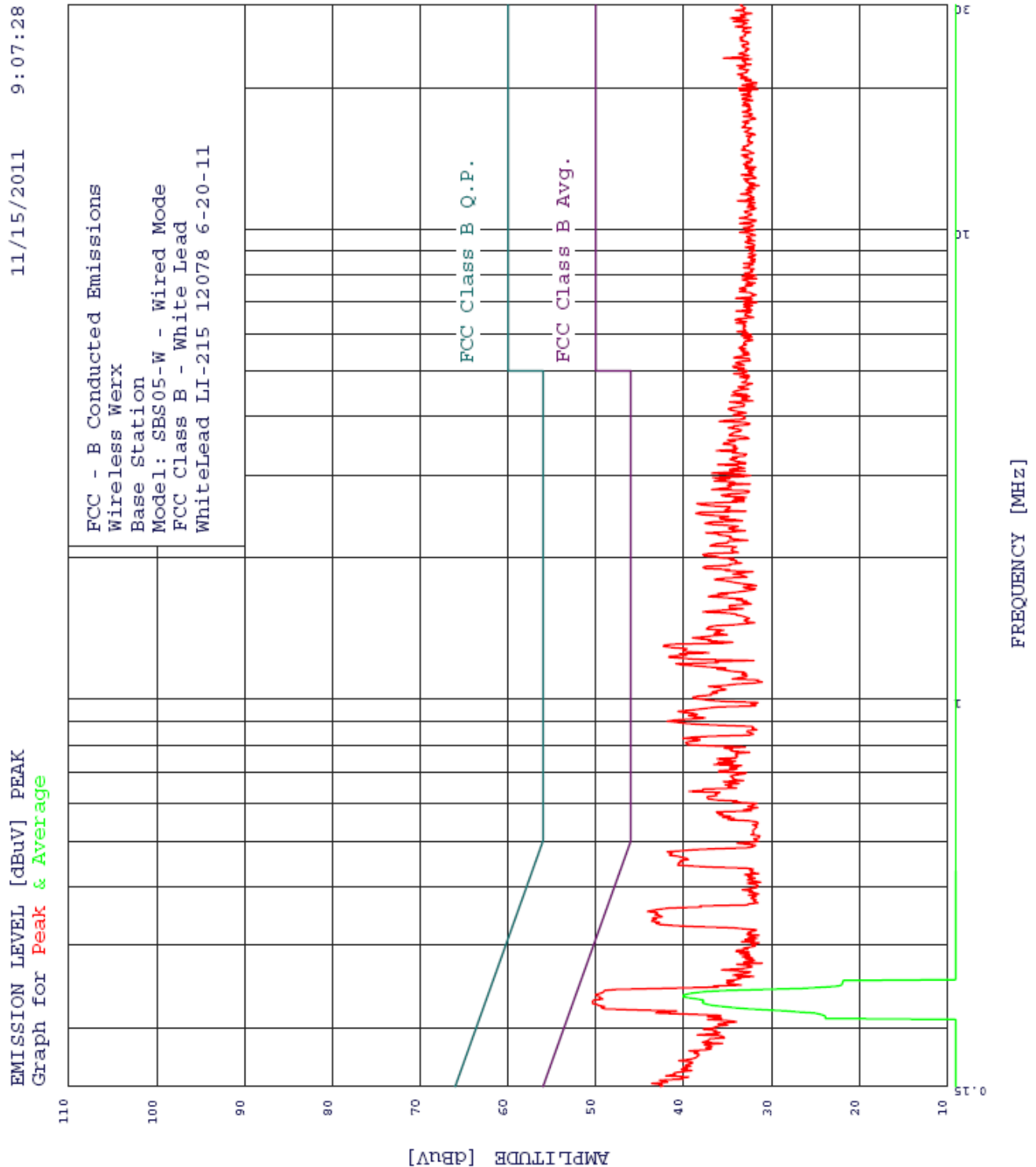
FCC - B Conducted Emissions
Wireless Werx
Base Station
Model: SBS05-W - Wired Mode
FCC Class B - Black Lead
BlackLead LI-215 12078 6-20-11
TEST ENGINEER : Kyle Fujimoto

6 highest peaks above -50.00 dB of FCC Class B Avg. limit line

Peak criteria : 0.00 dB, Curve : Average

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.233	42.14	52.34	-10.20
2	0.227	40.18	52.57	-12.39
3	0.206	24.29	53.35	-29.07
4	0.200	24.40	53.62	-29.22
5	0.204	24.10	53.44	-29.35
6	0.252	21.86	51.68	-29.82





FCC - B Conducted Emissions
Wireless Werx
Base Station
Model: SBS05-W - Wired Mode
FCC Class B - White Lead
WhiteLead LI-215 12078 6-20-11
TEST ENGINEER : Kyle Fujimoto

48 highest peaks above -50.00 dB of FCC Class B Avg. limit line

Peak criteria : 1.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.228	50.38	52.52	-2.14**
2	1.297	42.29	46.00	-3.71
3	0.899	41.84	46.00	-4.16
4	1.230	41.68	46.00	-4.32
5	0.474	41.88	46.45	-4.57
6	0.354	44.12	48.87	-4.74
7	1.191	40.88	46.00	-5.12
8	0.944	40.64	46.00	-5.36
9	0.338	43.62	49.26	-5.65
10	0.826	40.05	46.00	-5.95
11	0.809	39.76	46.00	-6.24
12	0.445	40.66	46.98	-6.32
13	0.924	39.44	46.00	-6.56
14	0.637	39.37	46.00	-6.63
15	1.352	39.00	46.00	-7.00
16	1.011	38.93	46.00	-7.07
17	2.488	38.59	46.00	-7.41
18	2.610	38.49	46.00	-7.51
19	1.536	37.81	46.00	-8.19
20	1.908	37.77	46.00	-8.23
21	2.034	37.76	46.00	-8.24
22	2.371	37.58	46.00	-8.42
23	2.262	37.47	46.00	-8.53
24	1.412	37.40	46.00	-8.60
25	0.618	37.27	46.00	-8.73
26	1.654	37.19	46.00	-8.81
27	1.066	37.15	46.00	-8.85
28	2.123	36.97	46.00	-9.03
29	3.027	36.80	46.00	-9.20
30	2.796	36.79	46.00	-9.21
31	2.963	36.69	46.00	-9.31
32	0.728	36.57	46.00	-9.43
33	1.382	36.50	46.00	-9.50
34	2.916	36.49	46.00	-9.51
35	1.800	36.48	46.00	-9.52
36	3.383	36.26	46.00	-9.74
37	0.577	36.25	46.00	-9.75
38	0.747	36.17	46.00	-9.83
39	0.215	43.17	53.00	-9.84**
40	3.158	36.12	46.00	-9.88
41	1.680	36.09	46.00	-9.91
42	0.735	36.07	46.00	-9.93
43	0.701	35.97	46.00	-10.03
44	3.903	35.94	46.00	-10.06
45	2.722	35.69	46.00	-10.31
46	3.492	35.47	46.00	-10.53
47	0.669	35.47	46.00	-10.53
48	0.788	35.36	46.00	-10.64

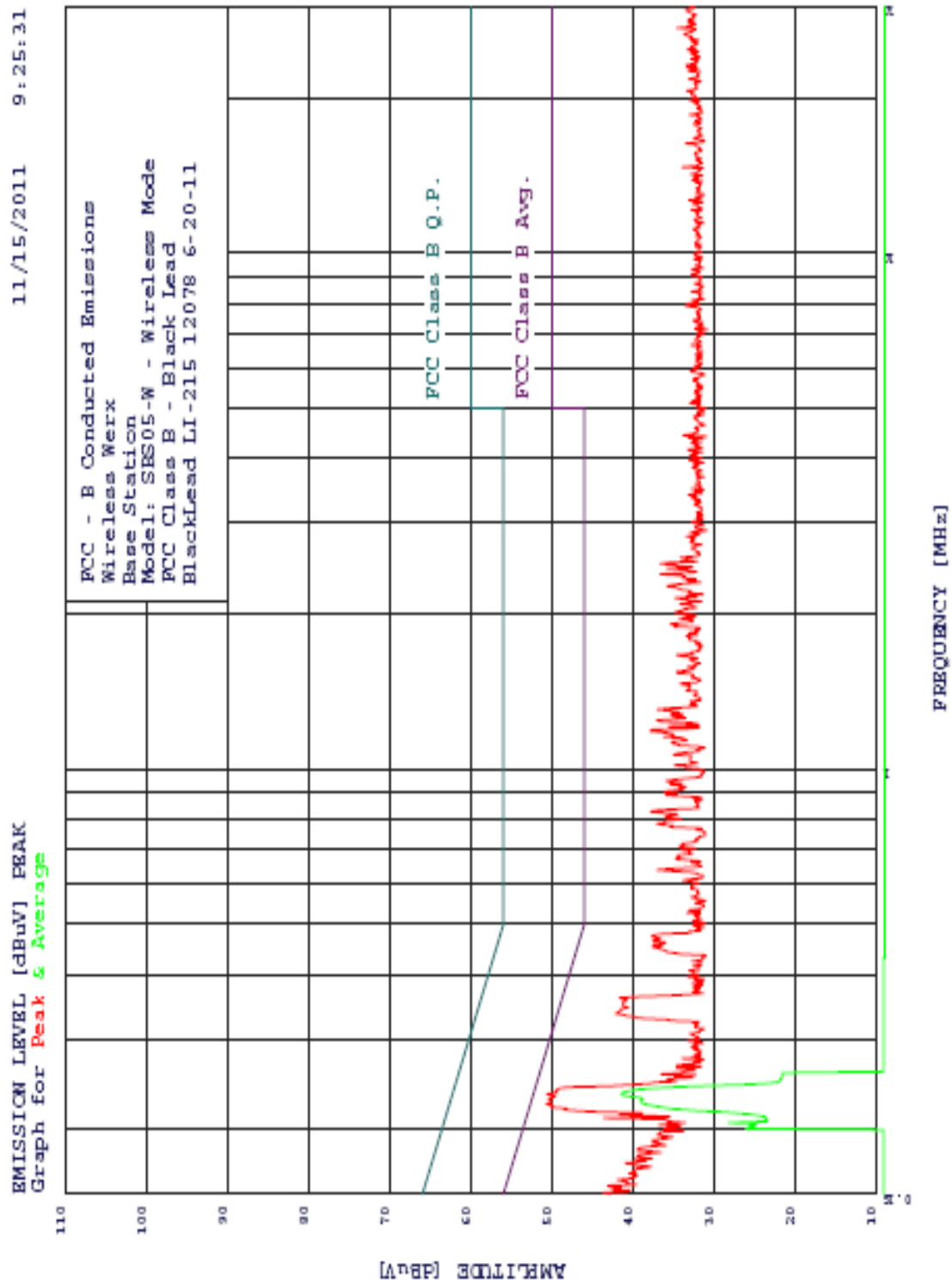
** Please See the Average Readings on the Next Page and on the Plot

FCC - B Conducted Emissions
Wireless Werx
Base Station
Model: SBS05-W - Wired Mode
FCC Class B - White Lead
WhiteLead LI-215 12078 6-20-11
TEST ENGINEER : Kyle Fujimoto

3 highest peaks above -50.00 dB of FCC Class B Avg. limit line

Peak criteria : 0.00 dB, Curve : Average
Peak# Freq(MHz) Amp(dBuV) Limit(dB) Delta(dB)
1 0.234 40.05 52.30 -12.24
2 0.227 37.87 52.57 -14.70
3 0.250 21.94 51.77 -29.83





FCC - B Conducted Emissions

Wireless Werx

Base Station

Model: SBS05-W - Wireless Mode

FCC Class B - Black Lead

BlackLead LI-215 12078 6-20-11

TEST ENGINEER : Kyle Fujimoto

48 highest peaks above -50.00 dB of FCC Class B Avg. limit line

Peak criteria : 1.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.234	50.63	52.30	-1.66**
2	0.224	50.73	52.65	-1.92**
3	0.360	41.67	48.73	-7.07
4	0.336	42.16	49.31	-7.15
5	1.184	37.90	46.00	-8.10
6	0.826	37.80	46.00	-8.20
7	0.474	37.71	46.45	-8.74
8	0.783	37.10	46.00	-8.90
9	0.637	37.01	46.00	-8.99
10	1.243	37.00	46.00	-9.00
11	1.304	37.00	46.00	-9.00
12	0.452	37.60	46.85	-9.24
13	0.457	37.50	46.76	-9.25
14	2.501	36.62	46.00	-9.38
15	2.384	36.61	46.00	-9.39
16	0.211	43.63	53.18	-9.55**
17	1.154	36.20	46.00	-9.80
18	0.899	36.10	46.00	-9.90
19	0.809	36.00	46.00	-10.00
20	0.890	35.90	46.00	-10.10
21	0.948	35.90	46.00	-10.10
22	2.449	35.81	46.00	-10.19
23	2.262	35.81	46.00	-10.19
24	1.210	35.60	46.00	-10.40
25	0.934	35.40	46.00	-10.60
26	1.908	35.40	46.00	-10.60
27	1.269	35.30	46.00	-10.70
28	1.124	35.20	46.00	-10.80
29	1.066	35.00	46.00	-11.00
30	1.016	34.90	46.00	-11.10
31	2.145	34.80	46.00	-11.20
32	2.013	34.80	46.00	-11.20
33	0.669	34.70	46.00	-11.30
34	1.536	34.60	46.00	-11.40
35	1.663	34.60	46.00	-11.40
36	0.214	41.63	53.05	-11.42**
37	0.709	34.30	46.00	-11.70
38	1.960	34.30	46.00	-11.70
39	2.089	34.20	46.00	-11.80
40	1.464	34.20	46.00	-11.80
41	2.568	34.12	46.00	-11.88
42	0.698	34.10	46.00	-11.90
43	0.608	33.81	46.00	-12.19
44	4.432	33.78	46.00	-12.22
45	0.156	43.12	55.69	-12.57
46	2.826	33.43	46.00	-12.57
47	2.322	33.41	46.00	-12.59
48	2.168	33.41	46.00	-12.59

** Please See the Average Readings on the Next Page and on the Plot

FCC - B Conducted Emissions

Wireless Werx

Base Station

Model: SBS05-W - Wireless Mode

FCC Class B - Black Lead

BlackLead LI-215 12078 6-20-11

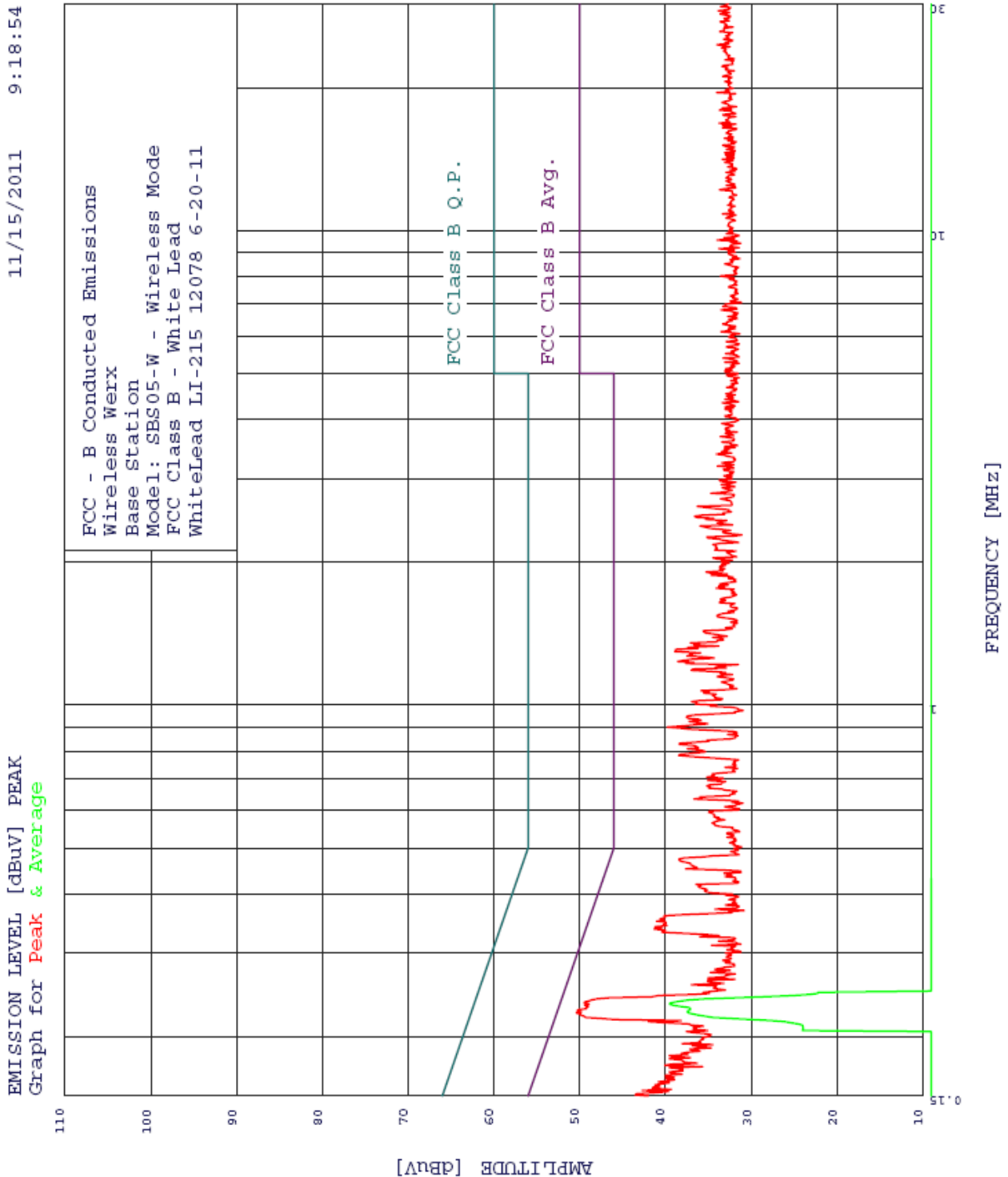
TEST ENGINEER : Kyle Fujimoto

10 highest peaks above -50.00 dB of FCC Class B Avg. limit line

Peak criteria : 0.00 dB, Curve : Average

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.234	41.46	52.30	-10.83
2	0.228	39.04	52.52	-13.48
3	0.226	39.05	52.61	-13.56
4	0.206	28.19	53.35	-25.17
5	0.201	26.06	53.58	-27.52
6	0.204	25.54	53.44	-27.91
7	0.210	23.67	53.23	-29.56
8	0.258	21.61	51.51	-29.90
9	0.250	21.86	51.77	-29.91
10	0.252	21.70	51.68	-29.98

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FCC - B Conducted Emissions

Wireless Werx

Base Station

Model: SBS05-W - Wireless Mode

FCC Class B - White Lead

WhiteLead LI-215 12078 6-20-11

TEST ENGINEER : Kyle Fujimoto

48 highest peaks above -50.00 dB of FCC Class B Avg. limit line

Peak criteria : 1.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.224	50.38	52.65	-2.28**
2	0.899	39.74	46.00	-6.26
3	1.297	38.89	46.00	-7.11
4	1.236	38.58	46.00	-7.42
5	0.783	38.46	46.00	-7.54
6	0.826	38.35	46.00	-7.65
7	0.350	41.02	48.95	-7.93
8	0.338	41.32	49.26	-7.95
9	0.474	38.38	46.45	-8.07
10	0.944	37.54	46.00	-8.46
11	1.269	37.49	46.00	-8.51
12	0.809	37.46	46.00	-8.54
13	1.325	37.39	46.00	-8.61
14	0.924	37.24	46.00	-8.76
15	1.352	37.10	46.00	-8.90
16	1.184	36.98	46.00	-9.02
17	1.016	36.93	46.00	-9.07
18	0.452	37.66	46.85	-9.18
19	0.634	36.67	46.00	-9.33
20	2.501	36.59	46.00	-9.41
21	2.624	36.29	46.00	-9.71
22	2.384	35.98	46.00	-10.02
23	1.072	35.85	46.00	-10.15
24	1.434	35.60	46.00	-10.40
25	1.908	35.27	46.00	-10.73
26	2.262	35.17	46.00	-10.83
27	0.676	35.17	46.00	-10.83
28	0.705	35.17	46.00	-10.83
29	0.694	35.07	46.00	-10.93
30	0.419	36.44	47.46	-11.02
31	0.595	34.97	46.00	-11.03
32	0.215	41.97	53.00	-11.04**
33	2.796	34.69	46.00	-11.31
34	1.879	34.67	46.00	-11.33
35	0.564	34.55	46.00	-11.45
36	1.389	34.50	46.00	-11.50
37	2.179	34.47	46.00	-11.53
38	2.044	34.46	46.00	-11.54
39	1.204	34.18	46.00	-11.82
40	1.763	34.08	46.00	-11.92
41	3.383	34.06	46.00	-11.94
42	1.544	34.01	46.00	-11.99
43	2.423	33.98	46.00	-12.02
44	1.148	33.97	46.00	-12.03
45	3.192	33.92	46.00	-12.08
46	1.646	33.70	46.00	-12.30
47	2.979	33.69	46.00	-12.31
48	3.683	33.60	46.00	-12.40

** Please See the Average Readings on the Next Page and on the Plot

FCC - B Conducted Emissions
Wireless Werx
Base Station
Model: SBS05-W - Wireless Mode
FCC Class B - White Lead
WhiteLead LI-215 12078 6-20-11
TEST ENGINEER : Kyle Fujimoto

3 highest peaks above -50.00 dB of FCC Class B Avg. limit line

Peak criteria : 0.00 dB, Curve : Average

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.234	39.50	52.30	-12.79
2	0.226	37.46	52.61	-15.15
3	0.206	24.04	53.35	-29.31



RADIATED EMISSIONS

DATA SHEETS

FCC 15.247

Wireless Werx
Base Station
Model: SBS05-W

Date: 11/10/2011
Lab: B
Tested By: Kyle Fujimoto

Low Channel

Transmit Mode - X-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4804	43.07	V	74	-30.93	Peak	1.25	225	
4804	23.07	V	54	-30.93	Avg	1.25	225	
7206	48.27	V	74	-25.73	Peak	1.25	135	
7206	28.27	V	54	-25.73	Avg	1.25	135	
9608								No Emission
9608								Detected
12010								No Emission
12010								Detected
14412								No Emission
14412								Detected
16814								No Emission
16814								Detected
19216								No Emission
19216								Detected
21618								No Emission
21618								Detected
24020								No Emission
24020								Detected

FCC 15.247Wireless Werx
Base Station
Model: SBS05-WDate: 11/10/2011
Lab: B
Tested By: Kyle Fujimoto**Low Channel****Transmit Mode - Y-Axis**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4804	43.05	V	74	-30.95	Peak	1.25	225	
4804	23.05	V	54	-30.95	Avg	1.25	225	
7206	49.57	V	74	-24.43	Peak	1.25	180	
7206	29.57	V	54	-24.43	Avg	1.25	180	
9608								No Emission
9608								Detected
12010								No Emission
12010								Detected
14412								No Emission
14412								Detected
16814								No Emission
16814								Detected
19216								No Emission
19216								Detected
21618								No Emission
21618								Detected
24020								No Emission
24020								Detected

FCC 15.247

Wireless Werx
Base Station
Model: SBS05-W

Date: 11/10/2011
Lab: B
Tested By: Kyle Fujimoto

Low Channel
Transmit Mode - X-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4804	41.96	H	74	-32.04	Peak	1.25	180	
4804	21.96	H	54	-32.04	Avg	1.25	180	
7206	53.36	H	74	-20.64	Peak	1.25	180	
7206	33.36	H	54	-20.64	Avg	1.25	180	
9608								No Emission
9608								Detected
12010								No Emission
12010								Detected
14412								No Emission
14412								Detected
16814								No Emission
16814								Detected
19216								No Emission
19216								Detected
21618								No Emission
21618								Detected
24020								No Emission
24020								Detected

FCC 15.247

Wireless Werx
Base Station
Model: SBS05-W

Date: 11/10/2011
Lab: B
Tested By: Kyle Fujimoto

Low Channel
Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4804	48.41	H	74	-25.59	Peak	1.25	155	
4804	28.41	H	54	-25.59	Avg	1.25	155	
7206	56.94	H	74	-17.06	Peak	2.25	135	
7206	36.94	H	54	-17.06	Avg	2.25	135	
9608								No Emission
9608								Detected
12010								No Emission
12010								Detected
14412								No Emission
14412								Detected
16814								No Emission
16814								Detected
19216								No Emission
19216								Detected
21618								No Emission
21618								Detected
24020								No Emission
24020								Detected

FCC 15.247

Wireless Werx
Base Station
Model: SBS05-W

Date: 11/10/2011
Lab: B
Tested By: Kyle Fujimoto

Middle Channel

Transmit Mode - X-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4882	41.01	V	74	-32.99	Peak	1.25	225	
4882	21.01	V	54	-32.99	Avg	1.25	225	
7323	51.05	V	74	-22.95	Peak	1.25	225	
7323	31.05	V	54	-22.95	Avg	1.25	225	
9764								No Emission
9764								Detected
12205								No Emission
12205								Detected
14646								No Emission
14646								Detected
17087								No Emission
17087								Detected
19528								No Emission
19528								Detected
21969								No Emission
21969								Detected
24410								No Emission
24410								Detected

FCC 15.247

Wireless Werx
Base Station
Model: SBS05-W

Date: 11/10/2011
Lab: B
Tested By: Kyle Fujimoto

Middle Channel
Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4882	48.11	V	74	-25.89	Peak	1.25	225	
4882	28.11	V	54	-25.89	Avg	1.25	225	
7323	47.18	V	74	-26.82	Peak	1.25	180	
7323	27.18	V	54	-26.82	Avg	1.25	180	
9764								No Emission
9764								Detected
12205								No Emission
12205								Detected
14646								No Emission
14646								Detected
17087								No Emission
17087								Detected
19528								No Emission
19528								Detected
21969								No Emission
21969								Detected
24410								No Emission
24410								Detected

FCC 15.247

Wireless Werx
Base Station
Model: SBS05-W

Date: 11/10/2011
Lab: B
Tested By: Kyle Fujimoto

Middle Channel
Transmit Mode - X-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4882	45.78	H	74	-28.22	Peak	1.25	225	
4882	25.78	H	54	-28.22	Avg	1.25	225	
7323	47.67	H	74	-26.33	Peak	1.25	225	
7323	27.67	H	54	-26.33	Avg	1.25	225	
9764								No Emission
9764								Detected
12205								No Emission
12205								Detected
14646								No Emission
14646								Detected
17087								No Emission
17087								Detected
19528								No Emission
19528								Detected
21969								No Emission
21969								Detected
24410								No Emission
24410								Detected

FCC 15.247

Wireless Werx
Base Station
Model: SBS05-W

Date: 11/10/2011
Lab: B
Tested By: Kyle Fujimoto

Middle Channel

Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4882	40.84	H	74	-33.16	Peak	1.25	155	
4882	20.84	H	54	-33.16	Avg	1.25	155	
7323	47.03	H	74	-26.97	Peak	1.25	155	
7323	27.03	H	54	-26.97	Avg	1.25	155	
9764								No Emission
9764								Detected
12205								No Emission
12205								Detected
14646								No Emission
14646								Detected
17087								No Emission
17087								Detected
19528								No Emission
19528								Detected
21969								No Emission
21969								Detected
24410								No Emission
24410								Detected

FCC 15.247Wireless Werx
Base Station
Model: SBS05-WDate: 11/10/2011
Lab: B
Tested By: Kyle Fujimoto**High Channel****Transmit Mode - X-Axis**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4960	47.62	V	74	-26.38	Peak	1.25	180	
4960	27.62	V	54	-26.38	Avg	1.25	180	
7440	46.13	V	74	-27.87	Peak	1.25	135	
7440	26.13	V	54	-27.87	Avg	1.25	135	
9920								No Emission
9920								Detected
12400								No Emission
12400								Detected
14880								No Emission
14880								Detected
17360								No Emission
17360								Detected
19840								No Emission
19840								Detected
22320								No Emission
22320								Detected
24800								No Emission
24800								Detected

FCC 15.247

Wireless Werx

Base Station

Model: SBS05-W

Date: 11/10/2011

Lab: B

Tested By: Kyle Fujimoto

High Channel**Transmit Mode - Y-Axis**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4960	41.82	V	74	-32.18	Peak	1.25	155	
4960	21.82	V	54	-32.18	Avg	1.25	155	
7440	47.81	V	74	-26.19	Peak	1.25	180	
7440	27.81	V	54	-26.19	Avg	1.25	180	
9920								No Emission
9920								Detected
12400								No Emission
12400								Detected
14880								No Emission
14880								Detected
17360								No Emission
17360								Detected
19840								No Emission
19840								Detected
22320								No Emission
22320								Detected
24800								No Emission
24800								Detected

FCC 15.247

Wireless Werx
Base Station
Model: SBS05-W

Date: 11/10/2011
Lab: B
Tested By: Kyle Fujimoto

High Channel
Transmit Mode - X-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4960	40.31	H	74	-33.69	Peak	1.25	155	
4960	20.31	H	54	-33.69	Avg	1.25	155	
7440	50.96	H	74	-23.04	Peak	1.25	180	
7440	30.96	H	54	-23.04	Avg	1.25	180	
9920								No Emission
9920								Detected
12400								No Emission
12400								Detected
14880								No Emission
14880								Detected
17360								No Emission
17360								Detected
19840								No Emission
19840								Detected
22320								No Emission
22320								Detected
24800								No Emission
24800								Detected

FCC 15.247Wireless Werx
Base Station
Model: SBS05-WDate: 11/10/2011
Lab: B
Tested By: Kyle Fujimoto**High Channel**
Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4960	48.52	H	74	-25.48	Peak	1.25	155	
4960	28.52	H	54	-25.48	Avg	1.25	155	
7440	57.33	H	74	-16.67	Peak	1.25	225	
7440	37.33	H	54	-16.67	Avg	1.25	225	
9920								No Emission
9920								Detected
12400								No Emission
12400								Detected
14880								No Emission
14880								Detected
17360								No Emission
17360								Detected
19840								No Emission
19840								Detected
22320								No Emission
22320								Detected
24800								No Emission
24800								Detected

Test Location : Compatible Electronics **Page** : 1/1
Customer : Wireless Werx, Inc. **Date** : 11/14/2011
Manufacturer : Wireless Werx, Inc. **Time** : 10:58:36
Eut name : Base Station **Lab** : D
Model : SBS05-W **Test Distance** : 3.0
Serial # : N/A
Specification : FCC Class B
Distance correction factor (20 * log(test/spec) : 0.00
Test Mode : Test Type: Spurious Emissions Qualification
Test Range: 10 kHz to 1 GHz
EUT Configuration: Wired
Test Engineer: Kyle Fujimoto

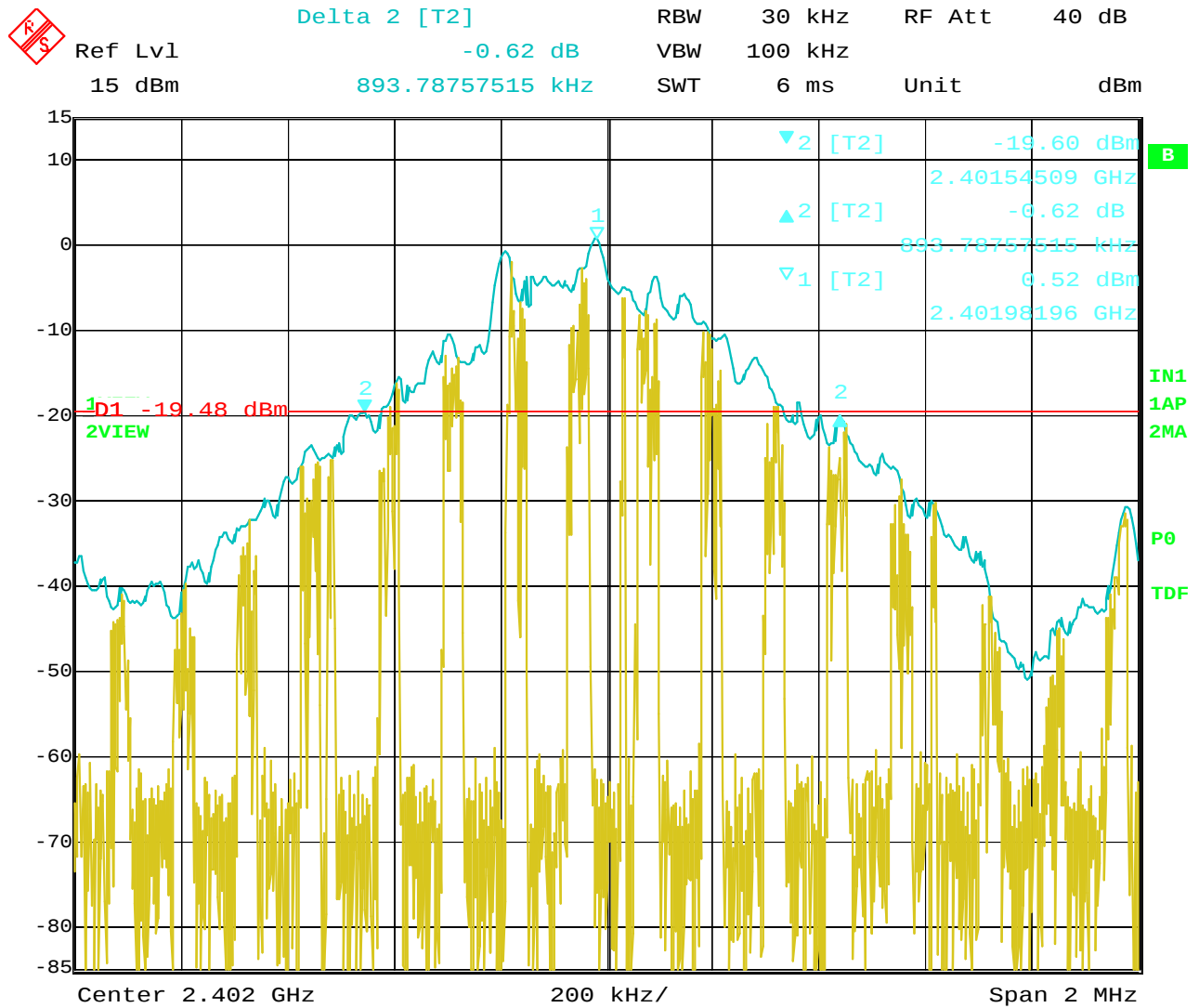
Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	Limit = L dBuV/m	Delta R-L dB
1V	44.992	52.80	0.85	11.60	38.20	27.05	40.00	-12.95
2V	81.175	51.70	1.21	5.86	38.20	20.57	40.00	-19.43
3V	86.336	55.00	1.26	6.54	38.20	24.61	40.00	-15.39
4V	139.272	46.80	1.48	11.42	38.20	21.50	43.50	-22.00
5V	143.296	57.70	1.52	11.57	38.20	32.60	43.50	-10.90
6V	156.406	49.90	1.63	12.23	38.20	25.56	43.50	-17.94
7H	249.985	51.50	2.10	16.10	38.20	31.50	46.00	-14.50
8V	249.989	58.80	2.10	16.10	38.20	38.80	46.00	-7.20
9V	264.000	46.40	2.16	16.97	38.20	27.32	46.00	-18.68
10H	264.000	44.80	2.16	16.97	38.20	25.72	46.00	-20.28
11H	264.972	37.20	2.16	17.03	38.20	18.19	46.00	-27.81
12V	274.998	38.60	2.20	17.62	38.20	20.22	46.00	-25.78
13H	300.000	54.10	2.20	13.50	38.10	31.70	46.00	-14.30
14V	300.130	41.40	2.20	13.50	38.10	19.00	46.00	-27.00
15V	346.530	39.00	2.39	14.50	38.01	17.88	46.00	-28.12
16H	351.002	44.60	2.40	14.59	38.00	23.60	46.00	-22.40
17H	352.057	48.60	2.41	14.61	38.00	27.63	46.00	-18.37
18V	352.070	50.90	2.41	14.61	38.00	29.93	46.00	-16.07
19H	375.025	50.80	2.50	15.05	37.95	30.41	46.00	-15.59
20V	375.026	58.40	2.50	15.05	37.95	38.01	46.00	-7.99
21H	400.041	52.10	2.60	15.50	37.90	32.30	46.00	-13.70
22H	430.470	54.20	2.60	15.60	37.78	34.62	46.00	-11.38
23V	439.970	52.20	2.60	15.63	37.74	32.69	46.00	-13.31
24H	439.975	49.30	2.60	15.63	37.74	29.79	46.00	-16.21
25H	441.022	48.20	2.60	15.63	37.73	28.70	46.00	-17.30
26H	494.310	47.30	2.78	15.78	37.61	28.25	46.00	-17.75
27V	499.976	57.80	2.80	15.80	37.60	38.80	46.00	-7.20
28H	549.249	45.00	2.90	18.07	37.90	28.07	46.00	-17.93
29H	705.007	47.80	3.43	20.41	37.86	33.78	46.00	-12.22
30H	999.830	35.10	4.40	22.80	36.80	25.49	54.00	-28.51

Test Location : Compatible Electronics **Page** : 1/1
Customer : Wireless Werx, Inc. **Date** : 11/14/2011
Manufacturer : Wireless Werx, Inc. **Time** : 13:34:19
Eut name : Base Station **Lab** : D
Model : SBS05-W **Test Distance** : 3.0
Serial # : N/A
Specification : FCC Class B
Distance correction factor (20 * log(test/spec)) : 0.00
Test Mode : Test Type: Spurious Emissions Qualification
 Test Range: 10 kHz to 1 GHz
 EUT Configuration: Wireless
 Test Engineer: Kyle Fujimoto

Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	Limit = L dBuV/m	Delta R-L dB
1V	38.668	53.30	0.88	11.60	38.19	27.59	40.00	-12.41
2V	49.868	49.90	0.80	11.41	38.20	23.91	40.00	-16.09
3V	71.140	54.70	1.11	6.84	38.20	24.45	40.00	-15.55
4H	71.221	50.10	1.11	6.83	38.20	19.84	40.00	-20.16
5V	108.740	40.20	1.24	10.69	38.14	13.99	43.50	-29.51
6H	110.779	45.70	1.25	10.96	38.15	19.76	43.50	-23.74
7V	113.540	36.60	1.26	11.31	38.16	11.01	43.50	-32.49
8V	122.503	51.50	1.29	12.01	38.19	26.61	43.50	-16.89
9V	131.812	35.00	1.39	11.67	38.20	9.86	43.50	-33.64
10V	136.612	37.80	1.45	11.51	38.20	12.56	43.50	-30.94
11H	143.221	42.40	1.52	11.57	38.20	17.29	43.50	-26.21
12H	147.477	50.10	1.57	11.79	38.20	25.26	43.50	-18.24
13V	155.012	35.50	1.62	12.16	38.20	11.08	43.50	-32.42
14V	166.212	39.30	1.67	13.47	38.20	16.23	43.50	-27.27
15V	205.412	44.10	1.75	16.19	38.20	23.83	43.50	-19.67
16H	207.813	34.90	1.77	16.18	38.20	14.65	43.50	-28.85
17H	249.991	42.30	2.10	16.10	38.20	22.30	46.00	-23.70
18H	263.987	45.90	2.16	16.97	38.20	26.82	46.00	-19.18
19V	264.009	48.50	2.16	16.97	38.20	29.42	46.00	-16.58
20H	351.986	56.00	2.41	14.61	38.00	35.02	46.00	-10.98
21H	399.986	49.20	2.60	15.50	37.90	29.40	46.00	-16.60
22V	400.012	42.00	2.60	15.50	37.90	22.20	46.00	-23.80
23H	429.920	49.10	2.60	15.60	37.78	29.52	46.00	-16.48
24V	446.318	33.00	2.60	15.65	37.71	13.53	46.00	-32.47
25H	510.303	33.00	2.82	16.29	37.66	14.45	46.00	-31.55
26H	609.503	34.70	3.12	20.22	37.86	20.18	46.00	-25.82
27H	761.503	34.00	3.70	20.53	37.52	20.70	46.00	-25.30

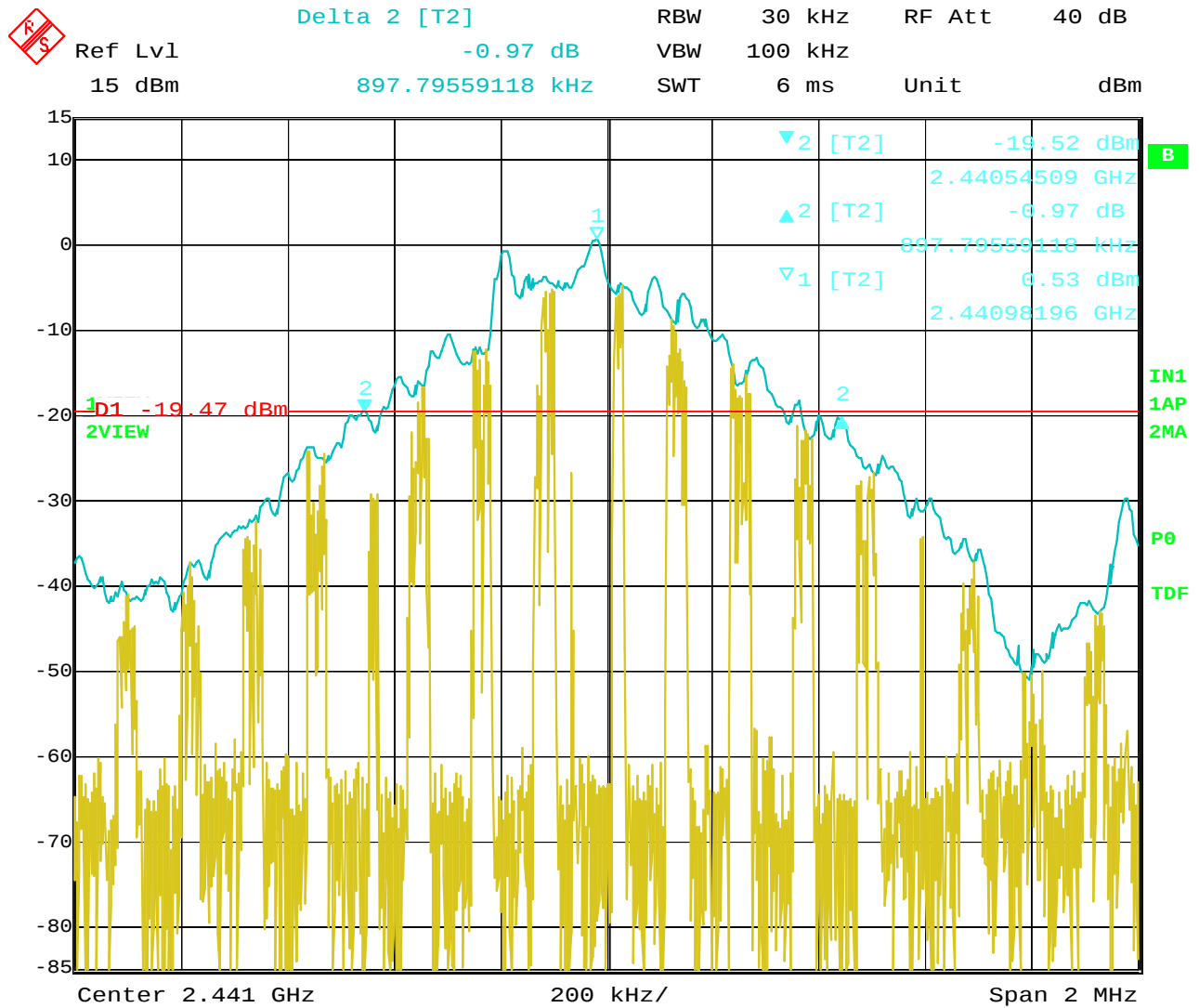
-20 dB BANDWIDTH

DATA SHEETS



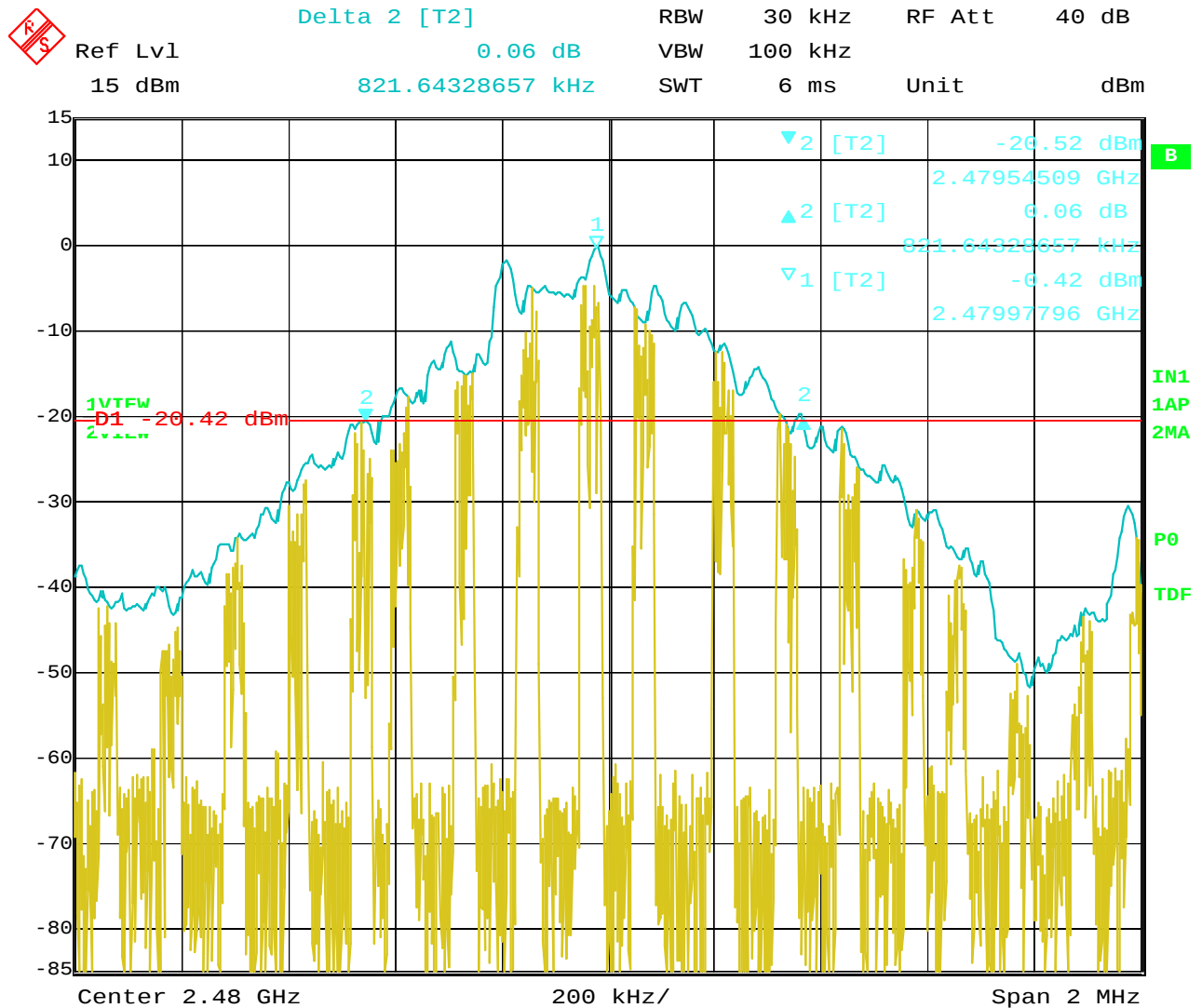
Date: 3.NOV.2011 08:40:14

20 dB Bandwidth of Fundamental – Low Channel



Date: 3.NOV.2011 08:39:15

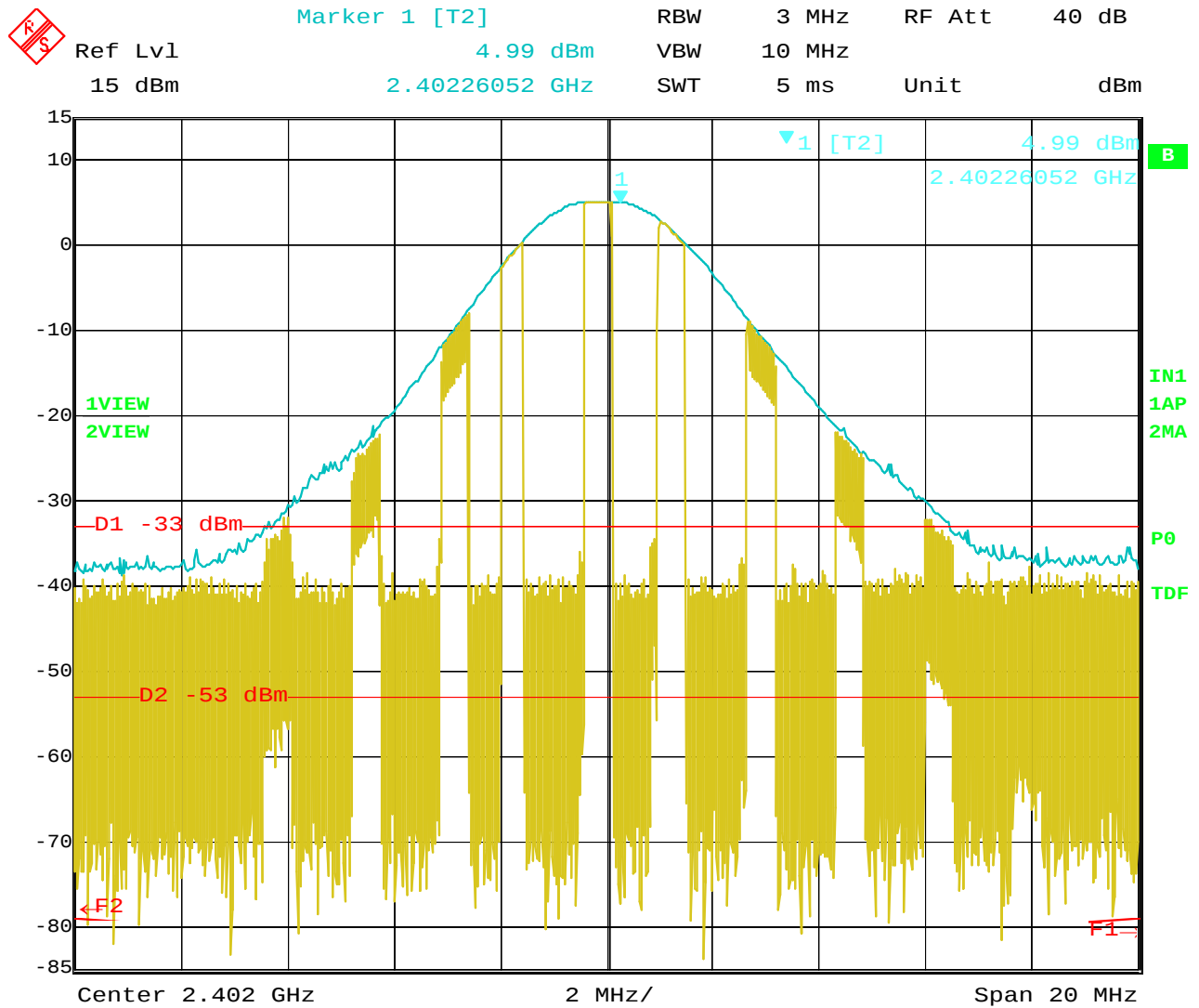
20 dB Bandwidth of Fundamental – Middle Channel



Date: 3.NOV.2011 08:38:07

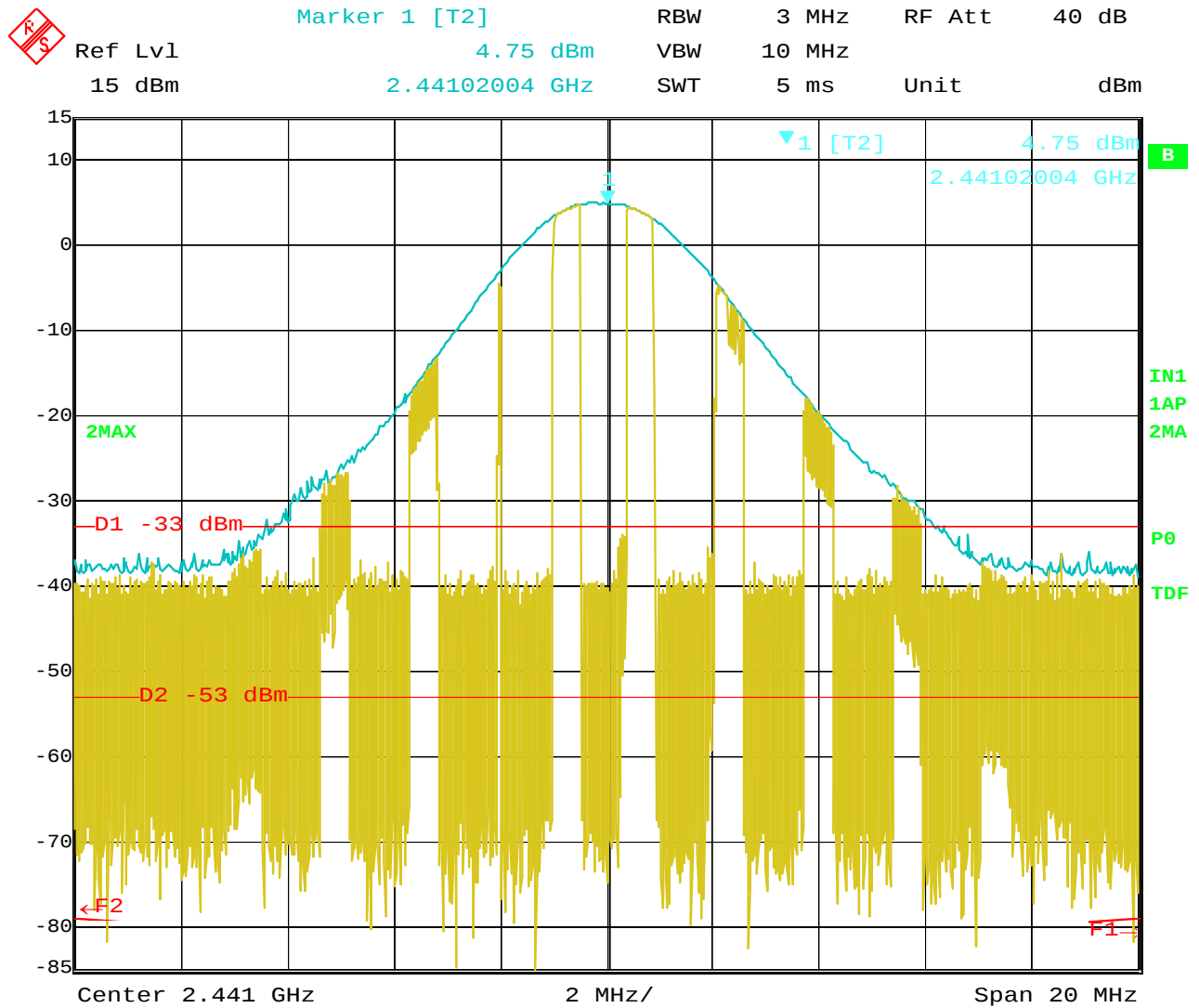
20 dB Bandwidth of Fundamental – High Channel

PEAK POWER OUTPUT***DATA SHEETS***



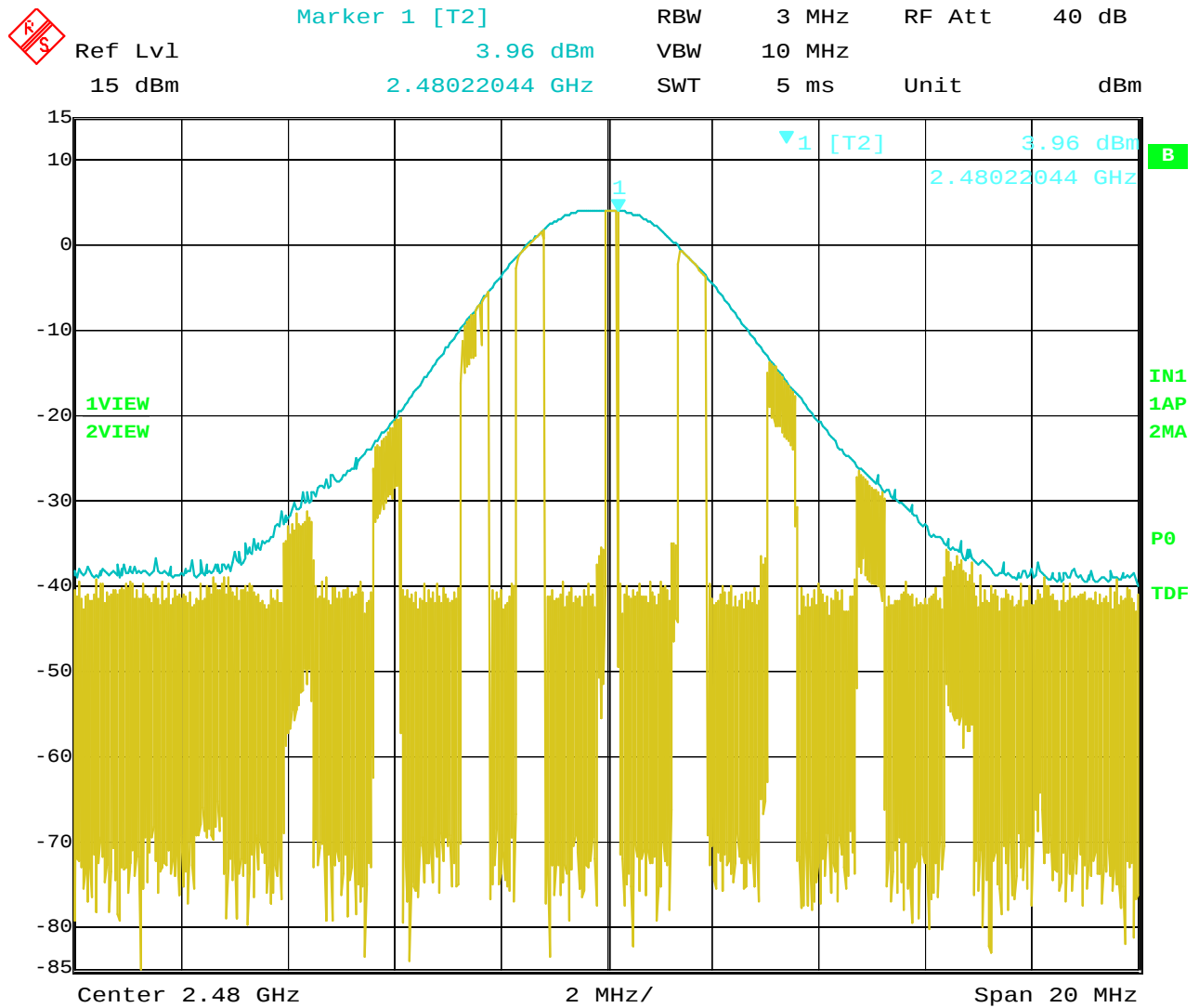
Date: 9.NOV.2011 14:18:53

Peak Power Output – Low Channel



Date: 9.NOV.2011 14:22:23

Peak Power Output –Middle Channel

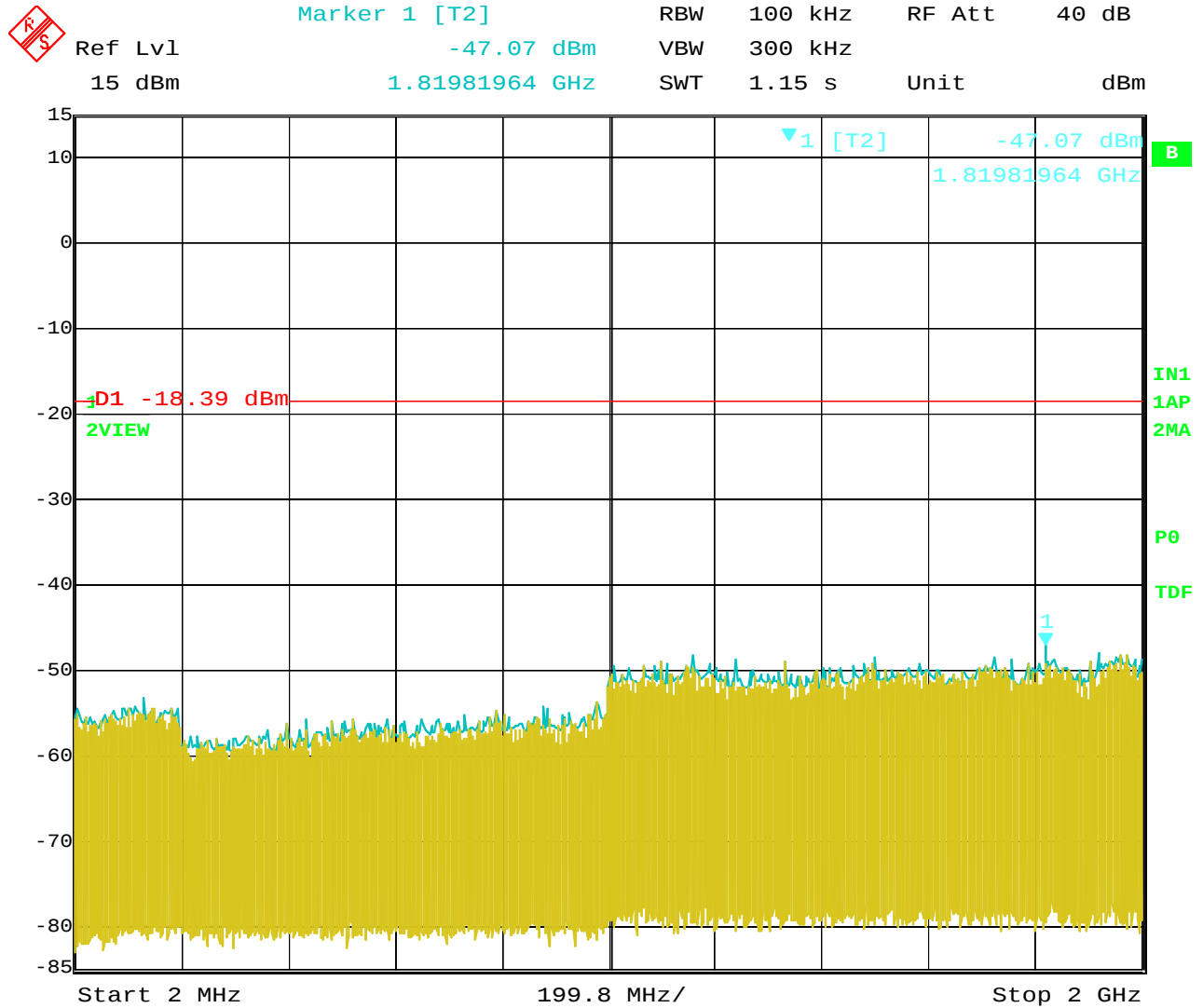


Date: 9.NOV.2011 14:22:58

Peak Power Output – High Channel

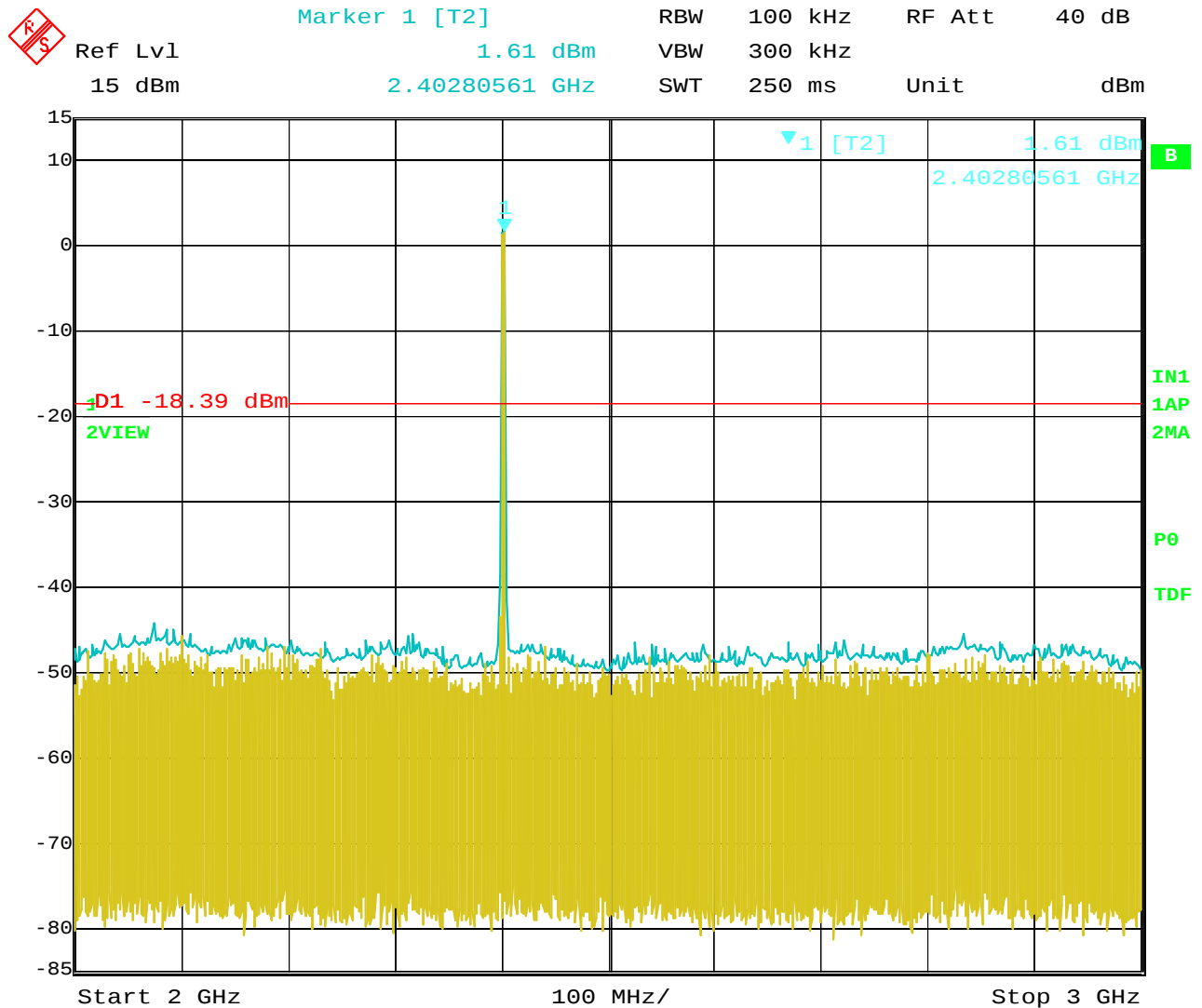
RF CONDUCTED ANTENNA TEST

DATA SHEETS



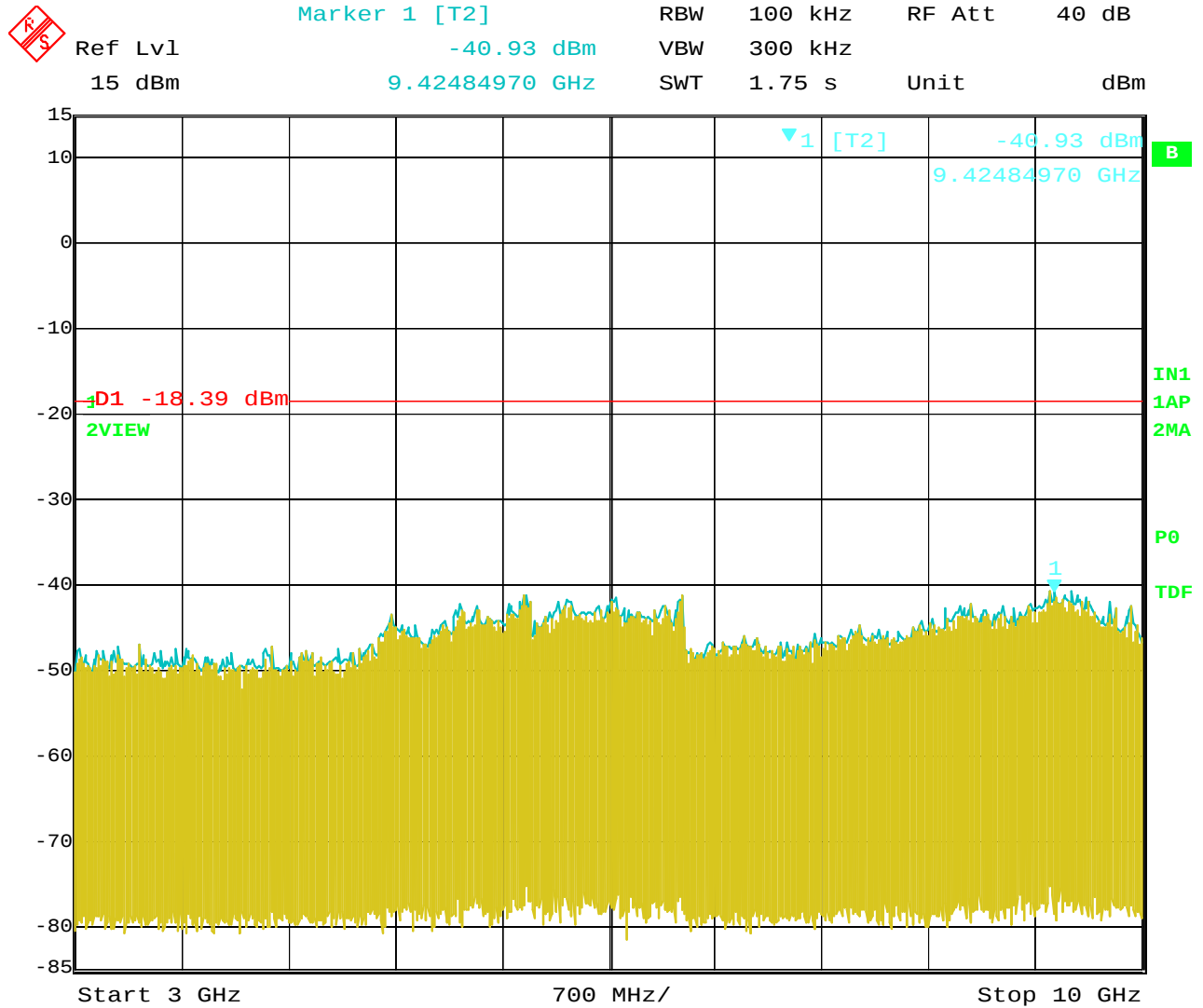
Date: 3.NOV.2011 08:45:25

RF Antenna Conducted Test – Low Channel – 2 MHz to 2 GHz



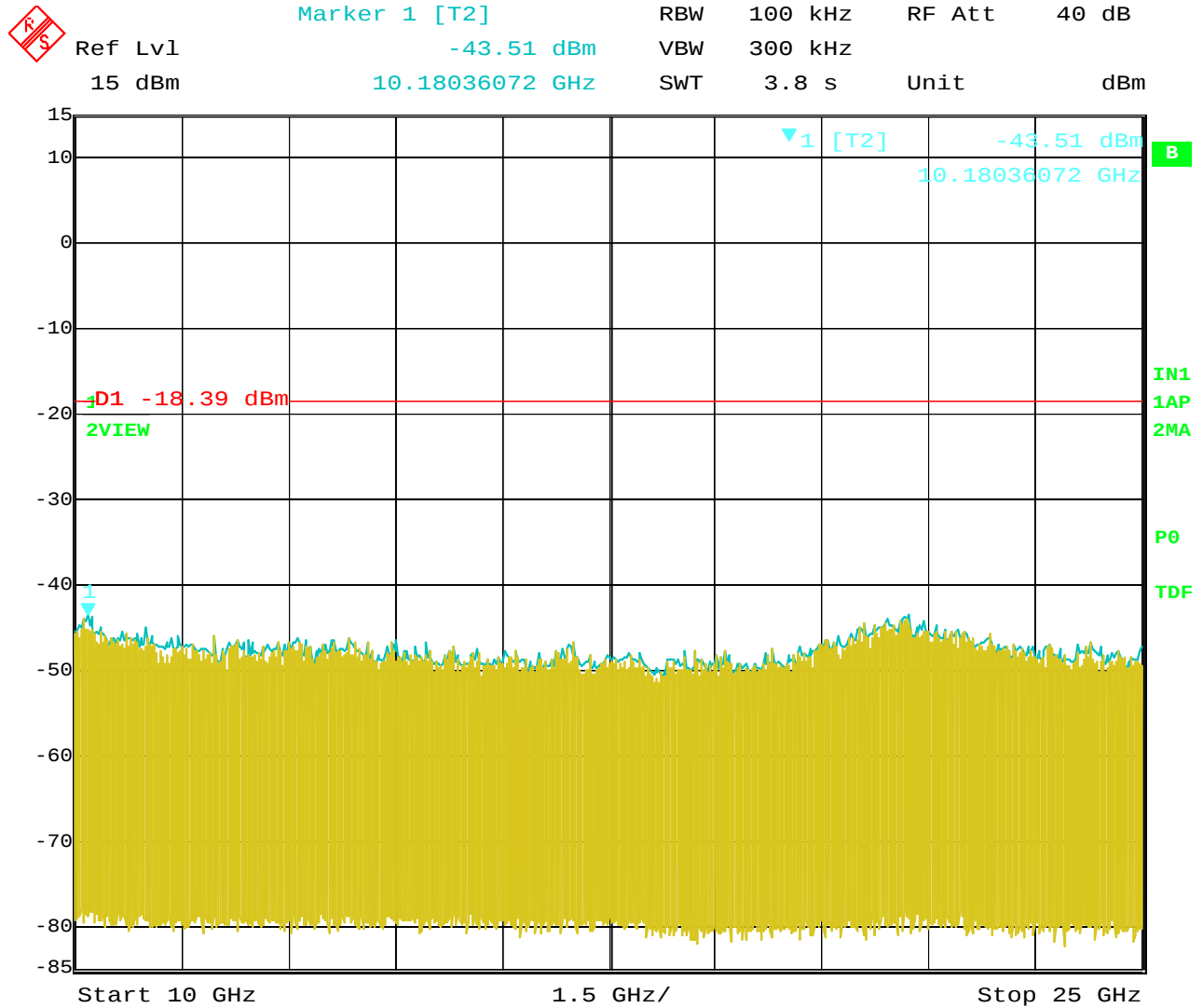
Date: 3.NOV.2011 08:44:55

RF Antenna Conducted Test – Low Channel – 2 GHz to 3 GHz



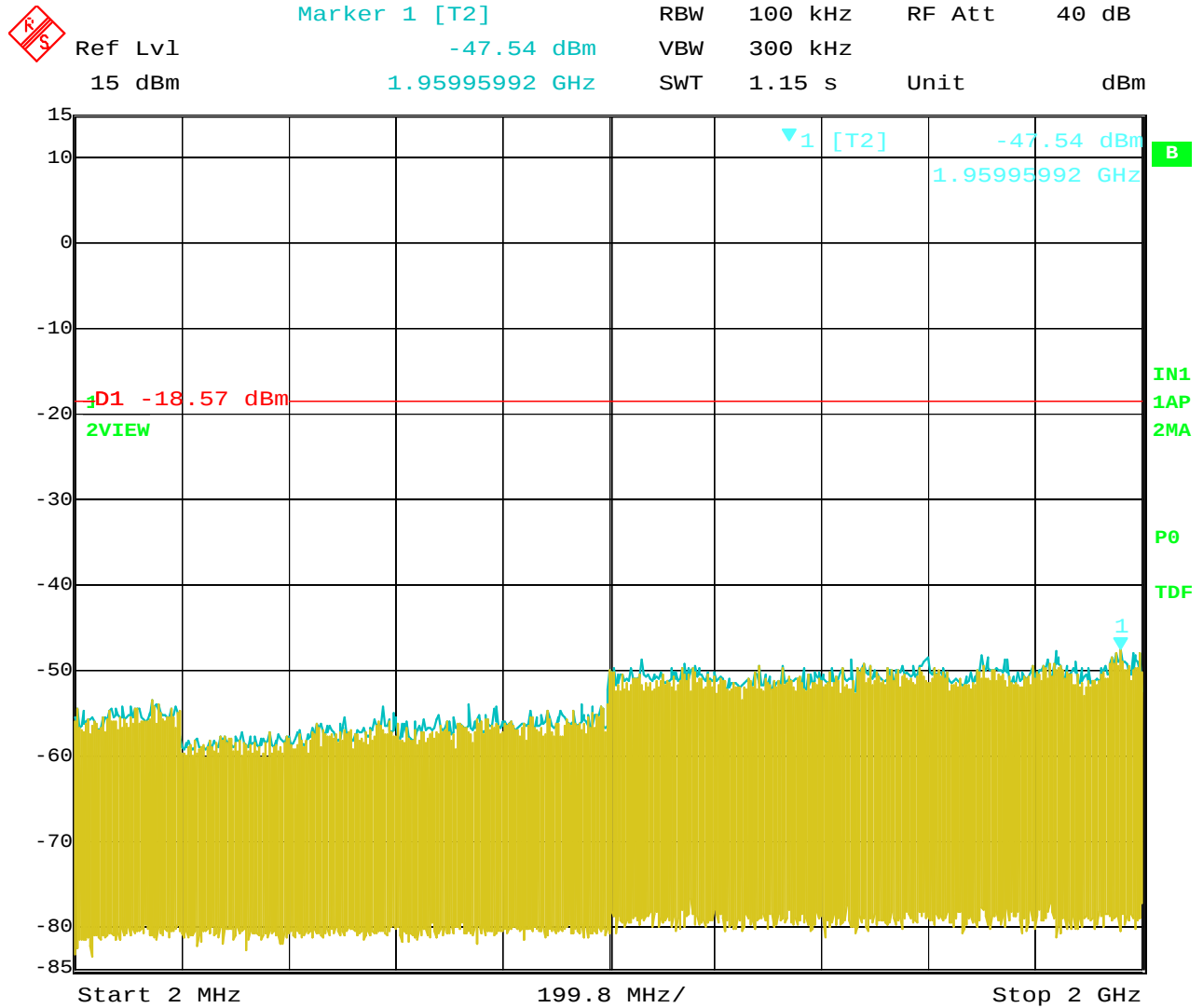
Date: 3.NOV.2011 08:45:54

RF Antenna Conducted Test – Low Channel – 3 GHz to 10 GHz



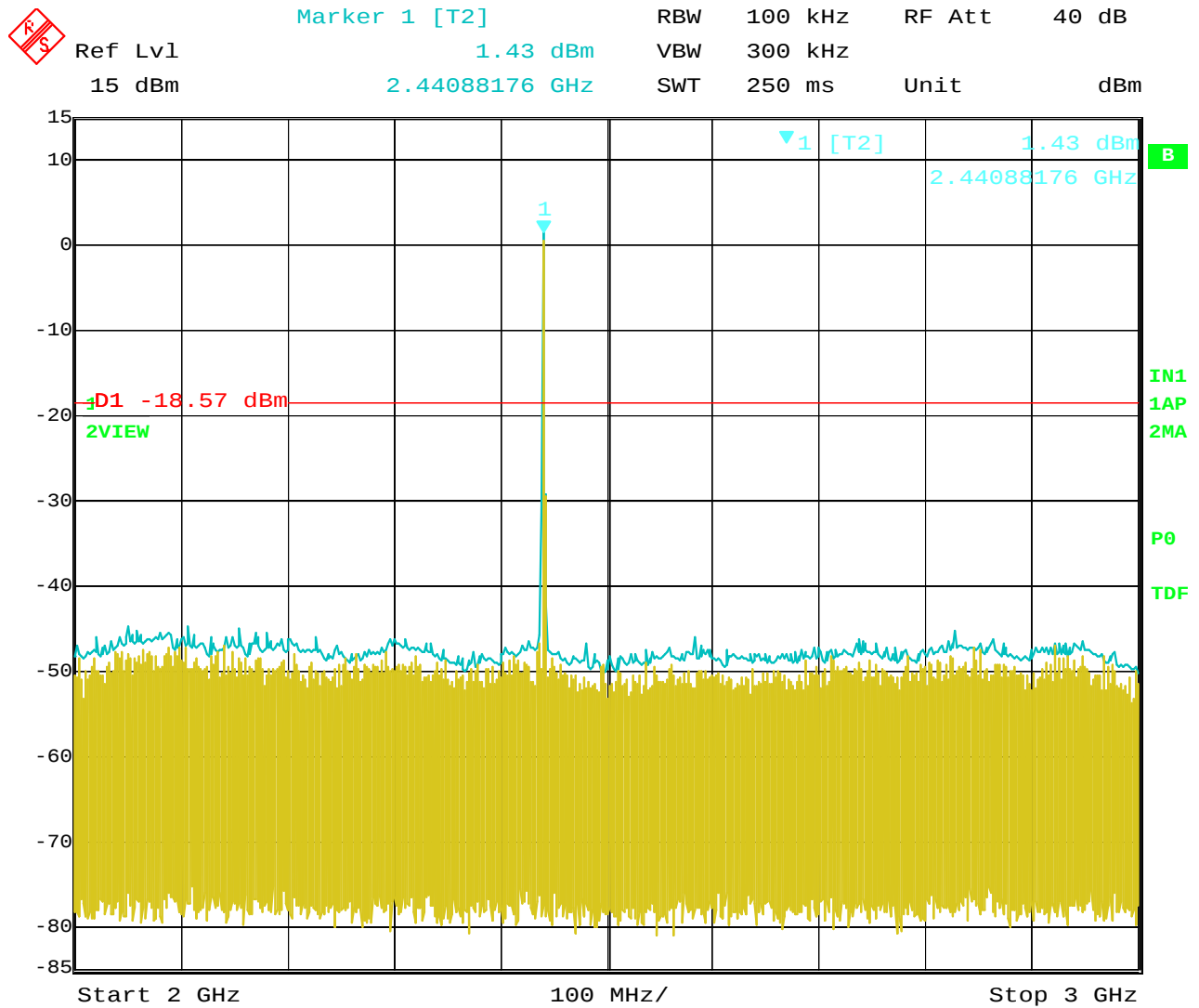
Date: 3.NOV.2011 08:46:32

RF Antenna Conducted Test – Low Channel – 10 GHz to 25 GHz



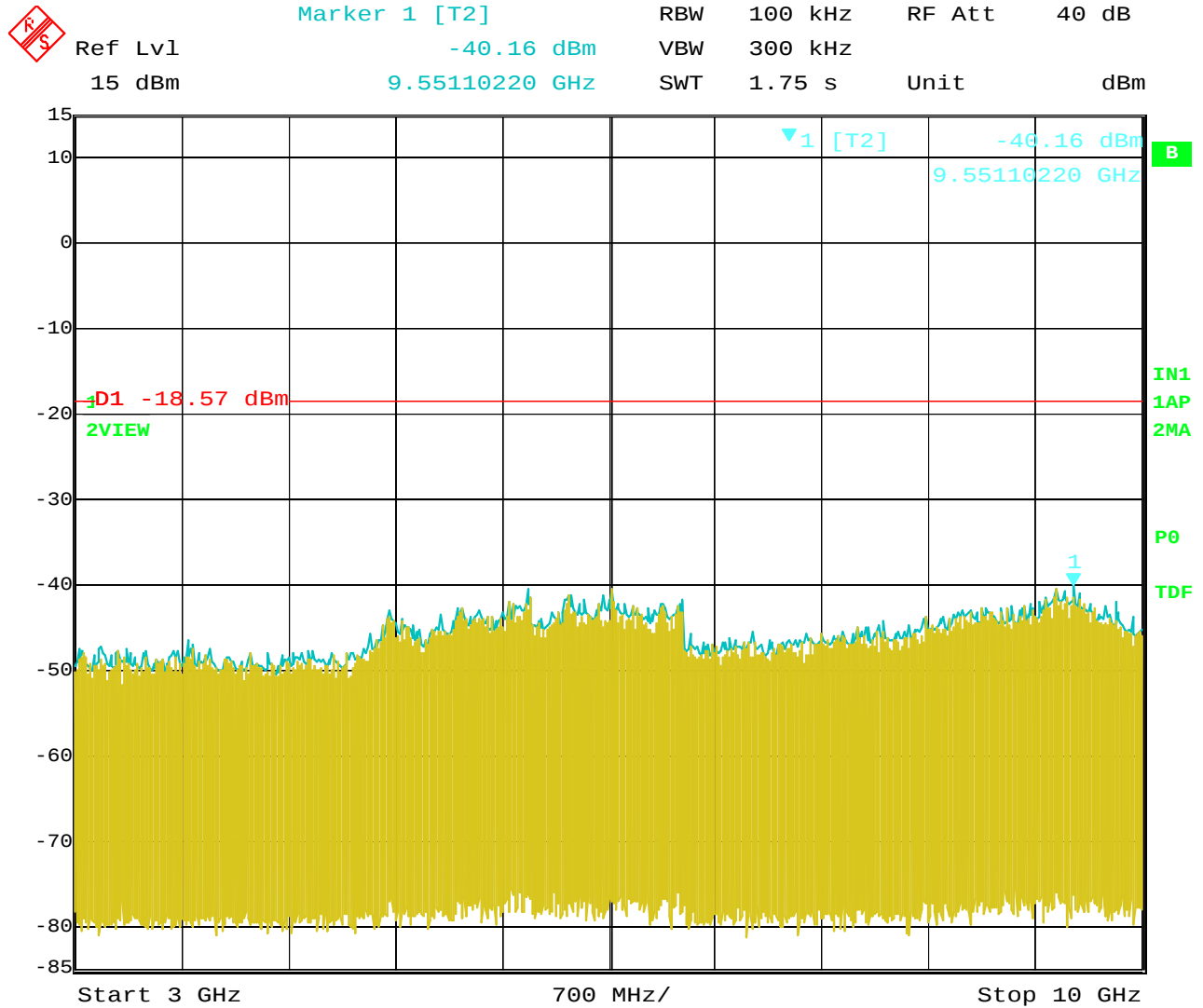
Date: 3.NOV.2011 08:50:31

RF Antenna Conducted Test – Middle Channel – 2 MHz to 2 GHz



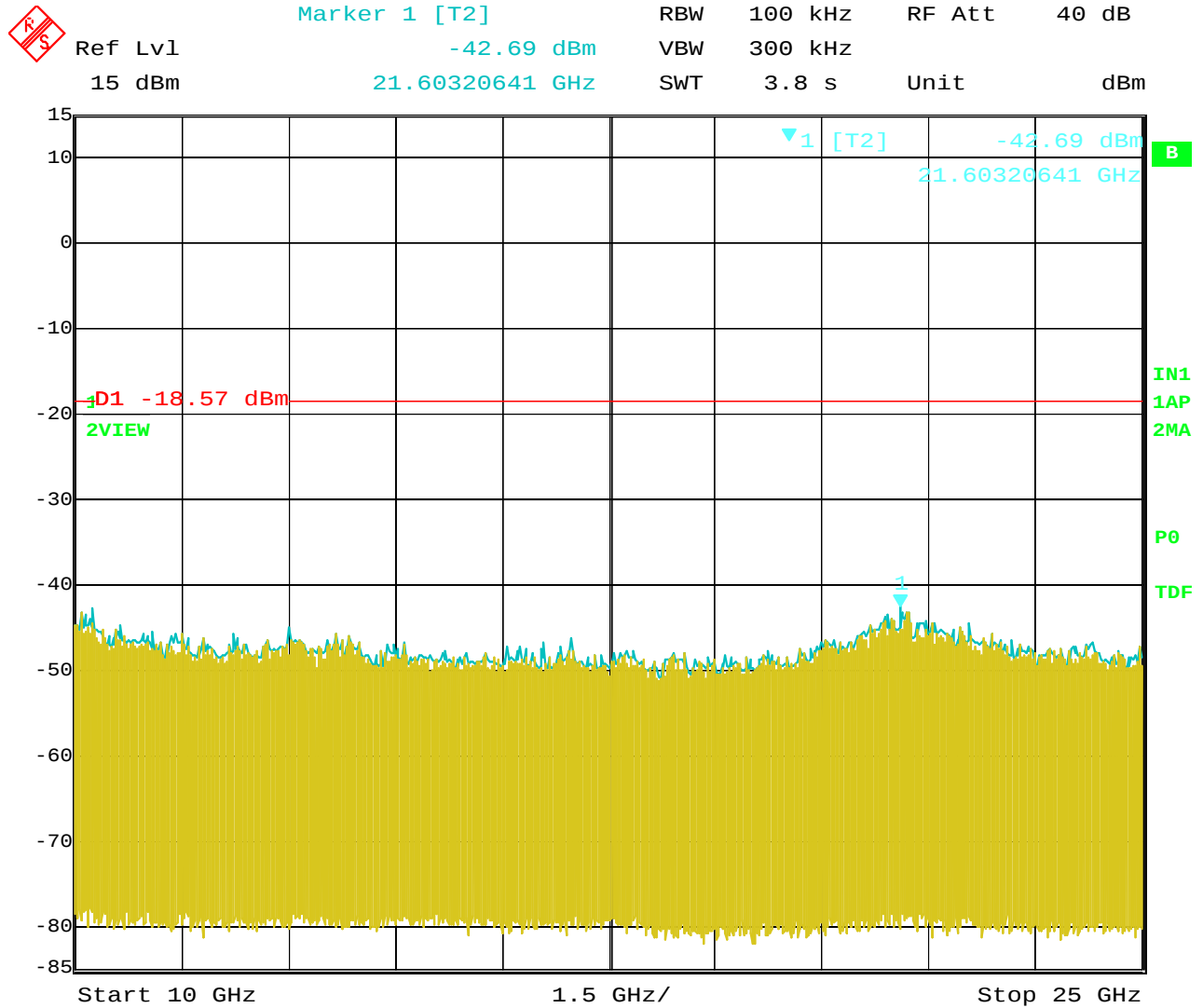
Date: 3.NOV.2011 08:50:01

RF Antenna Conducted Test – Middle Channel – 2 GHz to 3 GHz



Date: 3.NOV.2011 08:51:23

RF Antenna Conducted Test – Middle Channel – 3 GHz to 10 GHz



Date: 3.NOV.2011 08:52:00

RF Antenna Conducted Test – Middle Channel – 10 GHz to 25 GHz



Ref Lvl
15 dBm

Marker 1 [T2]

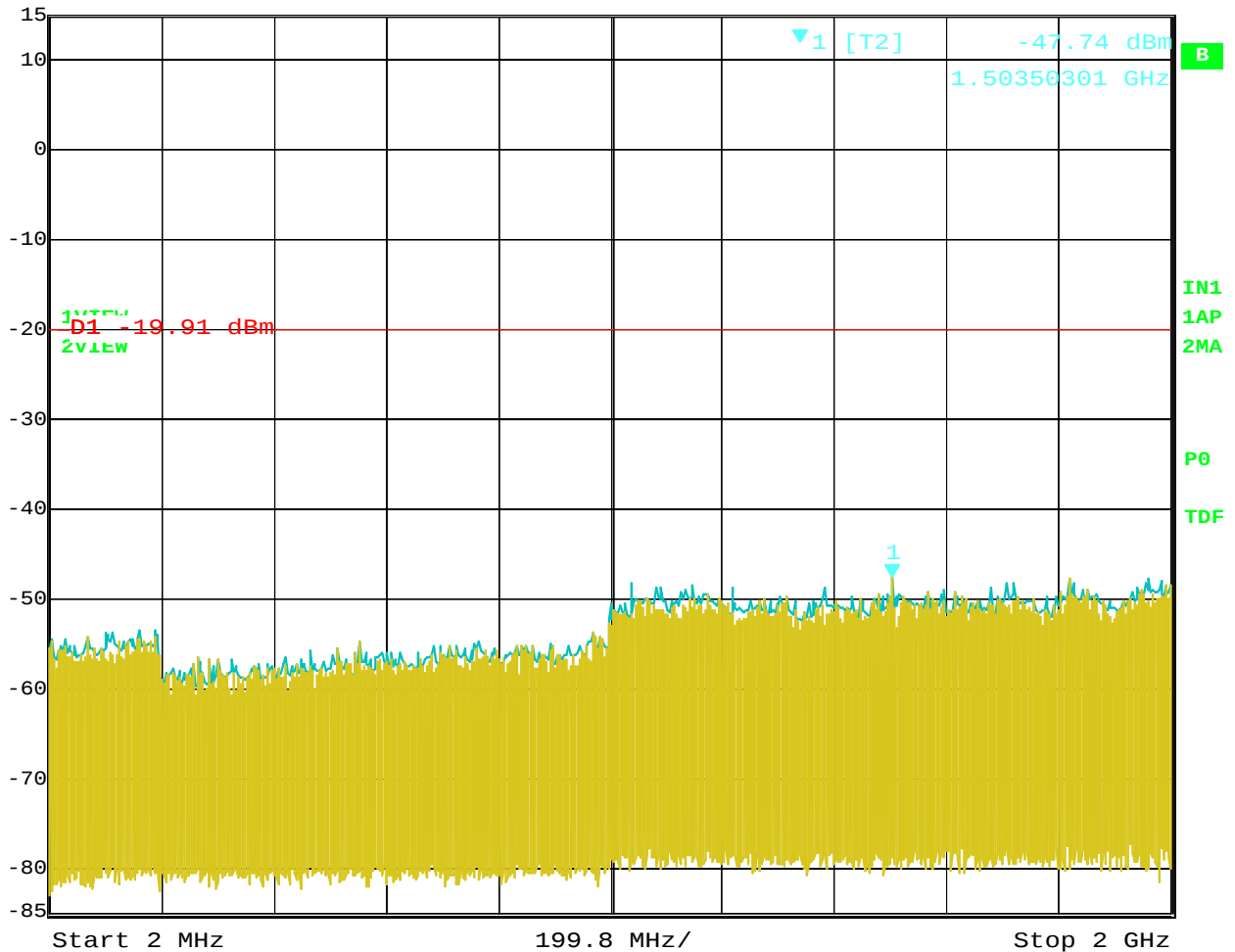
-47.74 dBm

1.50350301 GHz

RBW 100 kHz RF Att 40 dB

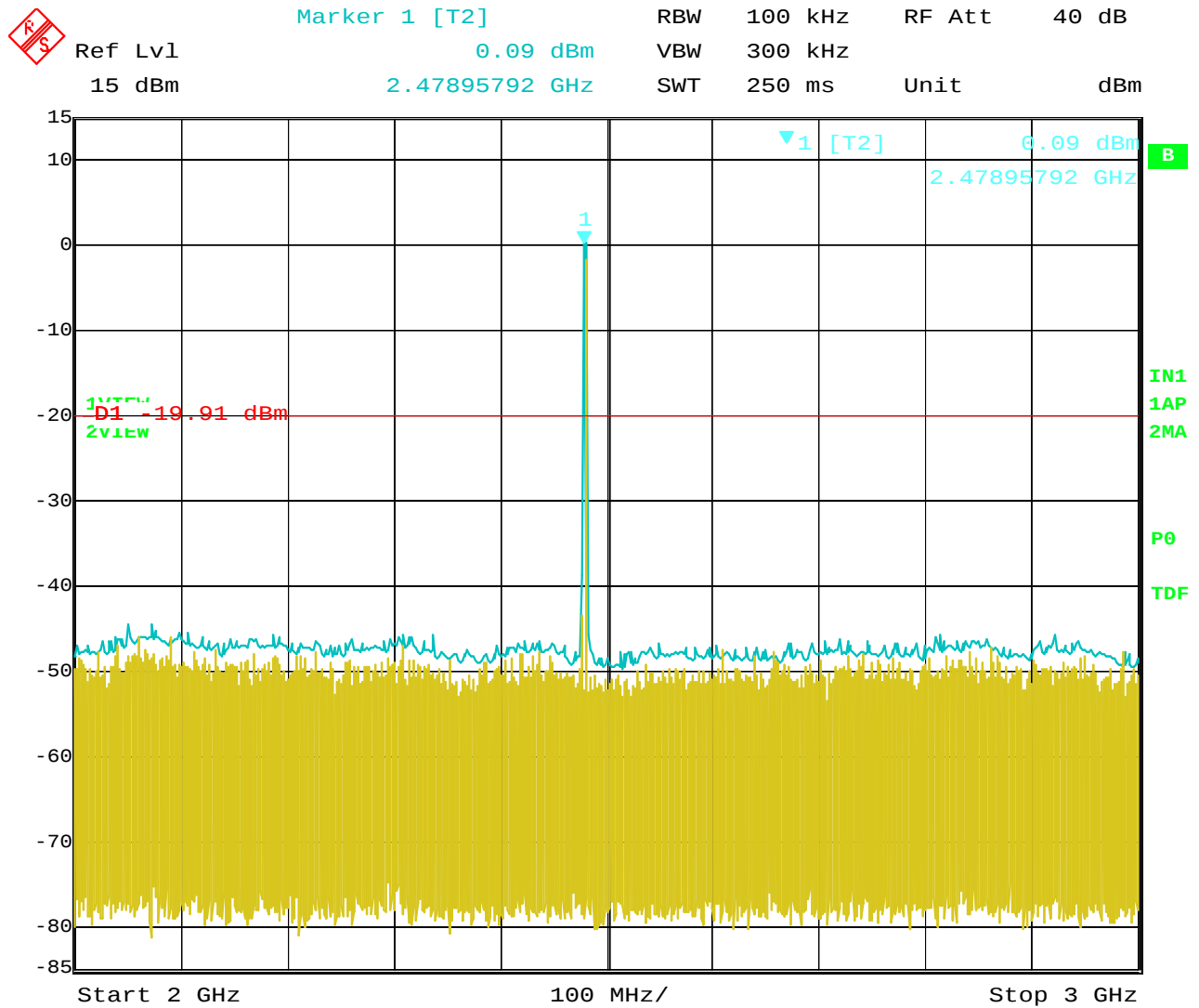
VBW 300 kHz

SWT 1.15 s Unit dBm



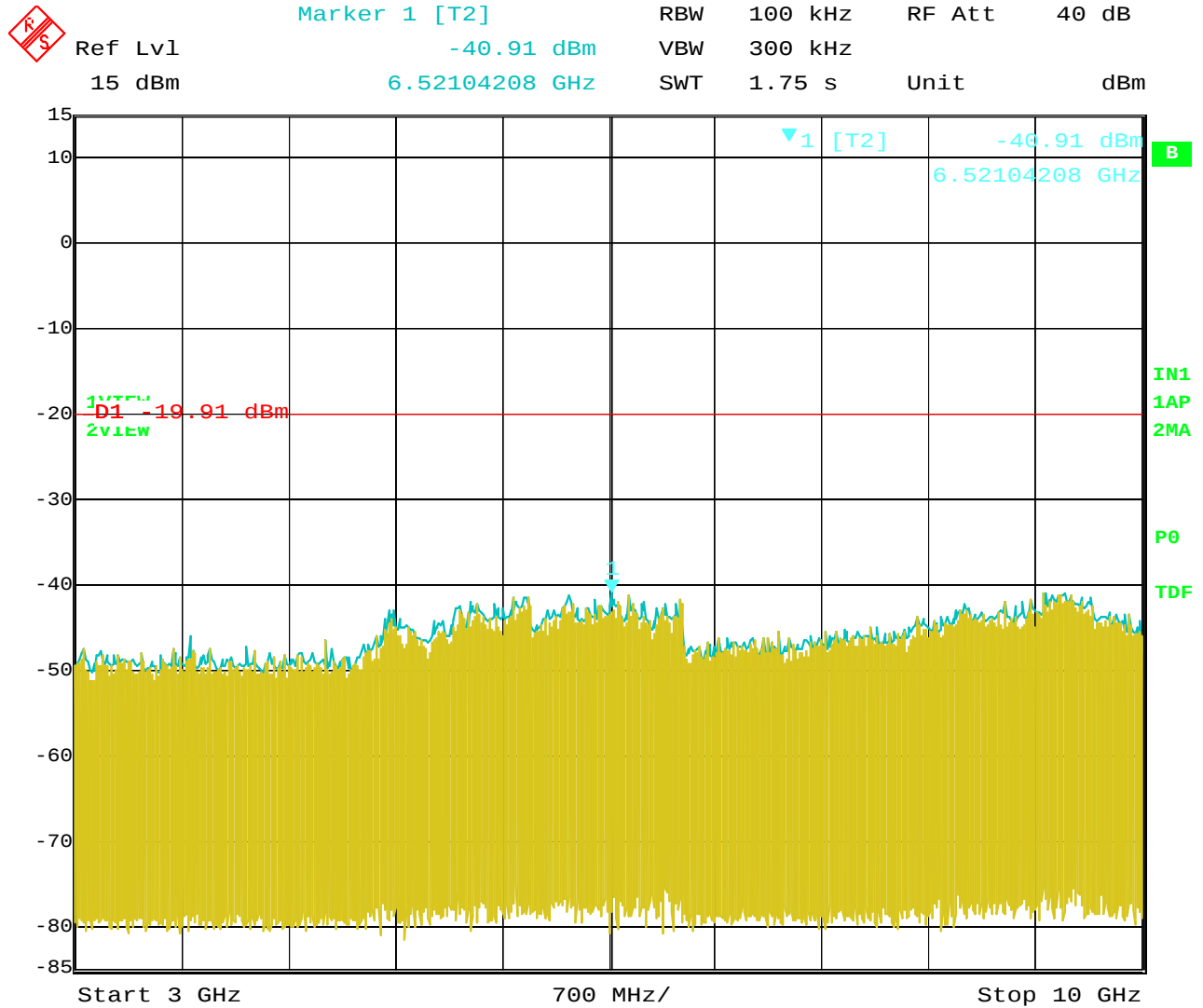
Date: 3.NOV.2011 08:55:40

RF Antenna Conducted Test – High Channel – 2 MHz to 2 GHz



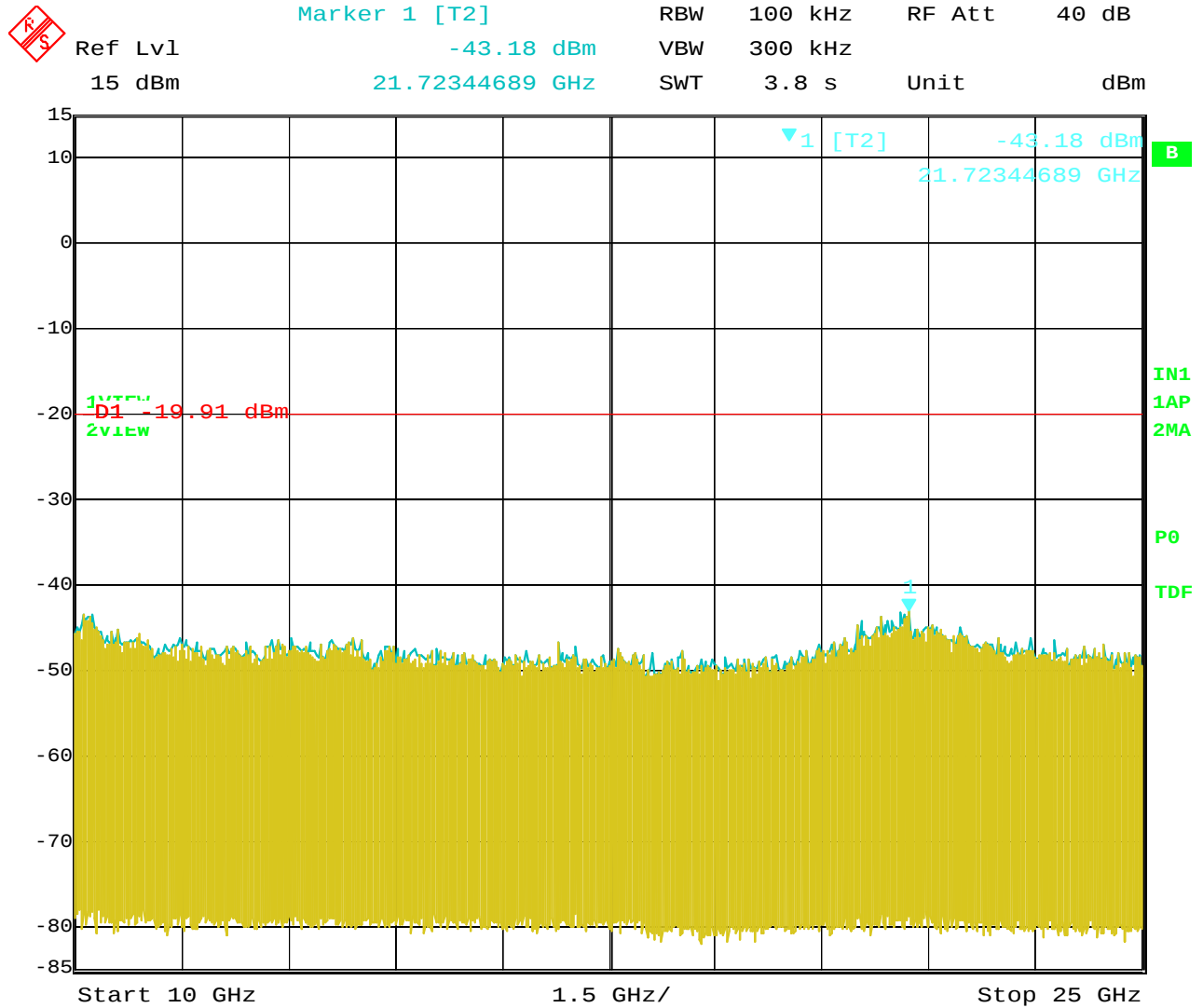
Date: 3.NOV.2011 08:55:09

RF Antenna Conducted Test – High Channel – 2 GHz to 3 GHz



Date: 3.NOV.2011 08:56:08

RF Antenna Conducted Test – High Channel – 3 GHz to 10 GHz

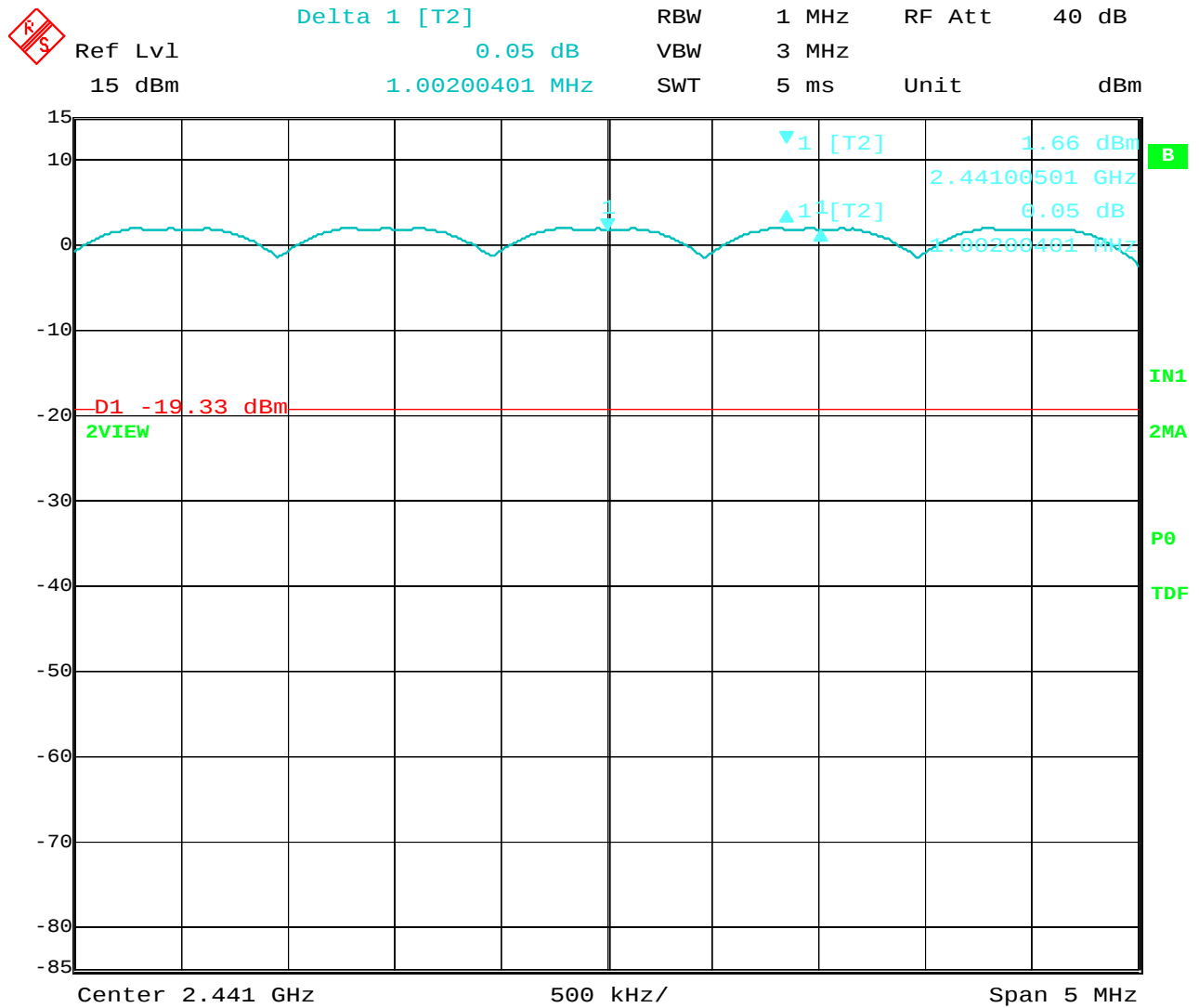


Date: 3.NOV.2011 08:56:43

RF Antenna Conducted Test – High Channel – 10 GHz to 25 GHz

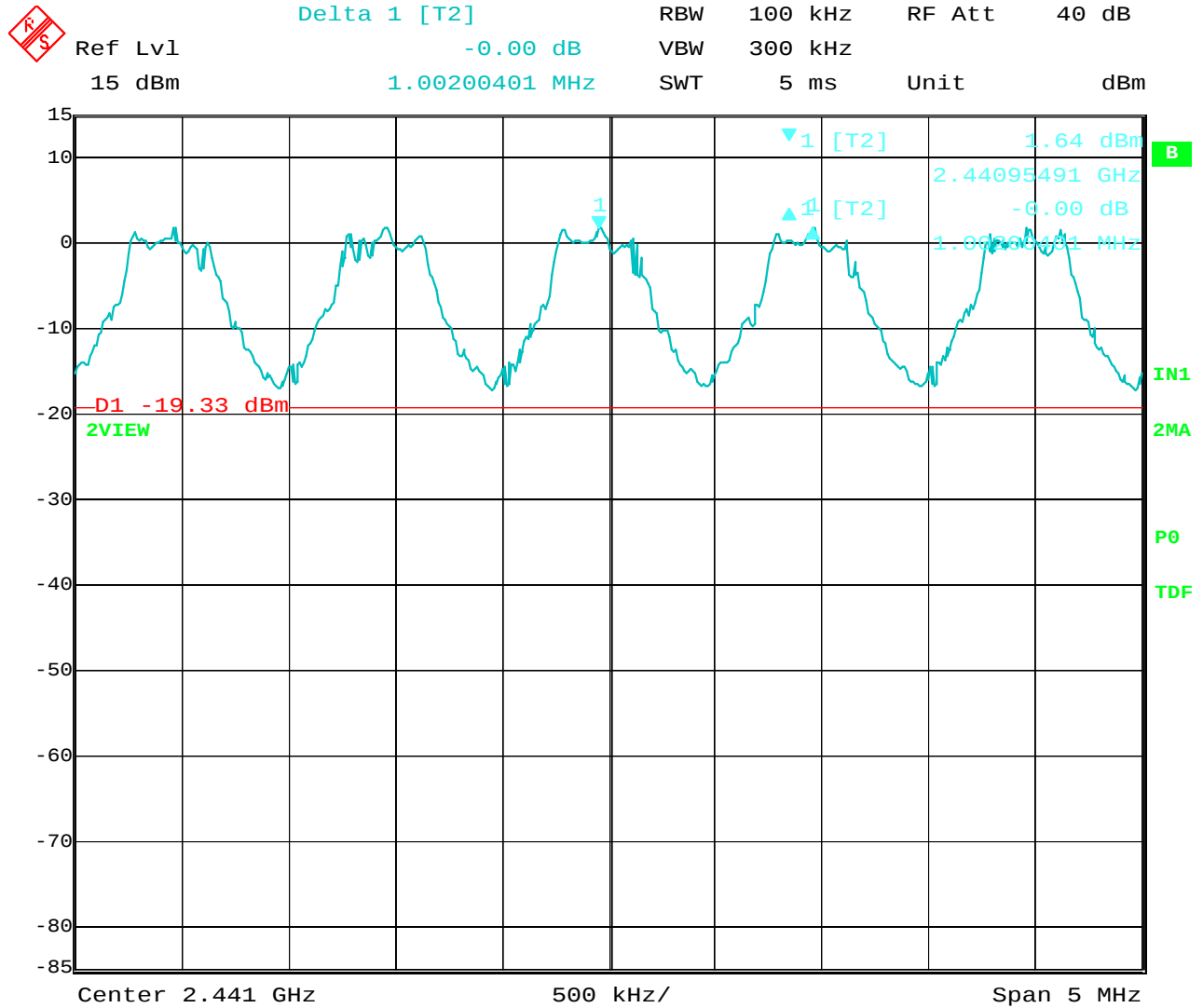
CHANNEL HOPPING SEPARATION

DATA SHEET



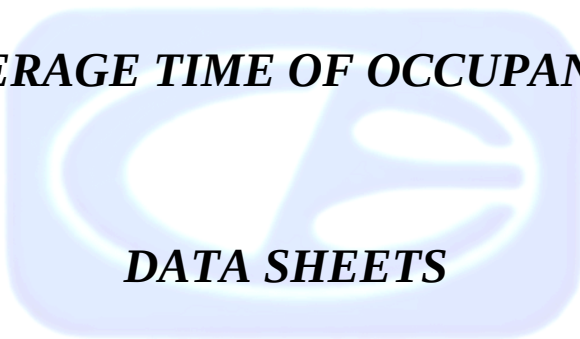
Date: 3.NOV.2011 09:28:09

Channel Frequency Separation Test at 1 MHz RBW



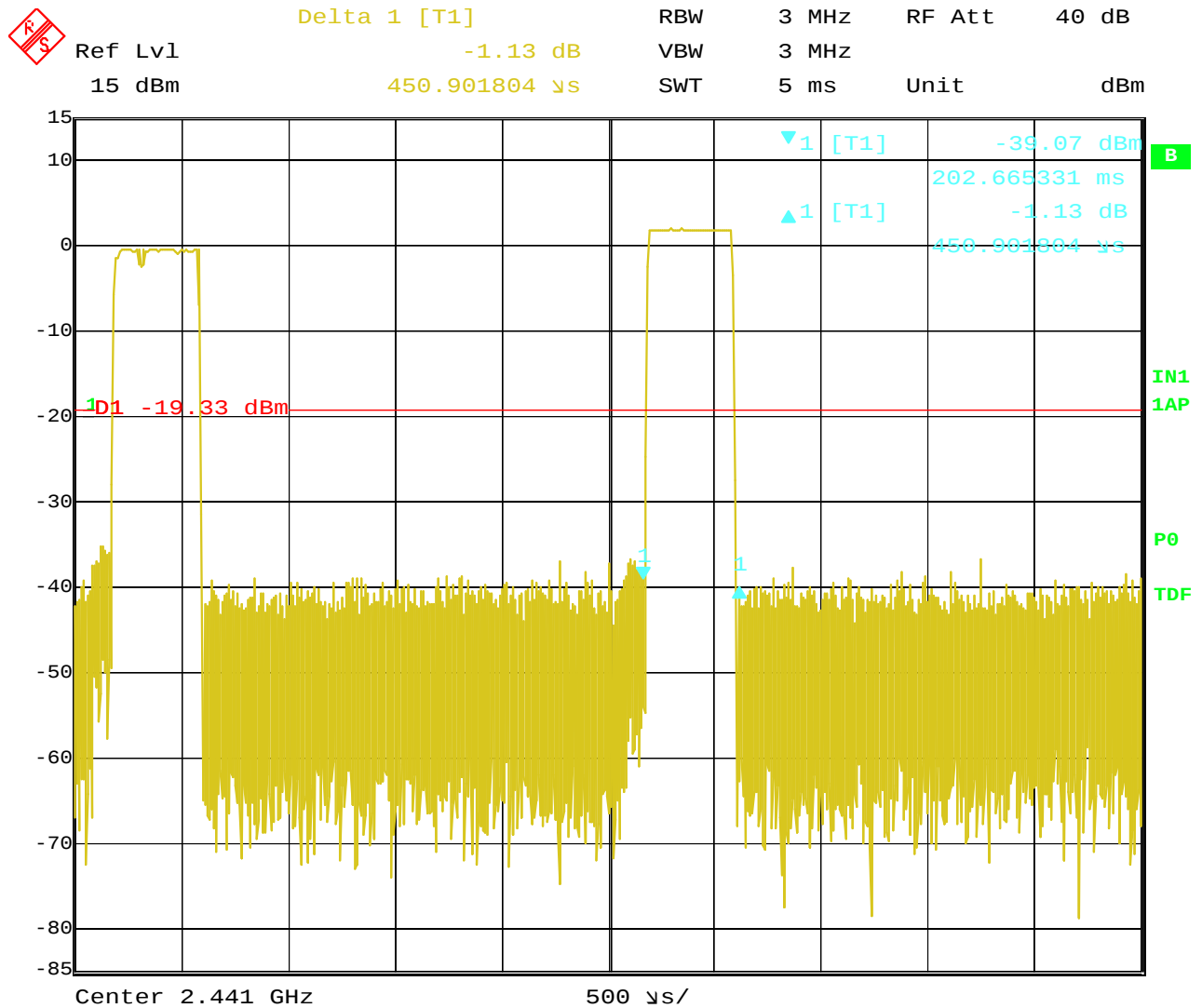
Date: 3.NOV.2011 09:24:16

Channel Frequency Separation Test at 100 kHz RBW



AVERAGE TIME OF OCCUPANCY

DATA SHEETS



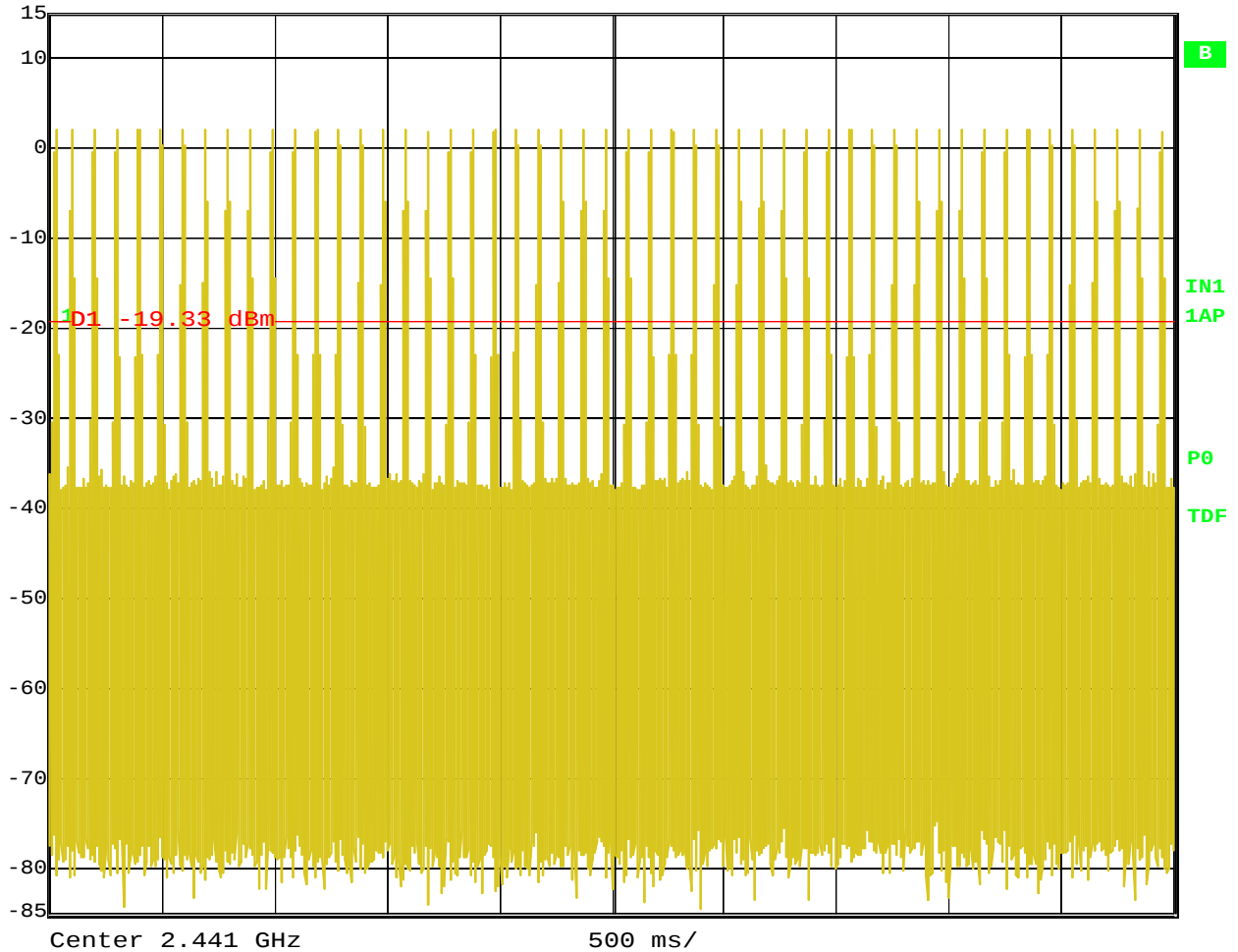
Date: 3.NOV.2011 09:47:02

Time of 1 Pulse = 450.901804 μ s



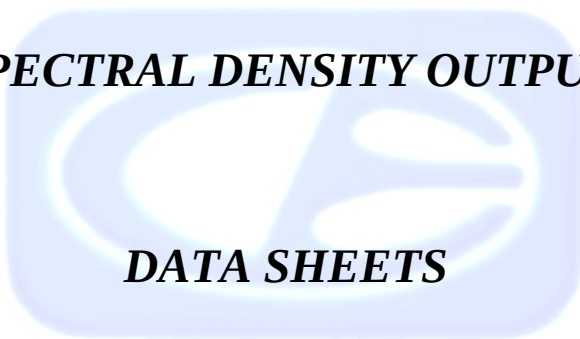
Ref Lvl
15 dBm

RBW 3 MHz RF Att 40 dB
VBW 3 MHz
SWT 5 s Unit dBm



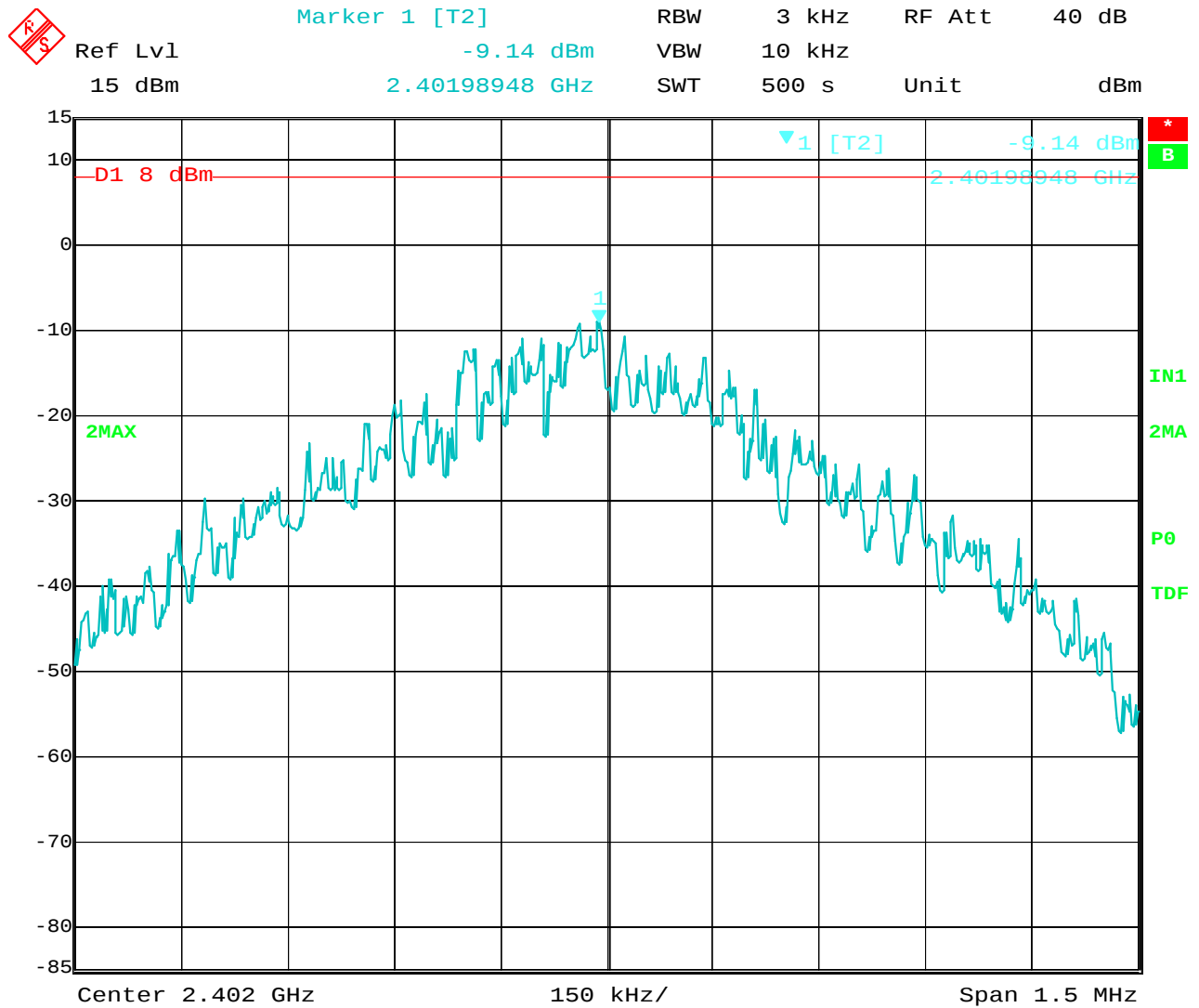
Date: 3.NOV.2011 09:45:29

Number of Pulses in 5 Seconds = 51
Number of Pulses in 31.6 Seconds = $51 \times 6.32 = 322.32$ Pulses in a 31.6 Second Period
Time of Occupancy = $322.32 \times 450.901804 \text{ uS} = 145.33 \text{ mS}$ per 31.6 Second Period
Limit = 400 mS per 31.6 Second Period (79 Channel * 400 mS)



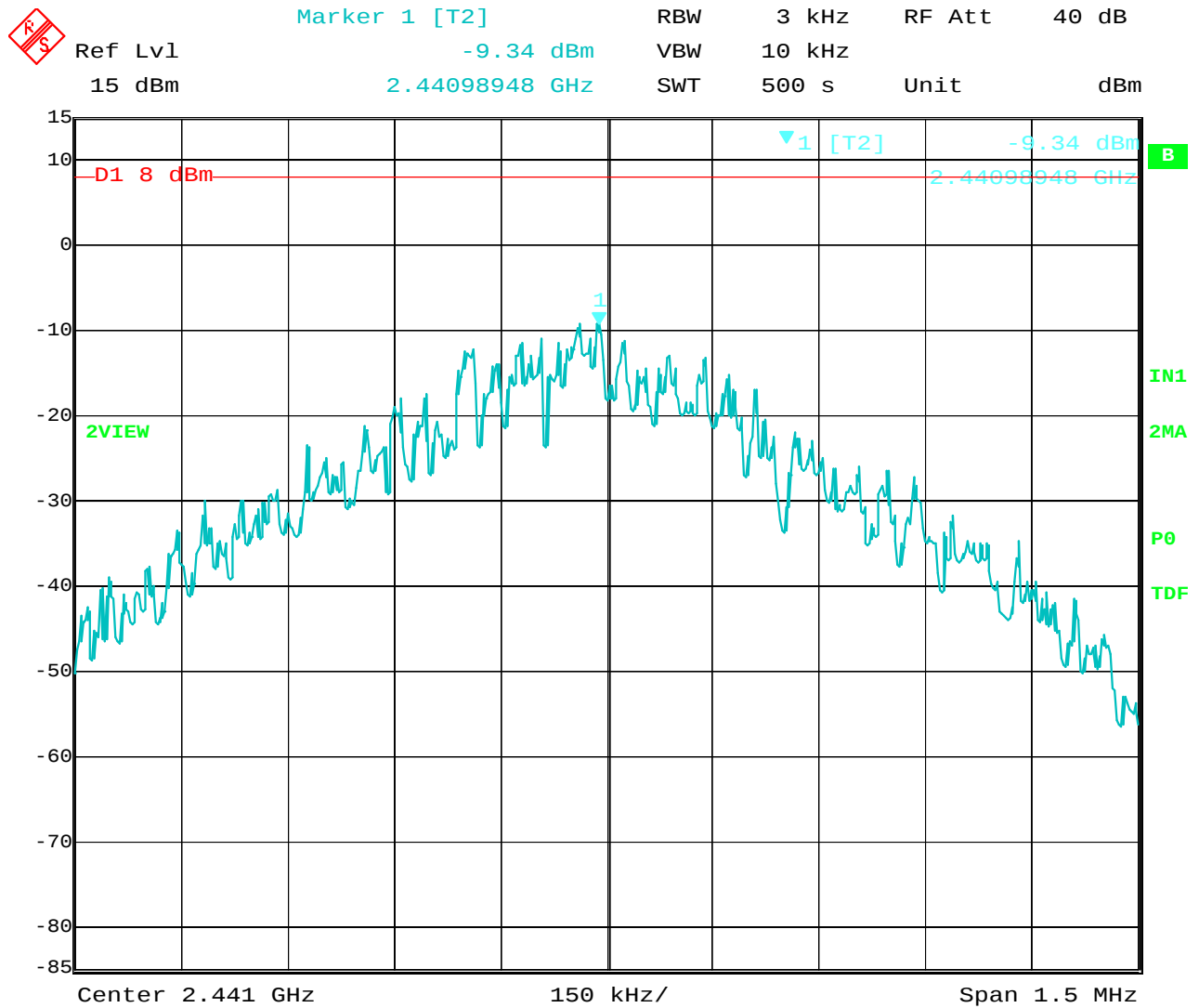
SPECTRAL DENSITY OUTPUT

DATA SHEETS



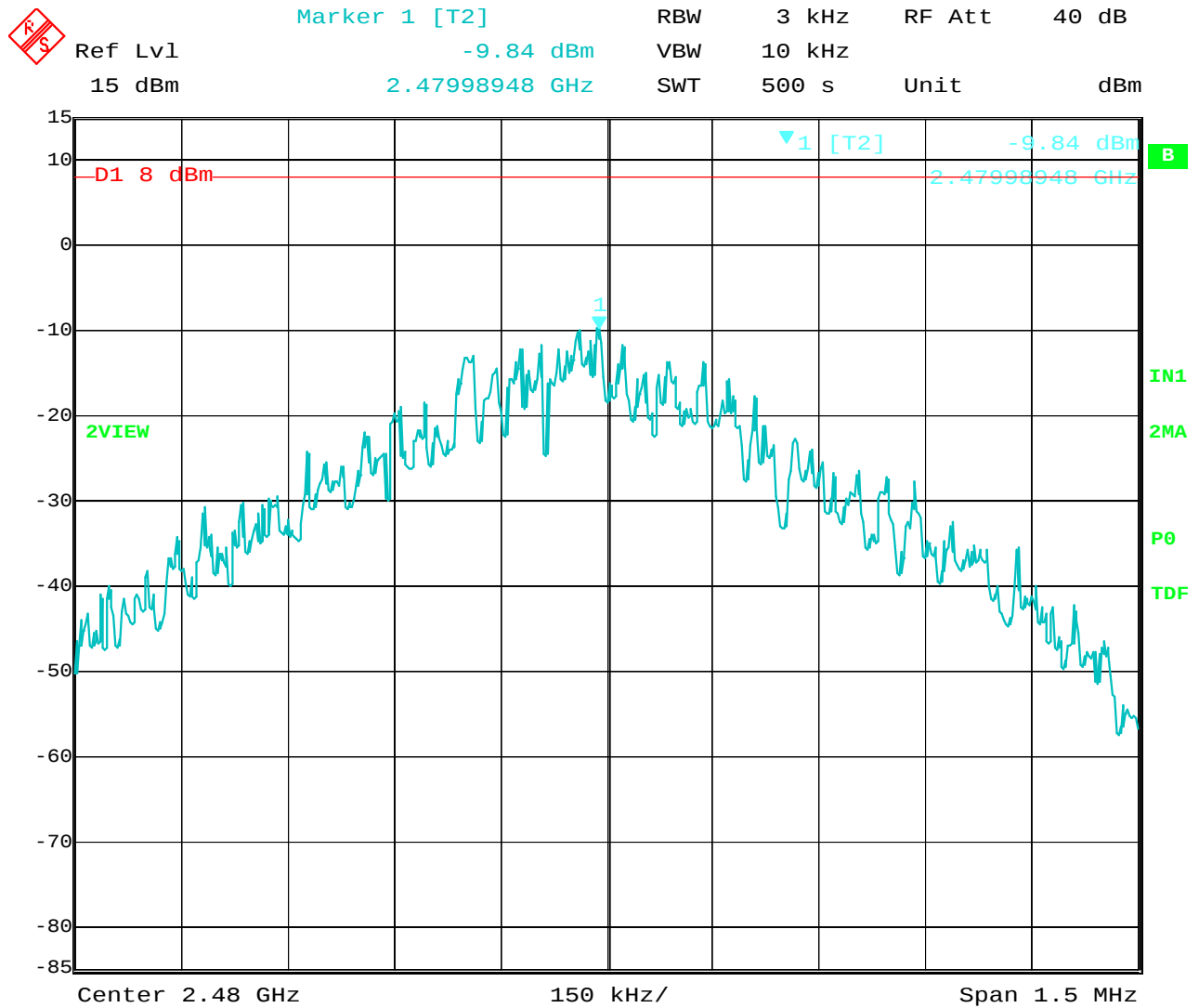
Date: 9.NOV.2011 14:32:55

Spectral Density Output – Low Channel



Date: 9.NOV.2011 14:41:45

Spectral Density Output – Middle Channel

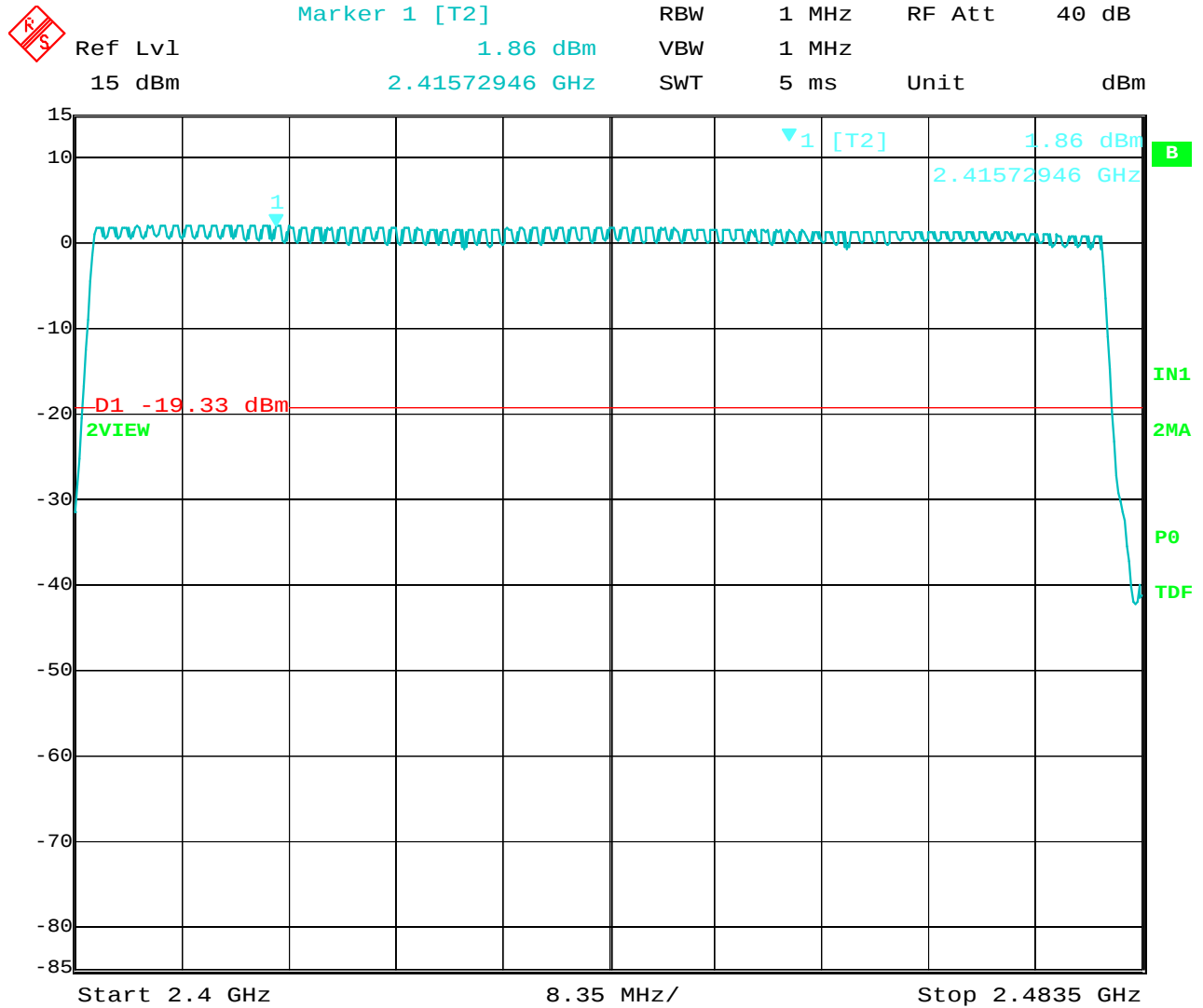


Date: 9.NOV.2011 14:50:31

Spectral Density Output – High Channel

NUMBER OF HOPPING FREQUENCIES

DATA SHEET



Date: 3.NOV.2011 09:37:51

Number of Frequencies (79 Total)

BAND EDGES

DATA SHEETS

FCC 15.247

Wireless Werx

Base Station

Model: SBS05-W

Date: 11/10/2011

Lab:B

Tested By: Kyle Fujimoto

Band Edges - Vertical Polarization
X-Axis - Worst Case
Wired Ethernet Mode

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2402	103.88	V	--	--	Peak	1	180	Fundamental of Low Channel
2402	83.88	V	--	--	Avg	1	180	@ 3 meters
2386.21	49.45	V	74	-24.55	Peak	1	180	Band Edge
2386.21	29.45	V	54	-24.55	Avg	1	180	Low Channel
2441	104.41	V	--	--	Peak	1	180	Fundamental of Middle Channel
								@ 3 meters
2480	103.6	V	--	--	Peak	1	180	Fundamental of High Channel
2480	83.6	V	--	--	Peak	1	180	@ 3 Meters
2483.5	61.78	V	74	-12.22	Peak	1	180	Band Edge
2483.5	41.78	V	54	-12.22	Peak	1	180	High Channel

FCC 15.247

Wireless Werx

Base Station

Model: SBS05-W

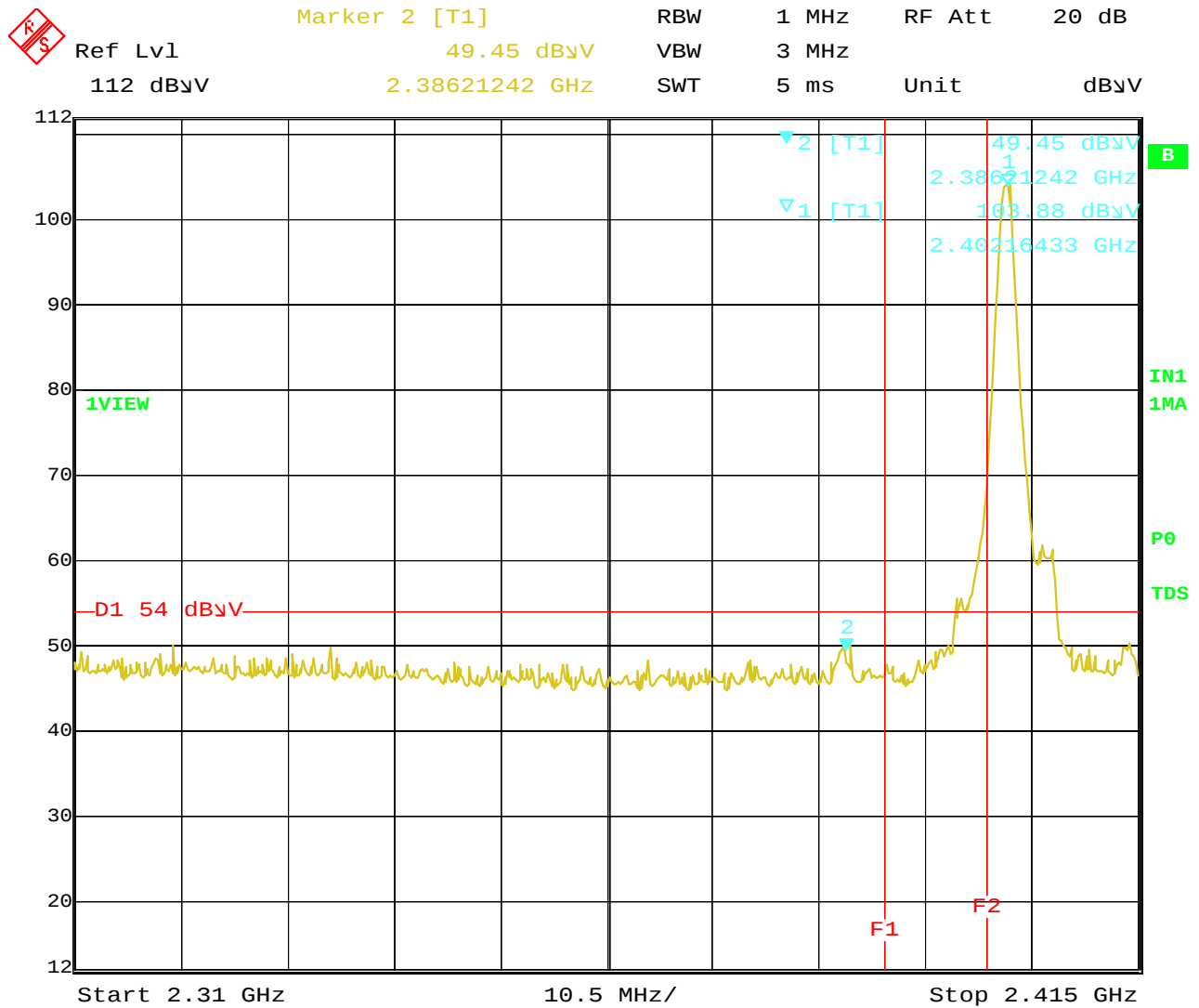
Date: 11/10/2011

Lab: B

Tested By: Kyle Fujimoto

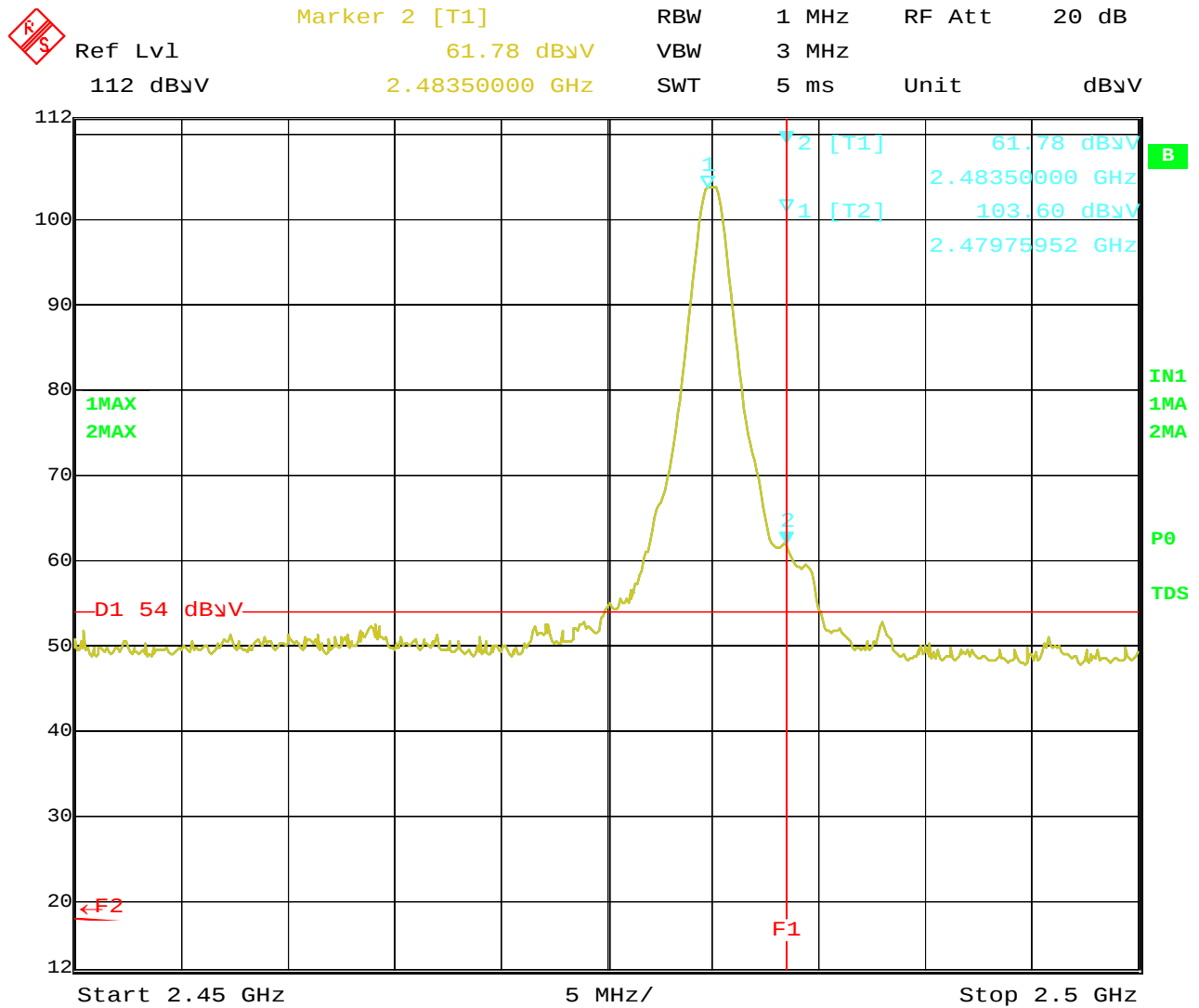
Band Edges - Horizontal Polarization
X-Axis - Worst Case
Wired Ethernet Mode

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2402	91.4	H	--	--	Peak	1.25	135	Fundamental of Low Channel
2402	71.4	H	--	--	Peak	1.25	135	@ 3 meters
2384.43	48.32	H	74	-25.68	Peak	1.25	135	No Marker Delta Method
2384.43	28.32	H	54	-25.68	Peak	1.25	135	Method Used
2441	92.35	H	--	--	Peak	1.25	225	Fundamental of Middle Channel
								@ 3 meters
2480	93.62	H	--	--	Peak	1.25	225	Fundamental of High Channel
2480	73.62	H	--	--	Peak	1.25	225	@ 3 Meters
2483.5	52.15	H	74	-21.85	Peak	1.25	225	No Marker Delta Method
2483.5	32.15	H	54	-21.85	Peak	1.25	225	Method Used



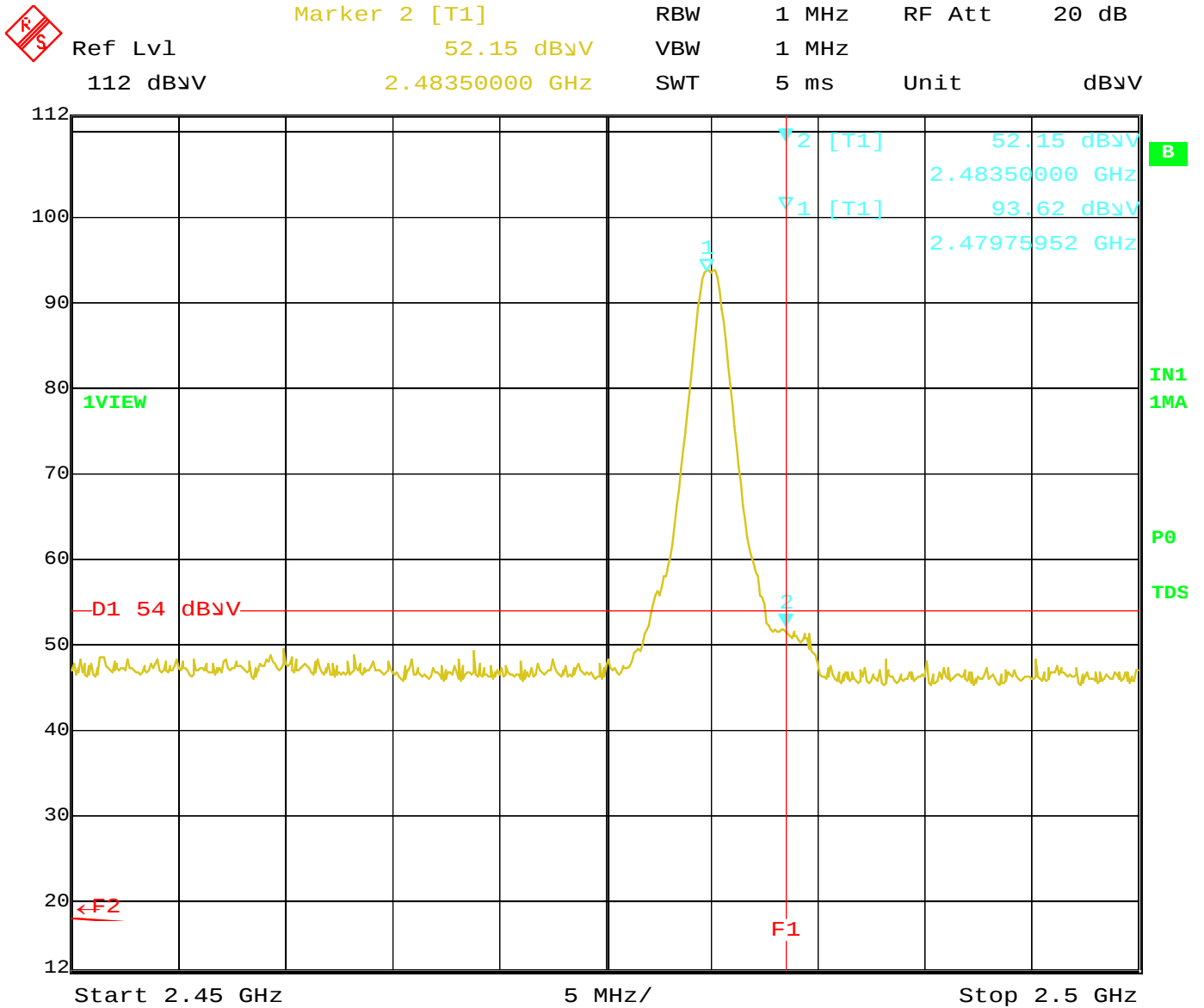
Date: 10.NOV.2011 10:08:07

Band Edge – Low Channel – Vertical Polarization – Bluetooth with Wired Ethernet – X-Axis (Worst Case)



Date: 10.NOV.2011 10:00:53

Band Edge – High Channel – Vertical Polarization – Bluetooth with Wired Ethernet – X-Axis (Worst Case)



Date: 10.NOV.2011 10:40:14

Band Edge – High Channel – Horizontal Polarization – Bluetooth with Wired Ethernet – X-Axis (Worst Case)

FCC 15.247

Wireless Werx

Base Station

Model: SBS05-W

Date: 11/07/2011

Lab: B

Tested By: Kyle Fujimoto

Band Edges - Vertical Polarization

X-Axis - Worst Case

Note: the 802.11 g Transmitter was also active (Worst Case)

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2402	100.75	V	--	--	Peak	1	180	Fundamental of Low Channel
2402	99.73	V	--	--	Peak	1	180	@ 3 meters
2390	64.50	V	74	-9.49	Peak	1	180	Band Edge
2390	52.44	V	54	-1.56	Peak	1	180	Low Channel
2441	101.51	V	--	--	Peak	1	180	Fundamental of Middle Channel
								@ 3 meters
2480	98.14	V	--	--	Peak	1	180	Fundamental of High Channel
2480	97.56	V	--	--	Peak	1	180	@ 3 Meters
2483.5	58.63	V	74	-15.37	Peak	1	180	Band Edge
2483.5	49.49	V	54	-4.51	Peak	1	180	High Channel

FCC 15.247

Wireless Werx

Base Station

Model: SBS05-W

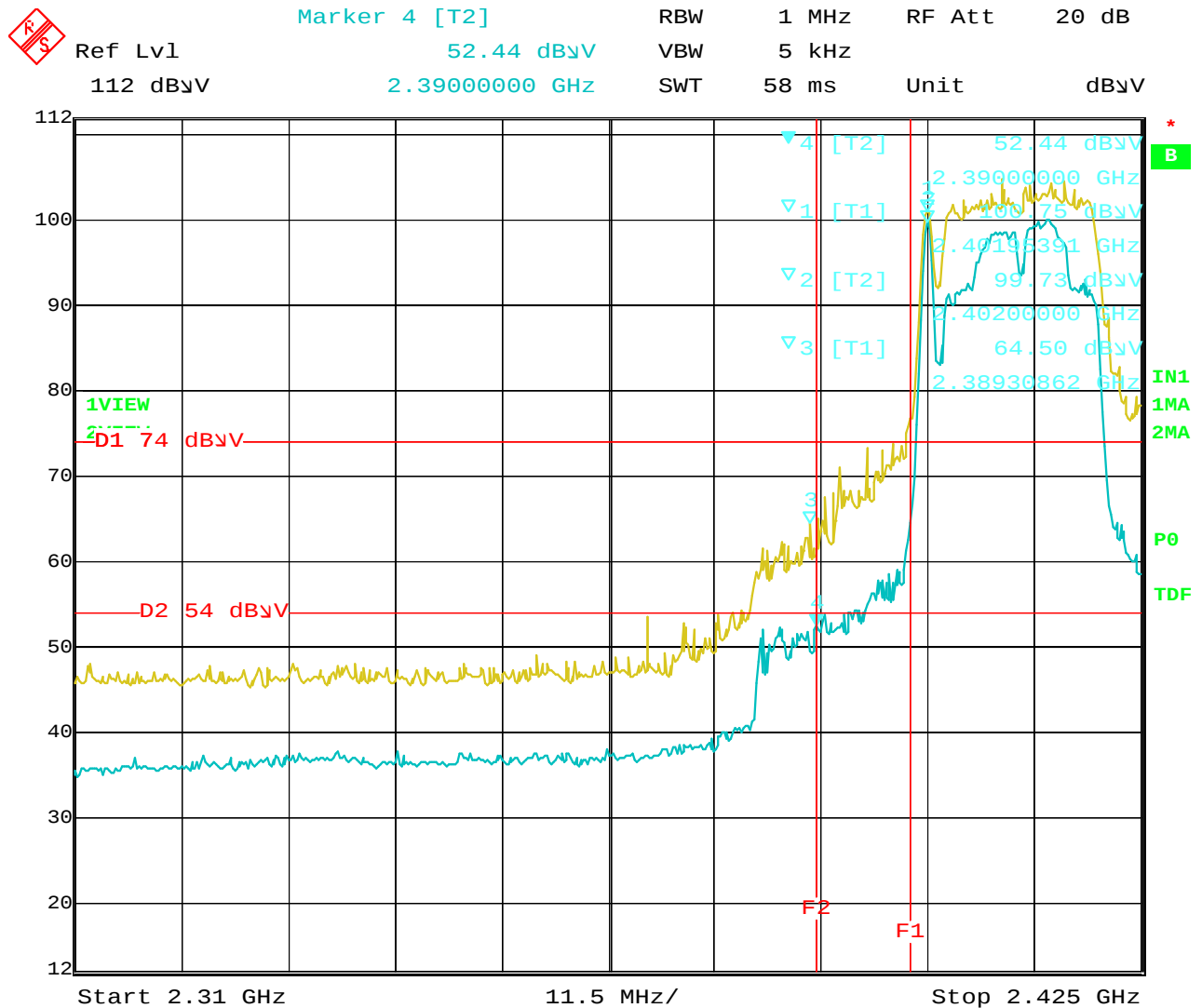
Date: 11/07/2011

Lab: B

Tested By: Kyle Fujimoto

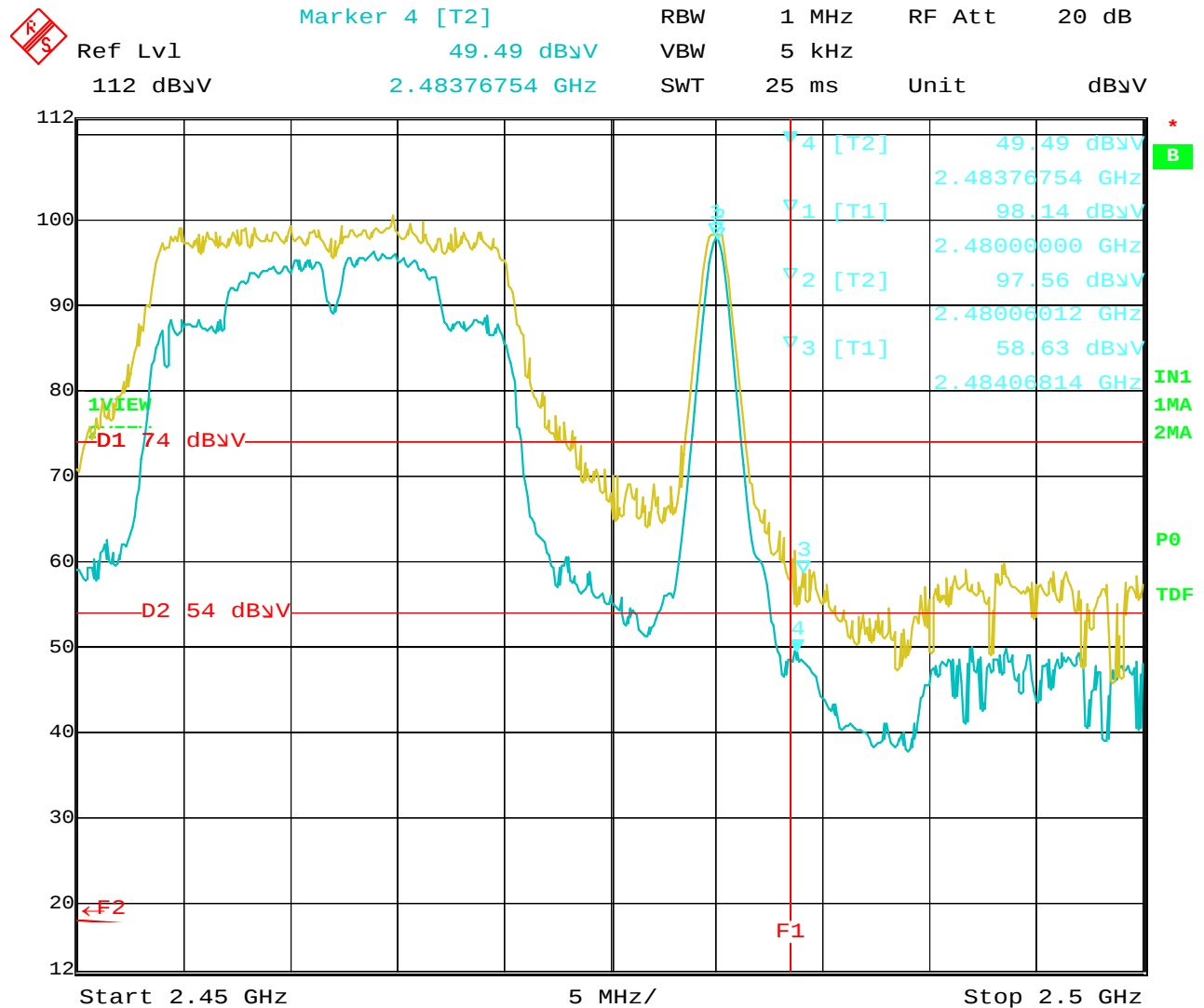
Band Edges - Horizontal Polarization**X-Axis - Worst Case****Note: the 802.11 g Transmitter was also active (Worst Case)**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2402	89.21	H	--	--	Peak	1.25	225	Fundamental of Low Channel
2402	88.4	H	--	--	Peak	1.25	225	@ 3 meters
2390	50.12	H	74	-23.88	Peak	1.25	225	No Marker Delta Method
2390	39.84	H	54	-14.16	Peak	1.25	225	Method Used
2441	92.62	H	--	--	Peak	1.25	225	Fundamental of Middle Channel
								@ 3 meters
2480	89.56	H	--	--	Peak	1.25	225	Fundamental of High Channel
2480	88.84	H	--	--	Peak	1.25	225	@ 3 Meters
2483.5	48.97	H	74	-25.03	Peak	1.25	225	No Marker Delta Method
2483.5	39.47	H	54	-14.53	Peak	1.25	225	Method Used



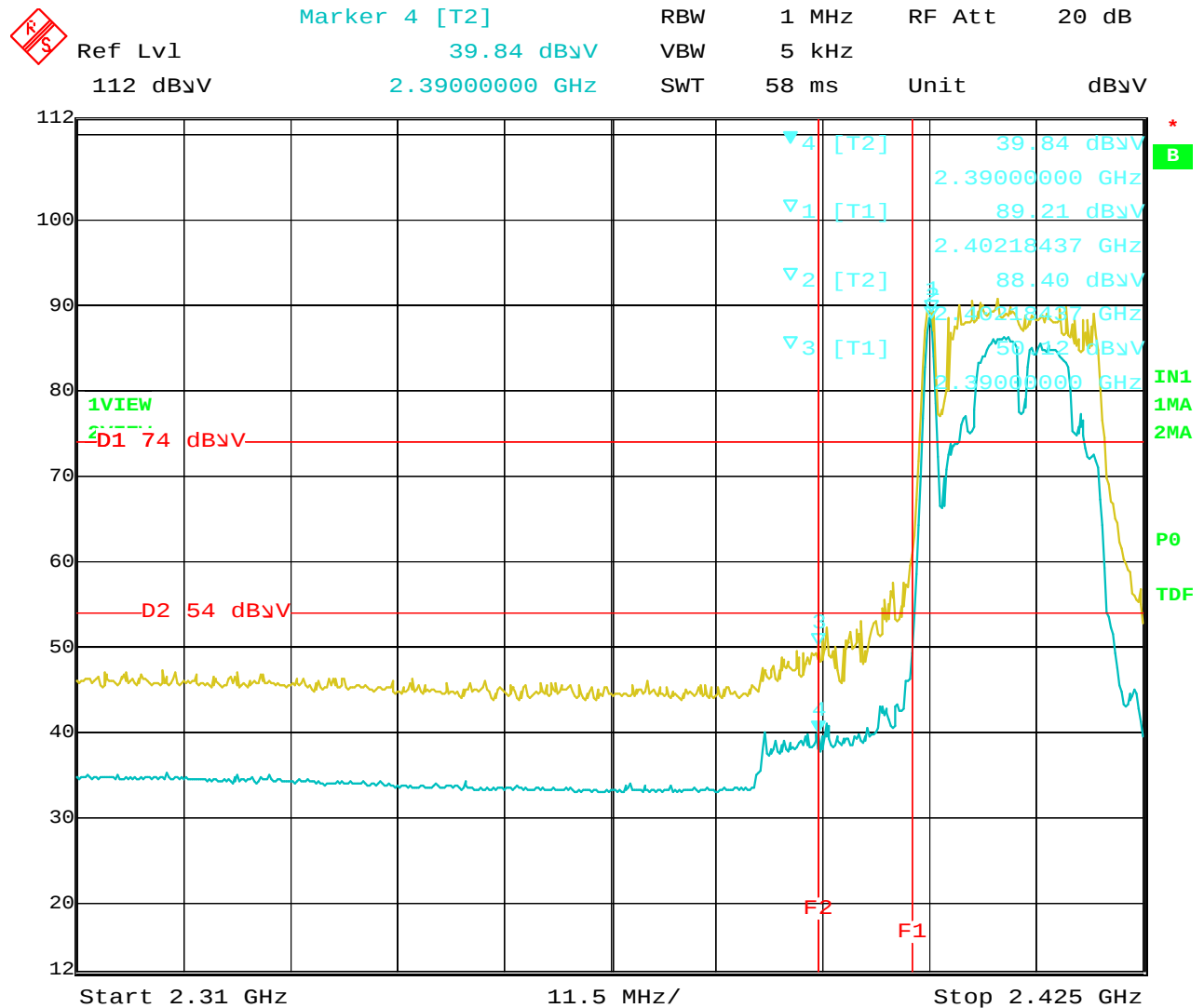
Date: 7.NOV.2011 11:30:05

Band Edge – Low Channel – Vertical Polarization – Bluetooth with 802.11 g – X-Axis (Worst Case)



Date: 7.NOV.2011 13:04:35

Band Edge – Low Channel – Vertical Polarization – Bluetooth with 802.11 g – X-Axis (Worst Case)



Date: 7.NOV.2011 11:43:06

Band Edge – High Channel – Horizontal Polarization – Bluetooth with 802.11 g – X-Axis (Worst Case)

