

*FCC PART 15, SUBPART B and C
TEST REPORT*

for

WIRELESS MODULE ASSEMBLY

P/N: 493473801

Prepared for

ITERIS, INC.
1700 CARNEGIE AVENUE, SUITE 100
SANTA ANA, CALIFORNIA 92705

Prepared by: 

KYLE FUJIMOTO

Approved by: 

MICHAEL CHRISTENSEN

COMPATIBLE ELECTRONICS INC.
114 OLINDA DRIVE
BREA, CALIFORNIA 92823
(714) 579-0500

DATE: OCTOBER 6, 2009

	REPORT BODY	APPENDICES					TOTAL
		A	B	C	D	E	
PAGES	22	2	2	2	15	47	90

This report shall not be reproduced except in full, without the written approval of Compatible Electronics.

TABLE OF CONTENTS

Section / Title	PAGE
GENERAL REPORT SUMMARY	4
SUMMARY OF TEST RESULTS	5
1. PURPOSE	6
2. ADMINISTRATIVE DATA	7
2.1 Location of Testing	7
2.2 Traceability Statement	7
2.3 Cognizant Personnel	7
2.4 Date Test Sample was Received	7
2.5 Disposition of the Test Sample	7
2.6 Abbreviations and Acronyms	7
3. APPLICABLE DOCUMENTS	8
4. DESCRIPTION OF TEST CONFIGURATION	9
4.1 Description of Test Configuration - EMI	9
4.1.1 Cable Construction and Termination	10
5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT	11
5.1 EUT and Accessory List	11
5.2 EMI Test Equipment	12
6. TEST SITE DESCRIPTION	13
6.1 Test Facility Description	13
6.2 EUT Mounting, Bonding and Grounding	13
7. CHARACTERISTICS OF THE TRANSMITTER	14
7.1 Channel Number and Frequencies	14
7.2 Antenna Gain	14
8. TEST PROCEDURES	15
8.1 RF Emissions	15
8.1.1 Conducted Emissions Test	15
8.1.2 Radiated Emissions (Spurious and Harmonics) Test	16
8.2 6 dB Bandwidth	18
8.3 Peak Output Power	19
8.4 RF Antenna Conducted Test	19
8.5 RF Band Edges	20
8.6 Spectral Density Test	21
9. CONCLUSIONS	22

LIST OF APPENDICES

APPENDIX	TITLE
A	Laboratory Recognitions
B	Modifications to the EUT
C	Additional Models Covered Under This Report
D	Diagrams, Charts, and Photos • Test Setup Diagrams • Radiated and Conducted Emissions Photos • Antenna and Effective Gain Factors
E	Data Sheets

LIST OF FIGURES

FIGURE	TITLE
1	Conducted Emissions Test Setup
2	Plot Map And Layout of Test Site – 3 Meters

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: Wireless Module Assembly
P/N: 493473801
S/N: P100092261615

Product Description: See Expository Statement.

Modifications: There were no modifications made to the EUT during the testing.

Manufacturer: Iteris, Inc.
1700 Carnegie Avenue, Suite 100
Santa Ana, California 92705

Test Dates: August 13 and September 3, 2009

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: 2003

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 CFR Title 47, Part 15, Subpart C, section 15.207. Highest reading in relation to spec limit: 44.69 dBuV/m @ 0.385 MHz (*Uc = 0.63 dB)
2	Spurious Radiated RF Emissions, 10 kHz – 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) Highest reading in relation to spec limit: 40.09 dBuV/m @ 384.058 MHz (*Uc = 2.23 dB)
3	Fundamental and Emissions produced by the intentional radiator in non-restricted bands, 10 kHz – 25000 MHz	Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.247(d)
4	Emissions produced by the intentional radiator in restricted bands, 10 kHz – 25000 GHz	Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.205, 15.209(a), and section 15.247 (d) Highest reading in relation to spec limit: 47.13 dBuV/m @ 4810 MHz (*Uc = 3.05 dB)
5	6 dB Bandwidth	Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.247(a)(2)
6	Peak Power Output	Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.247(b)(3)
7	RF Conducted Antenna Test	Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.247(d)
8	Peak Power Spectral Density Conducted from the Intentional Radiator to the Antenna	Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.247 (e)

1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the Wireless Module Assembly, P/N: 493473801. The EMI measurements were performed according to the measurement procedure described in ANSI C63.4: 2003. 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.

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

William Lee Senior Project Engineer

Compatible Electronics Inc.

Kyle Fujimoto Test Engineer

James Ross Test Engineer

Michael Christensen Lab Manager, Brea Division

2.4 Date Test Sample was Received

The EUT was received on September 3, 2009.

2.5 Disposition of the Test Sample

The EUT was returned to Iteris, Inc. on September 4, 2009.

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 2003	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

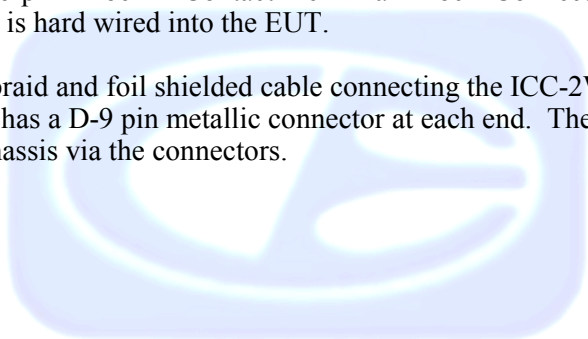
4.1 Description of Test Configuration - EMI

Transmitter Portion: The Wireless Module Assembly, P/N: 493473801 (EUT) was connected to a simulated camera load and ICC-2W Shelf Mount Assembly. The ICC-2W Shelf Mount Assembly was also connected to a laptop via its serial port. A wireless camera was also placed 10-meters away from the test site. During the testing, the EUT was tested at the low, middle, and high channels. The laptop was used to lock the channels into place.

Digital and Receiver Portion: Wireless Module Assembly, P/N: 493473801 (EUT) was connected to a Simulated Camera Load and ICC-2W Shelf Mount Assembly. The ICC-2W Shelf Mount Assembly was also connected to a laptop via its serial port. A wireless camera was also placed 10-meters away from the test site. During the testing, the EUT was communicating with the wireless camera and receiving snapshots of pictures from the wireless camera.

It was determined that the emissions were at their highest level when the EUT was operating in the above configurations. The final emissions data was taken in both mode of operations mentioned above and any cables were maximized. All initial investigations were performed with the EMI 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 15-centimeter unshielded cable connecting the EUT to a simulated camera load. The cable is hard wired at each end.
- Cable 2** This is a 7.6-meter unshielded cable connecting the EUT to the ICC-2W Shelf Mount Assembly. The cable has a 6-pin Phoenix Contact Terminal Block Connector at the ICC-2W Shelf Mount Assembly end and is hard wired into the EUT.
- Cable 3** This is a 2-meter braid and foil shielded cable connecting the ICC-2W Shelf Mount Assembly to the laptop. The cable has a D-9 pin metallic connector at each end. The shield of the cable was grounded to the chassis via the connectors.
- 

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

EQUIPMENT	MANUFACTURER	PART NUMBER	SERIAL NUMBER	FCC ID
WIRELESS MODULE ASSEMBLY (EUT)	ITERIS, INC.	493473801	P100092261615	OVHCAM-VC2W
ICC-2W SHELF MOUNT ASSEMBLY	ITERIS, INC.	493474401	P100092230671	N/A
WIRELESS CAMERA	ITERIS, INC.	493473801	J000091315322	N/A
LAPTOP	SONY	PCG-992L	28332430 3538278	DoC

5.2 EMI Test Equipment

EQUIPMENT TYPE	MANU-FACTURER	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
EMI Receiver	Rohde & Schwarz	ESIB40	100194	September 17, 2008	Sept. 17, 2010
Spectrum Analyzer – Main Section	Hewlett Packard	8566B	3638A08784	May 29, 2009	May 29, 2010
Spectrum Analyzer – Display Section	Hewlett Packard	85662A	2648A14530	May 29, 2009	May 29, 2010
Quasi-Peak Adapter	Hewlett Packard	85650A	2430A00424	May 29, 2009	May 29, 2010
Monitor	Hewlett Packard	D5258A	TW74500641	N/A	N/A
RF RADIATED EMISSIONS TEST EQUIPMENT					
Biconical Antenna	Com Power	AB-900	15227	February 23, 2009	Feb. 23, 2010
Log Periodic Antenna	Com Power	AL-100	16252	June 15, 2009	June 15, 2010
Preamplifier	Com-Power	PA-103	1582	January 12, 2009	Jan. 12, 2010
Loop Antenna	Com-Power	AL-130	17089	September 29, 2008	Sept. 29, 2009
Horn Antenna	Com-Power	AH-118	071175	June 27, 2008	June 27, 2010
Microwave Preamplifier	Com-Power	PA-122	181921	March 12, 2009	March 12, 2010
Microwave Preamplifier	Com-Power	PA-840	711013	March 12, 2009	March 12, 2010
Horn Antenna	Com-Power	AH826	71957	December 12, 2007	Dec. 12, 2009
Antenna Mast	Com Power	AM-100	N/A	N/A	N/A
RF CONDUCTED EMISSIONS TEST EQUIPMENT					
Emissions Program	Compatible Electronics	2.3 (SR19)	N/A	N/A	N/A
LISN	Com Power	LI-215	12076	September 29, 2008	Sept. 29, 2009
LISN	Com Power	LI-215	12090	September 29, 2008	Sept. 29, 2009
Transient Limiter	Com Power	252A910	1	September 26, 2008	Sept. 26, 2009

6. TEST SITE DESCRIPTION

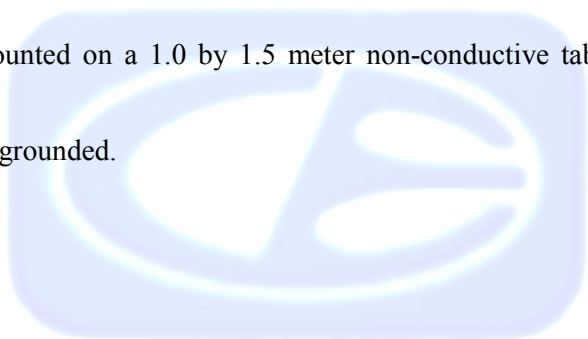
6.1 Test Facility Description

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 Channel Number and Frequencies

Channel 1 = 2405 MHz
Channel 2 = 2410 MHz
Channel 3 = 2415 MHz
Channel 4 = 2420 MHz
Channel 5 = 2425 MHz
Channel 6 = 2430 MHz
Channel 7 = 2435 MHz
Channel 8 = 2440 MHz
Channel 9 = 2445 MHz
Channel 10 = 2450 MHz
Channel 11 = 2455 MHz
Channel 12 = 2460 MHz
Channel 13 = 2465 MHz
Channel 14 = 2470 MHz
Channel 15 = 2475 MHz



7.2 Antenna Gain

The antenna gain is 2.15 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 EMI Receiver was used as a measuring meter. The data was collected with the EMI Receiver 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 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: 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 EMI Receiver 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 CFR Title 47, Part 15, Subpart C, section 15.207.

8.1.2 Radiated Emissions (Spurious and Harmonics) Test

The EMI Receiver was used as a measuring meter along with the quasi-peak adapter. Amplifiers were used to increase the sensitivity of the instrument. The EMI Receiver was used in the peak detect mode with the "Max Hold" feature activated. In this mode, the EMI Receiver 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 500 Hz (VBW > 1/T, with T=3.246493 mS) and putting the sweep time on AUTO on the EMI Receiver to keep the amplitude reading calibrated.

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

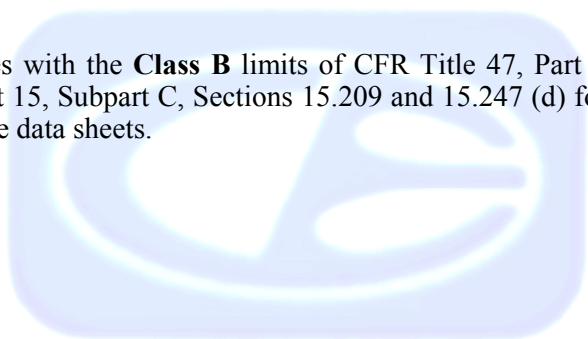
The open field test site of Compatible Electronics, Inc. was used for radiated emission testing. This test site is set up according to ANSI C63.4: 2003. Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The turntable supporting the EUT is remote controlled using a 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 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.



8.2 6 dB Bandwidth

The 6 dB bandwidth was measured using the EMI Receiver. The test was performed 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.

Test Results:

This test complies with the relevant requirements of CFR Title 47, Part 15, Subpart C section 15.247 (a)(2).



8.3 Peak Output Power

The Peak Output Power was taken using the EMI Receiver. The test was performed using a direct connection from the RF out on the EUT into the input of the EMI Receiver. The resolution and video bandwidth were 10 MHz. The Peak Output Power was then taken.

Test Results:

This test complies with the relevant requirements of CFR Title 47, Part 15, Subpart C section 15.247 (b)(3).

8.4 RF Antenna Conducted Test

The RF antenna conducted test was taken using the EMI Receiver. The RF antenna conducted test was 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 300 kHz. The spans were wide enough to include all the harmonics and emissions that were produced by the intentional radiator.

Test Results:

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

8.5 RF Band Edges

The RF band edges were taken at the edges of the ISM spectrum (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 8.1.2 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 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.

8.6 Spectral Density Test

The spectral 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 was 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:

This test complies with the relevant requirements of CFR Title 47, Part 15, Subpart C section 15.247 (e).



9. CONCLUSIONS

The Wireless Module Assembly P/N: 493473801 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 RECOGNITIONS

LABORATORY RECOGNITIONS

Compatible Electronics has the following agency accreditations:

National Voluntary Laboratory Accreditation Program - Lab Code: 200528-0

Voluntary Control Council for Interference - Registration Numbers: R-983, C-1026, R-984 and C-1027

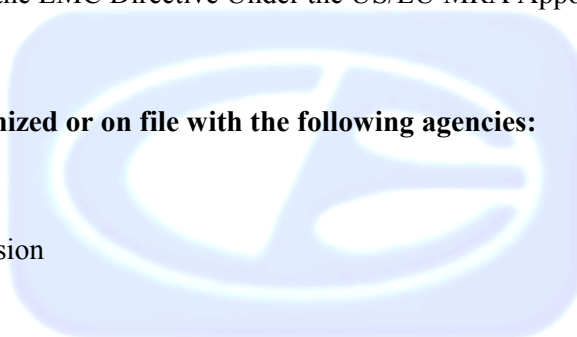
Bureau of Standards and Metrology Inspection - Reference Number: SL2-IN-E-1031

Conformity Assessment Body for the EMC Directive Under the US/EU MRA Appointed by NIST

Compatible Electronics is recognized or on file with the following agencies:

Federal Communications Commission

Industry Canada



APPENDIX B

MODIFICATIONS TO THE EUT

MODIFICATIONS TO THE EUT

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

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

No modifications were made to the EUT during the testing.



APPENDIX C

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

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

Wireless Module Assembly

P/N: 493473801

S/N: P100092261615

There were no additional models covered under this test report.



APPENDIX D

DIAGRAMS, CHARTS, AND PHOTOS

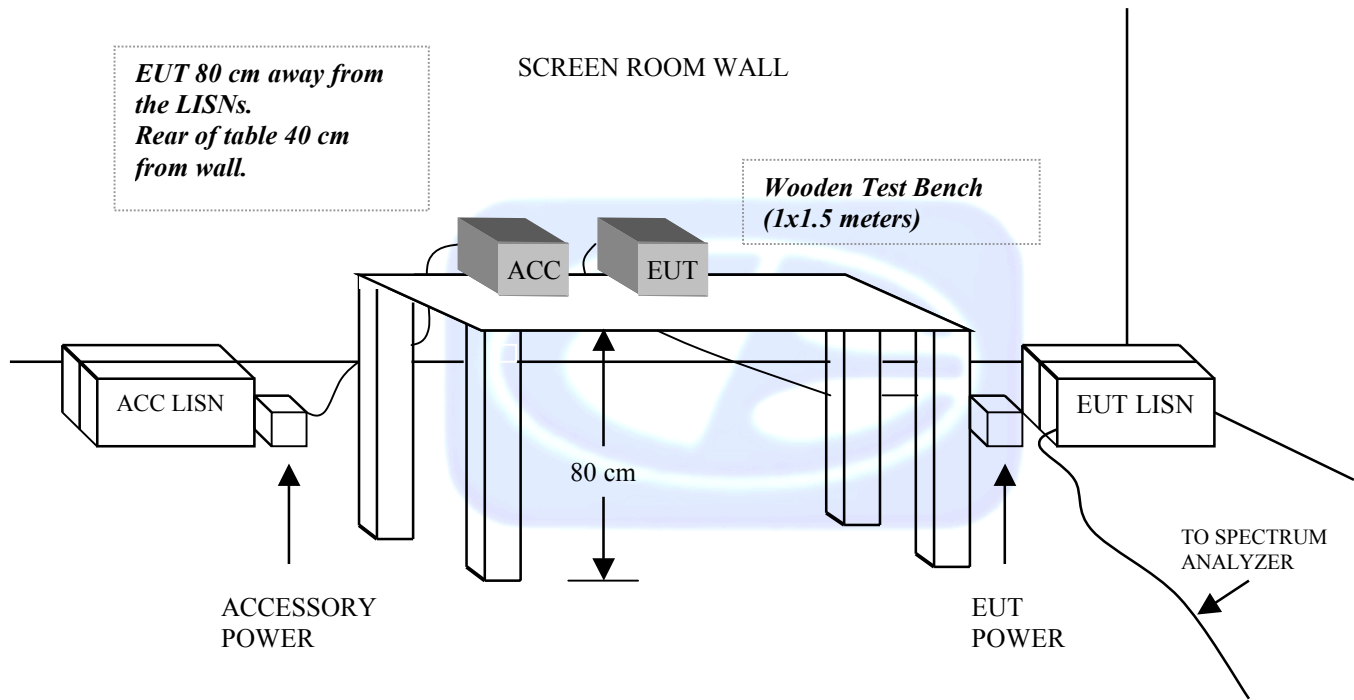
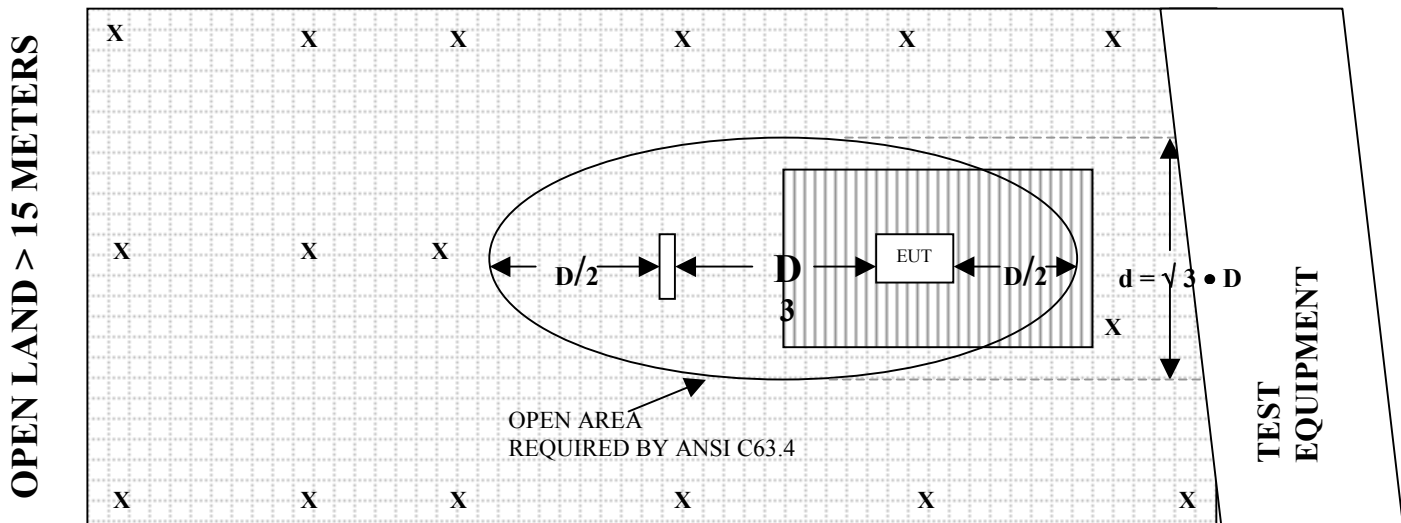
FIGURE 1: CONDUCTED EMISSIONS TEST SETUP

FIGURE 2: PLOT MAP AND LAYOUT OF RADIATED SITE – 3 METERS

OPEN LAND > 15 METERS



OPEN LAND > 15 METERS

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

COM-POWER AB-900**BICONICAL ANTENNA****S/N: 15227****CALIBRATION DATE: FEBRUARY 23, 2009**

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	13.4	100	10.6
35	10.4	120	13.0
40	10.1	140	11.8
45	11.2	160	12.6
50	11.6	180	15.7
60	8.9	200	16.8
70	8.5	250	16.5
80	5.9	275	18.1
90	7.9	300	20.5

COM-POWER AL-100

LOG PERIODIC ANTENNA

S/N: 16252

CALIBRATION DATE: JUNE 15, 2009

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
300	12.8	700	20.4
400	15.3	800	21.7
500	17.5	900	22.0
600	19.8	1000	22.7

COM POWER AH-118**HORN ANTENNA**

S/N: 071175

CALIBRATION DATE: JUNE 27, 2008

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	24.5	10.0	39.4
1.5	25.4	10.5	39.7
2.0	28.3	11.0	39.0
2.5	28.9	11.5	40.0
3.0	29.7	12.0	39.7
3.5	30.8	12.5	41.7
4.0	31.4	13.0	42.7
4.5	32.6	13.5	41.2
5.0	33.7	14.0	41.6
5.5	34.4	14.5	43.2
6.0	34.7	15.0	42.3
6.5	35.4	15.5	39.3
7.0	37.0	16.0	41.7
7.5	37.4	16.5	39.6
8.0	37.6	17.0	43.0
8.5	37.6	17.5	47.1
9.0	38.5	18.0	46.2
9.5	38.6		

COM-POWER PA-103**PREAMPLIFIER**

S/N: 1582

CALIBRATION DATE: JANUARY 12, 2009

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	33.6	300	33.4
40	33.7	350	33.2
50	33.6	400	33.2
60	33.5	450	33.1
70	33.6	500	32.9
80	33.6	550	33.0
90	33.7	600	32.8
100	33.7	650	33.0
125	33.5	700	32.7
150	33.6	750	32.9
175	33.7	800	32.6
200	33.4	850	32.6
225	33.4	900	32.6
250	33.4	950	32.4
275	33.3	1000	32.7

COM-POWER PA-122**PREAMPLIFIER****S/N: 181921****CALIBRATION DATE: MARCH 12, 2009**

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	36.46	10.0	35.06
1.5	35.36	10.5	34.82
2.0	34.76	11.0	33.12
2.5	34.94	11.5	34.33
3.0	34.59	12.0	34.75
3.5	34.55	12.5	33.94
4.0	34.25	13.0	35.50
4.5	33.89	13.5	34.89
5.0	34.22	14.0	36.56
5.5	34.81	14.5	36.06
6.0	35.74	15.0	36.67
6.5	36.51	15.5	36.84
7.0	36.66	16.0	34.31
7.5	35.72	16.5	35.11
8.0	33.28	17.0	35.35
8.5	33.11	17.5	34.11
9.0	34.71	18.0	33.88
9.5	35.50	18.5	32.20

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

S/N: 17089

CALIBRATION DATE: SEPTEMBER 29, 2008

FREQUENCY (MHz)	MAGNETIC (dB/m)	ELECTRIC (dB/m)
0.009	-41.57	9.93
0.01	-42.06	9.44
0.02	-42.43	9.07
0.05	-42.50	9.00
0.07	-42.10	9.40
0.1	-42.03	9.47
0.2	-44.50	7.00
0.3	-41.93	9.57
0.5	-41.90	9.60
0.7	-41.73	9.77
1	-41.23	10.27
2	-40.90	10.60
3	-41.20	10.30
4	-41.30	10.20
5	-40.70	10.80
10	-41.10	10.40
15	-42.17	9.33
20	-42.00	9.50
25	-42.20	9.30
30	-43.10	8.40

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

S/N: 711013

CALIBRATION DATE: MARCH 12, 2009

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
18.0	25.72	29.0	26.72
18.5	25.46	29.5	27.11
19.0	25.19	30.0	27.19
19.5	24.58	30.5	27.12
20.0	23.94	31.0	26.76
20.5	23.48	31.5	26.52
21.0	23.22	32.0	26.11
21.5	23.34	32.5	26.35
22.0	23.62	33.0	26.15
22.5	23.74	33.5	26.14
23.0	24.40	34.0	25.47
23.5	24.60	34.5	25.39
24.0	25.15	35.0	25.05
24.5	25.38	35.5	25.18
25.0	26.00	36.0	24.63
25.5	25.92	36.5	25.22
26.0	26.47	37.0	26.20
26.5	27.19	37.5	26.46
27.0	27.60	38.0	25.44
27.5	26.51	38.5	24.71
28.0	26.46	39.0	23.50
28.5	26.36	39.5	23.46

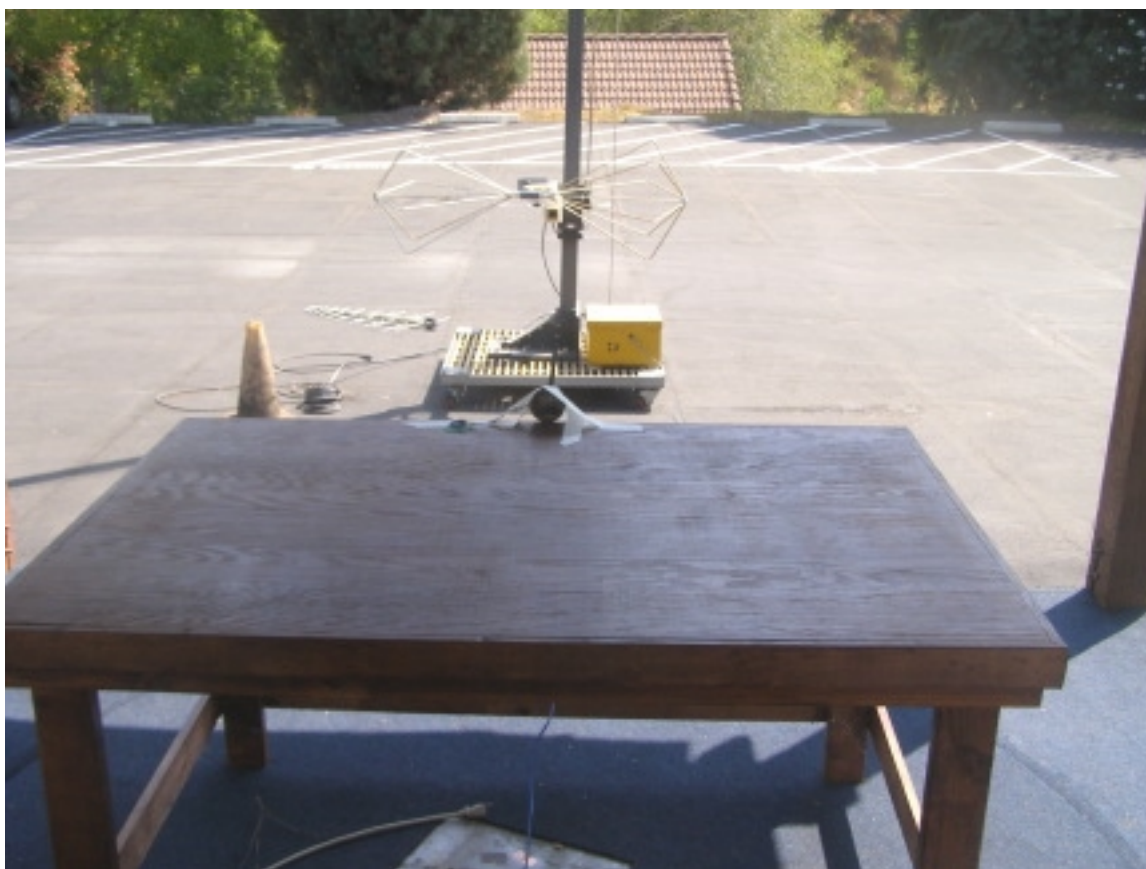
COM-POWER AH826

HORN ANTENNA

S/N: 71957

CALIBRATION DATE: DECEMBER 12, 2007

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



FRONT VIEW

ITERIS, INC.
WIRELESS MODULE ASSEMBLY
P/N: 493473801
FCC SUBPART B AND C – 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
19121 El Toro Road
Silverado, CA 92676
(949) 589-0700

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



REAR VIEW

ITERIS, INC.
WIRELESS MODULE ASSEMBLY
P/N: 493473801
FCC SUBPART B AND C – RADIATED EMISSIONS

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



FRONT VIEW

ITERIS, INC.
WIRELESS MODULE ASSEMBLY
P/N: 493473801
FCC SUBPART B AND C – CONDUCTED 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
19121 El Toro Road
Silverado, CA 92676
(949) 589-0700

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



REAR VIEW

ITERIS, INC.
WIRELESS MODULE ASSEMBLY
P/N: 493473801
FCC SUBPART B AND C – CONDUCTED EMISSIONS

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

APPENDIX E

DATA SHEETS

RADIATED EMISIONS

DATA SHEETS

FCC 15.247

Iteris, Inc.
Wireless Module Assembly
P/N: 43473801

Date: 09/03/09
Lab: B
Tested By: Kyle Fujimoto

Low Channel

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2405	113.32	V	--	--	Peak	1.52	225	
2405	109.16	V	--	--	Avg	1.52	225	
4810	55.82	V	74	-18.18	Peak	1.35	0	
4810	46.57	V	54	-7.43	Avg	1.35	0	
7215	52.19	V	74	-21.81	Peak	1.35	225	
7215	41.11	V	54	-12.89	Avg	1.35	225	
9620								No Emission
9620								Detected
12025								No Emission
12025								Detected
14430								No Emission
14430								Detected
16835								No Emission
16835								Detected
19240								No Emission
19240								Detected
21645								No Emission
21645								Detected
24050								No Emission
24050								Detected

FCC 15.247

Iteris, Inc.
Wireless Module Assembly
P/N: 43473801

Date: 09/03/09
Lab: B
Tested By: Kyle Fujimoto

Low Channel

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2405	108.35	H	--	--	Peak	1.25	225	
2405	103.88	H	--	--	Avg	1.25	225	
4810	56.15	H	74	-17.85	Peak	1.48	315	
4810	47.13	H	54	-6.87	Avg	1.48	315	
7215	51.55	H	74	-22.45	Peak	1.53	225	
7215	37.22	H	54	-16.78	Avg	1.53	225	
9620								No Emission
9620								Detected
12025								No Emission
12025								Detected
14430								No Emission
14430								Detected
16835								No Emission
16835								Detected
19240								No Emission
19240								Detected
21645								No Emission
21645								Detected
24050								No Emission
24050								Detected

FCC 15.247

Iteris, Inc.
Wireless Module Assembly
P/N: 43473801

Date: 09/03/09
Lab: B
Tested By: Kyle Fujimoto

Middle Channel

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2440	109.48	V	--	--	Peak	1.35	150	
2440	105.05	V	--	--	Avg	1.35	150	
4880	49.08	V	74	-24.92	Peak	1.35	180	
4880	44.56	V	54	-9.44	Avg	1.35	180	
7320	49.74	V	74	-24.26	Peak	1.55	155	
7320	44.58	V	54	-9.42	Avg	1.55	155	
9760								No Emission
9760								Detected
12200								No Emission
12200								Detected
14640								No Emission
14640								Detected
17080								No Emission
17080								Detected
19520								No Emission
19520								Detected
21960								No Emission
21960								Detected
24400								No Emission
24400								Detected

FCC 15.247

Iteris, Inc.
Wireless Module Assembly
P/N: 43473801

Date: 09/03/09
Lab: B
Tested By: Kyle Fujimoto

Middle Channel

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2440	102.63	H	--	--	Peak	1.35	225	
2440	96.91	H	--	--	Avg	1.35	225	
4880	51.89	H	74	-22.11	Peak	1.26	45	
4880	40.91	H	54	-13.09	Avg	1.26	45	
7320	47.51	H	74	-26.49	Peak	1.35	150	
7320	35.71	H	54	-18.29	Avg	1.35	150	
9760								No Emission
9760								Detected
12200								No Emission
12200								Detected
14640								No Emission
14640								Detected
17080								No Emission
17080								Detected
19520								No Emission
19520								Detected
21960								No Emission
21960								Detected
24400								No Emission
24400								Detected

FCC 15.247

Iteris, Inc.
Wireless Module Assembly
P/N: 43473801

Date: 09/03/09
Lab: B
Tested By: Kyle Fujimoto

High Channel

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2475	109.05	V	--	--	Peak	1	180	
2475	104.33	V	--	--	Avg	1	180	
4950	42.73	V	74	-31.27	Peak	1.35	150	
4950	30.07	V	54	-23.93	Avg	1.35	150	
7425	45.65	V	74	-28.35	Peak	1.58	135	
7425	34.37	V	54	-19.63	Avg	1.58	135	
9900		V	--	--	Peak			No Emission
9900		V	--	--	Avg			Detected
12375		V	74	-74	Peak			No Emission
12375		V	54	-54	Avg			Detected
14850		V	74	-74	Peak			No Emission
14850		V	54	-54	Avg			Detected
17325		V	74	-74	Peak			No Emission
17325		V	54	-54	Avg			Detected
19800		V	74	-74	Peak			No Emission
19800		V	54	-54	Avg			Detected
22275		V	74	-74	Peak			No Emission
22275		V	54	-54	Avg			Detected
24750		V	74	-74	Peak			No Emission
24750		V	54	-54	Avg			Detected

FCC 15.247

Iteris, Inc.
Wireless Module Assembly
P/N: 43473801

Date: 09/03/09
Lab: B
Tested By: Kyle Fujimoto

High Channel

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2475	102.77	H	--	--	Peak	1.52	225	
2475	98.25	H	--	--	Avg	1.52	225	
4950	45.53	H	74	-28.47	Peak	2.05	0	
4950	35.53	H	54	-18.47	Avg	2.05	0	
7425	45.81	H	74	-28.19	Peak	2.15	225	
7425	35.41	H	54	-18.59	Avg	2.15	225	
9900								No Emission
9900								Detected
12375								No Emission
12375								Detected
14850								No Emission
14850								Detected
17325								No Emission
17325								Detected
19800								No Emission
19800								Detected
22275								No Emission
22275								Detected
24750								No Emission
24750								Detected

Test Location : Compatible Electronics
Customer : Iteris, Inc.
Manufacturer : Iteris, Inc
Eut name : Traffic Camera
Part # : Versicam Wireless
Serial # : P100092261615
Specification : FCC B
Distance correction factor ($20 * \log(\text{test}/\text{spec})$) : 0.00
Test Type: Radiated Emissions (Qualification)
Test Range: 10 kHz to 1 GHz (Vertical and Horizontal)
Clocks: 8 MHz and 32 MHz
Test Engineer: James Ross

Page : 1/1
Date : 8/13/2009
Time : 8:35:39
Lab : A
Test Distance : 3 Meters

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
V	127.311	53.90	2.63	12.54	33.51	35.56	43.50	-7.94
V	54.883	51.40	1.45	10.22	33.55	29.52	40.00	-10.48
V	144.065	54.70	2.83	11.97	33.58	35.93	43.50	-7.57
V	160.063	49.40	2.94	12.61	33.64	31.31	43.50	-12.19
V	200.052	45.60	3.40	16.80	33.40	32.40	43.50	-11.10
V	245.129	48.20	3.73	16.53	33.40	35.05	46.00	-10.95
H	243.898	39.60	3.71	16.53	33.40	26.44	46.00	-19.56
V	384.060	48.50	5.05	14.95	33.20	35.29	46.00	-10.71
H	320.066	45.20	4.47	13.36	33.32	29.71	46.00	-16.29
H	352.052	48.90	4.72	14.19	33.20	34.61	46.00	-11.39
H	384.058	53.30	5.05	14.95	33.20	40.09	46.00	-5.91
H	400.086	47.30	5.20	15.30	33.20	34.60	46.00	-11.40
H	432.086	48.40	5.40	16.06	33.13	36.72	46.00	-9.28
H	448.098	41.50	5.49	16.42	33.10	30.31	46.00	-15.69
H	464.061	45.30	5.68	16.76	33.04	34.70	46.00	-11.30
V	130.103	55.30	2.67	12.37	33.52	36.81	43.50	-6.69

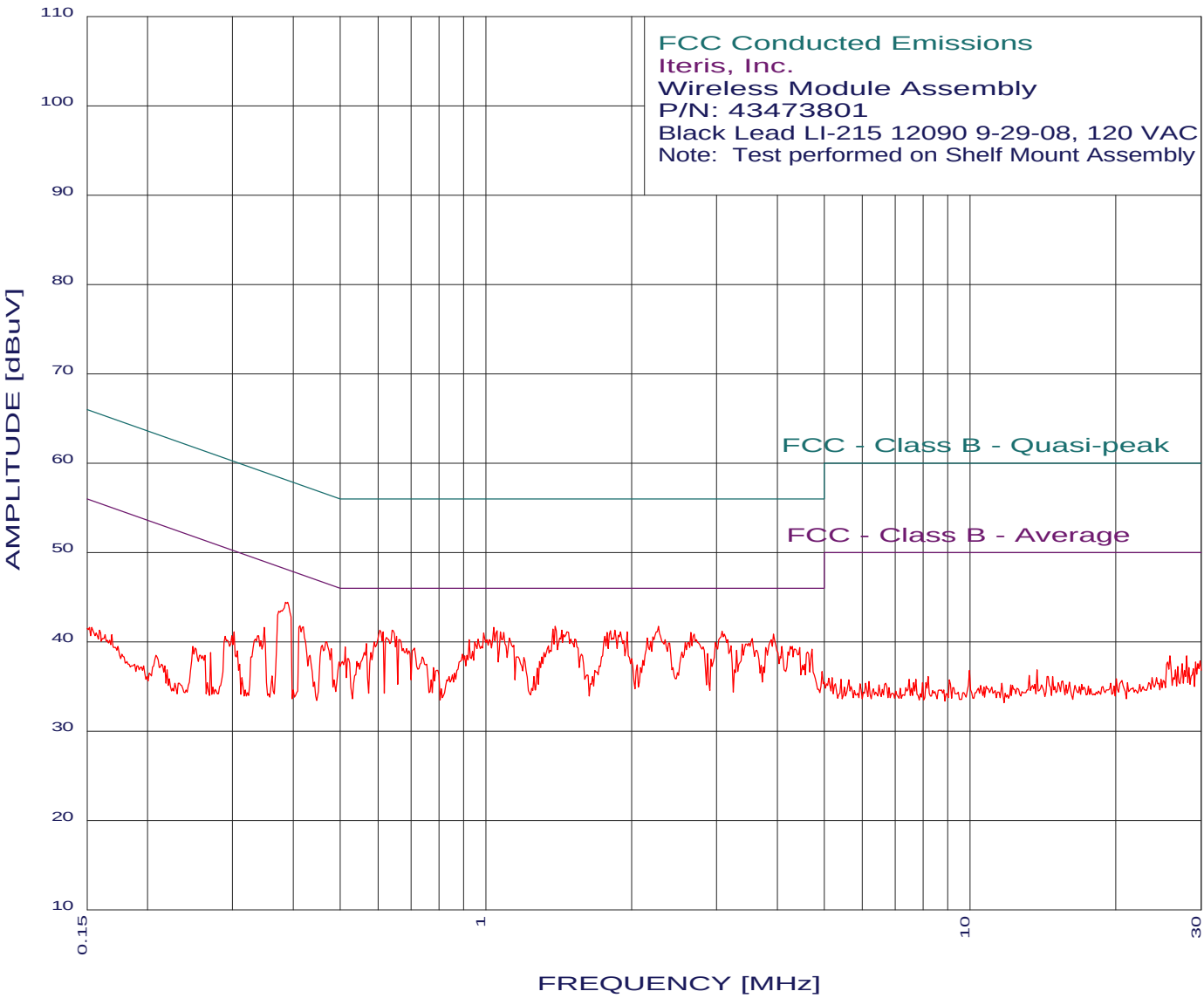
CONDUCTED EMISSIONS

DATA SHEETS



8/13/2009 13:17:07

EMISSION LEVEL [dBuV] PEAK
Graph for **Peak**



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

Iteris, Inc.
Wireless Module Assembly
P/N: 43473801
120 VAC - Black Lead
Test Engineer: James Ross

8/13/2009 13:17:07

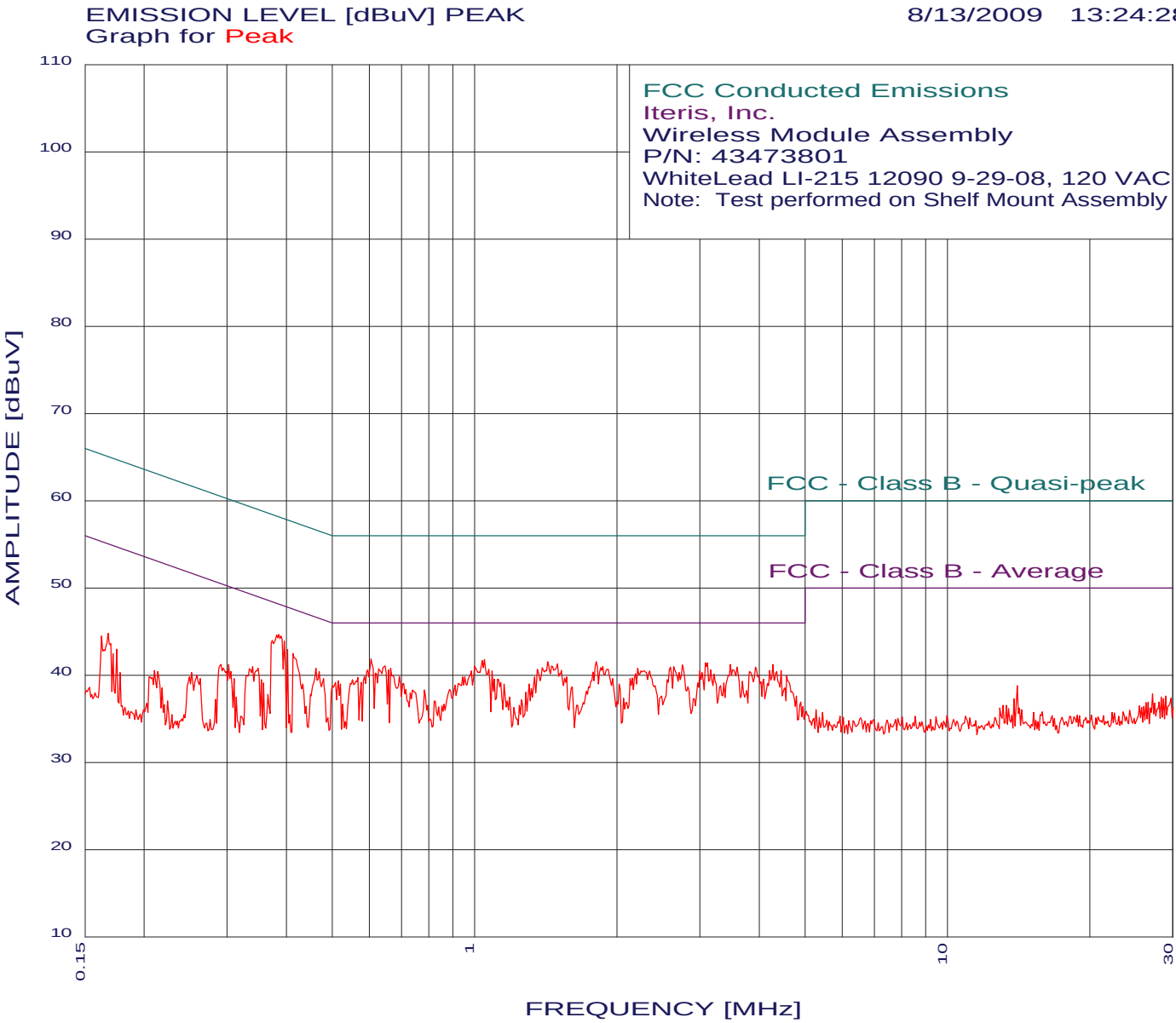
27 highest peaks above -50.00 dB of FCC - Class B - Average limit line

Peak criteria : 3.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.389	44.39	48.08	-3.69
2	2.274	41.72	46.00	-4.28
3	1.389	41.70	46.00	-4.30
4	1.038	41.60	46.00	-4.40
5	1.849	41.31	46.00	-4.69
6	0.641	41.30	46.00	-4.70
7	0.605	41.29	46.00	-4.71
8	3.075	41.13	46.00	-4.87
9	1.072	41.10	46.00	-4.90
10	2.651	41.02	46.00	-4.98
11	3.924	40.85	46.00	-5.15
12	3.547	40.34	46.00	-5.66
13	0.413	41.79	47.59	-5.80
14	0.665	40.20	46.00	-5.80
15	0.567	39.79	46.00	-6.21
16	0.469	39.99	46.53	-6.54
17	0.513	39.39	46.00	-6.61
18	0.713	39.30	46.00	-6.70
19	2.870	38.63	46.00	-7.37
20	0.348	41.58	49.00	-7.42
21	0.302	41.08	50.19	-9.11
22	25.875	38.43	50.00	-11.57
23	28.008	38.38	50.00	-11.62
24	0.270	38.78	51.11	-12.33
25	0.248	39.47	51.82	-12.34
26	13.776	36.84	50.00	-13.16
27	9.967	36.77	50.00	-13.23



8/13/2009 13:24:28



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

Iteris, Inc.
Wireless Module Assembly
P/N: 43473801
120 VAC - White Lead
Test Engineer: James Ross
Note: Test performed on Shelf Mount Assembly

8/13/2009 13:24:28

38 highest peaks above -50.00 dB of FCC - Class B - Average limit line

Peak criteria : 3.00 dB, Curve : Peak

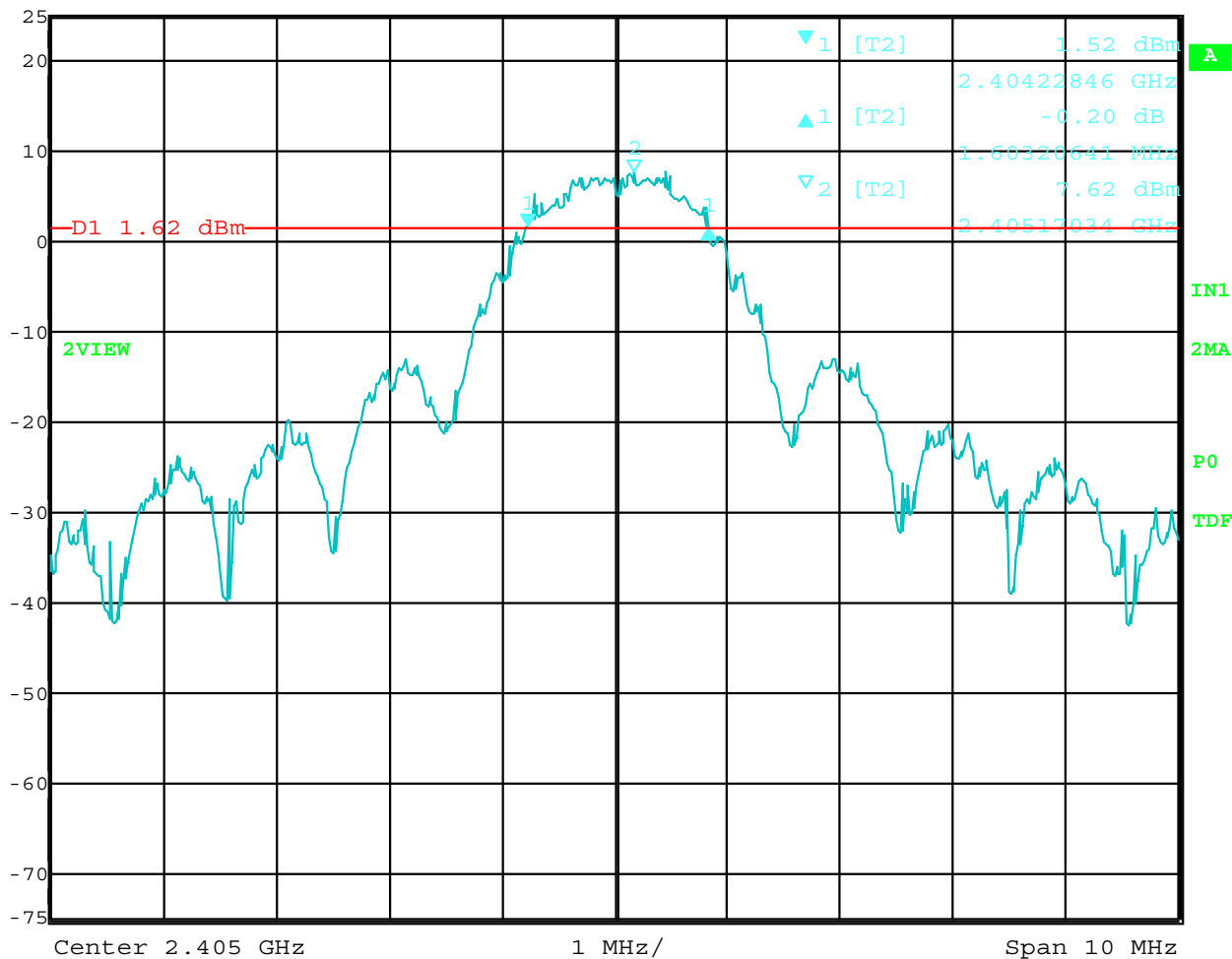
Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.385	44.69	48.16	-3.48
2	0.396	43.88	47.95	-4.06
3	0.605	41.83	46.00	-4.17
4	1.049	41.75	46.00	-4.25
5	1.810	41.56	46.00	-4.44
6	1.426	41.56	46.00	-4.44
7	3.107	41.39	46.00	-4.61
8	4.272	41.21	46.00	-4.79
9	3.474	41.19	46.00	-4.81
10	2.751	41.18	46.00	-4.82
11	0.402	42.88	47.81	-4.93
12	0.648	41.05	46.00	-4.95
13	3.924	40.90	46.00	-5.10
14	0.413	42.48	47.59	-5.11
15	0.665	40.80	46.00	-5.20
16	2.214	40.77	46.00	-5.23
17	0.658	40.62	46.00	-5.38
18	1.089	40.45	46.00	-5.55
19	0.461	40.78	46.67	-5.89
20	0.567	39.74	46.00	-6.26
21	0.516	39.37	46.00	-6.63
22	0.577	39.19	46.00	-6.81
23	0.783	38.25	46.00	-7.75
24	0.339	40.99	49.22	-8.23
25	0.291	41.19	50.49	-9.30
26	0.354	39.49	48.87	-9.38
27	0.358	39.09	48.78	-9.69
28	0.168	44.80	55.07	-10.27
29	0.310	39.59	49.97	-10.37
30	14.065	38.79	50.00	-11.21
31	0.252	40.30	51.68	-11.38
32	0.175	43.00	54.72	-11.72
33	27.143	37.84	50.00	-12.16
34	0.172	42.50	54.86	-12.36
35	0.313	37.49	49.88	-12.39
36	0.211	40.50	53.18	-12.68
37	13.848	37.28	50.00	-12.72
38	0.178	40.30	54.59	-14.29

-6 dB BANDWIDTH

DATA SHEETS



Ref Lvl 25 dBm Delta 1 [T2] -0.20 dB RBW 100 kHz RF Att 40 dB
Unit dBm 1.60320641 MHz VBW 300 kHz
SWT 5 ms

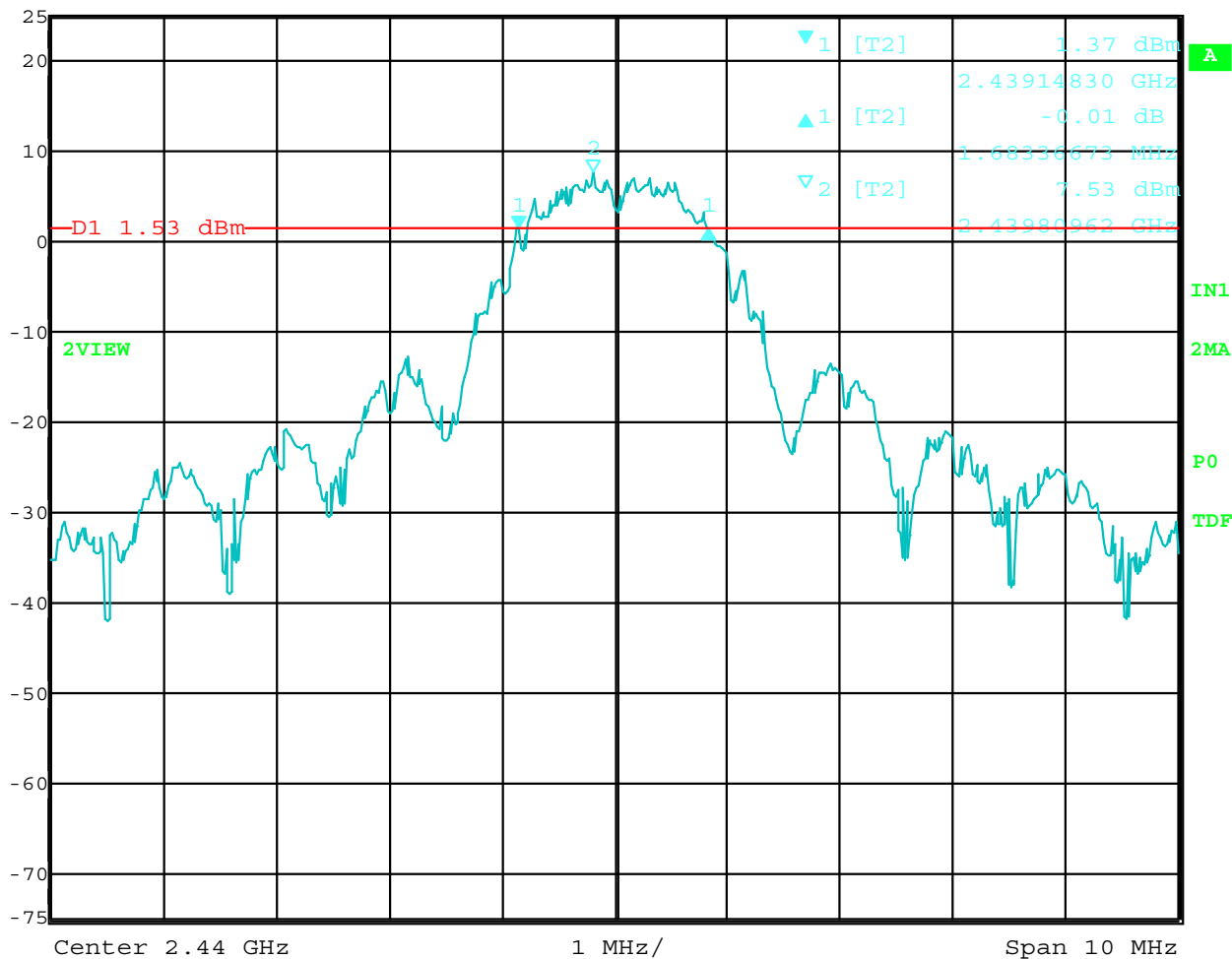


Date: 3.SEP.2009 14:28:07

6 dB Bandwidth of Fundamental – Low Channel



Delta 1 [T2] RBW 100 kHz RF Att 40 dB
Ref Lvl -0.01 dB VBW 300 kHz
25 dBm 1.68336673 MHz SWT 5 ms Unit dBm

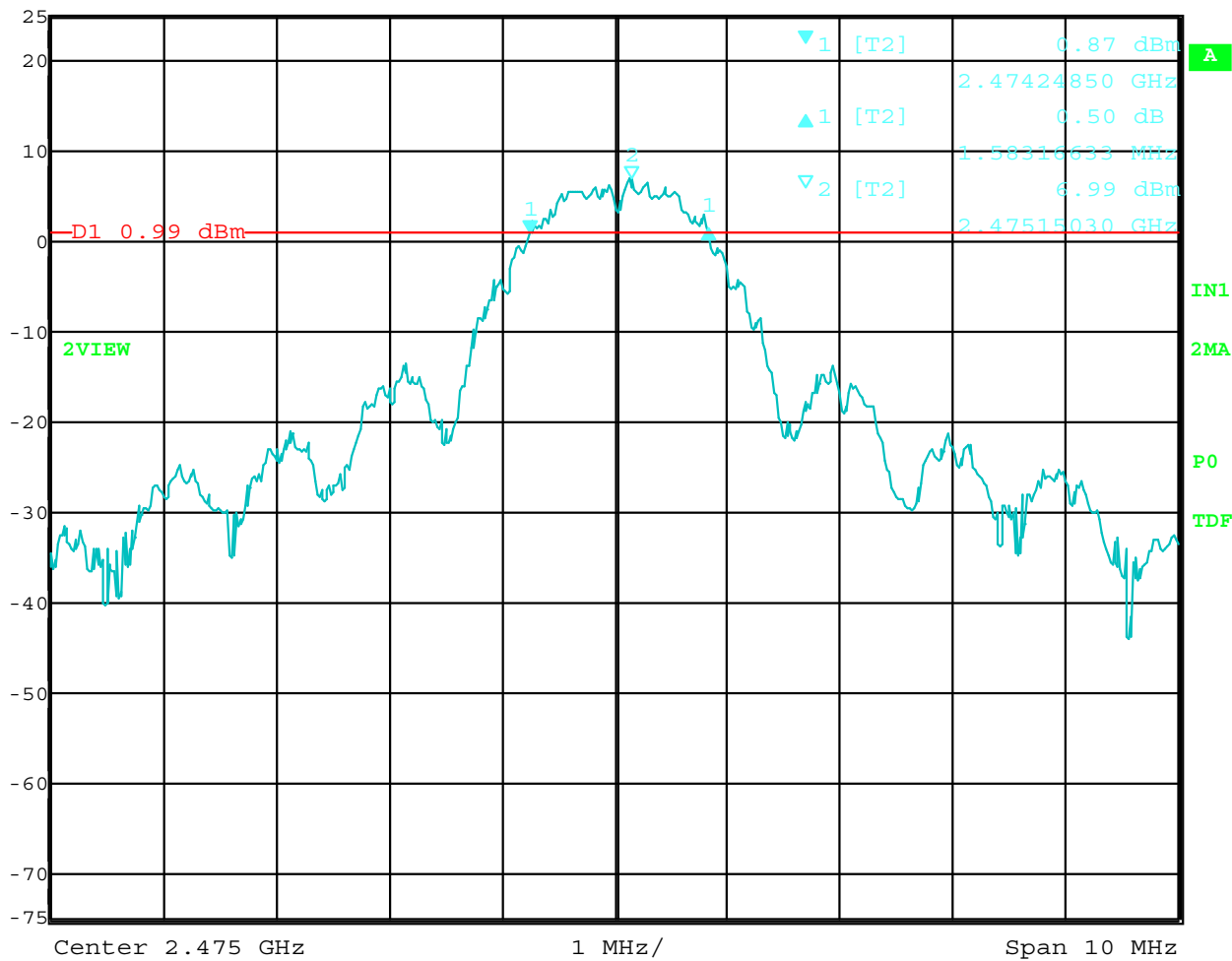


Date: 3.SEP.2009 13:19:20

6 dB Bandwidth of Fundamental – Middle Channel



Delta 1 [T2] RBW 100 kHz RF Att 40 dB
Ref Lvl 0.50 dB VBW 300 kHz
25 dBm 1.58316633 MHz SWT 5 ms Unit dBm



Date: 3.SEP.2009 13:48:28

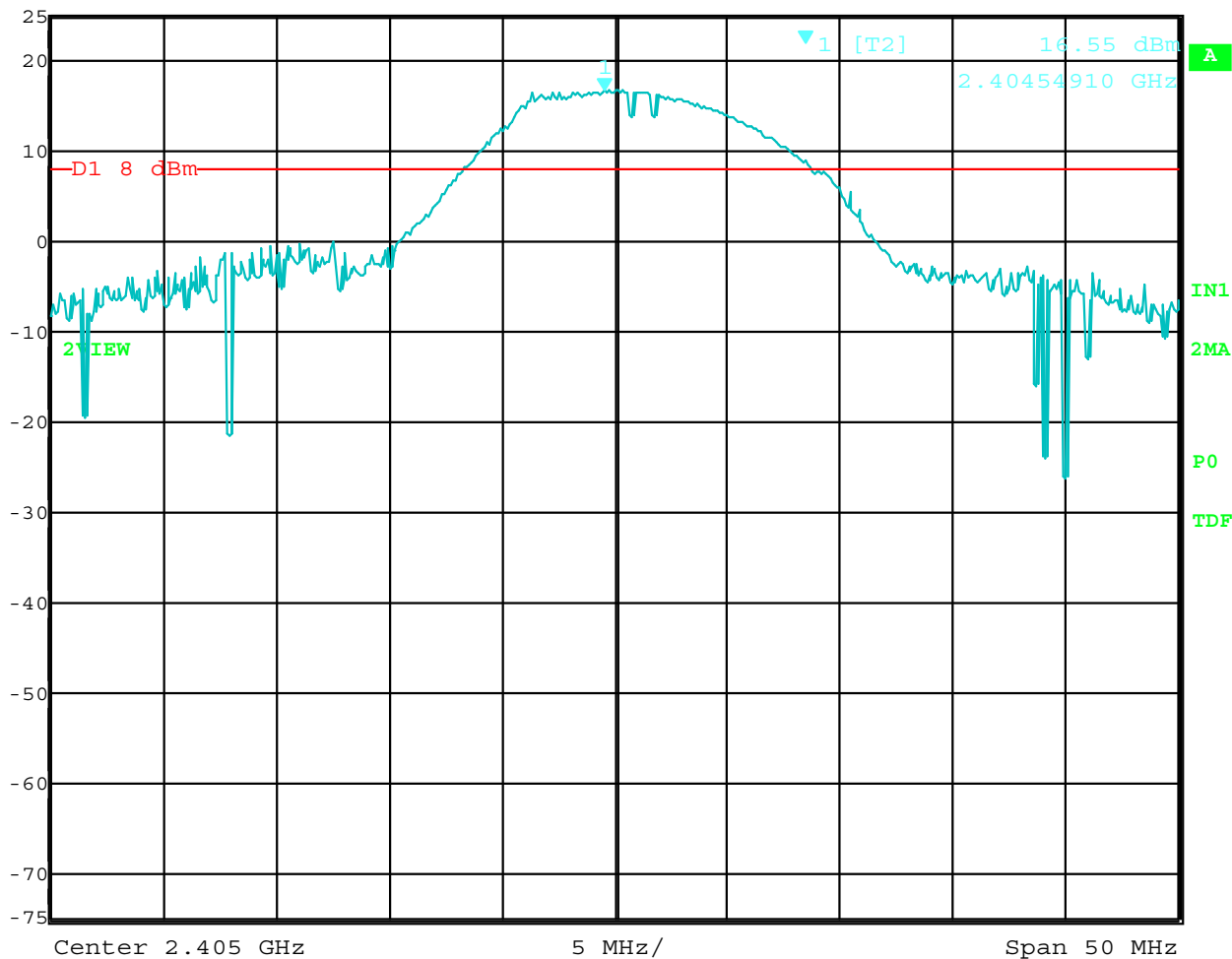
6 dB Bandwidth of Fundamental – High Channel

PEAK POWER OUTPUT

DATA SHEETS



Ref Lvl 25 dBm
Marker 1 [T2] 16.55 dBm
2.40454910 GHz
RBW 10 MHz
VBW 10 MHz
SWT 5 ms
RF Att 40 dB
Unit dBm

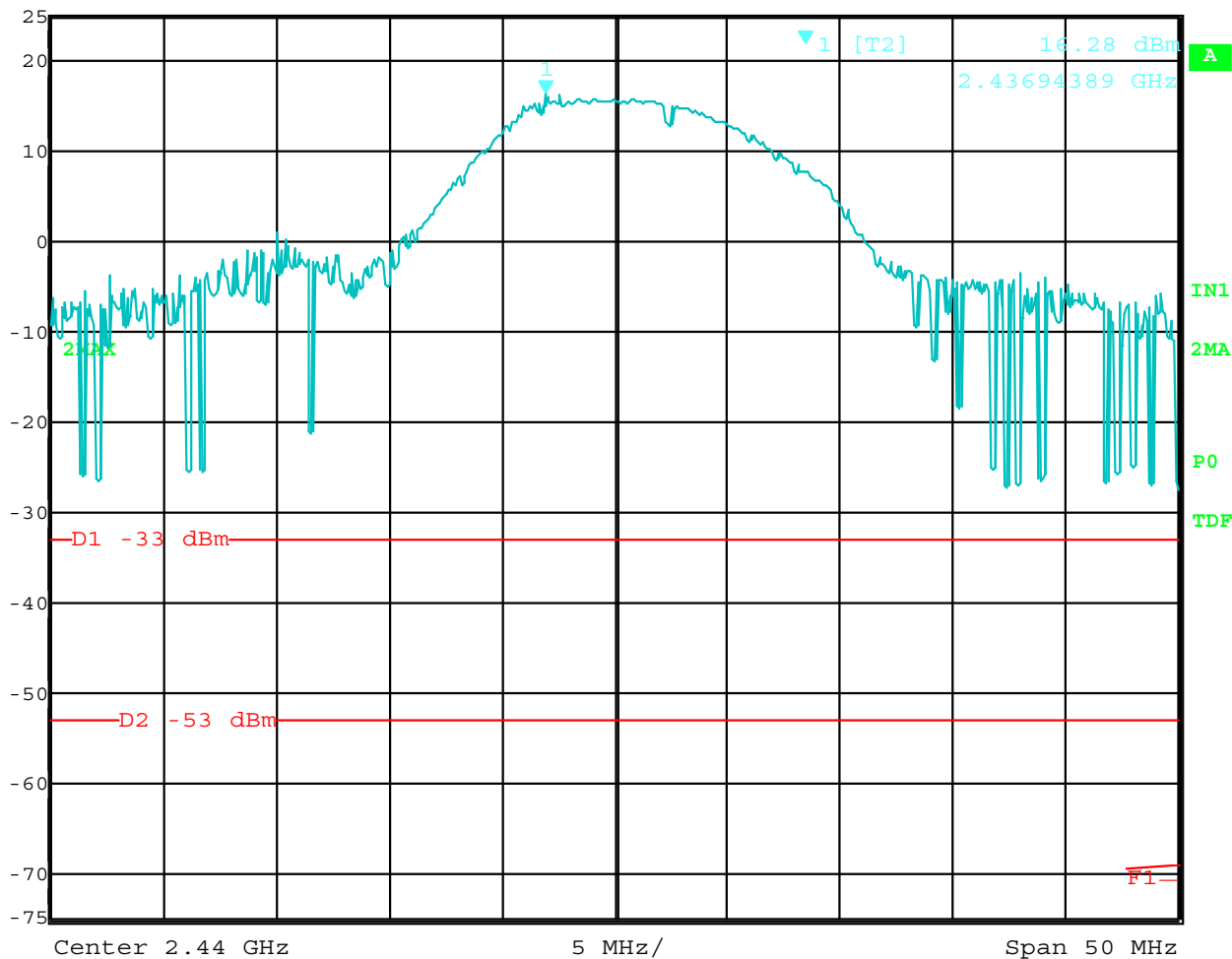


Date: 3.SEP.2009 14:22:07

Peak Power Output – Low Channel



Ref Lvl 25 dBm
Marker 1 [T2] 16.28 dBm
2.43694389 GHz
RBW 10 MHz
VBW 10 MHz
SWT 5 ms
RF Att 40 dB
Unit dBm

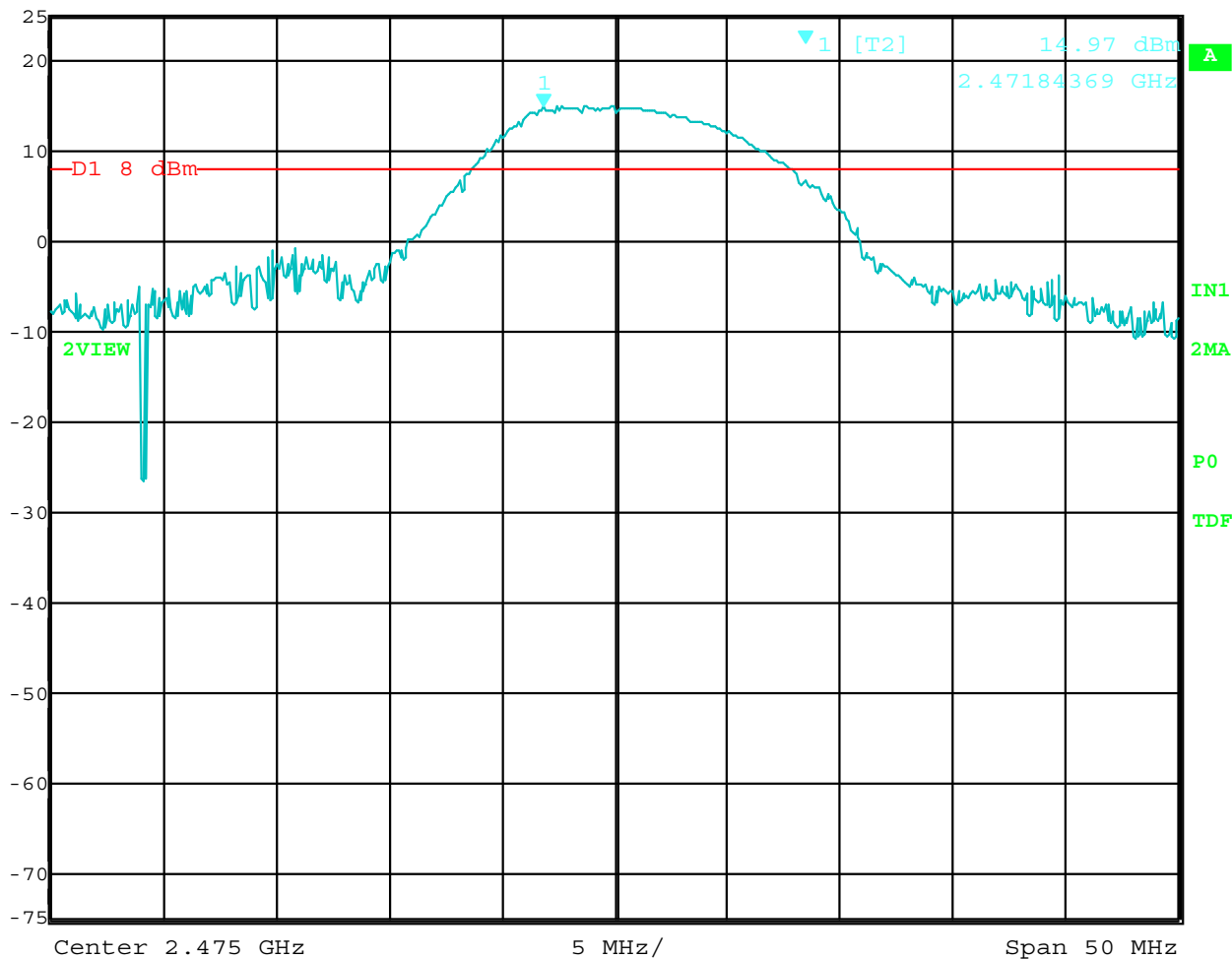


Date: 3.SEP.2009 13:17:18

Peak Power Output -Middle Channel



Ref Lvl 25 dBm
Marker 1 [T2] 14.97 dBm
2.47184369 GHz
RBW 10 MHz
RF Att 40 dB
VBW 10 MHz
SWT 5 ms
Unit dBm



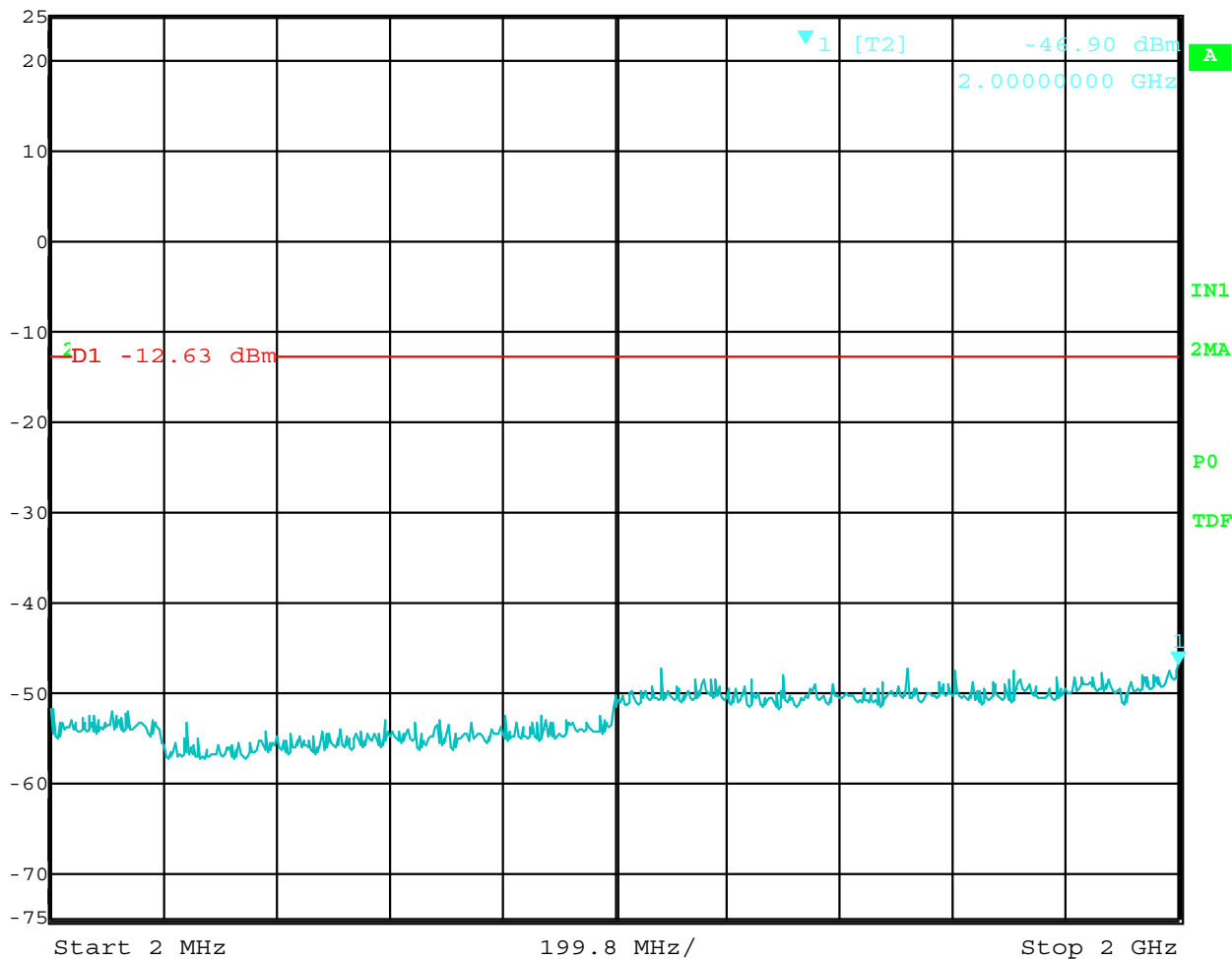
Date: 3.SEP.2009 13:44:19

Peak Power Output – High Channel

RF CONDUCTED ANTENNA TEST
DATA SHEETS



Ref Lvl 25 dBm
Marker 1 [T2] -46.90 dBm
2.00000000 GHz
RBW 100 kHz RF Att 40 dB
VBW 300 kHz
SWT 1.15 s Unit dBm

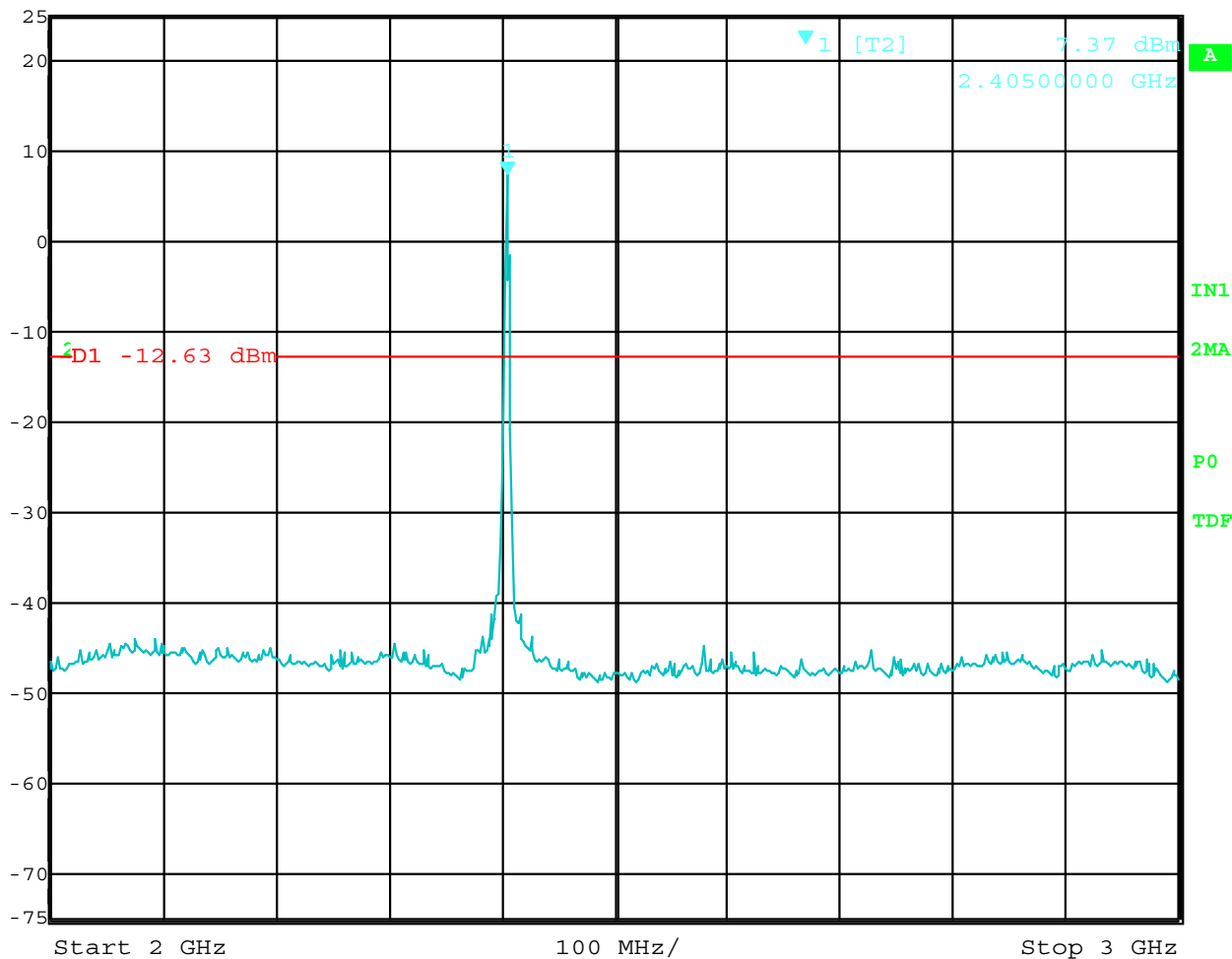


Date: 3.SEP.2009 14:30:49

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



Ref Lvl 25 dBm
Marker 1 [T2] 7.37 dBm
2.40500000 GHz
RBW 100 kHz RF Att 40 dB
VBW 300 kHz
SWT 250 ms Unit dBm

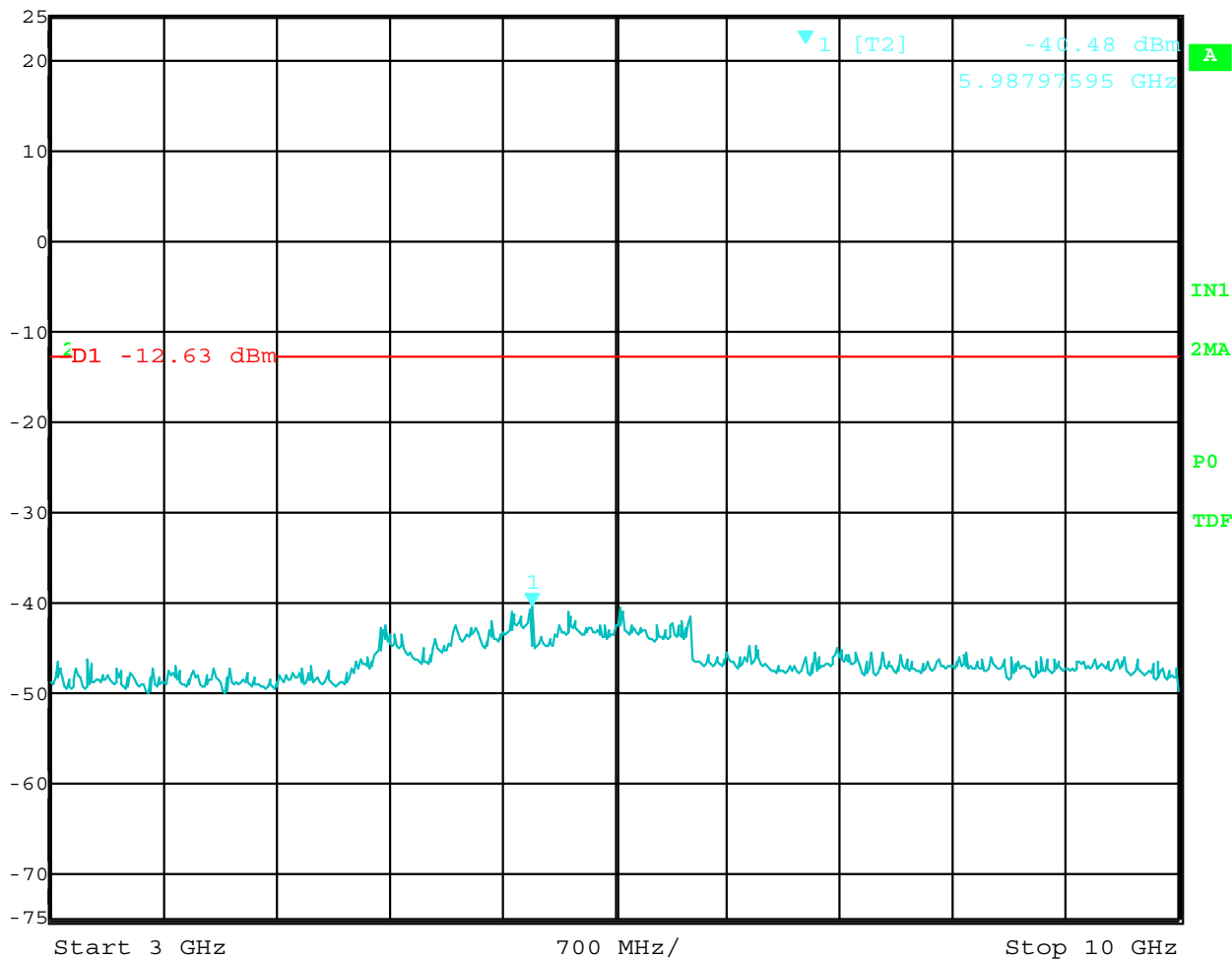


Date: 3.SEP.2009 14:30:07

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



Ref Lvl 25 dBm
Marker 1 [T2] -40.48 dBm
5.98797595 GHz
RBW 100 kHz
RF Att 40 dB
VBW 300 kHz
SWT 1.75 s
Unit dBm

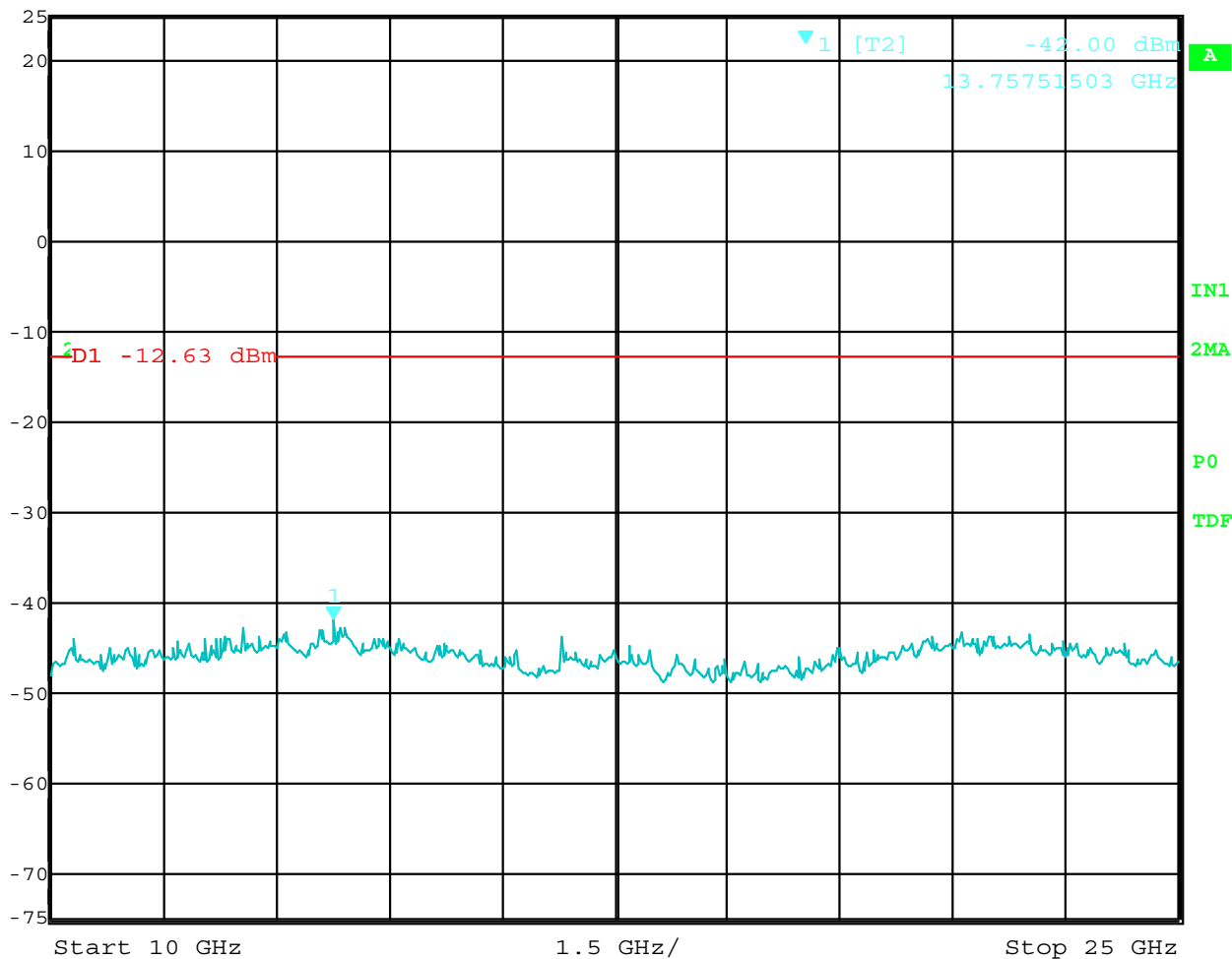


Date: 3.SEP.2009 14:31:29

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



Ref Lvl 25 dBm Marker 1 [T2] RBW 100 kHz RF Att 40 dB
-42.00 dBm VBW 300 kHz
13.75751503 GHz SWT 3.8 s Unit dBm

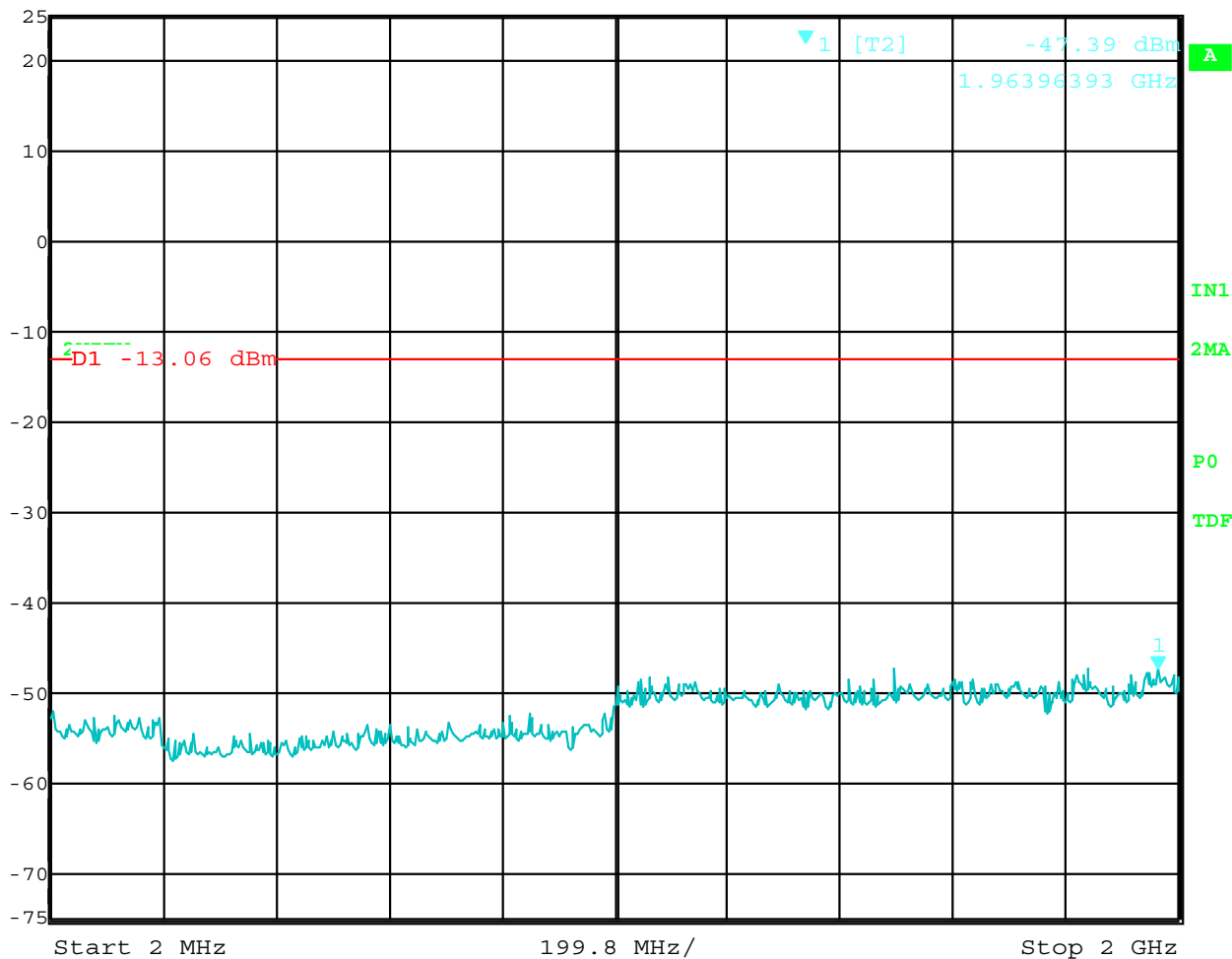


Date: 3.SEP.2009 14:32:32

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



Ref Lvl	Marker 1 [T2]	RBW	100 kHz	RF Att	40 dB
25 dBm	-47.39 dBm	VBW	300 kHz		
	1.96396393 GHz	SWT	1.15 s	Unit	dBm

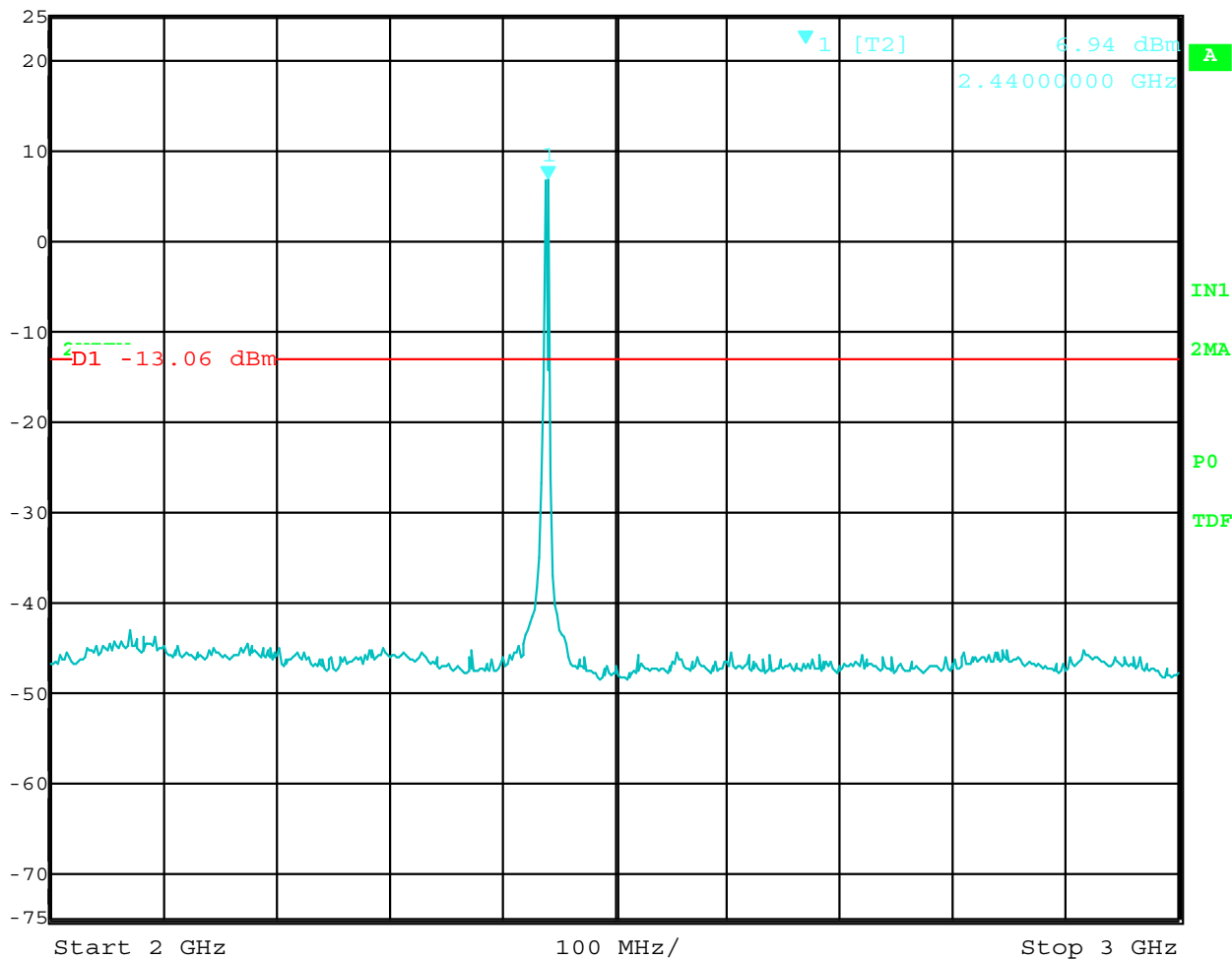


Date: 3.SEP.2009 13:25:59

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



Ref Lvl 25 dBm
Marker 1 [T2] 6.94 dBm
2.44000000 GHz
RBW 100 kHz RF Att 40 dB
VBW 300 kHz
SWT 250 ms Unit dBm

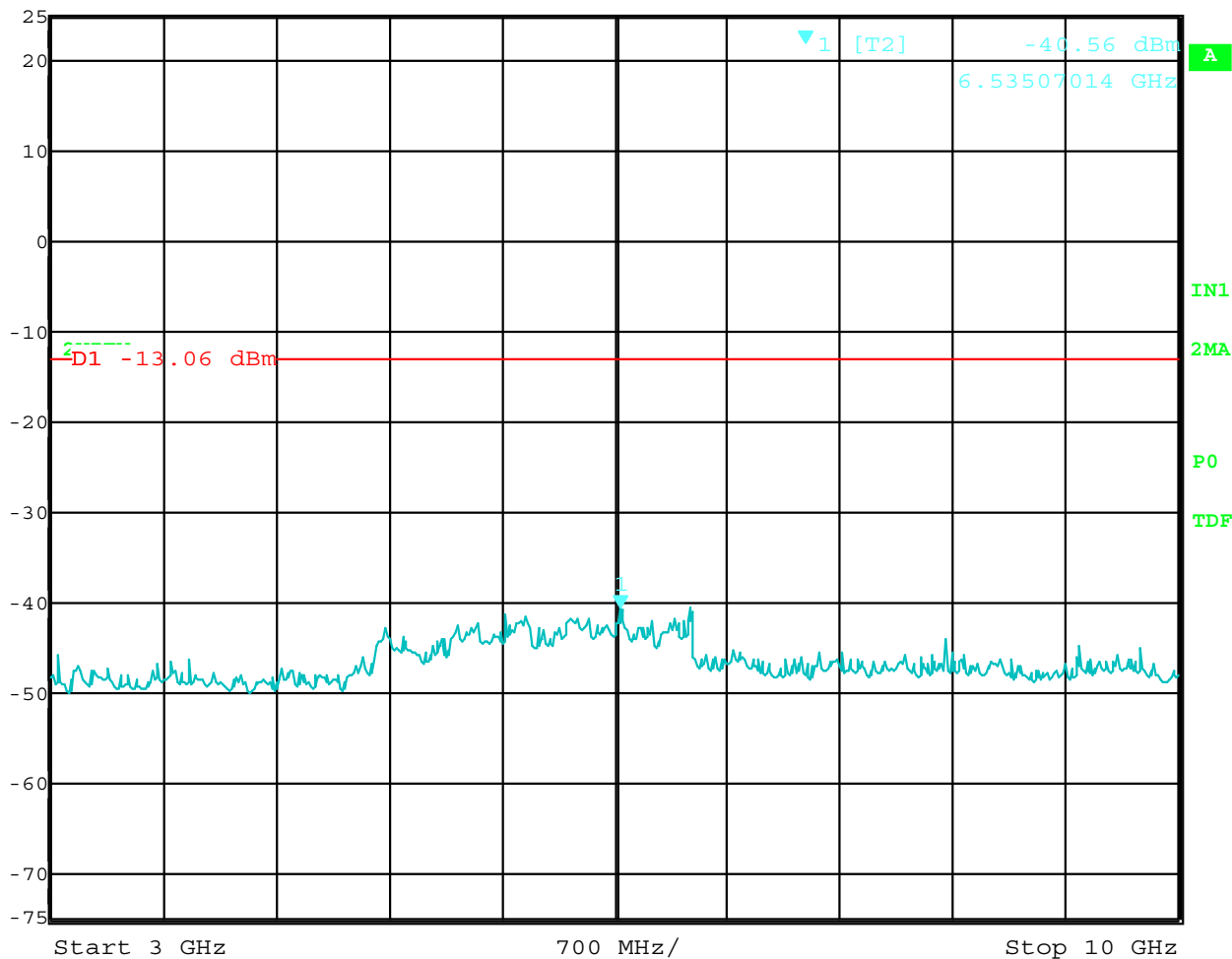


Date: 3.SEP.2009 13:25:32

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



Ref Lvl 25 dBm
Marker 1 [T2] -40.56 dBm
6.53507014 GHz
RBW 100 kHz RF Att 40 dB
VBW 300 kHz
SWT 1.75 s Unit dBm

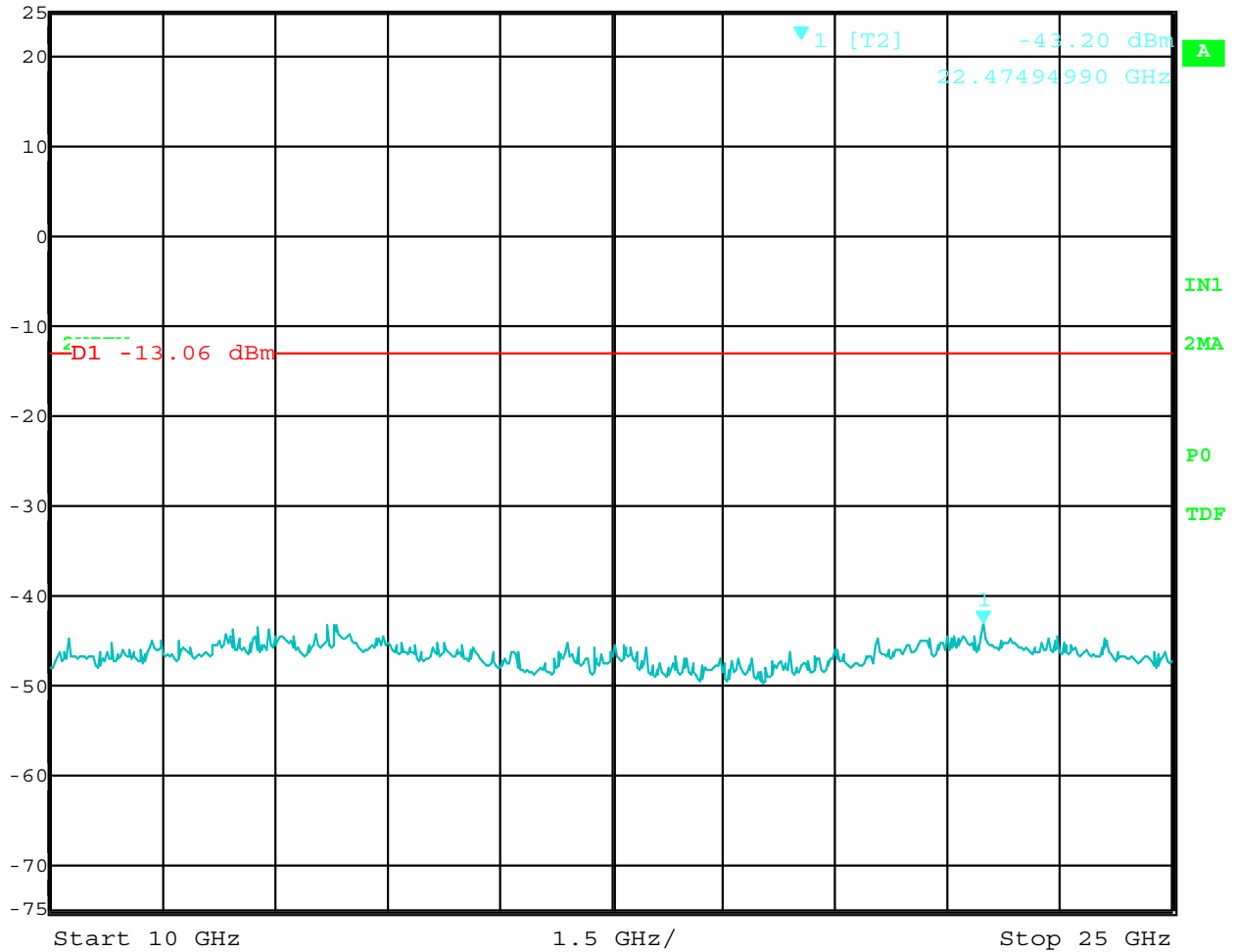


Date: 3.SEP.2009 13:26:55

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



Ref Lvl 25 dBm Marker 1 [T2] RBW 100 kHz RF Att 40 dB
-43.20 dBm VBW 300 kHz
22.47494990 GHz SWT 3.8 s Unit dBm

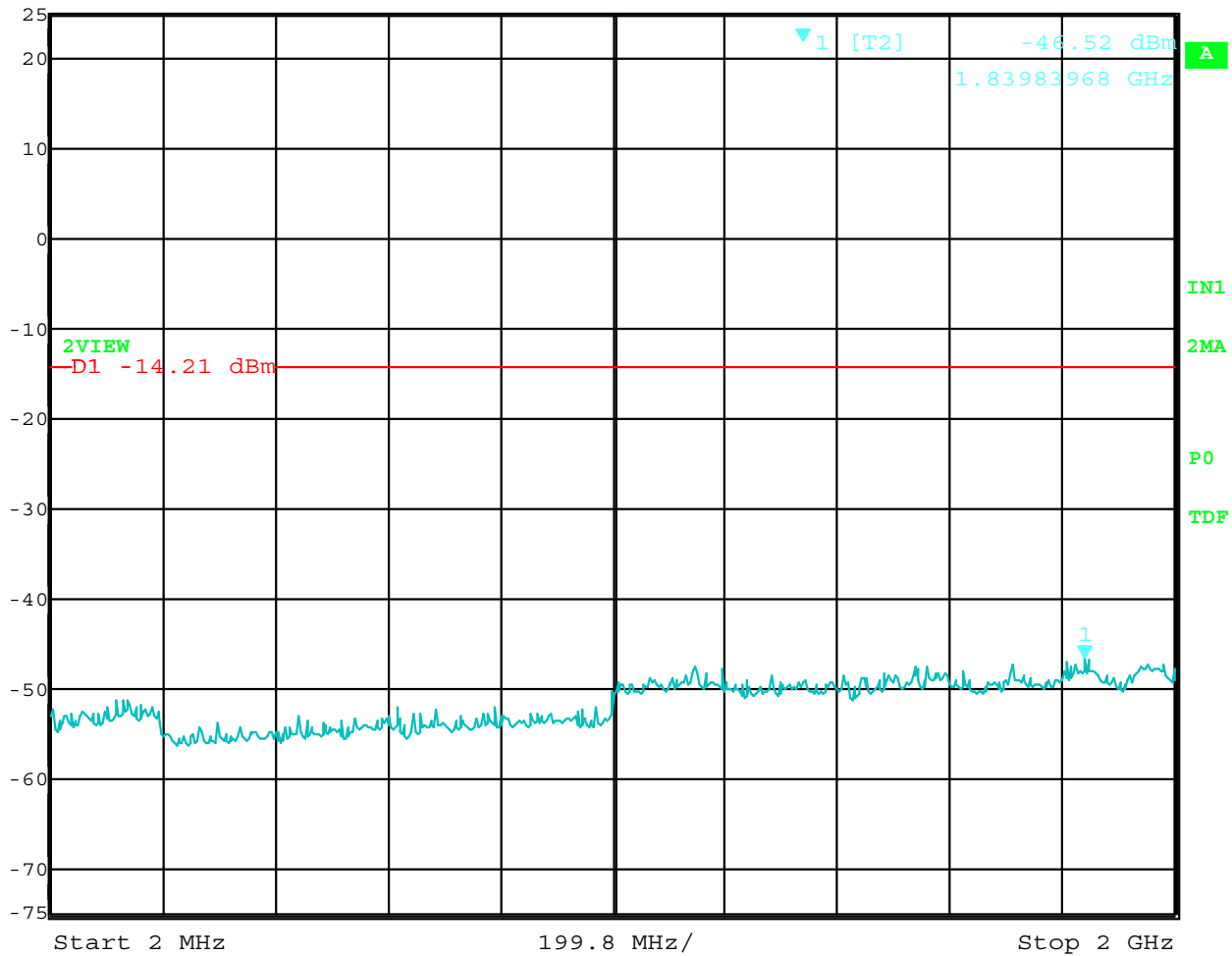


Date: 3.SEP.2009 13:27:23

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



Ref Lvl 25 dBm Marker 1 [T2] RBW 100 kHz RF Att 40 dB
-46.52 dBm VBW 300 kHz
1.83983968 GHz SWT 1.15 s Unit dBm

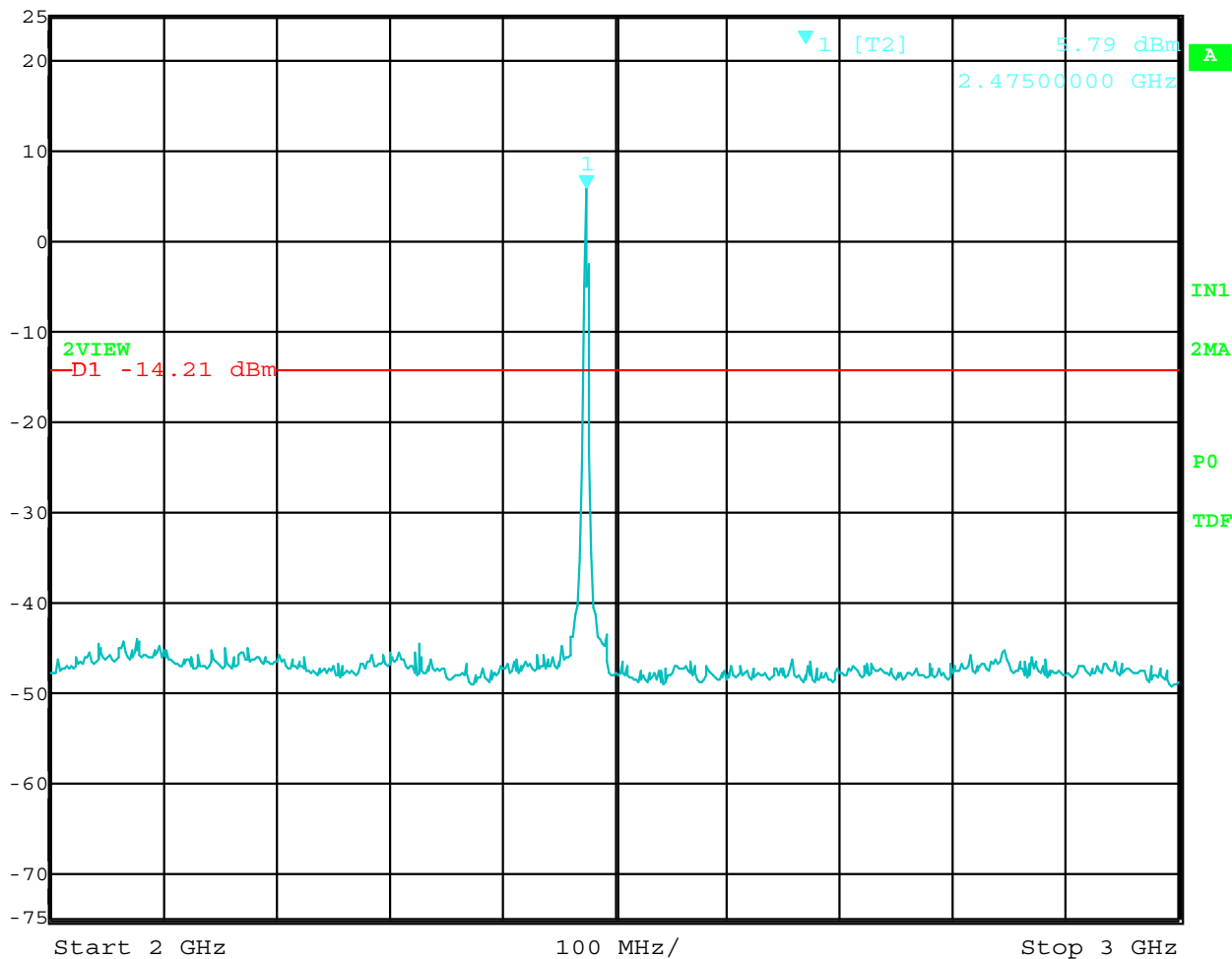


Date: 3.SEP.2009 13:51:59

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



Ref Lvl 25 dBm
Marker 1 [T2] 5.79 dBm
2.47500000 GHz
RBW 100 kHz RF Att 40 dB
VBW 300 kHz
SWT 250 ms Unit dBm

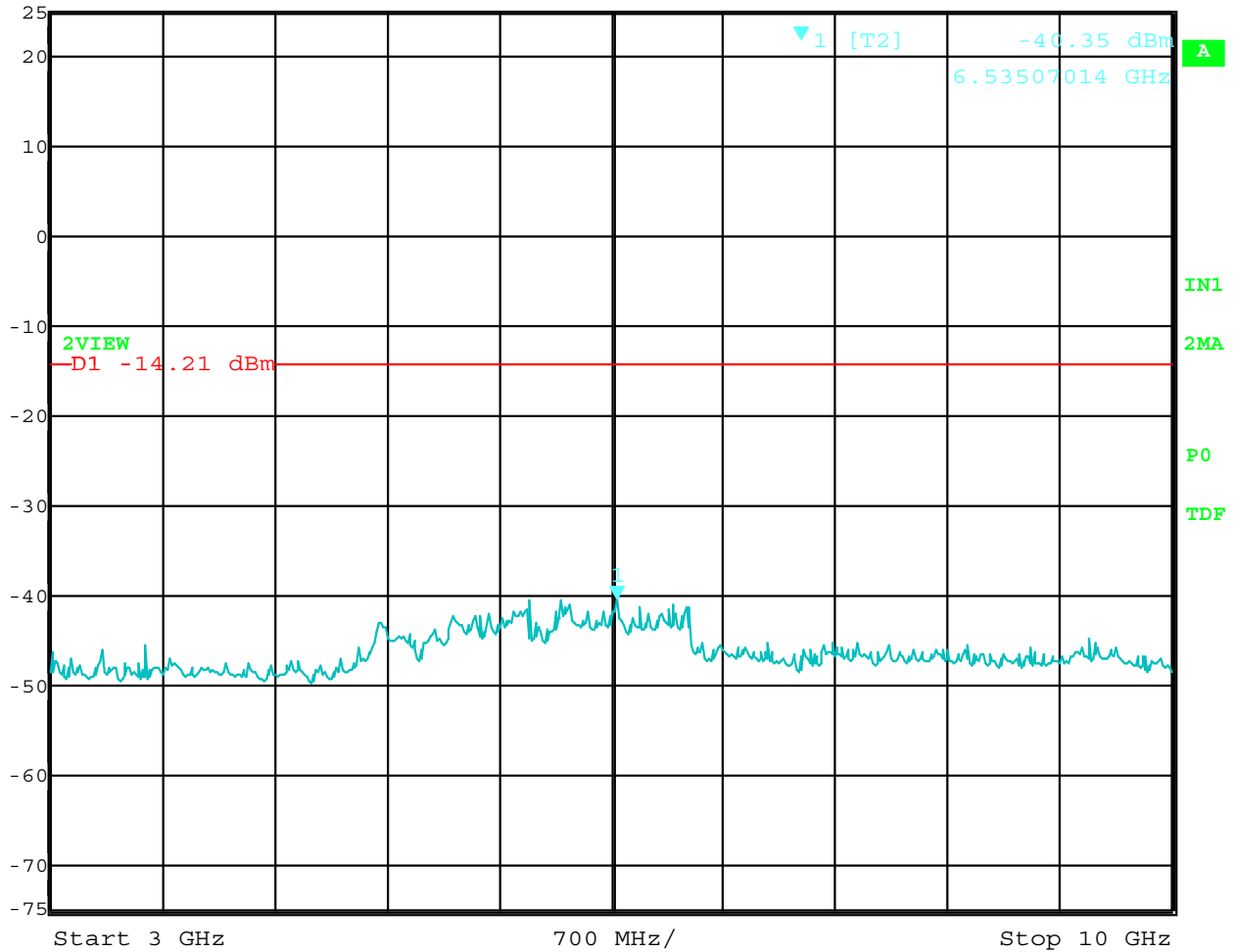


Date: 3.SEP.2009 13:51:07

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



Ref Lvl 25 dBm
Marker 1 [T2] -40.35 dBm
6.53507014 GHz
RBW 100 kHz RF Att 40 dB
VBW 300 kHz
SWT 1.75 s Unit dBm

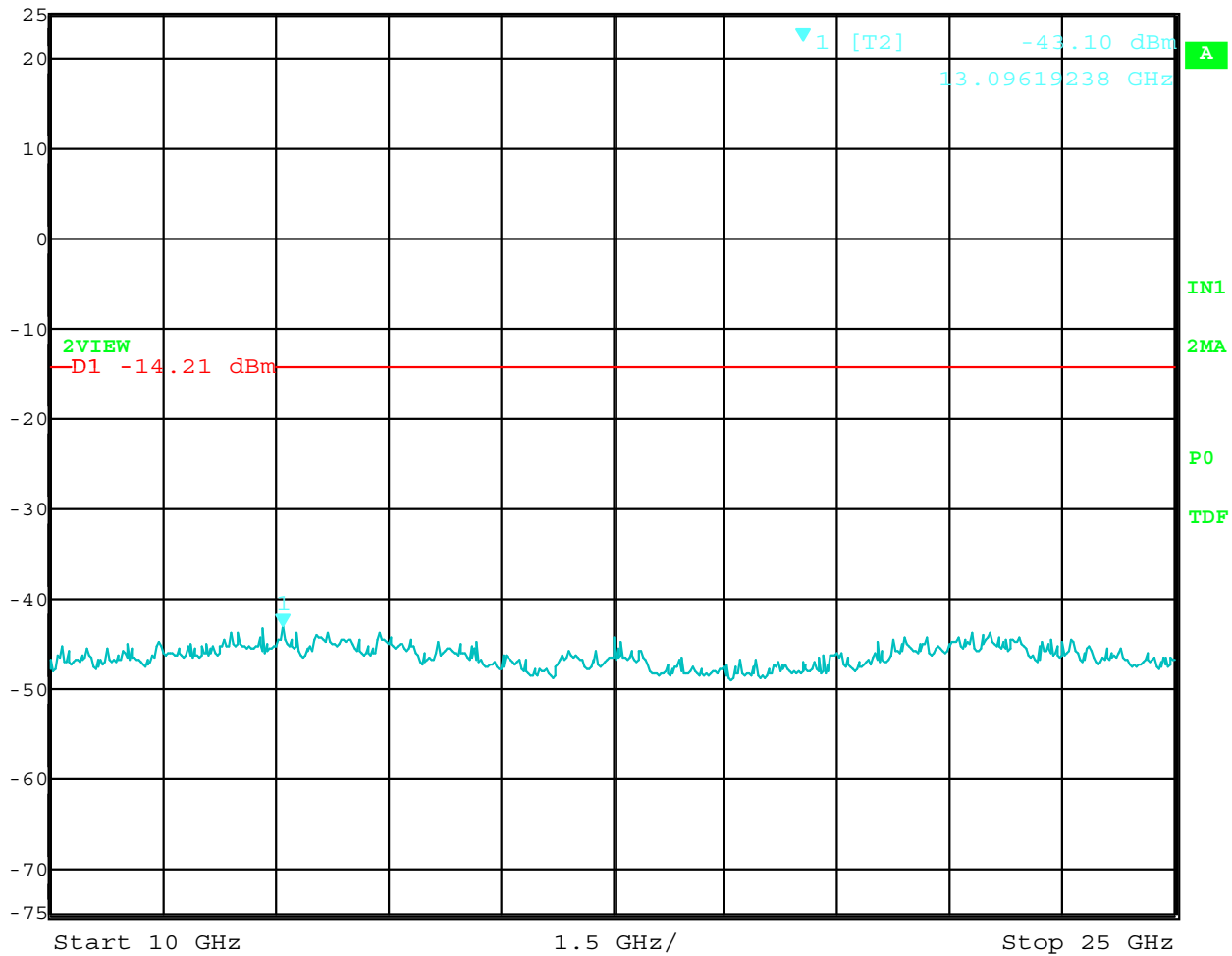


Date: 3.SEP.2009 13:53:20

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



Ref Lvl 25 dBm
Marker 1 [T2] -43.10 dBm
13.09619238 GHz
RBW 100 kHz RF Att 40 dB
VBW 300 kHz
SWT 3.8 s Unit dBm



Date: 3.SEP.2009 13:54:01

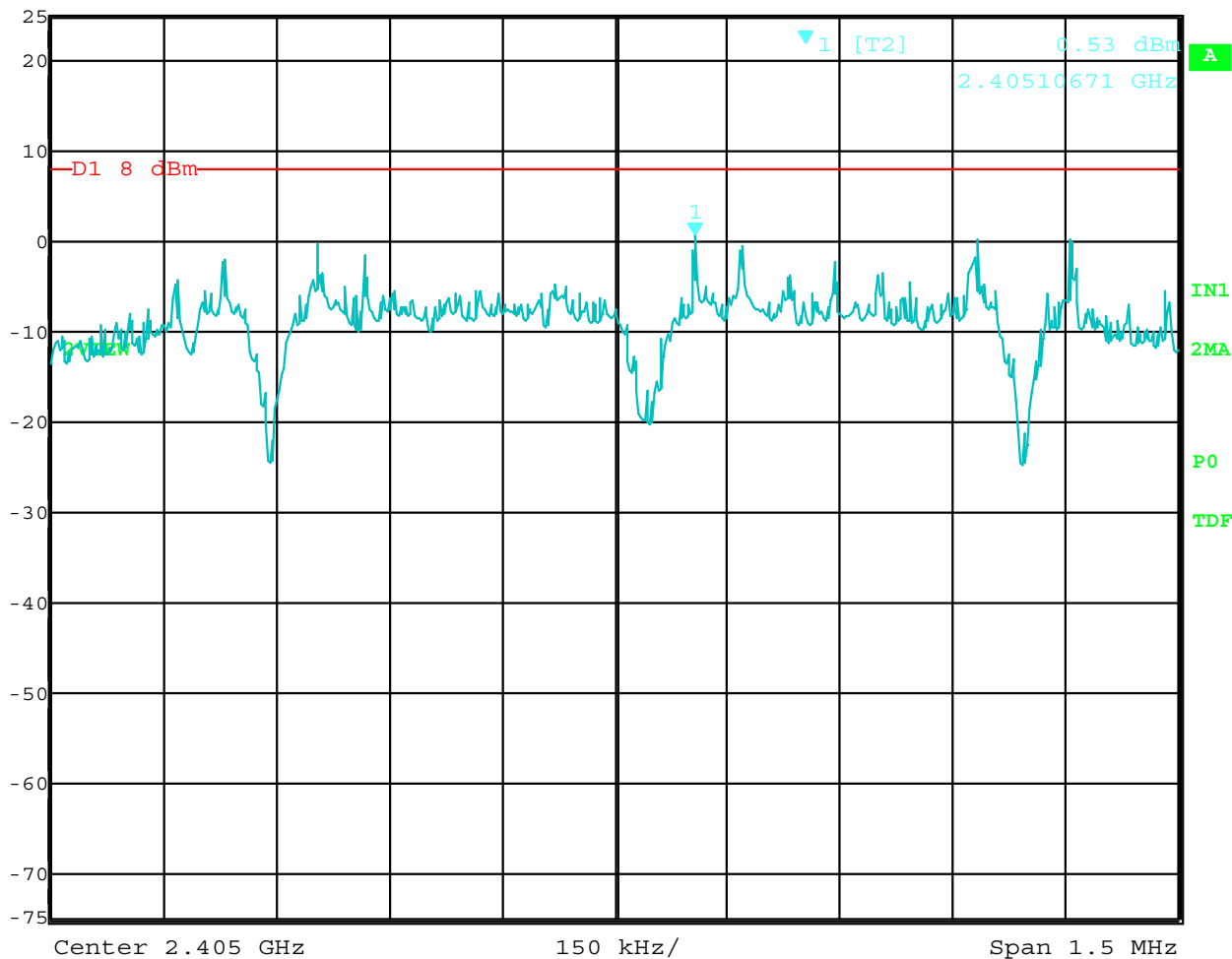
RF Antenna Conducted Test – High Channel – 10 GHz to 25 GHz

SPECTRAL DENSITY OUTPUT

DATA SHEETS



Ref Lvl 25 dBm Marker 1 [T2] 0.53 dBm RBW 3 kHz RF Att 40 dB
2.40510671 GHz VBW 10 kHz Unit dBm
SWT 500 s

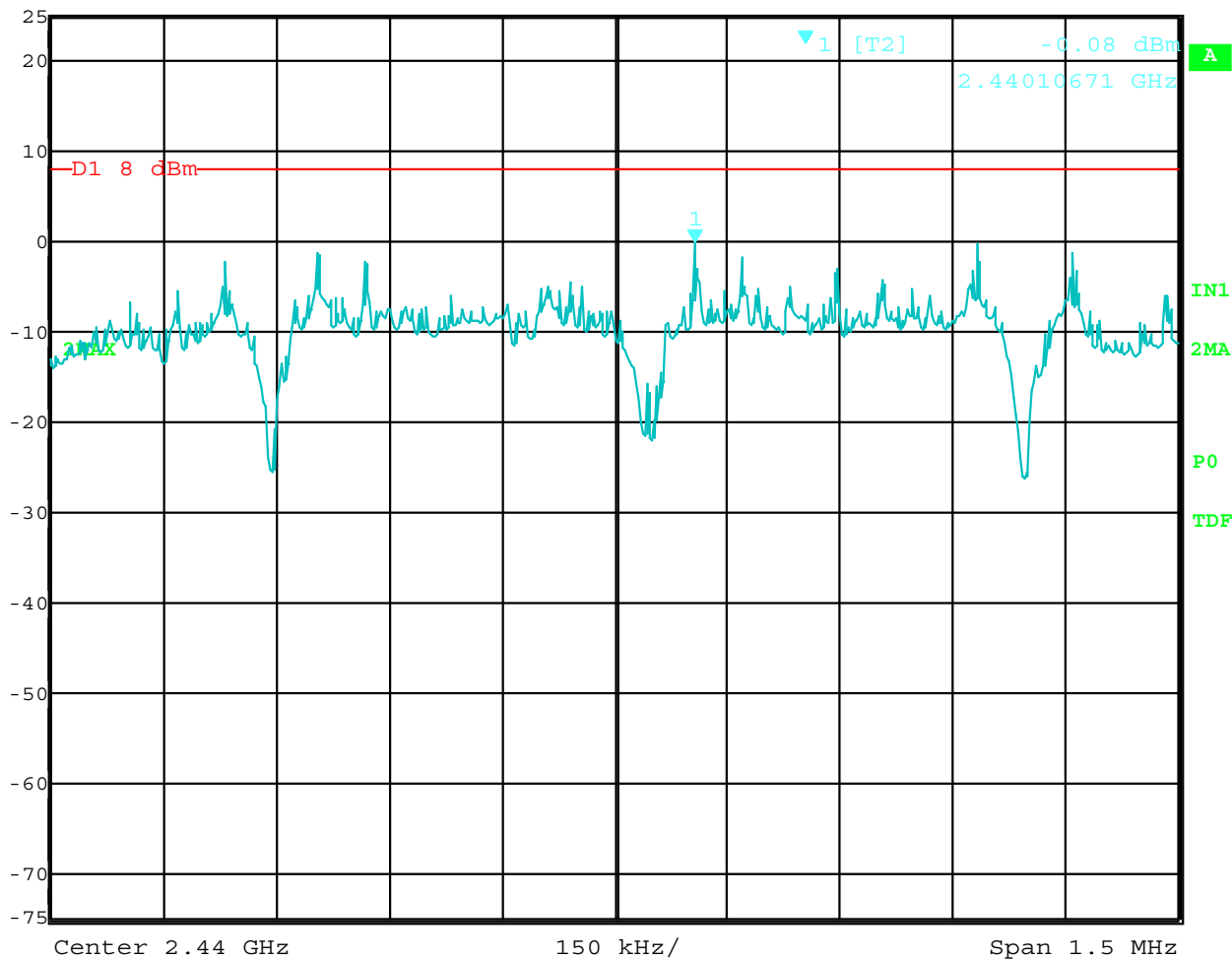


Date: 3.SEP.2009 14:43:31

Spectral Density Output – Low Channel



Ref Lvl 25 dBm
Marker 1 [T2] -0.08 dBm
2.44010671 GHz
RBW 3 kHz
VBW 10 kHz
SWT 500 s
RF Att 40 dB
Unit dBm

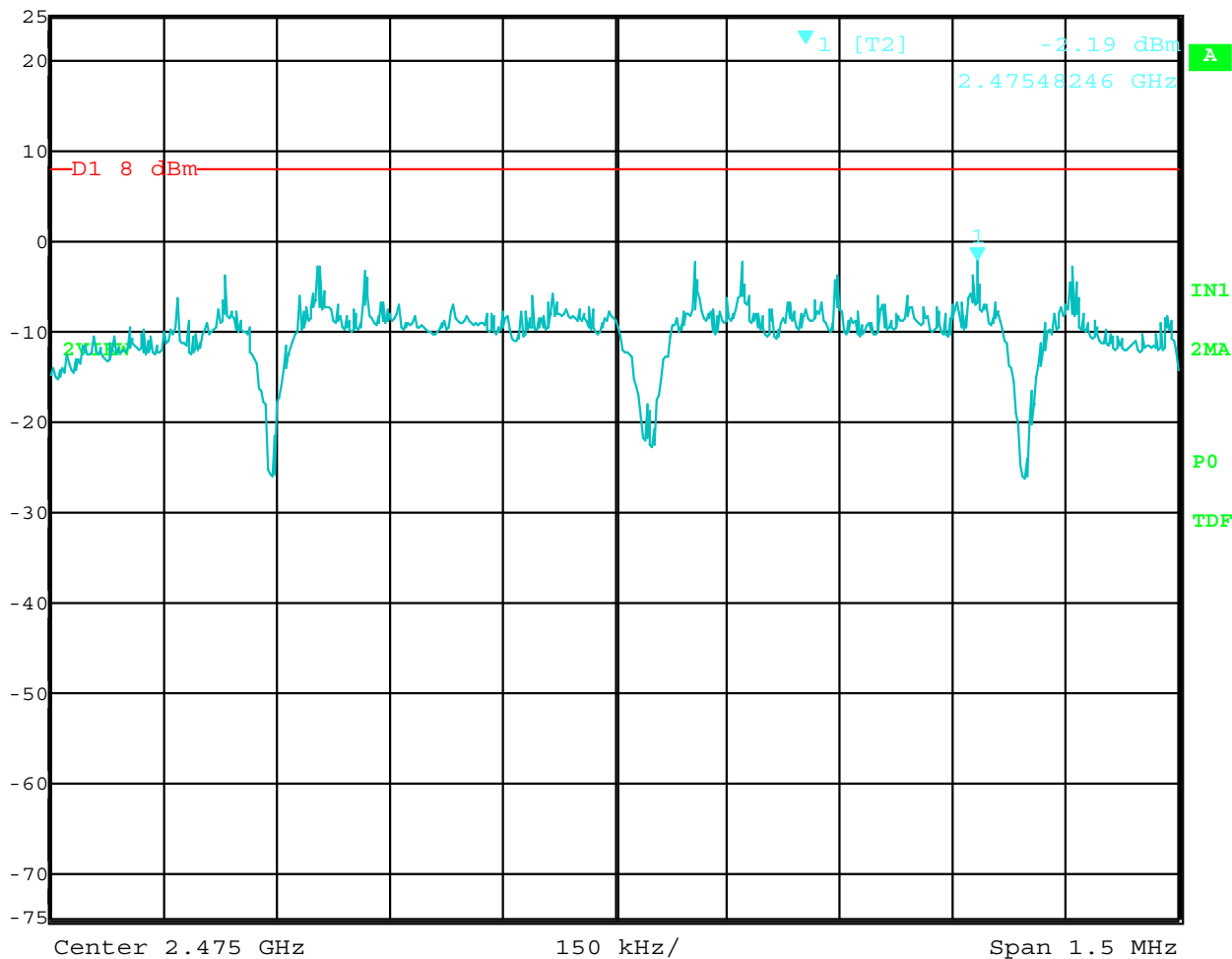


Date: 3.SEP.2009 13:37:20

Spectral Density Output – Middle Channel

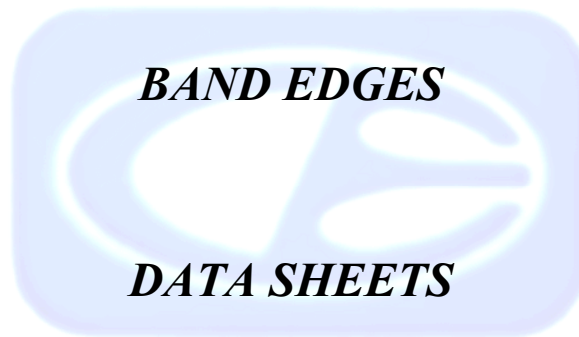


Ref Lvl 25 dBm Marker 1 [T2] RBW 3 kHz RF Att 40 dB
-2.19 dBm VBW 10 kHz
2.47548246 GHz SWT 500 s Unit dBm



Date: 3.SEP.2009 14:03:16

Spectral Density Output – High Channel



FCC 15.247

Iteris, Inc.
Wireless Module Assembly
P/N: 43473801

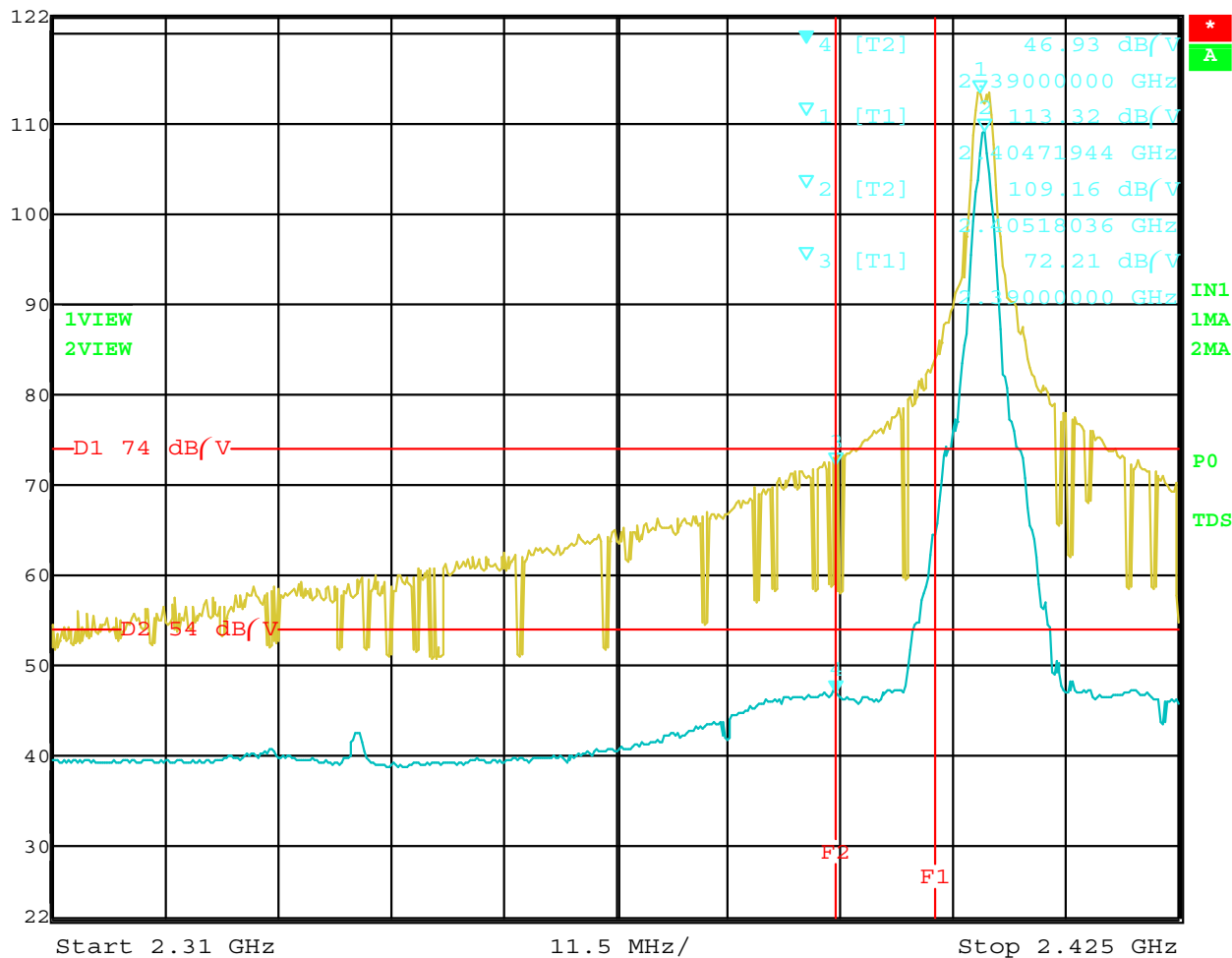
Date: 09/03/09
Lab: B
Tested By: Kyle Fujimoto

Band Edges

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2405	108.35	H	--	--	Peak	1.25	225	Fund. of Low Channel
2405	103.88	H	--	--	Avg	1.25	225	@ 3 Meters
2390	68.43	H	74	-5.57	Peak	1.25	225	Band Edge - Low Channel
2390	43.01	H	54	-10.99	Avg	1.25	225	@ 3 Meters
2405	113.32	V	--	--	Peak	1.52	225	Fund. of Low Channel
2405	109.16	V	--	--	Avg	1.52	225	@ 3 Meters
2390	72.21	V	74	-1.79	Peak	1.52	225	Band Edge - Low Channel
2390	46.93	V	54	-7.07	Avg	1.52	225	@ 3 Meters
2475	102.77	H	--	--	Peak	1.52	225	Band Edge - High Channel
2475	98.25	H	--	--	Avg	1.52	225	@ 3 Meters
2483.5	67.99	H	74	-6.01	Peak	1.52	225	Band Edge - High Channel
2483.5	37.47	H	54	-16.53	Avg	1.52	225	@ 3 Meters
2475	109.05	V	--	--	Peak	1	180	Band Edge - High Channel
2475	104.33	V	--	--	Avg	1	180	@ 3 Meters
2483.5	73.78	V	74	-0.22	Peak	1	180	Band Edge - High Channel
2483.5	42.7	V	54	-11.3	Avg	1	180	@ 3 Meters



Ref Lvl 122 dB/V
Marker 4 [T2] 46.93 dB/V
2.39000000 GHz
RBW 1 MHz
VBW 500 Hz
SWT 580 ms
RF Att 30 dB
Unit dB/V

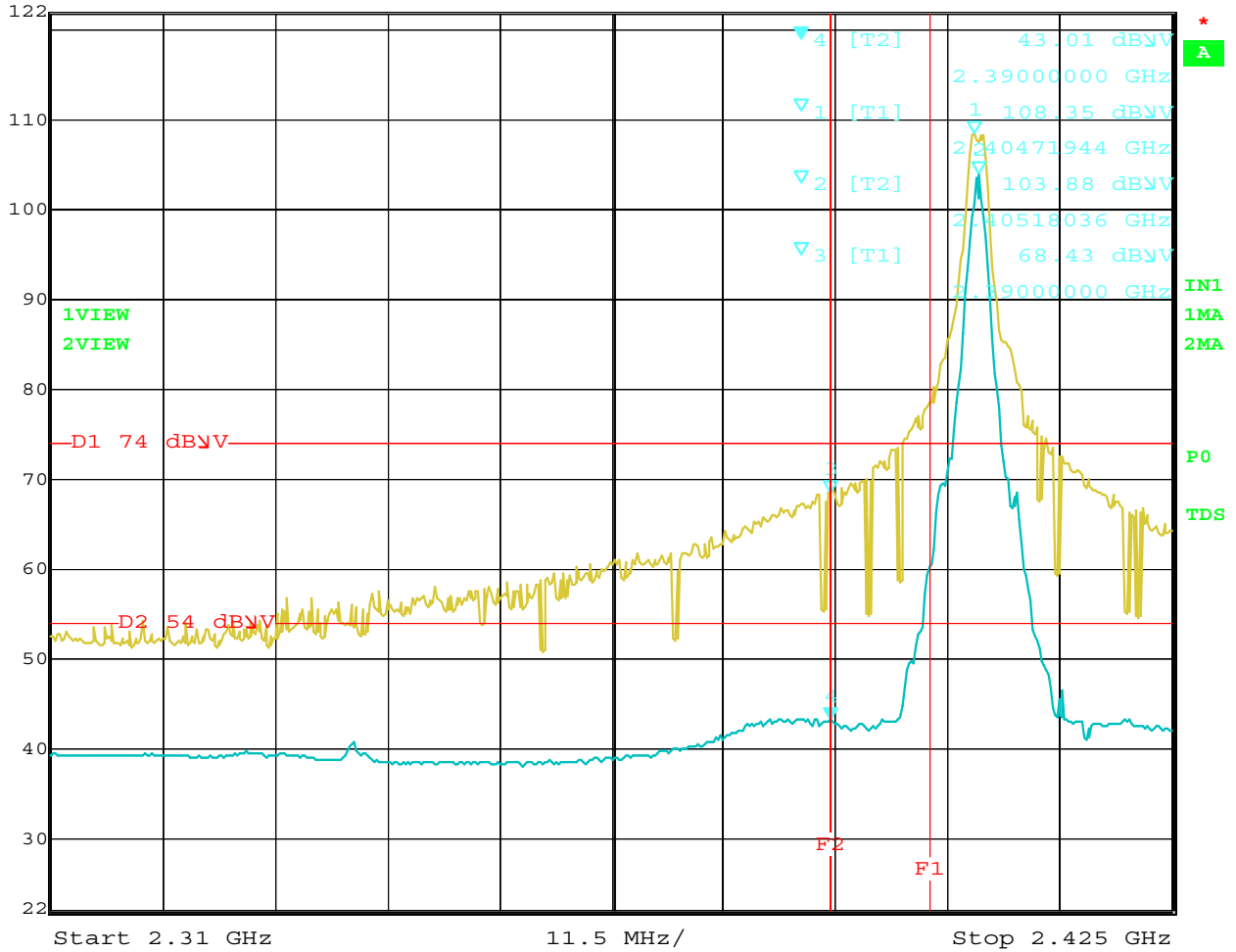


Date: 3.SEP.2009 09:13:37

Band Edge – Low Channel – Vertical Polarization



Ref Lvl 122 dBV
Marker 4 [T2] 43.01 dBV
2.39000000 GHz
RBW 1 MHz
VBW 500 Hz
SWT 580 ms
RF Att 30 dB
Unit dBV

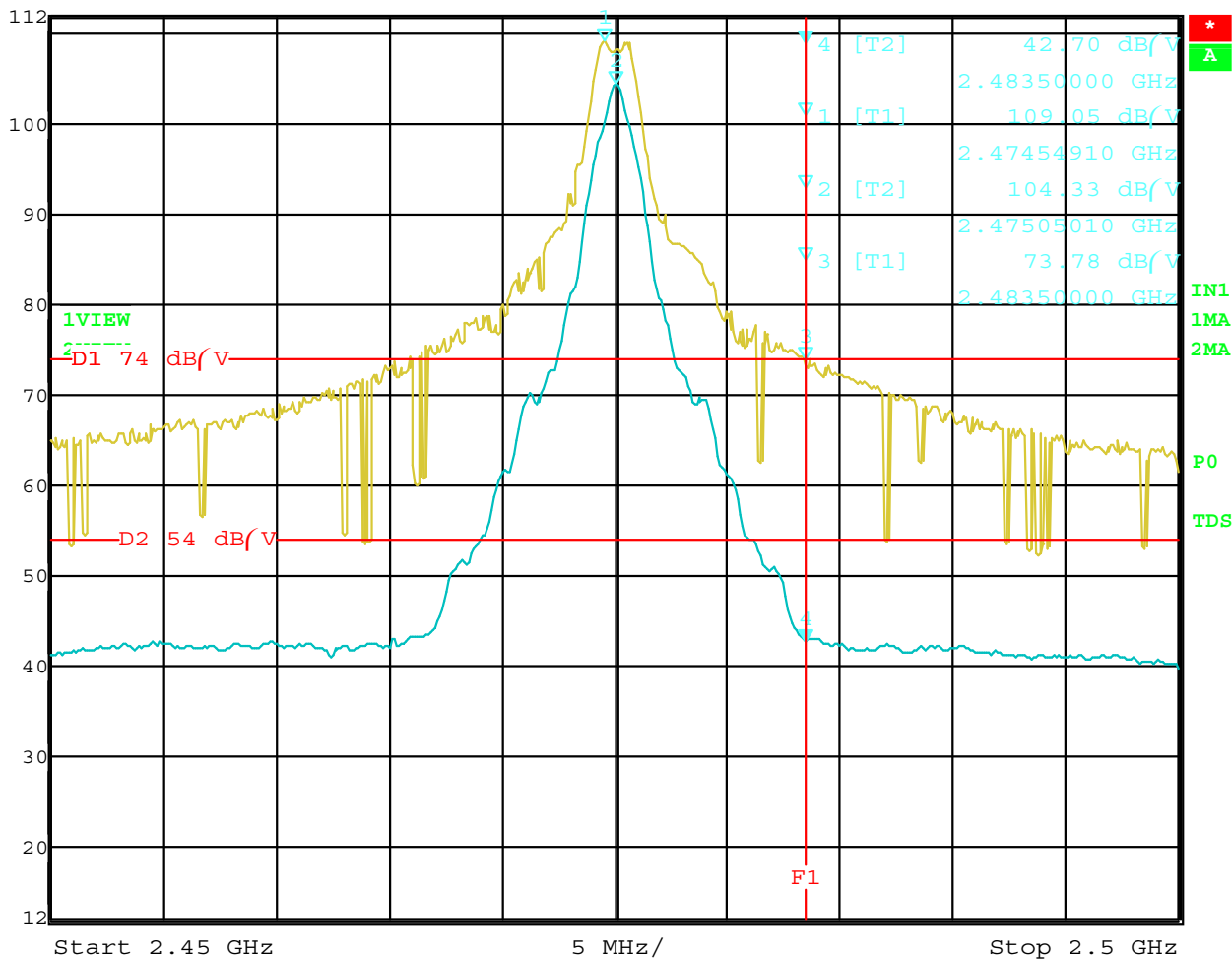


Date: 3.SEP.2009 09:25:18

Band Edge – Low Channel – Horizontal Polarization



Ref Lvl 112 dB/V
Marker 4 [T2] 42.70 dB/V
2.48350000 GHz
RBW 1 MHz
VBW 500 Hz
SWT 250 ms
RF Att 20 dB
Unit dB/V

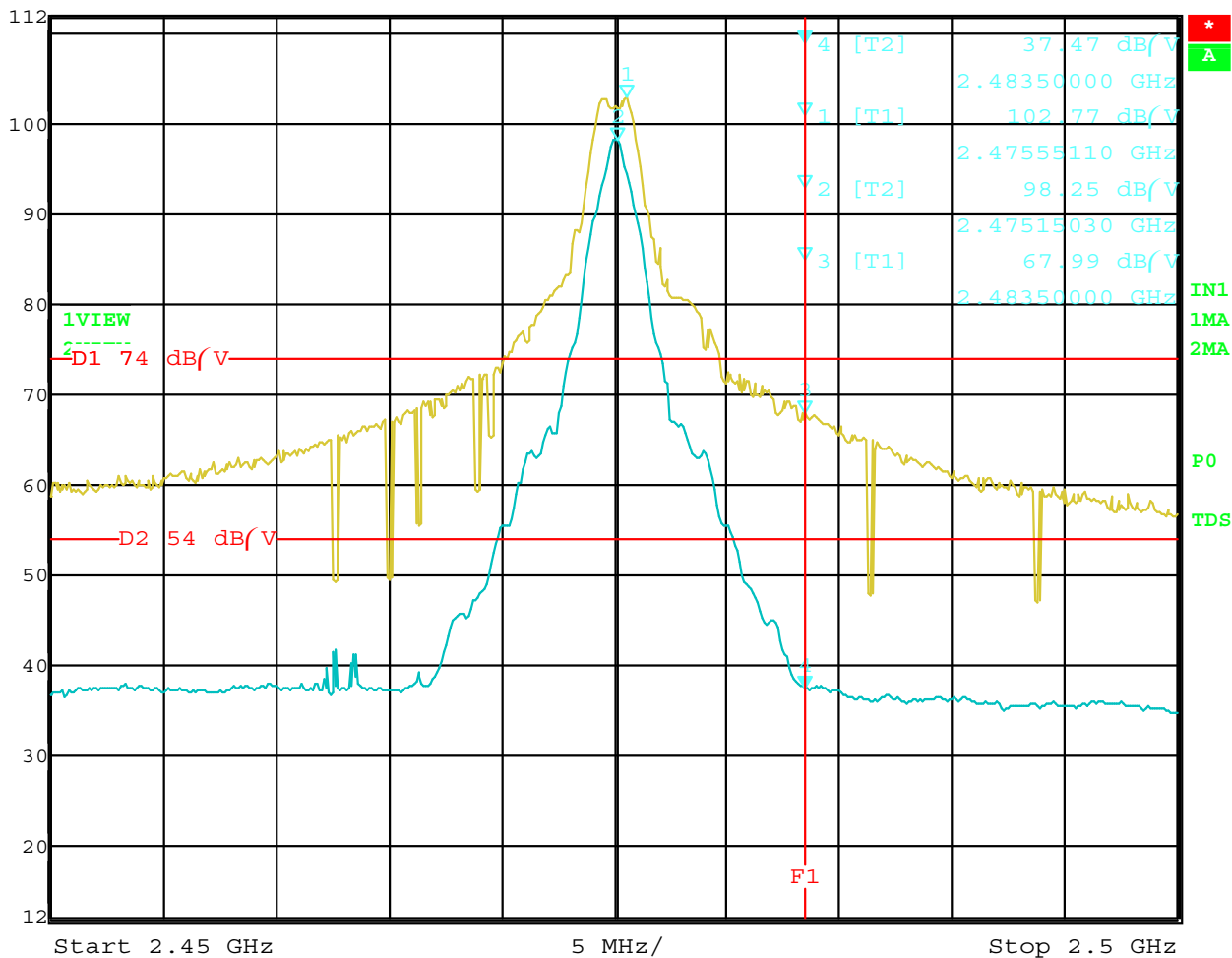


Date: 3.SEP.2009 10:18:00

Band Edge – High Channel – Vertical Polarization



Ref Lvl 112 dB/V
Marker 4 [T2] 37.47 dB/V
2.48350000 GHz
RBW 1 MHz
VBW 500 Hz
SWT 250 ms
RF Att 20 dB
Unit dB/V



Date: 3.SEP.2009 10:27:58

Band Edge – High Channel – Horizontal Polarization