



1250 Peterson Dr., Wheeling, IL 60090

Company: TV Compass
Model Tested: DMR1
Report Number: 14224

FCC Rules and Regulations / Intentional Radiators

Operational in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz, Bands

Part 15, Subpart C, Section 15.247

THE FOLLOWING **MEETS** THE ABOVE TEST SPECIFICATION

Formal Name: ESPN Ultimate Remote
Kind of Equipment: Universal Remote Control
Frequency Range: 2412 MHz 2462 MHz
Test Configuration: Utilizes Infra Red to control Devices, and communicates to a Sever Via WiFi showing content (Tested at 120 vac, 60 Hz)
Model Number(s): DMR1
Model(s) Tested: DMR1
Serial Number(s): 000001
Date of Tests: May 19, June 26, 27, July 2, & 16, 2008
Test Conducted For: TV Compass
8420 W. Bryn Mawr Suite 510
Chicago, IL 60631

NOTICE: "This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government". Please see the "Additional Description of Equipment Under Test" page listed inside of this report.

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SIGNATURE PAGE

Report By:

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Test Engineer
EMC-001375-NE

Reviewed By:

William Stumpf
OATS Manager

Approved By:

Brian Mattson
General Manager



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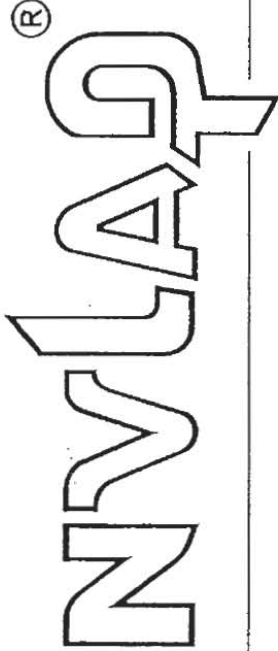


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Company:
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TV Compass
DMR1
14224

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 100276-0

D.L.S. Electronic Systems, Inc.
Wheeling, IL

*is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:*

ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communiqué dated 18 June 2005).*



2007-10-01 through 2008-09-30

Effective dates

Dolly S. Buses
For the National Institute of Standards and Technology

NVI AP-01C (REV. 2006-09-13)



Company: TV Compass
Model Tested: DMR1
Report Number: 14224

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1.0 SUMMARY OF TEST REPORT

It was found that the ESPN Ultimate Remote, Model Number(s) DMR1, **meets** the radio interference conducted and radiated emission requirements of the FCC "Rules and Regulations", Part 15, Subpart C, Section 15.247 for operational in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz, Bands.

2.0 INTRODUCTION

On May 19, June 26, 27, July 2, & 16, 2008, a series of radio frequency interference measurements was performed on ESPN Ultimate Remote, Model Number(s) DMR1, Serial Number: 000001. The tests were performed according to the procedures of the FCC as stated in the "Methods of Measurement of Radio-Noise Emissions for Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz" found in the American National Standards Institute, ANSI C63.4-2003. Tests were performed by personnel of D.L.S. Electronic Systems, Inc. who are responsible to Donald L. Sweeney, Senior EMC Engineer.

D.L.S. Electronic Systems, Inc. is a full service EMC/Safety Testing Laboratory accredited to ISO 17025. NVLAP Certificate and Scope can be viewed at <http://www.dlsemc.com/certificate>. Our facilities are registered with the FCC, Industry Canada, and VCCI.

Main Test Facility:

D.L.S. Electronic Systems, Inc.
1250 Peterson Drive
Wheeling, Illinois 60090

O.A.T.S. Test Facility:

D.L.S. Electronic Systems, Inc.
166 S. Carter Street
Genoa City, Wisconsin 53128

3.0 OBJECT

The purpose of this series of tests was to determine if the test sample could meet the radio frequency interference emission requirements of the FCC "Rules and Regulations", Part 15, Subpart C, Sections 15.205, 15.209 & 15.247 for Intentional Radiators operating in the Bands 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz.



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4.0 TEST SET-UP

All emission tests were performed at D.L.S. Electronic Systems, Inc. and set up according to the ANSI C63.4-2003, Annex H. The conducted tests were performed with the test item placed on a non-conductive table (table top equipment), located in the test room. Equipment normally operated on the floor was tested by placing it on the metal ground plane. The ground plane has an electrical isolation layer over its surface approximately 7mm thick. The power line supplied was connected to a dual line impedance stabilization network electrically bonded to the ground plane, located on the floor. The networks were constructed per the requirements of the ANSI C63.4-2003, Annex H.

All radiated emissions tests were performed with the test item placed on a 80 cm high rotating non-conductive table, located in the test room. Equipment normally operated on the floor was placed on a metal covered turntable which is flush with the surrounding conducting ground plane. The ground plane has an electrical isolation layer over its surface approximately 7 mm thick. The EUT is separated from the turntable ground plane by a non-conductive layer. The equipment under test was set up according to ANSI C63.4-2003, Sections 6 and 8.



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5.0 TEST EQUIPMENT (Bandwidths and Detector Function)

All preliminary data below 1000 MHz was automatically plotted using the ESI 26/40 Fixed Tuned Receiver. The data was taken using Peak, Quasi-Peak or the Average Detector Functions as required. This information was then used to determine the frequencies of maximum emissions. Above 1000 MHz, final data was taken using the Average Detector.

Below 1000 MHz, final data was taken using the ESI 26/40 Fixed Tuned Receiver. These plots were made using the Peak or Quasi-Peak Detector functions, with manual measurements performed on the questionable frequencies using the Quasi-Peak or the Average Detector Function of the ESI 26/40 Fixed Tuned Receiver as required. Above 1000 MHz, final data was taken using the Average Detector on the Spectrum Analyzer.

The bandwidths shown below are specified by ANSI C63.4-2003, Section 4.2.

Frequency Range	Bandwidth (-6 dB)
10 to 150 kHz	200 Hz
150 kHz to 30 MHz	9 kHz
30 MHz to 1 GHz	120 kHz
Above 1 GHz	1 MHz

A list of the equipment used can be found in Table 1. All primary equipment was calibrated against known reference standards with a verified traceable path to NIST.



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6.0 AMBIENT MEASUREMENTS

For emissions measurements, broadband antennas and an EMI Test Receiver with a panoramic spectrum display are used. First the frequency range is scanned and displayed on the test receiver display. Next the scanned frequency range is divided into smaller ranges, and then it is manually tuned through to determine the emissions from the EUT. A headset or loudspeaker is connected to the test receiver's AM/FM demodulated output as an aid in detecting ambient signals and finding frequencies of significant emission from the EUT. If there is any doubt as to the source of the emission, it is further investigated by rotating the EUT, or by disconnecting the power from the EUT.

The EUT is set up in its typical configuration and operated in its various modes. For tabletop systems, cables are manipulated within the range of likely configurations. For floor-standing equipment, the cables are located in the same manner as the user would install them and no further manipulation is made. If the manner of cable installation is not known, or if it changes with each installation, cables or wires for floor-standing equipment shall be manipulated to the extent possible to produce the maximum level of emissions. For each mode of operation, the frequency spectrum is monitored. Variations in antenna height, antenna polarization, EUT azimuth, and cable or wire placement (each variable within bounds specified elsewhere) are explored to produce the emissions that have the highest amplitude relative to the limit. These methods are performed to the specifications in ANSI C63.4-2003.



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7.0 DESCRIPTION OF TEST SAMPLE: (See also Paragraph 8.0)

7.1 Description:

Unit is a universal TV remote control that can be configured to control multiple infra red controllable entertainment devices. The unit contains a backlit keypad and color display that is utilized to display content downloaded through a local WiFi connection to the user. Unit utilizes an internal battery or an external wall mounted power supply.

The unit will be operated in its normal operating mode, as a remote.

7.2 PHYSICAL DIMENSIONS OF EQUIPMENT UNDER TEST

7in x 3in x 1in

7.3 LINE FILTER USED:

N/A

7.4 INTERNAL CLOCK FREQUENCIES:

Switching Power Supply Frequencies:

2 MHz, 1.5 MHz, 1 MHz,

Clock Frequencies:

266 MHz, 20 MHz, 12 MHz

7.5 DESCRIPTION OF ALL CIRCUIT BOARDS:

1. R0A PCB L/F FOR ESPN Main Board-Q6 US PN: 14100062010ABL000 Rev1.5
2. R0A PCB L/F FOR ESPN Daughter Board-Q6 US PN: 14100062000ABL000 Rev 1.3
3. Gemtek PN: WSDB-100G_V01 OR V04



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8.0 ADDITIONAL DESCRIPTION OF TEST SAMPLE:
(See also Paragraph 7.0)

1: There were no additional descriptions noted at the time of test.

NOTE:

Continuous transmit; Low, Mid, High channels.
Continuous receive; Low, Mid, High channels.
Tested as hand-held, and tested as table-top (in cradle).
Tested with transmit/receive from Antenna 1.
Tested with transmit/receive from Antenna 2.

9.0 PHOTO INFORMATION AND TEST SET-UP

Item 0 ESPN Ultimate Remote
Model Number: DMR1 Serial Number: 000001

Item 1 Sino-American AC Power Cord.

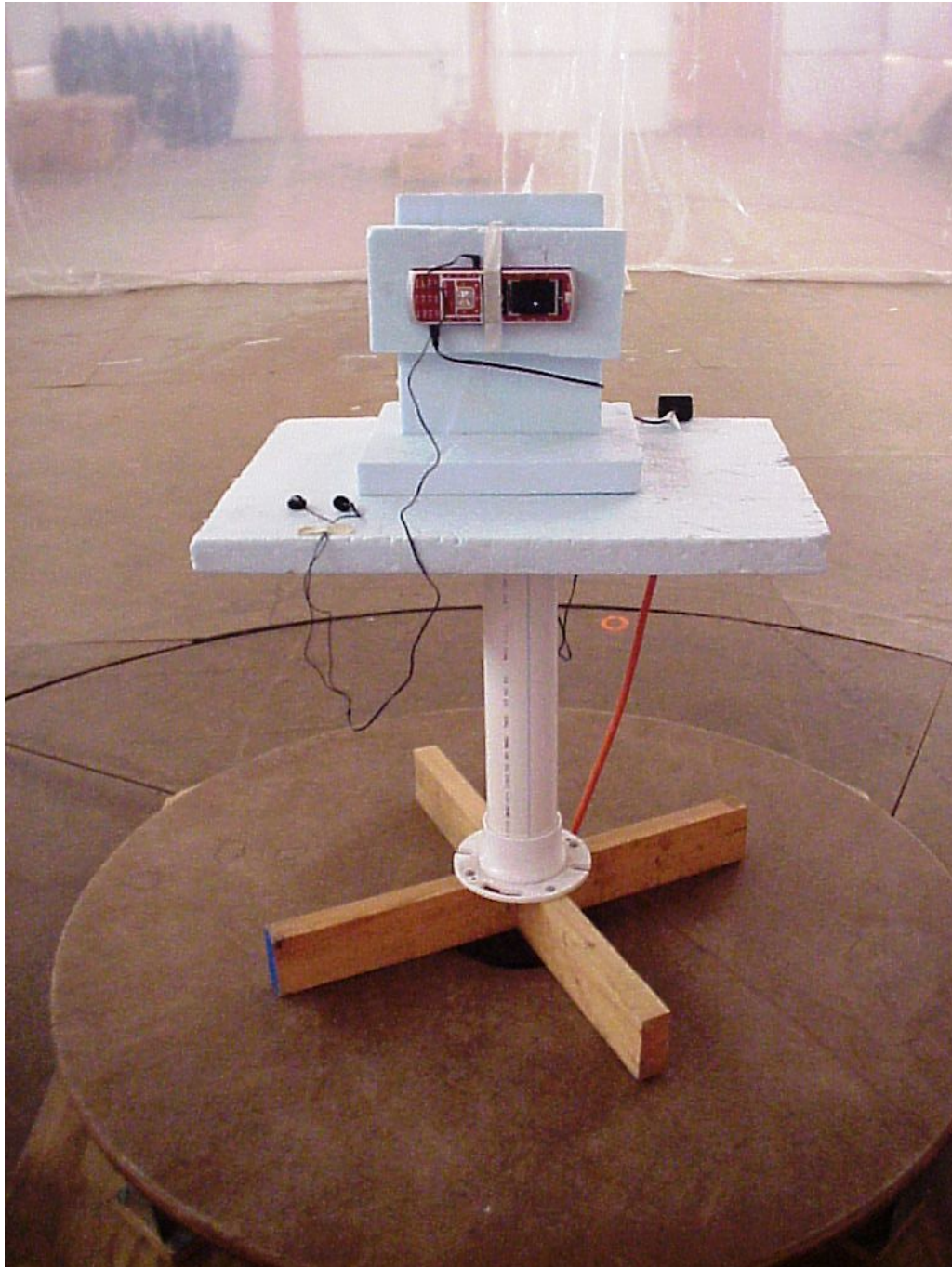
Item 2 Philips earphones.



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10.0 RADIATED PHOTOS TAKEN DURING TESTING



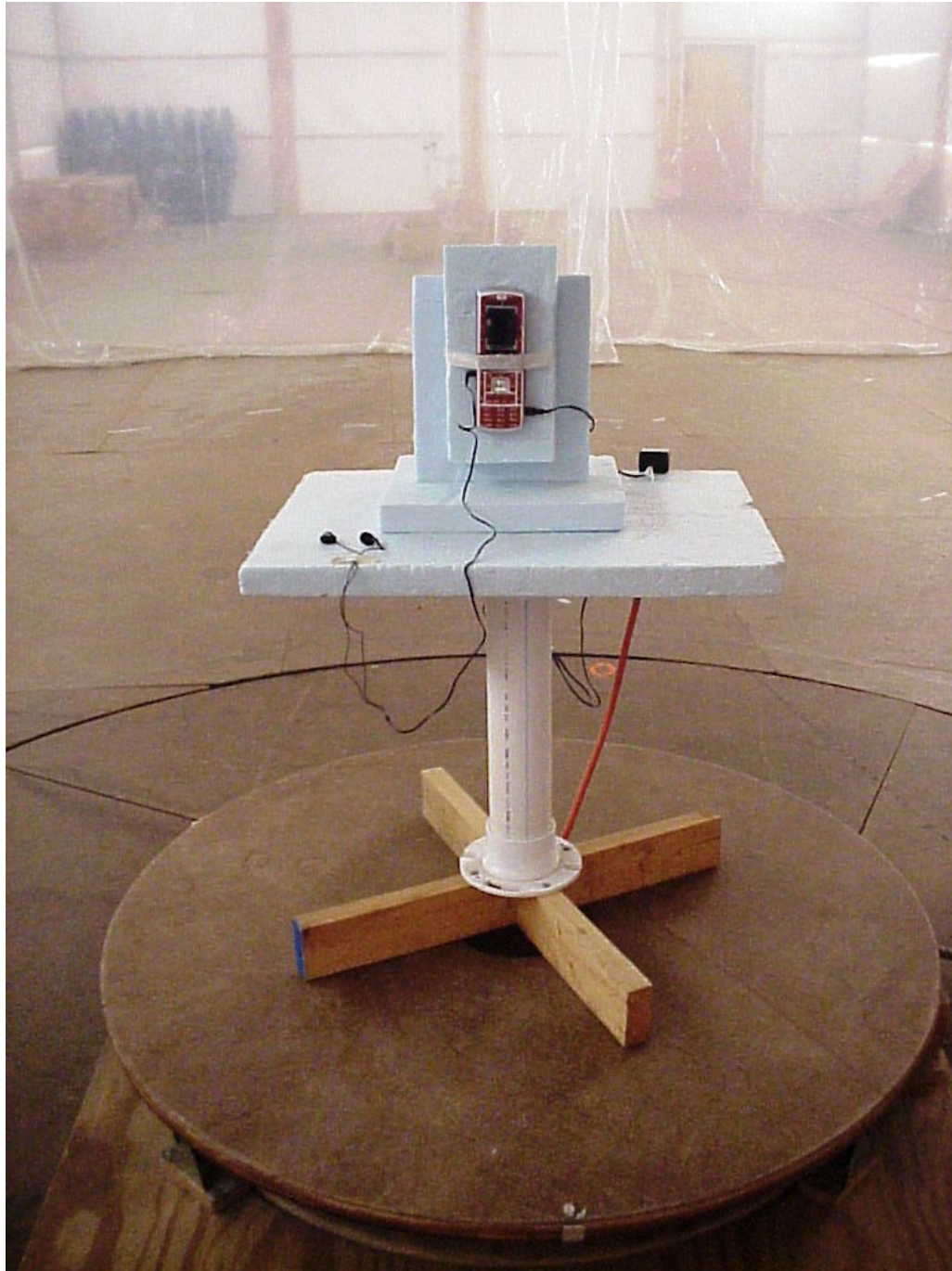
RADIATED “X”



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10.0 RADIATED PHOTOS TAKEN DURING TESTING (CON'T)



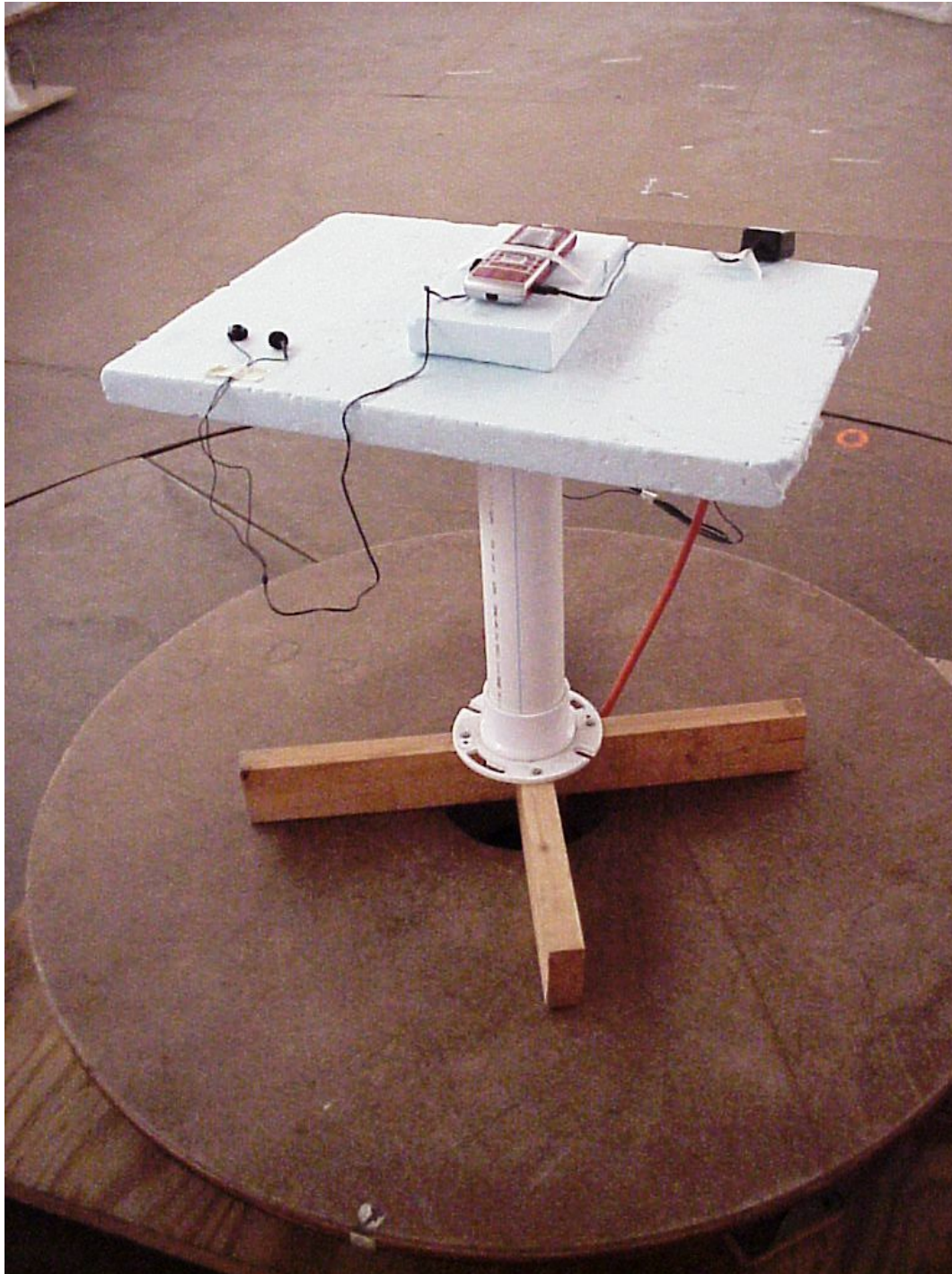
RADIATED “Y”



Company: TV Compass
Model Tested: DMR1
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10.0 RADIATED PHOTOS TAKEN DURING TESTING (CON'T)



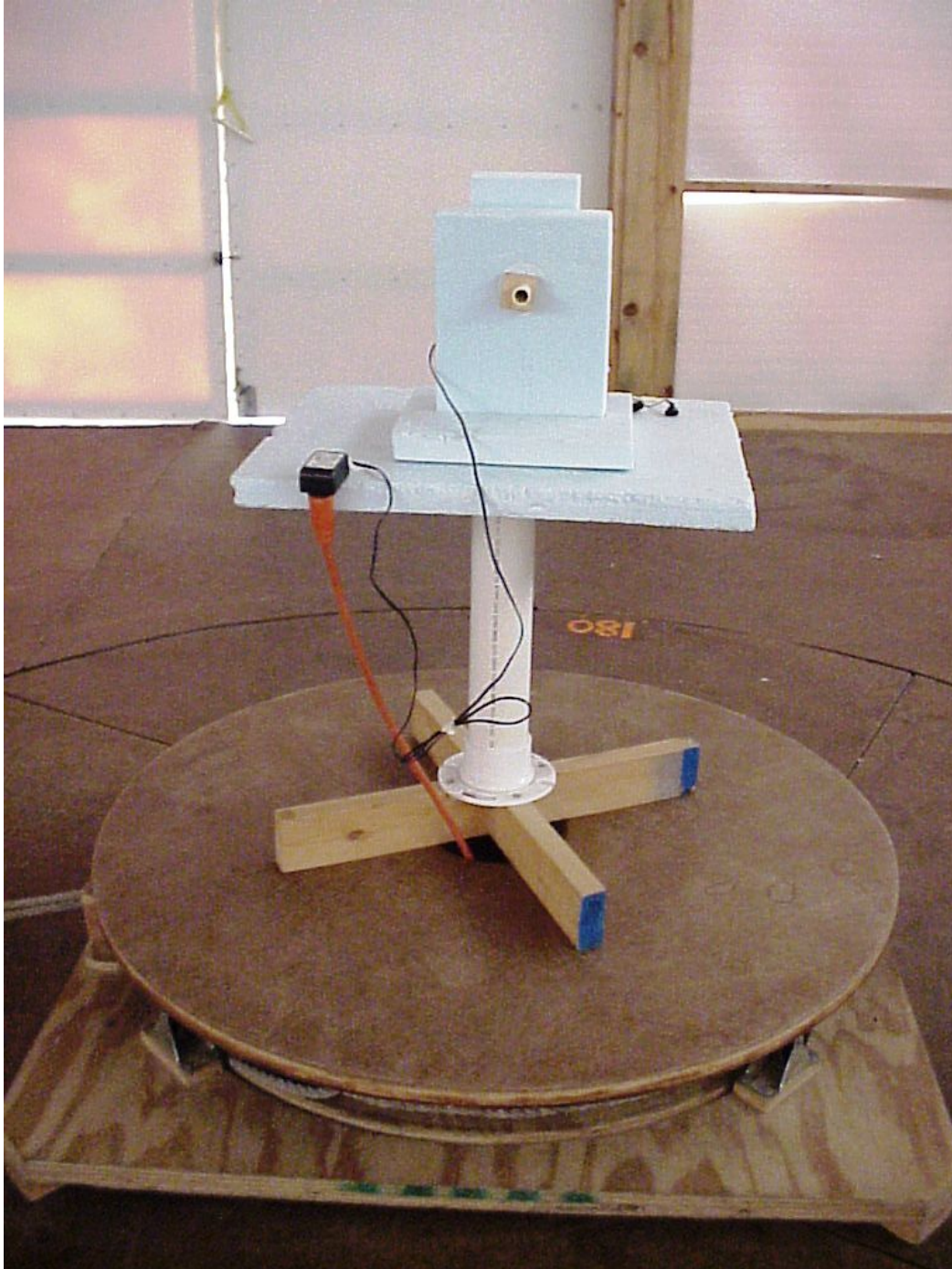
RADIATED “Z”



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10.0 RADIATED PHOTOS TAKEN DURING TESTING (CON'T)



RADIATED BACK



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10.0 RADIATED PHOTOS TAKEN DURING TESTING (CON'T)



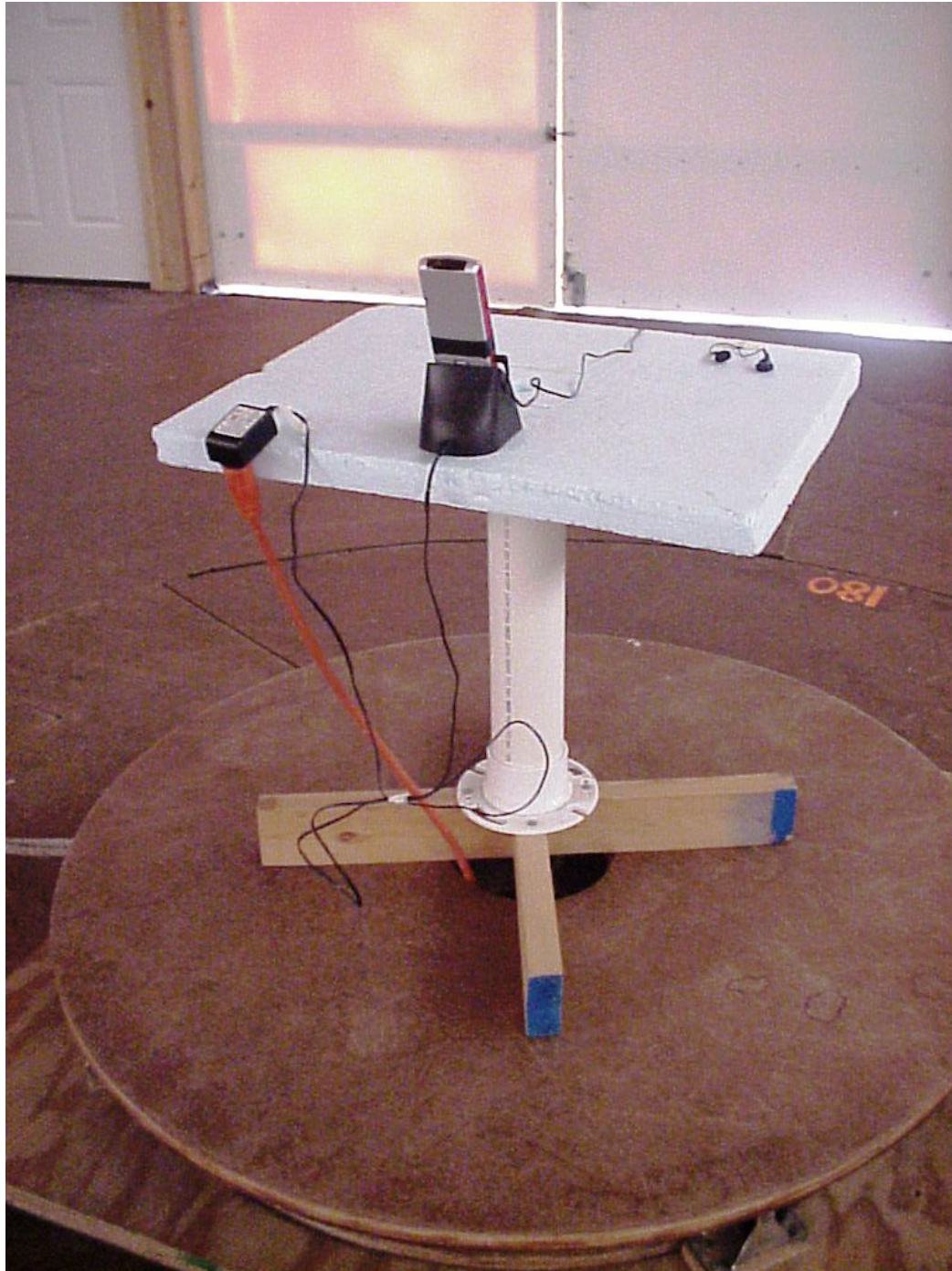
RADIATED FRONT - IN CRADLE



Company: TV Compass
Model Tested: DMR1
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10.0 RADIATED PHOTOS TAKEN DURING TESTING (CON'T)



RADIATED BACK - IN CRADLE



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10.0 RADIATED PHOTOS TAKEN DURING TESTING (CON'T)



RF CONDUCTED POWER



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10.0 CONDUCTED PHOTOS TAKEN DURING TESTING





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11.0 RESULTS OF TESTS

The radio interference emission charts can be seen on the pages at the end of this report. Data sheets indicating the test measurements taken during testing can also be found at the end of this report.

12.0 CONCLUSION

It was found that the ESPN Ultimate Remote, Model Number(s) DMR1 **meets** the radio interference conducted and radiated emission requirements of the FCC "Rules and Regulations", Part 15, Subpart C, Section 15.247 for operational in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz, Bands.



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TABLE 1 – EQUIPMENT LIST

Test Equipment	Manufacturer	Model Number	Serial Number	Frequency Range	Cal Due Dates
Receiver	Rohde & Schwarz	ESI 40	837808/006	20 Hz – 40 GHz	3/09
Preamp	Miteq	AMF-6D-100200-50	313936	1 GHz-10 GHz	5/09
Preamp	Miteq	MF-6D-010100-50 A	213976	10 GHz-18 GHz	5/09
Preamp	Miteq	AMF-8B-180265-40-10P-H/S	NA	18 GHz-26 GHz	9/08
Preamp	R&S	TS-PR10	032001/005	26 GHz-40 GHz	3/09
Signal Generator	R&S	SMR-40	100092	1 – 40 GHz	9/08
Attenuator-20dB Fixed	Aeroflex Weinschel	75A-20-12	1071	DC – 40 GHz	7/08
Biconical Antenna	EMCO	3104C	97014785	20 MHz – 200 MHz	4/09
Log Periodic Antenna	EMCO	3146	97024895	200 MHz – 1 GHz	4/09
Horn Antenna	EMCO	3115	5731	1-18 GHz	6/09
Horn Antenna	EMCO	3116	2549	18 – 40 GHz	6/09

All primary equipment is calibrated against known reference standards with a verified traceable path to NIST.



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TABLE 1 – EQUIPMENT LIST

Test Equipment	Manufacturer	Model Number	Serial Number	Frequency Range	Cal Due Dates
Power Meter	Anritsu	ML2487A	6K00002069		10/08
Power Sensor	Anritsu	MA2491A	031650	50 MHz-18 GHz	10/08
RF Transient Limiter	Electrometrics	EM7600	706		1/09
Filter- High-Pass	SOLAR	7930-10	921541	12 kHz	1/09
Filter- High-Pass	Q-Microwave	100462	1	4.6 GHz	5/09
LISN	SOLAR	9252-50-R-24-BNC	961019		7/08

All primary equipment is calibrated against known reference standards with a verified traceable path to NIST.



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APPENDIX A

TEST PROCEDURE

Part 15, Subpart C, Section 15.247 (a-h)

ANSI C63.4-2003 & KDB Publication No. 558074

OPERATION WITHIN THE BAND 902-928 MHz,

2400-2483.5 MHz AND 5725-5857 MHz



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APPENDIX A

1.0 AC POWER LINE CONDUCTED EMISSION MEASUREMENTS

If applicable, the conducted emissions were measured over the frequency range from 150 kHz to 30 MHz in accordance with the power line measurements as specified in the American National Standards Institute, ANSI C63.4-2003, Section 12. Since the device is operated from the public utility lines, the 115 Vac 60 Hz power leads, high and low sides, were to be measured by connecting the measuring equipment to the appropriate meter terminal of the LISN. All signals were then recorded. The allowed levels for Intentional Radiators cannot exceed the following:

Frequency of Emissions (MHz)	Conducted Limits (dBuV)	
	Quasi Peak	Average
.15 to .5	66 to 56	56 to 46
.5 to 5	56	46
5 to 30	60	50

All conducted emissions measurements were made at a test room temperature of **74°F** at **50%** relative humidity.



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APPENDIX A

AC POWER LINE DATA AND GRAPH(S)
TAKEN DURING TESTING

PART 15.207

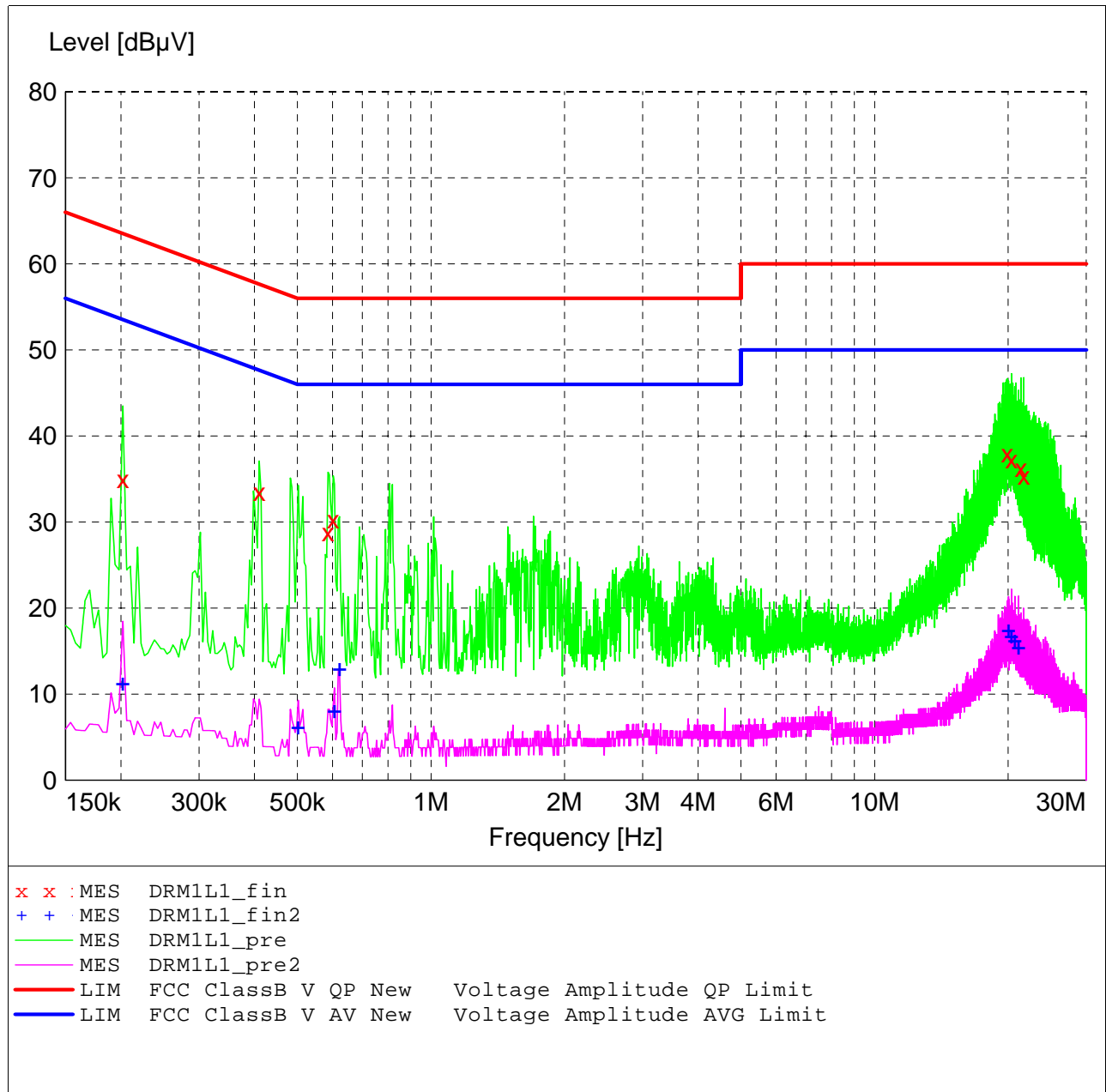
FCC Part 15 Class B

Voltage Mains Test

EUT: DMR1
 Manufacturer: TV Compass
 Operating Condition: 74 deg. F, 50% R.H.
 Test Site: DLS O.F. Site 1 (Screenroom)
 Operator: Craig B
 Test Specification: 120 V, 60 Hz
 Comment: Line 1
 Date: 07-16-2008

SCAN TABLE: "Line Cond Scrn RmFin"

Short Description:		Line Conducted Emissions					Transducer
Start	Stop	Step	Detector	Meas. Time	IF Bandw.		
150.0 kHz	30.0 MHz	4.0 kHz	QuasiPeak	2.0 s	9 kHz	LISN DLS#128	
CISPR AV							



MEASUREMENT RESULT: "DRM1L1_fin"

7/16/2008 3:19PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.202000	35.00	11.0	64	28.5	QP	---	---
0.410000	33.50	10.4	58	24.1	QP	---	---
0.586000	28.80	10.3	56	27.2	QP	---	---
0.602000	30.30	10.3	56	25.7	QP	---	---
19.914000	38.00	11.5	60	22.0	QP	---	---
20.358000	37.20	11.5	60	22.8	QP	---	---
21.386000	36.30	11.6	60	23.7	QP	---	---
21.690000	35.40	11.6	60	24.6	QP	---	---

MEASUREMENT RESULT: "DRM1L1_fin2"

7/16/2008 3:19PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.202000	11.40	11.0	54	42.1	CAV	---	---
0.502000	6.30	10.3	46	39.7	CAV	---	---
0.606000	8.20	10.3	46	37.8	CAV	---	---
0.622000	13.00	10.3	46	33.0	CAV	---	---
20.042000	17.50	11.5	50	32.5	CAV	---	---
20.358000	16.80	11.5	50	33.2	CAV	---	---
20.714000	16.30	11.5	50	33.7	CAV	---	---
21.106000	15.50	11.5	50	34.5	CAV	---	---

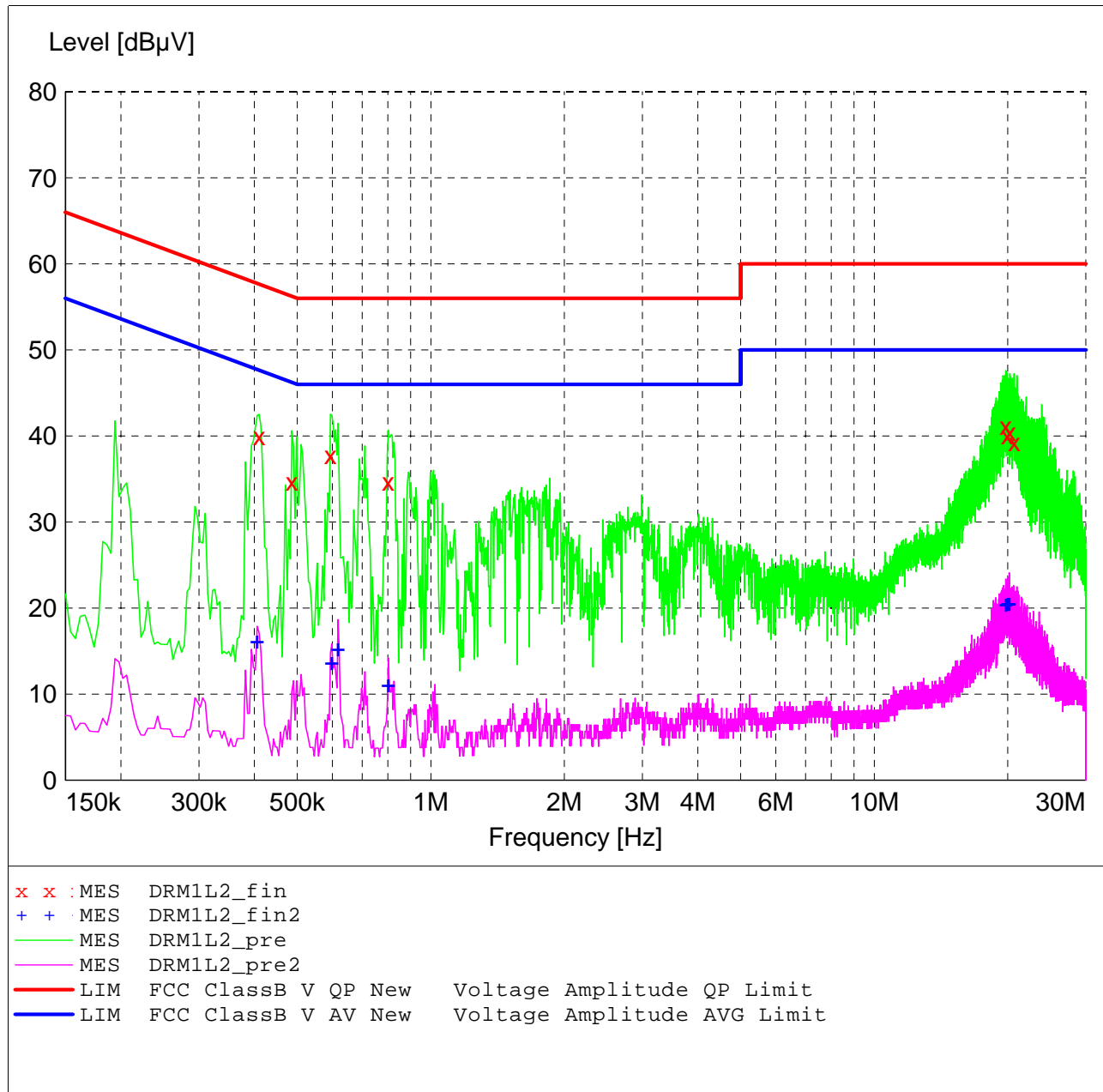
FCC Part 15 Class B

Voltage Mains Test

EUT: DMR1
 Manufacturer: TV Compass
 Operating Condition: 74 deg. F, 50% R.H.
 Test Site: DLS O.F. Site 1 (Screenroom)
 Operator: Craig B
 Test Specification: 120 V, 60 Hz
 Comment: Line 2
 Date: 07-16-2008

SCAN TABLE: "Line Cond Scrn RmFin"

Short Description:		Line Conducted Emissions					Transducer
Start	Stop	Step	Detector	Meas. Time	IF Bandw.		
150.0 kHz	30.0 MHz	4.0 kHz	QuasiPeak	2.0 s	9 kHz	LISN DLS#128	
CISPR AV							



MEASUREMENT RESULT: "DRM1L2_fin"

7/16/2008 3:25PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.410000	39.90	10.4	58	17.7	QP	---	---
0.486000	34.70	10.3	56	21.5	QP	---	---
0.594000	37.80	10.3	56	18.2	QP	---	---
0.802000	34.70	10.2	56	21.3	QP	---	---
19.798000	41.10	11.5	60	18.9	QP	---	---
19.930000	40.10	11.5	60	19.9	QP	---	---
20.234000	40.40	11.5	60	19.6	QP	---	---
20.678000	39.30	11.5	60	20.7	QP	---	---

MEASUREMENT RESULT: "DRM1L2_fin2"

7/16/2008 3:25PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.406000	16.20	10.4	48	31.5	CAV	---	---
0.598000	13.70	10.3	46	32.3	CAV	---	---
0.618000	15.30	10.3	46	30.7	CAV	---	---
0.802000	11.10	10.2	46	34.9	CAV	---	---
19.798000	20.50	11.5	50	29.5	CAV	---	---
20.022000	20.60	11.5	50	29.4	CAV	---	---
20.046000	20.60	11.5	50	29.4	CAV	---	---
20.154000	20.60	11.5	50	29.4	CAV	---	---



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APPENDIX A

2.0 SPURIOUS EMISSIONS AT ANTENNA TERMINALS – PART 15.247(d)

Spurious conducted emissions were measured at the antenna terminals. Plots were made showing the amplitude of each harmonic emission with the equipment operated. As shown by the radiated charts there was no reason to believe that there were any spurious emissions other than the harmonics that were than individually investigated when doing the conducted test at the antenna terminals. Measurements were made up to the 10th harmonic of the fundamental.

The allowed emissions for transmitters operating in the 2400 MHz - 2483.5 MHz bands for ESPN Ultimate Remote equipment are found under Part 15, Section 15.247(d). This paragraph states that in any 100 kHz bandwidth outside the frequency band which the spread spectrum intentional radiator is operating, the radio frequency power produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

NOTE: See the following pages for the data and graphs of the actual measurements made:



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APPENDIX A

CONDUCTED EMISSION DATA AND GRAPH(S)

TAKEN FOR

SPURIOUS EMISSION MEASUREMENTS MADE

AT THE ANTENNA TERMINALS

PART 15.247(d)

ANTENNA PORT 1



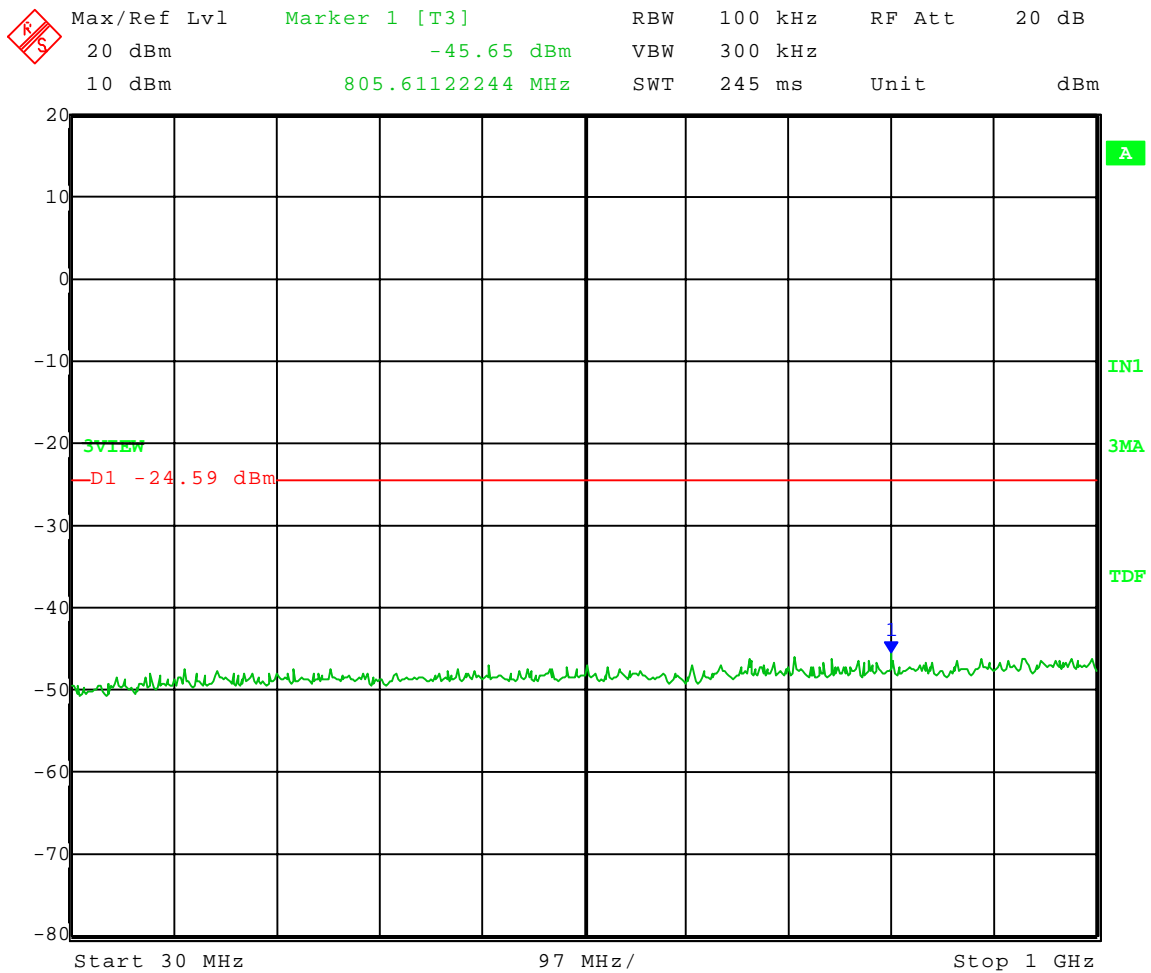
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

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APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: Low Channel Transmit = 2.412 GHz
Antenna Port 1
Data Rate: 1 Mbit/s (highest duty cycle)
Frequency Range: 30 to 1000 MHz
Limit = -24.59 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 19.MAY.2008 14:54:24



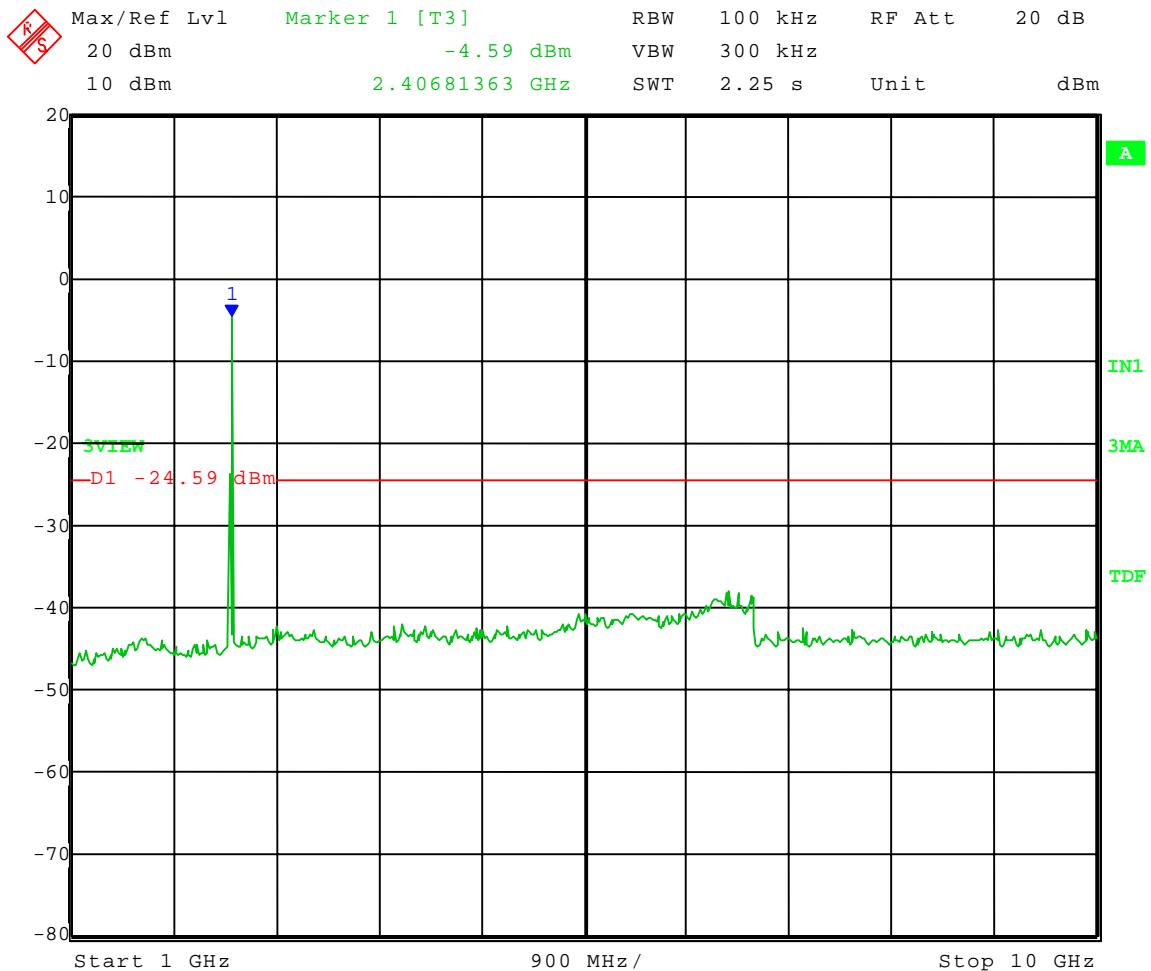
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: Low Channel Transmit = 2.412 GHz
Antenna Port 1
Data Rate: 1 Mbit/s (highest duty cycle)
Frequency Range: 1 to 10 GHz
Limit = -24.59 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 19.MAY.2008 14:48:36



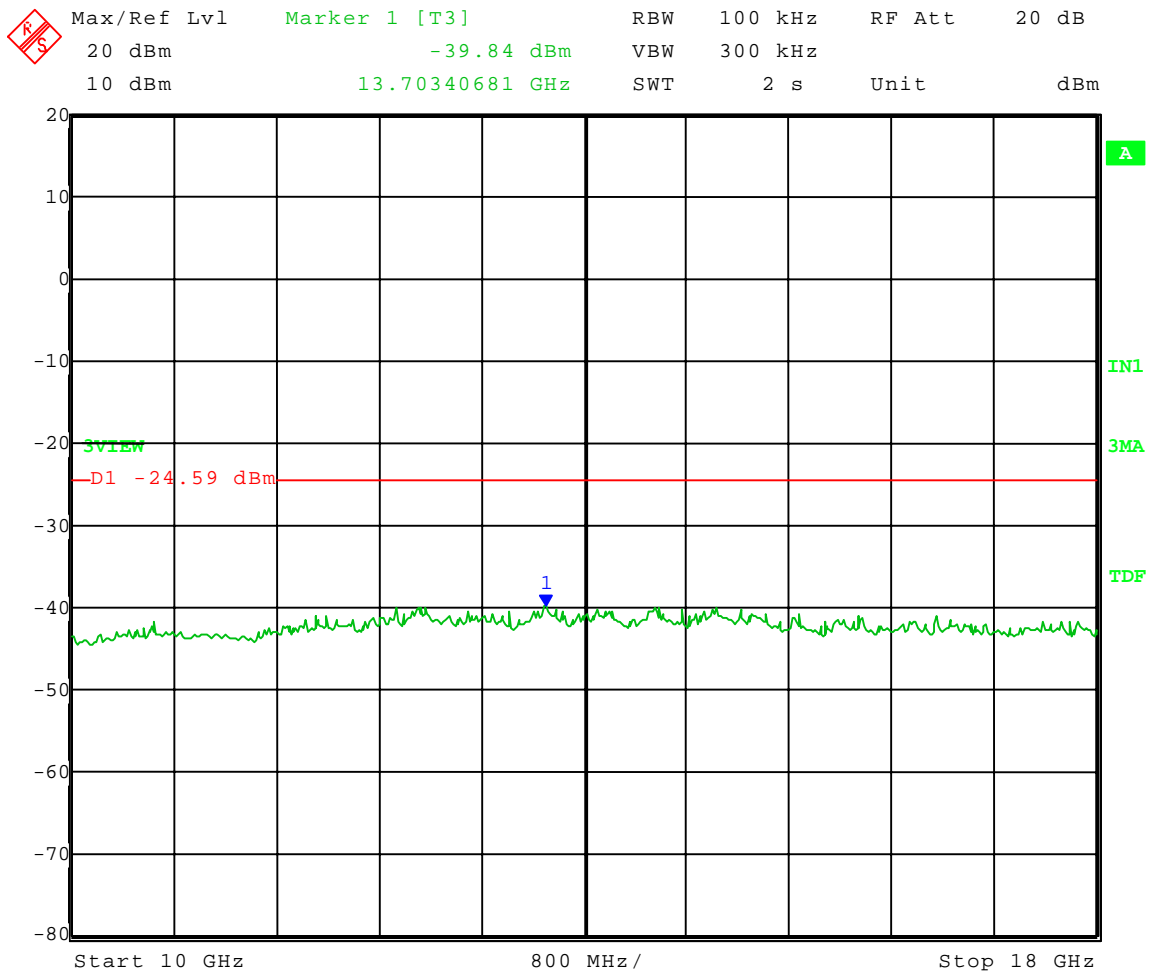
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: Low Channel Transmit = 2.412 GHz
Antenna Port 1
Data Rate: 1 Mbit/s (highest duty cycle)
Frequency Range: 10 to 18 GHz
Limit = -24.59 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 19.MAY.2008 14:51:34



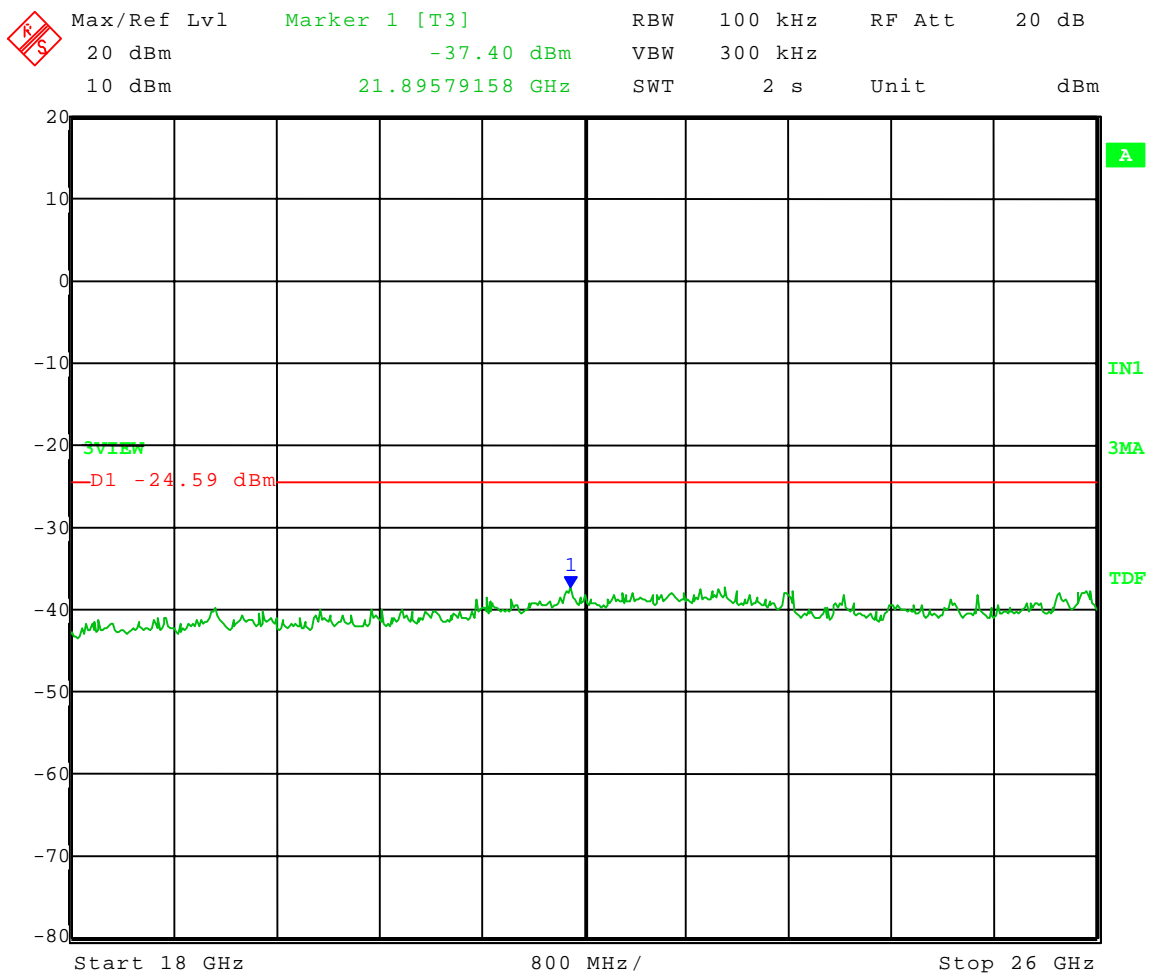
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: **Low Channel** Transmit = 2.412 GHz
Antenna Port 1
Data Rate: 1 Mbit/s (highest duty cycle)
Frequency Range: 18 to 26 GHz
Limit = -24.59 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 19.MAY.2008 14:52:58



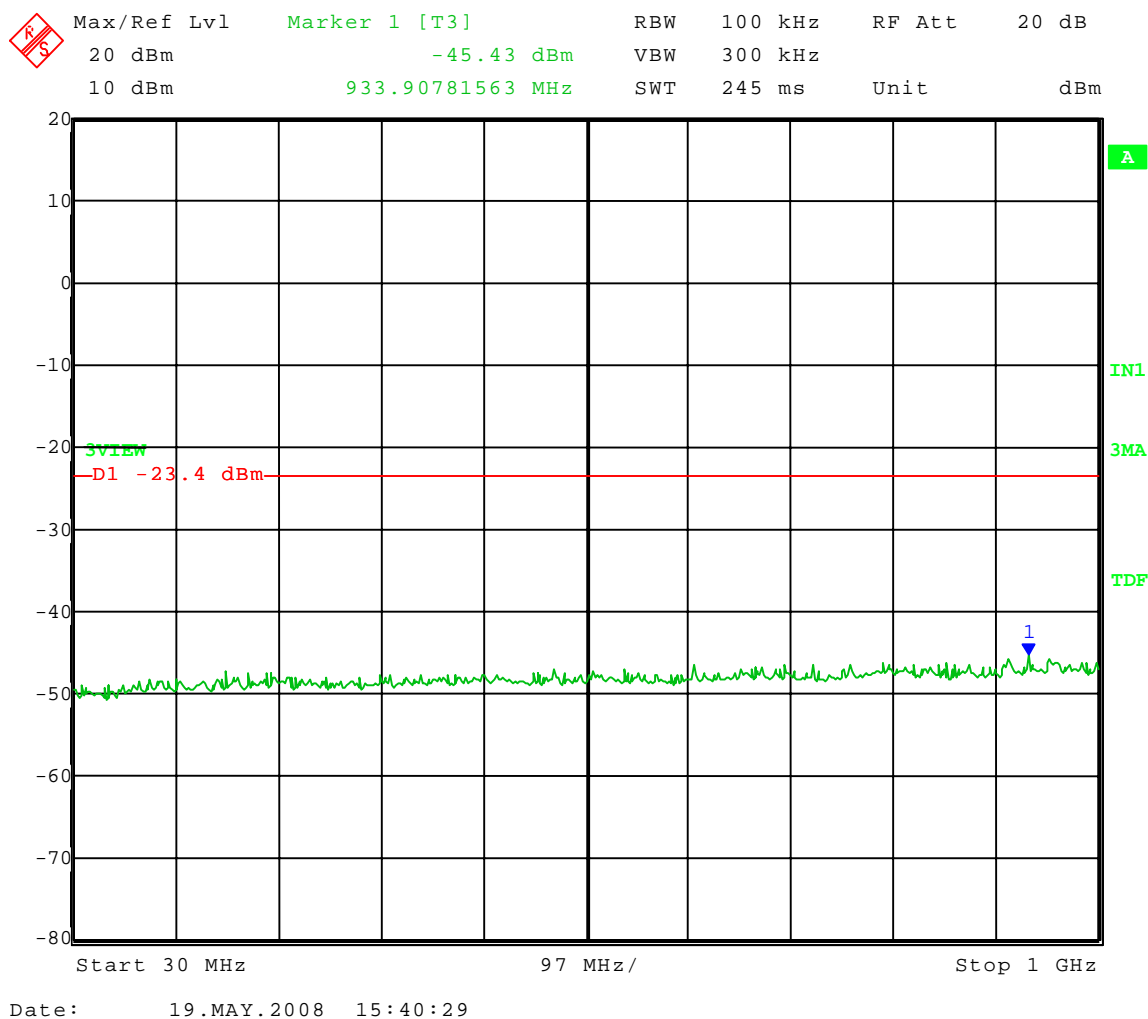
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: Mid Channel Transmit = 2.437 GHz
Antenna Port 1
Data Rate: 1 Mbit/s (highest duty cycle)
Frequency Range: 30 to 1000 MHz
Limit = -23.4 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 19.MAY.2008 15:40:29



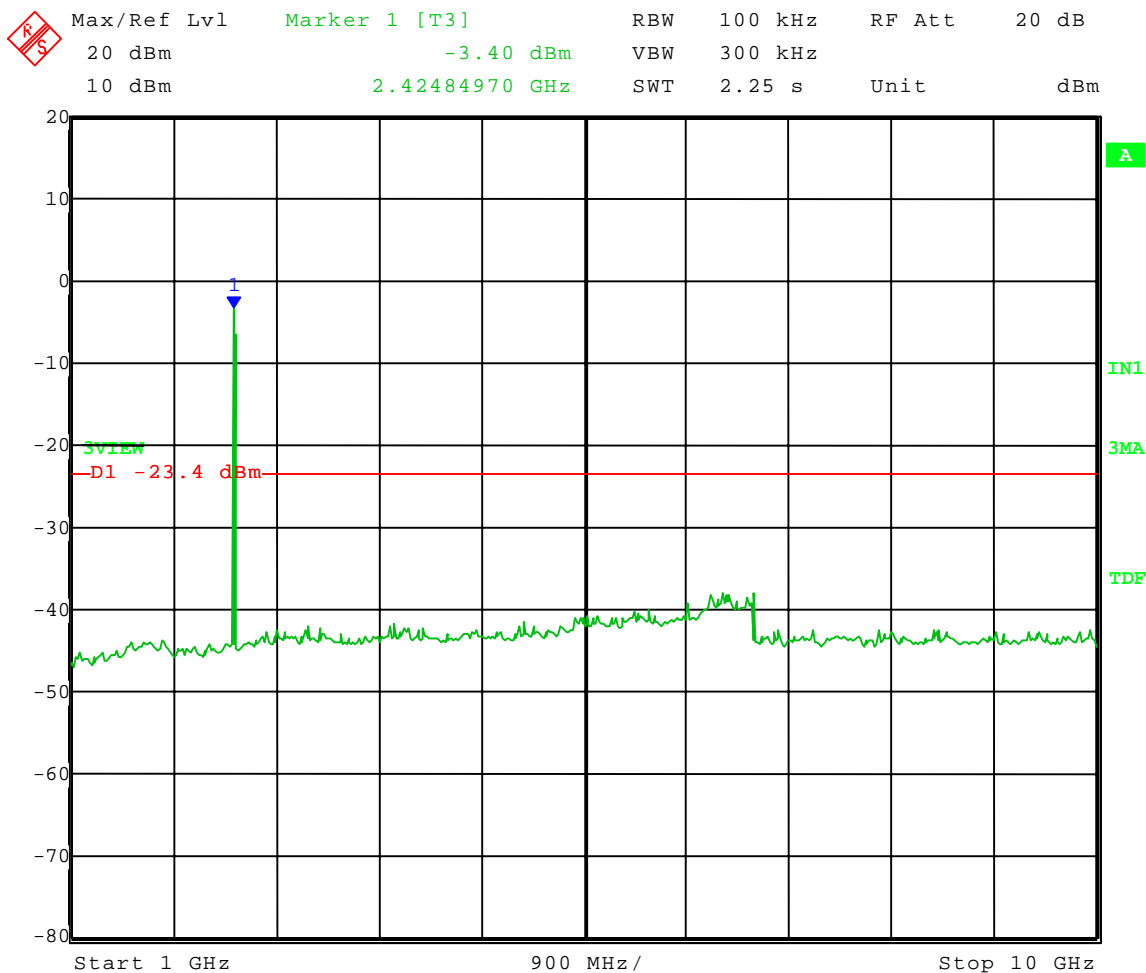
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: **Mid Channel** Transmit = 2.437 GHz
Antenna Port 1
Data Rate: 1 Mbit/s (highest duty cycle)
Frequency Range: 1 to 10 GHz
Limit = -23.4 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 19.MAY.2008 15:35:08



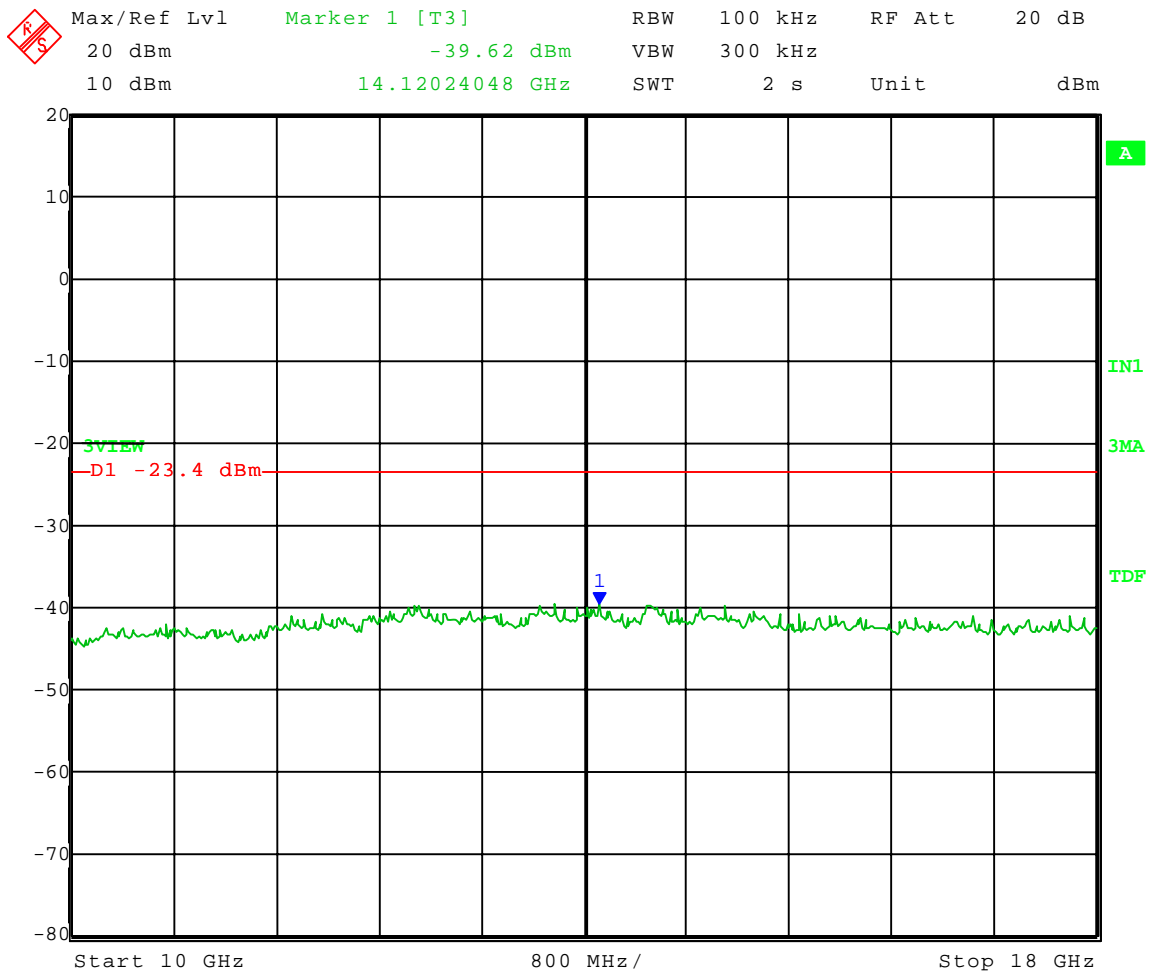
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: Mid Channel Transmit = 2.437 GHz
Antenna Port 1
Data Rate: 1 Mbit/s (highest duty cycle)
Frequency Range: 10 to 18 GHz
Limit = -23.4 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 19.MAY.2008 15:36:56



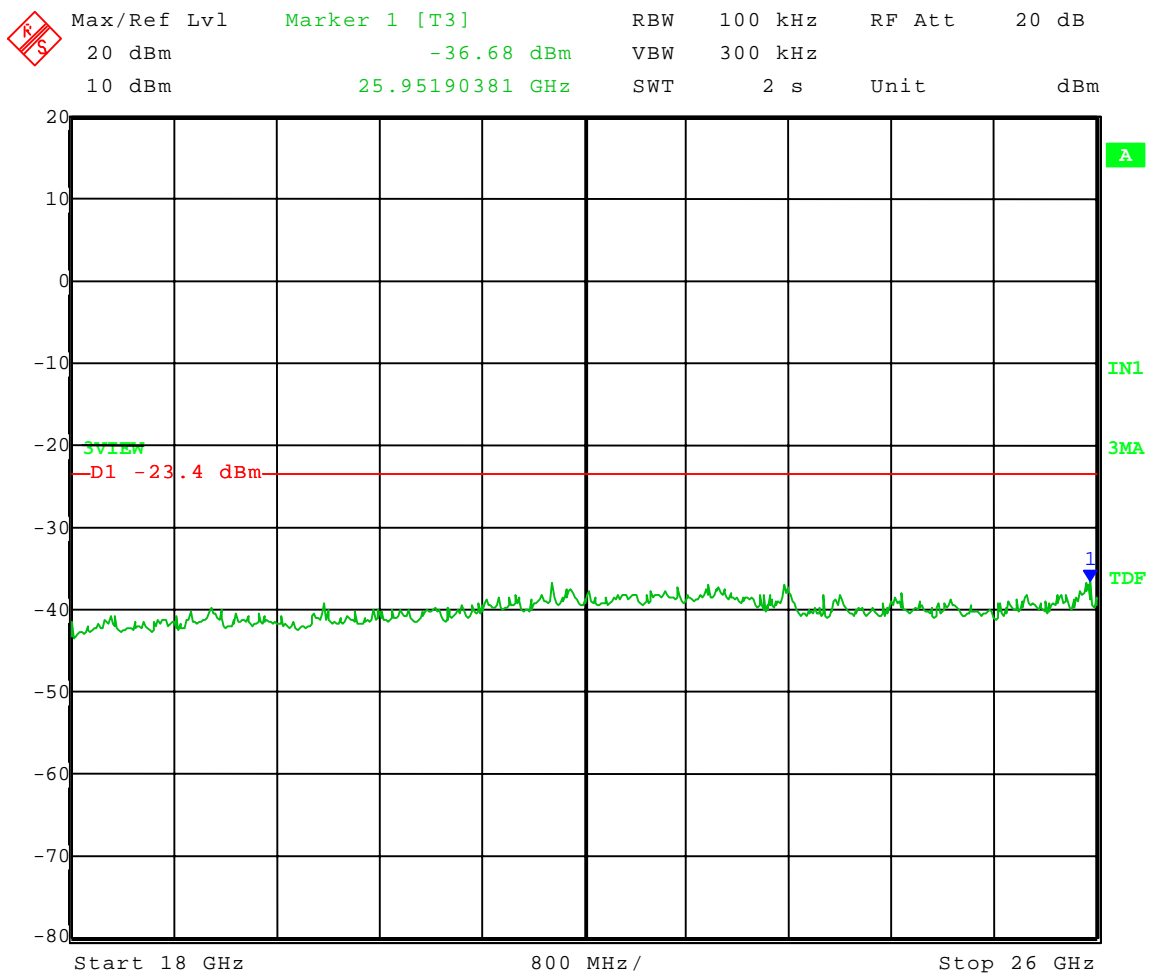
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: **Mid Channel** Transmit = 2.437 GHz
Antenna Port 1
Data Rate: 1 Mbit/s (highest duty cycle)
Frequency Range: 18 to 26 GHz
Limit = -23.4 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 19.MAY.2008 15:38:53



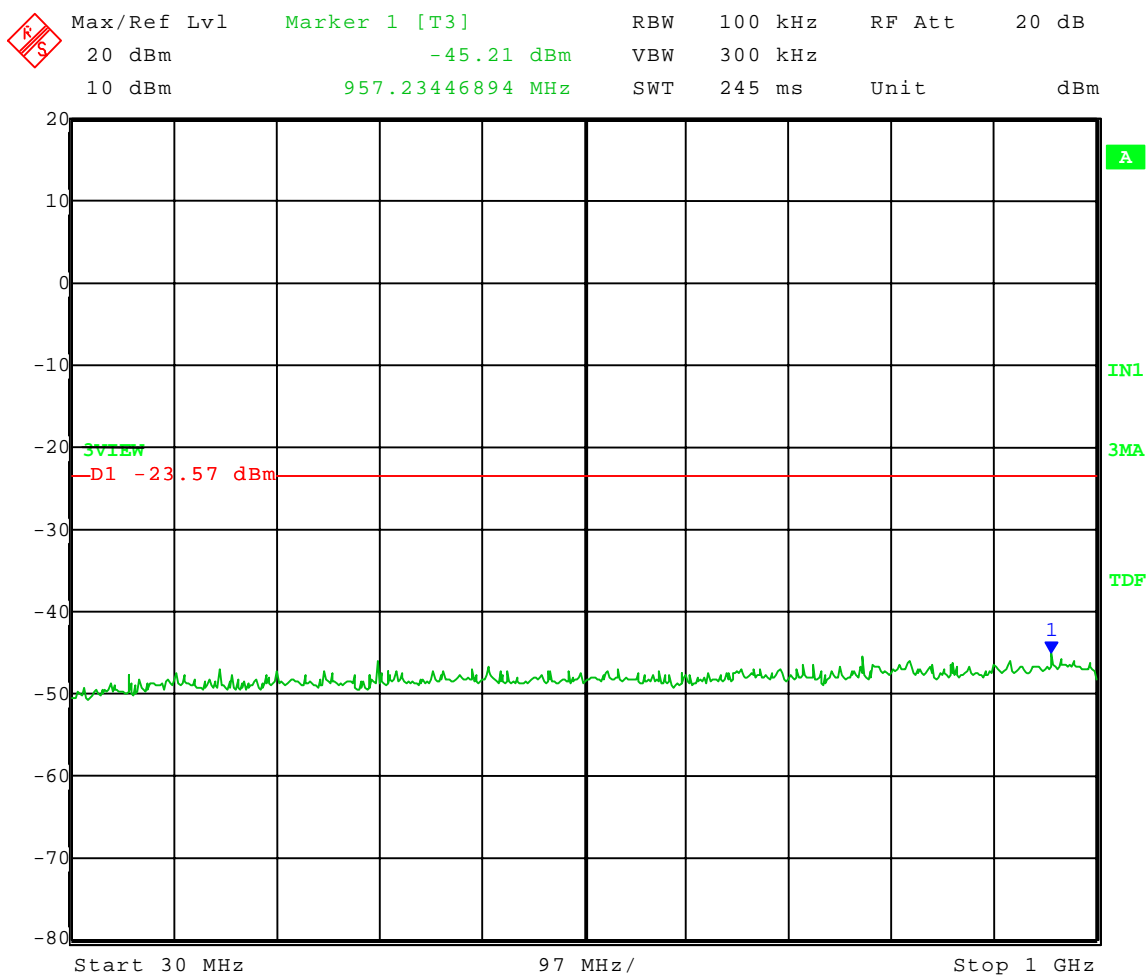
Company: TV Compass
 Model Tested: DMR1
 Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
 Company: TV Compass
 EUT: Model: DMR1
 Test: Spurious Emissions - Conducted
 Operator: Craig B
 Comment: **High Channel** Transmit = 2.462 GHz
Antenna Port 1
 Data Rate: 1 Mbit/s (highest duty cycle)
 Frequency Range: 30 to 1000 MHz
 Limit = -23.57 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 19.MAY.2008 16:29:10



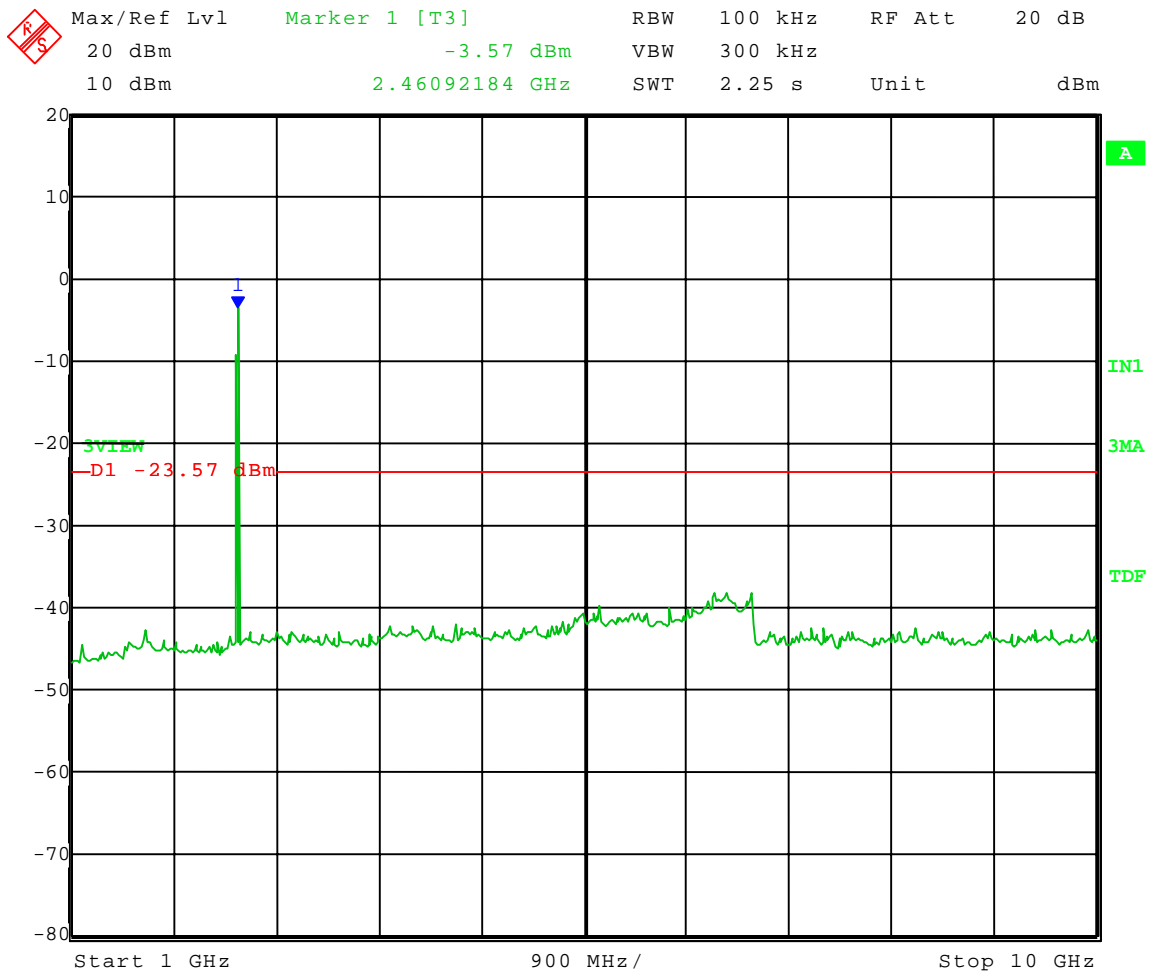
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: **High Channel** Transmit = 2.462 GHz
Antenna Port 1
Data Rate: 1 Mbit/s (highest duty cycle)
Frequency Range: 1 to 10 GHz
Limit = -23.57 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 19.MAY.2008 16:23:27



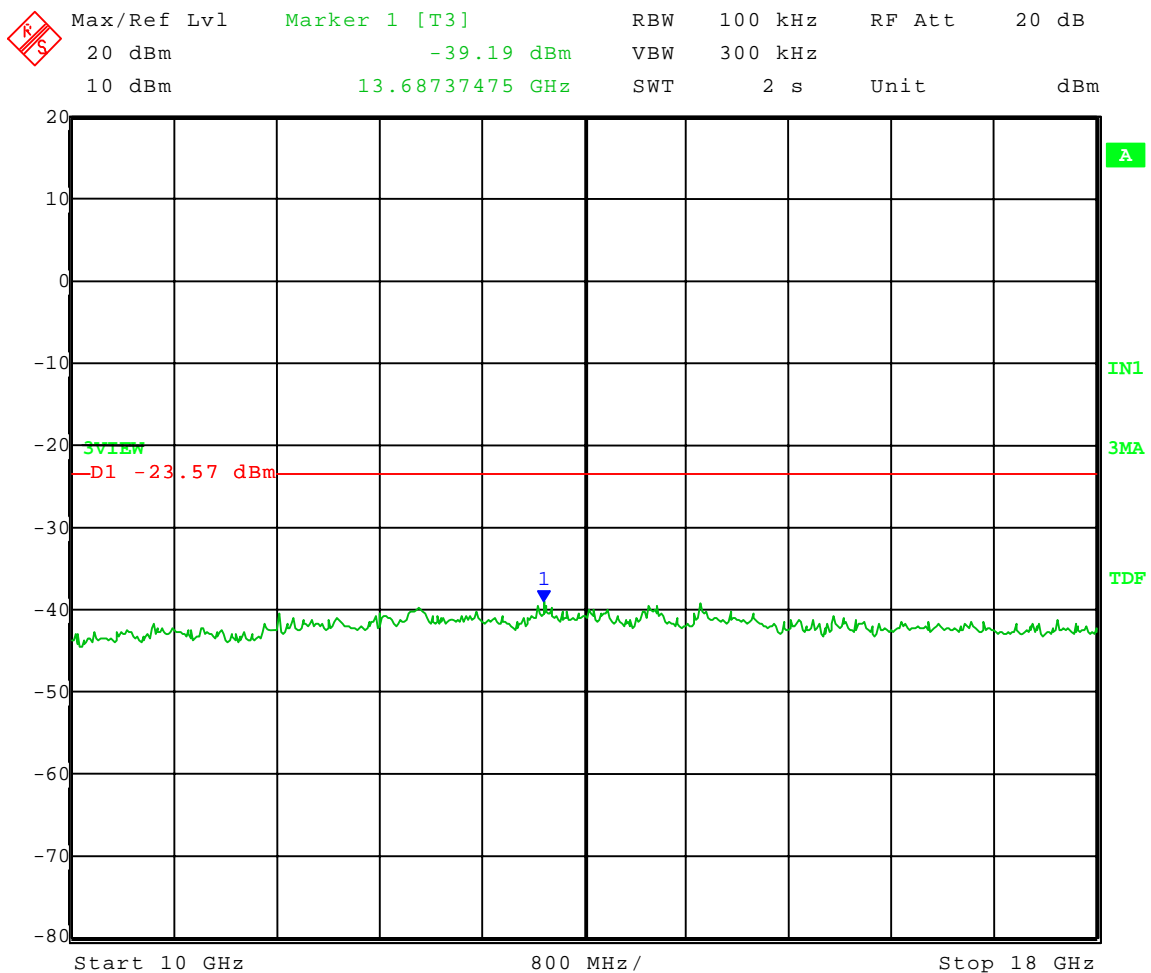
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: **High Channel** Transmit = 2.462 GHz
Antenna Port 1
Data Rate: 1 Mbit/s (highest duty cycle)
Frequency Range: 10 to 18 GHz
Limit = -23.57 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 19.MAY.2008 16:25:32



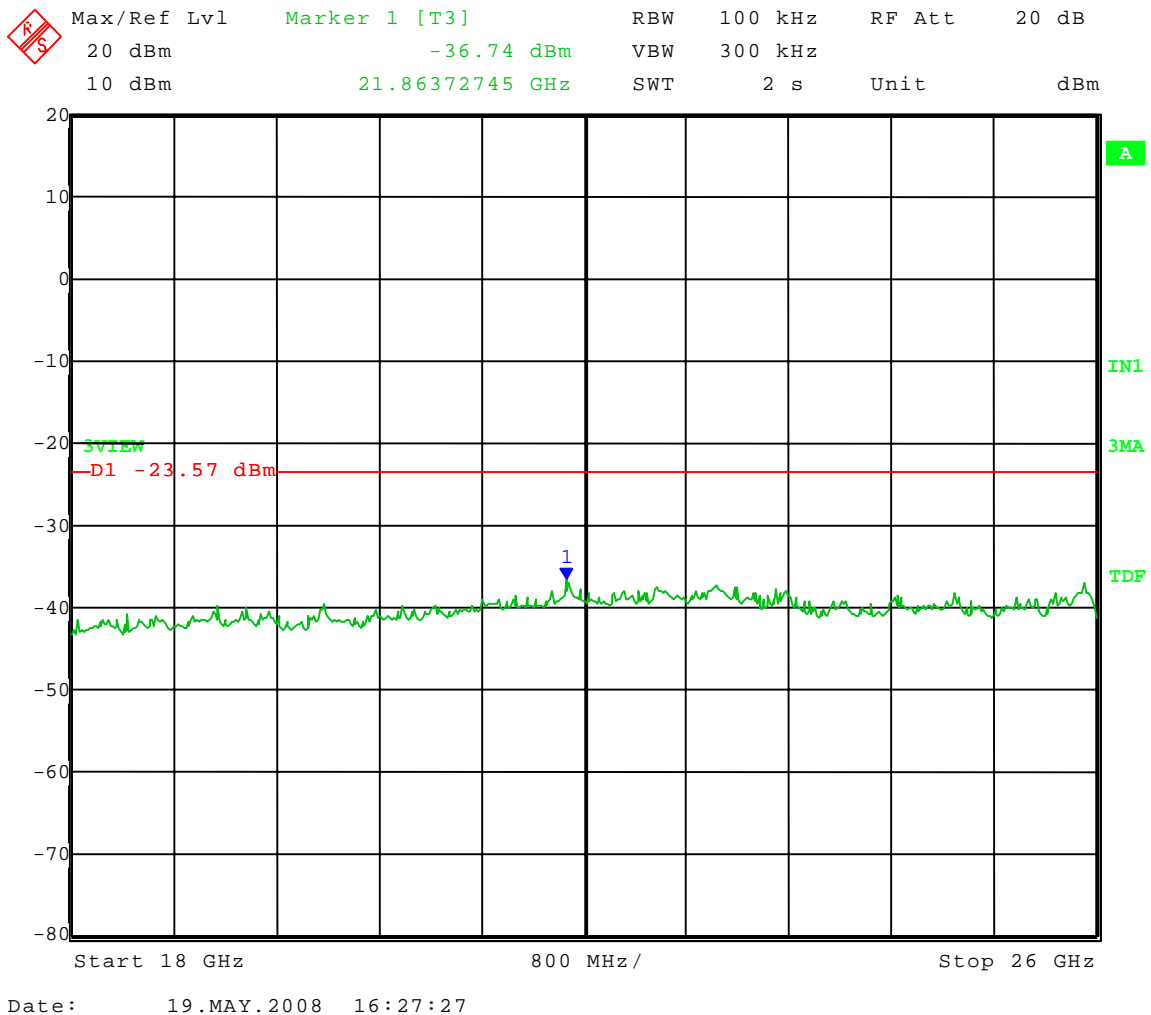
1250 Peterson Dr., Wheeling, IL 60090

Company: TV Compass
 Model Tested: DMR1
 Report Number: 14224

APPENDIX A

Test Date: 05-19-2008
 Company: TV Compass
 EUT: Model: DMR1
 Test: Spurious Emissions - Conducted
 Operator: Craig B
 Comment: High Channel Transmit = 2.462 GHz
Antenna Port 1
 Data Rate: 1 Mbit/s (highest duty cycle)
 Frequency Range: 18 to 26 GHz
 Limit = -23.57 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency





1250 Peterson Dr., Wheeling, IL 60090

Company: TV Compass
Model Tested: DMR1
Report Number: 14224

APPENDIX A

CONDUCTED EMISSION DATA AND GRAPH(S)

TAKEN FOR

SPURIOUS EMISSION MEASUREMENTS MADE

AT THE ANTENNA TERMINALS

PART 15.247(d)

ANTENNA PORT 2



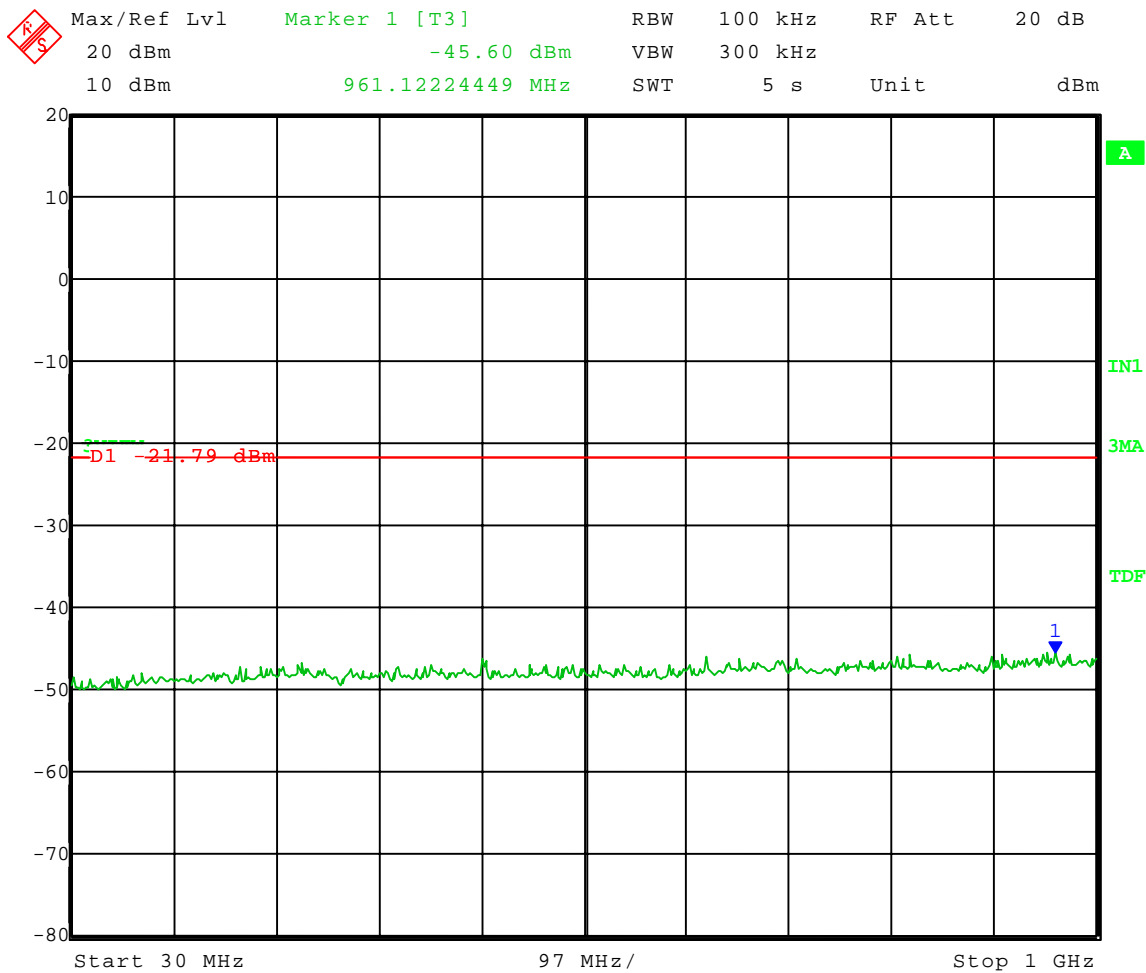
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 06-27-2008
Company: TV Compass
EUT: Model: DMR1
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: Low Channel Transmit = 2.412 GHz
Antenna Port 2
Data Rate: 1 Mbit/s (highest duty cycle)
Frequency Range: 30 to 1000 MHz
Limit = -21.79 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 27.JUN.2008 15:21:40



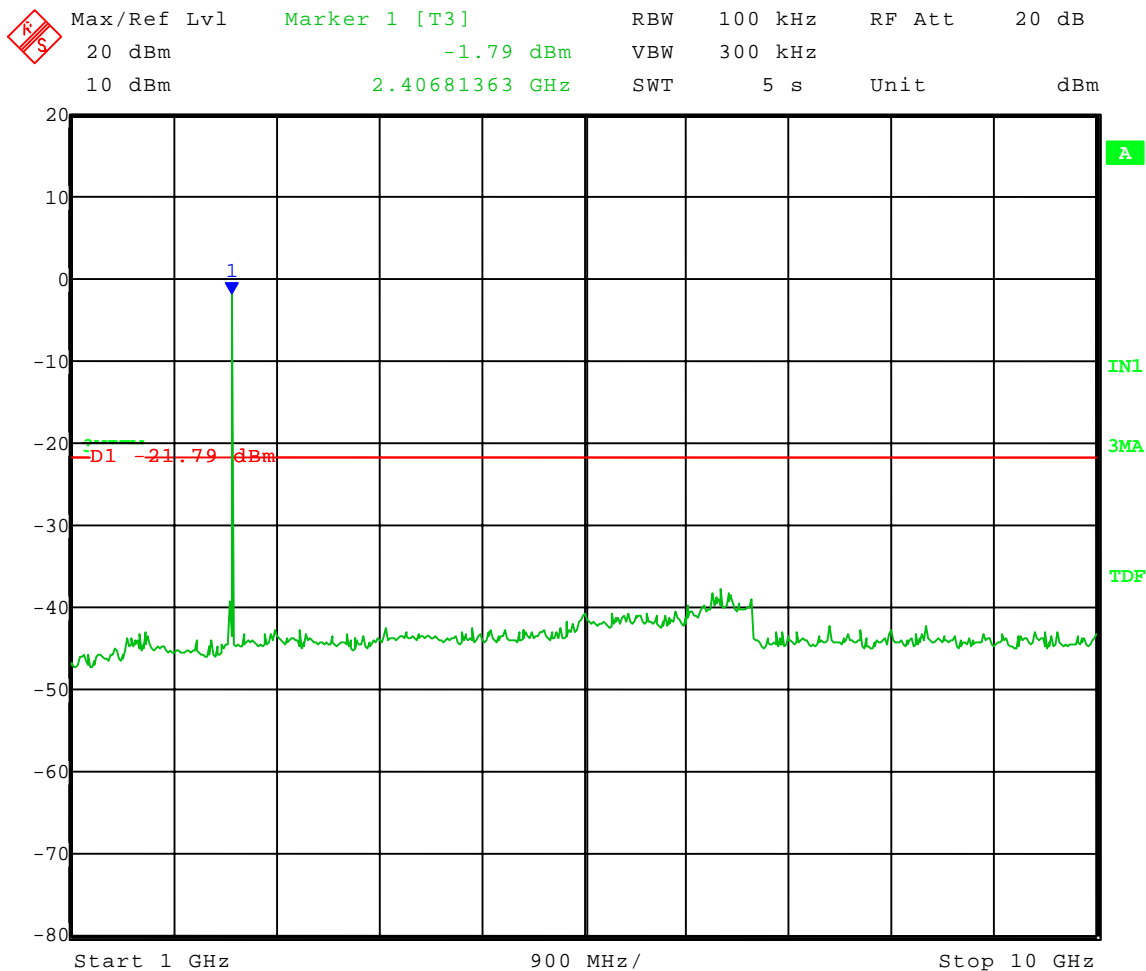
Company: TV Compass
 Model Tested: DMR1
 Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 06-27-2008
 Company: TV Compass
 EUT: Model: DMR1
 Test: Spurious Emissions - Conducted
 Operator: Craig B
 Comment: Low Channel Transmit = 2.412 GHz
 Antenna Port 2
 Data Rate: 1 Mbit/s (highest duty cycle)
 Frequency Range: 1 to 10 GHz
 Limit = -21.79 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 27.JUN.2008 15:17:54



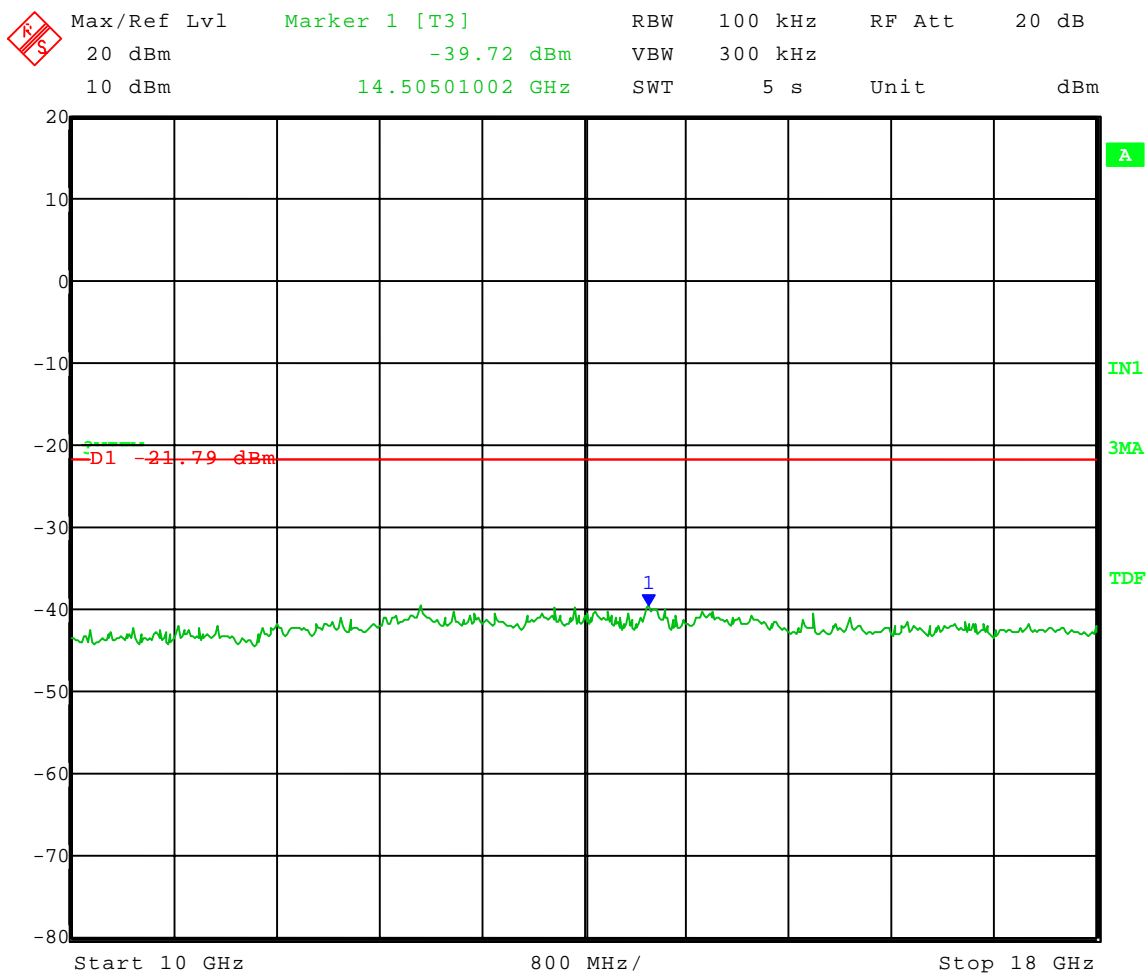
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 06-27-2008
Company: TV Compass
EUT: Model: DMR1
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: **Low Channel** Transmit = 2.412 GHz
Antenna Port 2
Data Rate: 1 Mbit/s (highest duty cycle)
Frequency Range: 10 to 18 GHz
Limit = -21.79 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 27.JUN.2008 15:19:17



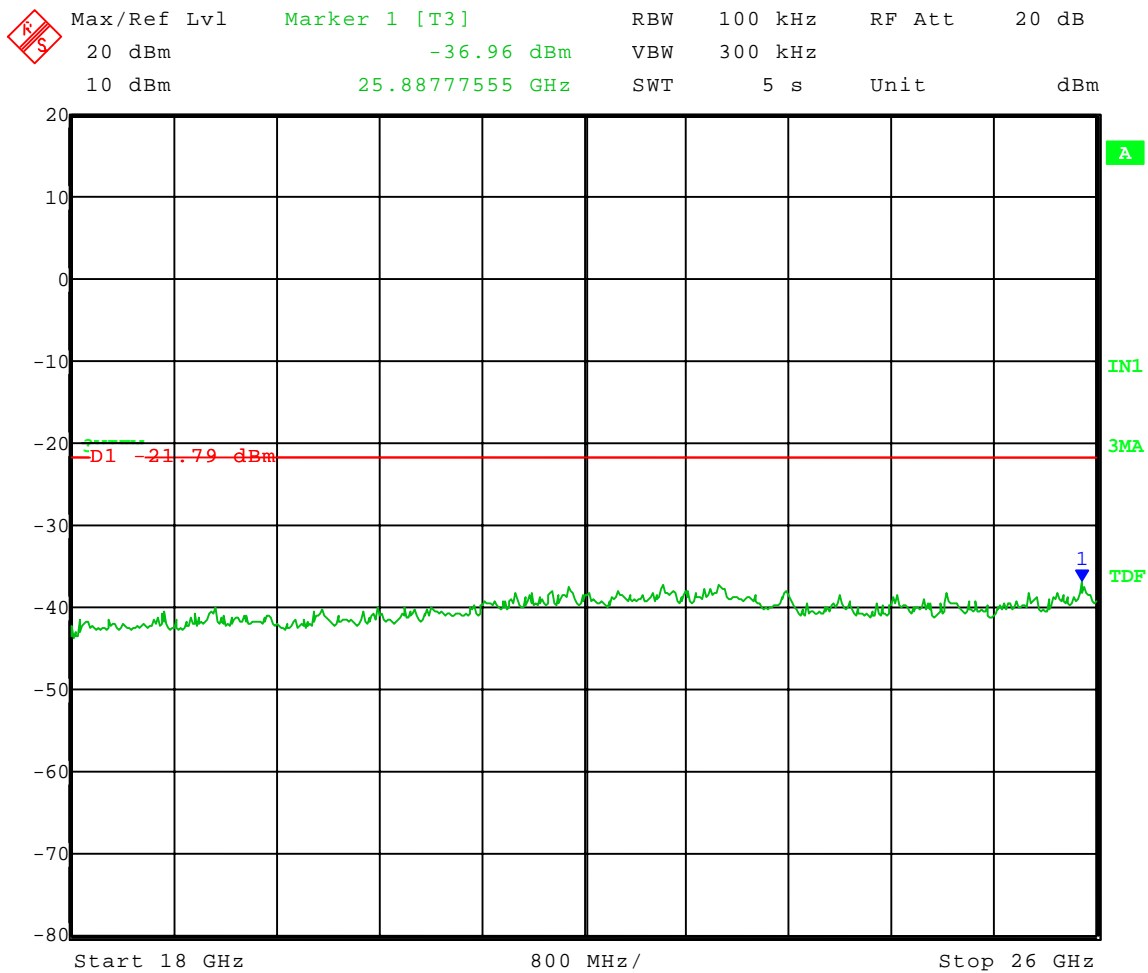
Company: TV Compass
 Model Tested: DMR1
 Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 06-27-2008
 Company: TV Compass
 EUT: Model: DMR1
 Test: Spurious Emissions - Conducted
 Operator: Craig B
 Comment: **Low Channel** Transmit = 2.412 GHz
Antenna Port 2
 Data Rate: 1 Mbit/s (highest duty cycle)
 Frequency Range: 18 to 26 GHz
 Limit = -21.79 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 27.JUN.2008 15:20:30



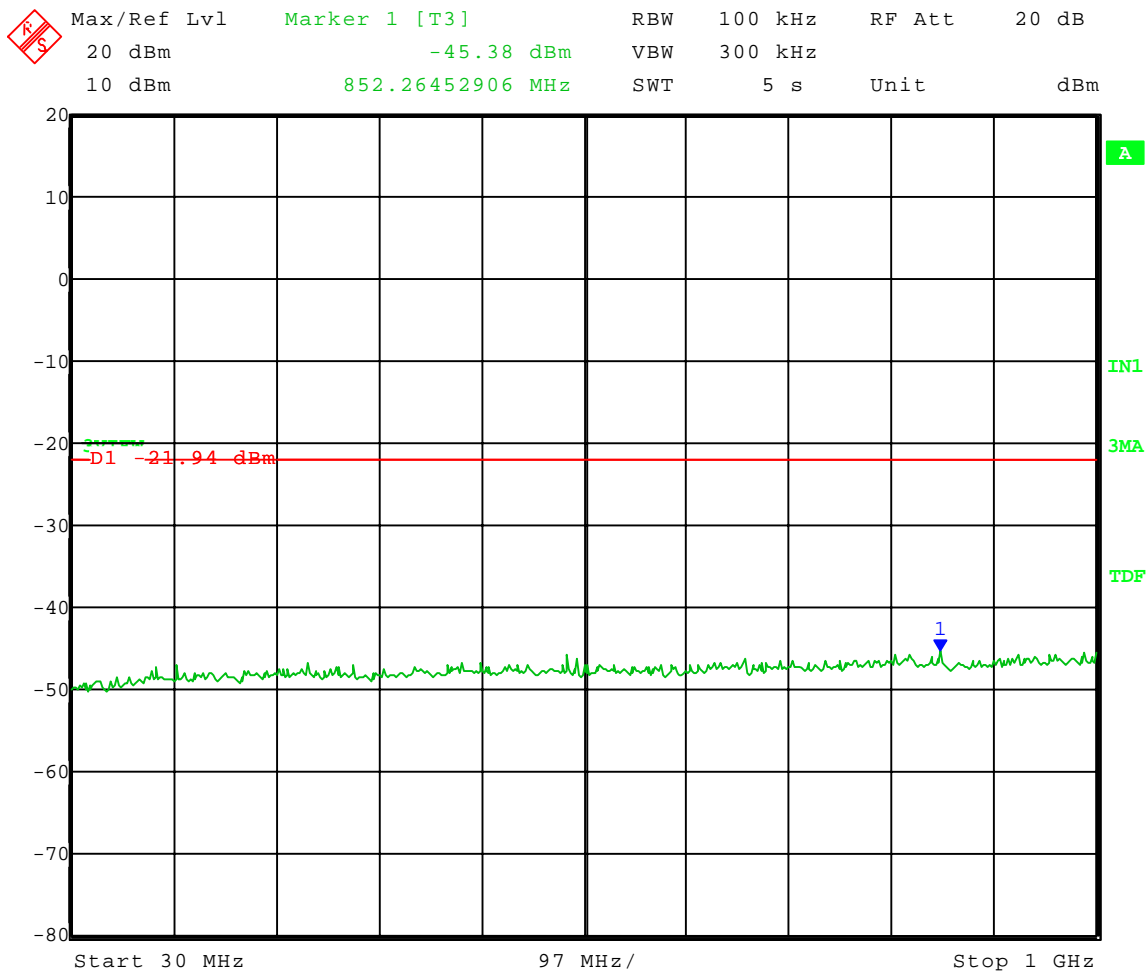
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 06-27-2008
Company: TV Compass
EUT: Model: DMR1
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: **Mid Channel** Transmit = 2.437 GHz
Antenna Port 2
Data Rate: 1 Mbit/s (highest duty cycle)
Frequency Range: 30 to 1000 MHz
Limit = -21.94 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 27.JUN.2008 15:30:12



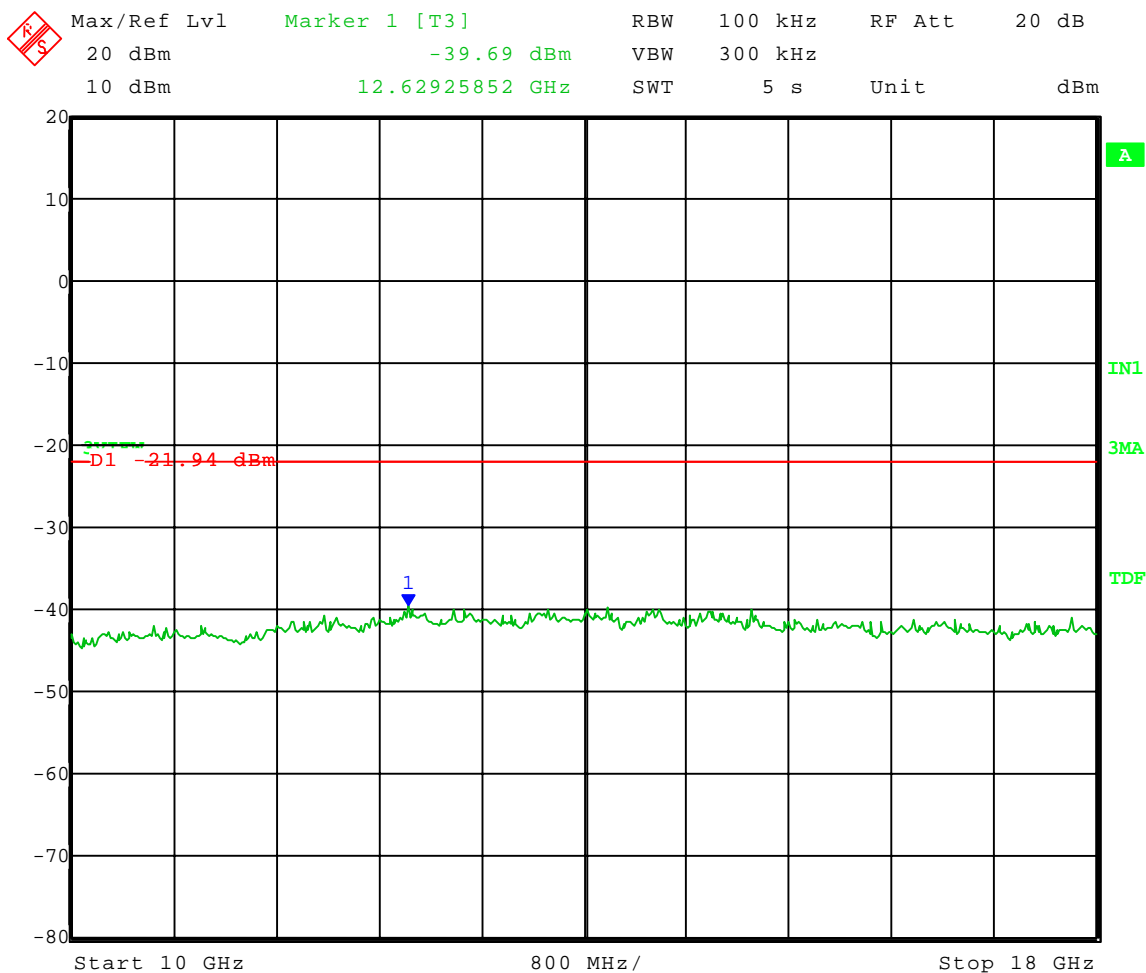
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 06-27-2008
Company: TV Compass
EUT: Model: DMR1
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: **Mid Channel** Transmit = 2.437 GHz
Antenna Port 2
Data Rate: 1 Mbit/s (highest duty cycle)
Frequency Range: 10 to 18 GHz
Limit = -21.94 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 27.JUN.2008 15:25:52



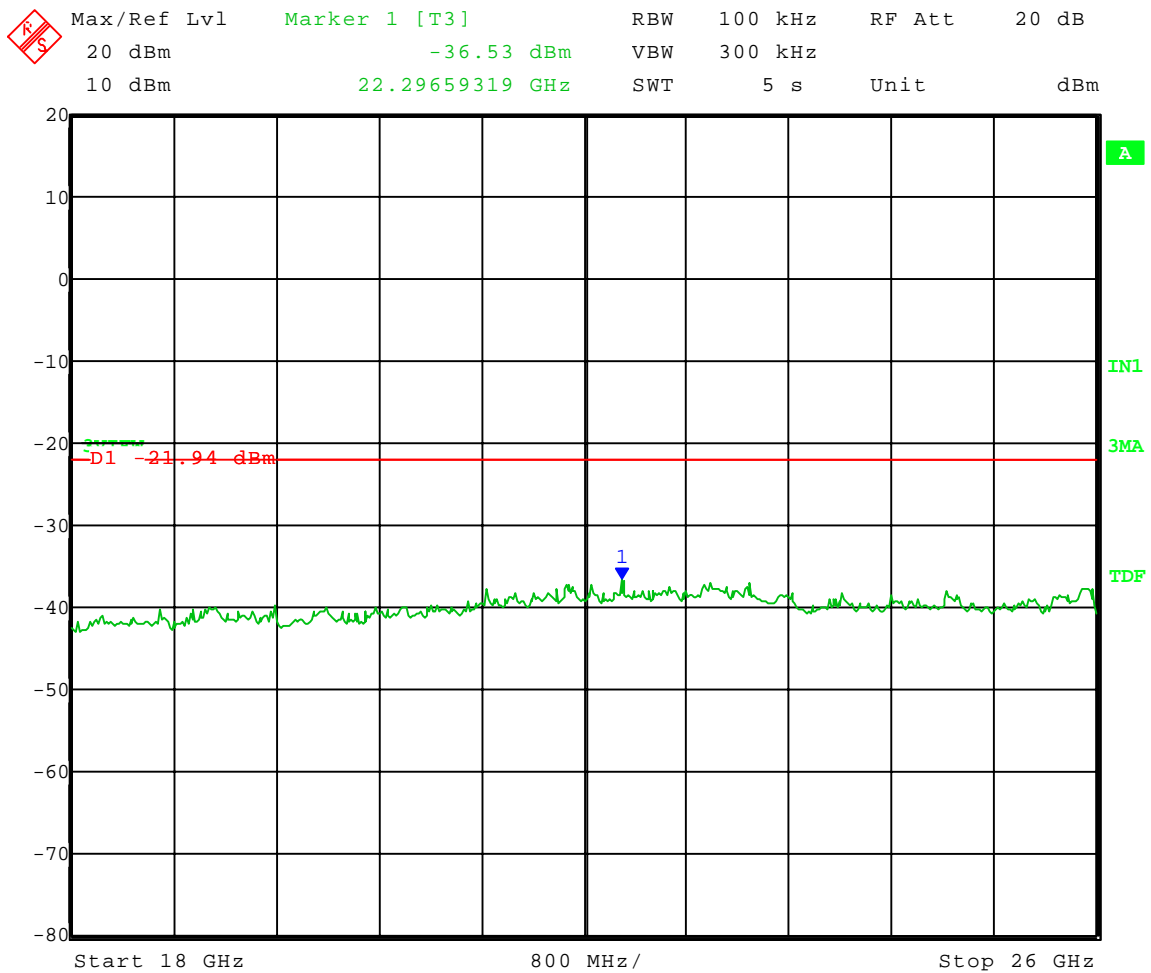
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 06-27-2008
Company: TV Compass
EUT: Model: DMR1
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: **Mid Channel** Transmit = 2.437 GHz
Antenna Port 2
Data Rate: 1 Mbit/s (highest duty cycle)
Frequency Range: 18 to 26 GHz
Limit = -21.94 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 27.JUN.2008 15:28:05



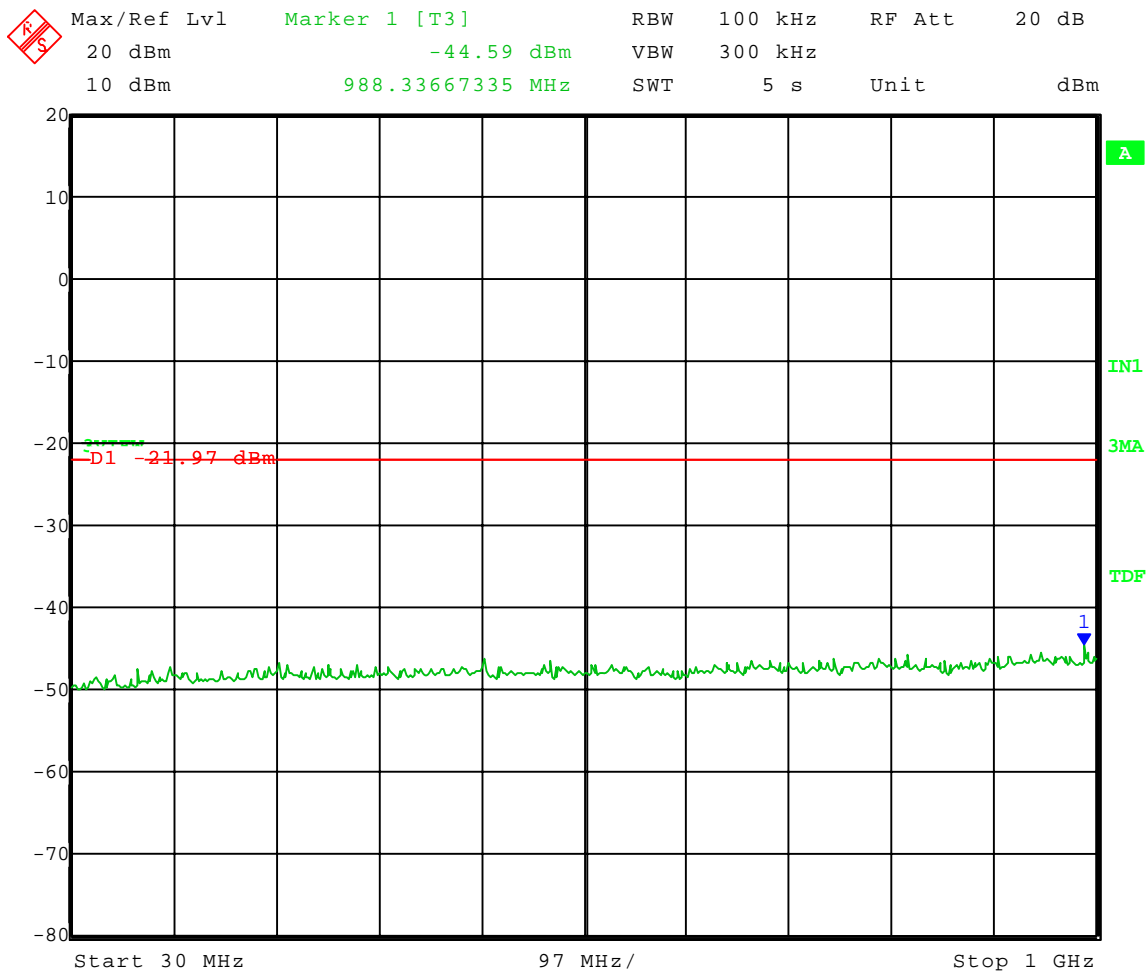
Company: TV Compass
 Model Tested: DMR1
 Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 06-27-2008
 Company: TV Compass
 EUT: Model: DMR1
 Test: Spurious Emissions - Conducted
 Operator: Craig B
 Comment: **High Channel** Transmit = 2.462 GHz
Antenna Port 2
 Data Rate: 1 Mbit/s (highest duty cycle)
 Frequency Range: 30 to 1000 MHz
 Limit = -21.97 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 27.JUN.2008 15:13:09



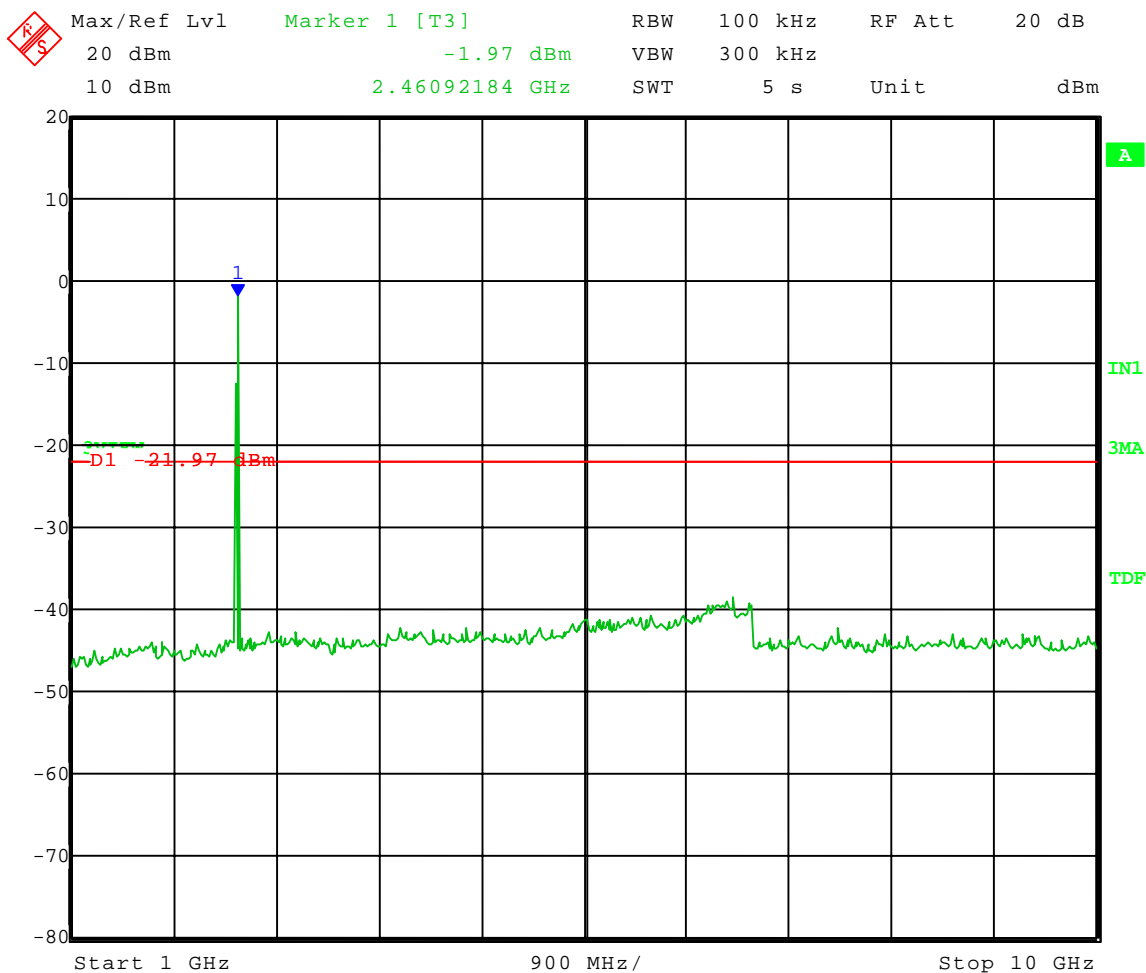
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 06-27-2008
Company: TV Compass
EUT: Model: DMR1
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: High Channel Transmit = 2.462 GHz
Antenna Port 2
Data Rate: 1 Mbit/s (highest duty cycle)
Frequency Range: 1 to 10 GHz
Limit = -21.97 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 27.JUN.2008 15:06:16



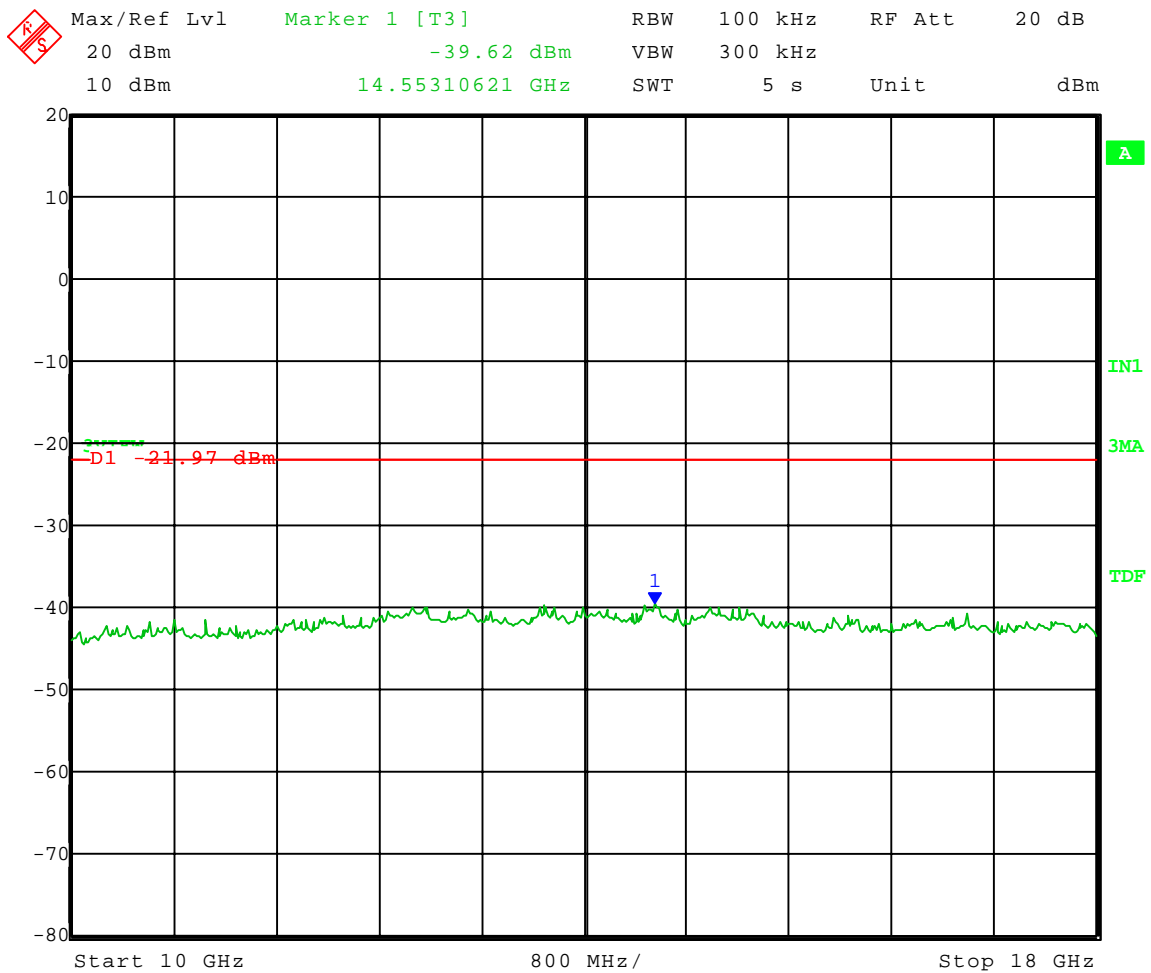
Company: TV Compass
 Model Tested: DMR1
 Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 06-27-2008
 Company: TV Compass
 EUT: Model: DMR1
 Test: Spurious Emissions - Conducted
 Operator: Craig B
 Comment: **High Channel** Transmit = 2.462 GHz
Antenna Port 2
 Data Rate: 1 Mbit/s (highest duty cycle)
 Frequency Range: 10 to 18 GHz
 Limit = -21.97 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 27.JUN.2008 15:09:10



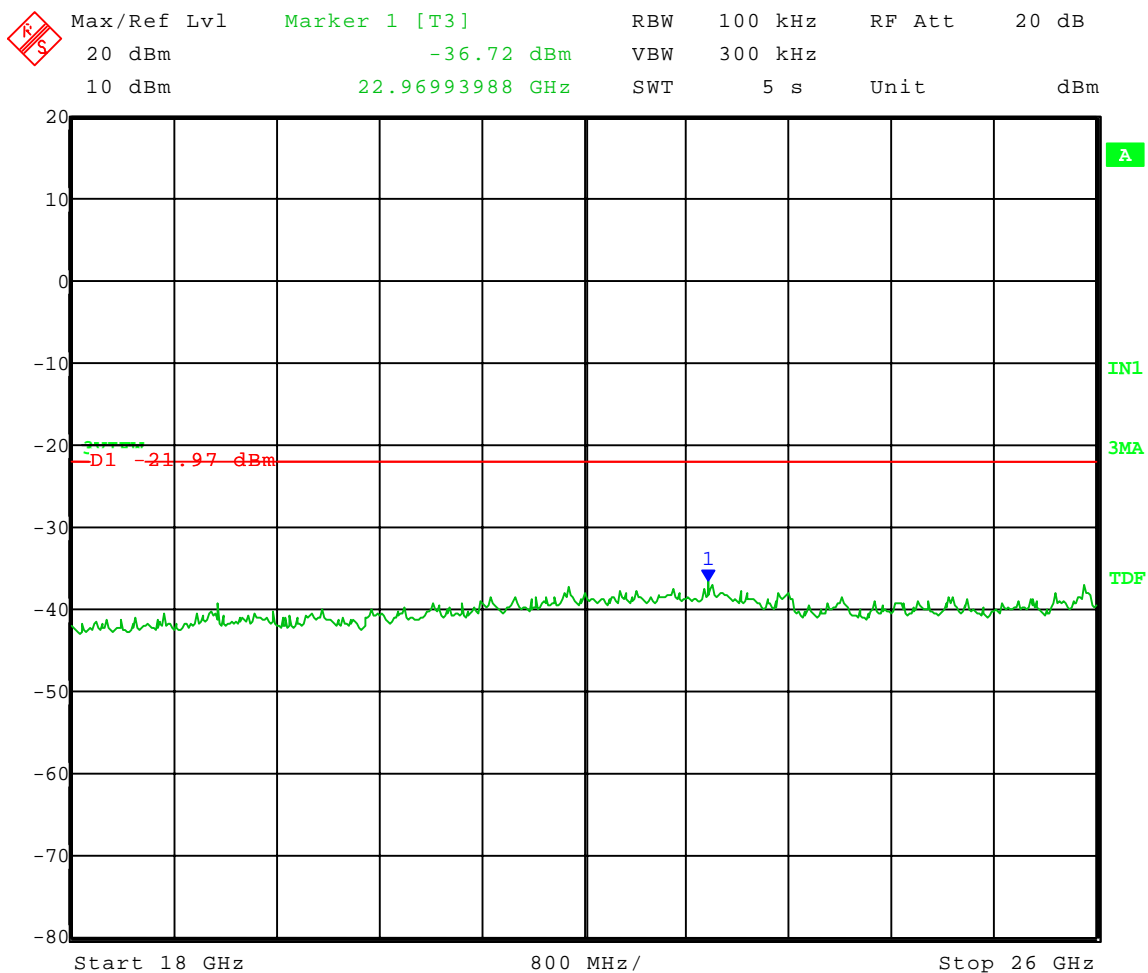
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 06-27-2008
Company: TV Compass
EUT: Model: DMR1
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: **High Channel** Transmit = 2.462 GHz
Antenna Port 2
Data Rate: 1 Mbit/s (highest duty cycle)
Frequency Range: 18 to 26 GHz
Limit = -21.97 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 27.JUN.2008 15:11:10



Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

3.0 CONDUCTED EMISSIONS (ANTENNA TERMINAL) PHOTOS TAKEN DURING TESTING





Company: TV Compass
 Model Tested: DMR1
 Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

4.0 RESTRICTED BANDS

As stated in Section 15.205a, the fundamental emission from the ESPN Ultimate Remote shall not fall within any of the bands listed below:

Frequency in MHz	Frequency in MHz	Frequency in MHz	Frequency in GHz
.0900 to .1100	162.0125 to 167.17	2310.0 to 2390	9.30 to 9.50
.4900 to .5100	167.7200 to 173.20	2483.5 to 2500	10.60 to 12.70
2.1735 to 2.1905	240.000 to 285.00	2655.0 to 2900	13.25 to 13.40
8.362 to 8.3660	322.200 to 335.40	3260.0 to 3267	14.47 to 14.50
13.36 to 13.410	399.900 to 410.00	3332.0 to 3339	15.35 to 16.20
25.50 to 25.670	608.000 to 614.00	3345.8 to 3358	17.70 to 21.40
37.50 to 38.250	960.000 to 1240.00	3600.0 to 4400	22.01 to 23.13
73.00 to 75.500	1300.000 to 1427.00	4500.0 to 5250	23.60 to 24.00
108.00 to 121.94	1435.000 to 1626.50	5350.0 to 5450	31.20 to 31.80
123.00 to 138.00	1660.000 to 1710.00	7250.0 to 7750	36.43 to 36.50
149.90 to 150.00	1718.800 to 1722.20	8025.0 to 8500	ABOVE 38.60
156.70 to 156.90	2200.000 to 2300.00	9000.0 to 9200	

NOTE:

The noise floor within the Restricted Bands for the EMC Receiver will typically lay 20 dB below the limit.

5.0 RESTRICTED BAND AND BAND EDGE COMPLIANCE

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the attenuation below the general limits specified in 15.209 is not required.

The field strength of any **radiated emissions** which fall within the restricted bands shall not exceed the general radiated emissions limits as stated Section 15.209.

NOTE: See the following page(s) for the graph(s) made showing compliance for Restricted Band and Band Edge Compliance:



1250 Peterson Dr., Wheeling, IL 60090

Company: TV Compass
Model Tested: DMR1
Report Number: 14224

APPENDIX A

DATA AND GRAPH(S) TAKEN SHOWING

THE RESTRICTED BAND COMPLIANCE

PARTS 15.247(d) & 15.205



Company: TV Compass
 Model Tested: DMR1
 Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Radiated Spurious Emissions in Restricted Bands

1 – 10 GHz Tested at a 3 Meter Distance

10 – 26 GHz Tested at a 1 Meter Distance

EUT: DMR1
Manufacturer: TV Compass
Operating Condition: 70 deg F; 41% R.H.
Test Site: Site 3
Operator: Craig B
Test Specification: FCC Part 15.247(d) and FCC Part 15.205
Comment: Continuous Transmit. 1 Mbit/s data rate (largest duty cycle)
Date: 05/27/2008

- Notes:** (1) Peak measurements were taken with RBW = 1 MHz, VBW = 3 MHz
 (2) Average measurements were taken with RBW = 1 MHz, VBW = 10 Hz
 (3) All other restricted band emissions at least 20 dB under the limit.

Channel 1: Antenna 1

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Duty Cycle Correction (dB)	Final Corrected (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
4.824	Average	Vert	41.05	32.85	-32.3	41.60	---	41.60	54	12.40	Res. Band
4.824	Max Peak	Vert	51.84	32.85	-32.3	52.39	---	52.39	74	21.61	Res. Band
4.824	Average	Horz	39.47	32.85	-32.3	40.02	---	40.02	54	13.98	Res. Band
4.824	Max Peak	Horz	51.87	32.85	-32.3	52.42	---	52.42	74	21.58	Res. Band



Company: TV Compass
 Model Tested: DMR1
 Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Radiated Spurious Emissions in Restricted Bands

1 – 10 GHz Tested at a 3 Meter Distance

10 – 26 GHz Tested at a 1 Meter Distance

EUT: DMR1
Manufacturer: TV Compass
Operating Condition: 70 deg F; 41% R.H.
Test Site: Site 3
Operator: Craig B
Test Specification: FCC Part 15.247(d) and FCC Part 15.205
Comment: Continuous Transmit. 1 Mbit/s data rate (largest duty cycle)
Date: 05/27/2008

- Notes:** (1) Peak measurements were taken with RBW = 1 MHz, VBW = 3 MHz
 (2) Average measurements were taken with RBW = 1 MHz, VBW = 10 Hz
 (3) All other restricted band emissions at least 20 dB under the limit.

Channel 6: Antenna 1

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Duty Cycle Correction (dB)	Final Corrected (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
4.874	Average	Vert	36.66	32.95	-32.3	37.31	---	37.31	54	16.69	Res. Band
4.874	Max Peak	Vert	50.28	32.95	-32.3	50.93	---	50.93	74	23.07	Res. Band
4.874	Average	Horz	36.53	32.95	-32.3	37.18	---	37.18	54	16.82	Res. Band
4.874	Max Peak	Horz	50.86	32.95	-32.3	51.51	---	51.51	74	22.49	Res. Band



Company: TV Compass
 Model Tested: DMR1
 Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Radiated Spurious Emissions in Restricted Bands

1 – 10 GHz Tested at a 3 Meter Distance

10 – 26 GHz Tested at a 1 Meter Distance

EUT: DMR1
Manufacturer: TV Compass
Operating Condition: 70 deg F; 41% R.H.
Test Site: Site 3
Operator: Craig B
Test Specification: FCC Part 15.247(d) and FCC Part 15.205
Comment: Continuous Transmit. 1 Mbit/s data rate (largest duty cycle)
Date: 05/27/2008

- Notes:** (1) Peak measurements were taken with RBW = 1 MHz, VBW = 3 MHz
 (2) Average measurements were taken with RBW = 1 MHz, VBW = 10 Hz
 (3) All other restricted band emissions at least 20 dB under the limit.

Channel 11: Antenna 1

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Duty Cycle Correction (dB)	Final Corrected (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
4.924	Average	Vert	35.93	33.05	-32.4	36.58	---	36.54	54	17.46	Res. Band
4.924	Max Peak	Vert	50.70	33.05	-32.4	51.35	---	51.35	74	22.65	Res. Band
4.924	Average	Horz	36.10	33.05	-32.4	36.75	---	36.75	54	17.25	Res. Band
4.924	Max Peak	Horz	50.77	33.05	-32.4	51.42	---	51.42	74	22.58	Res. Band



Company: TV Compass
 Model Tested: DMR1
 Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Radiated Spurious Emissions in Restricted Bands

1 – 10 GHz Tested at a 3 Meter Distance

10 – 26 GHz Tested at a 1 Meter Distance

EUT: DMR1
Manufacturer: TV Compass
Operating Condition: 72 deg F; 66% R.H.
Test Site: Site 3
Operator: Craig B
Test Specification: FCC Part 15.247(d) and FCC Part 15.205
Comment: Continuous Transmit. 1 Mbit/s data rate (largest duty cycle)
Date: 06/26/2008

- Notes:** (1) Peak measurements were taken with RBW = 1 MHz, VBW = 3 MHz
 (2) Average measurements were taken with RBW = 1 MHz, VBW = 10 Hz
 (3) All other restricted band emissions at least 20 dB under the limit.

Channel 1: Antenna 2

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Duty Cycle Correction (dB)	Final Corrected (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
4.824	Average	Vert	37.80	32.85	-32.3	38.35	---	38.35	54	15.65	Res. Band
4.824	Max Peak	Vert	51.18	32.85	-32.3	51.73	---	51.73	74	22.27	Res. Band
4.824	Average	Horz	37.87	32.85	-32.3	38.42	---	38.42	54	15.58	Res. Band
4.824	Max Peak	Horz	51.20	32.85	-32.3	51.75	---	51.75	74	22.25	Res. Band



Company: TV Compass
 Model Tested: DMR1
 Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Radiated Spurious Emissions in Restricted Bands

1 – 10 GHz Tested at a 3 Meter Distance

10 – 26 GHz Tested at a 1 Meter Distance

EUT: DMR1
Manufacturer: TV Compass
Operating Condition: 72 deg F; 58% R.H.
Test Site: Site 3
Operator: Craig B
Test Specification: FCC Part 15.247(d) and FCC Part 15.205
Comment: Continuous Transmit. 1 Mbit/s data rate (largest duty cycle)
Date: 06/26/2008

- Notes:** (1) Peak measurements were taken with RBW = 1 MHz, VBW = 3 MHz
 (2) Average measurements were taken with RBW = 1 MHz, VBW = 10 Hz
 (3) All other restricted band emissions at least 20 dB under the limit.

Channel 6: Antenna 2

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Duty Cycle Correction (dB)	Final Corrected (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
4.874	Average	Vert	37.54	32.95	-32.3	38.19	---	38.19	54	15.81	Res. Band
4.874	Max Peak	Vert	51.20	32.95	-32.3	51.85	---	51.85	74	22.15	Res. Band
4.874	Average	Horz	36.87	32.95	-32.3	37.52	---	37.52	54	16.48	Res. Band
4.874	Max Peak	Horz	50.56	32.95	-32.3	51.21	---	51.21	74	22.79	Res. Band



Company: TV Compass
 Model Tested: DMR1
 Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Radiated Spurious Emissions in Restricted Bands

1 – 10 GHz Tested at a 3 Meter Distance

10 – 26 GHz Tested at a 1 Meter Distance

EUT: DMR1
Manufacturer: TV Compass
Operating Condition: 72 deg F; 66% R.H.
Test Site: Site 3
Operator: Craig B
Test Specification: FCC Part 15.247(d) and FCC Part 15.205
Comment: Continuous Transmit. 1 Mbit/s data rate (largest duty cycle)
Date: 06/26/2008

- Notes:** (1) Peak measurements were taken with RBW = 1 MHz, VBW = 3 MHz
 (2) Average measurements were taken with RBW = 1 MHz, VBW = 10 Hz
 (3) All other restricted band emissions at least 20 dB under the limit.

Channel 11: Antenna 2

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Duty Cycle Correction (dB)	Final Corrected (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
4.924	Average	Vert	37.66	33.05	-32.4	38.31	---	38.31	54	15.69	Res. Band
4.924	Max Peak	Vert	50.61	33.05	-32.4	51.26	---	51.26	74	22.74	Res. Band
4.924	Average	Horz	38.50	33.05	-32.4	39.15	---	39.15	54	14.85	Res. Band
4.924	Max Peak	Horz	50.99	33.05	-32.4	51.64	---	51.64	74	22.36	Res. Band



1250 Peterson Dr., Wheeling, IL 60090

Company: TV Compass
Model Tested: DMR1
Report Number: 14224

APPENDIX A

DATA AND GRAPH(S) TAKEN SHOWING
THE BAND EDGE CONDUCTED COMPLIANCE
PART 15.247



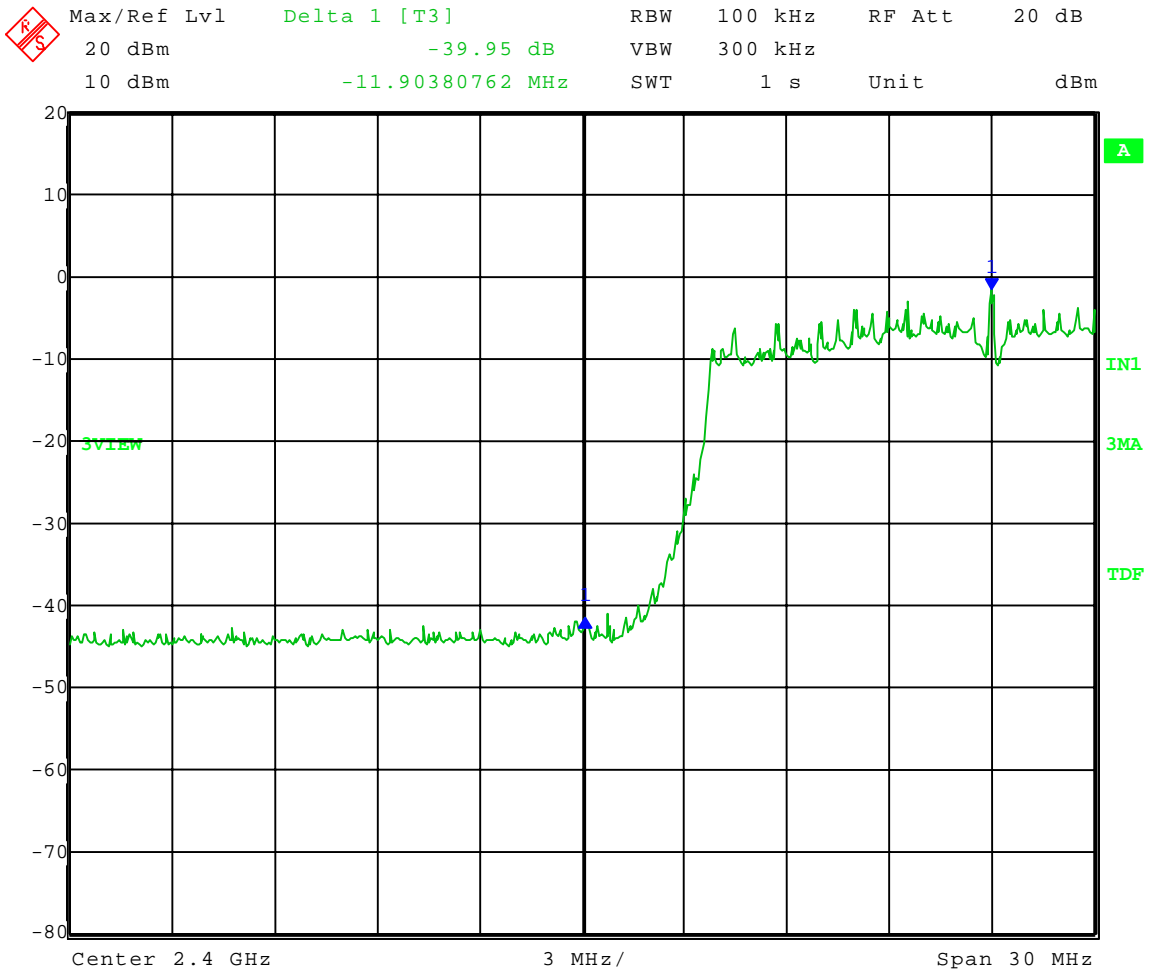
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Low Band-Edge Compliance - Conducted
Operator: Craig B
Comment: Low Channel: Frequency – 2.412 GHz
Antenna Port 1
Data Rate: 54 Mbit/s

Band-Edge Frequency = 2.4 GHz
Band-Edge > 20 dB Below Peak In-Band Emission



Date: 19.MAY.2008 14:09:56



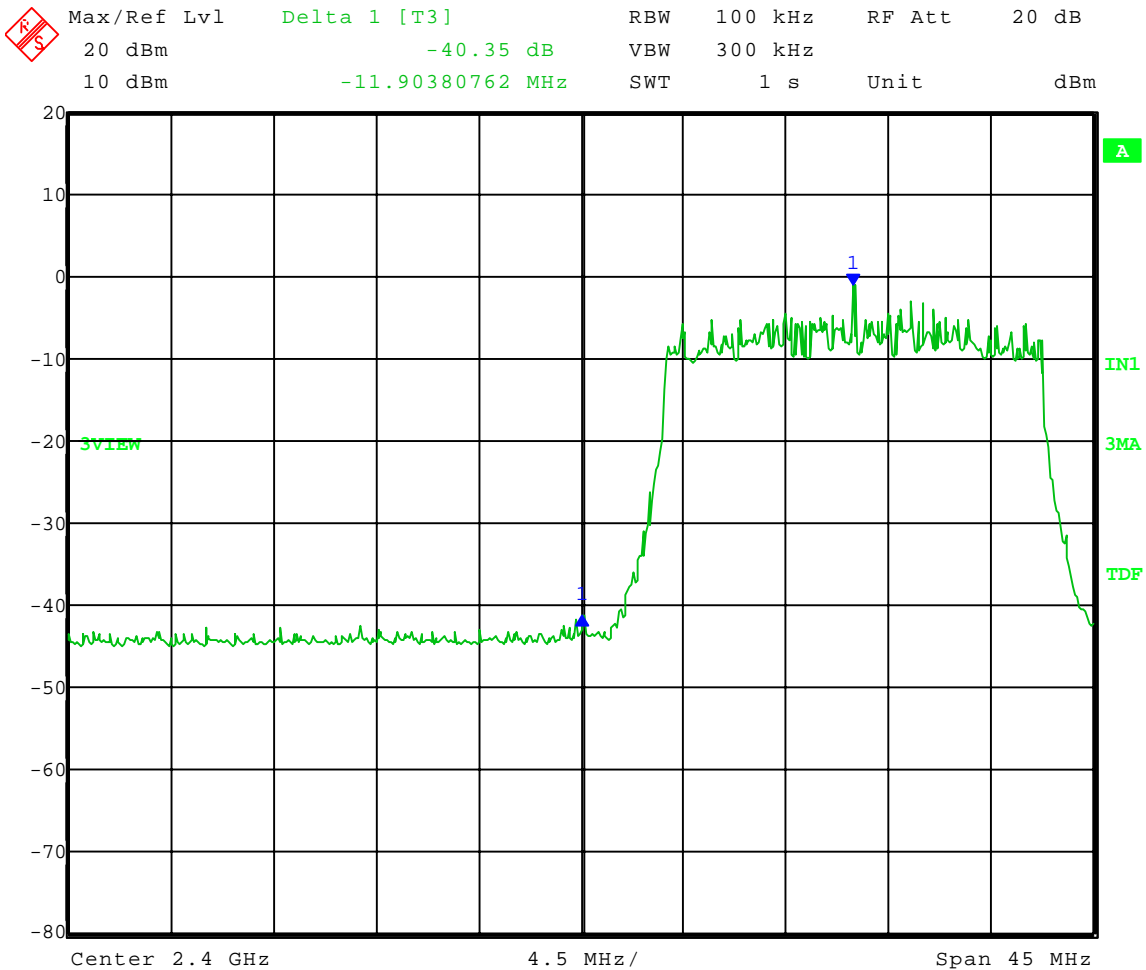
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 06-27-2008
Company: TV Compass
EUT: Model: DMR1
Test: Low Band-Edge Compliance - Conducted
Operator: Craig B
Comment: Low Channel: Frequency – 2.412 GHz
Antenna Port 2
Data Rate: 54 Mbit/s

Band-Edge Frequency = 2.4 GHz
Band-Edge > 20 dB Below Peak In-Band Emission



Date: 27.JUN.2008 15:33:36



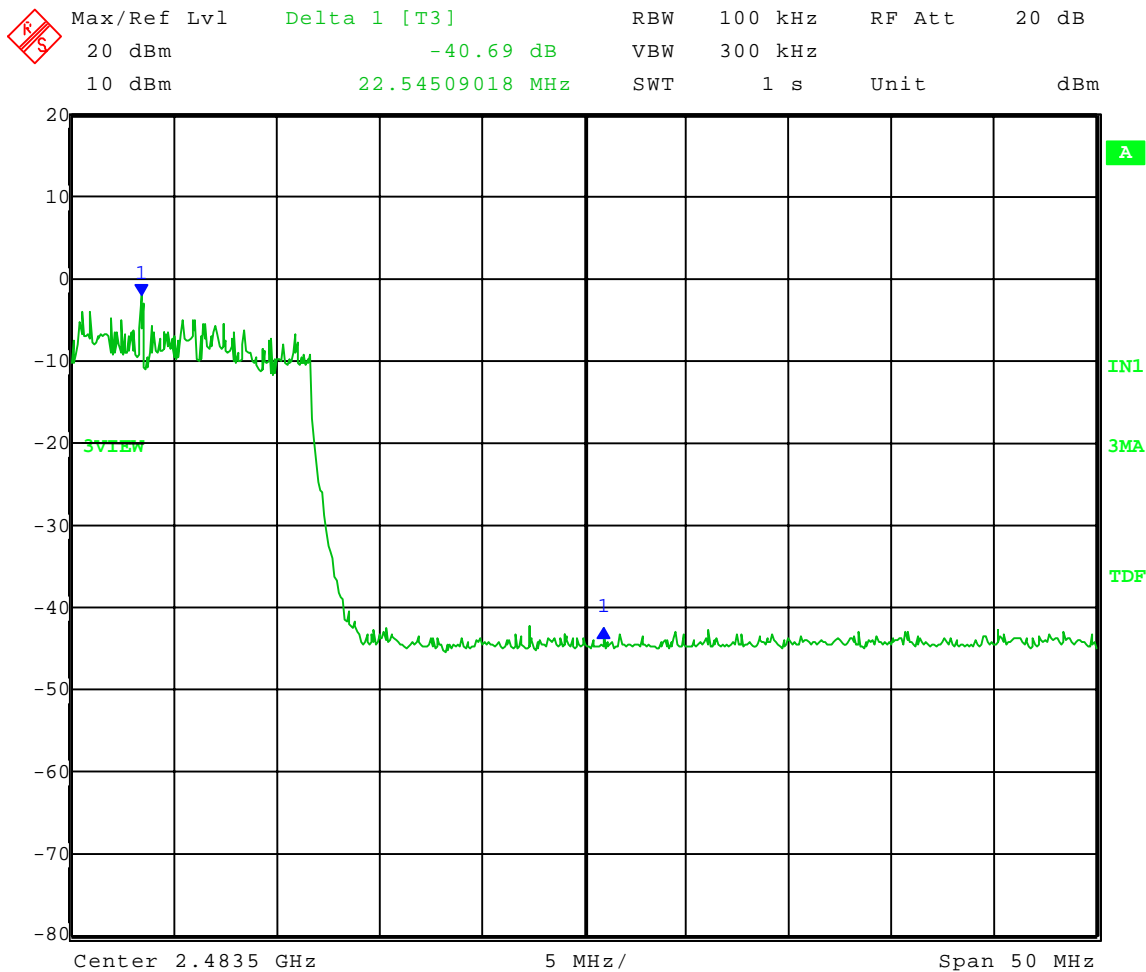
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: High Band-Edge Compliance - Conducted
Operator: Craig B
Comment: High Channel: Frequency – 2.462 GHz
Antenna Port 1
Data Rate: 54 Mbit/s

Band-Edge Frequency = 2.4835 GHz
Band-Edge > 20 dB Below Peak In-Band Emission



Date: 19.MAY.2008 16:20:53



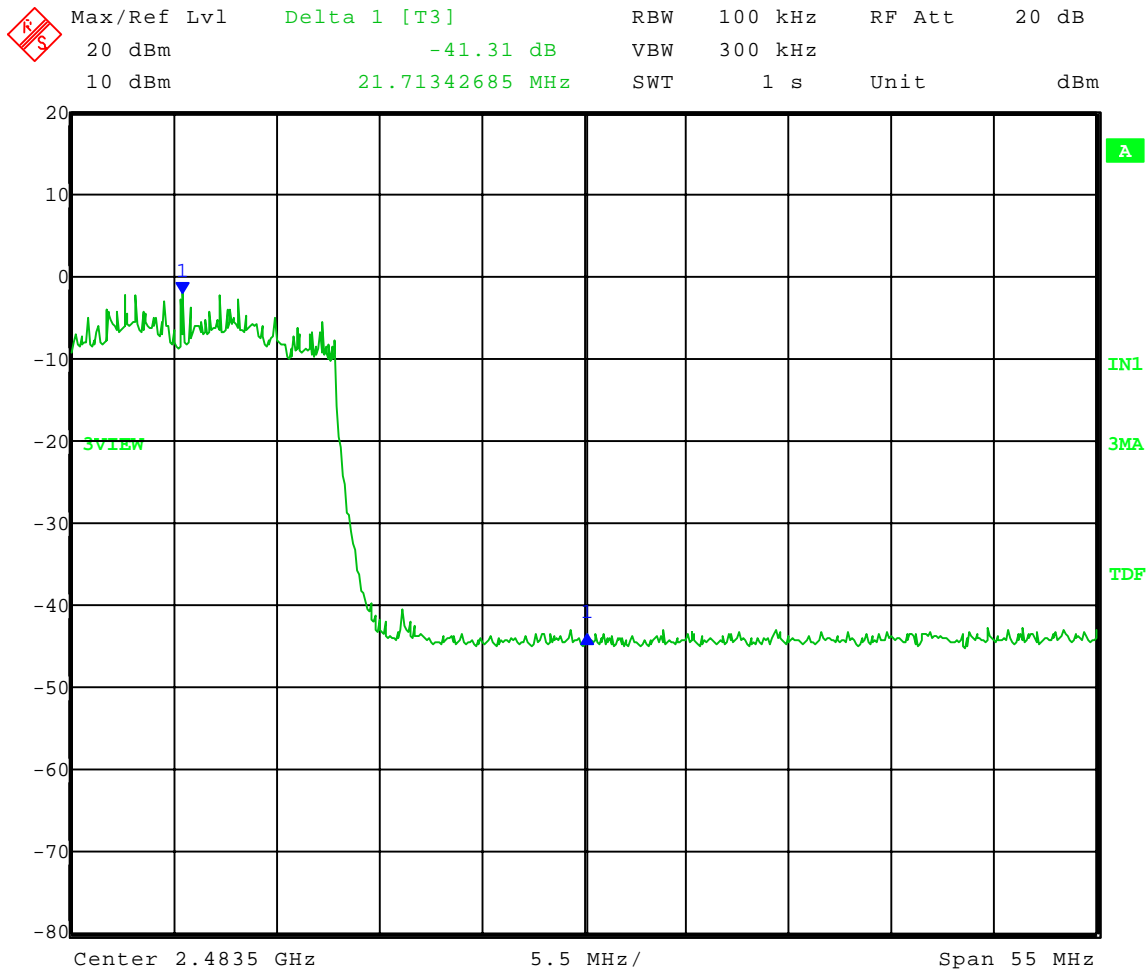
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 06-27-2008
Company: TV Compass
EUT: Model: DMR1
Test: High Band-Edge Compliance - Conducted
Operator: Craig B
Comment: High Channel: Frequency – 2.462 GHz
Antenna Port 2
Data Rate: 54 Mbit/s

Band-Edge Frequency = 2.4835 GHz
Band-Edge > 20 dB Below Peak In-Band Emission



Date: 27.JUN.2008 16:12:34



1250 Peterson Dr., Wheeling, IL 60090

Company: TV Compass
Model Tested: DMR1
Report Number: 14224

APPENDIX A

DATA AND GRAPH(S) TAKEN SHOWING

THE UPPER BAND EDGE

PART 15.247

BAND EDGE FALLS ON THE RESTRICTED

FREQUENCY BAND



Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Radiated Upper Band-Edge measurement

Test Procedure: "Measurement of Digital Transmission Systems Operating under Section 15.247
(March 23, 2005)

The EUT was investigated at the low and high channels of operation to determine band-edge compliance. Because the upper band-edge coincides with a restricted band, band-edge compliance for the upper band-edge was determined using the radiated mark-delta method. The radiated field strength of the fundamental emission was first determined and then the mark-delta method was used to determine the field strength of the band-edge emissions. The lower band-edge compliance was determined using the marker-delta method in which the radio frequency power that is produced by the EUT is at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of desired power.

Upper Band-Edge Marker Delta Method Antenna 2

Frequency (MHz)	Antenna Polarity (H/V)	Fundamental Field Strength (dB μ V/m)	Duty Cycle Correction (dB)	Delta-Marker (dB)	Band-Edge Field Strength (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
2462 (Peak)	H	97.75	N/A	-56.6	41.15	74	32.85
2462 (Avg)	H	92.82	---	-56.6	36.22	54	17.78

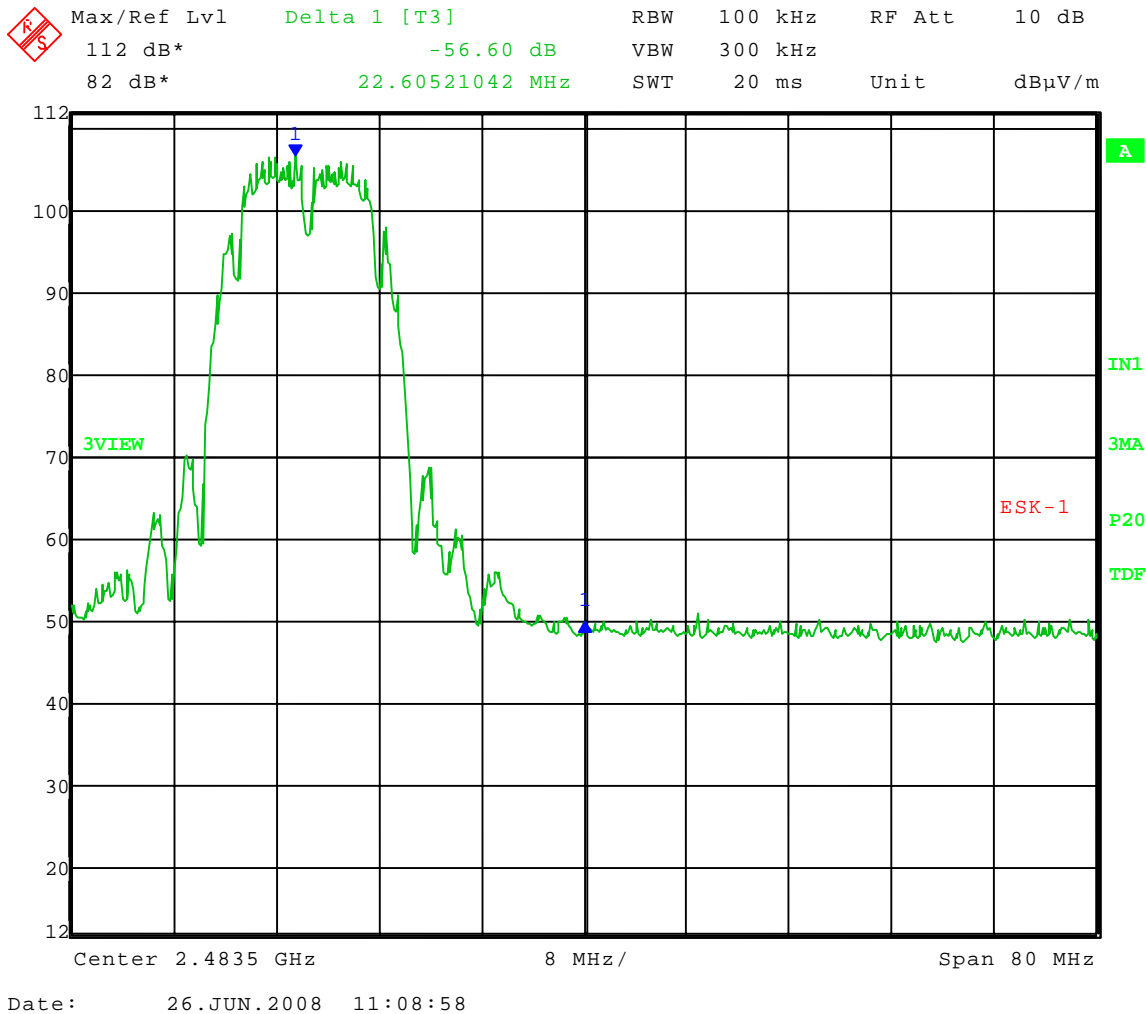


Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 06-26-2008
Company: TV Compass
EUT: DMR1
Test: Upper Band-Edge Radiated – Marker Delta Method
Operator: Craig B
Comment: High Channel: Frequency – 2.462 GHz





Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

6.0 FIELD STRENGTH OF FUNDAMENTAL AND SPURIOUS EMISSION MEASUREMENTS

The radiated measurements made at D.L.S. Electronic Systems, Inc., for the ESPN Ultimate Remote, Model Number: DMR1, are shown in tabulated and graph form. Preliminary radiation measurements were performed at a 3 meter test distance with the limits adjusted linearly when required. The frequency range from 30 MHz to over 960 MHz, depending upon the fundamental frequency as stated in Part 15.33a, was automatically scanned and plotted at various angles.

Measurements for the ESPN Ultimate Remote were made up to 26000 MHz, in accordance with Section 15.33a for Intentional Radiators with a fundamental frequency of 2412 - 2462 MHz. For intentional radiators, the frequency range to be investigated is determined by the lowest radio frequency generated by the device without going below 30 MHz, up to at least the tenth harmonic of the highest fundamental frequency or 10 GHz, whichever is lower. At those frequencies where significant signals were detected, measurements were made over the entire frequency range specified in FCC Part 15, Subpart C, Section 15.247 at the open field test site, located at Genoa City, Wisconsin, FCC file number **31040/SIT**. When required, limits were extrapolated using a linear extrapolation.

All signals in the frequency range of 30 MHz to 2000 MHz were measured with a Biconical Antenna or tuned dipoles and from 200 MHz to 1000 MHz, a Log Periodic or Tuned Dipoles were used. From 1000 MHz to 25 GHz Horn Antennas were used. During the test the equipment was rotated and the antenna was raised and lowered from 1 meter to 4 meters to find the maximum level of emissions. In order to find maximum emissions, the cables were moved through all the positions the equipment would be expected to experience in the field. The EUT, peripheral equipment and cables were configured to meet the conditions in ANSI C63.4-2003, Clauses 6 & 8. Tests were made with the receive antenna(s) in both the horizontal and vertical planes of polarization. In each case, the table was rotated to find the maximum emissions.



Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

6.0 FIELD STRENGTH OF FUNDAMENTAL AND SPURIOUS EMISSION MEASUREMENTS (CON'T)

As stated in Section 15.247(b) the allowed maximum peak output power of the transmitter shall not exceed 1 Watt. In any 100 kHz bandwidth outside these frequency bands (the power that is produced by the modulation products of the spreading sequence), the information sequence and the carrier frequency shall be either at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power. Attenuation below the general limits specified in 15.209 is not required.

Field strength limits are at a distance of 3 meters. The emission limits shown are based on measurement instrumentation employing an average detector.

Emissions radiated outside of the specified frequency bands, except for harmonics are attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

Preliminary radiated emission measurements were performed at a 3 meter test distance. The frequency range from 30 MHz to 1000 MHz was automatically scanned and plotted at various angles.

NOTE:

All radiated emissions measurements were made at a test room temperature of 72°F at 66% relative humidity.



1250 Peterson Dr., Wheeling, IL 60090

Company: TV Compass
Model Tested: DMR1
Report Number: 14224

APPENDIX A

RADIATED DATA AND GRAPH(S) TAKEN FOR
FIELD STRENGTH OF SPURIOUS EMISSION
MEASUREMENTS

PART 15.247

30 MHz – 1000 MHz

FCC Part 15 Class B

Electric Field Strength

EUT: DMR1
Manufacturer: TV Compass
Operating Condition: 72 deg. F; 61% R.H.
Test Site: DLS O.F. Site 3
Operator: Adam A
Test Specification:
Comment: Transmit and Receive mode, Low, Mid, and High channels
Date: 07-02-2008

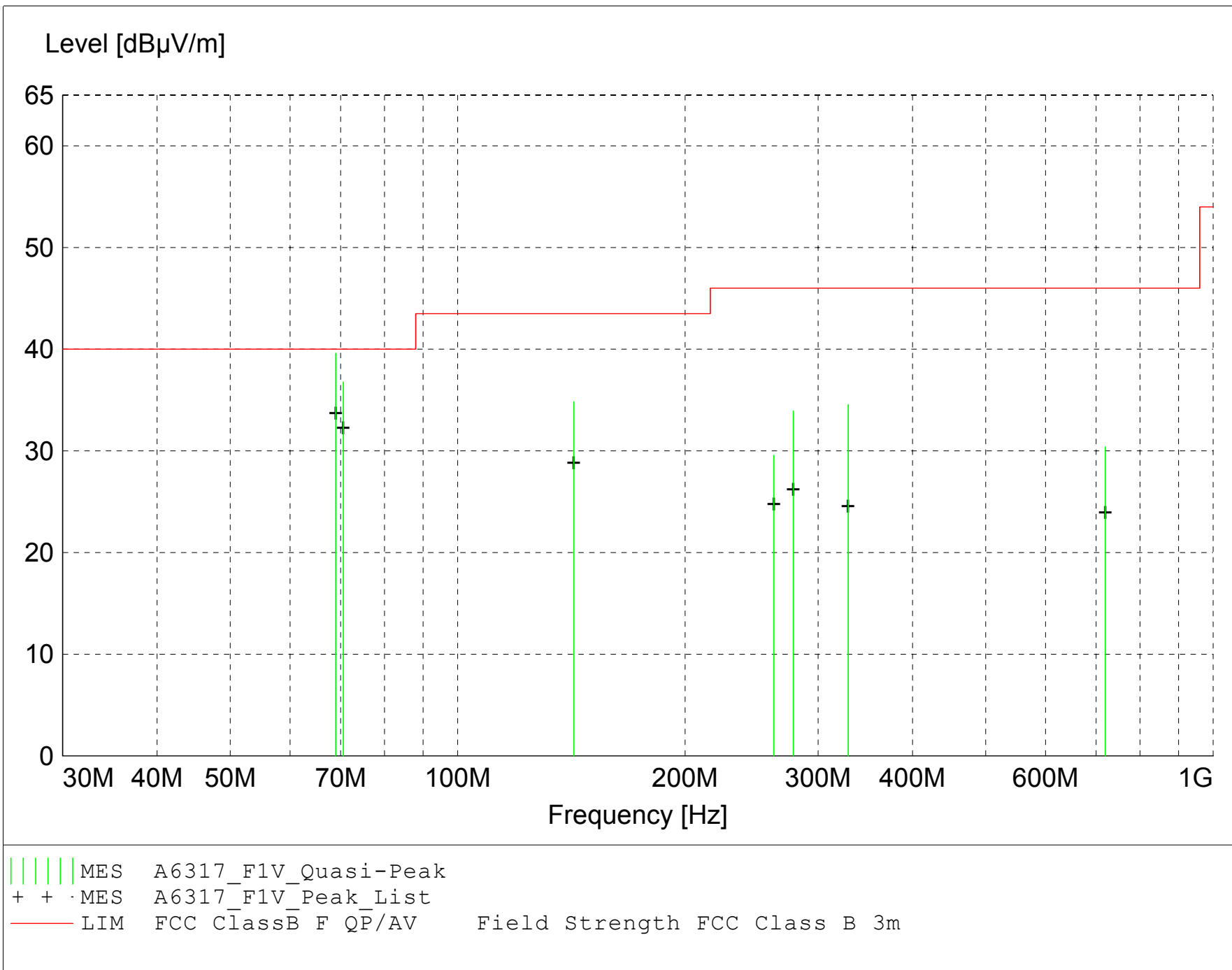
TEXT: "Site 3 MidV 3M"

Short Description: Test Set-up Vert30-1000MHz
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/005

Antennas ---
Biconical -- EMCO 3104C SN: 9701-4785
Log Periodic -- EMCO 3146 SN: 9702-4895

Pre-Amp --- Rohde&Schwarz TS-PR10 SN: 032001/005

TEST SET-UP: EUT Measured at 3 Meters with VERTICAL Antenna Polarization



MEASUREMENT RESULT: "A6317_F1V_Final"

7/2/2008 3:06PM

Frequency	Level	Antenna	System	Total	Limit	Margin	Height	EuT	Final	Comment
MHz	dBµV	Factor	Loss	Level	dBµV/m	dB	Ant.	Angle	Detector	
		dBµV/m	dB	dBµV/m	dBµV/m		m	deg		
68.950000	50.17	13.64	-24.2	39.6	40.0	0.4	1.00	95	QUASI-PEAK	None
70.585000	47.49	13.47	-24.2	36.8	40.0	3.2	1.00	100	QUASI-PEAK	None
142.490000	41.81	16.26	-23.2	34.8	43.5	8.7	1.00	180	QUASI-PEAK	None
328.790000	38.83	17.72	-22.0	34.6	46.0	11.4	1.70	25	QUASI-PEAK	None
278.180000	38.64	17.50	-22.2	33.9	46.0	12.1	1.00	145	QUASI-PEAK	None
719.980000	25.57	23.32	-18.5	30.4	46.0	15.6	1.50	220	QUASI-PEAK	None
262.155000	34.77	17.08	-22.3	29.6	46.0	16.4	1.00	120	QUASI-PEAK	None

FCC Part 15 Class B

Electric Field Strength

EUT: DMR1
Manufacturer: TV Compass
Operating Condition: 72 deg. F; 61% R.H.
Test Site: DLS O.F. Site 3
Operator: Adam A
Test Specification:
Comment: Transmit and Receive mode, Low, Mid, and High channels
Date: 07-02-2008

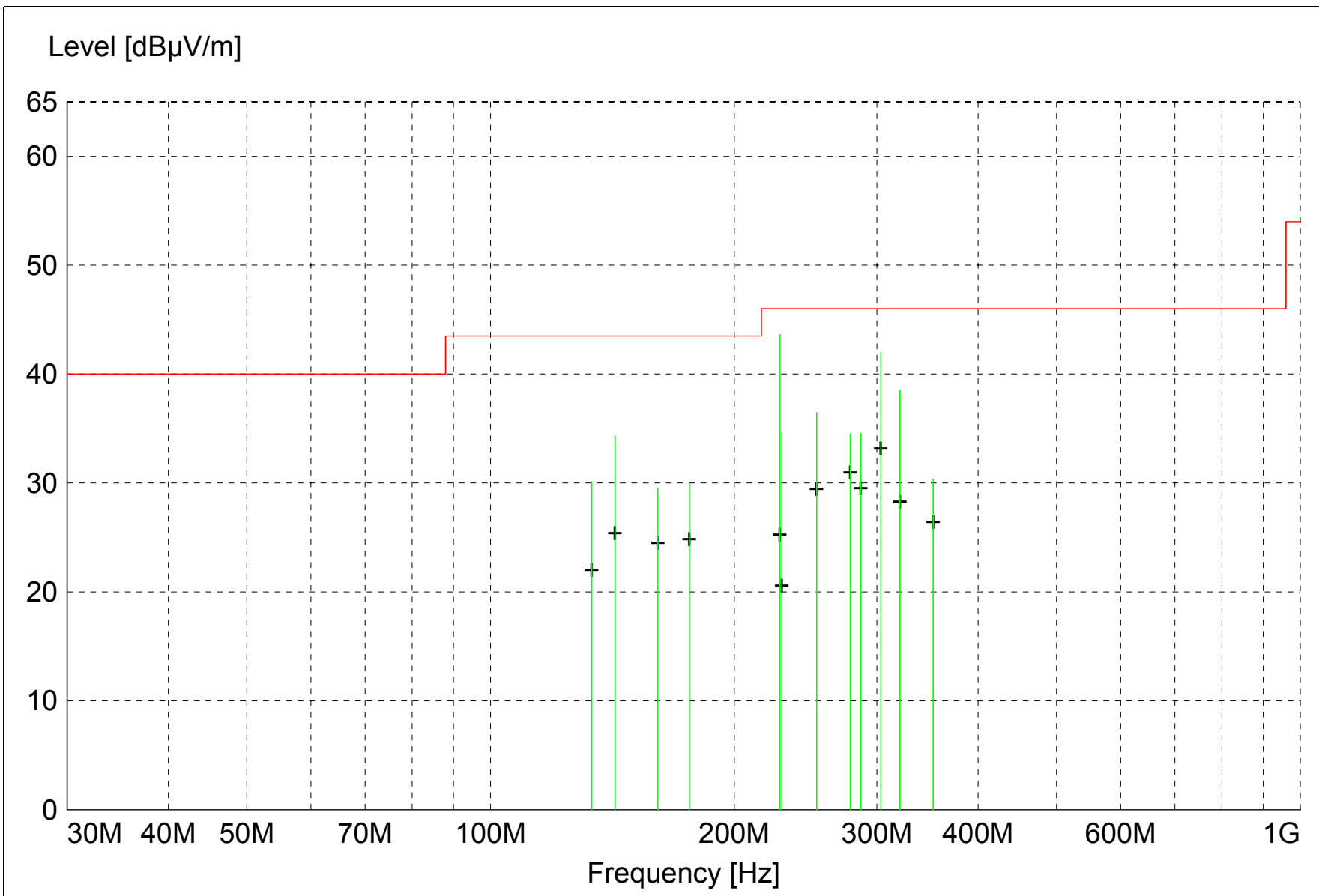
TEXT: "Site 3 MidH 3M"

Short Description: Test Set-up Horz30-1000MHz
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/005

Antennas ---
Biconical -- EMCO 3104C SN: 9701-4785
Log Periodic -- EMCO 3146 SN: 9702-4895

Pre-Amp --- Rohde&Schwarz TS-PR10 SN: 032001/005

TEST SET-UP: EUT Measured at 3 Meters with HORIZONTAL Antenna Polarization



||||| MES A6317_F1H_Quasi-Peak
 + + + MES A6317_F1H_Peak_List
 — LIM FCC ClassB F QP/AV Field Strength FCC Class B 3m

MEASUREMENT RESULT: "A6317_F1H_Final"

7/2/2008 3:19PM

Frequency	Level	Antenna	System	Total	Limit	Margin	Height	EuT	Final	Comment
MHz	dBµV	Factor	Loss	Level	dBµV/m	dB	Ant.	Angle	Detector	
		dBµV/m	dB	dBµV/m	dBµV/m		m	deg		
227.595000	50.65	15.45	-22.5	43.6	46.0	2.4	1.00	255	QUASI-PEAK	None
303.370000	45.00	19.10	-22.1	42.0	46.0	4.0	1.00	35	QUASI-PEAK	None
320.310000	42.74	17.82	-22.0	38.6	46.0	7.4	1.00	240	QUASI-PEAK	None
142.500000	41.30	16.26	-23.2	34.3	43.5	9.2	1.10	270	QUASI-PEAK	None
252.790000	41.43	17.36	-22.3	36.5	46.0	9.5	1.00	260	QUASI-PEAK	None
228.995000	41.67	15.50	-22.5	34.7	46.0	11.3	1.00	240	QUASI-PEAK	None
286.610000	39.11	17.62	-22.2	34.6	46.0	11.4	1.00	270	QUASI-PEAK	None
278.145000	39.21	17.50	-22.2	34.5	46.0	11.5	1.00	270	QUASI-PEAK	None
133.320000	35.94	17.51	-23.3	30.1	43.5	13.4	1.10	250	QUASI-PEAK	None
175.990000	33.26	19.47	-22.8	29.9	43.5	13.6	1.00	175	QUASI-PEAK	None
160.890000	34.50	18.06	-23.0	29.5	43.5	14.0	1.10	145	QUASI-PEAK	None
351.990000	34.40	17.85	-21.9	30.4	46.0	15.6	1.00	235	QUASI-PEAK	None



1250 Peterson Dr., Wheeling, IL 60090

Company: TV Compass
Model Tested: DMR1
Report Number: 14224

APPENDIX A

RADIATED DATA AND GRAPH(S) TAKEN FOR
E.I.R.P. OF FUNDAMENTAL EMISSION
MEASUREMENTS

PART 15.247

ANTENNA 1



1250 Peterson Dr., Wheeling, IL 60090

Company: TV Compass
 Model Tested: DMR1
 Report Number: 14224

APPENDIX A

DLS Electronic Systems, Inc.

Company: TV Compass
 Operator: Craig B
 Date of test: 05-27-2008
 Temperature: 70 deg. F
 Humidity: 44% R.H.

EIRP - Substitution Method

Model: DMR1								
Channel: 1 ; Antenna 1								
Frequency and Polarization (MHz)	Max. Field Strength of EUT @ 3 meters (dBuV/m)	Output of Signal Generator when field strength equals that of EUT (dBm)	Correction factor for cable between Signal Gen. and subst. antenna (dB)	Gain of subst. antenna (dBi)	Strength of emission [EIRP] (dBm)	Limit (dBm)	Margin (dB)	Strength of emission [EIRP] (mW)
2412 vertical	87.24	-20.86	1.85	9.59	-13.12	30.00	43.12	0.05
2412 horizontal	88.89	-20.04	1.85	9.59	-12.30	30.00	42.30	0.06

EIRP = Signal generator output - cable loss + antenna gain

ERP_(ref. to ½λ dipole) = Signal generator output - cable loss + antenna gain - 2.15



Company: TV Compass
 Model Tested: DMR1
 Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

DLS Electronic Systems, Inc.

Company: TV Compass
 Operator: Craig B
 Date of test: 05-27-2008
 Temperature: 70 deg. F
 Humidity: 44% R.H.

EIRP - Substitution Method

Model: DMR1								
Channel: 6 ; Antenna 1								
Frequency and Polarization (MHz)	Max. Field Strength of EUT @ 3 meters (dBuV/m)	Output of Signal Generator when field strength equals that of EUT (dBm)	Correction factor for cable between Signal Gen. and subst. antenna (dB)	Gain of subst. antenna (dBi)	Strength of emission [EIRP] (dBm)	Limit (dBm)	Margin (dB)	Strength of emission [EIRP] (mW)
2437 vertical	87.19	-20.86	1.86	9.62	-13.10	30.00	43.10	0.05
2437 horizontal	89.22	-19.50	1.86	9.62	-11.74	30.00	41.74	0.07

EIRP = Signal generator output - cable loss + antenna gain

ERP_(ref. to ½λ dipole) = Signal generator output - cable loss + antenna gain - 2.15



Company: TV Compass
 Model Tested: DMR1
 Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

DLS Electronic Systems, Inc.

Company: TV Compass
 Operator: Craig B
 Date of test: 05-27-2008
 Temperature: 70 deg. F
 Humidity: 44% R.H.

EIRP - Substitution Method

Model: DMR1								
Channel: 11 ; Antenna 1								
Frequency and Polarization (MHz)	Max. Field Strength of EUT @ 3 meters (dBuV/m)	Output of Signal Generator when field strength equals that of EUT (dBm)	Correction factor for cable between Signal Gen. and subst. antenna (dB)	Gain of subst. antenna (dBi)	Strength of emission [EIRP] (dBm)	Limit (dBm)	Margin (dB)	Strength of emission [EIRP] (mW)
2462 vertical	88.69	-18.80	1.86	9.65	-11.01	30.00	41.01	0.08
2462 horizontal	89.30	-19.42	1.86	9.65	-11.63	30.00	41.63	0.07

EIRP = Signal generator output - cable loss + antenna gain

ERP_(ref. to ½λ dipole) = Signal generator output - cable loss + antenna gain - 2.15



1250 Peterson Dr., Wheeling, IL 60090

Company: TV Compass
Model Tested: DMR1
Report Number: 14224

APPENDIX A

RADIATED DATA AND GRAPH(S) TAKEN FOR
E.I.R.P. OF FUNDAMENTAL EMISSION
MEASUREMENTS

PART 15.247

ANTENNA 2



Company: TV Compass
 Model Tested: DMR1
 Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

DLS Electronic Systems, Inc.

Company: TV Compass
 Operator: Craig B
 Date of test: 06-26-2008
 Temperature: 72 deg. F
 Humidity: 65% R.H.

EIRP - Substitution Method

Model: DMR1								
Channel: 1 Antenna 2								
Frequency and Polarization (MHz)	Max. Field Strength of EUT @ 3 meters (dBuV/m)	Output of Signal Generator when field strength equals that of EUT (dBm)	Correction factor for cable between Signal Gen. and subst. antenna (dB)	Gain of subst. antenna (dBi)	Strength of emission [EIRP] (dBm)	Limit (dBm)	Margin (dB)	Strength of emission [EIRP] (mW)
2412 vertical	105.85	-2.25	1.85	9.59	5.49	30.00	24.51	3.54
2412 horizontal	110.06	1.13	1.85	9.59	8.87	30.00	21.13	7.71

EIRP = Signal generator output - cable loss + antenna gain

ERP_(ref. to ½λ dipole) = Signal generator output - cable loss + antenna gain - 2.15



1250 Peterson Dr., Wheeling, IL 60090

Company: TV Compass
 Model Tested: DMR1
 Report Number: 14224

APPENDIX A

DLS Electronic Systems, Inc.

Company: TV Compass
 Operator: Craig B
 Date of test: 06-26-2008
 Temperature: 72 deg. F
 Humidity: 66% R.H.

EIRP - Substitution Method

Model: DMR1								
Channel: 6 Antenna 2								
Frequency and Polarization (MHz)	Max. Field Strength of EUT @ 3 meters (dBuV/m)	Output of Signal Generator when field strength equals that of EUT (dBm)	Correction factor for cable between Signal Gen. and subst. antenna (dB)	Gain of subst. antenna (dBi)	Strength of emission [EIRP] (dBm)	Limit (dBm)	Margin (dB)	Strength of emission [EIRP] (mW)
2437 vertical	107.18	-0.87	1.86	9.62	6.89	30.00	23.11	4.89
2437 horizontal	110.52	1.80	1.86	9.62	9.56	30.00	20.44	9.04

EIRP = Signal generator output - cable loss + antenna gain

ERP_(ref. to ½λ dipole) = Signal generator output - cable loss + antenna gain - 2.15



Company: TV Compass
 Model Tested: DMR1
 Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

DLS Electronic Systems, Inc.

Company: TV Compass
 Operator: Craig B
 Date of test: 06-26-2008
 Temperature: 72 deg. F
 Humidity: 66% R.H.

EIRP - Substitution Method

Model: DMR1								
Channel: 11 Antenna 2								
Frequency and Polarization (MHz)	Max. Field Strength of EUT @ 3 meters (dBuV/m)	Output of Signal Generator when field strength equals that of EUT (dBm)	Correction factor for cable between Signal Gen. and subst. antenna (dB)	Gain of subst. antenna (dBi)	Strength of emission [EIRP] (dBm)	Limit (dBm)	Margin (dB)	Strength of emission [EIRP] (mW)
2462 vertical	105.89	-1.60	1.86	9.65	6.19	30.00	23.81	4.16
2462 horizontal	108.51	-0.20	1.86	9.65	7.59	30.00	22.41	5.74

EIRP = Signal generator output - cable loss + antenna gain

ERP_(ref. to ½λ dipole) = Signal generator output - cable loss + antenna gain - 2.15



1250 Peterson Dr., Wheeling, IL 60090

Company: TV Compass
Model Tested: DMR1
Report Number: 14224

APPENDIX A

DUTY CYCLE GRAPHS

PART 15.247



Company: TV Compass
Model Tested: DMR1
Report Number: 14224

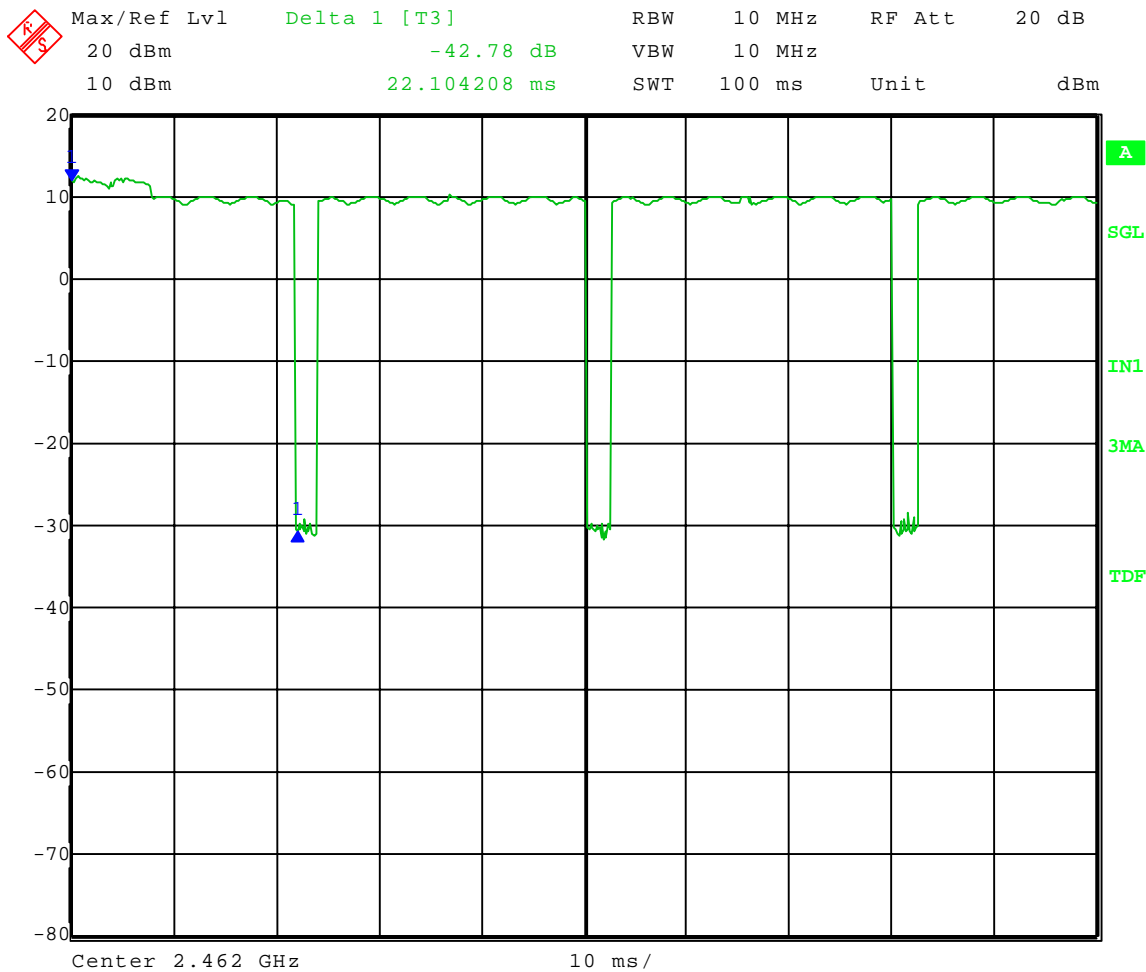
1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Duty Cycle – duty cycle used during testing (special test software)
Operator: Craig B

Comment: Total on Time = 22.1042 ms + 26.7134 ms + 27.5198 ms + 17.6353 ms
= 93.9727 ms during 100 ms Sweep
Duty cycle = **93.97** Percent
Duty cycle correction factor = $20 \log (93.9727 / 100) = -0.54$ dB

Data Rate set to **1 Mbit/s**



Date: 19.MAY.2008 16:39:34



Company: TV Compass
Model Tested: DMR1
Report Number: 14224

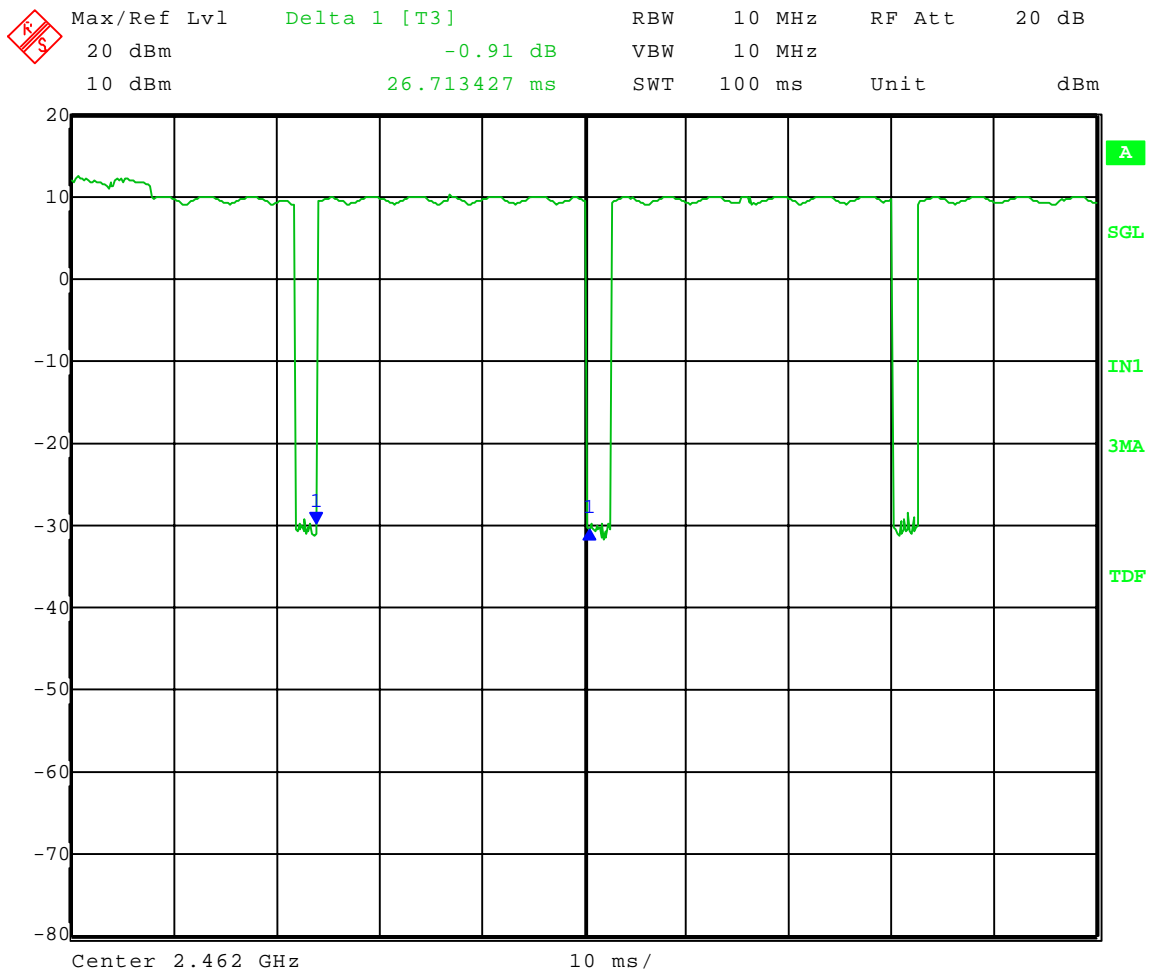
1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Duty Cycle – duty cycle used during testing (special test software)
Operator: Craig B

Comment: Total on Time = 22.1042 ms + 26.7134 ms + 27.5198 ms + 17.6353 ms
= 93.9727 ms during 100 ms Sweep
Duty cycle = **93.97** Percent
Duty cycle correction factor = $20 \log (93.9727 / 100) = -0.54$ dB

Data Rate set to **1 Mbit/s**



Date: 19.MAY.2008 16:40:21



Company: TV Compass
Model Tested: DMR1
Report Number: 14224

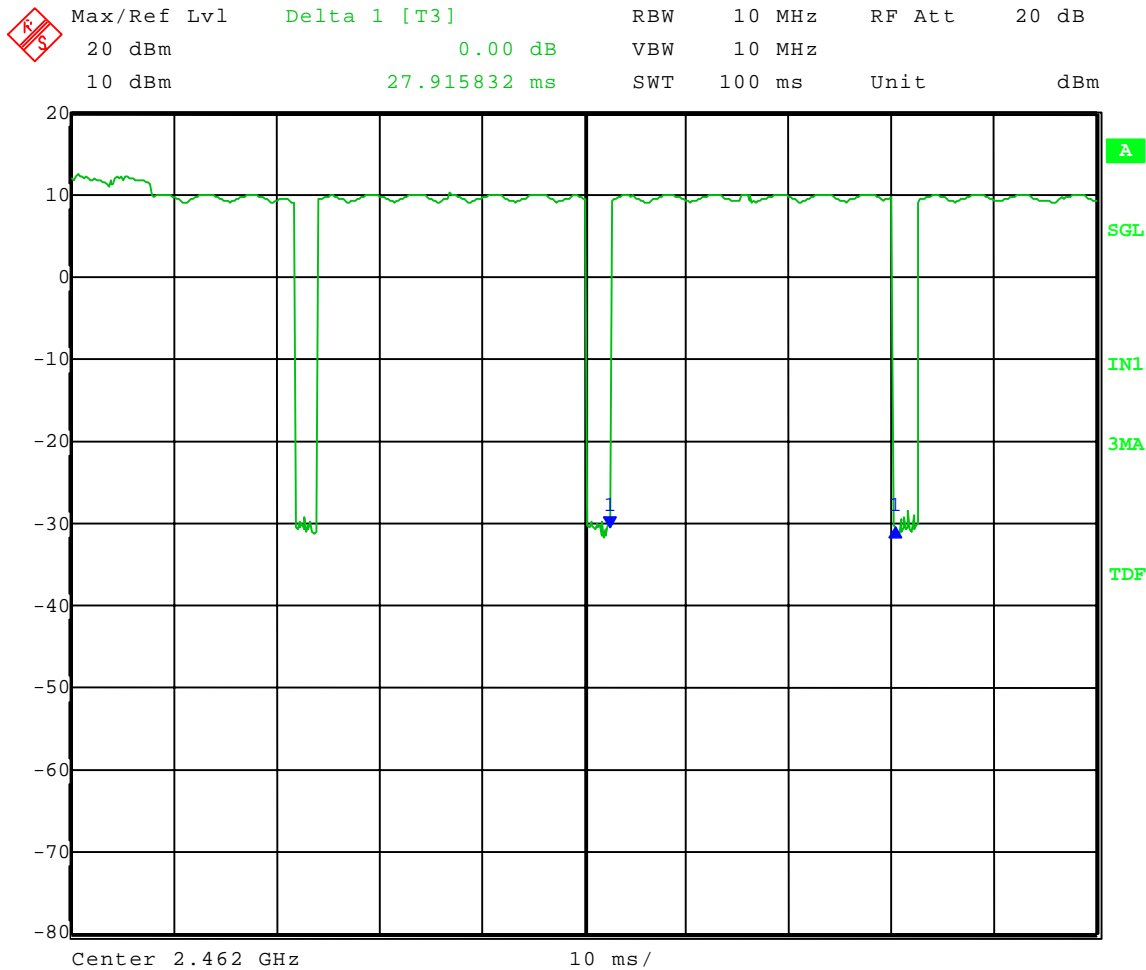
1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Duty Cycle – duty cycle used during testing (special test software)
Operator: Craig B

Comment: Total on Time = 22.1042 ms + 26.7134 ms + 27.5198 ms + 17.6353 ms
= 93.9727 ms during 100 ms Sweep
Duty cycle = **93.97** Percent
Duty cycle correction factor = $20 \log (93.9727 / 100) = -0.54$ dB

Data Rate set to **1 Mbit/s**



Date: 19.MAY.2008 16:40:57



Company: TV Compass
Model Tested: DMR1
Report Number: 14224

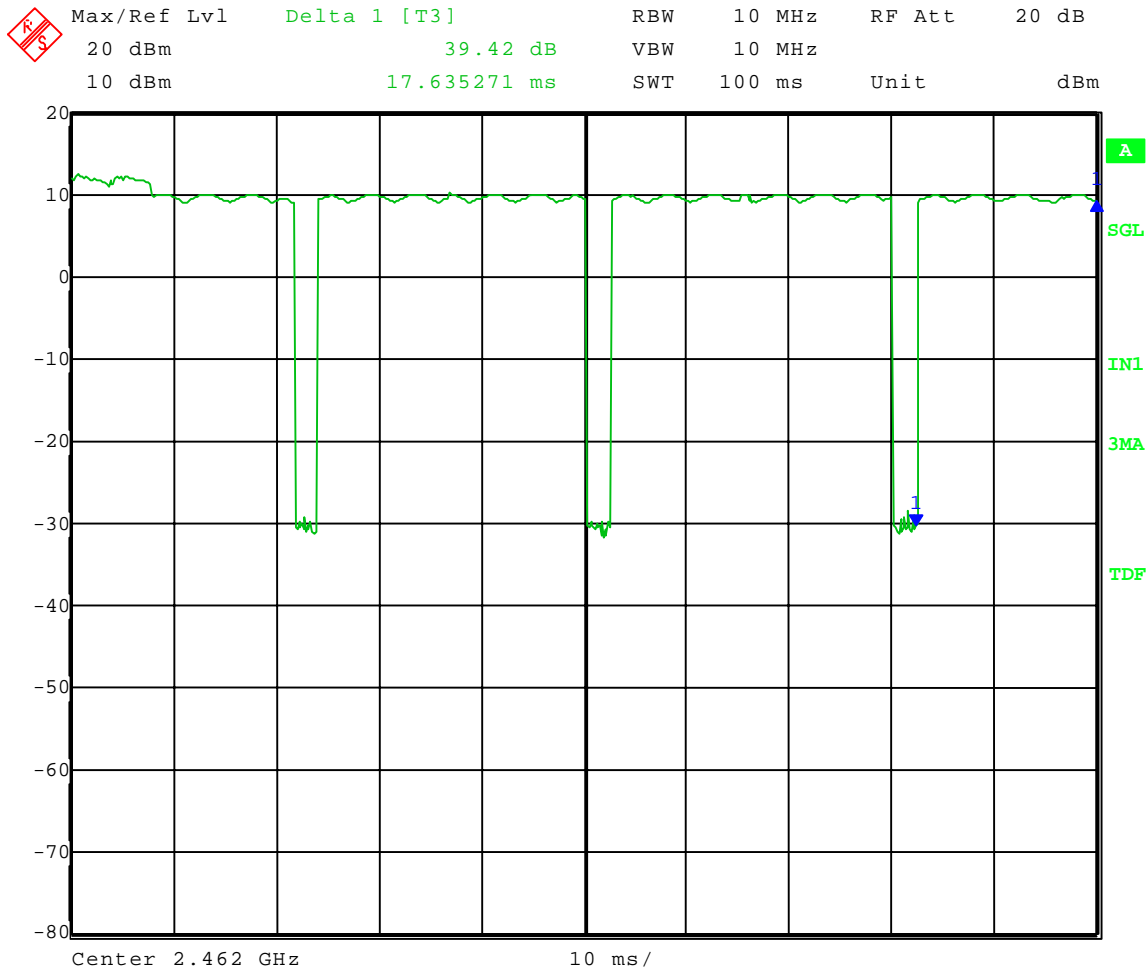
1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Duty Cycle – duty cycle used during testing (special test software)
Operator: Craig B

Comment: Total on Time = 22.1042 ms + 26.7134 ms + 27.5198 ms + 17.6353 ms
= 93.9727 ms during 100 ms Sweep
Duty cycle = **93.97** Percent
Duty cycle correction factor = $20 \log (93.9727 / 100) = -0.54$ dB

Data Rate set to **1 Mbit/s**



Date: 19.MAY.2008 16:41:43



Company: TV Compass
Model Tested: DMR1
Report Number: 14224

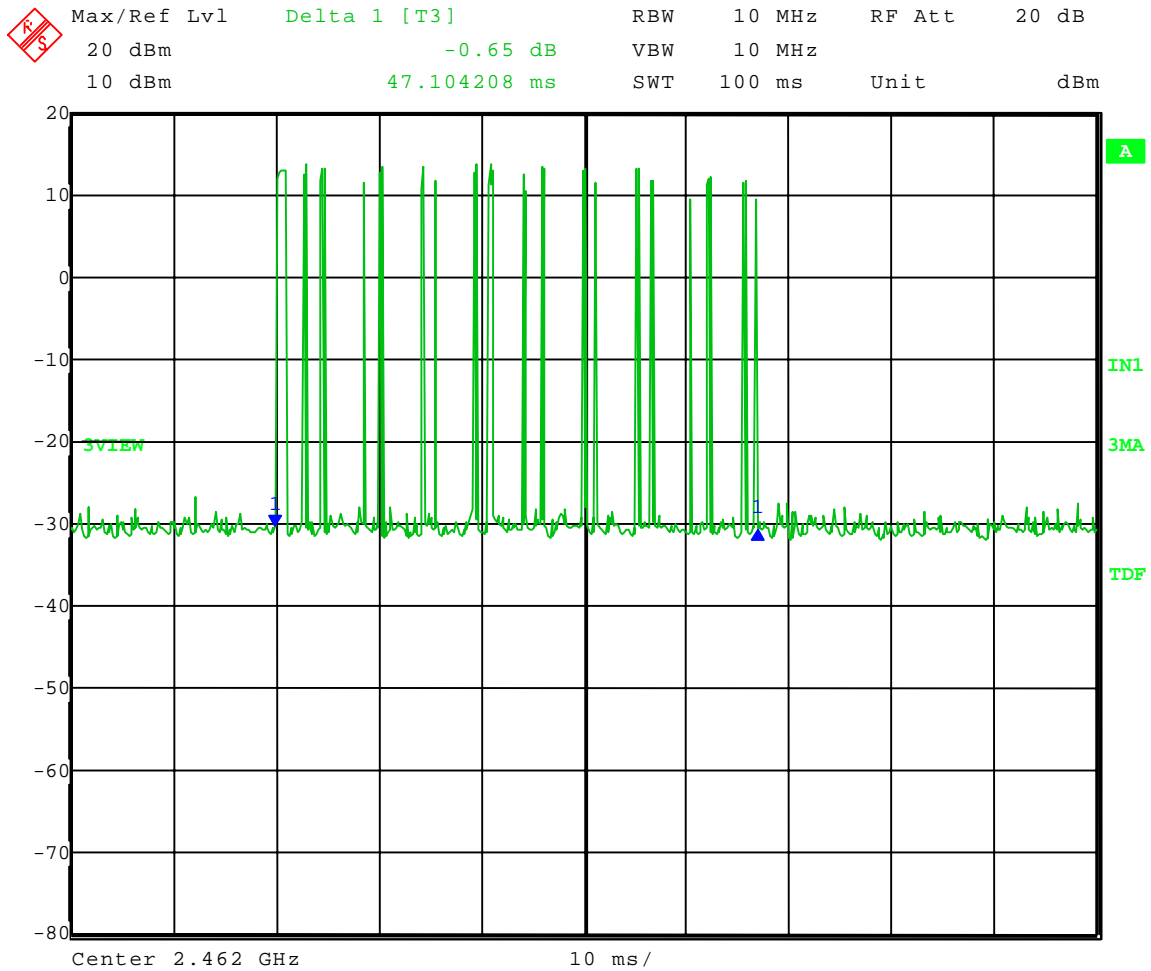
1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Duty Cycle – duty cycle used during testing (special test software)
Operator: Craig B

Comment: Total on Time = $2 \times 1.072144 \text{ ms} + 17 \times 0.3707415 \text{ ms} = 8.447 \text{ ms}$ during 100 ms Sweep
Duty cycle = **8.45** Percent

Data Rate set to **54 Mbit/s**



Date: 19.MAY.2008 16:33:12



Company: TV Compass
Model Tested: DMR1
Report Number: 14224

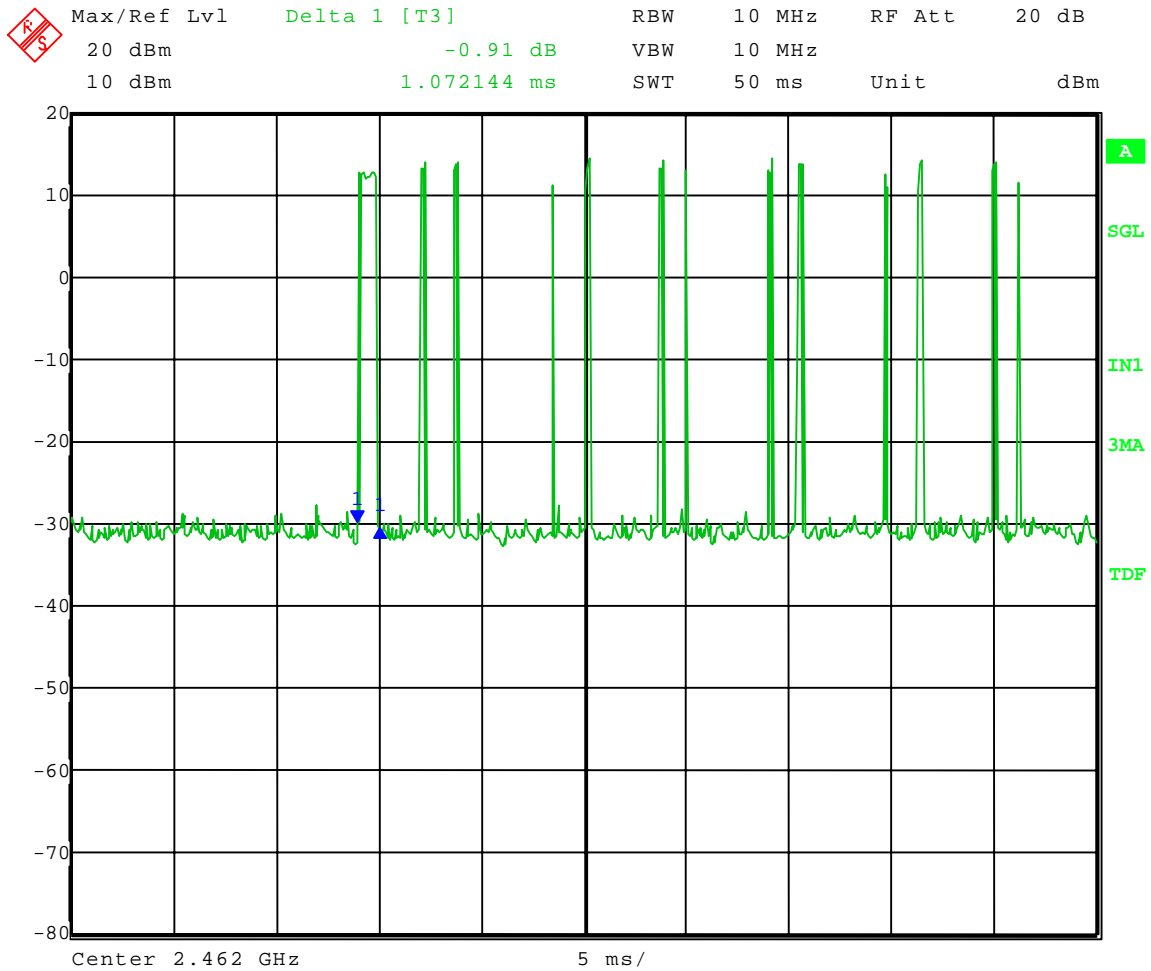
1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Duty Cycle – duty cycle used during testing (special test software)
Operator: Craig B

Comment: Total on Time = $2 \times 1.072144 \text{ ms} + 17 \times 0.3707415 \text{ ms} = 8.447 \text{ ms}$ during 100 ms Sweep
Duty cycle = **8.45** Percent

Data Rate set to **54 Mbit/s**



Date: 19.MAY.2008 16:34:49



Company: TV Compass
Model Tested: DMR1
Report Number: 14224

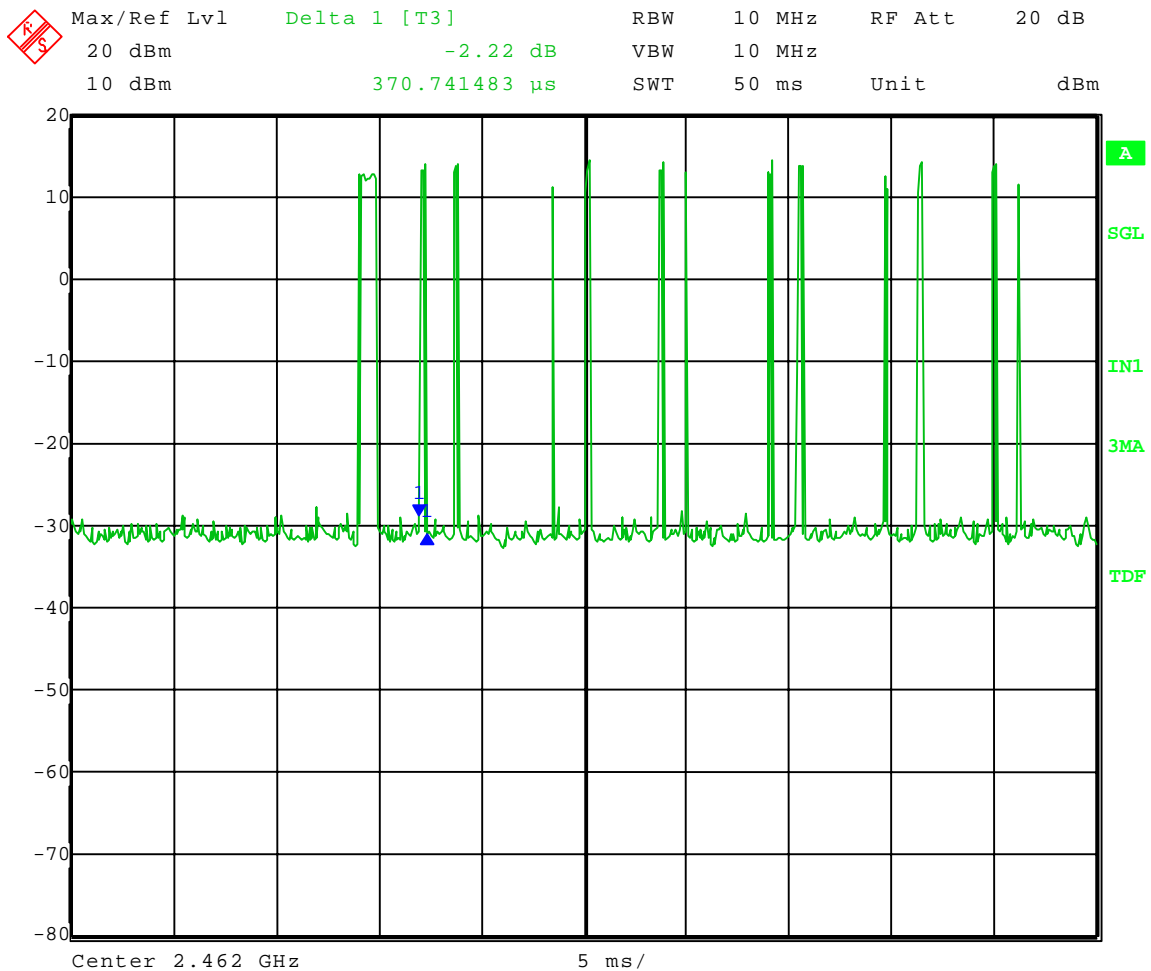
1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Duty Cycle – duty cycle used during testing (special test software)
Operator: Craig B

Comment: Comment: Total on Time = $2 \times 1.072144 \text{ ms} + 17 \times 0.3707415 \text{ ms} = 8.447 \text{ ms}$ during
100 ms Sweep
Duty cycle = **8.45 Percent**

Data Rate set to **54 Mbit/s**



Date: 19.MAY.2008 16:35:35



1250 Peterson Dr., Wheeling, IL 60090

Company: TV Compass
Model Tested: DMR1
Report Number: 14224

APPENDIX A

6 dB BANDWIDTH GRAPHS

PART 15.247

ANTENNA 1



Company: TV Compass
Model Tested: DMR1
Report Number: 14224

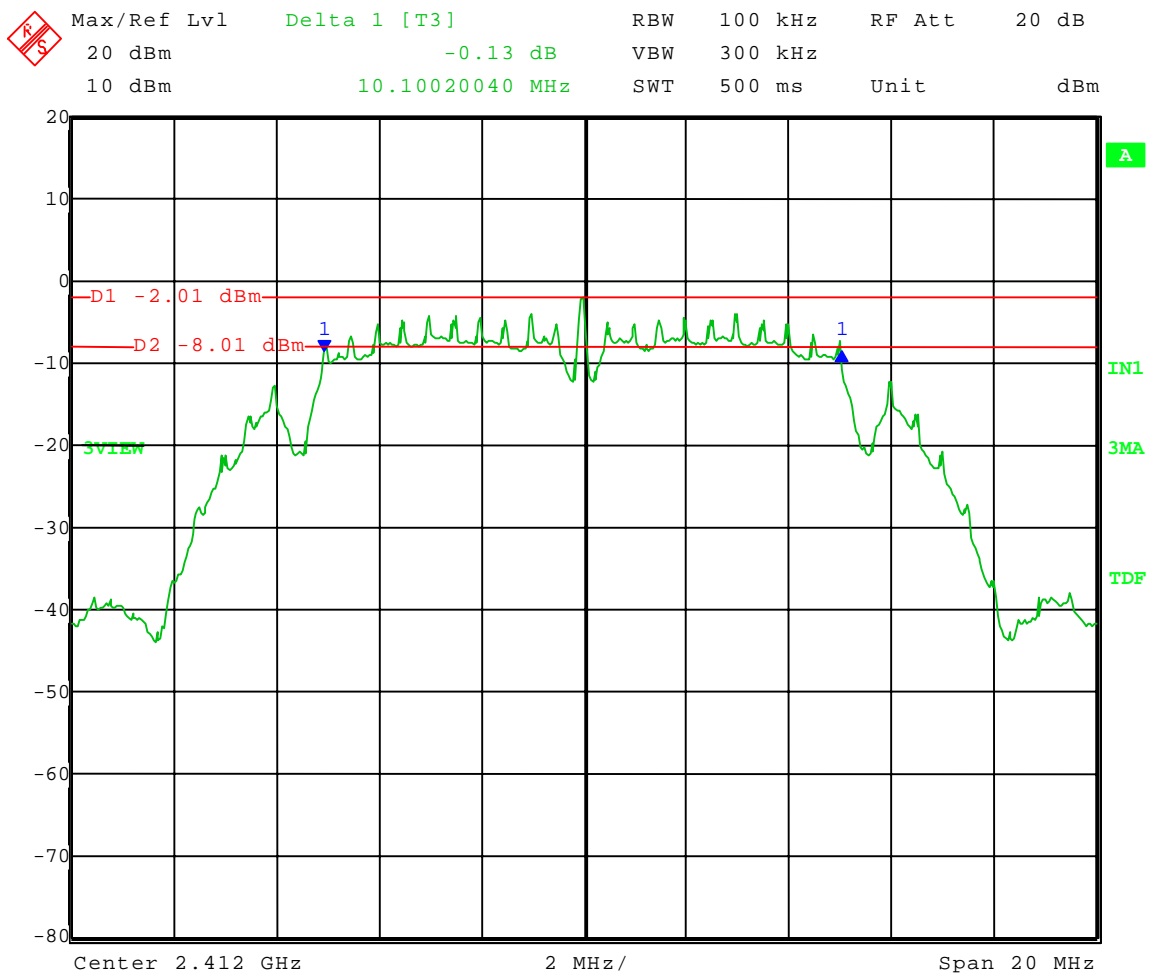
1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: 6 dB Bandwidth - Conducted
Operator: Craig B
Comment: **Low Channel:** Frequency – 2.412 GHz
Antenna 1

Data Rate setting: 1 Mbit/s

6 dB Bandwidth = 10.10 MHz



Date: 19.MAY.2008 14:33:22



Company: TV Compass
 Model Tested: DMR1
 Report Number: 14224

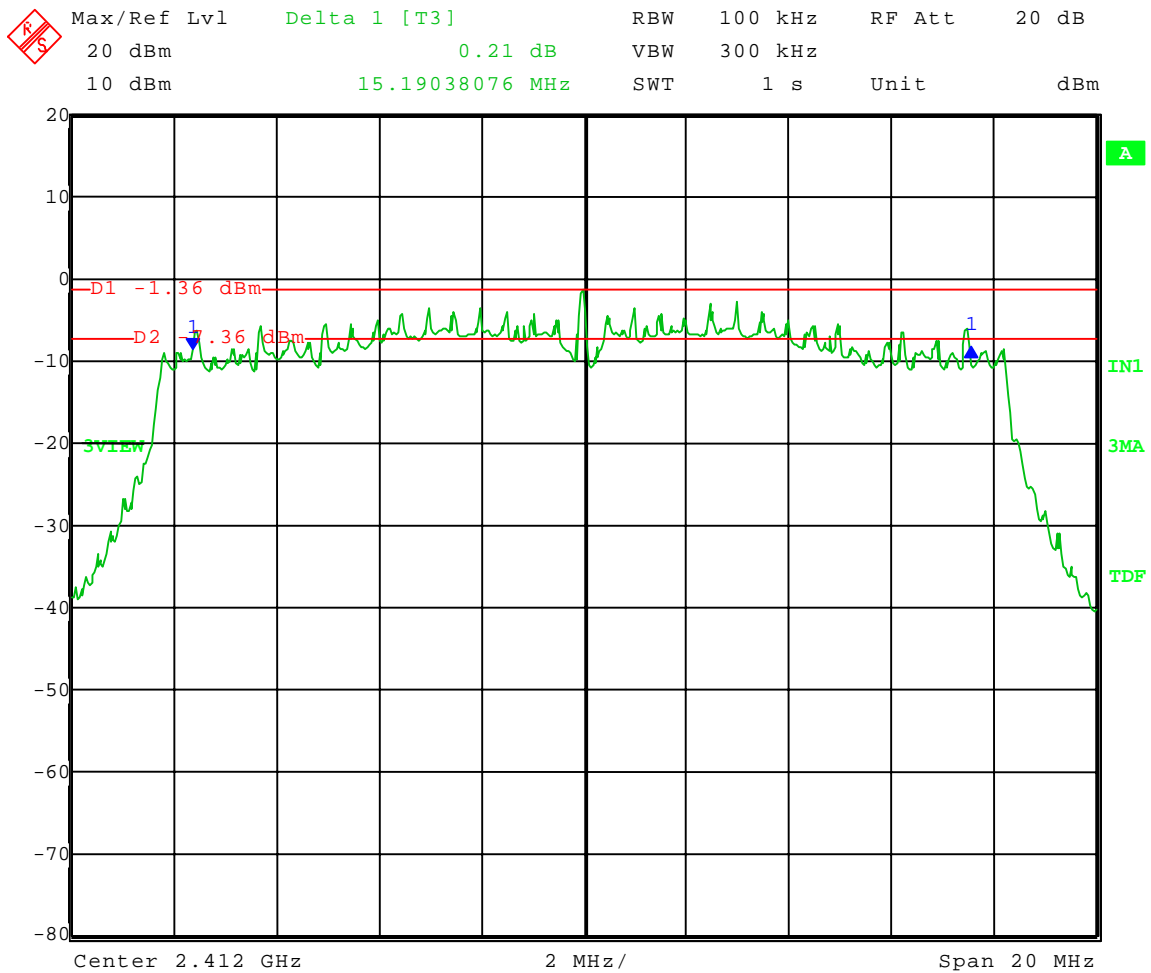
1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
 Company: TV Compass
 EUT: Model: DMR1
 Test: 6 dB Bandwidth - Conducted
 Operator: Craig B
 Comment: **Low Channel:** Frequency – 2.412 GHz
Antenna 1

Data Rate setting: 54 Mbit/s

6 dB Bandwidth = 15.19 MHz



Date: 19.MAY.2008 14:03:13



Company: TV Compass
 Model Tested: DMR1
 Report Number: 14224

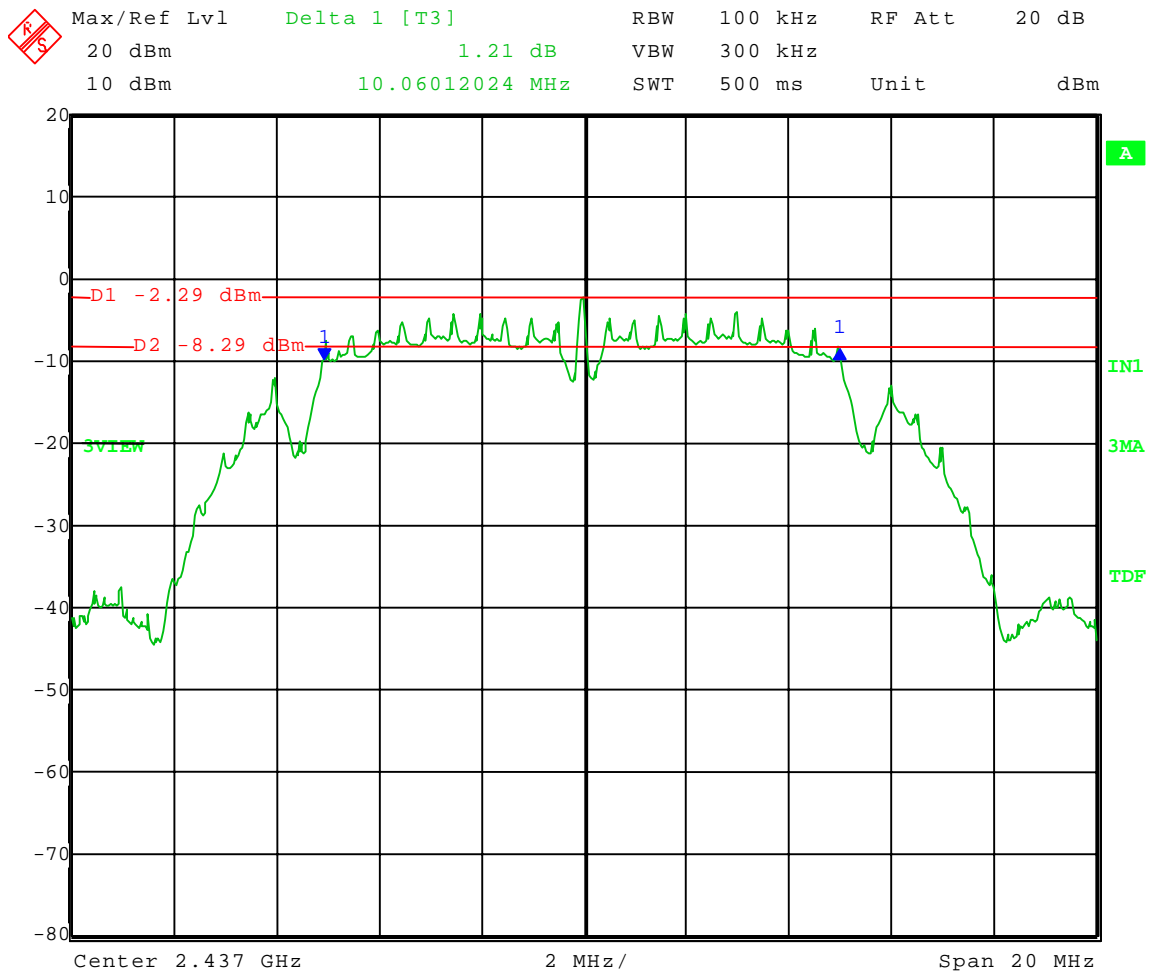
1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
 Company: TV Compass
 EUT: Model: DMR1
 Test: 6 dB Bandwidth - Conducted
 Operator: Craig B
 Comment: **Mid Channel**: Frequency – 2.437 GHz
Antenna 1

Data Rate setting: 1 Mbit/s

6 dB Bandwidth = 10.06 MHz



Date: 19.MAY.2008 15:04:52



Company: TV Compass
 Model Tested: DMR1
 Report Number: 14224

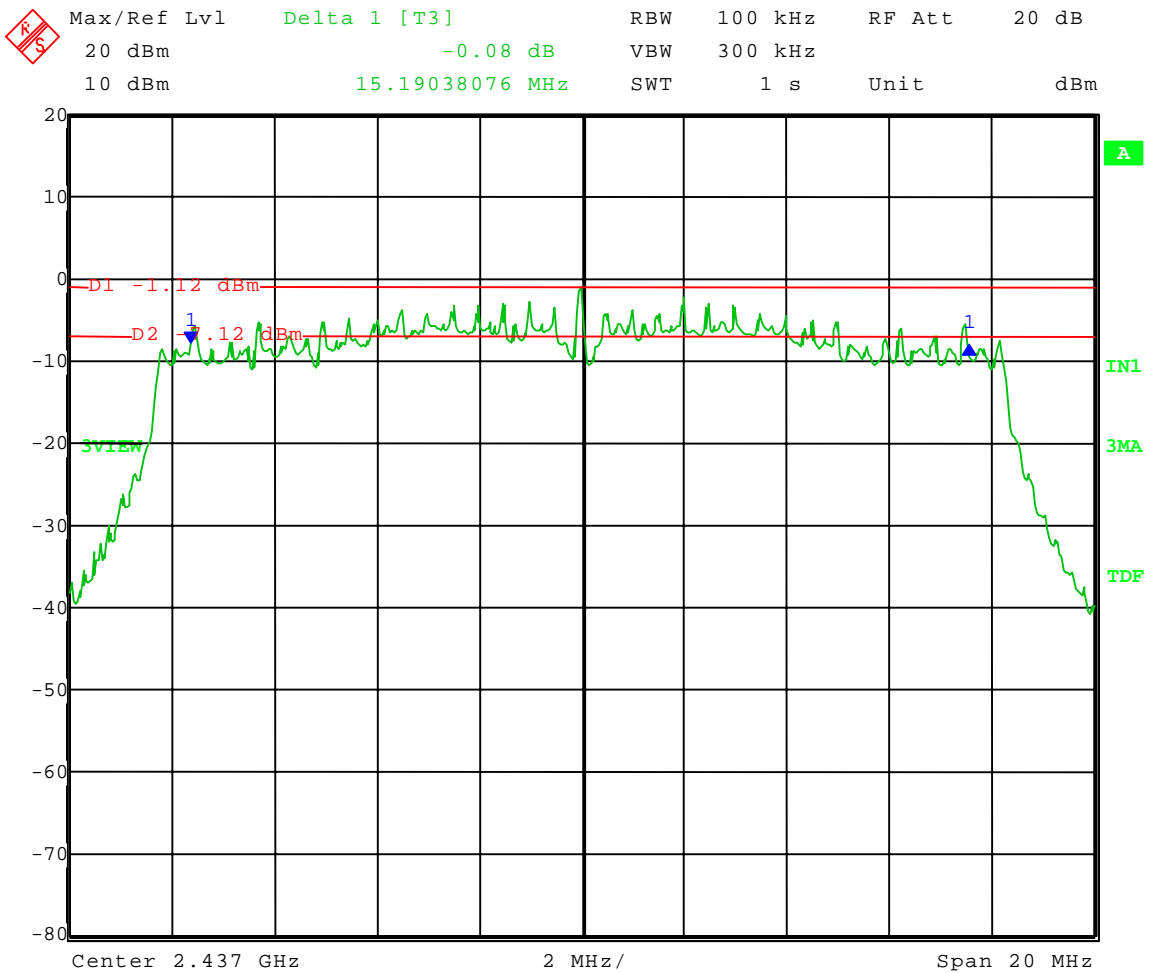
1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
 Company: TV Compass
 EUT: Model: DMR1
 Test: 6 dB Bandwidth - Conducted
 Operator: Craig B
 Comment: **Mid Channel:** Frequency – 2.437 GHz
Antenna 1

Data Rate setting: 54 Mbit/s

6 dB Bandwidth = 15.19 MHz



Date: 19.MAY.2008 15:31:27



Company: TV Compass
Model Tested: DMR1
Report Number: 14224

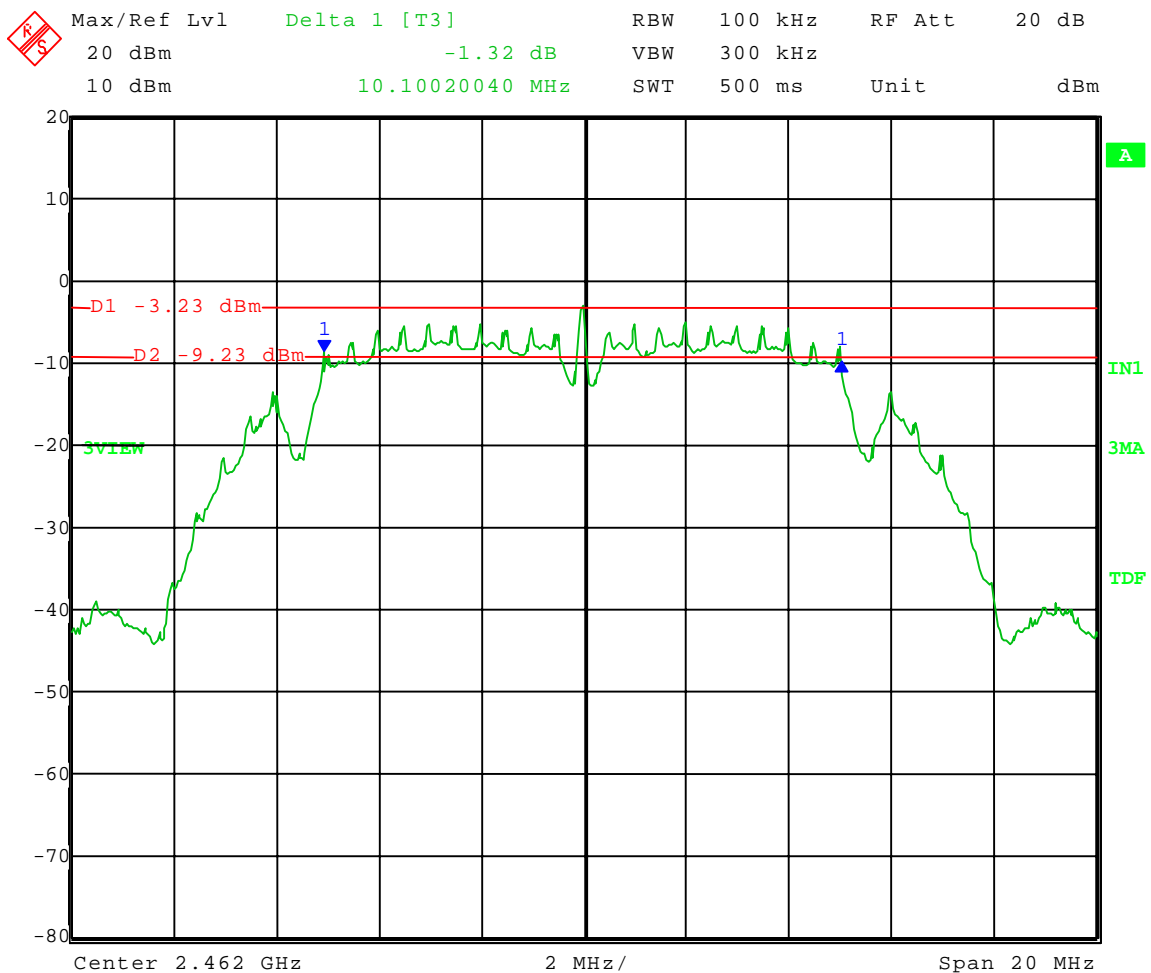
1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: 6 dB Bandwidth - Conducted
Operator: Craig B
Comment: **High Channel:** Frequency – 2.462 GHz
Antenna 1

Data Rate setting: 1 Mbit/s

6 dB Bandwidth = 10.10 MHz



Date: 19.MAY.2008 15:52:11



Company: TV Compass
 Model Tested: DMR1
 Report Number: 14224

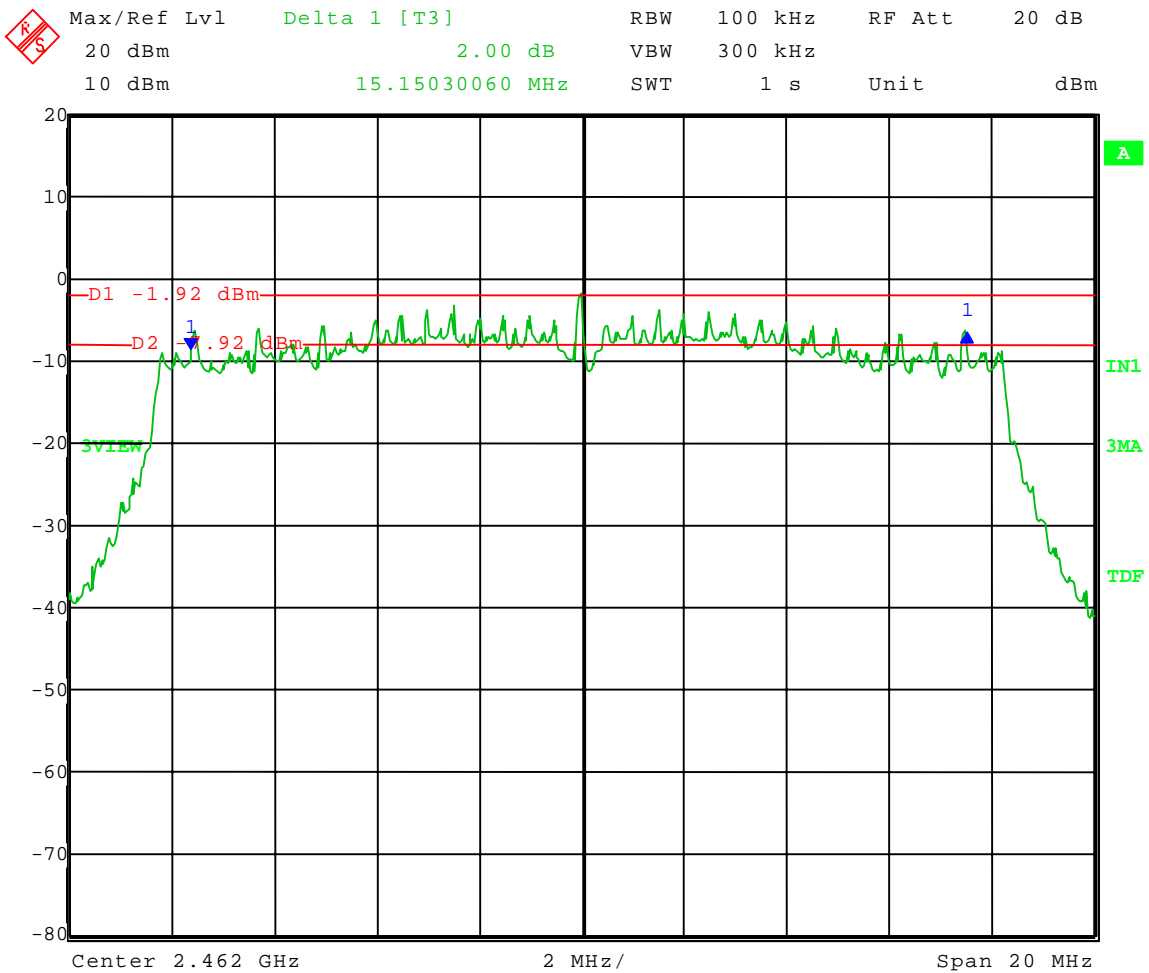
1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
 Company: TV Compass
 EUT: Model: DMR1
 Test: 6 dB Bandwidth - Conducted
 Operator: Craig B
 Comment: **High Channel:** Frequency – 2.462 GHz
Antenna 1

Data Rate setting: 54 Mbit/s

6 dB Bandwidth = 15.15 MHz



Date: 19.MAY.2008 16:17:57



1250 Peterson Dr., Wheeling, IL 60090

Company: TV Compass
Model Tested: DMR1
Report Number: 14224

APPENDIX A

6 dB BANDWIDTH GRAPHS

PART 15.247

ANTENNA 2



Company: TV Compass
 Model Tested: DMR1
 Report Number: 14224

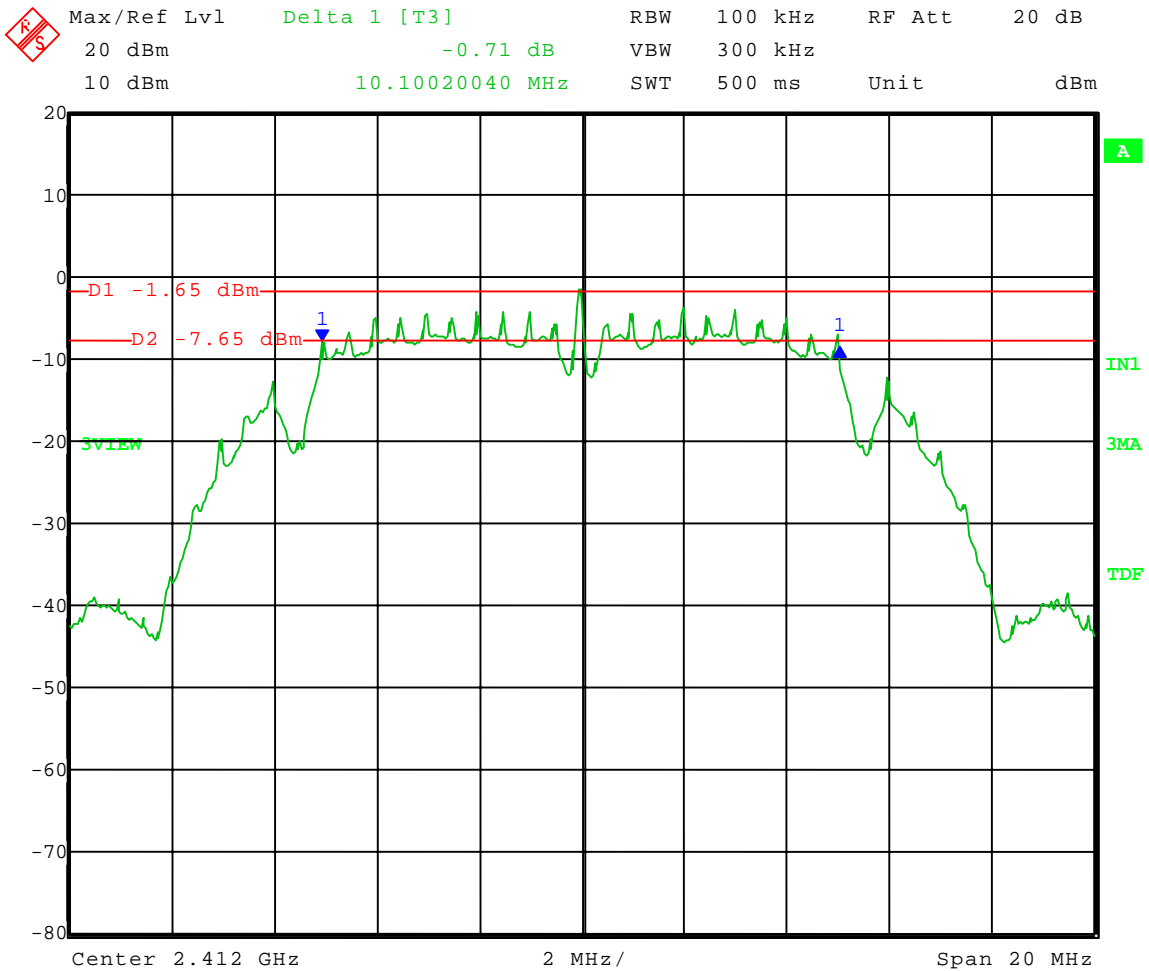
1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 06-26-2008
 Company: TV Compass
 EUT: Model: DMR1
 Test: 6 dB Bandwidth - Conducted
 Operator: Craig B
 Comment: **Low Channel:** Frequency – 2.412 GHz
Antenna 2

Data Rate setting: 1 Mbit/s

6 dB Bandwidth = 10.10 MHz



Date: 26.JUN.2008 15:08:27



Company: TV Compass
Model Tested: DMR1
Report Number: 14224

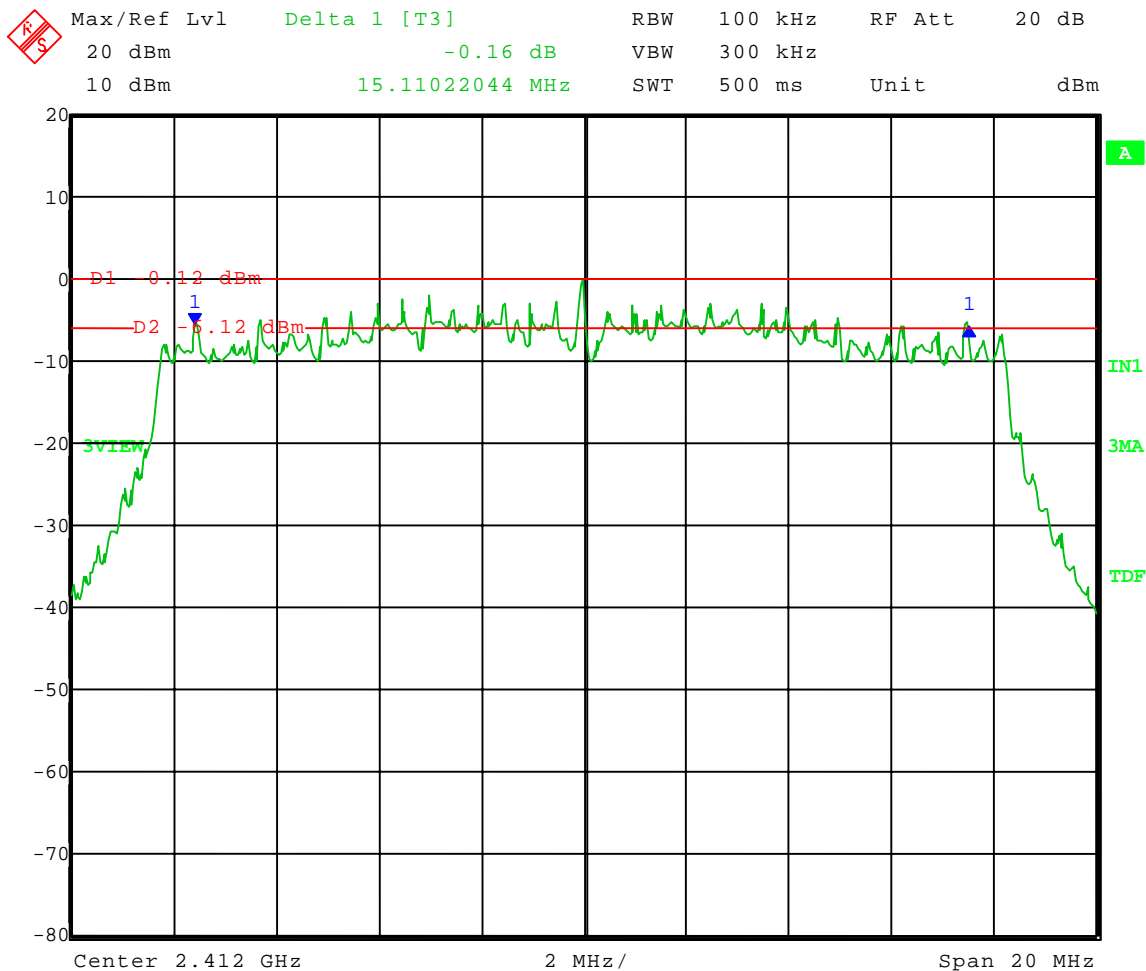
1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 06-27-2008
Company: TV Compass
EUT: Model: DMR1
Test: 6 dB Bandwidth - Conducted
Operator: Craig B
Comment: **Low Channel:** Frequency – 2.412 GHz
Antenna 2

Data Rate setting: 54 Mbit/s

6 dB Bandwidth = 15.11 MHz



Date: 27.JUN.2008 14:25:31



Company: TV Compass
Model Tested: DMR1
Report Number: 14224

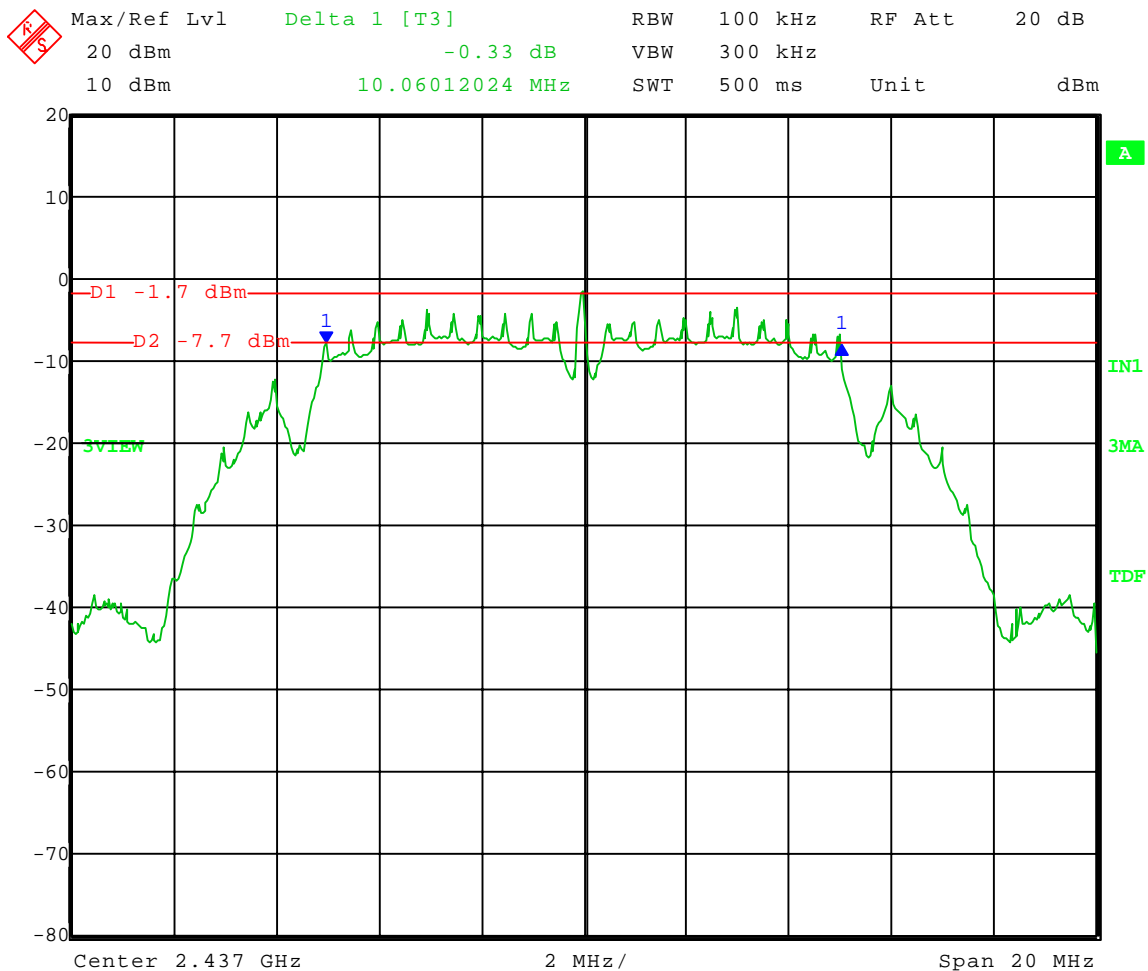
1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 06-26-2008
Company: TV Compass
EUT: Model: DMR1
Test: 6 dB Bandwidth - Conducted
Operator: Craig B
Comment: **Mid Channel**: Frequency – 2.437 GHz
Antenna 2

Data Rate setting: 1 Mbit/s

6 dB Bandwidth = 10.06 MHz



Date: 26.JUN.2008 15:14:14



Company: TV Compass
Model Tested: DMR1
Report Number: 14224

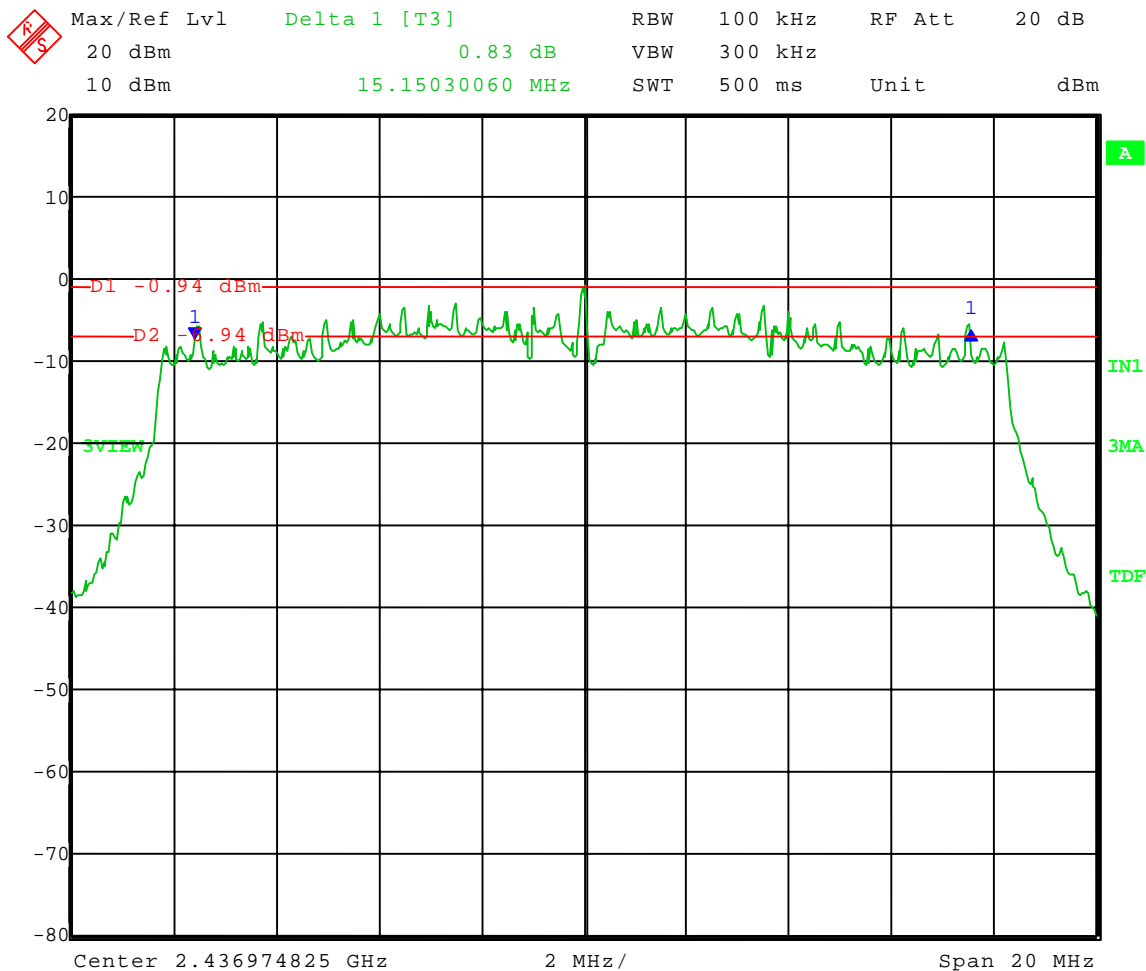
1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 06-27-2008
Company: TV Compass
EUT: Model: DMR1
Test: 6 dB Bandwidth - Conducted
Operator: Craig B
Comment: **Mid Channel**: Frequency – 2.437 GHz
Antenna 2

Data Rate setting: 54 Mbit/s

6 dB Bandwidth = 15.15 MHz



Date: 27.JUN.2008 13:17:38



Company: TV Compass
 Model Tested: DMR1
 Report Number: 14224

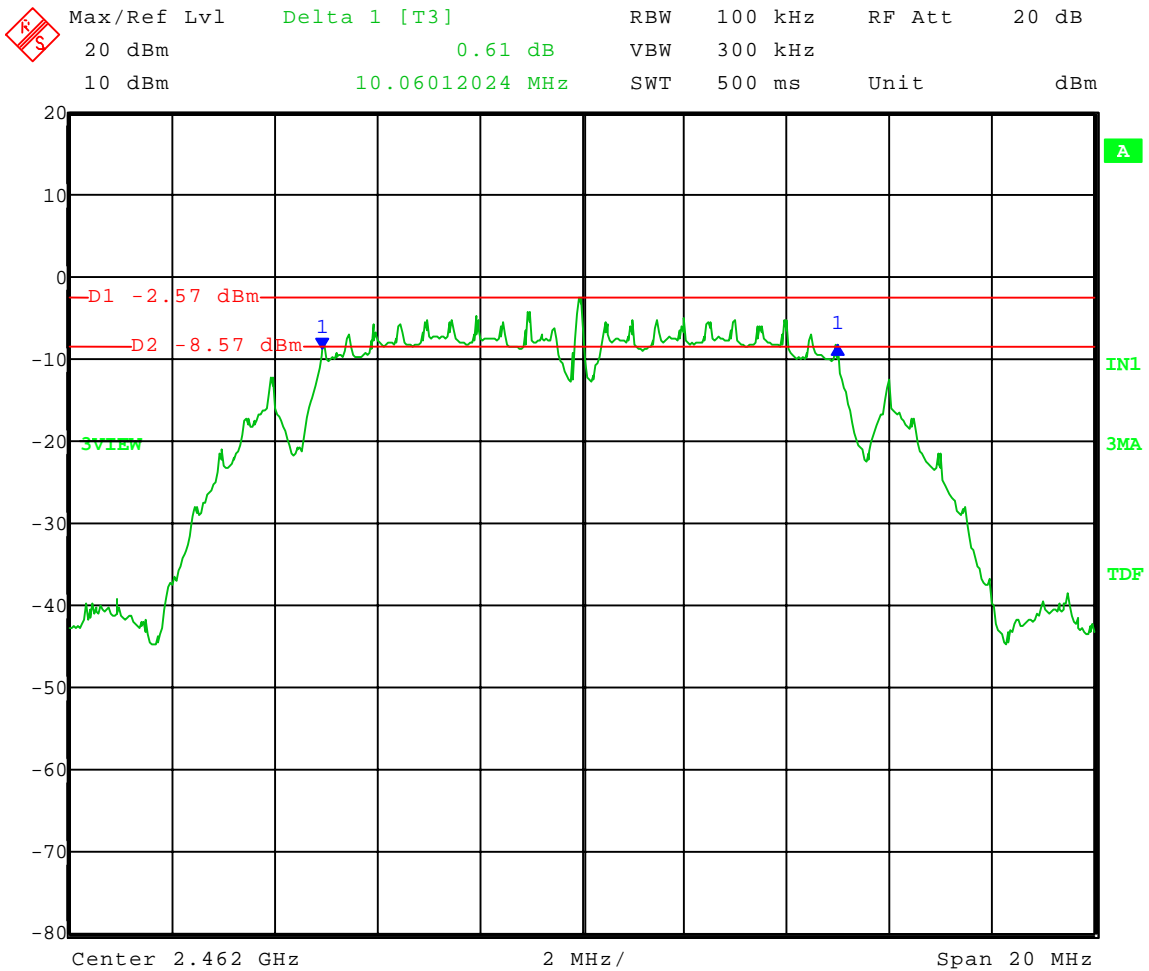
1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 06-26-2008
 Company: TV Compass
 EUT: Model: DMR1
 Test: 6 dB Bandwidth - Conducted
 Operator: Craig B
 Comment: High Channel: Frequency – 2.462 GHz
 Antenna 2

Data Rate setting: 1 Mbit/s

6 dB Bandwidth = 10.06 MHz



Date: 26.JUN.2008 14:58:22



Company: TV Compass
Model Tested: DMR1
Report Number: 14224

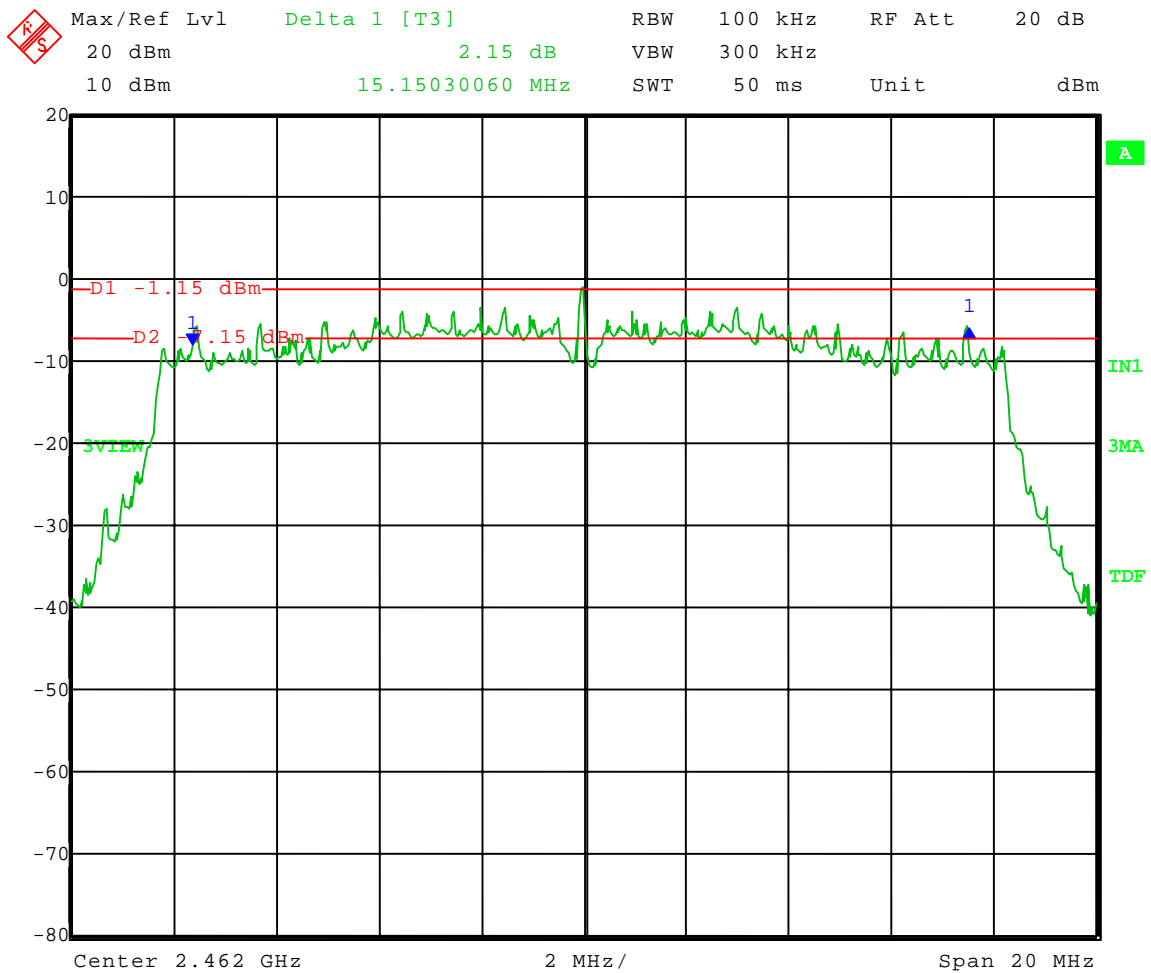
1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 06-27-2008
Company: TV Compass
EUT: Model: DMR1
Test: 6 dB Bandwidth - Conducted
Operator: Craig B
Comment: **High Channel:** Frequency – 2.462 GHz
Antenna 2

Data Rate setting: 54 Mbit/s

6 dB Bandwidth = 15.15 MHz



Date: 27.JUN.2008 14:41:43



1250 Peterson Dr., Wheeling, IL 60090

Company: TV Compass
Model Tested: DMR1
Report Number: 14224

APPENDIX A

NUMBER OF CHANNELS

PART 15.247



1250 Peterson Dr., Wheeling, IL 60090

Company: TV Compass
Model Tested: DMR1
Report Number: 14224

APPENDIX A

The channels are as follows:

Channel:	Frequency in MHz:
1:	2412
2:	2417
3:	2422
4:	2427
5:	2432
6:	2437
7:	2442
8:	2447
9:	2452
10:	2457
11:	2462



1250 Peterson Dr., Wheeling, IL 60090

Company: TV Compass
Model Tested: DMR1
Report Number: 14224

APPENDIX A

CONDUCTED PEAK OUTPUT POWER GRAPHS

PART 15.247

ANTENNA PORT 1



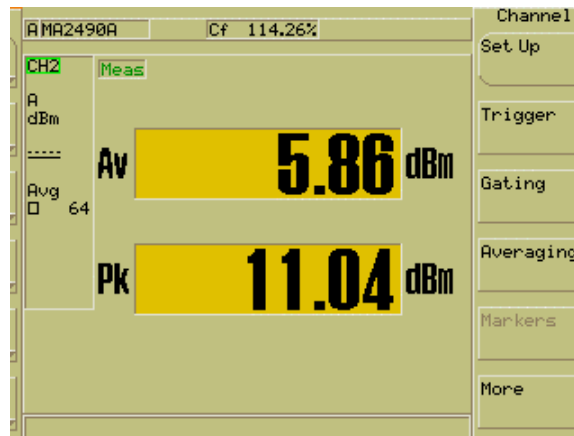
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Peak Power Output - Conducted
Operator: Craig B
Comment: **Low Channel:** Frequency – 2.412 GHz
Antenna Port 1

Peak Output Power = 11.04 dBm = **12.7 mW**





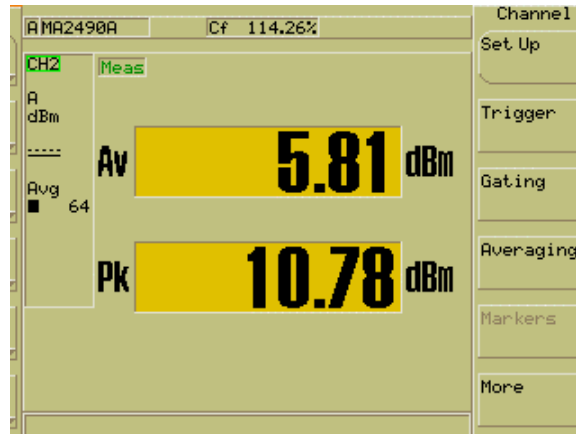
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Peak Power Output - Conducted
Operator: Craig B
Comment: **Middle Channel:** Frequency – 2.437 GHz
Antenna Port 1

Peak Output Power = 10.78 dBm = **12.0 mW**





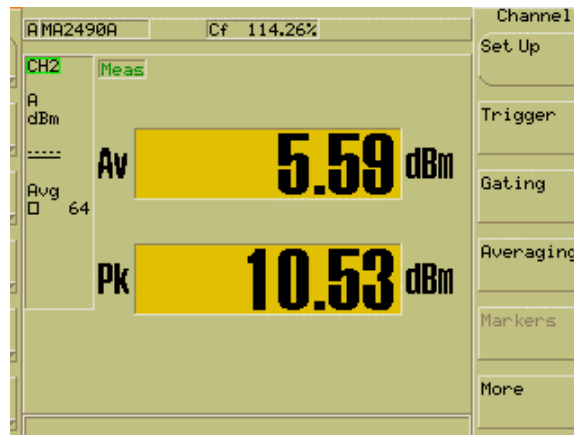
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Peak Power Output - Conducted
Operator: Craig B
Comment: **High Channel** Frequency – 2.462 GHz
Antenna Port 1

Peak Output Power = 10.53 dBm = **11.3 mW**





1250 Peterson Dr., Wheeling, IL 60090

Company: TV Compass
Model Tested: DMR1
Report Number: 14224

APPENDIX A

CONDUCTED PEAK OUTPUT POWER GRAPHS

PART 15.247

ANTENNA PORT 2



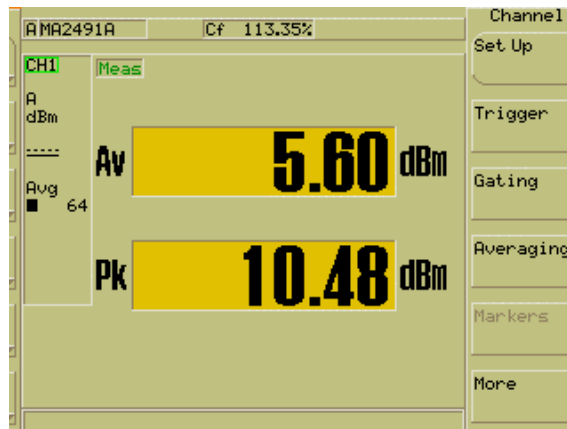
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 06-26-2008
Company: TV Compass
EUT: Model: DMR1
Test: Peak Power Output - Conducted
Operator: Craig B
Comment: **Low Channel:** Frequency – 2.412 GHz
Antenna Port 2

Peak Output Power = 10.48 dBm = **11.2 mW**





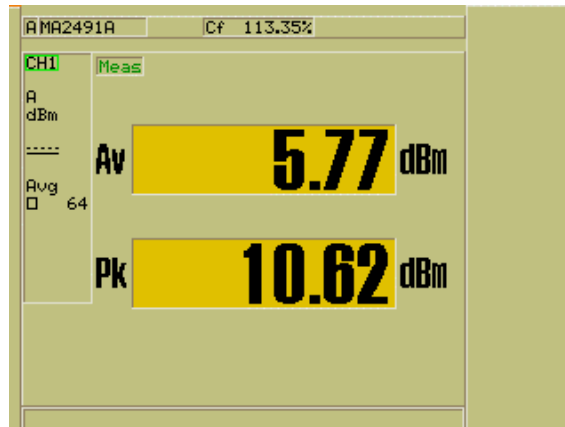
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 06-26-2008
Company: TV Compass
EUT: Model: DMR1
Test: Peak Power Output - Conducted
Operator: Craig B
Comment: **Mid Channel** Frequency – 2.437 GHz
Antenna Port 2

Peak Output Power = 10.62 dBm = **11.5 mW**





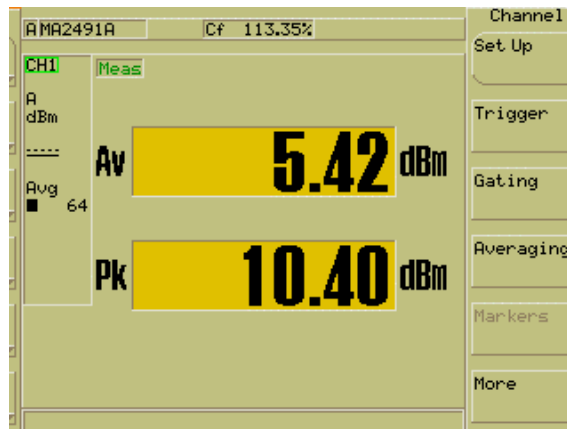
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 06-26-2008
Company: TV Compass
EUT: Model: DMR1
Test: Peak Power Output - Conducted
Operator: Craig B
Comment: **High Channel** Frequency – 2.462 GHz
Antenna Port 2

Peak Output Power = 10.40 dBm = **11.0 mW**





1250 Peterson Dr., Wheeling, IL 60090

Company: TV Compass
Model Tested: DMR1
Report Number: 14224

APPENDIX A

PEAK POWER SPECTRAL DENSITY GRAPHS

PART 15.247

ANTENNA PORT 1



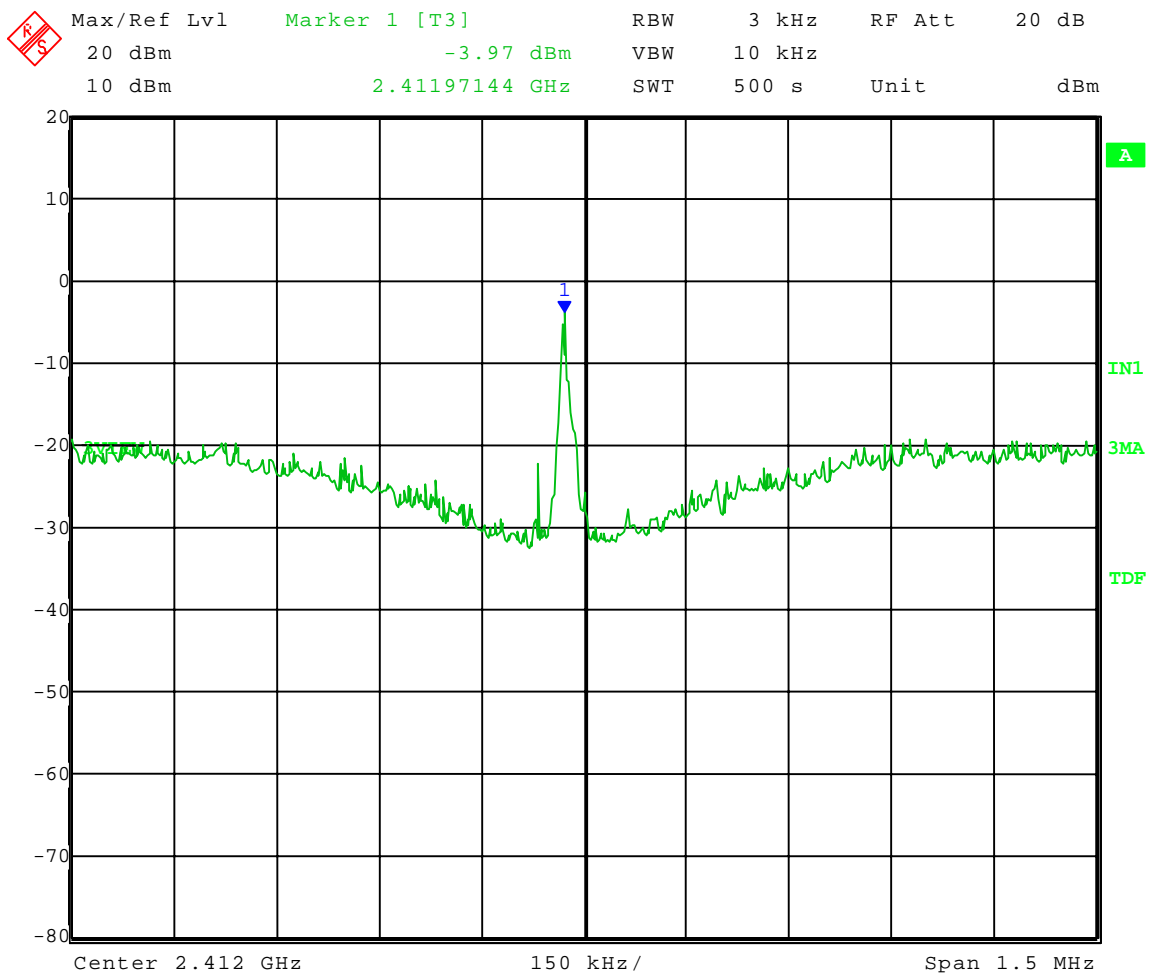
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Peak Power Spectral Density - Conducted
Operator: Craig B
Comment: **Low Channel:** Frequency – 2.412GHz
Antenna Port 1
Data Rate: 1 Mbit/s
Limit: 8 dBm

3 kHz Bandwidth = -3.97 dBm



Date: 19.MAY.2008 14:43:14



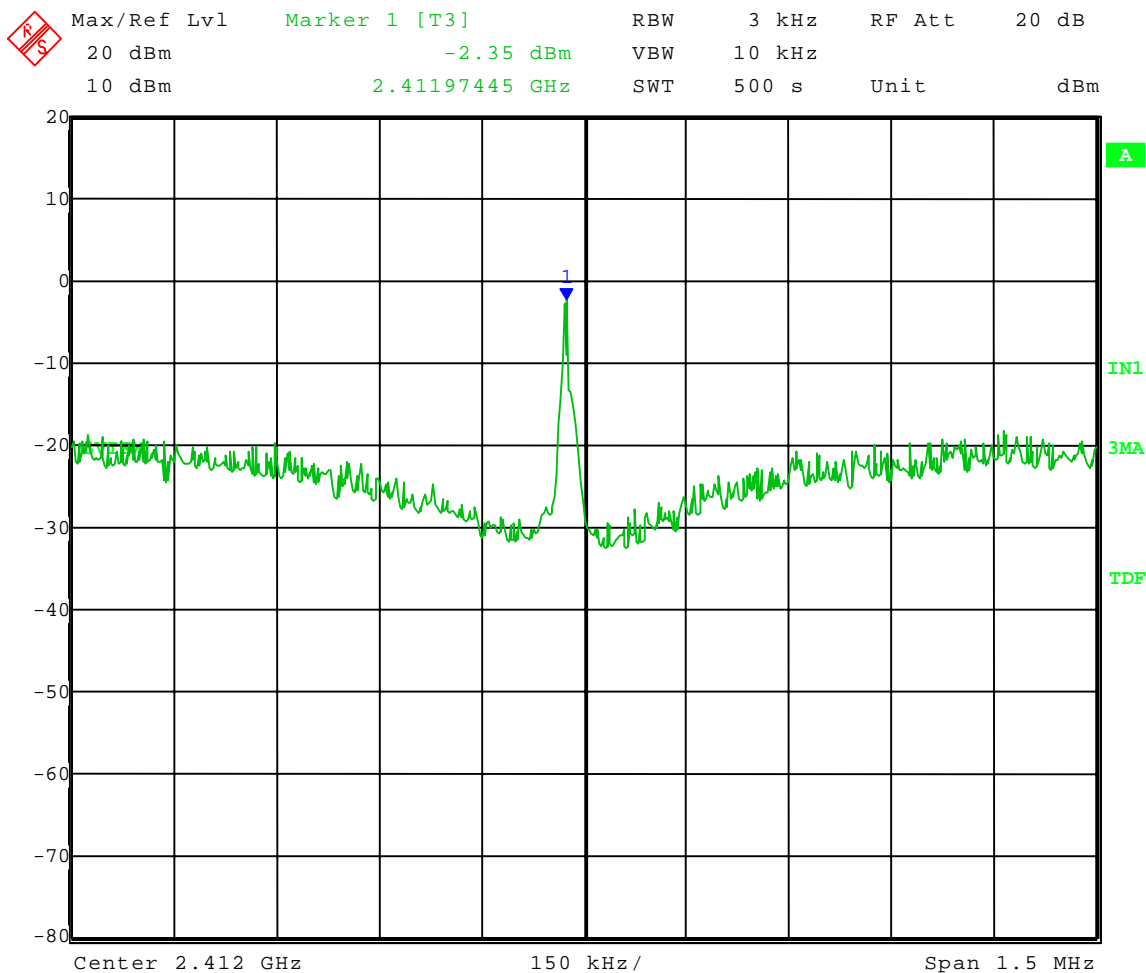
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Peak Power Spectral Density - Conducted
Operator: Craig B
Comment: **Low Channel:** Frequency – 2.412GHz
Antenna Port 1
Data Rate: 54 Mbit/s
Limit: 8 dBm

3 kHz Bandwidth = -2.35 dBm



Date: 19.MAY.2008 14:26:55



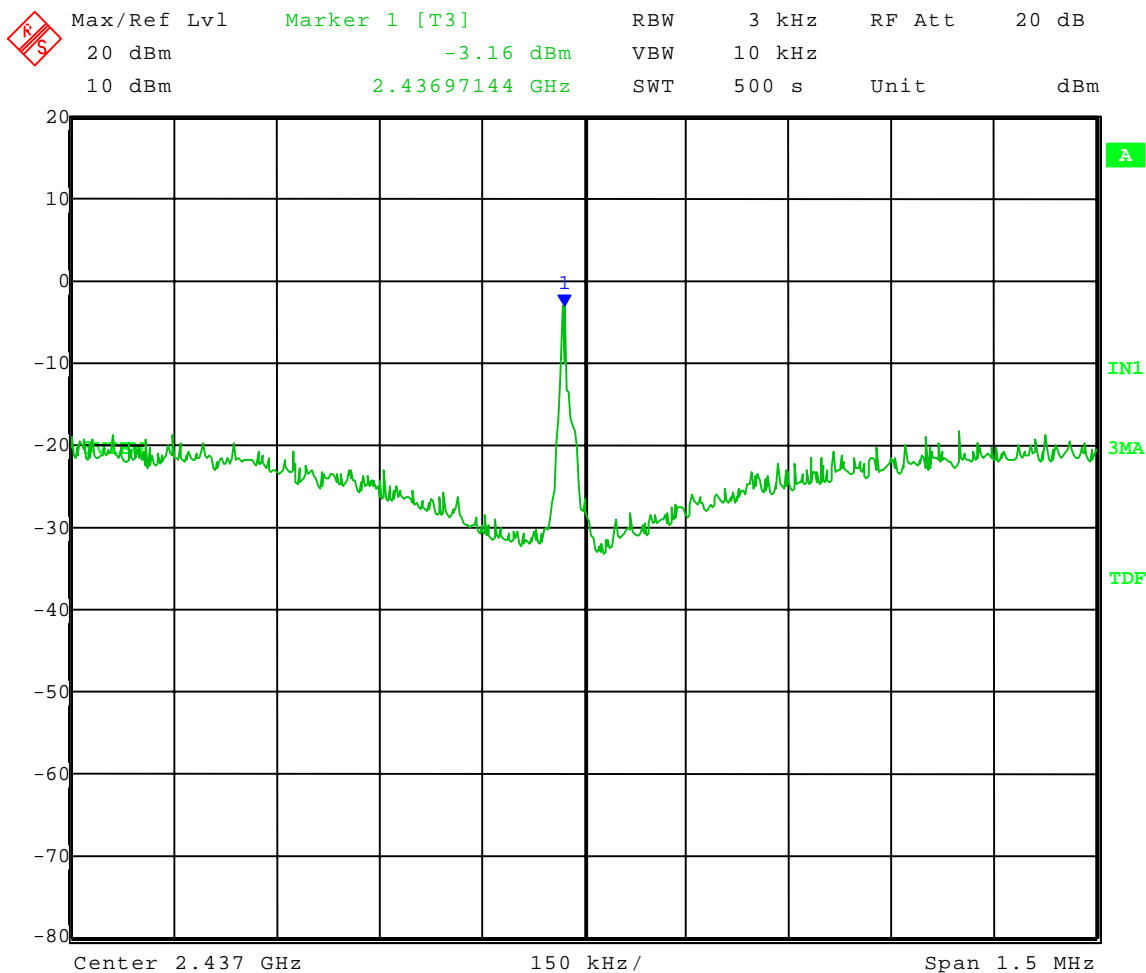
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Peak Power Spectral Density - Conducted
Operator: Craig B
Comment: Mid Channel: Frequency – 2.437 GHz
Antenna Port 1
Data Rate: 1 Mbit/s
Limit: 8 dBm

3 kHz Bandwidth = -3.16 dBm



Date: 19.MAY.2008 15:16:53



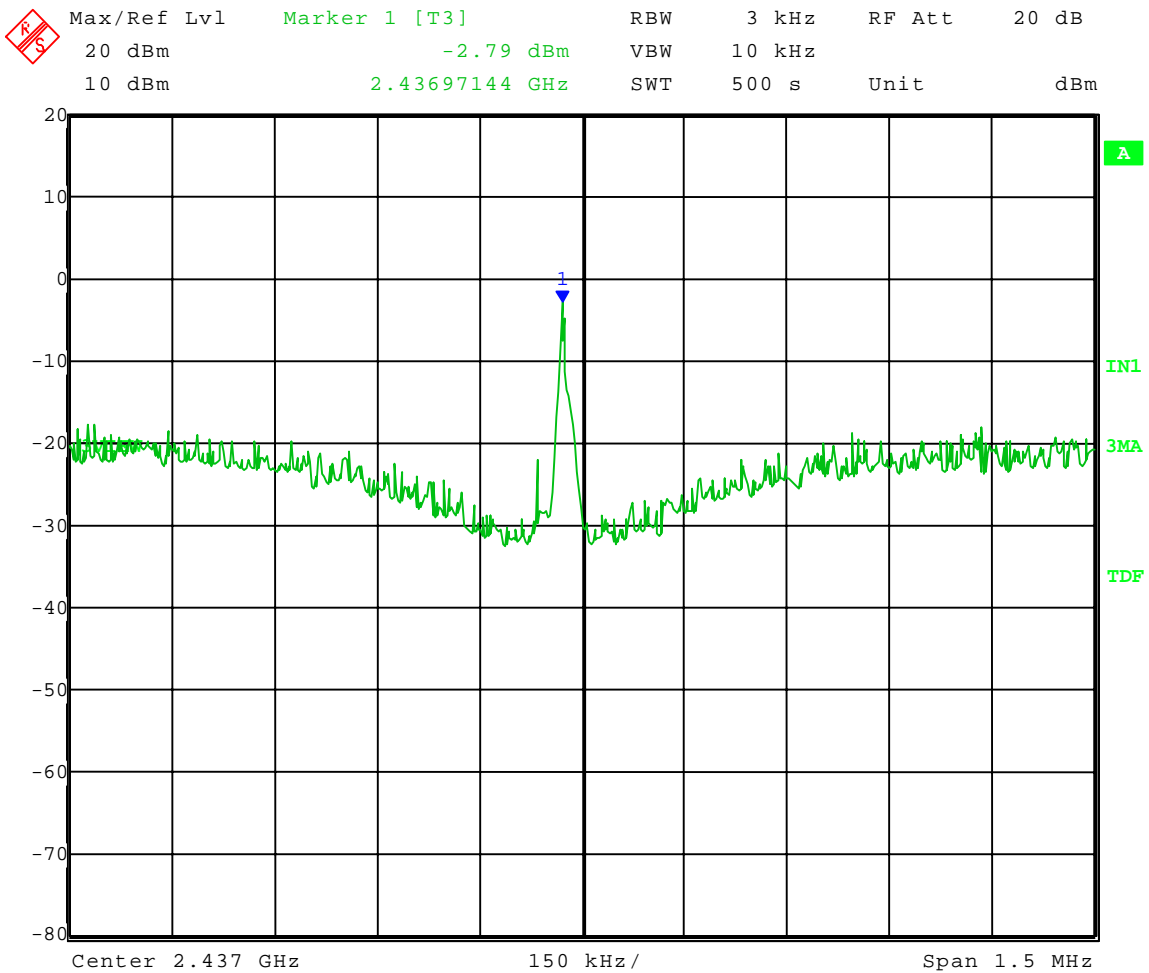
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Peak Power Spectral Density - Conducted
Operator: Craig B
Comment: Mid Channel: Frequency – 2.437 GHz
Antenna Port 1
Data Rate: 54 Mbit/s
Limit: 8 dBm

3 kHz Bandwidth = -2.79 dBm



Date: 19.MAY.2008 15:27:48



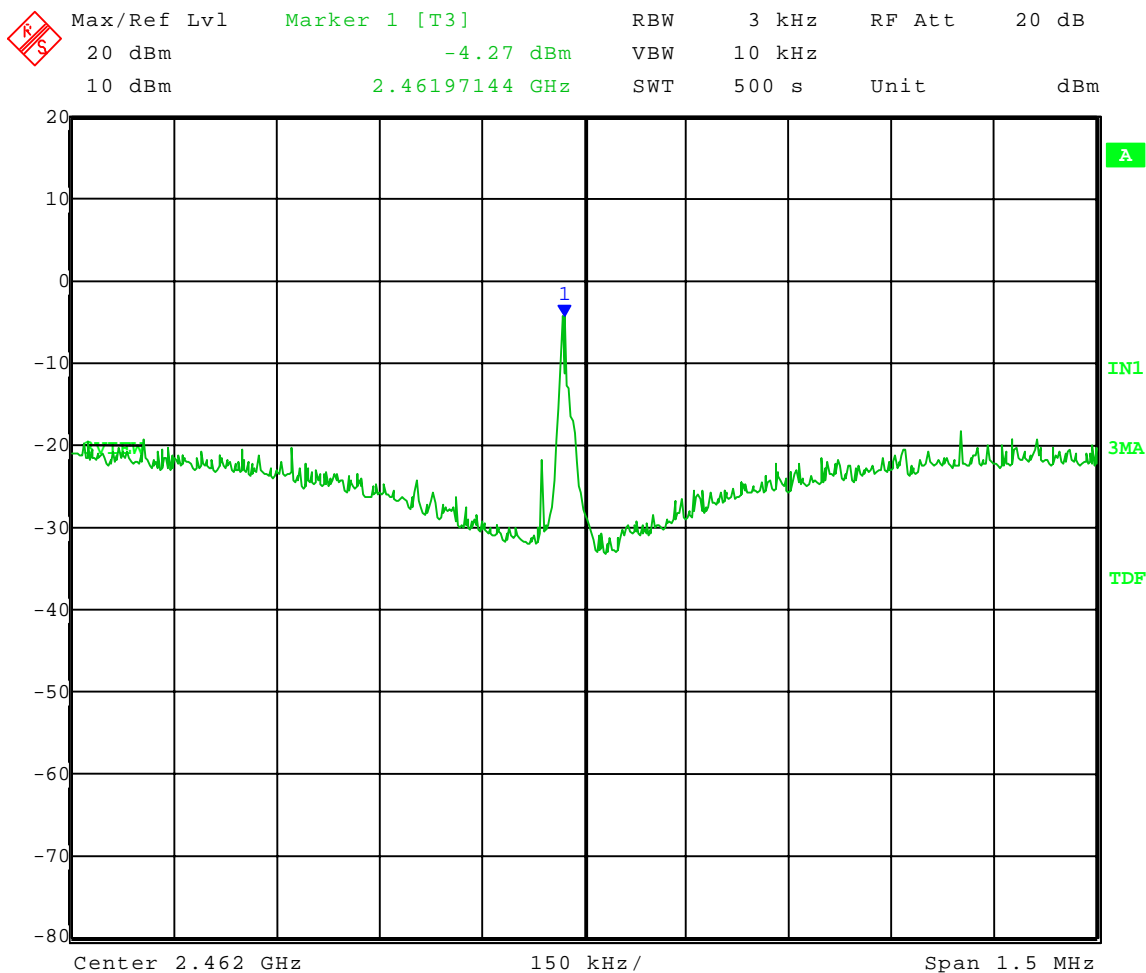
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Peak Power Spectral Density - Conducted
Operator: Craig B
Comment: **High Channel:** Frequency – 2.462 GHz
Antenna Port 1
Data Rate: 1 Mbit/s
Limit: 8 dBm

3 kHz Bandwidth = -4.27 dBm



Date: 19.MAY.2008 16:03:04



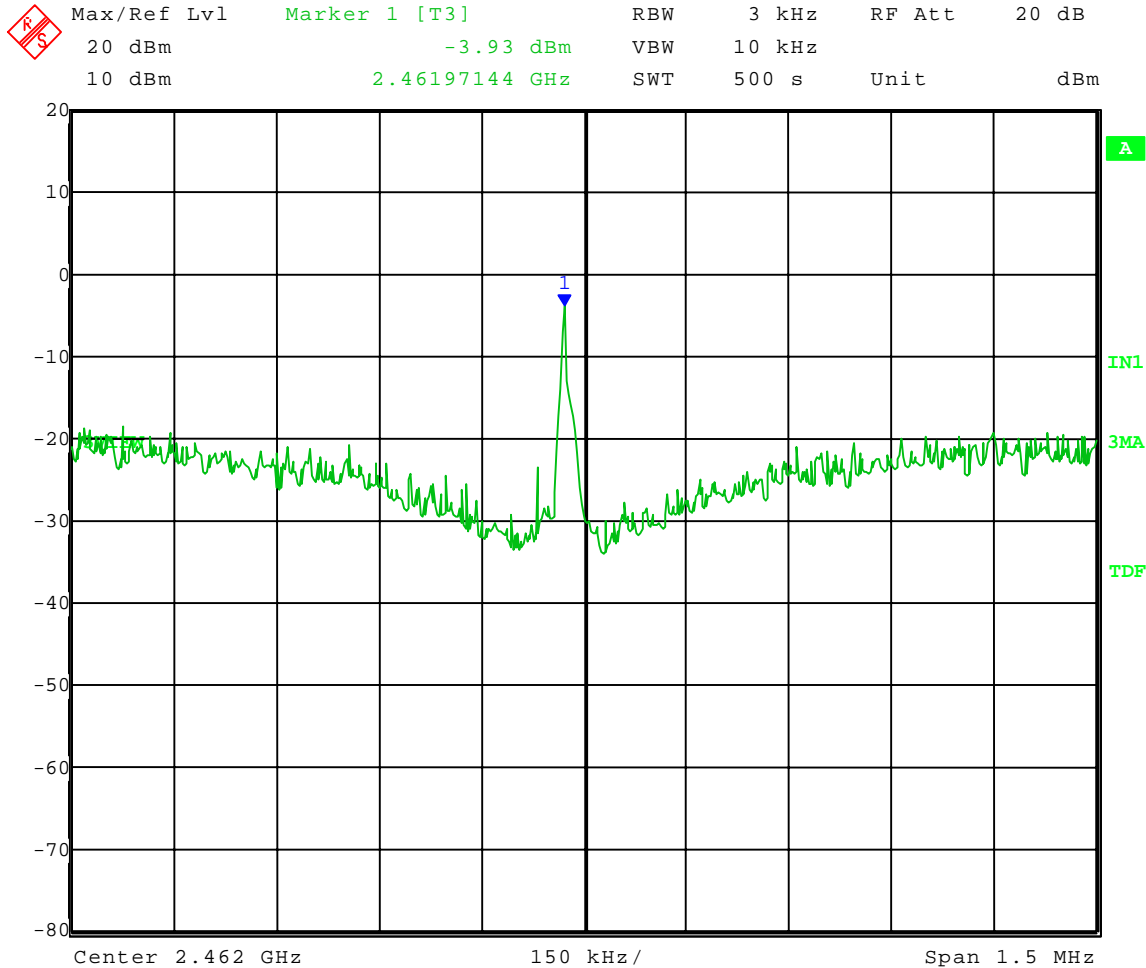
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 05-19-2008
Company: TV Compass
EUT: Model: DMR1
Test: Peak Power Spectral Density - Conducted
Operator: Craig B
Comment: **High Channel** Frequency – 2.462 GHz
Antenna Port 1
Data Rate: 54 Mbit/s
Limit: 8 dBm

3 kHz Bandwidth = -3.93 dBm





1250 Peterson Dr., Wheeling, IL 60090

Company: TV Compass
Model Tested: DMR1
Report Number: 14224

APPENDIX A

PEAK POWER SPECTRAL DENSITY GRAPHS

PART 15.247

ANTENNA PORT 2



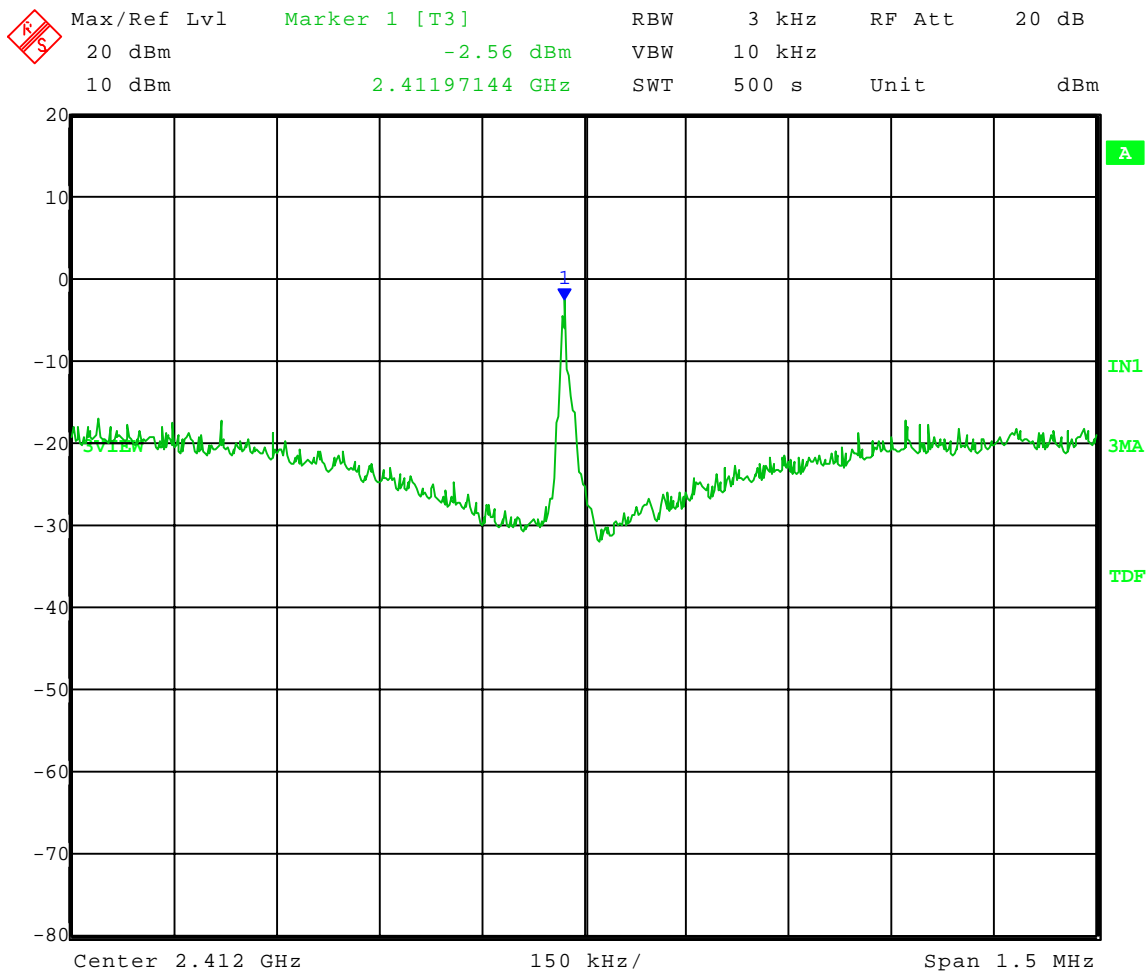
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 06-26-2008
Company: TV Compass
EUT: Model: DMR1
Test: Peak Power Spectral Density - Conducted
Operator: Craig B
Comment: **Low Channel:** Frequency – 2.412 GHz
Antenna Port 2
Data Rate: 1 Mbit/s
Limit: 8 dBm

3 kHz Bandwidth = -2.56 dBm



Date: 26.JUN.2008 16:35:23



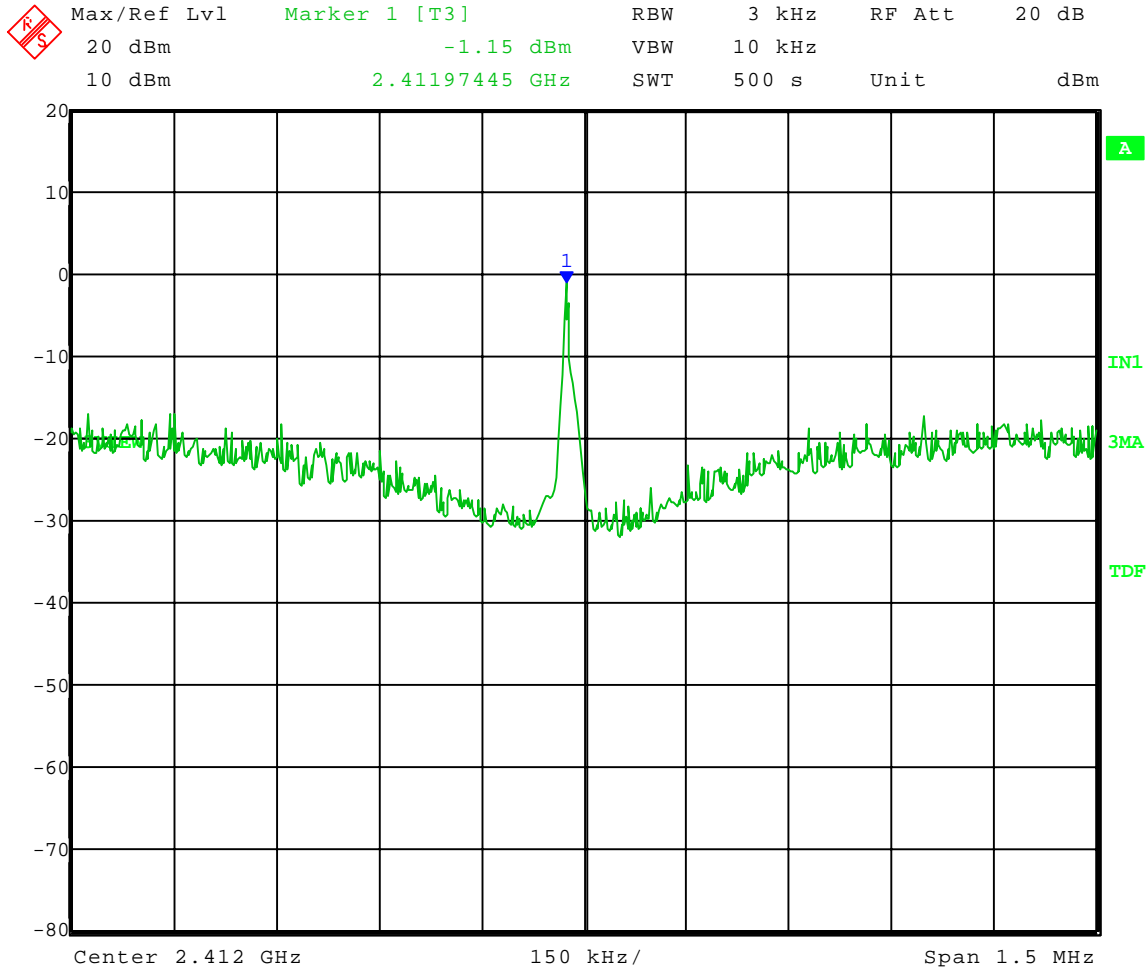
Company: TV Compass
Model Tested: DMR1
Report Number: 14224

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 06-27-2008
Company: TV Compass
EUT: Model: DMR1
Test: Peak Power Spectral Density - Conducted
Operator: Craig B
Comment: **Low Channel:** Frequency – 2.412 GHz
Antenna Port 2
Data Rate: 54 Mbit/s
Limit: 8 dBm

3 kHz Bandwidth = -1.15 dBm



Date: 27.JUN.2008 14:21:35

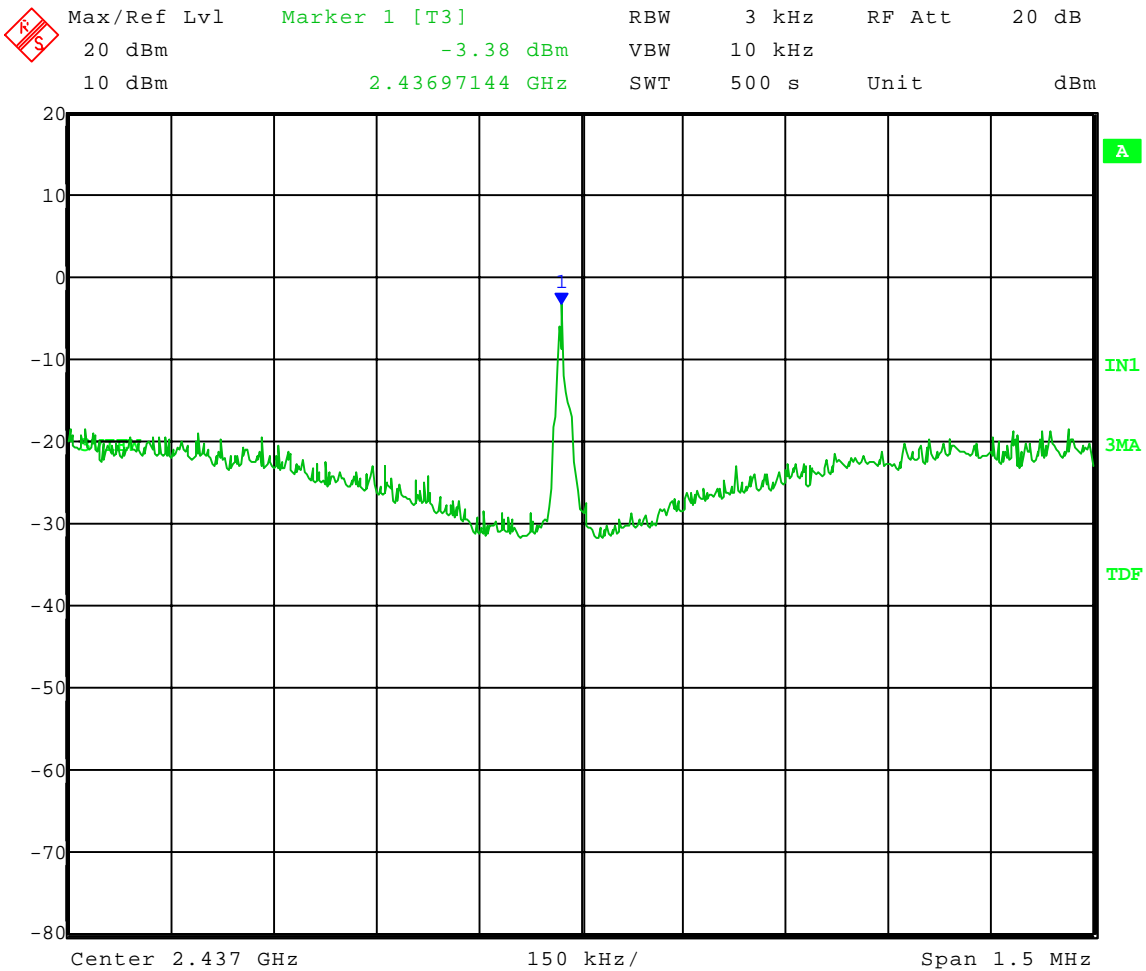


1250 Peterson Dr., Wheeling, IL 60090

Company: TV Compass
Model Tested: DMR1
Report Number: 14224

Test Date: 06-27-2008
Company: TV Compass
EUT: Model: DMR1
Test: Peak Power Spectral Density - Conducted
Operator: Craig B
Comment: Mid Channel: Frequency – 2.437 GHz
Antenna Port 2
Data Rate: 1 Mbit/s
Limit: 8 dBm

3 kHz Bandwidth = -3.38 dBm



Date: 27.JUN.2008 13:28:31

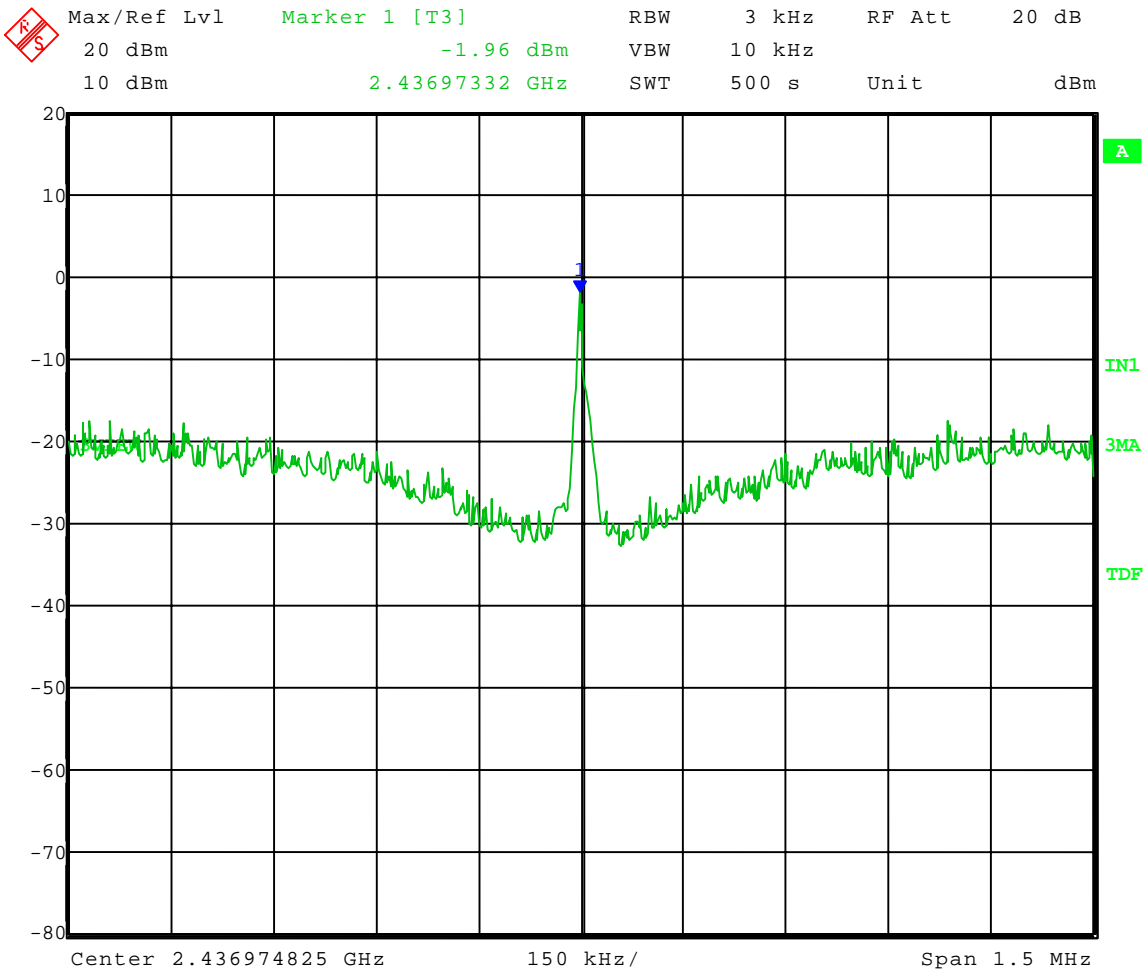


1250 Peterson Dr., Wheeling, IL 60090

Company: TV Compass
Model Tested: DMR1
Report Number: 14224

Test Date: 06-27-2008
Company: TV Compass
EUT: Model: DMR1
Test: Peak Power Spectral Density - Conducted
Operator: Craig B
Comment: **Mid Channel**: Frequency – 2.437 GHz
Antenna Port 2
Data Rate: 54 Mbit/s
Limit: 8 dBm

3 kHz Bandwidth = -1.96 dBm



Date: 27.JUN.2008 13:06:50

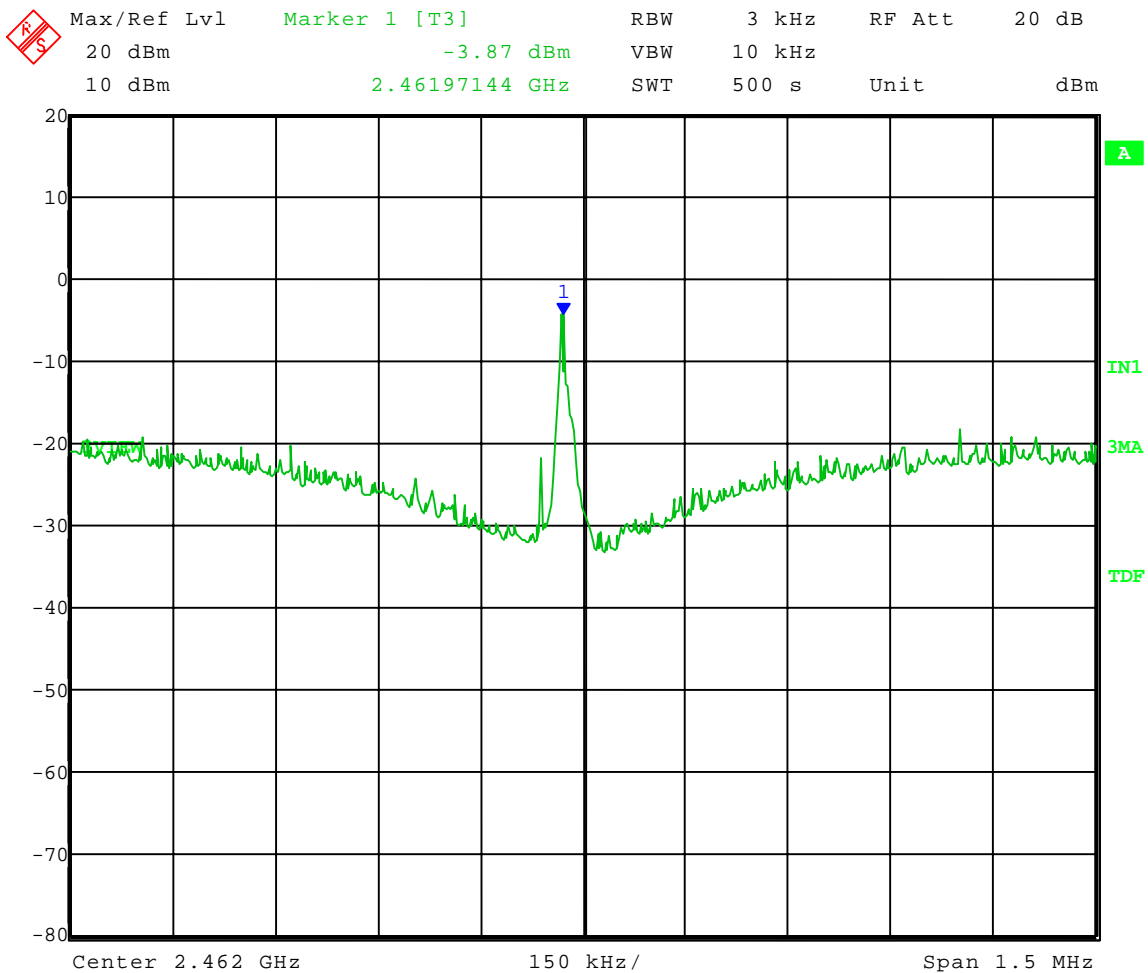


1250 Peterson Dr., Wheeling, IL 60090

Company: TV Compass
Model Tested: DMR1
Report Number: 14224

Test Date: 06-26-2008
Company: TV Compass
EUT: Model: DMR1
Test: Peak Power Spectral Density - Conducted
Operator: Craig B
Comment: **High Channel:** Frequency – 2.462 GHz
Antenna Port 2
Data Rate: 1 Mbit/s
Limit: 8 dBm

3 kHz Bandwidth = -3.87 dBm



Date: 26.JUN.2008 16:19:24

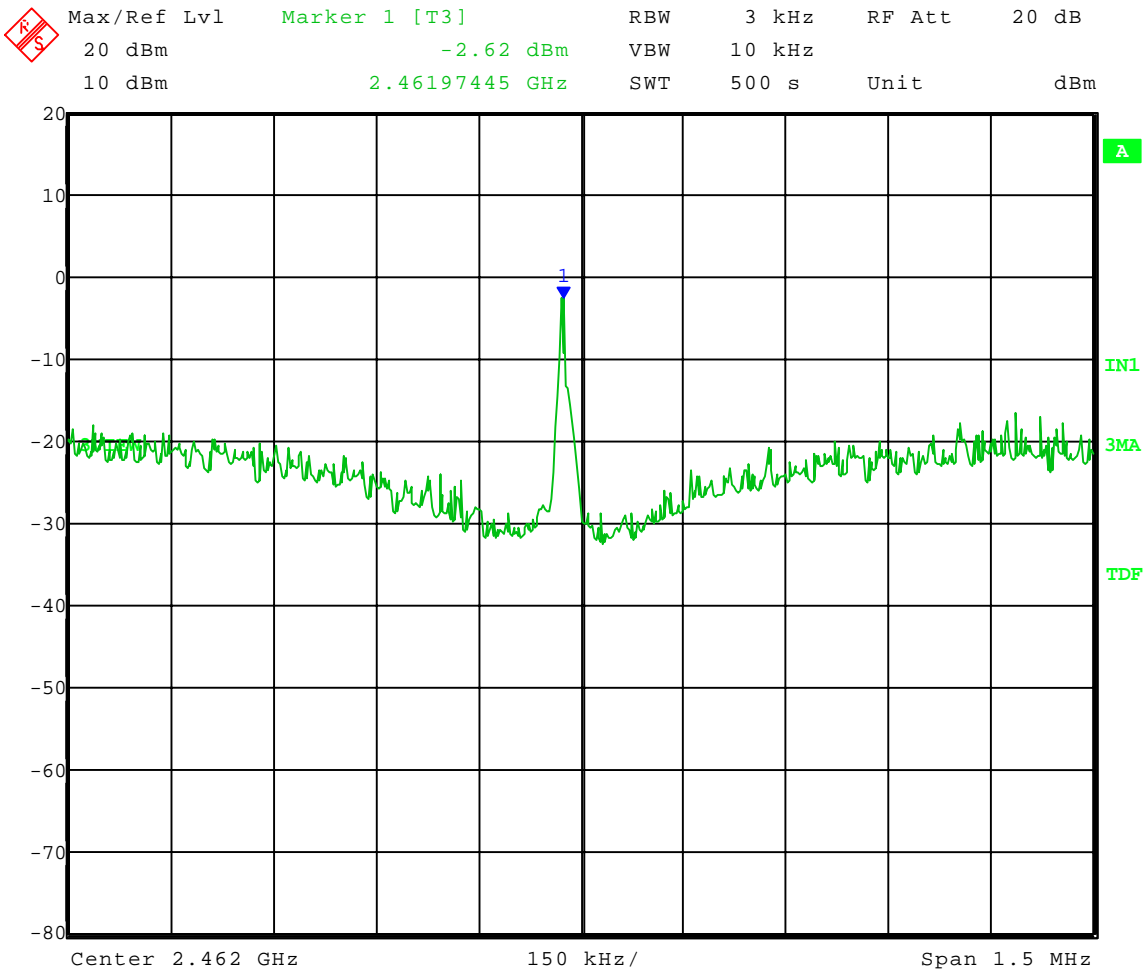


1250 Peterson Dr., Wheeling, IL 60090

Company: TV Compass
Model Tested: DMR1
Report Number: 14224

Test Date: 06-27-2008
Company: TV Compass
EUT: Model: DMR1
Test: Peak Power Spectral Density - Conducted
Operator: Craig B
Comment: **High Channel:** Frequency - 2.462 GHz
Antenna Port 2
Data Rate: 54 Mbit/s
Limit: 8 dBm

3 kHz Bandwidth = -2.62 dBm



Date: 27.JUN.2008 14:51:54