



166 South Carter, Genoa City, WI 53128

Company:	Whirlpool Corporation
Model Tested:	XPWP and XPWC
Report Number:	18708
DLS Project:	5163

Code of Federal Regulations 47 Part 15 – Radio Frequency Devices

Subpart C – Intentional Radiators

Section 15.247

Operation within the bands 902 - 928 MHz,
2400 - 2483.5 MHz, 5725 - 5875 MHz,
and 24.0 - 24.25 GHz.

THE FOLLOWING **MEETS** THE ABOVE TEST SPECIFICATION

Formal Name:	WIFI Processor Module & WIFI Core Module
Kind of Equipment:	802.11b/g/n Wi-Fi appliance module
Frequency Range:	2412-2462 MHz
Test Configuration:	DC powered transceiver module
Model Number(s):	XPWP (Processor) and XPWC (Core)
Model(s) Tested:	XPWP (Processor) and XPWC (Core)
Serial Number(s):	RF Conducted on Processor SN: NP109221 Radiated on Processor SN: NP109223 RF Conducted on Core SN: NP109413 Radiated on Core SN: NP109401
Date of Tests:	12-17-12 through 02-05-13
Test Conducted For:	Whirlpool Corporation 750 Monte Rd Benton Harbor, MI 49022, USA

NOTICE: “This test report relates only to the items tested and must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government”. Please see the "Description of Test Sample" page listed inside of this report.

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Company:
Model Tested:
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Whirlpool Corporation
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SIGNATURE PAGE

Tested By:

A handwritten signature in black ink that reads "James R. Ochoa". The signature is written in a cursive style with a large, looped "J" and a trailing flourish.

James Ochoa
Test Engineer

Reviewed By:

A handwritten signature in black ink that reads "William Stumpf". The signature is written in a cursive style with a large, looped "W" and a trailing flourish.

William Stumpf
OATS Manager

Approved By:

A handwritten signature in black ink that reads "Brian J. Mattson". The signature is written in a cursive style with a large, looped "B" and a trailing flourish.

Brian Mattson
General Manager



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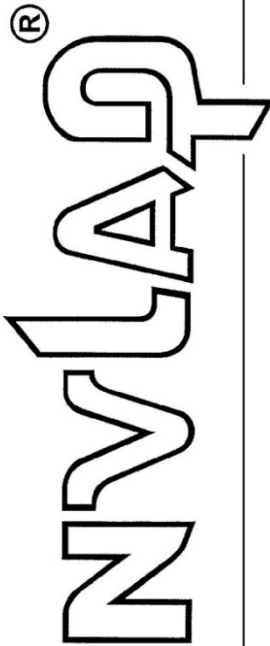


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United States Department of Commerce
National Institute of Standards and Technology



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 January 2009).*



Wm. D. M. L.

For the National Institute of Standards and Technology

2012-10-01 through 2013-09-30

Effective dates

NVLAP-01C (REV. 2009-01-28)



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1.0 Summary of Test Report

It was determined that the Whirlpool Inc WIFI Processor Module model WPWP and WIFI Core Module model WPWC, complies with the requirements of CFR 47 Part 15 Subpart C Section 15.247.

Subpart C Section 15.247 Applicable Technical Requirements Tested:

Section	Description	Procedure	Note	Compliant?
15.247(a)(2)	6 dB Emission Bandwidth	558074 D01 DTS Meas Guidance v02	1	Yes
15.247(b)(3)	Fundamental Emission Output Power	558074 D01 DTS Meas Guidance v02	1	Yes
15.247(e)	Maximum Power Spectral Density	558074 D01 DTS Meas Guidance v02	1	Yes
15.247(d)	Maximum Unwanted Emission Levels	558074 D01 DTS Meas Guidance v02	1	Yes
15.247(d) 15.205(a) 15.209(a)	Unwanted Emissions into Restricted Frequency Bands – Radiated	558074 D01 DTS Meas Guidance v02	2	Yes
15.247(d)	Band-Edge Measurements – Conducted	558074 D01 DTS Meas Guidance v02	1	Yes
15.247(d) 15.205(a) 15.209(a)	Band-Edge Measurements - Radiated	558074 D01 DTS Meas Guidance v02 & ANSI C63.10-2009	2	Yes
15.207	AC Power-Line Conducted Emissions	ANSI C63.10-2009	3	Yes

Note 1: RF conducted measurement.

Note 2: Radiated emission measurement.

Note 3: AC power line conducted measurement.



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2.0 Introduction

In December 2012 - February, 2013, the WIFI Processor Module model WPWP and WIFI Core Module model WPWC, as provided from Whirlpool were tested to the requirements of CFR 47 Part 15 Subpart C Section 15.247. To meet these requirements, the procedures contained within this report were performed by personnel of D.L.S Electronic Systems, Inc.

3.0 Test Facilities

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.

Wisconsin Test Facility:

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

Wheeling Test Facility:

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

4.0 Description of Test Sample

Description:

The Test sample consisted of 2 Processor and 2 Core PCBRD configurations. The 802.11b/g/n specification compliant transceivers were mounted on an FR4 substrate which included integrated printed circuit board with two "on-board" or imbedded antennas and a shield covering the RF circuitry. Through a hardware configuration, "Fakra" connectors can be mounted directly on the PCBRD to allow the internal antennas to be bypassed and external antennas to be used depending on the geographical environment. Firmware was included which allowed different modulation types, power settings and frequency of operation to be set as needed. The PCBRD was mounted on a "breadboard" that utilized a 5Vdc regulator as the modules source powered by an external 9.6V battery and a serial port for programming the EUT.

Type of Equipment / Frequency Range:

Mobile / 2412-2462 MHz (DSSS, CCK, OFDM, MC7S-20MHz) and 2422-2452 (MC7S-40MHz)

Physical Dimensions of Equipment Under Test:

Appx.1 inch x 3 inch



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4.0 Description of Test Sample (continued)

Power Source:

9.6 VDC Battery

Internal Frequencies:

38.4 MHz, 32 MHz, 32.768 kHz

Transmit / Receive Frequencies Used For Test Purpose:

For modulation types DSSS, CCK, OFDM, MC7S-20MHz:

Low channel: 2412 MHz, Middle channel: 2443 MHz, High channel: 2462 MHz

For modulation type MC7S-40MHz:

Low channel: 2422 MHz, Middle channel: 2443 MHz, High channel: 2452 MHz

Type of Modulation(s) / Antenna Type:

DSSS, CCK, OFDM, MC7S-20MHz and MC7S-40MHz Modulations/ PCB Trace Antenna and External: PIFA (4.2dBi), "F"-Type and Dipole (w/6ft coaxial cable).

Description of Circuit Board(s) / Part Number:

WIFI Processor Module	W10474650 Rev A
WIFI Core Module	W10469562 Rev A



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5.0 Test Equipment

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

D.L.S. Wisconsin - G1

Description	Manufacturer	Model Number	Serial Number	Frequency Range	Cal Dates	Cal Due Dates
Receiver	Rohde & Schwarz	ESI 40	837808/005	20 Hz – 40 GHz	7-23-12	7-23-13
Preamp	Ciao	CA118-4010	101	1GHz-18GHz	2-27-12	2-27-13
Horn Antenna	EMCO	3115	9502-4451	1-18GHz	4-11-11	4-11-13
Filter- High-Pass	Q-Microwave	100462	2	4.2GHz-18GHz	5-18-12	5-18-13
Preamp	Miteq	AMF-8B-180265-40-10P-H/S	438727	18GHz-26GHz	8-13-12	8-13-13
10 dB attenuator	narda	4768-10	0702	DC – 40 GHz	8-13-12	8-13-13
Horn Antenna	ETS Lindgren	3116	00062917	18 – 40GHz	10-4-11	9-23-13
High Pass Filter	Planar	CL22500-9000-CD-SS	PF1229/0728	15-40 GHz	8-13-12	8-13-13
20 dB attenuator	Aeroflex/weinschel	75A-20-12	1071	DC – 40 GHz	8-13-12	8-13-13
DC Power Supply	Hewlet Packard	6200B	6J4327	N/A	N/A	N/A
Multimeter	Fluke	77	43390985	N/A	8-16-12	8-16-13



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5.0 Test Equipment - continued

D.L.S. Wisconsin – OATS 2

Description	Manufacturer	Model Number	Serial Number	Frequency Range	Cal Dates	Cal Due Dates
Receiver	Rohde & Schwarz	ESI 26	837491/010	20 Hz – 26 GHz	1-3-13	1-3-14
Preamplifier	Rohde & Schwarz	TS-PR10	032001/004	9 kHz – 1 GHz	1-10-13	1-10-14
Antenna	EMCO	3104C	00054892	20 MHz – 200 MHz	9-13-12	9-13-14
Antenna	EMCO	3146	1205	200 MHz – 1 GHz	9-19-12	9-19-14
Preamplifier	Rohde & Schwarz	TS-PR10	032001/004	9 kHz – 1 GHz	1-10-13	1-10-14

D.L.S. Wisconsin – Screen Room

Description	Manufacturer	Model Number	Serial Number	Frequency Range	Cal Dates	Cal Due Dates
Receiver	Rohde & Schwarz	ESI 40	837808/005	20 Hz – 40 GHz	7-23-12	7-23-13
LISN	Solar	9252-50-R-24-BNC	961019	9 kHz – 30 MHz	5-24-12	5-24-13
Filter- High-Pass	SOLAR	7930-10	921541	9 kHz – 30 MHz	1-7-13	1-7-14
Filter- High-Pass	SOLAR	7930-120	090702	120 kHz – 30 MHz	1-7-13	1-7-14
Limiter	Electro-Metrics	EM-7600	706	9 kHz – 30 MHz	1-7-13	1-7-14



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6.0 Test Arrangements

Radiated Emissions Measurement Arrangement:

All radiated emission measurements were performed at D.L.S. Electronic Systems, Inc. and set up according to FCC KDB 558074 D01 DTS Meas Guidance v02, ANSI C63.4-2009 and ANSI C63.10-2009, unless otherwise noted. Description of procedures and measurements can be found in Appendix B – Measurement Data. See Appendix A for additional photos of the test set up.

Unless otherwise noted, the bandwidth of the measuring receiver / analyzer used during testing is shown below.

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

RF Conducted Emissions Measurement Arrangement:

All RF conducted emission measurements were performed at D.L.S. Electronic Systems, Inc. and set up according to FCC KDB 558074 D01 DTS Meas Guidance v02, ANSI C63.4-2009 and ANSI C63.10-2009, unless otherwise noted. Description of procedures and measurements can be found in Appendix B – Measurement Data. See Appendix A for additional photos of the test set up.

7.0 Test Conditions

Normal Test Conditions:

Temperature and Humidity:

70°F at 62% RH

Supply Voltage:

9.6 VDC



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8.0 Modifications Made To EUT For Compliance

The output power setting for DSSS mode was lowered from a level of 20 to a level of 19 across all channels to meet the unwanted emission levels (harmonics) requirement up through the 26 GHz range. The output power setting is not related to the output power level in dBm.

9.0 Additional Descriptions

Pre-compliance testing was done on both the Processor and the Core modules. It was determined that the Processor module was either worst-case or equal to the Core module. Data in this report was taken with the Processor module.

The EUT was connected to the measuring equipment through a "Fakra" (snap-on connector) allowing cable to PCBRD output mount for RF conducted measurements and external antenna installation.

The EUT was powered with an external 9.6VDC battery supplied by Whirlpool.

The EUT was tested stand-alone for Single Modular Approval.

The EUT was programmed to transmit continuously at Low, Mid, and High channels.

The EUT was rotated through 3 orthogonal axis to find worst-case.

10.0 Results

Measurements were performed in accordance with FCC KDB 558074 D01 DTS Meas Guidance v02, ANSI C63.4-2009 and ANSI C63.10-2009. Graphical and tabular data can be found in Appendix B at the end of this report.

11.0 Conclusion

The WIFI Processor Module model WPWP and WIFI Core Module model WPWC, as provided from Whirlpool, tested in December 2012 - February, 2013 **meet** the requirements of CFR 47 Part 15 Subpart C Section 15.247.



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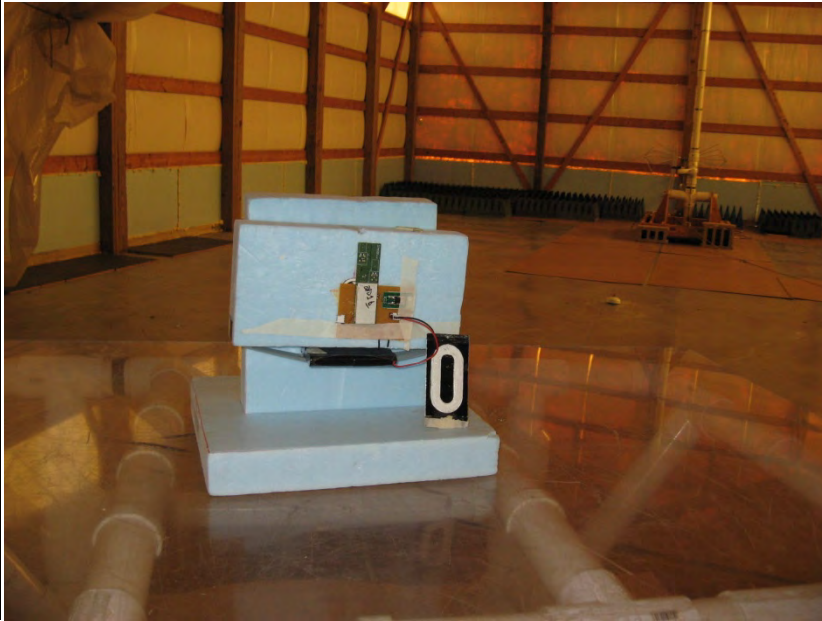
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Appendix A – Test Photos

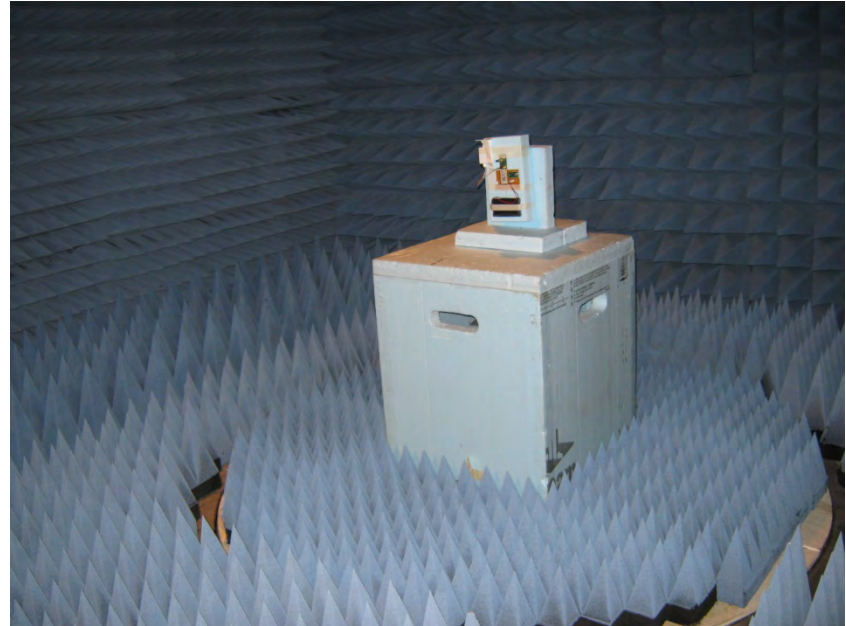
Photo Information and Test Setup:

Item0: Whirlpool Inc Wi-Fi Processor PCBRD Module, model XPWP with 5 VDC regulator, serial port for programming, and an external 9.6V battery. Pictures include on-board and external antenna options.

Radiated - Below 1 GHz

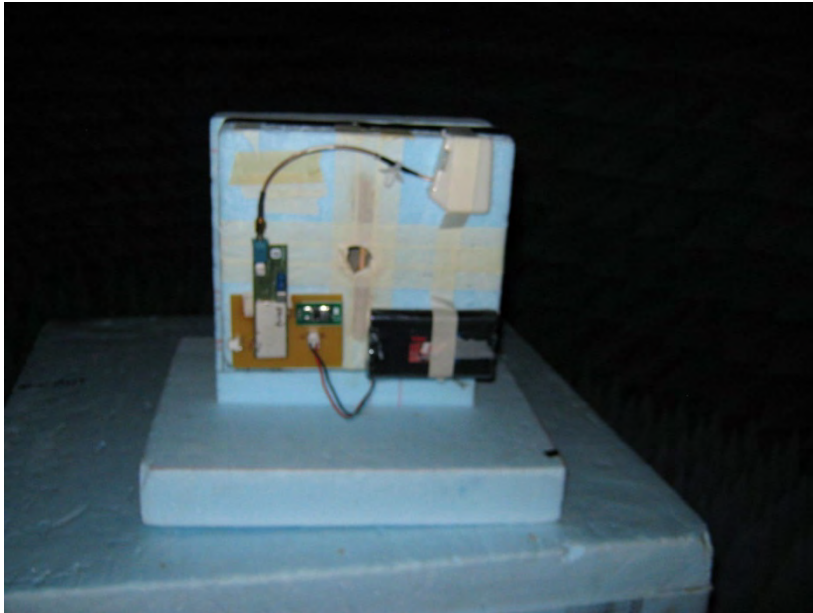


Radiated - Above 1 GHz



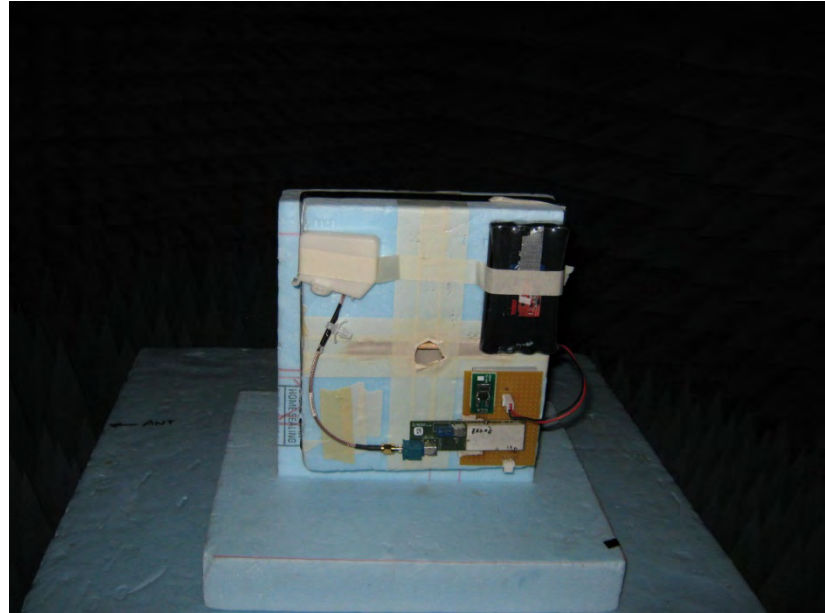
Radiated - Below 1 GHz

F-type antenna - position X

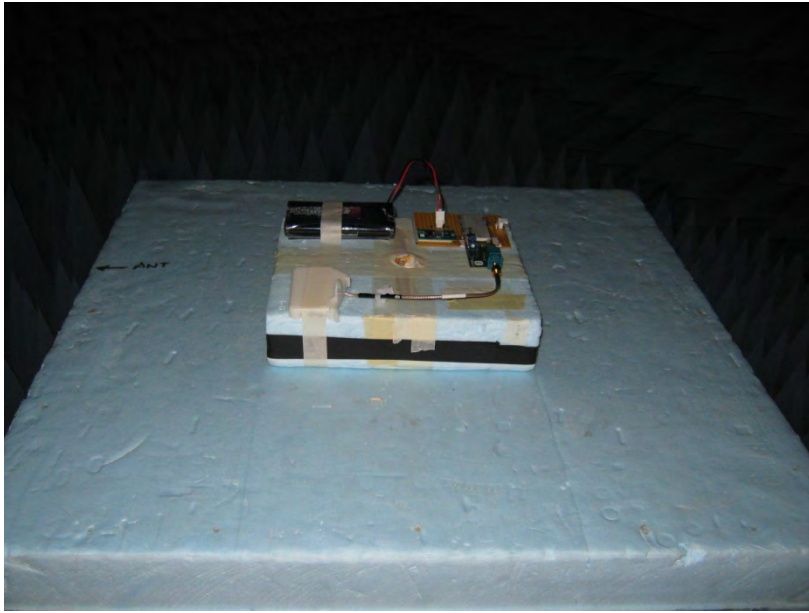


Radiated - Below 1 GHz

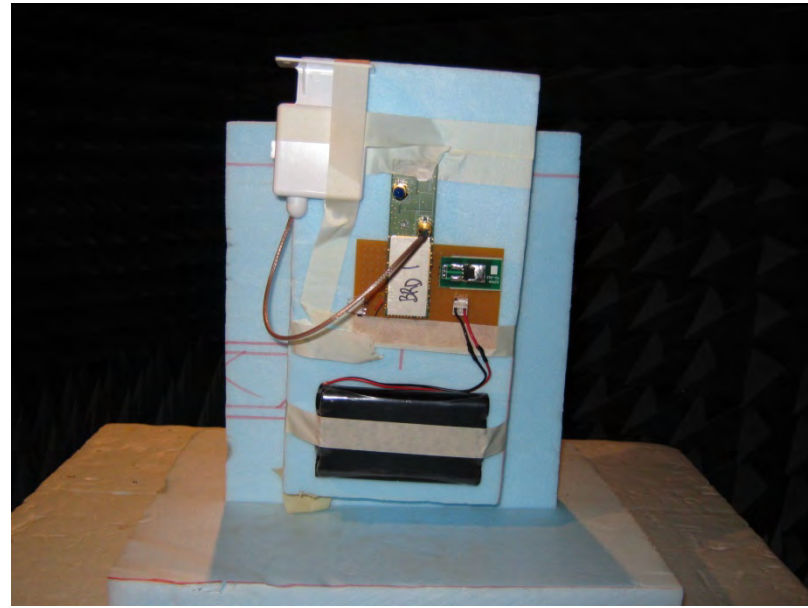
F-type antenna - position Y



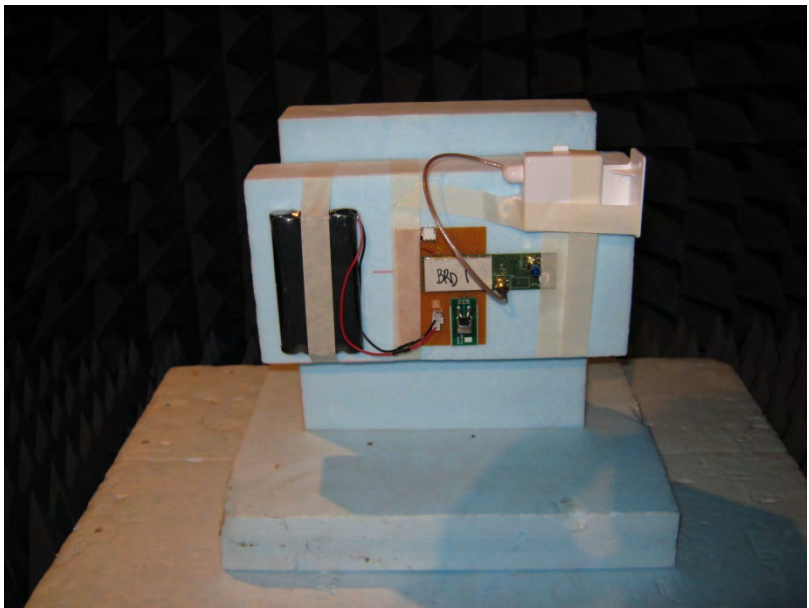
Radiated - Below 1 GHz
F-type antenna - position Z



Radiated - Below 1 GHz
Pifa antenna - position X



Radiated - Below 1 GHz
Pifa antenna - position Y



Radiated - Below 1 GHz
Pifa antenna - position Z



Radiated - Below 1 GHz

External Dipole antenna with cable - position X



Radiated - Below 1 GHz

External Dipole antenna with cable - position Y



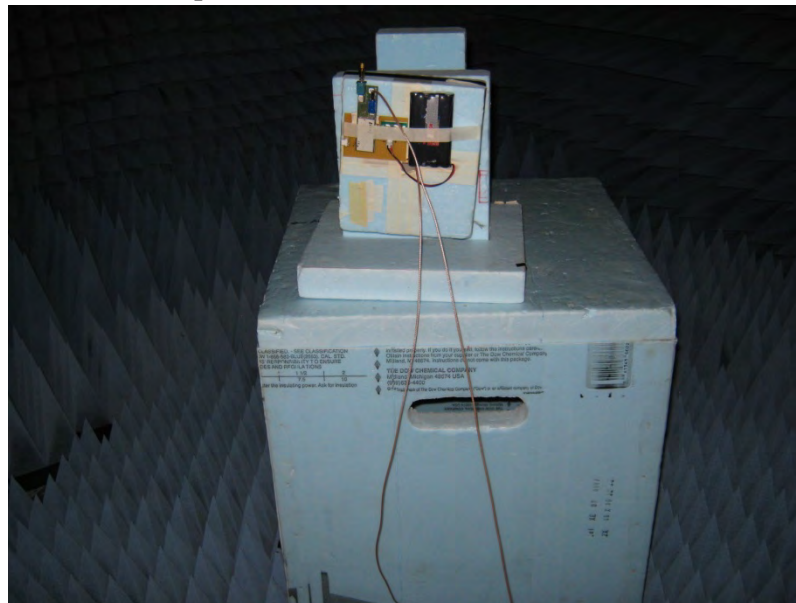
Radiated - Below 1 GHz

External Dipole antenna with cable - position Z

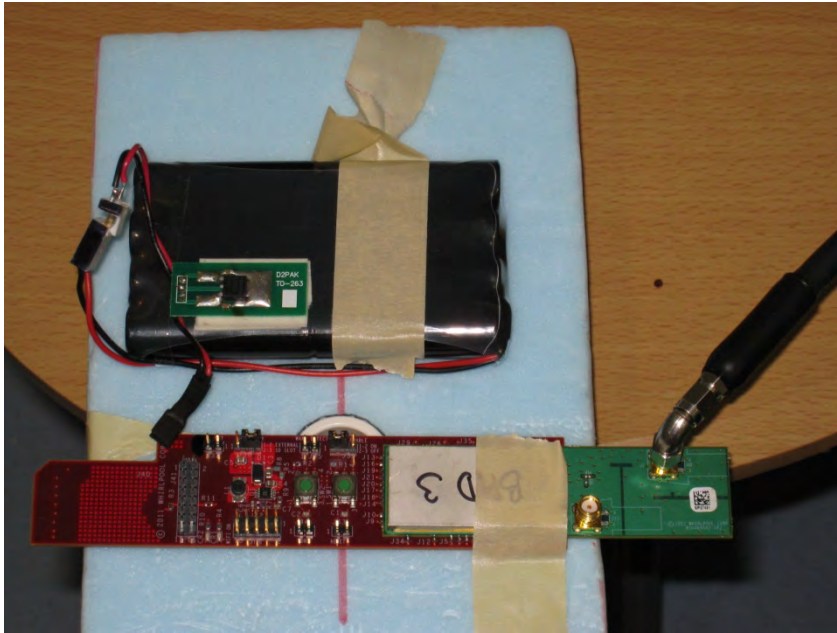


Radiated - Below 1 GHz

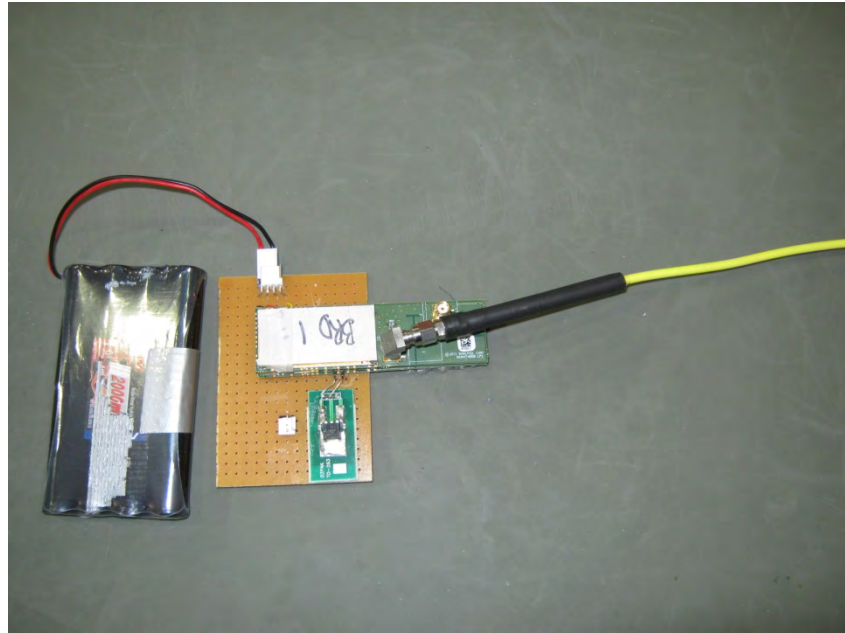
External Dipole antenna with cable - other side



RF Conducted - Model XPWC



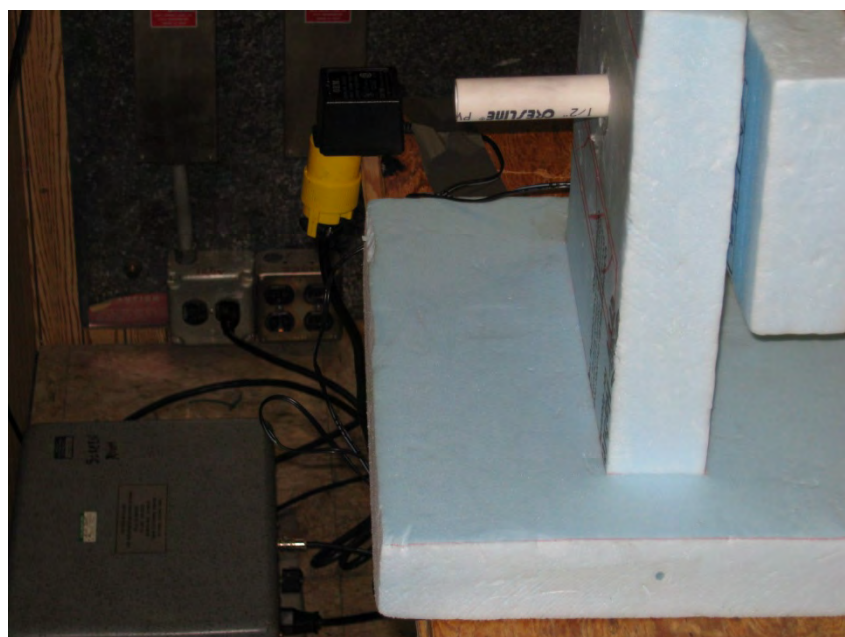
RF Conducted - Model XPWP



AC Line Conducted - Front



AC Line Conducted - Back





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Appendix B – Measurement Data

1.0 6 dB Emission Bandwidth

Rule Part:

Section 15.247(a)(2)

Test Procedure:

558074 D01 DTS Meas Guidance v02
Emission Bandwidth (EBW), Section 7.0
EBW Measurement Procedure, Section 7.1

Limit:

6 dB bandwidth shall be at least 500 kHz

Results:

Compliant
Minimum 6 dB bandwidth: **9.98 MHz**
Maximum 6 dB bandwidth: **36.63 MHz**

Notes:

This was an RF conducted measurement. The EUT was connected to the measuring equipment through a "Fakra" (snap-on connector) allowing cable to PCBRD interface mount for RF conducted measurements. Cable loss and attenuation was accounted for in the transducer factors set in the analyzer.

The EUT was powered through a cable that was connected to the battery supply of 9.6 VDC. The EUT was set to transmit continuously at its maximum power, in all modulating signal modes encountered in a real system operation on the low, middle, and high channels of the operating band.



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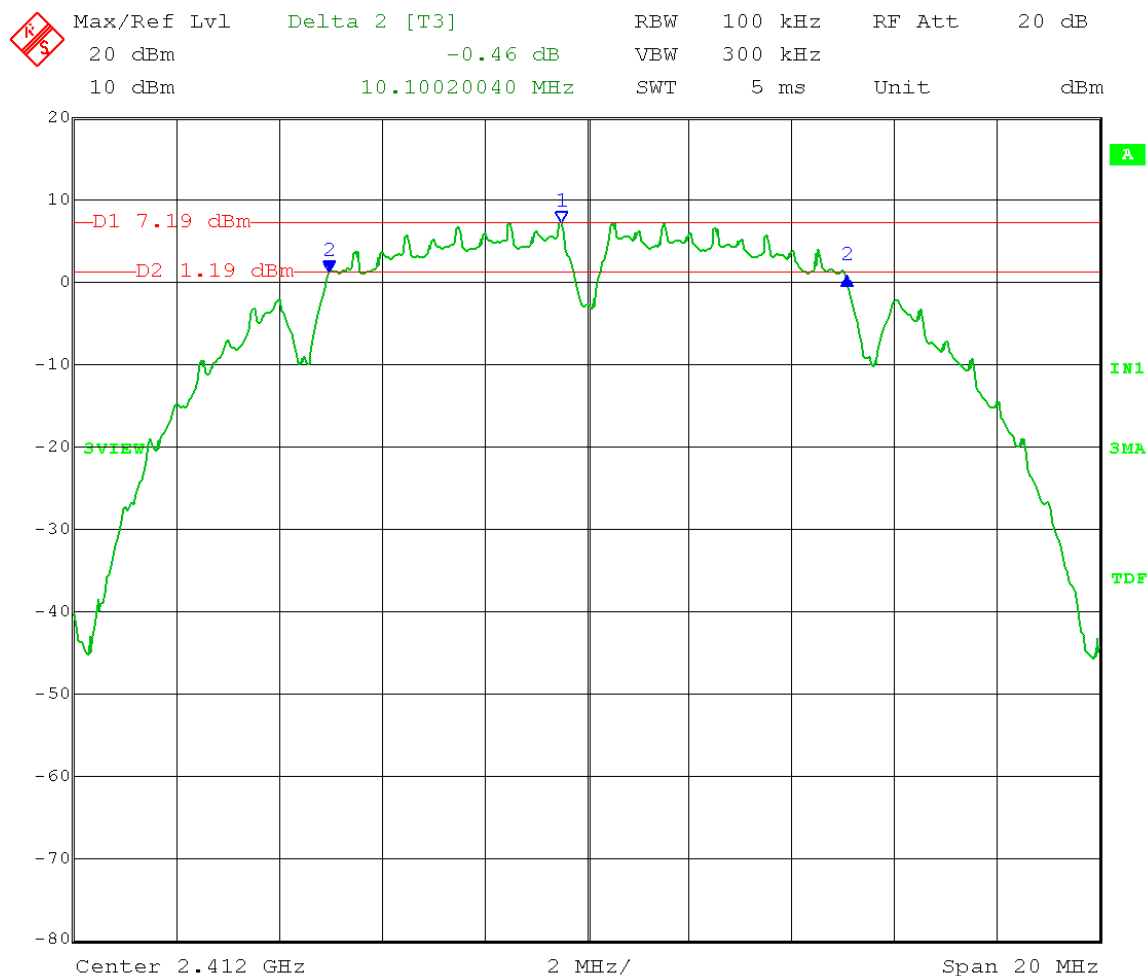
Company:
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Test Date: 12-19-2012
Company: Whirlpool
EUT: WiFi Core/Processor
Test: Emission Bandwidth (6 dB) - Conducted
Operator: Craig B

Comment: **Low Channel: Transmit = 2.412 GHz**
Output power setting: 19
802.11b DSSS 1 Mbps

6 dB Emission Bandwidth = 10.10 MHz



Date: 19.DEC.2012 12:32:53



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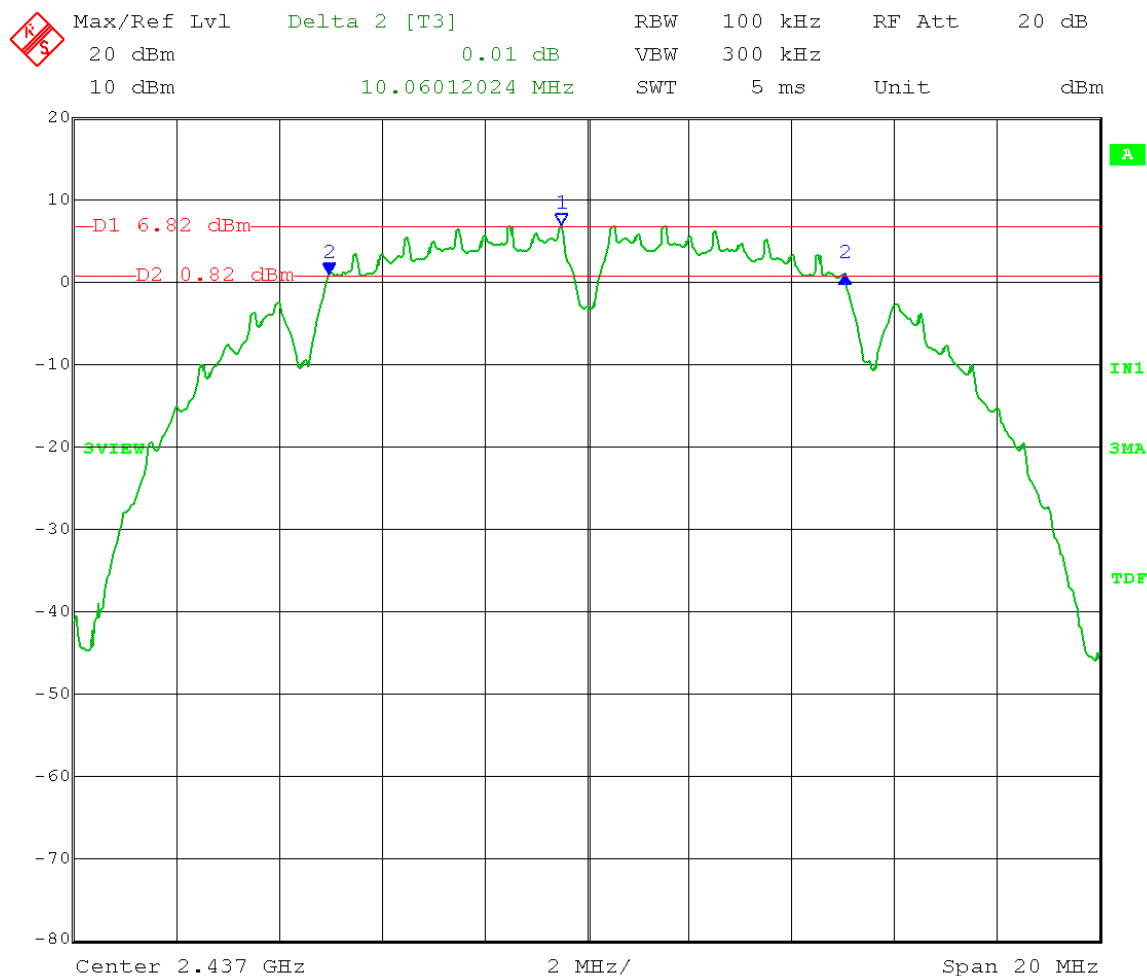
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Model Tested:
Report Number:
DLS Project:

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Test Date: 12-19-2012
Company: Whirlpool
EUT: WiFi Core/Processor
Test: Emission Bandwidth (6 dB) - Conducted
Operator: Craig B

Comment: **Mid Channel: Transmit = 2.437 GHz**
Output power setting: 19
802.11b DSSS 1 Mbps

6 dB Emission Bandwidth = 10.06 MHz



Date: 19.DEC.2012 12:36:12



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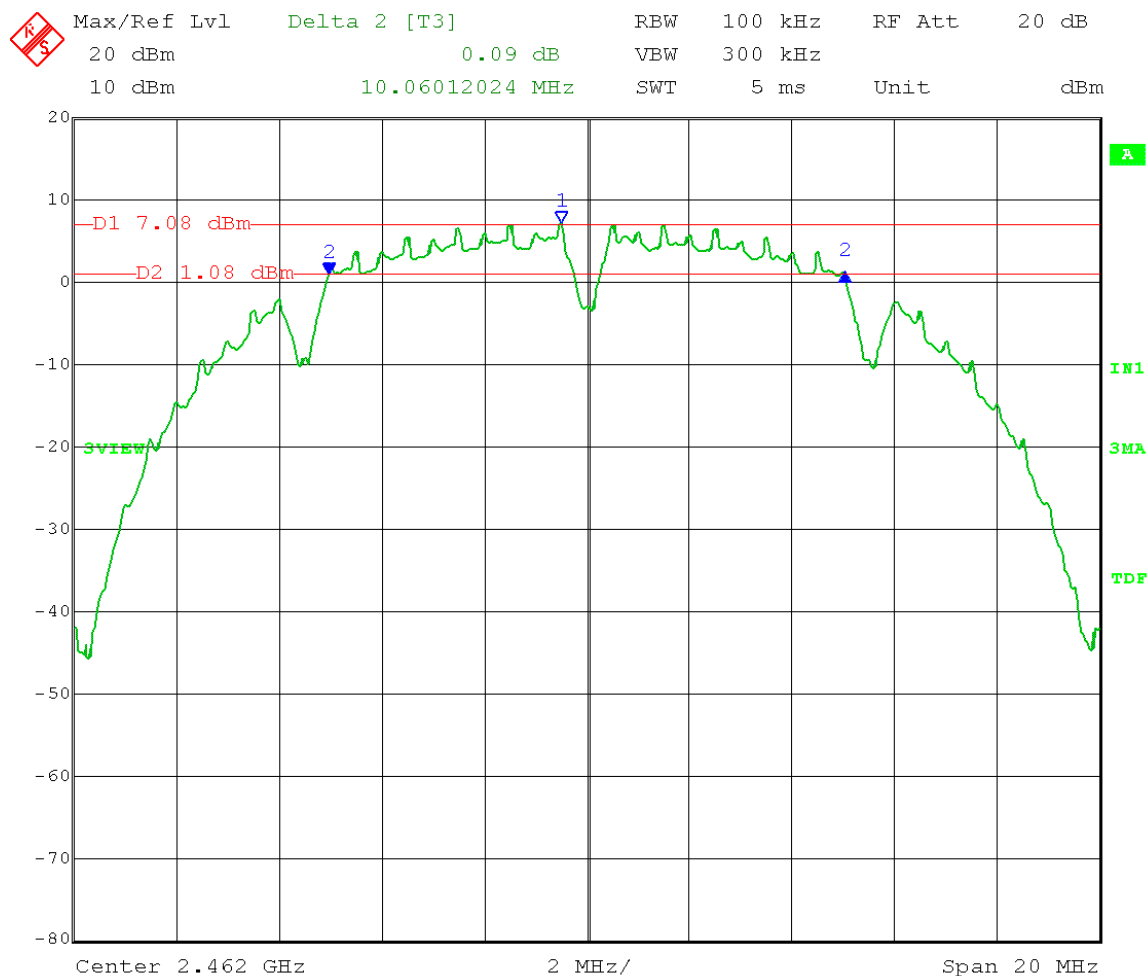
Company:
Model Tested:
Report Number:
DLS Project:

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Test Date: 12-19-2012
Company: Whirlpool
EUT: WiFi Core/Processor
Test: Emission Bandwidth (6 dB) - Conducted
Operator: Craig B

Comment: High Channel: Transmit = 2.462 GHz
Output power setting: 19
802.11b DSSS 1 Mbps

6 dB Emission Bandwidth = 10.06 MHz



Date: 19.DEC.2012 12:38:30



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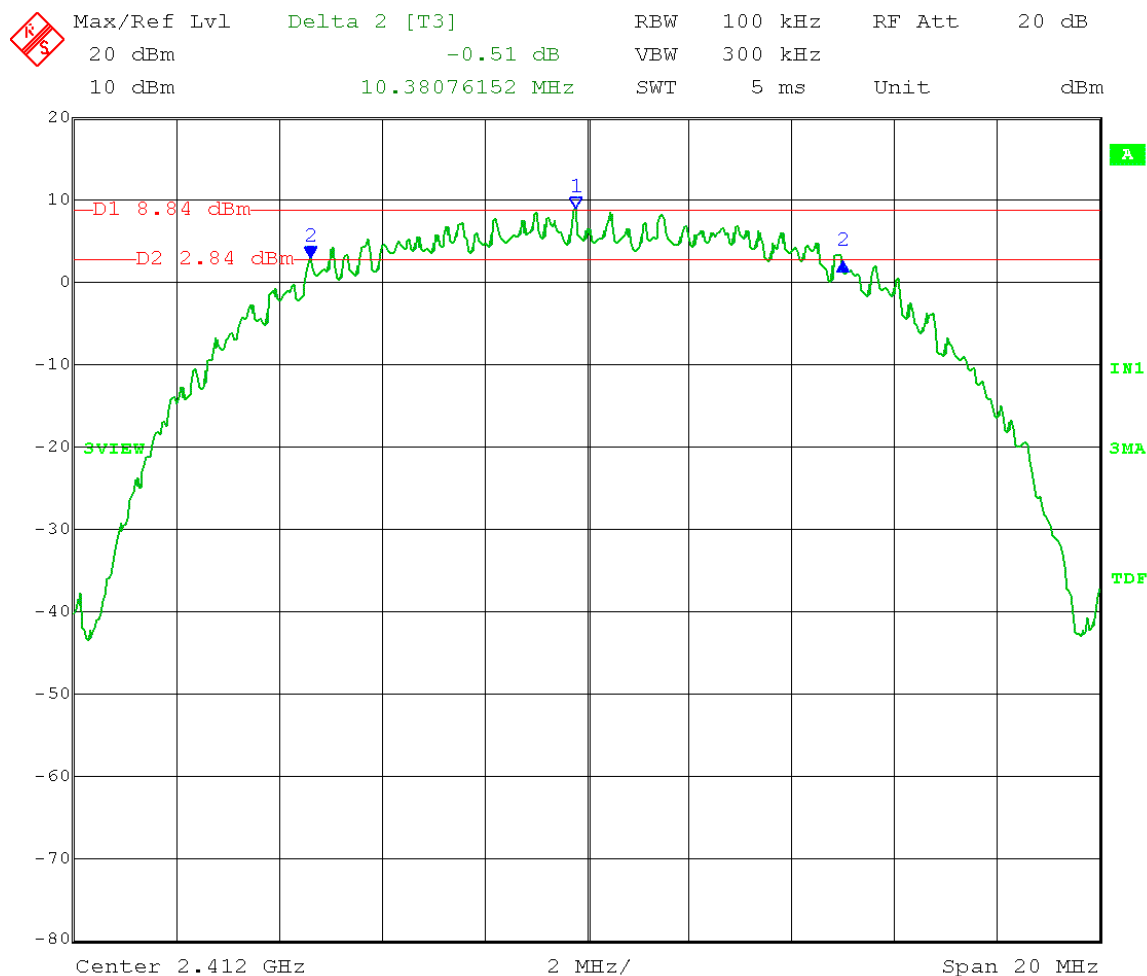
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Test Date: 12-19-2012
Company: Whirlpool
EUT: WiFi Core/Processor
Test: Emission Bandwidth (6 dB) - Conducted
Operator: Craig B

Comment: **Low Channel: Transmit = 2.412 GHz**
Output power setting: 19
802.11b CCK 5.5 Mbps

6 dB Emission Bandwidth = 10.38 MHz



Date: 19.DEC.2012 12:29:51



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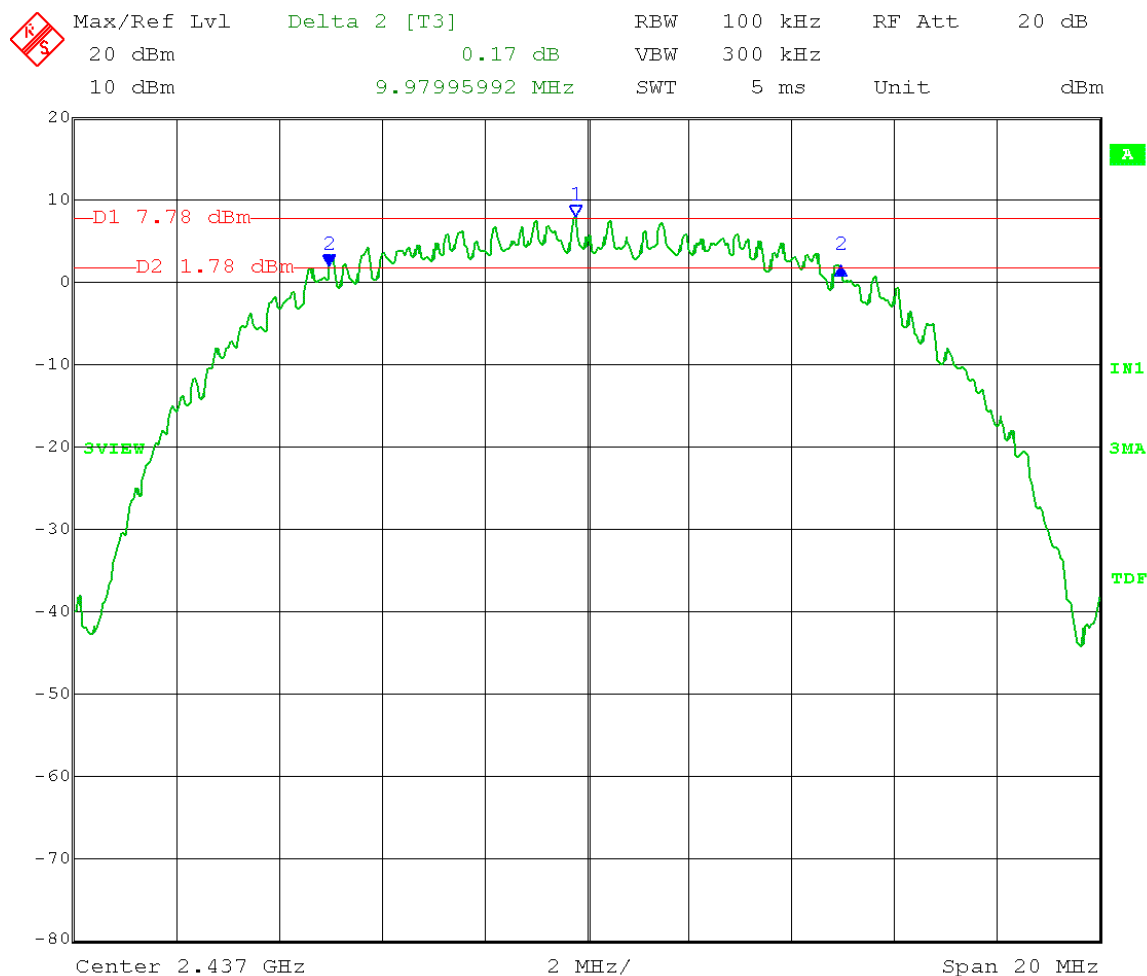
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DLS Project:

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Test Date: 12-19-2012
Company: Whirlpool
EUT: WiFi Core/Processor
Test: Emission Bandwidth (6 dB) - Conducted
Operator: Craig B

Comment: **Mid Channel: Transmit = 2.437 GHz**
Output power setting: 19
802.11b CCK 5.5 Mbps

6 dB Emission Bandwidth = 9.98 MHz



Date: 19.DEC.2012 11:51:31



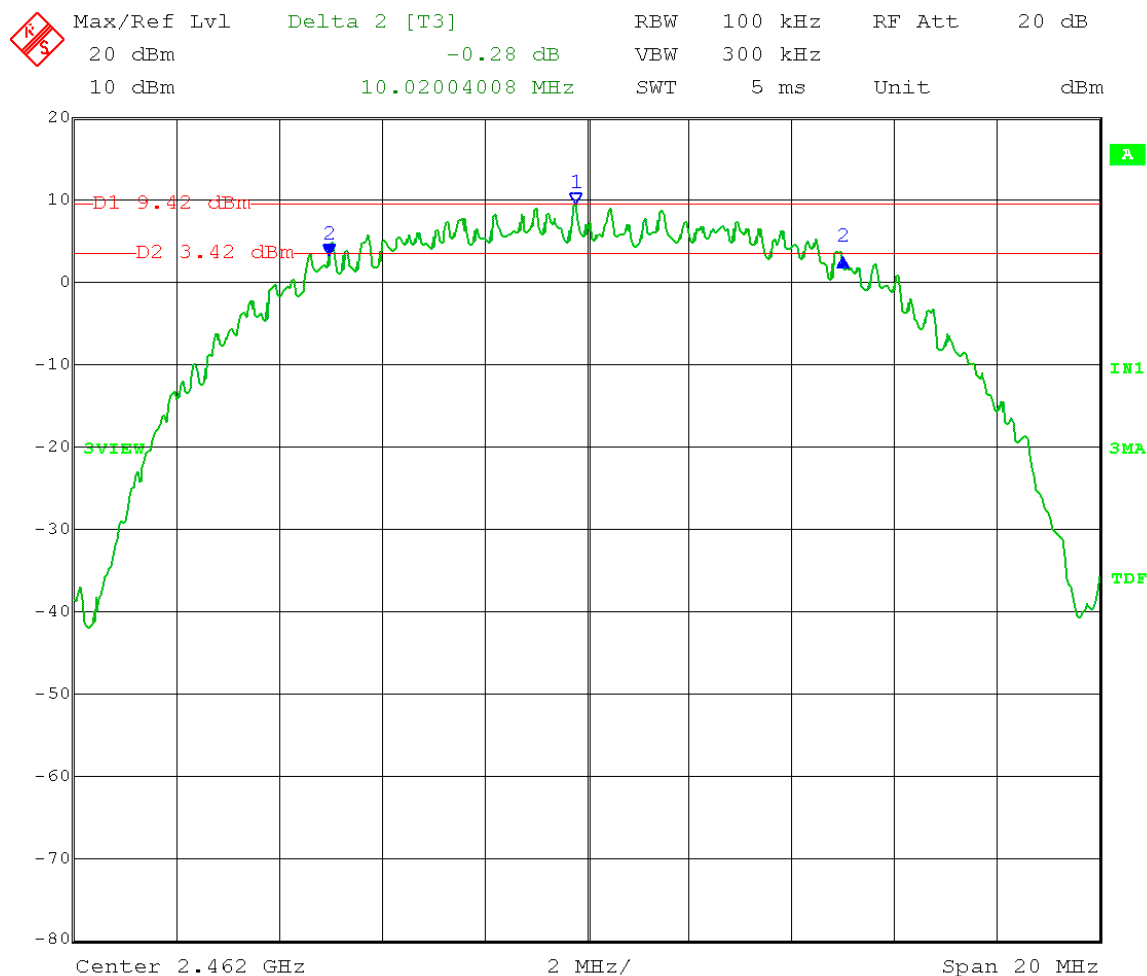
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Test Date: 12-19-2012
Company: Whirlpool
EUT: WiFi Core/Processor
Test: Emission Bandwidth (6 dB) - Conducted
Operator: Craig B

Comment: High Channel: Transmit = 2.462 GHz
Output power setting: 19
802.11b CCK 5.5 Mbps

6 dB Emission Bandwidth = 10.02 MHz



Date: 19.DEC.2012 12:26:56



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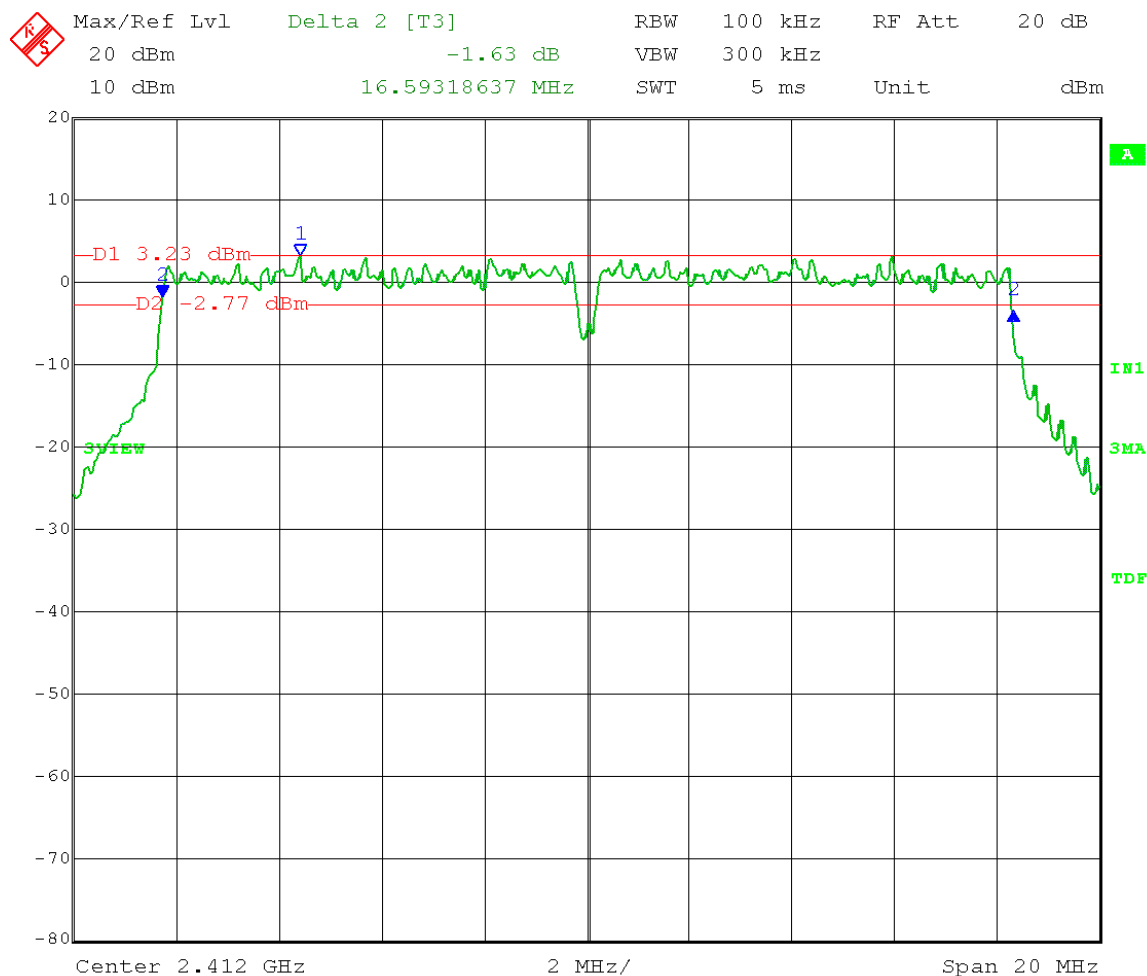
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Model Tested:
Report Number:
DLS Project:

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Test Date: 12-19-2012
Company: Whirlpool
EUT: WiFi Core/Processor
Test: Emission Bandwidth (6 dB) - Conducted
Operator: Craig B

Comment: **Low Channel: Transmit = 2.412 GHz**
Output power setting: 18
802.11g OFDM 54 Mbps

6 dB Emission Bandwidth = 16.59 MHz



Date: 19.DEC.2012 12:43:09



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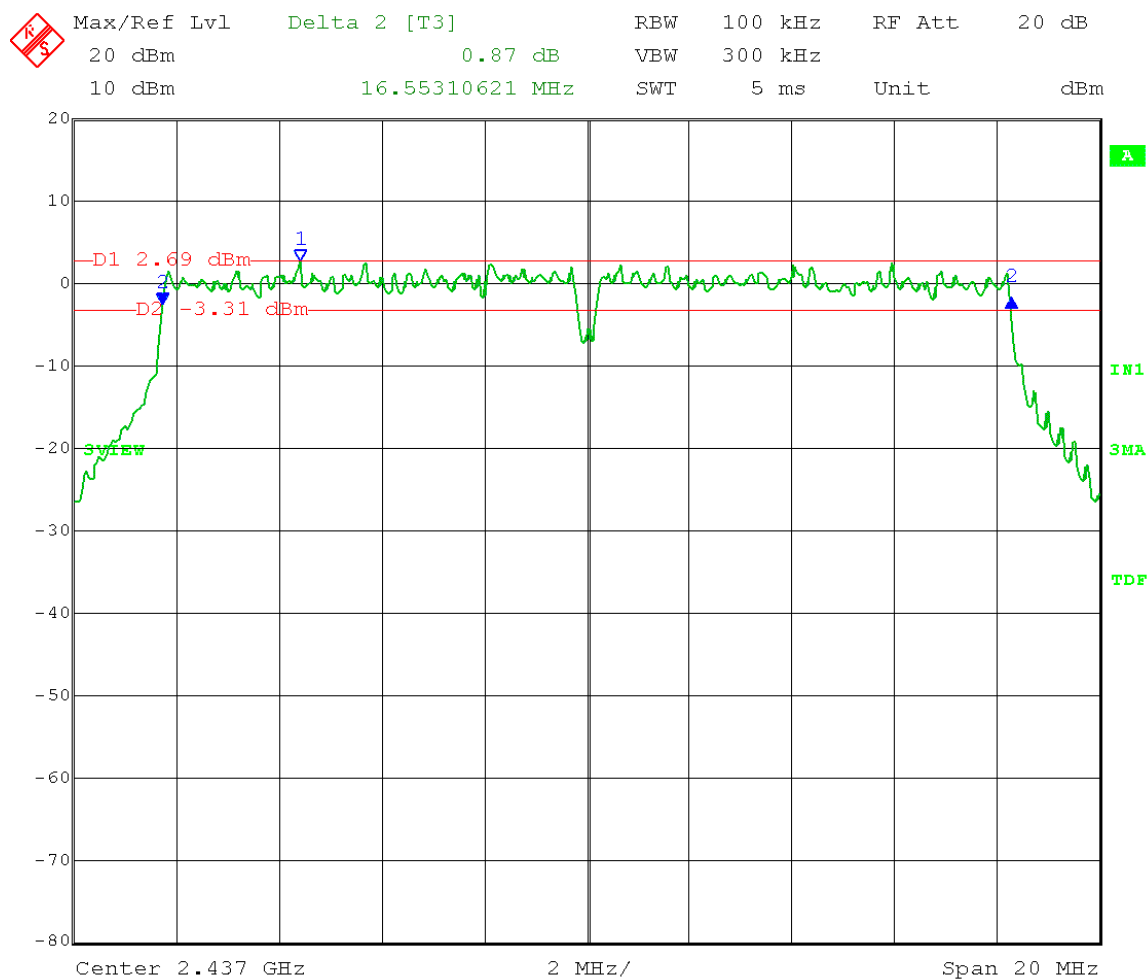
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Model Tested:
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DLS Project:

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Test Date: 12-19-2012
Company: Whirlpool
EUT: WiFi Core/Processor
Test: Emission Bandwidth (6 dB) - Conducted
Operator: Craig B

Comment: **Mid Channel: Transmit = 2.437 GHz**
Output power setting: 18
802.11g OFDM 54 Mbps

6 dB Emission Bandwidth = 16.55 MHz



Date: 19.DEC.2012 12:46:54



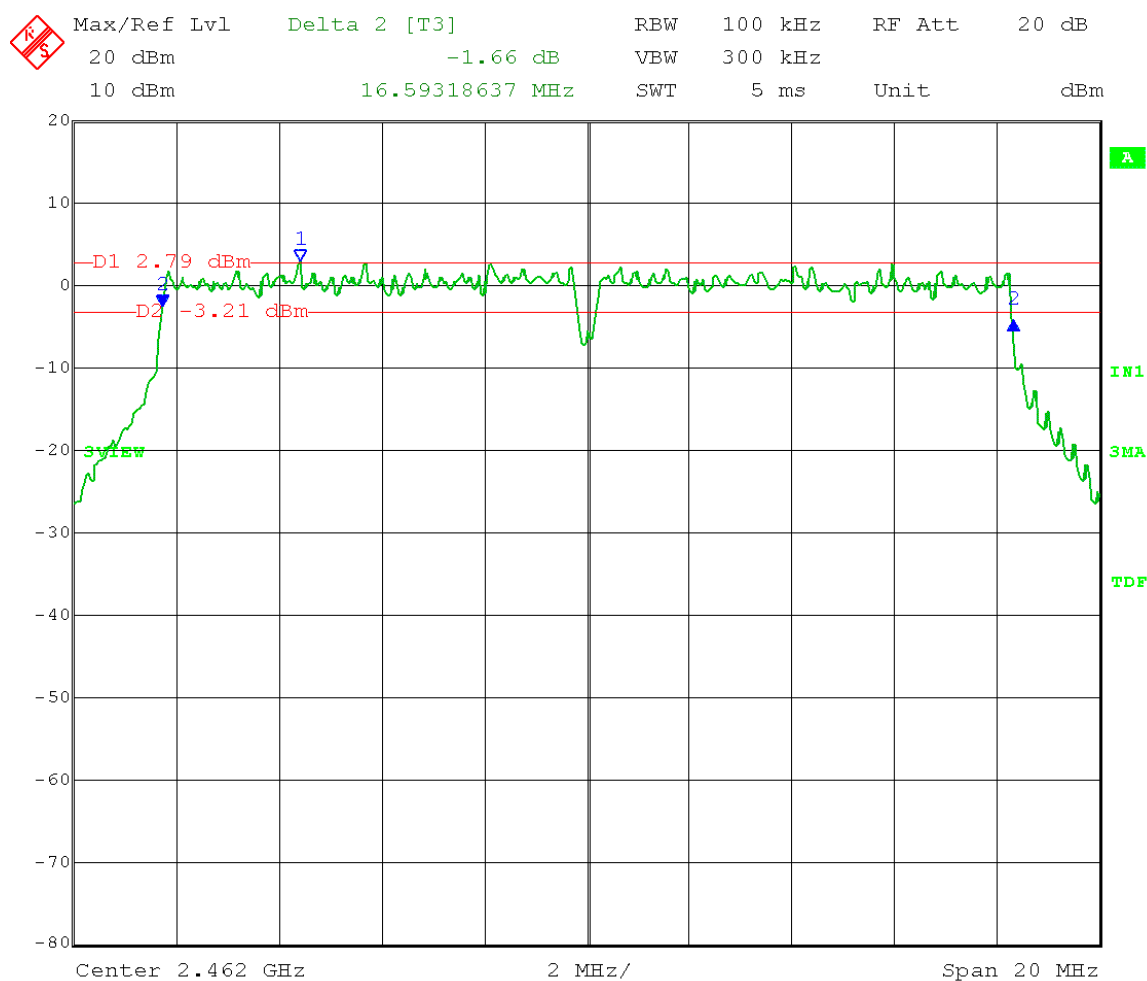
166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 12-19-2012
Company: Whirlpool
EUT: WiFi Core/Processor
Test: Emission Bandwidth (6 dB) - Conducted
Operator: Craig B

Comment: High Channel: Transmit = 2.462 GHz
Output power setting: 18
802.11g OFDM 54 Mbps

6 dB Emission Bandwidth = 16.59 MHz



Date: 19.DEC.2012 12:49:56



166 South Carter, Genoa City, WI 53128

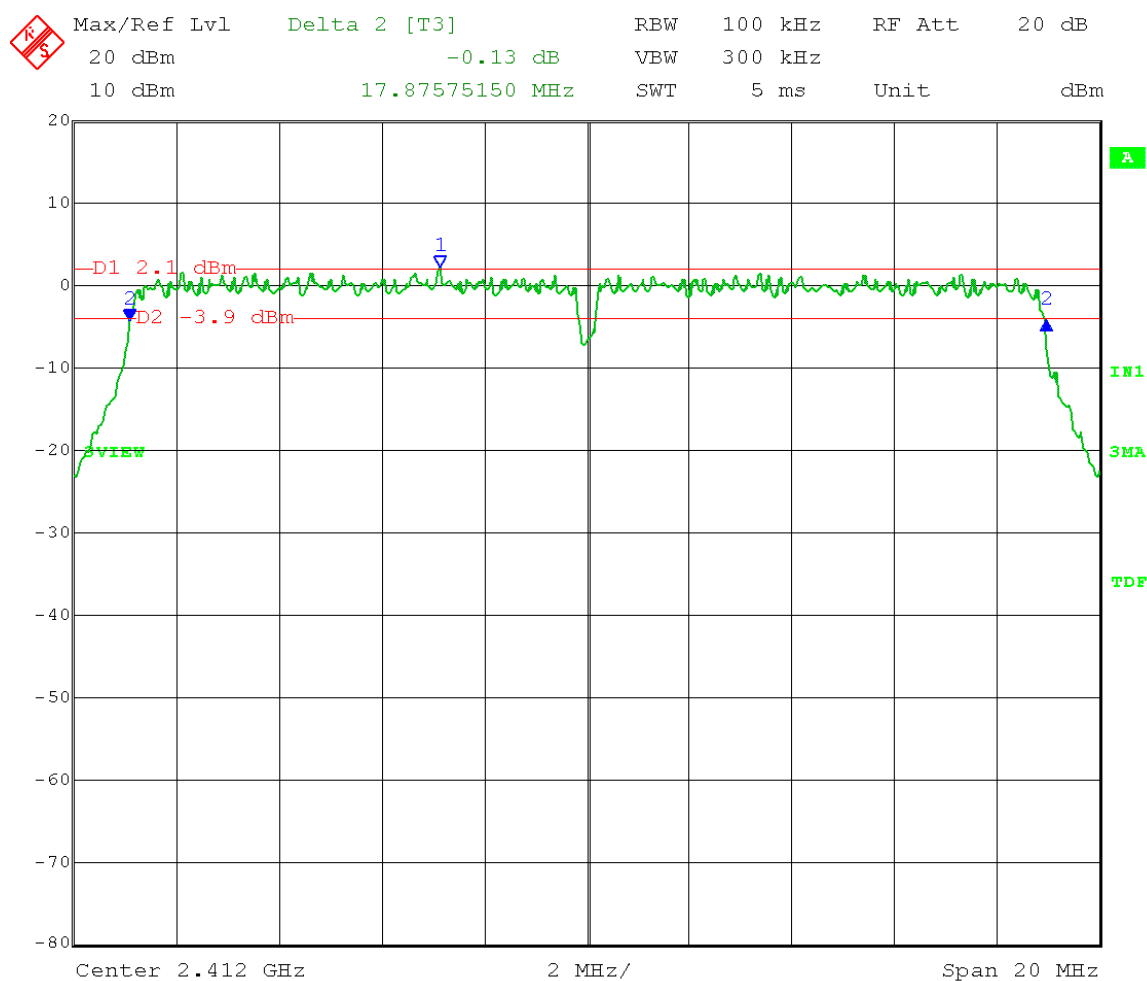
Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
XPWP and XPWC
18708
5163

Test Date: 12-19-2012
Company: Whirlpool
EUT: WiFi Core/Processor
Test: Emission Bandwidth (6 dB) - Conducted
Operator: Craig B

Comment: **Low Channel: Transmit = 2.412 GHz**
Output power setting: 18
802.11n MC7-20 72 Mbps

6 dB Emission Bandwidth = 17.88 MHz



Date: 19.DEC.2012 12:53:53



166 South Carter, Genoa City, WI 53128

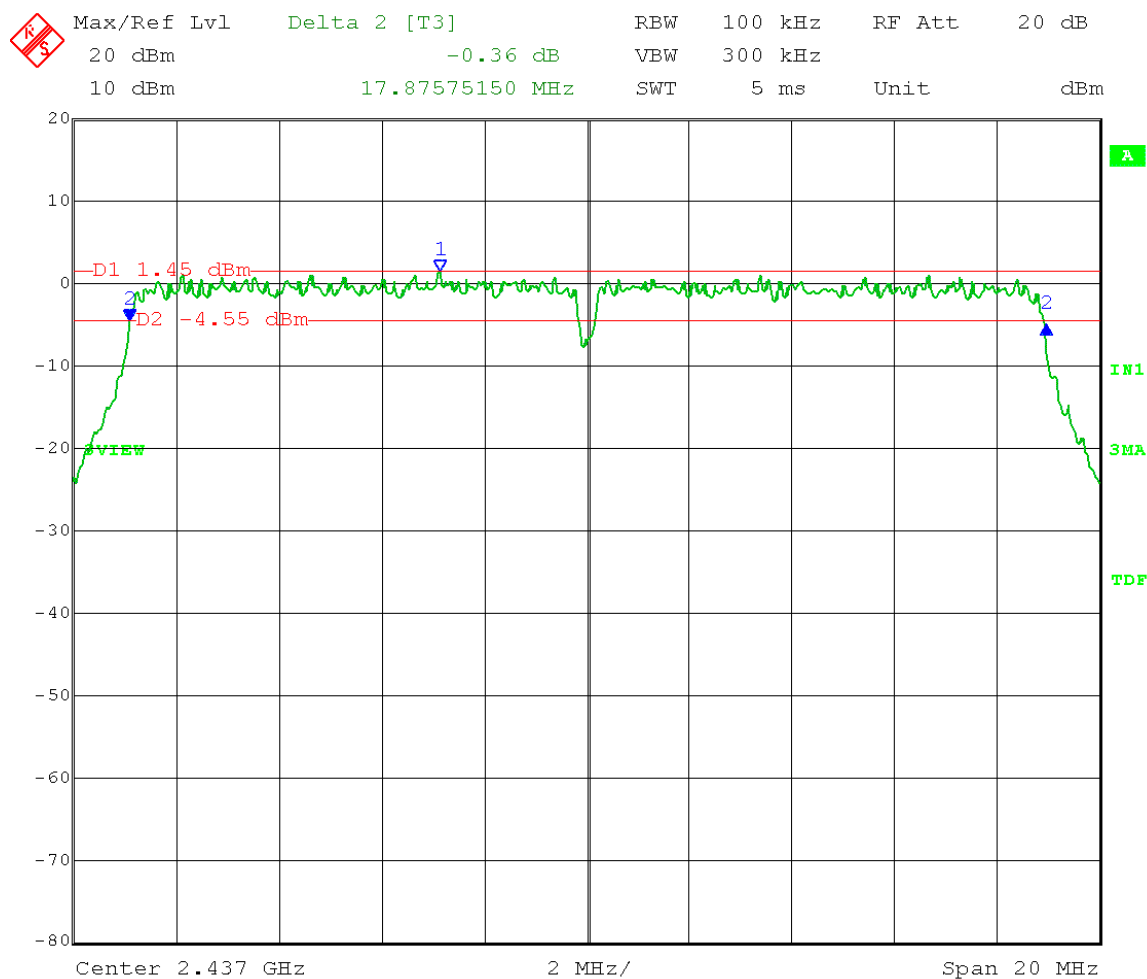
Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
XPWP and XPWC
18708
5163

Test Date: 12-19-2012
Company: Whirlpool
EUT: WiFi Core/Processor
Test: Emission Bandwidth (6 dB) - Conducted
Operator: Craig B

Comment: **Mid Channel: Transmit = 2.437 GHz**
Output power setting: 18
802.11n MC7-20 72 Mbps

6 dB Emission Bandwidth = 17.88 MHz



Date: 19.DEC.2012 12:57:08



166 South Carter, Genoa City, WI 53128

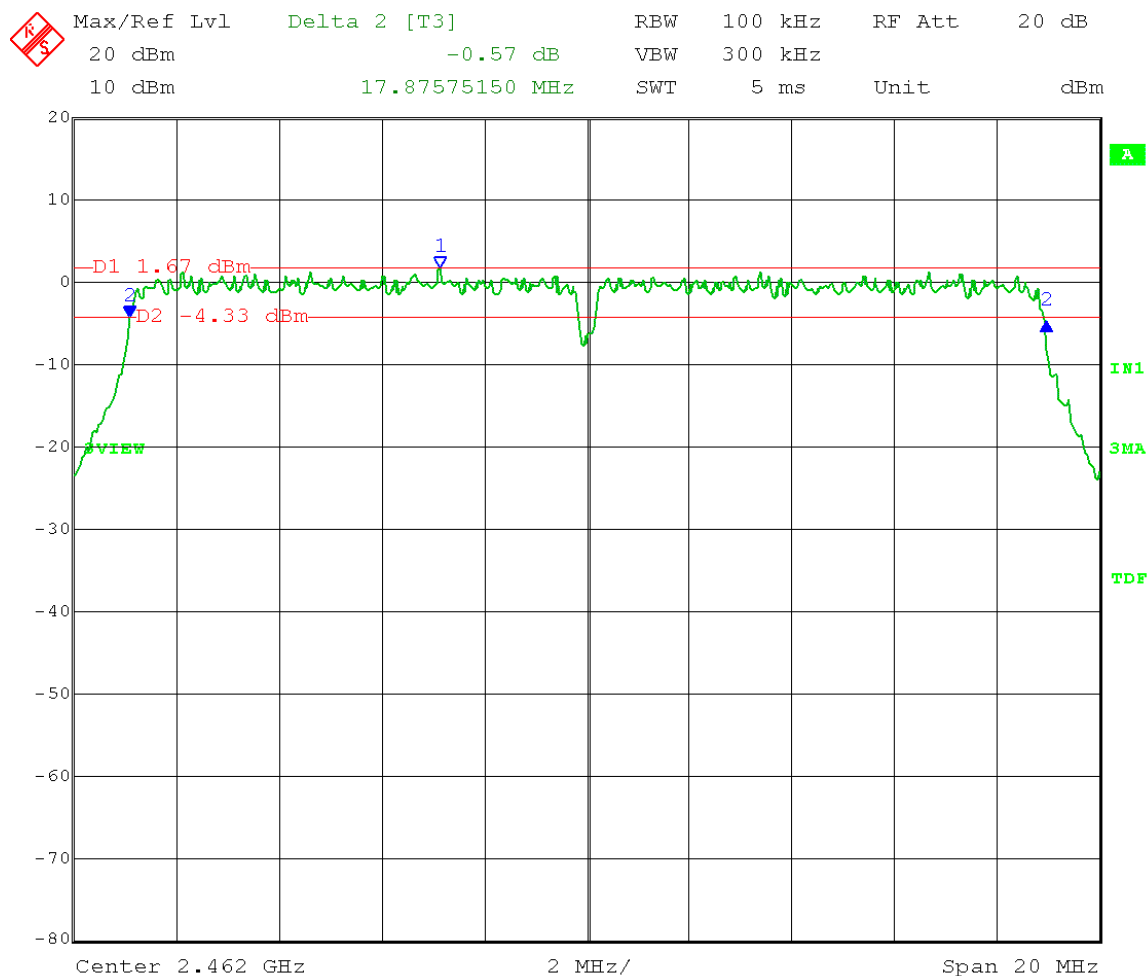
Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
XPWP and XPWC
18708
5163

Test Date: 12-19-2012
Company: Whirlpool
EUT: WiFi Core/Processor
Test: Emission Bandwidth (6 dB) - Conducted
Operator: Craig B

Comment: High Channel: Transmit = 2.462 GHz
Output power setting: 18
802.11n MC7-20 72 Mbps

6 dB Emission Bandwidth = 17.88 MHz



Date: 19.DEC.2012 13:00:13



166 South Carter, Genoa City, WI 53128

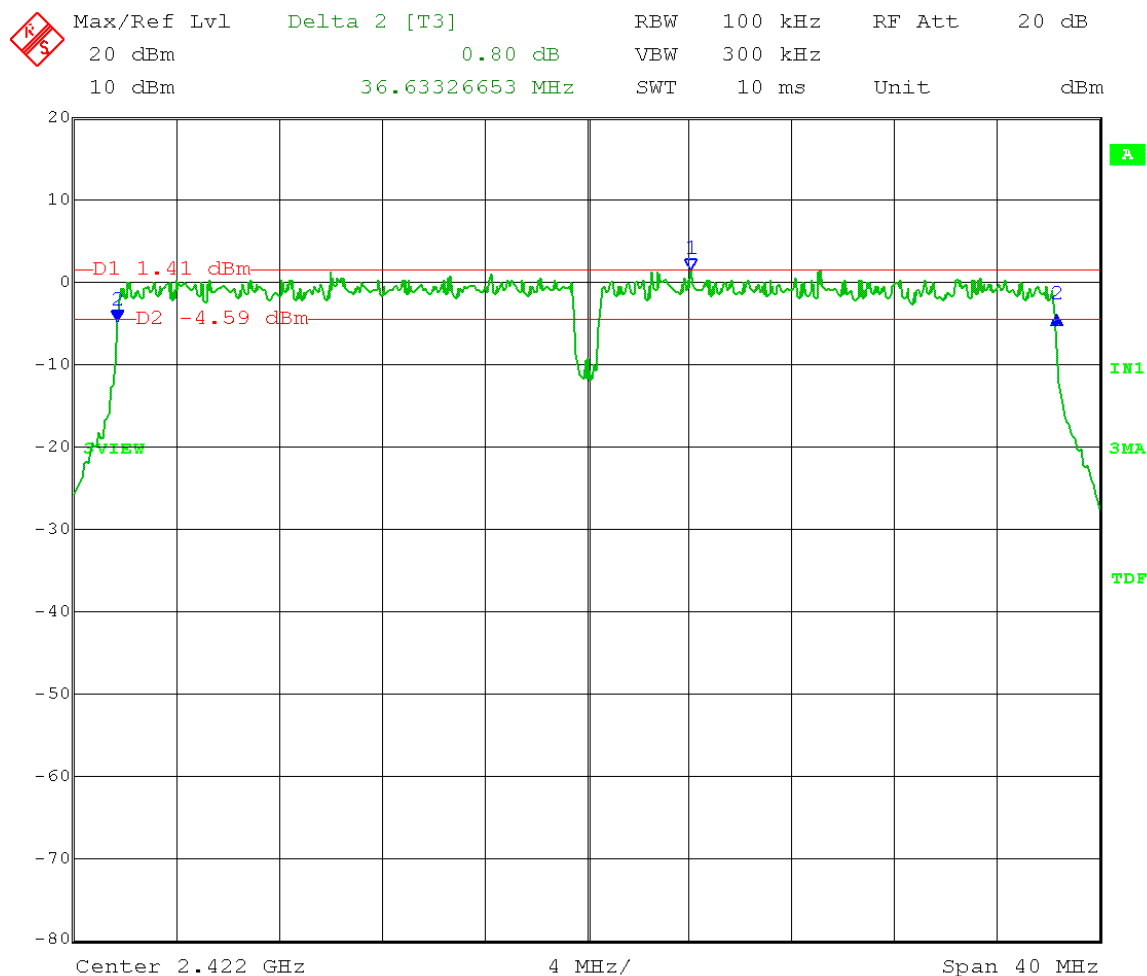
Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
XPWP and XPWC
18708
5163

Test Date: 12-19-2012
Company: Whirlpool
EUT: WiFi Core/Processor
Test: Emission Bandwidth (6 dB) - Conducted
Operator: Craig B

Comment: **Low Channel: Transmit = 2.422 GHz**
Output power setting: 18
802.11n MC7-40 135 Mbps

6 dB Emission Bandwidth = 36.63 MHz



Date: 19.DEC.2012 13:06:00



166 South Carter, Genoa City, WI 53128

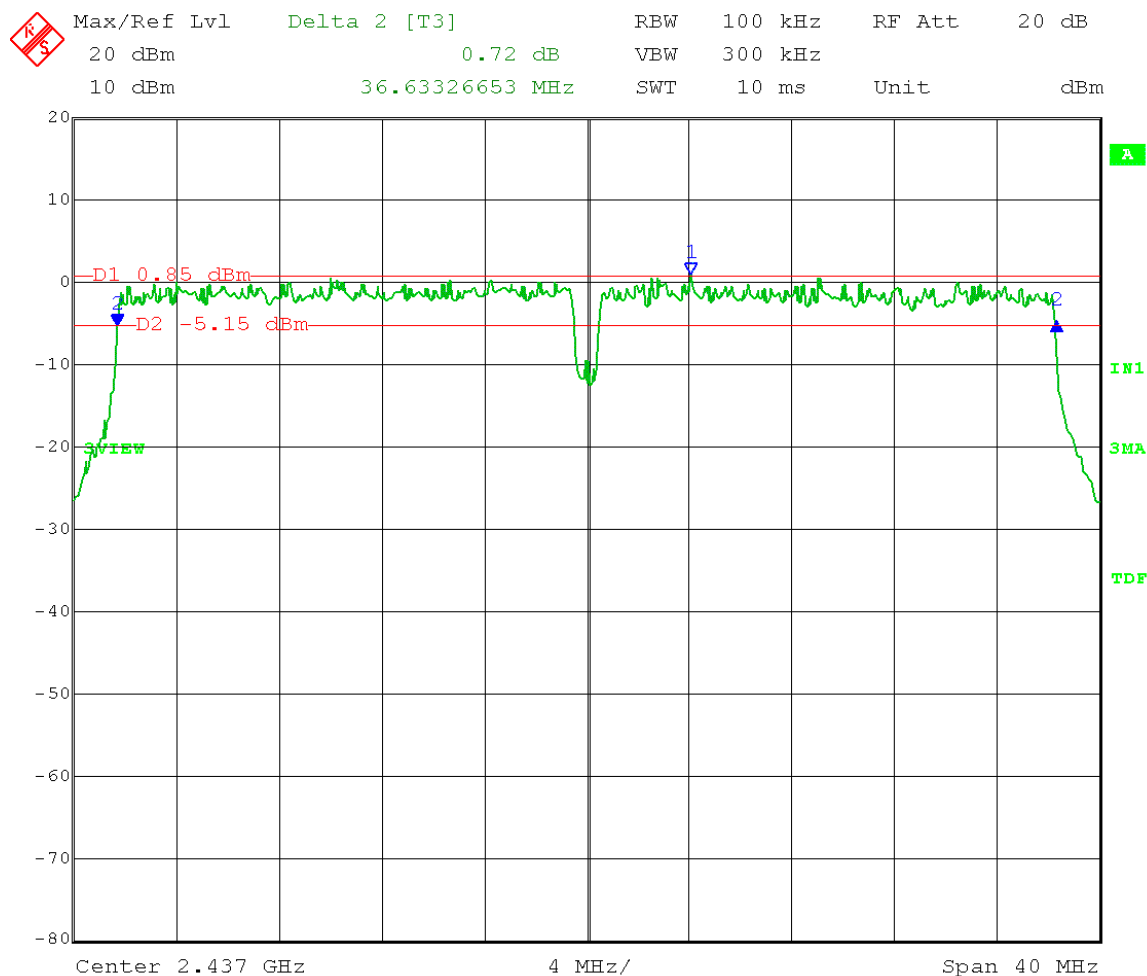
Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
XPWP and XPWC
18708
5163

Test Date: 12-19-2012
Company: Whirlpool
EUT: WiFi Core/Processor
Test: Emission Bandwidth (6 dB) - Conducted
Operator: Craig B

Comment: **Mid Channel: Transmit = 2.437 GHz**
Output power setting: 18
802.11n MC7-40 135 Mbps

6 dB Emission Bandwidth = 36.63 MHz



Date: 19.DEC.2012 13:09:24



166 South Carter, Genoa City, WI 53128

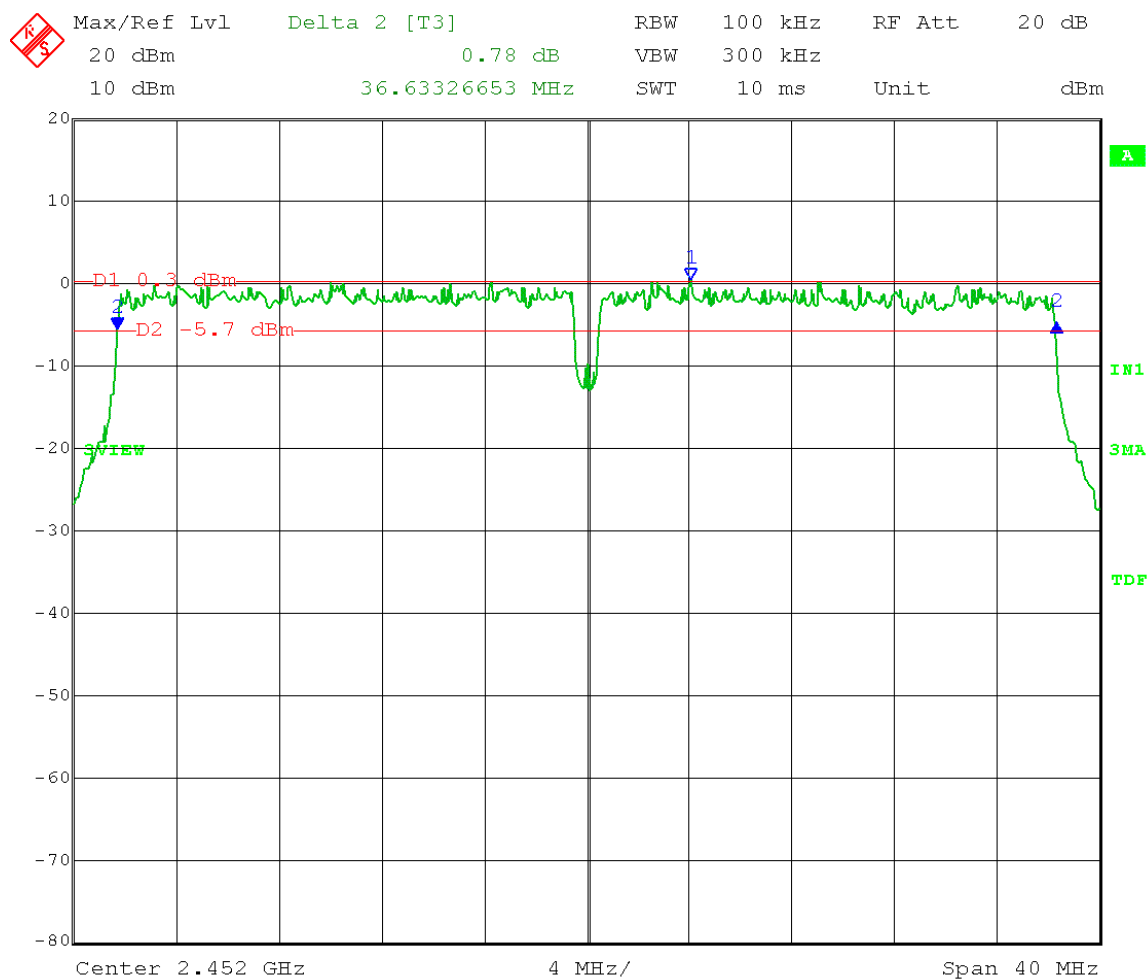
Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
XPWP and XPWC
18708
5163

Test Date: 12-19-2012
Company: Whirlpool
EUT: WiFi Core/Processor
Test: Emission Bandwidth (6 dB) - Conducted
Operator: Craig B

Comment: High Channel: Transmit = 2.452 GHz
Output power setting: 18
802.11n MC7-40 135 Mbps

6 dB Emission Bandwidth = 36.63 MHz



Date: 19.DEC.2012 13:12:32



166 South Carter, Genoa City, WI 53128

Company:	Whirlpool Corporation
Model Tested:	XPWP and XPWC
Report Number:	18708
DLS Project:	5163

Appendix B

2.0 Fundamental Emission Output Power

Rule Part:

15.247(b)(3)

Test Procedure:

558074 D01 DTS Meas Guidance v02
8.1 Maximum Peak Conducted Output Power
8.1.2 Option 2 (channel integration method)

Limit:

The maximum peak conducted output power is 1 watt (30 dBm).

Results:

Compliant
Maximum peak conducted output power: **209.89mW (23.22dBm)**

Notes:

This was an RF conducted measurement. The EUT was connected to the measuring equipment through a "Fakra" (snap-on connector) allowing cable to PCBRD interface mount for RF conducted measurements. Cable loss and attenuation was accounted for in the transducer factors set in the analyzer.

The EUT was powered through a cable that was connected to the battery supply of 9.6 VDC. The EUT was set to transmit continuously at its maximum power, in all modulating signal modes and both (J1 & J2) ports encountered in a real system operation on the low, middle, and high channels of the operating band.



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

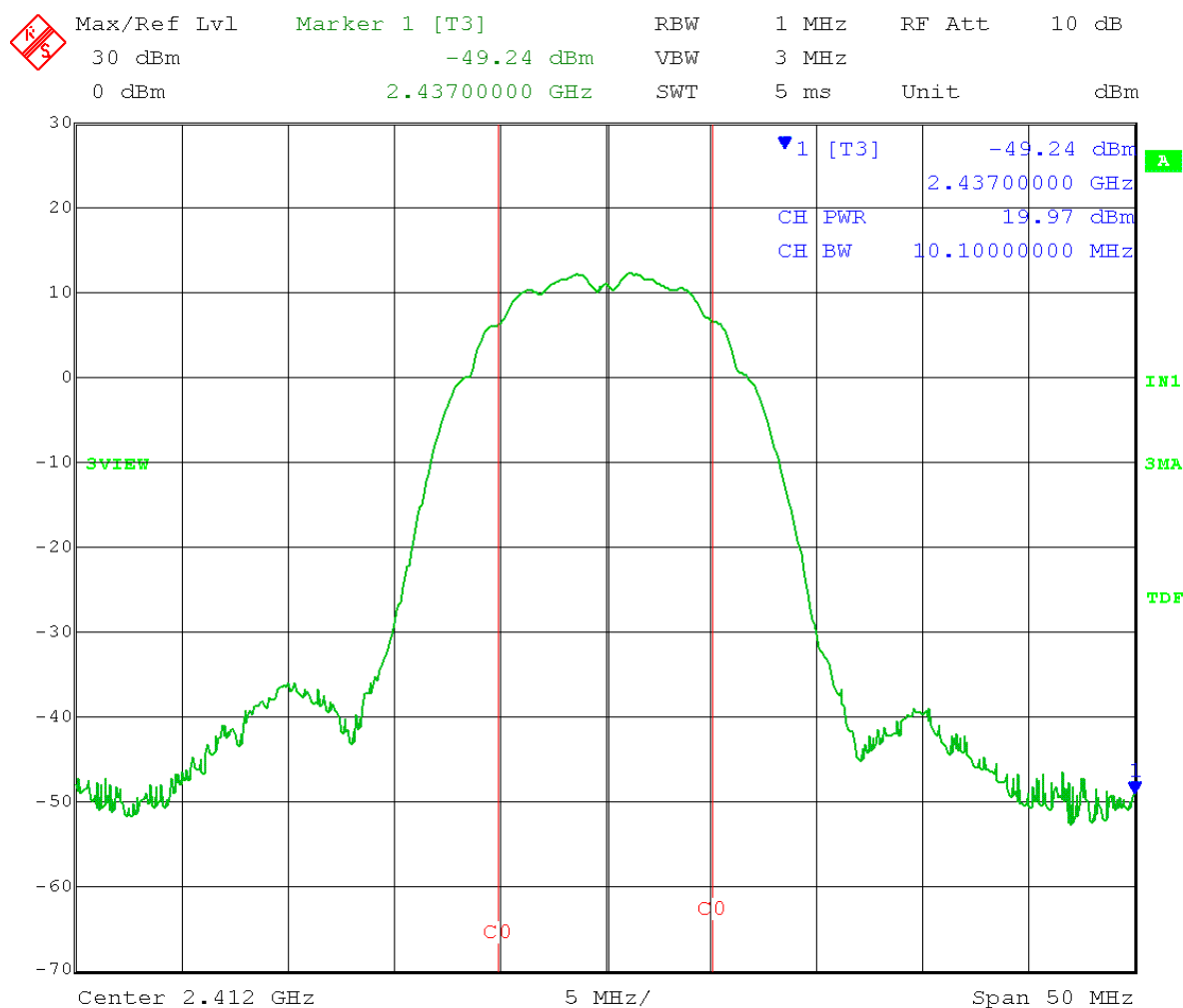
Low Channel: Frequency – 2.412 GHz

Output power setting: 19

802.11b DSSS 1Mbps

Channel Power BW (C0) = 10.10MHz

TX output power = 19.97dBm = 99.31mW



Date: 10.JAN.2013 11:16:15



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

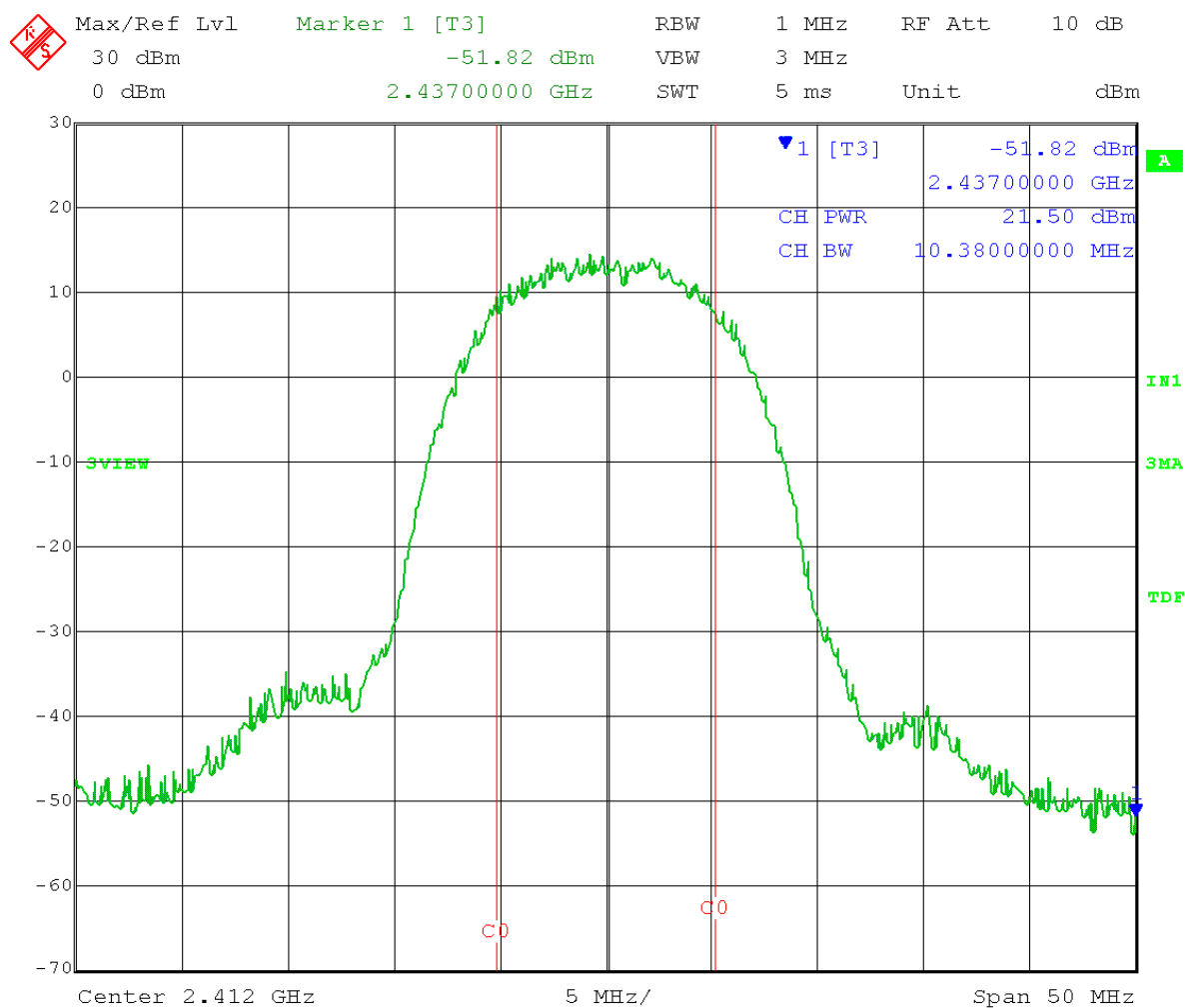
Low Channel: Frequency – 2.412 GHz

Output power setting: 19

802.11b CCK 5.5Mbps

Channel Power BW (C0) = 10.38MHz

TX output power = 21.50dBm = 141.25 mW



Date: 10.JAN.2013 11:19:46



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

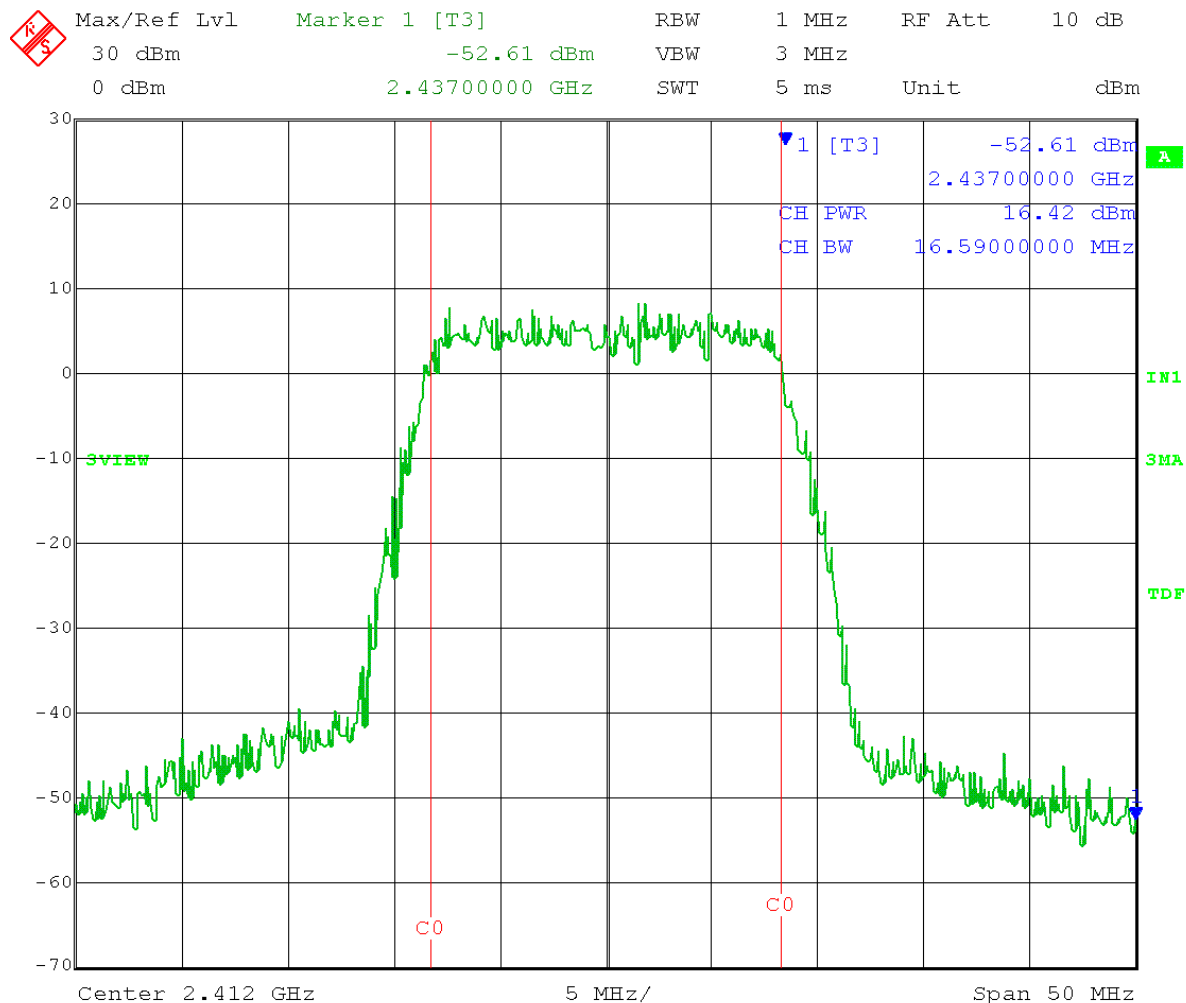
Low Channel: Frequency – 2.412 GHz

Output power setting: 18

802.11g OFDM 54Mbps

Channel Power BW (C0) = 16.59MHz

TX output power = 16.42dBm = 43.85mW



Date: 10.JAN.2013 11:28:36



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

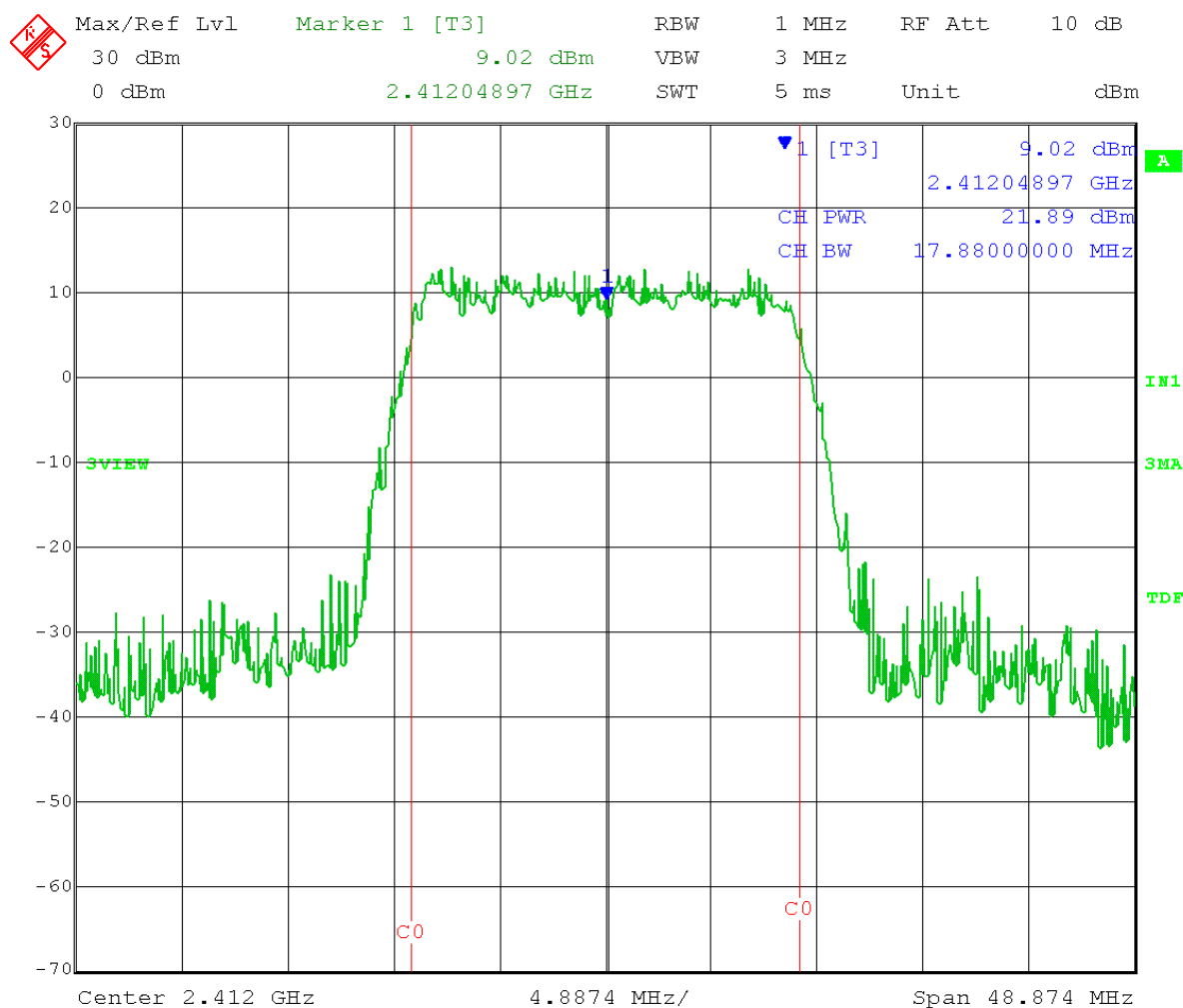
Low Channel: Frequency – 2.412 GHz

Output power setting: 18

802.11n MC7S – 20MHz

Channel Power BW (C0) = 17.88MHz

TX output power = 21.89dBm = 154.53mW



Date: 10.JAN.2013 11:37:21



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

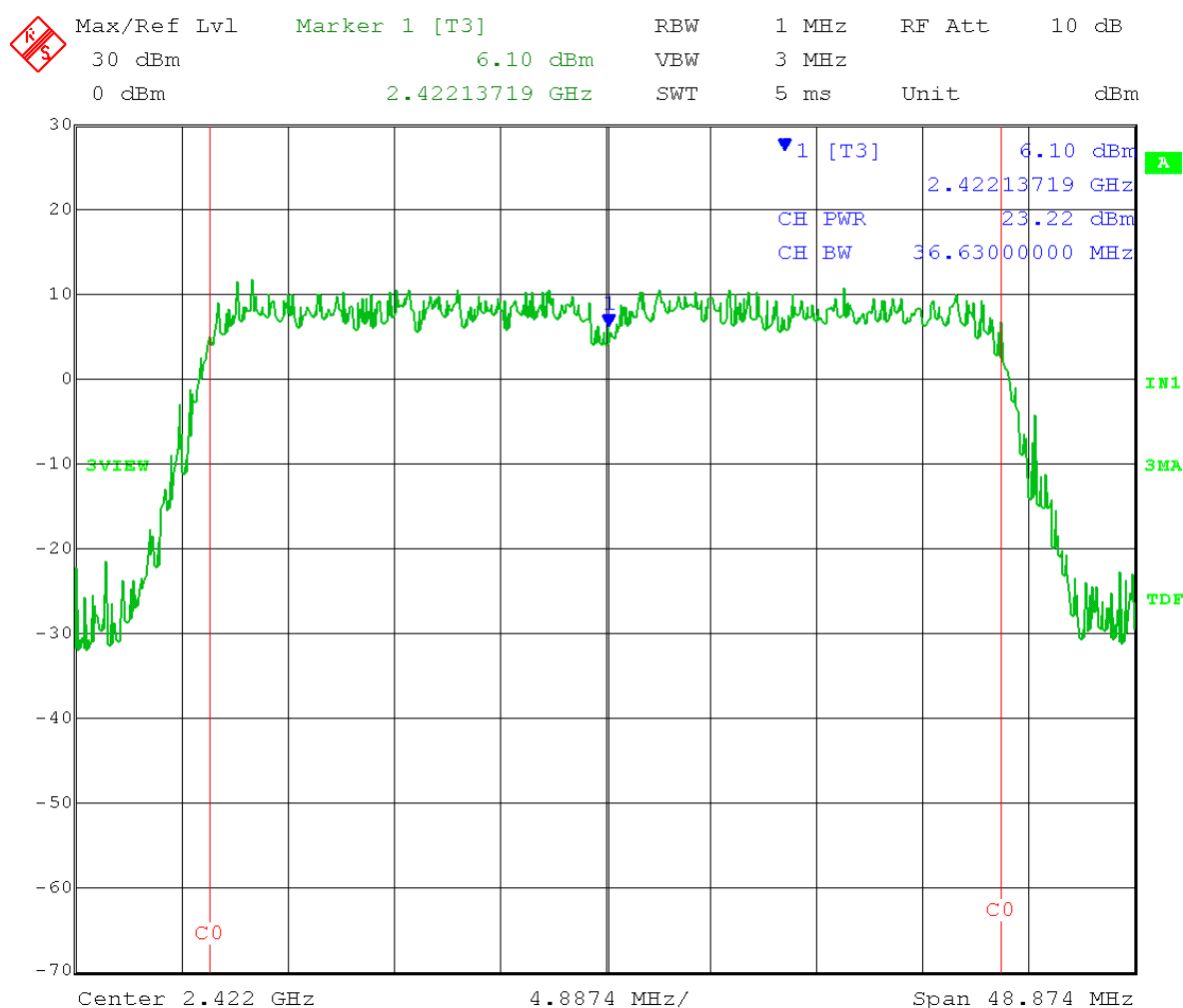
Low Channel: Frequency – 2.422 GHz

Output power setting: 18

802.11n MC7S – 40MHz

Channel Power BW (C0) = 36.63MHz

TX output power = 23.22dBm = 209.89mW



Date: 10.JAN.2013 11:41:02



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

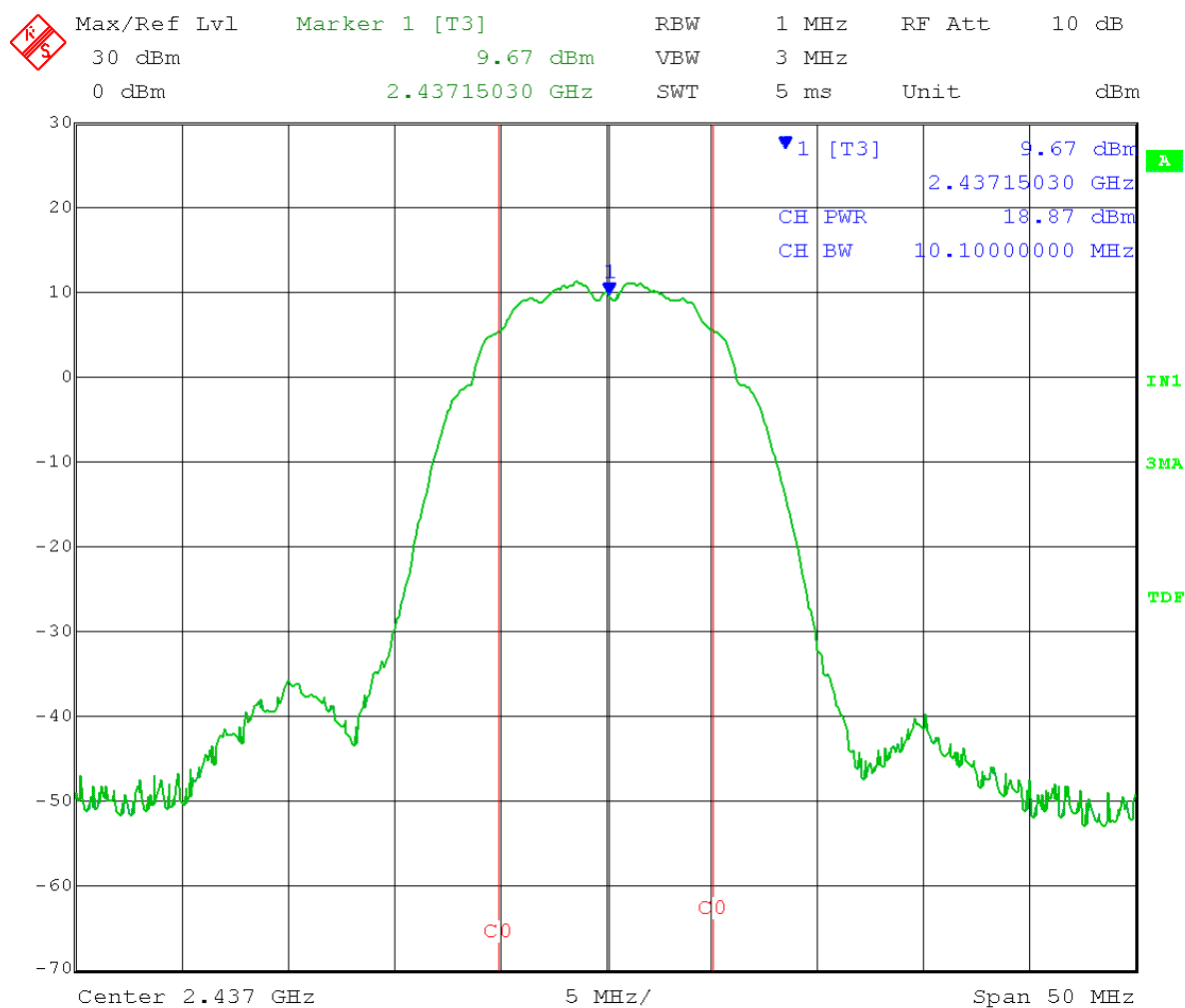
Mid Channel: Frequency – 2.437 GHz

Output power setting: 19

802.11b DSSS 1Mbps

Channel Power BW (C0) = 10.10MHz

TX output power = 18.87dBm = 77.09mW



Date: 10.JAN.2013 11:13:13



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

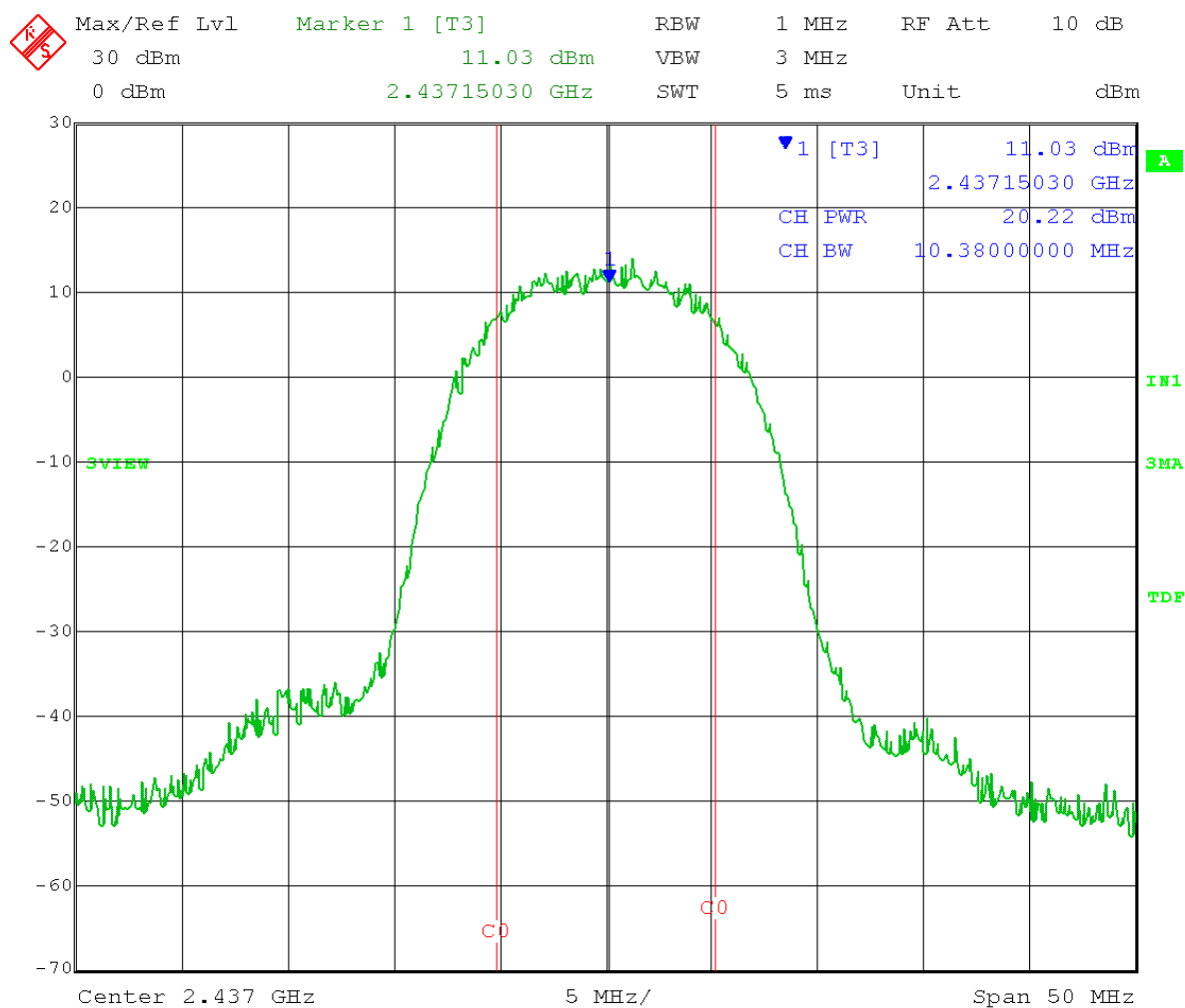
Mid Channel: Frequency – 2.437 GHz

Output power setting: 19

802.11b CCK 5.5Mbps

Channel Power BW (C0) = 10.38MHz

TX output power = 20.22dBm = 105.2mW



Date: 10.JAN.2013 11:08:43



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

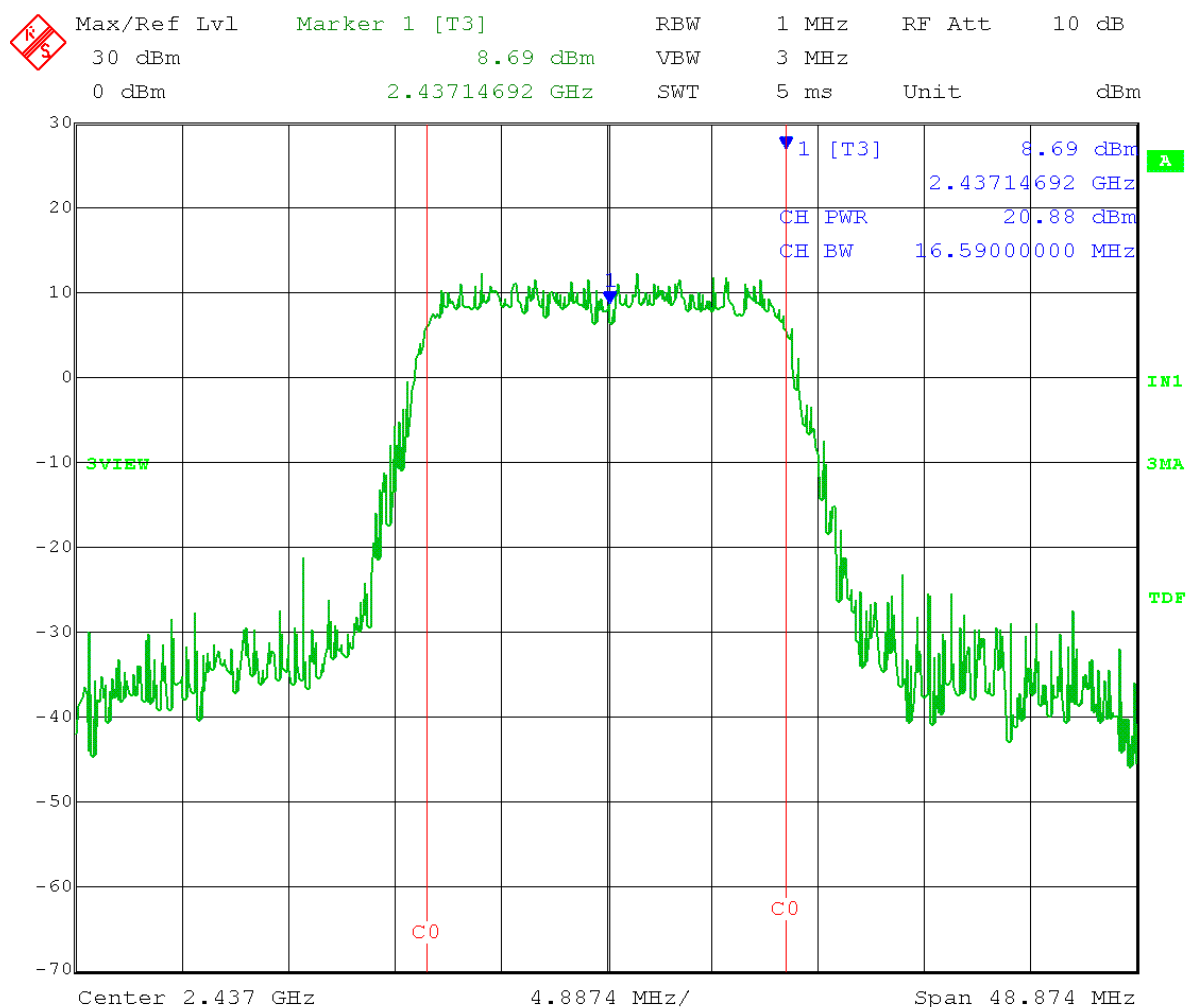
Mid Channel: Frequency – 2.437 GHz

Output power setting: 18

802.11g OFDM 54Mbps

Channel Power BW (C0) = 16.59MHz

TX output power = 20.88dBm = 122.46mW



Date: 10.JAN.2013 11:33:19



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

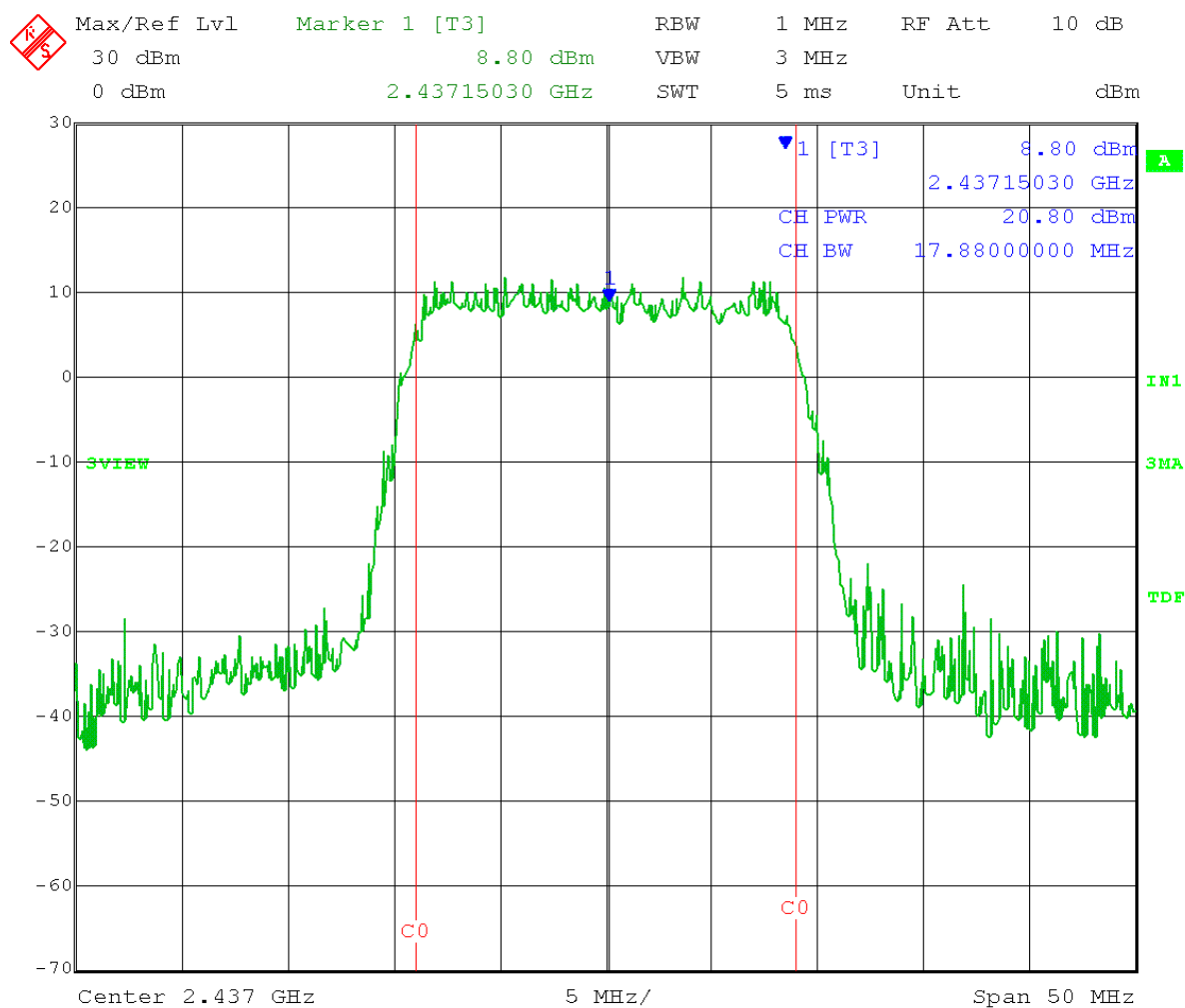
Mid Channel: Frequency – 2.437 GHz

Output power setting: 18

802.11n MC7S – 20MHz

Channel Power BW (C0) = 17.88MHz

TX output power = 20.80dBm = 120.23mW



Date: 10.JAN.2013 11:01:51



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

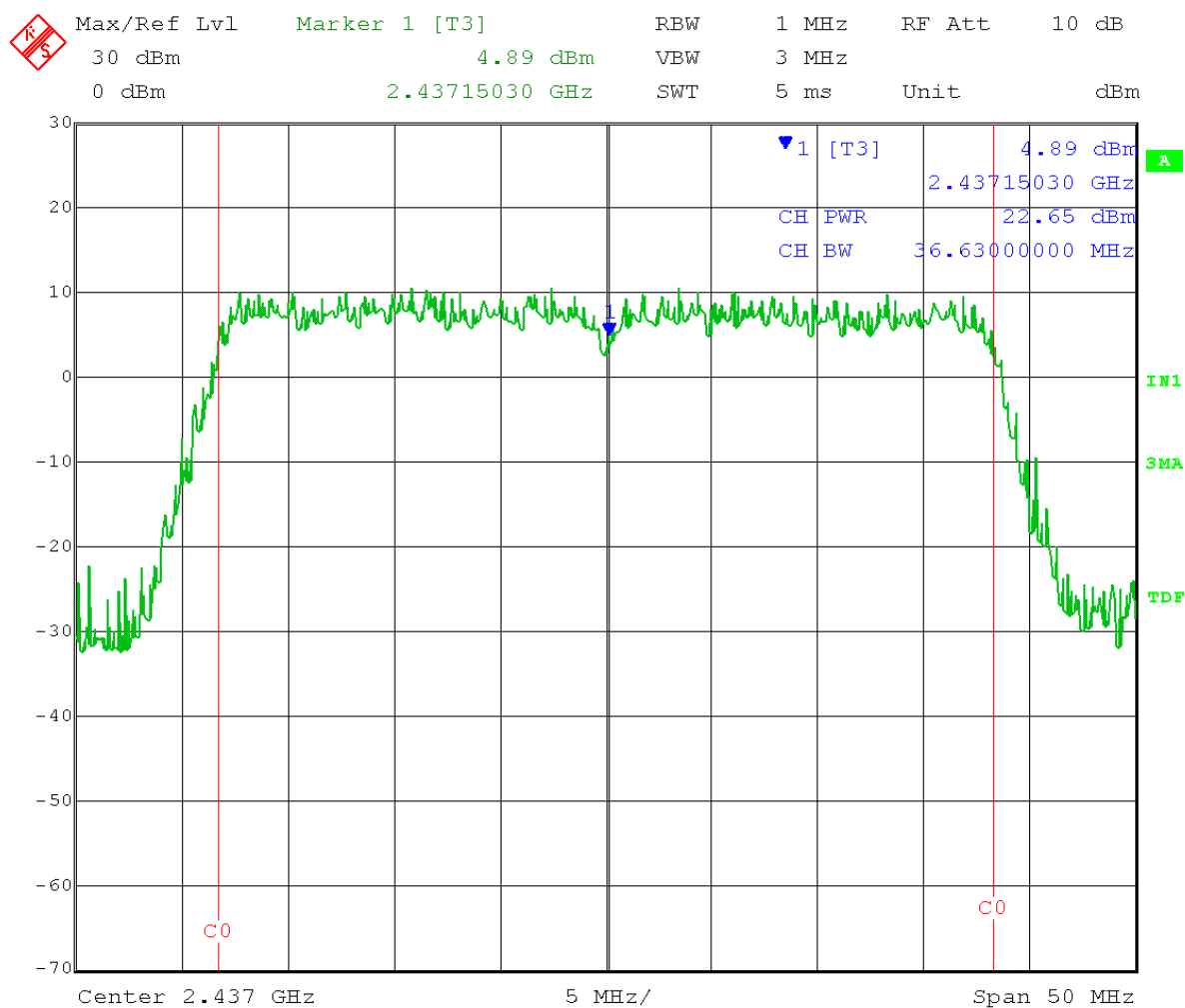
Mid Channel: Frequency – 2.437 GHz

Output power setting: 18

802.11n MC7S – 40MHz

Channel Power BW (C0) = 36.63MHz

TX output power = 22.65dBm = 184.08mW



Date: 10.JAN.2013 10:58:23



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

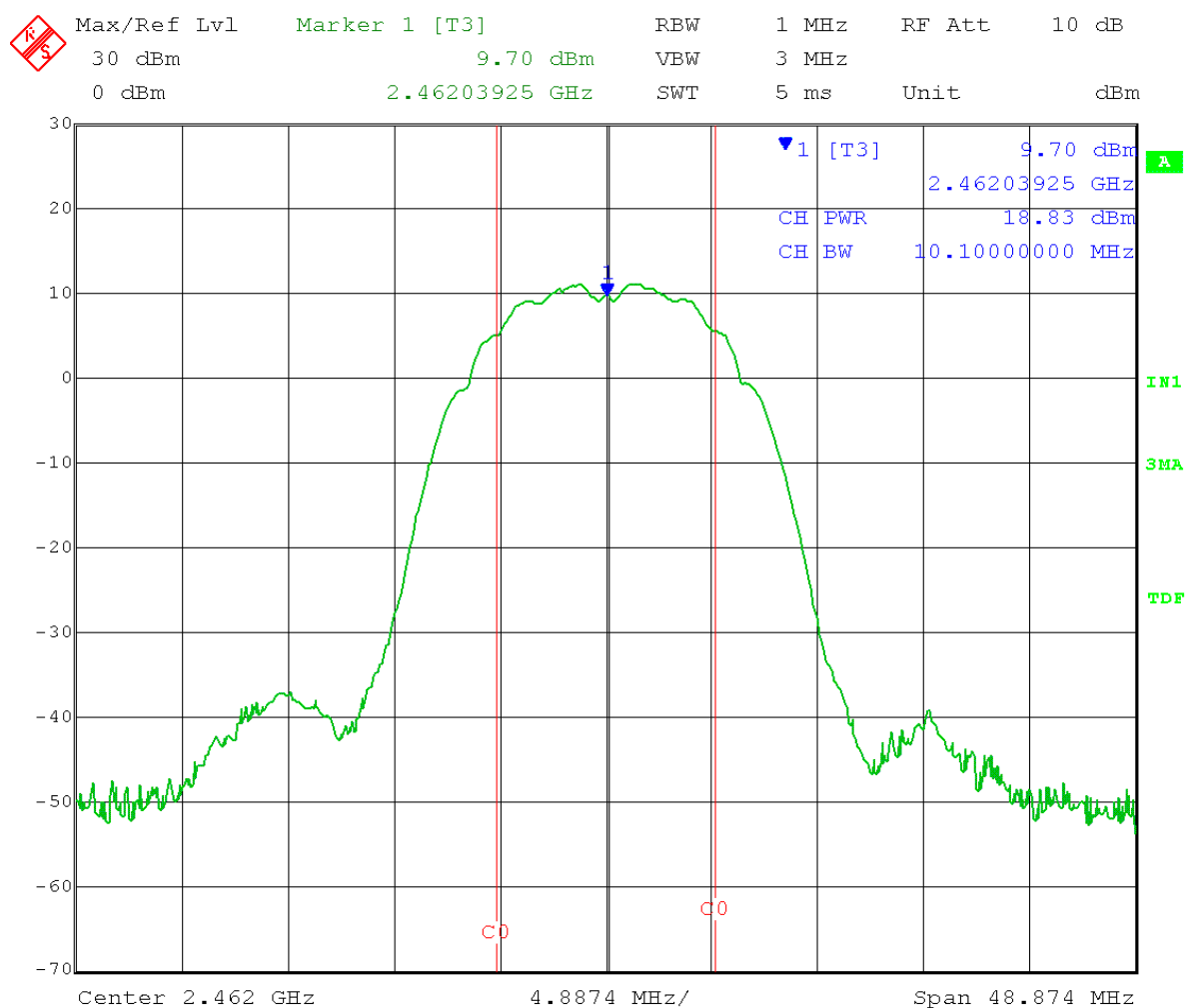
High Channel: Frequency – 2.462 GHz

Output power setting: 19

802.11b DSSS 1Mbps

Channel Power BW (C0) = 10.10MHz

TX output power = 18.83dBm = 76.4mW



Date: 10.JAN.2013 11:56:55



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

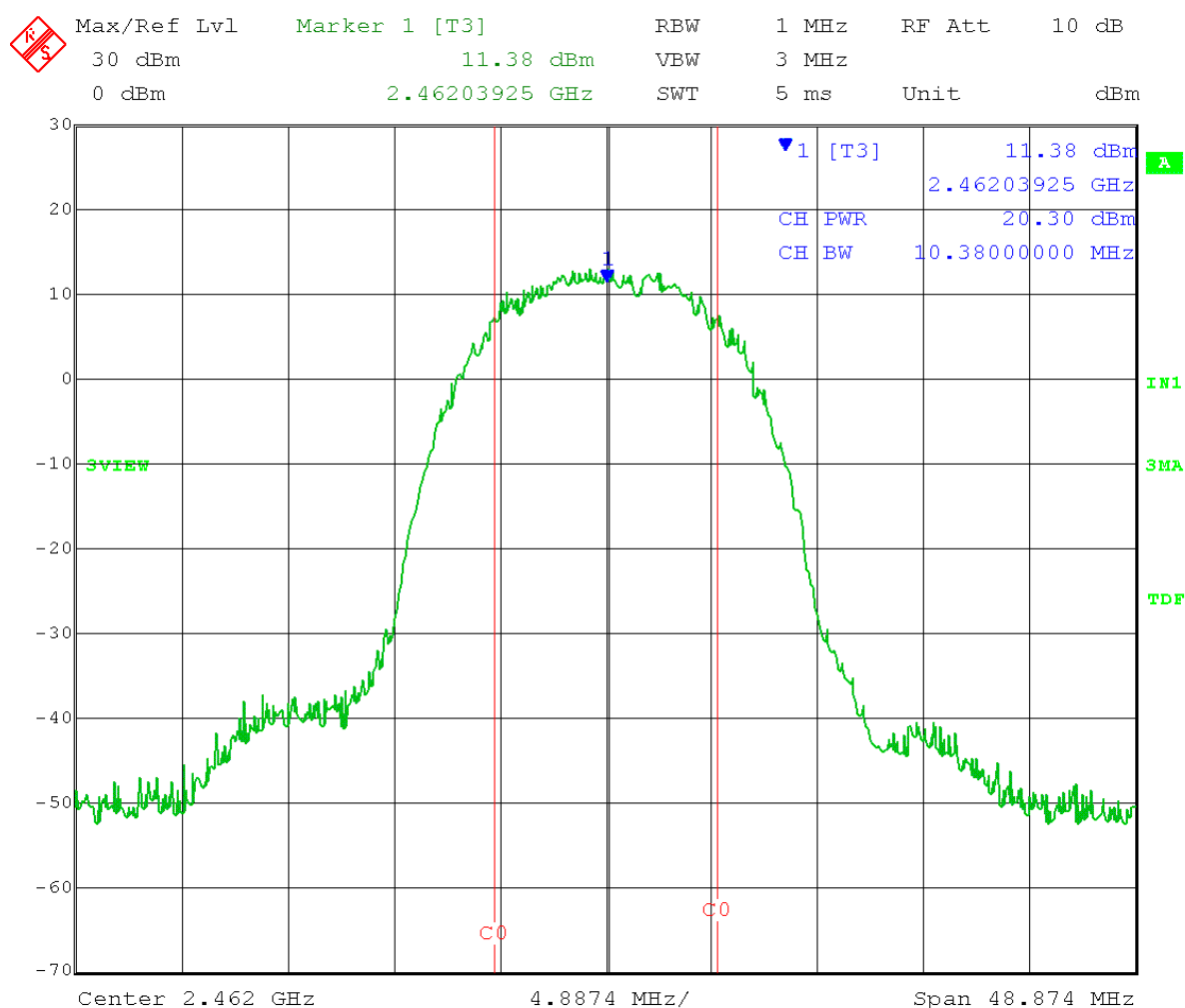
High Channel: Frequency – 2.462 GHz

Output power setting: 19

802.11b CCK 5.5Mbps

Channel Power BW (C0) = 10.38MHz

TX output power = 20.30dBm = 107.16mW



Date: 10.JAN.2013 11:53:17



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

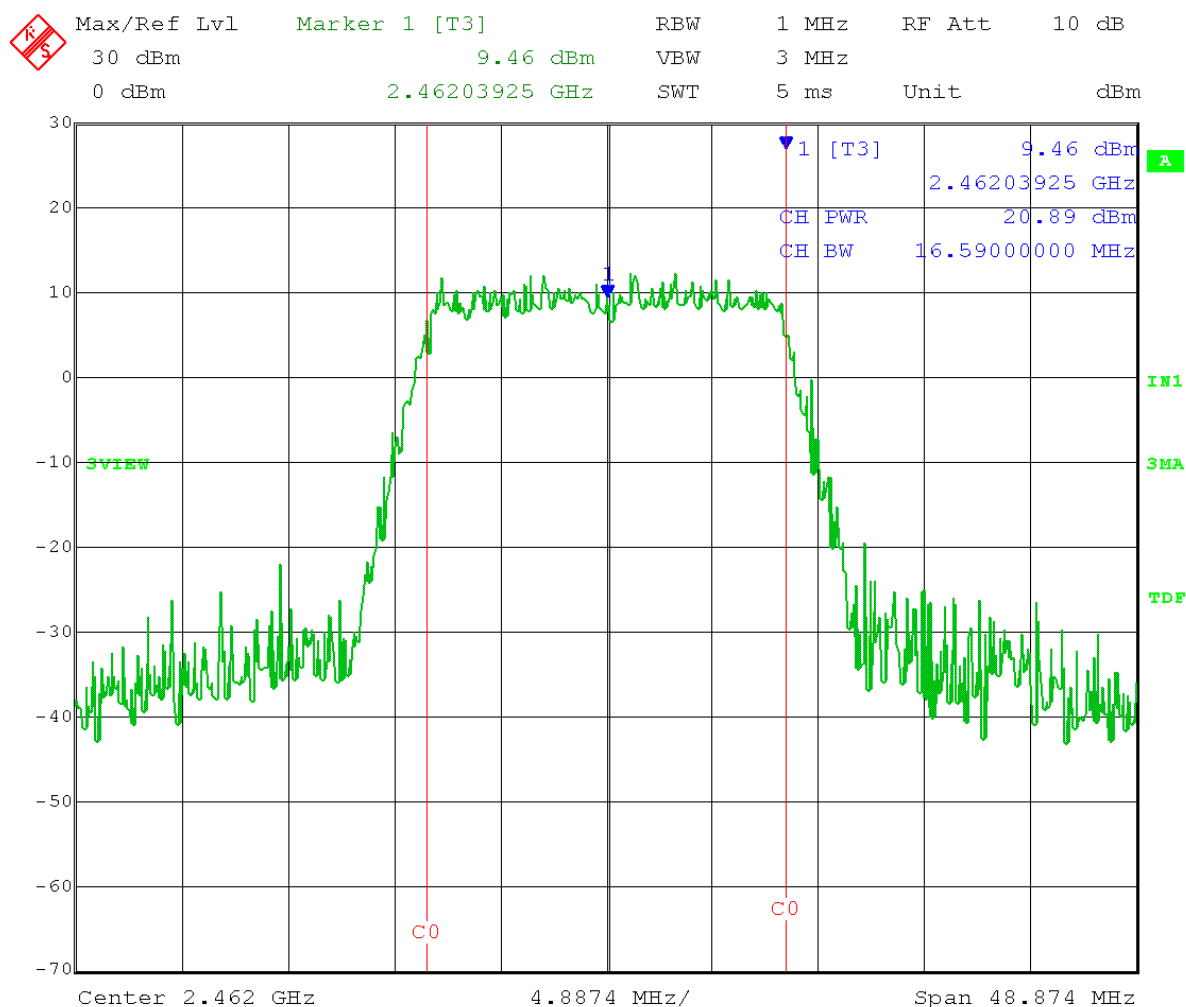
High Channel: Frequency – 2.462 GHz

Output power setting: 18

802.11g OFDM 54Mbps

Channel Power BW (C0) = 16.59MHz

TX output power = 20.89dBm = 122.74mW



Date: 10.JAN.2013 11:50:37



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

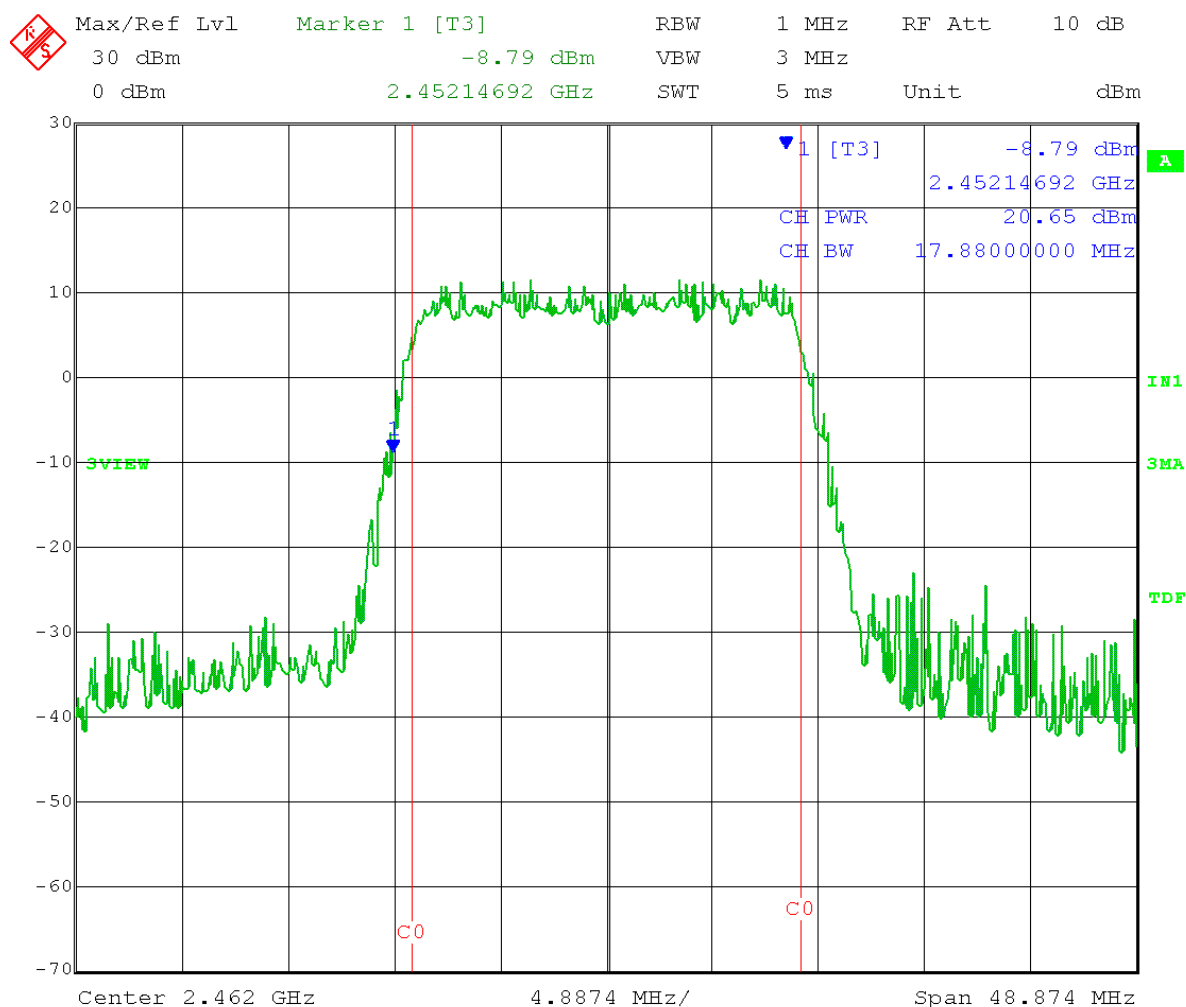
High Channel: Frequency – 2.462 GHz

Output power setting: 18

802.11n MC7S – 20MHz

Channel Power BW (C0) = 17.88MHz

TX output power = 20.65dBm



Date: 10.JAN.2013 11:46:48



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

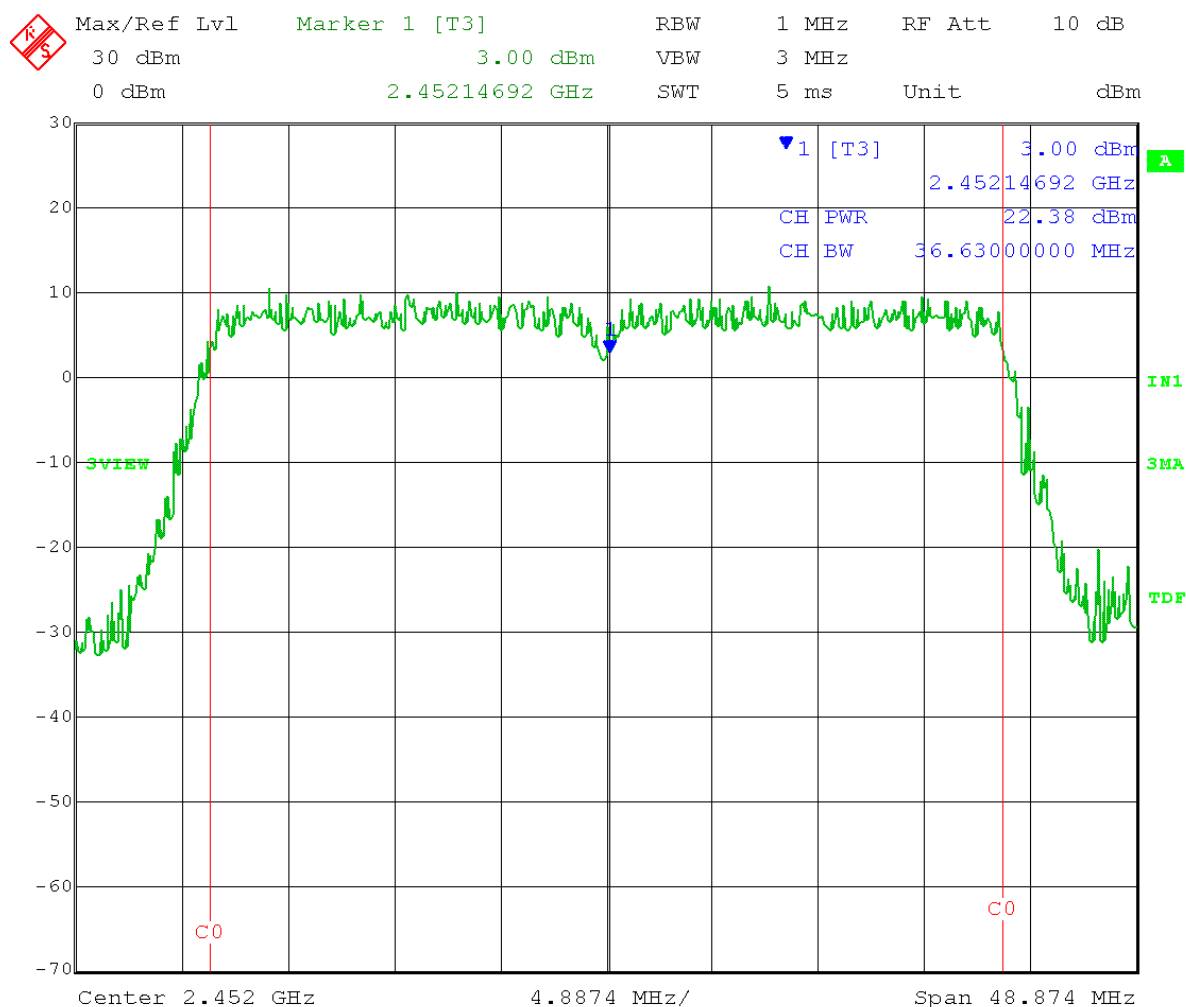
High Channel: Frequency – 2.452 GHz

Output power setting: 18

802.11n MC7S – 40MHz

Channel Power BW (C0) = 36.63MHz

TX output power = 22.38dBm = 172.98mW



Date: 10.JAN.2013 11:44:02



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
 Model Tested: XPWP and XPWC
 Report Number: 18708
 DLS Project: 5163

Test Date: 1-10-2013
 Company: Whirlpool
 EUT: Wi-Fi Core/Processor w/connectors (on J2 – J1 terminated)
 Test: Fundamental Emission Output Power - Conducted
 Operator: Jim O
 Comment: Procedure 8.1.2 Option 2 (channel integration method)

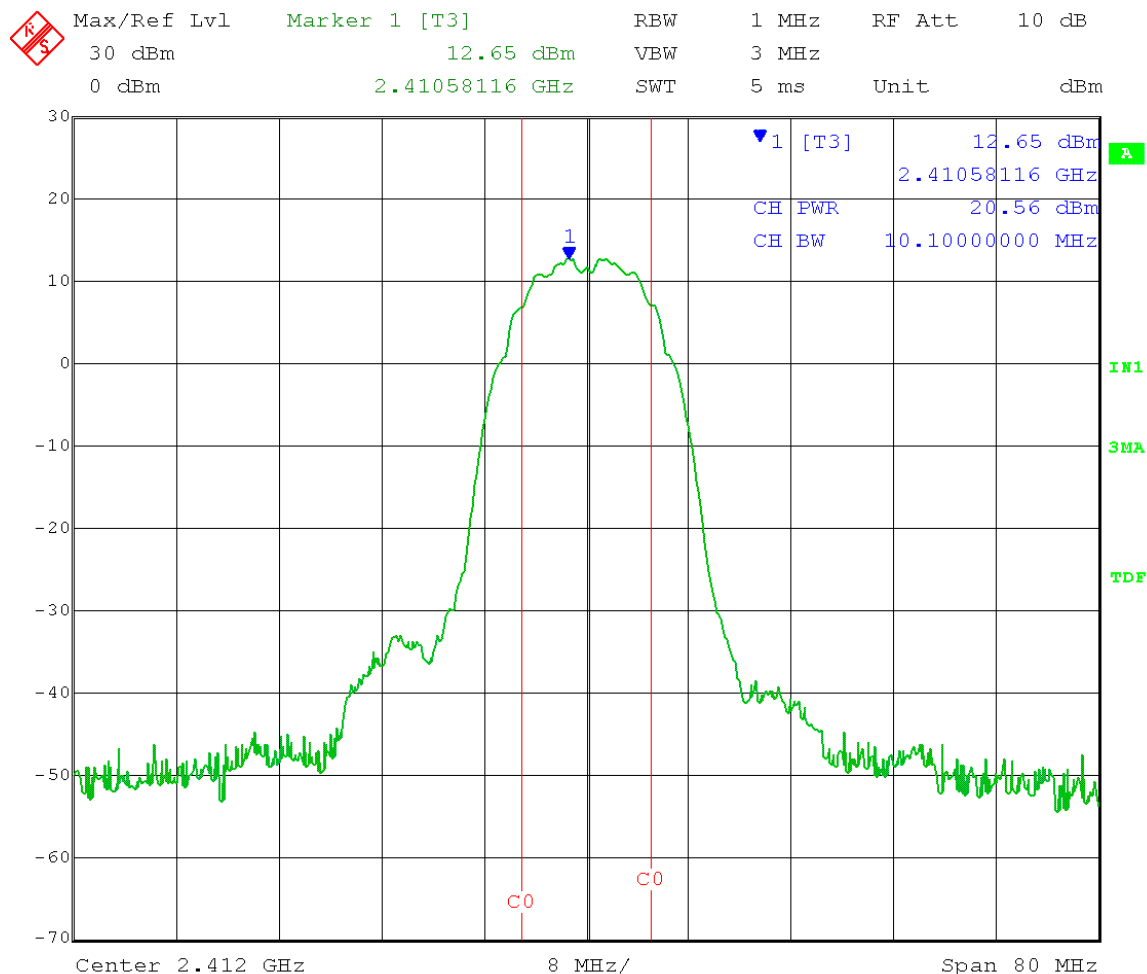
Low Channel: Frequency – 2.412 GHz

Output power setting: 19

802.11b DSSS 1 Mbps

Channel Power BW (C0) = 10.10MHz

TX output power = 20.56dBm = 113.76mW



Date: 10.JAN.2013 09:29:53



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 1-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/connectors (on J2 – J1 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

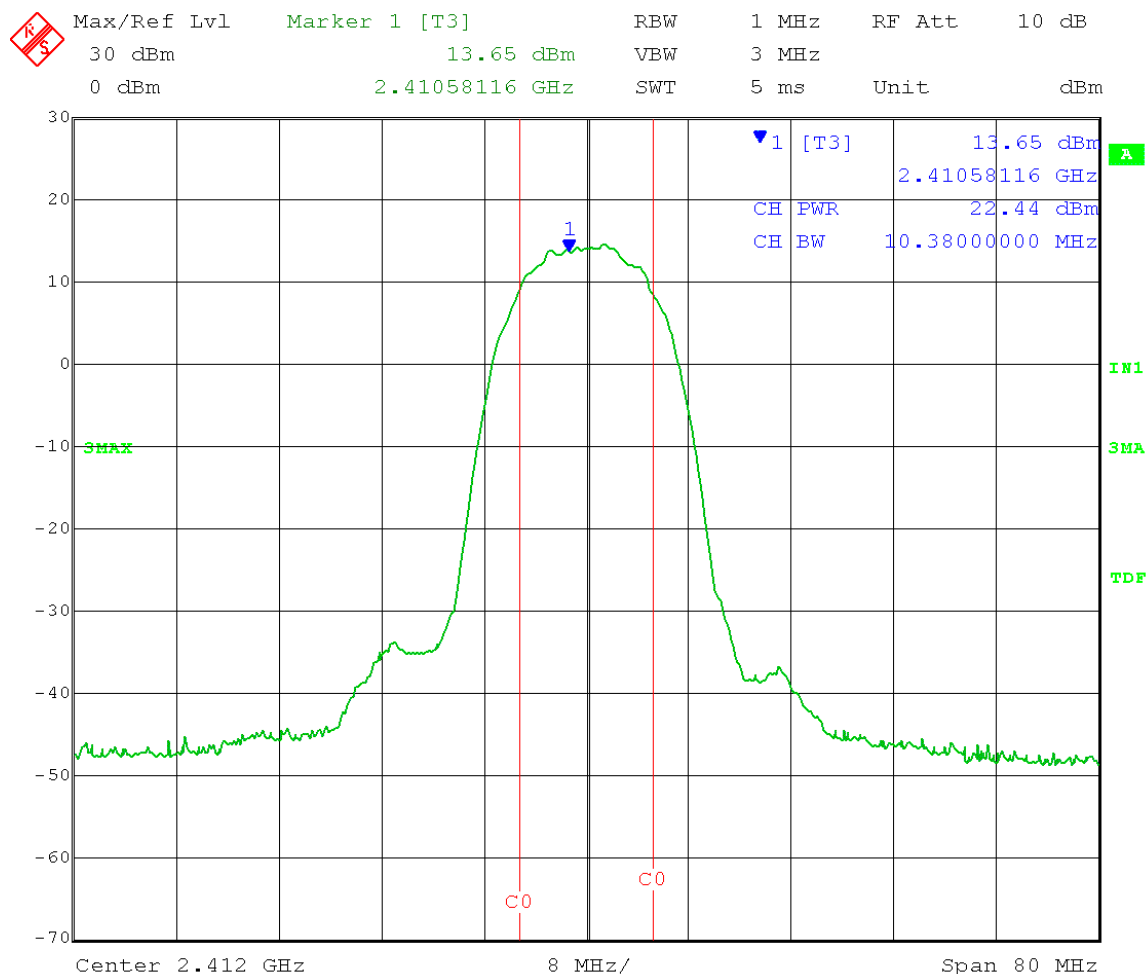
Low Channel: Frequency – 2.412 GHz

Output power setting: 19

802.11b CCK 5.5 Mbps

Channel Power BW (C0) = 10.38MHz

TX output power = 22.44dBm = 175.39mW



Date: 10.JAN.2013 09:43:11



Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/connectors (on J2 – J1 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

TX output power = 21.36dBm = 136.77mW





166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/connectors (on J2 – J1 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

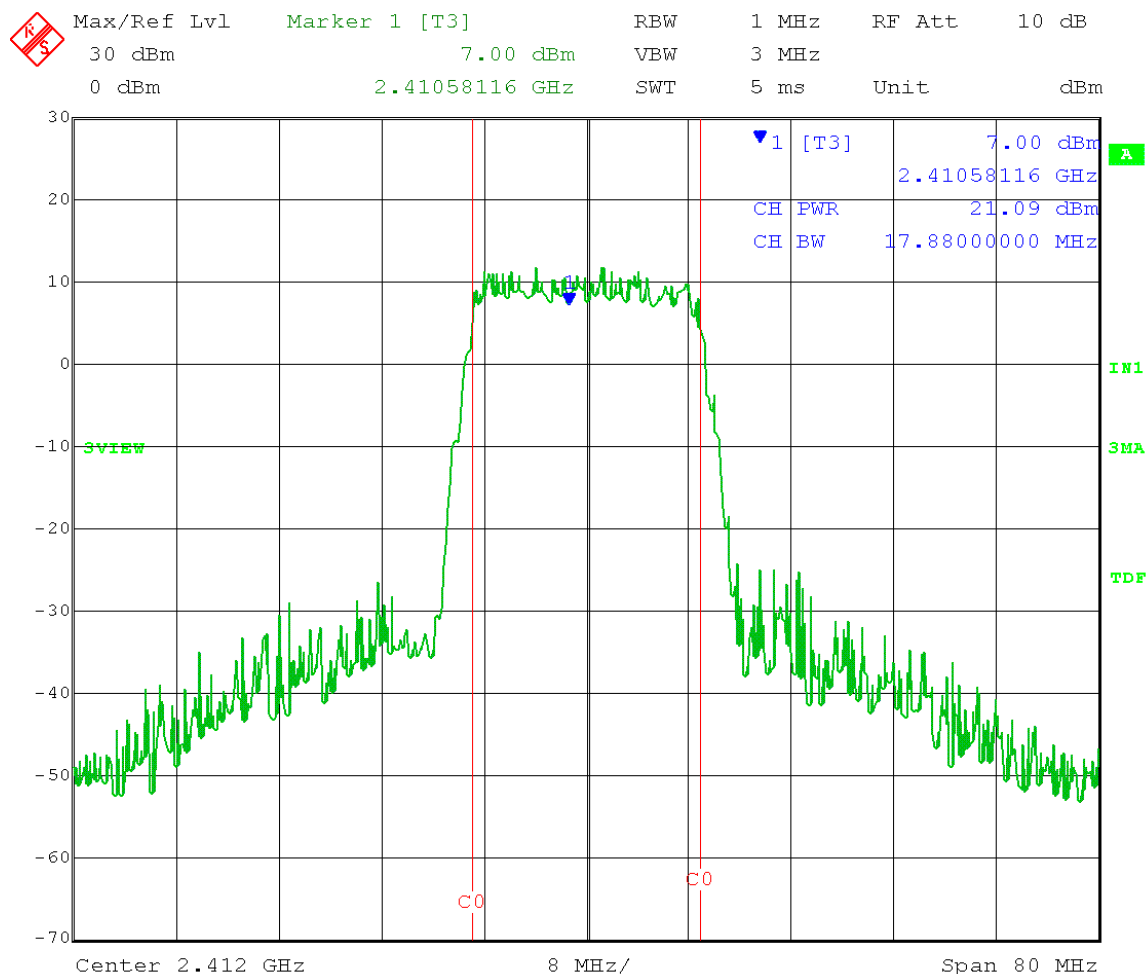
Low Channel: Frequency – 2.412 GHz

Output power setting: 18

802.11n MC7S – 20MHz

Channel Power BW (C0) = 17.88MHz

TX output power = 21.09dBm = 128.53mW



Date: 10.JAN.2013 10:06:47

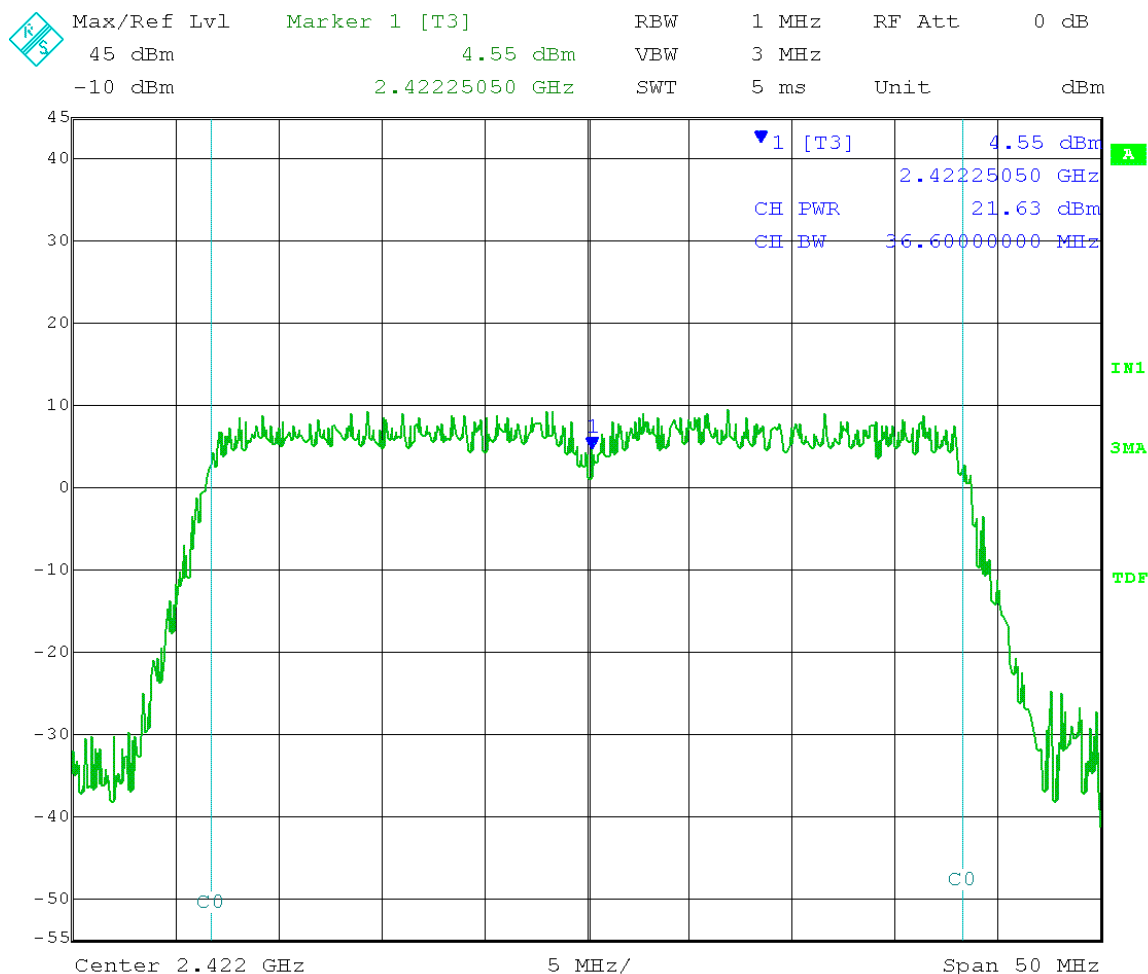


166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 02-04-2013
Company: Whirlpool
EUT: WiFi Core/Processor w/connectors (on J2 – J1 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)
Comment: Low Channel: Frequency – 2.422 GHz

Output power setting: 18
802.11n MC7S – 40MHz
Channel Power BW (C0) = 36.63MHz
TX output power = 21.63dBm = 145.55mW



Date: 4.FEB.2013 16:20:59



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/connectors (on J2 – J1 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

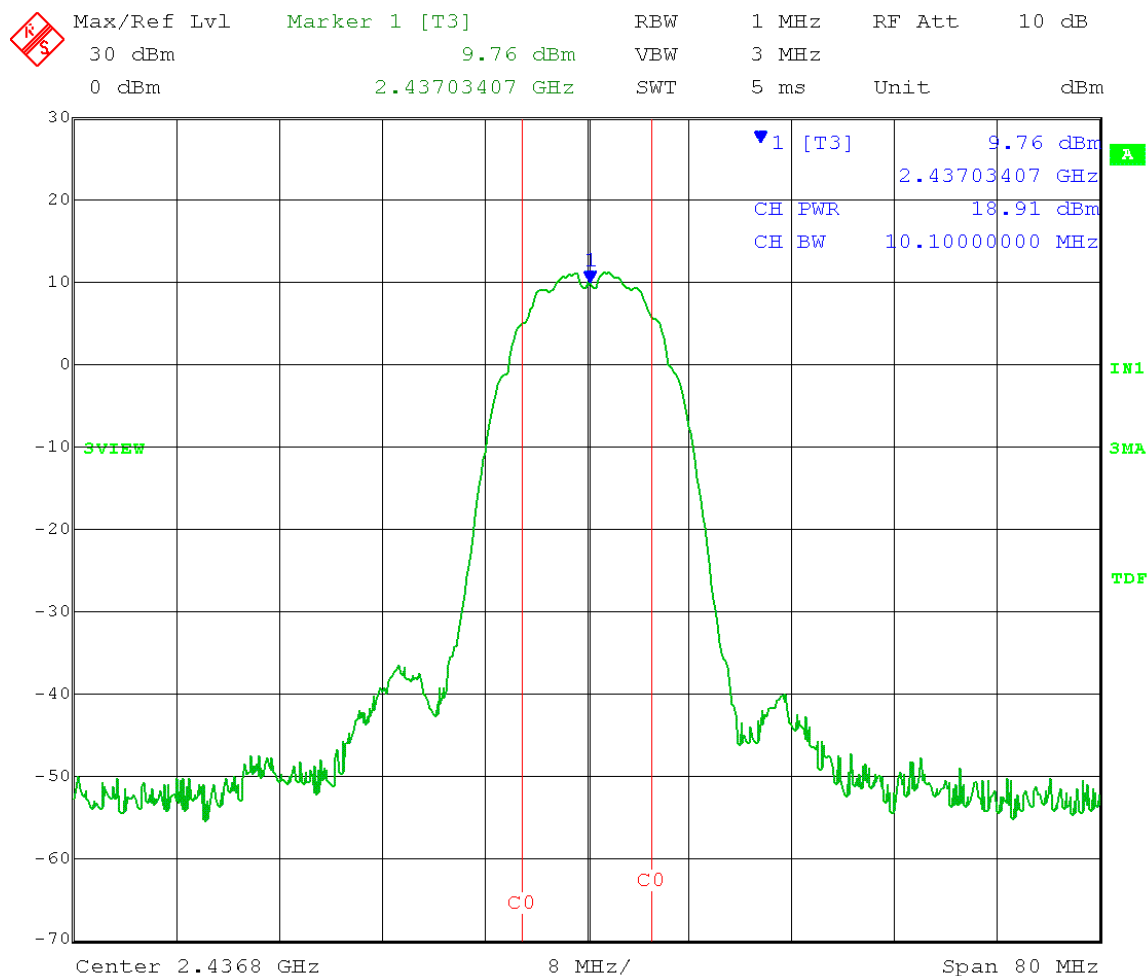
MID Channel: Frequency – 2.437 GHz

Output power setting: 19

802.11b DSSS 1Mbps

Channel Power BW (C0) = 10.10MHz

TX output power = 18.91dBm = 77.8mW



Date: 10.JAN.2013 10:27:14



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/connectors (on J2 – J1 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

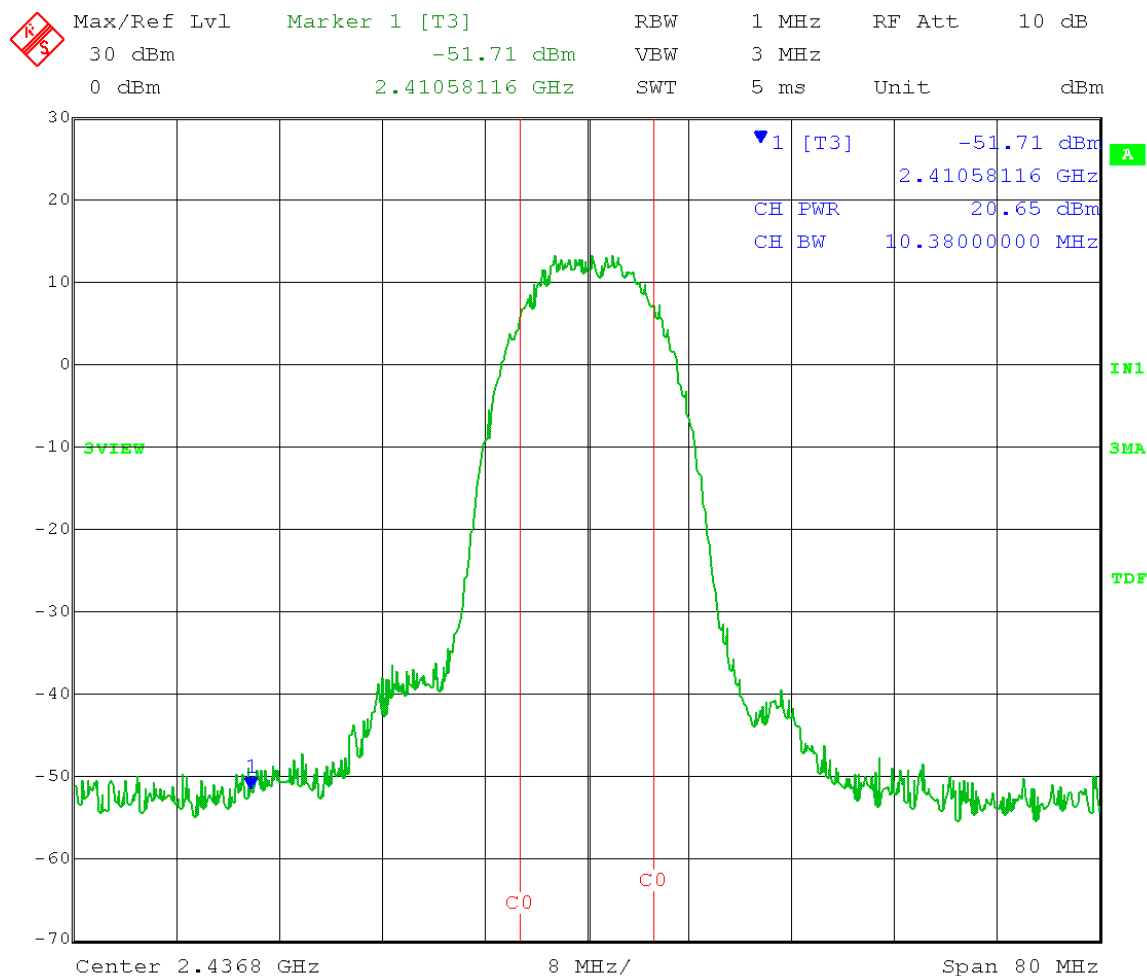
MID Channel: Frequency – 2.437 GHz

Output power setting: 19

802.11b CCK 5.5

Channel Power BW (C0) = 10.38MHz

TX output power = 20.65dBm = 116.14mW



Date: 10.JAN.2013 10:24:21



Test Date: 01-10-2013
Company: Whirlpool
EUT: WiFi Core/Processor w/connectors (on J2 – J1 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

TX output power = 20.81dBm = 120.50mW





166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/connectors (on J2 – J1 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

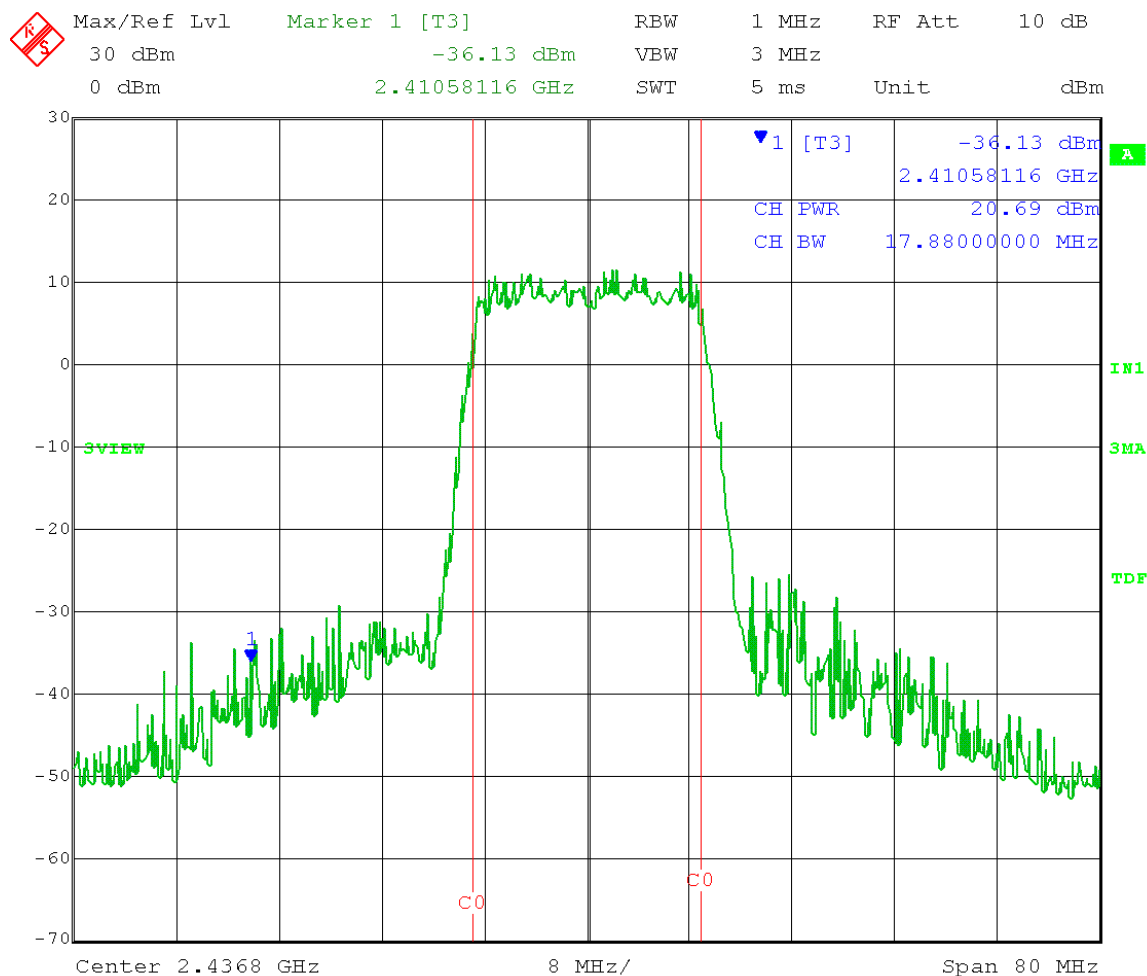
MID Channel: Frequency – 2.437 GHz

Output power setting: 18

802.11n MC7S – 20MHz

Channel Power BW (C0) = 17.88MHz

TX output power = 20.69dBm = 117.22mW



Date: 10.JAN.2013 10:20:02



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/connectors (on J2 – J1 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

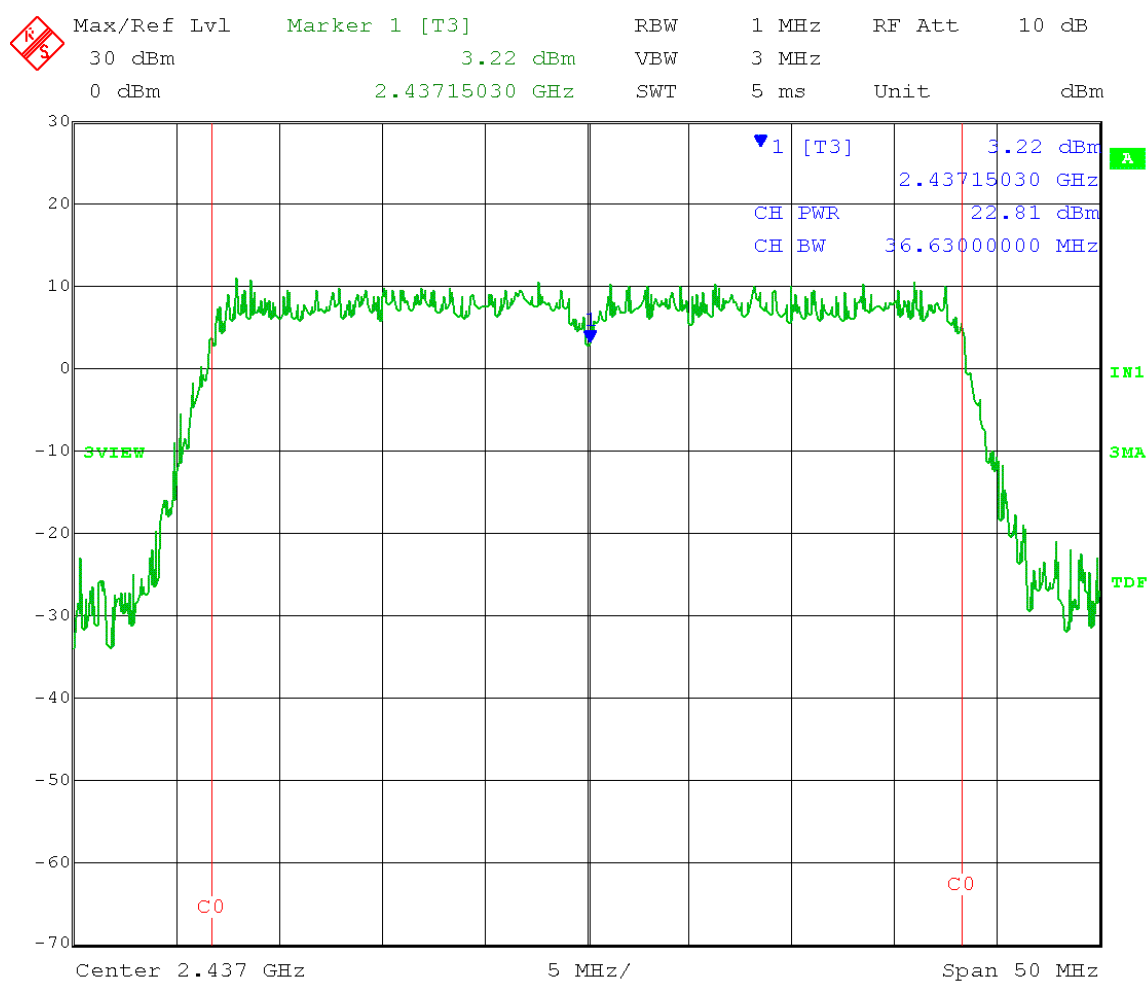
MID Channel: Frequency – 2.437 GHz

Output power setting: 18

802.11n MC7S – 40MHz

Channel Power BW (C0) = 36.63MHz

TX output power = 22.81dBm = 190.99mW



Date: 10.JAN.2013 10:54:50



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J2 – J1 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

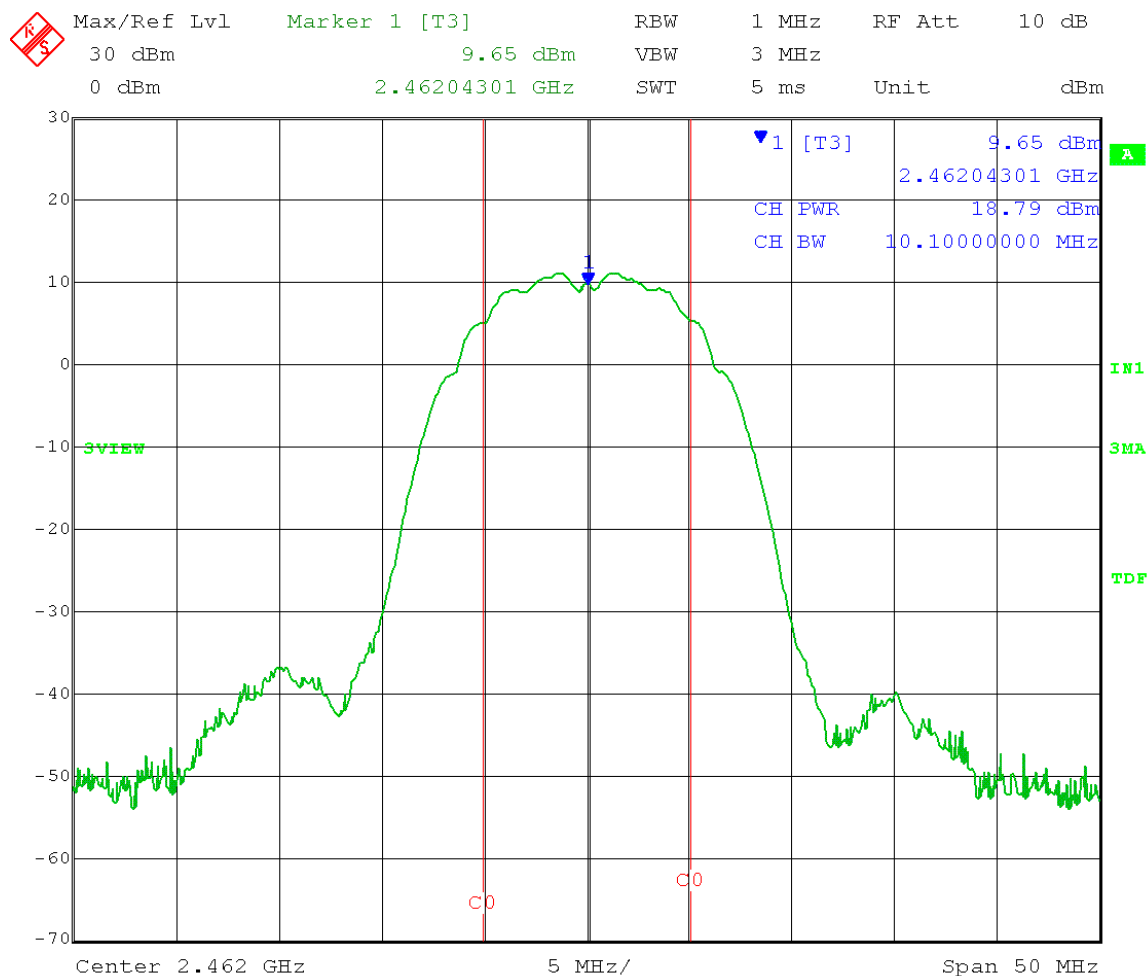
High Channel: Frequency – 2.462 GHz

Output power setting: 19

802.11b DSSS 1Mbps

Channel Power BW (C0) = 10.10MHz

TX output power = 18.79dBm = 75.7mW



Date: 10.JAN.2013 10:31:55



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J2 – J1 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

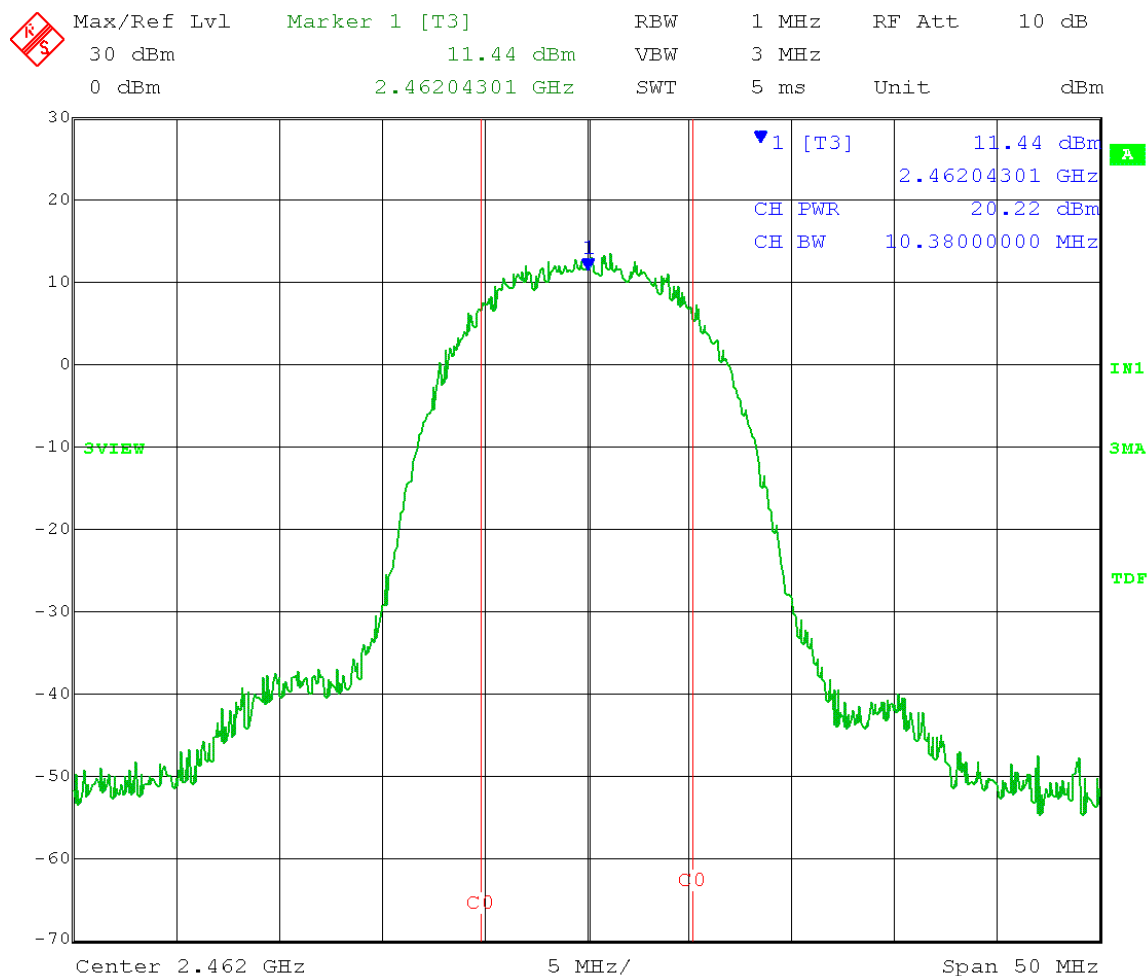
High Channel: Frequency – 2.462 GHz

Output power setting: 19

802.11b CCK 5.5Mbps

Channel Power BW (C0) = 10.38MHz

TX output power = 20.22dBm = 105.2mW



Date: 10.JAN.2013 10:35:36



166 South Carter, Genoa City, WI 53128

Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
XPWP and XPWC
18708
5163

Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J2 – J1 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

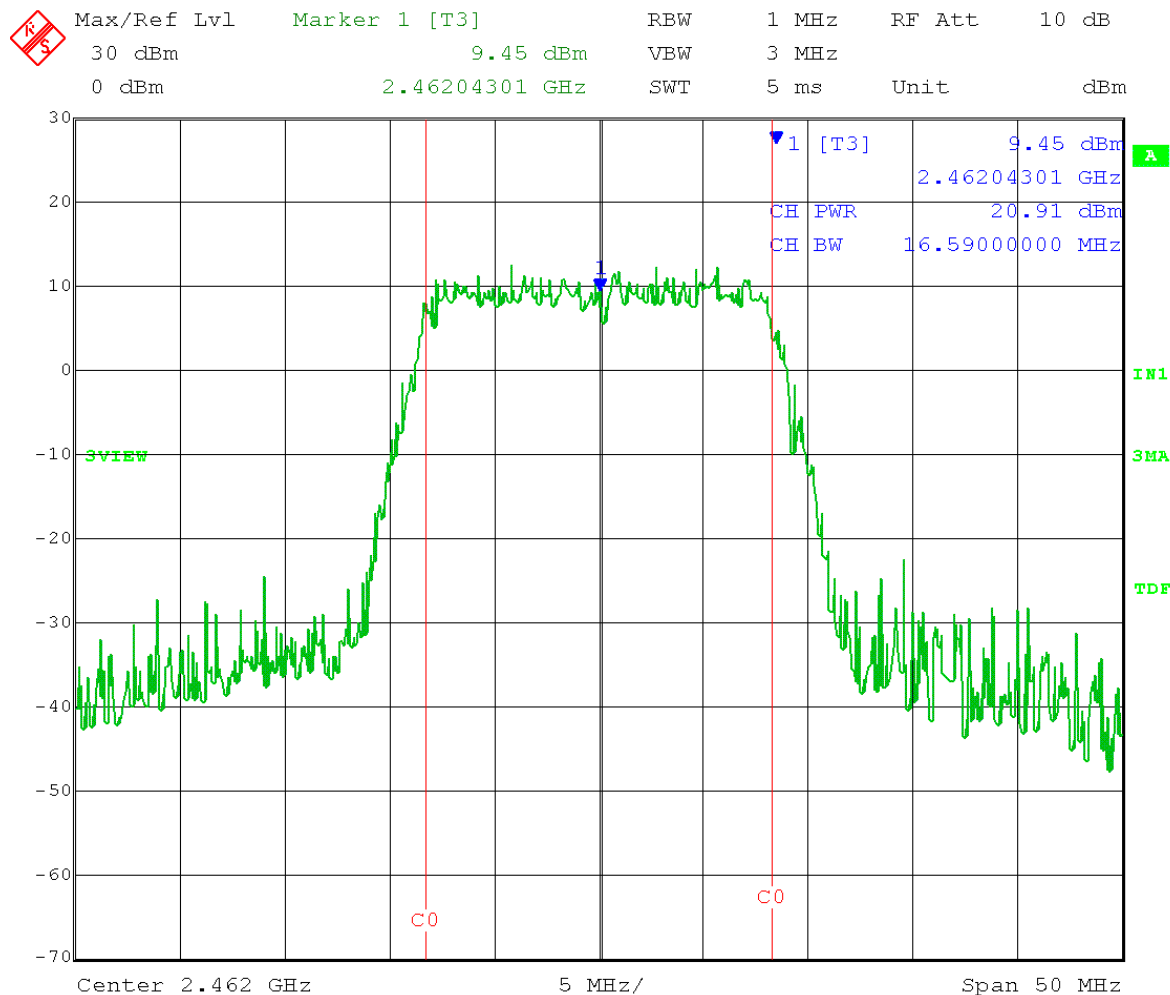
High Channel: Frequency – 2.462 GHz

Output power setting: 18

802.11g OFDM 54 Mbps

Channel Power BW (C0) = 16.59MHz

TX output power = 20.91dBm = 123.31mW



Date: 10.JAN.2013 10:40:21



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J2 – J1 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

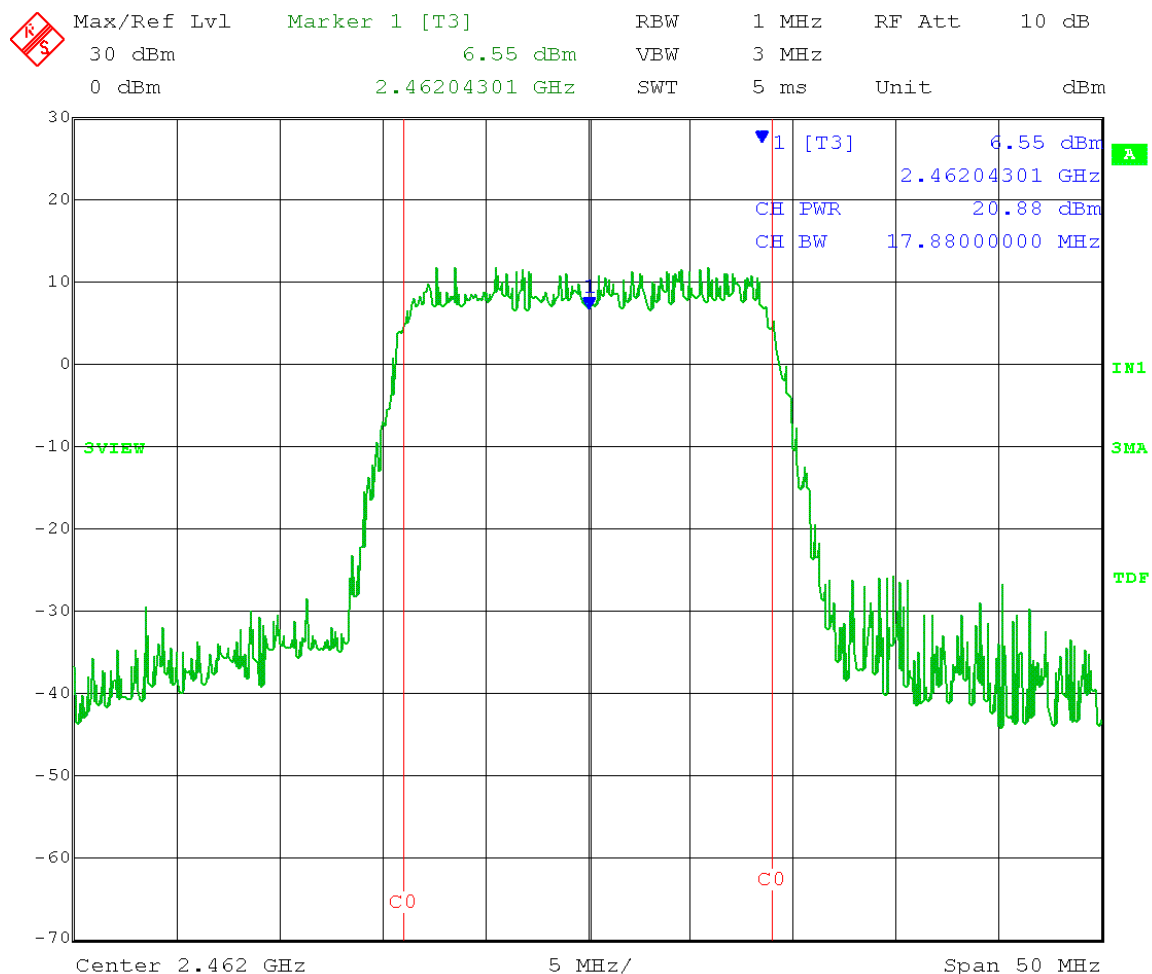
High Channel: Frequency – 2.462 GHz

Output power setting: 18

802.11n MC7S – 20MHz

Channel Power BW (C0) = 17.88MHz

TX output power = 20.88dBm = 122.46mW



Date: 10.JAN.2013 10:44:01



Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J2 – J1 terminated)
Test: Fundamental Emission Output Power - Conducted
Operator: Jim O
Comment: Procedure 8.1.2 Option 2 (channel integration method)

TX output power = 22.48dBm = 177.01mW





166 South Carter, Genoa City, WI 53128

Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
XPWP and XPWC
18708
5163

Appendix B

3.0 Maximum Power Spectral Density (PSD)

Rule Part:

15.247(e)

Test Procedure:

558074 D01 DTS Meas Guidance v02
9.0 Maximum Power Spectral Density Level in the Fundamental Emission
9.1 Option 1 (Peak)

Limit:

+8dBm in any 3 kHz band segment within the fundamental EBW during any time interval of continuous transmission.

Results:

Compliant
Maximum conducted power spectral density (PSD): **-6.32 dBm**

Notes:

This was an RF conducted measurement. The EUT was connected to the measuring equipment through a "Fakra" (snap-on connector) allowing cable to PCBRD interface mount for RF conducted measurements. Cable loss and attenuation was accounted for in the transducer factors set in the analyzer.

The EUT was powered through a cable that was connected to the battery supply of 9.6 VDC. The EUT was set to transmit continuously at its maximum power, in all modulating signal modes encountered in a real system operation on the low, middle, and high channels of the operating band. Port J1 had a higher output power than J2. Therefore, testing was performed on port J1.



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-14-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Power Spectral Density - Conducted
Operator: Jim O
Comment: Low Channel: Frequency – 2.412 GHz

Output power setting: 19

802.11b DSSS 1Mbps

RBW = 3 kHz

VBW = 10 kHz

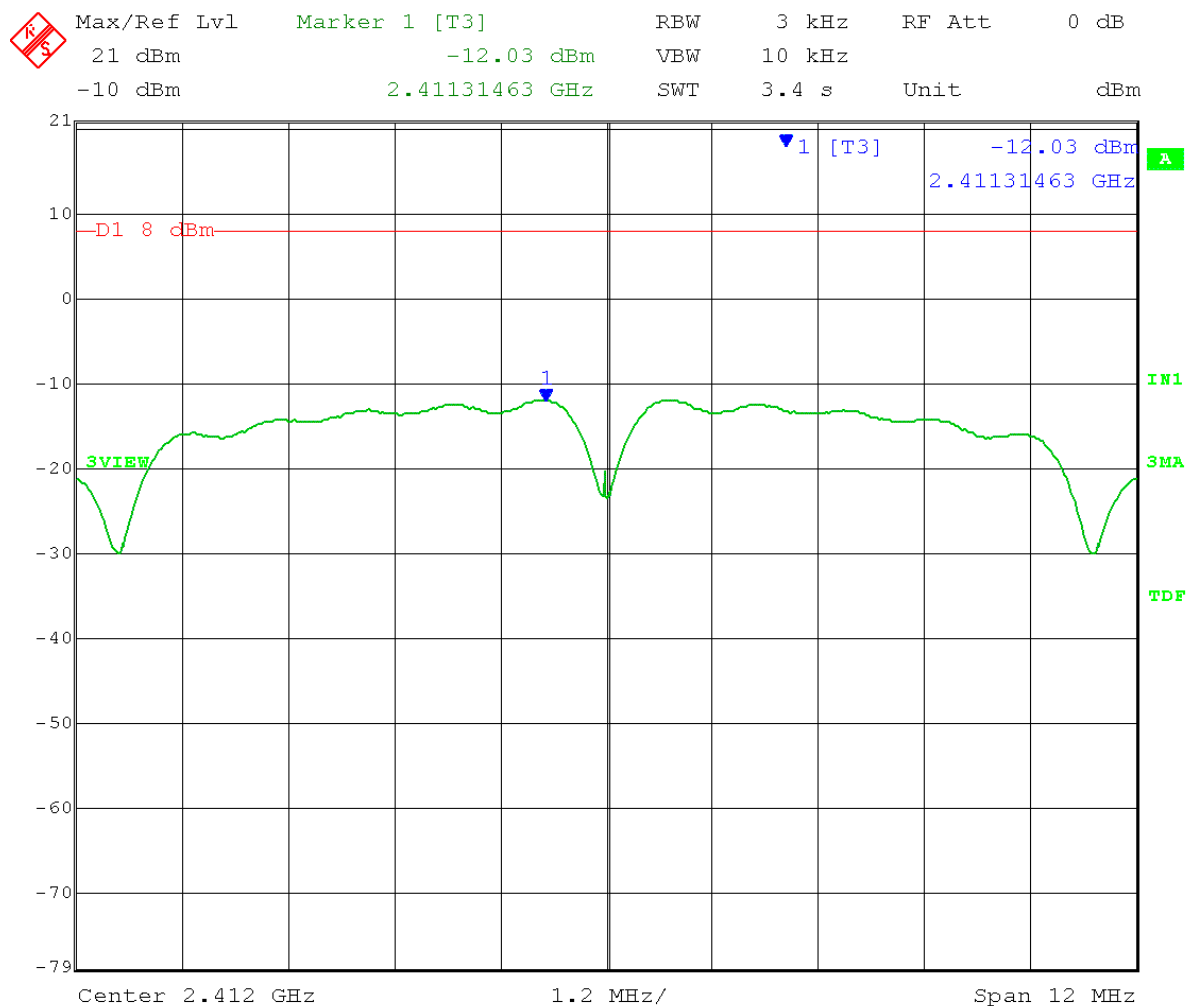
Detector = Peak

Sweep = auto couple

Trace = max hold

Limit: 8 dBm

Power Level in 3 kHz bandwidth = -12.03dBm



Date: 14.JAN.2013 13:25:12

Test Date:

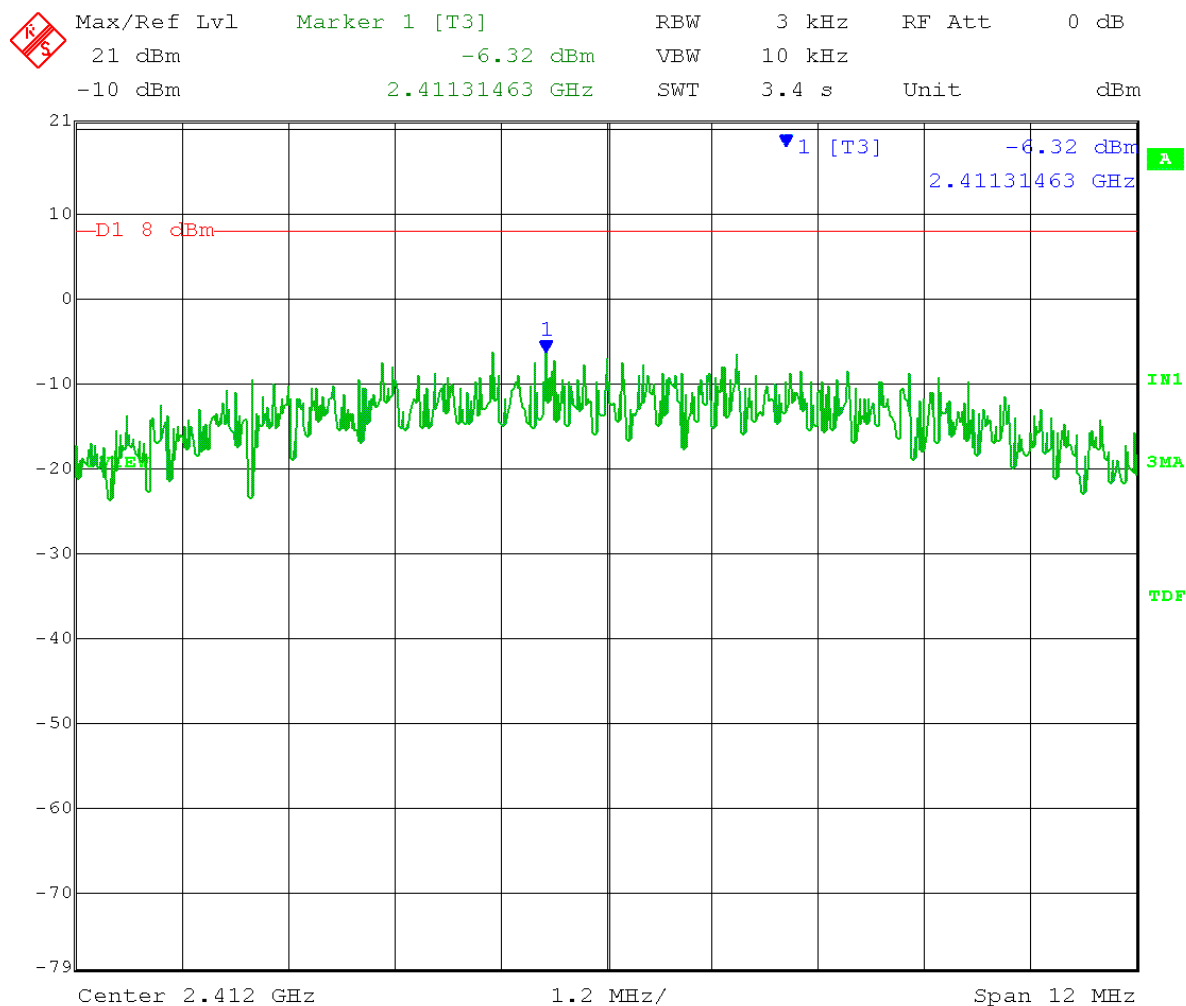


166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-14-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Maximum Peak Power Spectral Density - Conducted
Operator: Jim O
Comment: Low Channel: Frequency = 2.412 GHz
Output power setting: 19
802.11b CCK 5.5Mbps
RBW = 3 kHz
VBW = 10 kHz
Detector = Peak
Sweep = auto couple
Trace = max hold
Limit: +8 dBm

Power Level in 3 kHz bandwidth = -6.32dBm



Date: 14.JAN.2013 13:27:43

Company:



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-14-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Power Spectral Density - Conducted
Operator: Jim O
Comment: Low Channel: Frequency = 2.412 GHz

Output power setting: 18

802.11g OFDM 54Mbps

RBW = 3 kHz

VBW = 10 kHz

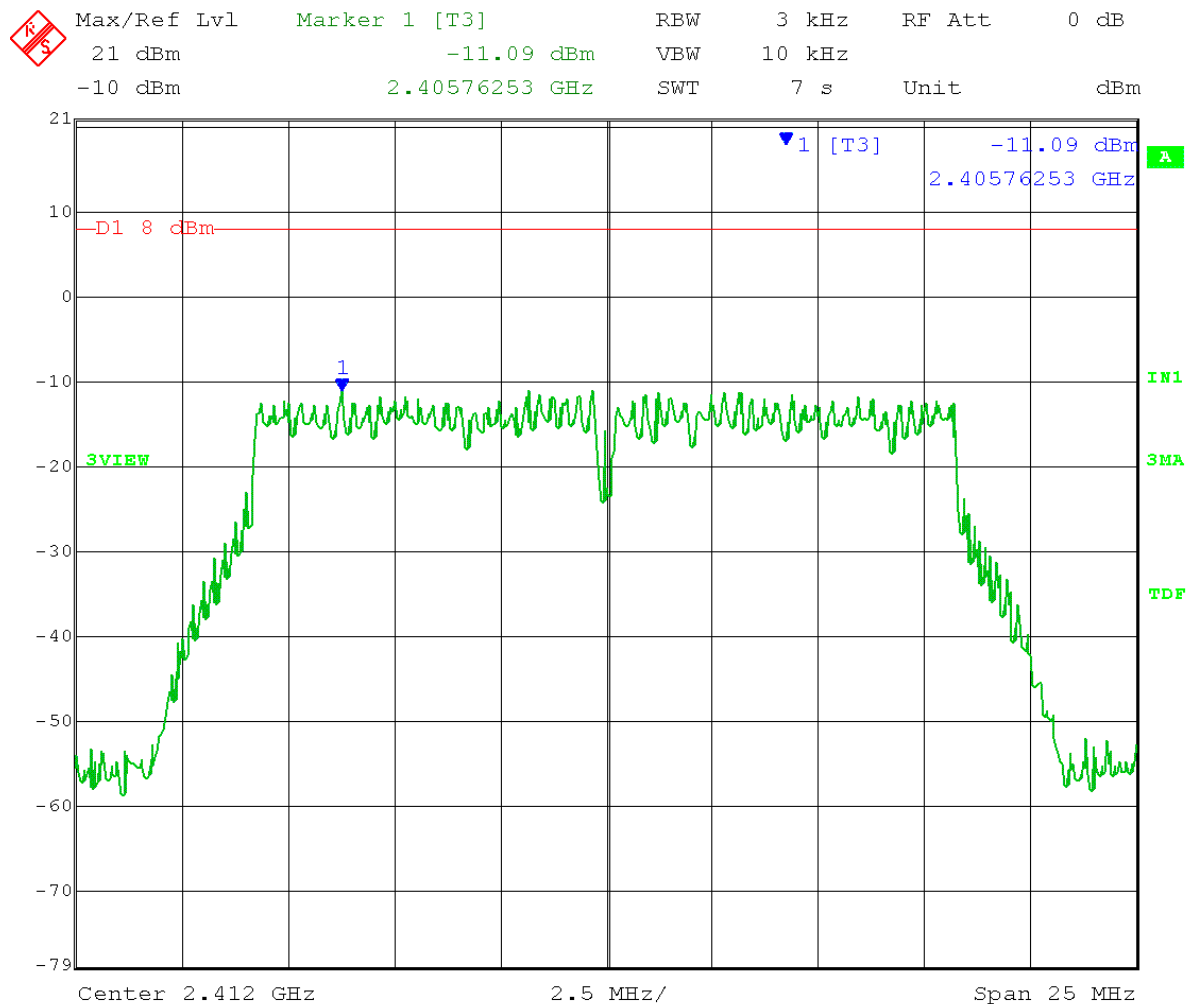
Detector = Peak

Sweep = auto couple

Trace = max hold

Limit: 8 dBm

Power Level in 3 kHz bandwidth = -11.09dBm



Date: 14.JAN.2013 13:05:13

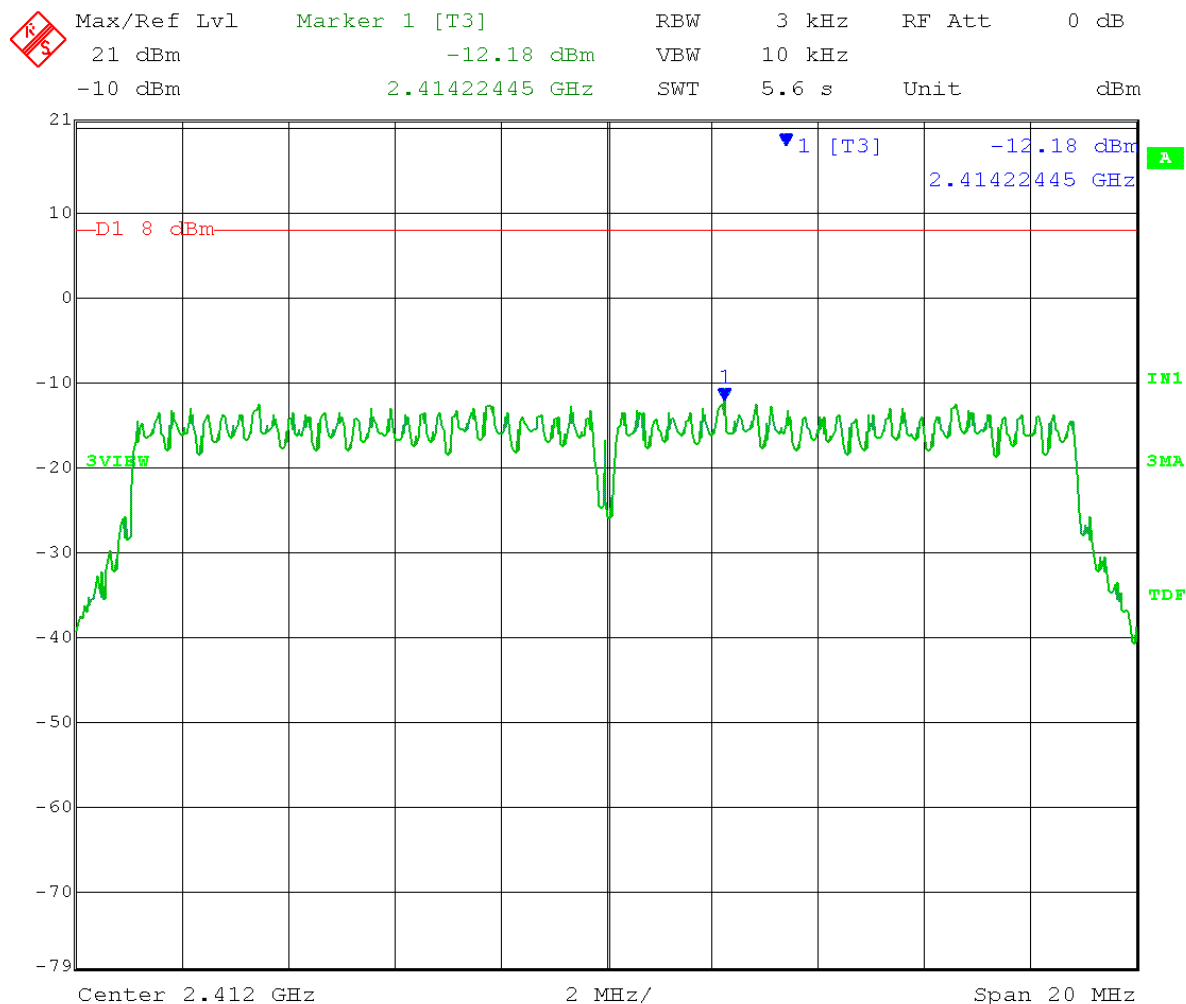


166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-14-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Power Spectral Density - Conducted
Operator: Jim O
Comment: Low Channel: Frequency = 2.412 GHz
Output power setting: 18
802.11n MC7S 20MHz
RBW = 3 kHz
VBW = 10 kHz
Detector = Peak
Sweep = auto couple
Trace = max hold
Limit: 8 dBm

Power Level in 3 kHz bandwidth = -12.18dBm



Date: 14.JAN.2013 13:11:16

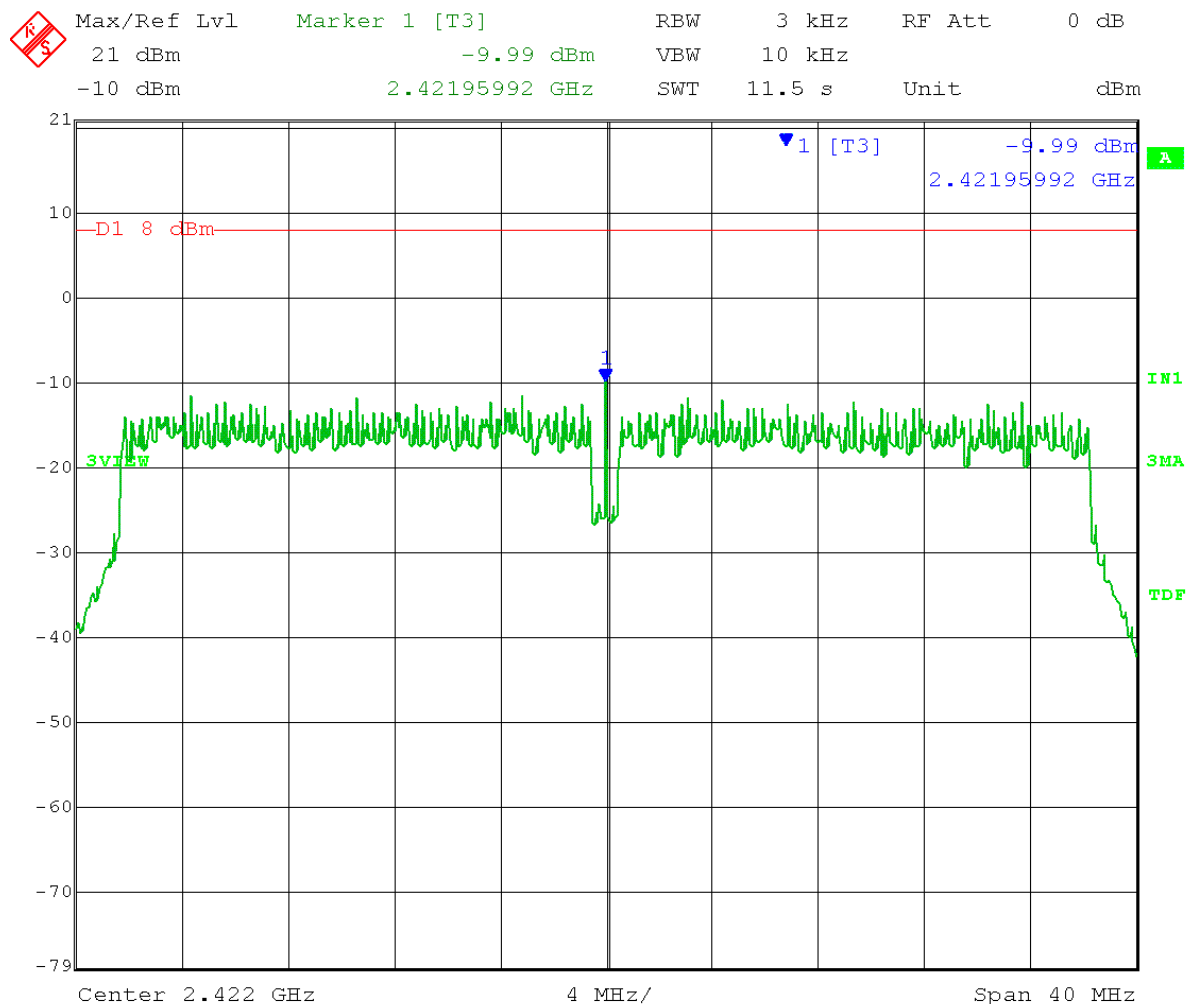


166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-14-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Maximum Peak Power Spectral Density - Conducted
Operator: Jim O
Comment: Low Channel: Frequency = 2.422 GHz
Output power setting: 18
802.11n MC7S 40MHz
RBW = 3 kHz
VBW = 10 kHz
Detector = Peak
Sweep = auto couple
Trace = max hold
Limit: 8 dBm

Power Level in 3 kHz bandwidth = -9.99dBm



Date: 14.JAN.2013 13:17:03

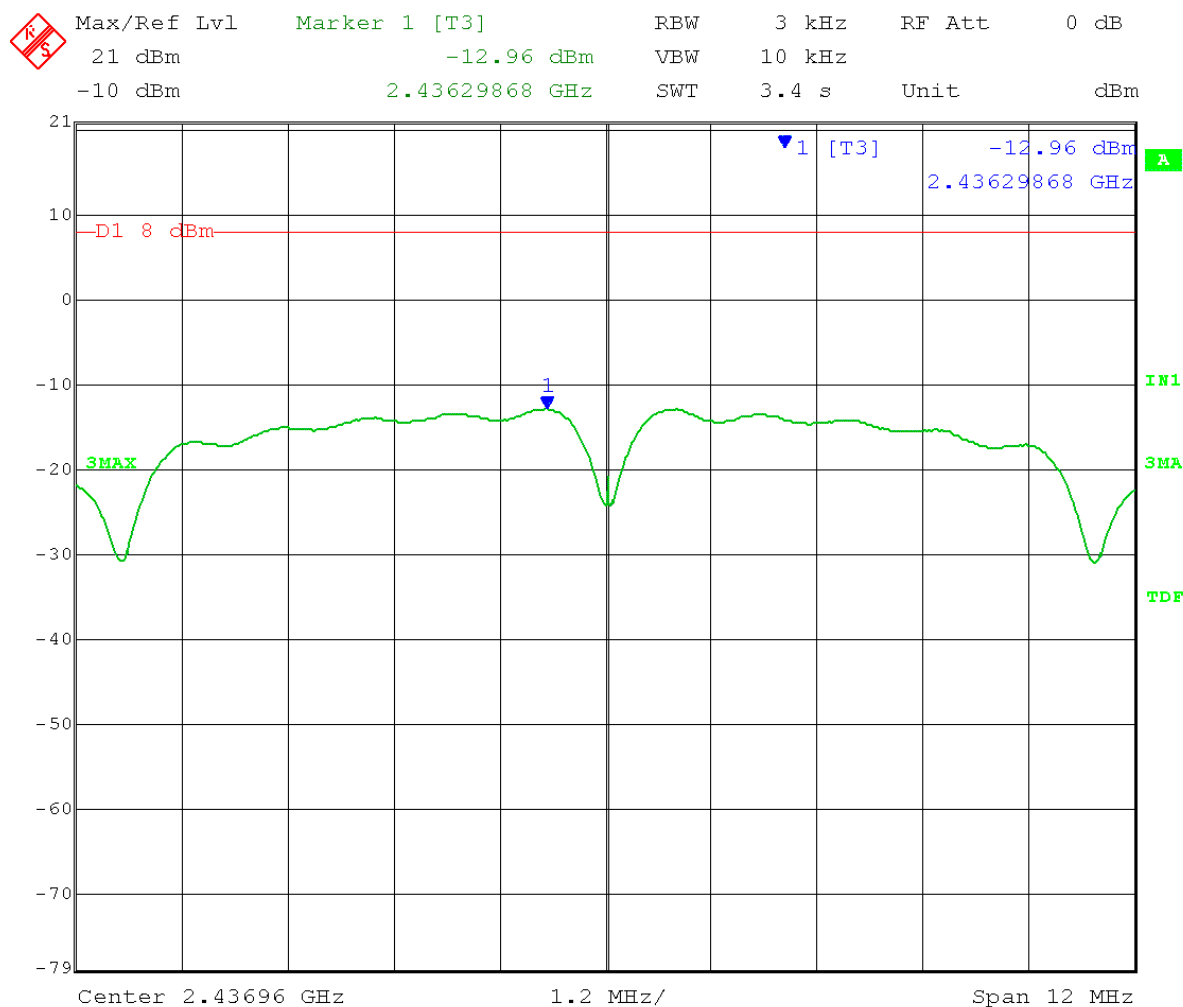


166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-14-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Maximum Peak Power Spectral Density - Conducted
Operator: Jim O
Comment: Mid Channel: Frequency = 2.437 GHz
Output power setting: 19
802.11b DSSS 1Mbps
RBW = 3 kHz
VBW = 10 kHz
Detector = Peak
Sweep = auto couple
Trace = max hold
Limit: +8 dBm

Power Level in 3 kHz bandwidth = -12.96dBm



Date: 14.JAN.2013 13:33:16

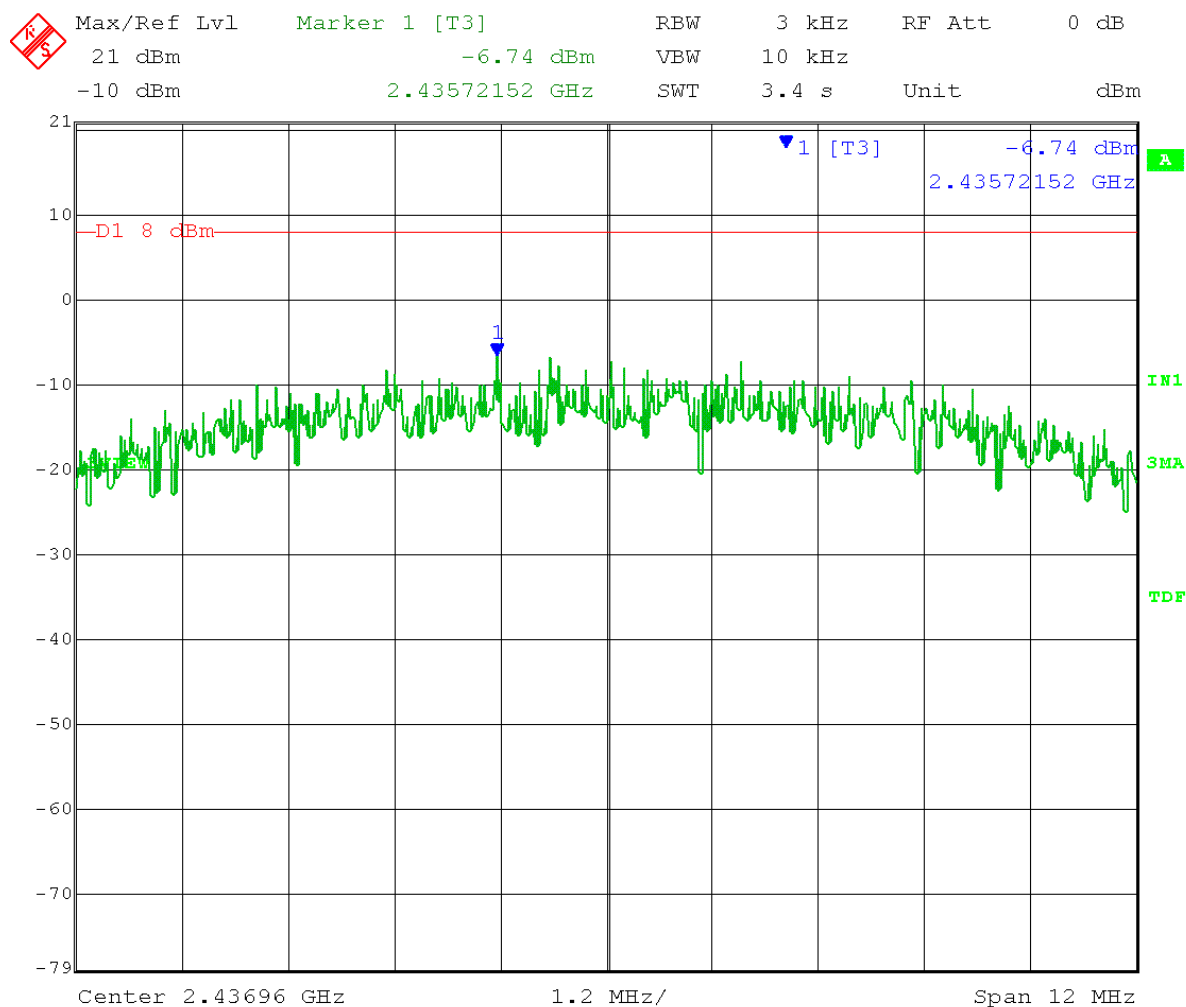


166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-14-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Maximum Peak Power Spectral Density - Conducted
Operator: Jim O
Comment: Mid Channel: Frequency = 2.437 GHz
Output power setting: 19
802.11b CCK 5.5Mbps
RBW = 3 kHz
VBW = 10 kHz
Detector = Peak
Sweep = auto couple
Trace = max hold
Limit: +8 dBm

Power Level in 3 kHz bandwidth = -6.74dBm



Date: 14.JAN.2013 13:35:56



166 South Carter, Genoa City, WI 53128

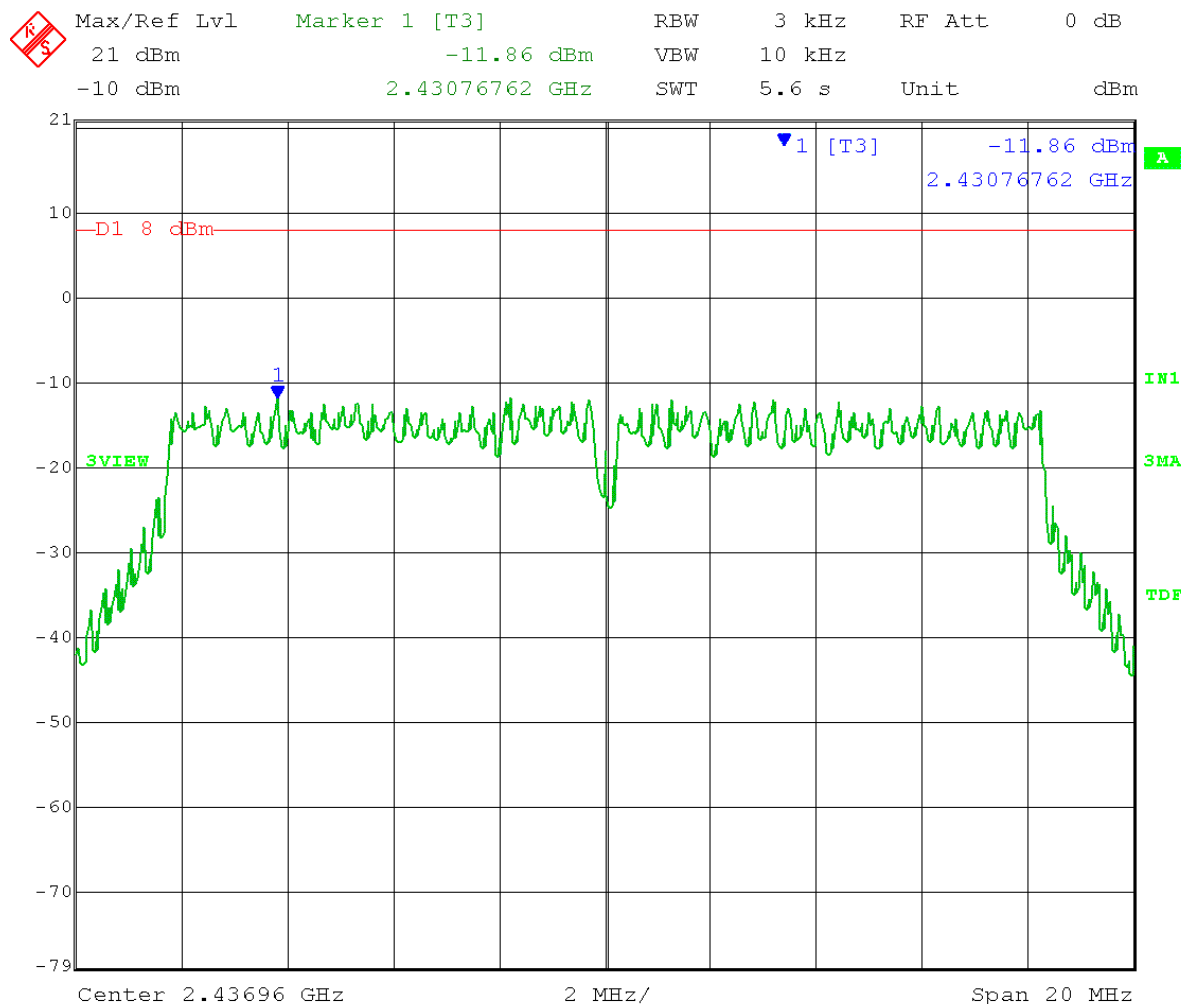
Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
XPWP and XPWC
18708
5163

Test Date: 01-14-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Maximum Peak Power Spectral Density - Conducted
Operator: Jim O
Comment: Mid Channel: Frequency = 2.437 GHz

Output power setting: 18
802.11g OFDM 54Mbps
RBW = 3 kHz
VBW = 10 kHz
Detector = Peak
Sweep = auto couple
Trace = max hold
Limit: +8 dBm

Power Level in 3 kHz bandwidth = -11.86dBm



Date: 14.JAN.2013 13:39:16

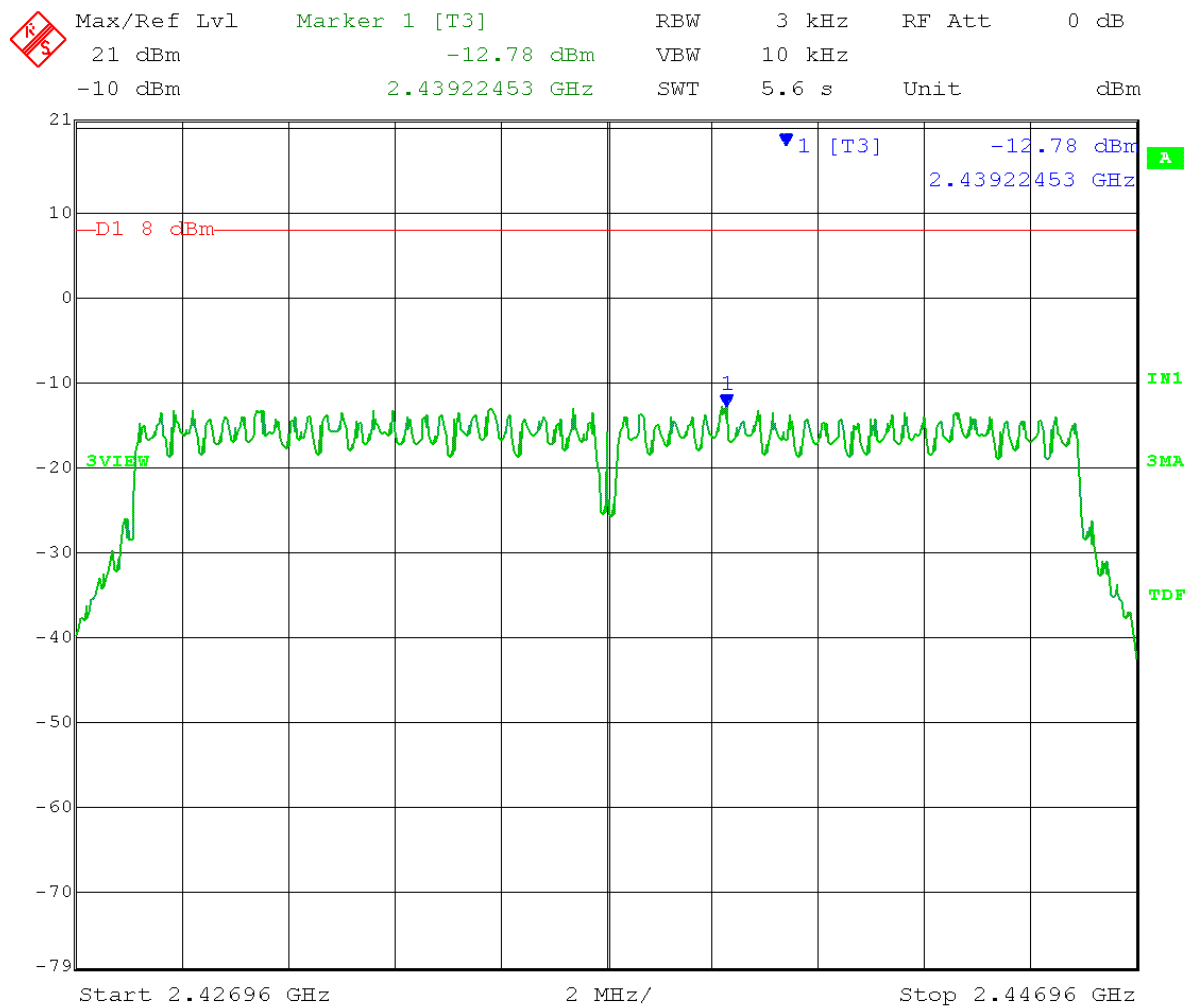


166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-14-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Maximum Peak Power Spectral Density - Conducted
Operator: Jim O
Comment: Mid Channel: Frequency = 2.437 GHz
Output power setting: 18
802.11n MC7S 20MHz
RBW = 3 kHz
VBW = 10 kHz
Detector = Peak
Sweep = auto couple
Trace = max hold
Limit: +8 dBm

Power Level in 3 kHz bandwidth = -12.78dBm



Date: 14.JAN.2013 13:43:22



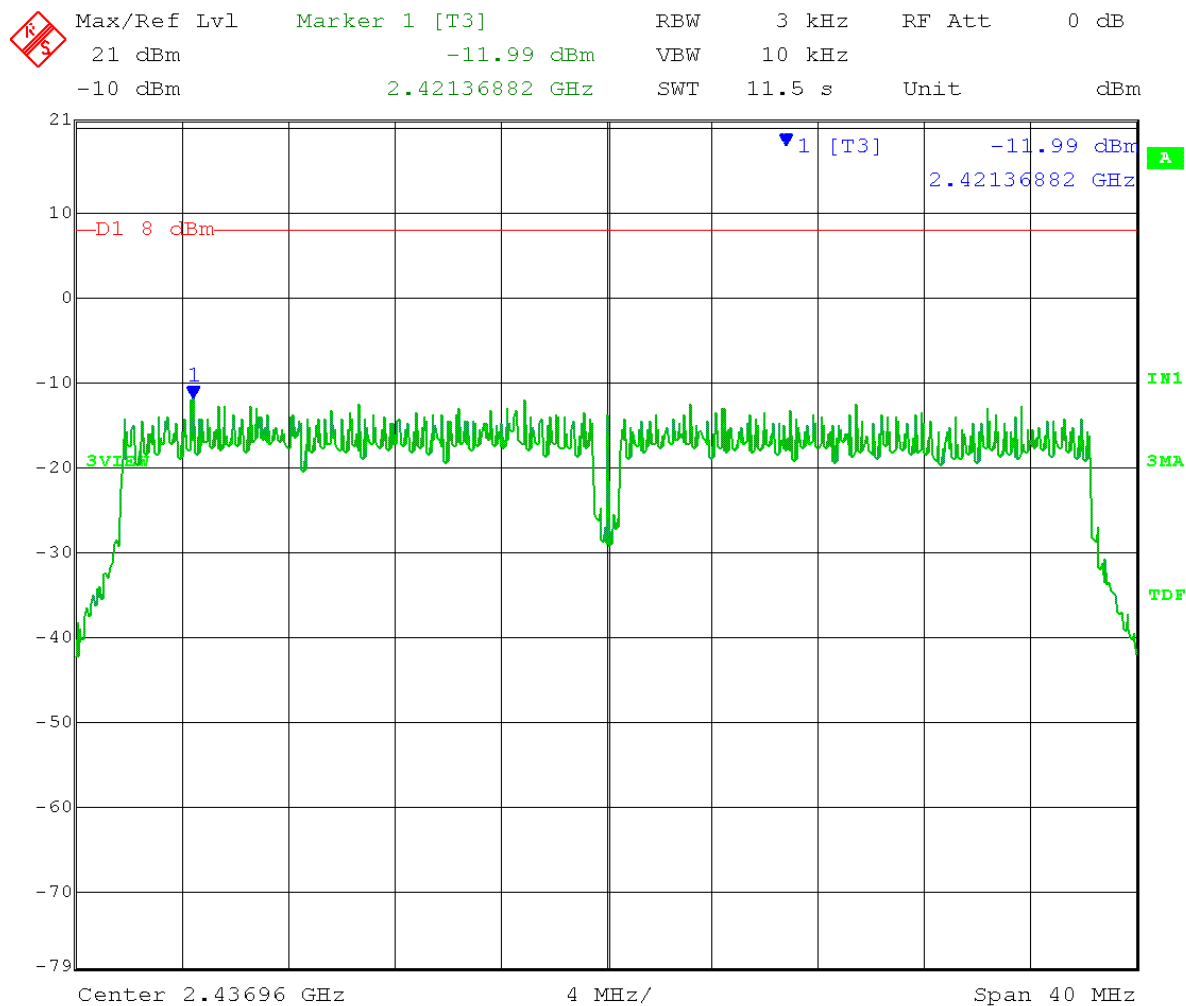
166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-14-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Maximum Peak Power Spectral Density - Conducted
Operator: Jim O
Comment: Mid Channel: Frequency = 2.437 GHz

Output power setting: 18
802.11n MC7S 40MHz
RBW = 3 kHz
VBW = 10 kHz
Detector = Peak
Sweep = auto couple
Trace = max hold
Limit: +8dBm

Power Level in 3 kHz bandwidth = -11.99dBm



Date: 14.JAN.2013 13:47:10



Test Date: 01-14-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Maximum Peak Power Spectral Density - Conducted
Operator: Jim O
Comment: High Channel: Frequency = 2.462 GHz
Output power setting: 19
802.11b DSSS 1Mbps
RBW = 3 kHz
VBW = 10 kHz
Detector = Peak
Sweep = auto couple
Trace = max hold
Limit: +8 dBm

Power Level in 3 kHz bandwidth = -12.98dBm



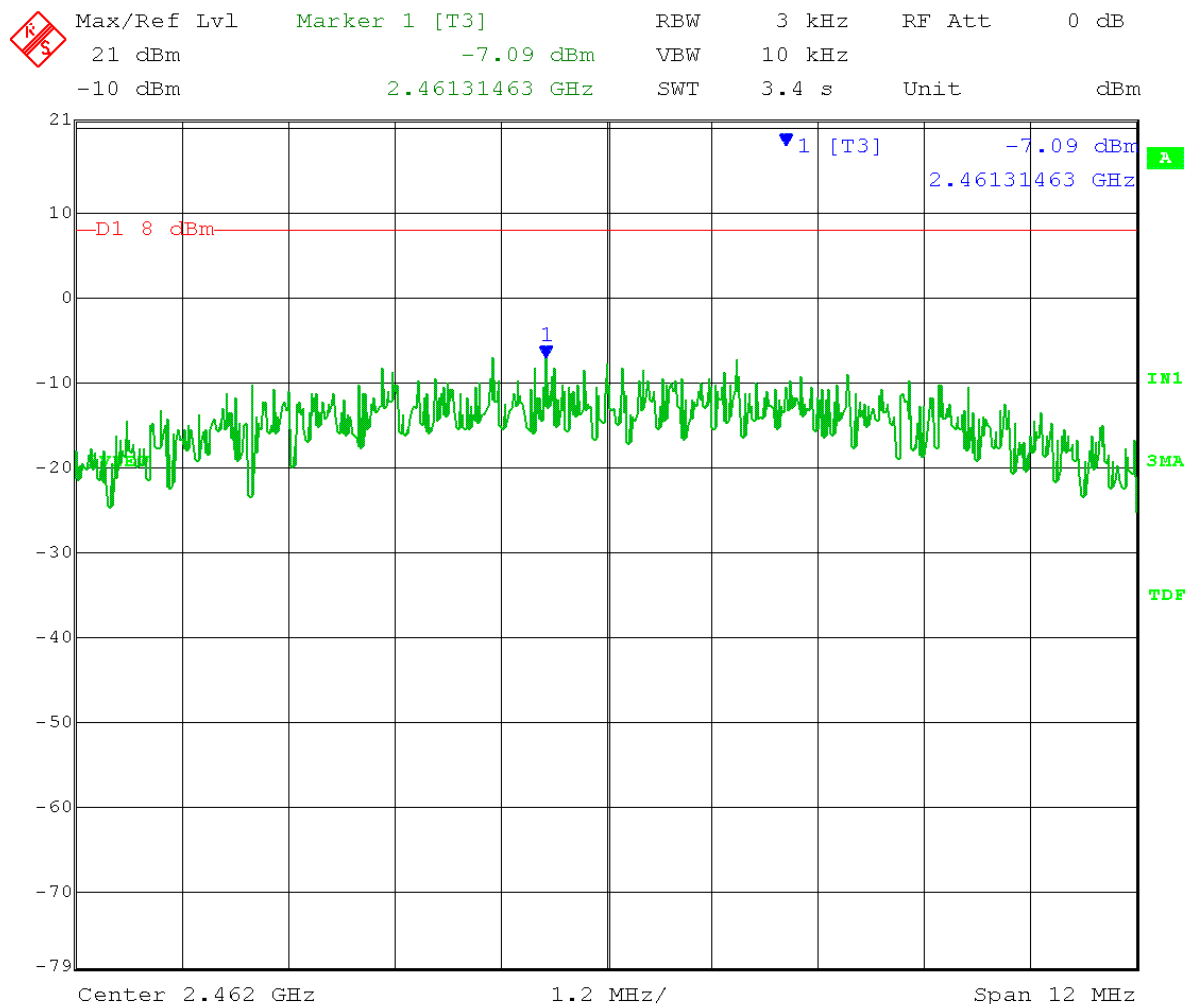


166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-14-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Maximum Peak Power Spectral Density - Conducted
Operator: Jim O
Comment: High Channel: Frequency = 2.462 GHz
Output power setting: 19
802.11b CCK 5.5Mbps
RBW = 3 kHz
VBW = 10 kHz
Detector = Peak
Sweep = auto couple
Trace = max hold
Limit: +8 dBm

Power Level in 3 kHz bandwidth = -7.09dBm



Date: 14.JAN.2013 13:53:52

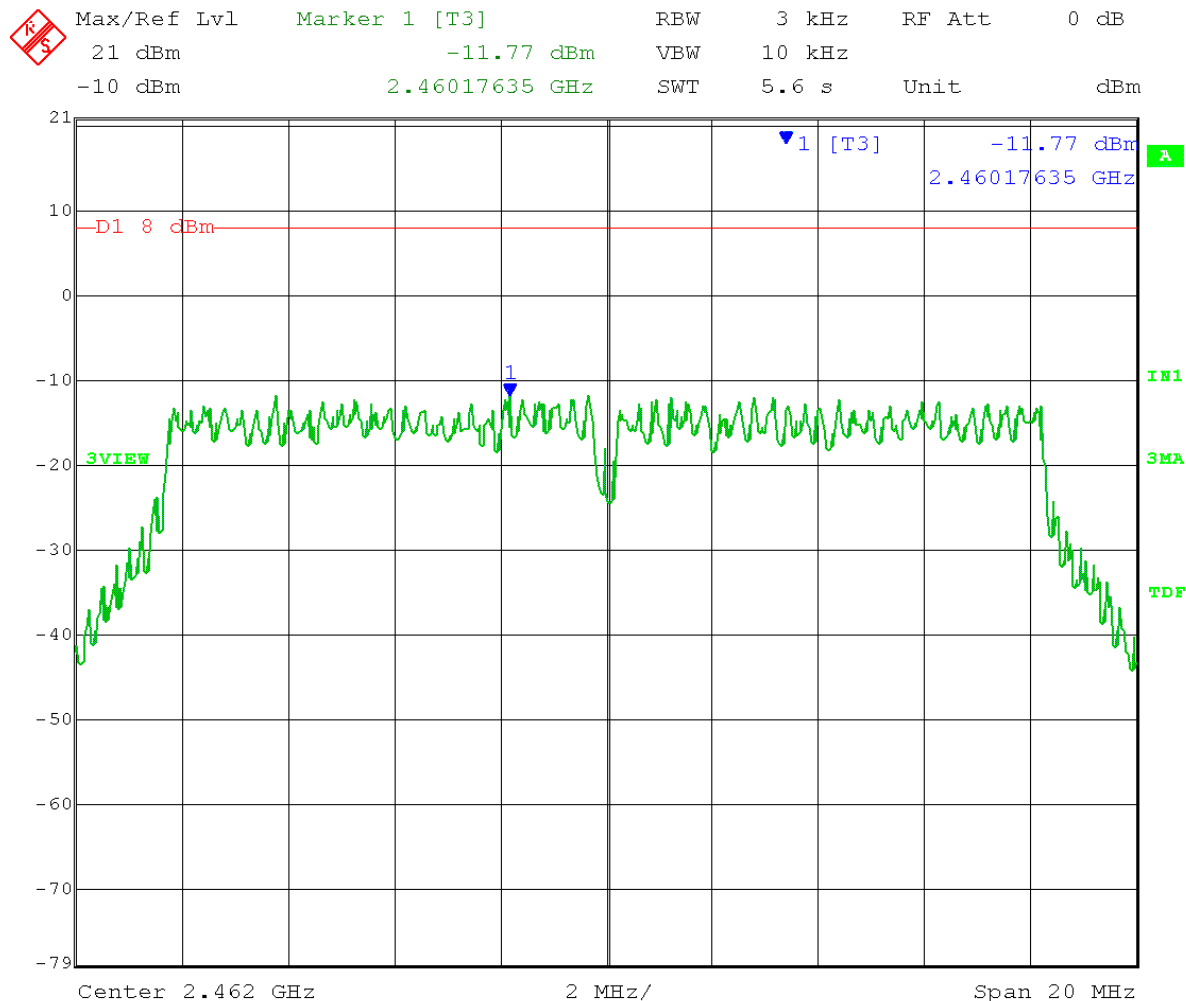


166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-14-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Maximum Peak Power Spectral Density - Conducted
Operator: Jim O
Comment: High Channel: Frequency = 2.462 GHz
Output power setting: 19
802.11g OFDM 54Mbps
RBW = 3 kHz
VBW = 10 kHz
Detector = Peak
Sweep = auto couple
Trace = max hold
Limit: +8 dBm

Power Level in 3 kHz bandwidth = -11.77dBm



Date: 14.JAN.2013 13:57:08

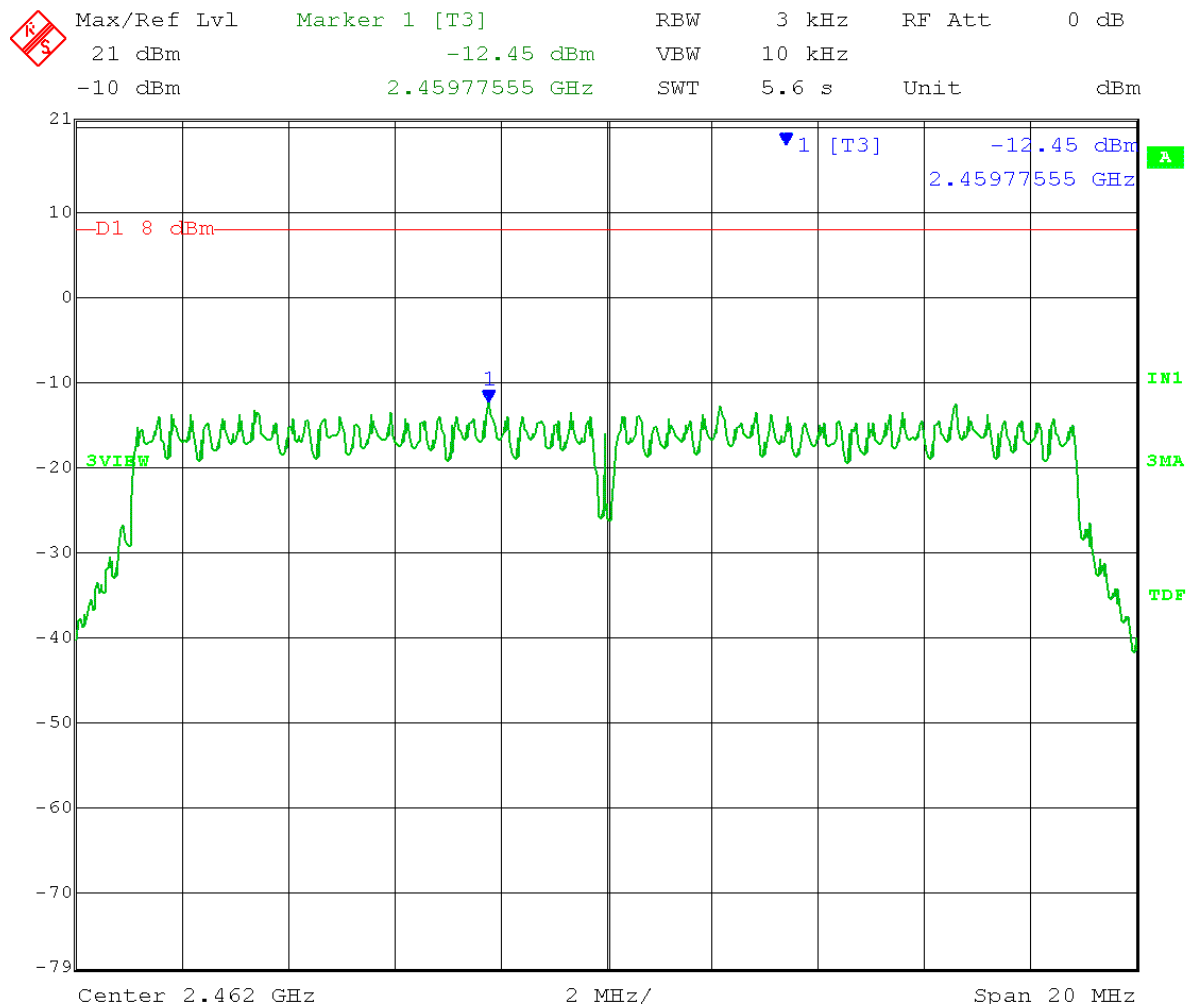


166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-14-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Maximum Peak Power Spectral Density - Conducted
Operator: Jim O
Comment: High Channel: Frequency = 2.462 GHz
Output power setting: 18
802.11n MC7S 20MHz
RBW = 3 kHz
VBW = 10 kHz
Detector = Peak
Sweep = auto couple
Trace = max hold
Limit: +8 dBm

Power Level in 3 kHz bandwidth = -12.45dBm



Date: 14.JAN.2013 14:00:08



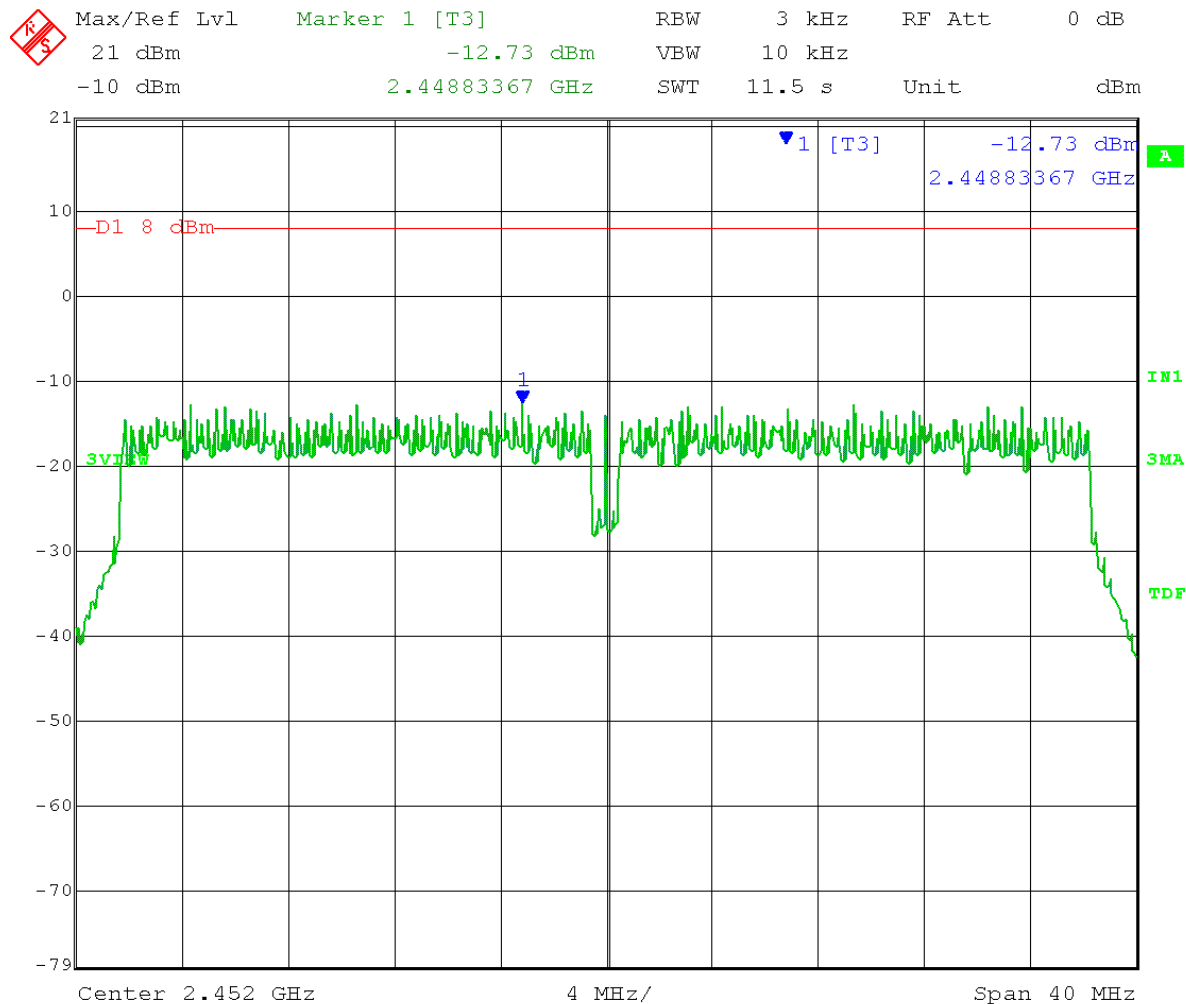
166 South Carter, Genoa City, WI 53128

Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
XPWP and XPWC
18708
5163

Test Date: 01-14-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor w/antenna connectors on PCB (on J1 – J2 terminated)
Test: Maximum Peak Power Spectral Density - Conducted
Operator: Jim O
Comment: High Channel: Frequency = 2.452 GHz
Output power setting: 18
802.11n MC7S 40MHz
RBW = 3 kHz
VBW = 10 kHz
Detector = Peak
Sweep = auto couple
Trace = max hold
Limit: +8 dBm

Power Level in 3 kHz bandwidth = -12.73dBm



Date: 14.JAN.2013 14:03:08



166 South Carter, Genoa City, WI 53128

Company:	Whirlpool Corporation
Model Tested:	XPWP and XPWC
Report Number:	18708
DLS Project:	5163

Appendix B

4.0 Maximum Unwanted Emission Levels - RF Conducted

Rule Part:

15.247(d)

Test Procedure:

558074 D01 DTS Meas Guidance v02
10.0 Maximum Unwanted Emission Levels
10.1 Unwanted Emissions into Non-Restricted Frequency Bands
10.1.1 Reference Level Measurement
10.1.2 Unwanted Emissions Level Measurement

Limit:

The peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level.

Results:

Compliant

Notes:

This was an RF conducted measurement. The EUT was connected to the measuring equipment through a "Fakra" (snap-on connector) allowing cable to PCBRD interface mount for RF conducted measurements. Cable loss and attenuation was accounted for in the transducer factors set in the analyzer.

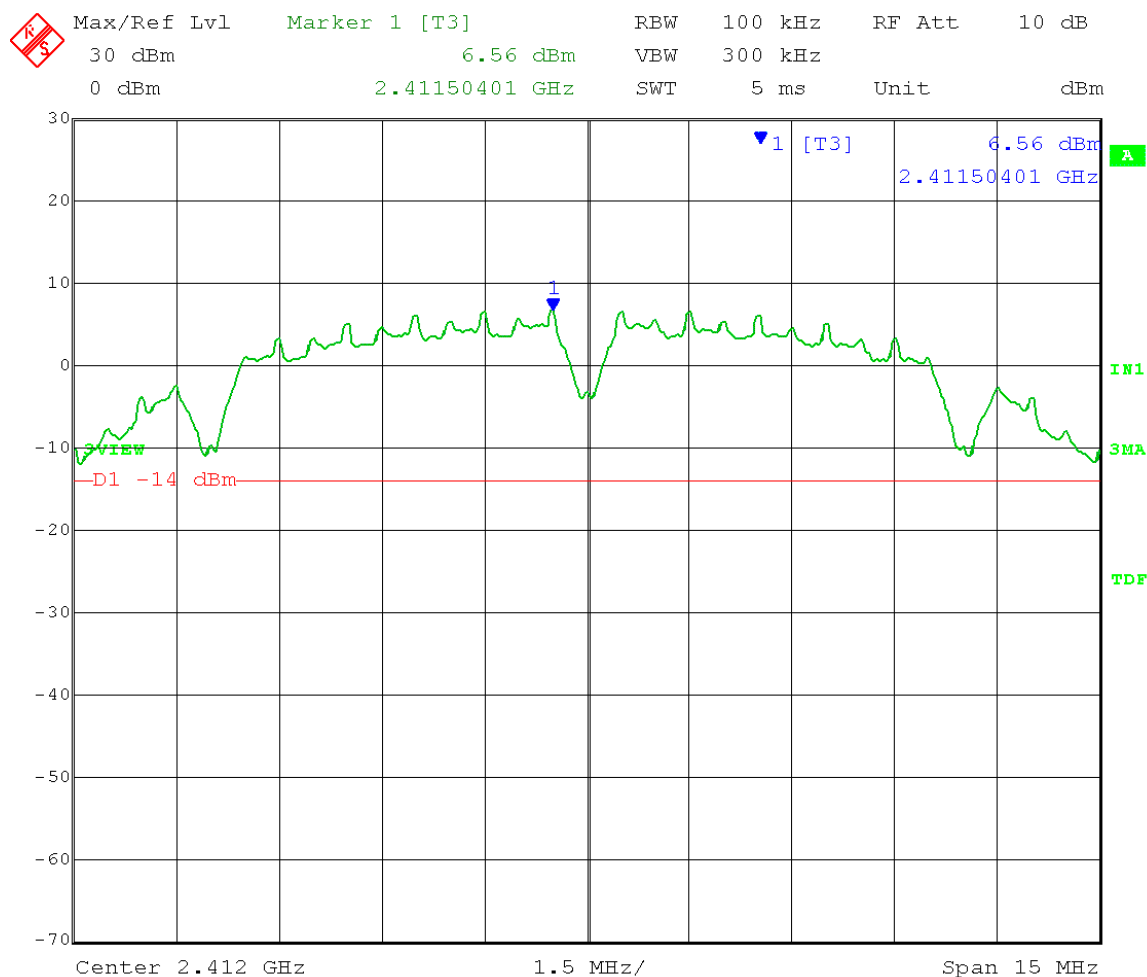
The EUT was powered through a cable that was connected to the battery supply of 9.6 VDC. The EUT was set to transmit continuously at its maximum power, in the DSSS modulation mode and J1 port (determined worst case) on the low, middle, and high channels of the operating band.



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-13
Company: Whirlpool
EUT: Wi-Fi Processor/Core
Test: Maximum Unwanted Emission Levels - Conducted
Operator: Jim O
Comment: RBW = 100 kHz VBW $\geq$ 300 kHz
Detector = Peak Sweep = auto couple
Trace = max hold Low Channel Transmit = 2.412GHz
Output power setting 19
J1 Output
Reference Level measurement
Limit = 6.56 dBm - 20 dB = -13.44 dBm



Date: 10.JAN.2013 13:18:25



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-13
Company: Whirlpool
EUT: Wi-Fi Processor/Core
Test: Maximum Unwanted Emission Levels - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

VBW $\geq$ 300 kHz

Detector = Peak

Sweep = auto couple

Trace = max hold

Low Channel Transmit = 2.412GHz

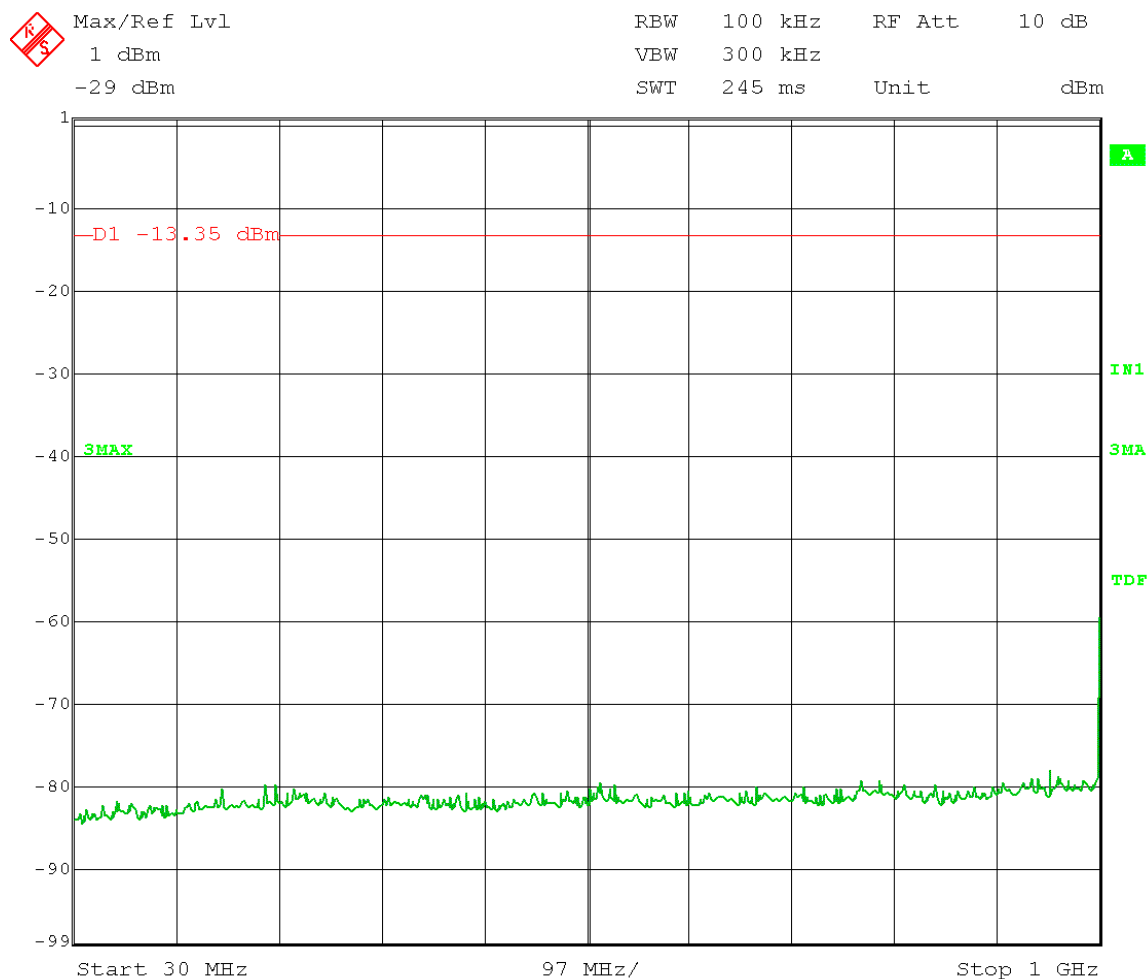
Output power setting 19

802.11b DSSS 1Mbps

J1 Output

Frequency Range: 30 – 1000 MHz

Limit = 6.56 dBm – 20 dB = -13.44 dBm



Date: 10.JAN.2013 14:22:19



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-13
Company: Whirlpool
EUT: Wi-Fi Processor/Core
Test: Maximum Unwanted Emission Levels - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

VBW $\geq$ 300 kHz

Detector = Peak

Sweep = auto couple

Trace = max hold

Low Channel Transmit = 2.412GHz

Output power setting 19

J1 Output

Frequency Range: 1 – 10 GHz

Limit = 6.56 dBm – 20 dB = -13.44 dBm



Date: 10.JAN.2013 13:23:17



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-13
Company: Whirlpool
EUT: Wi-Fi Processor/Core
Test: Maximum Unwanted Emission Levels - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

VBW $\geq$ 300 kHz

Detector = Peak

Sweep = auto couple

Trace = max hold

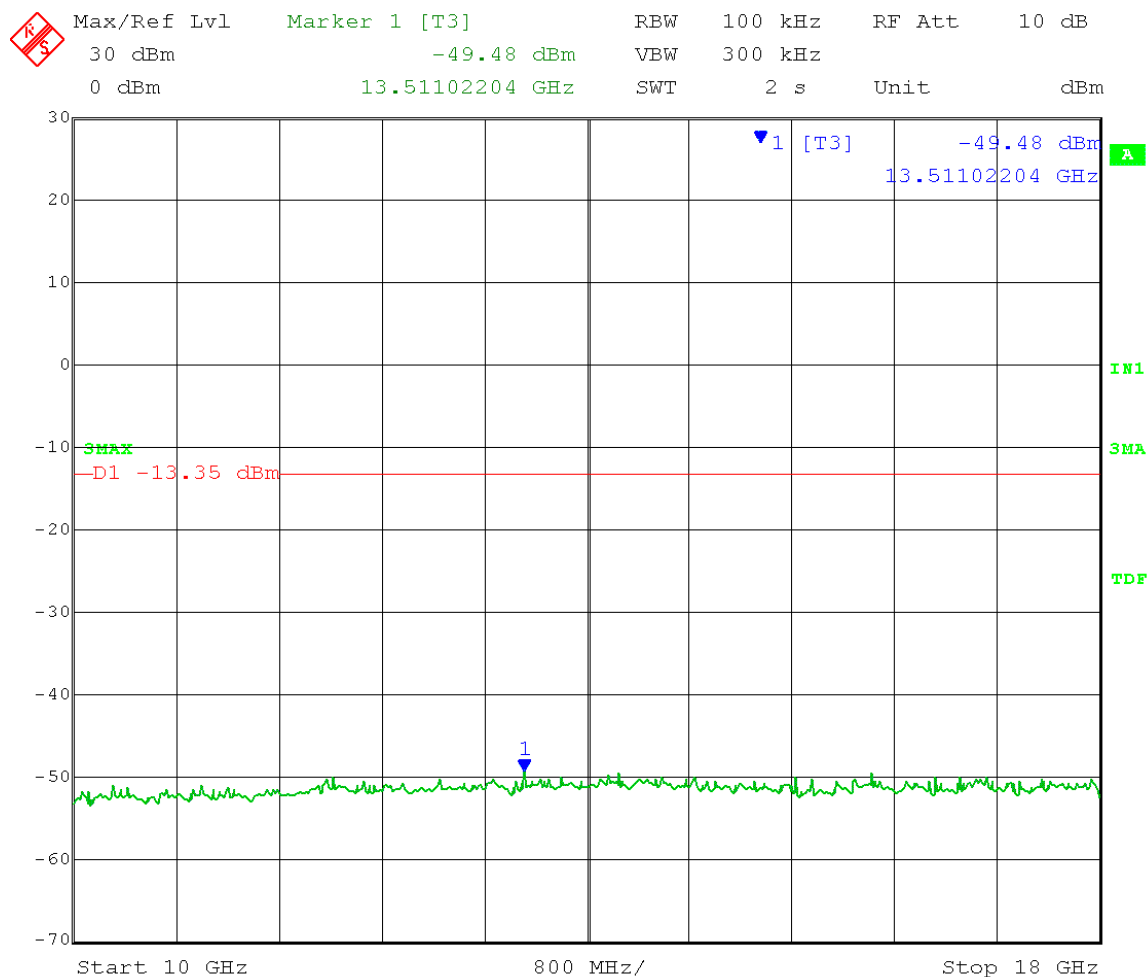
Low Channel Transmit = 2.412GHz

Output power setting 19

J2 Output

Frequency Range: 10-18GHz

Limit = 6.56 dBm - 20 dB = -13.44 dBm



Date: 10.JAN.2013 13:36:55



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-13
Company: Whirlpool
EUT: Wi-Fi Processor/Core
Test: Maximum Unwanted Emission Levels - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

VBW $\geq$ 300 kHz

Detector = Peak

Sweep = auto couple

Trace = max hold

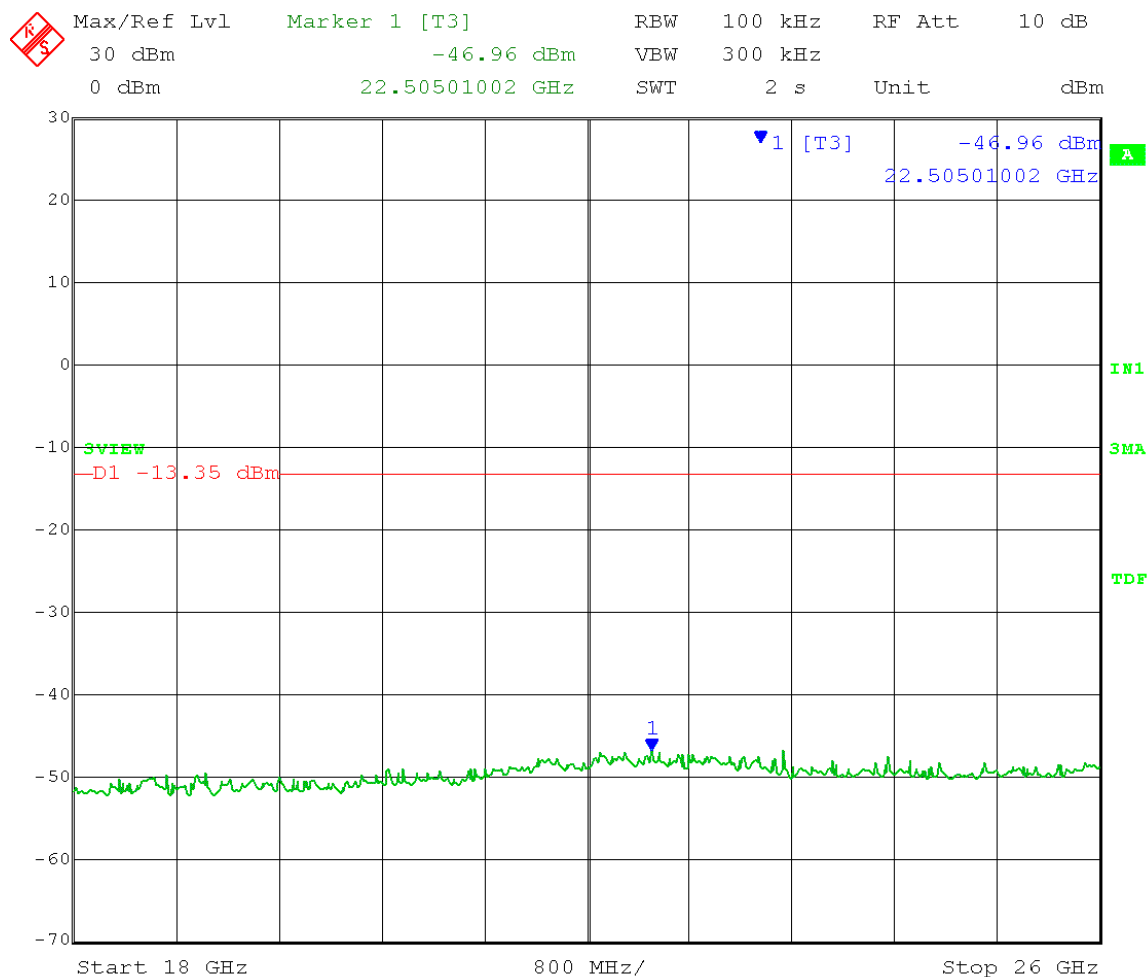
Low Channel Transmit = 2.412GHz

Output power setting 19

J1 Output

Frequency Range: 18-26GHz

Limit = 6.56 dBm - 20 dB = -13.44 dBm



Date: 10.JAN.2013 13:39:54



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-2013
Company: Whirlpool
EUT: Wi-Fi Core/Processor
Test: Maximum Unwanted Emission Levels - Conducted

Operator: Jim O

Comment: RBW = 100 kHz VBW $\geq$ 300 kHz

Span = 5-30% greater than EBW

Detector = Peak

Sweep = auto couple

Trace = max hold

Mid Channel: Transmit = 2.437 GHz

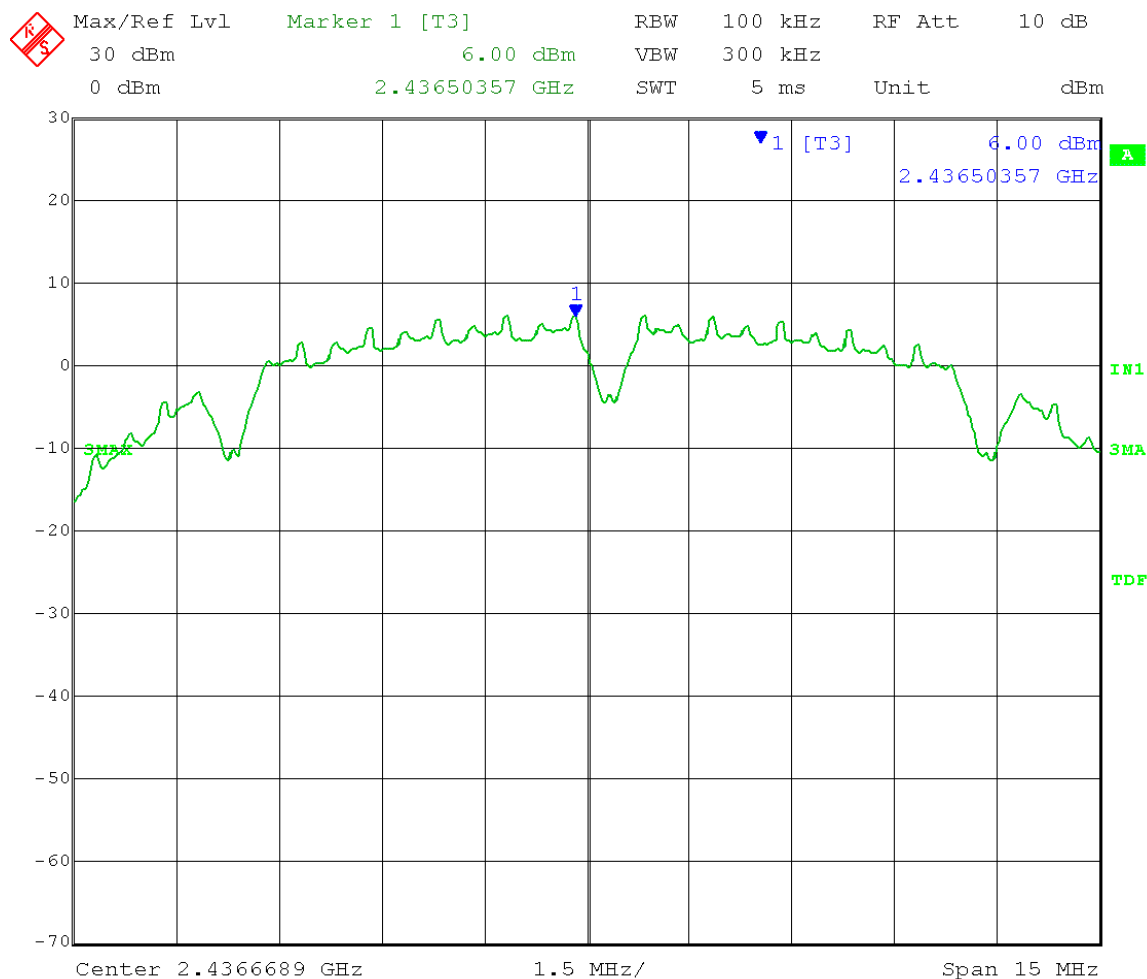
Output power setting: 19

802.11b DSSS 1 Mbps

Output port J1

Reference Level measurement

Limit = 6.0 dBm - 20 dB = -14.0 dBm



Date: 10.JAN.2013 12:54:40



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-13
Company: Whirlpool
EUT: Wi-Fi Processor/Core
Test: Maximum Unwanted Emission Levels - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

VBW $\geq$ 300 kHz

Detector = Peak

Sweep = auto couple

Trace = max hold

Mid Channel: Transmit = 2.437 GHz

802.11b DSSS 1Mbps

Output power setting 19

J1 Output

Frequency Range: 30M-1 GHz

Limit = 6.0 dBm - 20 dB = -14.0 dBm



Max/Ref Lvl

1 dBm

-29 dBm

RBW 100 kHz

VBW 300 kHz

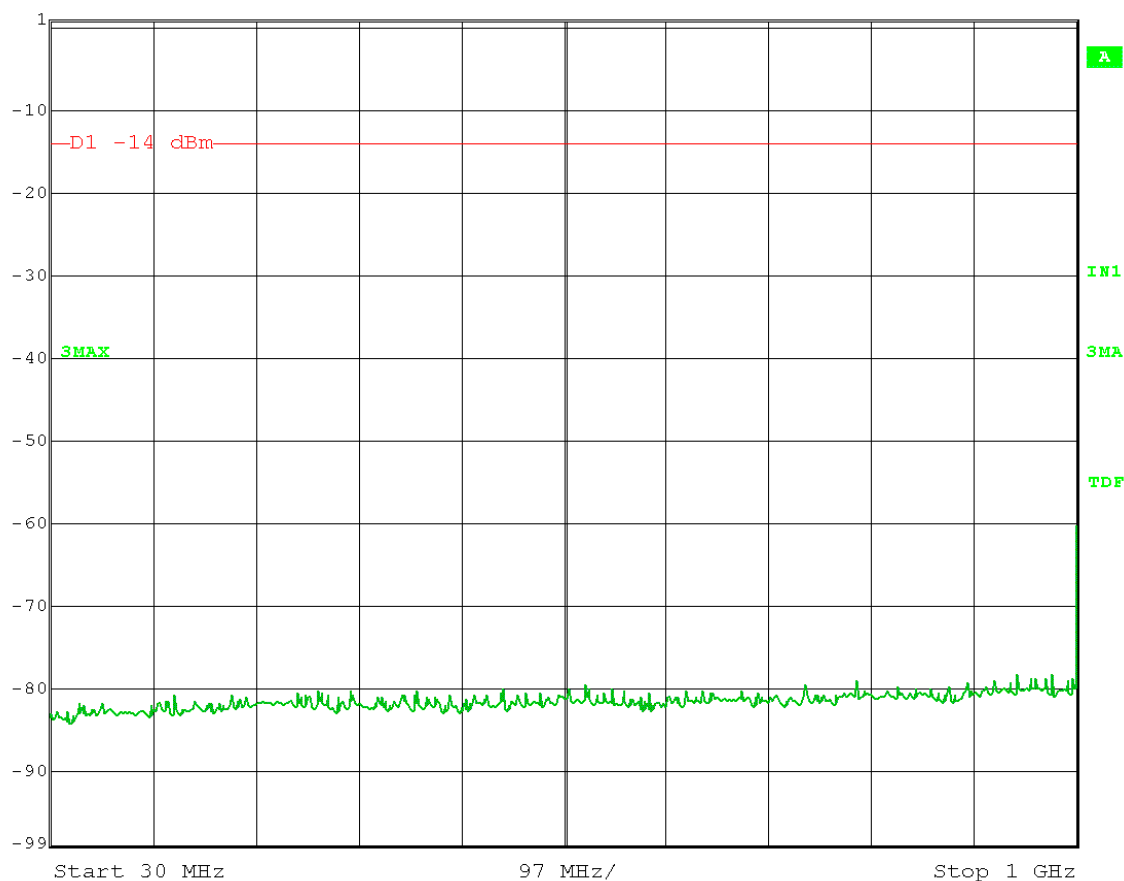
SWT 245 ms

RF Att

10 dB

Unit

dBm



Date: 10.JAN.2013 14:20:48



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-13
Company: Whirlpool
EUT: Wi-Fi Processor/Core
Test: Maximum Unwanted Emission Levels - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

VBW $\geq$ 300 kHz

Detector = Peak

Sweep = auto couple

Trace = max hold

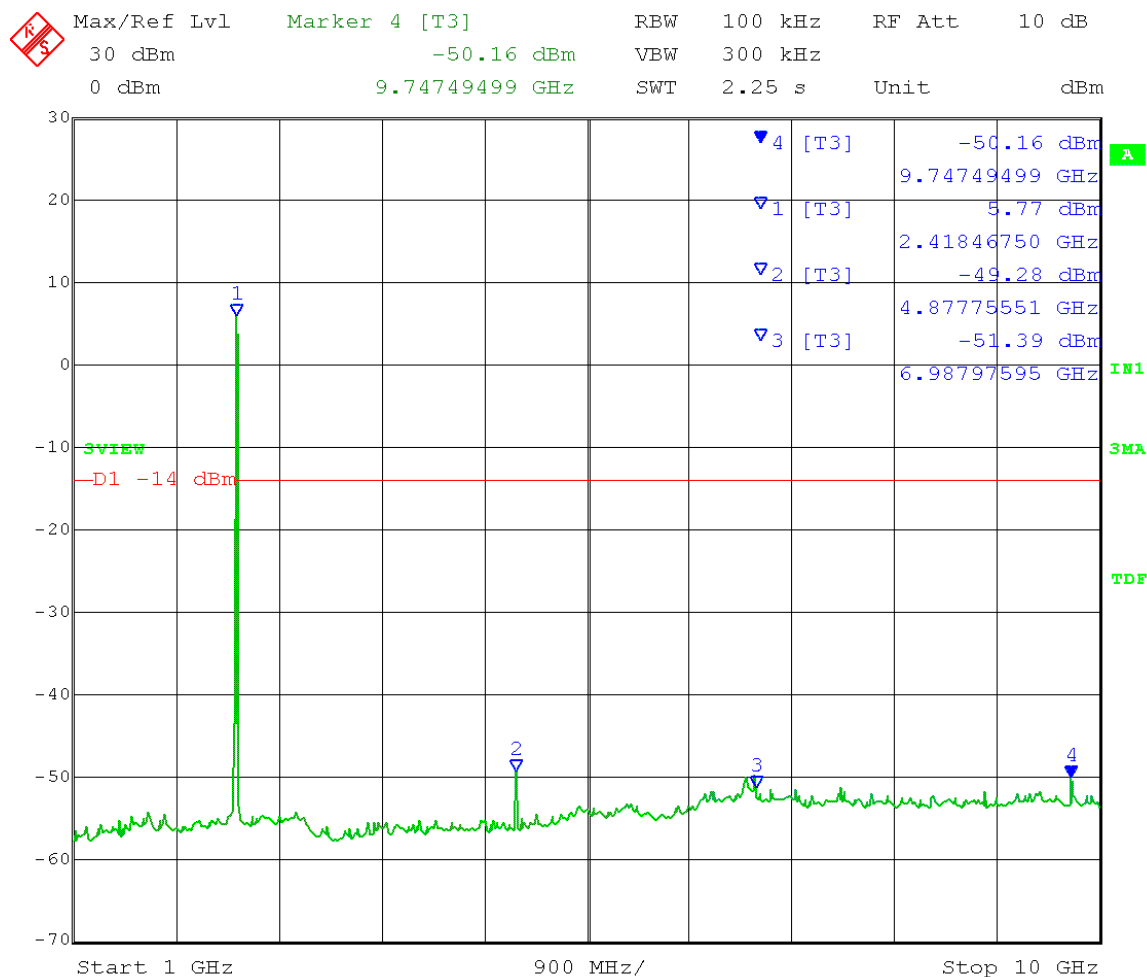
Mid Channel: Transmit = 2.437 GHz

Output power setting 19

J1Output

Frequency Range: 1 – 10 GHz

Limit = 6.0 dBm – 20 dB = -14.0 dBm



Date: 10.JAN.2013 13:04:50



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-13
Company: Whirlpool
EUT: Wi-Fi Processor/Core
Test: Maximum Unwanted Emission Levels - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

VBW $\geq$ 300 kHz

Detector = Peak

Sweep = auto couple

Trace = max hold

Mid Channel: Transmit = 2.437 GHz

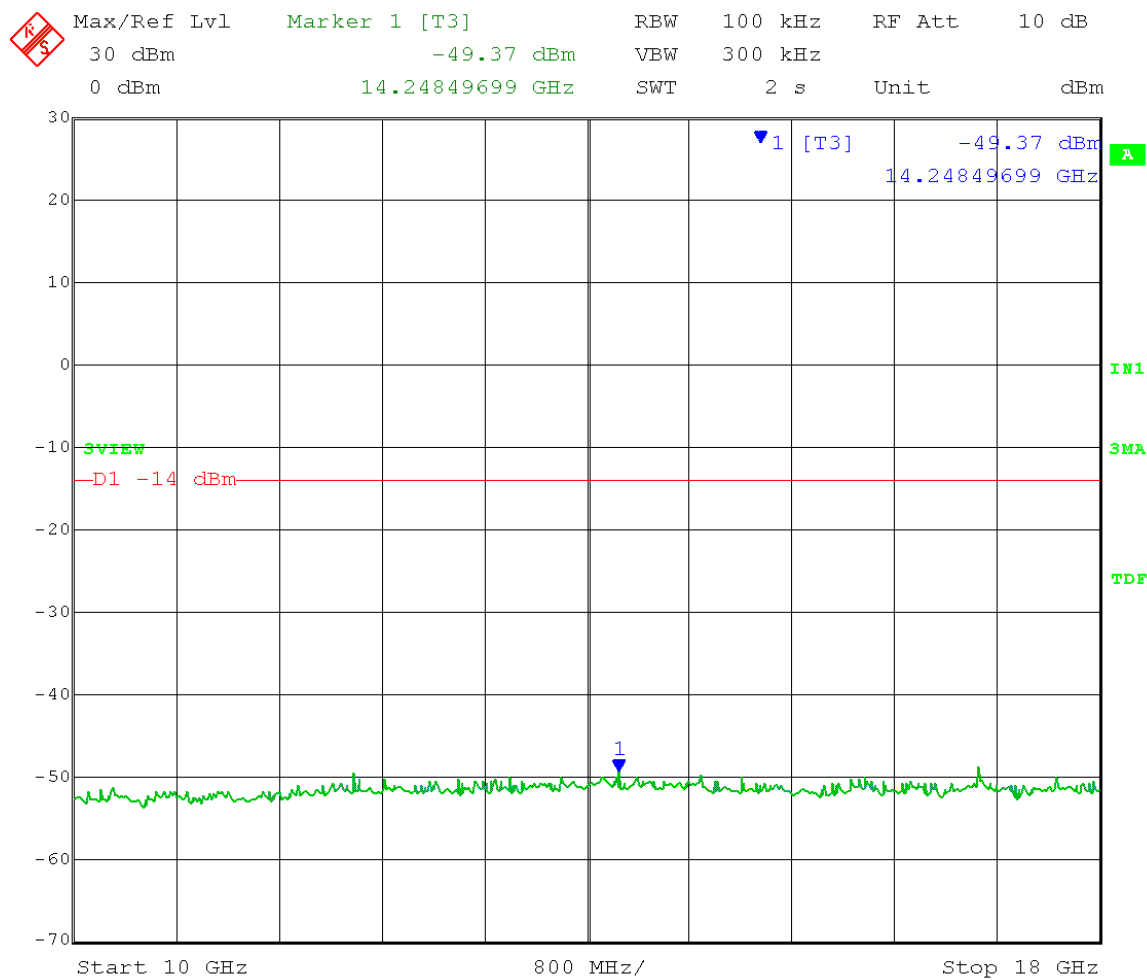
802.11b DSSS 1Mbps

Output power setting 19

J1 Output

Frequency Range: 10-18GHz

Limit = 6.0 dBm – 20 dB = -14.0 dBm



Date: 10.JAN.2013 13:10:20



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-13
Company: Whirlpool
EUT: Wi-Fi Processor/Core
Test: Maximum Unwanted Emission Levels - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

VBW $\geq$ 300 kHz

Detector = Peak

Sweep = auto couple

Trace = max hold

Mid Channel: Transmit = 2.437 GHz

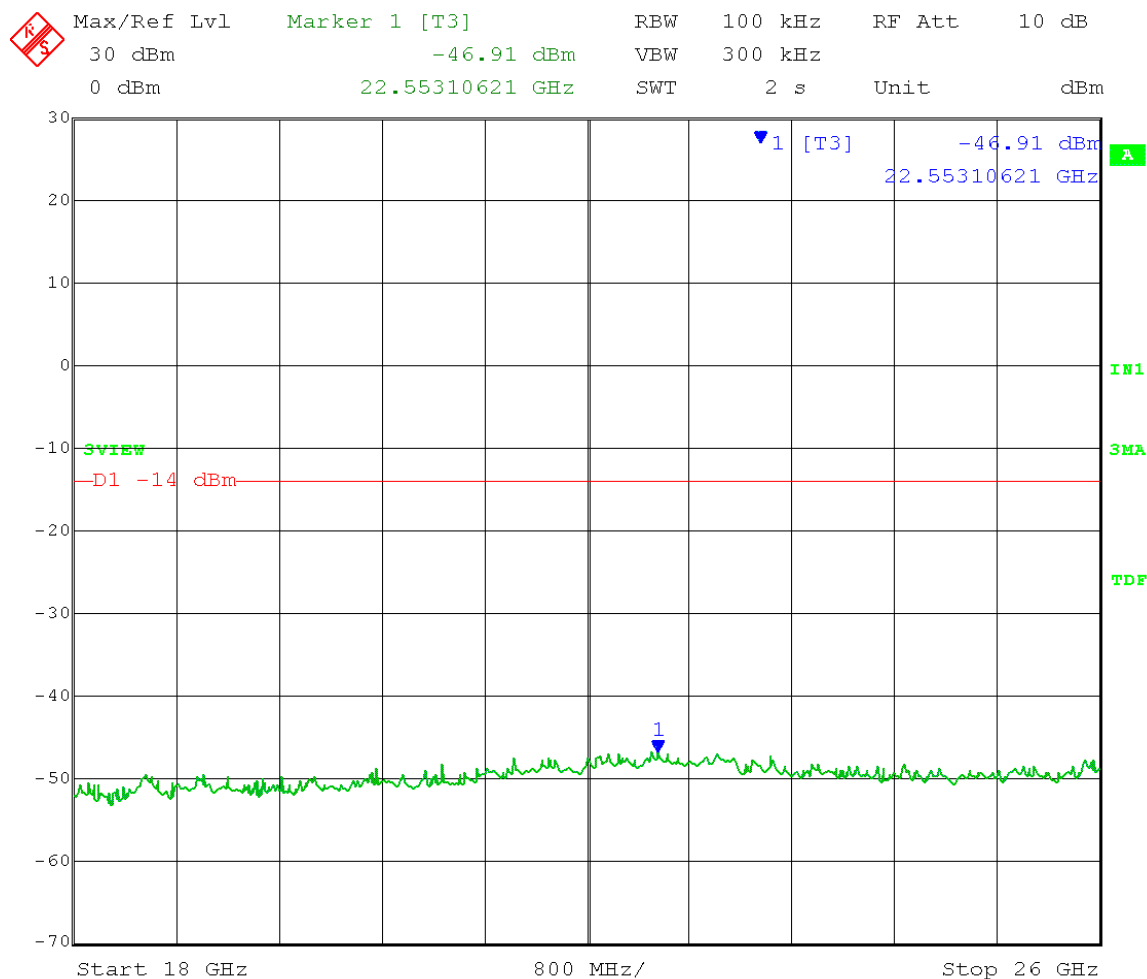
Output power setting 19

802.11b DSSS 1Mbps

J1 Output

Frequency Range: 18-26GHz

Limit = 6.0 dBm - 20 dB = -14.0 dBm



Date: 10.JAN.2013 13:13:37



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-13
Company: Whirlpool
EUT: Wi-Fi Processor/Core
Test: Maximum Unwanted Emission Levels - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

VBW $\geq$ 300 kHz

Detector = Peak

Sweep = auto couple

Trace = max hold

High Channel: Transmit = 2.462 GHz

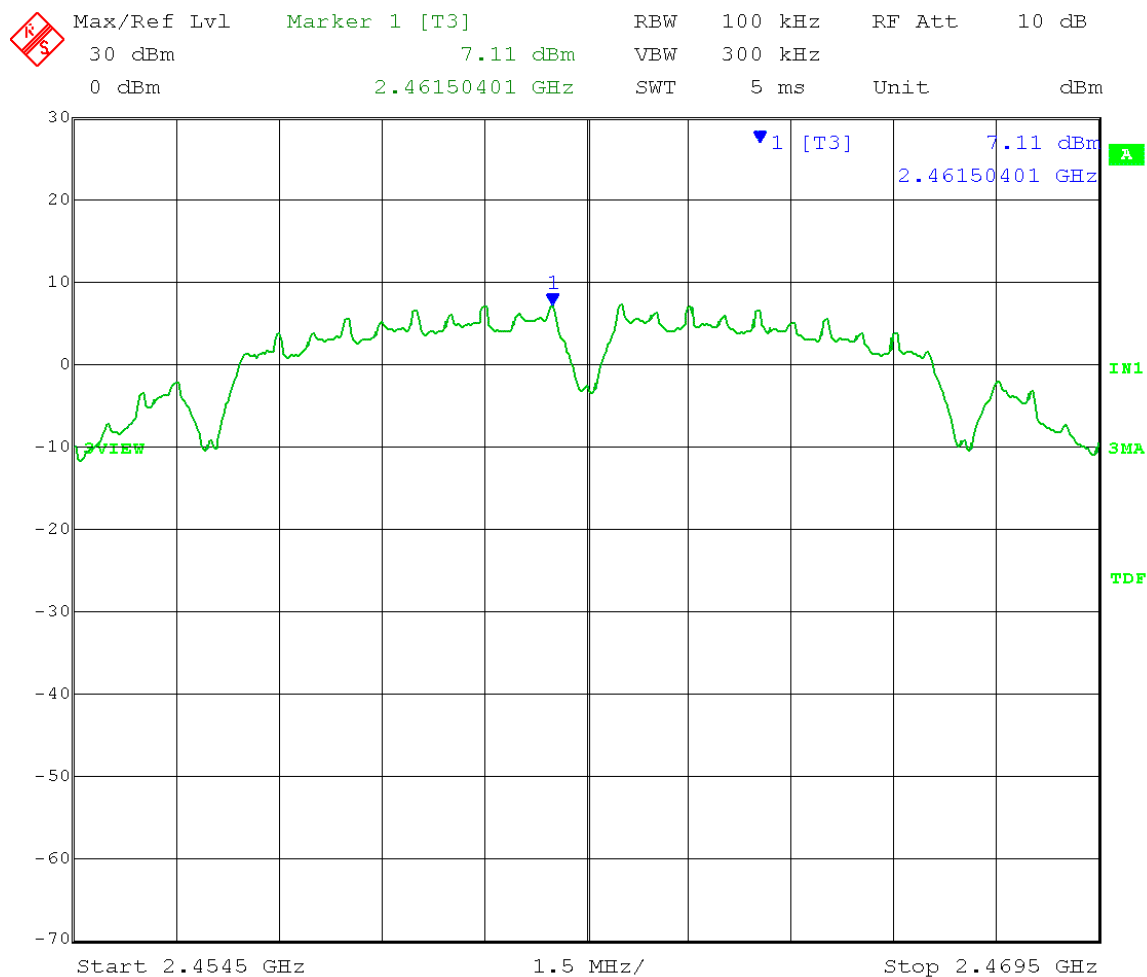
Output power setting 19

J1 Output

802.11b DSSS 1 Mbps

Reference Level measurement

Limit = 7.11dBm - 20 dB = -12.89 dBm



Date: 10.JAN.2013 13:48:23



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-13
Company: Whirlpool
EUT: Wi-Fi Processor/Core
Test: Maximum Unwanted Emission Levels - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

VBW $\geq$ 300 kHz

Detector = Peak

Sweep = auto couple

Trace = max hold

High Channel Transmit = 2.462GHz

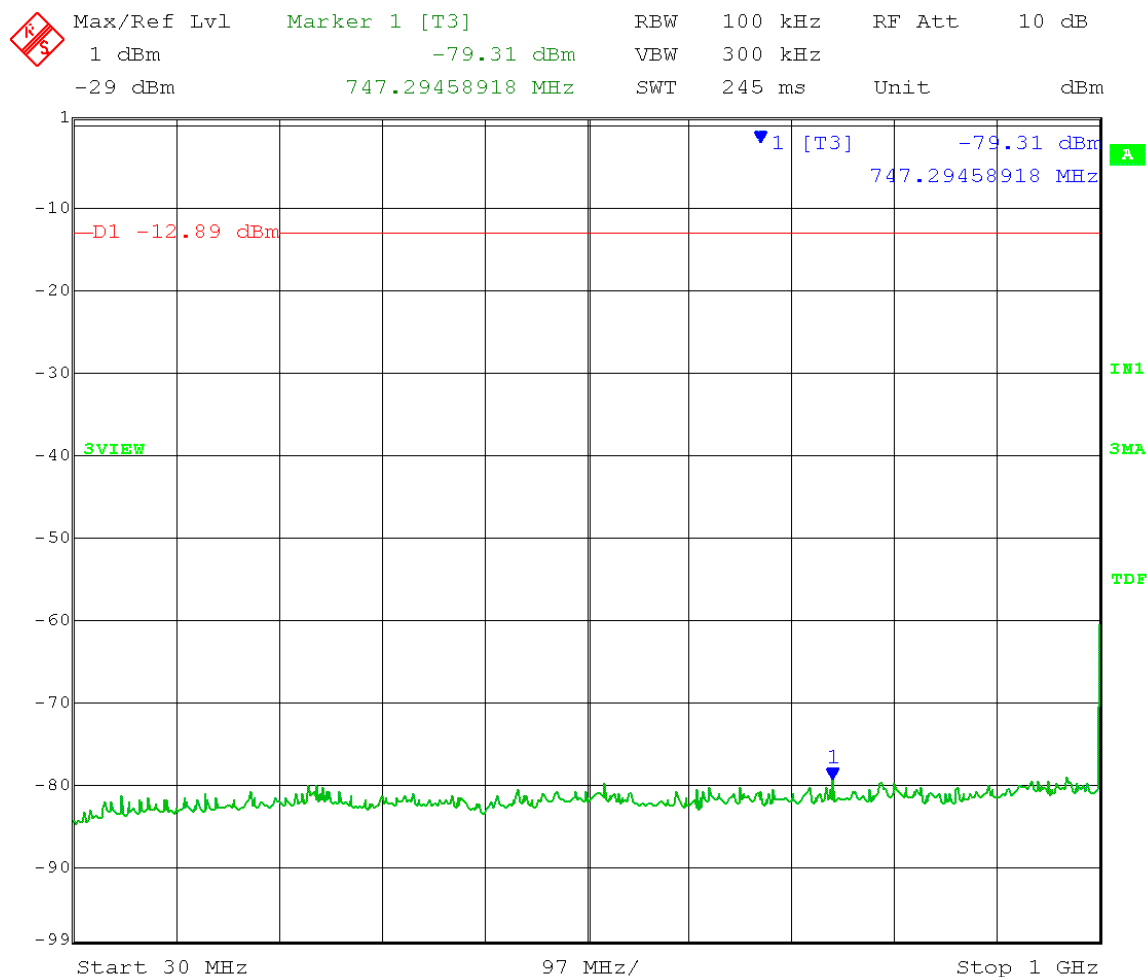
Output power setting 19

802.11b DSSS 1Mbps

J1 Output

Frequency Range: 30 – 1000 MHz

Limit = 7.11 dBm – 20 dB = -12.89 dBm



Date: 10.JAN.2013 14:24:15



166 South Carter, Genoa City, WI 53128

Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
XPWP and XPWC
18708
5163

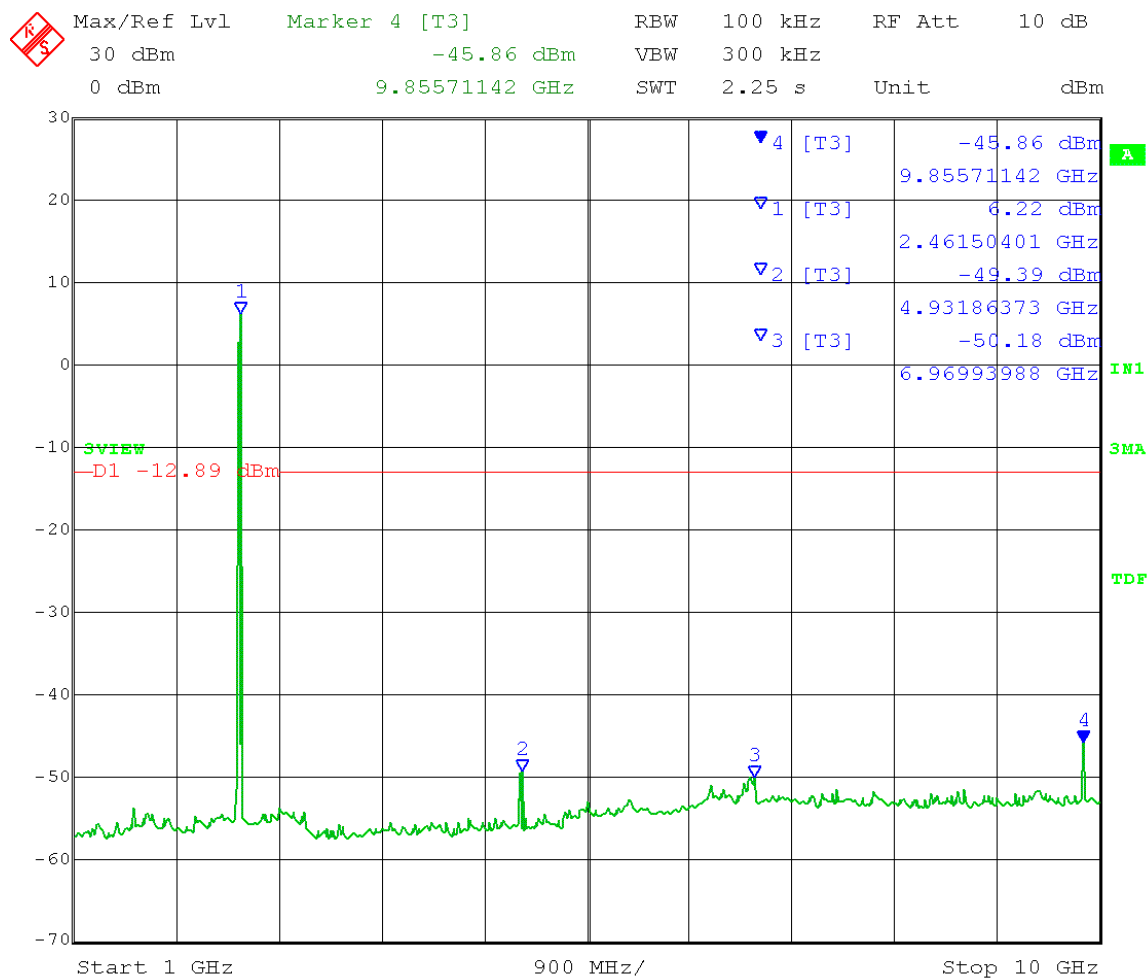
Test Date: 01-10-13
Company: Whirlpool
EUT: Wi-Fi Processor/Core
Test: Maximum Unwanted Emission Levels - Conducted
Operator: Jim O
Comment: RBW = 100 kHz
Detector = Peak
Trace = max hold
Output power setting 19
802.11b DSSS 1Mbps
J1 Output

VBW $\geq$ 300 kHz

Sweep = auto couple

High Channel Transmit = 2.462GHz

Frequency Range: 1-10GHz
Limit = 7.11dBm - 20 dB = -12.89dBm



Date: 10.JAN.2013 13:53:06

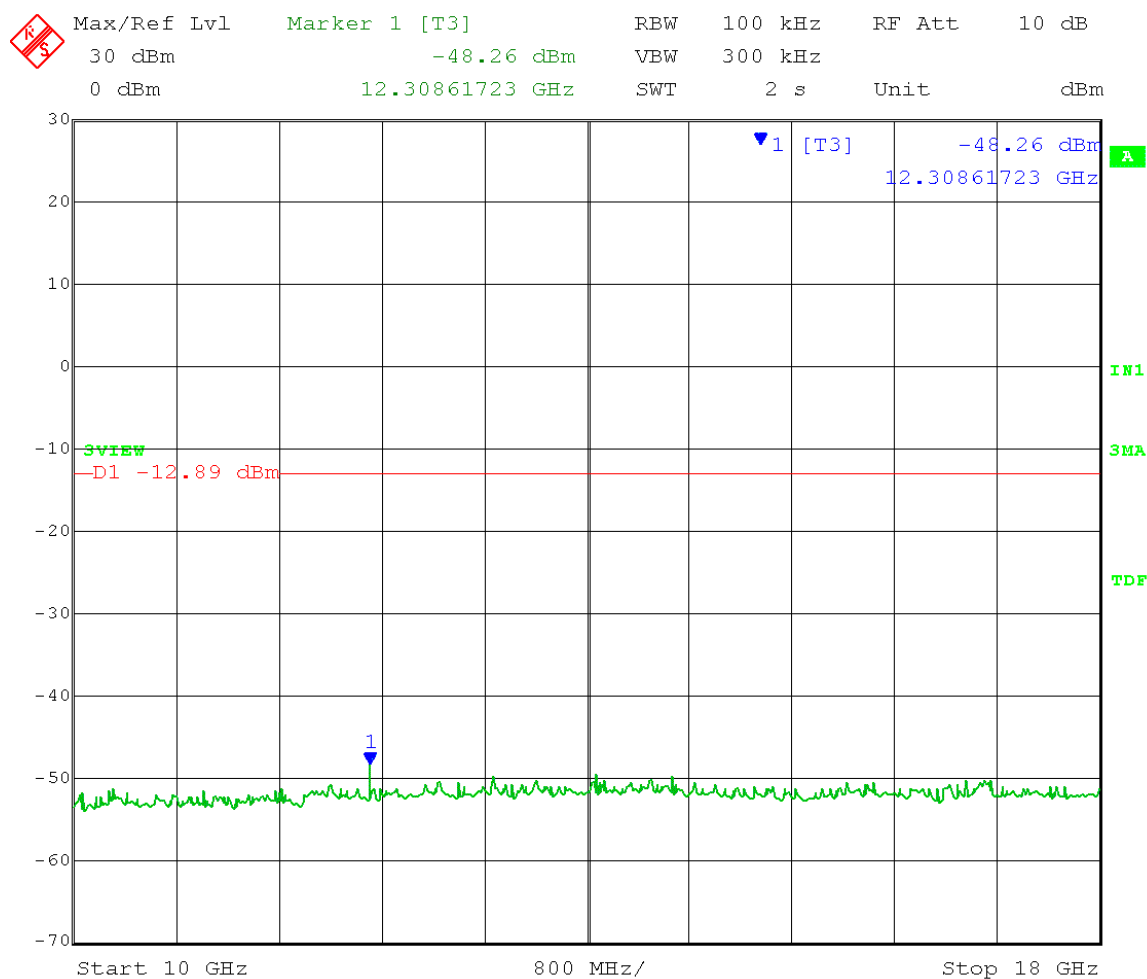


166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-13
Company: Whirlpool
EUT: Wi-Fi Processor/Core
Test: Maximum Unwanted Emission Levels - Conducted
Operator: Jim O

Comment: RBW = 100 kHz VBW $\geq$ 300 kHz
Detector = Peak Sweep = auto couple
Trace = max hold High Channel Transmit = 2.462GHz
Output power setting 19
802.11b DSSS 1Mbps
J1 Output
Frequency Range: 10-18GHz
Limit = 7.11 dBm - 20 dB = -12.89 dBm



Date: 10.JAN.2013 13:56:52

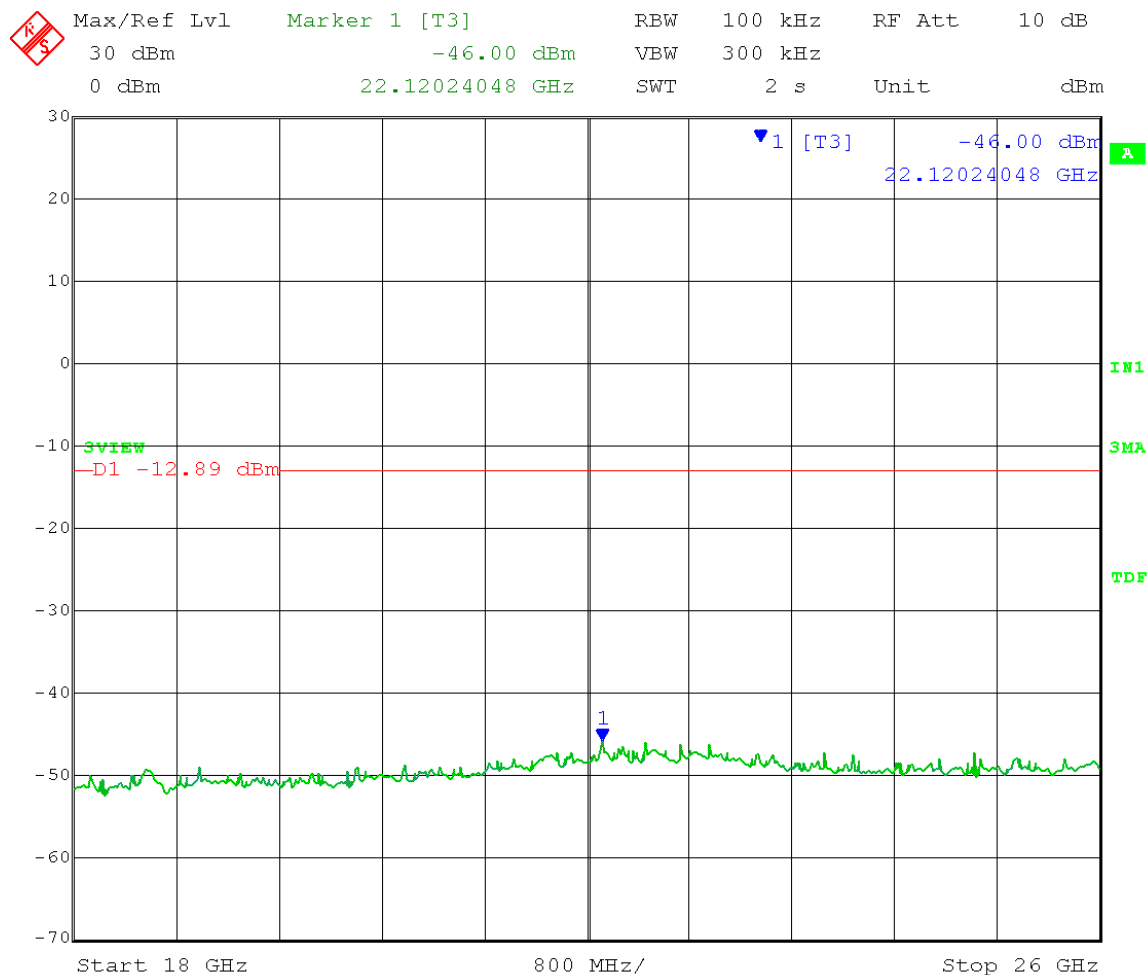


166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

Test Date: 01-10-13
Company: Whirlpool
EUT: Wi-Fi Processor/Core
Test: Maximum Unwanted Emission Levels - Conducted
Operator: Jim O

Comment: RBW = 100 kHz VBW $\geq$ 300 kHz
Detector = Peak Sweep = auto couple
Trace = max hold High Channel Transmit = 2.462GHz
Output power setting 19
802.11b DSSS 1Mbps
J1 Output
Frequency Range: 18-26GHz
Limit = 7.11 dBm - 20 dB = -12.89 dBm



Date: 10.JAN.2013 13:58:50



166 South Carter, Genoa City, WI 53128

Company:	Whirlpool Corporation
Model Tested:	XPWP and XPWC
Report Number:	18708
DLS Project:	5163

Appendix B

5.0 Unwanted Emissions into Restricted Frequency Bands – Radiated

Rule Part:

15.247(d), 15.205(5), 15.209(a)

Test Procedure:

558074 D01 DTS Meas Guidance v02
10.2 Unwanted Emissions into Restricted Frequency Bands
10.2.1 Radiated Emissions Measurements
Measurement Procedure – ANSI C63.10-2009

Limits:

15.209(a)

Results:

Compliant

Notes:

This was an RF radiated measurement. External antennas were connected through a "Fakra" (snap-on) connector allowing cable/antenna to PCBRD installation simplicity.

The EUT was powered through a cable that was connected to the battery supply of 9.6 VDC. The EUT was set to transmit continuously at its maximum power, in the DSSS modulation mode and J1 port (determined worst case) on the low, middle, and high channels of the operating band.



166 South Carter, Genoa City, WI 53128

Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
XPWP and XPWC
18708
5163

Radiated Spurious Emissions in Restricted Bands

Tested at a 3 Meter Distance 1 GHz to 18 GHz

Tested at a 1 Meter Distance 18 GHz to 26 GHz

EUT: Wi-Fi Processor/Core Module

Manufacturer: Whirlpool Inc

Operating Condition: 70 deg F; 62% R.H.

Test Site: Site G1

Operator: Jim O

Test Specification: FCC Part 15.247(d) and FCC Part 15.205

Comment: IEEE 802.15.4; Continuous transmit mode; Output power setting 19

Date: 1/10/2013

Notes:

(1) Peak measurements were taken with RBW = 1 MHz, VBW = 3 MHz, Detector = Peak.

(2) Average measurements were taken with RBW = 1 MHz, VBW = 3 MHz, Detector = CISPR Average.

(3) All other restricted band emissions at least 20 dB under the limit.

On-board antenna J1

Channel 1 (2.412) GHz

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
4.824	Average	Vert	51.64	32.97	-39.9	44.7	54	9.3	Restricted Band
4.824	Max Peak	Vert	54.92	32.97	-39.9	48	74	26	Restricted Band
4.823	Average	Horz	54.07	32.97	-39.9	47.2	54	6.8	Restricted Band
4.823	Max Peak	Horz	56.26	32.97	-39.9	49.3	74	24.7	Restricted Band
12.06	Average	Vert	39.39	39	-39.3	39.1	54	14.9	Restricted Band
12.06	Max Peak	Vert	48.29	39	-39.3	48	74	26	Restricted Band
12.06	Average	Horz	45.54	39	-39.3	45.2	54	8.8	Restricted Band
12.06	Max Peak	Horz	52.39	39	-39.3	52.1	74	21.9	Restricted Band
14.472	Average	Vert	41.28	42.22	-30.9	52.6	54	1.4	Restricted Band
14.472	Max Peak	Vert	48.98	42.22	-30.9	60.3	74	13.7	Restricted Band
14.472	Average	Horz	41.04	42.22	-30.9	52.4	54	1.6	Restricted Band
14.472	Max Peak	Horz	48.85	42.22	-30.9	60.2	74	13.8	Restricted Band



166 South Carter, Genoa City, WI 53128

Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
XPWP and XPWC
18708
5163

Radiated Spurious Emissions in Restricted Bands

Tested at a 3 Meter Distance 1 GHz to 18 GHz

Tested at a 1 Meter Distance 18 GHz to 26 GHz

EUT: Wi-Fi Processor/Core Module
Manufacturer: Whirlpool Inc
Operating Condition: 70 deg F; 62% R.H.
Test Site: Site G1
Operator: Jim O
Test Specification: FCC Part 15.247(d) and FCC Part 15.205
Comment: IEEE 802.15.4; Continuous transmit mode; Output power setting 19
Date: 1/10/2013
Notes: (1) Peak measurements were taken with RBW = 1 MHz, VBW = 3 MHz, Detector = Peak.
(2) Average measurements were taken with RBW = 1 MHz, VBW = 3 MHz, Detector = CISPR Average.
(3) All other restricted band emissions at least 20 dB under the limit.

On-board antenna J1

Channel 6 (2.437) GHz

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
4.874	Average	Vert	54.15	33.05	-40.4	46.8	54	7.2	Restricted Band
4.874	Max Peak	Vert	56.64	33.05	-40.4	49.3	74	24.7	Restricted Band
4.874	Average	Horz	55.39	33.05	-40.4	48.1	54	5.9	Restricted Band
4.874	Max Peak	Horz	57.66	33.05	-40.4	50.3	74	23.7	Restricted Band
12.185	Average	Vert	39.96	38.93	-37.6	41.3	54	12.7	Restricted Band
12.185	Max Peak	Vert	48.96	38.93	-37.6	50.3	74	23.7	Restricted Band
12.185	Average	Horz	44.23	38.93	-37.6	45.6	54	8.4	Restricted Band
12.185	Max Peak	Horz	50.96	38.93	-37.6	52.3	74	21.7	Restricted Band



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
 Model Tested: XPWP and XPWC
 Report Number: 18708
 DLS Project: 5163

Radiated Spurious Emissions in Restricted Bands

Tested at a 3 Meter Distance 1 GHz to 18 GHz

Tested at a 1 Meter Distance 18 GHz to 26 GHz

EUT: Wi-Fi Processor/Core Module

On-board antenna J1

Manufacturer: Whirlpool Inc

Operating Condition: 70 deg F; 62% R.H.

Test Site: Site G1

Operator: Jim O

Test Specification: FCC Part 15.247(d) and FCC Part 15.205

Comment: IEEE 802.15.4; Continuous transmit mode; Output power setting 19

Date: 1/10/2013

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

Channel 11 (2.462) GHz

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
4.924	Average	Vert	55.95	33.14	-40.6	48.5	54	5.5	Restricted Band
4.924	Max Peak	Vert	58.17	33.14	-40.6	50.7	74	23.3	Restricted Band
4.924	Average	Horz	52.02	33.14	-40.6	44.5	54	9.5	Restricted Band
4.924	Max Peak	Horz	55.19	33.14	-40.6	47.7	74	26.3	Restricted Band
12.31	Average	Vert	41.46	38.85	-37.9	42.4	54	11.6	Restricted Band
12.31	Max Peak	Vert	49.8	38.85	-37.9	50.7	74	23.3	Restricted Band
12.31	Average	Horz	42.25	38.85	-38	43.1	54	10.9	Restricted Band
12.31	Max Peak	Horz	49.75	38.85	-38	50.6	74	23.4	Restricted Band



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
 Model Tested: XPWP and XPWC
 Report Number: 18708
 DLS Project: 5163

Radiated Spurious Emissions in Restricted Bands

Tested at a 3 Meter Distance 1 GHz to 18 GHz

Tested at a 1 Meter Distance 18 GHz to 26 GHz

EUT: Wi-Fi Processor/Core Module
 Manufacturer: Whirlpool Inc
 Operating Condition: 70 deg F; 62% R.H.
 Test Site: Site G1
 Operator: Jim O
 Test Specification: FCC Part 15.247(d) and FCC Part 15.205
 Comment: IEEE 802.15.4; Continuous transmit mode; Output power setting 19
 Date: 1/10/2013
 Notes:

External PIFA Antenna

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

Channel 1 (2.412GHz)

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
4.823	Average	Vert	50.84	32.97	-39.9	43.9	54	10.1	Restricted Band
4.823	Max Peak	Vert	54.16	32.97	-39.9	47.2	74	26.8	Restricted Band
4.823	Average	Horz	50.56	32.97	-39.9	43.6	54	10.4	Restricted Band
4.823	Max Peak	Horz	53.4	32.97	-39.9	46.5	74	27.5	Restricted Band
12.06	Average	Vert	42.85	38.99	-39.3	42.5	54	11.5	Restricted Band
12.06	Max Peak	Vert	50.14	38.99	-39.3	49.8	74	24.2	Restricted Band
12.06	Average	Horz	43.43	38.93	-37.6	44.8	54	9.2	Restricted Band
12.06	Max Peak	Horz	50.41	38.99	-39.3	50.1	74	23.9	Restricted Band
14.472	Average	Vert	37.11	42.22	-30.9	48.4	54	5.6	Restricted Band
14.472	Max Peak	Vert	47.15	42.22	-30.9	58.5	74	15.5	Restricted Band
14.472	Average	Horz	37.42	42.22	-30.9	48.8	54	5.2	Restricted Band
14.472	Max Peak	Horz	47.95	42.22	-30.9	59.3	74	14.7	Restricted Band



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
 Model Tested: XPWP and XPWC
 Report Number: 18708
 DLS Project: 5163

Radiated Spurious Emissions in Restricted Bands

Tested at a 3 Meter Distance 1 GHz to 18 GHz

Tested at a 1 Meter Distance 18 GHz to 26 GHz

EUT: Wi-Fi Processor/Core Module
 Manufacturer: Whirlpool Inc
 Operating Condition: 70 deg F; 62% R.H.
 Test Site: Site G1
 Operator: Jim O
 Test Specification: FCC Part 15.247(d) and FCC Part 15.205
 Comment: IEEE 802.15.4; Continuous transmit mode; Output power setting 19
 Date: 1/10/2013
 Notes: (1) Peak measurements were taken with RBW = 1 MHz, VBW = 3 MHz, Detector = Peak.
 (2) Average measurements were taken with RBW = 1 MHz, VBW = 3 MHz, Detector = CISPR Average.
 (3) All other restricted band emissions at least 20 dB under the limit.

External PIFA Antenna

Channel 6 (2.437GHz)

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Corrected (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
4.874	Average	Vert	54.9	33.05	-40.4	47.6	54	6.4	Res. Band
4.874	Max Peak	Vert	57.13	33.05	-40.4	49.8	74	24.2	Res. Band
4.874	Average	Horz	52.83	33.05	-40.4	45.5	54	8.5	Res. Band
4.874	Max Peak	Horz	55.52	33.05	-40.4	48.2	74	25.8	Res. Band
7.31	Average	Vert	39.37	36.15	-33.9	41.7	54	12.3	Res. Band
7.31	Max Peak	Vert	47.61	36.15	-33.9	49.9	74	24.1	Res. Band
7.31	Average	Horz	38.89	36.16	-33.8	41.2	54	12.8	Res. Band
7.31	Max Peak	Horz	48.47	36.16	-33.8	50.8	74	23.2	Res. Band
12.185	Average	Vert	42.28	38.92	-37.6	43.6	54	10.4	Res. Band
12.185	Max Peak	Vert	48.94	38.92	-37.6	50.3	74	23.7	Res. Band
12.185	Average	Horz	43.43	38.93	-37.6	44.8	54	9.2	Res. Band
12.185	Max Peak	Horz	50.01	38.93	-37.6	51.3	74	22.7	Res. Band



166 South Carter, Genoa City, WI 53128

Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
XPWP and XPWC
18708
5163

Radiated Spurious Emissions in Restricted Bands

Tested at a 3 Meter Distance 1 GHz to 18 GHz

Tested at a 1 Meter Distance 18 GHz to 26 GHz

EUT: Wi-Fi Processor/Core Module External PIFA Antenna
Manufacturer: Whirlpool Inc
Operating Condition: 70 deg F; 62% R.H.
Test Site: Site G1
Operator: Jim O
Test Specification: FCC Part 15.247(d) and FCC Part 15.205
Comment: IEEE 802.15.4; Continuous transmit mode; Output power setting 19
Date: 1/10/2013
Notes: (1) Peak measurements were taken with RBW = 1 MHz, VBW = 3 MHz, Detector = Peak.
(2) Average measurements were taken with RBW = 1 MHz, VBW = 3 MHz, Detector = CISPR Average.
(3) All other restricted band emissions at least 20 dB under the limit.

Channel 11 (2.462GHz)

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
4.924	Average	Vert	52.24	33.14	-40.6	44.8	54	9.2	Restricted Band
4.924	Max Peak	Vert	55.24	33.14	-40.6	47.8	74	26.2	Restricted Band
4.924	Average	Horz	54.32	33.14	-40.6	46.9	54	7.1	Restricted Band
4.924	Max Peak	Horz	57.1	33.14	-40.6	49.6	74	24.4	Restricted Band
7.387	Average	Vert	32.05	36.36	-33.1	35.4	54	18.6	Restricted Band
7.387	Max Peak	Vert	44.73	36.36	-33.1	48	74	26	Restricted Band
7.387	Average	Horz	35.1	36.36	-33.1	38.4	54	15.6	Restricted Band
7.387	Max Peak	Horz	45.94	36.36	-33.1	49.2	74	24.8	Restricted Band
12.311	Average	Vert	44.78	38.85	-38	45.7	54	8.3	Restricted Band
12.311	Max Peak	Vert	51.75	38.85	-38	52.6	74	21.4	Restricted Band
12.311	Average	Horz	46.37	38.85	-38	47.3	54	6.7	Restricted Band
12.311	Max Peak	Horz	52.43	38.85	-38	53.3	74	20.7	Restricted Band



166 South Carter, Genoa City, WI 53128

Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
XPWP and XPWC
18708
5163

Radiated Spurious Emissions in Restricted Bands

Tested at a 3 Meter Distance 1 GHz to 18 GHz

Tested at a 1 Meter Distance 18 GHz to 26 GHz

EUT: Wi-Fi Processor/Core Module w/External Dipole + 6ft cable
Manufacturer: Whirlpool Inc
Operating Condition: 70 deg F; 62% R.H.
Test Site: Site G1
Operator: Jim O
Test Specification: FCC Part 15.247(d) and FCC Part 15.205
Comment: IEEE 802.15.4; Continuous transmit mode; Output power setting 19
Date: 1/10/2013
Notes:

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

Channel 1 (2.412GHz)

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
4.823	Average	Vert	50.14	32.97	-39.9	43.2	54	10.8	Res. Band
4.823	Max Peak	Vert	53.97	32.97	-39.9	47.1	74	26.9	Res. Band
4.823	Average	Horz	46.01	32.97	-39.9	39.1	54	14.9	Res. Band
4.823	Max Peak	Horz	51.5	33.14	-40.6	44	74	30	Res. Band
12.06	Average	Vert	35.02	39	-39.3	34.7	54	19.3	Res. Band
12.06	Max Peak	Vert	46.92	39	-39.3	46.6	74	27.4	Res. Band
12.06	Average	Horz	37.9	39	-39.3	37.6	54	16.4	Res. Band
12.06	Max Peak	Horz	47.45	39	-39.3	47.2	74	26.8	Res. Band
14.472	Average	Vert	33.02	42.22	-30.9	44.4	54	9.6	Res. Band
14.472	Max Peak	Vert	45.72	42.22	-30.9	57.1	74	16.9	Res. Band
14.472	Average	Horz	37.29	42.22	-30.9	48.6	54	5.4	Res. Band
14.472	Max Peak	Horz	47.98	42.22	-30.9	59.3	74	14.7	Res. Band



166 South Carter, Genoa City, WI 53128

Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
XPWP and XPWC
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Radiated Spurious Emissions in Restricted Bands

Tested at a 3 Meter Distance 1 GHz to 18 GHz

Tested at a 1 Meter Distance 18 GHz to 26 GHz

EUT: Wi-Fi Processor/Core Module w/External Dipole + 6ft cable

Manufacturer: Whirlpool Inc

Operating Condition: 70 deg F; 62% R.H.

Test Site: Site G1

Operator: Jim O

Test Specification: FCC Part 15.247(d) and FCC Part 15.205

Comment: IEEE 802.15.4; Continuous transmit mode; Output power setting 19

Date: 1/10/2013

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

Channel 6 (2.412) GHz

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
4.874	Average	Vert	54.15	33.05	-40.4	46.8	54	7.2	Res. Band
4.874	Max Peak	Vert	56.64	33.05	-40.4	49.3	74	24.7	Res. Band
4.874	Average	Horz	55.39	33.05	-40.4	48.1	54	5.9	Res. Band
4.874	Max Peak	Horz	57.66	33.05	-40.4	50.3	74	23.7	Res. Band
12.185	Average	Vert	39.96	38.93	-37.6	41.3	54	12.7	Res. Band
12.185	Max Peak	Vert	48.96	38.93	-37.6	50.3	74	23.7	Res. Band
12.185	Average	Horz	44.23	38.93	-37.6	45.6	54	8.4	Res. Band
12.185	Max Peak	Horz	50.96	38.93	-37.6	52.3	74	21.7	Res. Band



166 South Carter, Genoa City, WI 53128

Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
XPWP and XPWC
18708
5163

Radiated Spurious Emissions in Restricted Bands

Tested at a 3 Meter Distance 1 GHz to 18 GHz

Tested at a 1 Meter Distance 18 GHz to 26 GHz

EUT: Wi-Fi Processor/Core Module **w/External Dipole + 6ft cable**
Manufacturer: Whirlpool Inc
Operating Condition: 70 deg F; 62% R.H.
Test Site: Site G1
Operator: Jim O
Test Specification: FCC Part 15.247(d) and FCC Part 15.205
Comment: IEEE 802.15.4; Continuous transmit mode; Output power setting 19
Date: 1/10/2013
Notes: (1) Peak measurements were taken with RBW = 1 MHz, VBW = 3 MHz, Detector = Peak.
 (2) Average measurements were taken with RBW = 1 MHz, VBW = 3 MHz, Detector = CISPR Average.
 (3) All other restricted band emissions at least 20 dB under the limit.

Channel 11 (2.462GHz)

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
4.924	Average	Vert	44.46	33.14	-40.6	37	54	17	Res. Band
4.924	Max Peak	Vert	50.98	33.14	-40.6	43.5	74	30.5	Res. Band
4.924	Average	Horz	45.87	33.14	-40.6	38.4	54	15.6	Res. Band
4.924	Max Peak	Horz	51.5	33.14	-40.6	44	74	30	Res. Band
7.4	Average	Vert	31.58	36.4	-33.4	34.6	54	19.4	Res. Band
7.4	Max Peak	Vert	44.65	36.4	-33.4	47.6	74	26.4	Res. Band
7.4	Average	Horz	33.52	36.36	-33.1	36.8	54	17.2	Res. Band
7.4	Max Peak	Horz	46.26	36.36	-33.1	49.6	74	24.4	Res. Band
12.31	Average	Horz	36.02	38.85	-38	36.9	54	17.1	Res. Band
12.31	Max Peak	Horz	46.39	38.85	-38	47.2	74	26.8	Res. Band



166 South Carter, Genoa City, WI 53128

Appendix B

Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
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6.0 Band-Edge Measurements – RF Conducted

Rule Part:

15.247(d)

Test Procedure:

558074 D01 DTS Meas Guidance v02
10.0 Maximum Unwanted Emission Levels
10.1 Unwanted Emissions into Non-Restricted Frequency Bands
10.1.1 Reference Level Measurement
10.1.2 Unwanted Emissions Level

Limit:

The peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level.

Results:

Compliant

Notes:

This was an RF conducted measurement. The EUT was connected to the measuring equipment through a "Fakra" (snap-on connector) allowing cable to PCBRD interface mount for RF conducted measurements. Cable loss and attenuation was accounted for in the transducer factors set in the analyzer.

The EUT was powered through a cable that was connected to the battery supply of 9.6 VDC. The EUT was set to transmit continuously at its maximum power, in all modulating signal modes and both (J1 & J2) ports encountered in a real system operation on the lowest and highest channels of the operating band.



166 South Carter, Genoa City, WI 53128

Test Date: 01-07-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Band-Edge Measurements - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

Detector = Peak

Trace = max hold

Output power setting: 19

802.11b DSSS 1 Mbps

Output port J1

Limit: Band-Edge > 20 dB below Peak In-Band Emission

Band-Edge Frequency (F1) = 2.4 GHz

Company:

Model Tested:

Report Number:

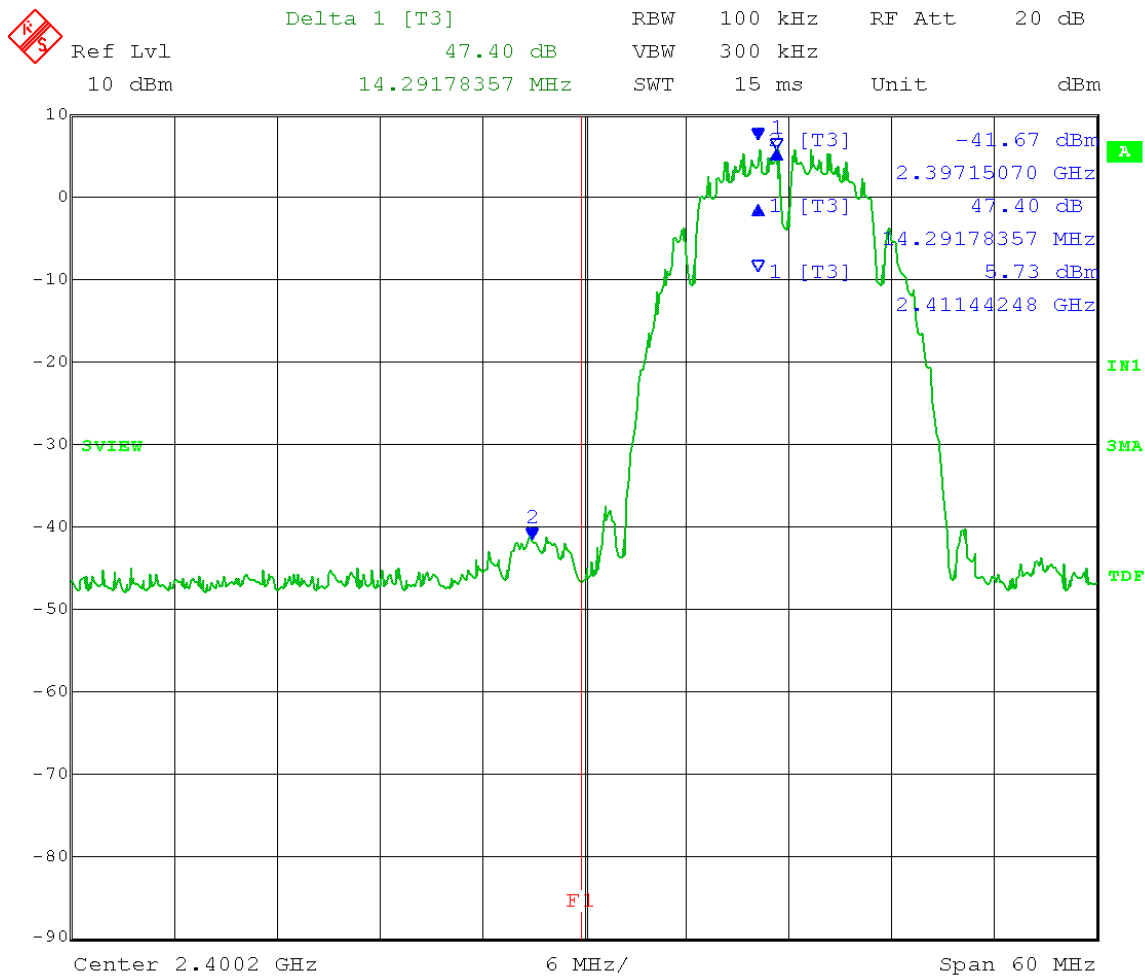
DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

5163



Date: 7.JAN.2013 10:30:13



166 South Carter, Genoa City, WI 53128

Test Date: 01-07-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Band-Edge Measurements - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

Detector = Peak

Trace = max hold

Output power setting: 19

802.11b CCK 5.5Mbps

Output port J1

Limit: Band-Edge > 20 dB below Peak In-Band Emission

Band-Edge Frequency (F1) = 2.4 GHz

Company:

Model Tested:

Report Number:

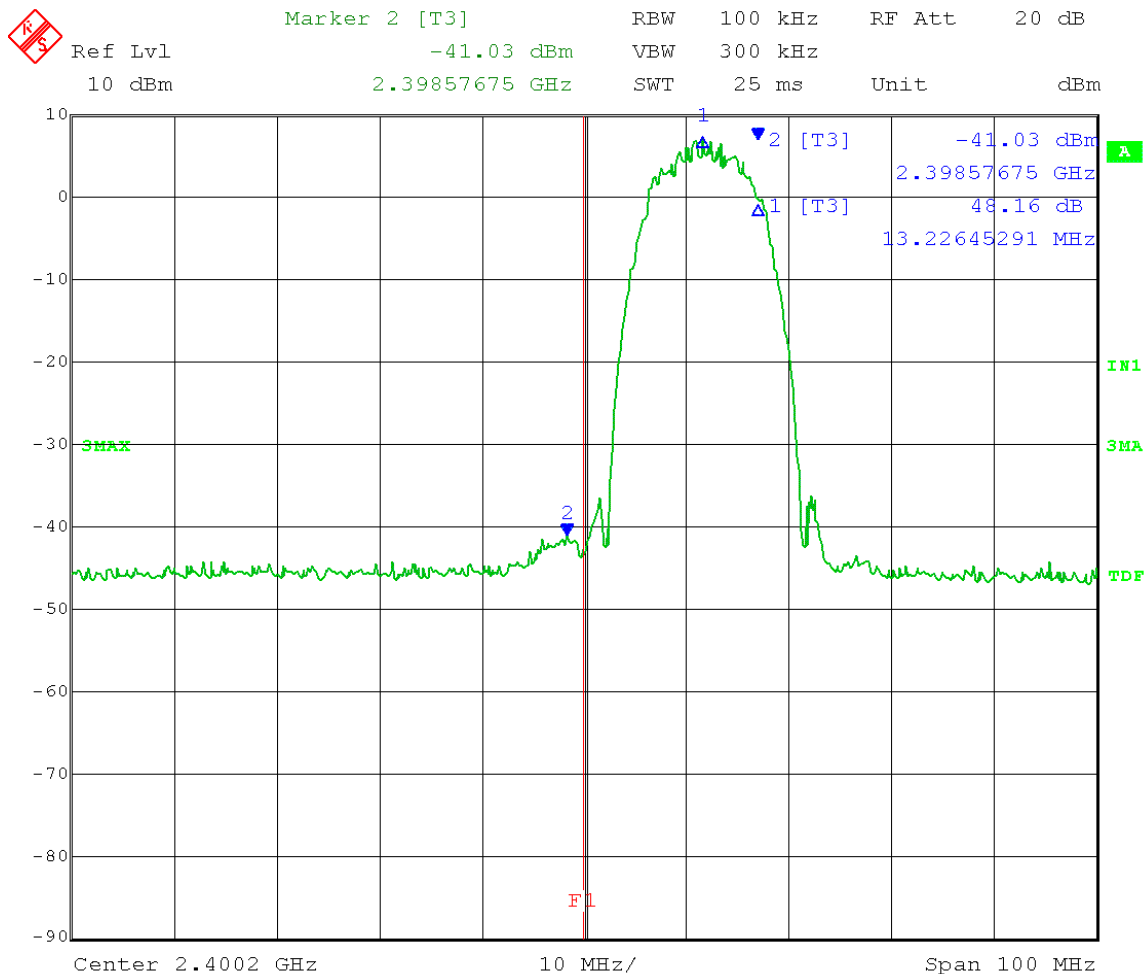
DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

5163



Date: 7.JAN.2013 10:35:17



166 South Carter, Genoa City, WI 53128

Test Date: 01-07-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Band-Edge Measurements - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

Detector = Peak

Trace = max hold

Output power setting: 18

802.11g OFDM 54Mbps

Output port J1

Limit: Band-Edge > 20 dB below Peak In-Band Emission

Band-Edge Frequency (F1) = 2.4 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

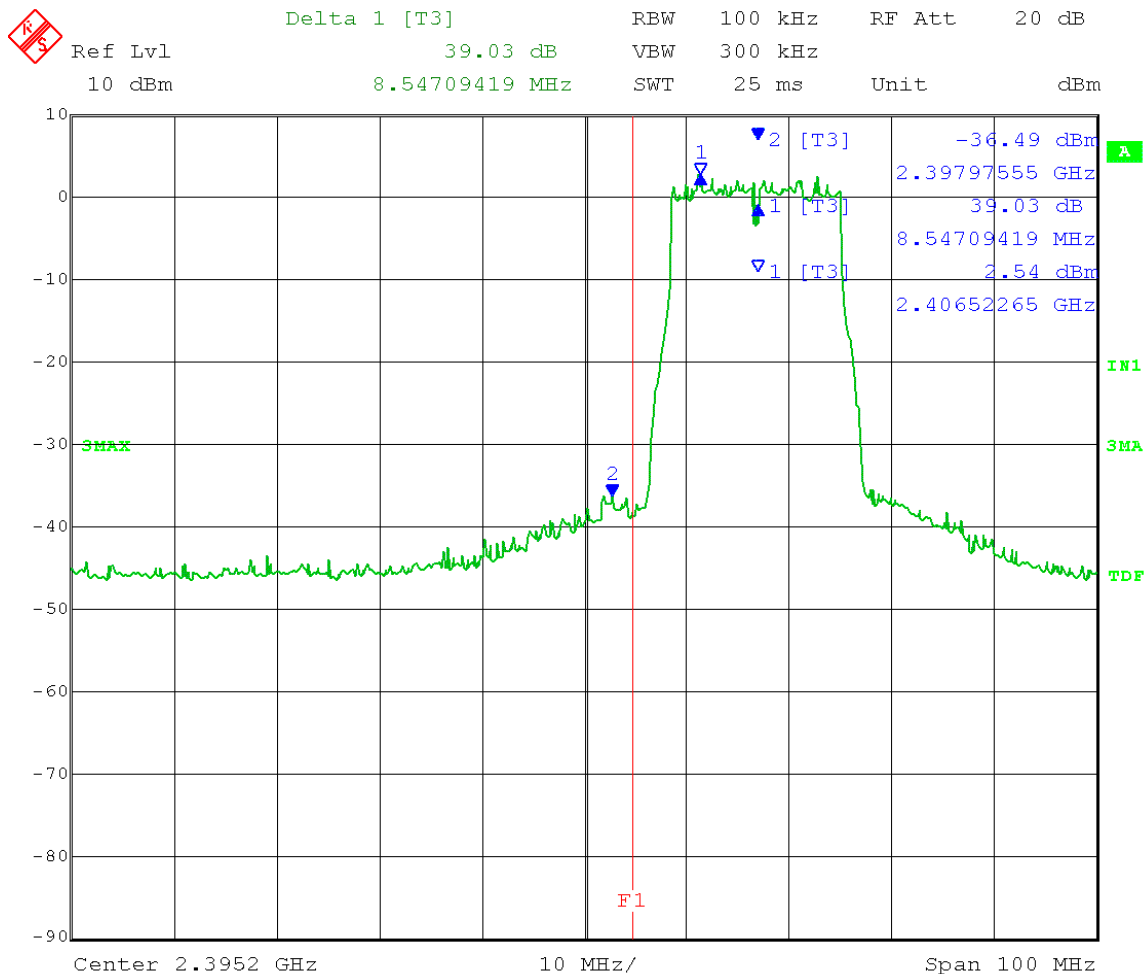
18708

5163

VBW $\geq$ 300 kHz

Sweep = auto couple

Low Channel: Transmit = 2.412 GHz



Date: 7.JAN.2013 10:38:44



166 South Carter, Genoa City, WI 53128

Test Date: 01-07-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Band-Edge Measurements - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

5163

VBW $\geq$ 300 kHz

Sweep = auto couple

Low Channel: Transmit = 2.412 GHz

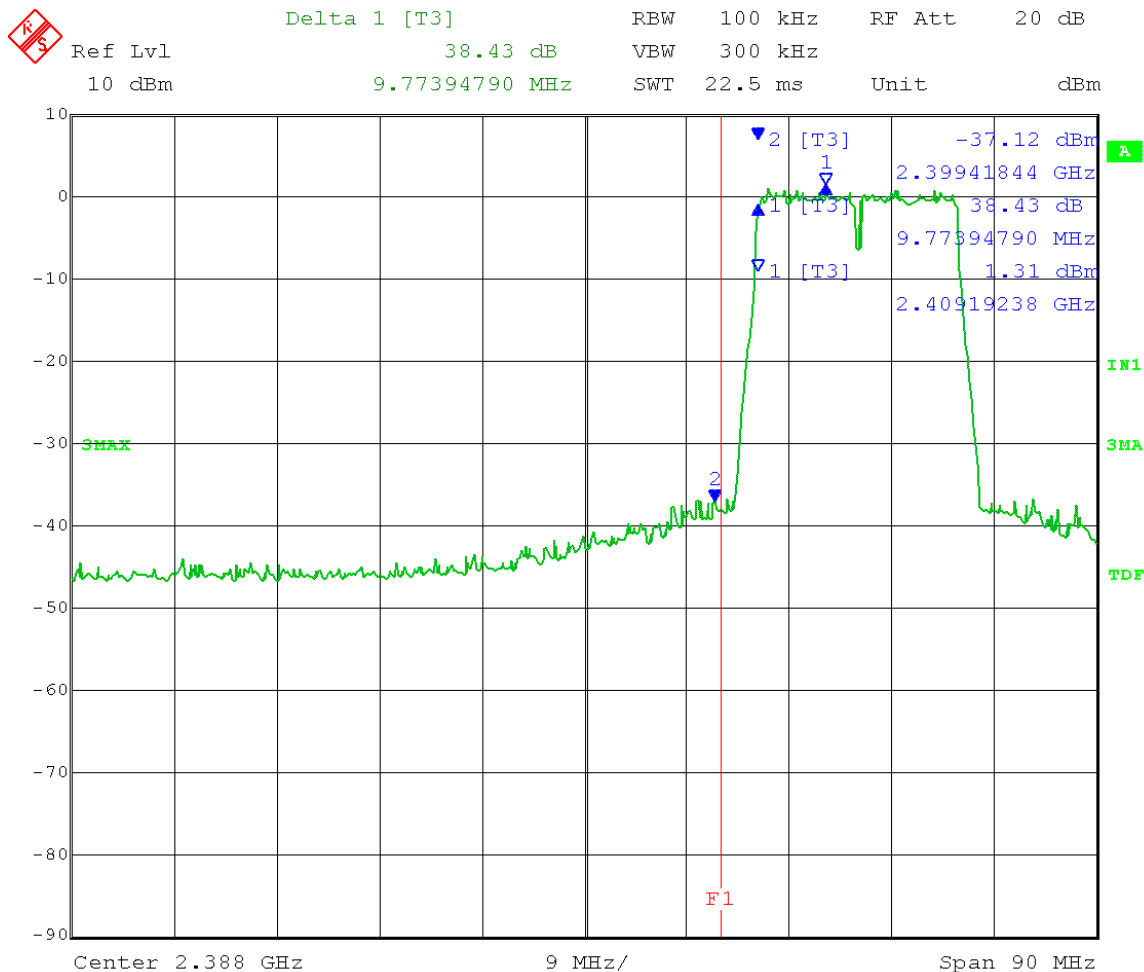
Output power setting: 18

802.11n MC7S - 20MHz

Output port J1

Limit: Band-Edge > 20 dB below Peak In-Band Emission

Band-Edge Frequency (F1) = 2.4 GHz



Date: 7.JAN.2013 10:41:56



166 South Carter, Genoa City, WI 53128

Test Date: 01-07-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Band-Edge Measurements - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

Detector = Peak

Trace = max hold

Output power setting: 18

802.11g MC7S - 40MHz

Output port J1

Limit: Band-Edge > 20 dB below Peak In-Band Emission

Band-Edge Frequency (F1) = 2.4 GHz

Company:

Model Tested:

Report Number:

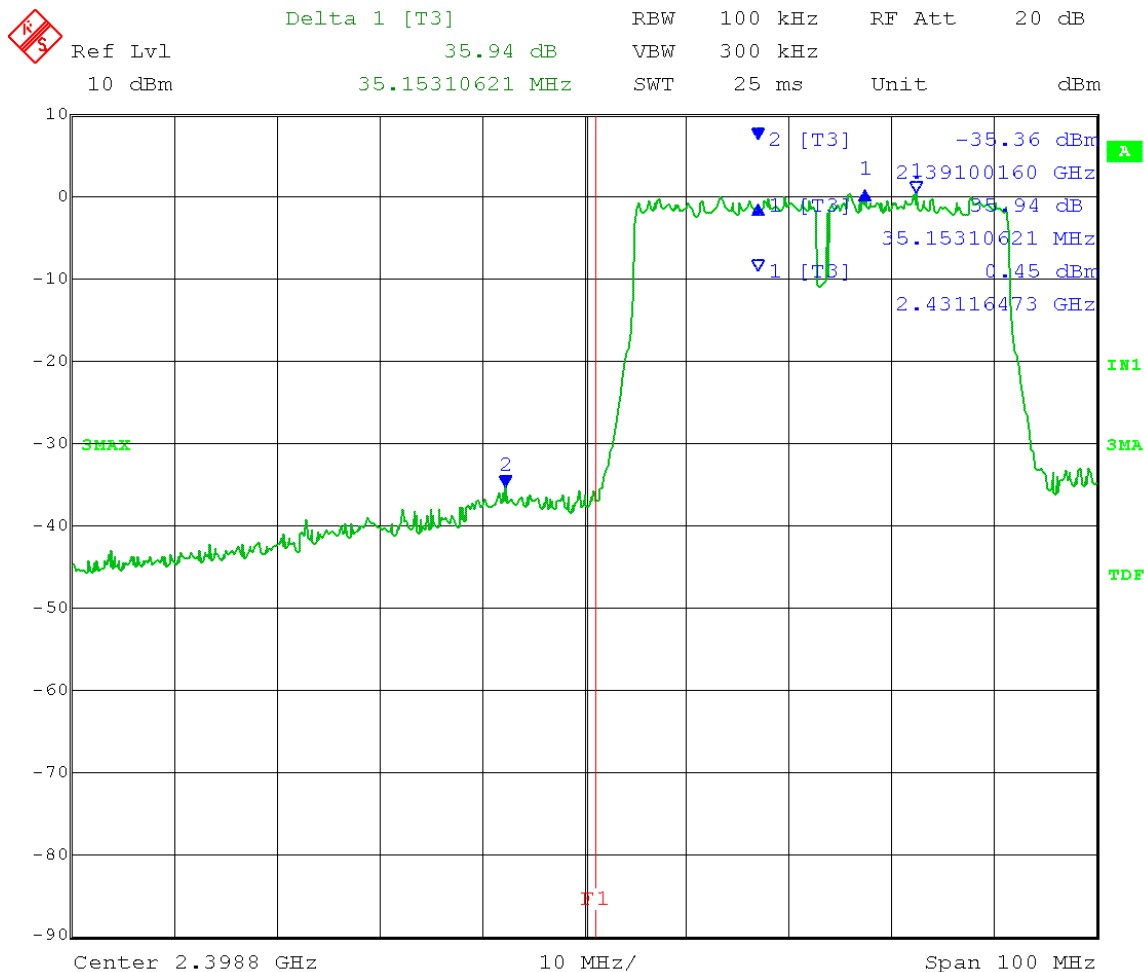
DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

5163



Date: 7.JAN.2013 10:47:10



166 South Carter, Genoa City, WI 53128

Test Date: 01-07-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Band-Edge Measurements - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

Detector = Peak

Trace = max hold

Output power setting: 19

802.11b DSSS 1 Mbps

Output port J1

Limit: Band-Edge > 20 dB below Peak In-Band Emission

Band-Edge Frequency (F1) = 2.4835 GHz

Company:

Whirlpool Corporation

Model Tested:

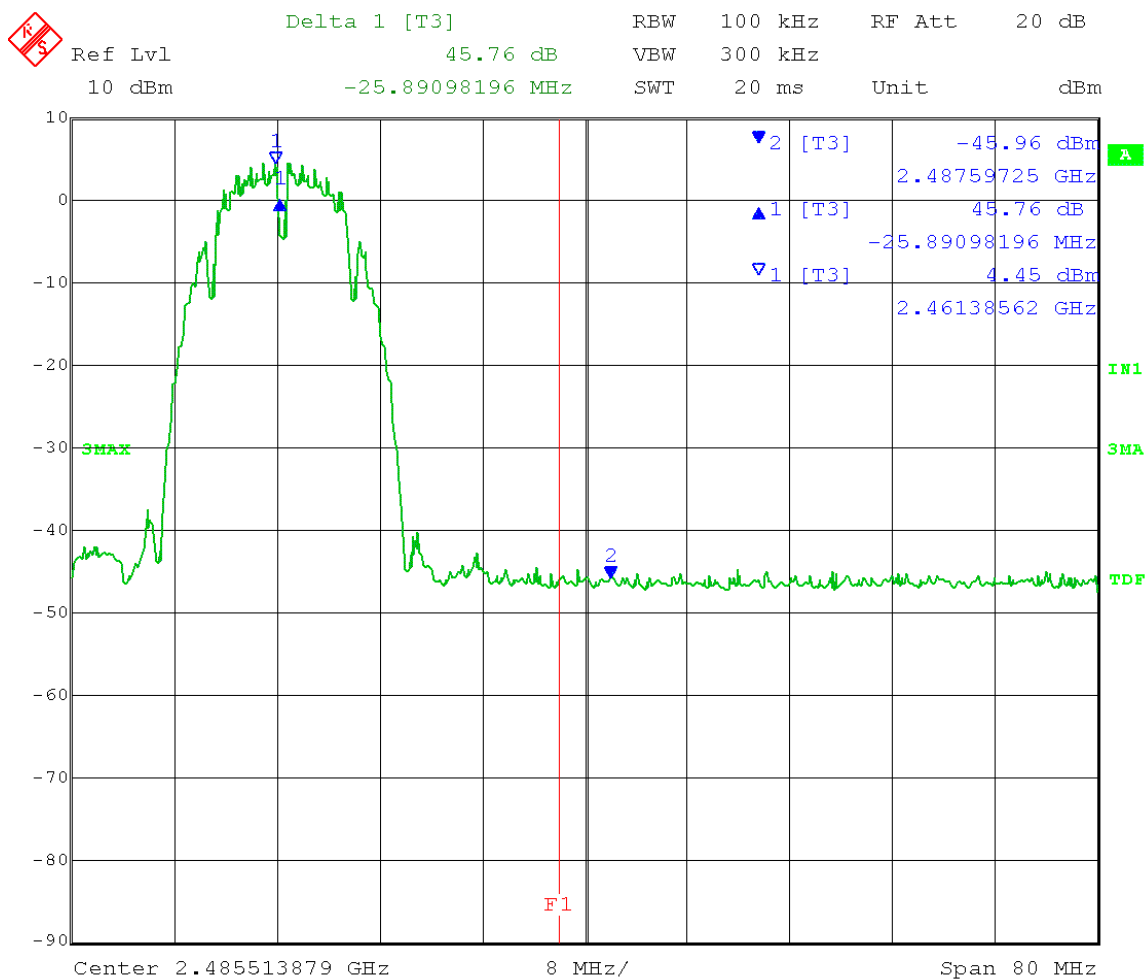
XPWP and XPWC

Report Number:

18708

DLS Project:

5163



Date: 7.JAN.2013 10:22:38



166 South Carter, Genoa City, WI 53128

Test Date: 01-07-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Band-Edge Measurements - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

VBW $\geq$ 300 kHz

Detector = Peak

Sweep = auto couple

Trace = max hold

High Channel: Transmit = 2.462 GHz

Output power setting: 19

802.11b CCK 5.5 Mbps

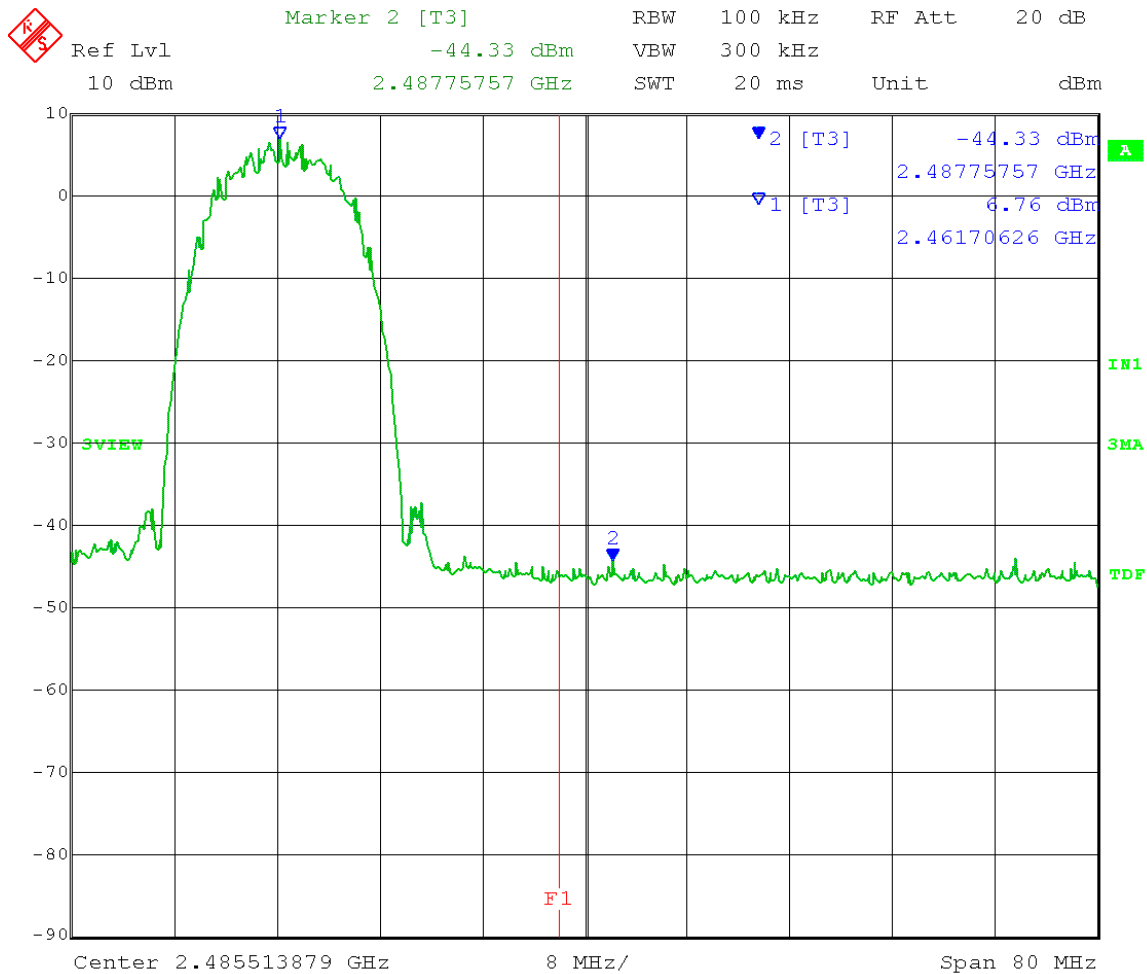
Output port J1

Limit: Band-Edge > 20 dB below Peak In-Band Emission

Band-Edge Frequency (F1) = 2.4835 GHz

Company:
Model Tested:
Report Number:
DLS Project:

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XPWP and XPWC
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Date: 7.JAN.2013 10:18:34



166 South Carter, Genoa City, WI 53128

Test Date: 01-07-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Band-Edge Measurements - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

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5163

VBW $\geq$ 300 kHz

Sweep = auto couple

High Channel: Transmit = 2.462 GHz

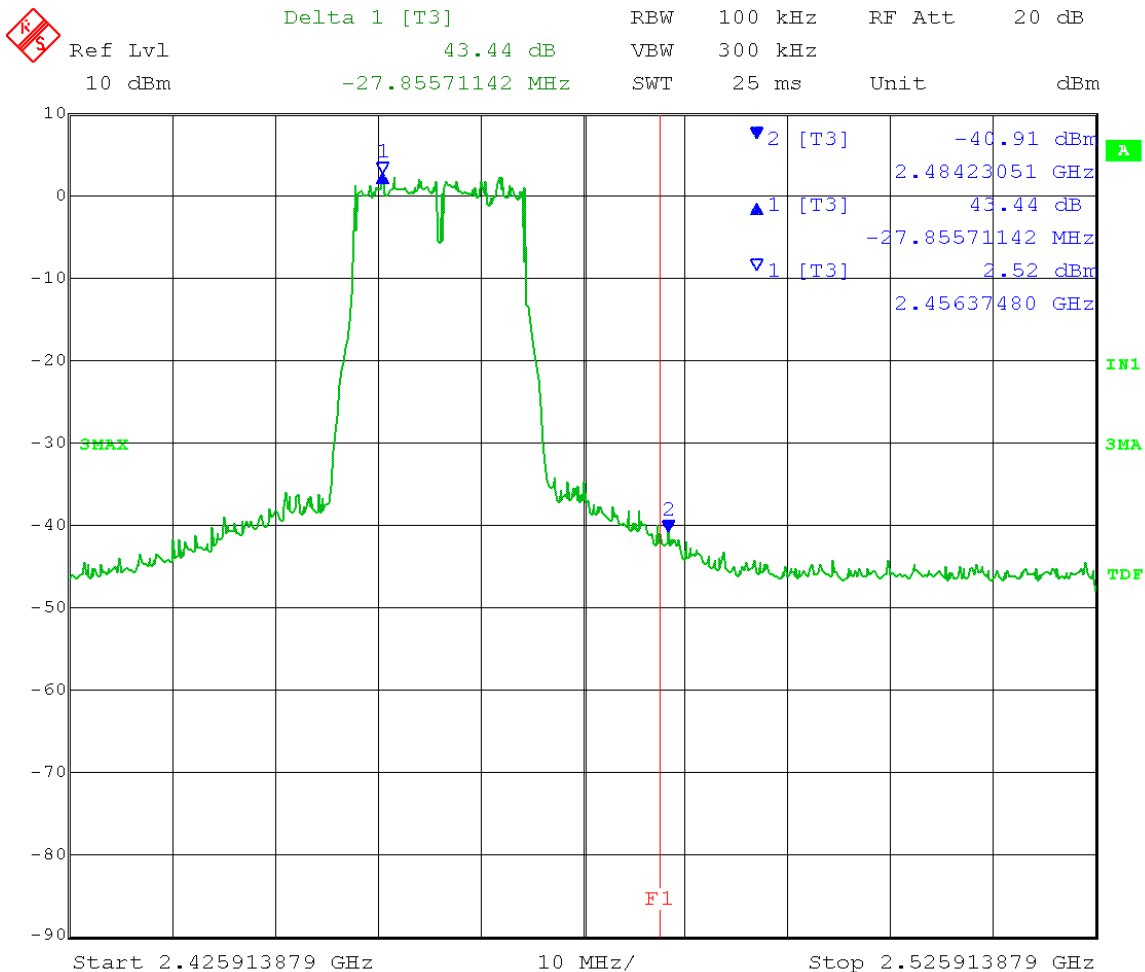
Output power setting: 18

802.11g OFDM 54Mbps

Output port J1

Limit: Band-Edge > 20 dB below Peak In-Band Emission

Band-Edge Frequency (F1) = 2.4835 GHz



Date: 7.JAN.2013 10:14:06



166 South Carter, Genoa City, WI 53128

Test Date: 01-07-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Band-Edge Measurements - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

Detector = Peak

Trace = max hold

Output power setting: 18

802.11n MC7S - 20MHz

Output port J1

Limit: Band-Edge > 20 dB below Peak In-Band Emission

Band-Edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

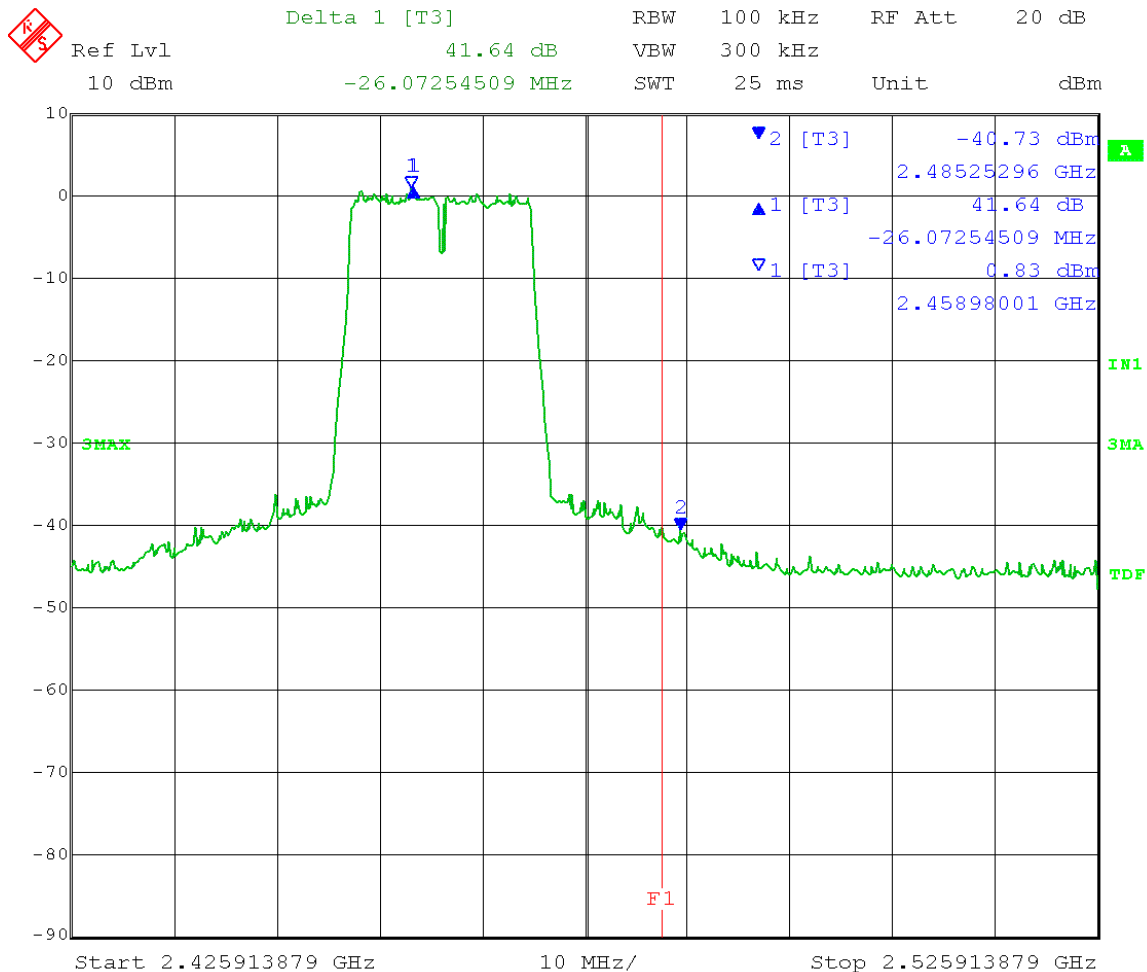
DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

5163



Date: 7.JAN.2013 10:10:43



166 South Carter, Genoa City, WI 53128

Test Date: 01-07-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Band-Edge Measurements - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

Detector = Peak

Trace = max hold

Output power setting: 18

802.11n MC7S - 40MHz

Output port J1

Limit: Band-Edge > 20 dB below Peak In-Band Emission

Band-Edge Frequency (**F1**) = 2.4835 GHz

Company:

Model Tested:

Report Number:

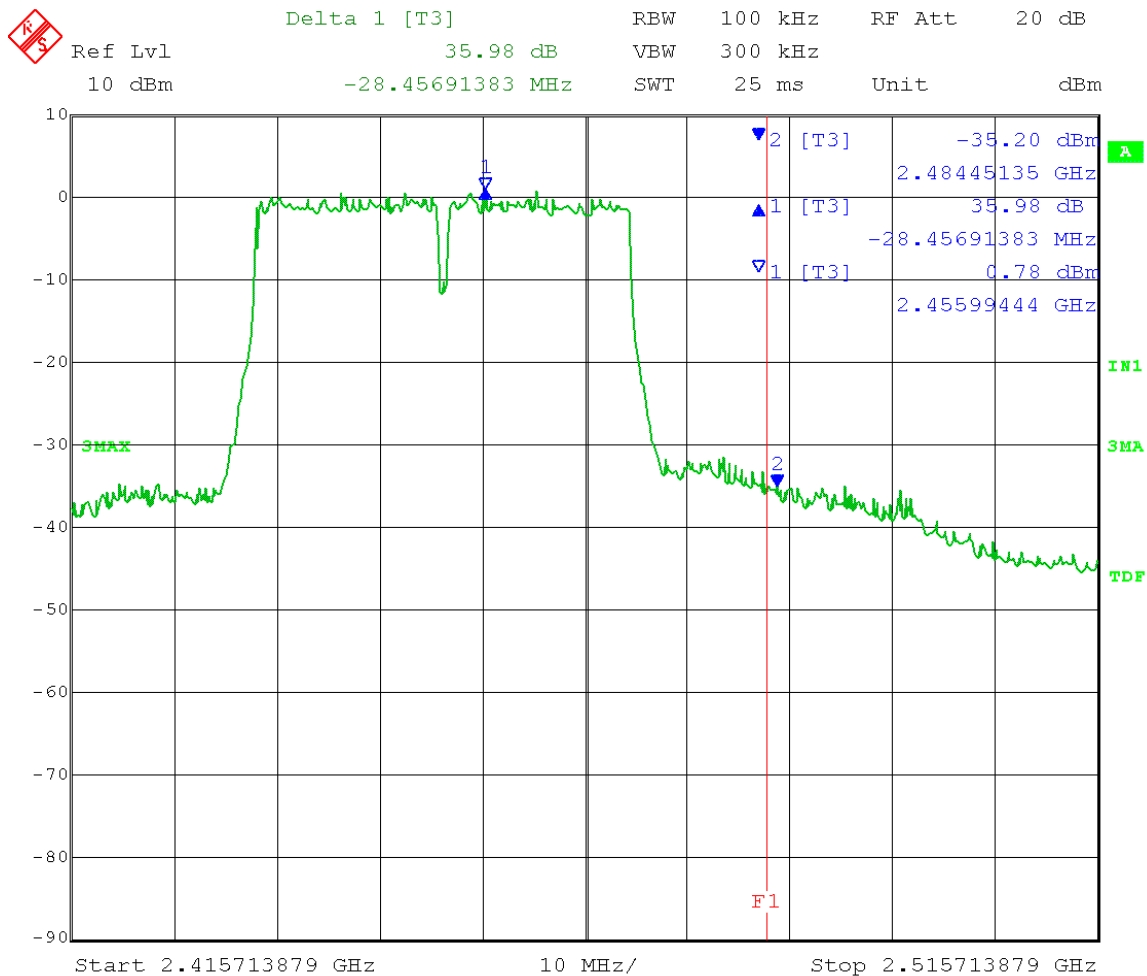
DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

5163



Date: 7.JAN.2013 10:04:15



166 South Carter, Genoa City, WI 53128

Test Date: 01-07-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Band-Edge Measurements - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

Detector = Peak

Trace = max hold

Output power setting: 19

802.11b DSSS 1Mbps

Output port J2

Limit: Band-Edge > 20 dB below Peak In-Band Emission

Band-Edge Frequency (F1) = 2.4 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

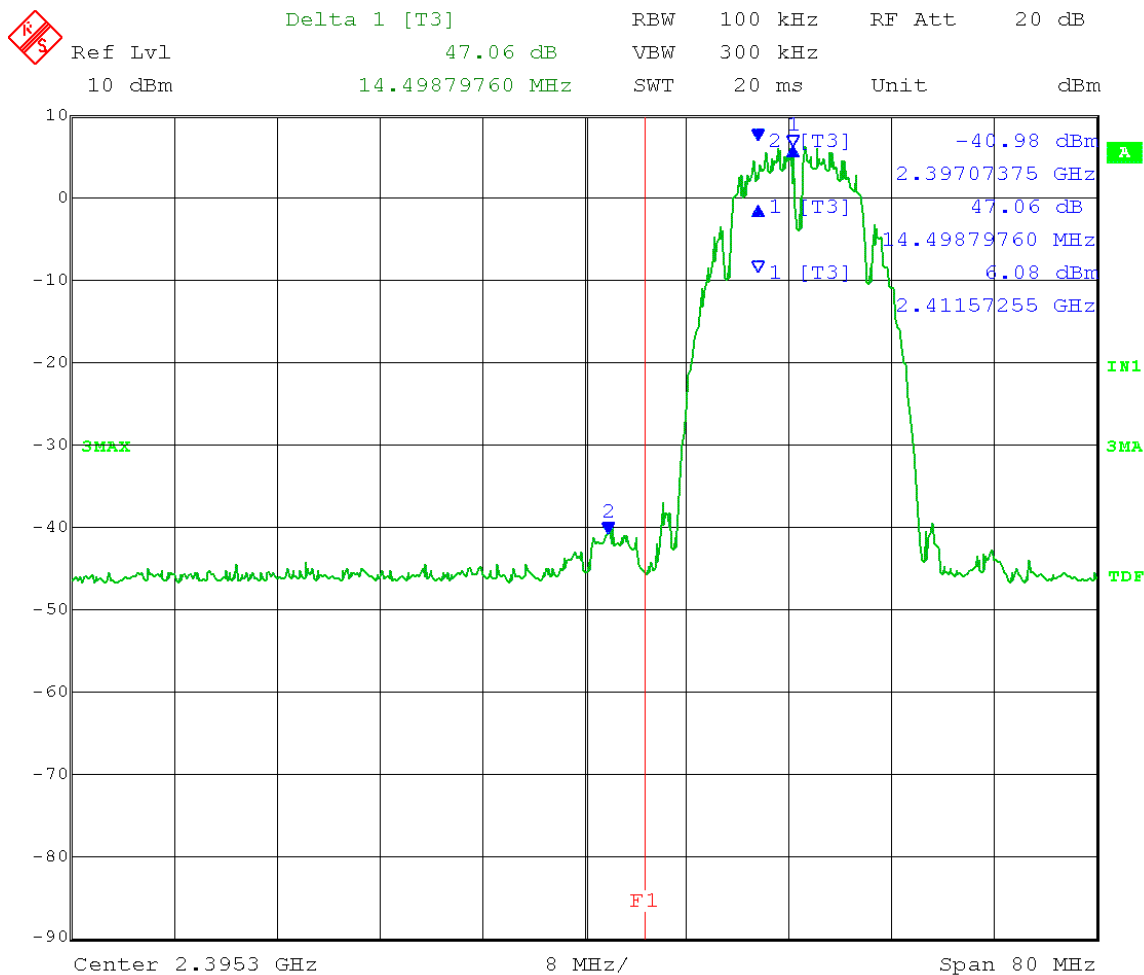
18708

5163

VBW $\geq$ 300 kHz

Sweep = auto couple

Low Channel: Transmit = 2.412 GHz



Date: 7.JAN.2013 11:13:23



166 South Carter, Genoa City, WI 53128

Test Date: 01-07-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Band-Edge Measurements - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

Detector = Peak

Trace = max hold

Output power setting: 19

802.11b CCK 5.5Mbps

Output port J2

Limit: Band-Edge > 20 dB below Peak In-Band Emission

Band-Edge Frequency (F1) = 2.4 GHz

Company:

Model Tested:

Report Number:

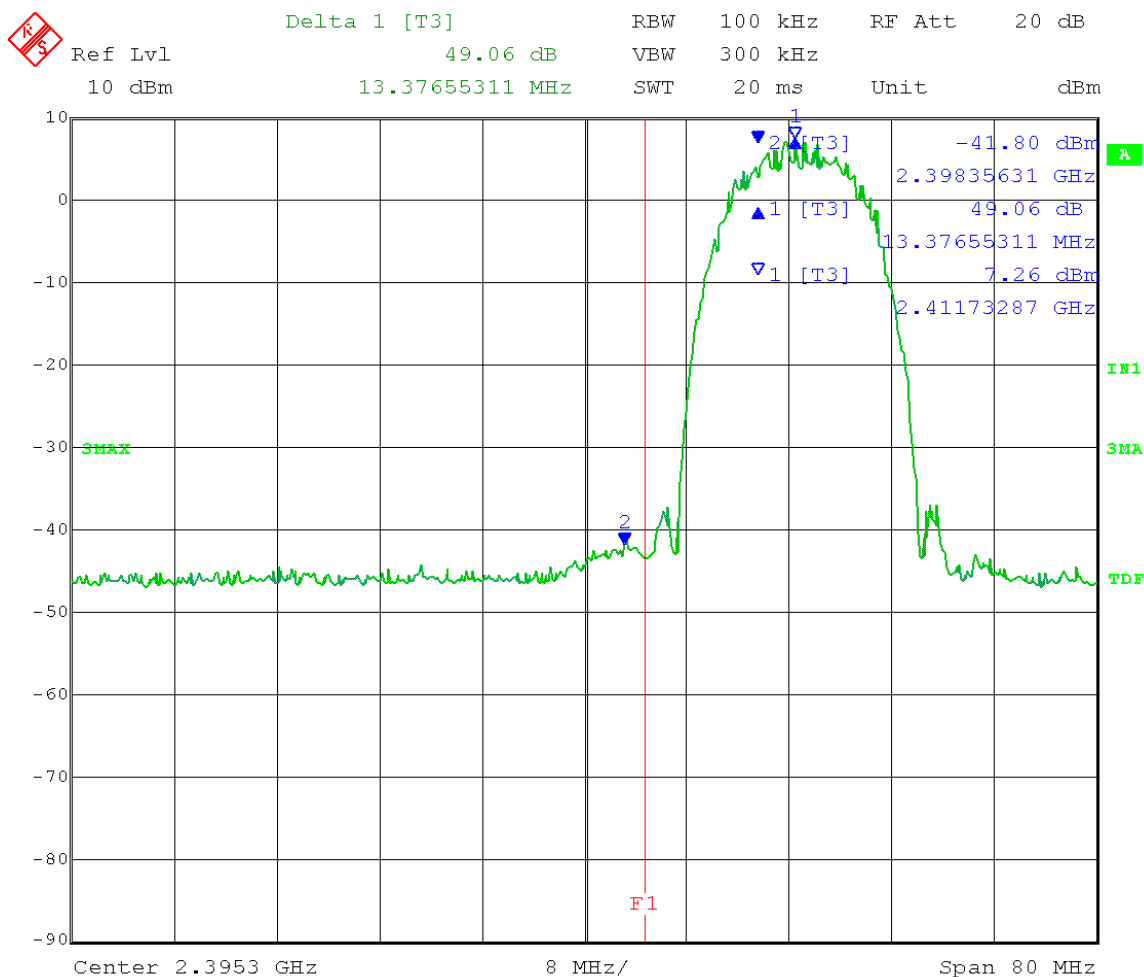
DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

5163



Date: 7.JAN.2013 11:09:29



166 South Carter, Genoa City, WI 53128

Test Date: 01-07-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Band-Edge Measurements - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

Detector = Peak

Trace = max hold

Output power setting: 18

802.11g OFDM 54Mbps

Output port J2

Limit: Band-Edge > 20 dB below Peak In-Band Emission

Band-Edge Frequency (F1) = 2.4 GHz

Company:

Model Tested:

Report Number:

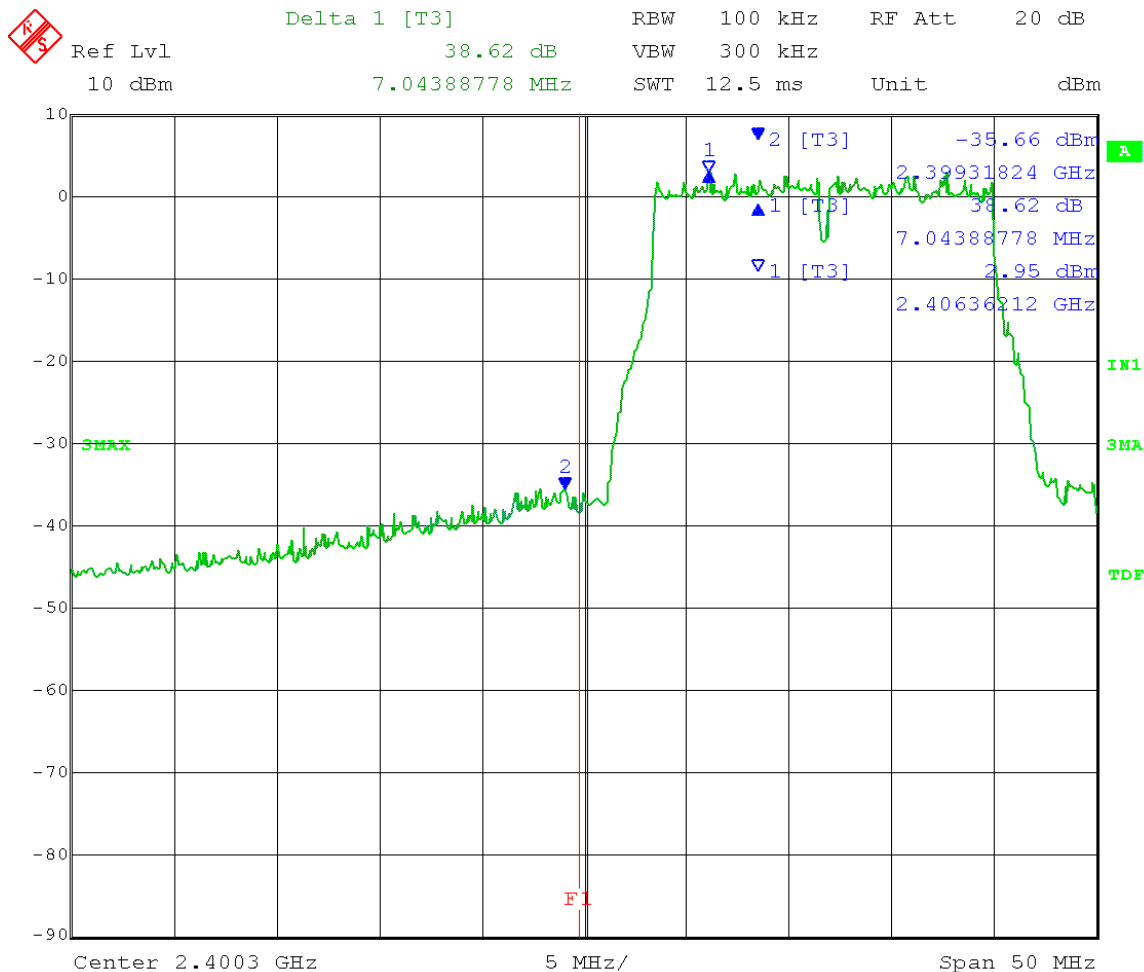
DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

5163



Date: 7.JAN.2013 11:01:16



166 South Carter, Genoa City, WI 53128

Test Date: 01-07-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Band-Edge Measurements - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

VBW $\geq$ 300 kHz

Detector = Peak

Sweep = auto couple

Trace = max hold

Low Channel: Transmit = 2.412 GHz

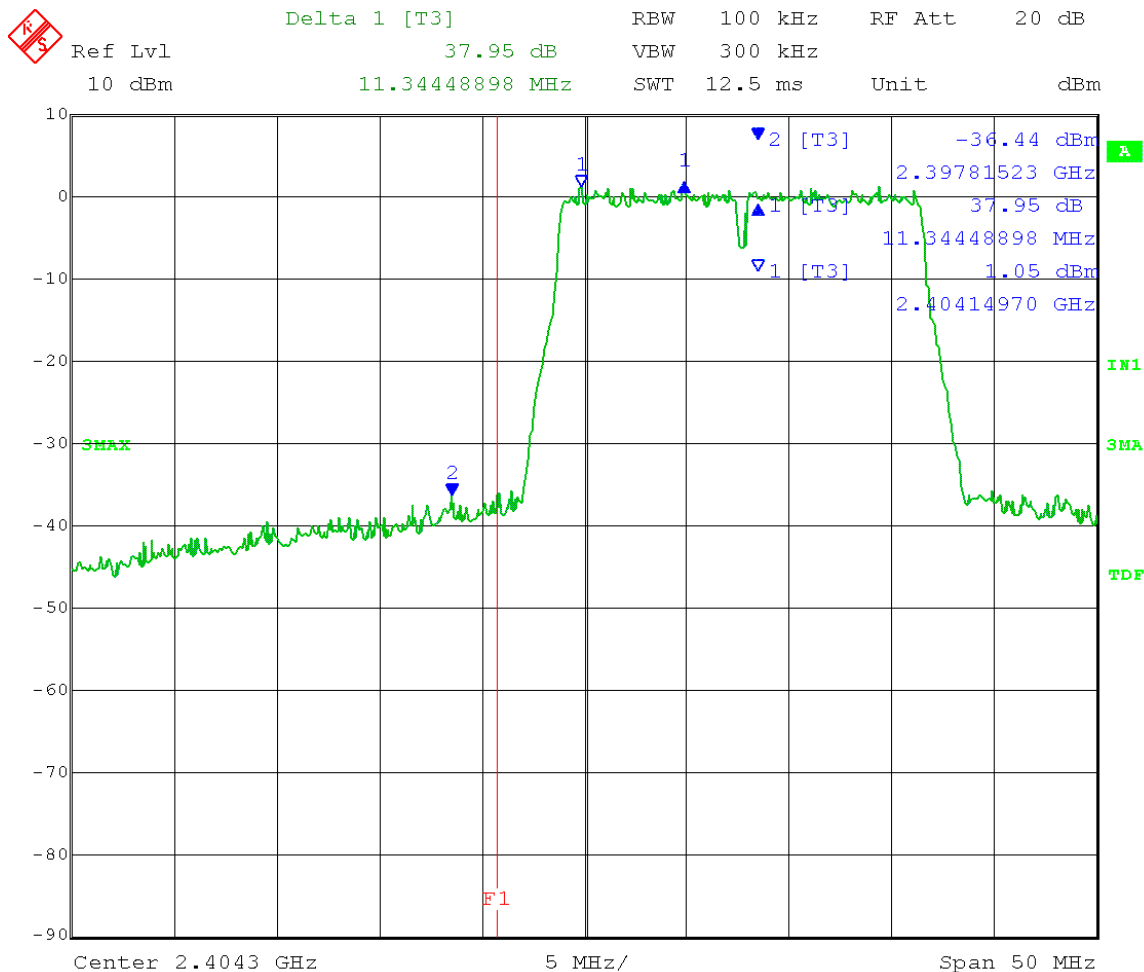
Output power setting: 18

802.11n MC7S - 20MHz

Output port J2

Limit: Band-Edge > 20 dB below Peak In-Band Emission

Band-Edge Frequency (F1) = 2.4 GHz



Date: 7.JAN.2013 10:57:22



166 South Carter, Genoa City, WI 53128

Test Date: 01-07-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Band-Edge Measurements - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

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VBW $\geq$ 300 kHz

Sweep = auto couple

Low Channel: Transmit = 2.422 GHz

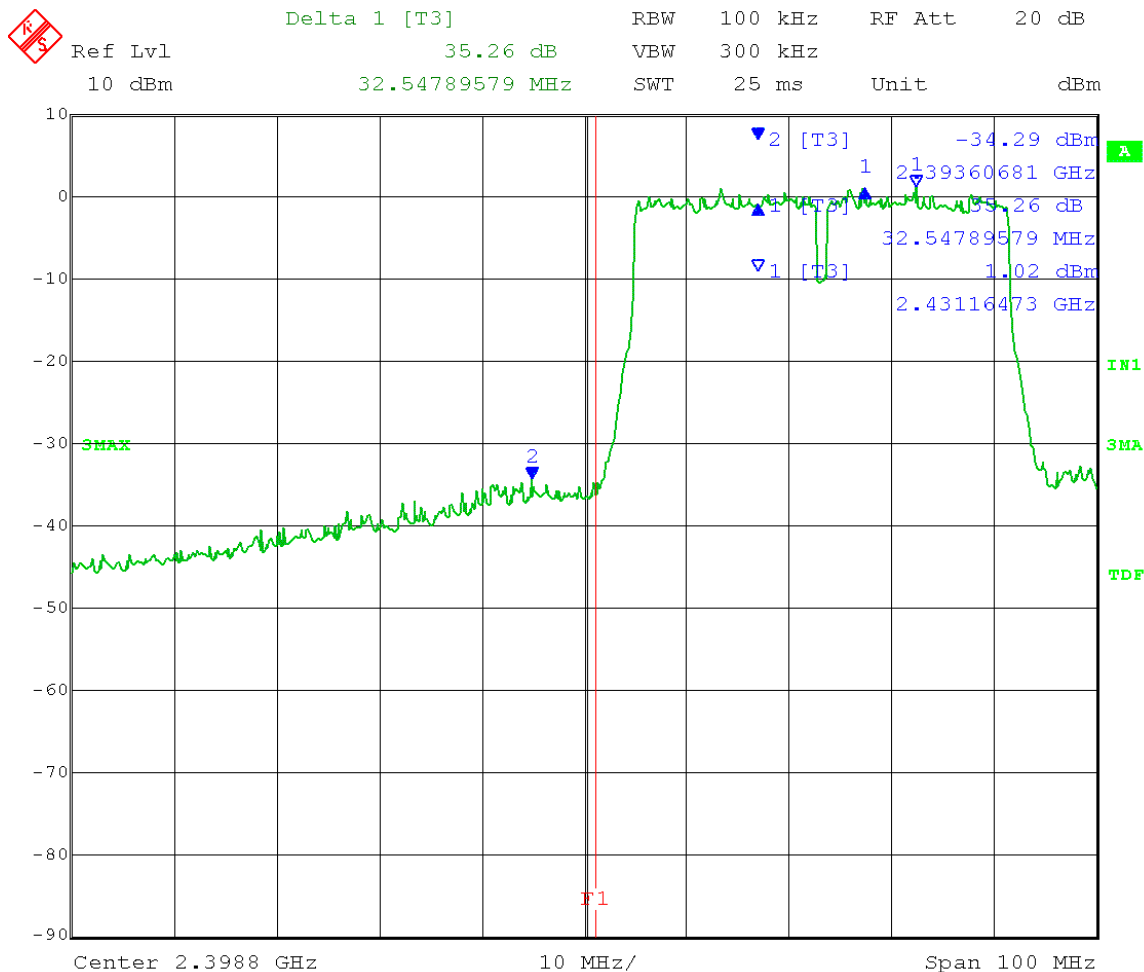
Output power setting: 18

802.11n MC7S - 40MHz

Output port J2

Limit: Band-Edge > 20 dB below Peak In-Band Emission

Band-Edge Frequency (F1) = 2.4 GHz



Date: 7.JAN.2013 10:53:20



166 South Carter, Genoa City, WI 53128

Test Date: 01-04-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Band-Edge Measurements - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

VBW $\geq$ 300 kHz

Detector = Peak

Sweep = auto couple

Trace = max hold

High Channel: Transmit = 2.462 GHz

Output power setting: 19

802.11b DSSS 1 Mbps

Output port J2

Limit: Band-Edge > 20 dB below Peak In-Band Emission

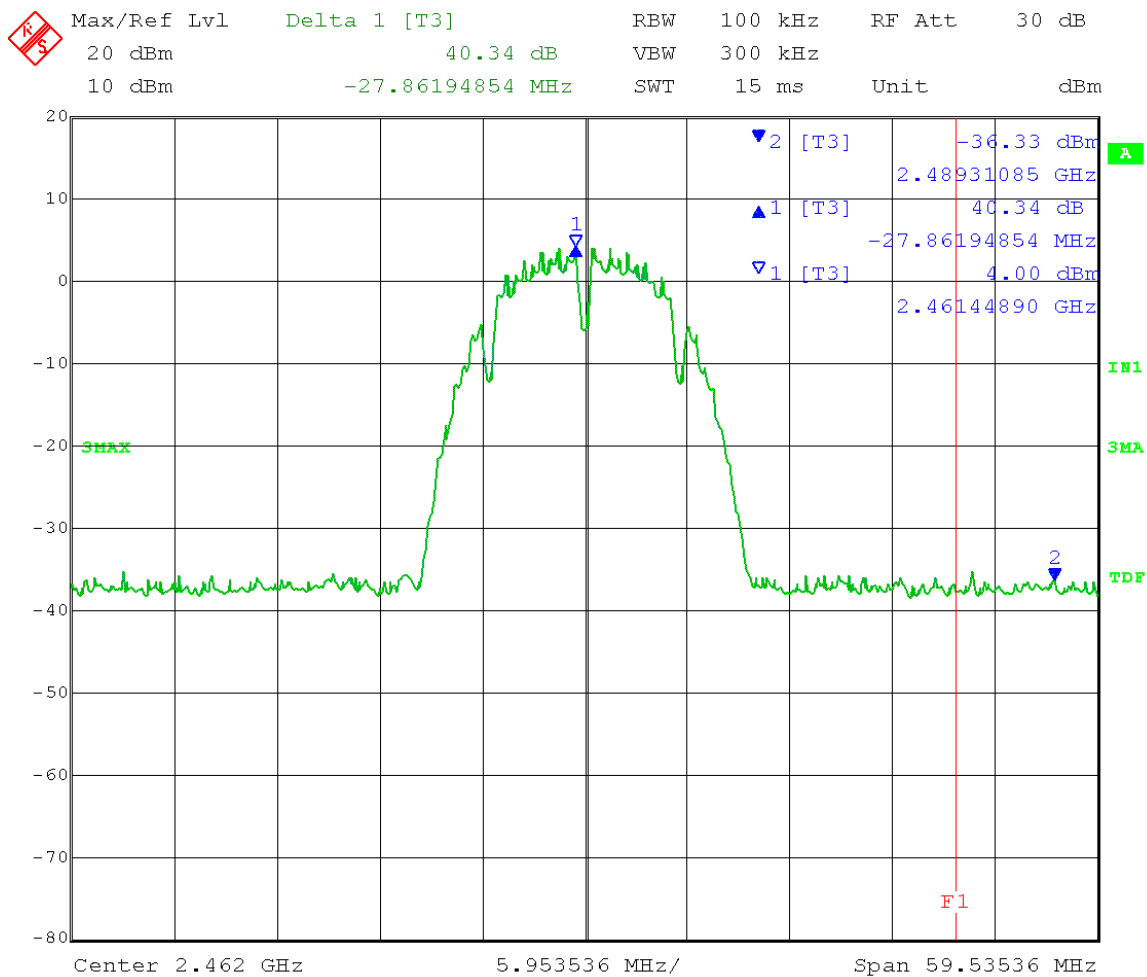
Band-Edge Frequency (F1) = 2.4835 GHz

Company: Whirlpool Corporation

Model Tested: XPWP and XPWC

Report Number: 18708

DLS Project: 5163



Date: 4.JAN.2013 15:52:32



166 South Carter, Genoa City, WI 53128

Test Date: 01-07-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Band-Edge Measurements - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

5163

VBW $\geq$ 300 kHz

Sweep = auto couple

High Channel: Transmit = 2.462 GHz

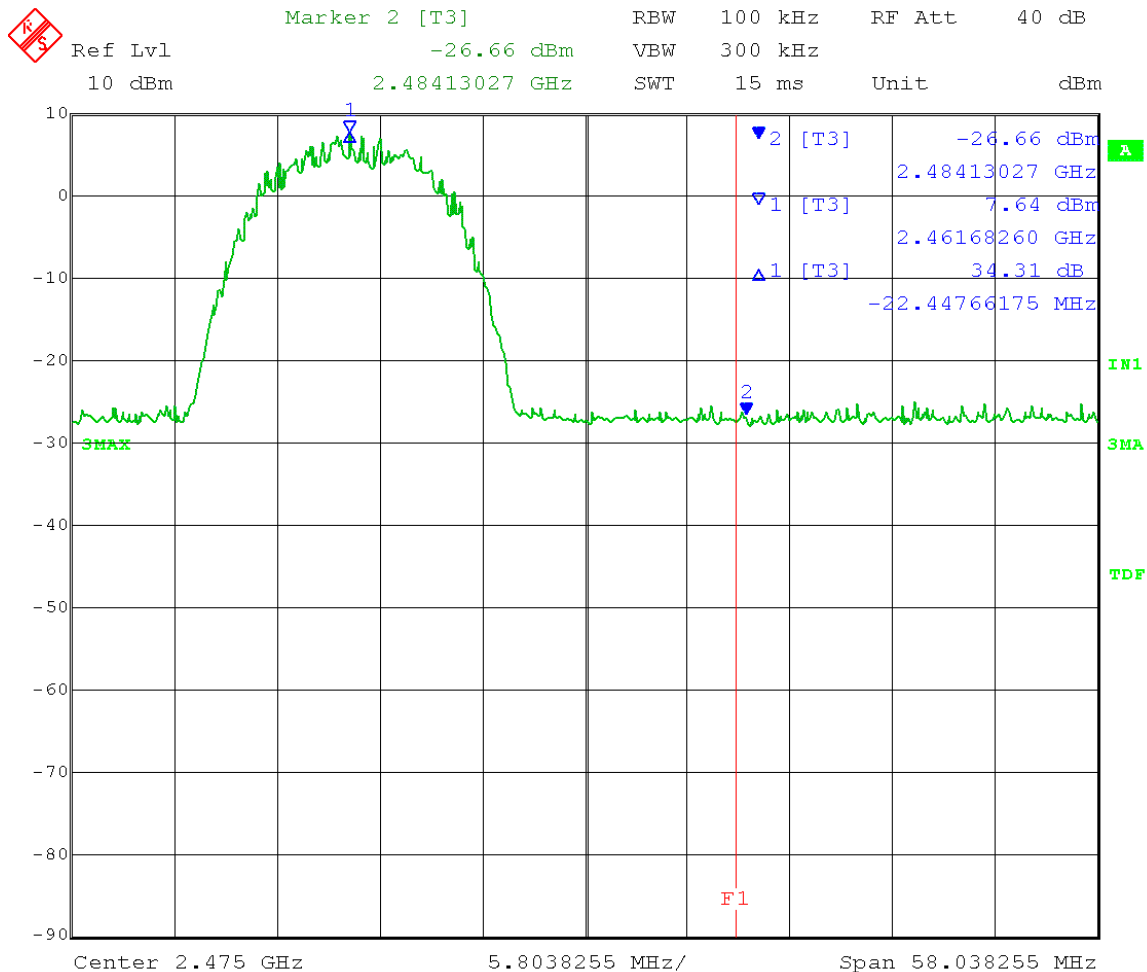
Output power setting: 19

802.11b CCK 5.5 Mbps

Output port J2

Limit: Band-Edge > 20 dB below Peak In-Band Emission

Band-Edge Frequency (F1) = 2.4835 GHz





166 South Carter, Genoa City, WI 53128

Test Date: 01-07-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Band-Edge Measurements - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

5163

VBW $\geq$ 300 kHz

Sweep = auto couple

High Channel: Transmit = 2.462 GHz

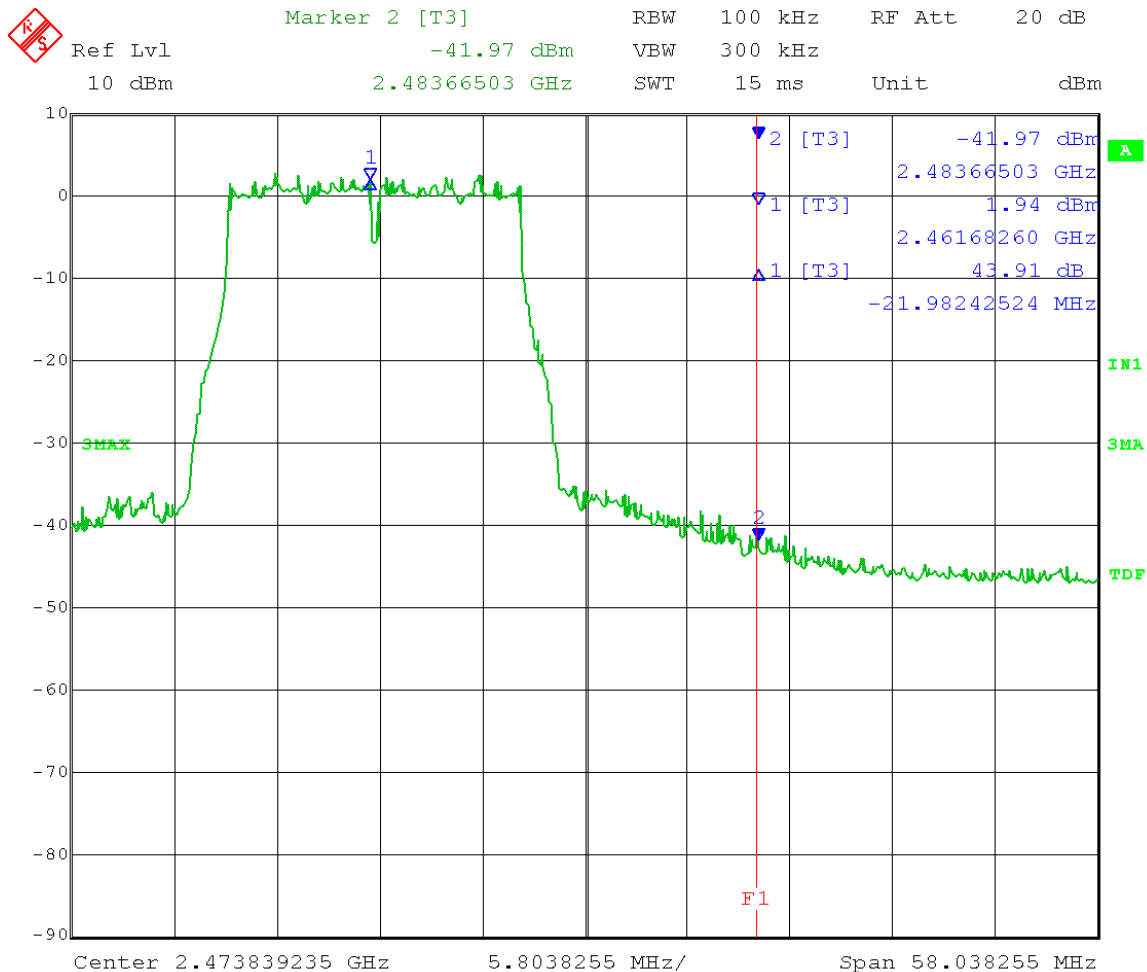
Output power setting: 19

802.11g OFDM 54Mbps

Output port J2

Limit: Band-Edge > 20 dB below Peak In-Band Emission

Band-Edge Frequency (F1) = 2.4835 GHz



Date: 7.JAN.2013 09:44:15



166 South Carter, Genoa City, WI 53128

Test Date: 01-07-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Band-Edge Measurements - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

Detector = Peak

Trace = max hold

Output power setting: 18

802.11n MC7S – 20MHz

Limit: Band-Edge > 20 dB below Peak In-Band Emission

Band-Edge Frequency (**F1**) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

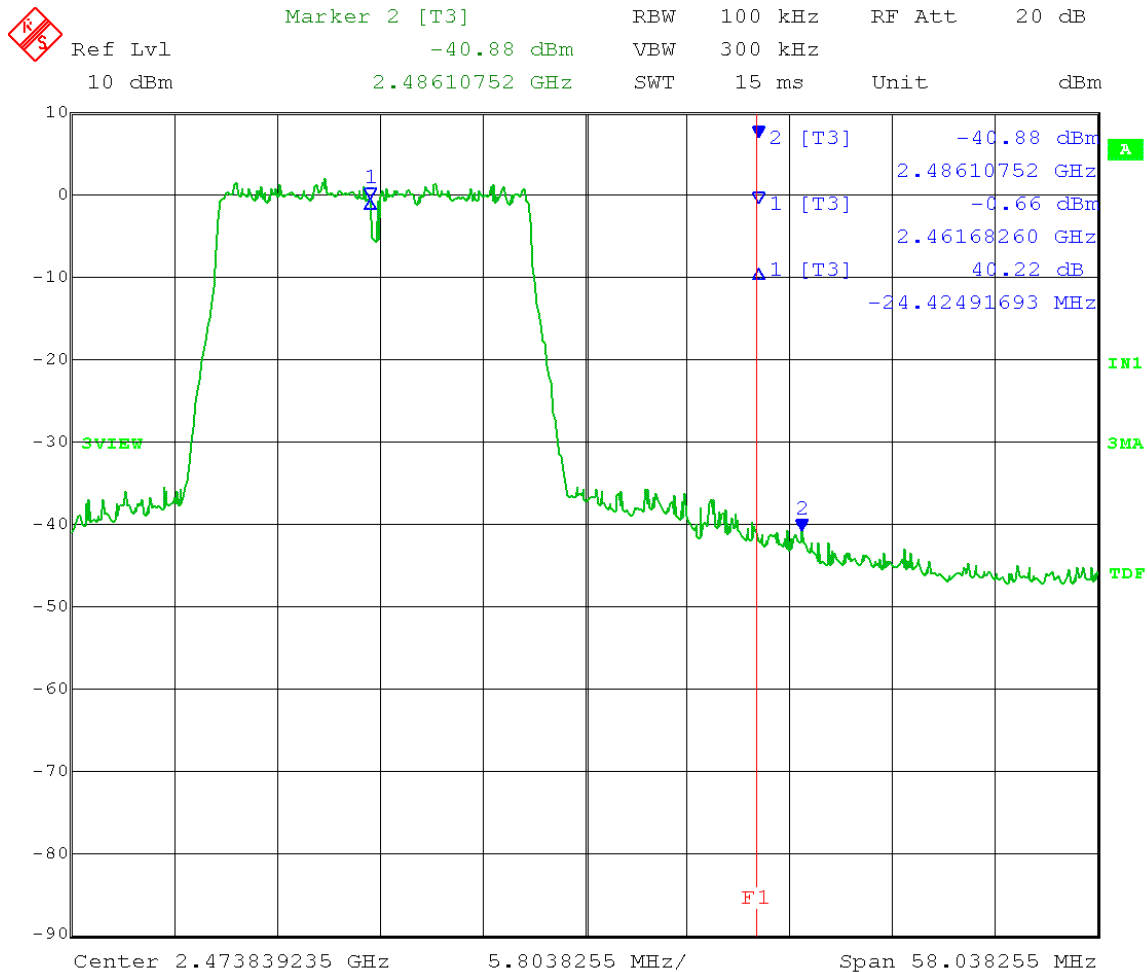
5163

VBW $\geq$ 300 kHz

Sweep = auto couple

High Channel: Transmit = 2.462 GHz

Output port J2



Date: 7.JAN.2013 09:50:30



166 South Carter, Genoa City, WI 53128

Test Date: 01-07-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Band-Edge Measurements - Conducted

Operator: Jim O

Comment: RBW = 100 kHz

Detector = Peak

Trace = max hold

Output power setting: 18

802.11n MC7S - 40MHz

Output port J2

Limit: Band-Edge > 20 dB below Peak In-Band Emission

Band-Edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

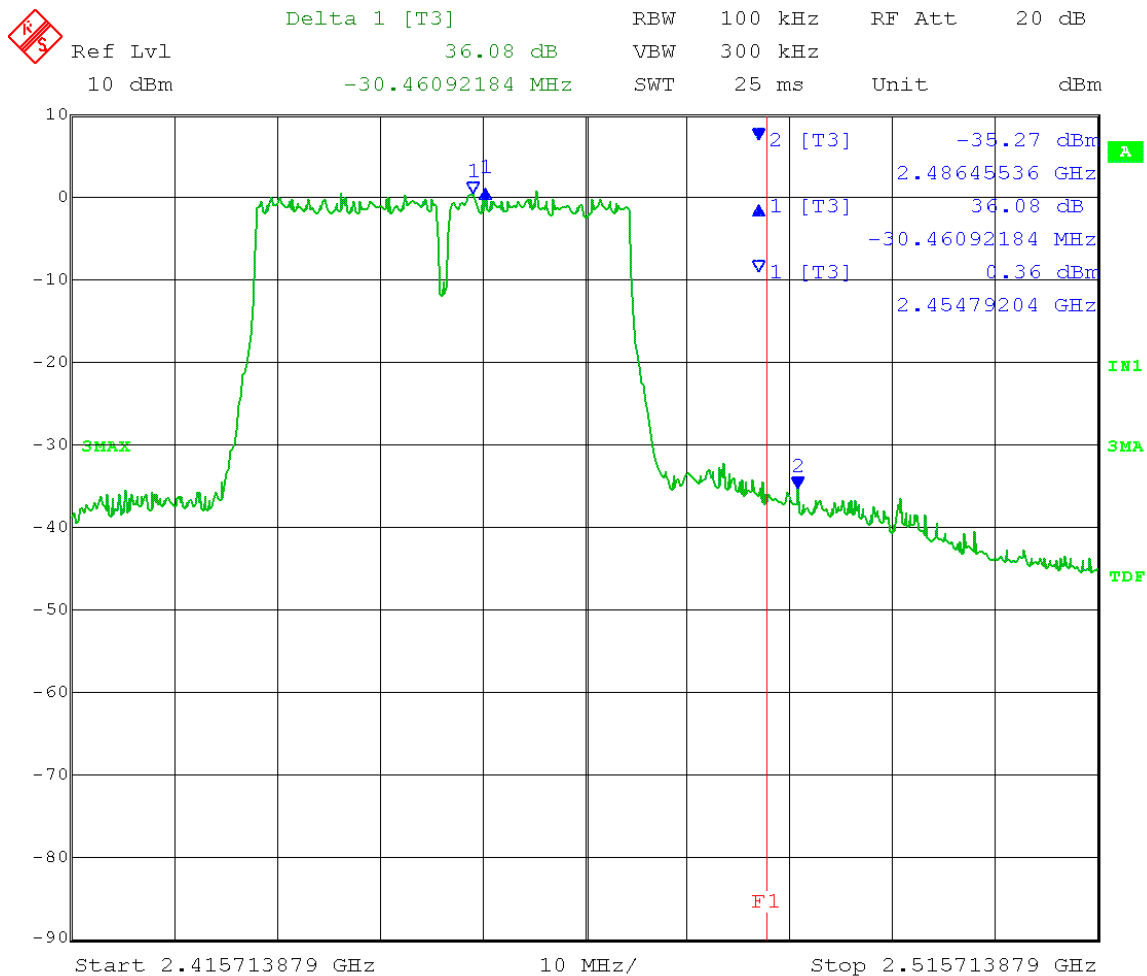
DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

5163



Date: 7.JAN.2013 09:57:03



166 South Carter, Genoa City, WI 53128

Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
XPWP and XPWC
18708
5163

Appendix B

7.0 Band-Edge Measurements – Radiated

Upper band-edge coincides with a restricted band.

Rule Part:

15.247(d), 15.205(a), 15.209(a)

Test Procedure:

558074 D01 DTS Meas Guidance v02
10.2 Unwanted Emissions into Restricted Frequency Bands
10.2.1 Radiated Emissions Measurements
ANSI C63.10:2009

Limit:

15.209(a)

Results:

Compliant

Notes:

This was an RF radiated measurement. External antennas were connected through a "Fakra" (snap-on) connector allowing for cable/antenna to PCBRD installation simplicity.

The EUT was powered through a cable that was connected to the battery supply of 9.6 VDC. The EUT was set to transmit continuously at its maximum power on J2 port (determined worst case) on the highest channel of the operating band. The EUT was tested in all modulating signal modes encountered in a real system operation.



166 South Carter, Genoa City, WI 53128

Test Date: 12-17-2012

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Craig B

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19 802.11b DSSS 1 Mbps

Output port J2; on-board antenna Horizontal polarization

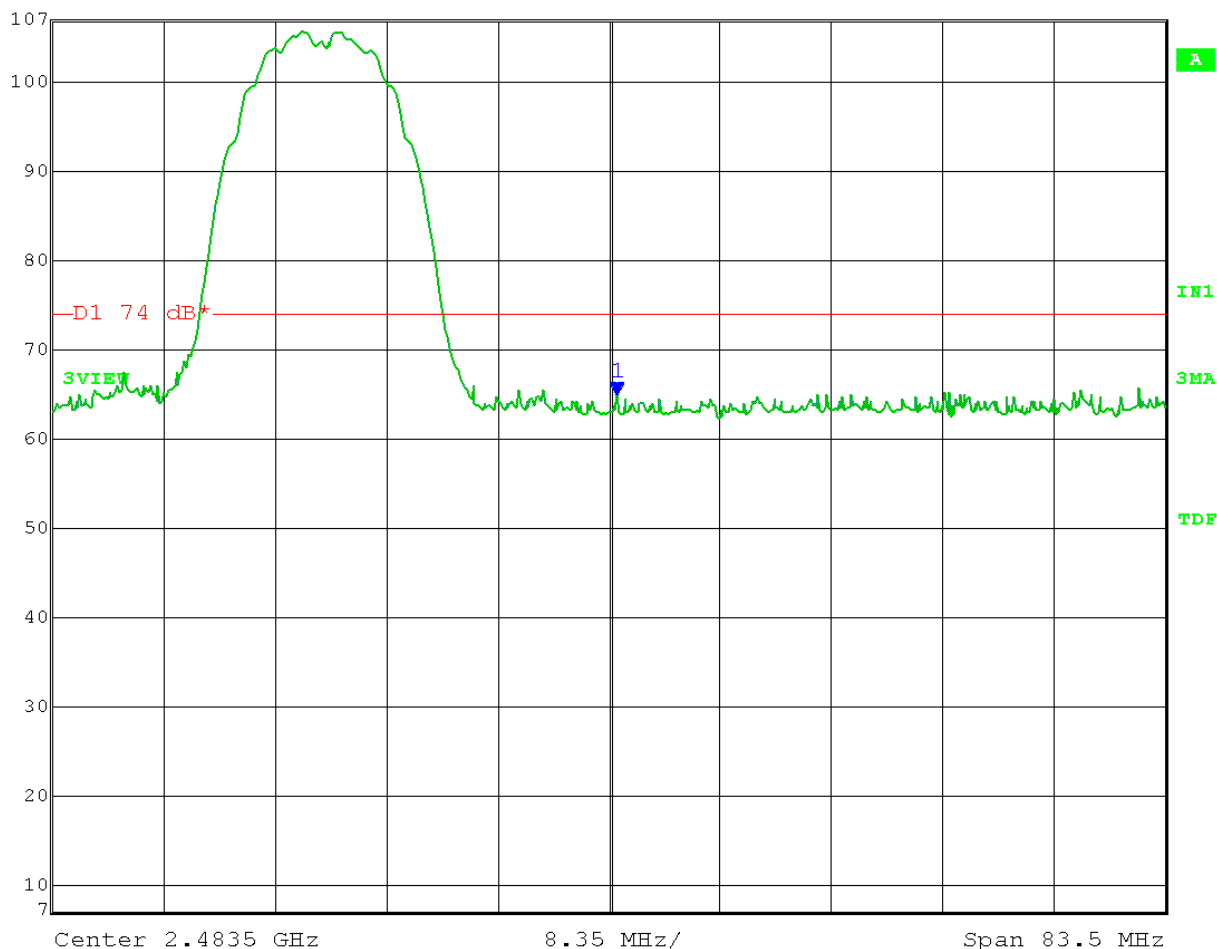
Detector: Peak Test distance: 3 meters

Upper Band-edge = 2.4835GHz Limit (D1) = 74dBuV/m

Company:
Model Tested:
Report Number:
DLS Project:

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	Max/Ref Lvl	Marker 1 [T3]	RBW	1 MHz	RF Att	10 dB
	107 dB*	64.81 dBuV/m	VBW	3 MHz		
	87 dB*	2.48408567 GHz	SWT	5 ms	Unit	dBuV/m



Date: 17.DEC.2012 11:21:44



166 South Carter, Genoa City, WI 53128

Test Date: 12-17-2012

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Craig B

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19 802.11b DSSS 1 Mbps

Output port J2; on-board antenna Horizontal polarization

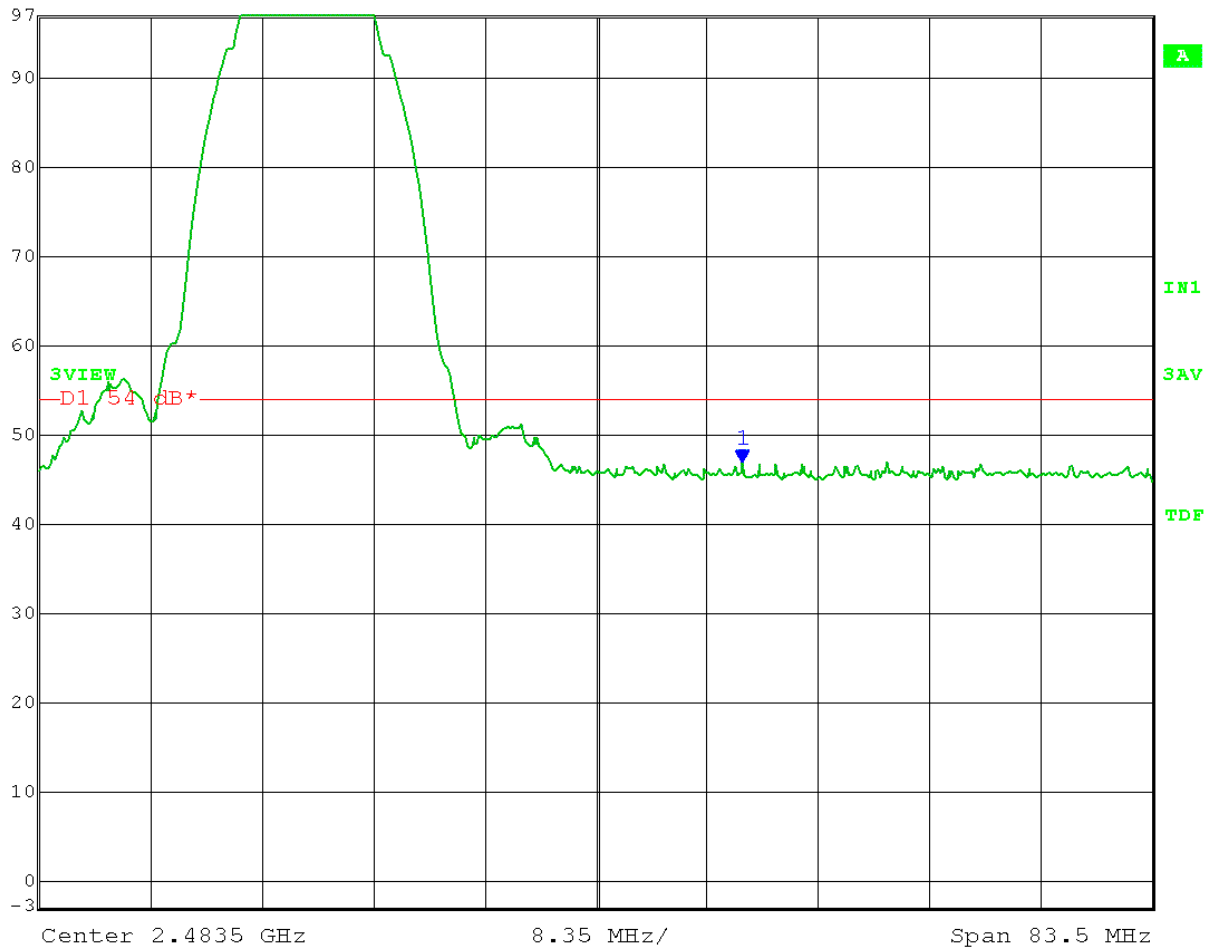
Detector: Average Test distance: 3 meters

Upper Band-edge = 2.4835GHz Limit (D1) = 54 dBuV/m

Company:
Model Tested:
Report Number:
DLS Project:

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	Max/Ref Lvl	Marker 1 [T3]	RBW	1 MHz	RF Att	0 dB
	97 dB*	46.82 dBuV/m	VBW	3 MHz		
	77 dB*	2.49446042 GHz	SWT	5 ms	Unit	dBuV/m



Date: 17.DEC.2012 11:22:56



166 South Carter, Genoa City, WI 53128

Test Date: 12-17-2012

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Craig B

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19 802.11b DSSS 1 Mbps

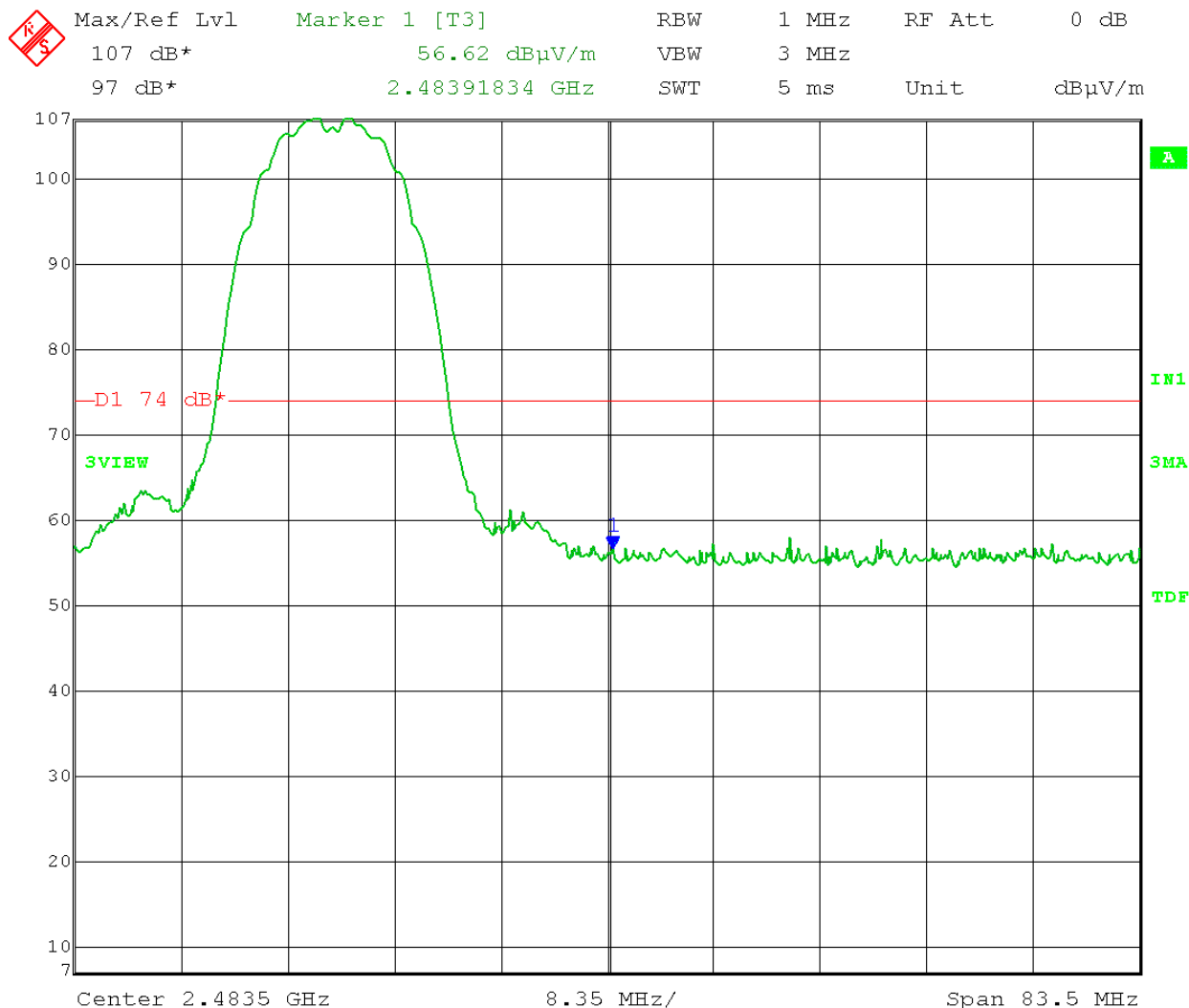
Output port J2; on-board antenna Vertical polarization

Detector: Peak Test distance: 3 meters

Upper Band-edge = 2.4835GHz Limit (D1) = 74 dBuV/m

Company:
Model Tested:
Report Number:
DLS Project:

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Date: 17.DEC.2012 11:07:39



166 South Carter, Genoa City, WI 53128

Test Date: 12-17-2012

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Craig B

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19 802.11b DSSS 1 Mbps

Output port J2; on-board antenna Vertical polarization

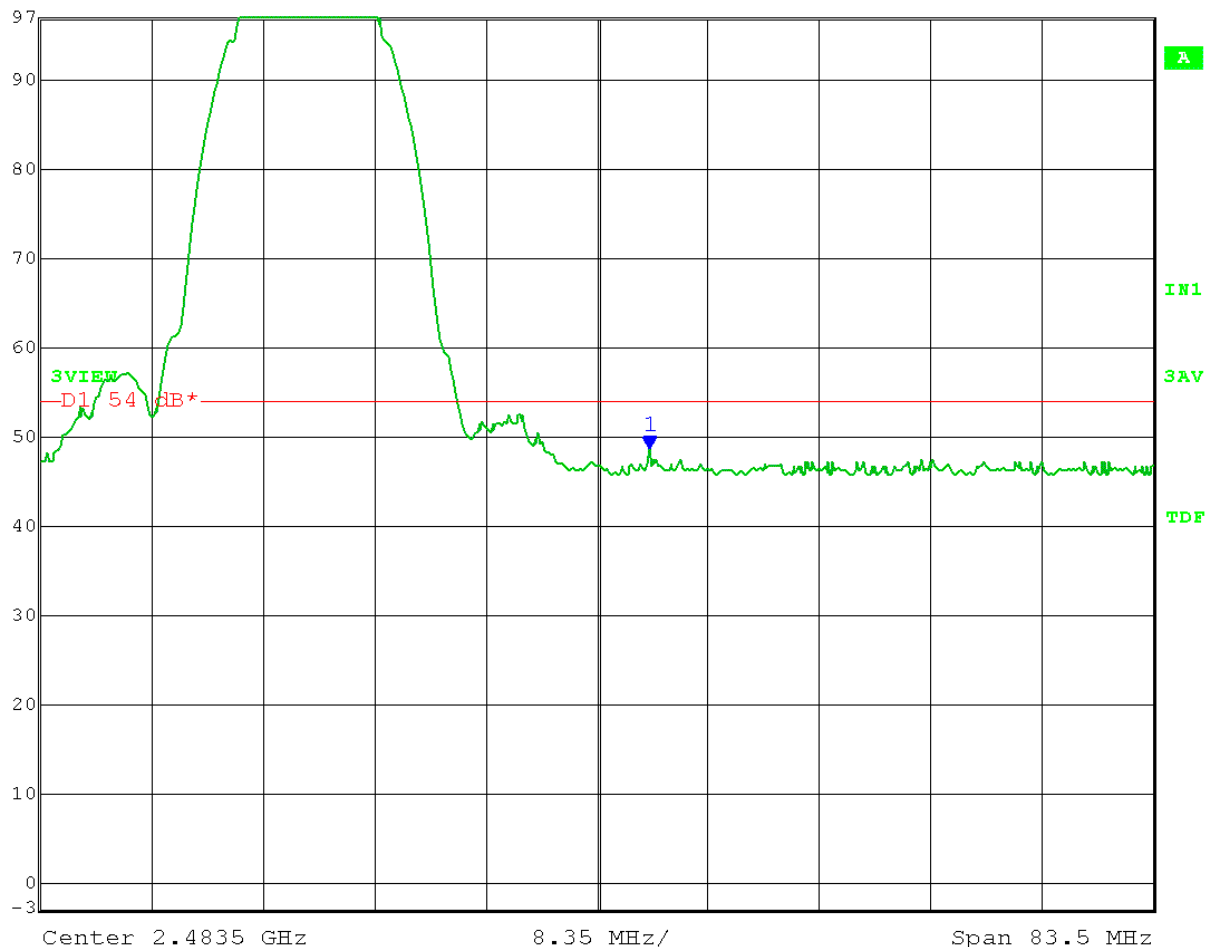
Detector: Average Test distance: 3 meters

Upper Band-edge = 2.4835GHz Limit (D1) = 54 dBuV/m

Company:
Model Tested:
Report Number:
DLS Project:

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Max/Ref Lvl Marker 1 [T3] RBW 1 MHz RF Att 0 dB
97 dB* 48.55 dBuV/m VBW 3 MHz
87 dB* 2.48743236 GHz SWT 5 ms Unit dBuV/m



Date: 17.DEC.2012 11:10:27



166 South Carter, Genoa City, WI 53128

Test Date: 01-11-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19

Output port J2; on-board antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

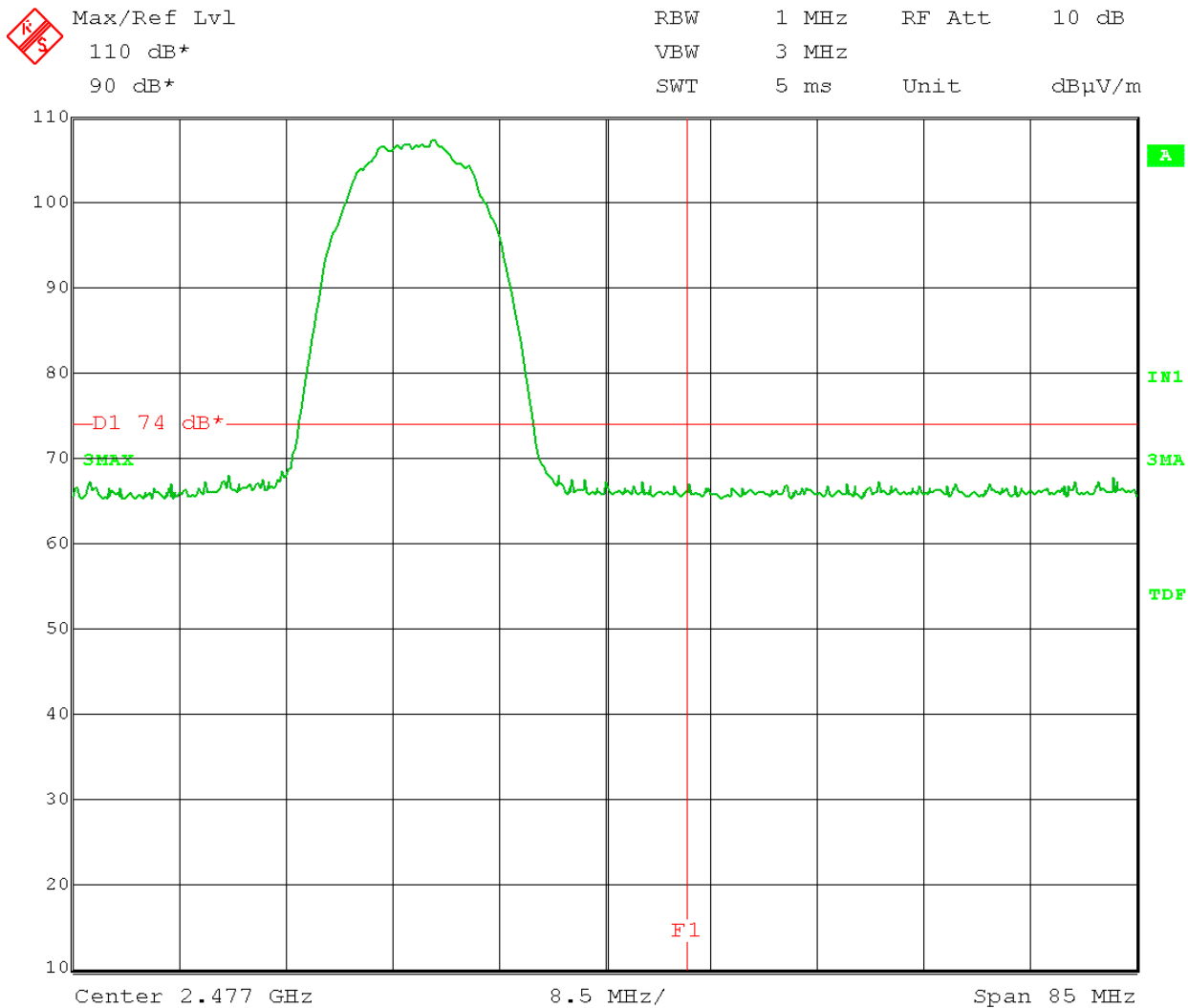
5163

802.11b CCK 5.5Mbps

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 74 dB μ V/m



Date: 11.JAN.2013 14:00:07



166 South Carter, Genoa City, WI 53128

Test Date: 01-11-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19

Output port J2; on-board antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

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18708

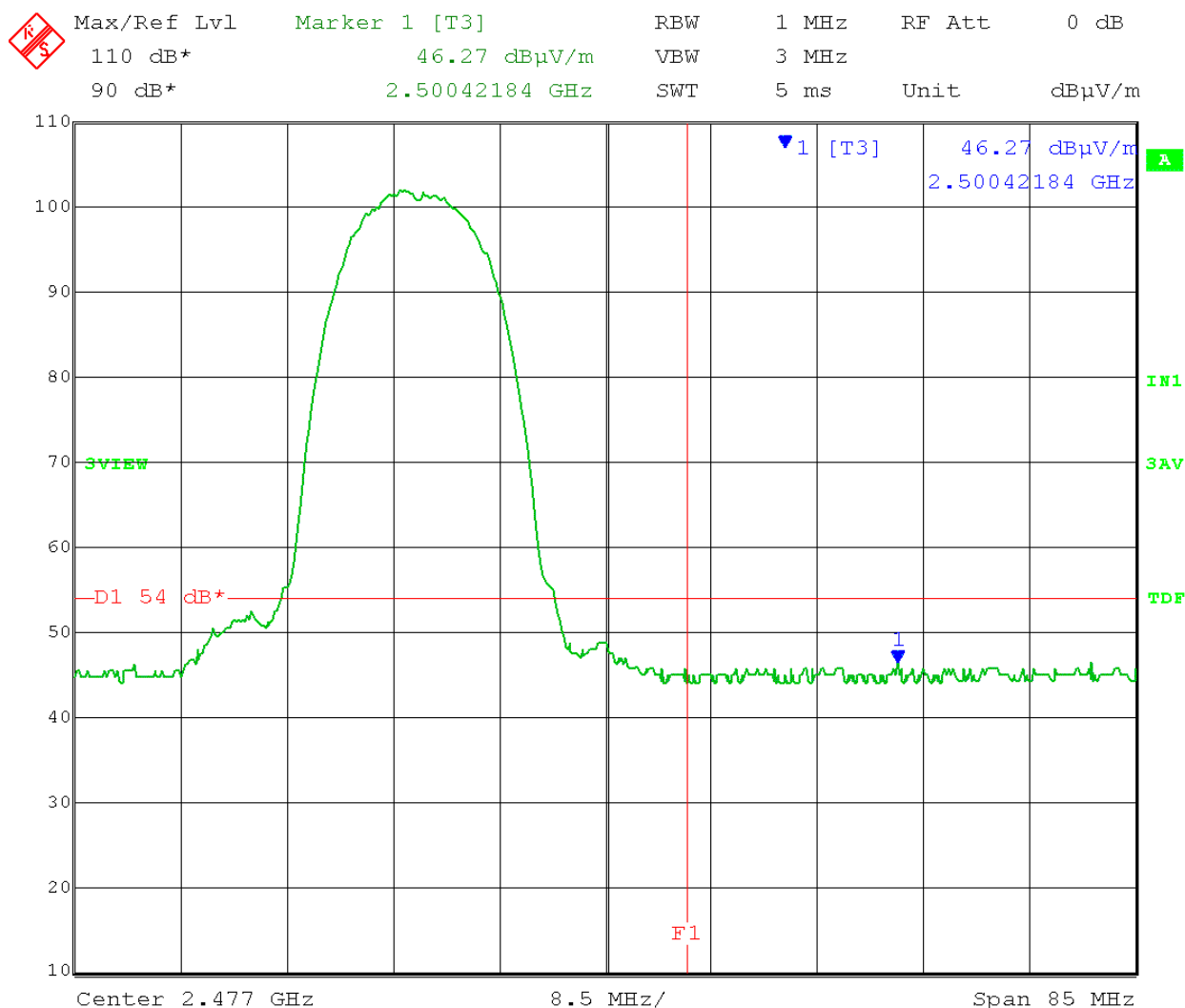
5163

802.11b CCK 5.5Mbps

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 54 dBμV/m



Date: 11.JAN.2013 14:07:10



166 South Carter, Genoa City, WI 53128

Test Date: 01-11-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19

Output port J2; on-board antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

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18708

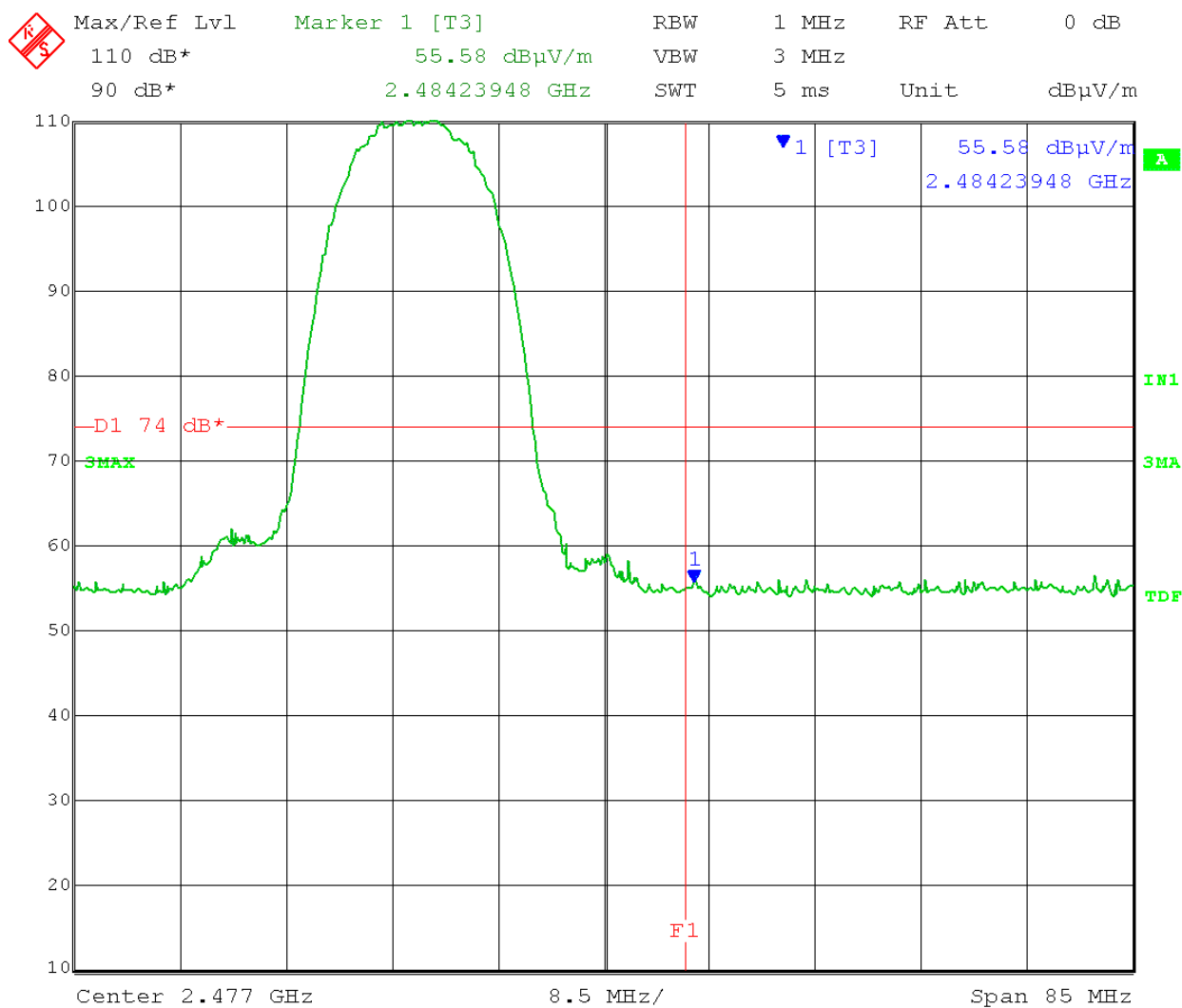
5163

802.11b CCK 5.5Mbps

Vertical polarization

Test distance: 3 meter

Limit (D1) = 74dBμV/m



Date: 11.JAN.2013 14:13:01



166 South Carter, Genoa City, WI 53128

Test Date: 01-11-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19

Output port J2; on-board antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

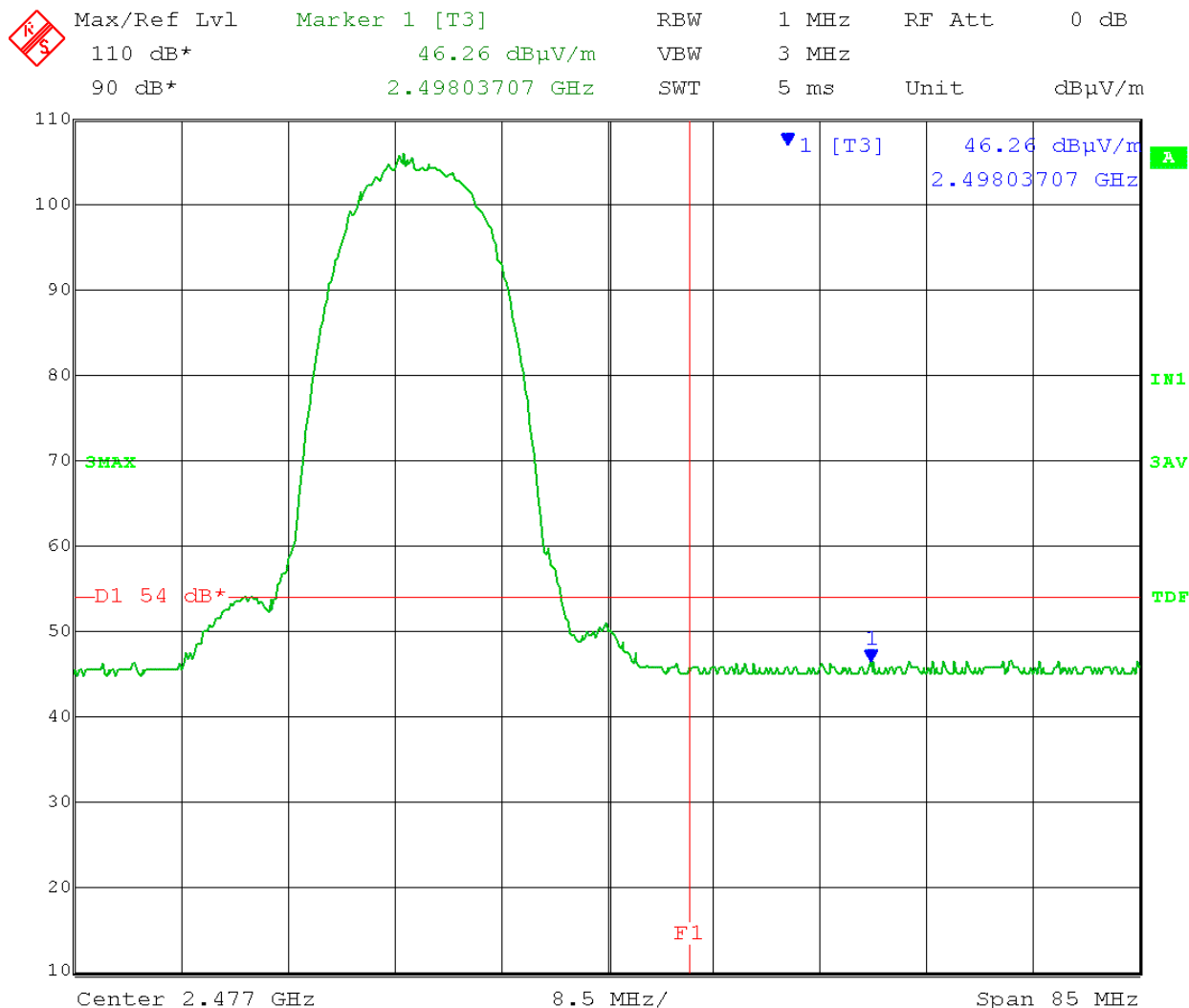
5163

802.11b CCK 5.5Mbps

Vertical polarization

Test distance: 3 meter

Limit (D1) = 54 dBμV/m



Date: 11.JAN.2013 14:10:57



166 South Carter, Genoa City, WI 53128

Test Date: 12-17-2012

Company: Whirlpool

EUT: WiFi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Craig B

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

802.11g OFDM 54 Mbps

Output port J2; on-board antenna

Horizontal polarization

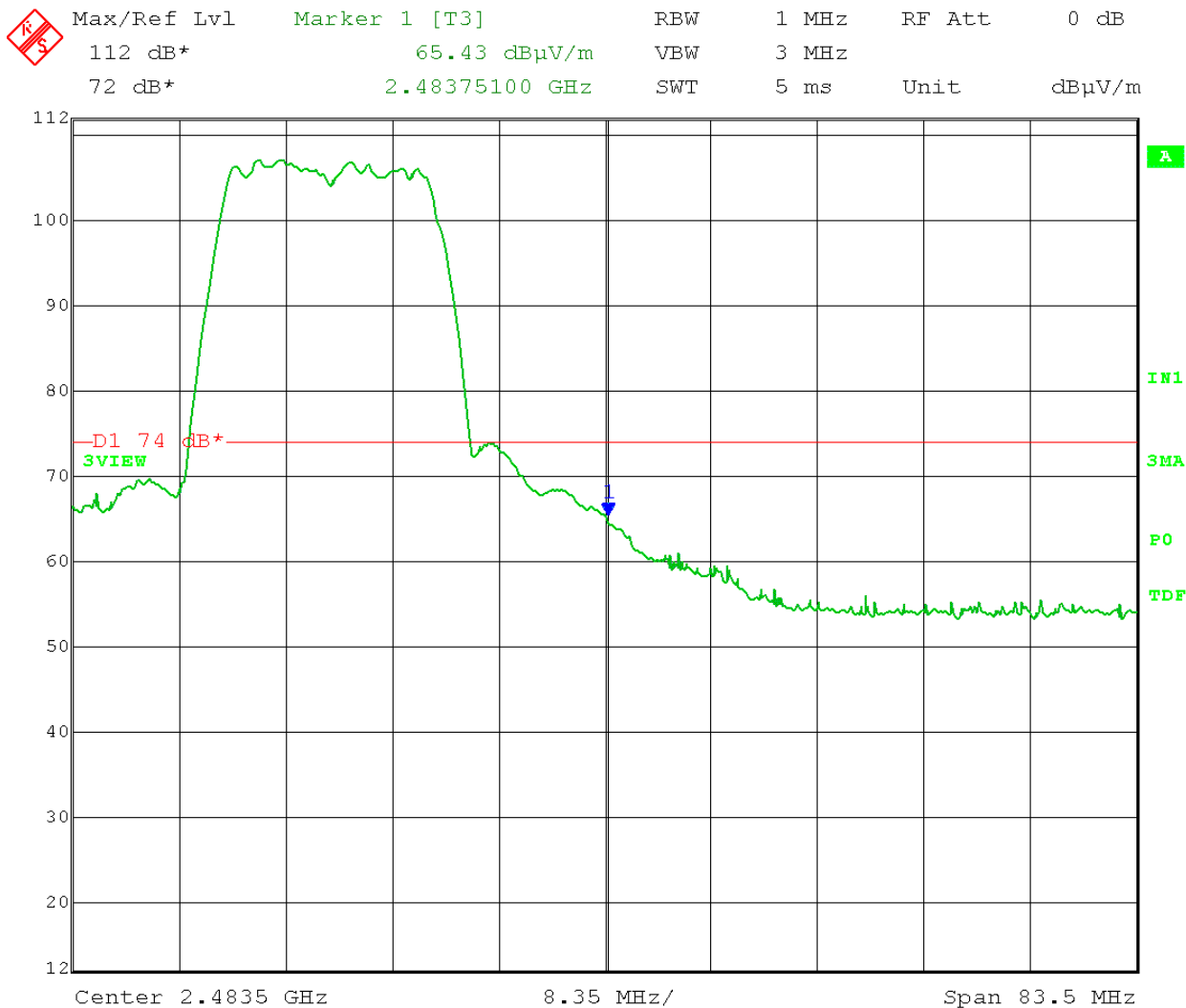
Detector: Peak

Test distance: 3 meter

Limit 74 dB μ V/m

Company:
Model Tested:
Report Number:
DLS Project:

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5163



Date: 17.DEC.2012 11:42:09



166 South Carter, Genoa City, WI 53128

Test Date: 12-17-2012

Company: Whirlpool

EUT: WiFi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Craig B

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

802.11g OFDM 54 Mbps

Output port J2; on-board antenna

Horizontal polarization

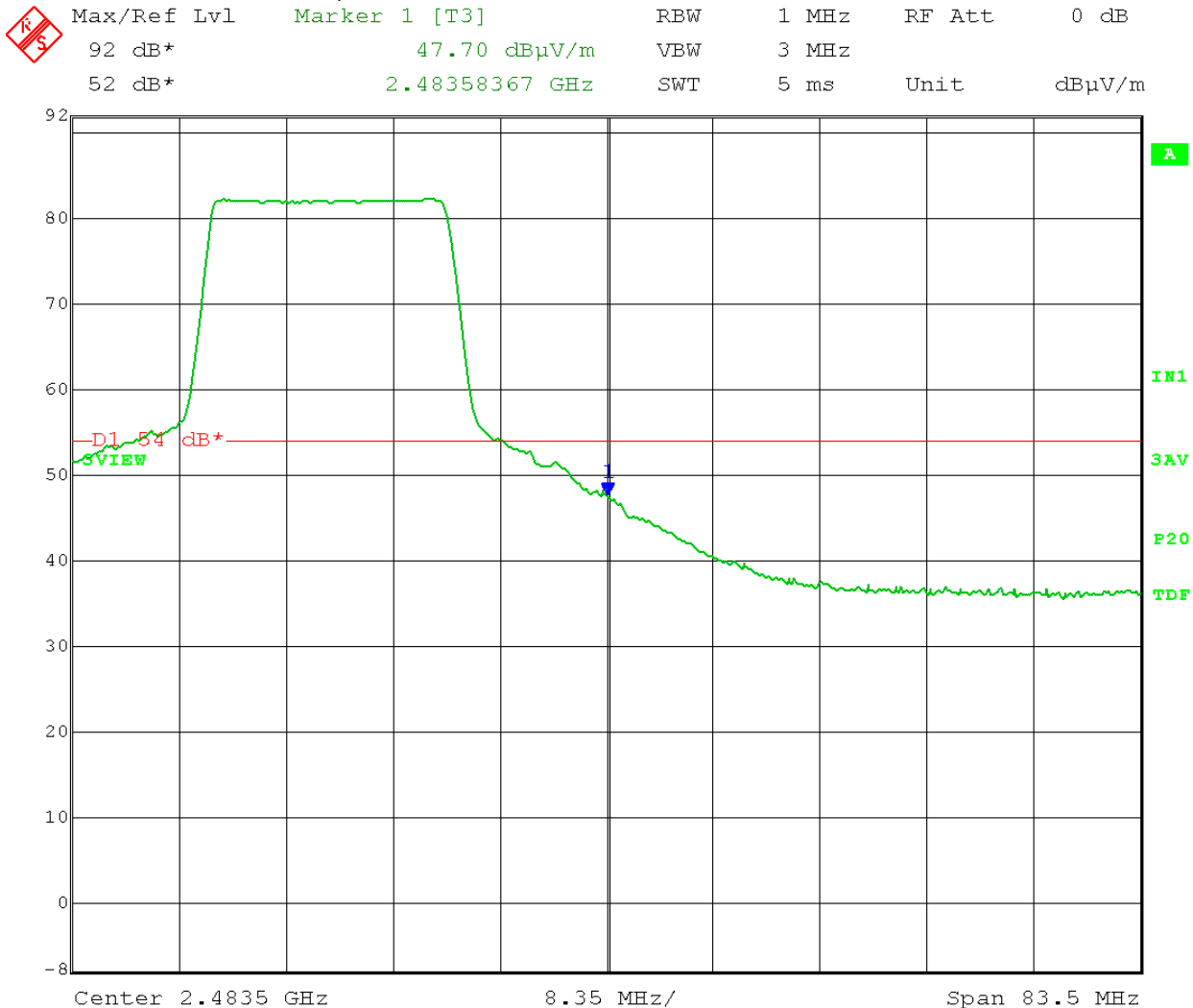
Detector: Average

Test distance: 3 meter

Limit 54 dBμV/m

Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
XPWP and XPWC
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Date: 17.DEC.2012 11:43:18



166 South Carter, Genoa City, WI 53128

Test Date: 12-17-2012

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Craig B

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

802.11g OFDM 54 Mbps

Output port J2; on-board antenna

Vertical polarization

Detector: Peak

Test distance: 3 meters

Limit (D1) = 74 dB μ V/m

Company:

Whirlpool Corporation

Model Tested:

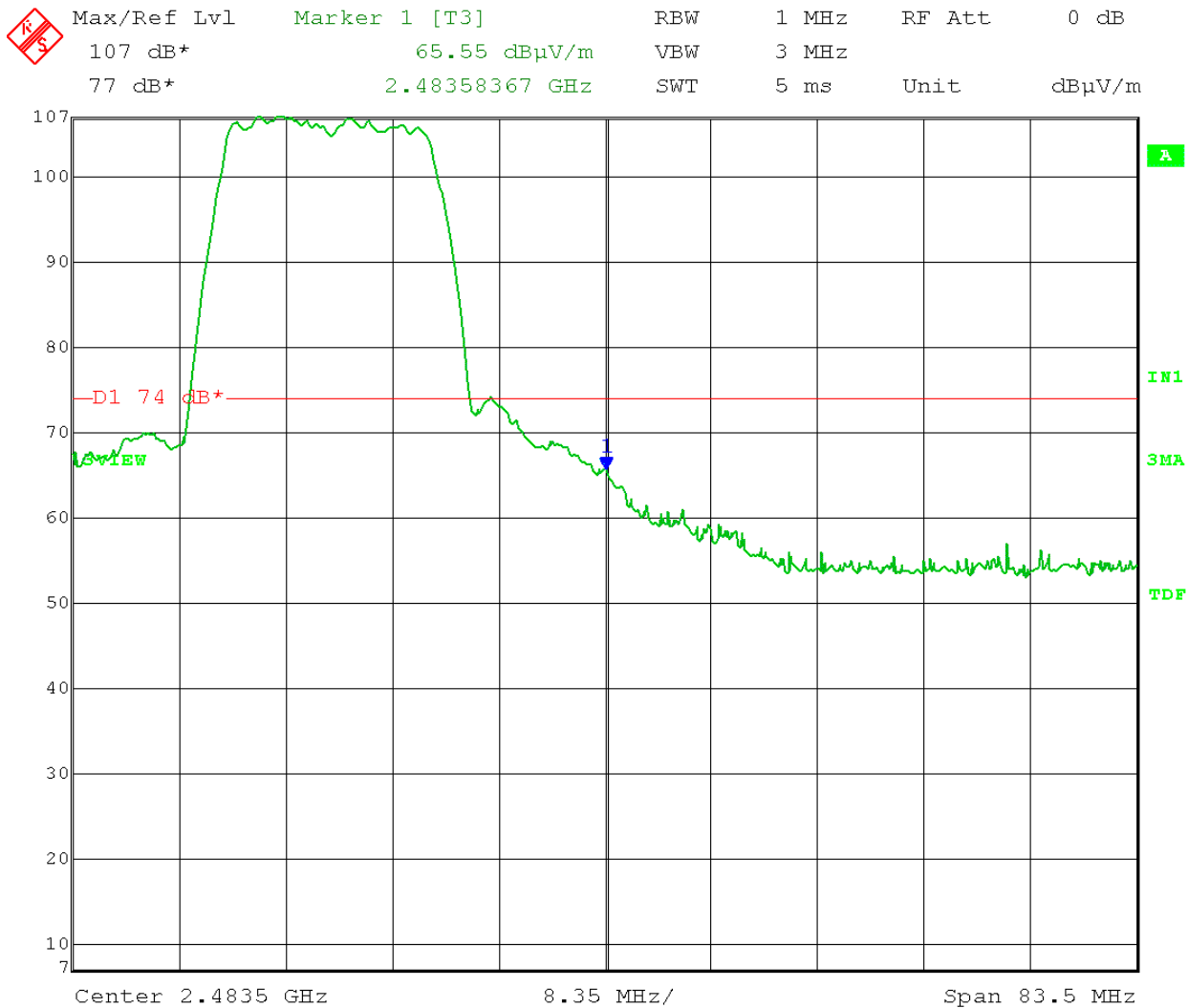
XPWP and XPWC

Report Number:

18708

DLS Project:

5163



Date: 17.DEC.2012 11:30:45



166 South Carter, Genoa City, WI 53128

Test Date: 12-17-2012

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Craig B

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

802.11g OFDM 54 Mbps

Output port J2; on-board antenna

Vertical polarization

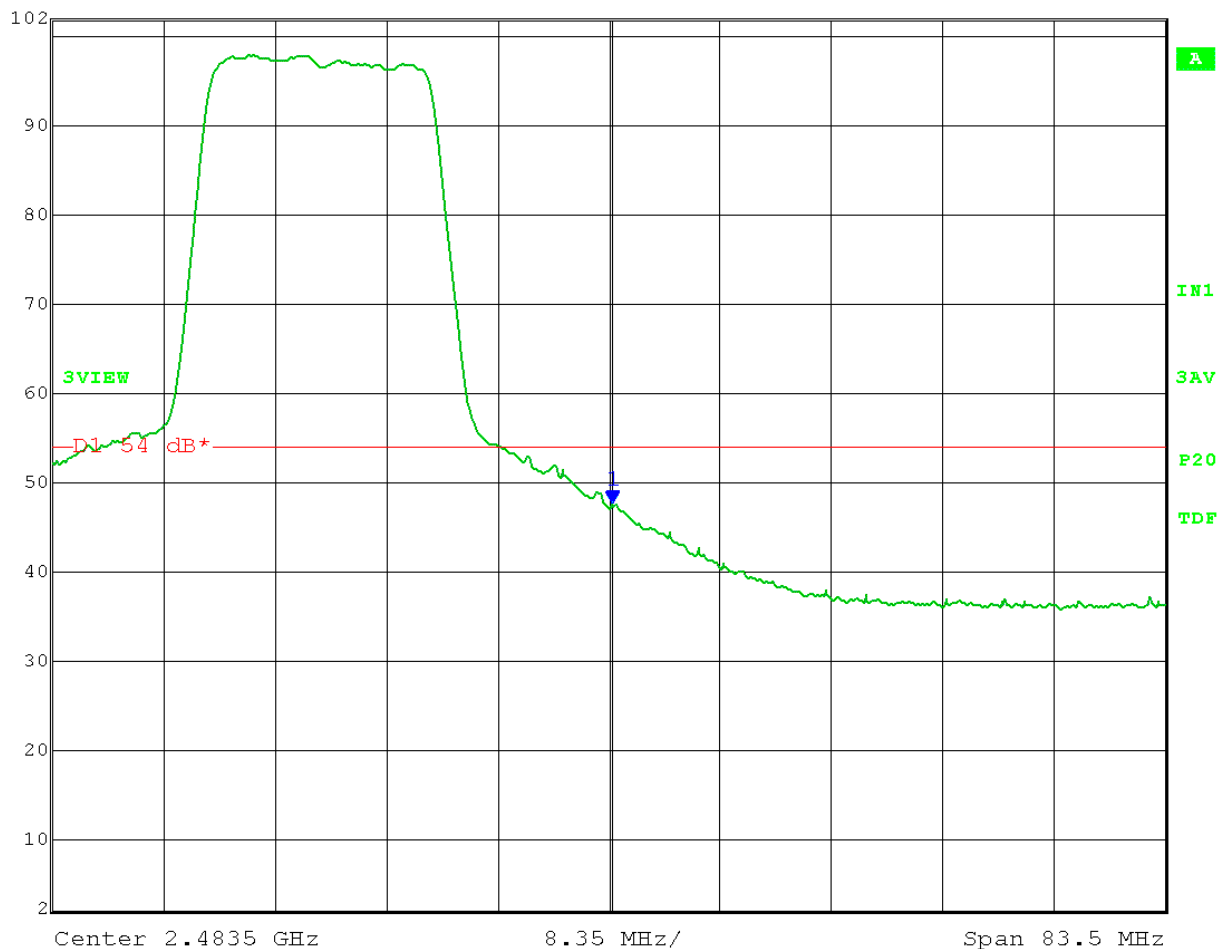
Detector: Average

Test distance: 3 meters

Limit (D1) = 54 dB μ V/m



Max/Ref Lvl	Marker 1 [T3]	RBW	1 MHz	RF Att	0 dB
102 dB*	47.52 dB μ V/m	VBW	3 MHz		
72 dB*	2.48366733 GHz	SWT	5 ms	Unit	dB μ V/m



Date: 17.DEC.2012 11:32:01



166 South Carter, Genoa City, WI 53128

Test Date: 01-11-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

Output port J2; on-board antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

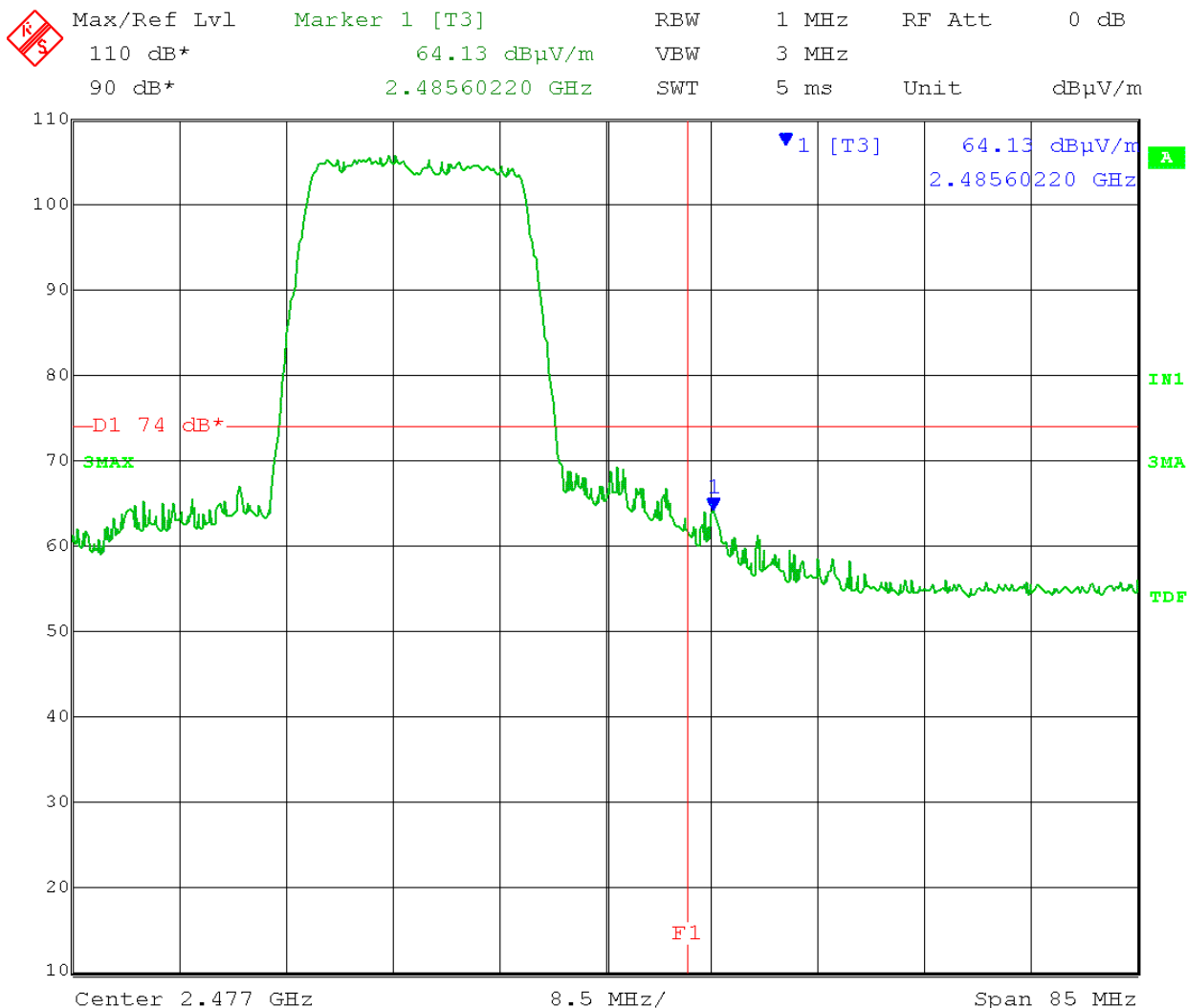
5163

802.11n; MC7S – 20MHz

Horizontal polarization

Test distance: 3 meter

Limit (D1) = 74 dBμV/m



Date: 11.JAN.2013 14:26:53



166 South Carter, Genoa City, WI 53128

Test Date: 01-11-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

Output port J2; on-board antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

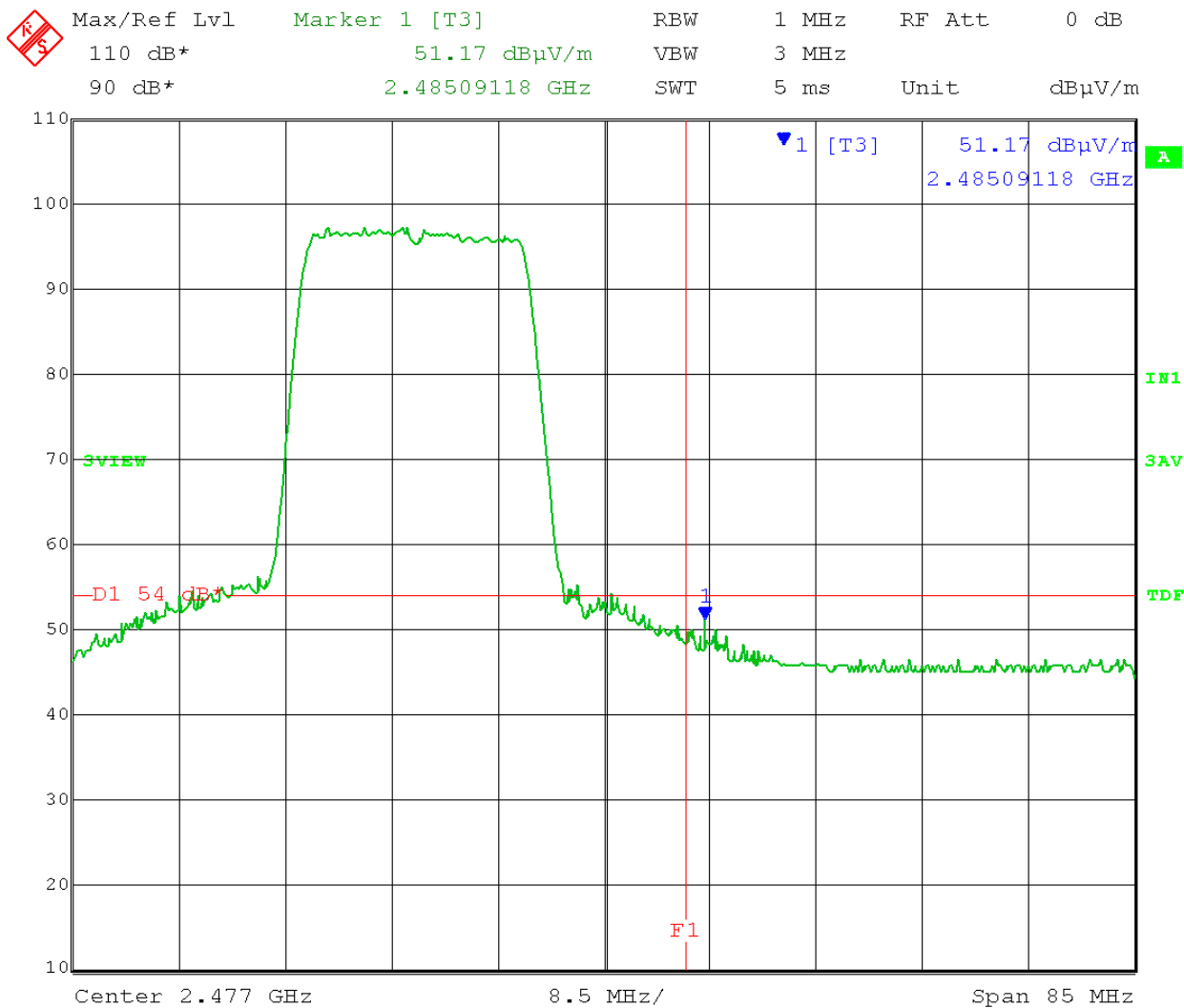
5163

802.11n; MC7S – 20MHz

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 54 dBμV/m



Date: 11.JAN.2013 14:25:01



166 South Carter, Genoa City, WI 53128

Test Date: 01-11-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

802.11n; MC7S - 20MHz

Output port J2; on-board antenna

Vertical polarization

Detector: Peak

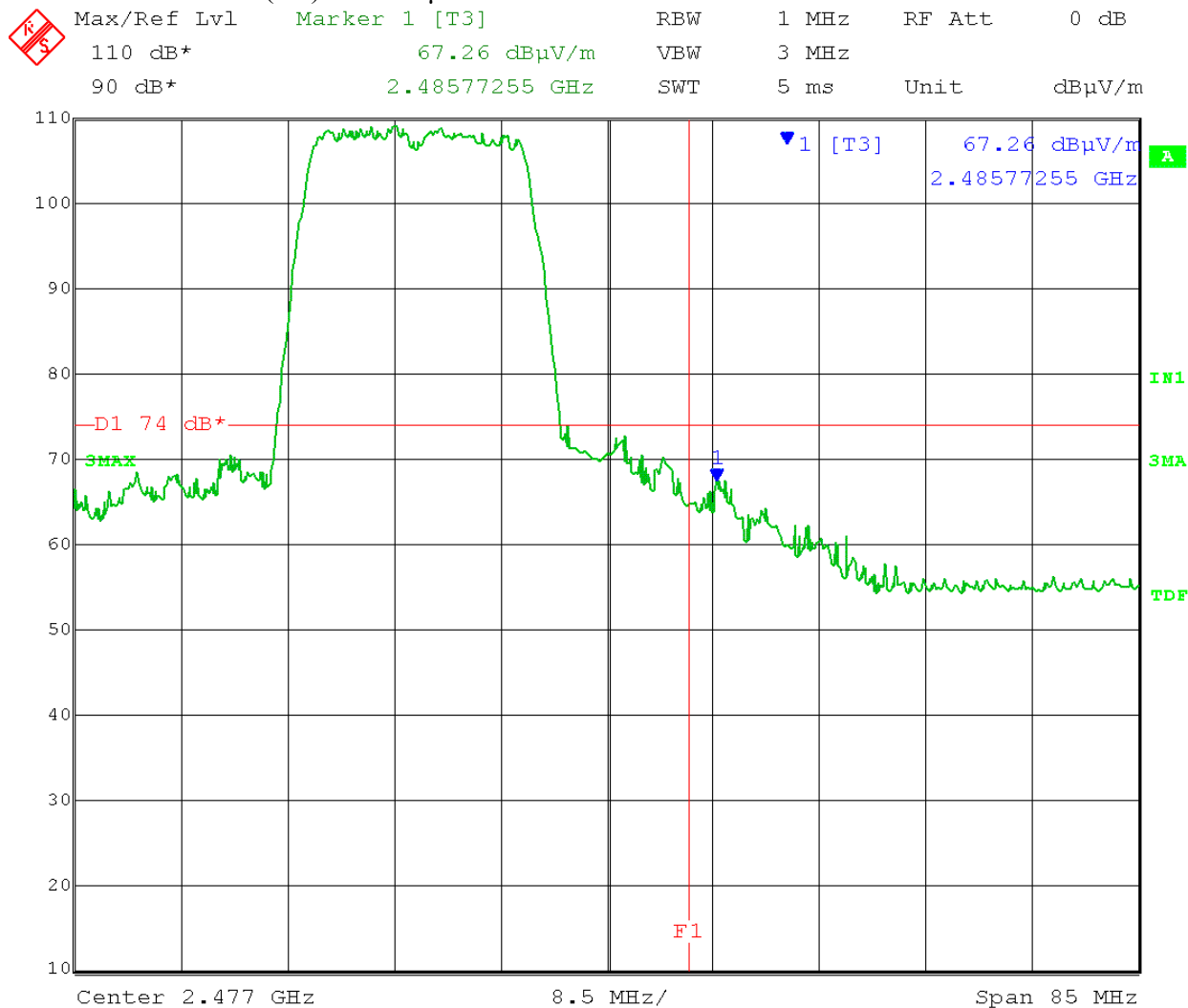
Test distance: 3 meter

Band-edge Frequency (F1) = 2.4835 GHz

Limit (D1) = 74 dBμV/m

Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
XPWP and XPWC
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5163



Date: 11.JAN.2013 14:18:47



166 South Carter, Genoa City, WI 53128

Test Date: 01-11-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

802.11n; MC7S – 20MHz

Output port J2; on-board antenna

Vertical polarization

Detector: Average

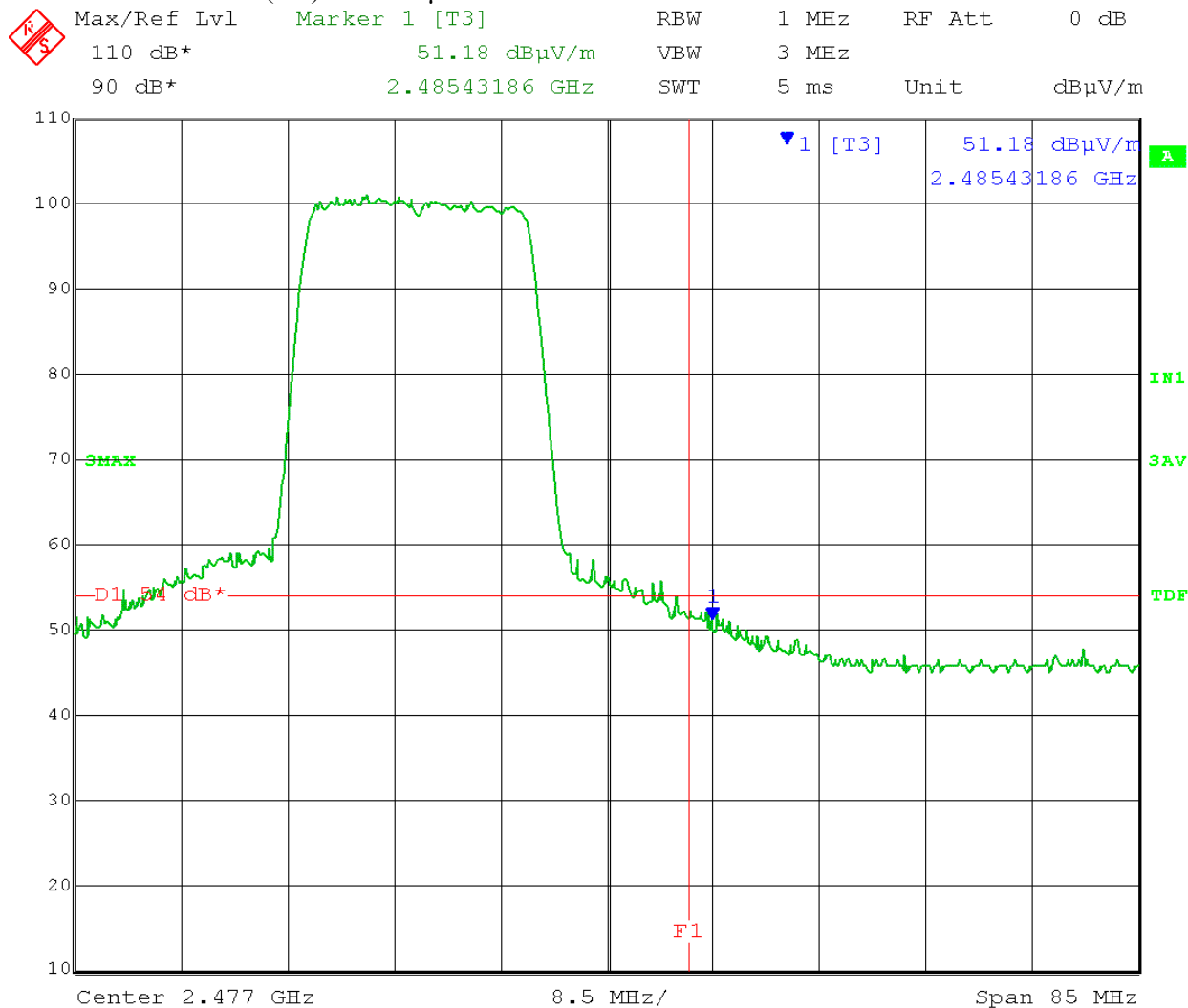
Test distance: 3 meter

Band-edge Frequency (F1) = 2.4835GHz

Limit (D1) = 54 dBμV/m

Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
XPWP and XPWC
18708
5163



Date: 11.JAN.2013 14:21:19



166 South Carter, Genoa City, WI 53128

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.452 GHz

Output power setting: 18

Output port J2; on-board antenna

Detector: Peak

Band-edge Frequency (**F1**) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

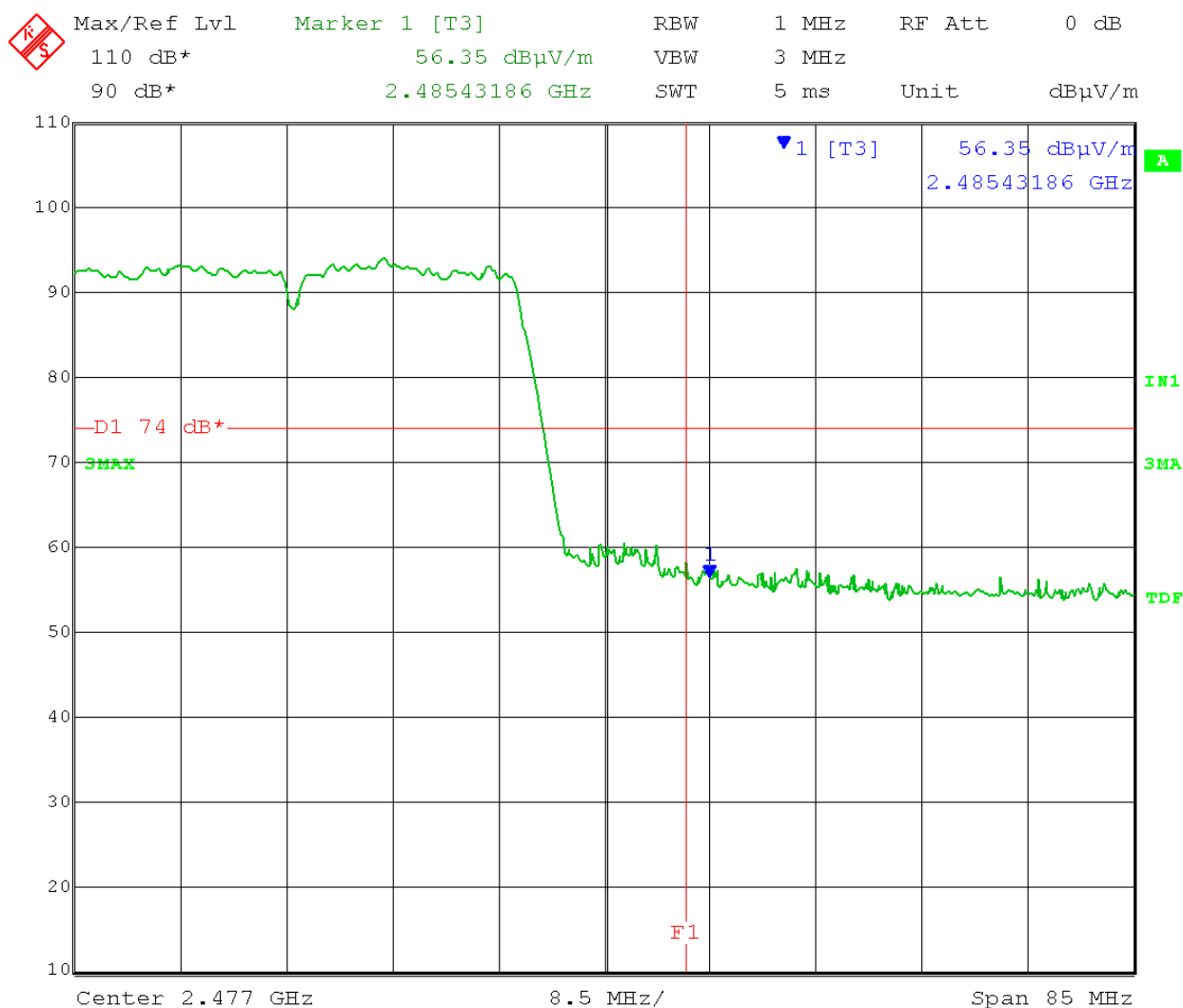
5163

802.11n; MC7S – 40MHz

Horizontal polarization

Test distance: 3 meter

Limit (**D1**) = 74 dBμV/m



Date: 11.JAN.2013 15:35:59



166 South Carter, Genoa City, WI 53128

Test Date: 01-11-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.452 GHz

Output power setting: 18

Output port J2; on-board antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

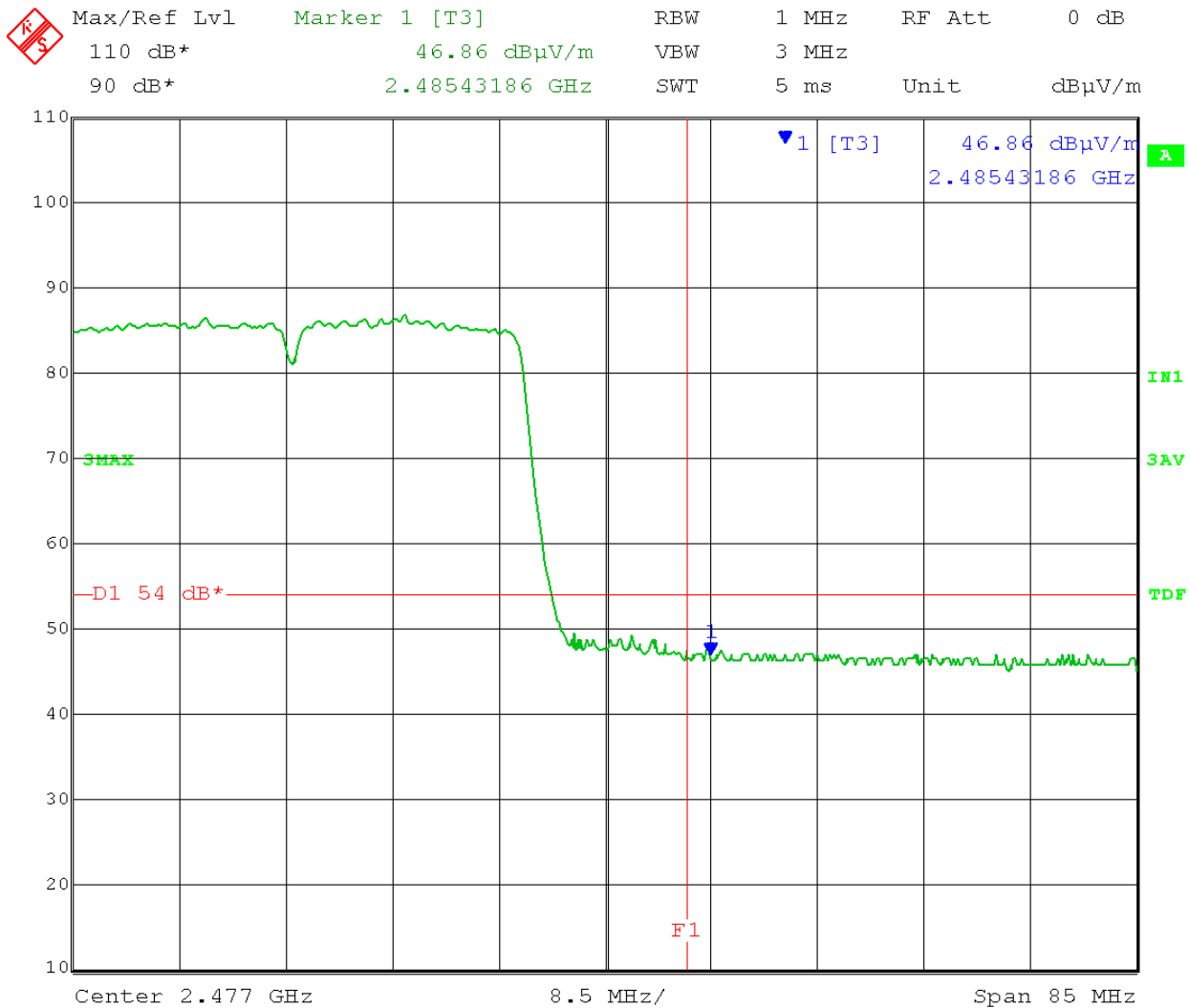
5163

802.11n; MC7S – 40MHz

Horizontal polarization

Test distance: 3 meter

Limit (D1) = 54 dBμV/m



Date: 11.JAN.2013 15:34:36



166 South Carter, Genoa City, WI 53128

Test Date: 01-11-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.452 GHz

Output power setting: 18

Output port J2; on-board antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

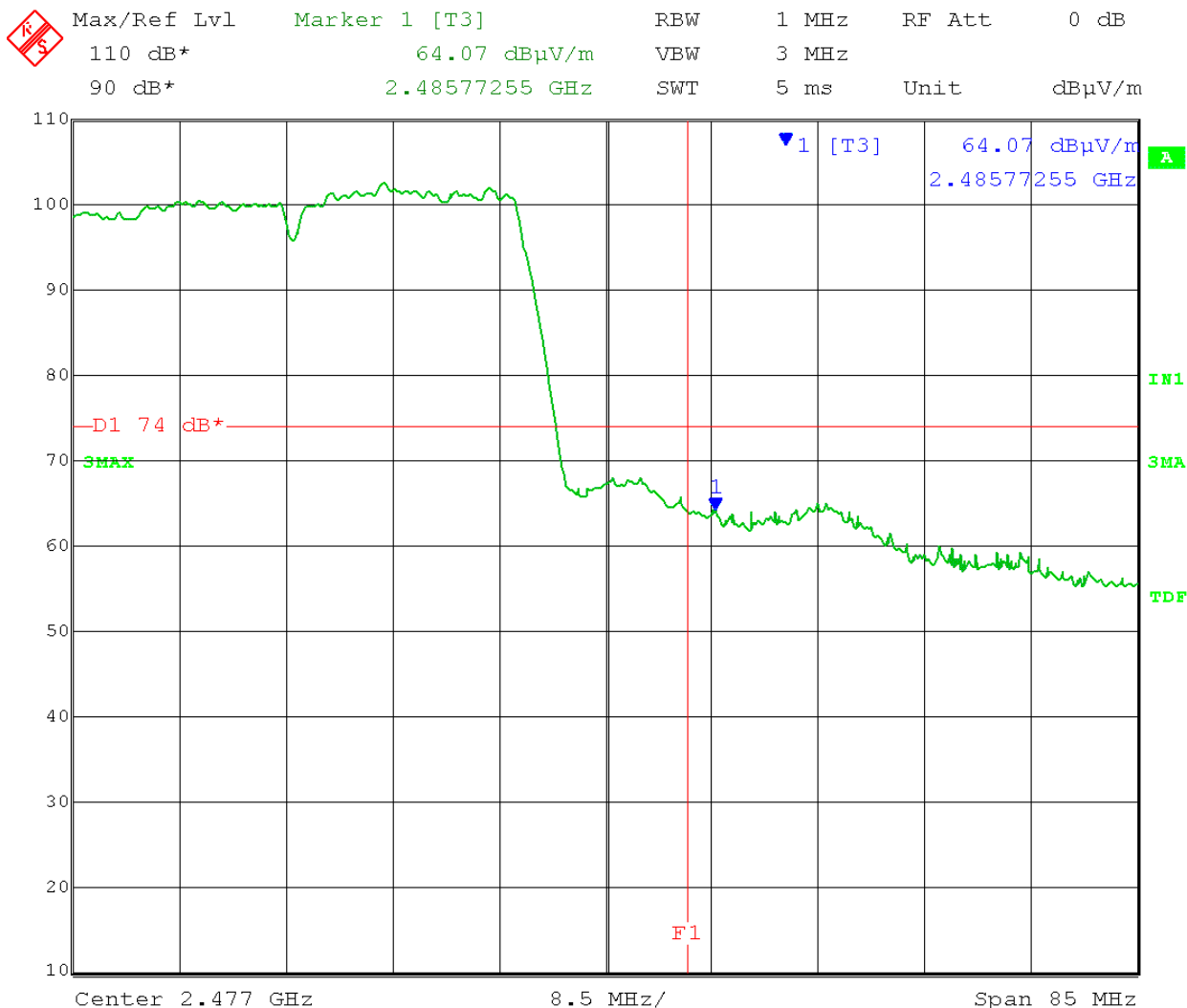
5163

802.11n; MC7S – 40MHz

Vertical polarization

Test distance: 3 meter

Limit (D1) = 74 dBμV/m



Date: 11.JAN.2013 15:42:24



166 South Carter, Genoa City, WI 53128

Test Date: 01-11-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.452 GHz

Output power setting: 18

Output port J2; on-board antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

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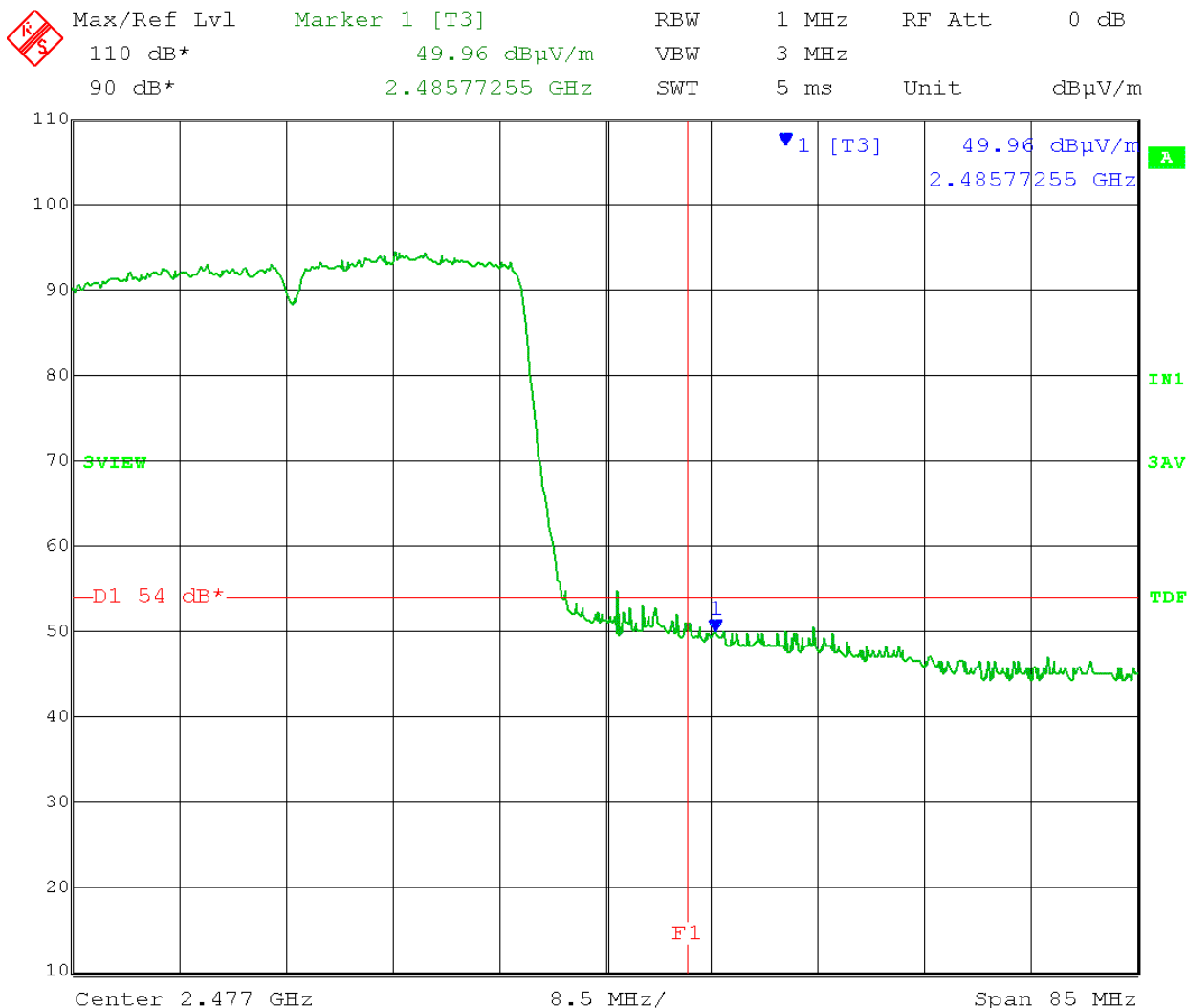
5163

802.11n; MC7S – 40MHz

Vertical polarization

Test distance: 3 meters

Limit (D1) = 54 dBμV/m



Date: 11.JAN.2013 15:45:26



166 South Carter, Genoa City, WI 53128

Test Date: 01-08-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19

Output port J2; Dipole Antenna

Detector: Peak

Limit (D1) = 74 dBμV/m

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

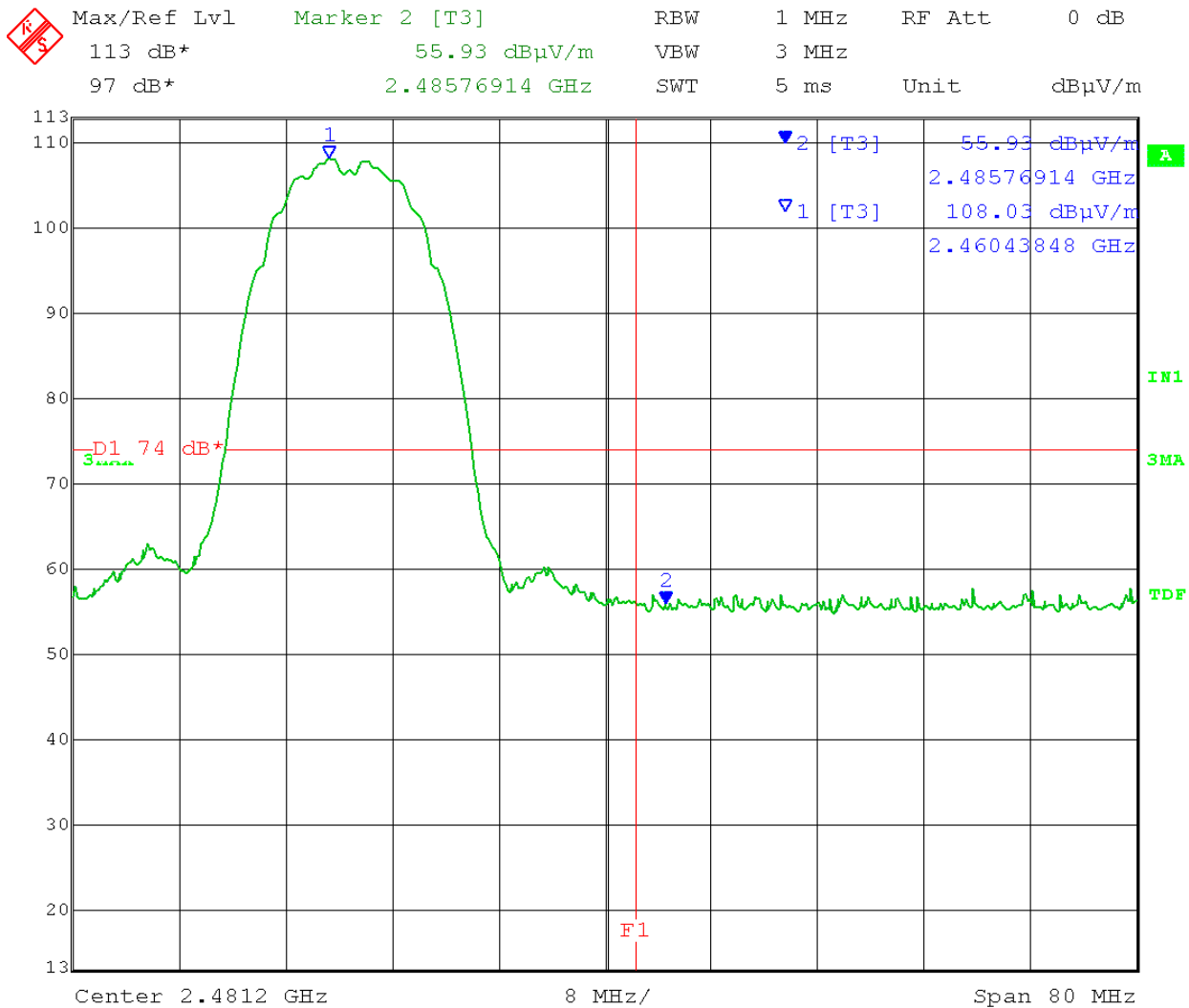
5163

802.11b DSSS 1 Mbps

Horizontal polarization

Test distance: 3 meter

Band-edge Frequency (F1) = 2.4835GHz



Date: 8.JAN.2013 09:39:10



166 South Carter, Genoa City, WI 53128

Test Date: 01-08-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19

Output port J2; Dipole antenna

Detector: Average

Limit (D1) = 54 dBμV/m

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

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18708

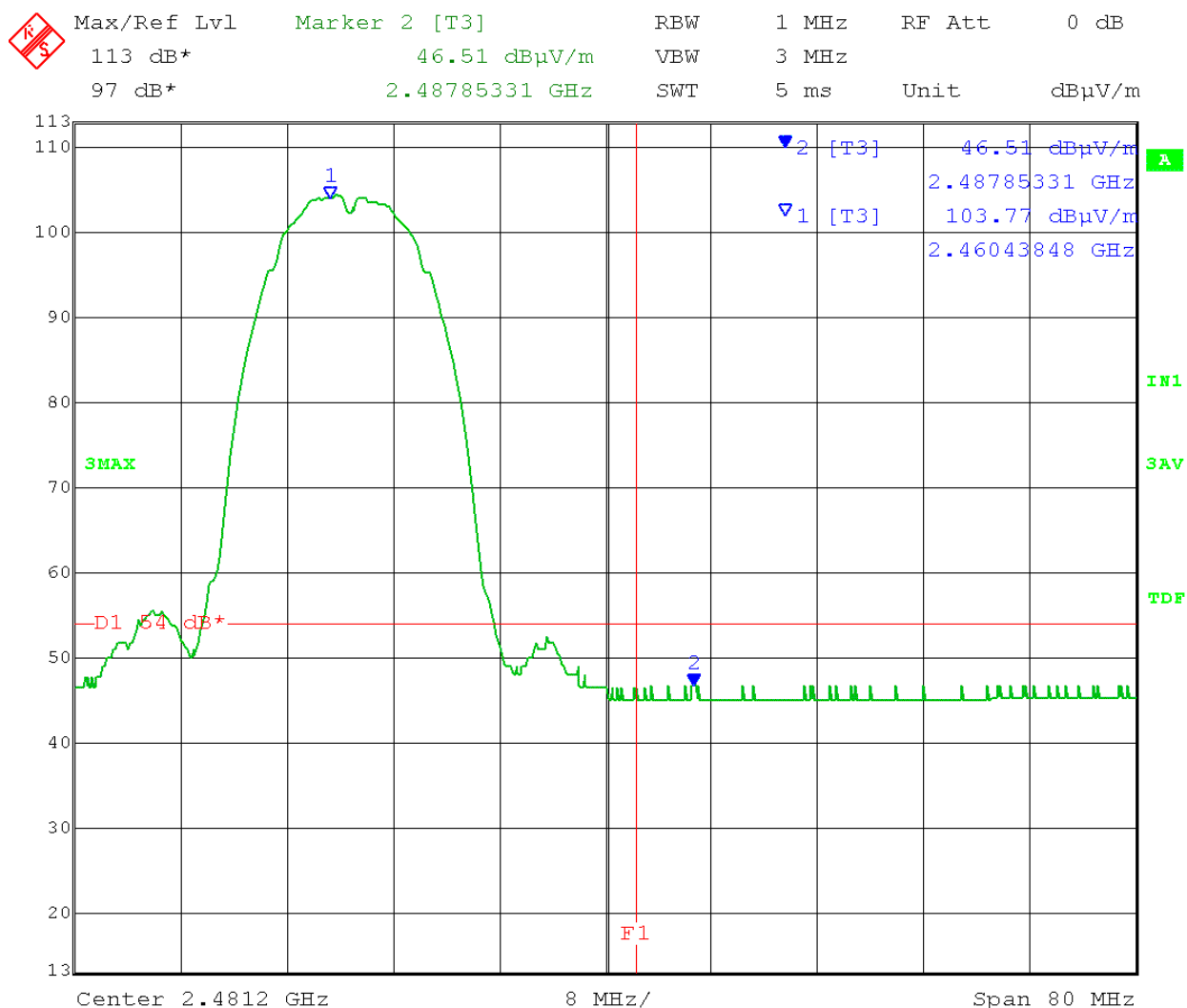
5163

802.11b DSSS 1 Mbps

Horizontal polarization

Test distance: 3 meter

Band-edge Frequency (F1) = 2.4835GHz



Date: 8.JAN.2013 09:40:18



166 South Carter, Genoa City, WI 53128

Test Date: 01-08-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19

Output port J2; Dipole Antenna

Detector: Peak

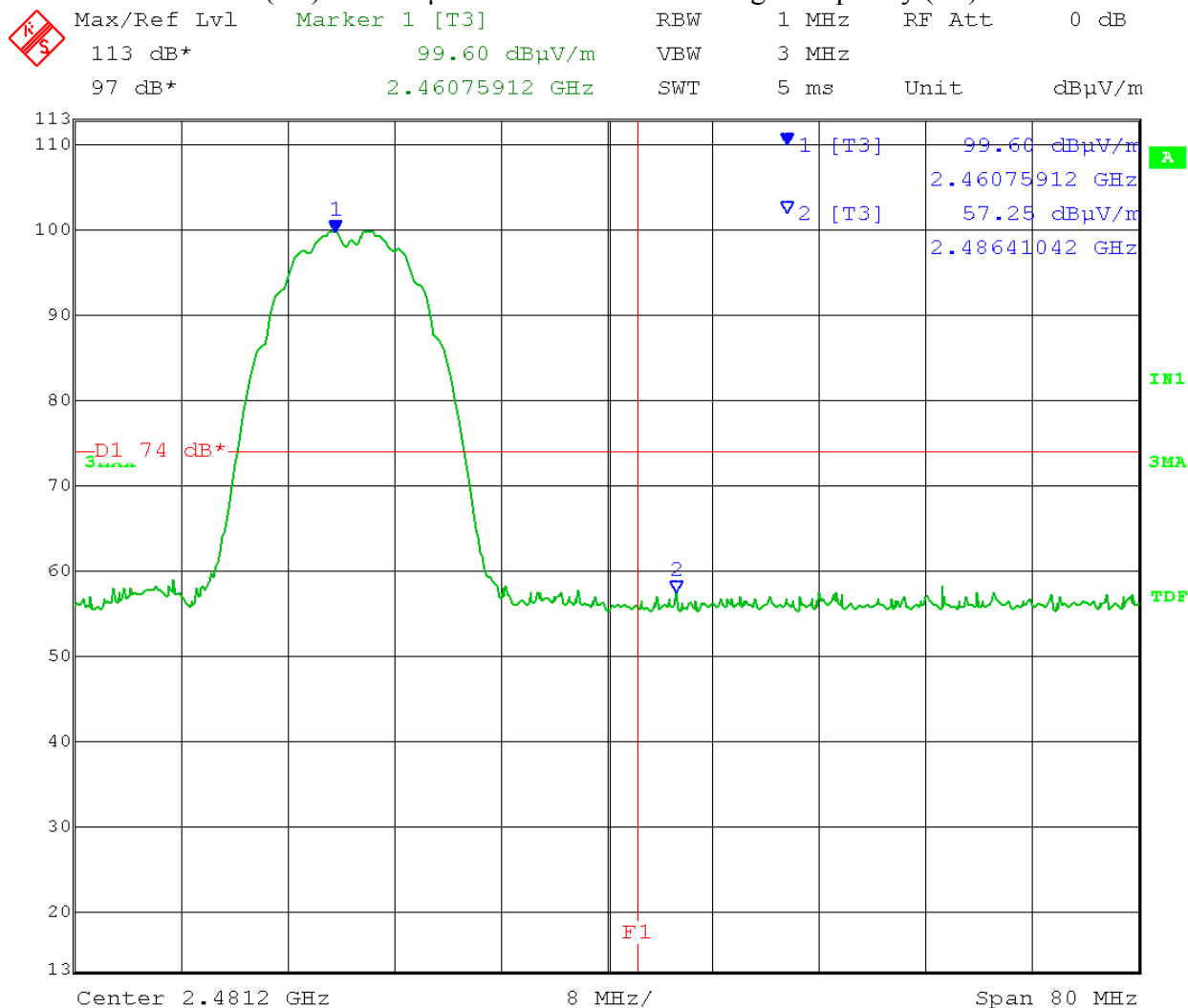
Limit (D1) = 74 dBμV/m

802.11b DSSS 1 Mbps

Vertical polarization

Test distance: 3 meters

Band-edge Frequency (F1) = 2.4835GHz



Date: 8.JAN.2013 09:46:12



166 South Carter, Genoa City, WI 53128

Test Date: 01-08-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19

Output port J2; Dipole antenna

Detector: Average

Limit (D1) = 54 dBμV/m

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

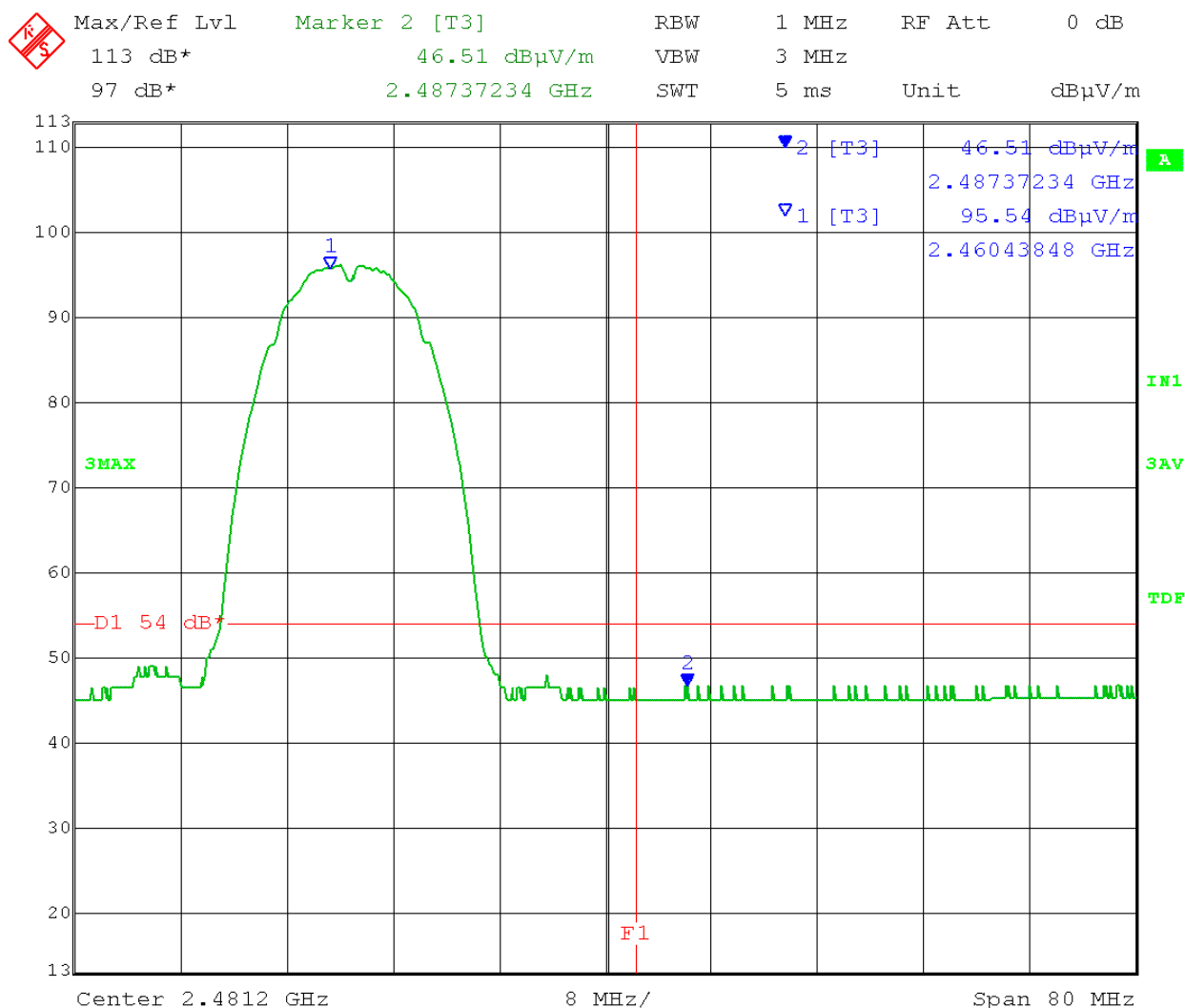
5163

802.11b DSSS 1 Mbps

Vertical polarization

Test distance: 3 meter

Band-edge Frequency (F1) = 2.4835GHz



Date: 8.JAN.2013 09:44:27



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19

Output port J2; Dipole antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

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18708

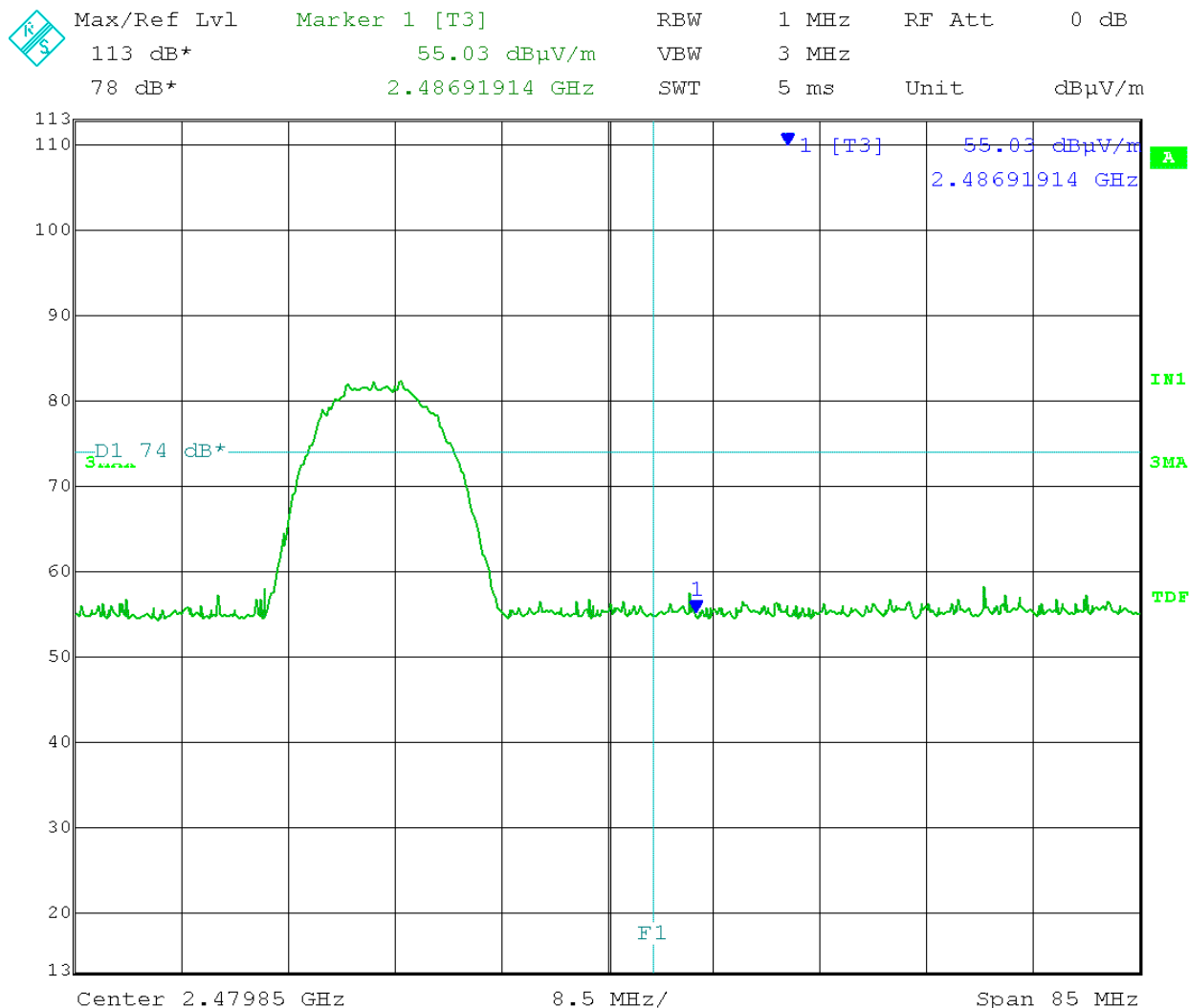
5163

802.11b CCK 5.5Mbps

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 74 dBμV/m



Date: 5.FEB.2013 10:51:04



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19

Output port J2; Dipole antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

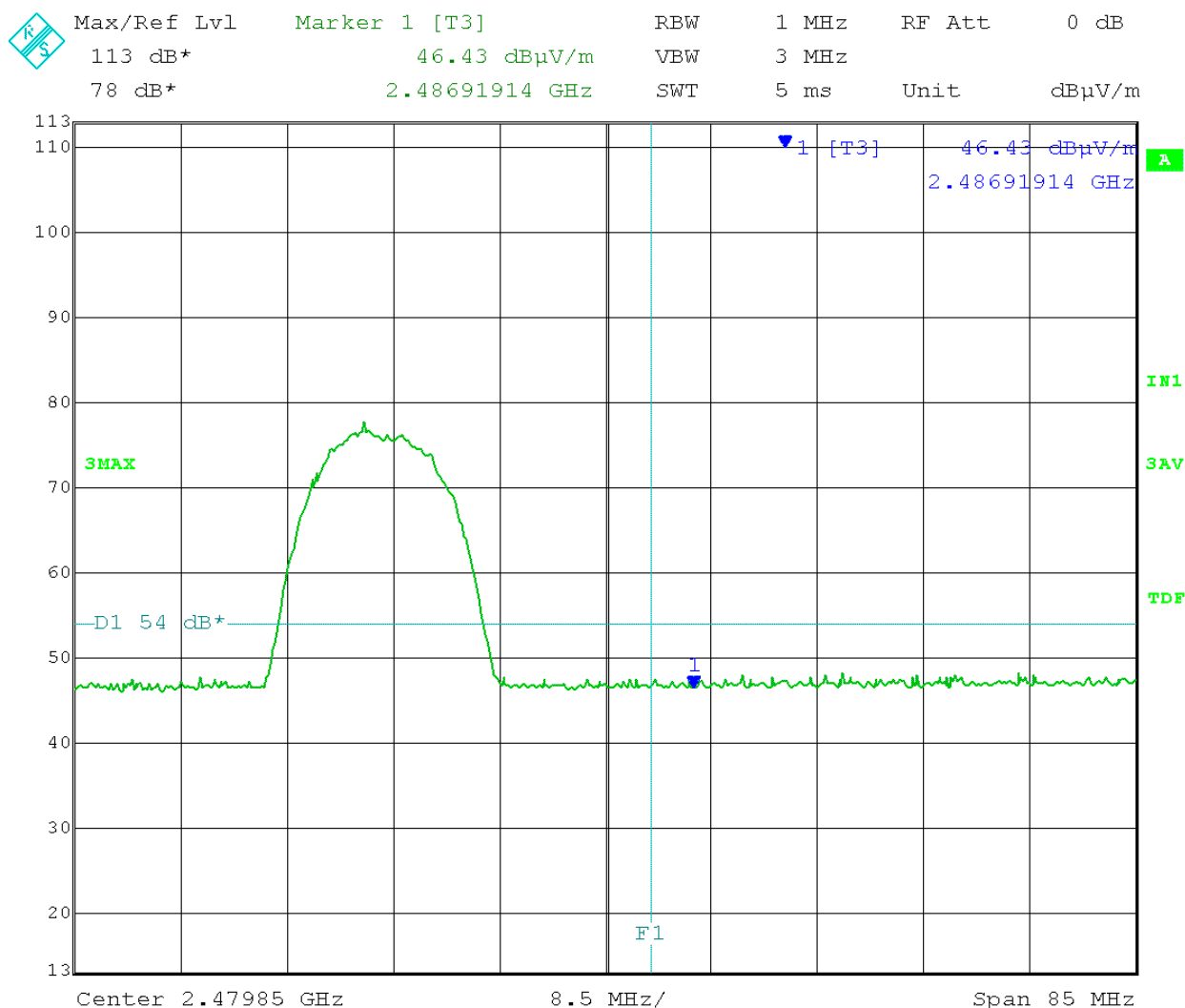
5163

802.11b CCK 5.5Mbps

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 54 dB μ V/m



Date: 5.FEB.2013 10:52:07



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19

Output port J2; Dipole antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

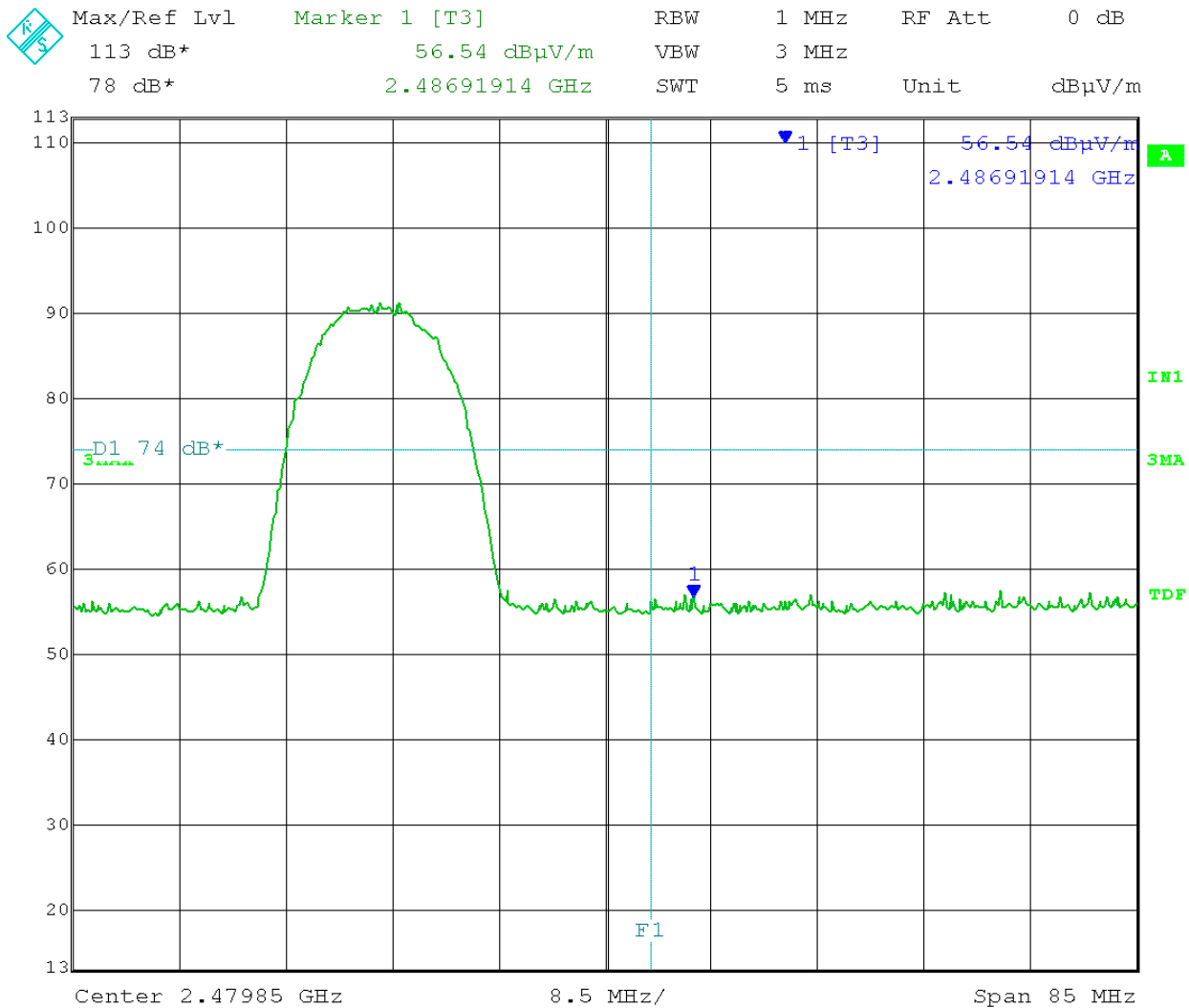
5163

802.11b CCK 5.5Mbps

Vertical polarization

Test distance: 3 meters

Limit (D1) = 74 dBμV/m



Date: 5.FEB.2013 10:42:16



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19

Output port J2; Dipole antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

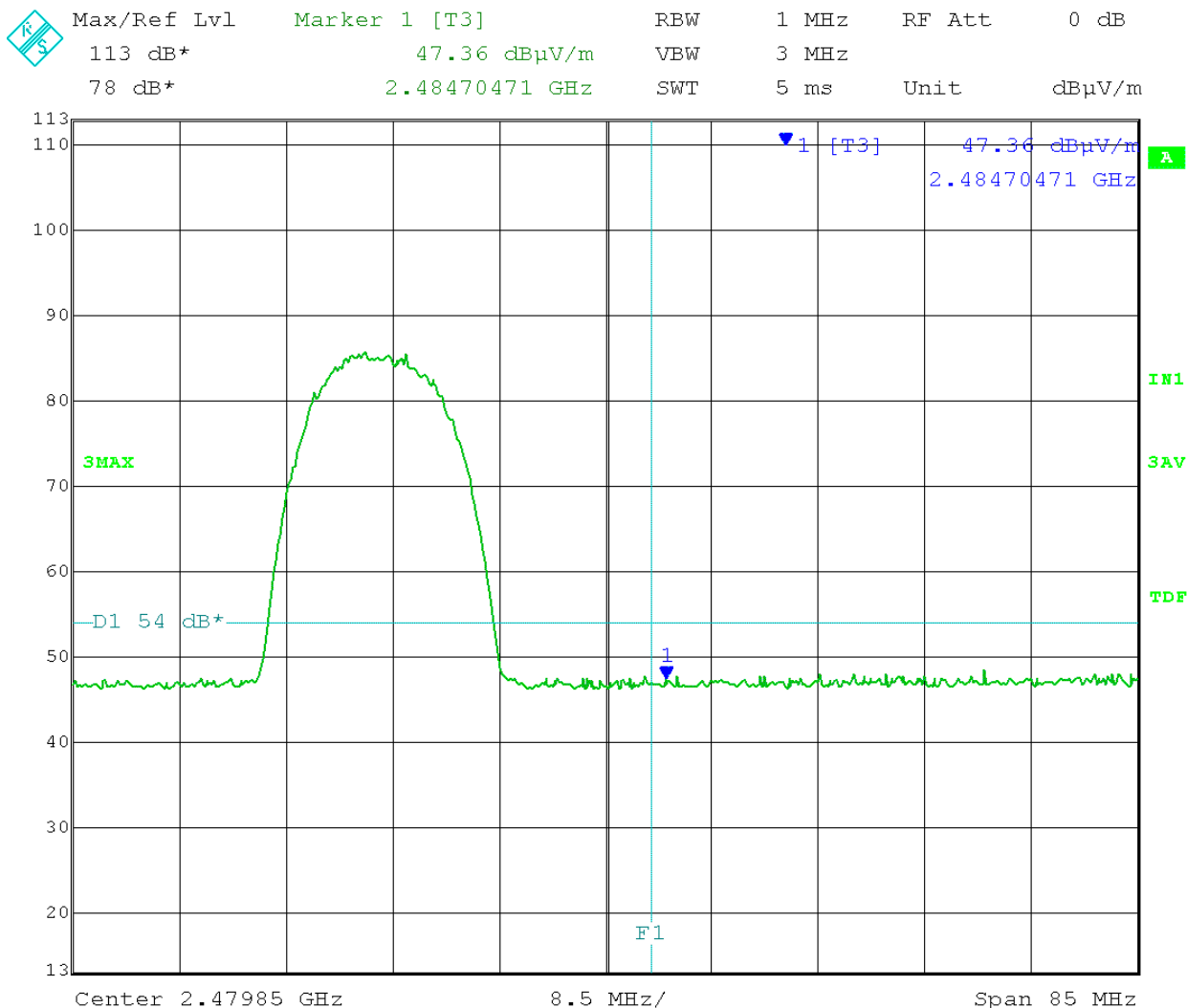
5163

802.11b CCK 5.5Mbps

Vertical polarization

Test distance: 3 meters

Limit (D1) = 54 dB μ V/m



Date: 5.FEB.2013 10:40:27



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

Output port J2; Dipole antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

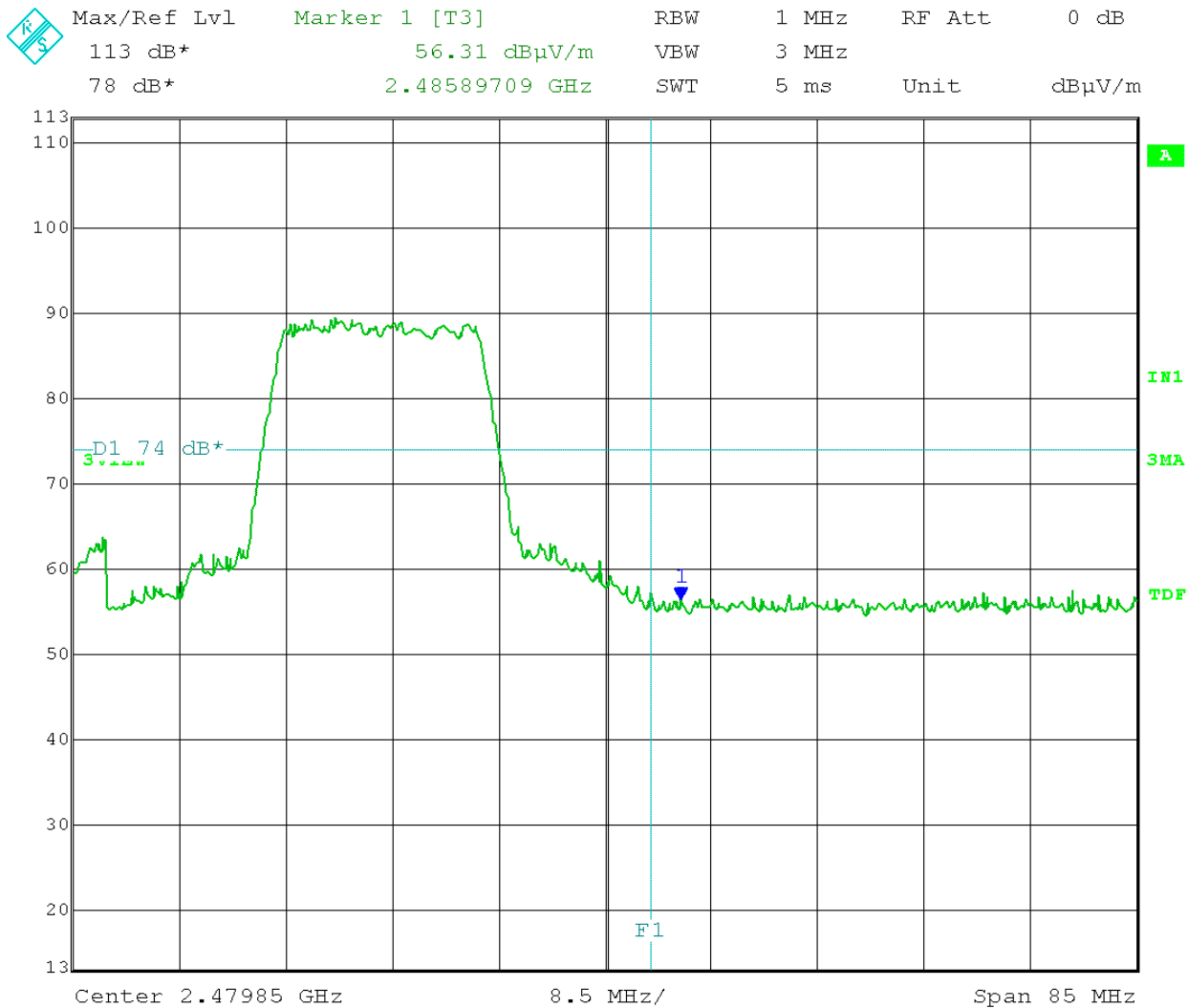
5163

802.11g OFDM 54Mbps

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 74 dB μ V/m



Date: 5.FEB.2013 11:25:55



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

Output port J2; Dipole antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

5163

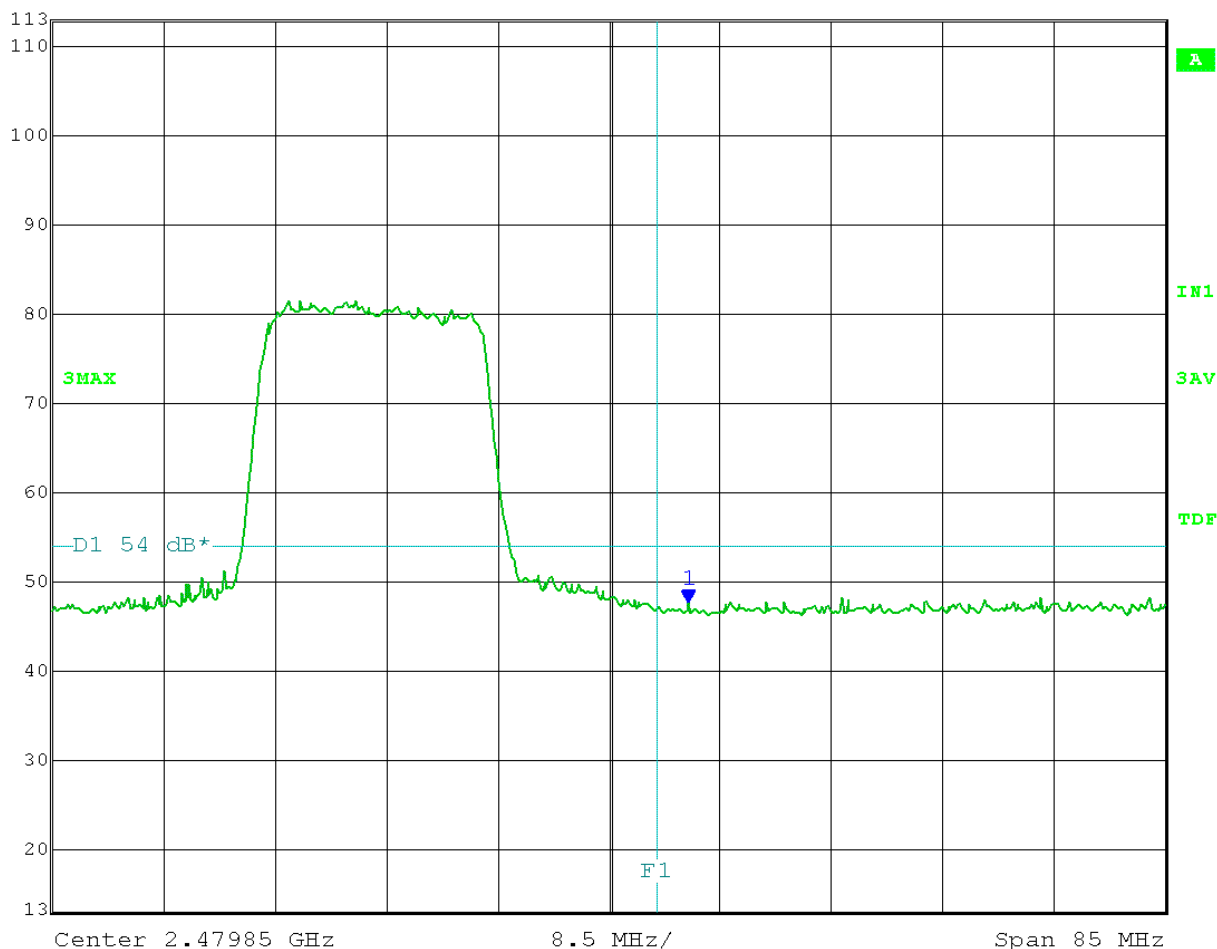
802.11g OFDM 54Mbps

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 54 dB μ V/m

Max/Ref Lvl	Marker 1 [T3]	RBW	1 MHz	RF Att	0 dB
113 dB*	47.50 dB μ V/m	VBW	3 MHz		
78 dB*	2.48589709 GHz	SWT	5 ms	Unit	dB μ V/m



Date: 5.FEB.2013 11:27:16



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

Output port J2; Dipole antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

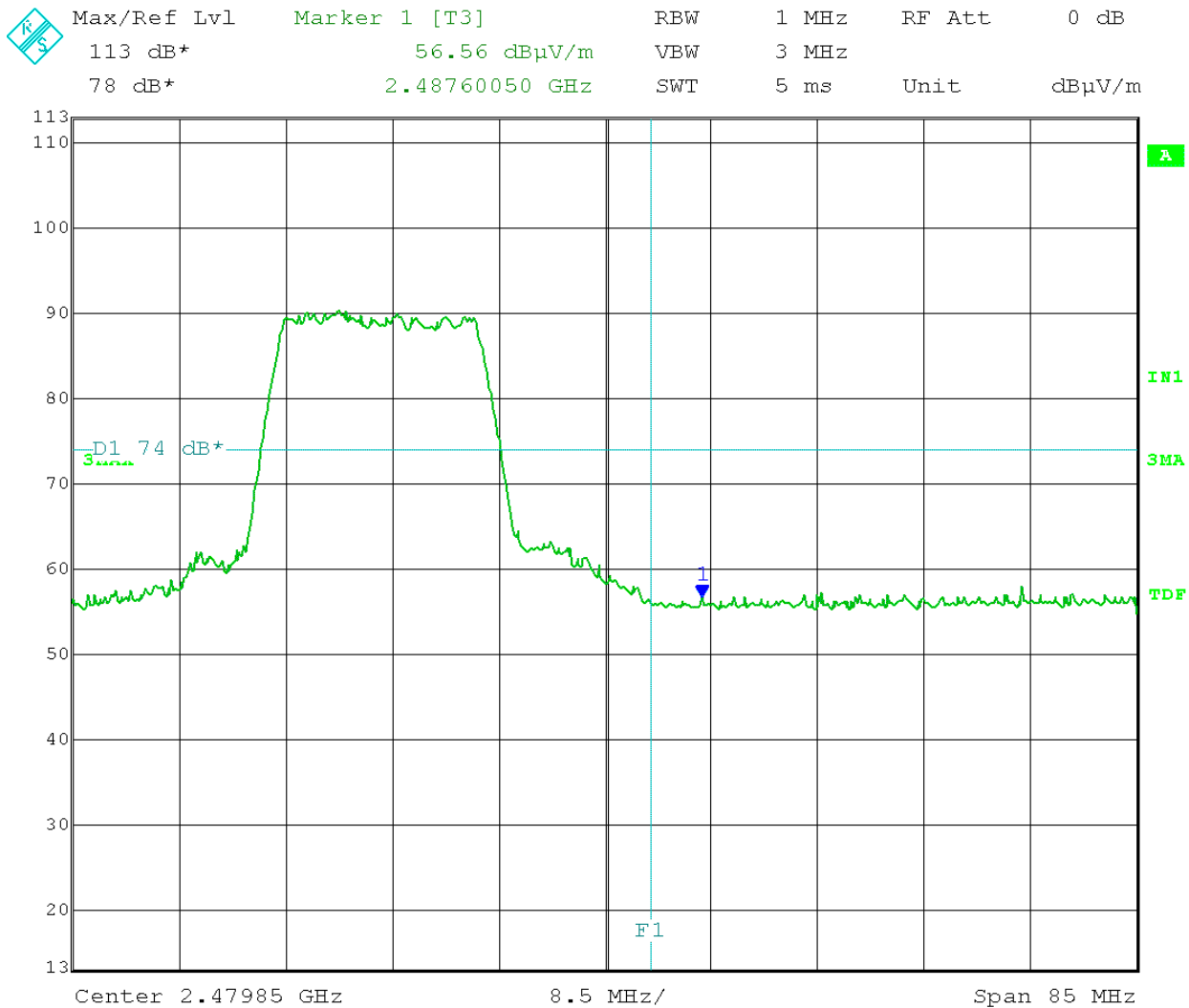
5163

802.11g OFDM 54Mbps

Vertical polarization

Test distance: 3 meters

Limit (D1) = 74 dB μ V/m



Date: 5.FEB.2013 11:39:24



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

Output port J2; Dipole antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

5163

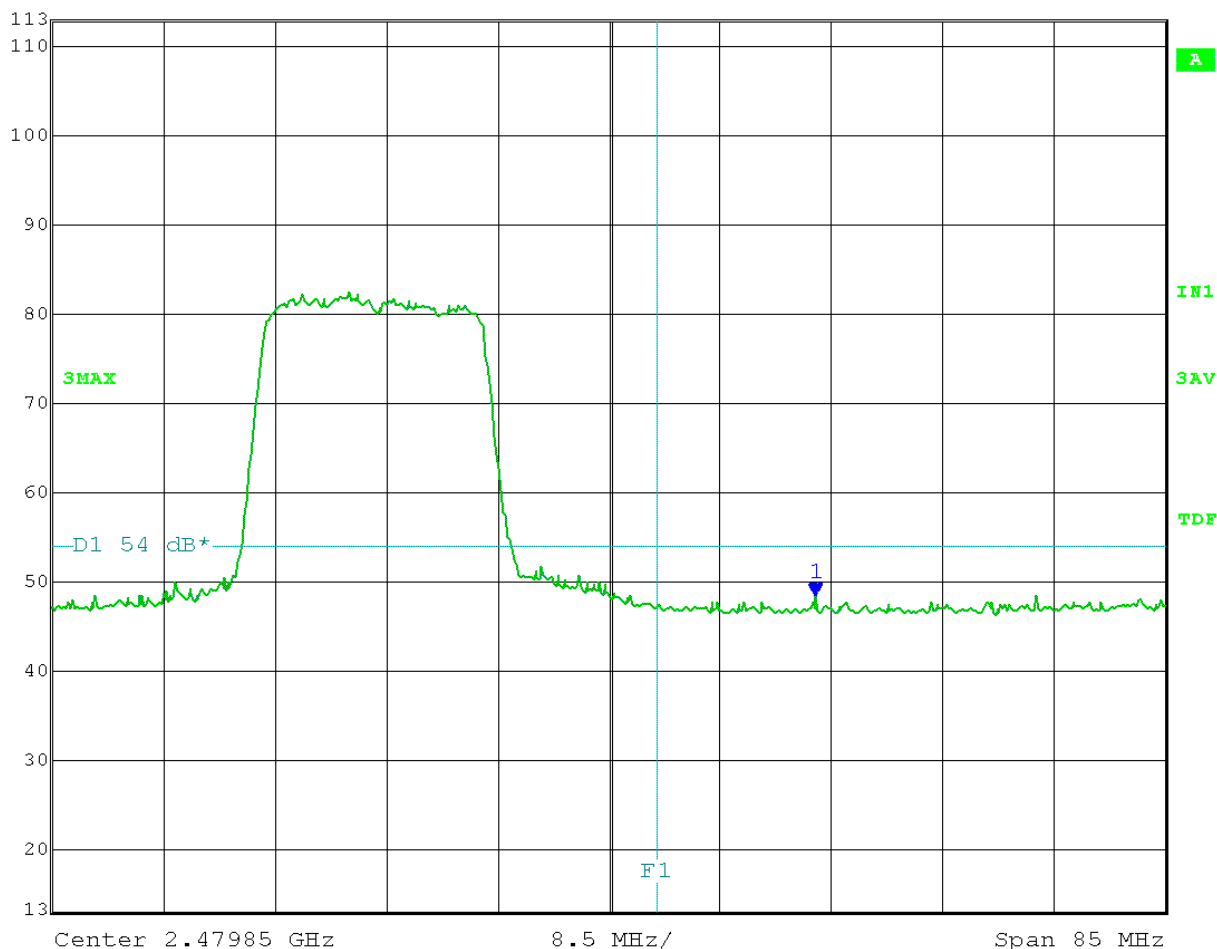
802.11g OFDM 54Mbps

Vertical polarization

Test distance: 3 meters

Limit (D1) = 54 dB μ V/m

Max/Ref Lvl Marker 1 [T3] RBW 1 MHz RF Att 0 dB
113 dB* 48.49 dB μ V/m VBW 3 MHz
78 dB* 2.49560651 GHz SWT 5 ms Unit dB μ V/m



Date: 5.FEB.2013 11:40:27



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

Output port J2; Dipole antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

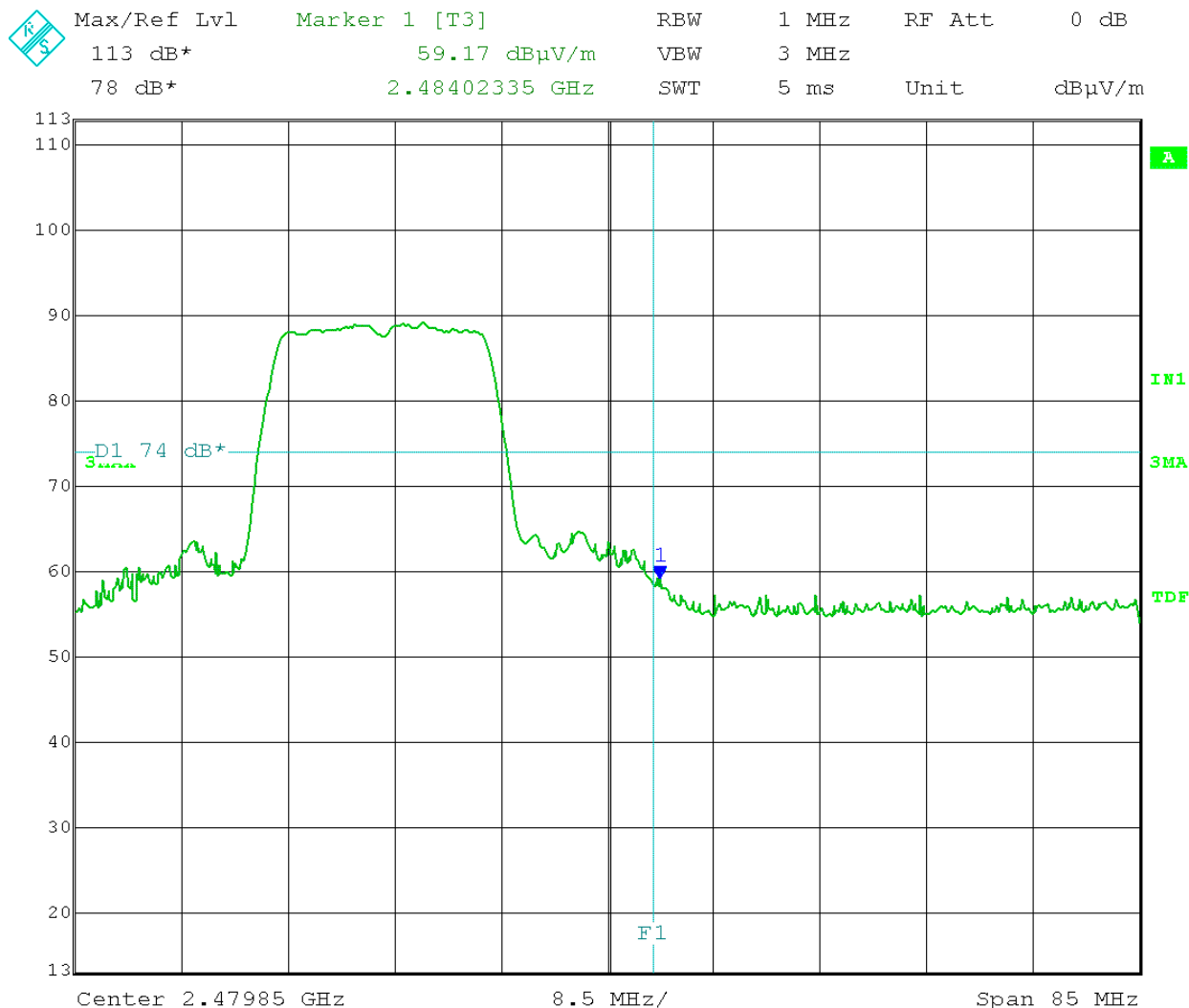
5163

802.11n MC7S-20MHz

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 74 dB μ V/m



Date: 5.FEB.2013 13:39:18



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

Output port J2; Dipole antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

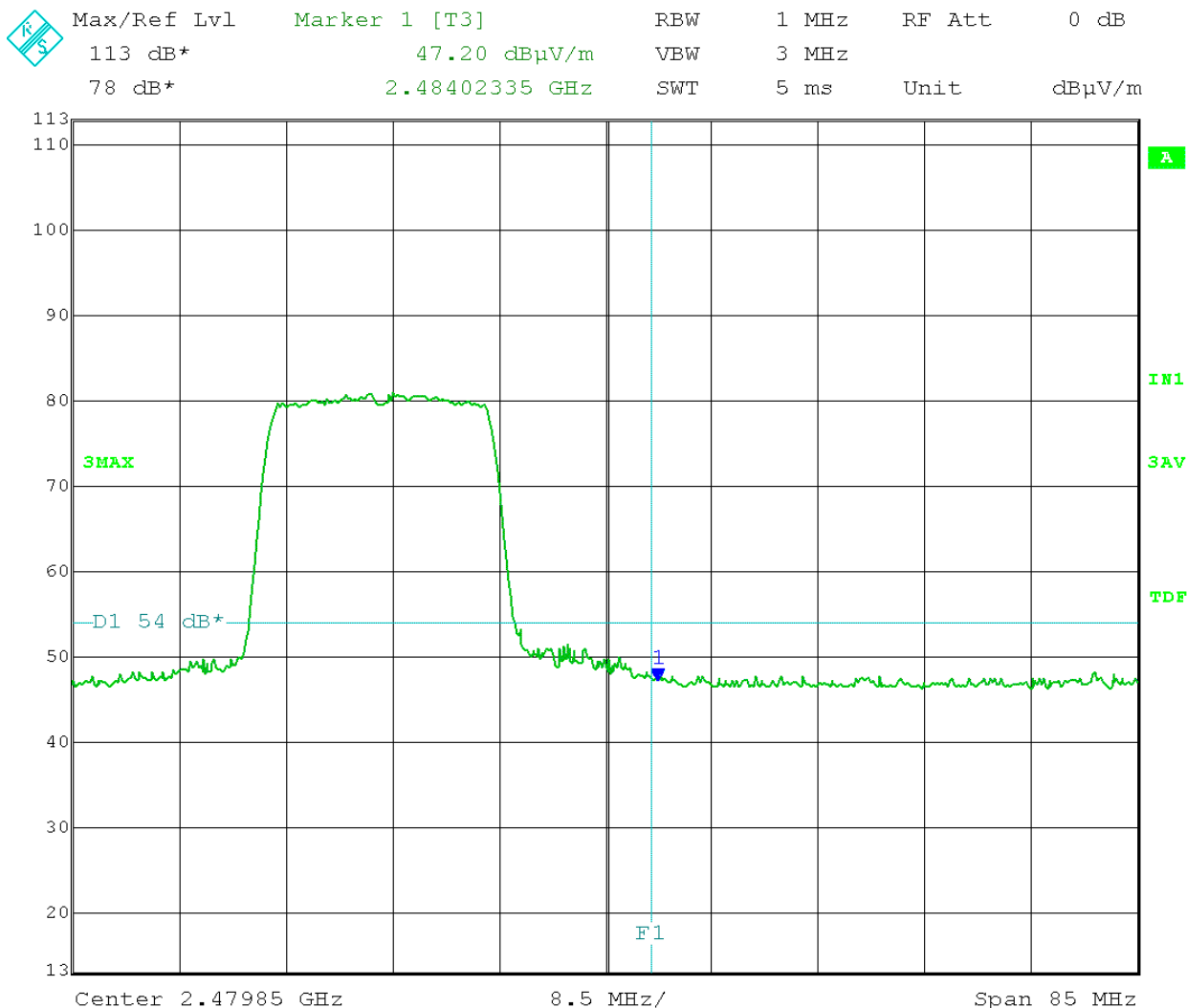
5163

802.11n MC7S-20MHz

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 54 dB μ V/m



Date: 5.FEB.2013 13:40:36



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

Output port J2; Dipole antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

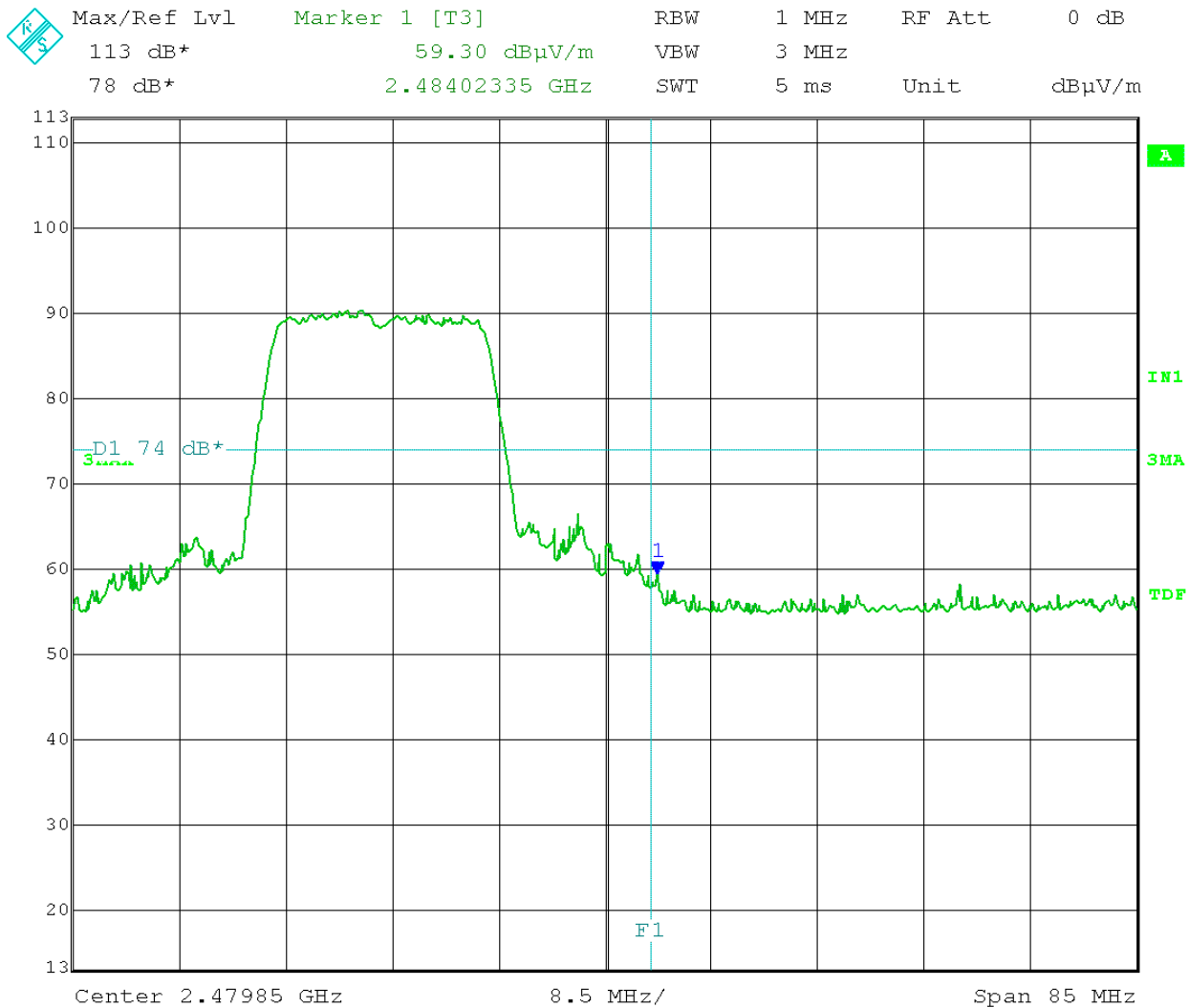
5163

802.11n MC7S-20MHz

Vertical polarization

Test distance: 3 meters

Limit (D1) = 74 dB μ V/m



Date: 5.FEB.2013 13:36:05



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

Output port J2; Dipole antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

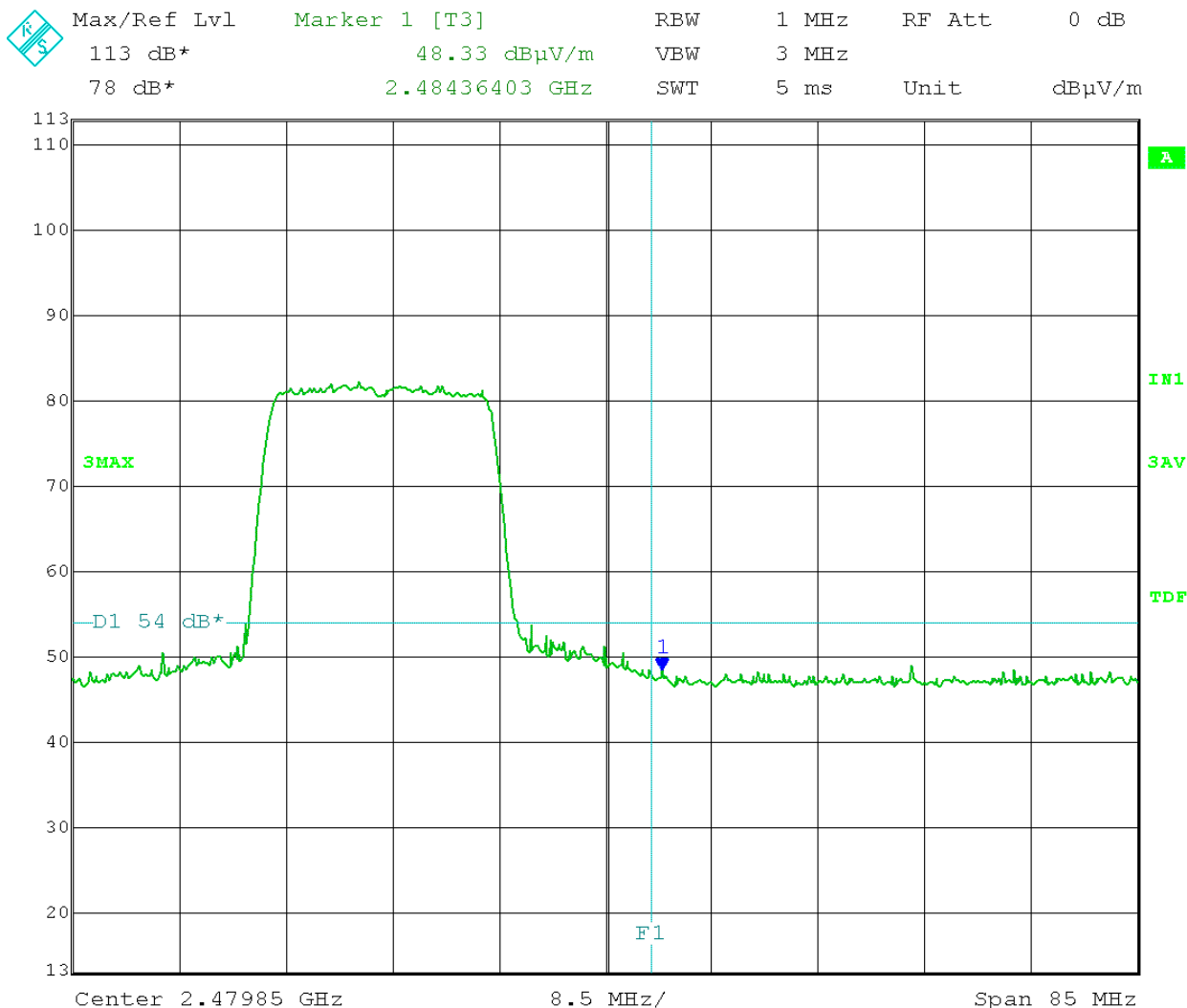
5163

802.11n MC7S-20MHz

Vertical polarization

Test distance: 3 meters

Limit (D1) = 54 dBμV/m



Date: 5.FEB.2013 13:34:59



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.452 GHz

Output power setting: 18

Output port J2; Dipole antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

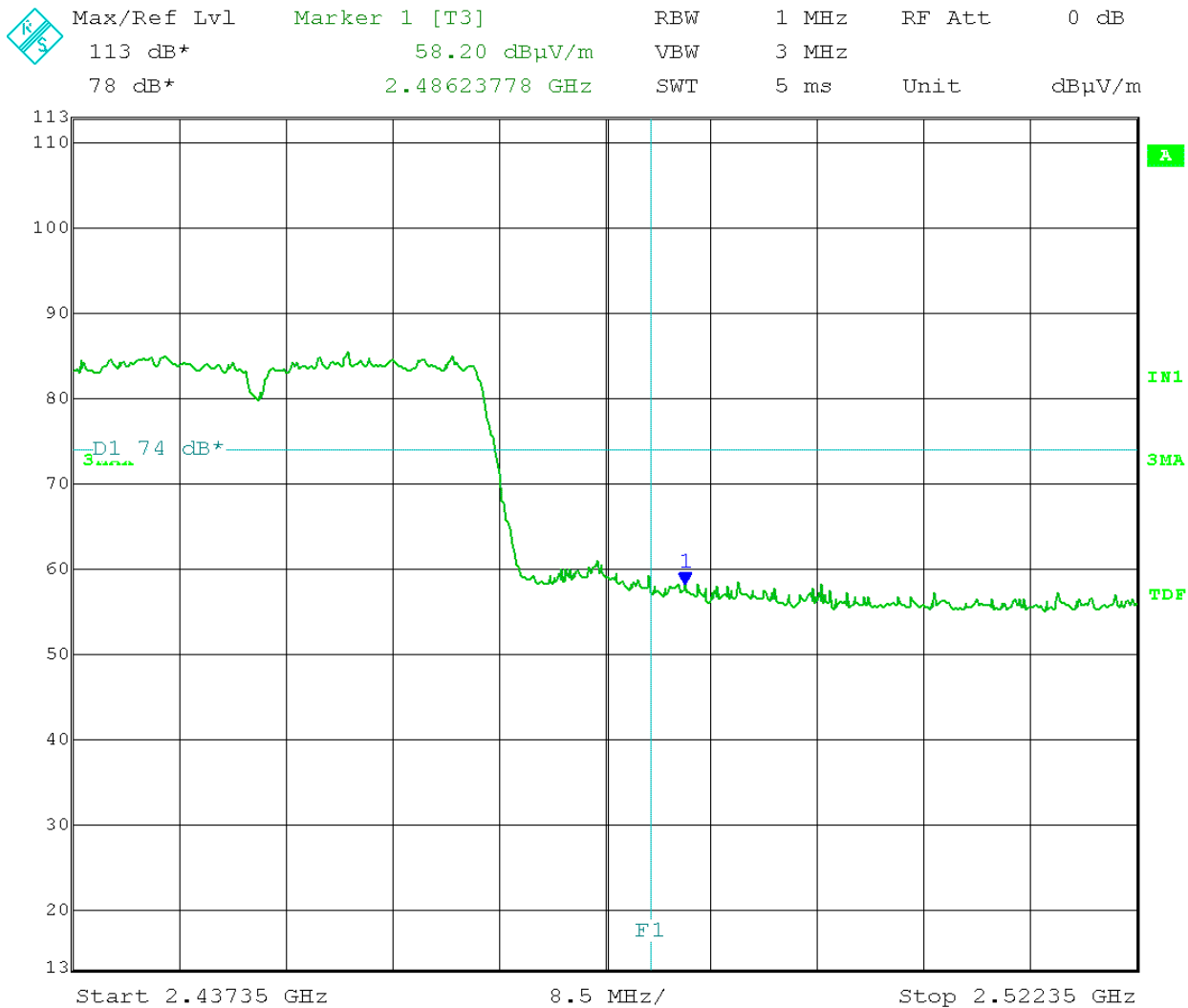
5163

802.11n MC7S-40MHz

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 74 dB μ V/m



Date: 5.FEB.2013 13:50:20



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.452 GHz

Output power setting: 18

Output port J2; Dipole antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

5163

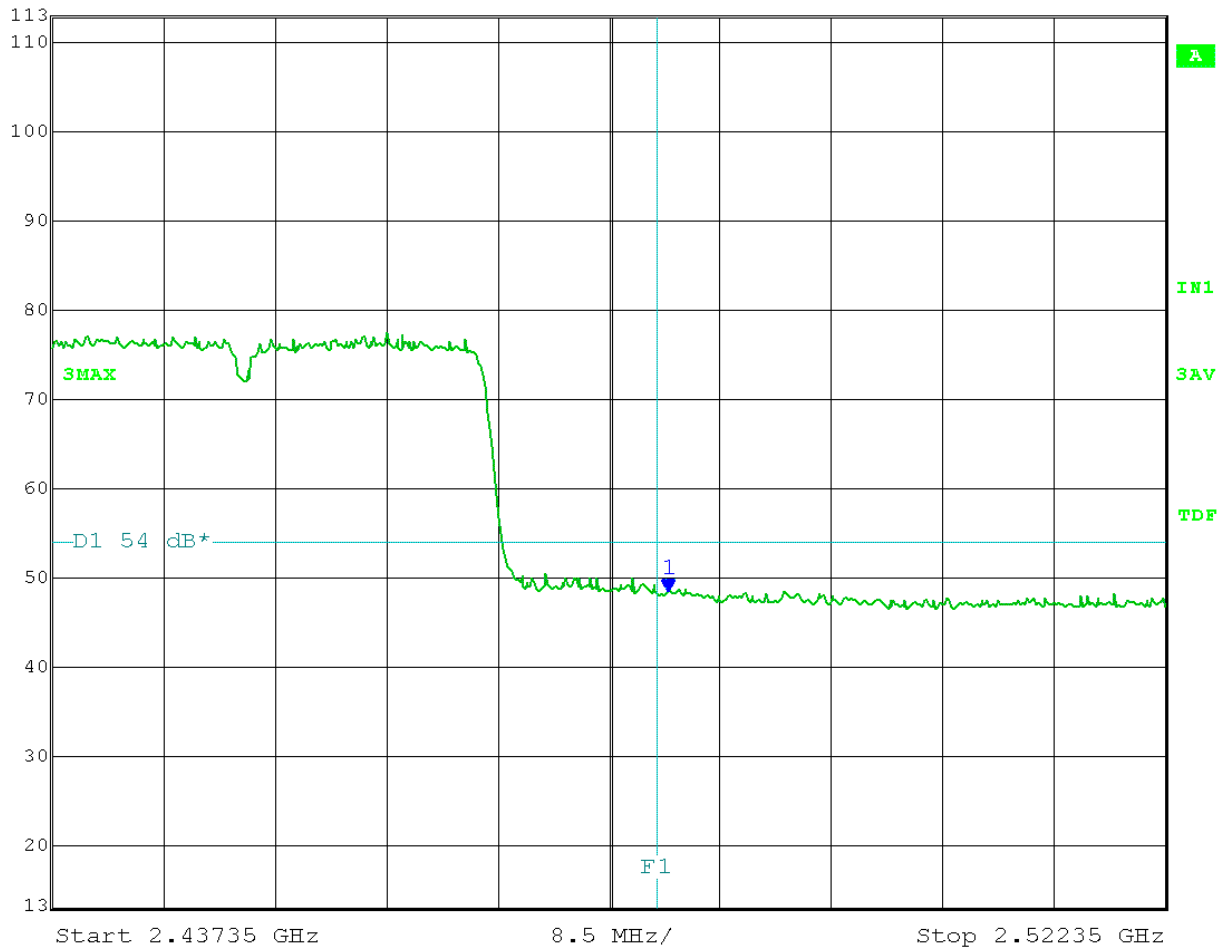
802.11n MC7S-40MHz

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 54 dBμV/m

Max/Ref Lvl	Marker 1 [T3]	RBW	1 MHz	RF Att	0 dB
113 dB*	48.33 dBμV/m	VBW	3 MHz		
78 dB*	2.48436403 GHz	SWT	5 ms	Unit	dBμV/m



Date: 5.FEB.2013 13:49:09



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.452 GHz

Output power setting: 18

Output port J2; Dipole antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

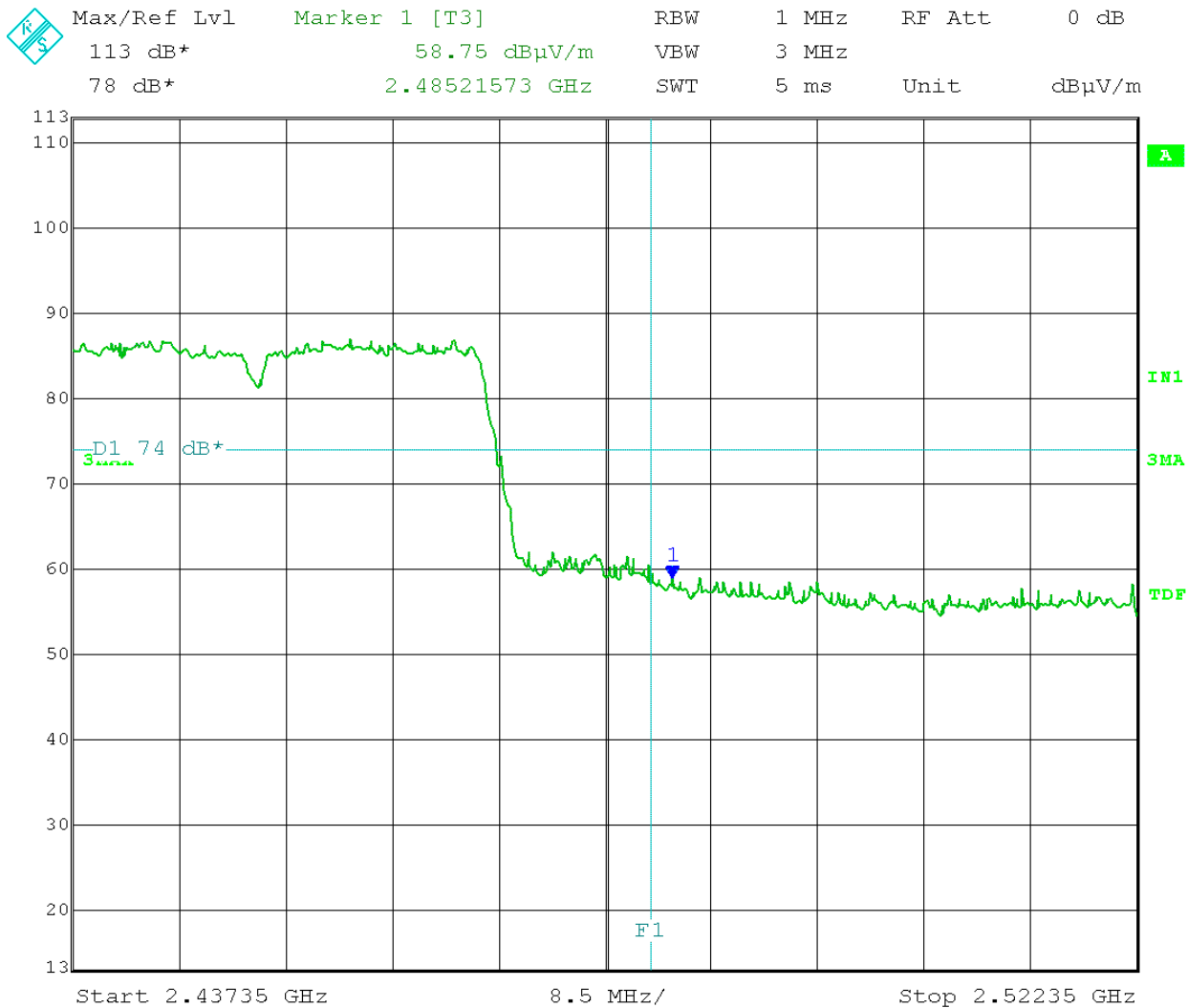
5163

802.11n MC7S-40MHz

Vertical polarization

Test distance: 3 meters

Limit (D1) = 74 dBμV/m



Date: 5.FEB.2013 13:53:34



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.452 GHz

Output power setting: 18

Output port J2; Dipole antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

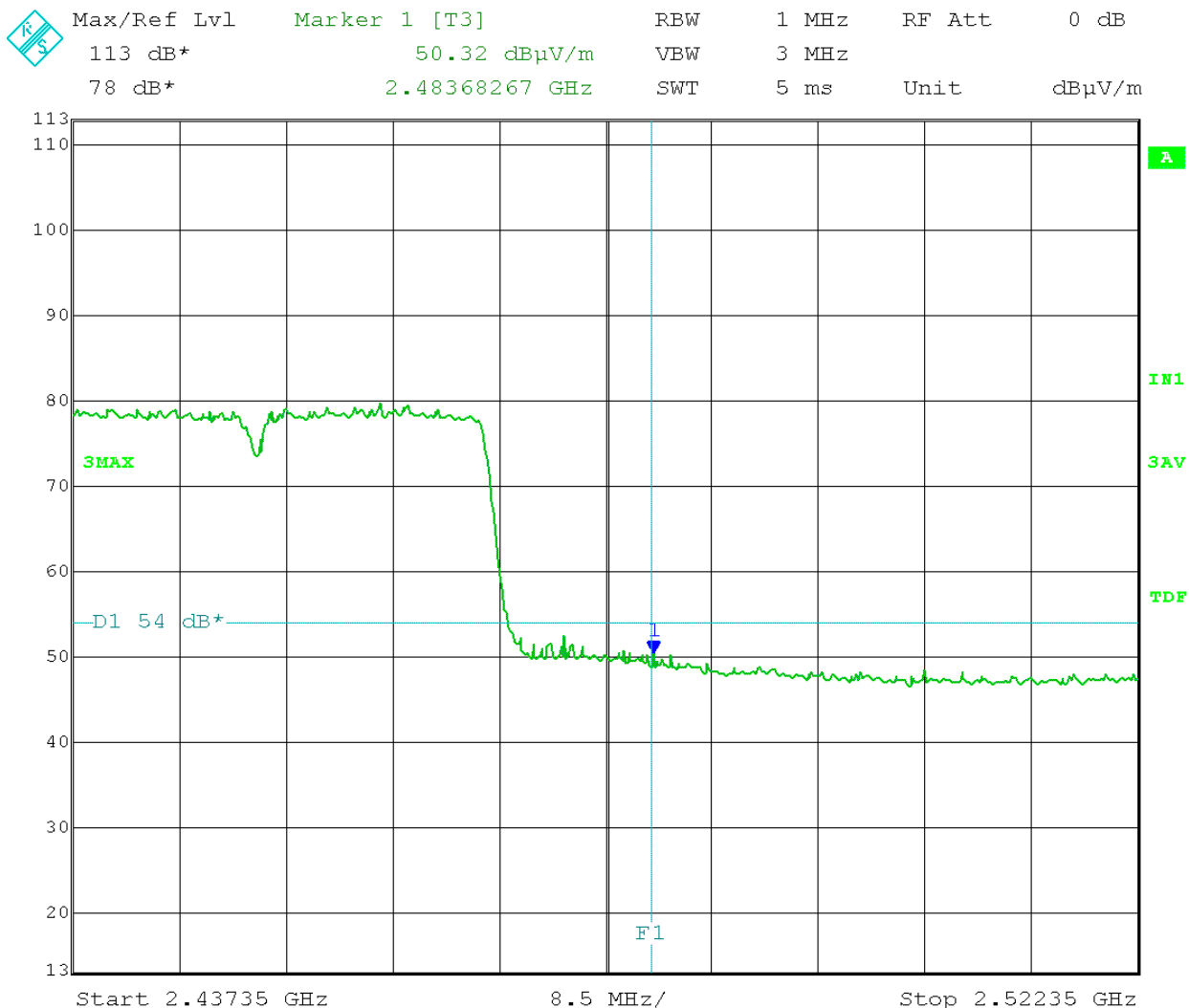
5163

802.11n MC7S-40MHz

Vertical polarization

Test distance: 3 meters

Limit (D1) = 54 dB μ V/m



Date: 5.FEB.2013 13:54:45



166 South Carter, Genoa City, WI 53128

Test Date: 01-08-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19 802.11b DSSS 1 Mbps

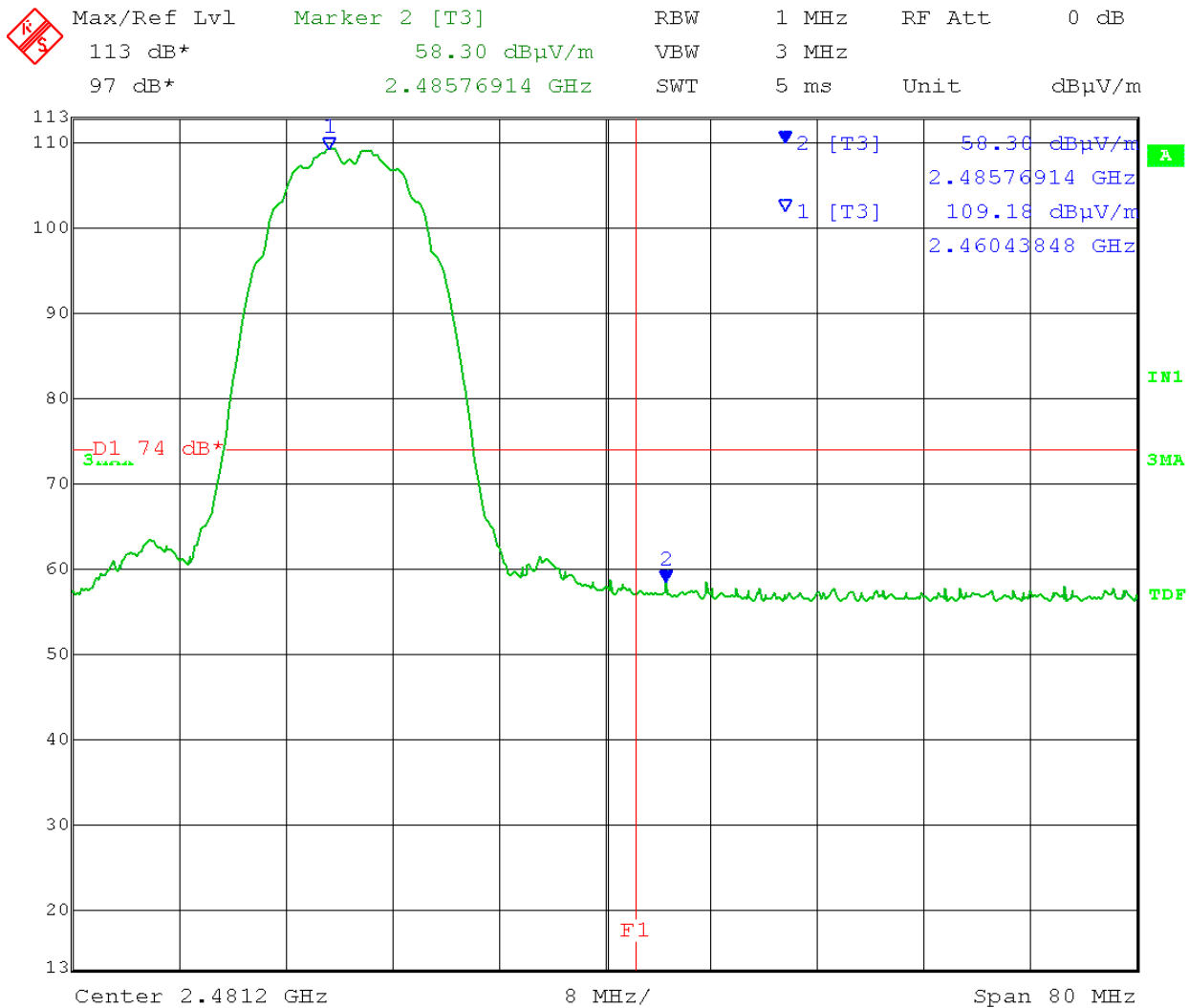
Output port J2; "F"- Type Antenna Horizontal polarization

Detector: Peak Test distance: 3 meter

Limit (D1) = 74 dBμV/m Band-edge Frequency (F1) = 2.4835GHz

Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
XPWP and XPWC
18708
5163



Date: 8.JAN.2013 09:33:05



166 South Carter, Genoa City, WI 53128

Test Date: 01-08-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19 802.11b DSSS 1 Mbps

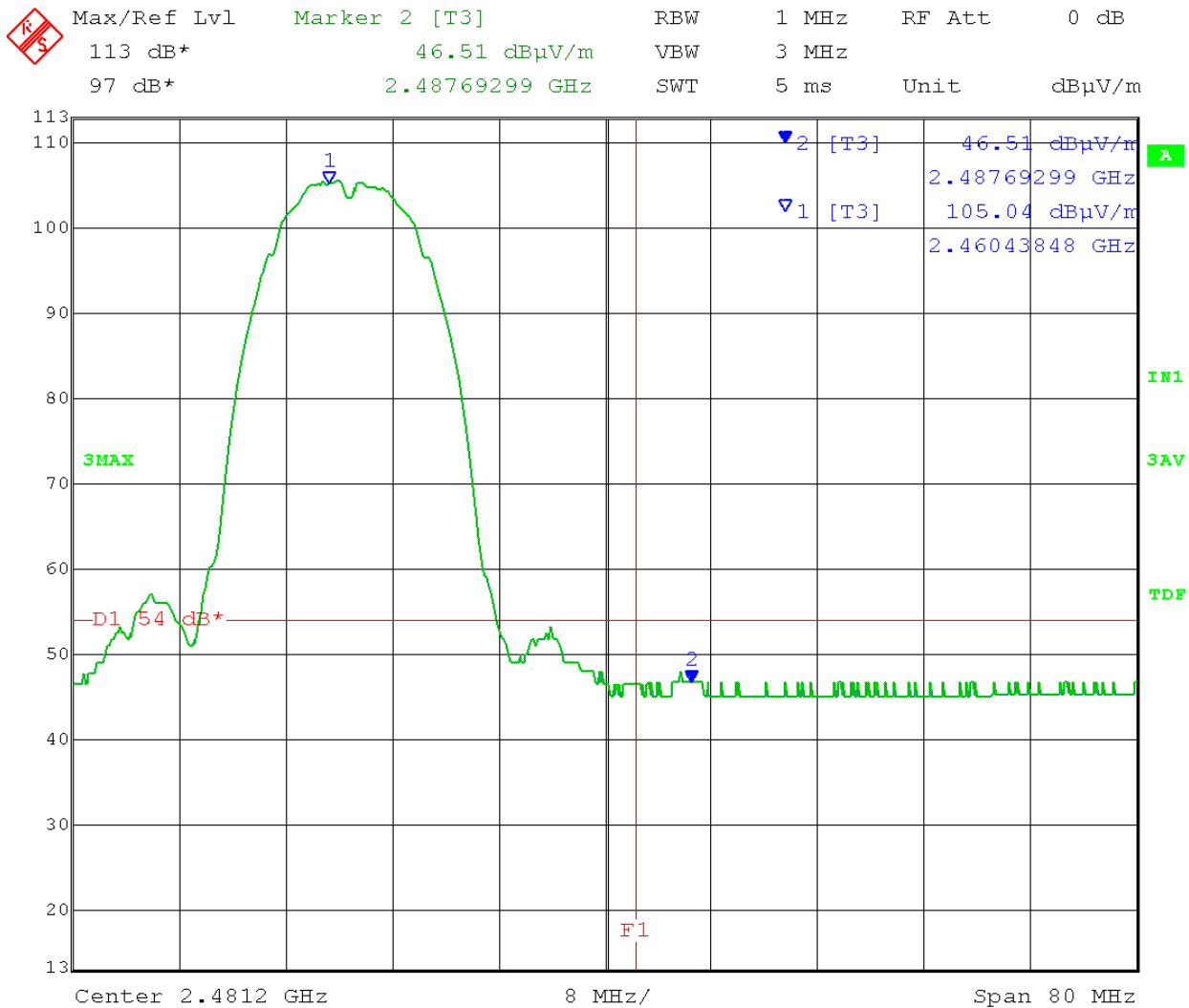
Output port J2; "F" – Type antenna Horizontal polarization

Detector: Average Test distance: 3 meter

Limit (D1) = 54 dBμV/m Band-edge Frequency (F1) = 2.4835GHz

Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
XPWP and XPWC
18708
5163



Date: 8.JAN.2013 09:29:26



166 South Carter, Genoa City, WI 53128

Test Date: 01-08-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19

802.11b DSSS 1 Mbps

Output port J2; "F"-Type Antenna

Vertical polarization

Detector: Peak

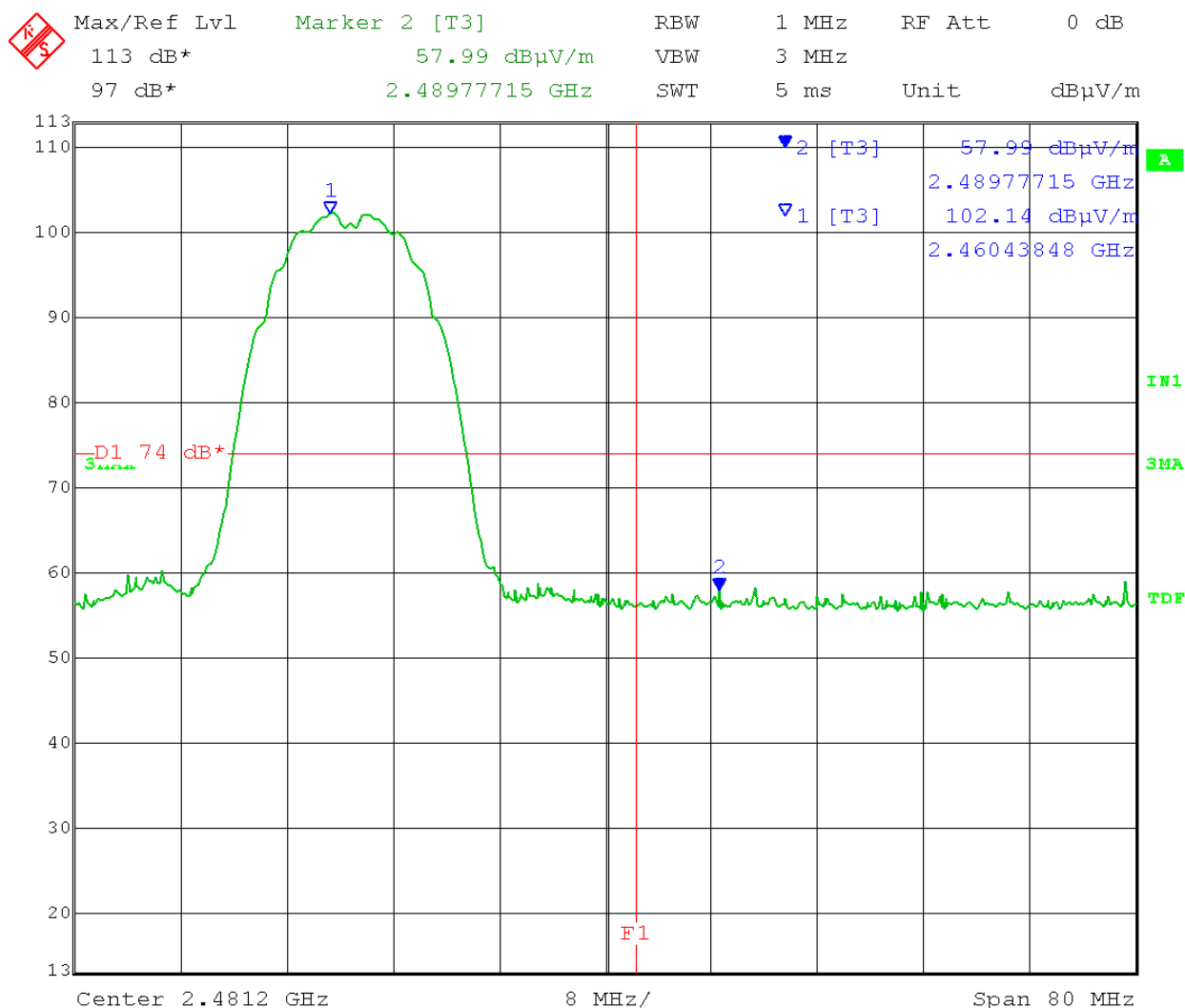
Test distance: 3 meter

Limit (D1) = 74 dBμV/m

Band-edge Frequency (F1) = 2.4835GHz

Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
XPWP and XPWC
18708
5163



Date: 8.JAN.2013 09:22:34



166 South Carter, Genoa City, WI 53128

Test Date: 01-08-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19 802.11b DSSS 1 Mbps

Output port J2; "F" – Type antenna Vertical polarization

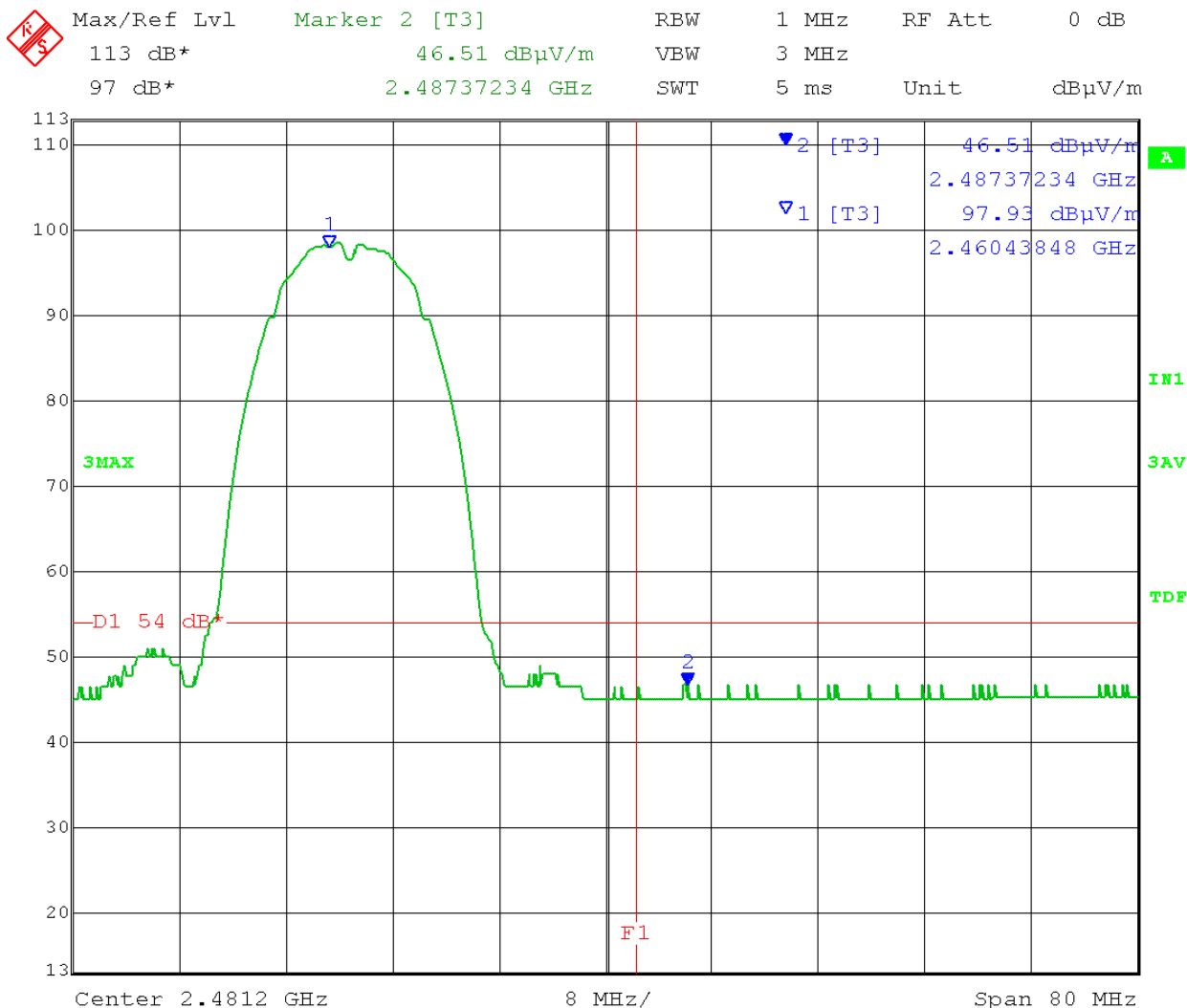
Detector: Average Test distance: 3 meter

Limit (D1) = 54 dBμV/m

Band-edge Frequency (F1) = 2.4835GHz

Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
XPWP and XPWC
18708
5163



Date: 8.JAN.2013 09:24:36



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19

Output port J2; F - Type antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

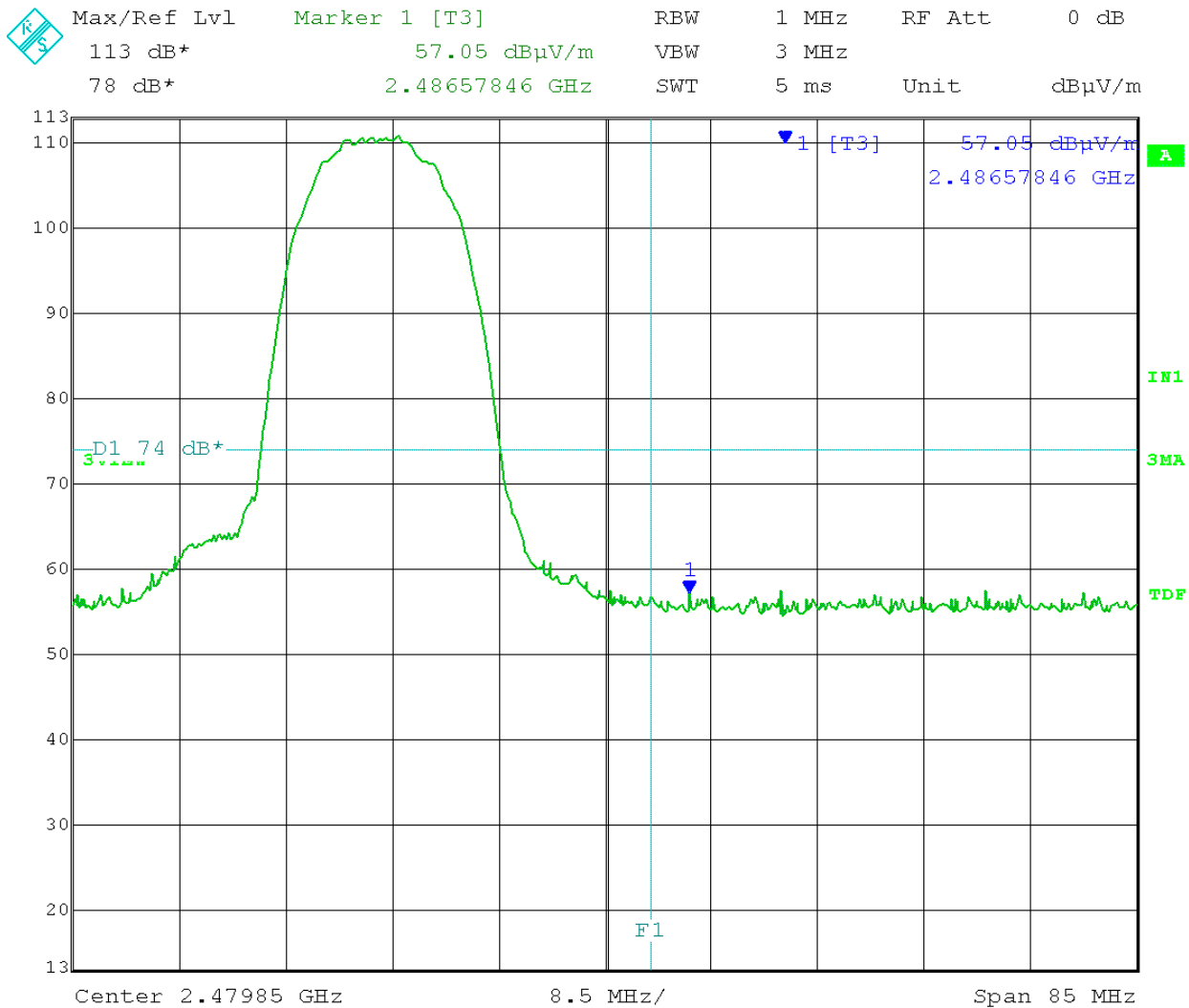
5163

802.11b CCK 5.5Mbps

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 74 dBμV/m



Date: 5.FEB.2013 10:25:39



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19

Output port J2; F - Type antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

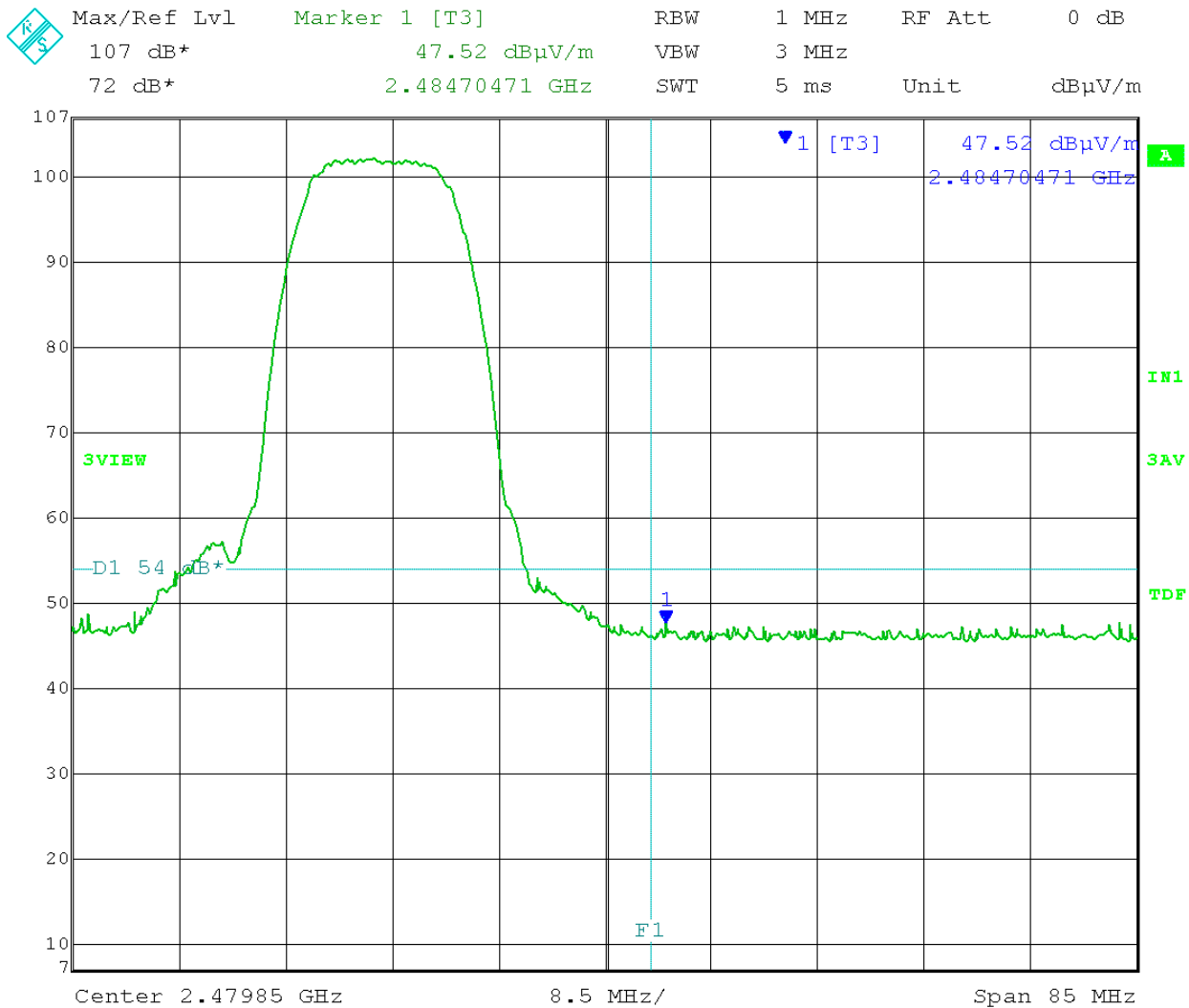
5163

802.11b CCK 5.5Mbps

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 54 dBμV/m



Date: 5.FEB.2013 10:23:14



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19

Output port J2; F - Type antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

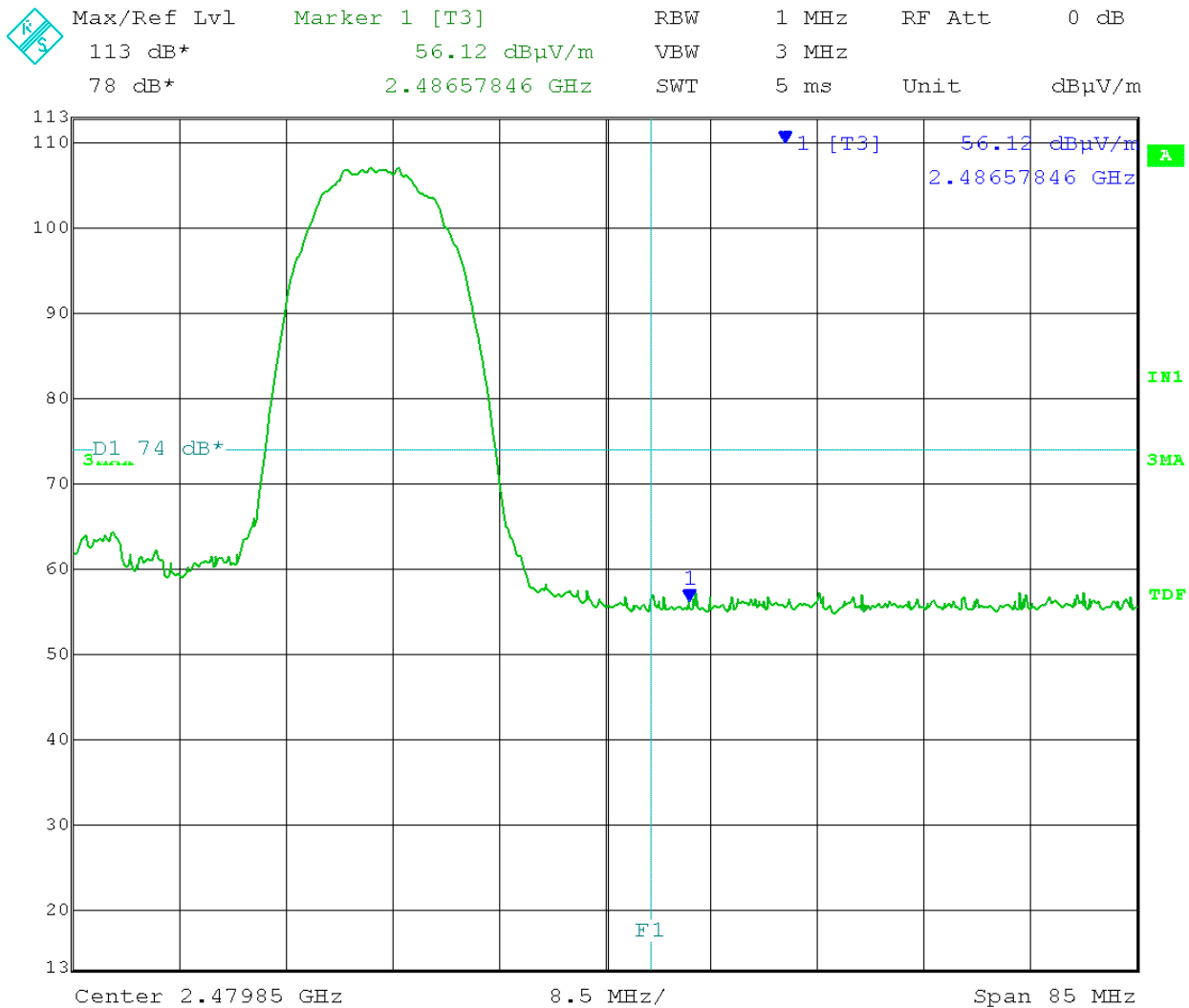
5163

802.11b CCK 5.5Mbps

Vertical polarization

Test distance: 3 meters

Limit (D1) = 74 dBμV/m



Date: 5.FEB.2013 10:30:19



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19

Output port J2; F - Type antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

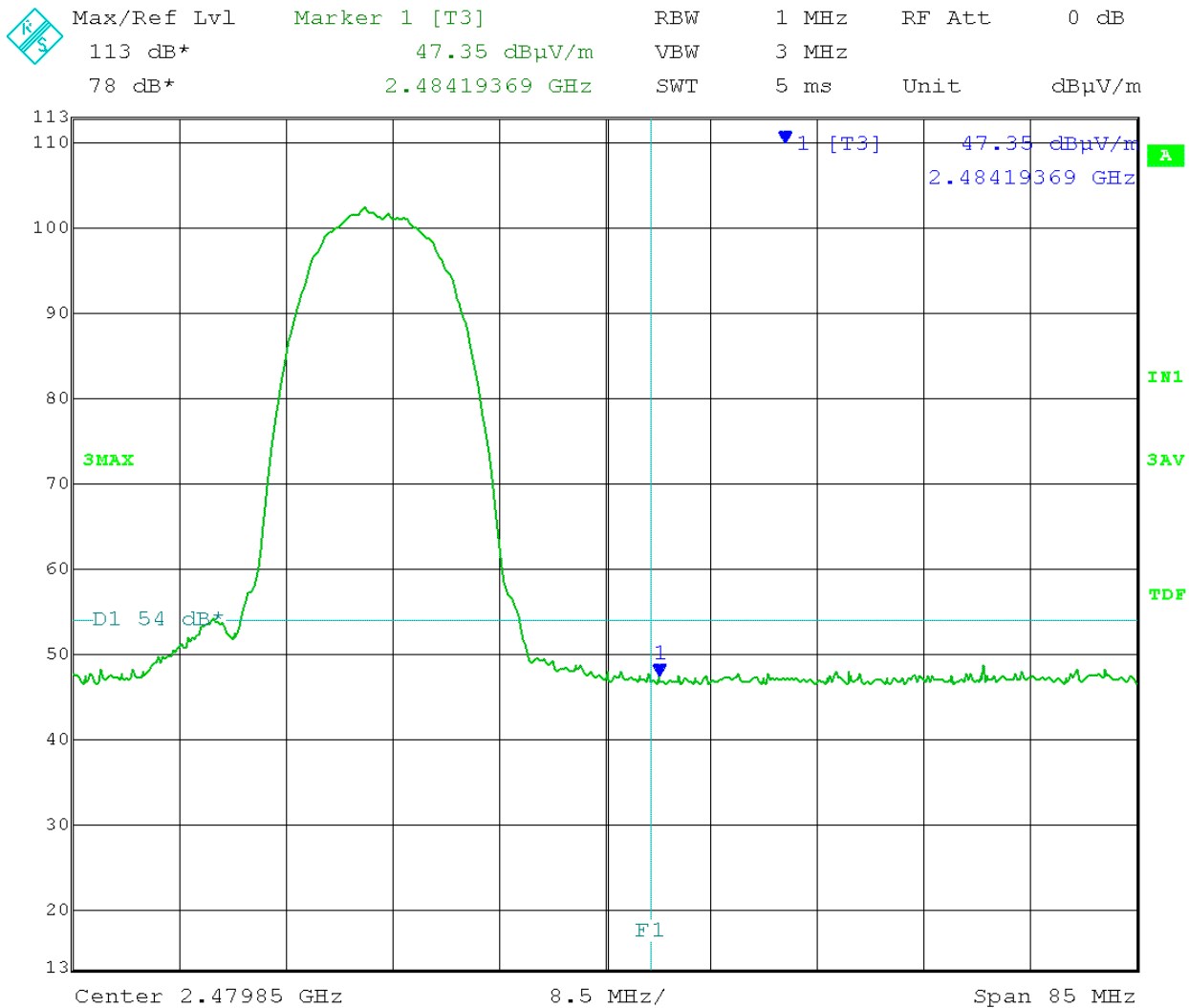
5163

802.11b CCK 5.5Mbps

Vertical polarization

Test distance: 3 meters

Limit (D1) = 54 dBμV/m



Date: 5.FEB.2013 10:31:43



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

Output port J2; F-Type antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

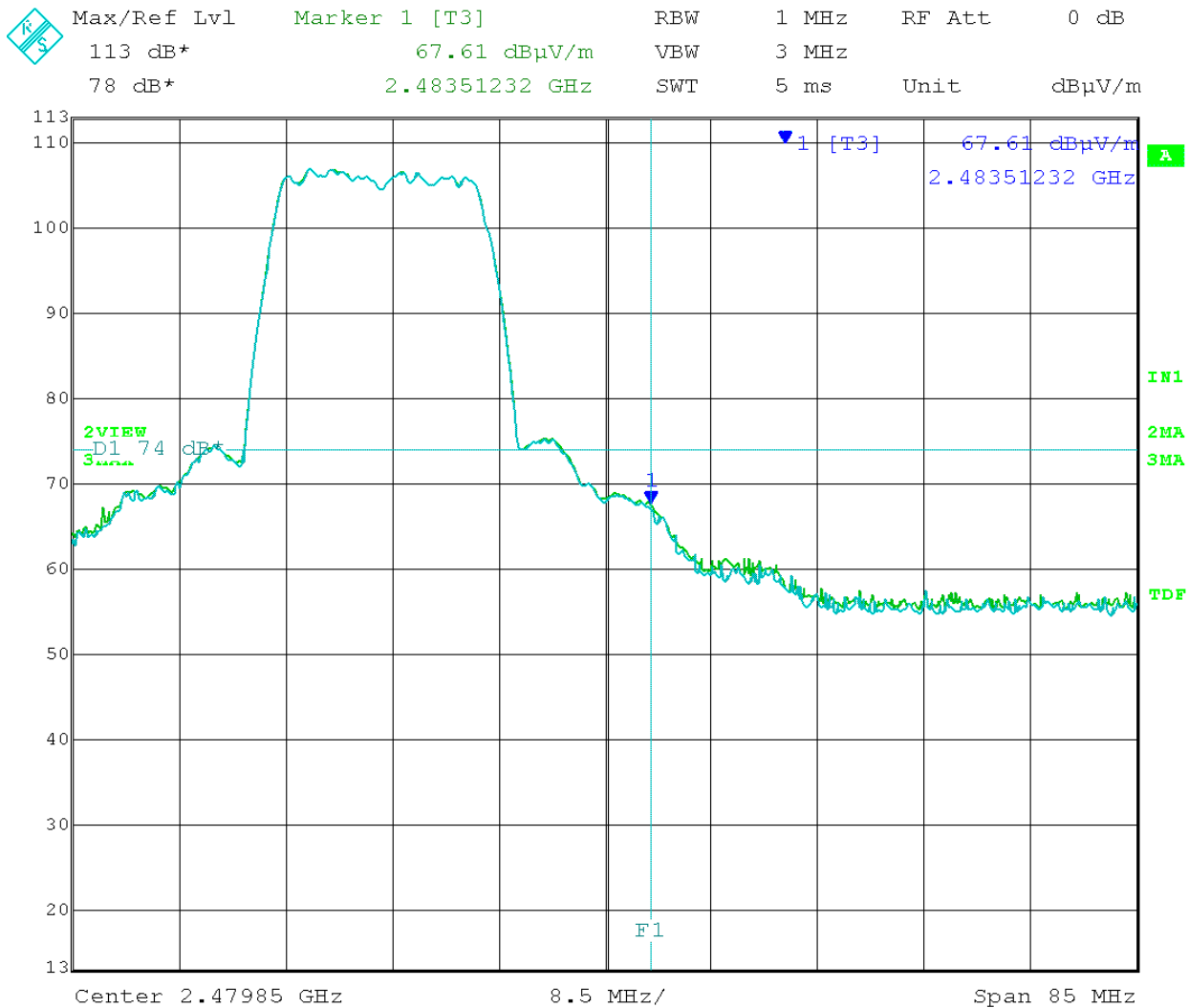
5163

802.11g OFDM 54Mbps

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 74 dBμV/m



Date: 5.FEB.2013 11:02:59



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

Output port J2; F-Type antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

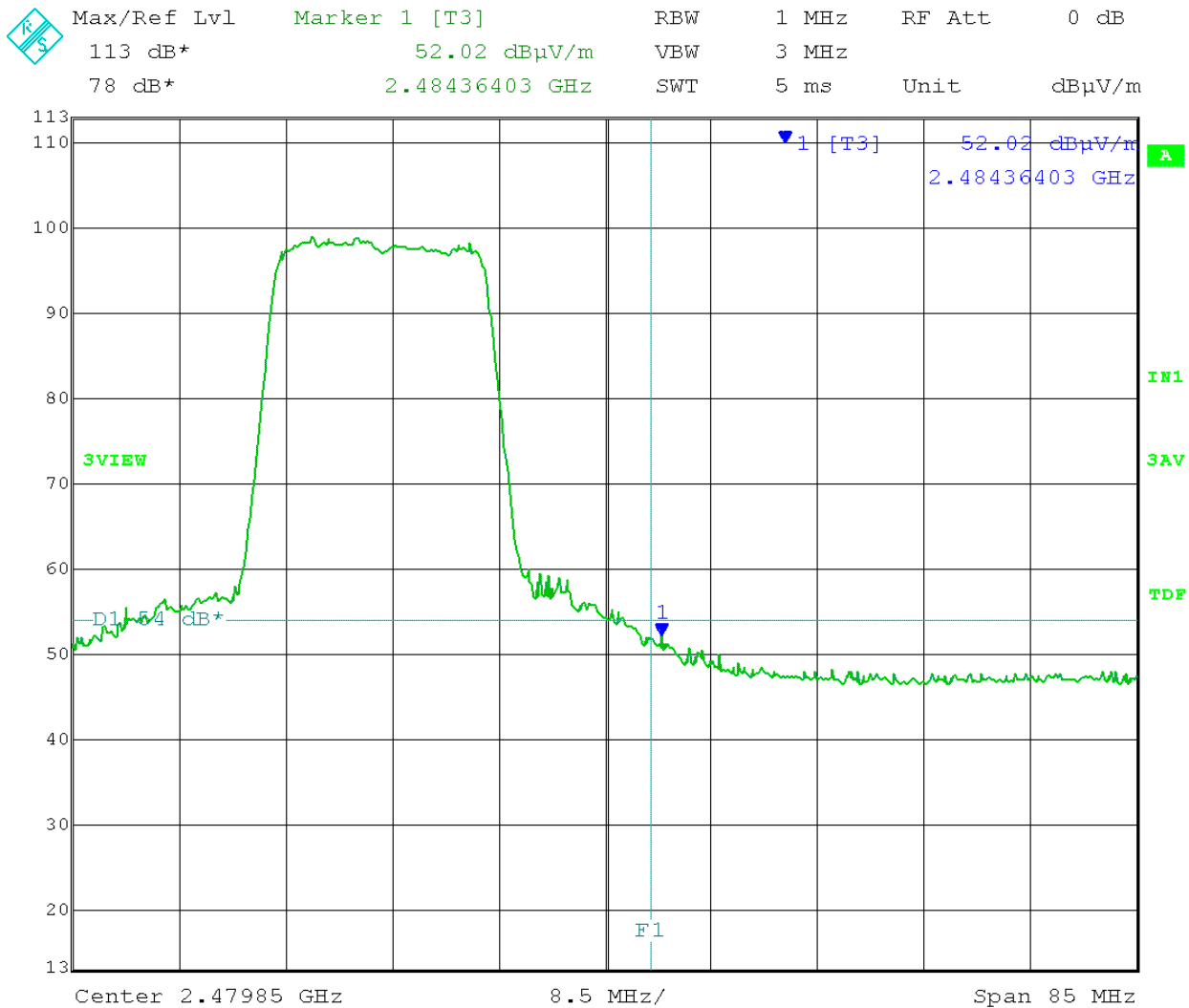
5163

802.11g OFDM 54Mbps

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 54 dBμV/m



Date: 5.FEB.2013 11:04:49



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

Output port J2; F-Type antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

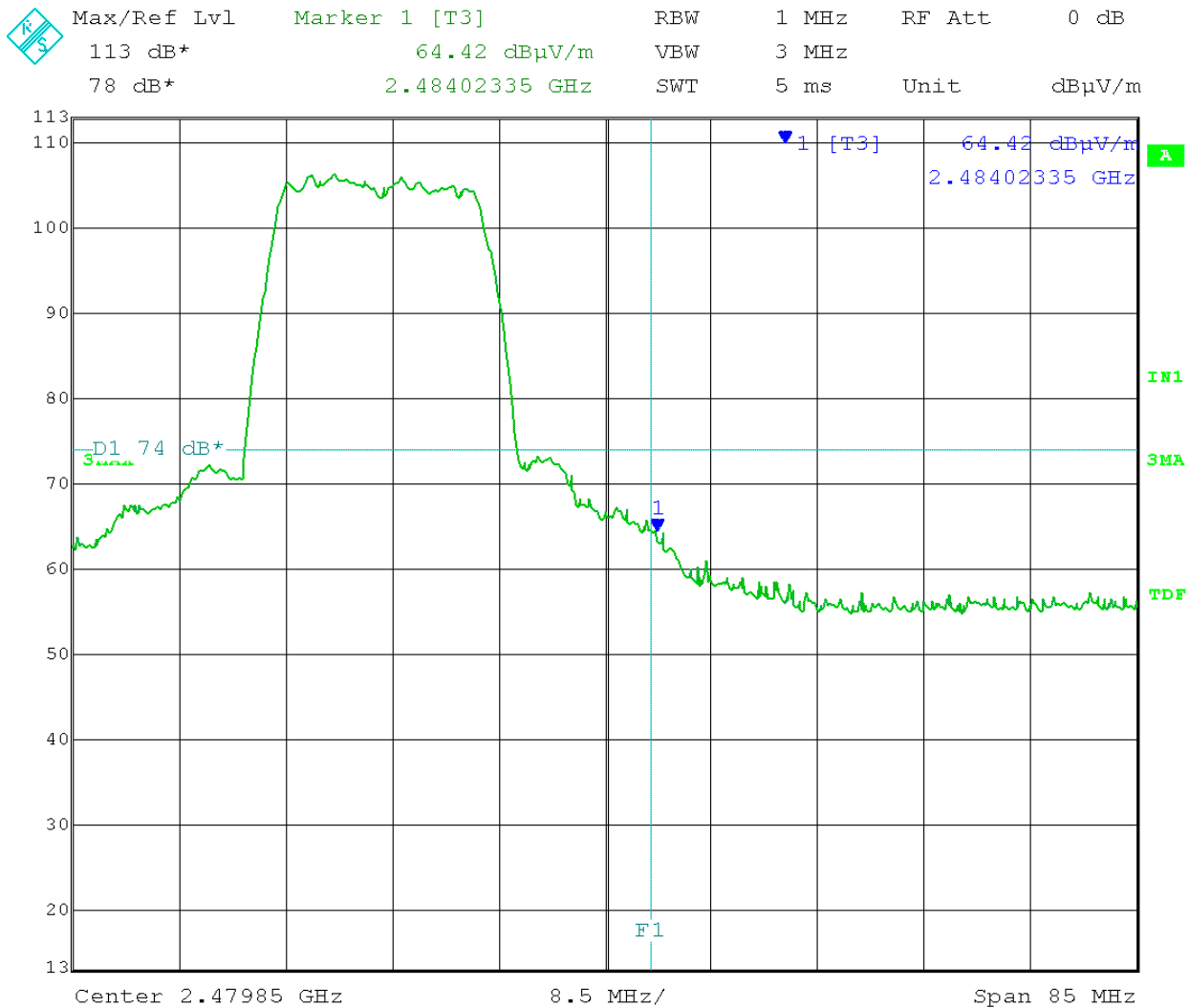
5163

802.11g OFDM 54Mbps

Vertical polarization

Test distance: 3 meters

Limit (D1) = 74 dB μ V/m



Date: 5.FEB.2013 11:10:29



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

Output port J2; F-Type antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

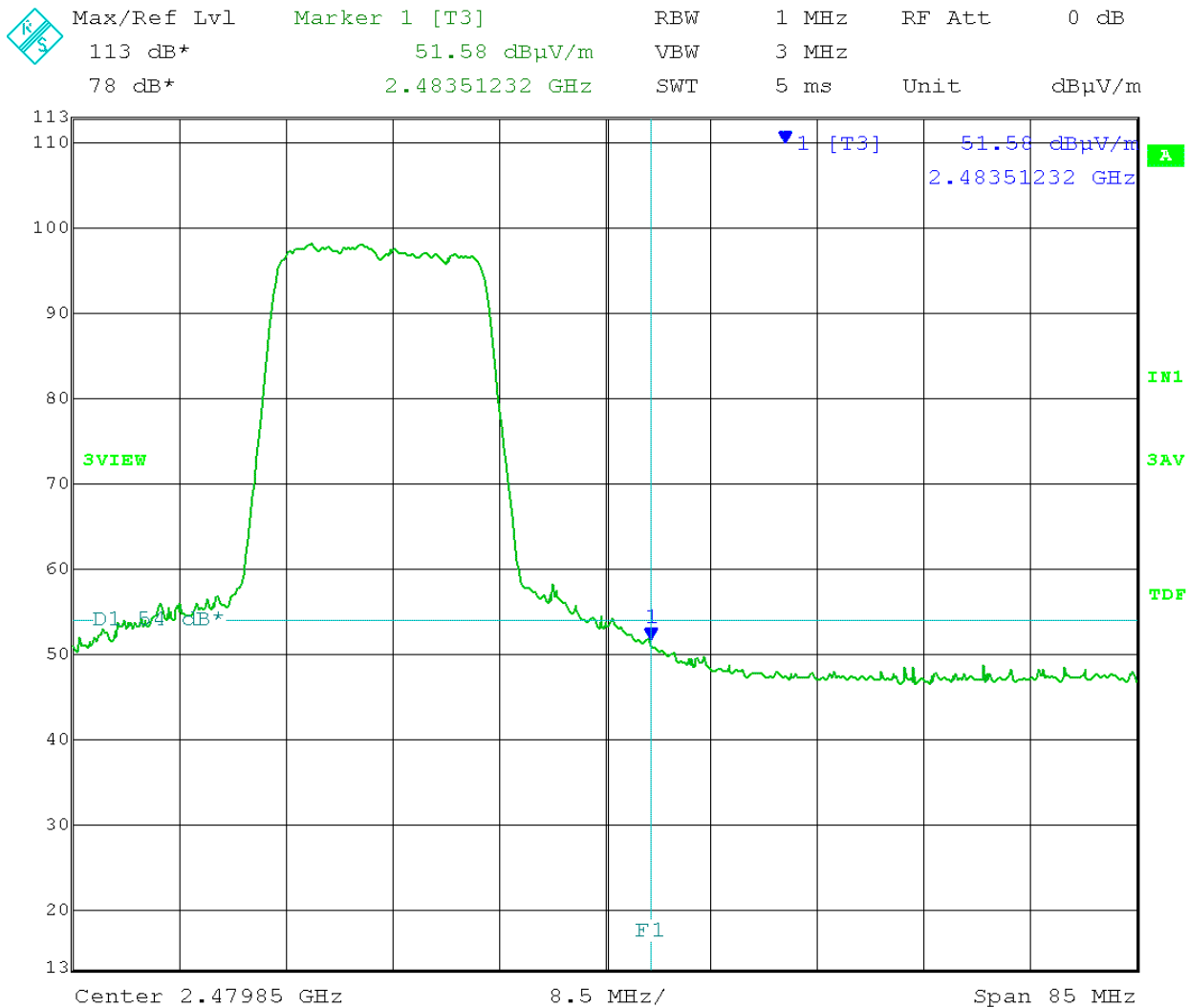
5163

802.11g OFDM 54Mbps

Vertical polarization

Test distance: 3 meters

Limit (D1) = 54 dBμV/m



Date: 5.FEB.2013 11:09:18



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.452 GHz

Output power setting: 18

Output port J2; F - Type antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

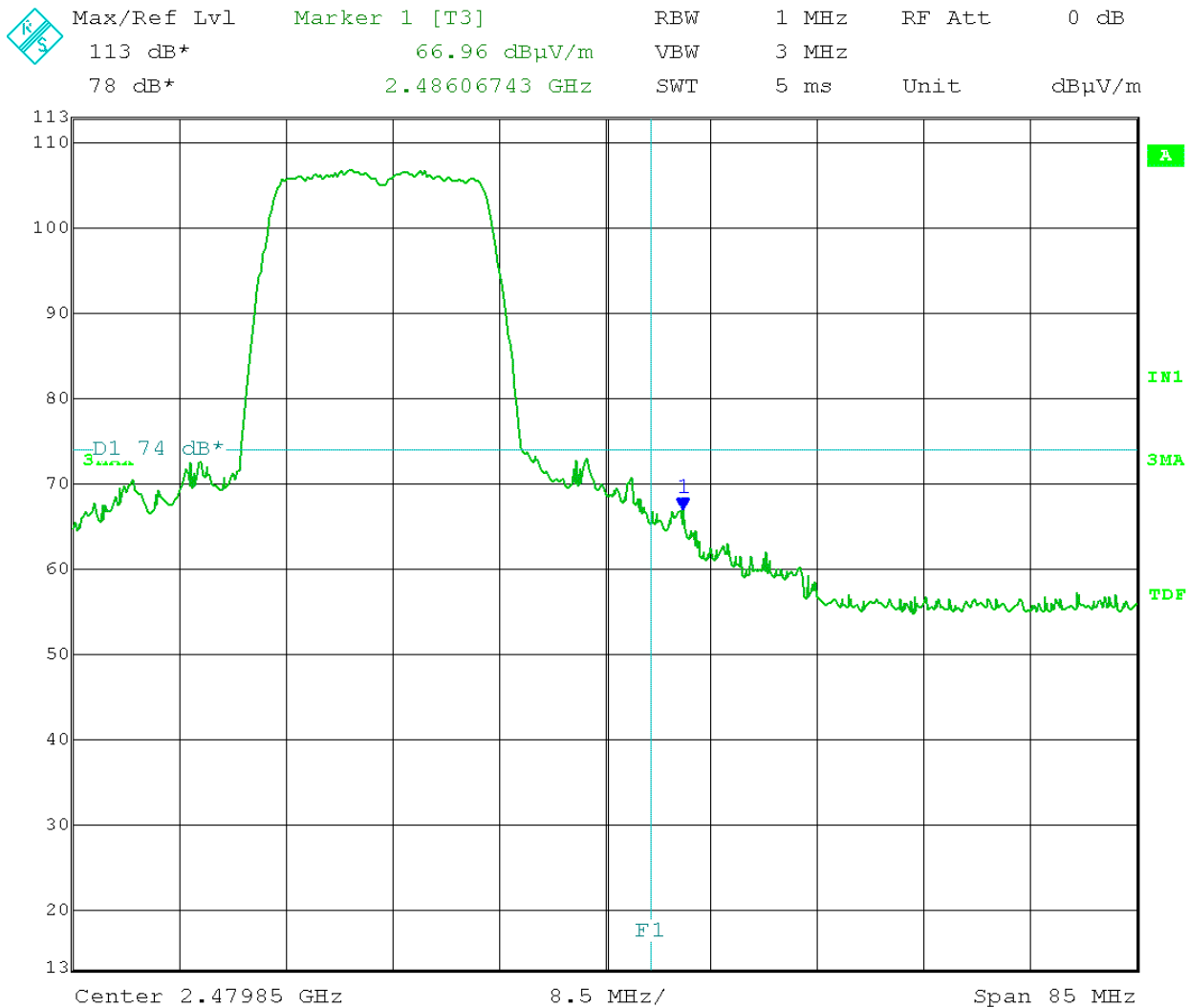
5163

802.11n MC7S-20MHz

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 74 dB μ V/m



Date: 5.FEB.2013 13:10:44



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.452 GHz

Output power setting: 18

Output port J2; F - Type antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

5163

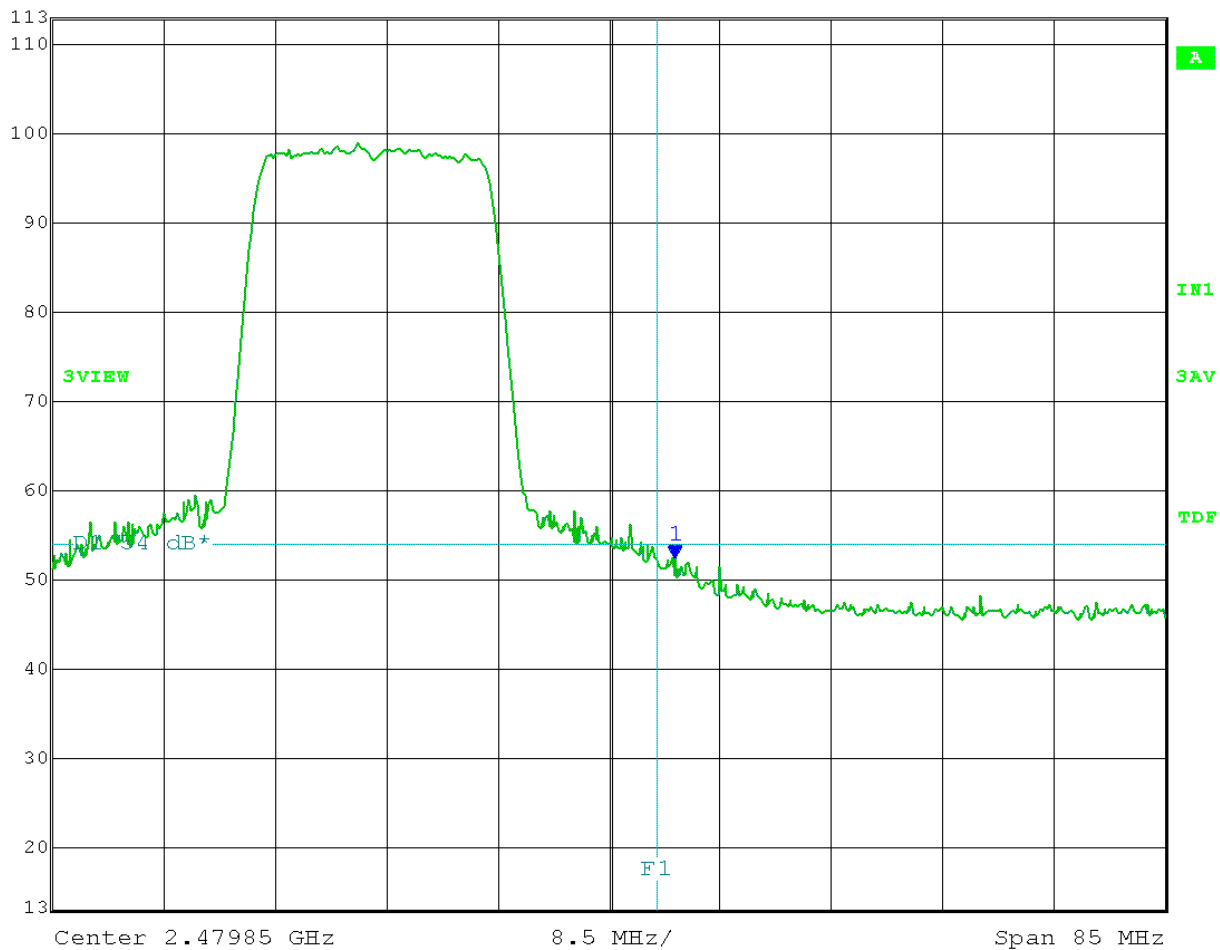
802.11n MC7S-20MHz

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 54 dBμV/m

Max/Ref Lvl Marker 1 [T3] RBW 1 MHz RF Att 0 dB
113 dB* 52.44 dBμV/m VBW 3 MHz
78 dB* 2.48487505 GHz SWT 5 ms Unit dBμV/m



Date: 5.FEB.2013 13:09:18



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.452 GHz

Output power setting: 18

Output port J2; F - Type antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

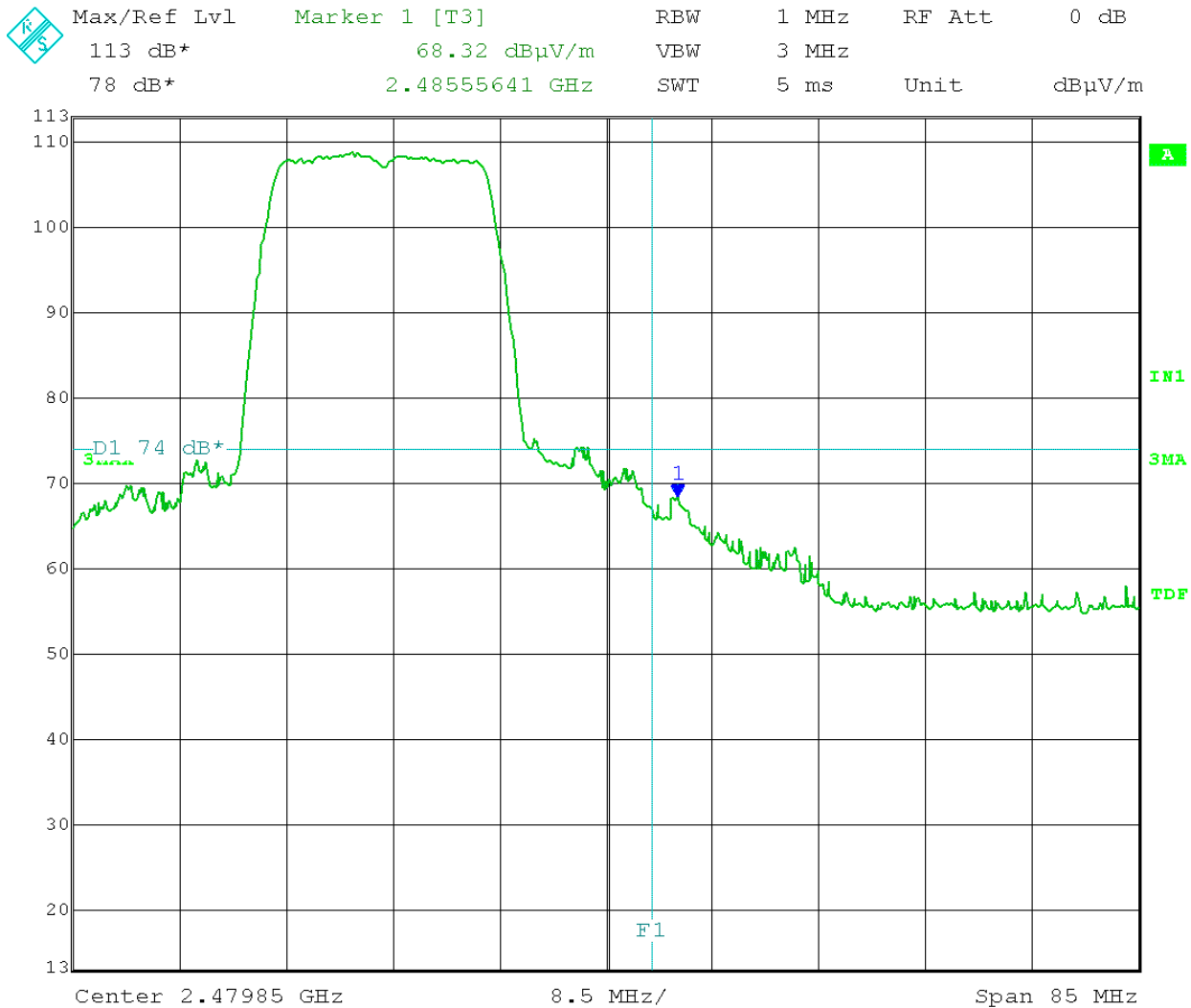
5163

802.11n MC7S-20MHz

Vertical polarization

Test distance: 3 meters

Limit (D1) = 74 dB μ V/m



Date: 5.FEB.2013 13:15:20



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.452 GHz

Output power setting: 18

Output port J2; F - Type antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

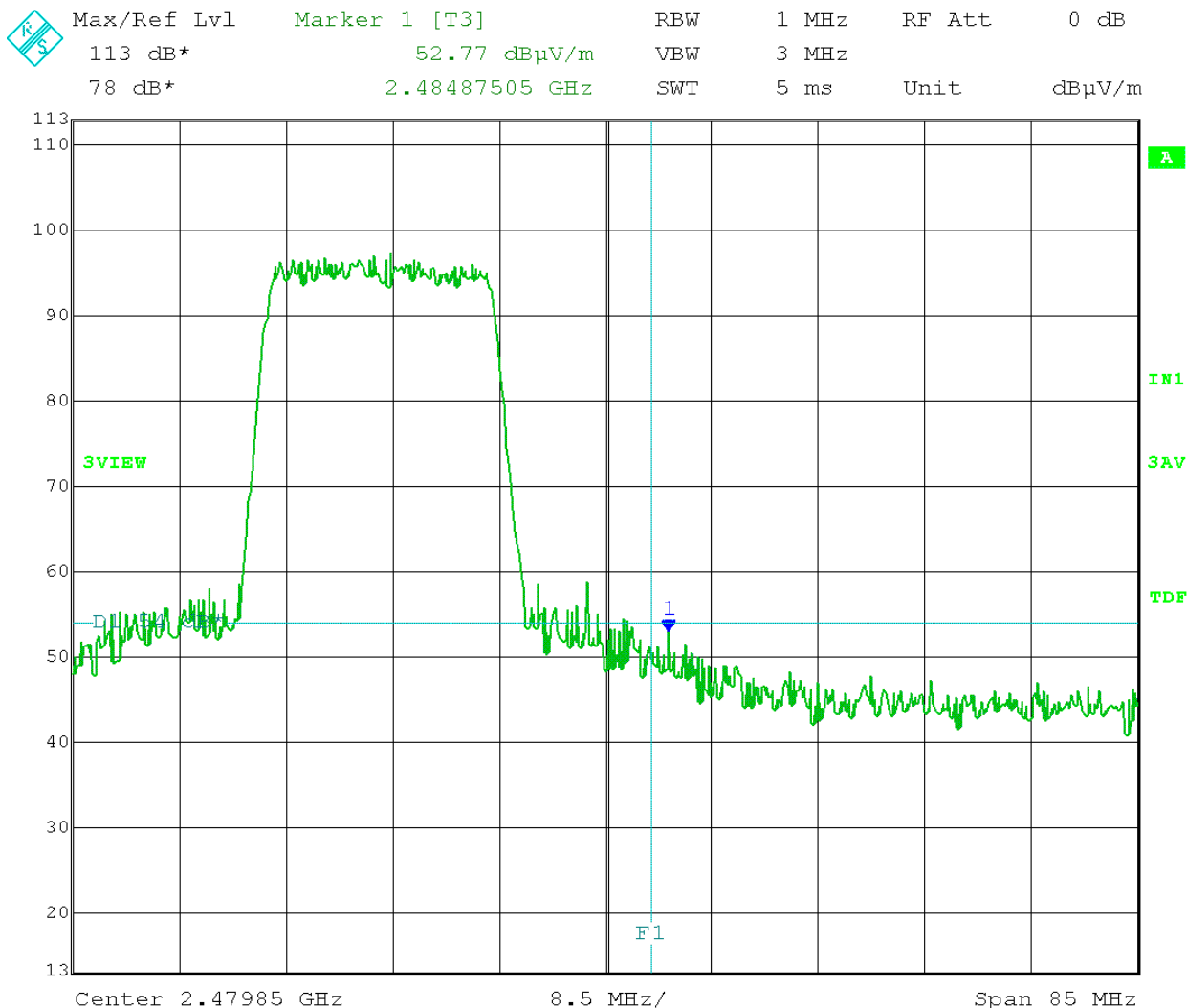
5163

802.11n MC7S-20MHz

Vertical polarization

Test distance: 3 meters

Limit (D1) = 54 dBμV/m



Date: 5.FEB.2013 13:20:33



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.452 GHz

Output power setting: 18

Output port J2; F-Type antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

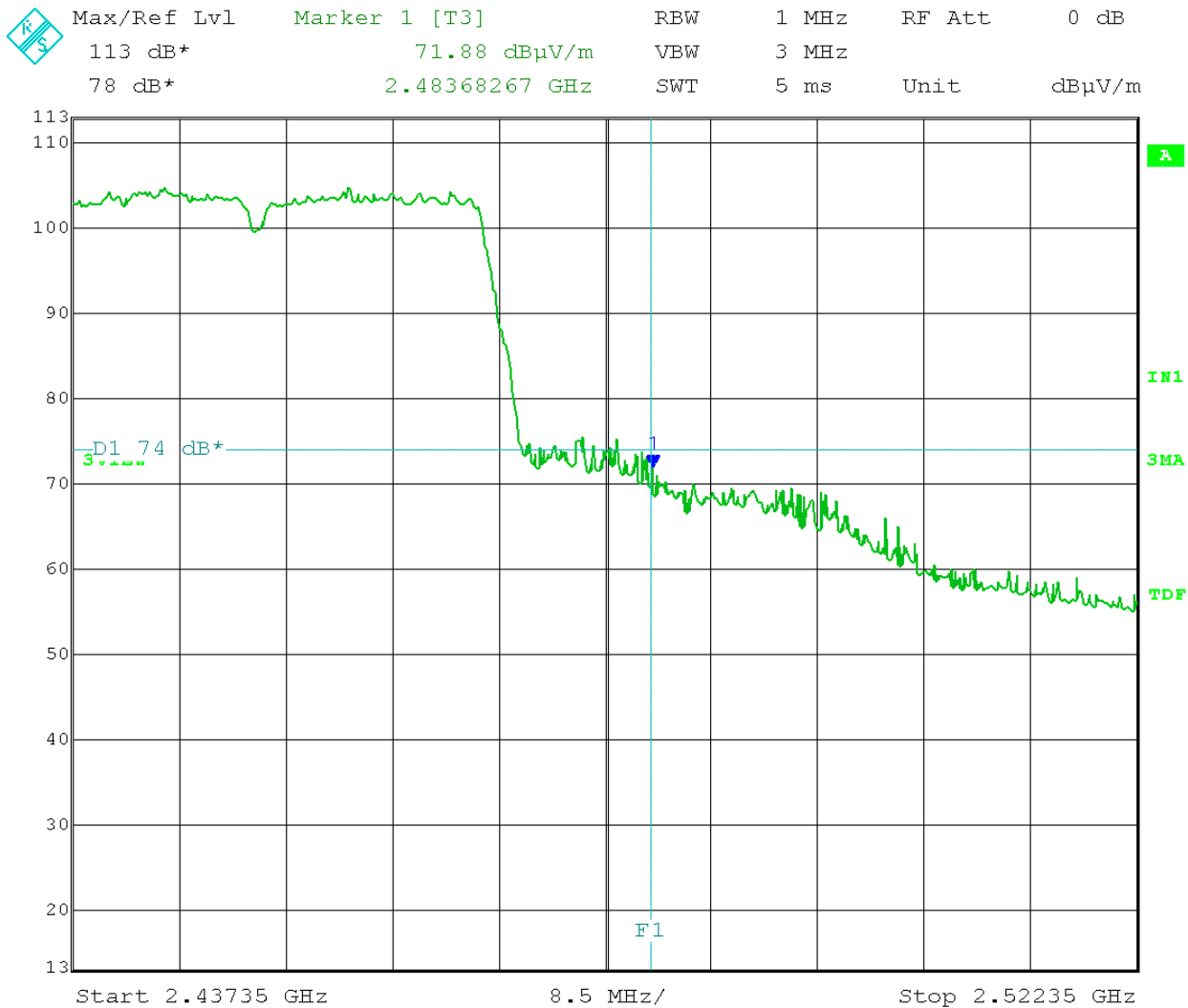
5163

802.11n MC7S-40MHz

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 74 dB μ V/m



Date: 5.FEB.2013 14:12:10



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.452 GHz

Output power setting: 18

Output port J2; F-Type antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

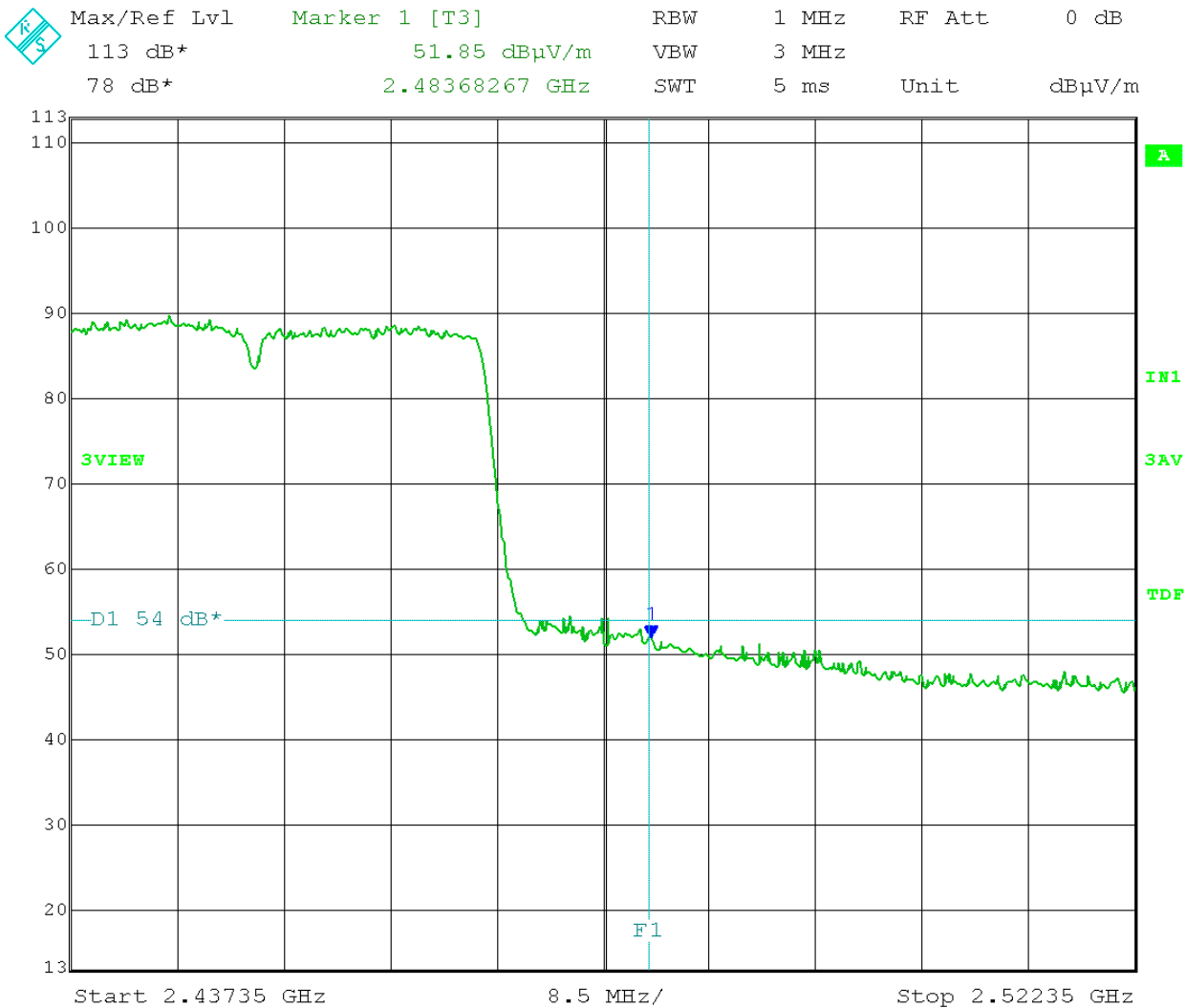
5163

802.11n MC7S-40MHz

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 54 dB μ V/m



Date: 5.FEB.2013 14:13:33



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.452 GHz

Output power setting: 18

Output port J2; F-Type antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

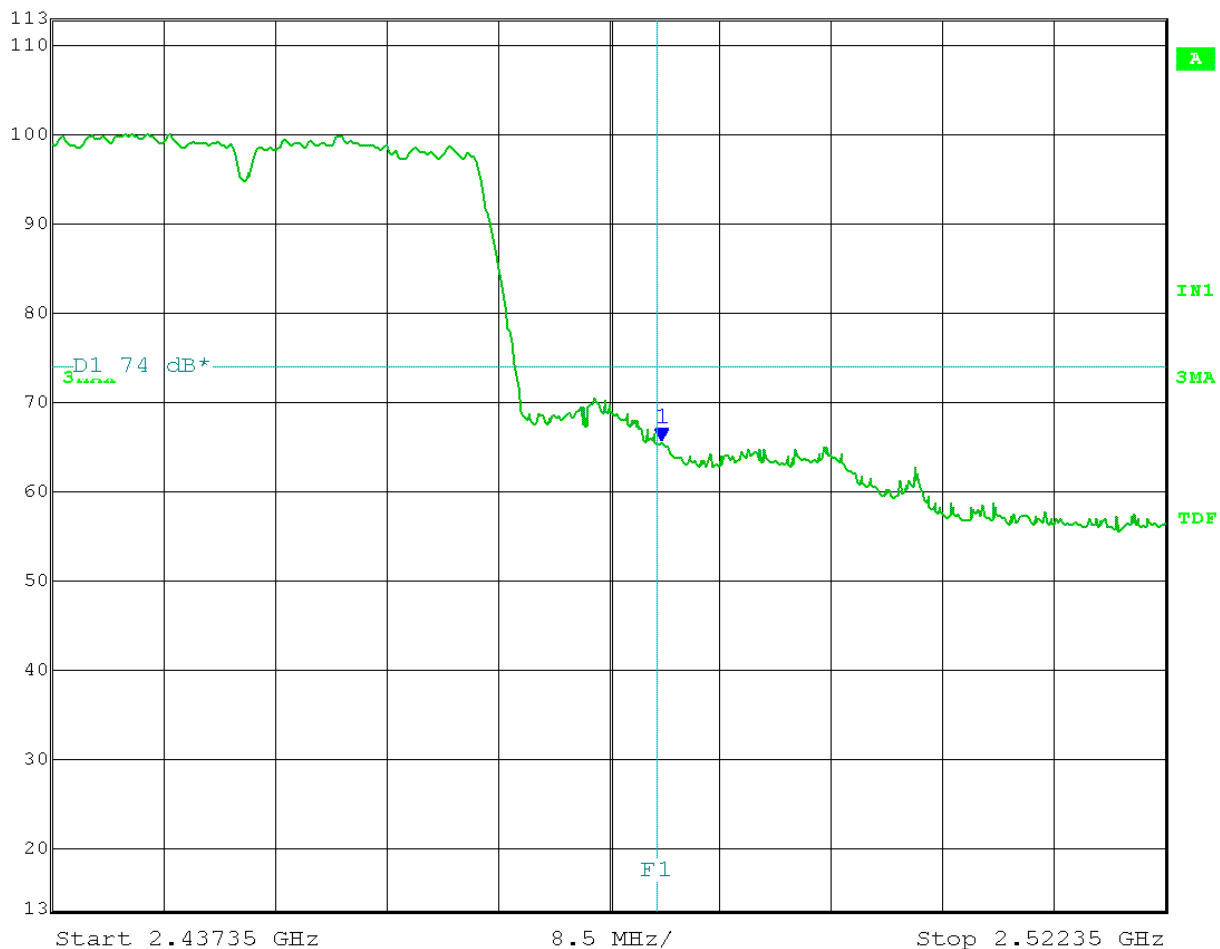
802.11n MC7S-40MHz

Vertical polarization

Test distance: 3 meters

Limit (D1) = 74 dB μ V/m

Max/Ref Lvl	Marker 1 [T3]	RBW	1 MHz	RF Att	0 dB
113 dB*	65.62 dB μ V/m	VBW	3 MHz		
78 dB*	2.48385301 GHz	SWT	5 ms	Unit	dB μ V/m



Date: 5.FEB.2013 14:01:44



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.452 GHz

Output power setting: 18

Output port J2; F-Type antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

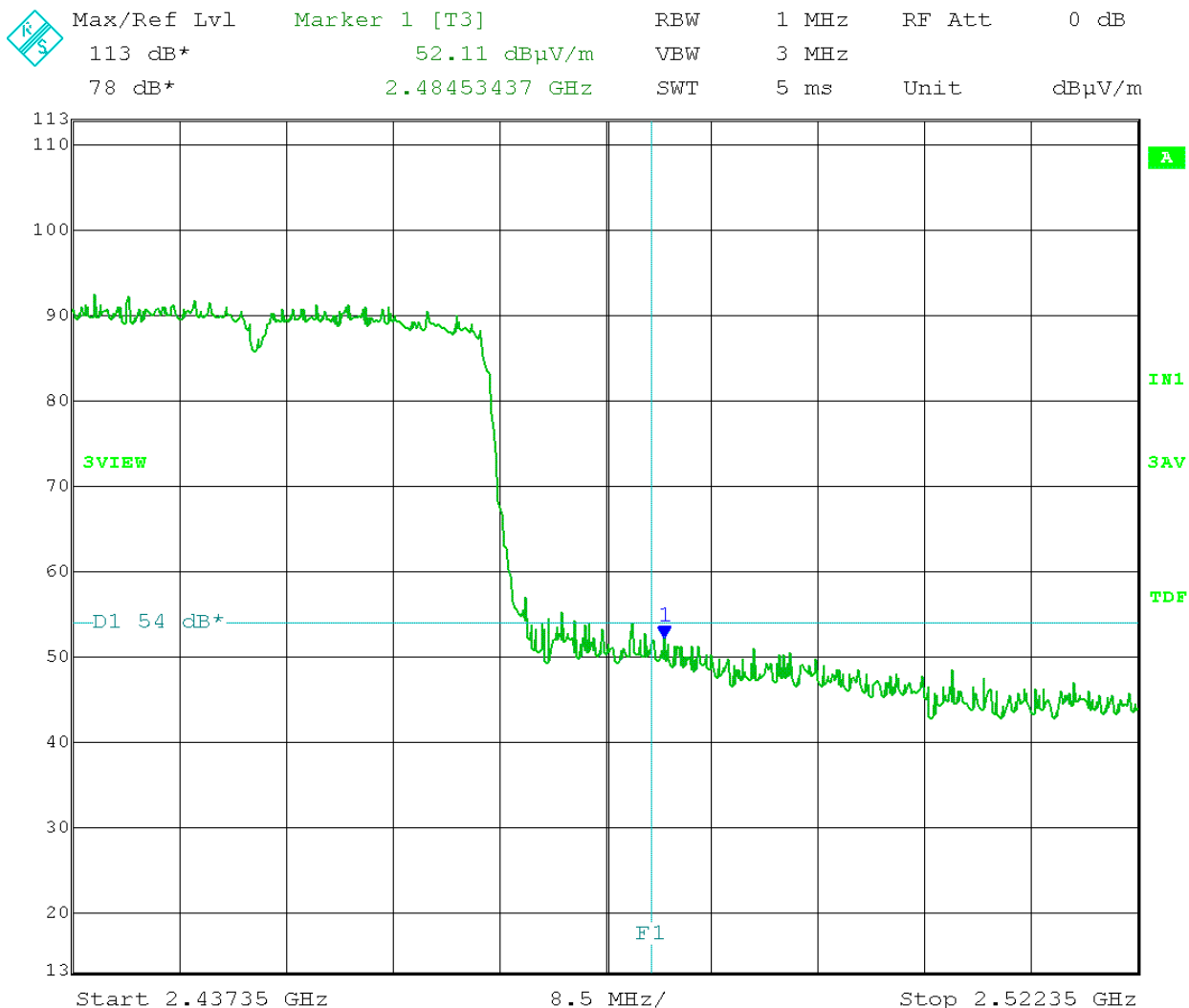
5163

802.11n MC7S-40MHz

Vertical polarization

Test distance: 3 meters

Limit (D1) = 54 dB μ V/m



Date: 5.FEB.2013 14:00:26



166 South Carter, Genoa City, WI 53128

Test Date: 01-08-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19

Output port J2; PIFA Antenna

Detector: Peak

Limit (D1) = 74 dB μ V/m

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

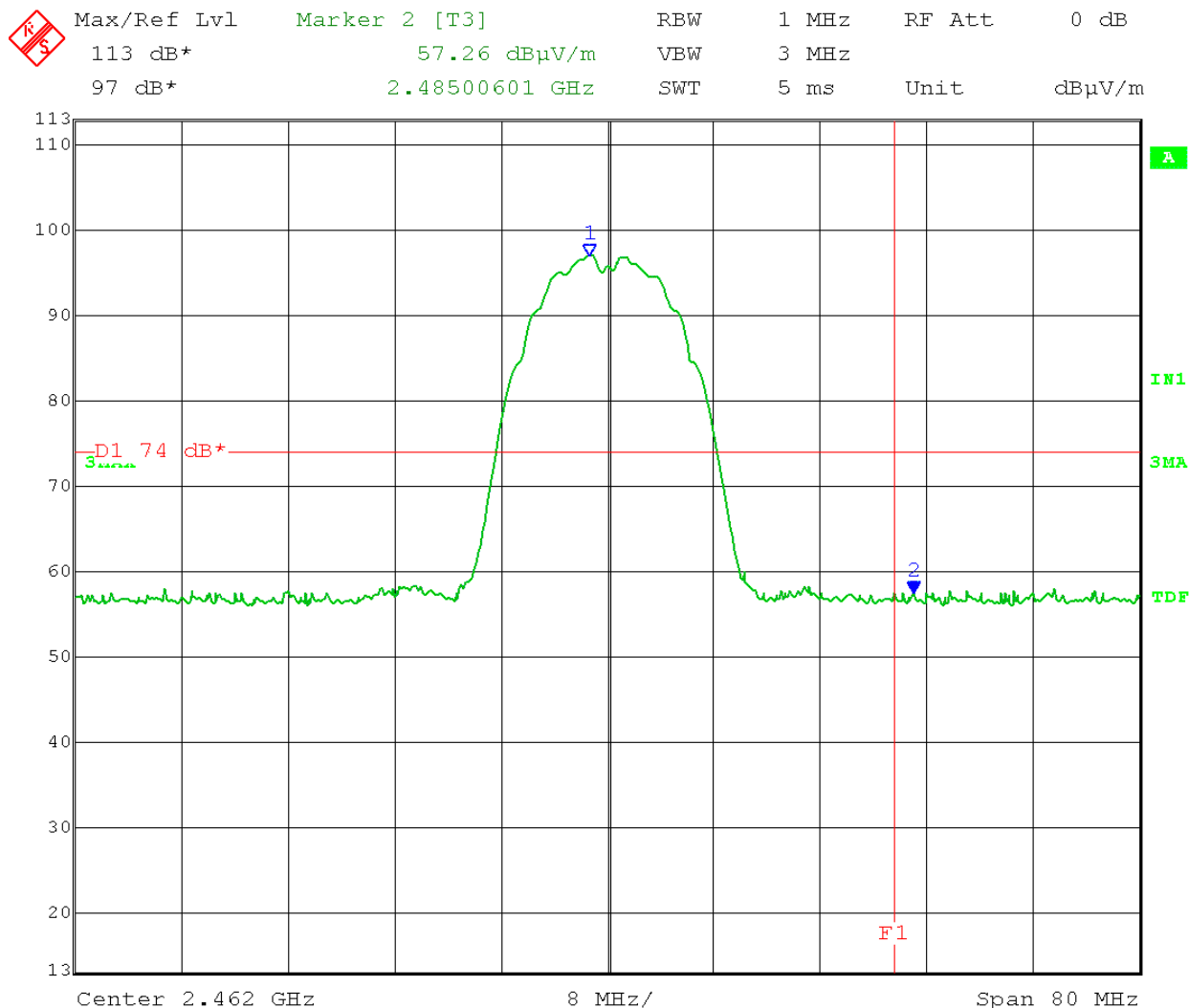
5163

802.11b DSSS 1 Mbps

Horizontal polarization

Test distance: 3 meters

Band-edge Frequency (F1) = 2.4835GHz



Date: 8.JAN.2013 09:05:07



166 South Carter, Genoa City, WI 53128

Test Date: 01-08-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19

Output port J2; PIFA Antenna

Detector: Average

Limit (D1) = 54 dB μ V/m

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

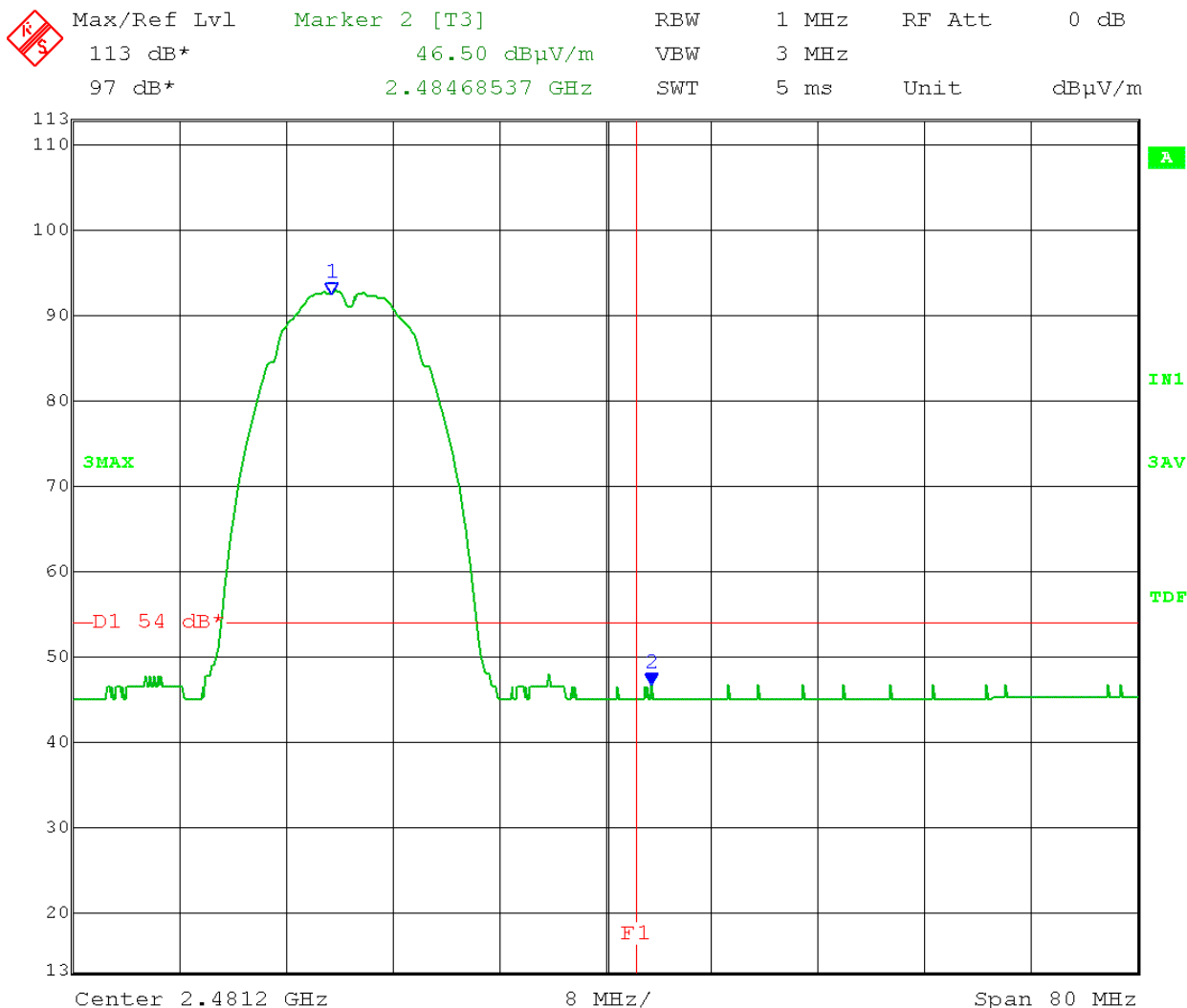
5163

802.11b DSSS 1 Mbps

Horizontal polarization

Test distance: 3 meter

Band-edge Frequency (F1) = 2.4835GHz



Date: 8.JAN.2013 09:08:05



166 South Carter, Genoa City, WI 53128

Test Date: 01-08-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19

Output port J2; PIFA Antenna

Detector: Peak

Limit (D1) = 74 dBμV/m

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

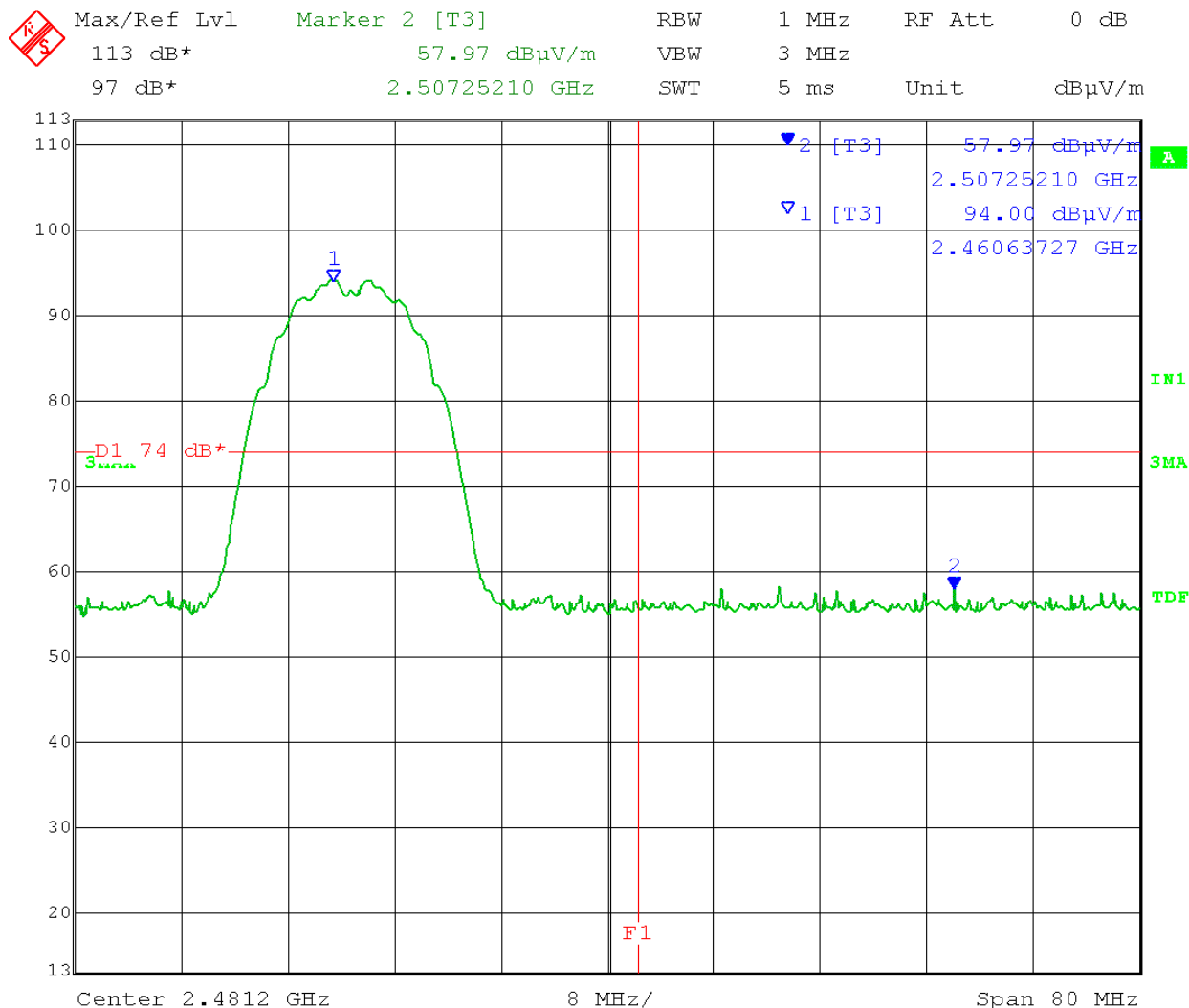
5163

802.11b DSSS 1 Mbps

Vertical polarization

Test distance: 3 meters

Band-edge Frequency (F1) = 2.4835GHz



Date: 8.JAN.2013 09:15:48



166 South Carter, Genoa City, WI 53128

Test Date: 01-08-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19

Output port J2; PIFA Antenna

Detector: Average

Limit (D1) = 54 dBμV/m

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

5163

802.11b DSSS 1 Mbps

Vertical polarization

Test distance: 3 meters

Band-edge Frequency (F1) = 2.4835GHz



Max/Ref Lvl

Marker 2 [T3]

RBW

1 MHz

RF Att

0 dB

113 dB*

46.50 dBμV/m

VBW

3 MHz

97 dB*

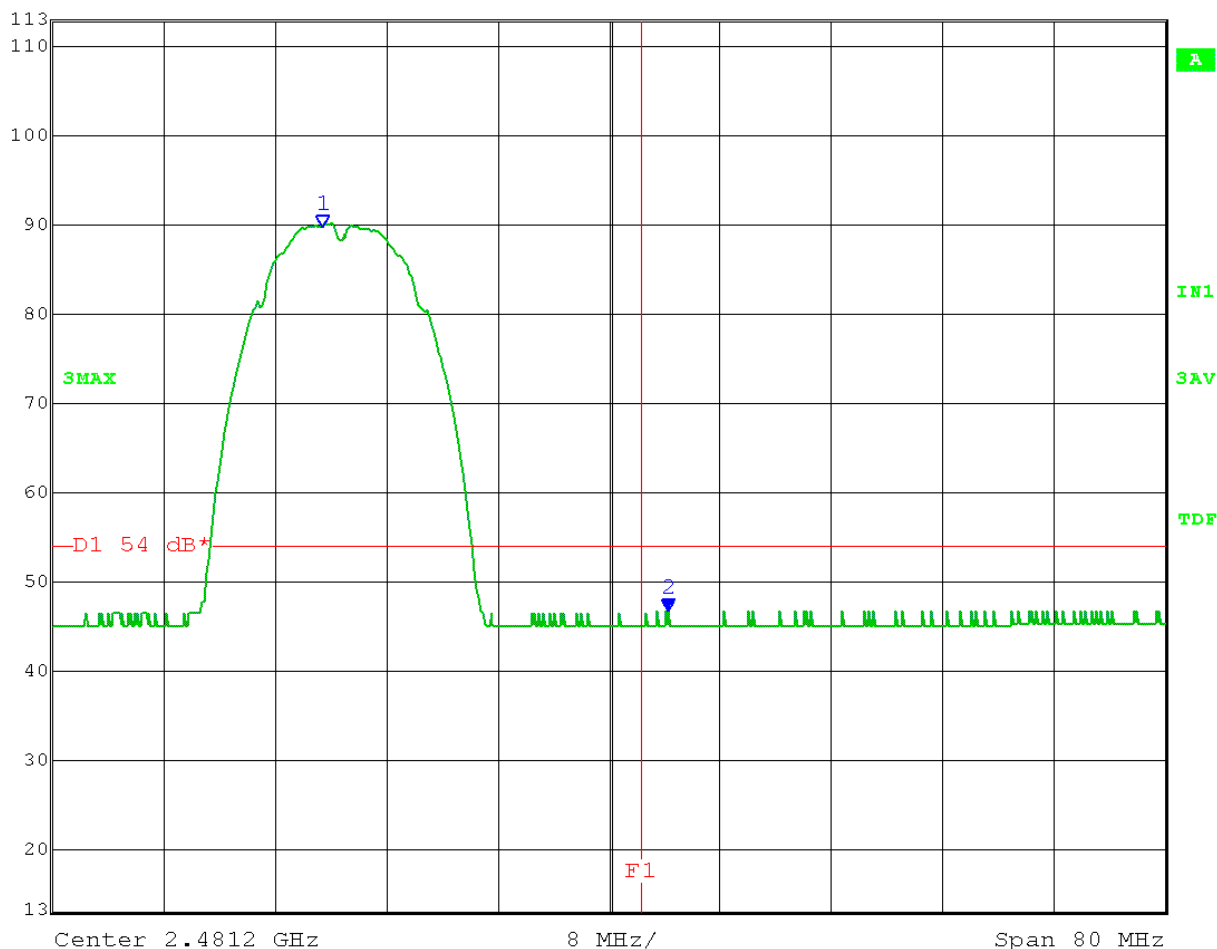
2.48544850 GHz

SWT

5 ms

Unit

dBμV/m



Date: 8.JAN.2013 09:13:28



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19

Output port J2; PIFA antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

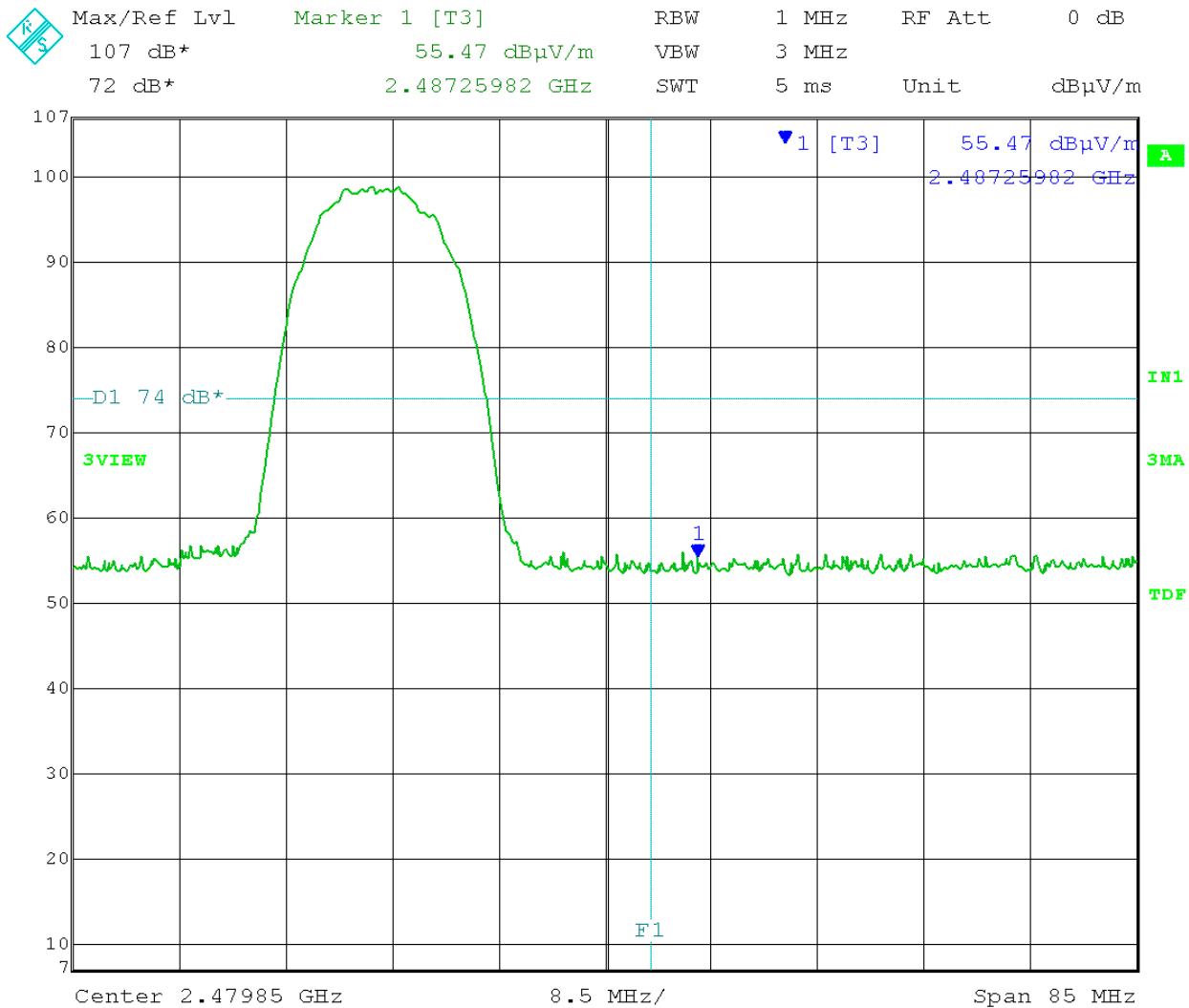
5163

802.11b CCK 5.5Mbps

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 74 dBμV/m



Date: 5.FEB.2013 10:11:29



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19

Output port J2; PIFA antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

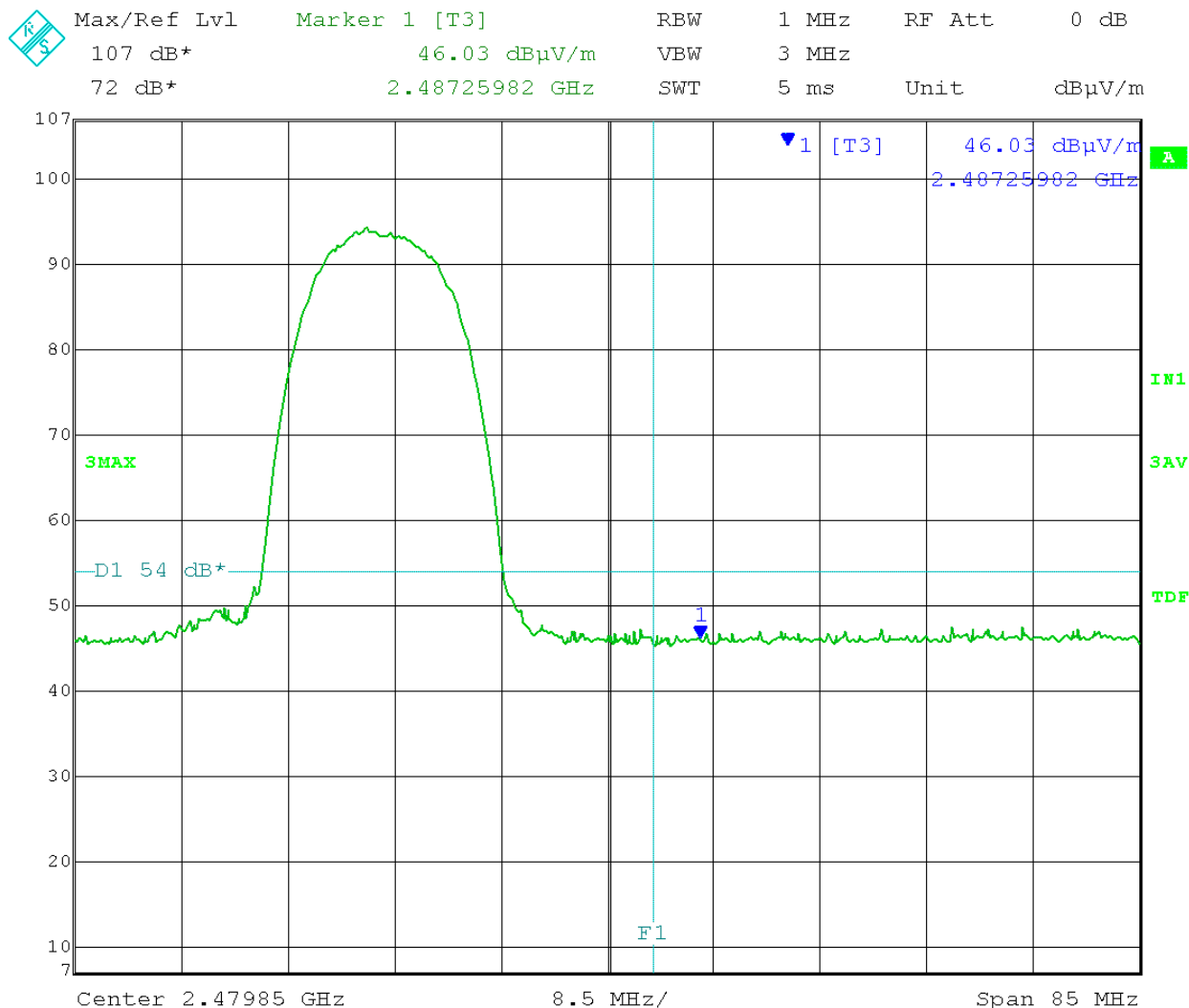
5163

802.11b CCK 5.5Mbps

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 54 dBμV/m



Date: 5.FEB.2013 10:12:54



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19

Output port J2; PIFA antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

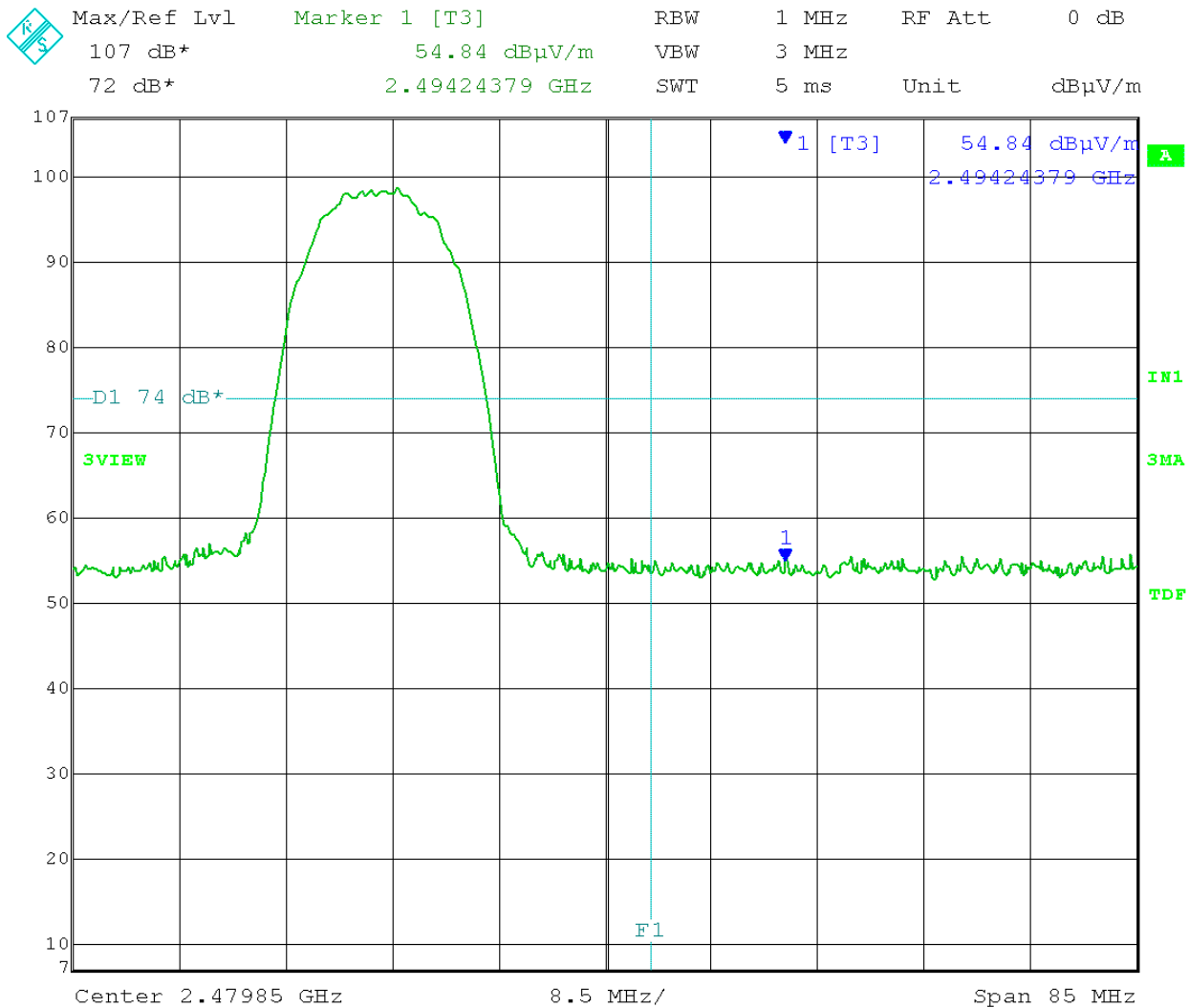
5163

802.11b CCK 5.5Mbps

Vertical polarization

Test distance: 3 meters

Limit (D1) = 74 dB μ V/m



Date: 5.FEB.2013 10:06:30



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 19

Output port J2; PIFA antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

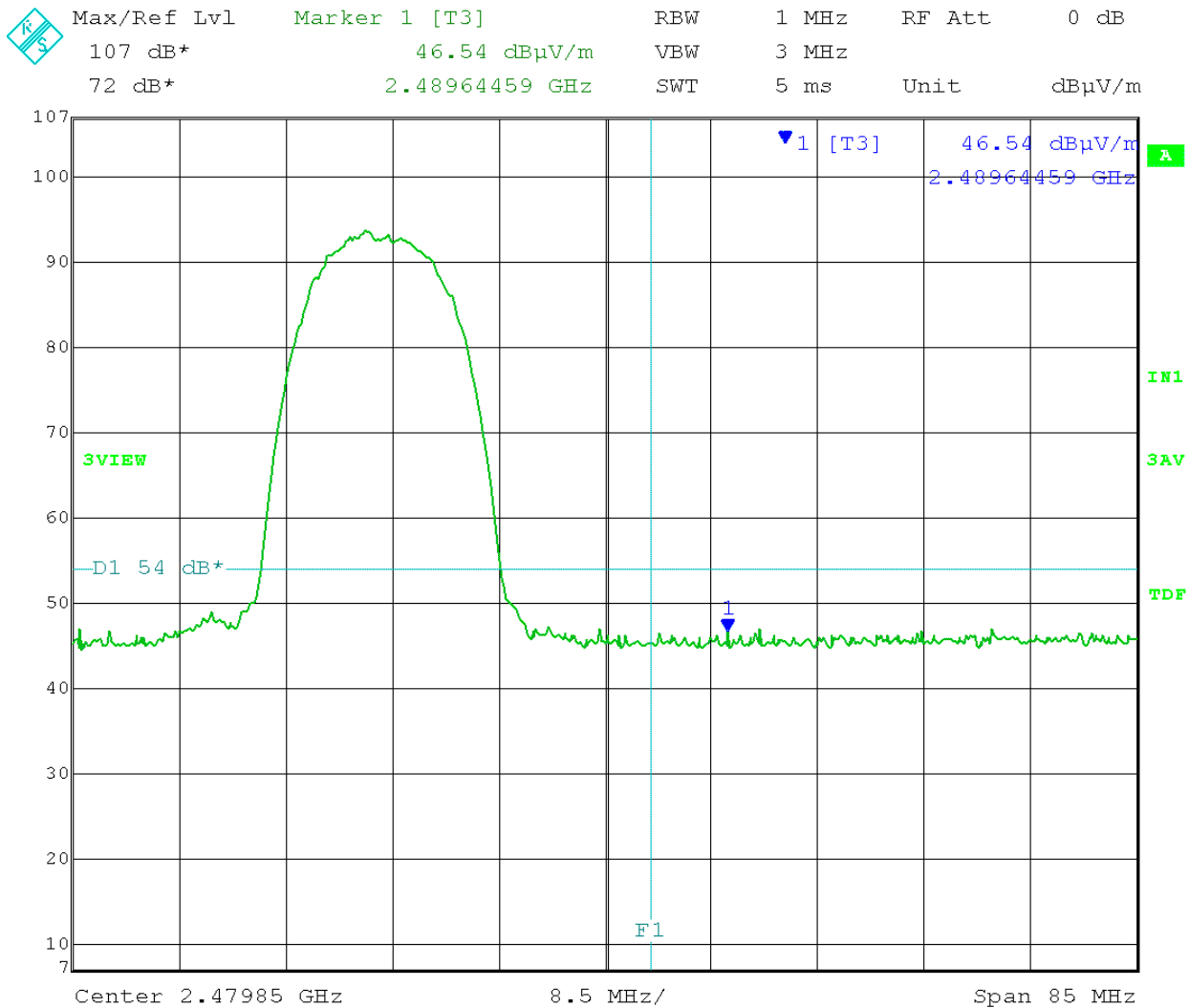
5163

802.11b CCK 5.5Mbps

Vertical polarization

Test distance: 3 meters

Limit (D1) = 54 dB μ V/m



Date: 5.FEB.2013 10:02:46



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

Output port J2; PIFA antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

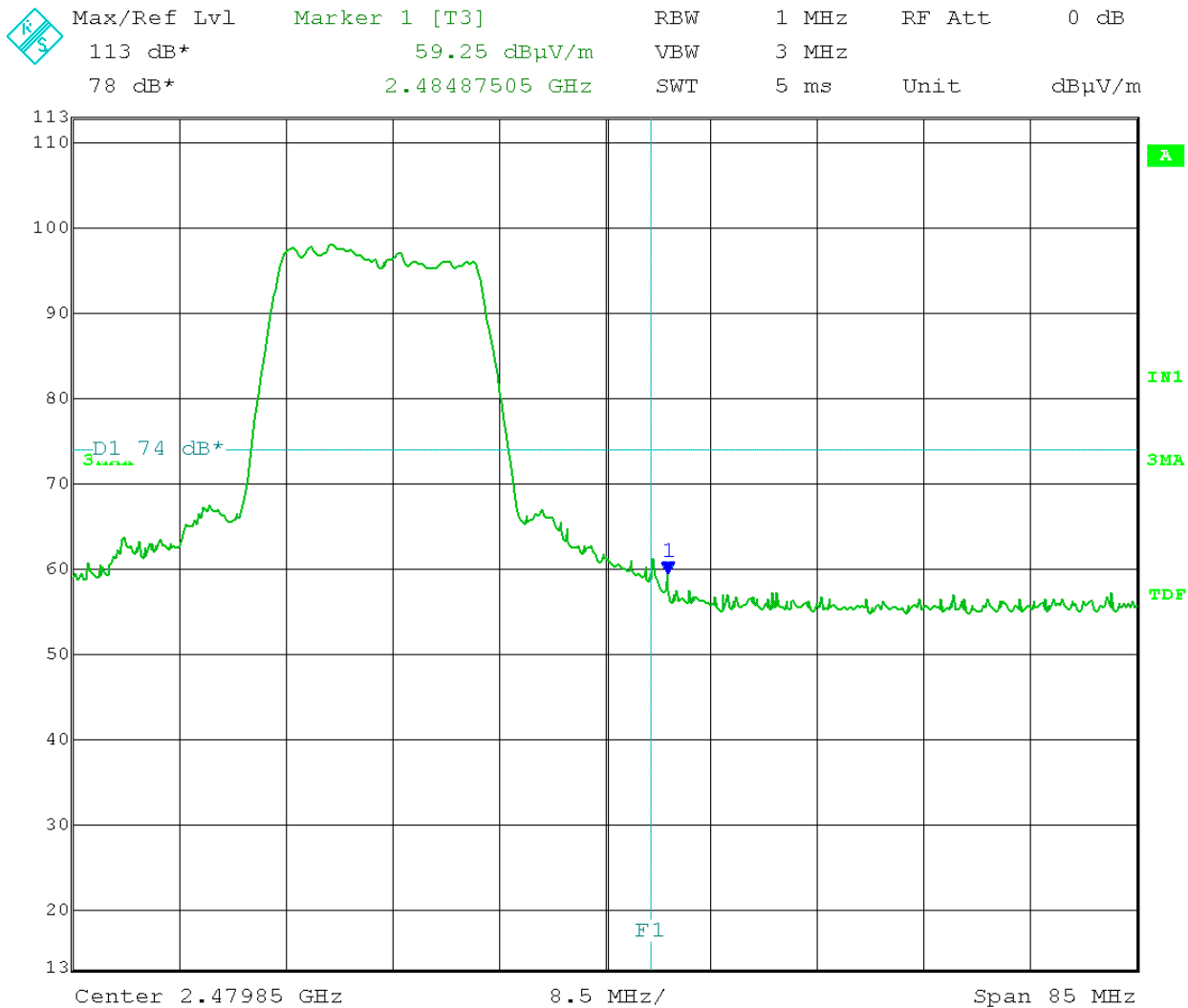
5163

802.11g OFDM 54Mbps

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 74 dB μ V/m



Date: 5.FEB.2013 11:21:32



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

Output port J2; PIFA antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

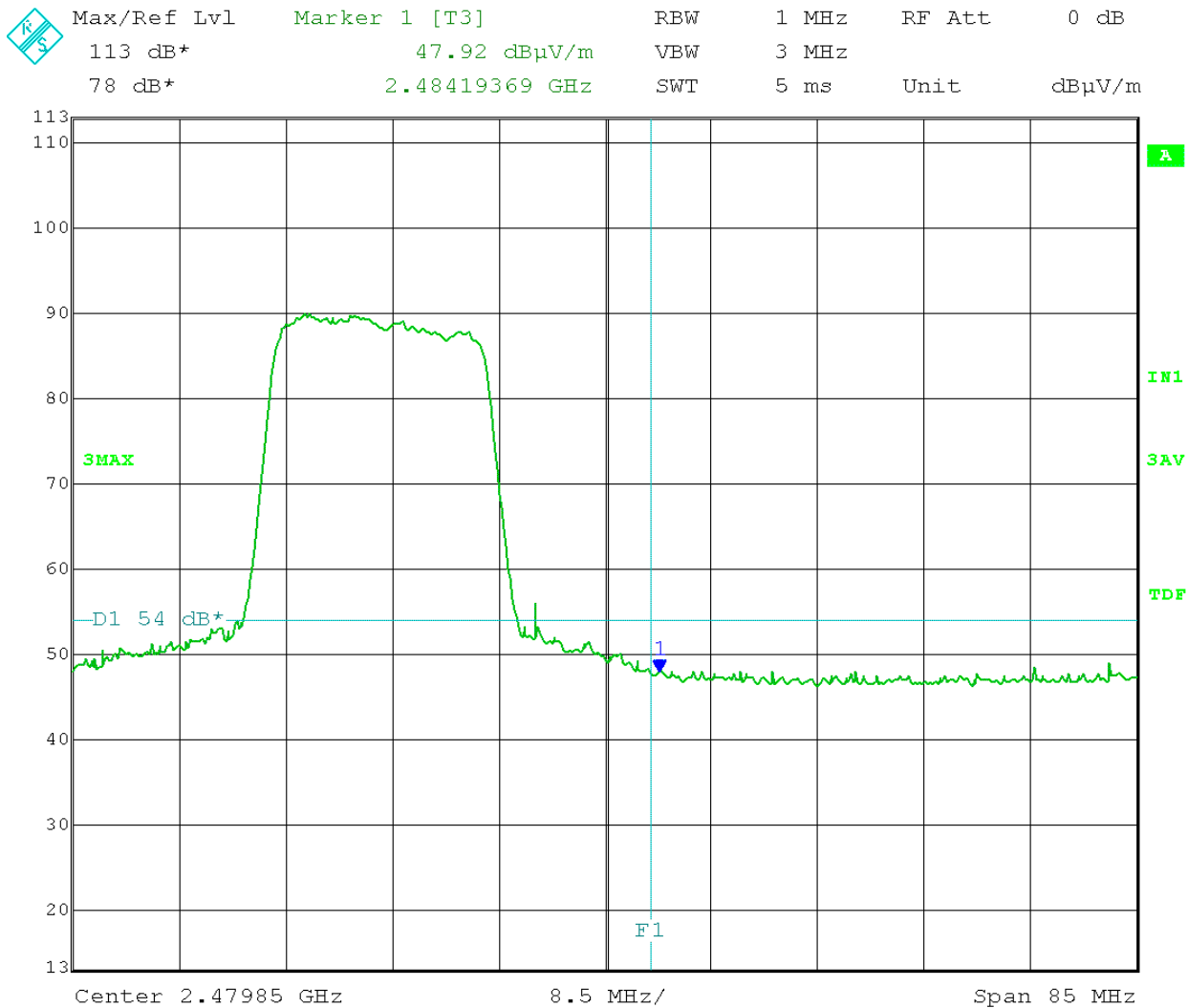
5163

802.11g OFDM 54Mbps

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 54 dBμV/m



Date: 5.FEB.2013 11:20:38



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

Output port J2; PIFA antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

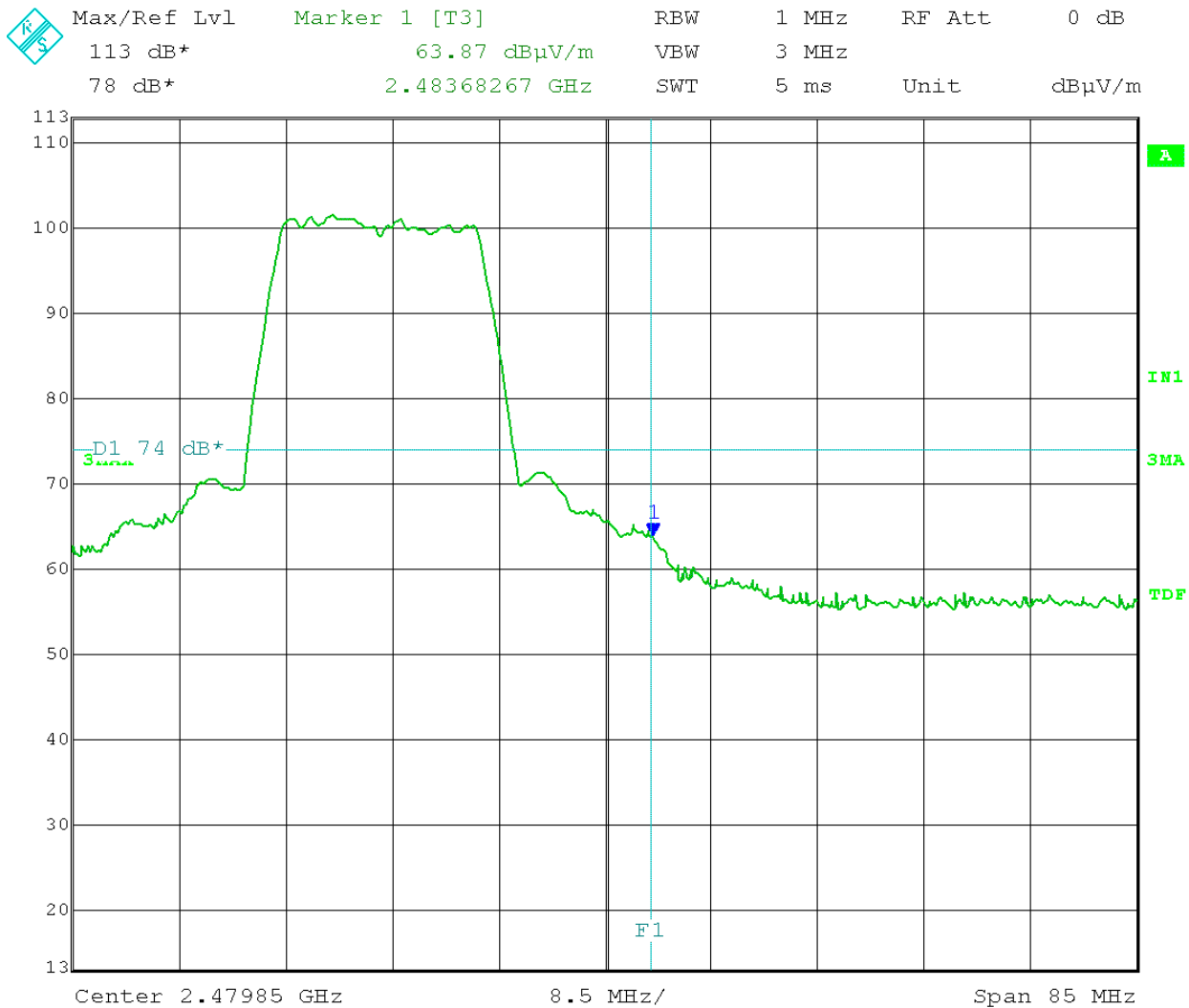
5163

802.11g OFDM 54Mbps

Vertical polarization

Test distance: 3 meters

Limit (D1) = 74 dB μ V/m



Date: 5.FEB.2013 11:16:29



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

Output port J2; PIFA antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

5163

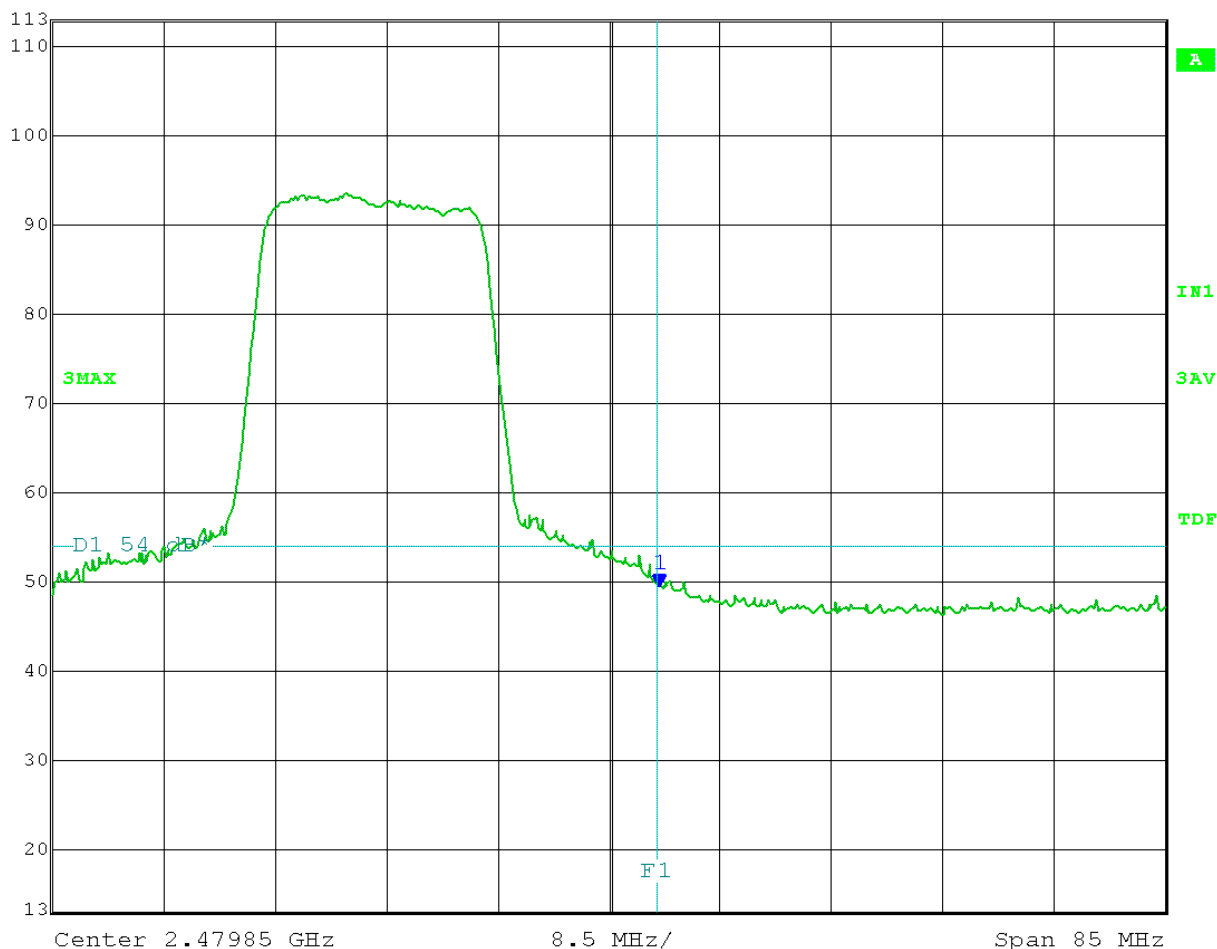
802.11g OFDM 54Mbps

Vertical polarization

Test distance: 3 meters

Limit (D1) = 54 dB μ V/m

Max/Ref Lvl Marker 1 [T3] RBW 1 MHz RF Att 0 dB
113 dB* 49.44 dB μ V/m VBW 3 MHz
78 dB* 2.48368267 GHz SWT 5 ms Unit dB μ V/m



Date: 5.FEB.2013 11:17:09



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

Output port J2; PIFA antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

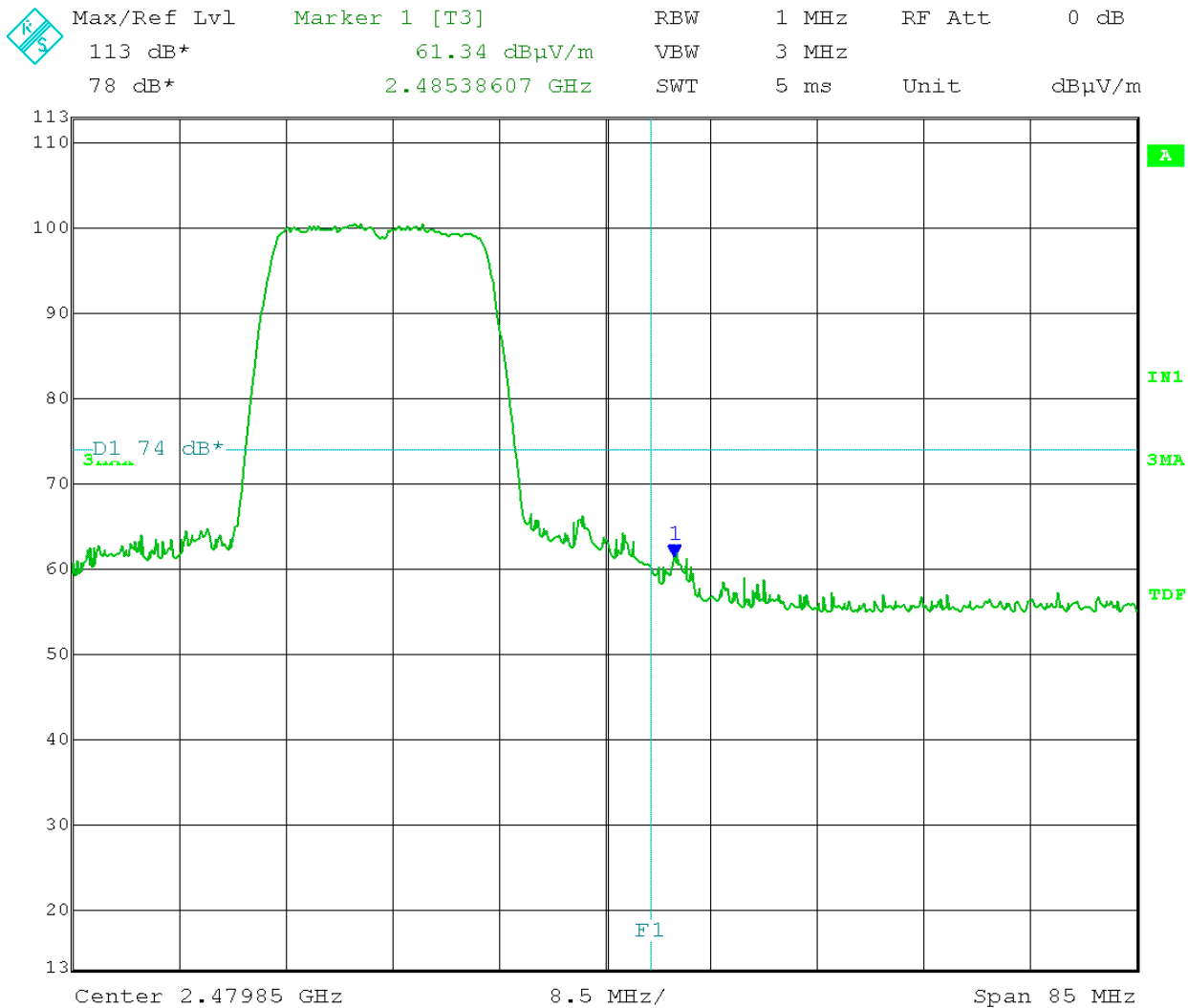
5163

802.11n MC7S-20MHz

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 74 dB μ V/m



Date: 5.FEB.2013 13:00:32



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

Output port J2; PIFA antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

5163

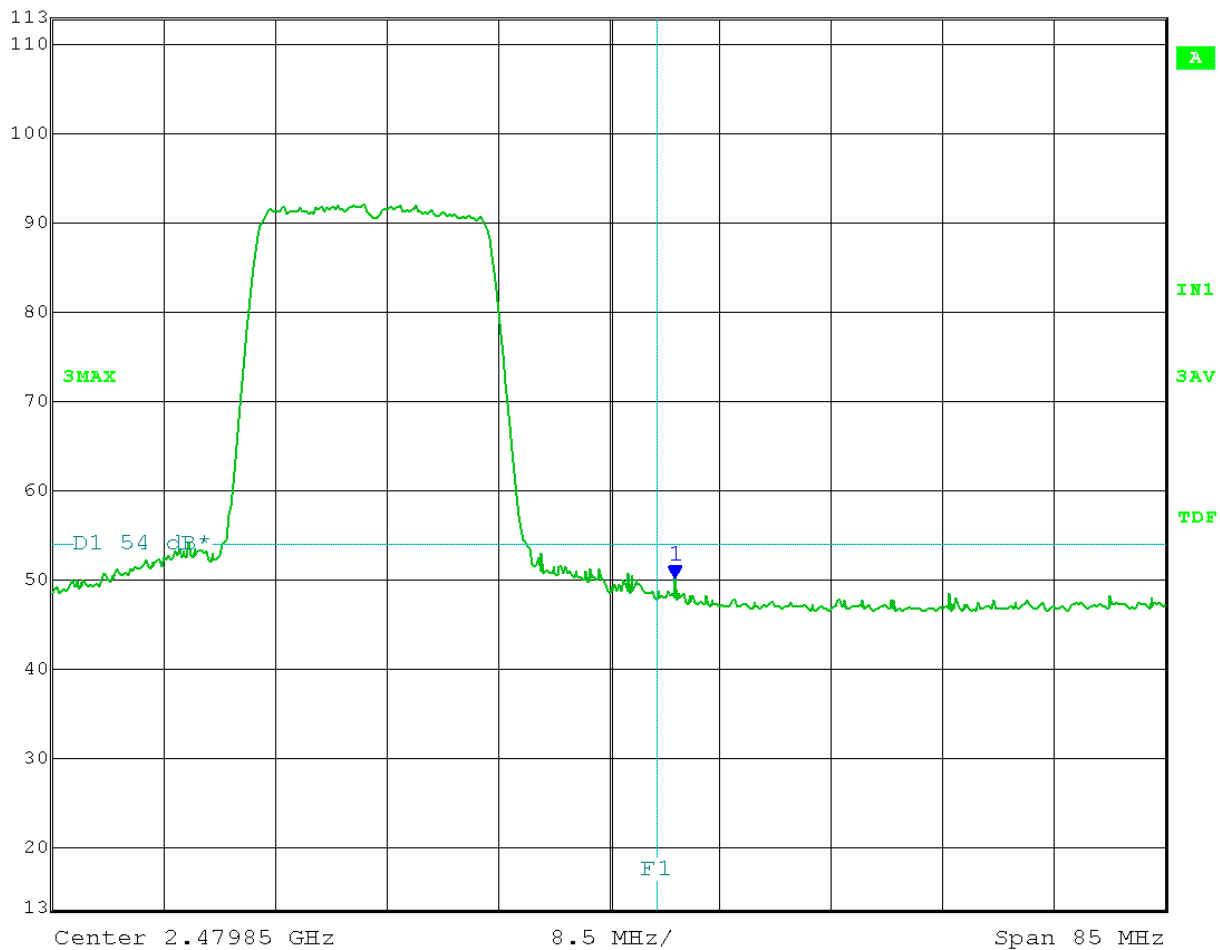
802.11n MC7S-20MHz

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 54 dB μ V/m

Max/Ref Lvl	Marker 1 [T3]	RBW	1 MHz	RF Att	0 dB
113 dB*	50.11 dB μ V/m	VBW	3 MHz		
78 dB*	2.48487505 GHz	SWT	5 ms	Unit	dB μ V/m



Date: 5.FEB.2013 13:01:41



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

Output port J2; PIFA antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

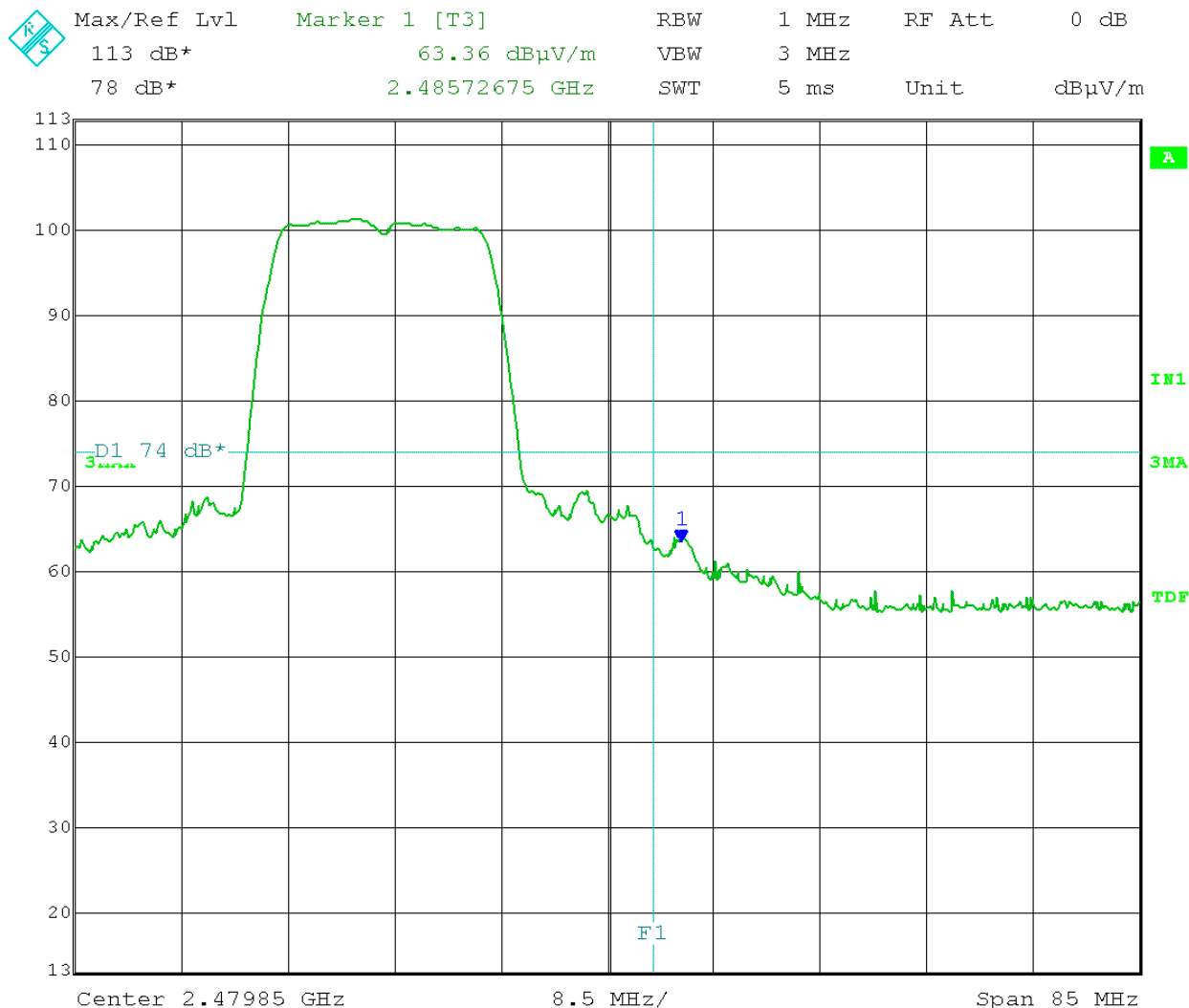
5163

802.11n MC7S-20MHz

Vertical polarization

Test distance: 3 meters

Limit (D1) = 74 dB μ V/m



Date: 5.FEB.2013 12:56:50



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.462 GHz

Output power setting: 18

Output port J2; PIFA antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

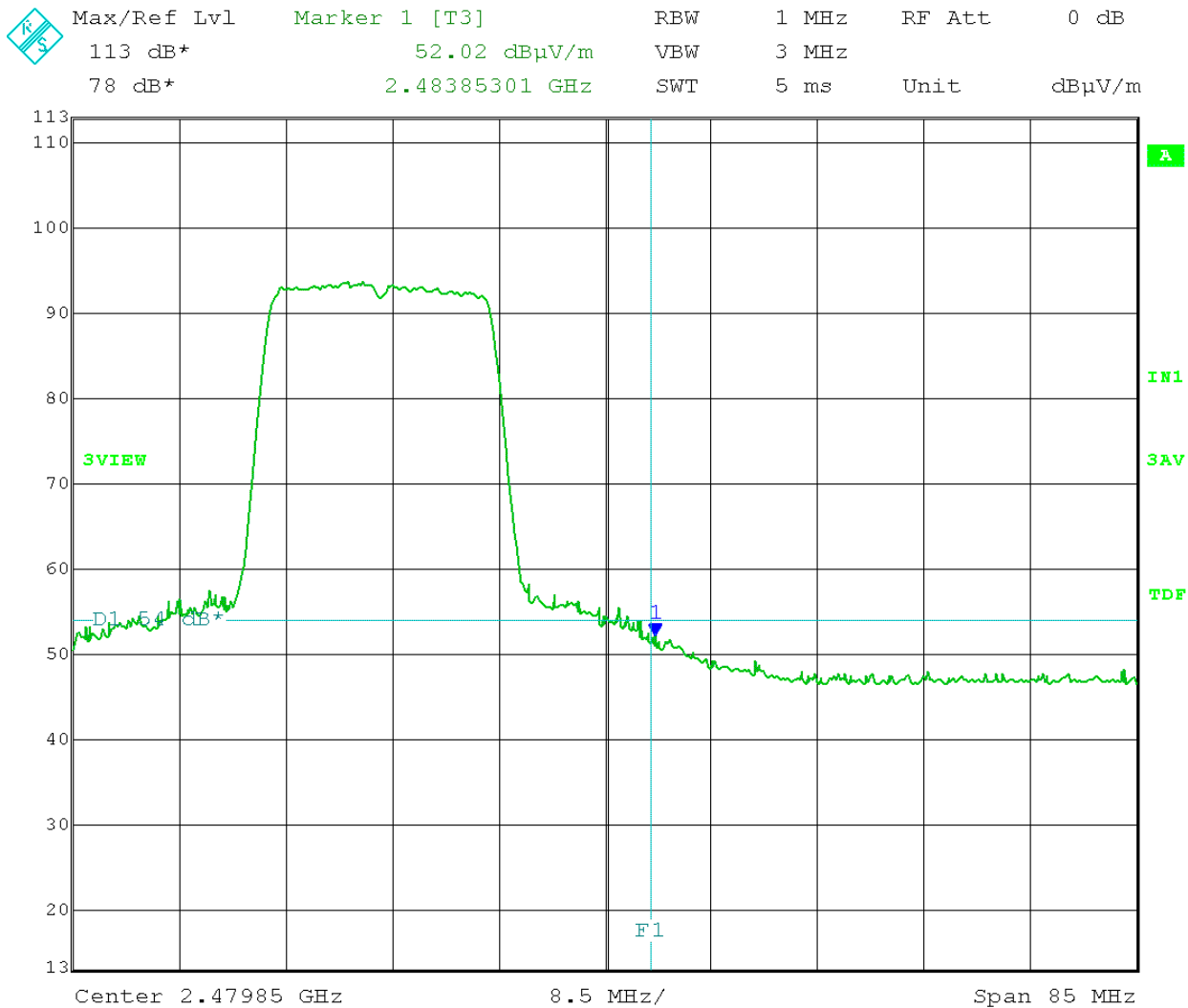
5163

802.11n MC7S-20MHz

Vertical polarization

Test distance: 3 meters

Limit (D1) = 54 dBμV/m



Date: 5.FEB.2013 12:54:24



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.452 GHz

Output power setting: 18

Output port J2; PIFA antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

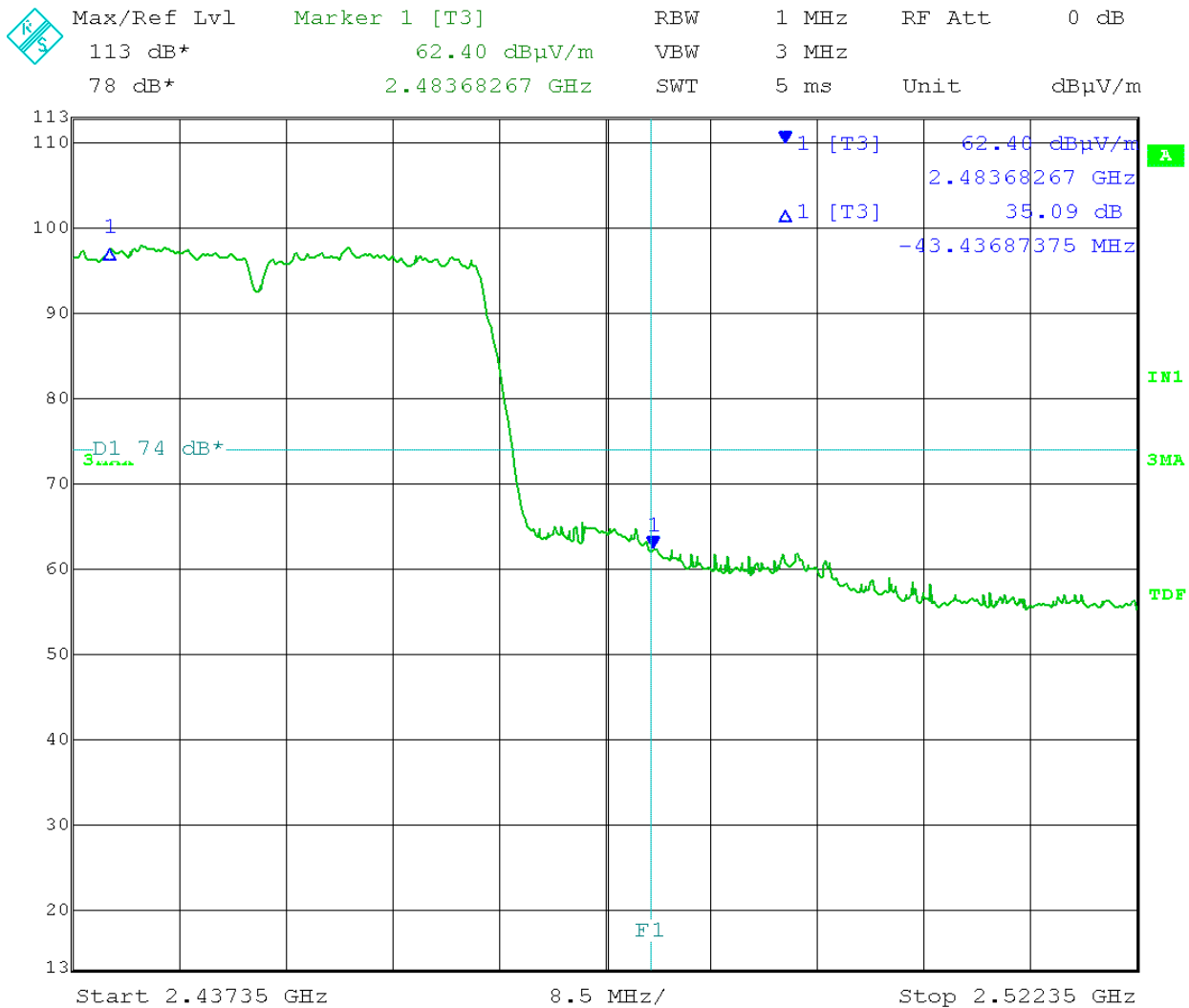
5163

802.11n MC7S-40MHz

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 74 dBμV/m



Date: 5.FEB.2013 14:22:46



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.452 GHz

Output power setting: 18

Output port J2; PIFA antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835 GHz

Company: Whirlpool Corporation

Model Tested: XPWP and XPWC

Report Number: 18708

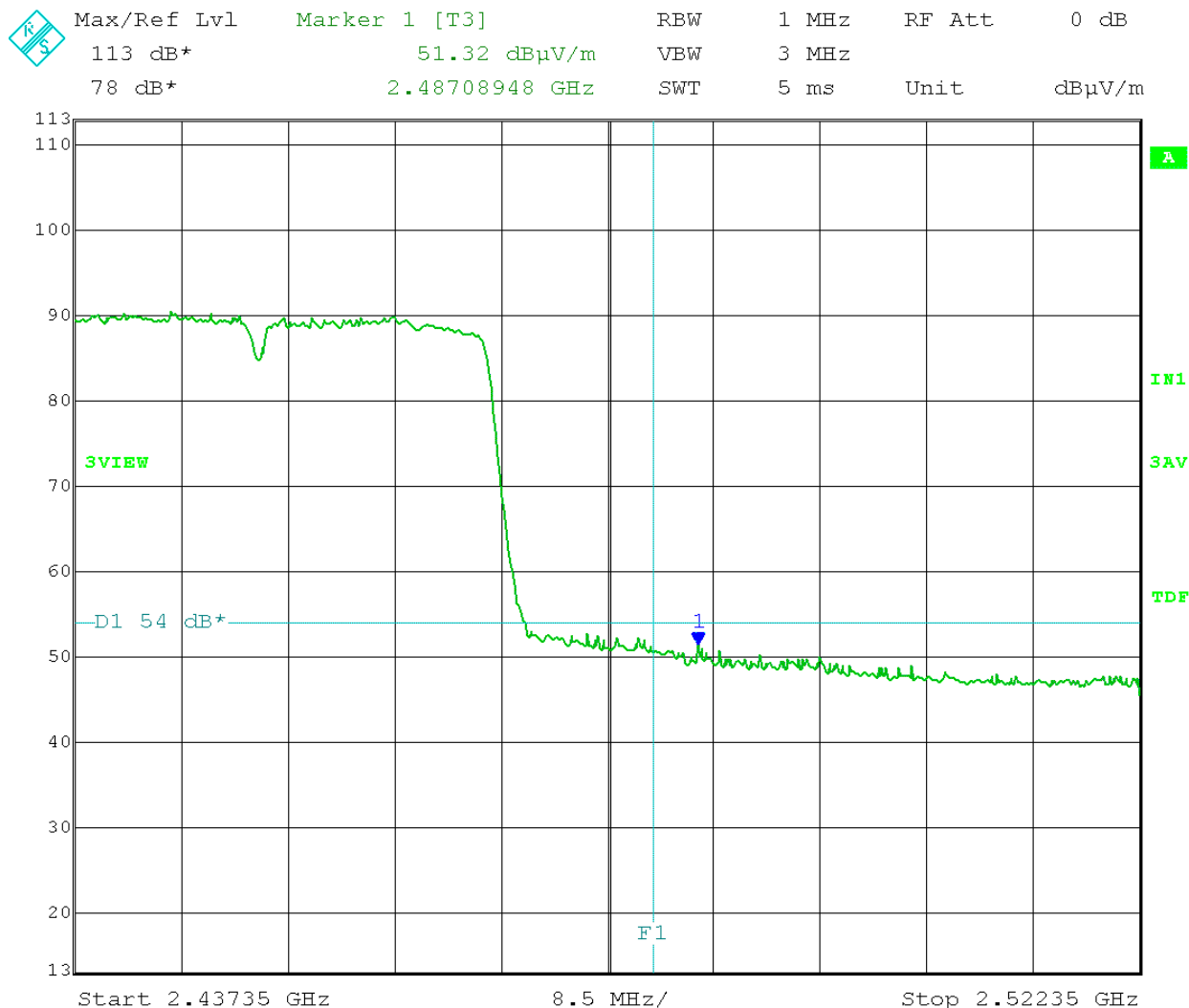
DLS Project: 5163

802.11n MC7S-40MHz

Horizontal polarization

Test distance: 3 meters

Limit (D1) = 54 dB μ V/m



Date: 5.FEB.2013 14:17:33



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.452 GHz

Output power setting: 18

Output port J2; PIFA antenna

Detector: Peak

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

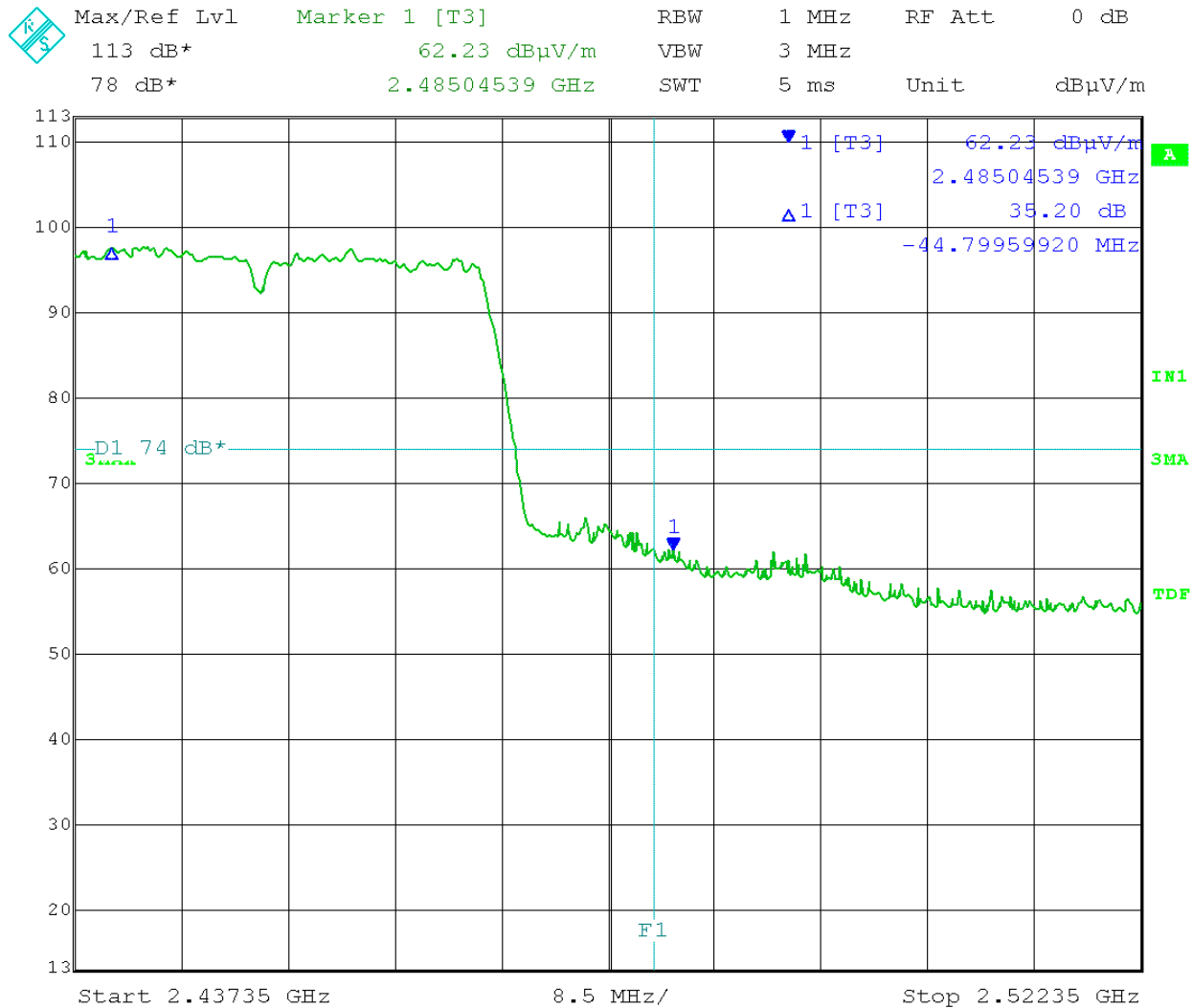
5163

802.11n MC7S-40MHz

Vertical polarization

Test distance: 3 meters

Limit (D1) = 74 dBμV/m



Date: 5.FEB.2013 14:25:24



166 South Carter, Genoa City, WI 53128

Test Date: 02-05-2013

Company: Whirlpool

EUT: Wi-Fi Core/Processor

Test: Upper Band-Edge - Radiated

Rule part: FCC Part 15.247(d) and FCC Part 15.205

Operator: Jim O

Comment: High Channel: Transmit = 2.452 GHz

Output power setting: 18

Output port J2; PIFA antenna

Detector: Average

Band-edge Frequency (F1) = 2.4835 GHz

Company:

Model Tested:

Report Number:

DLS Project:

Whirlpool Corporation

XPWP and XPWC

18708

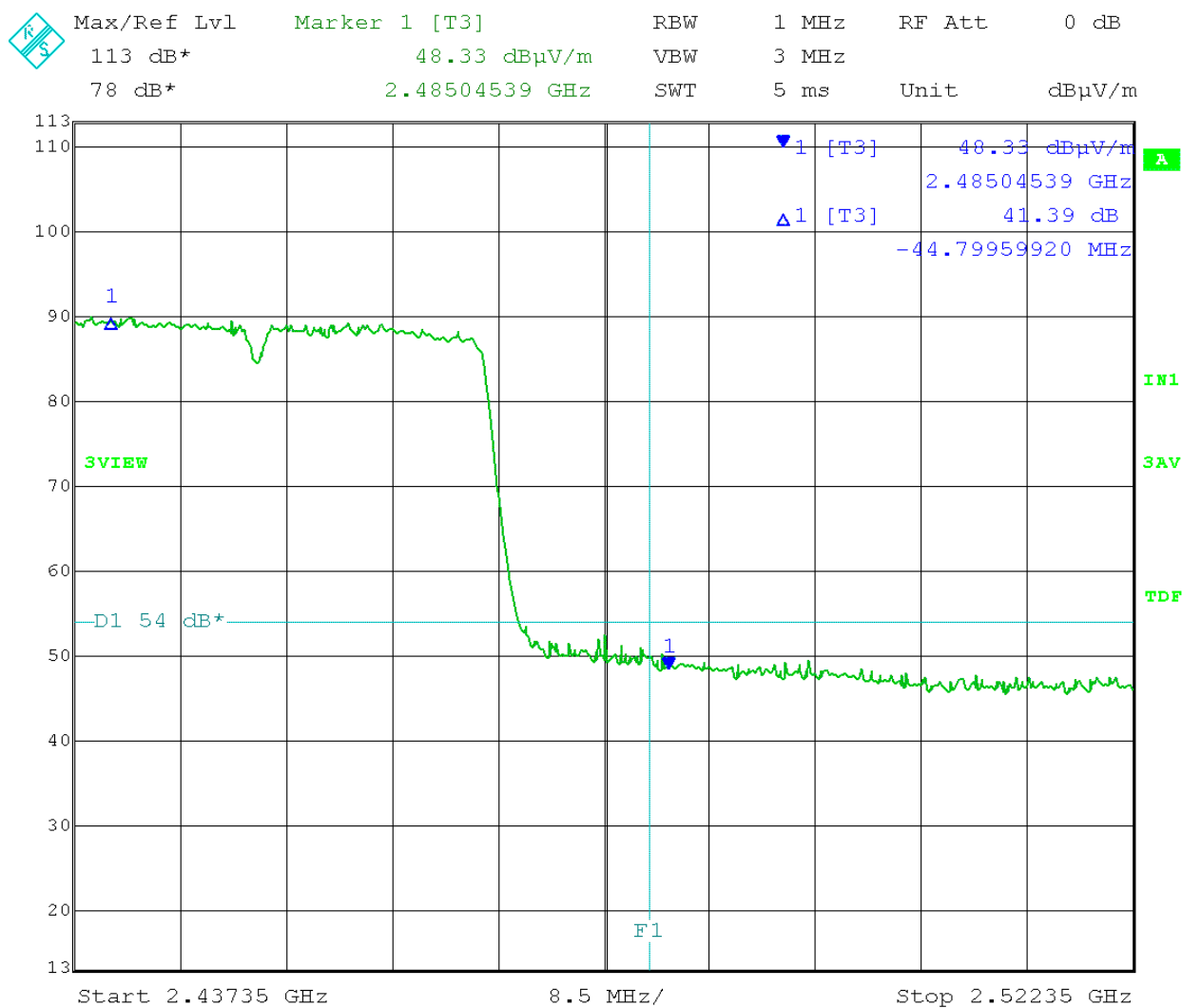
5163

802.11n MC7S-40MHz

Vertical polarization

Test distance: 3 meters

Limit (D1) = 54 dBμV/m



Date: 5.FEB.2013 14:26:33



166 South Carter, Genoa City, WI 53128

Appendix B

Company:
Model Tested:
Report Number:
DLS Project:

Whirlpool Corporation
XPWP and XPWC
18708
5163

8.0 Measurement Data - AC Line Conducted Emissions

Rule Part:

15.207

Test Procedure:

ANSI C63.10-2009

Limit:

15.207(a)

Results:

Compliant

Notes:

The EUT was powered through an external AC/DC power supply (120Vac/9Vdc) that was connected to a Line Impedance Stabilization Network, this supplied 9Vdc to the external voltage regulator that "in turn" powered the PCBRD w/5VDC. The EUT was set to transmit continuously at its maximum output power setting of 19 in DSSS mode, a modulating signal representative of the worst-case signal encountered in a real system operation.

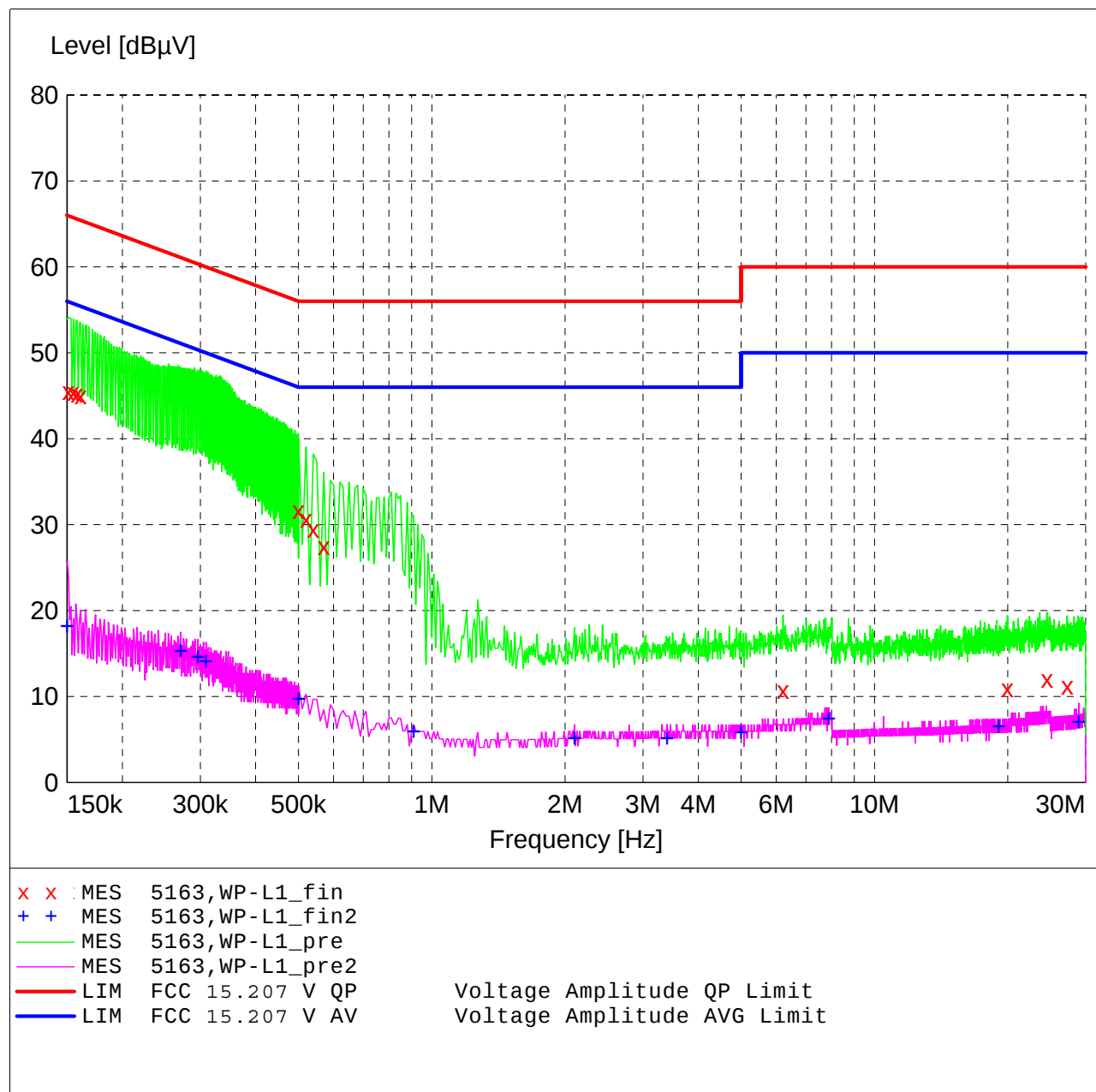
FCC Part 15.207

Voltage Mains Test

EUT: Processor_Core
Manufacturer: Whirlpool
Operating Condition: 72 deg. F, 23% R.H.
Test Site: DLS O.F. Screen Room
Operator: Jim O
Test Specification: 120 V 60 Hz
Comment: Line 1
Date: 01-11-2013

SCAN TABLE: "Line Cond SR Final"

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



MEASUREMENT RESULT: "5163,WP-L1_fin"

1/11/2013 3:01PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector
0.151000	45.50	13.6	66	20.4	QP
0.155000	45.40	13.5	66	20.3	QP
0.158000	45.20	13.4	66	20.4	QP
0.161000	45.00	13.3	65	20.4	QP
0.500000	31.70	11.2	56	24.3	QP
0.520000	30.70	11.2	56	25.3	QP
0.540000	29.50	11.2	56	26.5	QP
0.570000	27.50	11.1	56	28.5	QP
6.215000	10.70	10.7	60	49.3	QP
19.970000	10.90	11.4	60	49.1	QP
24.530000	12.00	11.6	60	48.0	QP
27.245000	11.20	11.7	60	48.8	QP

MEASUREMENT RESULT: "5163,WP-L1_fin2"

1/11/2013 3:01PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector
0.150000	18.20	13.6	56	37.8	CAV
0.271000	15.30	11.9	51	35.8	CAV
0.296000	14.60	11.8	50	35.8	CAV
0.309000	14.10	11.8	50	35.9	CAV
0.500000	9.80	11.2	46	36.2	CAV
0.910000	6.00	10.7	46	40.0	CAV
2.100000	5.20	10.7	46	40.8	CAV
3.400000	5.20	10.7	46	40.8	CAV
5.000000	5.90	10.7	46	40.1	CAV
7.880000	7.50	10.7	50	42.5	CAV
19.085000	6.60	11.3	50	43.4	CAV
28.925000	7.10	11.9	50	42.9	CAV

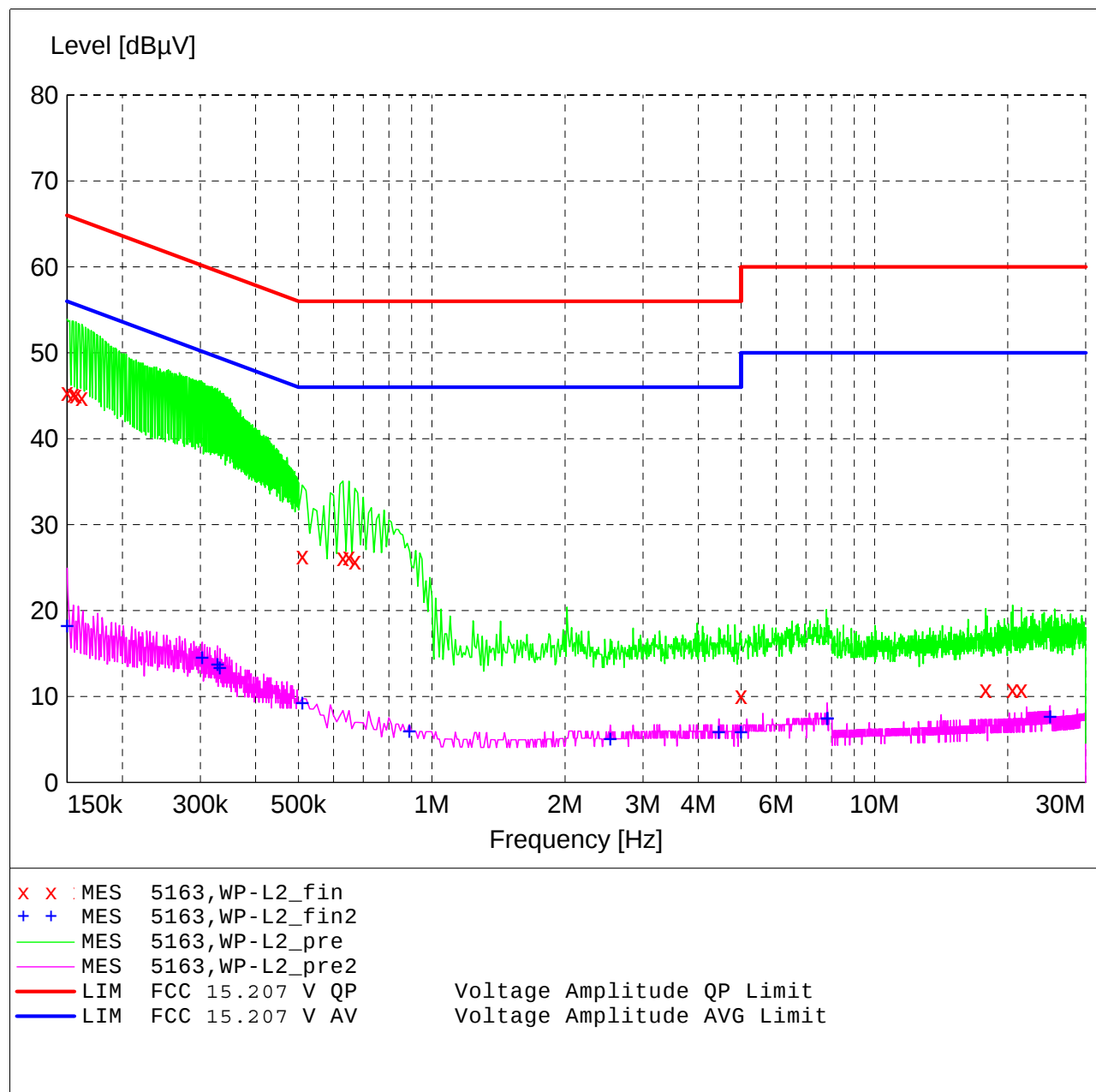
FCC Part 15.207

Voltage Mains Test

EUT: Processor_Core
Manufacturer: Whirlpool
Operating Condition: 72 deg. F, 23% R.H.
Test Site: DLS O.F. Screen Room
Operator: Jim O
Test Specification: 120 V 60 Hz
Comment: Line 2
Date: 01-11-2013

SCAN TABLE: "Line Cond SR Final"

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



MEASUREMENT RESULT: "5163,WP-L2_fin"

1/11/2013 3:08PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector
0.150000	45.40	13.6	66	20.6	QP
0.155000	45.20	13.5	66	20.5	QP
0.157000	45.10	13.5	66	20.5	QP
0.162000	44.80	13.3	65	20.6	QP
0.510000	26.40	11.2	56	29.6	QP
0.630000	26.20	11.0	56	29.8	QP
0.650000	26.30	11.0	56	29.7	QP
0.670000	25.80	11.0	56	30.2	QP
5.000000	10.20	10.7	56	45.8	QP
17.840000	10.90	11.3	60	49.1	QP
20.525000	10.90	11.4	60	49.1	QP
21.485000	10.90	11.4	60	49.1	QP

MEASUREMENT RESULT: "5163,WP-L2_fin2"

1/11/2013 3:08PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector
0.150000	18.20	13.6	56	37.8	CAV
0.303000	14.50	11.8	50	35.7	CAV
0.328000	13.70	11.6	50	35.8	CAV
0.332000	13.30	11.6	49	36.1	CAV
0.510000	9.20	11.2	46	36.8	CAV
0.890000	6.00	10.7	46	40.0	CAV
2.530000	5.10	10.6	46	40.9	CAV
4.450000	5.90	10.7	46	40.1	CAV
5.000000	5.90	10.7	46	40.1	CAV
7.820000	7.50	10.7	50	42.5	CAV
7.835000	7.50	10.7	50	42.5	CAV
24.920000	7.60	11.6	50	42.4	CAV



166 South Carter, Genoa City, WI 53128

Company: Whirlpool Corporation
Model Tested: XPWP and XPWC
Report Number: 18708
DLS Project: 5163

END OF REPORT

Revision #	Date	Comments	By
1.0	02-06-2013	Preliminary Release	JO/CB
1.1	02-11-2013	Corrected bookmarks & added calculation to page 53	JS
1.2	03-14-2013	Relabeled Radiated Band Edge Charts, Section 7	CB/JS
1.3	03-19-2013	Edited output power setting notes on pages 11, 81 thru 105, & 208	JS