



166 South Carter, Genoa City, WI 53128

Company:	Roche Diagnostics
Model Tested:	502
Report Number:	19497
DLS Project:	5481

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:	Accu-Chek Aviva Connect (tested) and Accu-Chek Performa Connect
Kind of Equipment:	Hand-held Meter with Bluetooth transceiver
Frequency Range:	2402-2480 MHz
Test Configuration:	Hand-held
Model Number(s):	Aviva Models 483, 484, 497, 498, 499, 500 and 502 Performa Models 479, 501, 503 and 765
Model(s) Tested:	502 (labeled as "Bridge Meter with Bluetooth" on test data)
Serial Number(s):	Radiated test unit: 50200004911 RF Conducted test unit: 50200004933
Date of Tests:	July 25 th through October 24 th , 2013 (various lab dates listed on data)
Test Conducted For:	Roche Diagnostics Operations, Inc. 9115 Hague Road Indianapolis, IN 46250-0457, 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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Model Tested:
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SIGNATURE PAGE

Tested By:

A handwritten signature in black ink that reads "Craig Brandt". The signature is fluid and cursive.

Craig Brandt
Senior Test Engineer

Reviewed By:

A handwritten signature in black ink that reads "William Stumpf". The signature is fluid and cursive.

William Stumpf
OATS Manager

Approved By:

A handwritten signature in black ink that reads "Brian J. Mattson". The signature is fluid and cursive.

Brian Mattson
General Manager



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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-JAF Communiqué dated January 2009).*



2013-10-01 through 2014-09-30

Effective dates

W. R. M. L. Q.

For the National Institute of Standards and Technology

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



166 South Carter, Genoa City, WI 53128

Company: Roche Diagnostics
Model Tested: 502
Report Number: 19497
DLS Project: 5481

1.0 Summary of Test Report

It was determined that the Roche Diagnostics Accu-Chek Aviva Connect model 502, 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 Bandwidth	FCC Publication KDB 558074 D01 DTS Meas Guidance v03r01 Section 8.0, 8.1 Option 1	1	Yes
15.247(b)(3)	Fundamental Emission Output Power	FCC Publication KDB 558074 D01 DTS Meas Guidance v03r01 Section 9.0, 9.1.1	1	Yes
15.247(d)	Emissions in Non- restricted Frequency Bands - RF Conducted	FCC Publication KDB 558074 D01 DTS Meas Guidance v03r01 Section 11.0, 11.1(a), 11.2, 11.3	1	Yes
15.247(d)	Operating Band Edge Emissions - RF Conducted	FCC Publication KDB 558074 D01 DTS Meas Guidance v03r01 Section 11.0, 11.1(a)	1	Yes
15.247(d) & 15.205	Radiated Upper Band Edge Emissions	FCC Publication KDB 558074 D01 DTS Meas Guidance v03r01 Section 12.0, 12.1	2	Yes
15.247(e)	Maximum Power Spectral Density Level in the Fundamental Emission	FCC Publication KDB 558074 D01 DTS Meas Guidance v03r01 Section 10.0, 10.2	1	Yes
15.247(d) & 15.205	Emissions in Restricted Frequency Bands - Radiated	FCC Publication KDB 558074 D01 DTS Meas Guidance v03r01 Section 12.0, 12.1	2	Yes
15.35(c)	Duty Cycle of EUT During Transmitter Testing	FCC Publication KDB 558074 D01 DTS Meas Guidance v03r01 Section 6.0	1,4	N/A
15.207	AC Power-Line Conducted Emissions	ANSI C63.4-2009	3	Yes

Note 1: RF conducted measurement.

Note 2: Radiated emission measurement.

Note 3: AC power line conducted measurement.

Note 4: Informative



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2.0 Introduction

From July to October of 2013, the Accu-Chek Aviva Connect model 502, as provided from Roche Diagnostics was 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 Connect Meter is a hand held blood glucose meter utilizing the Accu-Chek test strips to perform blood glucose measurements. The meter stores the blood glucose measurement results as well as control results. The meter can communicate with a smartphone using Bluetooth Smart. The meter communicates with a computer via a 1 meter USB cable provided by Roche. The Connect meter has eleven model numbers. All eleven meters utilize the same firmware and the same RF design. The Aviva meter utilizes the Aviva test strip and the Performa utilizes the Performa test strips.

The device is a blood glucose monitor used by persons with diabetes to measure their blood glucose levels.

All models use the same PWB main board and the same PWB for the button board.

The PWA on the Aviva models (483, 484, 497, 498, 499, 500, 502) PWA is slightly different from the Performa models (479, 501, 503, 765) PWA.

- Housing strip port area: Aviva has a 9.35 max opening and Performa has a 7.35 mm opening
 - Outer labeling is different (specifies Aviva Connect or Performa Connect)
 - Aviva has 1 diode that Performa does not have
 - Aviva strip connector has 9 pins and the Performa strip connector has 7 pins
 - Jumper resistors are the same but populated in different locations.
- The other differences in the models are in firmware configuration such as languages and units of measure (mg/dl or mmol/l).



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4.0 Description of Test Sample - continued

Type of Equipment / Frequency Range:

Portable / 2402-2480 MHz

Physical Dimensions of Equipment Under Test:

Length: 3 inch x Width: 2 inch x Height: 1 inch

Power Source:

120 Volt 60 Hz receiving power via Personal Computer, or 3V DC

Internal Frequencies:

2400, 24, 16, 14.7456, 12, 3.6864, .0576, .032768 MHz

Transmit / Receive Frequencies Used For Test Purpose:

Low channel: 2402 MHz, Middle channel: 2440 MHz, High channel: 2480 MHz

Type of Modulation(s) / Antenna Type:

GFSK / integral antenna with -4.91 dBi gain.

Description of Circuit Board(s) / Part Number:

PWA 9MM Bridge	7008829 Rev D
PWA 7MM Bridge	7008830 Rev D
PWB Switches Bridge Meter	7008835 Rev B



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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	7-23-13	7-23-14
Preamp	Ciao	CA118-4010	101	1GHz-18GHz	2-26-13	2-26-14
Horn Antenna	EMCO	3115	6204	1-18GHz	6-5-13	6-5-15
Horn Antenna	EMCO	3115	9903-5731	1-18GHz	7-11-13	7-11-15
Signal Generator	Rohde & Schwarz	SMR 40	100092	1 GHz - 40 GHz	7-23-13	7-23-14
Preamp	Miteq	AMF-8B-180265-40-10P-H/S	438727	18GHz-26GHz	8-13-13	8-13-14
Filter- High-Pass	Q-Microwave	100462	2	4.2GHz-18GHz	5-28-13	5-28-14
Horn Antenna	EMCO	3116	2549	18 – 40GHz	9-6-12	9-6-14
High Pass Filter	Planar	CL22500-9000-CD-SS	PF1229/0728	15-40 GHz	8-13-13	8-13-14
Multimeter	Fluke	77	N/A	DC	8-16-13	8-16-14
Temperature Chamber	TestEquity	1007C	035716	N/A	8-10-13	8-10-14

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	7-23-13	7-23-14
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
Signal Generator	Rohde & Schwarz	SMT-03	DE23762	5 kHz - 3 GHz	7-23-13	7-23-14
Tunable Dipole Set	Com Power	AD-100	40139	80 MHz - 1 GHz	N/A	N/A



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5.0 Test Equipment - continued

D.L.S. Wisconsin – Screen Room

Description	Manufacturer	Model Number	Serial Number	Frequency Range	Cal Dates	Cal Due Dates
Receiver	Rohde & Schwarz	ESI 40	837808/006	20 Hz – 40 GHz	7-23-13	7-23-14
LISN	Solar	9252-50-R-24-BNC	961019	9 kHz – 30 MHz	5-24-13	5-24-14
Filter- High-Pass	SOLAR	7930-120	090702	120 kHz – 30 MHz	1-7-13	1-11-14
Limiter	Electro-Metrics	EM-7600	706	9 kHz – 30 MHz	1-7-13	1-11-14

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 Publication KDB 558074 D01 DTS Meas Guidance v03r01, 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 Publication KDB 558074 D01 DTS Meas Guidance v03r01, 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.



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7.0 Test Conditions

Normal Test Conditions:

Temperature and Humidity:

73°F at 66% RH (or noted on the test data)

Supply Voltage:

120 Volts 60 Hz (for Dell PC) & 3 Volt DC battery or battery pack

8.0 Modifications Made To EUT For Compliance

No modifications made at time of test.

9.0 Additional Descriptions

For radiated emissions, the EUT was tested in three orthogonal axis of rotation. Data shown represents worst-case position for each emission.

AC line conducted testing was performed while the EUT was powered from a Dell PC via USB port.

The EUT was programmed to transmit continuously at the Low, Middle, and High channels of operation.

10.0 Results

Measurements were performed in accordance with FCC Publication KDB 558074 D01 DTS Meas Guidance v03r01, and ANSI C63.4-2009. Graphical and tabular data can be found in Appendix B at the end of this report.

11.0 Conclusion

The Accu-Chek Aviva Connect model 502, as provided from Roche Diagnostics, tested from July to October 2013 **meets** the requirements of CFR 47 Part 15 Subpart C Section 15.247.



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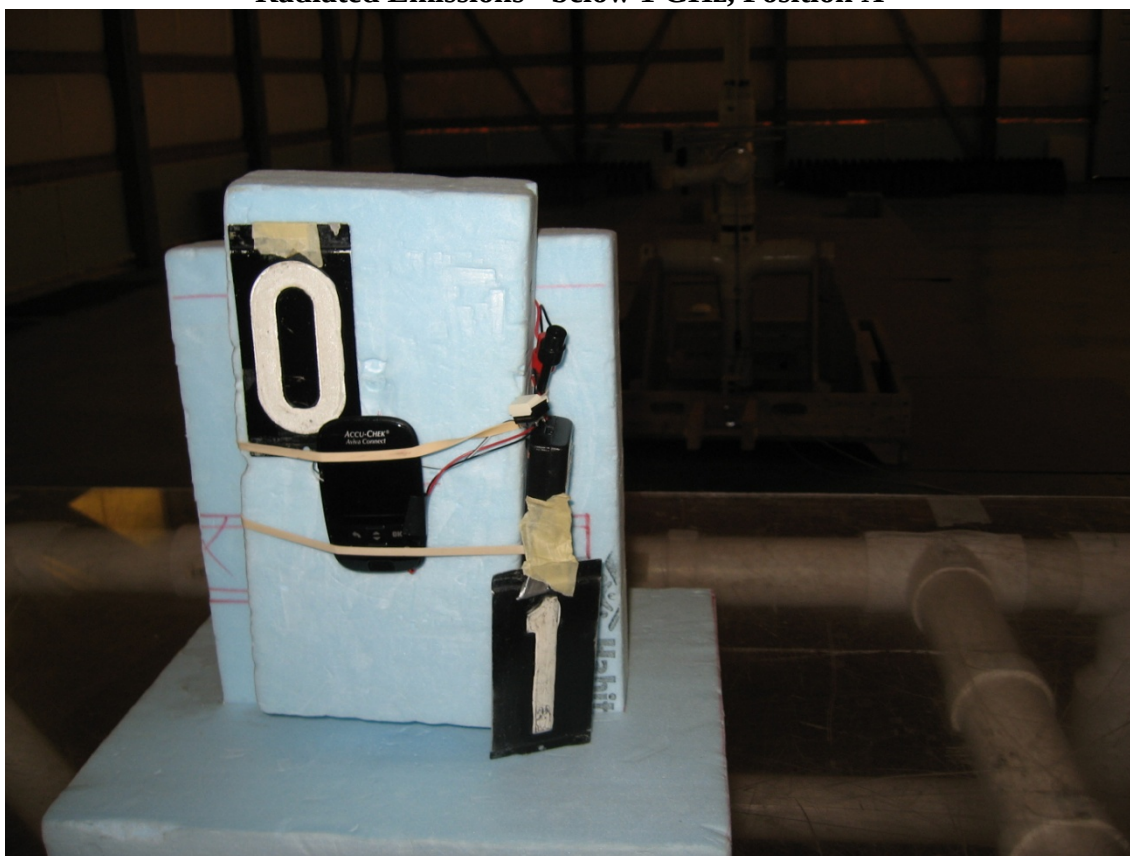
Company:	Roche Diagnostics
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Appendix A – Test Photos

Photo Information and Test Setup:

Item 0:	Roche Diagnostics Accu-Chek Aviva Connect model 502
Item 1:	External battery pack for testing purposes only

Radiated Emissions - below 1 GHz, Position X



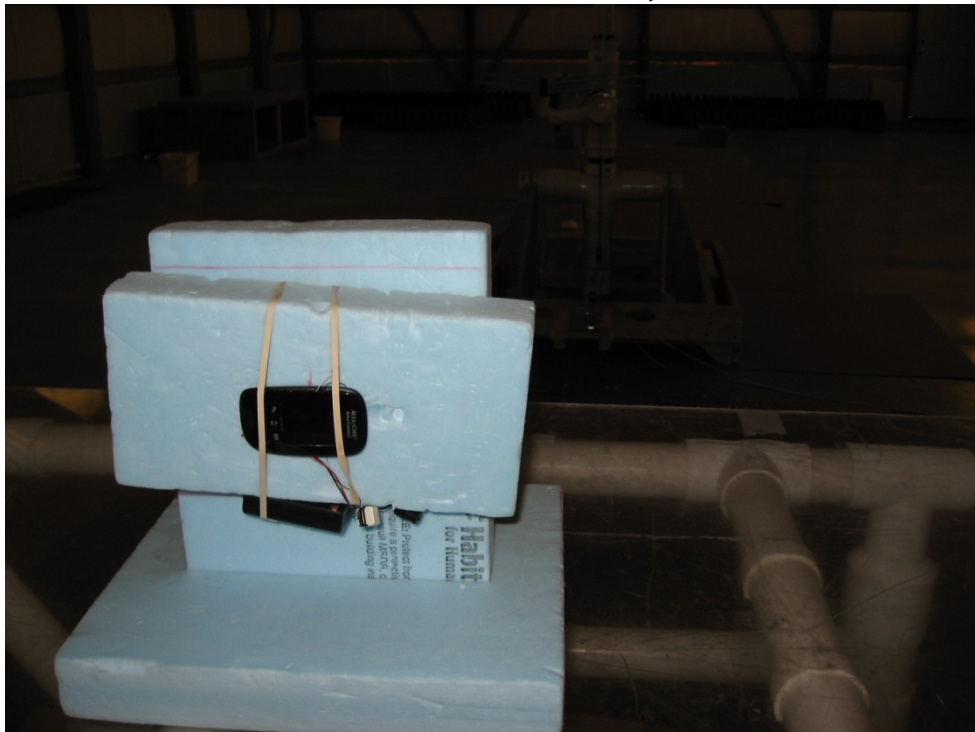


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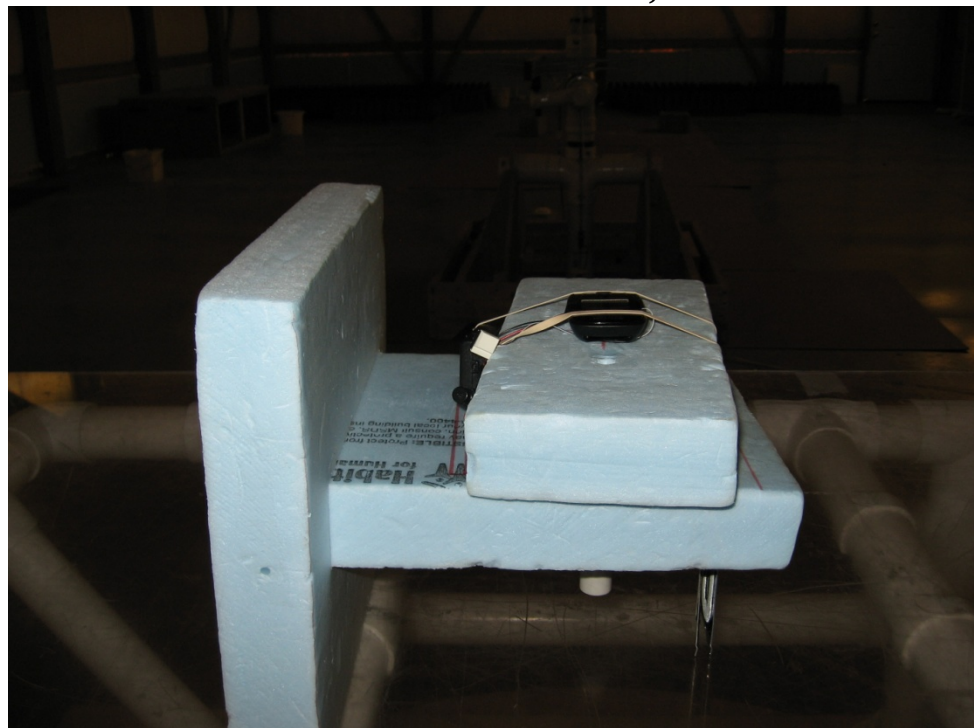
Appendix A – Test Photos

Company:	Roche Diagnostics
Model Tested:	502
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Radiated Emissions - below 1 GHz, Position Y

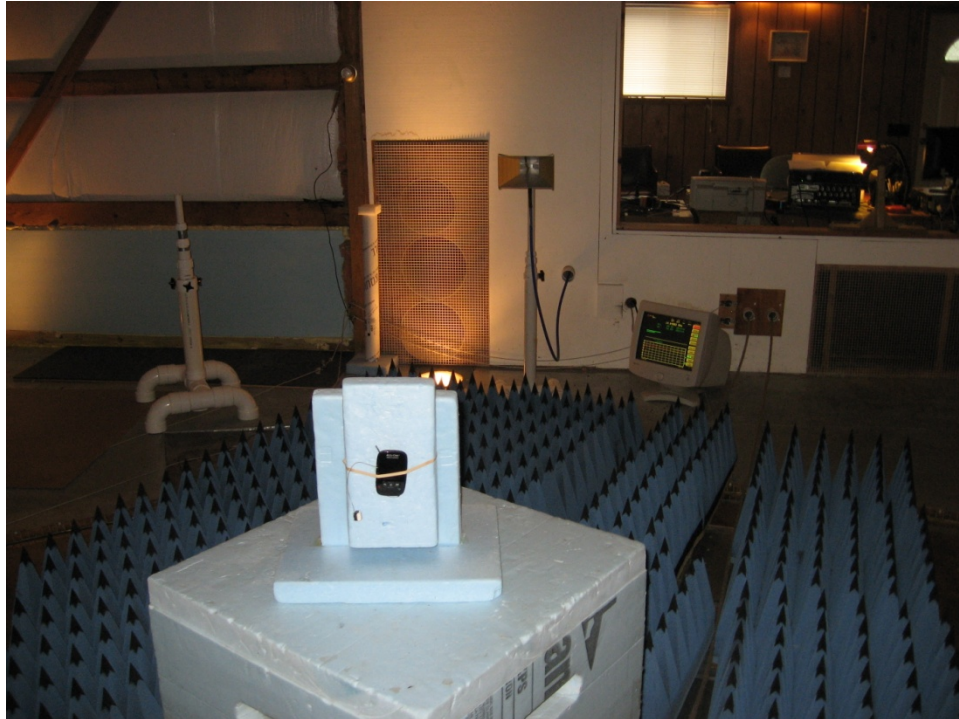


Radiated Emissions - below 1 GHz, Position Z



Appendix A – Test Photos

Radiated Emissions - above 1 GHz



Radiated Emissions - above 18 GHz





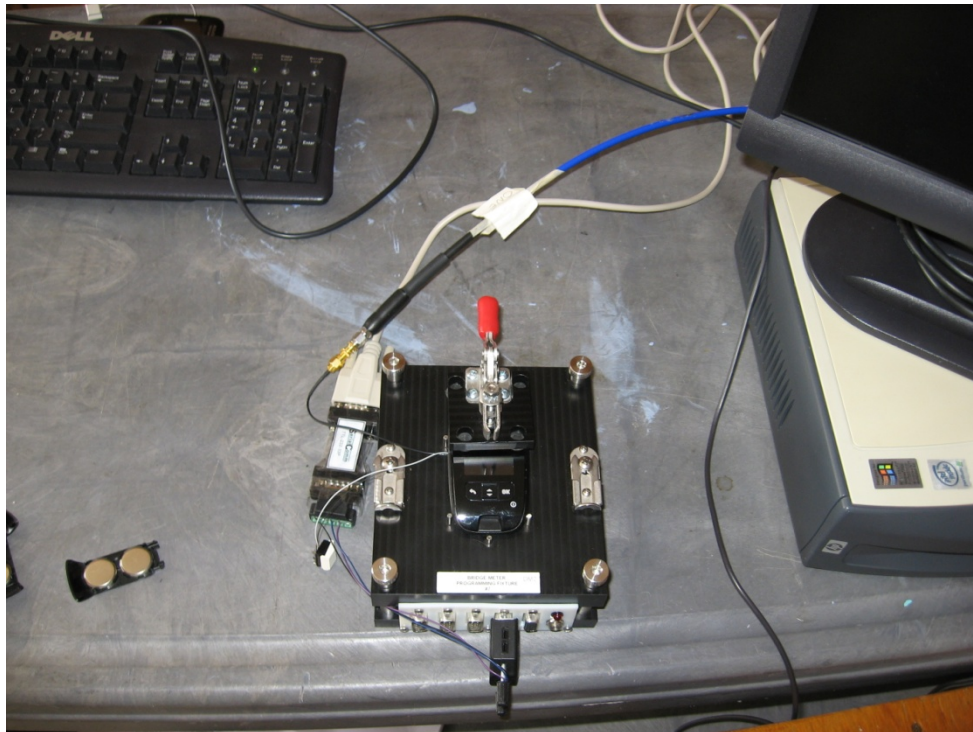
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Appendix A – Test Photos

Company:
Model Tested:
Report Number:
DLS Project:

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RF Conducted



AC Line Conducted Emissions - front view





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Appendix A – Test Photos

AC Line Conducted Emissions tested with
Dell PC, Model: PP17L, SN: CN-0N8829-48643-615-5005

AC Line Conducted Emissions - back view





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Appendix B – Measurement Data

B1.0 DTS Bandwidth (6 dB)

Rule Part: FCC Part 15.247(a)(2)

Test Procedure: Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247.
KDB 558074 D01 DTS Meas Guidance v03r01, Section 8.0, 8.1
Option 1

RBW = 100 kHz

VBW $\geq 3 \times$ RBW

Detector = Peak

Trace mode = max hold

Sweep = auto couple

Allow the trace to stabilize

Measure the bandwidth between the outermost frequencies that are 6 dB
below the peak in-band emission

Limit: Must be greater than 500 kHz.

Results: Compliant
Minimum bandwidth measured 817.6 kHz

Notes: The EUT was set to transmit at its maximum power, maximum data rate, and 100% duty cycle.

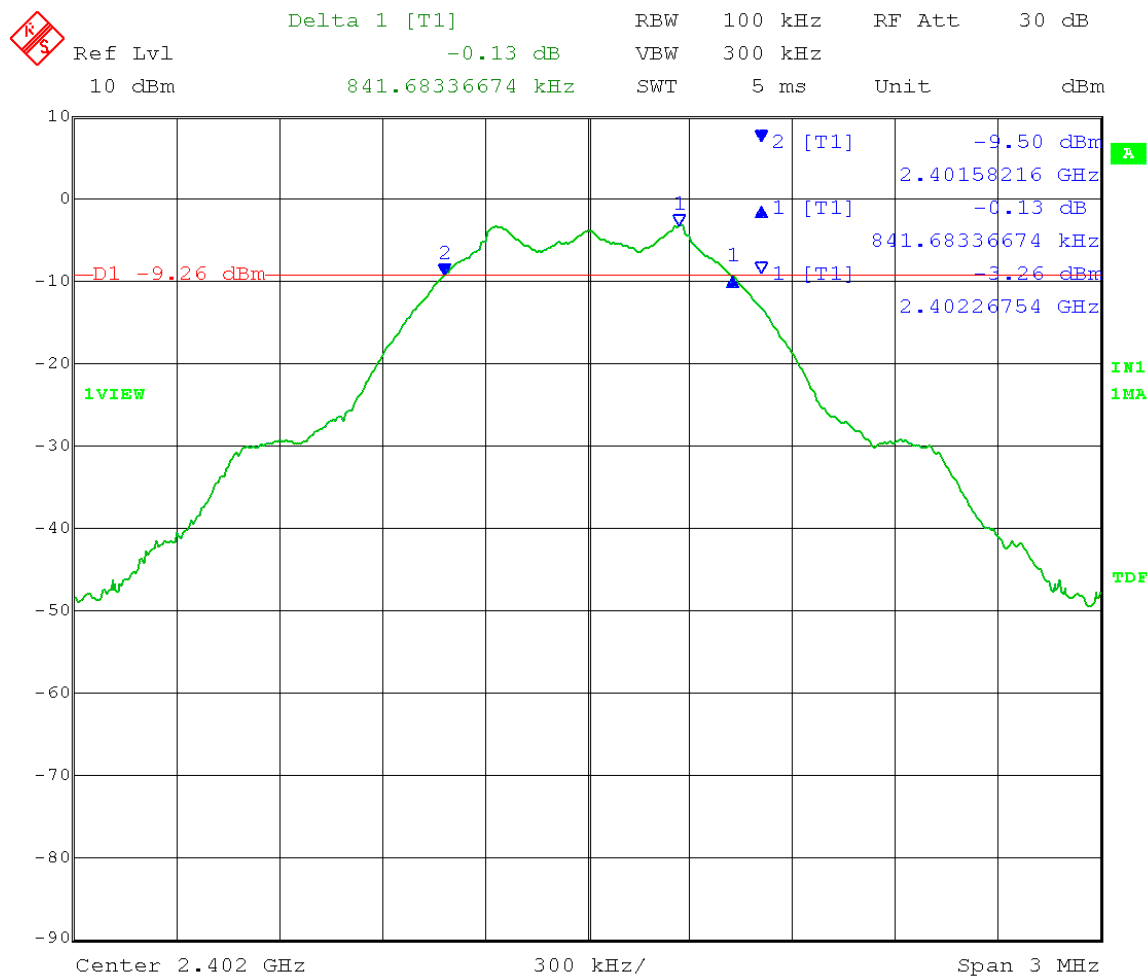


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Limit: 6dB BW > 500 kHz

Detector = Peak

6 dB Bandwidth = 841.7 kHz = Pass



Date: 21.OCT.2013 12:51:12



Company: Roche Diagnostics
Model Tested: 502
Report Number: 19497
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Operator: Jim O

Comment: RBW= 100 kHz

Sweep Auto

Trace = Max Hold

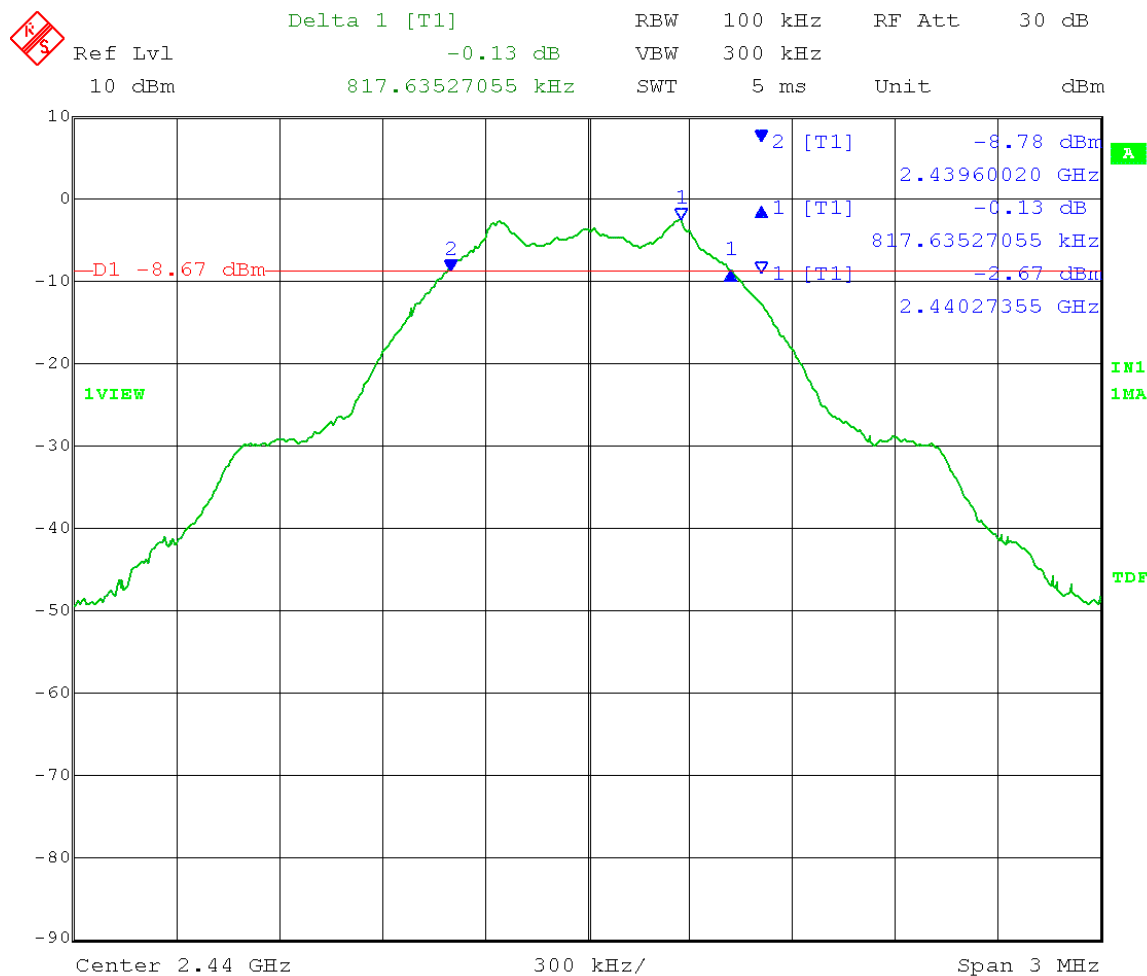
Mid Channel Transmit Frequency = 2.440GHz

Limit: 6dB BW > 500 kHz

VBW= 300 kHz

Detector = Peak

6 dB Bandwidth = 817.6 kHz = Pass



Date: 21.OCT.2013 13:01:02



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Company: Roche Diagnostics
Model Tested: 502
Report Number: 19497
DLS Project: 5481

Test Date: 10-21-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/Bluetooth
Test: KDB 558074 v03r01: Section 8.2 Option 1
6dB Bandwidth

Operator: Jim O

Comment: RBW= 100 kHz

VBW= 300 kHz

Sweep Auto

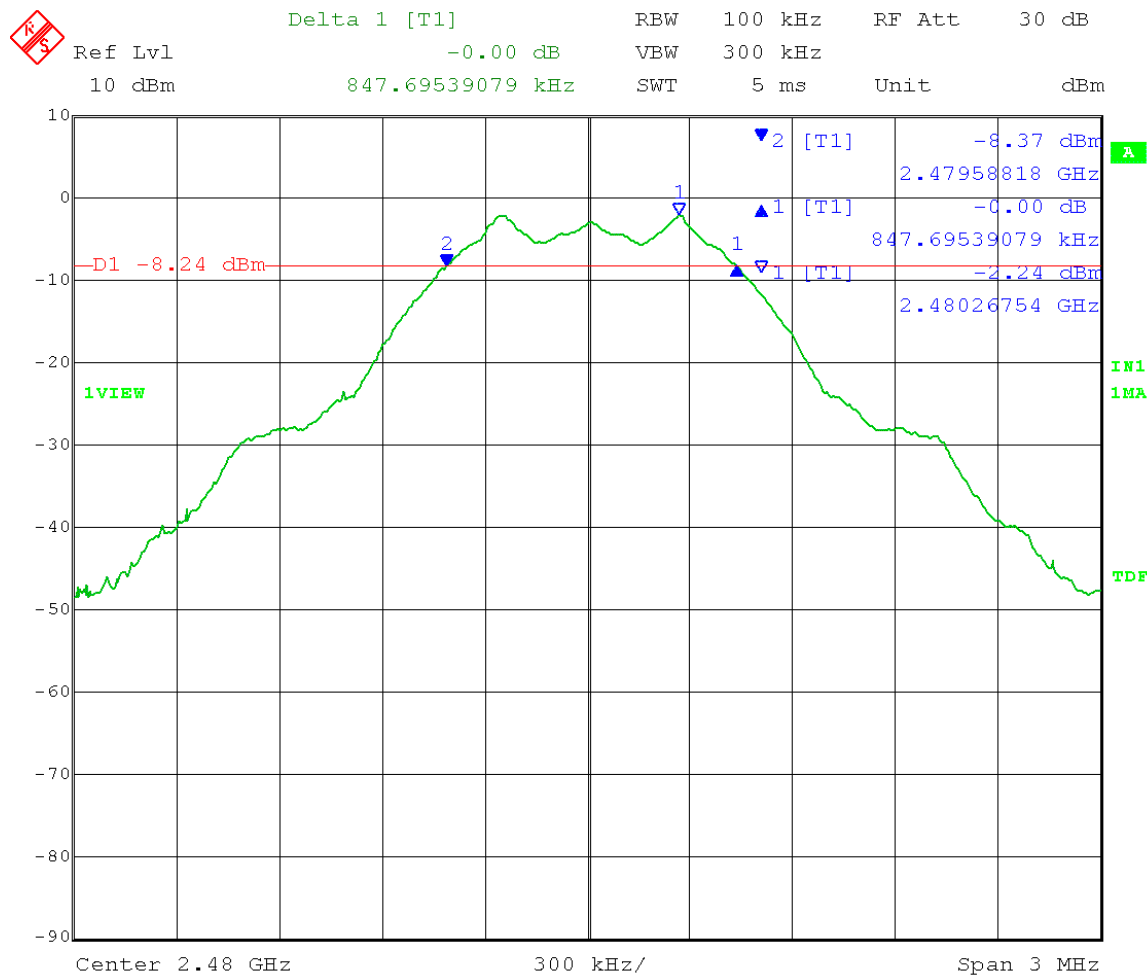
Detector = Peak

Trace = Max Hold

High Channel Transmit Frequency = 2.480GHz

Limit: 6dB BW > 500 kHz

6 dB Bandwidth = 847.7 kHz = Pass



Date: 21.OCT.2013 13:06:07



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Appendix B

B2.0 Fundamental Emission Output Power

Rule Part: FCC Part 15.247(b)(3)

Test Procedure: Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247.
KDB 558074 D01 DTS Meas Guidance v03r01, Section 9.0,
9.1.1 $\text{RBW} \geq \text{DTS bandwidth}$

$\text{RBW} \geq \text{DTS bandwidth}$
 $\text{VBW} \geq 3 \times \text{RBW}$
 $\text{Span} \geq 3 \times \text{RBW}$
Sweep time = auto couple
Detector = peak
Trace mode = max hold
Allow trace to fully stabilize
Measure the peak amplitude level

Limit: 10 dBm to be classified as Low Energy

Results: Compliant
Highest output power measured -1.81 dBm

Notes: The EUT was set to transmit at its maximum power, maximum data rate, and 100% duty cycle.



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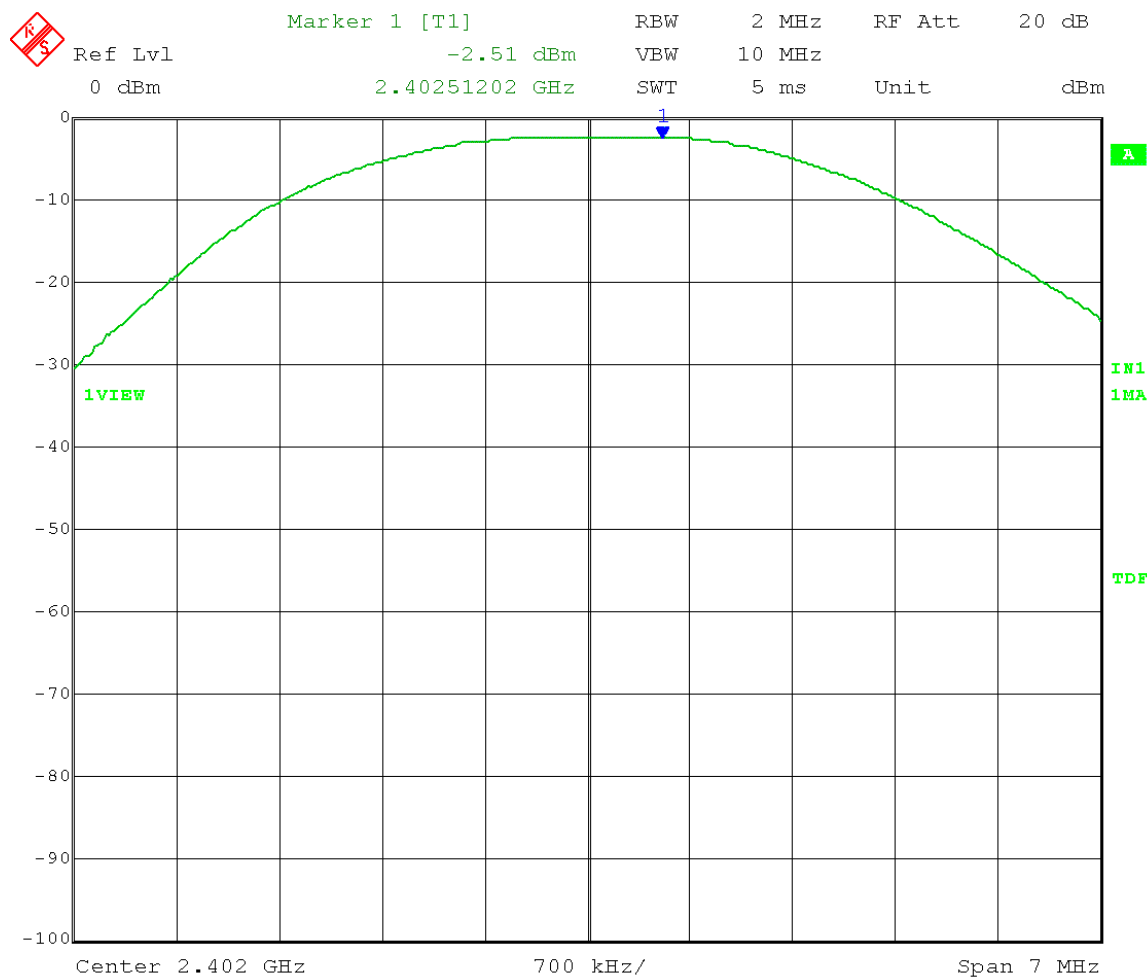
Company: Roche Diagnostics
Model Tested: 502
Report Number: 19497
DLS Project: 5481

Test Date: 10-24-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/Bluetooth
Test: Peak Power Output - Conducted
Section 15.247 (b)

Operator: Craig B
Comment: RBW $\geq$ DTS bandwidth
Span $\geq$ 3 x RBW
Detector = Peak
Low Channel Frequency = 2.402 GHz

VBW $\geq$ 3 x RBW
Sweep = Auto
Trace = Max Hold

Peak Output Power = -2.51 dBm = 0.56 mW



Date: 24.OCT.2013 10:16:12



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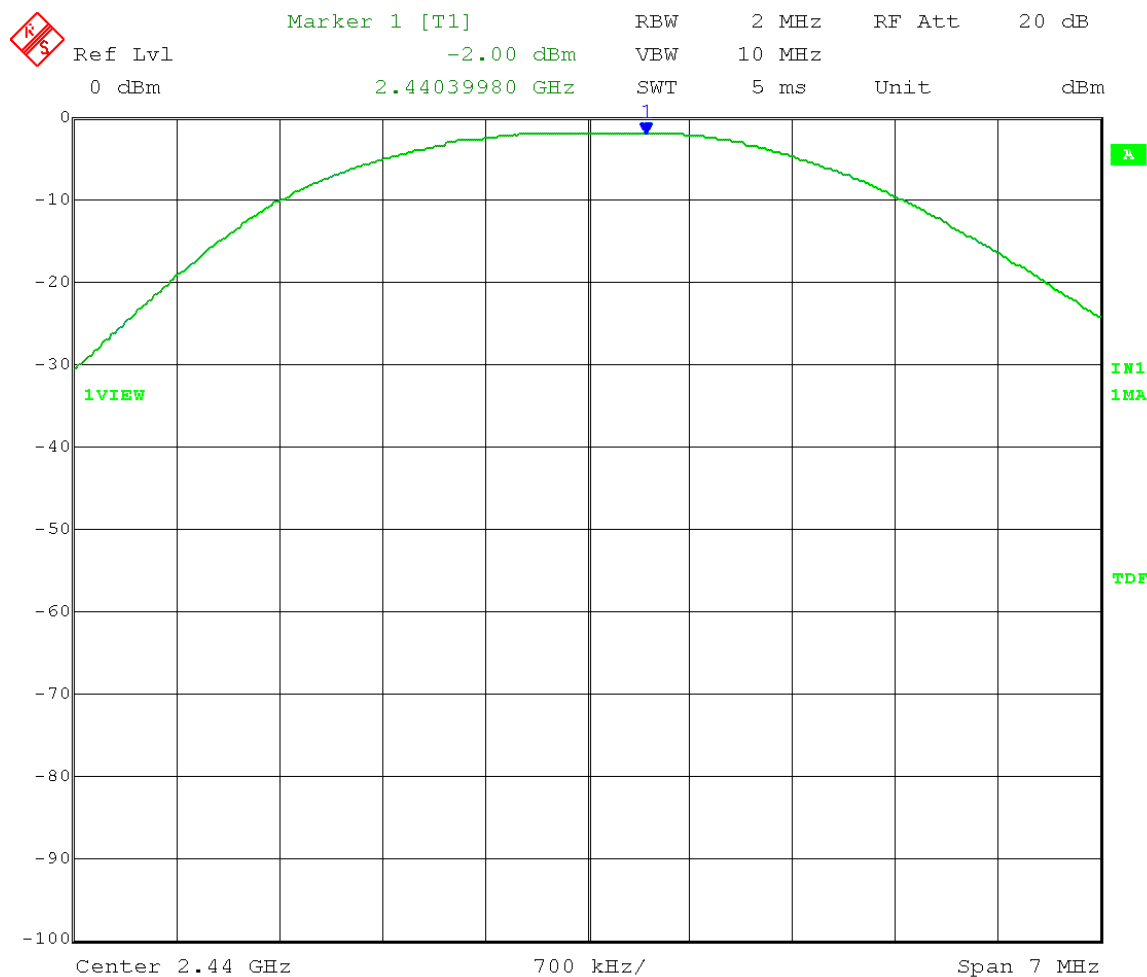
Company: Roche Diagnostics
Model Tested: 502
Report Number: 19497
DLS Project: 5481

Test Date: 10-24-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/Bluetooth
Test: Peak Power Output - Conducted
Section 15.247 (b)

Operator: Craig B
Comment: RBW $\geq$ DTS bandwidth
Span $\geq$ 3 x RBW
Detector = Peak
Mid Channel Frequency = 2.440 GHz

VBW $\geq$ 3 x RBW
Sweep = Auto
Trace = Max Hold

Peak Output Power = -2.00 dBm = 0.63 mW



Date: 24.OCT.2013 10:21:17



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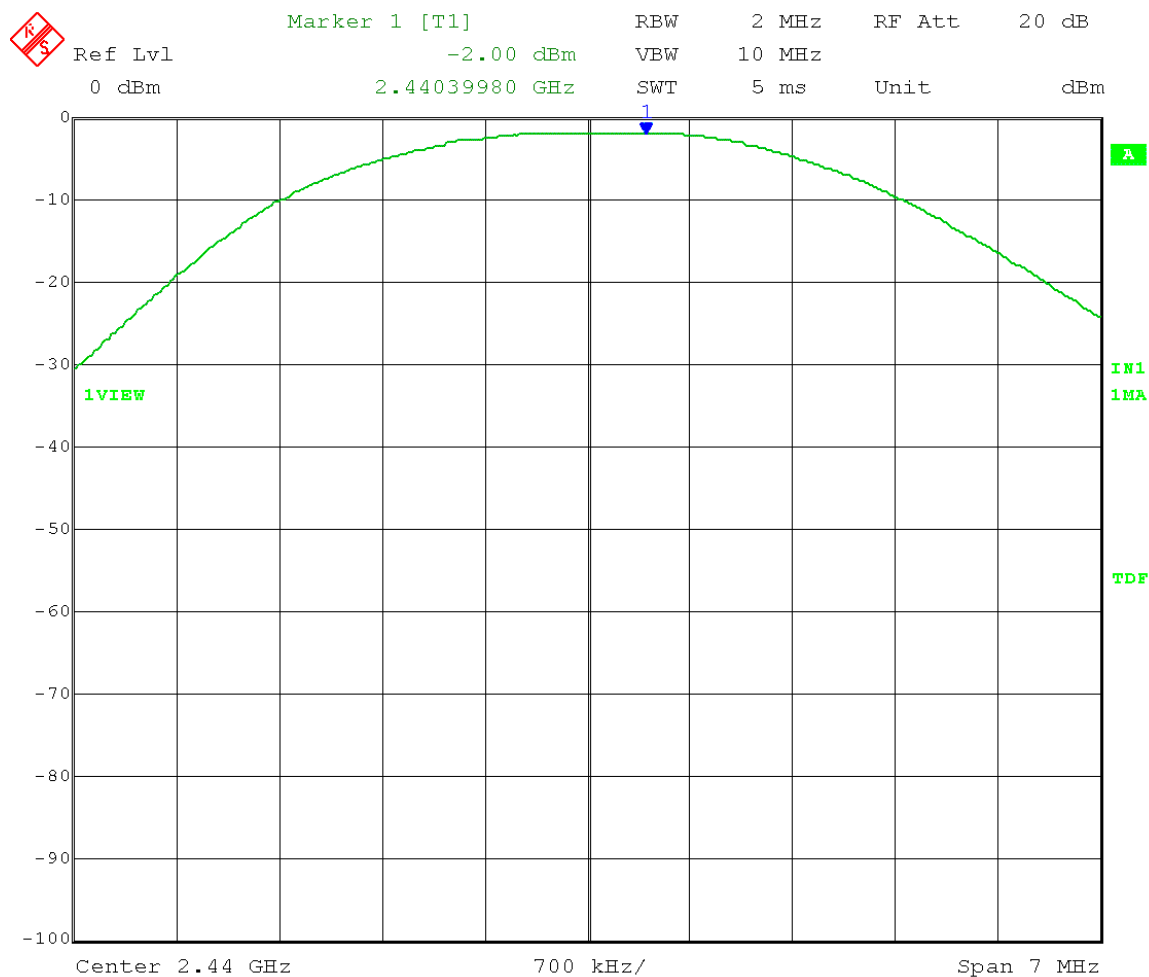
Company: Roche Diagnostics
Model Tested: 502
Report Number: 19497
DLS Project: 5481

Test Date: 10-24-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/Bluetooth
Test: Peak Power Output - Conducted
Section 15.247 (b)

Operator: Craig B
Comment: RBW $\geq$ DTS bandwidth
Span $\geq$ 3 x RBW
Detector = Peak
High Channel Frequency = 2.480 GHz

VBW $\geq$ 3 x RBW
Sweep = Auto
Trace = Max Hold

Peak Output Power = -1.81 dBm = 0.66 mW



Date: 24.OCT.2013 10:21:17



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Appendix B

Company:	Roche Diagnostics
Model Tested:	502
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B3.0 Emissions in Non-restricted Frequency Bands - RF conducted

Rule Part: FCC Part 15.247(d)

Test Procedure: Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247.
KDB 558074 D01 DTS Meas Guidance v03r01, Section 11.0, 11.1(a), 11.2, 11.3

Reference level measurement:

Center frequency = DTS channel center frequency

Span $\geq 1.5 \times$ DTS bandwidth

RBW = 100 kHz

VBW $\geq 3 \times$ RBW

Detector = peak

Sweep time = auto couple

Trace mode = max hold

Allow trace to fully stabilize

Measure the maximum amplitude level

Changes to settings above for emission level measurement:

Set center frequency and span to encompass frequency range to be measured

Verify that the number of measurement points $\geq$ span/RBW

Limit: 20 dB down from the highest emission level within the authorized band as measured with a 100 kHz RBW.

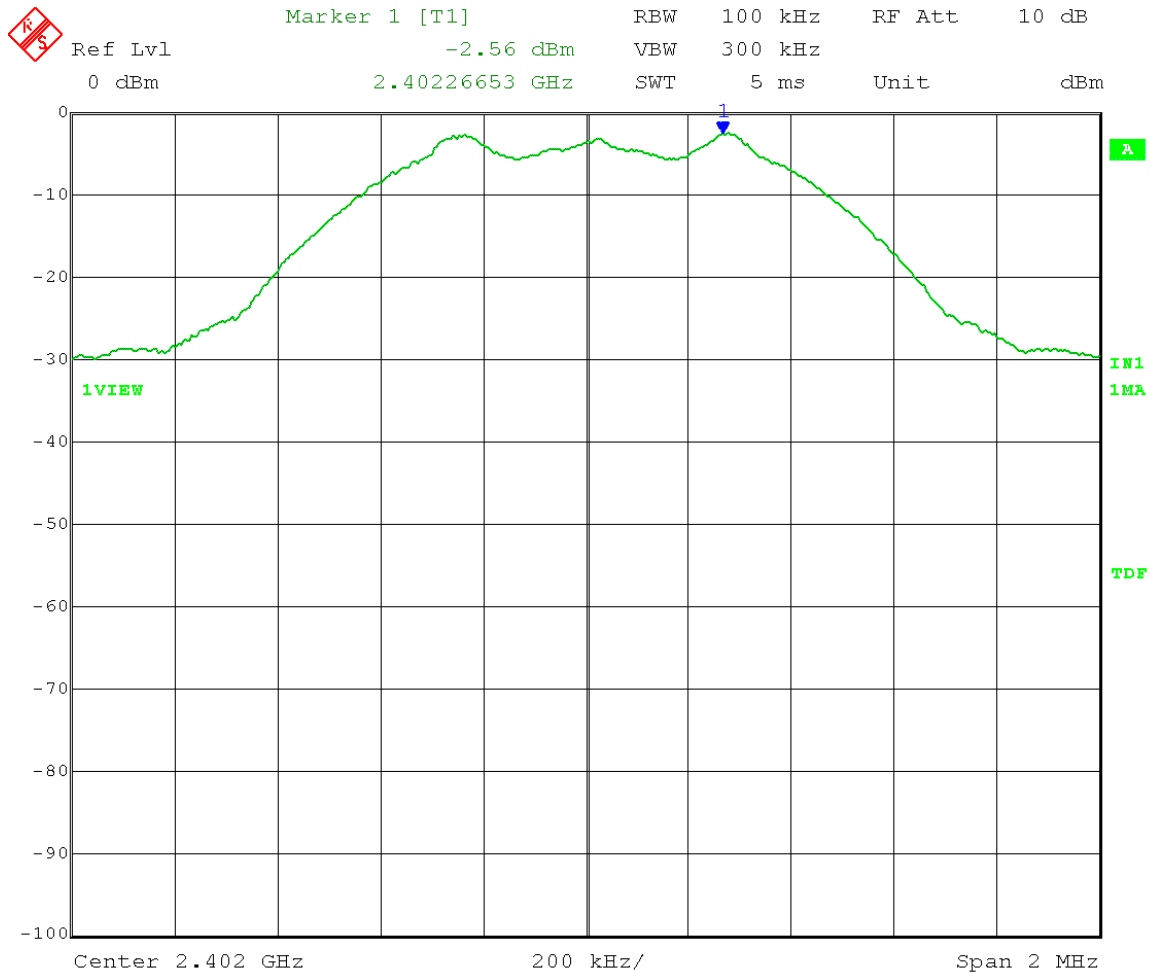
Results: Compliant

Notes: The EUT was set to transmit at its maximum power, maximum data rate, and 100% duty cycle.

Test Date: 10-24-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/Bluetooth
Test: Spurious RF Conducted Emission-
Operator: Craig B
Comment: RBW = 100 kHz

VBW $\geq 3 \times$ RBW
Sweep = Auto Couple
Low Channel Transmit = 2.402 GHz

Detector = Peak
Trace = Max Hold
Output power setting = 0 dBm
Reference Level measurement
Limit = -2.56 dBm - 20 dB = -22.56 dBm

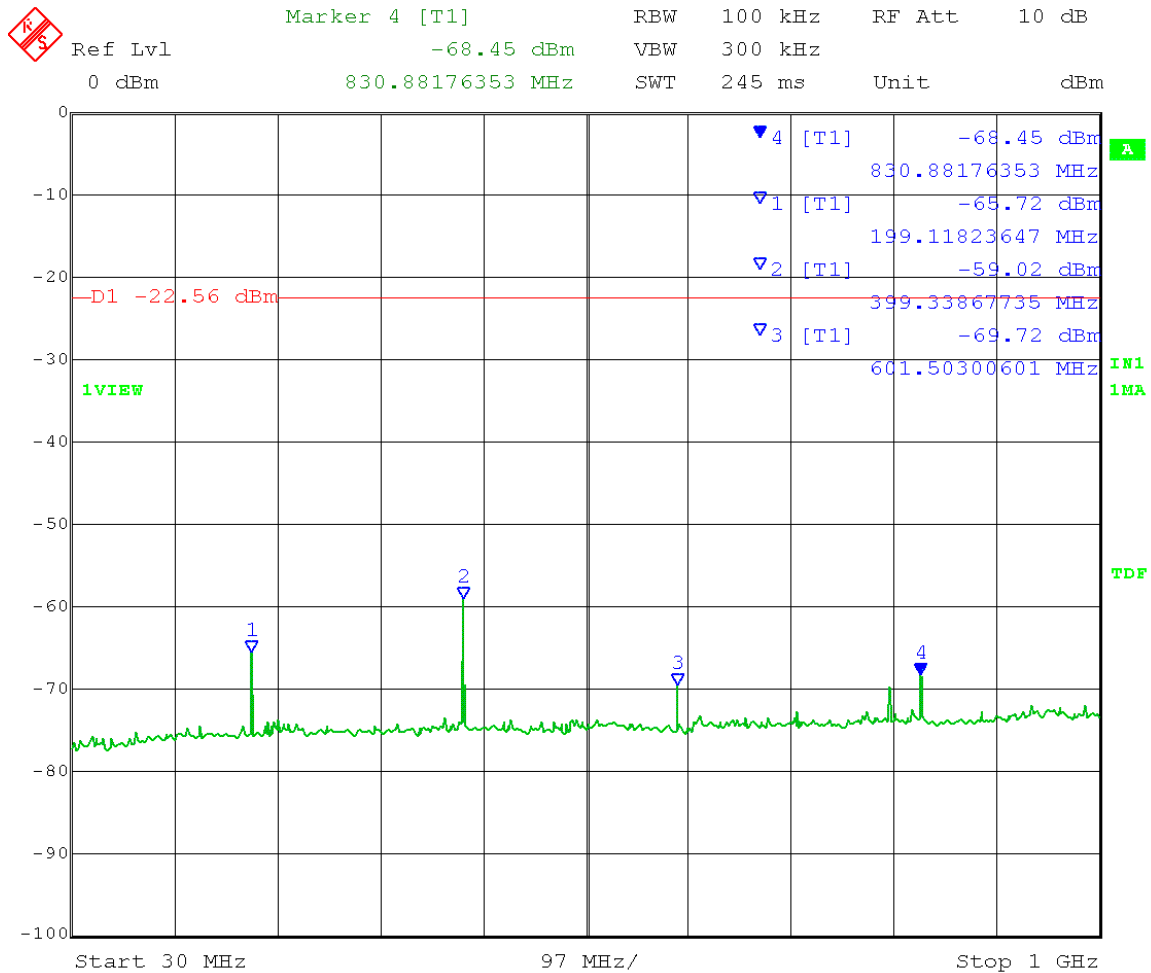


Date: 24.OCT.2013 11:15:47

Test Date: 10-24-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/Bluetooth
Test: Spurious RF Conducted Emission-
Operator: Craig B
Comment: RBW = 100 kHz

VBW $\geq 3 \times$ RBW
Sweep = Auto Couple
Low Channel Transmit = 2.402 GHz

Detector = Peak
Trace = Max Hold
Output power setting = 0 dBm
Emission Level measurement
Limit = -2.56 dBm - 20 dB = -22.56 dBm

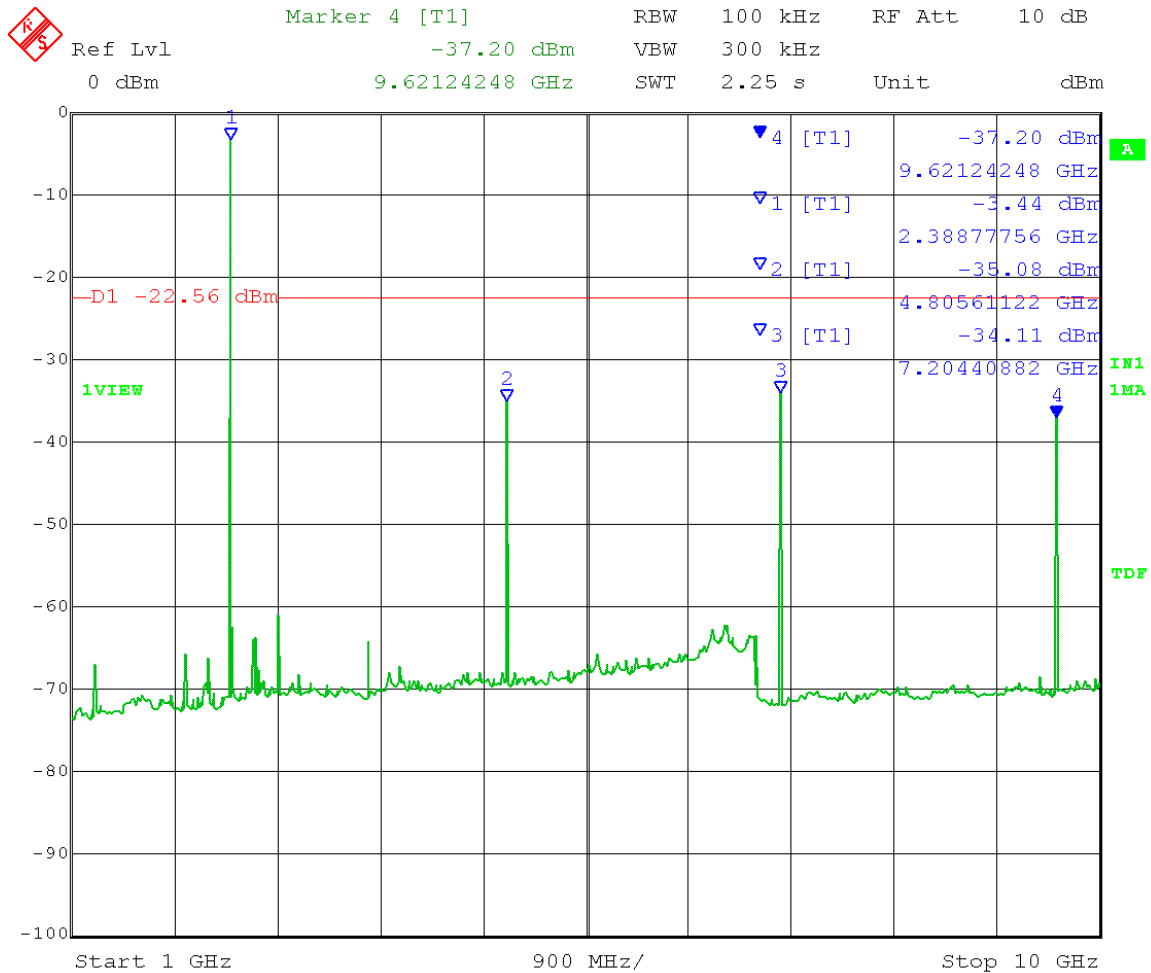


Date: 24.OCT.2013 11:30:49

Test Date: 10-24-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/Bluetooth
Test: Spurious RF Conducted Emission-
Operator: Craig B
Comment: RBW = 100 kHz

VBW $\geq 3 \times$ RBW
Sweep = Auto Couple
Low Channel Transmit = 2.402 GHz

Detector = Peak
Trace = Max Hold
Output power setting = 0 dBm
Emission Level measurement
Limit = -2.56 dBm - 20 dB = -22.56 dBm

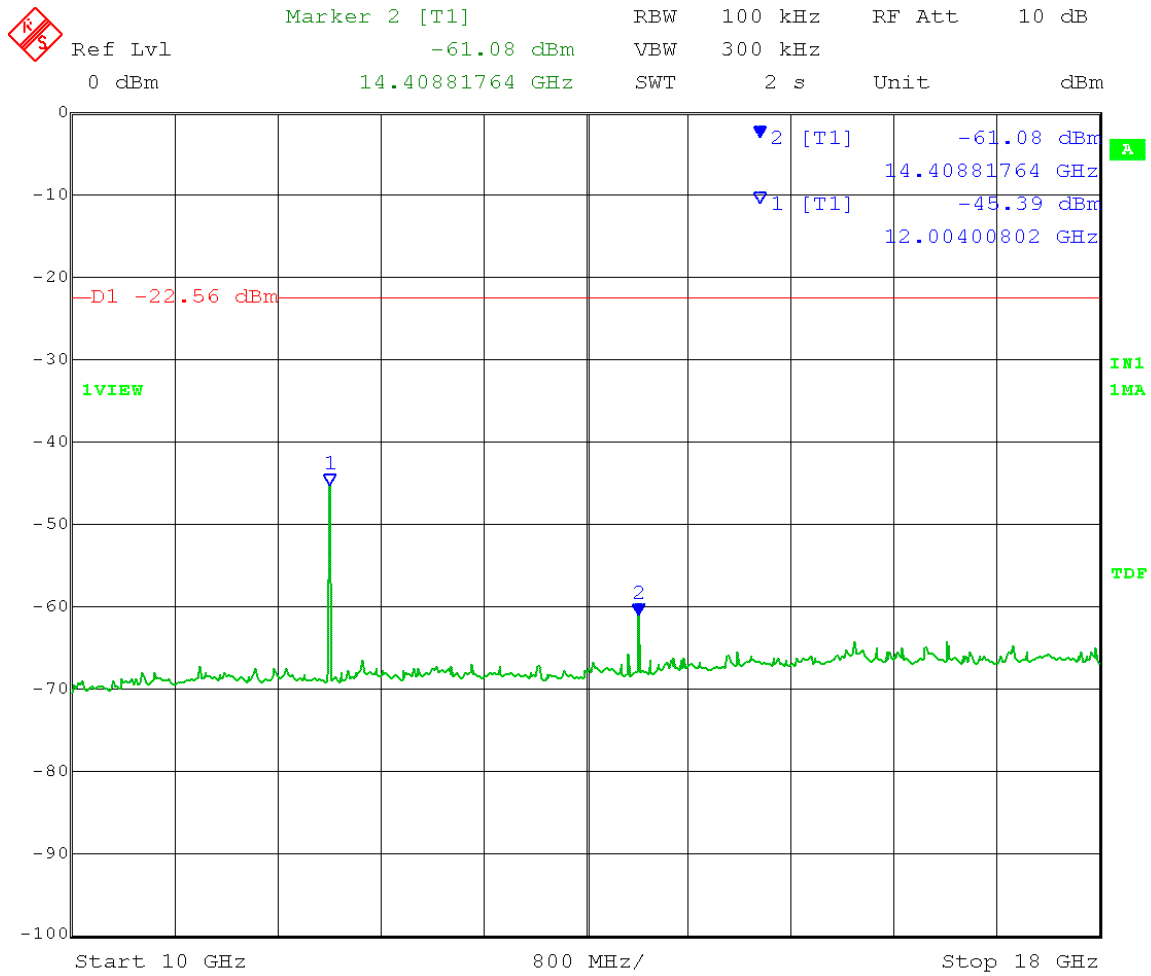


Date: 24.OCT.2013 11:21:00

Test Date: 10-24-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/Bluetooth
Test: Spurious RF Conducted Emission-
Operator: Craig B
Comment: RBW = 100 kHz

VBW $\geq 3 \times$ RBW
Sweep = Auto Couple
Low Channel Transmit = 2.402 GHz

Detector = Peak
Trace = Max Hold
Output power setting = 0 dBm
Emission Level measurement
Limit = -2.56 dBm - 20 dB = -22.56 dBm

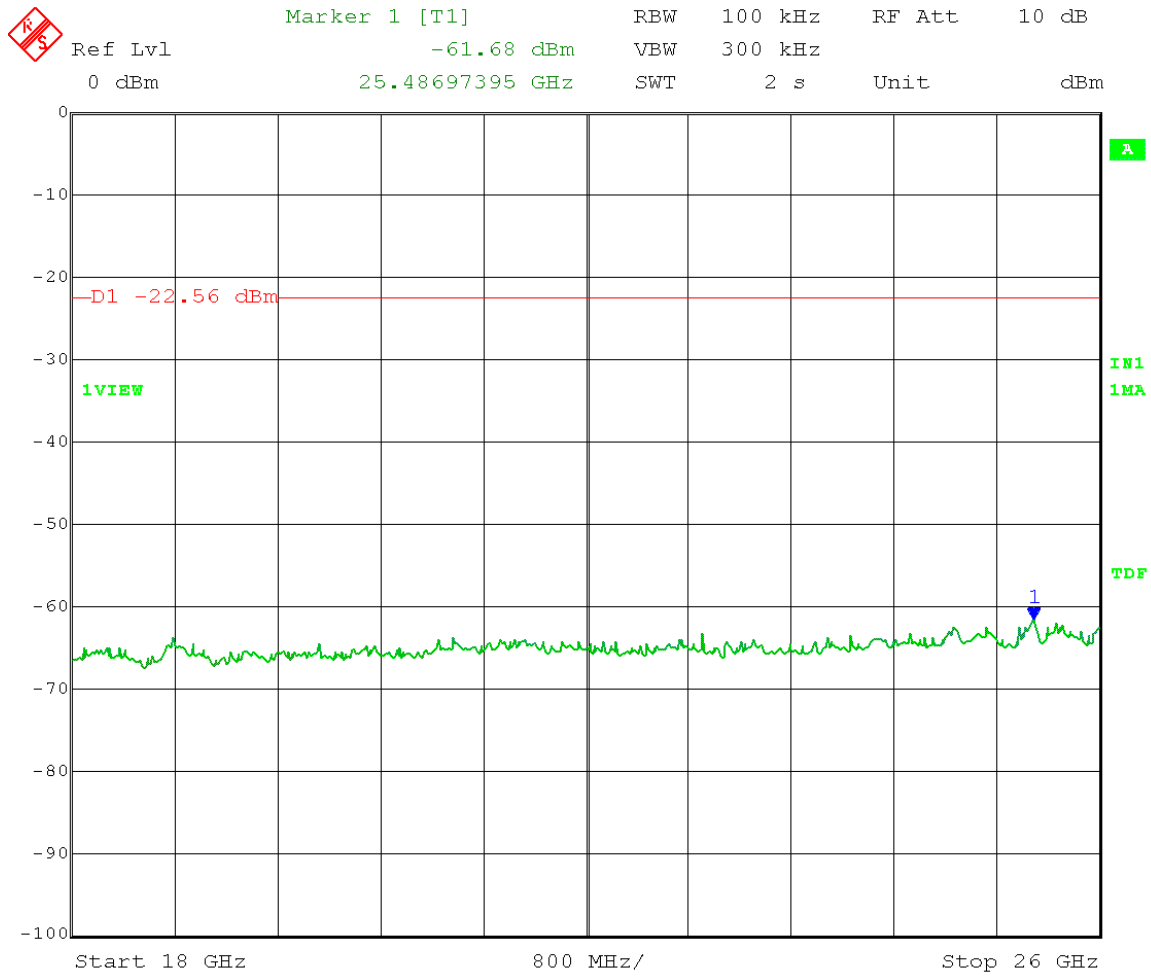


Date: 24.OCT.2013 11:23:29

Test Date: 10-24-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/Bluetooth
Test: Spurious RF Conducted Emission-
Operator: Craig B
Comment: RBW = 100 kHz

VBW $\geq 3 \times$ RBW
Sweep = Auto Couple
Low Channel Transmit = 2.402 GHz

Detector = Peak
Trace = Max Hold
Output power setting = 0 dBm
Emission Level measurement
Limit = -2.56 dBm - 20 dB = -22.56 dBm

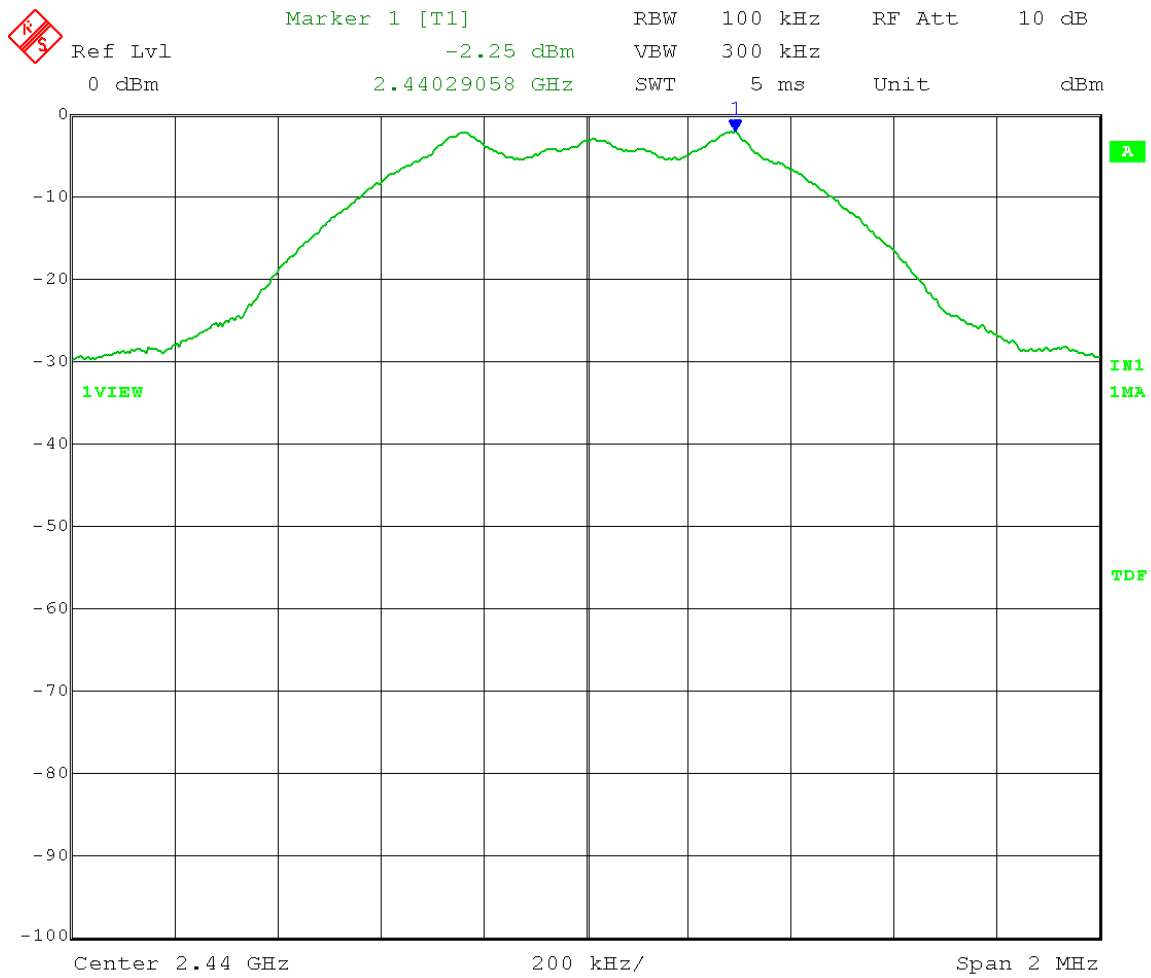


Date: 24.OCT.2013 11:25:00

Test Date: 10-24-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/Bluetooth
Test: Spurious RF Conducted Emission-
Operator: Craig B
Comment: RBW = 100 kHz

$VBW \geq 3 \times RBW$
Sweep = Auto Couple
Mid Channel Transmit = 2.440 GHz

Detector = Peak
Trace = Max Hold
Output power setting = 0 dBm
Reference Level measurement
Limit = $-2.25 \text{ dBm} - 20 \text{ dB} = -22.25 \text{ dBm}$

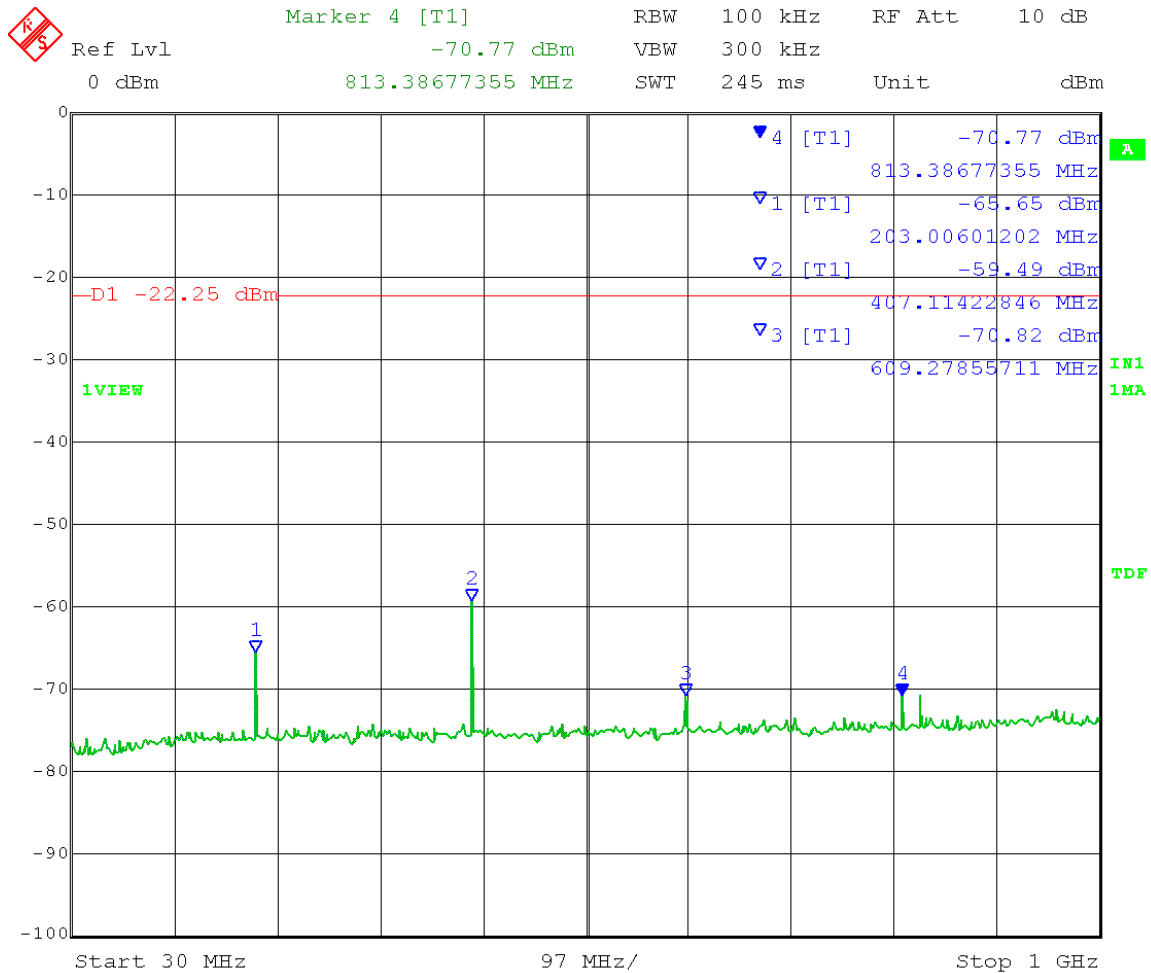


Date: 24.OCT.2013 11:01:15

Test Date: 10-24-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/Bluetooth
Test: Spurious RF Conducted Emission-
Operator: Craig B
Comment: RBW = 100 kHz

VBW $\geq 3 \times$ RBW
Sweep = Auto Couple
Mid Channel Transmit = 2.440 GHz

Detector = Peak
Trace = Max Hold
Output power setting = 0 dBm
Emission Level measurement
Limit = -2.25 dBm - 20 dB = -22.25 dBm

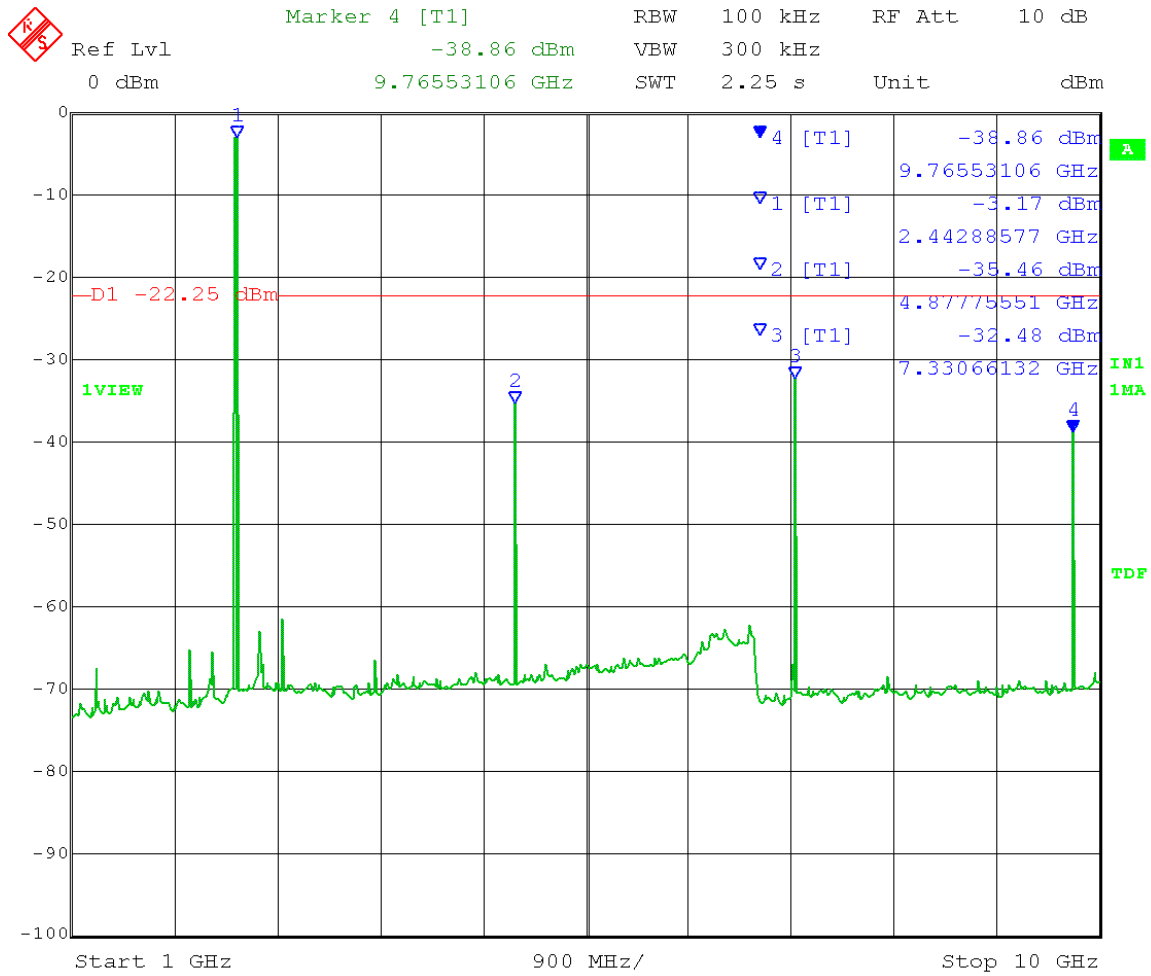


Date: 24.OCT.2013 11:12:22

Test Date: 10-24-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/Bluetooth
Test: Spurious RF Conducted Emission-
Operator: Craig B
Comment: RBW = 100 kHz

VBW $\geq 3 \times$ RBW
Sweep = Auto Couple
Mid Channel Transmit = 2.440 GHz

Detector = Peak
Trace = Max Hold
Output power setting = 0 dBm
Emission Level measurement
Limit = -2.25 dBm - 20 dB = -22.25 dBm

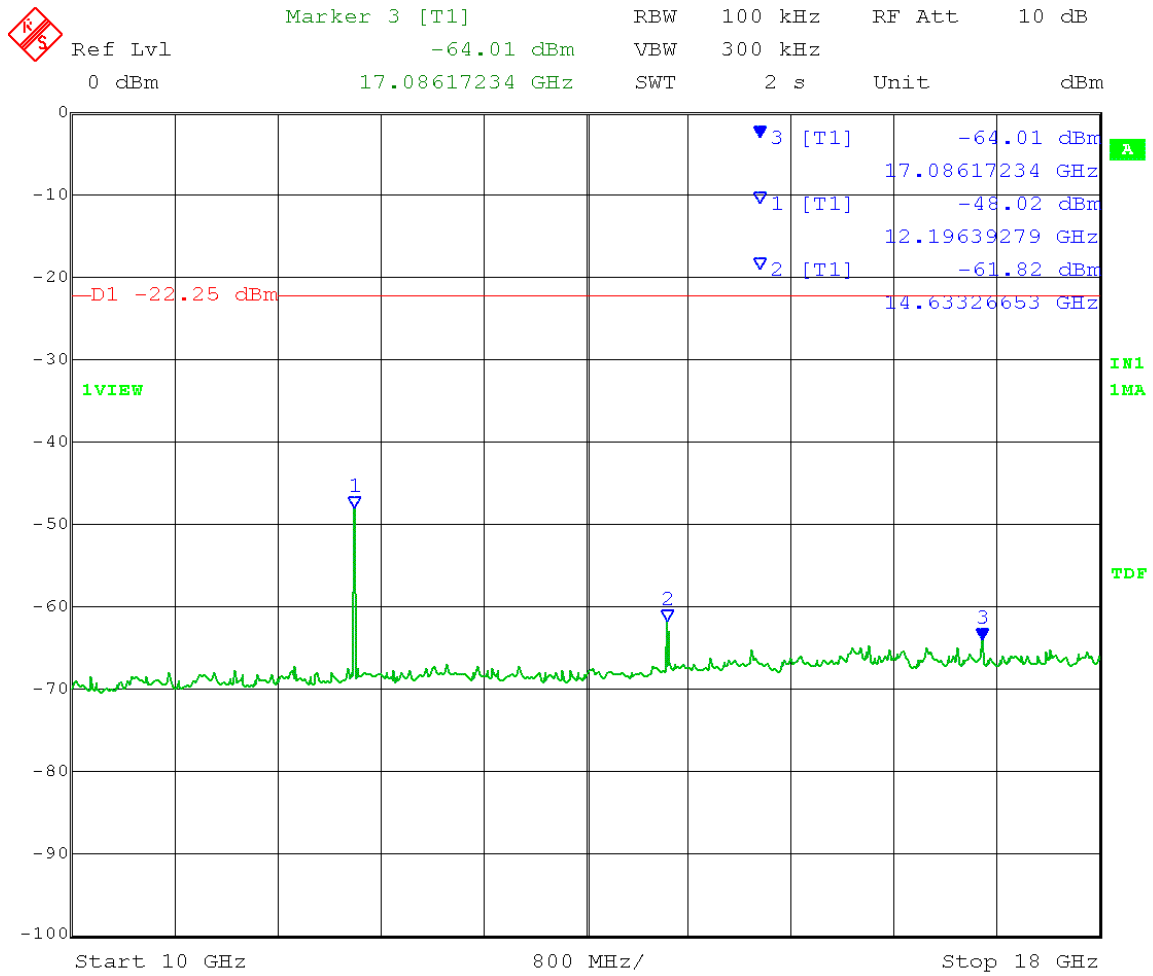


Date: 24.OCT.2013 11:06:02

Test Date: 10-24-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/Bluetooth
Test: Spurious RF Conducted Emission-
Operator: Craig B
Comment: RBW = 100 kHz

Detector = Peak
Trace = Max Hold
Output power setting = 0 dBm
Emission Level measurement
Limit = -2.25 dBm - 20 dB = -22.25 dBm

VBW $\geq 3 \times$ RBW
Sweep = Auto Couple
Mid Channel Transmit = 2.440 GHz

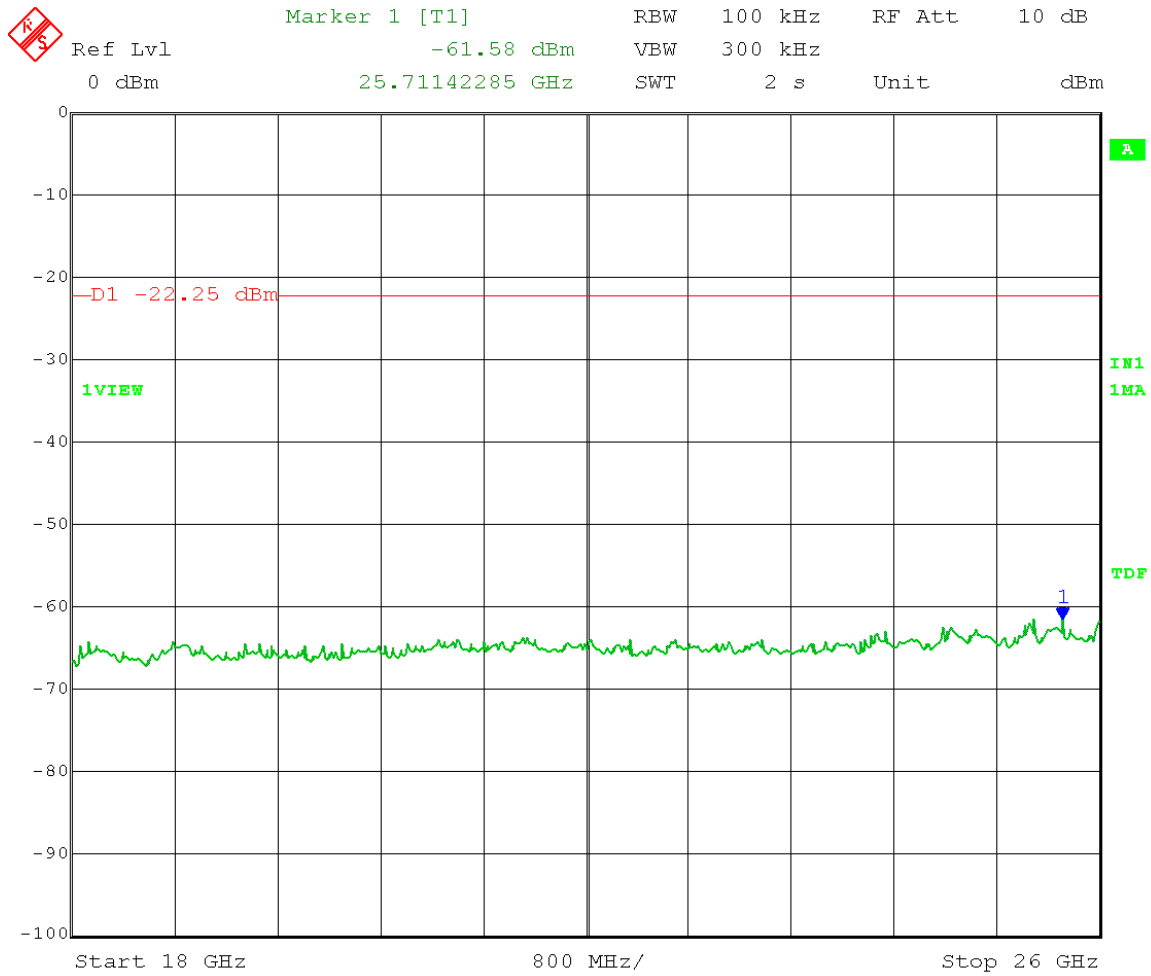


Date: 24.OCT.2013 11:08:26

Test Date: 10-24-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/Bluetooth
Test: Spurious RF Conducted Emission-
Operator: Craig B
Comment: RBW = 100 kHz

VBW $\geq 3 \times$ RBW
Sweep = Auto Couple
Mid Channel Transmit = 2.440 GHz

Detector = Peak
Trace = Max Hold
Output power setting = 0 dBm
Emission Level measurement
Limit = -2.25 dBm - 20 dB = -22.25 dBm

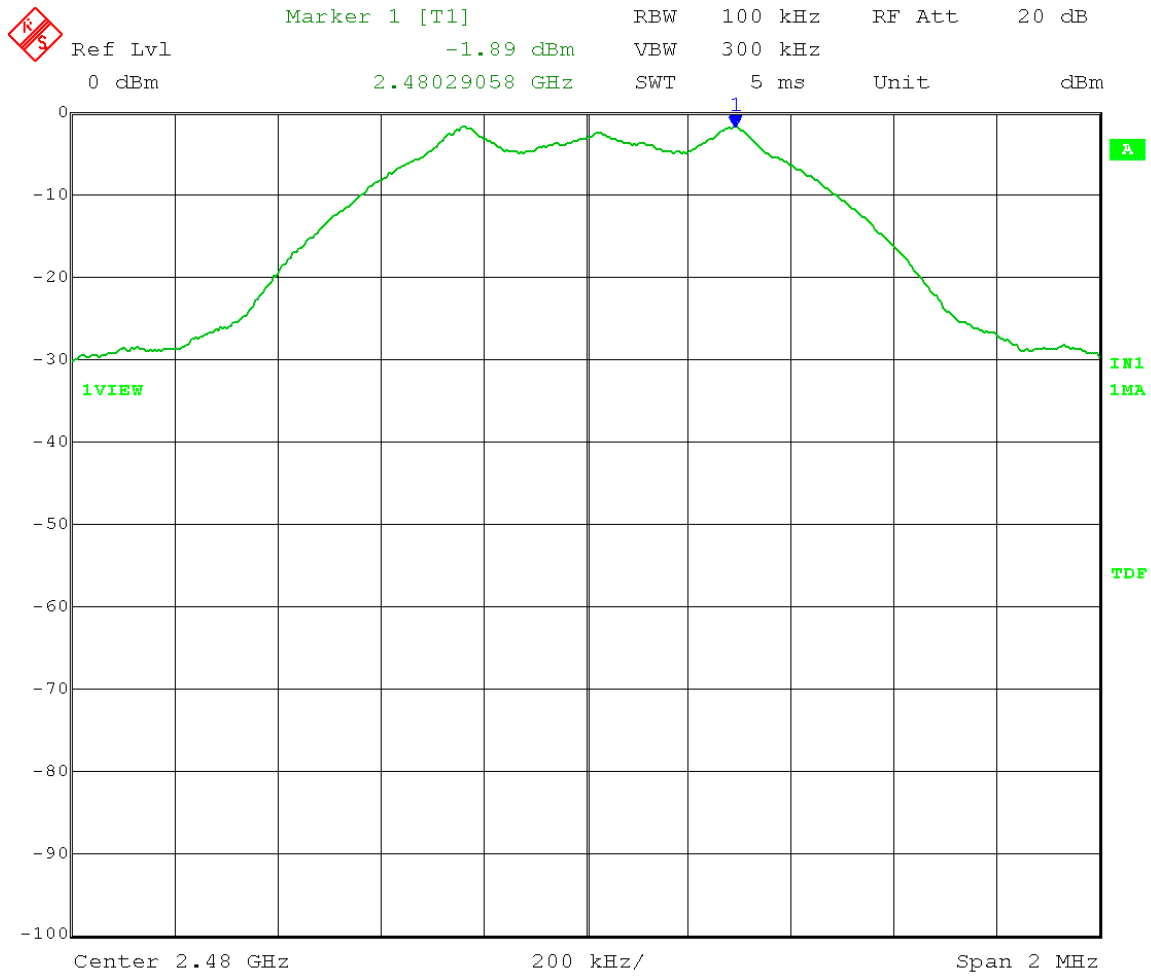


Date: 24.OCT.2013 11:10:03

Test Date: 10-24-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/Bluetooth
Test: Spurious RF Conducted Emission-
Operator: Craig B
Comment: RBW = 100 kHz

VBW $\geq 3 \times$ RBW
Sweep = Auto Couple
High Channel Transmit = 2.480 GHz

Detector = Peak
Trace = Max Hold
Output power setting = 0 dBm
Reference Level measurement
Limit = -1.89 dBm - 20 dB = -21.89 dBm

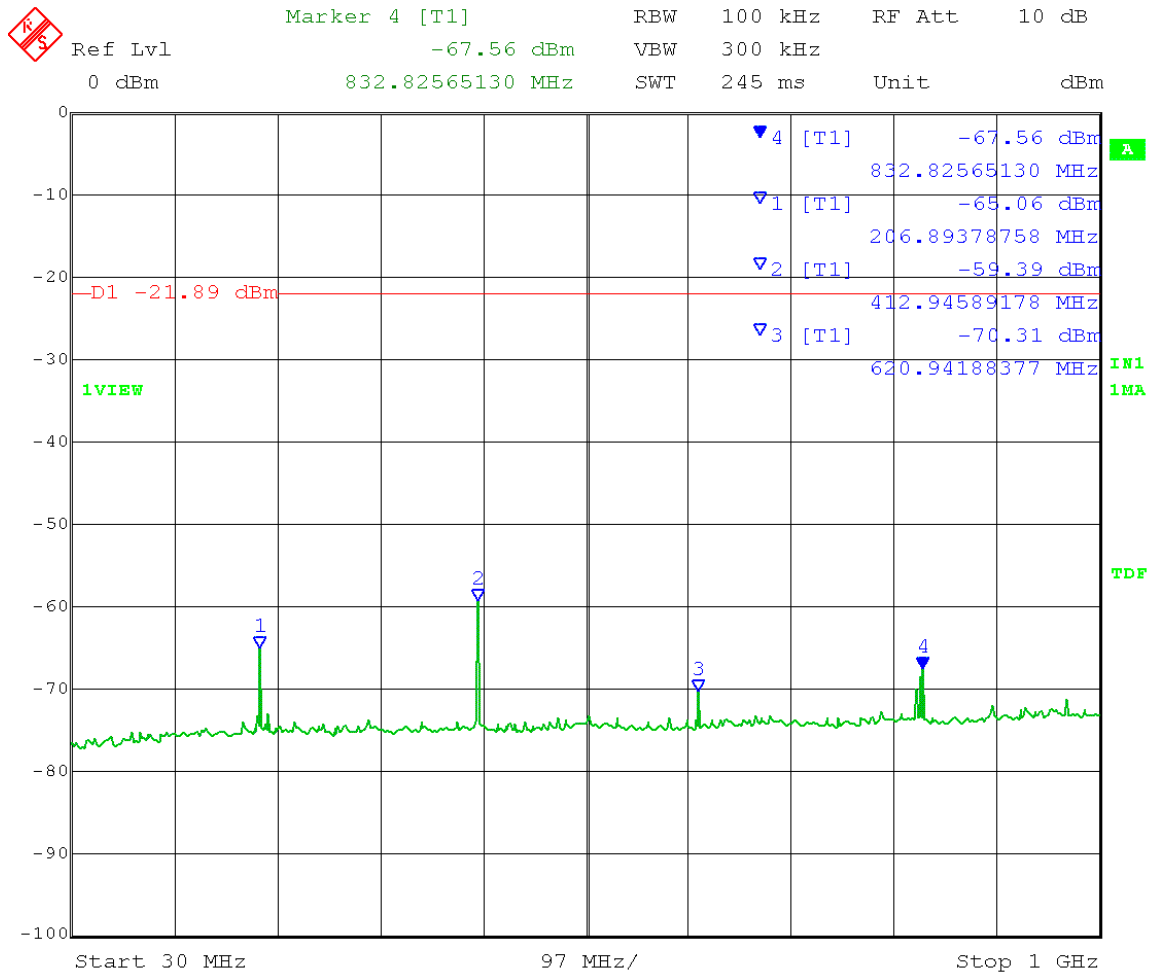


Date: 24.OCT.2013 10:38:01

Test Date: 10-24-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/Bluetooth
Test: Spurious RF Conducted Emission-
Operator: Craig B
Comment: RBW = 100 kHz

VBW $\geq 3 \times$ RBW
Sweep = Auto Couple
High Channel Transmit = 2.480 GHz

Detector = Peak
Trace = Max Hold
Output power setting = 0 dBm
Emission Level measurement
Limit = -1.89 dBm - 20 dB = -21.89 dBm

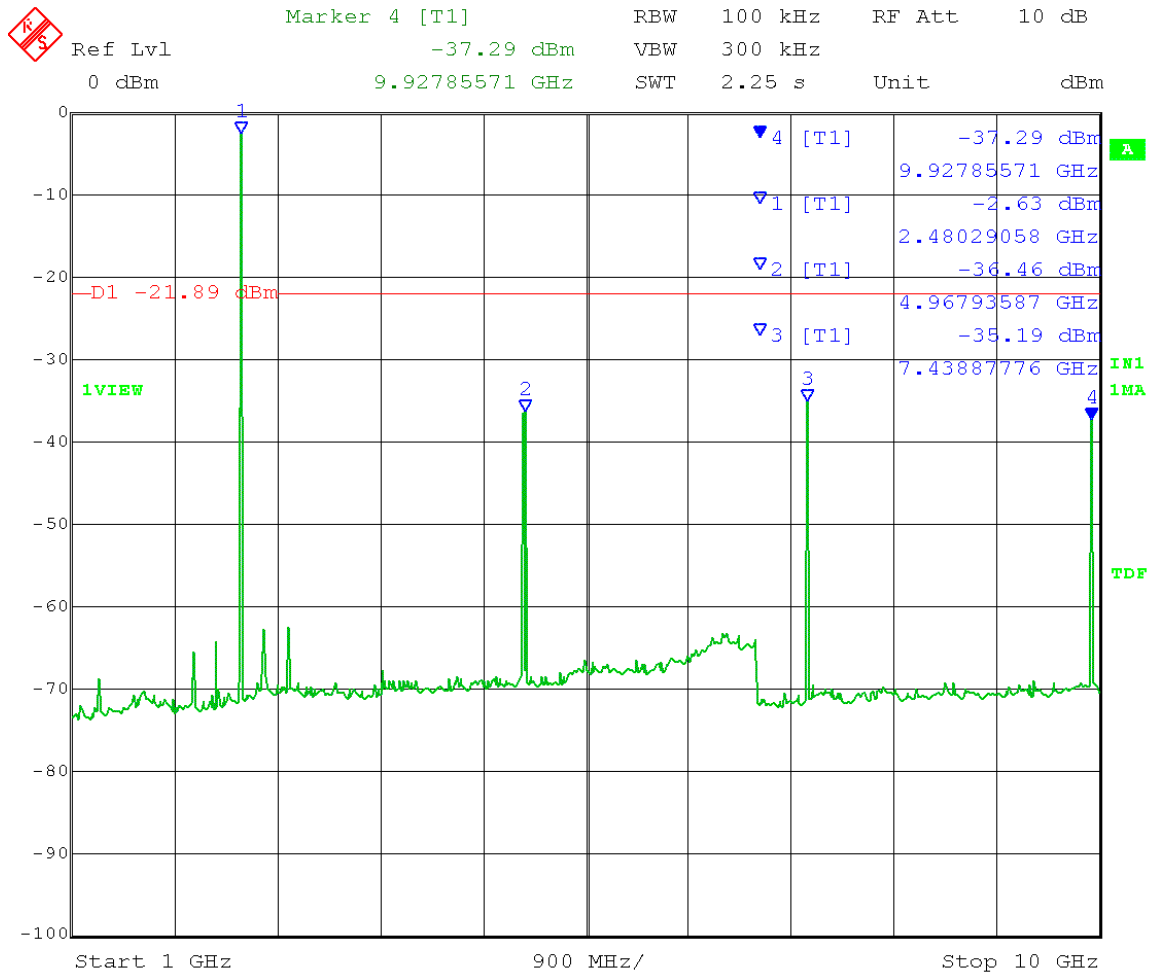


Date: 24.OCT.2013 10:58:18

Test Date: 10-24-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/Bluetooth
Test: Spurious RF Conducted Emission-
Operator: Craig B
Comment: RBW = 100 kHz

VBW $\geq 3 \times$ RBW
Sweep = Auto Couple
High Channel Transmit = 2.480 GHz

Detector = Peak
Trace = Max Hold
Output power setting = 0 dBm
Emission Level measurement
Limit = -1.89 dBm - 20 dB = -21.89 dBm

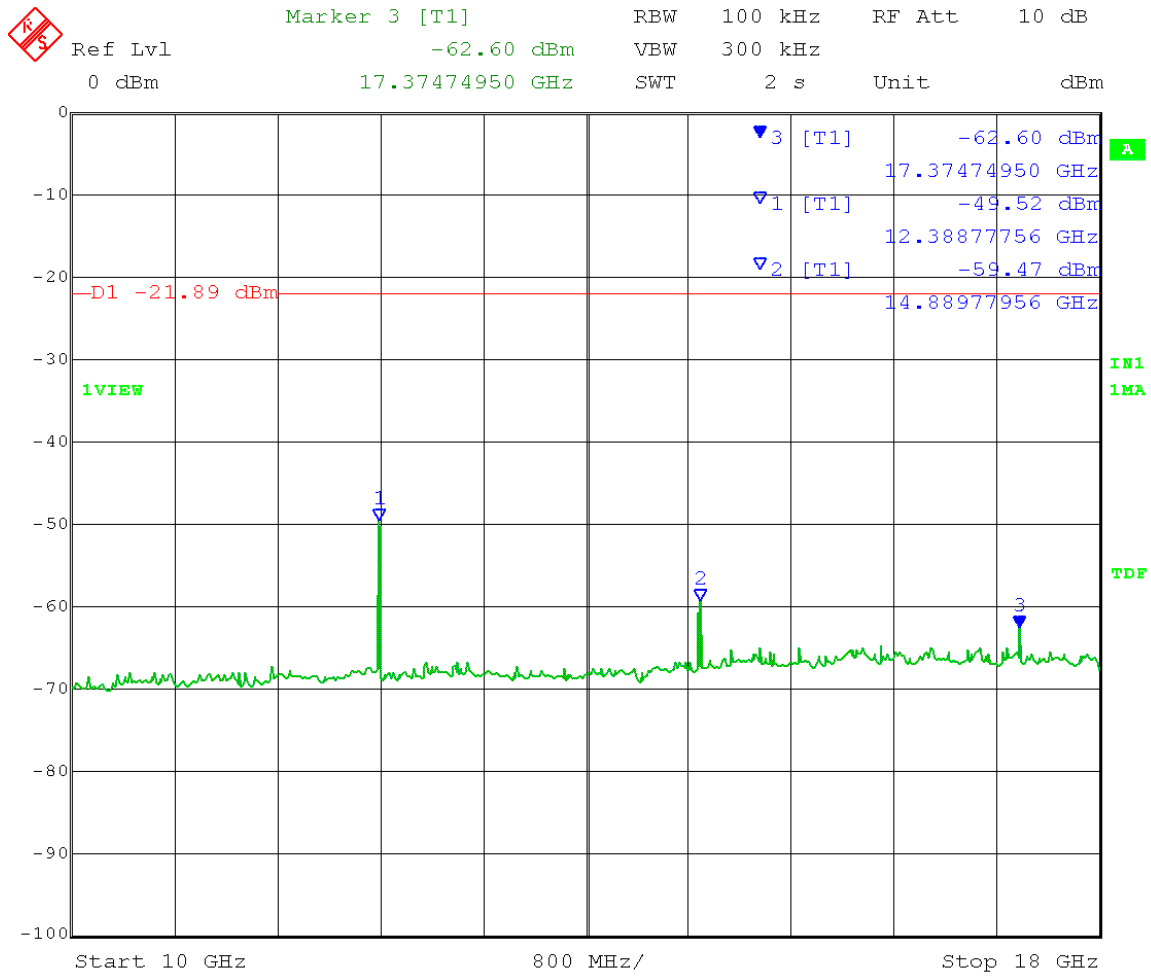


Date: 24.OCT.2013 10:44:49

Test Date: 10-24-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/Bluetooth
Test: Spurious RF Conducted Emission-
Operator: Craig B
Comment: RBW = 100 kHz

VBW $\geq 3 \times$ RBW
Sweep = Auto Couple
High Channel Transmit = 2.480 GHz

Detector = Peak
Trace = Max Hold
Output power setting = 0 dBm
Emission Level measurement
Limit = -1.89 dBm - 20 dB = -21.89 dBm

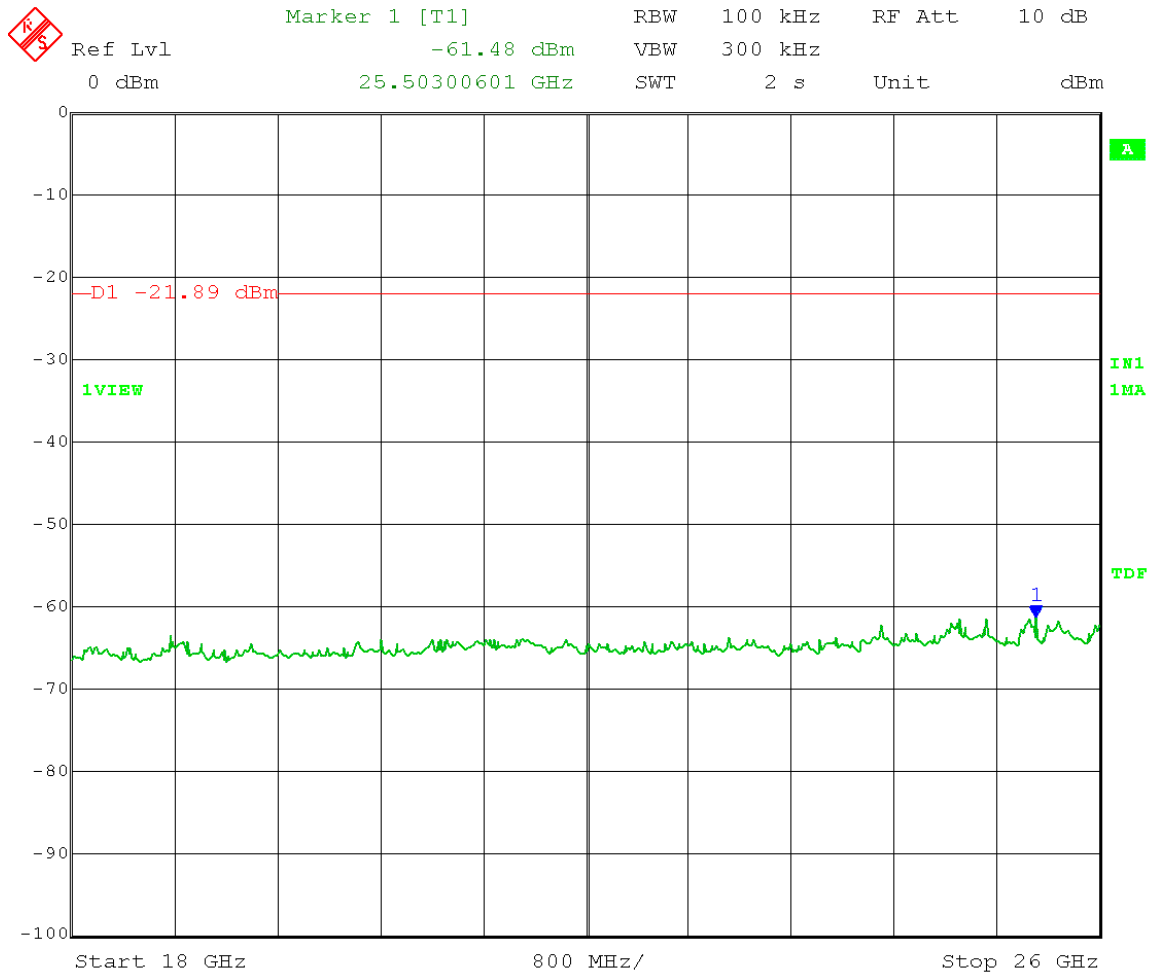


Date: 24.OCT.2013 10:47:48

Test Date: 10-24-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/Bluetooth
Test: Spurious RF Conducted Emission-
Operator: Craig B
Comment: RBW = 100 kHz

VBW $\geq 3 \times$ RBW
Sweep = Auto Couple
High Channel Transmit = 2.480 GHz

Detector = Peak
Trace = Max Hold
Output power setting = 0 dBm
Emission Level measurement
Limit = -1.89 dBm - 20 dB = -21.89 dBm



Date: 24.OCT.2013 10:50:07



166 South Carter, Genoa City, WI 53128

Company:	Roche Diagnostics
Model Tested:	502
Report Number:	19497
DLS Project:	5481

Appendix B

B4.0 Operating Band Edge Emission – RF conducted

Rule Part: FCC Part 15.247(d)

Test Procedure: Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247.
KDB 558074 D01 DTS Meas Guidance v03r01, Section 11.0, 11.1(a)

RBW = 100 kHz

VBW $\geq 3 \times$ RBW

Detector = peak

Sweep time = auto couple

Trace mode = max hold

Allow trace to fully stabilize

Measure the delta level between the highest in-band emission and the highest level at (or just outside) the operating band edge frequency

Limit: The level at (or just outside) the operating band edge must be 20 dB down from the highest emission level within the authorized band as measured with a 100 kHz RBW.

Results: Compliant

Notes: The EUT was set to transmit at its maximum power, maximum data rate, and 100% duty cycle.



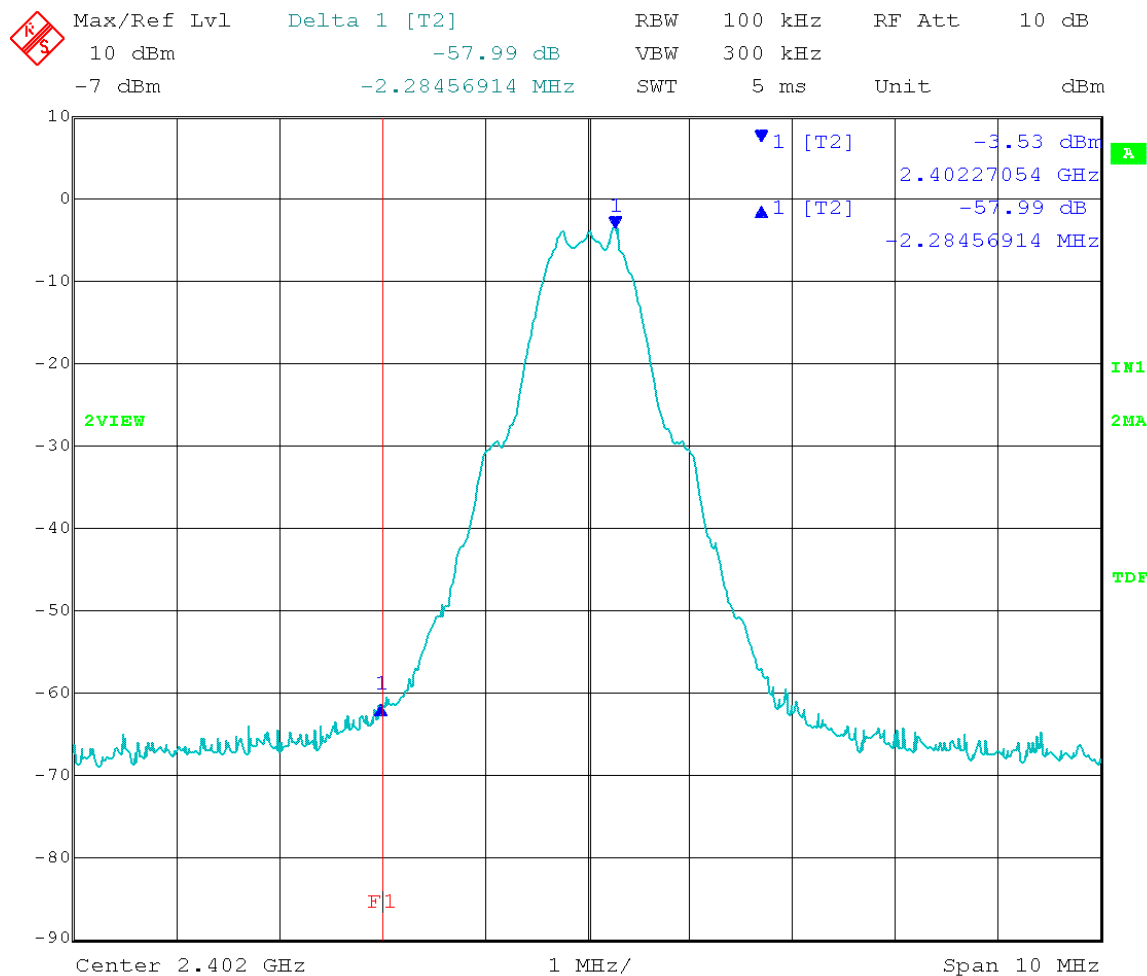
166 South Carter, Genoa City, WI 53128

Company: Roche Diagnostics
Model Tested: 502
Report Number: 19497
DLS Project: 5481

Test Date: 07-25-2013
Company: Roche Diagnostics
EUT: Bridge Meter
Test: Lower Band-Edge Measurements – Conducted
Section 15.247 (c)
Operator: Jim O

Comment: RBW = 100 kHz
Detector = Peak
Trace = Max Hold
Low Channel: Transmit = 2.402 MHz
Band-Edge Frequency = 2.4 GHz
VBW $\geq 3 \times$ RBW
Sweep = Auto

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



Date: 25.JUL.2013 10:37:13



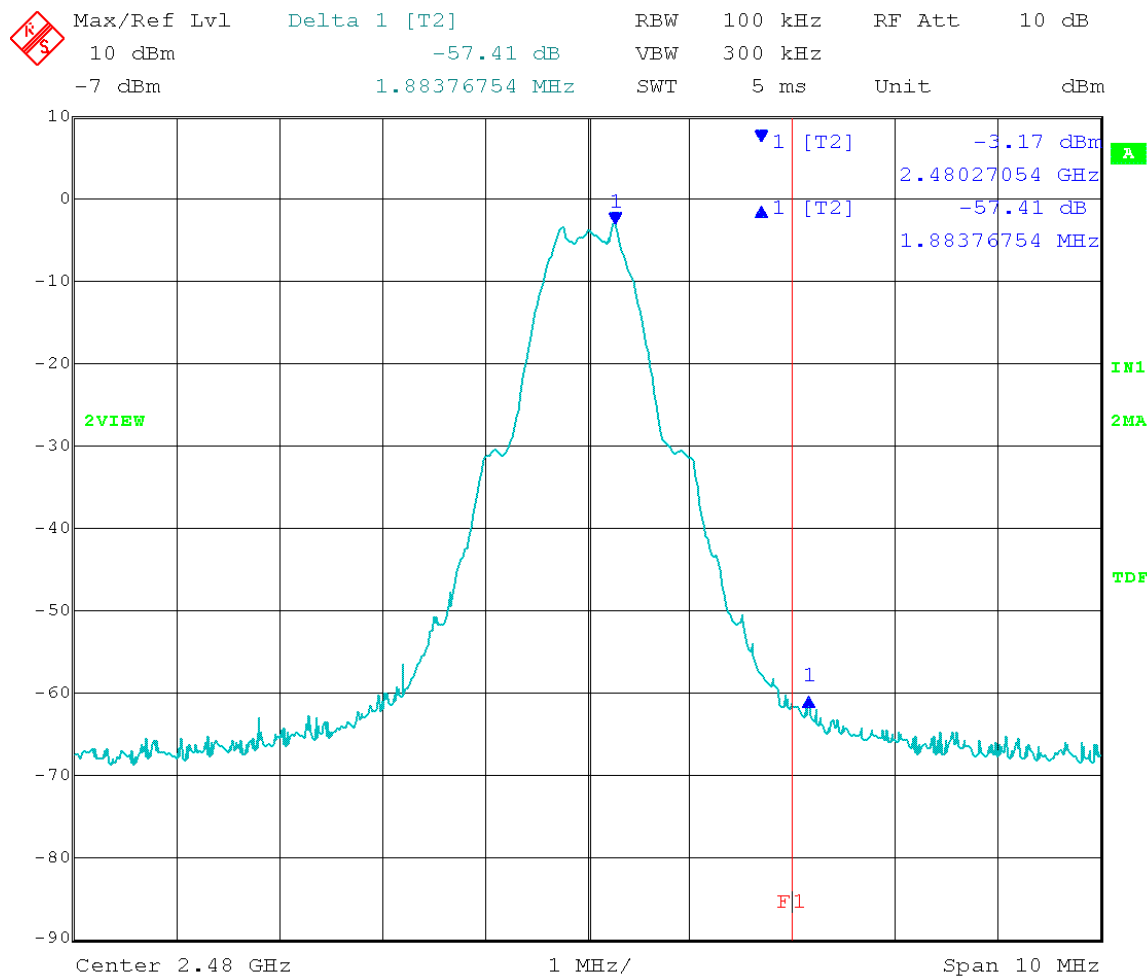
166 South Carter, Genoa City, WI 53128

Company: Roche Diagnostics
Model Tested: 502
Report Number: 19497
DLS Project: 5481

Test Date: 07-25-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/ Bluetooth
Test: Upper Band-Edge Measurements – Conducted
Section 15.247 (c)
Operator: Jim O

Comment: RBW = 100 kHz
Detector = Peak
Trace = Max Hold
High Channel: Transmit = 2.480 MHz
Band-Edge Frequency = 2.4835 GHz
VBW $\geq 3 \times$ RBW
Sweep = Auto

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



Date: 25.JUL.2013 13:53:46



166 South Carter, Genoa City, WI 53128

Company:	Roche Diagnostics
Model Tested:	502
Report Number:	19497
DLS Project:	5481

Appendix B

B4.1 Radiated Upper Band Edge Emission

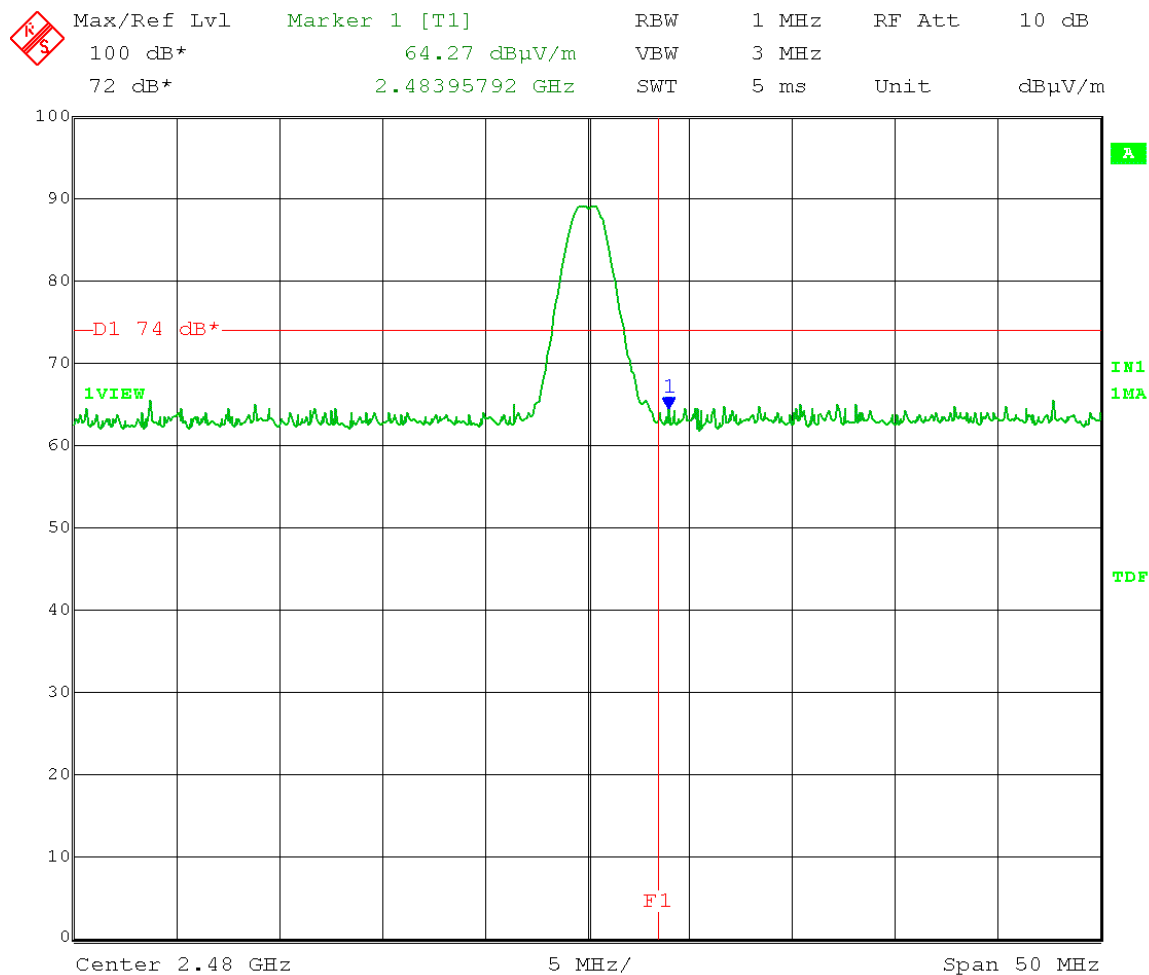
Rule Part:	FCC Part 15.247(d) and FCC Part 15.205
Test Procedure:	Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247. KDB 558074 D01 DTS Meas Guidance v03r01, Section 12.0, 12.1 Radiated emission measurements
Limit:	FCC Part 15.209
Results:	Compliant
Notes:	Because the upper band-edge coincides with a restricted band, compliance was determined by measuring the field strength of the upper channel emission at the band edge. The EUT was set to transmit at its maximum power, maximum data rate, and 100% duty cycle.



166 South Carter, Genoa City, WI 53128

Company: Roche Diagnostics
Model Tested: 502
Report Number: 19497
DLS Project: 5481

Test Date: 09-17-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/ Bluetooth
Test: Upper Band-Edge Measurements – Radiated
Section 15.247 (c)
Operator: Lillian L
Comment: RBW = 1 MHz VBW = 3 MHz
Detector = Peak Sweep = Auto
Trace = Max Hold
High Channel: Transmit = 2.480 MHz Polarity = Horizontal
Band-Edge Frequency = 2.4835 GHz
Peak Limit: Restricted Band-edge: 74dBuV/m



Date: 17.SEP.2013 15:15:47



166 South Carter, Genoa City, WI 53128

Company: Roche Diagnostics
Model Tested: 502
Report Number: 19497
DLS Project: 5481

Test Date: 09-17-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/ Bluetooth
Test: Upper Band-Edge Measurements – Radiated
Section 15.247 (c)

Operator: Lillian L

Comment: RBW = 1 MHz

Detector = Average

Trace = Max Hold

High Channel: Transmit = 2.480 MHz

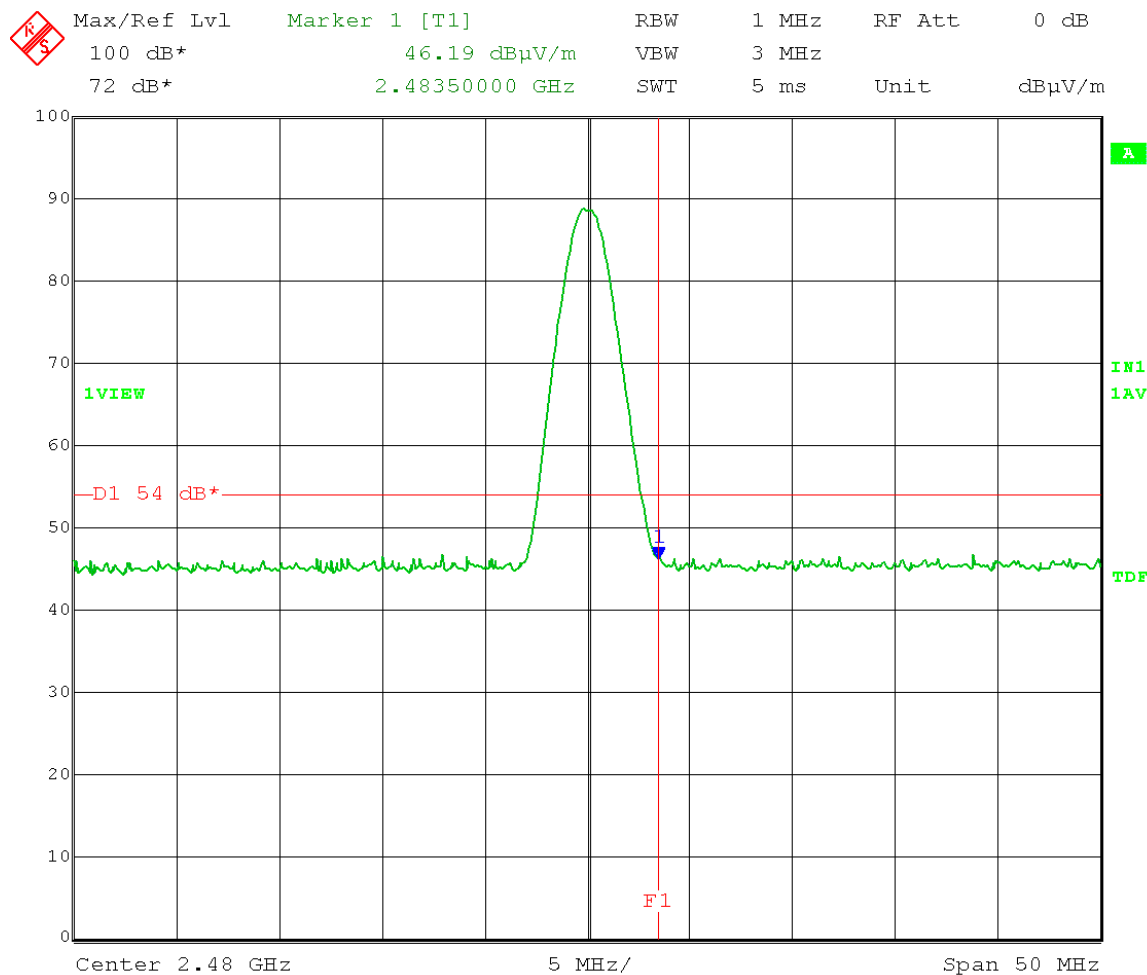
Band-Edge Frequency = 2.4835 GHz

Average Limit: Restricted Band-edge: 54dBuV/m

VBW = 3 MHz

Sweep = Auto

Polarity = Horizontal



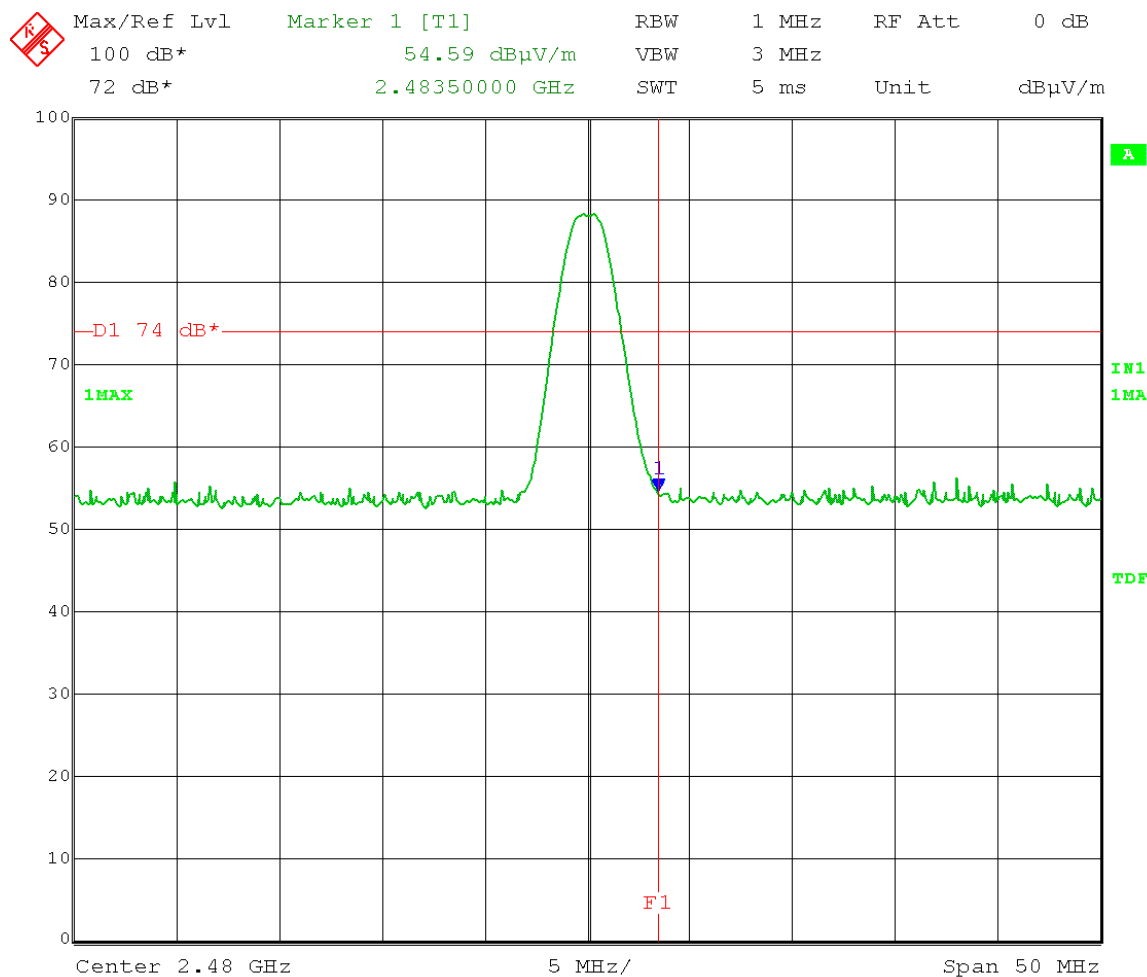
Date: 17.SEP.2013 15:17:10



166 South Carter, Genoa City, WI 53128

Company: Roche Diagnostics
Model Tested: 502
Report Number: 19497
DLS Project: 5481

Test Date: 09-17-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/ Bluetooth
Test: Upper Band-Edge Measurements – Radiated
Section 15.247 (c)
Operator: Lillian L
Comment: RBW = 1 MHz VBW = 3 MHz
Detector = Peak Sweep = Auto
Trace = Max Hold
High Channel: Transmit = 2.480 MHz Polarity = Vertical
Band-Edge Frequency = 2.4835 GHz
Peak Limit: Restricted Band-edge: 74dBuV/m



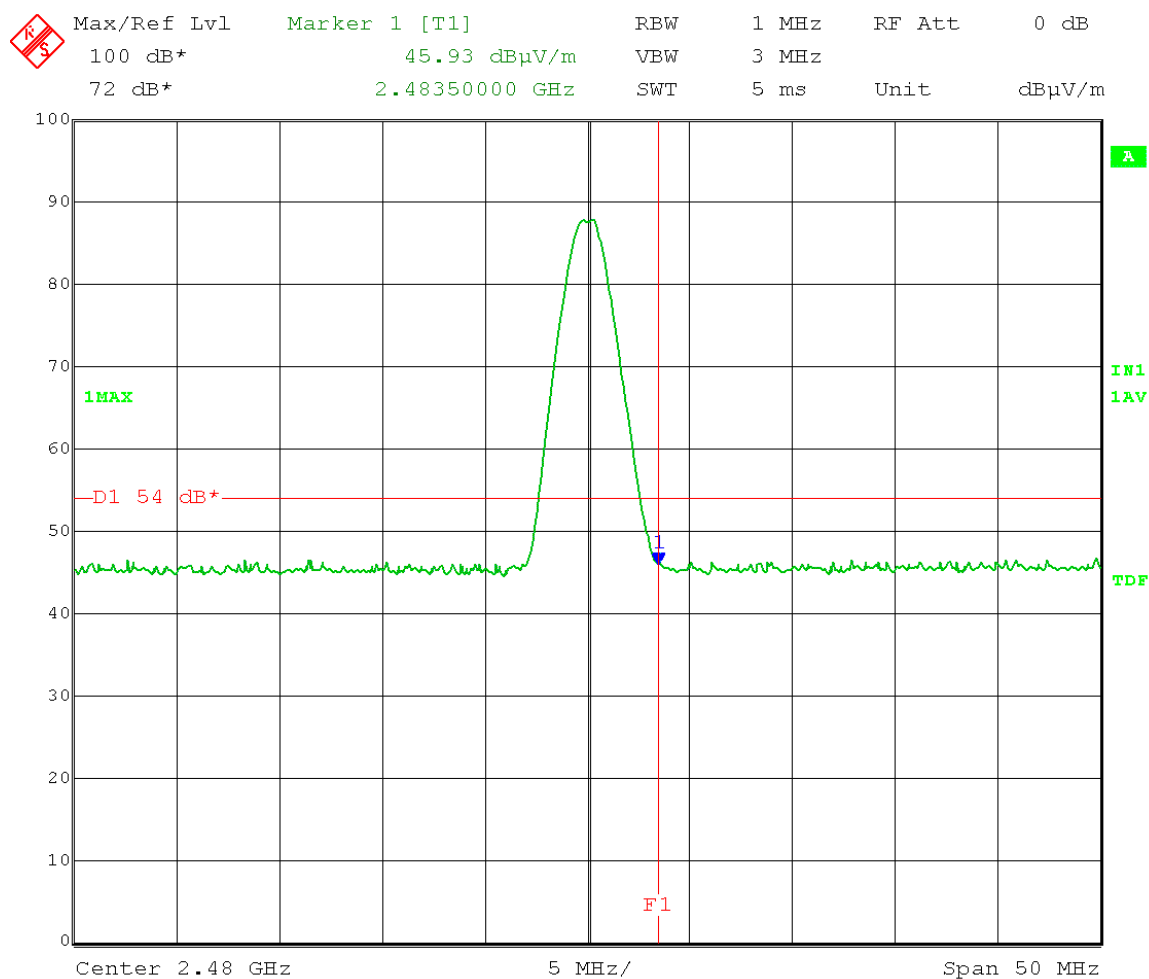
Date: 17.SEP.2013 15:24:34



166 South Carter, Genoa City, WI 53128

Company: Roche Diagnostics
Model Tested: 502
Report Number: 19497
DLS Project: 5481

Test Date: 09-17-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/ Bluetooth
Test: Upper Band-Edge Measurements – Radiated
Section 15.247 (c)
Operator: Lillian L
Comment: RBW = 1 MHz VBW = 3 MHz
Detector = Average Sweep = Auto
Trace = Max Hold
High Channel: Transmit = 2.480 MHz Polarity = Vertical
Band-Edge Frequency = 2.4835 GHz
Average Limit: Restricted Band-edge: 54dBuV/m



Date: 17.SEP.2013 15:23:59



166 South Carter, Genoa City, WI 53128

Company:	Roche Diagnostics
Model Tested:	502
Report Number:	19497
DLS Project:	5481

Appendix B

B5.0 Maximum Power Spectral Density Level in the Fundamental Emission

Rule Part: FCC Part 15.247(e)

Test Procedure: Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247.
KDB 558074 D01 DTS Meas Guidance v03r01, Section 10.0,
10.2 Method PKPSD (peak PSD)

Center frequency = DTS channel center frequency
Span = 1.5 x DTS bandwidth
RBW: between 3 kHz and 100 kHz
 $VBW \geq 3 \times RBW$
Detector = peak
Sweep time = auto couple
Trace mode = max hold
Allow trace to fully stabilize
Measure the maximum amplitude level
If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat

Limit: 8 dBm / 3 kHz

Results: Compliant
Maximum peak power spectral density measured -18.17 dBm / 3 kHz

Sample Equations: none

Notes: The EUT was set to transmit at its maximum power, maximum data rate, and 100% duty cycle.



166 South Carter, Genoa City, WI 53128

Company: Roche Diagnostics
Model Tested: 502
Report Number: 19497
DLS Project: 5481

Test Date: 07-25-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/Bluetooth
Test: Maximum Peak Power Spectral Density - Conducted
Operator: Jim O
Comment: **Low Channel: Frequency = 2.402 GHz**

Output power setting: 0

RBW = 3 kHz

Detector = Peak

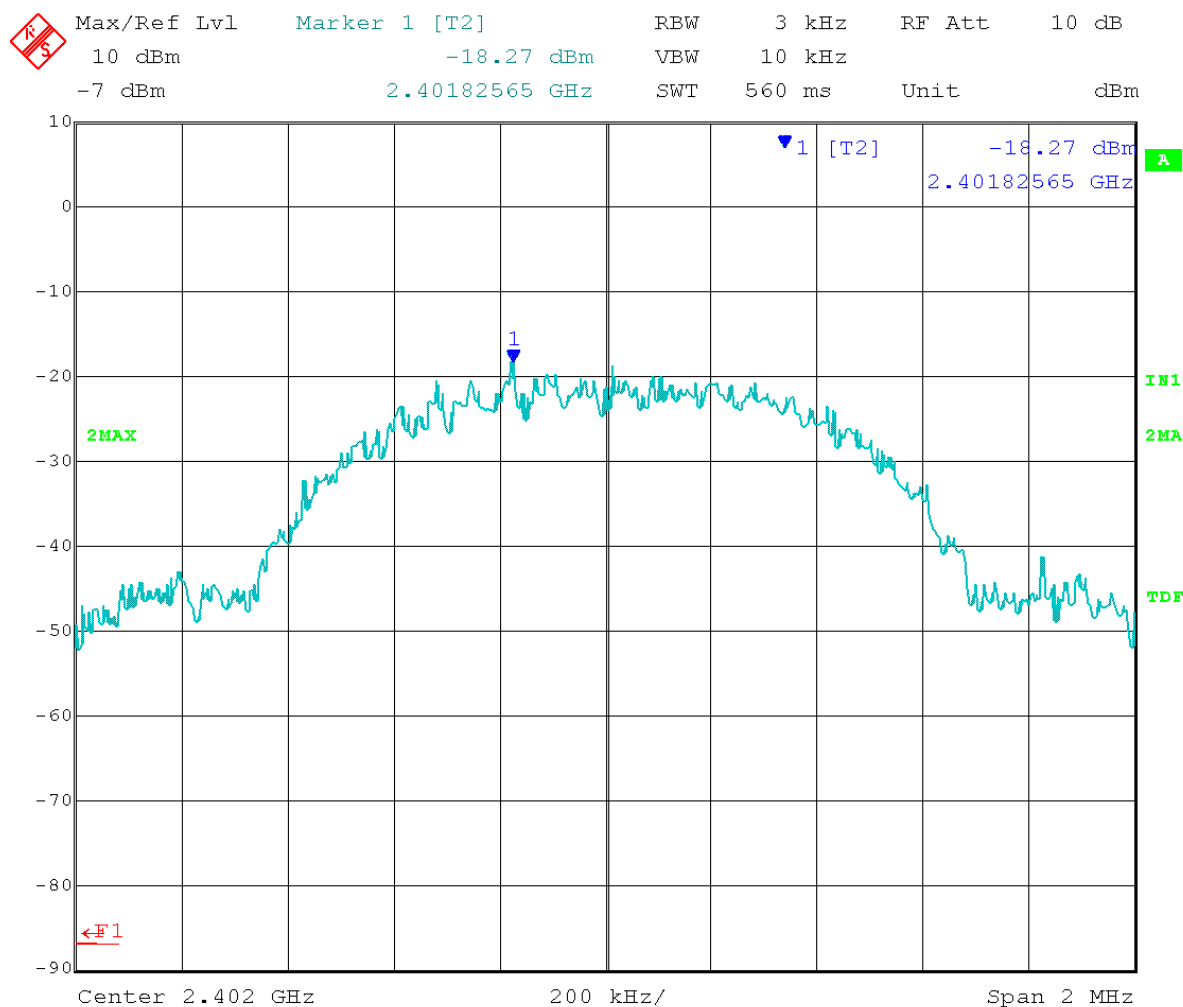
Trace = max hold

VBW = 10 kHz

Sweep = auto couple

Limit = +8dBm

Power Level in 3 kHz bandwidth = -18.27dBm



Date: 25.JUL.2013 11:34:55

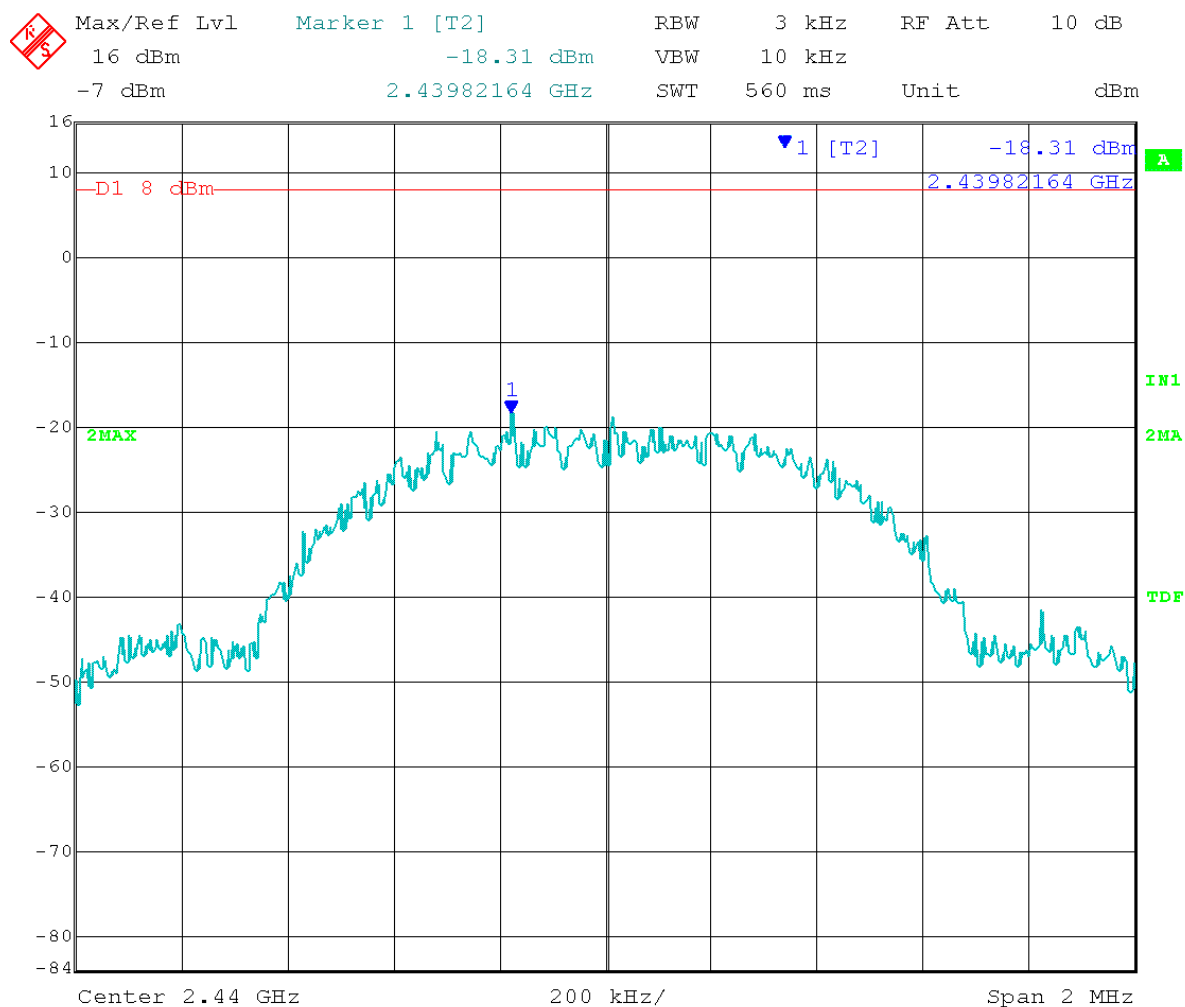


166 South Carter, Genoa City, WI 53128

Company: Roche Diagnostics
Model Tested: 502
Report Number: 19497
DLS Project: 5481

Test Date: 07-25-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/Bluetooth
Test: Maximum Peak Power Spectral Density - Conducted
Operator: Jim O
Comment: Mid Channel: Frequency = 2.440 GHz
Output power setting: 0
RBW = 3 kHz VBW = 10 kHz
Detector = Peak Sweep = auto couple
Trace = max hold Limit = +8dBm

Power Level in 3 kHz bandwidth = -18.31dBm = Pass



Date: 25.JUL.2013 15:32:02

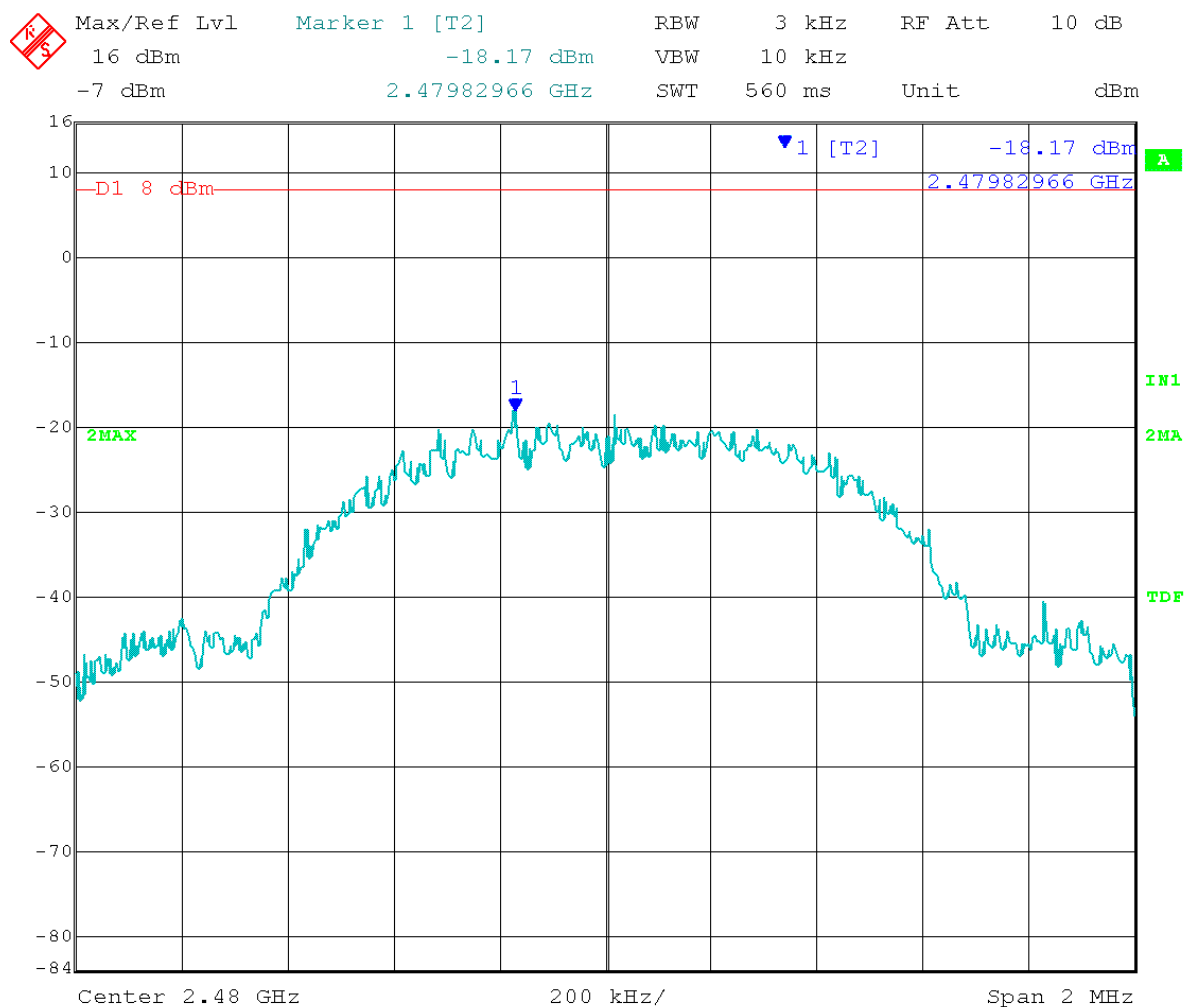


166 South Carter, Genoa City, WI 53128

Company: Roche Diagnostics
Model Tested: 502
Report Number: 19497
DLS Project: 5481

Test Date: 07-25-2013
Company: Roche Diagnostics
EUT: Bridge Meter w/Bluetooth
Test: Maximum Peak Power Spectral Density - Conducted
Operator: Jim O
Comment: High Channel: Frequency = 2.480 GHz
Output power setting: 0
RBW = 3 kHz VBW = 10 kHz
Detector = Peak Sweep = auto couple
Trace = max hold Limit = +8dBm

Power Level in 3 kHz bandwidth = -18.17dBm = Pass



Date: 25.JUL.2013 15:35:14



166 South Carter, Genoa City, WI 53128

Company:	Roche Diagnostics
Model Tested:	502
Report Number:	19497
DLS Project:	5481

Appendix B

B6.0 Emissions in Restricted Frequency Bands - radiated

Rule Part:	FCC Part 15.247(d) and FCC Part 15.205
Test Procedure:	Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247. KDB 558074 D01 DTS Meas Guidance v03r01, Section 12.0, 12.1 Radiated emission measurements
Limit:	FCC Part 15.209
Results:	Compliant
Notes:	The EUT was set to transmit at its maximum power, maximum data rate, with 100% duty cycle.

FCC Part 15.209

Electric Field Strength

EUT: Bridge Meter with BT
Manufacturer: Roche Diagnostics
Operating Condition: 73 deg. F; 66% R.H.
Test Site: DLS O.F. Site 3
Operator: Jim O
Test Specification: 3.6 Vdc
Comment: Continuous Tx mode
Date: 08-07-2013

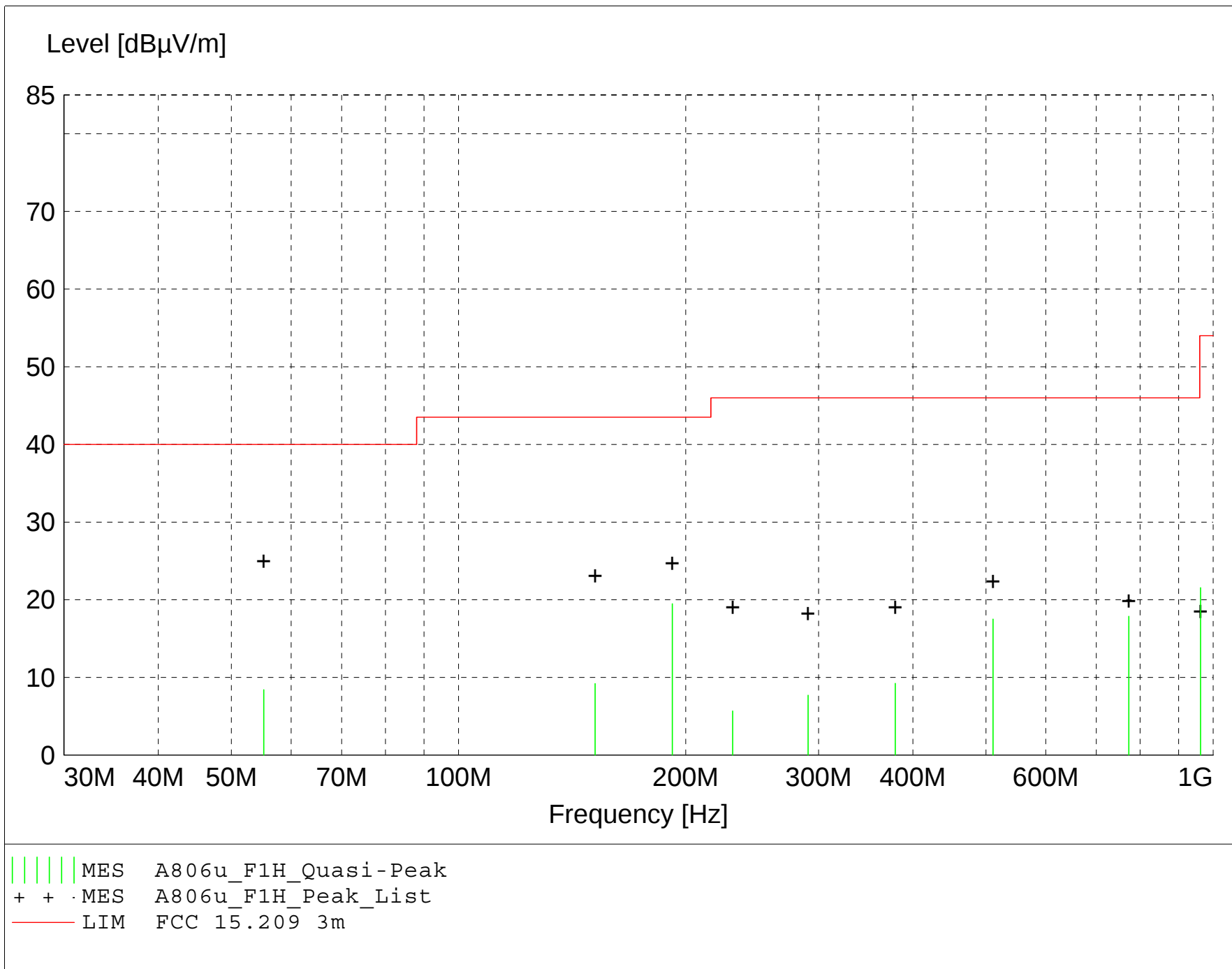
TEXT: "Horz 3 meters"

Short Description: Test Set-up

Test Set-up: EUT Measured at 3 Meters with HORIZONTAL Antenna Polarization

Equations:
$$\text{Total Level (dB}\mu\text{V/m)} = \text{Level (dB}\mu\text{V)} + \text{System Loss (dB)} + \text{Antenna Factor (dB}\mu\text{V/m)}$$
$$\text{Margin (dB)} = \text{Limit (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

Graph Markers: + Frequency marker (Level of marker not related to final level)
| Final maximized level using Quasi-Peak detector
X Final maximized level using Average detector
Final maximized level using Peak detector



MEASUREMENT RESULT: "A806u_F1H_Final"

8/7/2013 3:04PM

Frequency	Level	Antenna	System	Total	Limit	Margin	Height	EuT	Final	Comment
MHz	dBμV	Factor	Loss	Level			Ant.	Angle	Detector	
		dBμV/m	dB	dBμV/m	dBμV/m	dB	m	deg		
192.000000	24.24	17.50	-22.3	19.5	43.5	24.0	2.50	330	QUASI-PEAK	None
773.060000	15.75	21.46	-19.3	17.9	46.0	28.1	2.50	0	QUASI-PEAK	NF
510.740000	19.08	18.84	-20.4	17.5	46.0	28.5	2.50	0	QUASI-PEAK	NF
55.200000	21.19	11.16	-23.9	8.4	40.0	31.6	2.50	0	QUASI-PEAK	NF
962.060000	15.09	23.94	-17.5	21.6	54.0	32.4	2.50	0	QUASI-PEAK	NF
151.680000	19.55	12.30	-22.6	9.2	43.5	34.3	2.50	0	QUASI-PEAK	None
379.040000	15.06	15.30	-21.1	9.2	46.0	36.8	2.50	0	QUASI-PEAK	NF
290.480000	15.29	14.01	-21.6	7.7	46.0	38.3	2.50	0	QUASI-PEAK	NF
230.780000	16.05	11.53	-21.9	5.7	46.0	40.3	2.50	0	QUASI-PEAK	NF

FCC Part 15.209

Electric Field Strength

EUT: Bridge Meter with BT
Manufacturer: Roche Diagnostics
Operating Condition: 73 deg. F; 66% R.H.
Test Site: DLS O.F. Site 3
Operator: Jim O
Test Specification: 3.6 Vdc
Comment: Continuous Tx mode
Date: 08-07-2013

TEXT: "Vert 3 meters"

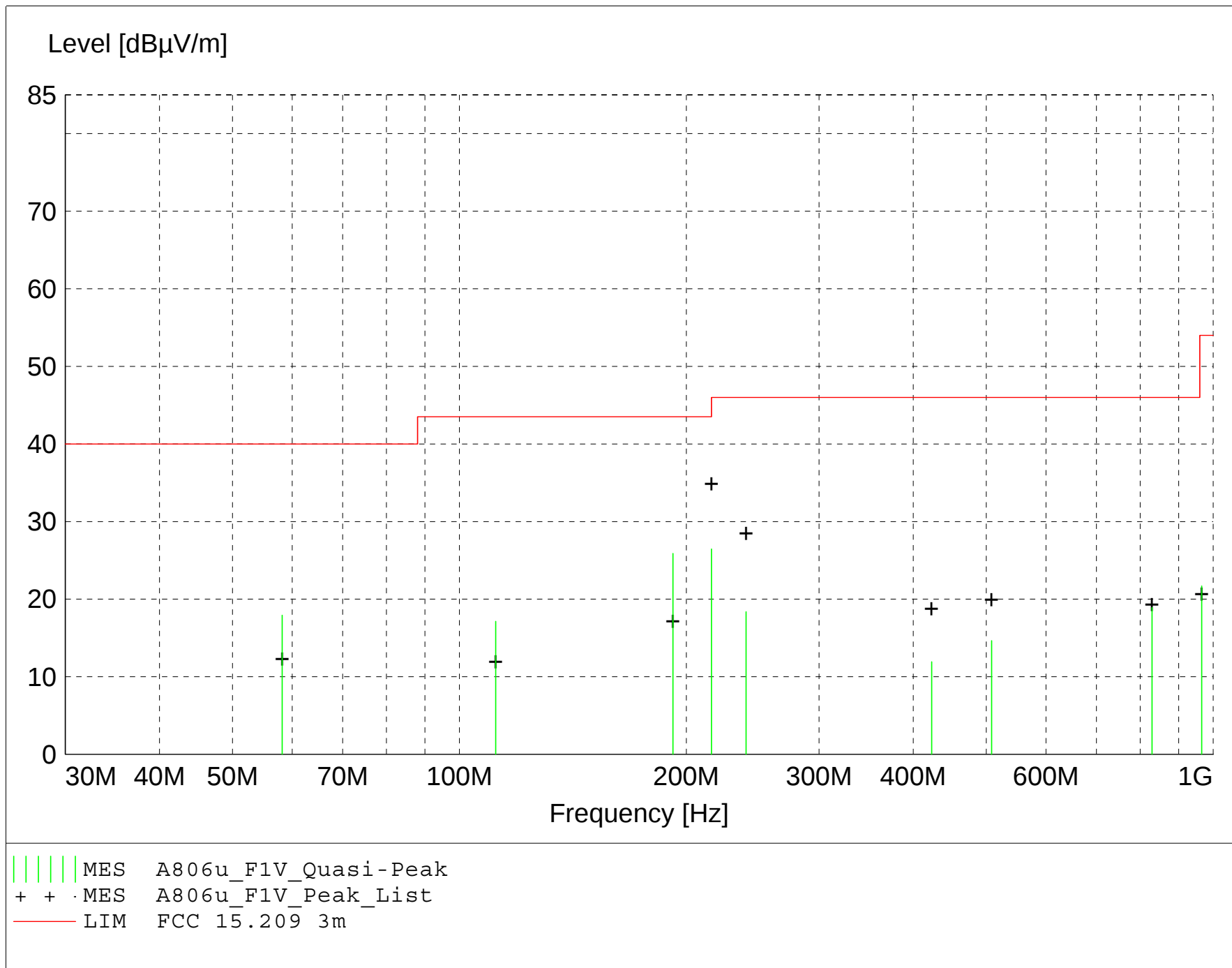
Short Description: Test Set-up

Test Set-up: EUT Measured at 3 Meters with VERTICAL Antenna Polarization

Sample Equations:
$$\begin{array}{rclclcl} \text{Total Level (dB}\mu\text{V/m)} & = & \text{Level (dB}\mu\text{V)} & + & \text{System Loss (dB)} & + & \text{Antenna Factor (dB}\mu\text{V/m)} \\ 24.6 & & = 35.51 & + & (-22.1) & + & 11.20 \end{array}$$

$$\begin{array}{rclcl} \text{Margin (dB)} & = & \text{Limit (dB}\mu\text{V/m)} & - & \text{Total Level (dB}\mu\text{V/m)} \\ 15.4 & = & 40 & - & 24.6 \end{array}$$

Graph Markers: + Frequency marker (Level of marker not related to final level)
 | Final maximized level using Quasi-Peak detector
 X Final maximized level using Average dector
 # Final maximized level using Peak detector



MEASUREMENT RESULT: "A806u_F1V_Final"

8/7/2013 2:59PM

Frequency	Level	Antenna	System	Total	Limit	Margin	Height	EuT	Final	Comment
MHz	dBμV	Factor	Loss	Level			Ant.	Angle	Detector	
		dBμV/m	dB	dBμV/m	dBμV/m	dB	m	deg		
192.000000	30.65	17.50	-22.3	25.9	43.5	17.6	1.00	20	QUASI-PEAK	None
216.020000	36.95	11.58	-22.1	26.5	46.0	19.5	1.50	100	QUASI-PEAK	None
58.200000	31.31	10.56	-23.9	17.9	40.0	22.1	1.00	340	QUASI-PEAK	None
111.720000	27.64	12.52	-23.0	17.1	43.5	26.4	1.00	340	QUASI-PEAK	None
829.460000	15.63	22.30	-19.0	18.9	46.0	27.1	1.00	0	QUASI-PEAK	NF
240.020000	28.24	12.00	-21.9	18.4	46.0	27.6	1.50	100	QUASI-PEAK	None
508.220000	16.48	18.62	-20.4	14.7	46.0	31.3	1.00	0	QUASI-PEAK	NF
965.600000	15.09	24.00	-17.4	21.7	54.0	32.3	1.00	0	QUASI-PEAK	NF
423.080000	16.45	16.36	-20.9	11.9	46.0	34.1	1.50	0	QUASI-PEAK	NF

FCC Part 15.209

Electric Field Strength

EUT: Bridge Meter with BT
Manufacturer: Roche Diagnostics
Operating Condition: 73 deg. F; 66% R.H.
Test Site: DLS O.F. Site 3
Operator: Jim O
Test Specification: 3.6 Vdc
Comment:
Date: 08-07-2013

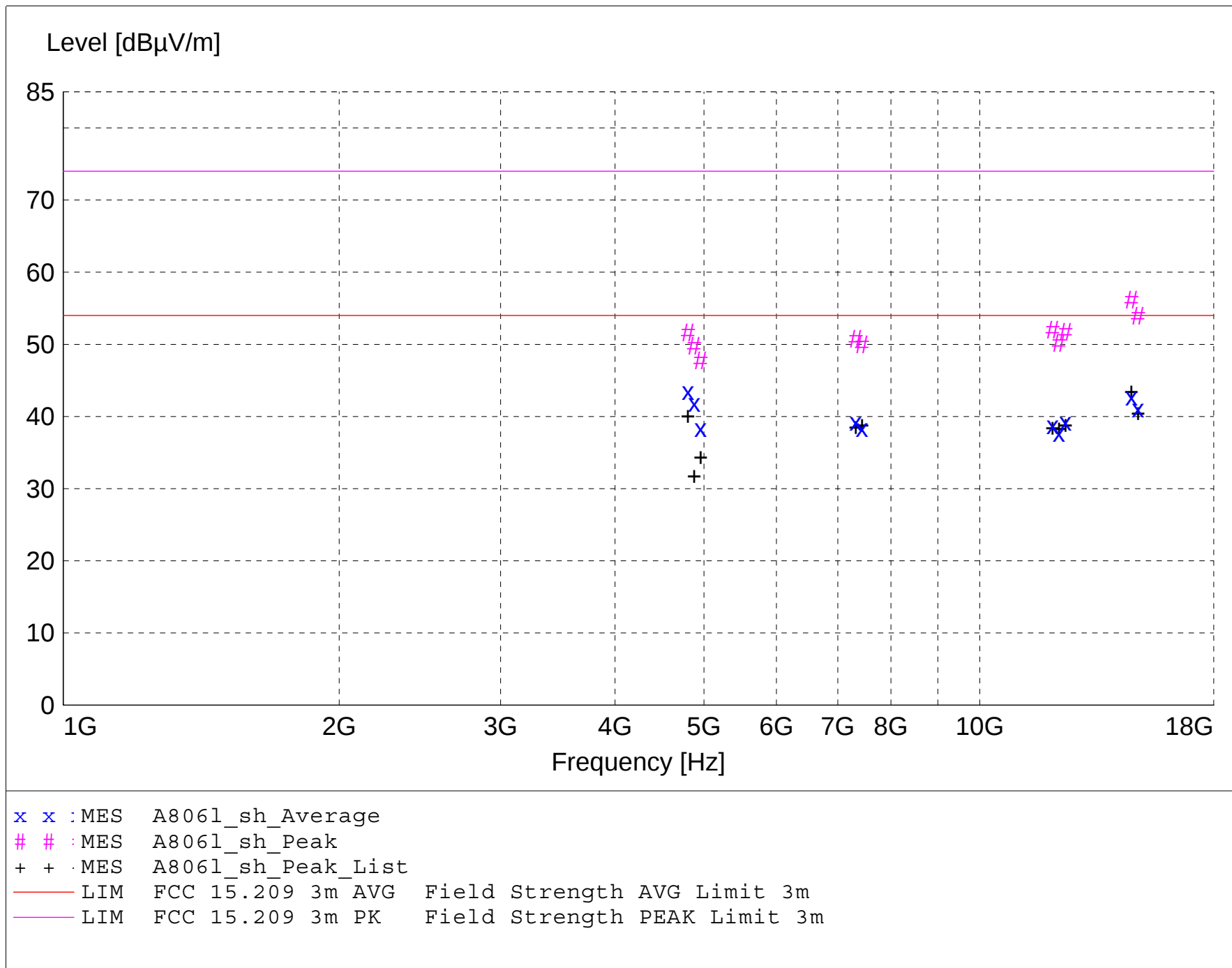
TEXT: "Horz 3 meters"

Short Description: Test Set-up

Test Set-up: EUT Measured at 3 Meters with HORIZONTAL Antenna Polarization

Equations:
$$\text{Total Level (dB}\mu\text{V/m)} = \text{Level (dB}\mu\text{V)} + \text{System Loss (dB)} + \text{Antenna Factor (dB}\mu\text{V/m)}$$
$$\text{Margin (dB)} = \text{Limit (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

Graph Markers: + Frequency marker (Level of marker not related to final level)
| Final maximized level using Quasi-Peak detector
X Final maximized level using Average detector
Final maximized level using Peak detector



MEASUREMENT RESULT: "A8061_sh_Final"

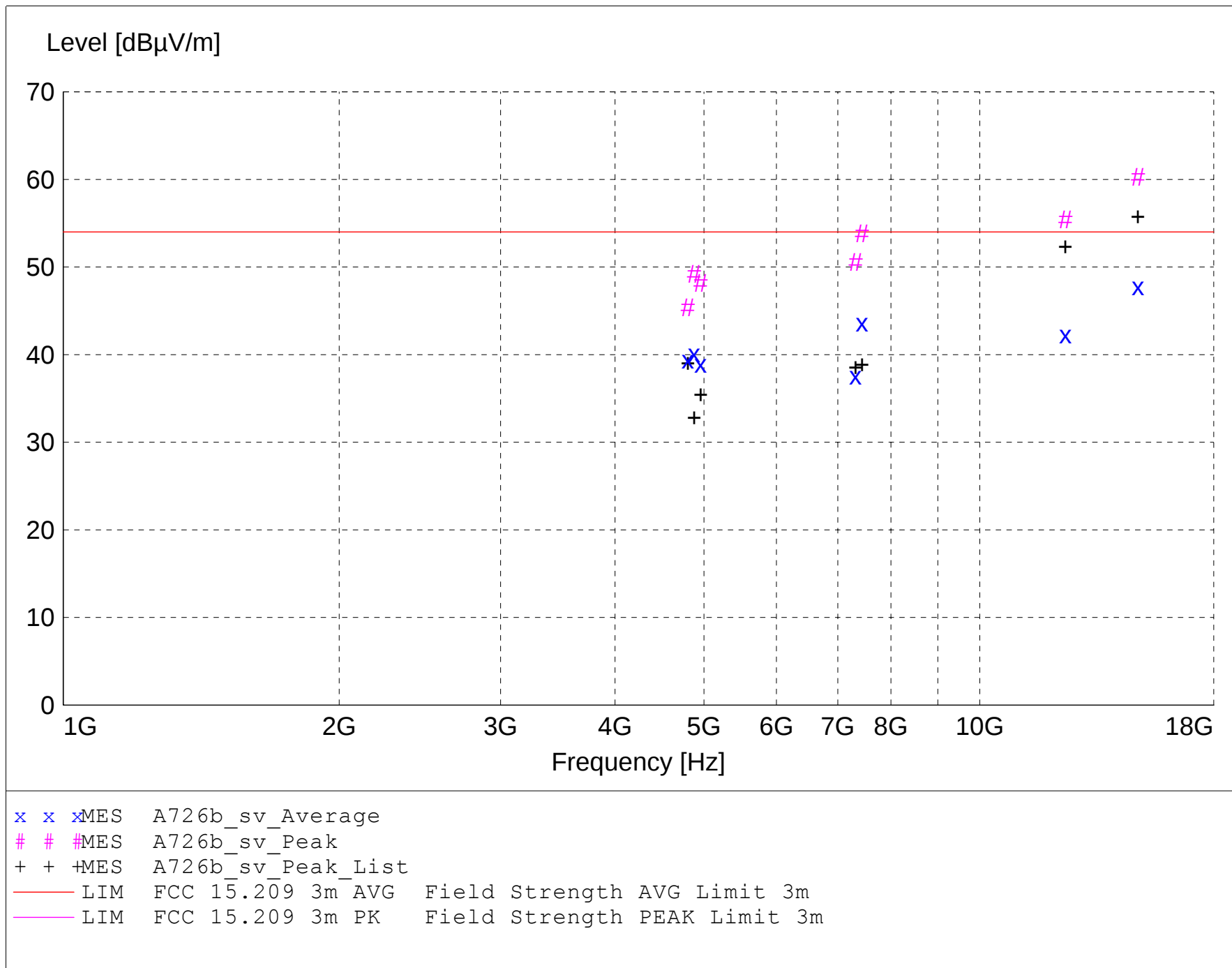
8/7/2013 2:30PM

Frequency MHz	Level dBμV	Antenna Factor dBμV/m	System Loss dB	Total Level dBμV/m	Limit dBμV/m	Margin dB	Height Ant. m	EuT Angle deg	Final Detector	Comment
4804.560000	64.52	32.99	-53.9	43.6	54.0	10.4	1.50	160	AVERAGE	lo ch 2nd
14639.940000	48.69	41.61	-47.5	42.8	54.0	11.2	1.50	0	AVERAGE	mid ch 6th NF
4879.940000	62.86	33.05	-54.0	41.9	54.0	12.1	1.50	220	AVERAGE	mid ch 2nd
14879.960000	47.91	40.75	-47.6	41.1	54.0	12.9	1.00	0	AVERAGE	hi ch 6th NF
7320.660000	54.92	36.49	-52.1	39.3	54.0	14.7	1.00	90	AVERAGE	mid ch 3rd
12401.320000	49.92	38.86	-49.5	39.3	54.0	14.7	1.50	270	AVERAGE	hi ch 5th
12010.020000	49.46	39.16	-49.8	38.8	54.0	15.2	1.50	0	AVERAGE	lo ch 5th NF
7440.800000	53.36	36.73	-51.7	38.4	54.0	15.6	1.50	170	AVERAGE	hi ch 3rd
4960.480000	58.96	33.18	-53.8	38.3	54.0	15.7	1.50	220	AVERAGE	hi ch 2nd
12200.560000	48.55	39.01	-49.8	37.7	54.0	16.3	1.50	0	AVERAGE	mid ch 5th NF
14639.940000	62.15	41.61	-47.5	56.2	74.0	17.8	1.50	0	MAX PEAK	mid ch 6th NF
14879.960000	60.79	40.75	-47.6	53.9	74.0	20.1	1.00	0	MAX PEAK	hi ch 6th NF
12010.020000	62.71	39.16	-49.8	52.1	74.0	21.9	1.50	0	MAX PEAK	lo ch 5th NF
12401.320000	62.43	38.86	-49.5	51.8	74.0	22.2	1.50	270	MAX PEAK	hi ch 5th
4804.560000	72.60	32.99	-53.9	51.6	74.0	22.4	1.50	160	MAX PEAK	lo ch 2nd
7320.660000	66.37	36.49	-52.1	50.7	74.0	23.3	1.00	90	MAX PEAK	mid ch 3rd
12200.560000	61.05	39.01	-49.8	50.2	74.0	23.8	1.50	0	MAX PEAK	mid ch 5th NF
7440.800000	65.04	36.73	-51.7	50.0	74.0	24.0	1.50	170	MAX PEAK	hi ch 3rd
4879.940000	70.78	33.05	-54.0	49.8	74.0	24.2	1.50	220	MAX PEAK	mid ch 2nd
4960.480000	68.39	33.18	-53.8	47.8	74.0	26.2	1.50	220	MAX PEAK	hi ch 2nd

FCC Part 15.247/15.209 Restricted Bands

Electric Field Strength

EUT: Bridge Meter with Bluetooth
Manufacturer: Roche
Operating Condition: 70 deg F; 25% R.H.
Test Site: DLS O.F. Site 3
Operator: Jim O
Test Specification:
Comment: Low , Mid and High CH
Date: 07/26/2013



MEASUREMENT RESULT: "A726b_sv_Final"

7/26/2013 3:07PM

Frequency	Level	Antenna	System	Total	Limit	Margin	Height	EuT	Final	Comment
MHz	dBµV	Factor	Loss	Level			Ant.	Angle	Detector	
		dBµV/m	dB	dBµV/m	dBµV/m	dB	m	deg		
14880.000000	48.33	40.96	-41.5	47.8	54.0	6.2	1.00	0	AVERAGE	Hi Ch 6th NF
7439.960000	54.53	36.64	-47.5	43.6	54.0	10.4	1.00	20	AVERAGE	hi ch 3rd
12400.180000	49.32	38.82	-45.8	42.3	54.0	11.7	1.00	0	AVERAGE	hi ch 4th NF
14880.000000	60.84	40.96	-41.5	60.3	74.0	13.7	1.00	0	MAX PEAK	Hi Ch 6th NF
4879.920000	58.40	32.95	-51.2	40.1	54.0	13.9	1.00	210	AVERAGE	Mid ch 2nd
4803.500000	57.74	32.89	-51.2	39.4	54.0	14.6	1.50	70	AVERAGE	LO CH 2nd
4960.020000	57.02	33.06	-51.1	38.9	54.0	15.1	1.00	210	AVERAGE	High CH 2nd
7319.920000	49.30	36.52	-48.2	37.6	54.0	16.4	1.00	0	AVERAGE	Mid CH 3rd NF
12400.180000	62.46	38.82	-45.8	55.4	74.0	18.6	1.00	0	MAX PEAK	hi ch 4th NF
7439.960000	64.74	36.64	-47.5	53.8	74.0	20.2	1.00	20	MAX PEAK	hi ch 3rd
7319.920000	62.32	36.52	-48.2	50.6	74.0	23.4	1.00	0	MAX PEAK	Mid CH 3rd NF
4879.920000	67.51	32.95	-51.2	49.2	74.0	24.8	1.00	210	MAX PEAK	Mid ch 2nd
4960.020000	66.25	33.06	-51.1	48.2	74.0	25.8	1.00	210	MAX PEAK	High CH 2nd
4803.500000	63.67	32.89	-51.2	45.4	74.0	28.6	1.50	70	MAX PEAK	LO CH 2nd



166 South Carter, Genoa City, WI 53128

Company:	Roche Diagnostics
Model Tested:	502
Report Number:	19497
DLS Project:	5481

**No measurable emissions were detected
from the EUT from
18 to 26 GHz.**



166 South Carter, Genoa City, WI 53128

Company:	Roche Diagnostics
Model Tested:	502
Report Number:	19497
DLS Project:	5481

Appendix B

B7.0 Duty Cycle of EUT during transmitter testing

Rule Part: Section 15.35(c)

Test Procedure: Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247.
KDB 558074 D01 DTS Meas Guidance v03r01, Section 6.0

Center frequency = center of emission
 $RBW \geq OBW$ (otherwise, $RBW = \text{largest possible}$)
 $VBW \geq RBW$
Detector = Peak or Average
Span = Zero Span
Verify both RBW and VBW are > 50 /minimum transmission duration (T)
Verify the number of sweep points across T exceeds 100

Limit: $\geq 98\%$ to avoid alternate procedures

Results: Duty Cycle of test sample = 100%

Sample Equations: $\text{Duty Cycle (\%)} = \text{Tx on time} / (\text{Tx on} + \text{Tx off time}) \times 100$

Notes: None



166 South Carter, Genoa City, WI 53128

Appendix B

Company:	Roche Diagnostics
Model Tested:	502
Report Number:	19497
DLS Project:	5481

B8.0 AC Line Conducted Emissions

Rule Part: FCC Part 15.207

Test Procedure: ANSI C63.4-2009

Limit: 15.207(a)

Results: Compliant

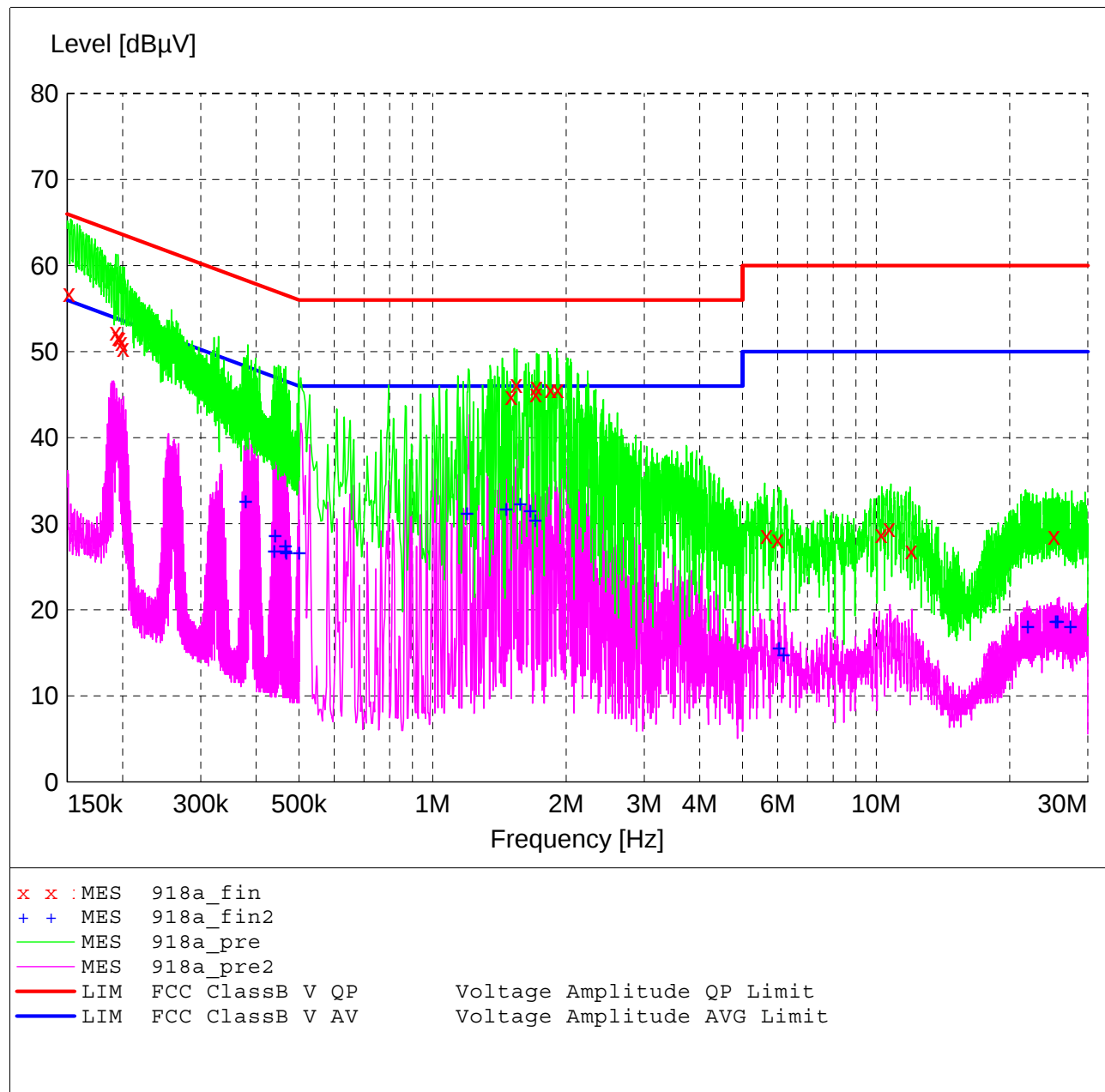
Notes: This was an AC Conducted emissions measurement.
The EUT was powered from a PC via the USB port.

Voltage Mains Test

EUT: Bridge Meter w/ BT
 Manufacturer: Roche Diagnostics Operations
 Operating Condition: 70 deg. F, 45% R.H.
 Test Site: DLS O.F. Screen Room
 Operator: Lillian L
 Test Specification: 120 V 60 Hz
 Comment: Line 1
 09-18-2013

SCAN TABLE: "Line Cond SR Final"

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



MEASUREMENT RESULT: "918a_fin"

9/18/2013 8:59AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector
0.151600	56.80	13.8	66	9.1	QP
0.193000	52.30	12.8	64	11.6	QP
0.195400	51.70	12.8	64	12.1	QP
0.196800	51.60	12.8	64	12.1	QP
0.198800	51.10	12.8	64	12.6	QP
0.200400	50.40	12.7	64	13.2	QP
1.504000	44.80	10.6	56	11.2	QP
1.544000	46.20	10.6	56	9.8	QP
1.708000	45.10	10.6	56	10.9	QP
1.712000	45.90	10.6	56	10.1	QP
1.844000	45.60	10.6	56	10.4	QP
1.916000	45.60	10.6	56	10.4	QP
5.657000	28.70	10.7	60	31.3	QP
5.999000	28.20	10.7	60	31.8	QP
10.265000	28.80	10.9	60	31.2	QP
10.706000	29.50	10.9	60	30.5	QP
12.002000	26.90	11.0	60	33.1	QP
25.160000	28.60	11.4	60	31.4	QP

MEASUREMENT RESULT: "918a_fin2"

9/18/2013 8:59AM

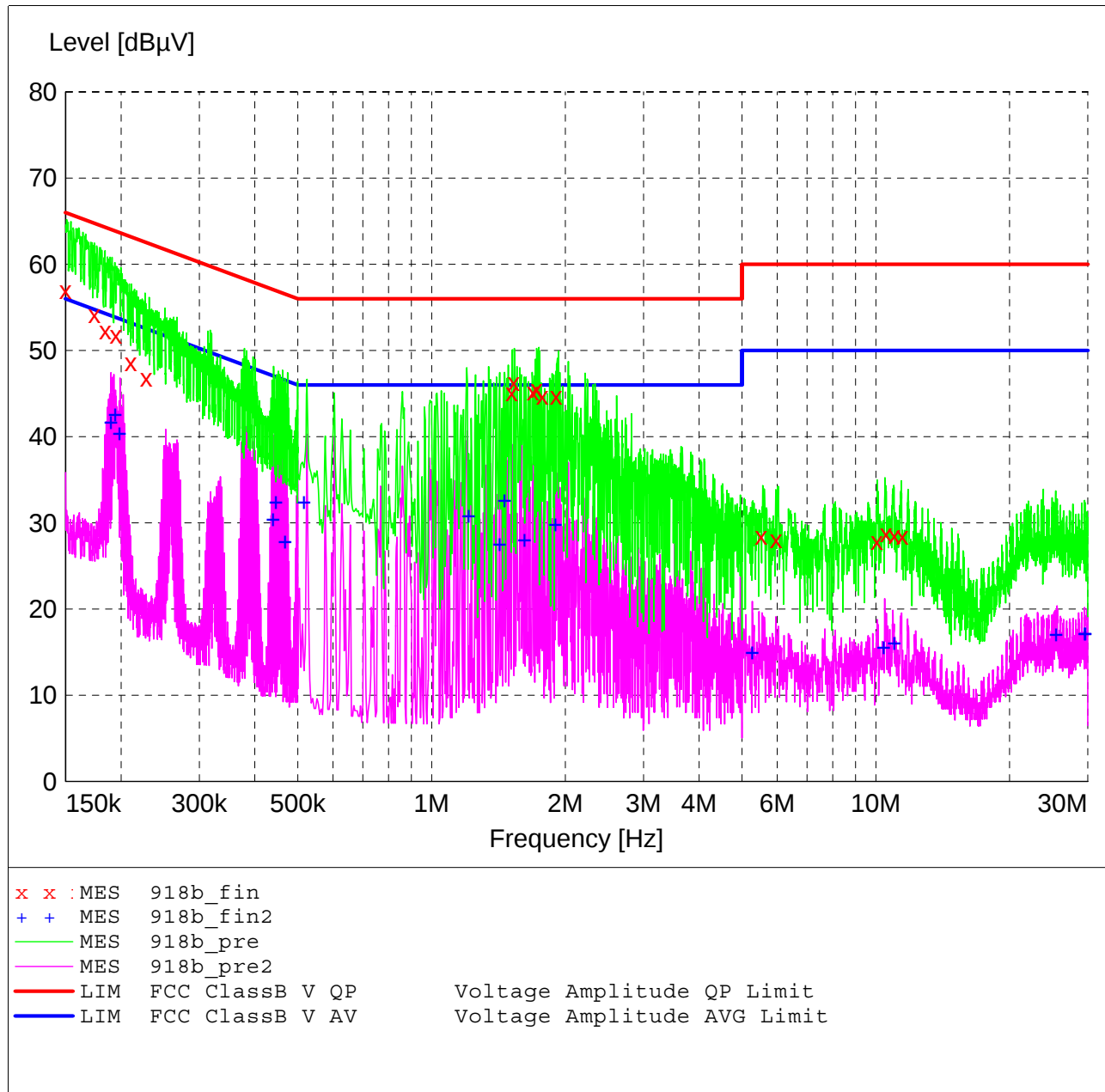
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector
0.378600	32.60	11.5	48	15.7	CAV
0.439200	26.80	11.3	47	20.3	CAV
0.441400	28.60	11.3	47	18.4	CAV
0.466000	27.40	11.3	47	19.2	CAV
0.466600	26.80	11.3	47	19.8	CAV
0.467800	26.60	11.3	47	20.0	CAV
0.500000	26.60	11.2	46	19.4	CAV
1.196000	31.20	10.6	46	14.8	CAV
1.464000	31.70	10.6	46	14.3	CAV
1.576000	32.30	10.6	46	13.7	CAV
1.660000	31.50	10.6	46	14.5	CAV
1.704000	30.40	10.6	46	15.6	CAV
6.044000	15.50	10.7	50	34.5	CAV
6.188000	14.70	10.7	50	35.3	CAV
21.983000	18.00	11.3	50	32.0	CAV
25.412000	18.60	11.5	50	31.4	CAV
25.673000	18.60	11.5	50	31.4	CAV
27.392000	18.00	11.6	50	32.0	CAV

Voltage Mains Test

EUT: Bridge Meter w/ BT
 Manufacturer: Roche Diagnostics Operations
 Operating Condition: 70 deg. F, 45% R.H.
 Test Site: DLS O.F. Screen Room
 Operator: Lillian L
 Test Specification: 120 V 60 Hz
 Comment: Line 2
 09-18-2013

SCAN TABLE: "Line Cond SR Final"

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



MEASUREMENT RESULT: "918b_fin"

9/18/2013 9:08AM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector
0.150000	57.00	13.8	66	9.0	QP
0.174200	54.20	13.2	65	10.6	QP
0.184200	52.30	12.9	64	12.0	QP
0.194800	51.80	12.8	64	12.0	QP
0.210400	48.60	12.6	63	14.6	QP
0.228000	46.80	12.4	63	15.7	QP
1.516000	45.10	10.6	56	10.9	QP
1.532000	46.30	10.6	56	9.7	QP
1.692000	45.20	10.6	56	10.8	QP
1.724000	45.50	10.6	56	10.5	QP
1.776000	44.70	10.6	56	11.3	QP
1.908000	44.70	10.6	56	11.3	QP
5.522000	28.50	10.6	60	31.5	QP
5.963000	28.10	10.7	60	31.9	QP
10.058000	27.90	10.9	60	32.1	QP
10.544000	28.80	10.9	60	31.2	QP
11.021000	28.60	11.0	60	31.4	QP
11.480000	28.50	11.0	60	31.5	QP

MEASUREMENT RESULT: "918b_fin2"

9/18/2013 9:08AM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector
0.189800	41.60	12.9	54	12.4	CAV
0.194000	42.50	12.8	54	11.4	CAV
0.198400	40.30	12.8	54	13.4	CAV
0.440000	30.40	11.3	47	16.7	CAV
0.445800	32.40	11.3	47	14.6	CAV
0.467800	27.80	11.3	47	18.8	CAV
0.516000	32.40	11.2	46	13.6	CAV
1.212000	30.80	10.6	46	15.2	CAV
1.424000	27.50	10.6	46	18.5	CAV
1.460000	32.60	10.6	46	13.4	CAV
1.620000	28.00	10.6	46	18.0	CAV
1.900000	29.80	10.6	46	16.2	CAV
5.270000	14.90	10.6	50	35.1	CAV
10.427000	15.50	10.9	50	34.5	CAV
11.012000	16.00	10.9	50	34.0	CAV
25.484000	17.00	11.5	50	33.0	CAV
29.525000	17.10	11.8	50	32.9	CAV
29.642000	17.10	11.8	50	32.9	CAV



166 South Carter, Genoa City, WI 53128

Company:	Roche Diagnostics
Model Tested:	502
Report Number:	19497
DLS Project:	5481

END OF REPORT

Revision #	Date	Comments	By
1.0	10-30-2013	Preliminary Release	JS
1.1	10-31-2013	Added serial number for 2nd test unit & minor edits	JS