166 South Carter, Genoa City, WI 53128

Company:	RF Technologies Inc.
Model Tested:	0800-0542
Report Number:	20880
DLS Project:	7099

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:	Quick Response Premiere Nurse Call with Check In
Kind of Equipment:	Wireless Nurse Call Device
Frequency Range:	2405-2475 MHz
Test Configuration:	Tabletop
Model Number(s):	0800-0539, 0800-0540, 0800-0541, 0800-0542
Model(s) Tested:	0800-0542
Serial Number(s):	DUT 1
Date of Tests:	March 18th through March 27th , 2015
Test Conducted For:	RF Technologies, Inc. 3125 N. 126th Street Brookfield, WI 53005, 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.

166 South Carter, Genoa City, WI 53128

Company:	RF Technologies Inc.
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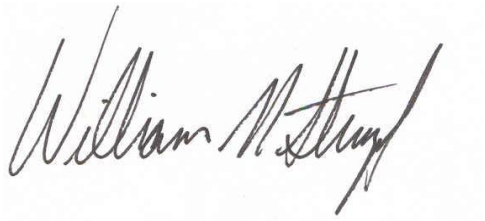
SIGNATURE PAGE

Tested By:

Paul Leo
Test Engineer

Reviewed By:



William Stumpf
OATS Manager

Approved By:

Brian Mattson
General Manager

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DLS ELECTRONIC SYSTEMS, INC.
166 South Carter, Genoa City, WI 53128

Company: RF Technologies Inc.
Model Tested: 0800-0542
Report Number: 20880
DLS Project: 7099

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

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 Communique dated January 2009).

2014-10-01 through 2015-09-30

Effective dates

For the National Institute of Standards and Technology

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

1.0 Summary of Test Report

It was determined that the Quick Response Premiere Nurse Call with Check In, model 0800-0542 representing the model family which includes models 0800-0539, 0800-0540 and 0800-0541, 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)	6dB Emission Bandwidth	558074 D01 DTS Meas Guidance v03r02	1	Yes
15.247(b)(3)	Maximum Peak Output Power	558074 D01 DTS Meas Guidance v03r02 662911 D02 MIMO with Cross Polarized Antenna v01	1	Yes
15.247(e)	Peak Power Spectral Density	558074 D01 DTS Meas Guidance v03r02 662911 D02 MIMO with Cross Polarized Antenna v01	1	Yes
15.247(d)	Out-of-Band Emissions (RF Radiated Spurious)	558074 D01 DTS Meas Guidance v03r02	1	Yes
15.247(d) 15.209	Radiated Spurious Emissions in the Restricted Bands	558074 D01 DTS Meas Guidance v03r02	1	Yes
15.247(d)	Operating Band-Edge Emissions	558074 D01 DTS Meas Guidance v03r02	1	Yes
15.247(d) 15.205	Restricted Band-Edge Emissions - Radiated	558074 D01 DTS Meas Guidance v03r02	1	Yes
15.247(a)(2)	99% Bandwidth	Informational		

Note 1: Radiated emission measurement.

2.0 Introduction

From March 18th to March 27th, 2015, the Quick Response Premiere Nurse Call with Check In, model 0800-0542, as provided from RF Technologies Inc. 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

FCC Registration #90531

4.0 Description of Test Sample

The device under test is a battery powered wireless nurse call device intended for use in long term care, retirement homes, or skilled nursing facilities. It utilizes the Zigbee protocol in the 2.4GHz ISM band to communicate with a network established in the building to notify caregivers when a resident or patient requires help. There is a single notification LED on the front face and several methods of initiating a call for help. The different part numbers listed above correspond to the different user interfaces (push button, pull cord, bed cord). One model also has a check in button which is a non-emergency notification.

Type of Equipment / Frequency Range: Mobile / 2405-2475 MHz

Physical Dimensions of Equipment Under Test: Length: 1.6 in x Width: 3 in x Height: 4.75 in

Power Source: 3.0 VDC – Battery powered

Internal Frequencies: 16 MHz

Transmit / Receive Frequencies Used For Test Purpose:
Low channel: 2405 MHz, Middle channel: 2440 MHz, High channel: 2475 MHz

Type of Modulation(s) / Antenna Type:
DSSS, O-QPSK modulation / Cross polarized chip antennas with 5 dBi gain

Description of Circuit Board(s) / Part Number:

PCB Assembly for QR Premiere Nurse Call Jack w/Built in Battery Pack	0830-0169
PCB Assembly for QR Premiere Push Button/Pull Cord/Pull Cord with Check In – all 3 w/Built in Battery Pack	0830-0168
PCB Assembly for QR Premiere Battery Pack	0830-0173

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. (Testing was performed in 2 labs.)

SITE 2 EMISSIONS TEST EQUIPMENT LIST

30 – 1000 MHz

Description	Manufacturer	Model Number	Serial Number	Frequency Range	Cal Date	Cal Due Dates
Receiver	Rohde & Schwarz	ESI 26	837491/010	20 Hz – 26 GHz	7-17-14	7-17-15
Preamplifier	Rohde & Schwarz	TS-PR10	032001/004	9 kHz – 1 GHz	1-7-15	1-7-16
Antenna	EMCO	3104C	00054892	20 MHz – 200 MHz	10-1-14	10-1-16
Antenna	EMCO	3146	1205	200 MHz – 1 GHz	10-24-14	10-24-16
Test Software	Rohde & Schwarz	ESK-1	V1.7.1	N/A	N/A	N/A

1-18 GHz

Description	Manufacturer	Model Number	Serial Number	Frequency Range	Cal Date	Cal Due Dates
Preamp	Miteq	AMF-7D-01001800-22-10P	17779900	1GHz-18GHz	1-26-15	1-26-16
High-Pass Filter	Q-Microwave	100462	2	1 – 18GHz	6-23-14	6-23-15
Horn Antenna	Com Power	AH118	071127	1-18GHz	9-3-14	9-3-16
Test Software	Rohde & Schwarz	ESK-1	V1.7.1	N/A	N/A	N/A

18-26 GHz

Description	Manufacturer	Model Number	Serial Number	Frequency Range	Cal Date	Cal Due Dates
Preamp	Miteq	AMF-8B-180265-40-10P-H/S	438727	18GHz-26GHz	8-11-14	8-11-15
High-Pass Filter	K & L	50140	8	18 – 40GHz	3-4-15	3-4-16
Horn Antenna	EMCO	3116	00062917	18 – 40GHz	8-15-13	8-15-15
Test Software	Rohde & Schwarz	ESK-1	V1.7.1	N/A	N/A	N/A

5.0 Test Equipment - continued

SITE 3 EMISSIONS TEST EQUIPMENT LIST

30 – 1000 MHz

Description	Manufacturer	Model Number	Serial Number	Frequency Range	Cal Date	Cal Due Dates
Receiver	Rohde & Schwarz	ESI 40	837808/005	20 Hz – 40 GHz	7-17-14	7-17-15
Preamplifier	Rohde & Schwarz	TS-PR10	032001/005	9 kHz – 1 GHz	1-7-15	1-7-16
Antenna	EMCO	3104C	97014785	20 MHz – 200 MHz	9-4-14	9-4-16
Antenna	EMCO	3146	97024895	200 MHz – 1 GHz	9-24-14	9-24-16
Test Software	Rohde & Schwarz	ESK-1	V1.7.1	N/A	N/A	N/A

1-18 GHz

Description	Manufacturer	Model Number	Serial Number	Frequency Range	Cal Date	Cal Due Dates
Preamp	Miteq	AMF-7D-01001800-22-10P	1809602	1GHz-18GHz	7-22-14	7-22-15
Horn Antenna	EMCO	3115	6204	1-18GHz	6-5-13	6-5-15
High-Pass Filter	Q-Microwave	100462	2	1 – 18GHz	6-23-14	6-23-15
Test Software	Rohde & Schwarz	ESK-1	V1.7.1	N/A	N/A	N/A

18-26 GHz

Description	Manufacturer	Model Number	Serial Number	Frequency Range	Cal Date	Cal Due Dates
Preamp	Miteq	AMF-8B-180265-40-10P-H/S	438727	18GHz-26GHz	8-11-14	8-11-15
Horn Antenna	EMCO	3116	00062917	18 – 40GHz	8-15-13	8-15-15
High-Pass Filter	K & L	50140	8	18 – 40GHz	3-4-15	3-4-16
Test Software	Rohde & Schwarz	ESK-1	V1.7.1	N/A	N/A	N/A

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 v03r02, 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

7.0 Test Conditions

Normal Test Conditions:

Temperature and Humidity:

66°F at 27% RH unless otherwise noted on test data

Supply Voltage:

3.0 VDC – Battery powered

8.0 Modifications Made To EUT For Compliance

No modifications were made to the EUT for compliance.

9.0 Additional Descriptions

This device uses circuit board antennas that are not user serviceable, which complies with the requirements of FCC Part 15.203.

The EUT's normal operation is mostly in sleep mode with very infrequent transmit bursts. Testing was done with test firmware which allowed the EUT to transmit a continuous modulated transmit signal at maximum power and 100% Duty Cycle on Low, Mid, and High Channels. This is accomplished through manufacturer installed test software and is accessed via a small switch protruding from the bottom of the EUT.

The EUT is designed with 2 internal chip antennas cross polarized that are 90degrees out of phase. Both antennas transmit simultaneously.

There are 4 models of Quick Response Premiere Nurse call devices. The only difference in the PCB assembly is in the population of an external jack vs a reed switch. The 4 models are:

Model 0800-0539: QR Premiere Pull Cord w/ Built In Battery Pack
Model 0800-0540: QR Premiere Pull Cord w/ Check In & Built In Battery Pack
Model 0800-0541: QR Premiere Push Button w/ Built In Battery Pack
Model 0800-0542: QR Premiere NC Jack w/ Built In Battery Pack

10.0 Results

Measurements were performed in accordance with FCC KDB 558074 D01 DTS Meas Guidance v03r02, 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 Quick Response Premiere Nurse Call with Check In, model 0800-0542 representing the model family which includes models 0800-0539, 0800-0540 and 0800-0541, as provided from RF Technologies Inc., tested from March 18th to March 27th, 2015 **meets** the requirements of CFR 47 Part 15 Subpart C Section 15.247.

Appendix A – Test Photos

Photo Information and Test Setup:

Item0: RF Technologies Inc. Quick Response Premiere Nurse Call with Check In
Item1: Nurse call cord 10ft long

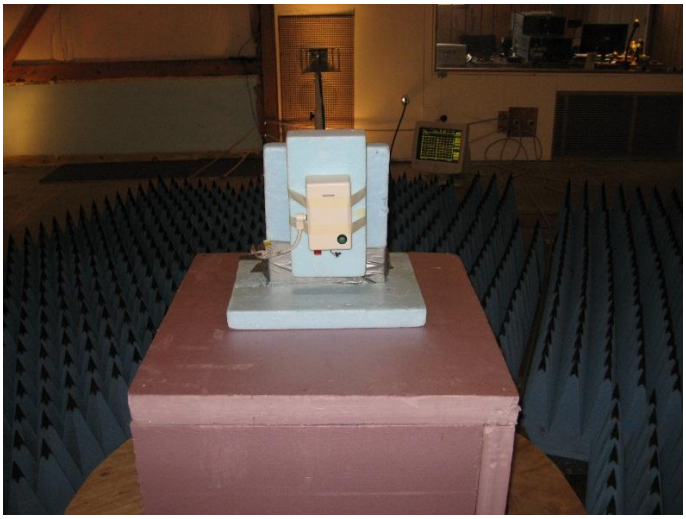
Radiated Emissions 30-1000 MHz - Front

Radiated Emissions 30-1000 MHz – Side

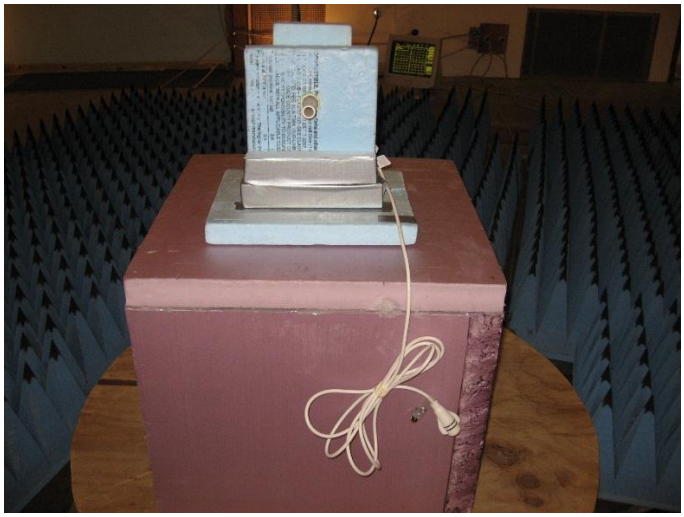
Appendix A

Radiated Emissions 1-18 GHz

Front



Back



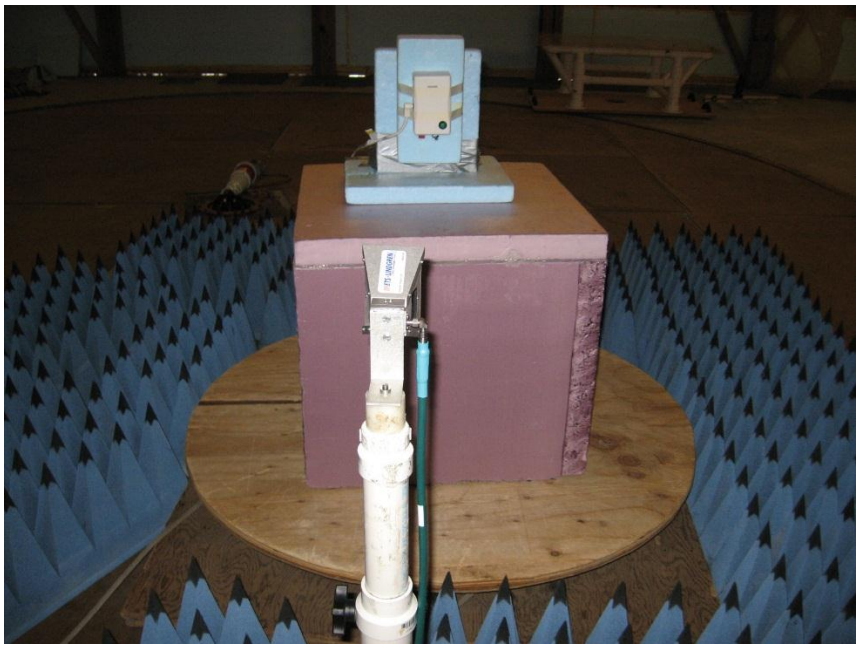
Front (in Site 3)

Side (in Site 3)

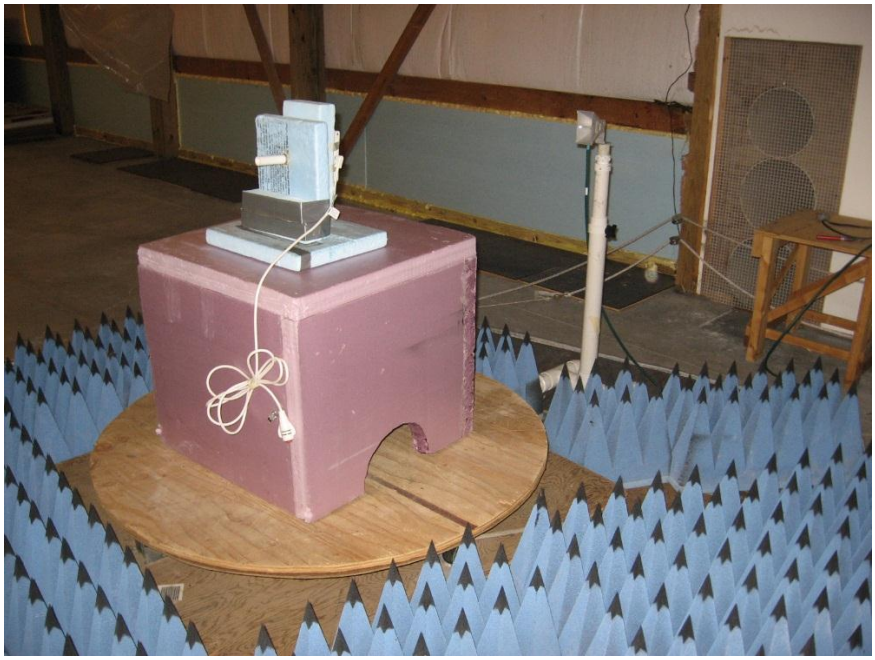
Appendix A

Radiated Emissions 18-25 GHz

Front



Side



Appendix B – Measurement Data

B1.0 6dB Emission Bandwidth

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

Test Procedure: FCC KDB 558074 D01 DTS Meas Guidance v03r02; ANSI C63.4-2009 and ANSI C63.10-2009

Limit: Must be greater than 500 kHz.

Results: Compliant

Notes: This was a radiated measurement. The EUT was transmitting from its internal antenna. The EUT was set to transmit continuously at its maximum power level at the low, middle and high channels of the operating band.

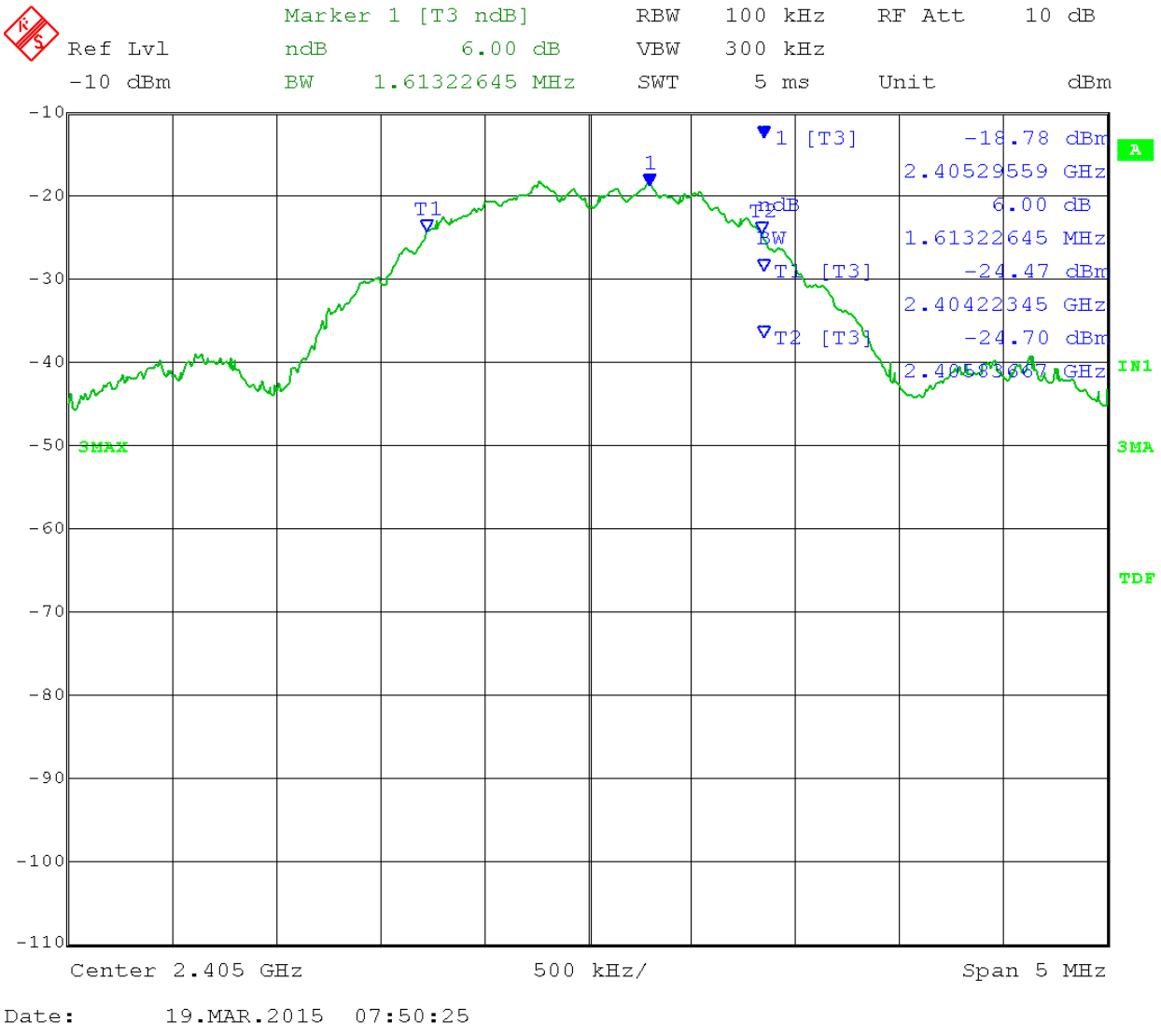
166 South Carter, Genoa City, WI 53128

Company:	RF Technologies Inc.
Model Tested:	0800-0542
Report Number:	20880
DLS Project:	7099

Test Date:	03-19-2015
Company:	RF Technologies
EUT:	QR Premiere Nurse Call with Reset 16 Channel Zigbee transceiver
Test:	6 dB Bandwidth - Radiated – 15.247 (a)(2)
Operator:	Paul L

Comment: **Low Channel – Ch.11 2.405 GHz**

6 dB Bandwidth = 1.61MHz



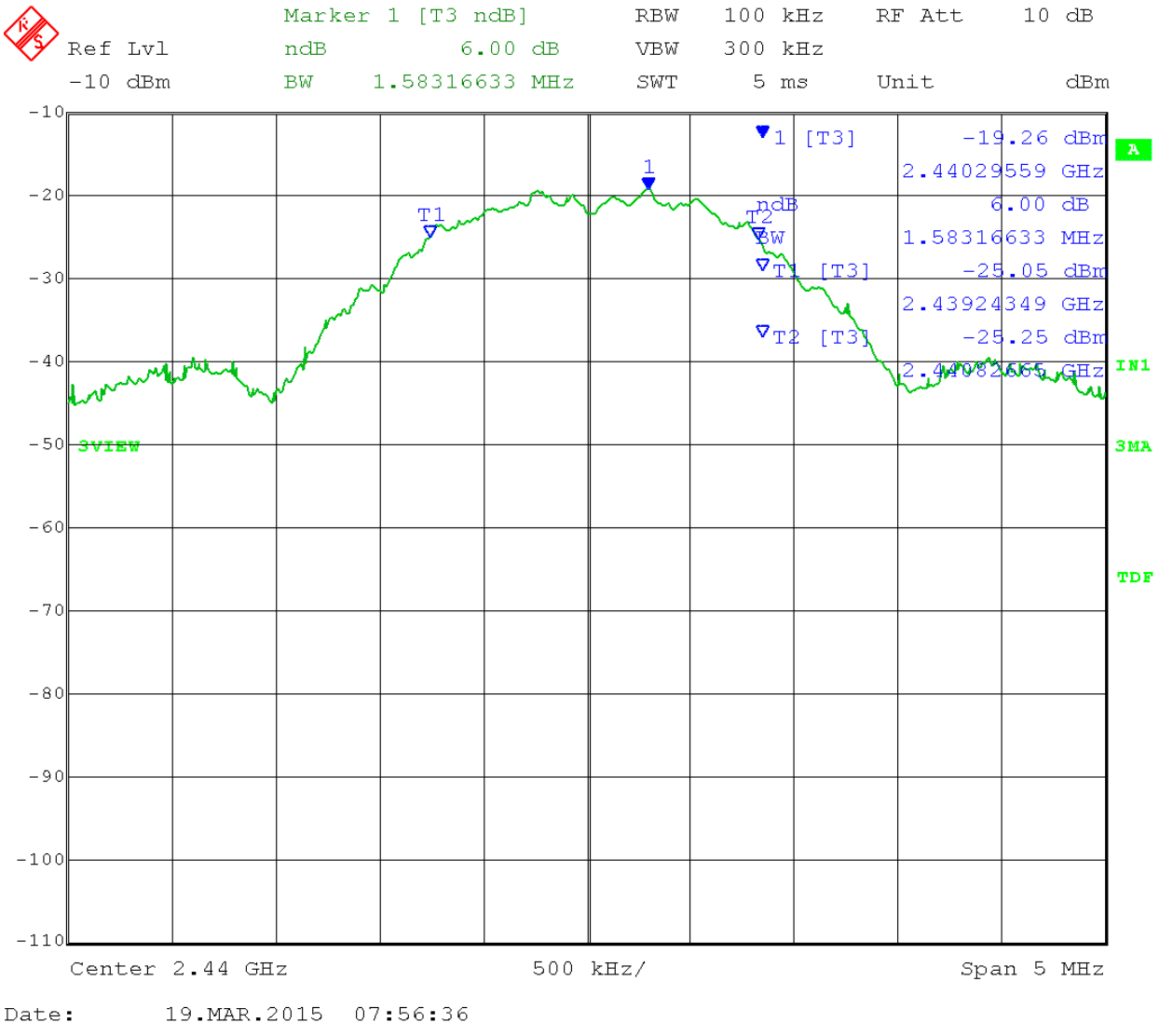
166 South Carter, Genoa City, WI 53128

Company:	RF Technologies Inc.
Model Tested:	0800-0542
Report Number:	20880
DLS Project:	7099

Test Date:	03-19-2015
Company:	RF Technologies
EUT:	QR Premiere Nurse Call with Reset 16 Channel Zigbee transceiver
Test:	6 dB Bandwidth - Radiated– 15.247 (a)(2)
Operator:	Paul L

Comment: **Mid Channel – Ch.18 2.440GHz**

6 dB Bandwidth = 1.583 MHz



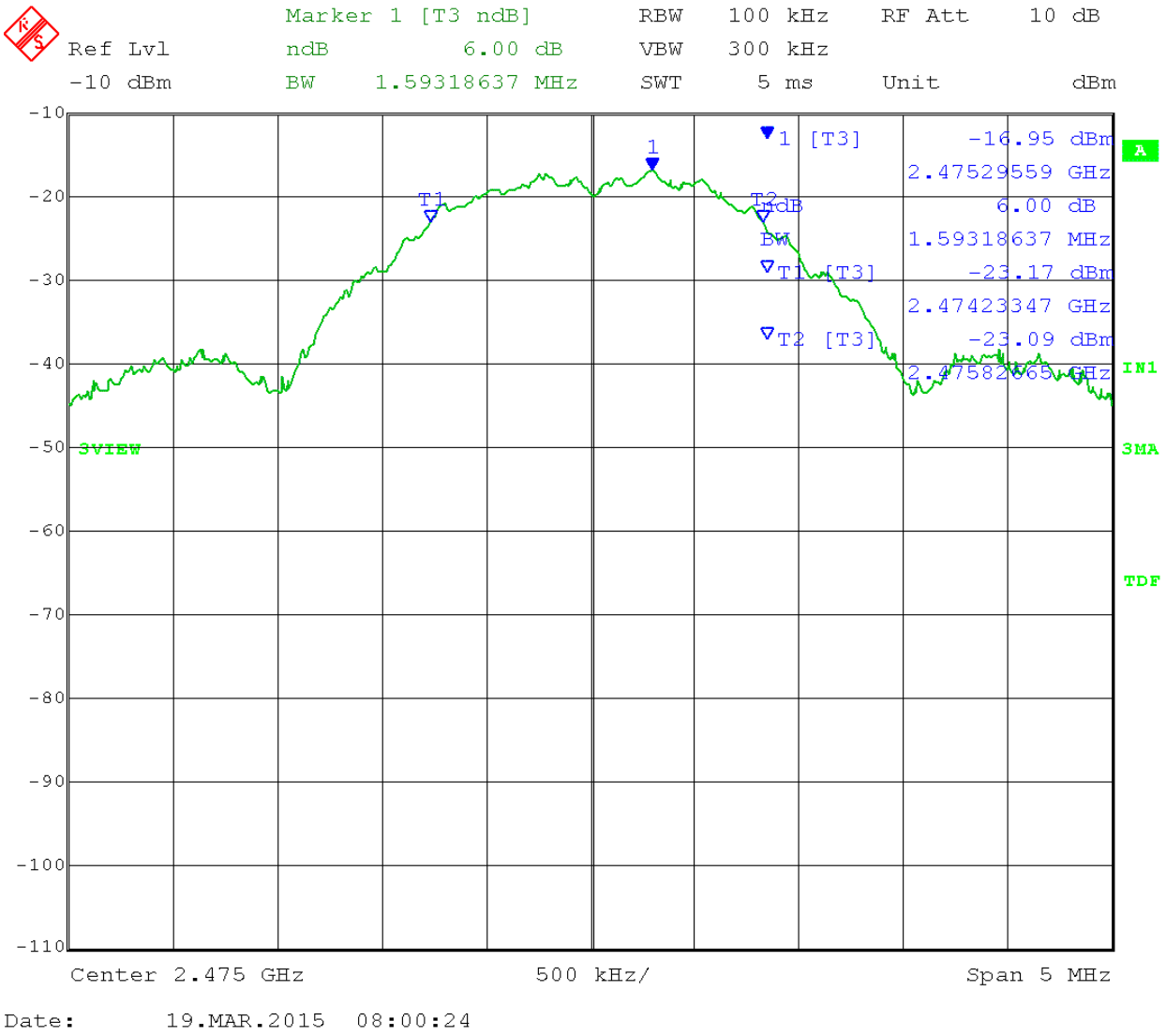
166 South Carter, Genoa City, WI 53128

Company: RF Technologies Inc.
Model Tested: 0800-0542
Report Number: 20880
DLS Project: 7099

Test Date: 03-19-2015
Company: RF Technologies
EUT: QR Premiere Nurse Call with Reset 16 Channel Zigbee transceiver
Test: 6 dB Bandwidth - Radiated – 15.247 (a)(2)
Operator: Paul L

Comment: **High Channel – Ch.25 2.475 GHz**

6 dB Bandwidth = 1.593 MHz



Appendix B

B2.0 Maximum Peak Output Power

Rule Part:

15.247(b) (3)

Test Procedure:

FCC KDB 558074 D01 DTS Meas Guidance v03r02;
FCC KDB 662911 D02 MIMO with Cross Polarized Antenna v01;
ANSI C63.4-2009 and ANSI C63.10-2009

Limit:

1 Watt (30 dBm)

Results:

Compliant
Maximum Peak Output Power: 1.97dBm = **1.57mW**

Sample Equation(s):

Pvertical(mW)+Phorizontal(mW)= Max. Output Power(mW)

Notes:

The EUT employs two internal chip antennas cross-polarized that are 90° out of phase. Both antennas transmit simultaneously.
This was an RF radiated measurement. Cable loss and attenuation was accounted for in the transducer factors set in the analyzer.
The EUT was set to transmit continuously at its maximum power level at the low, middle and high channels of the operating band.
Measurements were taken with a vertical and horizontal polarization of the measurement antenna. The results were then summed.

166 South Carter, Genoa City, WI 53128

Company: RF Technologies Inc.
Model Tested: 0800-0542
Report Number: 20880
DLS Project: 7099

DLS Electronic Systems, Inc.

Company: RF Technologies
Operator: Paul L
Date of test: 03-18-2015
Temperature: 64deg. F
Humidity: 26% R.H.
Test: Peak Output Power FCC Pt. 15.247(b)(3)- RADIATED
On-board PCB slot **Cross polarized antennas 90° out of phase**
16Channel Zigbee,
Modulation: DSSS O-QPSK

RBW: 2 MHz
VBW: 10 MHz
Detector: Peak

Peak Output Power : **0.59mW + 0.90mW = 1.49mW**

(e.i.r.p. substitution method) **Continuous modulated Transmit mode**

Model: QR Premiere Nurse Call with reset Low channel Transmit Frequency: **2405 MHz**

Frequency and Polarization (MHz)	Max. Field Strength of EUT @ 3 meters (dBuV/m)	Output of Signal Generator when field strength equals that of EUT (dBm)	Correction factor for cable between Signal Gen. and subst. antenna (dB)	Gain of subst. antenna (dBi)	Strength of emission [EIRP] (dBm)	Output Power [EIRP] (mW)	
2405 vertical	93.47	-8.20	3.48	9.41	-2.27	0.59	
2405 horizontal	95.61	-6.50	3.48	9.50	-0.48	0.90	

EIRP = Signal generator output - cable loss + antenna gain

166 South Carter, Genoa City, WI 53128

Company: RF Technologies Inc.
Model Tested: 0800-0542
Report Number: 20880
DLS Project: 7099

DLS Electronic Systems, Inc.

Company: RF Technologies
Operator: Paul L
Date of test: 03-18-2015
Temperature: 64deg. F
Humidity: 26% R.H.
Test: Peak Output Power FCC Pt. 15.247(b)(3)- RADIATED
On-board PCB slot **Cross polarized antennas 90° out of phase**
16Channel Zigbee,
Modulation: DSSS O-QPSK

RBW: 2 MHz
VBW: 10 MHz
Detector: Peak

Peak Output Power: **0.45mW + 1.12mW= 1.57mW**

(e.i.r.p. substitution method) **Continuous modulated Transmit mode**

Model: QR Premiere Nurse Call with reset Middle channel Transmit Frequency: **2440 MHz**

Frequency and Polarization (MHz)	Max. Field Strength of EUT @ 3 meters (dBuV/m)	Output of Signal Generator when field strength equals that of EUT (dBm)	Correction factor for cable between Signal Gen. and subst. antenna (dB)	Gain of subst. antenna (dBi)	Strength of emission [EIRP] (dBm)	Output Power [EIRP] (mW)	
2440 vertical	92.52	-9.60	3.30	9.43	-3.47	0.45	
2440 horizontal	95.66	-5.70	3.30	9.51	0.51	1.12	

EIRP = Signal generator output - cable loss + antenna gain

166 South Carter, Genoa City, WI 53128

Company: RF Technologies Inc.
Model Tested: 0800-0542
Report Number: 20880
DLS Project: 7099

DLS Electronic Systems, Inc.

Company: RF Technologies
Operator: Paul L
Date of test: 03-18-2015
Temperature: 64deg. F
Humidity: 26% R.H.
Test: Peak Output Power FCC Pt. 15.247(b)(3)- RADIATED
On-board PCB slot **Cross polarized antennas 90° out of phase**
16Channel Zigbee,
Modulation: DSSS O-QPSK

RBW: 2 MHz
VBW: 10 MHz
Detector: Peak

Peak Output Power: **0.52mW +1.0mW=1.52mW**

(e.i.r.p. substitution method) **Continuous modulated Transmit mode**

Model: QR Premiere Nurse Call with reset High channel Transmit Frequency: **2475 MHz**

Frequency and Polarization (MHz)	Max. Field Strength of EUT @ 3 meters (dBuV/m)	Output of Signal Generator when field strength equals that of EUT (dBm)	Correction factor for cable between Signal Gen. and subst. antenna (dB)	Gain of subst. antenna (dBi)	Strength of emission [EIRP] (dBm)	Output Power [EIRP] (mW)	
2475 vertical	93.33	-9.00	3.29	9.43	-2.86	0.52	
2475 horizontal	96.36	-6.20	3.29	9.51	0.02	1.00	

EIRP = Signal generator output - cable loss + antenna gain

Appendix B

B3.0 Peak Power Spectral Density

Rule Part: FCC Part 15.247(e)

Test Procedure: FCC KDB 558074 D01 DTS Meas Guidance v03r02;
FCC KDB 662911 D02 MIMO with Cross Polarized Antenna v01;
ANSI C63.4-2009 and ANSI C63.10-2009

Limit: +8 dBm/3kHz

Results: Compliant

Sample Equations: Sweep time = (SPAN / 3 kHz)
= (1.5 MHz / 3 kHz)
= 500 seconds

Power (dbm) in 3khz Bandwidth= 10*log(PmW/1mW)

Notes: The EUT employs two internal chip antennas cross-polarized that are 90° out of phase. Both antennas transmit simultaneously.
This was an RF radiated measurement. Cable loss and attenuation was accounted for in the transducer factors set in the analyzer.
The EUT was set to transmit continuously at its maximum power level at the low, middle and high channels of the operating band.
Measurements were taken with a vertical and horizontal polarization of the measurement antenna. The results were then summed.

DLS Electronic Systems, Inc.

Company: RF Technologies
Operator: Paul L
Date of test: 03-19-2015
Temperature: 66deg. F
Humidity: 27% R.H.
Test: Power Spectral Density FCC Pt. 15.247(e)- RADIATED
On-board PCB slot **Cross polarized antennas 90° out of phase**
16Channel Zigbee,
Modulation: DSSS O-QPSK

RBW: 3khz
VBW: 10 khz
Detector: Peak

Power in 3khz Bandwidth: **-16.99dbm**

(e.i.r.p. substitution method) **Continuous modulated Transmit mode**

Model: QR Premiere Nurse Call with reset Low channel Transmit Frequency: **2405 MHz**							
Frequency and Polarization (MHz)	Max. Field Strength of EUT @ 3 meters (dBuV/m)	Output of Signal Generator when field strength equals that of EUT (dBm)	Correction factor for cable between Signal Gen. and subst. antenna (dB)	Gain of subst. antenna (dBi)	Strength of emission [EIRP] (dBm)	Output Power [EIRP] (mW)	
2405 vertical	75.88	-25.30	3.48	9.41	-19.37	0.01	
2405 horizontal	77.62	-24.40	3.48	9.50	-18.38	0.01	

EIRP = Signal generator output - cable loss + antenna gain
Power (dbm) in 3khz Bandwidth= 10*log(PmW/1mW)

166 South Carter, Genoa City, WI 53128

Company: RF Technologies Inc.
Model Tested: 0800-0542
Report Number: 20880
DLS Project: 7099

DLS Electronic Systems, Inc.

Company: RF Technologies
Operator: Paul L
Date of test: 03-19-2015
Temperature: 66deg. F
Humidity: 27% R.H.
Test: Power Spectral Density FCC Pt. 15.247(e)- RADIATED
On-board PCB slot **Cross polarized antennas 90° out of phase**
16Channel Zigbee,
Modulation: DSSS O-QPSK

RBW: 3khz
VBW: 10 khz
Detector: Peak

Power in 3khz Bandwidth: **-15.23**

(e.i.r.p. substitution method) **Continuous modulated Transmit mode**

Model: QR Premiere Nurse Call with reset Middle channel Transmit Frequency: **2440 MHz**

Frequency and Polarization (MHz)	Max. Field Strength of EUT @ 3 meters (dBuV/m)	Output of Signal Generator when field strength equals that of EUT (dBm)	Correction factor for cable between Signal Gen. and subst. antenna (dB)	Gain of subst. antenna (dBi)	Strength of emission [EIRP] (dBm)	Output Power [EIRP] (mW)	
2440 vertical	76.91	-24.40	3.30	9.43	-18.27	0.01	
2440 horizontal	79.00	-22.60	3.30	9.51	-16.39	0.02	

EIRP = Signal generator output - cable loss + antenna gain
Power (dbm) in 3khz Bandwidth= 10*log(PmW/1mW)

166 South Carter, Genoa City, WI 53128

Company: RF Technologies Inc.
Model Tested: 0800-0542
Report Number: 20880
DLS Project: 7099

DLS Electronic Systems, Inc.

Company: RF Technologies
Operator: Paul L
Date of test: 03-19-2015
Temperature: 66deg. F
Humidity: 27% R.H.
Test: Power Spectral Density FCC Pt. 15.247(e)- RADIATED
On-board PCB slot **Cross polarized antennas 90° out of phase**
16Channel Zigbee,
Modulation: DSSS O-QPSK

RBW: 3 khz
VBW: 10 khz
Detector: Peak

Power in 3khz Bandwidth: **-13.01dbm**

(e.i.r.p. substitution method) **Continuous modulated Transmit mode**

Model: QR Premiere Nurse Call with reset High channel Transmit Frequency: **2475 MHz**							
Frequency and Polarization (MHz)	Max. Field Strength of EUT @ 3 meters (dBuV/m)	Output of Signal Generator when field strength equals that of EUT (dBm)	Correction factor for cable between Signal Gen. and subst. antenna (dB)	Gain of subst. antenna (dBi)	Strength of emission [EIRP] (dBm)	Output Power [EIRP] (mW)	
2475 vertical	77.62	-23.90	3.29	9.43	-17.76	0.02	
2475 horizontal	79.73	-22.20	3.29	9.51	-15.98	0.03	

EIRP = Signal generator output - cable loss + antenna gain
Power (dbm) in 3khz Bandwidth= 10*log(PmW/1mW)

Appendix B

B4.0 Out-of-Band Emissions (RF Radiated Spurious)

Rule Part:

15.247(d)

Test Procedure:

FCC KDB 558074 D01 DTS Meas Guidance v03r02;
ANSI C63.4-2009 and ANSI C63.10-2009

Limit:

20 dB below the highest level of the desired power in a 100 kHz bandwidth

Results:

Compliant

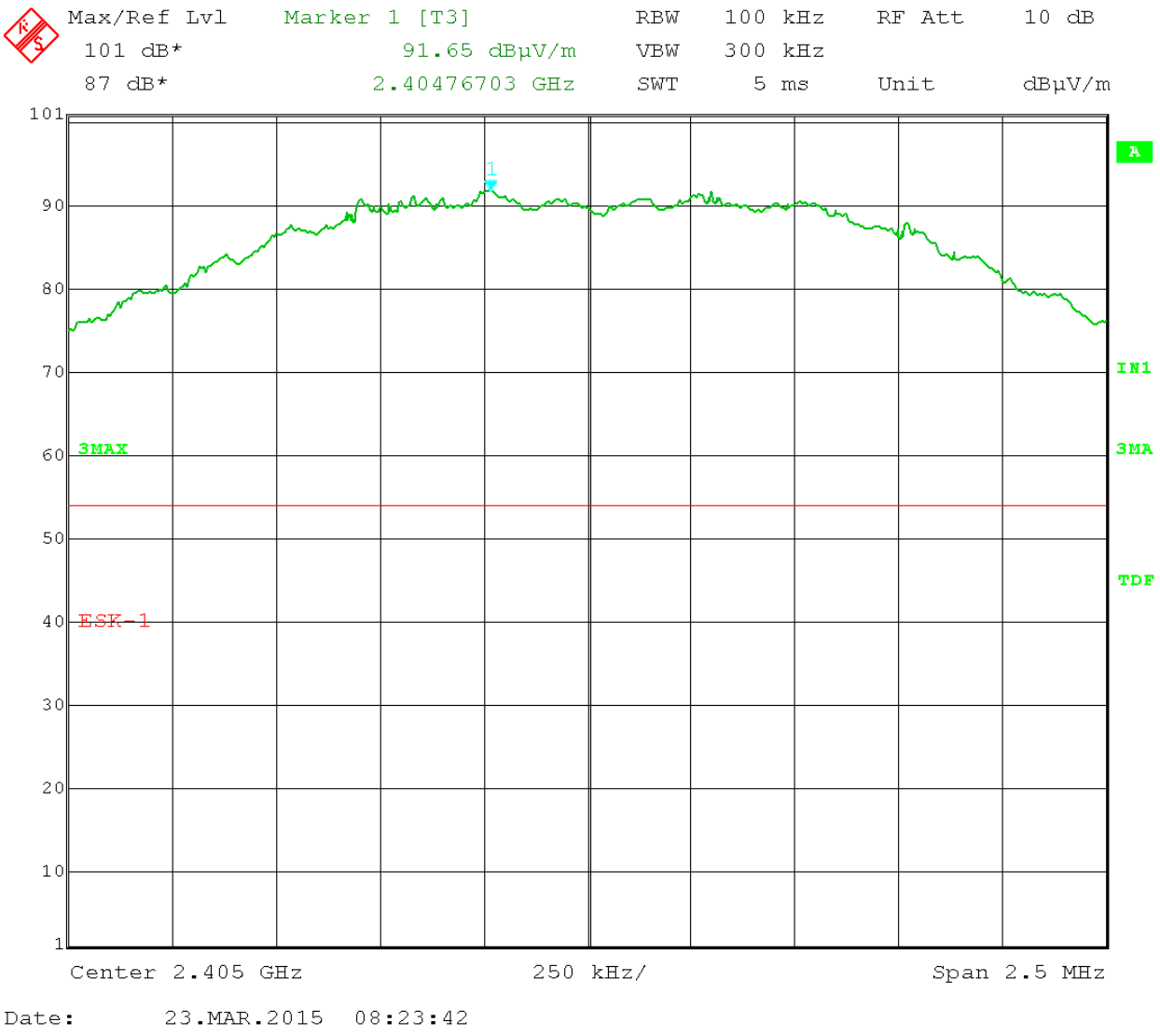
Sample Equation(s):

N/A

Notes:

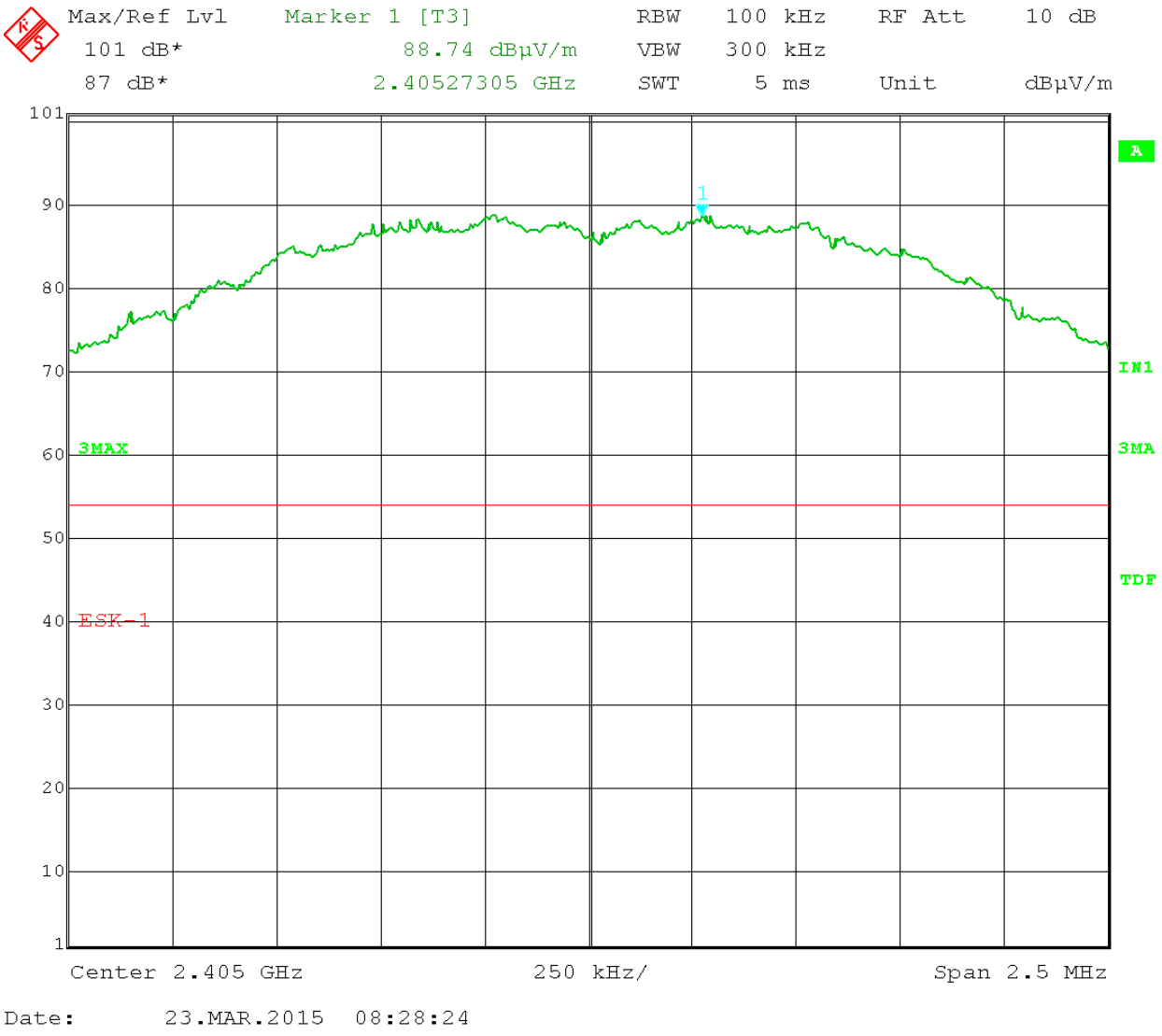
This was an RF radiated measurement. Cable loss and attenuation was accounted for in the transducer factors set in the analyzer.
The EUT was set to transmit continuously at its maximum power level at the low, middle and high channels of the operating band.

Low Channel



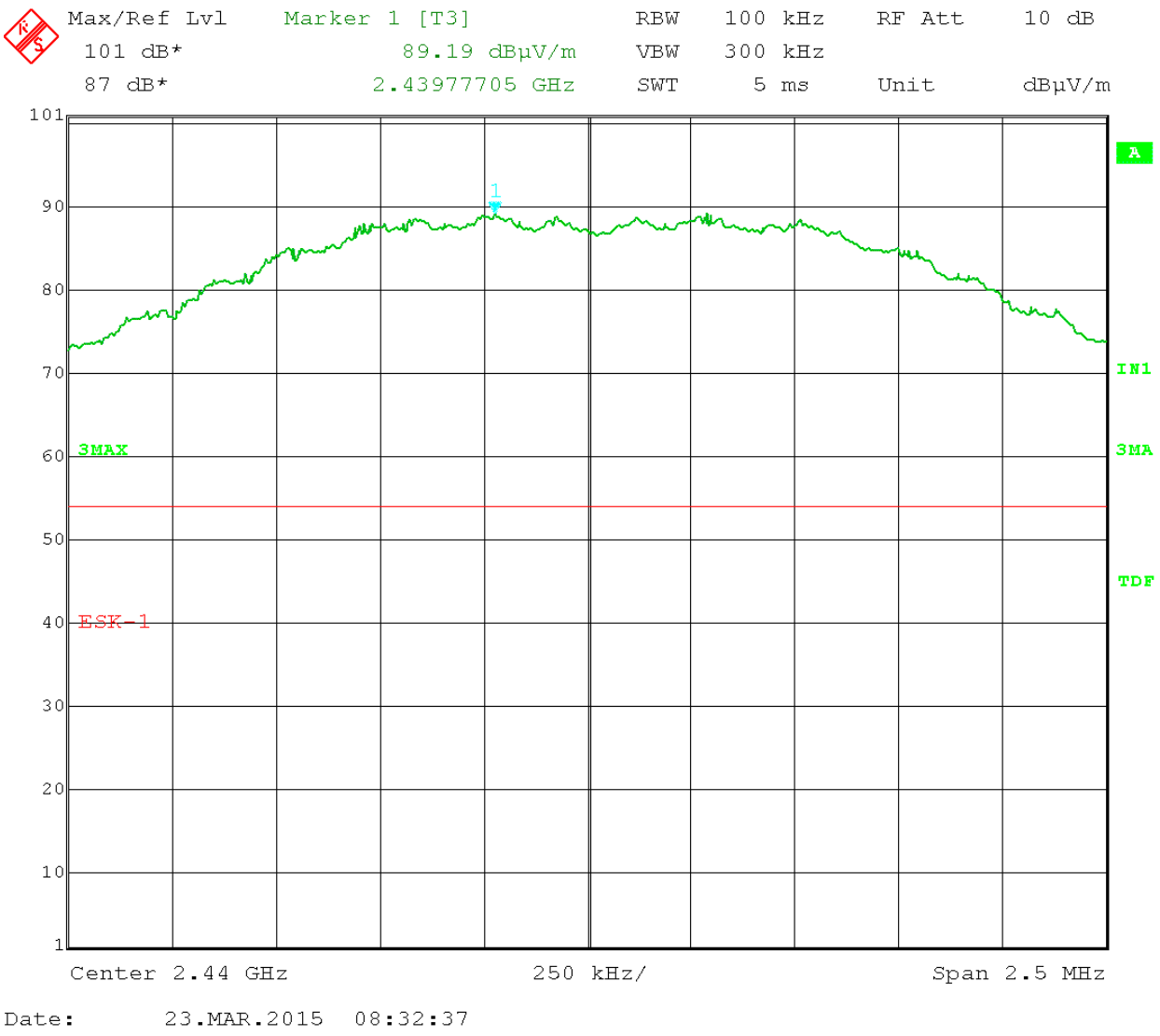
Ch11. 2405 MHz Horizontal

Low Channel



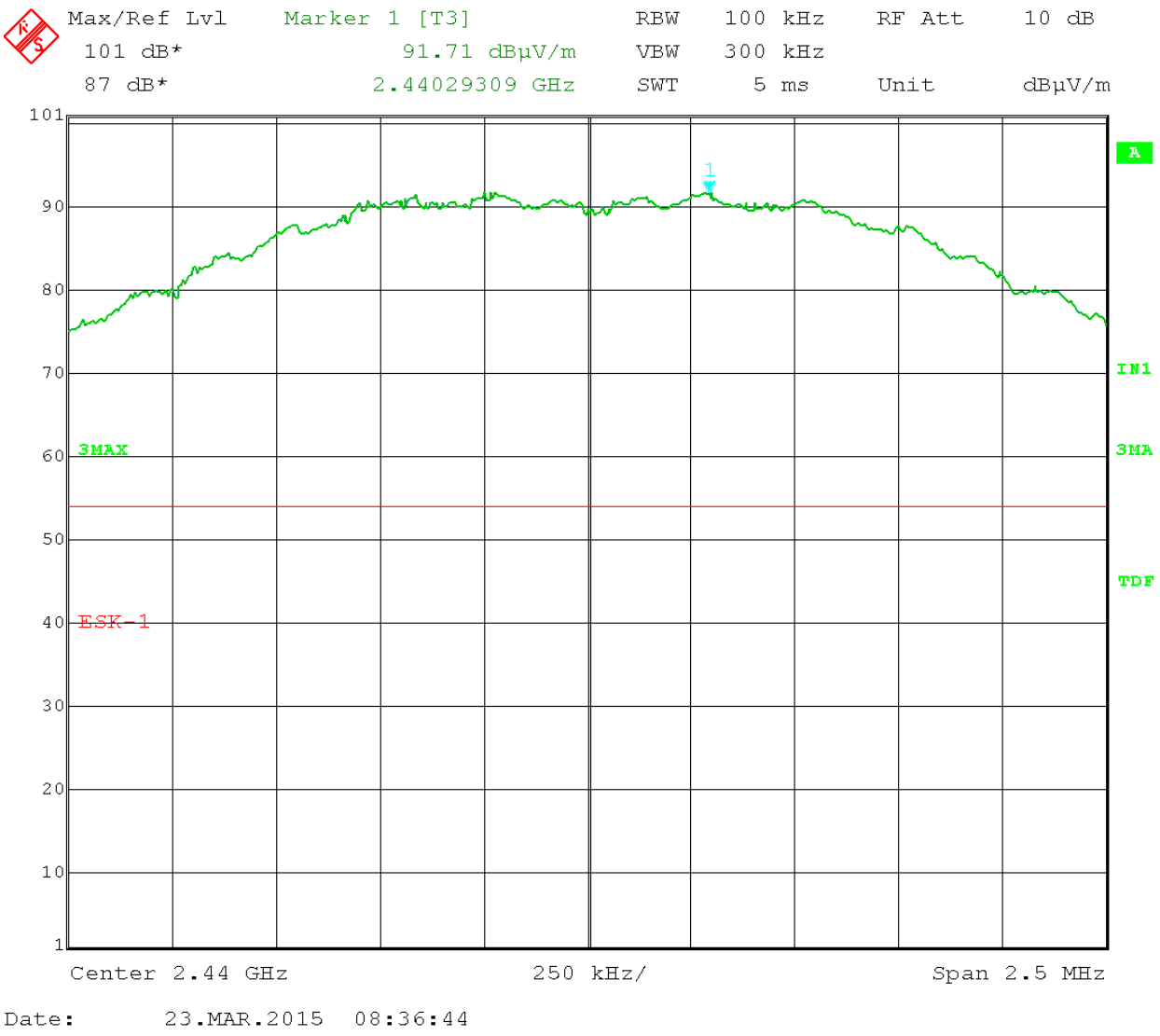
Ch.11 2405MHz Vertical

Mid Channel



Ch.18 2440MHz Vertical

Mid Channel

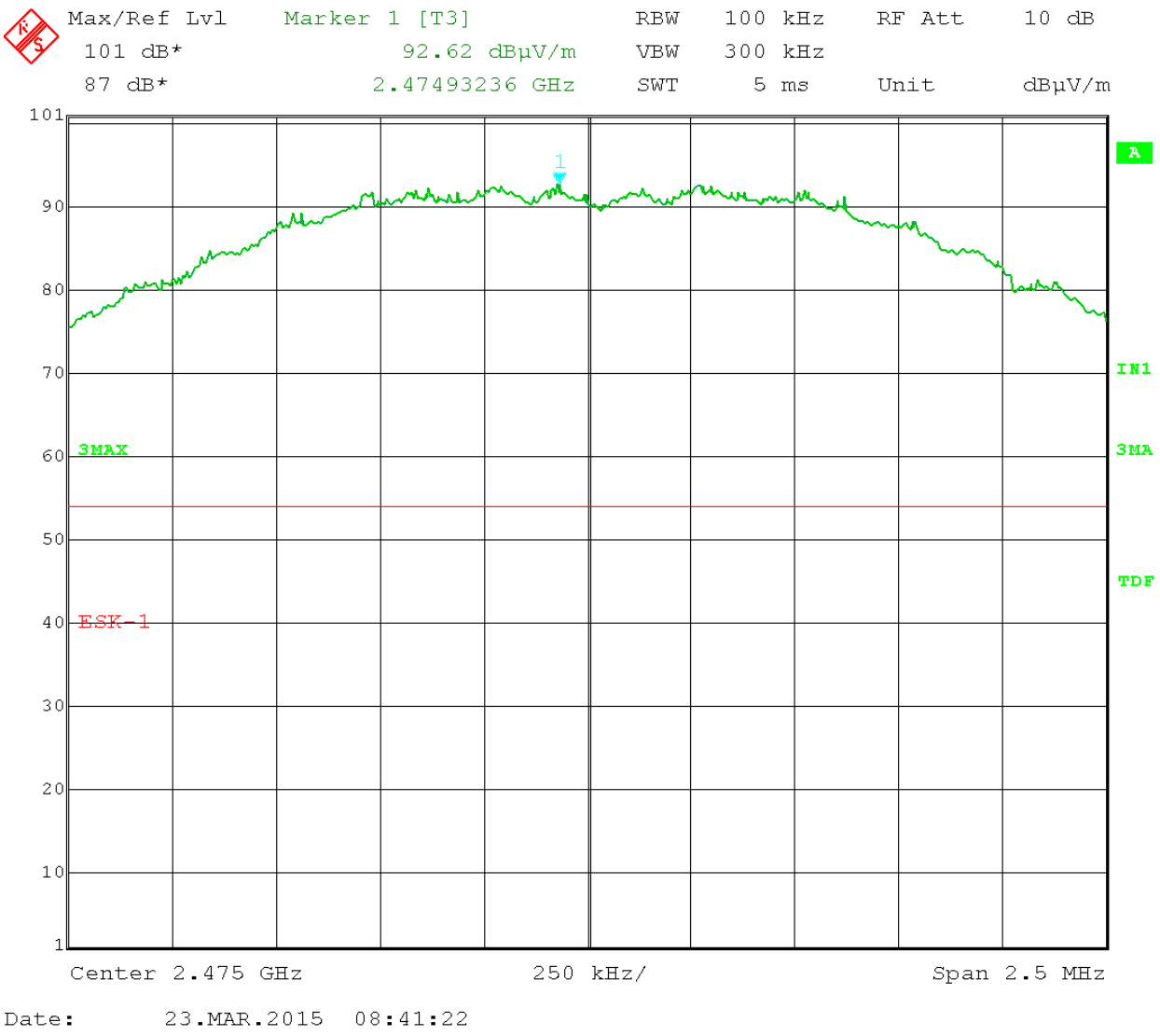


Ch.18 2440MHz Horizontal

166 South Carter, Genoa City, WI 53128

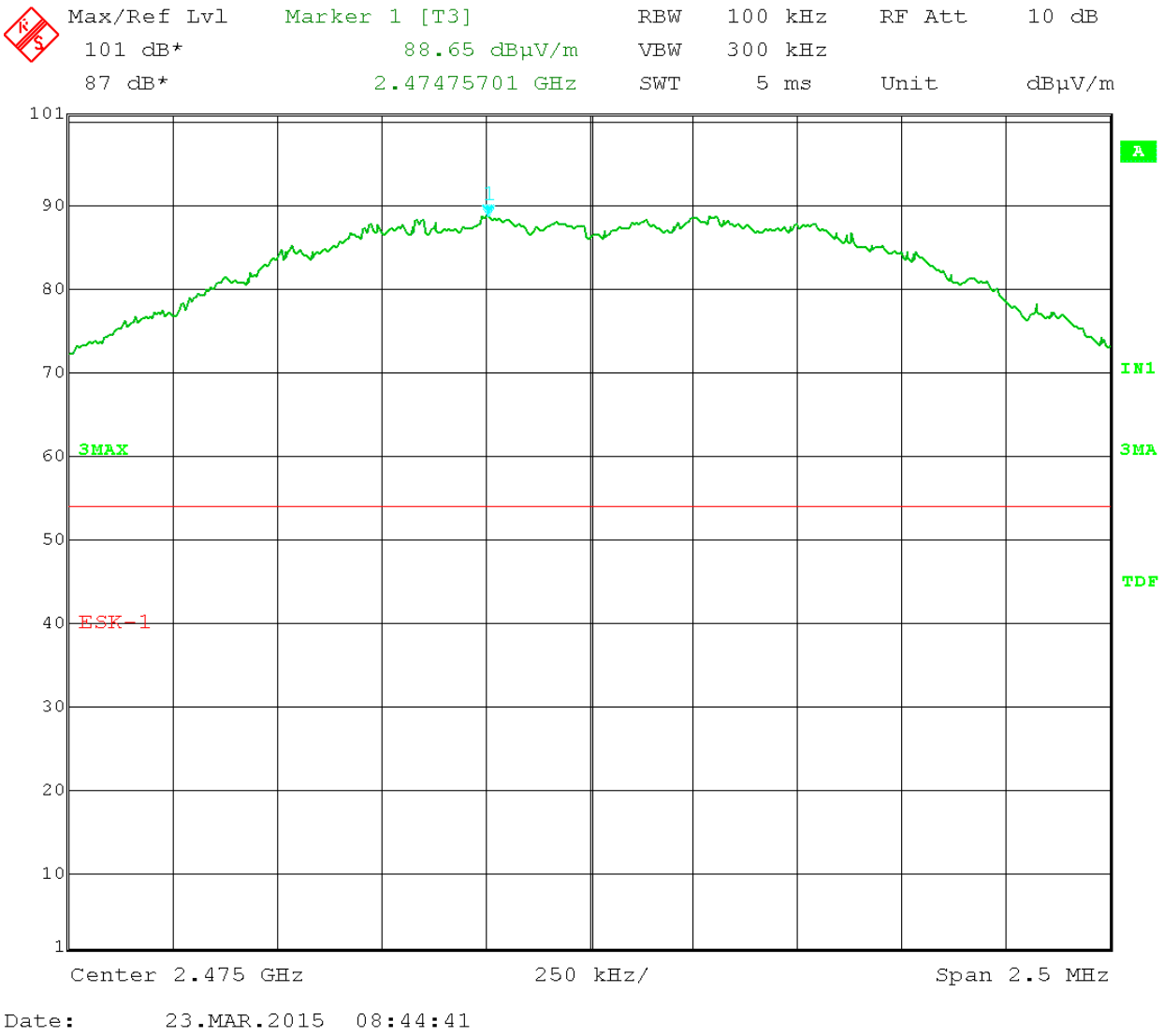
Company:	RF Technologies Inc.
Model Tested:	0800-0542
Report Number:	20880
DLS Project:	7099

High Channel



Ch.25 2475MHz Horizontal

High Channel



Ch.25 2475MHz Vertical

166 South Carter, Genoa City, WI 53128

Company: RF Technologies Inc.
Model Tested: 0800-0542
Report Number: 20880
DLS Project: 7099

Radiated Fundamental and Spurious Emissions – 30 MHz to 25 GHz

Tested at a 3 Meter Distance 30MHz-18GHz

Tested at a 1 Meter Distance 18GHz-25GHz

EUT: QR Premiere Nurse Call 16Channel Zigbee Transceiver
Manufacturer: RF Technologies
Operating Condition: 66deg F; 27% R.H.
Test Site: Site 2
Operator: Paul L
Test Specification: FCC Part 15.247(d)
Comment: Transmit frequency: **2.405MHz Ch.11**
Date: 03-23-2015
Notes: Cross Polarized Antennas 90° out of phase transmitting simultaneously: Continuous Transmit

Frequency (MHz)	Measurement Type	Antenna Polarization	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	EUT Angle (deg)	Comment
2405.00	Max Peak	Vert	58.79	28.37	1.6	88.7	NA	NA	1.00	0	Fundamental
2405.00	Max Peak	Horz	61.64	28.41	1.6	91.7	NA	NA	1.25	0	Fundamental
4810.00	Max Peak	Vert	58.75	32.93	-54.1	37.6	71.65	34.1	1.00	0	2nd Harm RB
4810.00	Max Peak	Horz	60.83	32.93	-54.1	39.7	71.65	32.0	1.00	0	2nd Harm RB
11695.00	Max Peak	Vert	54.79	39.52	-49.6	44.7	71.65	27.0	1.00	0	NF RB
11567.00	Max Peak	Horz	53.71	39.69	-49.0	44.4	71.65	27.3	1.00	0	NF RB
17807.00	Max Peak	Vert	52.84	44.41	-46.7	50.5	71.65	21.1	1.00	0	NF RB
17832.00	Max Peak	Horz	53.29	44.39	-46.9	50.8	71.65	20.8	1.00	0	NF RB

Note: No spurious emissions found within 20 db of the Fundamental Frequency from 30MHz-1000Mhz and from 18GHz-25GHz

NF= Noise Floor
RB= Restricted Band

166 South Carter, Genoa City, WI 53128

Company: RF Technologies Inc.
Model Tested: 0800-0542
Report Number: 20880
DLS Project: 7099

Radiated Fundamental and Spurious Emissions – 30 MHz to 25 GHz

Tested at a 3 Meter Distance 30MHz-18GHz

Tested at a 1 Meter Distance 18GHz-25GHz

EUT: QR Premiere Nurse Call 16Channel Zigbee Transceiver
Manufacturer: RF Technologies
Operating Condition: 64deg F; 29% R.H.
Test Site: Site 2
Operator: Paul L
Test Specification: FCC Part 15.247(d)
Comment: Transmit frequency: **2.440MHz Ch.18**
Date: 03-23-2015
Notes: Cross Polarized Antennas 90° out of phase transmitting simultaneously: Continuous Transmit

Frequency (MHz)	Measurement Type	Antenna Polarization	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	EUT Angle (deg)	Comment
2440.00	Max Peak	Vert	58.95	28.63	1.6	89.2	NA	NA	1.00	0	Fundamental
2440.00	Max Peak	Horz	61.45	28.66	1.6	91.7	NA	NA	1.00	0	Fundamental
4882.00	Max Peak	Vert	64.99	32.93	-53.9	44.0	71.7	27.7	1.00	0	2nd Harm RB
4874.00	Max Peak	Horz	69.50	32.93	-54.0	48.5	71.7	23.2	1.00	0	2nd Harm RB
11784.00	Max Peak	Vert	54.35	39.64	-49.6	44.4	71.7	27.3	1.00	0	NF RB
11888.00	Max Peak	Horz	54.30	39.64	-50.0	43.9	71.7	27.8	1.00	0	NF RB
17832.00	Max Peak	Vert	52.92	44.39	-46.9	50.5	71.7	21.2	1.00	0	NF RB
17928.00	Max Peak	Horz	51.08	44.62	-46.5	49.2	71.7	22.5	1.00	0	NF RB

Note: No spurious emissions found within 20 db of the Fundamental Frequency from 30MHz-1000Mhz and from 18GHz-25GHz

NF= Noise Floor
RB= Restricted Band

166 South Carter, Genoa City, WI 53128

Company: RF Technologies Inc.
Model Tested: 0800-0542
Report Number: 20880
DLS Project: 7099

Radiated Fundamental and Spurious Emissions – 30 MHz to 25 GHz

Tested at a 3 Meter Distance
Tested at a 3 Meter Distance 30MHz-18GHz
Tested at a 1 Meter Distance 18GHz-25GHz

EUT: QR Premiere Nurse Call 16Channel Zigbee Transceiver
Manufacturer: RF Technologies
Operating Condition: 66deg F; 27% R.H.
Test Site: Site 2
Operator: Paul L
Test Specification: FCC Part 15.247(d)
Comment: Transmit frequency: **2.475MHz Ch.25**
Date: 03-23-2015
Notes: Cross Polarized Antennas 90° out of phase transmitting simultaneously: Continuous Transmit

Frequency (MHz)	Measurement Type	Antenna Polarization	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	EUT Angle (deg)	Comment
2475.00	Max Peak	Vert	58.15	28.89	1.6	88.7	NA	NA	1.00	0	Fundamental
2475.00	Max Peak	Horz	62.05	28.97	1.6	92.6	NA	NA	1.25	0	Fundamental
4946.00	Max Peak	Vert	66.91	33.05	-53.7	46.2	72.62	26.4	1.00	0	2nd Harm RB
4946.00	Max Peak	Horz	69.60	33.05	-53.7	49.0	72.62	23.7	1.00	0	2nd Harm RB
11695.00	Max Peak	Vert	54.63	39.52	-49.6	44.5	72.62	28.1	1.00	0	NF RB
11126.00	Max Peak	Horz	55.30	39.32	-50.4	44.2	72.62	28.4	1.00	0	NF RB
17940.00	Max Peak	Vert	52.16	44.62	-46.5	50.2	72.62	22.4	1.00	0	NF RB
17820.00	Max Peak	Horz	53.55	44.40	-46.8	51.2	72.62	21.5	1.00	0	NF RB

Note: No spurious emissions found within 20 db of the Fundamental Frequency from 30MHz-1000Mhz and from 18GHz-25GHz

NF= Noise Floor
RB= Restricted Band

Appendix B

B5.0 Radiated Spurious Emissions in the Restricted Bands

Rule Part: 15.247(d); 15.209

Test Procedure: FCC KDB 558074 D01 DTS Meas Guidance v03r02; ANSI C63.4-2009 and ANSI C63.10-2009

Limit: FCC 15.209

Frequency of Emission (MHz)	Field Strength (microvolts/meter)
30 - 88	100
88 - 216	150
216 - 960	200
Above 960	500

Results: PASS

Notes: The measurement bandwidth on the receiver was set 120 kHz from 30 to 1000 MHz, and 1 MHz from 1 to 25 GHz. The detector was set to Quasi-Peak below 1 GHz and both Peak and Average above 1 GHz. The test distance was 3 meters for 30MHz-18GHz and 1meter for 18-25GHz.

FCC Pt. 15.247(d)

Electric Field Strength

EUT: QR Premiere Nurse Call
Manufacturer: RF Technologies
Operating Condition: 64 deg. F; 25% R.H.
Test Site: DLS O.F. Site 3
Operator: Paul L 7099
Test Specification: 6V DC Cross Polarized Antennas; Simultaneous Transmit
Comment: Ch.11 2405MHz Continuous Transmit
Date: 3-24-2015

TEXT: "Horz 3 meters"

Short Description: Test Set-up

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

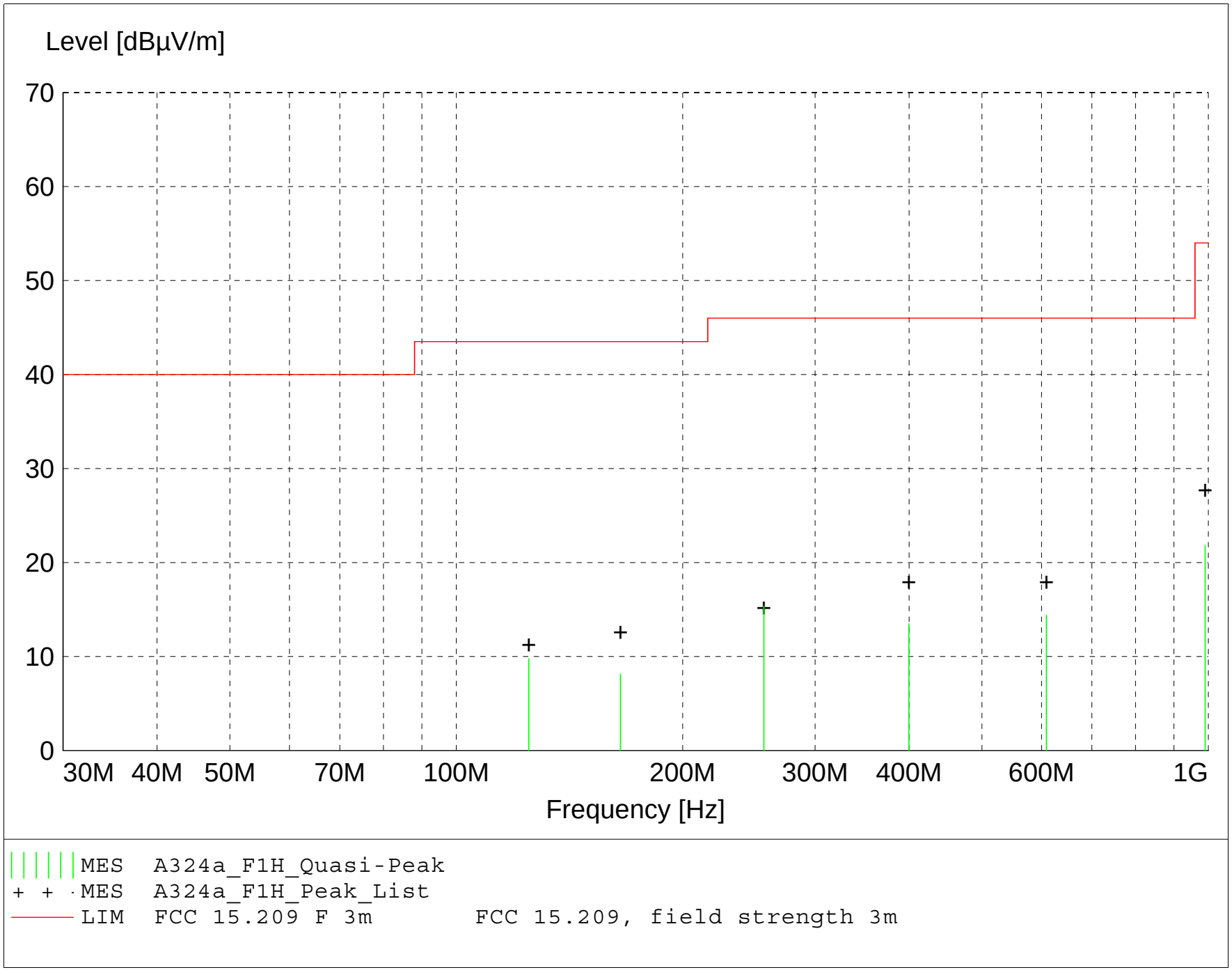
Sample Equations:

Total Level(dBµV/m)	= Level(dBµV)	+ System Loss(dB)	+ Antenna Factor(dBµV/m)
24.6	= 35.51	+ (-22.1)	+ 11.20

Margin(dB)	= Limit(dBµV/m)	- Total Level(dBµV/m)
15.4	= 40	- 24.6

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


Level [dBµV/m]
70
60
50
40
30
20
10
0
30M
40M
50M
70M
100M
200M
300M
400M
600M
1G
Frequency [Hz]
MES A324a_F1H_Quasi-Peak
MES A324a_F1H_Peak_List
LIM FCC 15.209 F 3m
FCC 15.209, field strength 3m

MEASUREMENT RESULT: "A324a_F1H_Final"

3/24/2015 12:47PM

Frequency	Level	Antenna Factor	System Loss	Total Level	Limit	Margin	Height Ant.	EuT Angle	Final Detector	Comment
MHz	dBµV	dBµV/m	dB	dBµV/m	dBµV/m	dB	m	deg		
256.460000	24.64	12.79	-22.1	15.3	46.0	30.7	2.50	0	QUASI-PEAK	NF Restricted B
609.200000	15.54	19.27	-20.4	14.4	46.0	31.6	4.00	0	QUASI-PEAK	NF Restricted B
990.140000	14.96	24.30	-17.4	21.8	54.0	32.2	4.00	0	QUASI-PEAK	NF Restricted B
399.800000	18.95	15.90	-21.4	13.5	46.0	32.5	2.50	0	QUASI-PEAK	NF Restricted B
124.860000	20.11	12.87	-23.2	9.8	43.5	33.7	4.00	0	QUASI-PEAK	NF Restricted B
165.300000	17.10	13.76	-22.7	8.2	43.5	35.3	4.00	0	QUASI-PEAK	NF Restricted B

FCC Pt. 15.247(d)

Electric Field Strength

EUT: QR Premiere Nurse Call
Manufacturer: RF Technologies
Operating Condition: 64 deg. F; 25% R.H.
Test Site: DLS O.F. Site 3
Operator: Paul L 7099
Test Specification: 6V DC Cross Polarized Antennas; Simultaneous Transmit
Comment: Ch.11 2405MHz Continuous Transmit
Date: 3-24-2015

TEXT: "Vert 3 meters"

Short Description: Test Set-up

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

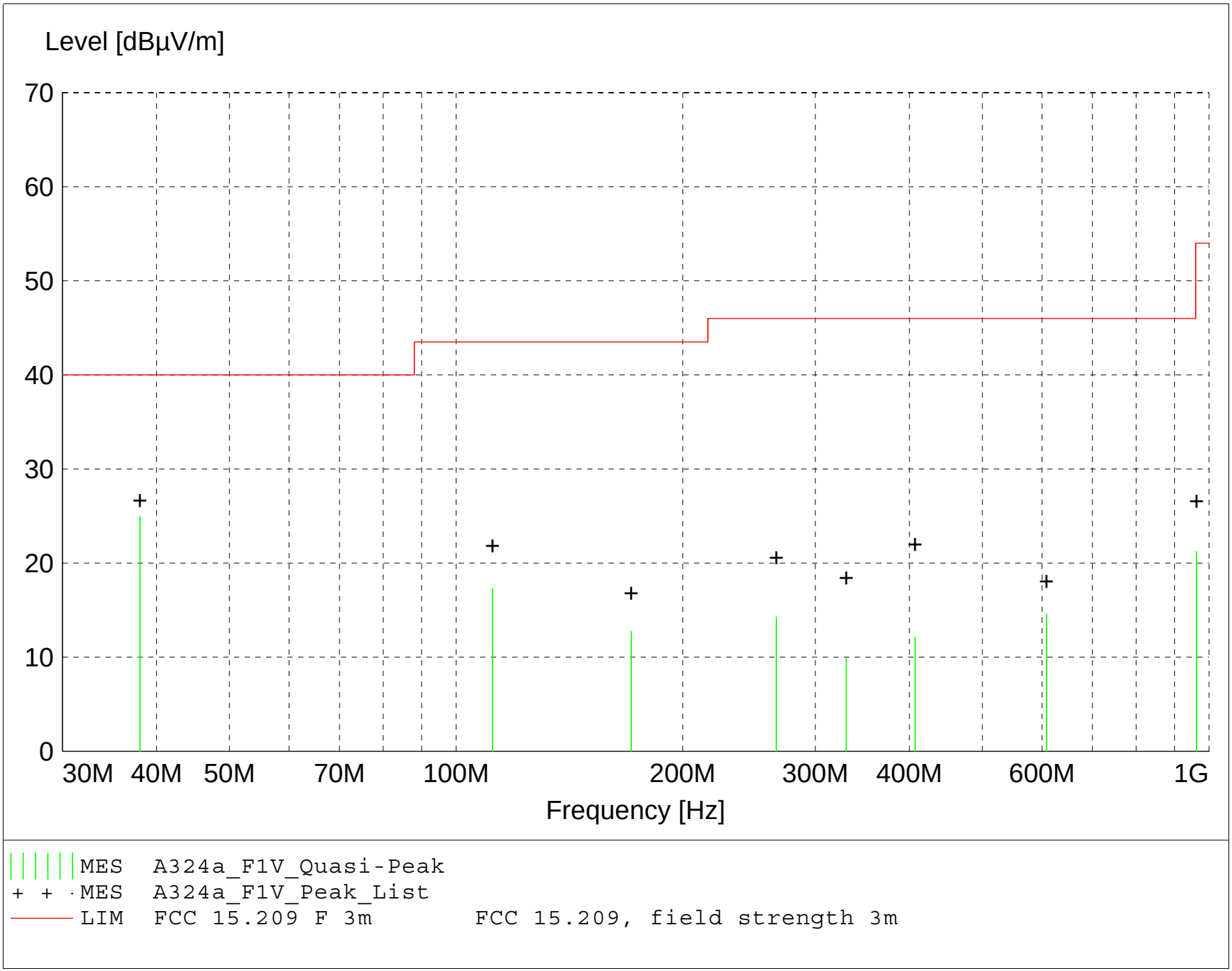
Sample Equations:

Total Level(dBµV/m)	= Level(dBµV)	+ System Loss(dB)	+ Antenna Factor(dBµV/m)
24.6	= 35.51	+ (-22.1)	+ 11.20

Margin(dB)	= Limit(dBµV/m)	- Total Level(dBµV/m)
15.4	= 40	- 24.6

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


Level [dBµV/m]
70
60
50
40
30
20
10
0
30M
40M
50M
70M
100M
200M
300M
400M
600M
1G
Frequency [Hz]
MES A324a_F1V_Quasi-Peak
MES A324a_F1V_Peak_List
LIM FCC 15.209 F 3m
FCC 15.209, field strength 3m

MEASUREMENT RESULT: "A324a_F1V_Final"

3/24/2015 11:27AM

Frequency	Level	Antenna Factor	System Loss	Total Level	Limit	Margin	Height Ant.	EuT Angle	Final Detector	Comment
MHz	dBµV	dBµV/m	dB	dBµV/m	dBµV/m	dB	m	deg		
38.040000	38.14	11.30	-24.5	25.0	40.0	15.0	1.00	0	QUASI-PEAK	NF Restricted B
111.780000	28.51	12.08	-23.3	17.3	43.5	26.2	1.00	0	QUASI-PEAK	NF Restricted B
170.820000	20.72	14.58	-22.6	12.7	43.5	30.8	1.00	0	QUASI-PEAK	NF Restricted B
608.600000	15.73	19.24	-20.4	14.6	46.0	31.4	1.00	0	QUASI-PEAK	NF Restricted B
266.300000	22.87	13.35	-22.0	14.3	46.0	31.7	1.00	270	QUASI-PEAK	NF Restricted B
962.360000	15.12	23.80	-17.7	21.2	54.0	32.8	1.00	0	QUASI-PEAK	NF Restricted B
407.120000	17.46	15.90	-21.2	12.1	46.0	33.9	2.00	340	QUASI-PEAK	NF Restricted B
329.720000	17.02	14.50	-21.7	9.9	46.0	36.1	1.00	0	QUASI-PEAK	NF Restricted B

FCC Part 15

Electric Field Strength

EUT: QR Premiere Nurse Call
Manufacturer: RF Technologies
Operating Condition: 66 deg. F; 22% R.H.
Test Site: DLS Site 2
Operator: Paul L 7099
Test Specification: 6V DC
Comment: Ch.11 2405MHz Continuous Transmit
Date: 03-20--2015

TEXT: "Horz 3 meters"

Short Description: Test Set-up

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

Equations: Total Level(dBµV/m) = Level(dBµV) + System Loss(dB) + Antenna Factor(dBµV/m)

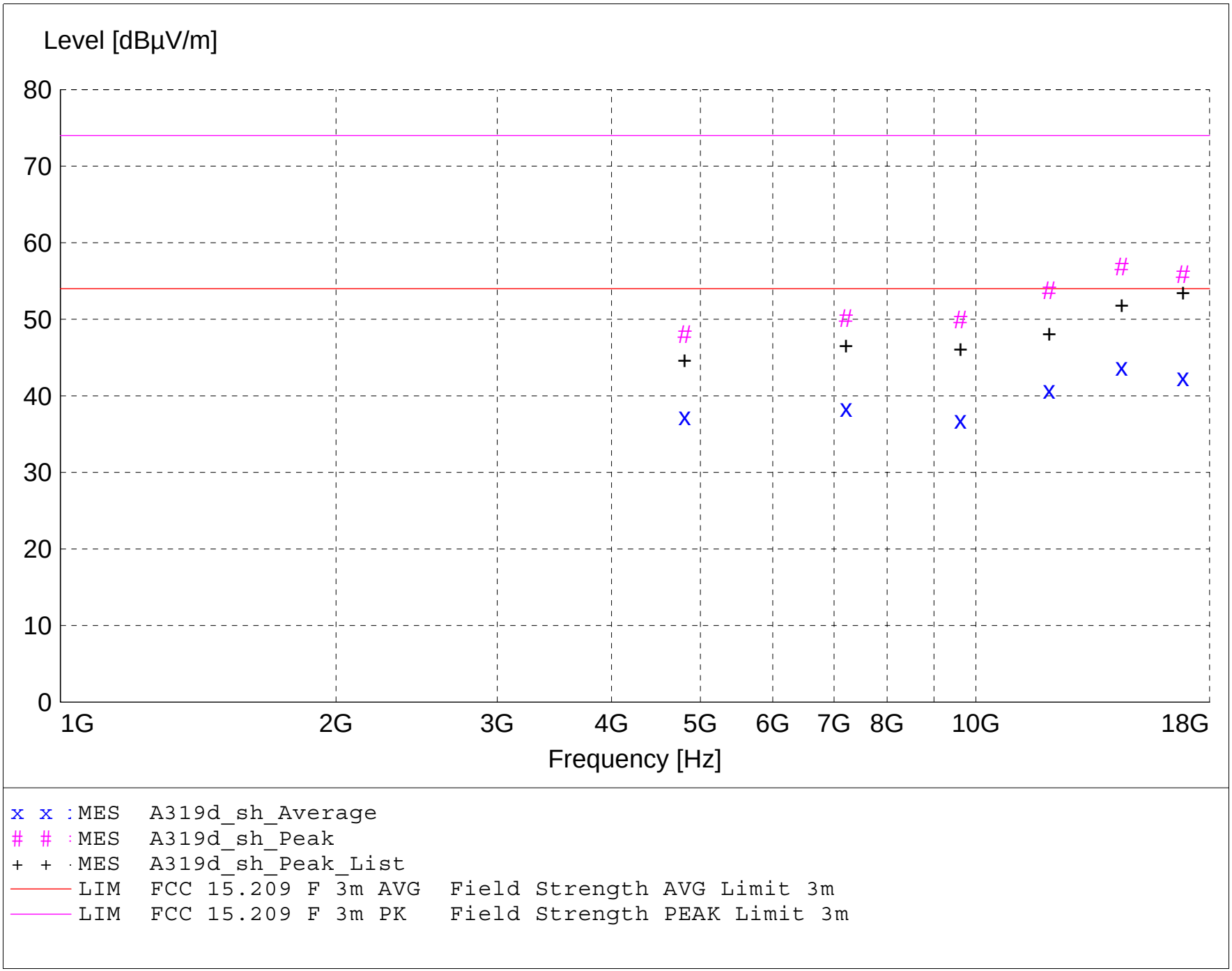
Margin(dB) = Limit(dBµV/m) - Total Level(dBµV/m)

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 dector

Final maximized level using Peak detector



x x : MES A319d_sh_Average
: MES A319d_sh_Peak
+ + : MES A319d_sh_Peak_List
——— LIM FCC 15.209 F 3m AVG Field Strength AVG Limit 3m
——— LIM FCC 15.209 F 3m PK Field Strength PEAK Limit 3m

MEASUREMENT RESULT: "A319d_sh_Final"

3/20/2015 11:47AM

Frequency	Level	Antenna Factor	System Loss	Total Level	Limit	Margin	Height Ant.	EuT Angle	Final Detector	Comment
MHz	dBµV	dBµV/m	dB	dBµV/m	dBµV/m	dB	m	deg		
14430.000000	47.80	42.37	-46.4	43.7	54.0	10.3	1.00	0	AVERAGE	6th Harmonic
16835.200000	47.65	40.68	-45.9	42.4	54.0	11.6	1.00	0	AVERAGE	7th Harmonic
12025.200000	49.05	40.20	-48.5	40.8	54.0	13.2	1.00	0	AVERAGE	Restricted Band
7213.600000	52.54	37.19	-51.3	38.4	54.0	15.6	1.00	135	AVERAGE	3rd Harmonic
4808.800000	57.70	32.93	-53.3	37.3	54.0	16.7	1.00	350	AVERAGE	Restricted Band
14430.000000	60.96	42.37	-46.4	56.9	74.0	17.1	1.00	0	MAX PEAK	6th Harmonic
9620.000000	50.65	38.68	-52.5	36.9	54.0	17.1	1.00	0	AVERAGE	4th Harmonic
16835.200000	61.10	40.68	-45.9	55.9	74.0	18.1	1.00	0	MAX PEAK	7th Harmonic
12025.200000	62.03	40.20	-48.5	53.8	74.0	20.2	1.00	0	MAX PEAK	Restricted Band
7213.600000	64.28	37.19	-51.3	50.2	74.0	23.8	1.00	135	MAX PEAK	3rd Harmonic
9620.000000	63.73	38.68	-52.5	49.9	74.0	24.1	1.00	0	MAX PEAK	4th Harmonic
4808.800000	68.41	32.93	-53.3	48.1	74.0	25.9	1.00	350	MAX PEAK	Restricted Band

FCC Part 15

Electric Field Strength

EUT: QR Premiere Nurse Call
Manufacturer: RF Technologies
Operating Condition: 66 deg. F; 22% R.H.
Test Site: DLS Site 2
Operator: Paul L 7099
Test Specification: 6V DC
Comment: Ch.11 2405MHz Continuous Transmit
Date: 03-20--2015

TEXT: "Vert 3 meters"

Short Description: Test Set-up

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

Equations: Total Level(dBµV/m) = Level(dBµV) + System Loss(dB) + Antenna Factor(dBµV/m)

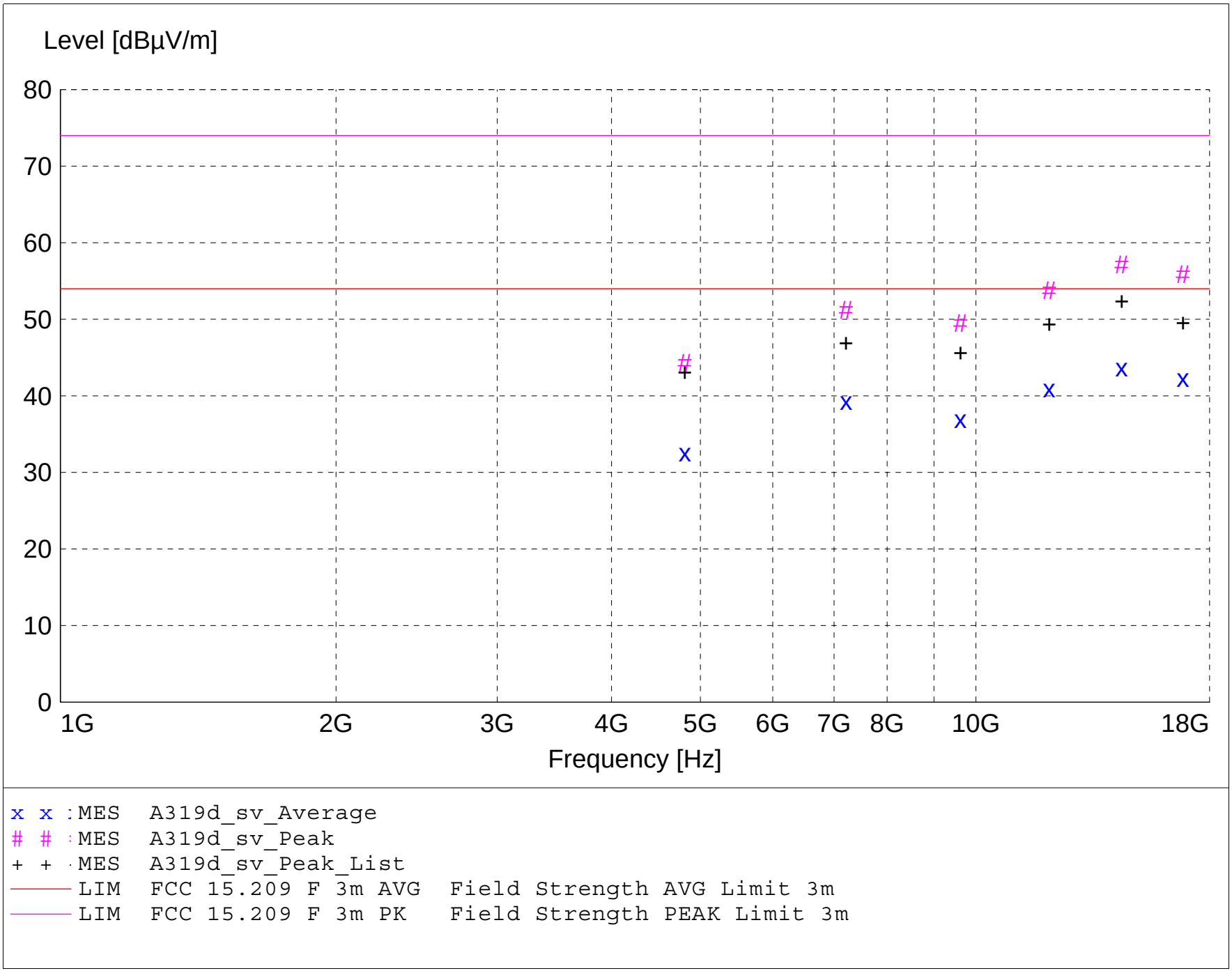
Margin(dB) = Limit(dBµV/m) - Total Level(dBµV/m)

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 dector

Final maximized level using Peak detector



x x : MES A319d_sv_Average
: MES A319d_sv_Peak
+ + : MES A319d_sv_Peak_List
——— LIM FCC 15.209 F 3m AVG Field Strength AVG Limit 3m
——— LIM FCC 15.209 F 3m PK Field Strength PEAK Limit 3m

MEASUREMENT RESULT: "A319d_sv_Final"

3/20/2015 11:28AM

Frequency	Level	Antenna Factor	System Loss	Total Level	Limit	Margin	Height Ant.	EuT Angle	Final Detector	Comment
MHz	dBµV	dBµV/m	dB	dBµV/m	dBµV/m	dB	m	deg		
14429.600000	47.80	42.36	-46.4	43.7	54.0	10.3	1.00	0	AVERAGE	6th Harmonic
16835.200000	47.54	40.68	-45.9	42.3	54.0	11.7	1.00	0	AVERAGE	7th Harmonic
12025.200000	49.18	40.20	-48.5	40.9	54.0	13.1	1.00	0	AVERAGE	Restricted Band
7213.600000	53.38	37.19	-51.3	39.3	54.0	14.7	1.50	23	AVERAGE	3rd Harmonic
14429.600000	61.23	42.36	-46.4	57.1	74.0	16.9	1.00	0	MAX PEAK	6th Harmonic
9620.000000	50.75	38.68	-52.5	37.0	54.0	17.0	1.00	0	AVERAGE	4th Harmonic
16835.200000	61.10	40.68	-45.9	55.9	74.0	18.1	1.00	0	MAX PEAK	7th Harmonic
12025.200000	62.03	40.20	-48.5	53.8	74.0	20.2	1.00	0	MAX PEAK	Restricted Band
4809.600000	52.89	32.93	-53.3	32.5	54.0	21.5	1.00	0	AVERAGE	Restricted Band
7213.600000	65.32	37.19	-51.3	51.2	74.0	22.8	1.50	23	MAX PEAK	3rd Harmonic
9620.000000	63.30	38.68	-52.5	49.5	74.0	24.5	1.00	0	MAX PEAK	4th Harmonic
4809.600000	64.67	32.93	-53.3	44.3	74.0	29.7	1.00	0	MAX PEAK	Restricted Band

FCC Part 15

Electric Field Strength

EUT: QR Premiere Nurse Call
Manufacturer: RF Technologies
Operating Condition: 63 deg. F; 28% R.H.
Test Site: DLS Site 2
Operator: Paul L 7099
Test Specification: 6V DC
Comment: Ch.11 2405MHz Continuous Transmit
Date: 03-23--2015

TEXT: "Horz 1 meters"

Short Description: Test Set-up

Test Set-up: EUT Measured at 1 Meters with HORIZONTAL Antenna Polarization

Equations: Total Level(dBµV/m) = Level(dBµV) + System Loss(dB) + Antenna Factor(dBµV/m)

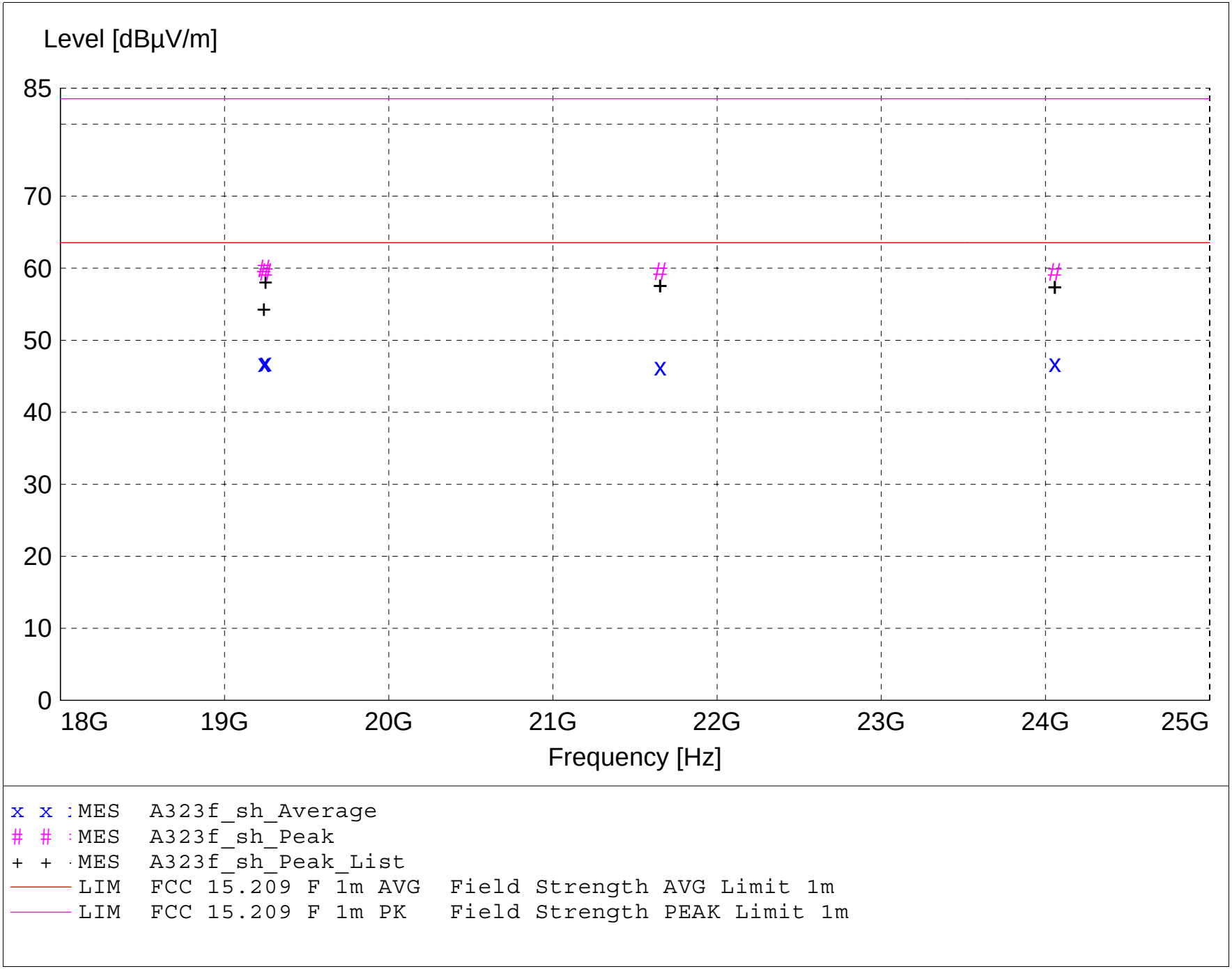
Margin(dB) = Limit(dBµV/m) - Total Level(dBµV/m)

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 dector

Final maximized level using Peak detector



x x :MES A323f_sh_Average
:MES A323f_sh_Peak
+ + :MES A323f_sh_Peak_List
——— LIM FCC 15.209 F 1m AVG Field Strength AVG Limit 1m
——— LIM FCC 15.209 F 1m PK Field Strength PEAK Limit 1m

MEASUREMENT RESULT: "A323f_sh_Final"

3/23/2015 3:07PM

Frequency	Level	Antenna Factor	System Loss	Total Level	Limit	Margin	Height Ant.	EuT Angle	Final Detector	Comment
MHz	dBµV	dBµV/m	dB	dBµV/m	dBµV/m	dB	m	deg		
19249.800000	38.19	47.52	-38.8	46.9	63.5	16.7	1.00	0	AVERAGE	None
19240.000000	38.13	47.54	-38.8	46.8	63.5	16.7	1.00	0	AVERAGE	8th Harm Restri
24057.800000	38.19	47.41	-38.8	46.8	63.5	16.8	1.00	0	AVERAGE	10th Harm NF
21654.000000	38.01	46.99	-38.7	46.3	63.5	17.3	1.00	0	AVERAGE	9th Harm NF
19240.000000	51.27	47.54	-38.8	60.0	83.5	23.6	1.00	0	MAX PEAK	8th Harm Restri
21654.000000	51.27	46.99	-38.7	59.5	83.5	24.0	1.00	0	MAX PEAK	9th Harm NF
19249.800000	50.78	47.52	-38.8	59.5	83.5	24.1	1.00	0	MAX PEAK	None
24057.800000	50.90	47.41	-38.8	59.5	83.5	24.1	1.00	0	MAX PEAK	10th Harm NF

FCC Part 15

Electric Field Strength

EUT: QR Premiere Nurse Call
Manufacturer: RF Technologies
Operating Condition: 63 deg. F; 28% R.H.
Test Site: DLS Site 2
Operator: Paul L 7099
Test Specification: 6V DC
Comment: Ch.11 2405MHz Continuous Transmit
Date: 03-23--2015

TEXT: "Vert 1 meters"

Short Description: Test Set-up

Test Set-up: EUT Measured at 1 Meters with VERTICAL Antenna Polarization

Equations: Total Level(dBµV/m) = Level(dBµV) + System Loss(dB) + Antenna Factor(dBµV/m)

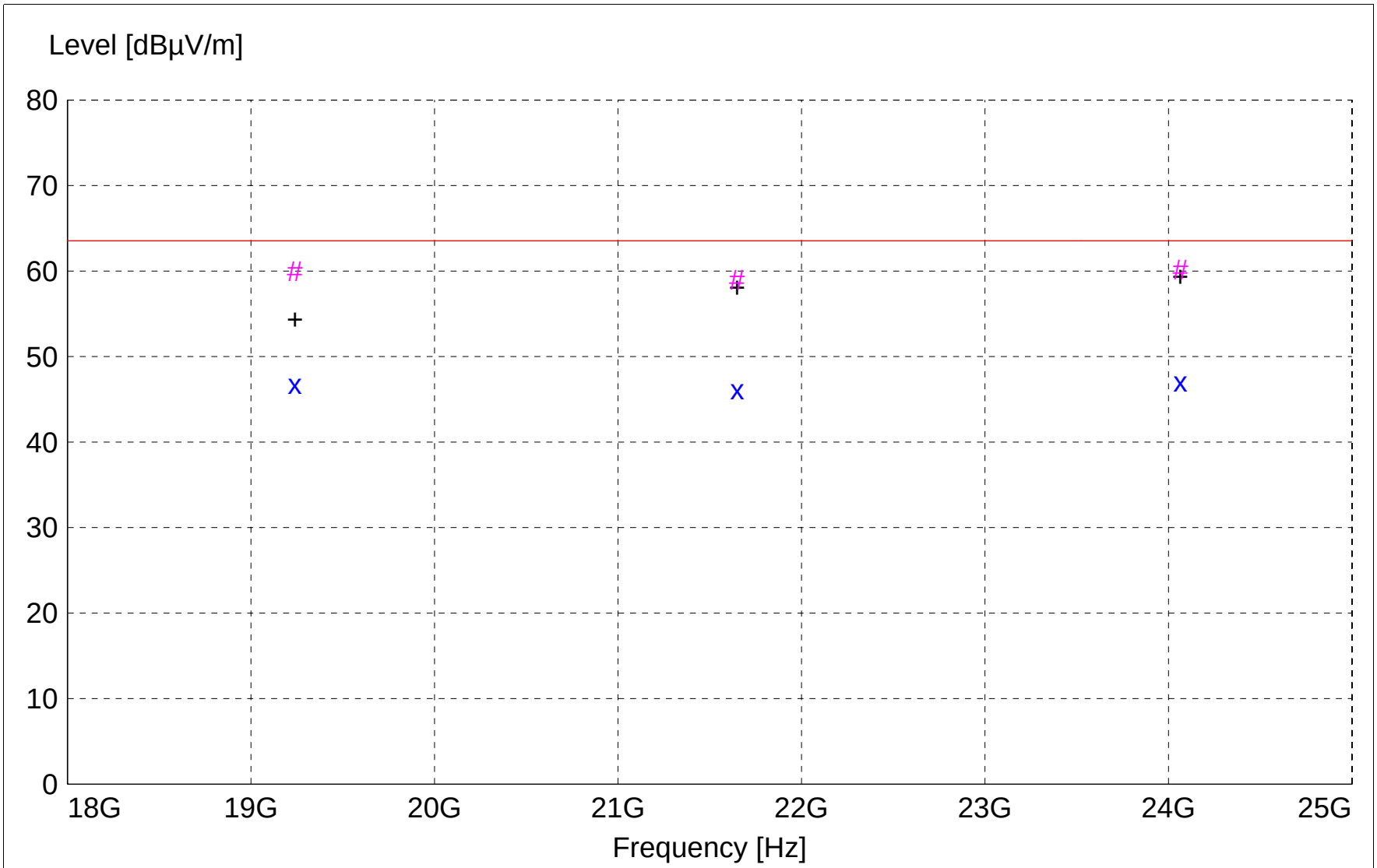
Margin(dB) = Limit(dBµV/m) - Total Level(dBµV/m)

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 dector

Final maximized level using Peak detector



x x : MES A323f_sv_Average
: MES A323f_sv_Peak
+ + : MES A323f_sv_Peak_List
——— LIM FCC 15.209 F 1m AVG Field Strength AVG Limit 1m
——— LIM FCC 15.209 F 1m PK Field Strength PEAK Limit 1m

MEASUREMENT RESULT: "A323f_sv_Final"

3/23/2015 2:54PM

Frequency	Level	Antenna Factor	System Loss	Total Level	Limit	Margin	Height Ant.	EuT Angle	Final Detector	Comment
MHz	dBµV	dBµV/m	dB	dBµV/m	dBµV/m	dB	m	deg		
24065.000000	38.41	47.42	-38.8	47.0	63.5	16.5	1.00	0	AVERAGE	10th Harm NF
19240.000000	38.13	47.54	-38.8	46.8	63.5	16.7	1.00	0	AVERAGE	8th Harm Restri
21649.400000	37.84	47.00	-38.7	46.2	63.5	17.4	1.00	0	AVERAGE	9th Harm NF
24065.000000	51.52	47.42	-38.8	60.1	83.5	23.4	1.00	0	MAX PEAK	10th Harm NF
19240.000000	51.27	47.54	-38.8	60.0	83.5	23.6	1.00	0	MAX PEAK	8th Harm Restri
21649.400000	50.66	47.00	-38.7	59.0	83.5	24.6	1.00	0	MAX PEAK	9th Harm NF

FCC Pt. 15.247(d)

Electric Field Strength

EUT: QR Premiere Nurse Call
Manufacturer: RF Technologies
Operating Condition: 64 deg. F; 25% R.H.
Test Site: DLS O.F. Site 3
Operator: Paul L 7099
Test Specification: 6V DC Cross Polarized Antennas; Simultaneous Transmit
Comment: Ch.18 2440MHz Continuous Transmit
Date: 3-24-2015

TEXT: "Horz 3 meters"

Short Description: Test Set-up

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

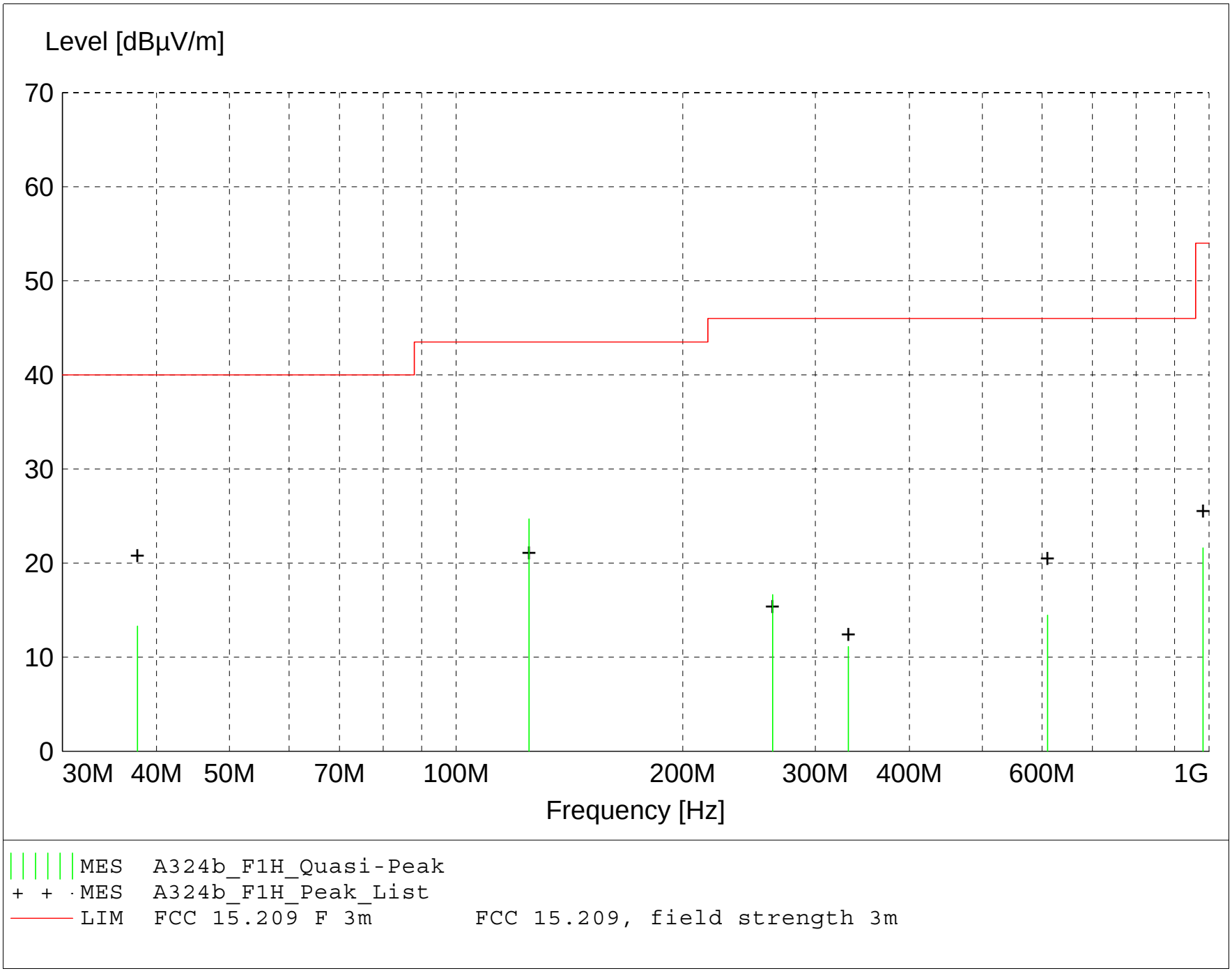
Sample Equations:

Total Level(dBµV/m)	= Level(dBµV)	+ System Loss(dB)	+ Antenna Factor(dBµV/m)
24.6	= 35.51	+ (-22.1)	+ 11.20

Margin(dB)	= Limit(dBµV/m)	- Total Level(dBµV/m)
15.4	= 40	- 24.6

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


Level [dBµV/m]
70
60
50
40
30
20
10
0
30M
40M
50M
70M
100M
200M
300M
400M
600M
1G
Frequency [Hz]
MES A324b_F1H_Quasi-Peak
MES A324b_F1H_Peak_List
LIM FCC 15.209 F 3m
FCC 15.209, field strength 3m

MEASUREMENT RESULT: "A324b_F1H_Final"

3/24/2015 2:20PM

Frequency	Level	Antenna Factor	System Loss	Total Level	Limit	Margin	Height Ant.	EuT Angle	Final Detector	Comment
MHz	dBµV	dBµV/m	dB	dBµV/m	dBµV/m	dB	m	deg		
124.980000	35.02	12.90	-23.2	24.7	43.5	18.8	3.50	0	QUASI-PEAK	NF Restricted B
37.740000	26.48	11.30	-24.5	13.3	40.0	26.7	4.00	0	QUASI-PEAK	NF Restricted B
263.220000	25.47	13.19	-22.0	16.7	46.0	29.3	1.00	0	QUASI-PEAK	NF Restricted B
610.340000	15.56	19.31	-20.4	14.5	46.0	31.5	4.00	0	QUASI-PEAK	NF Restricted B
981.600000	15.04	24.20	-17.6	21.6	54.0	32.4	4.00	0	QUASI-PEAK	NF Restricted B
331.780000	18.19	14.57	-21.6	11.1	46.0	34.9	1.00	0	QUASI-PEAK	NF Restricted B

FCC Pt. 15.247(d)

Electric Field Strength

EUT: QR Premiere Nurse Call
Manufacturer: RF Technologies
Operating Condition: 64 deg. F; 25% R.H.
Test Site: DLS O.F. Site 3
Operator: Paul L 7099
Test Specification: 6V DC Cross Polarized Antennas; Simultaneous Transmit
Comment: Ch.18 2440MHz Continuous Transmit
Date: 3-24-2015

TEXT: "Vert 3 meters"

Short Description: Test Set-up

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

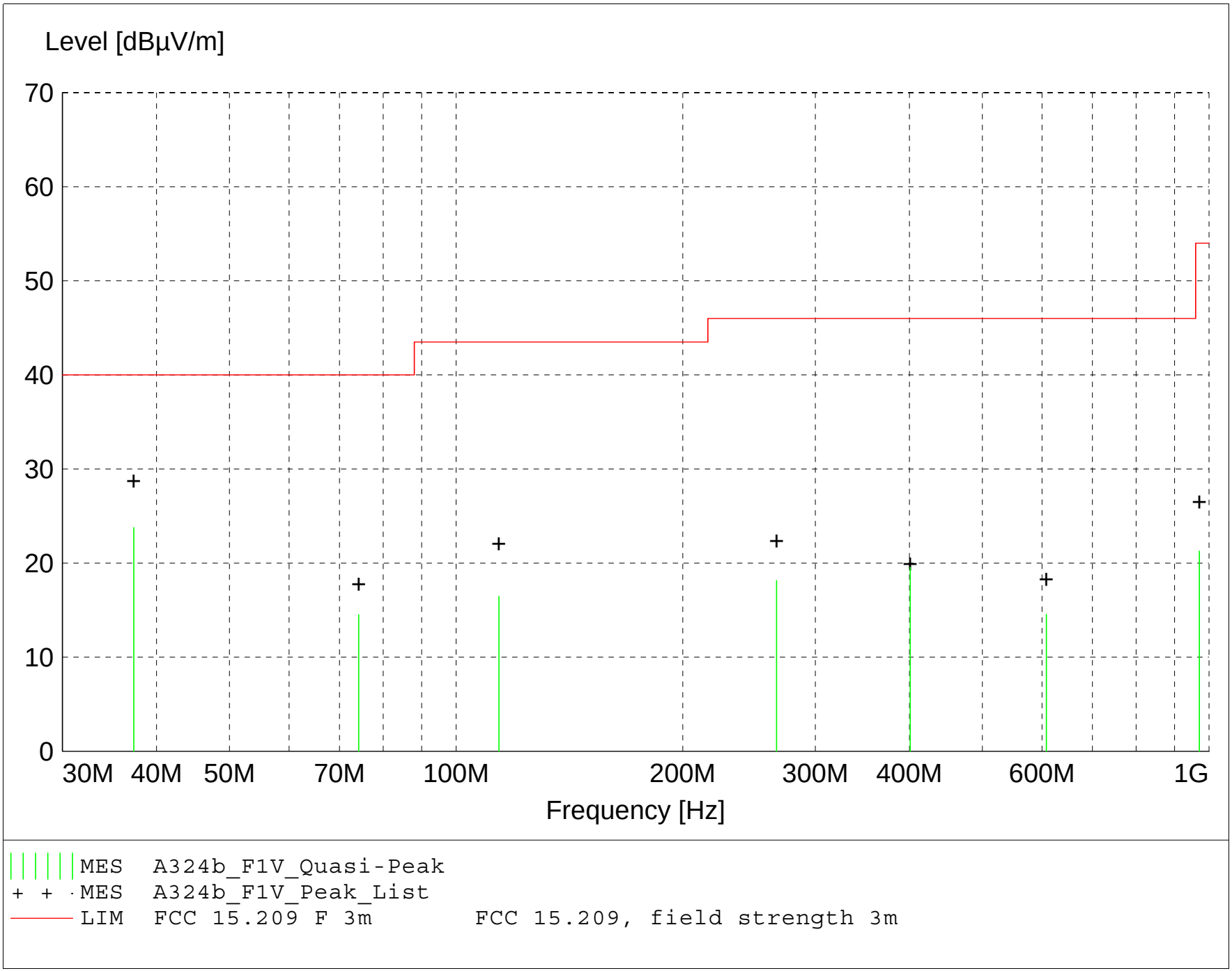
Sample Equations:

Total Level(dBµV/m)	= Level(dBµV)	+ System Loss(dB)	+ Antenna Factor(dBµV/m)
24.6	= 35.51	+ (-22.1)	+ 11.20

Margin(dB)	= Limit(dBµV/m)	- Total Level(dBµV/m)
15.4	= 40	- 24.6

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


Level [dBµV/m]
70
60
50
40
30
20
10
0
30M
40M
50M
70M
100M
200M
300M
400M
600M
1G
Frequency [Hz]
MES A324b_F1V_Quasi-Peak
MES A324b_F1V_Peak_List
LIM FCC 15.209 F 3m
FCC 15.209, field strength 3m

MEASUREMENT RESULT: "A324b_F1V_Final"

3/24/2015 1:56PM

Frequency	Level	Antenna Factor	System Loss	Total Level	Limit	Margin	Height Ant.	EuT Angle	Final Detector	Comment
MHz	dBµV	dBµV/m	dB	dBµV/m	dBµV/m	dB	m	deg		
37.320000	36.95	11.30	-24.5	23.8	40.0	16.2	1.00	0	QUASI-PEAK	NF Restricted B
74.220000	32.15	6.23	-23.9	14.5	40.0	25.5	1.00	0	QUASI-PEAK	NF Restricted B
400.920000	24.97	15.90	-21.3	19.5	46.0	26.5	1.00	90	QUASI-PEAK	NF Restricted B
114.000000	27.41	12.30	-23.2	16.5	43.5	27.0	1.00	0	QUASI-PEAK	NF Restricted B
266.460000	26.75	13.36	-22.0	18.2	46.0	27.8	1.00	90	QUASI-PEAK	NF Restricted B
608.120000	15.75	19.22	-20.4	14.6	46.0	31.4	1.00	0	QUASI-PEAK	NF Restricted B
970.680000	15.14	23.91	-17.8	21.3	54.0	32.7	1.00	0	QUASI-PEAK	NF Restricted B

FCC Part 15

Electric Field Strength

EUT: QR Premiere Nurse Call
Manufacturer: RF Technologies
Operating Condition: 66 deg. F; 22% R.H.
Test Site: DLS Site 2
Operator: Paul L 7099
Test Specification: 6V DC
Comment: Ch.18 2440MHz Continuous Transmit
Date: 03-20--2015

TEXT: "Horz 3 meters"

Short Description: Test Set-up

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

Equations: Total Level(dBµV/m) = Level(dBµV) + System Loss(dB) + Antenna Factor(dBµV/m)

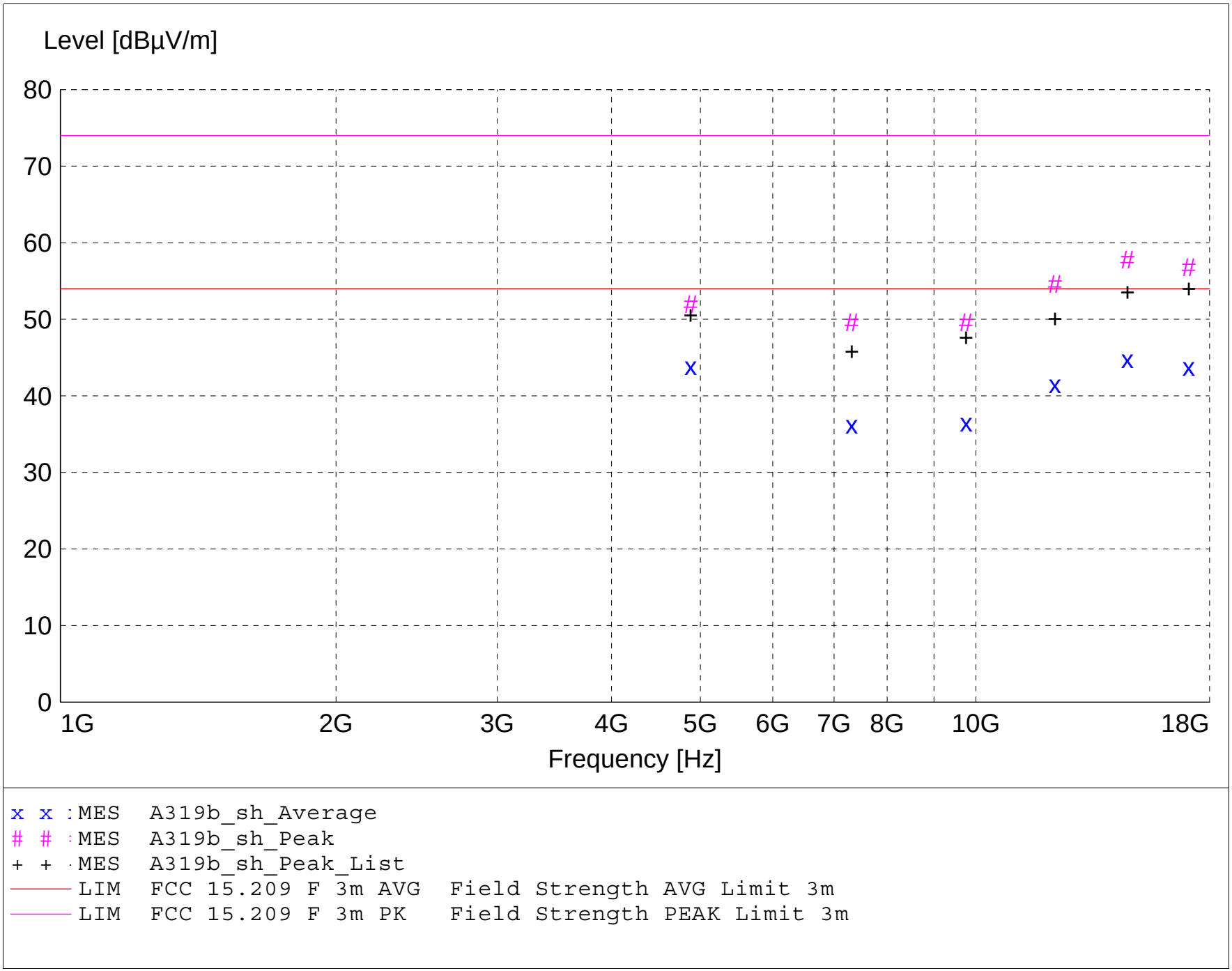
Margin(dB) = Limit(dBµV/m) - Total Level(dBµV/m)

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 dector

Final maximized level using Peak detector



x x : MES A319b_sh_Average
: MES A319b_sh_Peak
+ + : MES A319b_sh_Peak_List
——— LIM FCC 15.209 F 3m AVG Field Strength AVG Limit 3m
——— LIM FCC 15.209 F 3m PK Field Strength PEAK Limit 3m

MEASUREMENT RESULT: "A319b_sh_Final"

3/20/2015 10:17AM

Frequency	Level	Antenna Factor	System Loss	Total Level	Limit	Margin	Height Ant.	EuT Angle	Final Detector	Comment
MHz	dBµV	dBµV/m	dB	dBµV/m	dBµV/m	dB	m	deg		
14641.600000	47.04	44.11	-46.4	44.8	54.0	9.2	1.00	0	AVERAGE	6th Harmonic
4880.800000	63.97	32.93	-53.1	43.8	54.0	10.2	1.00	112	AVERAGE	Restricted Band
17081.600000	47.22	41.62	-45.1	43.7	54.0	10.3	1.00	0	AVERAGE	7th Harmonic
12200.000000	48.87	40.57	-47.9	41.5	54.0	12.5	1.00	0	AVERAGE	Restricted Band
14641.600000	60.03	44.11	-46.4	57.8	74.0	16.2	1.00	0	MAX PEAK	6th Harmonic
17081.600000	60.30	41.62	-45.1	56.8	74.0	17.2	1.00	0	MAX PEAK	7th Harmonic
9760.400000	50.04	38.80	-52.4	36.5	54.0	17.5	1.00	0	AVERAGE	4th Harmonic
7319.600000	49.66	37.25	-50.7	36.2	54.0	17.8	1.00	0	AVERAGE	Restricted Band
12200.000000	61.90	40.57	-47.9	54.6	74.0	19.4	1.00	0	MAX PEAK	Restricted Band
4880.800000	72.11	32.93	-53.1	52.0	74.0	22.0	1.00	112	MAX PEAK	Restricted Band
7319.600000	63.01	37.25	-50.7	49.6	74.0	24.4	1.00	0	MAX PEAK	Restricted Band
9760.400000	63.15	38.80	-52.4	49.6	74.0	24.4	1.00	0	MAX PEAK	4th Harmonic

FCC Part 15

Electric Field Strength

EUT: QR Premiere Nurse Call
Manufacturer: RF Technologies
Operating Condition: 66 deg. F; 22% R.H.
Test Site: DLS Site 2
Operator: Paul L 7099
Test Specification: 6V DC
Comment: Ch.18 2440MHz Continuous Transmit
Date: 03-20--2015

TEXT: "Vert 3 meters"

Short Description: Test Set-up

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

Equations: Total Level(dBµV/m) = Level(dBµV) + System Loss(dB) + Antenna Factor(dBµV/m)

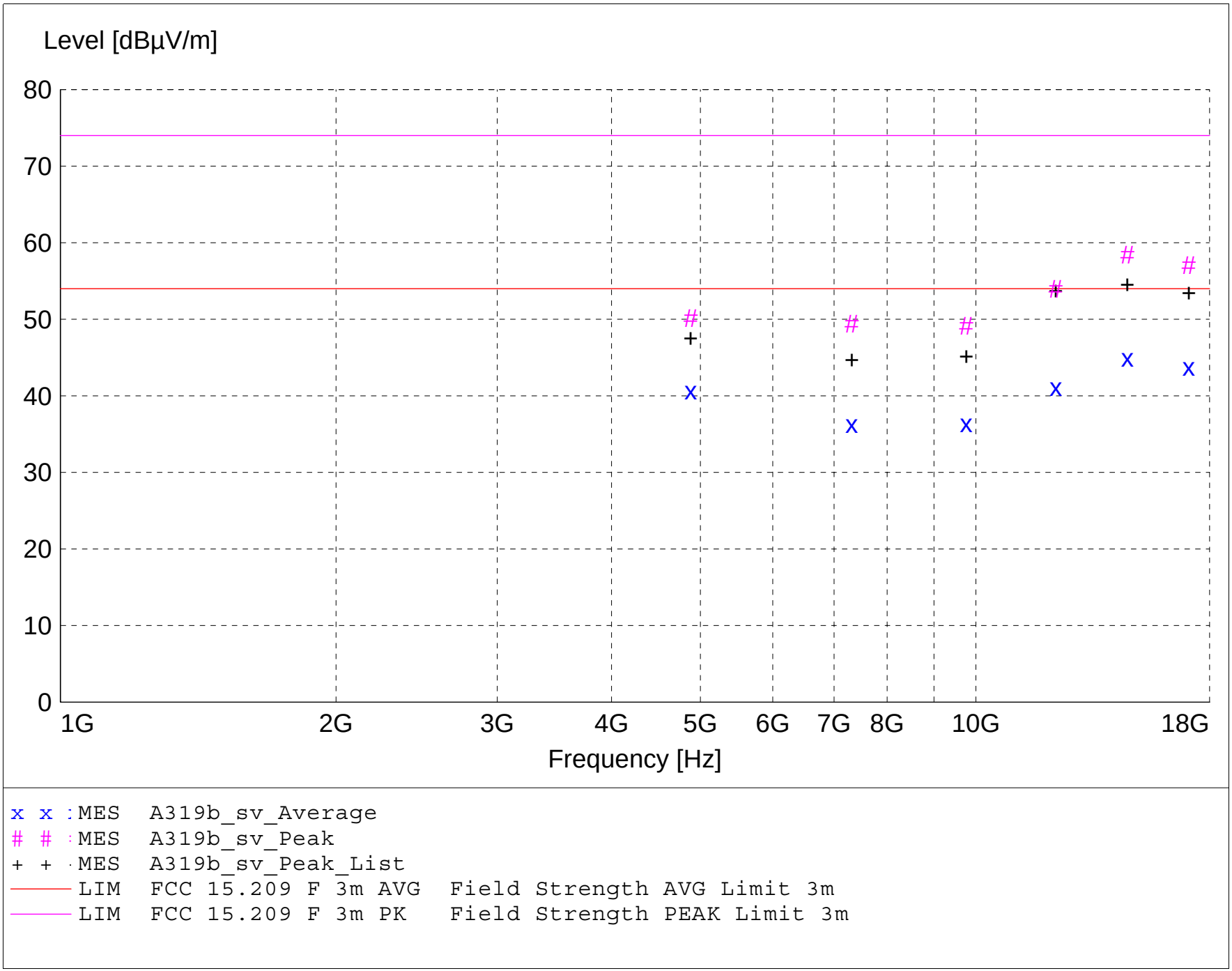
Margin(dB) = Limit(dBµV/m) - Total Level(dBµV/m)

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 dector

Final maximized level using Peak detector



x x : MES A319b_sv_Average
: MES A319b_sv_Peak
+ + : MES A319b_sv_Peak_List
——— LIM FCC 15.209 F 3m AVG Field Strength AVG Limit 3m
——— LIM FCC 15.209 F 3m PK Field Strength PEAK Limit 3m

MEASUREMENT RESULT: "A319b_sv_Final"

3/20/2015 9:53AM

Frequency	Level	Antenna Factor	System Loss	Total Level	Limit	Margin	Height Ant.	EuT Angle	Final Detector	Comment
MHz	dBµV	dBµV/m	dB	dBµV/m	dBµV/m	dB	m	deg		
14640.800000	47.24	44.10	-46.4	45.0	54.0	9.0	1.00	0	AVERAGE	Restricted Band
17080.800000	47.32	41.62	-45.1	43.8	54.0	10.2	1.00	0	AVERAGE	7th Harmonic
12225.200000	48.85	40.59	-48.3	41.2	54.0	12.8	1.00	0	AVERAGE	Restricted Band
4881.200000	60.85	32.93	-53.1	40.7	54.0	13.3	1.00	0	AVERAGE	Restricted Band
14640.800000	60.70	44.10	-46.4	58.4	74.0	15.6	1.00	0	MAX PEAK	Restricted Band
17080.800000	60.57	41.62	-45.1	57.1	74.0	16.9	1.00	0	MAX PEAK	7th Harmonic
9760.000000	49.98	38.80	-52.4	36.4	54.0	17.6	1.00	0	AVERAGE	4th Harmonic
7320.000000	49.76	37.25	-50.7	36.4	54.0	17.6	1.25	0	AVERAGE	Restricted Band
12225.200000	61.63	40.59	-48.3	53.9	74.0	20.1	1.00	0	MAX PEAK	Restricted Band
4881.200000	70.30	32.93	-53.1	50.2	74.0	23.8	1.00	0	MAX PEAK	Restricted Band
7320.000000	62.87	37.25	-50.7	49.5	74.0	24.5	1.25	0	MAX PEAK	Restricted Band
9760.000000	62.73	38.80	-52.4	49.2	74.0	24.8	1.00	0	MAX PEAK	4th Harmonic

FCC Part 15

Electric Field Strength

EUT: QR Premiere Nurse Call
Manufacturer: RF Technologies
Operating Condition: 63 deg. F; 28% R.H.
Test Site: DLS Site 2
Operator: Paul L 7099
Test Specification: 6V DC
Comment: Ch.18 2440MHz Continuous Transmit
Date: 03-23--2015

TEXT: "Horz 1 meters"

Short Description: Test Set-up

Test Set-up: EUT Measured at 1 Meters with HORIZONTAL Antenna Polarization

Equations: Total Level(dBµV/m) = Level(dBµV) + System Loss(dB) + Antenna Factor(dBµV/m)

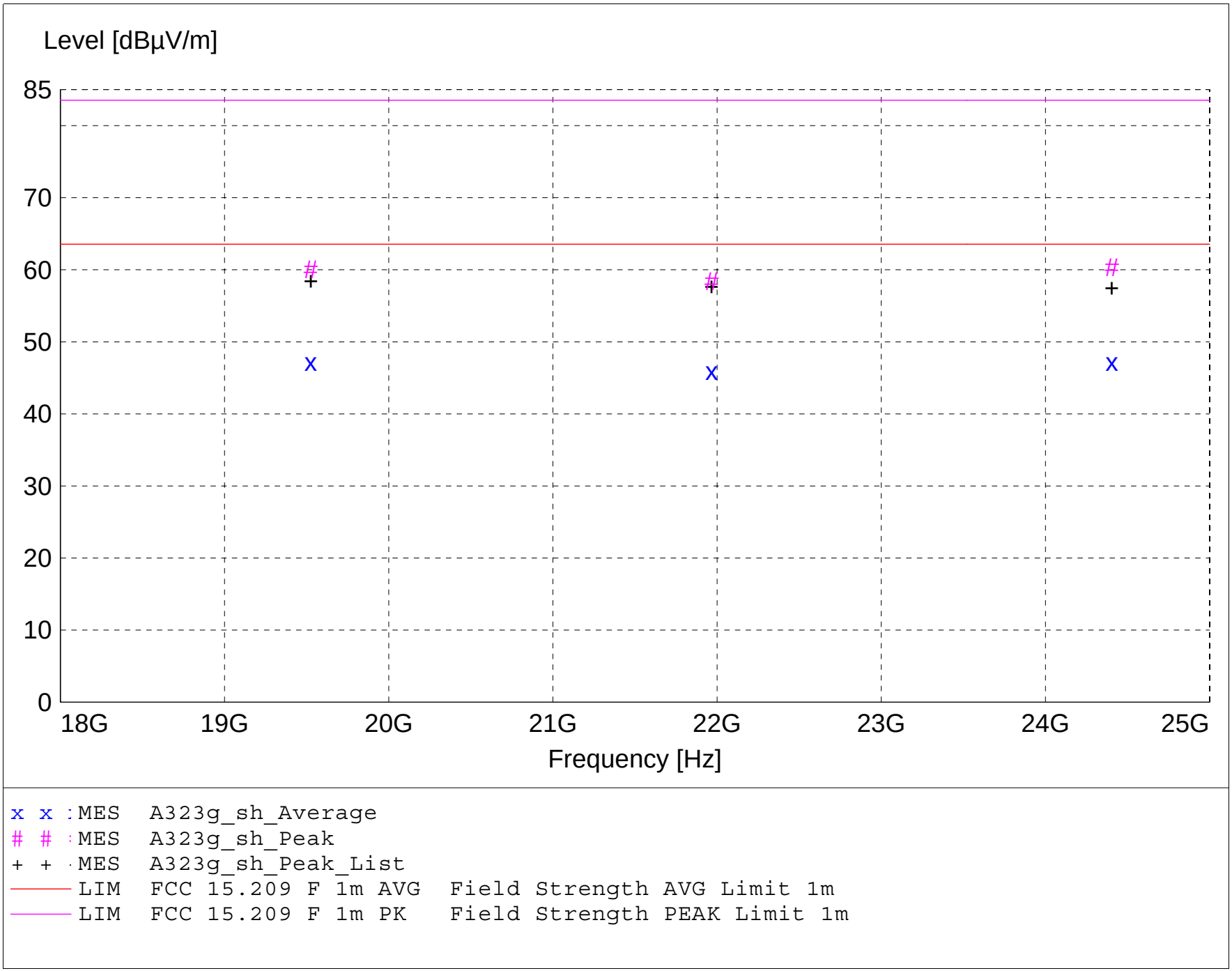
Margin(dB) = Limit(dBµV/m) - Total Level(dBµV/m)

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 dector

Final maximized level using Peak detector



x x : MES A323g_sh_Average
: MES A323g_sh_Peak
+ + : MES A323g_sh_Peak_List
——— LIM FCC 15.209 F 1m AVG Field Strength AVG Limit 1m
——— LIM FCC 15.209 F 1m PK Field Strength PEAK Limit 1m

MEASUREMENT RESULT: "A323g_sh_Final"

3/23/2015 3:15PM

Frequency	Level	Antenna Factor	System Loss	Total Level	Limit	Margin	Height Ant.	EuT Angle	Final Detector	Comment
MHz	dBµV	dBµV/m	dB	dBµV/m	dBµV/m	dB	m	deg		
24404.800000	38.41	47.54	-38.7	47.2	63.5	16.3	1.00	0	AVERAGE	10h Harm NF
19525.200000	37.48	47.90	-38.2	47.2	63.5	16.4	1.00	0	AVERAGE	8th Harm Restri
21966.800000	38.52	47.00	-39.6	45.9	63.5	17.6	1.00	0	AVERAGE	9th Harm NF
24404.800000	51.52	47.54	-38.7	60.3	83.5	23.2	1.00	0	MAX PEAK	10h Harm NF
19525.200000	50.42	47.90	-38.2	60.1	83.5	23.5	1.00	0	MAX PEAK	8th Harm Restri
21966.800000	51.02	47.00	-39.6	58.4	83.5	25.1	1.00	0	MAX PEAK	9th Harm NF

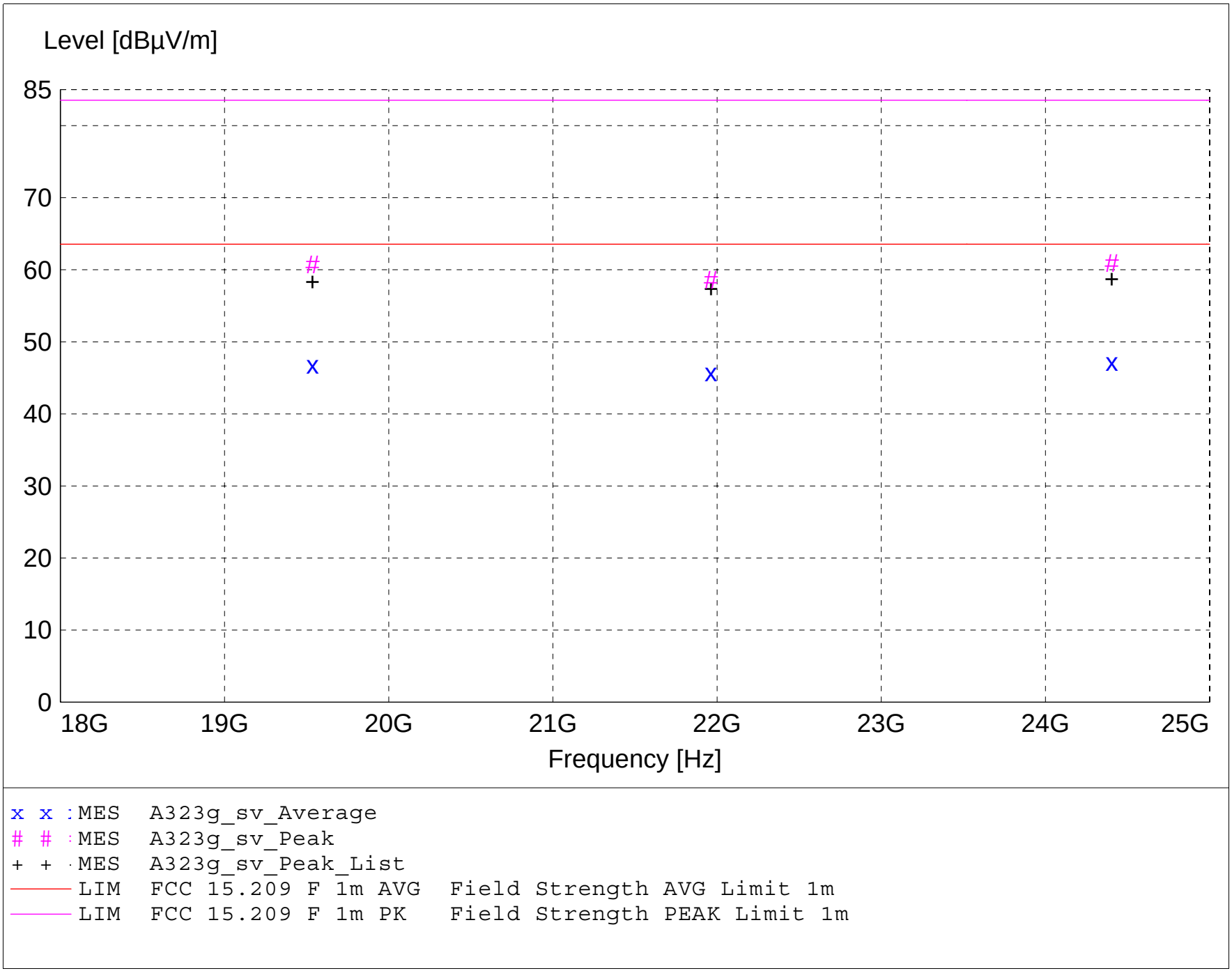
FCC Part 15

Electric Field Strength

```
EUT:                  QR Premiere Nurse Call
Manufacturer:         RF Technologies
Operating Condition:  63 deg. F; 28% R.H.
Test Site:            DLS Site 2
Operator:             Paul L 7099
Test Specification:   6V DC
Comment:              Ch.18 2440MHz Continuous Transmit
                      Date:  03-23--2015
```

TEXT: "Vert 1 meters"

```
  Short Description:            Test Set-up

Test Set-up:     EUT Measured at 1 Meters with VERTICAL Antenna Polarization

Equations:       Total Level(dBµV/m) = Level(dBµV) + System Loss(dB) + Antenna Factor(dBµV/m)

                 Margin(dB)  = Limit(dBµV/m) - Total Level(dBµV/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 dector

                 #       Final maximized level using Peak detector
```



x x : MES A323g_sv_Average
: MES A323g_sv_Peak
+ + : MES A323g_sv_Peak_List
——— LIM FCC 15.209 F 1m AVG Field Strength AVG Limit 1m
——— LIM FCC 15.209 F 1m PK Field Strength PEAK Limit 1m

MEASUREMENT RESULT: "A323g_sv_Final"

3/23/2015 3:23PM

Frequency	Level	Antenna Factor	System Loss	Total Level	Limit	Margin	Height Ant.	EuT Angle	Final Detector	Comment
MHz	dBµV	dBµV/m	dB	dBµV/m	dBµV/m	dB	m	deg		
24404.600000	38.41	47.54	-38.7	47.2	63.5	16.3	1.00	0	AVERAGE	10th Harm NF
19535.800000	37.17	47.90	-38.2	46.8	63.5	16.7	1.00	0	AVERAGE	8th Harm Restri
21963.800000	38.30	47.01	-39.6	45.7	63.5	17.8	1.00	0	AVERAGE	9th Harm NF
24404.600000	52.14	47.54	-38.7	61.0	83.5	22.6	1.00	0	MAX PEAK	10th Harm NF
19535.800000	51.02	47.90	-38.2	60.7	83.5	22.8	1.00	0	MAX PEAK	8th Harm Restri
21963.800000	51.15	47.01	-39.6	58.6	83.5	25.0	1.00	0	MAX PEAK	9th Harm NF

FCC Pt. 15.247(d)

Electric Field Strength

EUT: QR Premiere Nurse Call
Manufacturer: RF Technologies
Operating Condition: 64 deg. F; 25% R.H.
Test Site: DLS O.F. Site 3
Operator: Paul L 7099
Test Specification: 6V DC Cross Polarized Antennas; Simultaneous Transmit
Comment: Ch.25 2475MHz Continuous Transmit
Date: 3-24-2015

TEXT: "Horz 3 meters"

Short Description: Test Set-up

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

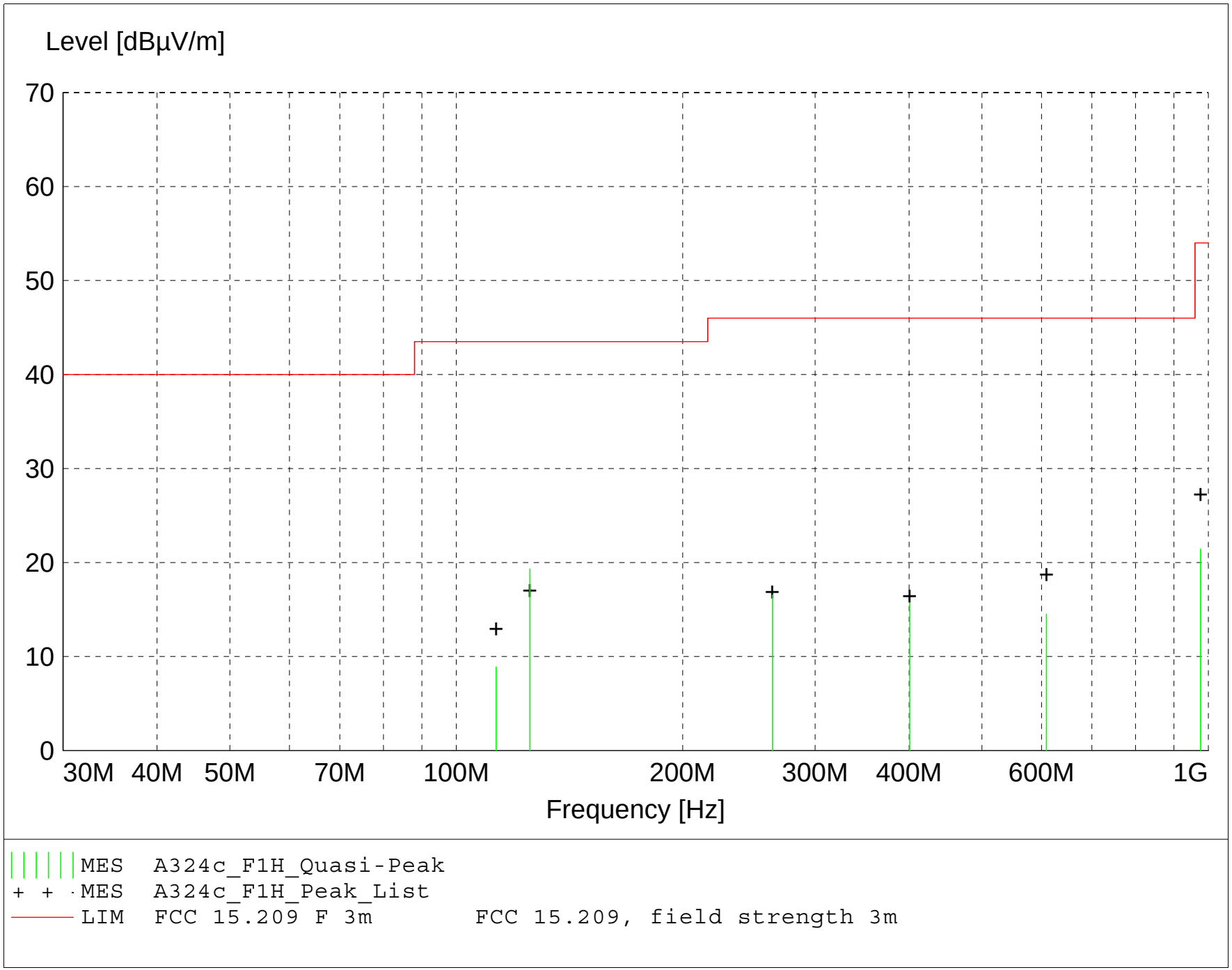
Sample Equations:

Total Level(dBµV/m)	= Level(dBµV)	+ System Loss(dB)	+ Antenna Factor(dBµV/m)
24.6	= 35.51	+ (-22.1)	+ 11.20

Margin(dB)	= Limit(dBµV/m)	- Total Level(dBµV/m)
15.4	= 40	- 24.6

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


Level [dBµV/m]
70
60
50
40
30
20
10
0
30M
40M
50M
70M
100M
200M
300M
400M
600M
1G
Frequency [Hz]
MES A324c_F1H_Quasi-Peak
MES A324c_F1H_Peak_List
LIM FCC 15.209 F 3m
FCC 15.209, field strength 3m

MEASUREMENT RESULT: "A324c_F1H_Final"

3/24/2015 3:30PM

Frequency	Level	Antenna Factor	System Loss	Total Level	Limit	Margin	Height Ant.	EuT Angle	Final Detector	Comment
MHz	dBµV	dBµV/m	dB	dBµV/m	dBµV/m	dB	m	deg		
125.280000	29.67	12.84	-23.2	19.3	43.5	24.2	1.00	0	QUASI-PEAK	NF Restricted B
263.220000	25.36	13.19	-22.0	16.5	46.0	29.5	1.00	270	QUASI-PEAK	NF Restricted B
400.860000	21.16	15.90	-21.3	15.7	46.0	30.3	1.00	270	QUASI-PEAK	NF Restricted B
609.140000	15.66	19.27	-20.4	14.5	46.0	31.5	4.00	0	QUASI-PEAK	NF Restricted B
976.380000	15.12	24.06	-17.7	21.5	54.0	32.5	4.00	0	QUASI-PEAK	NF Restricted B
112.980000	19.94	12.20	-23.2	8.9	43.5	34.6	4.00	0	QUASI-PEAK	NF Restricted B

FCC Pt. 15.247(d)

Electric Field Strength

EUT: QR Premiere Nurse Call
Manufacturer: RF Technologies
Operating Condition: 64 deg. F; 25% R.H.
Test Site: DLS O.F. Site 3
Operator: Paul L 7099
Test Specification: 6V DC Cross Polarized Antennas; Simultaneous Transmit
Comment: Ch.25 2475MHz Continuous Transmit
Date: 3-24-2015

TEXT: "Vert 3 meters"

Short Description: Test Set-up

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

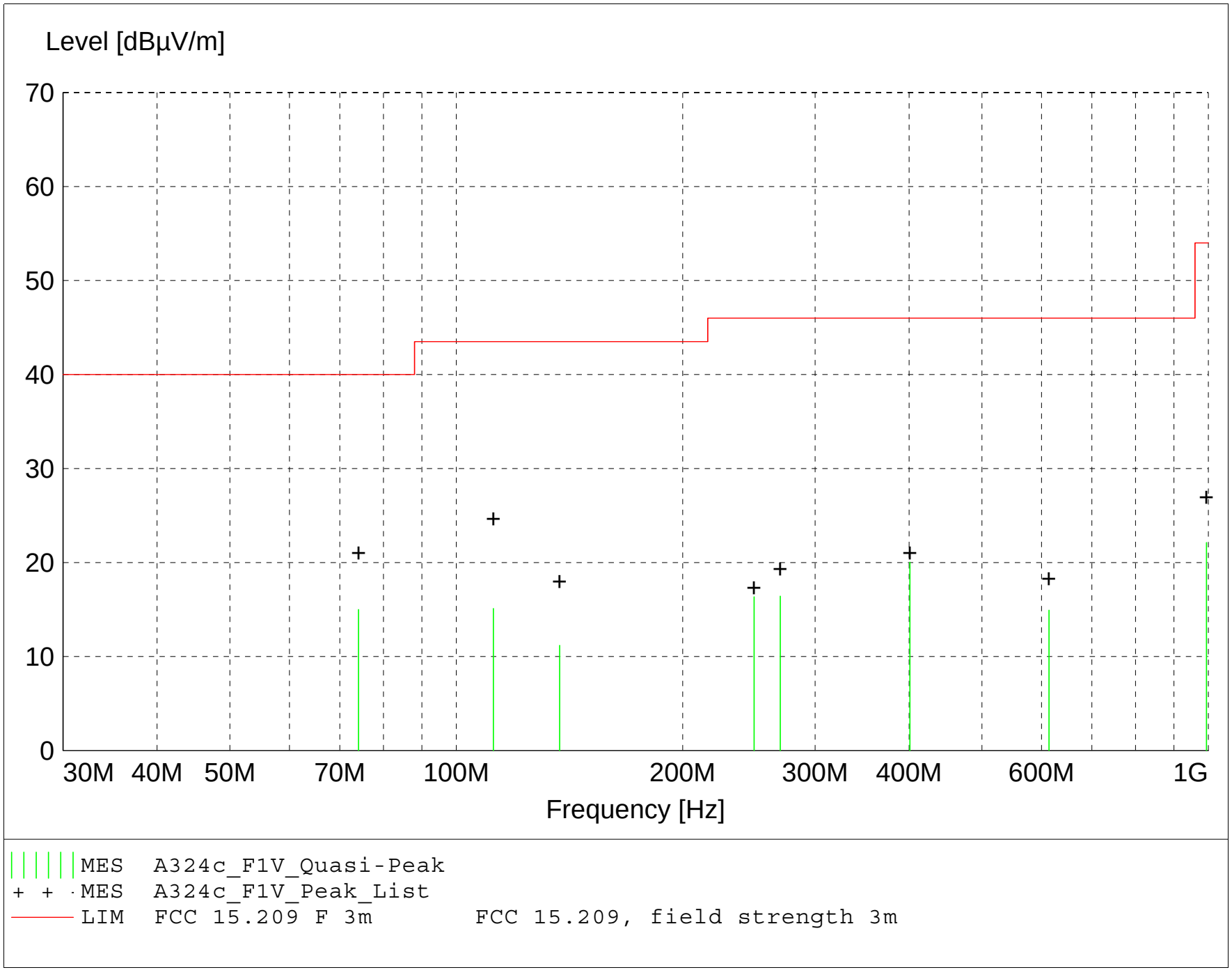
Sample Equations:

Total Level(dBµV/m)	= Level(dBµV)	+ System Loss(dB)	+ Antenna Factor(dBµV/m)
24.6	= 35.51	+ (-22.1)	+ 11.20

Margin(dB)	= Limit(dBµV/m)	- Total Level(dBµV/m)
15.4	= 40	- 24.6

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


Level [dBµV/m]
70
60
50
40
30
20
10
0
30M
40M
50M
70M
100M
200M
300M
400M
600M
1G
Frequency [Hz]
MES A324c_F1V_Quasi-Peak
MES A324c_F1V_Peak_List
LIM FCC 15.209 F 3m
FCC 15.209, field strength 3m

MEASUREMENT RESULT: "A324c_F1V_Final"

3/24/2015 3:09PM

Frequency	Level	Antenna Factor	System Loss	Total Level	Limit	Margin	Height Ant.	EuT Angle	Final Detector	Comment
MHz	dBµV	dBµV/m	dB	dBµV/m	dBµV/m	dB	m	deg		
74.140000	32.61	6.26	-23.9	15.0	40.0	25.0	1.50	0	QUASI-PEAK	NF Restricted B
400.920000	25.47	15.90	-21.3	20.0	46.0	26.0	1.00	0	QUASI-PEAK	NF Restricted B
112.020000	26.26	12.10	-23.3	15.1	43.5	28.4	1.00	0	QUASI-PEAK	NF Restricted B
269.640000	24.84	13.49	-21.9	16.4	46.0	29.6	1.00	270	QUASI-PEAK	NF Restricted B
248.880000	26.16	12.33	-22.1	16.4	46.0	29.6	1.00	270	QUASI-PEAK	NF Restricted B
613.760000	15.92	19.45	-20.4	14.9	46.0	31.1	1.00	0	QUASI-PEAK	NF Restricted B
994.380000	15.12	24.39	-17.4	22.1	54.0	31.9	1.00	0	QUASI-PEAK	NF Restricted B
137.220000	21.92	12.38	-23.1	11.2	43.5	32.3	1.00	0	QUASI-PEAK	NF Restricted B

FCC Part 15

Electric Field Strength

EUT: QR Premiere Nurse Call
Manufacturer: RF Technologies
Operating Condition: 66 deg. F; 22% R.H.
Test Site: DLS Site 2
Operator: Paul L 7099
Test Specification: 6V DC
Comment: Ch.25 2475MHz Continuous Transmit
Date: 03-20--2015

TEXT: "Horz 3 meters"

Short Description: Test Set-up

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

Equations: Total Level(dBµV/m) = Level(dBµV) + System Loss(dB) + Antenna Factor(dBµV/m)

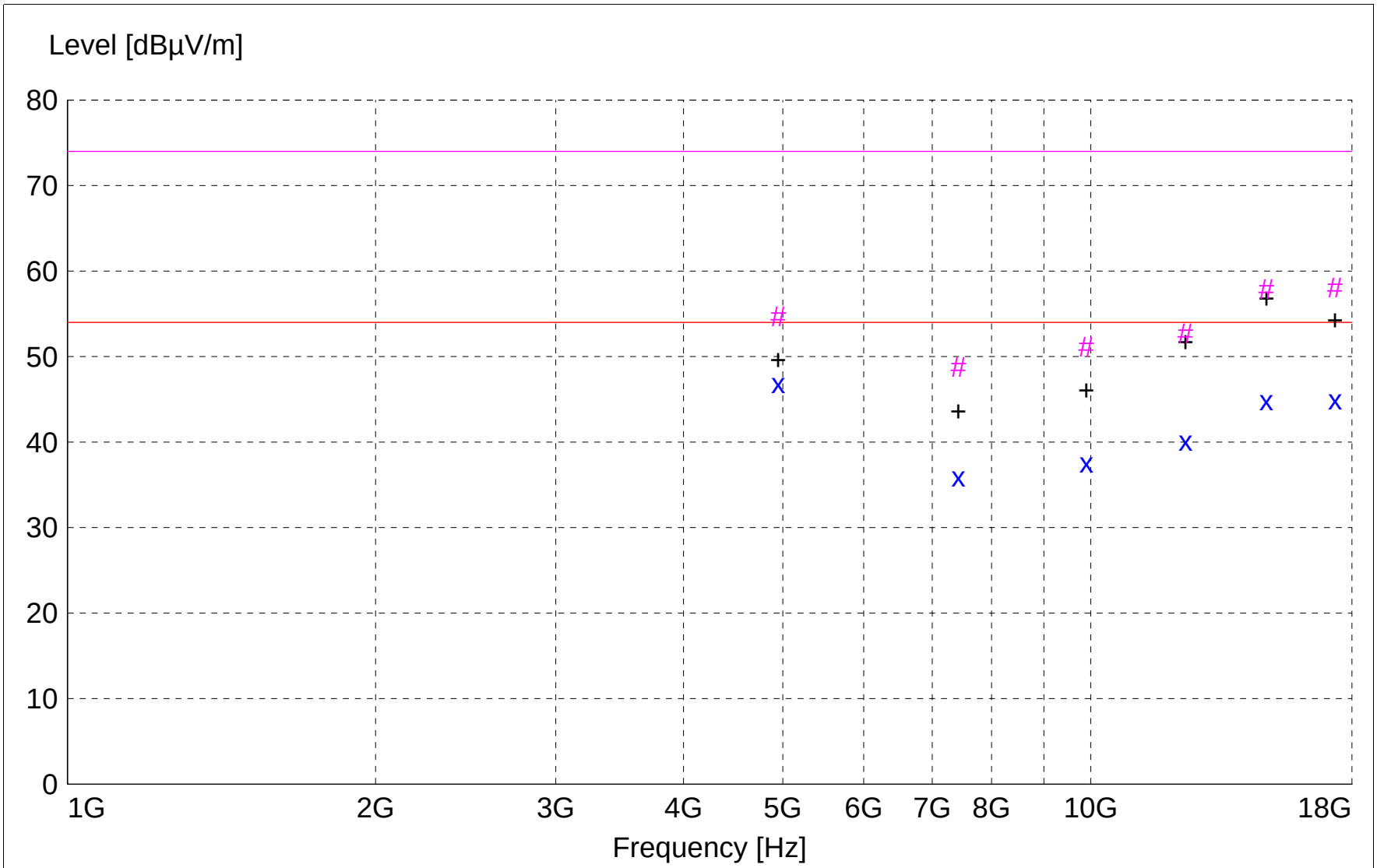
Margin(dB) = Limit(dBµV/m) - Total Level(dBµV/m)

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 dector

Final maximized level using Peak detector



x x : MES A319c_sh_Average
: MES A319c_sh_Peak
+ + : MES A319c_sh_Peak_List
——— LIM FCC 15.209 F 3m AVG Field Strength AVG Limit 3m
——— LIM FCC 15.209 F 3m PK Field Strength PEAK Limit 3m

MEASUREMENT RESULT: "A319c_sh_Final"

3/20/2015 10:39AM

Frequency	Level	Antenna Factor	System Loss	Total Level	Limit	Margin	Height Ant.	EuT Angle	Final Detector	Comment
MHz	dBµV	dBµV/m	dB	dBµV/m	dBµV/m	dB	m	deg		
4949.200000	66.79	33.06	-53.0	46.9	54.0	7.1	1.25	112	AVERAGE	Restricted Band
17325.200000	48.26	42.50	-45.8	44.9	54.0	9.1	1.00	0	AVERAGE	7th Harmonic
14848.800000	47.78	44.11	-47.1	44.8	54.0	9.2	1.00	0	AVERAGE	6th Harmonic
12376.000000	48.31	40.52	-48.7	40.1	54.0	13.9	1.00	0	AVERAGE	Restricted Band
17325.200000	61.36	42.50	-45.8	58.0	74.0	16.0	1.00	0	MAX PEAK	7th Harmonic
14848.800000	60.83	44.11	-47.1	57.9	74.0	16.1	1.00	0	MAX PEAK	6th Harmonic
9900.000000	50.86	38.91	-52.2	37.6	54.0	16.4	1.00	0	AVERAGE	4th Harmonic
7425.200000	49.52	37.22	-50.8	36.0	54.0	18.0	1.00	112	AVERAGE	Restricted Band
4949.200000	74.57	33.06	-53.0	54.7	74.0	19.3	1.25	112	MAX PEAK	Restricted Band
12376.000000	60.83	40.52	-48.7	52.7	74.0	21.3	1.00	0	MAX PEAK	Restricted Band
9900.000000	64.41	38.91	-52.2	51.1	74.0	22.9	1.00	0	MAX PEAK	4th Harmonic
7425.200000	62.31	37.22	-50.8	48.8	74.0	25.2	1.00	112	MAX PEAK	Restricted Band

FCC Part 15

Electric Field Strength

EUT: QR Premiere Nurse Call
Manufacturer: RF Technologies
Operating Condition: 66 deg. F; 22% R.H.
Test Site: DLS Site 2
Operator: Paul L 7099
Test Specification: 6V DC
Comment: Ch.25 2475MHz Continuous Transmit
Date: 03-20--2015

TEXT: "Vert 3 meters"

Short Description: Test Set-up

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

Equations: Total Level(dBµV/m) = Level(dBµV) + System Loss(dB) + Antenna Factor(dBµV/m)

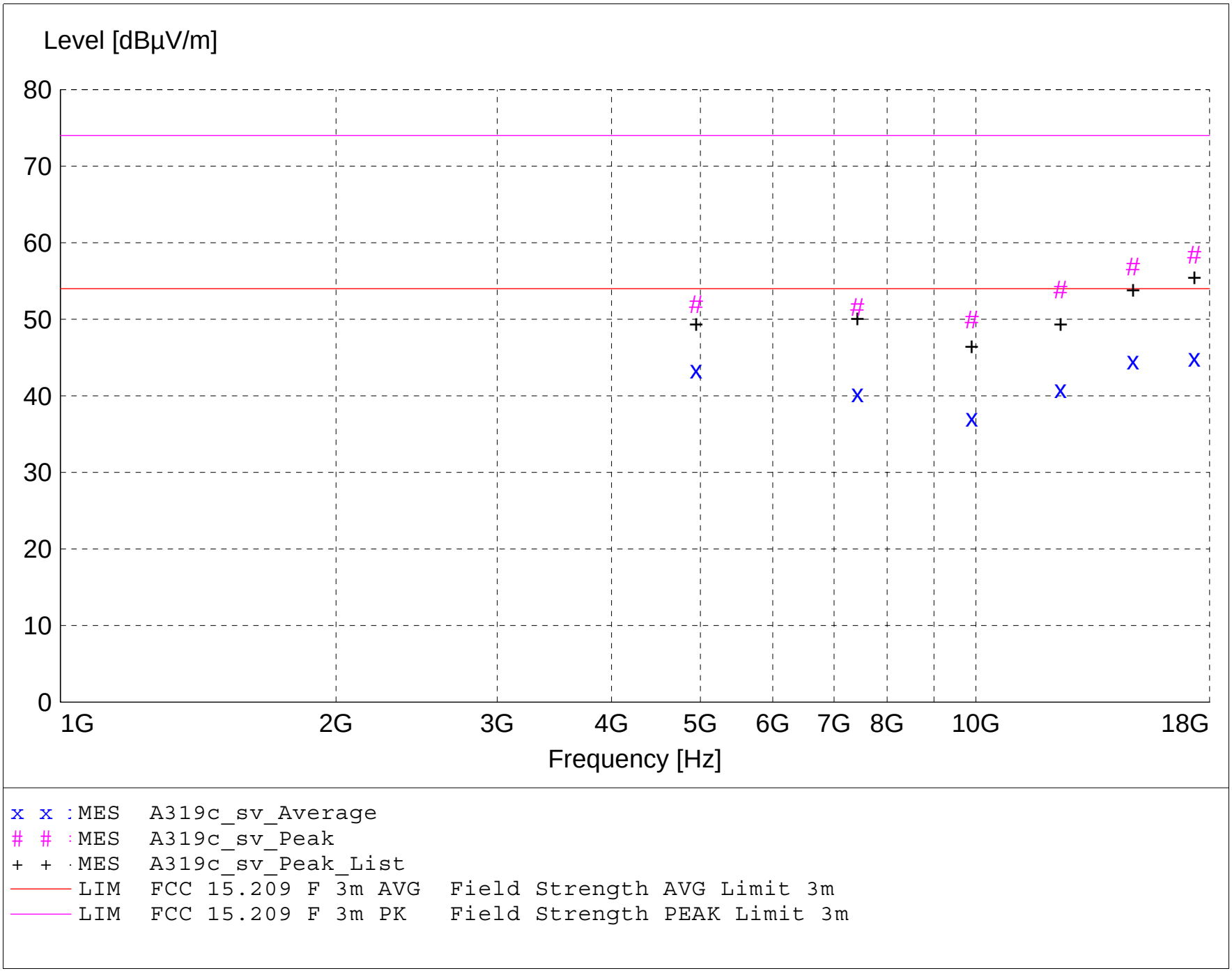
Margin(dB) = Limit(dBµV/m) - Total Level(dBµV/m)

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 dector

Final maximized level using Peak detector



x x : MES A319c_sv_Average
: MES A319c_sv_Peak
+ + : MES A319c_sv_Peak_List
——— LIM FCC 15.209 F 3m AVG Field Strength AVG Limit 3m
——— LIM FCC 15.209 F 3m PK Field Strength PEAK Limit 3m

MEASUREMENT RESULT: "A319c_sv_Final"

3/20/2015 11:00AM

Frequency	Level	Antenna Factor	System Loss	Total Level	Limit	Margin	Height Ant.	EuT Angle	Final Detector	Comment
MHz	dBµV	dBµV/m	dB	dBµV/m	dBµV/m	dB	m	deg		
17327.200000	48.27	42.51	-45.9	44.9	54.0	9.1	1.00	0	AVERAGE	7th Harmonic
14854.000000	47.61	44.05	-47.1	44.6	54.0	9.4	1.00	0	AVERAGE	6th Harmonic
4949.200000	63.29	33.06	-53.0	43.4	54.0	10.6	1.50	200	AVERAGE	Restricted Band
12375.200000	49.00	40.52	-48.7	40.8	54.0	13.2	1.00	0	AVERAGE	Restricted Band
7423.600000	53.86	37.22	-50.8	40.3	54.0	13.7	1.50	0	AVERAGE	Restricted Band
17327.200000	61.76	42.51	-45.9	58.4	74.0	15.6	1.00	0	MAX PEAK	7th Harmonic
9900.000000	50.41	38.91	-52.2	37.1	54.0	16.9	1.00	0	AVERAGE	4th Harmonic
14854.000000	59.90	44.05	-47.1	56.9	74.0	17.1	1.00	0	MAX PEAK	6th Harmonic
12375.200000	62.03	40.52	-48.7	53.9	74.0	20.1	1.00	0	MAX PEAK	Restricted Band
4949.200000	71.85	33.06	-53.0	52.0	74.0	22.0	1.50	200	MAX PEAK	Restricted Band
7423.600000	65.19	37.22	-50.8	51.6	74.0	22.4	1.50	0	MAX PEAK	Restricted Band
9900.000000	63.30	38.91	-52.2	50.0	74.0	24.0	1.00	0	MAX PEAK	4th Harmonic

FCC Part 15

Electric Field Strength

EUT: QR Premiere Nurse Call
Manufacturer: RF Technologies
Operating Condition: 63 deg. F; 28% R.H.
Test Site: DLS Site 2
Operator: Paul L 7099
Test Specification: 6V DC
Comment: Ch.25 2475MHz Continuous Transmit
Date: 03-23--2015

TEXT: "Horz 1 meters"

Short Description: Test Set-up

Test Set-up: EUT Measured at 1 Meters with HORIZONTAL Antenna Polarization

Equations: Total Level(dBµV/m) = Level(dBµV) + System Loss(dB) + Antenna Factor(dBµV/m)

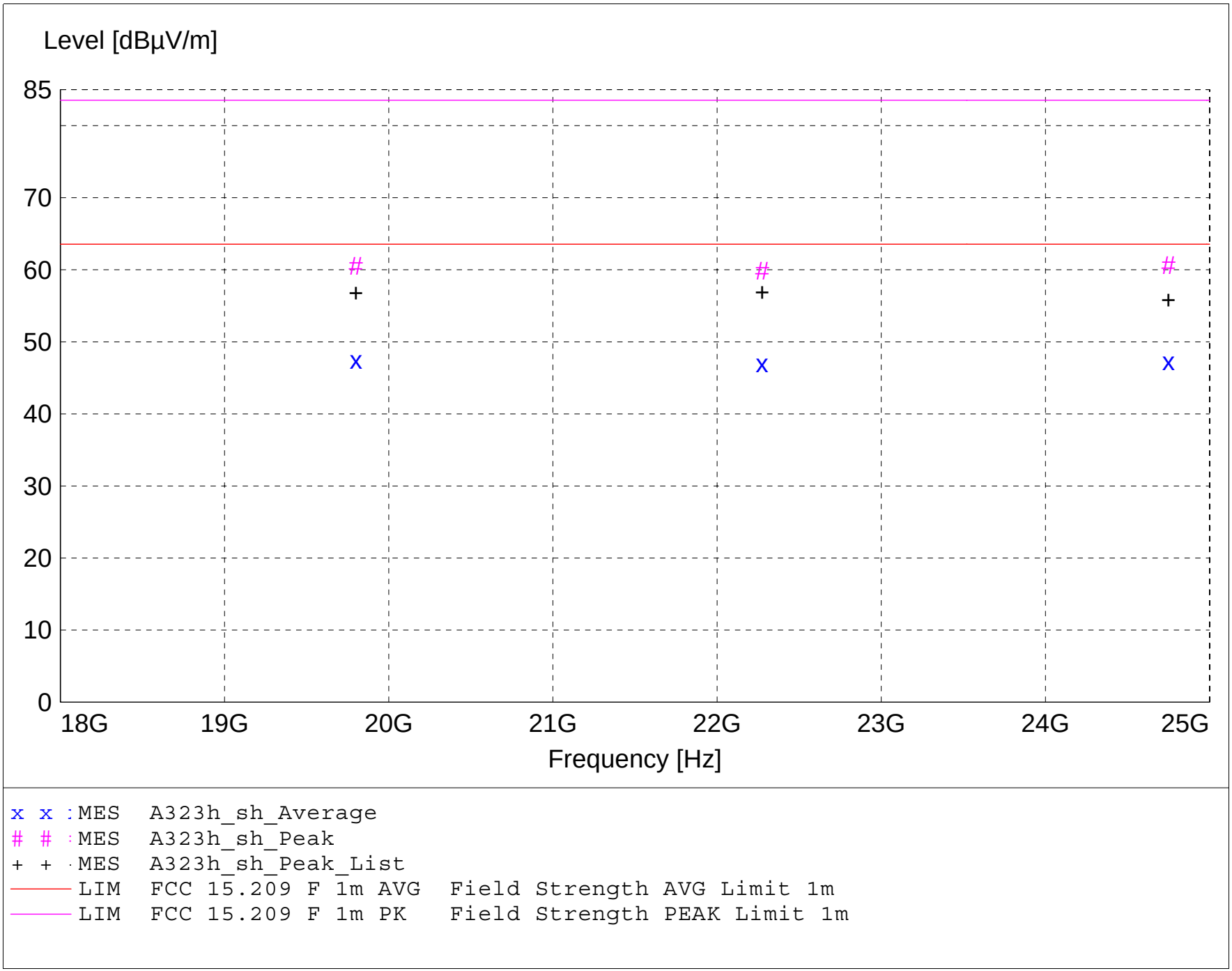
Margin(dB) = Limit(dBµV/m) - Total Level(dBµV/m)

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 dector

Final maximized level using Peak detector



x x : MES A323h_sh_Average
: MES A323h_sh_Peak
+ + : MES A323h_sh_Peak_List
——— LIM FCC 15.209 F 1m AVG Field Strength AVG Limit 1m
——— LIM FCC 15.209 F 1m PK Field Strength PEAK Limit 1m

MEASUREMENT RESULT: "A323h_sh_Final"

3/23/2015 3:39PM

Frequency	Level	Antenna Factor	System Loss	Total Level	Limit	Margin	Height Ant.	EuT Angle	Final Detector	Comment
MHz	dBµV	dBµV/m	dB	dBµV/m	dBµV/m	dB	m	deg		
19800.000000	37.42	48.03	-37.9	47.5	63.5	16.0	1.00	0	AVERAGE	8th Harm Restri
24750.000000	37.72	47.89	-38.3	47.3	63.5	16.2	1.00	0	AVERAGE	10th Harm Restr
22275.000000	39.34	47.20	-39.6	47.0	63.5	16.6	1.00	0	AVERAGE	9th Harm Restri
24750.000000	51.02	47.89	-38.3	60.6	83.5	22.9	1.00	0	MAX PEAK	10th Harm NF
19800.000000	50.42	48.03	-37.9	60.5	83.5	23.0	1.00	0	MAX PEAK	8th Harm Restri
22275.000000	52.27	47.20	-39.6	59.9	83.5	23.6	1.00	0	MAX PEAK	9th Harm Restri

FCC Part 15

Electric Field Strength

EUT: QR Premiere Nurse Call
Manufacturer: RF Technologies
Operating Condition: 63 deg. F; 28% R.H.
Test Site: DLS Site 2
Operator: Paul L 7099
Test Specification: 6V DC
Comment: Ch.25 2475MHz Continuous Transmit
Date: 03-23--2015

TEXT: "Vert 1 meters"

Short Description: Test Set-up

Test Set-up: EUT Measured at 1 Meters with VERTICAL Antenna Polarization

Equations: Total Level(dBµV/m) = Level(dBµV) + System Loss(dB) + Antenna Factor(dBµV/m)

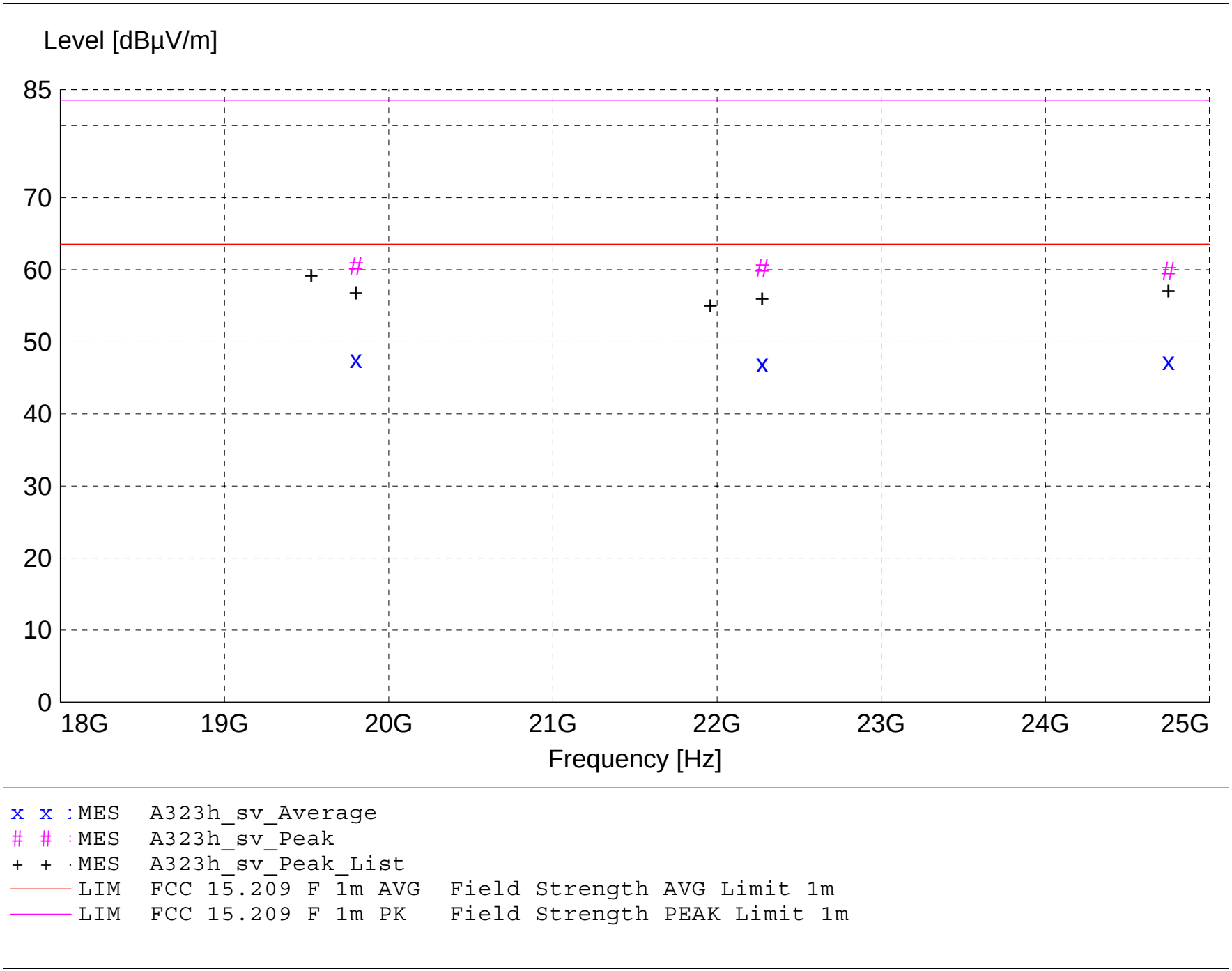
Margin(dB) = Limit(dBµV/m) - Total Level(dBµV/m)

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 dector

Final maximized level using Peak detector



x x : MES A323h_sv_Average
: MES A323h_sv_Peak
+ + : MES A323h_sv_Peak_List
——— LIM FCC 15.209 F 1m AVG Field Strength AVG Limit 1m
——— LIM FCC 15.209 F 1m PK Field Strength PEAK Limit 1m

MEASUREMENT RESULT: "A323h_sv_Final"

3/23/2015 3:31PM

Frequency	Level	Antenna Factor	System Loss	Total Level	Limit	Margin	Height Ant.	EuT Angle	Final Detector	Comment
MHz	dBµV	dBµV/m	dB	dBµV/m	dBµV/m	dB	m	deg		
19800.000000	37.48	48.03	-37.9	47.6	63.5	16.0	1.00	0	AVERAGE	8th Harm Restri
24750.000000	37.66	47.89	-38.3	47.3	63.5	16.3	1.00	0	AVERAGE	10th Harm NF
22275.000000	39.39	47.20	-39.6	47.0	63.5	16.5	1.00	0	AVERAGE	9th Harm Restri
19800.000000	50.42	48.03	-37.9	60.5	83.5	23.0	1.00	0	MAX PEAK	8th Harm Restri
22275.000000	52.65	47.20	-39.6	60.3	83.5	23.3	1.00	0	MAX PEAK	9th Harm Restri
24750.000000	50.30	47.89	-38.3	59.9	83.5	23.6	1.00	0	MAX PEAK	10th Harm NF

Appendix B

B6.0 Operating Band-Edge Emissions

Rule Part: FCC Part 15.247(d)

Test Procedure: FCC KDB 558074 D01 DTS Meas Guidance v03r02;
ANSI C63.4-2009 and ANSI C63.10-2009

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

Results:

Compliant

Notes:

This was a radiated measurement. The EUT was transmitting from its internal antenna. The EUT was set to transmit continuously at its maximum power level at the low and high channels of the operating band.

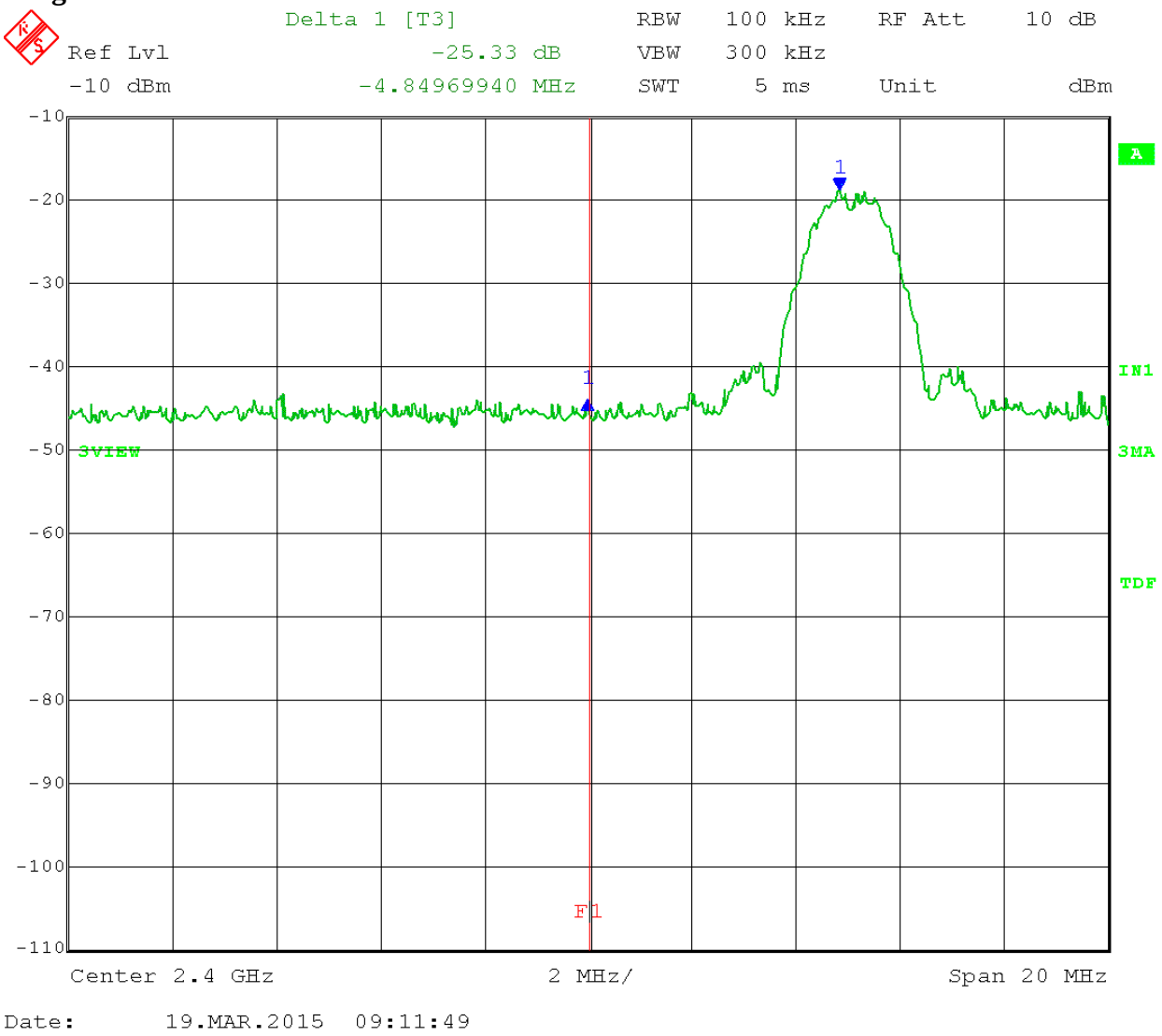
166 South Carter, Genoa City, WI 53128

Company:	RF Technologies Inc.
Model Tested:	0800-0542
Report Number:	20880
DLS Project:	7099

Test Date:	03-19-2015
Company:	RF Technologies
EUT:	QR Premiere Nurse Call with Reset 16 Channel Zigbee transceiver
Test:	Low Band-Edge Compliance - Radiated – 15.247 (d)
Operator:	Paul L

Comment: **Low Channel – Ch.11 2.405 GHz**

Band-Edge Frequency = 2.400 GHz
Band-Edge > 20 dB Below Peak In-Band Emission



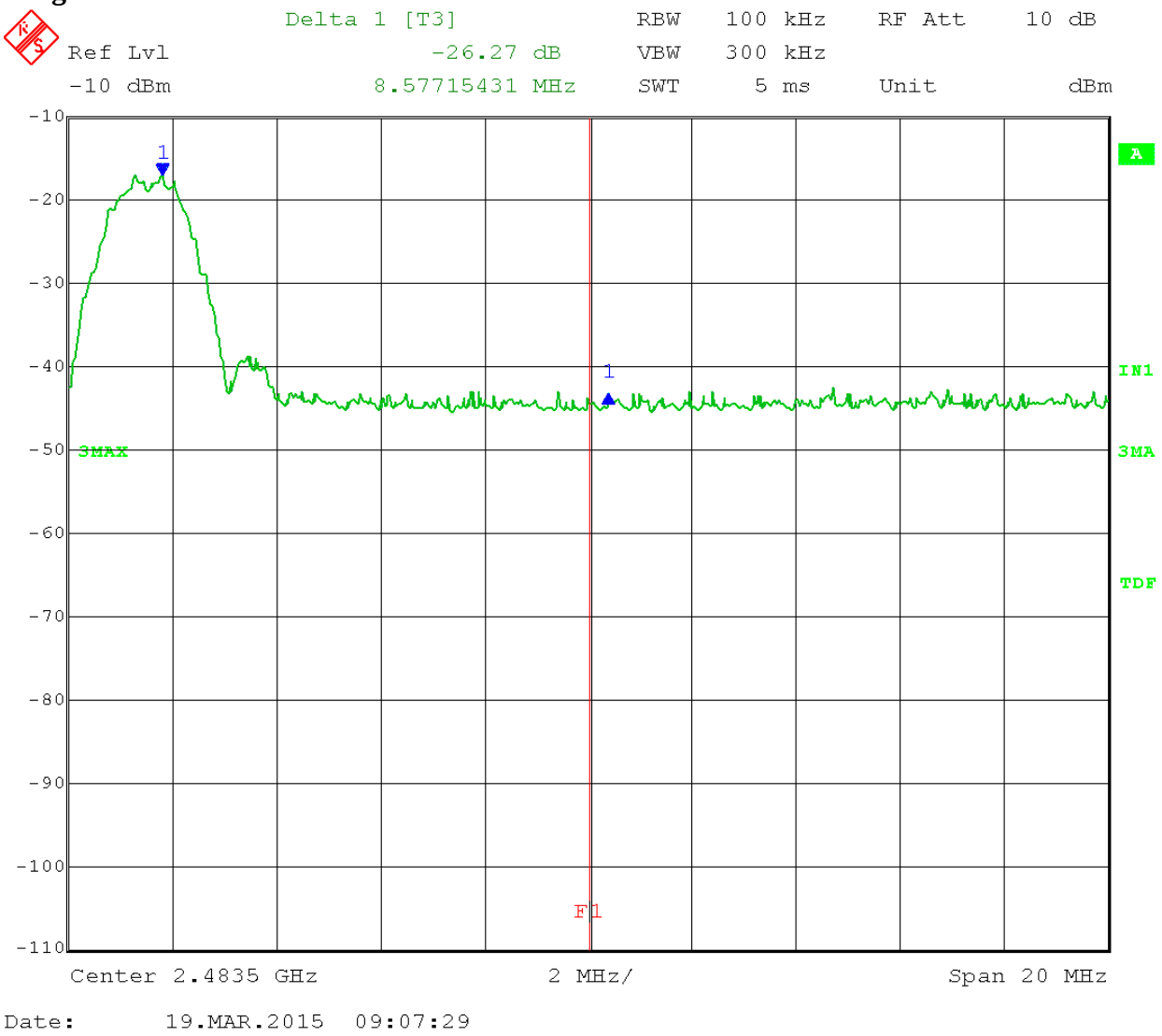
166 South Carter, Genoa City, WI 53128

Company: RF Technologies Inc.
Model Tested: 0800-0542
Report Number: 20880
DLS Project: 7099

Test Date: 03-19-2015
Company: RF Technologies
EUT: QR Premiere Nurse Call with Reset 16 Channel Zigbee transceiver
Test: High Band-Edge Compliance - Radiated – 15.247 (d)
Operator: Paul L

Comment: **High Channel – Ch.25 2.475 GHz**

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



Appendix B

B7.0 Restricted Band-Edge Measurements – Radiated

- **Measured at nearest restricted bands**

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

Test Procedure: FCC KDB 558074 D01 DTS Meas Guidance v03r02;
FCC KDB Publication Number 913591;
ANSI C63.4-2009 and ANSI C63.10-2009

Limit: FCC Part 15.209

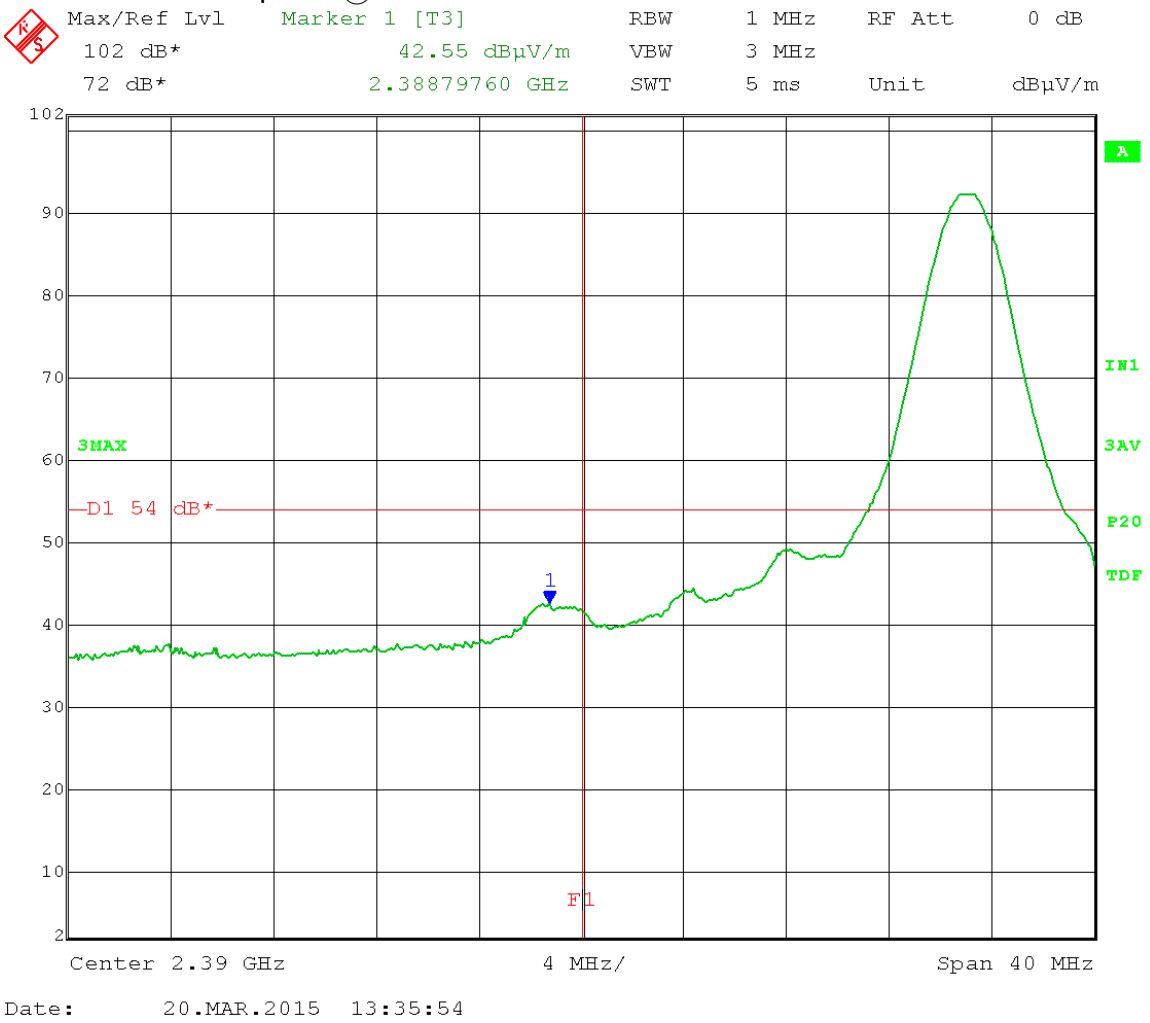
Results: Compliant

Notes: The EUT was set to transmit continuously at its maximum power and maximum data rate. Peak measurements were taken with RBW = 1 MHz, VBW = 3 MHz. Average measurements were taken with the Average Detector.

_Lower Band-Edge – 2405 MHz - Horizontal

Test Date: 03-20-2015
Company: RF Technologies
EUT: QR Premiere Nurse Call 16 Channel Zigbee Transceiver
Test: Upper Band-Edge Radiated
Rule part: FCC Part 15.247(d) and FCC Part 15.205
Operator: Paul L
Comment: **Lower channel frequency – 2.405 GHz**
Cross Polarized Antennas 90° out of phase, simultaneous transmit: continuous transmit

HORIZONTAL:
AVERAGE: Limit = 54 dBµV/m @ 3 meters

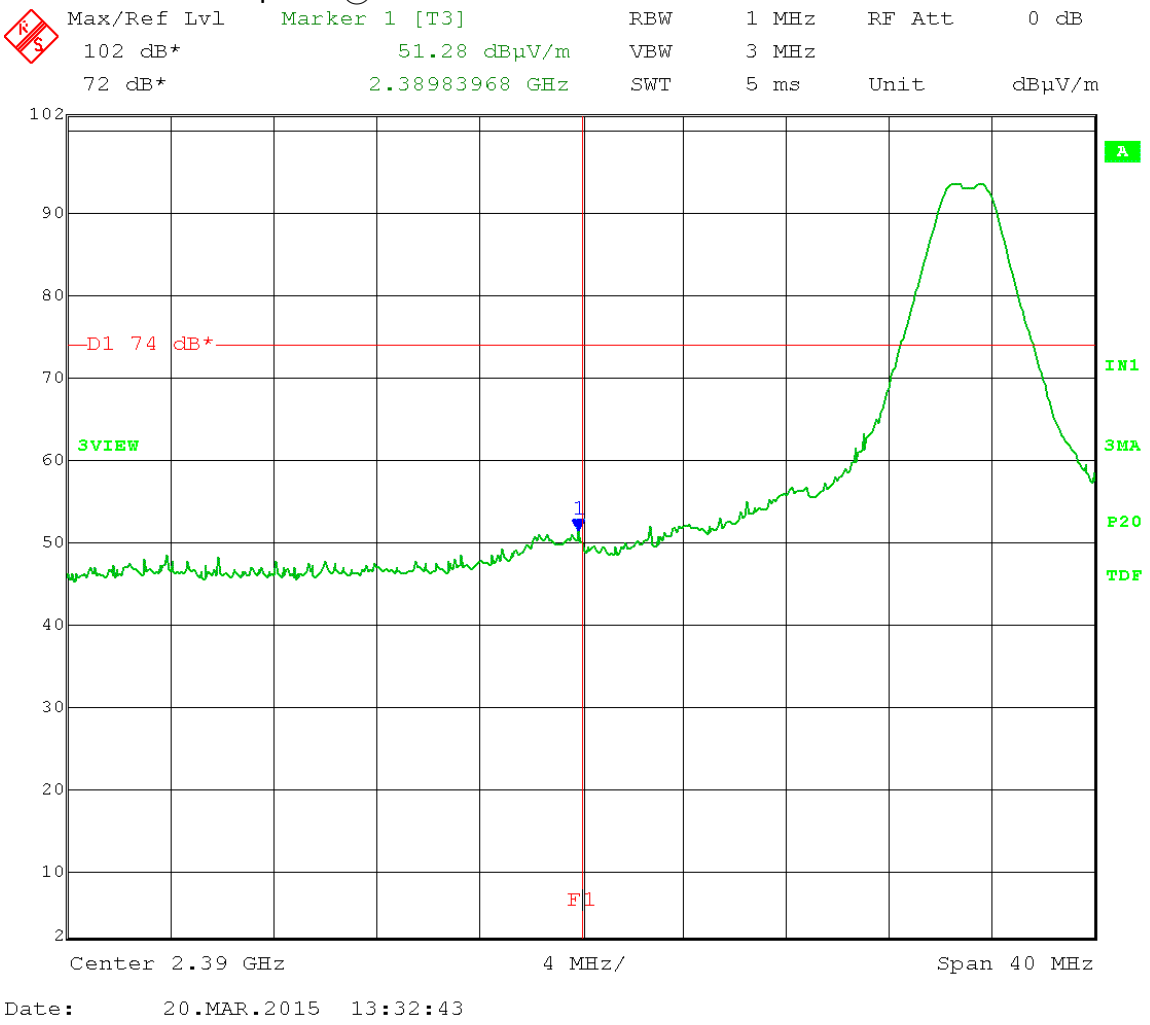


DLS ELECTRONIC SYSTEMS, INC.
166 South Carter, Genoa City, WI 53128

Company: RF Technologies Inc.
Model Tested: 0800-0542
Report Number: 20880
DLS Project: 7099

Test Date: 03-20-2015
Company: RF Technologies
EUT: QR Premiere Nurse Call 16 Channel Zigbee Transceiver
Test: Upper Band-Edge Radiated
Rule part: FCC Part 15.247(d) and FCC Part 15.205
Operator: Paul L
Comment: **Lower channel frequency – 2.405 GHz**
Cross Polarized Antennas 90° out of phase, simultaneous transmit: continuous transmit

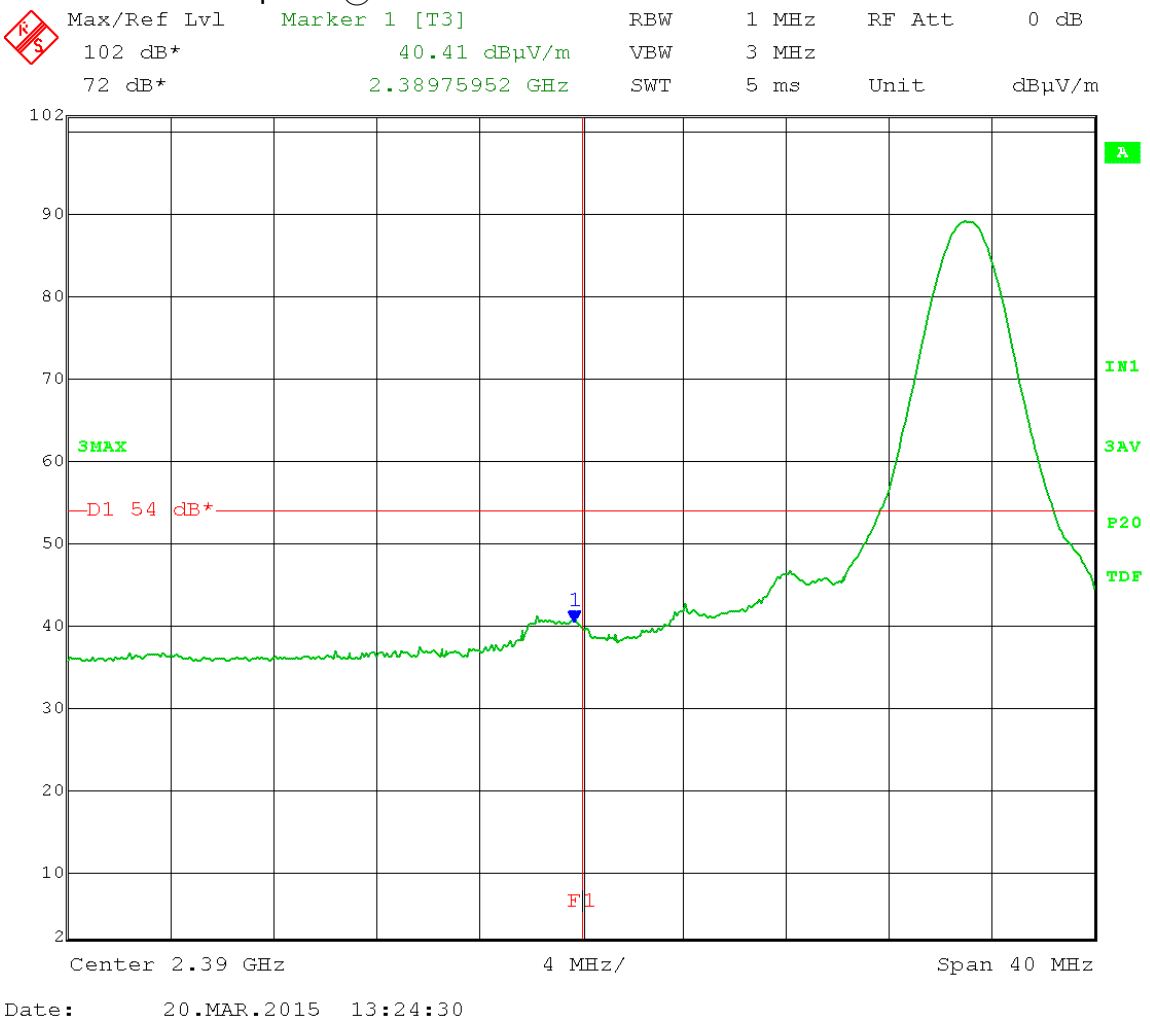
HORIZONTAL:
PEAK: Limit = 74 dBµV/m @ 3 meters



_Lower Band-Edge – 2405 MHz – Vertical

Test Date: 03-20-2015
Company: RF Technologies
EUT: QR Premiere Nurse Call 16 Channel Zigbee Transceiver
Test: Upper Band-Edge Radiated
Rule part: FCC Part 15.247(d) and FCC Part 15.205
Operator: Paul L
Comment: **Lower channel frequency – 2.405 GHz**
Cross Polarized Antennas 90° out of phase, simultaneous transmit: continuous transmit

VERTICAL:
AVERAGE: Limit = 54 dBµV/m @ 3 meters



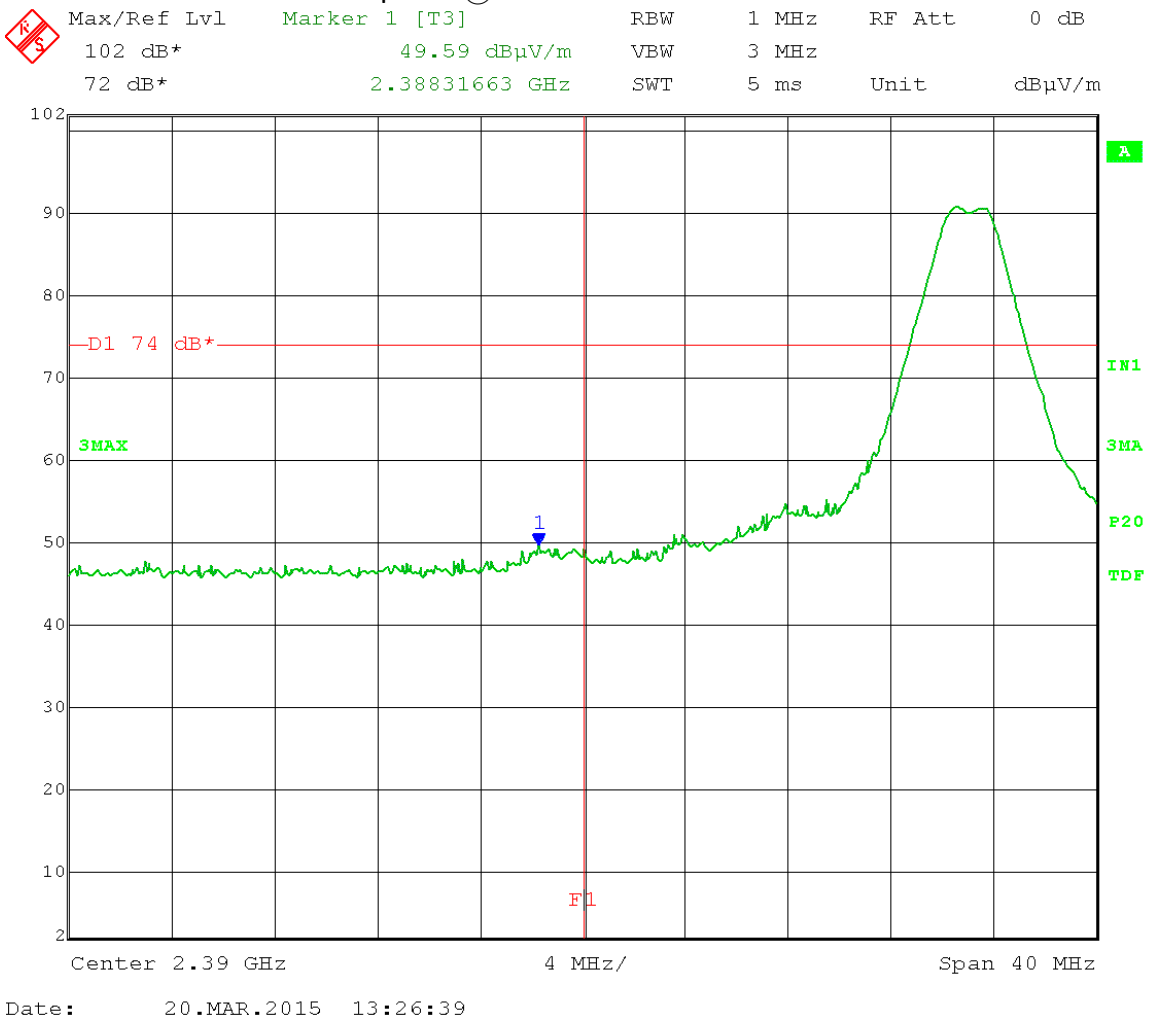
166 South Carter, Genoa City, WI 53128

Company:	RF Technologies Inc.
Model Tested:	0800-0542
Report Number:	20880
DLS Project:	7099

Test Date:	03-20-2015
Company:	RF Technologies
EUT:	QR Premiere Nurse Call 16 Channel Zigbee Transceiver
Test:	Upper Band-Edge Radiated
Rule part:	FCC Part 15.247(d) and FCC Part 15.205
Operator:	Paul L
Comment:	**Lower channel frequency – 2.405 GHz**
	Cross Polarized Antennas 90° out of phase, simultaneous transmit: continuous transmit

VERTICAL:

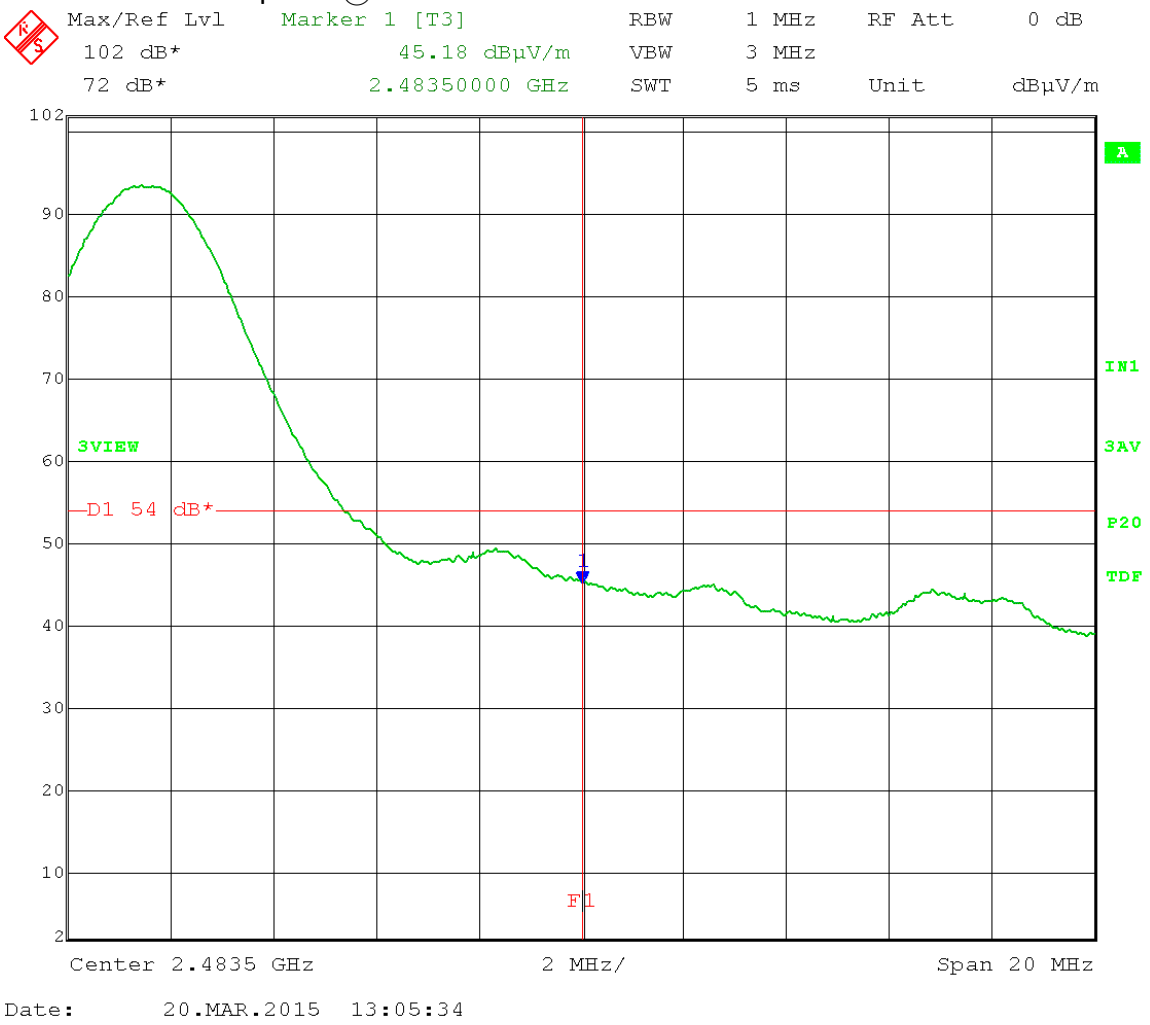
PEAK: Limit = 74 dBµV/m @ 3 meters



_Upper Band-Edge – 2475 MHz – Horizontal

Test Date: 03-20-2015
Company: RF Technologies
EUT: QR Premiere Nurse Call 16 Channel Zigbee Transceiver
Test: Upper Band-Edge Radiated
Rule part: FCC Part 15.247(d) and FCC Part 15.205
Operator: Paul L
Comment: **Upper channel frequency – 2.475 GHz**
Cross Polarized Antennas 90° out of phase, simultaneous transmit: continuous transmit

HORIZONTAL:
AVERAGE: Limit = 54 dBµV/m @ 3 meters



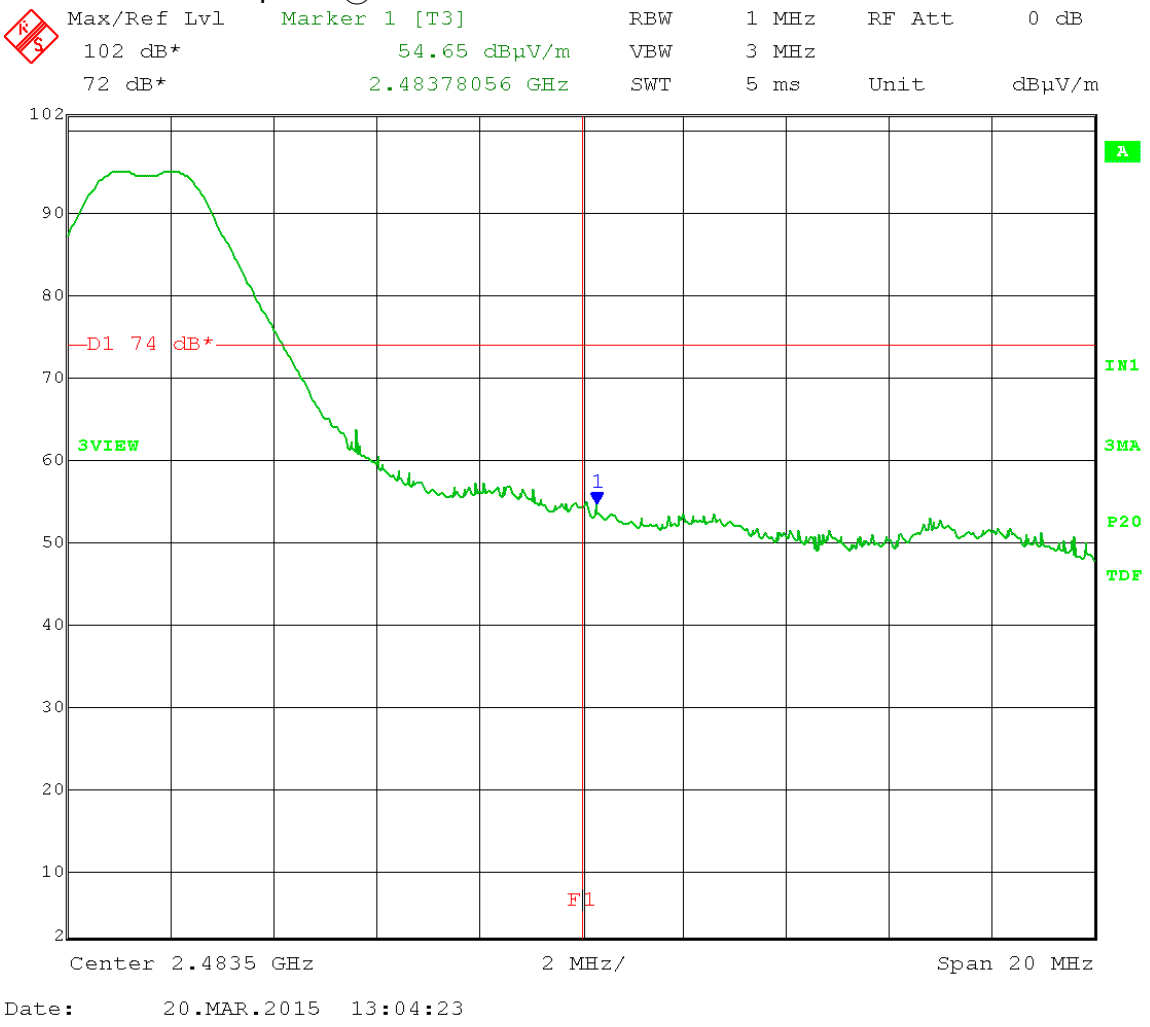
166 South Carter, Genoa City, WI 53128

Company:	RF Technologies Inc.
Model Tested:	0800-0542
Report Number:	20880
DLS Project:	7099

Test Date:	03-20-2015
Company:	RF Technologies
EUT:	QR Premiere Nurse Call 16 Channel Zigbee Transceiver
Test:	Upper Band-Edge Radiated
Rule part:	FCC Part 15.247(d) and FCC Part 15.205
Operator:	Paul L
Comment:	**Upper channel frequency – 2.475 GHz**
	Cross Polarized Antennas 90° out of phase, simultaneous transmit: continuous transmit

HORIZONTAL:

PEAK: Limit = 74 dBµV/m @ 3 meters



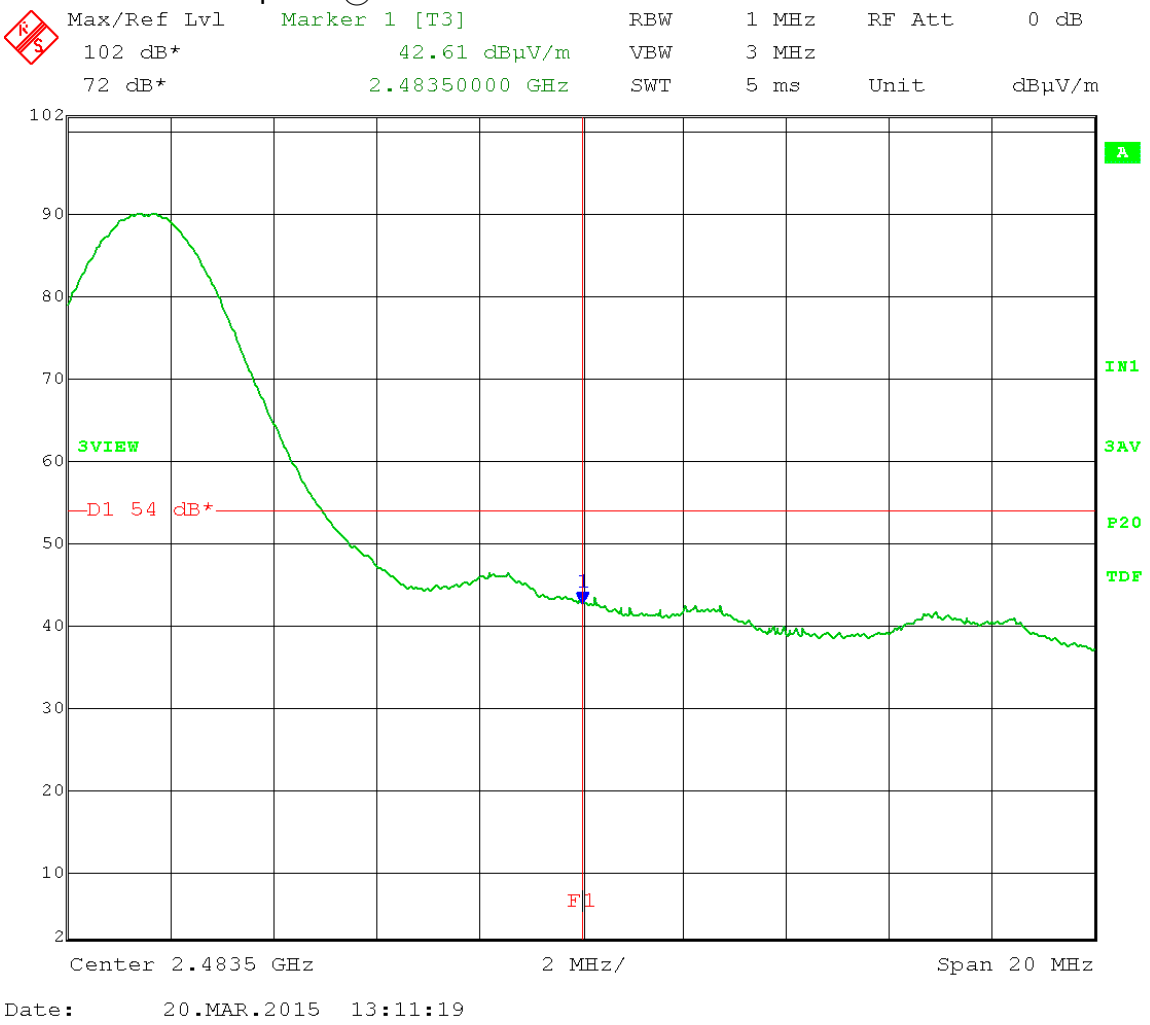
166 South Carter, Genoa City, WI 53128

Company: RF Technologies Inc.
Model Tested: 0800-0542
Report Number: 20880
DLS Project: 7099

_Upper Band-Edge – 2475 MHz – Vertical

Test Date: 03-20-2015
Company: RF Technologies
EUT: QR Premiere Nurse Call 16 Channel Zigbee Transceiver
Test: Upper Band-Edge Radiated
Rule part: FCC Part 15.247(d) and FCC Part 15.205
Operator: Paul L
Comment: **Upper channel frequency – 2.475 GHz**
Cross Polarized Antennas 90° out of phase, simultaneous transmit: continuous transmit

VERTICAL:
AVERAGE: Limit = 54 dBµV/m @ 3 meters



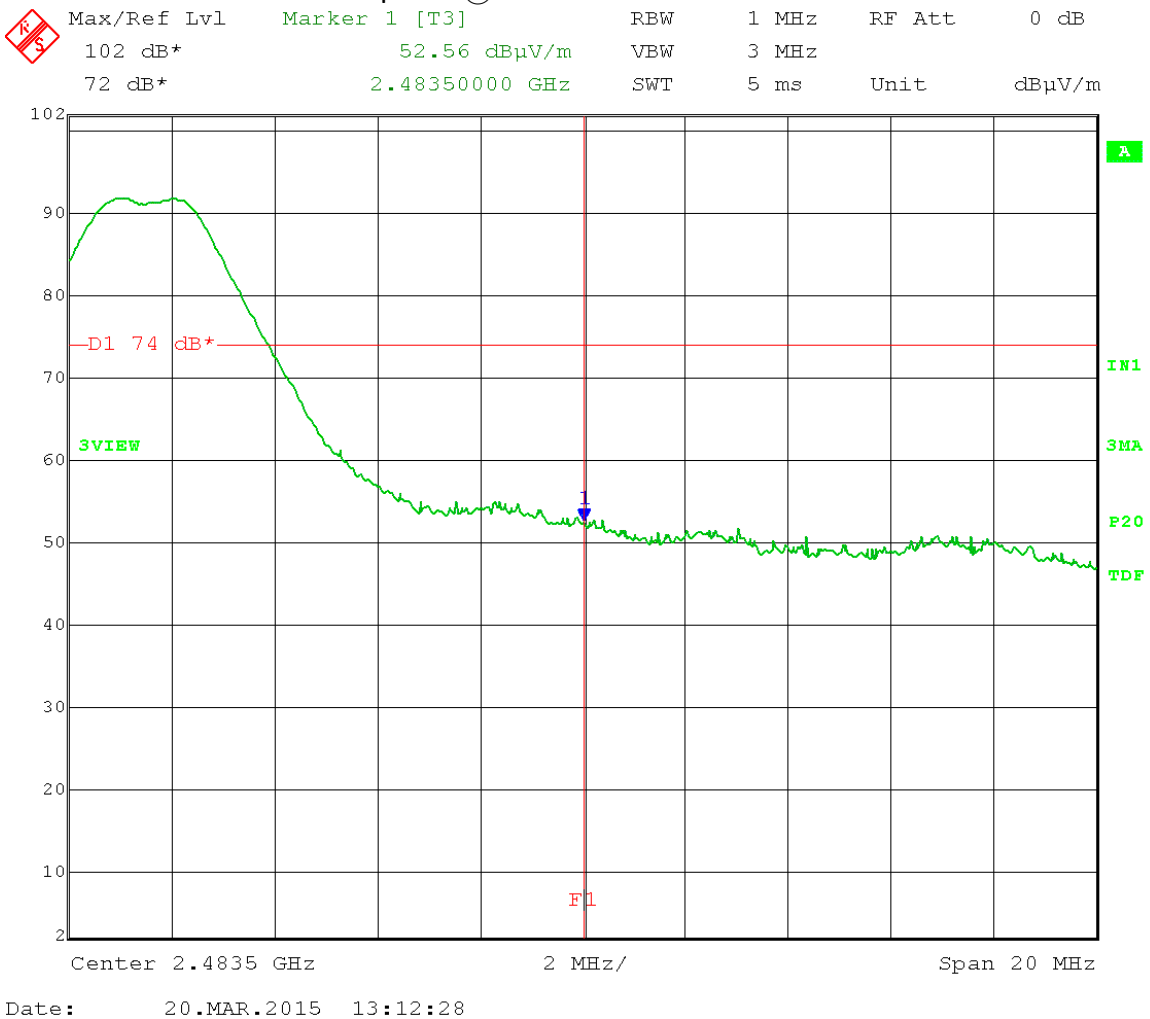
166 South Carter, Genoa City, WI 53128

Company:	RF Technologies Inc.
Model Tested:	0800-0542
Report Number:	20880
DLS Project:	7099

Test Date:	03-20-2015
Company:	RF Technologies
EUT:	QR Premiere Nurse Call 16 Channel Zigbee Transceiver
Test:	Upper Band-Edge Radiated
Rule part:	FCC Part 15.247(d) and FCC Part 15.205
Operator:	Paul L
Comment:	**Upper channel frequency – 2.475 GHz**
	Cross Polarized Antennas 90° out of phase, simultaneous transmit: continuous transmit

VERTICAL

PEAK: Limit = 74 dBµV/m @ 3 meters



Appendix B

B8.0 Emission Bandwidth – 99 %

Rule Part:

FCC Pt.15.247(a)(2)

Test Procedure:

ANSI C63.4-2009 and ANSI C63.10-2009

Limit:

Informative

Results:

Compliant

Notes:

This was a radiated measurement. The EUT was transmitting from its internal antenna. The EUT was set to transmit continuously at its maximum power level at the low, middle and high channels of the operating band.

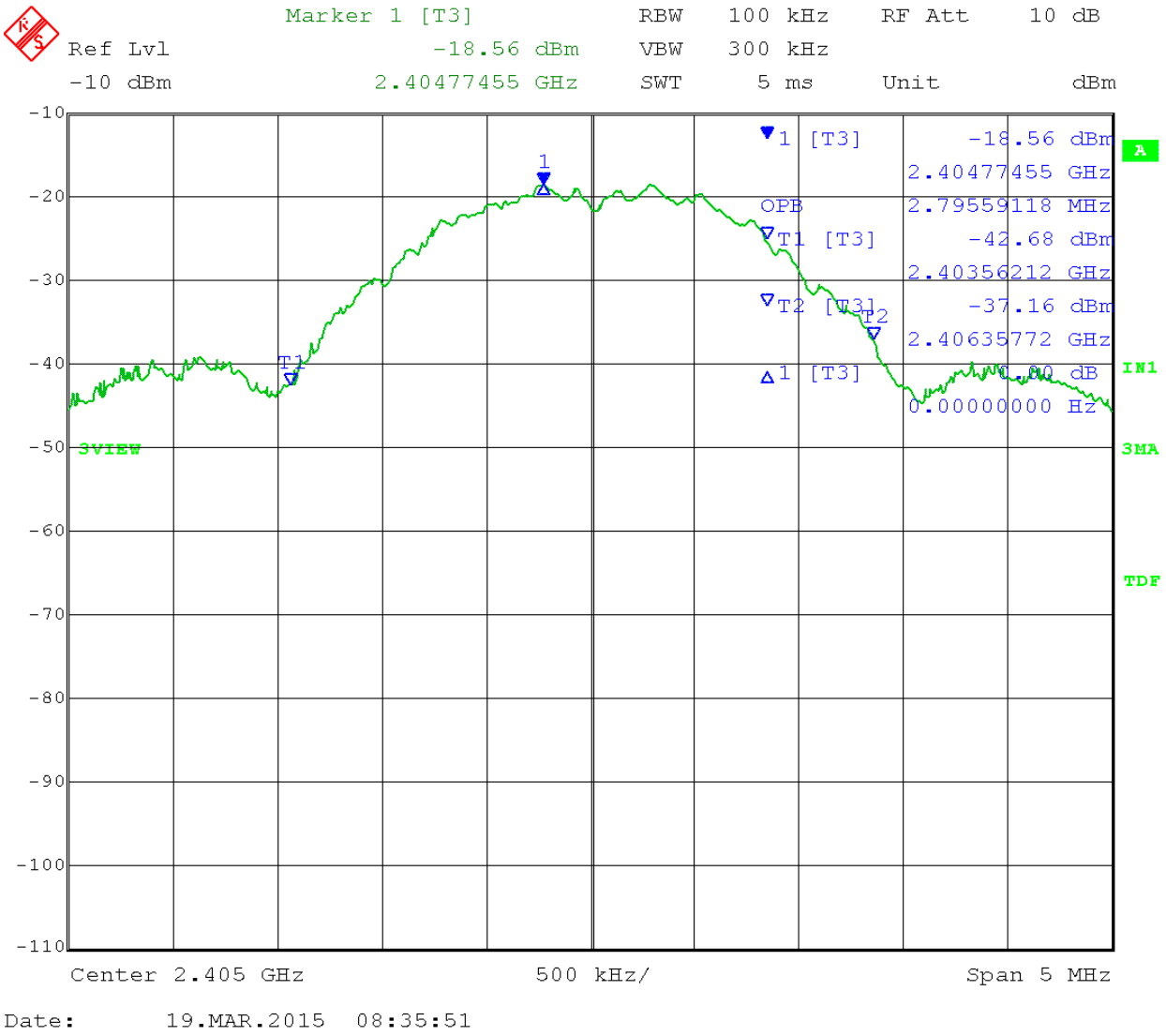
166 South Carter, Genoa City, WI 53128

Company: RF Technologies Inc.
Model Tested: 0800-0542
Report Number: 20880
DLS Project: 7099

Test Date: 03-19-2015
Company: RF Technologies
EUT: Quick QR Premiere Nurse Call 16 Channel Zigbee transceiver
Test: 99% Bandwidth - Radiated– 15.247 (a)(2)
Operator: Paul L

Comment: **Low Channel – Ch.11 2.405 GHz**

99% Bandwidth = 2.796 MHz



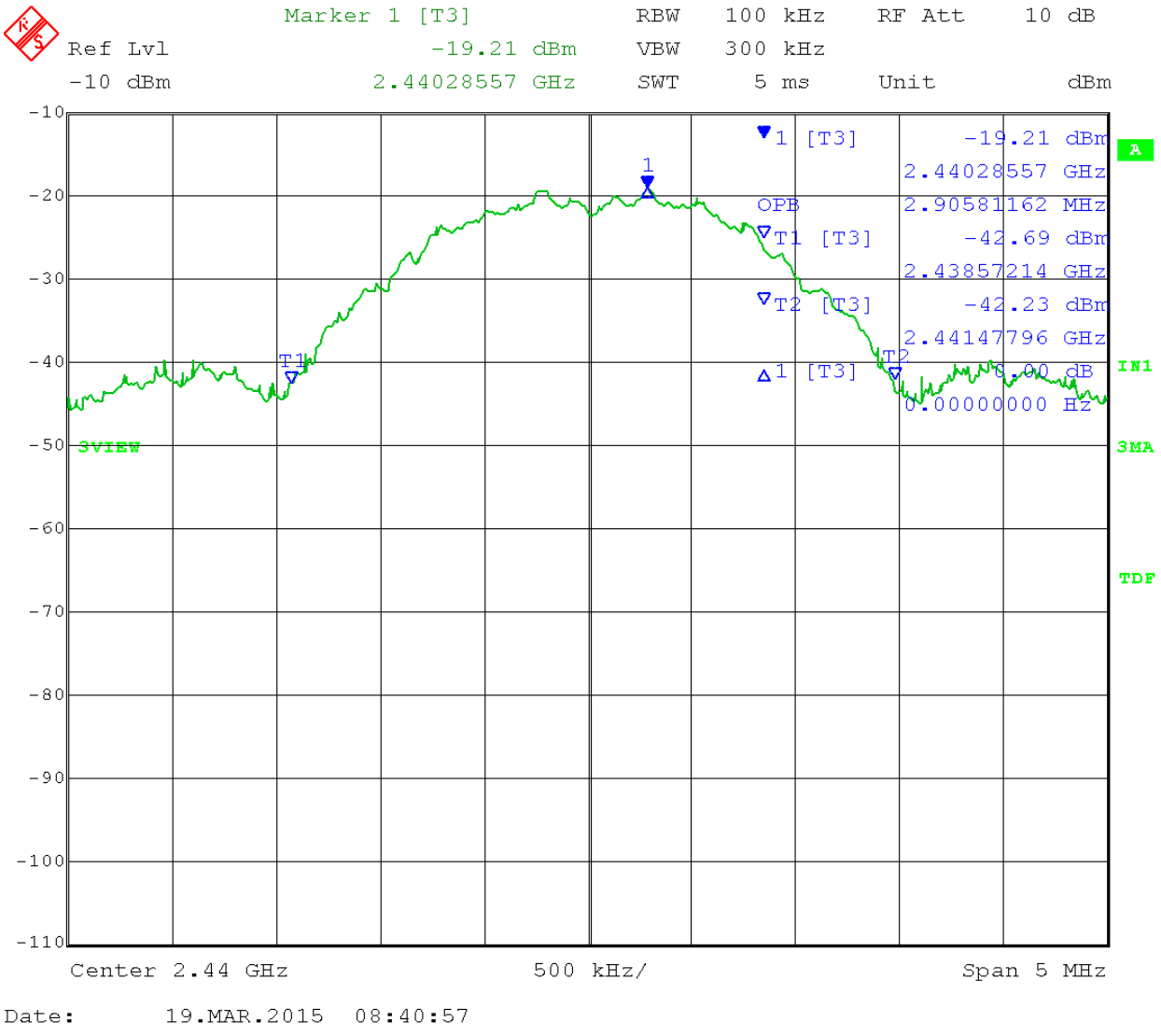
166 South Carter, Genoa City, WI 53128

Company:	RF Technologies Inc.
Model Tested:	0800-0542
Report Number:	20880
DLS Project:	7099

Test Date:	03-19-2015
Company:	RF Technologies
EUT:	Quick QR Premiere Nurse Call 16 Channel Zigbee transceiver
Test:	99% Bandwidth - Radiated– 15.247 (a)(2)
Operator:	Paul L

Comment: **Mid Channel – Ch.18 2.440 GHz**

99% Bandwidth = 2.906 MHz



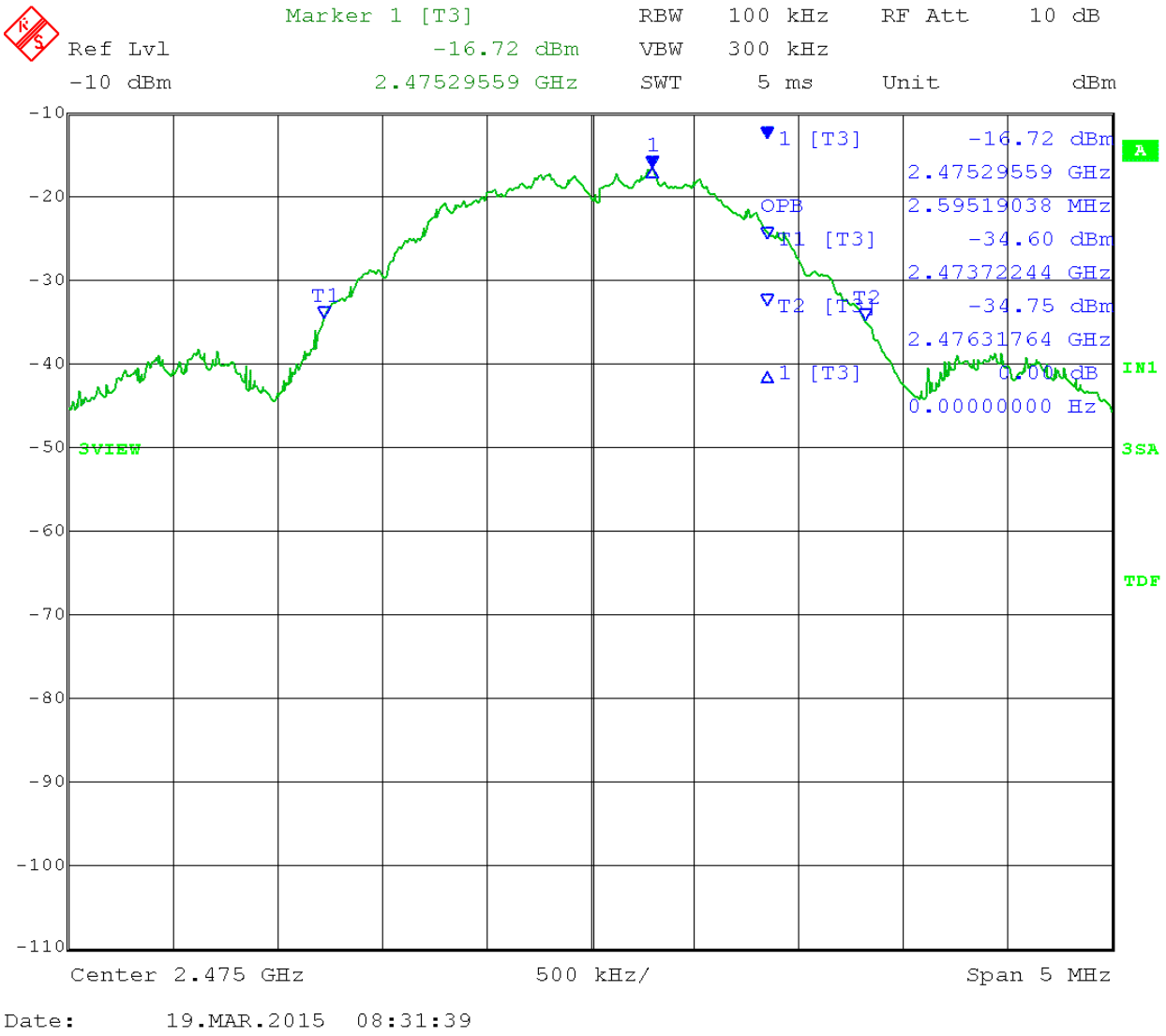
166 South Carter, Genoa City, WI 53128

Company:	RF Technologies Inc.
Model Tested:	0800-0542
Report Number:	20880
DLS Project:	7099

Test Date:	03-19-2015
Company:	RF Technologies
EUT:	QR Premiere Nurse Call 16 Channel Zigbee transceiver
Test:	99% Bandwidth - Radiated– 15.247 (a)(2)
Operator:	Paul L

Comment: **High Channel – Ch.25 2.475 GHz**

99% Bandwidth = 2.595 MHz



END OF REPORT

Revision #	Date	Comments	By
1.0	03-31-2015	Preliminary Release	JS
1.1	04-06-2015	Minor edits	JS