FCC PART 15, SUBPART B & C
CLASS A TEST REPORT
TEST METHOD: ANSI C63.4 and ANSI C63.10

For
GENERAL FLOOR MONITOR
Model: RDS-7

Prepared for

MASIMO CORPORATION
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IRVINE, CA 92618

Prepared by:_____

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DATE: MAY 16, 2013

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	BODY	***A***	***B***	***C***	***D***	***E***	
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1	Conducted Emissions Test Setup
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GENERAL REPORT SUMMARY

This electromagnetic emission report is generated by Compatible Electronics Inc., which is an independent testing and consulting firm. The test report is based on testing performed by Compatible Electronics personnel according to the measurement procedures described in the test specifications given below and in the "Test Procedures" section of this report.

The measurement data and conclusions appearing herein relate only to the sample tested and this report may not be reproduced in any form except in full, without the written permission of Compatible Electronics.

This report must not be used to claim product endorsement by NVLAP, NIST or any other agency of the U.S. Government.

Device Tested:	General Floor Monitor Model: RDS-7 S/N: EMI 2P & EMI 4
Product Description:	Please expository statement.
Modifications:	The EUT was modified in order to comply with specifications. Please see the list of modifications in Appendix B.
Manufacturer:	Masimo Corporation 40 Parker Irvine, CA 92618
Test Dates:	February 25, March 5, 7, and 8, 2013
Test Specifications:	EMI requirements CFR Title 47, Part 15 Subpart C Sections 15.205, 15.207, 15.209 and 15.249 FCC Part 15 Subpart B section 15.109 and Section 15.107
Test Procedure:	ANSI C63.10 and ANSI C63.4
Test Deviations:	The test procedure was not deviated from during the testing.

SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Conducted RF Emissions, 150 kHz – 30 MHz	Complies with the **Class A** limits of CFR Title 47, Part 15 Subpart B; and the limits of CFR Title 47, Part 15, Subpart C, section 15.207
2	Spurious Radiated RF Emissions, 30 MHz – 25 GHz	Complies with the **Class A** limits of CFR Title 47, Part 15 Subpart B
3	Emissions produced by the intentional radiator, 10 kHz – 25 GHz	Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.205, 15.209, and section 15.249
4	Field strength of fundamental	Complies with the relevant requirements of FCC Title 47, Part 15, Subpart C, section 15.249(a)

1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the General Floor Monitor Model: RDS-7. The EMI measurements were performed according to the measurement procedure described in ANSI C63.10 and ANSI C63.4. The tests were performed in order to determine whether the electromagnetic emissions from the equipment under test, referred to as EUT (equipment under test) hereafter, are within the specification limits defined by the Code of Federal Regulations Title 47, Part 15 Subpart C sections 15.205, 15.207, 15.209 and 15.249.

Note: For the unintentional radiator portion of the test, the EUT was within the **Class A** specification limits defined by CFR Title 47, Part 15, Subpart B.

2. ADMINISTRATIVE DATA

2.1 Location of Testing

The emissions tests described herein were performed at the test facility of Compatible Electronics, 20621 Pascal Way, Lake Forest, California 92630.

2.2 Traceability Statement

The calibration certificates of all test equipment used during the test are on file at the location of the test. The calibration is traceable to the National Institute of Standards and Technology (NIST).

2.3 Cognizant Personnel

Masimo Corporation

Mike Clark	Engineer

Compatible Electronics, Inc.

Joey Madlangbayan	Test Engineer
Matt Harrison	Test Technician
Eugene Adams	Test Technician
Jeff Klinger	Director of EMC

2.4 Date Test Sample was Received

The test sample was received on March 3, 2013.

2.5 Disposition of the Test Sample

The test sample remains at Compatible Electronics as of the date of this report.

2.6 Abbreviations and Acronyms

The following abbreviations and acronyms may be used in this document.

RF	Radio Frequency
EMI	Electromagnetic Interference
EUT	Equipment Under Test
P/N	Part Number
S/N	Serial Number
HP	Hewlett Packard
ITE	Information Technology Equipment
CML	Corrected Meter Limit
LISN	Line Impedance Stabilization Network

3. APPLICABLE DOCUMENTS

The following documents are referenced or used in the preparation of this EMI Test Report.

SPEC	TITLE
FCC Title 47, Part 15 Subpart C	FCC Rules - Radio frequency devices (including digital devices) – Intentional Radiators
FCC Title 47, Part 15 Subpart B	FCC Rules - Radio frequency devices (including digital devices) – Unintentional Radiators
ANSI C63.4 2009	Methods of measurement of radio-noise emissions from low-voltage electrical and electronic equipment in the range of 9 kHz to 40 GHz.
ANSI C63.10: 2009	American National Standard for Testing Unlicensed Wireless Devices

4. DESCRIPTION OF TEST CONFIGURATION

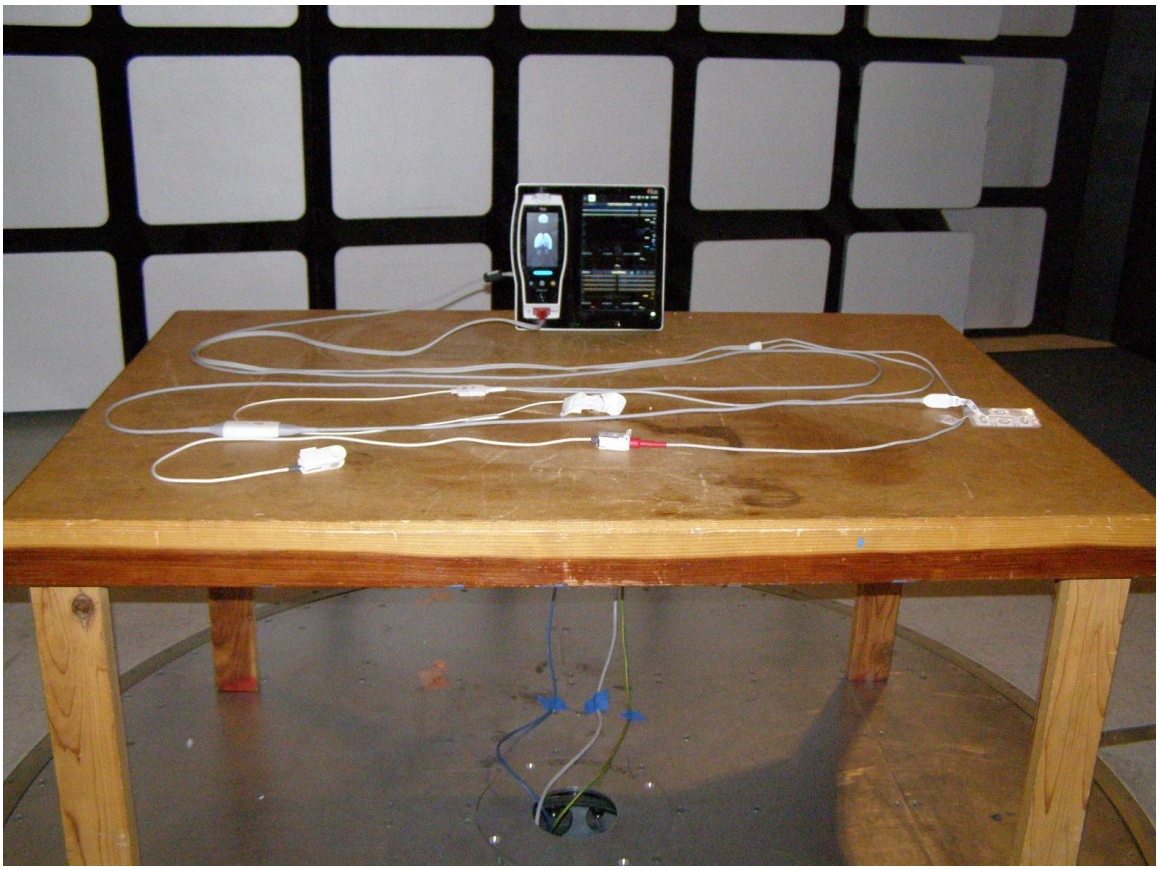
4.1 Description of Test Configuration - EMI

The EUT was set up in a tabletop configuration. The EUT was continuously running an internal program that monitored SEDline sensor and displayed the values from the handheld Medical Pulse CO-Oximeter. The Handheld Medical Pulse CO-Oximeter was connected to the Rainbow Patient Sensor and Respiration Rate Sensor via Dual Channel RAM Cable II. The EUT was connected to the remote computer via the Ethernet port. The rear RS232 and Nurse Call ports were terminated with cables. The USB ports were terminated with USB memory sticks. The EUT was constantly transceiving during all tests.

The EUT input power was varied between 85% and 115% of the nominal rated supply voltage with no change in amplitude or frequency of the fundamental signal.

The cables were moved to maximize the emissions. The final conducted and radiated data was taken in the above described configuration. All initial investigations were performed with the EMI Receiver in manual mode scanning the frequency range continuously. The cables were bundled and routed as shown in the photographs in Appendix D.

4.1.1 Photograph of Test Configuration - EMI



4.1.2 Cable Construction and Termination

Cable 1

This is a 4.7 meter, braid shielded, round SEDline cable that connects the EUT to the EEG Sensor. The cable has a 9 pin plastic proprietary connector at the EUT end as well at the Sensor end. The shield of the cable was grounded to the chassis via the connector.

Cable 2

This is a 4 meter, braid shielded, round cable that connects the EUT to the SPO2 pulse and Acoustic Sensor. There is a 20 pin metallic dual-inline connector at the EUT end of the cable and is hardwired into the SPO2 pulse and Acoustic Sensor end. The shield of the cable was grounded to the chassis via the connectors.

Cables 3-6

These are 70-centimeter, unshielded round cables that connect to the EUTs rear RS232 ports with terminating loopback connectors at each end. The cables have a plastic RJ-45 connector at each end. There is a ferrite clamp at the EUT end of each of the cables. The cables were bundled to a length of 35-centimeters.

Cable 7

This is a 4.6-meter, foil shielded, round Nurse-call cable that connects to the EUT and left unterminated. The cable has a ½ inch phone connector at the EUT end and there is a metallic XLR connector at the other end. The shield of the cable was grounded to the chassis via the connector. The cable was bundled to length of 40-centimeters. This cable has a ferrite bead at the EUT end.

Cable 8

This is a 7. 5-meter, unshielded round Ethernet cable that connects the EUT to the Remote Computer. There is a plastic RJ-45 connector at both ends of the cable.

5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT

5.1 EUT and Accessory List

#	EQUIPMENT TYPE	MANUFACTURER	MODEL	SERIAL NUMBER	FCC ID:
EUT*	GENERAL FLOOR MONITOR	MASIMO CORPORATION	RDS-7	EMI 2P	VKF-RDS7
EUT*	GENERAL FLOOR MONITOR	MASIMO CORPORATION	RDS-7	EMI 4	VKF-RDS7
1	MEDICAL PULSE-OXIMETER	MASIMO CORPORATION	RAD7CA	1000002212	N/A
2	COMPUTER	HEWLETT PACKARD	6515B	NONE	N/A
3	SPEAKER/DIAPHRAM	LITMAN	7R	NONE	N/A
4	DUAL CHANNEL RAM HUB CABLE II	MASIMO	DUAL RAM HUB CABLE	NONE	N/A
5	EEG SENSOR	MASIMO	0299	NONE	N/A
6	RESPIRATION RATE (ACOUSTIC) SENSOR	MASIMO	RAS-125	NONE	N/A
7	SPO2 PULSE OPTICAL OXIMETER TESTER	PRONK TECHNOLOGIES	OX-1 OXSIM	OX3138	N/A
8	USB STICK	TRANSCEND	TS-RDP5K	596537 7998	N/A
9	USB STICK	MAXELL	503202	NONE	N/A

* -- The two units were identical and the test data identifies which unit was used for testing during any one test.

5.2 EMI Test Equipment

EQUIPMENT TYPE	MANU-FACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. DUE DATE
Computer	Hewlett Packard	s5250t	MXV94400D8	N/A	N/A
EMI Receiver	Rohde & Schwarz	ESIB40	100219	09/26/2012	09/26/2013
Antenna, Loop	Com Power	AL-130	17085	01/29/2013	01/29/2015
Antenna, CombiLog	Com Power	AC-220	25857	05/25/2012	05/25/2013
Antenna, Horn 1-18GHz	Com Power	AH-118	071225	07/03/2012	07/03/2014
Antenna, Horn 18-26GHz	Com-Power	AH-826	081033	N.C.R.	N.C.R.
Pre-Amp, 1-18GHz	Com Power	PAM-118	443009	04/08/2012	04/08/2013
Pre-Amp, 1-18GHz	Com Power	PAM-118	443011	04/08/2012	04/08/2013
Pre-Amp, 18-40GHz	Com Power	PA-840	181289	06/13/2012	06/13/2013
High Pass Filter	AMTI Microwave Circuits	H3G020G4	481230	06/07/2012	06/07/2013
LISN	Com Power	LI 215	12088	03/05/2012	03/05/2014
LISN	Com Power	LI 215	12088	03/05/2012	03/05/2014
Mast, Antenna Positioner	Sunol Science Corporation	TWR 95-4	020808-3	N/A	N/A
Antenna Mast	Sunol Science Corporation	TWR 95-4	020808-3	N/A	N/A
Turntable	Sunol Science Corporation	FM 2001	N/A	N/A	N/A
Mast and Turntable Controller	Sunol Science Corporation	SC104V	020808-1	N/A	N/A
Conducted Emissions Test Software	Compatible Electronics	SR21	N/A	N/A	N/A

5.3 Test Software

LAB(S)	SOFTWARE TITLE	MANUFACTURER	VERSION	RELEASE DATE
P, R	Measurement and Automation Software	TDK TestLab	5.53	

6. TEST SITE DESCRIPTION

6.1 Test Facility Description

Please refer to section 2.1 and 7.1.2 of this report for EMI test location.

6.2 EUT Mounting, Bonding and Grounding

The EUT was mounted on a 1.0 by 1.5 meter non-conductive table 0.8 meters above the ground plane.

The EUT was grounded through the AC power cord.

6.3 Facility Environmental Characteristics

When applicable refer to the data sheets in Appendix E for the relative humidity, air temperature and barometric pressure.

7. CHARACTERISTICS OF THE TRANSMITTER

7.1 Channel Number and Frequencies

There are a total of 79 channels. The low channel is at 2402.0 MHz and the high channel is at 2480.0 MHz. There is a 1 MHz separation between each channel.

1 = 2402 MHz
2 = 2403 MHZ
3 = 2404 MHz
4 = 2405 MHz
5 = …

7.2 Antenna

Only one antenna is used for Bluetooth transmission. The antenna is an off the shelf antenna assembly that connects to the RF board via a U.FL connector and has a maximum gain of 2.5 dBi. The antenna is not accessible to the user.

8. TEST PROCEDURES

The following sections describe the test methods and the specifications for the tests. Test results are also included in this section.

8.1 RF Emissions

8.1.1 Conducted Emissions Test

The EMI receiver was used as a measuring meter. A quasi-peak and/or average reading was taken only where indicated in the data sheets. The LISN output was measured using the EMI receiver. The output of the second LISN was terminated by a 50-ohm termination. The effective measurement bandwidth used for this test was 9 kHz.

Please see section 6.2 of this report for mounting, bonding, and grounding of the EUT. The EUT received its power through the LISN, which was bonded to the ground plane. The EUT was set up with the minimum distances from any conductive surfaces as specified in ANSI 63.4. The excess power cord was wrapped in a figure eight pattern to form a bundle not exceeding 0.4 meters in length.

The conducted emissions from the EUT were maximized for operating mode as well as cable placement. The final data was collected under program control by the computer software.

Test Results:

Complies with the **Class A** limits of CFR Title 47, Part 15 Subpart B; and the limits of CFR Title 47, Part 15, Subpart C, section 15.207.

8.1.2 Radiated Emissions (Spurious and Harmonics) Test

The EMI Receiver was used as a measuring meter along with the quasi-peak adapter. Amplifiers were used to increase the sensitivity of the instrument. The R&S internal preamplifier was used for frequencies from 30 MHz to 1 GHz, the Com Power Microwave Preamplifier Model: PA-118 was used for frequencies above 1 GHz, and the Com Power Microwave Preamplifier Model: PA-840 was used for frequencies above 18 GHz. The spectrum analyzer was used in the peak detect mode with the "Max Hold" feature activated. In this mode, the spectrum analyzer records the highest measured reading over all the sweeps.

The quasi-peak detector was used only for those readings which are marked accordingly on the data sheets.

After the harmonics above 1 GHz were maximized, the reading was adjusted by a "duty cycle correction factor", derived from 20 log (dwell time / 100 ms). Since the duty cycle was below 10%, the maximum allowed 20 dB was subtracted from the peak reading. The duty cycle correction factor is explained in Appendix E.

The measurement bandwidths and transducers used for the radiated emissions test were:

FREQUENCY RANGE (MHz)	TRANSDUCER	EFFECTIVE MEASUREMENT BANDWIDTH
0.009 to 0.150	Active Loop Antenna	200 kHz
0.150 to 30	Active Loop Antenna	9 kHz
30 to 1000	Combilog Antenna	100 kHz
1000 to 24800	Horn Antenna	1 MHz

The TDK FAC-3 shielded test chamber of Compatible Electronics, Inc. was used for radiated emissions testing. This test site is in full compliance with ANSI 63.10, ANSI C63.4, EN 50147-2, and CISPR 22. Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The turntable supporting the EUT is remote controlled using a motor. The turntable permits EUT rotation of 360 degrees in order to maximize emissions. Also, the antenna mast allows height variation of the antenna from 1 meter to 4 meters. Data was collected in the worst case (highest emission) configuration of the EUT. At each reading, the EUT was rotated 360 degrees and the antenna height was varied from 1 to 4 meters in both vertical and horizontal polarizations (for E field radiated field strength). The gunsight method was used when measuring with the horn antenna in order to ensure accurate results.

The presence of digital device signals was verified by turning the radio off. In case a digital device signal was detected, the measurement bandwidth was reduced temporarily and verification was made that an additional adjacent peak did not exist. This ensures that the digital device signal does not hide any emissions from the radio. The EUT was tested at a 1 and 3 meter test distance from 10 kHz to 25 GHz to obtain the final test data.

Test Results:

The Digital Device complies with the **Class A** limits of CFR Title 47, Part 15, Subpart B; and the Radio complies with the limits of CFR Title 47, Part 15, Subpart C, Sections 15.205, 15.209 and 15.249 for radiated emissions. Please see Appendix E for the data sheets.

8.1.3 Field Strength of Fundamental

The Peak Transmit EMI was measured using the EMI Receiver at a 1 and 3-meter test distance to obtain the final test data. The low, mid and high channels were measured. The final qualification data sheets are located in Appendix E.

Test Results:

Complies with the limits of CFR Title 47, Part 15 Subpart C, section 15.249(a).

8.1.4 Emissions Radiated Outside of the Fundamental Frequency Band

The Band Edge measurement was measured using the EMI Receiver at a 3-meter test distance to obtain the final test data. The low and high channels were tuned during the low and high band edge tests respectively. The final qualification data sheets are located in Appendix E.

Test Results:

Complies with the limits of CFR Title 47, Part 15 Subpart C, section 15.205, 15.249.

8.1.6 Duty Cycle

Duty Cycle Correction Factor = -20dB

$$\delta(\mathrm{dB}) = 20\log\left[\sum\left(nt_1 + mt_2 + \ldots + \xi t_x\right)/T\right]$$

where

n is the number of pulses of duration *t*1
m is the number of pulses of duration *t*2
ξ is the number of pulses of duration *tx*
T is the period of the pulse train or 100 ms if the pulse train length is greater than 100 ms

8.016032µs X 5 = 40.08016µs

40.08016µs = 0.04008016ms pulse width

100ms = total time period

0.04008016ms / 100ms = 0.0004008016%

20 log (0.0004008016) = -67.94 dB **(Maximum correction factor allowed = -20dB)**

9. TEST PROCEDURE DEVIATIONS

There were no deviations from the test procedures.

10. CONCLUSIONS

The General Floor Monitor Model: RDS-7 meets all of the specification limits defined in FCC Title 47, Part 15, Subpart C, Sections 15.205, 15.207, 15.209, and 15.249.

Note: For the unintentional radiator portion of the test, the EUT was within the **Class A** specification limits defined by CFR Title 47, Part 15, Subpart B Sections 15.107 and 15.109.

APPENDIX A

LABORATORY ACCREDITATIONS

LABORATORY ACCREDITATIONS AND RECOGNITIONS

NVLAP CODES 200063-0, 200528-0, 200527-0

For US, Canada, Australia/New Zealand, Taiwan and the European Union, Compatible Electronics is currently accredited by NVLAP to ISO/IEC 17025 an ISO 9002 equivalent. Please follow the link to the NIST site for each of our facilities NVLAP certificate and scope of accreditation.

Silverado/Lake Forest Division: http://ts.nist.gov/ts/htdocs/210/214/scopes/2005270.htm
Brea Division: http://ts.nist.gov/ts/htdocs/210/214/scopes/2005280.htm
Agoura Division: http://ts.nist.gov/ts/htdocs/210/214/scopes/2000630.htm

Compatible Electronics has been accredited by ANSI and appointed by the FCC to serve as a Telecommunications Certification Body (TCB). Compatible Electronics ANSI TCB listing can be found at: http://www.ansi.org/public/ca/ansi_cp.html

Compatible Electronics has been nominated as a Conformity Assessment Body (CAB) for EMC under the US/EU Mutual Recognition Agreement (MRA). Compatible Electronics NIST US/EU CAB listing can be found at: http://ts.nist.gov/ts/htdocs/210/gsig/emc-cabs-mar02.pdf

Compatible Electronics has been nominated as a Conformity Assessment Body (CAB) for Taiwan/BSMI under the US/APEC (Asia-Pacific Economic Cooperation) Mutual Recognition Agreement (MRA). Compatible Electronics NIST US/APEC CAB listing can be found at: http://ts.nist.gov/ts/htdocs/210/gsig/apec/bsmi-cabs-may02.pdf

World Wide Market Access with Nemko

Compatible Electronics has been validated by NEMKO against ISO/IEC 17025 under the NEMKO EMC Laboratory Authorization (ELA) program to all EN standards required by the European Union (EU) EMC Directive 89/336/EEC. Please follow the link to the Compatible Electronics' web site for each of our facilities NEMKO ELA certificate and scope of accreditation. http://www.celectronics.com/certs.htm

We are also certified/listed for IT products by the following country/agency:

Compatible Electronics VCCI listing can be found at:
http://www.vcci.or.jp/vcci_e/member/tekigo/setsubi_index_id.html

Just type "Compatible Electronics" into the Keyword search box.

Compatible Electronics FCC listing can be found at:
https://gullfoss2.fcc.gov/prod/oet/index_ie.html

Just type "Compatible Electronics" into the Test Firms search box.

Industry Canada Industrie Canada

Compatible Electronics IC listing can be found at:
http://spectrum.ic.gc.ca/~cert/labs/oats_lab_c_e.html

APPENDIX B

MODIFICATIONS TO THE EUT

MODIFICATIONS TO THE EUT

There were no modifications made to the EUT during the test.

APPENDIX C

ADDITIONAL MODELS COVERED UNDER THIS REPORT

ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST	GENERAL FLOOR MONITOR Model: RDS-7 S/N: EMI 2P & EMI 4

There were no additional models covered under this report.

APPENDIX D

DIAGRAMS, CHARTS AND PHOTOS

FIGURE 1: CONDUCTED EMISSIONS TEST SETUP

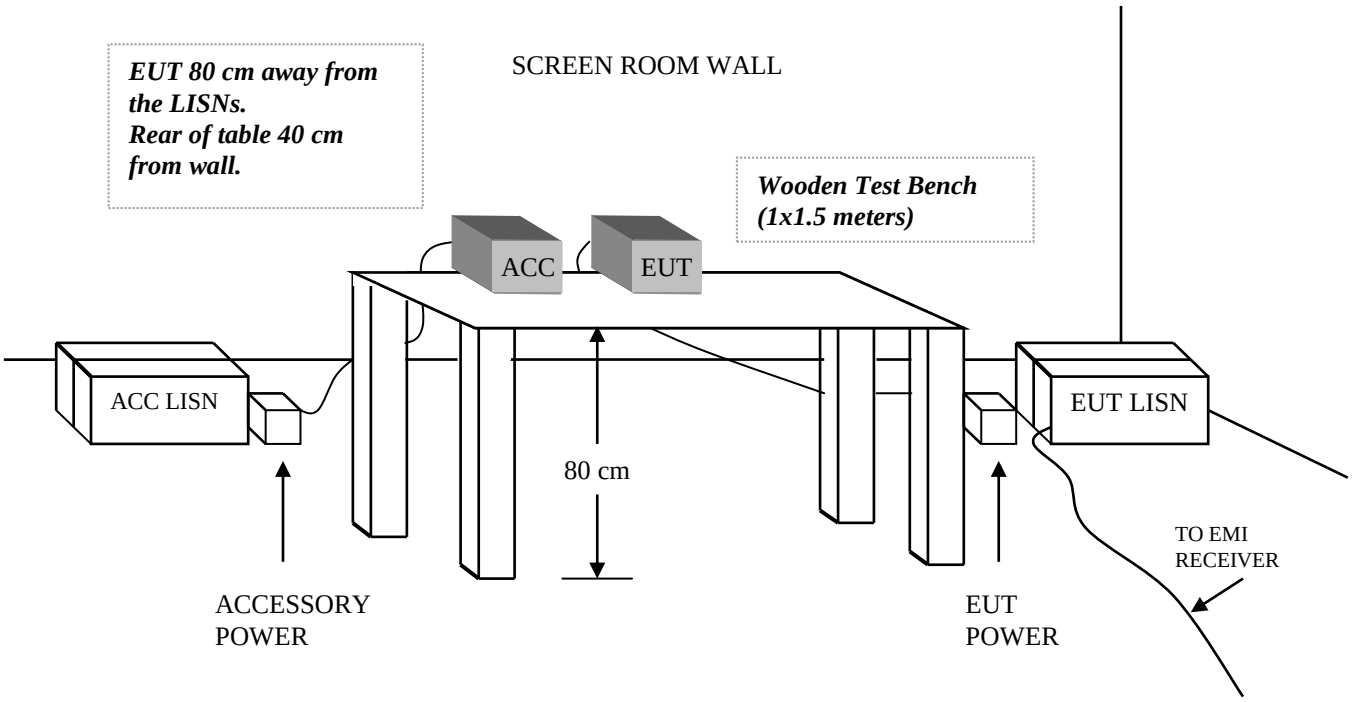


FIGURE 2: RADIATED EMISSIONS 3-METER SEMI-ANECHOIC TEST CHAMBER

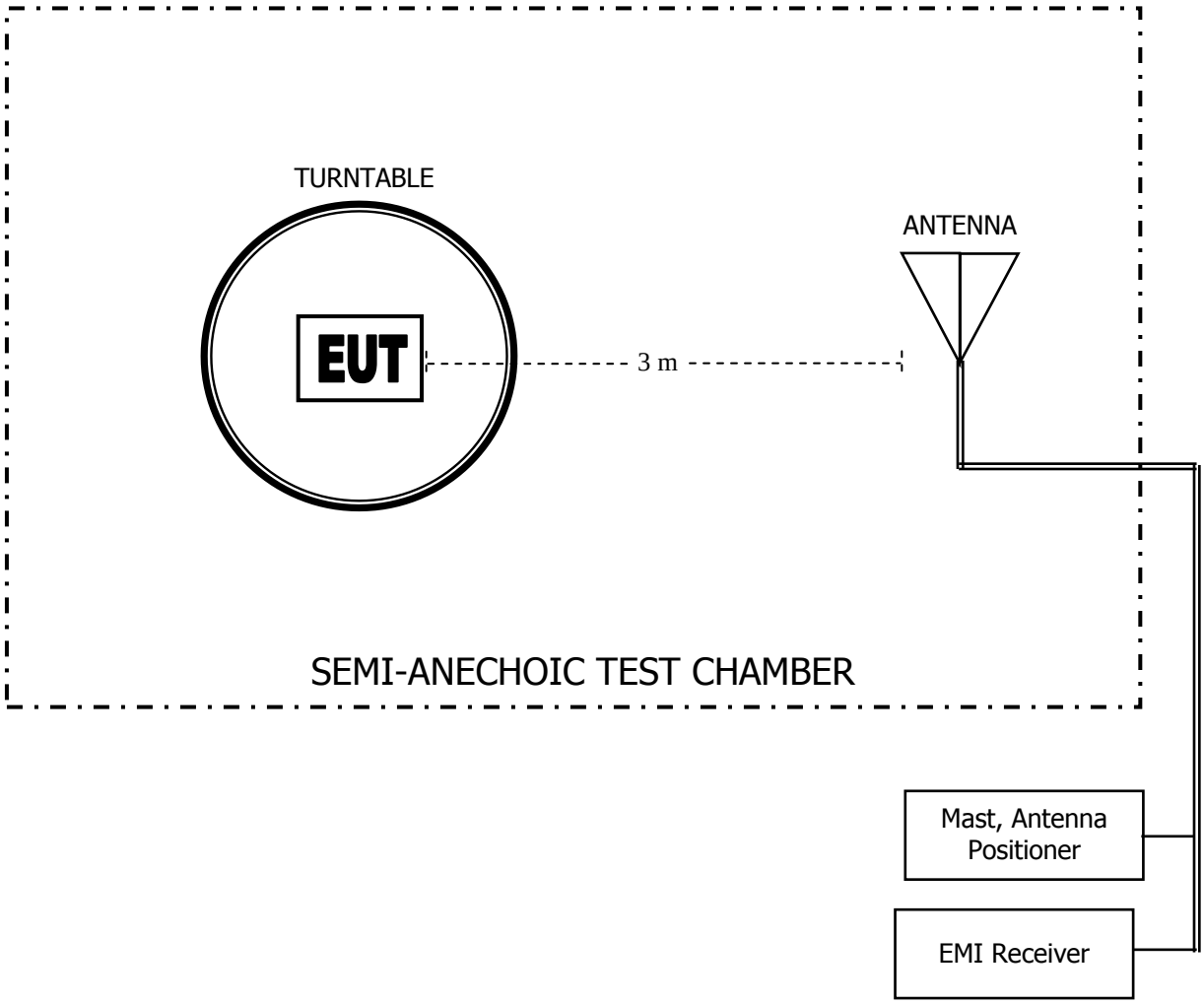
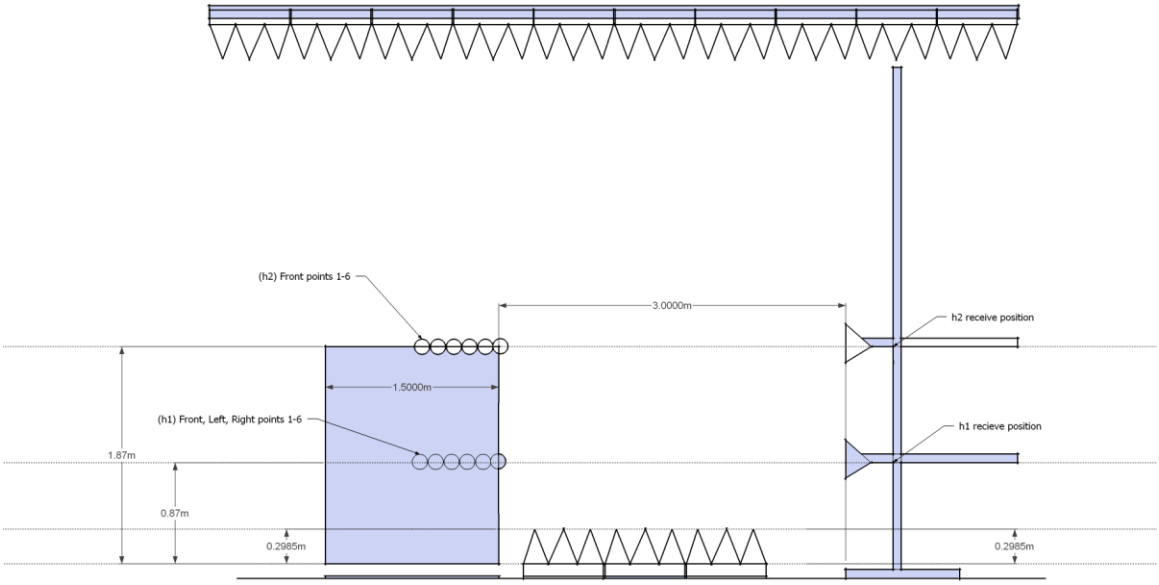


*FIGURE 3: RADIATED EMISSIONS 3-METER SEMI-*ANECHOIC *TEST CHAMBER ABOVE 1 GHz*



COM-POWER AL-130

LOOP ANTENNA

S/N: 17085

CALIBRATION DUE: JANUARY 29, 2015

FREQUENCY (MHz)	MAGNETIC (dB/m)	ELECTRIC (dB/m)	FREQUENCY (MHz)	MAGNETIC (dB/m)	ELECTRIC (dB/m)
0.009	-40.70	10.80	**0.8**	-40.91	10.59
0.01	-40.50	11.00	**0.9**	-40.80	10.70
0.02	-40.70	10.80	**1.0**	-40.81	10.69
0.03	-40.10	11.40	**2.0**	-40.51	10.99
0.04	-40.50	11.00	**3.0**	-40.54	10.96
0.05	-41.10	10.40	**4.0**	-40.44	11.06
0.06	-41.00	10.50	**5.0**	-40.32	11.18
0.07	-41.10	10.40	**6.0**	-40.69	10.81
0.08	-41.10	10.40	**7.0**	-40.37	11.13
0.09	-41.20	10.30	**8.0**	-39.99	11.51
0.1	-41.20	10.30	**9.0**	-40.00	11.50
0.2	-41.40	10.10	**10.0**	-40.08	11.42
0.3	-41.30	10.20	**15.0**	-42.36	9.14
0.4	-41.20	10.30	**20.0**	-38.75	12.75
0.5	-41.40	10.10	**25.0**	-40.70	10.80
0.6	-41.40	10.10	**30.0**	-41.09	10.41
0.7	-41.20	10.30			

COM-POWER AC-220

COMBILOG ANTENNA

S/N: 25857

CALIBRATION DUE: May 25, 2013

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	17.8	**180**	9.4
35	18.4	**200**	9.0
40	19.2	**250**	12.0
45	17.2	**300**	13.4
50	17.2	**300**	13.4
60	13.5	**400**	15.0
70	8.9	**500**	17.3
80	6.0	**600**	17.8
90	7.1	**700**	20.0
100	8.0	**800**	20.5
120	9.2	**900**	20.8
140	7.5	**1000**	22.4
160	8.3		

COM-POWER AH-118

HORN ANTENNA

S/N: 071225

CALIBRATION DUE: JULY 3, 2014

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
1000	26.3	9500	40.8
1500	27.7	10000	41.0
2000	31.6	10500	41.7
2500	32.0	11000	42.4
3000	32.5	11500	42.4
3500	33.8	12000	42.6
4000	33.7	12500	42.0
4500	34.8	13000	43.8
5000	35.8	13500	44.2
5500	36.2	14000	42.9
6000	37.3	14500	43.3
6500	37.4	15000	44.7
7000	38.7	15500	45.1
7500	39.4	16000	44.0
8000	37.7	16500	44.2
8500	39.4	17000	46.9
9000	39.9	17500	47.6
		18000	47.9

COM-POWER PAM-118

1-18GHz - PREAMPLIFIER

S/N: 443009

CALIBRATION DUE: APRIL 08, 2013

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
500	26.53	**5500**	24.39
1000	25.23	**6000**	23.96
1100	25.53	**6500**	23.39
1200	26.10	**7000**	22.06
1300	26.03	**7500**	21.97
1400	26.06	**8000**	22.47
1500	25.97	**8500**	22.65
1600	26.04	**9000**	23.04
1700	25.84	**9500**	23.95
1800	26.01	**10000**	23.51
1900	25.92	**11000**	22.75
2000	25.89	**12000**	22.35
2500	26.06	**13000**	21.68
3000	26.13	**14000**	21.88
3500	25.64	**15000**	22.15
4000	25.62	**16000**	22.15
4500	25.43	**17000**	22.34
5000	24.92	**18000**	22.11

COM-POWER PAM-118

1-18GHz - PREAMPLIFIER

S/N: 443011

CALIBRATION DUE: APRIL 8, 2013

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
0.500	27.61	**7.000**	23.72
1.000	26.44	**7.500**	23.80
1.500	27.28	**8.000**	24.28
2.000	27.20	**8.500**	24.29
2.500	27.26	**9.500**	26.07
3.000	27.30	**10.000**	25.91
3.500	26.93	**11.000**	25.93
4.000	27.44	**12.000**	26.47
4.500	26.89	**13.000**	25.32
5.000	26.47	**14.000**	24.93
5.500	26.20	**15.000**	25.71
6.000	25.64	**16.000**	24.96
6.500	25.18	**17.000**	23.8
		18.000	26.27

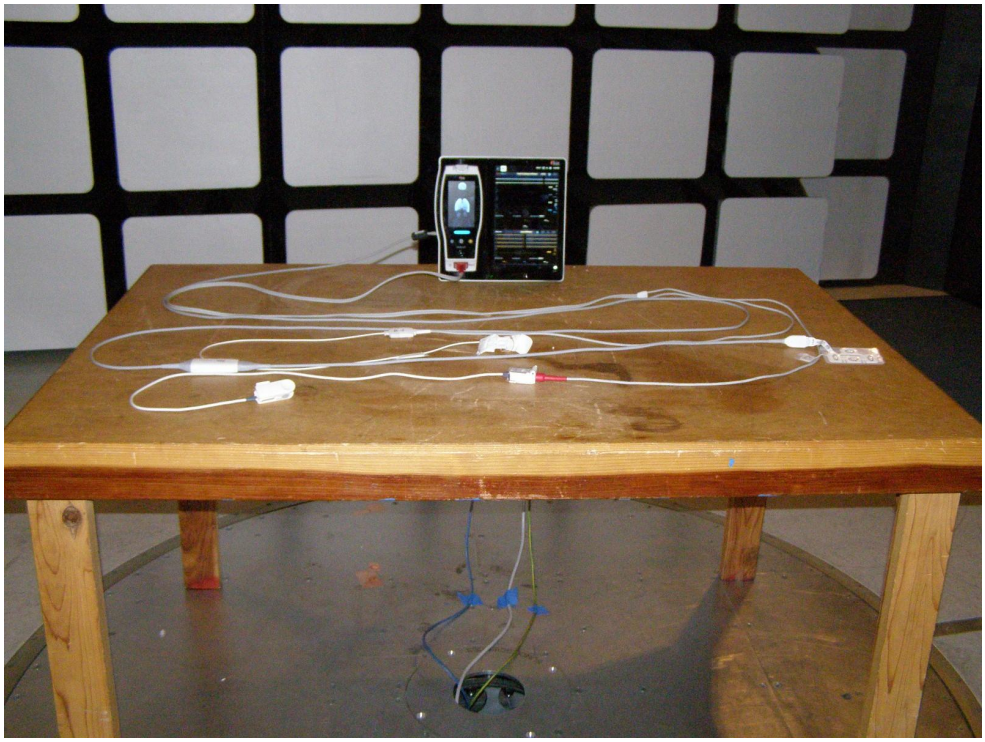
COM-POWER PA-840

18-40 GHz PREAMPLIFIER

S/N: 181289

CALIBRATION DUE: JUNE 13, 2013

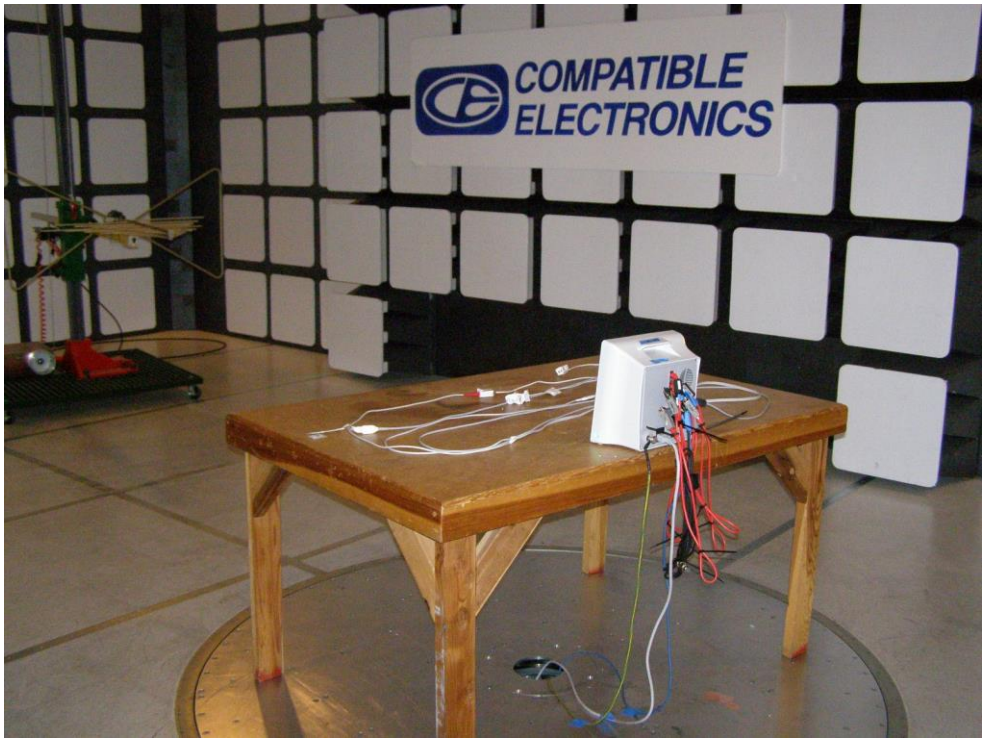
FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
18000	30.33	**31500**	29.12
19000	29.21	**32000**	28.84
20000	29.33	**32500**	28.04
21000	31.35	**33000**	28.72
22000	30.81	**33500**	28.09
23000	28.37	**34000**	27.91
24000	28.77	**34500**	27.87
25000	29.14	**35000**	27.82
26000	31.88	**35500**	27.70
26500	31.08	**36000**	25.38
27000	31.47	**36500**	27.82
27500	30.73	**37000**	27.45
28000	29.87	**37500**	27.62
28500	30.02	**38000**	28.40
29000	29.78	**38500**	29.00
29500	29.81	**39000**	30.33
30000	28.82	**39500**	31.43
30500	28.56	**39999**	29.61
31000	29.78		



FRONT VIEW

MASIMO CORPORATION
GENERAL FLOOR MONITOR
Model: RDS-7
FCC PART 15 SUBPART B & C - RADIATED EMISSIONS BELOW 1GHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



REAR VIEW

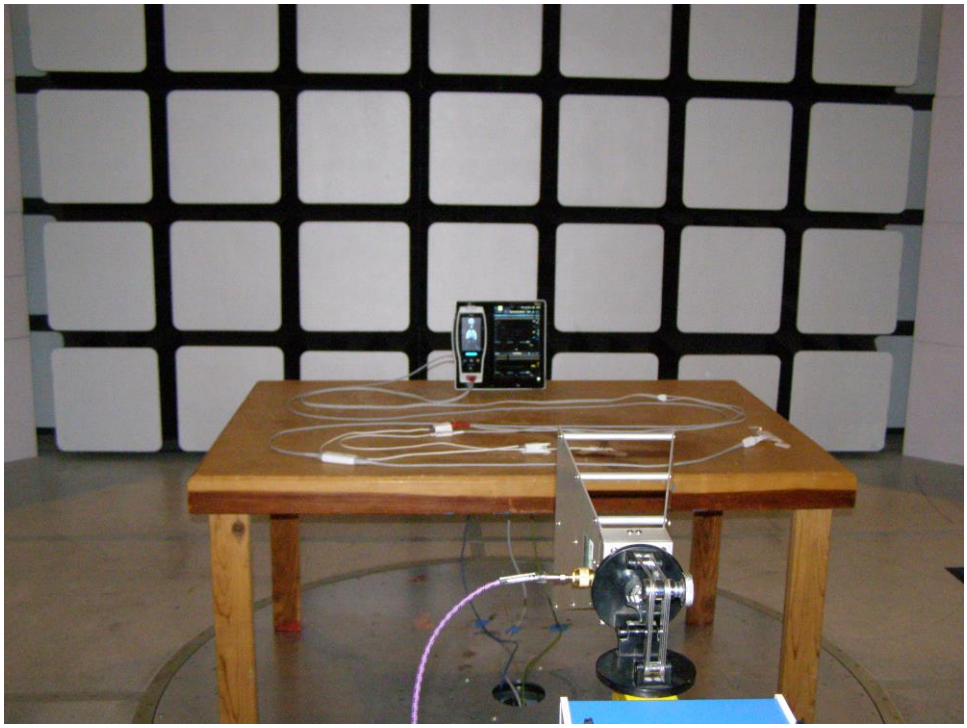
MASIMO CORPORATION
GENERAL FLOOR MONITOR
Model: RDS-7
FCC PART 15 SUBPART B & C - RADIATED EMISSIONS BELOW 1GHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

FRONT VIEW

MASIMO CORPORATION
GENERAL FLOOR MONITOR
Model: RDS-7
FCC PART 15 SUBPART B & C - RADIATED EMISSIONS ABOVE 1GHz

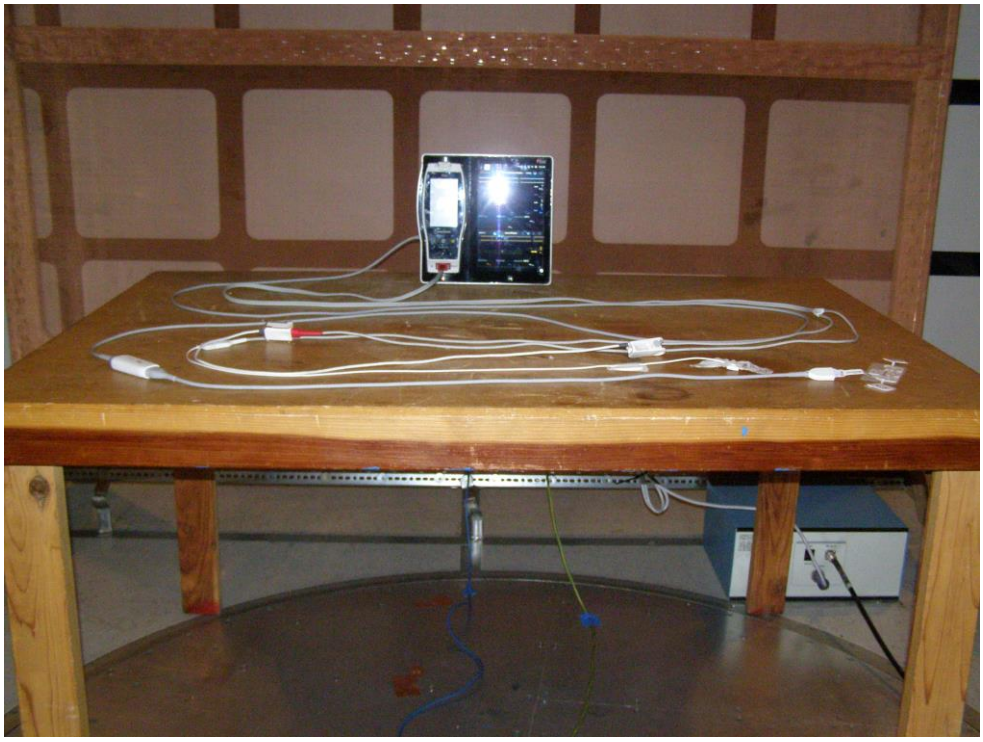
PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



REAR VIEW

MASIMO CORPORATION
GENERAL FLOOR MONITOR
Model: RDS-7
FCC PART 15 SUBPART B & C - RADIATED EMISSIONS ABOVE 1GHz

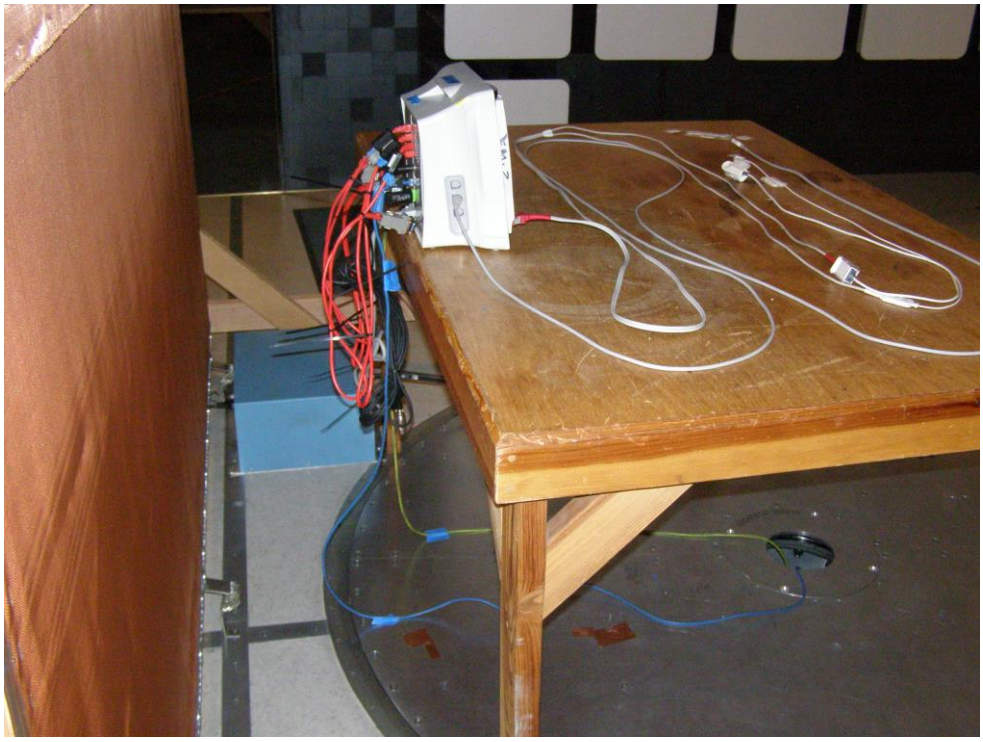
PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



VIEW 1

MASIMO CORPORATION
GENERAL FLOOR MONITOR
Model: RDS-7
FCC PART 15 SUBPART B & C - CONDUCTED EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



VIEW 2

MASIMO CORPORATION
GENERAL FLOOR MONITOR
Model: RDS-7
FCC PART 15 SUBPART B & C - CONDUCTED EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

APPENDIX E

DATA SHEETS

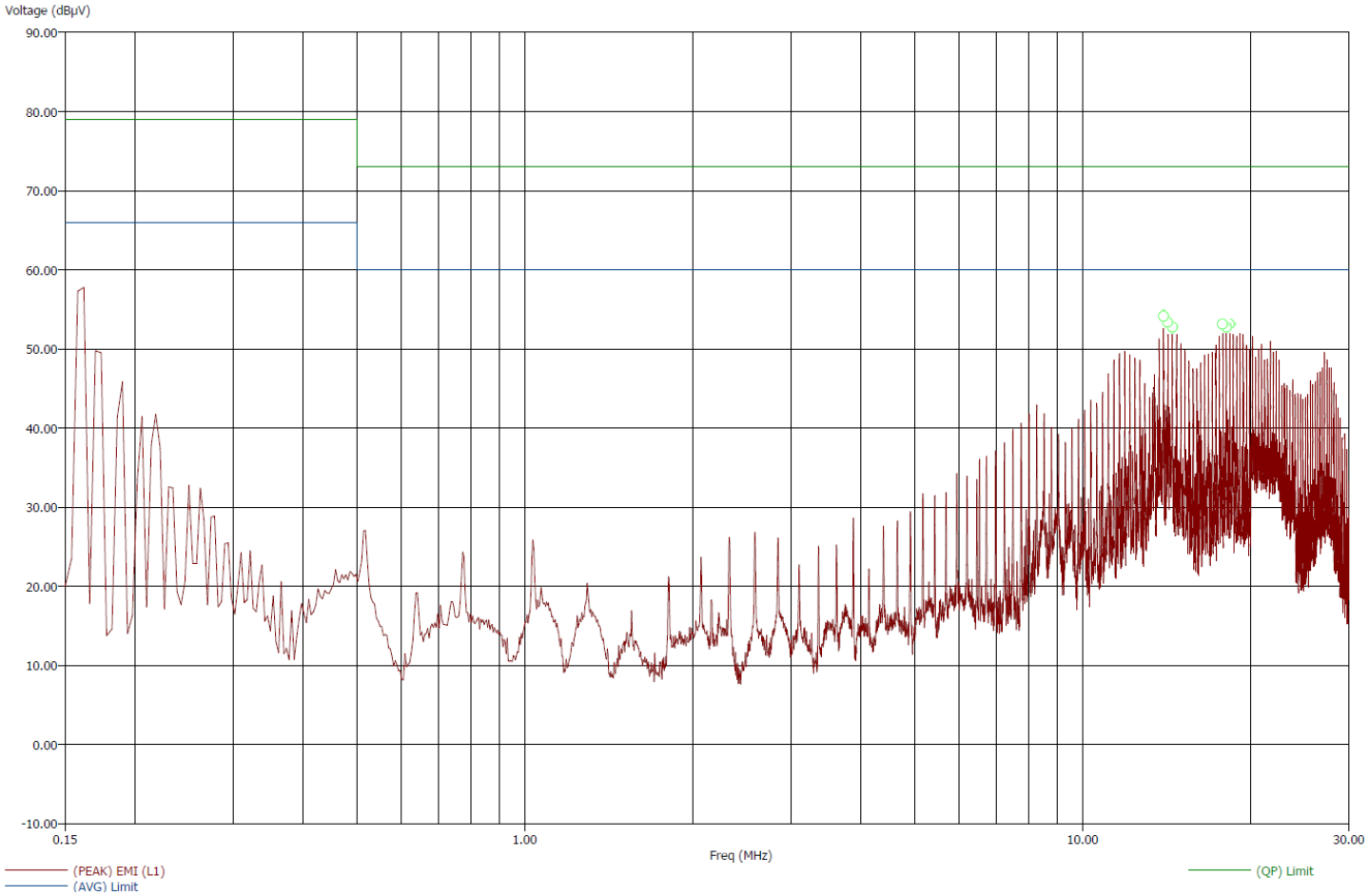
CONDUCTED EMISISONS

DATA SHEETS

Title: FCC 15.107 Class A
File: Conducted Pre-Line_BT.set
Operator: Matt Harrison
EUT Type: RDS7.
EUT Condition: Tx, Bluetooth Hopping.
Comments: Connected to Patient Cables, Ethernet Cables (W/#31 Mat Ferrites, Terminated), Laptop (Remote), Audio Cable (W/#31 mat. Ferrite), Memory Sticks (x2), and Ground.
Temp: 81f
Hum: 22%
120V 60Hz

3/5/2013 4:29:03 PM
Sequence: Preliminary Scan

Compatible Electronics, Inc. FAC-3 (Lab P)



The radio does not increase the EUT emissions from 9kHz to 1GHz.

Title: FCC 15.107 Class A 3/5/2013 4:32:43 PM
File: Conducted Final-Line_BT.set Sequence: Final Measurements
Operator: Matt Harrison
EUT Type: RDS7.
EUT Condition: Tx, Bluetooth Hopping.
Comments: Connected to Patient Cables, Ethernet Cables (W/#31 Mat Ferrites, Terminated), Laptop (Remote), Audio Cable (W/#31 mat. Ferrite), Memory Sticks (x2), and Ground.
Temp: 81f
Hum: 22%
120V 60Hz

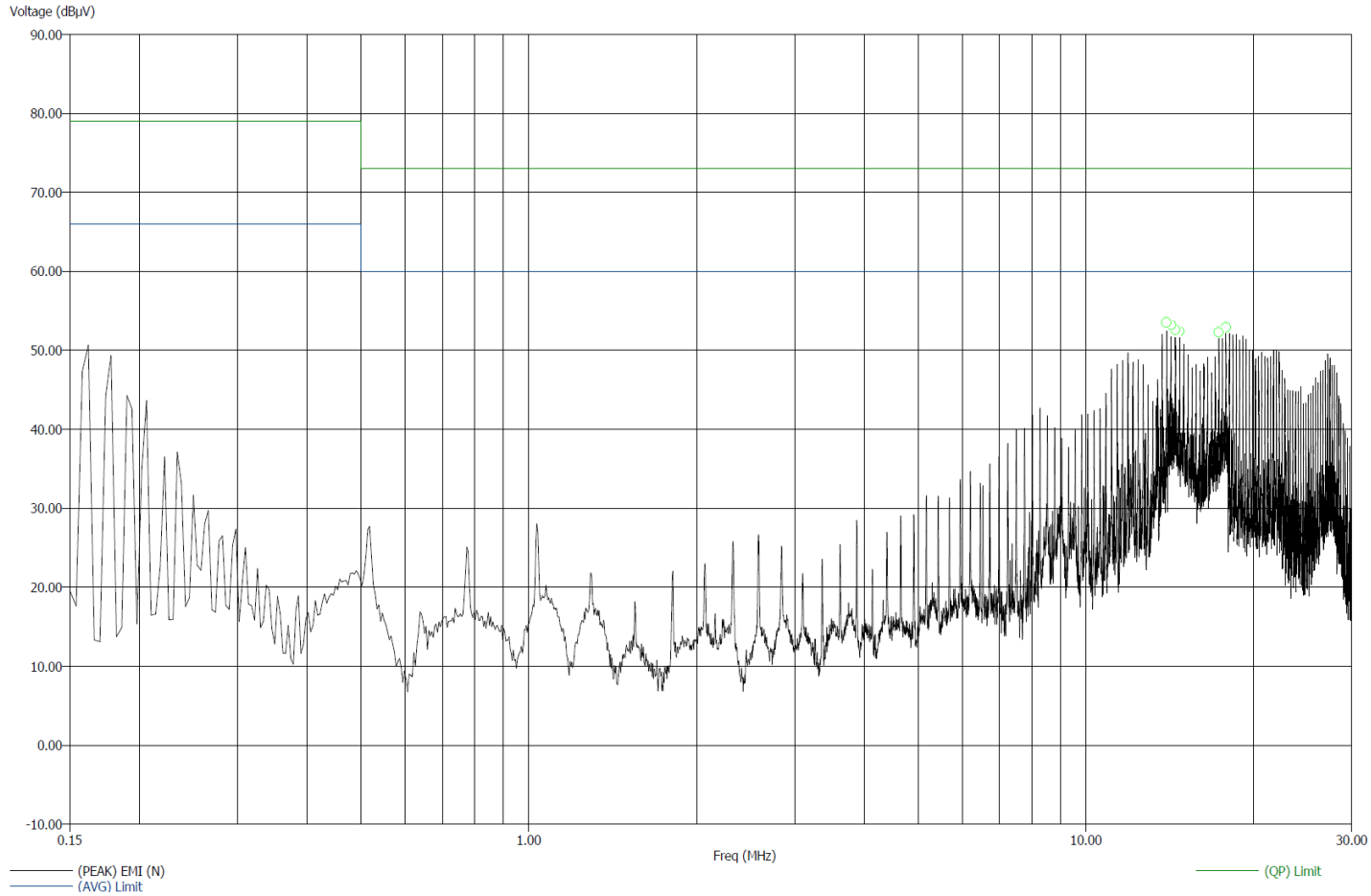
Compatible Electronics, Inc. FAC-3 (Lab P)

Freq (MHz)	(AVG) Margin AVL(dB)	(QP) Margin QPL(dB)	(AVG) EMI (dBµV)	(QP) EMI (dBµV)	(PEAK) EMI (dBµV)	(AVG) Limit (dBµV)	(QP) Limit (dBµV)	Transducer (dB)	Cable (dB)
13.97	-14.94	-24.51	45.06	48.49	52.26	60.00	73.00	0.02	0.34
14.22	-8.76	-20.71	51.24	52.29	54.02	60.00	73.00	0.02	0.35
14.48	-9.41	-20.33	50.59	52.67	53.43	60.00	73.00	0.02	0.36
17.85	-11.69	-21.02	48.31	51.98	53.24	60.00	73.00	0.01	0.45
18.10	-9.78	-19.83	50.22	53.17	53.33	60.00	73.00	0.01	0.46
18.36	-10.47	-21.37	49.53	51.63	53.69	60.00	73.00	0.01	0.46

The radio does not increase the EUT emissions from 9kHz to 1GHz.

Title: FCC 15.107 Class A 3/5/2013 4:39:15 PM
File: Conducted Pre-Neutral_BT.set Sequence: Preliminary Scan
Operator: Matt Harrison
EUT Type: RDS7.
EUT Condition: Tx, Bluetooth Hopping.
Comments: Connected to Patient Cables, Ethernet Cables (W/#31 Mat Ferrites, Terminated), Laptop (Remote), Audio Cable (W/#31 mat. Ferrite), Memory Sticks (x2), and Ground.
Temp: 81f
Hum: 22%
120V 60Hz

Compatible Electronics, Inc. FAC-3 (Lab P)



The radio does not increase the EUT emissions from 9kHz to 1GHz.

Title: FCC 15.107 Class A 3/5/2013 4:46:26 PM
File: Conducted Final-Neutral_BT.set Sequence: Final Measurements
Operator: Matt Harrison
EUT Type: RDS7.
EUT Condition: Tx, Bluetooth Hopping.
Comments: Connected to Patient Cables, Ethernet Cables (W/#31 Mat Ferrites, Terminated), Laptop (Remote), Audio Cable W/#31 mat. Ferrite), Memory Sticks (x2), and Ground.
Temp: 81f
Hum: 22%
120V 60Hz

Compatible Electronics, Inc. FAC-3 (Lab P)

Freq (MHz)	(AVG) Margin AVL(dB)	(QP) Margin QPL(dB)	(AVG) EMI (dBµV)	(QP) EMI (dBµV)	(PEAK) EMI (dBµV)	(AVG) Limit (dBµV)	(QP) Limit (dBµV)	Transducer (dB)	Cable (dB)
13.97	-12.11	-21.96	47.89	51.04	53.42	60.00	73.00	0.12	0.34
14.22	-8.19	-20.24	51.81	52.76	54.09	60.00	73.00	0.12	0.35
14.48	-10.22	-20.87	49.78	52.13	53.26	60.00	73.00	0.12	0.36
14.74	-12.30	-22.83	47.70	50.17	52.50	60.00	73.00	0.12	0.37
17.33	-12.63	-23.11	47.37	49.89	51.55	60.00	73.00	0.14	0.44
17.84	-9.38	-20.68	50.62	52.32	53.43	60.00	73.00	0.14	0.45

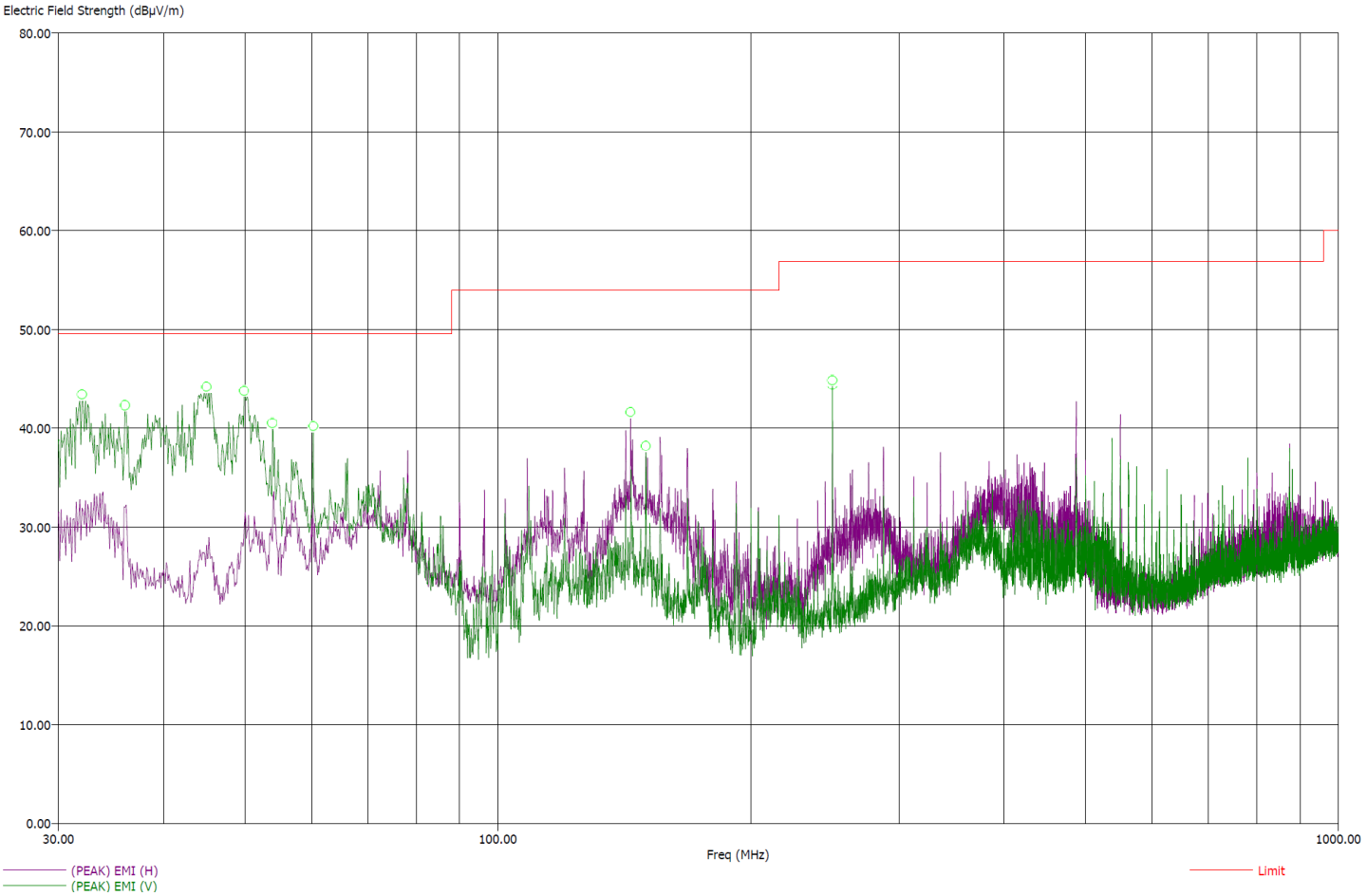
The radio does not increase the EUT emissions from 9kHz to 1GHz.

RADIATED SPURIOUS EMISSIONS

DATA SHEETS

Title: FCC 15.109 Class A 3/5/2013 3:31:17 PM
File: Radiated Pre-Scan 30-1000Mhz_BT.set Sequence: Preliminary Scan
Operator: Matt Harrison
EUT Type: RDS7.
EUT Condition: Running Continuous.
Comments: Connected to Patient Cables, Ethernet Cables (W/#31 Mat Ferrites, Terminated), Laptop (Remote), Audio Cable (W/#31 mat. Ferrite), Memory Sticks (x2), and Ground.
Temp: 81f
Hum: 22%
120V 60Hz

Compatible Electronics, Inc. FAC-3 (Lab P)



Test Distance: 3 Meters.
There were no spurious radiated emissions found below 30 MHz.
The radio does not increase the EUT emissions from 9kHz to 1GHz.

Title: FCC 15.109 Class A 3/5/2013 3:52:33 PM
File: Radiated Final 30-1000Mhz_BT.set Sequence: Final Measurements
Operator: Matt Harrison
EUT Type: RDS7.
EUT Condition: Running Continuous.
Comments: Connected to Patient Cables, Ethernet Cables (W/#31 Mat Ferrites, Terminated), Laptop (Remote), Audio Cable (W/#31 mat. Ferrite), Memory Sticks (x2), and Ground.
Temp: 81f
Hum: 22%
120V 60Hz

Compatible Electronics, Inc. FAC-3 (Lab P)

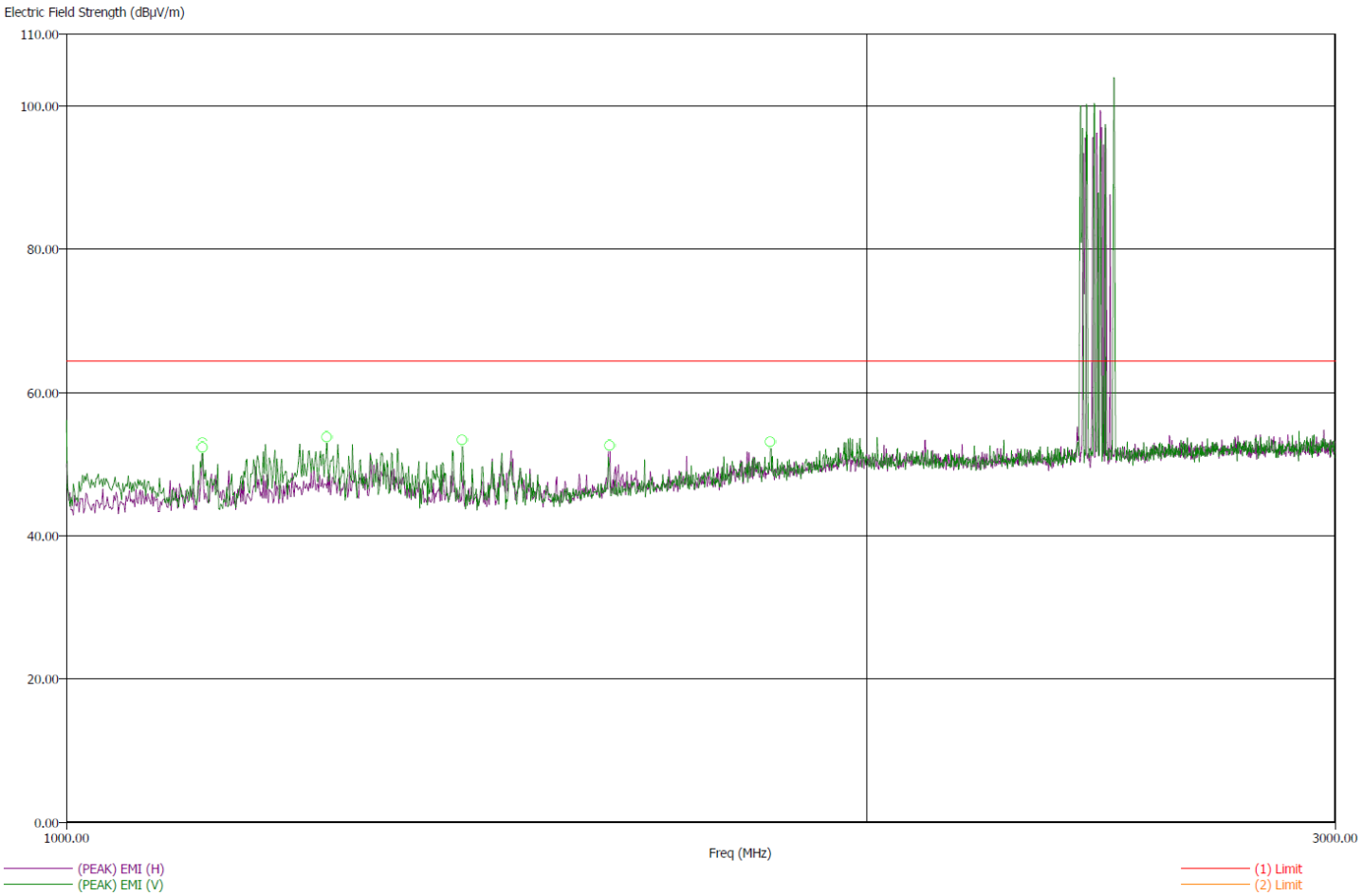
Freq (MHz)	(QP) Margin (dB)	(QP) EMI (dBµV/m)	(PEAK) EMI (dBµV/m)	Limit (dBµV/m)	Pol	Ttbl Agl (deg)	Twr Ht (cm)	Transducer (dB)	Cable(dB)
32.00	-9.78	39.76	42.61	49.54	V	90.50	151.58	18.06	0.52
36.00	-12.62	36.92	44.52	49.54	V	57.00	143.82	18.58	0.56
45.00	-7.94	41.60	45.99	49.54	V	24.25	104.94	17.21	0.60
49.90	-7.55	41.99	46.07	49.54	V	57.75	112.64	17.20	0.60
53.90	-11.01	38.53	44.84	49.54	V	29.75	119.76	15.62	0.64
60.30	-17.19	32.35	40.65	49.54	V	250.50	128.76	13.39	0.70
143.80	-18.13	35.85	44.42	53.98	H	186.25	241.00	7.67	1.28
150.00	-16.64	37.34	39.49	53.98	V	116.00	117.88	7.91	1.30
250.00	-11.18	45.72	46.69	56.90	H	324.25	120.64	12.00	1.80
250.00	-10.29	46.61	47.31	56.90	V	10.50	134.11	12.00	1.80

Test Distance: 3 Meters.
There were no spurious radiated emissions found below 30 MHz.
The radio does not increase the EUT emissions from 9kHz to 1GHz.

RADIATED TRANSMITTER EMISSIONS

Title: FCC 15.209 3/7/2013 3:36:48 PM
File: Radiated Pre-scan 1-3GHz_BT.set Sequence: Preliminary Scan
Operator: Matt Harrison
EUT Type: RDS7.
EUT Condition: Running, Tx Bluetooth Hopping.
Comments: Connected to Patient Cables , Ethernet Cables (W/#31 Mat Ferrites, Terminated), Laptop (Remote), Audio Cable (W/#31 mat. Ferrite), Memory Sticks (x2), and Ground. With 2-TDK ferrites on Power Cable(Internal).
Temp: 81f
Hum: 22%
120V 60Hz
Test Distance= 1m.

Compatible Electronics, Inc. FAC-3 (Lab P)



There were no transmitter radiated emissions found below 1000 MHz
There were no emissions found at a 3m test distance; therefore the test was performed at 1m test distance.

Title: FCC 15.209 3/7/2013 3:41:17 PM
File: Radiated Final 1-3GHz_BT.set Sequence: Final Measurements
Operator: Matt Harrison
EUT Type: RDS7.
EUT Condition: Running, Tx Bluetooth Hopping.
Comments: Connected to Patient Cables , Ethernet Cables (W/#31 Mat Ferrites, Terminated), Laptop (Remote), Audio Cable (W/#31 mat. Ferrite), Memory Sticks (x2), and Ground. With 2-TDK ferrites on Power Cable(Internal).
Temp: 81f
Hum: 22% 120V 60Hz
Test Distance= 1m.

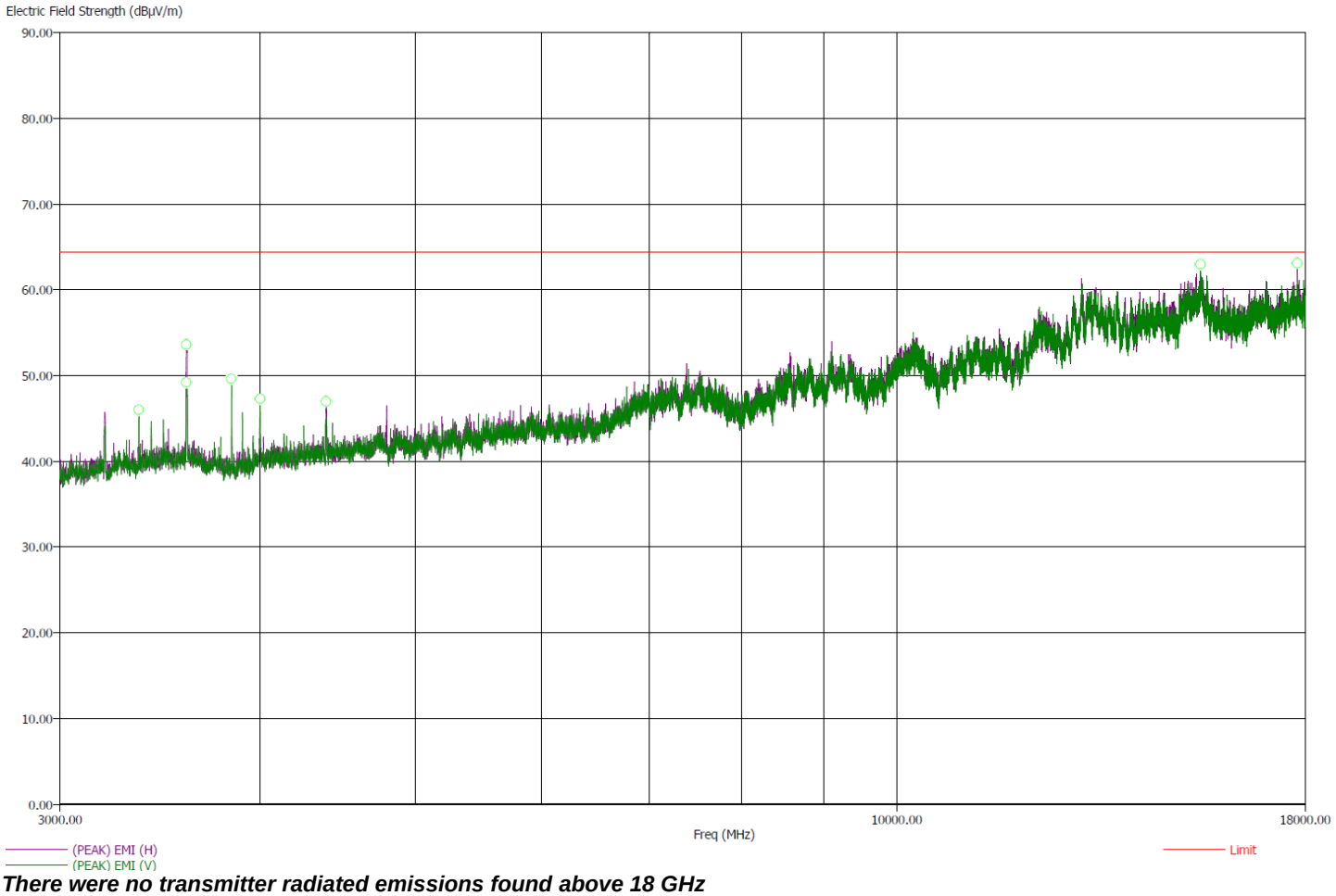
Compatible Electronics, Inc. FAC-3 (Lab P)

Freq (MHz)	(AVG) Margin (dB)	(AVG) EMI (dBµV/m)	Limit (dBµV/m)	Pol	Ttbl Agl (deg)	Twr Ht (cm)	Transducer (dB)	Cable (dB)
1125.06	-15.57	47.95	63.52	H	210.00	100.00	26.71	4.58
1125.21	-14.78	48.74	63.52	V	221.25	100.00	26.71	4.58
1252.84	-29.38	34.14	63.52	V	360.00	100.00	27.08	4.91
1408.69	-26.77	36.75	63.52	V	59.50	100.00	27.48	5.12
1600.27	-17.26	46.26	63.52	H	284.25	100.00	28.58	5.40
1840.70	-24.1	39.42	63.52	V	62.00	100.00	30.47	5.81

There were no transmitter radiated emissions found below 1000 MHz
There were no emissions found at a 3m test distance; therefore the test was performed at 1m test distance.

Title: FCC 15.209 3/7/2013 4:00:07 PM
File: Radiated Pre-scan 3-18GHz_BT.set Sequence: Preliminary Scan
Operator: Matt Harrison
EUT Type: RDS7.
EUT Condition: Running, Tx Bluetooth Hopping.
Comments: Connected to Patient Cables , Ethernet Cables (W/#31 Mat Ferrites, Terminated), Laptop (Remote), Audio Cable (W/#31 mat. Ferrite), Memory Sticks (x2), and Ground. With 2-TDK ferrites on Power Cable(Internal).
Temp: 81f
Hum: 22% 120V 60Hz
Test Distance= 1m.

Compatible Electronics, Inc. FAC-3 (Lab P)



There were no transmitter radiated emissions found above 18 GHz
There were no emissions found at a 3m test distance; therefore the test was performed at 1m test distance.

Title: FCC 15.209 3/7/2013 4:16:52 PM
File: Radiated Final 3-18GHz_BT.set Sequence: Final Measurements
Operator: Matt Harrison
EUT Type: RDS7.
EUT Condition: Running, Tx Bluetooth Hopping.
Comments: Connected to Patient Cables , Ethernet Cables (W/#31 Mat Ferrites, Terminated), Laptop (Remote), Audio Cable (W/#31 mat. Ferrite), Memory Sticks (x2), and Ground. With 2-TDK ferrites on Power Cable(Internal).
Temp: 81f
Hum: 22% 120V 60Hz
Test Distance= 1m.

Compatible Electronics, Inc. FAC-3 (Lab P)

Freq (MHz)	(AVG) Margin (dB)	(AVG) EMI (dBµV/m)	Limit (dBµV/m)	Pol	Ttbl Agl (deg)	Twr Ht (cm)	Transducer (dB)	Cable (dB)	Preamp (dB)	Filter (dB)
3361.00	-22.25	41.27	63.52	V	224.75	100.00	33.46	8.62	52.80	0.41
3600.00	-21.15	42.37	63.52	H	357.75	100.00	33.78	8.95	52.68	0.32
3600.00	-24.45	39.07	63.52	V	295.00	100.00	33.78	8.95	52.68	0.32
3840.00	-18.29	45.23	63.52	V	220.75	100.00	33.73	9.12	52.91	0.37
4001.00	-26.5	37.02	63.52	V	11.75	100.00	33.70	9.24	53.06	0.40
4401.00	-26.67	36.85	63.52	H	81.00	100.00	34.59	9.95	52.46	0.48
15488.00	-10.65	52.87	63.52	V	355.25	100.00	45.09	23.64	47.49	0.30
17800.00	-8.89	54.63	63.52	H	103.75	100.00	47.79	22.84	47.96	0.62

There were no transmitter radiated emissions found above 18 GHz
There were no emissions found at a 3m test distance; therefore the test was performed at 1m test distance.

FIELD STRENGTH OF FUNDAMENTAL

DATASHEETS

FCC 15.249

Masimo
General Floor Monitor
Model: RDS7
Mode: Bluetooth
DutyCycle: -20.00

Date: 3/5/2013
Lab: P
Tested By: Matt Harrison

Radiated Field Strength

Channel	Level (dBµV/m)	Limit (dBµV)	Margin	Peak / QP / Avg	H/V	Tbl Angle	Twr (m)	Comments
2402	90.03	--	--	Peak	H	248.00	1.00	
2402	70.03	93.97	-23.94	Avg	H	248.00	1.00	
2402	94.35	--	--	Peak	V	118.00	1.00	
2402	74.35	93.97	-19.62	Avg	V	118.00	1.00	
2440	91.76	--	--	Peak	H	265.00	1.00	
2440	71.76	93.97	-22.21	Avg	H	265.00	1.00	
2440	97.35	--	--	Peak	V	204.00	1.50	
2440	77.35	93.97	-16.62	Avg	V	204.00	1.50	
2480	94.81	--	--	Peak	H	238.00	1.00	
2480	74.81	93.97	-19.16	Avg	H	238.00	1.00	
2480	99.39	--	--	Peak	V	148.00	1.44	
2480	79.39	93.97	-14.58	Avg	V	148.00	1.44	

Test Distance
3 Meters

HARMONICS

DATASHEETS

FCC 15.249

Masimo
General Floor Monitor
Model: RDS7
Duty Cycle: -20.00

Date: 3/8/2013
Lab: P
Tested By: Matt Harrison

Channel 1 - Bluetooth Mode - Harmonics (2402 MHz)

Freq. (MHz)	Level (dBµV)	Pol	Limit (dBµV)	Margin (dB)	Peak / QP / Avg	Ant. Height (cm)	Table Angle (deg)	Comments
4804	57.10	V	--	--	Peak	100.0	205	
4804	37.10	V	63.52	-26.42	Avg	100.0	205	
7206		V	63.52	--	Peak			
7206		V	--	--	Avg			
9608		V	63.52	--	Peak			No Emission Found
9608		V	--	--	Avg			
12010		V	63.52	--	Peak			No Emission Found
12010		V	--	--	Avg			
14412		V	63.52	--	Peak			No Emission Found
14412		V	--	--	Avg			
16814		V	63.52	--	Peak			No Emission Found
16814		V	--	--	Avg			
19216		V	63.52	--	Peak			No Emission Found
19216		V	--	--	Avg			
21618		V	63.52	--	Peak			No Emission Found
21618		V	--	--	Avg			
24020		V	63.52	--	Peak			No Emission Found
24020		V	--	--	Avg			

Test distance
1 meter

There were no emissions found at a 3m test distance; therefore the test was performed at 1m test distance.

FCC 15.249

Masimo
General Floor Monitor
Model: RDS7
Duty Cycle: -20.00

Date: 3/8/2013
Lab: P
Tested By: Matt Harrison

Channel 1 - Bluetooth Mode - Harmonics (2402 MHz)

Freq. (MHz)	Level (dBµV)	Pol	Limit (dBµV)	Margin (dB)	Peak / QP / Avg	Ant. Height (cm)	Table Angle (deg)	Comments
4804	51.97	H	--	--	Peak	100.0	270	
4804	31.97	H	63.52	-31.55	Avg	100.0	270	
7206		H	63.52	--	Peak			
7206		H	--	--	Avg			
9608		H	63.52	--	Peak			No Emission Found
9608		H	--	--	Avg			
12010		H	63.52	--	Peak			No Emission Found
12010		H	--	--	Avg			
14412		H	63.52	--	Peak			No Emission Found
14412		H	--	--	Avg			
16814		H	63.52	--	Peak			No Emission Found
16814		H	--	--	Avg			
19216		H	63.52	--	Peak			No Emission Found
19216		H	--	--	Avg			
21618		H	63.52	--	Peak			No Emission Found
21618		H	--	--	Avg			
24020		H	63.52	--	Peak			No Emission Found
24020		H	--	--	Avg			

Test distance
1 meter

There were no emissions found at a 3m test distance; therefore the test was performed at 1m test distance.

FCC 15.249

Masimo
General Floor Monitor
Model: RDS7
Duty Cycle: -20.00

Date: 3/8/2013
Lab: P
Tested By: Matt Harrison

Channel 40 - Bluetooth Mode - Harmonics (2440 MHz)

Freq. (MHz)	Level (dBµV)	Pol	Limit (dBµV)	Margin (dB)	Peak / QP / Avg	Ant. Height (cm)	Table Angle (deg)	Comments
4880	44.26	V	--	--	Peak	100.0	240	
4880	24.26	V	63.52	-39.26	Avg	100.0	240	
7320		V	63.52	--	Peak			
7320		V	--	--	Avg			
9760		V	63.52	--	Peak			No Emission Found
9760		V	--	--	Avg			
12200		V	63.52	--	Peak			No Emission Found
12200		V	--	--	Avg			
14640		V	63.52	--	Peak			No Emission Found
14640		V	--	--	Avg			
17080		V	63.52	--	Peak			No Emission Found
17080		V	--	--	Avg			
19520		V	63.52	--	Peak			No Emission Found
19520		V	--	--	Avg			
21960		V	63.52	--	Peak			No Emission Found
21960		V	--	--	Avg			
24400		V	63.52	--	Peak			No Emission Found
24400		V	--	--	Avg			

Test distance
1 meter

There were no emissions found at a 3m test distance; therefore the test was performed at 1m test distance.

FCC 15.249

Masimo
General Floor Monitor
Model: RDS7
Duty Cycle: -20.00

Date: 3/8/2013
Lab: P
Tested By: Matt Harrison

Channel 40 - Bluetooth Mode - Harmonics (2440 MHz)

Freq. (MHz)	Level (dBµV)	Pol	Limit (dBµV)	Margin (dB)	Peak / QP / Avg	Ant. Height (cm)	Table Angle (deg)	Comments
4880	43.49	H	--	--	Peak	100.0	180	
4880	23.49	H	63.52	-40.03	Avg	100.0	180	
7320	49.51	H	--	--	Peak	100.0	210	
7320	29.51	H	63.52	-34.01	Avg	100.0	210	
9760		H	63.52	--	Peak			No Emission Found
9760		H	--	--	Avg			
12200		H	63.52	--	Peak			No Emission Found
12200		H	--	--	Avg			
14640		H	63.52	--	Peak			No Emission Found
14640		H	--	--	Avg			
17080		H	63.52	--	Peak			No Emission Found
17080		H	--	--	Avg			
19520		H	63.52	--	Peak			No Emission Found
19520		H	--	--	Avg			
21960		H	63.52	--	Peak			No Emission Found
21960		H	--	--	Avg			
24400		H	63.52	--	Peak			No Emission Found
24400		H	--	--	Avg			

Test distance
1 meter

There were no emissions found at a 3m test distance; therefore the test was performed at 1m test distance.

FCC 15.249

Masimo
General Floor Monitor
Model: RDS7
Duty Cycle: -20.00

Date: 3/8/2013
Lab: P
Tested By: Matt Harrison

Channel 79 - Bluetooth Mode - Harmonics (2480 MHz)

Freq. (MHz)	Level (dBµV)	Pol	Limit (dBµV)	Margin (dB)	Peak / QP / Avg	Ant. Height (cm)	Table Angle (deg)	Comments
4960	43.20	V	--	--	Peak	100.0	206	
4960	23.20	V	63.52	-40.32	Avg	100.0	206	
7440	51.15	V	--	--	Peak	100.0	205	
7440	31.15	V	63.52	-32.37	Avg	100.0	205	
9920		V	63.52	--	Peak			No Emission Found
9920		V	--	--	Avg			
12400		V	63.52	--	Peak			No Emission Found
12400		V	--	--	Avg			
14880		V	63.52	--	Peak			No Emission Found
14880		V	--	--	Avg			
17360		V	63.52	--	Peak			No Emission Found
17360		V	--	--	Avg			
19840		V	63.52	--	Peak			No Emission Found
19840		V	--	--	Avg			
22320		V	63.52	--	Peak			No Emission Found
22320		V	--	--	Avg			
24800		V	63.52	--	Peak			No Emission Found
24800		V	--	--	Avg			

Test distance
1 meter

There were no emissions found at a 3m test distance; therefore the test was performed at 1m test distance.

FCC 15.249

Masimo
General Floor Monitor
Model: RDS7
Duty Cycle: -20.00

Date: 3/8/2013
Lab: P
Tested By: Matt Harrison

Channel 79 - Bluetooth Mode - Harmonics (2480 MHz)

Freq. (MHz)	Level (dBµV)	Pol	Limit (dBµV)	Margin (dB)	Peak / QP / Avg	Ant. Height (cm)	Table Angle (deg)	Comments
4960	45.59	H	--	--	Peak	100.0	190	
4960	25.59	H	63.52	-37.93	Avg	100.0	190	
7440	51.39	H	--	--	Peak	100.0	210	
7440	31.39	H	63.52	-32.13	Avg	100.0	210	
9920		H	63.52	--	Peak			No Emission Found
9920		H	--	--	Avg			
12400		H	63.52	--	Peak			No Emission Found
12400		H	--	--	Avg			
14880		H	63.52	--	Peak			No Emission Found
14880		H	--	--	Avg			
17360		H	63.52	--	Peak			No Emission Found
17360		H	--	--	Avg			
19840		H	63.52	--	Peak			No Emission Found
19840		H	--	--	Avg			
22320		H	63.52	--	Peak			No Emission Found
22320		H	--	--	Avg			
24800		H	63.52	--	Peak			No Emission Found
24800		H	--	--	Avg			

Test distance
1 meter

There were no emissions found at a 3m test distance; therefore the test was performed at 1m test distance.

EMISSIONS RADIATED OUTSIDE OF THE FUNDAMENTAL FREQUENCY BAND

DATA SHEETS

FCC 15.249

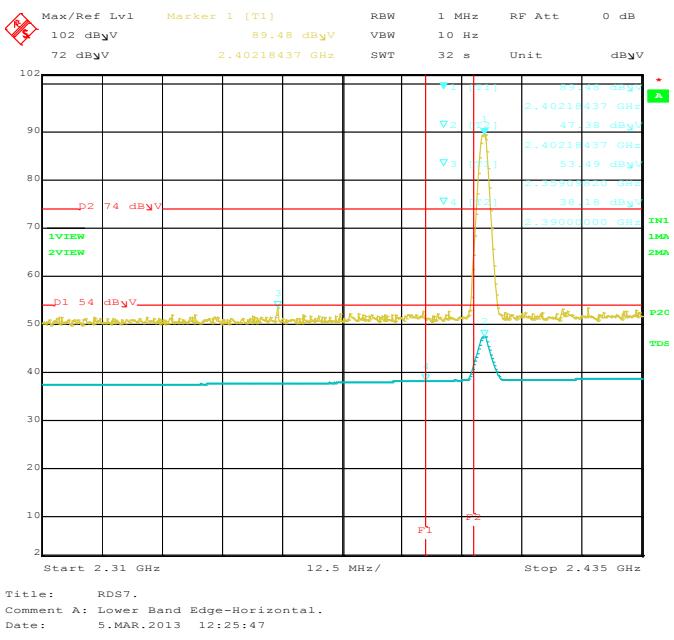
Masimo
General Floor Monitor
Model: RDS7
Duty Cycle -20

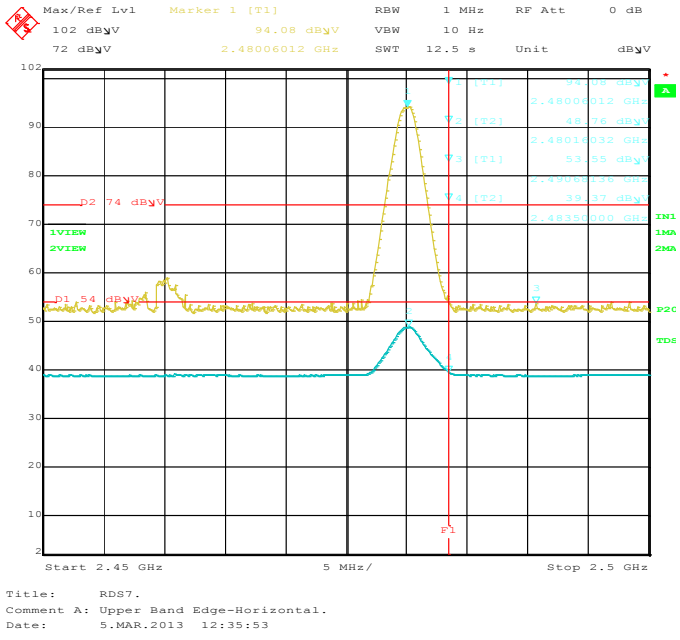
Date: 3/5/2013
Lab: P
Tested By: Matt Harrison

Channel 1 - Bluetooth Mode - Band Edge
Channel 79 - Bluetooth Mode - Band Edge

Freq. (MHz)	Level (dBµV)	Pol (v/h)	Limit (dBµV)	Margin (dB)	Peak / QP / Avg	Ant. Height (cm)	Table Angle (deg)	Comments
2402	89.48	H	--	--	Peak	100	248	Fundamental of Channel 1
2402	79.48	H	--	--	Avg	100	248	
2400	66.49	H	--	--	Peak	100	248	No Marker Delta
2400	46.49	H	53.98	-7.49	Avg	100	248	Method Used
2480	94.08	H	--	--	Peak	100	238	Fundamental of Channel 79
2480	74.08	H	--	--	Avg	100	238	
2490	53.55	H	--	--	Peak	100	238	No Marker Delta
2490	33.55	H	53.98	-20.43	Avg	100	238	Method Used

Test distance
3 meter





FCC 15.249

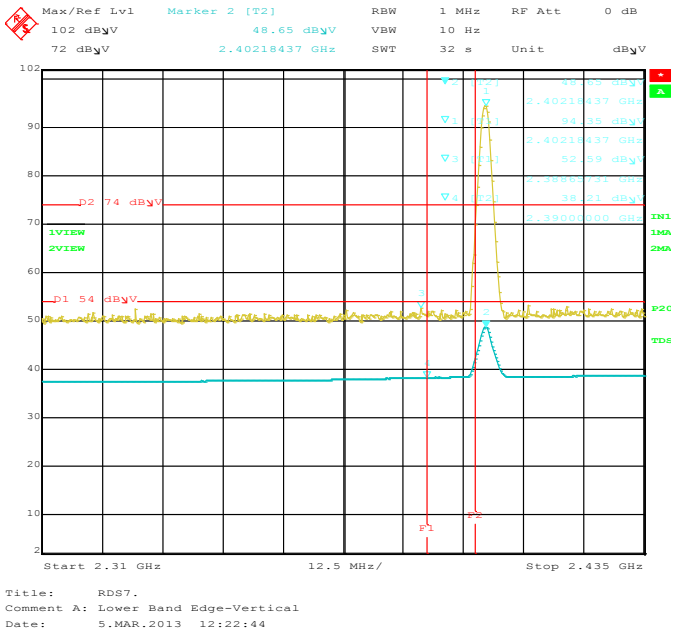
Masimo
General Floor Monitor
Model: RDS7
Duty Cycle -20

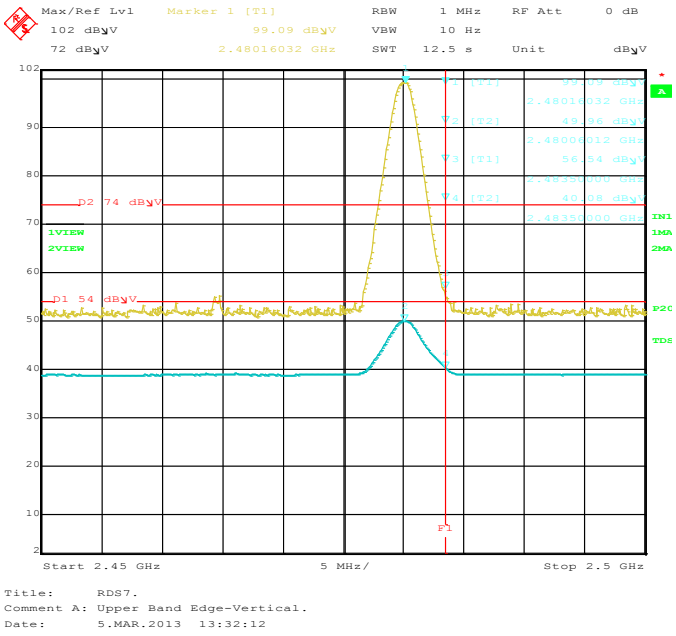
Date: 3/5/2013
Lab: P
Tested By: Matt Harrison

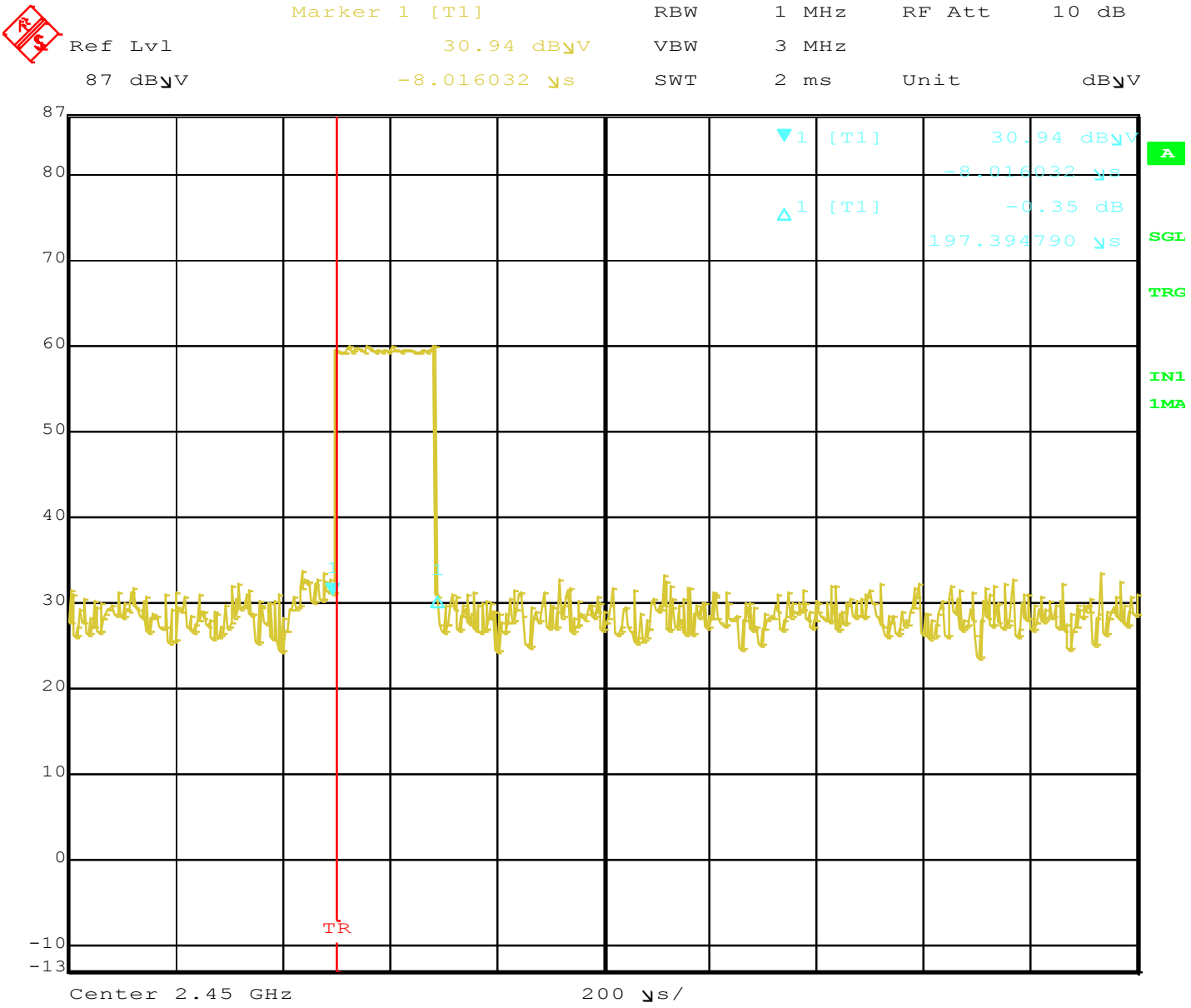
Channel 1 - Bluetooth Mode - Band Edge
Channel 79 - Bluetooth Mode - Band Edge

Freq. (MHz)	Level (dBµV)	Pol (v/h)	Limit (dBµV)	Margin (dB)	Peak / QP / Avg	Ant. Height (cm)	Table Angle (deg)	Comments
2402	94.35	V	--	--	Peak	100	118	Fundamental of Channel 1
2402	74.35	V	--	--	Avg	100	118	
2388	72.59	V	--	--	Peak	100	118	No Marker Delta
2390	52.59	V	53.98	-1.39	Avg	100	118	Method Used
2480	99.09	V	--	--	Peak	144	148	Fundamental of Channel 79
2480	79.09	V	--	--	Avg	144	148	
2483.5	56.54	V	--	--	Peak	144	148	No Marker Delta
2483.5	36.54	V	53.98	-17.44	Avg	144	148	Method Used

Test distance
3 meter

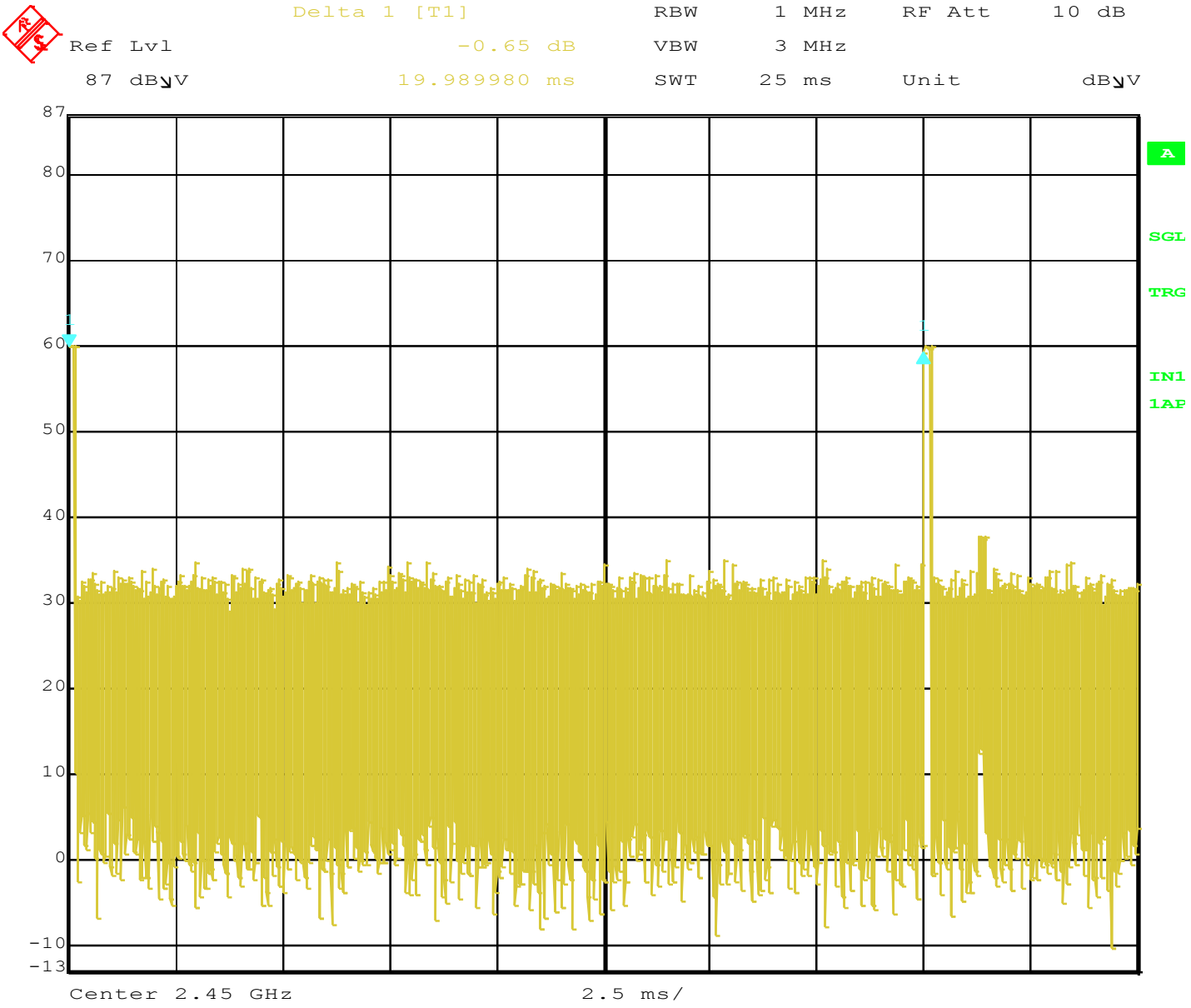






Title: RDS7.
Comment A: Duty Cycle, Pulse Width.
Date: 5.MAR.2013 14:21:21

Time of 1 Pulse = 8.016032µs



Title: RDS7.
Comment A: Duty Cycle.
Date: 5.MAR.2013 14:17:35

Number of Pulses in worst case 100ms = 5
Duty Cycle = 8.016032µS * 5 = 40.08016µS per 100mS = 0.0004008016%
The Maximum of 20 dB Peak to Average can be taken since the Duty Cycle is less than 10%