



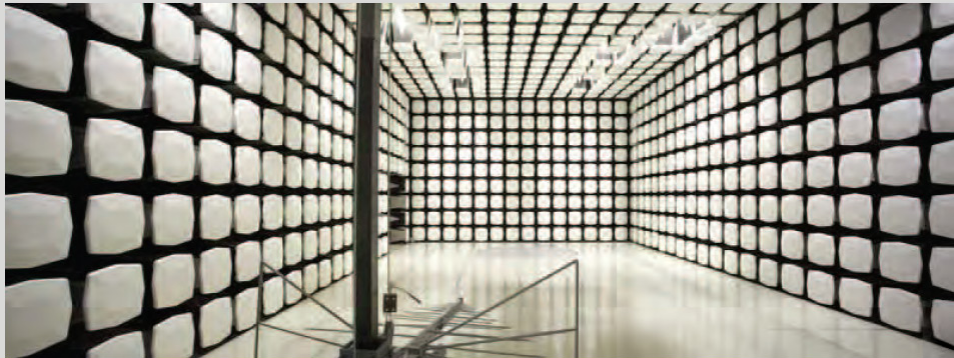
Masimo Corporation

RAD7A/Radical 7 V2

FCC 15.207:2014

FCC 15.247:2014

Report # MASI0234.2



NVLAP Lab Code: 200676-0

This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government of the United States of America. This Report may only be duplicated in its entirety

Last Date of Test: August 29, 2014
Masimo Corporation
Model: RAD7A/Radical 7 V2

Radio Equipment Testing

Standards

Specification	Method
FCC 15.207:2014	ANSI C63.10:2009
FCC 15.247:2014	ANSI C63.10:2009

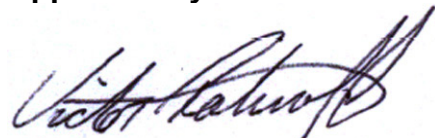
Results

Method Clause	Test Description	Applied	Results	Comments
6.2	AC Powerline Conducted Emissions	Yes	Pass	
6.5, 6.6	Spurious Radiated Emissions	Yes	Pass	
6.7	Spurious Conducted Emissions	Yes	Pass	
6.9.1	Occupied Bandwidth	Yes	Pass	
6.10.1	Output Power	Yes	Pass	
7.7.2	Channel Separation	Yes	Pass	
7.7.3	Number of Hopping Channels	Yes	Pass	
7.7.4	Dwell Time	Yes	Pass	
7.5	Duty Cycle	Yes	N/A	Characterization of radio operation.
7.7.9	Band Edge Compliance	Yes	Pass	
7.7.9	Band Edge Compliance- Hopping Mode	Yes	Pass	

Deviations From Test Standards

None

Approved By:



Victor Ratinoff, Operations Manager

REVISION HISTORY

Revision Number	Description	Date	Page Number
00	None		

Barometric Pressure

The recorded barometric pressure has been normalized to sea level.

United States

FCC - Designated by the FCC as a Telecommunications Certification Body (TCB). Certification chambers, Open Area Test Sites, and conducted measurement facilities are listed with the FCC.

A2LA - Accredited by A2LA to ISO / IEC Guide 65 as a product certifier. This allows Northwest EMC to certify transmitters to FCC and IC specifications.

NVLAP - Each laboratory is accredited by NVLAP to ISO 17025

Canada

IC - Recognized by Industry Canada as a Certification Body (CB). Certification chambers and Open Area Test Sites are filed with IC.

European Union

European Commission – Validated by the European Commission as a Conformity Assessment Body (CAB) under the EMC directive and as a Notified Body under the R&TTE Directive.

Australia/New Zealand

ACMA - Recognized by ACMA as a CAB for the acceptance of test data.

Korea

MSIP / RRA - Recognized by KCC's RRA as a CAB for the acceptance of test data.

Japan

VCCI - Associate Member of the VCCI. Conducted and radiated measurement facilities are registered.

Taiwan

BSMI – Recognized by BSMI as a CAB for the acceptance of test data.

NCC - Recognized by NCC as a CAB for the acceptance of test data.

Singapore

IDA – Recognized by IDA as a CAB for the acceptance of test data.

Israel

MOC – Recognized by MOC as a CAB for the acceptance of test data.

Hong Kong

OFTA – Recognized by OFTA as a CAB for the acceptance of test data.

Vietnam

MIC – Recognized by MIC as a CAB for the acceptance of test data.

SCOPE

For details on the Scopes of our Accreditations, please visit:

<http://www.nwemc.com/accreditations/>

Measurement Uncertainty

When a measurement is made, the result will be different from the true or theoretically correct value. The difference is the result of tolerances in the measurement system that cannot be completely eliminated. To the extent that technology allows us, it has been our aim to minimize this error. Measurement uncertainty is a statistical expression of measurement error qualified by a probability distribution.

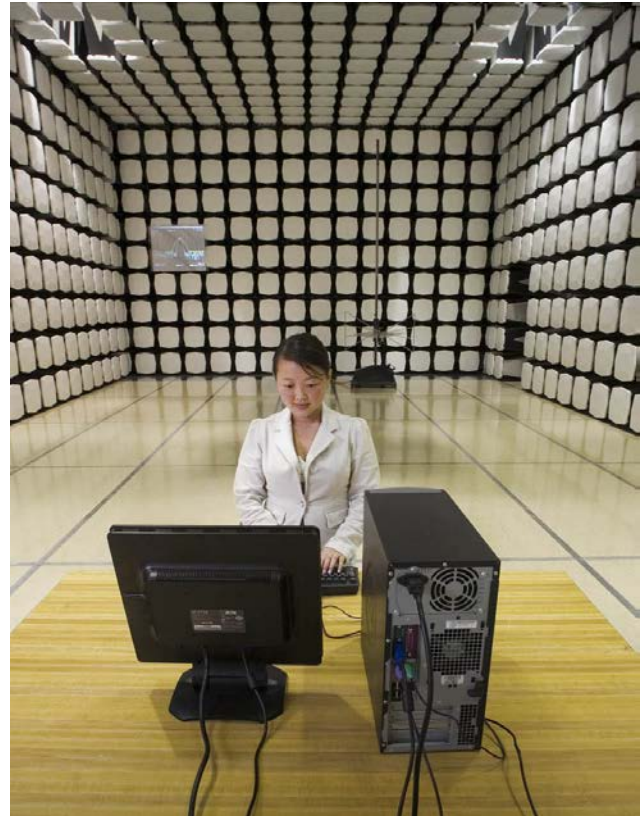
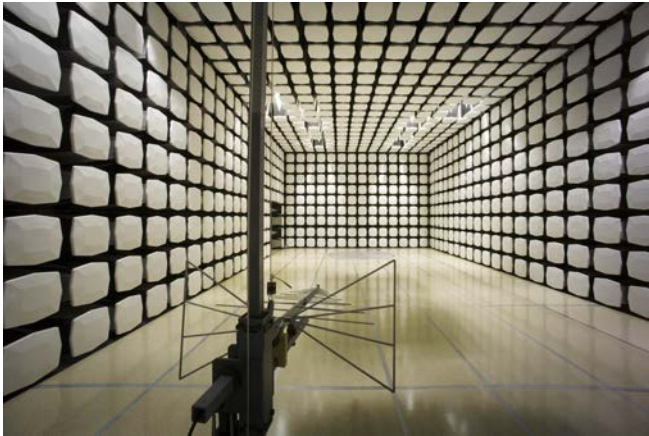
A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty (K=2) for each test is listed below. Our measurement data meets or exceeds the measurement uncertainty requirements of the applicable specification; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for estimating measurement uncertainty are based upon ETSI TR 100 028 (or CISPR 16-4-1 as applicable), and are available upon request.

The following table represents the Measurement Uncertainty (MU) budgets for each of the tests that may be contained in this report.

Test	+ MU	- MU
Frequency Accuracy (Hz)	0.12	-0.01
Amplitude Accuracy (dB)	0.49	-0.49
Conducted Power (dB)	0.41	-0.41
Radiated Power via Substitution (dB)	0.69	-0.68
Temperature (degrees C)	0.81	-0.81
Humidity (% RH)	2.89	-2.89
Field Strength (dB)	3.80	-3.80
AC Powerline Conducted Emissions (dB)	2.94	-2.94



Oregon Labs EV01-12 22975 NW Evergreen Pkwy Hillsboro, OR 97124 (503) 844-4066	California Labs OC01-13 41 Tesla Irvine, CA 92618 (949) 861-8918	New York Labs NY01-04 4939 Jordan Rd. Elbridge, NY 13060 (315) 685-0796	Minnesota Labs MN01-08 9349 W Broadway Ave. Brooklyn Park, MN 55445 (763) 425-2281	Washington Labs NC01-05, SU02, SU07 19201 120 th Ave. NE Bothell, WA 98011 (425) 984-6600
VCCI				
A-0108	A-0029		A-0109	A-0110
Industry Canada				
2834D-1, 2834D-2	2834B-1, 2834B-2, 2834B-3		2834E-1	2834F-1
NVLAP				
NVLAP Lab Code: 200630-0	NVLAP Lab Code: 200676-0	NVLAP Lab Code: 200761-0	NVLAP Lab Code: 200881-0	NVLAP Lab Code: 200629-0



Client and Equipment Under Test (EUT) Information

Company Name:	Masimo Corporation
Address:	40 Parker
City, State, Zip:	Irvine, CA 92618
Test Requested By:	Michael Clark
Model:	RAD7A/Radical 7 V2
First Date of Test:	August 28, 2014
Last Date of Test:	August 29, 2014
Receipt Date of Samples:	January 19, 2014
Equipment Design Stage:	Production
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test

Functional Description of the EUT:

The device is a Pulse Co-Oximeter incorporating a Bluetooth wireless radio assembly. Masimo radio assembly part number = 24514.

Client supplied information:

The client has confirmed that the short dwell time for DH5 is representative of their implementation. Typical Bluetooth has a burst duration of 2.8 ms - 3.2 ms range when operating in the Basic Rate DH5 mode. The mode that the client provided has a burst duration of 126 - 132 μ s. The Bluetooth is used for doctor identification. A "Presence tag" which once paired, gives the doctor access to a patient's data, or authorized access to patient connected equipment.

Testing Objective:

To demonstrate compliance under FCC 15.247 for frequency hopping spread spectrum operation in the 2.4 GHz band.

Configuration MASI0234- 1

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Pulse Co-Oximeter	Masimo Corporation	RAD7A/Radical 7 V2	1000000349
Wireless Radio	Broadcom	BCM 4334/Azurewave AW-AH634	24514

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Charging and Docking Station	Masimo Corporation	RDS-1	147484

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
AC Cable	No	1.8m	No	Charging and Docking Station	AC Mains

Configuration MASI0234- 2

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Pulse Co-Oximeter	Masimo Corporation	RAD7A/Radical 7 V2	1000000349
Wireless Radio	Broadcom	BCM 4334/Azurewave AW-AH634	24514

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Charging and Docking Station	Masimo Corporation	RDS-1	147484

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
AC Cable	No	1.8m	No	Charging and Docking Station	AC Mains
RS 232	No	1.8m	Yes	Charging and Docking Station	Unterminated
Vue Link Cable	No	1.8m	Yes	Charging and Docking Station	Unterminated
Nursecall Cable	No	1.0m	Yes	Charging and Docking Station	Unterminated
Sp02 Cable	Yes	3.0m	No	Pulse Co-Oximeter	Unterminated
Ground Cable	Yes	1.8m	No	Charging and Docking Station	Grounded

Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	08/28/2014	Occupied Bandwidth	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
2	08/28/2014	Band Edge Compliance	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
3	08/28/2014	Output Power	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
4	08/28/2014	Dwell Time	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
5	08/28/2014	Duty Cycle	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
6	08/28/2014	Spurious Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
7	08/28/2014	AC Powerline Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
8	08/28/2014	Band Edge Compliance-Hopping Mode	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
9	08/28/2014	Channel Separation	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
10	08/28/2014	Number of Hopping Channels	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
11	08/29/2014	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

MODES OF OPERATION

Continuously transmitting on high channel, 2480MHz.

Continuously transmitting on mid channel, 2440MHz.

Continuously transmitting on low channel, 2402MHz.

POWER SETTINGS INVESTIGATED

120VAC/60Hz

CONFIGURATIONS INVESTIGATED

MASI0234 - 2

SAMPLE CALCULATIONS

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
LISN	Solar	9252-50-24-BNC	LIB	3/27/2014	12 mo
LISN	Solar	9252-50-24-BNC	LIA	4/22/2014	12 mo
Attenuator	Pasternack	6N10W-20	AWC	1/3/2014	12 mo
HP Filter	TTE	H97-100K-50-720B	HFP	3/1/2012	36 mo
OC06 Cables	N/A	Telecom Cables	OCF	8/15/2014	12 mo
Receiver	Rohde & Schwarz	ESCI	ARG	5/13/2014	12 mo

MEASUREMENT BANDWIDTHS

Frequency Range (MHz)	BW (kHz)
0.15 - 30.0	1.0
30.0 - 400.0	10.0
400.0 - 1000.0	100.0
1000.0 - 6000.0	1000.0

TEST DESCRIPTION

The EUT will be powered either directly or indirectly from the AC power line. Therefore, conducted emissions measurements were made on the AC input of the EUT, or on the AC input of the device used to power the EUT. The AC power line conducted emissions were measured with the EUT operating at the lowest, the highest, and a middle channel in the operational band. The EUT was transmitting at its maximum data rate. For each mode, the spectrum was scanned from 150 kHz to 30 MHz. The test setup and procedures were in accordance with ANSI C63.10-2009.

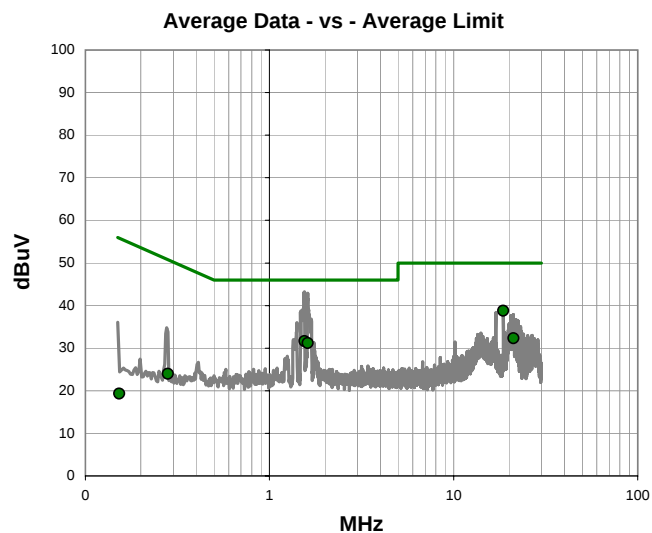
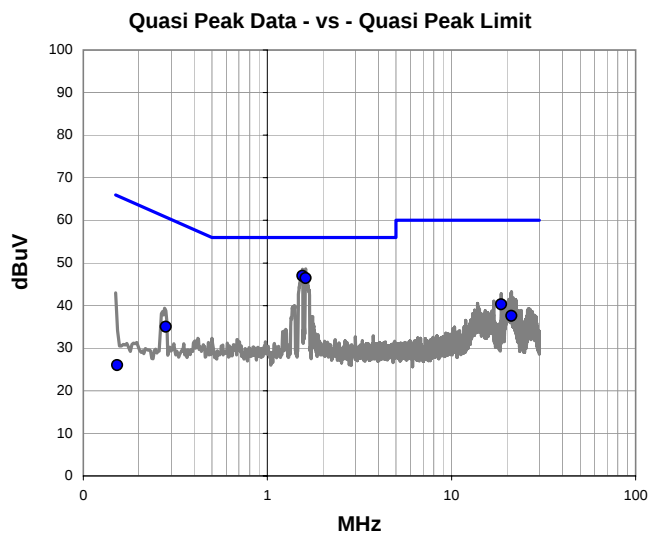


AC POWERLINE CONDUCTED EMISSIONS

PSA-ESCI 2014.06.19
EmiR5 2014.07.09

Work Order:	MASI0234	Date:	08/28/14		
Project:	None	Temperature:	24.8 °C		
Job Site:	OC06	Humidity:	41.8% RH		
Serial Number:	1000000349	Barometric Pres.:	1015 mbar	Tested by:	Mike Tran & Johnny Candelas
EUT:	RAD7A/Radical 7 V2				
Configuration:	2				
Customer:	Masimo Corporation				
Attendees:	Michael Clark				
EUT Power:	120VAC/60Hz				
Operating Mode:	Continuously transmitting on low channel, 2402MHz.				
Deviations:	None				
Comments:	RDS-1 Rev 1, MX-5 24494 C, Radio=24514, Radio Chip= 24412. Docking Station serial number 113674.				

Test Specifications		Test Method					
FCC 15.207:2014		ANSI C63.10:2009					
Run #	1	Line:	High Line	Ext. Attenuation:	20	Results	Pass



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
1.550	26.7	20.2	46.9	56.0	-9.1
1.617	26.2	20.2	46.4	56.0	-9.6
18.650	19.0	21.2	40.2	60.0	-19.8
21.202	16.2	21.4	37.6	60.0	-22.4
0.281	14.8	20.2	35.0	60.8	-25.8
0.153	5.6	20.4	26.0	65.9	-39.8

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
18.650	17.5	21.2	38.7	50.0	-11.3
1.550	11.4	20.2	31.6	46.0	-14.4
1.617	11.0	20.2	31.2	46.0	-14.8
21.202	10.9	21.4	32.3	50.0	-17.7
0.281	3.8	20.2	24.0	50.8	-26.8
0.153	-1.1	20.4	19.3	55.9	-36.5

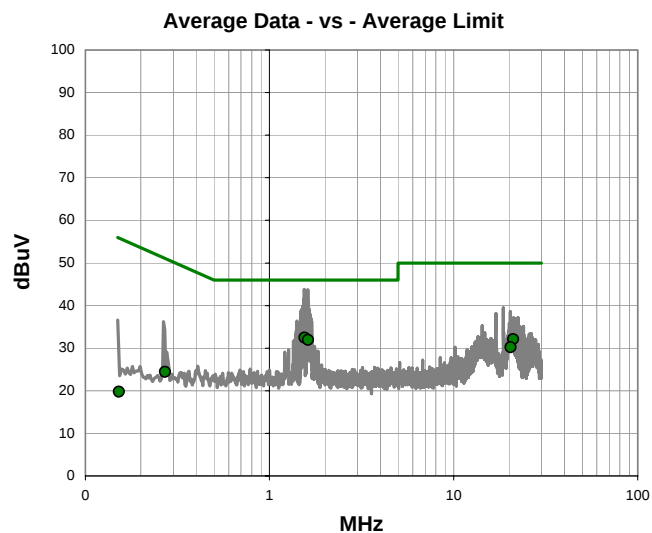
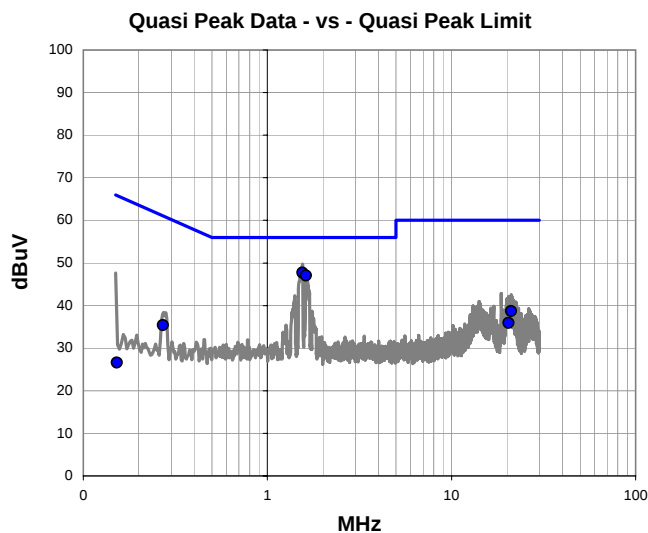


AC POWERLINE CONDUCTED EMISSIONS

PSA-ESCI 2014.06.19
EmiR5 2014.07.09

Work Order:	MASI0234	Date:	08/28/14		
Project:	None	Temperature:	24.8 °C		
Job Site:	OC06	Humidity:	41.8% RH		
Serial Number:	1000000349	Barometric Pres.:	1015 mbar	Tested by:	Mike Tran & Johnny Candelas
EUT:	RAD7A/Radical 7 V2				
Configuration:	2				
Customer:	Masimo Corporation				
Attendees:	Michael Clark				
EUT Power:	120VAC/60Hz				
Operating Mode:	Continuously transmitting on low channel, 2402MHz.				
Deviations:	None				
Comments:	RDS-1 Rev 1, MX-5 24494 C, Radio=24514, Radio Chip= 24412, Docking Station serial number 113674.				

Test Specifications		Test Method					
FCC 15.207:2014		ANSI C63.10:2009					
Run #	2	Line:	Neutral	Ext. Attenuation:	20	Results	Pass



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
1.551	27.5	20.2	47.7	56.0	-8.3
1.618	26.8	20.2	47.0	56.0	-9.0
21.074	17.3	21.4	38.7	60.0	-21.3
20.379	14.6	21.3	35.9	60.0	-24.1
0.271	15.2	20.2	35.4	61.1	-25.7
0.153	6.2	20.4	26.6	65.9	-39.2

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
1.551	12.2	20.2	32.4	46.0	-13.6
1.618	11.7	20.2	31.9	46.0	-14.1
21.074	10.7	21.4	32.1	50.0	-17.9
20.379	8.9	21.3	30.2	50.0	-19.8
0.271	4.2	20.2	24.4	51.1	-26.7
0.153	-0.7	20.4	19.7	55.9	-36.1

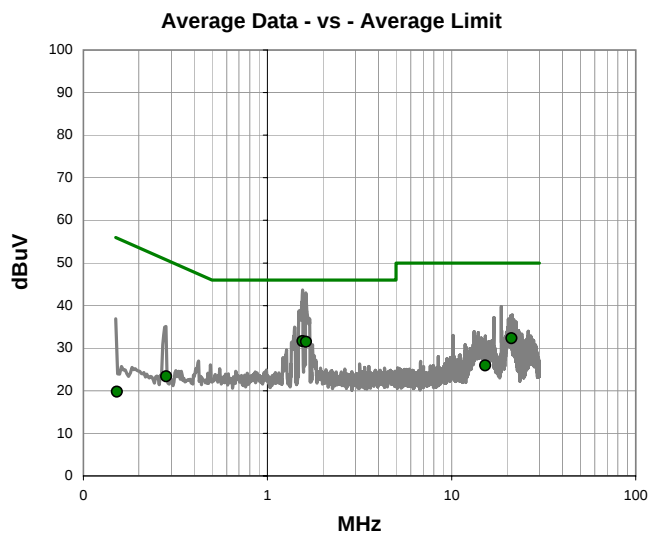
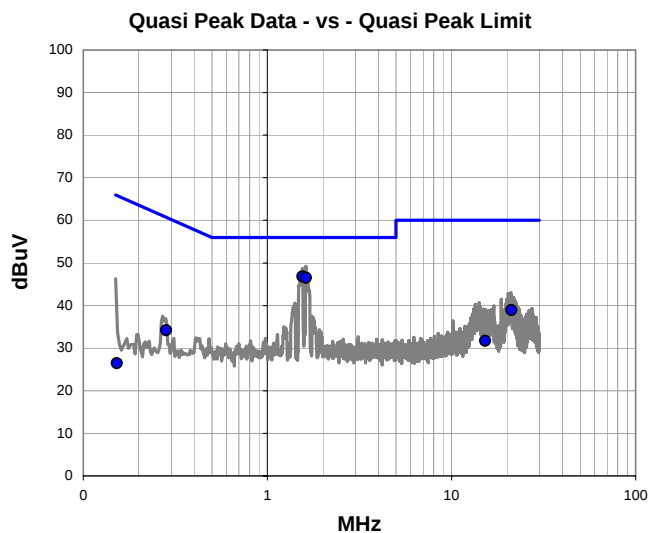


AC POWERLINE CONDUCTED EMISSIONS

PSA-ESCI 2014.06.19
EmiR5 2014.07.09

Work Order:	MASI0234	Date:	08/28/14	
Project:	None	Temperature:	24.8 °C	
Job Site:	OC06	Humidity:	41.8% RH	
Serial Number:	1000000349	Barometric Pres.:	1015 mbar	
EUT:		RAD7A/Radical 7 V2		
Configuration:		2		
Customer:		Masimo Corporation		
Attendees:		Michael Clark		
EUT Power:		120VAC/60Hz		
Operating Mode:		Continuously transmitting on mid channel, 2440MHz.		
Deviations:		None		
Comments:		RDS-1 Rev 1, MX-5 24494 C, Radio=24514, Radio Chip= 24412, Docking Station serial number 113674.		

Test Specifications		Test Method					
FCC 15.207:2014		ANSI C63.10:2009					
Run #	3	Line:	High Line	Ext. Attenuation:	20	Results	Pass



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
1.553	26.6	20.2	46.8	56.0	-9.2
1.620	26.3	20.2	46.5	56.0	-9.5
21.147	17.5	21.4	38.9	60.0	-21.1
0.282	14.0	20.2	34.2	60.8	-26.6
15.219	10.7	21.0	31.7	60.0	-28.3
0.153	6.0	20.4	26.4	65.9	-39.4

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
1.553	11.4	20.2	31.6	46.0	-14.4
1.620	11.3	20.2	31.5	46.0	-14.5
21.147	10.9	21.4	32.3	50.0	-17.7
15.219	4.9	21.0	25.9	50.0	-24.1
0.282	3.2	20.2	23.4	50.8	-27.4
0.153	-0.7	20.4	19.7	55.9	-36.1

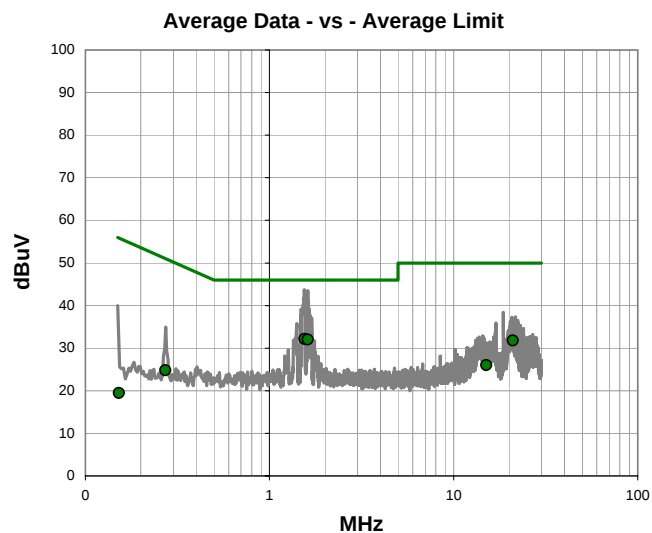
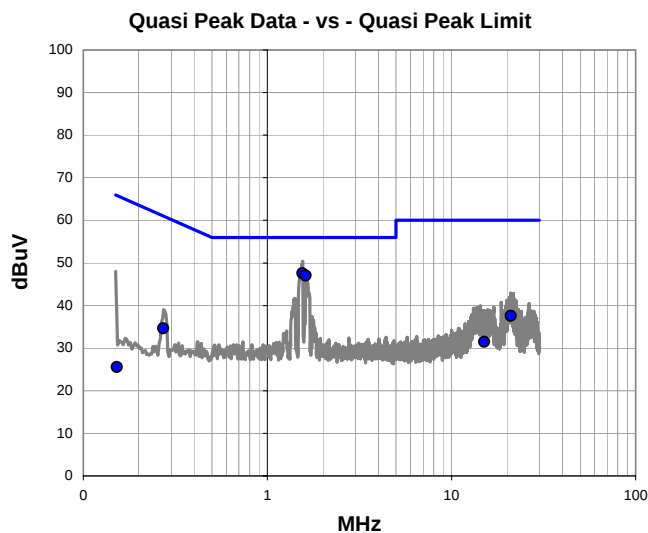


AC POWERLINE CONDUCTED EMISSIONS

PSA-ESCI 2014.06.19
EmiR5 2014.07.09

Work Order:	MASI0234	Date:	08/28/14		
Project:	None	Temperature:	24.8 °C		
Job Site:	OC06	Humidity:	41.8% RH		
Serial Number:	1000000349	Barometric Pres.:	1015 mbar	Tested by:	Mike Tran & Johnny Candelas
EUT:	RAD7A/Radical 7 V2				
Configuration:	2				
Customer:	Masimo Corporation				
Attendees:	Michael Clark				
EUT Power:	120VAC/60Hz				
Operating Mode:	Continuously transmitting on mid channel, 2440MHz.				
Deviations:	None				
Comments:	RDS-1 Rev 1, MX-5 24494 C, Radio=24514, Radio Chip= 24412, Docking Station serial number 113674.				

Test Specifications		Test Method	
FCC 15.207:2014		ANSI C63.10:2009	
Run #	4	Line:	Neutral
Ext. Attenuation:	20	Results	Pass



Quasi Peak Data - vs - Quasi Peak Limit

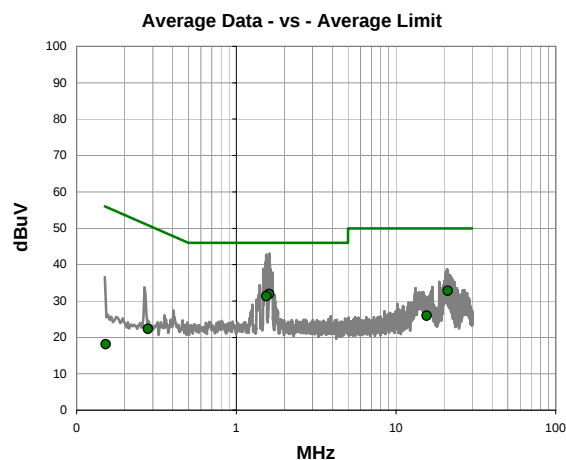
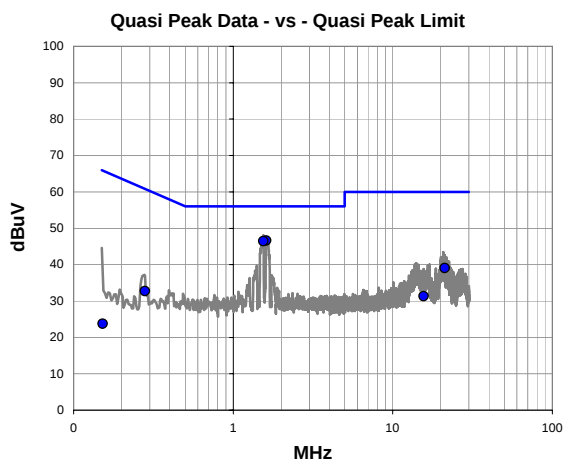
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
1.551	27.3	20.2	47.5	56.0	-8.5
1.617	26.8	20.2	47.0	56.0	-9.0
20.966	16.2	21.4	37.6	60.0	-22.4
0.272	14.4	20.2	34.6	61.1	-26.5
15.081	10.5	21.0	31.5	60.0	-28.5
0.153	5.1	20.4	25.5	65.9	-40.3

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
1.551	11.9	20.2	32.1	46.0	-13.9
1.617	11.8	20.2	32.0	46.0	-14.0
20.966	10.4	21.4	31.8	50.0	-18.2
15.081	5.0	21.0	26.0	50.0	-24.0
0.272	4.6	20.2	24.8	51.1	-26.3
0.153	-1.0	20.4	19.4	55.9	-36.4

Work Order:	MA5I0234	Date:	08/28/14	
Project:	None	Temperature:	24.8 °C	
Job Site:	OC06	Humidity:	41.8% RH	
Serial Number:	1000000349	Barometric Pres.:	1015 mbar	
EUT:	RAD7A/Radical 7 V2			
Configuration:	2			
Customer:	Masimo Corporation			
Attendees:	Michael Clark			
EUT Power:	120VAC/60Hz			
Operating Mode:	Continuously transmitting on high channel, 2480MHz.			
Deviations:	None			
Comments:	RDS-1 Rev 1, MX-5 24494 C, Radio=24514, Radio Chip= 24412, Docking Station serial number 113674.			

Test Specifications		Test Method			
FCC 15.207:2014		ANSI C63.10:2009			
Run #	5	Line: High Line	Ext. Attenuation: 20	Results	Pass



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
1.609	26.4	20.2	46.6	56.0	-9.4
1.543	26.2	20.2	46.4	56.0	-9.6
21.145	17.7	21.4	39.1	60.0	-20.9
0.280	12.5	20.2	32.7	60.8	-28.1
15.601	10.3	21.0	31.3	60.0	-28.7
0.153	3.3	20.4	23.7	65.9	-42.1

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
1.609	11.7	20.2	31.9	46.0	-14.1
1.543	11.1	20.2	31.3	46.0	-14.7
21.145	11.4	21.4	32.8	50.0	-17.2
15.601	4.9	21.0	25.9	50.0	-24.1
0.280	2.1	20.2	22.3	50.8	-28.5
0.153	-2.3	20.4	18.1	55.9	-37.7

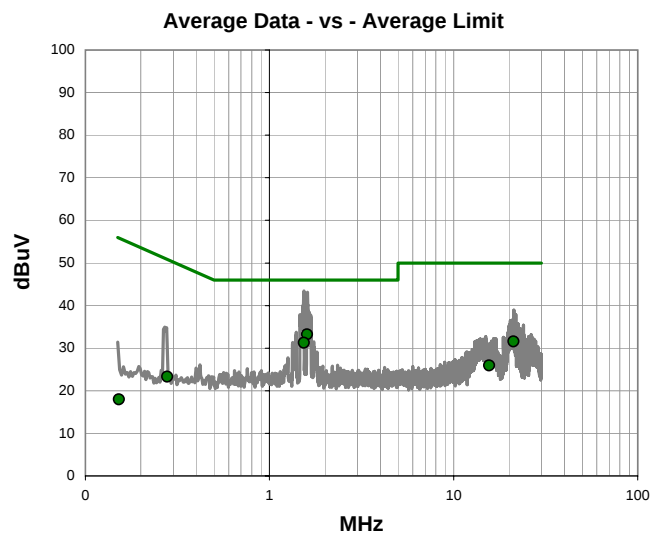
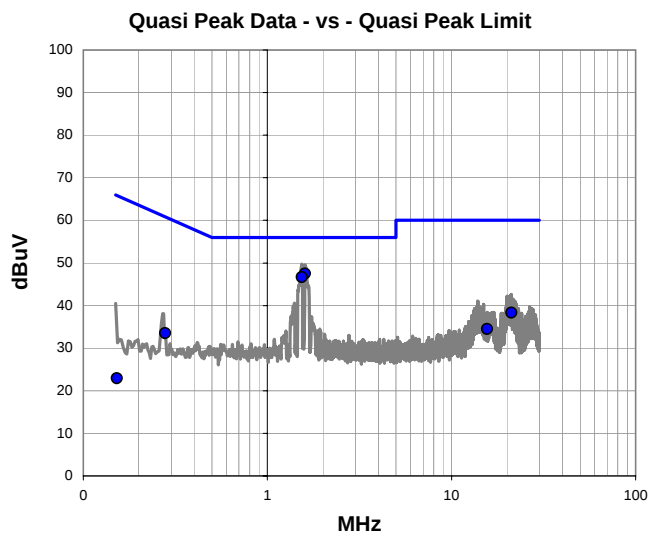


AC POWERLINE CONDUCTED EMISSIONS

PSA-ESCI 2014.06.19
EmiR5 2014.07.09

Work Order:	MASI0234	Date:	08/28/14	
Project:	None	Temperature:	24.8 °C	
Job Site:	OC06	Humidity:	41.8% RH	
Serial Number:	1000000349	Barometric Pres.:	1015 mbar	
EUT:		RAD7A/Radical 7 V2		
Configuration:		2		
Customer:		Masimo Corporation		
Attendees:		Michael Clark		
EUT Power:		120VAC/60Hz		
Operating Mode:		Continuously transmitting on high channel, 2480MHz.		
Deviations:		None		
Comments:		RDS-1 Rev 1, MX-5 24494 C, Radio=24514 , Radio Chip= 24412. Docking Station serial number 113674.		

Test Specifications		Test Method					
FCC 15.207:2014		ANSI C63.10:2009					
Run #	6	Line:	Neutral	Ext. Attenuation:	20	Results	Pass



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
1.600	27.3	20.2	47.5	56.0	-8.5
1.538	26.4	20.2	46.6	56.0	-9.4
21.149	16.9	21.4	38.3	60.0	-21.7
15.599	13.5	21.0	34.5	60.0	-25.5
0.278	13.3	20.2	33.5	60.9	-27.4
0.153	2.5	20.4	22.9	65.9	-42.9

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
1.600	13.0	20.2	33.2	46.0	-12.8
1.538	11.0	20.2	31.2	46.0	-14.8
21.149	10.2	21.4	31.6	50.0	-18.4
15.599	4.9	21.0	25.9	50.0	-24.1
0.278	3.1	20.2	23.3	50.9	-27.6
0.153	-2.5	20.4	17.9	55.9	-37.9

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data. The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

MODES OF OPERATION

Continuously Transmitting on Low Channel 0 - 2402MHz, Mid Channel 39 - 2440MHz, & High Channel 78 - 2480MHz

Continuously Transmitting on Low Channel 0 - 2402MHz & High Channel 78 - 2480MHz

POWER SETTINGS INVESTIGATED

120VAC/60Hz

CONFIGURATIONS INVESTIGATED

MASI0234 - 2

FREQUENCY RANGE INVESTIGATED

Start Frequency 30 MHz

Stop Frequency 26 GHz

SAMPLE CALCULATIONS

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Low Pass Filter 0-1000 MHz	Micro-Tronics	LPM50004	LFC	11/27/2012	24 mo
Attenuator, 20db, 'SMA'	Weinschel Corp	4H-20	AWB	4/28/2014	12 mo
HP Filter	Micro-Tronics	HPM50111	HGC	11/27/2012	36 mo
OC floating Cable	N/A	18-26GHz RE Cables	OCK	2/6/2014	12 mo
Pre-Amplifier	Miteq	AMF-6F-18002650-25-10P	AOI	1/10/2014	12 mo
Antenna, Horn	EMCO	3160-09	AHN	NCR	0 mo
OC07 Cables	ESM Cable Corp.	8-18GHz cables	OCY	3/27/2014	12 mo
Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVP	10/24/2013	12 mo
Antenna, Horn	EMCO	3160-08	AHK	NCR	0 mo
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVL	10/24/2013	12 mo
Antenna, Horn	ETS	3160-07	AHX	NCR	0 mo
OC07 Cables	ESM Cable Corp.	1-8GHz cables	OCX	3/27/2014	12 mo
Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	AVJ	10/24/2013	12 mo
Antenna, Horn (DRG)	ETS Lindgren	3115	AIR	6/4/2014	24 mo
OC07 Cables	ESM Cable Corp.	30-1GHz cables	OCW	4/17/2014	12 mo
Pre-Amplifier	Miteq	AM-1402	AOZ	1/13/2014	12 mo
Antenna, Biconilog	EMCO	3142	AXA	11/25/2013	24 mo
Spectrum Analyzer	Agilent	N9010A	AFJ	7/10/2013	24 mo

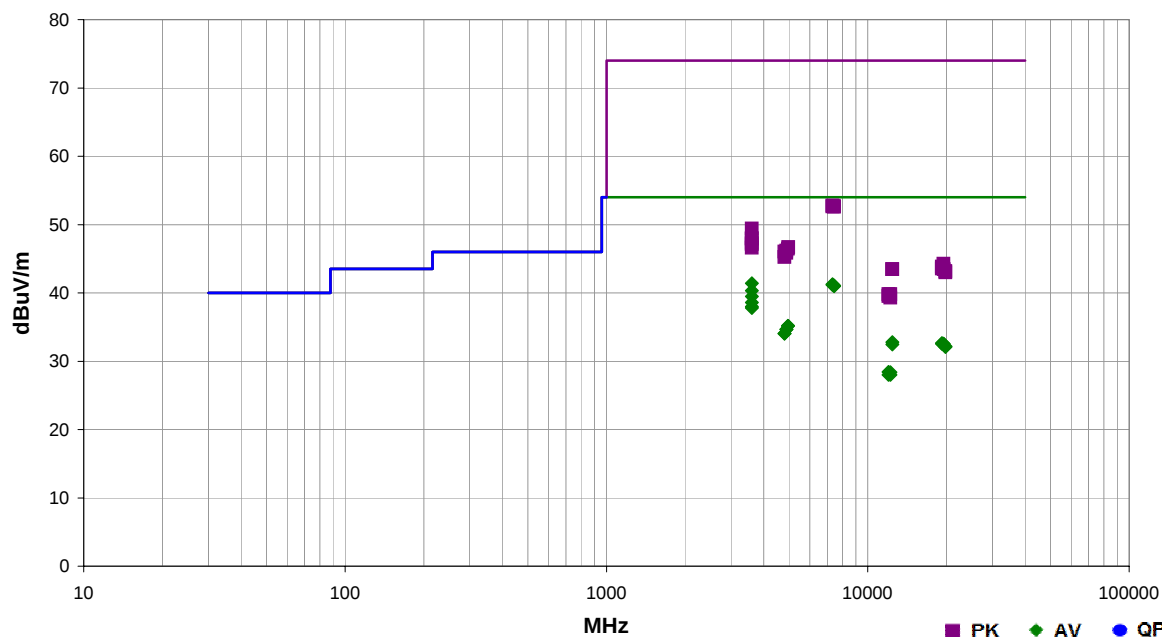
TEST DESCRIPTION

The highest gain of each type of antenna to be used with the EUT was tested. The EUT was configured for low, mid, and high band transmit frequencies. For each configuration, the spectrum was scanned throughout the specified range. In addition, measurements were made in the restricted bands to verify compliance. While scanning, emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and the EUT antenna in three orthogonal axis, and adjusting measurement antenna height and polarization. A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

Work Order:	MASI0234	Date:	08/29/14	
Project:	None	Temperature:	24.6 °C	
Job Site:	OC07	Humidity:	43.2% RH	
Serial Number:	1000000349	Barometric Pres.:	1012 mbar	
EUT:		RAD7A/Radical 7 V2		
Configuration:	2			
Customer:	Masimo Corporation			
Attendees:	Michael Clark			
EUT Power:	120VAC/60Hz			
Operating Mode:	Continuously Transmitting on Low Channel 0 - 2402MHz, Mid Channel 39 - 2440MHz, & High Channel 78 - 2480MHz			
Deviations:	None			
Comments:	Using Max Power Setting 20 Radio=24514 Radio chip=24412			

Test Specifications	Test Method
FCC 15.247:2014	ANSI C63.10:2009

Run #	14	Test Distance (m)	3	Antenna Height(s)	1 to 4(m)	Results	Pass
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Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
3599.817	40.4	1.0	1.2	360.0	3.0	0.0	Horz	AV	0.0	41.4	54.0	-12.6	EUT Vertical, Low Ch
7320.368	31.0	10.3	1.2	51.0	3.0	0.0	Vert	AV	0.0	41.3	54.0	-12.7	EUT Vertical, Mid Ch
7320.190	30.9	10.3	1.2	28.0	3.0	0.0	Horz	AV	0.0	41.2	54.0	-12.8	EUT Vertical, Mid Ch
7437.792	30.7	10.4	1.2	79.0	3.0	0.0	Horz	AV	0.0	41.1	54.0	-12.9	EUT Vertical, High Ch
7437.808	30.6	10.4	3.8	181.0	3.0	0.0	Vert	AV	0.0	41.0	54.0	-13.0	EUT Vertical, High Ch
3599.775	39.3	1.0	1.5	307.0	3.0	0.0	Vert	AV	0.0	40.3	54.0	-13.7	EUT Vertical, Low Ch
3599.817	38.5	1.0	1.4	58.0	3.0	0.0	Vert	AV	0.0	39.5	54.0	-14.5	EUT Horizontal, Low Ch
3600.133	37.6	1.0	1.5	29.0	3.0	0.0	Vert	AV	0.0	38.6	54.0	-15.4	EUT On Side, Low Ch
3599.967	37.0	1.0	1.2	0.0	3.0	0.0	Horz	AV	0.0	38.0	54.0	-16.0	EUT On Side, Low Ch
3599.900	36.8	1.0	1.2	114.0	3.0	0.0	Horz	AV	0.0	37.8	54.0	-16.2	EUT Horizontal, Low Ch
4957.925	31.9	3.3	1.2	360.0	3.0	0.0	Horz	AV	0.0	35.2	54.0	-18.8	EUT Vertical, High Ch
4957.567	31.9	3.3	1.2	233.0	3.0	0.0	Vert	AV	0.0	35.2	54.0	-18.8	EUT Vertical, High Ch
4880.155	31.5	3.2	1.2	348.0	3.0	0.0	Vert	AV	0.0	34.7	54.0	-19.3	EUT Vertical, Mid Ch
4879.732	31.5	3.2	1.2	268.0	3.0	0.0	Horz	AV	0.0	34.7	54.0	-19.3	EUT Vertical, Mid Ch
4806.483	30.9	3.1	1.0	132.0	3.0	0.0	Horz	AV	0.0	34.0	54.0	-20.0	EUT Vertical, Low Ch
4803.993	30.9	3.1	1.0	346.0	3.0	0.0	Vert	AV	0.0	34.0	54.0	-20.0	EUT Vertical, Low Ch
12400.330	30.9	1.9	1.2	30.0	3.0	0.0	Horz	AV	0.0	32.8	54.0	-21.2	EUT Vertical, High Ch
7320.383	42.5	10.3	1.2	51.0	3.0	0.0	Vert	PK	0.0	52.8	74.0	-21.2	EUT Vertical, Mid Ch
7438.475	42.3	10.4	3.8	181.0	3.0	0.0	Vert	PK	0.0	52.7	74.0	-21.3	EUT Vertical, High Ch
7320.168	42.4	10.3	1.2	28.0	3.0	0.0	Horz	PK	0.0	52.7	74.0	-21.3	EUT Vertical, Mid Ch
19214.300	35.8	-3.1	1.2	0.0	3.0	0.0	Vert	AV	0.0	32.7	54.0	-21.3	EUT Vertical, Low Ch
7439.642	42.2	10.4	1.2	79.0	3.0	0.0	Horz	PK	0.0	52.6	74.0	-21.4	EUT Vertical, High Ch

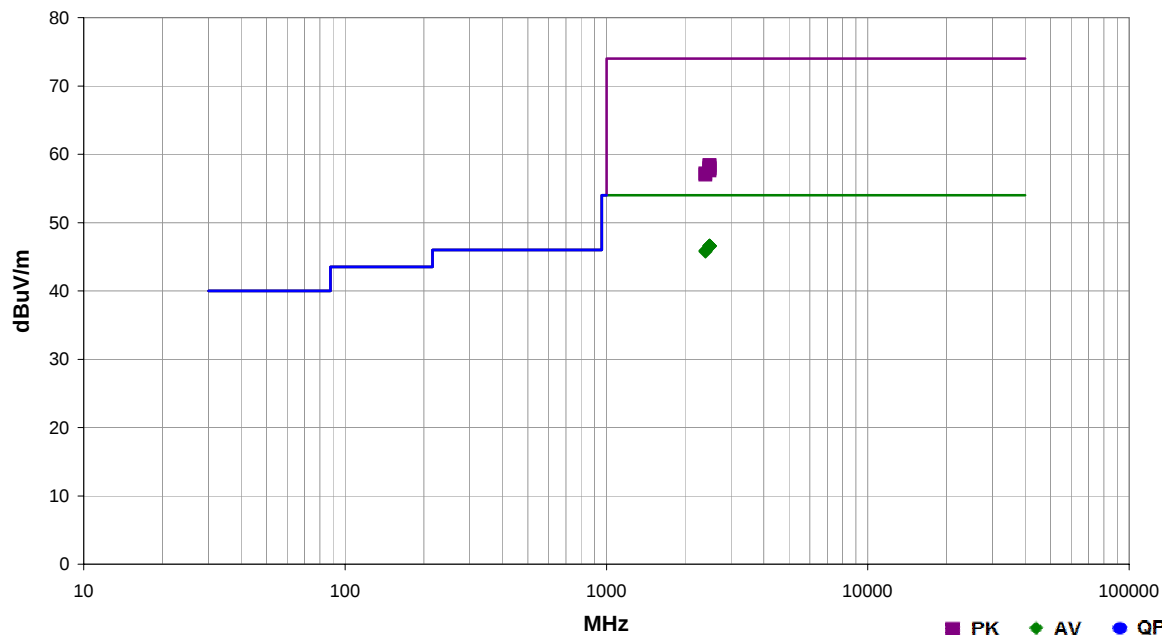
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
19213.530	35.7	-3.1	1.2	68.0	3.0	0.0	Horz	AV	0.0	32.6	54.0	-21.4	EUT Vertical, Low Ch
19518.560	35.4	-2.9	1.2	211.0	3.0	0.0	Horz	AV	0.0	32.5	54.0	-21.5	EUT Vertical, Mid Ch
19519.270	35.4	-2.9	1.2	173.0	3.0	0.0	Vert	AV	0.0	32.5	54.0	-21.5	EUT Vertical, Mid Ch
12400.450	30.6	1.9	1.8	294.0	3.0	0.0	Vert	AV	0.0	32.5	54.0	-21.5	EUT Vertical, High Ch
19838.950	35.1	-2.9	1.2	128.0	3.0	0.0	Horz	AV	0.0	32.2	54.0	-21.8	EUT Vertical, High Ch
19838.730	35.0	-2.9	1.2	357.0	3.0	0.0	Vert	AV	0.0	32.1	54.0	-21.9	EUT Vertical, High Ch
3598.783	48.4	1.0	1.2	360.0	3.0	0.0	Horz	PK	0.0	49.4	74.0	-24.6	EUT Vertical, Low Ch
12009.660	36.4	-8.0	1.2	307.0	3.0	0.0	Horz	AV	0.0	28.4	54.0	-25.6	EUT Vertical, Low Ch
12200.080	36.1	-7.7	1.2	76.0	3.0	0.0	Horz	AV	0.0	28.4	54.0	-25.6	EUT Vertical, Mid Ch
12009.810	36.0	-8.0	1.2	55.0	3.0	0.0	Vert	AV	0.0	28.0	54.0	-26.0	EUT Vertical, Low Ch
3600.958	47.0	1.0	1.4	58.0	3.0	0.0	Vert	PK	0.0	48.0	74.0	-26.0	EUT Horizontal, Low Ch
12199.680	35.7	-7.7	1.2	236.0	3.0	0.0	Vert	AV	0.0	28.0	54.0	-26.0	EUT Vertical, Mid Ch
3600.775	46.9	1.0	1.5	307.0	3.0	0.0	Vert	PK	0.0	47.9	74.0	-26.1	EUT Vertical, Low Ch
3600.050	46.3	1.0	1.5	29.0	3.0	0.0	Vert	PK	0.0	47.3	74.0	-26.7	EUT On Side, Low Ch
3600.292	46.1	1.0	1.2	114.0	3.0	0.0	Horz	PK	0.0	47.1	74.0	-26.9	EUT Horizontal, Low Ch
4960.233	43.4	3.3	1.2	360.0	3.0	0.0	Horz	PK	0.0	46.7	74.0	-27.3	EUT Vertical, High Ch
3599.042	45.6	1.0	1.2	0.0	3.0	0.0	Horz	PK	0.0	46.6	74.0	-27.4	EUT On Side, Low Ch
4957.892	43.2	3.3	1.2	233.0	3.0	0.0	Vert	PK	0.0	46.5	74.0	-27.5	EUT Vertical, High Ch
4879.928	43.0	3.2	1.2	268.0	3.0	0.0	Horz	PK	0.0	46.2	74.0	-27.8	EUT Vertical, Mid Ch
4803.558	42.9	3.1	1.0	346.0	3.0	0.0	Vert	PK	0.0	46.0	74.0	-28.0	EUT Vertical, Low Ch
4880.015	42.7	3.2	1.2	348.0	3.0	0.0	Vert	PK	0.0	45.9	74.0	-28.1	EUT Vertical, Mid Ch
4804.917	42.1	3.1	1.0	132.0	3.0	0.0	Horz	PK	0.0	45.2	74.0	-28.8	EUT Vertical, Low Ch
19518.440	47.1	-2.9	1.2	173.0	3.0	0.0	Vert	PK	0.0	44.2	74.0	-29.8	EUT Vertical, Mid Ch
19215.910	47.0	-3.1	1.2	0.0	3.0	0.0	Vert	PK	0.0	43.9	74.0	-30.1	EUT Vertical, Low Ch
19213.930	46.7	-3.1	1.2	68.0	3.0	0.0	Horz	PK	0.0	43.6	74.0	-30.4	EUT Vertical, Low Ch
12400.260	41.6	1.9	1.8	294.0	3.0	0.0	Vert	PK	0.0	43.5	74.0	-30.5	EUT Vertical, High Ch
12400.420	41.6	1.9	1.2	30.0	3.0	0.0	Horz	PK	0.0	43.5	74.0	-30.5	EUT Vertical, High Ch
19522.270	46.3	-2.9	1.2	211.0	3.0	0.0	Horz	PK	0.0	43.4	74.0	-30.6	EUT Vertical, Mid Ch
19839.760	46.1	-2.9	1.2	128.0	3.0	0.0	Horz	PK	0.0	43.2	74.0	-30.8	EUT Vertical, High Ch
19840.300	45.9	-2.9	1.2	357.0	3.0	0.0	Vert	PK	0.0	43.0	74.0	-31.0	EUT Vertical, High Ch
12009.880	47.8	-8.0	1.2	307.0	3.0	0.0	Horz	PK	0.0	39.8	74.0	-34.2	EUT Vertical, Low Ch
12200.170	47.5	-7.7	1.2	76.0	3.0	0.0	Horz	PK	0.0	39.8	74.0	-34.2	EUT Vertical, Mid Ch
12010.120	47.5	-8.0	1.2	55.0	3.0	0.0	Vert	PK	0.0	39.5	74.0	-34.5	EUT Vertical, Low Ch
12199.980	47.0	-7.7	1.2	236.0	3.0	0.0	Vert	PK	0.0	39.3	74.0	-34.7	EUT Vertical, Mid Ch

SPURIOUS RADIATED EMISSIONS

Work Order:	MASI0234	Date:	08/29/14	
Project:	None	Temperature:	24.6 °C	
Job Site:	OC07	Humidity:	43.2% RH	
Serial Number:	1000000349	Barometric Pres.:	1012 mbar	
EUT:	RAD7A/Radical 7 V2			
Configuration:	2			
Customer:	Masimo Corporation			
Attendees:	Michael Clark			
EUT Power:	120VAC/60Hz			
Operating Mode:	Continuously Transmitting on Low Channel 0 - 2402MHz & High Channel 78 - 2480MHz			
Deviations:	None			
Comments:	Using Max Power Setting 20 Radio= 24514 Radio chip=24412			

Test Specifications	Test Method
FCC 15.247:2014	ANSI C63.10:2009

Run #	21	Test Distance (m)	3	Antenna Height(s)	1 to 4(m)	Results	Pass
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Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
2483.535	31.9	-5.3	1.2	212.0	3.0	20.0	Vert	AV	0.0	46.6	54.0	-7.4	EUT Vertical, High Ch
2483.514	31.9	-5.3	1.2	28.0	3.0	20.0	Horz	AV	0.0	46.6	54.0	-7.4	EUT Vertical, High Ch
2483.532	31.9	-5.3	1.2	204.0	3.0	20.0	Horz	AV	0.0	46.6	54.0	-7.4	EUT Horizontal, High Ch
2483.521	31.9	-5.3	1.2	33.0	3.0	20.0	Vert	AV	0.0	46.6	54.0	-7.4	EUT Horizontal, High Ch
2483.465	31.9	-5.3	1.2	98.0	3.0	20.0	Horz	AV	0.0	46.6	54.0	-7.4	EUT on Side, High Ch
2483.534	31.8	-5.3	1.2	105.0	3.0	20.0	Vert	AV	0.0	46.5	54.0	-7.5	EUT on Side, High Ch
2390.047	31.6	-5.7	2.7	245.0	3.0	20.0	Vert	AV	0.0	45.9	54.0	-8.1	EUT Vertical, Low Ch
2390.048	31.5	-5.7	1.2	15.0	3.0	20.0	Horz	AV	0.0	45.8	54.0	-8.2	EUT Vertical, Low Ch
2483.544	43.7	-5.3	1.2	28.0	3.0	20.0	Horz	PK	0.0	58.4	74.0	-15.6	EUT Vertical, High Ch
2483.532	43.6	-5.3	1.2	212.0	3.0	20.0	Vert	PK	0.0	58.3	74.0	-15.7	EUT Vertical, High Ch
2483.529	43.3	-5.3	1.2	105.0	3.0	20.0	Vert	PK	0.0	58.0	74.0	-16.0	EUT on Side, High Ch
2483.459	43.2	-5.3	1.2	204.0	3.0	20.0	Horz	PK	0.0	57.9	74.0	-16.1	EUT Horizontal, High Ch
2483.452	43.2	-5.3	1.2	33.0	3.0	20.0	Vert	PK	0.0	57.9	74.0	-16.1	EUT Horizontal, High Ch
2483.494	42.9	-5.3	1.2	98.0	3.0	20.0	Horz	PK	0.0	57.6	74.0	-16.4	EUT on Side, High Ch
2389.965	42.9	-5.7	1.2	15.0	3.0	20.0	Horz	PK	0.0	57.2	74.0	-16.8	EUT Vertical, Low Ch
2389.982	42.7	-5.7	2.7	245.0	3.0	20.0	Vert	PK	0.0	57.0	74.0	-17.0	EUT Vertical, Low Ch

SPURIOUS CONDUCTED EMISSIONS

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mos)
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
Signal Generator	Agilent	E8257D	TGU	2/1/2012	36
OC13 Cables	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	0
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2014	12
40GHz DC Block	Miteq	DCB4000	AMD	4/28/2014	12
Spectrum Analyzer	Agilent	E4446A	AAY	2/22/2013	24

TEST DESCRIPTION

The spurious RF conducted emissions were measured with the EUT set to low, medium and high transmit frequencies. The measurements were made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at the data rate(s) listed in the datasheet in a no-hop mode. For each transmit frequency, the spectrum was scanned throughout the specified frequency range.

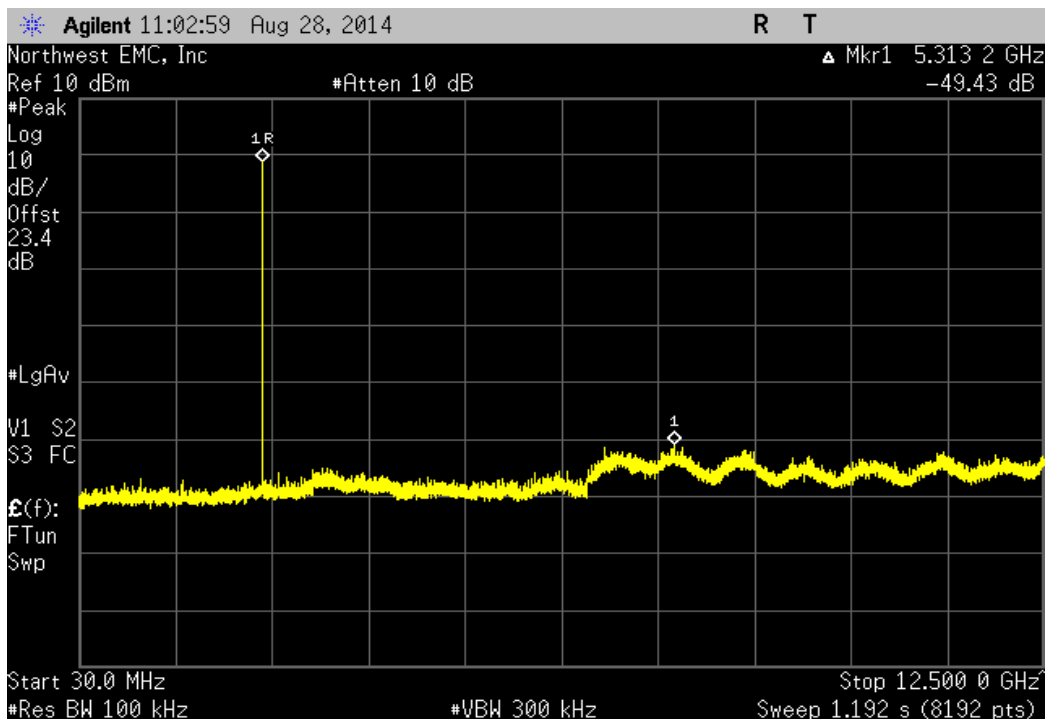


SPURIOUS CONDUCTED EMISSIONS

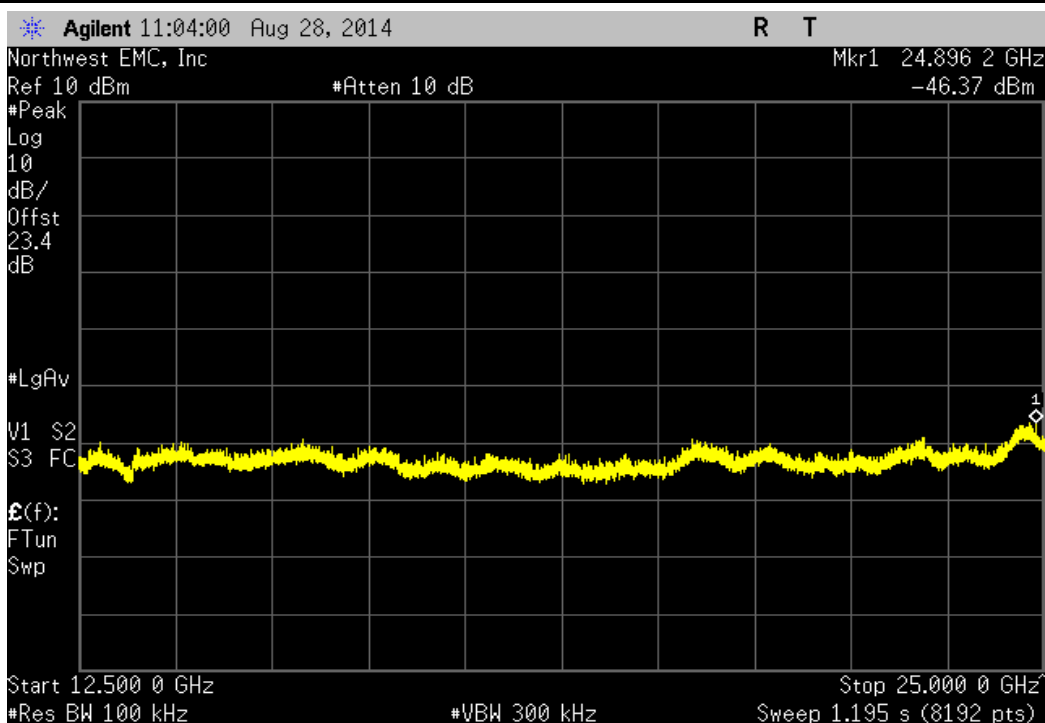
XMit 2014.02.07
NweTx 2014.07.18.4

EUT: RAD7A/Radical 7 V2		Work Order: MASI0234			
Serial Number: 1000000349		Date: 08/28/14			
Customer: Masimo Corporation		Temperature: 24.5°C			
Attendees: Michael Clark		Humidity: 47%			
Project: None		Barometric Pres.: 1017			
Tested by: Johnny Candelas & Mike Tran		Power: 120VAC/60Hz			
		Job Site: OC13			
TEST SPECIFICATIONS		Test Method			
FCC 15.247:2014		ANSI C63.10:2009			
COMMENTS					
DC Block/20dB Attenuator (20.5dB) + coax cable (1.85dB) + client provided patch cable (1.0dB) = 23.35dB total offset					
Using Max Power Setting 20					
RDS-1 Rev 1, MX-5 24494 C, Radio=24514, Radio Chip= 24412, Docking Station serial number 113674.					
DEVIATIONS FROM TEST STANDARD					
None					
Configuration #	1	Signature 			
		Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
DH5, GFSK					
Low Channel 0, 2402 MHz		30 MHz - 12.5 GHz	-49.43	-20	Pass
Low Channel 0, 2402 MHz		12.5 GHz - 25 GHz	-45.08	-20	Pass
Mid Channel 39, 2440 MHz		30 MHz - 12.5 GHz	-51.63	-20	Pass
Mid Channel 39, 2440 MHz		12.5 GHz - 25 GHz	-45.85	-20	Pass
High Channel 78, 2480 MHz		30 MHz - 12.5 GHz	-51.74	-20	Pass
High Channel 78, 2480 MHz		12.5 GHz - 25 GHz	-46.74	-20	Pass

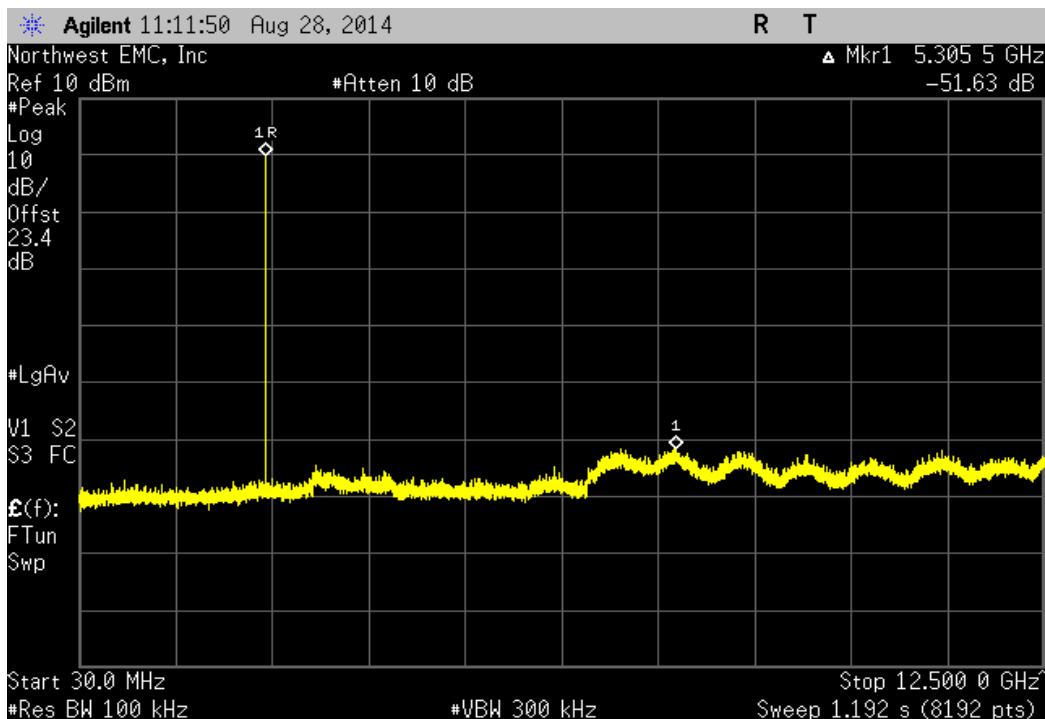
DH5, GFSK, Low Channel 0, 2402 MHz				
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	-49.43	-20	Pass	



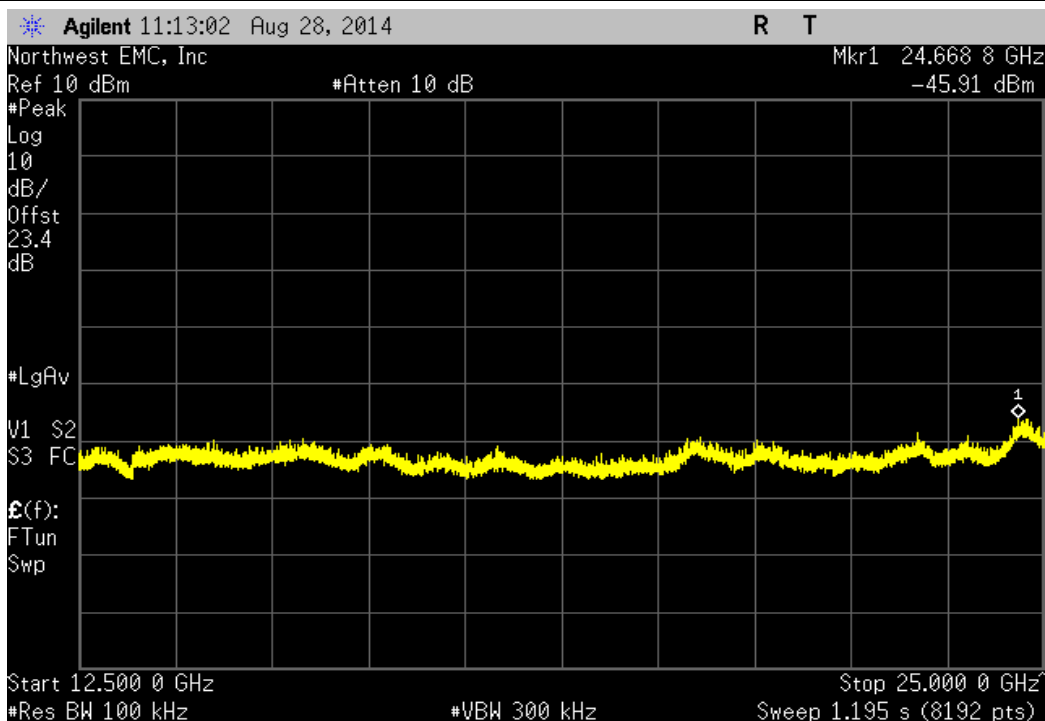
DH5, GFSK, Low Channel 0, 2402 MHz				
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-45.08	-20	Pass	



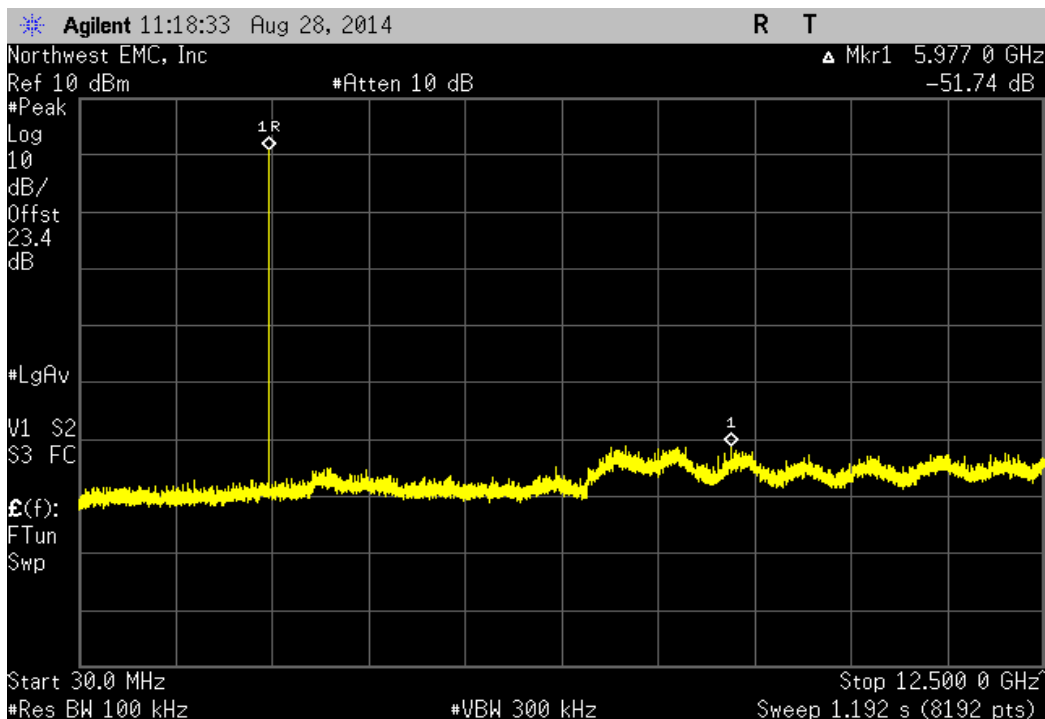
DH5, GFSK, Mid Channel 39, 2440 MHz				
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	-51.63	-20	Pass	



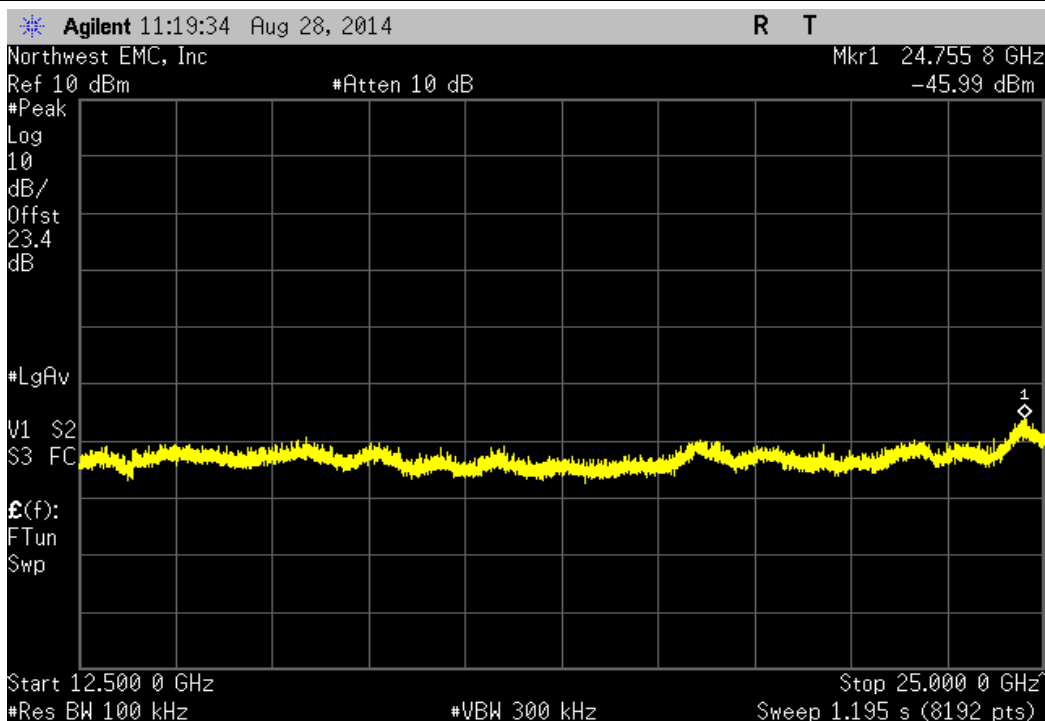
DH5, GFSK, Mid Channel 39, 2440 MHz				
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-45.85	-20	Pass	



DH5, GFSK, High Channel 78, 2480 MHz				
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	-51.74	-20	Pass	



DH5, GFSK, High Channel 78, 2480 MHz				
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-46.74	-20	Pass	



OCCUPIED BANDWIDTH

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mos)
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
Signal Generator	Agilent	E8257D	TGU	2/1/2012	36
OC13 Cables	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	0
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2014	12
40GHz DC Block	Miteq	DCB4000	AMD	4/28/2014	12
Spectrum Analyzer	Agilent	E4446A	AAY	2/22/2013	24

TEST DESCRIPTION

The occupied bandwidth was measured with the EUT set to low, medium and high transmit frequencies. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at the data rate(s) listed in the datasheet in a no-hop mode.

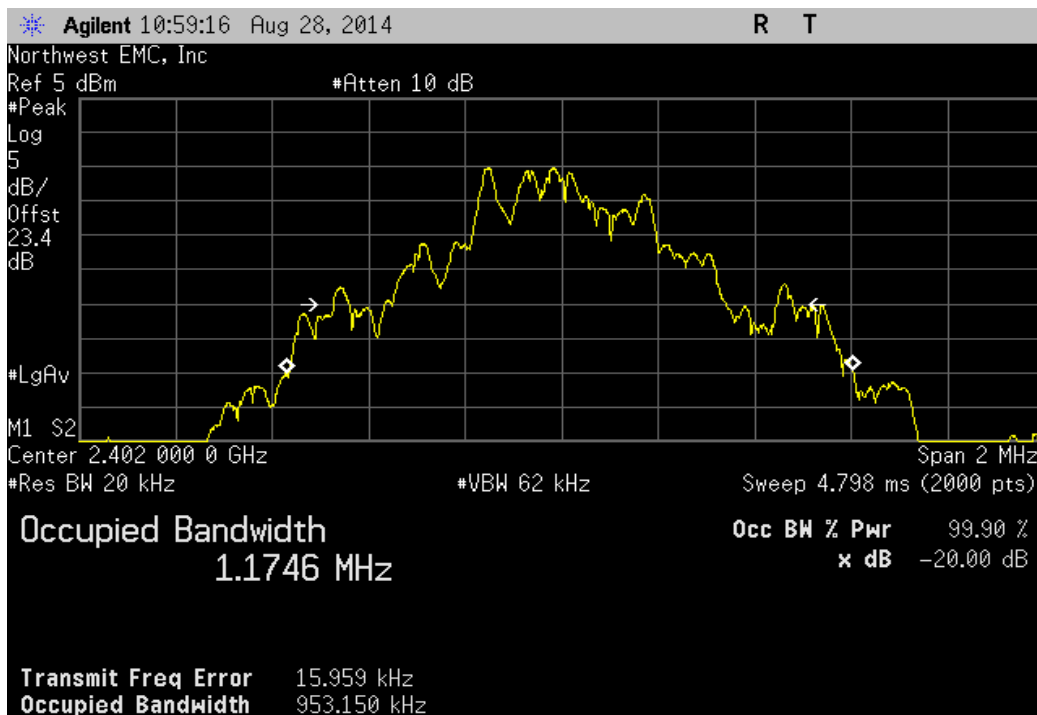


OCCUPIED BANDWIDTH

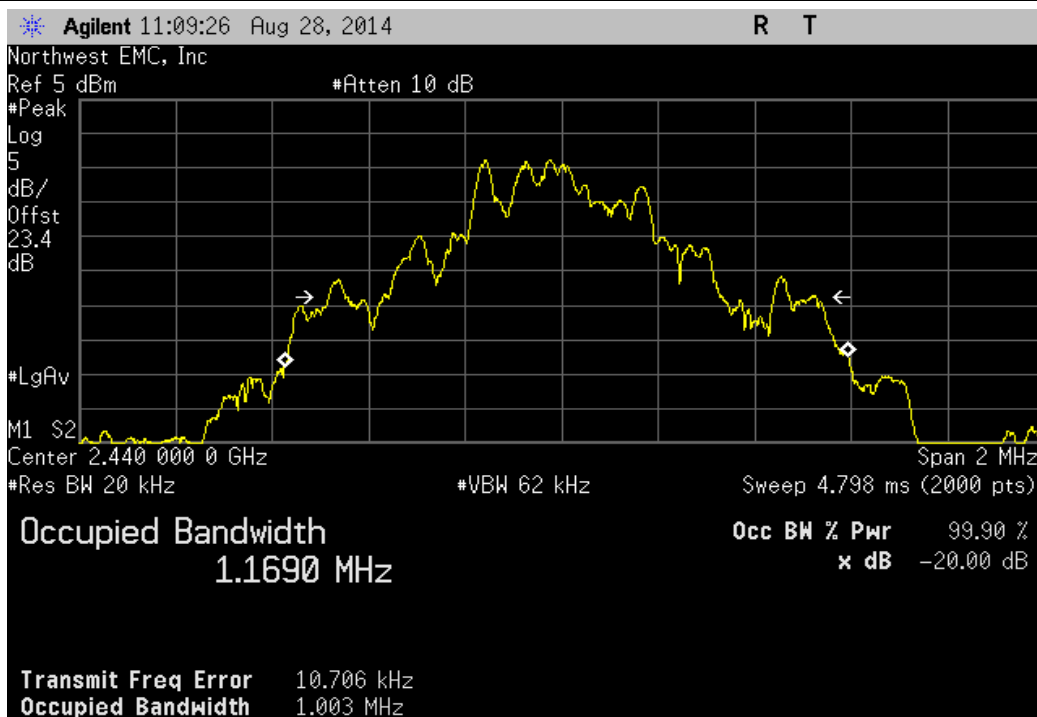
XMit 2014.02.07
NweTx 2014.07.18.4

EUT: RAD7A/Radical 7 V2		Work Order: MASI0234	
Serial Number: 1000000349		Date: 08/28/14	
Customer: Masimo Corporation		Temperature: 24.5°C	
Attendees: Michael Clark		Humidity: 47%	
Project: None		Barometric Pres.: 1017	
Tested by: Johnny Candelas & Mike Tran		Power: 120VAC/60Hz	
		Job Site: OC13	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2014		ANSI C63.10:2009	
COMMENTS			
DC Block/20dB Attenuator (20.5dB) + coax cable (1.85dB) + client provided patch cable (1.0dB) = 23.35dB total offset			
Using Max Power Setting 20			
RDS-1 Rev 1, MX-5 24494 C, Radio=24514, Radio Chip= 24412, Docking Station serial number 113674.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1	Signature 	
		Value	Limit (<)
DH5, GFSK			Result
Low Channel 0, 2402 MHz		953.151 kHz	1.5 MHz
Mid Channel 39, 2440 MHz		1.003 MHz	1.5 MHz
High Channel 78, 2480 MHz		969.221 kHz	1.5 MHz
			Pass
			Pass
			Pass

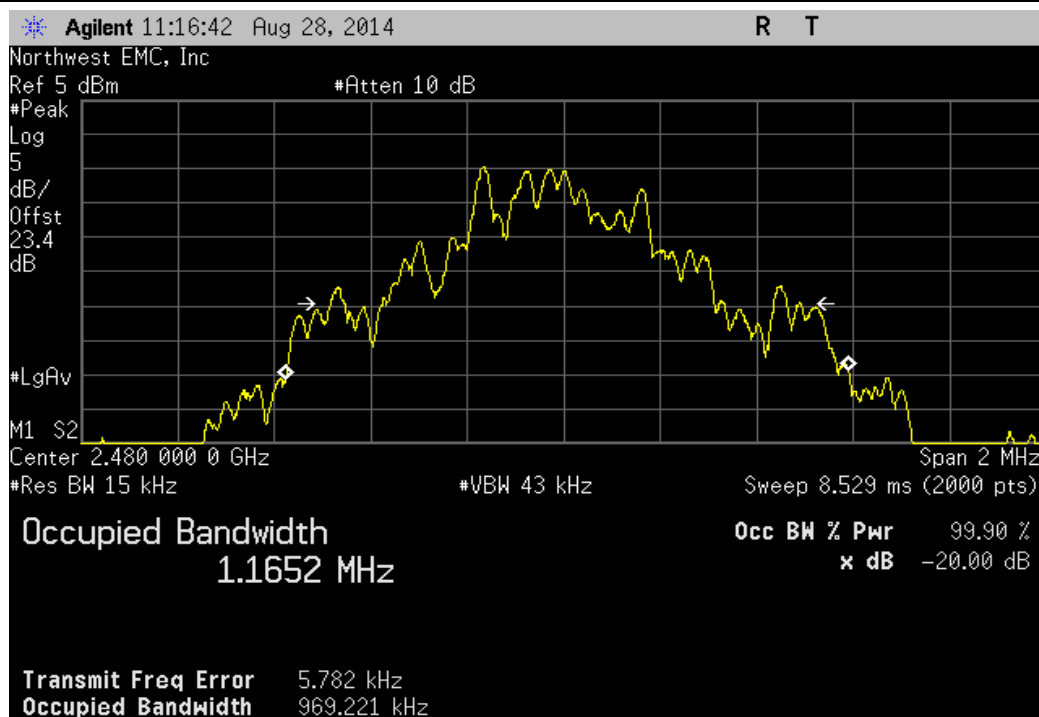
DH5, GFSK, Low Channel 0, 2402 MHz						
				Value	Limit (<)	Result
				953.151 kHz	1.5 MHz	Pass



DH5, GFSK, Mid Channel 39, 2440 MHz						
				Value	Limit (<)	Result
				1.003 MHz	1.5 MHz	Pass



DH5, GFSK, High Channel 78, 2480 MHz					Limit	Result
Value					($\leq$)	
				969.221 kHz	1.5 MHz	Pass



OUTPUT POWER

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mos)
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
Signal Generator	Agilent	E8257D	TGU	2/1/2012	36
OC13 Cables	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	0
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2014	12
40GHz DC Block	Miteq	DCB4000	AMD	4/28/2014	12
Spectrum Analyzer	Agilent	E4446A	AAY	2/22/2013	24

TEST DESCRIPTION

The peak output power was measured with the EUT set to low, medium and high transmit frequencies. The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The EUT was transmitting in a no hop mode at the data rate(s) listed in the datasheet.

De Facto EIRP Limit: Per 47 CFR 15.247 (b)(1-3), the EUT meets the de facto EIRP limit of +27dBm.

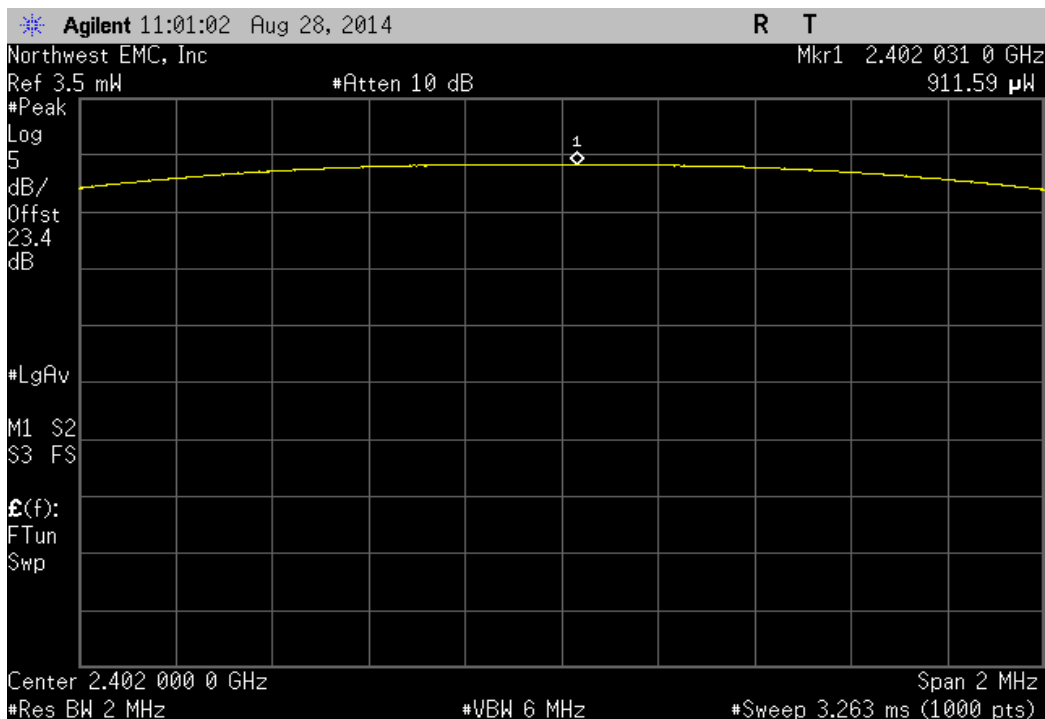


OUTPUT POWER

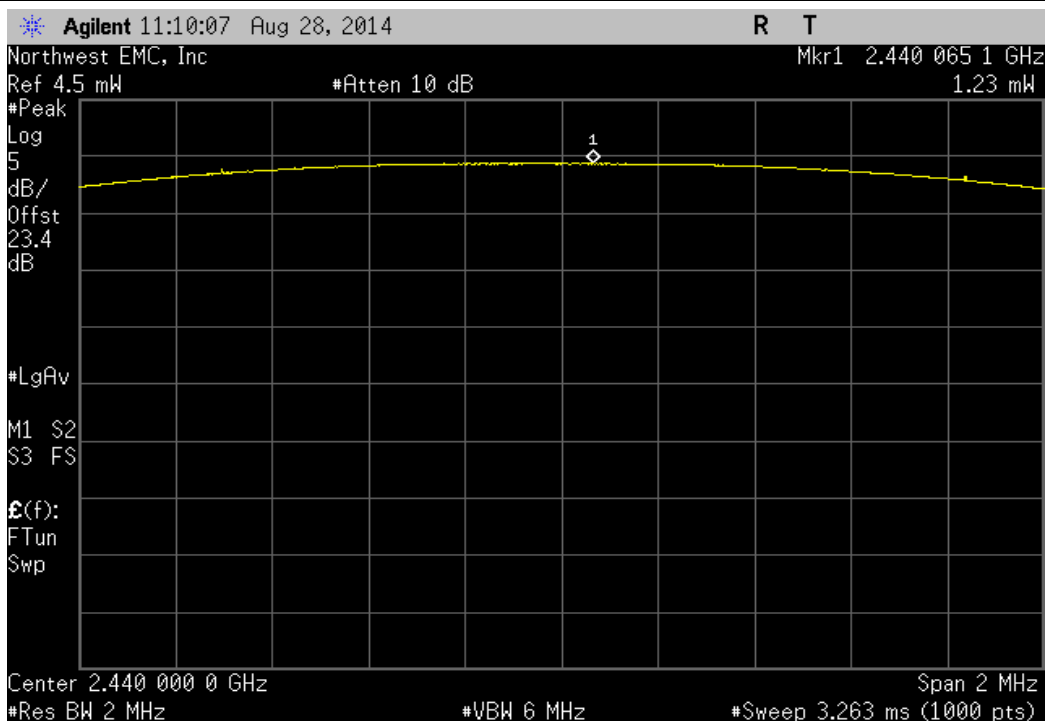
XMit 2014.02.07
NweTx 2014.07.18.4

EUT: RAD7A/Radical 7 V2		Work Order: MASI0234	
Serial Number: 1000000349		Date: 08/28/14	
Customer: Masimo Corporation		Temperature: 24.5°C	
Attendees: Michael Clark		Humidity: 47%	
Project: None		Barometric Pres.: 1017	
Tested by: Johnny Candelas & Mike Tran		Power: 120VAC/60Hz	
TEST SPECIFICATIONS		Job Site: OC13	
FCC 15.247:2014		Test Method	
		ANSI C63.10:2009	
COMMENTS			
DC Block/20dB Attenuator (20.5dB) + coax cable (1.85dB) + client provided patch cable (1.0dB) = 23.35dB total offset			
Using Max Power Setting 20			
RDS-1 Rev 1, MX-5 24494 C, Radio=24514, Radio Chip= 24412, Docking Station serial number 113674.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1	Signature 	
		Value	Limit (<)
DH5, GFSK			Result
Low Channel 0, 2402 MHz		911.591 uW	125 mW Pass
Mid Channel 39, 2440 MHz		1.228 mW	125 mW Pass
High Channel 78, 2480 MHz		1.359 mW	125 mW Pass

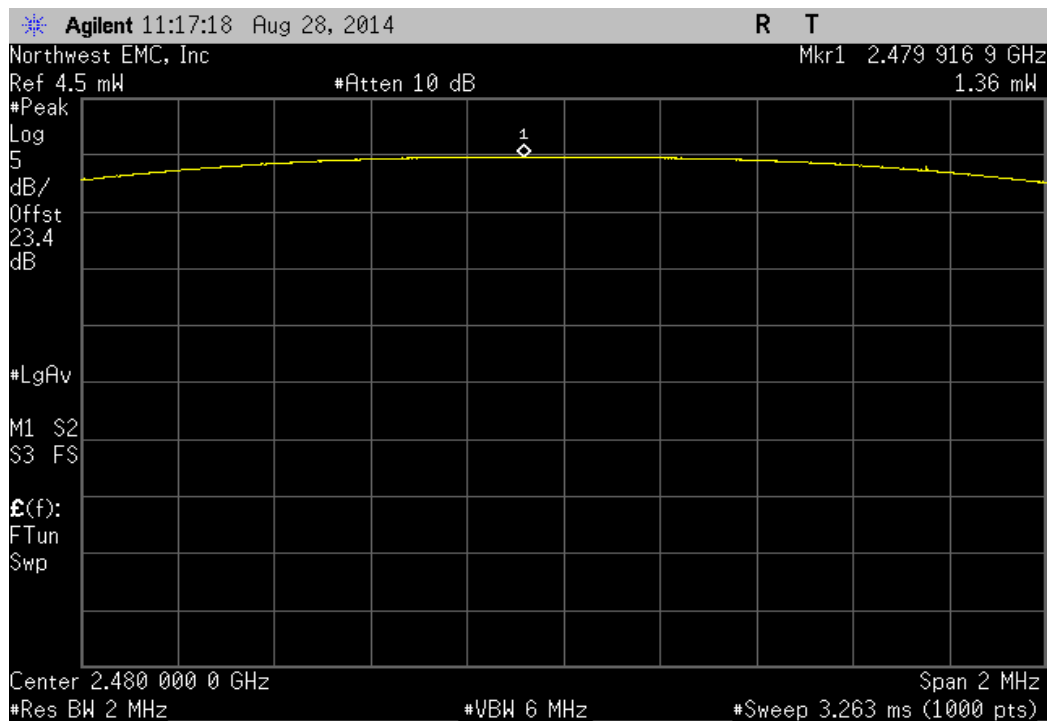
DH5, GFSK, Low Channel 0, 2402 MHz						
				Value	Limit (<)	Result
				911.591 μ W	125 mW	Pass



DH5, GFSK, Mid Channel 39, 2440 MHz						
				Value	Limit (<)	Result
				1.228 mW	125 mW	Pass



DH5, GFSK, High Channel 78, 2480 MHz						
	Value	Limit (<)	Result			
	1.359 mW	125 mW	Pass			



CHANNEL SEPARATION

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mos)
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
Signal Generator	Agilent	E8257D	TGU	2/1/2012	36
OC13 Cables	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	0
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2014	12
40GHz DC Block	Miteq	DCB4000	AMD	4/28/2014	12
Spectrum Analyzer	Agilent	E4446A	AAY	2/22/2013	24

TEST DESCRIPTION

The channel carrier frequencies in the 2400-2483.5MHz band must be separated by 25 kHz or the 20dB bandwidth of the hopping channel, whichever is greater. Or, if the output power is less than 125 mW, the channel separation can be 25 kHz or 2/3 of the 20dB bandwidth. The EUT was operated in pseudorandom hopping mode. The spectrum was scanned across two adjacent peaks. The separation between the peaks of these channels was measured.

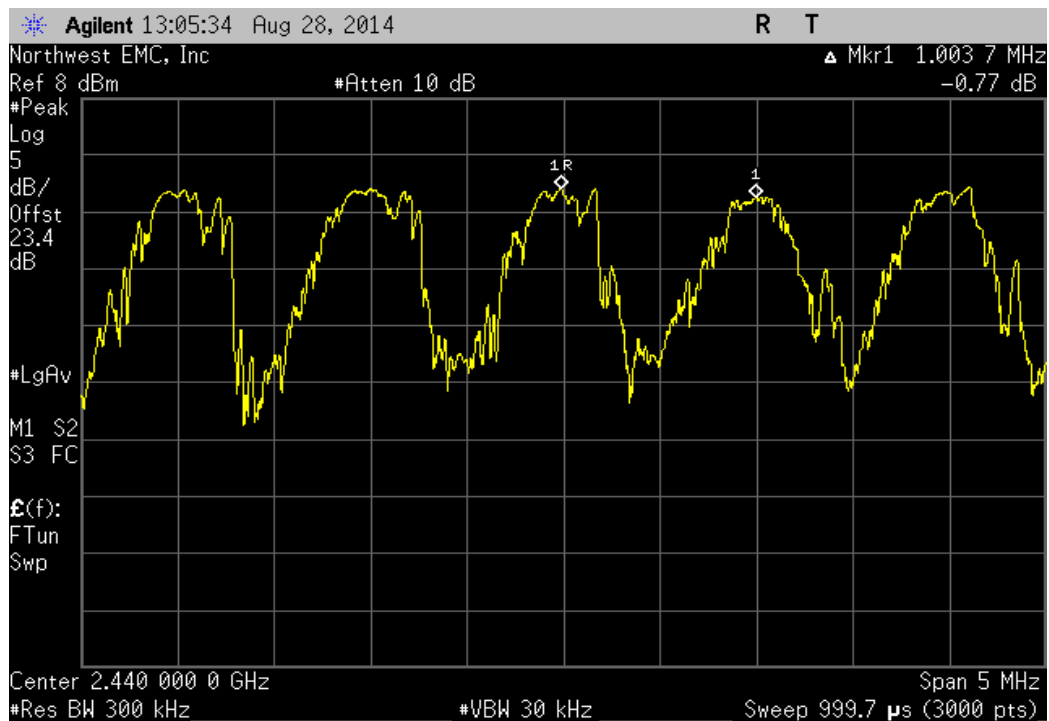


CHANNEL SEPARATION

XMit 2014.02.07
NweTx 2014.07.18.4

EUT: RAD7A/Radical 7 V2		Work Order: MASI0234	
Serial Number: 1000000349		Date: 08/28/14	
Customer: Masimo Corporation		Temperature: 24.5°C	
Attendees: Michael Clark		Humidity: 47%	
Project: None		Barometric Pres.: 1017	
Tested by: Johnny Candelas & Mike Tran		Power: 120VAC/60Hz	
		Job Site: OC13	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2014		ANSI C63.10:2009	
COMMENTS			
DC Block/20dB Attenuator (20.5dB) + coax cable (1.85dB) + client provided patch cable (1.0dB) = 23.35dB total offset			
Using Max Power Setting 20			
RDS-1 Rev 1, MX-5 24494 C, Radio=24514, Radio Chip= 24412, Docking Station serial number 113674.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1	Signature 	
		Value	Limit (±)
Hopping Mode			Results
Mid Channel 39, 2440 MHz		1.0 MHz	1 MHz Pass

Hopping Mode, Mid Channel 39, 2440 MHz						
				Value	Limit (≥)	Results
				1.0 MHz	1 MHz	Pass



NUMBER OF HOPPING CHANNELS

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mos)
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
Signal Generator	Agilent	E8257D	TGU	2/1/2012	36
OC13 Cables	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	0
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2014	12
40GHz DC Block	Miteq	DCB4000	AMD	4/28/2014	12
Spectrum Analyzer	Agilent	E4446A	AAY	2/22/2013	24

TEST DESCRIPTION

The number of hopping frequencies was measured across the authorized band. The measurements were made using a direct connection between the RF output of the EUT and the spectrum analyzer. The hopping function of the EUT was enabled.

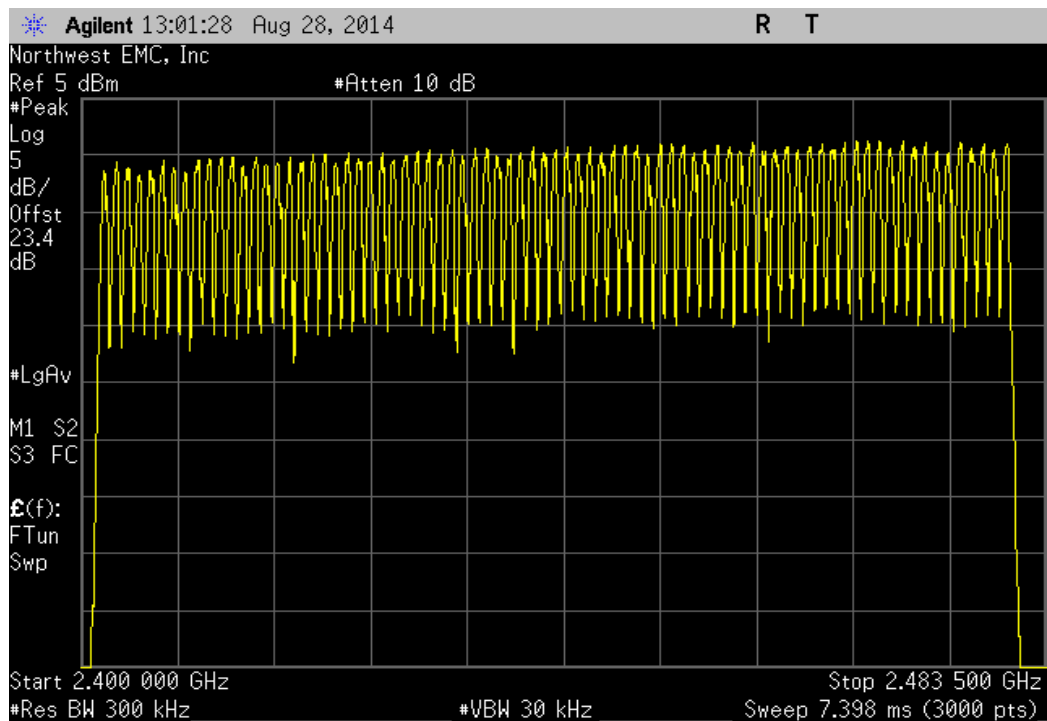


NUMBER OF HOPPING CHANNELS

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EUT: RAD7A/Radical 7 V2		Work Order: MASI0234	
Serial Number: 1000000349		Date: 08/28/14	
Customer: Masimo Corporation		Temperature: 24.5°C	
Attendees: Michael Clark		Humidity: 47%	
Project: None		Barometric Pres.: 1017	
Tested by: Johnny Candelas & Mike Tran		Power: 120VAC/60Hz	
		Job Site: OC13	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2014		ANSI C63.10:2009	
COMMENTS			
DC Block/20dB Attenuator (20.5dB) + coax cable (1.85dB) + client provided patch cable (1.0dB) = 23.35dB total offset			
Using Max Power Setting 20			
RDS-1 Rev 1, MX-5 24494 C, Radio=24514, Radio Chip= 24412, Docking Station serial number 113674.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1	Signature 	
		Number of Channels	Limit
Hopping Mode			Results
Mid Channel 39, 2440 MHz		79	≥ 15 Pass

Hopping Mode, Mid Channel 39, 2440 MHz				Number of Channels		Limit	Results
				79		≥ 15	Pass



DWELL TIME

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mos)
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
Signal Generator	Agilent	E8257D	TGU	2/1/2012	36
OC13 Cables	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	0
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2014	12
40GHz DC Block	Miteq	DCB4000	AMD	4/28/2014	12
Spectrum Analyzer	Agilent	E4446A	AAY	2/22/2013	24

TEST DESCRIPTION

The average dwell time per hopping channel was measured at one hopping channel in the middle of the authorized band. The measurements were made using a direct connection between the RF output of the EUT and the spectrum analyzer. The hopping function of the EUT was enabled.

The dwell time limit is based on the Number of Hopping Channels * 400 mS. For Bluetooth this would be 79 Channels * 400mS = 31.6 Sec.

On Time During 31.6 Sec = Pulse Width * Average Number of Pulses * Scale Factor

➤Average Number of Pulses is based on 4 samples.

➤Scale Factor = 31.6 Sec / Screen Capture Sweep Time = 31.6 Sec / 6.32 Sec = 5

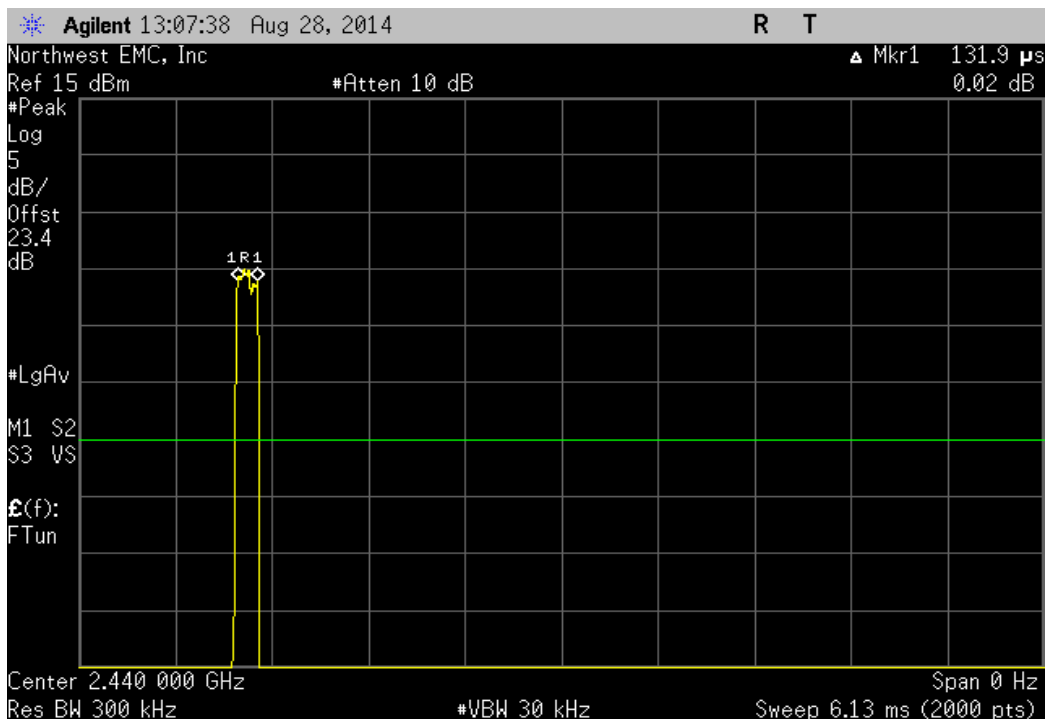


DWELL TIME

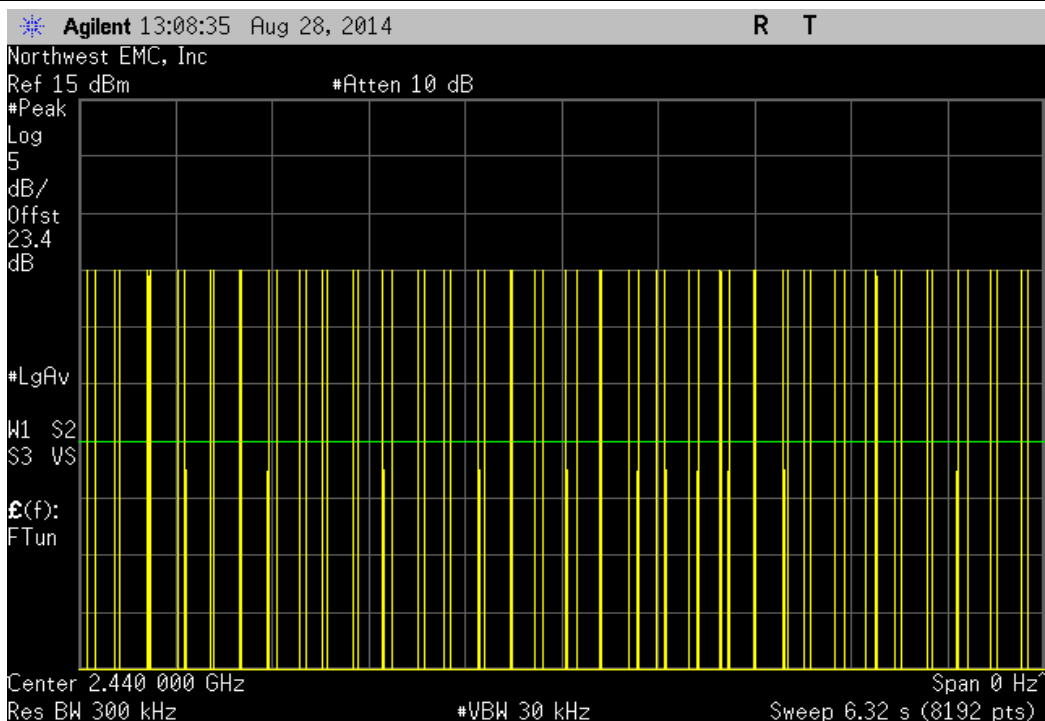
XMit 2014.02.07
NweTx 2014.07.18.4

EUT: RAD7A/Radical 7 V2		Work Order: MASI0234						
Serial Number: 1000000349		Date: 08/28/14						
Customer: Masimo Corporation		Temperature: 24.5°C						
Attendees: Michael Clark		Humidity: 47%						
Project: None		Barometric Pres.: 1017						
Tested by: Johnny Candelas & Mike Tran		Power: 120VAC/60Hz						
TEST SPECIFICATIONS		Test Method						
FCC 15.247:2014		ANSI C63.10:2009						
COMMENTS								
DC Block/20dB Attenuator (20.5dB) + coax cable (1.85dB) + client provided patch cable (1.0dB) = 23.35dB total offset								
Using Max Power Setting 20								
RDS-1 Rev 1, MX-5 24494 C, Radio=24514, Radio Chip= 24412, Docking Station serial number 113674.								
DEVIATIONS FROM TEST STANDARD								
None								
Configuration #	1	Signature 						
		Pulse Width (mS)	Number of Pulses	Average No. of Pulses	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Results
Hopping Mode								
	Mid Channel 39, 2440 MHz	0.132	N/A	N/A	N/A	N/A	N/A	N/A
	Mid Channel 39, 2440 MHz	N/A	64	N/A	N/A	N/A	N/A	N/A
	Mid Channel 39, 2440 MHz	N/A	64	N/A	N/A	N/A	N/A	N/A
	Mid Channel 39, 2440 MHz	N/A	64	N/A	N/A	N/A	N/A	N/A
	Mid Channel 39, 2440 MHz	N/A	63	N/A	N/A	N/A	N/A	N/A
	Mid Channel 39, 2440 MHz	0.132	N/A	63.75	5	42.08	400	Pass

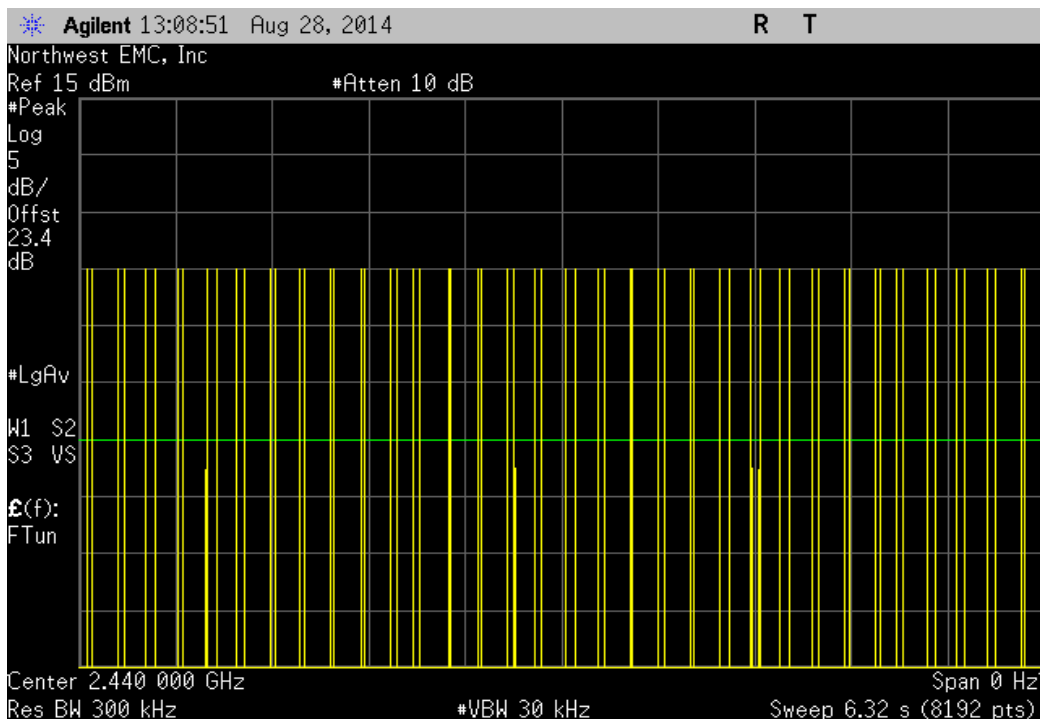
Hopping Mode, Mid Channel 39, 2440 MHz						
Pulse Width (mS)	Number of Pulses	Average No. of Pulses	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Results
0.132	N/A	N/A	N/A	N/A	N/A	N/A



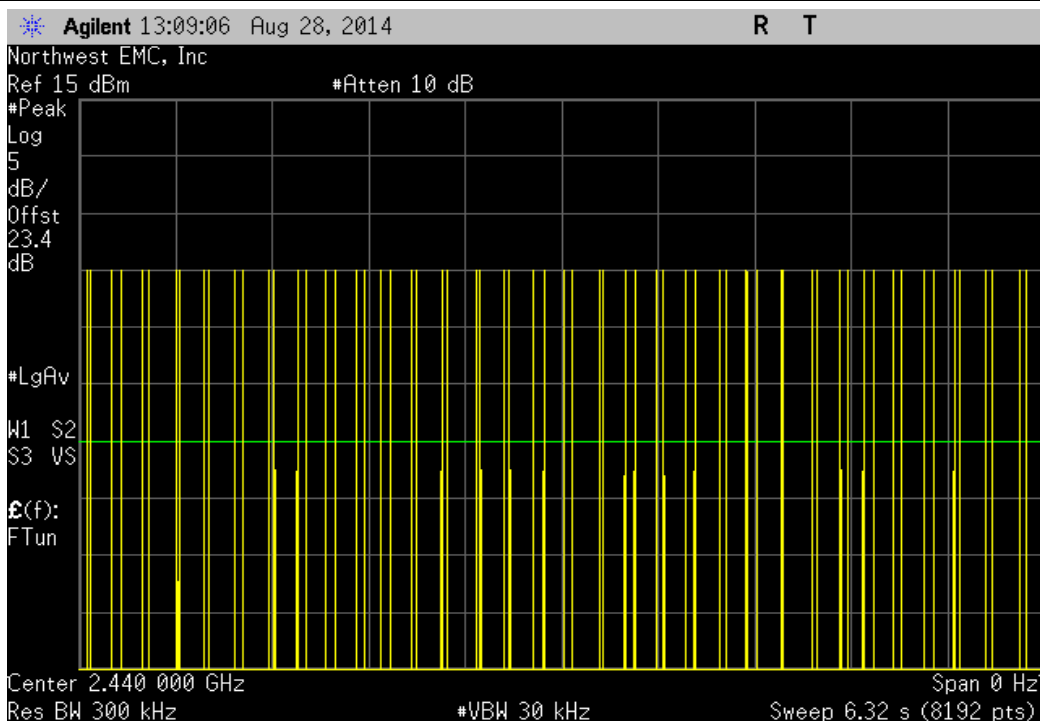
Hopping Mode, Mid Channel 39, 2440 MHz						
Pulse Width (mS)	Number of Pulses	Average No. of Pulses	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Results
N/A	64	N/A	N/A	N/A	N/A	N/A



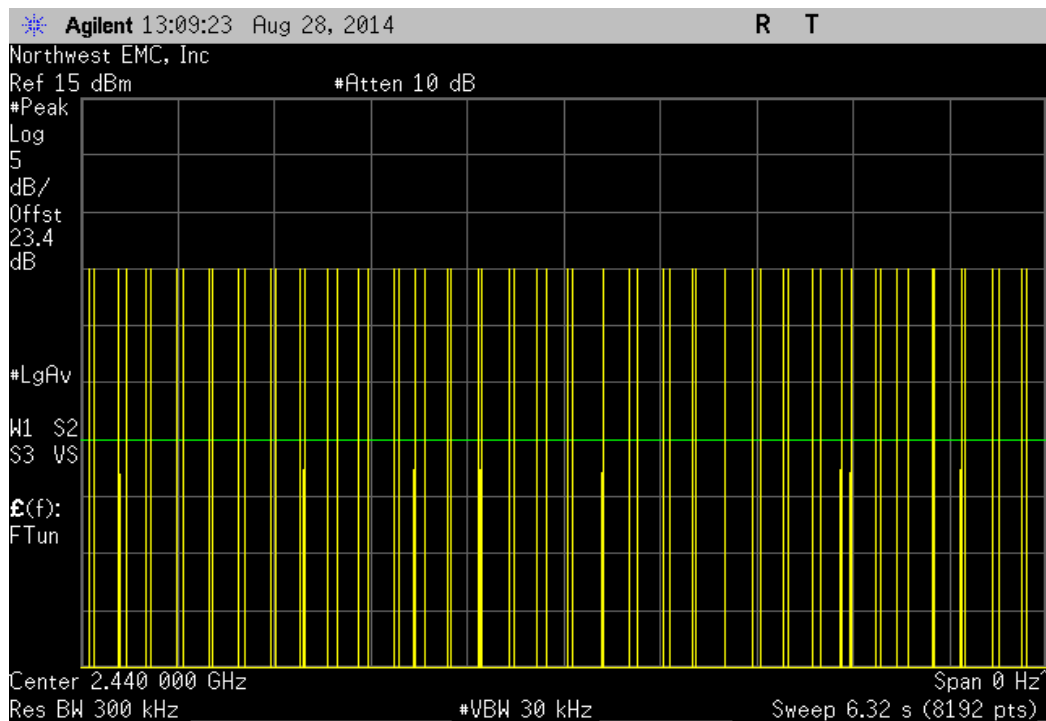
Hopping Mode, Mid Channel 39, 2440 MHz						
Pulse Width (mS)	Number of Pulses	Average No. of Pulses	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Results
N/A	64	N/A	N/A	N/A	N/A	N/A



Hopping Mode, Mid Channel 39, 2440 MHz						
Pulse Width (mS)	Number of Pulses	Average No. of Pulses	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Results
N/A	64	N/A	N/A	N/A	N/A	N/A



Hopping Mode, Mid Channel 39, 2440 MHz						
Pulse Width (mS)	Number of Pulses	Average No. of Pulses	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Results
N/A	63	N/A	N/A	N/A	N/A	N/A



Hopping Mode, Mid Channel 39, 2440 MHz						
Pulse Width (mS)	Number of Pulses	Average No. of Pulses	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Results
0.132	N/A	63.75	5	42.08	400	Pass

Calculation Only

No Screen Capture Required

DUTY CYCLE

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mos)
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
Signal Generator	Agilent	E8257D	TGU	2/1/2012	36
OC13 Cables	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	0
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2014	12
40GHz DC Block	Miteq	DCB4000	AMD	4/28/2014	12
Spectrum Analyzer	Agilent	E4446A	AAY	2/22/2013	24

TEST DESCRIPTION

The Duty Cycle (x) of the single channel operation of the radio as controlled by the provided test software was measured for each of the EUT operating modes.

The measurements were made using a zero span on the spectrum analyzer to see the pulses in the time domain. The transmit power was set to its default maximum. A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used.

The duty cycle was calculated by dividing the transmission pulse duration (T) by the total period of a single on and total off time.

If the transmit duty cycle < 98 percent, burst gating was used during some of the other tests in this report to only measure during the burst duration.

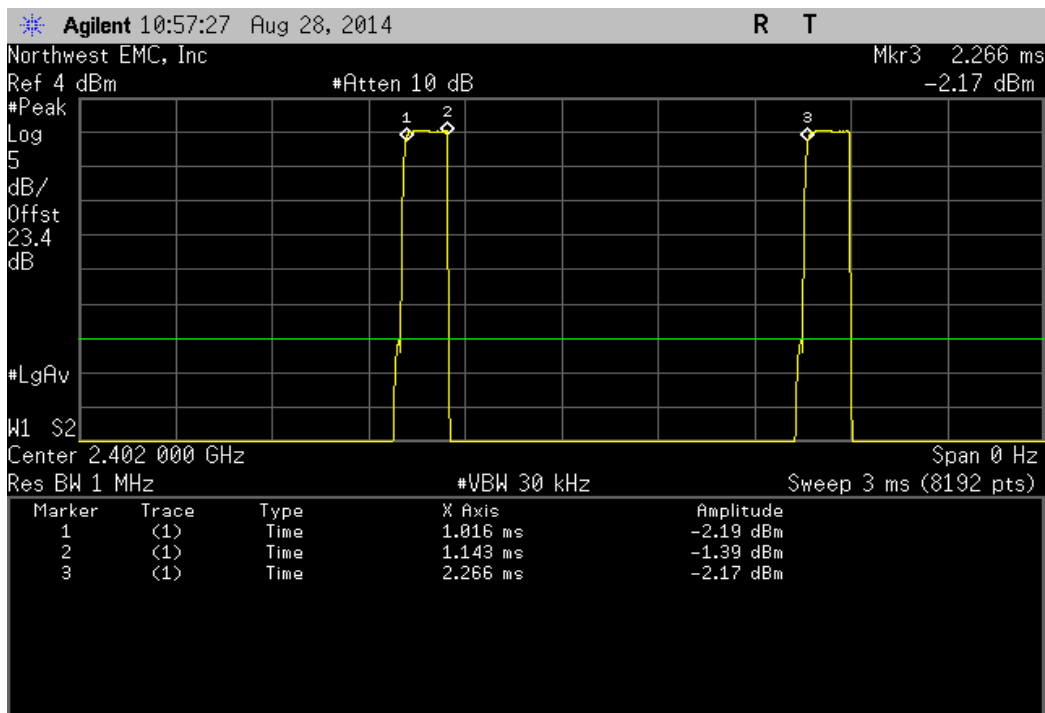


DUTY CYCLE

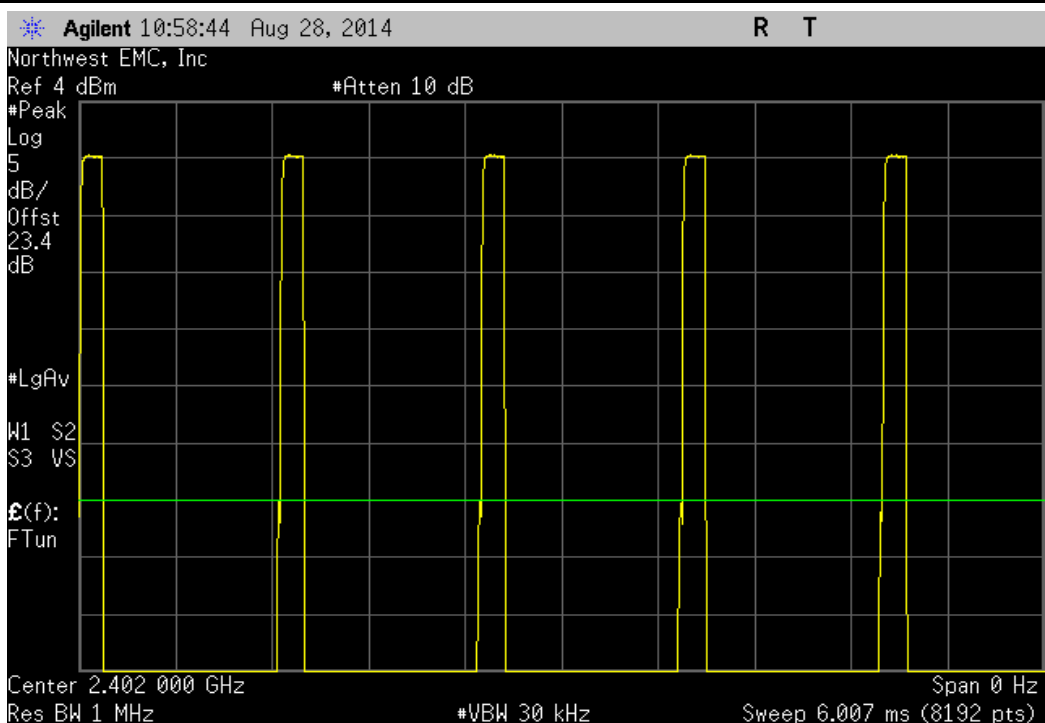
XMit 2014.02.07
NweTx 2014.07.18.4

EUT: RAD7A/Radical 7 V2		Work Order: MASI0234					
Serial Number: 1000000349		Date: 08/28/14					
Customer: Masimo Corporation		Temperature: 24.5°C					
Attendees: Michael Clark		Humidity: 47%					
Project: None		Barometric Pres.: 1017					
Tested by: Johnny Candelas & Mike Tran		Power: 120VAC/60Hz					
TEST SPECIFICATIONS		Test Method					
FCC 15.247:2014		ANSI C63.10:2009					
COMMENTS							
DC Block/20dB Attenuator (20.5dB) + coax cable (1.85dB) + client provided patch cable (1.0dB) = 23.35dB total offset							
Using Max Power Setting 20							
RDS-1 Rev 1, MX-5 24494 C, Radio=24514, Radio Chip= 24412, Docking Station serial number 113674.							
DEVIATIONS FROM TEST STANDARD							
None							
Configuration #	1	Signature 					
		Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
DH5, GFSK							
Low Channel 0, 2402 MHz		126.788 uS	1.25 mS	1	10.1	N/A	N/A
Low Channel 0, 2402 MHz		N/A	N/A	6	N/A	N/A	N/A
Mid Channel 39, 2440 MHz		127.487 uS	1.252 mS	1	10.2	N/A	N/A
Mid Channel 39, 2440 MHz		N/A	N/A	5	N/A	N/A	N/A
High Channel 78, 2480 MHz		127.121 uS	1.25 mS	1	10.2	N/A	N/A
High Channel 78, 2480 MHz		N/A	N/A	5	N/A	N/A	N/A

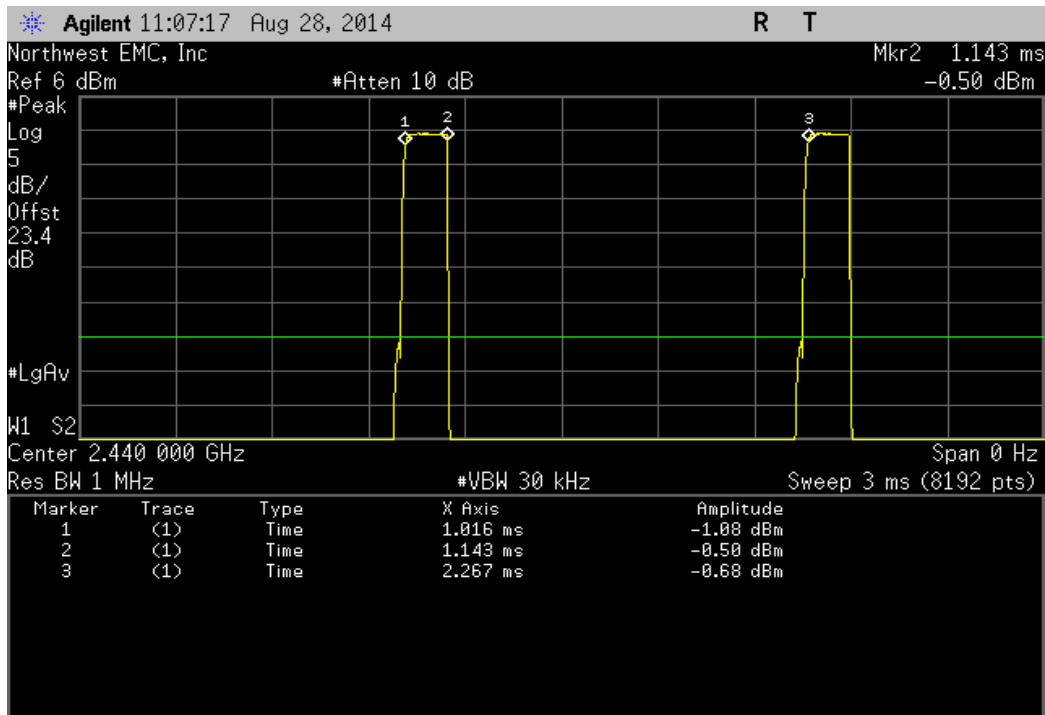
DH5, GFSK, Low Channel 0, 2402 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
126.788 uS	1.25 mS	1	10.1	N/A	N/A	



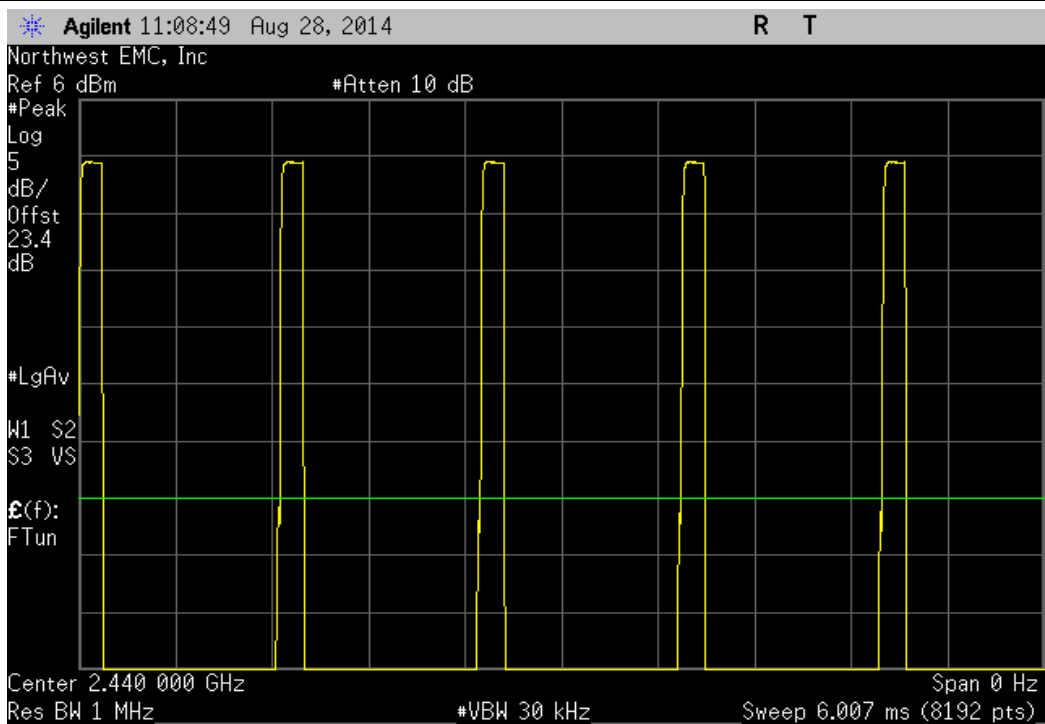
DH5, GFSK, Low Channel 0, 2402 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	6	N/A	N/A	N/A	



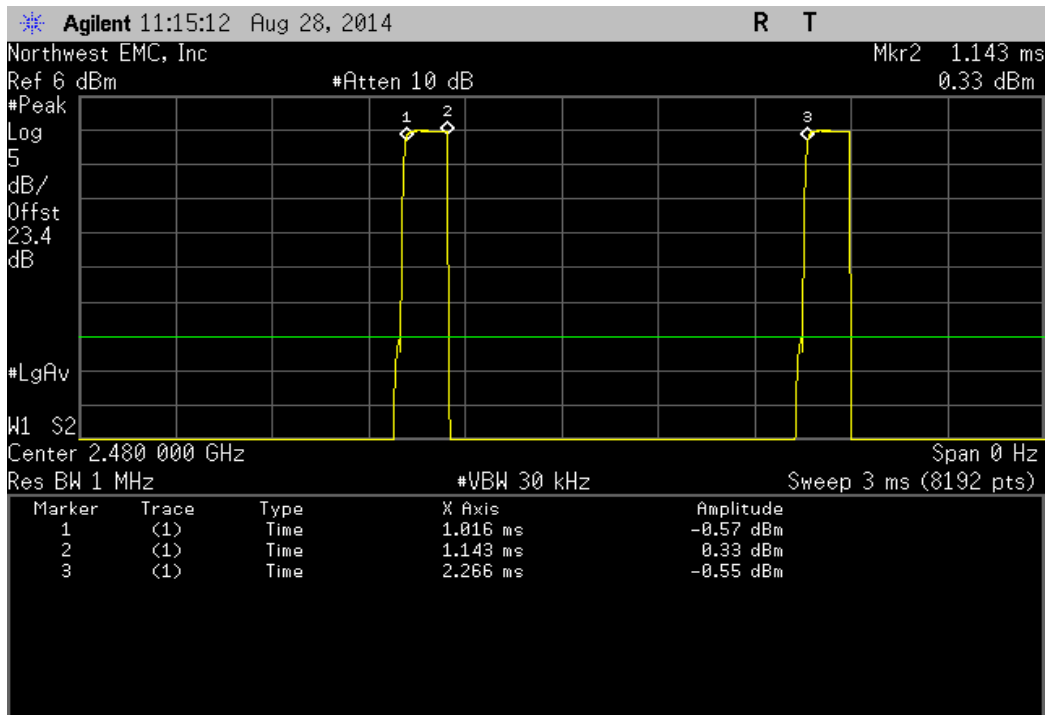
DH5, GFSK, Mid Channel 39, 2440 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	127.487 uS	1.252 ms	1	10.2	N/A	N/A



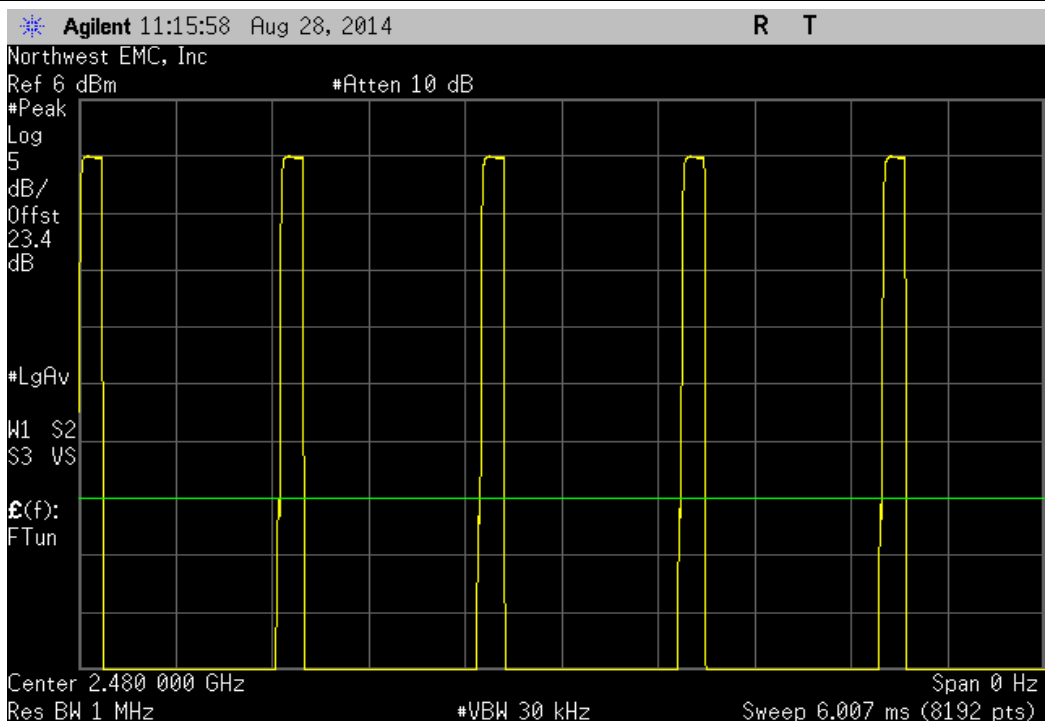
DH5, GFSK, Mid Channel 39, 2440 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A



DH5, GFSK, High Channel 78, 2480 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	127.121 uS	1.25 mS	1	10.2	N/A	N/A



DH5, GFSK, High Channel 78, 2480 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A



BAND EDGE COMPLIANCE

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mos)
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
Signal Generator	Agilent	E8257D	TGU	2/1/2012	36
OC13 Cables	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	0
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2014	12
40GHz DC Block	Miteq	DCB4000	AMD	4/28/2014	12
Spectrum Analyzer	Agilent	E4446A	AAY	2/22/2013	24

TEST DESCRIPTION

The spurious RF conducted emissions at the edges of the authorized band were measured with the EUT set to low and high transmit frequencies. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at the data rate(s) listed in the datasheet in a no hop mode. The channels closest to the band edges were selected.

The spectrum was scanned below the lower band edge and above the higher band edge.

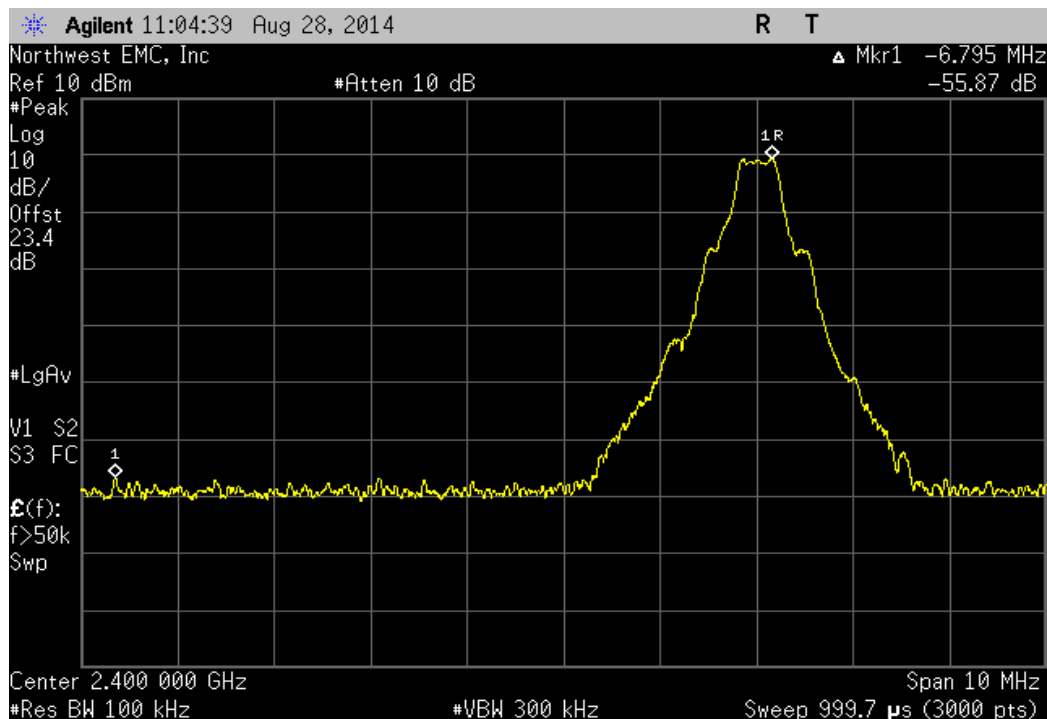


BAND EDGE COMPLIANCE

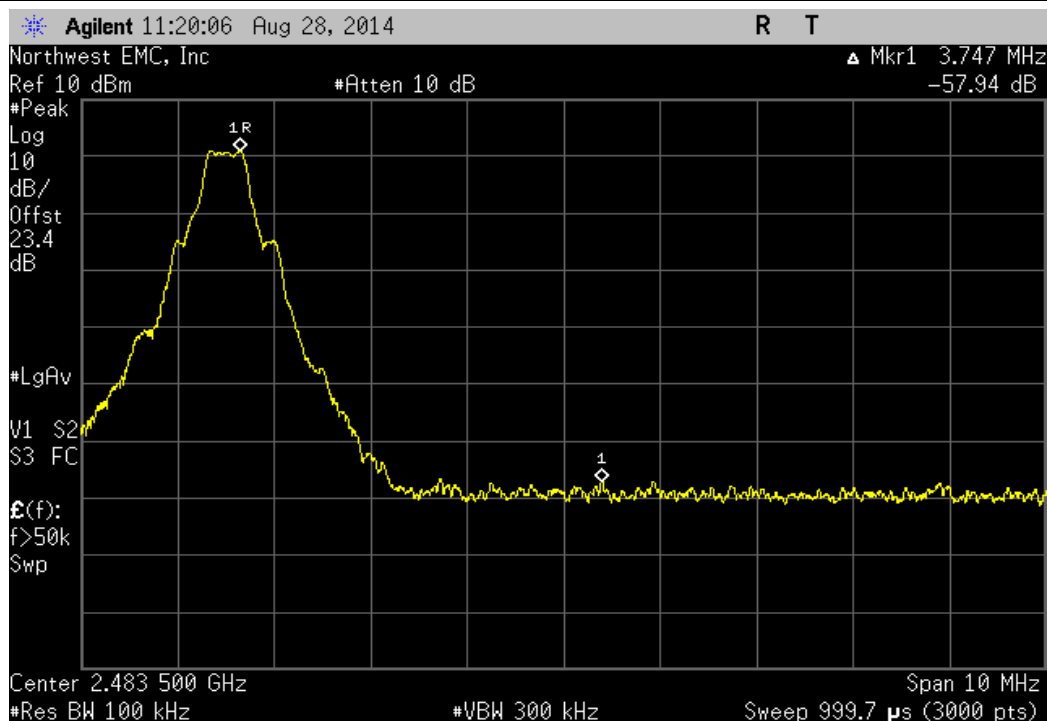
XMit 2014.02.07
NweTx 2014.07.18.4

EUT: RAD7A/Radical 7 V2		Work Order: MASI0234	
Serial Number: 1000000349		Date: 08/28/14	
Customer: Masimo Corporation		Temperature: 24.5°C	
Attendees: Michael Clark		Humidity: 47%	
Project: None		Barometric Pres.: 1017	
Tested by: Johnny Candelas & Mike Tran		Power: 120VAC/60Hz	
		Job Site: OC13	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2014		ANSI C63.10:2009	
COMMENTS			
DC Block/20dB Attenuator (20.5dB) + coax cable (1.85dB) + client provided patch cable (1.0dB) = 23.35dB total offset			
Using Max Power Setting 20			
RDS-1 Rev 1, MX-5 24494 C, Radio=24514, Radio Chip= 24412 Rev B. Docking Station serial number 113674.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1	Signature 	
		Value (dBc)	Limit ≤ (dBc) Result
DH5, GFSK			
Low Channel 0, 2402 MHz		-55.87	-20 Pass
High Channel 78, 2480 MHz		-57.94	-20 Pass

DH5, GFSK, Low Channel 0, 2402 MHz				Value	Limit	Result
				(dBc)	≤ (dBc)	
				-55.87	-20	Pass



DH5, GFSK, High Channel 78, 2480 MHz				Value	Limit	Result
				(dBc)	≤ (dBc)	
				-57.94	-20	Pass



**BAND EDGE COMPLIANCE -
HOPPING**

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mos)
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
Signal Generator	Agilent	E8257D	TGU	2/1/2012	36
OC13 Cables	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	0
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2014	12
40GHz DC Block	Miteq	DCB4000	AMD	4/28/2014	12
Spectrum Analyzer	Agilent	E4446A	AAY	2/22/2013	24

TEST DESCRIPTION

The spurious RF conducted emissions at the edges of the authorized band were measured with the EUT set to its normal pseudo-random hopping sequence. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at the data rate(s) listed in the datasheet.

The spectrum was scanned below the lower band edge and above the higher band edge.

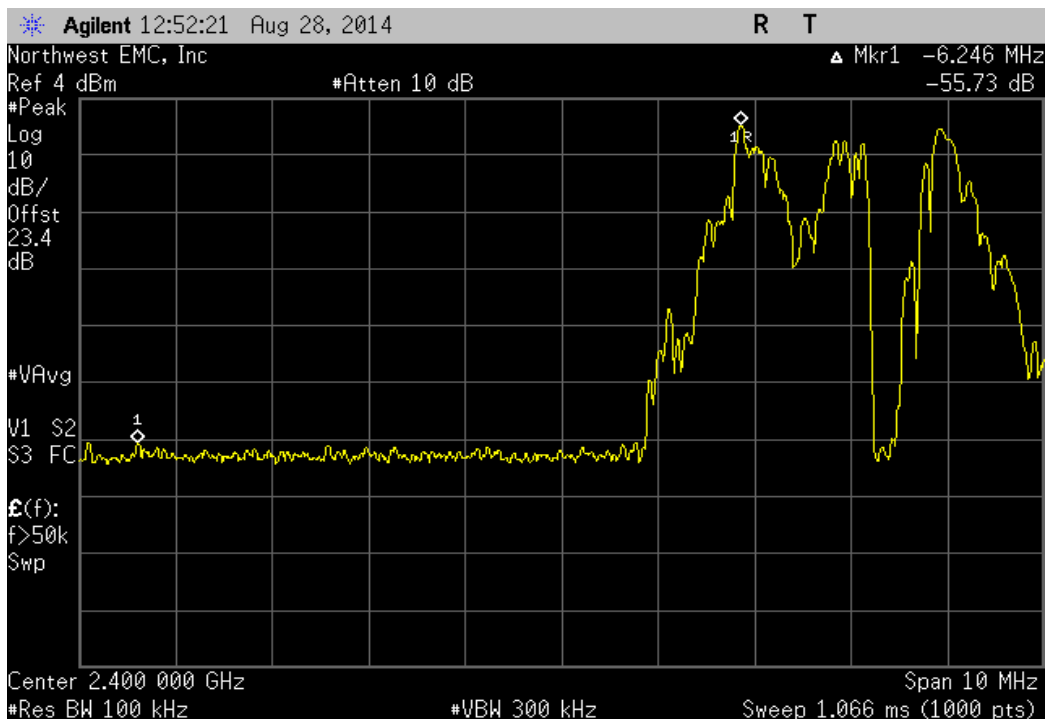


BAND EDGE COMPLIANCE - HOPPING

XMit 2014.02.07
NweTx 2014.07.18.4

EUT: RAD7A/Radical 7 V2		Work Order: MASI0234	
Serial Number: 1000000349		Date: 08/28/14	
Customer: Masimo Corporation		Temperature: 24.5°C	
Attendees: Michael Clark		Humidity: 47%	
Project: None		Barometric Pres.: 1017	
Tested by: Johnny Candelas & Mike Tran		Power: 120VAC/60Hz	
		Job Site: OC13	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2014		ANSI C63.10:2009	
COMMENTS			
DC Block/20dB Attenuator (20.5dB) + coax cable (1.85dB) + client provided patch cable (1.0dB) = 23.35dB total offset			
Using Max Power Setting 20			
RDS-1 Rev 1, MX-5 24494 C, Radio=24514, Radio Chip= 24412. Docking Station serial number 113674.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1	Signature 	
		Value (dBc)	Limit ≤ (dBc)
			Result
Hopping Mode			
Low Channel 0, 2402 MHz		-55.73	-20 Pass
High Channel 78, 2480 MHz		-57.01	-20 Pass

Hopping Mode, Low Channel 0, 2402 MHz				Value (dBc)	Limit ≤ (dBc)	Result
				-55.73	-20	Pass



Hopping Mode, High Channel 78, 2480 MHz				Value (dBc)	Limit ≤ (dBc)	Result
				-57.01	-20	Pass

