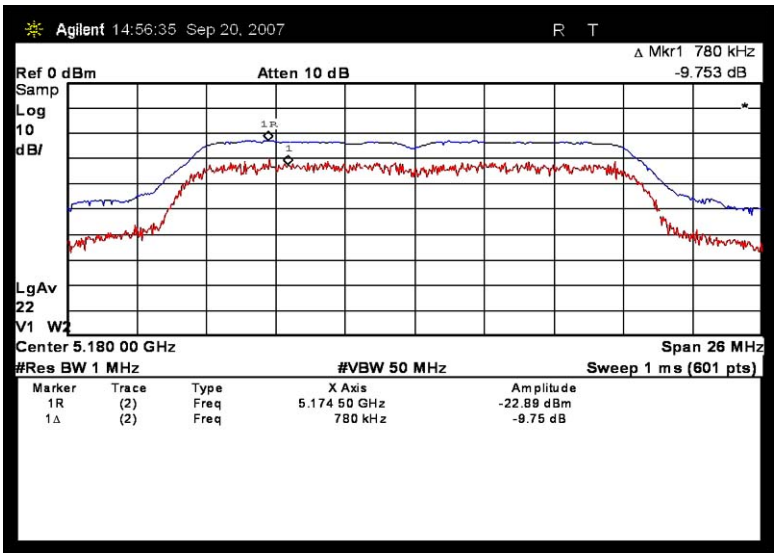
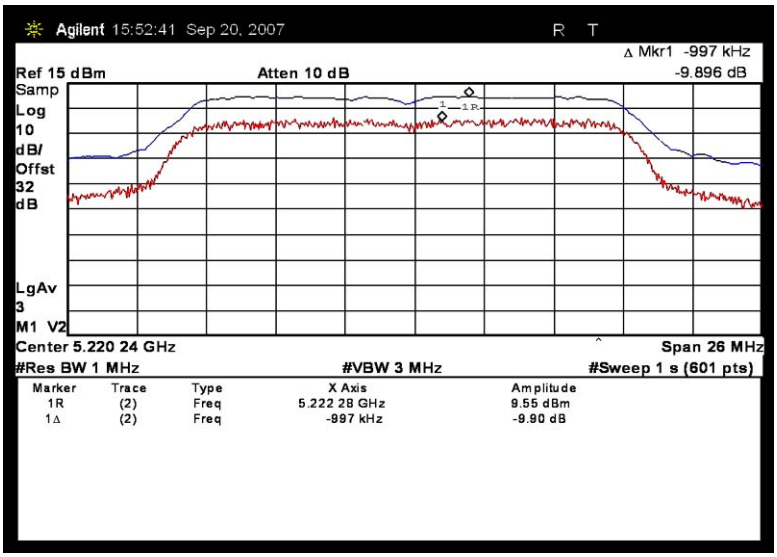
Test Plots

FCC 15.407(a)(6) PEAK EXCURSION – CHANNEL 36



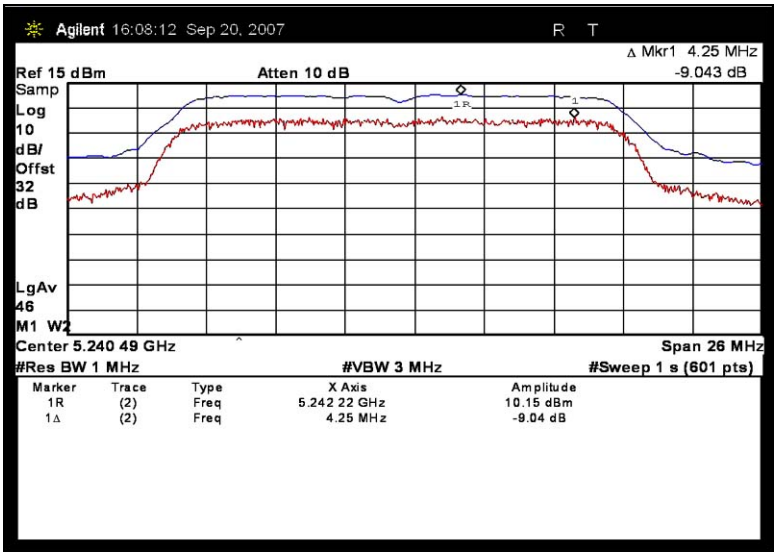
802.11a

FCC 15.407(a)(6) PEAK EXCURSION – CHANNEL 44



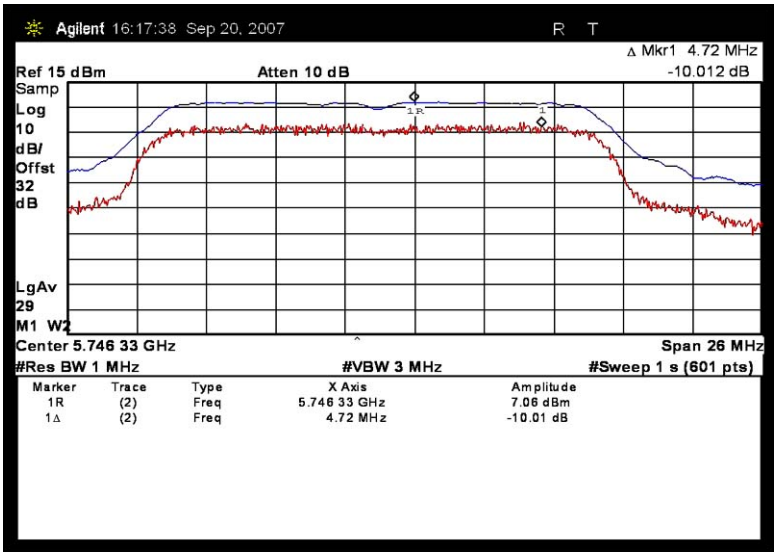
802.11a

FCC 15.407(a)(6) PEAK EXCURSION – CHANNEL 48



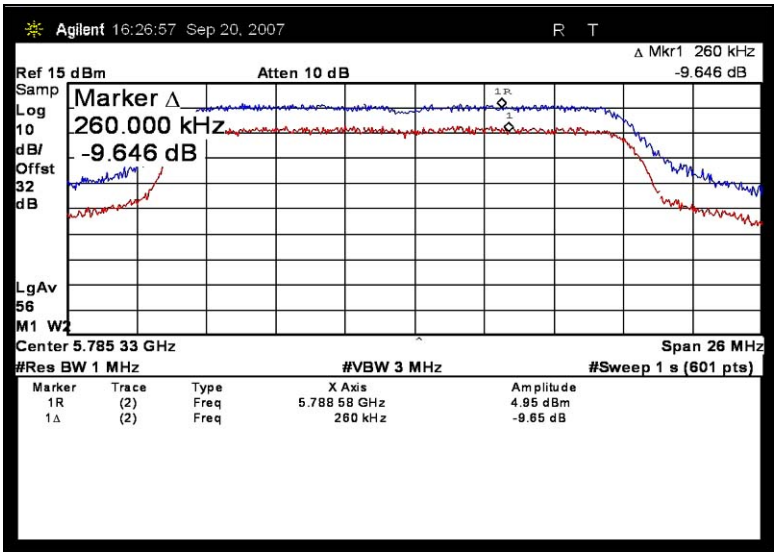
802.11a

FCC 15.407(a)(6) PEAK EXCURSION – CHANNEL 149



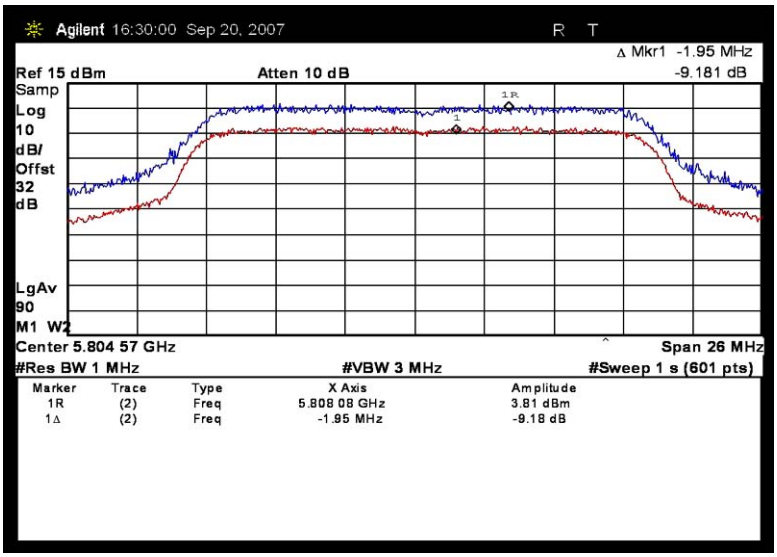
802.11a

FCC 15.407(a)(6) PEAK EXCURSION – CHANNEL 157



802.11a

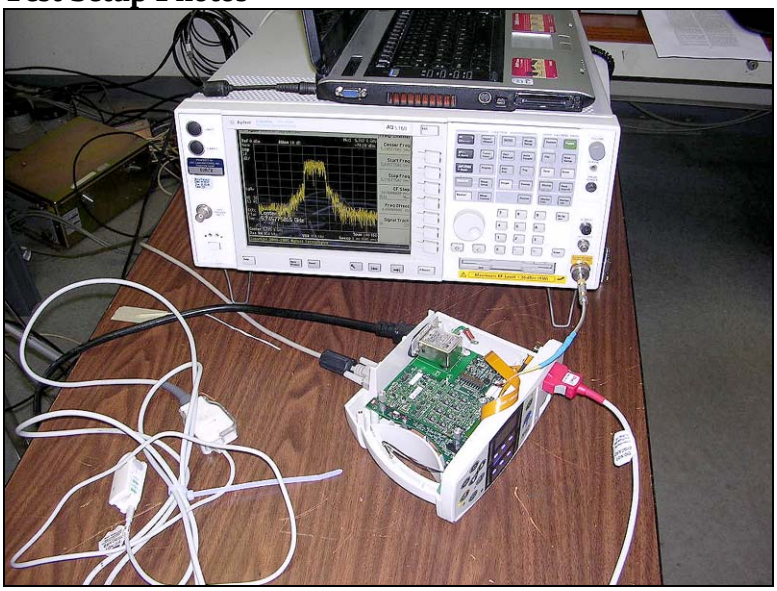
FCC 15.407(a)(6) PEAK EXCURSION – CHANNEL 161



802.11a

FCC 15.407(b) ANTENNA CONDUCTED UNDESIRABLE EMISSION LIMITS

Test Setup Photos



Test Data Sheets

Test Location: CKC Laboratories, Inc. •110 N Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **Masimo Corporation**
Specification: **FCC 15.407 b1 - b4**
Work Order #: **86964** Date: 9/21/2007
Test Type: **Antenna Conducted Scan** Time: 12:29:54
Equipment: **Pulse Rate Monitor** Sequence#: 12
Manufacturer: Masimo Corp Tested By: Sep Apahidean
Model: RAD-87
S/N: 804173

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Spectrum Analyzer	US44300438	01/03/2007	01/03/2009	02672
Attenuator, 20 dB Pad	01432	09/13/2007	09/13/2009	P01392

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Pulse Rate Monitor*	Masimo Corp	RAD-87	804173

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	IBM	ThinkPAD 2366	99-TGPV9

Test Conditions / Notes:

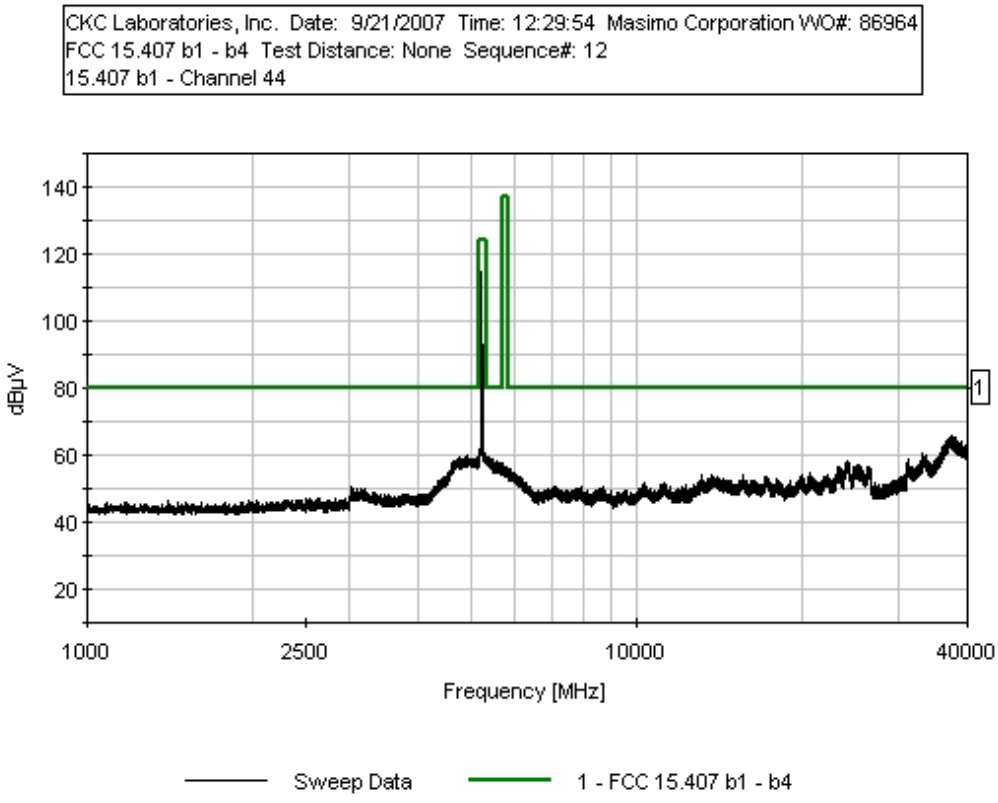
The EUT is on the table, and all the probes and cables are connected to the unit. Measurements are made by direct connect. The Serial cable is connected to the laptop computer, which is used to change the TX characteristics. 802.11A, 1 RBW MHz, VBW 3MHz CH 44. Frequency range tested: 9 kHz – 40 GHz. The 32db offset is 20 db for the attenuator and 2 db for the antenna gain.

Transducer Legend:

T1=HP 20dB Pad	T2=Antenna Gain

Measurement Data: Reading listed by margin. Test Distance: None

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	dB	dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	5216.212M	92.9	+20.0	+2.0			+0.0	114.9	123.9	-9.0	None
2	5149.910M	35.5	+20.0	+2.0			+0.0	57.5	80.0	-22.5	None
3	5251.400M	39.4	+20.0	+2.0			+0.0	61.4	123.9	-62.5	None



Test Location: CKC Laboratories, Inc. •110 N Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **Masimo Corporation**
Specification: **FCC 15.407 b1 - b4**
Work Order #: **86964** Date: 9/21/2007
Test Type: **Antenna Conducted Scan** Time: 11:48:09
Equipment: **Pulse Rate Monitor** Sequence#: 11
Manufacturer: Masimo Corp Tested By: Sep Apahidean
Model: RAD-87
S/N: 804173

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Spectrum Analyzer	US44300438	01/03/2007	01/03/2009	02672
Attenuator, 20 dB Pad	01432	09/13/2007	09/13/2009	P01392

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Pulse Rate Monitor*	Masimo Corp	RAD-87	804173

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	IBM	ThinkPAD 2366	99-TGPV9

Test Conditions / Notes:

The EUT is on the table, and all the probes and cables are connected to the unit. Measurements are made by direct connect. The Serial cable is connected to the laptop computer, which is used to change the TX characteristics. 802.11A, 1 RBW MHz, VBW 3MHz CH 36. Frequency range tested: 9 kHz – 40 GHz. The 32db offset is 20 db for the attenuator and 2 db for the antenna gain.

Transducer Legend:

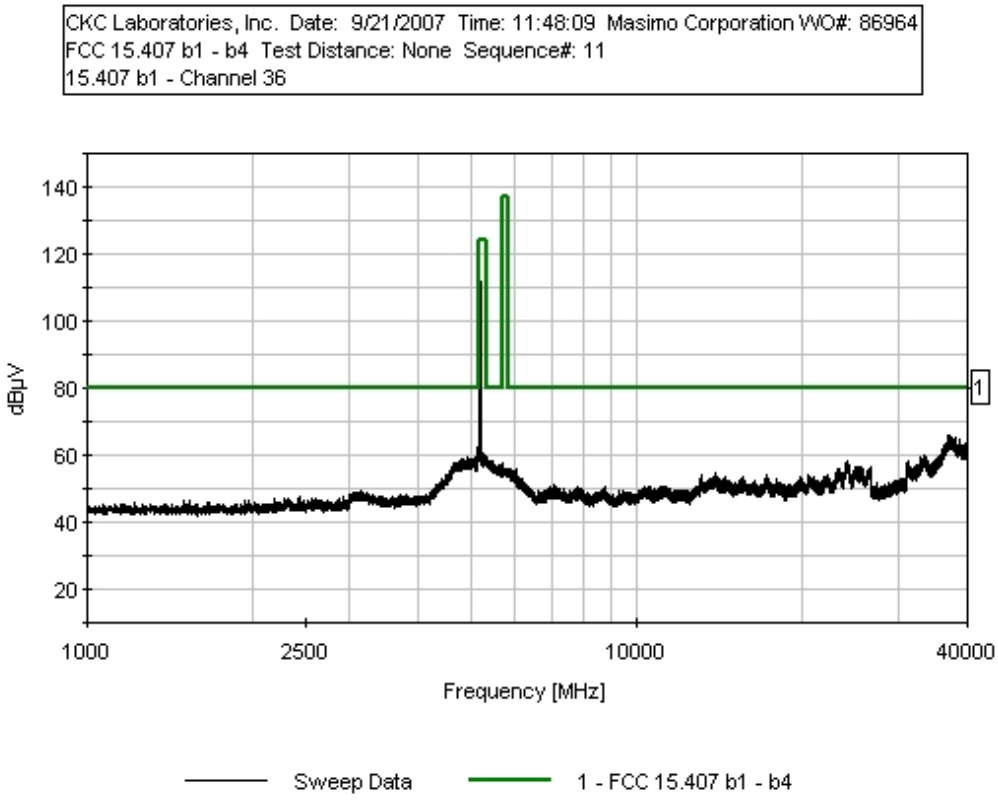
T1=HP 20dB Pad	T2=Antenna Gain

Measurement Data: Reading listed by margin. Test Distance: None

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	dB	dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	5178.174M	92.0	+20.0	+2.0			+0.0	114.0	123.9	-9.9	None
2	37214.180M	43.4	+20.0	+2.0			+0.0	65.4	80.0	-14.6	None
3	38001.960M	43.1	+20.0	+2.0			+0.0	65.1	80.0	-14.9	None
4	37194.160M	43.0	+20.0	+2.0			+0.0	65.0	80.0	-15.0	None
5	37692.660M	43.0	+20.0	+2.0			+0.0	65.0	80.0	-15.0	None
6	37074.040M	42.9	+20.0	+2.0			+0.0	64.9	80.0	-15.1	None
7	37080.040M	42.9	+20.0	+2.0			+0.0	64.9	80.0	-15.1	None
8	37445.410M	42.9	+20.0	+2.0			+0.0	64.9	80.0	-15.1	None
9	37595.560M	42.9	+20.0	+2.0			+0.0	64.9	80.0	-15.1	None

10	37337.300M	42.8	+20.0	+2.0		+0.0	64.8	80.0	-15.2	None
11	37768.730M	42.8	+20.0	+2.0		+0.0	64.8	80.0	-15.2	None
12	37034.000M	42.7	+20.0	+2.0		+0.0	64.7	80.0	-15.3	None
13	37267.230M	42.7	+20.0	+2.0		+0.0	64.7	80.0	-15.3	None
14	37045.010M	42.6	+20.0	+2.0		+0.0	64.6	80.0	-15.4	None
15	37683.650M	42.6	+20.0	+2.0		+0.0	64.6	80.0	-15.4	None
16	38070.030M	42.6	+20.0	+2.0		+0.0	64.6	80.0	-15.4	None
17	37257.220M	42.4	+20.0	+2.0		+0.0	64.4	80.0	-15.6	None
18	36789.750M	42.3	+20.0	+2.0		+0.0	64.3	80.0	-15.7	None
19	37553.520M	42.1	+20.0	+2.0		+0.0	64.1	80.0	-15.9	None
20	37584.550M	42.1	+20.0	+2.0		+0.0	64.1	80.0	-15.9	None
21	36728.690M	42.0	+20.0	+2.0		+0.0	64.0	80.0	-16.0	None
22	36881.850M	41.9	+20.0	+2.0		+0.0	63.9	80.0	-16.1	None
23	37744.710M	41.9	+20.0	+2.0		+0.0	63.9	80.0	-16.1	None
24	36703.670M	41.8	+20.0	+2.0		+0.0	63.8	80.0	-16.2	None
25	36614.580M	41.7	+20.0	+2.0		+0.0	63.7	80.0	-16.3	None
26	36810.770M	41.7	+20.0	+2.0		+0.0	63.7	80.0	-16.3	None
27	36397.360M	41.6	+20.0	+2.0		+0.0	63.6	80.0	-16.4	None
28	36619.590M	41.6	+20.0	+2.0		+0.0	63.6	80.0	-16.4	None
29	36647.610M	41.6	+20.0	+2.0		+0.0	63.6	80.0	-16.4	None
30	36675.640M	41.6	+20.0	+2.0		+0.0	63.6	80.0	-16.4	None
31	36697.660M	41.6	+20.0	+2.0		+0.0	63.6	80.0	-16.4	None
32	39580.570M	41.6	+20.0	+2.0		+0.0	63.6	80.0	-16.4	None
33	5143.139M	40.2	+20.0	+2.0		+0.0	62.2	80.0	-17.8	None
34	5149.990M	39.7	+20.0	+2.0		+0.0	61.7	80.0	-18.3	None

35	5147.143M	39.4	+20.0	+2.0		+0.0	61.4	80.0	-18.6	None
36	4903.900M	37.3	+20.0	+2.0		+0.0	59.3	80.0	-20.7	None
37	5063.059M	37.2	+20.0	+2.0		+0.0	59.2	80.0	-20.8	None
38	4782.779M	37.1	+20.0	+2.0		+0.0	59.1	80.0	-20.9	None
39	4992.989M	37.0	+20.0	+2.0		+0.0	59.0	80.0	-21.0	None
40	5041.037M	36.9	+20.0	+2.0		+0.0	58.9	80.0	-21.1	None
41	4820.817M	36.7	+20.0	+2.0		+0.0	58.7	80.0	-21.3	None
42	4916.913M	36.6	+20.0	+2.0		+0.0	58.6	80.0	-21.4	None
43	4938.935M	36.6	+20.0	+2.0		+0.0	58.6	80.0	-21.4	None
44	5052.048M	36.6	+20.0	+2.0		+0.0	58.6	80.0	-21.4	None
45	5023.019M	36.5	+20.0	+2.0		+0.0	58.5	80.0	-21.5	None
46	5083.079M	36.4	+20.0	+2.0		+0.0	58.4	80.0	-21.6	None
47	5113.109M	36.4	+20.0	+2.0		+0.0	58.4	80.0	-21.6	None
48	5109.105M	36.3	+20.0	+2.0		+0.0	58.3	80.0	-21.7	None
49	5094.090M	35.9	+20.0	+2.0		+0.0	57.9	80.0	-22.1	None
50	4750.747M	35.6	+20.0	+2.0		+0.0	57.6	80.0	-22.4	None
51	4697.694M	35.4	+20.0	+2.0		+0.0	57.4	80.0	-22.6	None
52	4711.708M	35.4	+20.0	+2.0		+0.0	57.4	80.0	-22.6	None


CKC Laboratories, Inc. Date: 9/21/2007 Time: 11:48:09 Masimo Corporation WO#: 86964
FCC 15.407 b1 - b4 Test Distance: None Sequence#: 11
15.407 b1 - Channel 36
140
120
100
80
60
40
20
dBµV
1
1000
2500
10000
40000
Frequency [MHz]
Sweep Data
1 - FCC 15.407 b1 - b4

Test Location: CKC Laboratories, Inc. •110 N Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **Masimo Corporation**
Specification: **FCC 15.407 b1 - b4**
Work Order #: **86964** Date: 9/21/2007
Test Type: **Antenna Conducted Scan** Time: 12:38:18
Equipment: **Pulse Rate Monitor** Sequence#: 13
Manufacturer: Masimo Corp Tested By: Sep Apahidean
Model: RAD-87
S/N: 804173

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Spectrum Analyzer	US44300438	01/03/2007	01/03/2009	02672
Attenuator, 20 dB Pad	01432	09/13/2007	09/13/2009	P01392

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Pulse Rate Monitor*	Masimo Corp	RAD-87	804173

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	IBM	ThinkPAD 2366	99-TGPV9

Test Conditions / Notes:

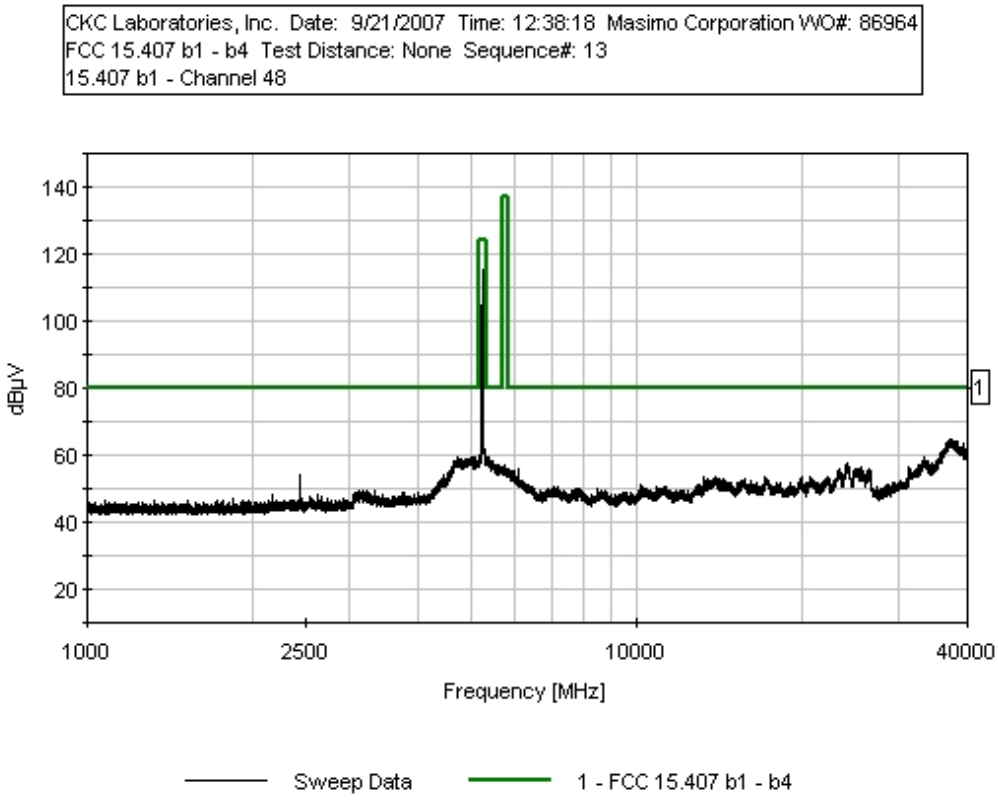
The EUT is on the table, and all the probes and cables are connected to the unit. Measurements are made by direct connect. The Serial cable is connected to the laptop computer, which is used to change the TX characteristics. 802.11A, 1 RBW MHz, VBW 3MHz CH 48. Frequency range tested: 9 kHz – 40 GHz. The 32db offset is 20 db for the attenuator and 2 db for the antenna gain.

Transducer Legend:

T1=HP 20dB Pad	T2=Antenna Gain

Measurement Data: Reading listed by margin. Test Distance: None

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	dB	dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	5238.270M	93.1	+20.0	+2.0			+0.0	115.1	123.9	-8.8	None
2	5350.860M	36.3	+20.0	+2.0			+0.0	58.3	80.0	-21.7	None
3	5149.955M	34.3	+20.0	+2.0			+0.0	56.3	80.0	-23.7	None
4	5251.660M	67.3	+20.0	+2.0			+0.0	89.3	123.9	-34.6	None


CKC Laboratories, Inc. Date: 9/21/2007 Time: 12:38:18 Masimo Corporation WO#: 86964
FCC 15.407 b1 - b4 Test Distance: None Sequence#: 13
15.407 b1 - Channel 48
140
120
100
80
60
40
20
dBµV
1
1000
2500
10000
40000
Frequency [MHz]
Sweep Data
1 - FCC 15.407 b1 - b4

Test Location: CKC Laboratories, Inc. •110 N Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **Masimo Corporation**
Specification: **FCC 15.407 b1 - b4**
Work Order #: **86964** Date: 9/21/2007
Test Type: **Antenna Conducted Scan** Time: 12:53:02
Equipment: **Pulse Rate Monitor** Sequence#: 14
Manufacturer: Masimo Corp Tested By: Sep Apahidean
Model: RAD-87
S/N: 804173

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Spectrum Analyzer	US44300438	01/03/2007	01/03/2009	02672
Attenuator, 20 dB Pad	01432	09/13/2007	09/13/2009	P01392

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Pulse Rate Monitor*	Masimo Corp	RAD-87	804173

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	IBM	ThinkPAD 2366	99-TGPV9

Test Conditions / Notes:

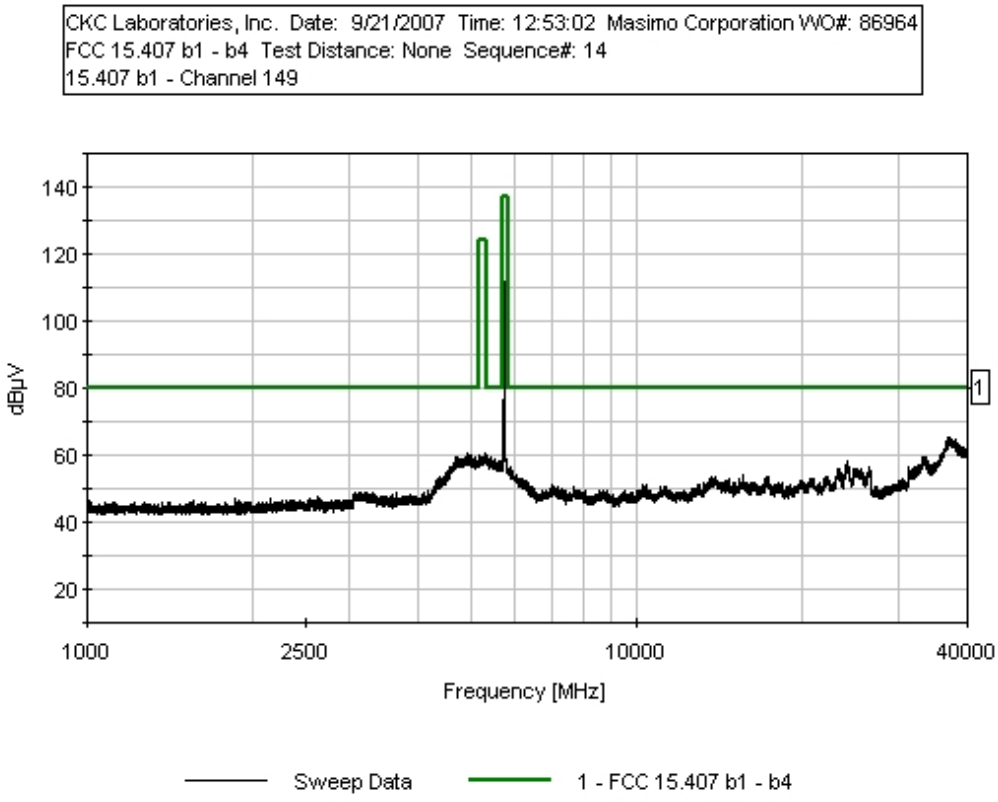
The EUT is on the table, and all the probes and cables are connected to the unit. Measurements are made by direct connect. The Serial cable is connected to the laptop computer, which is used to change the TX characteristics. 802.11A, 1 RBW MHz, VBW 3MHz CH 149. Frequency range tested: 9 kHz – 40 GHz. The 32db offset is 20 db for the attenuator and 2 db for the antenna gain.

Transducer Legend:

T1=HP 20dB Pad	T2=Antenna Gain

Measurement Data: Reading listed by margin. Test Distance: None

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	dB	dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	37253.430M	43.5	+20.0	+2.0			+0.0	65.5	80.0	-14.5	None
2	5725.000M	47.1	+20.0	+2.0			+0.0	69.1	90.0	-20.9	None
3	5715.000M	36.3	+20.0	+2.0			+0.0	58.3	80.0	-21.7	None
4	5835.000M	32.9	+20.0	+2.0			+0.0	54.9	80.0	-25.1	None
5	5720.017M	37.5	+20.0	+2.0			+0.0	59.5	90.0	-30.5	None
6	5825.000M	33.1	+20.0	+2.0			+0.0	55.1	90.0	-34.9	None


CKC Laboratories, Inc. Date: 9/21/2007 Time: 12:53:02 Masimo Corporation WO#: 86964
FCC 15.407 b1 - b4 Test Distance: None Sequence#: 14
15.407 b1 - Channel 149
140
120
100
80
60
40
20
dBµV
1
1000
2500
10000
40000
Frequency [MHz]
Sweep Data
1 - FCC 15.407 b1 - b4

Test Location: CKC Laboratories, Inc. •110 N Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **Masimo Corporation**
Specification: **FCC 15.407 b1 - b4**
Work Order #: **86964** Date: 9/23/2007
Test Type: **Antenna Conducted Scan** Time: 12:15:24
Equipment: **Pulse Rate Monitor** Sequence#: 15
Manufacturer: Masimo Corp Tested By: Sep Apahidean
Model: RAD-87
S/N: 804173

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Spectrum Analyzer	US44300438	01/03/2007	01/03/2009	02672
Attenuator, 20 dB Pad	01432	09/13/2007	09/13/2009	P01392

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Pulse Rate Monitor*	Masimo Corp	RAD-87	804173

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	IBM	ThinkPAD 2366	99-TGPV9

Test Conditions / Notes:

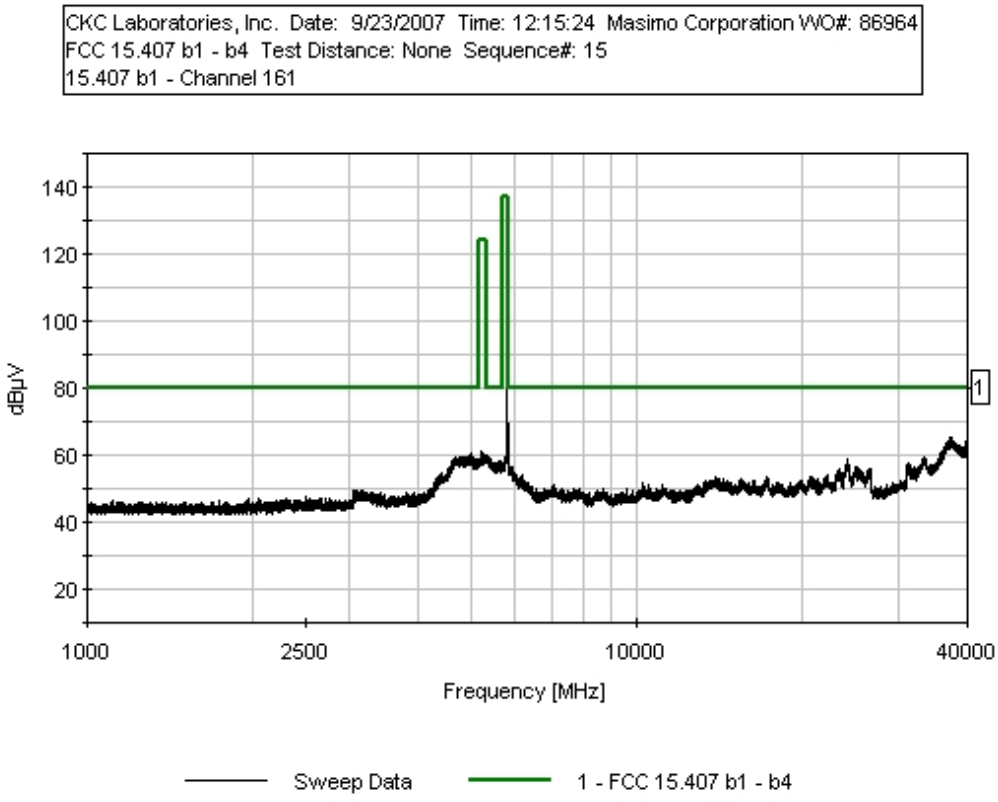
The EUT is on the table, and all the probes and cables are connected to the unit. Measurements are made by direct connect. The Serial cable is connected to the laptop computer, which is used to change the TX characteristics. 802.11A, 1 RBW MHz, VBW 3MHz CH 161. Frequency range tested: 9 kHz – 40 GHz. The 32db offset is 20 db for the attenuator and 2 db for the antenna gain.

Transducer Legend:

T1=HP 20dB Pad	T2=Antenna Gain

Measurement Data: Reading listed by margin. Test Distance: None

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	dB	dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	37427.370M	43.4	+20.0	+2.0			+0.0	65.4	80.0	-14.6	None
2	5825.000M	45.5	+20.0	+2.0			+0.0	67.5	90.0	-22.5	None
3	5715.000M	34.4	+20.0	+2.0			+0.0	56.4	80.0	-23.6	None
4	5835.000M	33.9	+20.0	+2.0			+0.0	55.9	80.0	-24.1	None
5	5800.300M	89.6	+20.0	+2.0			+0.0	111.6	137.0	-25.4	None
6	5725.000M	34.3	+20.0	+2.0			+0.0	56.3	90.0	-33.7	None


CKC Laboratories, Inc. Date: 9/23/2007 Time: 12:15:24 Masimo Corporation WO#: 86964
FCC 15.407 b1 - b4 Test Distance: None Sequence#: 15
15.407 b1 - Channel 161
140
120
100
80
60
40
20
dBµV
1
1000
2500
10000
40000
Frequency [MHz]
Sweep Data
1 - FCC 15.407 b1 - b4

Test Location: CKC Laboratories, Inc. •110 N Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **Masimo Corporation**
Specification: **FCC 15.407 b1 - b4**
Work Order #: **86964** Date: 9/23/2007
Test Type: **Antenna Conducted Scan** Time: 12:23:44
Equipment: **Pulse Rate Monitor** Sequence#: 16
Manufacturer: Masimo Corp Tested By: Sep Apahidean
Model: RAD-87
S/N: 804173

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Spectrum Analyzer	US44300438	01/03/2007	01/03/2009	02672
Attenuator, 20 dB Pad	01432	09/13/2007	09/13/2009	P01392

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Pulse Rate Monitor*	Masimo Corp	RAD-87	804173

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	IBM	ThinkPAD 2366	99-TGPV9

Test Conditions / Notes:

The EUT is on the table, and all the probes and cables are connected to the unit. Measurements are made by direct connect. The Serial cable is connected to the laptop computer, which is used to change the TX characteristics. 802.11A, 1 RBW MHz, VBW 3MHz CH 157. Frequency range tested: 9 kHz – 40 GHz. The 32db offset is 20 db for the attenuator and 2 db for the antenna gain.

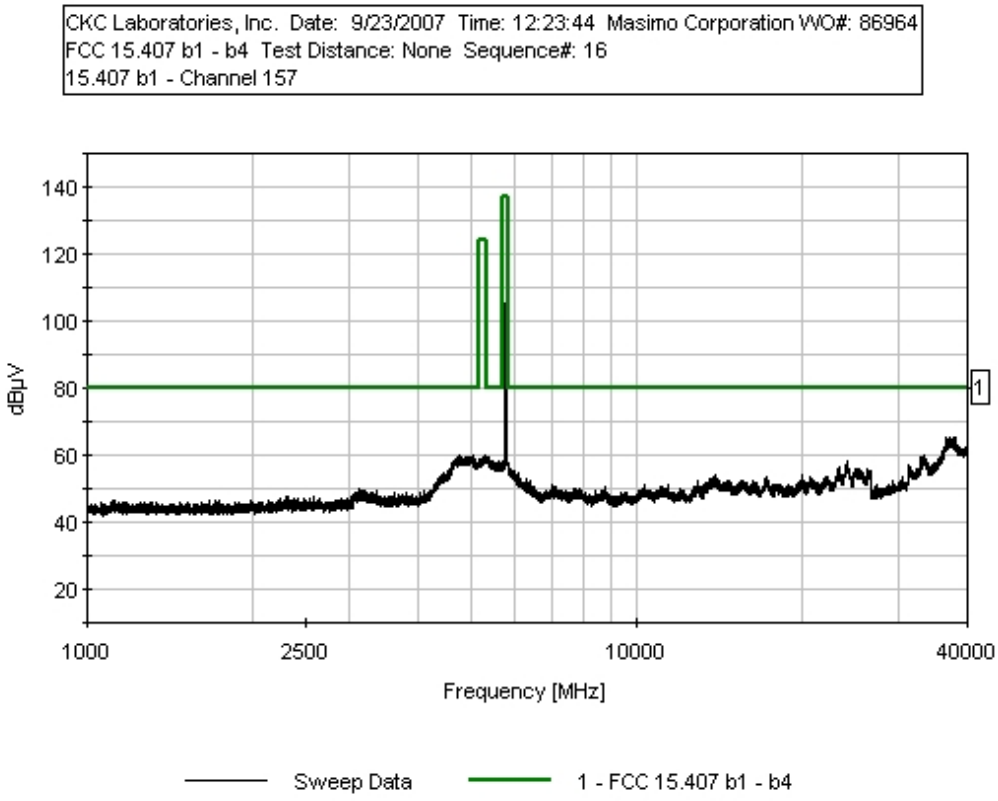
Transducer Legend:

T1=HP 20dB Pad	T2=Antenna Gain

Measurement Data: Reading listed by margin. Test Distance: None

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	dB	dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	38126.290M	43.3	+20.0	+2.0			+0.0	65.3	80.0	-14.7	None
2	4774.631M	38.1	+20.0	+2.0			+0.0	60.1	80.0	-19.9	None
3	5049.132M	37.9	+20.0	+2.0			+0.0	59.9	80.0	-20.1	None
4	33225.000M	37.8	+20.0	+2.0			+0.0	59.8	80.0	-20.2	None
5	4707.680M	37.7	+20.0	+2.0			+0.0	59.7	80.0	-20.3	None
6	4945.357M	37.7	+20.0	+2.0			+0.0	59.7	80.0	-20.3	None
7	5835.000M	36.4	+20.0	+2.0			+0.0	58.4	80.0	-21.6	None
8	5715.000M	34.3	+20.0	+2.0			+0.0	56.3	80.0	-23.7	None

9	5778.550M	90.0	+20.0	+2.0		+0.0	112.0	137.0	-25.0	None
10	5725.000M	35.2	+20.0	+2.0		+0.0	57.2	90.0	-32.8	None
11	5825.000M	34.6	+20.0	+2.0		+0.0	56.6	90.0	-33.4	None



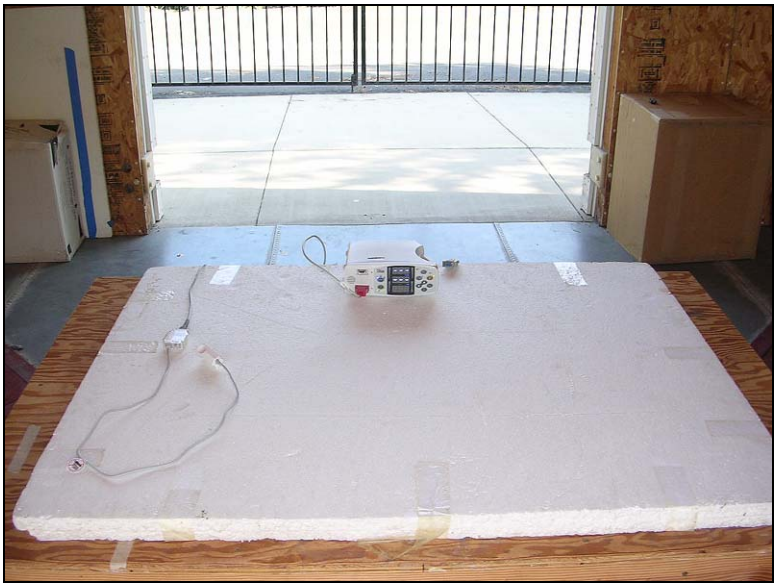
FCC 15.407(b) OATS UNDESIRABLE EMISSION LIMITS

Test Setup Photos

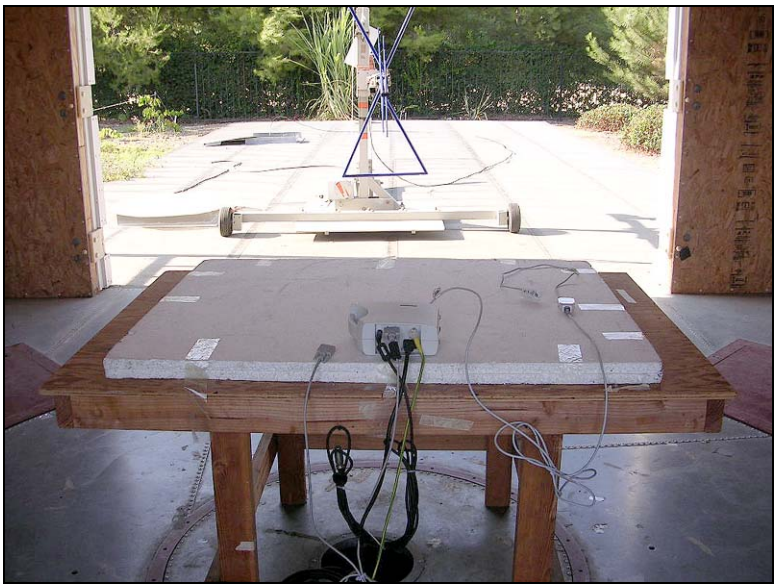
Low Frequency

Mid

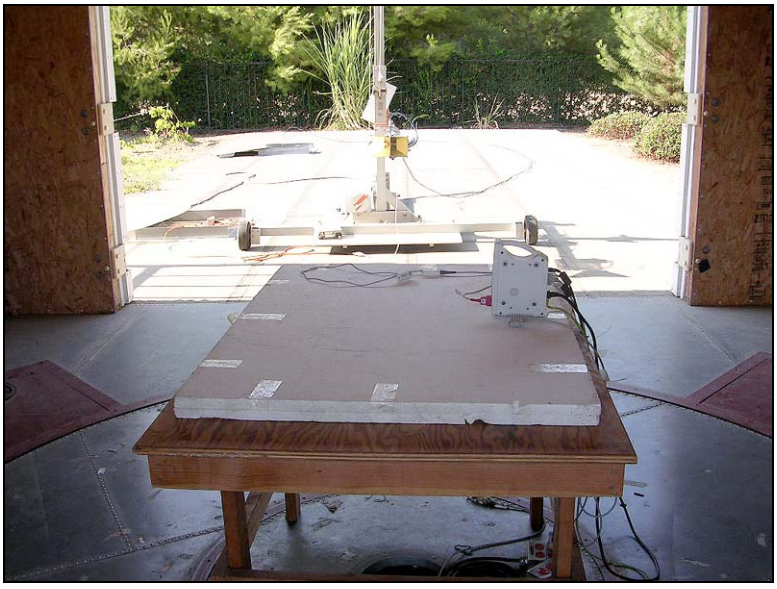
Mid



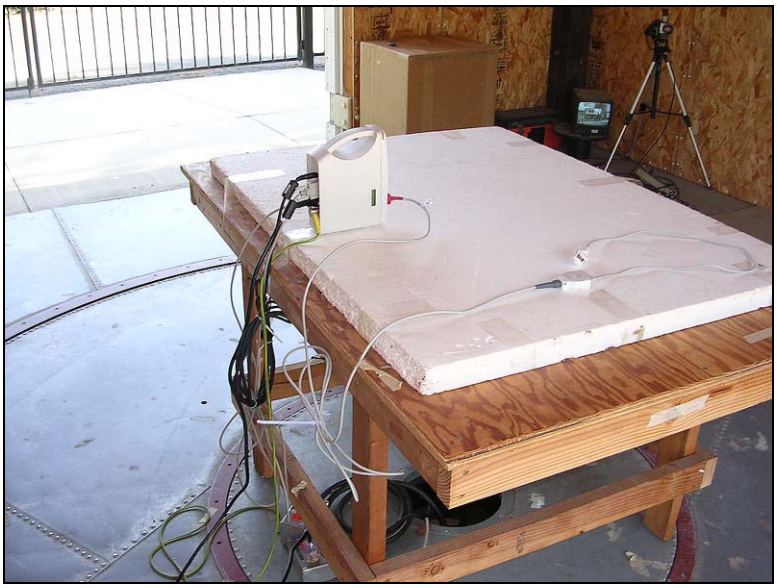
Mid Horizontal



Mid Horizontal



Hi Frequency



Test Data Sheets

Test Location: CKC Laboratories, Inc. •110 N Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **Masimo Corporation**
Specification: **FCC 15.407 5.2Ghz**
Work Order #: **86964** Date: 9/25/2007
Test Type: **Radiated Scan** Time: 14:21:01
Equipment: **Pulse Rate Monitor** Sequence#: 22
Manufacturer: Masimo Corp Tested By: Sep Apahidean
Model: RAD-87
S/N: 804173

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Spectrum Analyzer	US44300438	1/4/2007	1/4/2009	02672
Antenna cable	12237/4A	11/28/2005	11/28/2007	P5421
Horn Antenna	9603-4683	6/29/2006	6/29/2008	01646
Amplifier	3123A00282	6/5/2007	6/5/2009	00787
Cable, 84' Heliax	00A1467847#17	9/19/2006	9/19/2008	P04382
Cable	NA	9/18/2006	9/18/2008	P05563

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Pulse Rate Monitor*	Masimo Corp	RAD-87	804173

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	IBM	ThinkPAD 2366	99-TGPV9

Test Conditions / Notes:

The EUT is on the table, and all the probes and cables are connected to the unit. The Serial cable is connected to the laptop computer, which is used to change the TX characteristics. 802.11A, 1 RBW MHz, VBW 1MHz Low CH 36. Frequency range tested: 9 kHz – 40 GHz.

Transducer Legend:

T1=Cable_#P5421_112807	T2=Preamplifier 83017A 00787
T3=Horn 01646_062908	T4=48' Heliax Cable 091808 P05563
T5=84' Heliax Cable P04382	

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV	dBµV	dB	Ant
1	11999.660M	26.4	+2.9 +15.3	-39.4	+39.1	+8.6	+0.0	52.9	54.0	-1.1	Vert
2	10000.000M	28.1	+2.7 +13.8	-39.5	+38.0	+7.5	+0.0	50.6	54.0	-3.4	Vert
3	5351.276M	36.9	+2.1 +8.9	-39.4	+34.0	+5.1	+0.0	47.6	54.0	-6.4	Vert
4	5149.550M	36.3	+2.0 +8.7	-39.4	+33.7	+5.0	+0.0	46.3	54.0	-7.7	Vert
5	4667.713M	35.5	+1.9 +8.3	-39.4	+32.8	+4.7	+0.0	43.8	54.0	-10.2	Vert
6	1014.979M	47.0	+0.9 +3.4	-40.5	+24.7	+2.1	+0.0	37.6	54.0	-16.4	Vert
7	5349.865M	36.5	+2.1 +8.9	-39.4	+34.0	+5.1	+0.0	47.2	94.0	-46.8	Vert
8	5150.121M	36.2	+2.0 +8.7	-39.4	+33.7	+5.0	+0.0	46.2	94.0	-47.8	Vert

Test Location: CKC Laboratories, Inc. •110 N Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **Masimo Corporation**
Specification: **FCC 15.407 5.2Ghz**
Work Order #: **86964** Date: 9/25/2007
Test Type: **Radiated Scan** Time: 14:15:39
Equipment: **Pulse Rate Monitor** Sequence#: 21
Manufacturer: Masimo Corp Tested By: Sep Apahidean
Model: RAD-87
S/N: 804173

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Spectrum Analyzer	US44300438	1/4/2007	1/4/2009	02672
Antenna cable	12237/4A	11/28/2005	11/28/2007	P5421
Horn Antenna	9603-4683	6/29/2006	6/29/2008	01646
Amplifier	3123A00282	6/5/2007	6/5/2009	00787
Cable, 84' Heliax	00A1467847#17	9/19/2006	9/19/2008	P04382
Cable	NA	9/18/2006	9/18/2008	P05563

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Pulse Rate Monitor*	Masimo Corp	RAD-87	804173

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	IBM	ThinkPAD 2366	99-TGPV9

Test Conditions / Notes:

The EUT is on the table, and all the probes and cables are connected to the unit. The Serial cable is connected to the laptop computer, which is used to change the TX characteristics. 802.11A, 1 RBW MHz, VBW 1MHz Mid CH 44. Frequency range tested: 9 kHz – 40 GHz.

Transducer Legend:

T1=Cable_#P5421_112807	T2=Preamplifier 83017A 00787
T3=Horn 01646_062908	T4=48' Heliax Cable 091808 P05563
T5=84' Heliax Cable P04382	

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV	dBµV	dB	Ant
1	10000.100M	27.3	+2.7 +13.8	-39.5	+38.0	+7.5	+0.0	49.8	54.0	-4.2	Vert
2	5149.500M	35.8	+2.0 +8.7	-39.4	+33.7	+5.0	+0.0	45.8	54.0	-8.2	Vert
3	5351.300M	33.8	+2.1 +8.9	-39.4	+34.0	+5.1	+0.0	44.5	54.0	-9.5	Vert
4	4667.690M	32.0	+1.9 +8.3	-39.4	+32.8	+4.7	+0.0	40.3	54.0	-13.7	Vert

5	1015.000M	44.1	+0.9 +3.4	-40.5	+24.7	+2.1	+0.0	34.7	54.0	-19.3	Vert
6	5349.800M	34.5	+2.1 +8.9	-39.4	+34.0	+5.1	+0.0	45.2	94.0	-48.8	Vert
7	5150.100M	34.2	+2.0 +8.7	-39.4	+33.7	+5.0	+0.0	44.2	94.0	-49.8	Vert

Test Location: CKC Laboratories, Inc. •110 N Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **Masimo Corporation**
Specification: **FCC 15.407 5.2Ghz**
Work Order #: **86964** Date: 9/25/2007
Test Type: **Radiated Scan** Time: 14:09:15
Equipment: **Pulse Rate Monitor** Sequence#: 20
Manufacturer: Masimo Corp Tested By: Sep Apahidean
Model: RAD-87
S/N: 804173

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Spectrum Analyzer	US44300438	1/4/2007	1/4/2009	02672
Antenna cable	12237/4A	11/28/2005	11/28/2007	P5421
Horn Antenna	9603-4683	6/29/2006	6/29/2008	01646
Amplifier	3123A00282	6/5/2007	6/5/2009	00787
Cable, 84' Heliax	00A1467847#17	9/19/2006	9/19/2008	P04382
Cable	NA	9/18/2006	9/18/2008	P05563

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Pulse Rate Monitor*	Masimo Corp	RAD-87	804173

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	IBM	ThinkPAD 2366	99-TGPV9

Test Conditions / Notes:

The EUT is on the table, and all the probes and cables are connected to the unit. The Serial cable is connected to the laptop computer, which is used to change the TX characteristics. 802.11A, 1 RBW MHz, VBW 1MHz High CH 48. Frequency range tested: 9 kHz – 40 GHz.

Transducer Legend:

T1=Cable_#P5421_112807	T2=Preamplifier 83017A 00787
T3=Horn 01646_062908	T4=48' Heliax Cable 091808 P05563
T5=84' Heliax Cable P04382	

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV	dBµV	dB	Ant
1	10000.200M	27.1	+2.7 +13.8	-39.5	+38.0	+7.5	+0.0	49.6	54.0	-4.4	Vert
2	5351.400M	37.1	+2.1 +8.9	-39.4	+34.0	+5.1	+0.0	47.8	54.0	-6.2	Vert
3	5149.600M	35.5	+2.0 +8.7	-39.4	+33.7	+5.0	+0.0	45.5	54.0	-8.5	Vert
4	4677.690M	35.9	+1.9 +8.3	-39.4	+32.8	+4.7	+0.0	44.2	54.0	-9.8	Vert

5	1025.000M	44.0	+0.8 +3.4	-40.5	+24.7	+2.1	+0.0	34.5	54.0	-19.5	Vert
6	5150.200M	38.0	+2.0 +8.7	-39.4	+33.7	+5.0	+0.0	48.0	94.0	-46.0	Vert
7	5349.900M	37.0	+2.1 +8.9	-39.4	+34.0	+5.1	+0.0	47.7	94.0	-46.3	Vert

Test Location: CKC Laboratories, Inc. •110 N Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **Masimo Corporation**
Specification: **FCC 15.407 5.8Ghz**
Work Order #: **86964** Date: 9/25/2007
Test Type: **Radiated Scan** Time: 15:24:21
Equipment: **Pulse Rate Monitor** Sequence#: 23
Manufacturer: Masimo Corp Tested By: Sep Apahidean
Model: RAD-87
S/N: 804173

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Spectrum Analyzer	US44300438	1/4/2007	1/4/2009	02672
Antenna cable	12237/4A	11/28/2005	11/28/2007	P5421
Horn Antenna	9603-4683	6/29/2006	6/29/2008	01646
Amplifier	3123A00282	6/5/2007	6/5/2009	00787
Cable, 84' Heliax	00A1467847#17	9/19/2006	9/19/2008	P04382
Cable	NA	9/18/2006	9/18/2008	P05563

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Pulse Rate Monitor*	Masimo Corp	RAD-87	804173

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	IBM	ThinkPAD 2366	99-TGPV9

Test Conditions / Notes:

The EUT is on the table, and all the probes and cables are connected to the unit. The Serial cable is connected to the laptop computer, which is used to change the TX characteristics. 802.11A, 1 RBW MHz, VBW 1MHz Low CH 149. Frequency range tested: 9 kHz – 40 GHz.

Transducer Legend:

T1=Cable_#P5421_112807	T2=Preamplifier 83017A 00787
T3=Horn 01646_062908	T4=48' Heliax Cable 091808 P05563
T5=84' Heliax Cable P04382	

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV	dBµV	dB	Ant
1	9143.000M	30.8	+2.5 +13.2	-39.5	+38.0	+6.7	+0.0	51.7	54.0	-2.3	Vert
2	5825.000M	38.2	+2.2 +9.5	-39.5	+34.1	+5.5	+0.0	50.0	54.0	-4.0	Vert
3	5715.000M	35.5	+2.2 +9.3	-39.4	+34.2	+5.4	+0.0	47.2	54.0	-6.8	Vert
4	5351.177M	33.9	+2.1 +8.9	-39.4	+34.0	+5.1	+0.0	44.6	54.0	-9.4	Vert
5	5835.000M	32.7	+2.2 +9.5	-39.5	+34.1	+5.5	+0.0	44.5	54.0	-9.5	Vert

6	2489.000M	37.3	+1.4 +5.9	-39.0	+28.8	+3.2	+0.0	37.6	54.0	-16.4	Vert
7	1247.000M	41.2	+0.9 +3.9	-39.6	+24.8	+2.2	+0.0	33.4	54.0	-20.6	Vert
8	5725.000M	44.9	+2.2 +9.4	-39.4	+34.2	+5.4	+0.0	56.7	137.0	-80.3	Vert

Test Location: CKC Laboratories, Inc. •110 N Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **Masimo Corporation**
Specification: **FCC 15.407 5.8Ghz**
Work Order #: **86964** Date: 9/25/2007
Test Type: **Radiated Scan** Time: 15:38:02
Equipment: **Pulse Rate Monitor** Sequence#: 24
Manufacturer: Masimo Corp Tested By: Sep Apahidean
Model: RAD-87
S/N: 804173

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Spectrum Analyzer	US44300438	1/4/2007	1/4/2009	02672
Antenna cable	12237/4A	11/28/2005	11/28/2007	P5421
Horn Antenna	9603-4683	6/29/2006	6/29/2008	01646
Amplifier	3123A00282	6/5/2007	6/5/2009	00787
Cable, 84' Heliax	00A1467847#17	9/19/2006	9/19/2008	P04382
Cable	NA	9/18/2006	9/18/2008	P05563

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Pulse Rate Monitor*	Masimo Corp	RAD-87	804173

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	IBM	ThinkPAD 2366	99-TGPV9

Test Conditions / Notes:

The EUT is on the table, and all the probes and cables are connected to the unit. The Serial cable is connected to the laptop computer, which is used to change the TX characteristics. 802.11A, 1 RBW MHz, VBW 1MHz Mid CH 157. Frequency range tested: 9 kHz – 40 GHz.

Transducer Legend:

T1=Cable_#P5421_112807	T2=Preamplifier 83017A 00787
T3=Horn 01646_062908	T4=48' Heliax Cable 091808 P05563
T5=84' Heliax Cable P04382	

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV	dBµV	dB	Ant
1	11000.040M	28.8	+2.8 +14.8	-39.4	+38.1	+7.7	+0.0	52.8	54.0	-1.2	Vert
2	9143.037M	29.8	+2.5 +13.2	-39.5	+38.0	+6.7	+0.0	50.7	54.0	-3.3	Vert
3	5714.916M	37.0	+2.2 +9.3	-39.4	+34.2	+5.4	+0.0	48.7	54.0	-5.3	Vert
4	5835.003M	36.7	+2.2 +9.5	-39.5	+34.1	+5.5	+0.0	48.5	54.0	-5.5	Vert
5	5351.255M	36.5	+2.1 +8.9	-39.4	+34.0	+5.1	+0.0	47.2	54.0	-6.8	Vert
6	2488.900M	37.7	+1.4 +5.9	-39.0	+28.8	+3.2	+0.0	38.0	54.0	-16.0	Vert

7	1246.900M	44.6	+0.9 +3.9	-39.6	+24.8	+2.2	+0.0	36.8	54.0	-17.2	Vert
8	5824.969M	38.6	+2.2 +9.5	-39.5	+34.1	+5.5	+0.0	50.4	137.0	-86.6	Vert
9	5725.072M	36.6	+2.2 +9.4	-39.4	+34.2	+5.4	+0.0	48.4	137.0	-88.6	Vert

Test Location: CKC Laboratories, Inc. •110 N Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **Masimo Corporation**
Specification: **FCC 15.407 5.8Ghz**
Work Order #: **86964** Date: 9/25/2007
Test Type: **Radiated Scan** Time: 15:43:55
Equipment: **Pulse Rate Monitor** Sequence#: 24
Manufacturer: Masimo Corp Tested By: Sep Apahidean
Model: RAD-87
S/N: 804173

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Spectrum Analyzer	US44300438	1/4/2007	1/4/2009	02672
Antenna cable	12237/4A	11/28/2005	11/28/2007	P5421
Horn Antenna	9603-4683	6/29/2006	6/29/2008	01646
Amplifier	3123A00282	6/5/2007	6/5/2009	00787
Cable, 84' Heliax	00A1467847#17	9/19/2006	9/19/2008	P04382
Cable	NA	9/18/2006	9/18/2008	P05563

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Pulse Rate Monitor*	Masimo Corp	RAD-87	804173

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	IBM	ThinkPAD 2366	99-TGPV9

Test Conditions / Notes:

The EUT is on the table, and all the probes and cables are connected to the unit. The Serial cable is connected to the laptop computer, which is used to change the TX characteristics. 802.11A, 1 RBW MHz, VBW 1MHz High CH 161. Frequency range tested: 9 kHz – 40 GHz.

Transducer Legend:

T1=Cable_#P5421_112807	T2=Preamplifier 83017A 00787
T3=Horn 01646_062908	T4=48' Heliax Cable 091808 P05563
T5=84' Heliax Cable P04382	

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV	dBµV	dB	Ant
1	11000.000M	28.3	+2.8 +14.8	-39.4	+38.1	+7.7	+0.0	52.3	54.0	-1.7	Vert
2	9143.005M	30.0	+2.5 +13.2	-39.5	+38.0	+6.7	+0.0	50.9	54.0	-3.1	Vert
3	5714.875M	37.2	+2.2 +9.3	-39.4	+34.2	+5.4	+0.0	48.9	54.0	-5.1	Vert
4	5835.054M	36.7	+2.2 +9.5	-39.5	+34.1	+5.5	+0.0	48.5	54.0	-5.5	Vert
5	5351.335M	36.0	+2.1 +8.9	-39.4	+34.0	+5.1	+0.0	46.7	54.0	-7.3	Vert
6	2488.869M	40.3	+1.4 +5.9	-39.0	+28.8	+3.2	+0.0	40.6	54.0	-13.4	Vert

7	1246.930M	47.5	+0.9 +3.9	-39.6	+24.8	+2.2	+0.0	39.7	54.0	-14.3	Vert
8	5824.927M	41.2	+2.2 +9.5	-39.5	+34.1	+5.5	+0.0	53.0	137.0	-84.0	Vert
9	5725.145M	36.7	+2.2 +9.4	-39.4	+34.2	+5.4	+0.0	48.5	137.0	-88.5	Vert

FCC 15.407(g) FREQUENCY STABILITY

Test Equipment

Function	S/N	Calibration Date	Cal Due Date	Asset #
Spectrum Analyzer	US44300438	01/03/2007	01/03/2009	02672
Cable Big Blue	12237/4A	11/28/2005	11/28/2007	P05421

Test Setup Photos

Test Conditions: The system was placed on Channel 36 and on Channel 161. The temperature was varied from 5°C to 40°C. The TX center frequency did not shift by more then 20kHz . The unit was left to stabilize for two hours at each temperature range.