



**ADDENDUM TO POWERWAVE TECHNOLOGIES, INC.  
TEST REPORT FC08-072**

**FOR THE**

**NEXUS FT RACKMOUNT, RH305022/03A**

**FCC PART 90**

**TESTING**

**DATE OF ISSUE: NOVEMBER 21, 2008**

**DRAFT**

**PREPARED FOR:**

Powerwave Technologies, Inc.  
1801 E. St. Andrew Place  
Santa Ana, CA 92705

P.O. No.: 120968  
W.O. No.: 88274

**PREPARED BY:**

Mary Ellen Clayton  
CKC Laboratories, Inc.  
5046 Sierra Pines Drive  
Mariposa, CA 95338

Date of test: June 20 - July 3, 2008

**Report No.: FC08-072A**

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## TABLE OF CONTENTS

Administrative Information .....	3
Approvals .....	3
Summary of Results .....	4
Conditions During Testing .....	4
Equipment Under Test (EUT) Description .....	5
Equipment Under Test .....	5
Peripheral Devices .....	5
Temperature and Humidity During Testing .....	6
FCC 2.1033(c)(3) User's Manual .....	6
FCC 2.1033(c)(4) Type of Emissions .....	6
FCC 2.1033(c)(5) Frequency Range .....	6
FCC 2.1033(c)(6) Operating Power .....	6
FCC 2.1033(c)(8) DC Voltages .....	6
FCC 2.1033(c)(9) Tune-Up Procedure .....	6
FCC 2.1033(c)(10) Schematics and Circuitry Description .....	6
FCC 2.1033(c)(11) Label and Placement .....	6
FCC 2.1033(c)(12) Submittal Photos .....	6
FCC 2.1033(c)(13) Modulation Information .....	6
FCC 2.1033(c)(14)/2.1046/90.635(a) RF Power Output .....	7
FCC 2.1033(c)(14)/2.1049(i) – Input and Output Plots .....	9
FCC 2.1033(c)(14)/2.1051/90.210 - Spurious Emissions at Antenna Terminal .....	13
FCC 2.1033(c)(14)/2.1053/90.210 - Field Strength of Spurious Radiation .....	17
FCC 90.210 Block Edge Plots .....	22
Out of Band Rejections .....	25



**ADMINISTRATIVE INFORMATION**

**DATE OF TEST:** June 20 - July 3, 2008

**DATE OF RECEIPT:** June 20, 2008

**REPRESENTATIVE:** Sean Doan

**MANUFACTURER:**  
Powerwave Technologies, Inc.  
1801 E. St. Andrew Place  
Santa Ana, CA 92705

**TEST LOCATION:**  
CKC Laboratories, Inc.  
110 Olinda Place  
Brea, CA 92823

**FREQUENCY RANGE TESTED:** 9 kHz-10 GHz

**TEST METHOD:** FCC Part 90

**PURPOSE OF TEST:**

**Original Report:** To perform the testing of the Nexus FT Rackmount, RH305022/03A with the requirements for FCC Part 90 devices.

**Addendum A:** To correct the test equipment lists on pages 13, 15 and 22.

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**APPROVALS**

Steve Behm, Director of Engineering Services

**QUALITY ASSURANCE:**

Steve Behm, Director of Engineering Services

**TEST PERSONNEL:**

Stuart Yamamoto, Senior EMC Engineer

**SUMMARY OF RESULTS**

<b>Test</b>	<b>Specification</b>	<b>Results</b>
RF Output Power	FCC 2.1033(c)(14)/2.1046/90.635(a)	Pass
Input and Output Plots	FCC 2.1033(c)(14)/2.1049(i)	Pass
Spurious Emissions at Antenna Terminal	FCC 2.1033(c)(14)/2.1051/90.210(g)	Pass
Spurious Emissions at Antenna Terminal	FCC 2.1033(c)(14)/2.1051/90.210(h)	Pass
Field Strength of Spurious Radiation	FCC 2.1033(c)(14)/2.1053/90.210(g)	Pass
Field Strength of Spurious Radiation	FCC 2.1033(c)(14)/2.1053/90.210(h)	Pass
Block Edge	FCC 90.210(g)	Pass
Block Edge	FCC90.210(h)	Pass
Out of Band Rejection		Pass

**CONDITIONS DURING TESTING**

No modifications to the EUT were necessary during testing.

## EQUIPMENT UNDER TEST (EUT) DESCRIPTION

The customer declares the EUT tested by CKC Laboratories was representative of a production unit.

The following model was tested by CKC Laboratories: **Dual Band Transceiver, RH305022/03A**

Since the time of testing the manufacturer has chosen to use the following model name in its place. Any differences between the names does not affect their EMC characteristics and therefore meets the level of testing equivalent to the tested model name shown on the data sheets: **Nexus FT Rackmount, RH305022/03A**

## EQUIPMENT UNDER TEST

### Dual Band Transceiver

Manuf: Powerwave Technologies, Inc.  
Model: RH305022/03A  
Serial: 2A.56182  
FCC ID: pending

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## PERIPHERAL DEVICES

The EUT was tested with the following peripheral device(s):

### Signal Generator

Manuf: Agilent  
Model: E4433B  
Serial: US40051840

### Power Sensor

Manuf: Agilent  
Model: E9301A  
Serial: US39212029

### Power Meter

Manuf: Agilent  
Model: E4419B  
Serial: GB40201912

### Spectrum Analyzer

Manuf: HP  
Model: 8563E  
Serial: 007142

**TEMPERATURE AND HUMIDITY DURING TESTING**

The temperature during testing was within +15°C and + 35°C.  
The relative humidity was between 20% and 75%.

**FCC 2.1033(c)(3) USER’S MANUAL**

The necessary information is contained in a separate document.

**FCC 2.1033 (c)(4) TYPE OF EMISSIONS**

D7W

**FCC 2.1033 (c)(5) FREQUENCY RANGE**

852MHz to 868MHz

**FCC 2.1033 (c)(6) OPERATING POWER**

20 Watts

**FCC 2.1033 (c)(8) DC VOLTAGES**

The necessary information is contained in a separate document.

**FCC 2.1033 (c)(9) TUNE-UP PROCEDURE**

The necessary information is contained in a separate document.

**FCC 2.1033(c)(10) SCHEMATICS AND CIRCUITRY DESCRIPTION**

The necessary information is contained in a separate document.

**FCC 2.1033(c)(11) LABEL AND PLACEMENT**

The necessary information is contained in a separate document.

**FCC 2.1033(c)(12) SUBMITTAL PHOTOS**

The necessary information is contained in a separate document.

**FCC 2.1033 (c)(13) MODULATION INFORMATION**

iDEN

**FCC 2.1033(c)(14)/2.1046/90.635(a) - RF POWER OUTPUT**

**Test Equipment**

Equipment	Asset #	Manufacturer	Model	Serial #	Cal Date	Cal Due
RF Power meter	02778	HP	EPM-441A	GB37170458	020508	021510
Power Sensor	02777	HP	E4412A	MY41499662	020508	021510

**Test Setup Photos**



**Test Data**

The equipment under test (EUT) is a dual band transceiver. The manufacture does not provide an antenna for sale with this product. The end user of this product is to exercise proper engineering judgment to select the appropriate antenna to comply with the ERP limitation set forth by FCC 90.635(a)

The equipment under test (EUT) is placed on the table top adjacent to the power measuring device. The EUT Donor 2 In port is connected to a remotely located signal generator which is providing the iDen modulated signal. The EUT Service 2 port is connected to a power meter through a high power attenuator. Temperature: 22°C, Humidity: 46%, Pressure: 100kPa. Voltage to the EUT is 120Vac 60Hz.

The RF output power of the EUT was measured at the Service 2 port. The measured conducted output power meets the rated output power of this device.

Part 90.635(a)

Frequency (MHz)	Modulation	Power (dBm)	Power (Watts)
852	iDen	+43	20
860	iDen	+43	20
868	iDen	+43	20

Sec. 90.635 Limitations on power and antenna height.

(a) The effective radiated power and antenna height for base stations may not exceed 1 kilowatt (30 dBw) and 304 m. (1,000 ft.) above average terrain (AAT), respectively, or the equivalent thereof as determined from the Table. These are maximum values, and applicants will be required to justify power levels and antenna heights requested.

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**FCC 2.1033(c)(14)/2.1049(i) - INPUT AND OUTPUT PLOTS**

**Test Equipment**

Equipment	Asset #	Manufacturer	Model	Serial #	Cal Date	Cal Due
Spectrum Analyzer	02869	Agilent	E4440A	MY46186290	021207	021209
Coaxial Cable	P02945	Astrolab	32022-2-2909K-36TC	(none)	091807	091809

**Test Conditions**

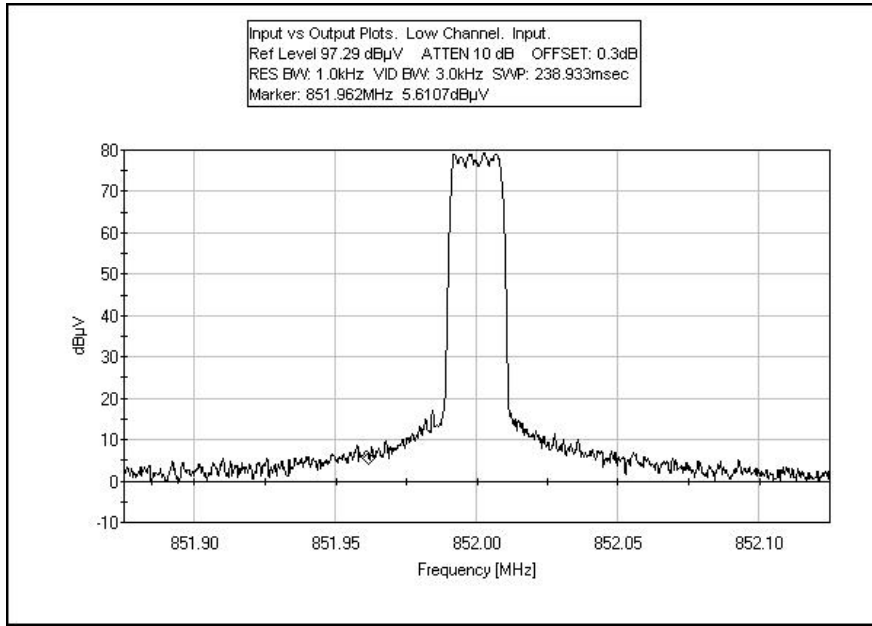
The equipment under test (EUT) is a dual band transceiver. The EUT is stand alone on the test table top. For the input plot, the output of the signal generator is fed to the input of the spectrum analyzer and a plot is made of the signal signature. For the output plot, the EUT Service 2 port is connected to the spectrum analyzer through high power attenuators and a plot is made of the signal signature. This test is performed with the signal source set to the low, middle, and high channels and using iDen modulation. The frequency range of this test is 852Hz to 868MHz. Temperature: 22°C, Humidity: 40%, Pressure: 100kPa. The measurement bandwidth are RBW=1kHz, VBW=3kHz. Voltage to the EUT is 120Vac 60Hz. The EUT range of operation is 851MHz to 869MHz.

**Test Setup Photos**

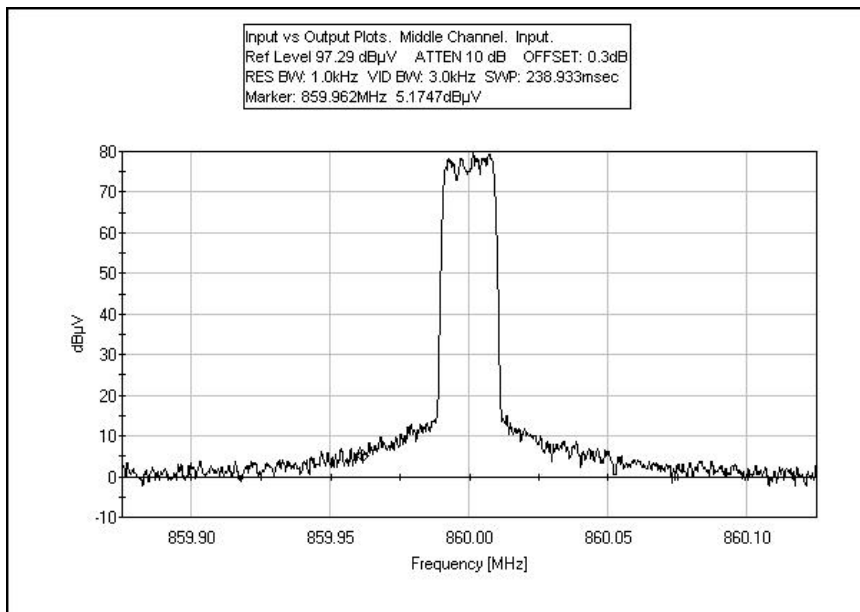


## Test Plots

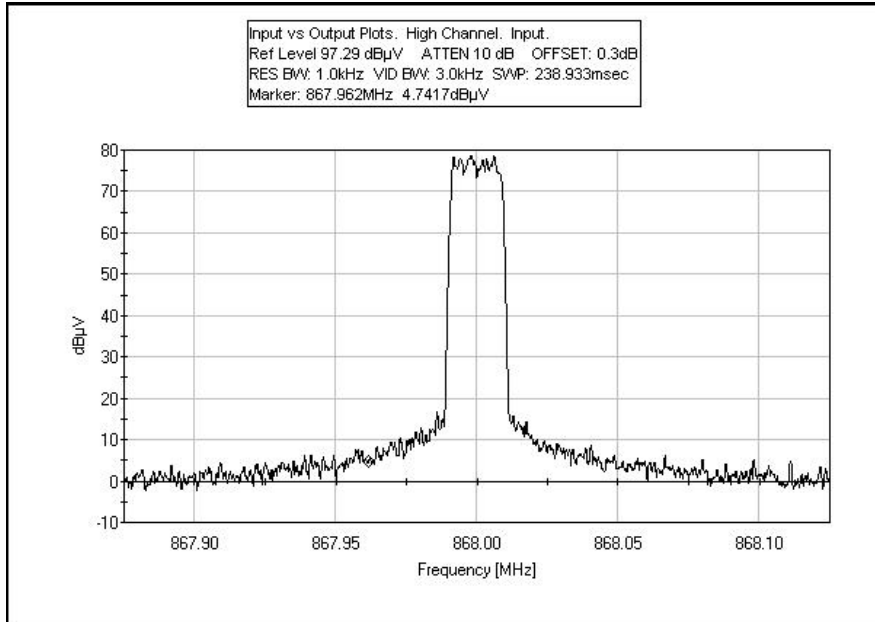
### INPUT PLOT LOW CHANNEL



### INPUT PLOT MIDDLE CHANNEL

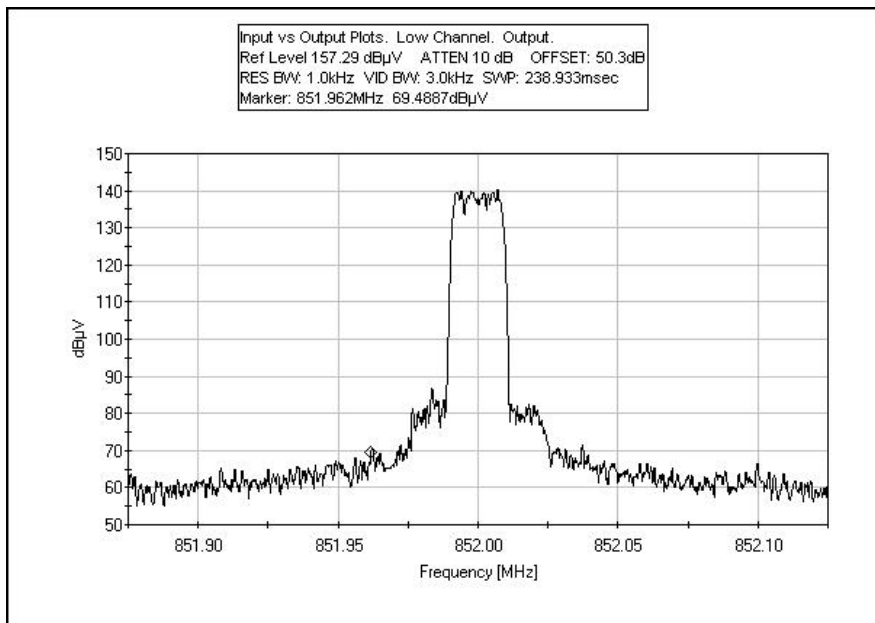


### INPUT PLOT HIGH CHANNEL

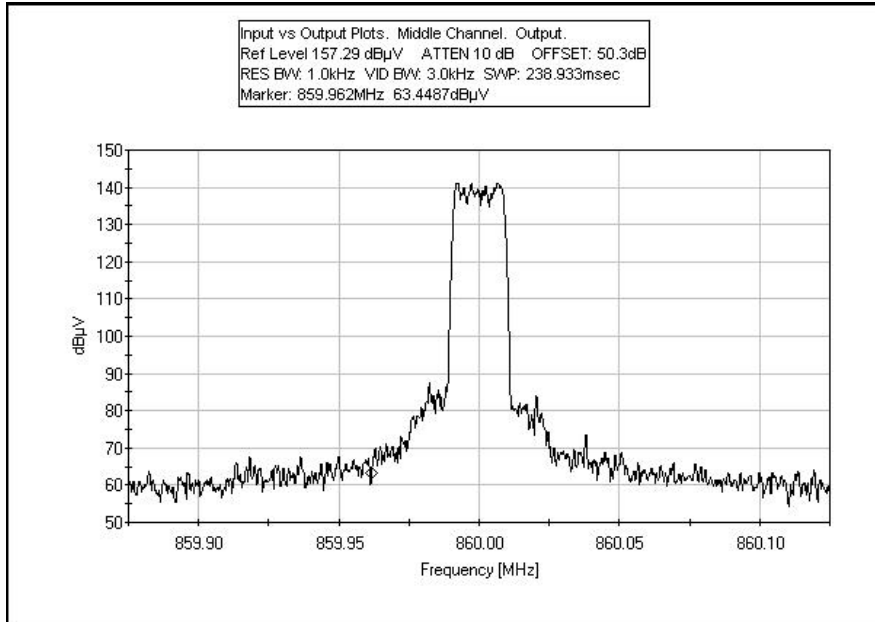


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### OUTPUT PLOT LOW CHANNEL

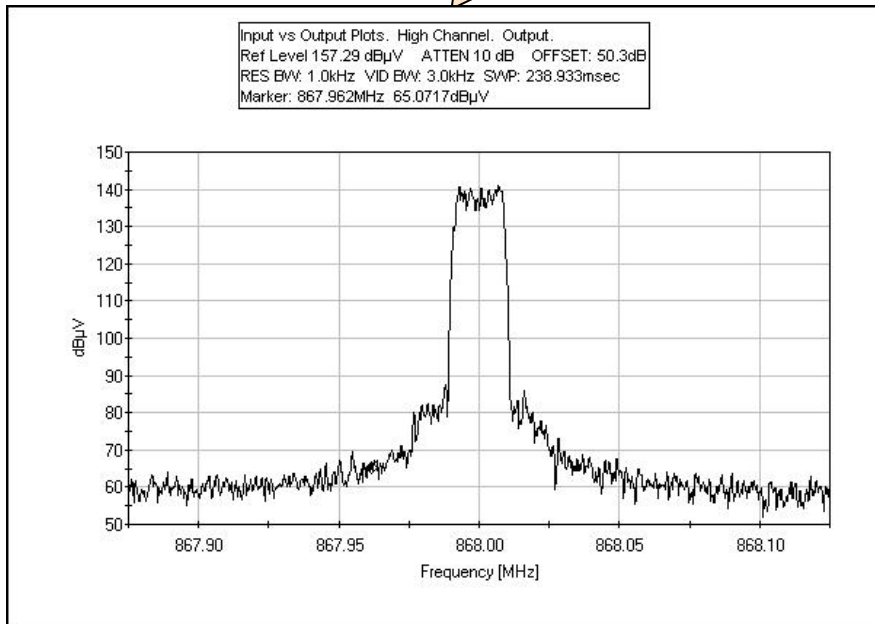


### OUTPUT PLOT MIDDLE CHANNEL



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### OUTPUT PLOT HIGH CHANNEL



**FCC 2.1033(c)(14)/2.1051/90.201 - SPURIOUS EMISSIONS AT ANTENNA TERMINAL**

**Test Setup Photos**



**Test Data Sheets**

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

Customer: **Powerwave Technologies, Inc.**

Specification: **FCC 90.210(g) (2007) Conducted Spurious Emission**

Work Order #: **88274** Date: 6/20/2008

Test Type: **Conducted Emissions** Time: 15:59:59

Equipment: **Dual Band Transceiver** Sequence#: 2

Manufacturer: Powerwave Technologies, Inc. Tested By: Stuart Yamamoto

Model: RH305022/03A 120Vac 60Hz

S/N: 2A.56182

**Test Equipment:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Coaxial Cable		09/18/2007	09/18/2009	02945
Spectrum Analyzer	US44300438	01/03/2007	01/03/2009	02672
1.0 GHz HPF	1	01/11/2008	01/11/2010	02749
Attenuator	9732	NCR	NCR	P01578

NCR = No Cal Required

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

Function	Manufacturer	Model #	S/N
Dual Band Transceiver*	Powerwave Technologies, Inc.	RH305022/03A	2A.56182

**Support Devices:**

Function	Manufacturer	Model #	S/N
Signal Generator	Agilent	E4433B	US40051840
Power Sensor	Agilent	E9301A	US39212029
Power Meter	Agilent	E4419B	GB40201912
Spectrum Analyzer	HP	8563E	007142

**Test Conditions / Notes:**

The equipment under test (EUT) is a dual band transceiver. The EUT is stand alone on the test table top. Connected to the EUT's Donor 2 In port is a remotely located signal generator. The EUT's Service 2 port is connected to a spectrum analyzer through a high power attenuator. The test is performed with the EUT set to these low, middle, and high channels and using iDen modulation. The frequency range of this test is 9kHz to 10GHz. Temperature: 22°C, Humidity: 40%, Pressure: 100kPa. The measurement bandwidth is 1MHz for frequencies above 1GHz and 100kHz for frequencies below 1GHz. Voltage to the EUT is 120Vac 60Hz. The EUT range of operation is 851MHz to 869MHz. This datasheet represent the EUT transmitting at 852MHz, 860MHz, and 868MHz at its maximum rated output power. The correction factor was input into the spectrum analyzer.

**Transducer Legend:**

T1=Hi Freq_40GHz_3ft_CAB-ANP02945-091809	T2=K&L 1GHz HPF AN02749_011110
--	--------------------------------

**Measurement Data:**

Reading listed by margin.

Test Lead: Service 2

#	Freq MHz	Rdng dB $\mu$ V	T1 dB	T2 dB	Margin dB		Dist Table	Corr dB $\mu$ V	Spec dB $\mu$ V	Margin dB	Polar Ant
1	1719.983M	71.5	+0.4	+0.4			+0.0	72.3	94.0	-21.7	Servi
2	2580.263M	70.8	+0.5	+0.7			+0.0	72.0	94.0	-22.0	Servi
3	1736.180M	70.9	+0.4	+0.4			+0.0	71.7	94.0	-22.3	Servi
4	1703.889M	69.5	+0.4	+0.4			+0.0	70.3	94.0	-23.7	Servi
5	2603.867M	67.2	+0.5	+0.7			+0.0	68.4	94.0	-25.6	Servi
6	2556.222M	67.2	+0.5	+0.7			+0.0	68.4	94.0	-25.6	Servi



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

Customer: **Powerwave Technologies, Inc.**  
 Specification: **FCC 90.210(h) (2007) Conducted Spurious Emission**  
 Work Order #: **88274** Date: 6/20/2008  
 Test Type: **Conducted Emissions** Time: 15:59:59  
 Equipment: **Dual Band Transceiver** Sequence#: 2  
 Manufacturer: Powerwave Technologies, Inc. Tested By: Stuart Yamamoto  
 Model: RH305022/03A 120Vac 60Hz  
 S/N: 2A.56182

**Test Equipment:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Coaxial Cable		09/18/2007	09/18/2009	02945
Spectrum Analyzer	US44300438	01/03/2007	01/03/2009	02672
1.0 GHz HPF	1	01/11/2008	01/11/2010	02749
Attenuator	9732	NCR	NCR	P01578

NCR = No Cal Required

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

Function	Manufacturer	Model #	S/N
Dual Band Transceiver*	Powerwave Technologies, Inc.	RH305022/03A	2A.56182

**Support Devices:**

Function	Manufacturer	Model #	S/N
Signal Generator	Agilent	E4413B	US40051840
Power Sensor	Agilent	E9301A	US39212029
Power Meter	Agilent	E4419B	GB40201912
Spectrum Analyzer	HP	8563E	007142

**Test Conditions / Notes:**

The equipment under test (EUT) is a dual band transceiver. The EUT is stand alone on the test table top. Connected to the EUT's Donor 2 In port is a remotely located signal generator. The EUT's Service 2 port is connected to a spectrum analyzer through a high power attenuator. The test is performed with the EUT set to these low, middle, and high channels and using iDen modulation. The frequency range of this test is 9kHz to 10GHz. Temperature: 22°C, Humidity: 40%, Pressure: 100kPa. The measurement bandwidth is 1MHz for frequencies above 1GHz and 100kHz for frequencies below 1GHz. Voltage to the EUT is 120Vac 60Hz. The EUT range of operation is 851MHz to 869MHz. This datasheet represent the EUT transmitting at 852MHz, 860MHz, and 868MHz at its maximum rated output power. The correction factor was input into the spectrum analyzer.

**Transducer Legend:**

T1=Hi Freq_40GHz_3ft_CAB-ANP02945-091809	T2=K&L 1GHz HPF AN02749_011110
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**Measurement Data:** Reading listed by margin. Test Lead: Service 2

#	Freq MHz	Rdng dB $\mu$ V	T1 dB	T2 dB	Dist dB	Corr dB	Spec dB $\mu$ V	Margin dB	Polar Ant
1	1719.983M	71.5	+0.4	+0.4	+0.0	72.3	105.7	-33.4	Servi
2	2580.263M	70.8	+0.5	+0.7	+0.0	72.0	105.7	-33.7	Servi
3	1736.180M	70.9	+0.4	+0.4	+0.0	71.7	105.7	-34.0	Servi

4	1703.889M	69.5	+0.4	+0.4	+0.0	70.3	105.7	-35.4	Servi
5	2603.867M	67.2	+0.5	+0.7	+0.0	68.4	105.7	-37.3	Servi
6	2556.222M	67.2	+0.5	+0.7	+0.0	68.4	105.7	-37.3	Servi

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**FCC 2.1033(c)(14)/2.1053/90.210 - FIELD STRENGTH OF SPURIOUS RADIATION**

**Test Setup Photos**



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## Test Data Sheets

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

Customer: **Powerwave Technologies, Inc.**  
 Specification: **FCC 90.210(g) (2007) Radiated Spurious Emission**  
 Work Order #: **88274** Date: 6/20/2008  
 Test Type: **Maximized Emissions** Time: 11:46:56  
 Equipment: **Dual Band Transceiver** Sequence#: 1  
 Manufacturer: Powerwave Technologies, Inc. Tested By: Stuart Yamamoto  
 Model: RH305022/03A  
 S/N: 2A.56182

### Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Heliac Antenna Cable	P5565	09/18/2006	09/18/2008	P05565
Coaxial Cable		09/18/2007	09/18/2009	02945
Microwave Pre-amp	3123A00281	07/19/2006	07/19/2008	00786
Horn Antenna	6246	06/06/2008	06/06/2010	00849
Spectrum Analyzer	US44300438	01/03/2007	01/03/2009	02672
1.0 GHz HPF	1	01/11/2008	01/11/2010	02749
Pre Amp	1937A02548	05/02/2008	05/02/2010	00309
BiLog Antenna	2451	01/21/2008	01/21/2010	01995
Pre amp to SA Cable	Cable #10	05/16/2007	05/16/2009	P05050
Cable	Cable15	01/05/2007	01/05/2009	P05198
Loop Antenna	2014	06/16/2008	06/16/2010	00314

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

Function	Manufacturer	Model #	S/N
Dual Band Transceiver*	Powerwave Technologies, Inc.	RH305022/03A	2A.56182

### Support Devices:

Function	Manufacturer	Model #	S/N
Signal Generator	Agilent	E4433B	US40051840
Power Sensor	Agilent	E9301A	US39212029
Power Meter	Agilent	E4419B	GB40201912
Spectrum Analyzer	HP	8563E	007142

### Test Conditions / Notes:

The equipment under test (EUT) is a dual band transceiver. The EUT is stand alone on the test table top. Connected to the EUT's Donor 2 In port is a remotely located signal generator. The EUT's Service 2 port is connected to a remotely located monitoring spectrum analyzer and power meter. The test is performed with the EUT set to these low, middle, and high channels and using iDen modulation. The frequency range of this test is 9kHz to 10GHz. Temperature: 24°C, Humidity: 40%, Pressure: 100kPa. The measurement bandwidth is 1MHz. Voltage to the EUT is 120Vac 60Hz. The EUT range of operation is 851MHz to 869MHz. This datasheet represent the EUT transmitting at 852MHz, 860MHz, and 868MHz at its maximum rated output power.

**Transducer Legend:**

T1=Horn Ant AN00849 060610	T2=K&L 1GHz HPF AN02749_011110
T3=Hi Freq_40GHz_3ft_CAB-ANP02945-091809	T4=54' Heliac Cable 091808 P05565_091808
T5=Pre amp_1- 26GHz_AN00786_071908	T6=Bilog-AN01995 BILOG_012110
T7=Cable #10_P05050_051609	T8=Cable #15_P05198_ Site A, 010509
T9=HP8447D Pre_amp-AN00309-050210	T10=Active loop antenna_AN00314_061408

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

#	Freq MHz	Rdng dB $\mu$ V	Reading listed by margin.				Dist Table	Corr dB $\mu$ V/m	Spec dB $\mu$ V/m	Margin dB	Polar Ant
			T1 dB	T2 dB	T3 dB	T4 dB					
1	3408.008M	68.1	+31.0 -38.3	+0.4	+0.6	+4.2	+0.0	66.0	82.2	-16.2	Horiz
2	3440.024M	61.7	+31.0 -38.2	+0.4	+0.6	+4.4	+0.0	59.9	82.2	-22.3	Horiz
3	2580.034M	63.1	+28.6 -38.5	+0.7	+0.5	+3.5	+0.0	57.9	82.2	-24.3	Horiz
4	2555.979M	60.9	+28.5 -38.5	+0.7	+0.5	+3.5	+0.0	55.6	82.2	-26.6	Horiz
5	3472.107M	55.7	+31.1 -38.2	+0.5	+0.6	+4.5	+0.0	54.2	82.2	-28.0	Horiz
6	3408.065M	54.8	+31.0 -38.3	+0.4	+0.6	+4.2	+0.0	52.7	82.2	-29.5	Vert
7	3439.837M	53.4	+31.0 -38.2	+0.4	+0.6	+4.4	+0.0	51.6	82.2	-30.6	Vert
8	2555.938M	55.1	+28.5 -38.5	+0.7	+0.5	+3.5	+0.0	49.8	82.2	-32.4	Vert
9	2603.957M	53.9	+28.7 -38.5	+0.7	+0.5	+3.5	+0.0	48.8	82.2	-33.4	Horiz
10	2580.297M	51.8	+28.6 -38.5	+0.7	+0.5	+3.5	+0.0	46.6	82.2	-35.6	Vert
11	3471.672M	45.3	+31.1 -38.2	+0.5	+0.6	+4.5	+0.0	43.8	82.2	-38.4	Vert
12	2604.412M	46.5	+28.7 -38.5	+0.7	+0.5	+3.5	+0.0	41.4	82.2	-40.8	Vert
13	8679.671M	27.6	+37.3 -37.1	+0.4	+1.0	+7.5	+0.0	36.7	82.2	-45.5	Vert

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

Customer: **Powerwave Technologies, Inc.**  
 Specification: **FCC 90.210(h) (2007) Radiated Spurious Emission**  
 Work Order #: **88274** Date: 6/20/2008  
 Test Type: **Maximized Emissions** Time: 11:46:56  
 Equipment: **Dual Band Transceiver** Sequence#: 1  
 Manufacturer: Powerwave Technologies, Inc. Tested By: Stuart Yamamoto  
 Model: RH305022/03A  
 S/N: 2A.56182

**Test Equipment:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Heliac Antenna Cable	P5565	09/18/2006	09/18/2008	P05565
Coaxial Cable		09/18/2007	09/18/2009	02945
Microwave Pre-amp	3123A00281	07/19/2006	07/19/2008	00786
Horn Antenna	6246	06/06/2008	06/06/2010	00849
Spectrum Analyzer	US44300438	01/03/2007	01/03/2009	02672
1.0 GHz HPF	1	01/11/2008	01/11/2010	02749
Pre Amp	1937A02548	05/02/2008	05/02/2010	00309
BiLog Antenna	2451	01/21/2008	01/21/2010	01995
Pre amp to SA Cable	Cable #10	05/16/2007	05/16/2009	P05050
Cable	Cable15	01/05/2007	01/05/2009	P05198
Loop Antenna	2014	06/16/2008	06/16/2010	00314

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

Function	Manufacturer	Model #	S/N
Dual Band Transceiver*	Powerwave Technologies, Inc.	RH305022/03A	2A.56182

**Support Devices:**

Function	Manufacturer	Model #	S/N
Signal Generator	Agilent	E4433B	US40051840
Power Sensor	Agilent	E9301A	US39212029
Power Meter	Agilent	E4419B	GB40201912
Spectrum Analyzer	HP	8563E	007142

**Test Conditions / Notes:**

The equipment under test (EUT) is a dual band transceiver. The EUT is stand alone on the test table top. Connected to the EUT's Donor 2 In port is a remotely located signal generator. The EUT's Service 2 port is connected to a remotely located monitoring spectrum analyzer and power meter. The test is performed with the EUT set to these low, middle, and high channels and using iDen modulation. The frequency range of this test is 9kHz to 10GHz. Temperature: 24°C, Humidity: 40%, Pressure: 100kPa. The measurement bandwidth is 1MHz. Voltage to the EUT is 120Vac 60Hz. The EUT range of operation is 851MHz to 869MHz. This datasheet represent the EUT transmitting at 852MHz, 860MHz, and 868MHz at its maximum rated output power.

**Transducer Legend:**

T1=Horn Ant AN00849 060610	T2=K&L 1GHz HPF AN02749_011110
T3=Hi Freq_40GHz_3ft_CAB-ANP02945-091809	T4=54' Heliac Cable 091808 P05565_091808
T5=Pre amp_1- 26GHz_AN00786_071908	T6=Bilog-AN01995 BILOG_012110
T7=Cable #10_P05050_051609	T8=Cable #15_P05198_Site A, 010509
T9=HP8447D Pre_amp-AN00309-050210	T10=Active loop antenna_AN00314_061408

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

#	Freq MHz	Rdng dB $\mu$ V	Reading listed by margin.				Dist Table	Corr dB $\mu$ V/m	Spec dB $\mu$ V/m	Margin dB	Polar Ant
			T1 dB	T2 dB	T3 dB	T4 dB					
1	3408.008M	68.1	+31.0 -38.3	+0.4	+0.6	+4.2	+0.0	66.0	93.9	-27.9	Horiz
2	3440.024M	61.7	+31.0 -38.2	+0.4	+0.6	+4.4	+0.0	59.9	93.9	-34.0	Horiz
3	2580.034M	63.1	+28.6 -38.5	+0.7	+0.5	+3.5	+0.0	57.9	93.9	-36.0	Horiz
4	2555.979M	60.9	+28.5 -38.5	+0.7	+0.5	+3.5	+0.0	55.6	93.9	-38.3	Horiz
5	3472.107M	55.7	+31.1 -38.2	+0.5	+0.6	+4.5	+0.0	54.2	93.9	-39.7	Horiz
6	3408.065M	54.8	+31.0 -38.3	+0.4	+0.6	+4.2	+0.0	52.7	93.9	-41.2	Vert
7	3439.837M	53.4	+31.0 -38.2	+0.4	+0.6	+4.4	+0.0	51.6	93.9	-42.3	Vert
8	2555.938M	55.1	+28.5 -38.5	+0.7	+0.5	+3.5	+0.0	49.8	93.9	-44.1	Vert
9	2603.957M	53.9	+28.7 -38.5	+0.7	+0.5	+3.5	+0.0	48.8	93.9	-45.1	Horiz
10	2580.297M	51.8	+28.6 -38.5	+0.7	+0.5	+3.5	+0.0	46.6	93.9	-47.3	Vert
11	3471.672M	45.3	+31.1 -38.2	+0.5	+0.6	+4.5	+0.0	43.8	93.9	-50.1	Vert
12	2604.412M	46.5	+28.7 -38.5	+0.7	+0.5	+3.5	+0.0	41.4	93.9	-52.5	Vert
13	8679.671M	27.6	+37.3 -37.1	+0.4	+1.0	+7.5	+0.0	36.7	93.9	-57.2	Vert

## FCC 90.210 BLOCK EDGE PLOTS

### Test Equipment

Equipment	Asset #	Manufacturer	Model	Serial #	Cal Date	Cal Due
Spectrum Analyzer	02869	Agilent	E4440A	MY46186290	021207	021209
Coaxial Cable	P02945	Astrolab	32022-2-2909K-36TC	(none)	091807	091809
Attenuator	P01578	Bird Electronic Corporation	25-A-MFN-30	9732	NCR	NCR

NCR = No Cal Required

### Test Conditions

The equipment under test (EUT) is a dual band transceiver. The EUT is stand alone on the test table top. For the block edge plots, the EUT Service 2 port was connected to the spectrum analyzer through high power attenuators and plots were made of the signal signature with respect to the block edge. This test is performed with the signal source set to the low and high channels and using iDen modulation. The frequency range of this test is 852Hz to 868MHz. Temperature: 22°C, Humidity: 40%, Pressure: 100kPa. The measurement bandwidth are RBW=100kHz, VBW=100kHz. Voltage to the EUT is 120Vac 60Hz. The EUT range of operation is 851MHz to 869MHz. The correction factor was input into the spectrum analyzer.

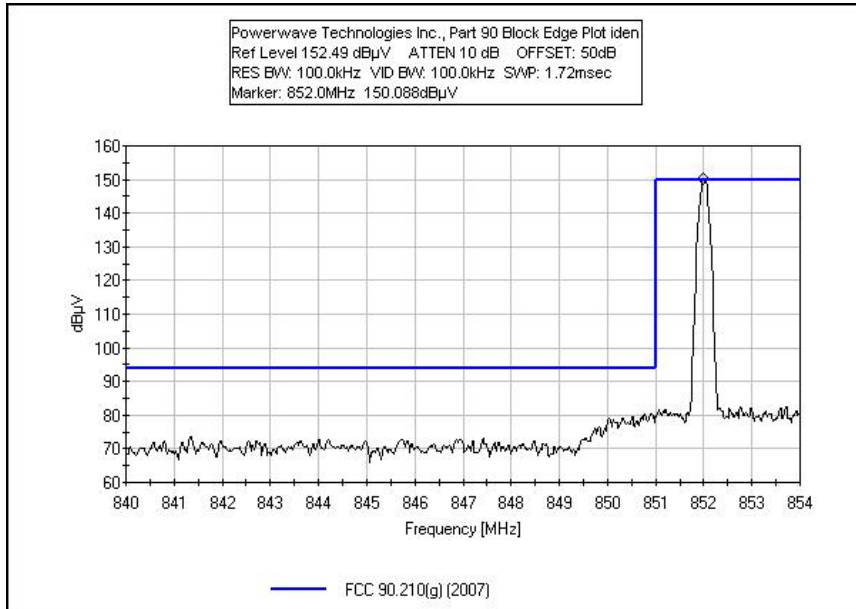
### Test Setup Photos



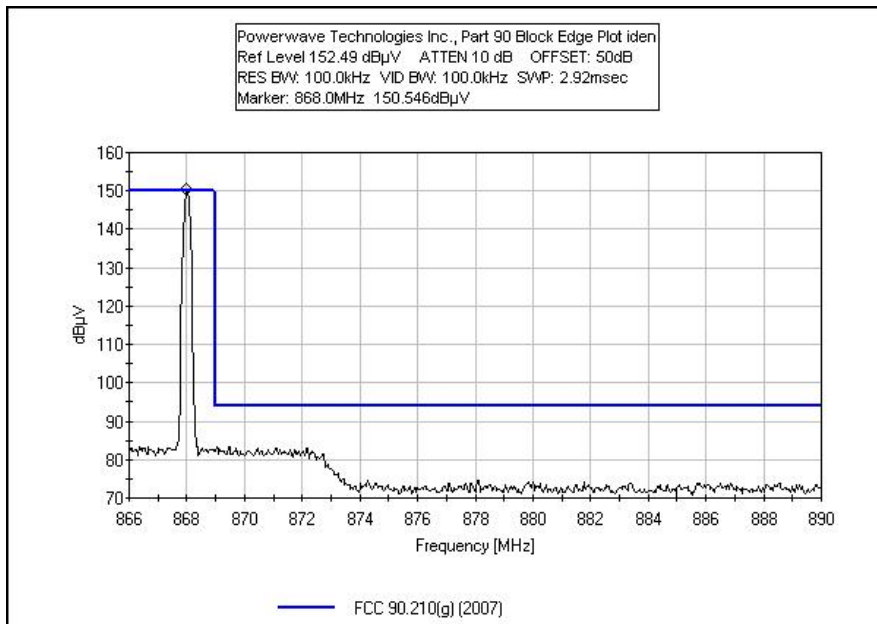


## Test Plots

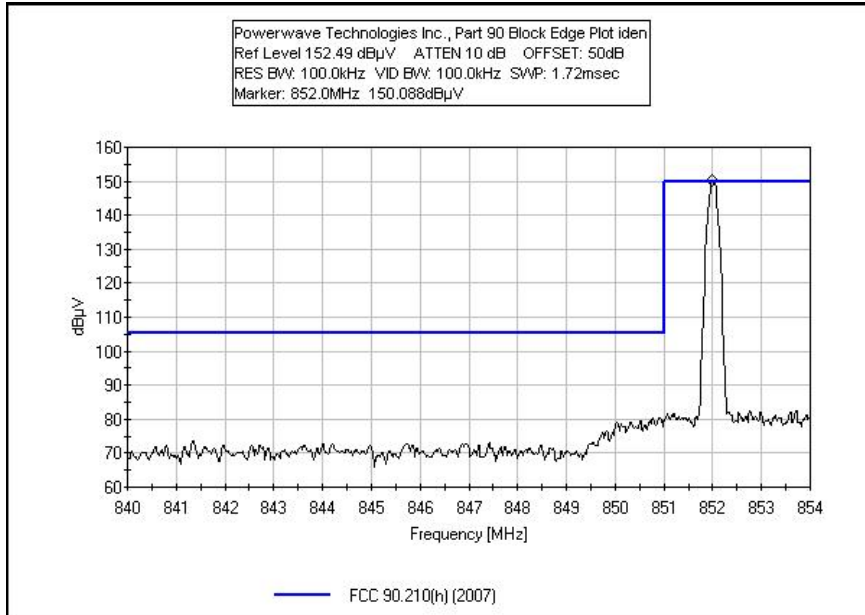
### FCC 90.210(g) BLOCK EDGE LOW END



### FCC 90.210(g) BLOCK EDGE HIGH END

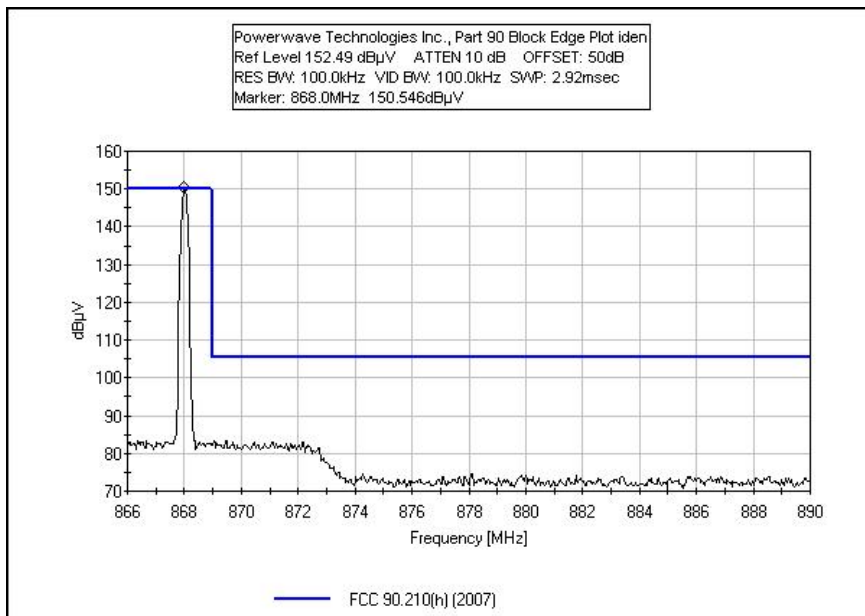


### FCC 90.210(h) BLOCK EDGE LOW END



*DRAFT*

### FCC 90.210(h) BLOCK EDGE HIGH END





## OUT OF BAND REJECTION

### Test Equipment

Equipment	Asset #	Manufacturer	Model	Serial #	Cal Date	Cal Due
Spectrum Analyzer	02869	Agilent	E4440A	MY46186290	021207	021209
Coaxial Cable	P02945	Astrolab	32022-2-2909K-36TC	(none)	091807	091809

### Test Conditions

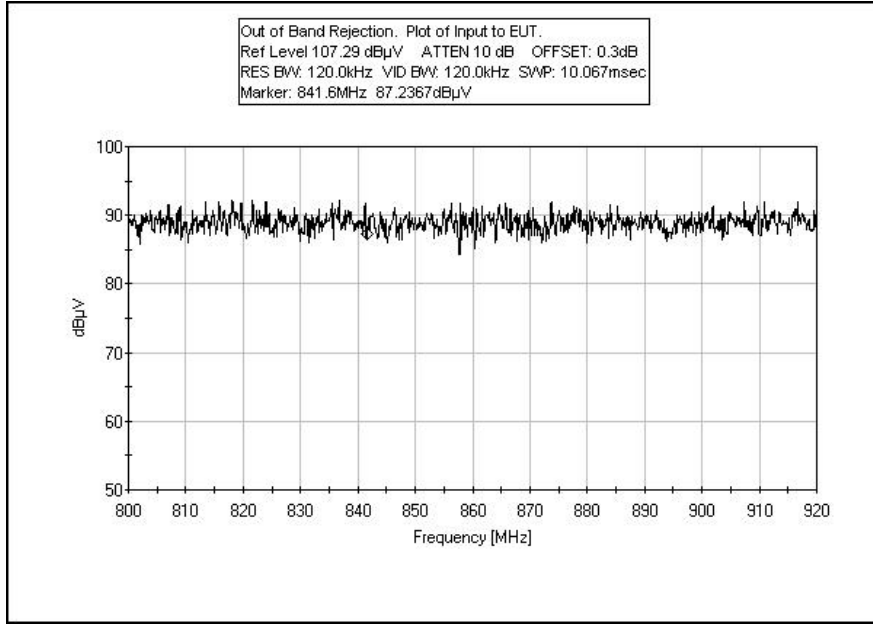
The equipment under test (EUT) is a dual band transceiver. The EUT is placed on the table top. For the input plot, the output of the signal source is fed to the input of the spectrum analyzer and a plot is made of the output level with the spectrum analyzer in a max hold function. For the output plot, the EUT antenna port is connected to the spectrum analyzer through high power attenuators and a plot is made of output of the EUT with the spectrum analyzer in a max hold function. The frequency range of this test is 800MHz to 920MHz. Temperature: 22°C, Humidity: 40%, Pressure: 100kPa. Bandwidth settings are RBW=10kHz and 120kHz, VBW=30kHz and 120kHz. Voltage to the EUT is 120Vac 60Hz. The EUT range of operation is 851MHz to 869MHz.

### Test Setup Photos

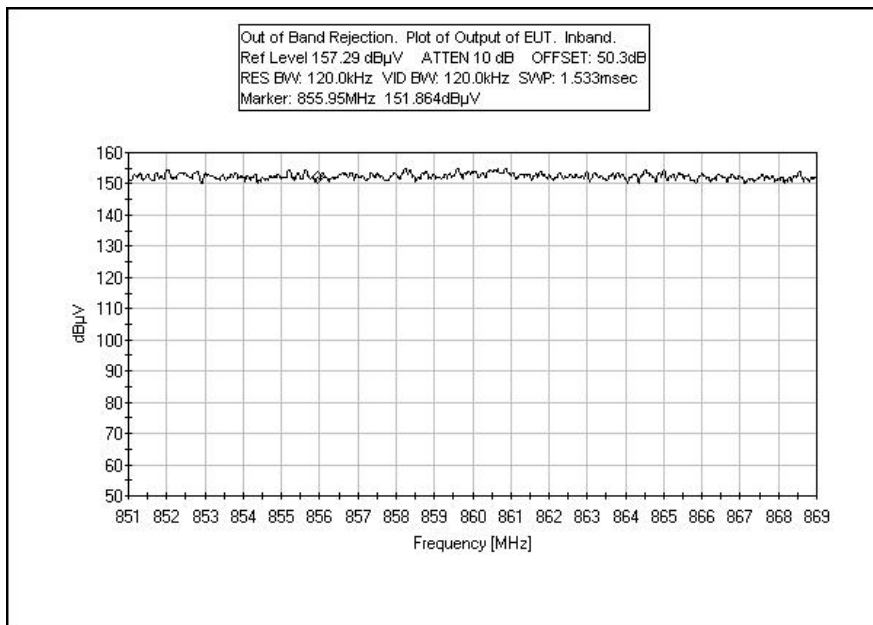


## Test Plots

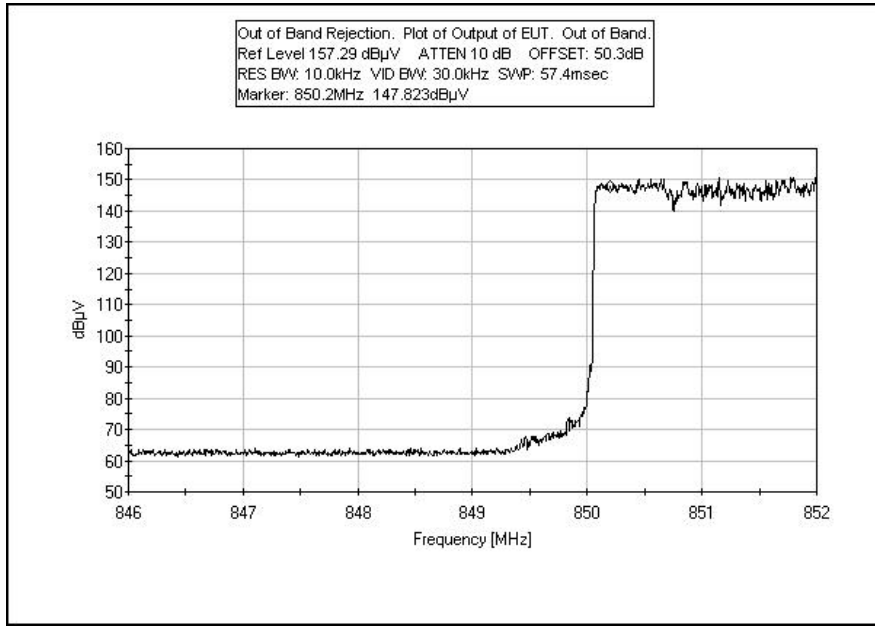
### OUT OF BAND REJECTION INPUT SIGNAL



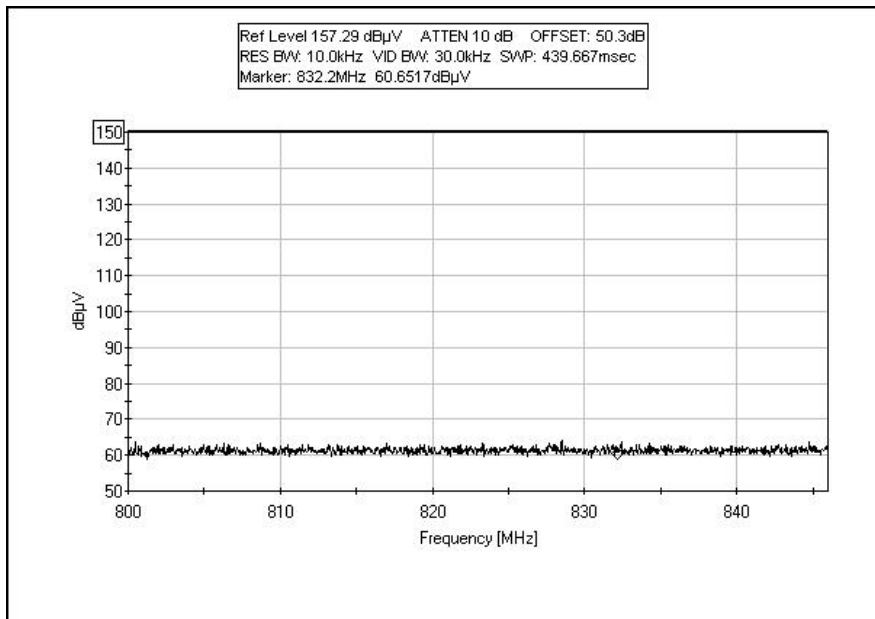
### OUT OF BAND REJECTION OUTPUT SIGNAL INBAND



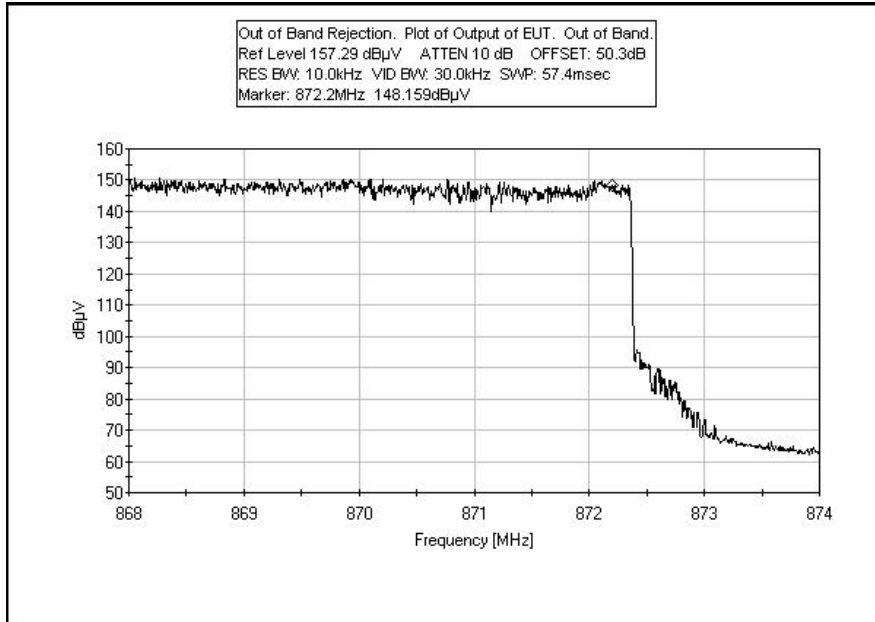
**OUT OF BAND REJECTION OUTPUT SIGNAL –  
OUT OF BAND LOW END 1**



**OUT OF BAND REJECTION OUTPUT SIGNAL –  
OUT OF BAND LOW END 2**



**OUT OF BAND REJECTION OUTPUT SIGNAL –  
OUT OF BAND HIGH END 1**



**OUT OF BAND REJECTION OUTPUT SIGNAL –  
OUT OF BAND HIGH END 2**

