



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

**FOR THE
NEXUS FT RACKMOUNT, RH305022/03A
FCC PART 90
TESTING**

DATE OF ISSUE: DECEMBER 5, 2008

PREPARED FOR:

Powerwave Technologies, Inc.
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Santa Ana, CA 92705

P.O. No.: 120968
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PREPARED BY:

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Date of test: June 20 – December 4, 2008

Report No.: FC08-072A

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ADMINISTRATIVE INFORMATION

DATE OF TEST: June 20 – December 4, 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 and to replace the data on power output and block edge with new testing.

APPROVALS

Steve Behm, Director of Engineering Services

QUALITY ASSURANCE:

Steve Behm, Director of Engineering Services

TEST PERSONNEL:

Stuart Yamamoto, Senior EMC Engineer

Eddie Wong, Senior EMC Engineer

SUMMARY OF RESULTS

Test	Specification	Results
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

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

851MHz to 869MHz

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 manufacturer does not provide an antenna for sale with this product. 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)
851.025	iDen	+43	20
860.000	iDen	+43	20
868.975	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.

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

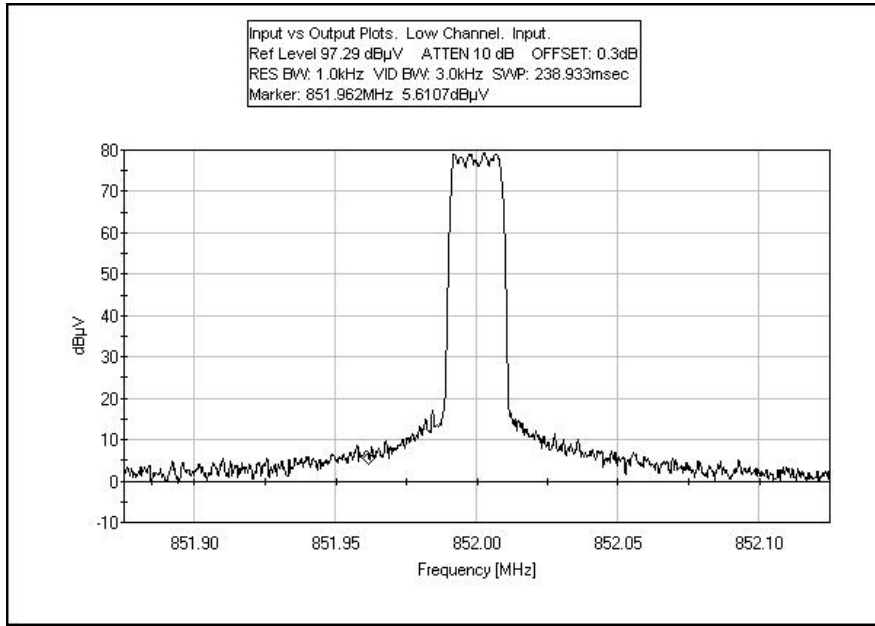
The equipment under test (EUT) is a dual band transceiver. The EUT is stand alone on the test table top. For the input plot, the output of the signal generator is fed to the input of the spectrum analyzer and a plot is made of the signal signature. For the output plot, the EUT Service 2 port is connected 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

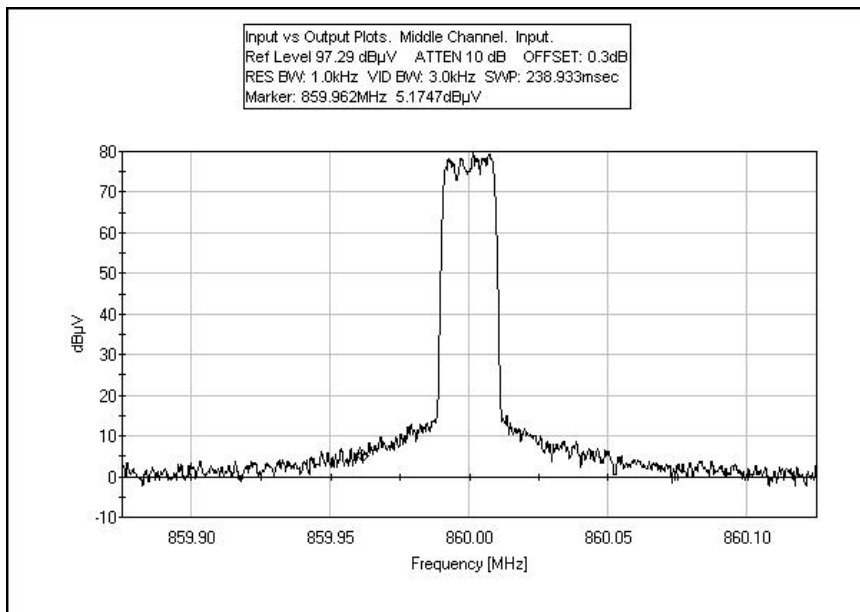


Test Plots

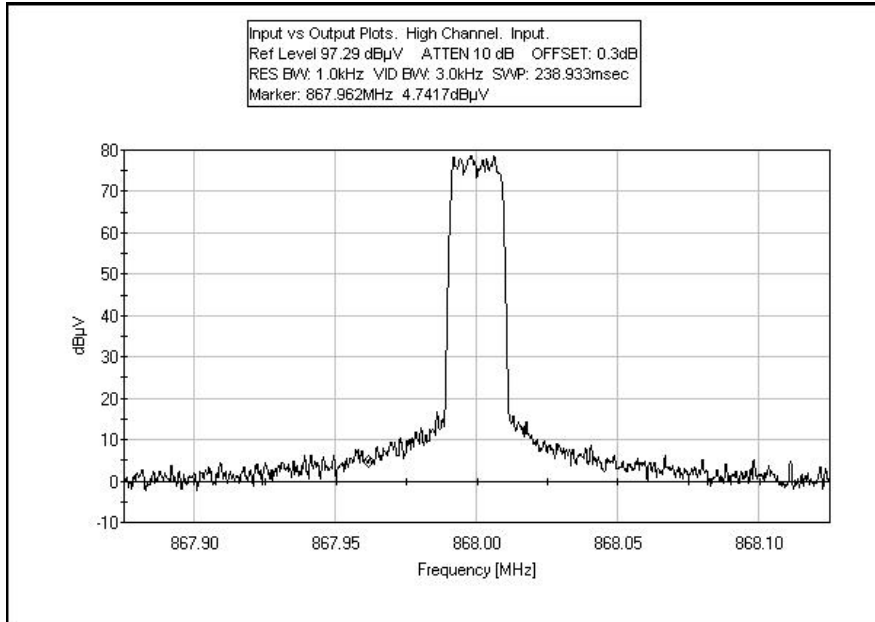
INPUT PLOT LOW CHANNEL



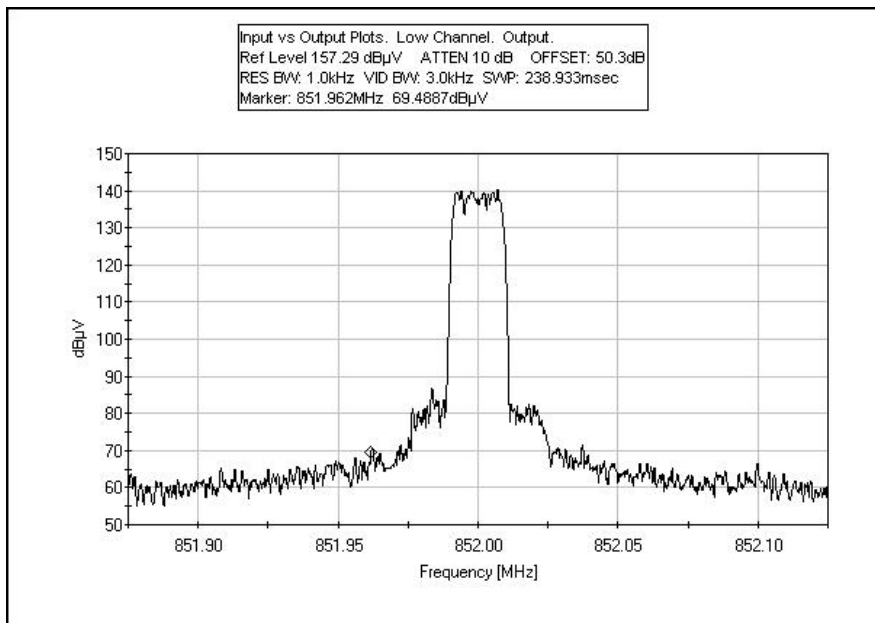
INPUT PLOT MIDDLE CHANNEL



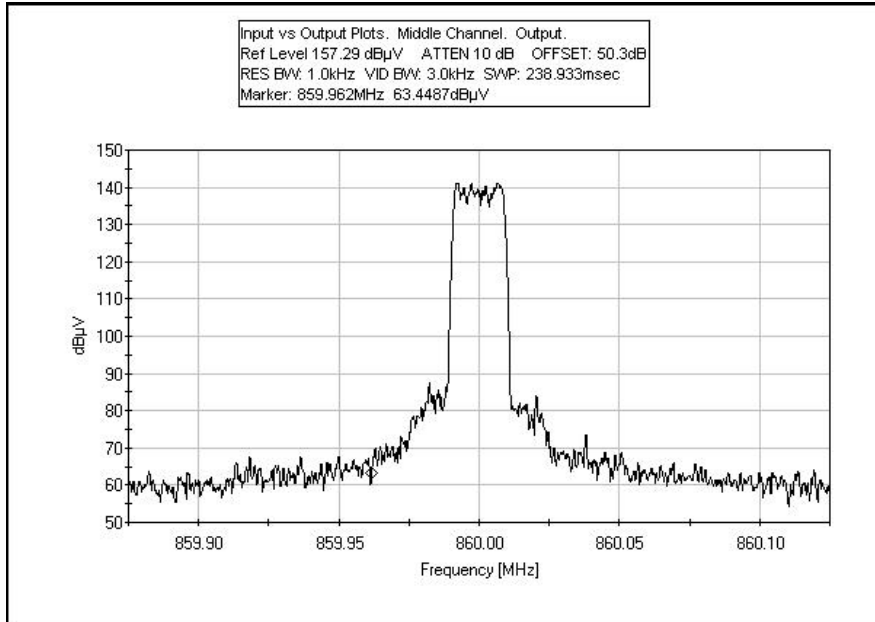
INPUT PLOT HIGH CHANNEL



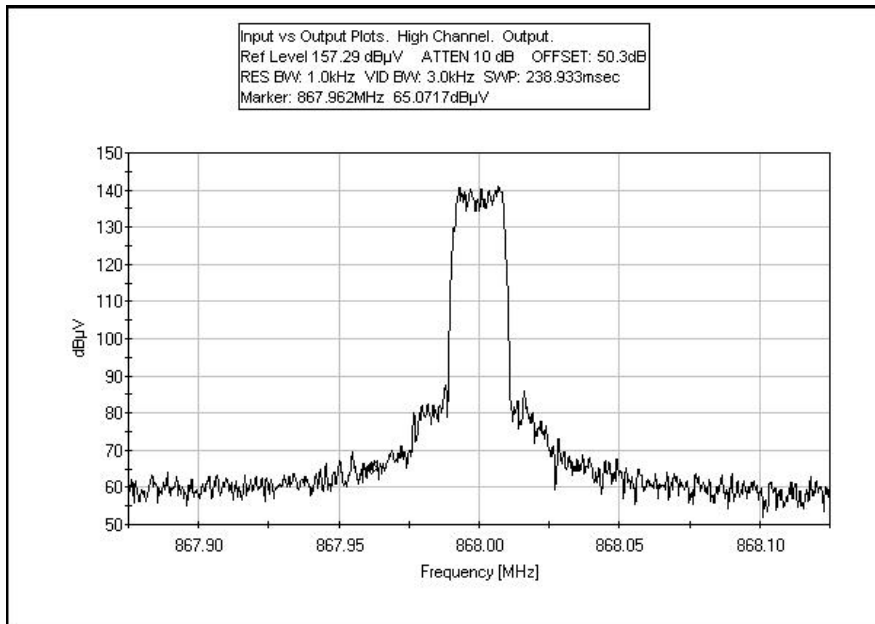
OUTPUT PLOT LOW CHANNEL



OUTPUT PLOT MIDDLE CHANNEL



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
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Measurement Data:

Reading listed by margin.

Test Lead: Service 2

#	Freq MHz	Rdng dB μ V	T1 dB	T2 dB	dB	dB	Dist Table	Corr dB μ V	Spec dB μ 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	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
--	--------------------------------

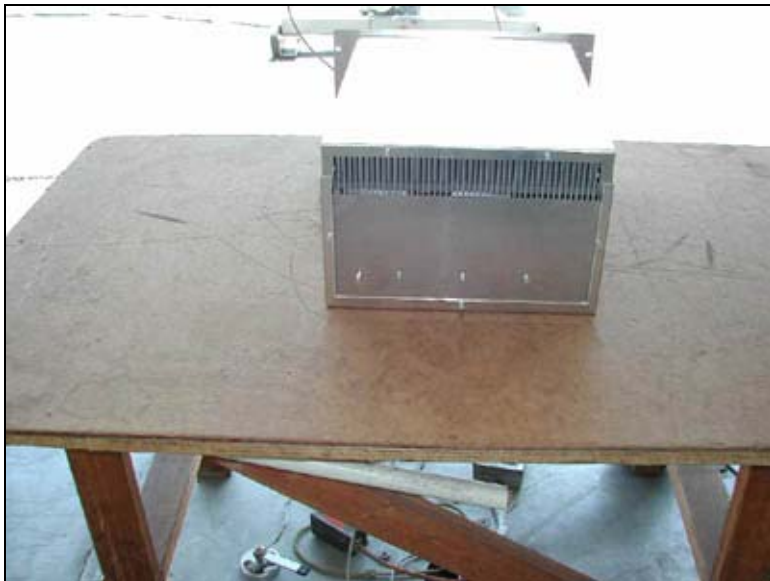
Measurement Data: Reading listed by margin. Test Lead: Service 2

#	Freq MHz	Rdng dB μ V	T1 dB	T2 dB	Dist dB	Corr dB	Spec dB μ 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

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

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) 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 μ V	Reading listed by margin.				Dist Table	Corr dB μ V/m	Spec dB μ 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 μ V	Reading listed by margin.				Dist Table	Corr dB μ V/m	Spec dB μ V/m	Margin dB	Polar Ant
			T1 T5 T9 dB	T2 T6 T10 dB	T3 T7 dB	T4 T8 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

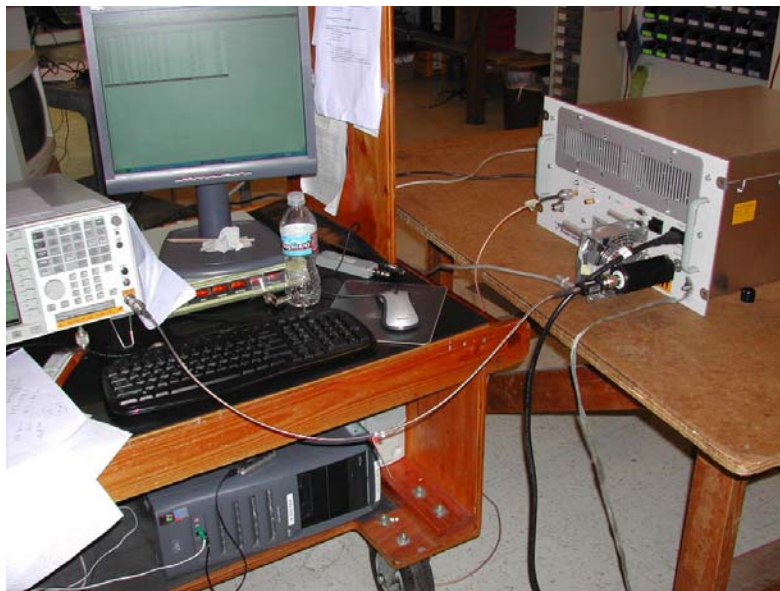
Equipment	Asset #	Manufacturer	Model	Serial #	Cal Date	Cal Due
Spectrum Analyzer	02869	Agilent	E4440A	MY46186290	021207	021209
Coaxial Cable	P02945	Astrolab	32022-2-2909K-36TC	(none)	091807	091809

NCR = No Cal Required

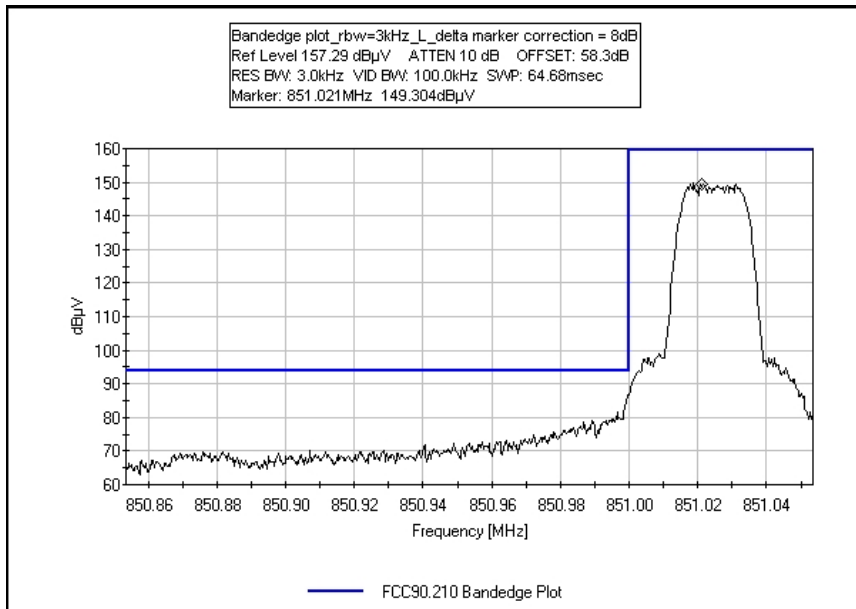
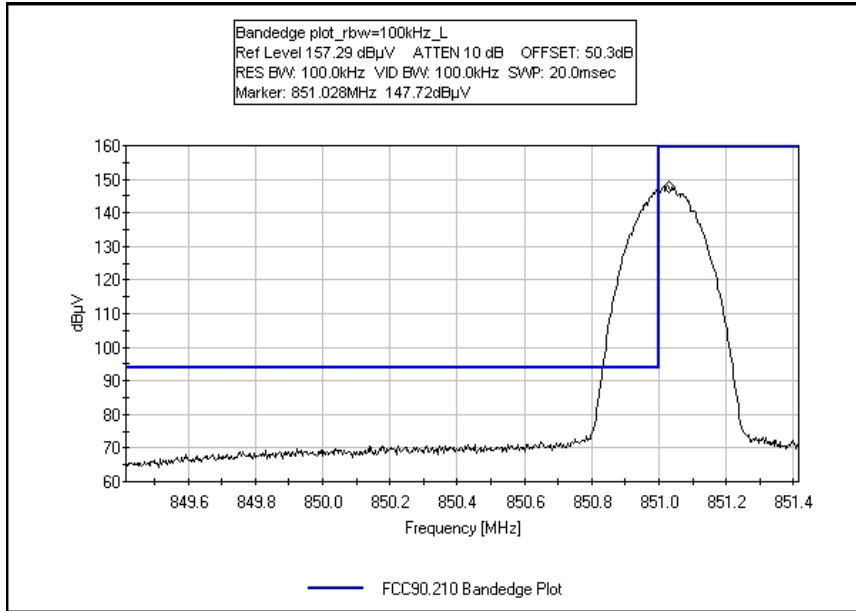
Test Conditions

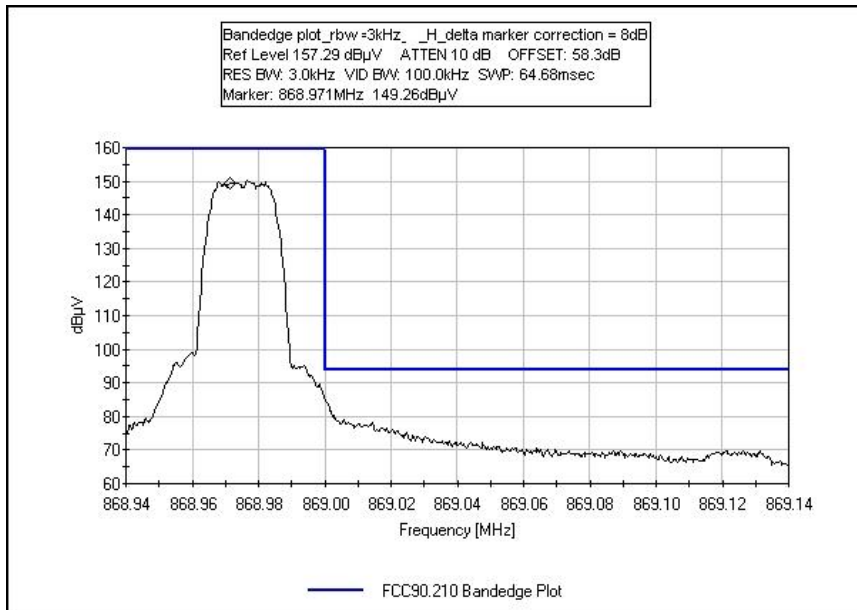
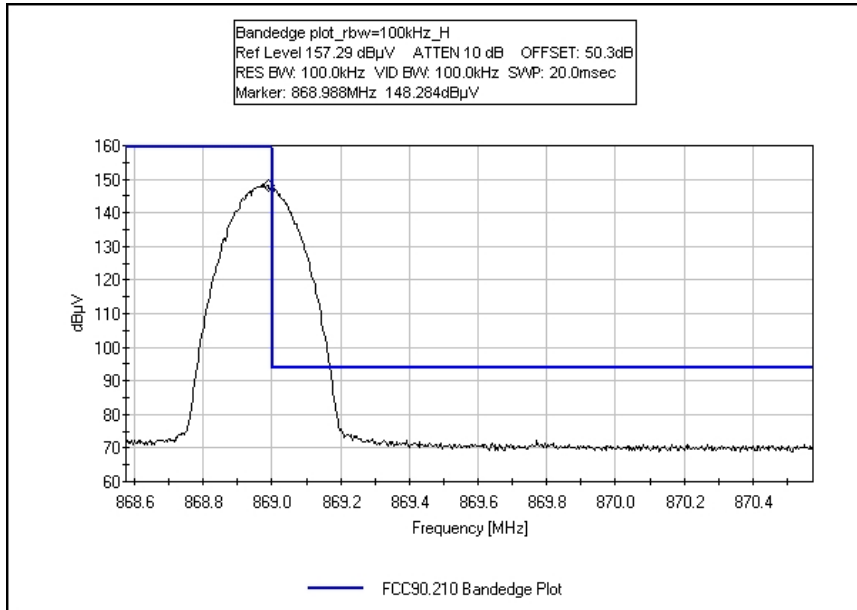
The equipment under test (EUT) is a dual band transceiver. The EUT is stand alone on the test table top. For the block edge plots, the EUT Service 2 port was connected to the spectrum analyzer through high power attenuators and plots were made of the signal signature with respect to the block edge. This test is performed with the signal source set to the low and high channels and using iDen modulation. The transmit frequency is set to the lowest and highest channel in the authorized band, 851.025 MHz and 868.975MHz. Temperature: 22°C, Humidity: 40%, Pressure: 100kPa. Using Delta Marker method, the measurement bandwidth are RBW=100kHzVBW=100kHz for emission two measurement bandwidth above and below the band edge and RBW=3 kHz, VBW = 100MHz with 8 dB of delta marker correction for emission within two measurement Bandwidth above and below the band edge. 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

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

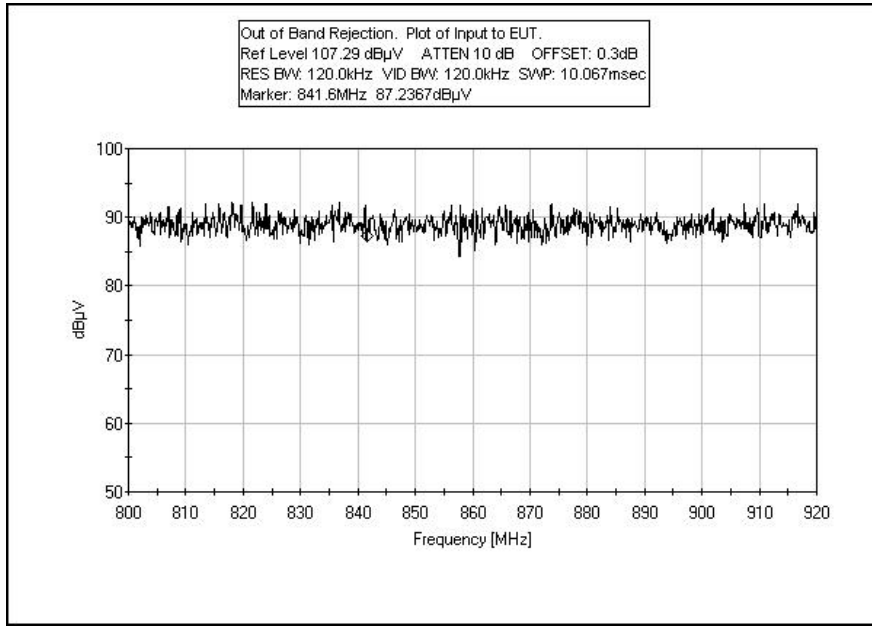
The equipment under test (EUT) is a dual band transceiver. The EUT is placed on the table top. For the input plot, the output of the signal source is fed to the input of the spectrum analyzer and a plot is made of the output level with the spectrum analyzer in a max hold function. For the output plot, 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

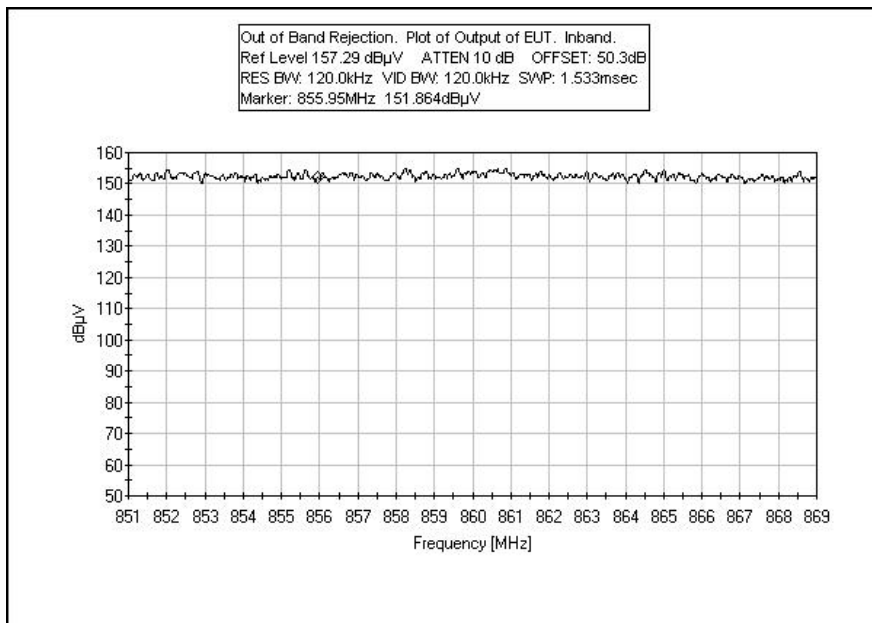


Test Plots

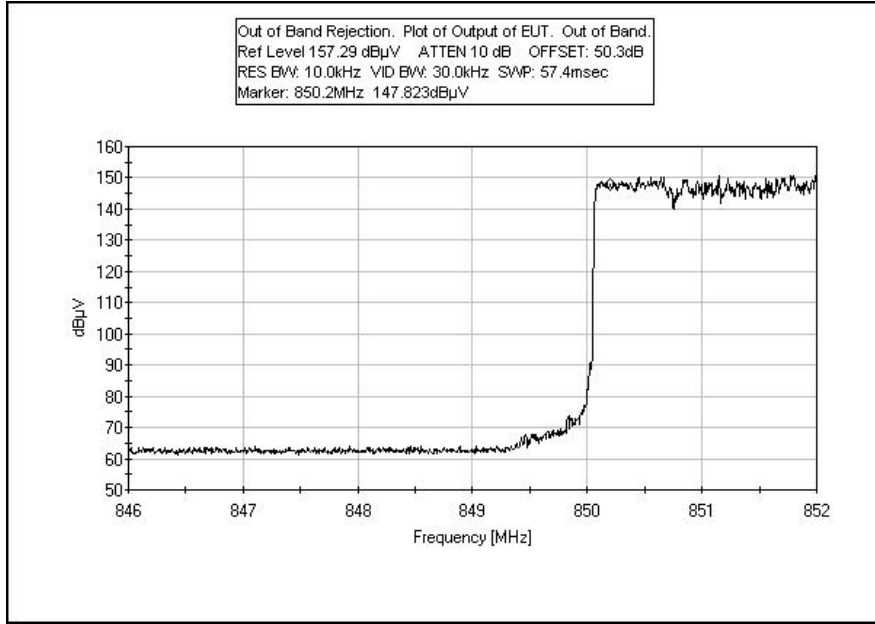
OUT OF BAND REJECTION INPUT SIGNAL



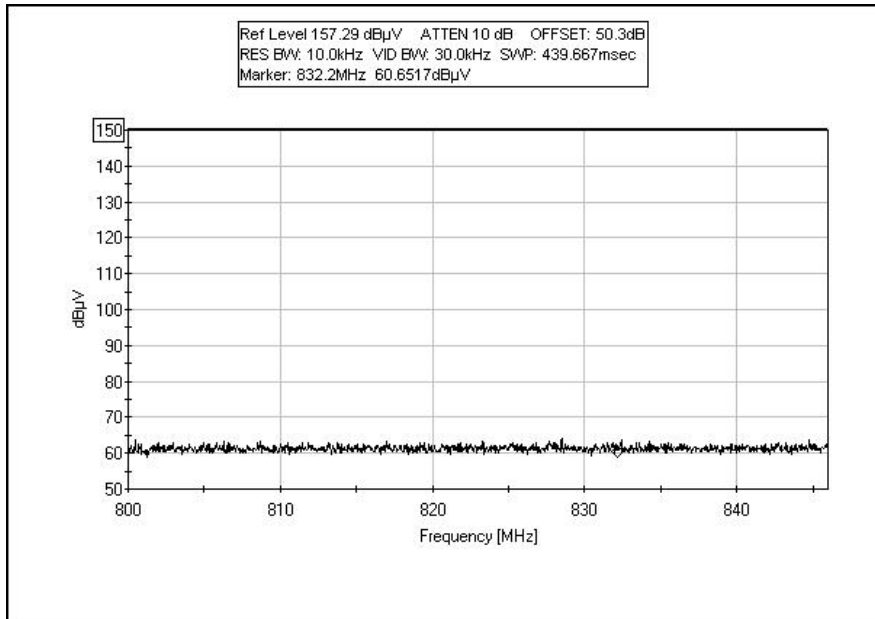
OUT OF BAND REJECTION OUTPUT SIGNAL INBAND



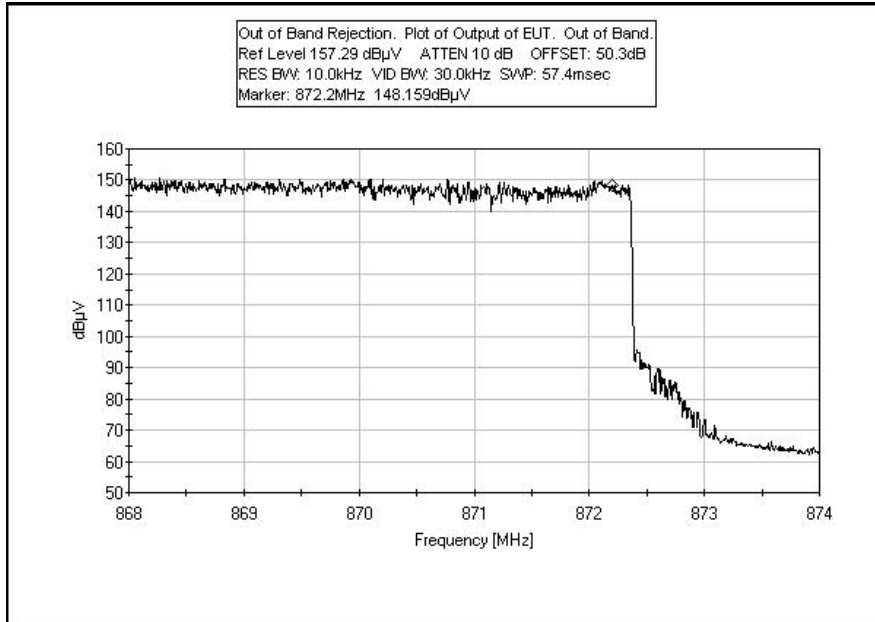
OUT OF BAND REJECTION OUTPUT SIGNAL – OUT OF BAND LOW END 1



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**

