



POWERWAVE TECHNOLOGIES, INC. TEST REPORT

FOR THE

REPEATER, RH308022/03A

FCC PART 24 SUBPART E

TESTING

DATE OF ISSUE: APRIL 1, 2008

PREPARED FOR:

PREPARED BY:

Powerwave Technologies, Inc. 1801 E. St. Andrew Place Santa Ana, CA 92705 Mary Ellen Clayton CKC Laboratories, Inc. 5046 Sierra Pines Drive Mariposa, CA 95338

P.O. No.: 118433 W.O. No.: 87767 Date of test: March 25-27, 2008

Report No.: FC08-037

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ADMINISTRATIVE INFORMATION

DATE OF TEST: March 25-27, 2008	DATE OF RECEIPT: March 25	, 2008
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REPRESENTATIVE: Sean Doan

MANUFACTURER:TEST LOCATION:Powerwave Technologies, Inc.CKC Laboratories, Inc.1801 E. St. Andrew Place110 Olinda PlaceSanta Ana, CA 92705Brea, CA 92823

FREQUENCY RANGE TESTED: 9 kHz-20 GHz

TEST METHOD: FCC Part 24 Subpart E

PURPOSE OF TEST: To perform the testing of the Repeater, RH308022/03A with the requirements for FCC Part 24 Subpart E devices.

APPROVALS

QUALITY ASSURANCE: TEST PERSONNEL:

Steve Behm, Director of Engineering Services

Eddie Wong, EMC Engineer



SUMMARY OF RESULTS

Test	Specification/Method	Results
RF Power Output	FCC 2.1033(c)(14)/2.1046/24.132(c)	Pass
Input and Output Plots	FCC 2.1033(c)(14)/2.1049(i)/Part 24	Pass
Spurious Emissions at Antenna Terminal	FCC 2.1033(c)(14)/2.1051/24.238(a)	Pass
Field Strength of Spurious Radiation	FCC 2.1033(c)(14)/2.1051/24.238(a)	Pass
Block Edge	FCC Part 24.238	Pass

CONDITIONS DURING TESTING

No modifications to the EUT were necessary during testing.

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EQUIPMENT UNDER TEST (EUT) DESCRIPTION

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

The following device name was used during testing by CKC Laboratories: **Dual Band Transceiver**

Since the time of testing the manufacturer has chosen to use the following device 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: **Repeater**

EQUIPMENT UNDER TEST

Repeater

Manuf: Powerwave Technologies

Model: RH308022/03A

Serial: NA FCC ID: pending

PERIPHERAL DEVICES

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

Spectrum Analyzer Power Meter

 Manuf:
 HP
 Manuf:
 Agilent

 Model:
 8563E
 Model:
 E4419B

 Serial:
 3337A01565
 Serial:
 MY0510694

ESG

Manuf: Aeroflex Model: IFR3417 Serial: 341005/018

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TEMPERATURE AND HUMIDITY DURING TESTING

The temperature during testing was within $+15^{\circ}$ C and $+35^{\circ}$ 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 F9W, G7W, GXW, DXW.

FCC 2.1033 (c)(5) FREQUENCY RANGE 1930MHz – 1990MHz

FCC 2.1033 (c)(6) OPERATING POWER 20 watts

FCC 2.1033 (c)(7) MAXIMUM POWER RATING 1640 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

GSM, EDGE, TDMA(15-136), CDMA (15-95/15/97), CDMA2000, WCDMA (3GPP)

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FCC 2.1033(c)(14)/2.1046/24.232(a) - RF POWER OUTPUT

Test Equipment

Equipment	Asset # Manufacturer		quipment Asset #		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 Conditions

The EUT was a RF amplifier. The manufacture does not provide an antenna for sale with the product, hence EIRP was not measured nor calculated. The dual band EUT was placed on the wooden table. Service port Local 1 and Local 2 were left unpopulated, WLI communication (non ethernet, proprietary handshake protocol) port 1 and 2 were connected in loop back manner via UTP. Antenna port Service 1 was terminated to 50 ohm load. Donor 2 out, Donor 2 In and Donor 1 out were connected to 50 ohm loads. Donor 1 In was connected to a remote RF signal source, antenna port Service 1 was connected to a power meter. The input RF level was adjusted to maintain a constant output power. Emission profile of the output signal was evaluated at the antenna port, Service 1. The RF output power of the EUT was measured at the antenna port, the measured conducted output power meets the rated output power of the product.

Modulation

GSM, EDGE, TDMA(15-136), CDMA (15-95/15/97), CDMA2000, WCDMA (3GPP)

Test Setup Photos



Test Data

Frequency	Power(dBm)	Power (Watts)
1930.5MHz	43	20
1960.0MHz	43	20
1989.5MHz	43	20

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FCC 2.1033(c)(14)/2.1049(i)/PART 24 - INPUT AND OUTPUT PLOTS

Test Equipment

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer	02672	Agilent	E4446A	US44300438	010307	010309

Test Conditions

The dual band EUT was placed on the wooden table. Service port Local 1 and Local 2 were left unpopulated, WLI communication (non ethernet, proprietary handshake protocol) port 1 and 2 were connected in loop back manner via UTP. Antenna port Service 1 was terminated to 50 ohm load. Donor 2 out, Donor 1 In and Donor 1 out were connected to 50 ohm loads. Donor 2 In was connected to a remote RF signal source, antenna port Service 2 was connected to a remote power meter. The input RF level was adjusted to maintain a constant output power. Emission profile of the output signal was evaluated at the antenna port, service 2 /Service 1. Input signal profile was evaluated at Donor in 1/ Donor in 2.



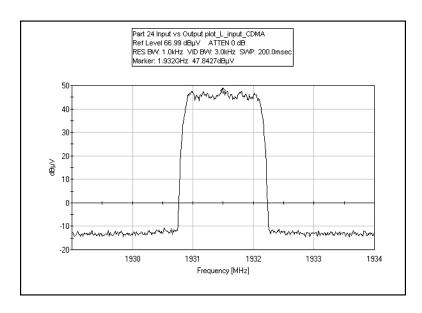


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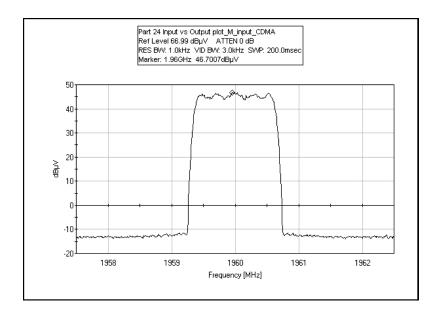


Test Plots

FCC PART 24 INPUT PLOT - LOW CHANNEL CDMA



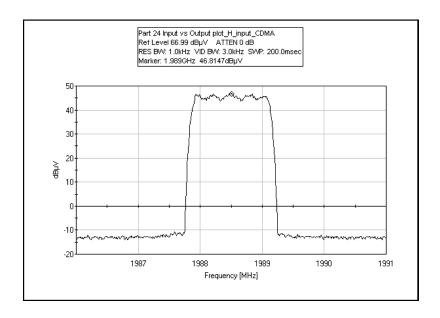
FCC PART 24 INPUT PLOT - MIDDLE CHANNEL CDMA



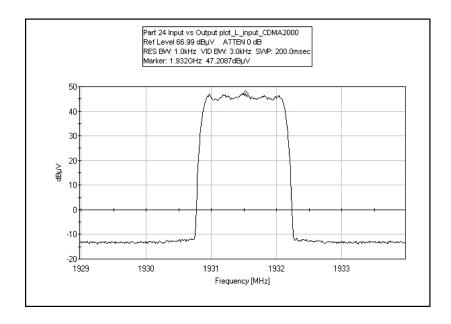
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FCC PART 24 INPUT PLOT - HIGH CHANNEL CDMA



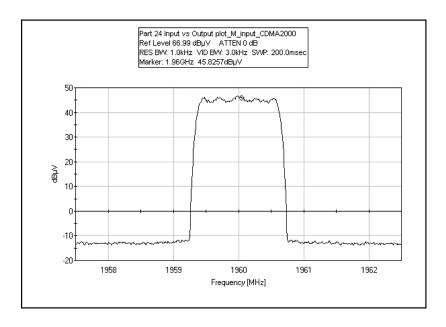
FCC PART 24 INPUT PLOT - LOW CHANNEL CDMA 2000



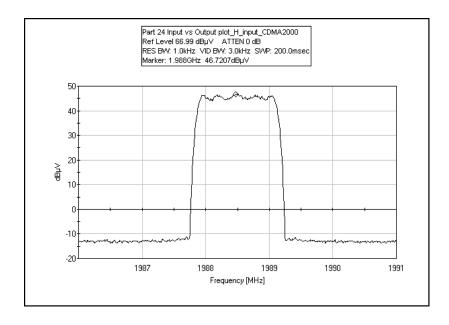
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FCC PART 24 INPUT PLOT - MIDDLE CHANNEL CDMA 2000



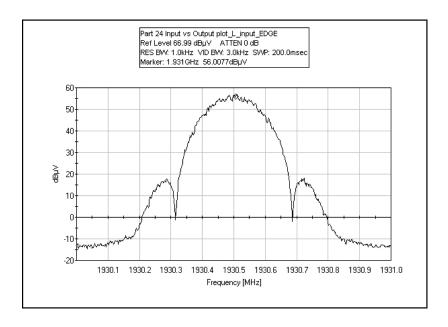
FCC PART 24 INPUT PLOT - HIGH CHANNEL CDMA 2000



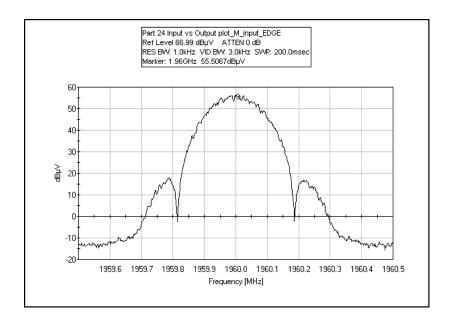
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FCC PART 24 INPUT PLOT - LOW CHANNEL EDGE



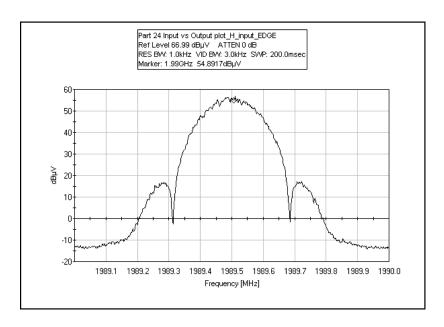
FCC PART 24 INPUT PLOT - MIDDLE CHANNEL EDGE



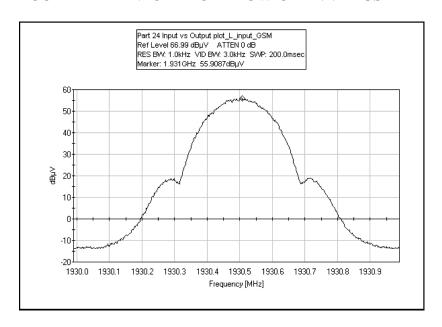
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FCC PART 24 INPUT PLOT - HIGH CHANNEL EDGE



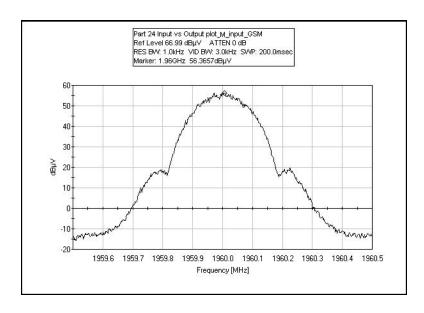
FCC PART 24 INPUT PLOT - LOW CHANNEL GSM



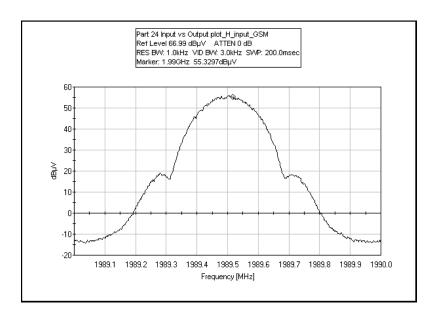
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FCC PART 24 INPUT PLOT - MIDDLE CHANNEL GSM

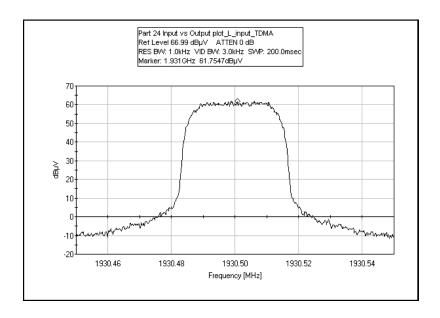


FCC PART 24 INPUT PLOT - HIGH CHANNEL GSM

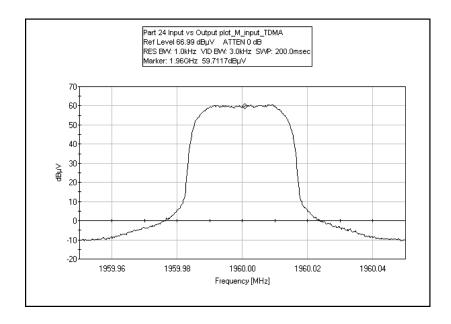




FCC PART 24 INPUT PLOT - LOW CHANNEL TDMA



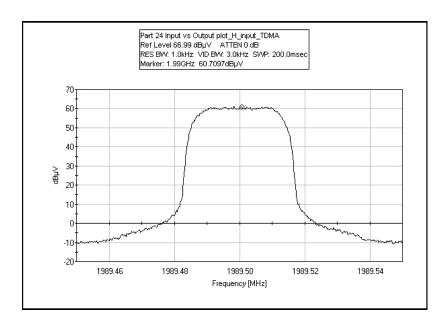
FCC PART 24 INPUT PLOT - MIDDLE CHANNEL TDMA



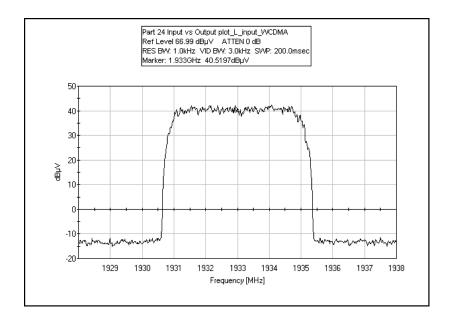
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FCC PART 24 INPUT PLOT - HIGH CHANNEL TDMA



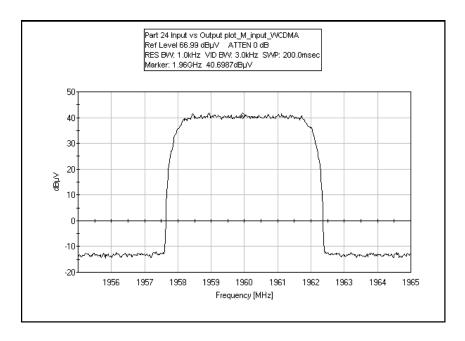
FCC PART 24 INPUT PLOT - LOW CHANNEL WCDMA



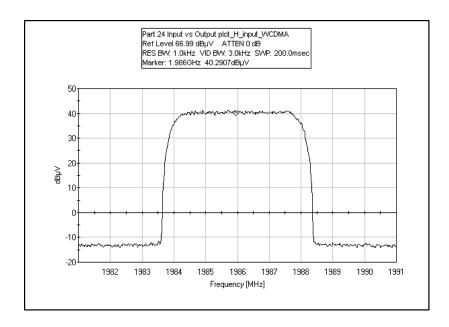
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FCC PART 24 INPUT PLOT - MIDDLE CHANNEL WCDMA



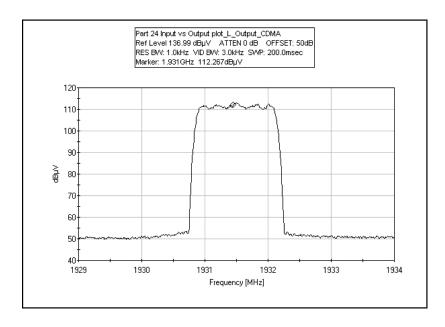
FCC PART 24 INPUT PLOT - HIGH CHANNEL WCDMA



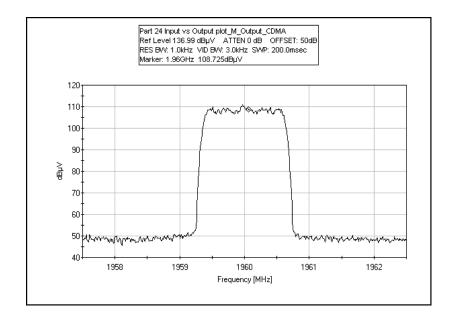
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FCC PART 24 OUTPUT PLOT - LOW CHANNEL CDMA



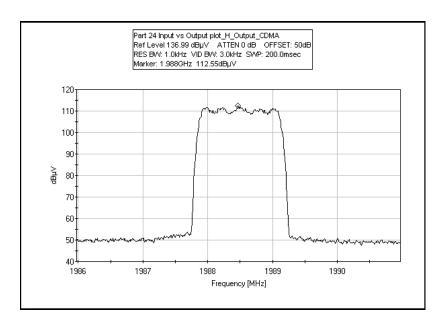
FCC PART 24 OUTPUT PLOT - MIDDLE CHANNEL CDMA



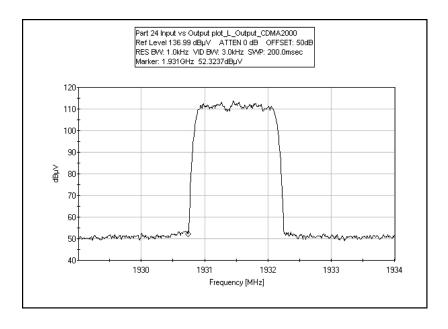
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FCC PART 24 OUTPUT PLOT - HIGH CHANNEL CDMA



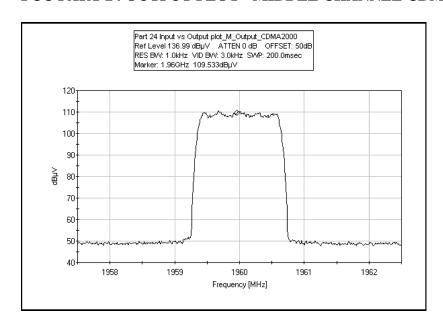
FCC PART 24 OUTPUT PLOT - LOW CHANNEL CDMA



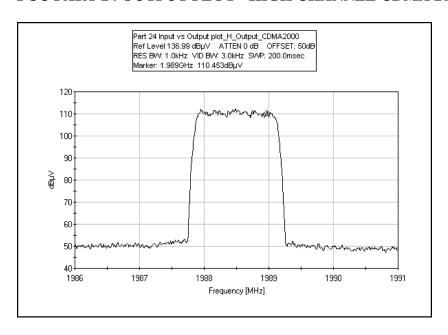
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FCC PART 24 OUTPUT PLOT - MIDDLE CHANNEL CDMA 2000



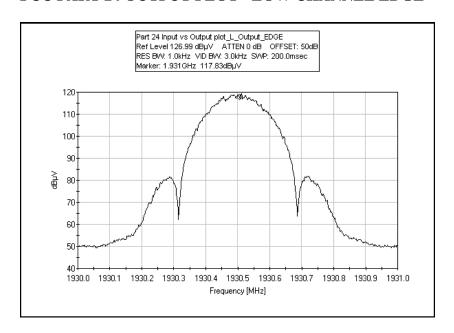
FCC PART 24 OUTPUT PLOT - HIGH CHANNEL CDMA 2000



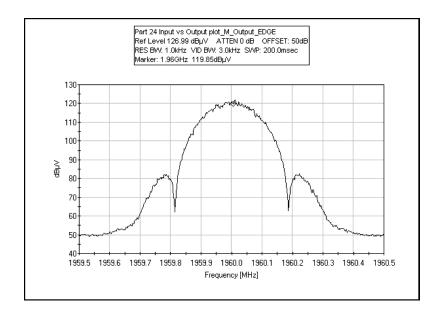
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FCC PART 24 OUTPUT PLOT - LOW CHANNEL EDGE



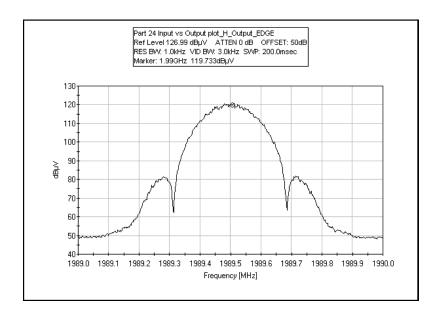
FCC PART 24 OUTPUT PLOT - MIDDLE CHANNEL EDGE



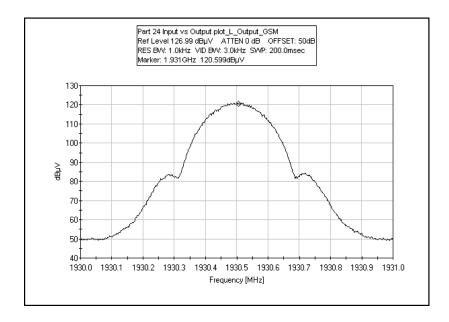
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FCC PART 24 OUTPUT PLOT - HIGH CHANNEL EDGE



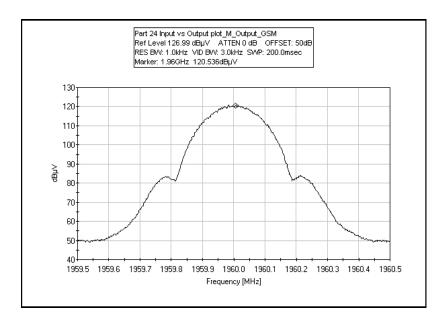
FCC PART 24 OUTPUT PLOT - LOW CHANNEL GSM



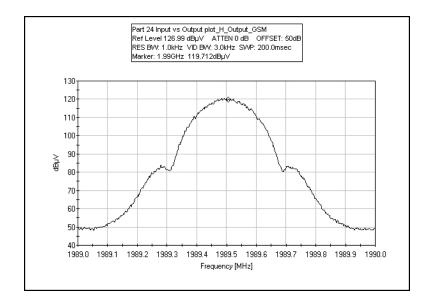
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FCC PART 24 OUTPUT PLOT - MIDDLE CHANNEL GSM



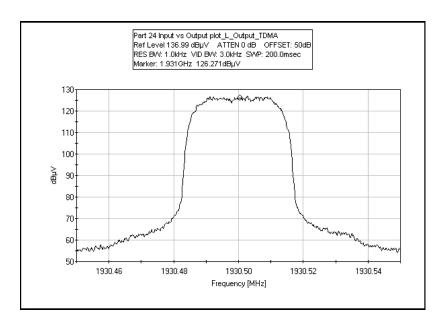
FCC PART 24 OUTPUT PLOT - HIGH CHANNEL GSM



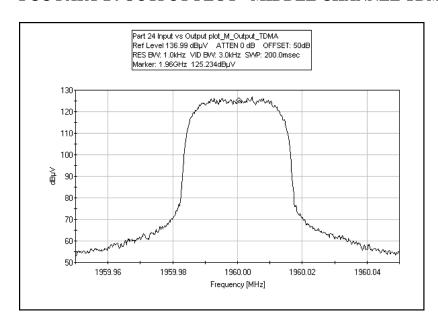
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FCC PART 24 OUTPUT PLOT - LOW CHANNEL TDMA



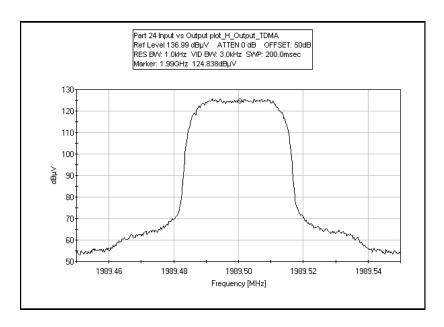
FCC PART 24 OUTPUT PLOT - MIDDLE CHANNEL TDMA



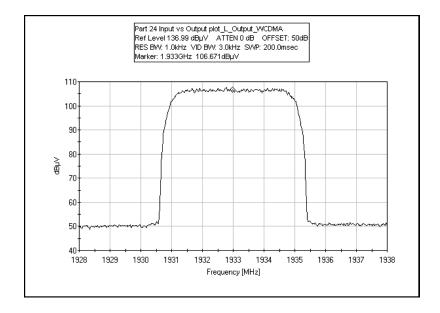
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FCC PART 24 OUTPUT PLOT - HIGH CHANNEL TDMA



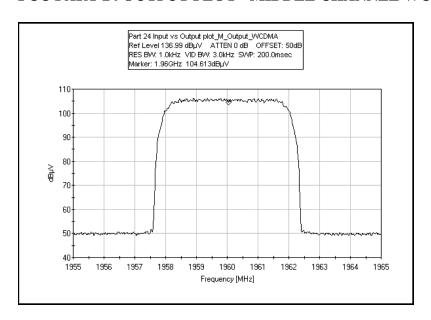
FCC PART 24 OUTPUT PLOT - LOW CHANNEL WCDMA



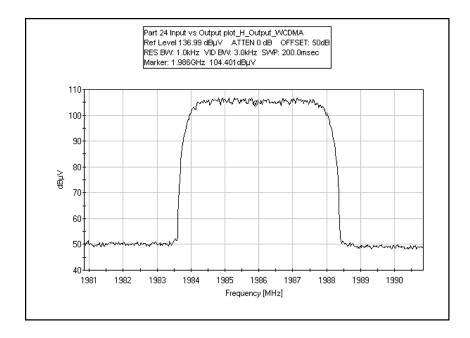
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FCC PART 24 OUTPUT PLOT - MIDDLE CHANNEL WCDMA



FCC PART 24 OUTPUT PLOT - HIGH CHANNEL WCDMA



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$\frac{FCC\ 2.1033(c)(14)/2.1051/24.238(a)\ -\ SPURIOUS\ EMISSIONS\ AT\ ANTENNA}{TERMINAL}$

Test Setup Photos



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Test Data

Limit line for Spurious Conducted Emission

Required Attenuation	=	43+10 Log P dB
Limit line (dBuV)	=	V_{dBuv} - Attenuation
$ m V_{dBuV}$	=	$20 \log \frac{V}{1 \times 10^{-6}}$
	=	$20 \left(\text{Log V} - \text{Log 1 x } 10^{-6} \right)$
	=	$20 \text{ Log V} - 20 \text{ Log1 x } 10^{-6}$
	=	20 Log V - 20 (-6)
	=	20 Log V + 120
Attenuation	=	$43 + 10 \operatorname{Log} P$
	=	$43 + 10 \operatorname{Log} \frac{V^2}{R}$
	=	$43+10\left(\operatorname{Log} V^{2}-\operatorname{Log} R\right)$
	=	$43 + 10 \left(2 \operatorname{Log} V - \operatorname{Log} R \right)$
	=	43 + 20 Log V - 10 Log R
Limit line	=	V_{dBuv} - Attenuation
	=	20 Log V + 120 – (43 + 20 Log V – 10Log R) 20 Log V + 120 – 43 – 20 Log V + 10Log R
	=	20 Log V + 120 – 43 – 20 Log V + 10Log R 20 Log V + 120 – 43 – 20 Log V + 10Log R
	=	$120 - 43 + 10 \text{ Log } 50$ Note: $R = 50 \Omega$
		120 13 10 205 30 1000 11 30 22

120 - 43 + 16.897

94 dBuV at any power level



Test Location: CKC Laboratories, Inc. •110. N. Olinda Place. • Brea, CA 92821 • (714) 993-6112

Customer: **Powerwave Technologies, Inc.**

Specification: FCC 24.238 (a) Conducted Spurious Emission

Work Order #: 87767 Date: 3/26/2008
Test Type: Conducted Emissions Time: 14:21:36
Equipment: Dual Band Transceiver Sequence#: 6

Manufacturer: Powerwave Technologies Tested By: E. Wong Model: RH308022/03A 110V 60Hz

S/N: NA

Test Equipment:

					_
Function	S/N	Calibration Date	Cal Due Date	Asset #	
Spectrum Analyzer	US44300438	01/03/2007	01/03/2009	02672	
3'-40GHz cable	NA	09/18/2007	09/18/2009	P02945	

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Dual Band Transceiver*	Powerwave Technologies	RH308022/03A	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Spectrum Analyzer	HP	8563E	3337A01565
Power Meter	Agilent	E4419B	MY0510694
ESG	Aeroflex	IFR3417	341005/018

Test Conditions / Notes:

The dual band EUT is placed on the wooden table. Service port Local 1 and Local 2 are left unpopulated, WLI communication (non ethernet, proprietary handshake protocol) port 1 and 2 are connected in loop back manner via UTP. Antenna port Service 2 is terminated to 50 ohm load. Donor 2 out, Donor 2 In and Donor 1 out are connected to 50 ohm loads via a section of shielded RF cable. Donor 1 In is connected to a remote RF signal source, antenna port Service 1 is connected to a remote power meter. The input RF level is adjusted to maintain a constant output power. Range =1930 - 1990MHz, Power = 20W. Modulation: GSM, EDGE, TDMA (15-136), CDMA (15-95/15-97), CDMA 2000, WCDMA (3GPP). Frequency: 1930.5MHz, 1960MHz, 1989.5MHz. Frequency range of measurement = 9 kHz - 20 GHz. Frequency 9 kHz - 150 kHz RBW=200 Hz, VBW=200 Hz; 150 kHz - 30 MHz RBW=9 kHz, VBW=9 kHz; 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz - 20,000 MHz RBW=1 MHz, VBW=1 MHz. No spurious emission was detected. Recorded data represent noise floor level.

Transducer Legend:

T1=Hi Freq_40GHz_3ft_CAB-ANP02945-091809

Measi	urement Data:	Re	eading lis	ted by n	nargin.			Test Lea	d: Antenna	a Terminal	
#	Freq	Rdng	T1				Dist	Corr	Spec	Margin	Polar
	MHz	$dB\mu V$	dB	dB	dB	dB	Table	dΒμV	dΒμV	dB	Ant
1	3861.070M	76.1	+0.7				+0.0	76.8	94.0	-17.2	Anten
									EDGE		
2	3860.330M	76.0	+0.7				+0.0	76.7	94.0	-17.3	Anten
									CDMA		
3	5791.400M	75.8	+0.8				+0.0	76.6	94.0	-17.4	Anten
									GSM		
4	3861.300M	75.6	+0.7				+0.0	76.3	94.0	-17.7	Anten
									TDMA		
5	3978.830M	75.2	+0.7				+0.0	75.9	94.0	-18.1	Anten
									GSM		

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6	3978.170M	75.1	+0.7	+0.0 75.8 94.0 -18	.2 Anten
				CDMA	
7	3890.330M	75.0	+0.7	+0.0 75.7 94.0 -18	.3 Anten
				CDMA 2000	
8	3920.000M	75.0	+0.7	+0.0 75.7 94.0 -18	.3 Anten
				GSM	
9	3920.670M	74.9	+0.7	+0.0 75.6 94.0 -18	.4 Anten
				WCDMA	
10	3867.000M	74.9	+0.7	+0.0 75.6 94.0 -18	.4 Anten
				WCDMA	
11	3946.830M	74.7	+0.7	+0.0 75.4 94.0 -18	.6 Anten
				WCDMA	
12	3980.000M	74.6	+0.7	+0.0 75.3 94.0 -18	.7 Anten
				TDMA	
13	3920.130M	74.6	+0.7	+0.0 75.3 94.0 -18	.7 Anten
				EDGE	
14	3920.000M	74.5	+0.7	+0.0 75.2 94.0 -18	.8 Anten
				TDMA	
15	3861.000M	74.4	+0.7	+0.0 75.1 94.0 -18	.9 Anten
				CDMA 2000	
16	3919.830M	74.3	+0.7	+0.0 75.0 94.0 -19	.0 Anten
				CDMA 2000	
17	3919.830M	74.0	+0.7	+0.0 74.7 94.0 -19	.3 Anten
				CDMA	
18	3978.800M	73.4	+0.7	+0.0 74.1 94.0 -19	.9 Anten
				EDGE	

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$\underline{FCC~2.1033(c)(14)/2.1053/24.238(a)} - \underline{FIELD~STRENGTH~OF~SPURIOUS~RADIATION}$

Test Setup Photos





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Test Data

Test Location: CKC Laboratories, Inc. •110. N. Olinda Place. • Brea, CA 92821 • (714) 993-6112

Customer: **Powerwave Technologies, Inc.**

Specification: 24.133(a)(2)(ii) Radiated Spurious Emission

Work Order #: 87767 Date: 3/25/2008
Test Type: Radiated Scan Time: 14:34:04
Equipment: Dual Band Transceiver Sequence#: 3
Manufacturer: Powerwave Technologies Tested By: E. Wong

Model: RH308022/03A

S/N: NA

Test Equipment:

Test Equipment	Chi	G 1'1 - :' D :	GID D:	. !!
Function	S/N	Calibration Date	Cal Due Date	Asset #
Spectrum Analyzer	US44300438	01/03/2007	01/03/2009	02672
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
Pre Amp	1937A02548	06/01/2006	06/01/2008	00309
Horn Antenna	6246	06/29/2006	06/29/2008	00849
Microwave Pre-amp	3123A00281	07/19/2006	07/19/2008	00786
2'-40GHz cable	NA	09/18/2007	09/18/2009	P2948
Heliax Antenna Cable	P5565	09/18/2006	09/18/2008	P05565
Loop Antenna	2014	06/14/2006	06/14/2008	00314
18-26.5 GHz Horn	3643A00027	11/27/2006	11/27/2008	02112
Antenna				

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Dual Band Transceiver*	Powerwave Technologies	RH308022/03A	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Spectrum Analyzer	HP	8563E	3337A01565
Power Meter	Agilent	E4419B	MY0510694
ESG	Aeroflex	IFR3417	341005/018

Test Conditions / Notes:

The dual band EUT is placed on the wooden table. Service port Local 1 and Local 2 are left unpopulated, WLI communication (non ethernet, proprietary handshake protocol) port 1 and 2 are connected in loop back manner via UTP. Antenna port Service 2 is terminated to 50 ohm load. Donor 2 out, Donor 2 In and Donor 1 out are connected to 50 ohm loads via a section of shielded RF cable. Donor 1 In is connected to a remote RF signal source, antenna port Service 1 is connected to a remote power meter. The input RF level is adjusted to maintain a constant output power. Range =1930 - 1990MHz, Power = 20W. Modulation: EDGE. Frequency: 1930.5MHz, 1960MHz, 1989.5MHz. Frequency range of measurement = 9 kHz - 20 GHz. Frequency 9 kHz - 150 kHz RBW=200 Hz, VBW=200 Hz; 150 kHz - 30 MHz RBW=9 kHz, VBW=9 kHz; 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz - 20,000 MHz RBW=1 MHz, VBW=1 MHz.

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Operating Frequency: <u>1930 MHz - 1</u>990 MHz

Channels: Low, Mid and High

Highest Measured Output Power: 43.01 EIRP(dBm)= 20 EIRP(Watts)
Distance: 3 meters

Limit: 43+10Log(P) 56.01 dBc

Freq. (MHz)	Freq. (MHz) Reference Level (dBm)		dBc
5,968.68	-30.3	Horiz	73.31
5,880.20	-31.1	Horiz	74.11
7,840.27	-31.2	Horiz	74.21
7,721.90	-31.4	Horiz	74.41
7,958.27	-34.6	Horiz	77.61
5,791.53	-38	Horiz	81.01
5,968.58	-39	Vert	82.01
7,840.17	-40	Vert	83.01
7,722.08	-41.6	Vert	84.61
7,957.75	-42	Vert	85.01
5,791.35	-42.8	Vert	85.81
5,880.20	-43.7	Vert	86.71
9,947.68	-44.9	Horiz	87.91
9,800.33	-45.8	Horiz	88.81
9,947.17	-47	Vert	90.01
9,800.23	-47.5	Vert	90.51
9,652.27	-47.9	Horiz	90.91
9,652.45	-48.9	Vert	91.91
3,860.83	-49.4	Horiz	92.41
3,978.92	-50.7	Vert	93.71
11,760.40	-50.7	Horiz	93.71
3,920.13	-52.8	Horiz	95.81
3,978.83	-53.6	Vert	96.61
3,920.13	-54.4	Vert	97.41
3,860.73	-55.5	Vert	98.51

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FCC PART 24.238 BLOCK EDGE

Test Equipment

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer	02672	Agilent	E4446A	US44300438	010307	010309

Test Conditions

The dual band EUT was placed on the wooden table. Service port Local 1 and Local 2 were left unpopulated, WLI communication (non ethernet, proprietary handshake protocol) port 1 and 2 were connected in loop back manner via UTP. Antenna port Service 1 was terminated to 50 ohm load. Donor 2 out, Donor 1 In and Donor 1 out were connected to 50 ohm loads. Donor 2 In was connected to a remote RF signal source, antenna port Service 2 was connected to a remote power meter. The input RF level was adjusted to maintain a constant output power. Emission profile of the output signal was evaluated at the antenna port, service 2 /Service 1. Input signal profile was evaluated at Donor in 1/ Donor in 2.

For Bandedge plots, when applicable, a bandwidth correction was applied to compensate for employing resolution bandwidth other than 1 MHz. The signal amplitude was first measured at RBW=1MHz, any loss in amplitude measured with reduced RBW was noted and compensated for.



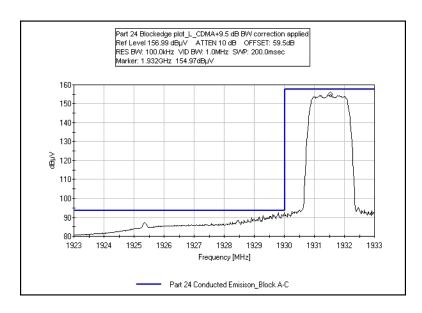


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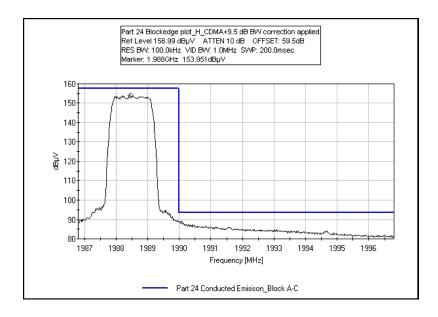


Test Plots

FCC PART 24.238 BLOCK EDGE - LOW CHANNEL CDMA



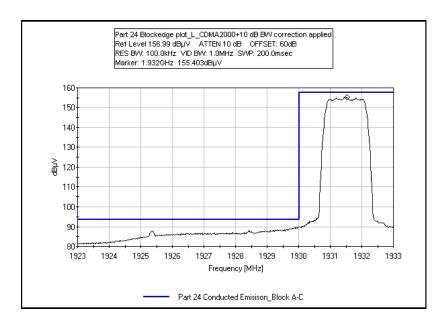
FCC PART 24.238 BLOCK EDGE - HIGH CHANNEL CDMA



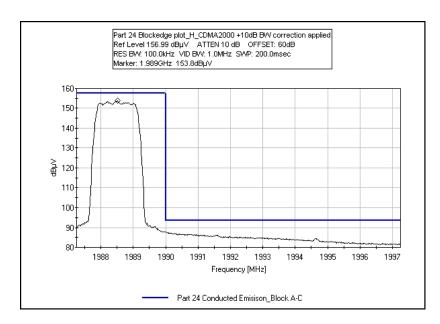
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FCC PART 24.238 BLOCK EDGE - LOW CHANNEL CDMA 2000



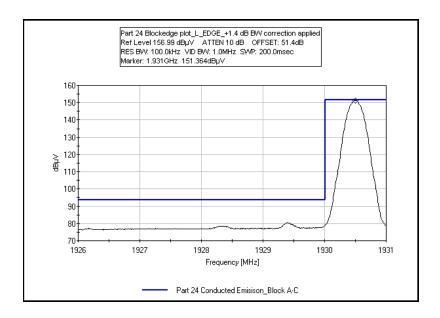
FCC PART 24.238 BLOCK EDGE - HIGH CHANNEL CDMA 2000



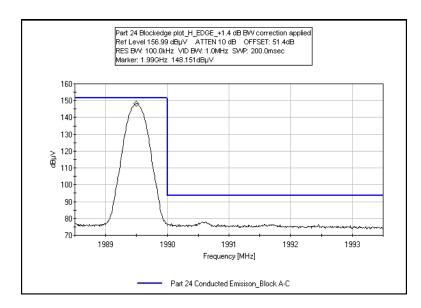
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FCC PART 24.238 BLOCK EDGE - LOW CHANNEL EDGE



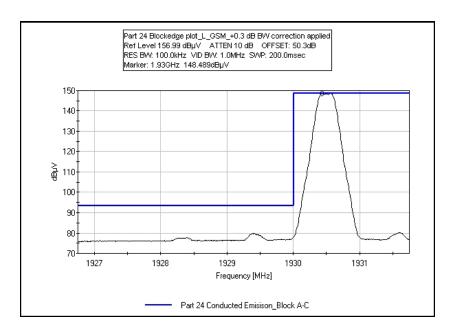
FCC PART 24.238 BLOCK EDGE - HIGH CHANNEL EDGE



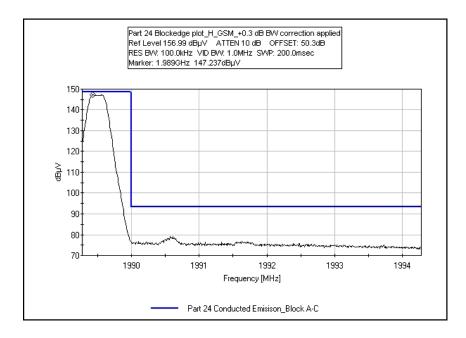
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FCC PART 24.238 BLOCK EDGE - LOW CHANNEL GSM



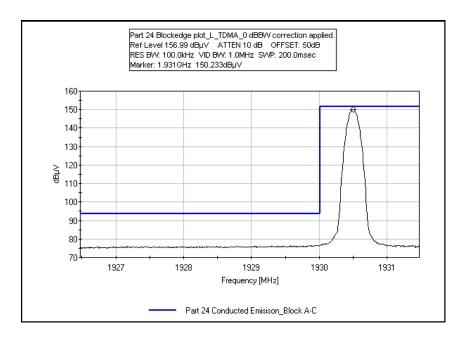
FCC PART 24.238 BLOCK EDGE - HIGH CHANNEL GSM



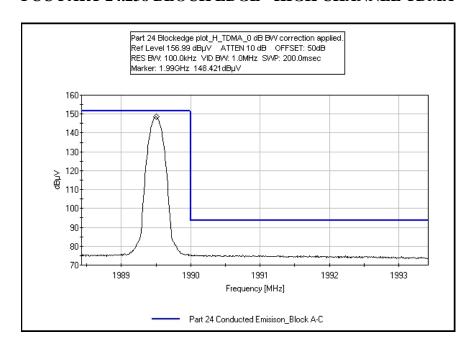
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FCC PART 24.238 BLOCK EDGE - LOW CHANNEL TDMA



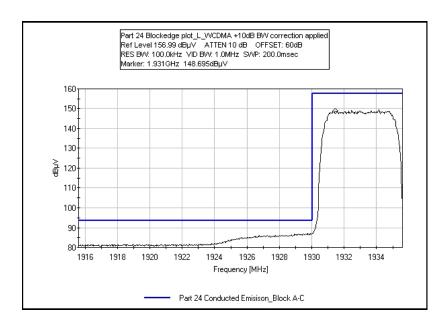
FCC PART 24.238 BLOCK EDGE - HIGH CHANNEL TDMA



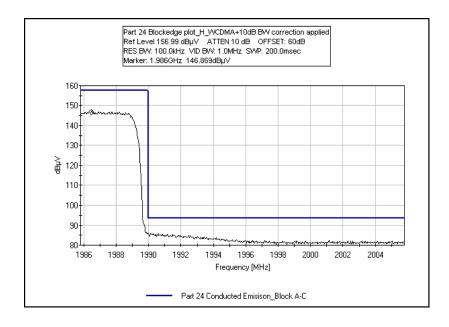
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FCC PART 24.238 BLOCK EDGE - LOW CHANNEL WCDMA



FCC PART 24.238 BLOCK EDGE - HIGH CHANNEL WCDMA



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