Tranzeo EMC Labs Inc.
#2 - 11720 Stewart Crescent
Maple Ridge, BC
Canada V2X 9E7

Mars Antenna & RF Systems
MR-BDA-60
Amplifier
EMC Test Report

13 May 2005

Report Number: TRL130505.1

Bruce Balston, EMC Lab Manager

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Revision History

Table of Contents

1.0 General Information

1.1 EUT Description

Product Name	Bi-directional Amplifier
Company Name	Mars Antenna & RF Systems
FCC ID	Pending
Model No.	MR-BDA60-X
Frequency Range	Downlink: 860-890 MHz; Uplink: 824-845 MHz
Number of Channels	EXTENDER
Type of Modulation	EXTENDER
Antenna Gain	n/a
Product Software	n/a
Test Software	n/a
Operator Channel Selection	None
Power Adapter	Tranzeo EMC Supplied AM-121000 Input: AC 120V 60Hz, 25.9 W Output: DC 12 V, 1000 mA

Product samples tested:

Manufacterer	Model No.	Serial No.
Mars Antenna	MR-BDA-60	763
Mars Antenna	MR-BDA-60-B1	702

The two products listed above are identical except for the frequency range of each unit. MR-BDA-60 is tuned for the frequency range of 824-835 MHz Uplink and 869-880 MHz Downlink. MR-BDA-60-B1is tuned for the frequency range of 835-845 MHz Uplink and 880-890 MHz Downlink. The product is only available in either configuration and is tuned at the factory to customer order. In all other respects the products are identical.

The tests were performed on production sample models to demonstrate compliance with FCC Part 2 and 22, as well as Industry Canada RSS-131 Issue 2 for celluar zone enhancers.

1.2 Operational Description

The Mars BDA series of products provides a cost effective answer for enhancing radio communication in buildings, basements, parking garages and other RF shielded environments. The BDA products work by receiving and amplifying RF signals strength in both the "Down Link" and the "Up Link" communication paths.

1.3 EUT Testing Configuration

Extensive prescanning for individual tests was performed to determine worst case. Data is presented for worst case measurements only.

The EUT is mounted to a custom non-metallic stand to ease polarization changes and to best represent a typical user installation.

The EUT was tested with the following modulation types:

1) CDMA
2) GSM/TDMA
3) AMPS

1.4 EUT Modifications

No modifications were necessary for this unit to comply with FCC Part 15 and Industry Canada RSS-210 Issue 5

1.5 Overview of Test Results

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
N1E

FCC 2.1033 (c)(5) FREQUENCY RANGE
869-890 MHz

FCC 2.1033 (c)(6) OPERATING POWER
400 Milliwatts

FCC 2.1033 (c)(7) MAXIMUM POWER RATING
500 Watts.

FCC 2.1033 (c)(8) DC VOLTAGES
The EUT has a maximum DC input voltage of 13.5 V DC

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
EXTENDER.

1.6 Test Facilities

Tranzeo EMC Labs
#2-11720 Stewart Cres.
Maple Ridge, BC Canada
V2X 9E7

Phone: (604) 460-6002
Fax: (604) 460-6005

FCC registration number: 960532
Industry Canada Number: 5238A

1.7 Test Equipment

Manufacturerer	Model	Description	Serial Number	Last Cal
Hewlett Packard	8560A	Quasi Peak Adapter	790142	12-Apr-04
Hewlett Packard	8566B	Spectrum Analyzer	2747A05799	25 Mar 05
Hewlett Packard	8568A	Preselector	2811A01430	03/01/04
Sunol Sciences	SM46C	Turntable	051204-2	N/R
Sunol Sciences	Custom	Mast Motor	TREML0001	N/R
Sunol Sciences	JB3	Antenna	A042004	05-May-04
Sunol Sciences	DRH-118	Antenna	A052804	02-Jun-04
FCC	FCC-LISN-50-25-2	LISN	105	02-Jun-04
Wavetek	8501	Power Meter	45-00218	27-Jul-04
Wavetek	17266	Power Detector	1509315	27-Jul-04
Hewlett Packard	11970A	Harmonic Mixer	2332A00886	N/R
Hewlett Packard	11975A	Amplifier	2517A00949	N/R
Rohde & Schwarz	SMIQ	Signal Generator		N/R

1.8 Test System Details

The following auxiliary equipment and cables were used for performing the tests:

Manufacturer	Model	Description	S/N
Rohde & Schwarz	SMIQ	Signal Generator	

1.9 Test Results

The MR-BDA-60-X and MR-BDA-60-B1 products comply with FCC Part 22 and well as Industry Canada RSS-131 Issue 2.

2.0 Conducted Emissions

2.1 Test Standard

FCC Part 15 Subpart C Section 15.207a

(a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30MHz shall not exceed the limits in the following table, as measured using a 50 µH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

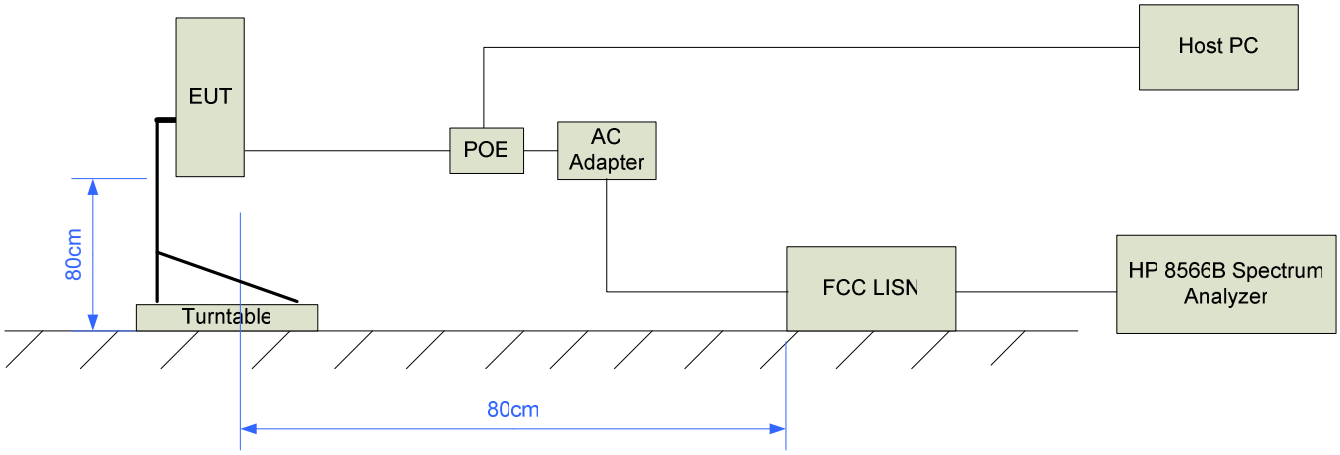
2.2 Test Limits

requency (MHz)	**Maximum Level (dBuV) Quasi-Peak**	**Maximum Level (dBuV) Average**
0.15-0.50	66-56 (Log Delta)	56-46 (Log Delta)
0.50-5.00	56	46
5.00-30.0	60	50

2.3 Test Setup

Both samples were scanned in all modes. Testing was performed over the frequency range of 0.15 MHz to 30 MHz. Only worst case data is shown below.

2.3.1 Test Setup Block Diagram



Note: The unused LISN terminal is terminated with a 50 Ohm terminator.

2.4 Test Results

Line

Frequency (MHz)	Reading (dBµV)	Correction (dB)	Corr Reading (dBµV)	Limit (dBµV)	Margin (dBµV)	Polarity	Reading type	Result
0.543	40.7	1.0	41.7	46.0	-4.3	Line	Peak	PASS
0.682	36.5	1.0	37.5	46.0	-8.5	Line	Peak	PASS
0.719	41.7	1.0	42.7	46.0	-3.3	Line	Peak	PASS
1.124	28.3	1.0	29.3	46.0	-16.7	Line	Peak	PASS
13.480	33.2	1.0	34.2	50.0	-15.8	Line	Peak	PASS
14.147	32.8	1.0	33.8	50.0	-16.2	Line	Peak	PASS
19.588	33.5	1.0	34.5	50.0	-15.5	Line	Peak	PASS

Neutral

Frequency (MHz)	Reading (dBµV)	Correction (dB)	Corr Reading (dBµV)	Limit (dBµV)	Margin (dBµV)	Polarity	Reading type	Result
13.606	41.8	1.0	42.8	50.0	-7.2	Neutral	Peak	PASS
14.210	45.9	1.0	46.9	50.0	-3.1	Neutral	Peak	PASS
17.940	41.9	1.0	42.9	50.0	-7.1	Neutral	Peak	PASS
18.237	47.6	1.0	48.6	50.0	-1.4	Neutral	Peak	PASS
18.489	42.9	1.0	43.9	50.0	-6.1	Neutral	Peak	PASS
18.913	44.6	1.0	45.6	50.0	-4.4	Neutral	Peak	PASS
19.165	44.0	1.0	45.0	50.0	-5.0	Neutral	Peak	PASS
19.715	43.4	1.0	44.4	50.0	-5.6	Neutral	Peak	PASS

3.0 RF Output Power

3.1 Test Standard

§22.913 Effective radiated power limits. - The effective radiated power (ERP) of transmitters in the Cellular Radiotelephone Service must not exceed the limits in this section.

(a) Maximum ERP. The effective radiated power (ERP) of base transmitters and cellular repeaters must not exceed 500 Watts. The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

The manufactuerer does not provide an antenna for sale with the EUT, therefore EIRP is not measured nor calculated. Since the unit will only be used in a professional installation, the end-user of this product is to exercise proper engineering judgment to ensure the EIRP limits are met.

The RF power of the EUT was measured at the antenna port with a CW signal and a power meter.

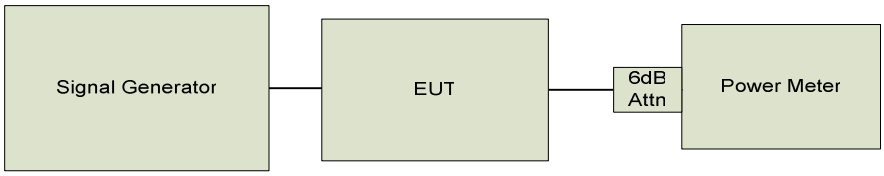
3.2 Test Limits

The ERP may not exceed 500 Watts.

3.3 Test Setup

The input of the EUT is connected to the digital signal generator and the output connected through a suitable attenuator to the measurement equipment. For downlink measurements the signal and measurement cables were swapped.

3.3.1 Test Setup Block Diagram



3.4 Test Results

Freq (MHz)	Meas Rdg (dBm)	Corr (dB)	Peak Power (dBm)	Limit (dBm)	Margin (dB)	Result
824	-18.6	41.5	22.9	57	-34.1	PASS
834	-18.8	41.5	22.7	57	-34.3	PASS
835	-20	41.5	21.5	57	-35.5	PASS
845	-20.9	41.5	20.6	57	-36.4	PASS
869	-15.6	41.5	25.9	57	-31.1	PASS
879	-16.2	41.5	25.3	57	-31.7	PASS
880	-16.2	41.5	25.3	57	-31.7	PASS
890	-16.2	41.5	25.3	57	-31.7	PASS

4.0 Transmitter Radiated Spurious Emissions

4.1 Test Standard

FCC Part 15 Subpart C Section 15.209 Radiated emission limits, general requirements.

(a) Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100 **	3
88 - 216	150 **	3
216 - 960	200 **	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g.,Sections 15.231 and 15.241.

§22.917 Emission limitations for cellular equipment

(a) Out of ban emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

4.2 Test Limits

Required Attenuation = 43+10 Log P dB
Limit line (dBuV) = V_{dBuv} - Attenuation
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
= 120 – 43 + 10 Log 50 Note : R = 50 .
= 120 –43 + 16.897
= **94 dBuV** at any power level

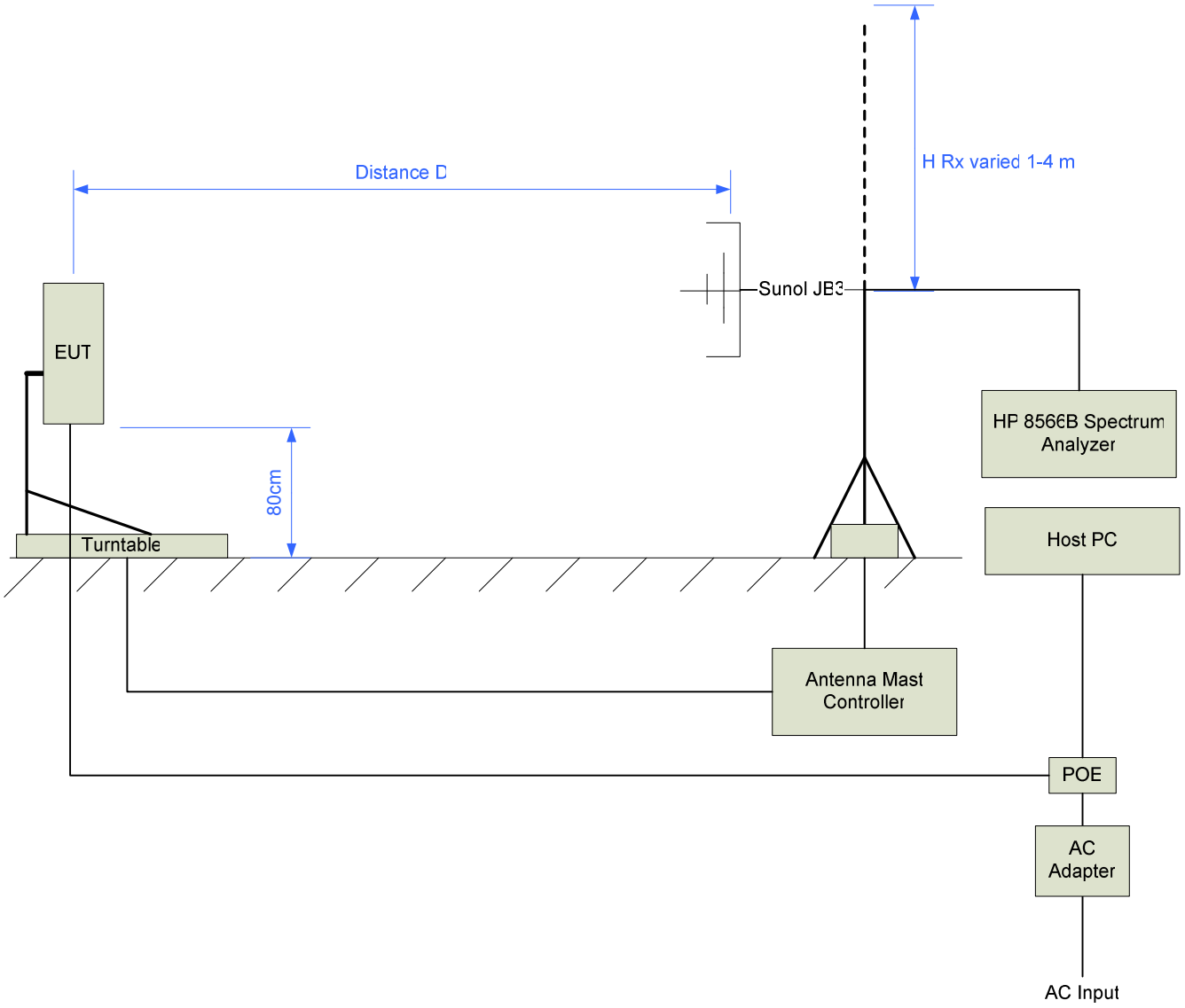
Frequency (MHz)	Maximum Field Strength (dBuV/m @ 3m)
30-88	40.0
88-216	43.5
216-960	46.0
960-1000	54.0
1000-9000	94.0

4.3 Test Setup

Both units were prescanned in to determine worst case. The EUT was exercised with using CDMA modulation. The output of the transmitter was connected to 1m of cable and terminated with a 50 ohm load Emissions were measured from 30 MHz to 9000 MHz. The EUT was rotated 360 degrees and the receive antenna swept from 1m to 4m to determine the maximum emissions level. The measurement distance was 3m. The TR-6015 in the vertical orientation was determined to be worst case. Only the data taken from the worst is shown below.

Measurements above 1 GHz were taken with RBW, VBW = 1 MHz.

4.3.1 Test Setup Block Diagram



Note: Measurements below 1 GHz were performed with the Sunol JB3 antenna. Measurements above 1 GHz were performed with the Com-Power AHA-118 antenna. The measurement distance was 3m

4.4 Test Results

Frequency (MHz)	Meter (dBuV)	Correction (dBuV)	Corr Reading (dBuV)	Limit (dBuV)	Margin (dB)	Polarization	Rtype	Result
127.9	12.2	15.6	27.8	43.5	-15.7	Vert	Peak	PASS
139.5	12.0	15.0	27.0	43.5	-16.5	Vert	Peak	PASS
145.4	13.8	14.7	28.5	43.5	-15.0	Horiz	Peak	PASS
227.4	21.8	13.6	35.4	46.0	-10.6	Horiz	Peak	PASS
275.2	13.3	15.9	29.2	46.0	-16.8	Horiz	Peak	PASS
338.2	20.2	16.9	37.1	46.0	-8.9	Horiz	Peak	PASS
1748.0	27.0	1.0	28.0	94.0	-66.0	Vert	Peak	PASS
2618.0	33.1	7.4	40.5	94.0	-53.5	Horiz	Peak	PASS
3338.0	24.2	9.1	33.3	94.0	-60.7	Vert	Peak	PASS
7523.0	26.4	23.8	50.2	94.0	-43.8	Vert	Peak	PASS
8567.0	25.4	22.1	47.5	94.0	-46.5	Vert	Peak	PASS

5.0 Transmitter Conducted Harmonic and Spurious Emissions

5.1 Test Standard

§22.917 Emission limitations for cellular equipment

(b) Out of ban emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

5.2 Test Limits

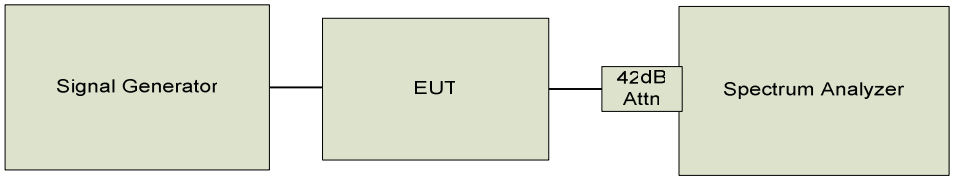
Required Attenuation = 43+10 Log P dB
Limit line (dBuV) = V_{dBuv} - Attenuation
Limit line = V_{dBuv} - Attenuation

= 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
= 120 – 43 + 10 Log 50 Note : R = 50 .
= 120 –43 + 16.897
= **94 dBuV** at any power level

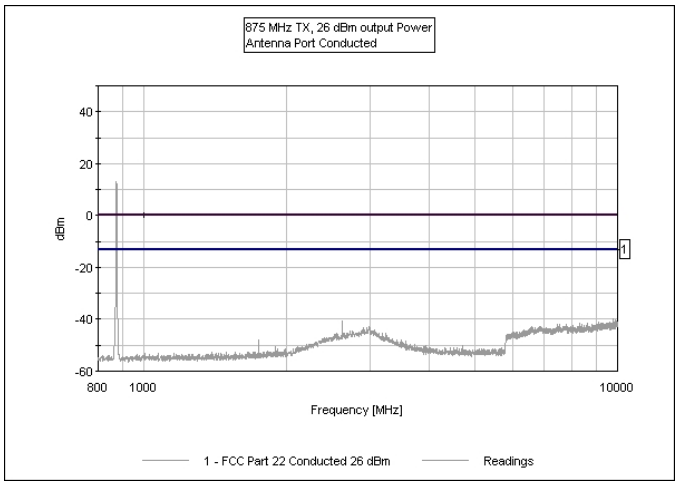
5.3 Test Setup

The input of the EUT is connected to the digital signal generator and the output connected through a suitable attenuator to the measurement equipment. For downlink measurements the signal and measurement cables were swapped. 875 MHz center frequency on the uplink path was determined to be worst case. Only worst case measurements are shown below.

5.3.1 Test Setup Block Diagram – Conducted Measurements (Harmonics)



5.4 Test Results



Pol	Freq (MHz)	Peak Meas TXM (dBm)	Correction (dB)	Corr Rdg (dBm)	Limit (dBm)	Margin	Result
Cond	874.000	-18.8	42.0	23.2	26.0	-2.8	PASS
Cond	1747.000	-81.6	42.0	-39.6	-13.0	-26.6	PASS
Cond	2618.000	-80.8	42.0	-38.8	-13.0	-25.8	PASS

6.0 Band Edge

6.1 Test Standard

§22.917 Emission limitations for cellular equipment

(c) Out of ban emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

6.2 Test Limits

Required Attenuation = 43+10 Log P dB
Limit line (dBuV) = V_{dBuv} - Attenuation
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
= 120 – 43 + 10 Log 50 Note : R = 50 .
= 120 –43 + 16.897
= **94 dBuV** at any power level

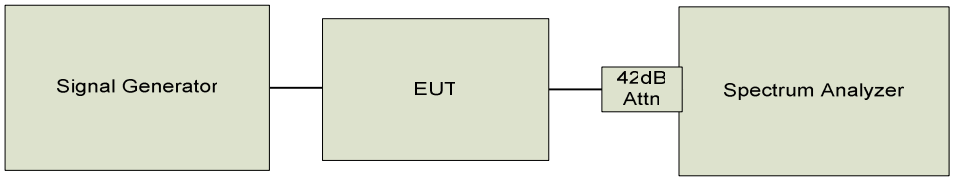
6.3 Test Setup

The input of the EUT is connected to the digital signal generator and the output connected through a suitable attenuator to the measurement equipment. For downlink measurements the signal and measurement cables were swapped.

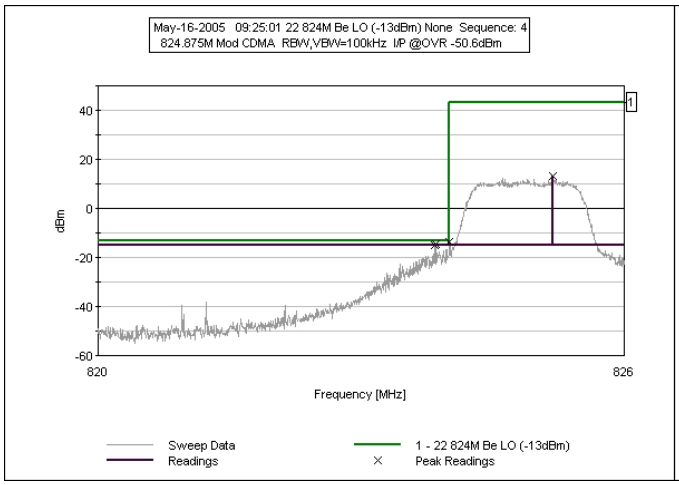
Only worst case CDMA modulation is shown below.

6.3.1 Test Setup Block Diagram

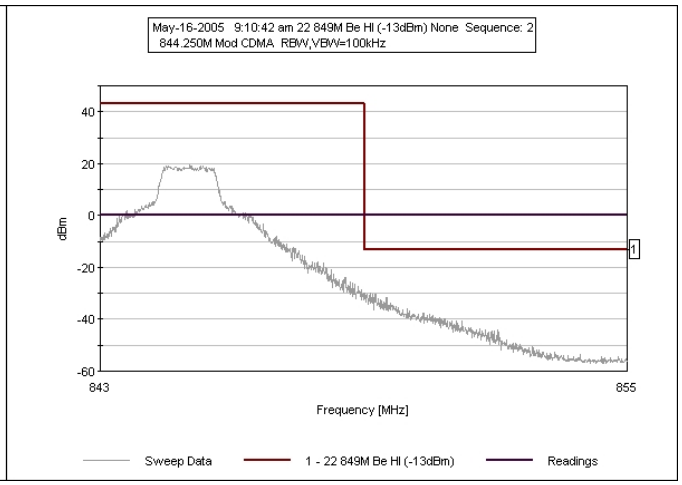
Conducted Setup



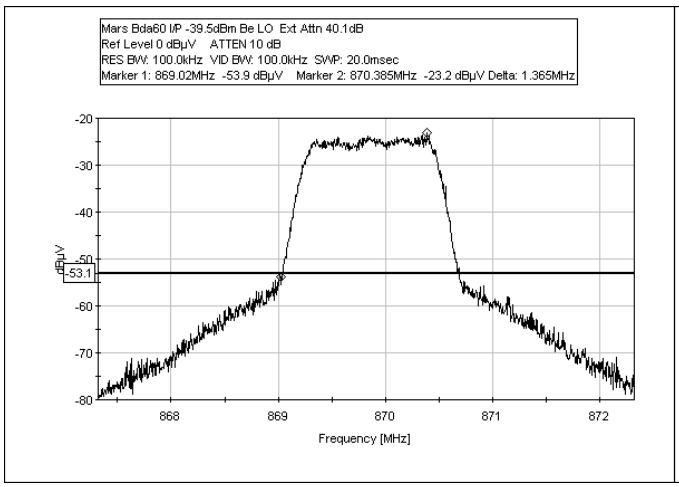
6.4 Test Results



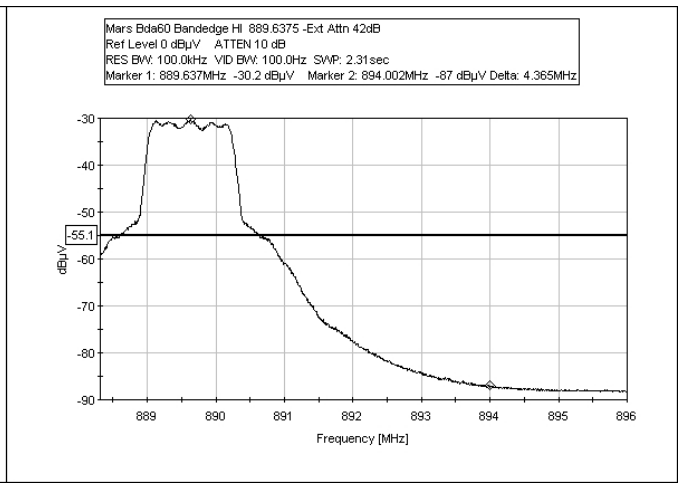
824 MHz CDMA Band Edge Lo



845 MHz CDMA Band Edge Hi



869 MHz CDMA Band Edge Lo



890 MHz CDMA Band Edge Hi

Test result, 824-845 MHz

Spurious emissions are below 94 dBuV

Test result, 869-890 MHz

Spurious emissions are below 94 dBuV

7.0 20 dB Bandwidth of the Bandpass Gain

7.1 Test Standard

RSS-131 Issue 2

6.1 Amplifier Gain and Bandwidth

The passband gain shall not exceed the nominal gain by more than 1.0 dB. The 20 dB bandwidth shall not exceed the nominal bandwidth that is tated by the manufacturer. Ourtside of the 20 dB bandwidth, the gain shall not exceed the gain at the 20 dB point.

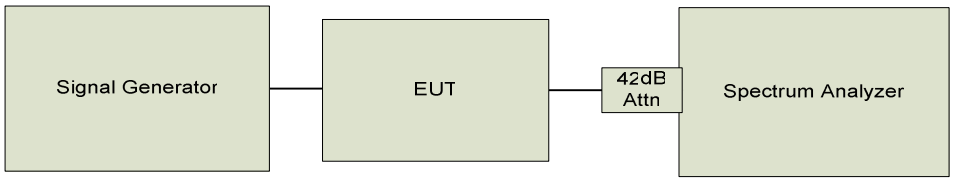
7.2 Test Limits

The passband gain shall not exceed the nominal gain by more than 1.0 dB. The 20 dB bandwidth shall not exceed the nominal bandwidth that is stated by the manufacturer. Outside of the 20 dB

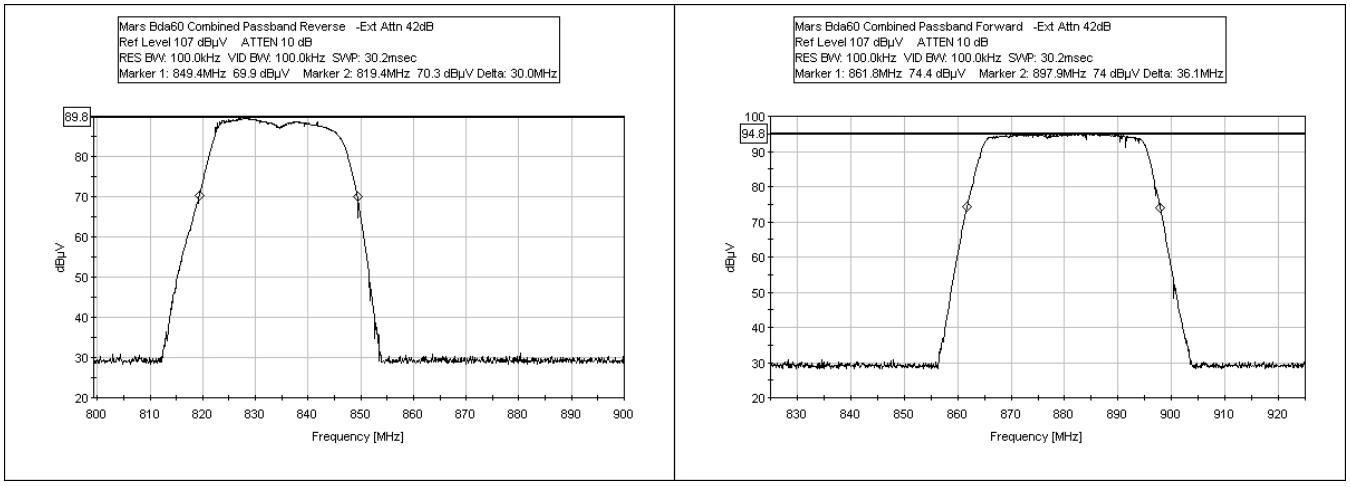
7.3 Test Setup

The input of the EUT is connected to the digital signal generator and the output connected through a suitable attenuator to the measurement equipment. For downlink measurements the signal and measurement cables were swapped.

7.3.1 Test Setup Block Diagram



7.4 Test Results



8.0 Occupied Bandwidth/Linearity

8.1 Test Standard

§22.917 Emission limitations for cellular equipment

(d) Out of ban emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

8.2 Test Limits

Required Attenuation = 43+10 Log P dB
Limit line (dBuV) = V_{dBuv} - Attenuation
Limit line = V_{dBuv} - Attenuation

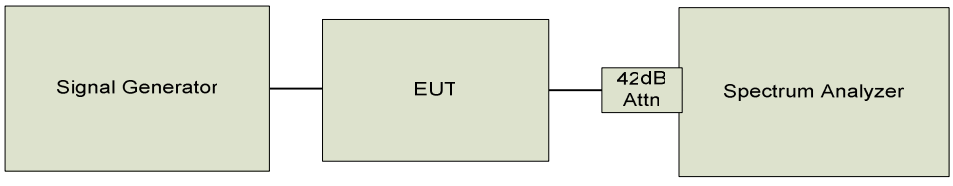
= 20 Log V + 120 – (43 + 20 Log V – 10Log R)
= 20 Log V + 120 – 43 – 20 Log V + 10Log R
= 20 Log V + 120 – 43 – 20 Log V + 10Log R
= 120 – 43 + 10 Log 50 Note : R = 50 .
= 120 –43 + 16.897
= **94 dBuV** at any power level

8.3 Test Setup

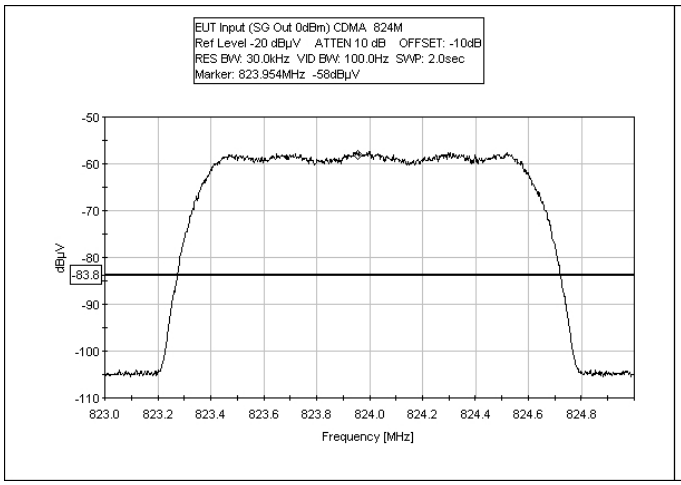
The input of the EUT is connected to the digital signal generator and the output connected through a suitable attenuator to the measurement equipment. For downlink measurements the signal and measurement cables were swapped.

The occupied bandwidth was measured by comparison of the input signal to the output signal. This was done in order to determine if there was any degradation in the output signal due to amplification. Testing was performed on low, middle and high channels for each amplifier. Only low and hi plots are shown below.

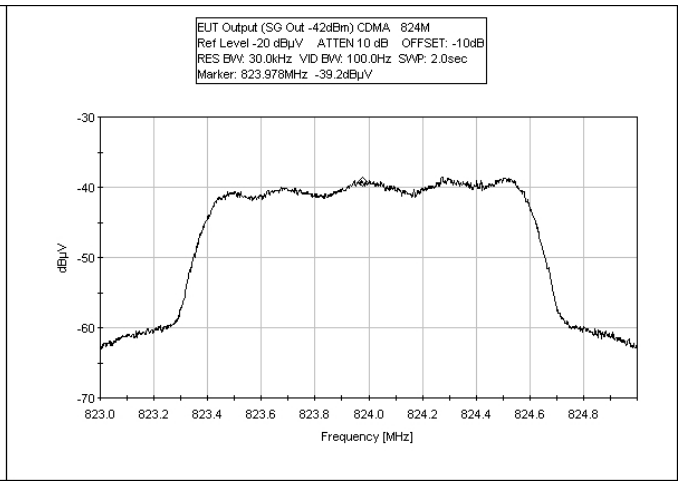
8.3.1 Test Setup Block Diagram



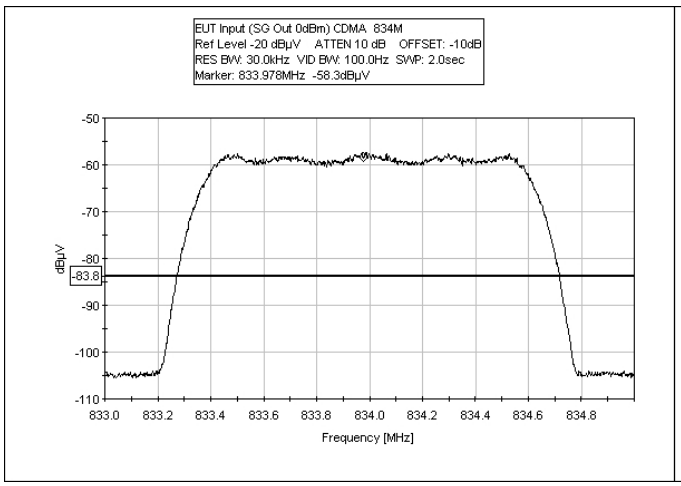
8.4 Test Results



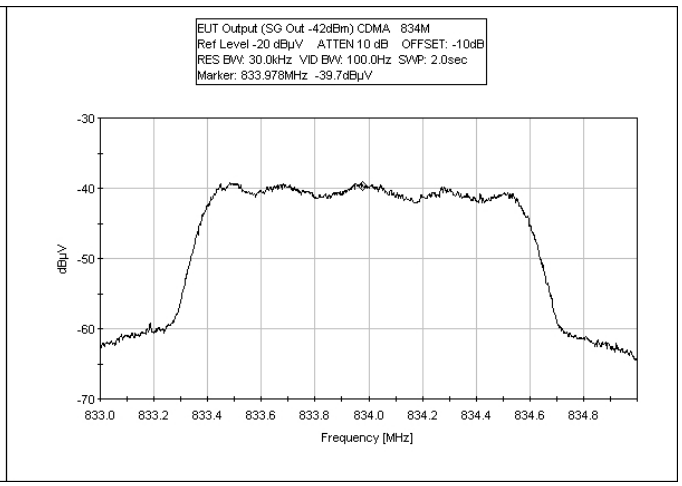
CDMA 824 MHz Input Signal



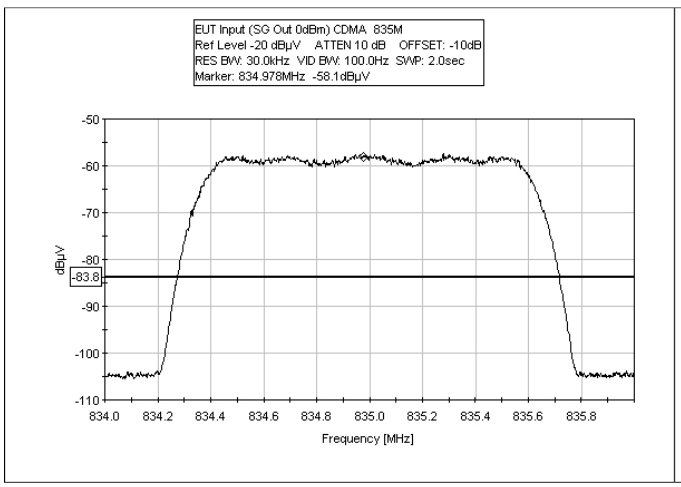
CDMA 824 MHz Output signal



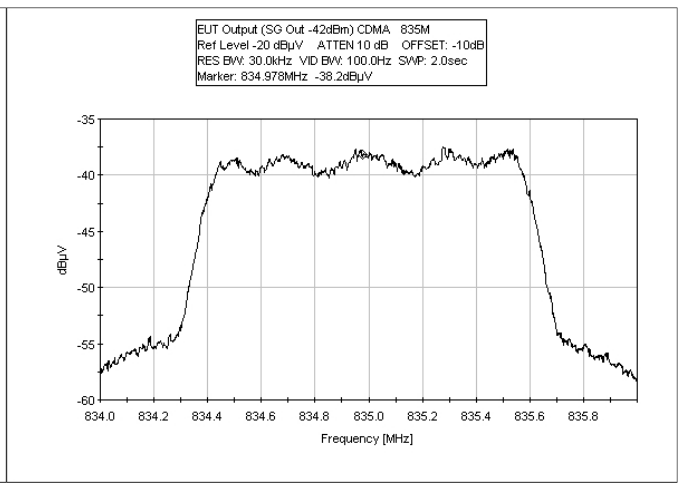
CDMA 834 MHz Input Signal



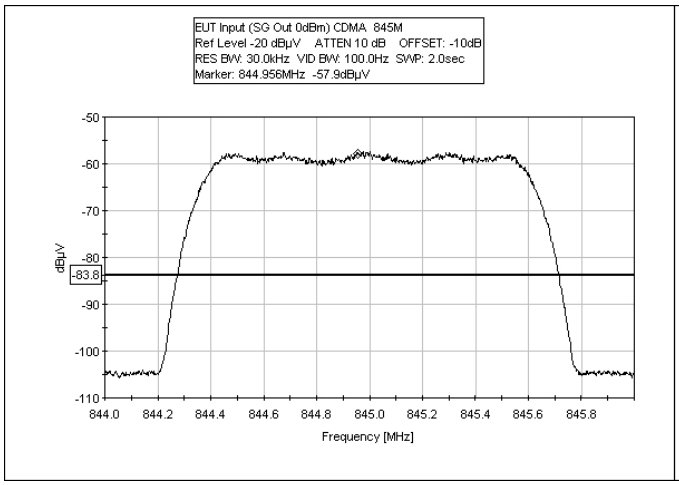
CDMA 834 MHz Output signal



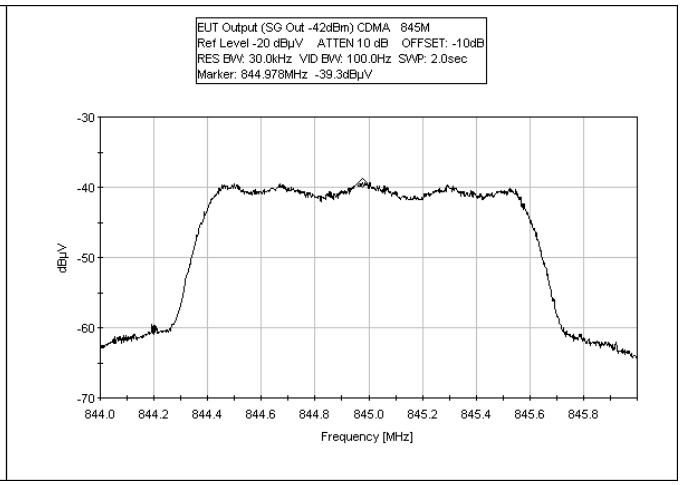
CDMA 835 MHz Input Signal



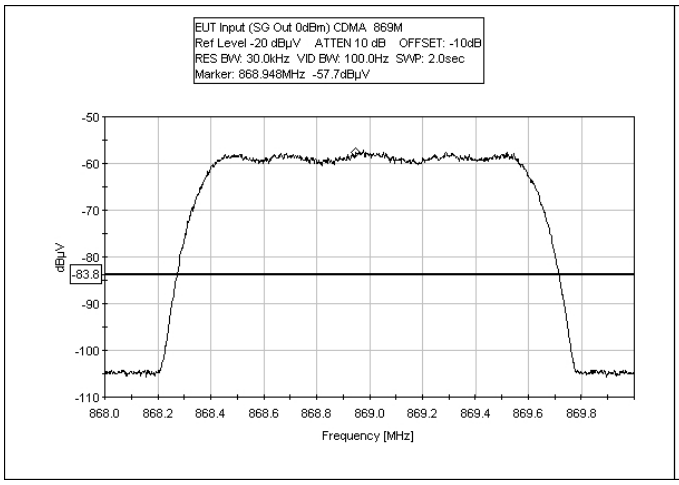
CDMA 835 MHz Output signal



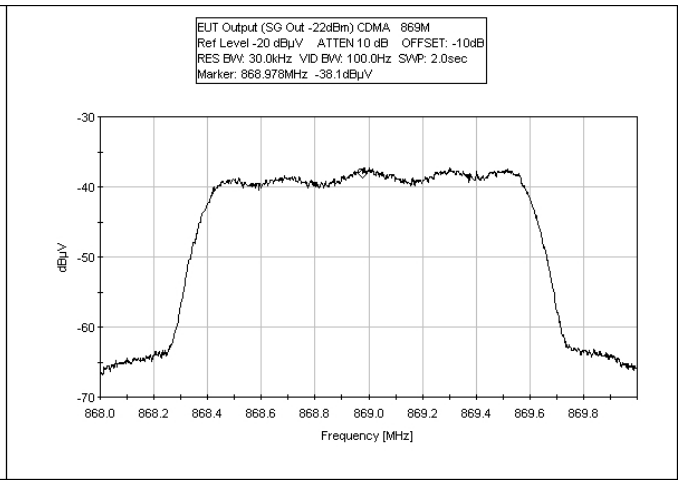
CDMA 845 MHz Input Signal



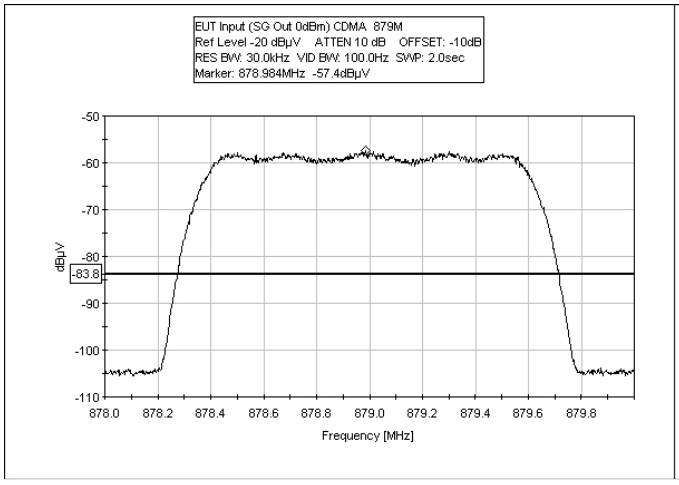
CDMA 845 MHz Output signal



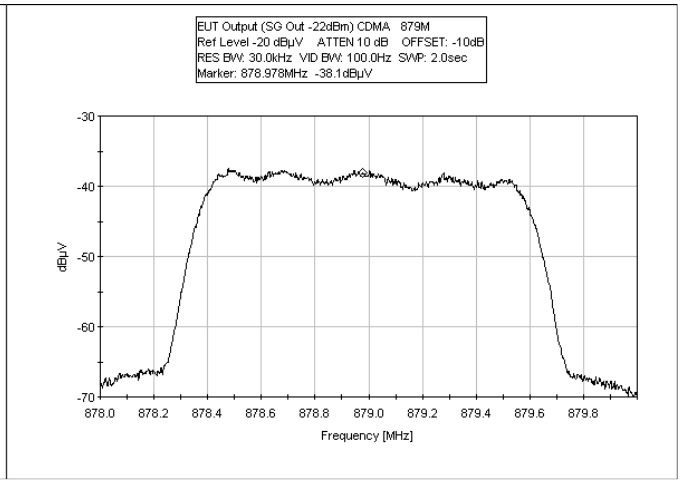
CDMA 869 MHz Input Signal



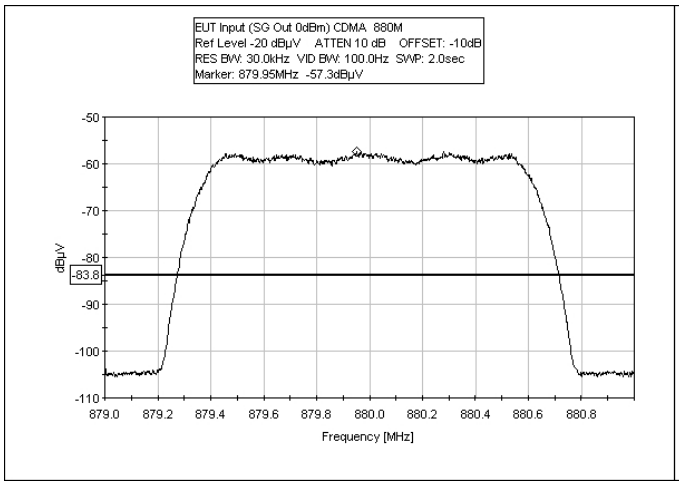
CDMA 869 MHz Output signal



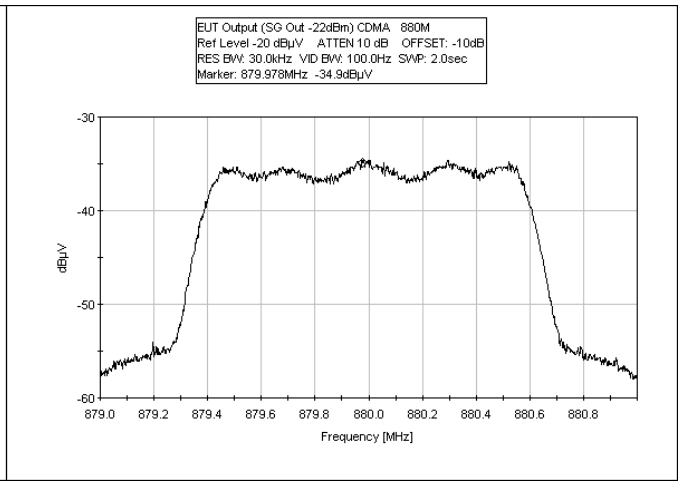
CDMA 879 MHz Input Signal



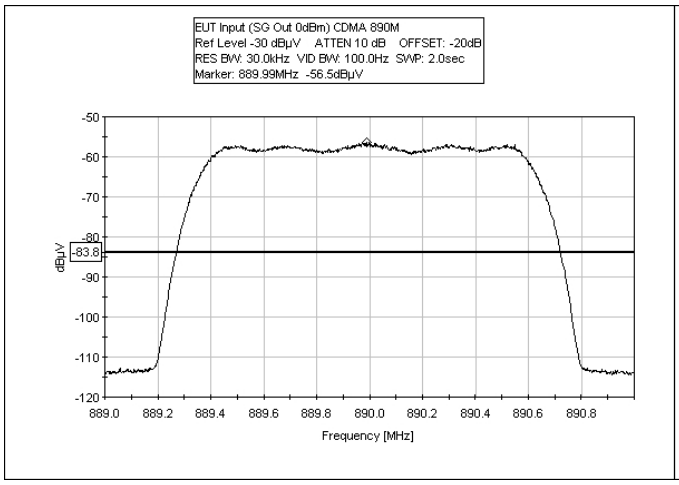
CDMA 879 MHz Output signal



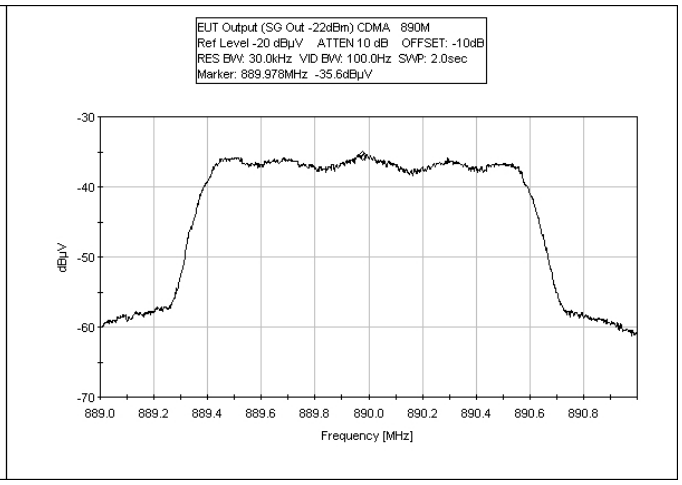
CDMA 880 MHz Input Signal



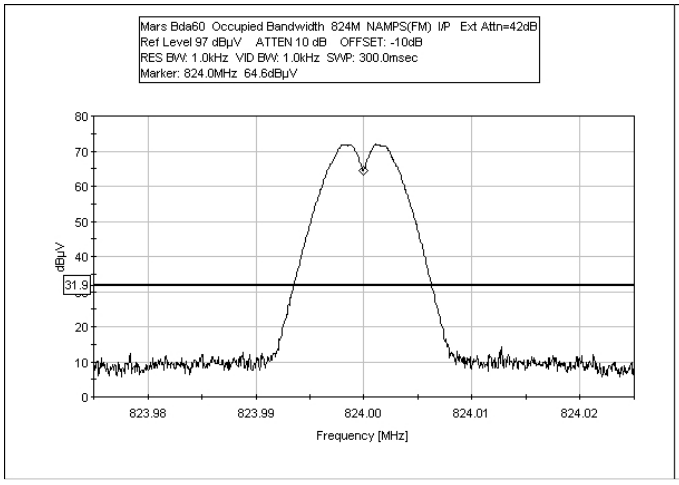
CDMA 880 MHz Output signal



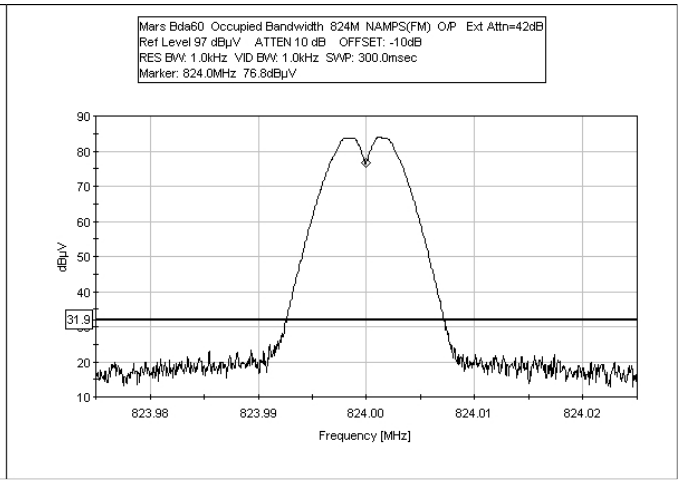
CDMA 890 MHz Input Signal



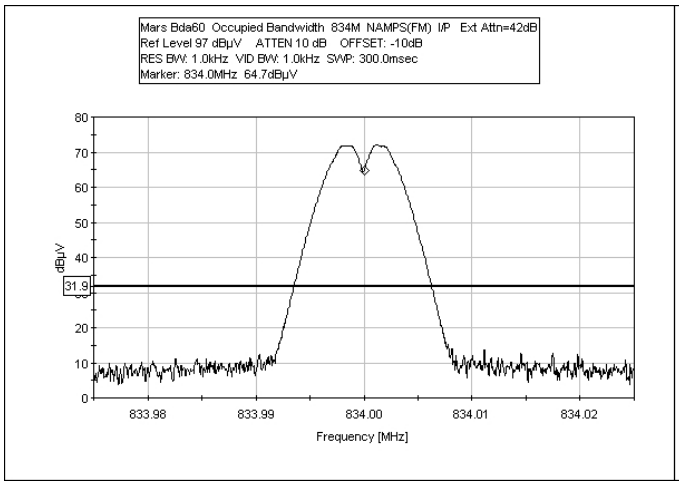
CDMA 890 MHz Output signal



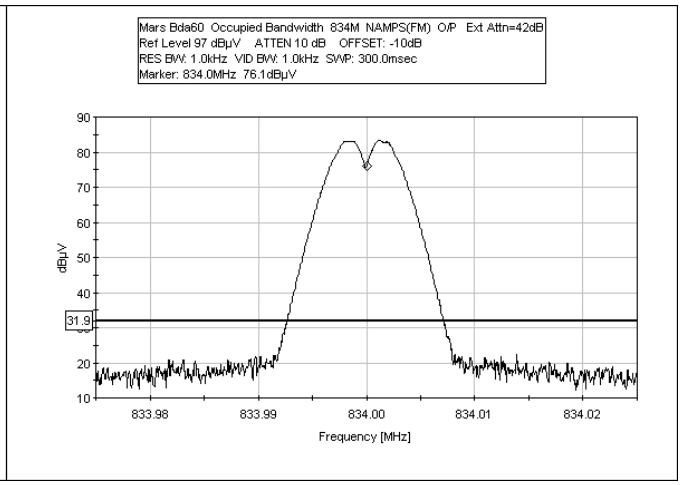
AMPS 824 MHz Input Signal



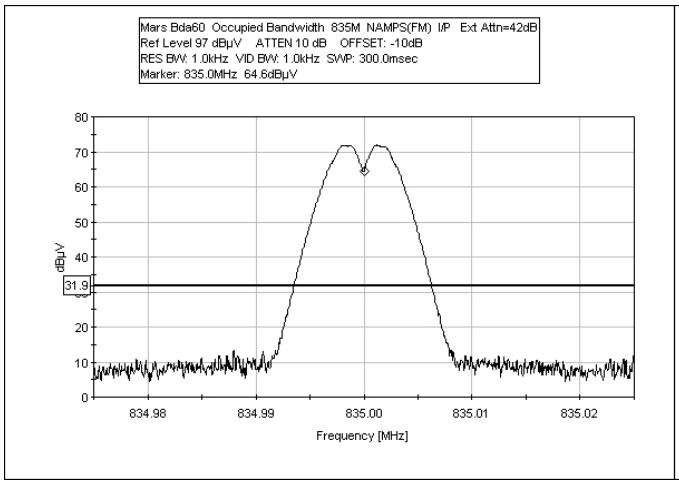
AMPS 824 MHz Output signal



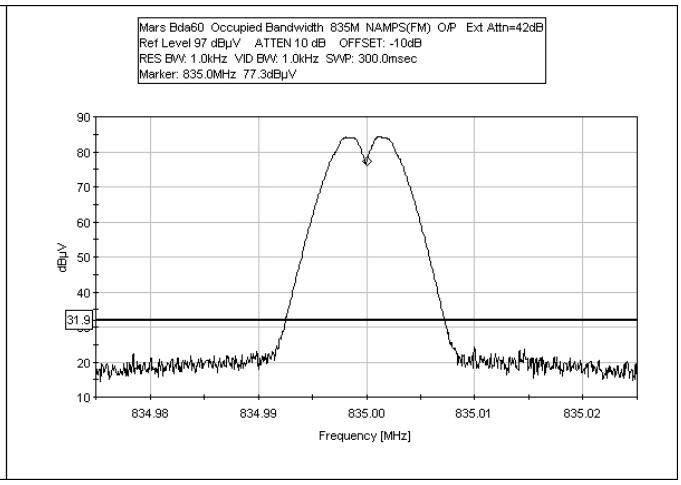
834 MHz Input Signal



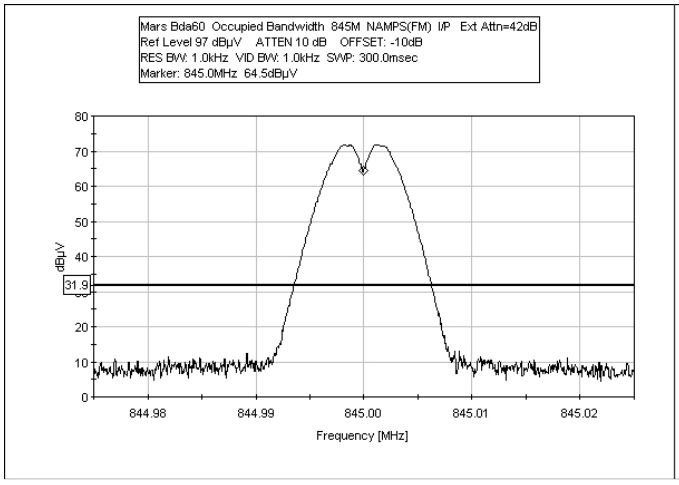
AMPS 834 MHz Output signal



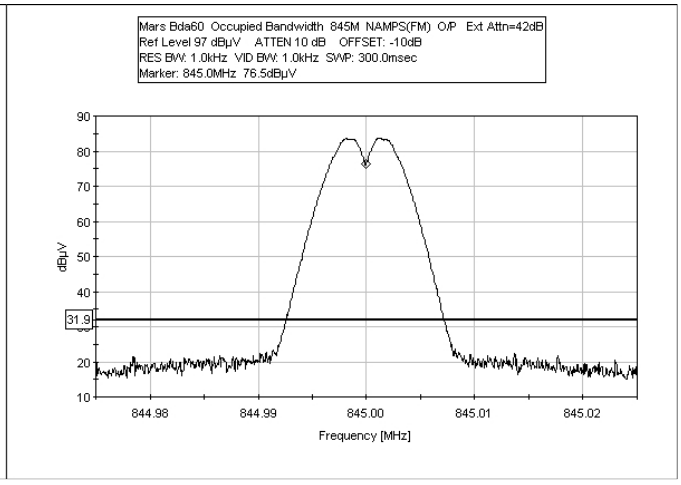
835 MHz Input Signal



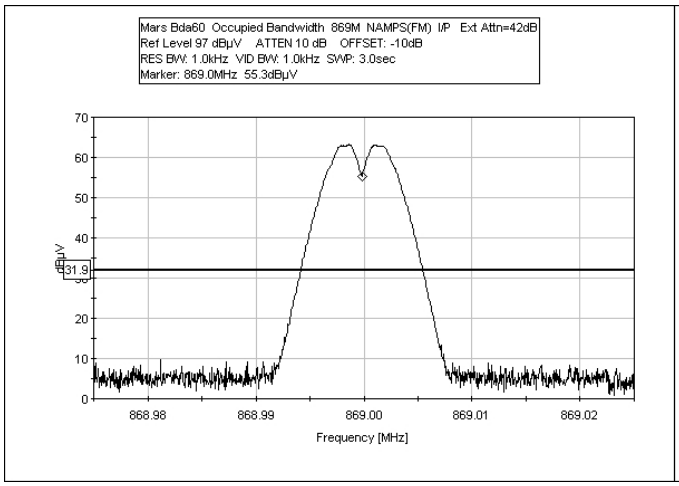
AMPS 835 MHz Output signal



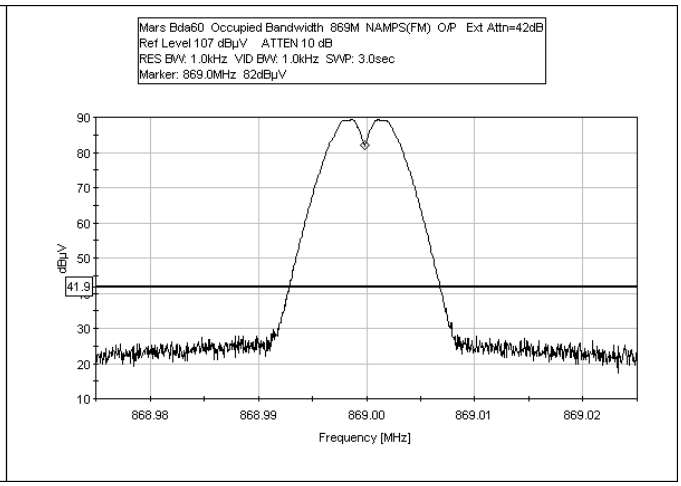
845 MHz Input Signal



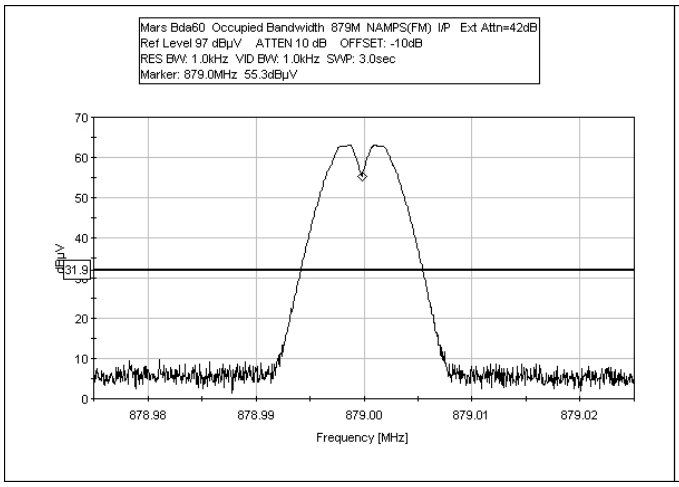
AMPS 845 MHz Output signal



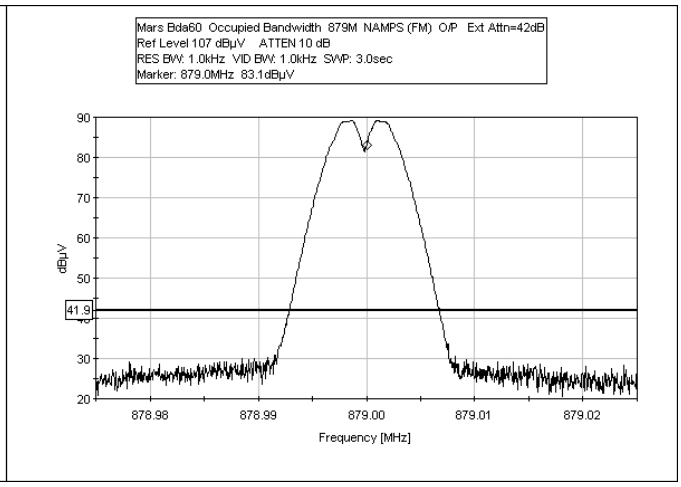
869 MHz Input Signal



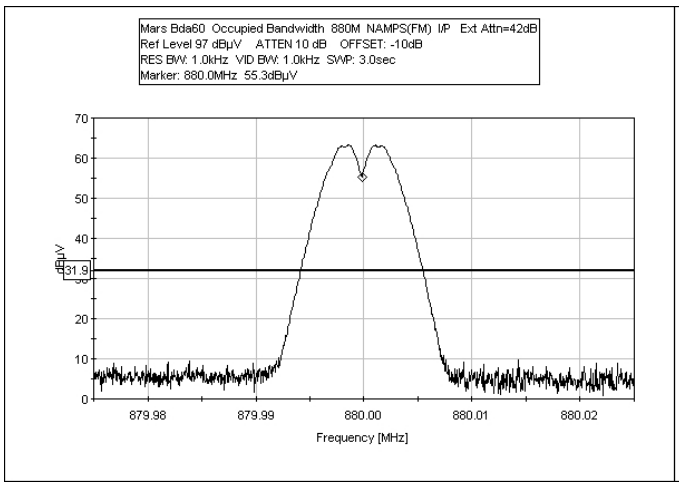
AMPS 869 MHz Output signal



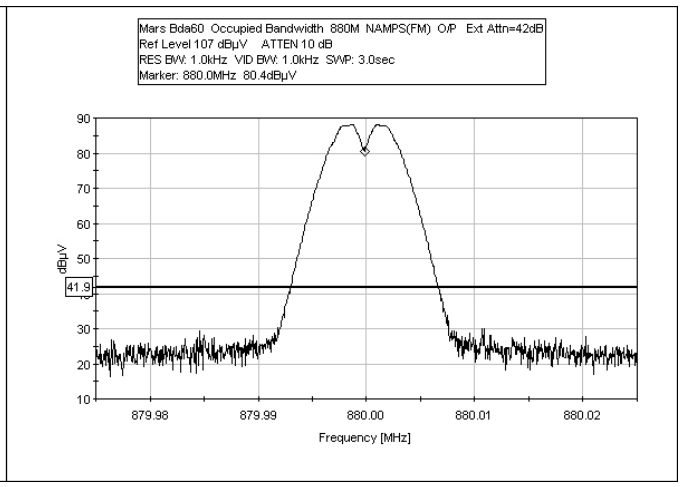
879 MHz Input Signal



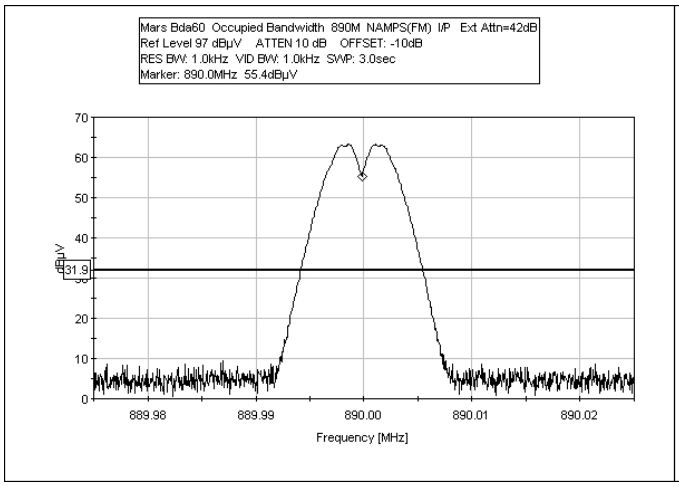
AMPS 879 MHz Output signal



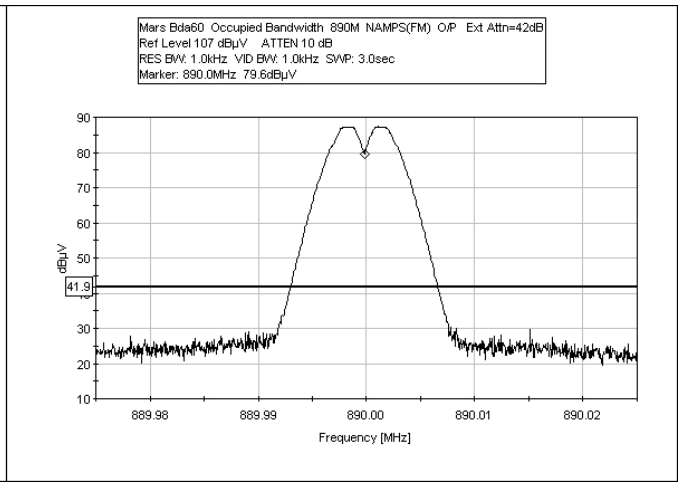
880MHz Input Signal



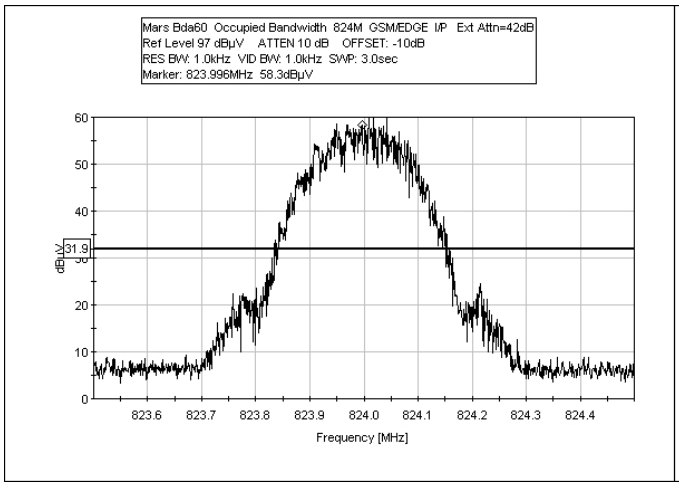
AMPS 880 MHz Output signal



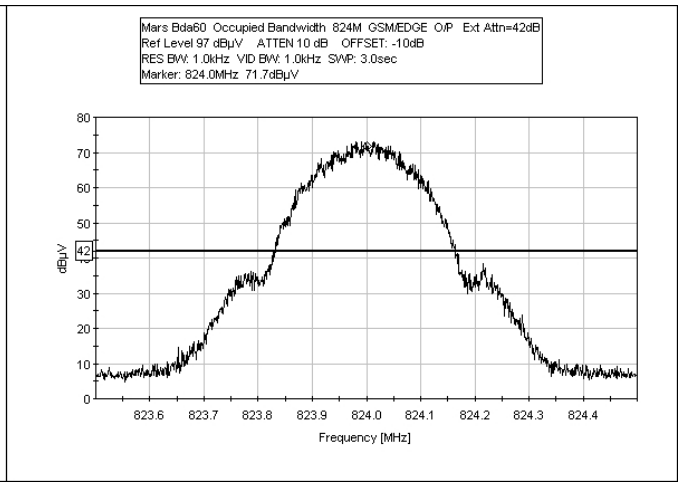
890 MHz Input Signal



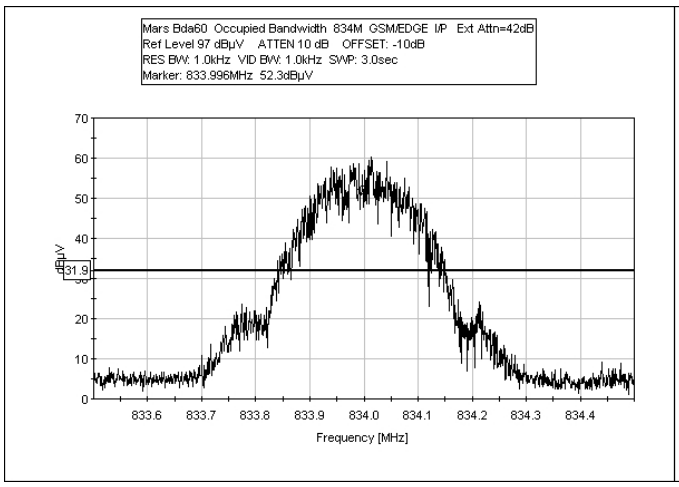
AMPS 890 MHz Output signal



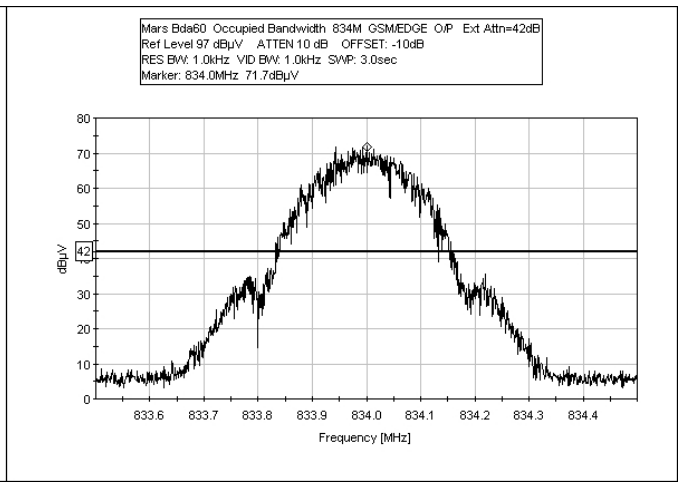
GSM/ TDMA 824 MHz Input Signal



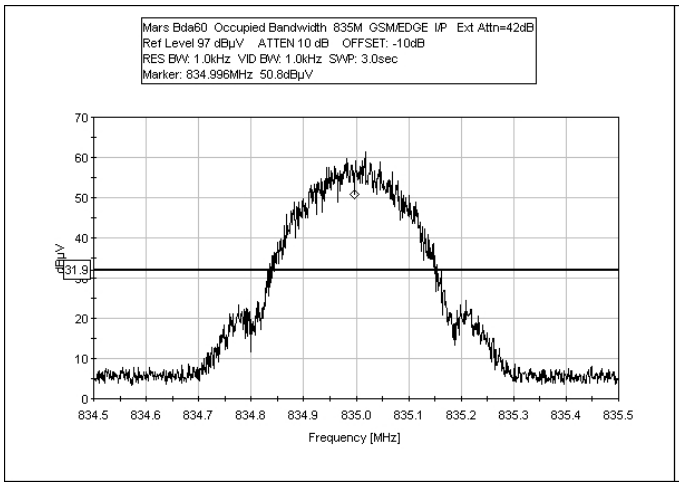
GSM/TDMA 824 MHz Output signal



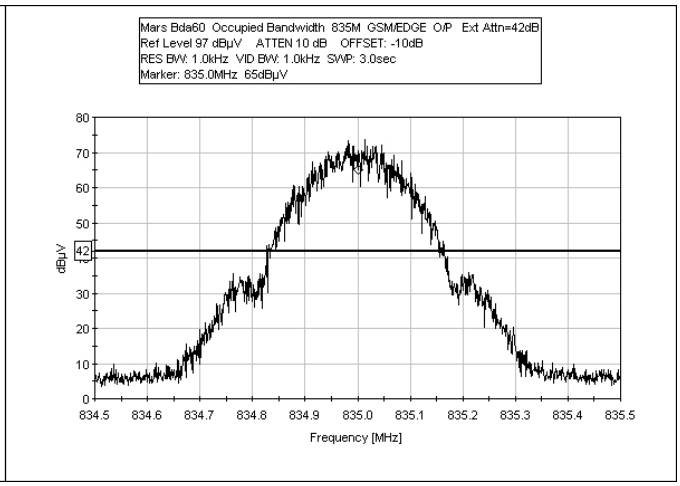
GSM/ TDMA 834 MHz Input Signal



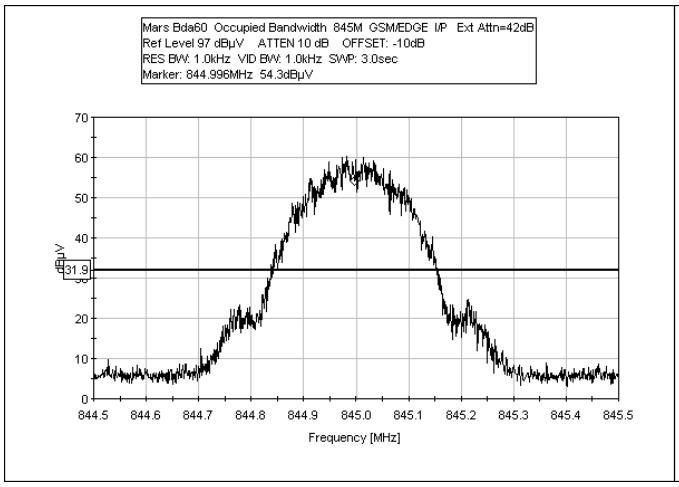
GSM/TDMA 834 MHz Output signal



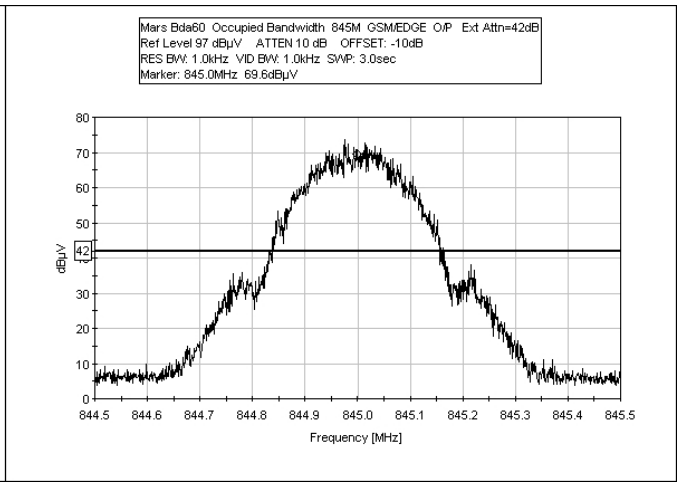
GSM/ TDMA 835 MHz Input Signal



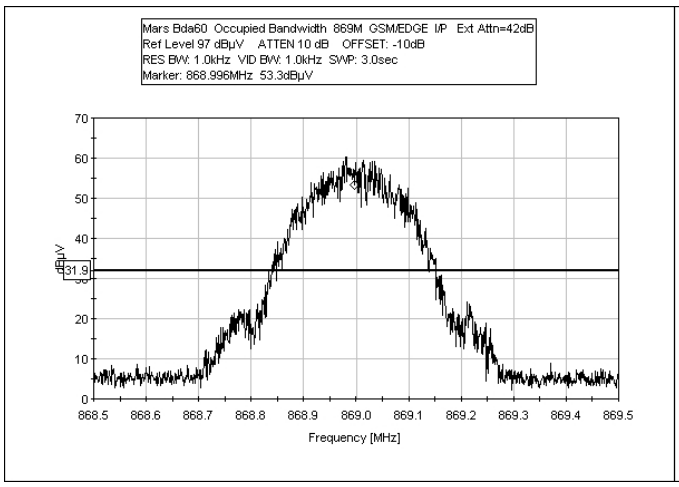
GSM/TDMA 835 MHz Output signal



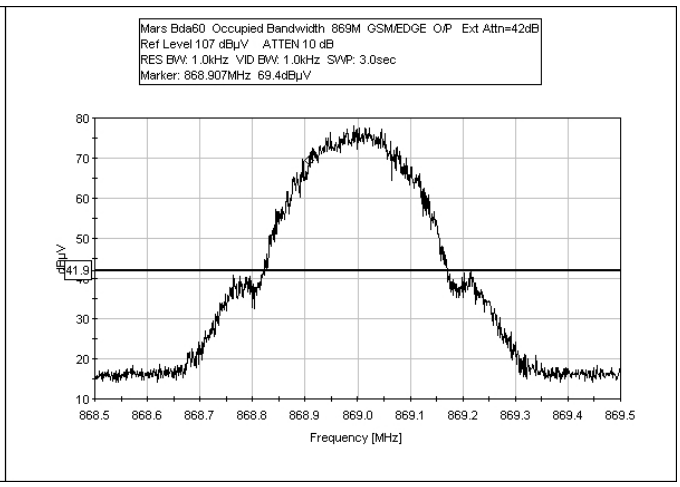
GSM/ TDMA 845 MHz Input Signal



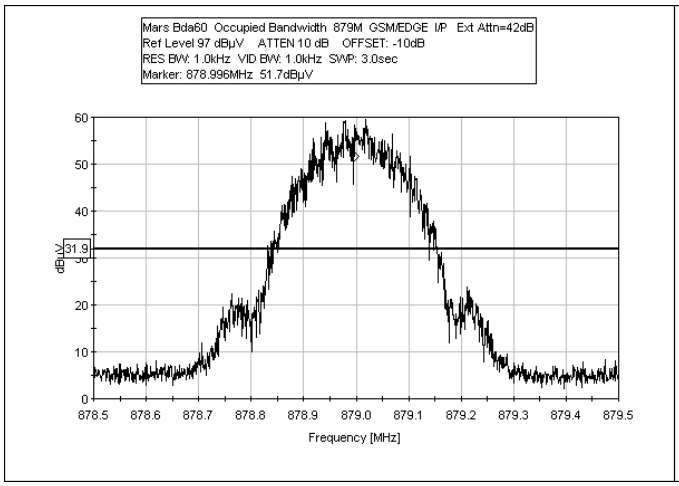
GSM/TDMA 845 MHz Output signal



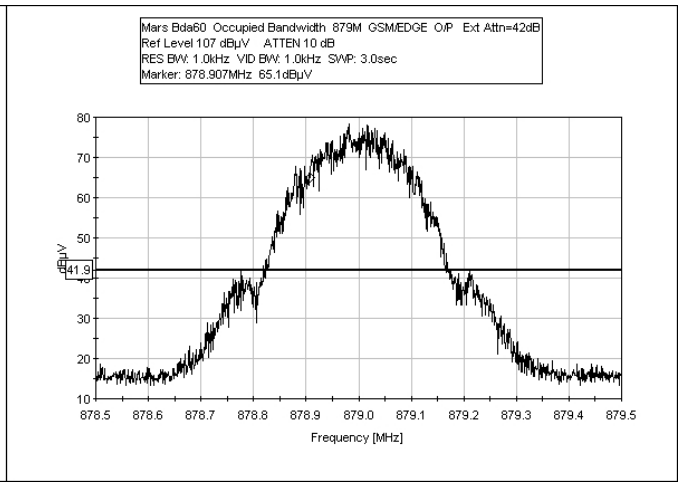
GSM/ TDMA 869 MHz Input Signal



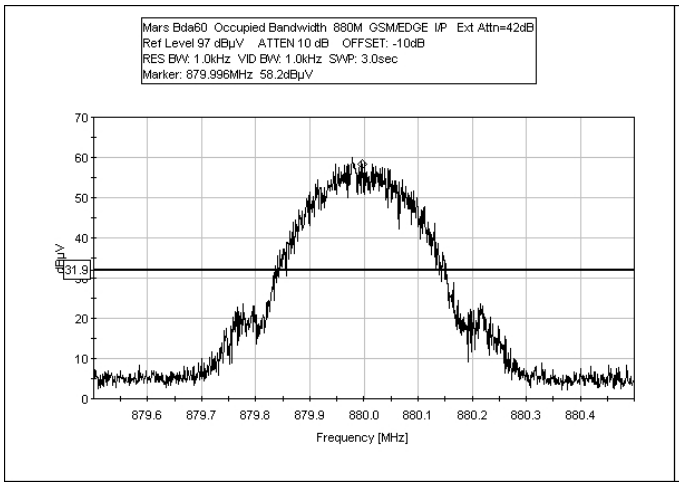
GSM/TDMA 869 MHz Output signal



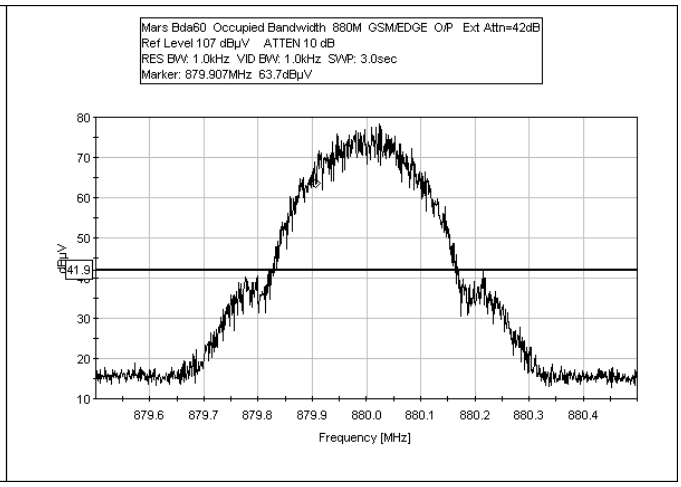
GSM/ TDMA 879 MHz Input Signal



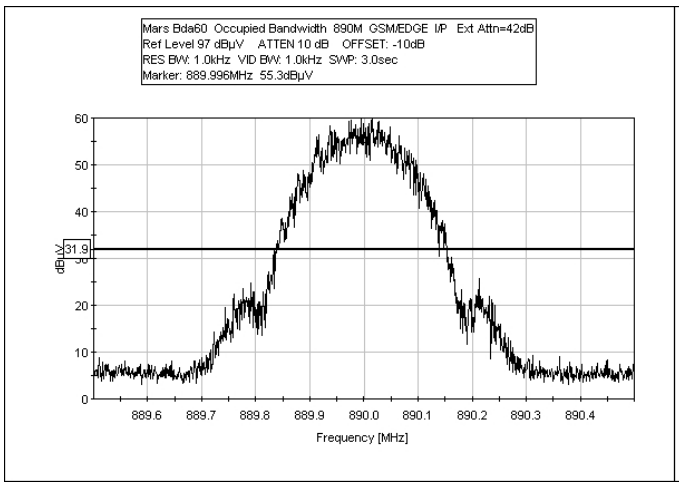
GSM/TDMA 879 MHz Output signal



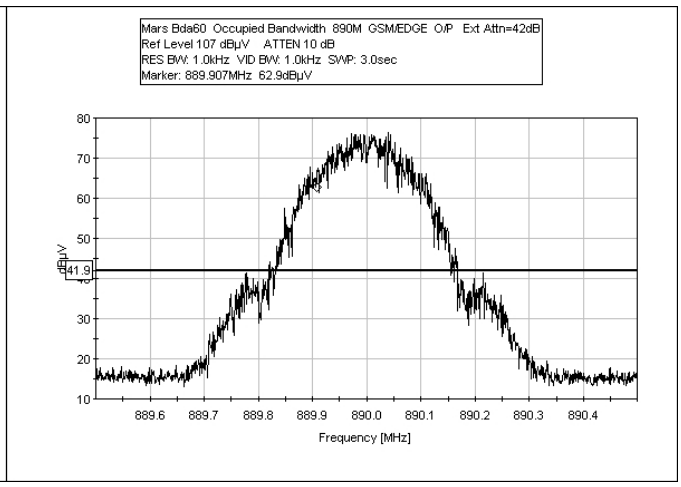
GSM/ TDMA 880 MHz Input Signal



GSM/TDMA 880 MHz Output signal



GSM/ TDMA 890 MHz Input Signal



GSM/TDMA 890 MHz Output signal

9.0 RF Exposure Evaluation

FCC 1.1310 states the criteria listed in the table below shall be used to evaluate the environmental impact of human exposure to radiofrequency (RF) radiation as specified in Sec. 1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of Sec. 2.1093 of this chapter. Further information on evaluating compliance with these limits can be found in the FCC's OST/OET Bulletin Number 65, ``Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation."

Frequency Range (MHZ)	Electric Field Strength (V/m)	Magnetic Field Strength (A/M)	Power Density (mW/cm^2)	Average Time
(A) Limits for Occupational/Control Exposures				
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/Uncontrolled Exposures				
300-1500	--	--	F/1500	6
1500-100,000	--	--	1	30

9.1 Fries Formula

Fries transmission formula: $Pd = (P_{out}*G)/(4*\pi*r^2)$ Where

Pd = power density in mW/cm^2
P_{out} = output power to antenna in mW.
G = gain of antenna in the direction of interest relative to an isotropic radiator.
R = the distance between the observation point and the center of the radiator in cm.

Pd is the limit of MPE, $1mW/cm^2$. If we know the maximum gain of the antenna and the total power input to the antenna we can calculate the distance r where the MPE limit is reached.

9.2 EUT Operating Condition

The maximum output power of the EUT is 26 dBm as tested and specified by the manufacturer. An antenna gain of 6 dBi is assumed.

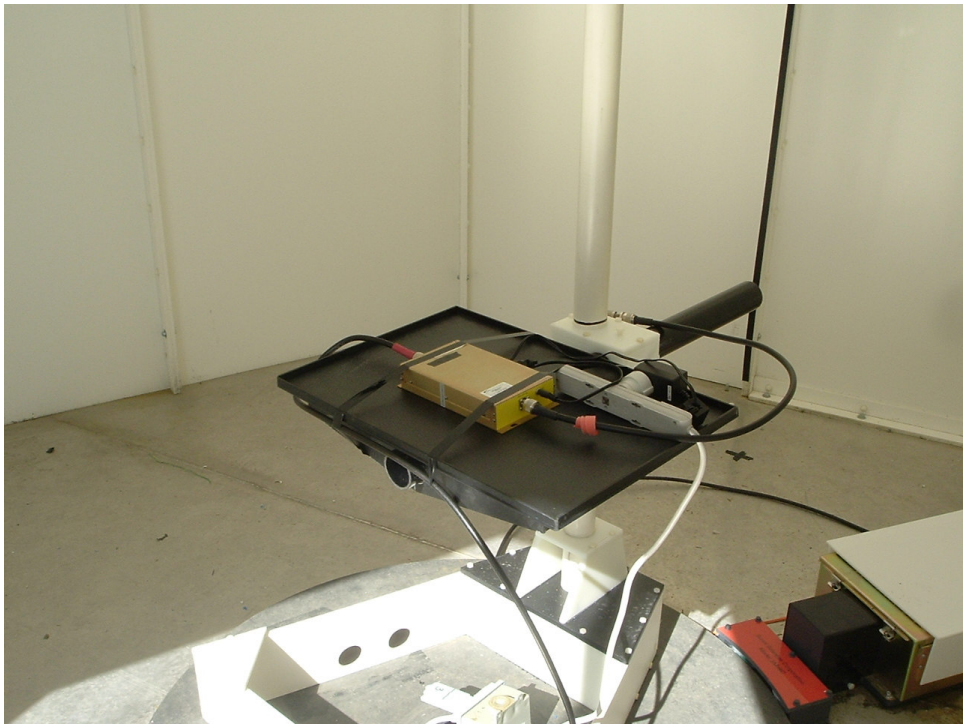
9.3 RF exposure evaluation distance calculation

Freq (MHz)	Output Power to Antenna (dBm)	Output Power to Antenna (mW)	Antenna Gain (dBi)	r (cm)
824	23	200	6	5
894	26	400	6	7

As shown above, the minimum distance where the MPE limit is reached is **7 cm** for this EUT

10.0 Test Photos

Conducted Transmitter test setup



Radiated emissions test setup