



POWERWAVE TECHNOLOGIES, INC. TEST REPORT

FOR THE

900 MHZ MULTI-CARRIER RF POWER AMPLIFIER, G3L-929-135

FCC PART 90

COMPLIANCE

DATE OF ISSUE: NOVEMBER 29, 2005

PREPARED FOR:

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

P.O. No.: 71425
W.O. No.: 83866

PREPARED BY:

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

Date of test: October 5 – November 28, 2005

Report No.: FC05-080

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ADMINISTRATIVE INFORMATION

DATE OF TEST: October 5 – November 28, 2005

DATE OF RECEIPT: October 5, 2005

FREQUENCY RANGE TESTED: 9 kHz-10 GHz

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

REPRESENTATIVE: Jeffrey Dale

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

TEST METHOD: FCC Part 90, ANSI/TIA/EIA-603-B (2002)

PURPOSE OF TEST: To demonstrate the compliance of the 900 MHz Multi-Carrier RF Power Amplifier, G3L-929-135 with the requirements for FCC Part 90 devices.



CONDITIONS FOR COMPLIANCE

No modifications to the EUT were necessary to comply.

APPROVALS

Steve Behm, Director of Engineering Services

QUALITY ASSURANCE:

Joyce Walker, Quality Assurance Administrative Manager

TEST PERSONNEL:

Stuart Yamamoto, EMC Engineer

Eddie Wong, EMC Engineer



EQUIPMENT UNDER TEST (EUT) DESCRIPTION

The customer declares the EUT tested by CKC Laboratories was representative of a production unit. The EUT is a multi-carrier RF power amplifier operating in the 935-940 MHz frequency range.

EQUIPMENT UNDER TEST

900 MHz Multi-Carrier RF Power Amplifier

Manuf: Powerwave
Model: G3L-929-135
Serial: PD00000D3Y
FCC ID: E675JS0082 (pending)

PERIPHERAL DEVICES

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

Power Meter

Manuf: Agilent
Model: E4419A
Serial: US38260914
FCC ID: NA

ECCG

Manuf: Agilent
Model: E4433B
Serial: US40051477
FCC ID: NA

Pre Amplifier

Manuf: Mini Circuit
Model: 24L-1724HKN-SMA
Serial: D020801-06
FCC ID: NA

Power Supply

Manuf: HP
Model: 8269B
Serial: 2436-11864
FCC ID: NA

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

GXW, G7W

FCC 2.1033 (c)(5) FREQUENCY RANGE

935MHz – 940MHz.

FCC 2.1033 (c)(6) OPERATING POWER

135 Watts.

FCC 2.1033 (c)(7) MAXIMUM POWER RATING

(a) Systems to be located within 24 km. (15 mi.) of the geographic center of the 50 urbanized areas detailed in Table 1 will be considered "urban" systems. All others will be considered "suburban" systems.

(b) The effective radiated power and antenna height, for base stations used in suburban-conventional systems of communications shall be no greater than 500 watts (27 dBw) and 152 m. (500 ft.) above average terrain (AAT) respectively, or the equivalent as determined from Table 2. These are maximum values, and applicants are required to justify power levels and antenna heights requested. For service area requirements less than 32 km. (20 mi.) in radius, see Table 3.

(c) The effective radiated power and antenna height for base stations used in trunked and urban-conventional systems 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 Table 2. These are maximum values, and applicants will be required to justify power levels and antenna heights requested. For service area requirements less than 32 km. (20 mi.) in radius, see Table 4.

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

ASMR, EDGE, GSM



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

Test conditions: The EUT is placed on the wooden table top. The EUT RF Input port is connected to a remote support signal amplifier and signal generator. The EUT RF Output is connected to a remote RF attenuator and directional coupler. The RF power of the EUT is measured at the output of the directional coupler. Voltage to the EUT is 27VDC.

Measured Values from the EUT:

Low Channel (935 MHz). Measured value was 135.0 Watts (ERP).

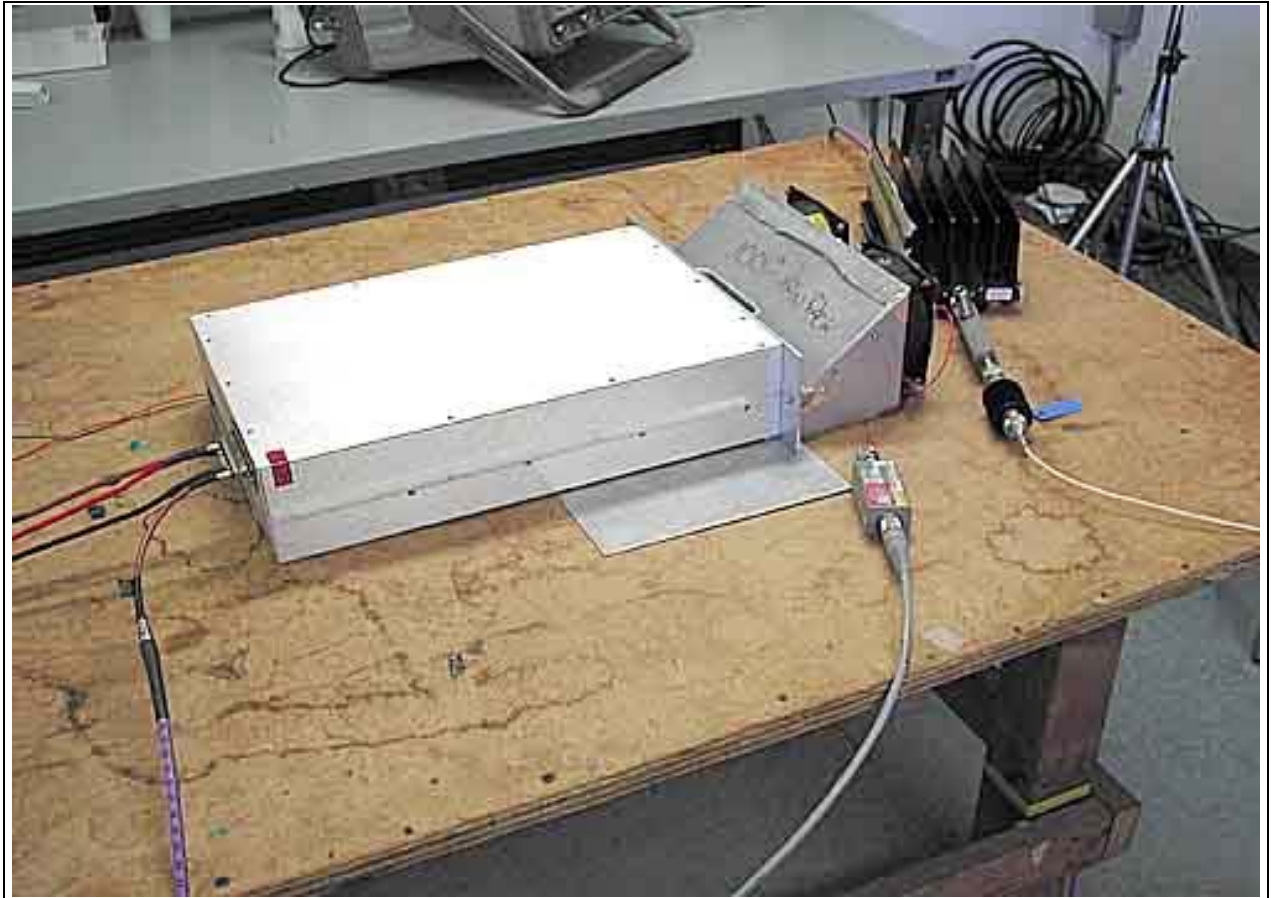
Middle Channel (937.5 MHz). Measured value was 135.0 Watts (ERP).

High Channel (940 MHz). Measured value was 135.0 Watts (ERP).

Test Equipment

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
RF Power meter	02082	HP	435B	2445A11881	061704	061706
Power Sensor	02036	HP	8482A	1551A01004	061804	061806
Spectrum Analyzer RF Section	02462	HP	8568B	2928A04874	100804	100806
Spectrum Analyzer Display Section	02472	HP	85662A	3001A18430	100804	100806
QP Adapter	01437	HP	85650A	3303A01884	100804	100806

PHOTOGRAPH SHOWING RF POWER OUTPUT TEST SETUP



FCC 2.1033(c)(14)/2.1047(a) - MODULATION CHARACTERISTICS - AUDIO FREQUENCY RESPONSE

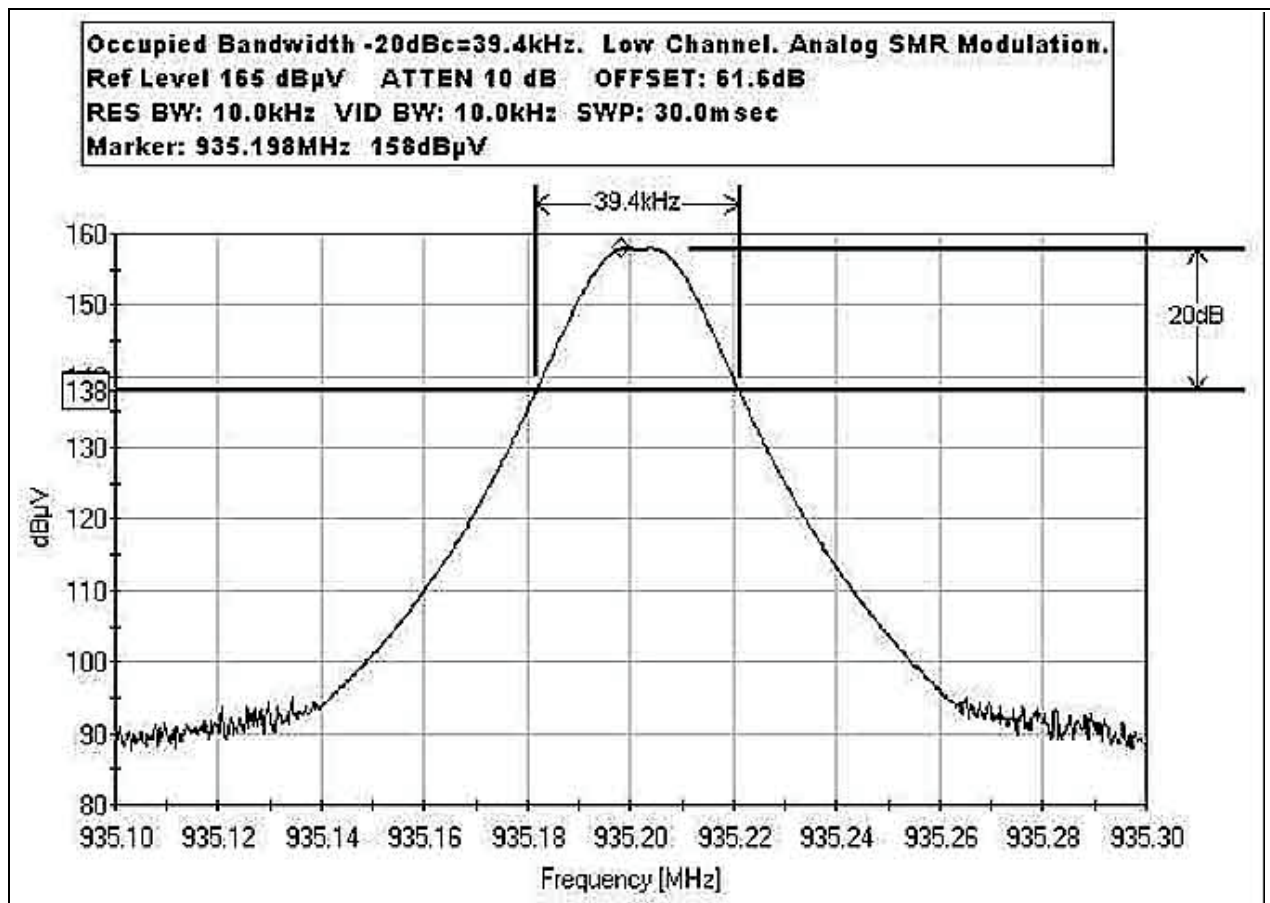
Not applicable to this unit.

FCC 2.1033(c)(14)/2.1047(b) MODULATION CHARACTERISTICS- Modulation Limiting Response

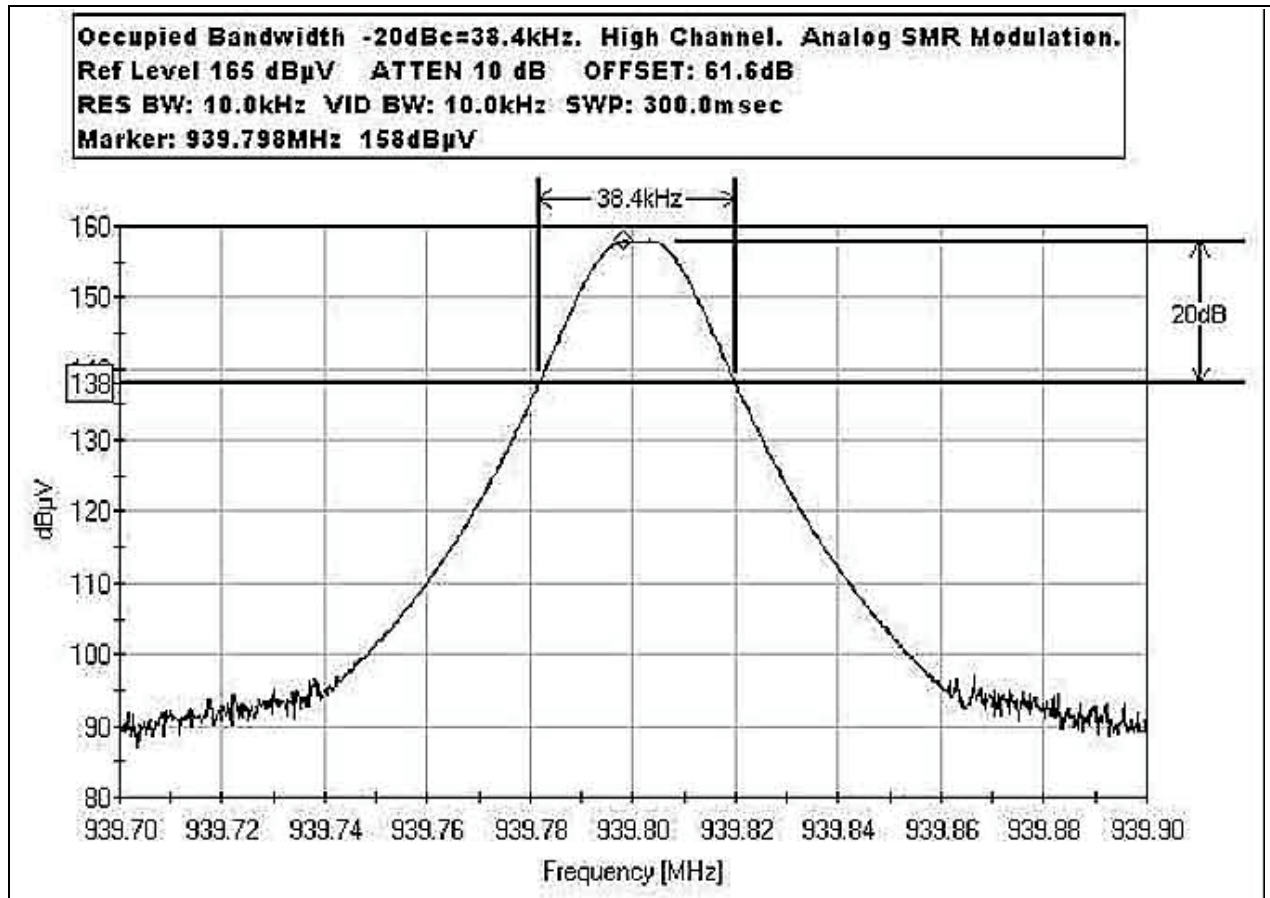
Not applicable to this unit.

OCCUPIED BANDWIDTH -20dBc ASMR LOW CHANNEL

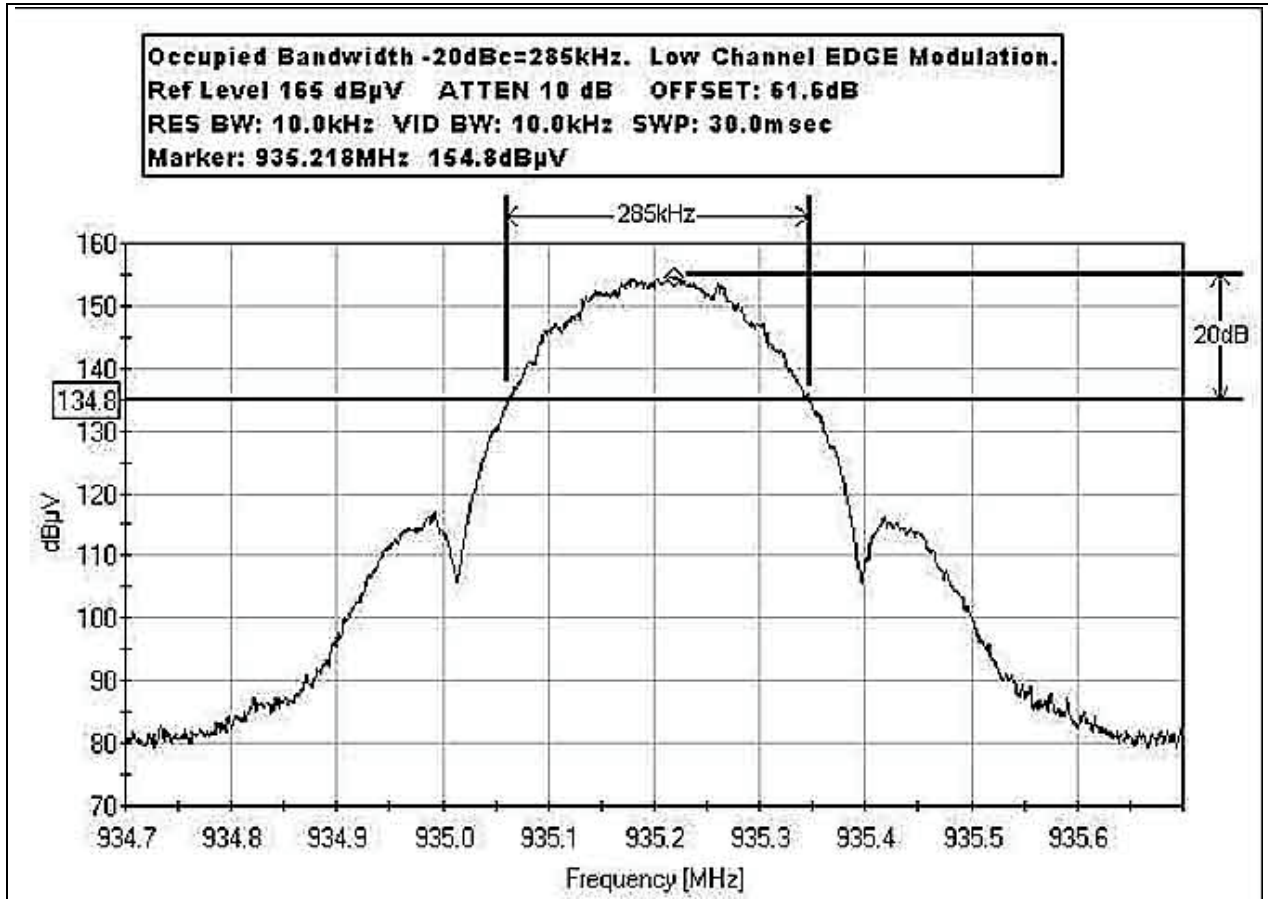
Test Conditions: The EUT is placed on the wooden table top. The EUT RF Input port is connected to a support amplifier and signal generator. The EUT RF Output port is connected to a high power RF attenuator and directional coupler. The output of the directional coupler was connected to the spectrum analyzer.



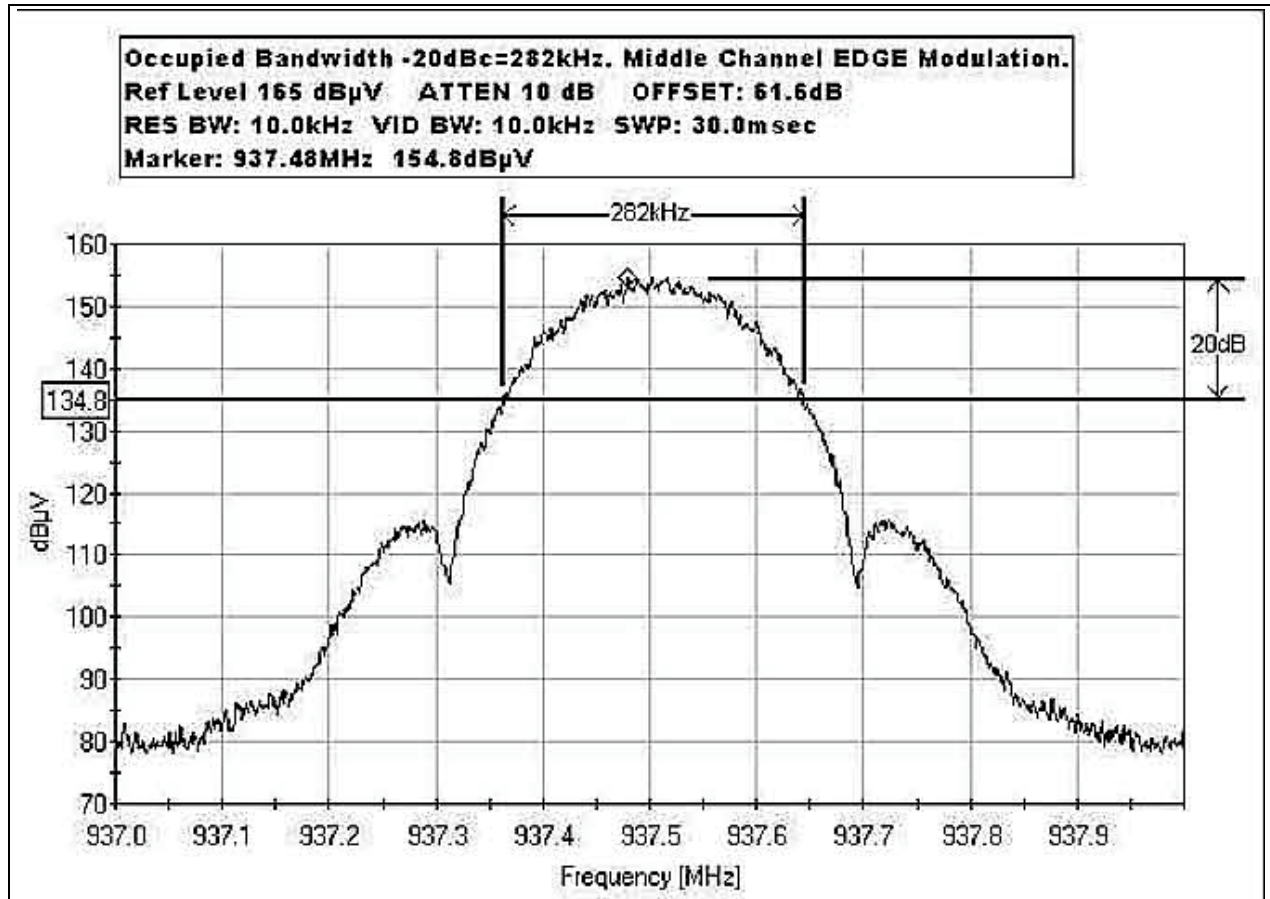
OCCUPIED BANDWIDTH -20dBc ASMR HIGH CHANNEL



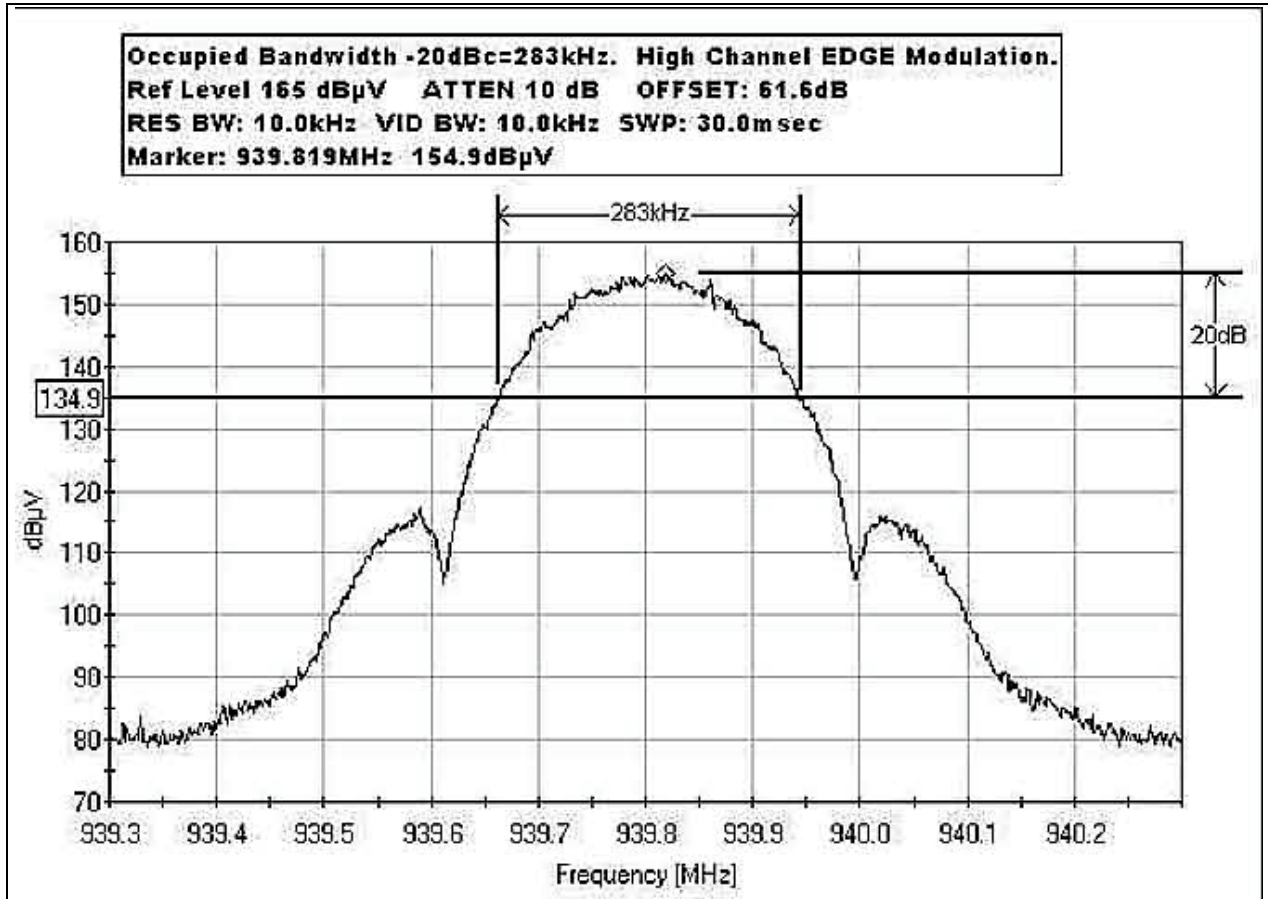
OCCUPIED BANDWIDTH -20dBc EDGE LOW CHANNEL



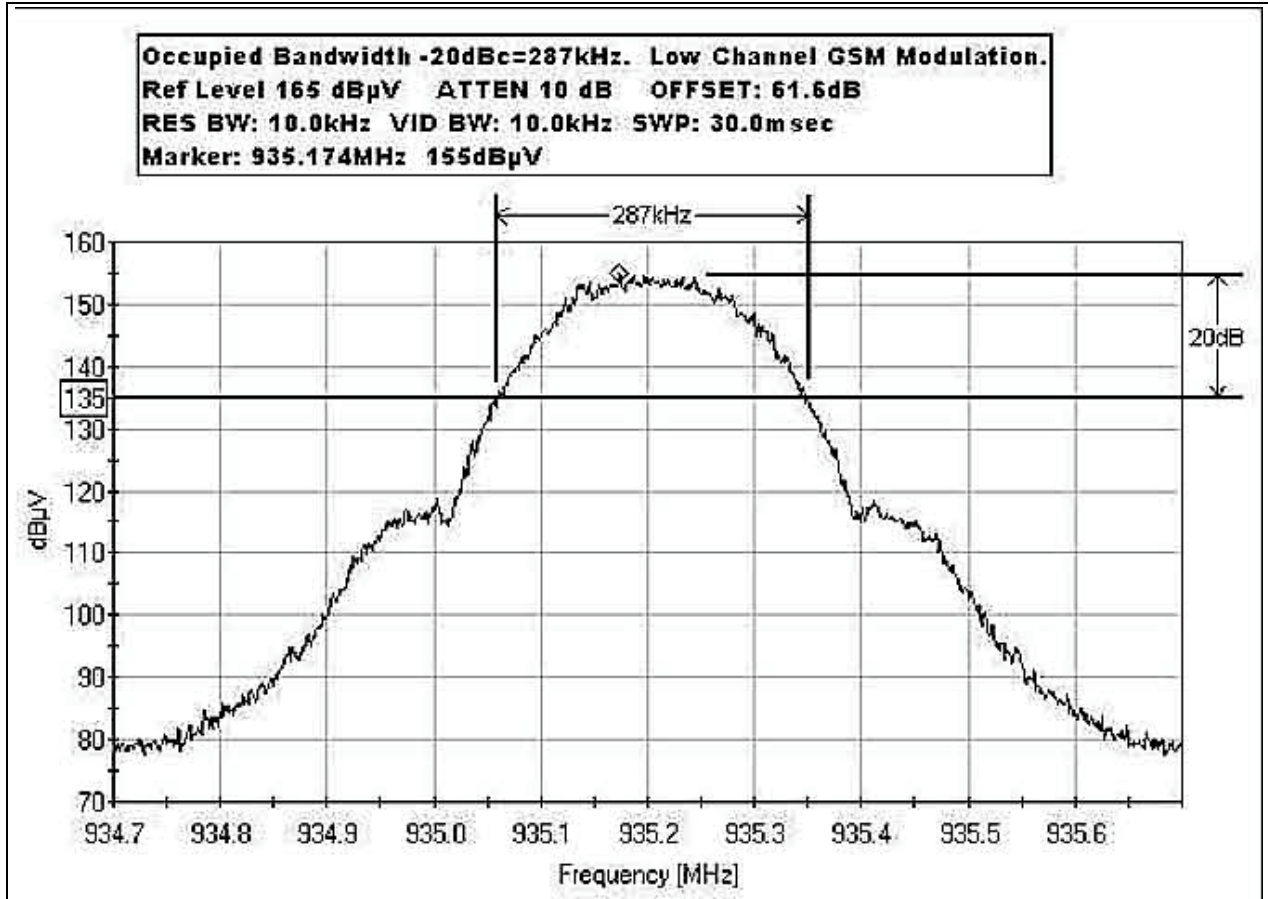
OCCUPIED BANDWIDTH -20dBc EDGE MID CHANNEL



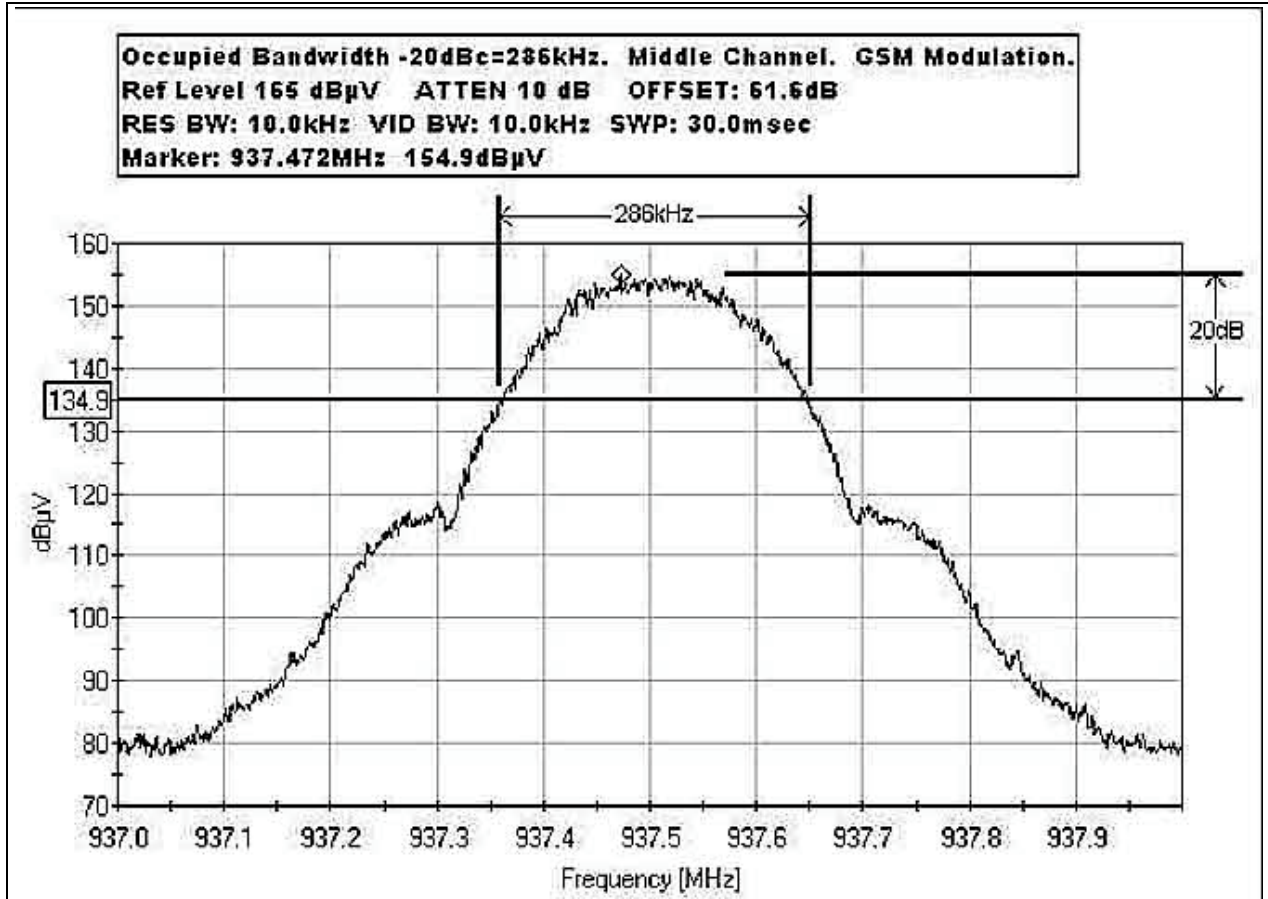
OCCUPIED BANDWIDTH -20dBc EDGE HIGH CHANNEL



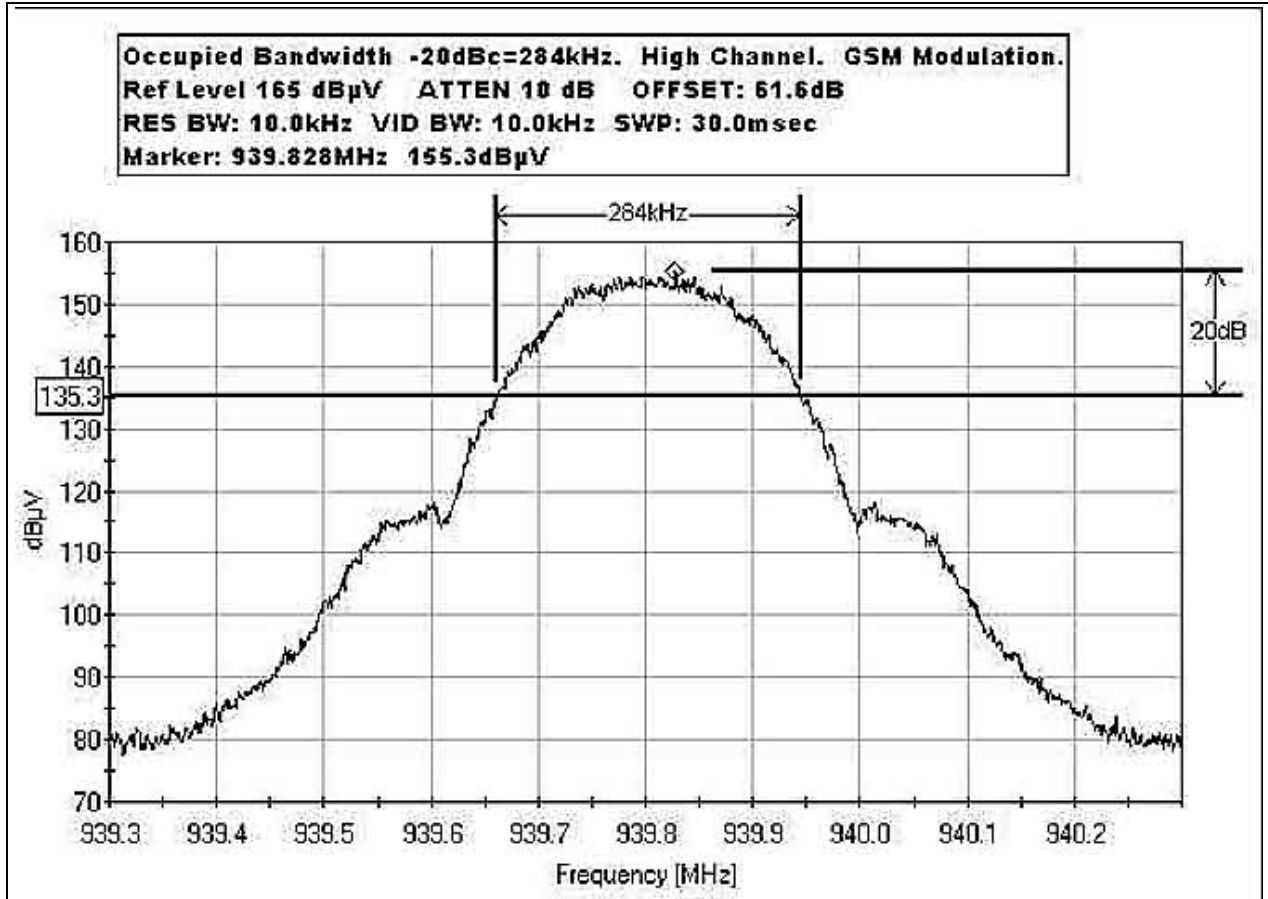
OCCUPIED BANDWIDTH -20dBc GSM LOW CHANNEL



OCCUPIED BANDWIDTH -20dBc GSM MID CHANNEL



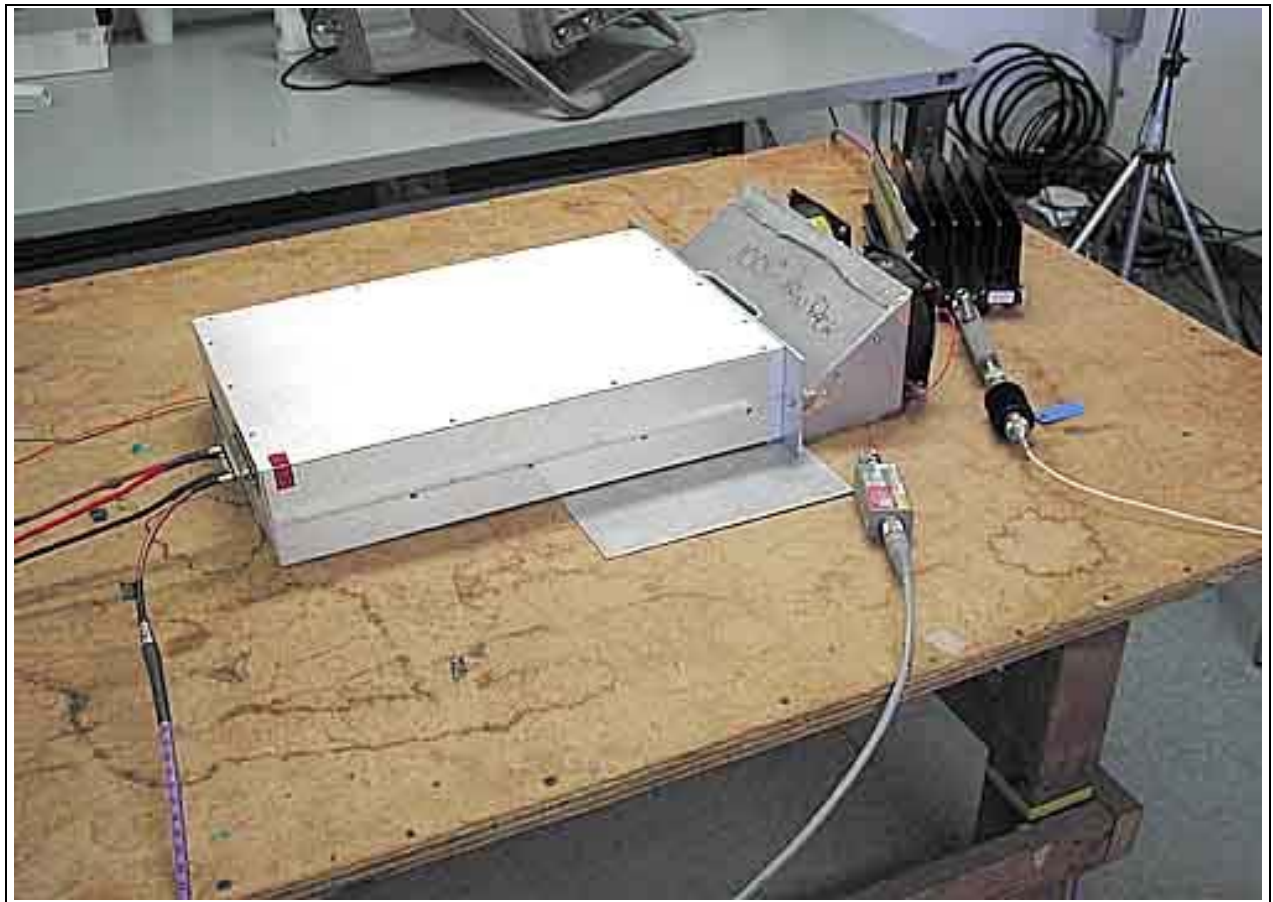
OCCUPIED BANDWIDTH -20dBc GSM HIGH CHANNEL



Test Equipment

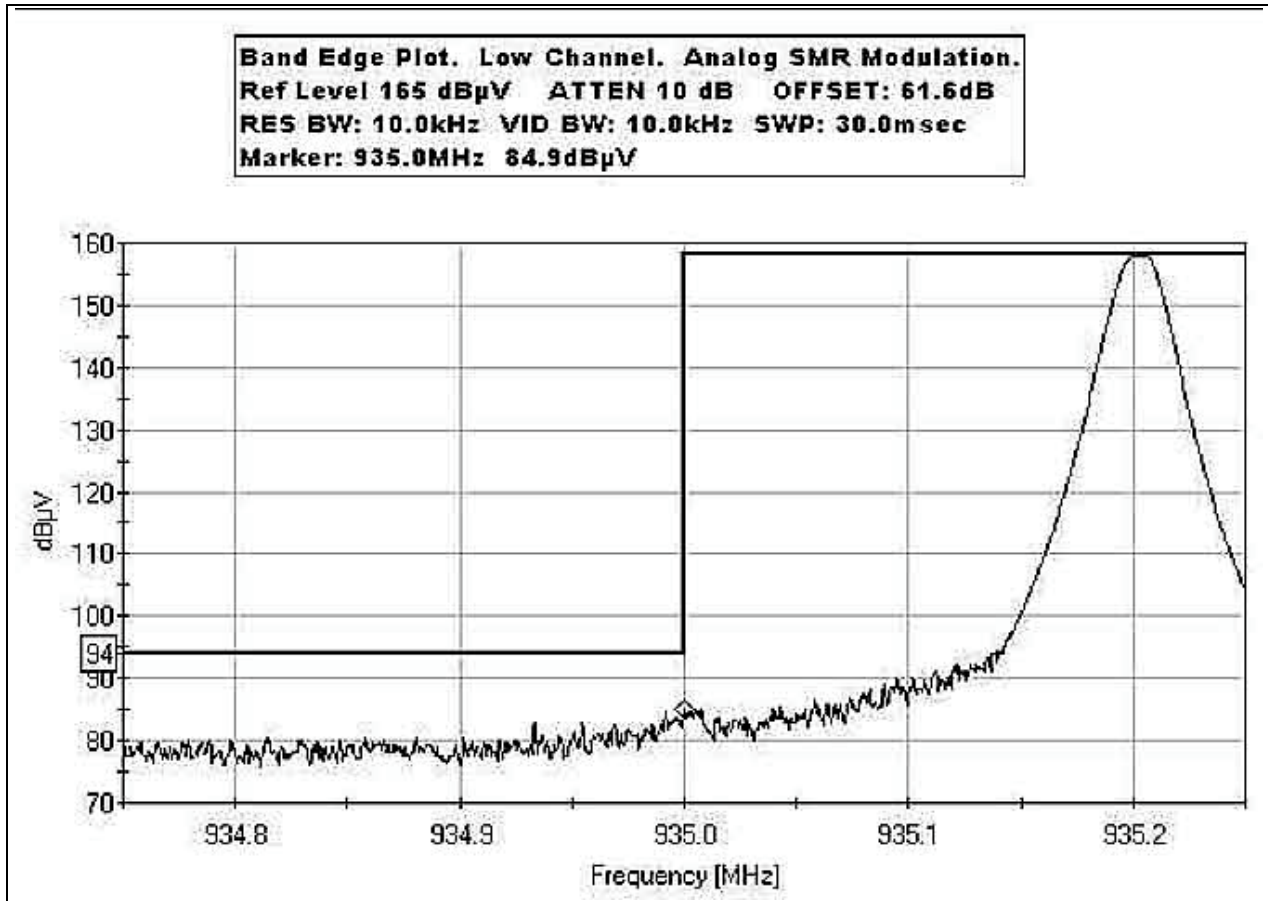
Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer RF Section	02462	HP	8568B	2928A04874	100804	100806
Spectrum Analyzer Display Section	02472	HP	85662A	3001A18430	100804	100806
QP Adapter	01437	HP	85650A	3303A01884	100804	100806
24" SMA Cable (White)	P5183	Pasteck	NA	1-40GHz_white	122304	122306

PHOTOGRAPH SHOWING OCCUPIED BANDWIDTH TEST SETUP

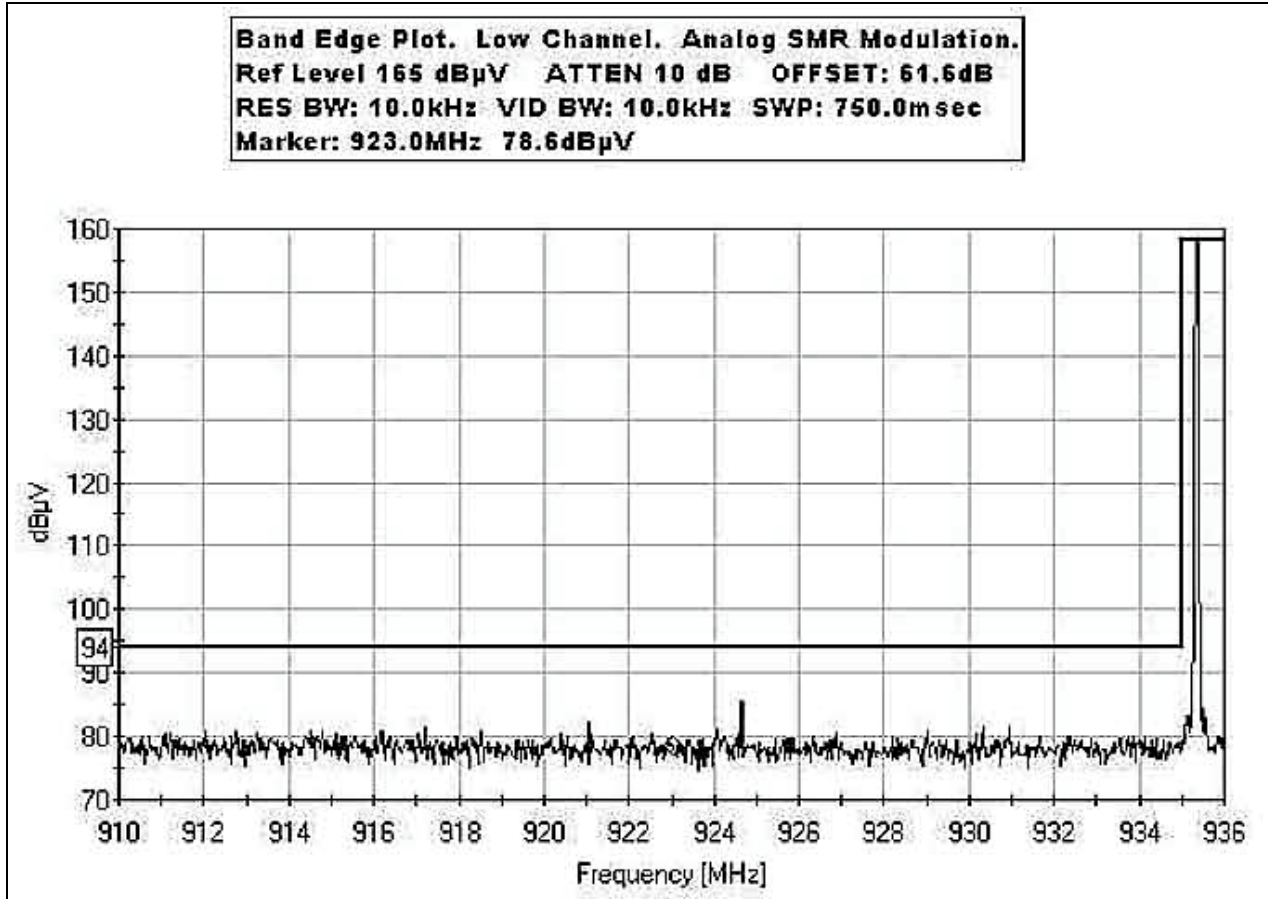


BANDEDGE ASMR LOW CHANNEL

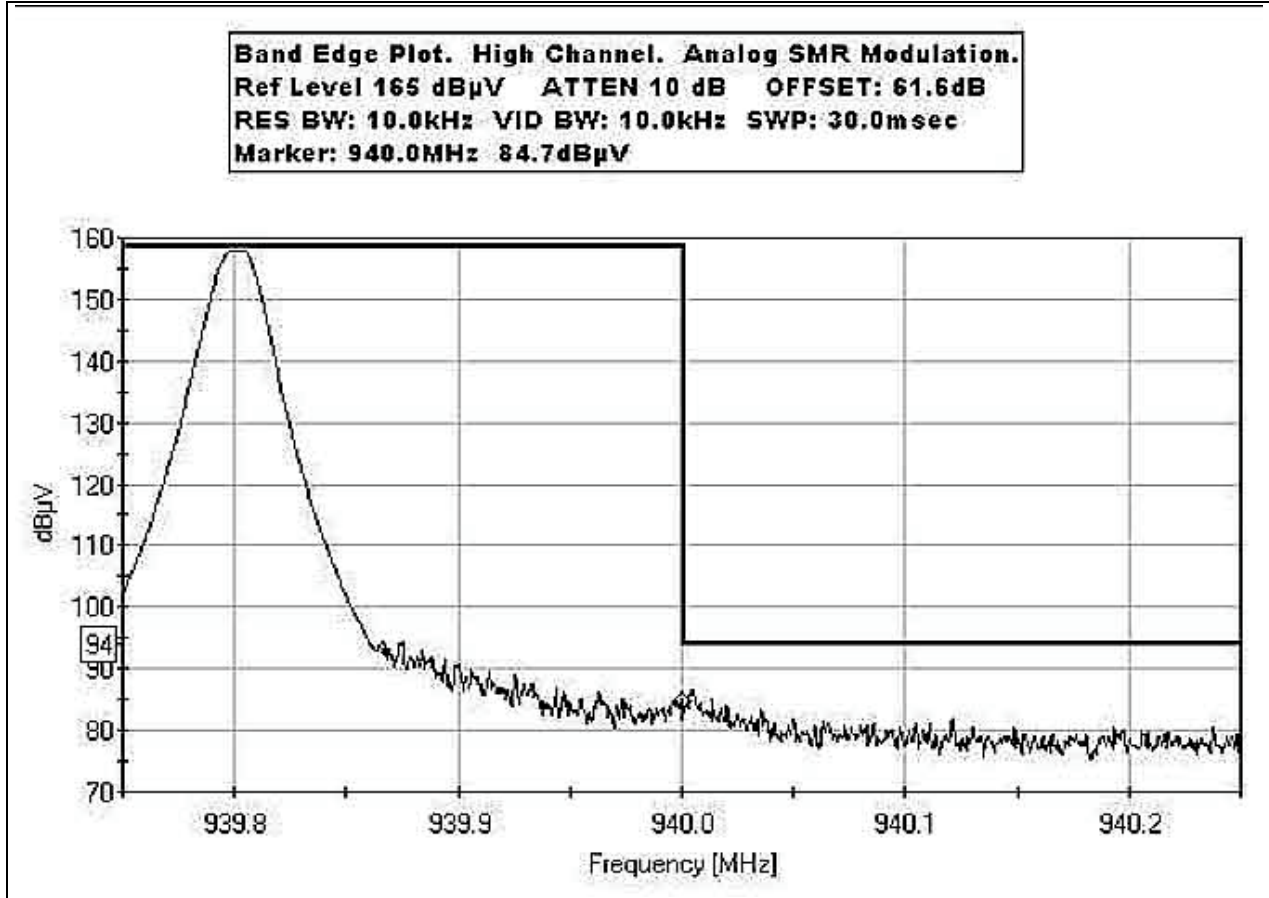
Test Conditions: The EUT is placed on the wooden table top. The EUT RF Input port is connected to a support amplifier and signal generator. The EUT RF Output port is connected to a high power RF attenuator and directional coupler. The output of the directional coupler was connected to the spectrum analyzer.



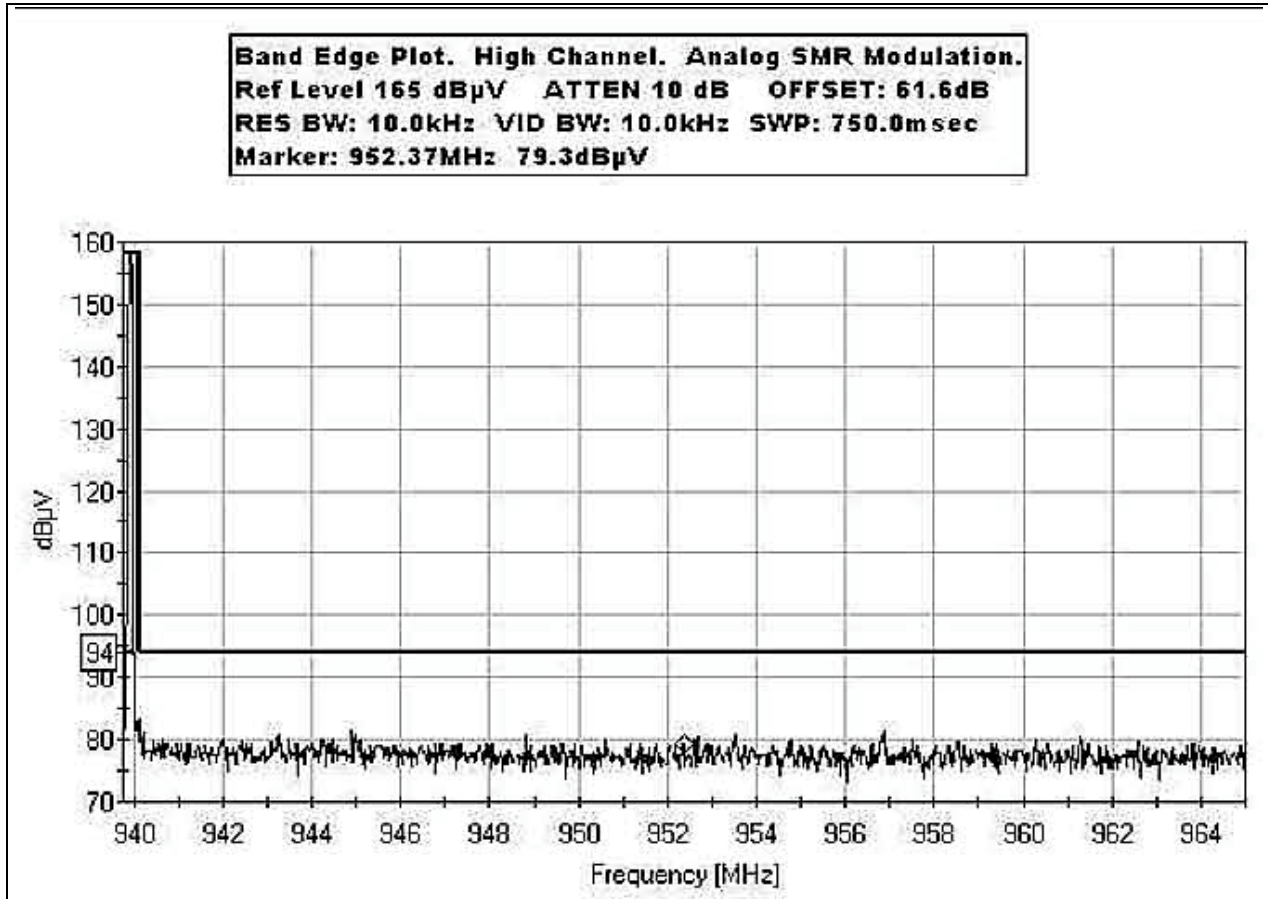
BANDEDGE ASMR LOW CHANNEL WIDE



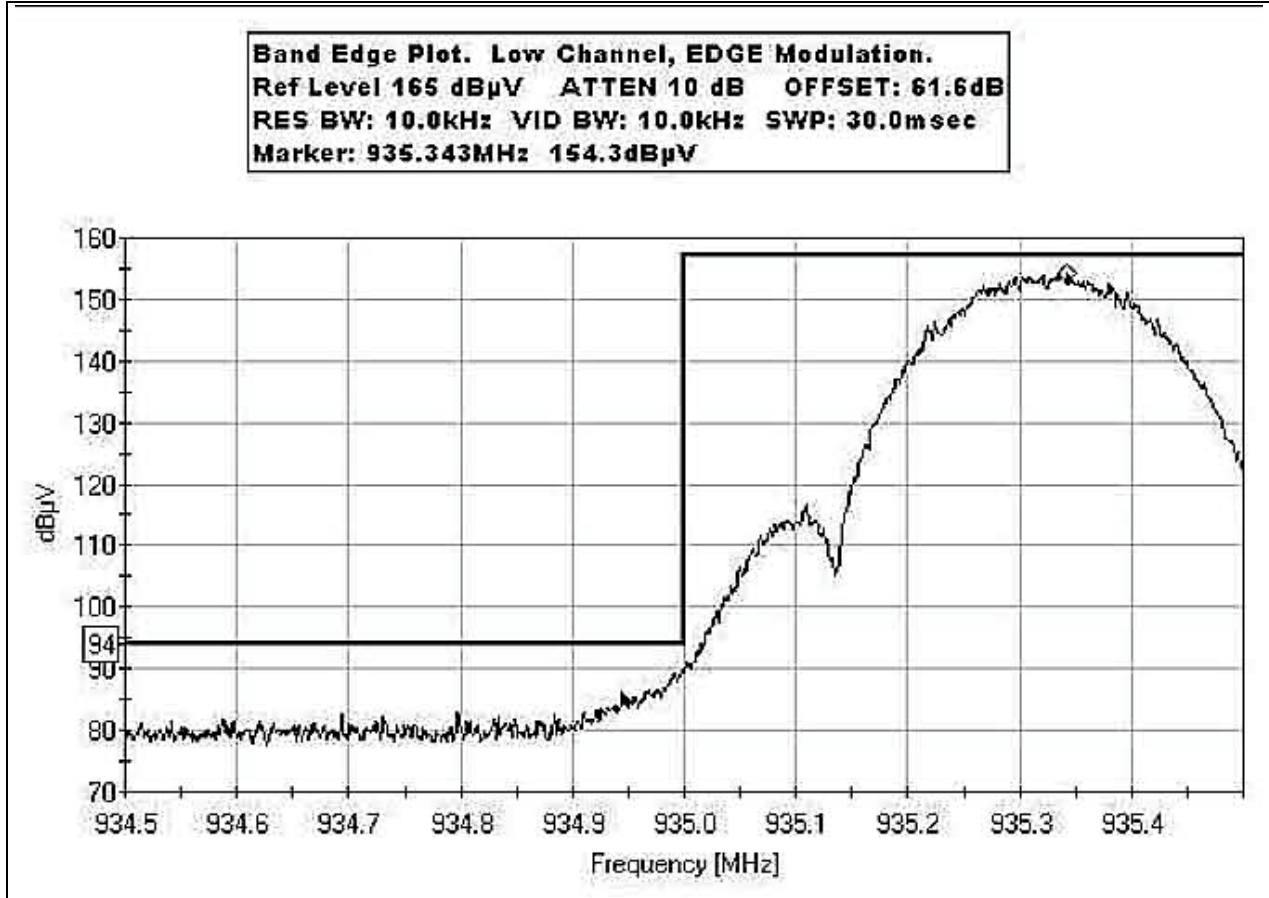
BAND EDGE ASMR HIGH CHANNEL



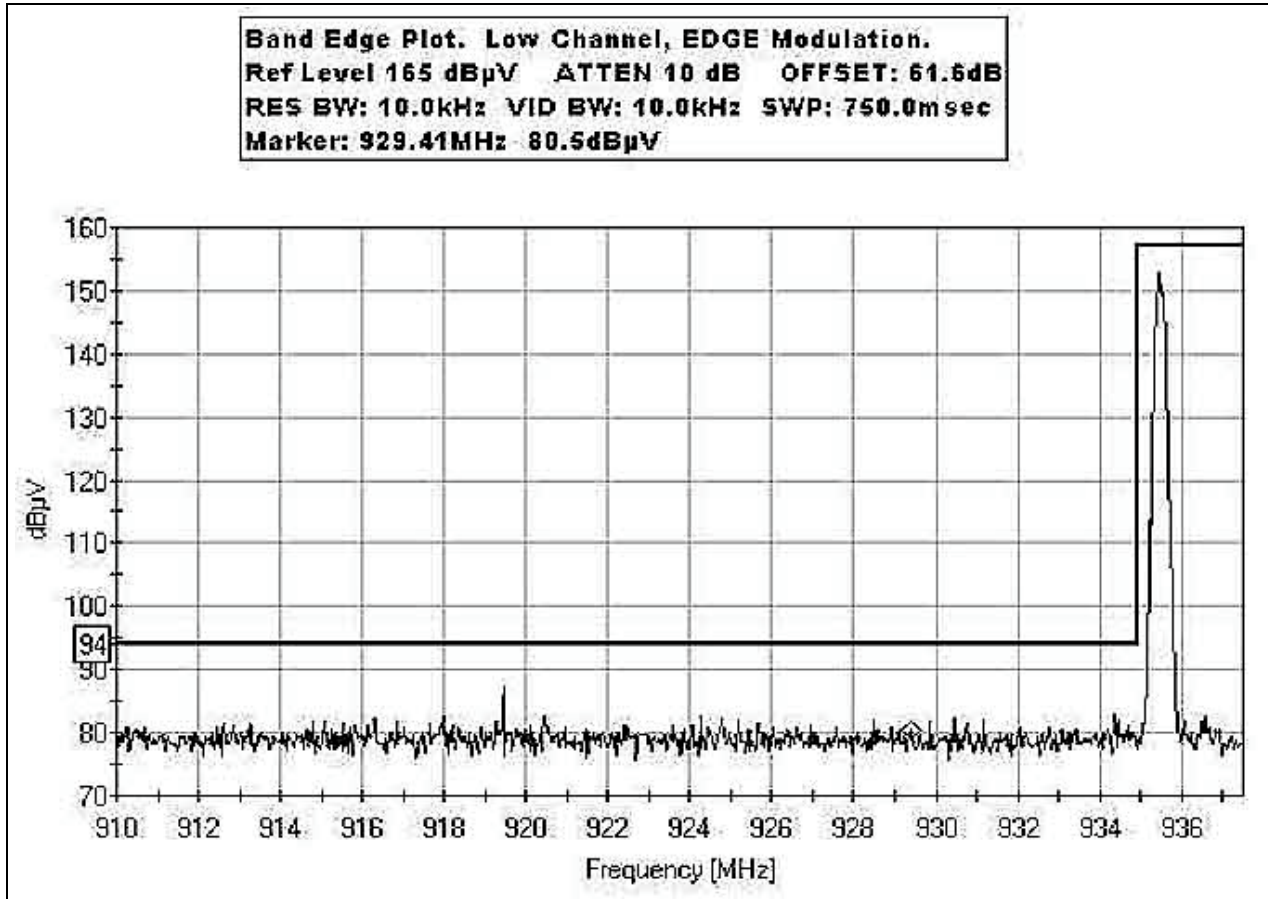
BAND EDGE ASMR HIGH CHANNEL WIDE



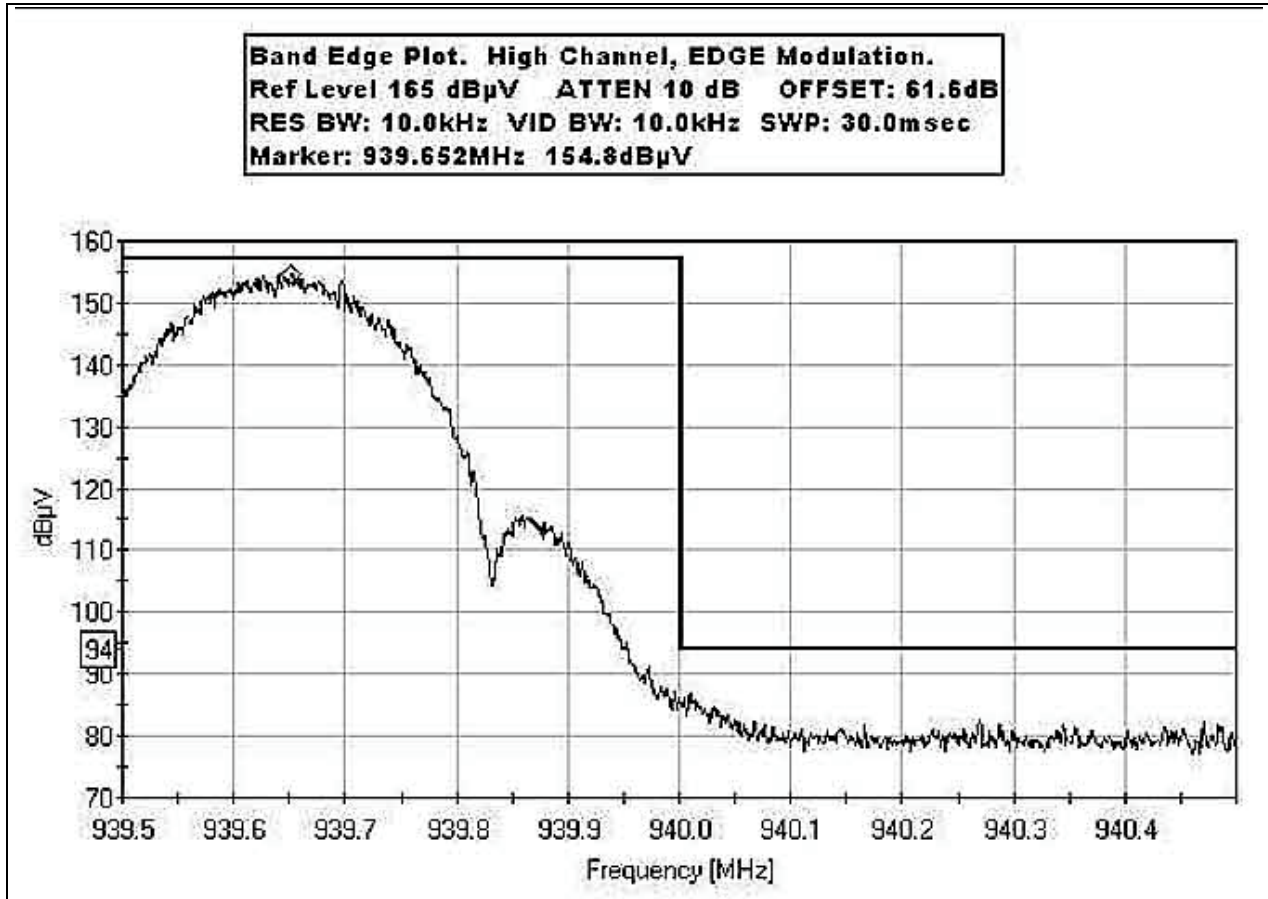
BANDEDGE EDGE LOW CHANNEL



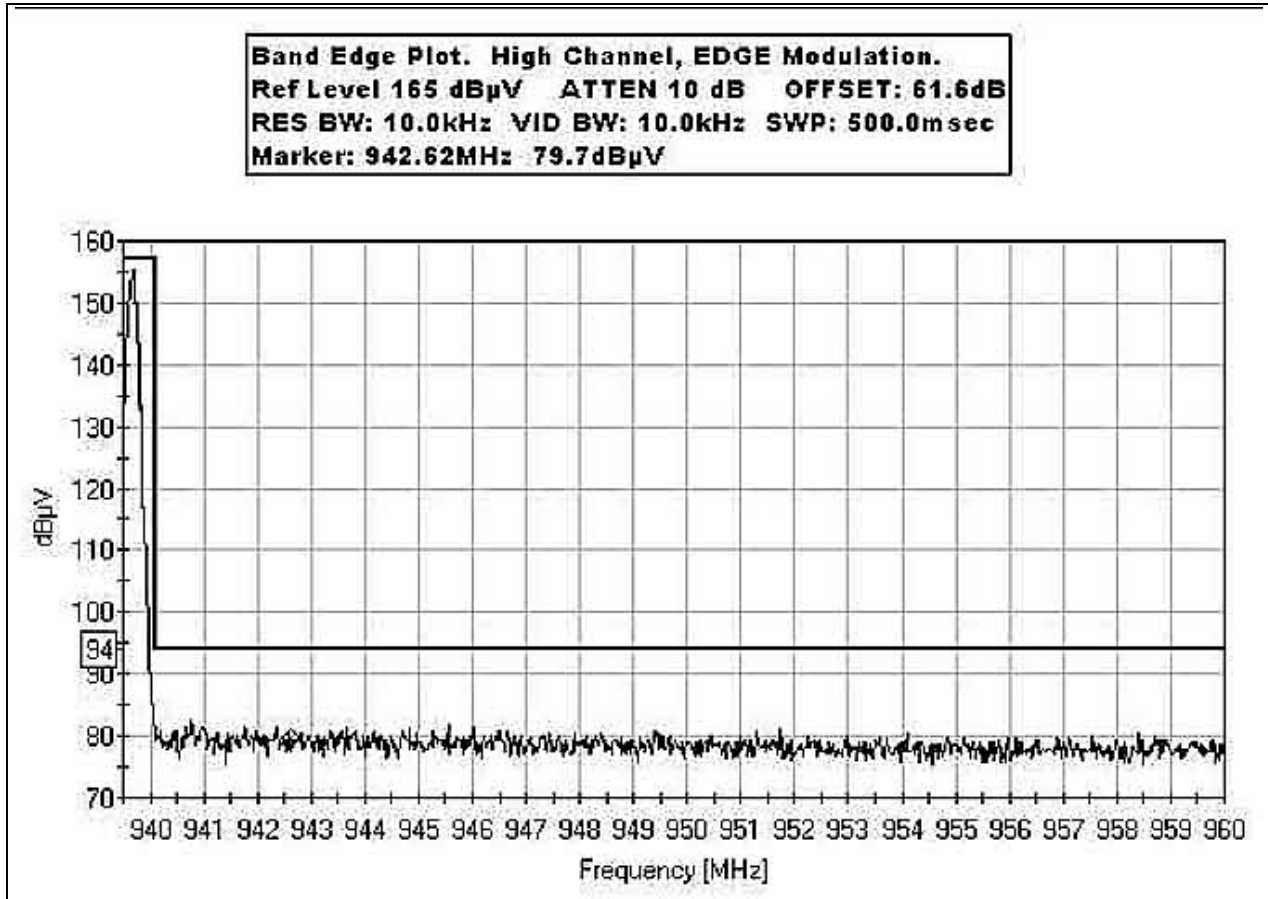
BANDEDGE EDGE LOW CHANNEL WIDE



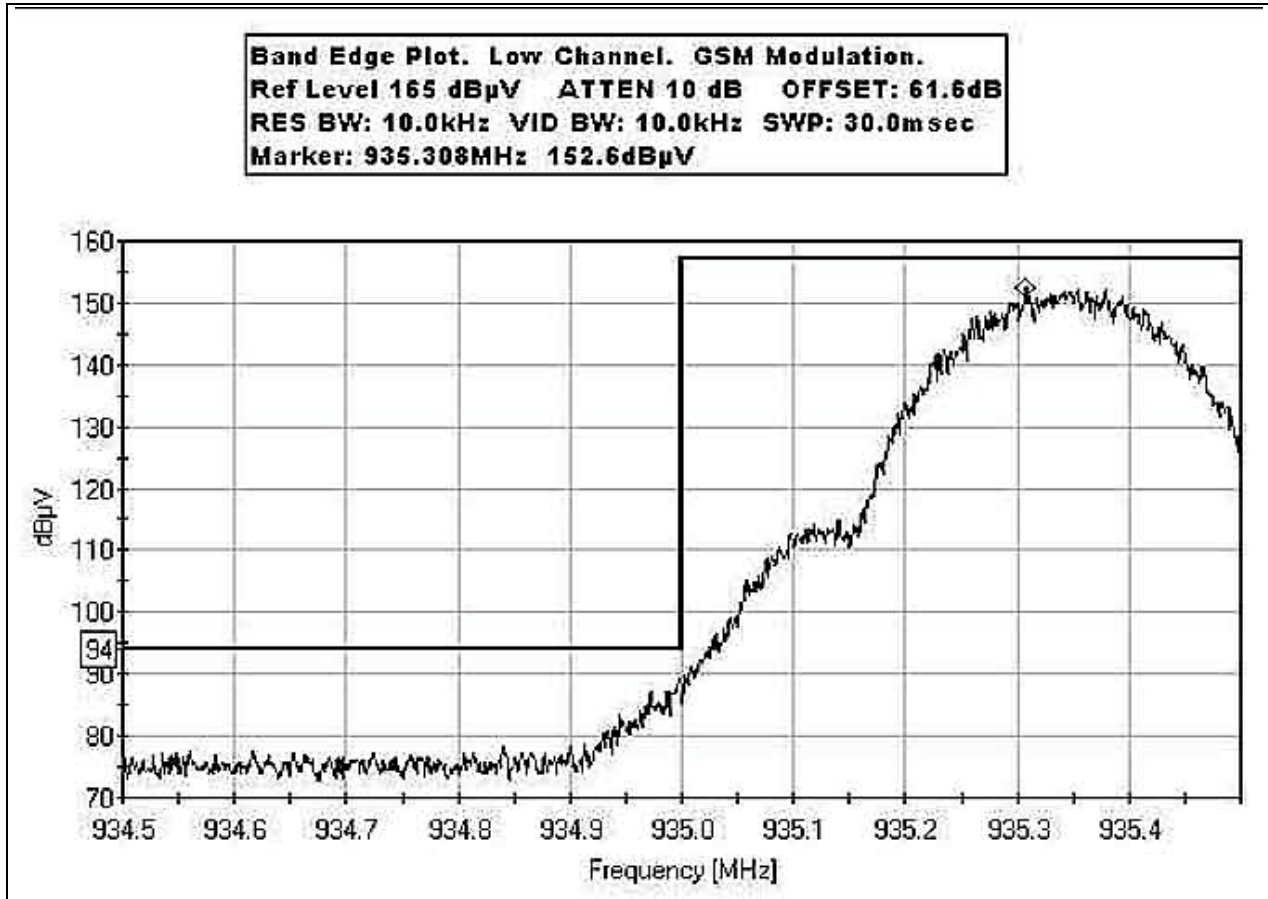
BANDEDGE EDGE HIGH CHANNEL



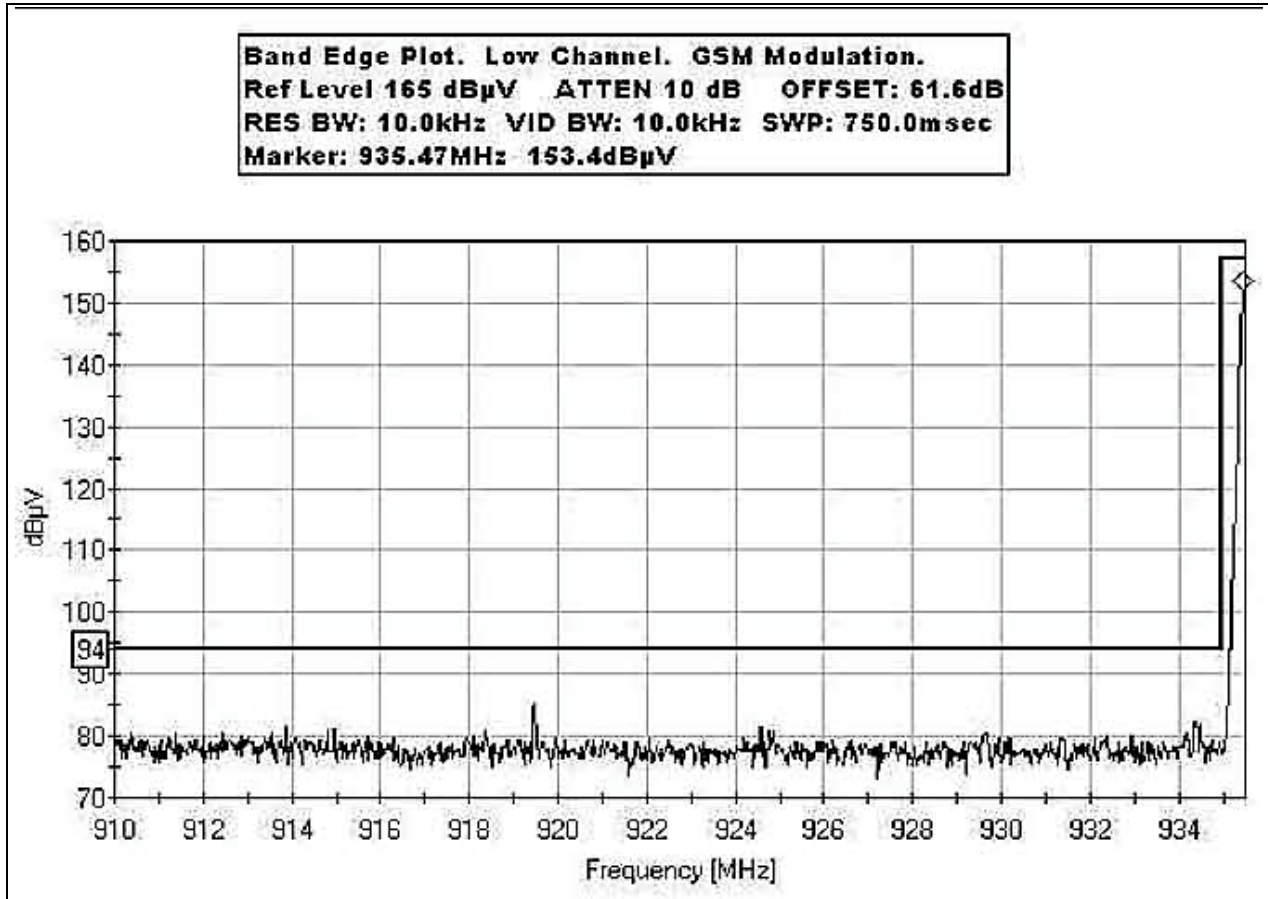
BANDEDGE EDGE HIGH CHANNEL WIDE



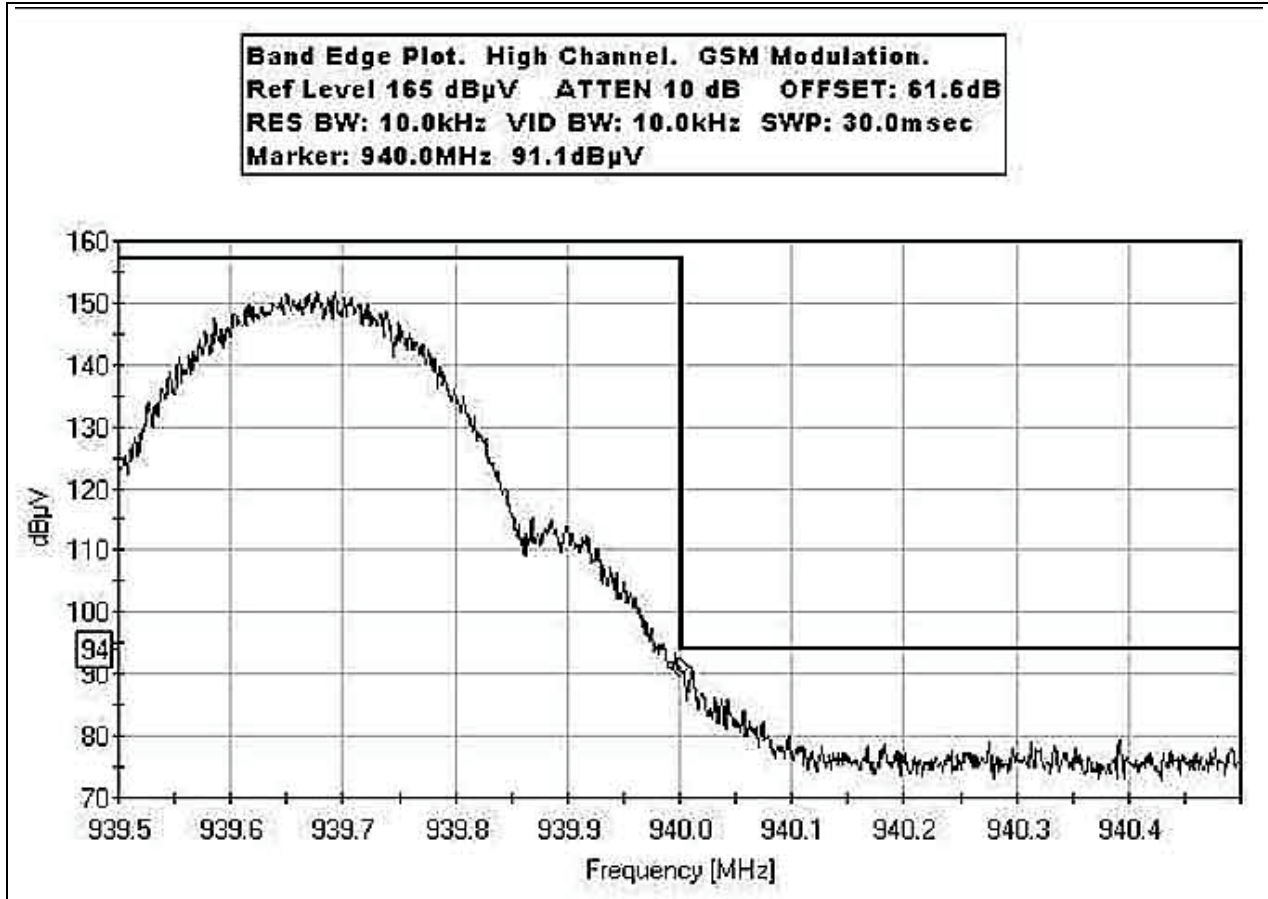
BANDEDGE GSM LOW CHANNEL



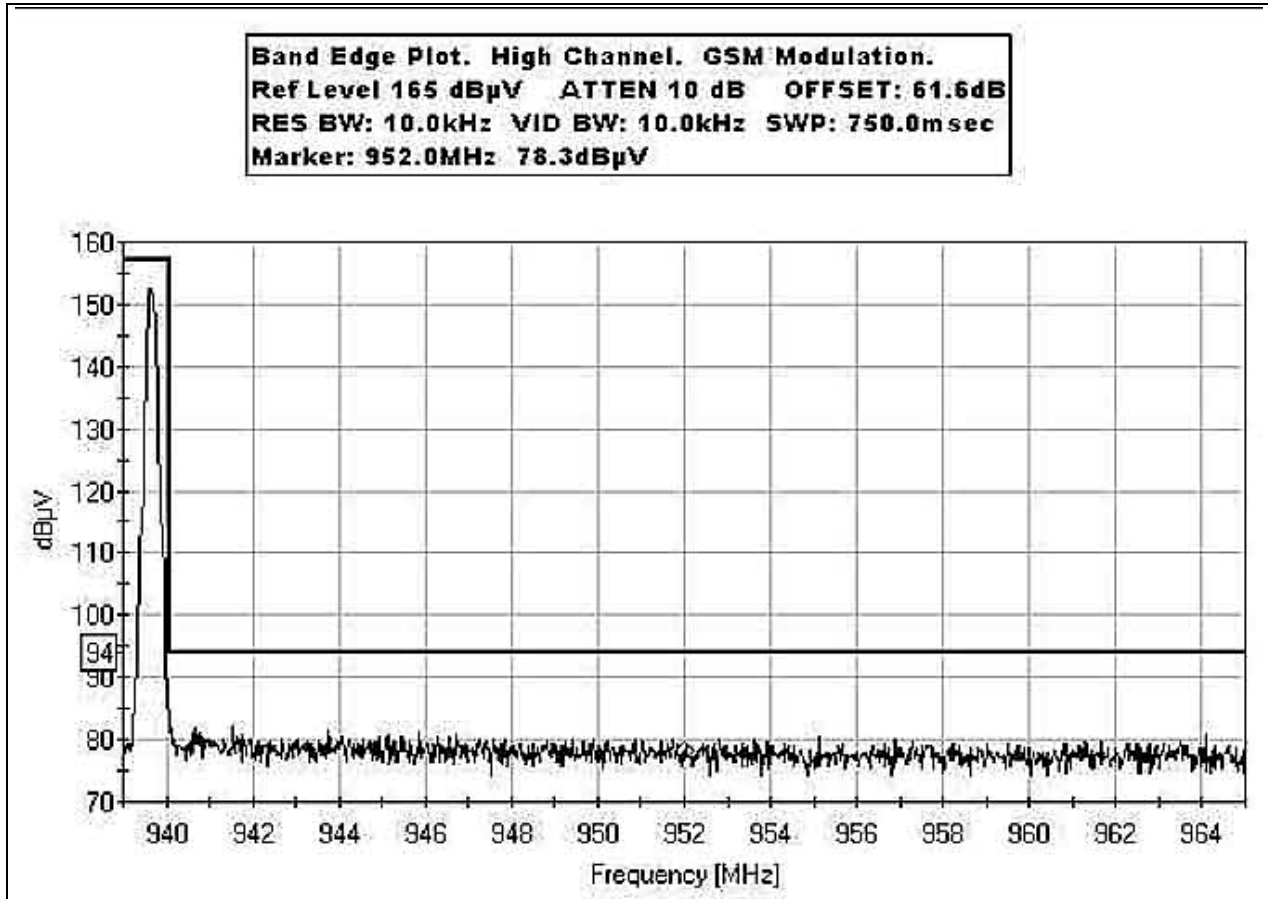
BANDEDGE GSM LOW CHANNEL WIDE



BANDEDGE GSM HIGH CHANNEL



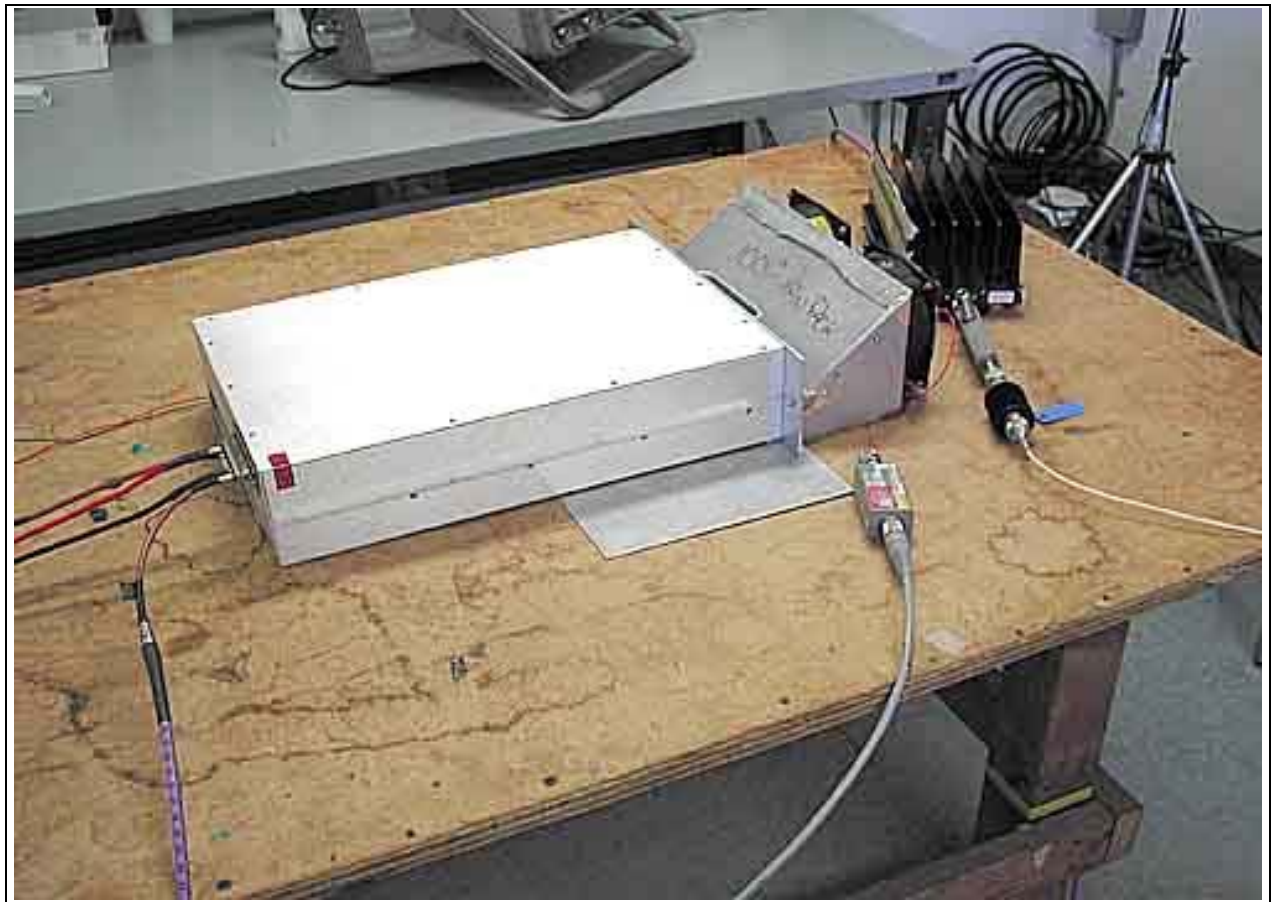
BANDEDGE GSM HIGH CHANNEL WIDE



Test Equipment

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer RF Section	02462	HP	8568B	2928A04874	100804	100806
Spectrum Analyzer Display Section	02472	HP	85662A	3001A18430	100804	100806
QP Adapter	01437	HP	85650A	3303A01884	100804	100806
24" SMA Cable (White)	P5183	Pasteck	NA	1-40GHz_white	122304	122306

PHOTOGRAPH SHOWING BANDEDGE TEST SETUP





FCC 2.1033(c)(14)/2.1051/90.210 - SPURIOUS EMISSIONS AT ANTENNA TERMINAL

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

Customer: **Powerwave Technologies, Inc.**

Specification: **90.210 Emission Mask J**

Work Order #: **83866**

Date: 11/28/2005

Test Type: **Conducted Emissions**

Time: 13:09:29

Equipment: **RF Amplifier**

Sequence#: 6

Manufacturer: Powerwave

Tested By: Stuart Yamamoto

Model: G3L-929-135 Python 900

27V dc

S/N: PD00000D3Y

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
RF Amplifier*	Powerwave	G3L-929-135 Python 900	PD00000D3Y

Support Devices:

Function	Manufacturer	Model #	S/N
Power Meter	Agilent	E4419A	US38260914
ECG	Agilent	E4433B	US40051477
Pre Amplifier	Mini Circuit	24L-1724HKN-SMA	D020801-06
Power Supply	HP	8269B	2436-11864

Test Conditions / Notes:

The EUT is placed on the wooden table. RF Input port is connected to a remote support signal amplifier and a signal generator. The RF Output is connected to a remote RF load and a directional coupler. The RF power of the EUT is monitored at the output of the directional coupler and the RF input signal is adjusted to maintain the output power. Modulation: EDGE, GSM, Analog SMR. Power = 135 Watts. Frequency: 935MHz, 937.5 MHz, 940 MHz. Frequency range of measurement = 9kHz - 10GHz. Frequency 9kHz - 150kHz BW=200Hz, 150kHz - 30MHz BW=9kHz, 30MHz - 1000MHz BW=120kHz, 1000MHz - 10000MHz BW=1MHz. 27VDC to EUT, 21°C, 35% relative humidity, 100kPa.

Transducer Legend:

T1=SMA Cable 1-40GHz AN2604_012306	T2=HPF_AN02116_1.5GHz_062707
------------------------------------	------------------------------

Measurement Data: Reading listed by margin. Test Lead: Antenna Terminal

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	dB	dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Anten
1	2812.500M	82.6	+0.6	+0.6			+0.0	83.8	88.3	-4.5	Anten
Ave											
^	2812.500M	85.8	+0.6	+0.6			+0.0	87.0	88.3	-1.3	Anten
^	2812.500M	81.8	+0.6	+0.6			+0.0	83.0	88.3	-5.3	Anten
^	2812.500M	80.8	+0.6	+0.6			+0.0	82.0	88.3	-6.3	Anten
5	1879.600M	81.0	+0.5	+0.5			+0.0	82.0	88.3	-6.3	Anten
Ave											

6	2805.600M Ave	80.6	+0.6	+0.6	+0.0	81.8	88.3	-6.5	Anten
^	2805.600M	84.1	+0.6	+0.6	+0.0	85.3	88.3	-3.0	Anten
^	2805.600M	81.9	+0.6	+0.6	+0.0	83.1	88.3	-5.2	Anten
^	2805.600M	81.9	+0.6	+0.6	+0.0	83.1	88.3	-5.2	Anten
10	1875.000M Ave	80.6	+0.5	+0.5	+0.0	81.6	88.3	-6.7	Anten
11	1879.600M Ave	80.1	+0.5	+0.5	+0.0	81.1	88.3	-7.2	Anten
^	1879.600M	84.6	+0.5	+0.5	+0.0	85.6	88.3	-2.7	Anten
^	1879.600M	83.8	+0.5	+0.5	+0.0	84.8	88.3	-3.5	Anten
^	1879.600M	81.3	+0.5	+0.5	+0.0	82.3	88.3	-6.0	Anten
15	1870.400M Ave	79.8	+0.5	+0.5	+0.0	80.8	88.3	-7.5	Anten
16	1870.400M Ave	79.6	+0.5	+0.5	+0.0	80.6	88.3	-7.7	Anten
17	1875.000M Ave	79.2	+0.5	+0.5	+0.0	80.2	88.3	-8.1	Anten
^	1875.000M	84.2	+0.5	+0.5	+0.0	85.2	88.3	-3.1	Anten
^	1875.000M	83.3	+0.5	+0.5	+0.0	84.3	88.3	-4.0	Anten
^	1875.000M	82.6	+0.5	+0.5	+0.0	83.6	88.3	-4.7	Anten
21	1870.400M Ave	78.0	+0.5	+0.5	+0.0	79.0	88.3	-9.3	Anten
^	1870.400M	84.9	+0.5	+0.5	+0.0	85.9	88.3	-2.4	Anten
^	1870.400M	83.3	+0.5	+0.5	+0.0	84.3	88.3	-4.0	Anten
^	1870.400M	81.7	+0.5	+0.5	+0.0	82.7	88.3	-5.6	Anten
25	1875.000M Ave	77.7	+0.5	+0.5	+0.0	78.7	88.3	-9.6	Anten
26	2819.400M Ave	77.0	+0.6	+0.6	+0.0	78.2	88.3	-10.1	Anten
27	1879.600M Ave	77.0	+0.5	+0.5	+0.0	78.0	88.3	-10.3	Anten

28	2819.400M Ave	76.6	+0.6	+0.6	+0.0	77.8	88.3	-10.5	Anten
^	2819.400M	82.7	+0.6	+0.6	+0.0	83.9	88.3	-4.4	Anten
^	2819.400M	81.9	+0.6	+0.6	+0.0	83.1	88.3	-5.2	Anten
^	2819.400M	81.8	+0.6	+0.6	+0.0	83.0	88.3	-5.3	Anten
32	2805.600M Ave	75.8	+0.6	+0.6	+0.0	77.0	88.3	-11.3	Anten
33	2812.500M Ave	75.8	+0.6	+0.6	+0.0	77.0	88.3	-11.3	Anten
34	2805.600M Ave	73.6	+0.6	+0.6	+0.0	74.8	88.3	-13.5	Anten
35	2819.400M Ave	73.5	+0.6	+0.6	+0.0	74.7	88.3	-13.6	Anten
36	2812.500M Ave	73.3	+0.6	+0.6	+0.0	74.5	88.3	-13.8	Anten

Test Equipment

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer	02672	Agilent	E4446A	US44300438	011405	011407
24" SMA Cable	2604	Argosy	UFA147A	0-0360-200200	012304	012306
1.5 GHz HPF	02116	HP	84300-80037	3643A00027	062705	062707

PHOTOGRAPH SHOWING ANTENNA CONDUCTED EMISSIONS





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

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

Customer: **Powerwave Technologies, Inc.**
 Specification: **FCC 90.210 Radiated Spurious Emission**
 Work Order #: **83866** Date: 11/28/2005
 Test Type: **Maximized Emissions** Time: 11:16:35
 Equipment: **RF Amplifier** Sequence#: 9
 Manufacturer: Powerwave Tested By: Stuart Yamamoto
 Model: G3L-929-135 Python 900
 S/N: PD00000D3Y

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
HP8568B	US40240225	03/11/2003	03/11/2004	2472

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
RF Amplifier*	Powerwave	G3L-929-135 Python 900	PD00000D3Y

Support Devices:

Function	Manufacturer	Model #	S/N
Power Meter	Agilent	E4419A	US38260914
ECG	Agilent	E4433B	US40051477
Pre Amplifier	Mini Circuit	24L-1724HKN-SMA	D020801-06
Power Supply	HP	8269B	2436-11864

Test Conditions / Notes:

The EUT is placed on the wooden table. RF Input port is connected to a remote support signal amplifier and a signal generator. The RF Output is connected to a remote RF load and a directional coupler. The RF power of the EUT is monitored at the output of the directional coupler and the RF input signal is adjusted to maintain the output power. Modulation: EDGE. Power = 135 Watts. Frequency range of measurement = 9kHz - 10GHz. Frequency: 935MHz, 937.5 MHz, 940 MHz. Frequency 9kHz - 150kHz BW=200Hz, 150kHz - 30MHz BW=9kHz, 30MHz - 1000MHz BW=120kHz, 1000MHz - 10000MHz BW=1MHz. 27VDC to EUT, 21°C, 35% relative humidity, 100kpa.

Operating Frequency: 935 MHz - 940 MHz
 Channels: Low, Mid and High
 Highest Measured Output Power: 51.30 ERP(dBm)= 135 ERP(Watts)
 Distance: 3 meters
 Limit: $43+10\text{Log}(P)$ 64.30 dBc

Freq. (MHz)	Reference Level (dBm)	Antenna Polarity (H/V)	dBc
4,699.00	-19.7	Horiz	71.00
4,699.00	-14.7	Horiz	66.00
8,416.80	-19.7	Horiz	71.00
4,699.00	-19.9	Vert	71.20
4,699.00	-13.8	Vert	65.10
4,676.00	-20.2	Vert	71.50
4,676.00	-15.7	Vert	67.00
1,875.02	-20.2	Vert	71.50
4,676.00	-20.4	Horiz	71.70
4,676.00	-15.1	Horiz	66.40
4,687.58	-21	Horiz	72.30
4,687.58	-15.8	Horiz	67.10
8,437.63	-21	Vert	72.30
8,437.58	-21.1	Horiz	72.40
4,687.58	-21.1	Vert	72.40
4,687.58	-16.1	Vert	67.40
8,458.20	-21.3	Horiz	72.60
3,759.20	-21.9	Vert	73.20
6,562.58	-22.1	Horiz	73.40
8,458.20	-22.3	Vert	73.60
6,546.40	-22.3	Horiz	73.60
3,759.20	-22.7	Horiz	74.00
3,759.20	-15.7	Horiz	67.00
6,546.40	-22.7	Vert	74.00
6,578.60	-22.9	Horiz	74.20
5,638.80	-23.1	Horiz	74.40
5,638.80	-14.9	Horiz	66.20
6,578.60	-23.1	Vert	74.40
5,625.08	-23.1	Horiz	74.40
5,625.08	-14.5	Horiz	65.80
3,740.80	-23.3	Horiz	74.60
3,740.80	-15.2	Horiz	66.50
3,750.08	-23.3	Horiz	74.60

3,750.08	-15.5	Horiz	66.80
1,870.40	-23.4	Vert	74.70
6,562.58	-23.4	Vert	74.70
1,879.60	-23.5	Vert	74.80
1,879.60	-19.7	Vert	71.00
5,611.20	-23.7	Horiz	75.00
5,611.20	-15.5	Horiz	66.80
5,611.20	-23.9	Vert	75.20
5,611.20	-15.3	Vert	66.60
1,879.60	-24	Horiz	75.30
3,750.11	-24.9	Vert	76.20
3,750.11	-18.7	Vert	70.00
5,638.80	-25.2	Vert	76.50
5,638.80	-15.8	Vert	67.10
1,875.04	-25.4	Horiz	76.70
5,625.08	-26	Vert	77.30
5,625.08	-16.8	Vert	68.10
1,870.40	-26.1	Horiz	77.40
3,740.80	-26.5	Vert	77.80
3,740.80	-18	Vert	69.30
8,416.80	-27	Vert	78.30
8,416.80	-17.3	Vert	68.60
2,812.40	-33.4	Vert	84.70
2,812.54	-34.1	Horiz	85.40

Test Equipment

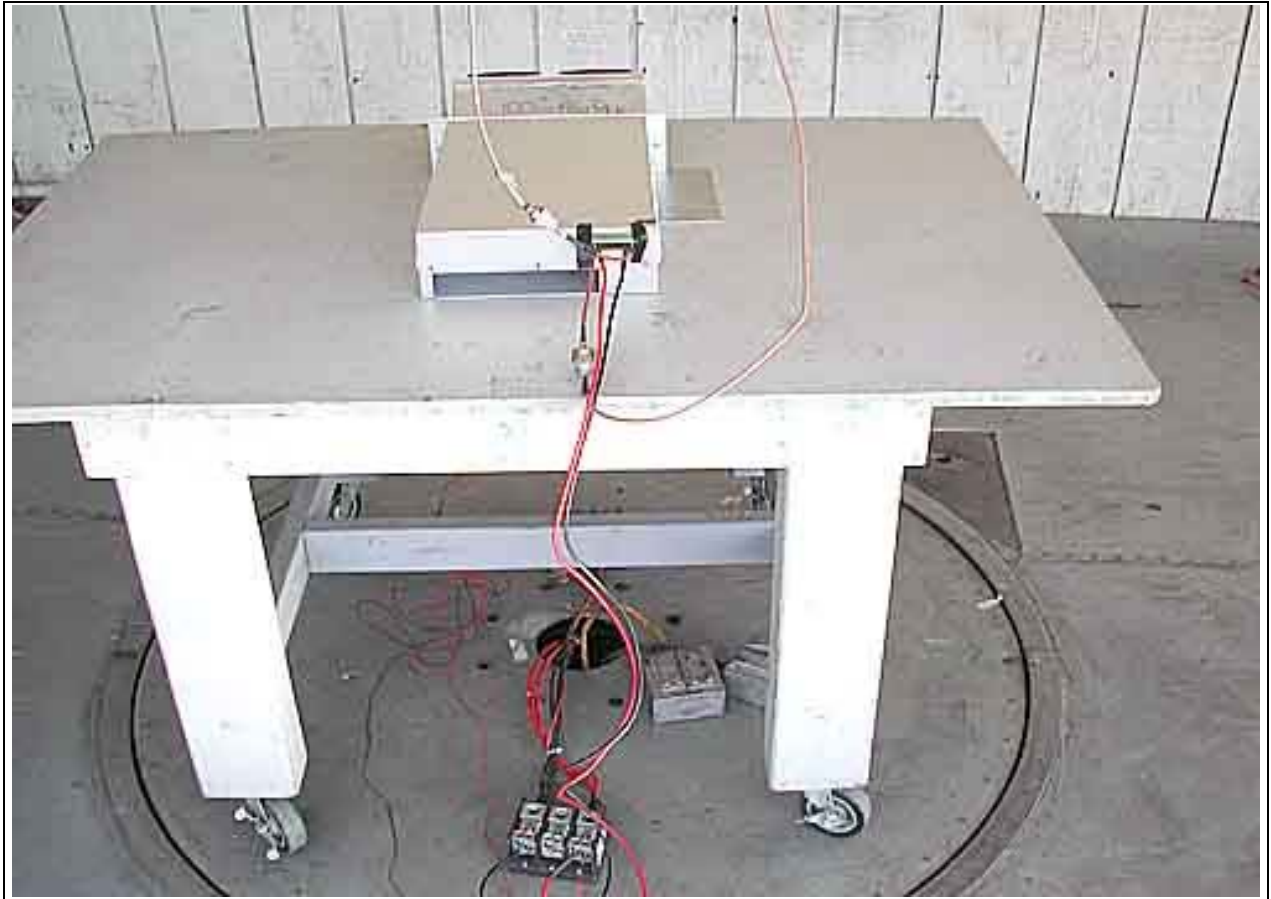
Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer	02672	Agilent	E4446A	US44300438	011405	011407
Biconilog Antenna	01995	Chase	CBL6111C	2451	080105	080107
Pre-amp	00309	HP	8447D	1937A02548	071404	071406
Antenna cable	NA	NA	RG214	Cable#15	010305	010306
Pre-amp to SA cable	NA	Pasternack	RG223/U	Cable#10	051605	051606
Horn Antenna	0849	EMCO	3115	6246	072204	072206
Microwave Pre-amp	00786	HP	83017A	3123A00281	081204	081206
Heliac Antenna cable	NA	Andrew	LDF1-50	Cable#20	091604	091606
24" SMA Cable	2604	Argosy	UFA147A	0-0360-200200	012304	012306
1.5 GHz HPF	02116	HP	84300-80037	3643A00027	062705	062707
Loop Antenna	00314	EMCO	6502	2014	062804	062806

PHOTOGRAPH SHOWING RADIATED EMISSIONS



Radiated Emissions - Front View

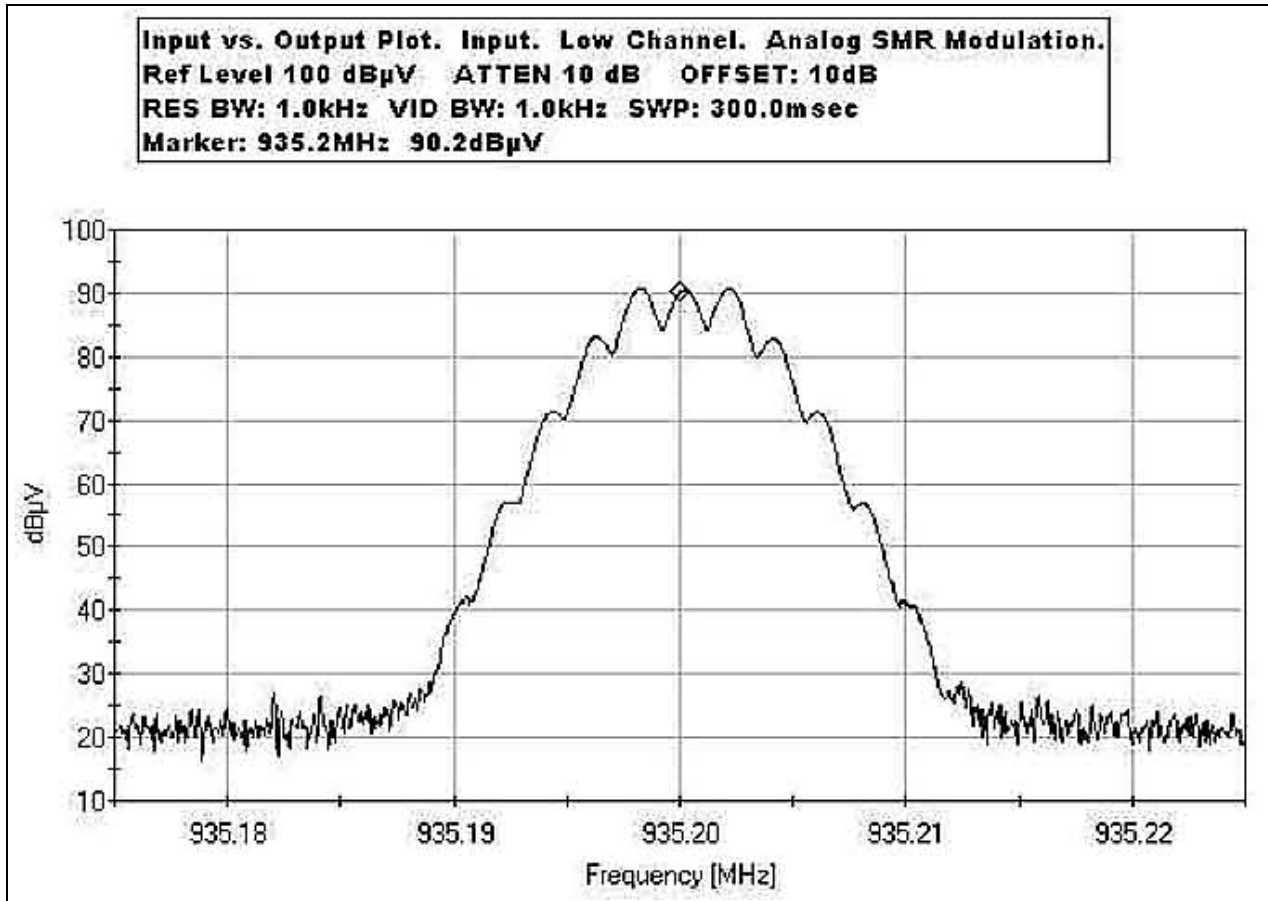
PHOTOGRAPH SHOWING RADIATED EMISSIONS



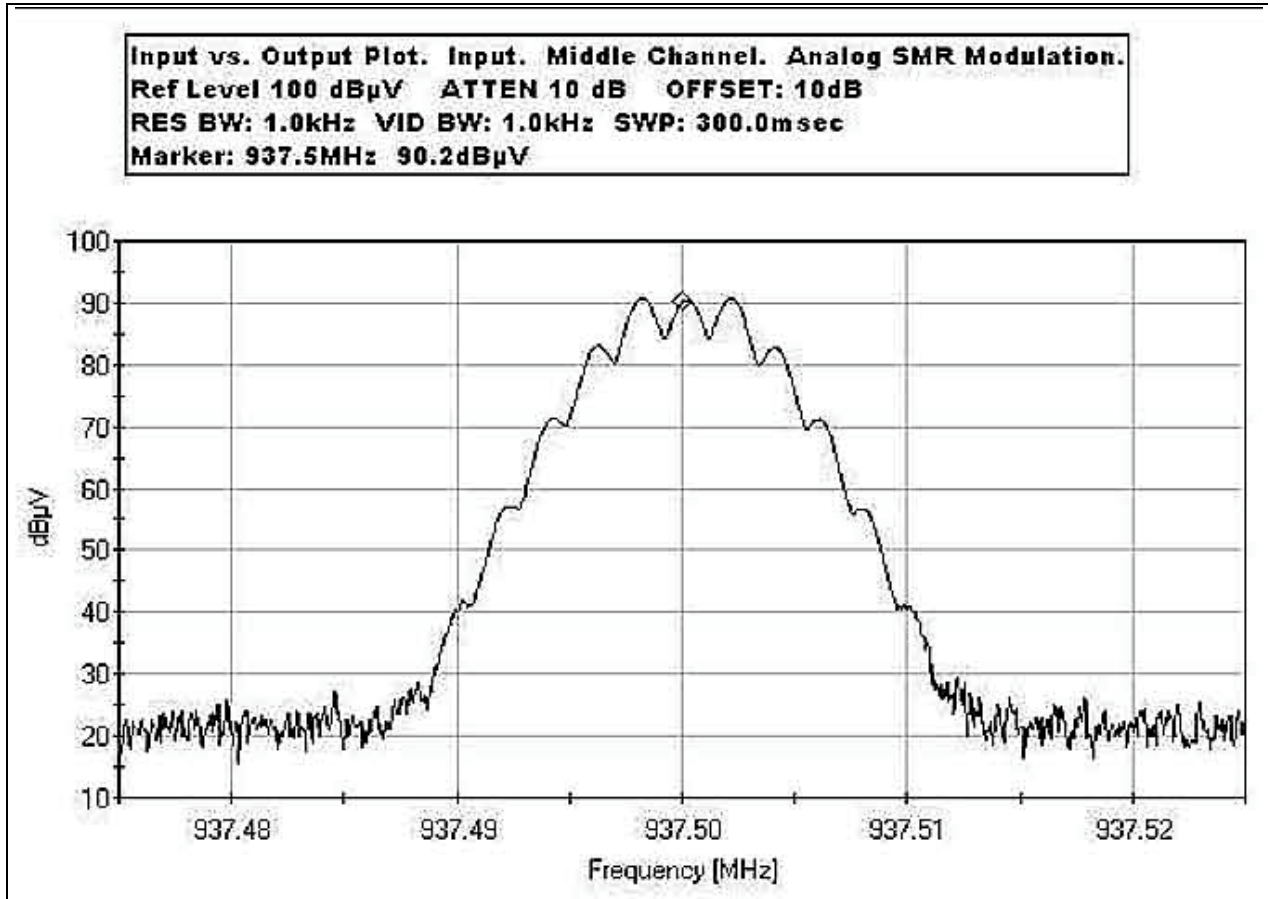
Radiated Emissions - Back View

INPUT PLOT ASMR LOW CHANNEL

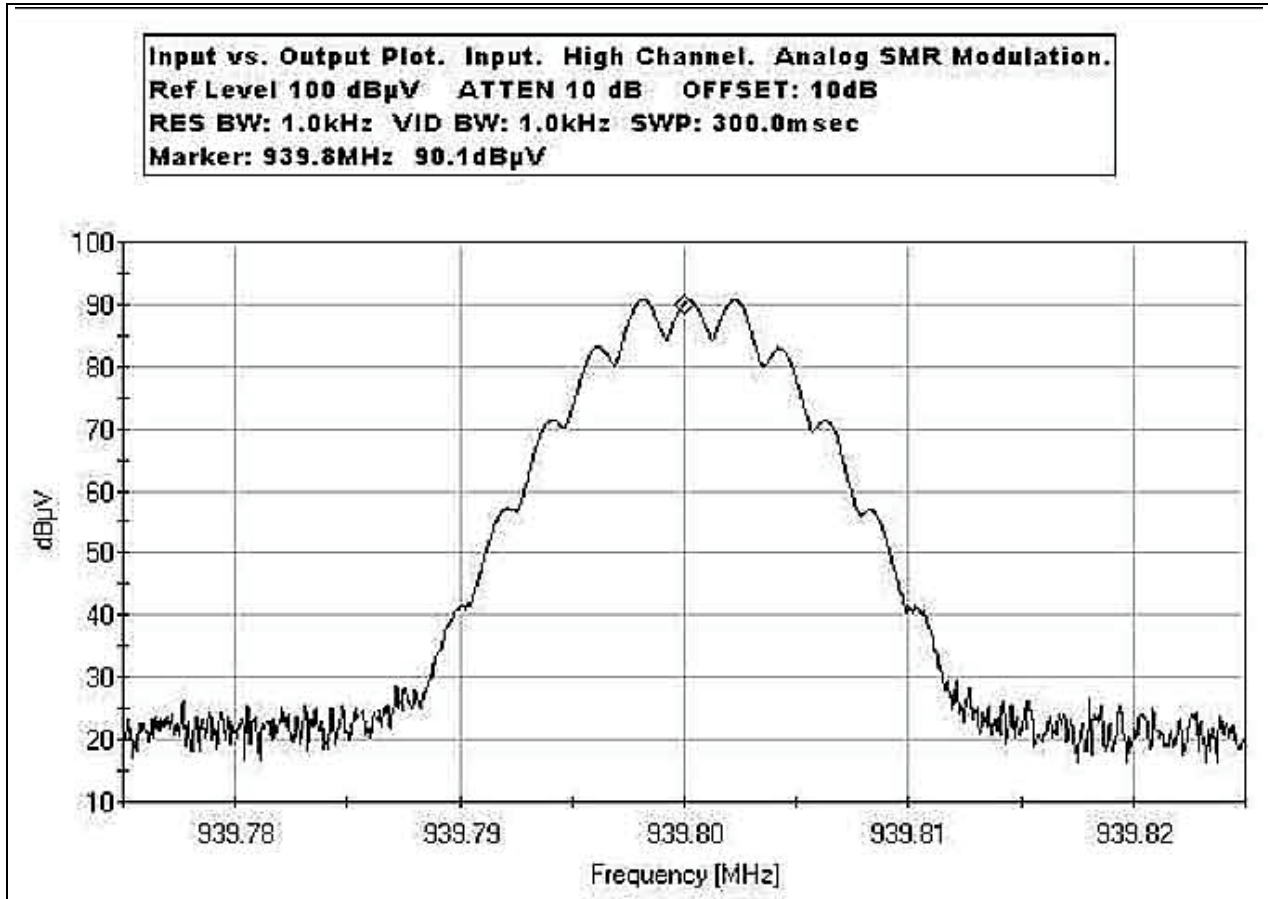
Test Conditions: The EUT is placed on the wooden table top. The EUT RF Input port is connected to a support amplifier and signal generator. The EUT RF Output port is connected to a high power RF attenuator and directional coupler. The output of the directional coupler was connected to the spectrum analyzer.



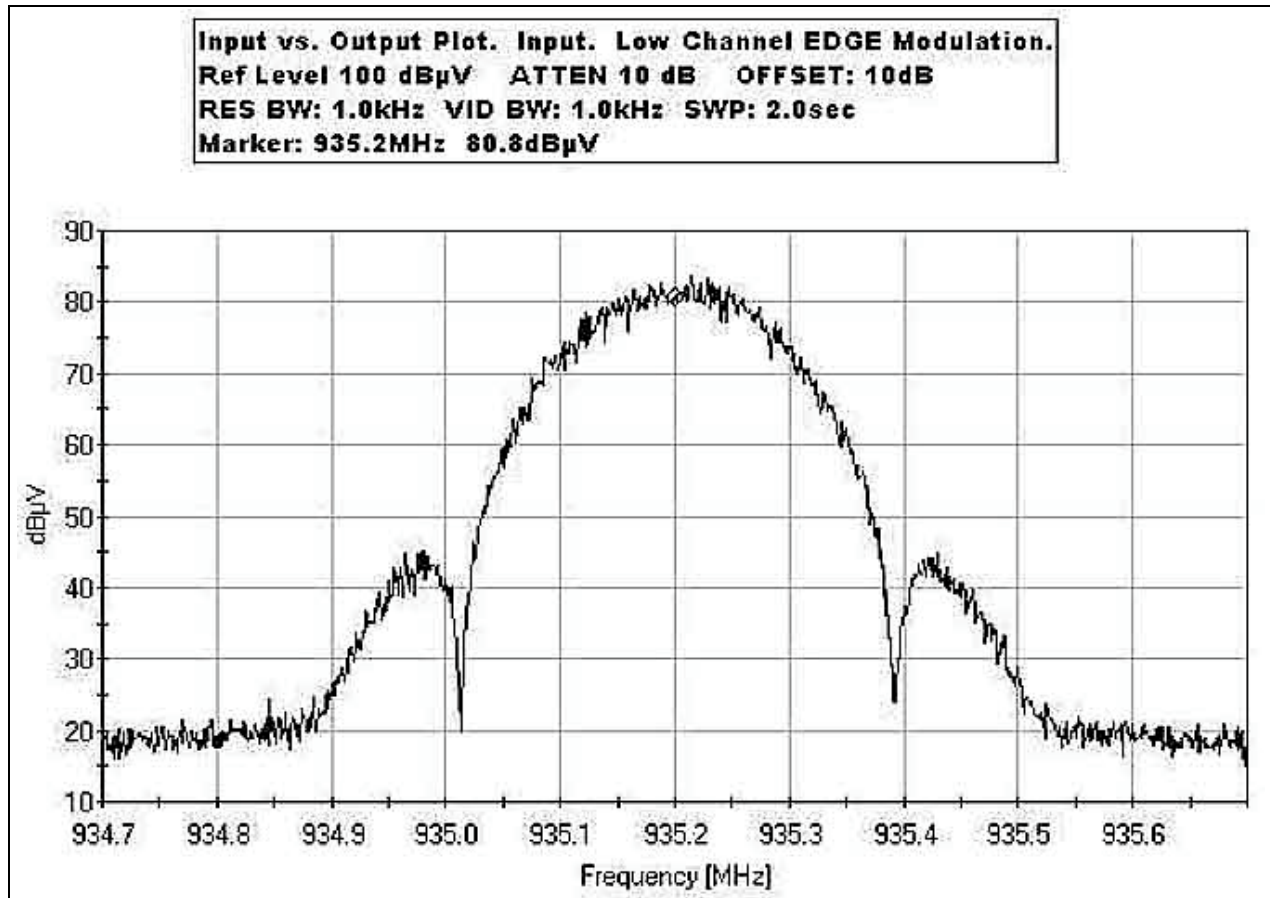
INPUT PLOT ASMR MID CHANNEL



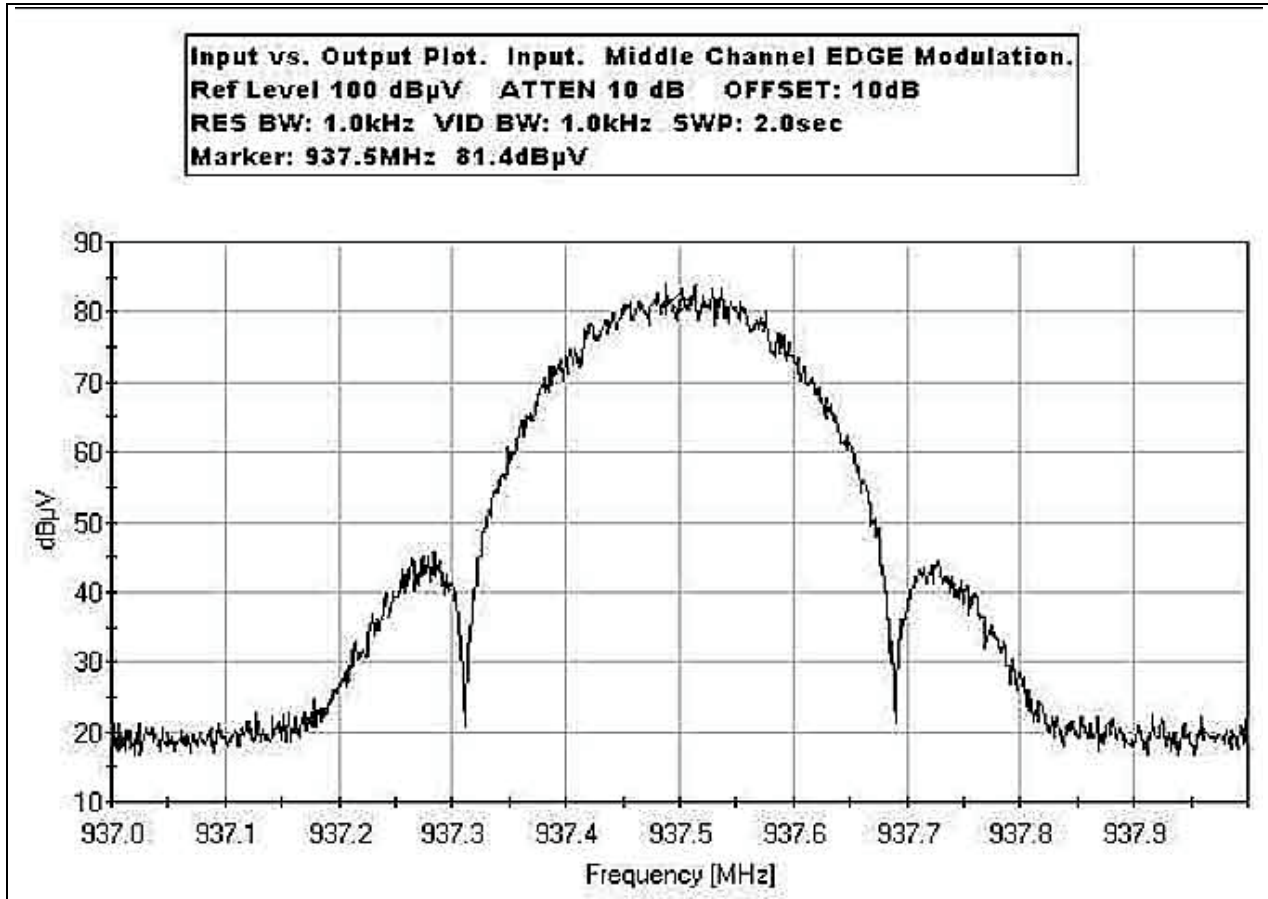
INPUT PLOT ASMR HIGH CHANNEL



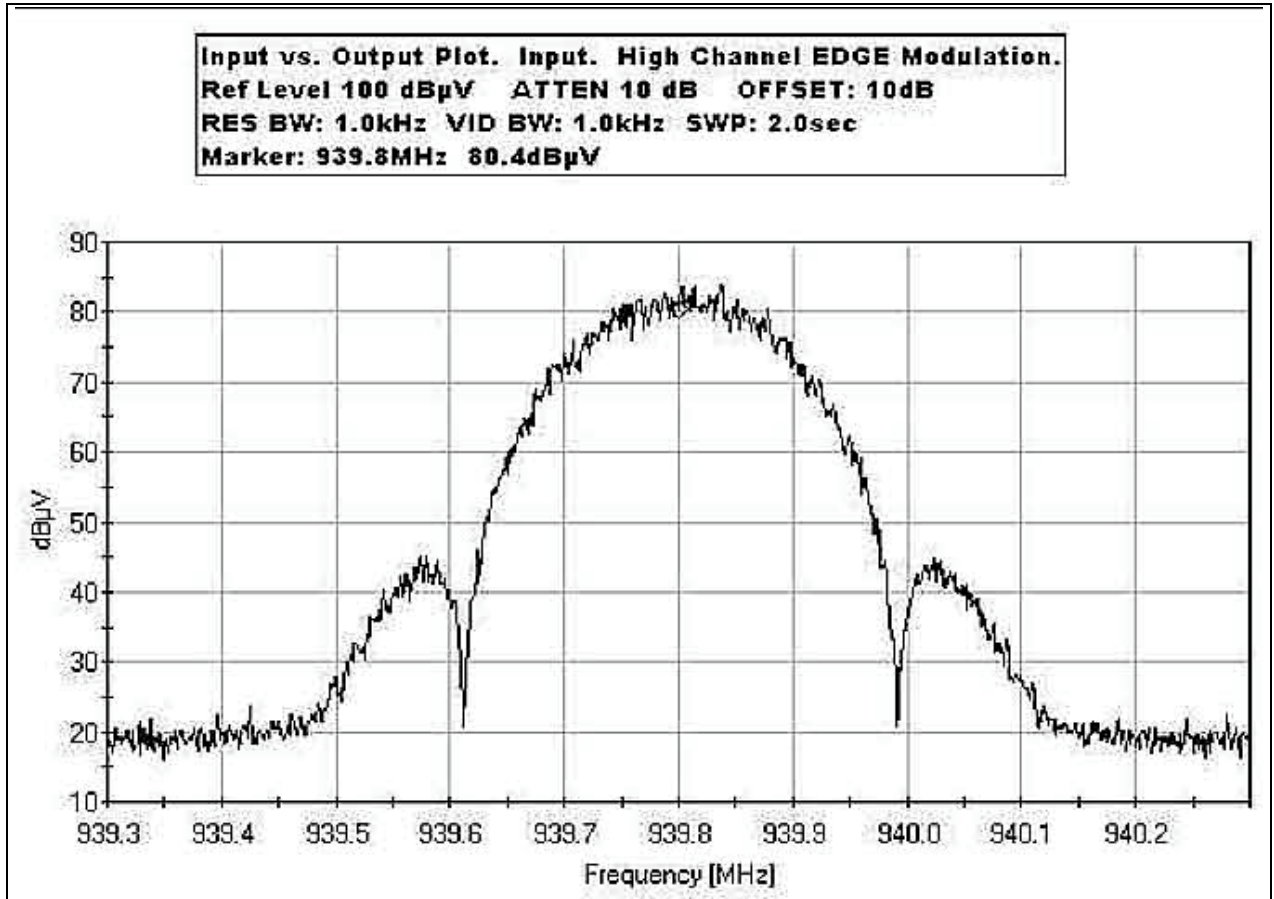
INPUT PLOT EDGE LOW CHANNEL



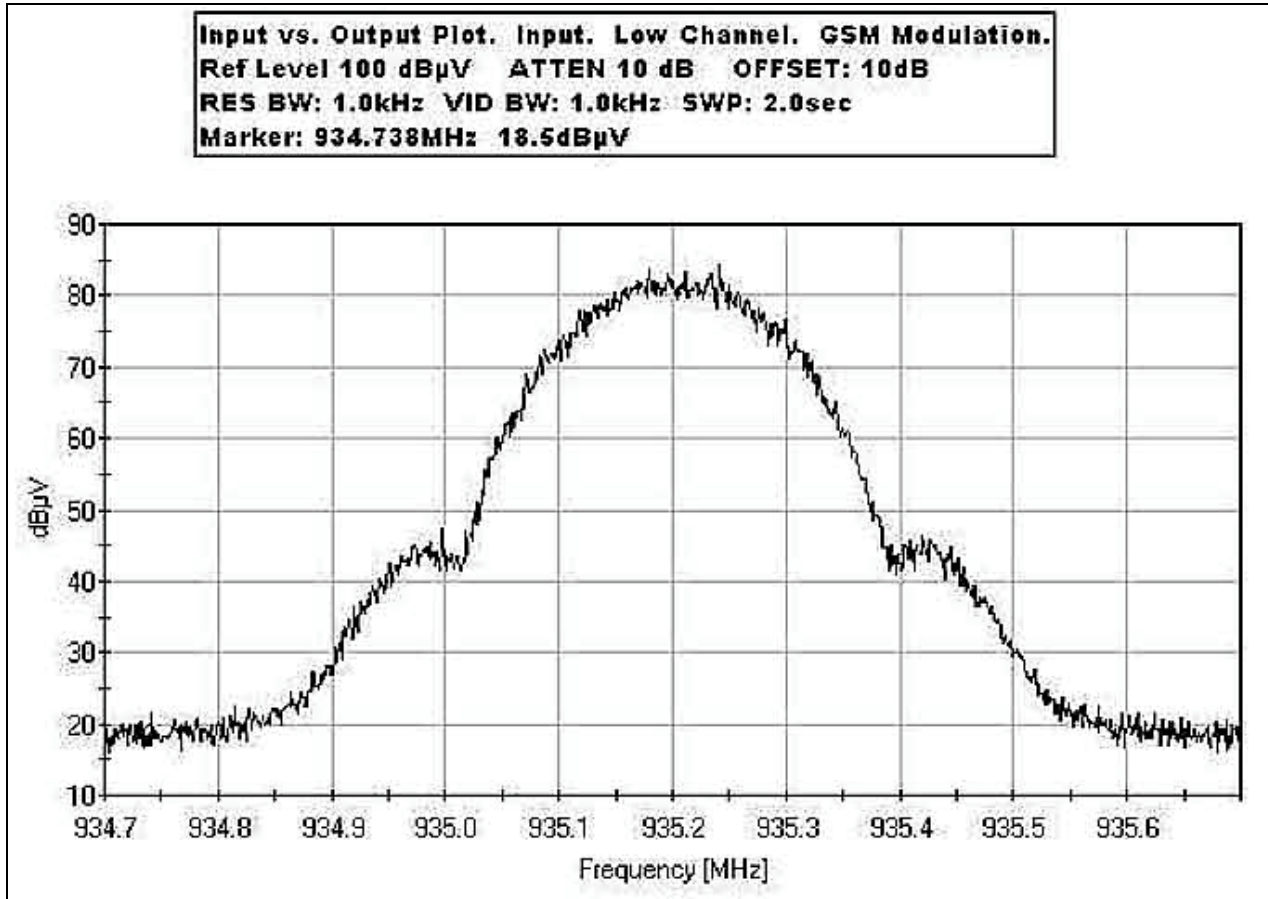
INPUT PLOT EDGE MID CHANNEL



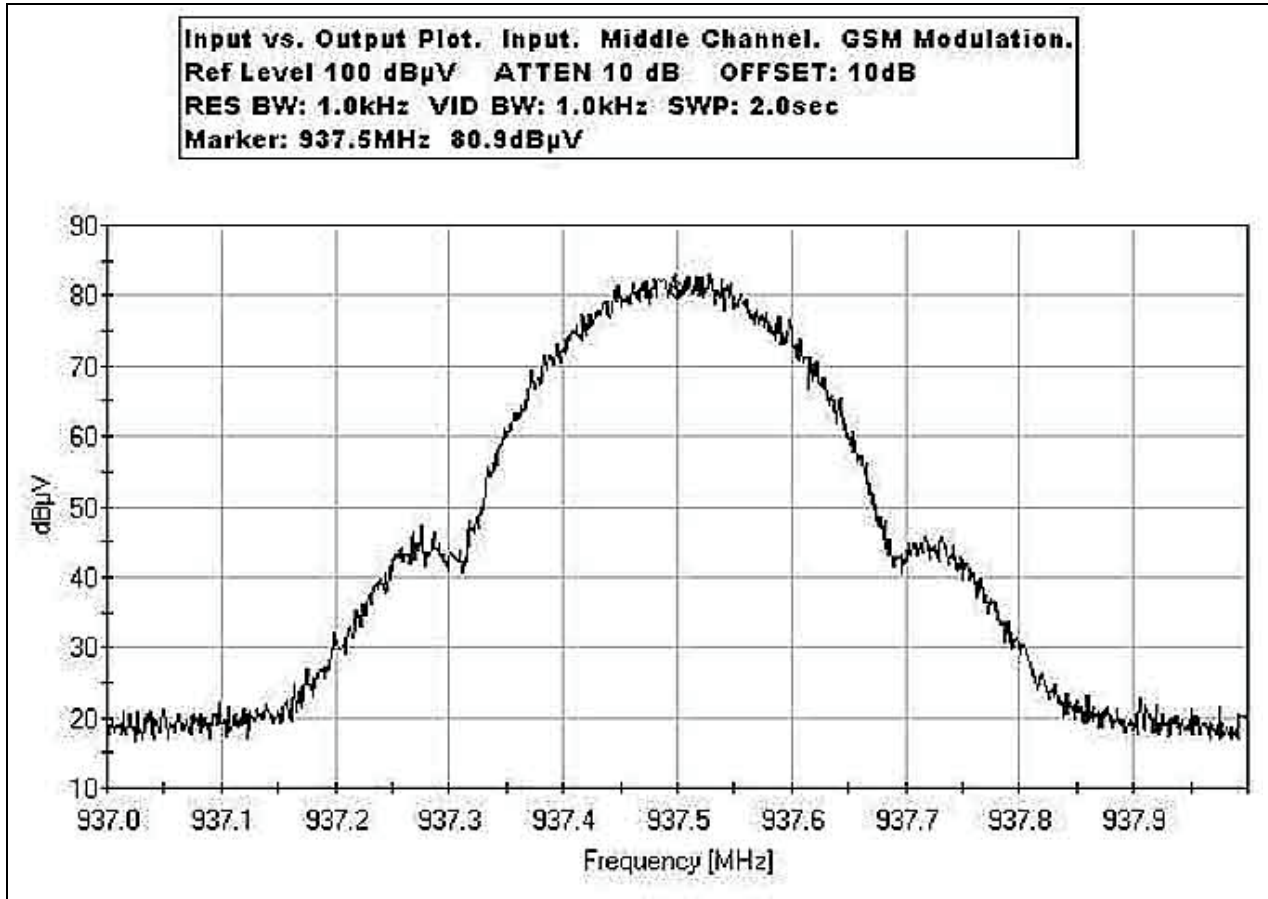
INPUT PLOT EDGE HIGH CHANNEL



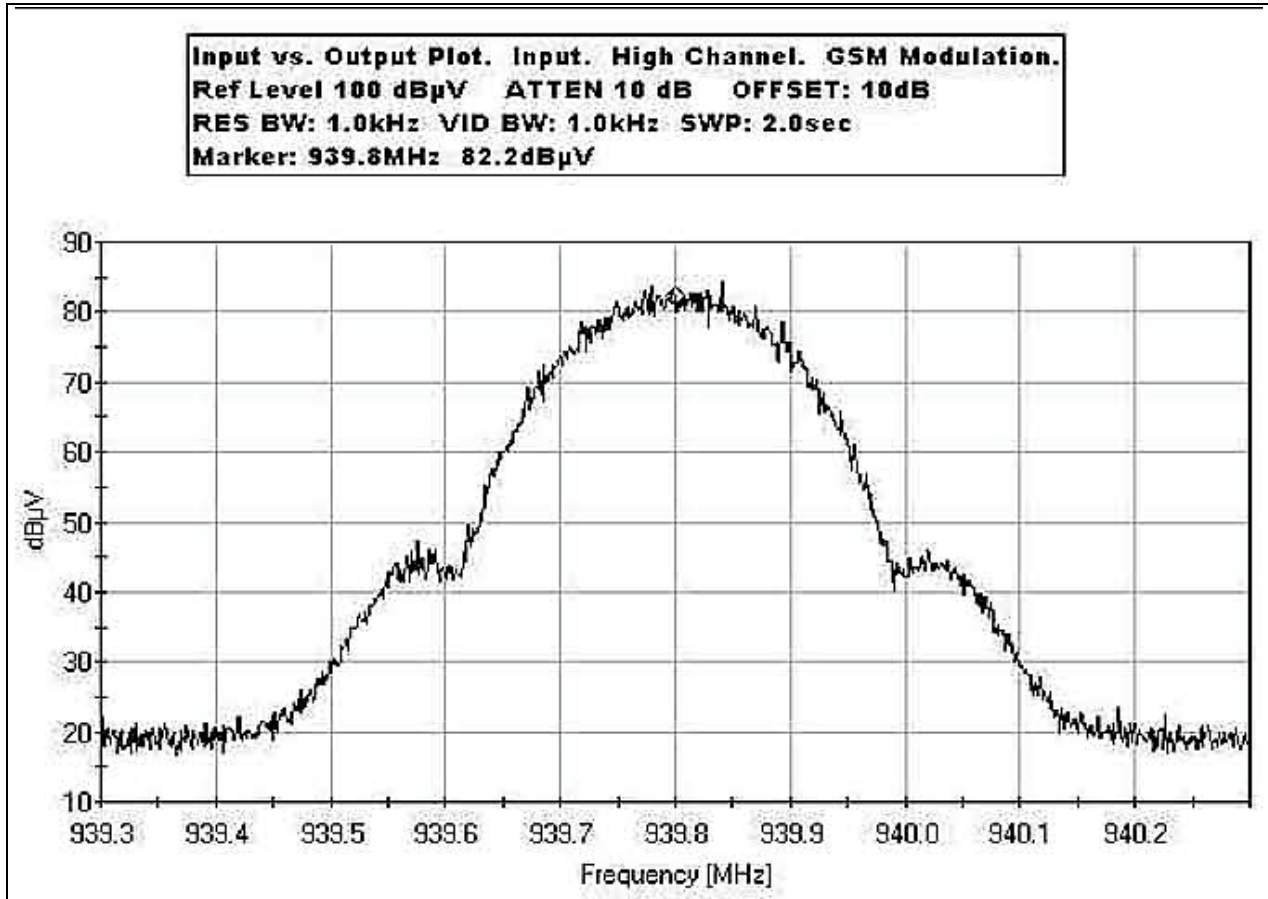
INPUT PLOT GSM LOW CHANNEL



INPUT PLOT GSM MID CHANNEL



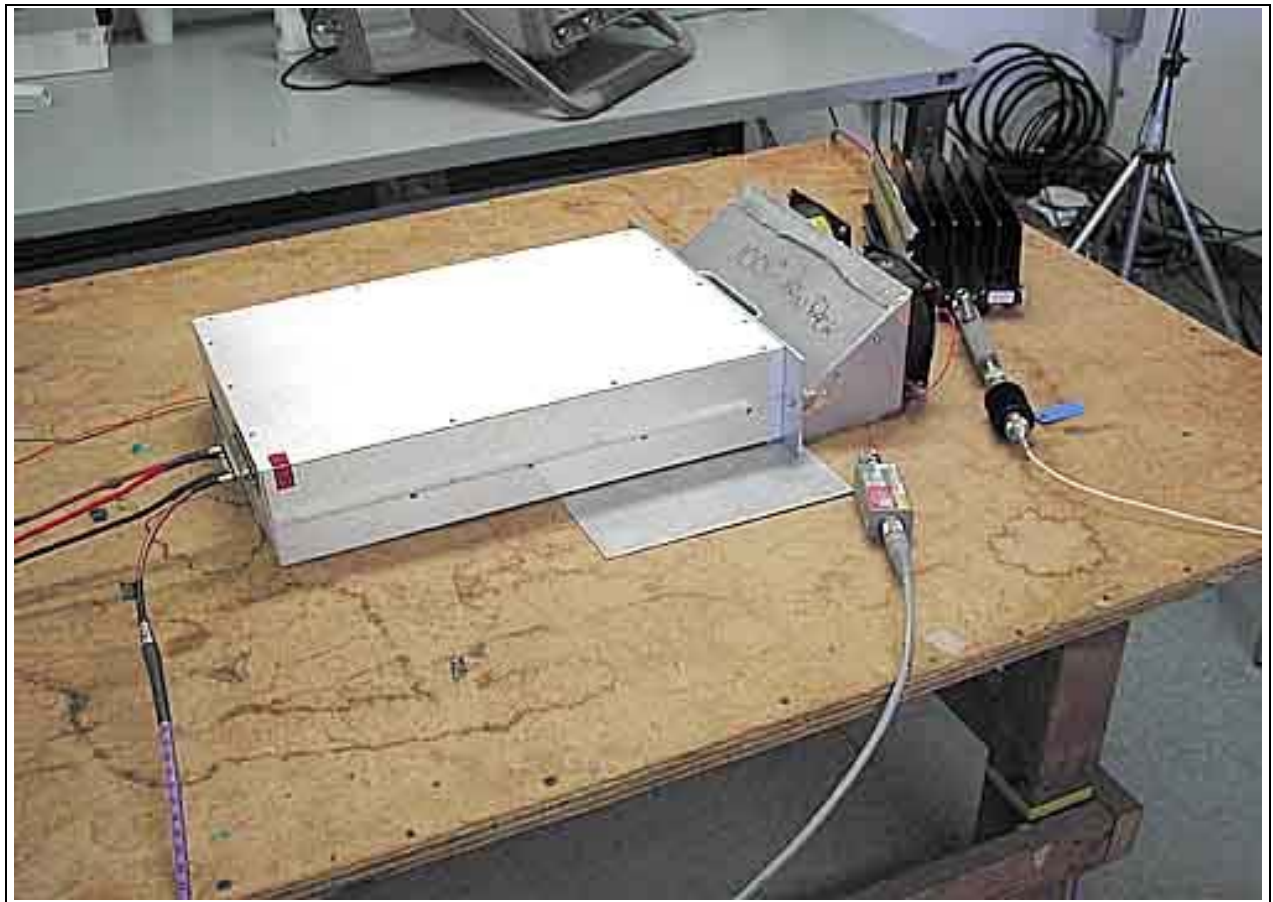
INPUT PLOT GSM HIGH CHANNEL



Test Equipment

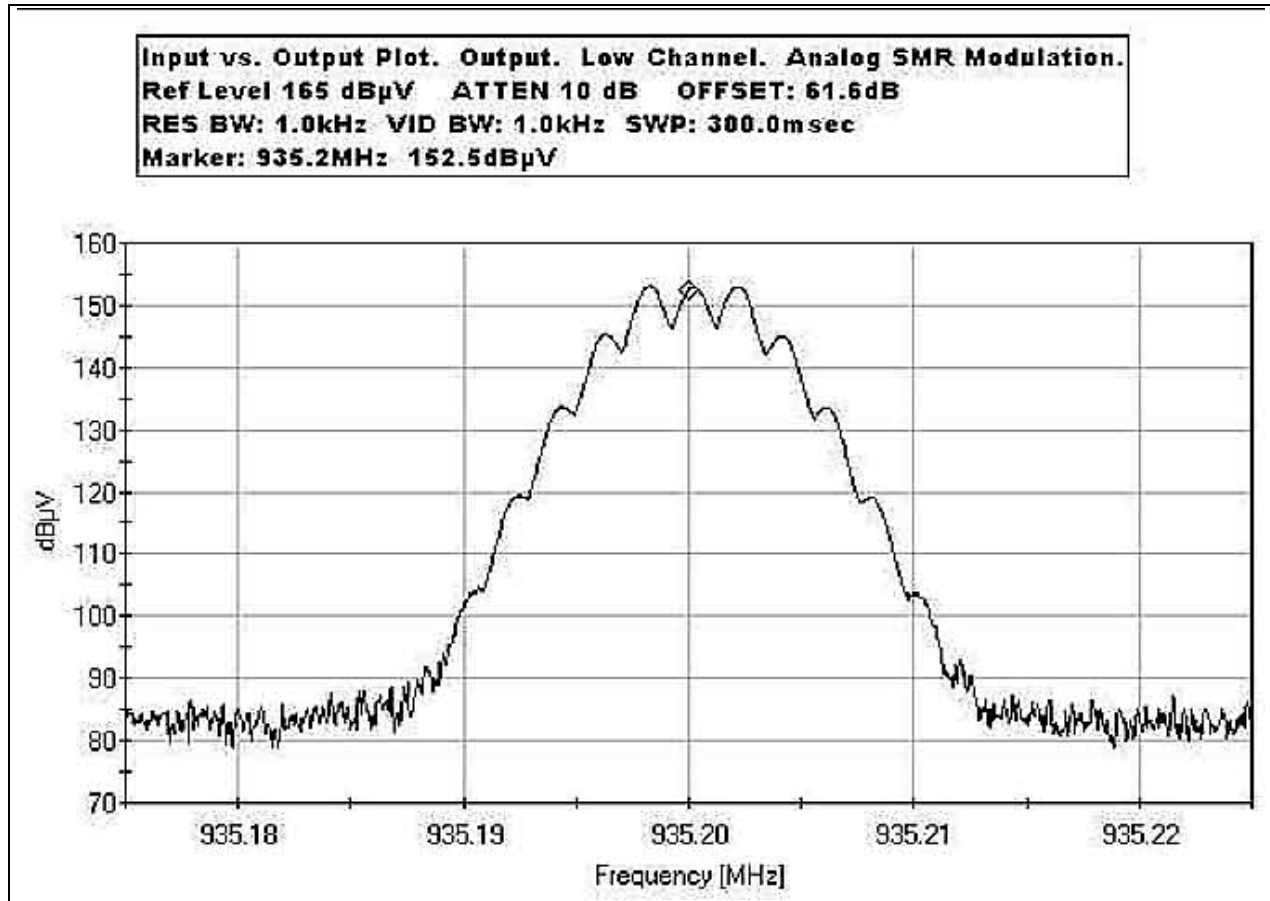
Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer RF Section	02462	HP	8568B	2928A04874	100804	100806
Spectrum Analyzer Display Section	02472	HP	85662A	3001A18430	100804	100806
QP Adapter	01437	HP	85650A	3303A01884	100804	100806
24" SMA Cable (White)	P5183	Pasteck	NA	1-40GHz_white	122304	122306

PHOTOGRAPH SHOWING DIRECT CONNECT TEST SETUP

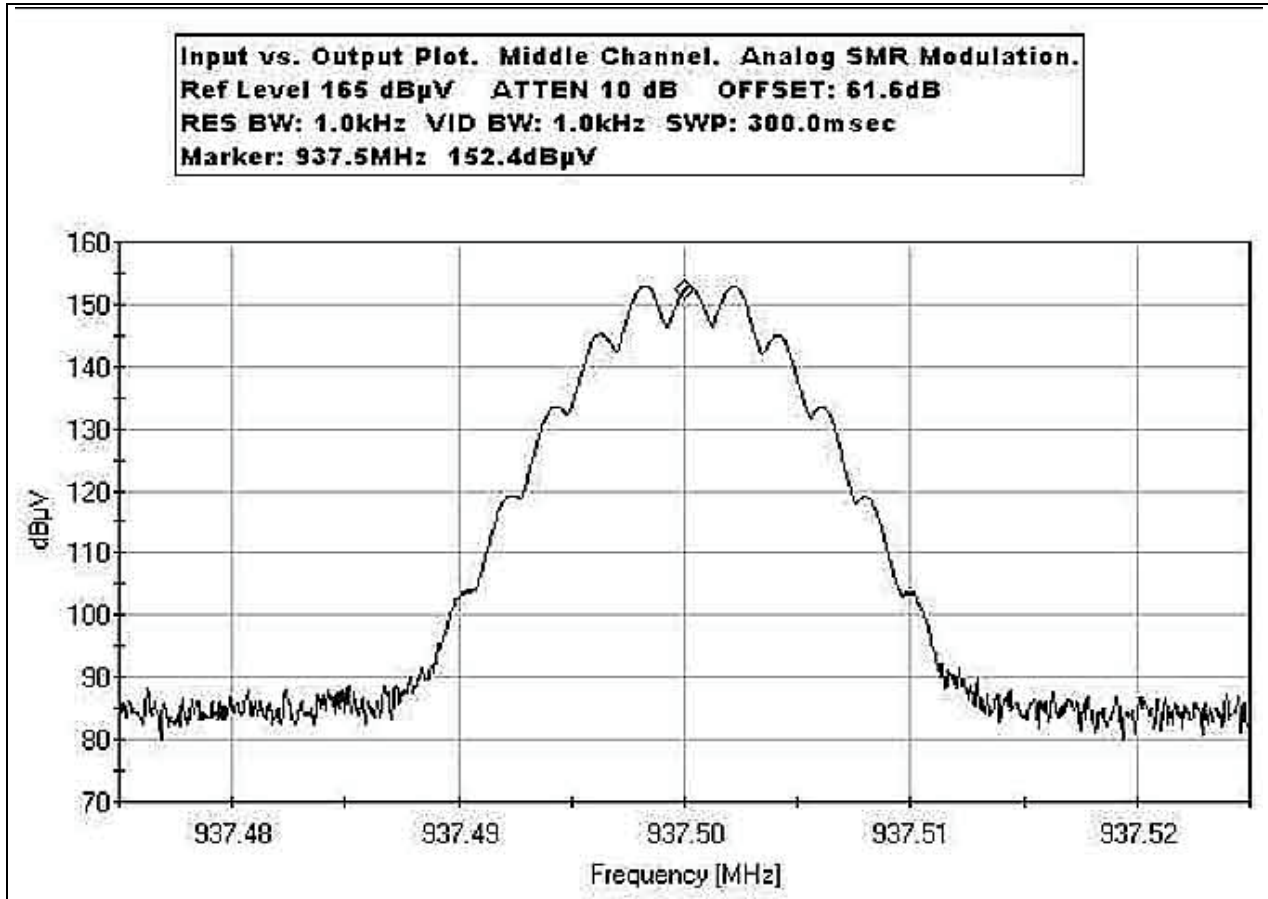


OUTPUT PLOT ASMR LOW CHANNEL

Test Conditions: The EUT is placed on the wooden table top. The EUT RF Input port is connected to a support amplifier and signal generator. The EUT RF Output port is connected to a high power RF attenuator and directional coupler. The output of the directional coupler was connected to the spectrum analyzer.

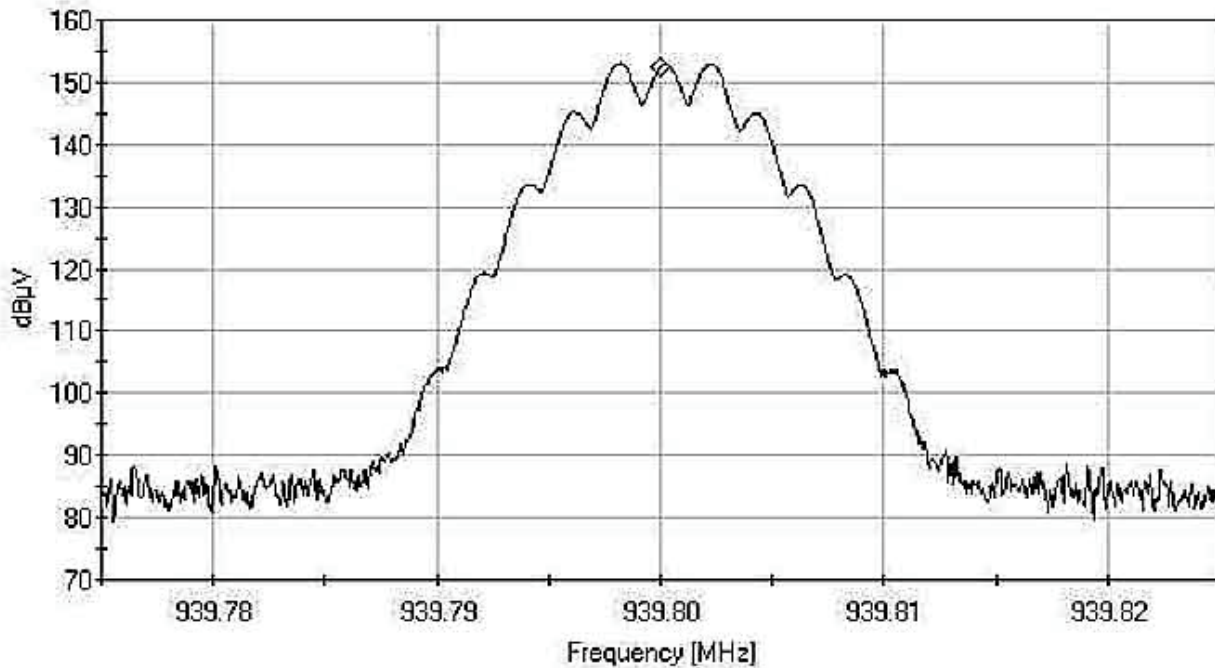


OUTPUT PLOT ASMR MID CHANNEL

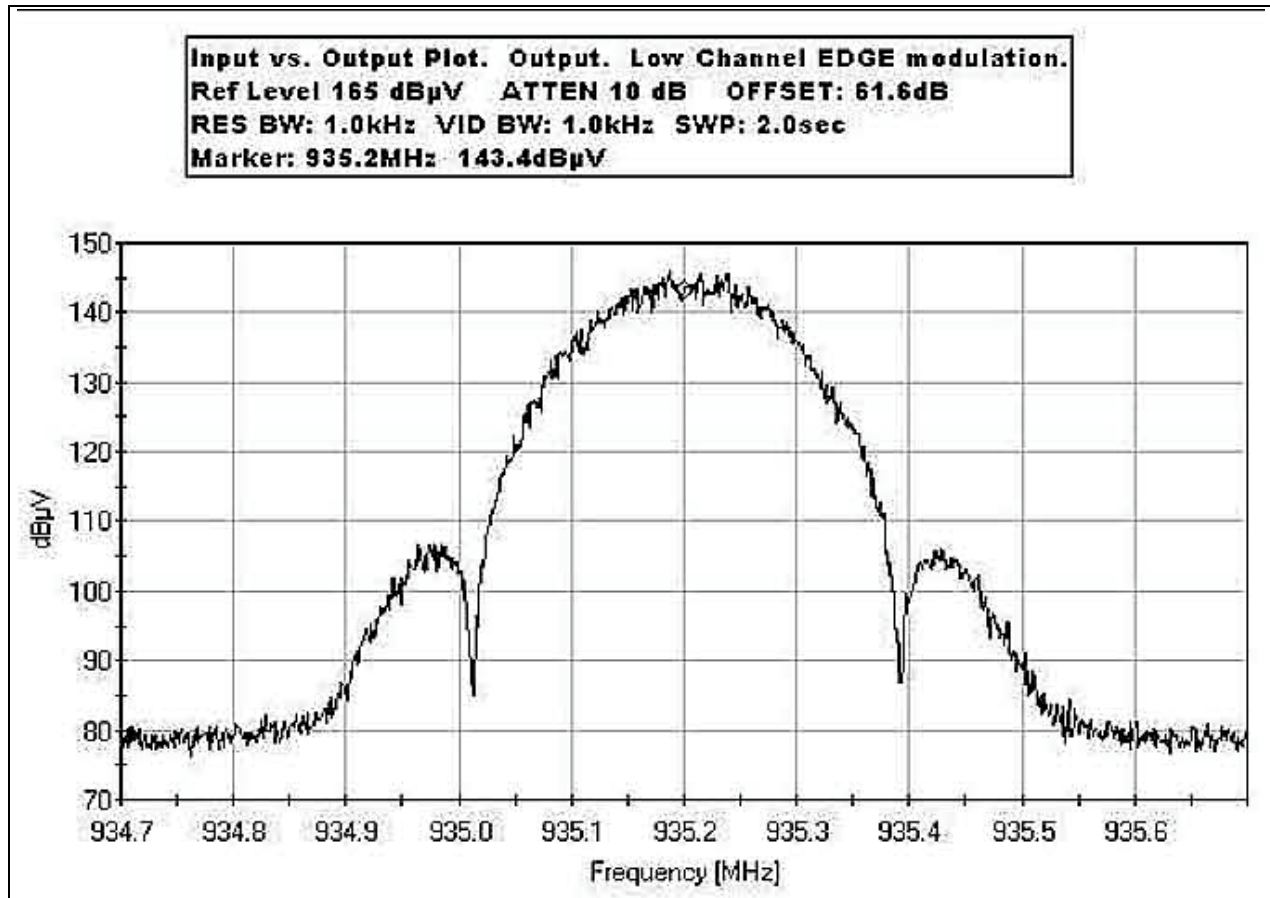


OUTPUT PLOT ASMR HIGH CHANNEL

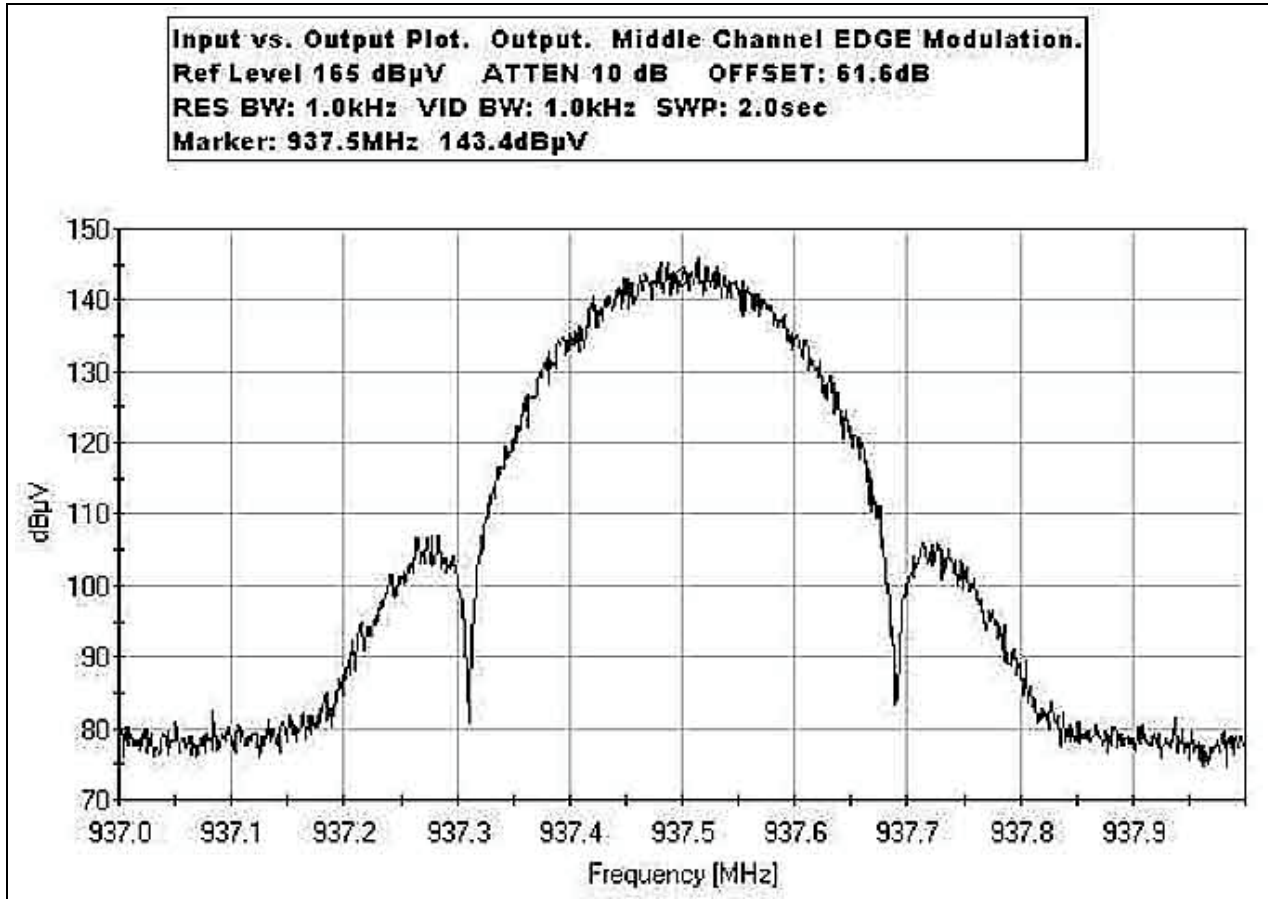
**Input vs. Output Plot. Output. High Channel. Analog SMR Modulation.
Ref Level 165 dB μ V ATTEN 10 dB OFFSET: 61.6dB
RES BW: 1.0kHz VID BW: 1.0kHz SWP: 300.0msec
Marker: 939.8MHz 152.4dB μ V**



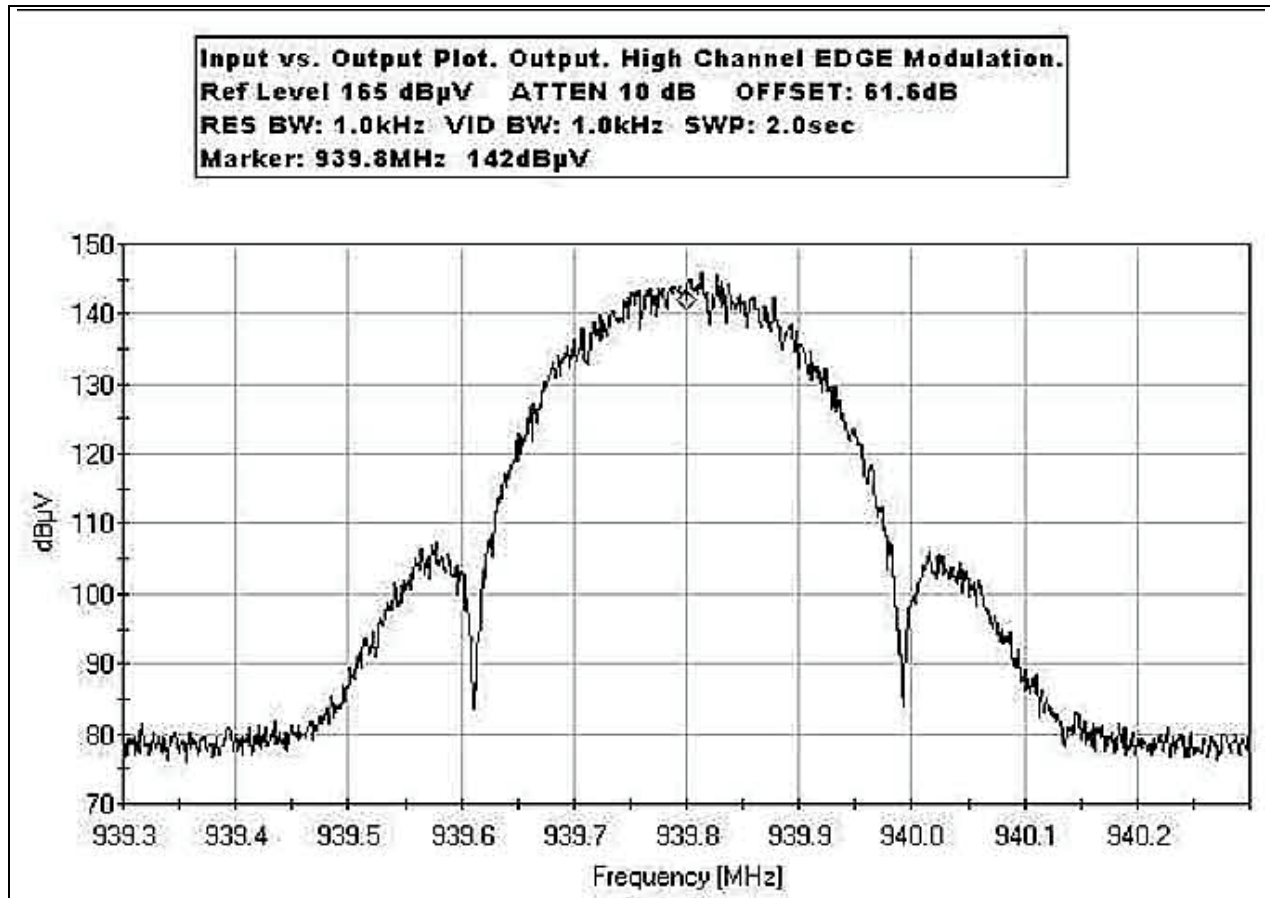
OUTPUT PLOT EDGE LOW CHANNEL



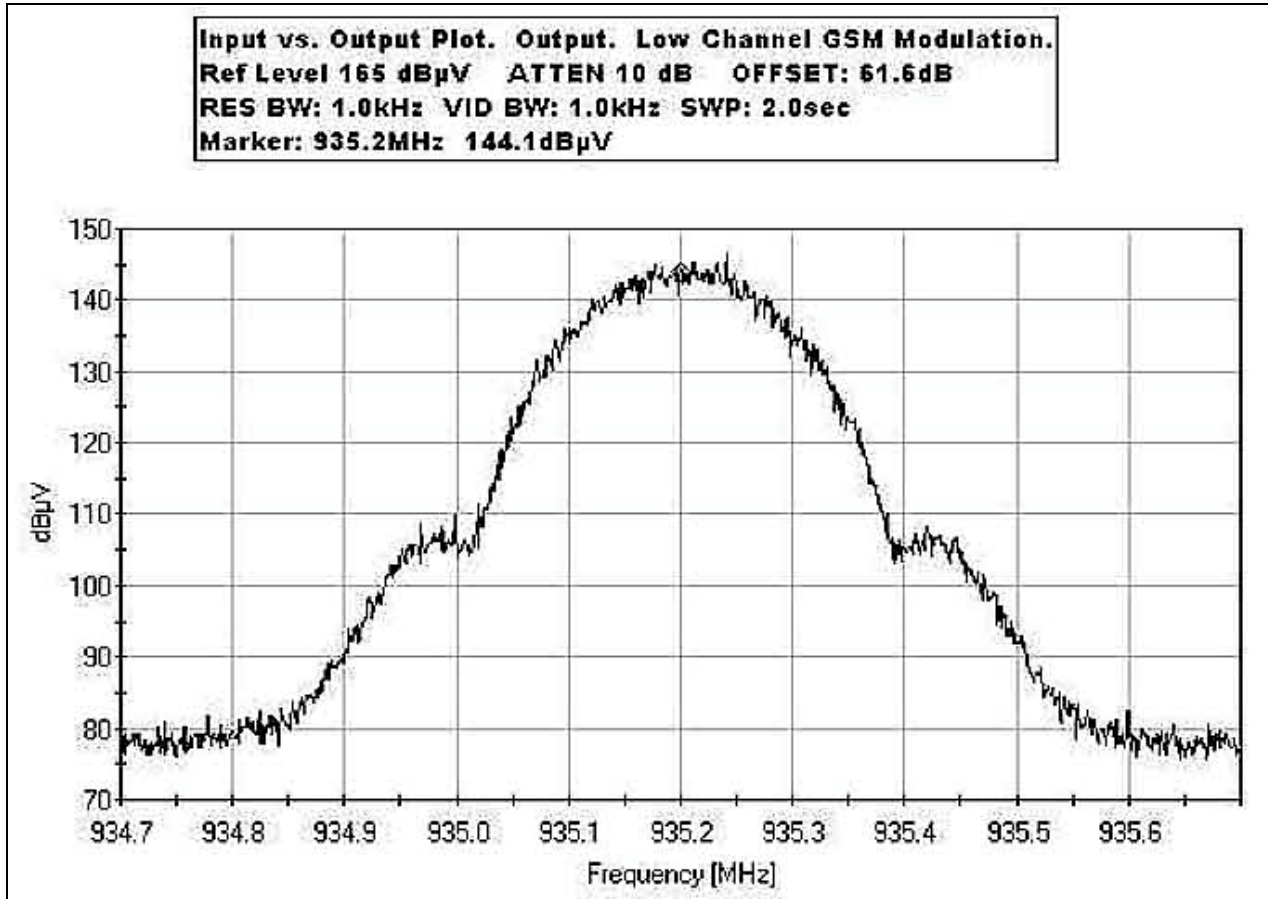
OUTPUT PLOT EDGE MID CHANNEL



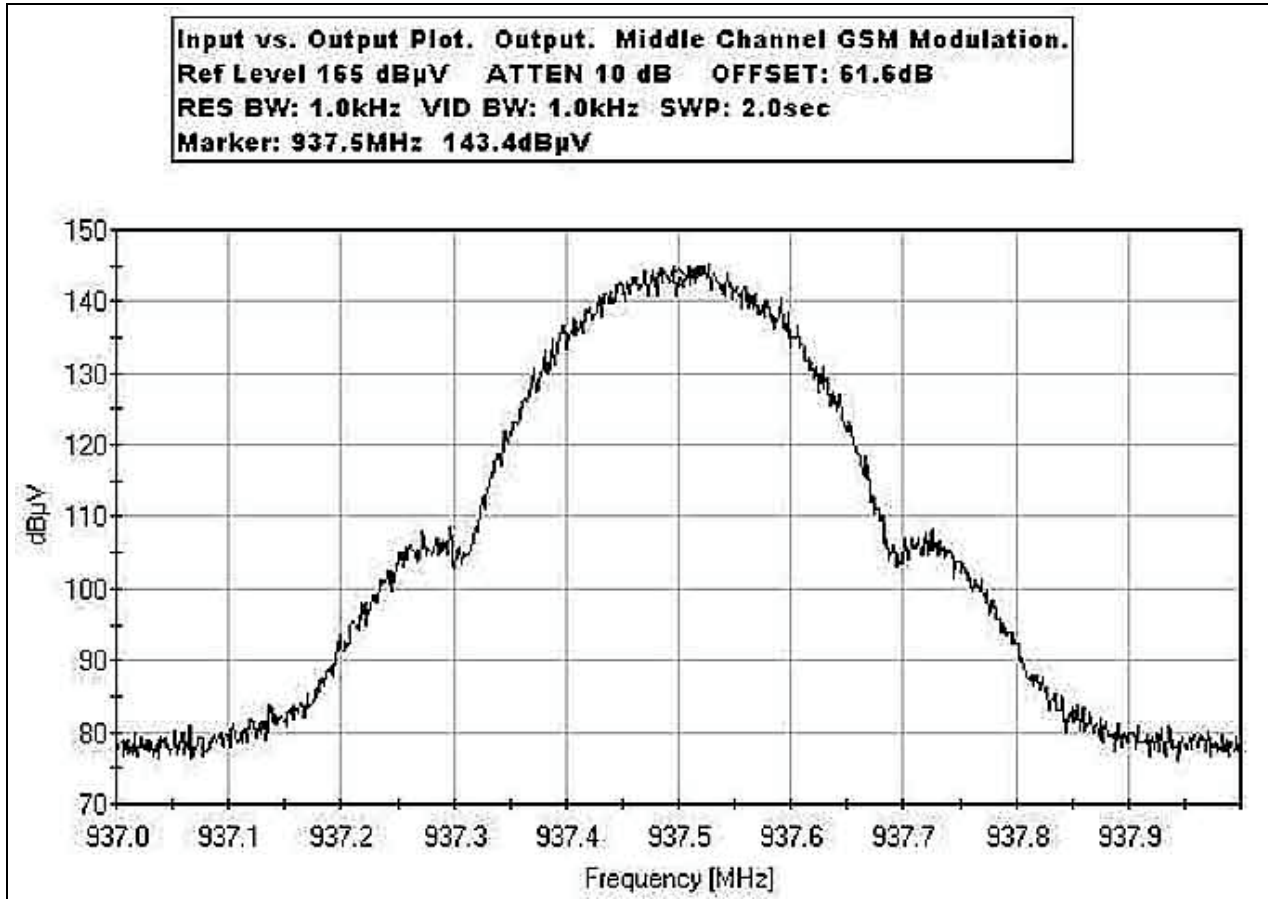
OUTPUT PLOT EDGE HIGH CHANNEL



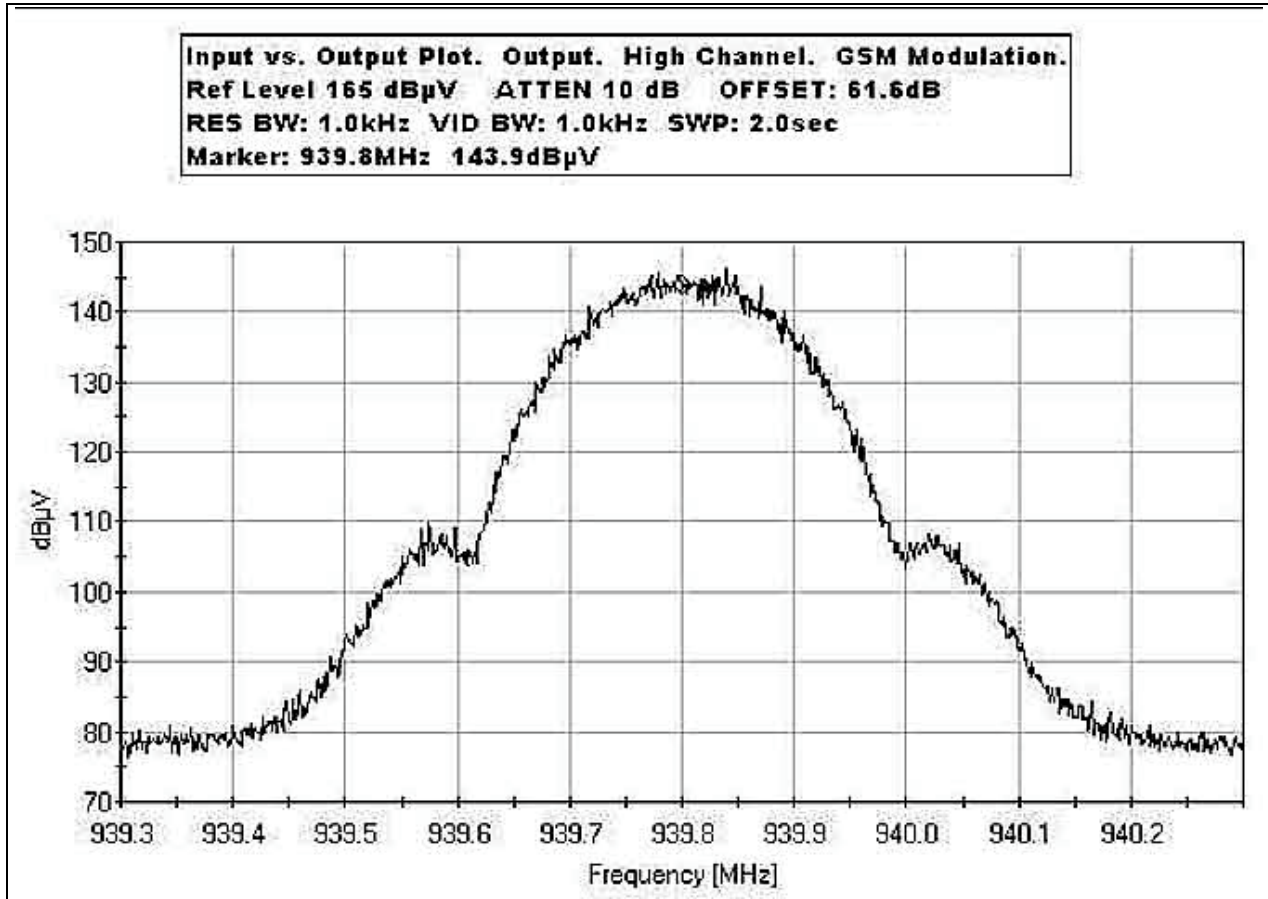
OUTPUT PLOT GSM LOW CHANNEL



OUTPUT PLOT GSM MID CHANNEL



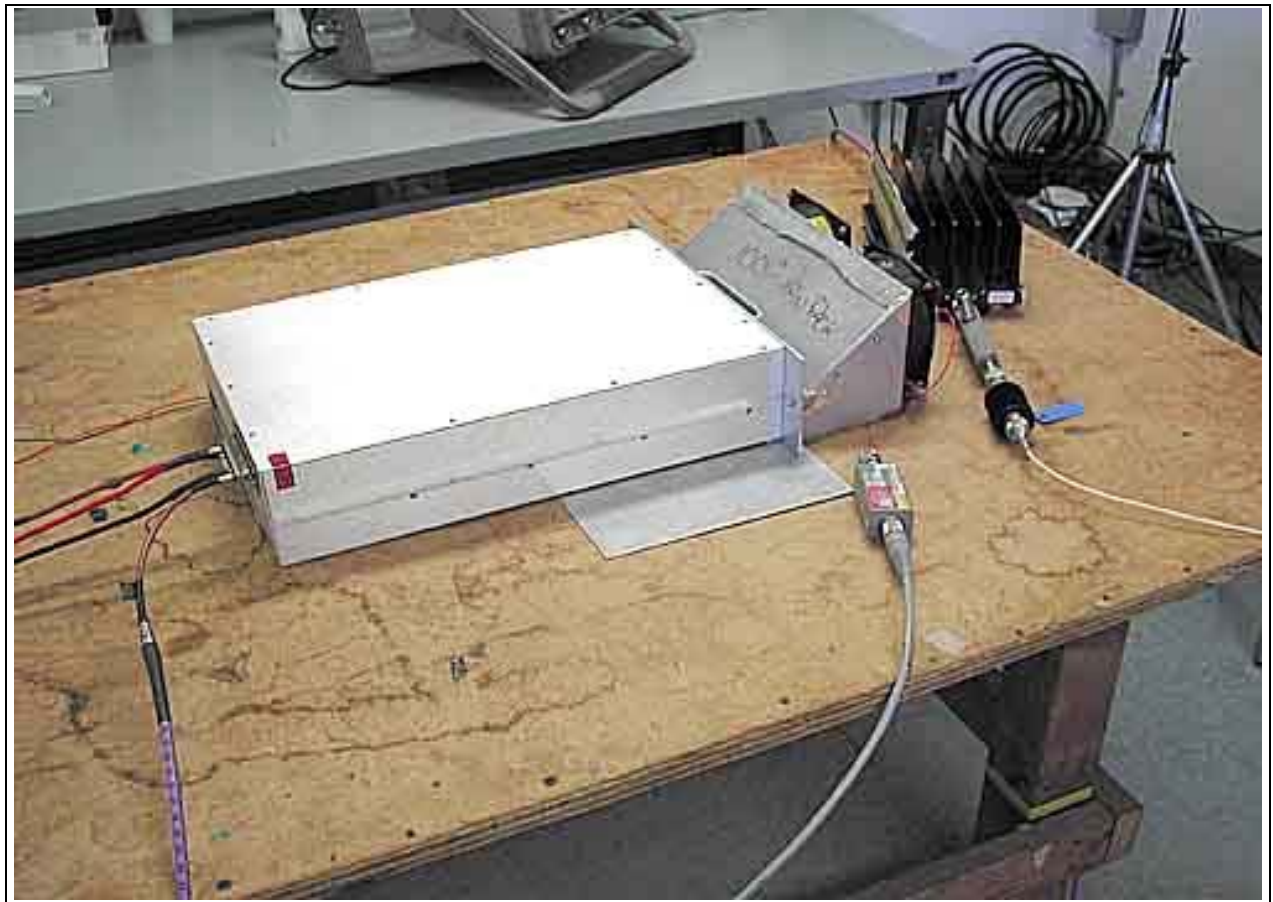
OUTPUT PLOT GSM HIGH CHANNEL



Test Equipment

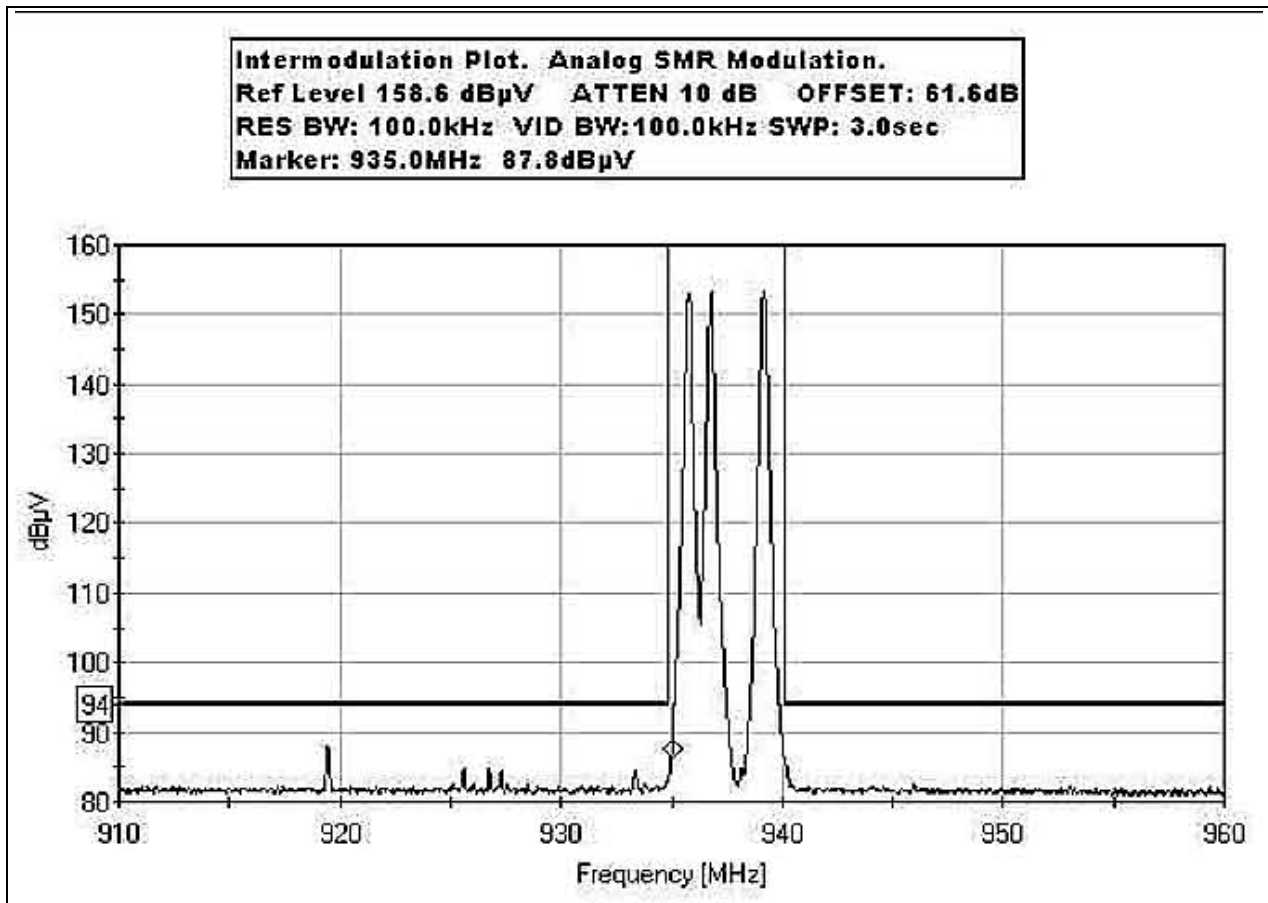
Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer RF Section	02462	HP	8568B	2928A04874	100804	100806
Spectrum Analyzer Display Section	02472	HP	85662A	3001A18430	100804	100806
QP Adapter	01437	HP	85650A	3303A01884	100804	100806
24" SMA Cable (White)	P5183	Pasteck	NA	1-40GHz_white	122304	122306

PHOTOGRAPH SHOWING DIRECT CONNECT TEST SETUP

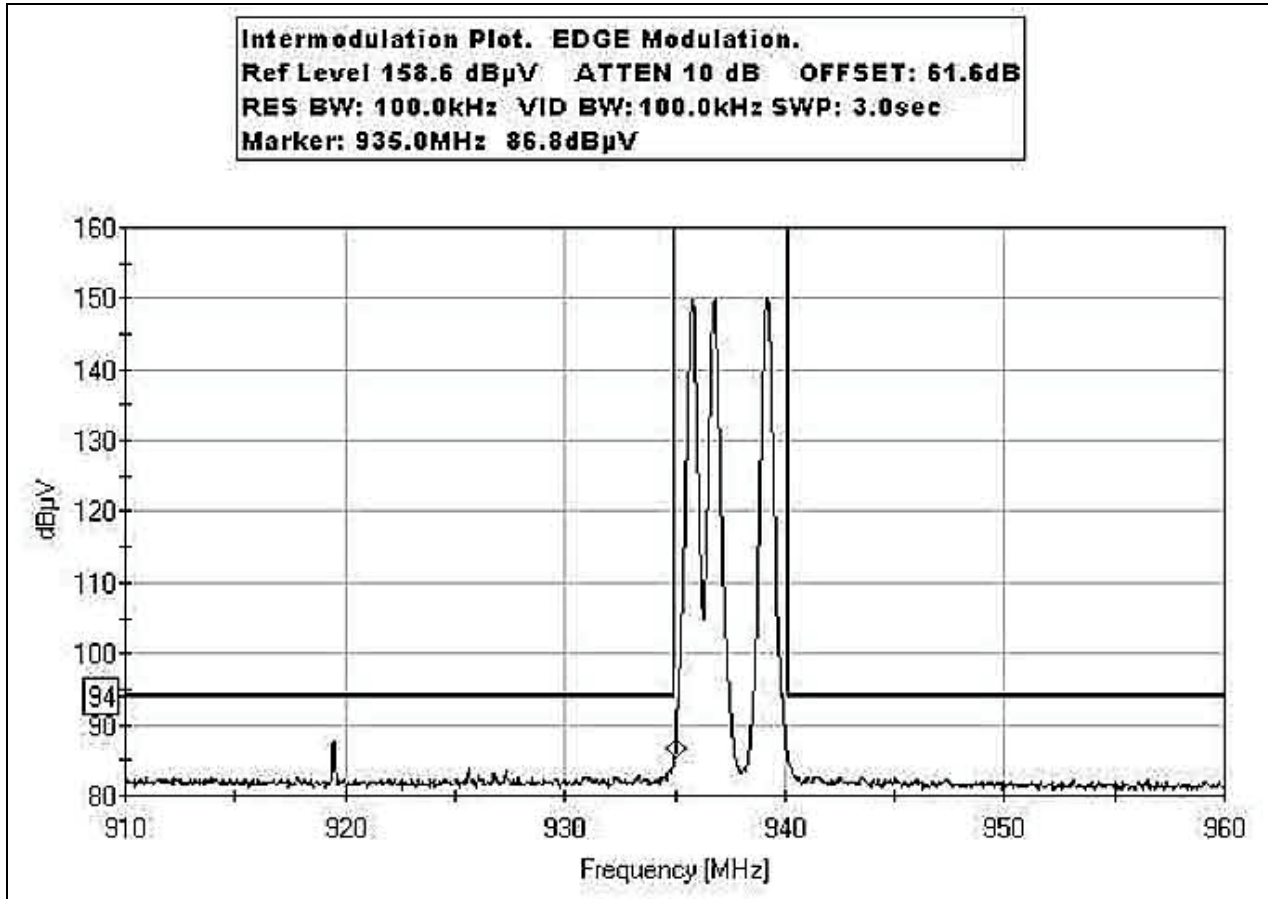


INTERMODULATION ASMR

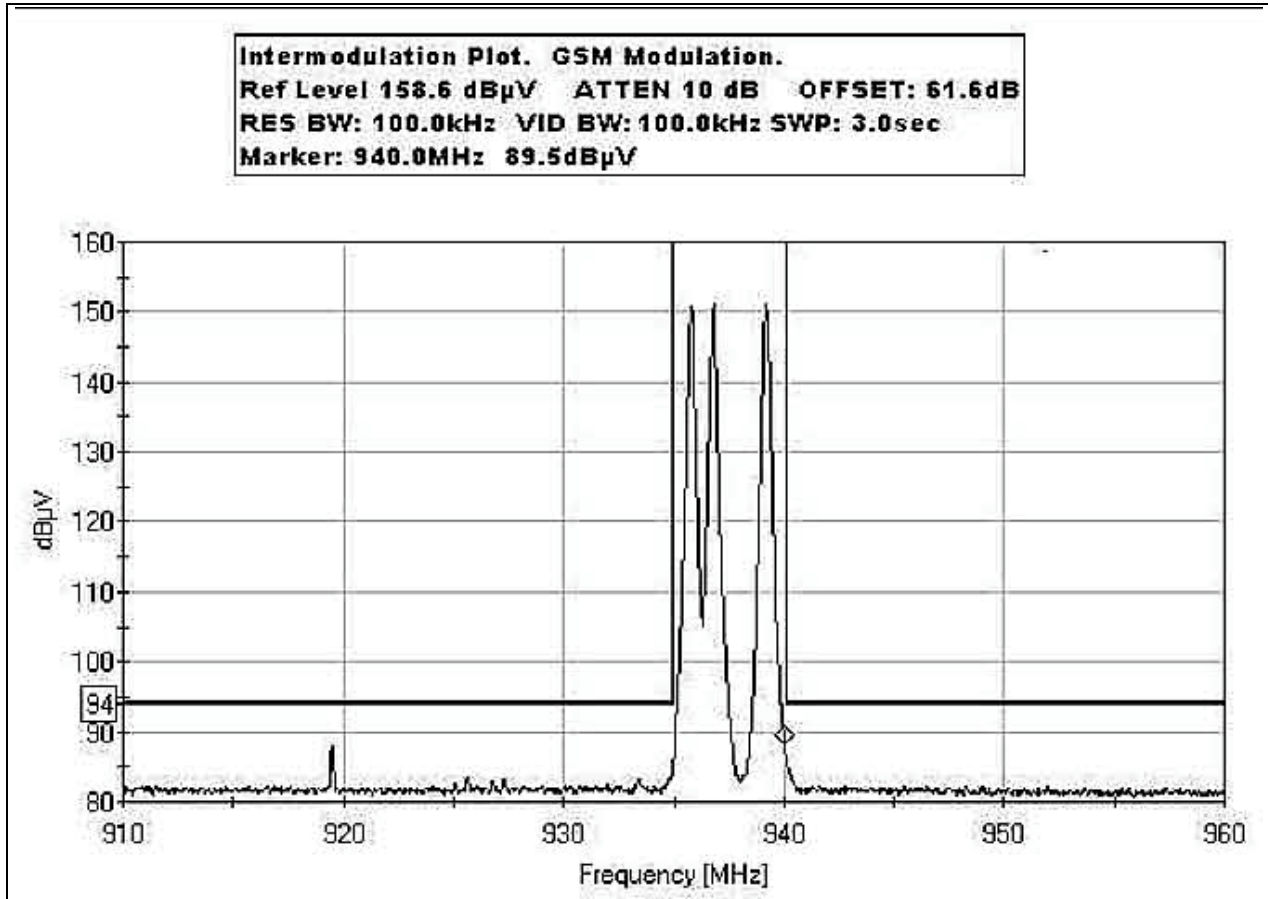
Test Conditions: The EUT is placed on the wooden table top. The EUT RF Input port is connected to a support amplifier and signal generator. The EUT RF Output port is connected to a high power RF attenuator and directional coupler. The output of the directional coupler was connected to the spectrum analyzer.



INTERMODULATION EDGE



INTERMODULATION GSM



Test Equipment

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer RF Section	02462	HP	8568B	2928A04874	100804	100806
Spectrum Analyzer Display Section	02472	HP	85662A	3001A18430	100804	100806
QP Adapter	01437	HP	85650A	3303A01884	100804	100806
24" SMA Cable (White)	P5183	Pasterneck	NA	1-40GHz_white	122304	122306

PHOTOGRAPH SHOWING DIRECT CONNECT TEST SETUP

