Exhibit 6: Test Report

TEST REPORT FROM:

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TEST OF: MPC 30

To Part 2 Subpart J and Part 22 Subpart H
of the FCC Rules and Regulations

Test Report Serial No: 73-6853

APPLICATION FOR TYPE ACCEPTANCE:

Cellular Re-Radiator

Base Station Transceiver

Applicant:

RF CELLutions, LLC
6851 Hwy 73
Evergreen, CO 80439

Issue Date: July 7, 1999

Dates of Test: June 2 - 30, 1999

CERTIFICATION OF ENGINEERING REPORT

This report has been prepared by Communication Certification Laboratory to verify compliance of the device described below with the requirements to Part 2 Subpart J and Part 22 Subpart H of the FCC Rules and Regulations. This report may be reproduced in full, partial reproduction may only be made with the written consent of the laboratory. The results in this report apply only to the sample tested.

- Applicant: RF CELLutions, LLC
- Manufacturer: RF CELLutions, LLC
- Model Number: MPC 30
- FCC ID: OF3MPC30
- Brand Name: MPC

On this 7th day of July 1999, I, individually, and for Communication Certification Laboratory, certify that the statements made in this engineering report are true, complete, and correct to the best of my knowledge, and are made in good faith.

COMMUNICATION CERTIFICATION LABORATORY

Checked by: William S. Hurst, P.E.
Vice President

Tested by: Roger J. Midgley
EMC Engineering Manager

SECTION 1. Measurement Requirements

1.1 Introduction

The following data is submitted for Certification of a cellular re-radiator for RF CELLutions, LLC, in accordance with Part 2, Subpart J and Part 22, Subpart H of FCC Rules and Regulations. See technical description in Exhibit 10.

1.2 Measurements Required for Certification

§ 2.1033 (c)(14) Measurement Data

The measurement data that is required by § 2.1046 through § 2.1057 is included in Section 2 of this report. The data was measured in accordance with the procedures set out in § 2.1041.

§ 2.1046 § 22.913 RF Power Output

A mobile station transmitter must be capable of reducing power in steps of 4 dB on command from a land station. Each power level must be maintained within the range of +2 dB and -4 dB of its nominal level.

Due to wide frequency range, which the re-radiator may operate, measurements were performed on a channel near the bottom, on a channel near the middle and on a channel near the top of the spectrum.

Result:

The results of the RF output power testing are shown in section 2.1 and the test procedures are described in Appendix 1.

§ 2.1047 § 22.915 Modulation Characteristics

The MPC 30 does not provide a voice modulation, it only retransmits the received signal; therefore, the requirements of this section do not apply.

§ 2.1049 Occupied Bandwidth

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured under the following conditions as applicable:

(c) Radiotelephone transmitters equipped with a device to limit modulation or peak envelope power shall be modulated as follows. For single sideband and independent sideband transmitters, the input level of the modulation signal shall be 10 dB greater than that necessary to produce rated peak envelope power.

(1) Other than sideband or independent sideband transmitters – when modulated by a 2500 Hz tone at an input level 16 dB greater than that necessary to produce 50 percent modulation. The input level shall be established at the frequency of maximum response of the audio modulation circuit.

Result:

The results of the occupied bandwidth testing are shown in Section 2.2 and the test procedures are described in Appendix 1.

§ 2.1051 § 22.917 (d) § 22.917 (e) Spurious Emissions at Antenna Terminals

§ 22.917 (d) For F1D emissions, the mean power of emission must be attenuated below the mean power of the unmodulated carrier (p) as follows:

(1) On any frequency removed from the carrier frequency by more than 20 kHz but not more than 45 kHz: at least 26 dB.
(2) On any frequency removed from the carrier frequency by more than 45 kHz but not more than 90 kHz: at least 45 dB.
(3) On any frequency removed from the carrier frequency by more than 90 kHz, up to the first multiple of the carrier frequency: at least 60 dB or 43+10log P dB, whichever is the lesser attenuation.

§ 22.917 (e) Out of band emission

The mean power of emission must be attenuated below the mean power of the unmodulated carrier (P) on any frequency twice or more than twice the fundamental frequency by: at least 43+10log P dB.

Due to the relatively wide range over which the output power can be varied, measurements were conducted at three different power levels (1 carrier or 30 watts, 4 carriers or 7.5 watts, and 16 carriers or 1.9 watts)

Result:

The frequency range from 30 MHz to the tenth multiple of the carrier frequency was investigated to measure any antenna-conducted emissions.

Shown in Tables 1 through 3 (Section 2.3) are the emission levels from 30 MHz to 90 kHz below the carrier frequency and from 90 kHz above the carrier frequency to the tenth multiple of the carrier frequency. Shown in Plots 1 through 3 is the emissions/occupied bandwidth from 90 kHz below the carrier frequency to 90 kHz above the carrier frequency. These plots show the MPC 30 tuned to the lower channel, the results with the MPC 30 tuned to the upper channel were the same.

§ 2.1053 § 22.917 Field Strength of Spurious Radiation

Field strength measurements of radiated spurious emissions that may be radiated directly from the cabinet, control circuits, power leads, or intermediate circuit elements must not exceed 43 + 10log (mean output power in watts) below the unmodulated carrier.

The reference level for spurious radiation was taken at an ideal dipole excited by the rated output power according to the following relationship:

$$E = \frac{\sqrt{(49.2)(Pt)}}{R}$$

Note: Reference Data for Radio Engineers, Pg. 676. International Telephone and Telephone Corporation, Fourth Edition.

Where E = electric Field Intensity in Volts/Meter

Pt = Transmitter Power in Watts
R = Measurements distance in Meters

At a maximum power of 31.6 Watts

$$E = \frac{\sqrt{(49.2)(31.6)}}{3} = 13.1\ Volts / Meter = 142.4\ dB\mu V/m$$

Paragraph 22.917 requires that spurious radiated emission be attenuated at least 43 + 10 log (mean output power in watts) below the unmodulated carrier. In this case, the rated power of 31.6 watts requires a minimum attenuation of 43 + 10 log 31.6 = 58.0 dB below the reference level of 142.4 dBμV/m calculated above; therefore, the criteria is 84.4 dbμV/m (142.4 – 58.0).

Result:

The results of the radiated spurious emissions testing are shown in section 2.4 and the test procedures are described in Appendix 1.

§ 2.1055 § 22.355 Frequency Stability

The carrier frequency of the transmitter shall be maintained within 1.5 Parts Per Million (PPM) from the assigned frequency over the ambient temperature range of -30^0 C to +50^0 C, and over the supply voltage range of $\pm$10 % from the nominal value at +20^0 C.

Result:

The results of the frequency stability testing are shown in section 2.5 and the test procedures are described in Appendix 1.

SECTION 2. Measurement Data

2.1 RF Power Output

The MPC 30 is designed to transmit a maximum of 30 watts total, depending on the number of carriers. 1 carrier can equal 1, 5, 10 15, 20, 25 or 30 watts. 2, 4, 6 and so can equal 1, 2, 3, 4 or 5 watts. This is accomplished by determining the number of carriers and the input signal during installation and installing fixed Attenuator between the Bi-Directional Amp (BDA) and the Multicarrier Linear Amplifier.

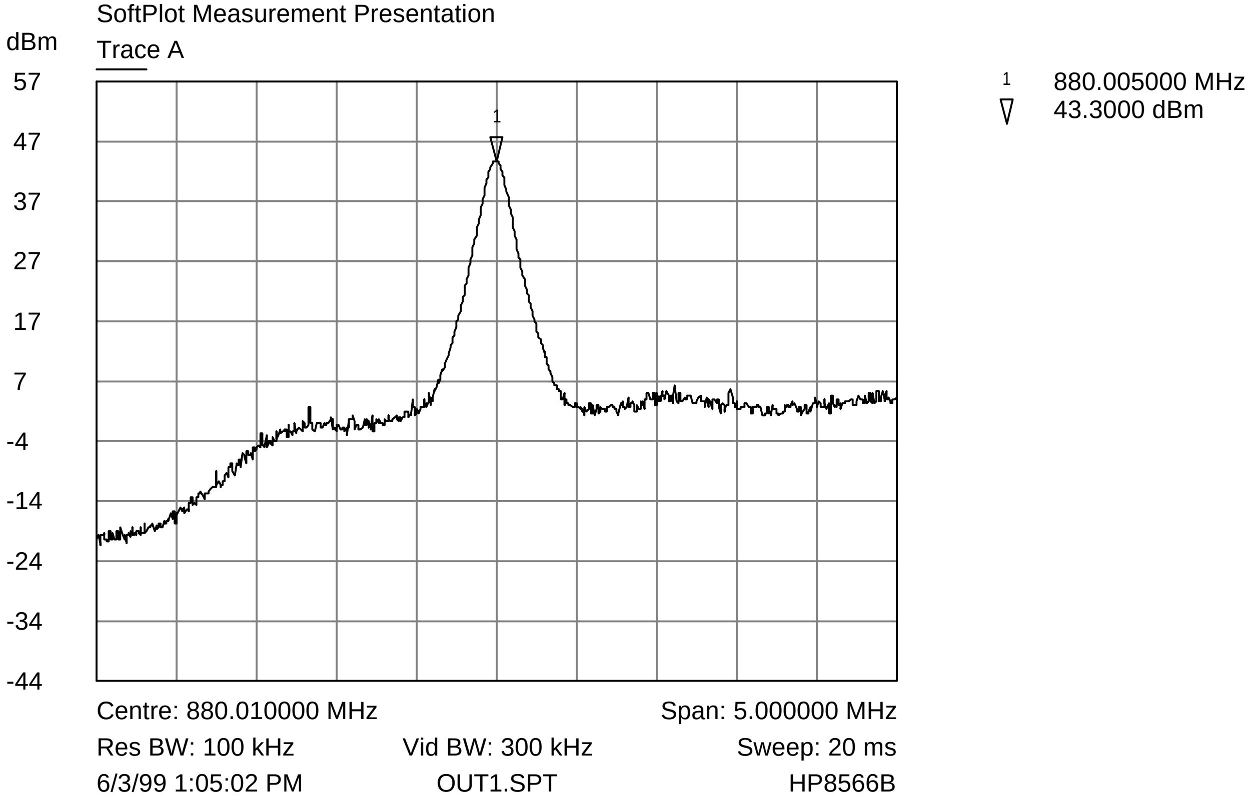
Shown below is the RF power output with 1, 7 and 14 carriers.

Transmitting at 880.0 MHz				
Number of Carriers	Nominal ERP (W)	Nominal ERP (dBm)	Measured ERP (dBm)	Difference (dB)
1	30.0	44.8	43.3	-1.5
7	4.8	36.8	35.3	-1.5
14	1.9	32.8	31.4	-1.4

Transmitting at 887.0 MHz				
Number of Carriers	Nominal ERP (W)	Nominal ERP (dBm)	Measured ERP (dBm)	Difference (dB)
1	30.0	44.8	45.0	0.2
7	4.8	36.8	36.0	-0.8
14	1.9	32.8	33.3	0.5

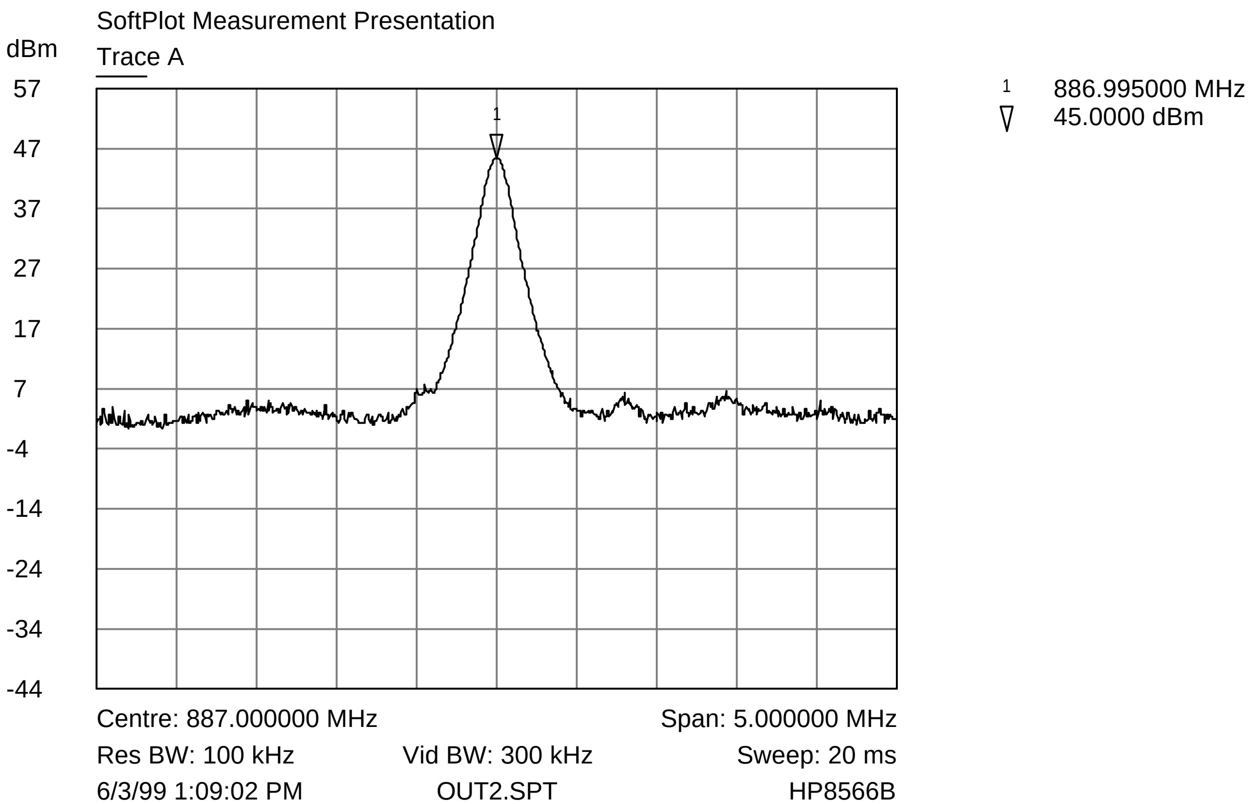
Transmitting at 890.0 MHz				
Number of Carriers	Nominal ERP (W)	Nominal ERP (dBm)	Measured ERP (dBm)	Difference (dB)
1	30.0	44.8	43.4	-1.4
7	4.8	36.8	35.3	-1.5
14	1.9	32.8	33.7	0.9

SoftPlot Measurement Presentation



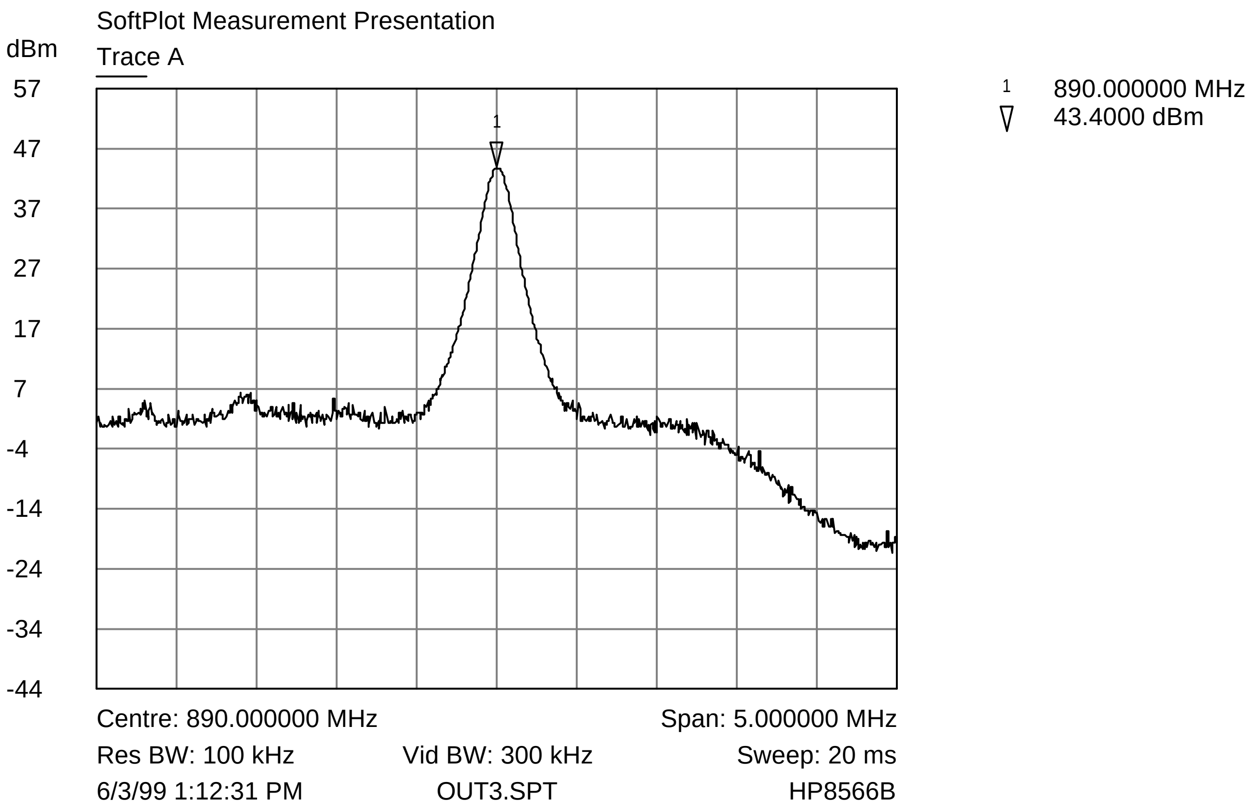
RF Output Power (3 dB of attenuation)

RF Output Power 1 Carrier (880.0 MHz)



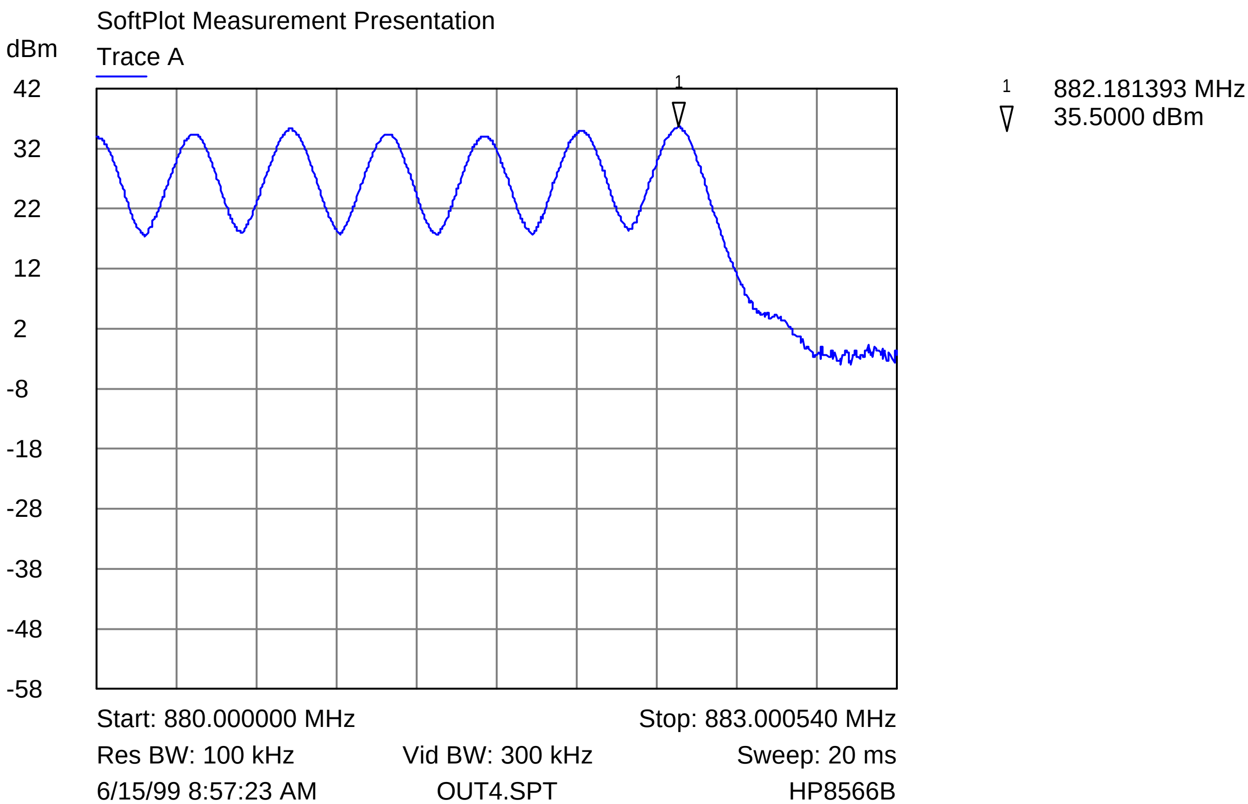
RF Output Power (3 dB of attenuation)

RF Output Power 1 Carrier (887.0 MHz)



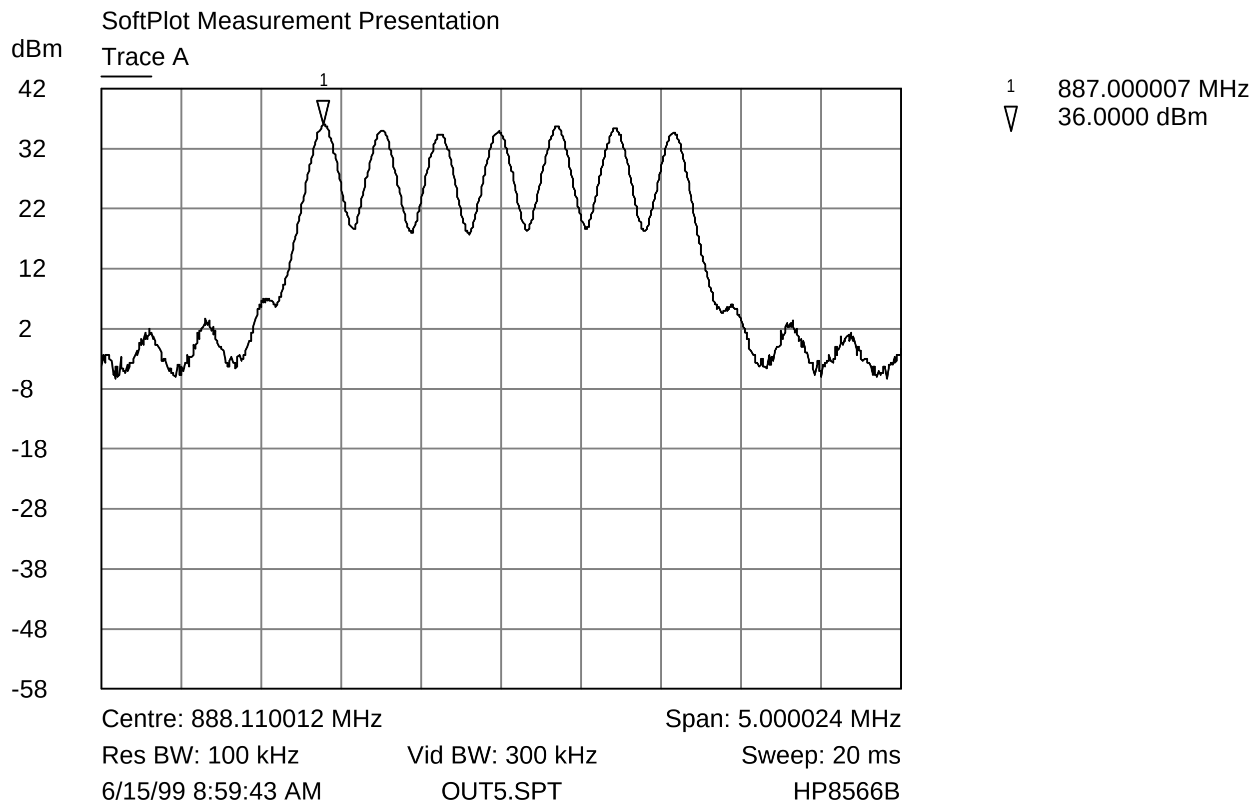
RF Output Power (3 dB of attenuation)

RF Output Power 1 Carrier (890.0 MHz)



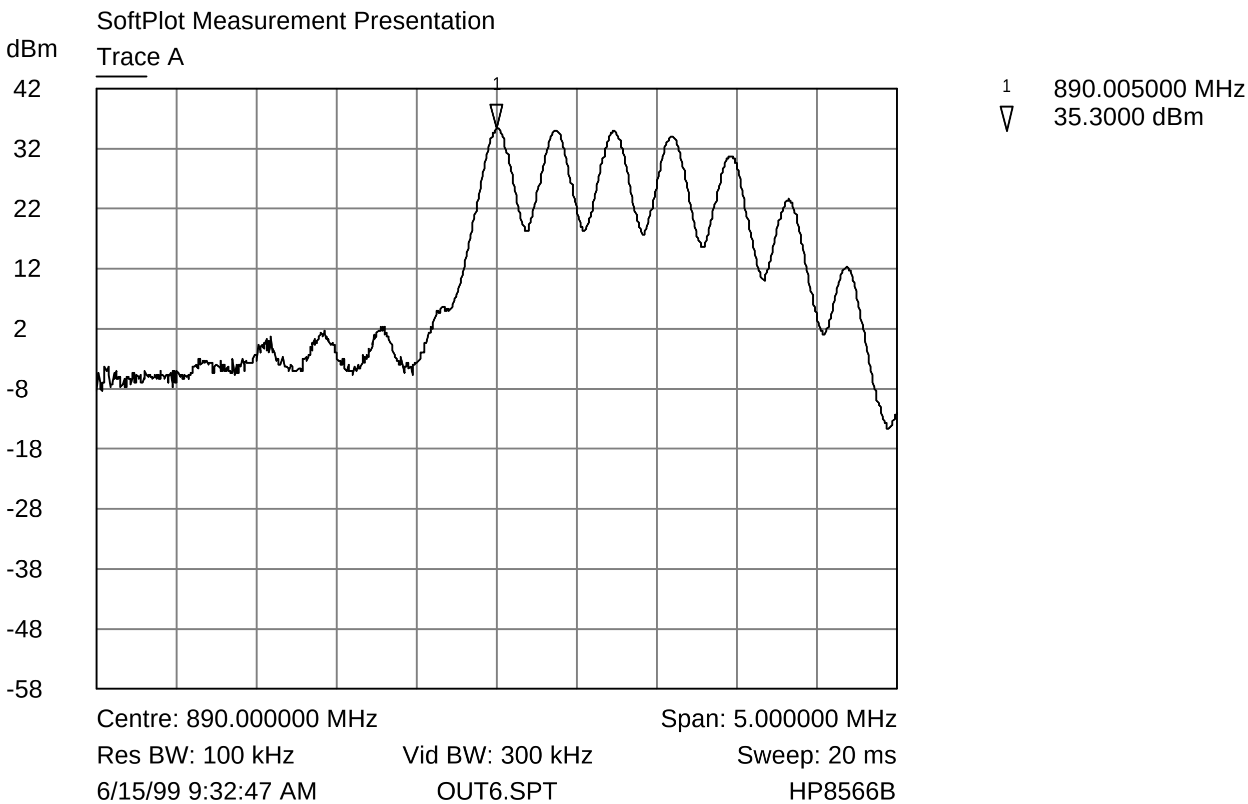
RF Output Power (5 dB of attenuation)

RF Output Power 7 Carrier (880.0 MHz)



RF Output Power (5 dB of attenuation)

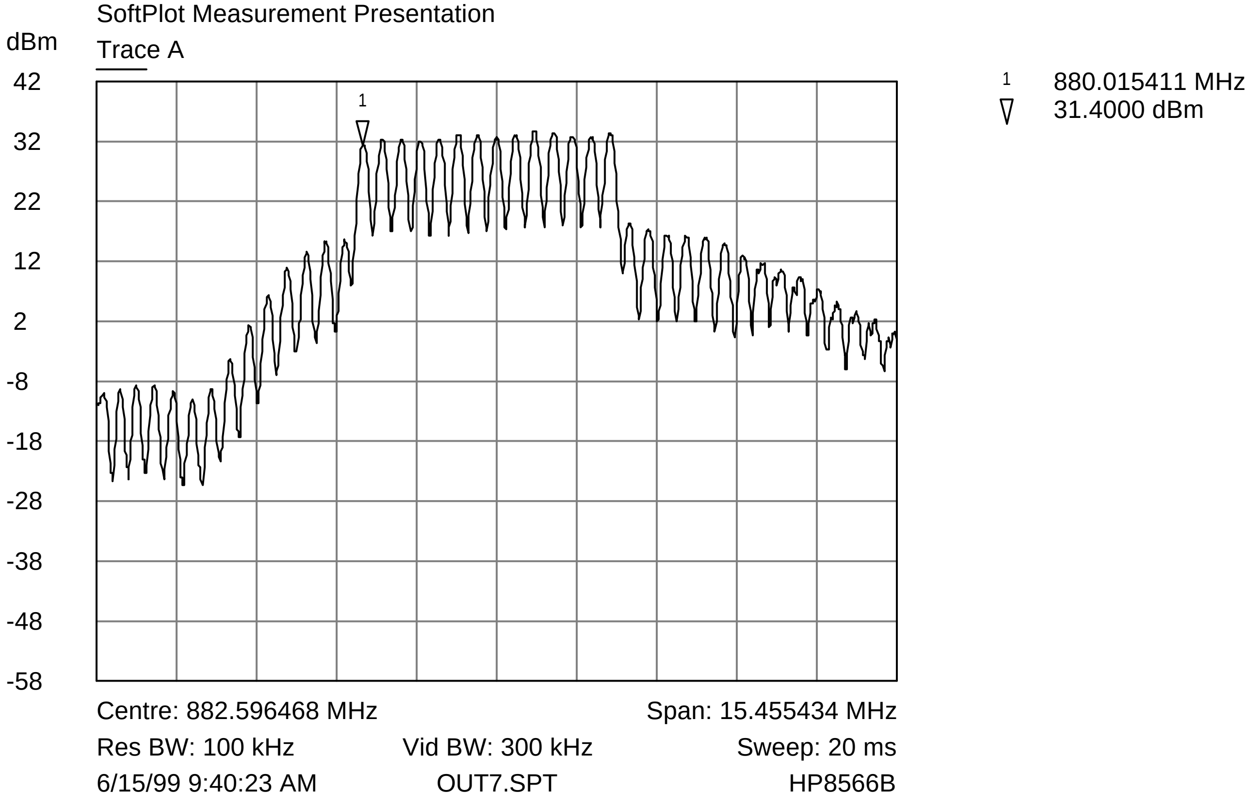
RF Output Power 7 Carrier (887.0 MHz)



RF Output Power (5 dB of attenuation)

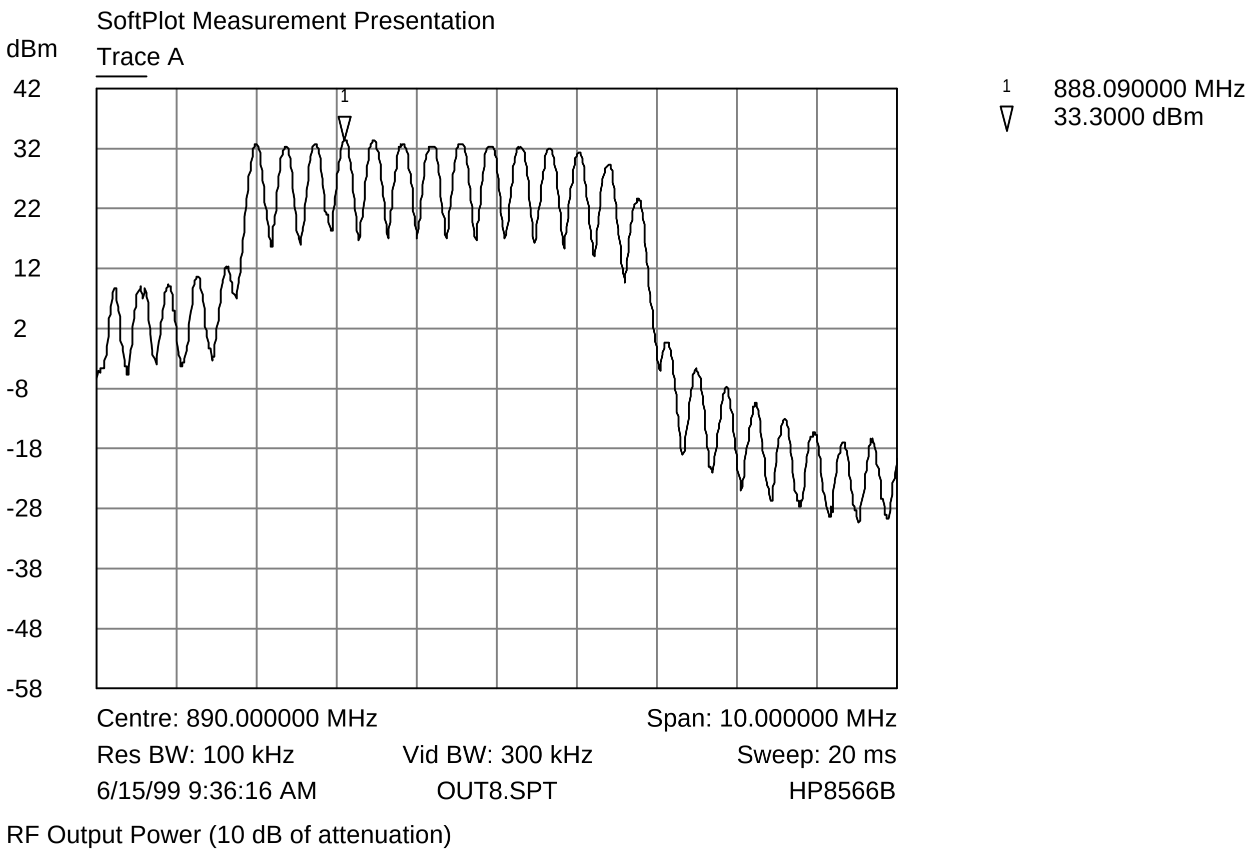
RF Output Power 7 Carrier (890.0 MHz)

SoftPlot Measurement Presentation

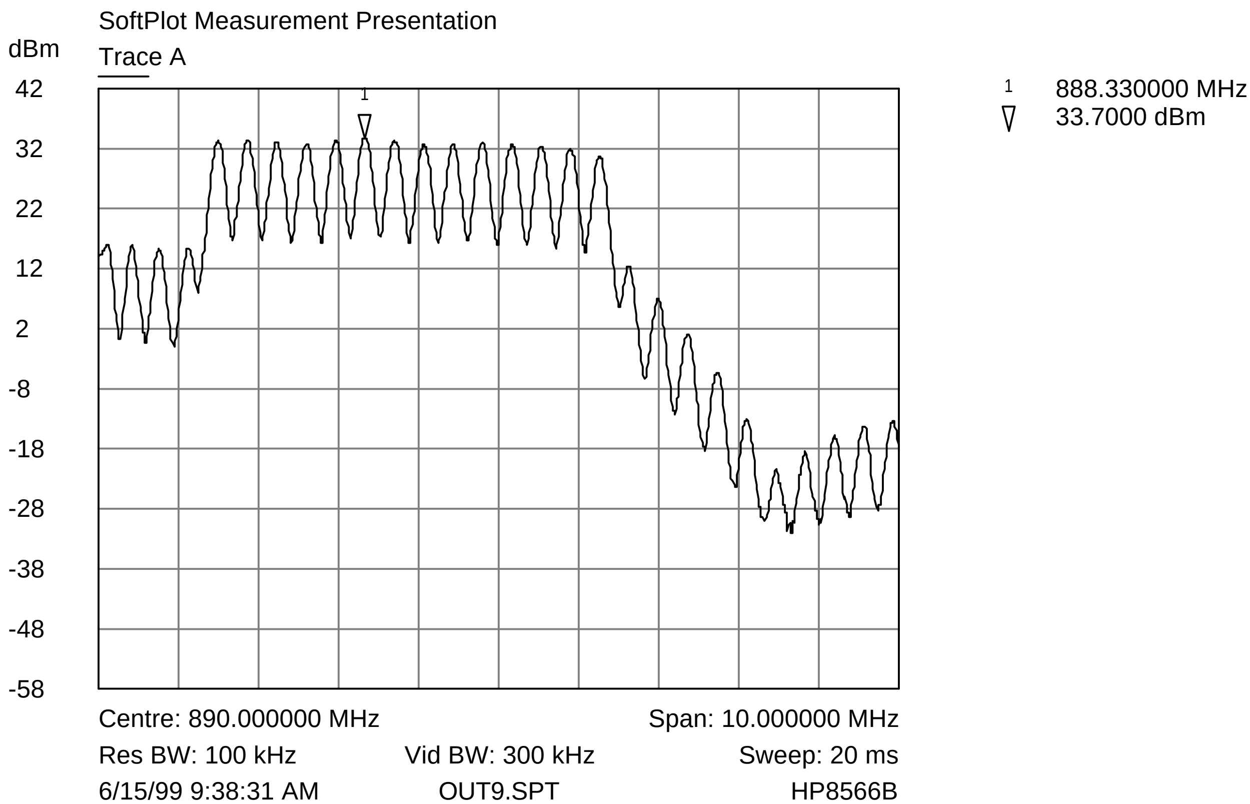


RF Output Power (10 dB of attenuation)

RF Output Power 14 Carrier (880.0 MHz)



RF Output Power 14 Carrier (887.0 MHz)



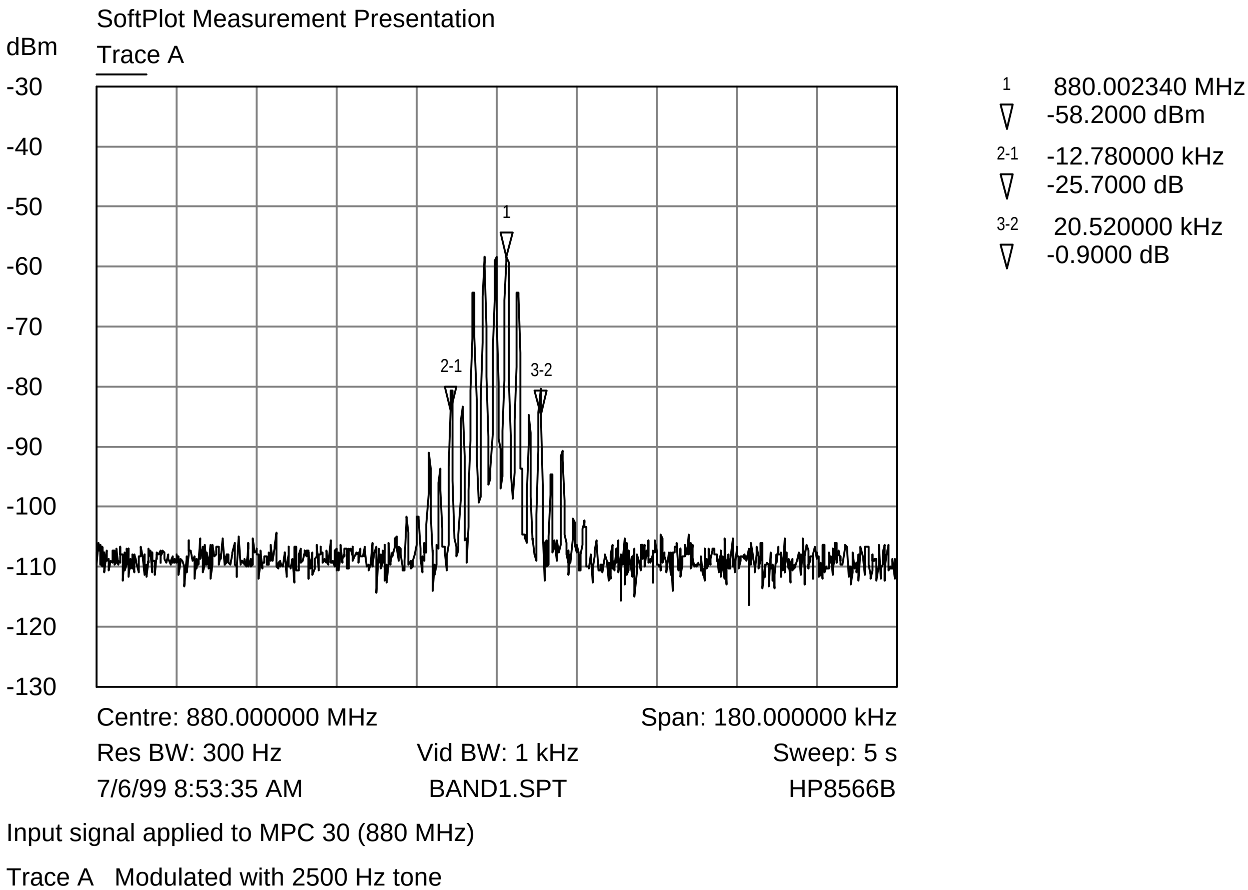
RF Output Power (10 dB of attenuation)

RF Output Power 14 Carrier (890.0 MHz)

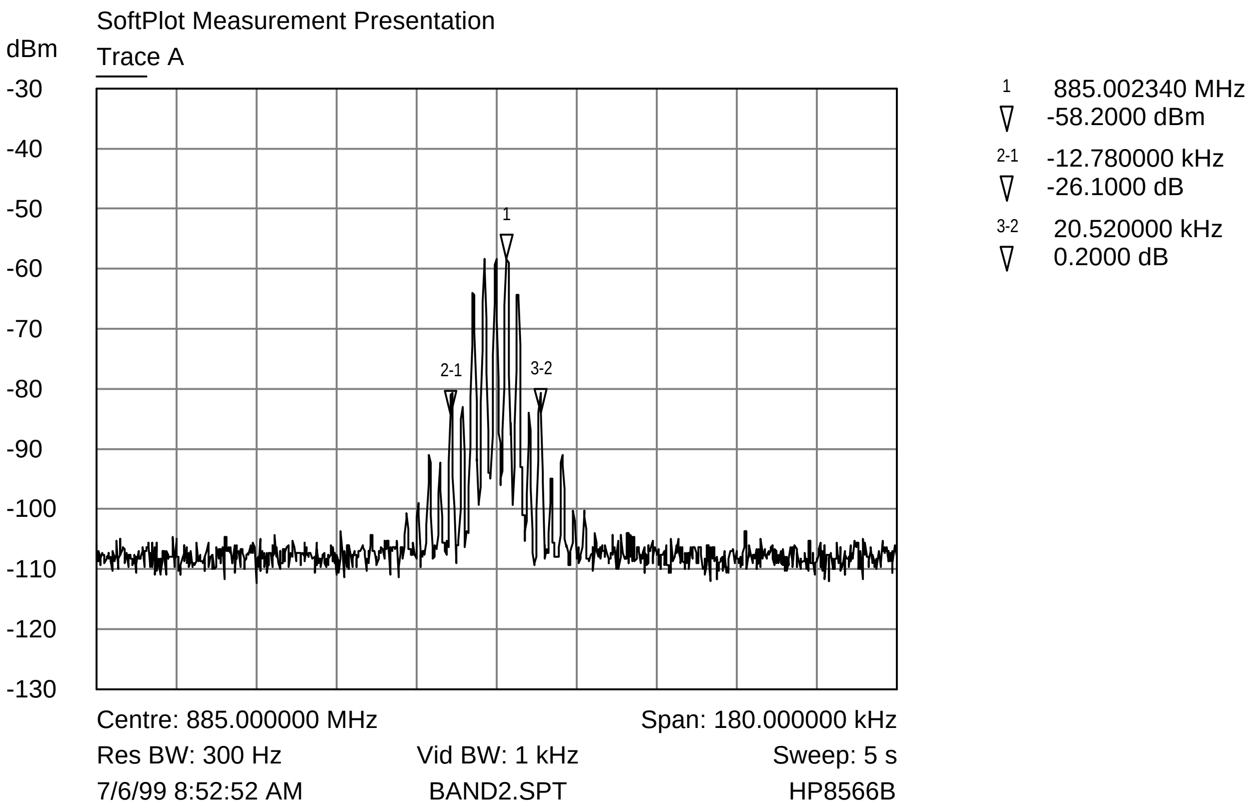
2.2 Occupied Bandwidth

The MPC 30 does not produce modulation. However, the input signals from a cellular site modulate its carrier signal and the MPC 30 amplifies the carrier amplitude to a greater output power while the modulation remains the same.

Shown below are occupied bandwidth plots showing the input signal that was applied to the Donor antenna port of the MPC 30 and the resulting output signal from the Server antenna port of the MPC 30 (modulated with 2500 Hz tone 16 dB greater than that necessary to produce 6 kHz modulation, 50% of maximum modulation).



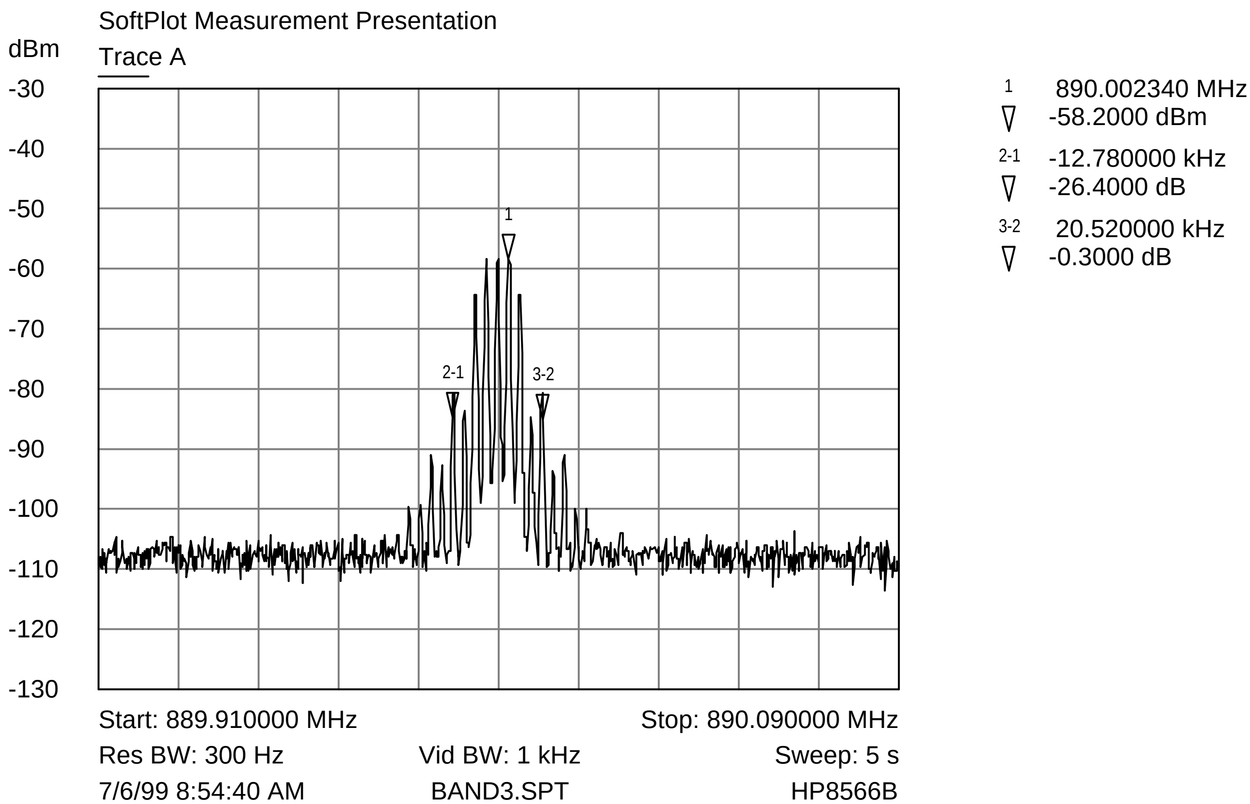
Input signal applied to MPC 30 (880.0 MHz)



Input signal applied to MPC 30 (885 MHz)

Trace A Modulated with 2500 Hz tone

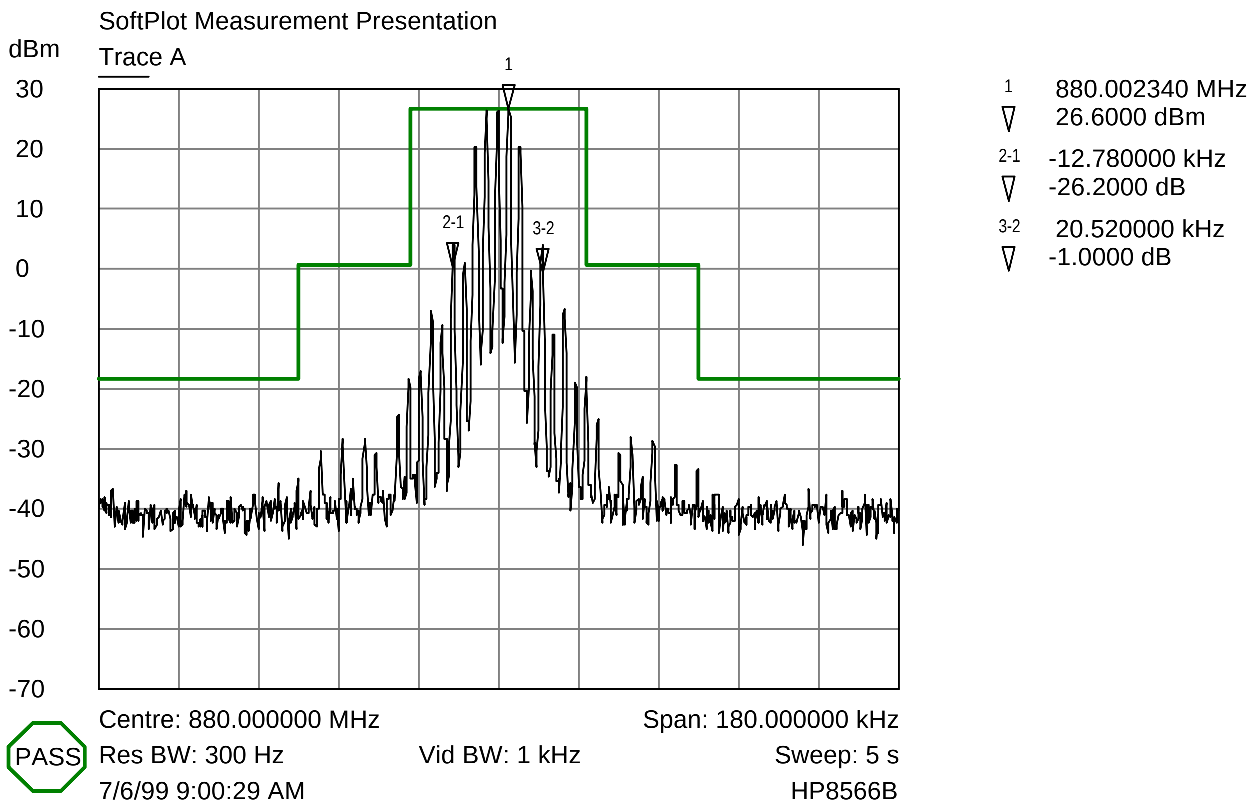
Input signal applied to MPC 30 (885.0 MHz)



Input signal applied to MPC 30 (890 MHz)

Trace A Modulated with 2500 Hz tone

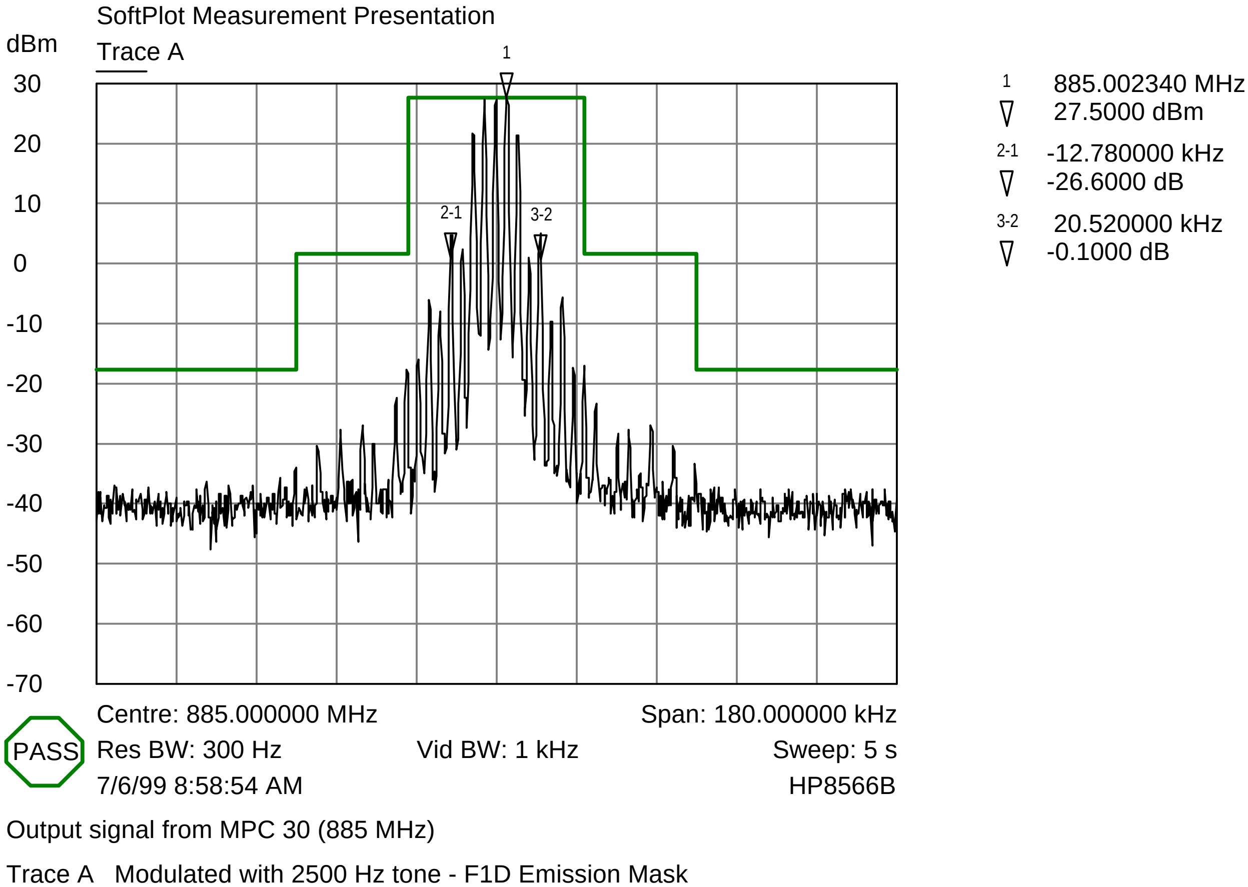
Input signal applied to MPC 30 (890.0 MHz)



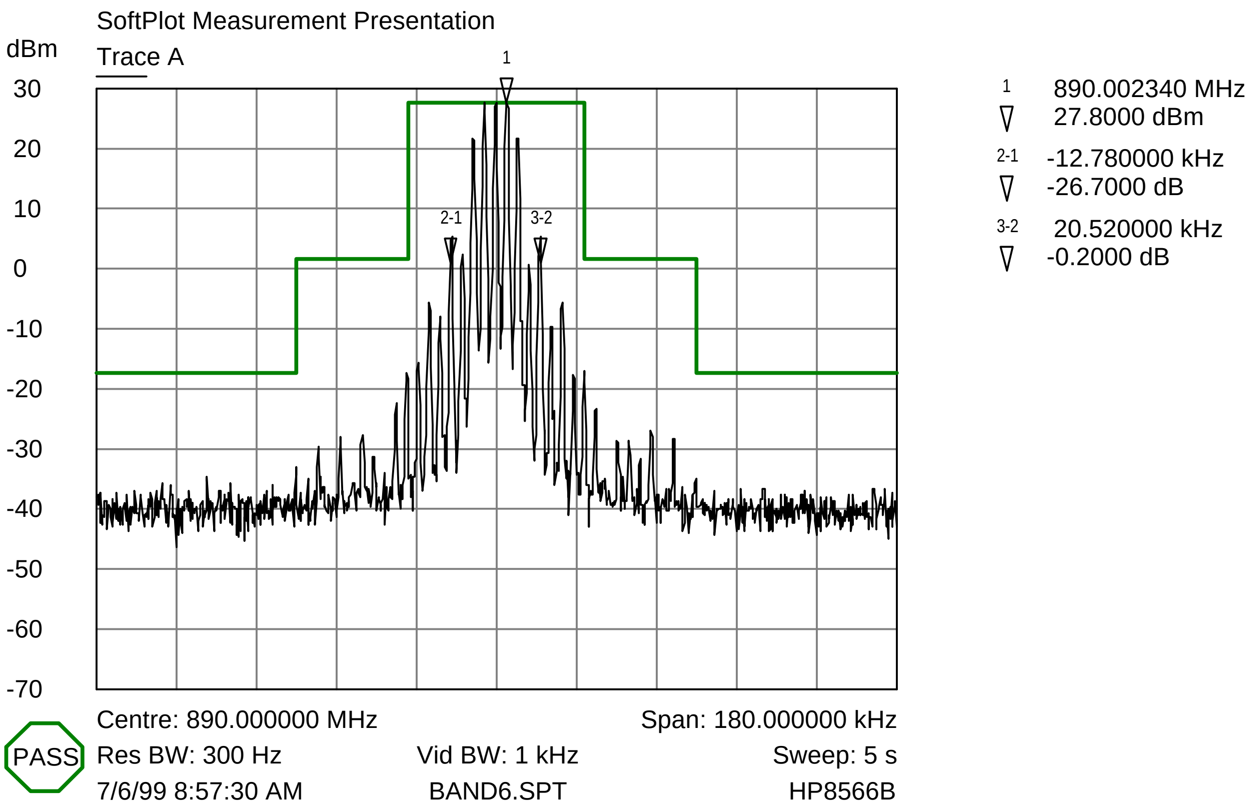
Output signal from MPC 30 (880 MHz)

Trace A Modulated with 2500 Hz tone - F1D Emission Mask

Output signal from MPC 30 (880.0 MHz)



Output signal from MPC 30 (885.0 MHz)



Output signal from MPC 30 (890 MHz)

Trace A Modulated with 2500 Hz tone - F1D Emissions Mask

Output signal from MPC 30 (890.0 MHz)

2.3 Conducted Spurious Emissions / Intermodulation Products

The MPC 30 was tested with 1 and 3 carriers. The data with 3 carriers represents the intermodulation products that are produced by the device. For the 3-carrier intermodulation test three signals of equal magnitude were spaced with two signals near the low end of the band and the other one near the high end of the band. The 3 carrier intermodulation test was performed with 3 different types of modulations (FM, CDMA and TDMA). The CDMA modulation produced the worst case emissions; therefore, this data, shown below, was used to show compliance for all modulation modes.

Tables 1 - 3 below show compliance for the spurious emissions removed from the carrier frequency by more than 90 kHz. See the bandwidth plots in section 2.2 for compliance from 0 Hz to 90 kHz.

Table 1 (1 Carrier)

The emissions must be attenuated 43 + 10 log P dB where P = Mean power of the unmodulated carrier. The maximum power of the unmodulated carrier was measured to 21.4 W (43.3 dBm), therefore, the emissions must be attenuated 43 + 10 log (21.4) = 56.3 dB. The criteria is 43.3 dBm – 56.3 dB = -13.0 dBm.

Transmitting at 880.0 MHz			
Frequency Range MHz	Frequency MHz	Corrected Level dBm	Criteria dBm
30 - 200	151.0	-50.2	-13.0
200 – 879.91	867.2	-32.2	-13.0
880.09 - 1000	898.9	-50.2	-13.0
1000 - 1500	1006.5	-50.5	-13.0
1500 - 2000	1760.0	-16.5	-13.0
2000 - 3000	2640.0	-37.0	-13.0
3000 - 4000	3520.0	-49.1	-13.0
4000 - 5000	4400.0	-48.7 *	-13.0
5000 - 6000	5280.0	-50.6 *	-13.0
6000 - 7000	6160.0	-43.8 *	-13.0
7000 - 7500	7040.0	-42.7 *	-13.0
7500 - 8000	7920.0	-42.7 *	-13.0
8000 - 9000	8800.0	-42.7 *	-13.0
* Noise Floor			

RBW = 30 kHz VBW = 100 kHz

Table 2 (1 Carrier)

The emissions must be attenuated 43 + 10 log P dB where P = Mean power of the unmodulated carrier. The maximum power of the unmodulated carrier was measured to 31.6 W (45.0 dBm), therefore, the emissions must be attenuated 43 + 10 log (31.6) = 58.0 dB. The criteria is 45.0 dBm – 58.0 dB = -13.0 dBm.

Transmitting at 885.0 MHz			
Frequency Range MHz	Frequency MHz	Corrected Level dBm	Criteria dBm
30 - 200	129.6	-53.1	-13.0
200 – 886.91	867.3	-32.1	-13.0
887.09 - 1000	902.7	-47.1	-13.0
1000 - 1500	1342.5	-52.2	-13.0
1500 - 2000	1770.0	-16.2	-13.0
2000 - 3000	2655.0	-43.9	-13.0
3000 - 4000	3540.0	-47.1	-13.0
4000 - 5000	4425.0	-47.6	-13.0
5000 - 6000	5310.0	-50.6 *	-13.0
6000 - 7000	6195.0	-43.8 *	-13.0
7000 - 7500	7080.0	-42.7 *	-13.0
7500 - 8000	7965.0	-42.7 *	-13.0
8000 - 9000	8850.0	-42.7 *	-13.0
* Noise Floor			

RBW = 30 kHz VBW = 100 kHz

Table 3 (1 Carrier)

The emissions must be attenuated 43 + 10 log P dB where P = Mean power of the unmodulated carrier. The maximum power of the unmodulated carrier was measured to 21.9 W (43.4 dBm), therefore, the emissions must be attenuated 43 + 10 log (21.9) = 56.4 dB. The criteria is 43.4 dBm – 53.4 dB = -13.0 dBm.

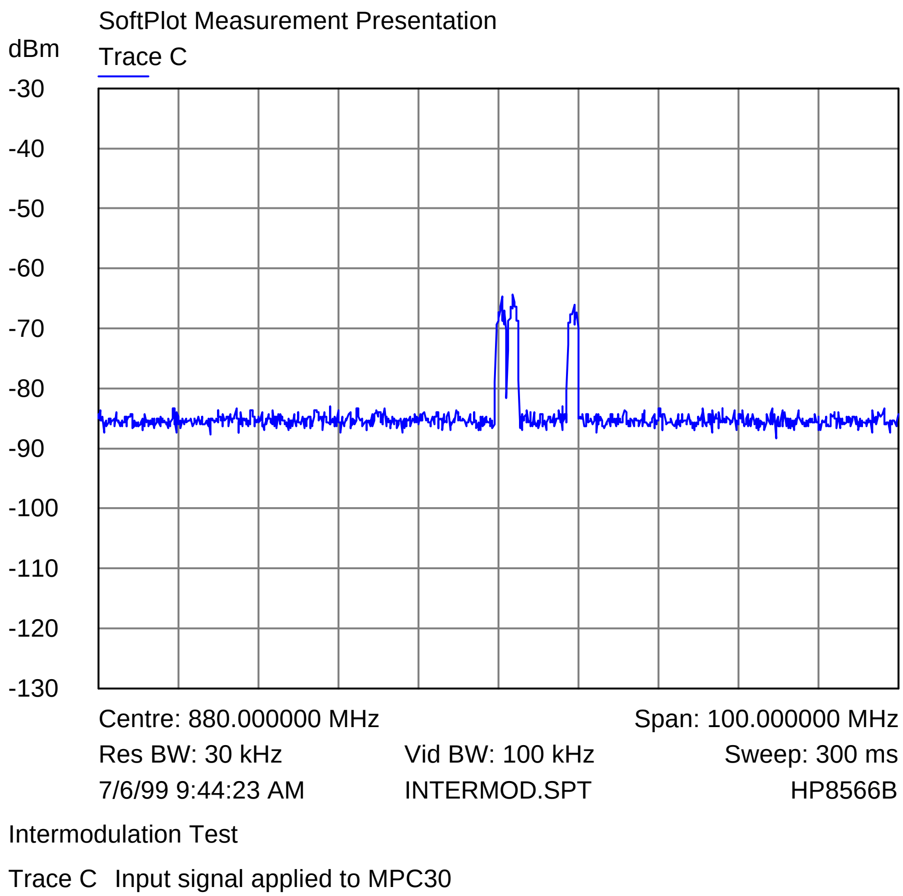
Transmitting at 890.0 MHz			
Frequency Range MHz	Frequency MHz	Corrected Level dBm	Criteria dBm
30 - 200	194.9	-52.5	-13.0
200 – 893.91	867.3	-30.5	-13.0
894.09 - 1000	912.7	-37.3	-13.0
1000 - 1500	1037.5	-52.2	-13.0
1500 - 2000	1780.0	-17.5	-13.0
2000 - 3000	2670.0	-39.4	-13.0
3000 - 4000	3560.0	-43.4	-13.0
4000 - 5000	4450.0	-47.8	-13.0
5000 - 6000	5340.0	-50.6 *	-13.0
6000 - 7000	6230.0	-43.8 *	-13.0
7000 - 7500	7120.0	-42.7 *	-13.0
7500 - 8500	8010.0	-42.7 *	-13.0
8500 - 9000	8900.0	-42.7 *	-13.0
* Noise Floor			

RBW = 30 kHz VBW = 100 kHz

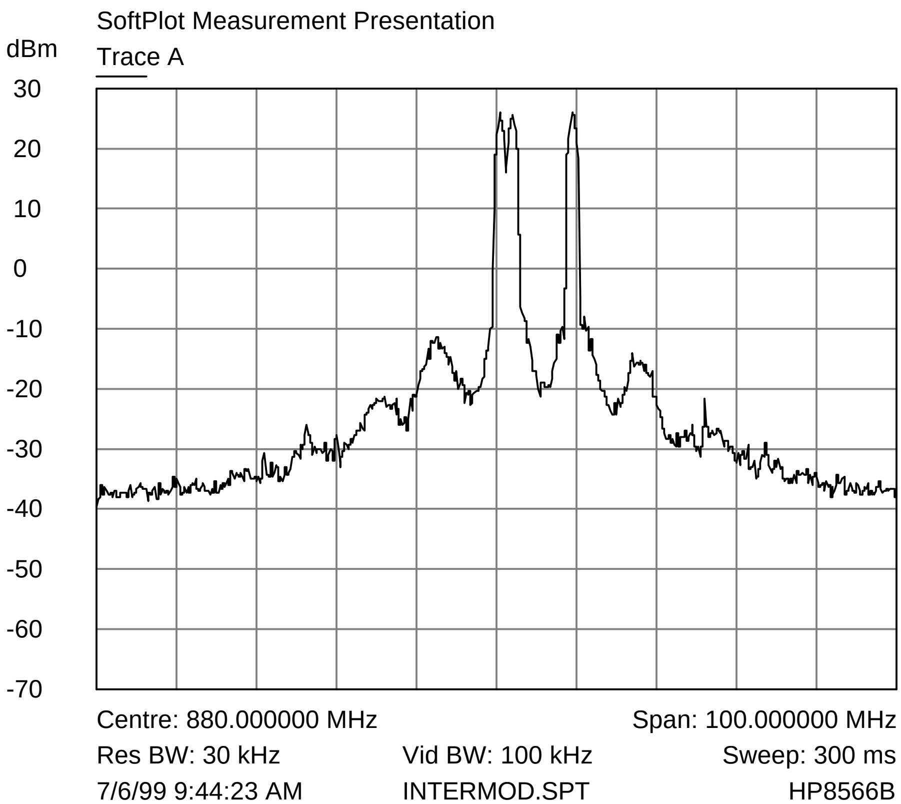
Table 4 (3 Carriers / Intermodulation Test)

Transmitting at 880.0, 881.5 and 889.0 MHz			
Frequency Range MHz	Frequency MHz	Corrected Level dBm	Criteria dBm
30 - 200	32.9	-41.3	-13.0
200 – 1000	395.7	-37.5	-13.0
1000 - 1500	1011.5	-43.0	-13.0
1500 - 2000	1772.0	-20.1	-13.0
2000 - 3000	2642.0	-30.3	-13.0
3000 - 4000	3540.9	-44.3	-13.0
4000 - 5000	4447.0	-41.6	-13.0
5000 - 6000	5280.0	-50.6 *	-13.0
6000 - 7000	6160.0	-43.8 *	-13.0
7000 - 7500	7040.0	-42.7 *	-13.0
7500 - 8000	7920.0	-42.7 *	-13.0
8000 - 9000	8800.0	-42.7 *	-13.0
* Noise Floor			

RBW = 30 kHz VBW = 100 kHz



Plot Intermodulation test (Input Signal to MPC30)



Intermodulation Test

Trace A 3 CDMA Signals (2 near low end of band and 1 near high end of band)

Plot Intermodulation test (Output from MPC30)

2.4 Radiated Spurious Emissions

The MPC 30 was tested with 1 and 3 carriers. The data with 3 carriers represents the intermodulation products that are produced by the device. For the 3-carrier intermodulation test three signals of equal magnitude were spaced with two signals near the low end of the band and the other one near the high end of the band. The 3 carrier intermodulation test was performed with 3 different types of modulations (FM, CDMA and TDMA).

The worst case radiated emissions were with 1 carrier CDMA modulated; therefore, this data was used to show compliance for all modulation modes and multiple carriers.

Transmitting at 880.0 MHz					
Antenna Polarity	Frequency (MHz)	Uncorr. Level (dBμV)	Correction Factor (dB)	Field Strength (dBμV/m)	Criteria (dBμV/m)
V	1760.0	15.8	30.9	46.7	84.4
V	2640.0	20.9	33.9	54.8	84.4
V	3520.0	11.2	37.6	48.8	84.4
V	4400.0	11.8	41.1	52.9	84.4
V	5280.0	11.8	43.9	55.7	84.4
V	6160.0	*13.9	47.1	61.0	84.4
V	7040.0	*12.5	50.5	63.0	84.4
V	7920.0	*13.8	54.8	68.6	84.4
V	8800.0	*15.5	58.1	73.6	84.4
H	1760.0	18.1	30.9	49.0	84.4
H	2640.0	16.7	33.9	50.6	84.4
H	3520.0	10.8	37.6	48.4	84.4
H	4400.0	11.6	41.1	52.7	84.4
H	5280.0	10.7	43.9	54.6	84.4
H	6160.0	13.9	47.1	61.0	84.4
H	7040.0	14.1	50.5	64.6	84.4
H	*7920.0	15.3	54.8	70.1	84.4
H	*8800.0	15.6	58.1	73.7	84.4

Note 1: * Noise Floor Measurements

Note 2: All emissions from 30 MHz to the first harmonic were more than 20 dB below the limit.

Transmitting at 887.0 MHz					
Antenna Polarity	Frequency (MHz)	Uncorr. Level (dBμV)	Correction Factor (dB)	Field Strength (dBμV/m)	Criteria (dBμV/m)
V	1774.0	10.6	30.9	41.5	84.4
V	2661.0	11.5	34.0	45.5	84.4
V	3548.0	10.2	37.7	47.9	84.4
V	4435.0	10.6	41.2	51.8	84.4
V	5322.0	10.7	44.1	54.8	84.4
V	6209.0	13.5	47.4	60.9	84.4
V	7096.0	*14.2	50.0	64.2	84.4
V	7983.0	*14.3	55.3	69.6	84.4
V	8870.0	*15.1	58.4	73.5	84.4
H	1774.0	10.0	30.9	40.9	84.4
H	2661.0	12.1	34.0	46.1	84.4
H	3548.0	10.8	37.7	48.5	84.4
H	4435.0	11.4	41.2	52.6	84.4
H	5322.0	10.7	44.1	54.8	84.4
H	6209.0	*13.5	47.4	60.9	84.4
H	7096.0	*13.6	50.0	63.6	84.4
H	7983.0	*14.0	55.3	69.3	84.4
H	8870.0	*15.2	58.4	73.6	84.4

Note 1: * Noise Floor Measurements

Note 2: All emissions from 30 MHz to the first harmonic were more than 20 dB below the limit.

Transmitting at 890.0 MHz					
Antenna Polarity	Frequency (MHz)	Uncorr. Level (dBμV)	Correction Factor (dB)	Field Strength (dBμV/m)	Criteria (dBμV/m)
V	1780.0	10.1	31.2	41.3	84.4
V	2670.0	12.0	34.3	46.3	84.4
V	3560.0	10.2	37.9	48.1	84.4
V	4450.0	11.2	41.2	52.4	84.4
V	5340.0	10.7	44.5	55.2	84.4
V	6230.0	13.6	47.8	61.4	84.4
V	7120.0	*13.9	51.5	65.4	84.4
V	8010.0	*13.8	55.9	69.7	84.4
V	8900.0	*15.6	58.8	74.4	84.4
H	1780.0	10.0	31.2	41.2	84.4
H	2670.0	11.2	34.3	45.5	84.4
H	3560.0	12.1	37.9	50.0	84.4
H	4450.0	11.8	41.2	53.0	84.4
H	5340.0	11.0	44.5	55.5	84.4
H	6230.0	14.0	47.8	61.8	84.4
H	7120.0	*16.6	51.5	65.1	84.4
H	8010.0	*13.9	55.9	69.8	84.4
H	8900.0	*15.7	58.8	74.5	84.4

Note 1: * Noise Floor Measurements

Note 2: All emissions from 30 MHz to the first harmonic were more than 20 dB below the limit.

2.5 Frequency Stability

Transmitting at 880.0 MHz				
Ambient Temperature (^{0} C)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Deviation (PPM)	Criteria (PPM)
-30	880.0	879.99940	-0.68	1.5
-20	880.0	879.99938	-0.70	1.5
-10	880.0	879.99929	-0.81	1.5
0	880.0	879.99924	-0.86	1.5
10	880.0	879.99931	-0.78	1.5
20	880.0	879.99937	-0.72	1.5
30	880.0	879.99930	-0.80	1.5
40	880.0	879.99926	-0.84	1.5
50	880.0	879.99925	-0.85	1.5

Voltage (AC)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Deviation (PPM)	Criteria (PPM)
102.0	880.0	879.99925	-0.85	1.5
120.0	880.0	879.99937	-0.72	1.5
138.0	880.0	879.99945	-0.62	1.5

Sample Calculation

$$\text{Deviation (PPM)} = \frac{FM - TF}{TF} * 10^6$$

FM = Frequency Measured
TF = Intended Transmit Frequency

APPENDIX 1 TEST PROCEDURES AND TEST EQUIPMENT

Radiated Interference Emissions:

The radiated emission from the intentional radiator was measured using a spectrum analyzer with a quasi-peak adapter for peak and quasi-peak readings. A preamplifier with a fixed gain of 26 dB and a power amplifier with a fixed gain of 22 dB were used to increase the sensitivity of the measuring instrumentation. The quasi-peak adapter uses a bandwidth of 120 kHz, with the spectrum analyzer's resolution bandwidth set at 1 MHz, for readings in the 30 to 1000 MHz frequency ranges. For peak emissions above 1000 MHz the spectrum analyzer’s resolution bandwidth was set to 1 MHz and the video bandwidth was set to 3 MHz. For average emissions above 1000 MHz the spectrum analyzer’s resolution bandwidth was set to 1 MHz and the video bandwidth was set to 1 Hz.

A biconilog antenna was used to measure the frequency range of 30 to 1000 MHz and a Double Ridge Guide Horn antenna was used to measure the frequency range 1 GHz to 10 GHz, at a distance of 3 meters from the EUT. The readings obtained by these antennas are correlated to the levels obtained with a tuned dipole antenna by adding antenna factors.

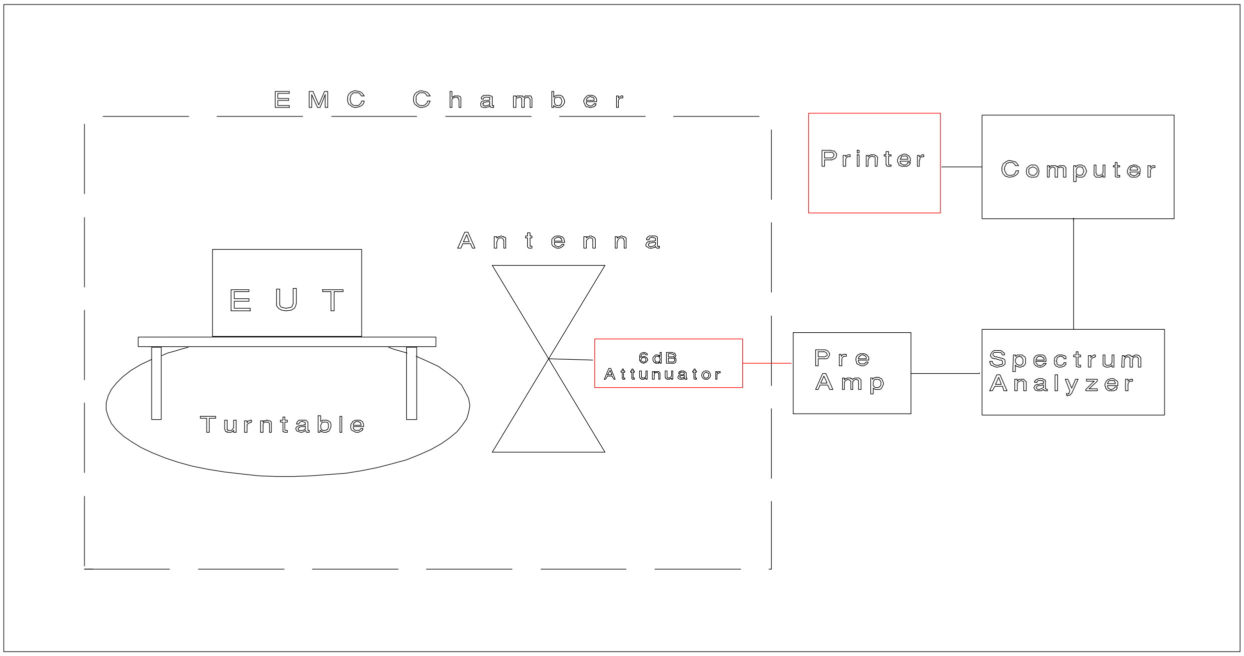
The configuration of the intentional radiator was varied to find the maximum radiated emission. The EUT was connected to the peripherals listed in Section 2.4 via the interconnecting cables listed in Section 2.5. These interconnecting cable were manipulated manually by a technician to obtain worst case radiated emissions. The intentional radiator was rotated 360 degrees, and the antenna height was varied from 1 to 4 meters to find the maximum radiated emission. Where there were multiple interface ports all of the same type, cables are either placed on all of the ports or cables added to these ports until the emissions do not increase by more than 2 dB.

Desktop intentional radiator is measured on a non-conducting table one meter above the ground plane. The table is placed on a turntable which is level with the ground plane. The turntable has slip rings, which supply AC power to the intentional radiator. For equipment normally placed on floors, the equipment shall be placed directly on the turntable.

Type of Equipment	Manufacturer	Model Number	Serial Number
Anechoic Chamber	CCL	N/A	N/A
Test Software	CCL	Radiated Emissions	Revision 1.3
Spectrum Analyzer	Hewlett Packard	8566B	2230A01711
Quasi-Peak Detector	Hewlett Packard	8565A	3107A01582
Biconilog Antenna	EMCO	3141	1045
Double Ridged Guide Antenna	EMCO	3115	9409-4355
Radiated Emissions Cable Anechoic Chamber	CCL	Cable B	N/A
Pre-Amplifier	Hewlett Packard	8447D	1937A03151
Power-Amplifier	Hewlett Packard	8447E	2434A01975
6 dB Attenuator	Hewlett Packard	8491A	32835

All the equipment listed above is calibrated every 12 months by an independent calibration laboratory or by CCL personal following outlined calibration procedures.

Radiated Emissions Test



Peak Transmit Power

The EUT was directly connected to the spectrum analyzer via the antenna output port as shown in the block diagram below. The measurements were performed with the device tuned to three different channels, one near the bottom of the spectrum and one near the top of the spectrum.

Testing was performed as per ANSI-C63.4 1992, Methods of Measurement of radio-noise emissions from low-voltage electrical and electronic equipment in the range of 9 kHz to 40 GHz.

The spectrum analyzer's resolution bandwidth and video bandwidth were set as follows:

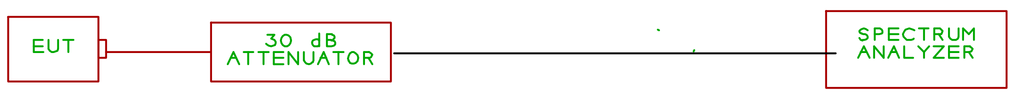
Peak Transmit Power

RBW = 100 kHz
VBW = 300 kHz

Type of Equipment	Manufacturer	Model Number	Serial Number
Spectrum Analyzer	Hewlett Packard	8566B	2230A01711
Quasi-Peak Detector	Hewlett Packard	8565A	3107A01582
30 dB Attenuator	Hewlett Packard	8498A	1801A05362
Low Loss Cable (1 dB)	N/A	N/A	N/A
Plotter	Hewlett Packard	7470A	2210A01469

All the equipment listed above is calibrated every 12 months by an independent calibration laboratory or by CCL personal following outlined calibration procedures.

Test Configuration Block Diagram



Conducted Spurious Emissions and Occupied Bandwidth

The EUT was directly connected to the spectrum analyzer via the antenna output port as shown in the block diagram below. The carrier was modulated with a 2500 Hz tone; this produced the worst case emissions. The measurements were performed with the phone at three different power levels and tuned to three channels, one near the bottom of the spectrum and one near the top of the spectrum.

Testing was performed as per ANSI-C63.4 1992, Methods of Measurement of radio-noise emissions from low-voltage electrical and electronic equipment in the range of 9 kHz to 40 GHz.

The spectrum analyzer’s resolution bandwidth and video bandwidth were set as follows:

Conducted Spurious Emissions

45 kHz above and below the carrier

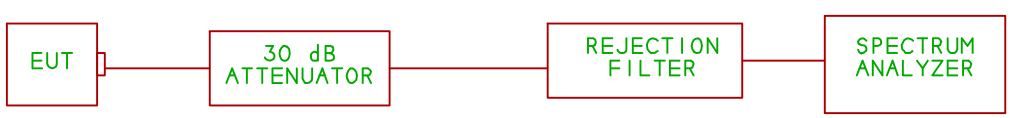
RBW = 300 Hz
VBW = 1 kHz

Greater than 45 kHz above and below the carrier

RBW = 30 kHz
VBW = 100 kHz

Type of Equipment	Manufacturer	Model Number	Serial Number
Spectrum Analyzer	Hewlett Packard	8566B	2230A01711
Quasi-Peak Detector	Hewlett Packard	8565A	3107A01582
30 dB Attenuator	Hewlett Packard	8498A	1801A05362
Tunable Notch Filter	Microwave Filter Co., Inc.	6367-5	1190
Low Loss Cable (1 dB)	N/A	N/A	N/A
Plotter	Hewlett Packard	7470A	2210A01469

Test Configuration Block Diagram



Carrier Frequency Stability

The EUT was placed inside of a temperature chamber and directly connected to the spectrum analyzer via the antenna output port as shown in the block diagram below. The measurements were performed from –30^0 C to +60^0 C in 10^0 increments.

The spectrum analyzer's was configured as follows:

RBW = 1 kHz

VBW = 3 kHz
Span = 20 kHz
Sweep = Auto

Type of Equipment	Manufacturer	Model Number	Serial Number
Spectrum Analyzer	Hewlett Packard	8566B	2230A01711
Quasi-Peak Detector	Hewlett Packard	8565A	3107A01582
30 dB Attenuator	Hewlett Packard	8498A	1801A05362
Low Loss Cable (1 dB)	N/A	N/A	N/A
Temperature Chamber	Tenney Engineering, Inc.	Tenney Jr.	11184-83

All the equipment listed above is calibrated every 12 months by an independent calibration laboratory or by CCL personal following outlined calibration procedures.

Test Configuration Block Diagram

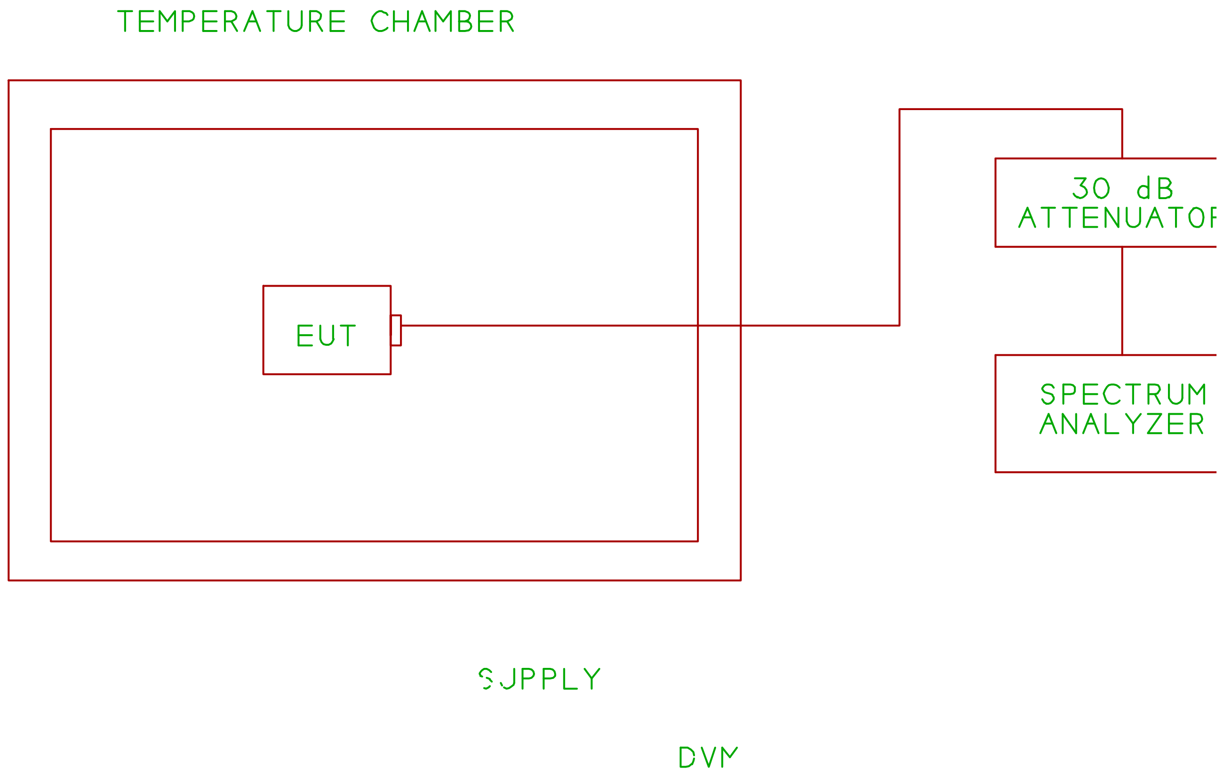

TEMPERATURE CHAMBER
30 dB
ATTENUATOR
EUT
SPECTRUM
ANALYZER
SUPPLY
DVM

Exhibit 6