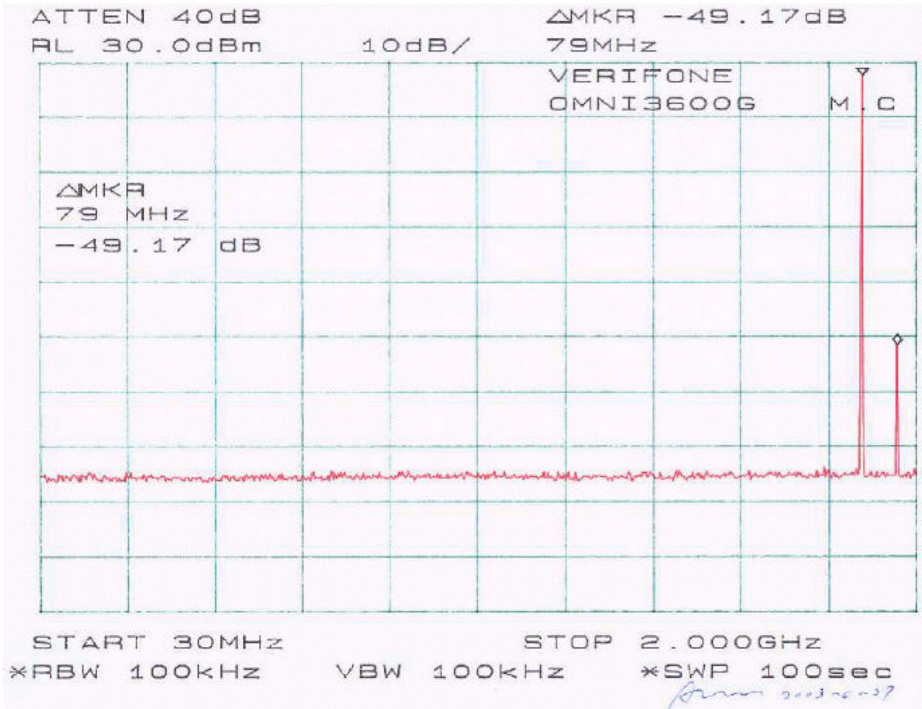
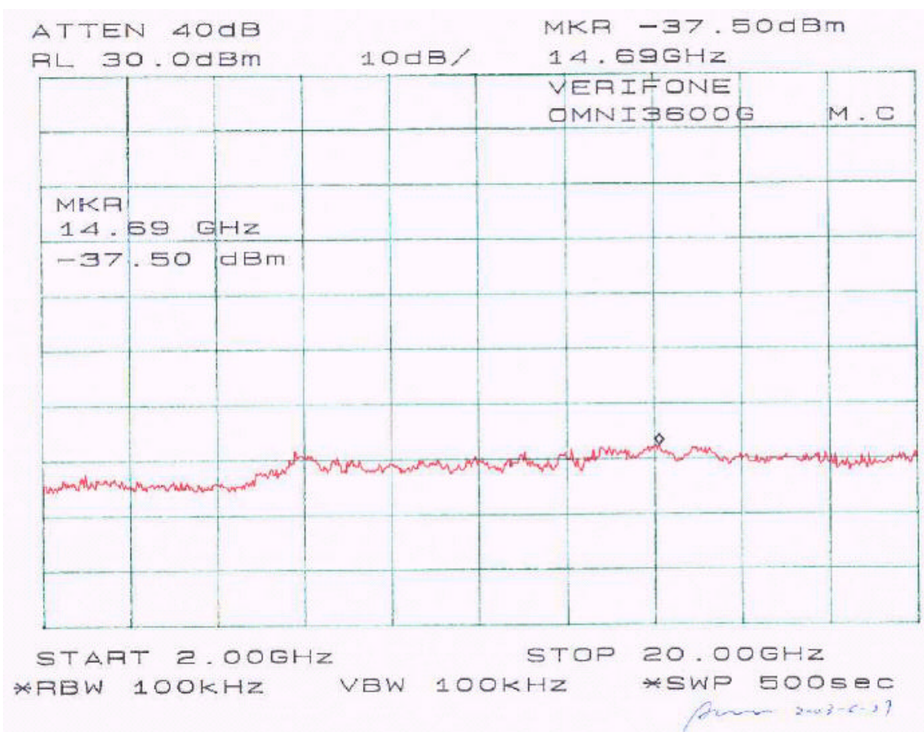
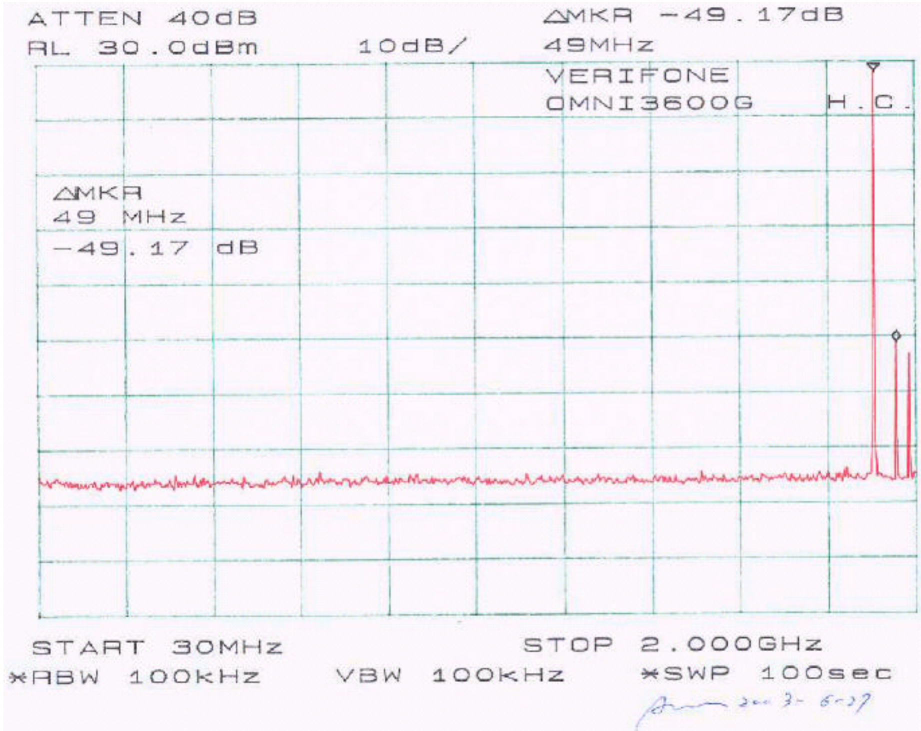
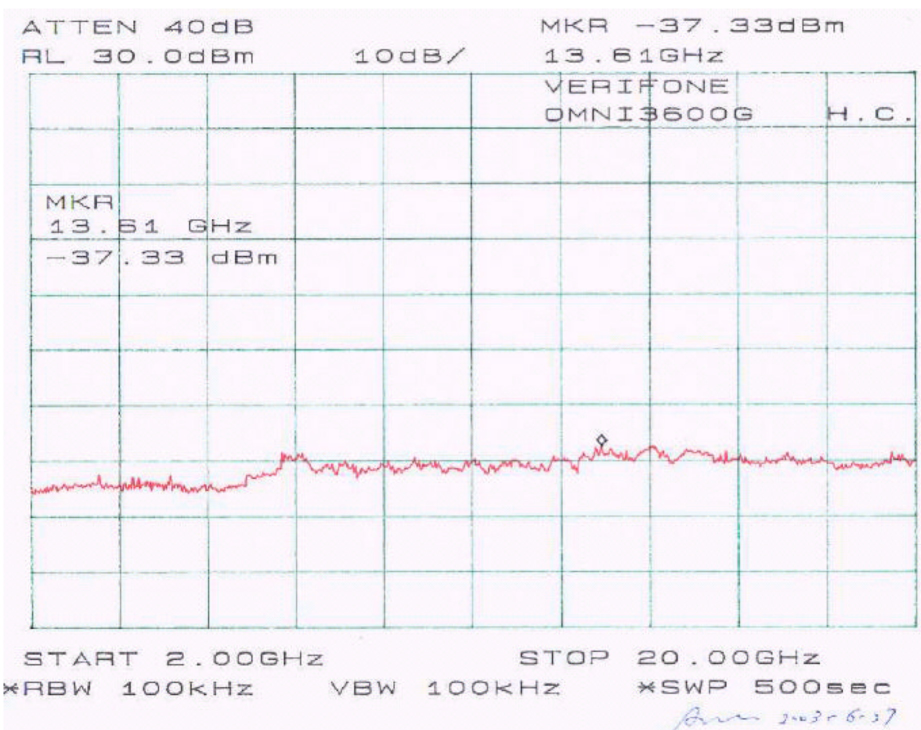

ATTEN 40dB
RL 30.0dBm
10dB/
ΔMKR −49.17dB
79MHz
VERIFONE
OMNI3600G
M.C
ΔMKR
79 MHz
−49.17 dB
START 30MHz
STOP 2.000GHz
*RBW 100kHz
VBW 100kHz
*SWP 100sec


ATTEN 40dB
RL 30.0dBm
10dB/
MKR −37.50dBm
14.69GHz
VERIFONE
OMNI3600G
M.C
MKR
14.69 GHz
−37.50 dBm
START 2.00GHz
STOP 20.00GHz
*RBW 100kHz
VBW 100kHz
*SWP 500sec


ATTEN 40dB
RL 30.0dBm
10dB/
ΔMKR -49.17dB
49MHz
VERIFONE
OMNI3600G
H.C.
ΔMKR
49 MHz
-49.17 dB
START 30MHz
STOP 2.000GHz
*RBW 100kHz
VBW 100kHz
*SWP 100sec


ATTEN 40dB
RL 30.0dBm
10dB/
MKR -37.33dBm
13.61GHz
VERIFONE
OMNI3600G
H.C.
MKR
13.61 GHz
-37.33 dBm
START 2.00GHz
STOP 20.00GHz
*RBW 100kHz
VBW 100kHz
*SWP 500sec

8 – BAND EDGE

8.1 Applicable Standard

Requirement: § 22.917 & §24.238.

8.2 Test Procedure

The RF output of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation.

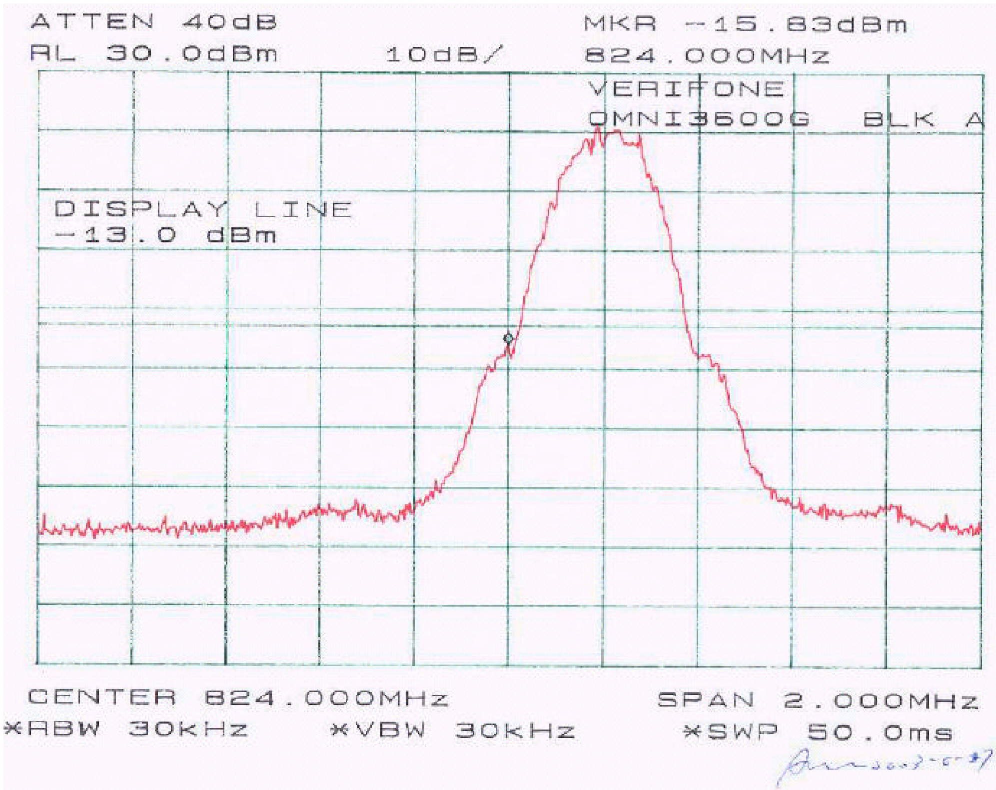
The center of the spectrum analyzer was set to block edge frequency, RBW set to 30KHz.

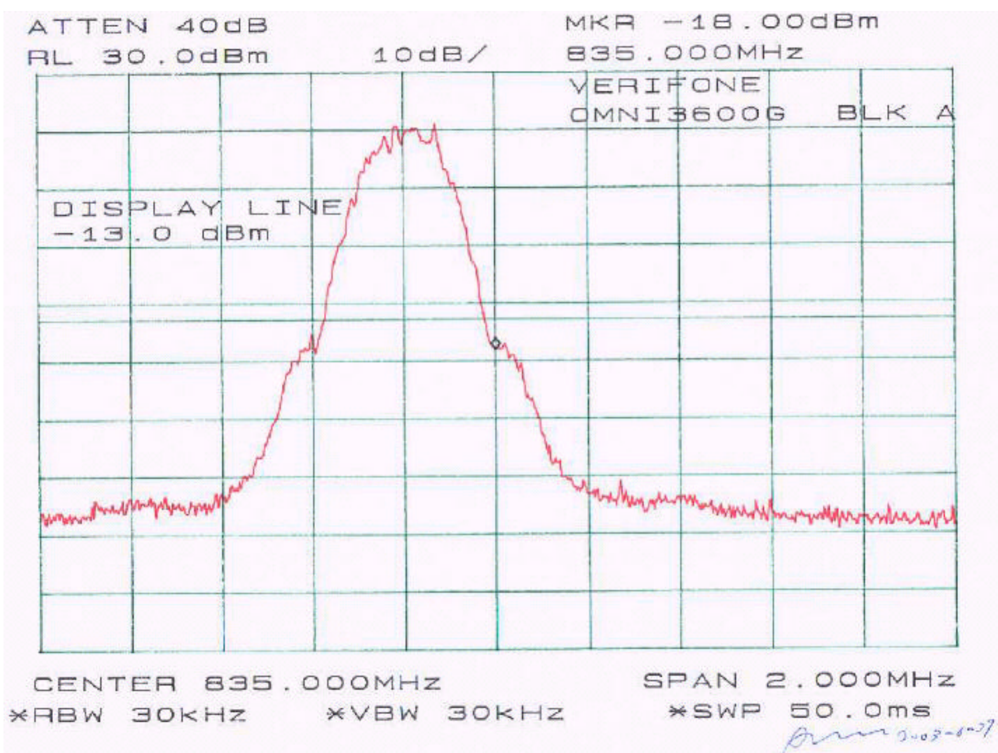
8.3 Test Equipment

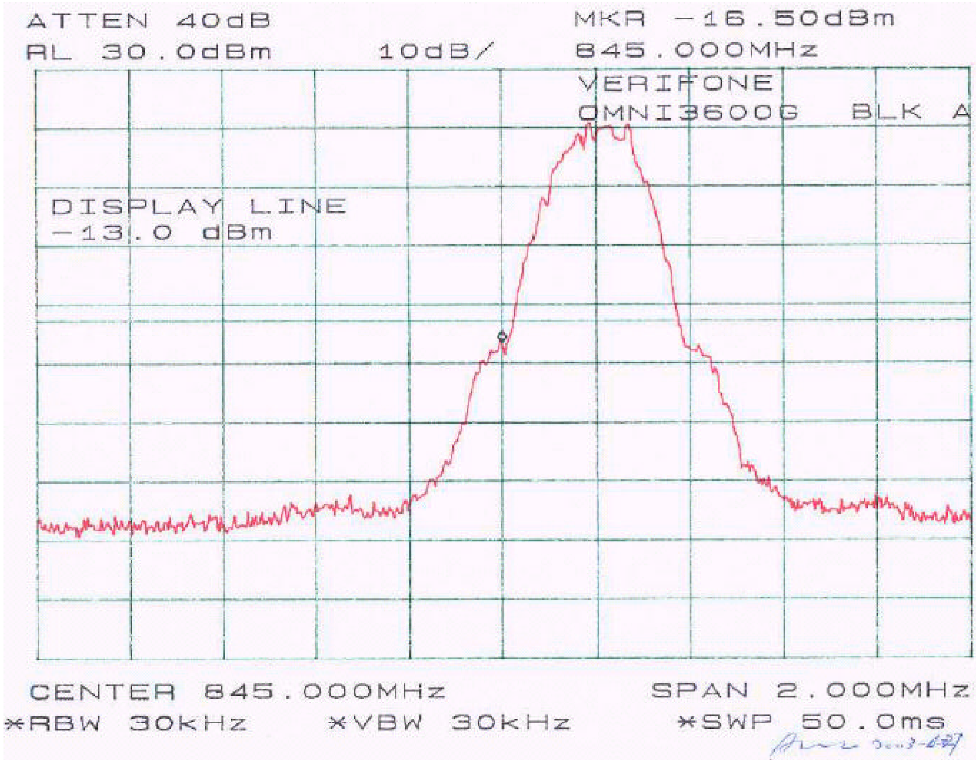
Hewlett Packard HP8564E Spectrum Analyzer, Calibration Due Date: 2003-08-01.
Hewlett Packard HP 7470A Plotter, Calibration not required.
Anritsu MT8802A Base Simulator, Calibration Due Date: 2003-09-10

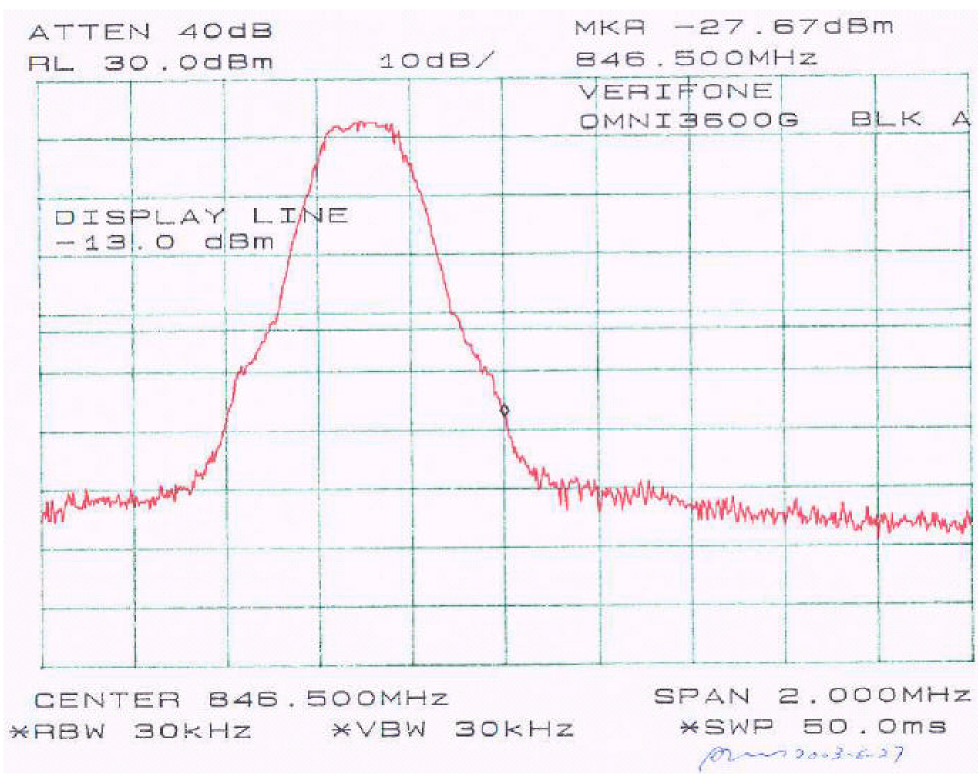
8.4 Test Results

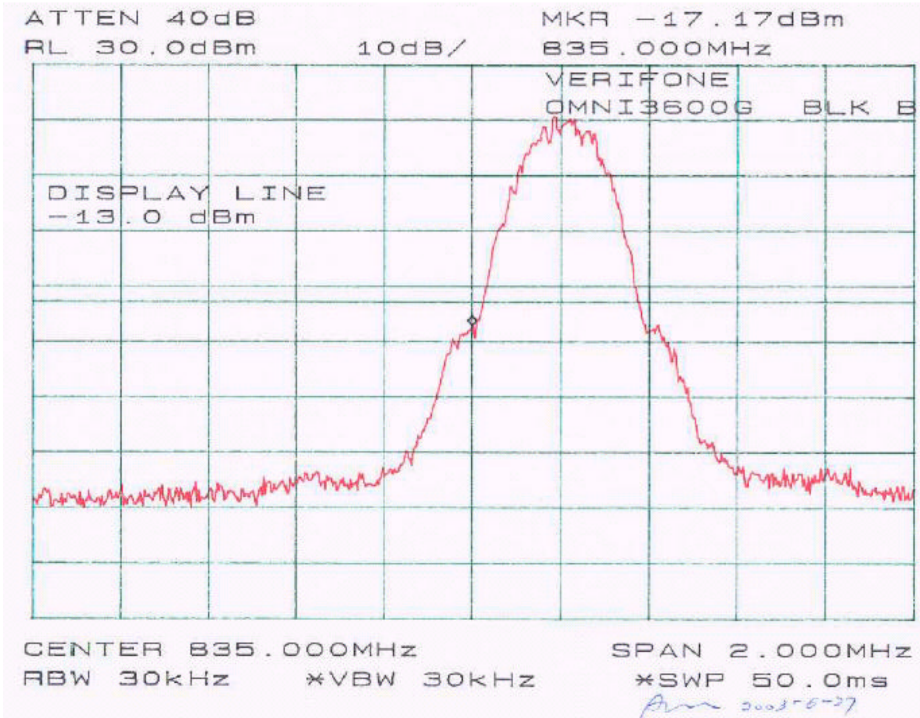
Please refer to the following plots.

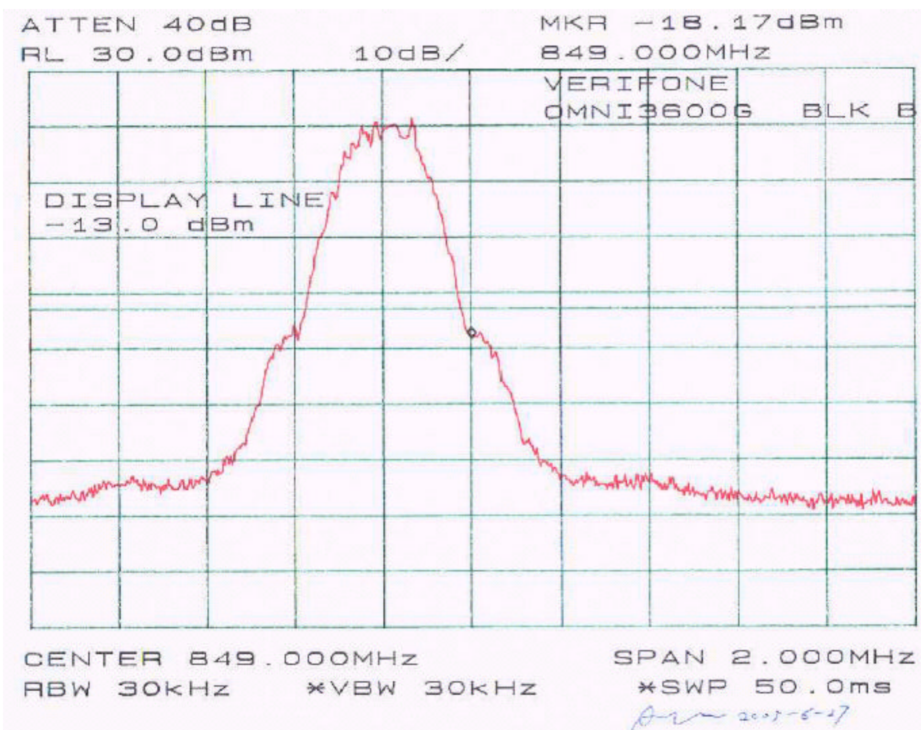

ATTEN 40dB
RL 30.0dBm
10dB/
MKR -15.83dBm
824.000MHz
VERIFONE
OMNI3600G BLK A
DISPLAY LINE
-13.0 dBm
CENTER 824.000MHz
SPAN 2.000MHz
*RBW 30kHz
*VBW 30kHz
*SWP 50.0ms

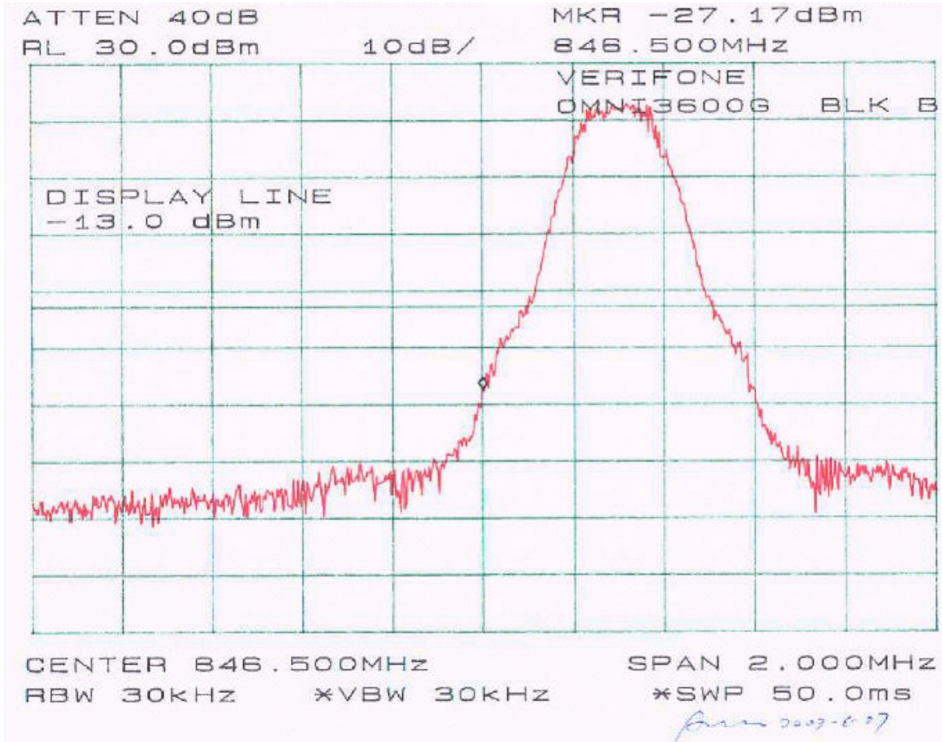

ATTEN 40dB
RL 30.0dBm
10dB/
MKR -18.00dBm
835.000MHz
VERIFONE
OMNI3600G BLK A
DISPLAY LINE
-13.0 dBm
CENTER 835.000MHz
SPAN 2.000MHz
*RBW 30kHz
*VBW 30kHz
*SWP 50.0ms

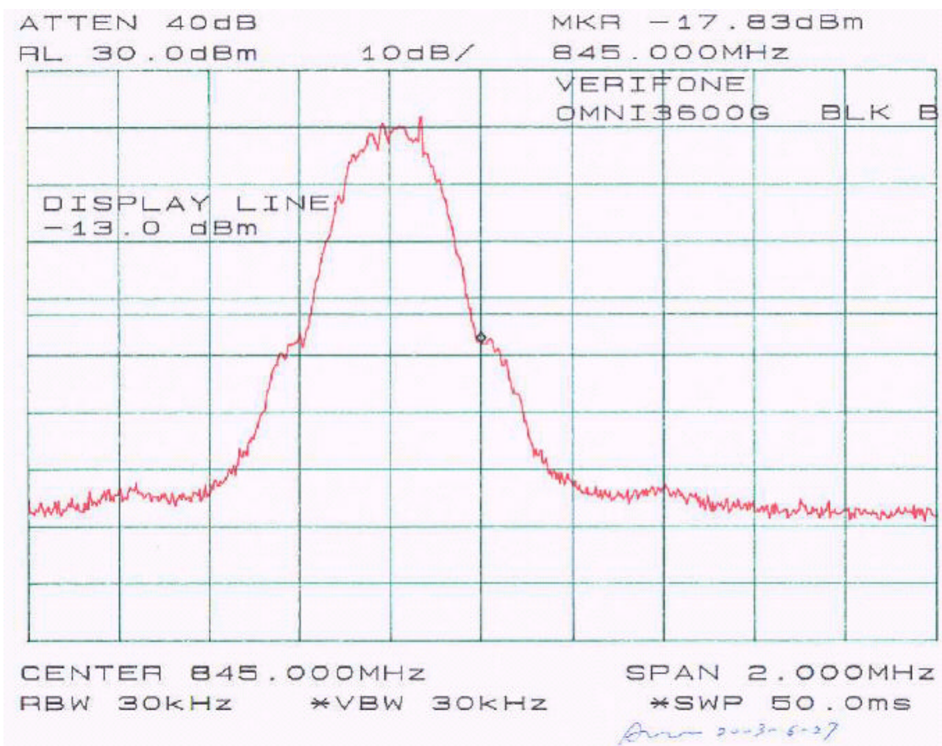

ATTEN 40dB
RL 30.0dBm
10dB/
MKR -16.50dBm
845.000MHz
VERIFONE
OMNI3600G BLK A
DISPLAY LINE
-13.0 dBm
CENTER 845.000MHz
SPAN 2.000MHz
*RBW 30kHz
*VBW 30kHz
*SWP 50.0ms

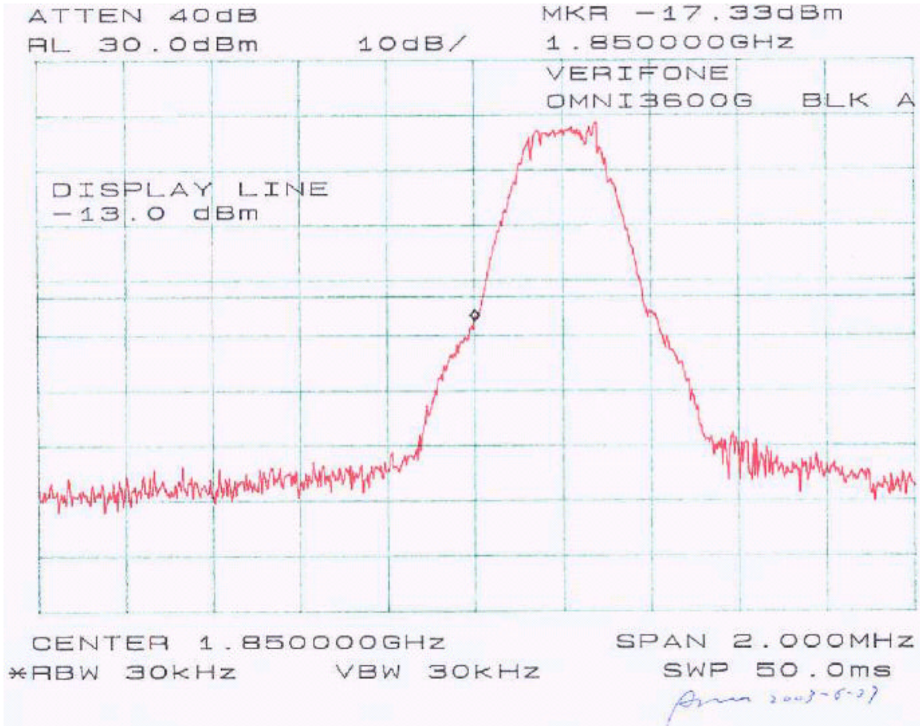

ATTEN 40dB
RL 30.0dBm
10dB/
MKR -27.67dBm
846.500MHz
VERIFONE
OMNI3600G BLK A
DISPLAY LINE
-13.0 dBm
CENTER 846.500MHz
SPAN 2.000MHz
*RBW 30kHz
*VBW 30kHz
*SWP 50.0ms

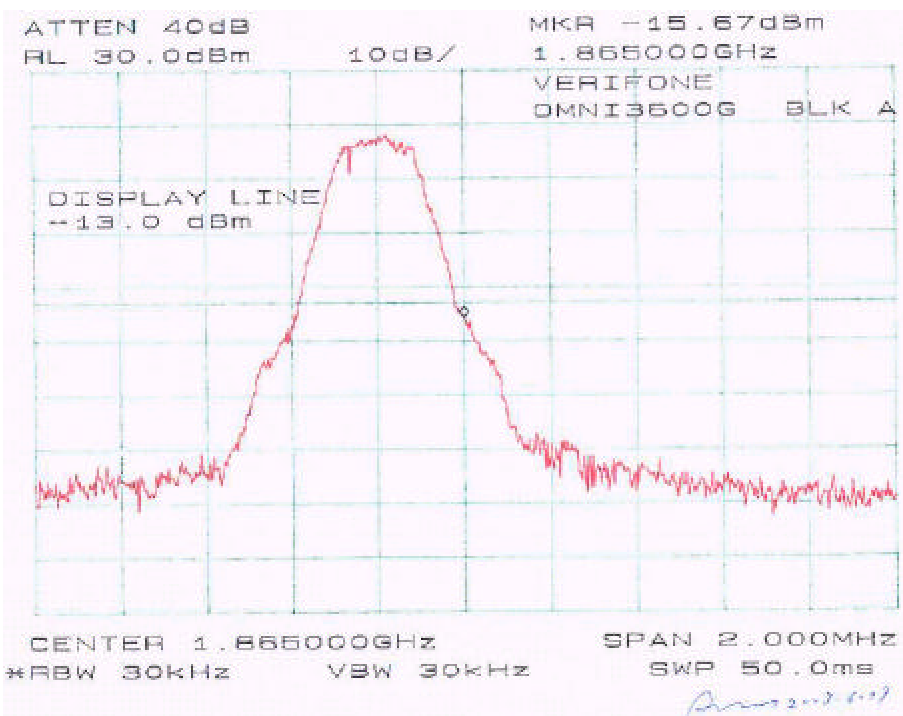

ATTEN 40dB
RL 30.0dBm
10dB/
MKR -17.17dBm
835.000MHz
VERIFONE
OMNI3600G BLK B
DISPLAY LINE
-13.0 dBm
CENTER 835.000MHz
RBW 30kHz
*VBW 30kHz
SPAN 2.000MHz
*SWP 50.0ms

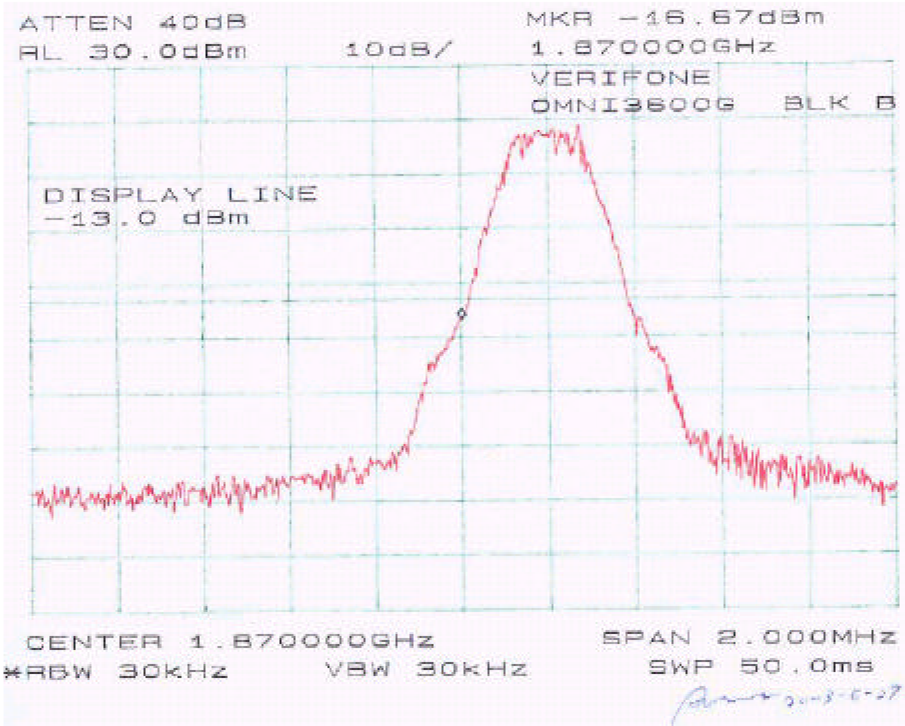

ATTEN 40dB
RL 30.0dBm
10dB/
MKR -18.17dBm
849.000MHz
VERIFONE
OMNI3600G BLK B
DISPLAY LINE
-13.0 dBm
CENTER 849.000MHz
RBW 30kHz
*VBW 30kHz
SPAN 2.000MHz
*SWP 50.0ms

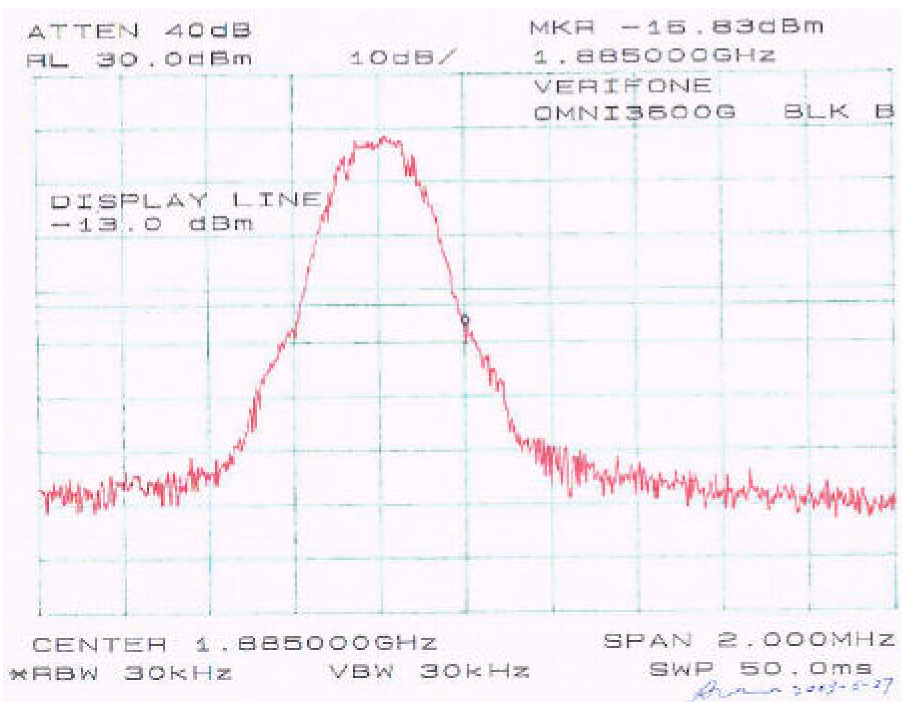

ATTEN 40dB
RL 30.0dBm
10dB/
MKR -27.17dBm
846.500MHz
VERIFONE
OMNI3600G BLK B
DISPLAY LINE
-13.0 dBm
CENTER 846.500MHz
RBW 30kHz
*VBW 30kHz
SPAN 2.000MHz
*SWP 50.0ms

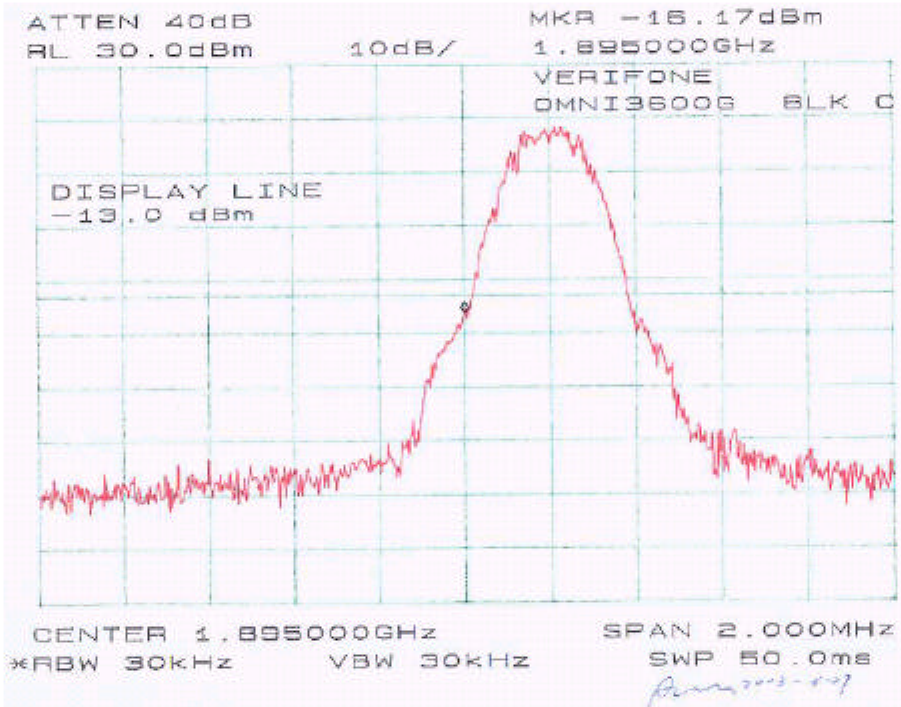

ATTEN 40dB
RL 30.0dBm
10dB/
MKR -17.83dBm
845.000MHz
VERIFONE
OMNI3600G BLK B
DISPLAY LINE
-13.0 dBm
CENTER 845.000MHz
RBW 30kHz
*VBW 30kHz
SPAN 2.000MHz
*SWP 50.0ms

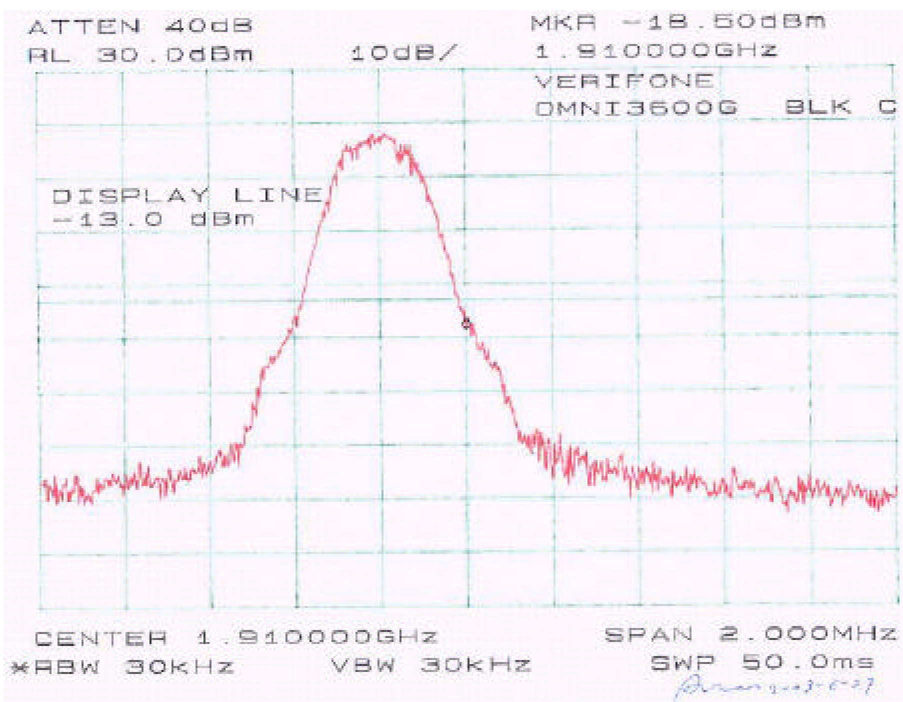

ATTEN 40dB
RL 30.0dBm
10dB/
MKR −17.33dBm
1.850000GHz
VERIFONE
OMNI3600G BLK A
DISPLAY LINE
−13.0 dBm
CENTER 1.850000GHz
SPAN 2.000MHz
*RBW 30kHz
VBW 30kHz
SWP 50.0ms

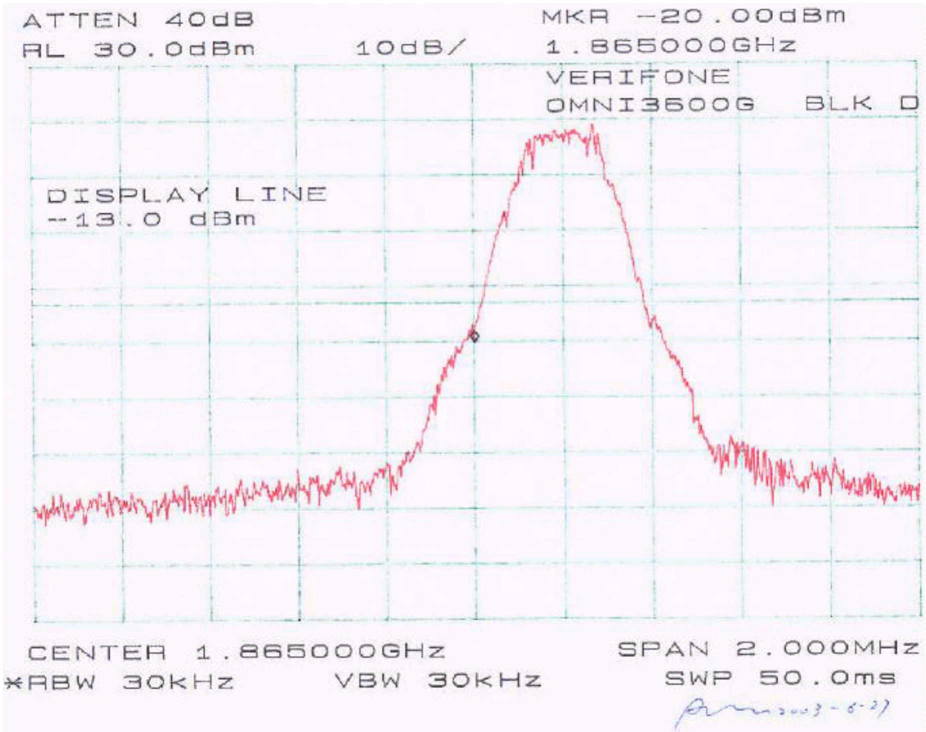

ATTEN 40dB
RL 30.0dBm
10dB/
MKR −15.67dBm
1.865000GHz
VERIFONE
OMNI3600G BLK A
DISPLAY LINE
−13.0 dBm
CENTER 1.865000GHz
SPAN 2.000MHz
*RBW 30kHz
VBW 30kHz
SWP 50.0ms

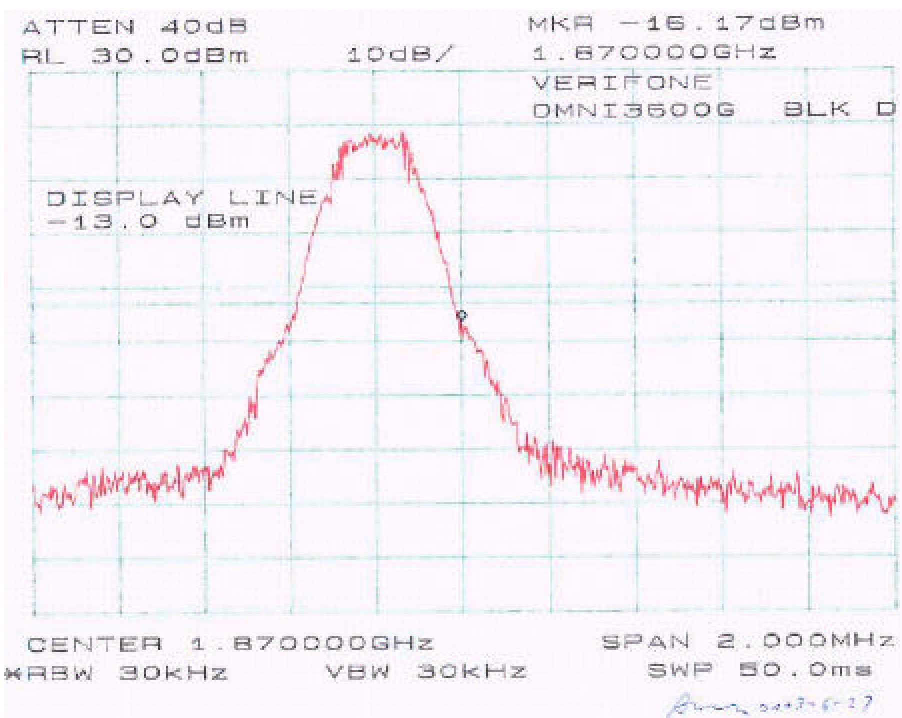

ATTEN 40dB
RL 30.0dBm
10dB/
MKR -16.67dBm
1.870000GHz
VERIFONE
OMNI3600G BLK B
DISPLAY LINE
-13.0 dBm
CENTER 1.870000GHz
*RBW 30kHz
VBW 30kHz
SPAN 2.000MHz
SWP 50.0ms

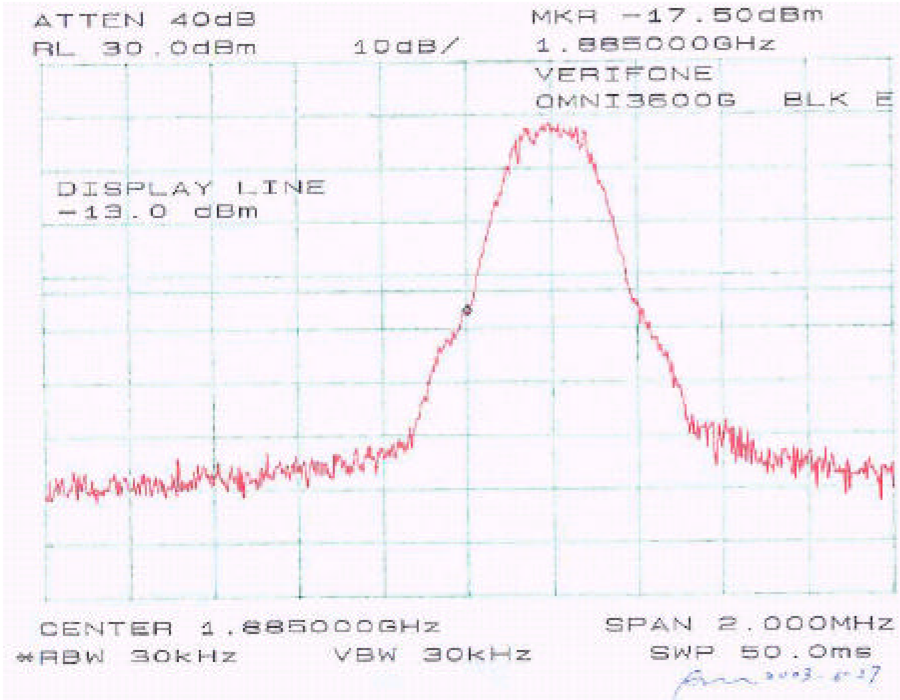

ATTEN 40dB
RL 30.0dBm
10dB/
MKR -15.83dBm
1.885000GHz
VERIFONE
OMNI3600G BLK B
DISPLAY LINE
-13.0 dBm
CENTER 1.885000GHz
*RBW 30kHz
VBW 30kHz
SPAN 2.000MHz
SWP 50.0ms

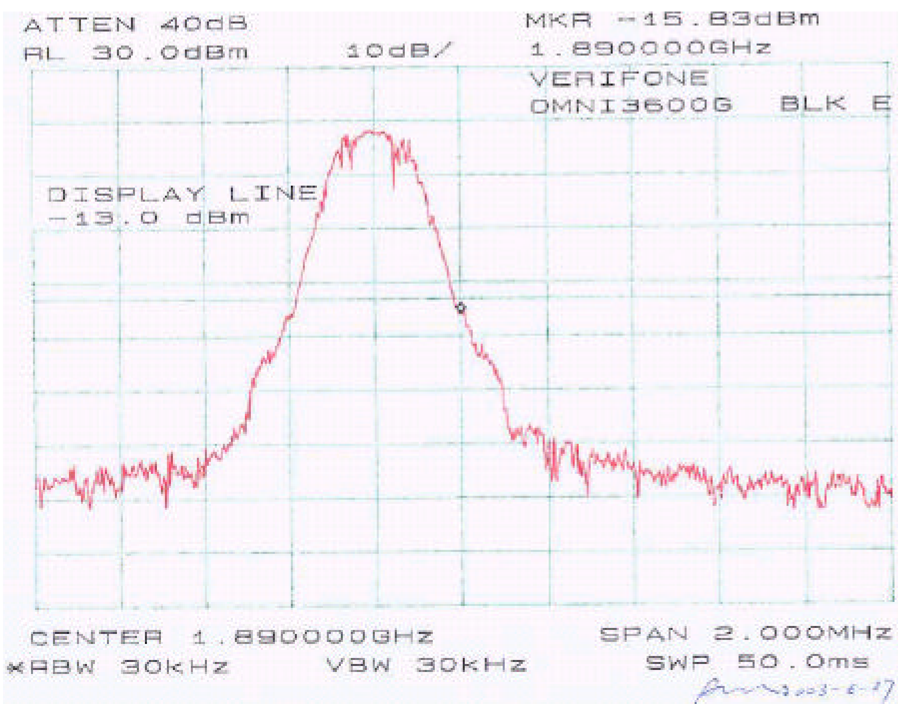

ATTEN 40dB
RL 30.0dBm
10dB/
MKR -16.17dBm
1.895000GHz
VERIFONE
OMNI3600G BLK C
DISPLAY LINE
-13.0 dBm
CENTER 1.895000GHz
SPAN 2.000MHz
*RBW 30kHz
VBW 30kHz
SWP 50.0ms

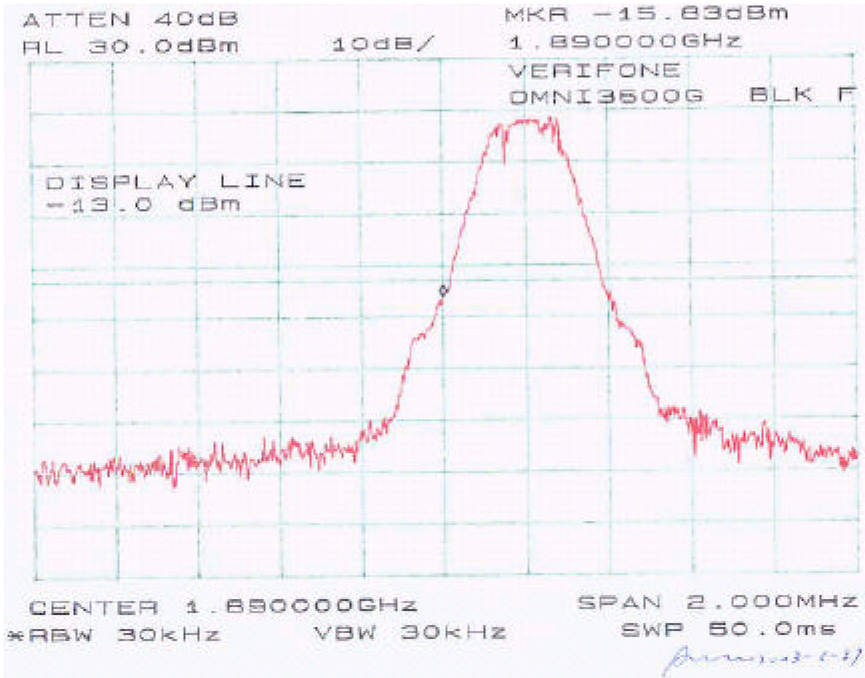

ATTEN 40dB
RL 30.0dBm
10dB/
MKR -18.50dBm
1.910000GHz
VERIFONE
OMNI3600G BLK C
DISPLAY LINE
-13.0 dBm
CENTER 1.910000GHz
SPAN 2.000MHz
*RBW 30kHz
VBW 30kHz
SWP 50.0ms

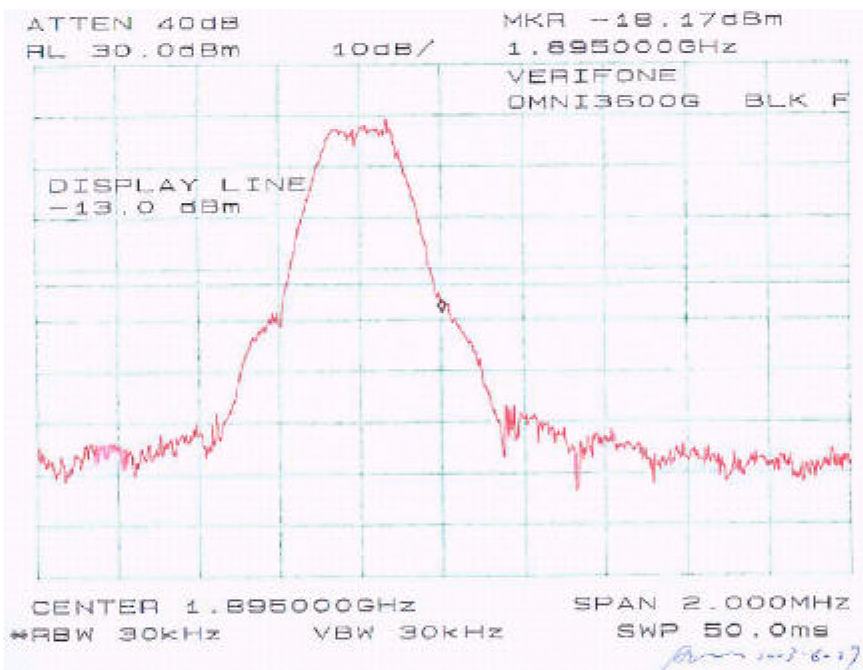

ATTEN 40dB
RL 30.0dBm
10dB/
MKR -20.00dBm
1.865000GHz
VERIFONE
OMNI3600G BLK D
DISPLAY LINE
-13.0 dBm
CENTER 1.865000GHz
SPAN 2.000MHz
*RBW 30kHz
VBW 30kHz
SWP 50.0ms


ATTEN 40dB
RL 30.0dBm
10dB/
MKR -16.17dBm
1.870000GHz
VERIFONE
OMNI3600G BLK D
DISPLAY LINE
-13.0 dBm
CENTER 1.870000GHz
SPAN 2.000MHz
*RBW 30kHz
VBW 30kHz
SWP 50.0ms


ATTEN 40dB
RL 30.0dBm
10dB/
MKR -17.50dBm
1.885000GHz
VERIFONE
OMNI3600G BLK E
DISPLAY LINE
-13.0 dBm
CENTER 1.885000GHz
SPAN 2.000MHz
*RBW 30kHz
VBW 30kHz
SWP 50.0ms


ATTEN 40dB
RL 30.0dBm
10dB/
MKR -15.83dBm
1.890000GHz
VERIFONE
OMNI3600G BLK E
DISPLAY LINE
-13.0 dBm
CENTER 1.890000GHz
SPAN 2.000MHz
*RBW 30kHz
VBW 30kHz
SWP 50.0ms


ATTEN 40dB
RL 30.0dBm
10dB/
MKR -15.83dBm
1.890000GHz
VERIFONE
OMNI3600G BLK F
DISPLAY LINE
-13.0 dBm
CENTER 1.890000GHz
*RBW 30kHz
VBW 30kHz
SPAN 2.000MHz
SWP 50.0ms


ATTEN 40dB
RL 30.0dBm
10dB/
MKR -18.17dBm
1.895000GHz
VERIFONE
OMNI3600G BLK F
DISPLAY LINE
-13.0 dBm
CENTER 1.895000GHz
*RBW 30kHz
VBW 30kHz
SPAN 2.000MHz
SWP 50.0ms

9 - FIELD STRENGTH OF SPURIOUS RADIATION

9.1 Applicable Standard

Requirements: CFR 47, § 2.1053.

9.2 Test Procedure

The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load which was also placed on the turntable.

The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.

The frequency range up to tenth harmonic of the fundamental frequency was investigated.

Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

Spurious emissions in dB = 10 lg (TXpwr in Watts/0.001) – the absolute level

Spurious attenuation limit in dB = 43 + 10 Log_{10} (power out in Watts)

9.3 Test Equipment

EMCO Biconical Antennas, Calibration Due Date: 2003-09-11
EMCO Log Periodic Antenna, Calibration Due Date: 2003-08-11
A.H. Systems SAS200 Horn Antenna, Calibration Due Date:2003-05-31
Hewlett Packard HP 8564E Spectrum Analyzer, Calibration Due Date: 2003-08-01
Preamplifiers, Calibration Due Date:2004-03-14
Non-radiating Load
Anritsu MT8802A Base Simulator, Calibration Due Date: 2003-09-10

9.4 Test Result

FCC Part 22 – PMS Band:

Low Frequency: -11.0dB at 1648.4MHz
Middle Frequency: -10.6dB at 1673.2MHz
High Frequency: -14.1dB at 1697.6MHz

FCC Part 24 – PCS Band:

Low Frequency: -10.4dB at 3700.4MHz
Middle Frequency: -10.7.6dB at 3775.4MHz
High Frequency: -10.5dB at 3819.6MHz

Compliance Statement

According to FCC Part 15, at 3-meter distance the emission from an intentional radiator shall not exceed the field strength level 40dBuV/m within 30-88MHz, 43.5dBuV/m within 88-216MHz, 46dBuV/m within 226-960MHz, 54dBuV/m above 960MHz. The level of any unwanted emissions shall not exceed the level of the fundamental frequency.

The levels of unwanted emission of this device were below the above limits. This device was compliant with the FCC Part 15.

PMS Band

Run # 1- 1 :Primary scan 1 -10GHz (Low CH)

Indicated		Table	Test Antenna		Substituted			Antenna*	Cable	Absolute	Limit	Margin
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Correction	Loss dB	Leval dBm	dBm	dB
824.2	105.3	30	2.2	v	824.2	12.9	v	0	0.1	12.8		
824.2	104.8	90	1.8	h	824.2	11.7	h	0	0.1	11.6		
1648.4	44.1	0	1.2	v	1648.4	-30.5	v	6.8	0.3	-24	-13	-11
1648.4	43.2	90	1.5	h	1648.4	-36.1	h	6.8	0.3	-29.6	-13	-16.6
2472.6	30.3	180	1.2	v	2472.6	-38.4	v	7.3	0.5	-31.6	-13	-18.6
2472.6	29.7	150	1	h	2472.6	-39.9	h	7.3	0.5	-33.1	-13	-20.1

Run # 1 - 2 :Primary scan 1 - 10GHz (Mid CH)

Indicated		Table	Test Antenna		Substituted			Antenna*	Cable	Absolute	Limit	Margin
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Correction	Loss dB	Leval dBm	dBm	dB
836.6	105.2	110	2.1	v	836.6	12.6	h	0	0.1	12.5		
836.6	104.6	90	1.5	h	836.6	11.5	h	0	0.1	11.4		
1673.2	44.2	90	1.8	v	1673.2	-30.1	v	6.8	0.3	-23.6	-13	-10.6
1673.2	43.6	270	1.5	h	1673.2	-34.7	h	6.8	0.3	-28.2	-13	-15.2
2509.8	30.3	180	1.5	v	2509.8	-37.9	v	7.3	0.5	-31.1	-13	-18.1
2509.8	30.1	230	1.2	h	2509.8	-39.5	h	7.3	0.5	-32.7	-13	-19.7

Run # 1 - 3 :Primary scan 1 - 10 GHz (High CH.)

Indicated		Table	Test Antenna		Substituted			Antenna*	Cable	Absolute	Limit	Margin
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Correction	Loss dB	Leval dBm	dBm	dB
848.8	105.2	90	1.8	v	848.8	12.5	v	0	0.1	12.4		
848.8	104.4	70	1.5	h	848.8	11.2	h	0	0.1	11.1		
1697.6	41.1	150	1.2	v	1697.6	-33.6	v	6.8	0.3	-27.1	-13	-14.1
1697.6	40.3	90	1.5	h	1697.6	-36.8	h	6.8	0.3	-30.3	-13	-17.3
2546.4	30.2	110	2	v	2546.4	-38.5	v	7.3	0.5	-31.7	-13	-18.7
2546.4	29.7	160	1.2	h	2546.4	-40.1	h	7.3	0.5	-33.3	-13	-20.3

Note: Dipole Antenna

PCS Band

Run # 2- 1 :Primary scan 1 -10GHz (Low CH)

Indicated		Table	Test Antenna		Substituted			Antenna*	Cable	Absolute	Limit	Margin
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Correction	Loss dB	Leval dBm	dBm	dB
1850.2	107.3	180	2.2	v	1850.2	7.1	v	6.7	0.1	13.7		
1850.2	103.6	45	1.8	h	1850.2	5.9	h	6.7	0.1	12.5		
3700.4	41.5	90	1.2	v	3700.4	-31.9	v	8.8	0.3	-23.4	-13	-10.4
3700.4	38.8	90	1.5	h	3700.4	-34.8	h	8.8	0.3	-26.3	-13	-13.3
5550.6	38.6	180	1.2	v	5550.6	-37.1	v	9.1	0.5	-28.5	-13	-15.5
5550.6	37.9	0	1.5	h	5550.6	-38.9	h	9.1	0.5	-30.3	-13	-17.3

Run # 2 -2 :Primary scan 1 - 10GHz (Mid CH)

Indicated		Table	Test Antenna		Substituted			Antenna*	Cable	Absolute	Limit	Margin
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Correction	Loss dB	Leval dBm	dBm	dB
1887.7	108.5	0	2.5	v	1887.7	7.3	v	6.7	0.1	13.9		
1887.7	103.4	30	1.5	h	1887.7	5.5	h	6.7	0.1	12.1		
3775.4	40.6	30	1.8	v	3775.4	-32.2	v	8.8	0.3	-23.7	-13	-10.7
3775.4	39.8	210	1.5	h	3775.4	-33.5	h	8.8	0.3	-25	-13	-12
5663.1	38.7	30	1.5	v	5663.1	-36.7	v	9.1	0.5	-28.1	-13	-15.1
5663.1	38.2	45	1.2	h	5663.1	-38.3	h	9.1	0.5	-29.7	-13	-16.7

Run # 2 - 3 :Primary scan 1 - 10 GHz (High CH.)

Indicated		Table	Test Antenna		Substituted			Antenna*	Cable	Absolute	Limit	Margin
Frequency MHz	Ampl. dBuV/m	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V	Gain Correction	Loss dB	Leval dBm	dBm	dB
1909.8	105.8	180	1.8	v	1909.8	6.9	v	6.7	0.1	13.5		
1909.8	104.1	180	1.8	h	1909.8	5.7	h	6.7	0.1	12.3		
3819.6	40.9	150	1.2	v	3819.6	-32	v	8.8	0.3	-23.5	-13	-10.5
3819.6	41.2	90	1.5	h	3819.6	-35.6	h	8.8	0.3	-27.1	-13	-14.1
5729.4	38.3	110	2	v	5729.4	-38.2	v	9.1	0.5	-29.6	-13	-16.6
5729.4	37.6	160	1.2	h	5729.4	-39.4	h	9.1	0.5	-30.8	-13	-17.8

Note: Horn Antenna

10 - FREQUENCY STABILITY

10.1 Applicable Standard

Requirements: FCC § 2.1055 (a) and § 2.1055 (d).

10.2 Test Procedure

Frequency Stability vs. Temperature: The equipment under test was connected to an external DC power supply and the RF output was connected to a frequency counter via feed-through attenuators. The EUT was placed inside the temperature chamber. The DC leads and RF output cable exited the chamber through an opening made for the purpose.

After the temperature stabilized for approximately 20 minutes, the frequency output was recorded from the counter.

Frequency Stability vs. Voltage: An external variable DC power supply was connected to the battery terminals of the equipment under test. The voltage was set to 115% of the nominal value and was then decreased until the transmitter light no longer illuminated; i.e., the battery end point. The output frequency was recorded for each battery voltage.

10.3 Test Equipment

Temperature Chamber -50^0 to $+100^0$C
Hewlett Packard 5383A Frequency Counter
Goldstar DC Power Supply, GR303

10.4 Test Results

Frequency Stability Versus Input Voltage

Reference Frequency: 836.600 MHz, Limit: 2.5ppm			
Environment Temperature (°C)	Power Supplied (Vdc)	Frequency Measure with Time Elapsed	
		MCF (MHz)	PPM Error
50	19	836.602	2.3
40	19	836.601	1.1
30	19	836.601	1.1
20	19	836.600	0.0
10	19	836.600	0.0
0	19	836.599	-1.2

Reference Frequency: 1880.000 MHz, Limit: 2.5ppm			
Environment Temperature (°C)	Power Supplied (Vdc)	Frequency Measure with Time Elapsed	
		MCF (MHz)	PPM Error
50	19	1880.001	1.1
40	19	1880.001	1.1
30	19	1880	0
20	19	1880	0
10	19	1880	0
0	19	1880.001	1.1

Frequency Stability Versus Input Voltage

Power Supplied (Vdc)	Reference Frequency: 836.600 MHz, Limit: 2.5ppm			
	Frequency Measure with Time Elapsed			
	5 Minutes		10 Minutes	
	MHz	PPM	MHz	PPM
16.15Vdc	836.600	0	836.499	-1.2

Power Supplied (Vdc)	Reference Frequency: 1880.600 MHz, Limit: 2.5ppm			
	Frequency Measure with Time Elapsed			
	5 Minutes		10 Minutes	
	MHz	PPM	MHz	PPM
16.15Vdc	1880.000	0	1880.001	1.1

Battery end point: 16.15 Vdc

11 – CONDUCTED OUTPUT POWER

11.1 Applicable Standard

According to FCC §2.1046 and §22.913 (a), the ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

According to FCC §2.1046 and §24.232 (a), in no case may the peak output power of a base station transmitter exceed 100 watt.

11.2 Test Procedure

The RF output of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation.

11.3 Test Equipment

Hewlett Packard HP8564E Spectrum Analyzer, Calibration Due Date: 2003-08-01.
Hewlett Packard HP 7470A Plotter, Calibration not required.
A.H. Systems SAS200 Horn Antenna, Calibration Due Date: 2003-05-31
Com-Power AB-100 Dipole Antenna, Calibration Due Date: 2003-09-05
Anritsu MT8802A Base Simulator, Calibration Due Date: 2003-09-10

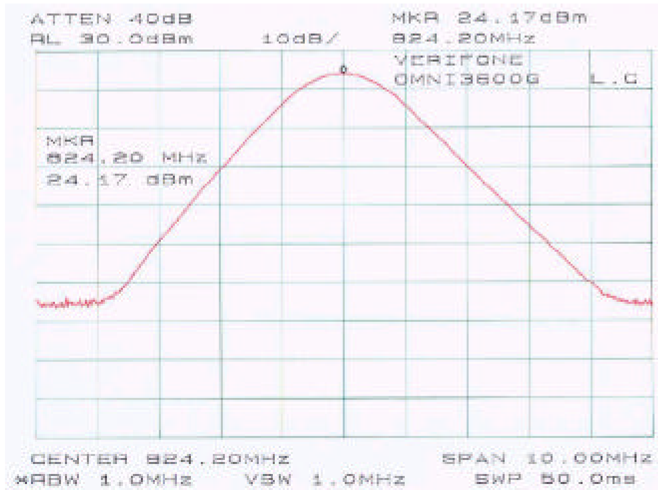
11.4 Test Results

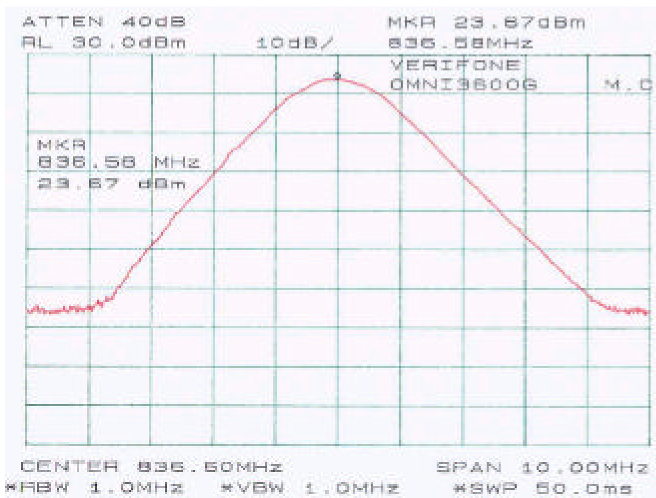
PMS, Part 22:

Channel	Output Power in dBm	Output Power in W	Limit in W
824.22	24.17	0.261	7
836.62	23.67	0.233	7
848.82	23.83	0.242	7

PCS, Part 24:

Channel	Output Power in dBm	Output Power in W	Limit in W
1850.20	27.00	0.501	100
1880.00	27.83	0.607	100
1909.80	28.33	0.681	100


ATTEN 40dB
RL 30.0dBm
10dB/
MKR 24.17dBm
824.20MHz
VERIFONE
OMNI3600G
L.C
MKR
824.20 MHz
24.17 dBm
CENTER 824.20MHz
SPAN 10.00MHz
*RBW 1.0MHz
VBW 1.0MHz
SWP 50.0ms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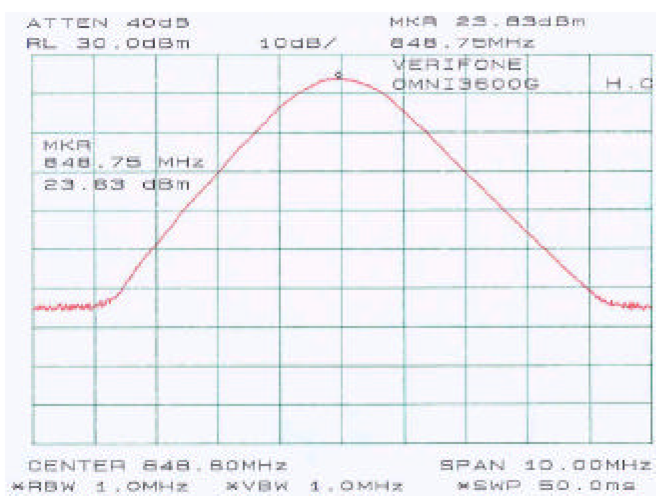
RL 30.0dBm
10dB/
MKR 23.87dBm
836.58MHz
VERIFONE
OMNI3600G
M.C
MKR
836.58 MHz
23.87 dBm
CENTER 836.50MHz
SPAN 10.00MHz
*RBW 1.0MHz
*VBW 1.0MHz
*SWP 50.0ms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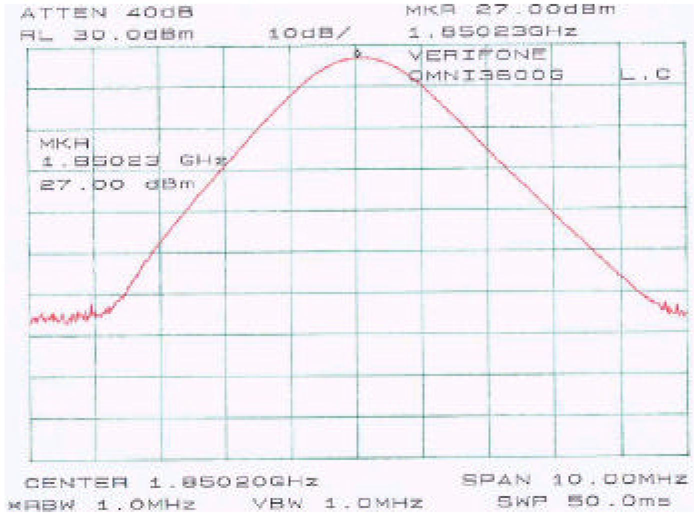
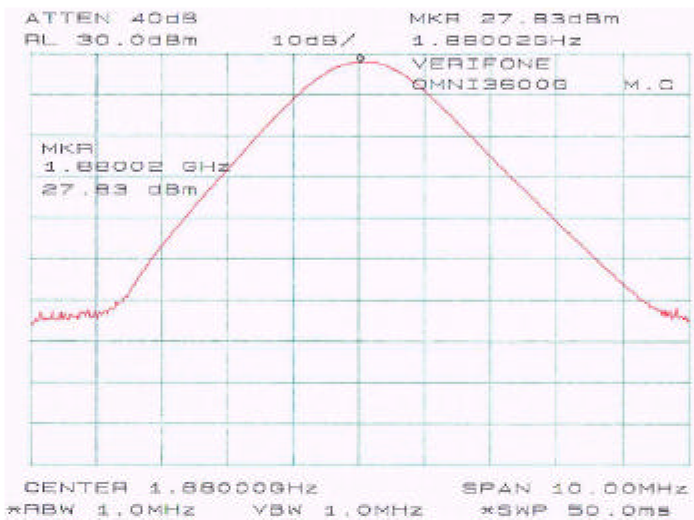
RL 30.0dBm
10dB/
MKR 23.83dBm
848.75MHz
VERIFONE
OMNI3600G
H.C
MKR
848.75 MHz
23.83 dBm
CENTER 848.80MHz
SPAN 10.00MHz
*RBW 1.0MHz
*VBW 1.0MHz
*SWP 50.0ms


ATTEN 40dB
RL 30.0dBm 10dB/
MKR 27.00dBm
1.85023GHz
VERIFONE
OMNI3600G L.C
MKR
1.85023 GHz
27.00 dBm
CENTER 1.85020GHz
SPAN 10.00MHz
*RBW 1.0MHz VBW 1.0MHz SWP 50.0ms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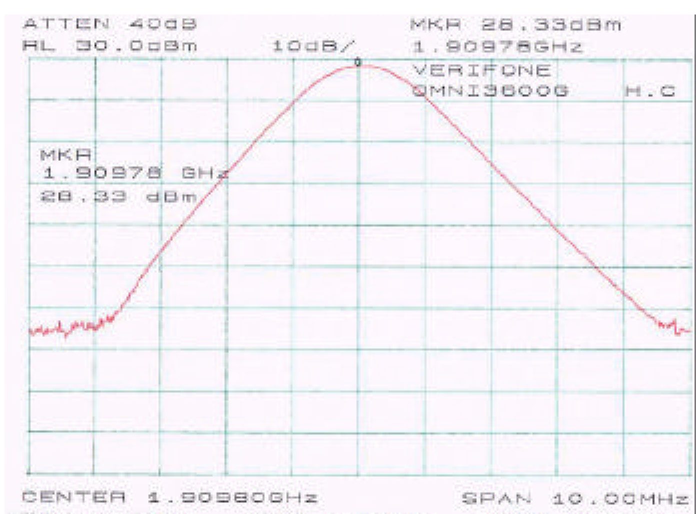
RL 30.0dBm 10dB/
MKR 27.83dBm
1.88002GHz
VERIFONE
OMNI3600G M.C
MKR
1.88002 GHz
27.83 dBm
CENTER 1.88000GHz
SPAN 10.00MHz
*RBW 1.0MHz VBW 1.0MHz *SWP 50.0ms


ATTEN 40dB
RL 30.0dBm 10dB/
MKR 28.33dBm
1.90978GHz
VERIFONE
OMNI3600G H.C
MKR
1.90978 GHz
28.33 dBm
CENTER 1.90980GHz
SPAN 10.00MHz
*RBW 1.0MHz VBW 1.0MHz *SWP 50.0ms