MA1200 tests general information

Product name: MA2000

Applicant: **MobileAccess Networks Ltd.**
Ofek One Center Building B,
Northern Industrial Zone
Lod, Israel 71293

Contact person: Shai Simhon
Telephone number: 972-8-918-3867

FCC ID: OJFMA2000

Tested by:

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Rakevet Ind. Zone, P. O. Box 23
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Fax: +972 (0) 4 6288277
Email: Elly@hermonlabs.com
Web: www.hermonlabs.com

Dates of testing: 23/3/2004~25/3/2004, 16/5/2004~18/5/2004, 27/5/2004

Type of emissions:
DXW (TDMA), F9W (CDMA), F8W(AMPS), F1D (Paging), GXW (iDEN), F3E (LMR), F3E (SMR), GXW (GSM),

Frequency range:

SERVICES	DOWNLINK	UPLINK
AMPS/TDMA/CDMA 800	869~894MHz	824~849MHz
LMR/iDEN 800	851~869MHz	806~824MHz
Paging 900	928~941MHz	899~902MHz
TDMA/CDMA/GSM 1900	1930~1990MHz	1850-1910 MHz

Range of Operation Power

Input power range (with RIU): 10~36dBm. Refer to the data sheet

For output power refer to the next table

Maximum Power Rating

Service / Modulation	*Downlink Band [MHz]*	Output Powers Specification (dBm) mean	Hermon Lab. Max. Power (dBm)	Hermon Lab. Max. Power (W)
(F8W) AMPS 800	869-894	14	16.8	.048
(DXW) TDMA 800	869-894	14	16.7	.047
(F9W) CDMA 800	869-894	14	17.1	.051
(F3E) LMR 800	851-869	14	17.7	.059
(GXW) iDEN 800	851-869	14	17.3	.054
(F3E) SMR 900	935-941	14	19.1	.081
(F1D) Paging 900	928-941	14	19.1	.081
(DXW) TDMA 1900	1930-1990	14	16.4	.044
(GXW) GSM 1900	1930-1990	14	17.3	.054
(F9W) CDMA 1900	1930-1990	14	16.5	.045

TEST EQUIPMENTS LIST

From MobileAccess:

MA Serial No.	Description	Manufacturer information			Due Calibr.
		Name	Model No.	Serial No.	
20	Digital Signal Generator 250KHz – 3000MHz	HP	ESG–E4432B	US39340672	02/2005
21	Digital Signal Generator 250KHz – 3000MHz	HP	ESG–E4000A	GB37040173	02/2005
26	Digital Signal Generator 250KHz – 3000MHz	HP	ESG–D3000A	US37040881	02/2005
29	Digital Signal Generator 250KHz – 3000MHz	HP	ESG–E4432B	GB38450502	02/2005

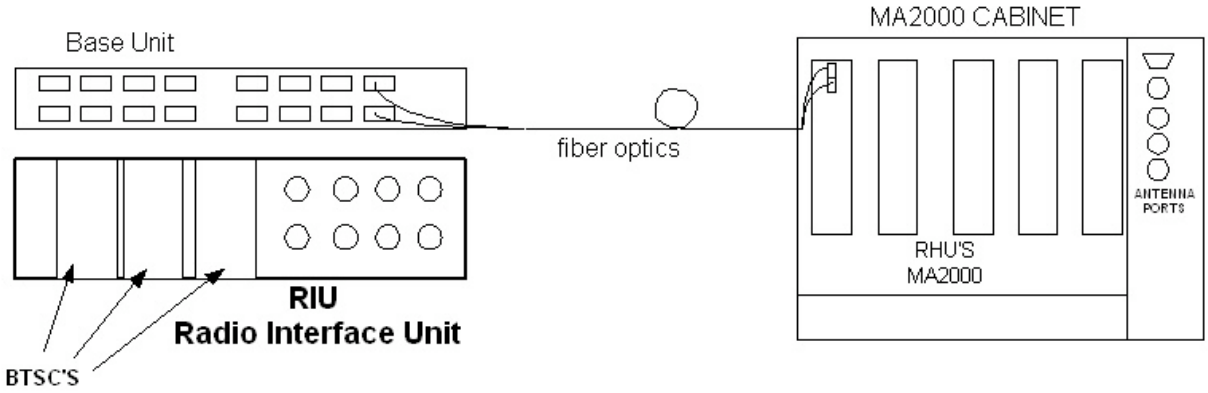
From Hermon Laboratories:

HLNo	Equipment Description	Manufacturer	Model	Ser. No.	Last Cal.
26	Analyzer, Spectrum, 100 Hz - 2.2 GHz	Anritsu	MS-2601A	3460	22-Sep-03
121	Filter Low Pass, 0 - 1200 MHz	Hewlett Packard	360B	121	06-Jan-03
163	LISN FCC/VDE/MIL-STD	Electro-Metrics	ANS 25/2	1314	01-Oct-03
447	LISN, 16/2, 300V RMS	HL	LISN 16 - 1	066	03-Nov-03
493	Oven temperature -45…175 deg C	Thermotron	S-1.2 Mini-Max	14016	23-Sep-03
521	EMI Receiver (Spectrum Analyzer) with RF filter section 9 k-6.5 GHz	Hewlett Packard	8546A	3617A 00319, 3448A00253	26-Sep-03
580	DC block adaptor 10 kHz - 2.2 GHz	Anritsu	MA8601 A	580	26-Dec-03
589	Cable Coaxial, GORE A2P01POL118, 2.3 m	HL	GORE-3	176	02-Dec-03
590	Attenuator 10 dB, 50 Ohm, N-type, 2 W	Elisra Electronic Systems	MW2100-N-Type	10	15-Jan-04
603	Mains Impedance Stabilization Network, 3 phase, 400 V, 40A	HL	MISN3-400-40	603	10-Feb-04
604	Antenna BiconiLog Log-Periodic/T Bow-TIE 26 - 2000 MHz	EMCO	3141	9611-1011	10-Jan-04
661	Generator Swept Signal, 10 MHz to 40 GHz, + 10 dBm	Hewlett Packard	83640B	3614A00266	14-Sep-03
787	Transient Limiter	Hewlett Packard	11947A	3107A01877	21-Nov-03
1097	Attenuator, 50 Ohm, 5 W, DC to 8 GHz, 20 dB	Midwest Microwave	0793-20-NN-07	1097	15-Jan-04
1424	Spectrum Analyzer, 30 Hz-40 GHz	Agilent Technologies (HP)	8564EC	3946A00219	30-Aug-03

HLNo	Equipment Description	Manufacturer	Model	Ser. No.	Last Cal.
1562	Oscilloscope 100 MHz, DMM	Tektronix	THS720A	B039444	20-Sep-03
1651	Attenuators Set (2, 3, 5, 20 dB), DC-18 GHz	M/A-COM	2082	1651	03-Jan-04

1947	Cable 18GHz, 6.5 m, blue	Rhophase Microwave Limited	NPS-1803A-6500-NPS	T4974	17-Oct-03
1984	Antenna, Double-Ridged Waveguide Horn, 1-18 GHz, 300 W, N-type	EMC Test Systems	3115	9911-5964	22-Mar-04
1989	Adapter, 18 - 26.5 GHz, WR-42/SMA	Continental Microwave & Tool Co.	WR-42/SMA	1989	30-Aug-03
2014	Attenuator, Manual Step, 0-99/1 dB, 0-4 GHz, 2 W	Weinschel	AC9004-99-11	16924	08-Dec-03
2258	Amplifier Low Noise 2-20 GHz	Sophia Wireless	LNA0220-C	0222	05-Nov-03
2260	Amplifier Low Noise 14-33 GHz	Sophia Wireless	LNA28-B	0233	05-Nov-03
2387	Filter Bandpass, 8-14 GHz	HL	FBP8-14	2387	05-Jun-03
2399	Cable 40GHz, 1.5 m, blue	Rhophase Microwave Limited	KPS-1503A-1500-KPS	X2945	24-Jun-03
2400	Cable 40GHz, 1.5 m, green	Rhophase Microwave Limited	KPS-1503A-1500-KPS	X2946	24-Jun-03
2432	Antenna, Double-Ridged Waveguide Horn 1-18 GHz	EMC Test Systems	3115	000271777	02-Jul-03
2524	Attenuator, 10 dB, DC-18 GHz	Midwest Microwave	263-10	2524	01-Mar-04

Block diagram of test setup:



MA2000 Product tests results

Subject **Page**

Radiated emissions part 15-receive mode…..…….**2**

Radiated emissions part 15-transmit mode…….**7**

Conducted emissions part 15……..……...**15**

Output power tests……..**20**

Occupied bandwidth tests……...**41**

Conducted Emission tests part 22,24,90…….…...**72**

Masks……212

Date	28 July 2004
Project	16021
Test	Radiated spurious emissions
Operator	Michael Lerman
Test equipment	1984, 521, 2009, 1947, 446
Temperature	24°C
Humidity	37%
Air pressure	1005 hPa
EUT	MA 2000
Mode	RECEIVE
Polarization	Vertical and horizontal

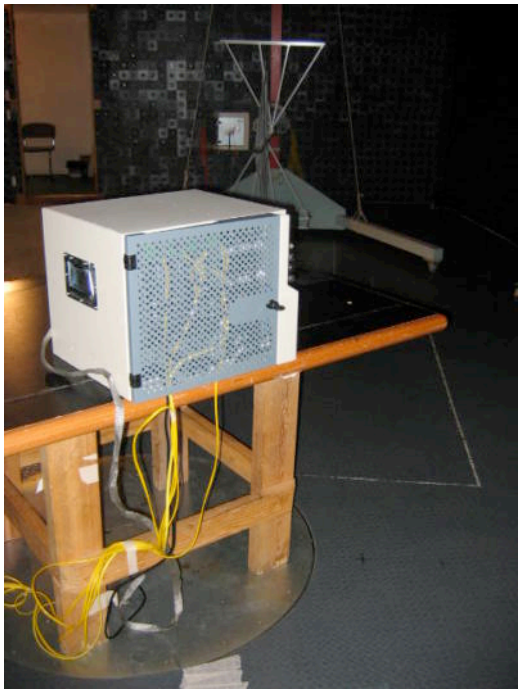
Band 851 – 866 MHz
CW_1 = 858.5 MHz

Band 869 – 894 MHz
CW_2 = 881.5 MHz

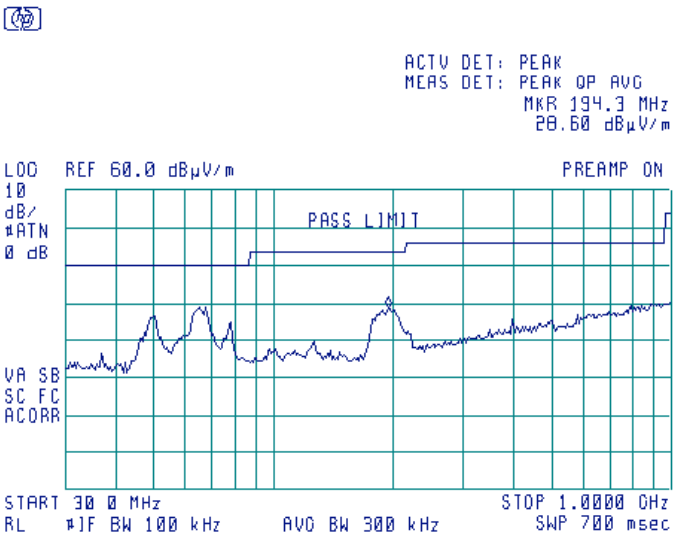
Band 928 – 941 MHz
CW_3 = 934.5 MHz

Band 1930 – 1990 MHz
CW_4 = 1960 MHz

Cabling

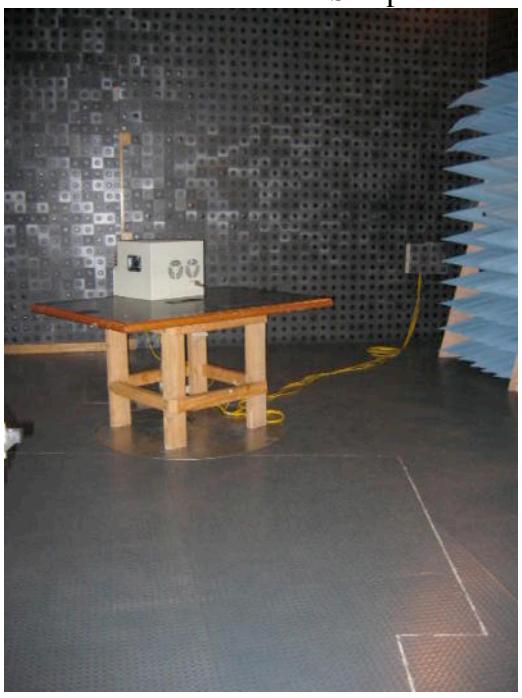


Range 30 – 1000 MHz.

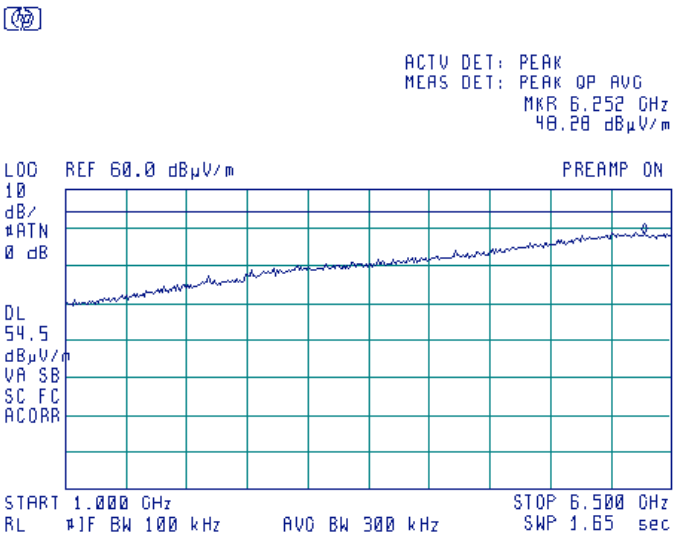


Signal	Freq (MHz)	Peak Amp (dBuV/m)	QP Amp (dBuV/m)	LimitLine1 (dBuV/m)	QP - Lim1 (dB)	Corrections (dB)
1	50.455000	27.63	24.61	40.00	-15.39	9.85
2	63.725000	29.17	27.59	40.00	-12.41	11.04
3	78.200000	26.13	22.94	40.00	-17.06	12.65
4	195.800000	31.05	27.51	43.50	-15.99	13.89

30 – 1000 MHz Setup

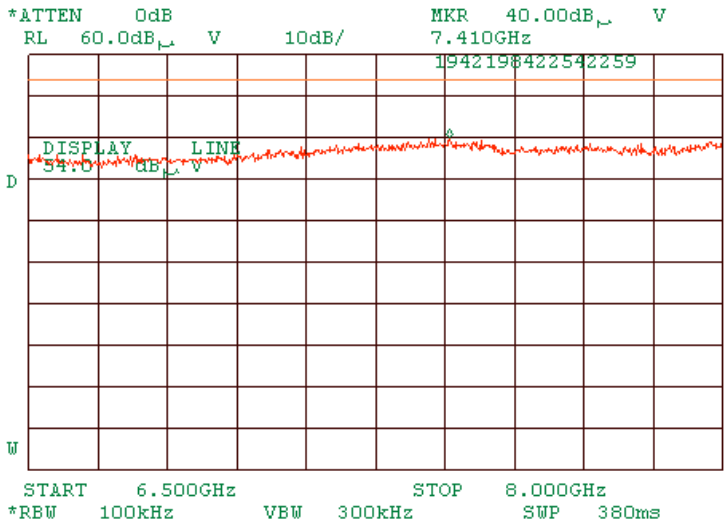


Range 1000 – 6500 MHz.

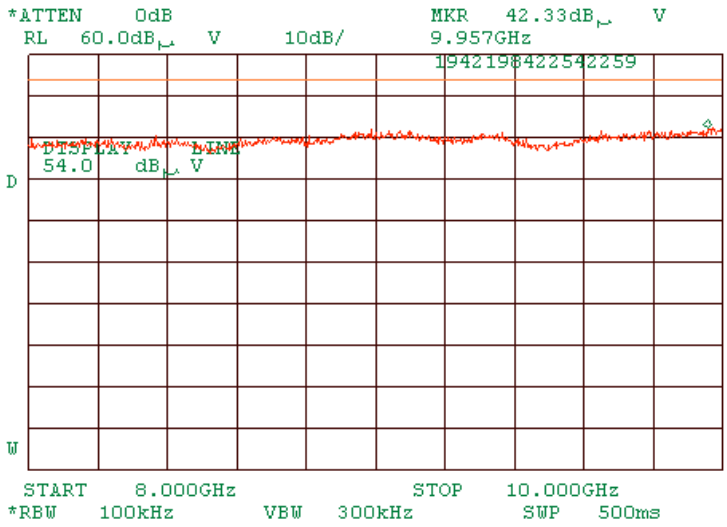


1000 – 6500 MHz Setup

Range 6500 – 8000 MHz.



Range 8000 – 10000 MHz.



Date	28 July 2004
Project	16021
Test	Radiated spurious emissions
Operator	Michael Lerman
Test equipment	1984, 521, 2009, 1947, 446
Temperature	24°C
Humidity	37%
Air pressure	1005 hPa
EUT	MA 2000
Mode	Transmit
Polarization	Vertical and horizontal

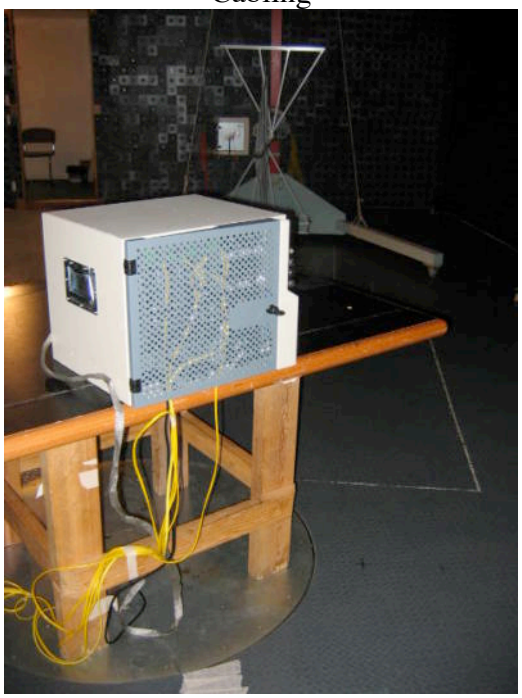
Band 851 – 866 MHz
CW_1 = 858.5 MHz

Band 869 – 894 MHz
CW_2 = 881.5 MHz

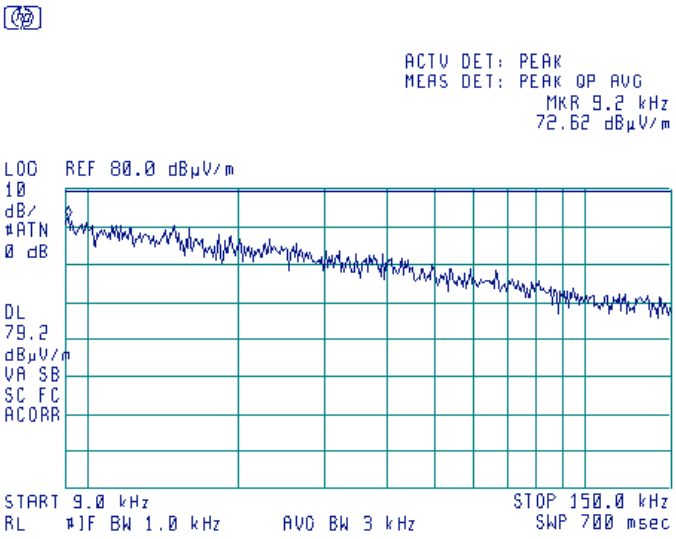
Band 928 – 941 MHz
CW_3 = 934.5 MHz

Band 1930 – 1990 MHz
CW_4 = 1960 MHz

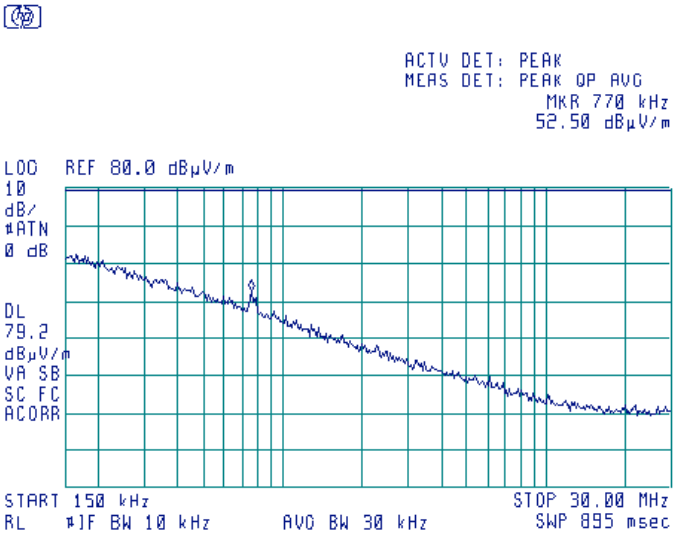
Cabling



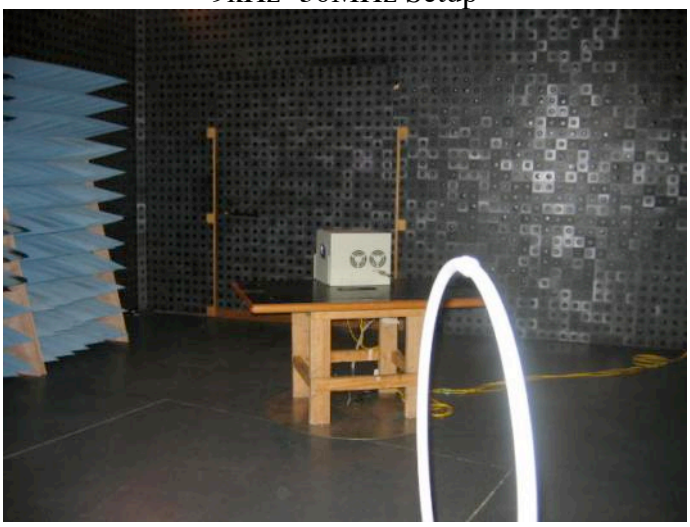
Range 9 – 150 kHz.



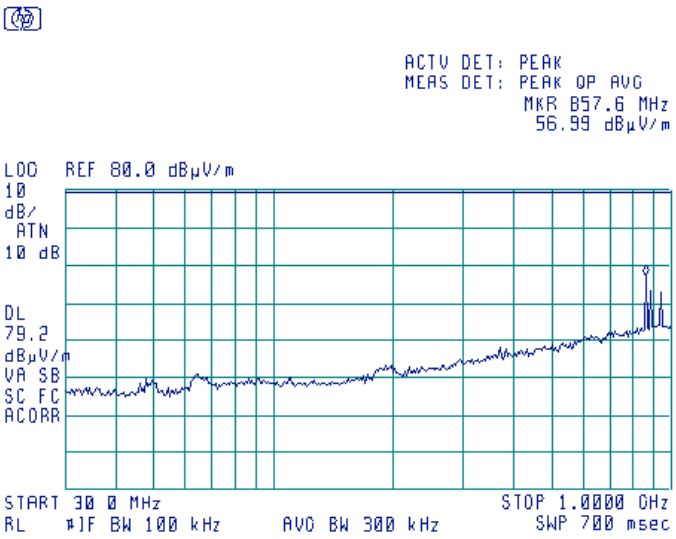
Range 0.150 – 30 MHz.



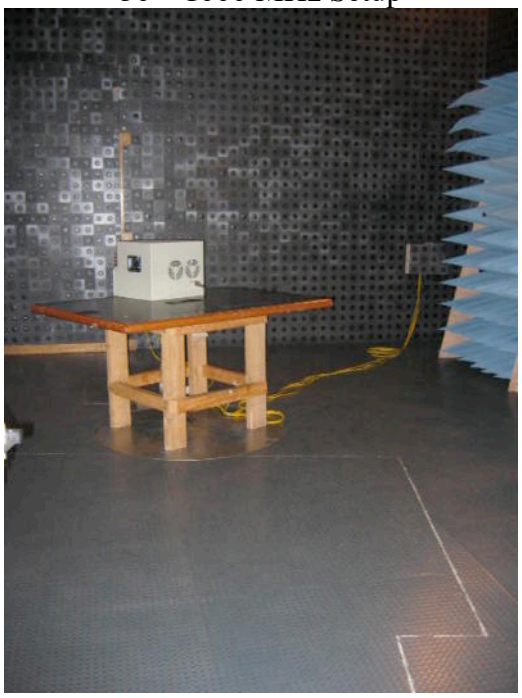
9kHz- 30MHz Setup



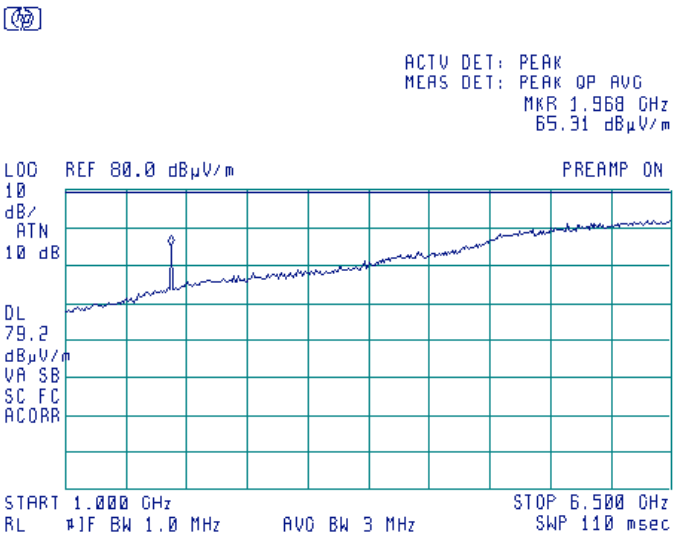
Range 30 – 1000 MHz.



30 – 1000 MHz Setup

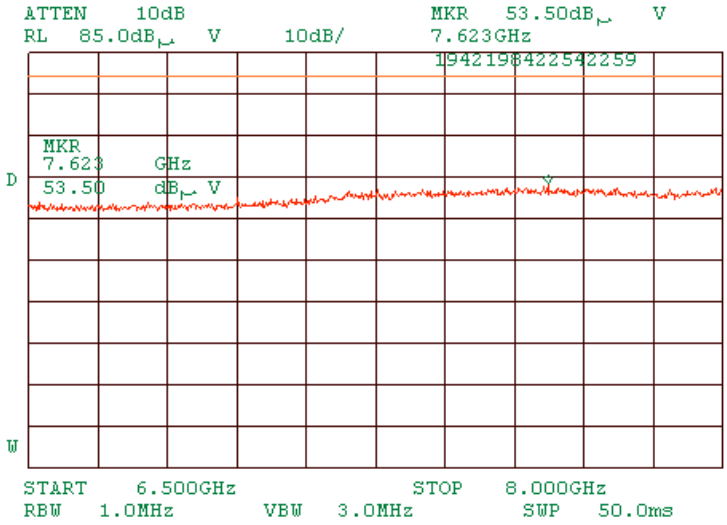


Range 1000 – 6500 MHz.

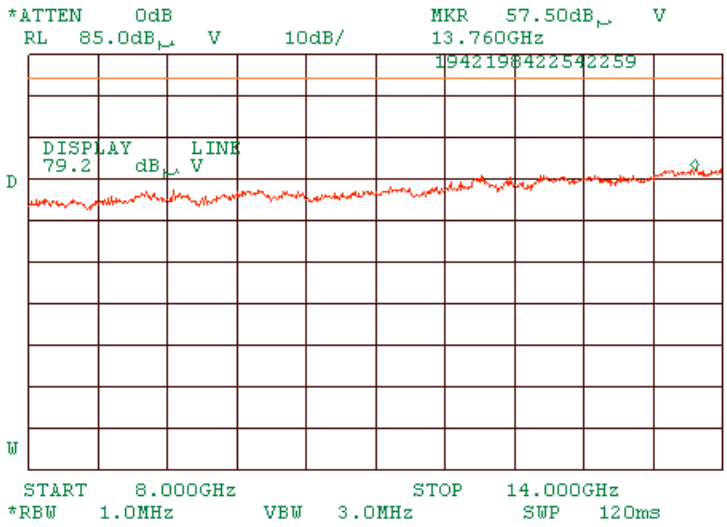


1000 – 6500 MHz Setup

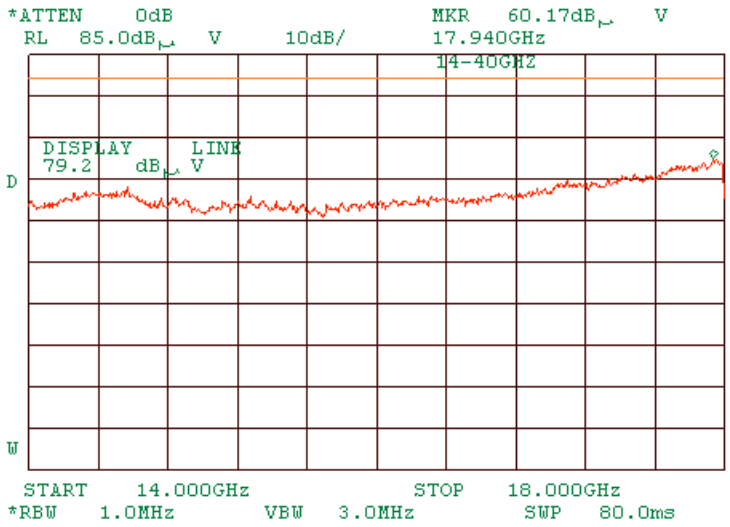
Range 6500 – 8000 MHz.



Range 8000 – 14000 MHz.

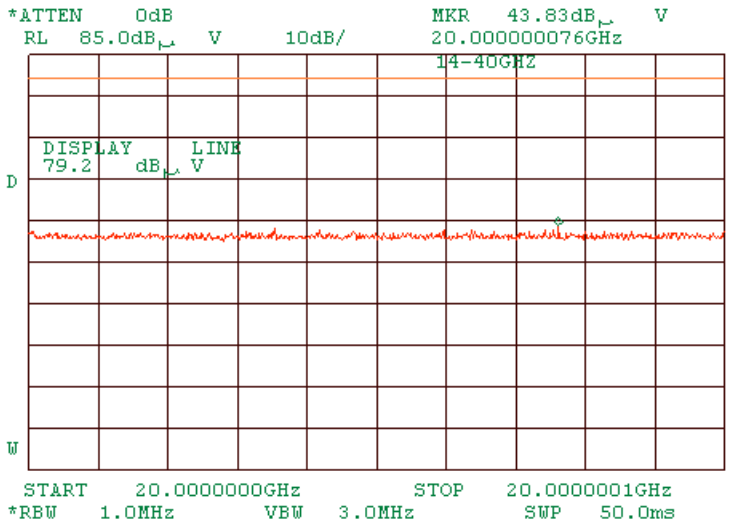


Range 14000 – 18000 MHz.



6500 – 18000 MHz Setup

Range 18000 – 20000 MHz.



18000 – 20000 MHz Setup

Emissions tests according to 47CFR part 15 subpart B requirements

Conducted emissions

General

This test was performed to measure common mode conducted emissions at the mains power port.

Specification test limits are given in Table 0.1. The worst test results (the lowest margins) were recorded in Table 0.2 and shown in the associated plots.

Table 0.1 Limits for conducted emissions

Frequency, MHz	Class B limit, dB(μV)		Class A limit, dB(μV)	
	QP	AVRG	QP	AVRG
0.15 - 0.5	66 - 56*	56 - 46*	79	66
0.5 - 5.0	56	46	73	60
5.0 - 30	60	50	73	60

* The limit decreases linearly with the logarithm of frequency.

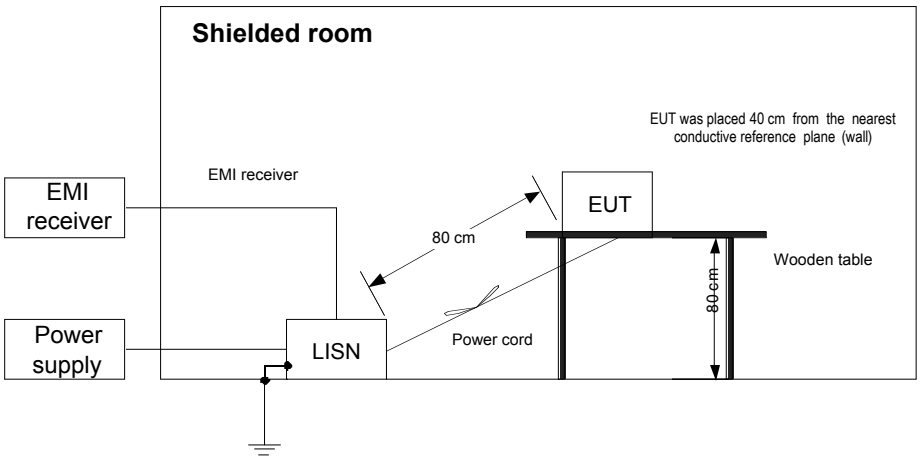
Test procedure

The EUT was set up as shown in Figure 0.1 and associated photographs, energized and the performance check was conducted.

The measurements were performed at power terminals with the LISN, connected to a spectrum analyzer in the frequency range referred to in Table 0.2. Unused coaxial connector of the LISN was terminated with 50 Ohm. Quasi-peak and average detectors were used throughout the testing.

The position of the device cables was varied to determine maximum emission level.

Figure 0.1 Setup for conducted emission measurements, table-top equipment



Photograph 0.1 Setup for conducted emission measurements

Table 0.2 Conducted emission test results

LINE:	AC mains
LIMIT:	Class B
EUT OPERATING MODE:	Stand-by
EUT SET UP:	TABLE-TOP
TEST SITE:	SHIELDED ROOM
DETECTORS USED:	PEAK / QUASI-PEAK / AVERAGE
FREQUENCY RANGE:	150 kHz - 30 MHz
RESOLUTION BANDWIDTH:	9 kHz

Frequency, MHz	Peak emission, dB(μV)	Quasi-peak			Average			Line ID	Verdict
		Measured emission, dB(μV)	Limit, dB(μV)	Margin, dB*	Measured emission, dB(μV)	Limit, dB(μV)	Margin, dB*		
0.178119	31.17	27.47	64.63	-37.16	22.42	54.63	-32.21	L1	Pass
0.185566	37.02	34.36	64.27	-29.91	29.15	54.27	-25.12		
0.184864	36.84	34.25	64.30	-30.05	28.71	54.30	-25.59	L2	Pass

*- Margin = Measured emission - specification limit.

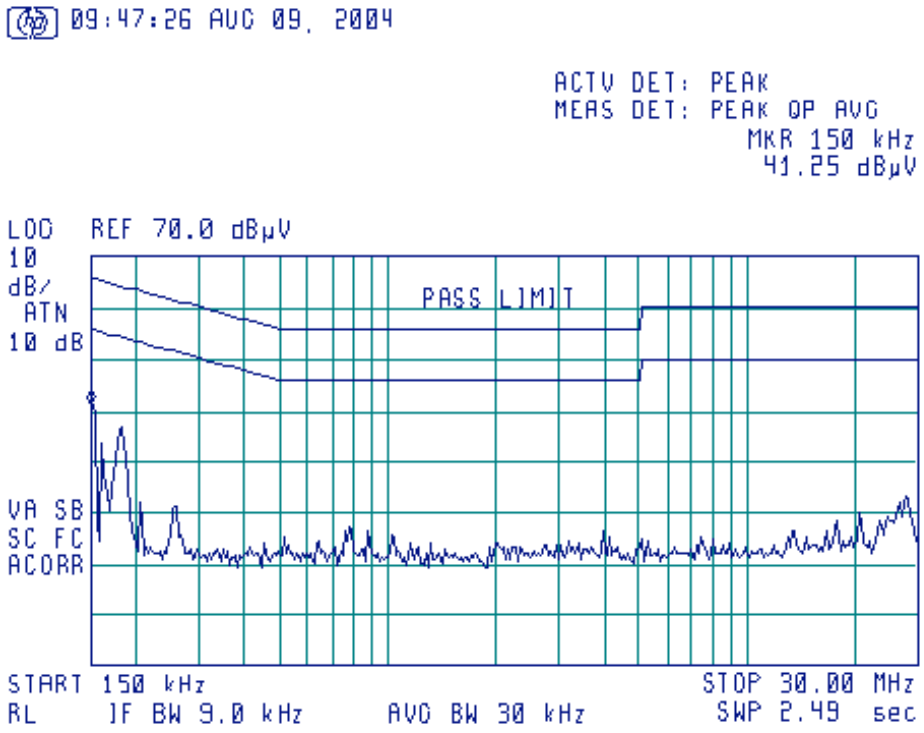
Reference numbers of test equipment used

HL 0163	HL 1430	HL 15002	HL 15010	HL			

Full description is given in Appendix A.

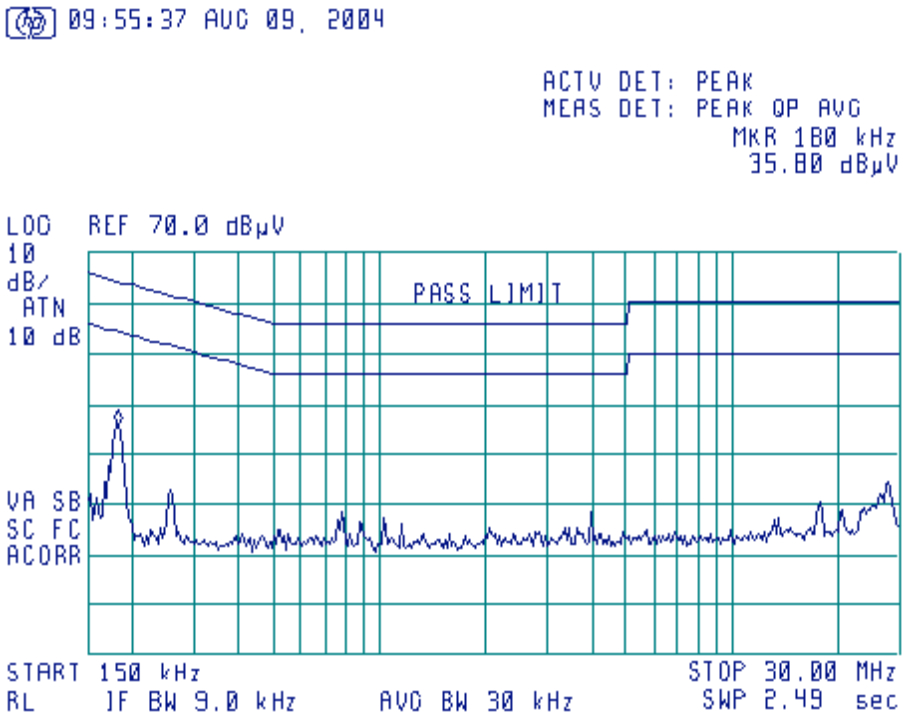
Plot 0.1 Conducted emission measurements

LINE:	L1
LIMIT:	Class B
EUT OPERATING MODE:	Stand-by
LIMIT:	QUASI-PEAK, AVERAGE
DETECTOR:	PEAK



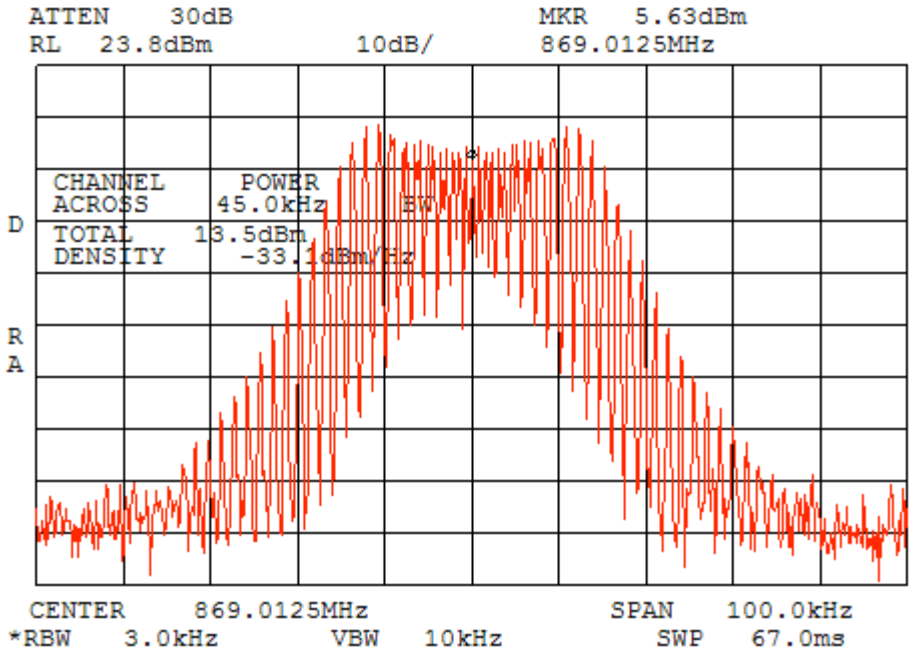
Plot 0.2 Conducted emission measurements

LINE:	L2
LIMIT:	Class B
EUT OPERATING MODE:	Stand-by
LIMIT:	QUASI-PEAK, AVERAGE
DETECTOR:	PEAK

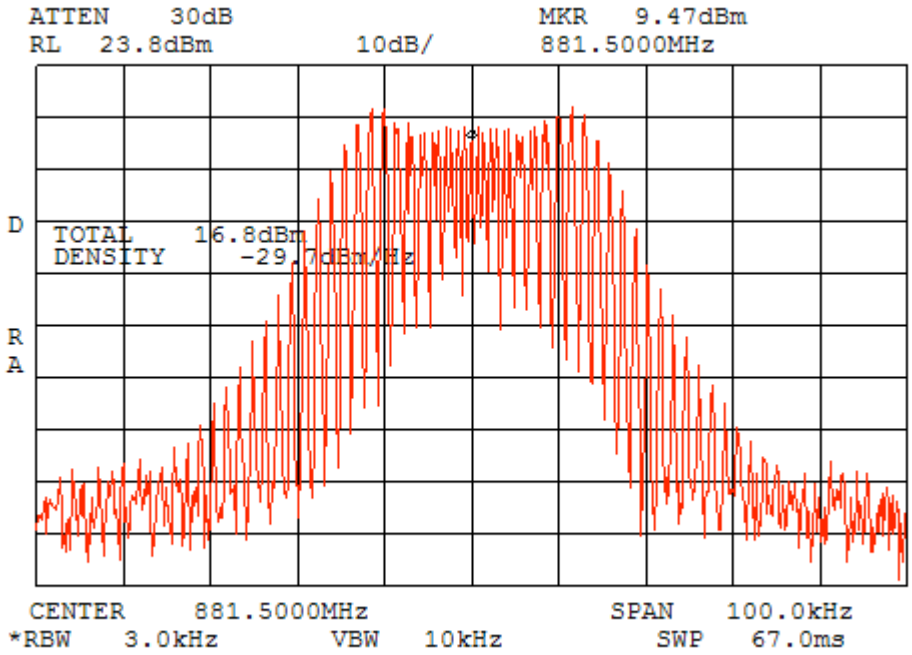


Date	04 Aug 2004
Project	16021
Test	Output Power
Operator	Alex Kruglov
Test equipment	1424, 2399, 1948, 789, 316, 460.
Temperature	25°C
Humidity	40%
Air pressure	1004 hPa
EUT	Mobile Access 2000
Notes:	At 1.5 dBm input power (CW);
	At output connector with maximum power level.

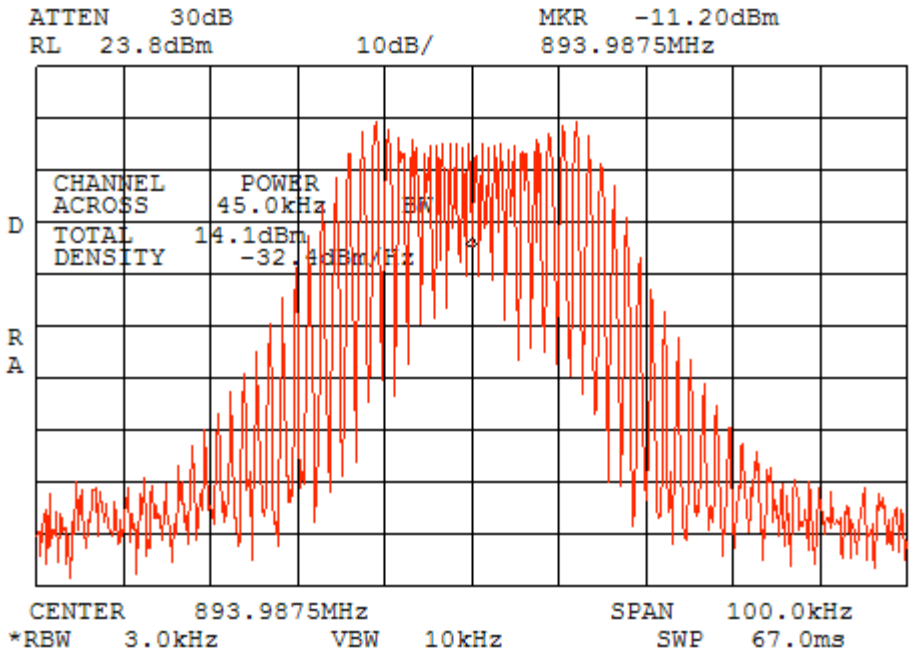
CELL-PCS. AMPS 800, FM 12.5KHz/1KHz. 869-894 MHz. Output Power at 869.0125 MHz



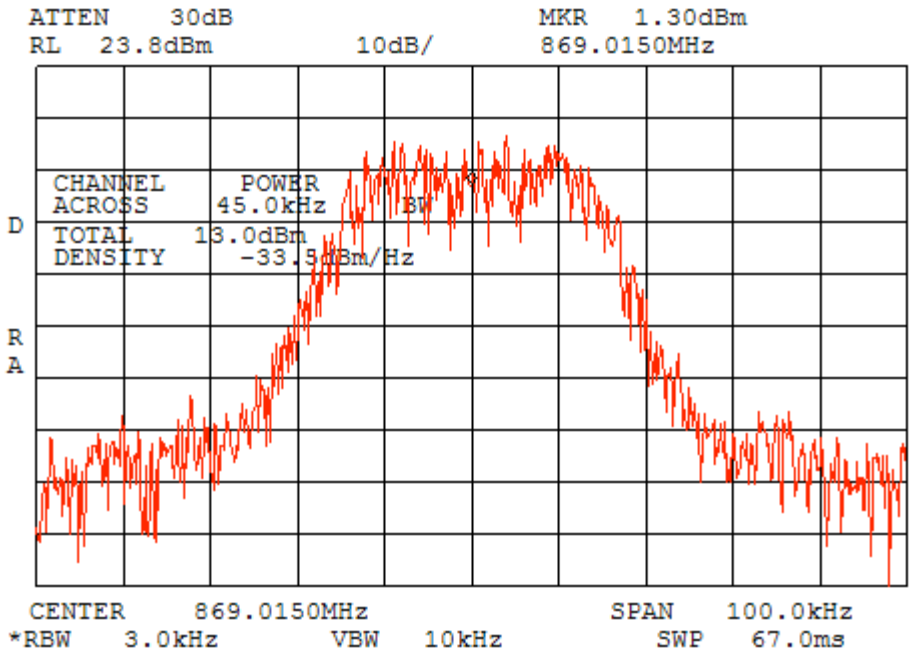
CELL-PCS. AMPS 800. FM 12.5KHz/1KHz. 869-894 MHz. Output Power at 881.5 MHz



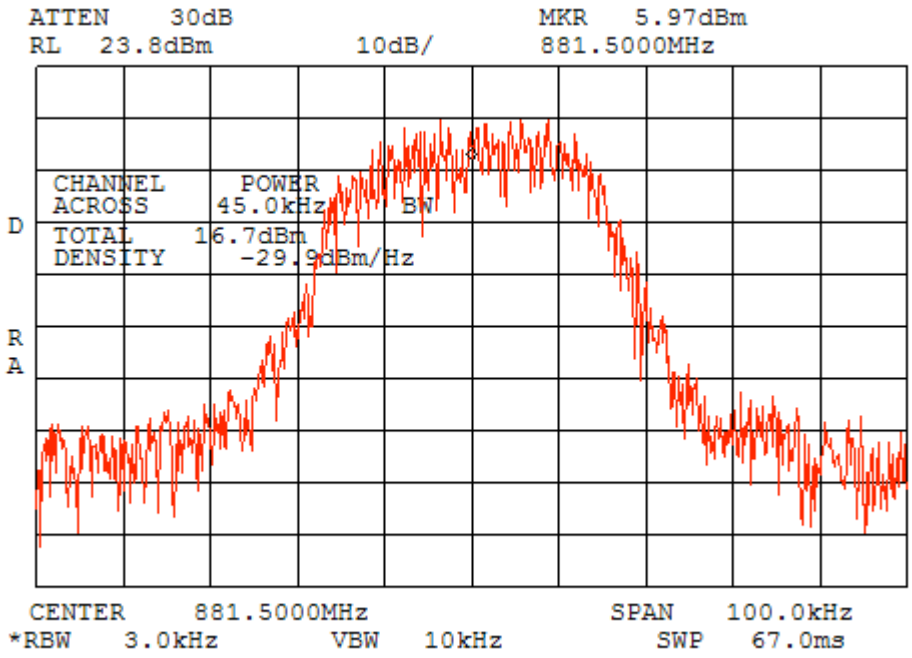
CELL-PCS. AMPS 800, FM 12.5KHz/1KHz. 869-894 MHz. Output Power at 893.9875 MHz



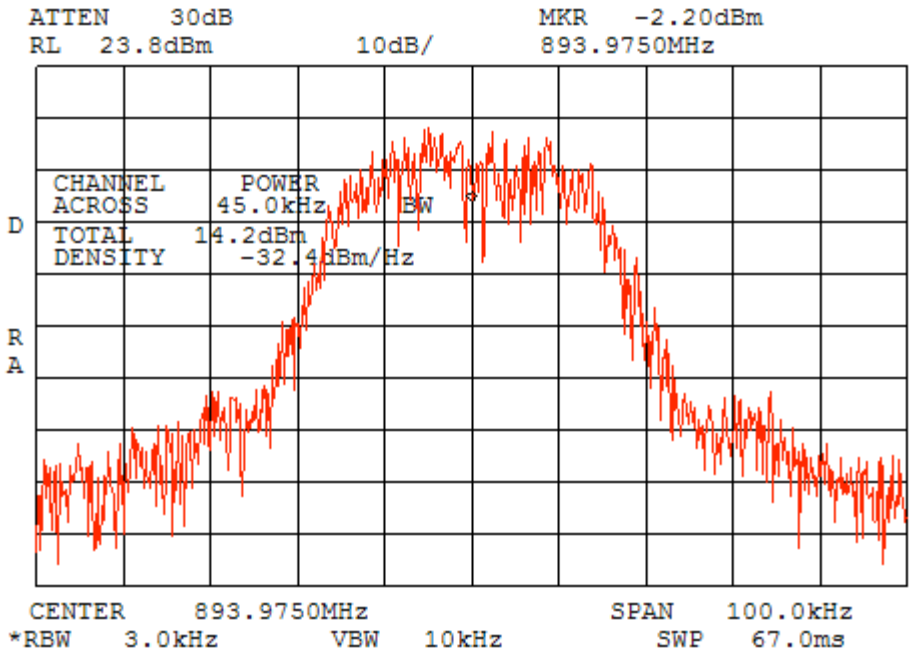
CELL-PCS. TDMA 800. 869-894 MHz. Output Power at 869.015 MHz



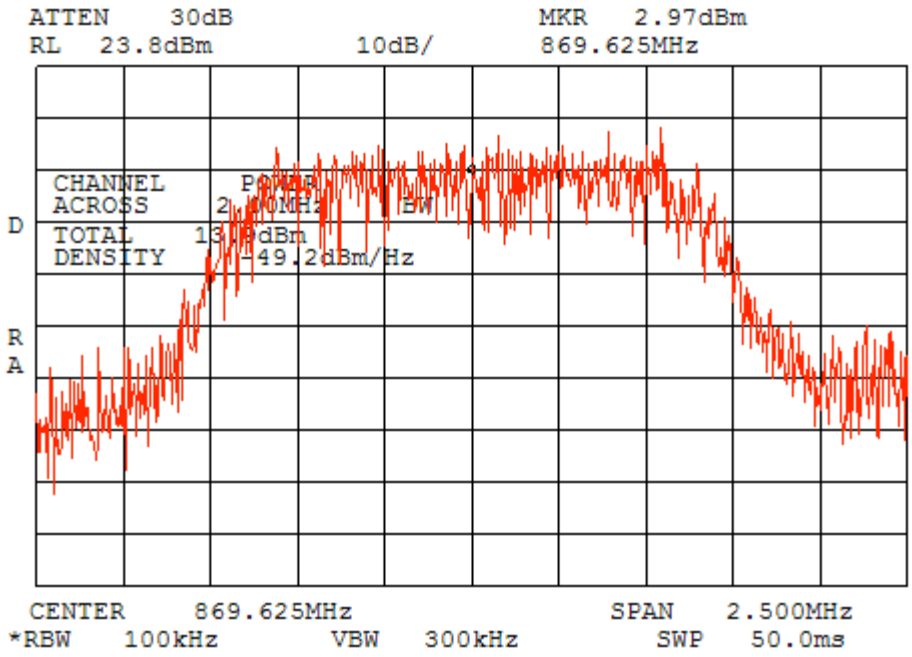
CELL-PCS. TDMA 800. 869-894 MHz. Output Power at 881.5 MHz



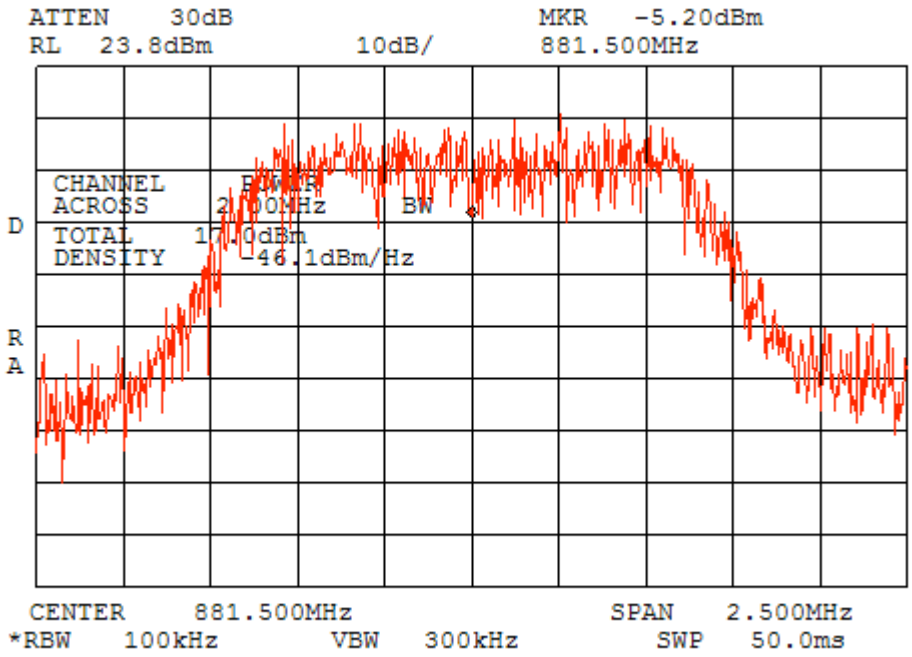
CELL-PCS. TDMA 800. 869-894 MHz. Output Power at 893.975 MHz



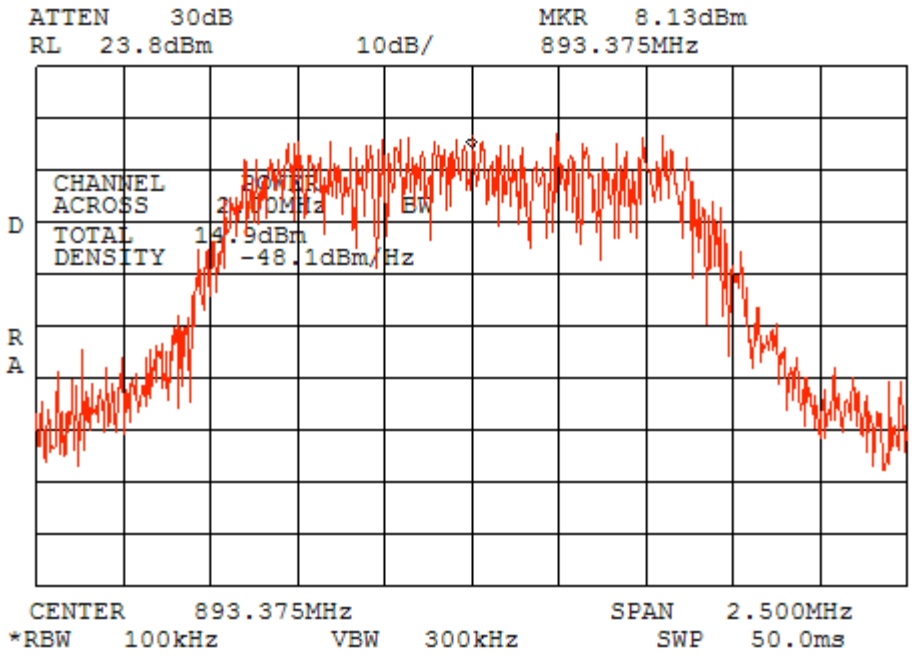
CELL-PCS. CDMA 800. 869-894 MHz. Output Power at 869.625 MHz



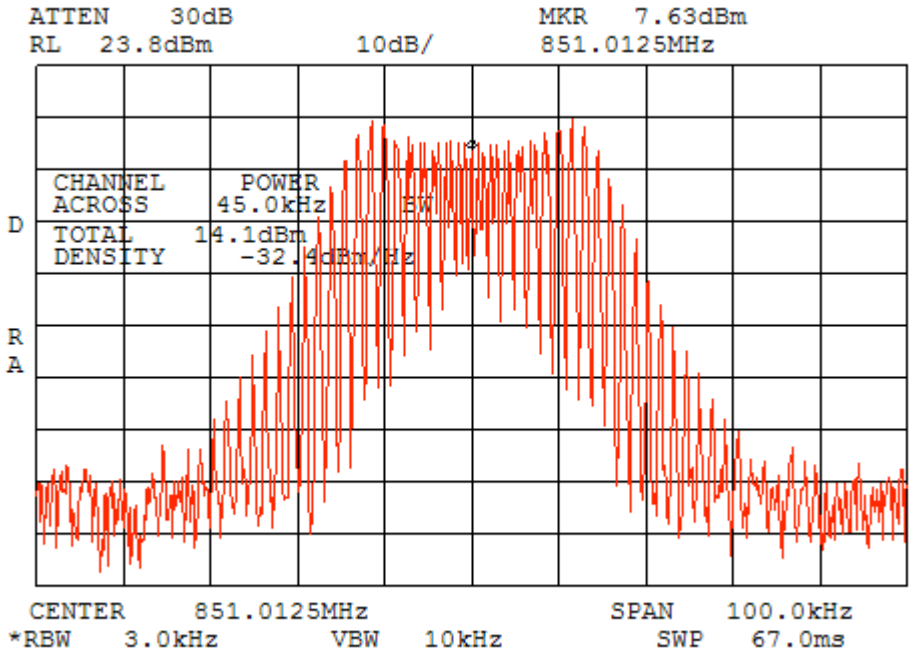
CELL-PCS. CDMA 800. 869-894 MHz. Output Power at 881.5 MHz



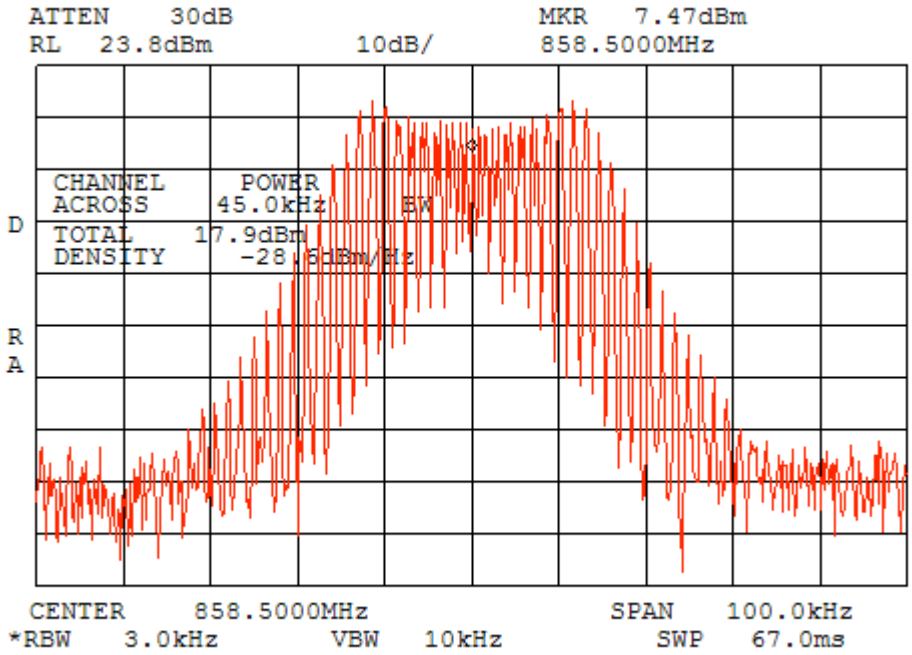
CELL-PCS. CDMA 800. 869-894 MHz. Output Power at 893.375 MHz



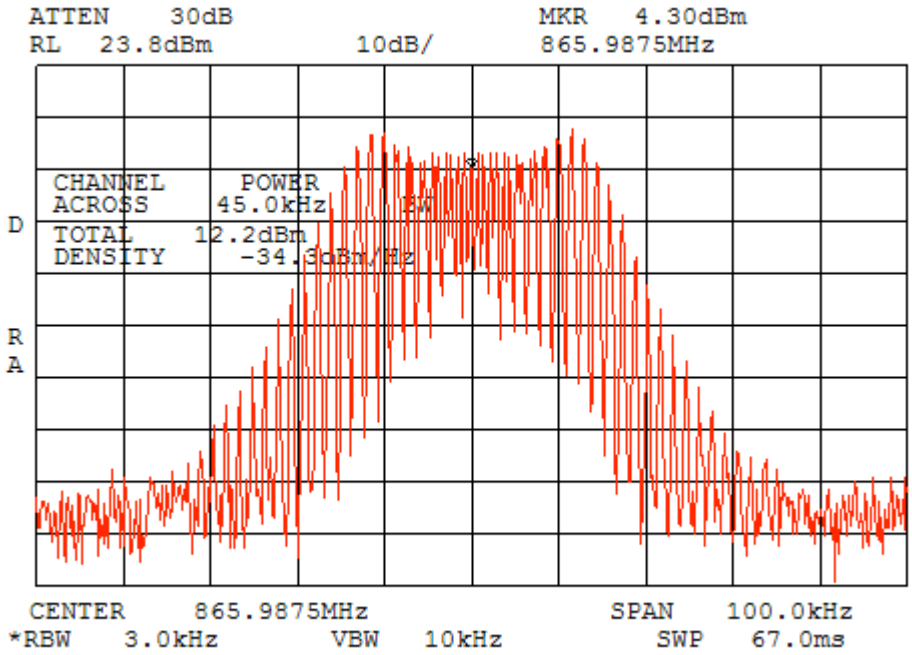
iDEN. LMR 800. 851-866 MHz. . FM 12.5KHz/1KHz. Output Power at 851.0125 MHz



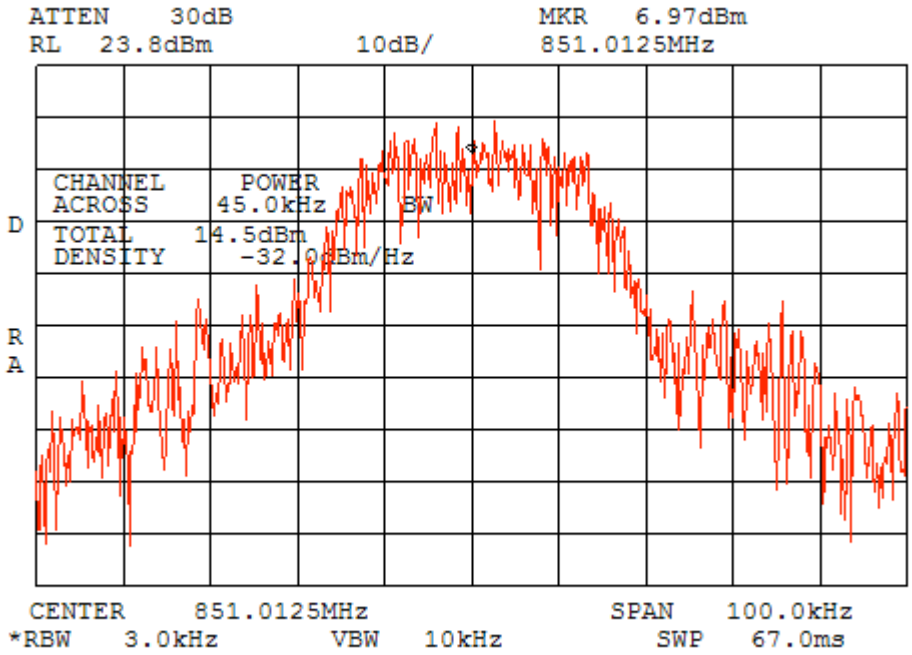
iDEN. LMR 800. 851-866 MHz. . FM 12.5KHz/1KHz. Output Power at 858.5 MHz



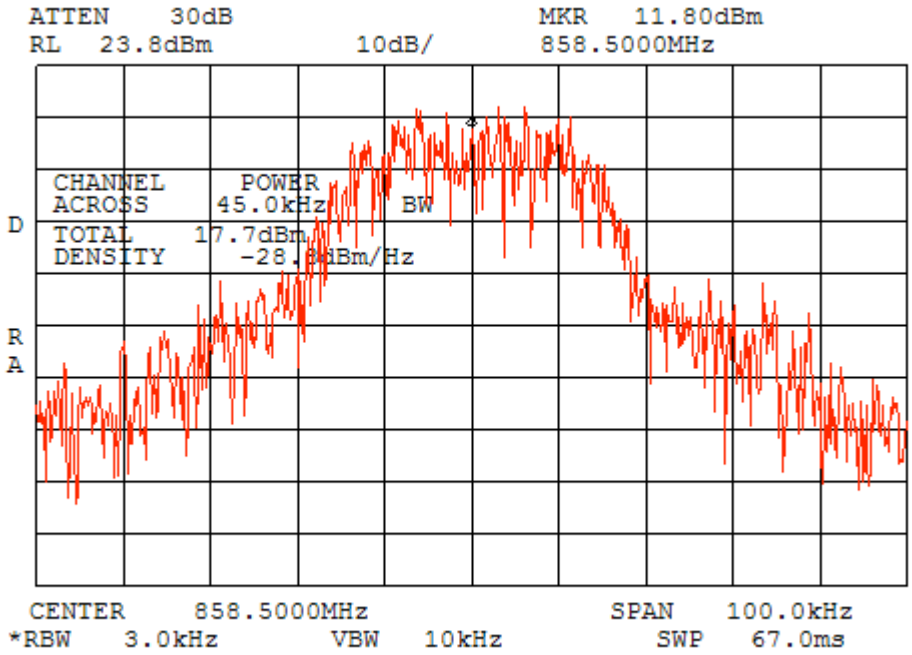
iDEN. LMR 800. 851-866 MHz. . FM 12.5KHz/1KHz. Output Power at 865.9875 MHz



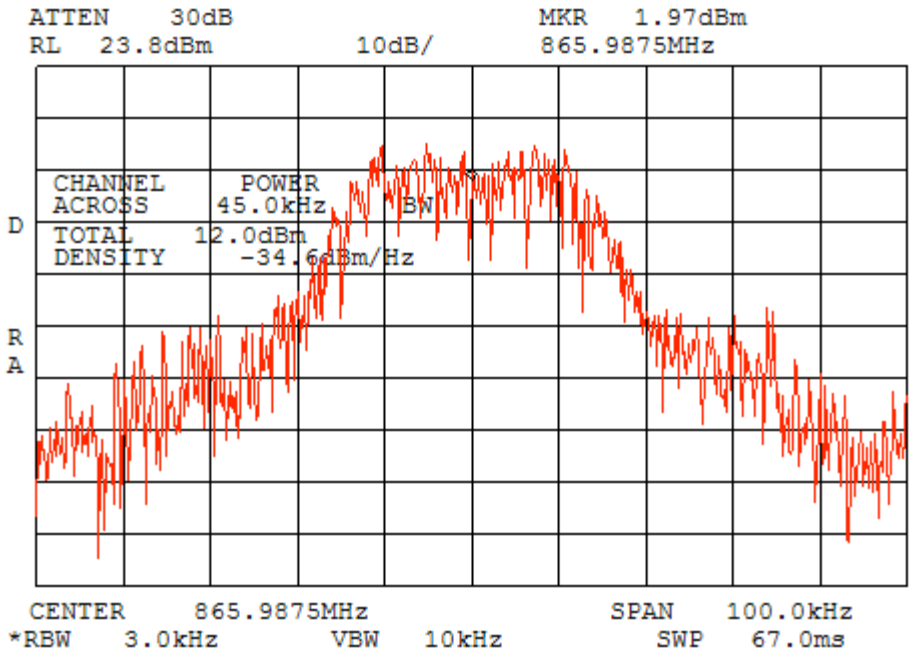
iDEN 800. 851-866. 16QAM. Output Power at 851.0125 MHz



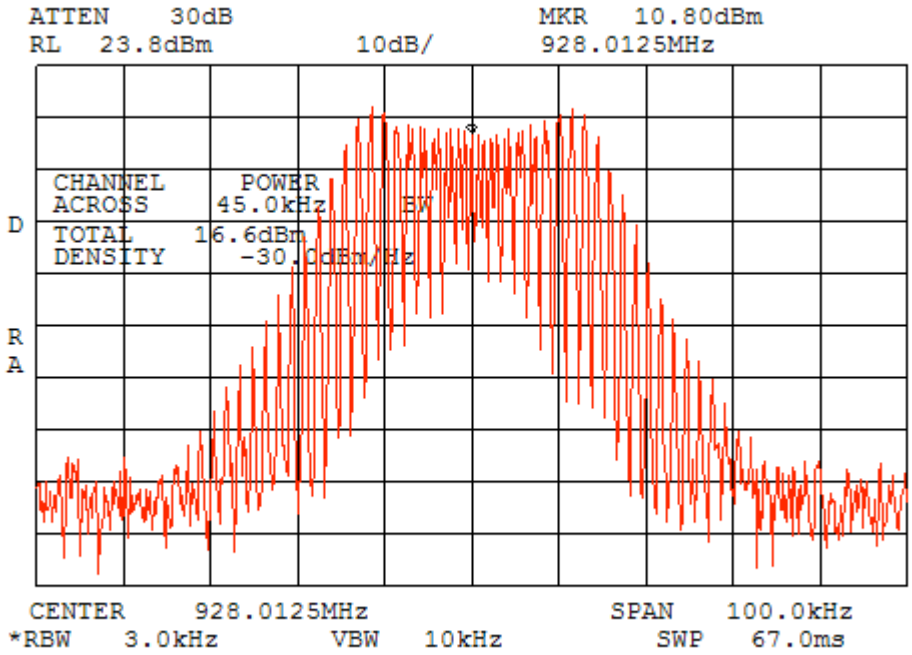
iDEN 800. 851-866. 16QAM. Output Power at 858.5 MHz



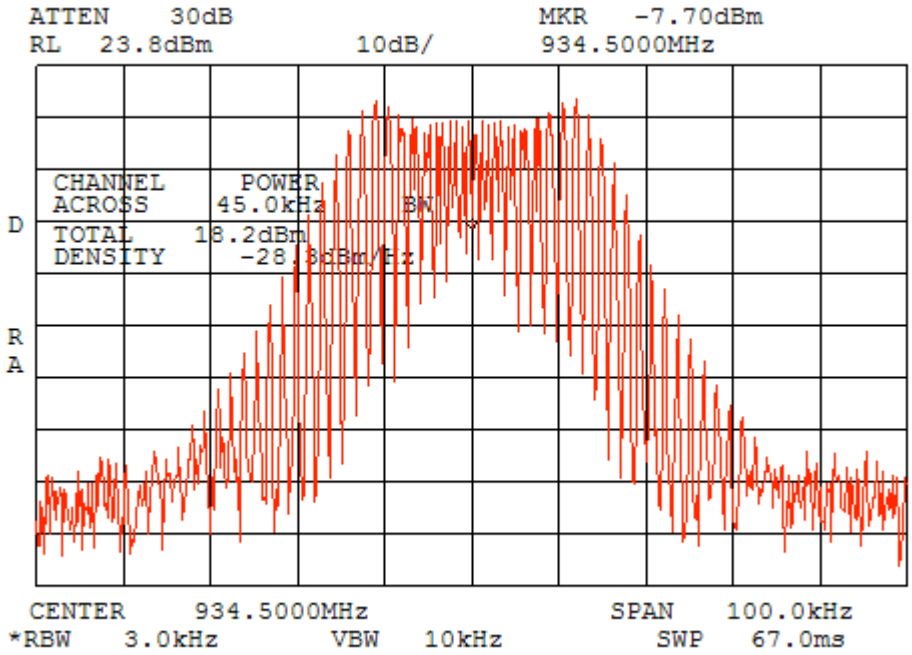
iDEN 800. 851-866. 16QAM. Output Power at 865.9875 MHz



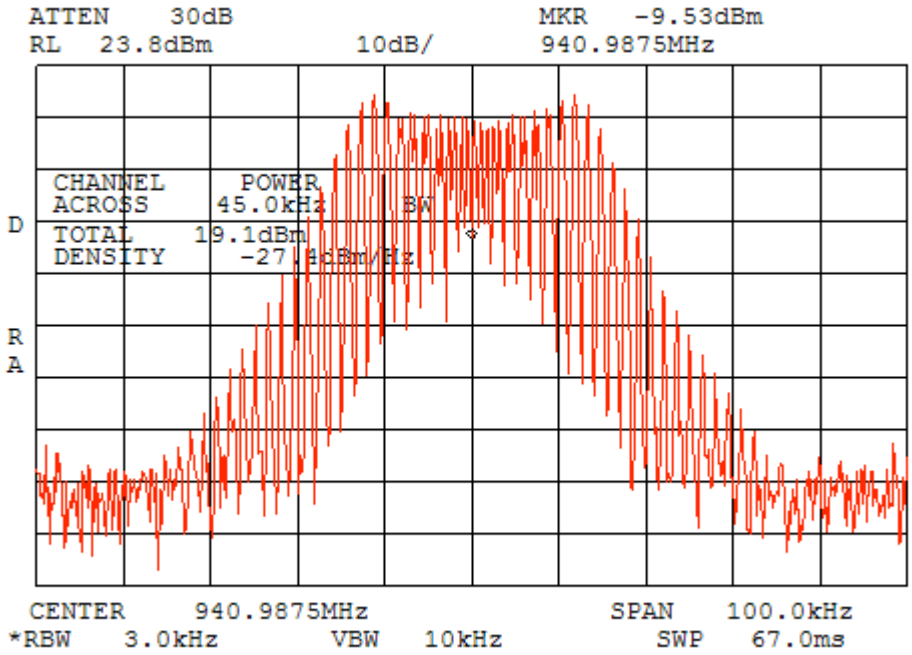
SMR/Paging 900. 928-941 MHz. FM 12.5KHz/1KHz. Output Power at 928.0125 MHz



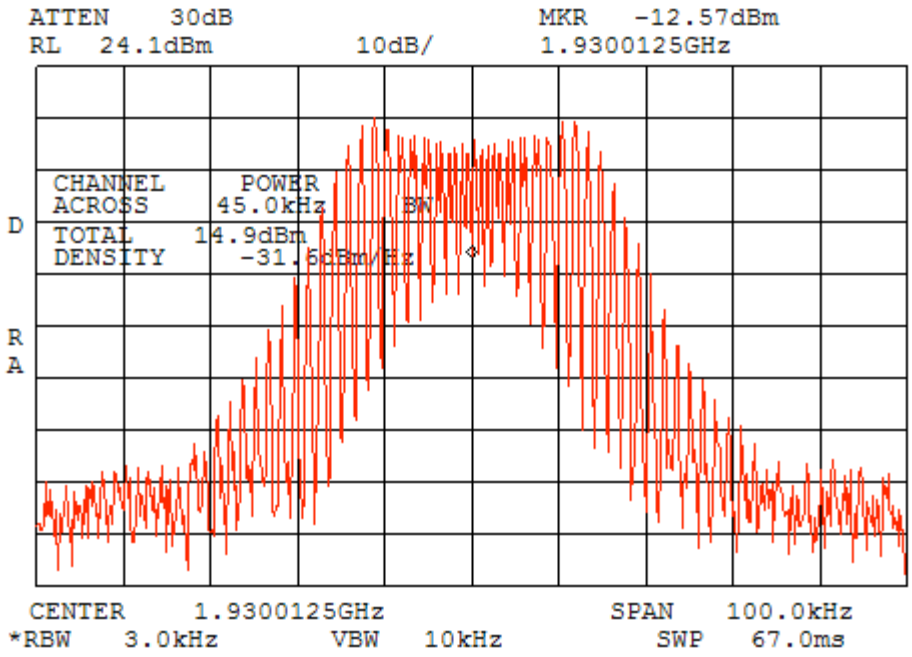
SMR/Paging 900. 928-941 MHz. FM 12.5KHz/1KHz. Output Power at 934.5 MHz



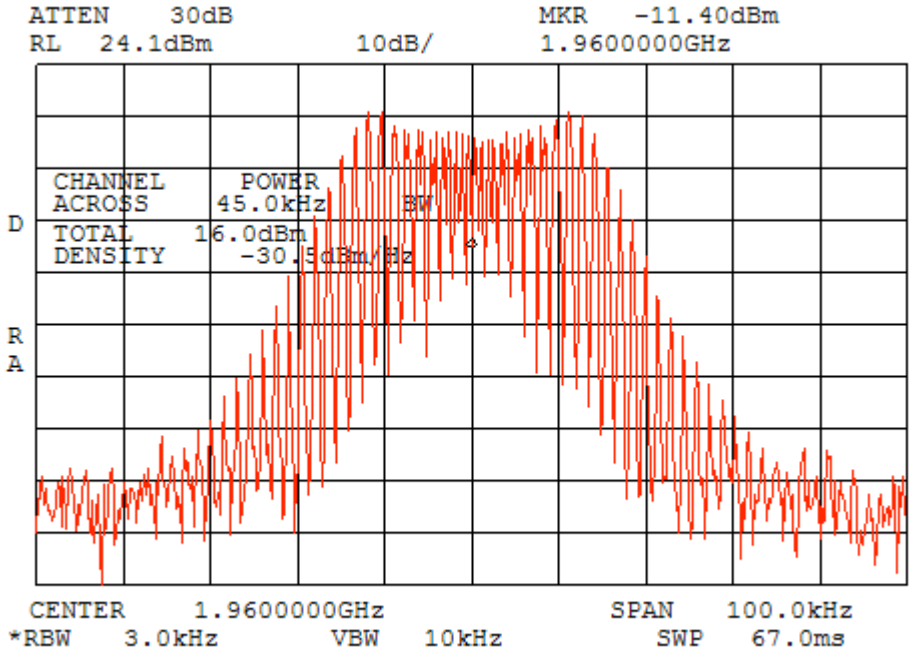
SMR900/Paging. 928-941 MHz. FM 12.5KHz/1KHz. Output Power at 940.9875 MHz



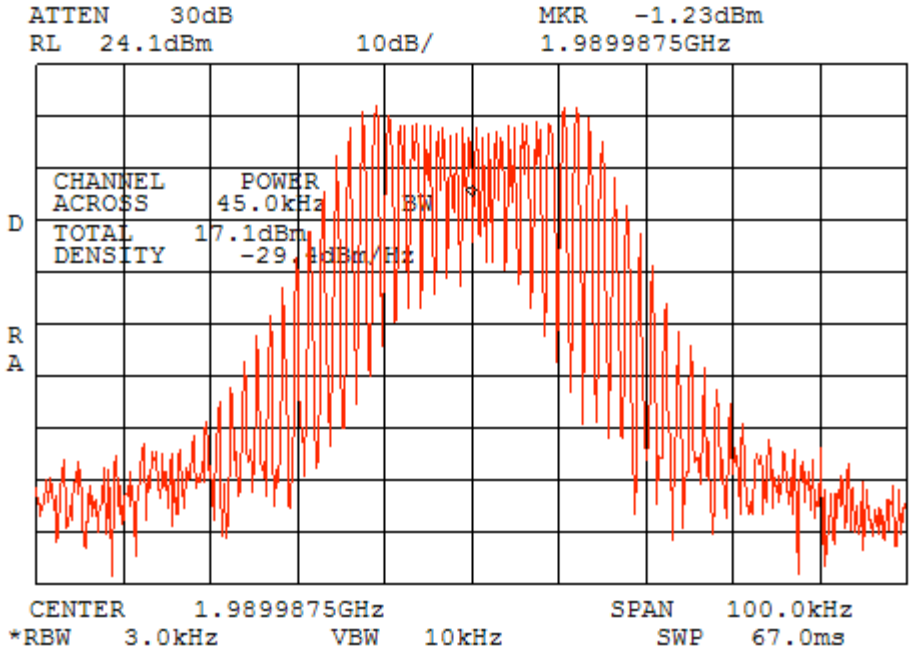
CELL-PCS.. 1930-1990 MHz. FM 12.5KHz/1KHz. Output Power at 1930.0125 MHz



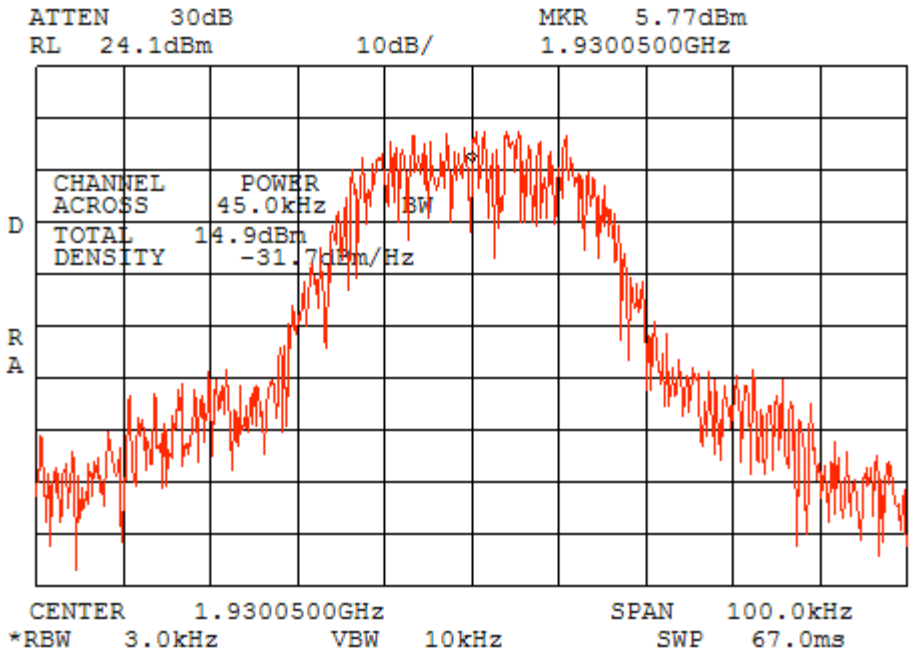
CELL-PCS. 1930-1990 MHz. FM 12.5KHz/1KHz. Output Power at 1960.0 MHz



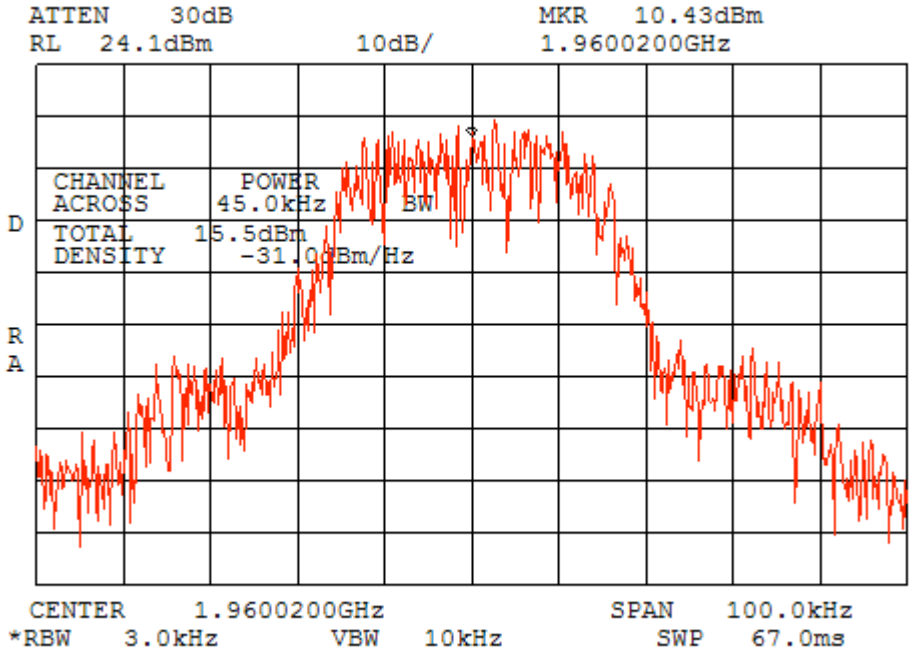
CELL-PCS. 1930-1990 MHz. FM 12.5KHz/1KHz. Output Power at 1989.9875 MHz



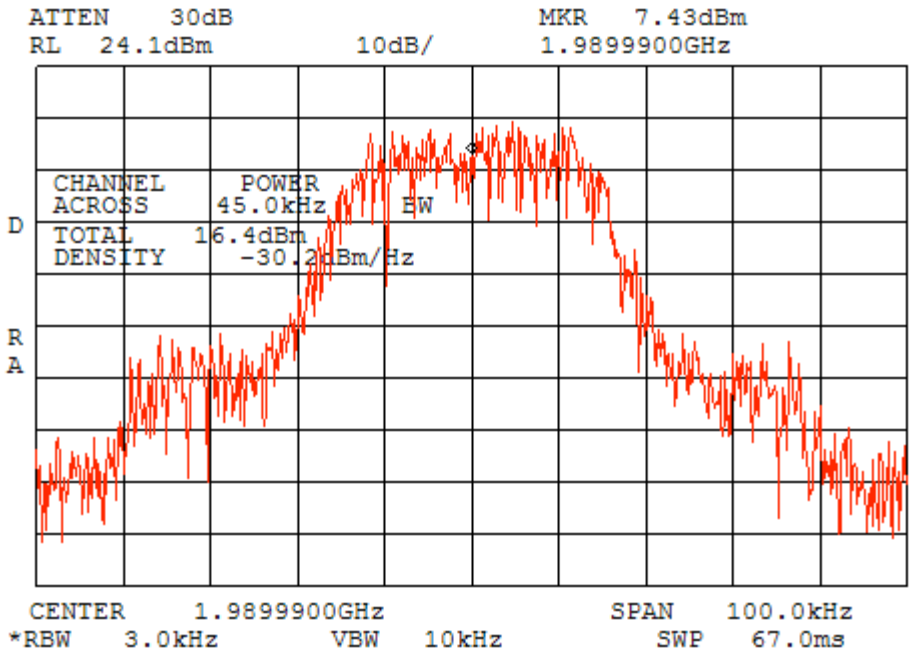
CELL-PCS. TDMA 1900. 1930-1990 MHz. Output Power at 1930.05 MHz



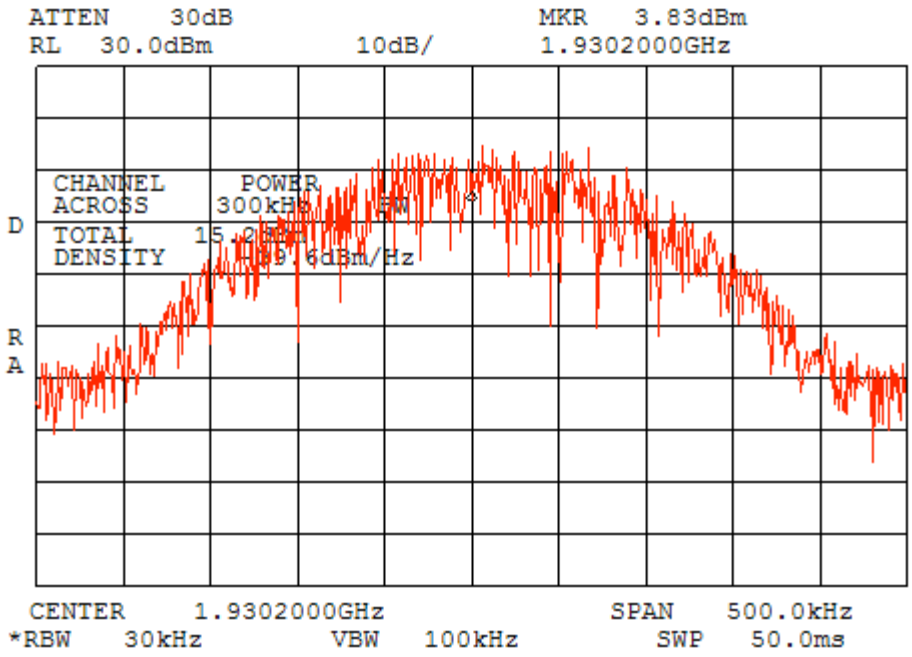
CELL-PCS. TDMA 1900. 1930-1990 MHz. Output Power at 1960.02 MHz



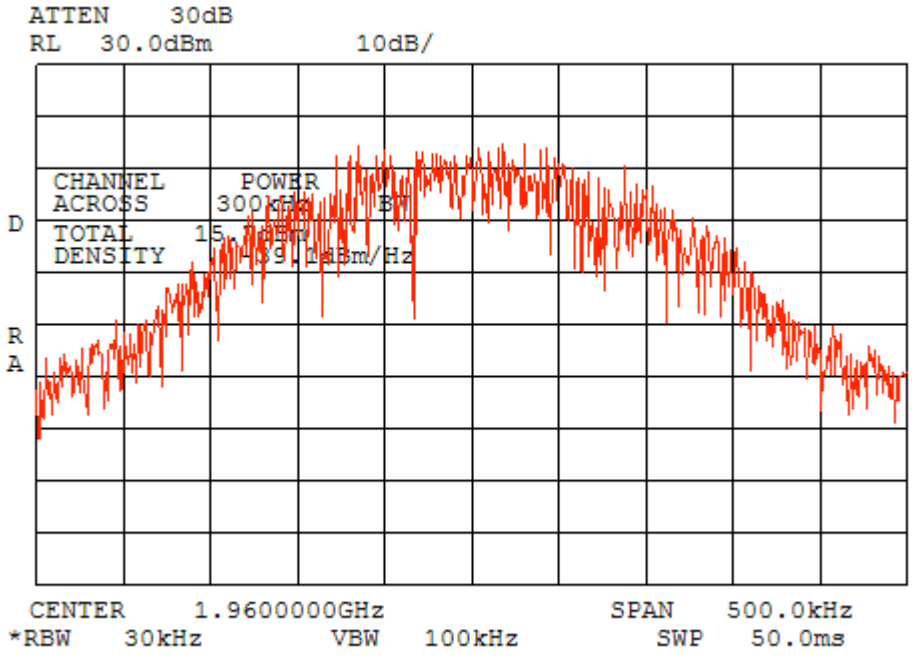
CELL-PCS. TDMA 1900. 1930-1990 MHz. Output Power at 1989.99 MHz



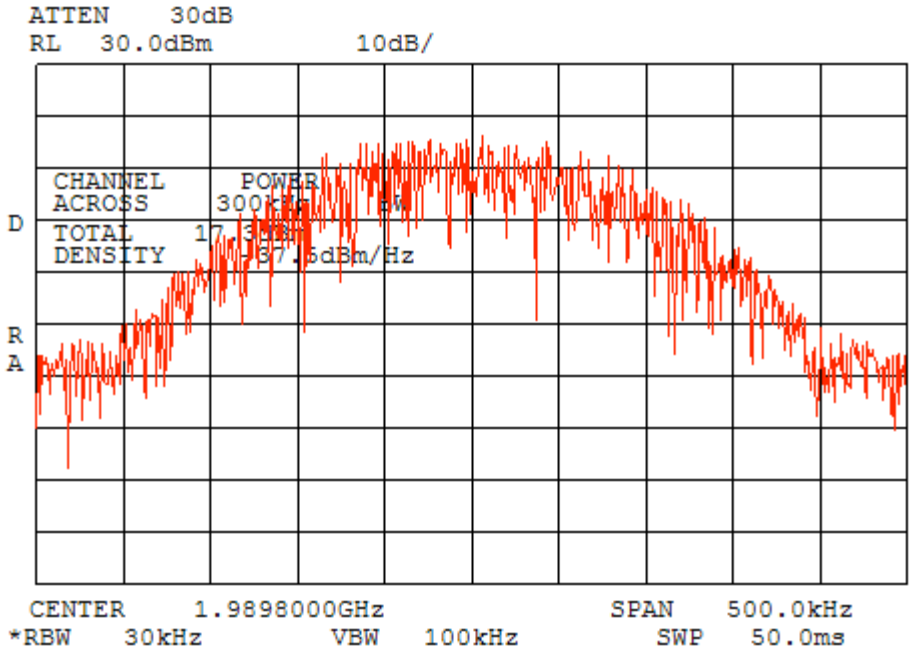
CELL-PCS. GSM 1900. 1930-1990 MHz. Output Power at 1930.2 MHz



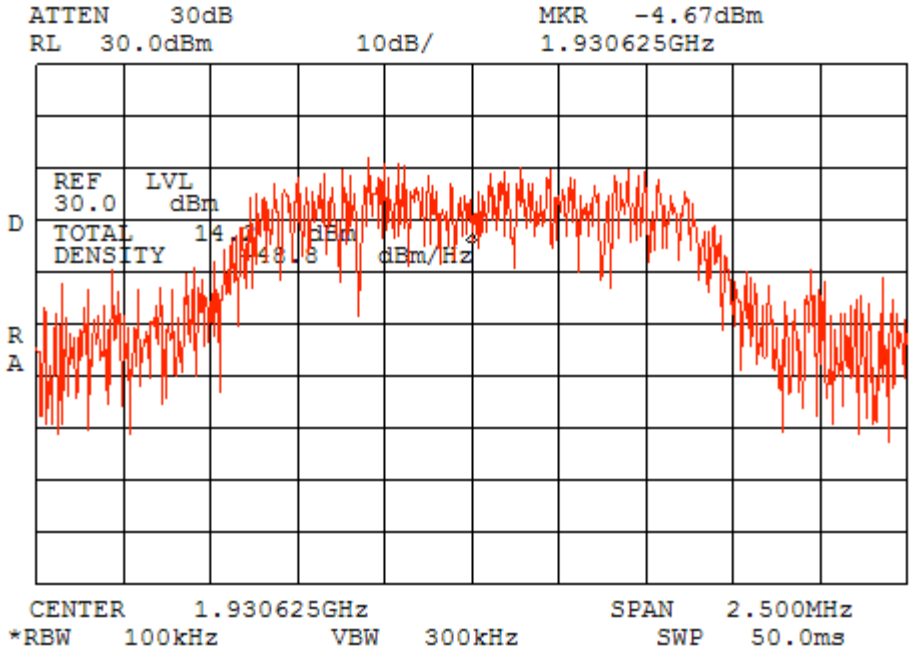
CELL-PCS. GSM 1900. 1930-1990 MHz. Output Power at 1960.0 MHz



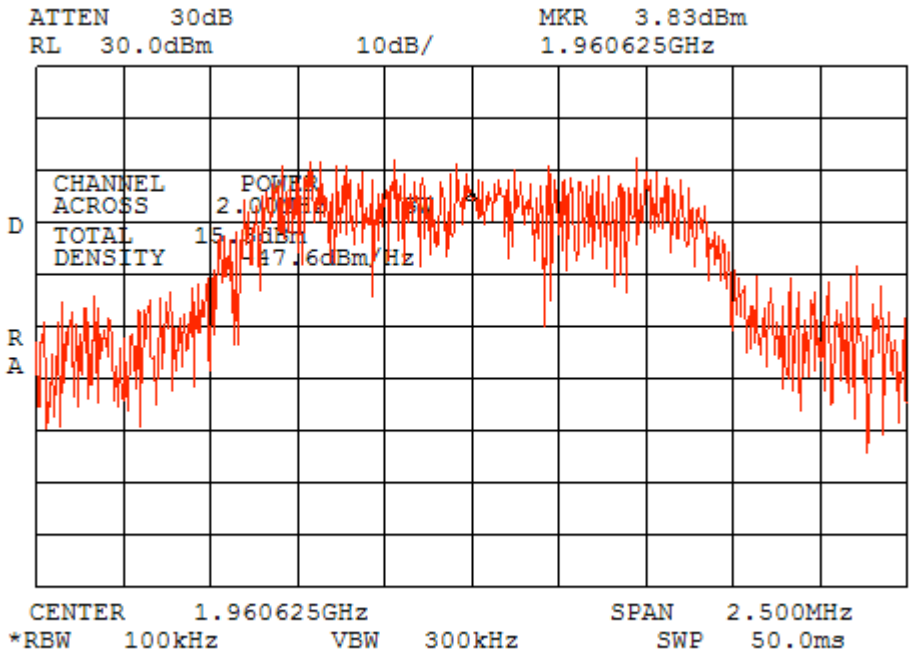
CELL-PCS. GSM 1900. 1930-1990 MHz. Output Power at 1989.8 MHz



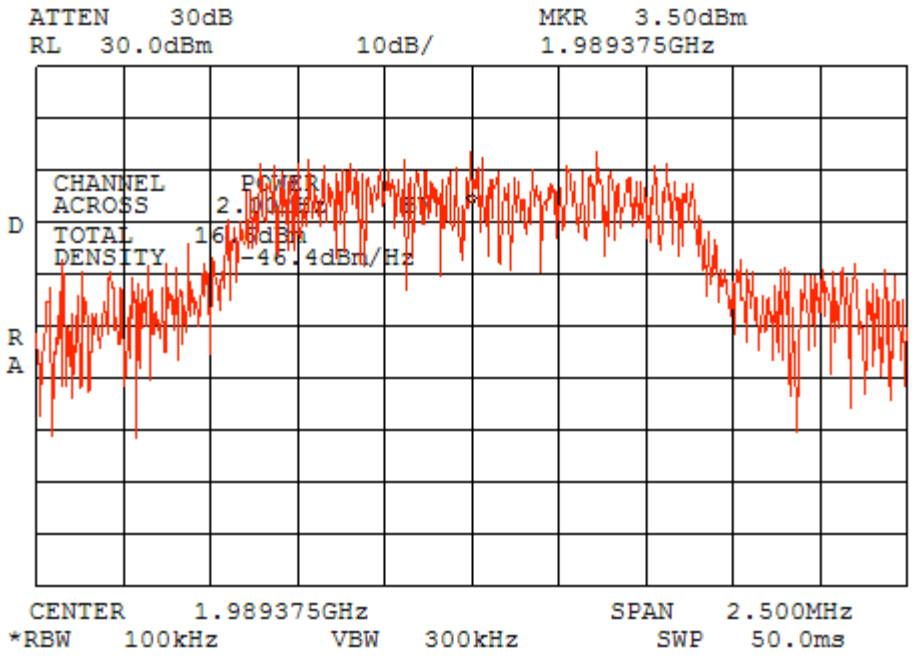
CELL-PCS. CDMA 1900. 1930-1990 MHz. Output Power at 1930.625 MHz



CELL-PCS. CDMA 1900. 1930-1990 MHz. Output Power at 1960.625 MHz



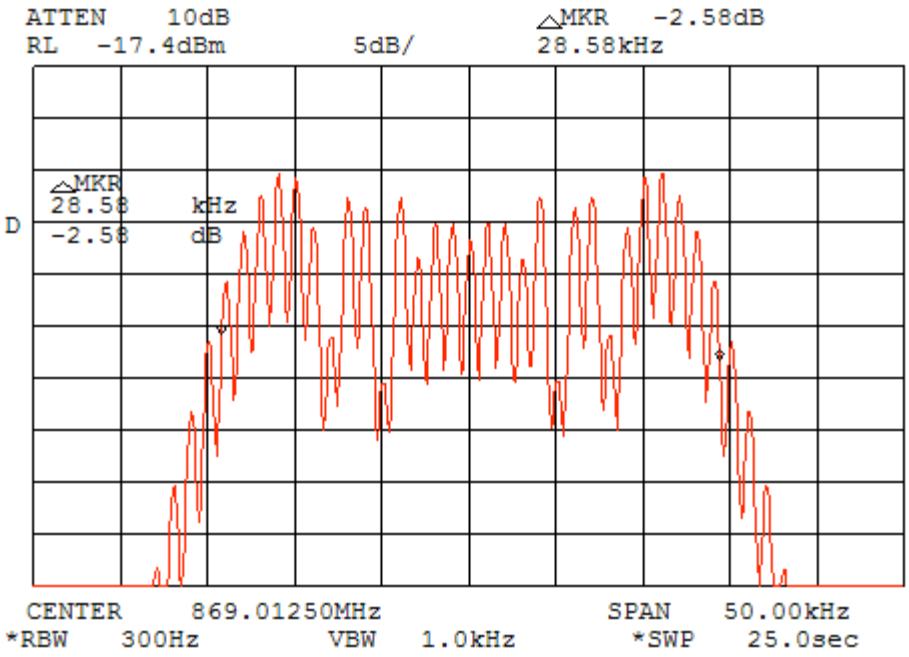
CELL-PCS. CDMA 1900. 1930-1990 MHz. Output Power at 1989.375 MHz



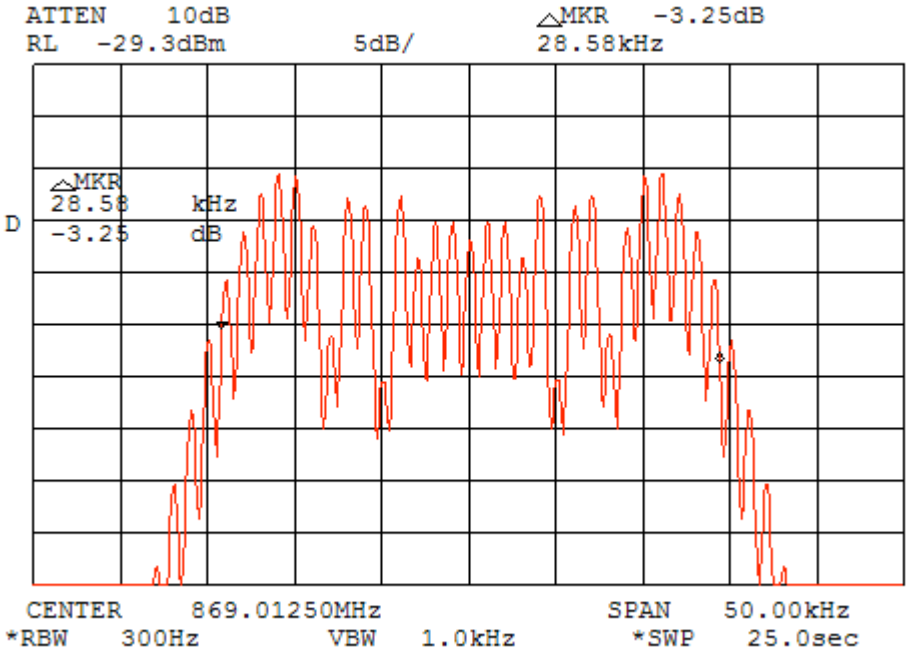
Date	03 Aug 2004
Project	16021
Test	Occupied bandwidth.
Operator	Alex Kruglov
Test equipment	1424, 2399, 2524, 1651, 789, 316, 460
Temperature	25°C
Humidity	39%
Air pressure	1003 hPa
EUT	Mobile Access 2000
Notes:	At 1.5 dBm input power (CW);
	At output connector with maximum power level.

CELL-PCS. AMPS 800. 869-894 MHz. Occupied bandwidth at 869.0125 MHz

Output

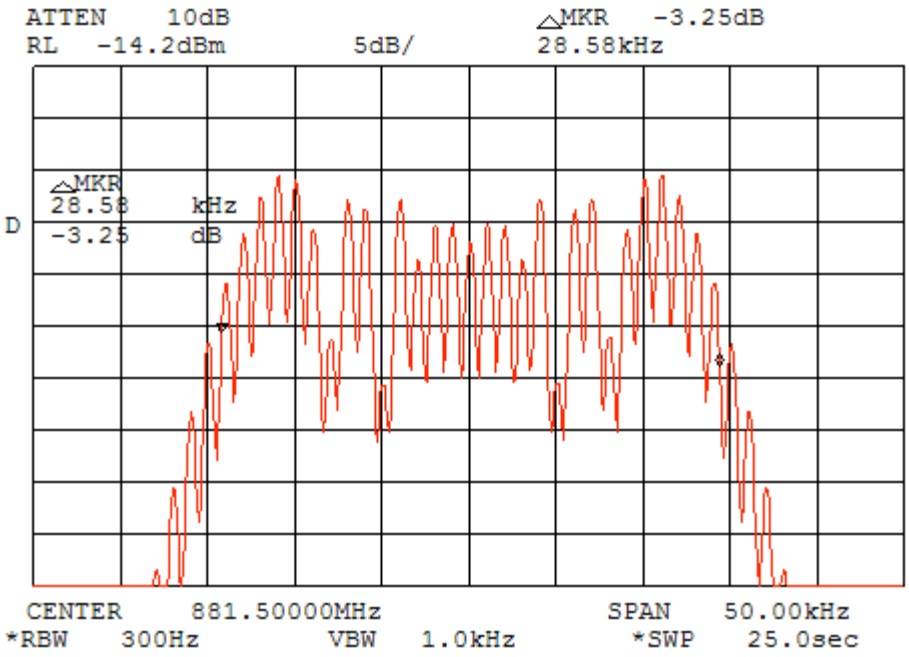


Input

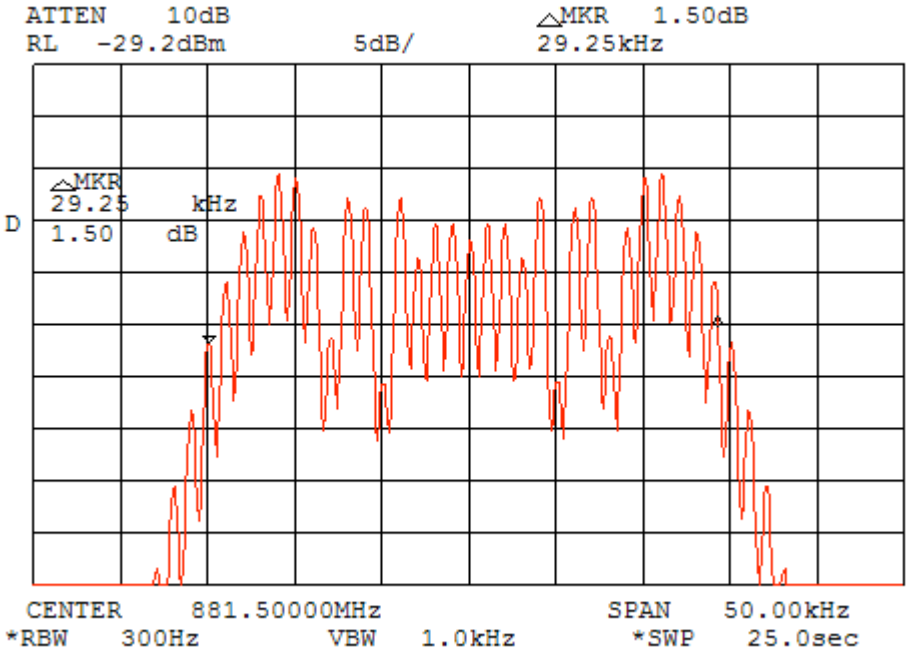


CELL-PCS. AMPS 800. 869-894 MHz. Occupied bandwidth at 881.5 MHz

Output

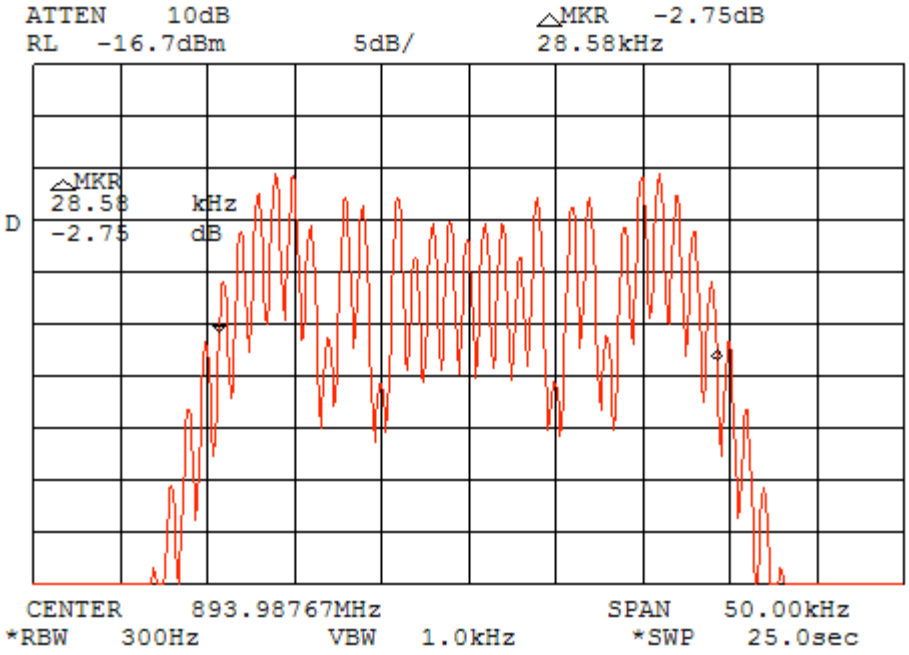


Input

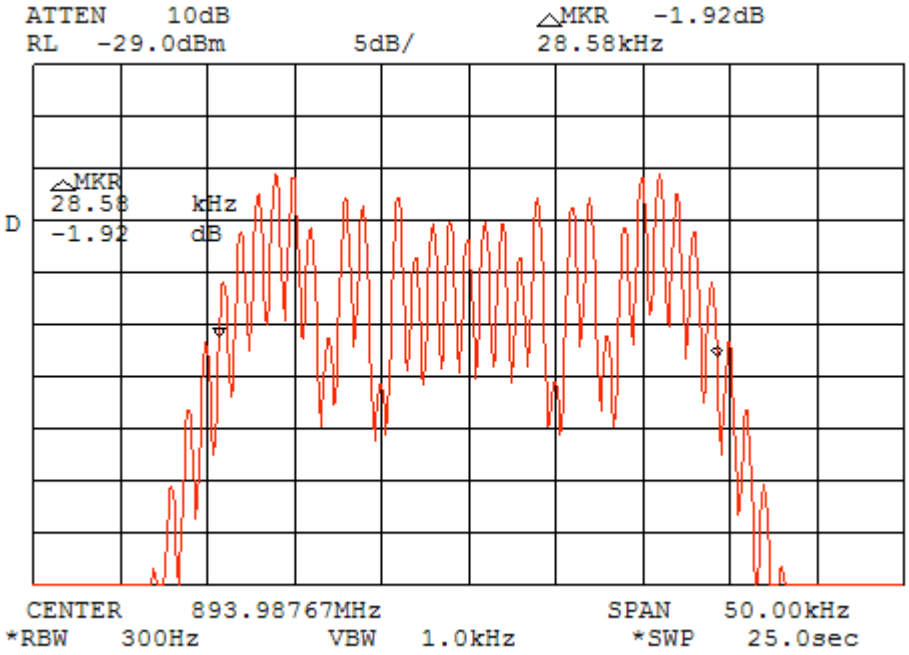


CELL-PCS. AMPS 800. 869-894 MHz. Occupied bandwidth at 893.9875 MHz

Output

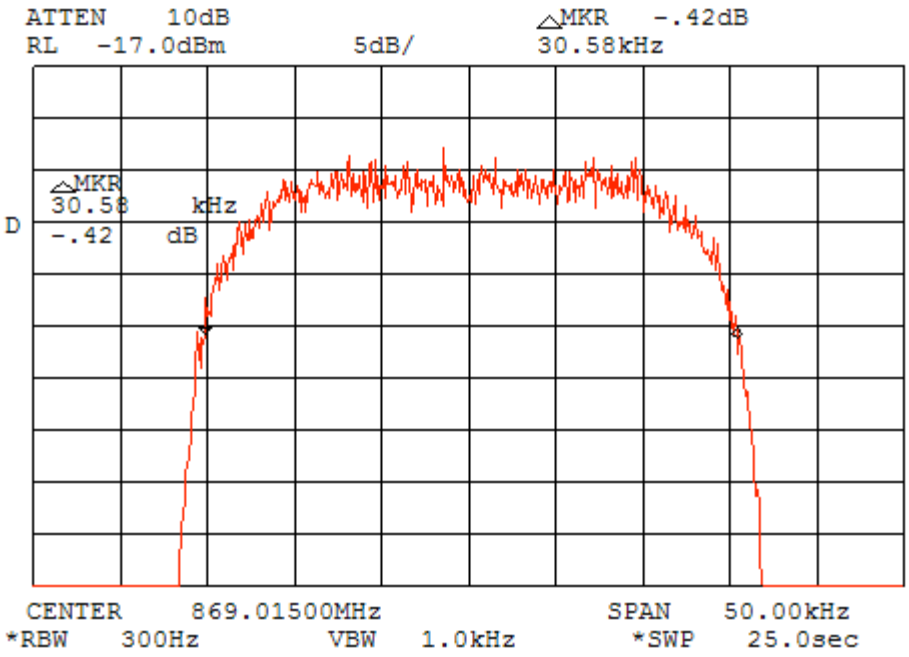


Input

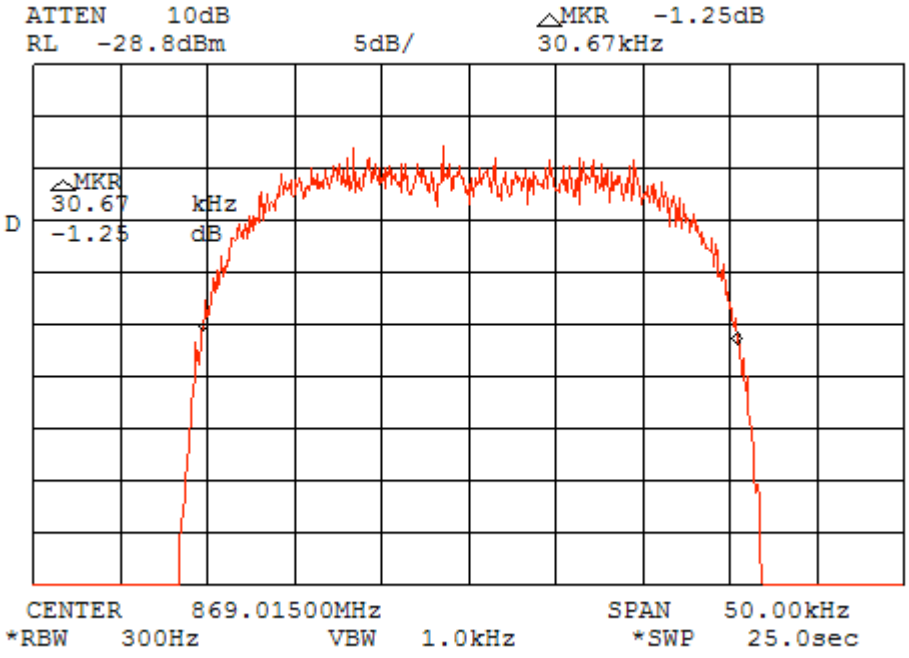


CELL-PCS. TDMA 800. 869-894 MHz. Occupied bandwidth at 869.015 MHz

Output

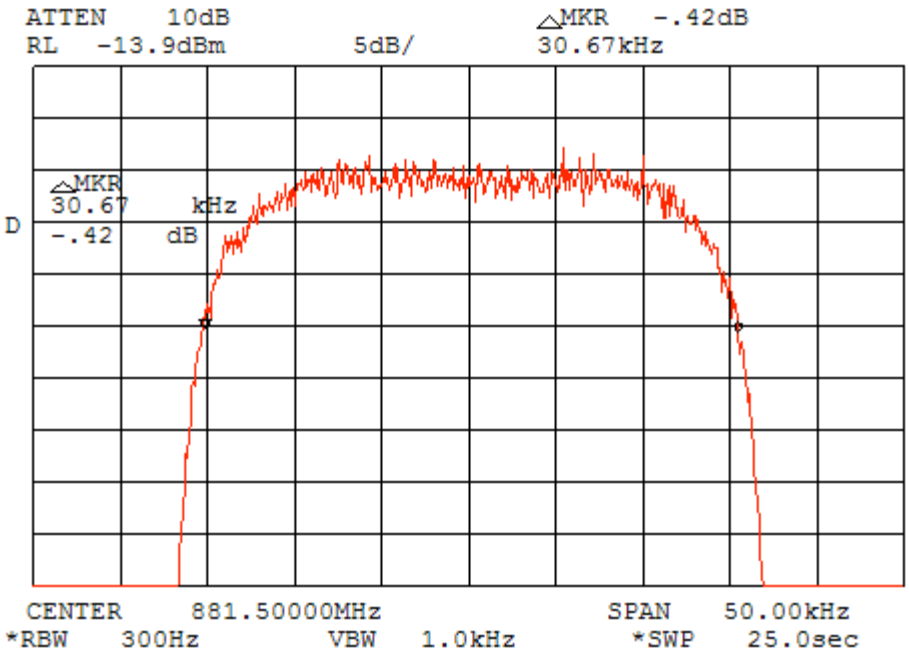


Input

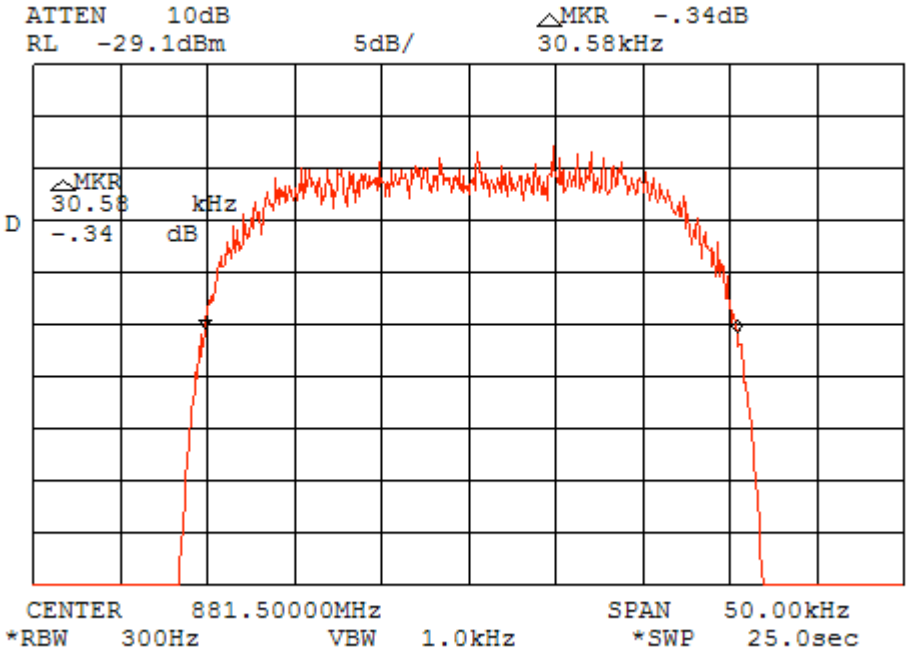


CELL-PCS. TDMA 800. 869-894 MHz. Occupied bandwidth at 881.5 MHz

Output

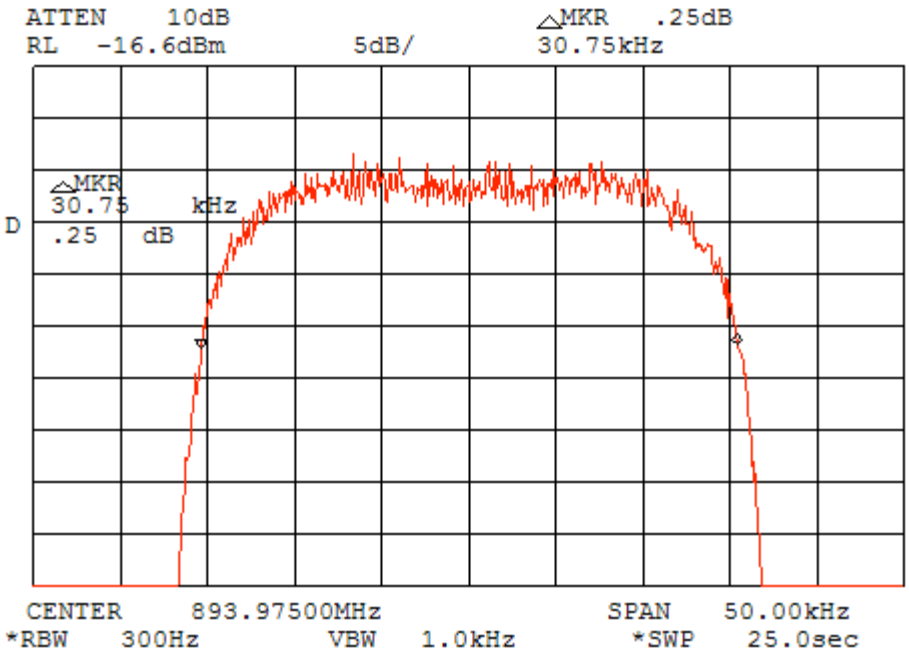


Input

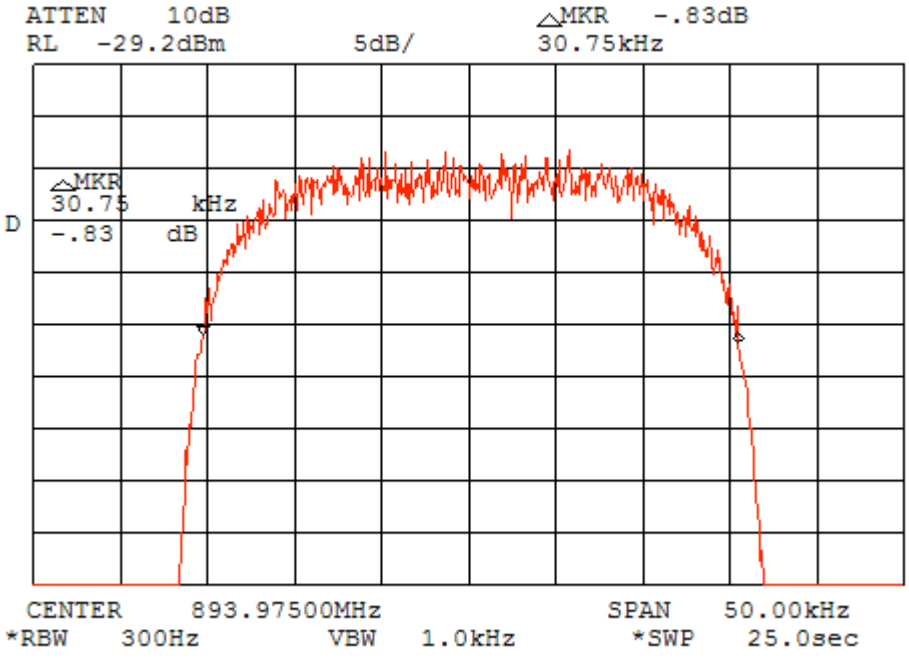


CELL-PCS. TDMA 800. 869-894 MHz. Occupied bandwidth at 893.975 MHz

Output

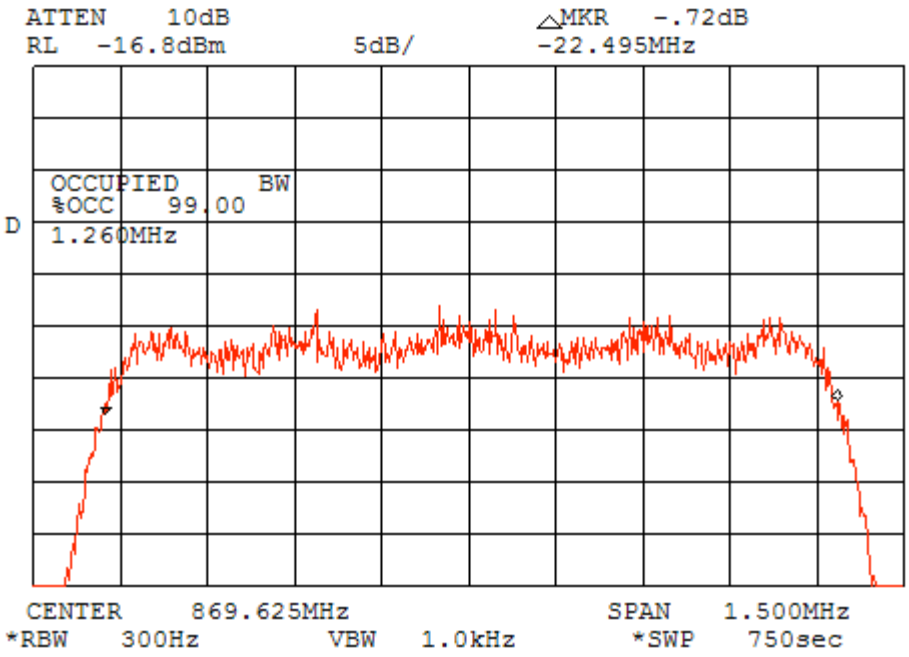


Input

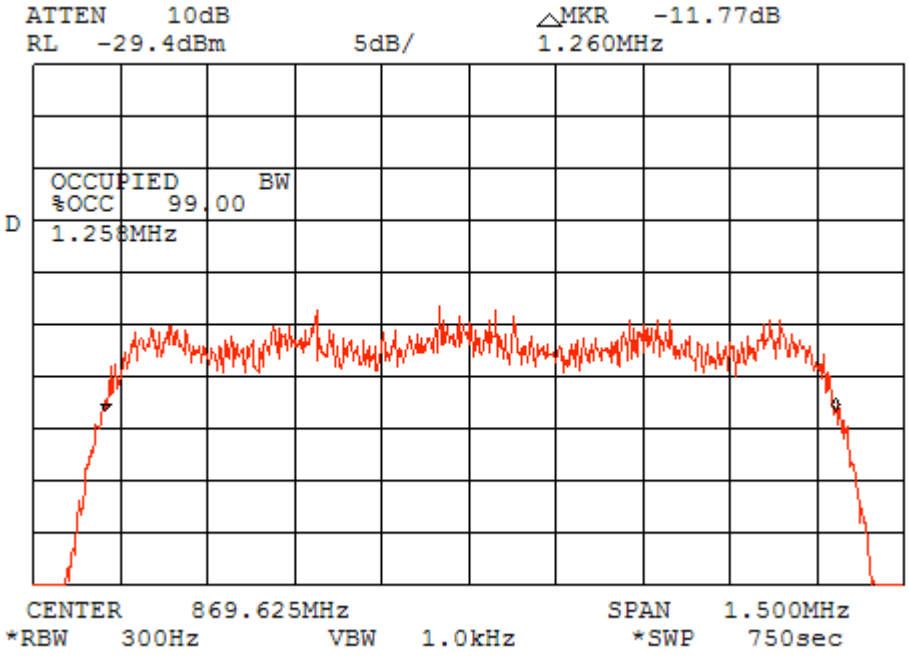


CELL-PCS. CDMA 800. 869-894 MHz. Occupied bandwidth at 869.625 MHz

Output

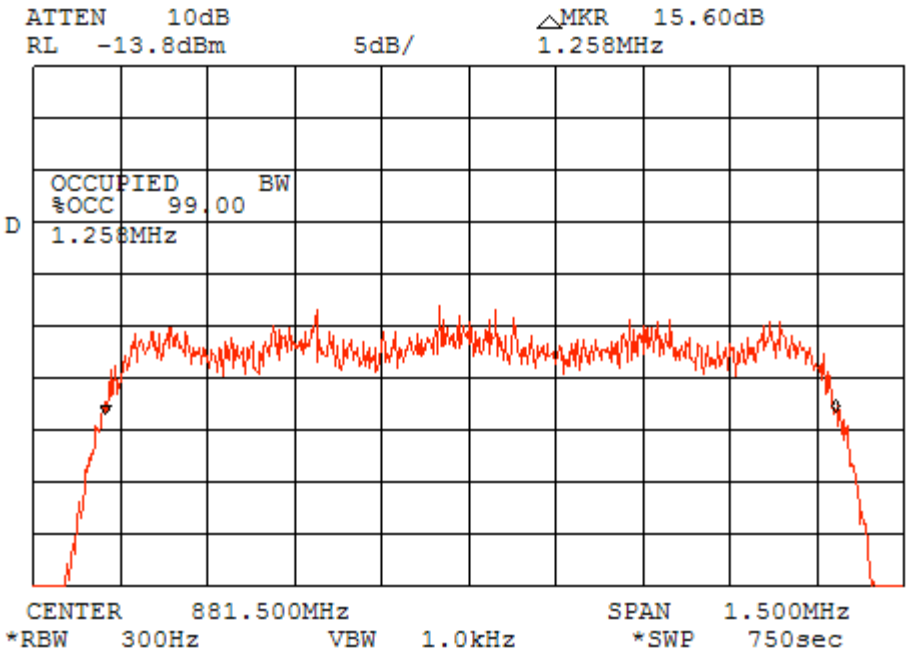


Input

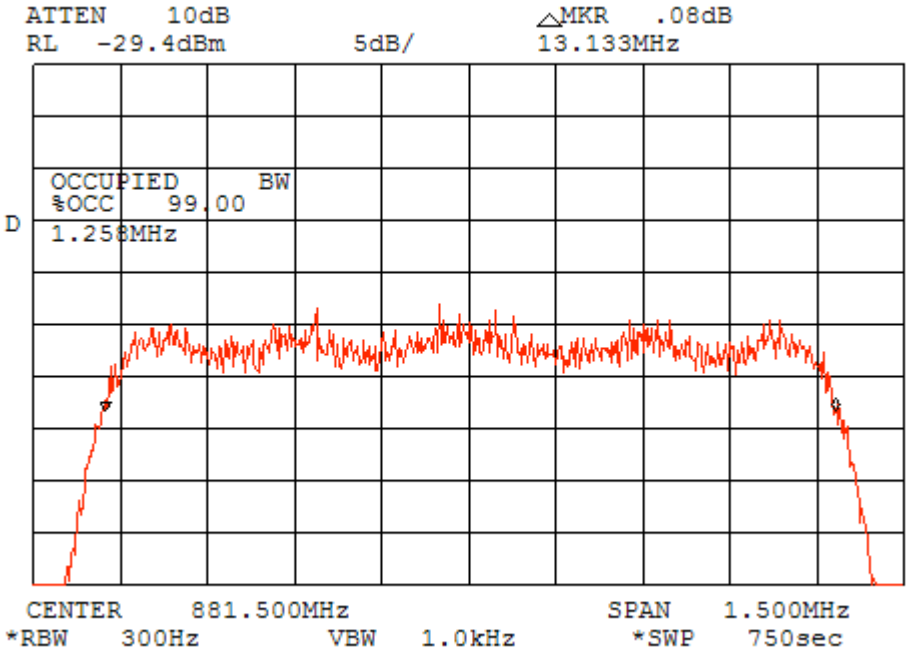


CELL-PCS. CDMA 800. 869-894 MHz. Occupied bandwidth at 881.5 MHz

Output

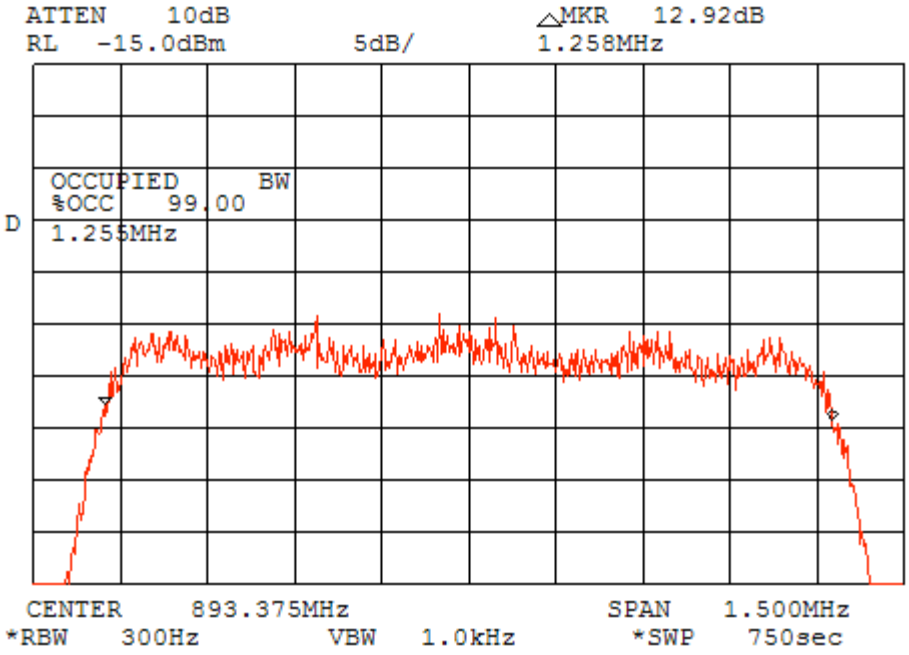


Input

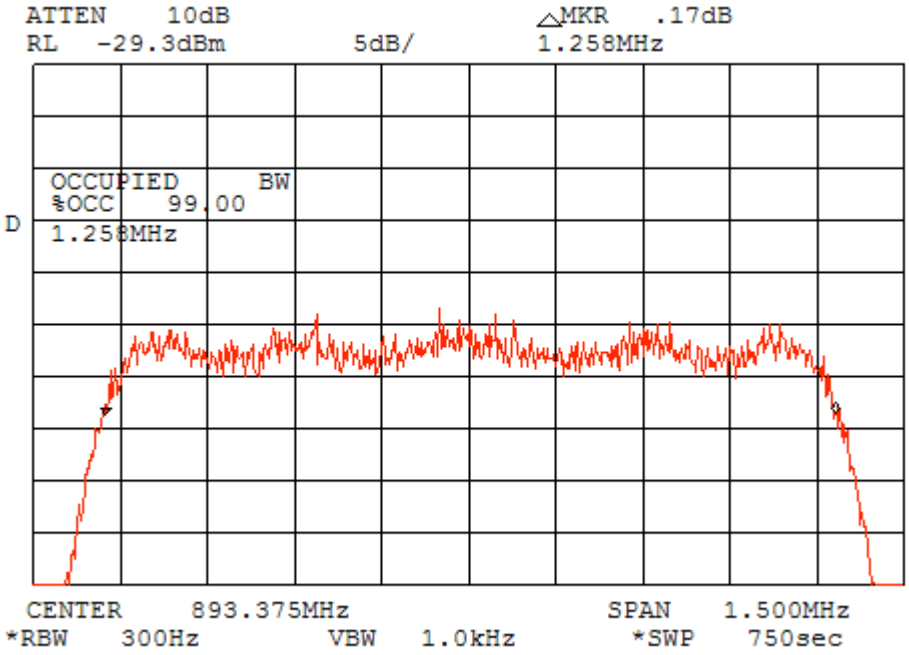


CELL-PCS. CDMA 800. 869-894 MHz. Occupied bandwidth at 893.375 MHz

Output

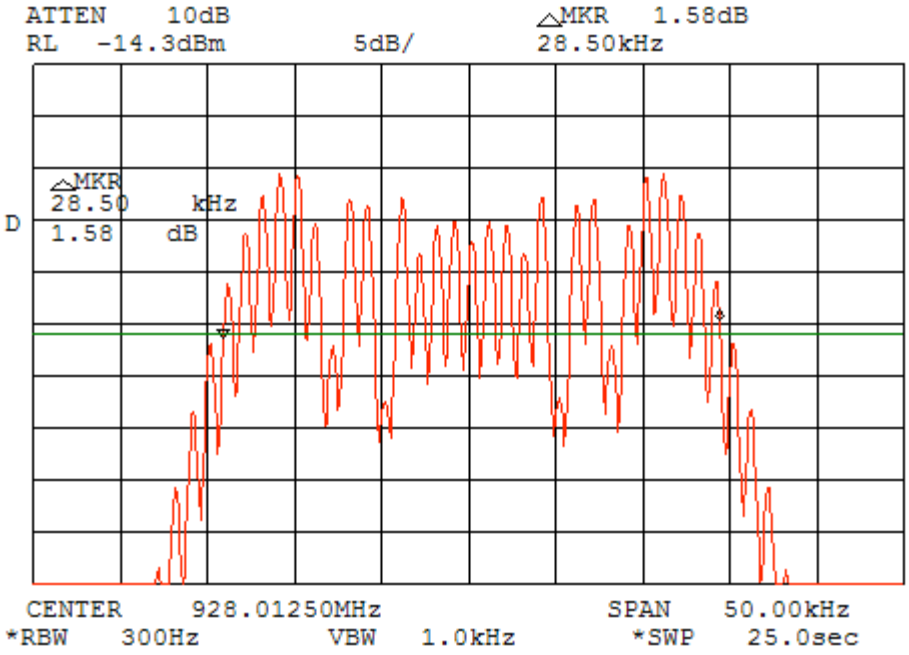


Input

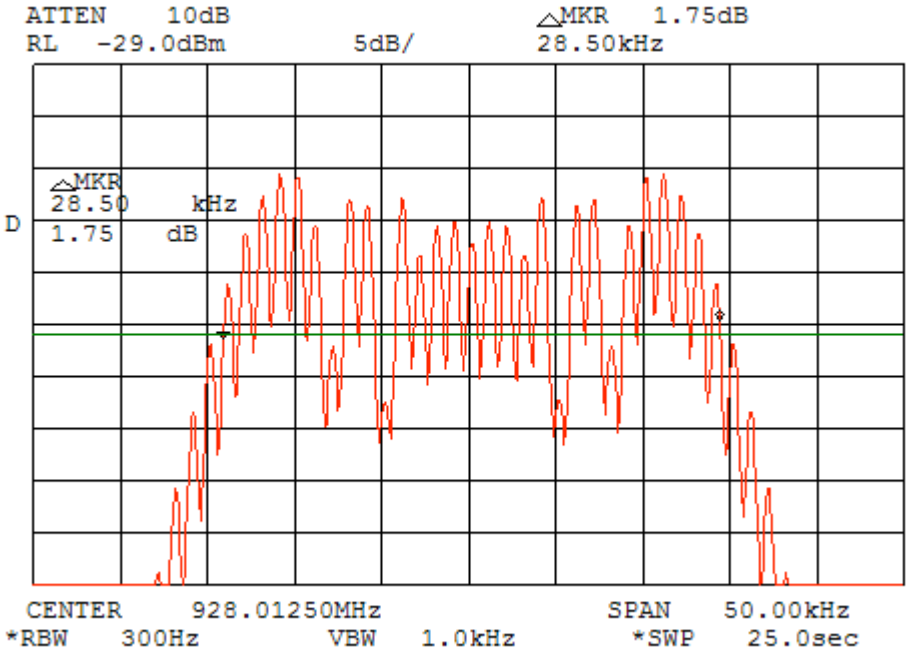


SMR/Paging 900. 928-941 MHz. FM 12.5KHz/1KHz. Occupied bandwidth at 928.0125 MHz

Output

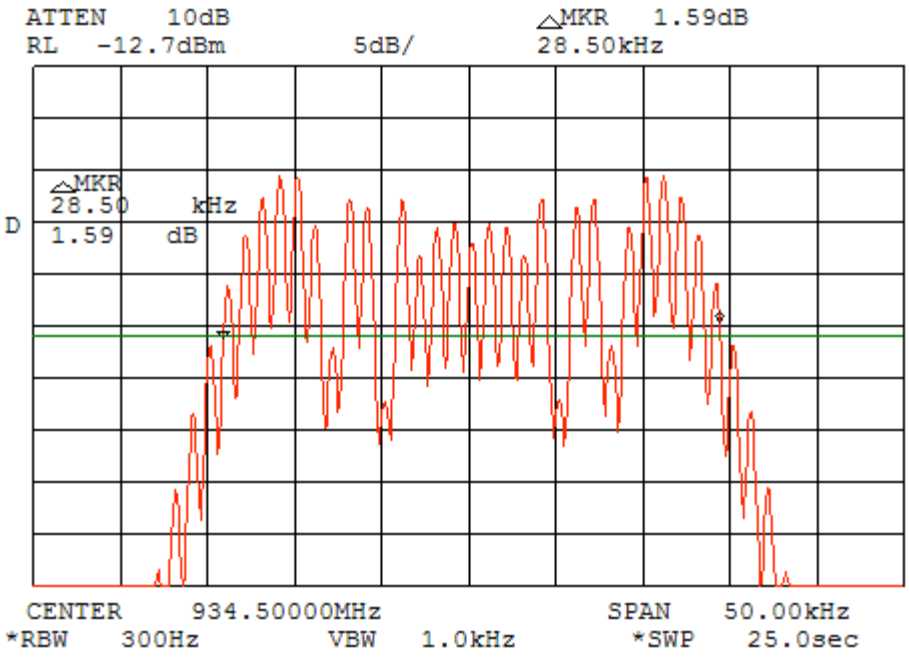


Input

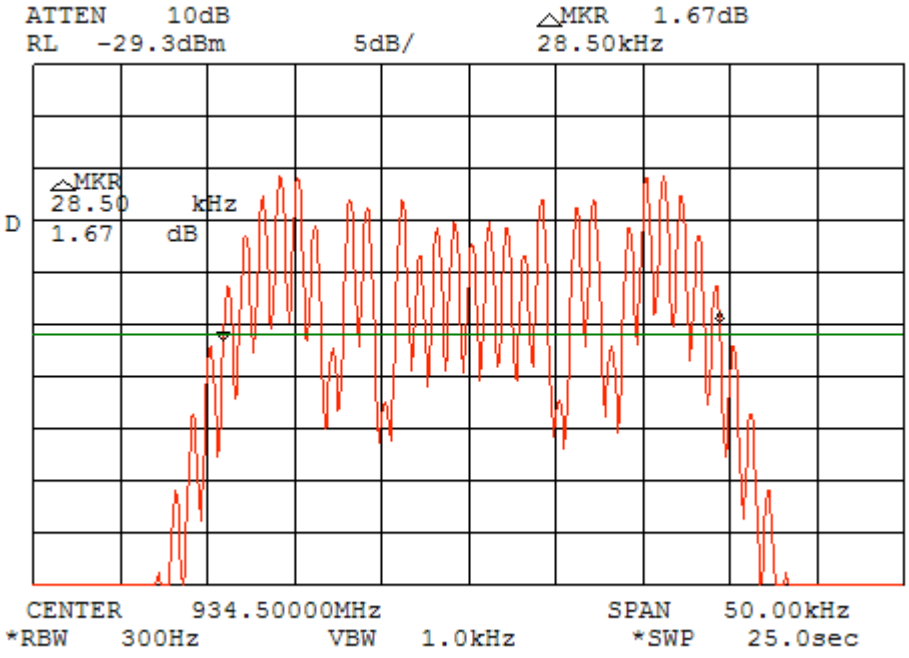


SMR/Paging 900. 928-941 MHz. FM 12.5KHz/1KHz. Occupied bandwidth at 934.5 MHz

Output

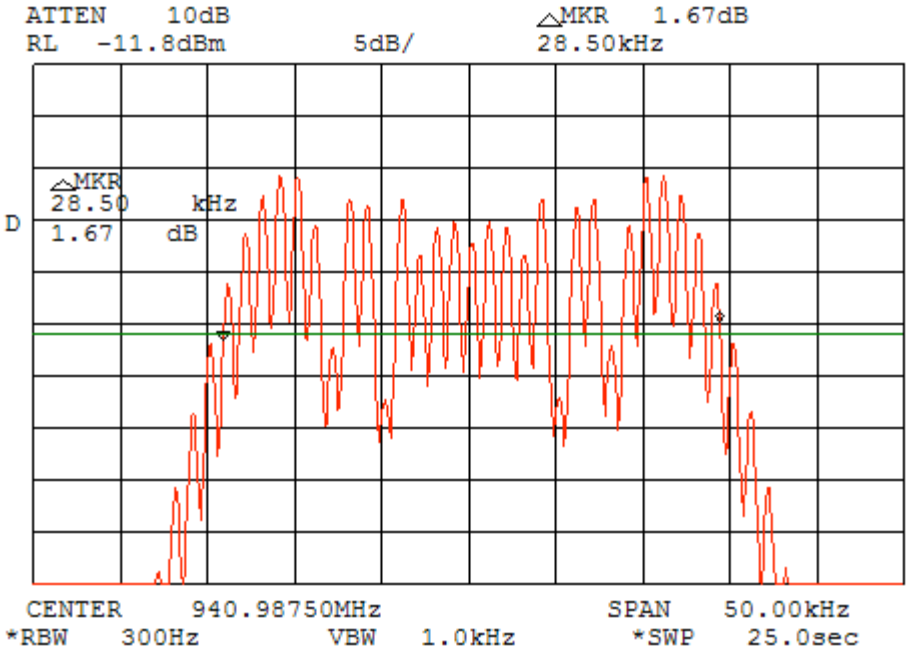


Input

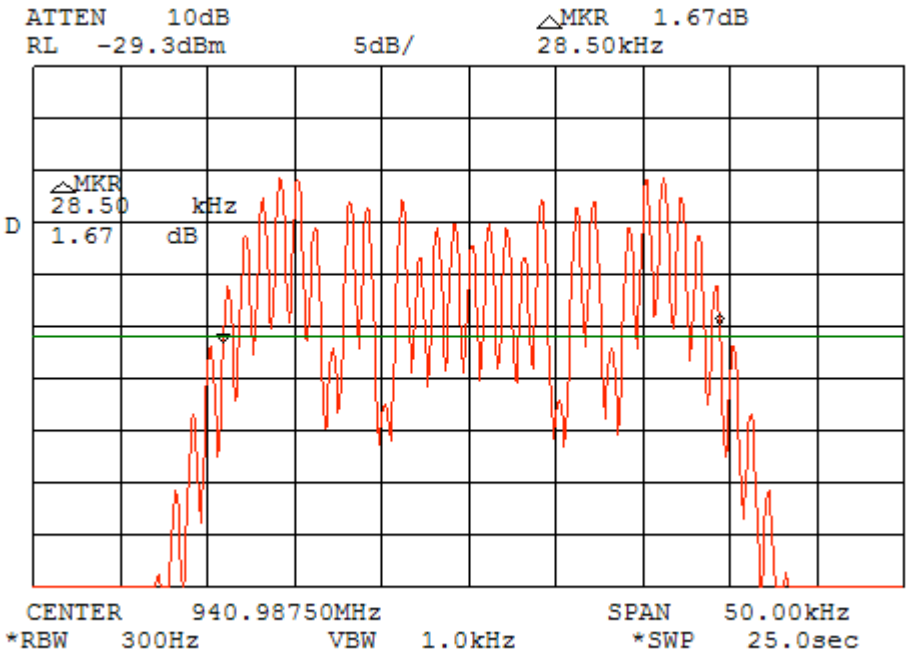


SMR/Paging 900. 928-941 MHz. FM 12.5KHz/1KHz. Occupied bandwidth at 940.9875 MHz

Output

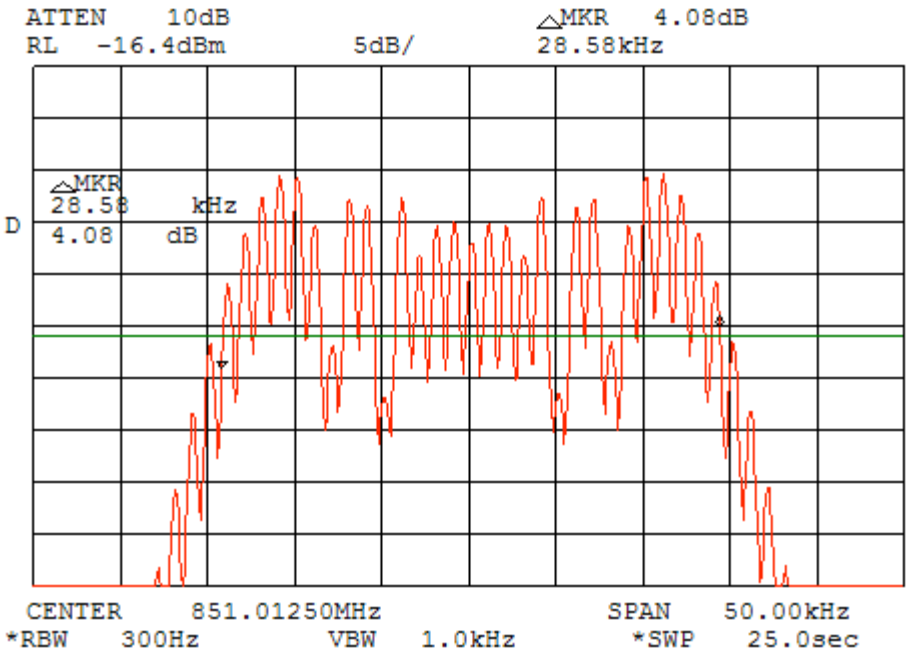


Input

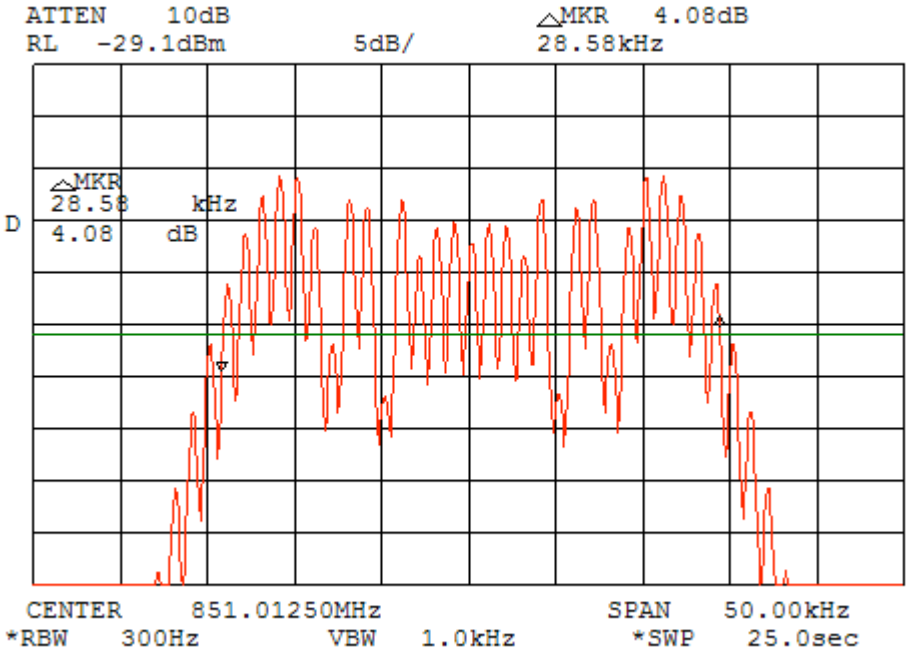


iDEN. LMR 800. 851-866 MHz. . FM 12.5KHz/1KHz. Occupied bandwidth at 851.0125 MHz

Output

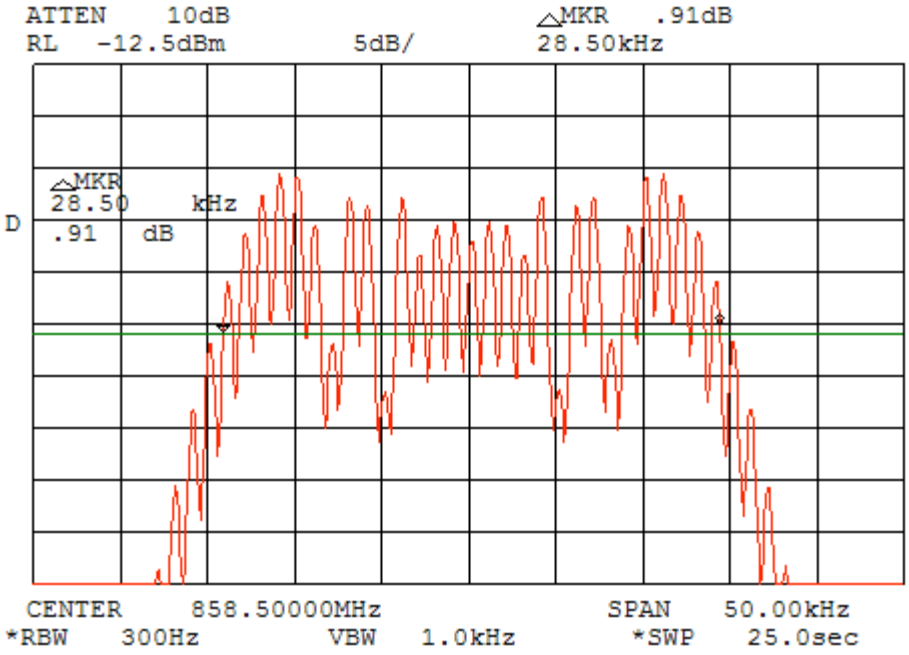


Input

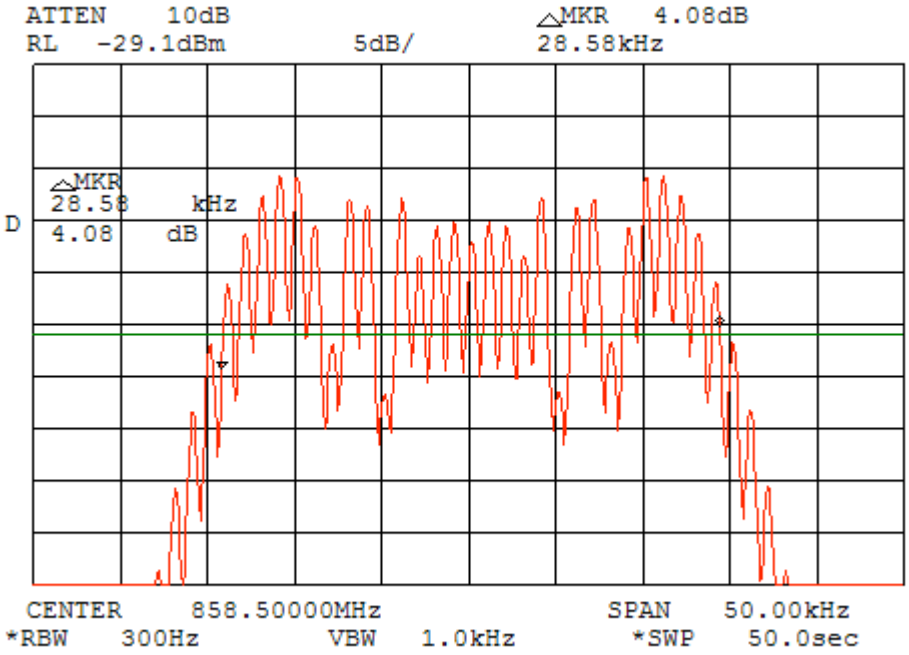


iDEN. LMR 800. 851-866 MHz. . FM 12.5KHz/1KHz. Occupied bandwidth at 858.5 MHz

Output

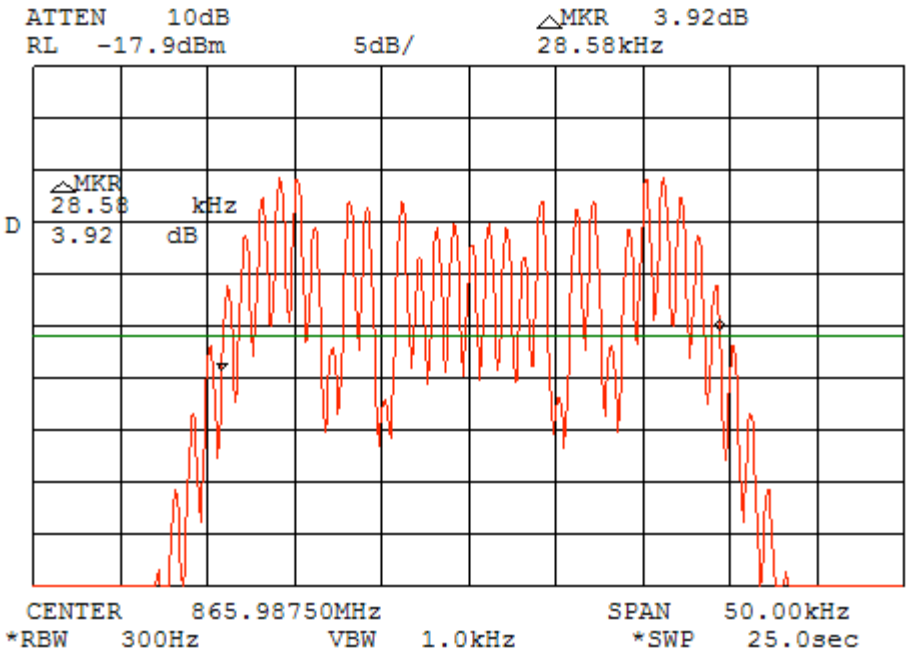


Input

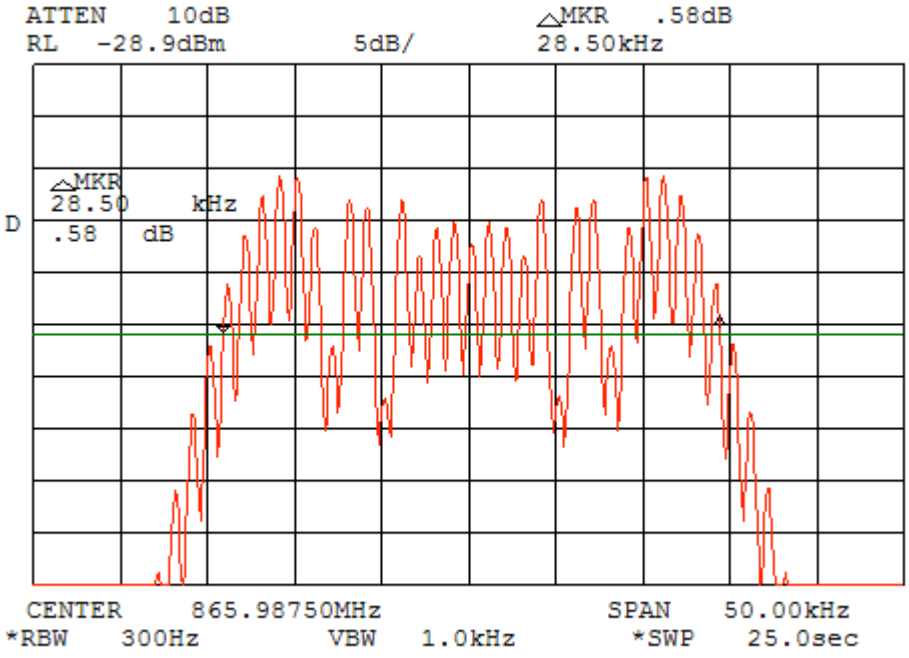


iDEN. LMR 800. 851-866 MHz. . FM 12.5KHz/1KHz. Occupied bandwidth at 865.9875 MHz

Output

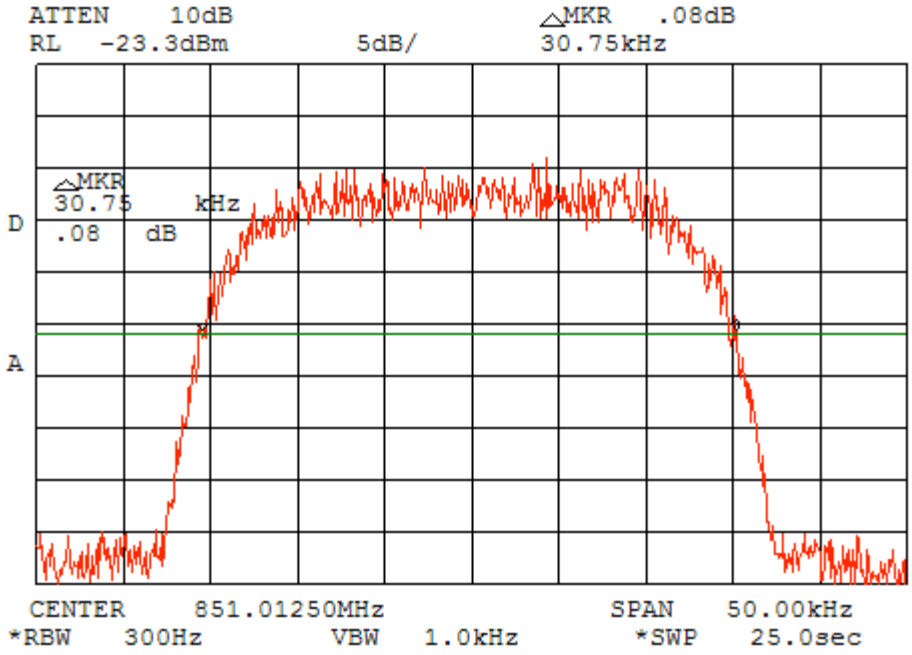


Input

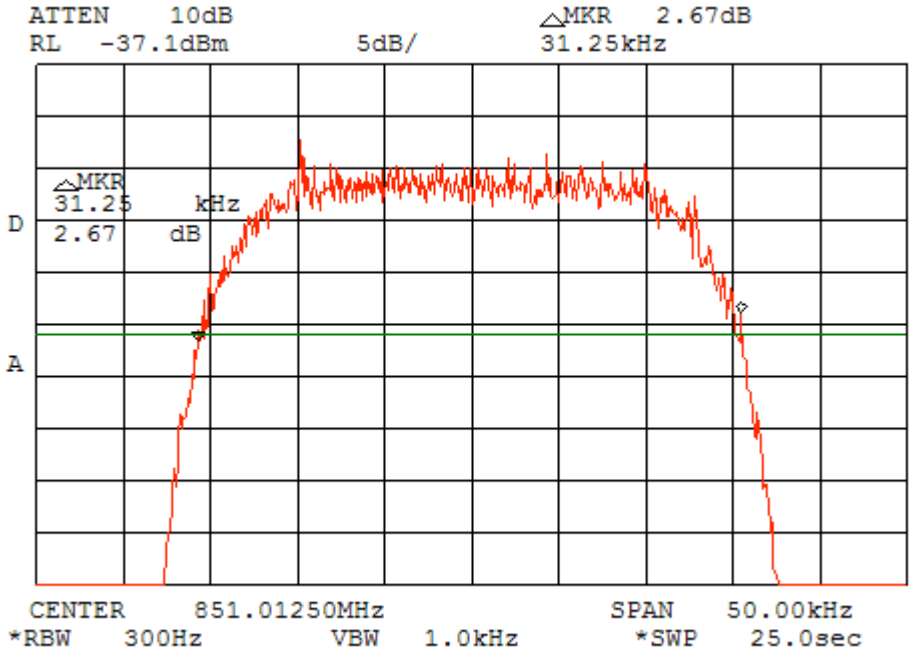


iDEN. 800. 851-866 MHz. 16QAM Occupied bandwidth at 851.0125 MHz

Output

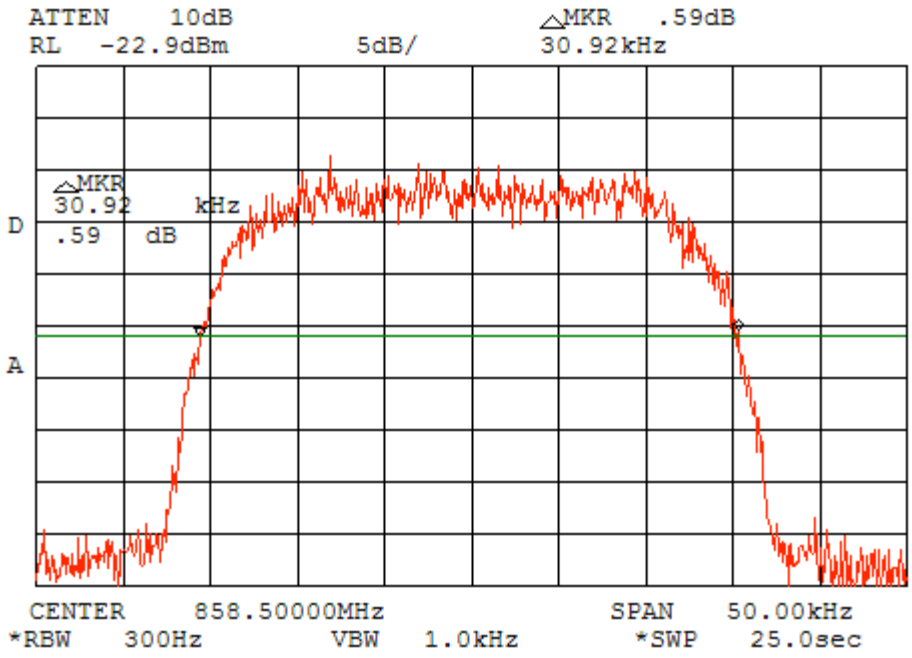


Input

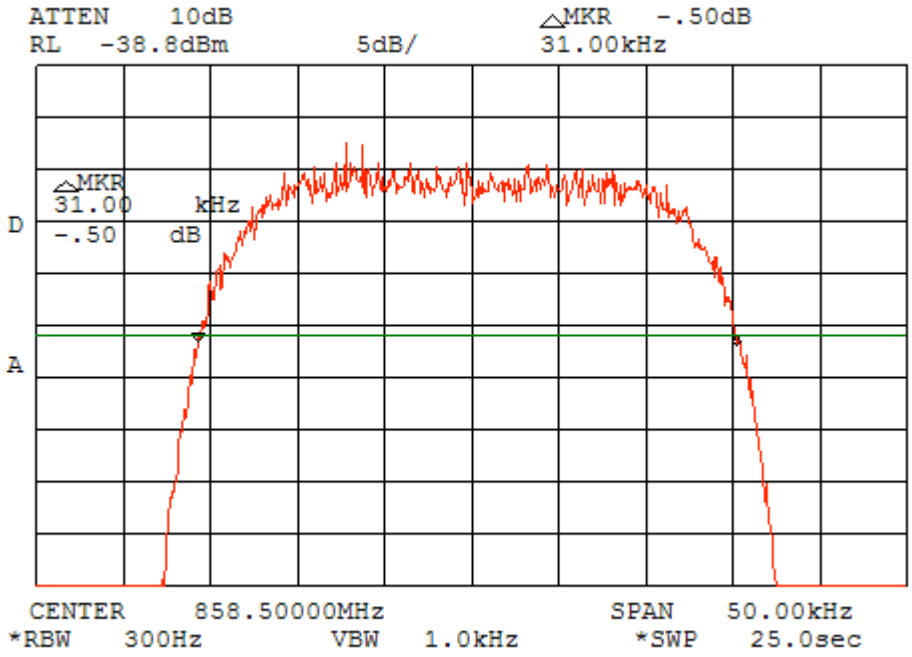


iDEN. 800. 851-866 MHz. 16QAM Occupied bandwidth at 858.5 MHz

Output

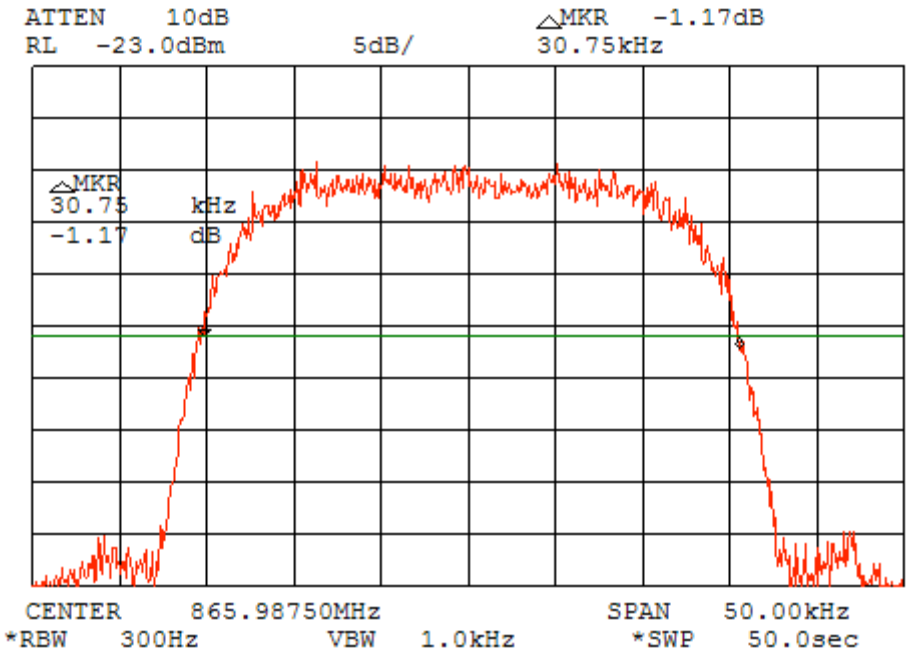

ATTEN 10dB
RL -22.9dBm
5dB/
△MKR .59dB
30.92kHz
△MKR
30.92 kHz
.59 dB
D
A
CENTER 858.50000MHz
SPAN 50.00kHz
*RBW 300Hz
VBW 1.0kHz
*SWP 25.0sec

Input

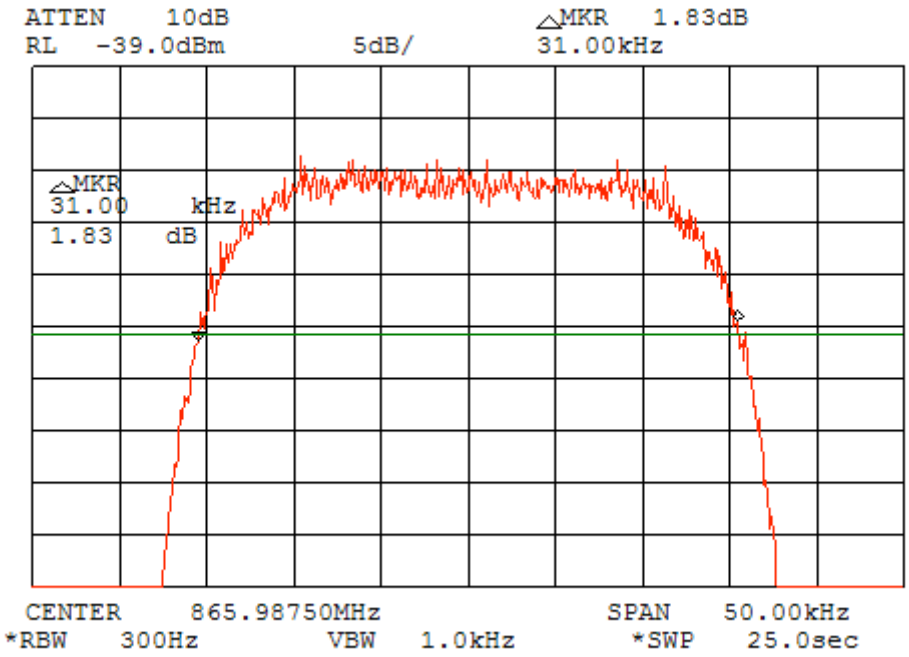

ATTEN 10dB
RL -38.8dBm
5dB/
△MKR -.50dB
31.00kHz
△MKR
31.00 kHz
-.50 dB
D
A
CENTER 858.50000MHz
SPAN 50.00kHz
*RBW 300Hz
VBW 1.0kHz
*SWP 25.0sec

iDEN. 800. 851-866 MHz. 16QAM Occupied bandwidth at 865.9875 MHz

Output

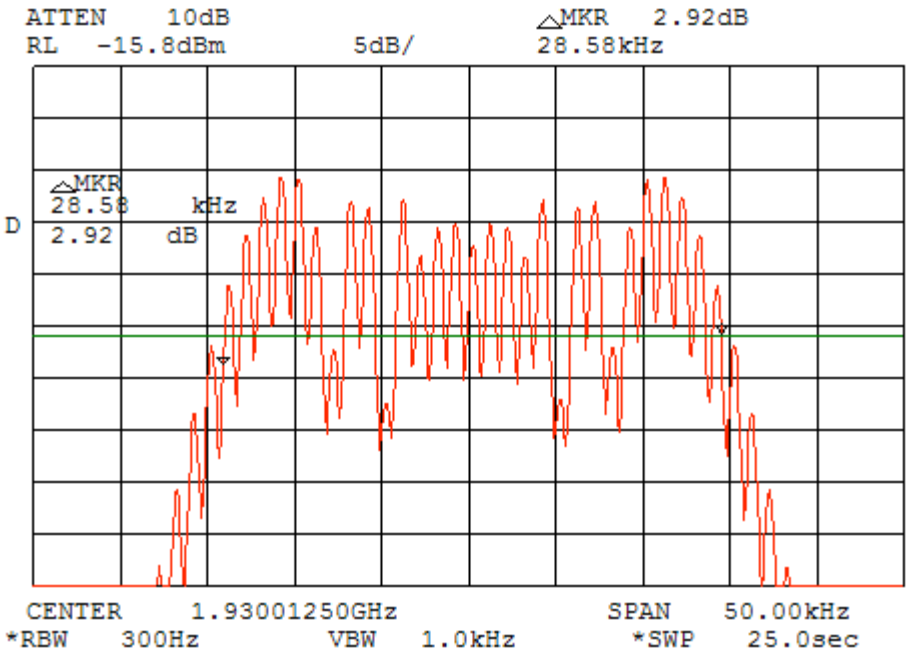


Input

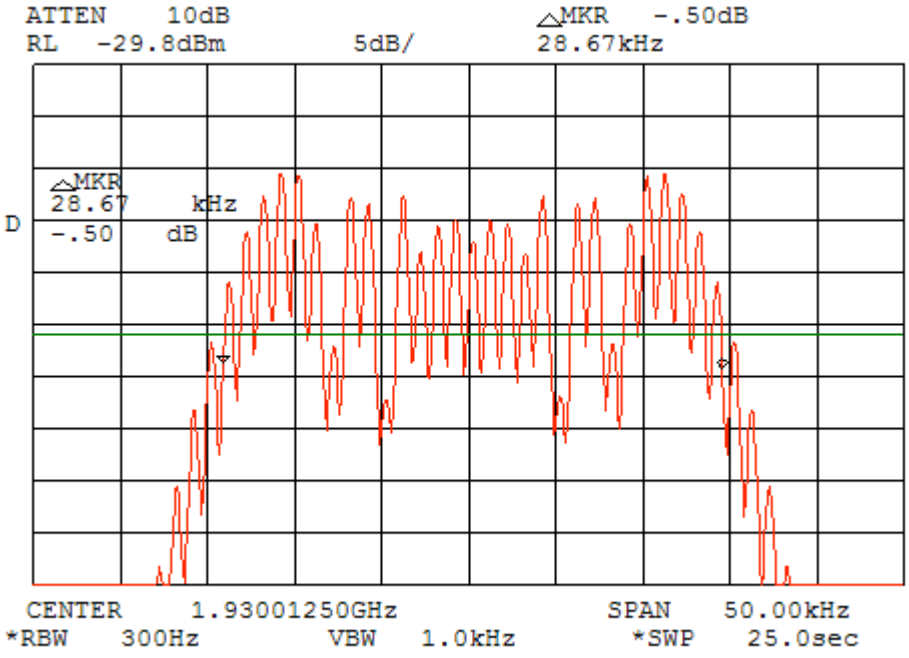


CELL-PCS.. 1930-1990 MHz. FM 12.5KHz/1KHz. Occupied bandwidth at 1930.0125 MHz

Output

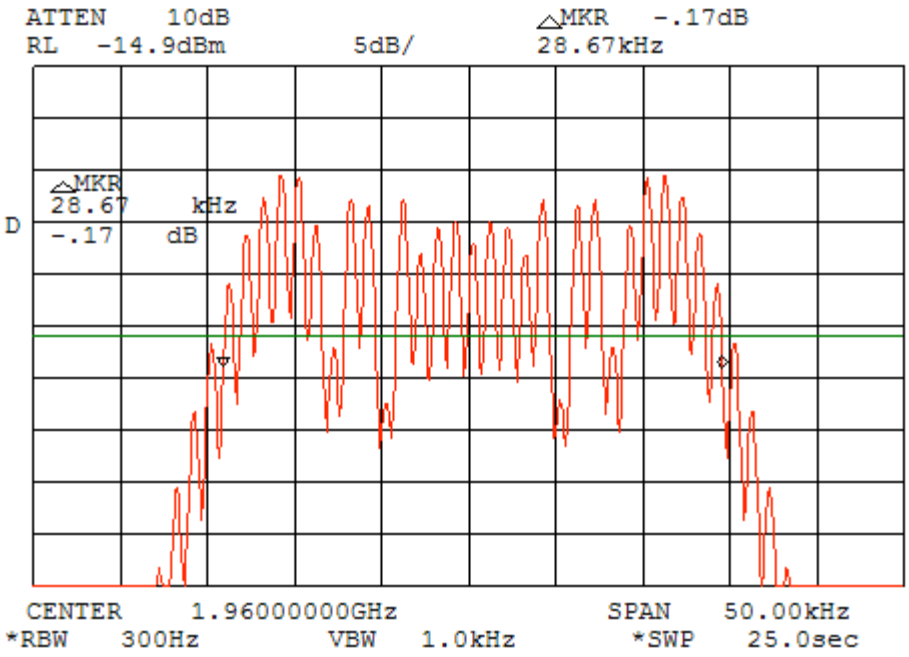


Input

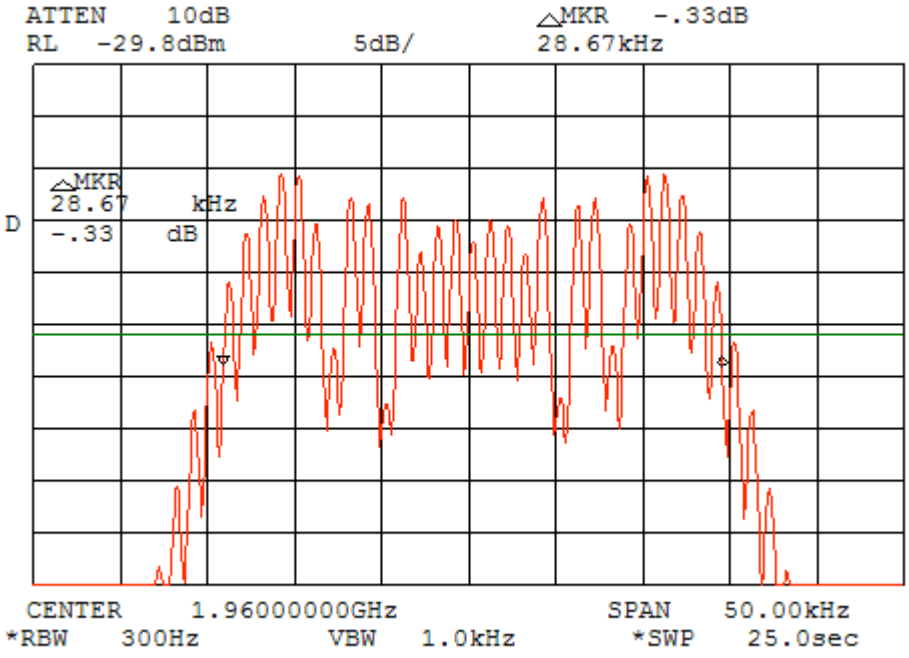


CELL-PCS. 1930-1990 MHz. FM 12.5KHz/1KHz. Occupied bandwidth at 1960.0 MHz

Output

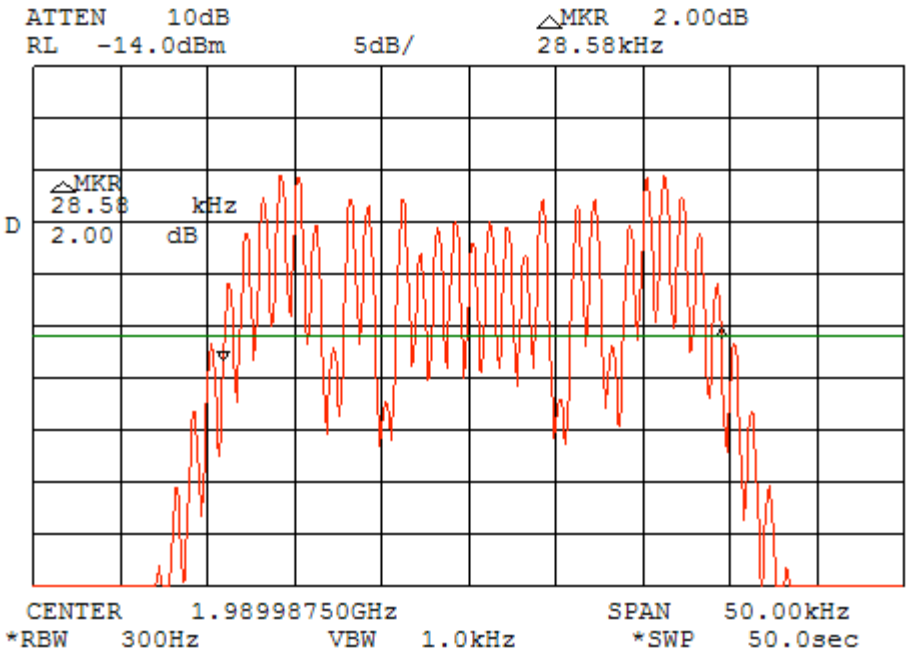


Input

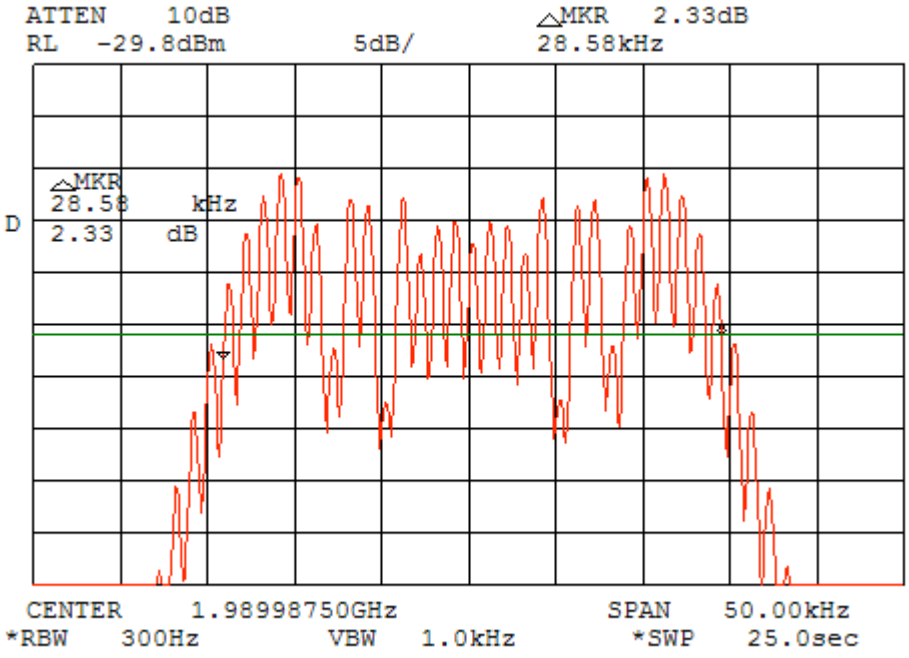


CELL-PCS. 1930-1990 MHz. FM 12.5KHz/1KHz. Occupied bandwidth at 1989.9875 MHz

Output

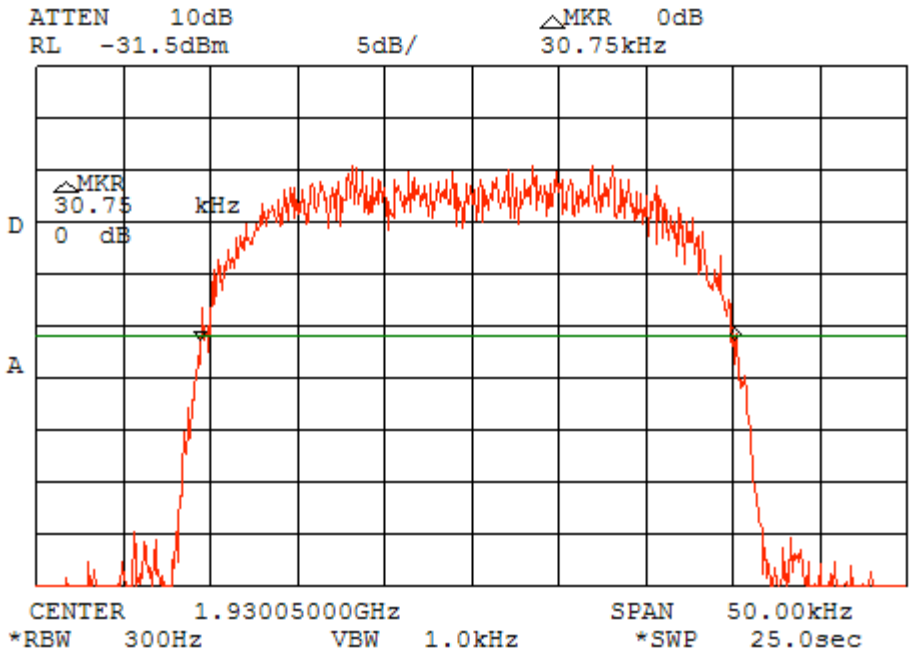


Input

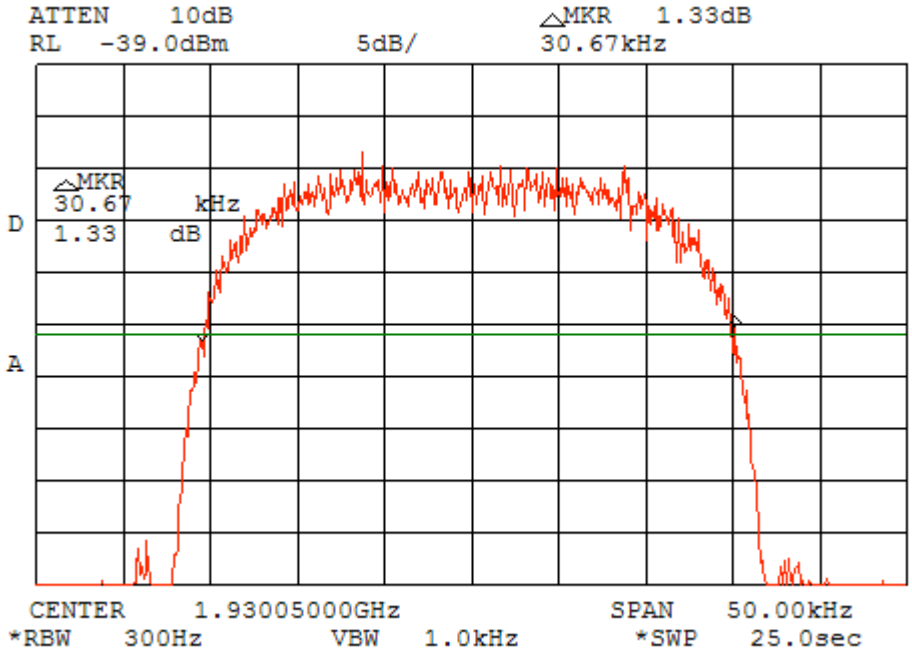


CELL-PCS. TDMA 1900. 1930-1990 MHz. Occupied bandwidth at 1930.05 MHz

Output

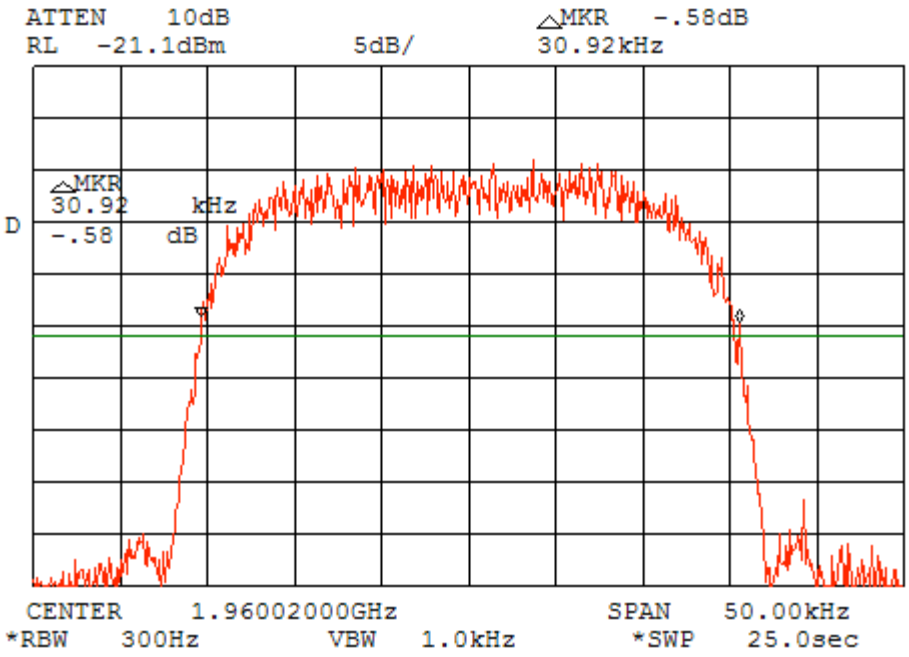


Input

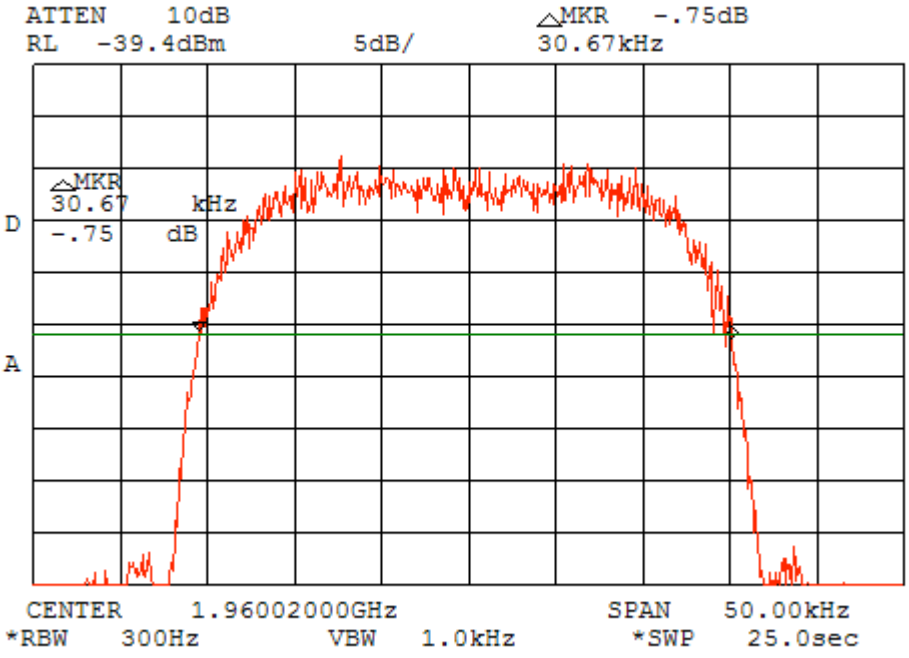


CELL-PCS. TDMA 1900. 1930-1990 MHz. Occupied bandwidth at 1960.02 MHz

Output

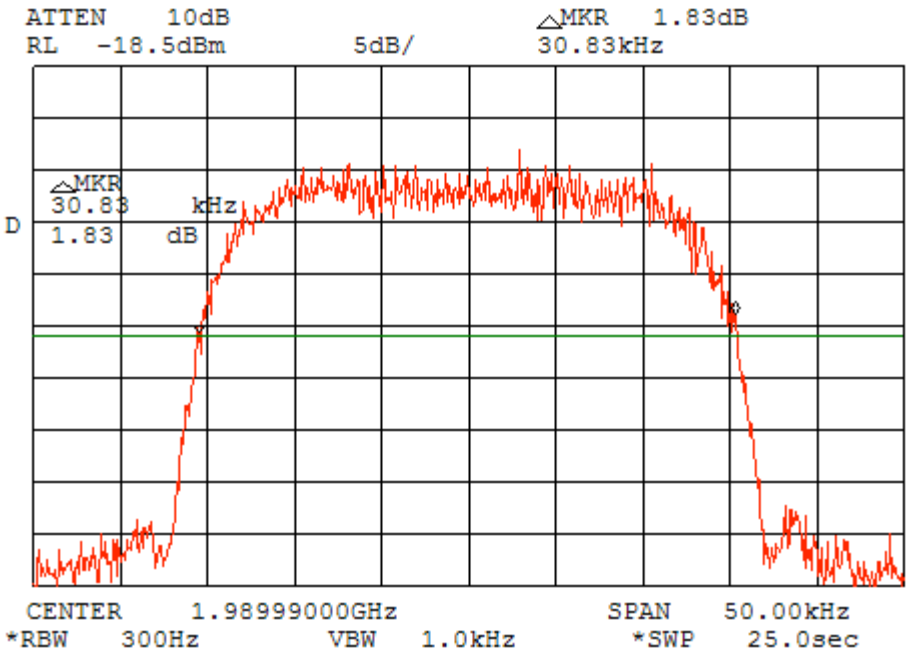


Input

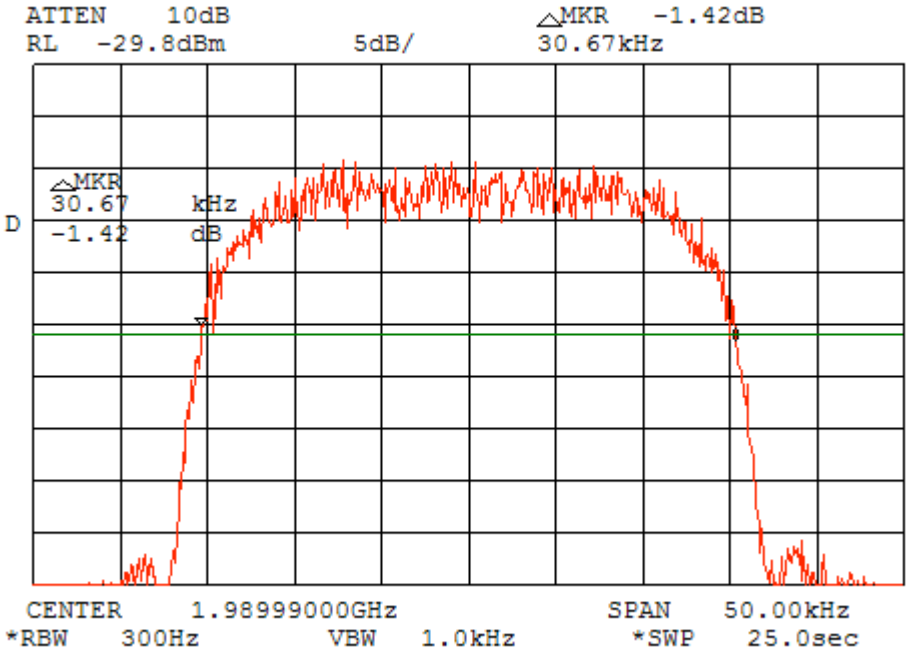


CELL-PCS. TDMA 1900. 1930-1990 MHz. Occupied bandwidth at 1989.99 MHz

Output

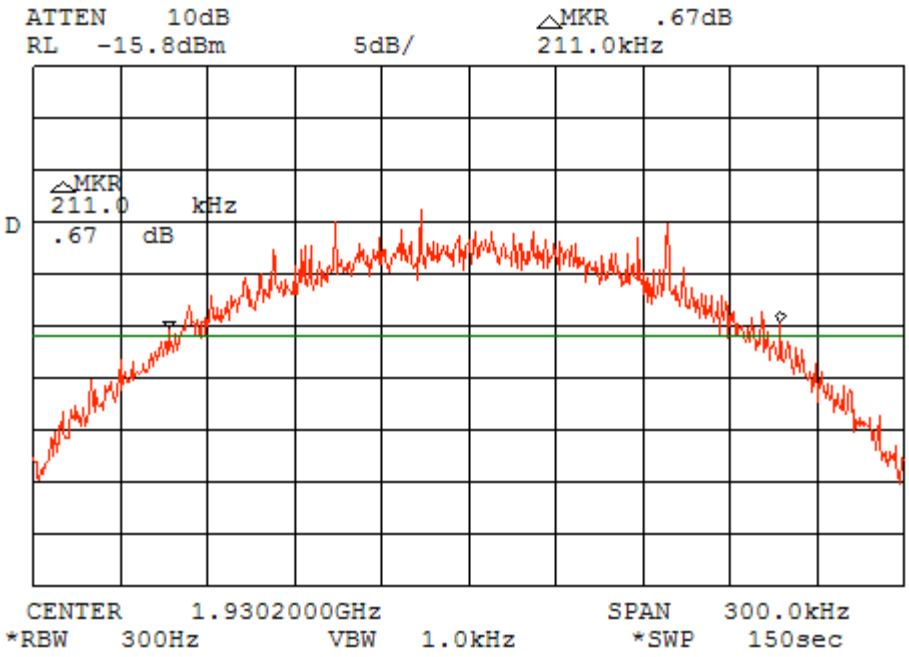


Input

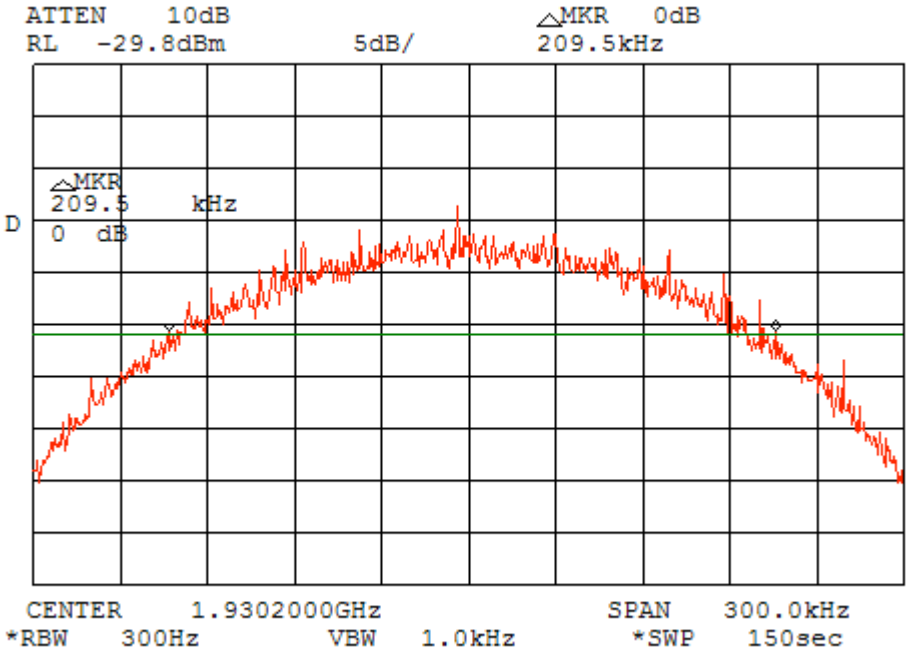


CELL-PCS. GSM 1900. 1930-1990 MHz. Occupied bandwidth at 1930.2 MHz

Output

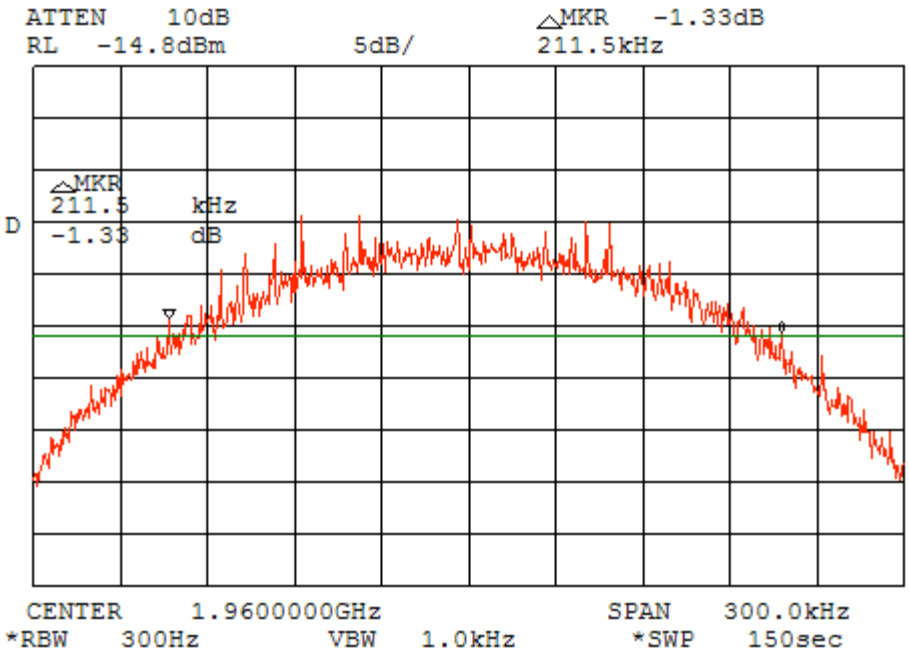


Input

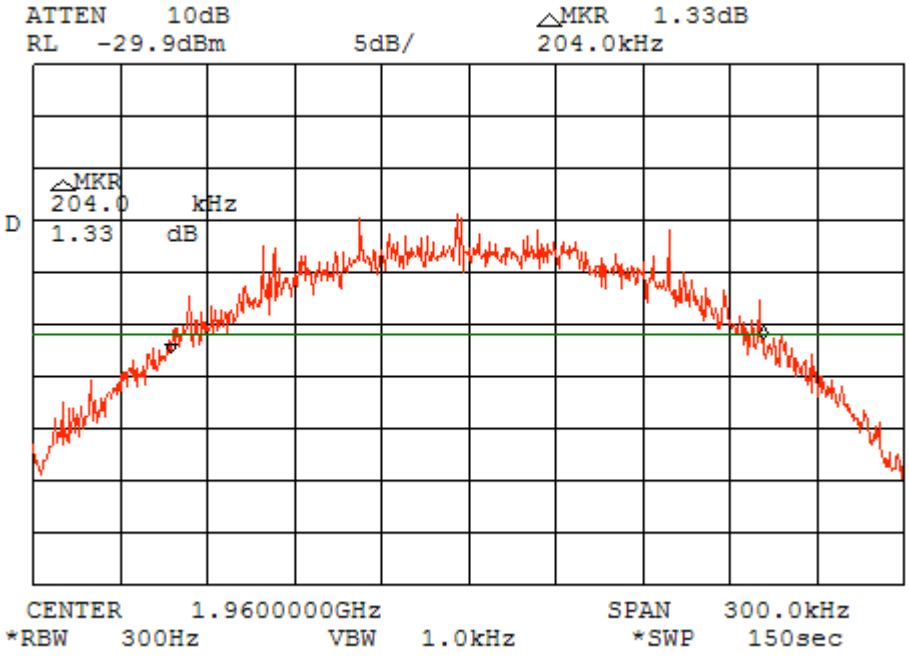


CELL-PCS. GSM 1900. 1930-1990 MHz. Occupied bandwidth at 1960.0 MHz

Output

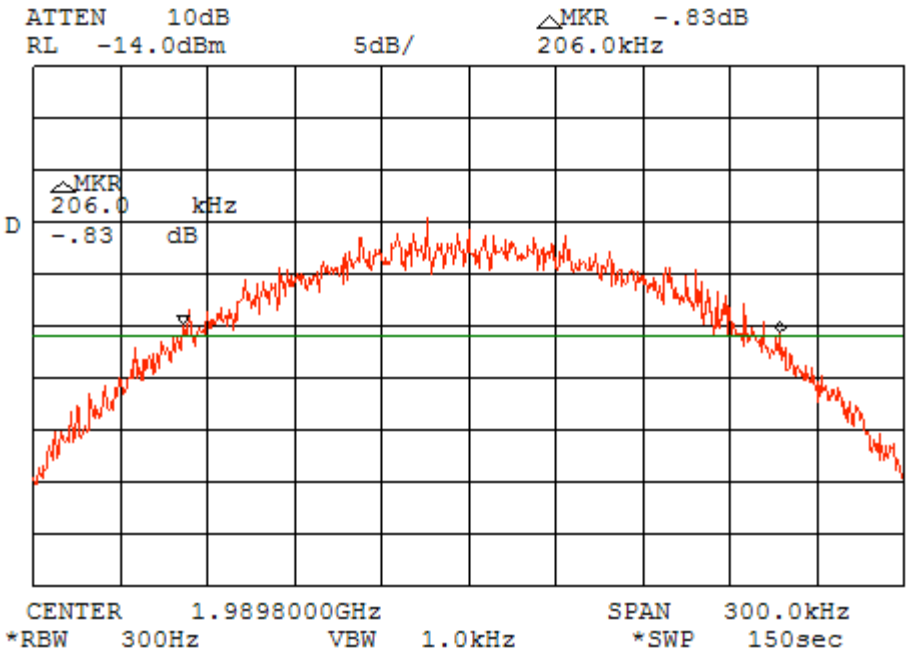


Input

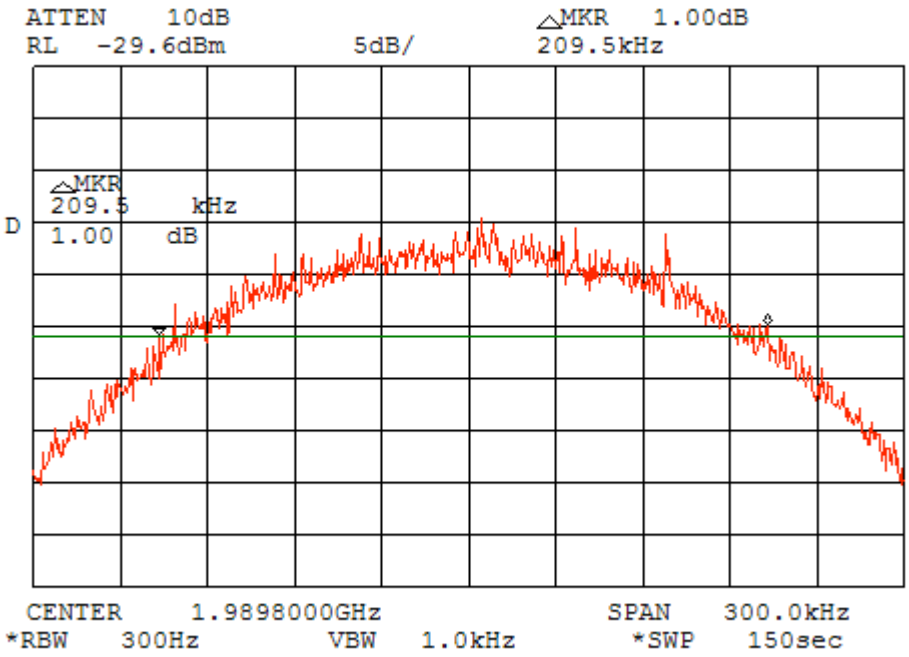


CELL-PCS. GSM 1900. 1930-1990 MHz. Occupied bandwidth at 1989.8 MHz

Output

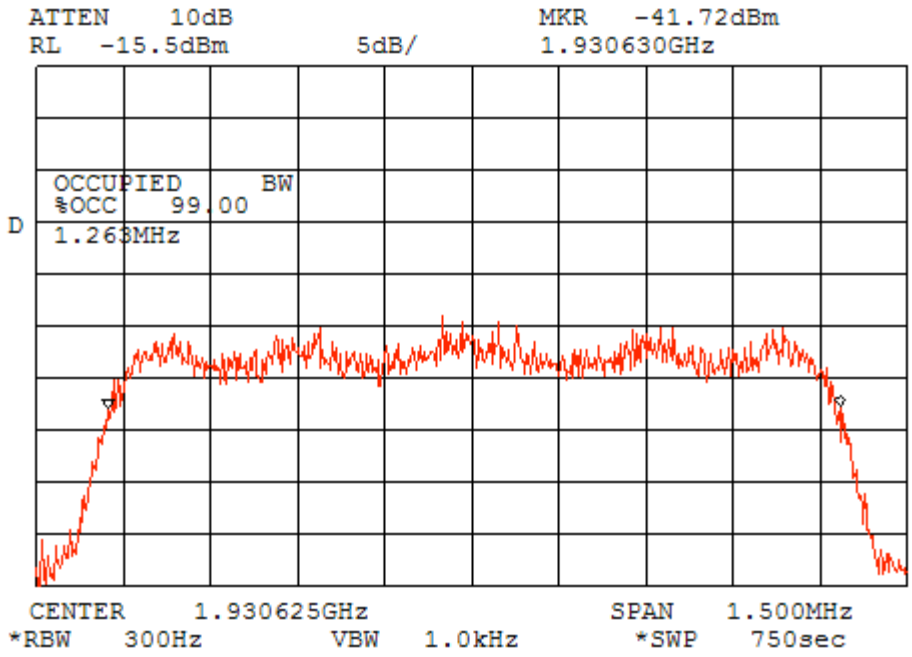


Input

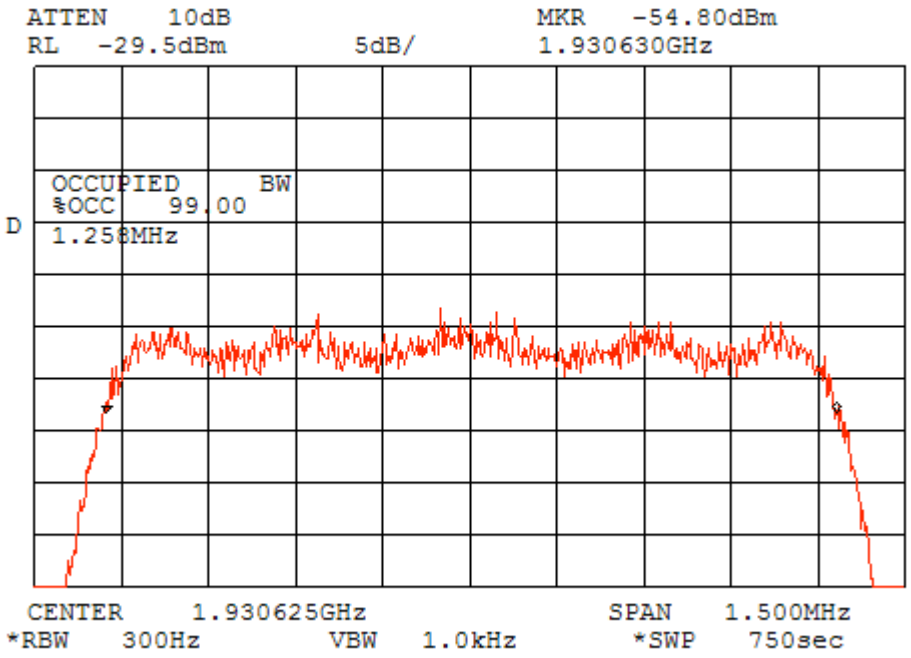


CELL-PCS. CDMA 1900. 1930-1990 MHz. Occupied bandwidth at 1930.625 MHz

Output

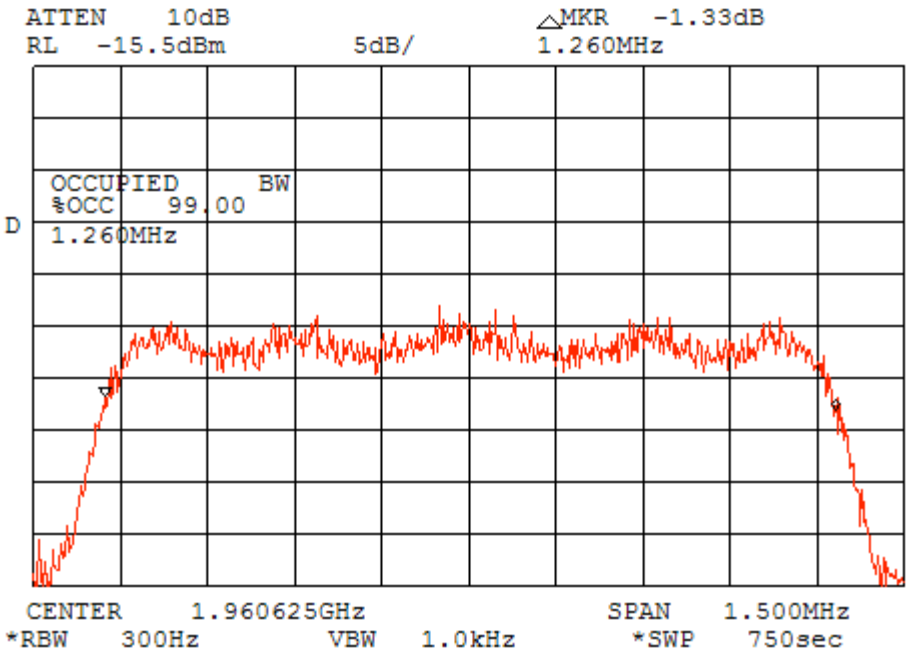


Input

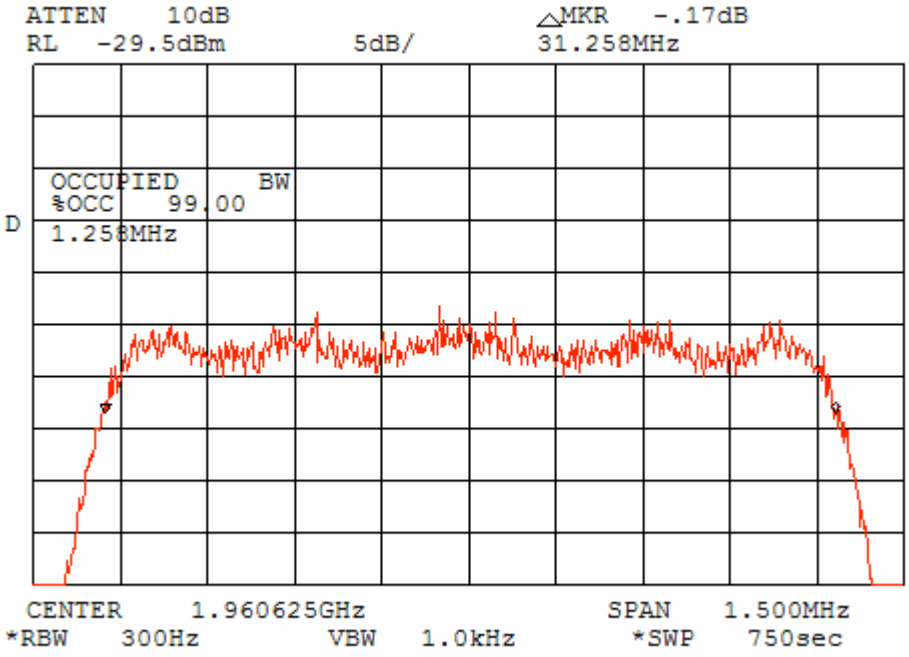


CELL-PCS. CDMA 1900. 1930-1990 MHz. Occupied bandwidth at 1960.625 MHz

Output

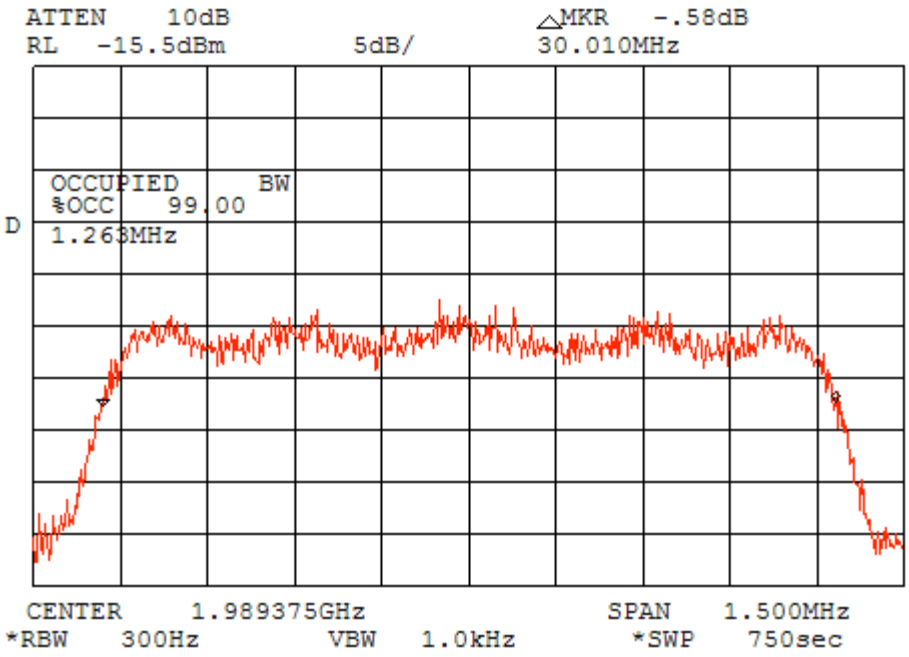


Input

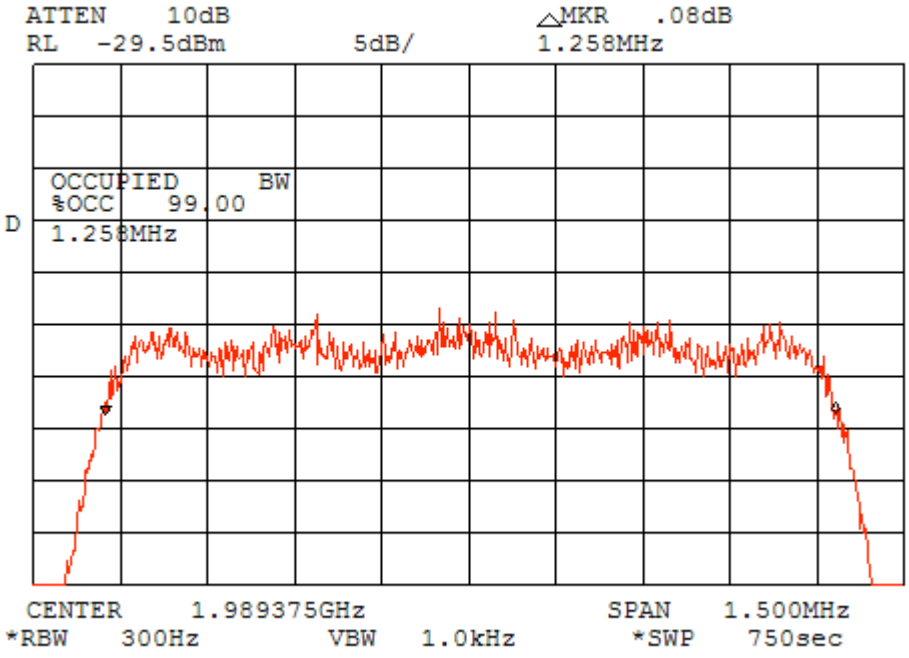


CELL-PCS. CDMA 1900. 1930-1990 MHz. Occupied bandwidth at 1989.375 MHz

Output



Input



Date	28 July 2004
Project	16021
Test	**Intermodes**
Operator	Michael Lerman
Test equipment	2524, 1424, 2399
Temperature	24°C
Humidity	37%
Air pressure	1005 hPa
EUT	SMR 1900

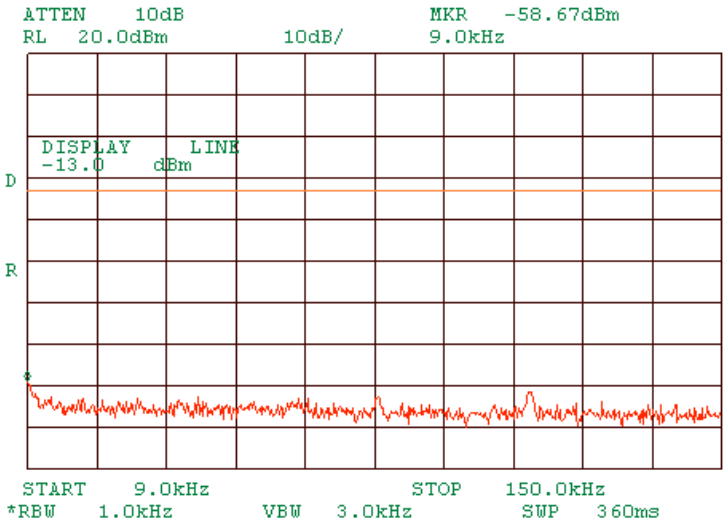
Band 928 – 941 MHz
FM_1 = 928.0125 MHz
FM_2 = 928.0150 MHz
FM_3 = 940.9875 MHz

Band 1930 – 1990 MHz

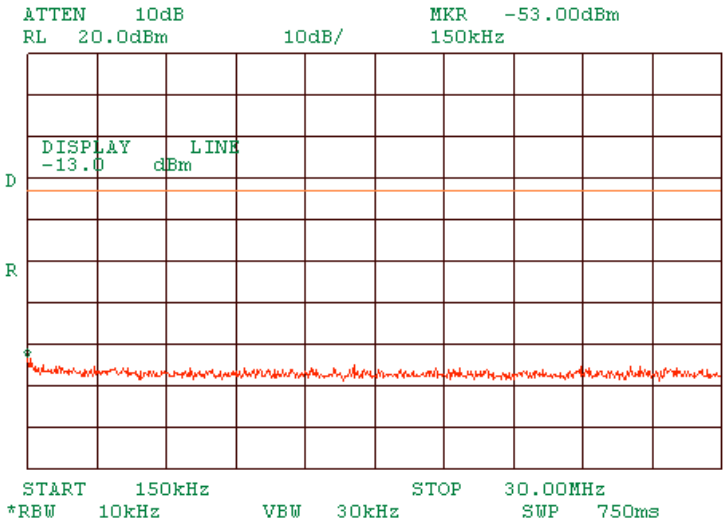
$CDMA_1$ = 1931.250 MHz
$CDMA_2$ = 1932.500 MHz
$CDMA_3$ = 1988.750 MHz

FM_1 = 1930.0125 MHz
FM_2 = 1930.0150 MHz
FM_3 = 1989.9875 MHz

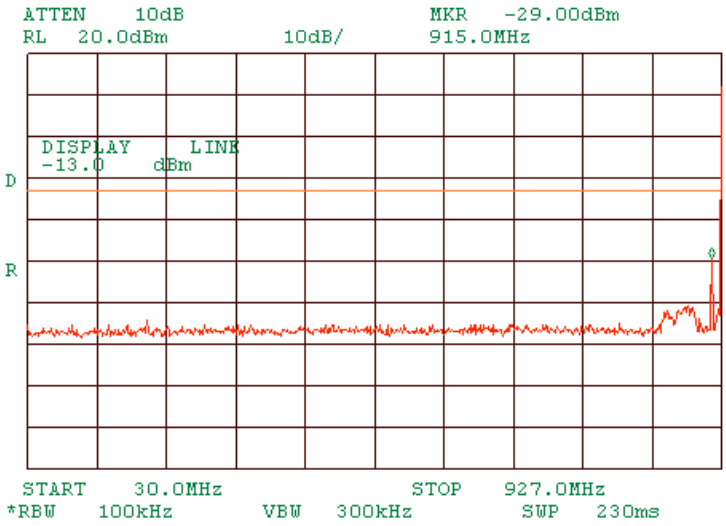
Range 9 – 150 kHz. FM 900



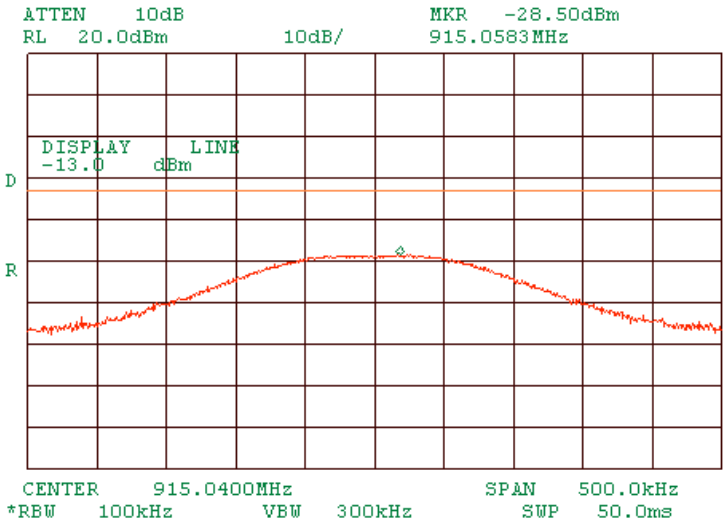
Range 0.150 – 30 MHz. FM 900



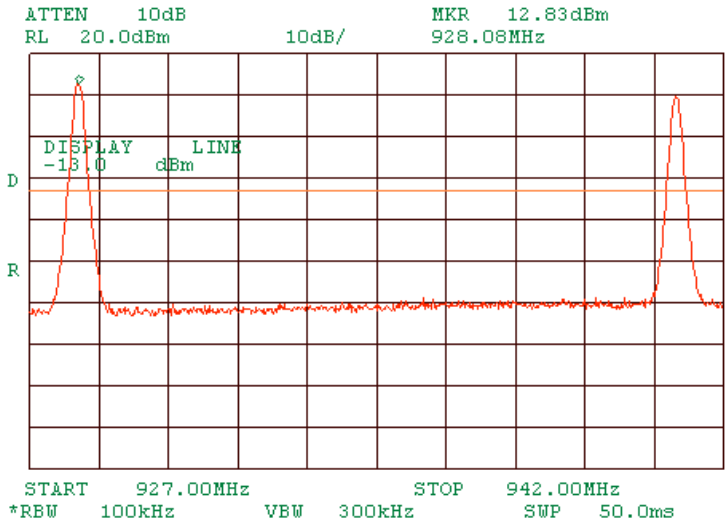
Range 30 – 927 MHz. FM



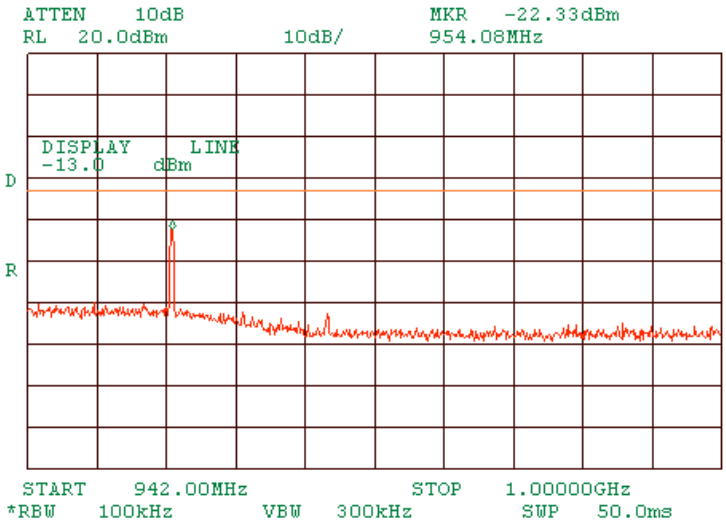
Spurious. FM



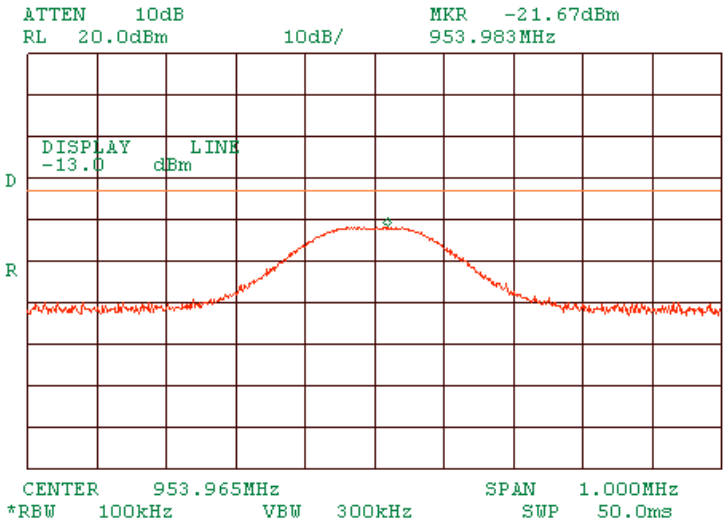
Range 927 – 942 MHz. FM 900



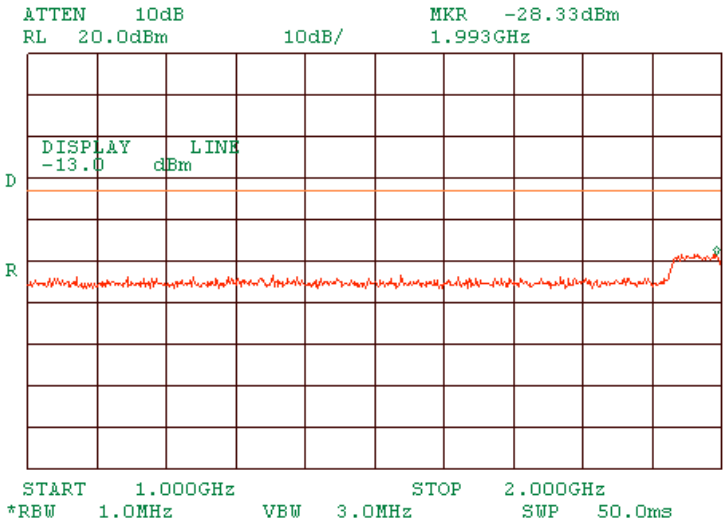
Range 942 – 1000 MHz. FM 900



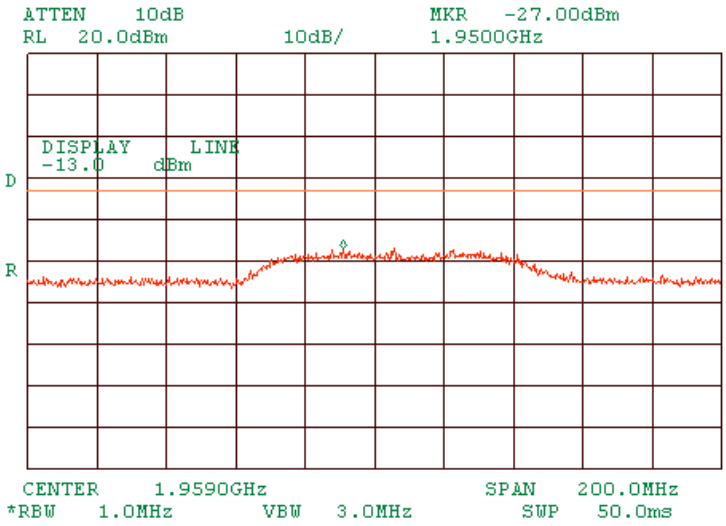
Spurious. FM 900



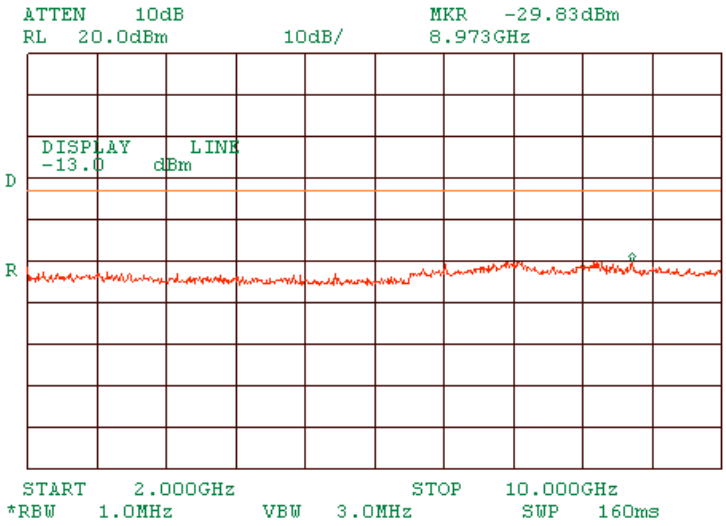
Range 1000 – 2000 MHz. FM 900



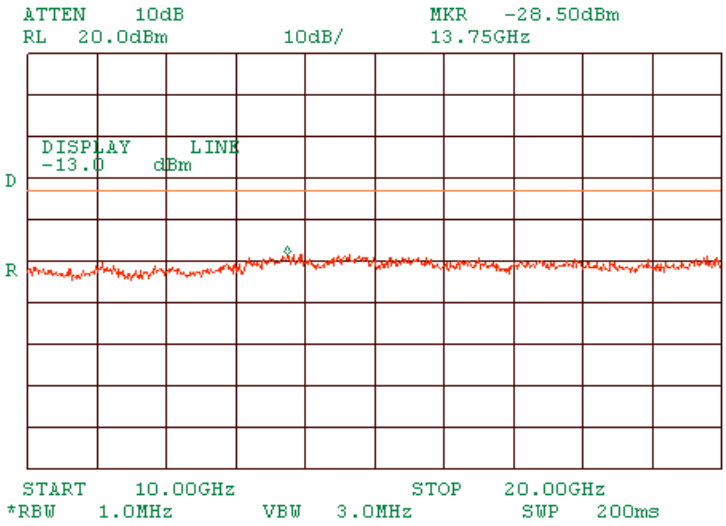
Spurious. FM 900



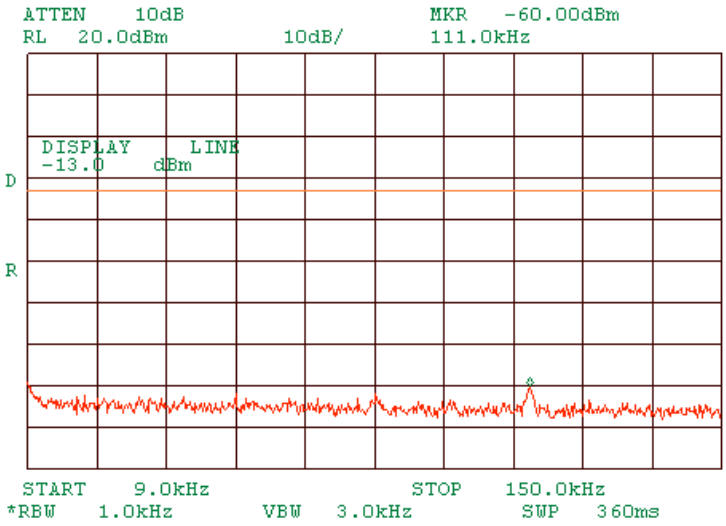
Range 2000 – 10000 MHz. FM 900



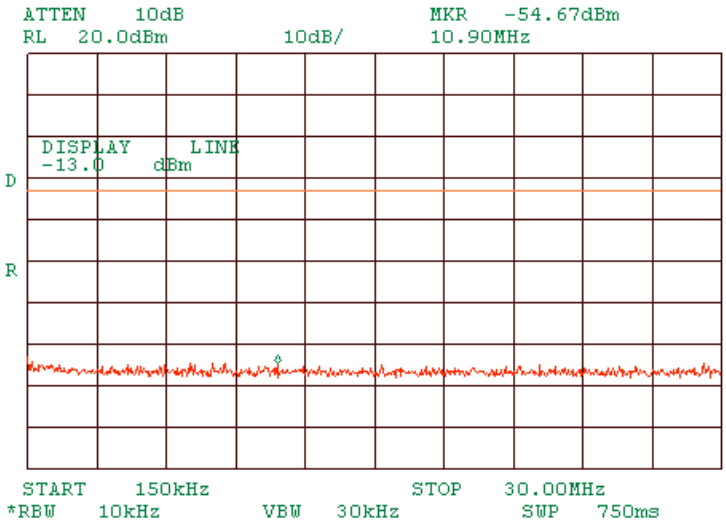
Range 10000 – 20000 MHz. FM 900



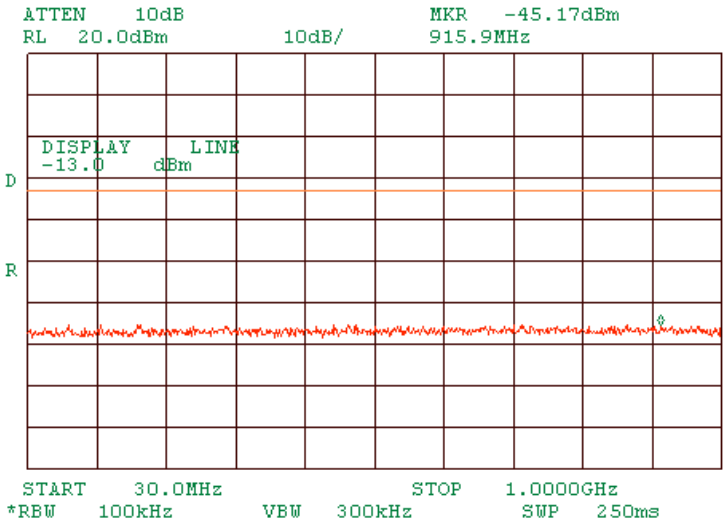
Range 9 – 150 kHz. CDMA 1900



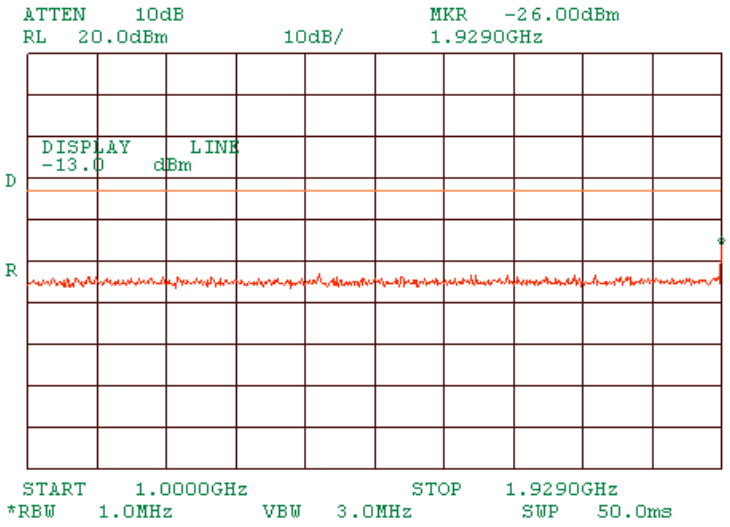
Range 0.150 – 30 MHz. CDMA 1900



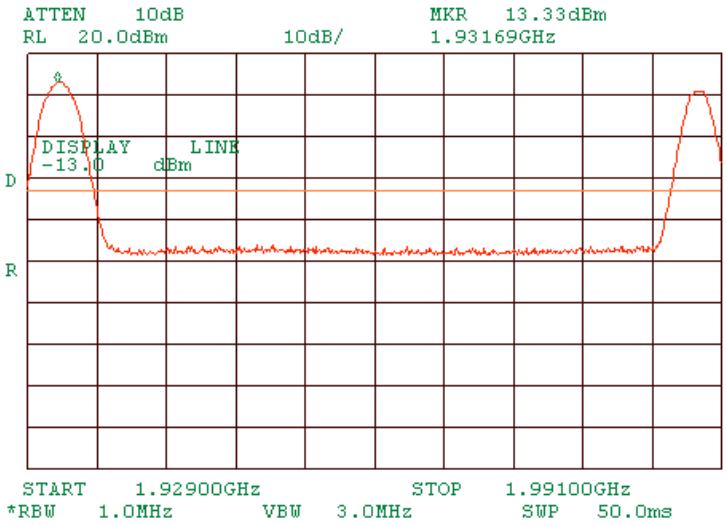
Range 30 – 1000 MHz. CDMA 1900



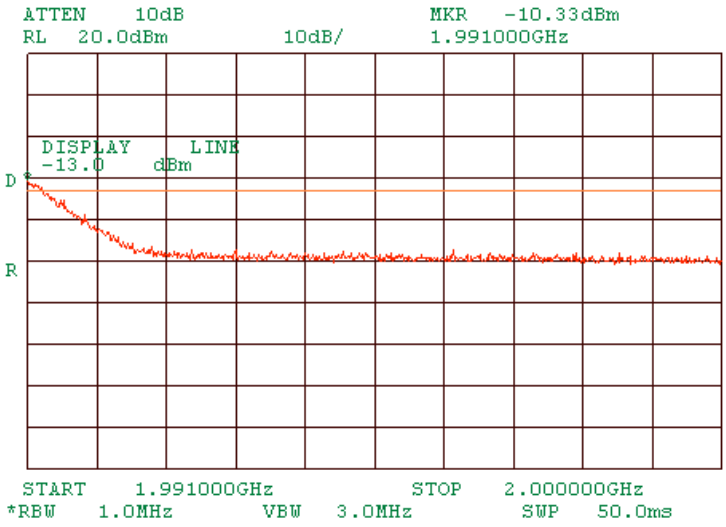
Range 1000 – 1929 MHz. CDMA 1900



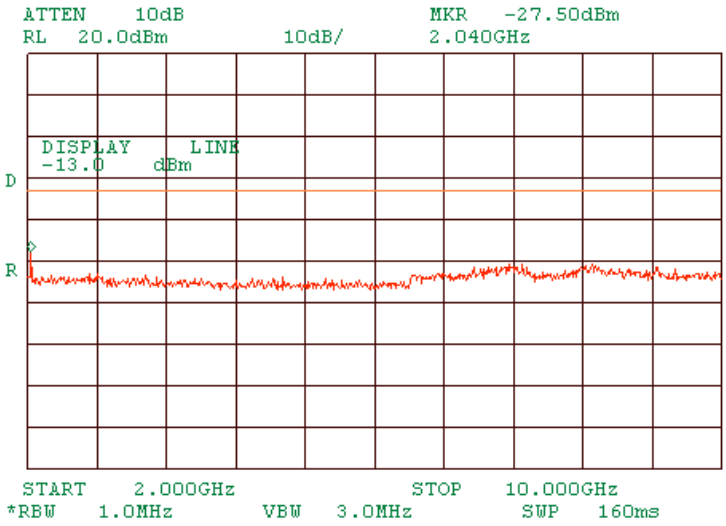
Range 1929 – 1991 MHz. CDMA 1900



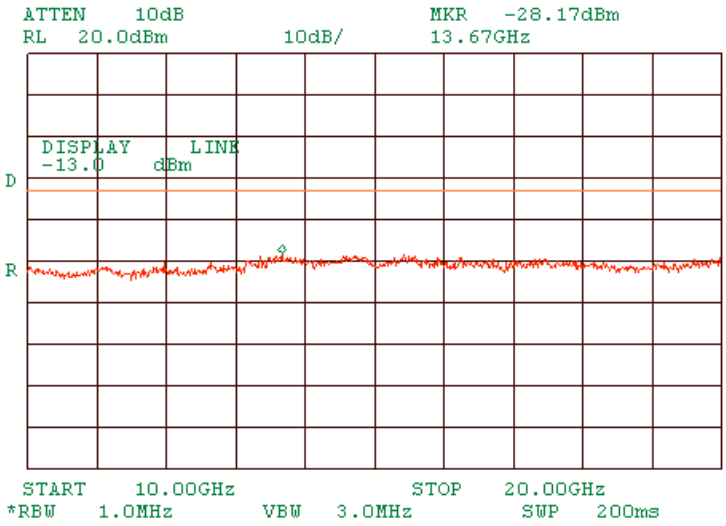
Range 1991 – 2000 MHz. CDMA 1900



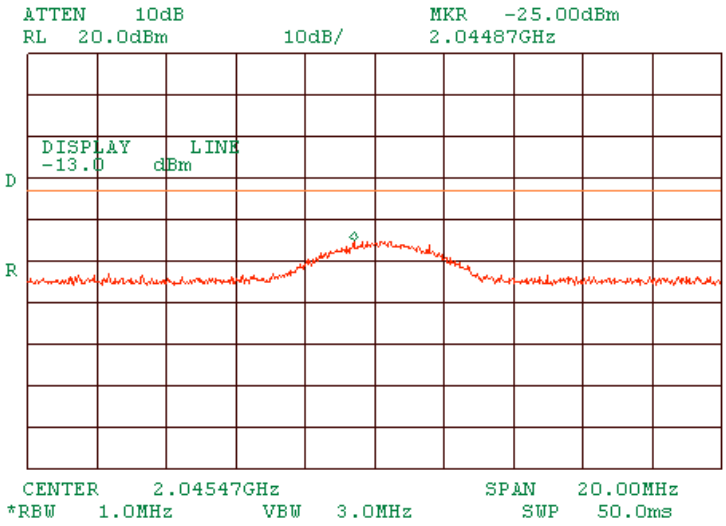
Range 2000 – 10000 MHz. CDMA 1900



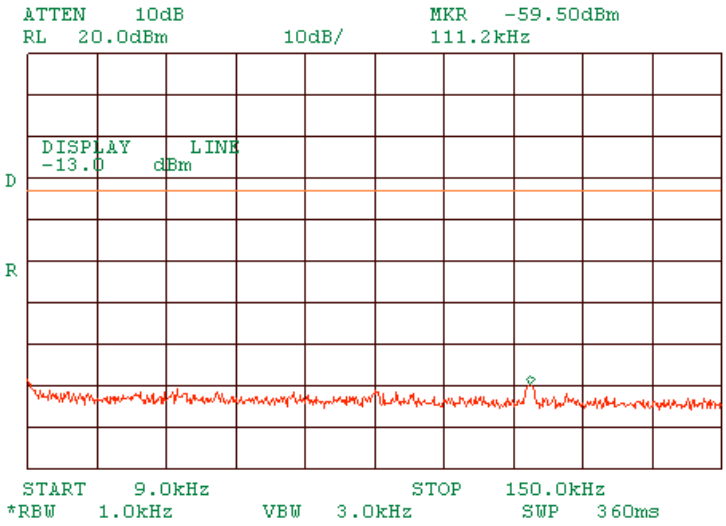
Range 10000 – 20000 MHz. CDMA 1900



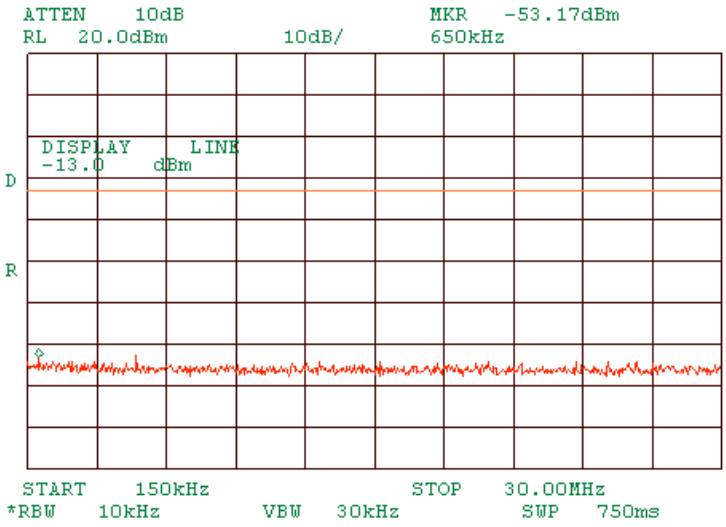
Spurious at 2040 MHz. CDMA 1900



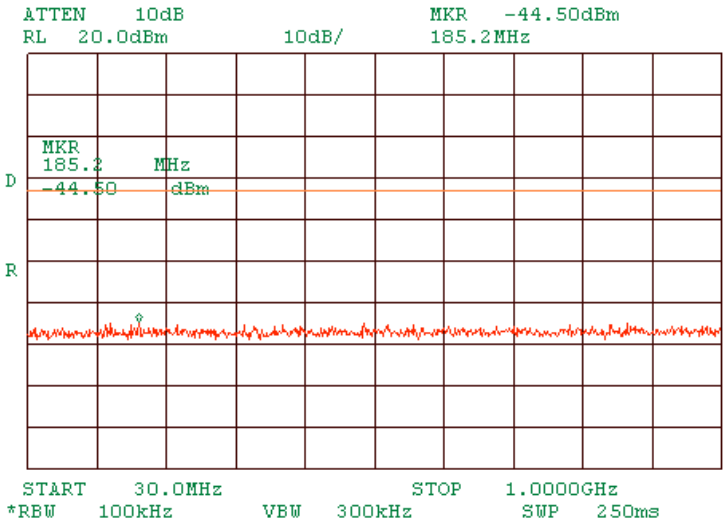
Range 9 – 150 kHz. FM 1900



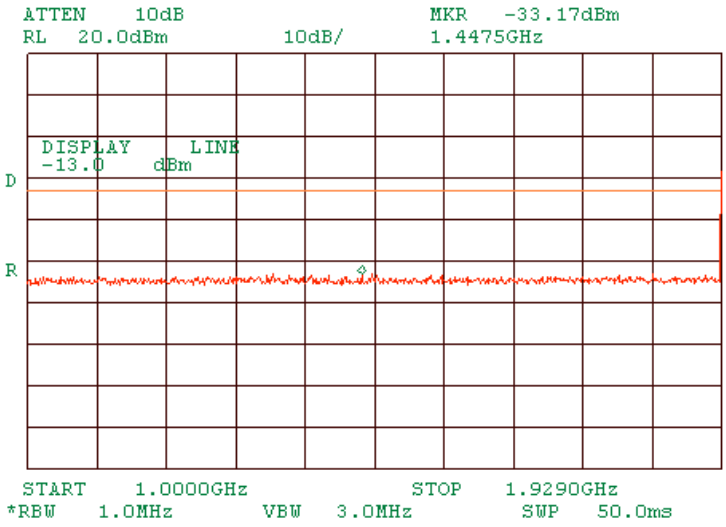
Range 0.150 – 30 MHz. FM 1900



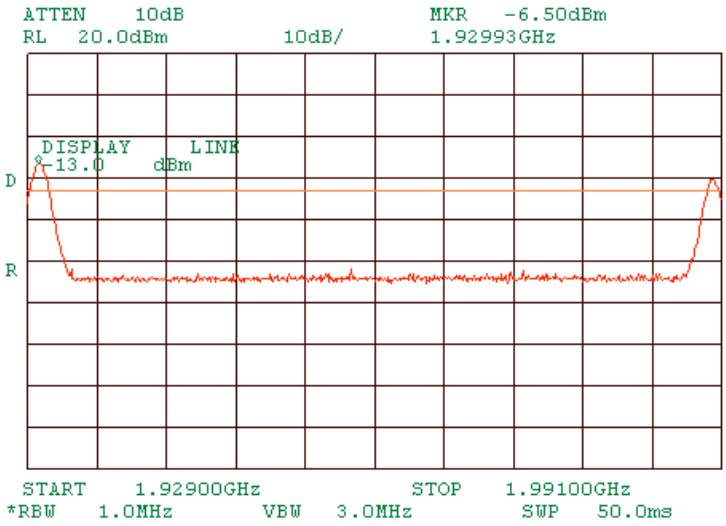
Range 30 – 1000 MHz. FM 1900



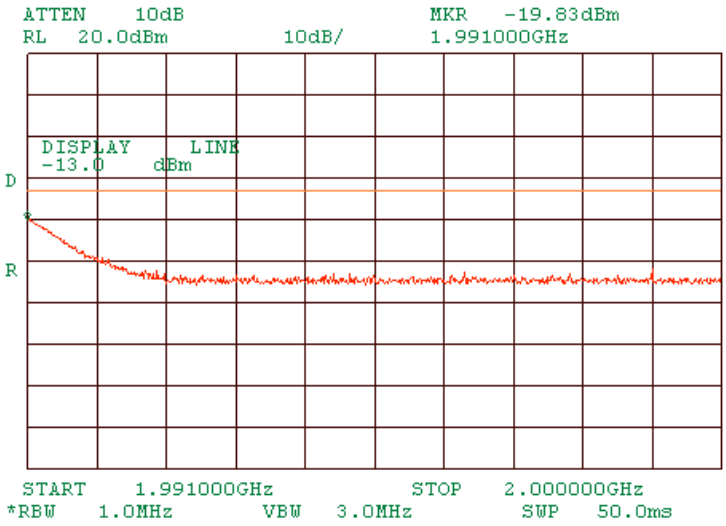
Range 1000 – 1929 MHz. FM 1900



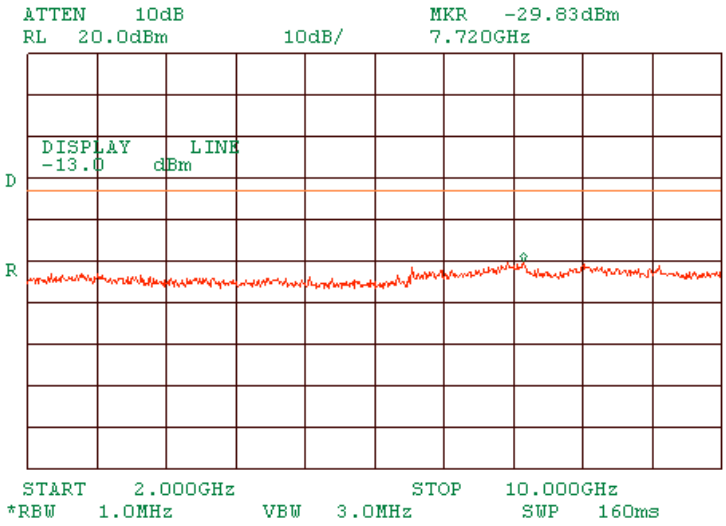
Range 1929 – 1991 MHz. FM 1900



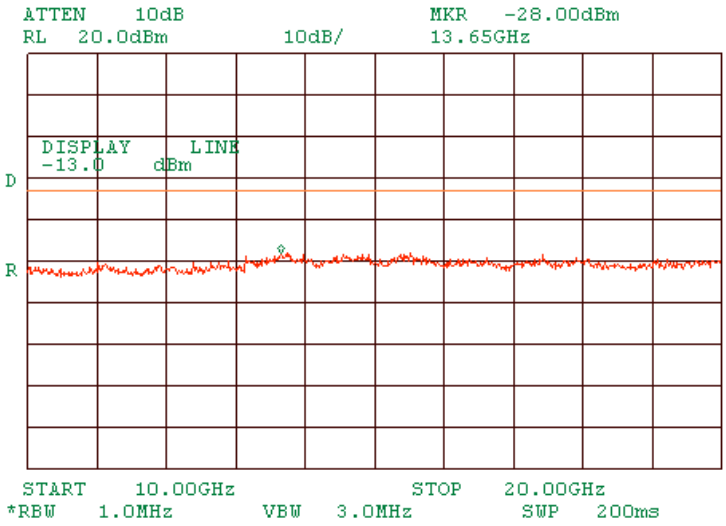
Range 1991 – 2000 MHz. FM 1900



Range 2000 – 10000 MHz. FM 1900



Range 10000 – 20000 MHz. FM 1900

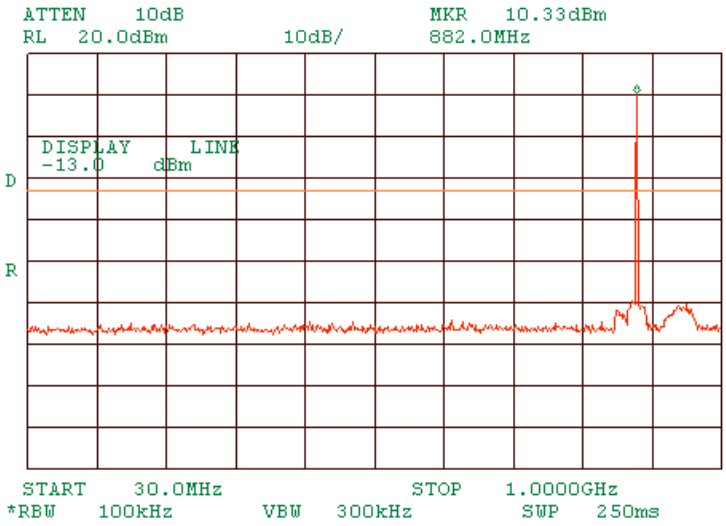


Date	28 July 2004
Project	16021
Test	Intermode
Operator	Michael Lerman
Test equipment	2524, 1424, 2399
Temperature	24°C
Humidity	37%
Air pressure	1005 hPa
EUT	CELL 800 1900

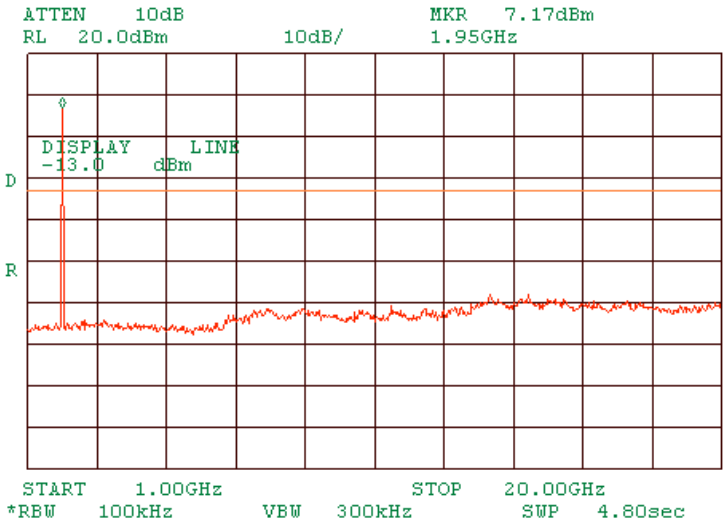
Band 869 - 894 MHz
CW_1 = 881.5 MHz

Band 1930 – 1990 MHz
CW_2 = 1960 MHz

Range 30 – 1000 MHz.



Range 1000 – 20000 MHz.



Date 28 July 2004
Project 16021

Test	Intermodes
Operator	Michael Lerman
Test equipment	2524, 1424, 2399
Temperature	24°C
Humidity	37%
Air pressure	1005 hPa
EUT	iDEN 1900

Band 851 – 866 MHz

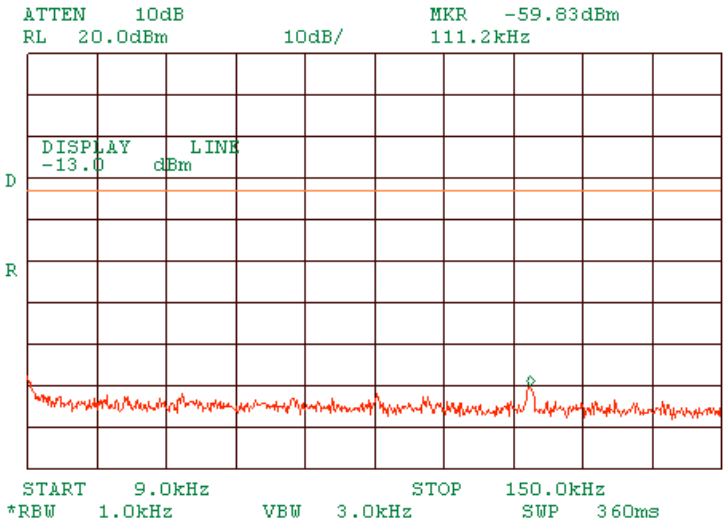
FM_1 = 851.0125 MHz
FM_2 = 851.0150 MHz
FM_3 = 865.9875 MHz

Band 1930 – 1990 MHz

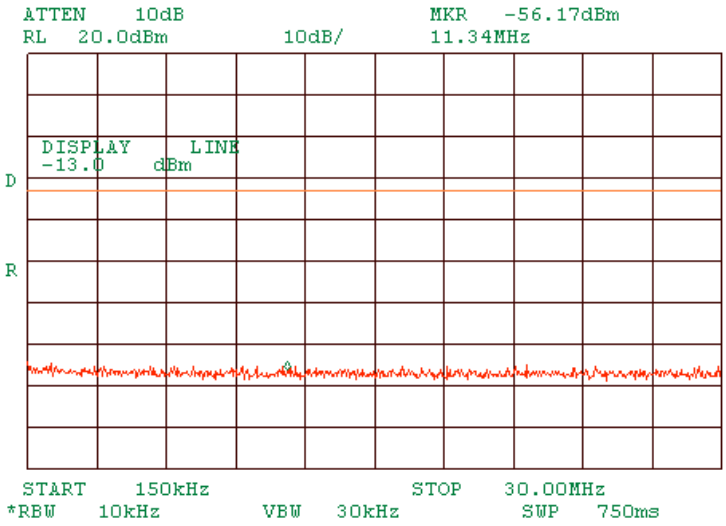
FM_1 = 1930.0125 MHz
FM_2 = 1930.0150 MHz
FM_3 = 1989.9875 MHz

$CDMA_1$ = 1931.250 MHz
$CDMA_2$ = 1932.500 MHz
$CDMA_3$ = 1988.750 MHz

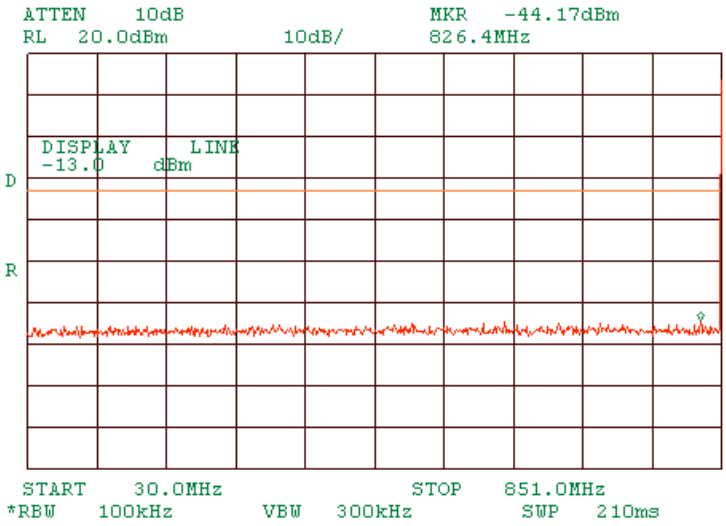
Range 9 – 150 kHz. FM 800



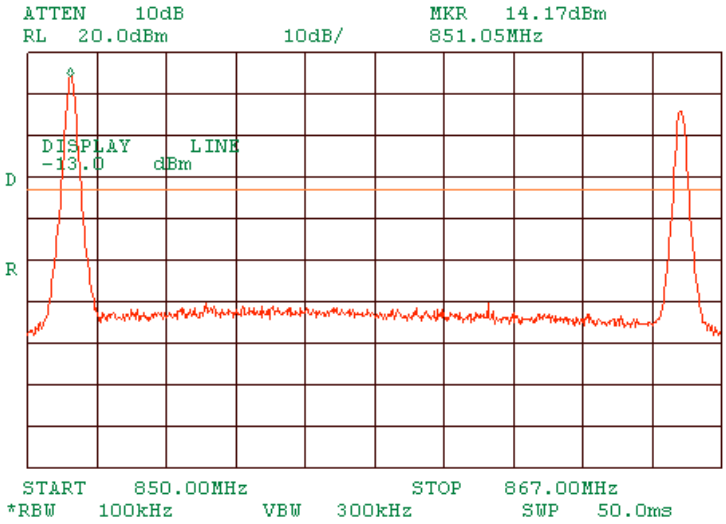
Range 0.150 – 30 MHz. FM 800



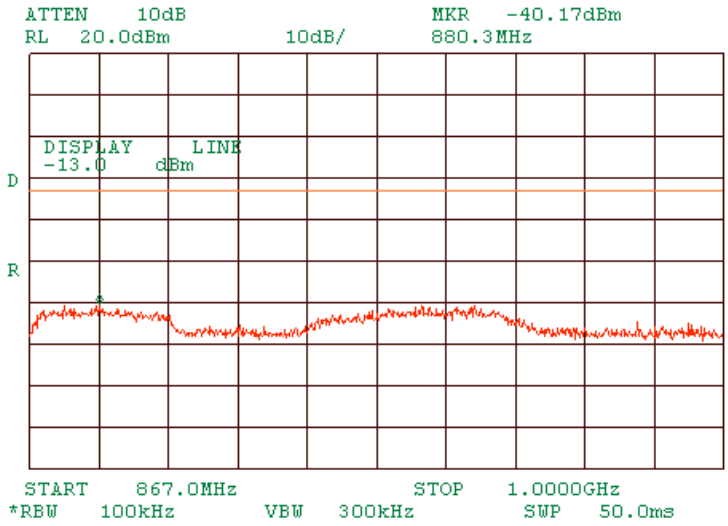
Range 30 – 850 MHz. FM



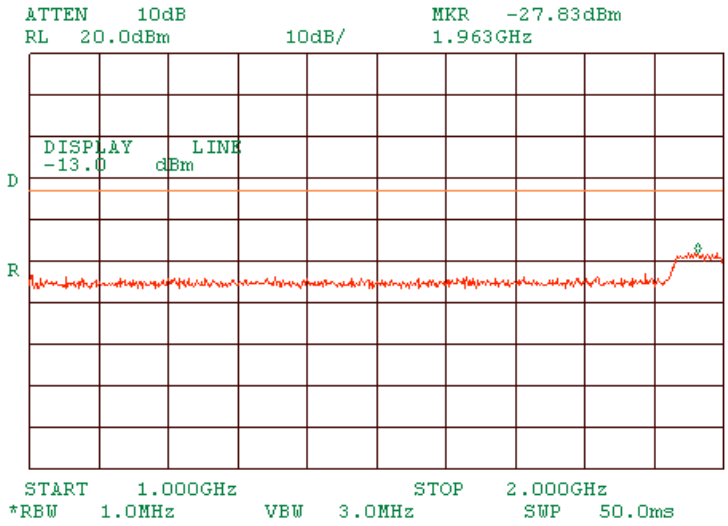
Range 850 – 867 MHz. FM 800



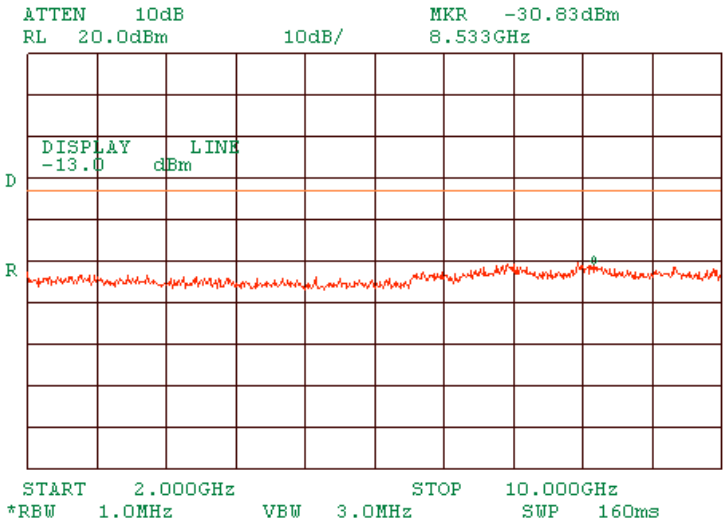
Range 867 – 1000 MHz. FM 800



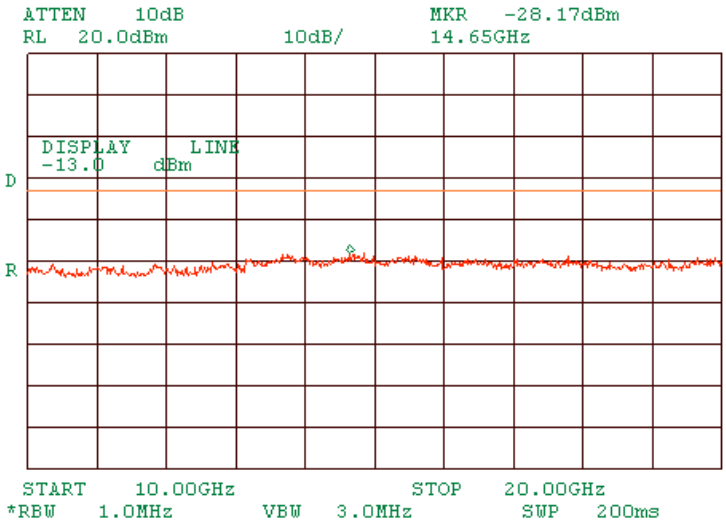
Range 1000 – 2000 MHz. FM 800



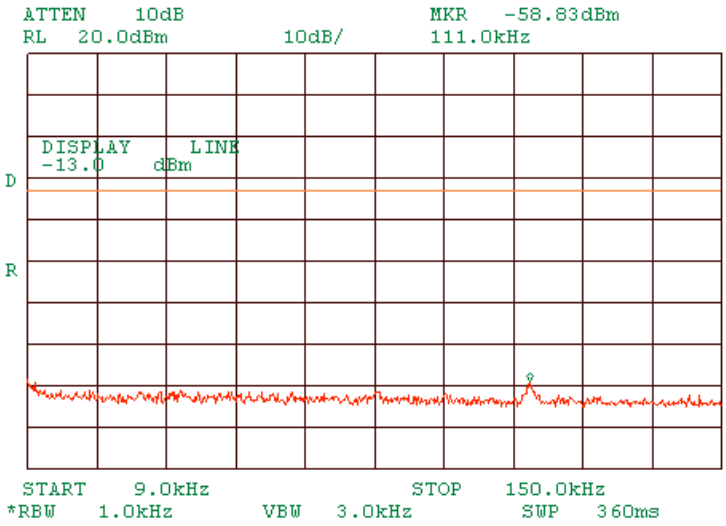
Range 2000 – 10000 MHz. FM 800



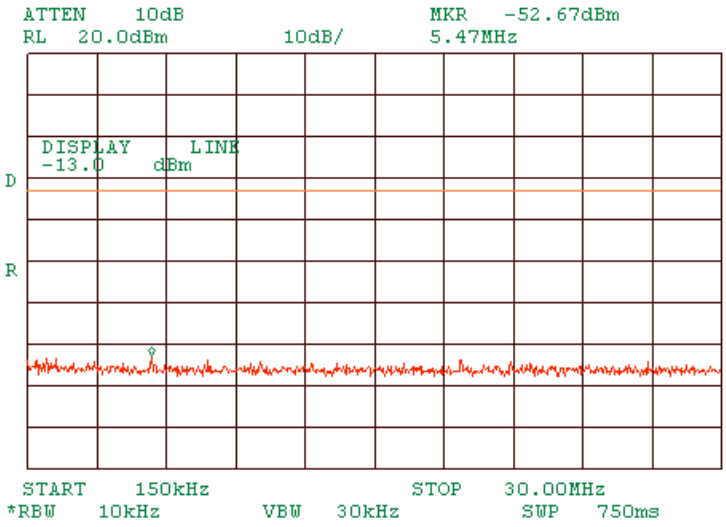
Range 10000 – 20000 MHz. FM 800



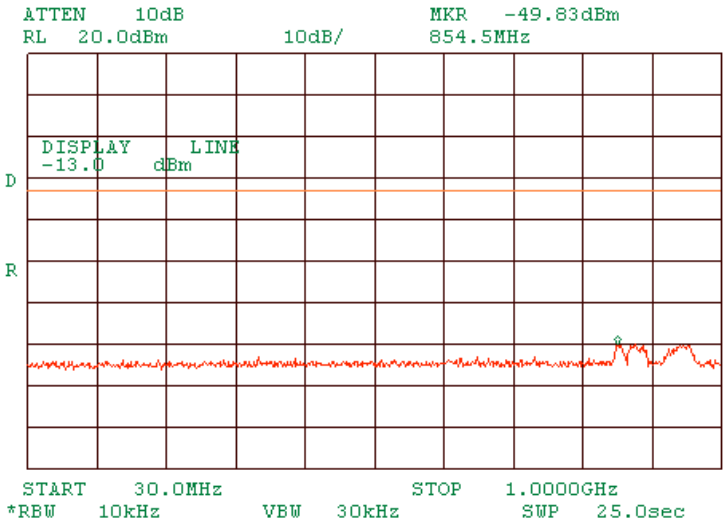
Range 9 – 150 kHz. CDMA 1900



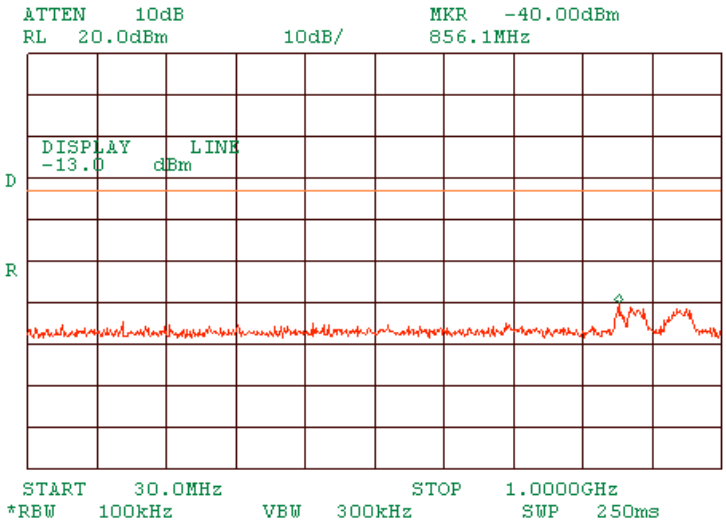
Range 0.150 – 30 MHz. CDMA 1900



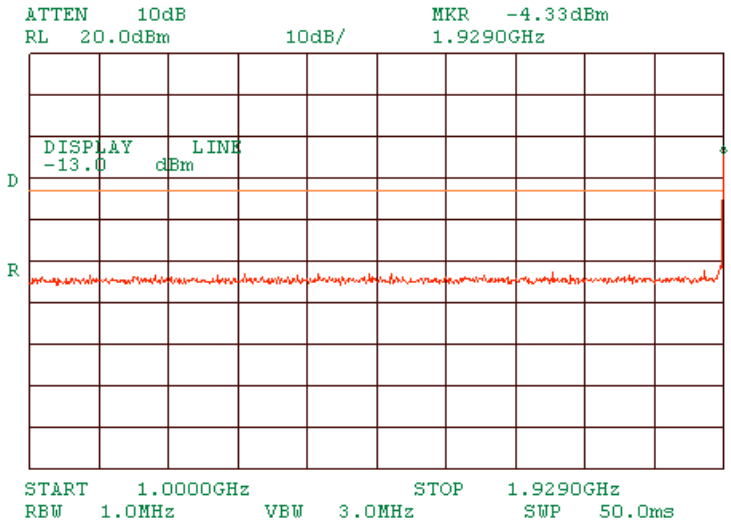
Range 30 – 1000 MHz. CDMA 1900



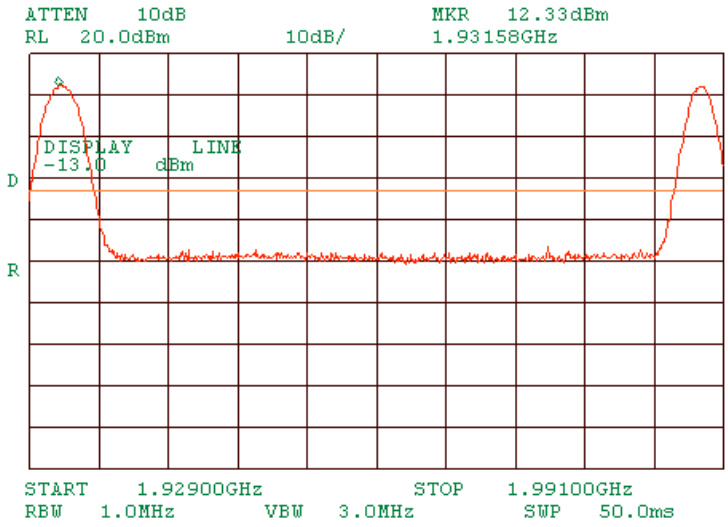
Range 1000 – 1930 MHz. CDMA 1900



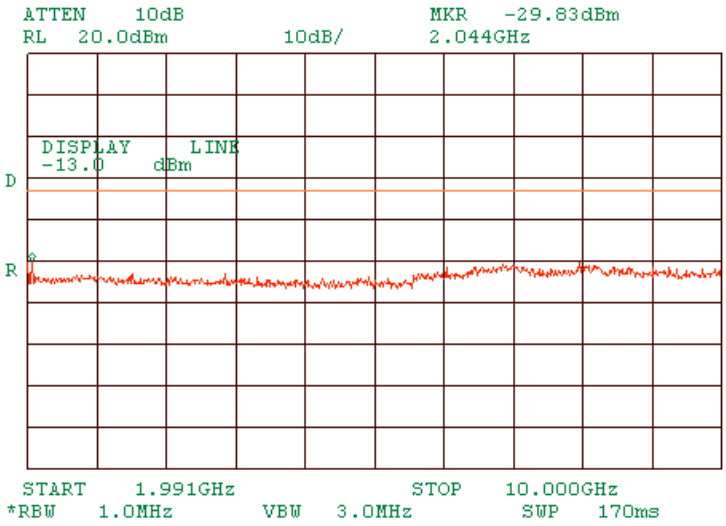
Range 1000 – 1929 MHz. CDMA 1900



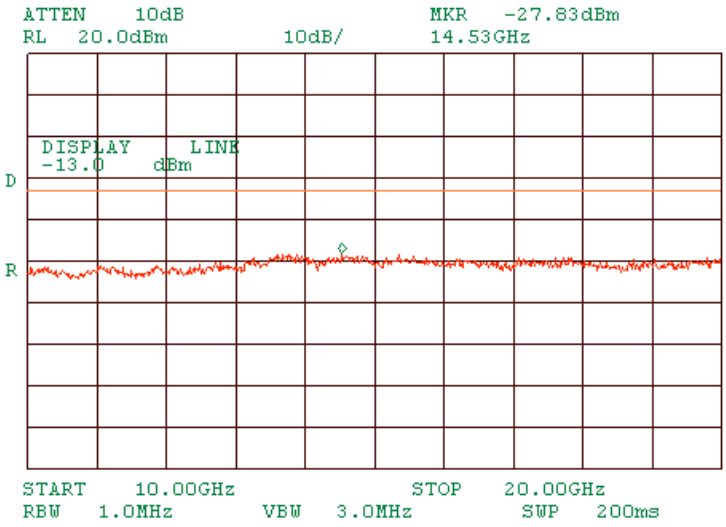
Range 1929 – 1991 MHz. CDMA 1900



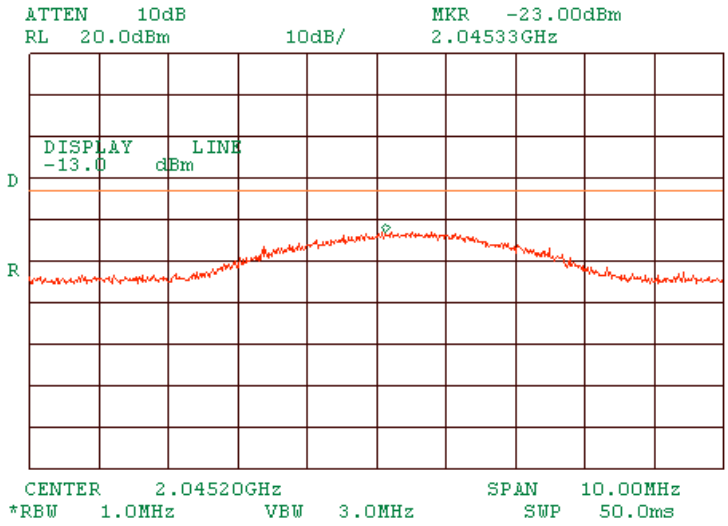
Range 1991 – 10000 MHz. CDMA 1900



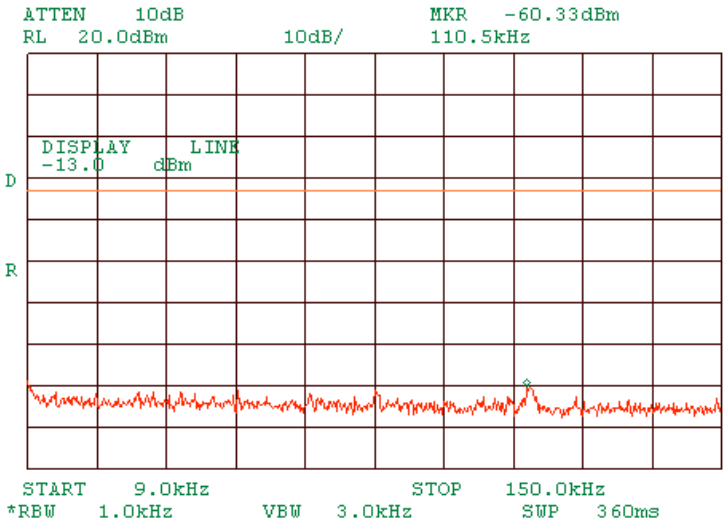
Range 10000 – 20000 MHz. CDMA 1900



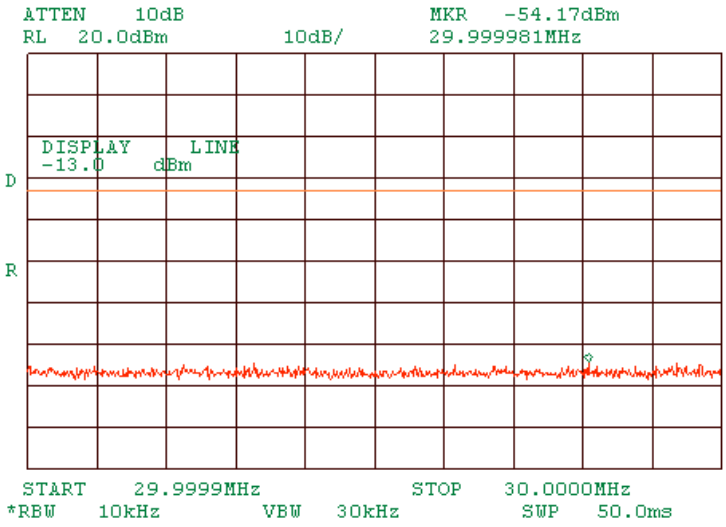
Spurious at 2040 MHz. CDMA 1900



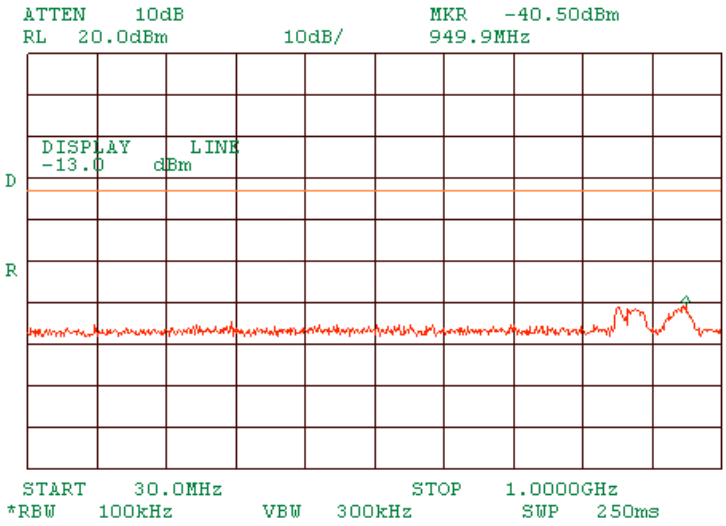
Range 9 – 150 kHz. FM 1900



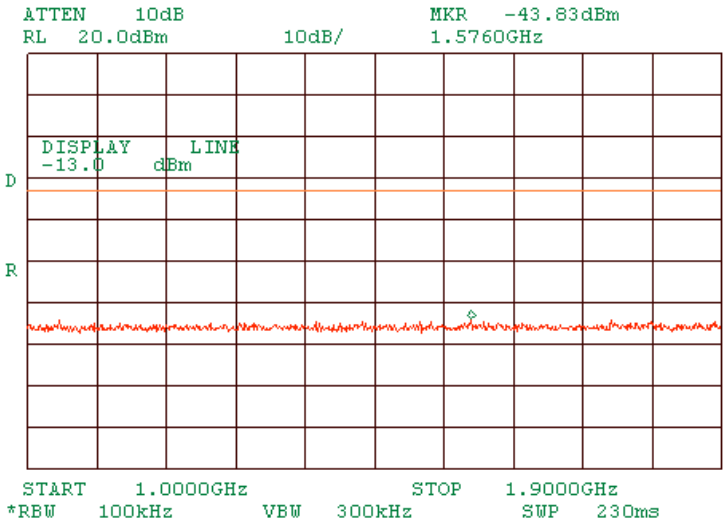
Range 0.150 – 30 MHz. FM 1900



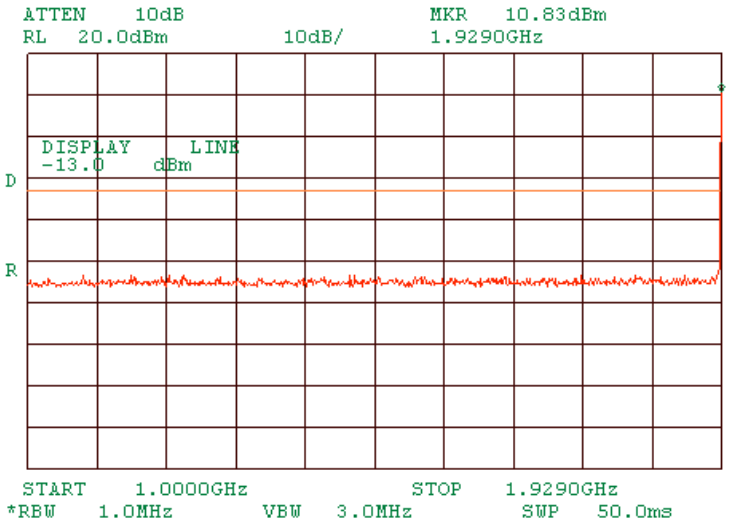
Range 30 – 1000 MHz. FM 1900



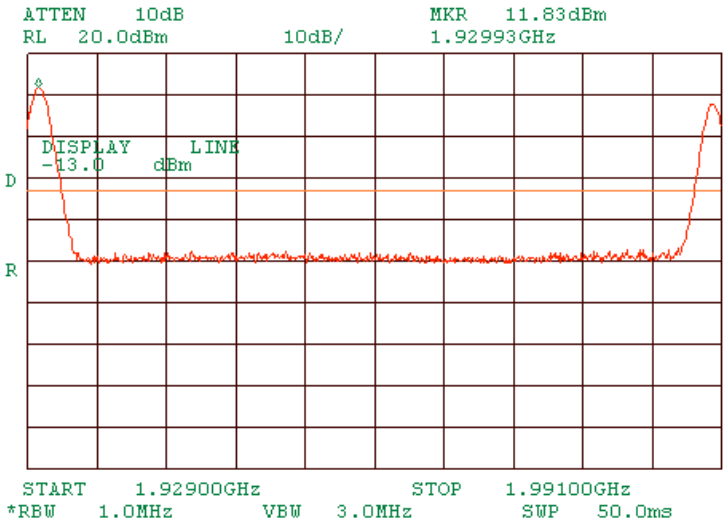
Range 1000 – 1930 MHz. FM 1900



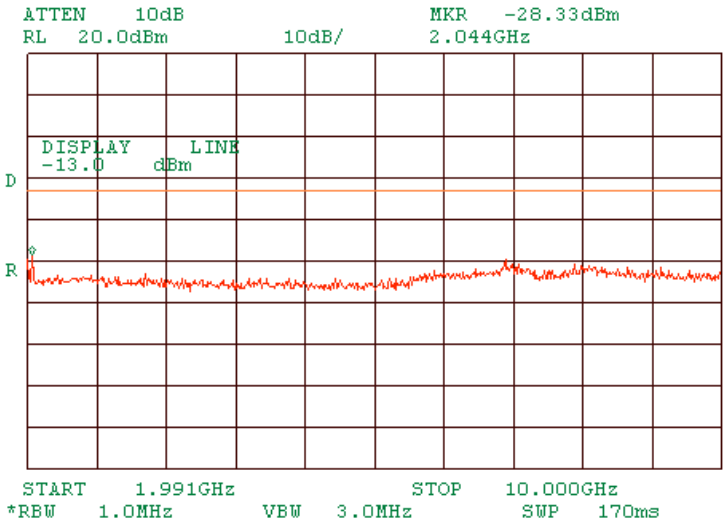
Range 1000 – 1929 MHz. FM 1900



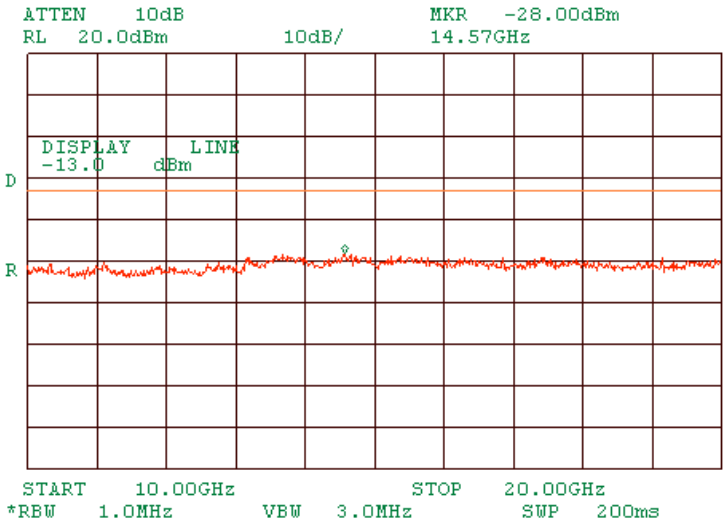
Range 1929 – 1991 MHz. FM 1900



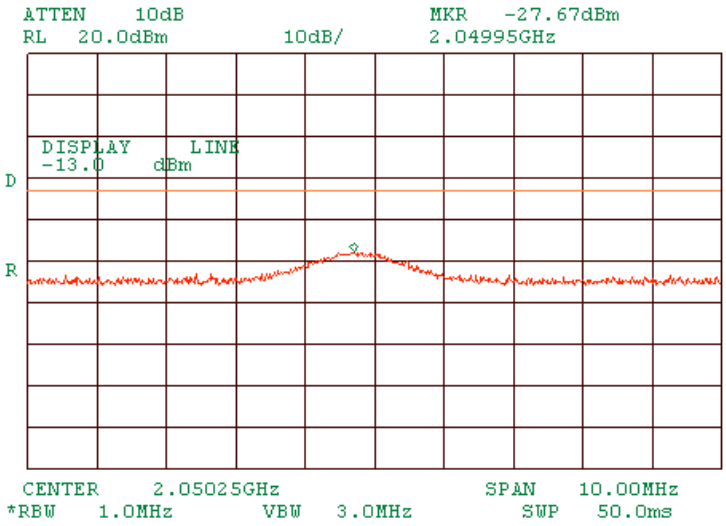
Range 1991 – 10000 MHz. FM 1900



Range 10000 – 20000 MHz. FM 1900

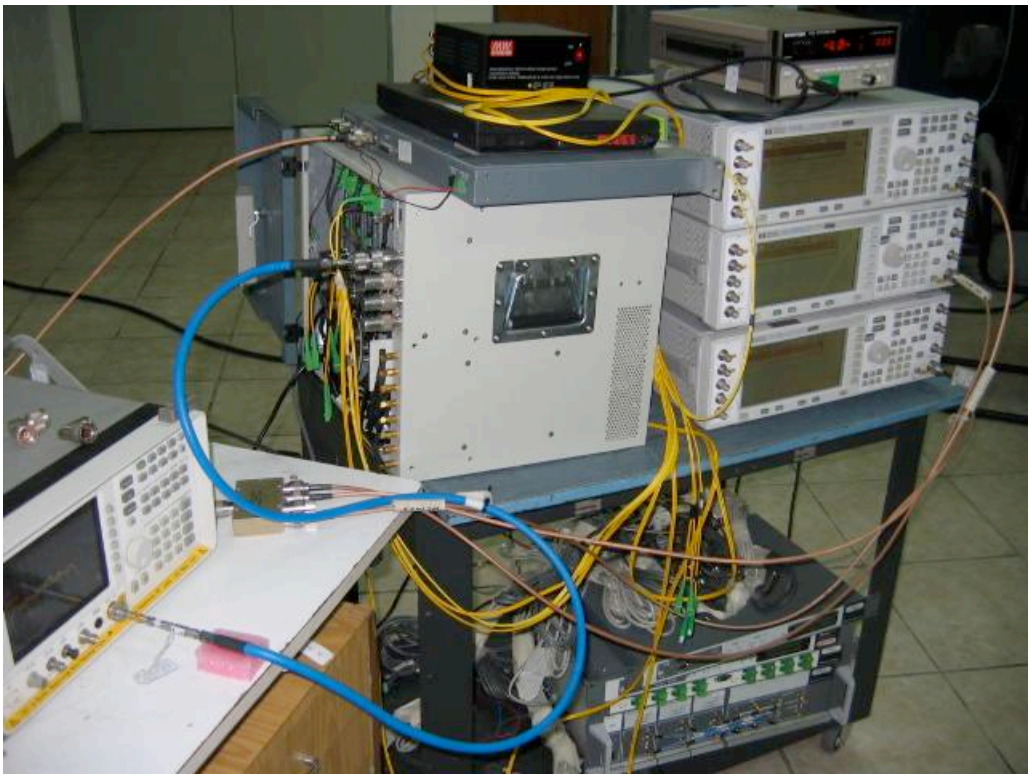


Spurious at 2040 MHz. FM 1900

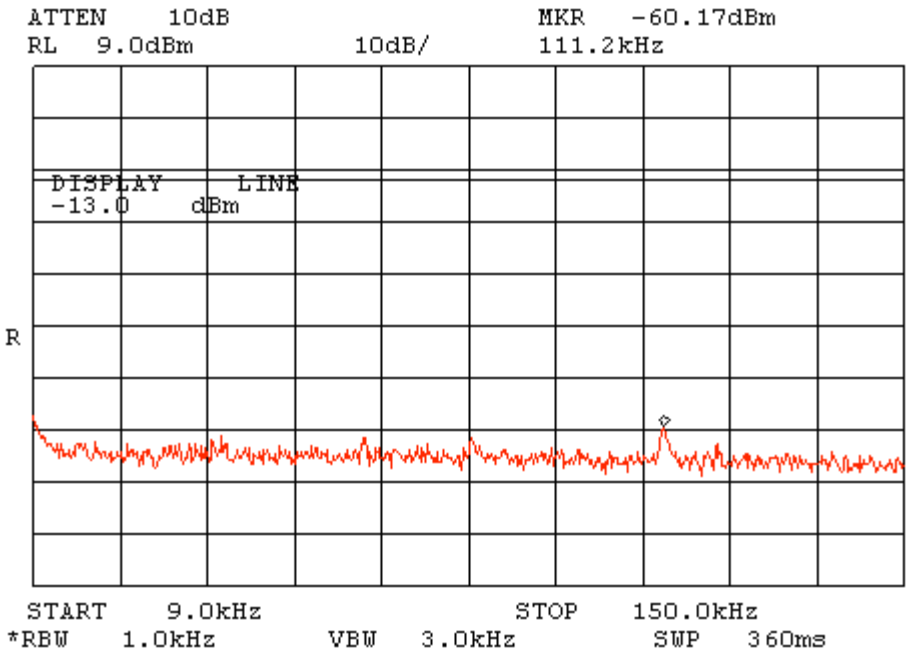


Date	02 Aug 2004
Project	16021
Test	Intermodes
Operator	Alex Kruglov
Test equipment	1424, 2399, 2524, 1651, 789, 316, 460
Temperature	25°C
Humidity	39%
Air pressure	1006 hPa
EUT	iDEN 1900

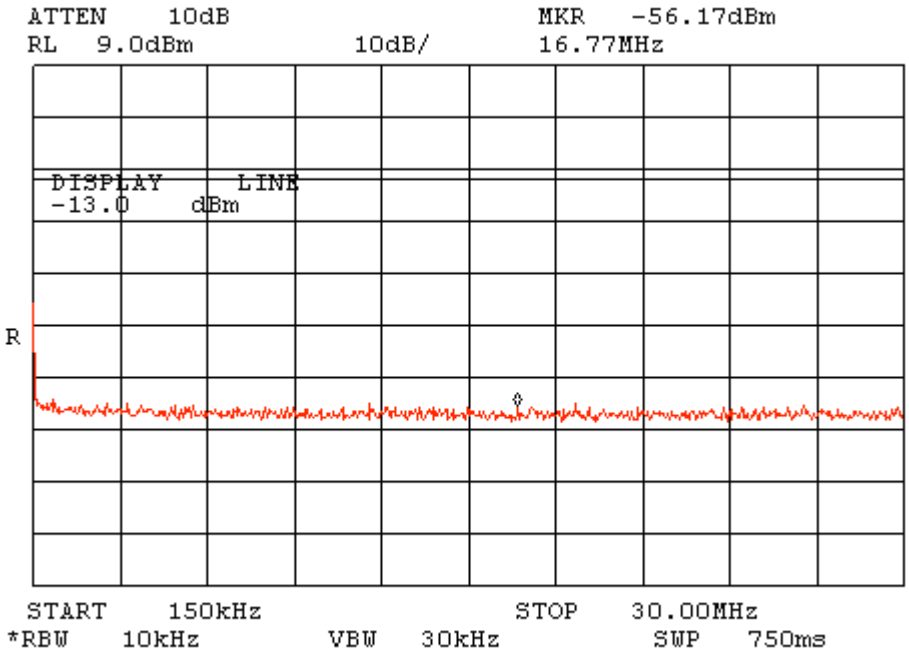
F_1=851.025 MHz 16QAM
F_2=851.050 MHz 16QAM
F_3=851.050 MHz CW



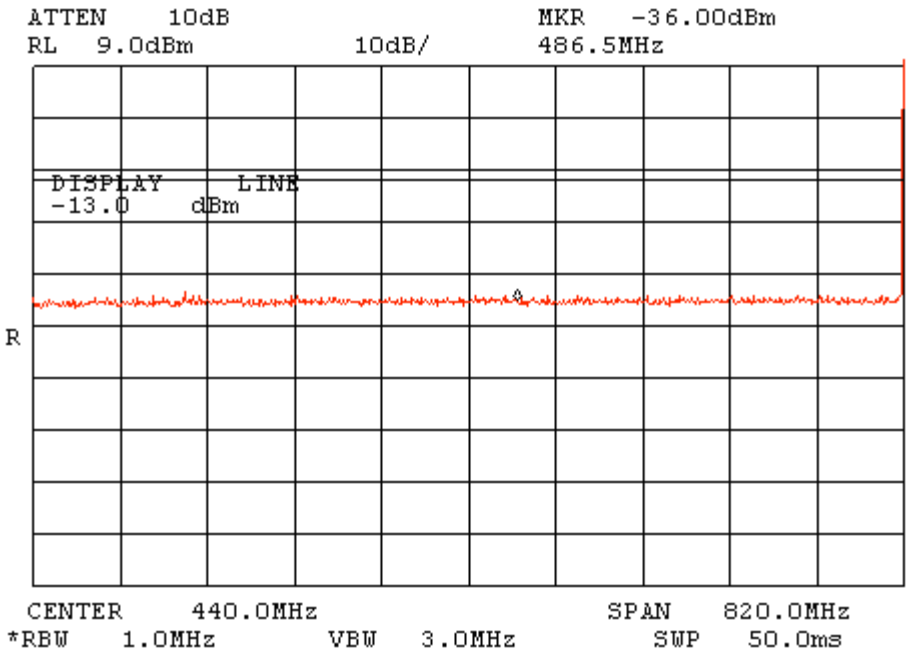
Range 9 – 150 kHz. 16QAM



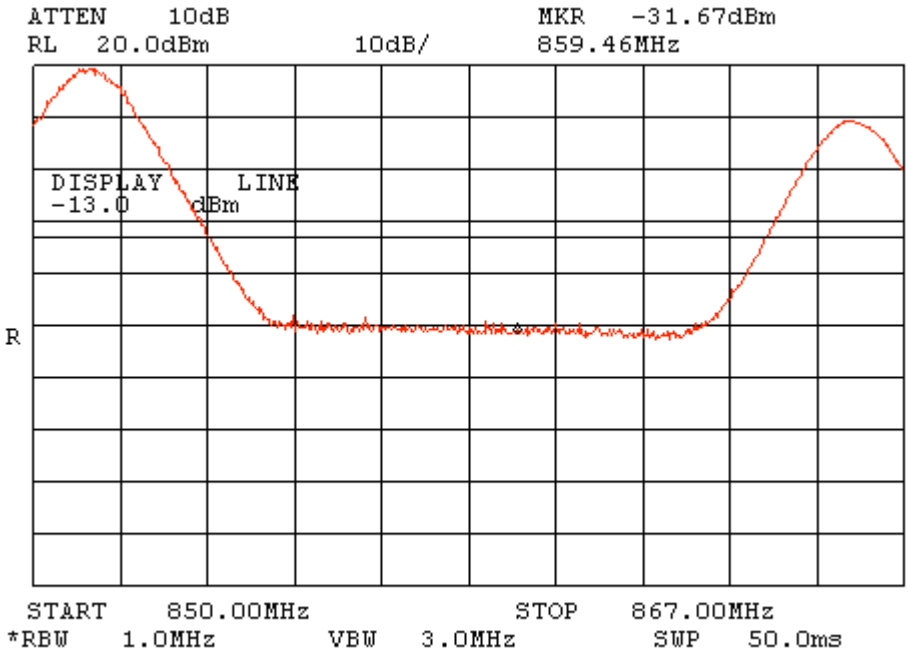
Range 0.150 – 30 MHz. 16QAM



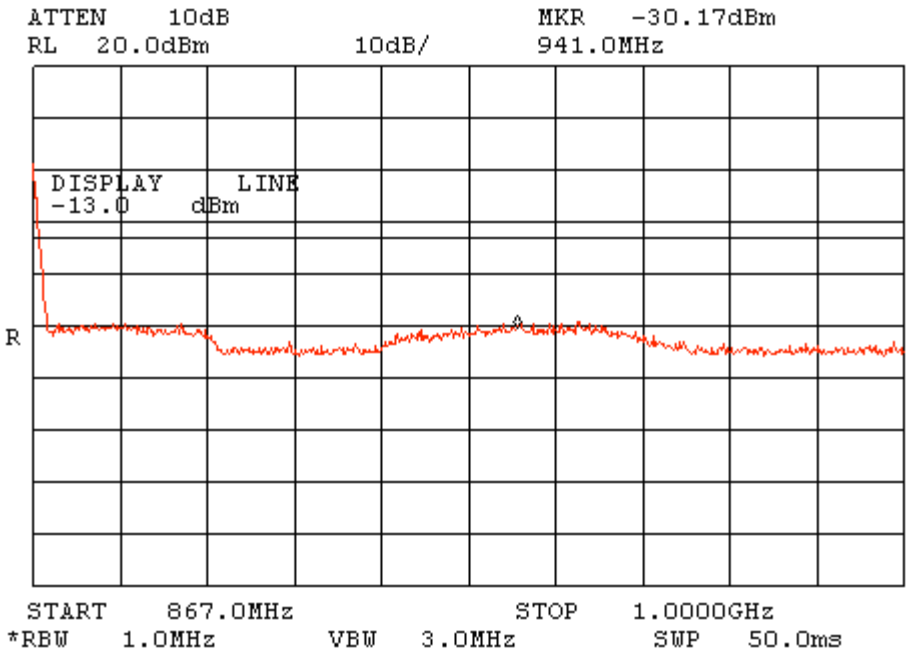
Range 30 – 850MHZ. 16QAM



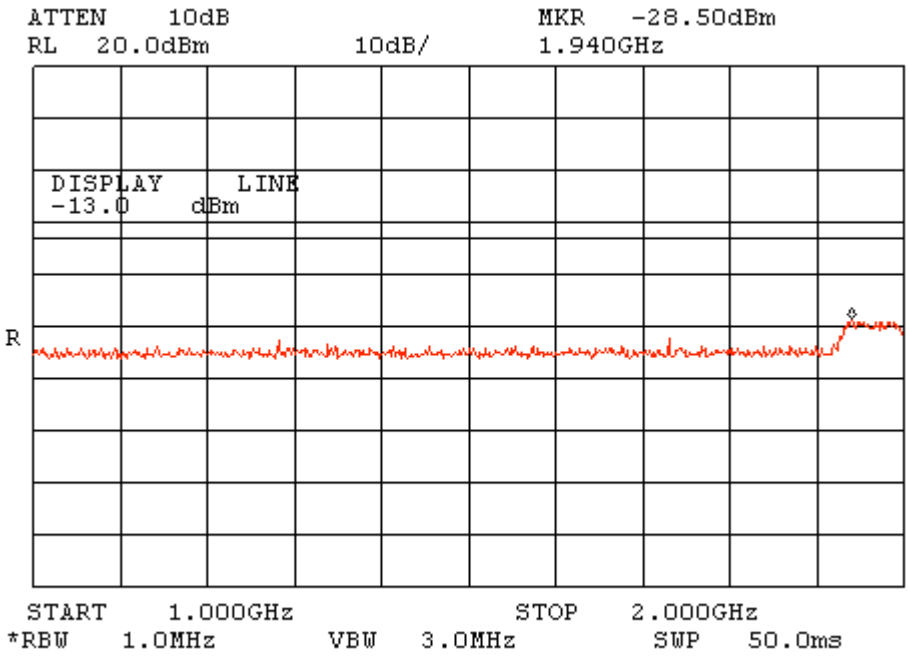
Range 850 – 867 MHz. 16QAM



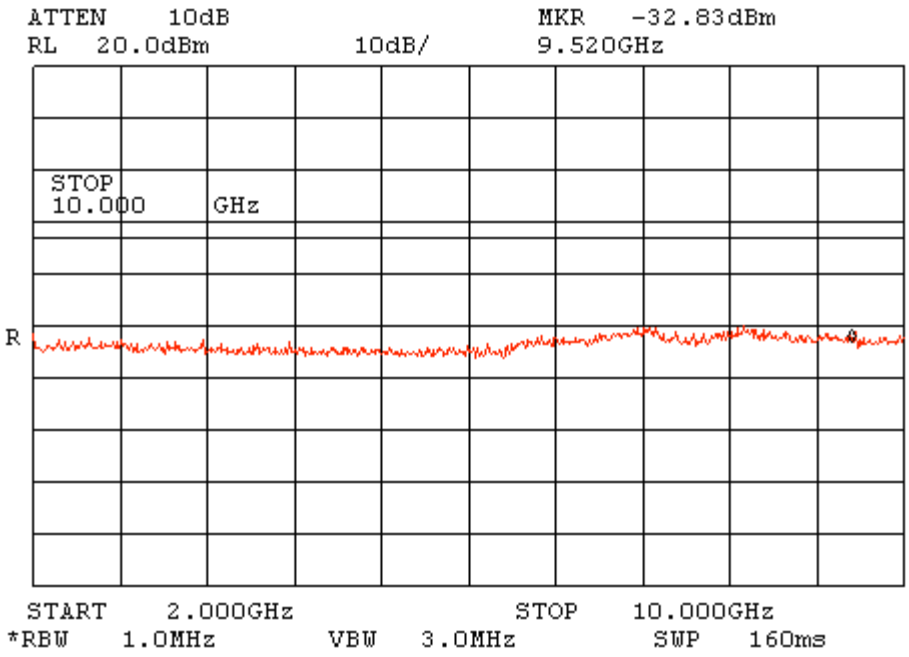
Range 867 – 1000 MHz 16QAM



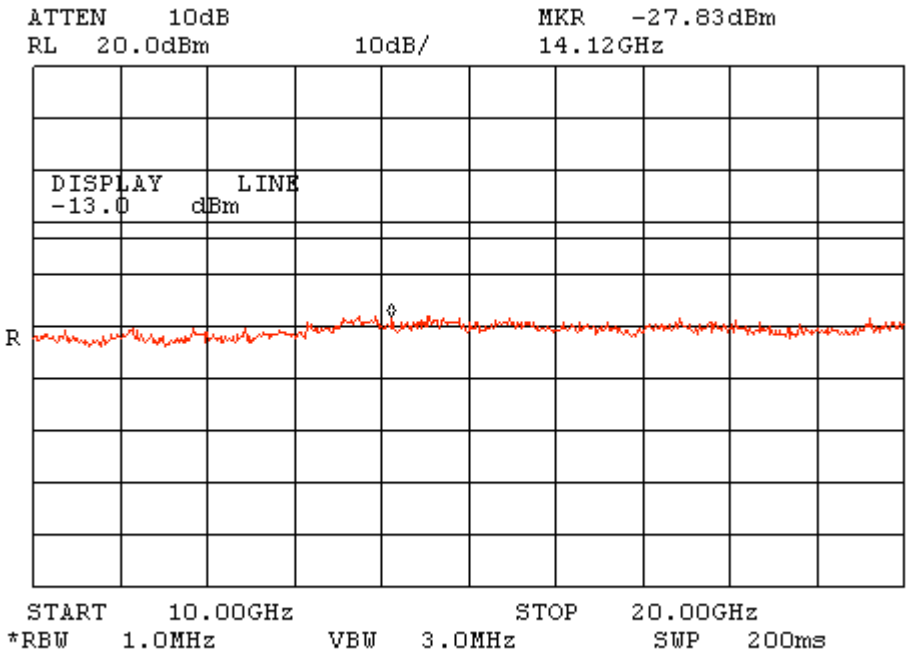
Range 1000 – 2000 MHz 16QAM



Range 2000 – 10000 MHz 16QAM



Range 10000 – 20000 MHz 16QAM



Date	02 Aug 2004
Project	16021
Test	Intermodes.
Operator	Alex Kruglov
Test equipment	1424, 2399, 2524, 1651, 789, 316, 460
Temperature	25°C
Humidity	39%
Air pressure	1006 hPa
EUT	Mobile Access CELL-PCS
Notes:	At 1.5 dBm input power (CW);
	At output connector with maximum power level.

Band 869 - 894 MHz:

FM_1 = 869.015 MHz (12.5 kHz/1kHz)
FM_2 = 869.0375 MHz (12.5 kHz/1kHz)
FM_3 = 893.985. MHz (12.5 kHz/1kHz)

$TDMA_1$ = 869.015 MHz
$TDMA_2$ = 870.045 MHz
CW_3 = 893.985 MHz

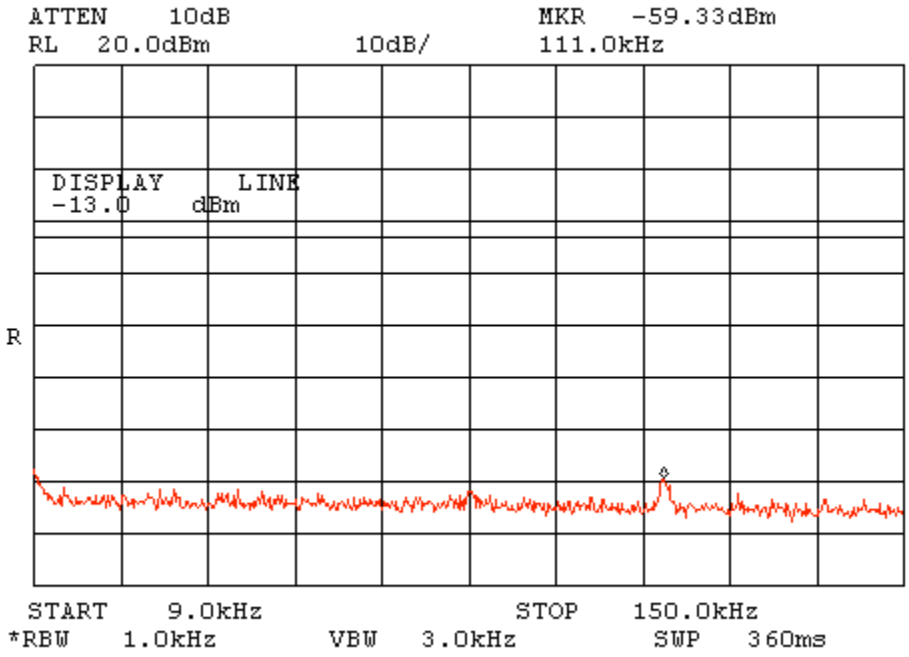
$CDMA_1$ = 869.625 MHz
$CDMA_2$ = 870.875 MHz
$CDMA_3$ = 893.375 MHz

Band 1930 – 1990 MHz:

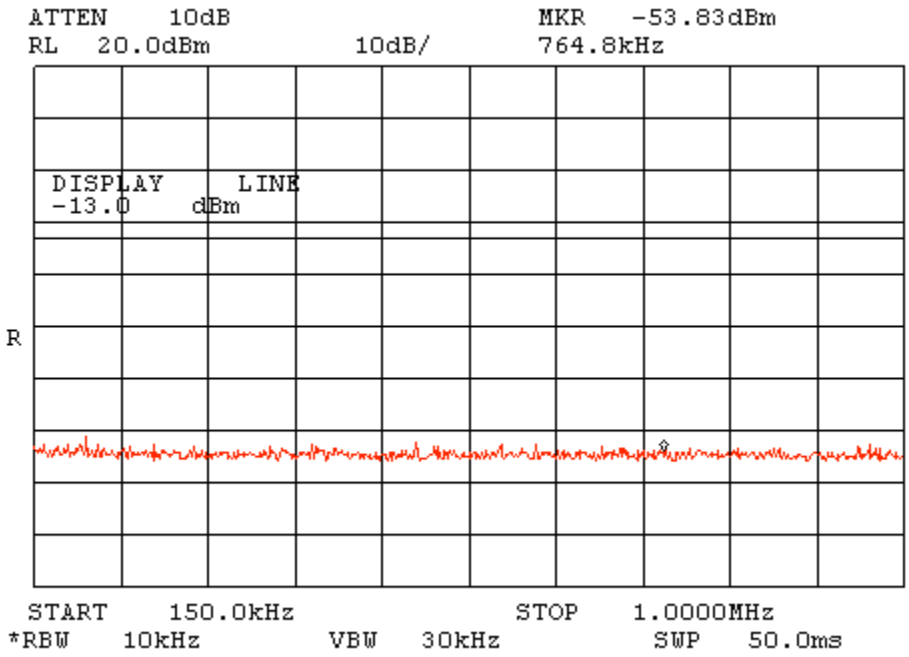
$TDMA_1$ = 1930.015 MHz
$TDMA_2$ = 1930.045 MHz
CW_3 =1989.975 MHz

GSM_1 = 1930.2 MHz
GSM_2 = 1930.4 MHz
CW_3 = 1989.8 MHz

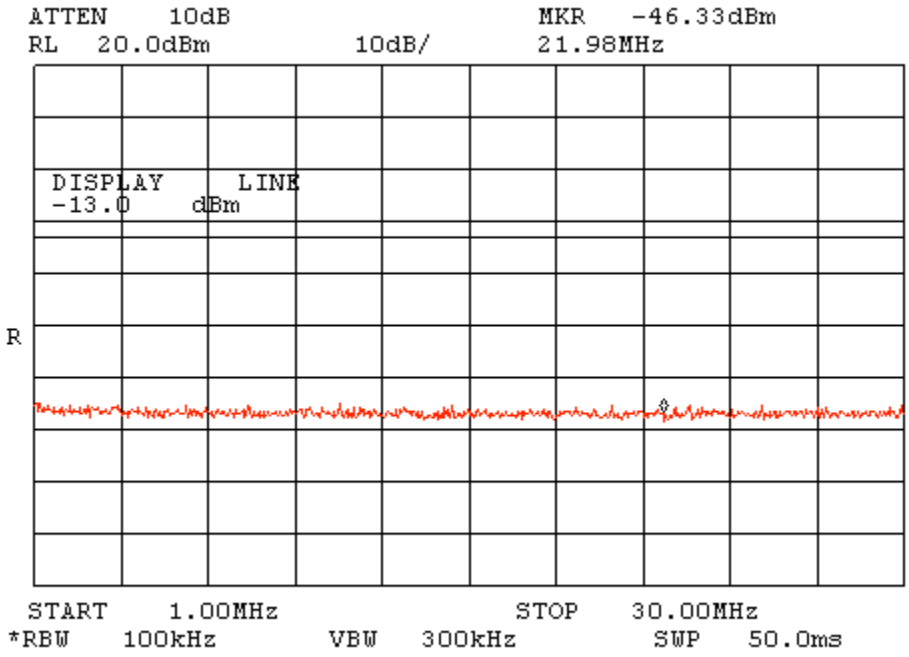
Range 9 – 150 kHz. AMPS 869-894



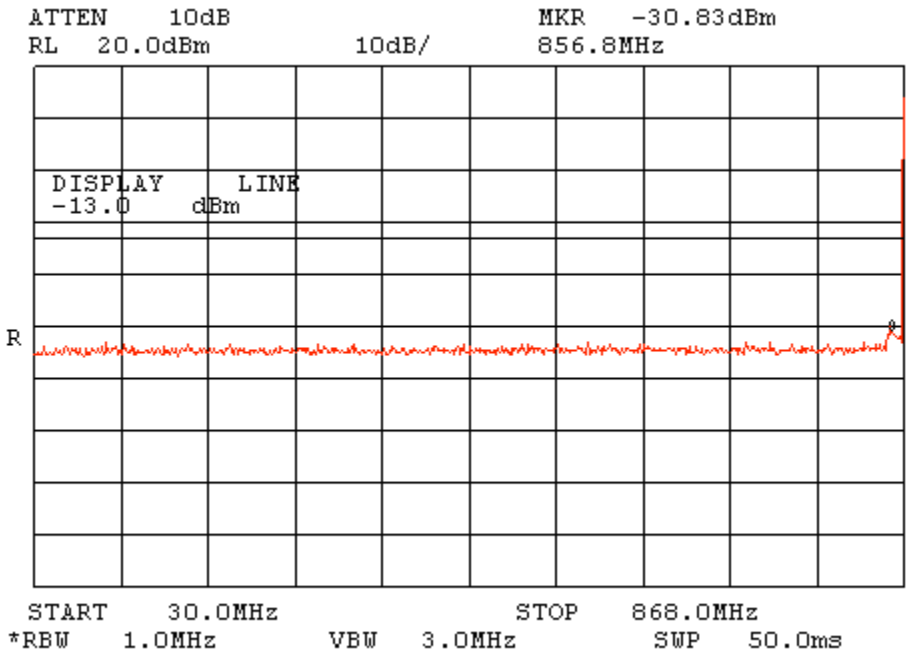
Range 0.150 – 1 MHz. AMPS 869-894



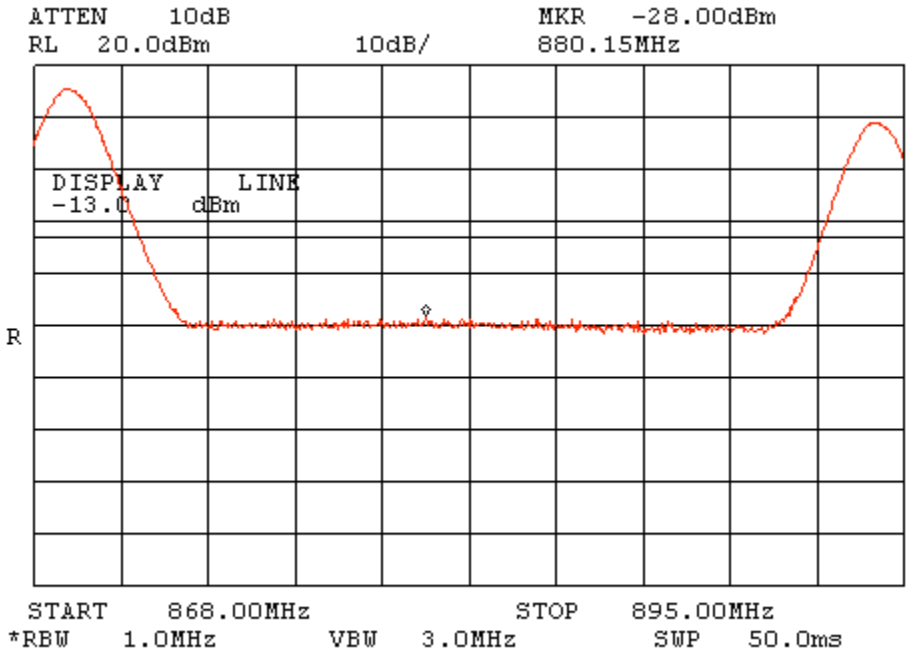
Range 1 – 30 MHz. AMPS 869-894



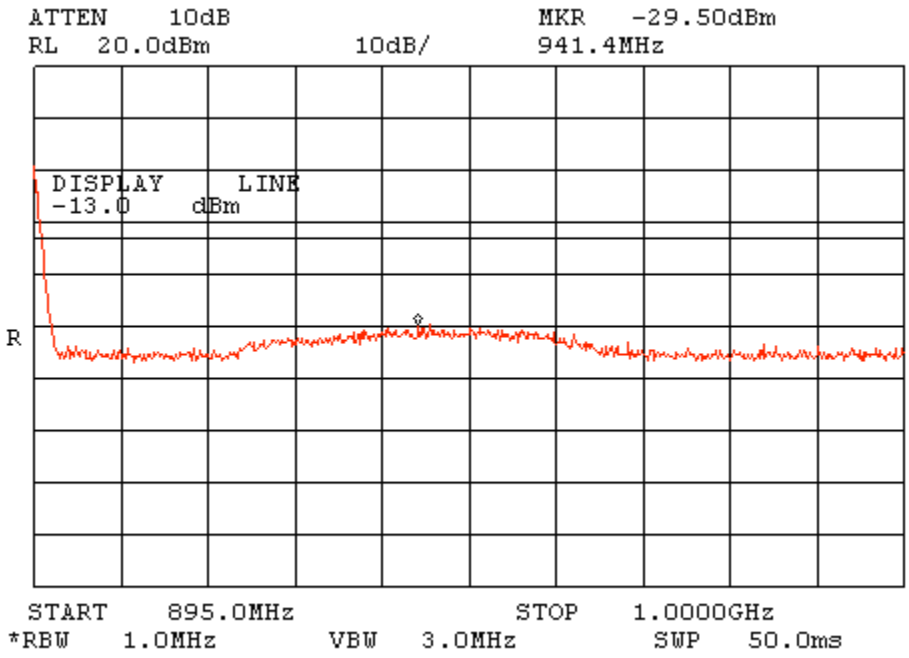
Range 30 – 868 MHz. AMPS 869-894



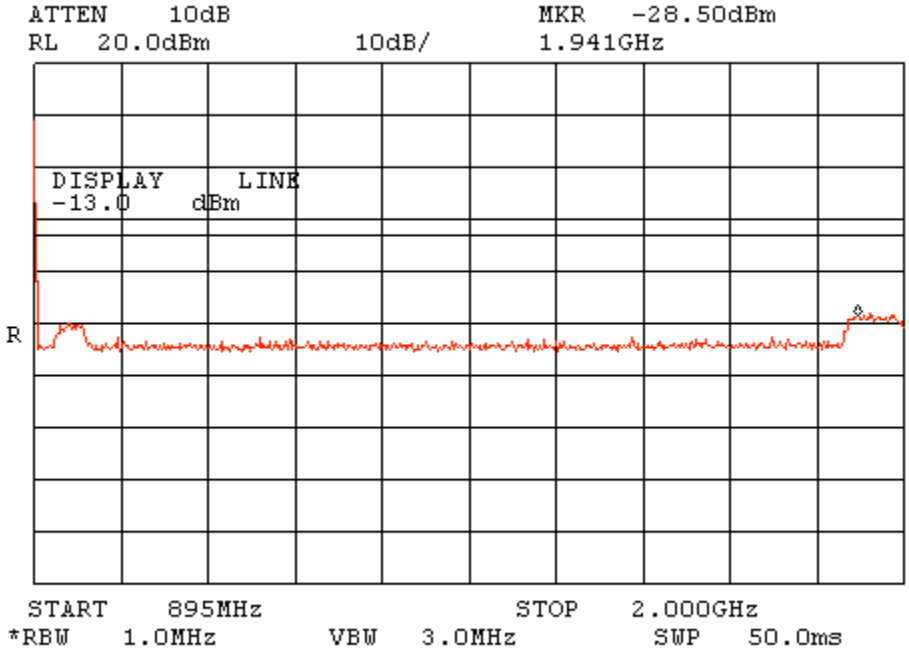
Range 868 – 895 MHz. AMPS 869-894



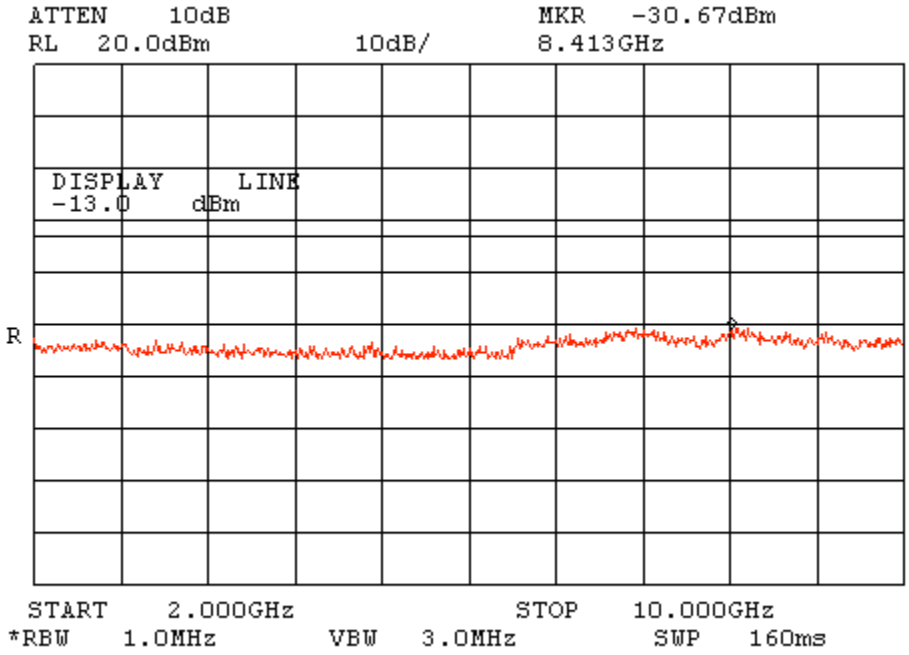
Range 895 – 1000 MHz. AMPS 869-894



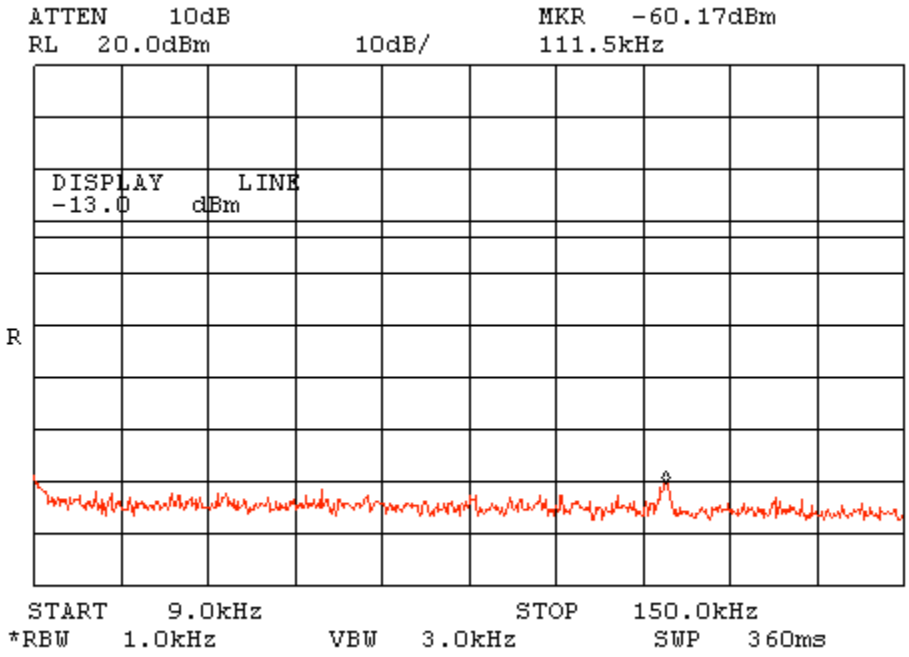
Range 1000 – 2000 MHz. AMPS 869-894



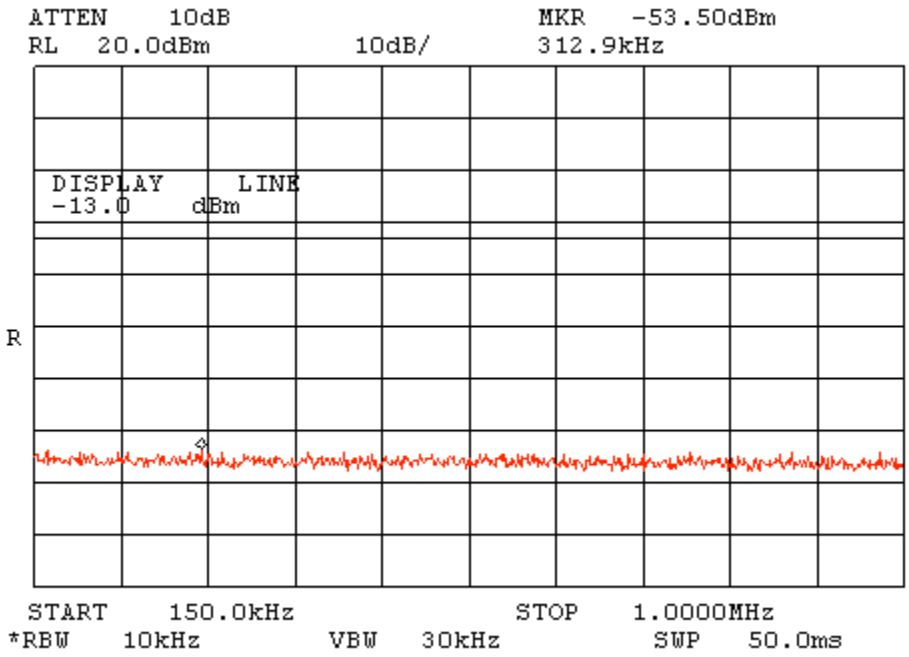
Range 2000 – 10000 MHz. AMPS 869-894



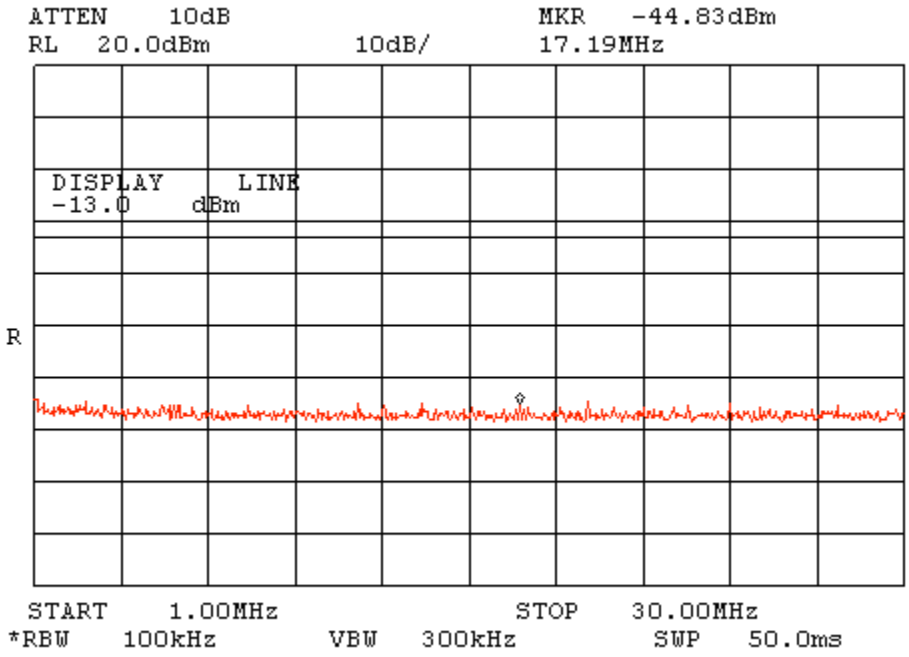
Range 9 – 150 kHz. TDMA 869-894



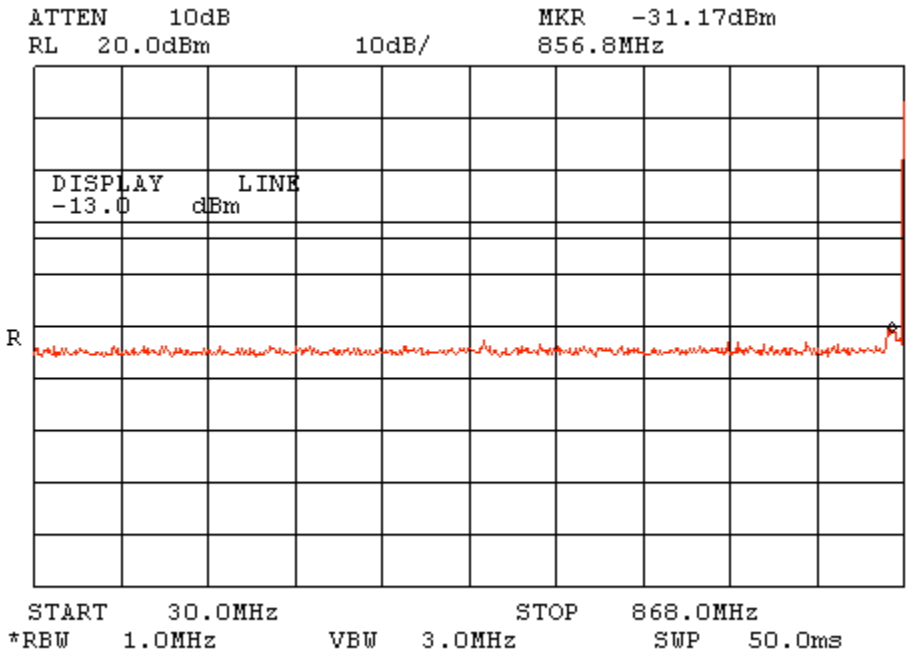
Range 0.150 – 1 MHz. TDMA 869-894



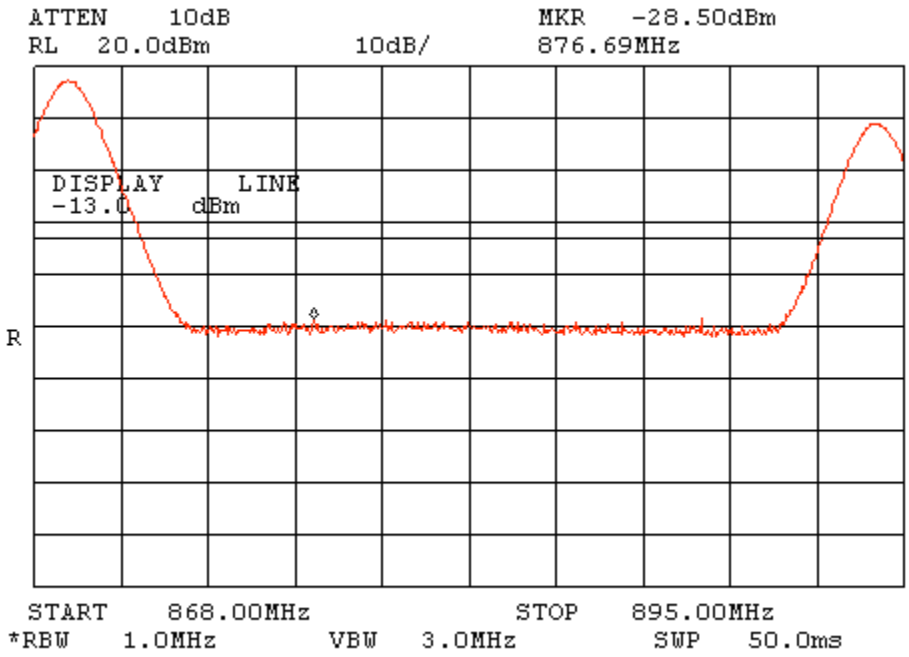
Range 1 – 30 MHz. TDMA 869-894



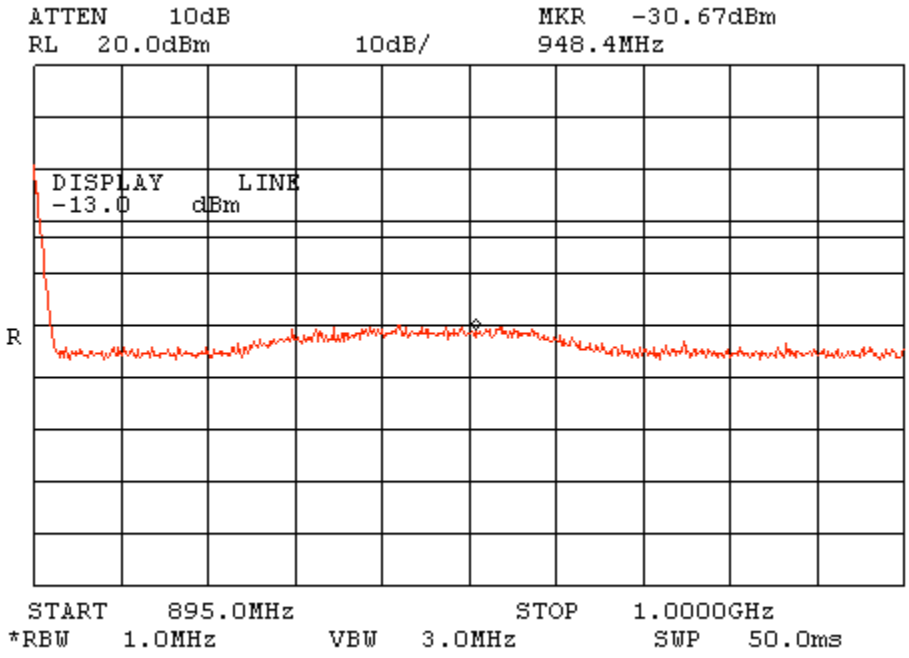
Range 30 – 868 MHz. TDMA 869-894



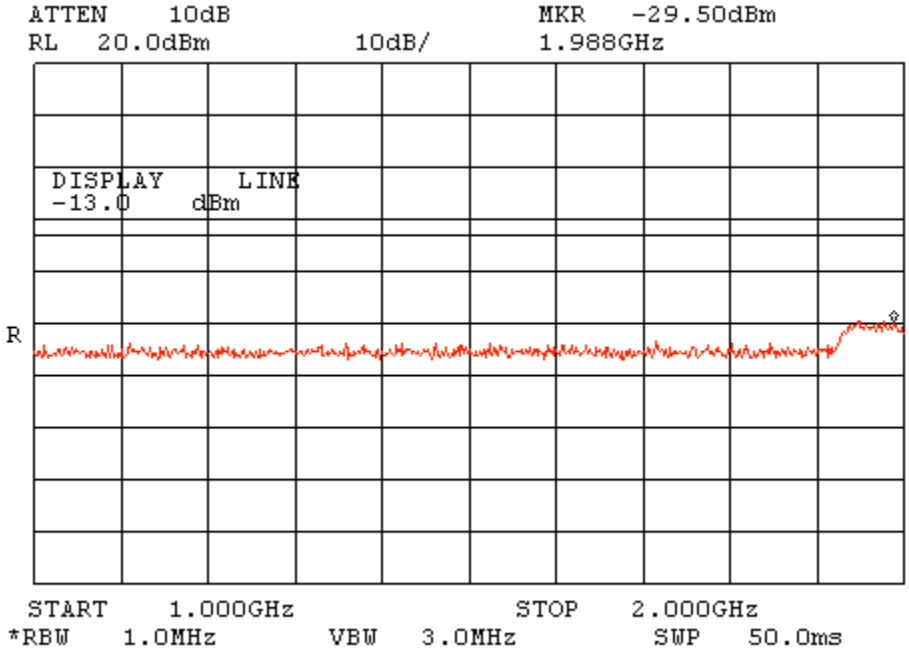
Range 868 – 895 MHz. TDMA 869-894



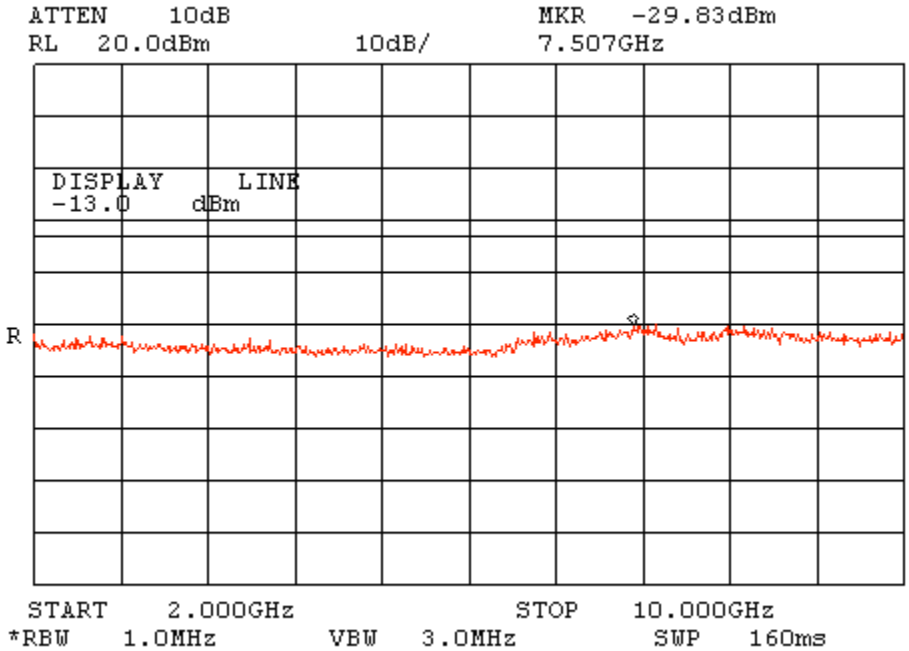
Range 895 – 1000 MHz. TDMA 869-894



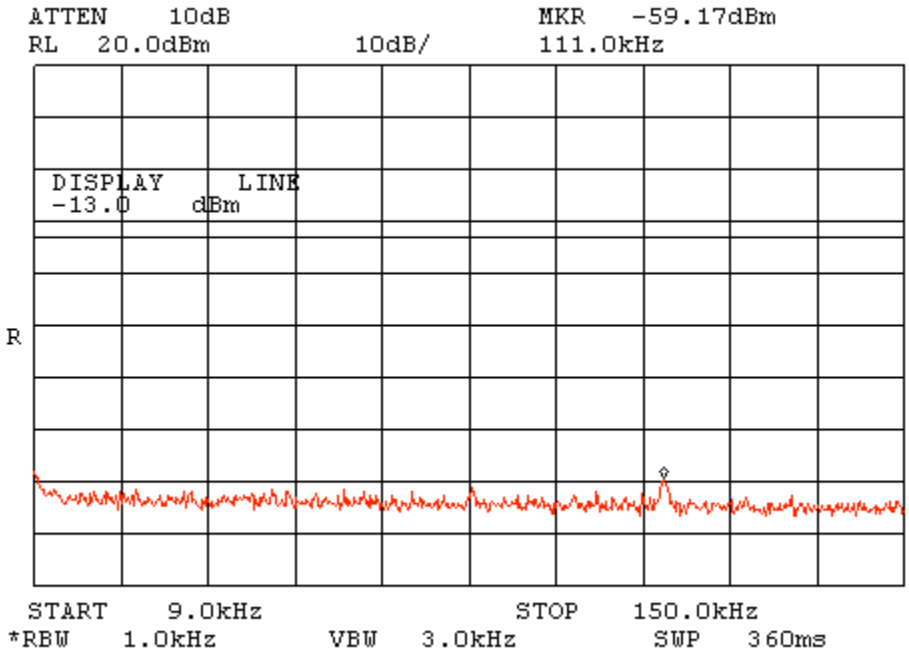
Range 1000 – 2000 MHz. TDMA 869-894



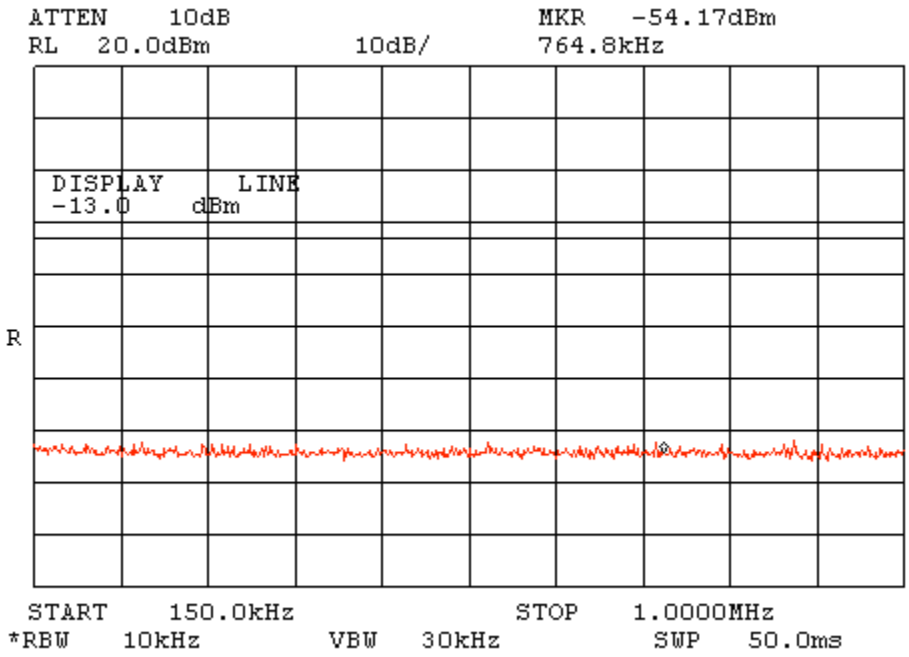
Range 2000 – 10000 MHz. TDMA 869-894



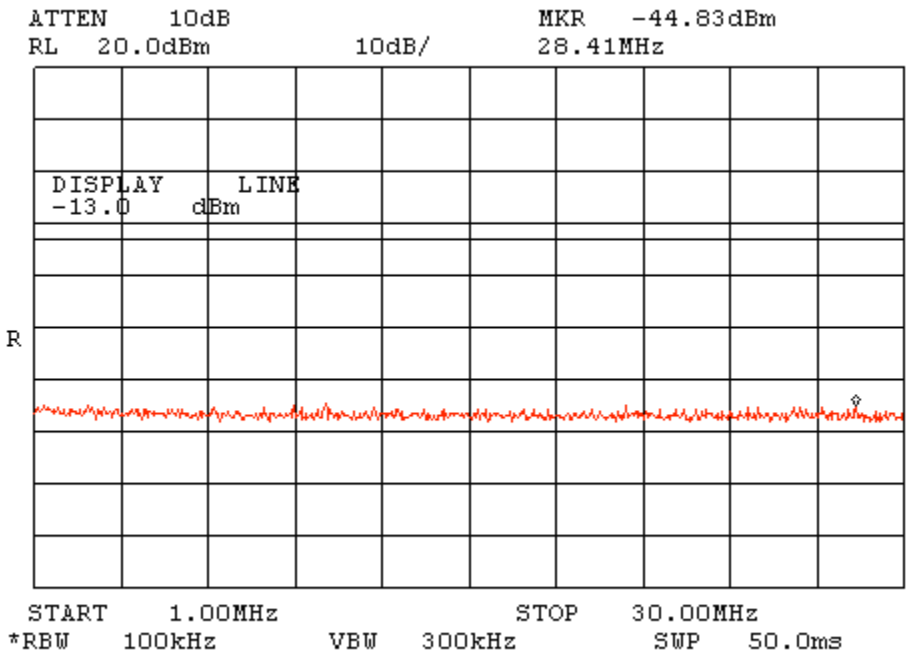
Range 9 – 150 kHz. CDMA 869-894



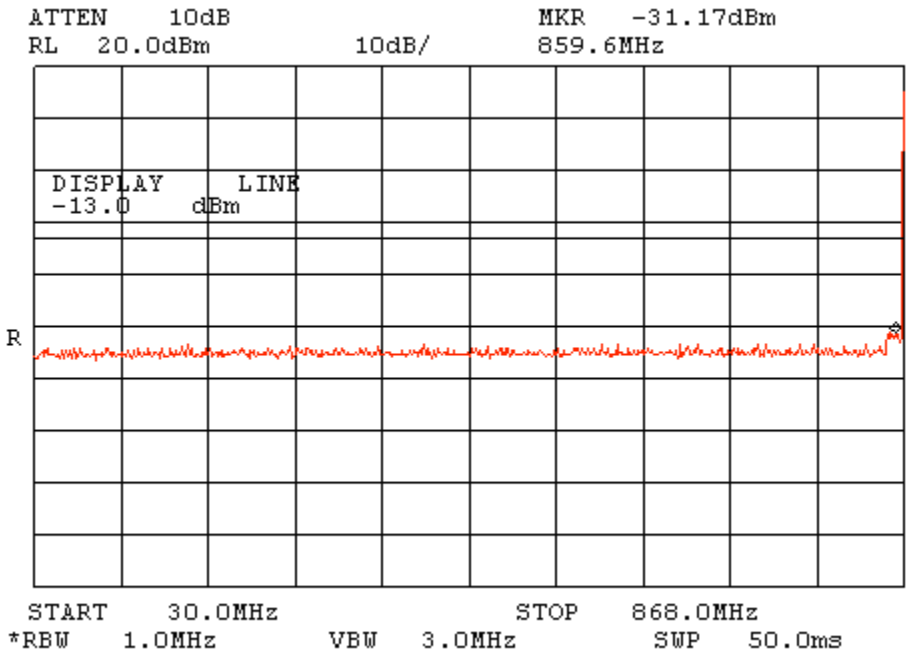
Range 0.150 – 1 MHz. CDMA 869-894



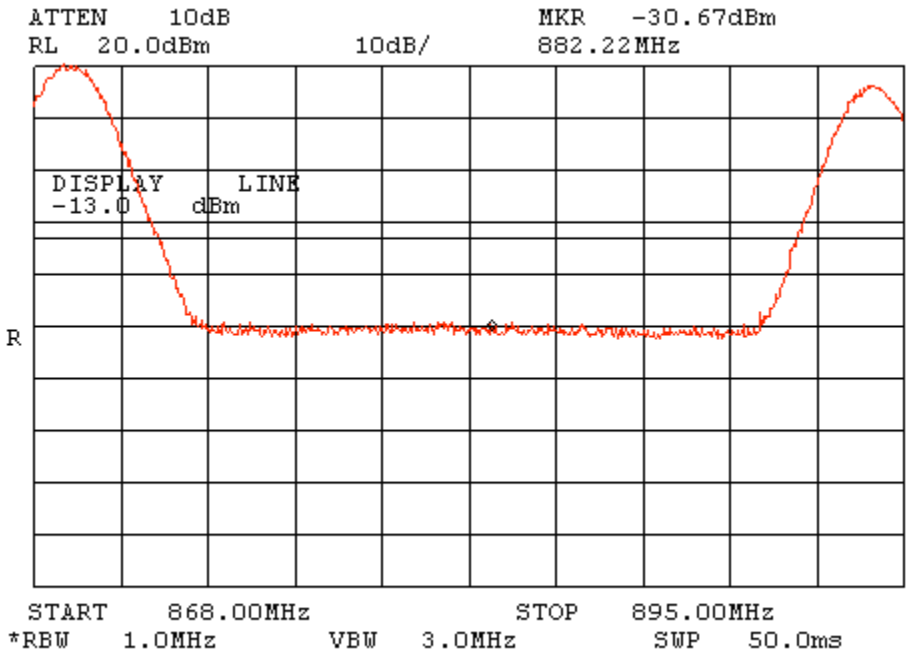
Range 1 – 30 MHz. CDMA 869-894



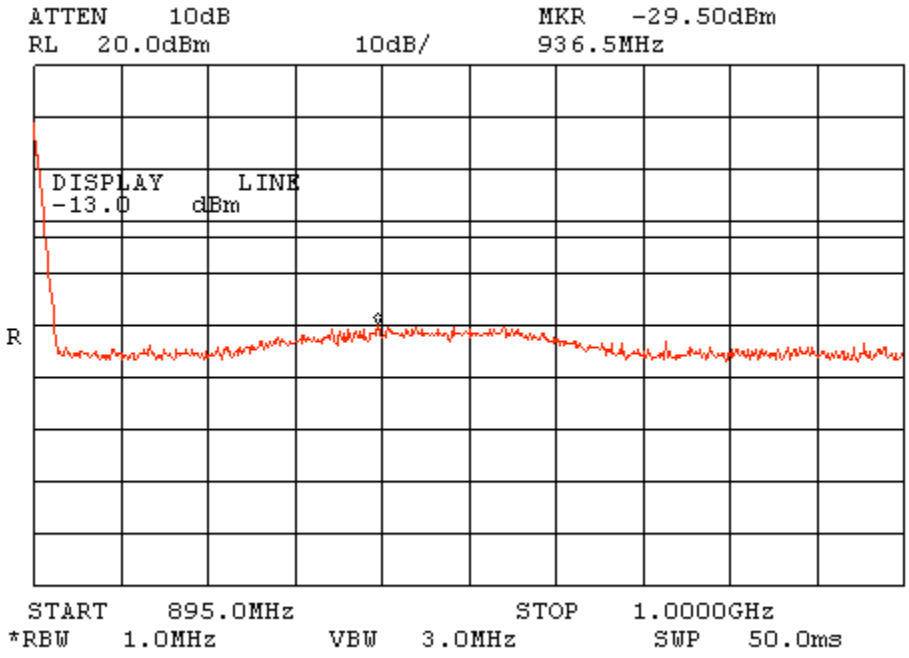
Range 30 – 868 MHz. CDMA 869-894



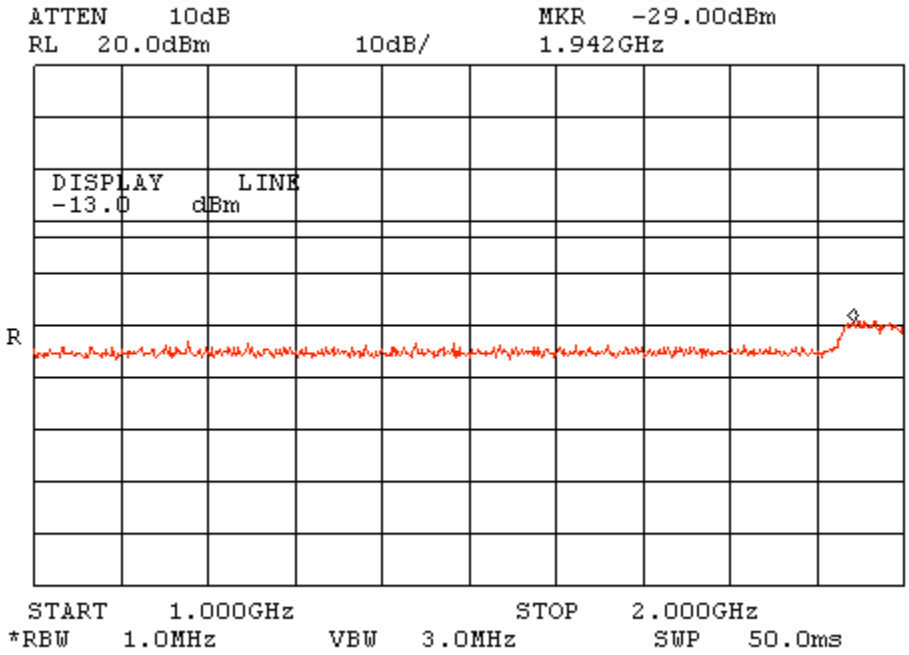
Range 868 – 895 MHz. CDMA 869-894



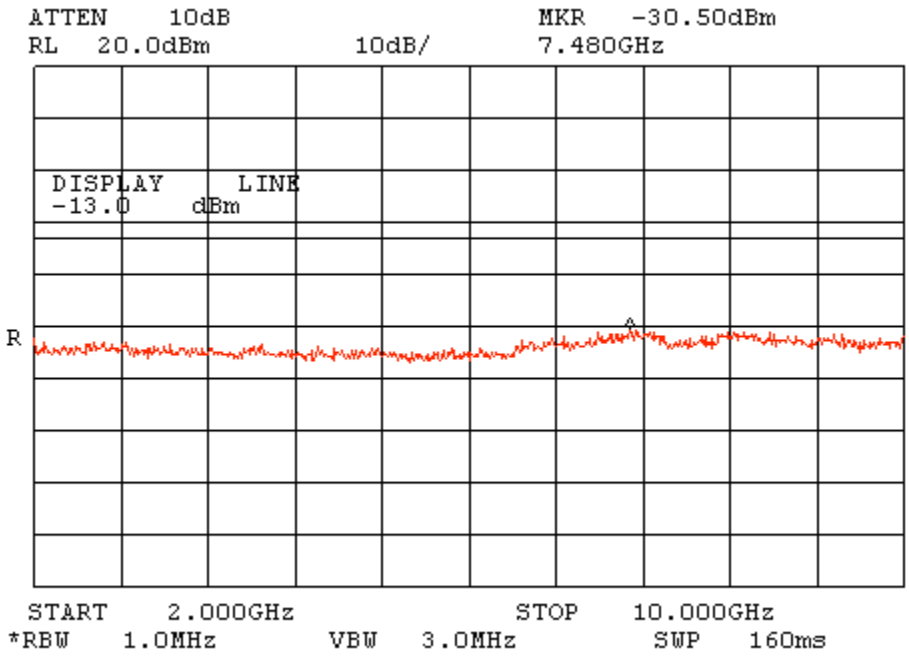
Range 895 – 1000 MHz. CDMA 869-894



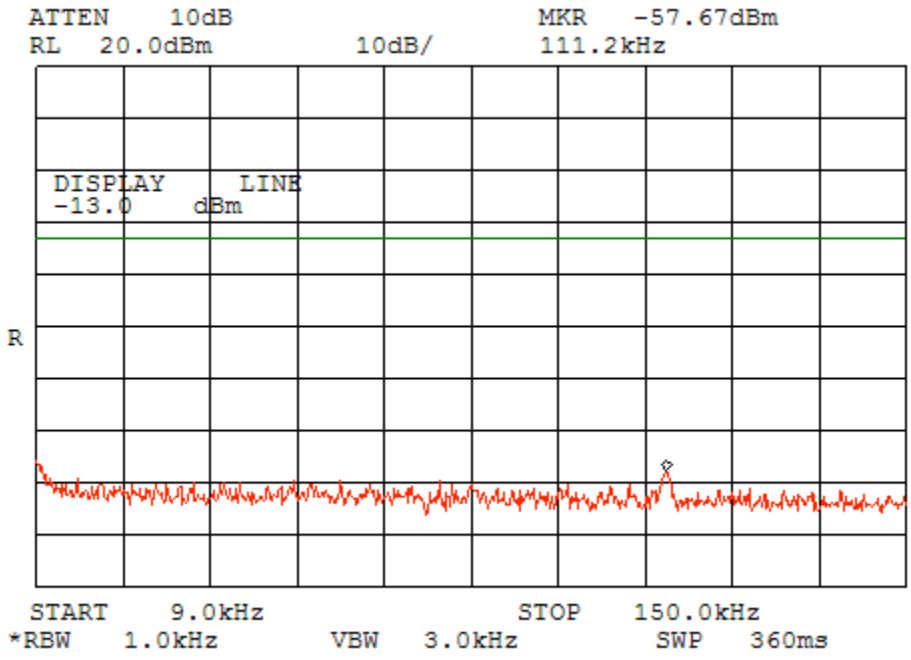
Range 1000 – 2000 MHz. CDMA 869-894



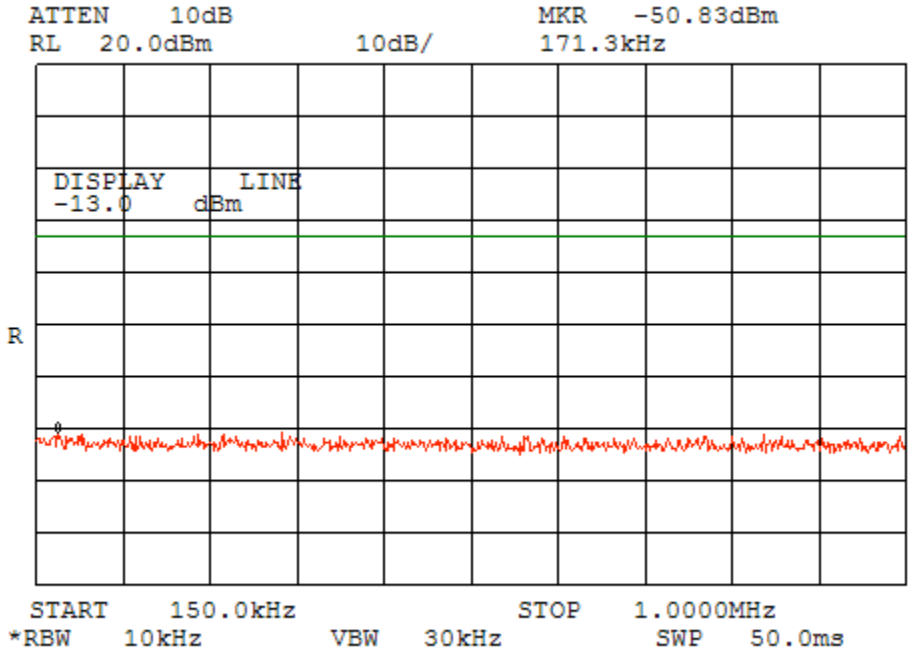
Range 2000 – 10000 MHz. CDMA 869-894



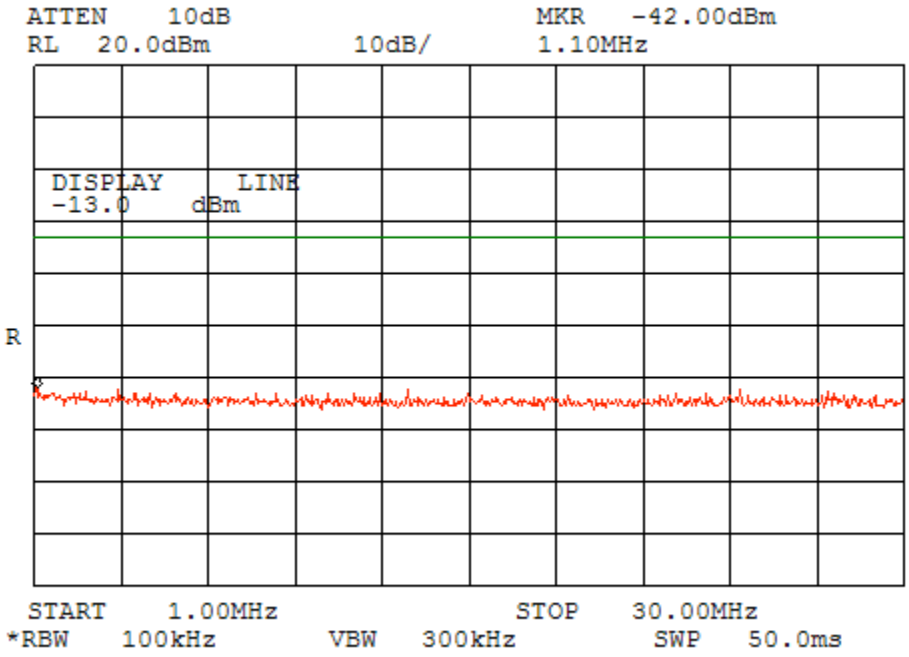
Range 9 – 150 kHz. TDMA 1930-1990



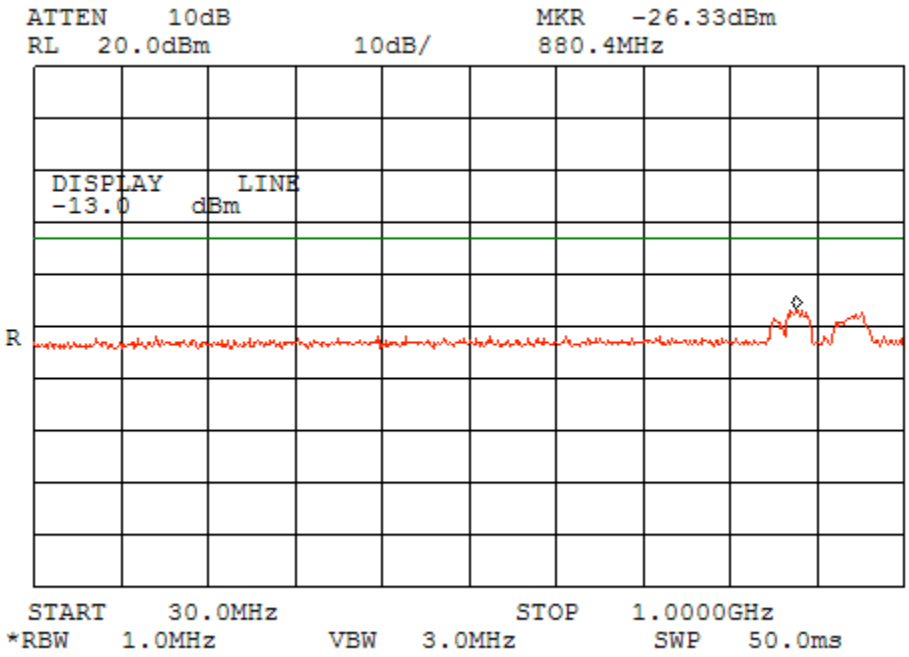
Range 0.150 – 1 MHz. TDMA 1930-1990



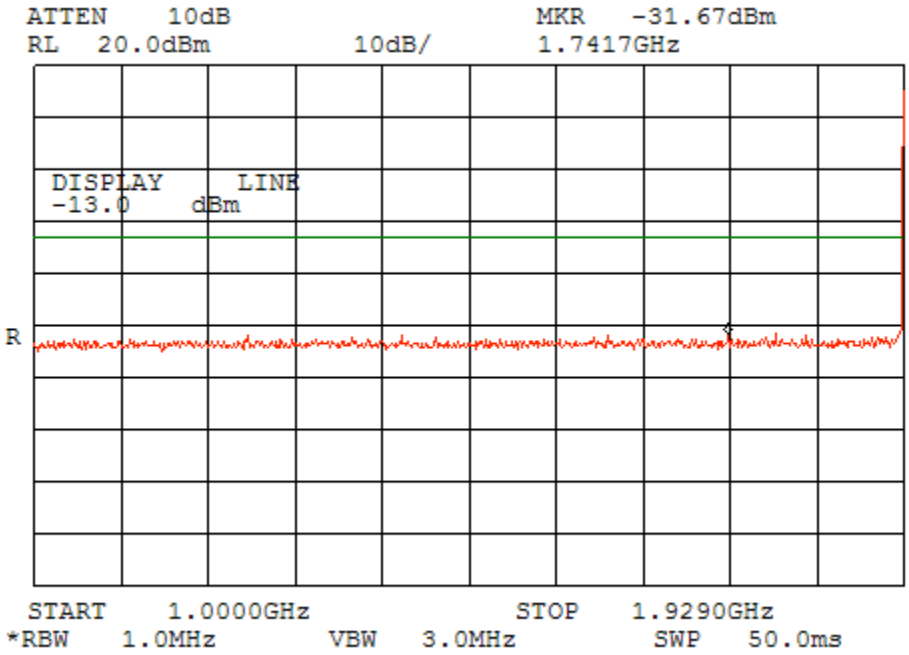
Range 1 – 30 MHz. TDMA 1930-1990



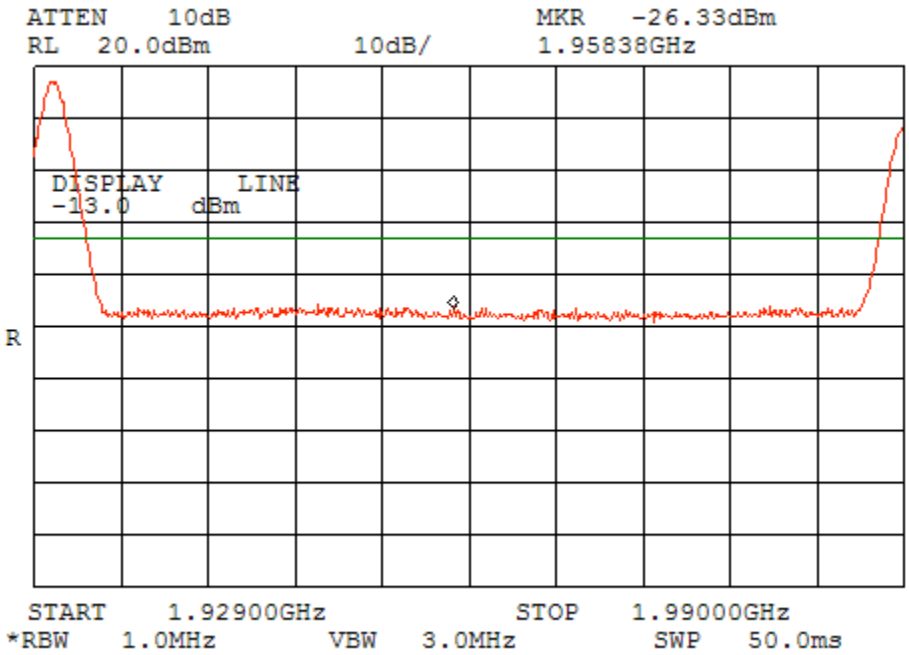
Range 30 – 1000 MHz. TDMA 1930-1990



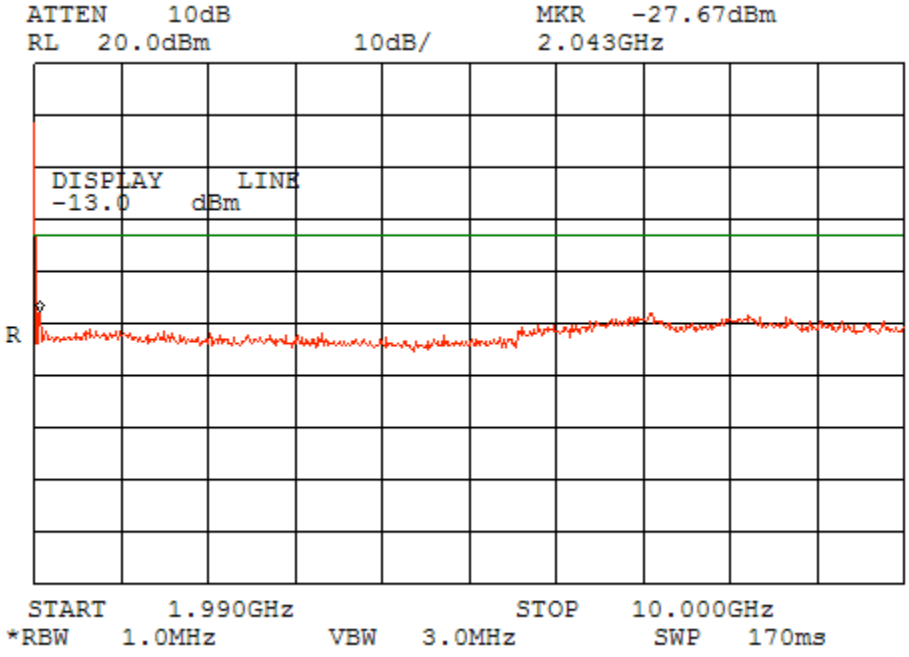
Range 1000 – 1929 MHz. TDMA 1930-1990



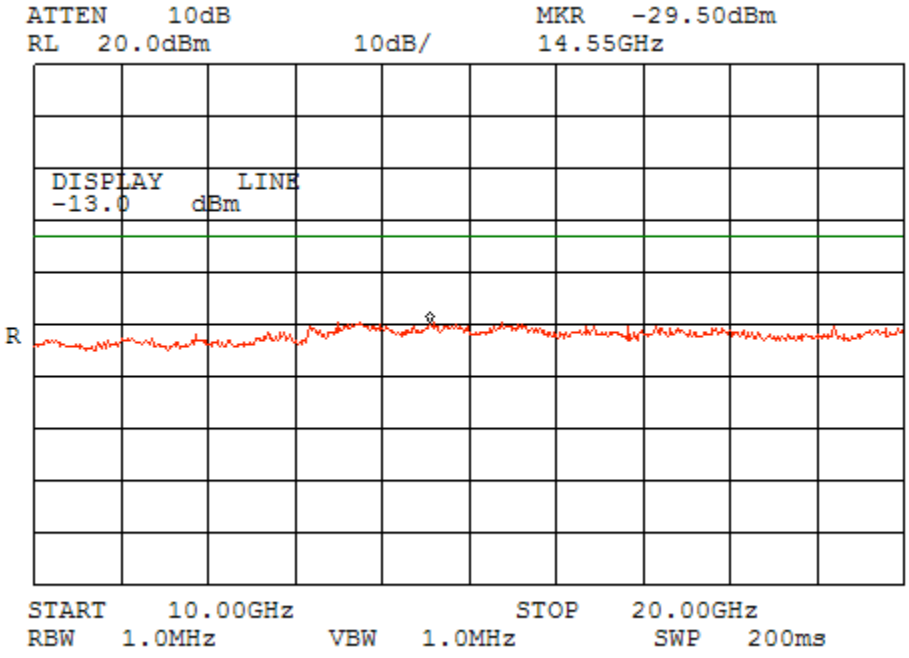
Range 1929 – 1990 MHz. TDMA 1930-1990



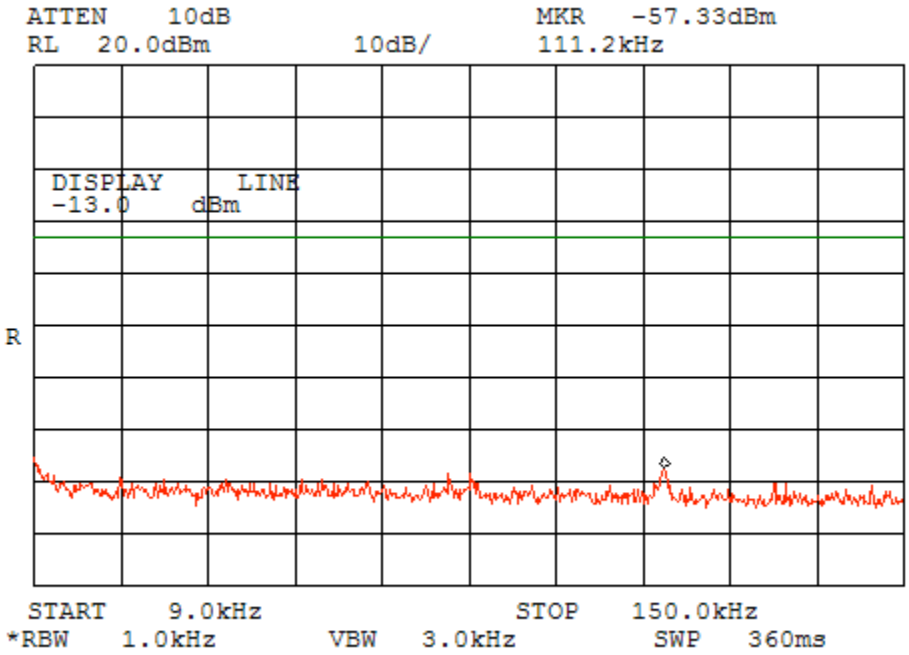
Range 1990 – 10000 MHz. TDMA 1930-1990



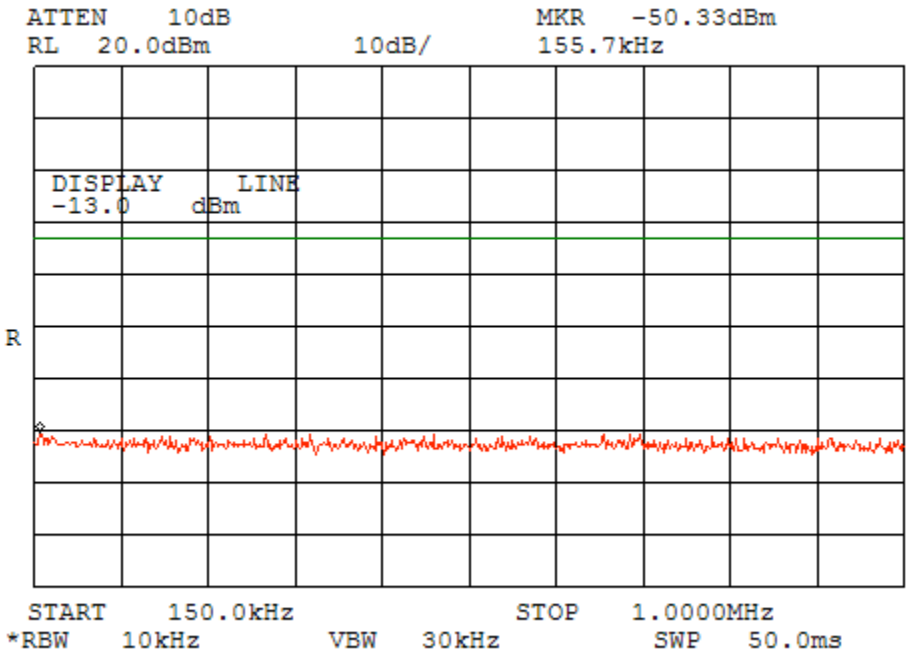
Range 10000 – 20000 MHz. TDMA 1930-1990



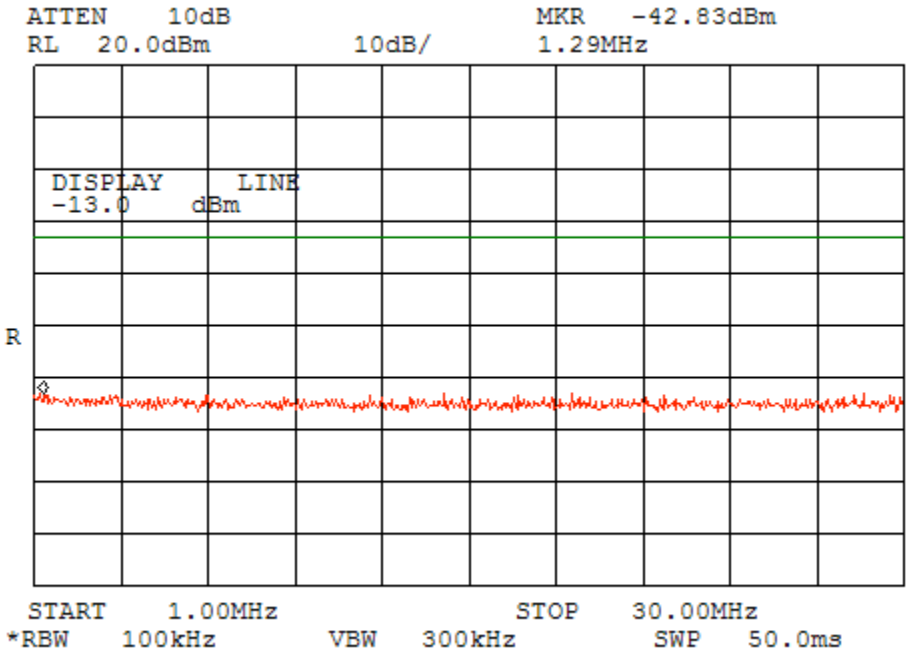
Range 9 – 150 kHz. GSM 1930-1990



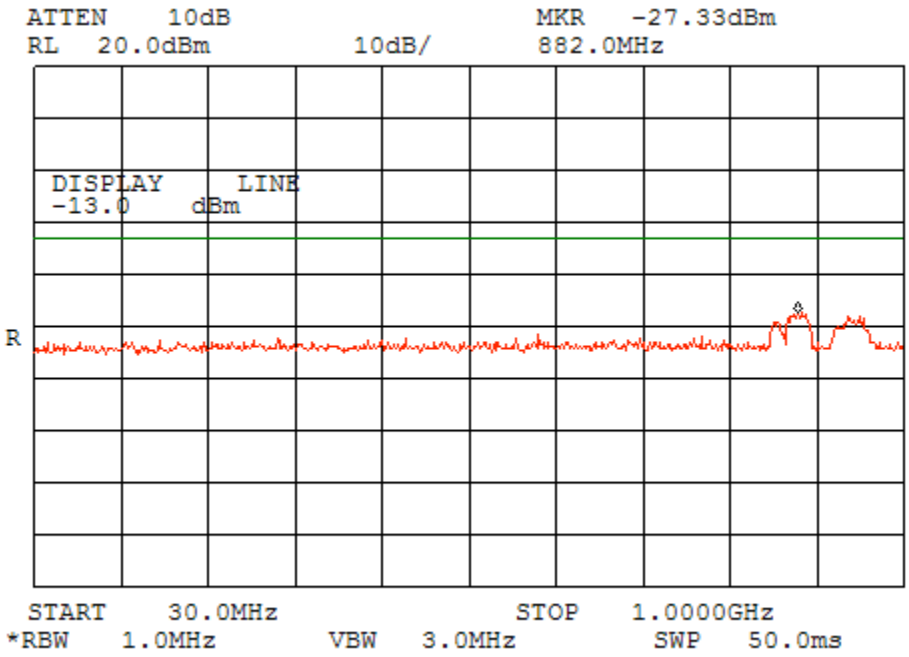
Range 0.150 – 1 MHz. GSM 1930-1990



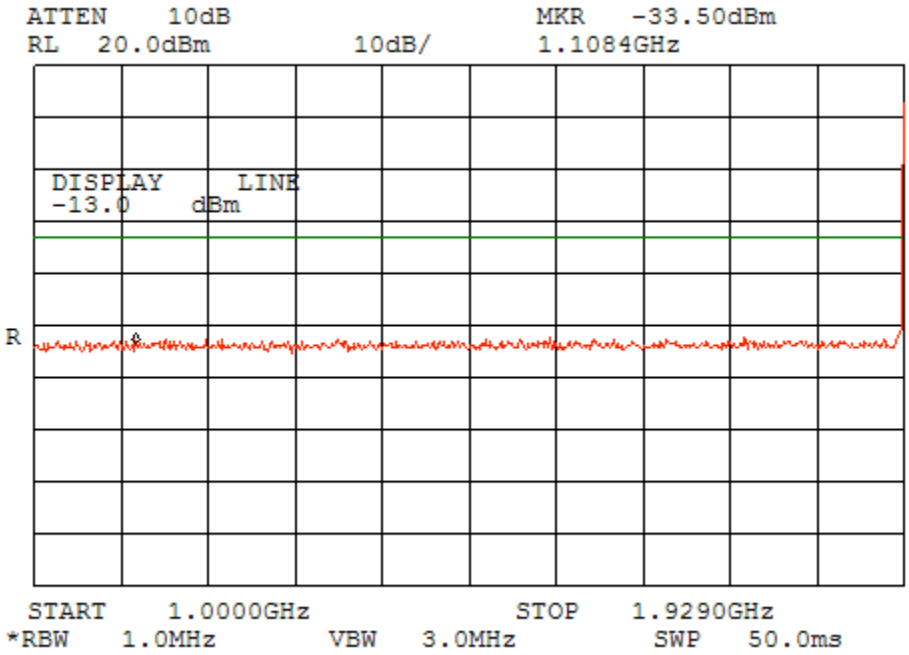
Range 1 – 30 MHz. GSM 1930-1990



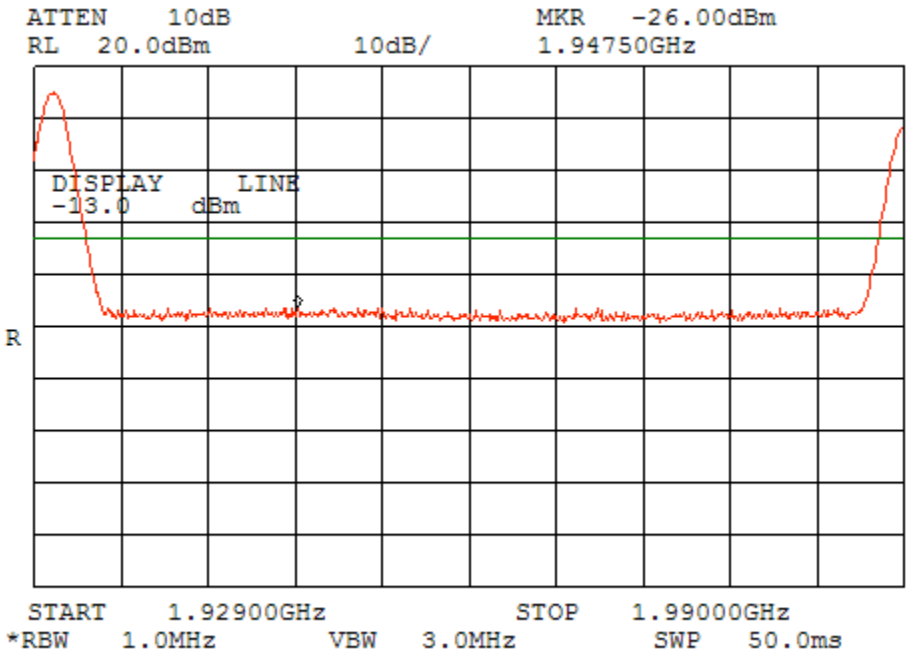
Range 30 – 1000 MHz. GSM 1930-1990



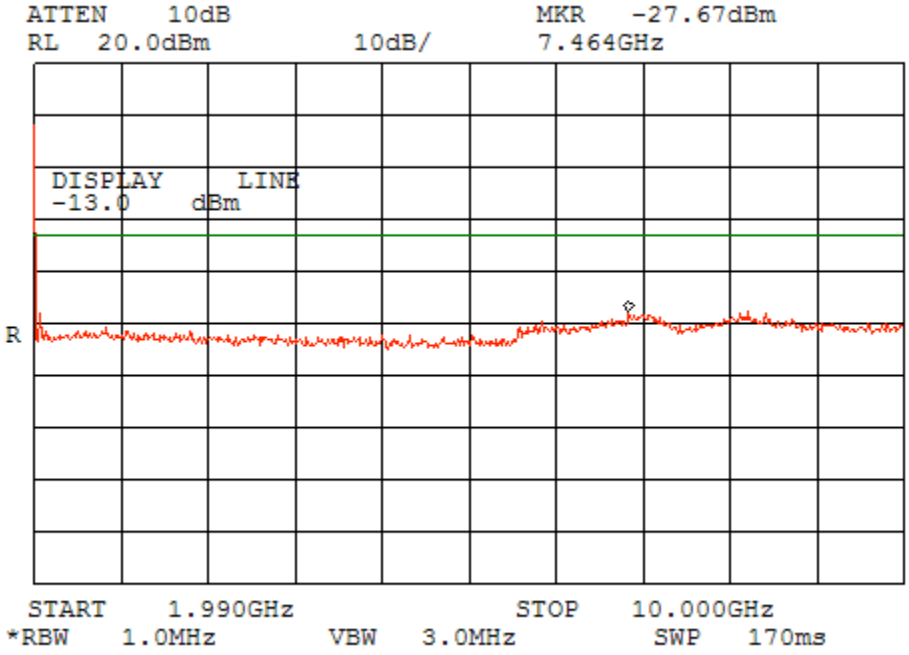
Range 1000 – 1929 MHz. GSM 1930-1990



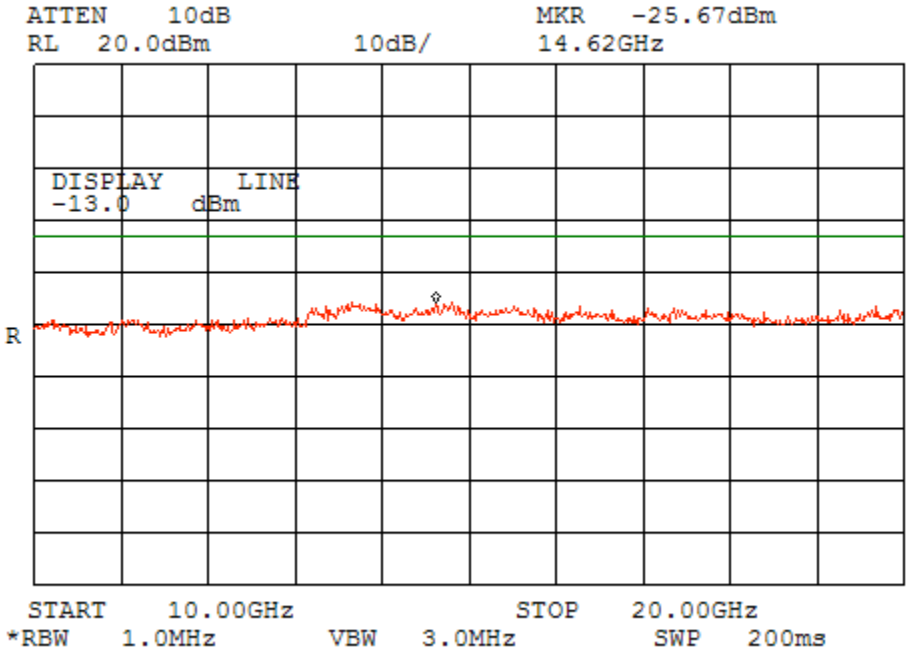
Range 1929 – 1990 MHz. GSM 1930-1990



Range 1990 – 10000 MHz. GSM 1930-1990



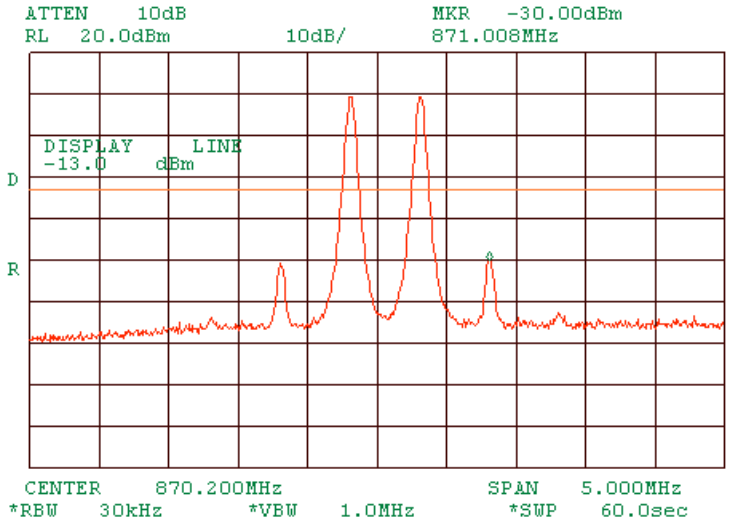
Range 10000 – 20000 MHz. GSM 1930-1990



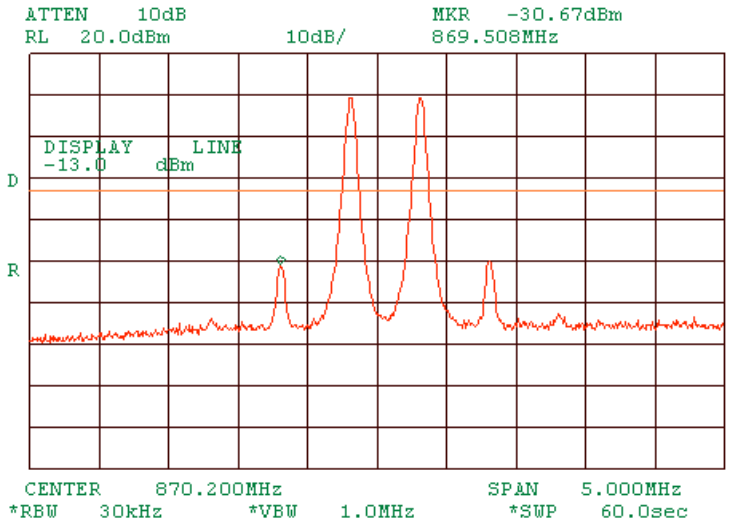
FOR TEST REPORT –spurious emission CELL band

Date/Time:	28 July 2004
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 2000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	AMPS, FM, 851.0125, 851.0150, 865.9875 MHz

Date/Time:	August 4 2003 1:43:21 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	AMPS, FM, 870, 870.5, 893 MHz

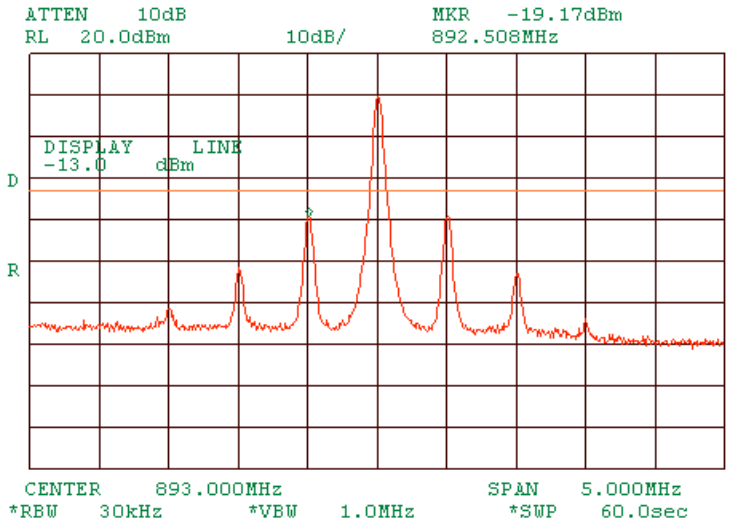


Date/Time:	August 4 2003 1:45:14 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	AMPS, FM, 870, 870.5, 893 MHz



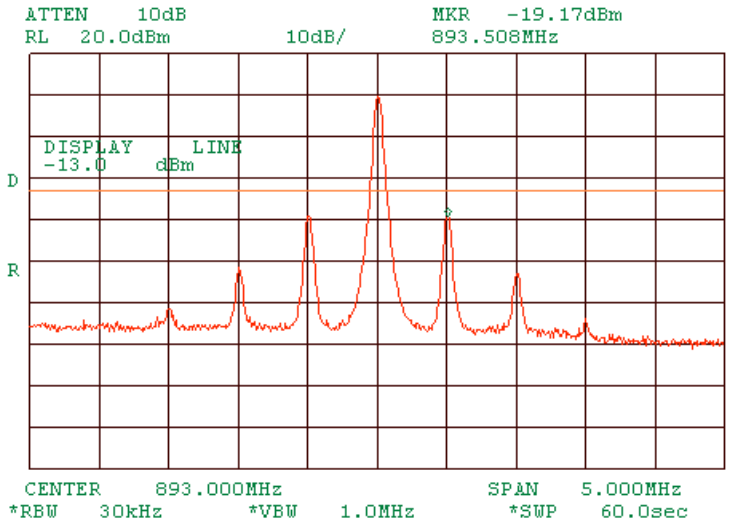
Plot 3

Date/Time:	August 4 2003 1:48:54 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	AMPS, FM, 870, 870.5, 893 MHz



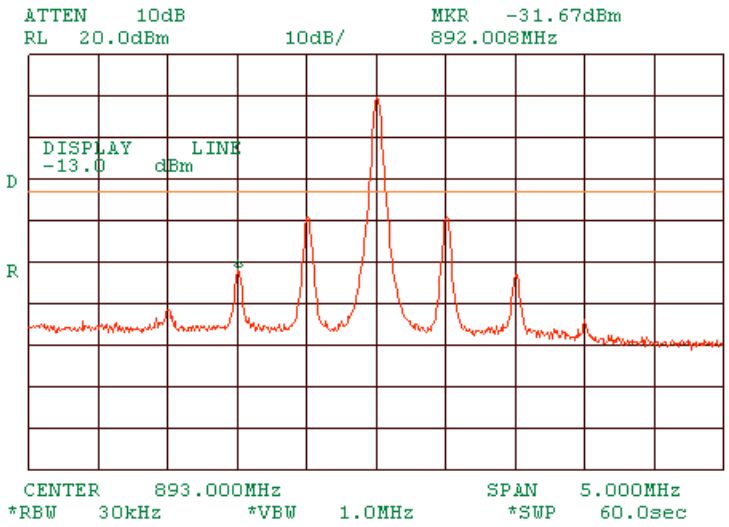
Plot 4

Date/Time:	August 4 2003 1:49:36 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	AMPS, FM, 870, 870.5, 893 MHz



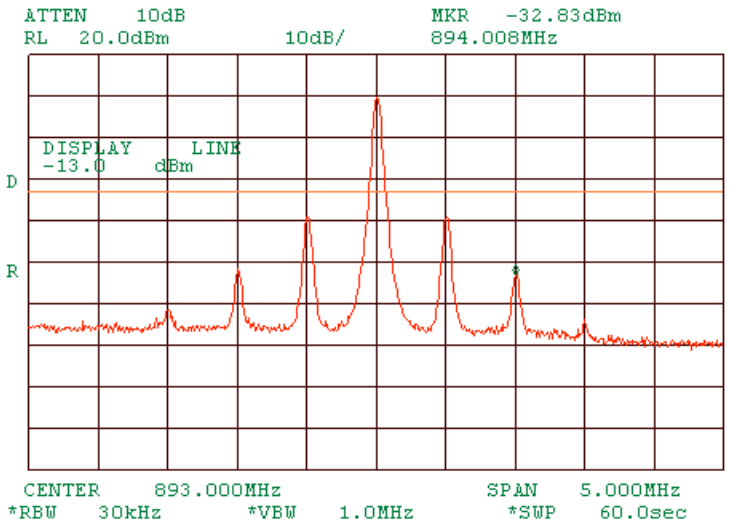
Plot 5

Date/Time:	August 4 2003 1:50:21 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	AMPS, FM, 870, 870.5, 893 MHz



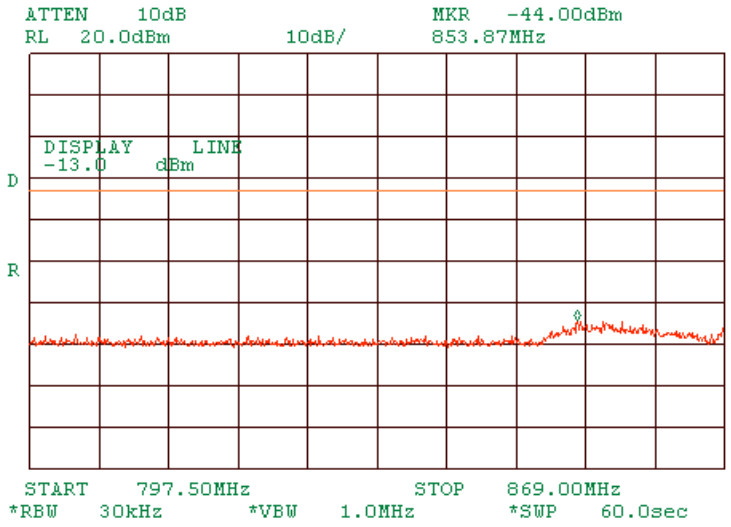
Plot 6

Date/Time:	August 4 2003 1:52:01 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	AMPS, FM, 870, 870.5, 893 MHz



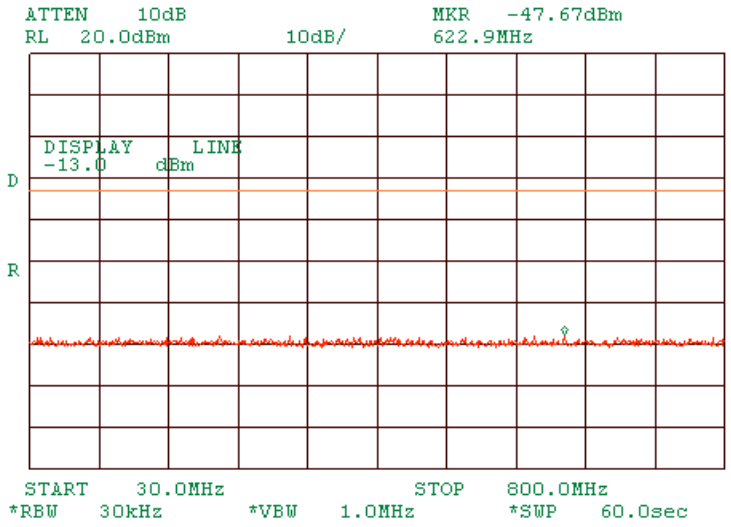
Plot 7

Date/Time:	August 4 2003 1:56:25 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	AMPS, FM, 870, 870.5, 893 MHz



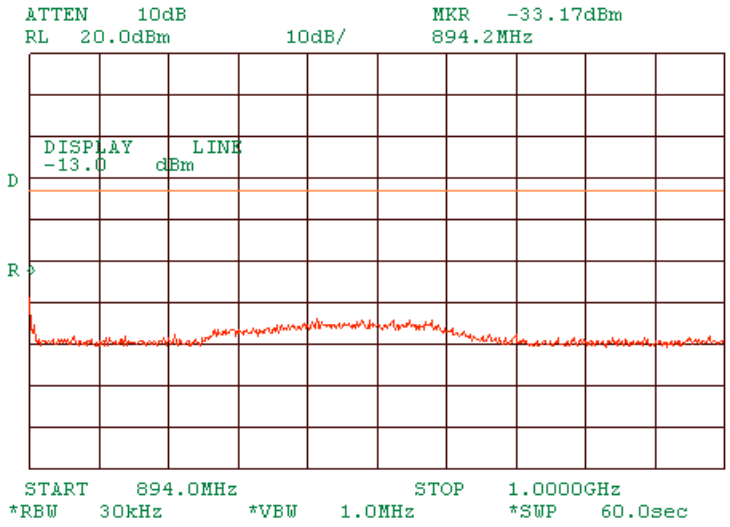
Plot 8

Date/Time:	August 4 2003 1:57:49 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	AMPS, FM, 870, 870.5, 893 MHz

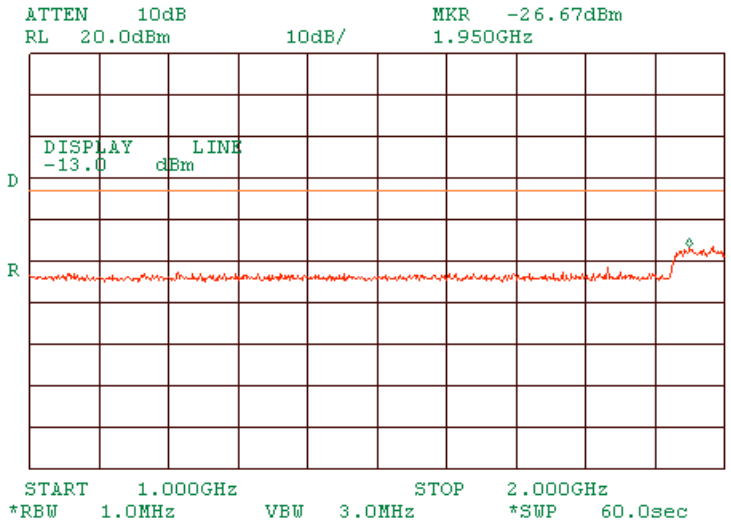


Plot 9

Date/Time:	August 4 2003 1:59:31 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	AMPS, FM, 870, 870.5, 893 MHz

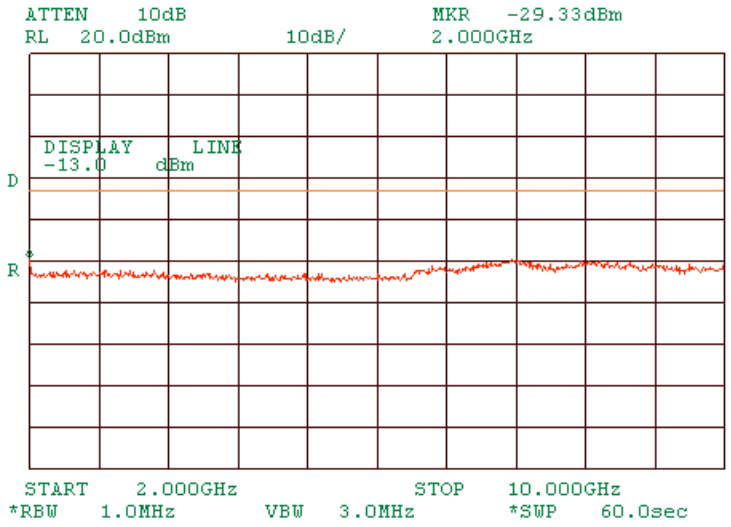


Date/Time:	August 4 2003 2:03:06 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	AMPS, FM, 870, 870.5, 893 MHz



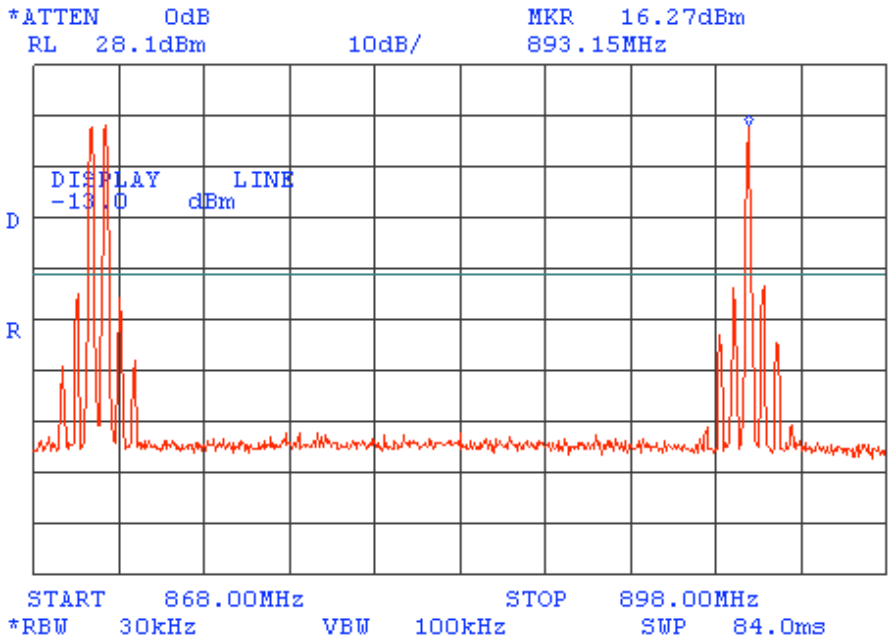
Plot 10

Date/Time:	August 4 2003 2:08:04 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	AMPS, FM, 870, 870.5, 893 MHz



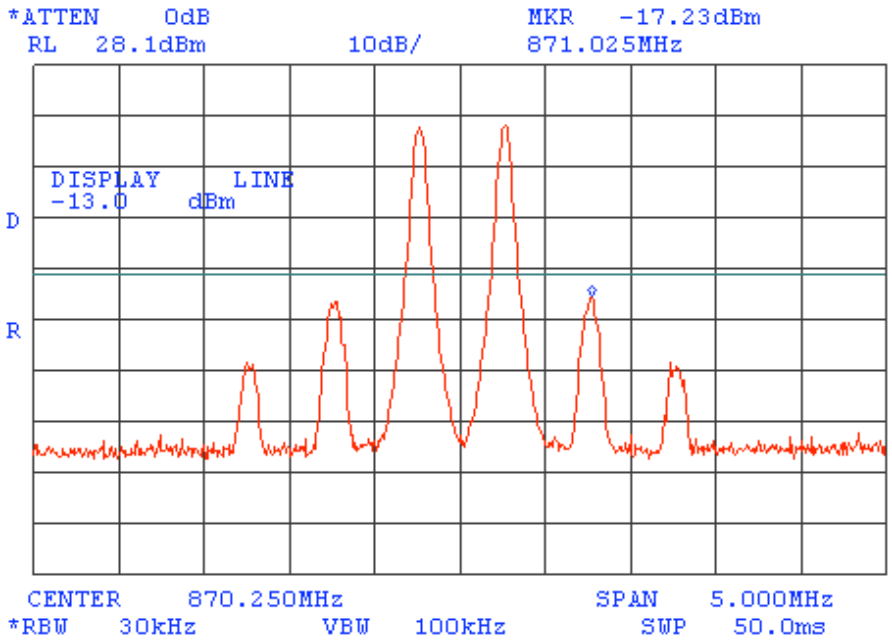
Plot.11

Date/Time:	August 4 2003 2:15:42 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	TDMA, 870, 870.5, 893 MHz



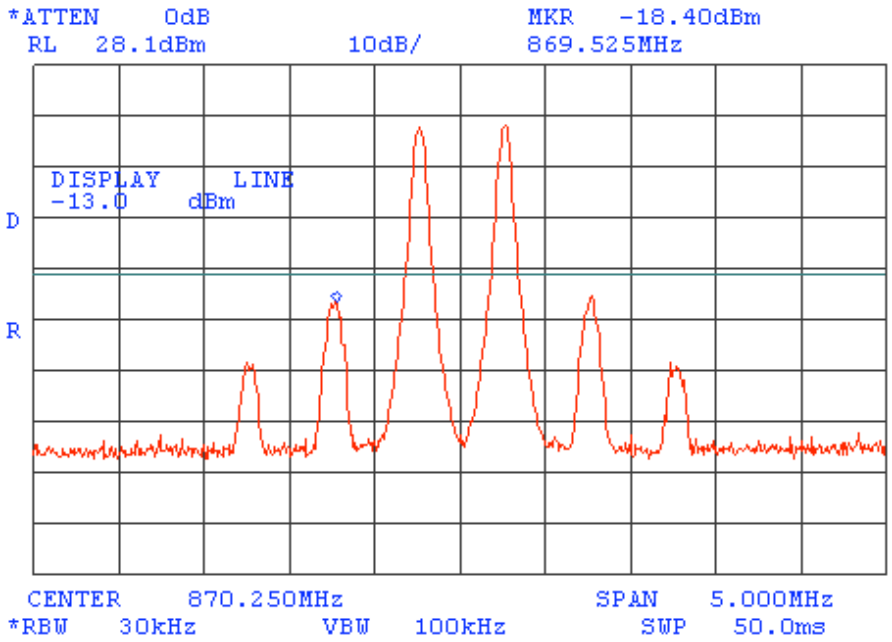
Plot 12

Date/Time:	August 4 2003 2:16:57 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	TDMA, 870, 870.5, 893 MHz



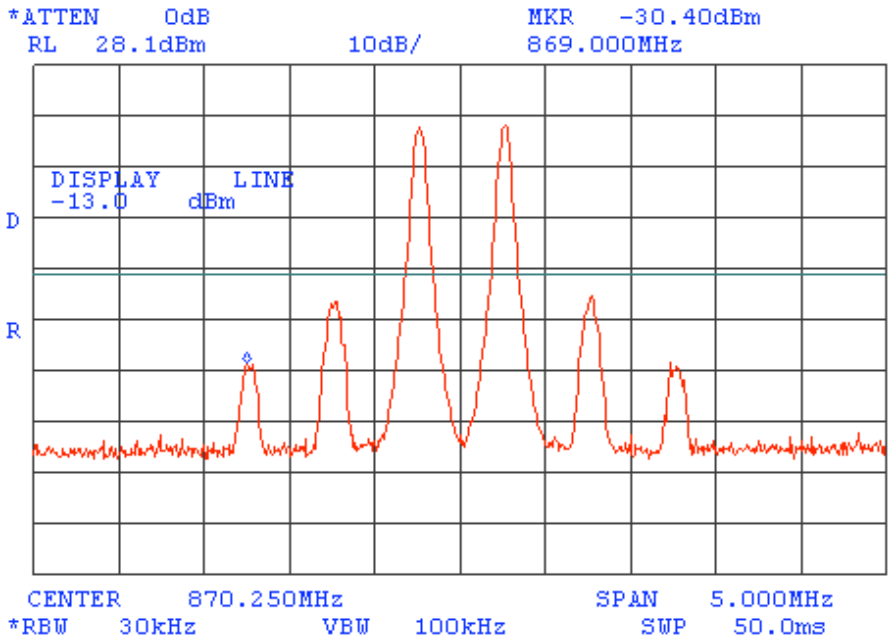
Plot 13

Date/Time:	August 4 2003 2:17:35 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	TDMA, 870, 870.5, 893 MHz



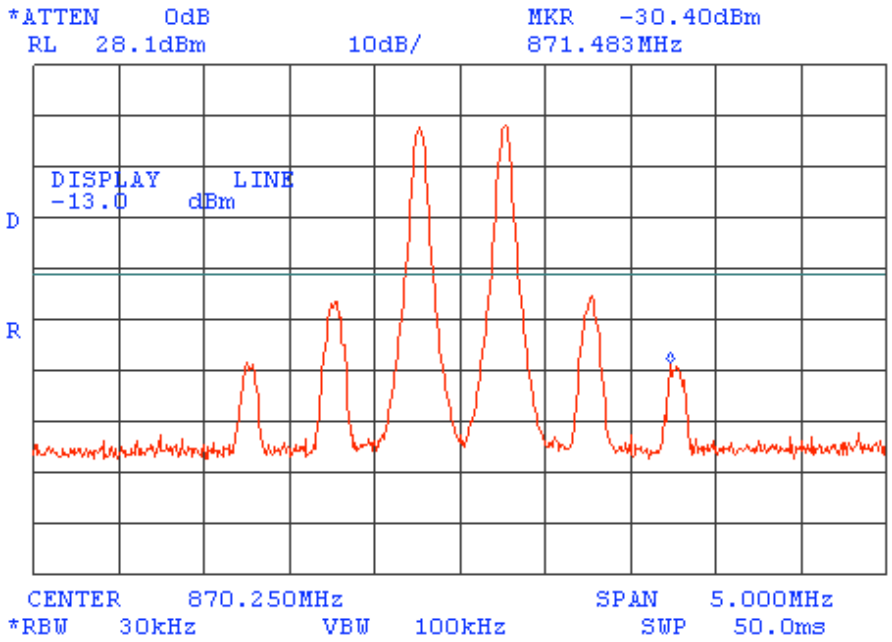
Plot 14

Date/Time:	August 4 2003 2:19:35 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	TDMA, 870, 870.5, 893 MHz



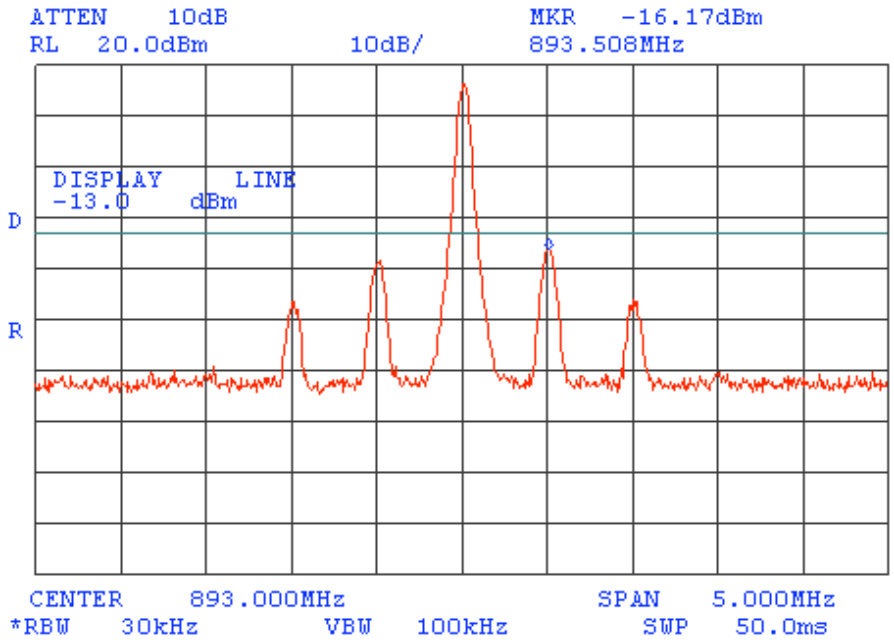
Plot 15

Date/Time:	August 4 2003 2:20:15 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	TDMA, 870, 870.5, 893 MHz



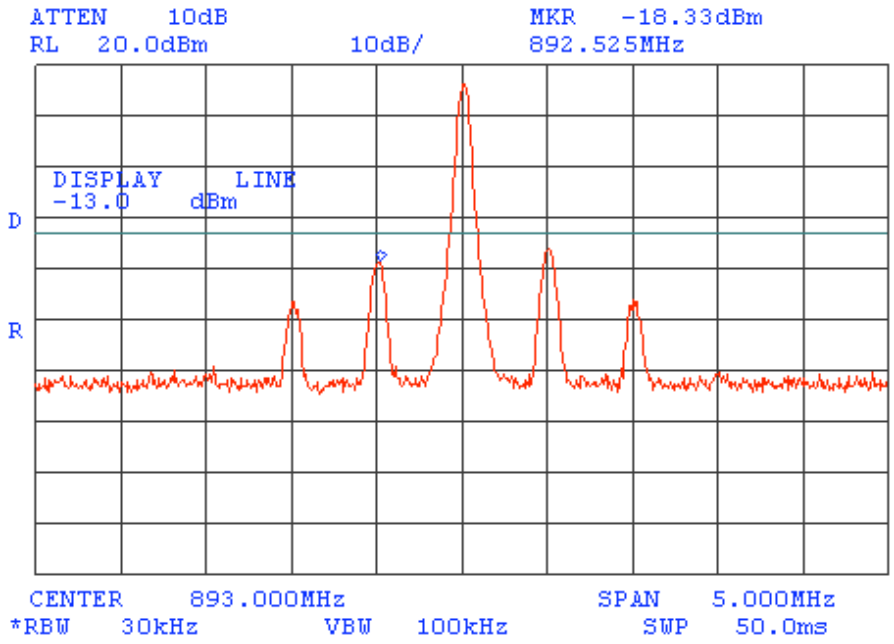
Plot 16

Date/Time:	August 4 2003 2:21:17 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	TDMA, 870, 870.5, 893 MHz



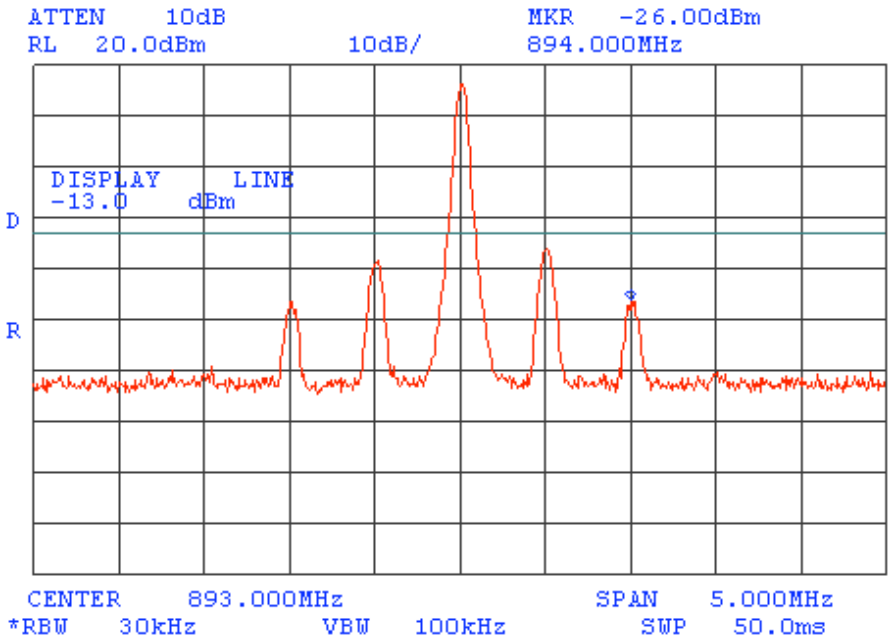
Plot 17

Date/Time:	August 4 2003 2:21:53 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	TDMA, 870, 870.5, 893 MHz



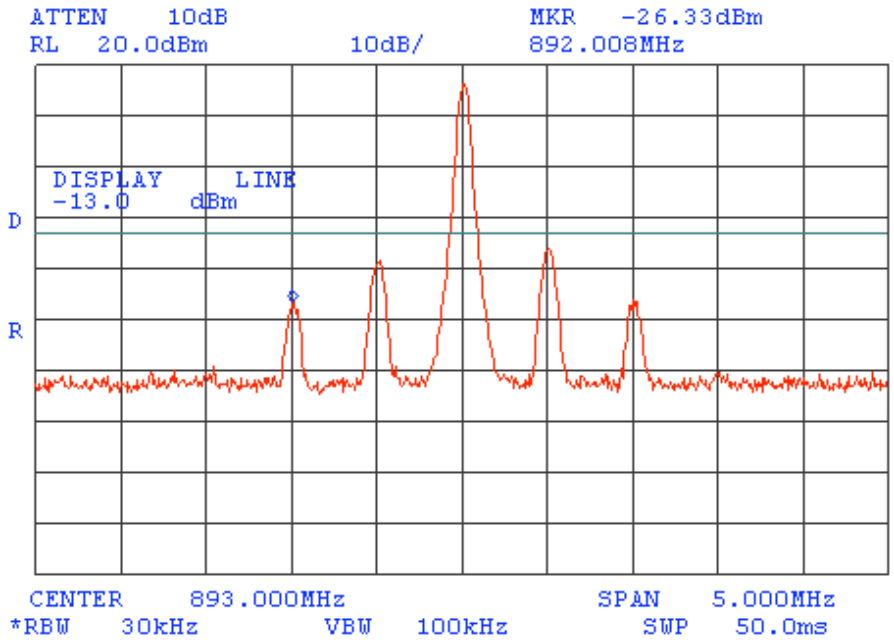
Plot 18

Date/Time:	August 4 2003 2:22:29 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	TDMA, 870, 870.5, 893 MHz



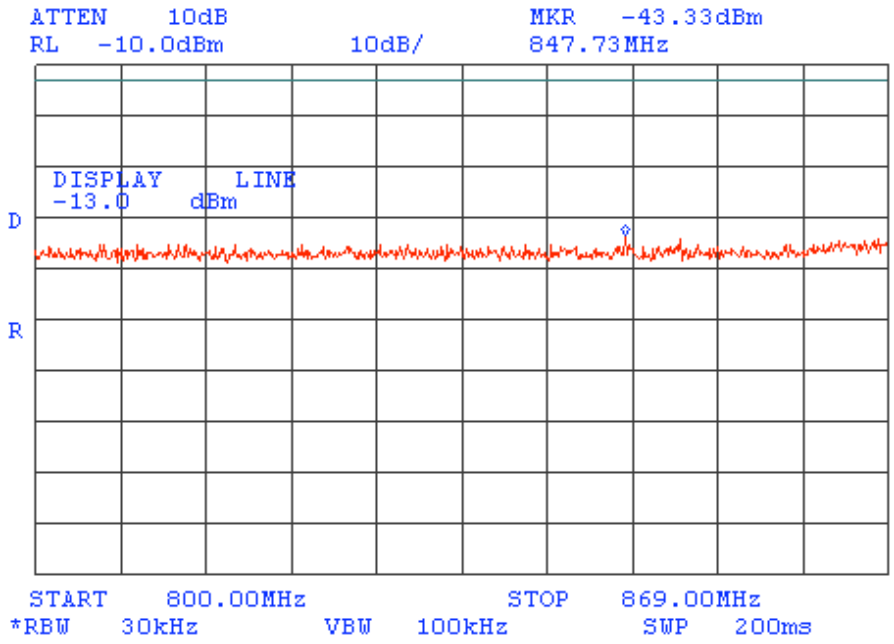
Plot 19

Date/Time:	August 4 2003 2:23:28 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	TDMA, 870, 870.5, 893 MHz



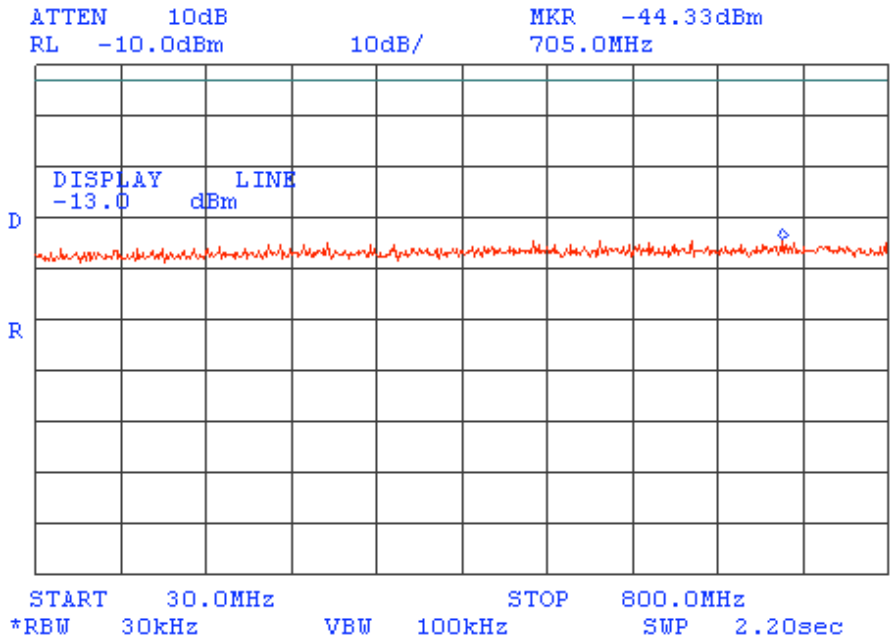
Plot 20

Date/Time:	August 4 2003 2:25:13 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	TDMA, 870, 870.5, 893 MHz



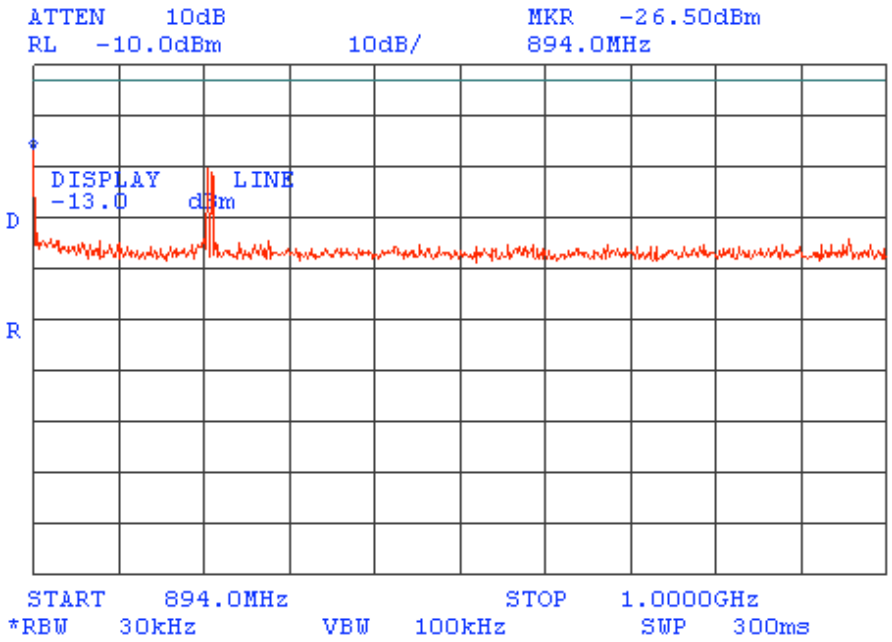
Plot 21

Date/Time:	August 4 2003 2:26:41 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	TDMA, 870, 870.5, 893 MHz



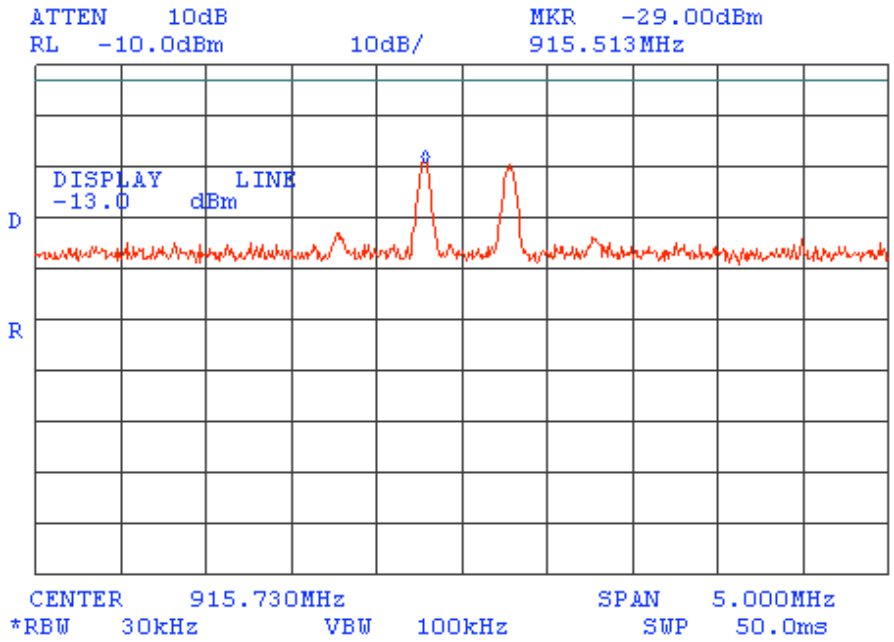
Plot 22

Date/Time:	August 4 2003 2:28:25 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	TDMA, 870, 870.5, 893 MHz



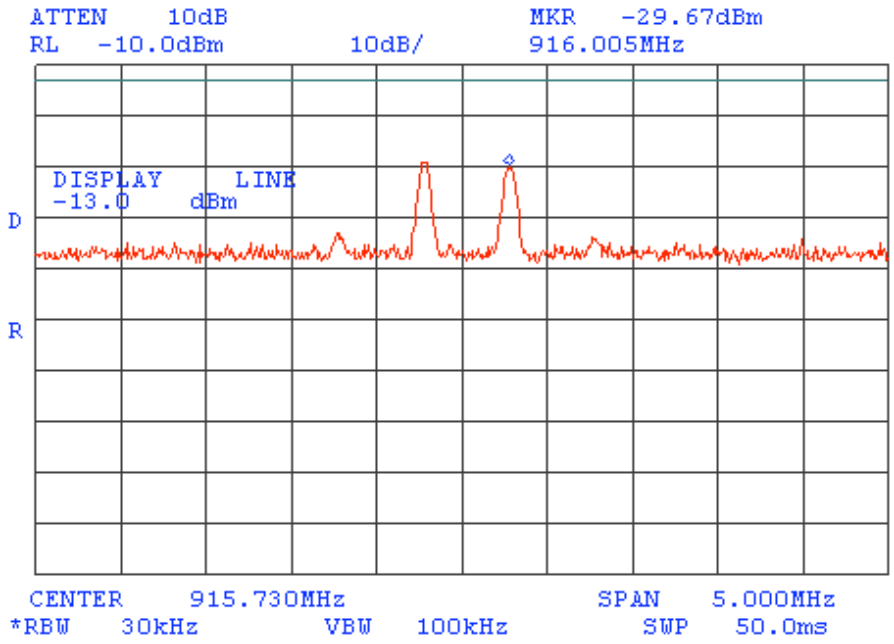
Plot 23

Date/Time:	August 4 2003 2:29:29 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	TDMA, 870, 870.5, 893 MHz



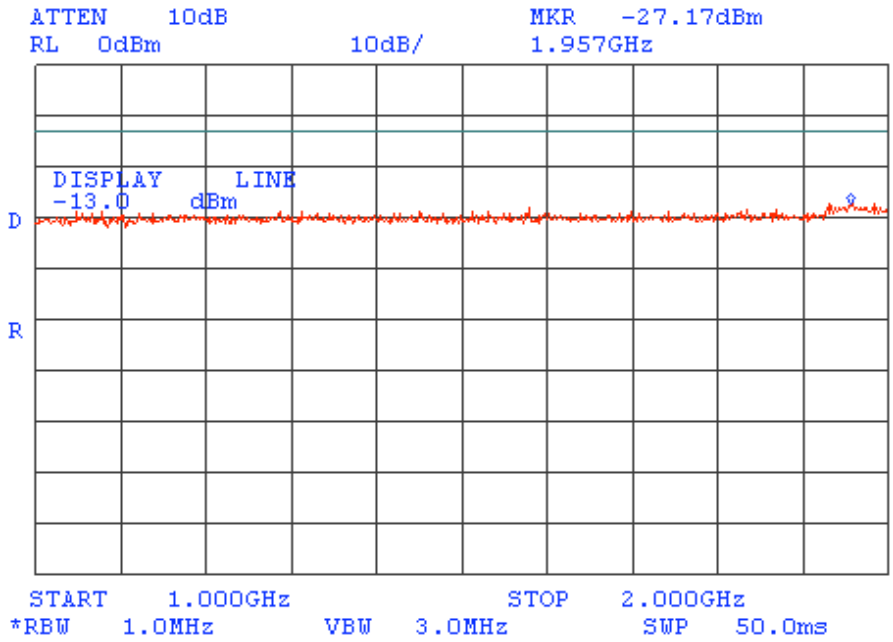
Plot 24

Date/Time:	August 4 2003 2:30:26 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	TDMA, 870, 870.5, 893 MHz



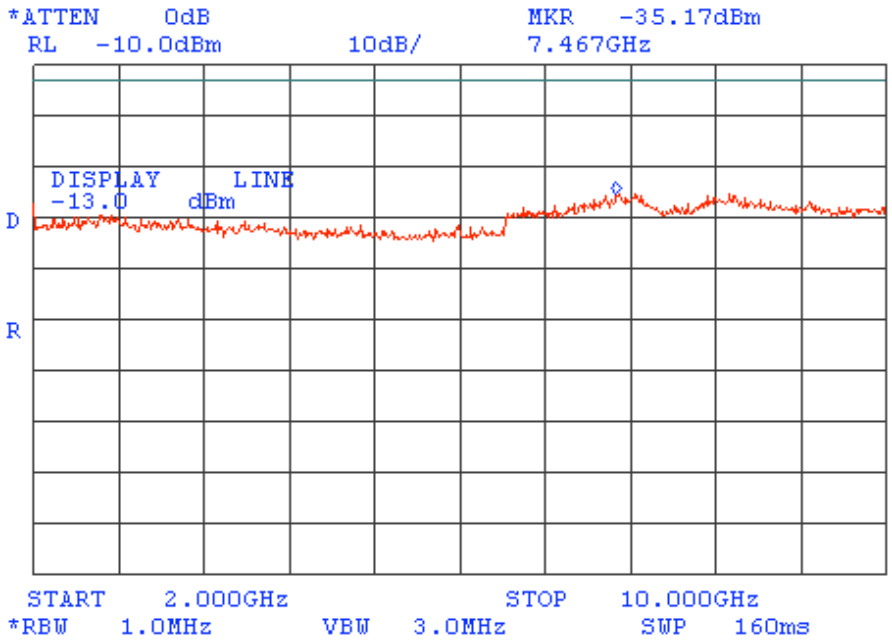
Plot 25

Date/Time:	August 4 2003 2:32:28 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	TDMA, 870, 870.5, 893 MHz



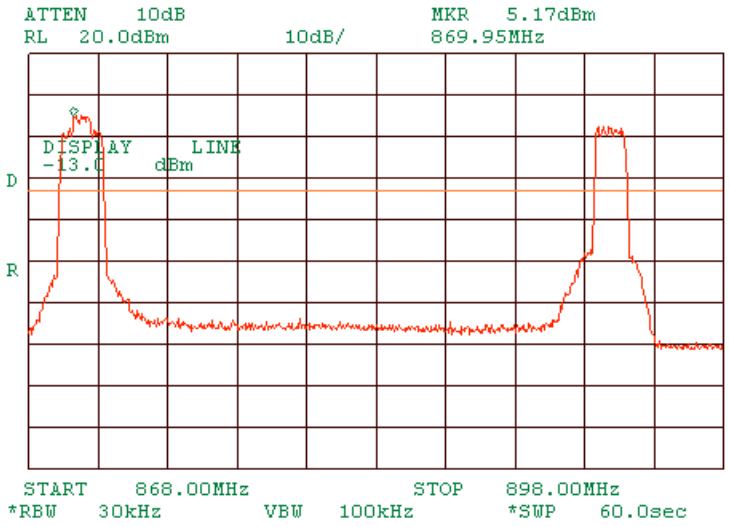
Plot.26

Date/Time:	August 4 2003 2:39:23 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	TDMA, 870, 870.5, 893 MHz



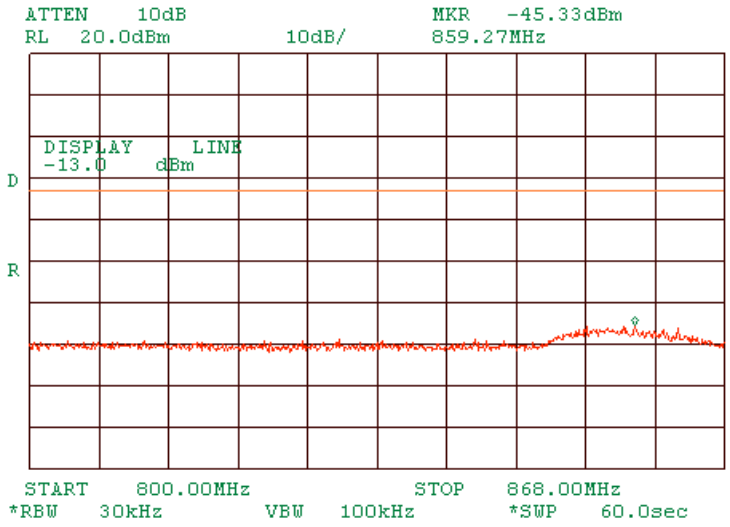
Plot 27

Date/Time:	August 4 2003 3:04:34 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	CDMA 870, 870.5, 893 MHz



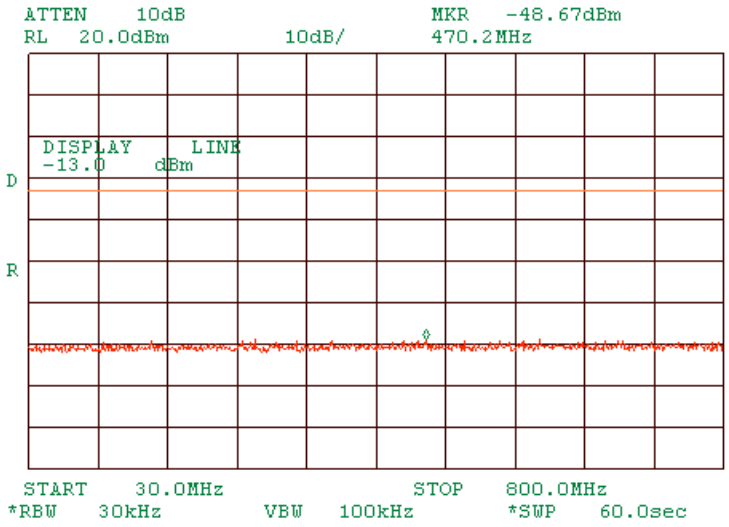
Plot 28

Date/Time:	August 4 2003 3:05:49 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	CDMA 870, 870.5, 893 MHz



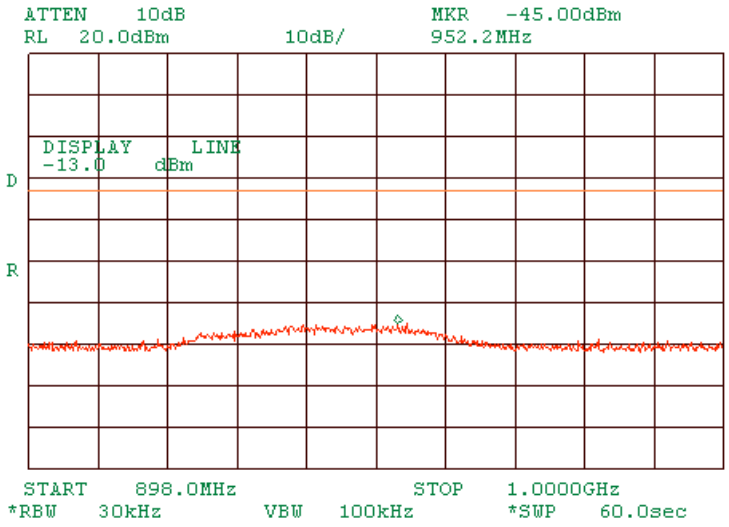
Plot 29

Date/Time:	August 4 2003 3:07:16 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	CDMA 870, 870.5, 893 MHz



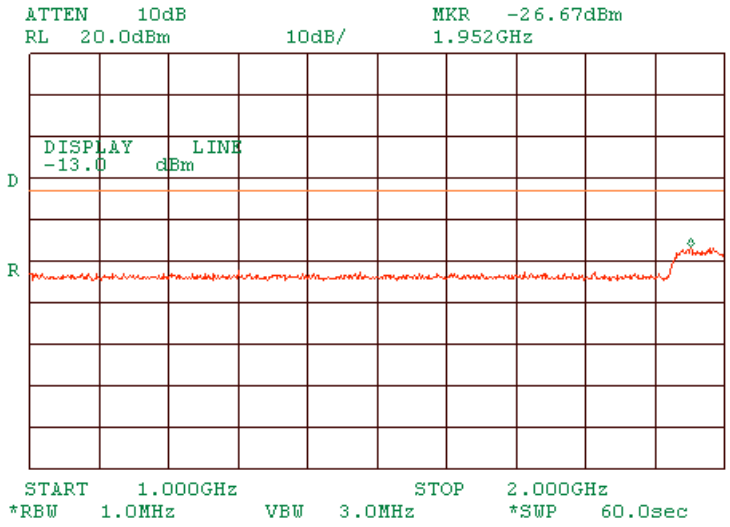
Plot 30

Date/Time:	August 4 2003 3:08:34 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	CDMA 870, 870.5, 893 MHz



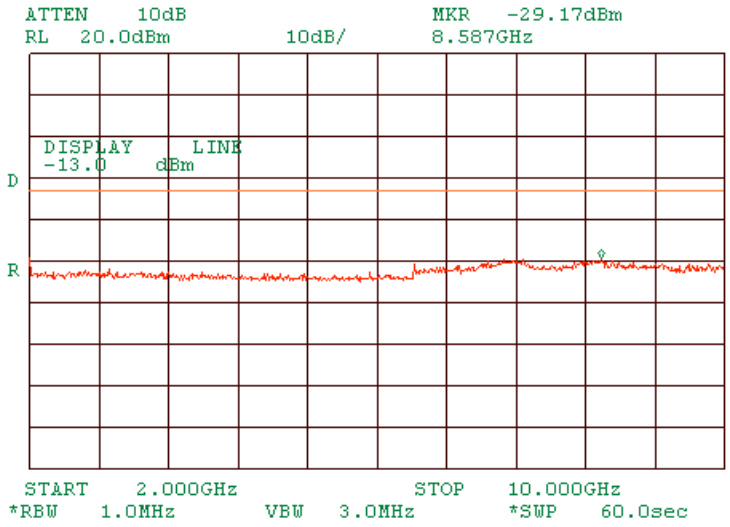
Plot 31

Date/Time:	August 4 2003 3:10:30 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	CDMA 870, 870.5, 893 MHz



Plot 32

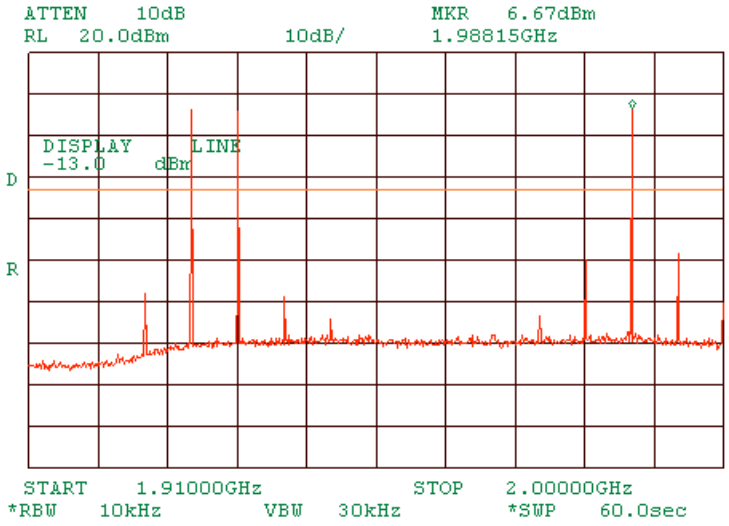
Date/Time:	August 4 2003 3:15:15 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	CDMA 870, 870.5, 893 MHz



spurious emissions PCS band

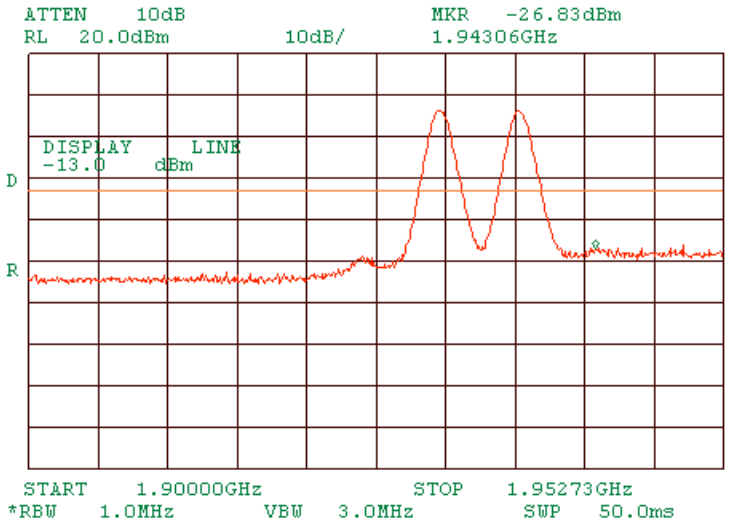
Plot 33

Date/Time:	August 4 2003 4:58:00 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	FM: 1931, 1937, 1988 MHz

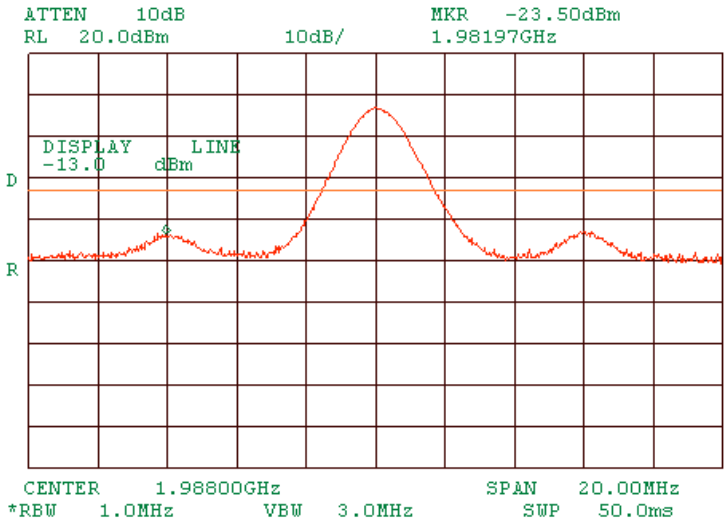


Plot 34

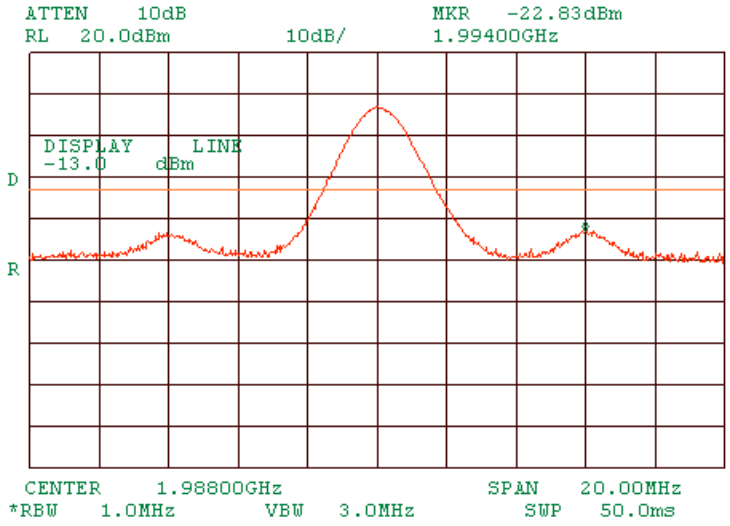
Date/Time:	August 4 2003 5:01:09 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	FM: 1931, 1937, 1988 MHz



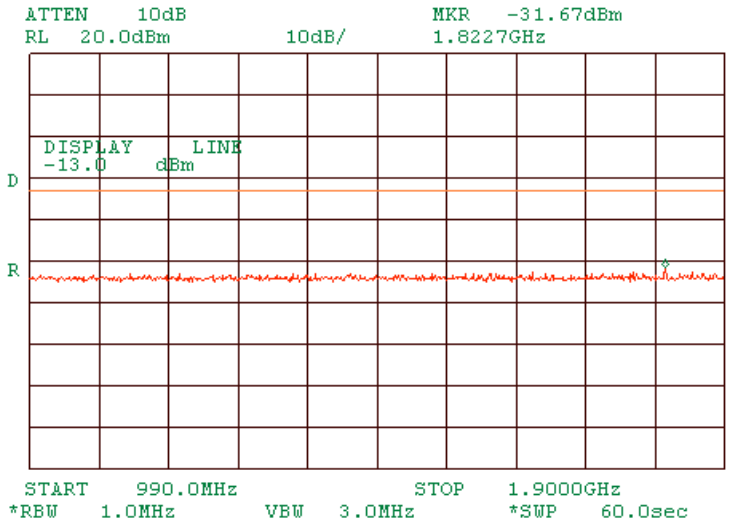
Date/Time:	August 4 2003 5:03:51 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	FM: 1931, 1937, 1988 MHz



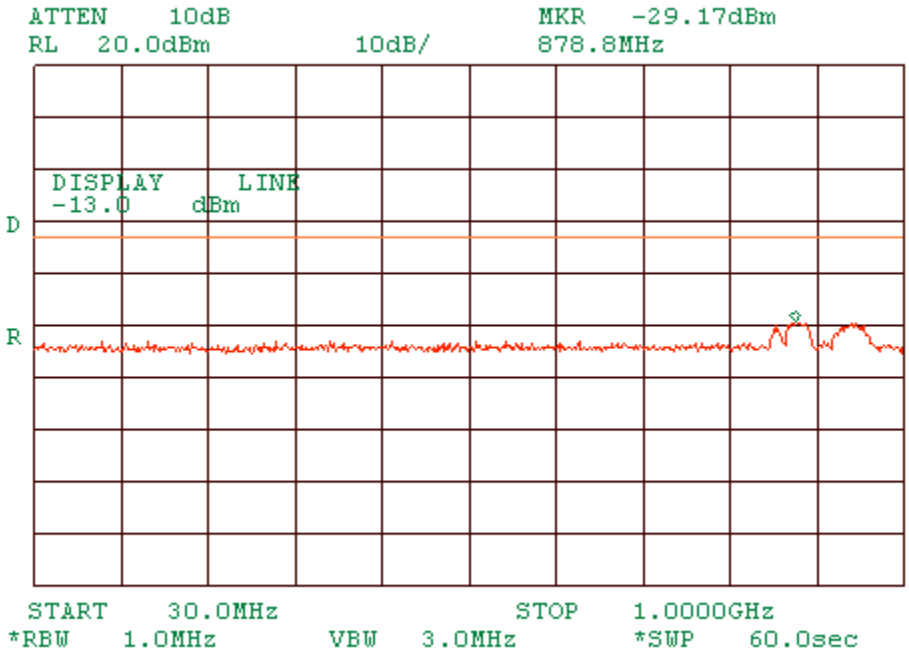
Date/Time:	August 4 2003 5:04:30 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	FM: 1931, 1937, 1988 MHz



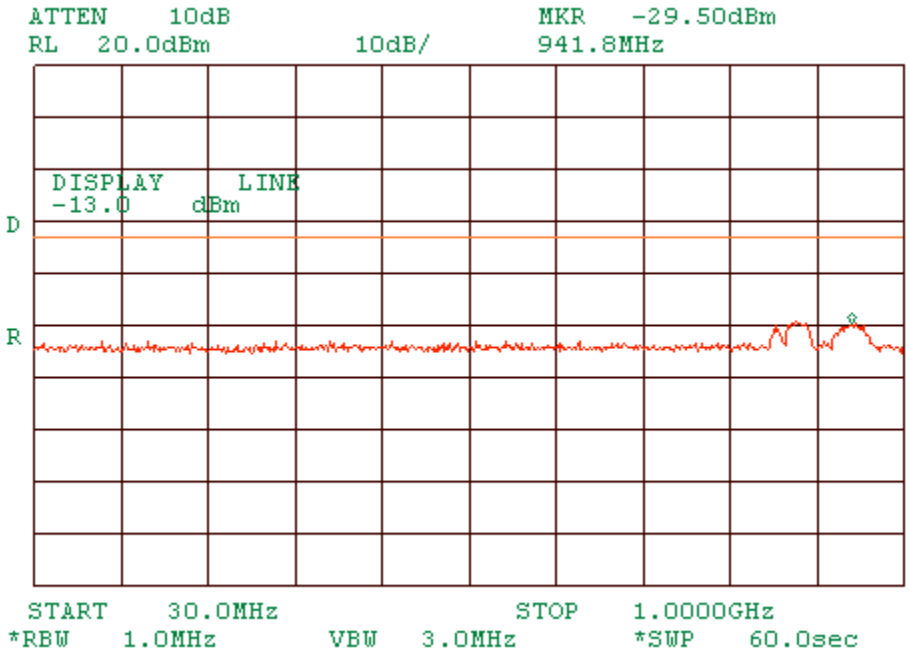
Date/Time:	August 4 2003 5:10:15 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	FM: 1931, 1937, 1988 MHz



Date/Time:	August 4 2003 5:13:21 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	FM: 1931, 1937, 1988 MHz

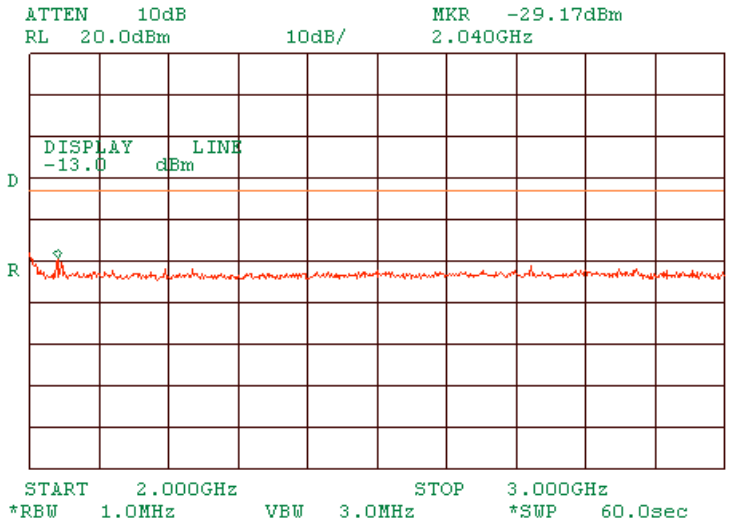


Date/Time:	August 4 2003 5:13:21 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissons (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 911, 1650,
Operator Name:	Michael Lerman
Notes:	FM: 1931, 1937, 1988 MHz



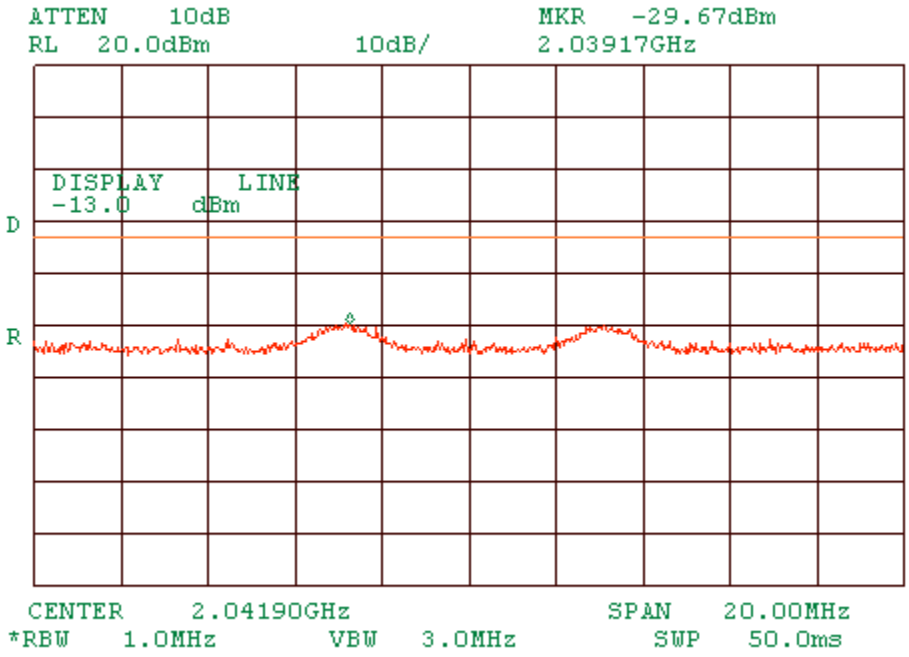
Plot 35

Date/Time:	August 4 2003 5:21:15 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	FM: 1931, 1937, 1988 MHz



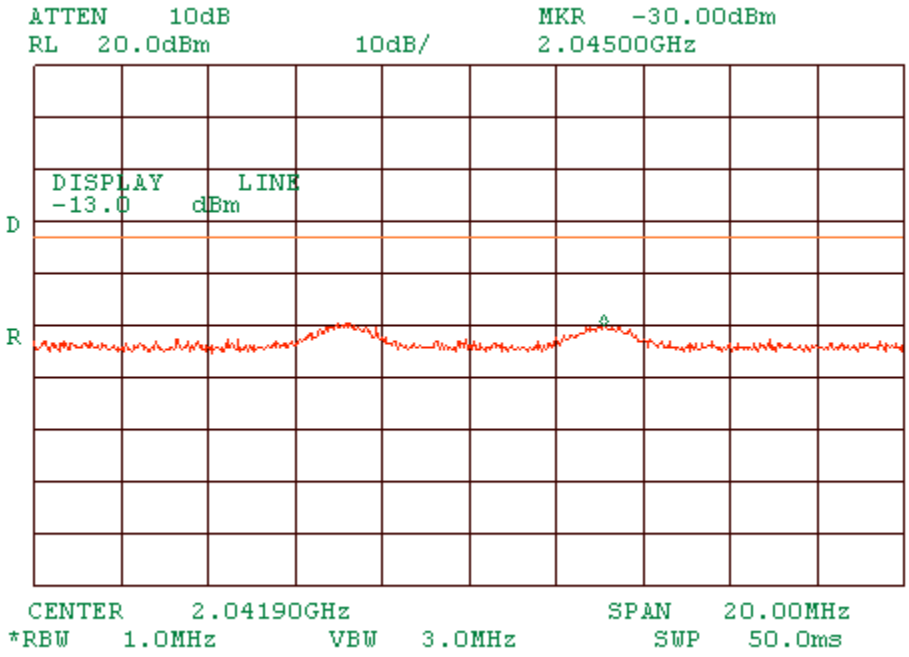
Plot 36

Date/Time:	August 4 2003 5:22:28 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	FM: 1931, 1937, 1988 MHz

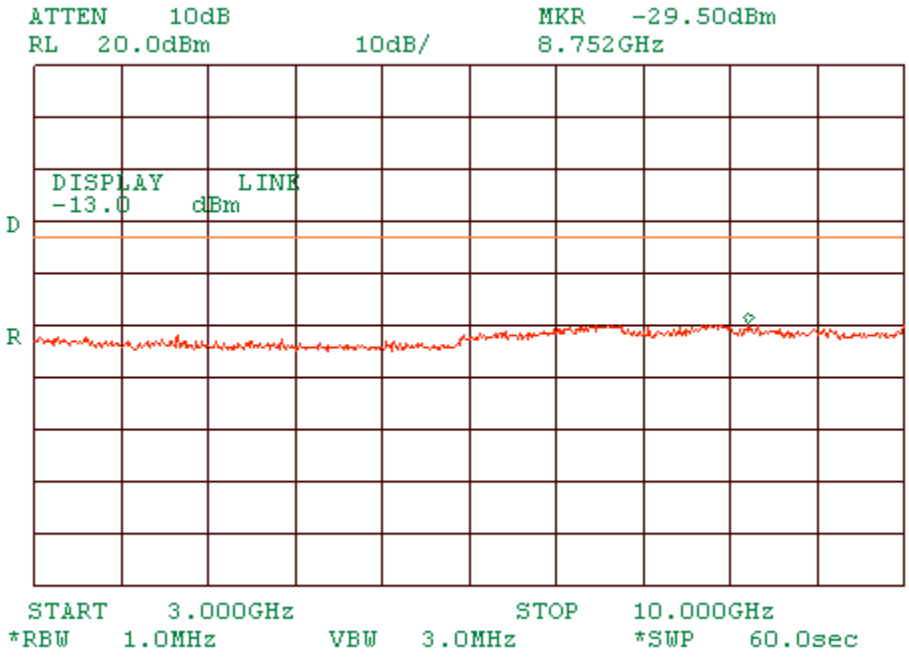


Plot 37

Date/Time:	August 4 2003 5:23:09 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	FM: 1931, 1937, 1988 MHz

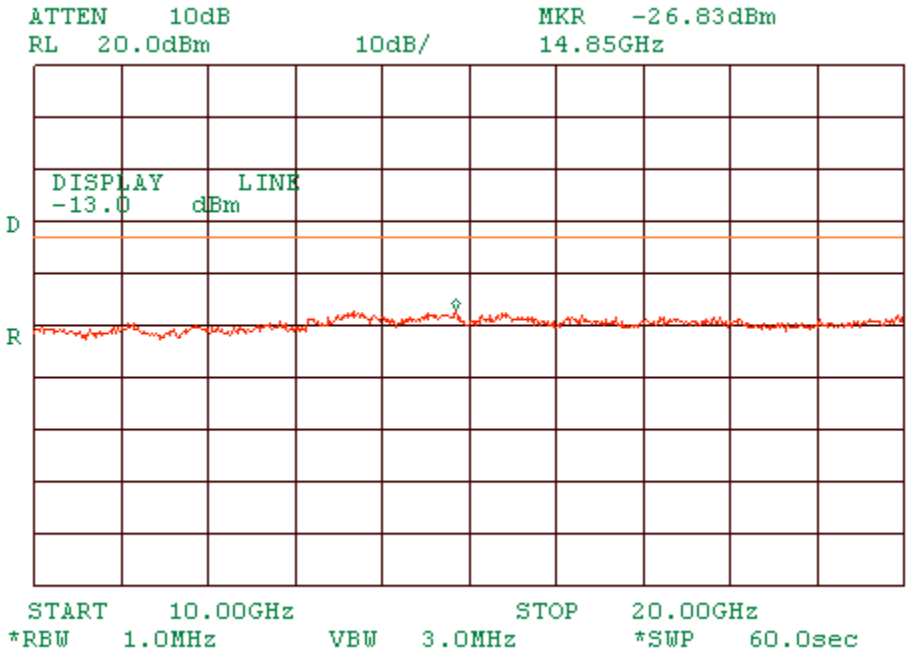


Date/Time:	August 4 2003 5:25:03 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	FM: 1931, 1937, 1988 MHz



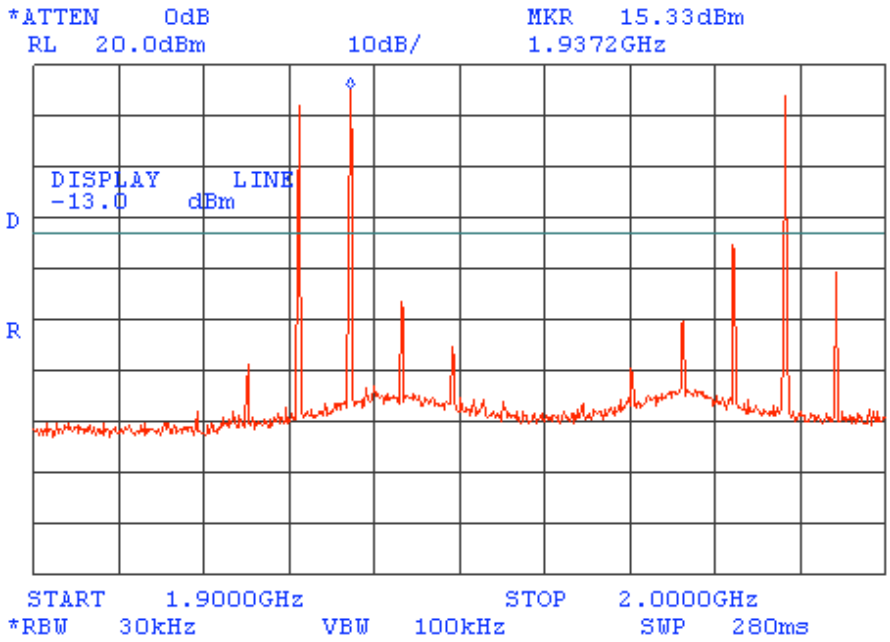
Plot 38

Date/Time:	August 4 2003 5:26:34 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	FM: 1931, 1937, 1988 MHz



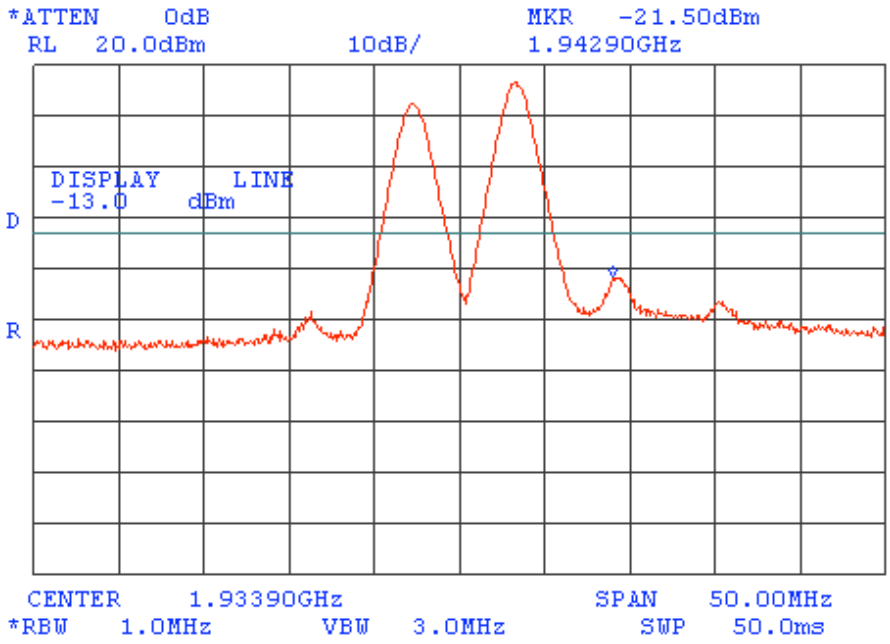
Plot 39

Date/Time:	August 4 2003 5:36:42 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	TDMA: 1931, 1937, 1988 MHz



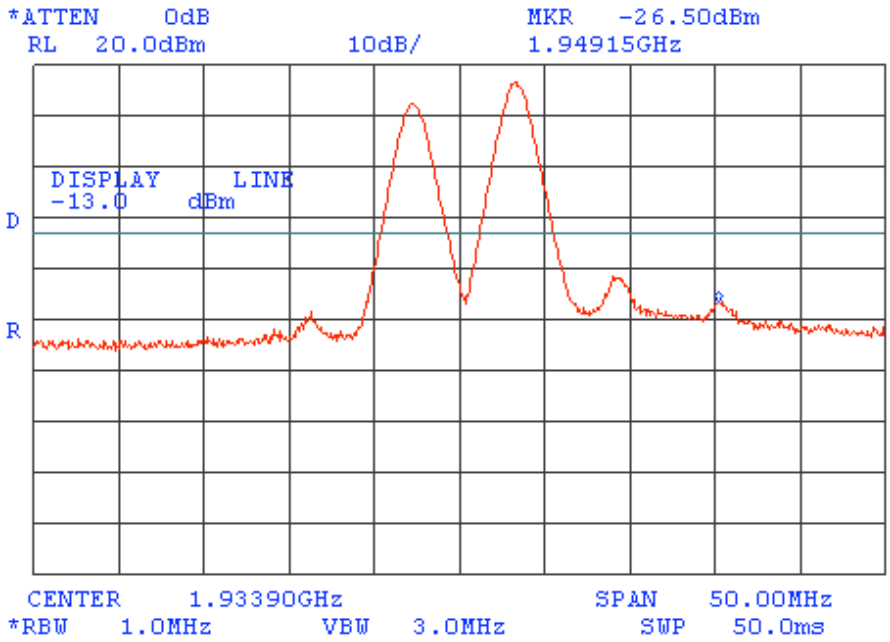
Plot 40

Date/Time:	August 4 2003 5:38:42 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	TDMA: 1931, 1937, 1988 MHz



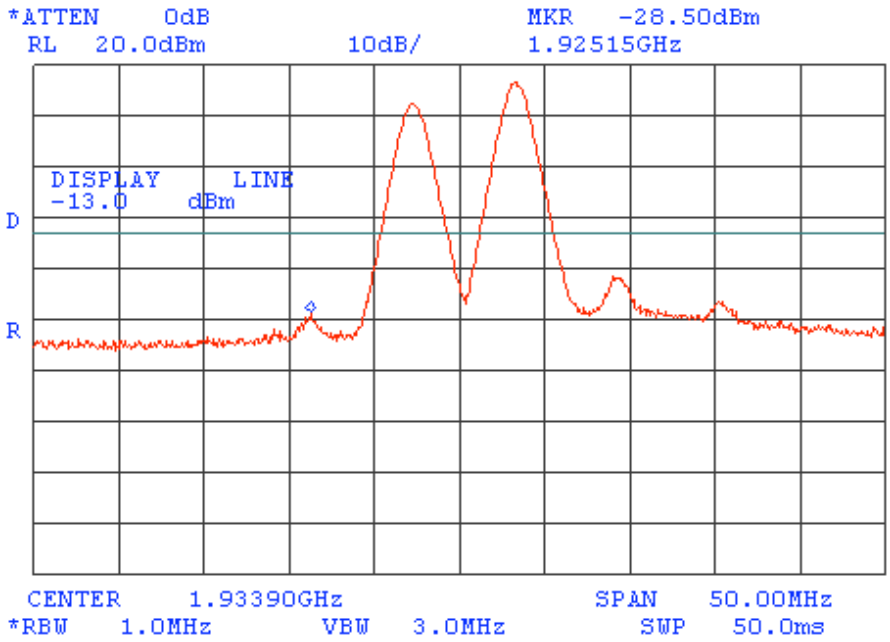
Plot 41

Date/Time:	August 4 2003 5:39:26 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	TDMA: 1931, 1937, 1988 MHz



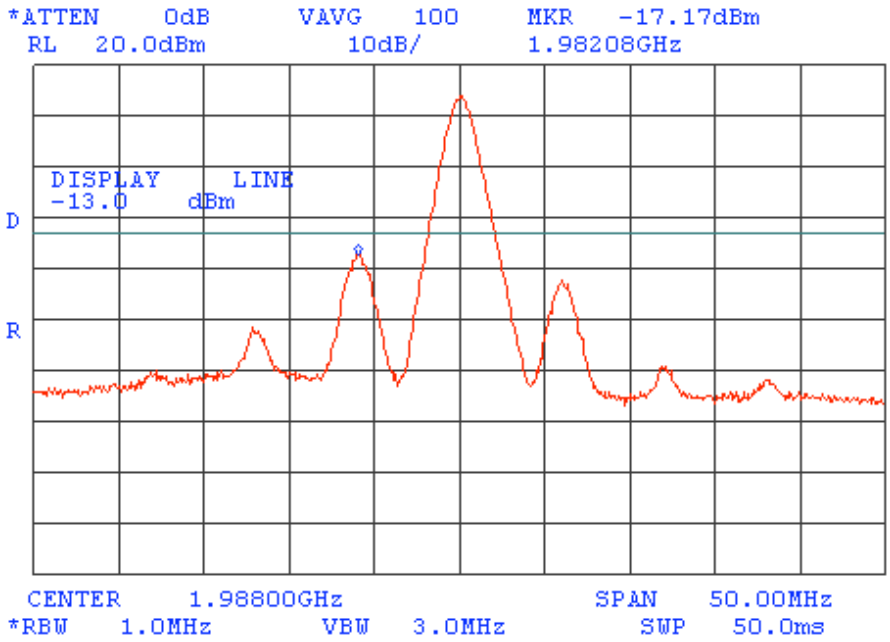
Plot 42

Date/Time:	August 4 2003 5:40:06 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	TDMA: 1931, 1937, 1988 MHz



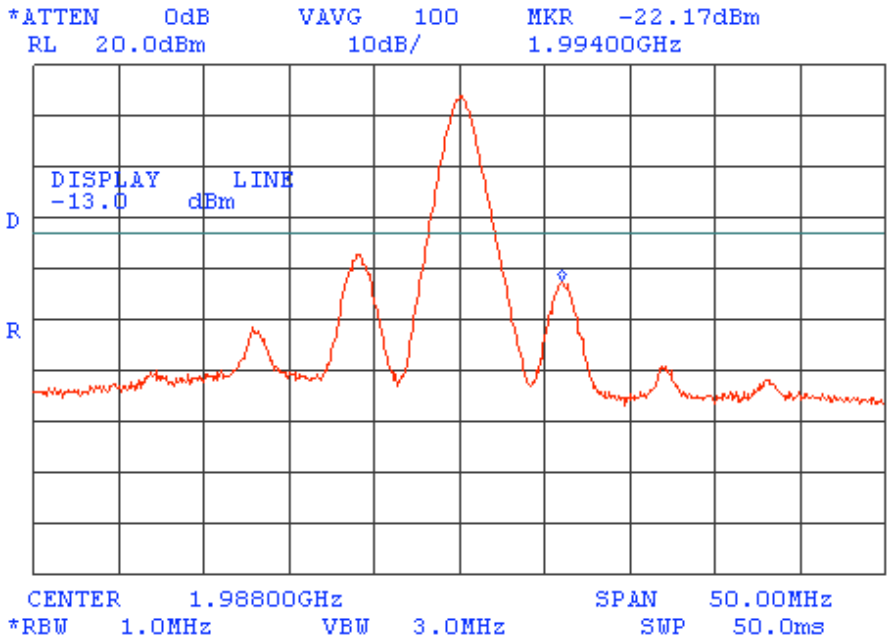
Plot 43

Date/Time:	August 4 2003 5:47:45 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	TDMA: 1931, 1937, 1988 MHz



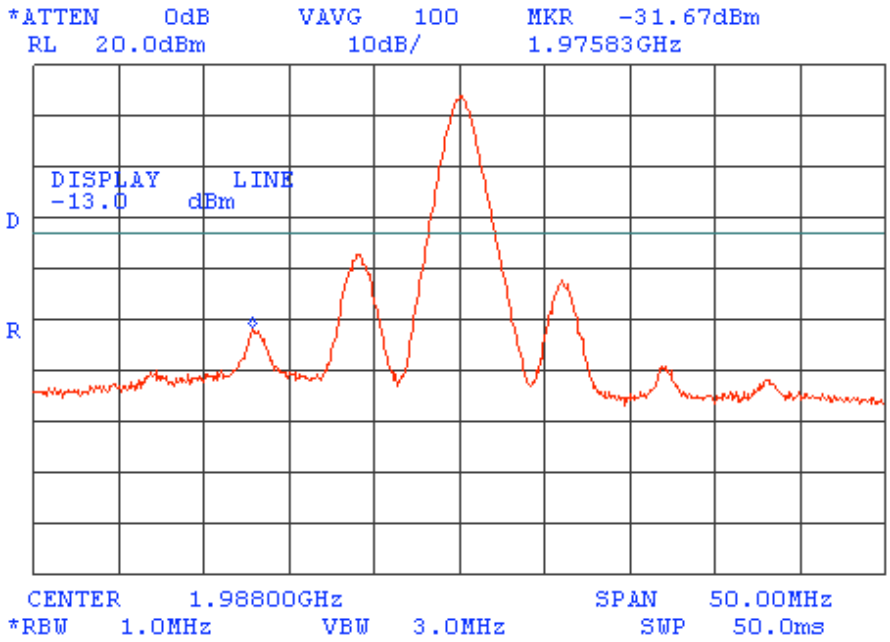
Plot 44

Date/Time:	August 4 2003 5:48:22 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	TDMA: 1931, 1937, 1988 MHz



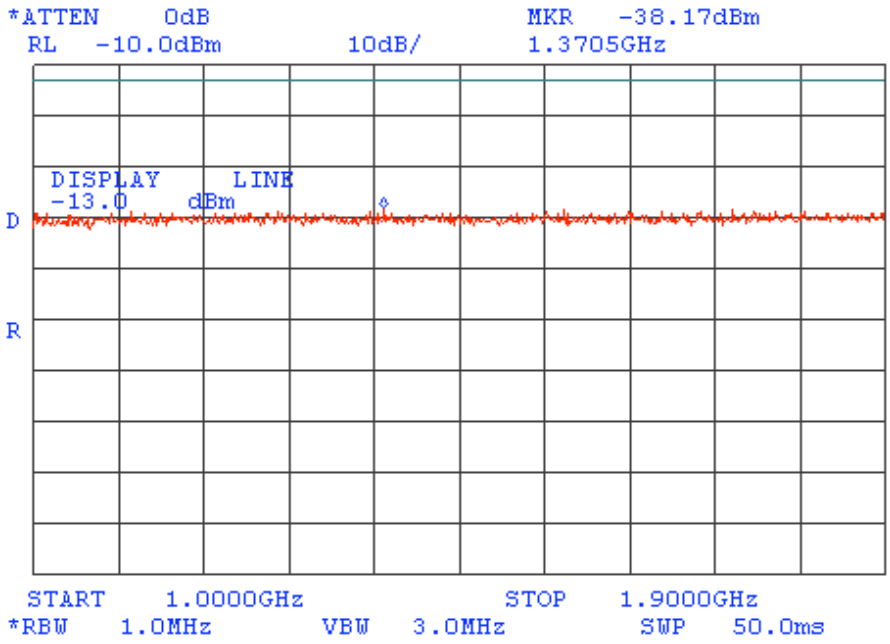
Plot 45

Date/Time:	August 4 2003 5:49:00 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	TDMA: 1931, 1937, 1988 MHz



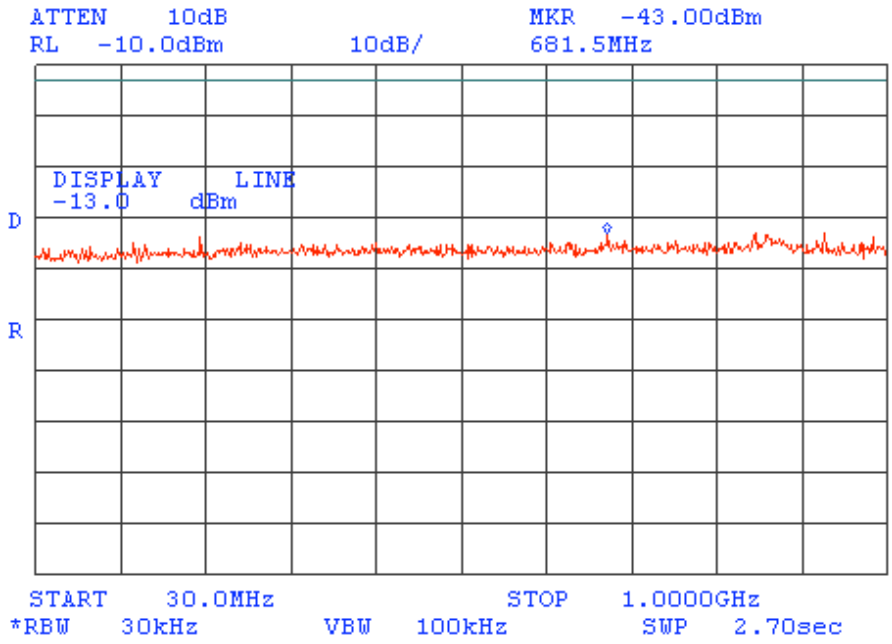
Plot 46

Date/Time:	August 4 2003 5:50:35 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	TDMA: 1931, 1937, 1988 MHz



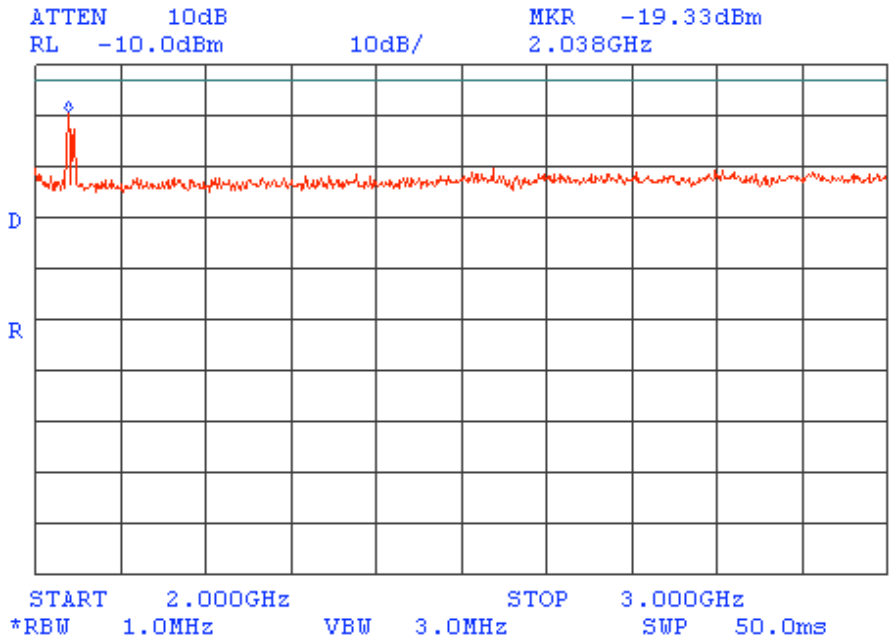
Plot 47

Date/Time:	August 4 2003 5:51:58 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	TDMA: 1931, 1937, 1988 MHz



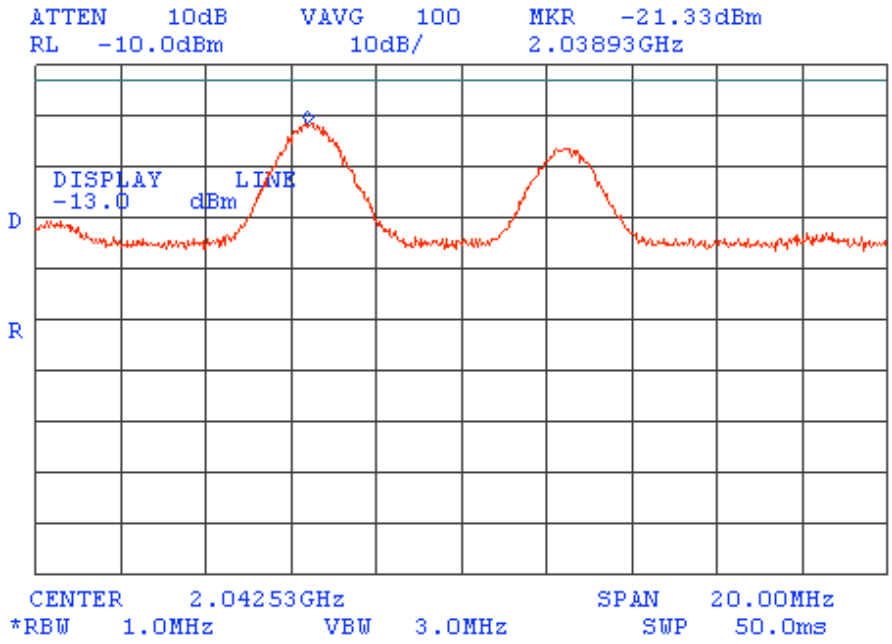
Plot 48

Date/Time:	August 4 2003 5:55:00 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	TDMA: 1931, 1937, 1988 MHz



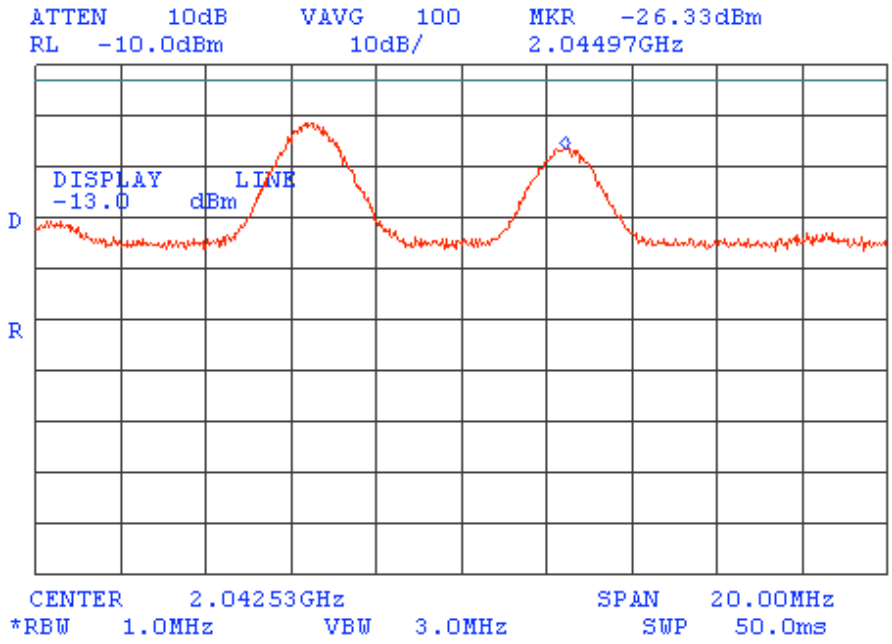
Plot 49

Date/Time:	August 4 2003 5:56:48 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	TDMA: 1931, 1937, 1988 MHz



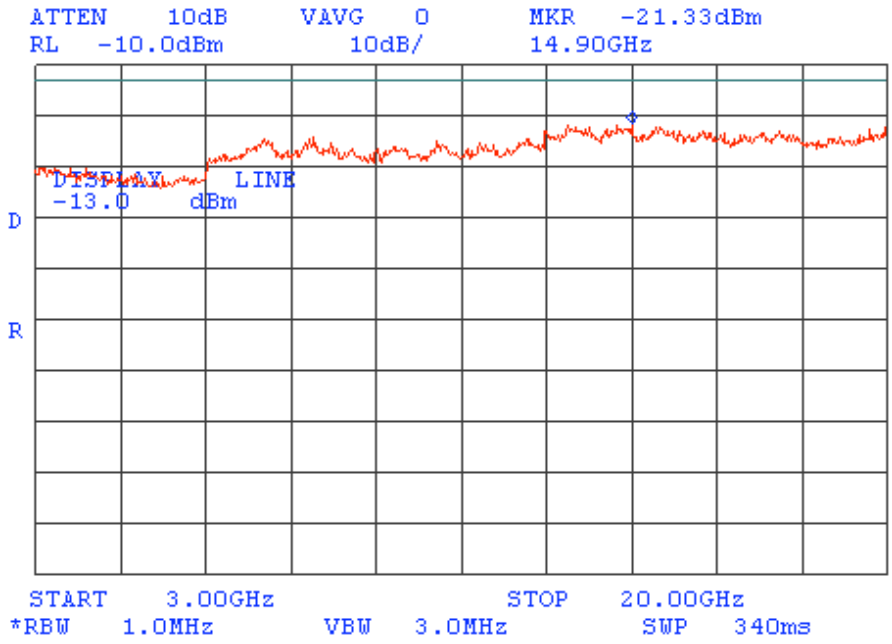
Plot 50

Date/Time:	August 4 2003 5:57:20 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	TDMA: 1931, 1937, 1988 MHz



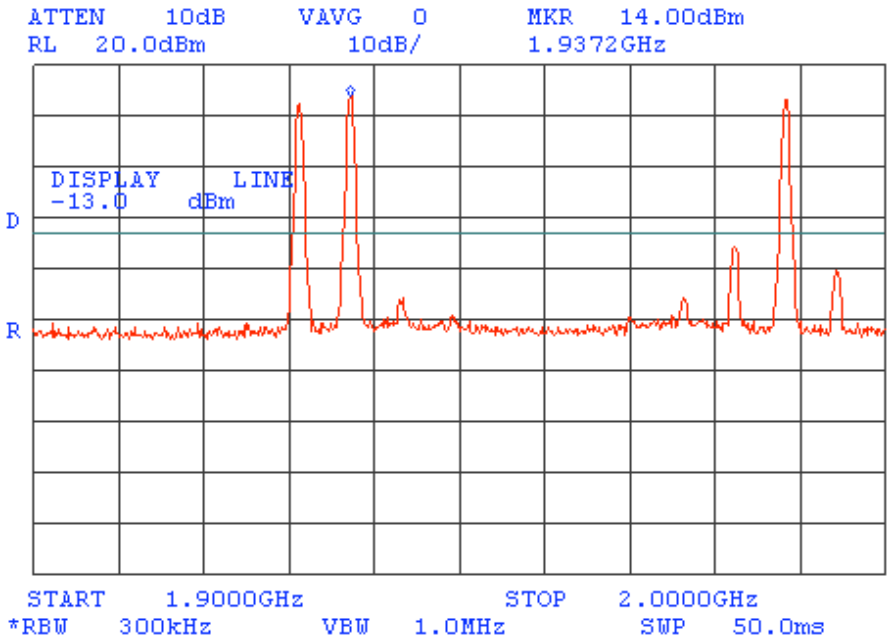
Plot 51

Date/Time:	August 4 2003 5:59:40 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	TDMA: 1931, 1937, 1988 MHz



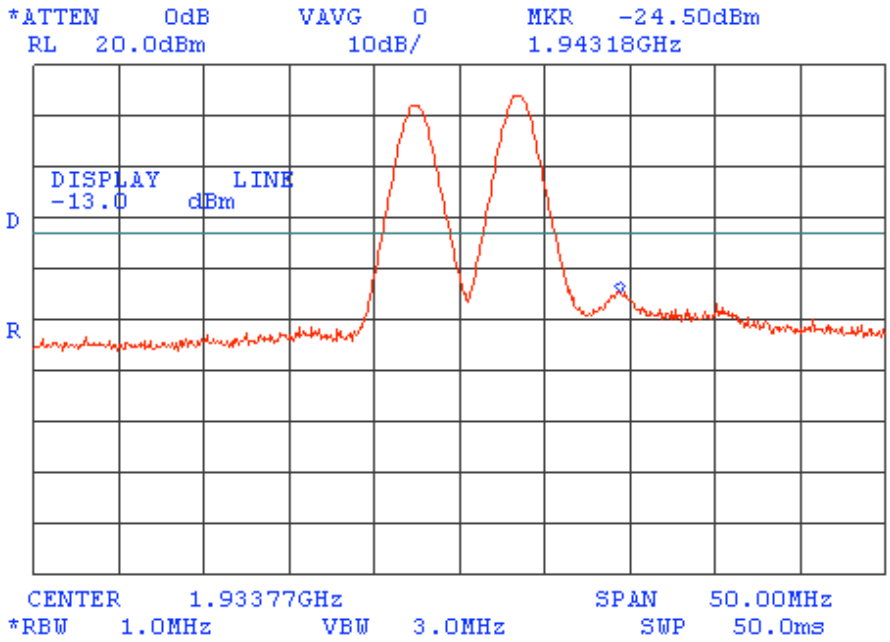
Plot 52

Date/Time:	August 4 2003 6:06:33 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	GSM: 1931, 1937, 1988 MHz



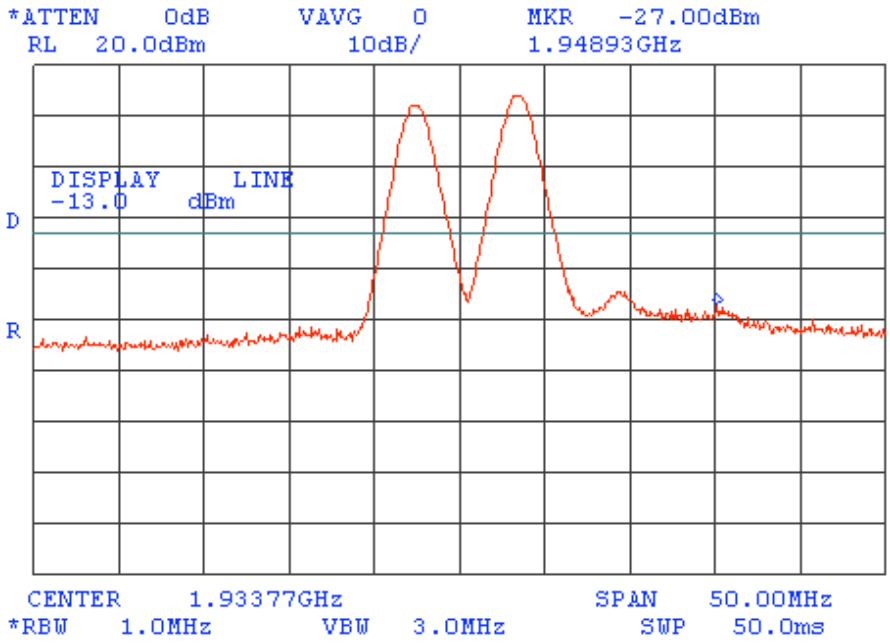
Plot 53

Date/Time:	August 4 2003 6:09:31 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	GSM: 1931, 1937, 1988 MHz



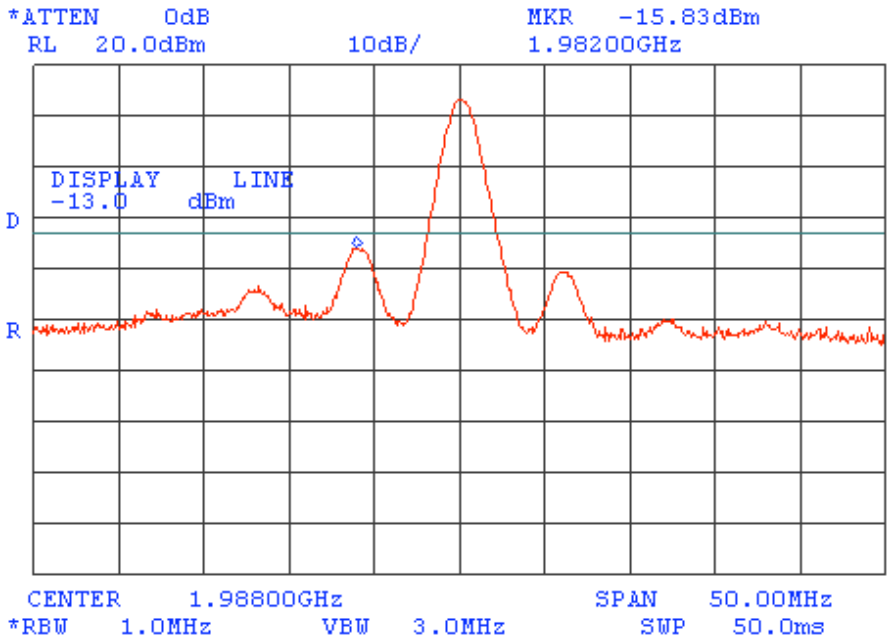
Plot 54

Date/Time:	August 4 2003 6:10:49 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	GSM: 1931, 1937, 1988 MHz



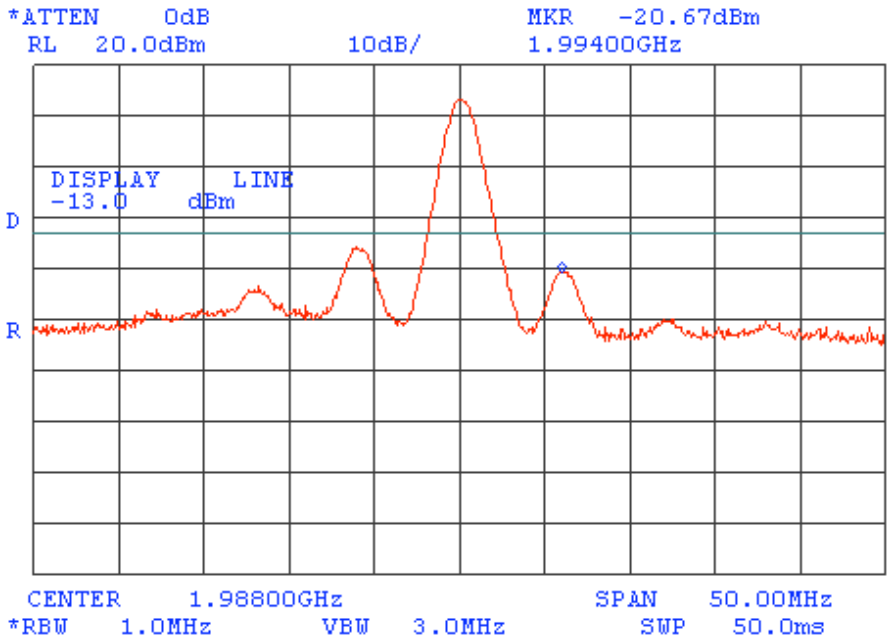
Plot 55

Date/Time:	August 4 2003 6:12:07 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	GSM: 1931, 1937, 1988 MHz



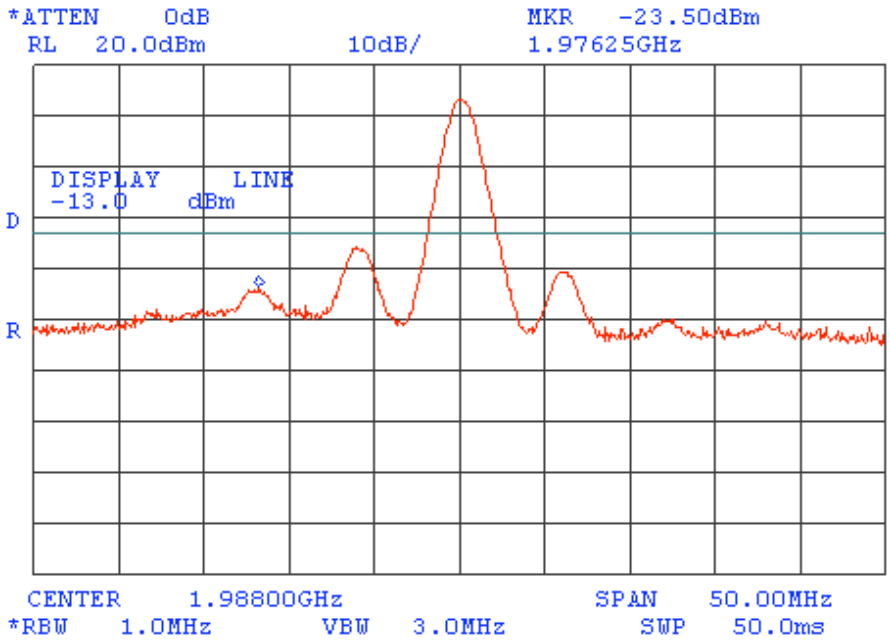
Plot 56

Date/Time:	August 4 2003 6:12:44 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	GSM: 1931, 1937, 1988 MHz



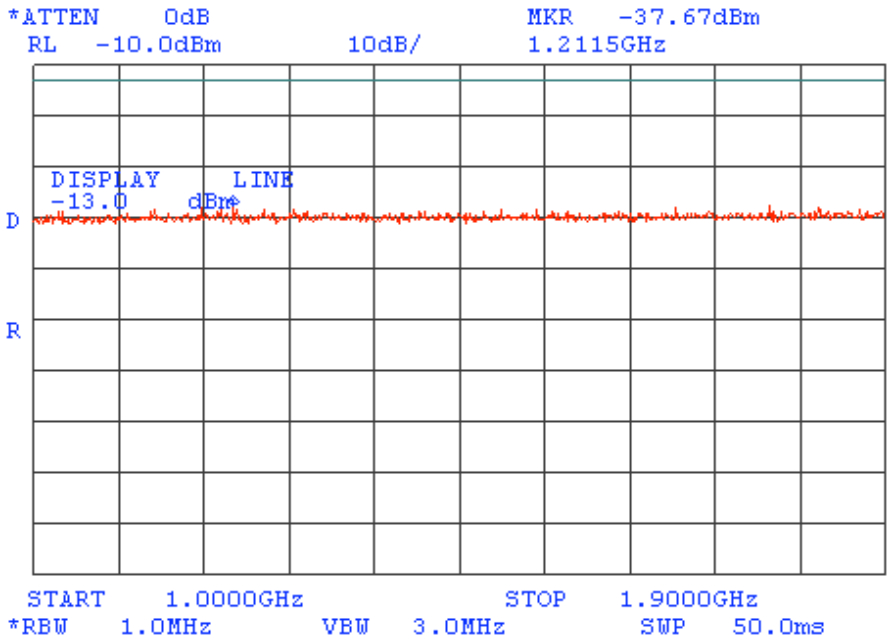
Plot 57

Date/Time:	August 4 2003 6:13:21 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	GSM: 1931, 1937, 1988 MHz



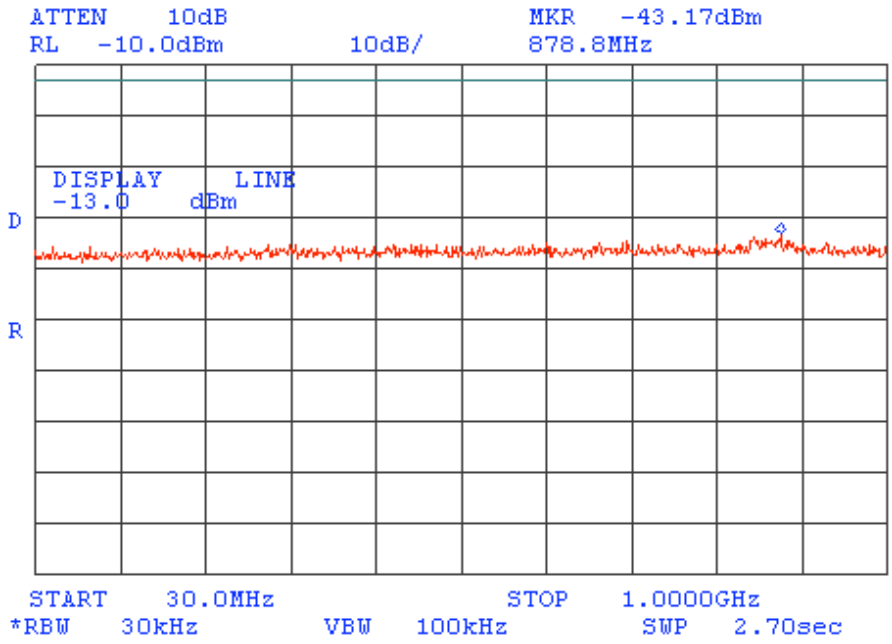
Plot 58

Date/Time:	August 4 2003 6:14:33 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	GSM: 1931, 1937, 1988 MHz



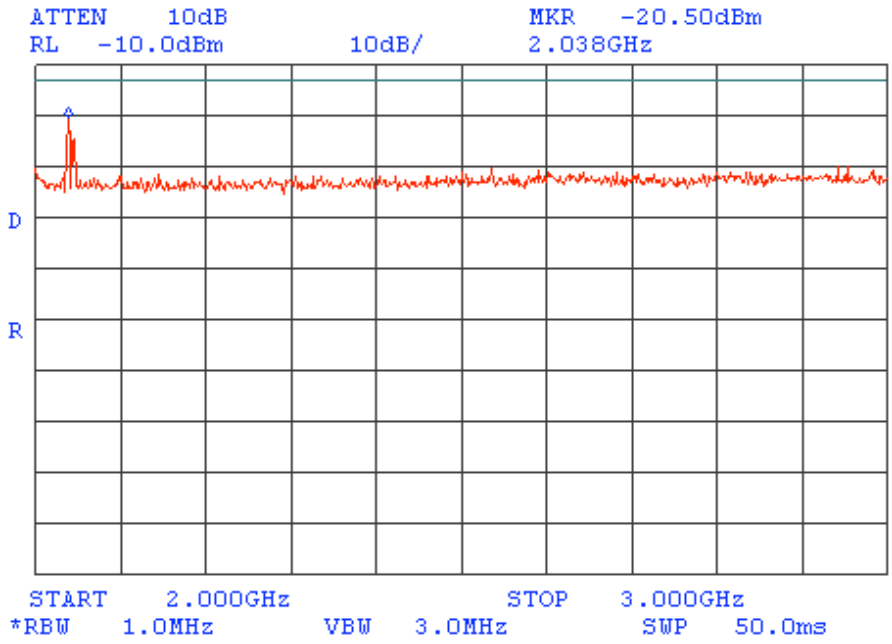
Plot 59

Date/Time:	August 4 2003 6:16:46 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	GSM: 1931, 1937, 1988 MHz



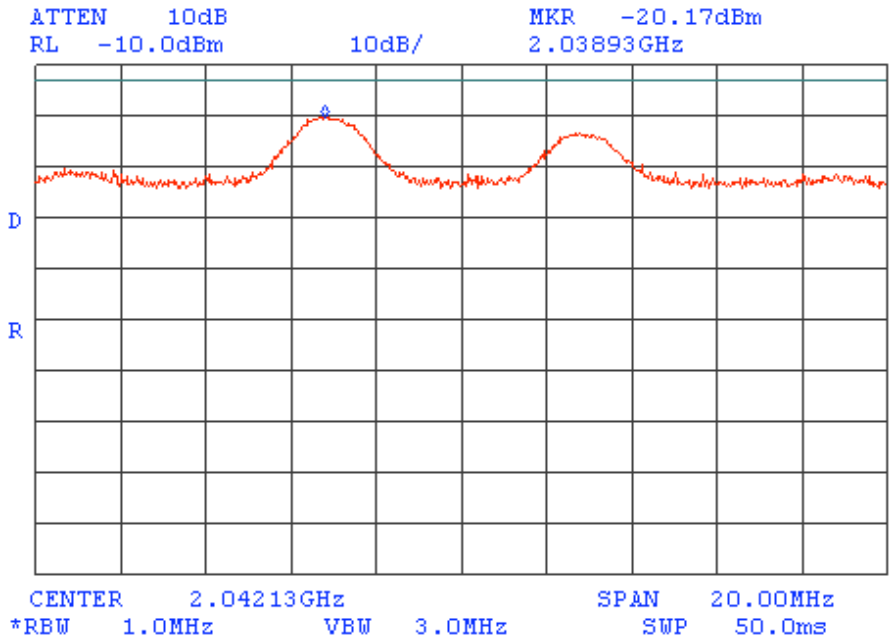
Plot 60

Date/Time:	August 4 2003 6:20:04 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	GSM: 1931, 1937, 1988 MHz



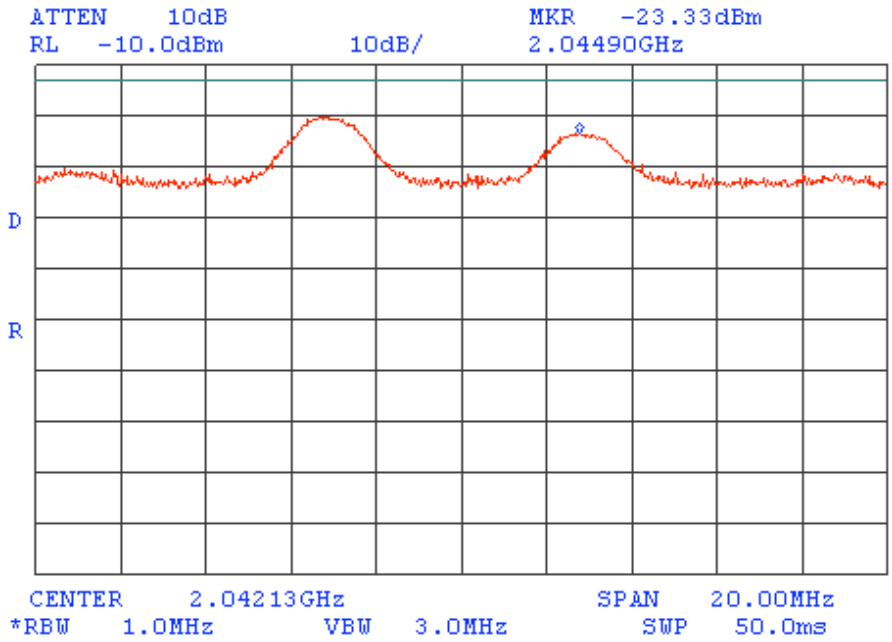
Plot 61

Date/Time:	August 4 2003 6:21:54 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	GSM: 1931, 1937, 1988 MHz



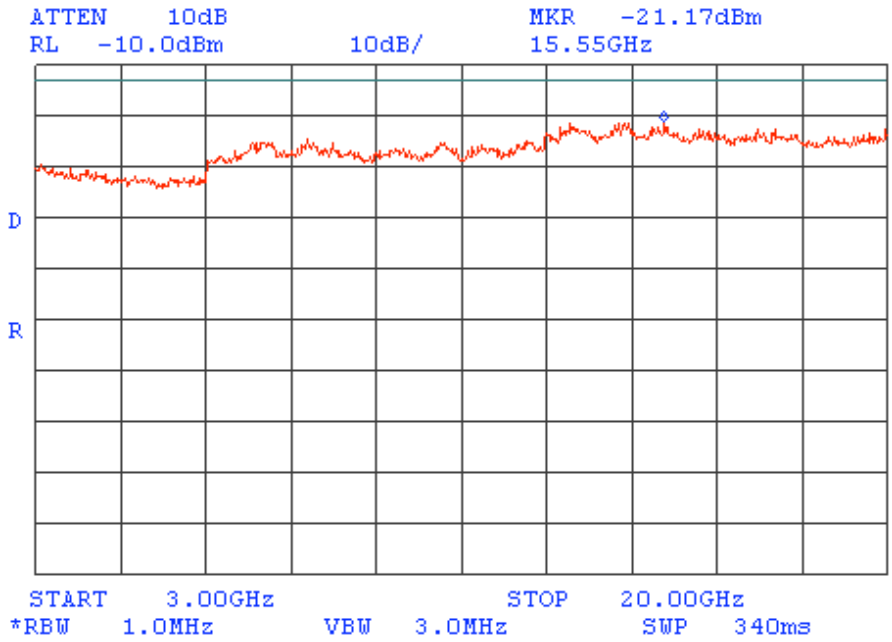
Plot 62

Date/Time:	August 4 2003 6:22:28 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	GSM: 1931, 1937, 1988 MHz



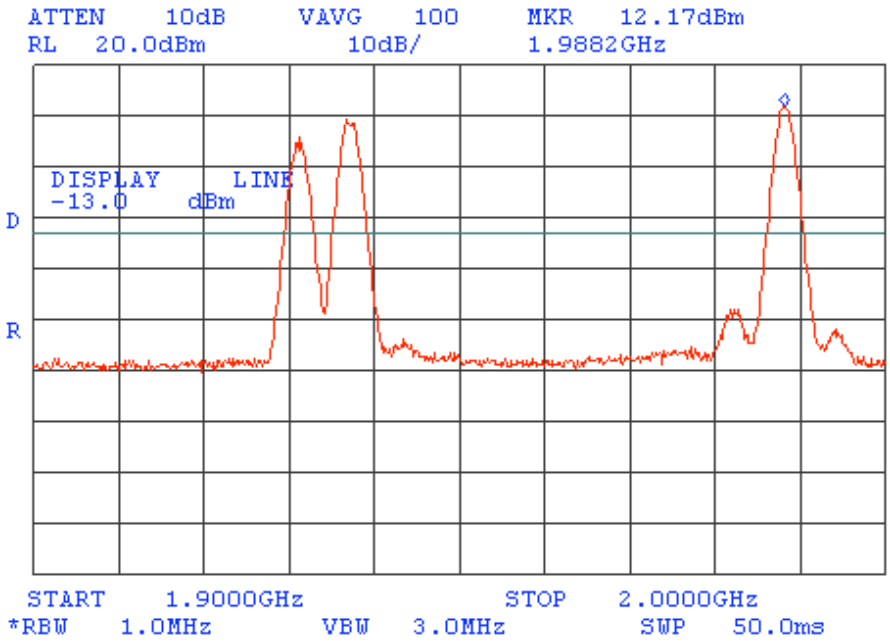
Plot 63

Date/Time:	August 4 2003 6:24:38 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	GSM: 1931, 1937, 1988 MHz



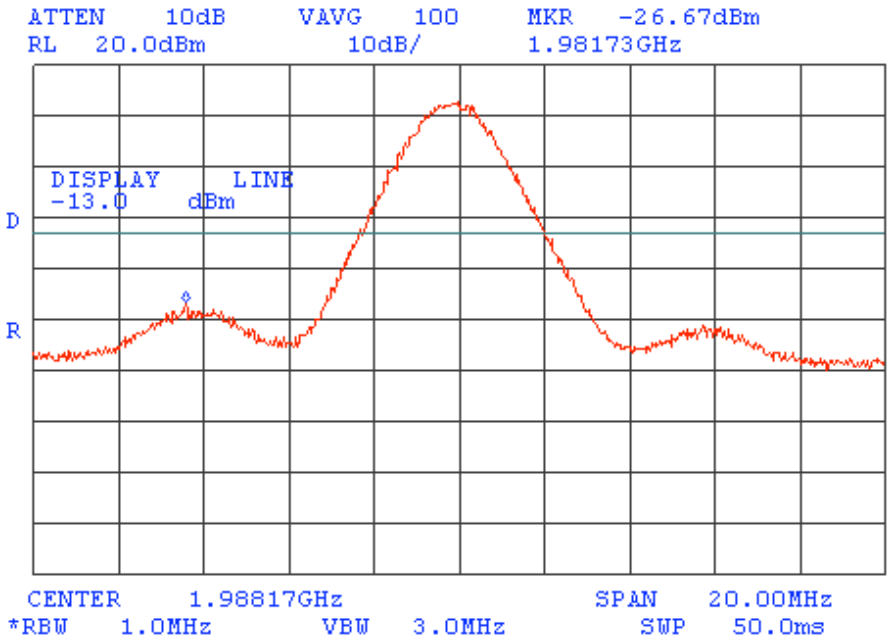
Plot 64

Date/Time:	August 4 2003 6:34:02 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	CDMA: 1931, 1937, 1988 MHz



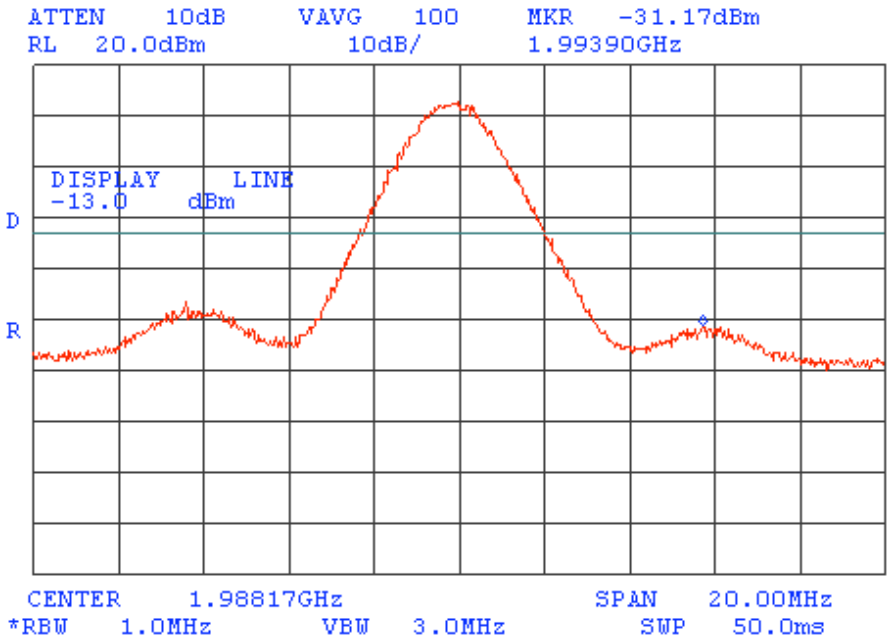
Plot 65

Date/Time:	August 4 2003 6:36:13 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	CDMA: 1931, 1937, 1988 MHz



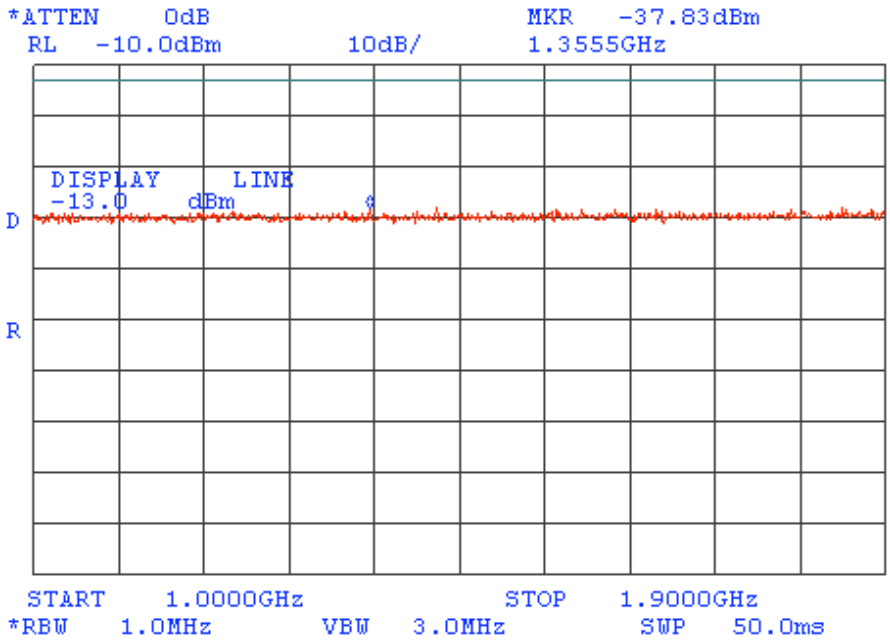
Plot 66

Date/Time:	August 4 2003 6:37:06 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	CDMA: 1931, 1937, 1988 MHz



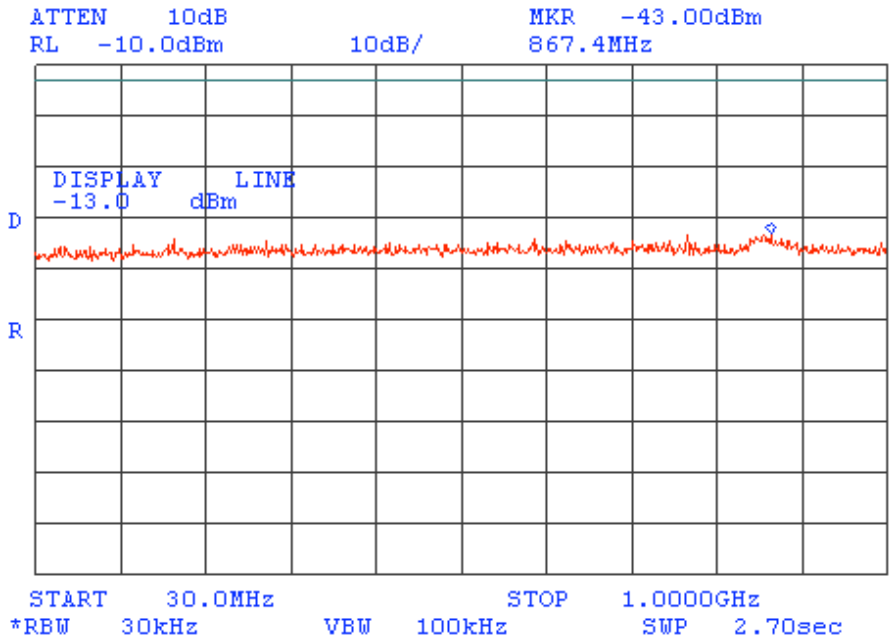
Plot 67

Date/Time:	August 4 2003 6:38:46 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	CDMA: 1931, 1937, 1988 MHz



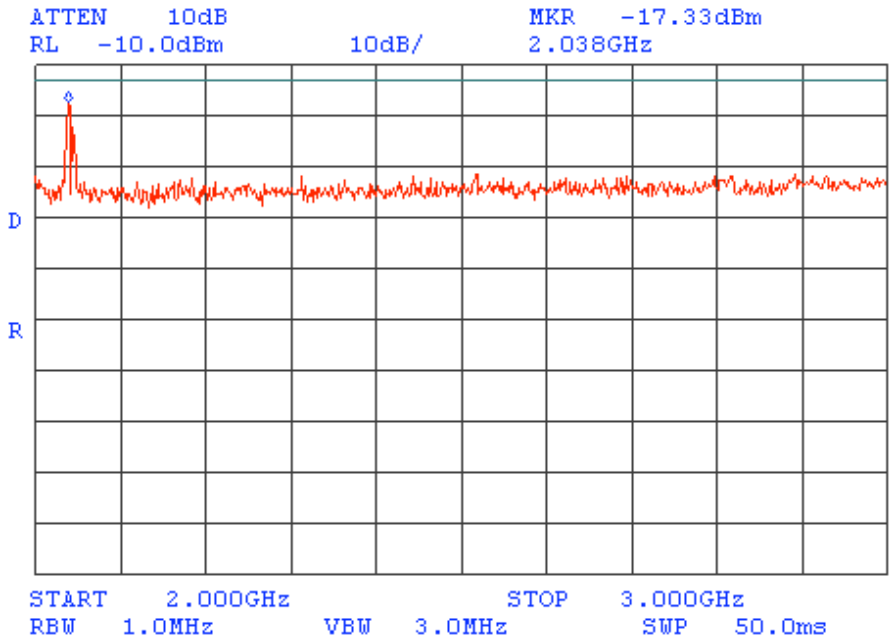
Plot 68

Date/Time:	August 4 2003 6:40:07 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650
Operator Name:	Michael Lerman
Notes:	CDMA: 1931, 1937, 1988 MHz



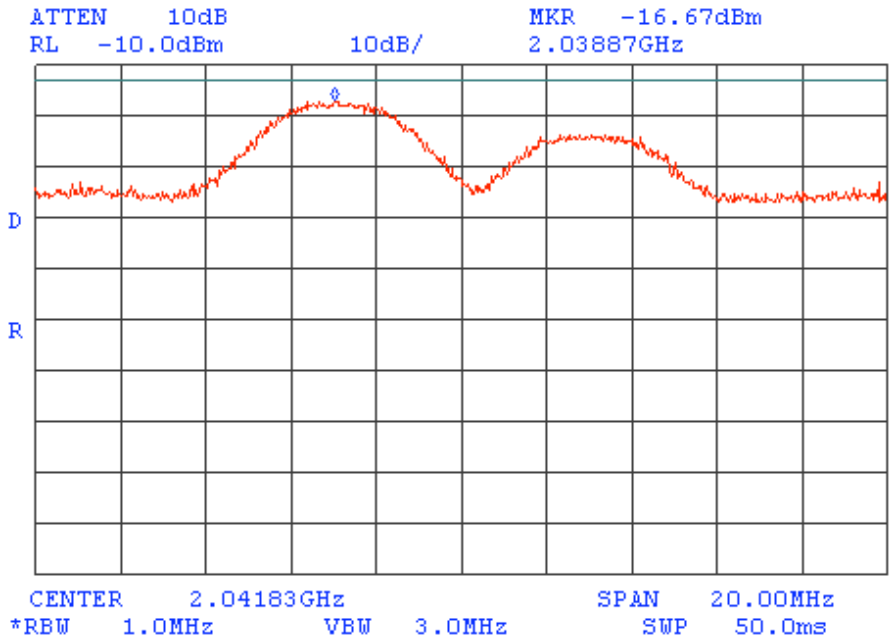
Plot 69

Date/Time:	August 4 2003 6:50:23 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650, 1097
Operator Name:	Michael Lerman
Notes:	CDMA: 1931, 1937, 1988 MHz



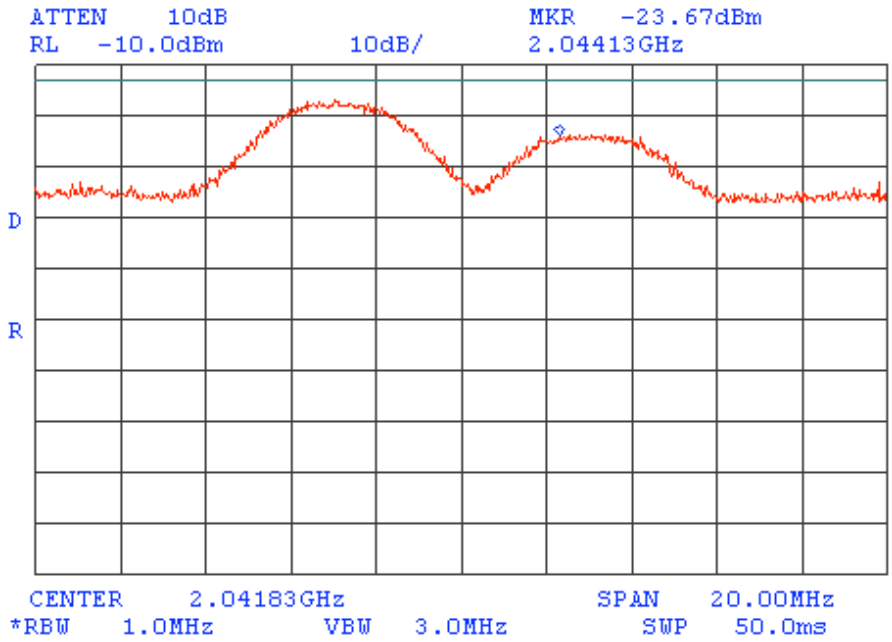
Plot 70

Date/Time:	August 4 2003 6:55:08 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650, 1097
Operator Name:	Michael Lerman
Notes:	CDMA: 1931, 1937, 1988 MHz



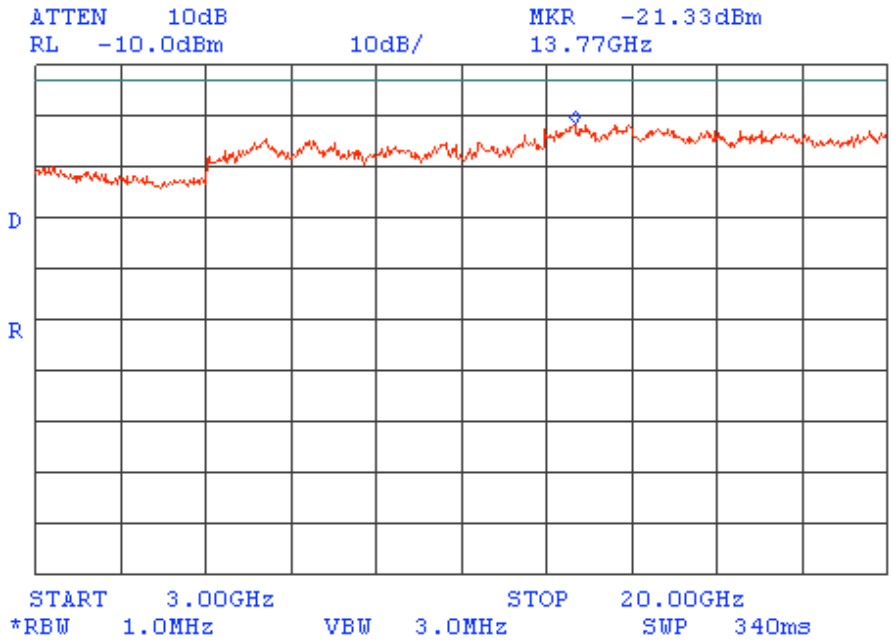
Plot 71

Date/Time:	August 4 2003 6:55:44 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650, 1097
Operator Name:	Michael Lerman
Notes:	CDMA: 1931, 1937, 1988 MHz



Plot 72

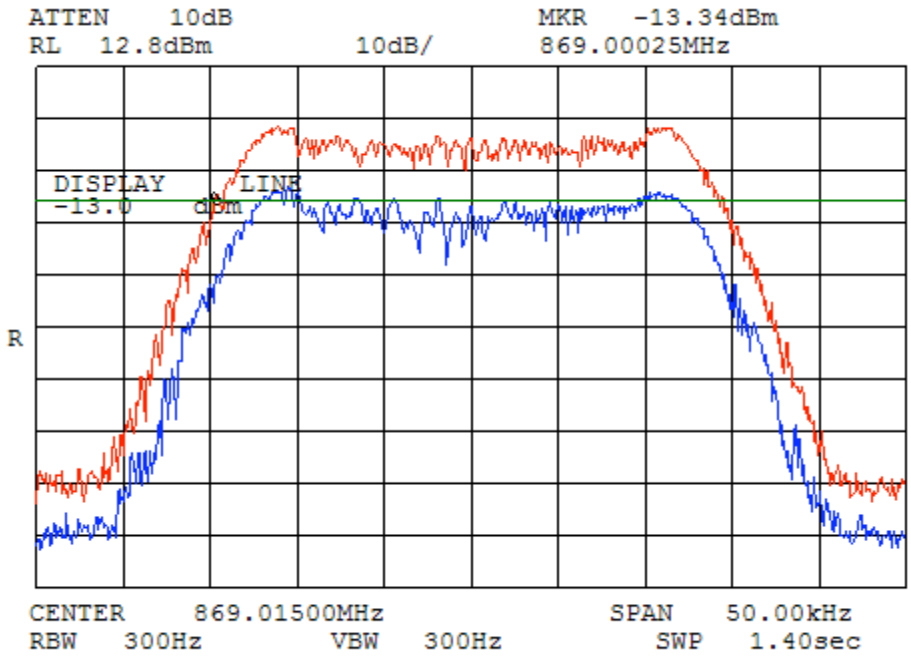
Date/Time:	August 4 2003 6:57:05 PM
Ambient Temperature:	27C
Relative Humidity:	41%
Test Name:	Spurious emissions (conduced)
Customer:	Mobile Access
Test Specification:	FCC 22,24,90
EUT:	Mobile Access 1000
Test Equipment:	HL#1424, 2254, 2403, 1650, 1097
Operator Name:	Michael Lerman
Notes:	CDMA: 1931, 1937, 1988 MHz



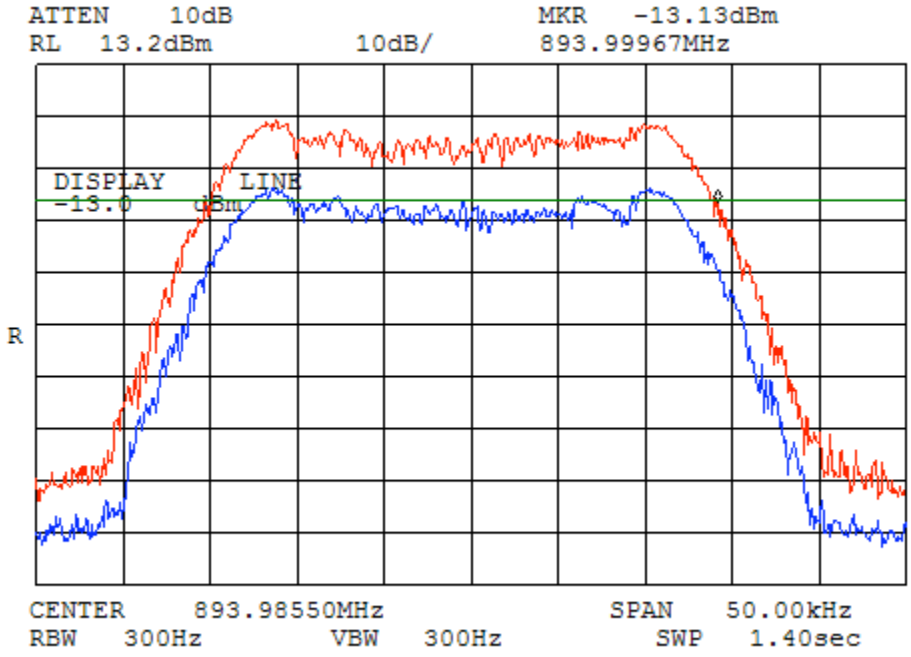
Date	01 Aug 2004
Project	16021
Test	**Emission mask**
Operator	Alex Kruglov
Test equipment	1424, 2399, 2524, 1651, 789, 316, 460
Temperature	26°C
Humidity	47%
Air pressure	1005 hPa
EUT	Mobile Access 2000
Notes:	At 1.5 dBm input power (CW);
	At output connector with maximum power level.
	High signal (red) – at EUT output, low signal (blue) – at EUT input.

CELL-PCS. AMPS 800. Band 869-894 MHz. FM 12.5 kHz/1 kHz.

Emission mask at 869.015 MH. FFC 22.917

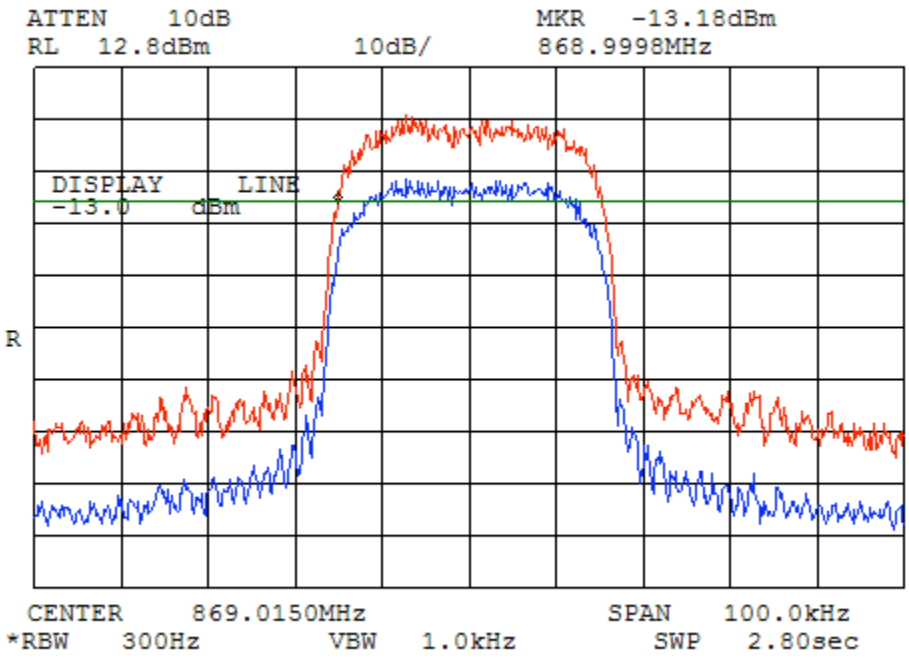


Emission mask at 893.9850 MH. FFC 22.917

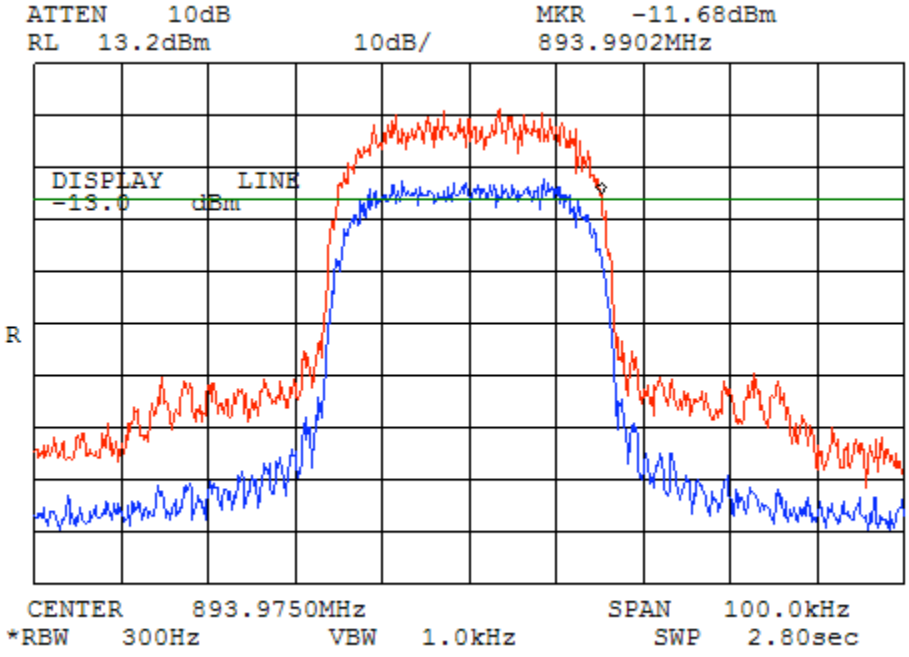


CELL-PCS. TDMA 800. Band 869-894 MHz. TDMA

Emission mask at 869.015 MH. FFC 22.917

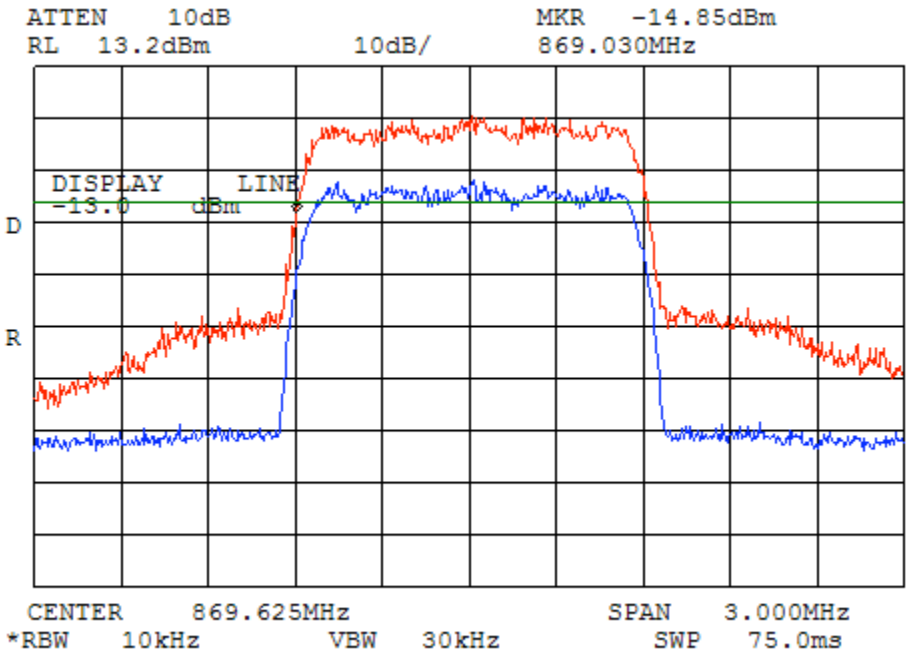


Emission mask at 893.9850 MH. FFC 22.917

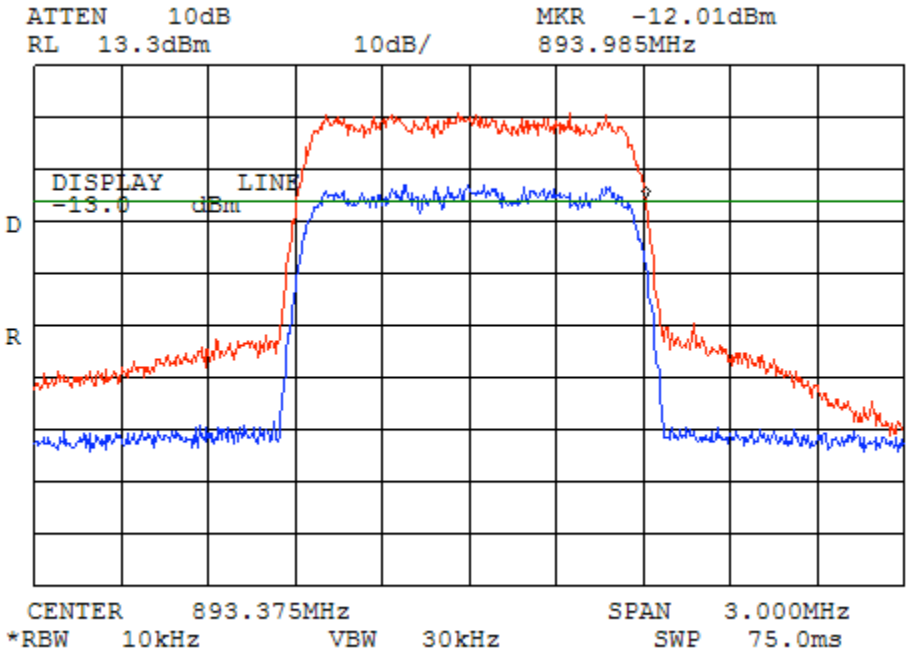


CELL-PCS. CDMA 800. Band 869-894 MHz. CDMA, 1.100 Mcps

Emission mask at 869.625 MHz. FFC 22.917

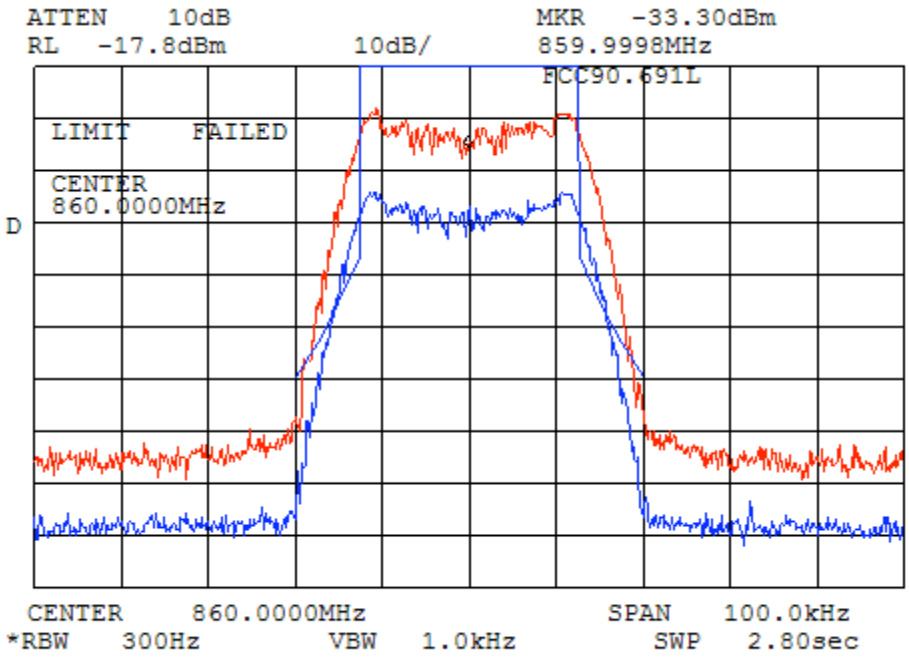


Emission mask at 893.375 MHz. FFC 22.917



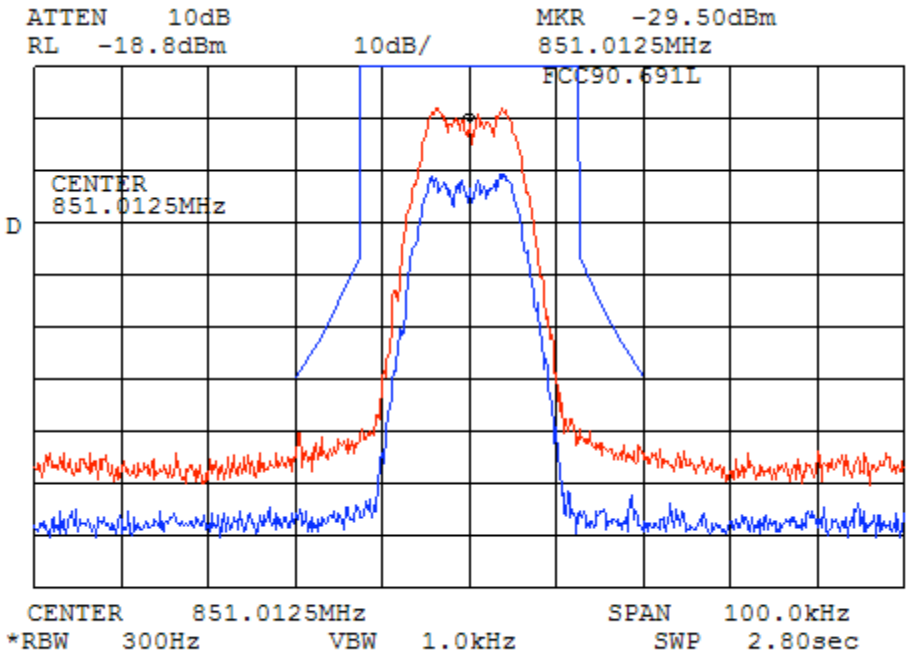
iDEN. LMR 800. Band 851-866 MHz. FM12.5kHz/1kHz

Emission mask at 860.00 MHz. FFC 90.691

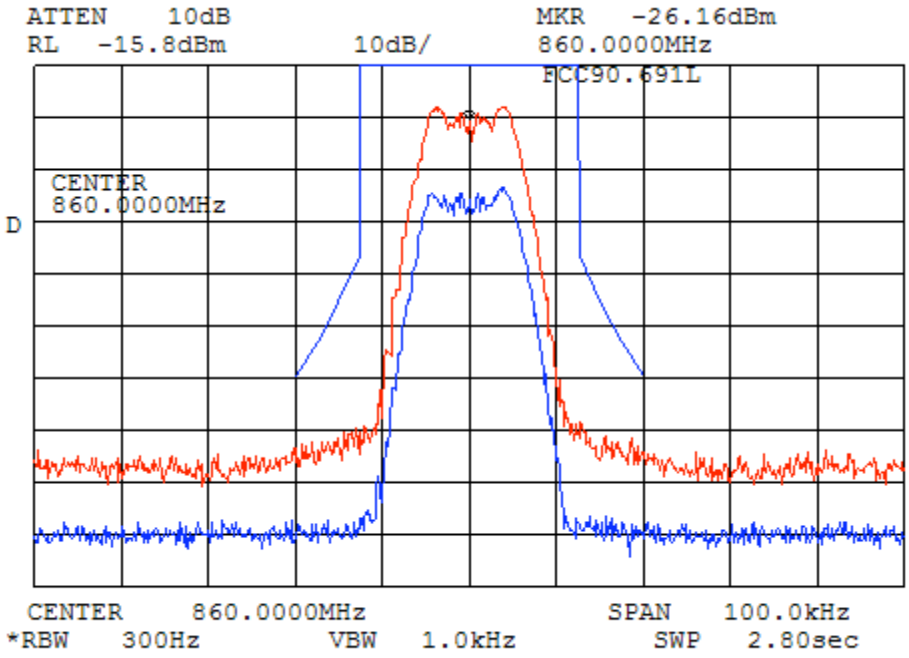


iDEN. LMR 800. Band 851-866 MHz. FM5kHz/1kHz

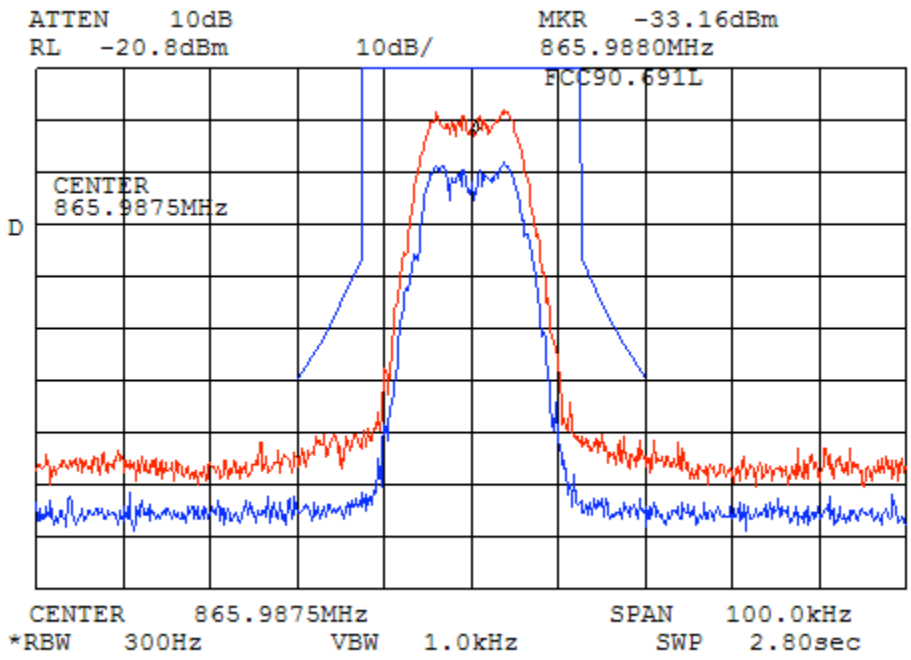
Emission mask at 851.0125 MHz. FFC 90.691



Emission mask at 860.00 MHz. FFC 90.691

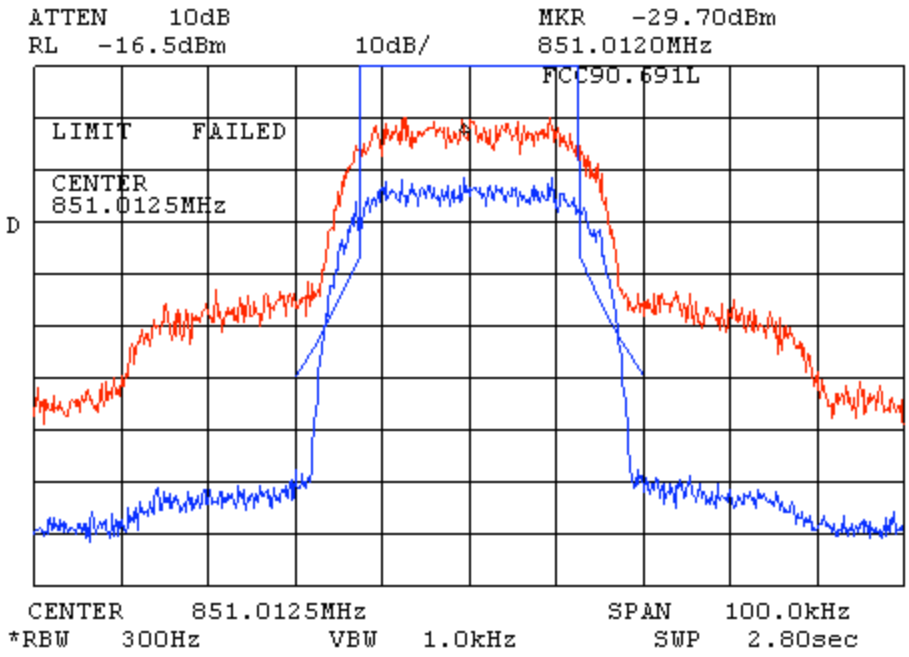


Emission mask at 865.9875 MHz. FFC 90.691

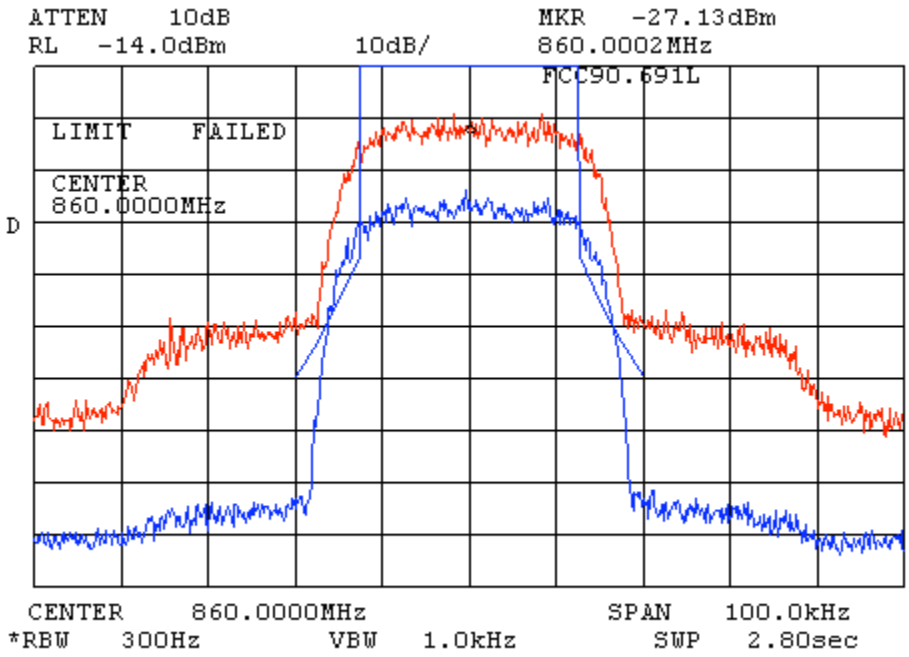


iDEN. iDEN 800. Band 851-866 MHz. 16QAM

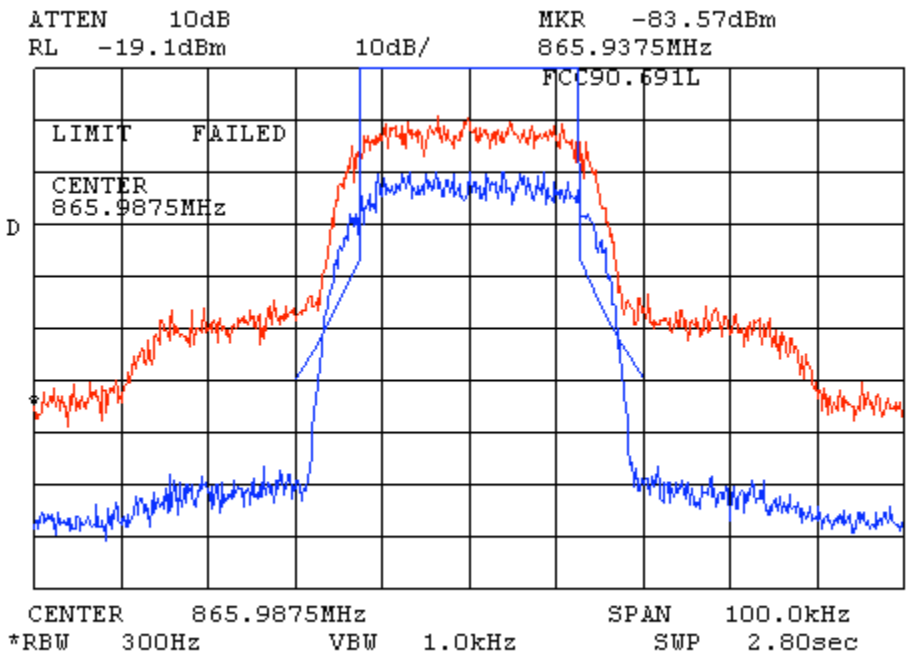
Emission mask at 851.0125 MHz. FFC 90.691



Emission mask at 860.0 MHz. FFC 90.691

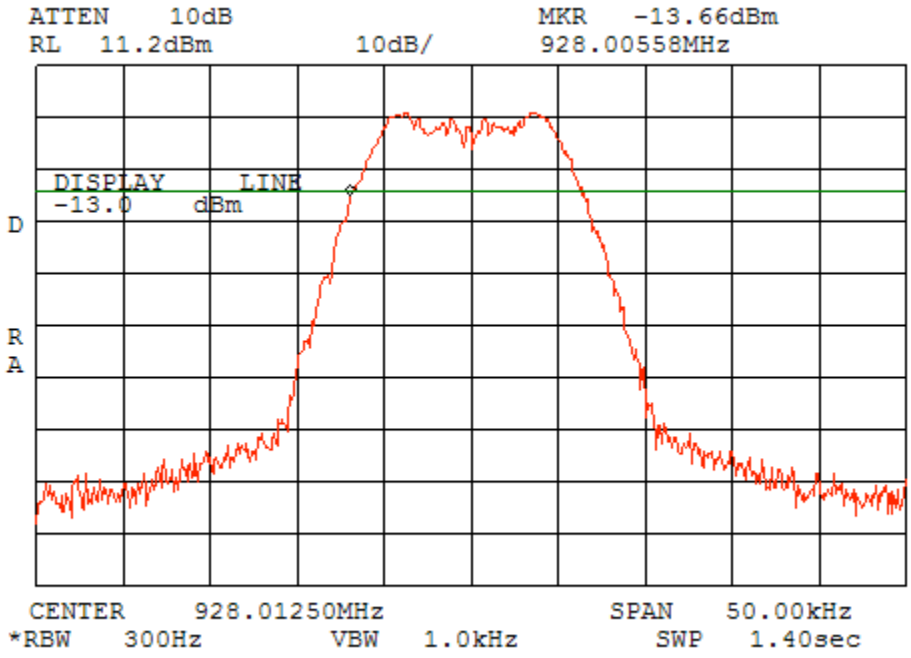


Emission mask at 865.9875 MHz. FFC 90.691

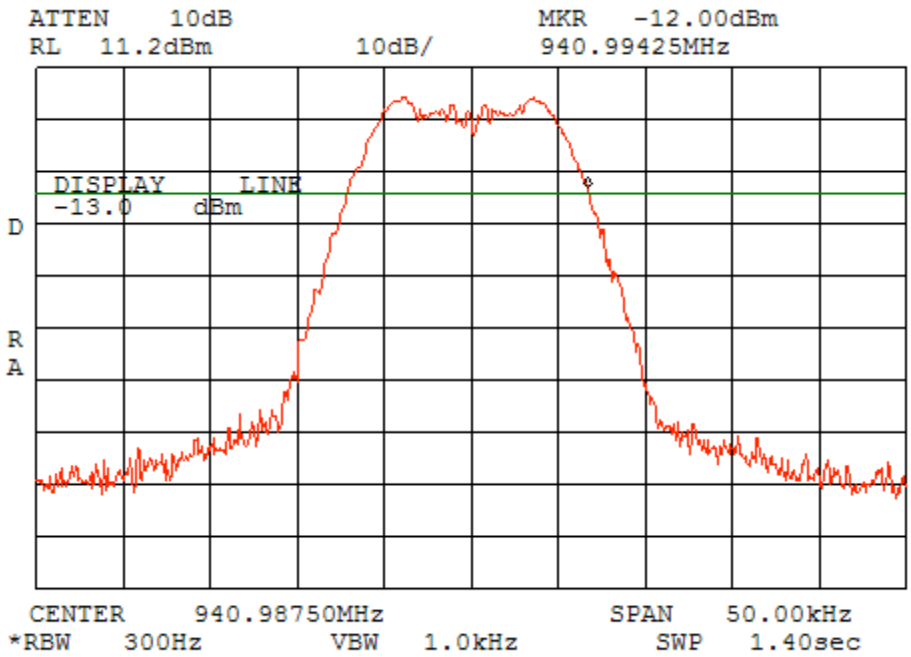


SMR 900. SMR/Paging. Band 828-941 MHz. FM5kHz/1kHz

Emission mask at 928.0125 MHz. FFC 90.669

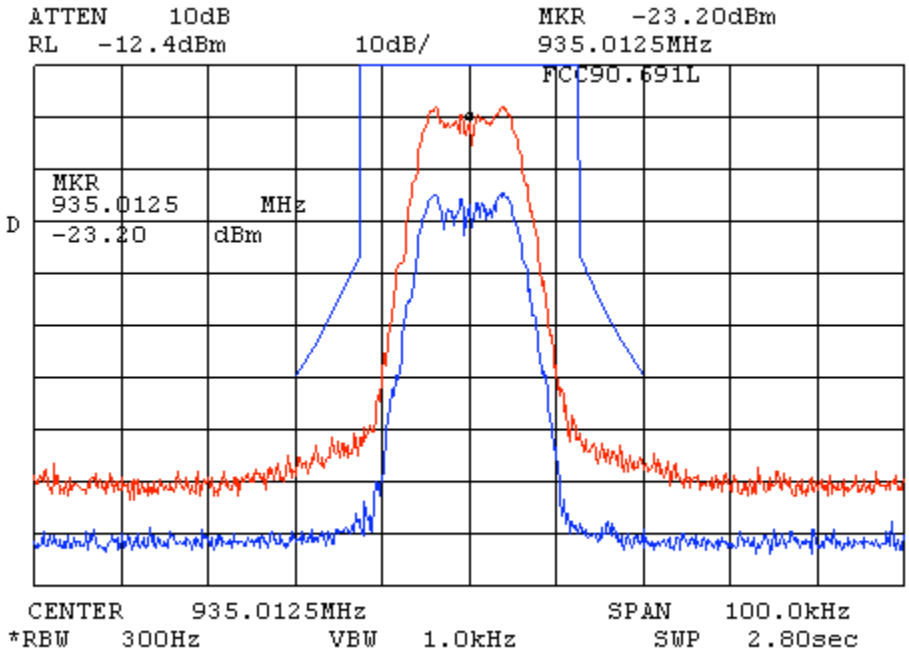


Emission mask at 940.9875 MHz. FFC 90.669

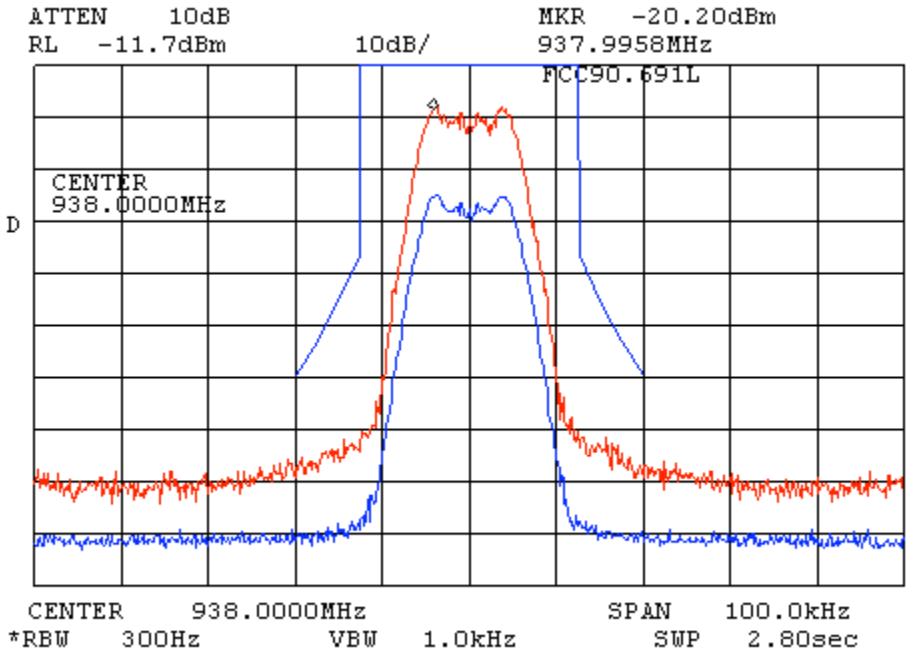


SMR 900. SMR. Band 835-941 MHz. FM5kHz/1kHz

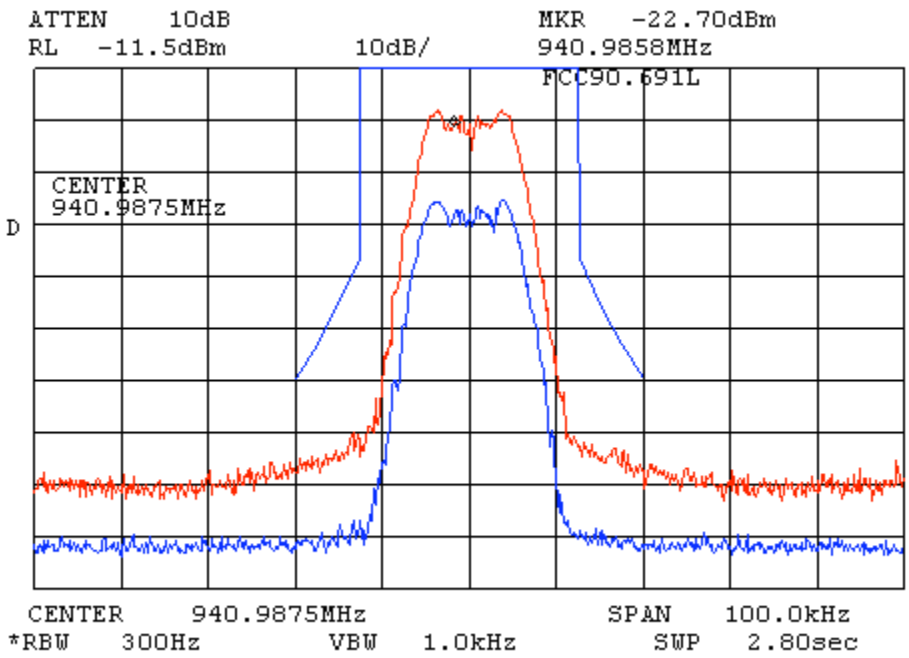
Emission mask at 928.0125 MHz. FFC 90.691



Emission mask at 938.0 MHz. FFC 90.691

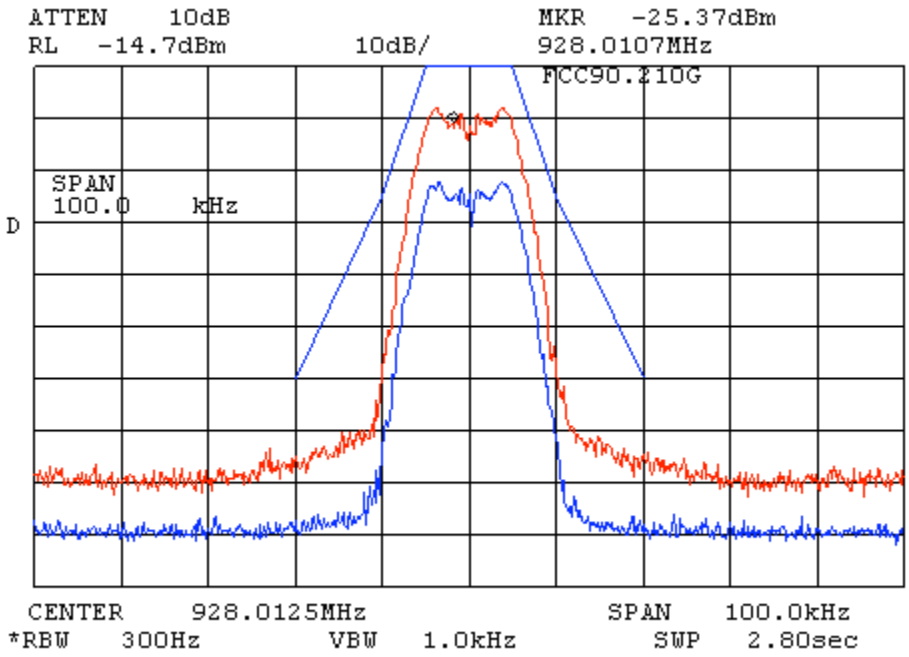


Emission mask at 940.9875 MHz. FFC 90.691

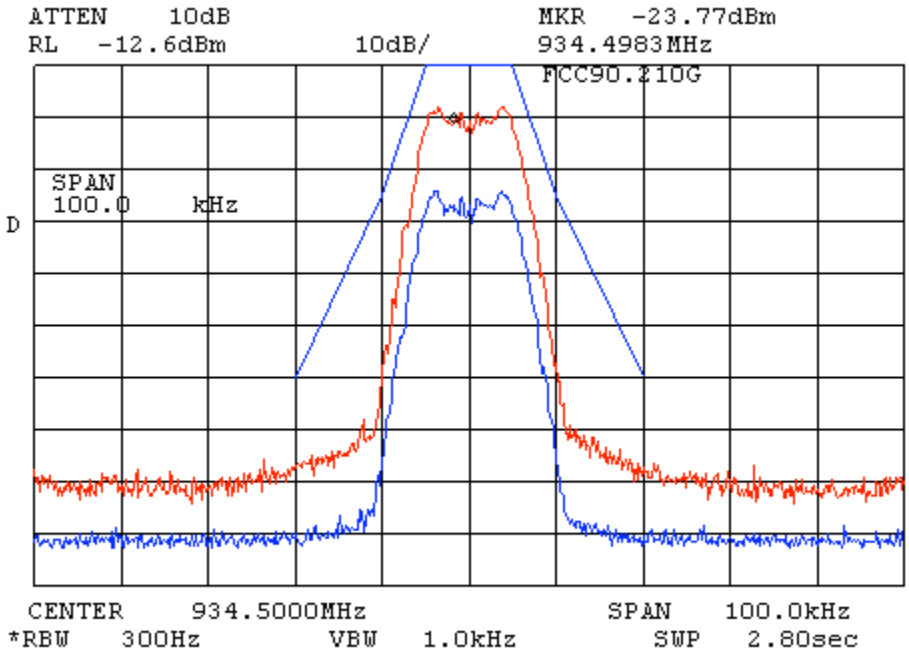


SMR 900. Paging. Band 928-941 MHz. FM5kHz/1kHz

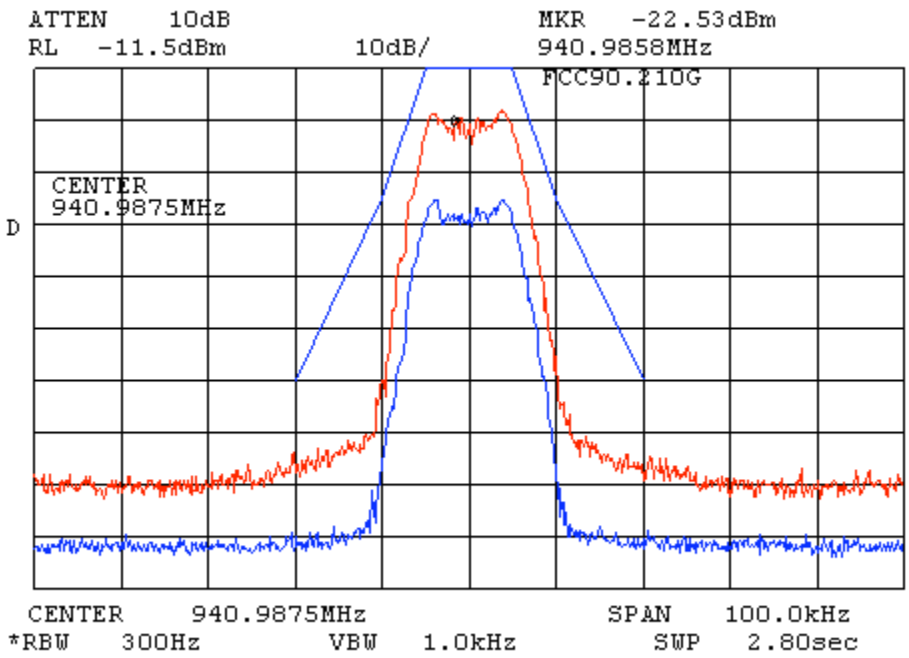
Emission mask at 928.0125 MHz. FFC 90.210G



Emission mask at 934.5 MHz. FFC 90.210G

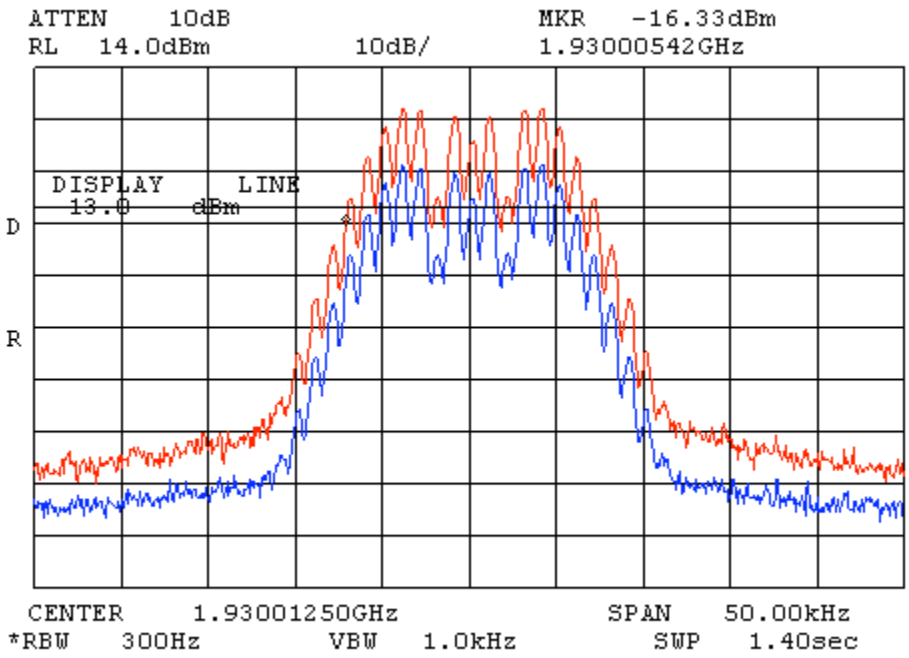


Emission mask at 940.9875 MHz. FFC 90.210G

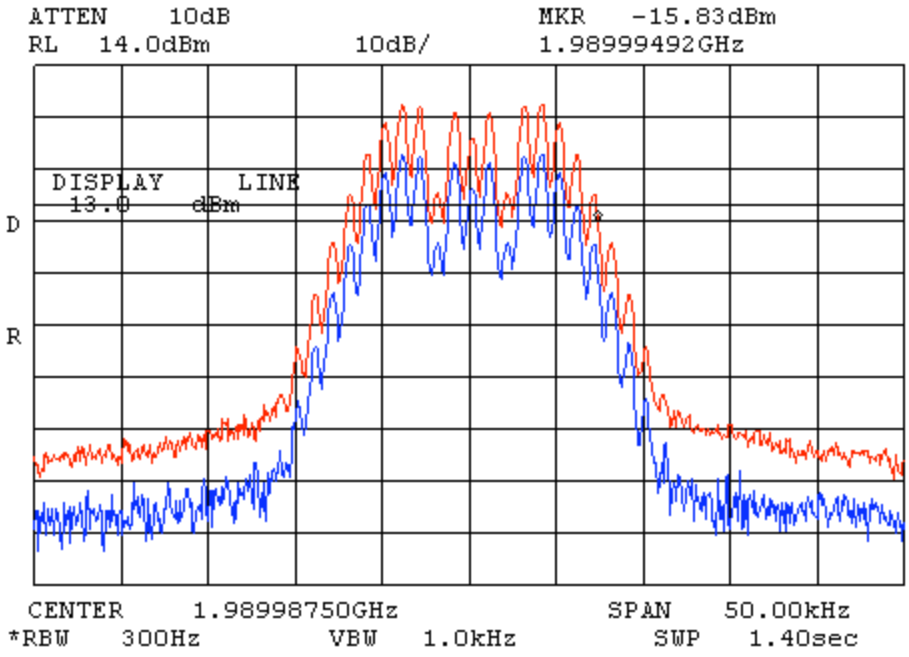


SMR. F3. Band 1930-1990 MHz. FM5kHz/1kHz

Emission mask at 1930.0125. MHz. FCC 24.238

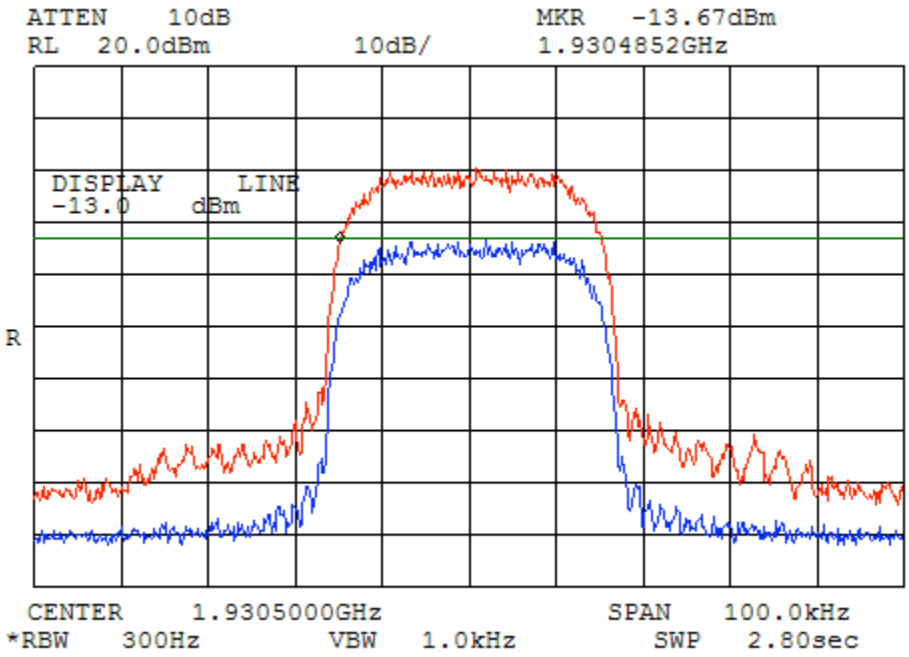


Emission mask at 1989.9875 MHz. FCC 24.238

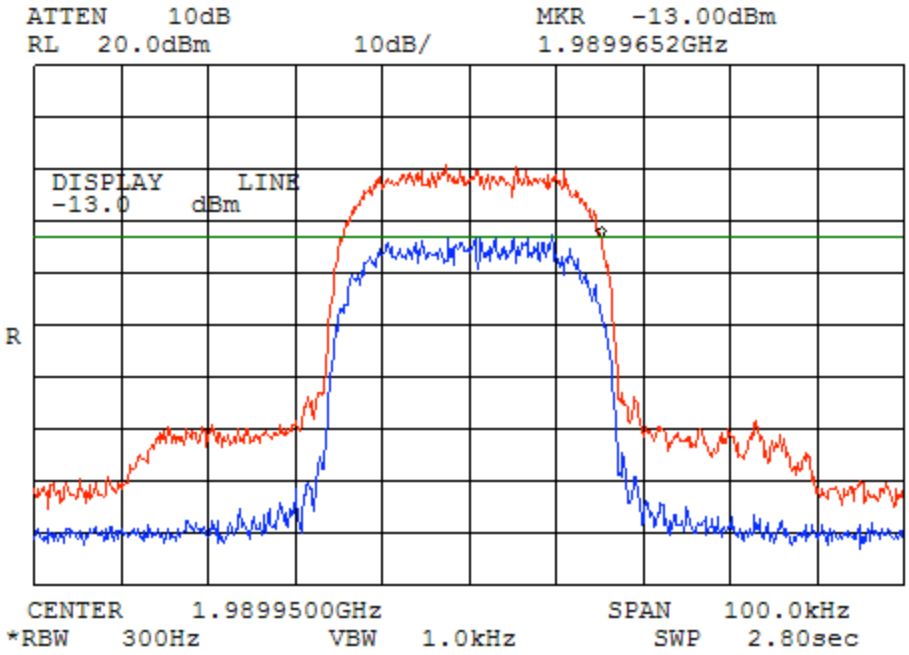


SMR. TDMA 1900. Band 1930-1990 MHz. TDMA

Emission mask at 1930.050 MHz. FCC 24.238

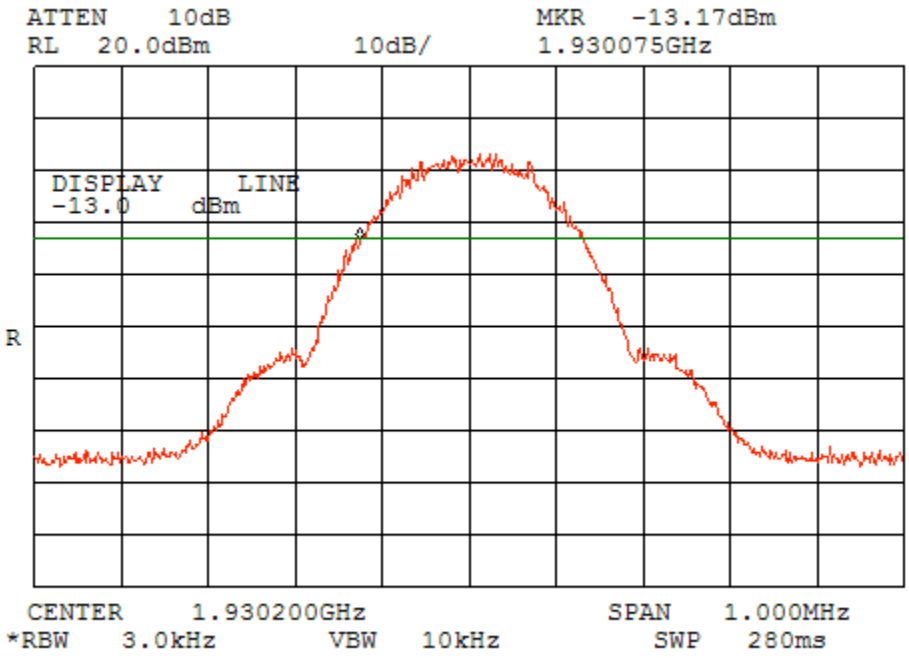


Emission mask at 1989.95 MHz. FCC 24.238

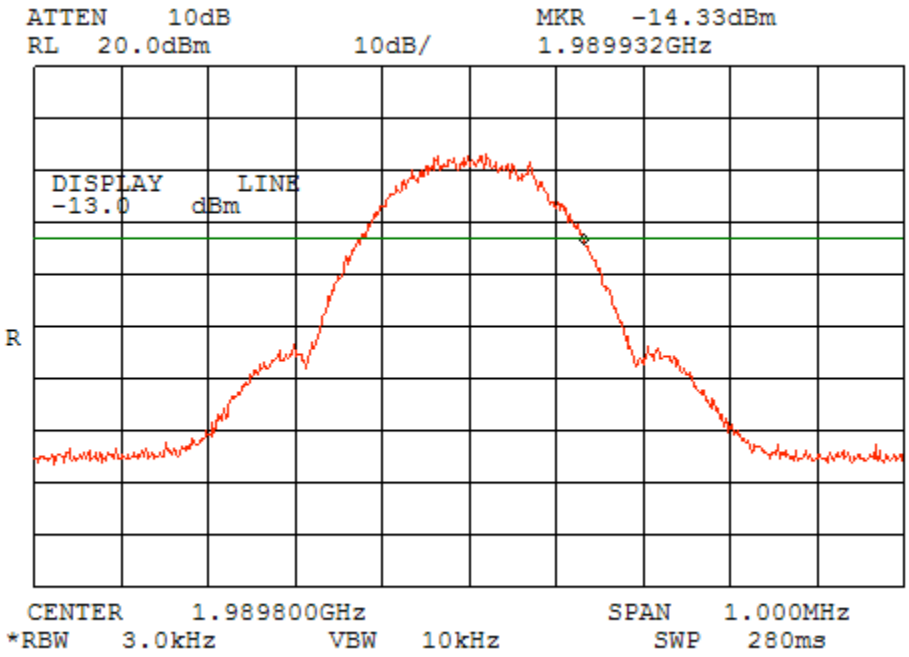


SMR. GSM 1900. Band 1930-1990 MHz. GSM

Emission mask at 1930.2 MHz. FCC 24.238

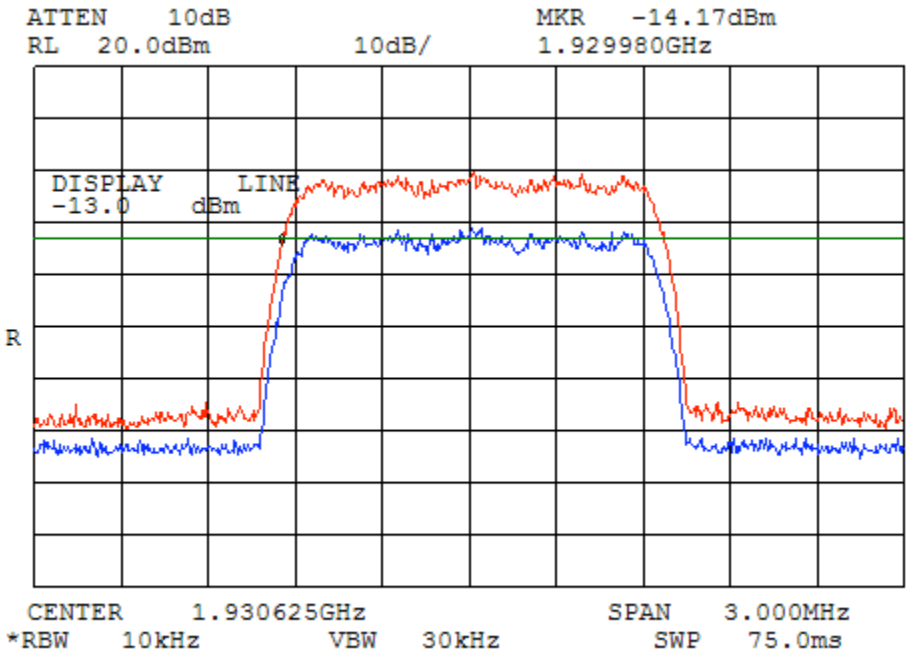


Emission mask at 1989.8 MHz. FCC 24.238

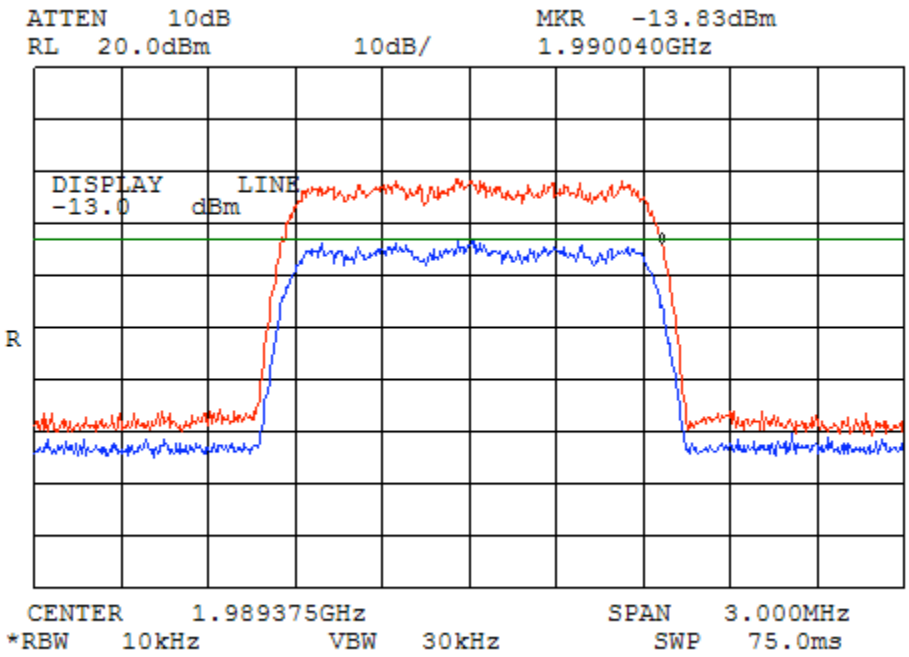


SMR. CDMA 1900. Band 1930-1990 MHz. CDMA, 1.2288 Mcps.

Emission mask at 1930.625 MHz. FCC 24.238

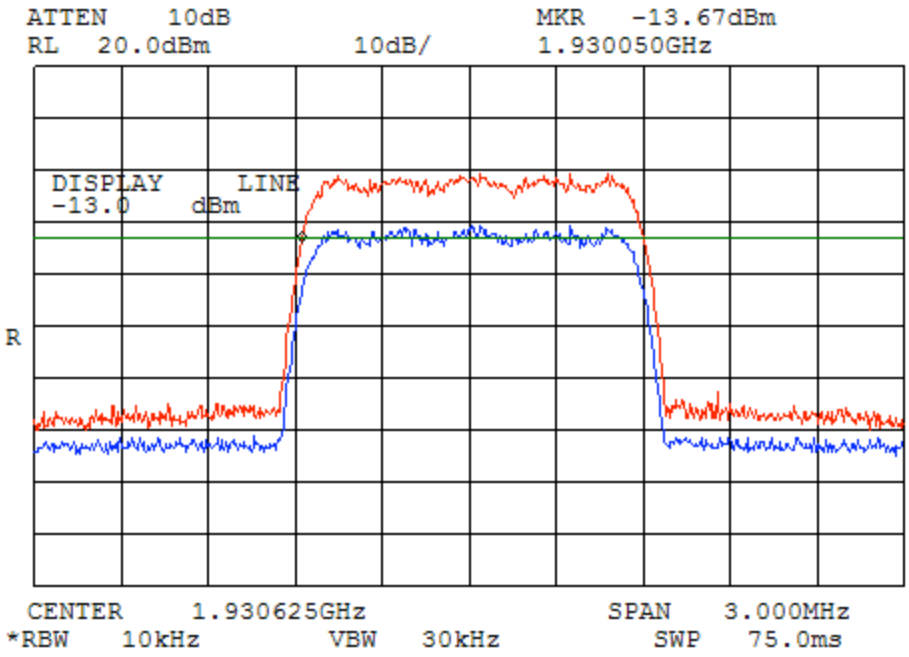


Emission mask at 1989.375 MHz. FCC 24.238



SMR. CDMA 1900. Band 1930-1990 MHz. CDMA, 1.100 Mcps.

Emission mask at 1930.625 MHz. FCC 24.238



Emission mask at 1989.375 MHz. FCC 24.238