



MOTOROLA

*Cellular Infrastructure Group
Personal Communications Division*

**SUPERCELL TEST AND INTEGRATION ENGINEERING
5555 N. BEACH STREET
FORT WORTH, TEXAS 76137**

FCC FILING

IHET5YE1

**SuperCell SCTM9600
Mixed Mode/
Multiple Carrier**

Book 2 of 2

Date April 17, 1998

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FCC ID: IHET5YE1

EXHIBIT #22

**SPURIOUS & HARMONIC
EMISSIONS RADIATED**

Radiated RF Measurements

APPLICANT: MOTOROLA

TRANSCEIVER TYPE: IHET5YE1

WORST RADIATED RF SPUR LEVEL FOR SC9600 MIXED MODE/MULTIPLE CARRIER

TRANSMIT CHANNELS CDMA	SPUR FREQUENCY (GHz)	MEASURED SIGNAL LEVEL (dBuV/meter)	MEASURED SIGNAL LEVEL (dBm)	FCC, Part 22 MAX LIMIT (dBm)
1013V	8.697	39.65		
1013H	8.697	39.09	-55.58	-13
1013V	8.697	37.74	-56.14	-13
1013H	8.697	38.98	-57.49	-13
			-56.25	-13
384V	8.815	38.95		
384H	8.815	40.46	-56.28	-13
384V	8.815	36.88	-54.77	-13
384H	8.815	38.48	-58.35	-13
			-56.75	-13
777V	8.933	39.49		
777H	8.933	40.98	-55.74	-13
777V	8.933	38.56	-54.25	-13
777H	8.933	39.86	-56.67	-13
			-55.37	-13
TRANSMIT CHANNELS ANALOG	SPUR FREQUENCY (GHz)	MEASURED SIGNAL LEVEL (dBuV/meter)	MEASURED SIGNAL LEVEL (dBm)	FCC, Part 22 MAX LIMIT (dBm)
20V	8.706	38.55		
20H	8.706	39.87	-56.68	-13
20V	8.706	36.96	-55.36	-13
20H	8.706	36.59	-58.27	-13
			-58.64	-13
354V	8.806	37.83		
354H	8.806	39.23	-57.40	-13
354V	8.806	37.72	-56.00	-13
354H	8.806	37.18	-57.51	-13
			-58.05	-13
747V	8.924	38.84		
747H	8.924	40.73	-56.39	-13
747V	8.924	37.77	-54.40	-13
747H	8.924	40.63	-57.46	-13
			-54.60	-13

Radiated RF Measurements

APPLICANT: MOTOROLA

TRANSCEIVER TYPE: IHET5YE1

WORST RADIATED RF SPUR LEVEL FOR SC9600 MIXED MODE/MULTIPLE CARRIER (Continued)

Converting dBuV/meter to dBm when Part 22 is done at 3 meters.

1. $(\text{dBuV/M} / 20) * (\text{Inverse Log}) = \text{uV/M}$
2. $\text{Log}(\text{uV/M} / 57735) * 20 = \text{dBm}$

Example 40.98 dBuV/m to dBm

$$(40.98 \text{ dBuV/m} / 20) * (\text{Inverse Log}) = 111.94 \text{ uV/M}$$
$$\text{Log}(111.94 \text{ uV/m} / 57735) * 20 = -54.25 \text{ dBm}$$

If the test is done at 10 meters, the first formula would remain the same. The 2nd is as follows

$$\text{Log}[(\text{uV/m} * 1 / (3 * 57735) / 10)] * 20 \text{ dBm}$$

Engineer: Melissa VanDine 4/17/98
Date



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FCC ID: IHET5YE1

EXHIBIT #23

SPURIOUS & HARMONIC EMISSIONS CONDUCTED

Analog & CDMA



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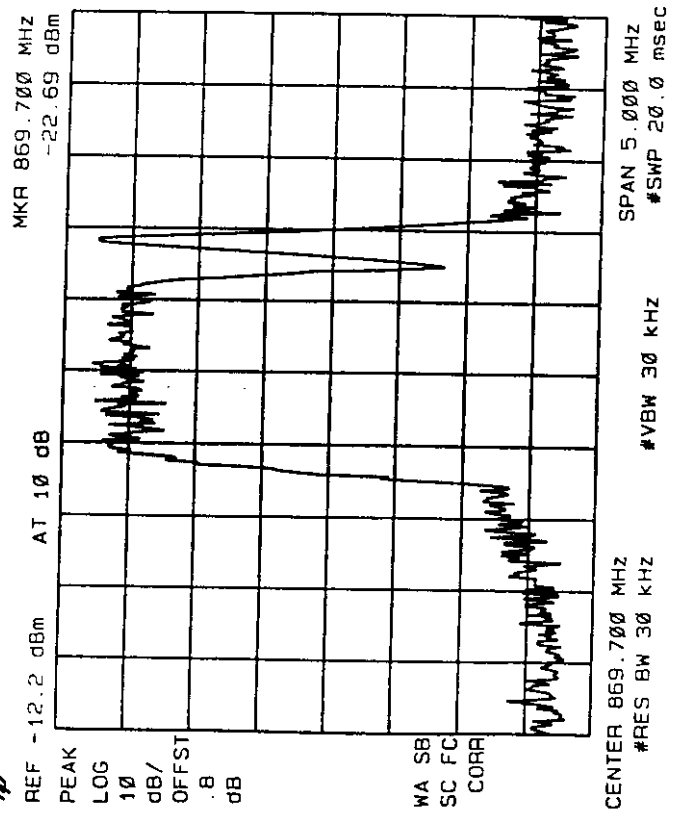
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SPURIOUS & HARMONIC EMISSIONS CONDUCTED

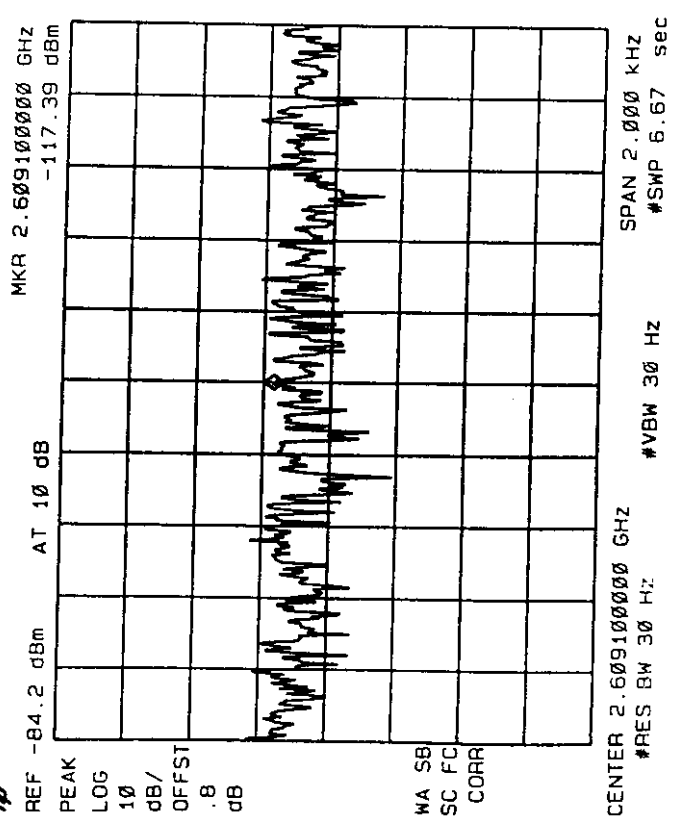
CDMA Transmitter Channel 1013

Maximum Power

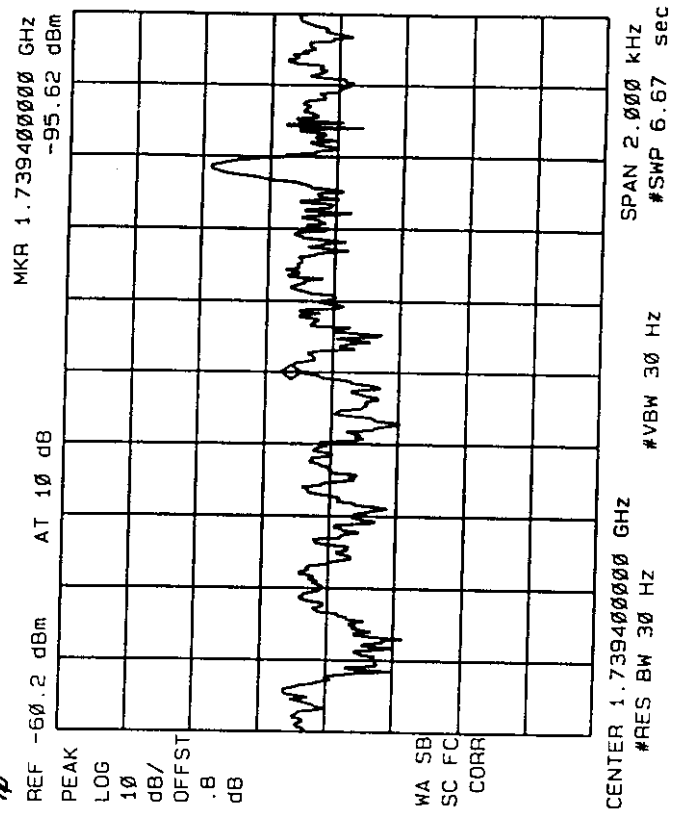
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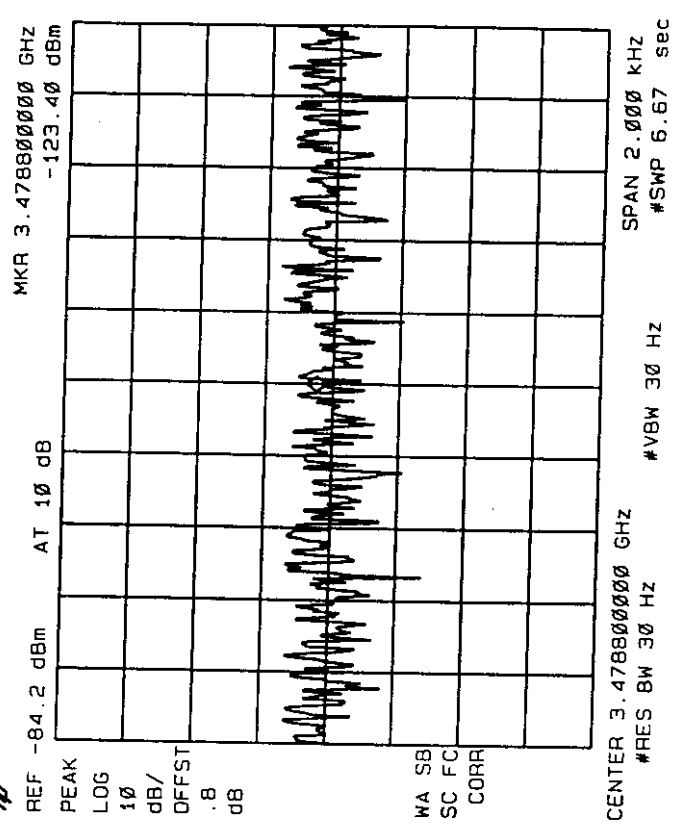
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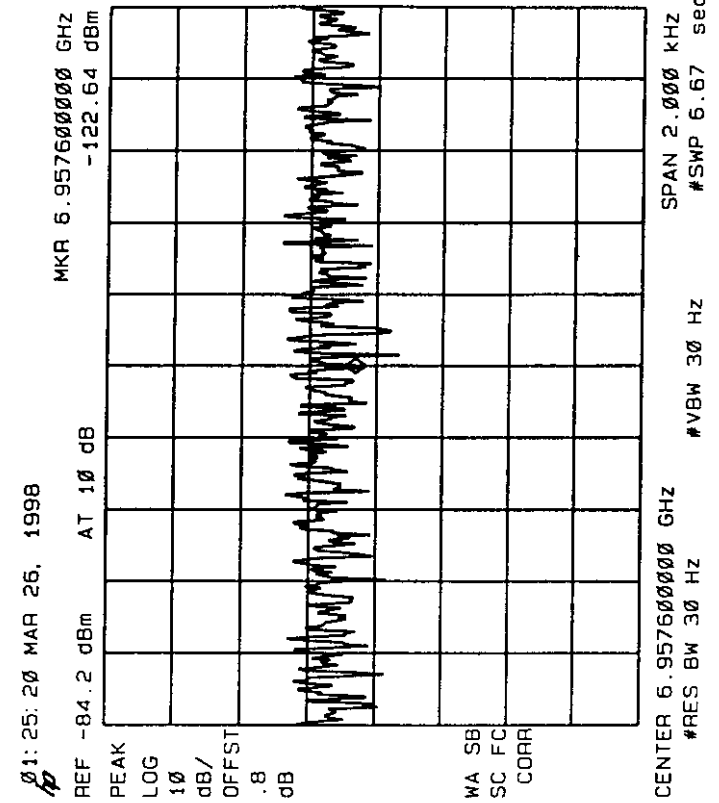
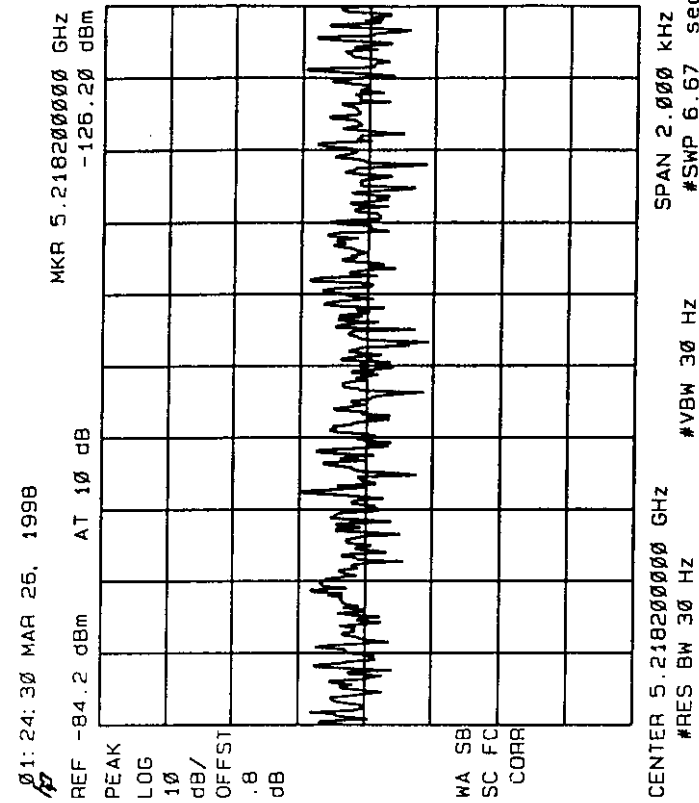
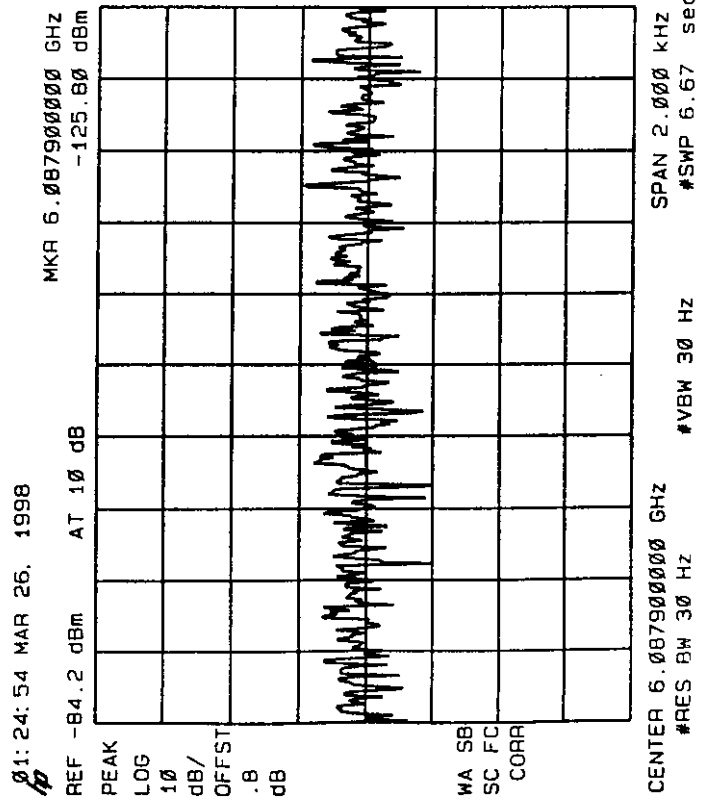
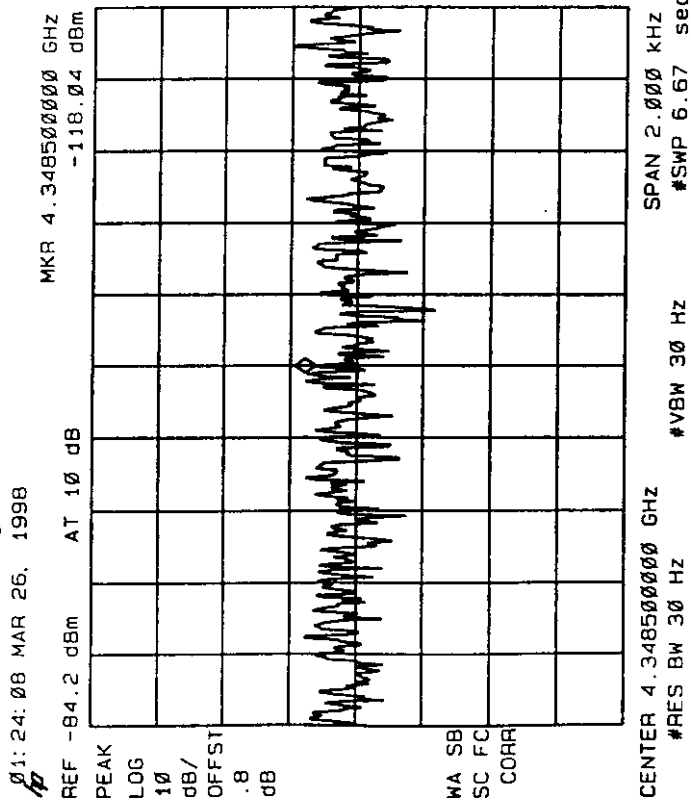


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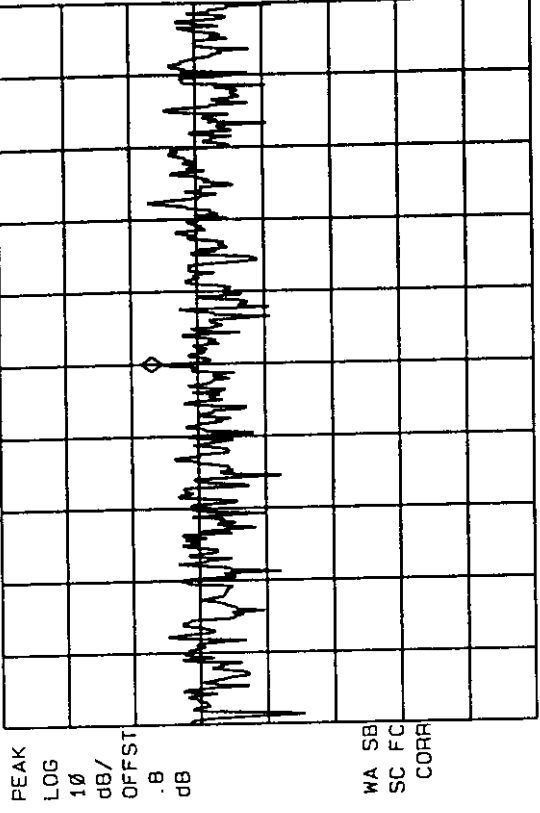
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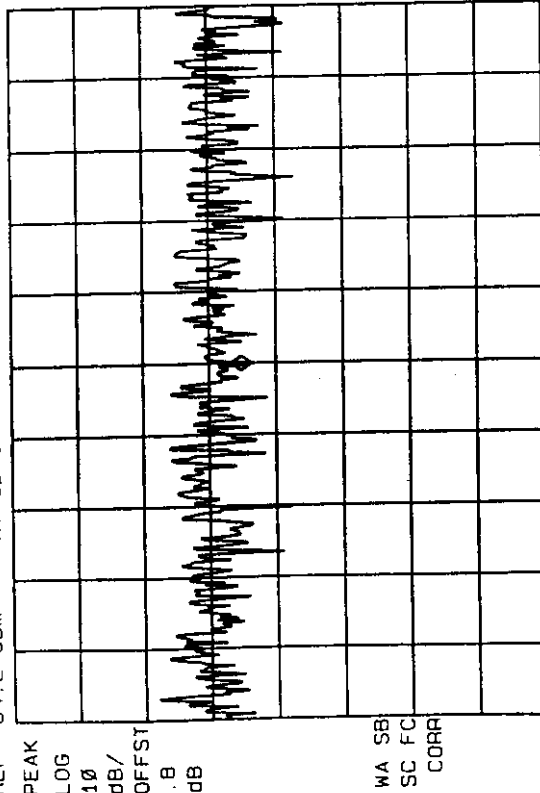
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MKR 8.697000000 GHZ
REF -84.2 dBm AT 10 dB



01:25:50 MAR 26, 1998

MKR 7.827300000 GHZ
REF -84.2 dBm AT 10 dB





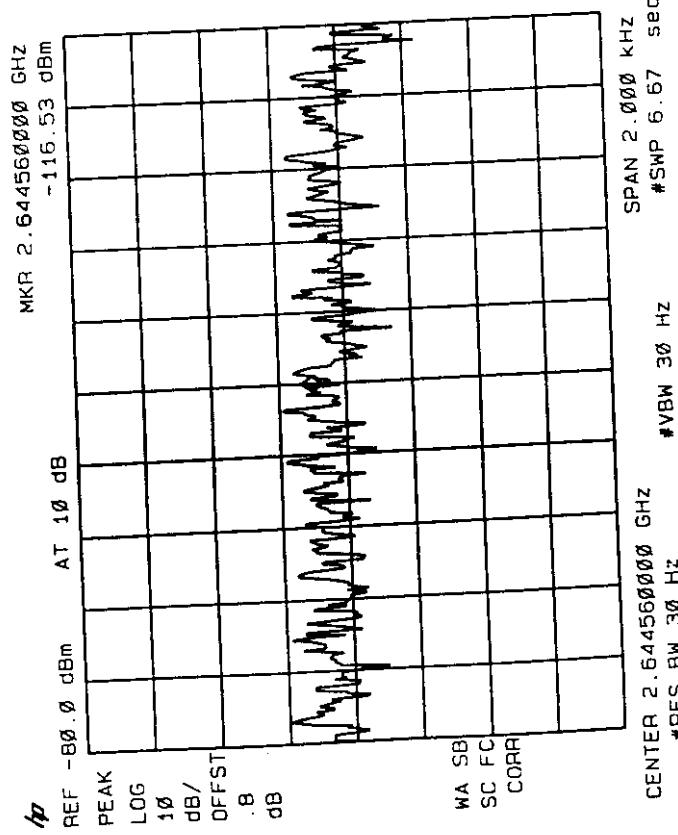
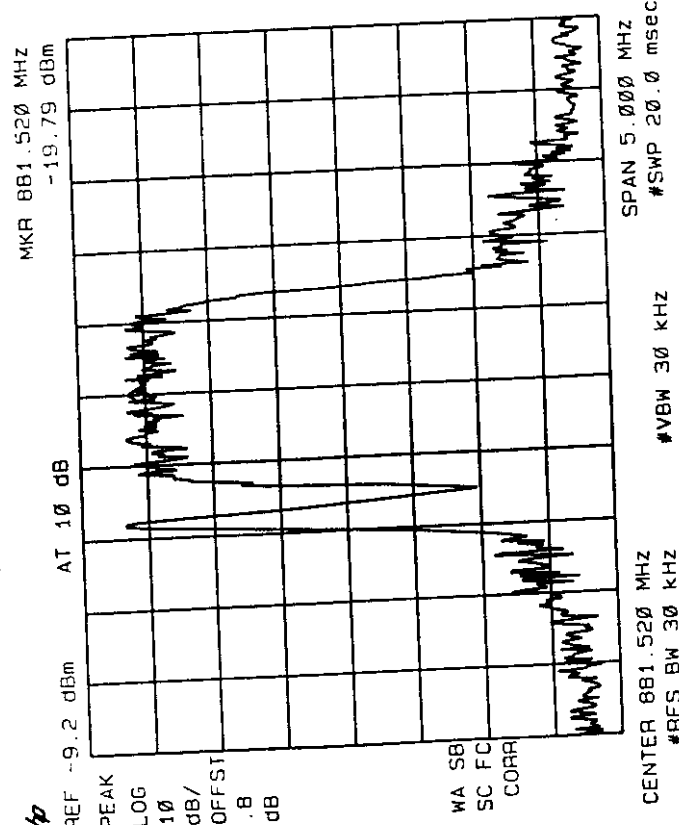
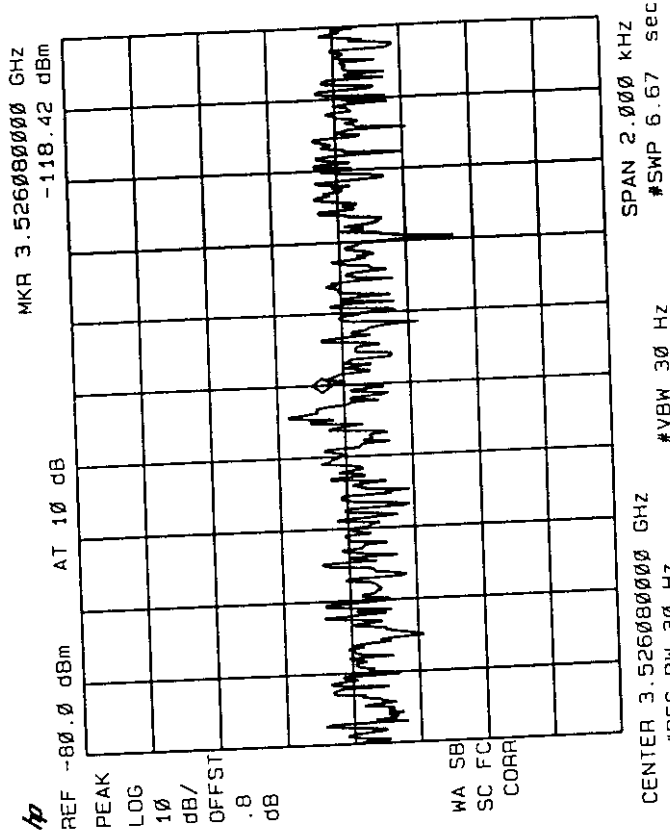
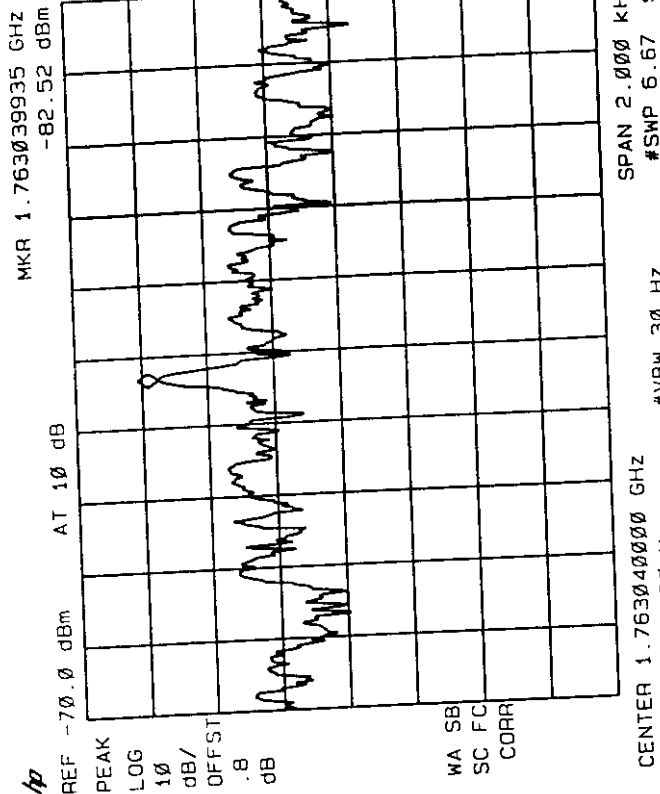
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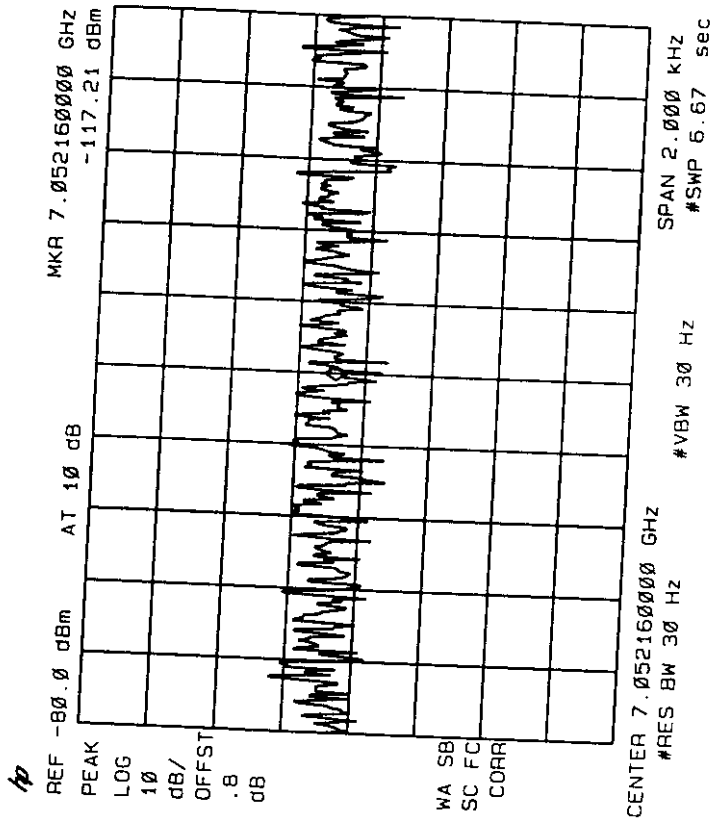
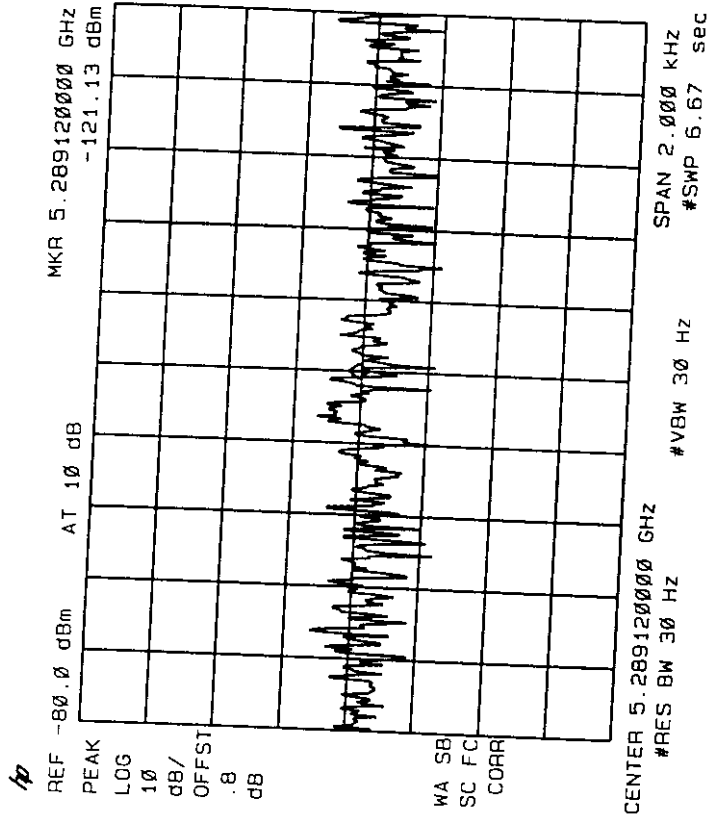
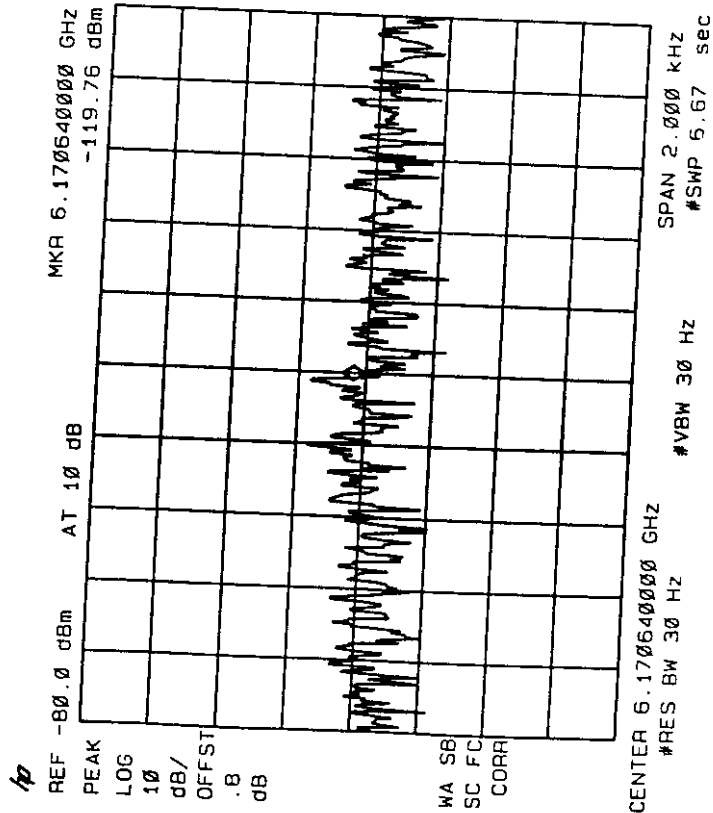
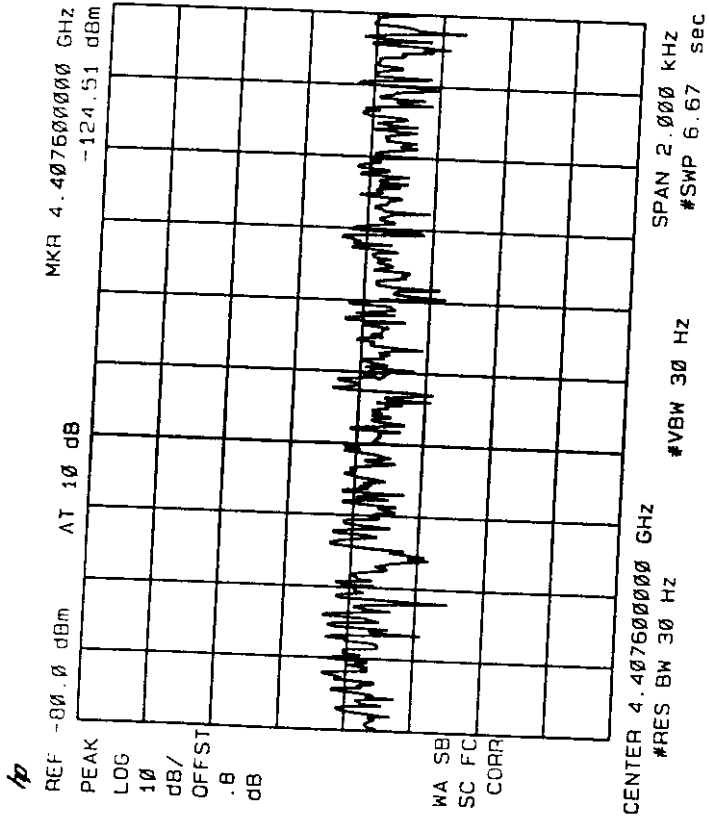
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SPURIOUS & HARMONIC EMISSIONS CONDUCTED

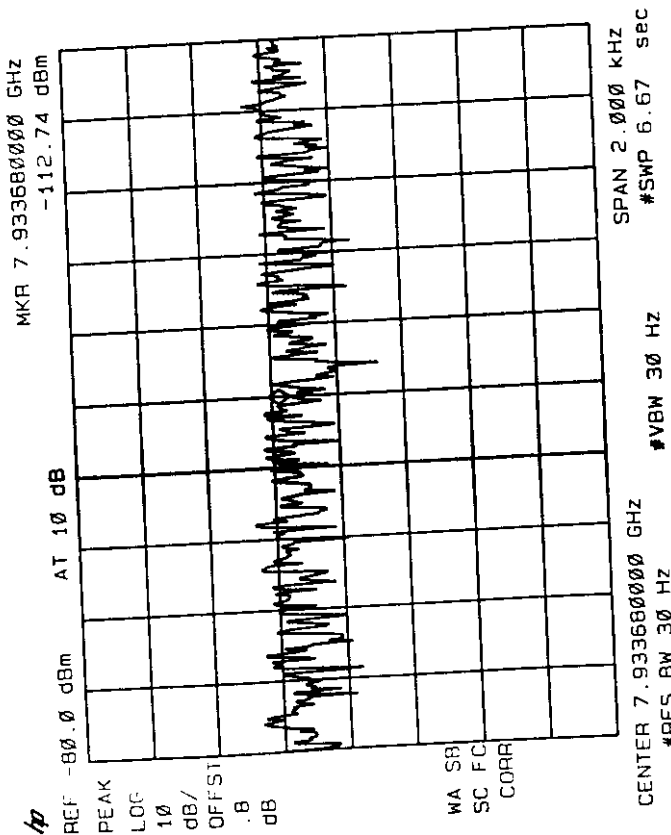
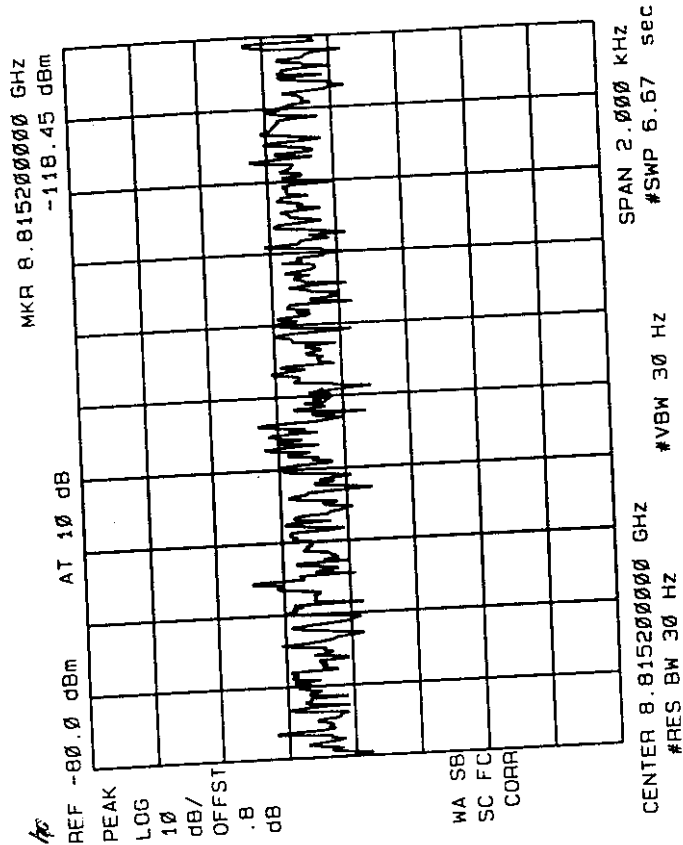
CDMA Transmitter Channel 384

Maximum Power





date
-4-16-98
16:24:23





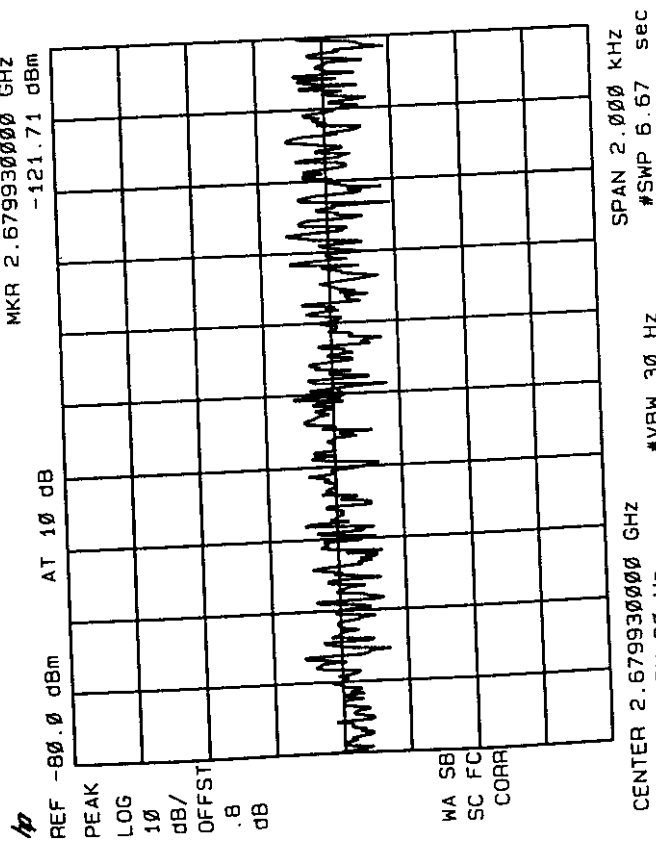
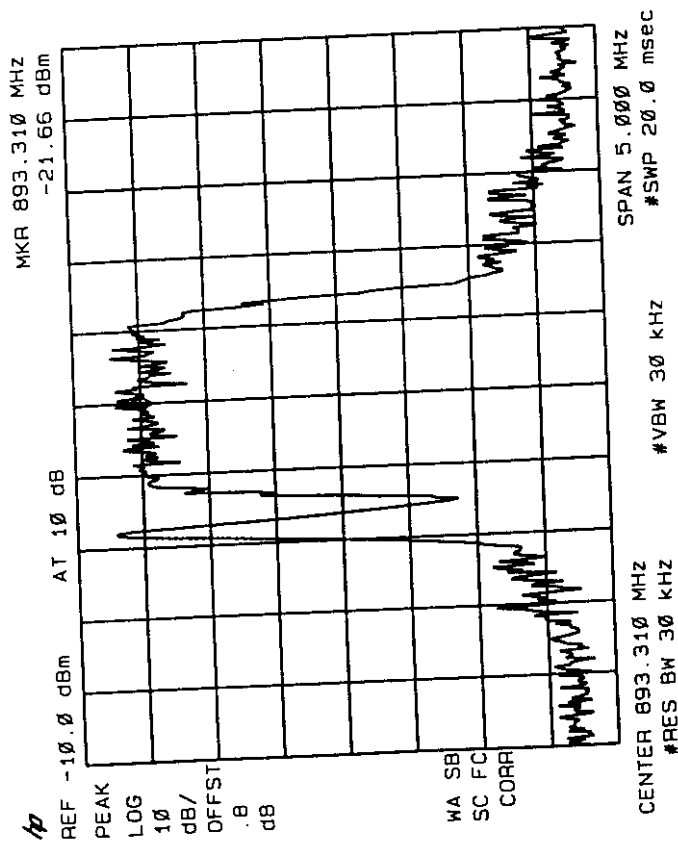
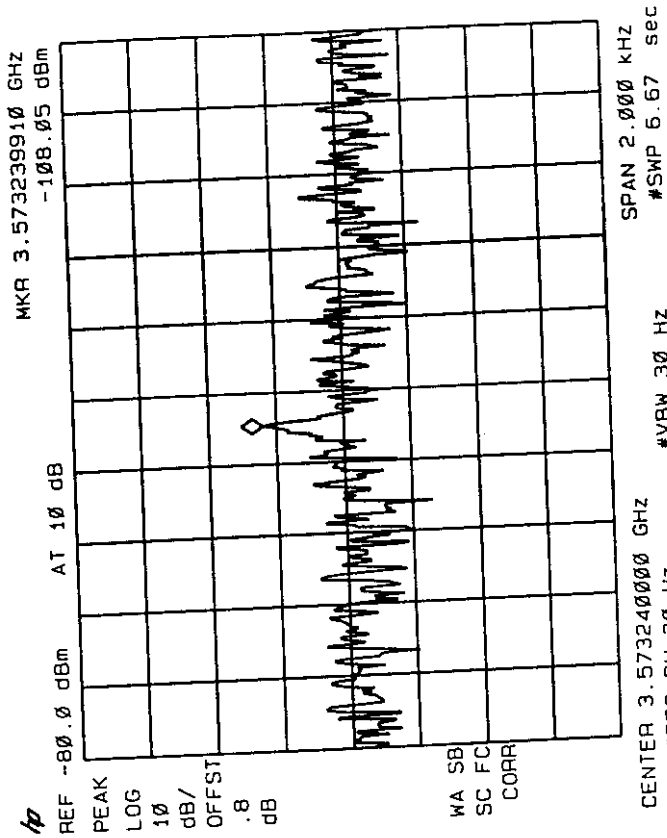
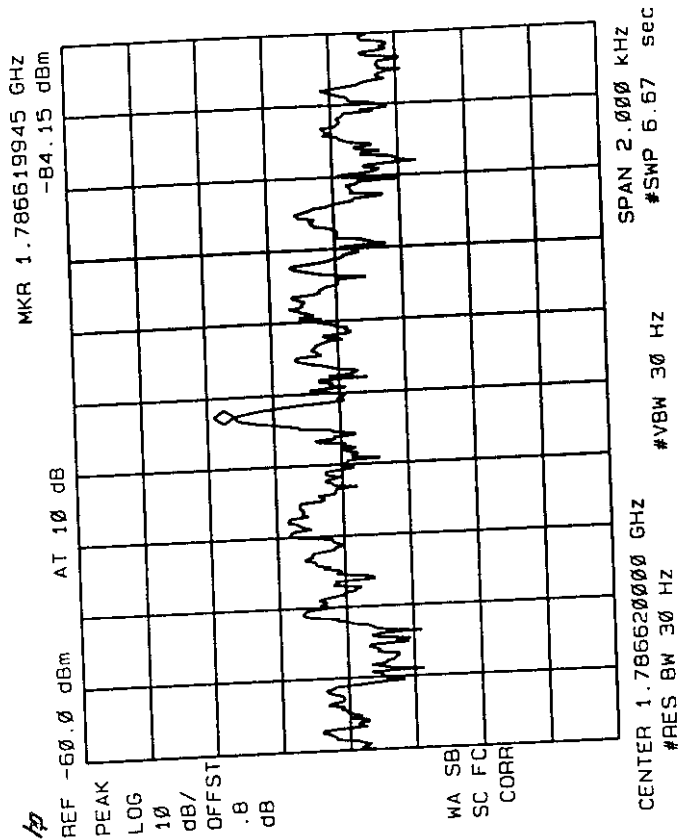
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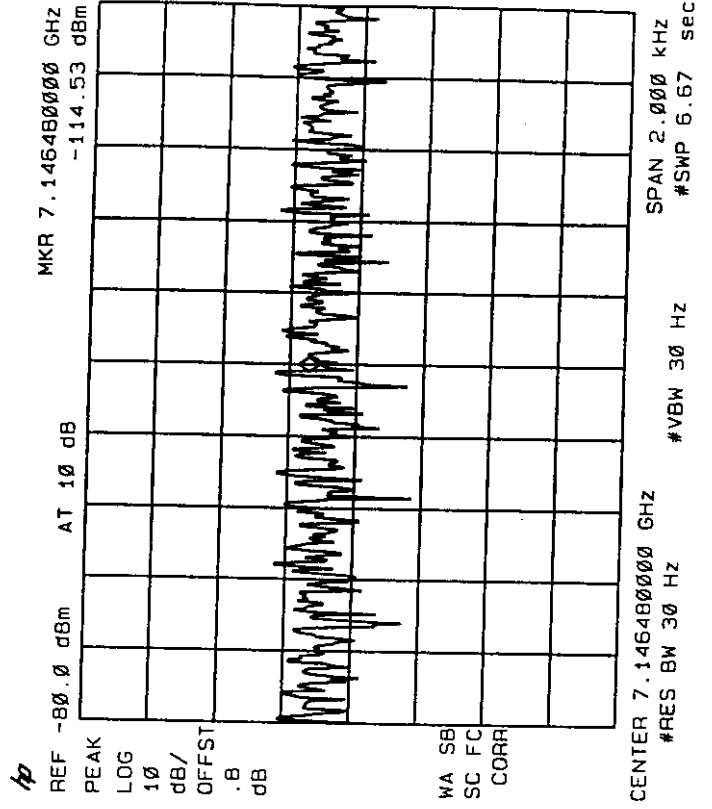
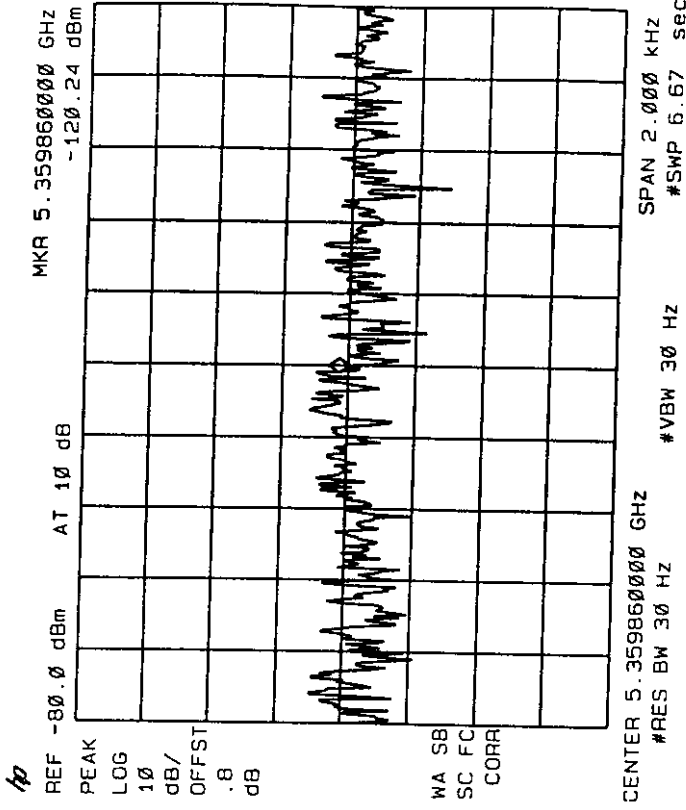
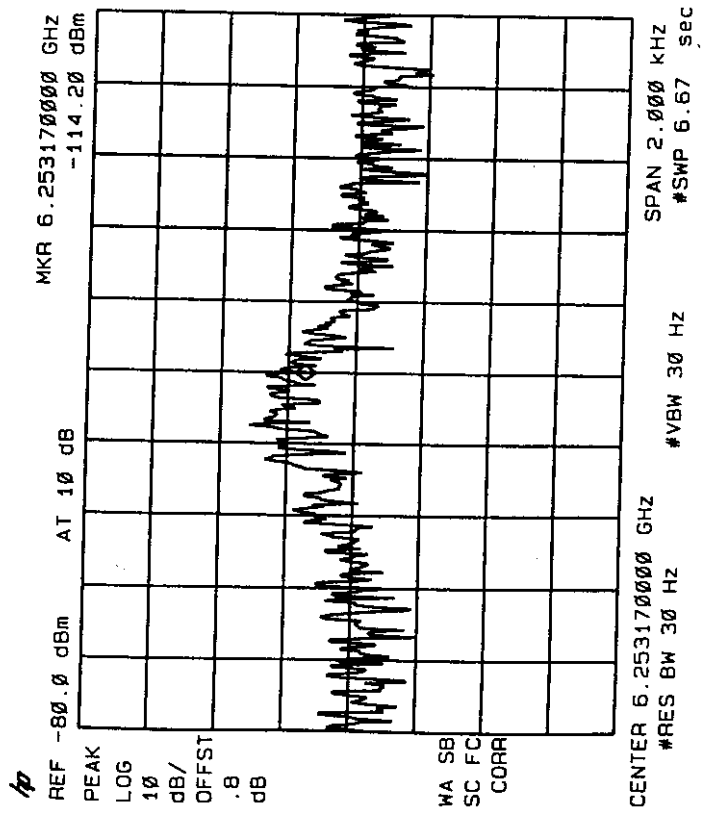
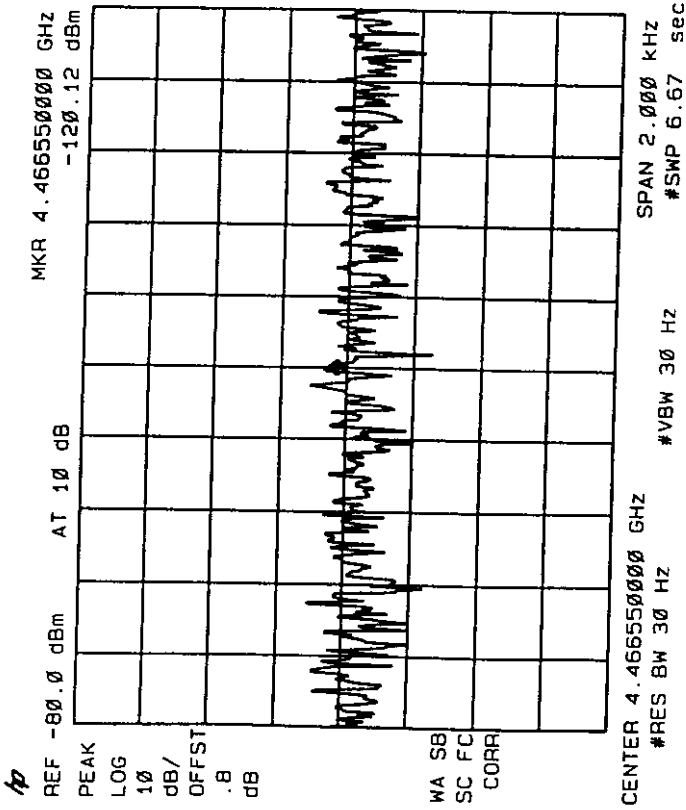
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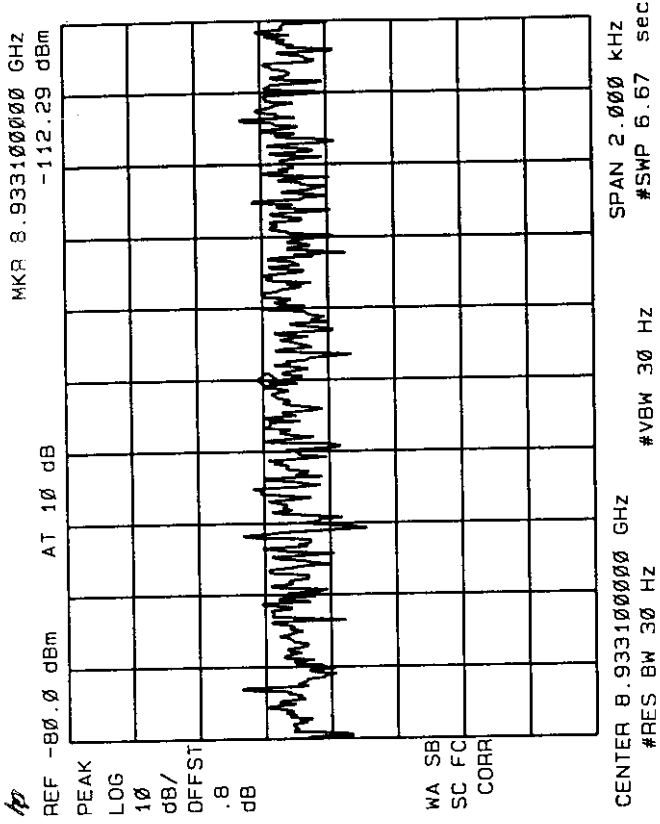
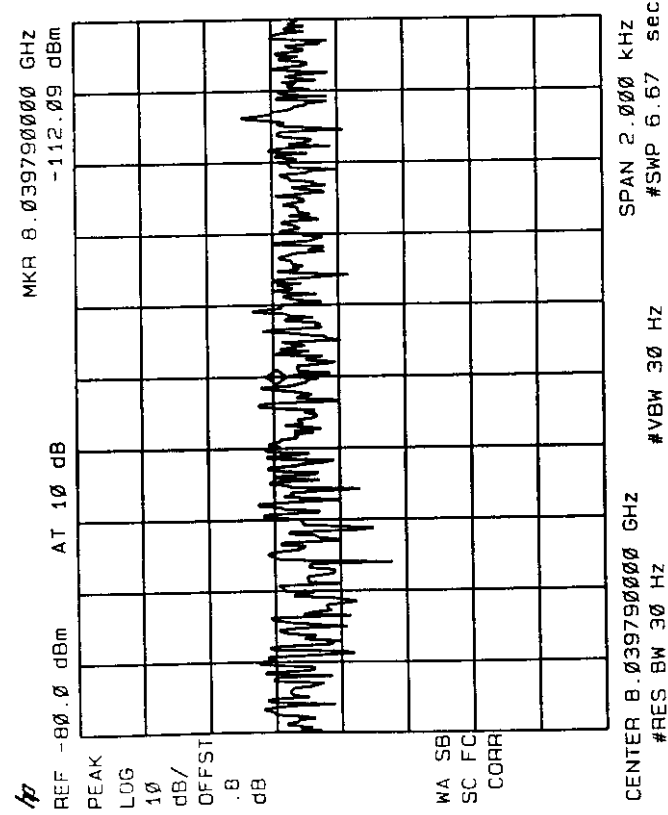
**SPURIOUS & HARMONIC
EMISSIONS CONDUCTED**

CDMA Transmitter Channel 777

Maximum Power









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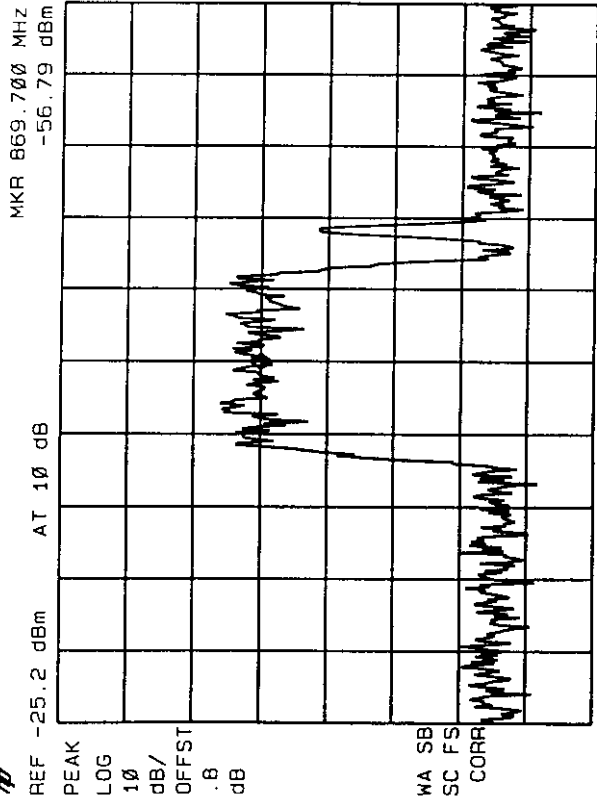
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SPURIOUS & HARMONIC EMISSIONS CONDUCTED

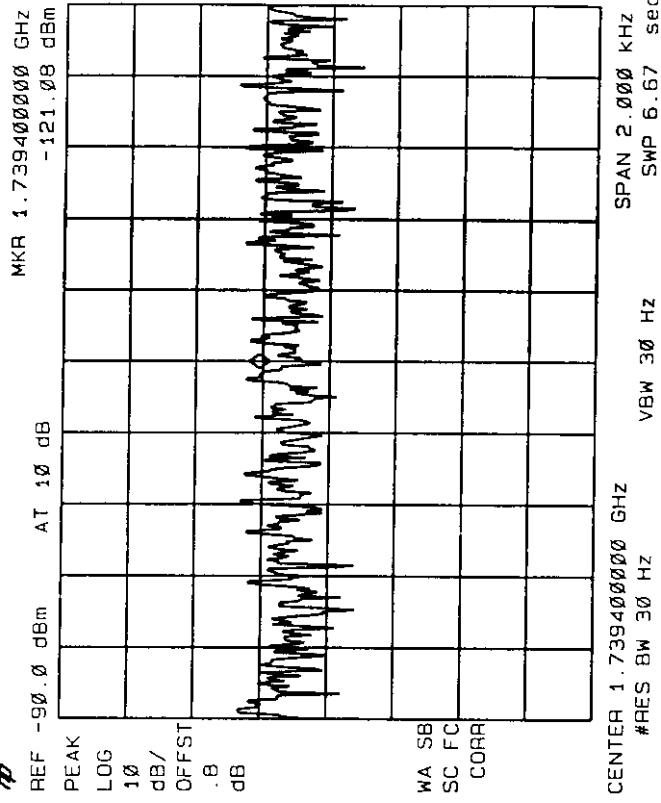
CDMA Transmitter Channel 1013

Minimum Power

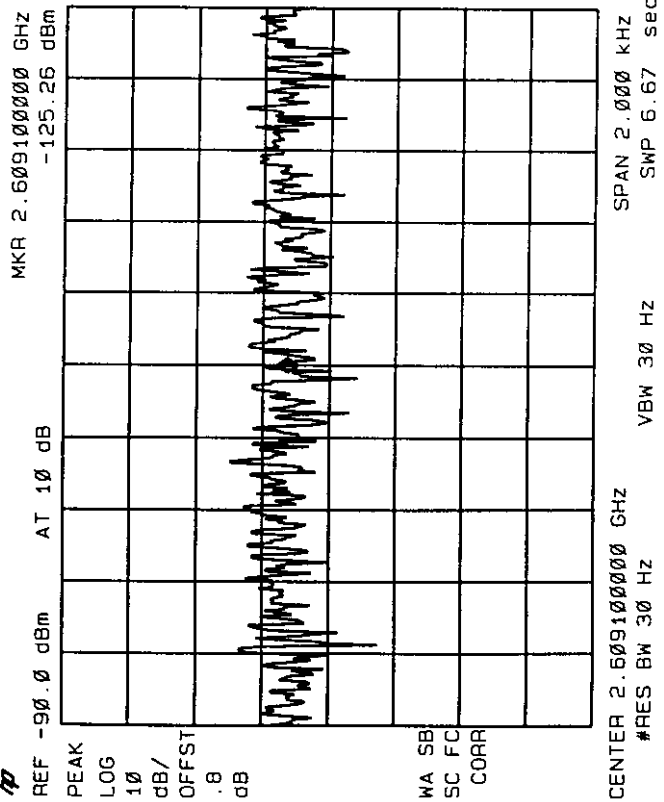
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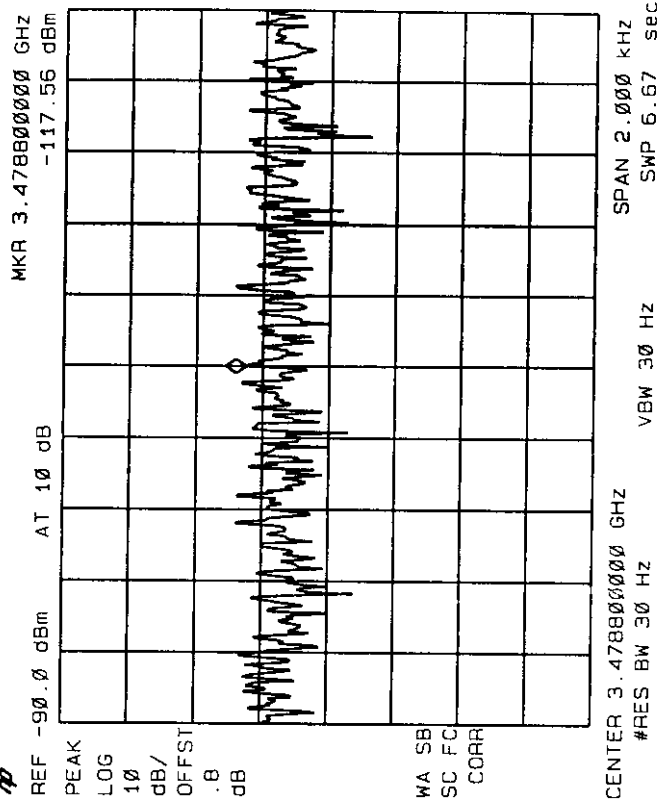
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22:30:49 MAR 25, 1998

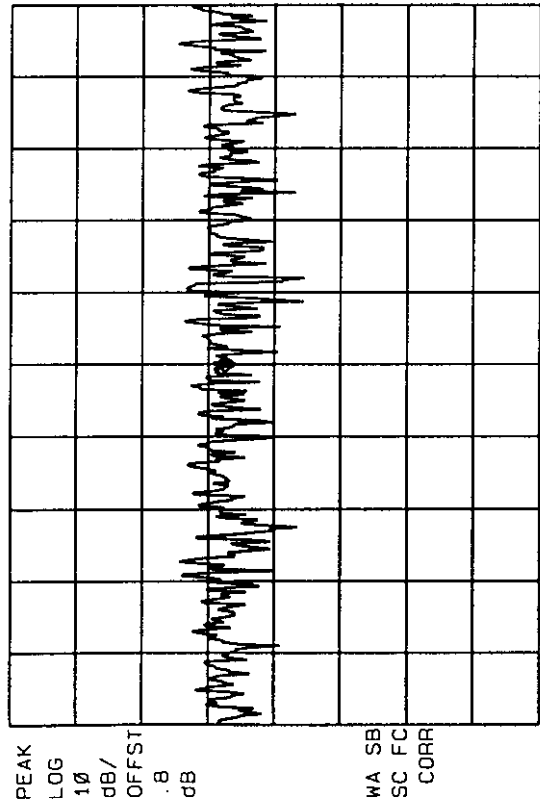


22:31:11 MAR 25, 1998



22:31:30 MAR 25, 1998

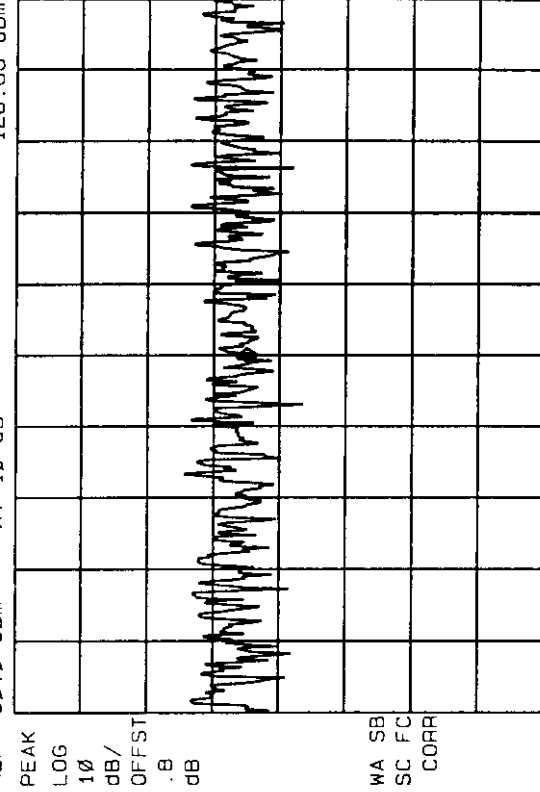
MKR 4.348500000 GHz
REF -90.0 dBm AT 10 dB



CENTER 4.348500000 GHz
#RES BW 30 HZ VBW 30 HZ SPAN 2.000 KHZ SWP 6.67 sec

22:31:53 MAR 25, 1998

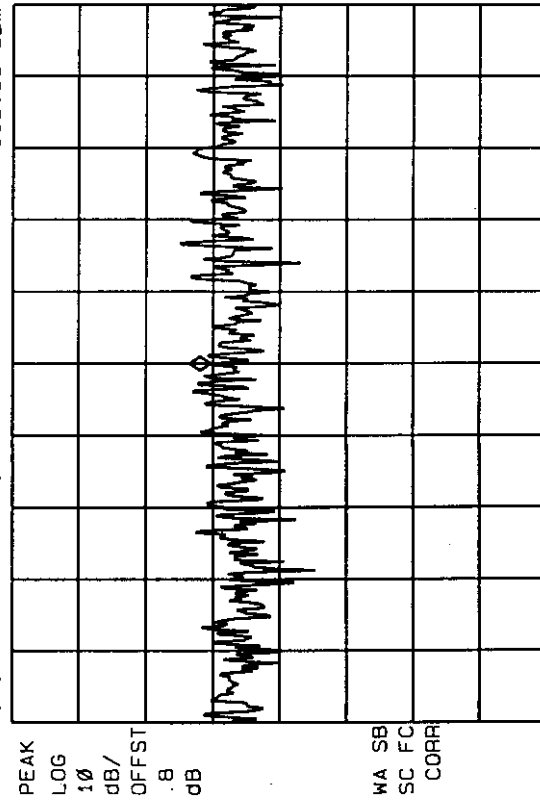
MKR 5.218200000 GHz
REF -90.0 dBm AT 10 dB



CENTER 5.218200000 GHz
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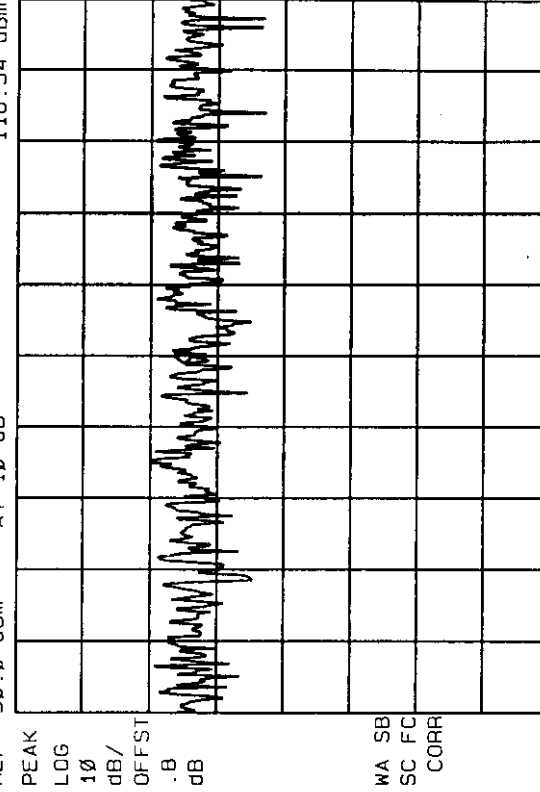
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REF -90.0 dBm AT 10 dB



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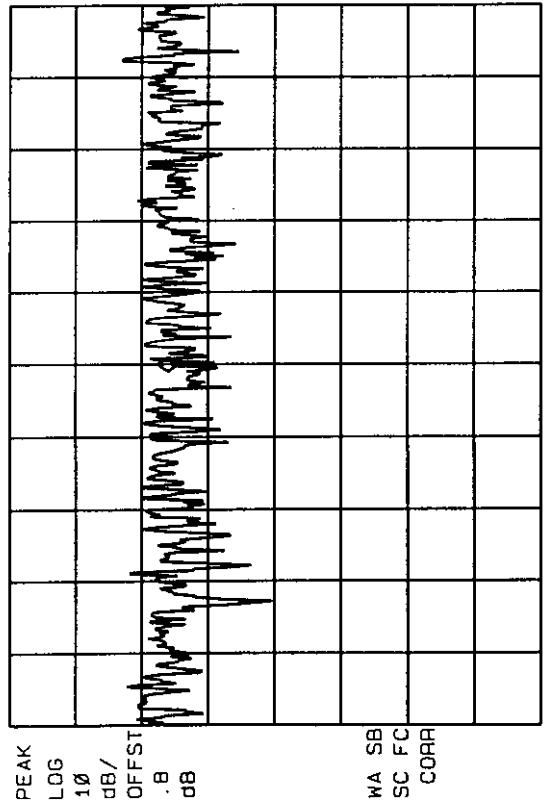
MKR 6.957600000 GHz
REF -90.0 dBm AT 10 dB



CENTER 6.957600000 GHz
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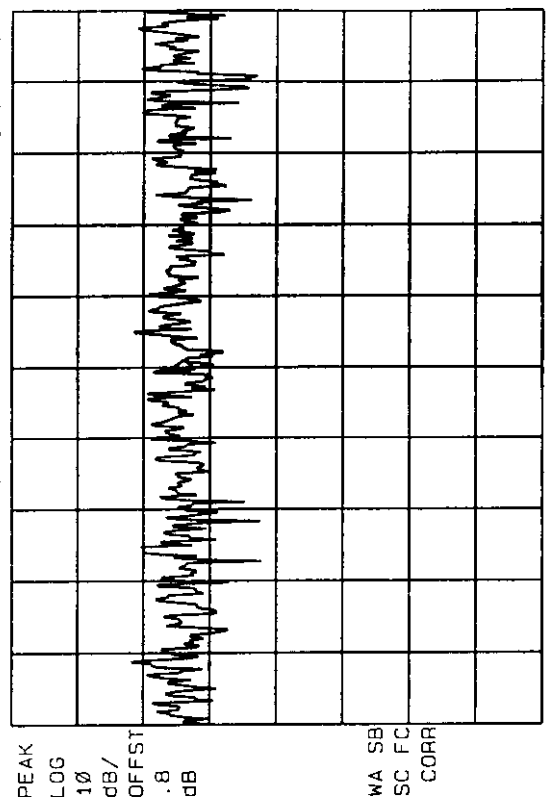
MKR 7.827300000 GHz
REF -90.0 dBm AT 10 dB



CENTER 7.827300000 GHz
#RES BW 30 Hz
SPAN 2.000 kHz
SWP 6.67 sec

22:39:07 MAR 25, 1998

MKR 8.697000000 GHz
REF -90.0 dBm AT 10 dB



CENTER 8.697000000 GHz
#RES BW 30 Hz
SPAN 2.000 kHz
SWP 6.67 sec



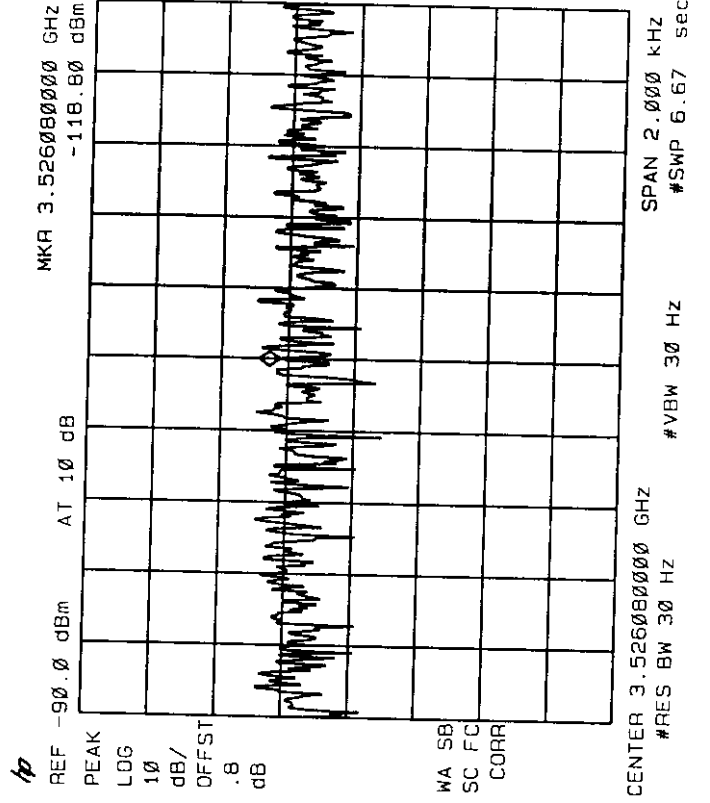
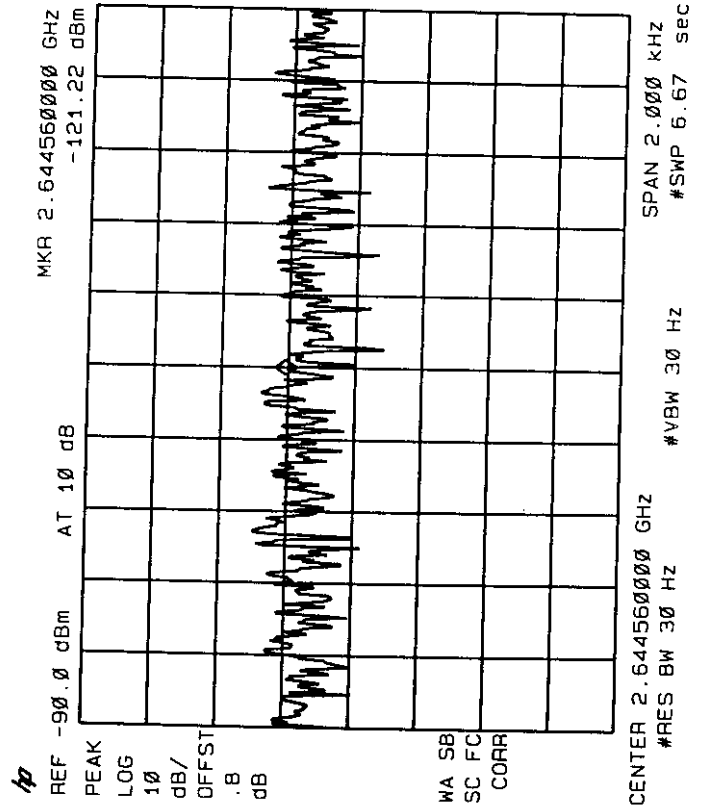
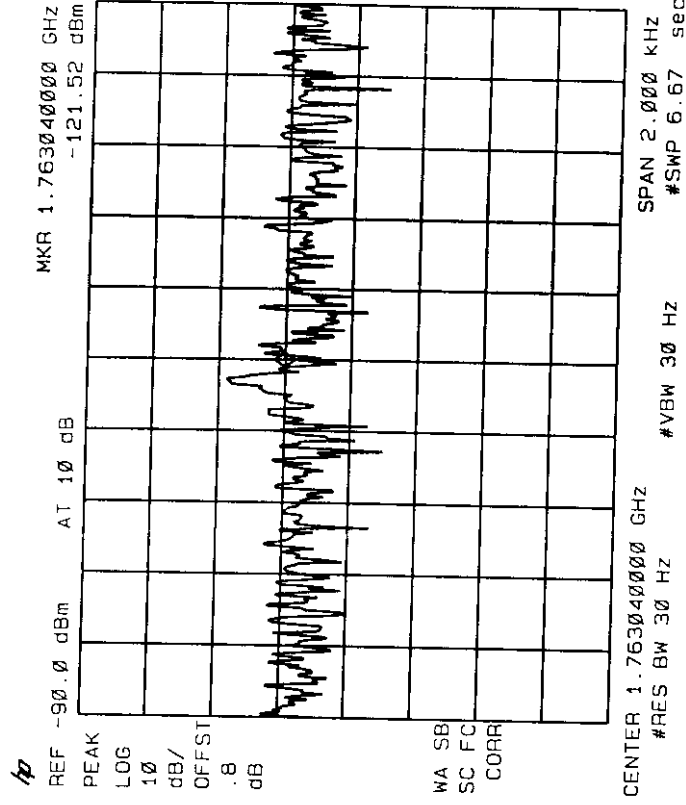
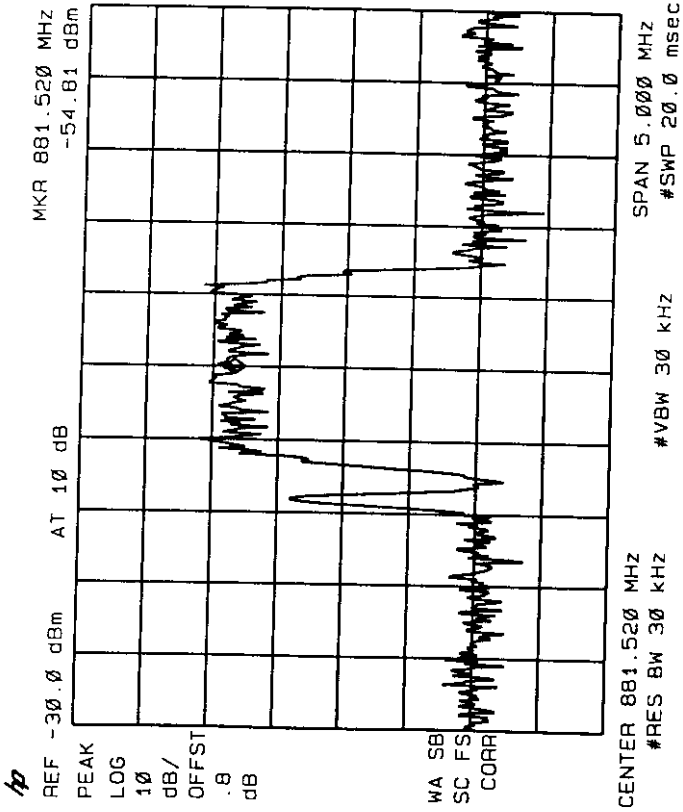
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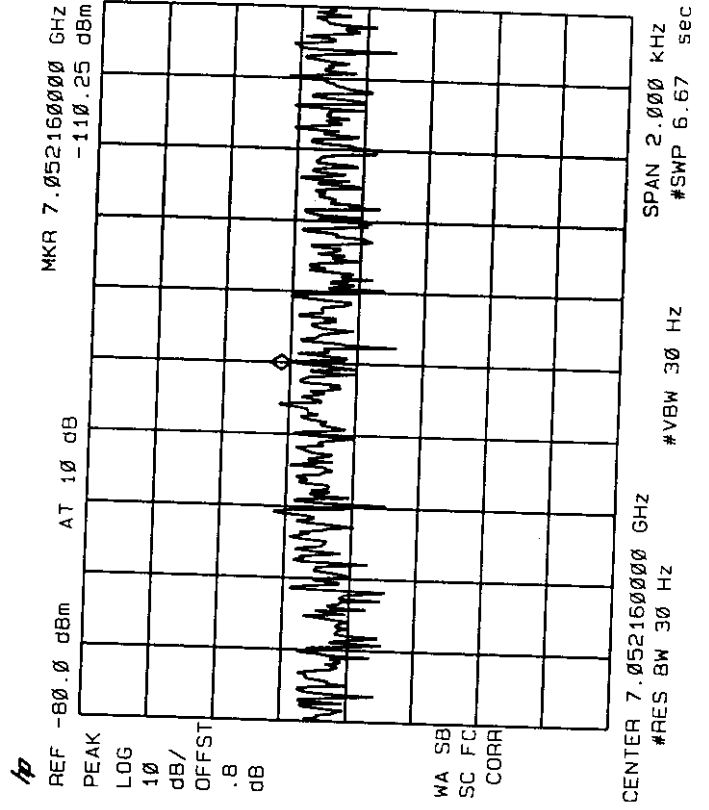
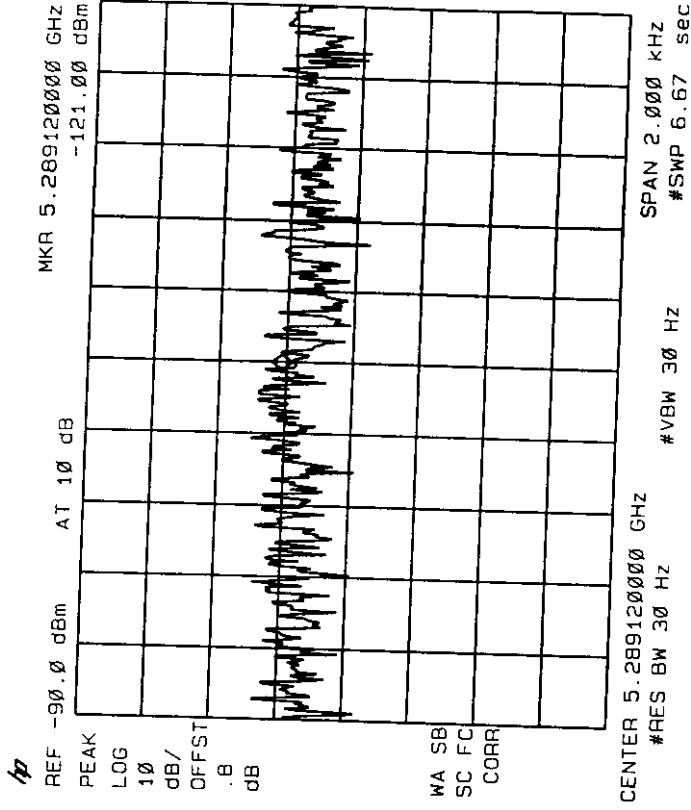
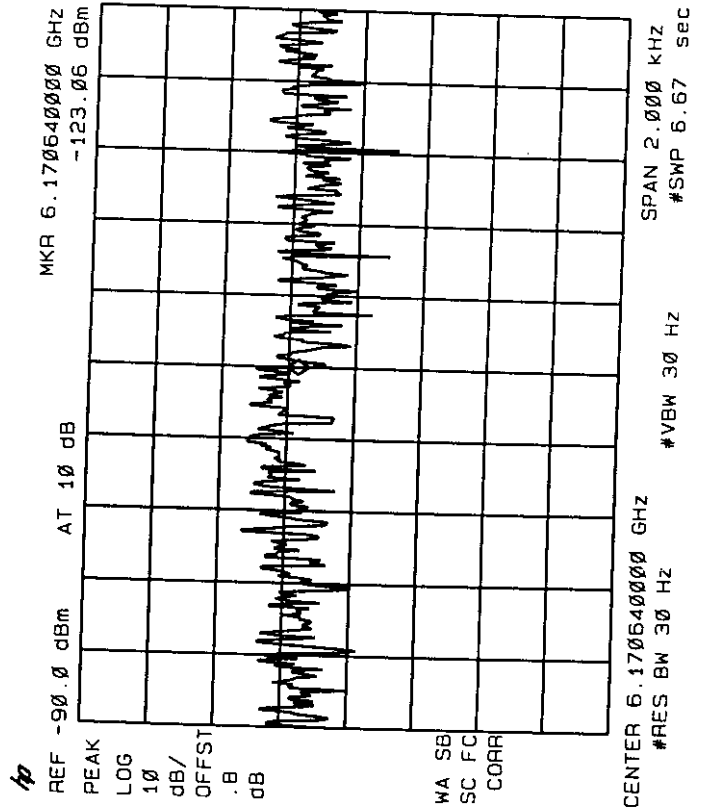
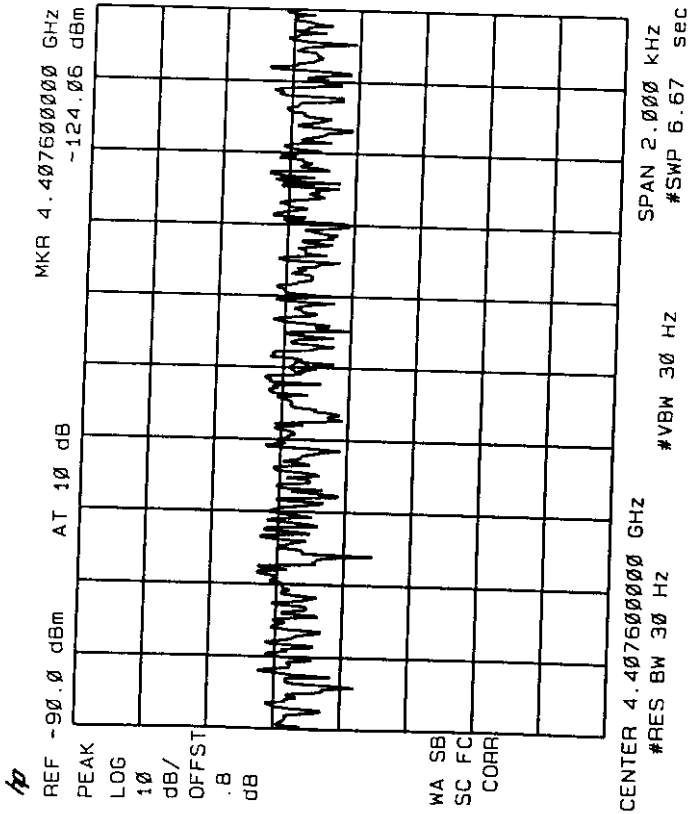
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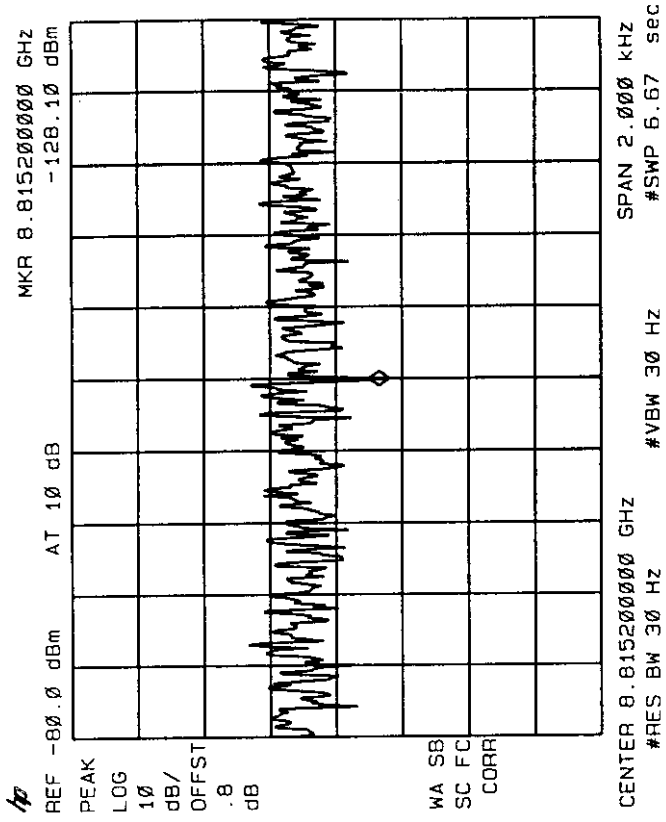
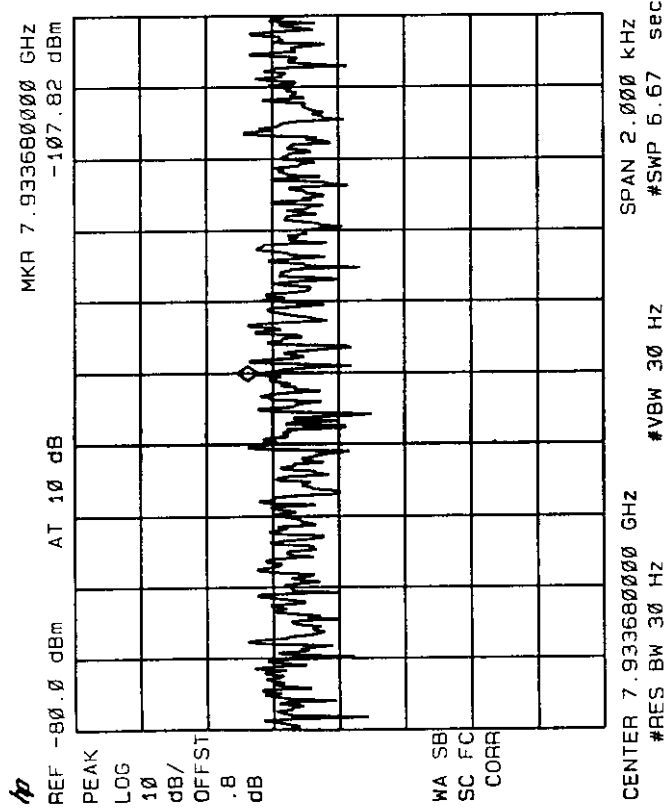
SPURIOUS & HARMONIC EMISSIONS CONDUCTED

CDMA Transmitter Channel 384

Minimum Power









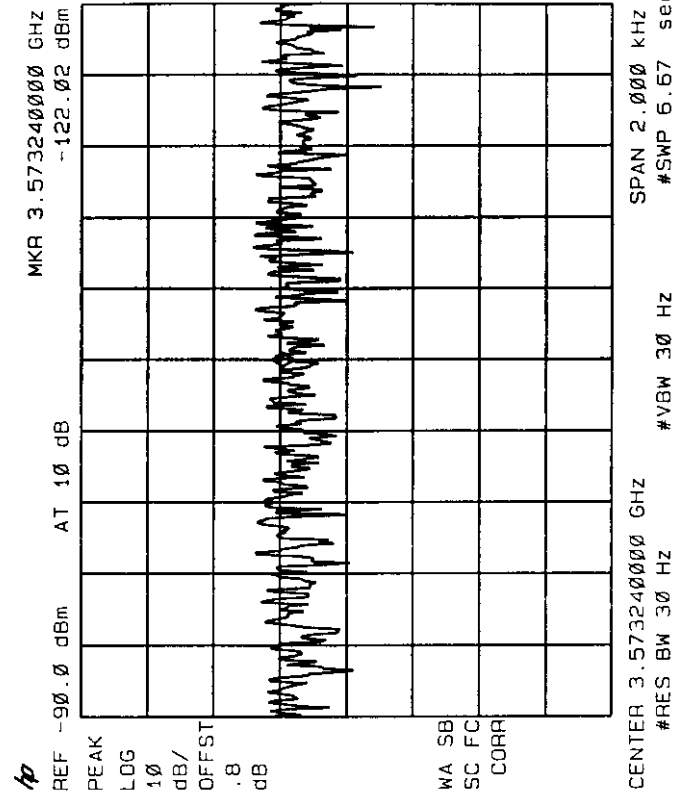
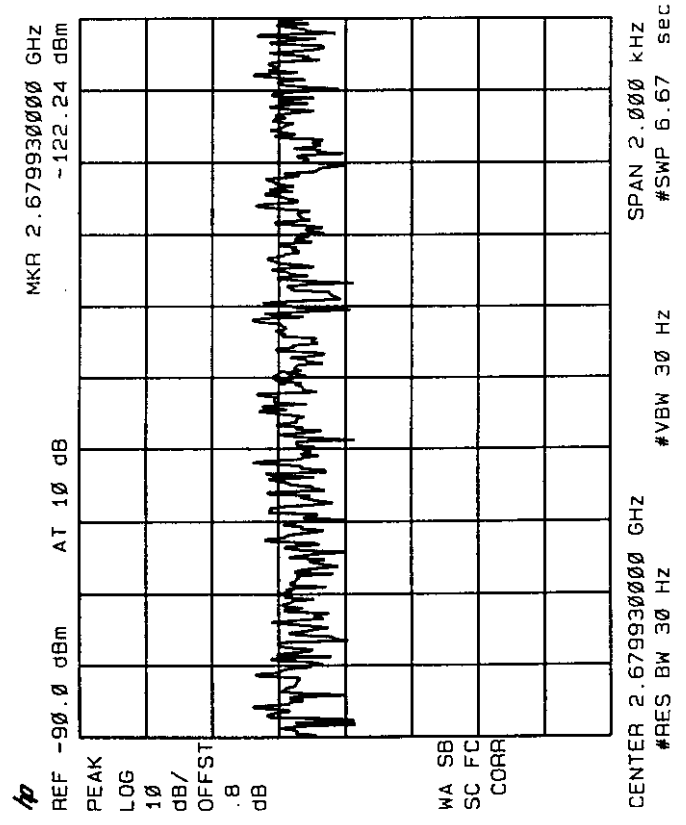
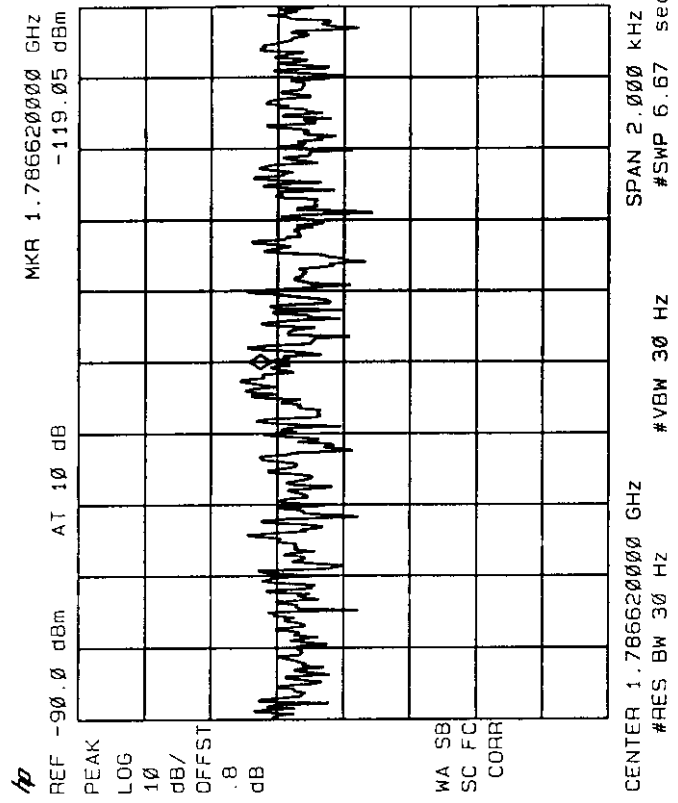
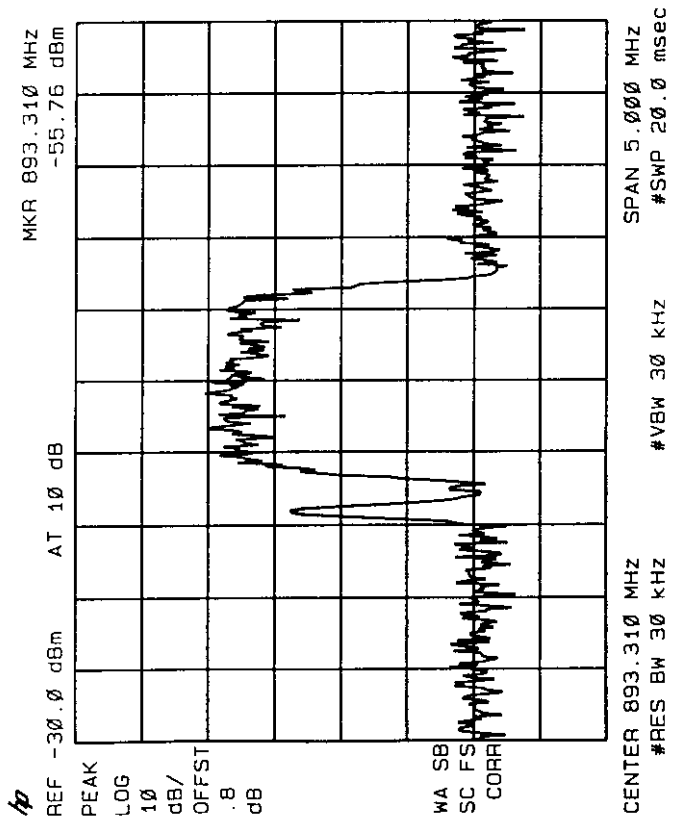
MOTOROLA

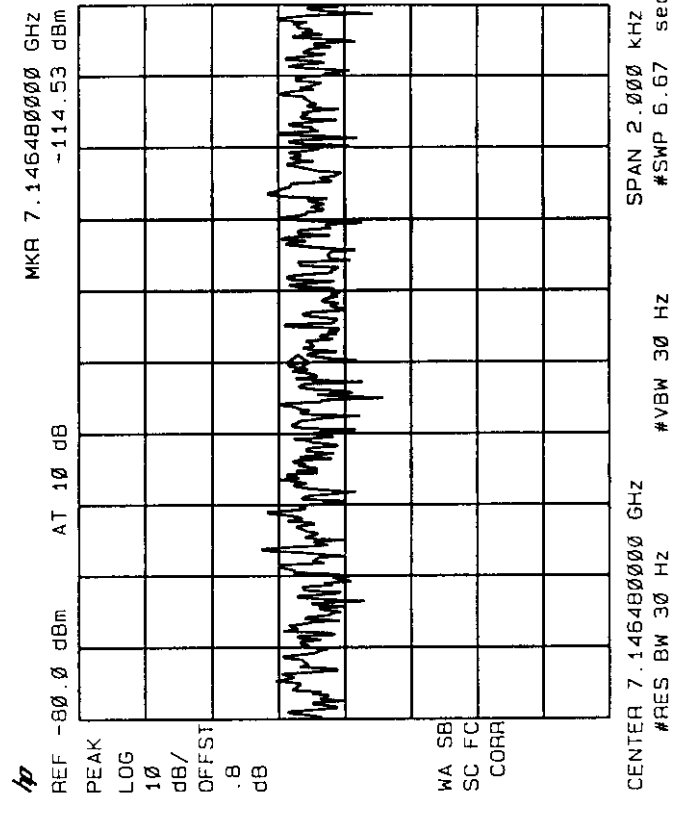
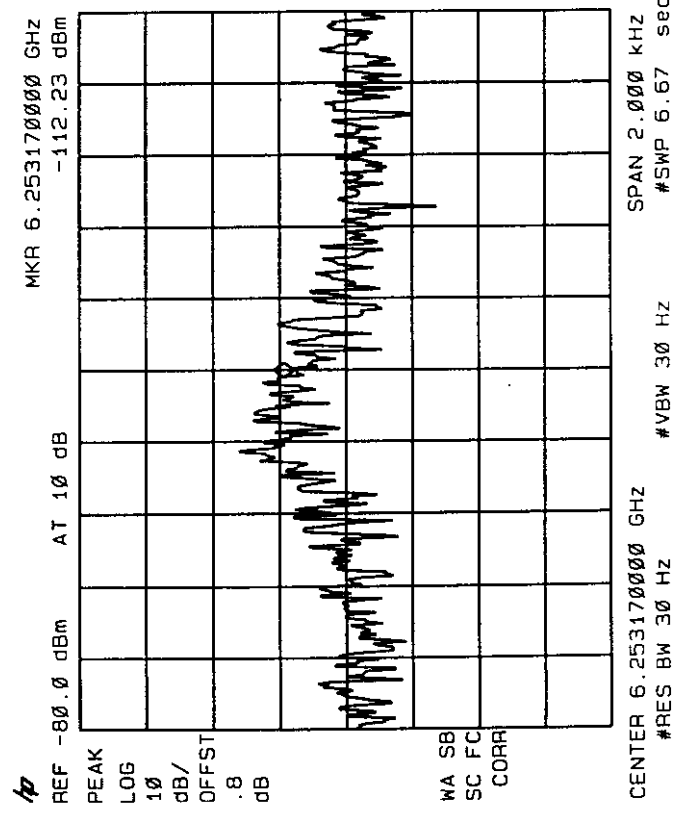
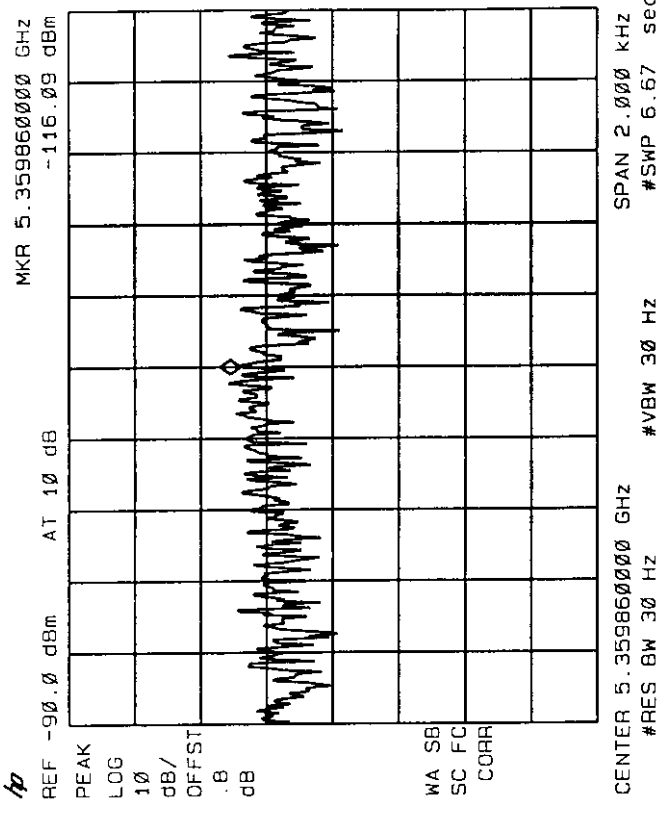
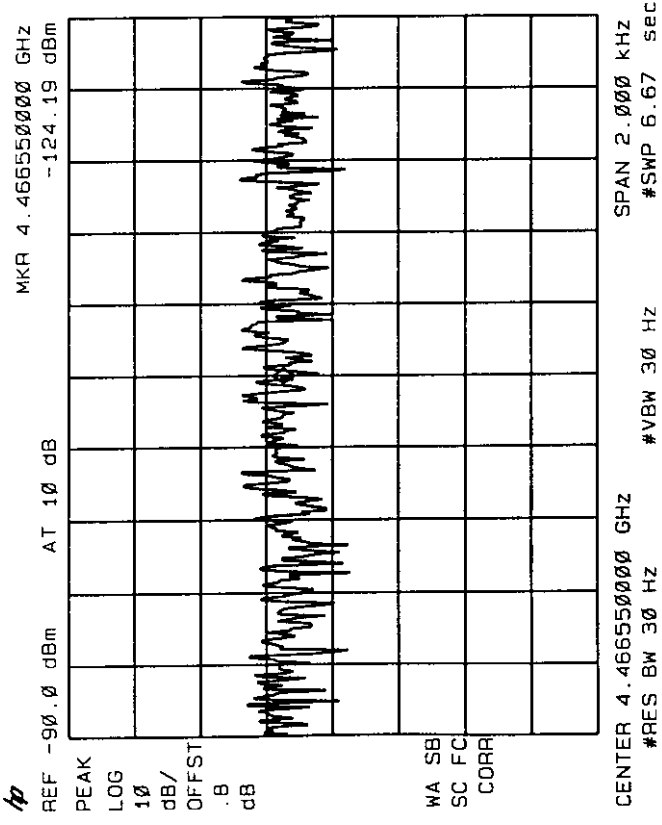
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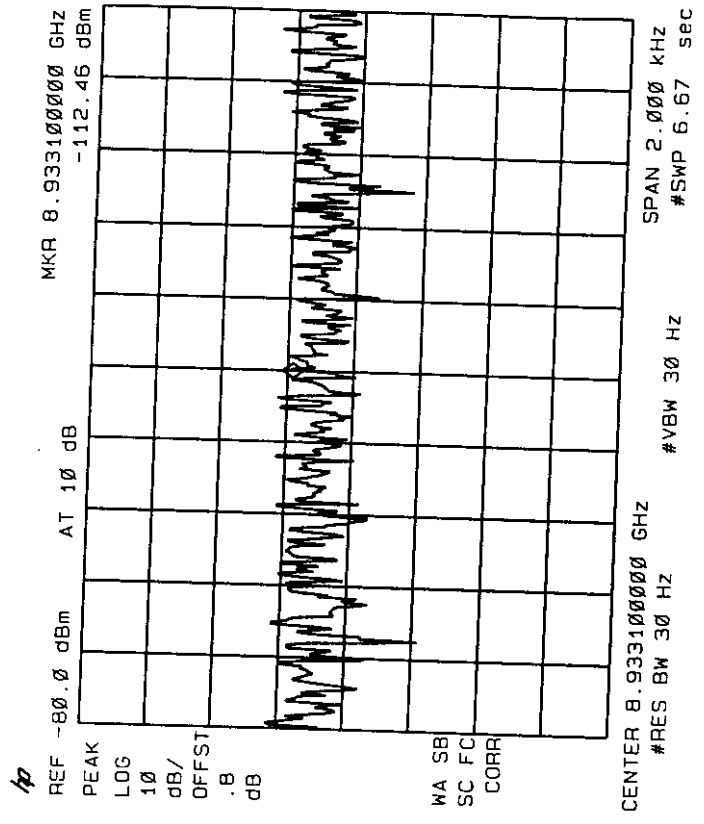
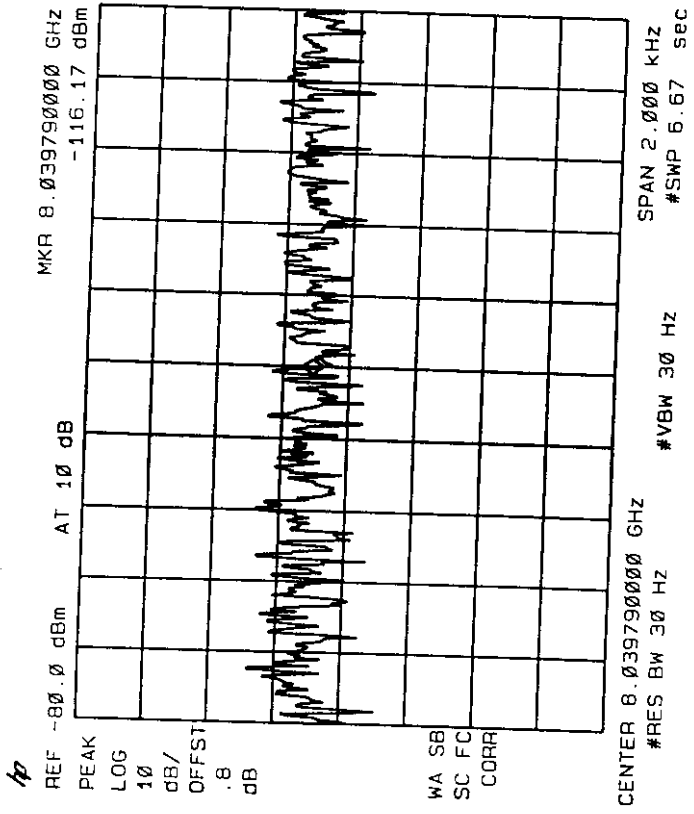
SPURIOUS & HARMONIC EMISSIONS CONDUCTED

CDMA Transmitter Channel 777

Minimum Power









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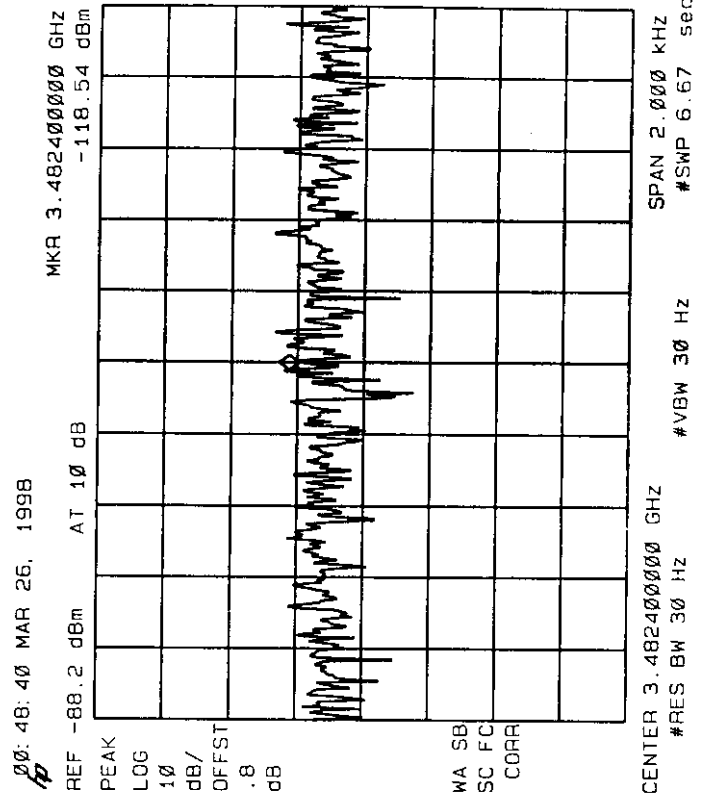
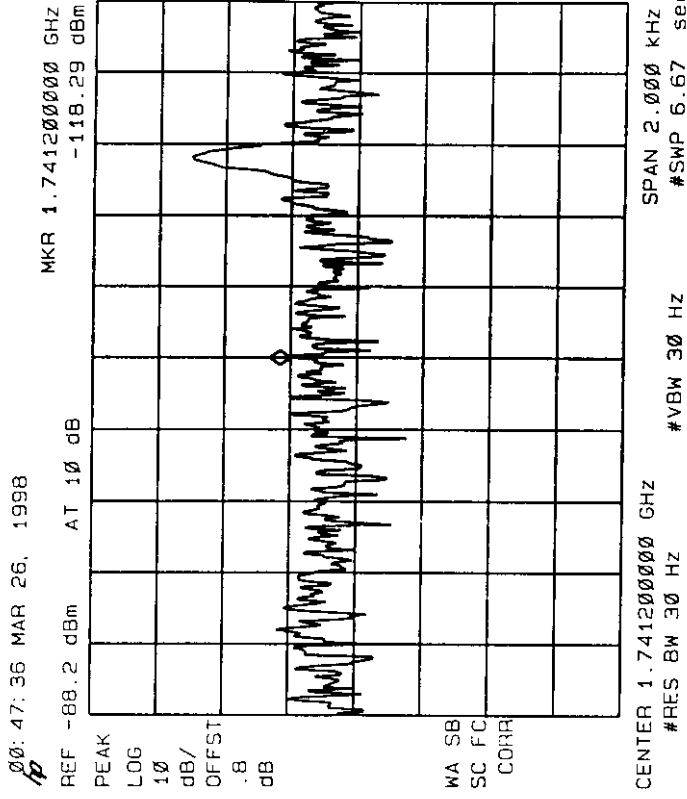
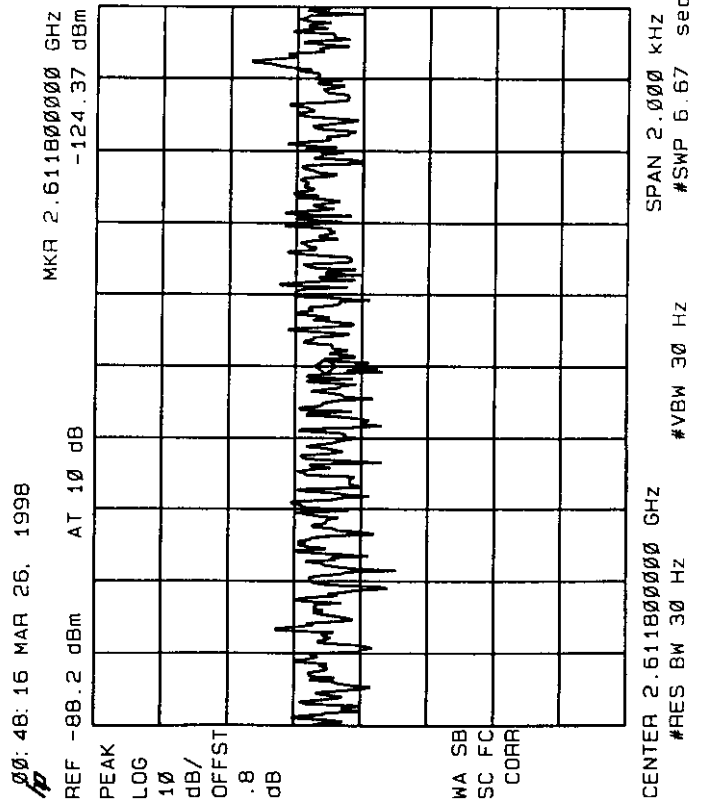
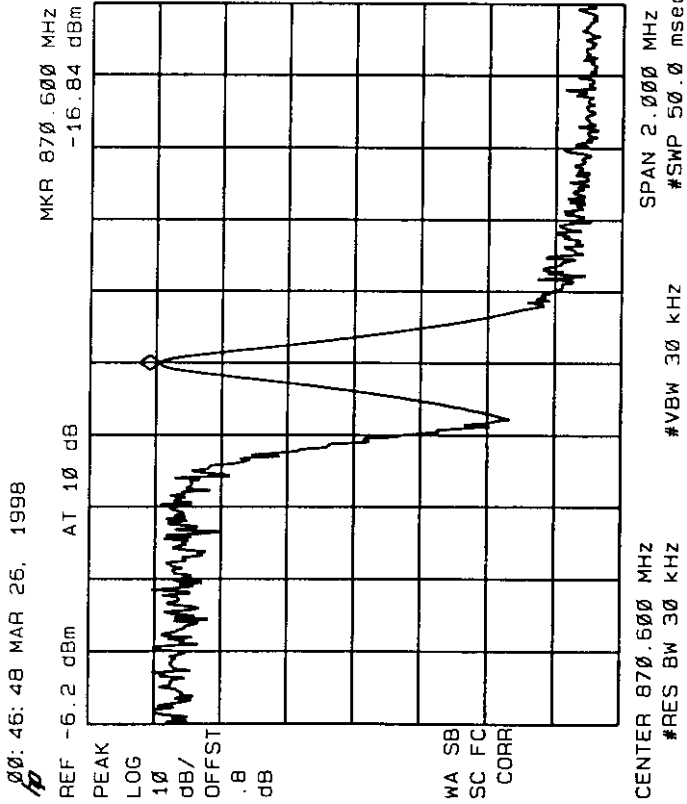
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SPURIOUS & HARMONIC EMISSIONS CONDUCTED

Analog Transmitter Channel 20

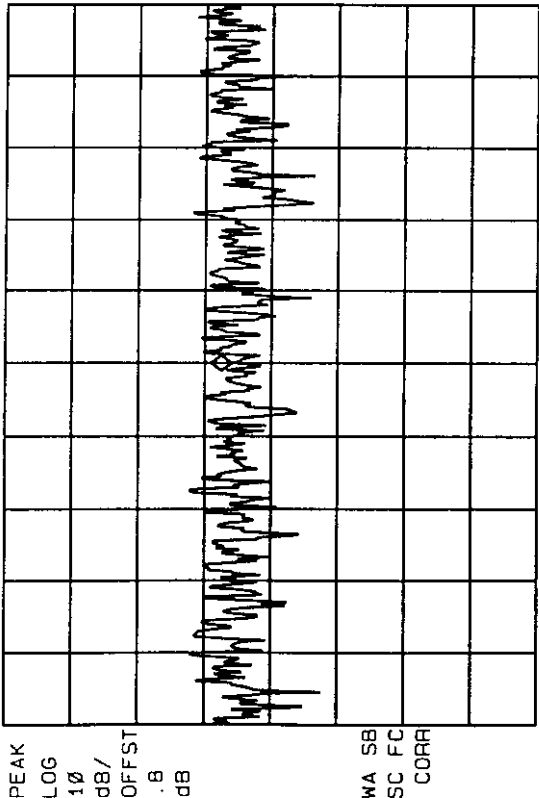
Maximum Power

Wide Band



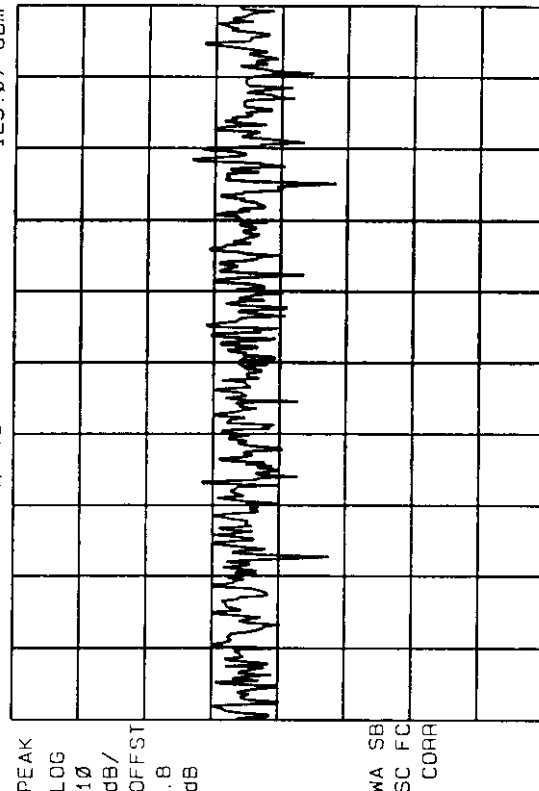
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REF -88.2 dBm AT 10 dB
MKR 4.353000000 GHz
-122.31 dBm



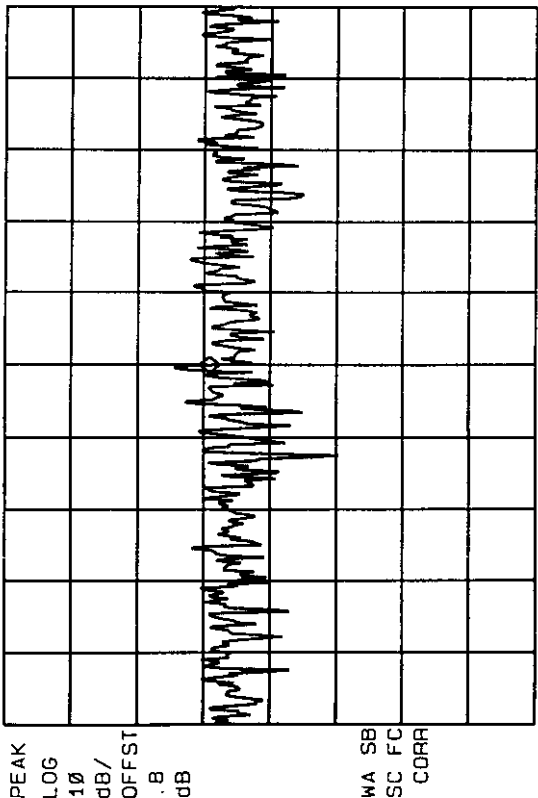
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REF -88.2 dBm AT 10 dB
MKR 5.223600000 GHz
-125.07 dBm



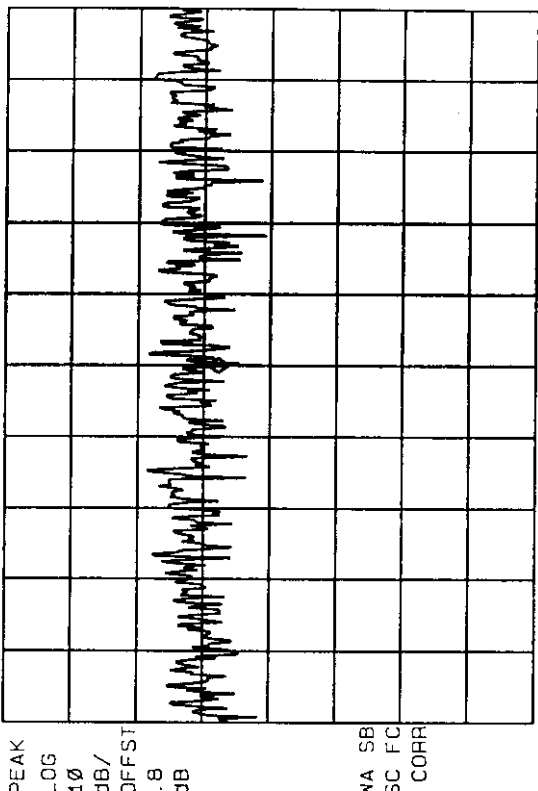
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REF -88.2 dBm AT 10 dB
MKR 6.094200000 GHz
-120.68 dBm



00: 50: 25 MAR 26, 1998

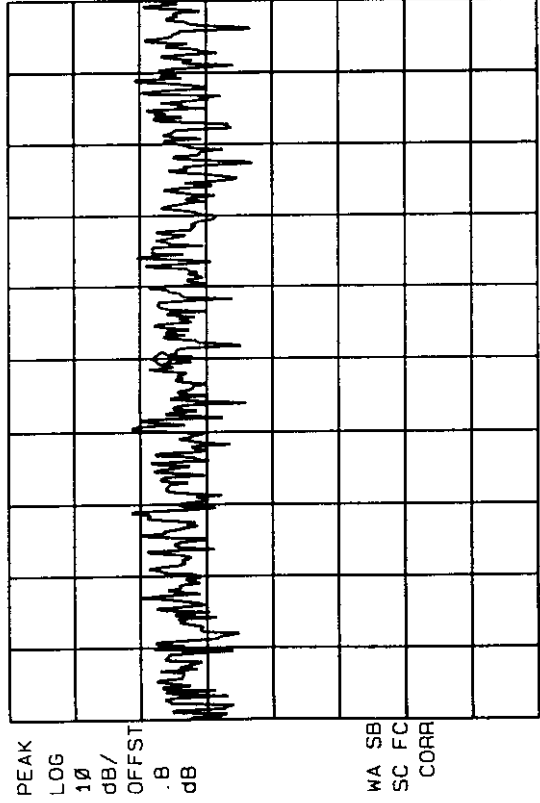
REF -88.2 dBm AT 10 dB
MKR 6.964800000 GHz
-122.00 dBm



00:51:03 MAR 26, 1998

MRK 7.835400000 GHZ
-113.14 dBm

REF -88.2 dBm AT 10 dB

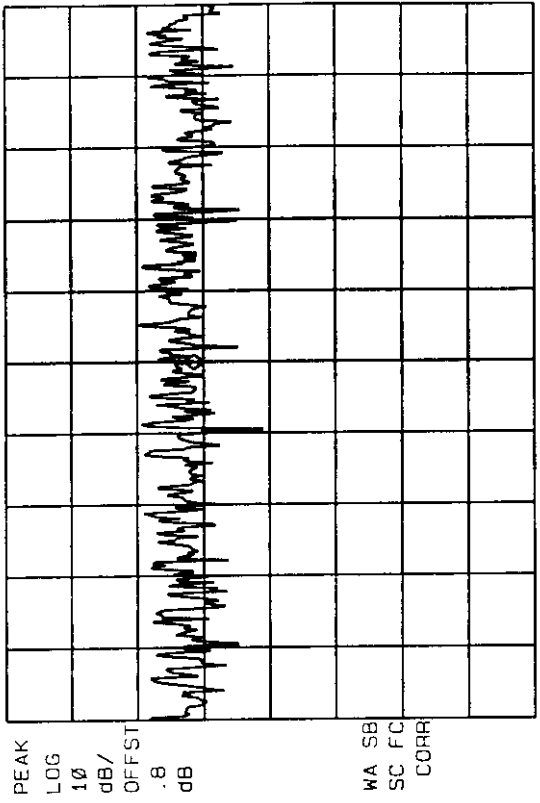


CENTER 7.835400000 GHZ #RES BW 30 HZ #VBW 30 HZ SPAN 2.000 KHZ #SWP 6.67 SEC

00:51:29 MAR 26, 1998

MRK 8.706000000 GHZ
-118.37 dBm

REF -88.2 dBm AT 10 dB



CENTER 8.706000000 GHZ #RES BW 30 HZ #VBW 30 HZ SPAN 2.000 KHZ #SWP 6.67 SEC



MOTOROLA

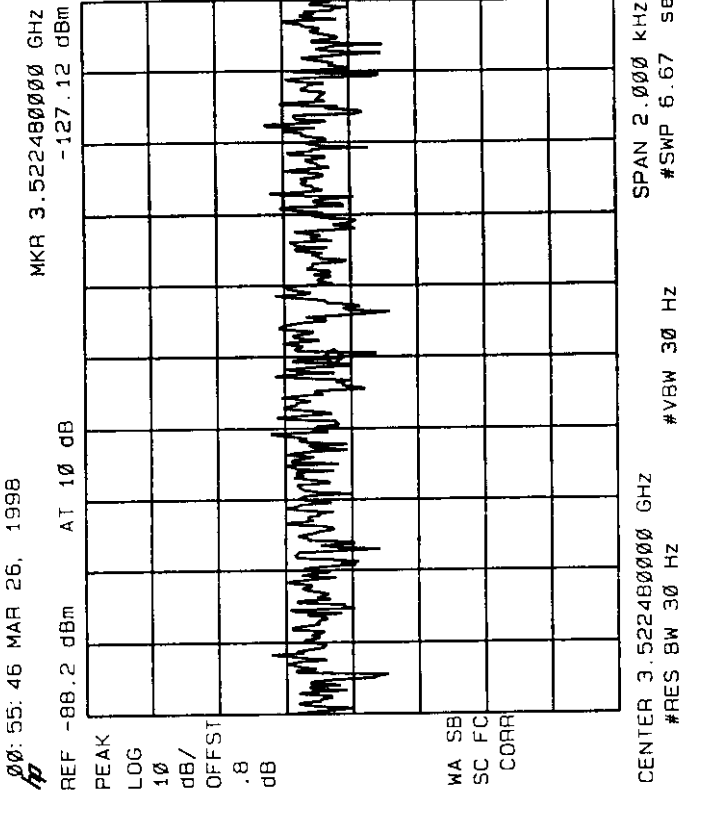
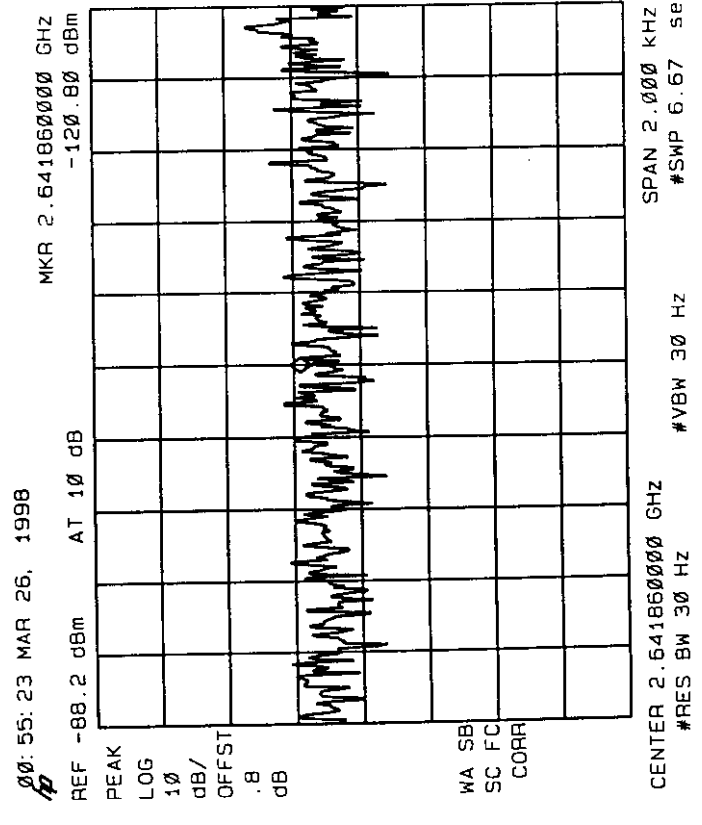
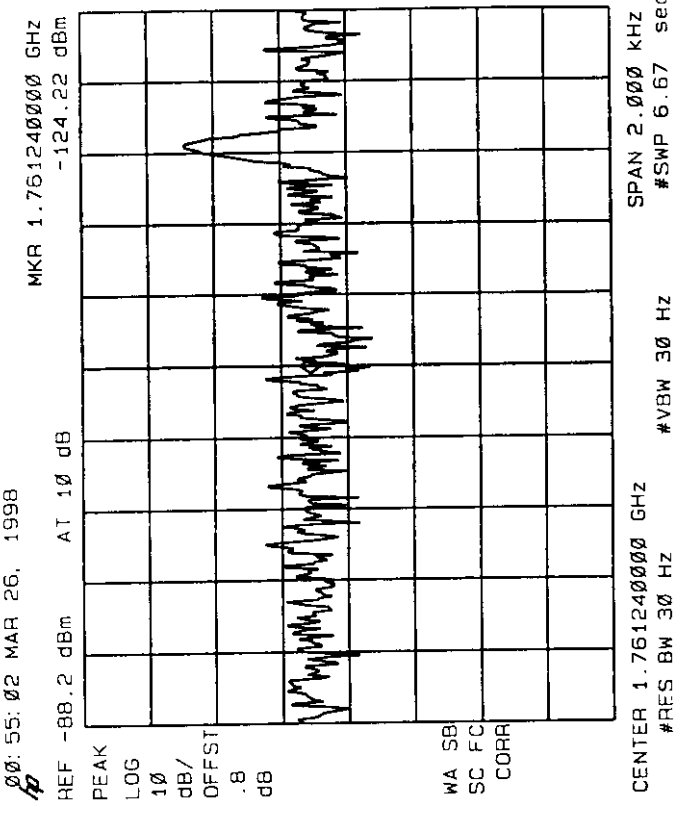
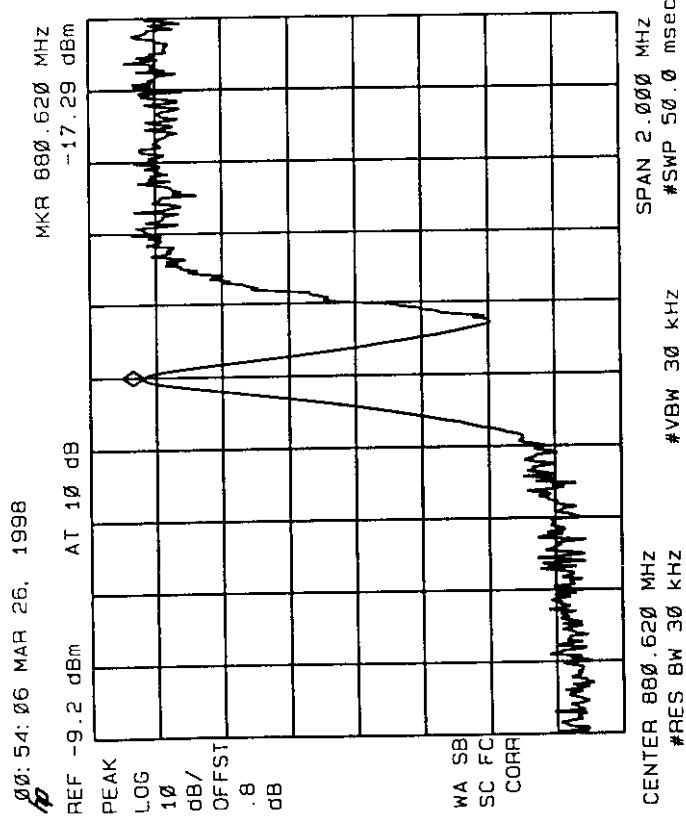
*Cellular Infrastructure Group
Personal Communications Division*

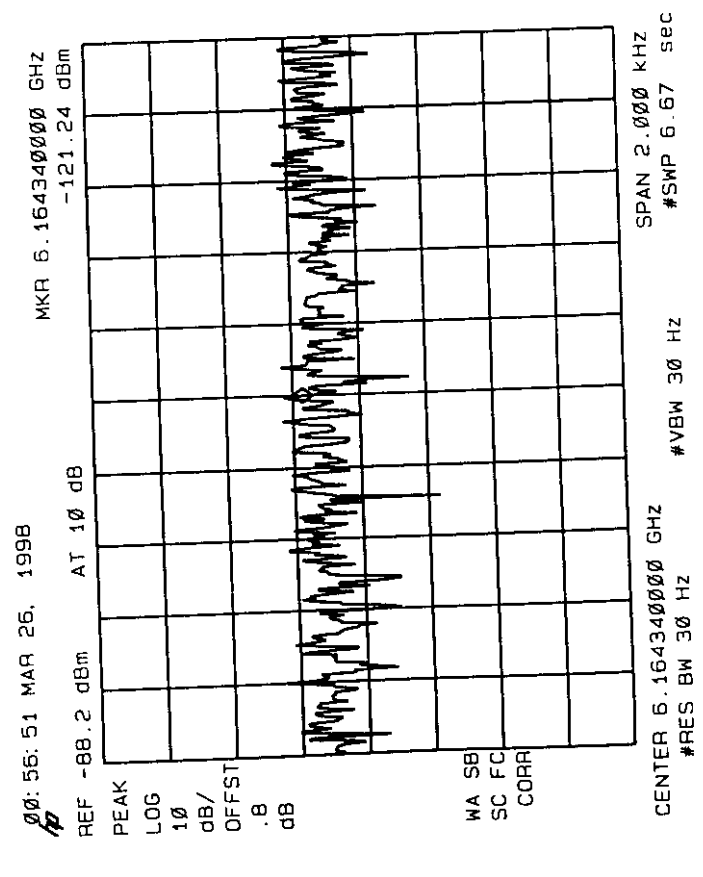
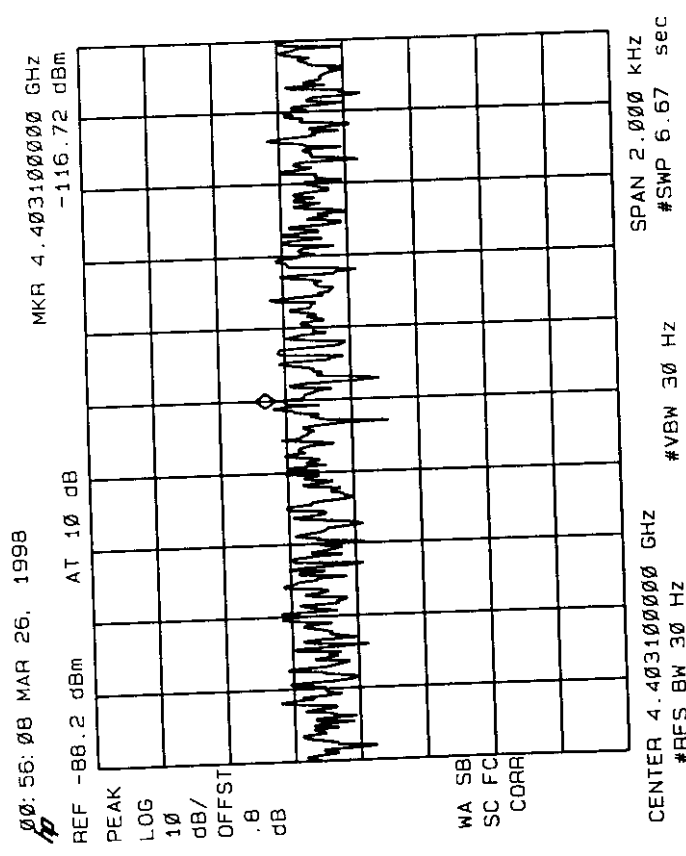
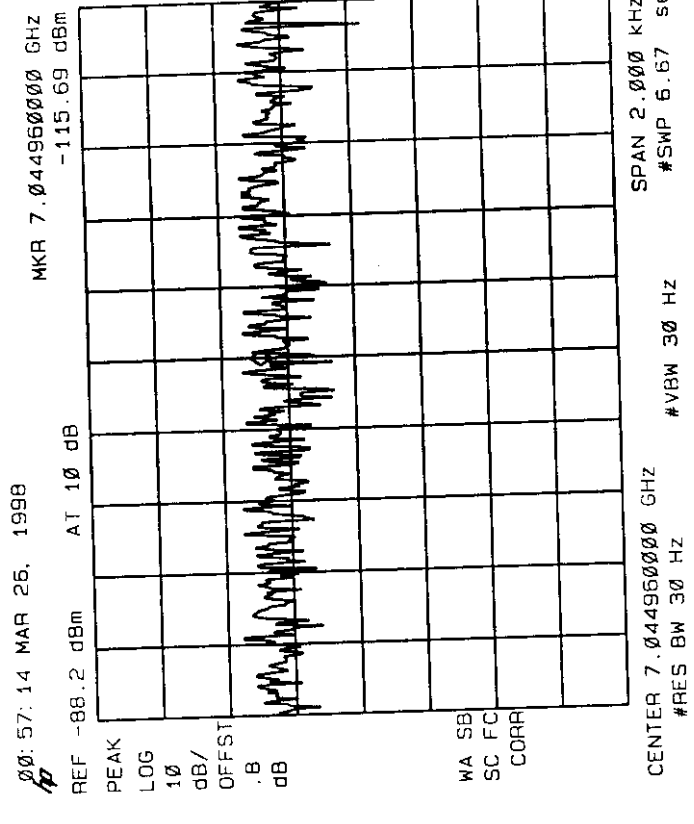
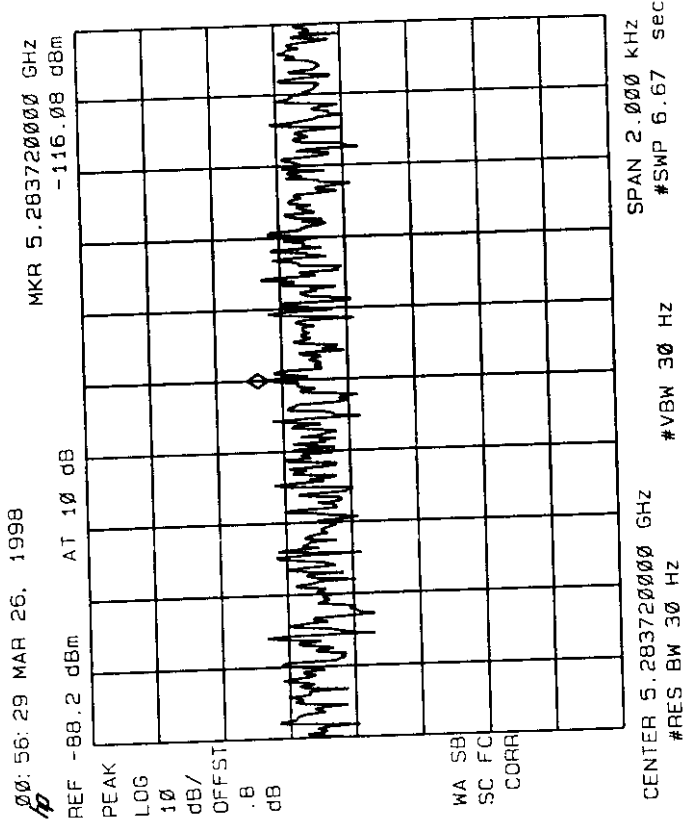
SPURIOUS & HARMONIC EMISSIONS CONDUCTED

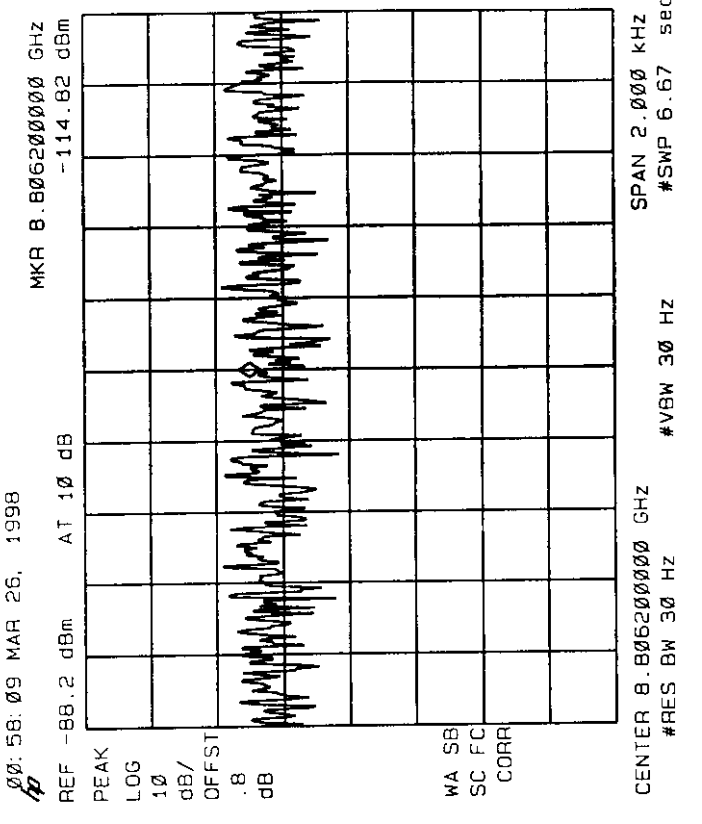
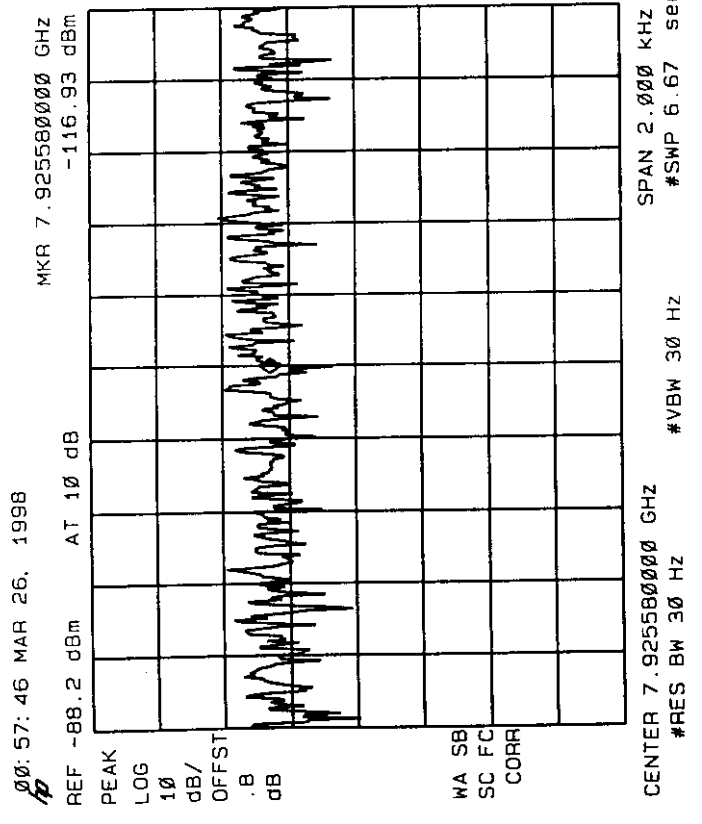
Analog Transmitter Channel 354

Maximum Power

Wide Band









MOTOROLA

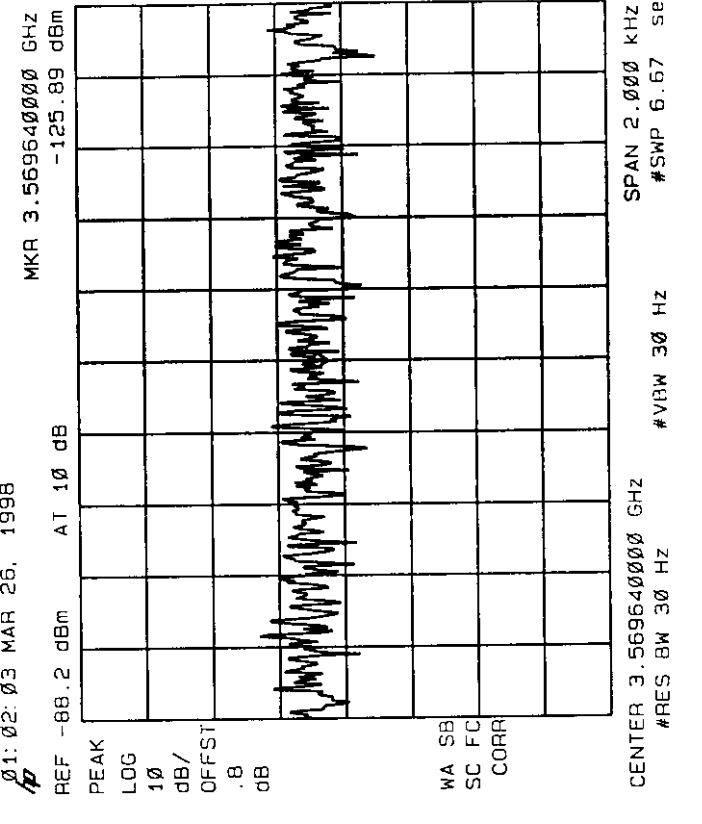
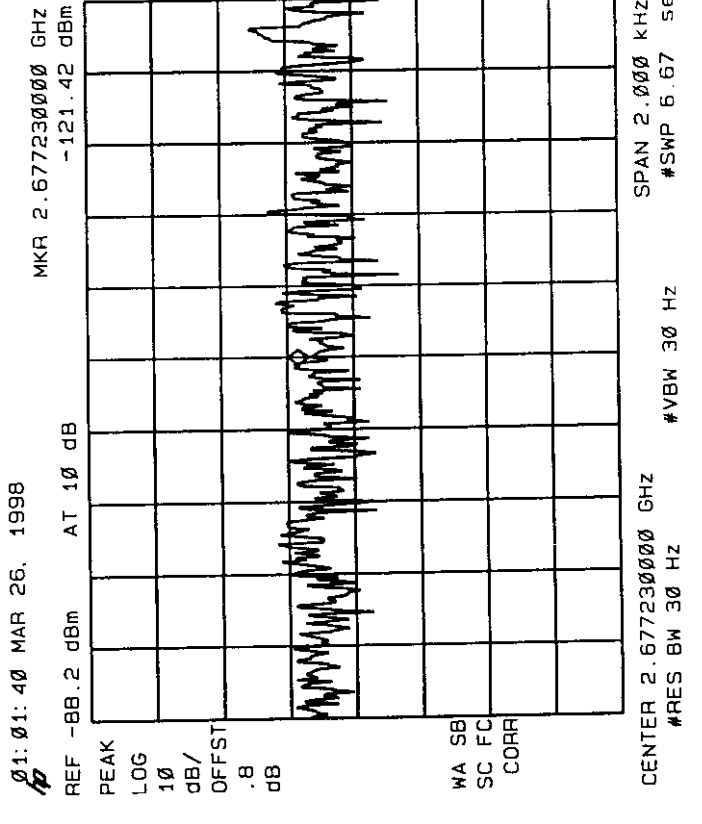
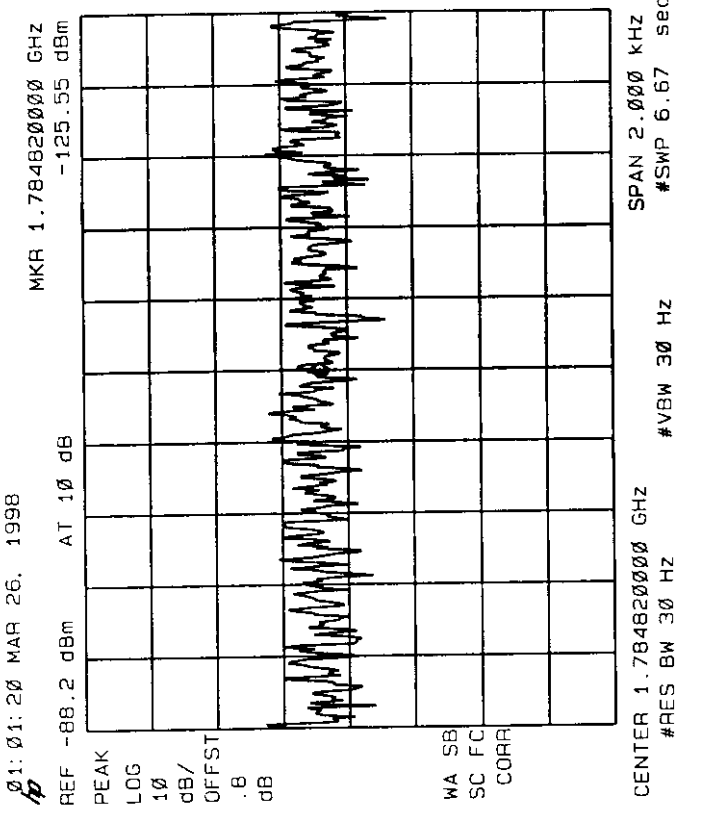
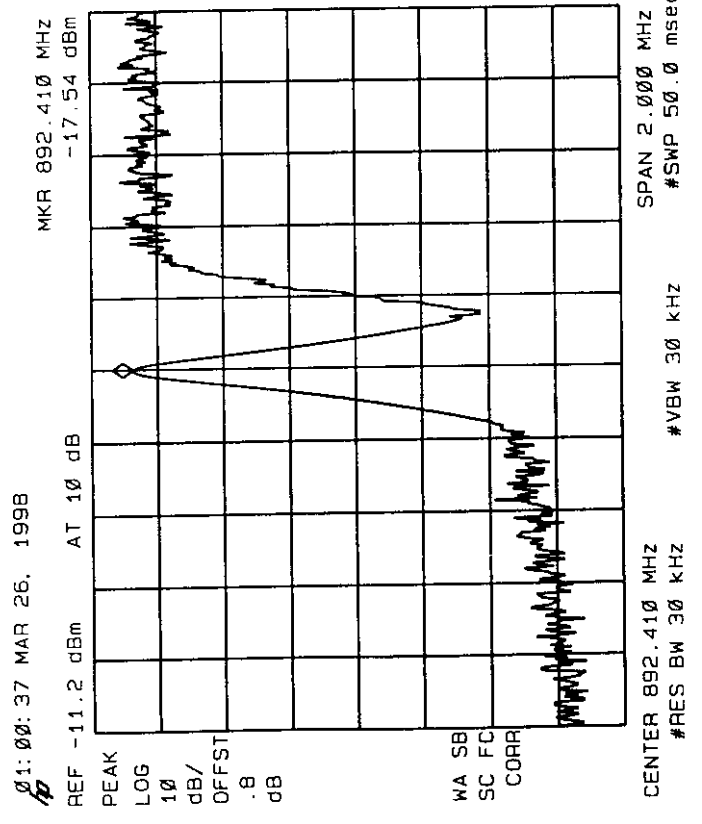
*Cellular Infrastructure Group
Personal Communications Division*

SPURIOUS & HARMONIC EMISSIONS CONDUCTED

Analog Transmitter Channel 747

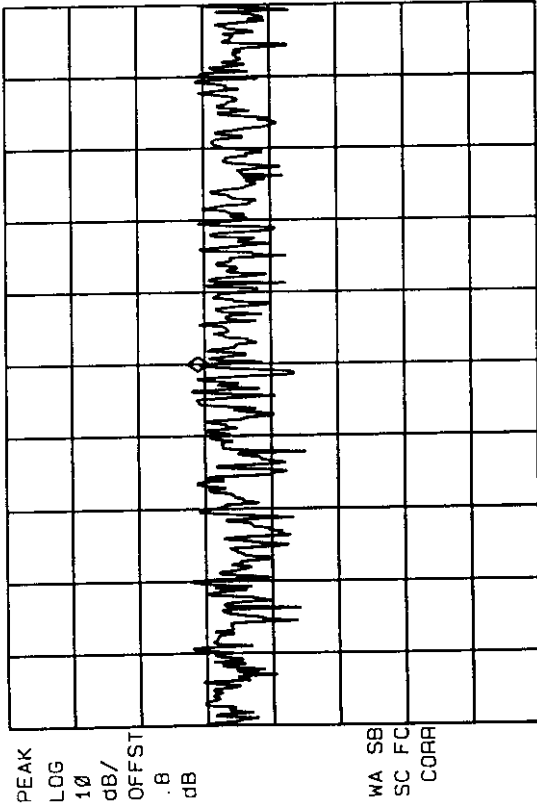
Maximum Power

Wide Band



01:02:28 MAR 26, 1998

MKR 4.462050000 GHZ
REF -88.2 dBm AT 10 dB

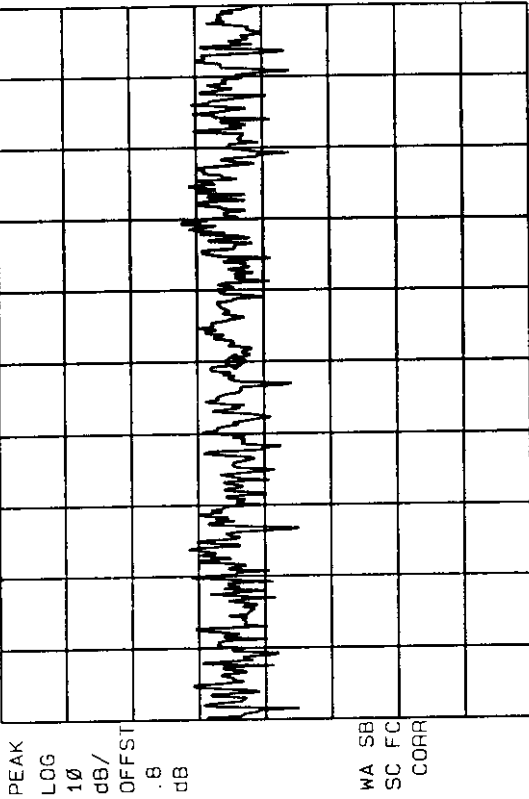


CENTER 4.462050000 GHZ
#RES BW 30 HZ #VBW 30 HZ SPAN 2.000 KHZ
#SWP 6.67 sec

WA SB
SC FC
CORR

01:02:50 MAR 26, 1998

MKR 5.354460000 GHZ
REF -88.2 dBm AT 10 dB

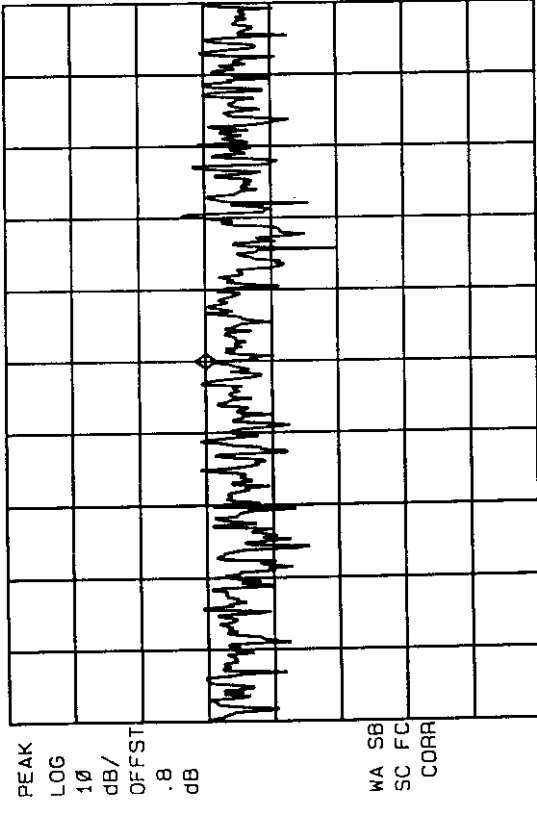


CENTER 5.354460000 GHZ
#RES BW 30 HZ #VBW 30 HZ SPAN 2.000 KHZ
#SWP 6.67 sec

WA SB
SC FC
CORR

01:03:13 MAR 26, 1998

MKR 6.246870000 GHZ
REF -88.2 dBm AT 10 dB

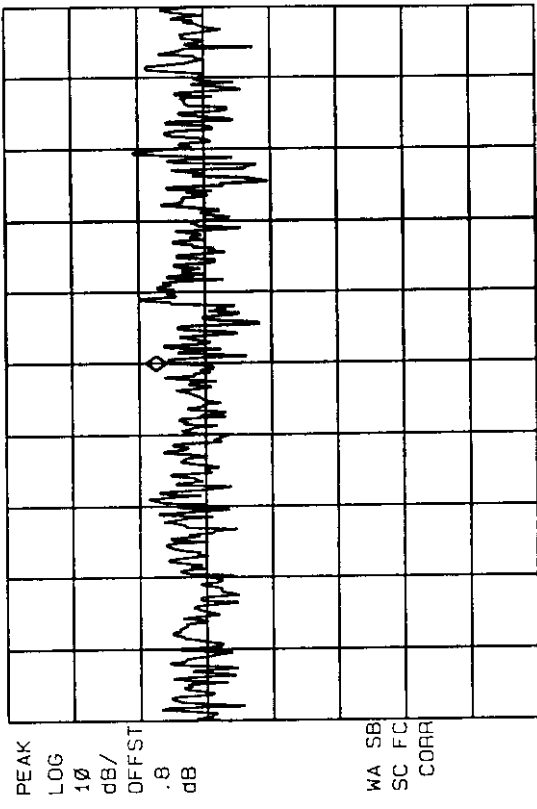


CENTER 6.246870000 GHZ
#RES BW 30 HZ #VBW 30 HZ SPAN 2.000 KHZ
#SWP 6.67 sec

WA SB
SC FC
CORR

01:03:37 MAR 26, 1998

MKR 7.139280000 GHZ
REF -88.2 dBm AT 10 dB

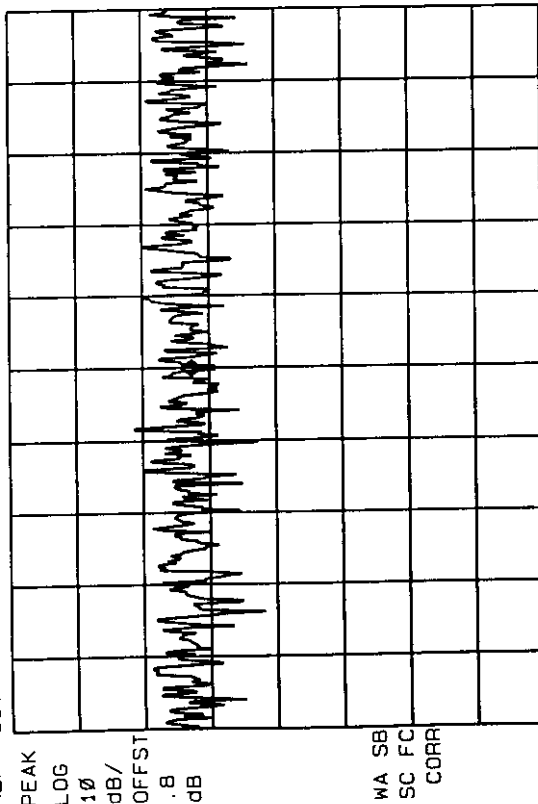


CENTER 7.139280000 GHZ
#RES BW 30 HZ #VBW 30 HZ SPAN 2.000 KHZ
#SWP 6.67 sec

WA SB
SC FC
CORR

01:04:02 MAR 26, 1998

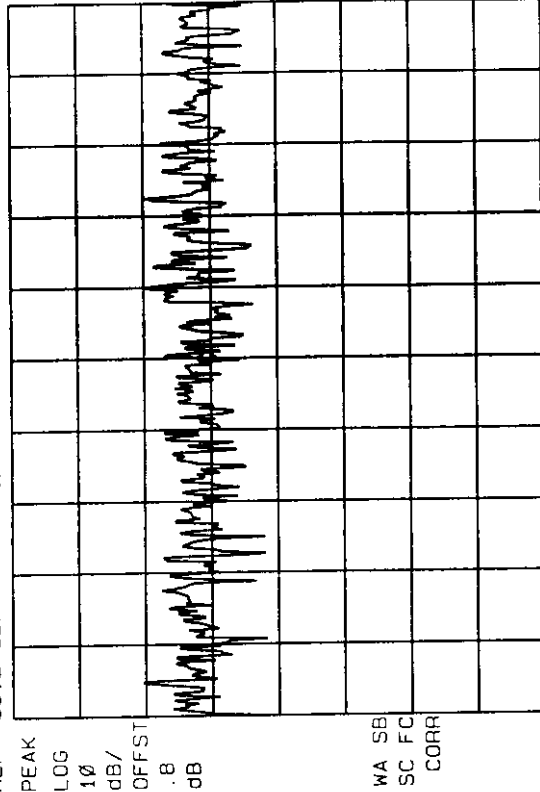
MKR 8.031690000 GHZ
REF -88.2 dBm AT 10 dB



CENTER 8.031690000 GHZ
#RES BW 30 HZ #VBW 30 HZ
SPAN 2.000 KHZ #SWP 6.67 sec

01:04:24 MAR 26, 1998

MKR 8.924100000 GHZ
REF -88.2 dBm AT 10 dB



CENTER 8.924100000 GHZ
#RES BW 30 HZ #VBW 30 HZ
SPAN 2.000 KHZ #SWP 6.67 sec



MOTOROLA

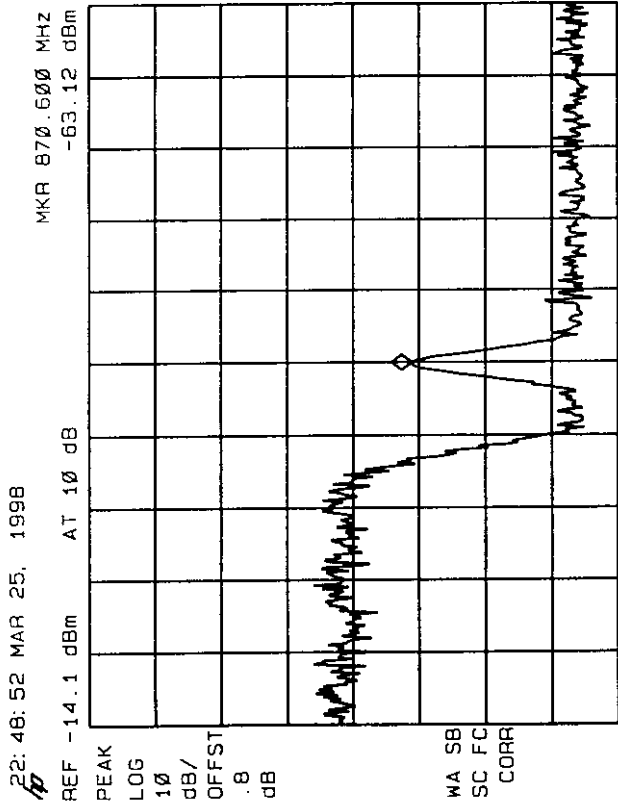
*Cellular Infrastructure Group
Personal Communications Division*

SPURIOUS & HARMONIC EMISSIONS CONDUCTED

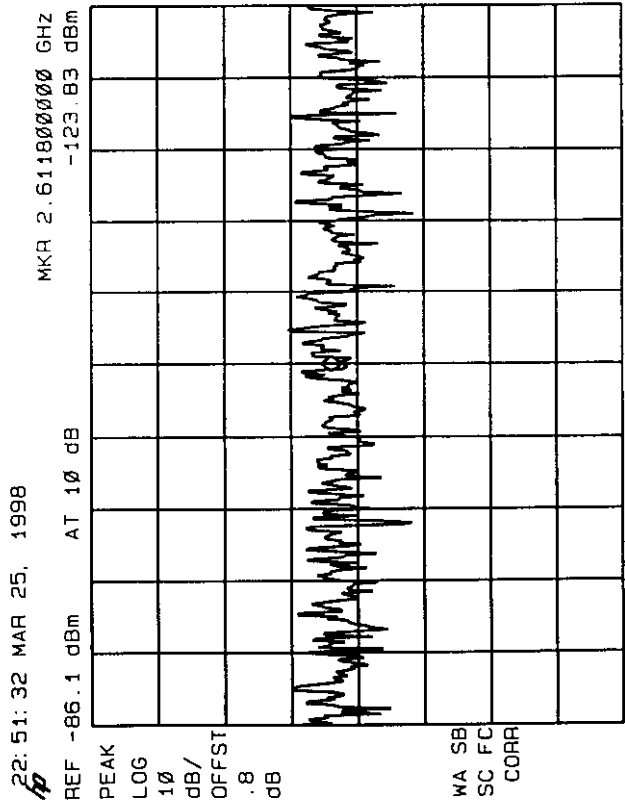
Analog Transmitter Channel 20

Minimum Power

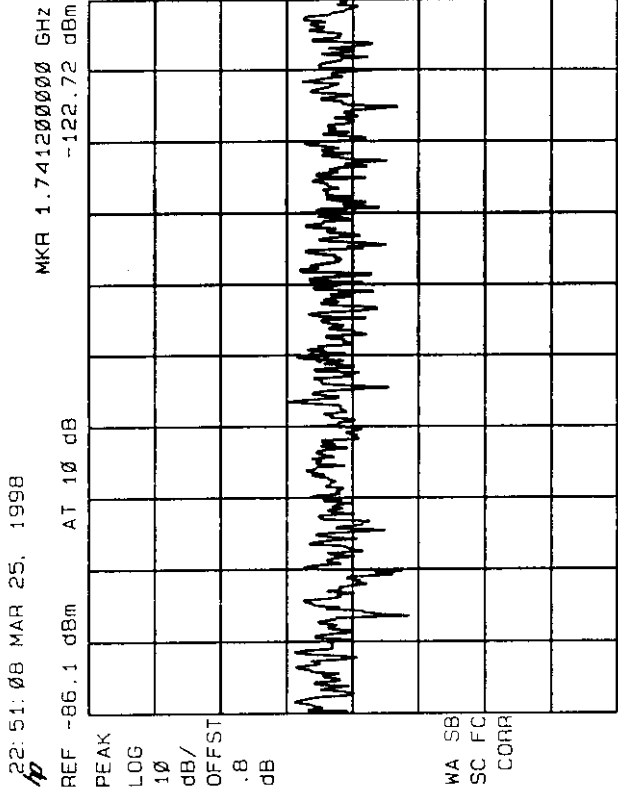
Wide Band



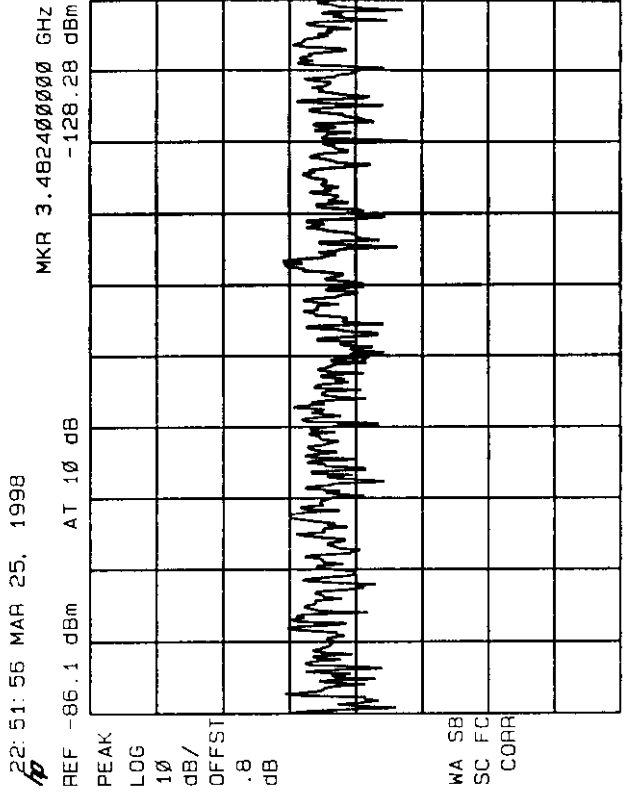
CENTER 870.600 MHz
#RES BW 30 KHZ #VBW 30 KHZ #SWP 50.0 msec



CENTER 2.611800000 GHz
#RES BW 30 HZ #VBW 30 HZ #SWP 6.67 sec



CENTER 1.741200000 GHz
#RES BW 30 HZ #VBW 30 HZ #SWP 6.67 sec

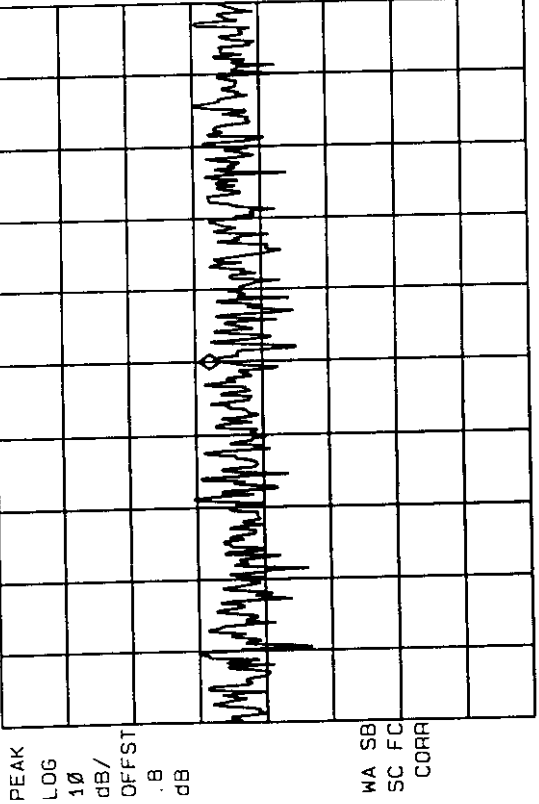


CENTER 3.482400000 GHz
#RES BW 30 HZ #VBW 30 HZ #SWP 6.67 sec

22:52:19 MAR 25, 1998

MKR 4.353000000 GHZ
-119.89 dBm

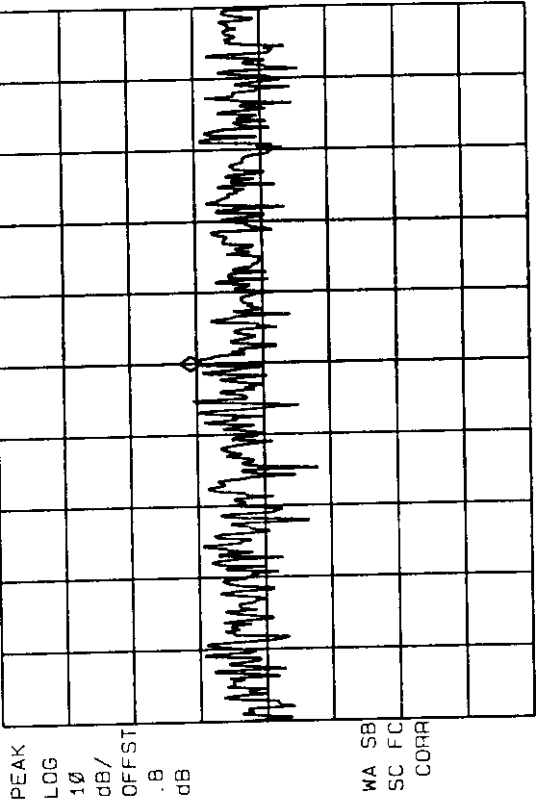
REF -86.1 dBm AT 10 dB



22:52:41 MAR 25, 1998

MKR 5.223600000 GHZ
-116.67 dBm

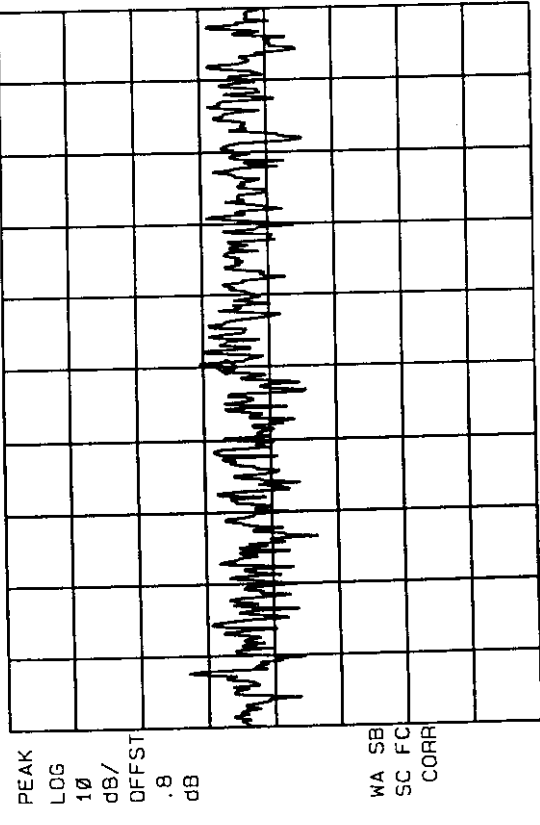
REF -86.1 dBm AT 10 dB



22:53:08 MAR 25, 1998

MKR 6.094200000 GHZ
-121.25 dBm

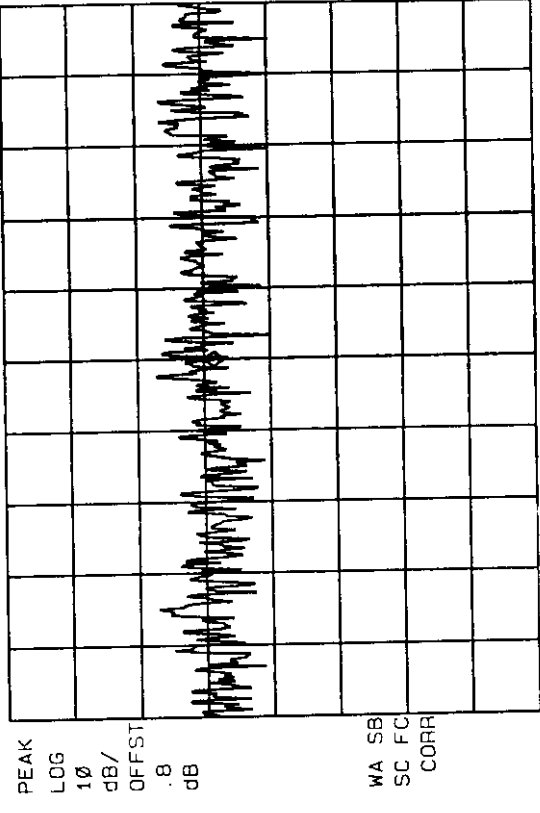
REF -86.1 dBm AT 10 dB



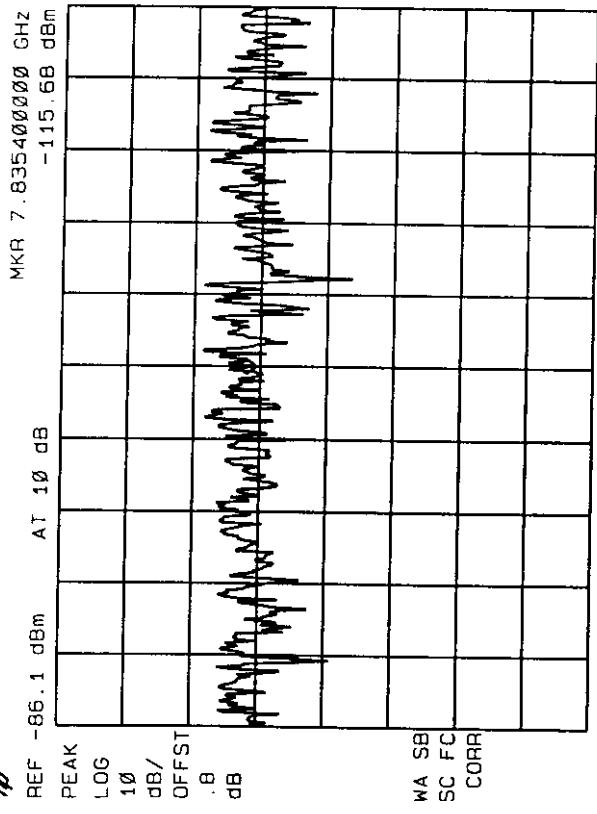
22:53:32 MAR 25, 1998

MKR 6.964800000 GHZ
-119.22 dBm

REF -86.1 dBm AT 10 dB

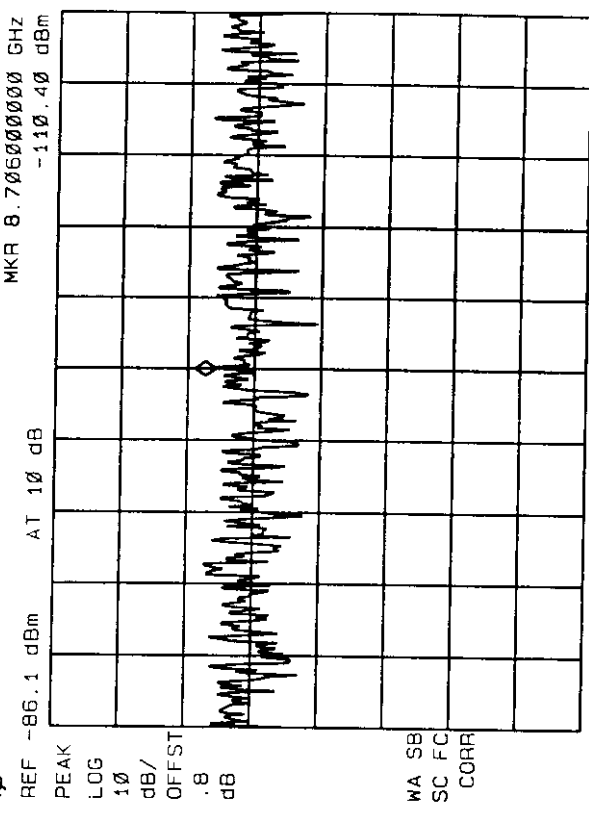


22:54:08 MAR 25, 1998



CENTER 7.835400000 GHZ
#RES BW 30 HZ #VBW 30 HZ SPAN 2.000 KHZ
#SWP 6.67 sec

22:54:34 MAR 25, 1998



CENTER 8.706000000 GHZ
#RES BW 30 HZ #VBW 30 HZ SPAN 2.000 KHZ
#SWP 6.67 sec



MOTOROLA

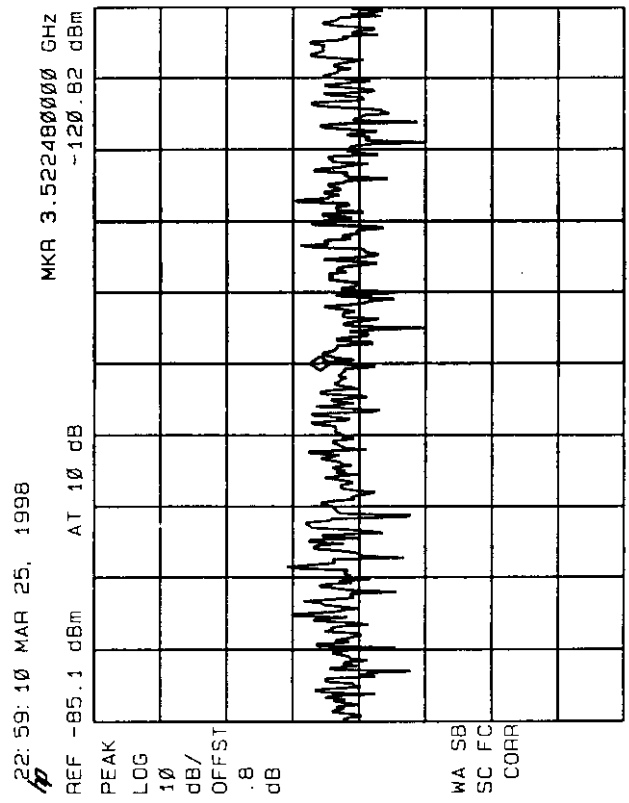
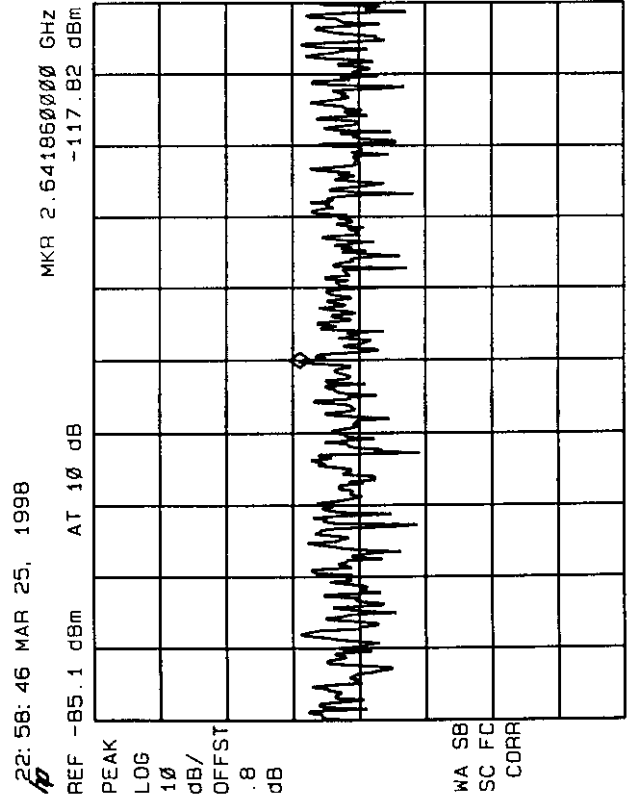
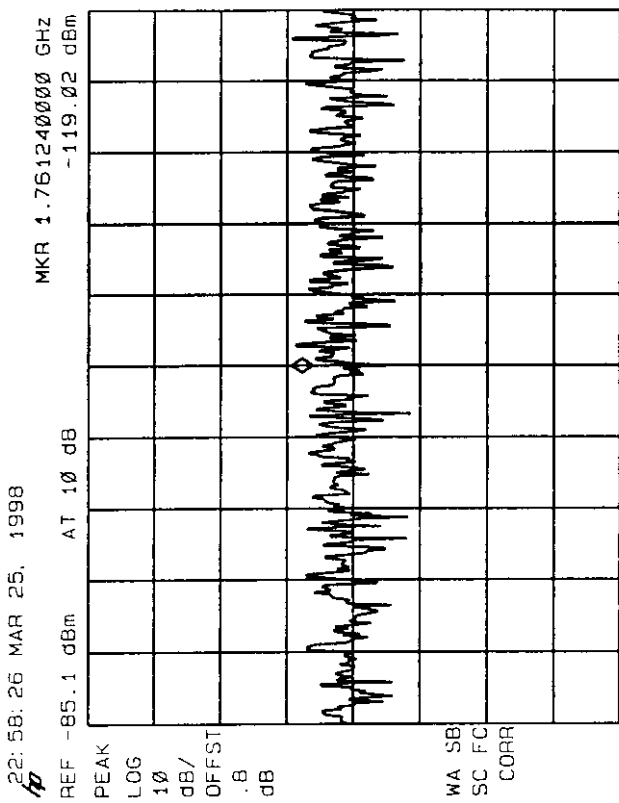
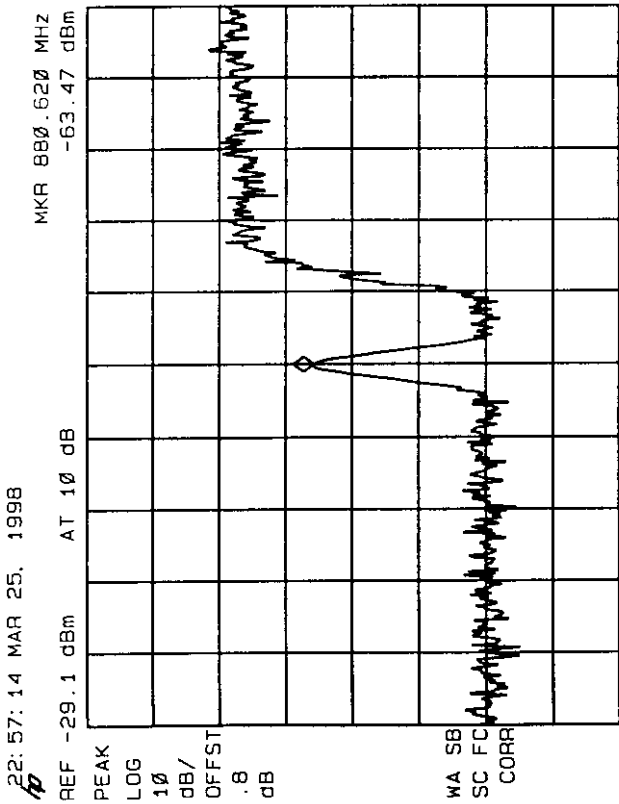
*Cellular Infrastructure Group
Personal Communications Division*

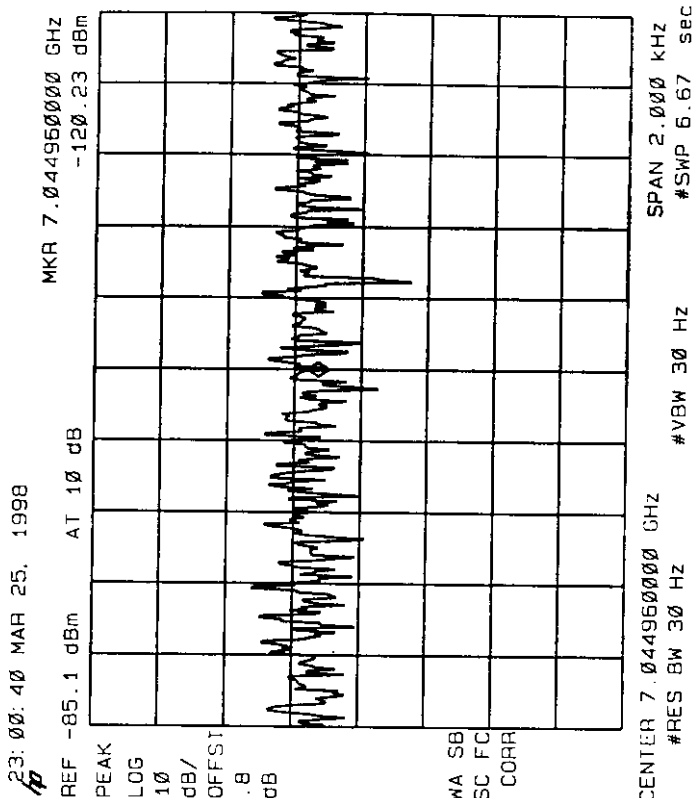
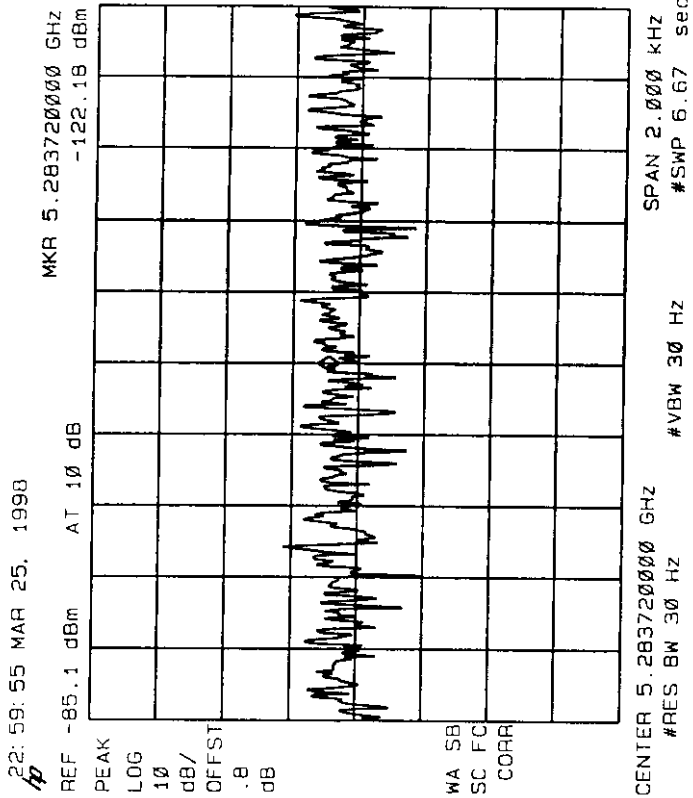
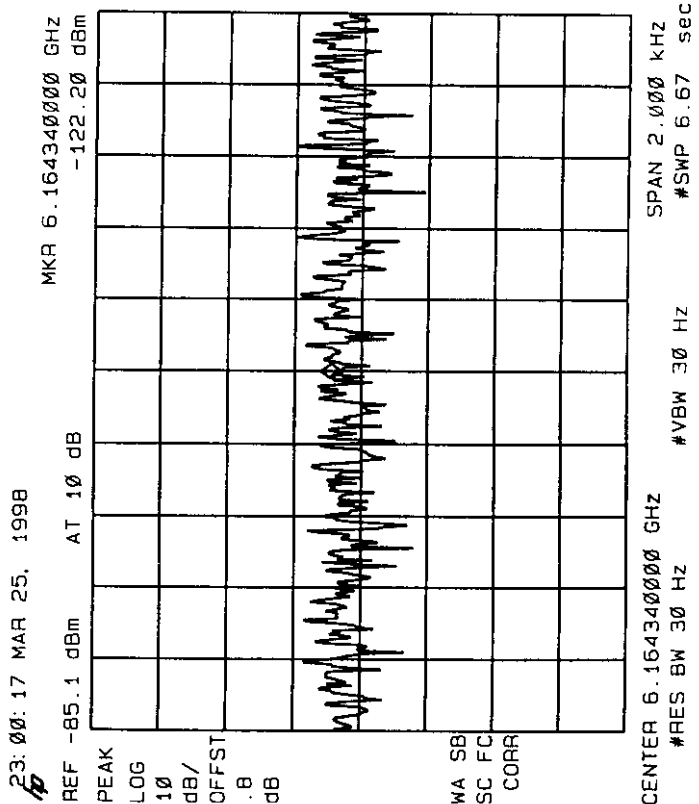
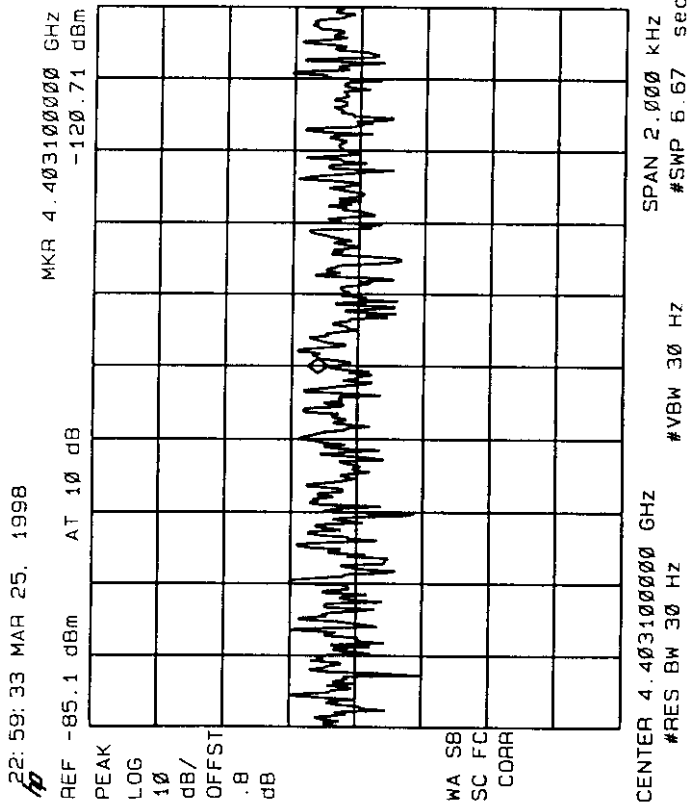
SPURIOUS & HARMONIC EMISSIONS CONDUCTED

Analog Transmitter Channel 354

Minimum Power

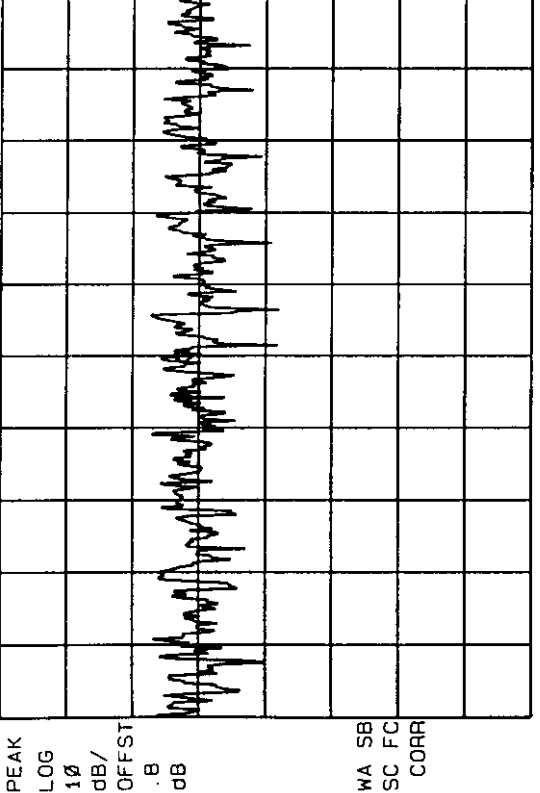
Wide Band





23:01:10 MAR 25, 1998

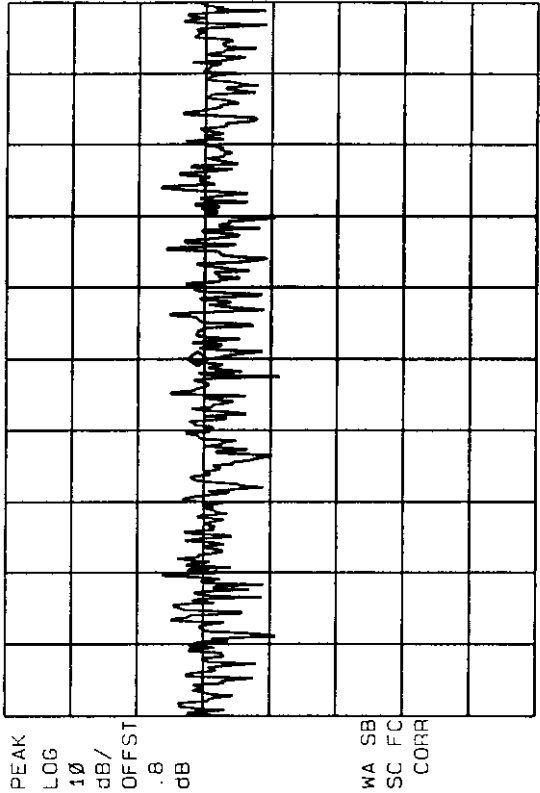
REF -85.1 dBm AT 10 dB MKR 7.925580000 GHZ -114.37 dBm



CENTER 7.925580000 GHZ #RES BW 30 HZ #VBW 30 HZ SPAN 2.000 KHZ #SWP 6.67 sec

23:01:32 MAR 25, 1998

REF -85.1 dBm AT 10 dB MKR 8.806200000 GHZ -115.72 dBm



CENTER 8.806200000 GHZ #RES BW 30 HZ #VBW 30 HZ SPAN 2.000 KHZ #SWP 6.67 sec



MOTOROLA

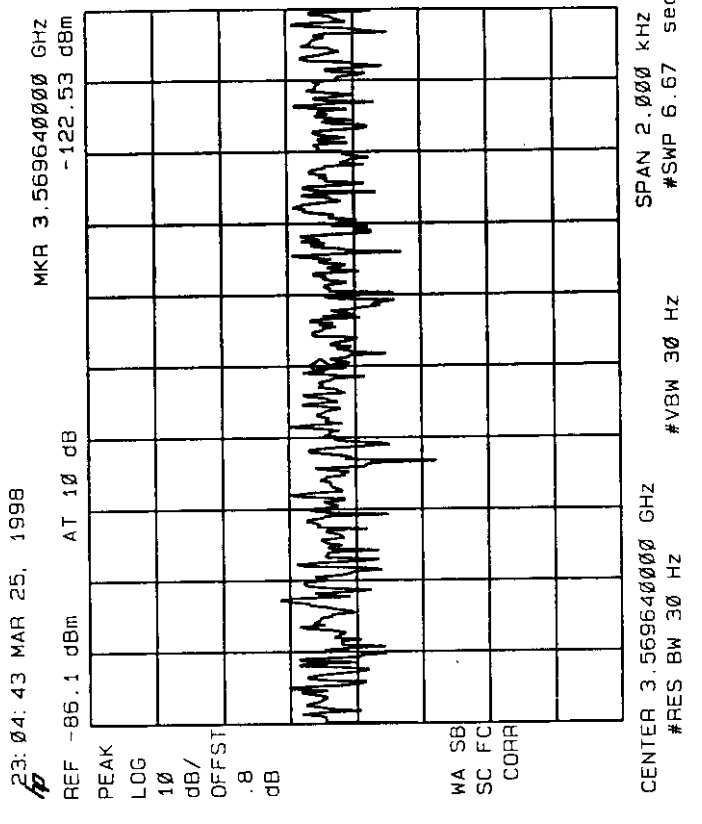
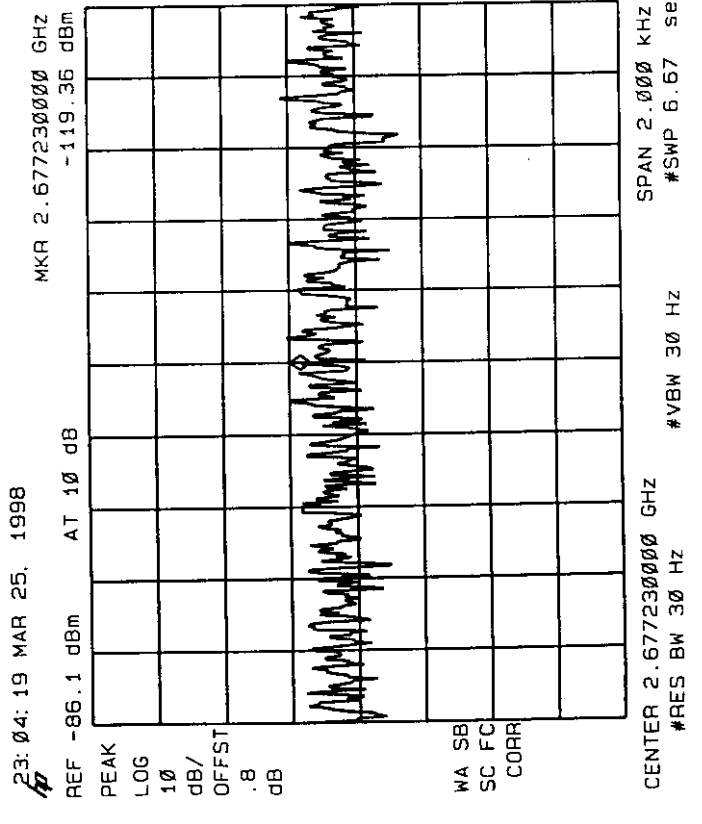
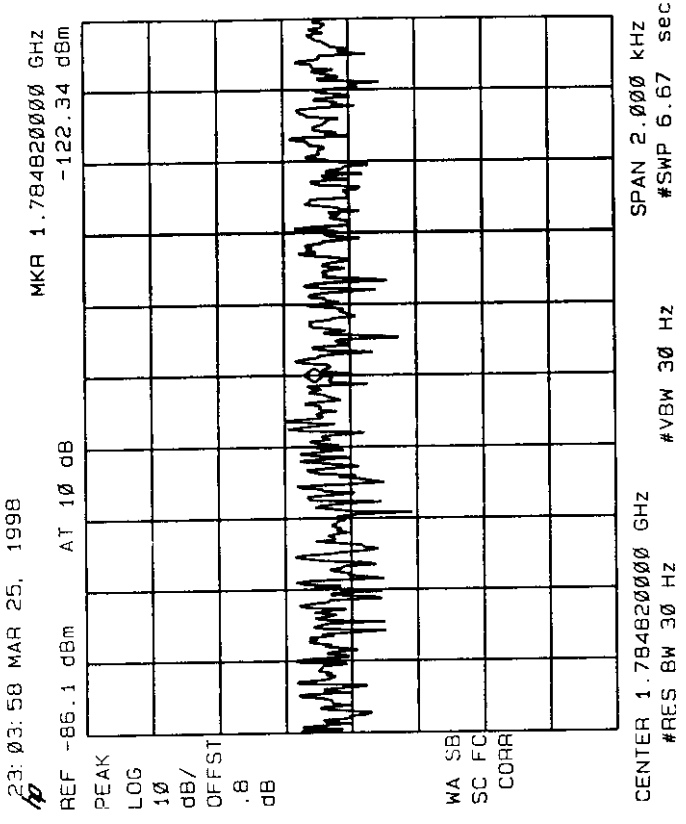
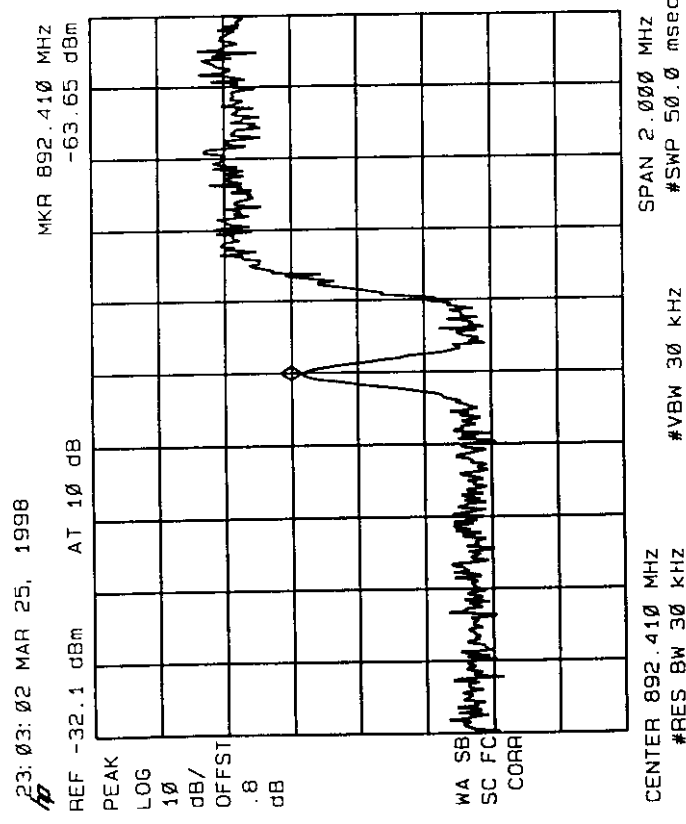
*Cellular Infrastructure Group
Personal Communications Division*

SPURIOUS & HARMONIC EMISSIONS CONDUCTED

Analog Transmitter Channel 747

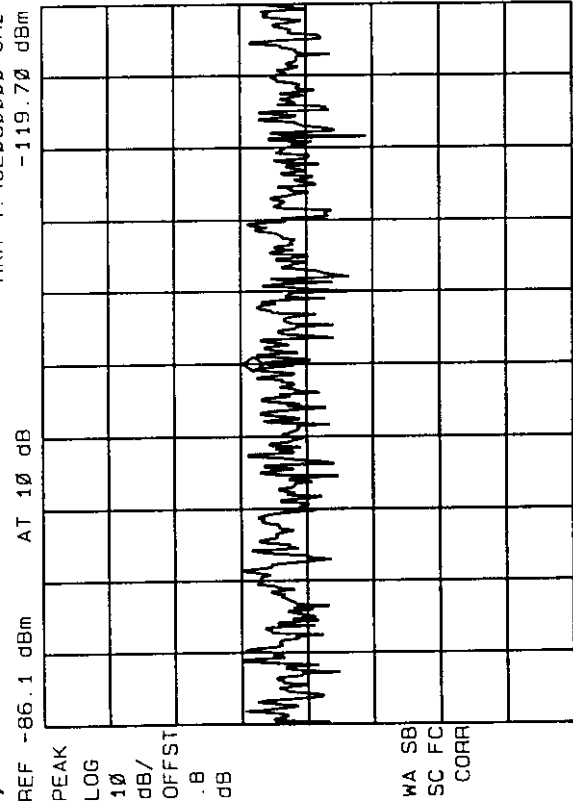
Minimum Power

Wide Band



23:05:03 MAR 25, 1998

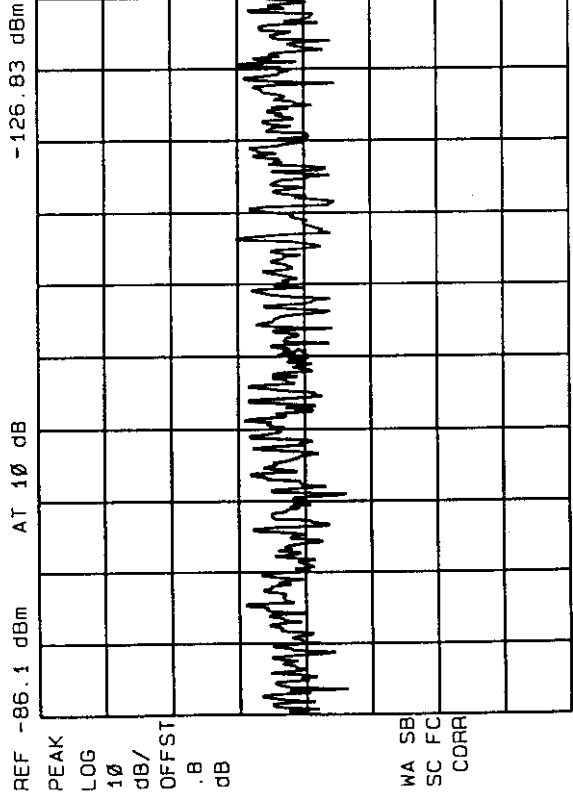
MKR 4.462050000 GHZ
-119.70 dBm



CENTER 4.462050000 GHZ
#RES BW 30 HZ #VBW 30 HZ SPAN 2.000 KHZ
#SWP 6.67 sec

23:05:50 MAR 25, 1998

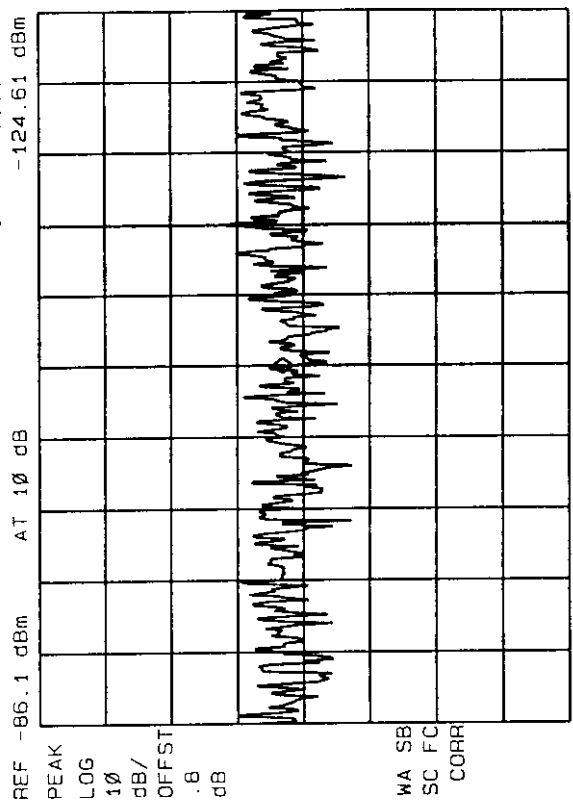
MKR 6.246870000 GHZ
-126.83 dBm



CENTER 6.246870000 GHZ
#RES BW 30 HZ #VBW 30 HZ SPAN 2.000 KHZ
#SWP 6.67 sec

23:05:27 MAR 25, 1998

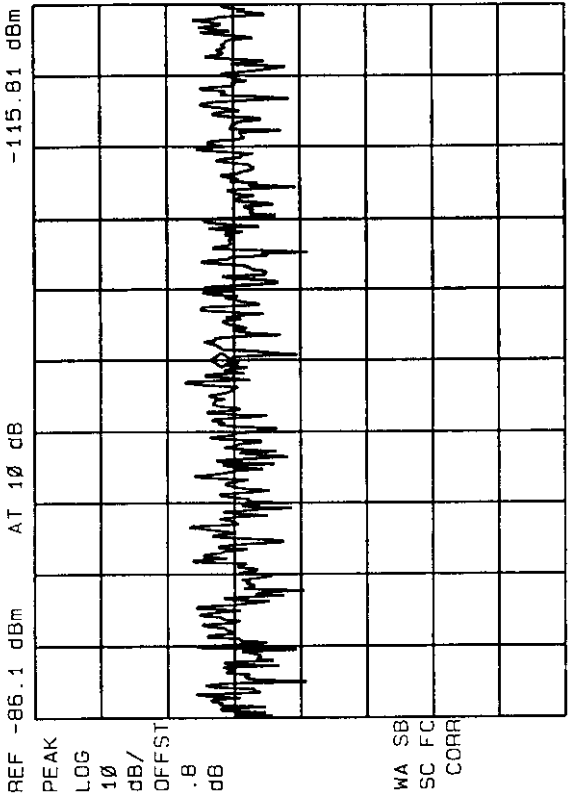
MKR 5.354460000 GHZ
-124.61 dBm



CENTER 5.354460000 GHZ
#RES BW 30 HZ #VBW 30 HZ SPAN 2.000 KHZ
#SWP 6.67 sec

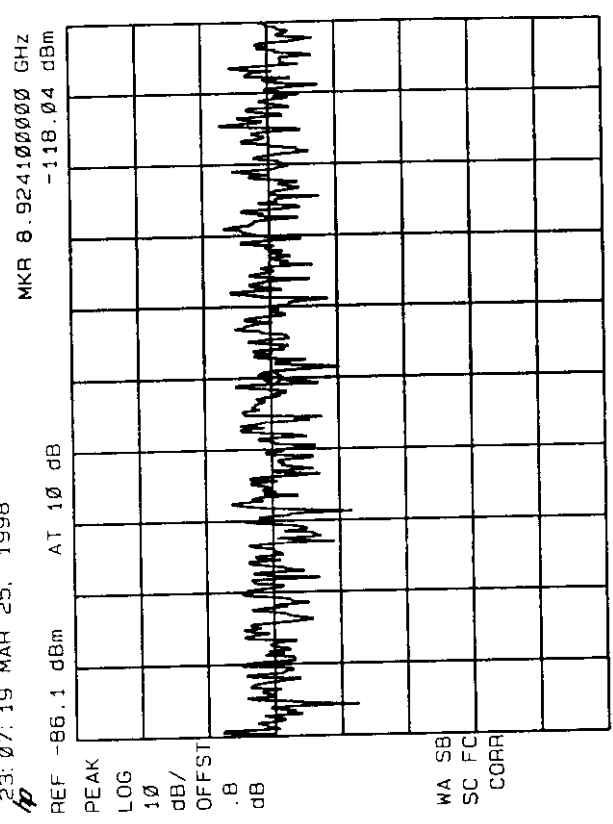
23:06:21 MAR 25, 1998

MKR 7.139280000 GHZ
-115.81 dBm

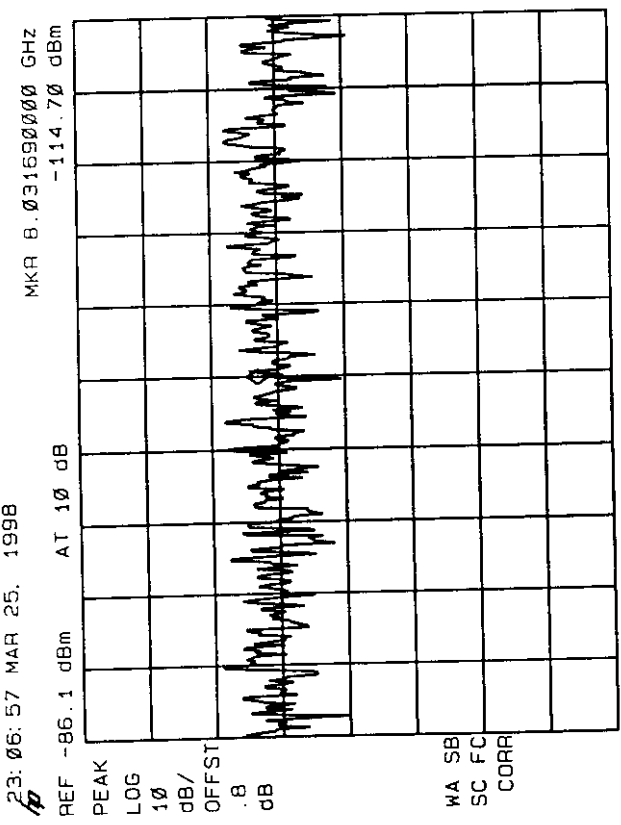


CENTER 7.139280000 GHZ
#RES BW 30 HZ #VBW 30 HZ SPAN 2.000 KHZ
#SWP 6.67 sec

23:07:19 MAR 25, 1998



23:06:57 MAR 25, 1998





MOTOROLA

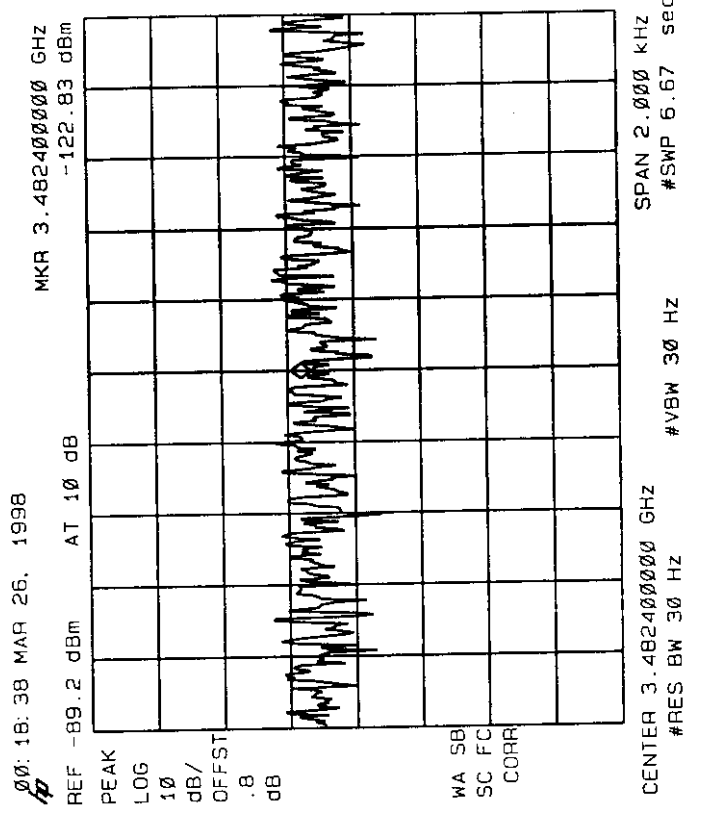
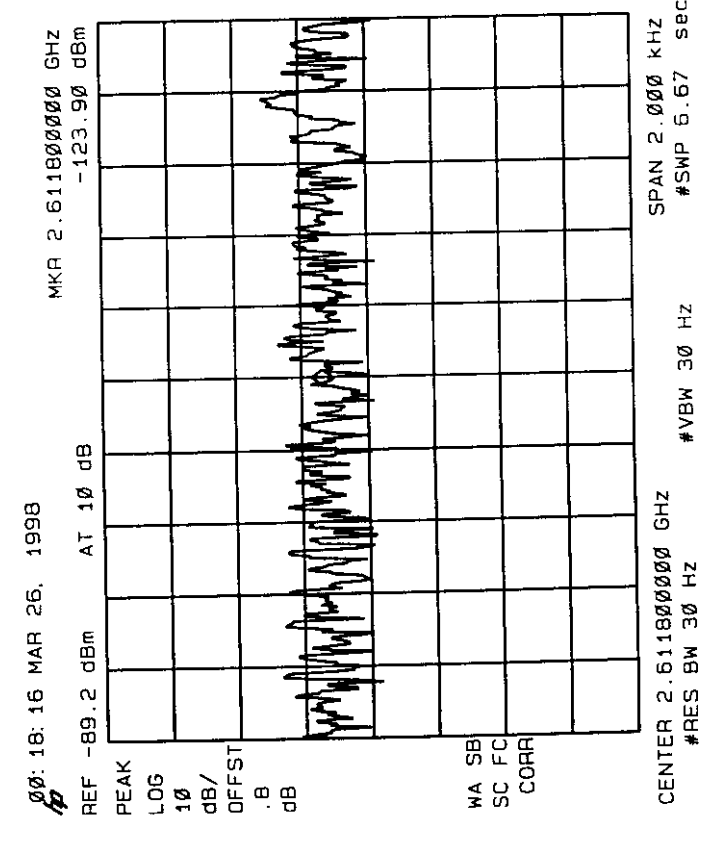
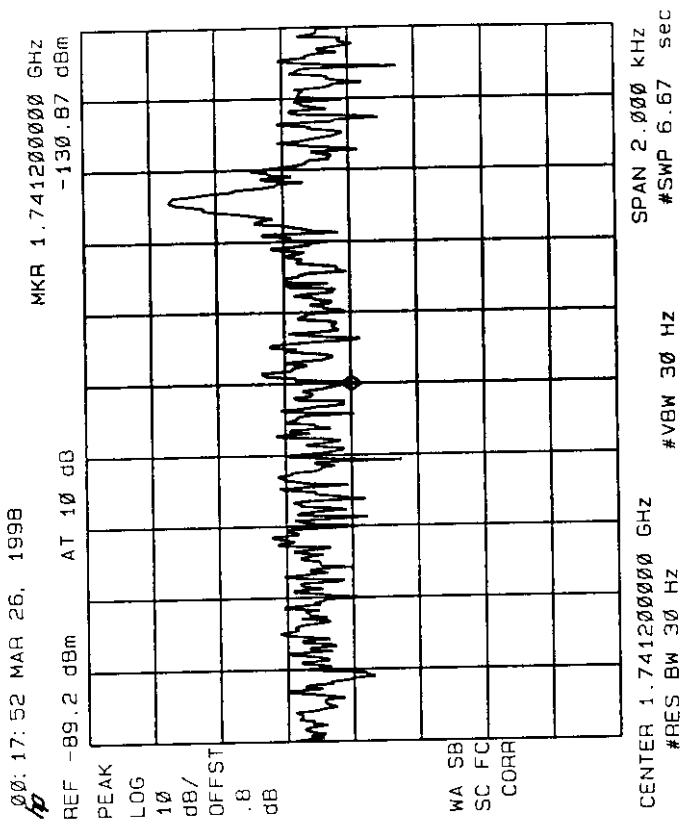
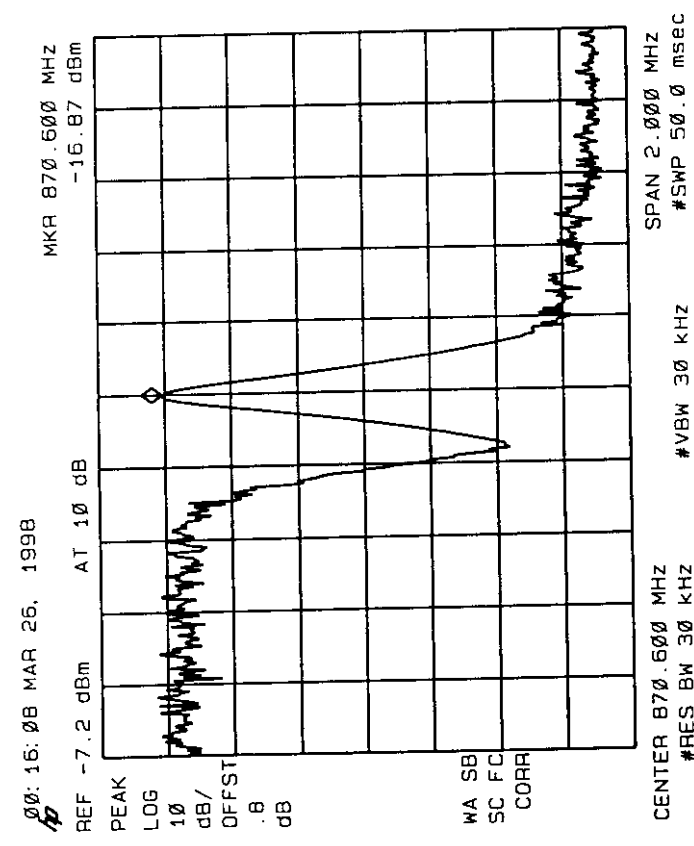
*Cellular Infrastructure Group
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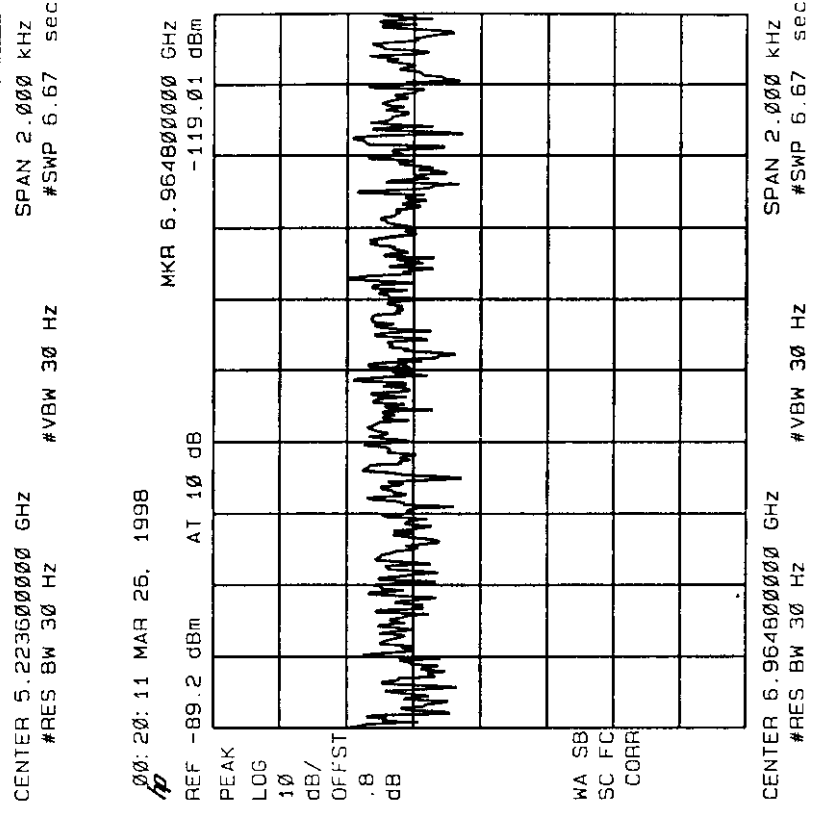
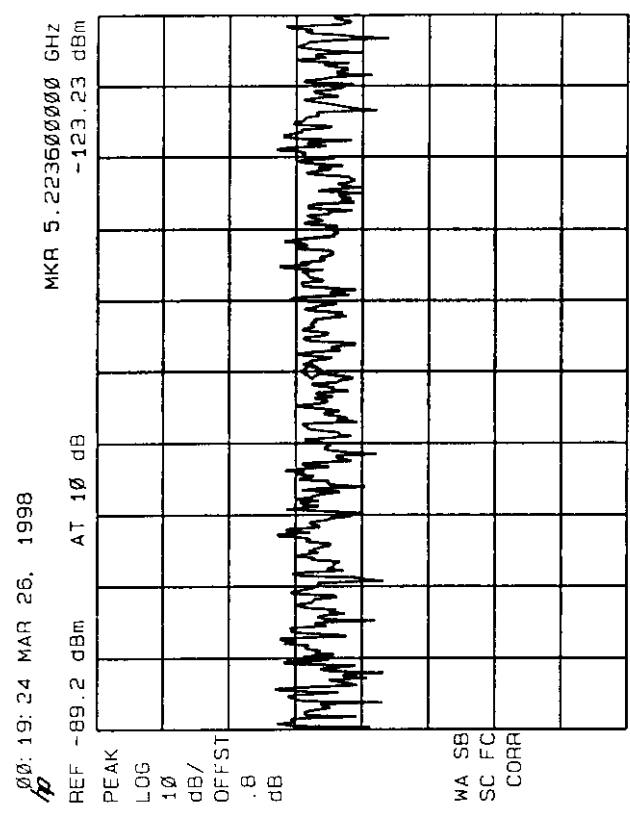
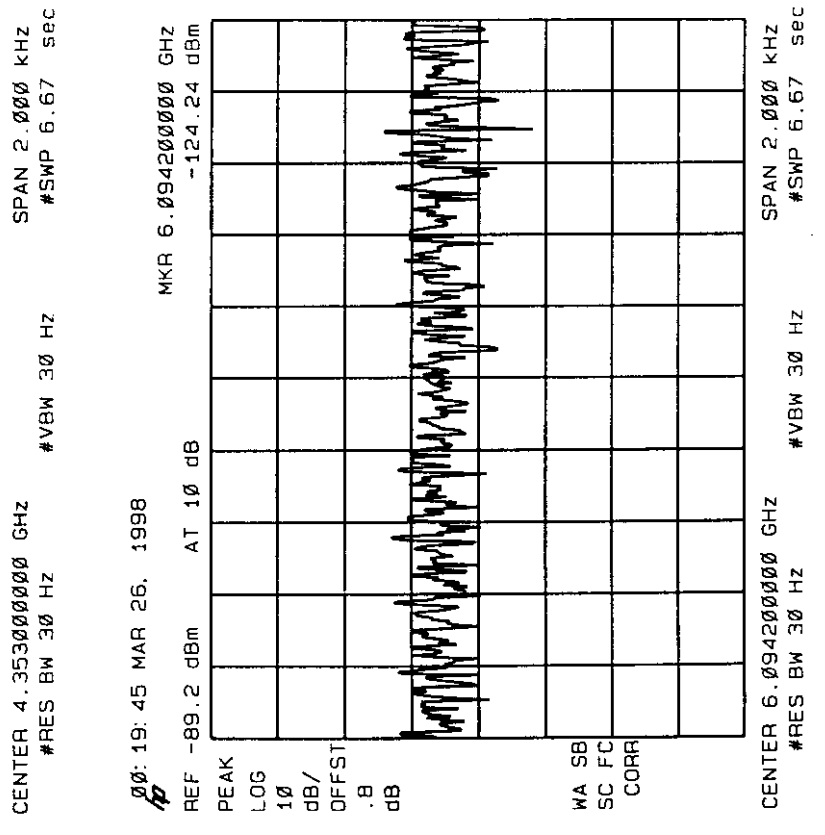
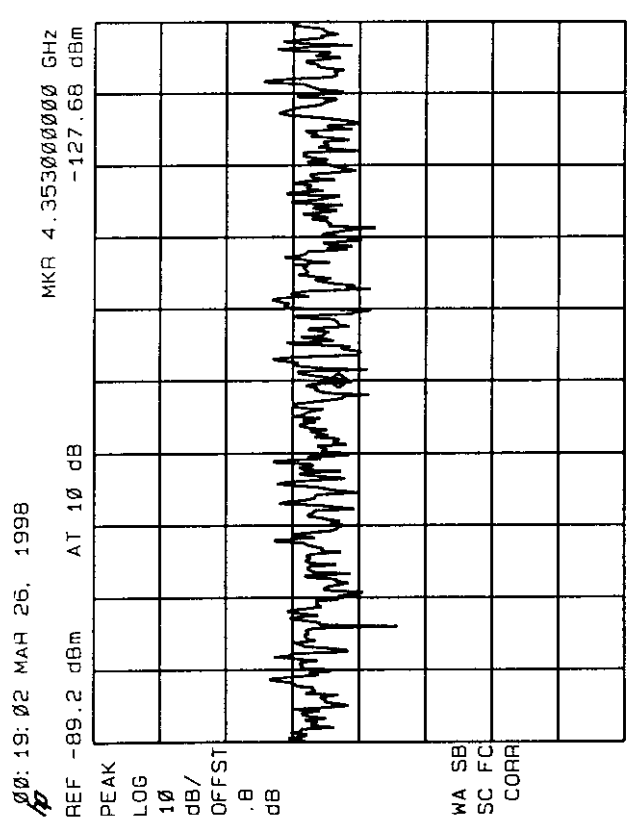
SPURIOUS & HARMONIC EMISSIONS CONDUCTED

Analog Transmitter Channel 20

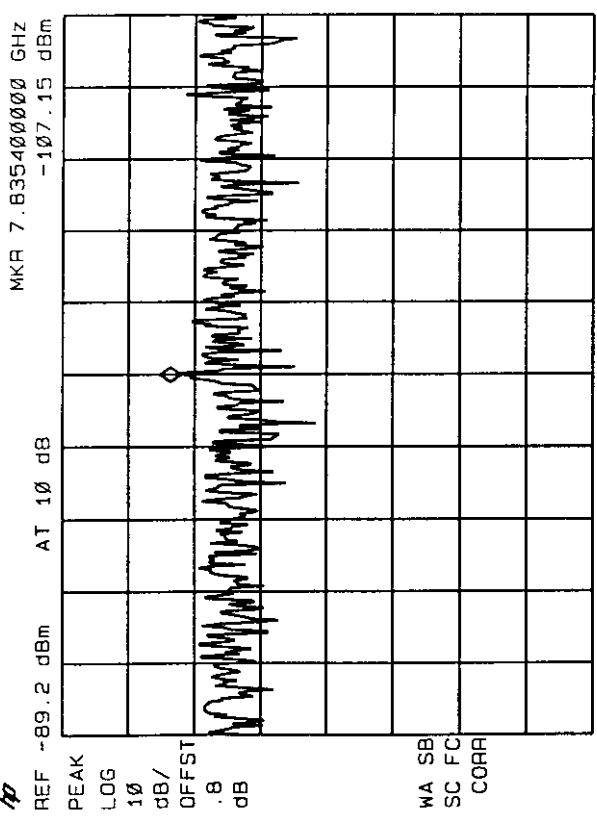
Maximum Power

Narrow Band

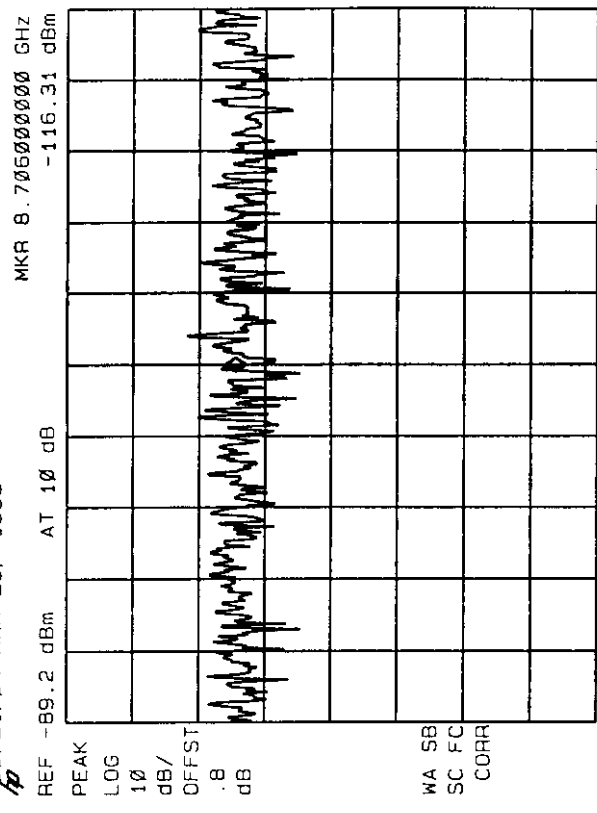




00:20:43 MAR 26, 1998



00:21:04 MAR 26, 1998





MOTOROLA

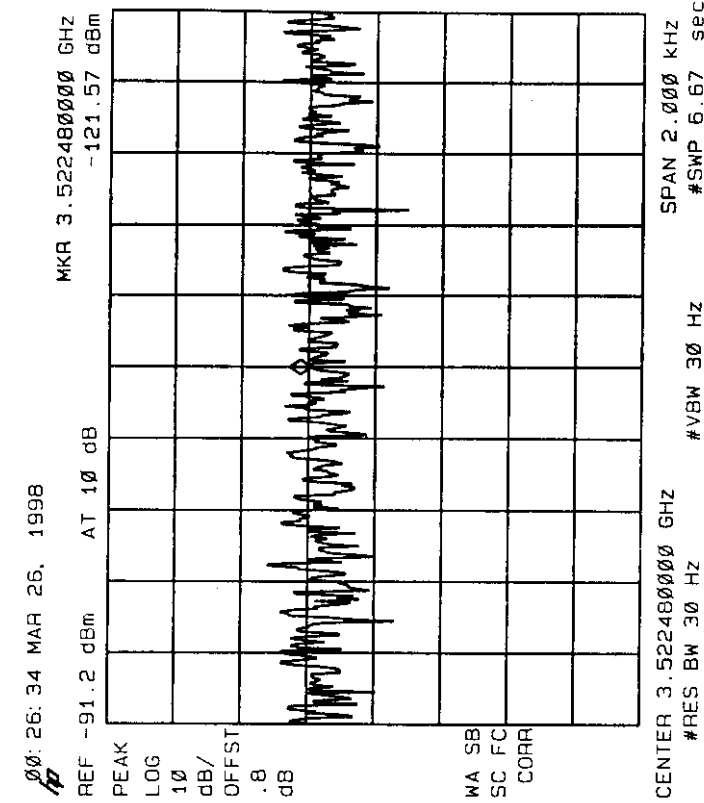
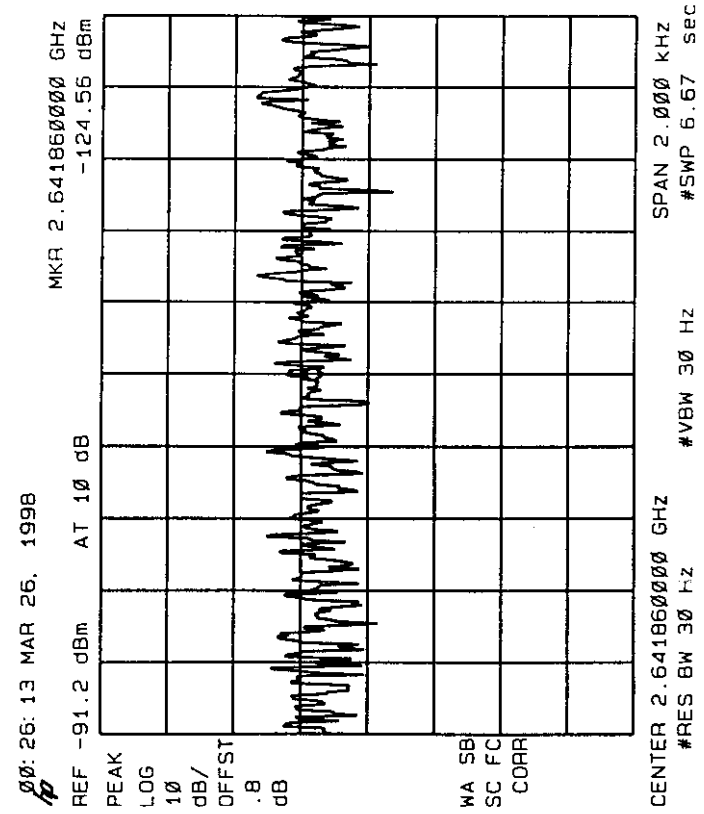
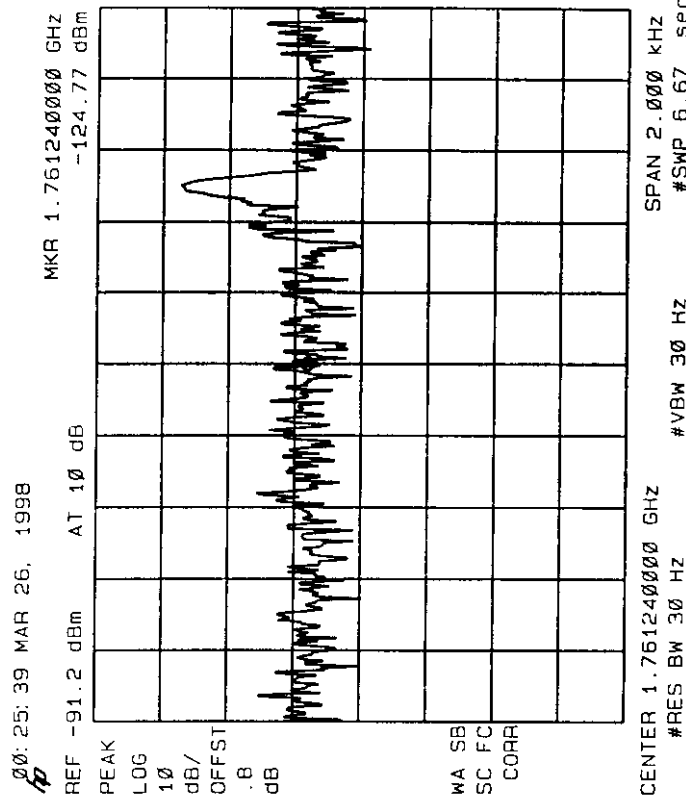
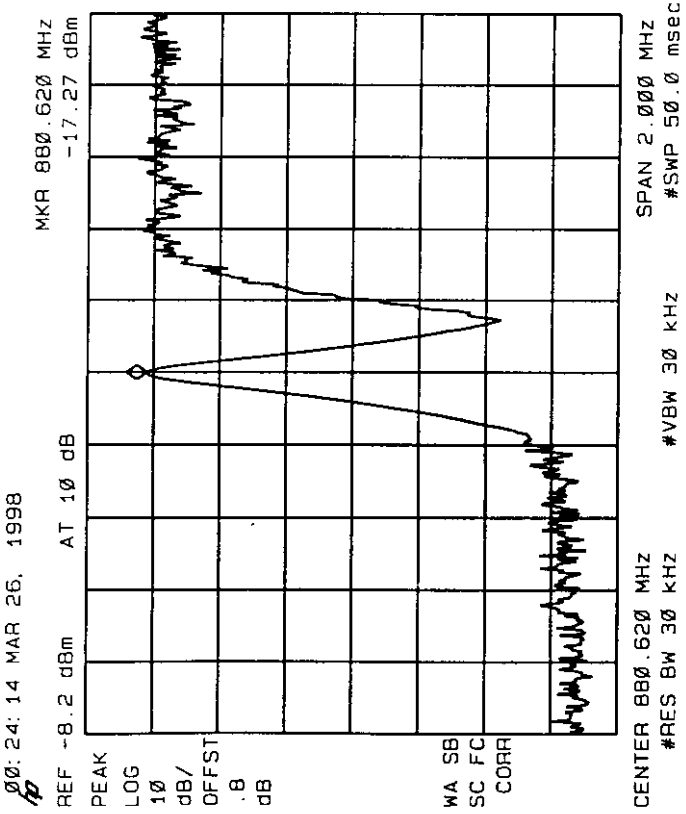
*Cellular Infrastructure Group
Personal Communications Division*

SPURIOUS & HARMONIC EMISSIONS CONDUCTED

Analog Transmitter Channel 354

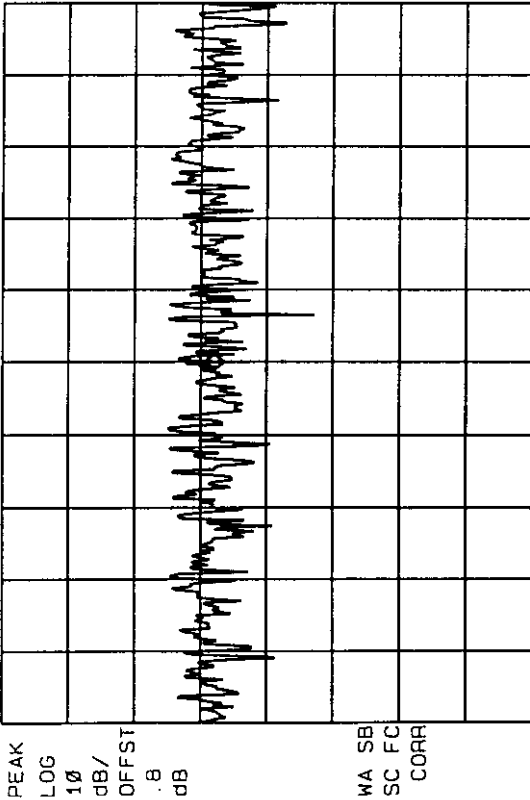
Maximum Power

Narrow Band



00:26:57 MAR 26, 1998

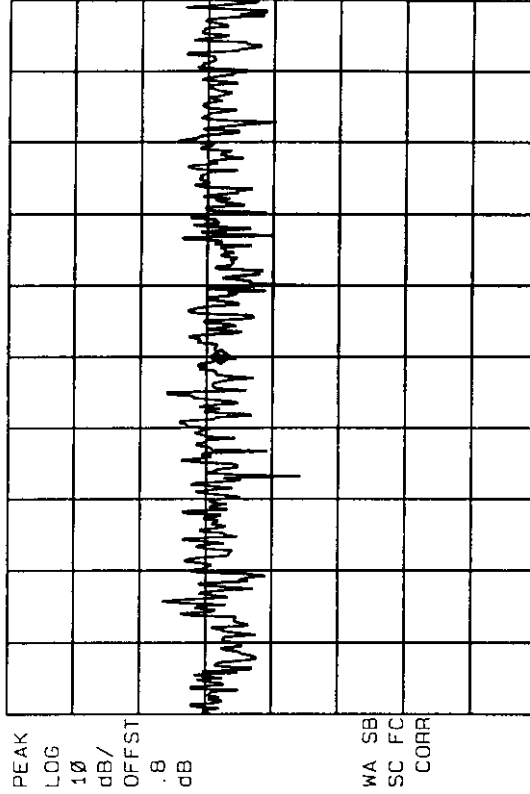
REF -91.2 dBm AT 10 dB MKR 4.403100000 GHZ
-124.89 dBm



CENTER 4.403100000 GHZ SPAN 2.000 KHZ
#RES BW 30 HZ #VBW 30 HZ #SWP 6.67 sec

00:27:20 MAR 26, 1998

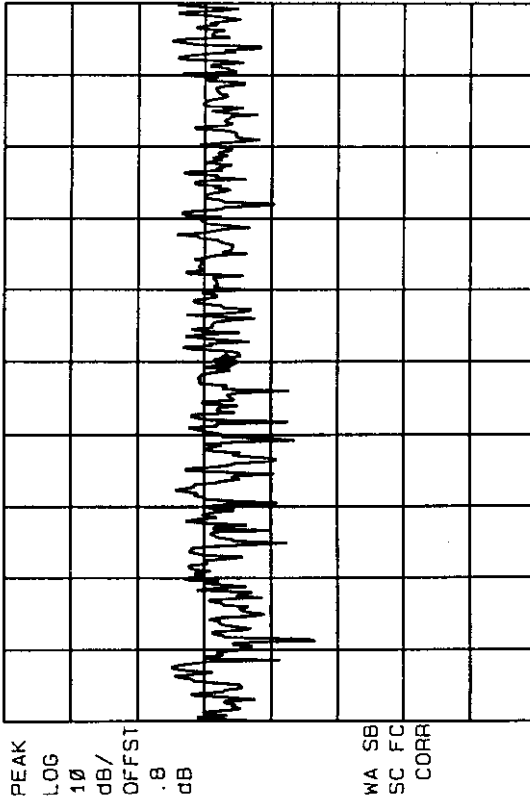
REF -91.2 dBm AT 10 dB MKR 5.283720000 GHZ
-124.91 dBm



CENTER 5.283720000 GHZ SPAN 2.000 KHZ
#RES BW 30 HZ #VBW 30 HZ #SWP 6.67 sec

00:27:43 MAR 26, 1998

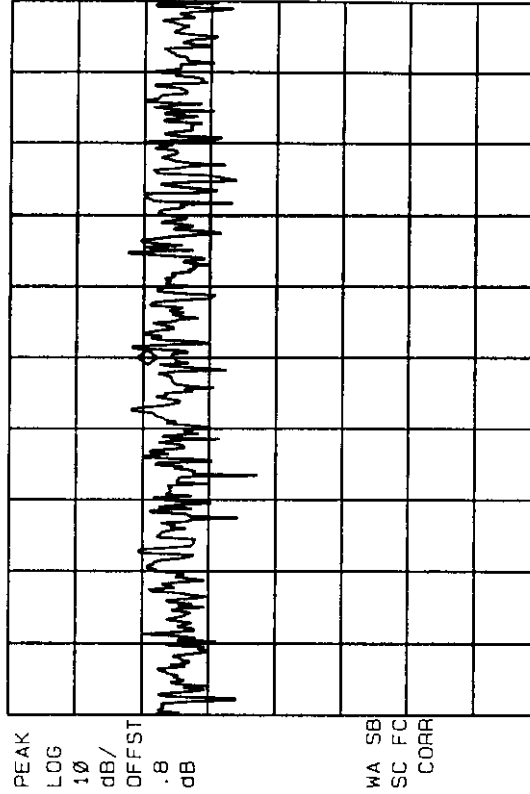
REF -91.2 dBm AT 10 dB MKR 6.164340000 GHZ
-126.08 dBm



CENTER 6.164340000 GHZ SPAN 2.000 KHZ
#RES BW 30 HZ #VBW 30 HZ #SWP 6.67 sec

00:28:23 MAR 26, 1998

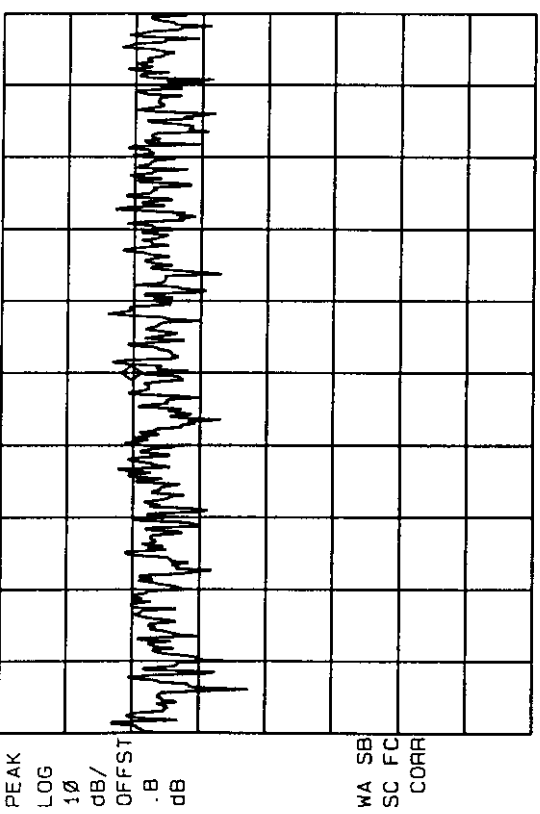
REF -91.2 dBm AT 10 dB MKR 7.044960000 GHZ
-113.42 dBm



CENTER 7.044960000 GHZ SPAN 2.000 KHZ
#RES BW 30 HZ #VBW 30 HZ #SWP 6.67 sec

00:28:58 MAR 26, 1998

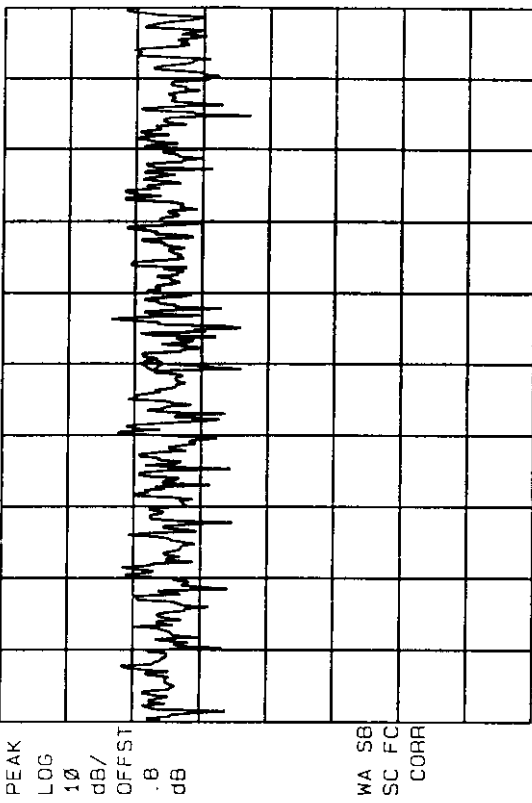
REF -91.2 dBm AT 10 dB MKR 7.925580000 GHZ
-112.49 dBm



CENTER 7.925580000 GHZ #RES BW 30 HZ #VBW 30 HZ SPAN 2.000 KHZ #SMP 6.67 sec

00:29:19 MAR 26, 1998

REF -91.2 dBm AT 10 dB MKR 8.806200000 GHZ
-115.40 dBm



CENTER 8.806200000 GHZ #RES BW 30 HZ #VBW 30 HZ SPAN 2.000 KHZ #SMP 6.67 sec



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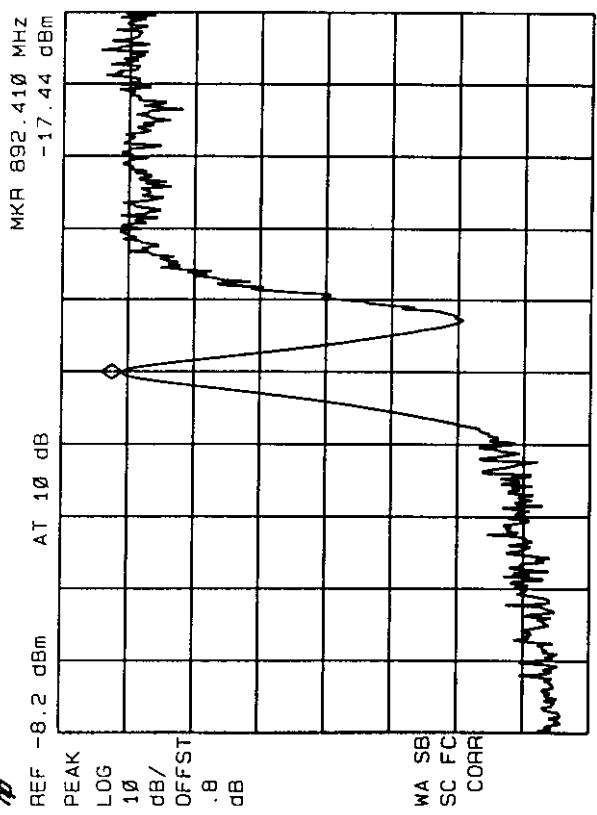
SPURIOUS & HARMONIC EMISSIONS CONDUCTED

Analog Transmitter Channel 747

Maximum Power

Narrow Band

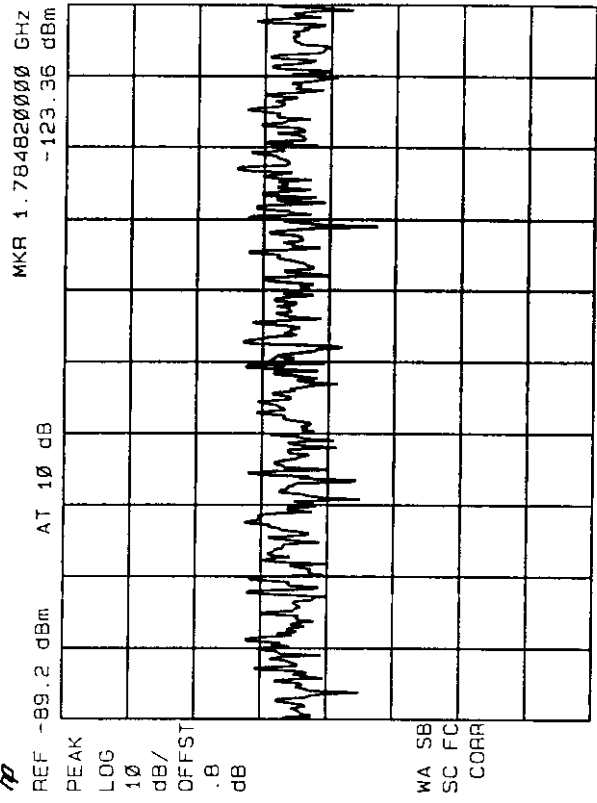
00:30:31 MAR 26, 1998



CENTER 892.410 MHz
#RES BW 30 KHZ #VBW 30 KHZ
SPAN 2.000 MHz
#SWP 50.0 msec

WA SB
SC FC
CORR

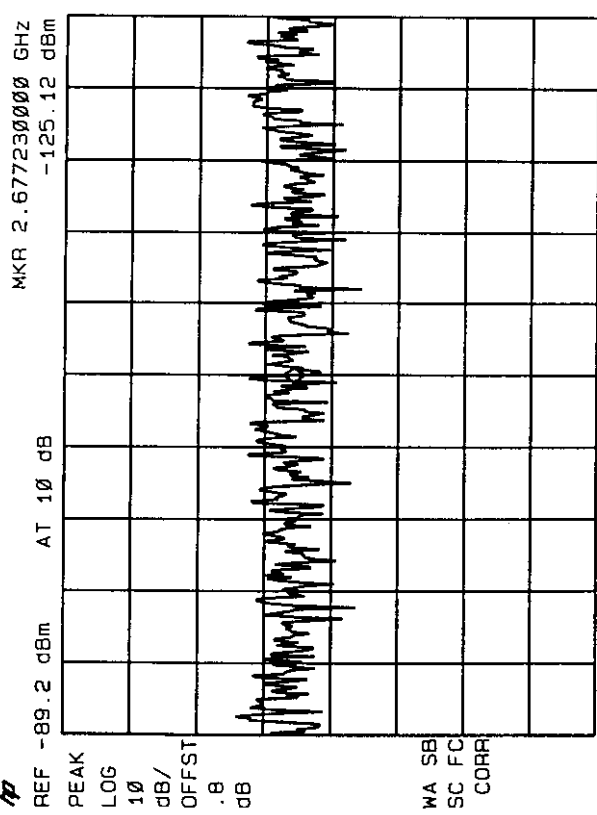
00:31:23 MAR 26, 1998



CENTER 1.784820000 GHz
#RES BW 30 HZ #VBW 30 HZ
SPAN 2.000 KHZ
#SWP 6.67 sec

WA SB
SC FC
CORR

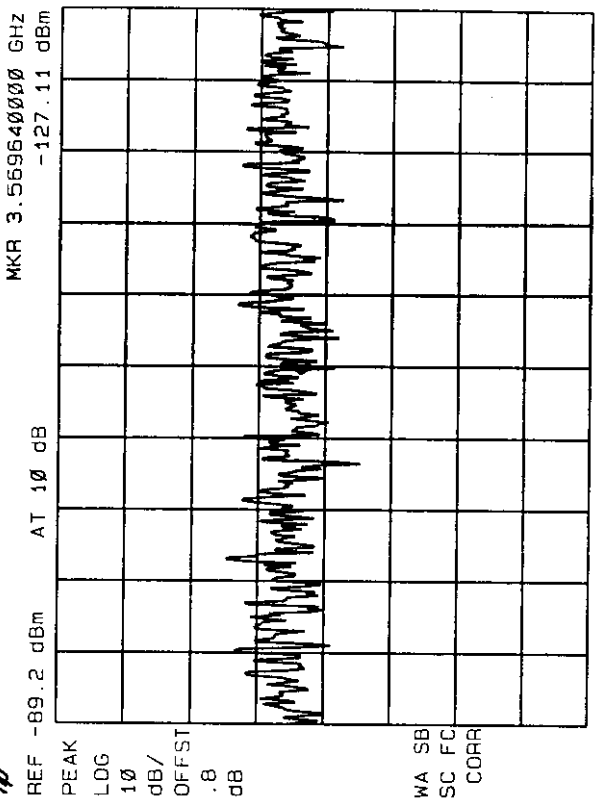
00:31:50 MAR 26, 1998



CENTER 2.677230000 GHz
#RES BW 30 HZ #VBW 30 HZ
SPAN 2.000 KHZ
#SWP 6.67 sec

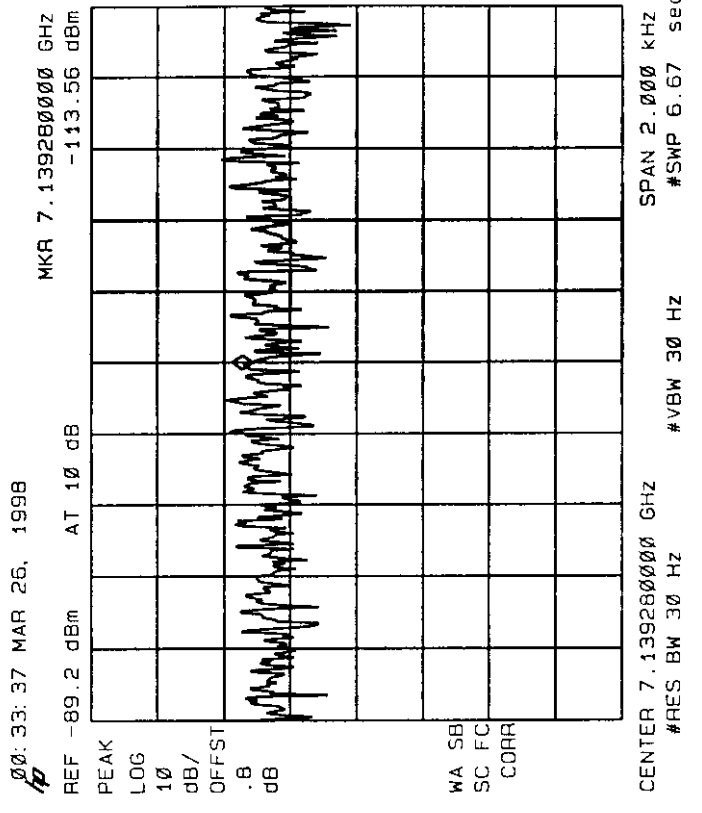
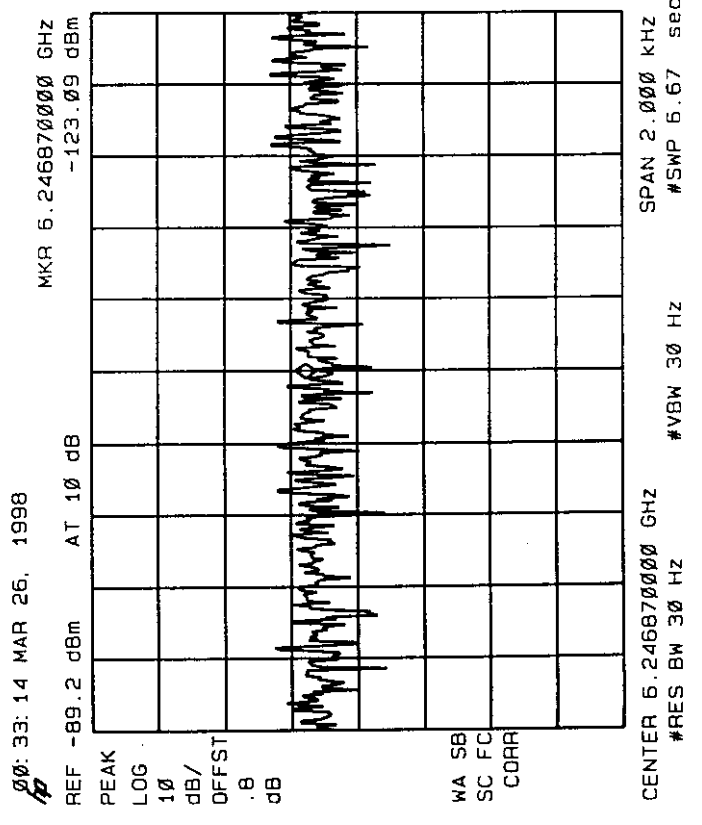
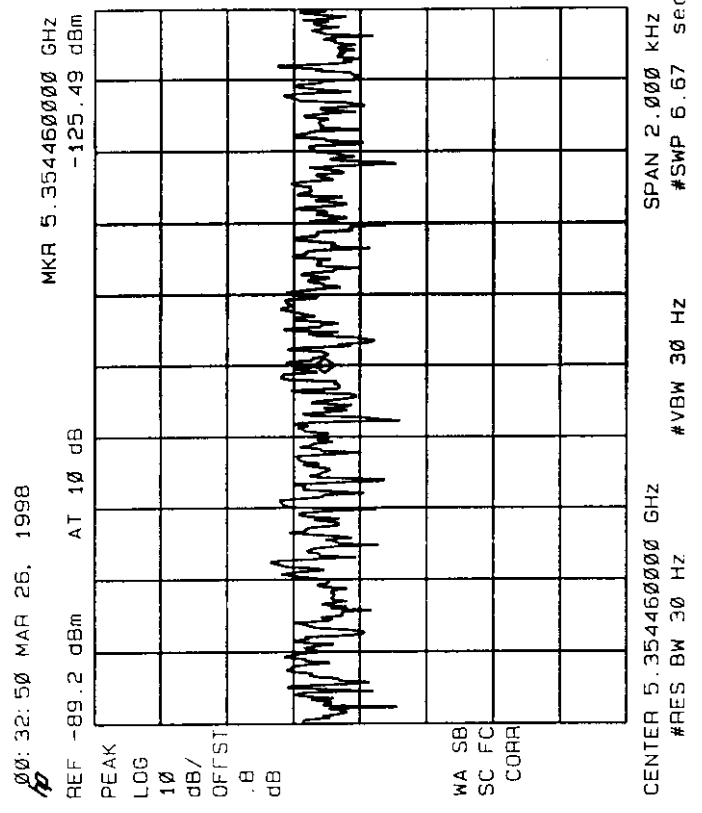
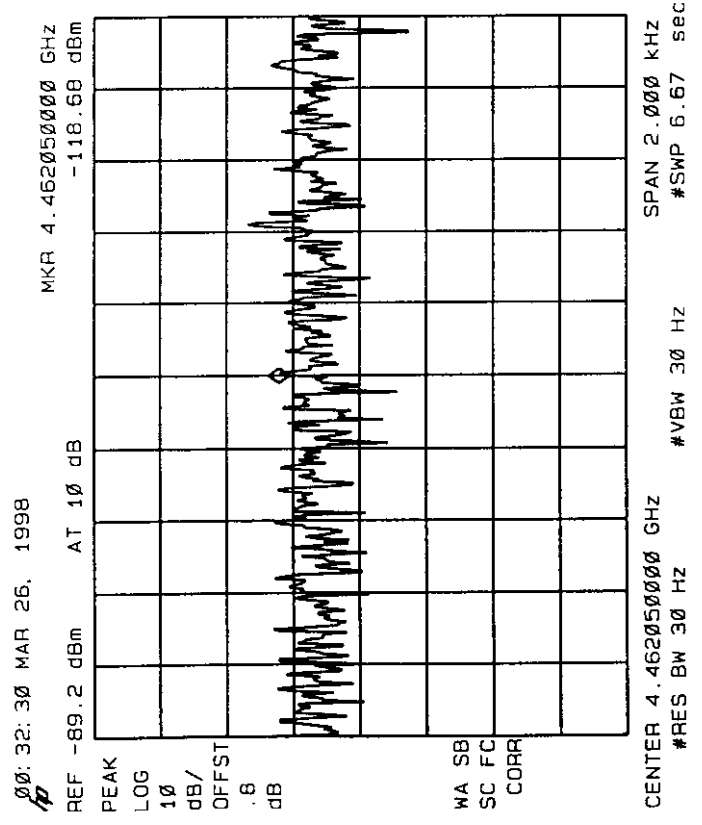
WA SB
SC FC
CORR

00:32:15 MAR 26, 1998



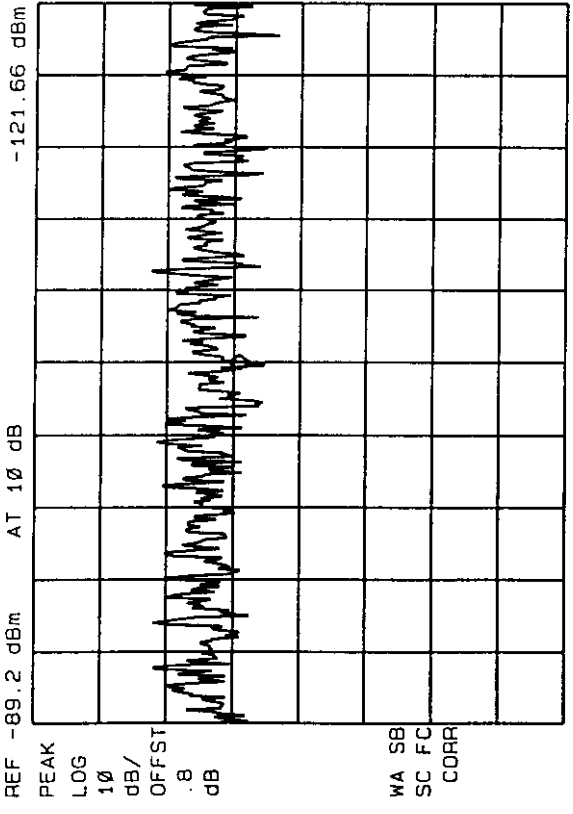
CENTER 3.569640000 GHz
#RES BW 30 HZ #VBW 30 HZ
SPAN 2.000 KHZ
#SWP 6.67 sec

WA SB
SC FC
CORR



00:34:18 MAR 26, 1998

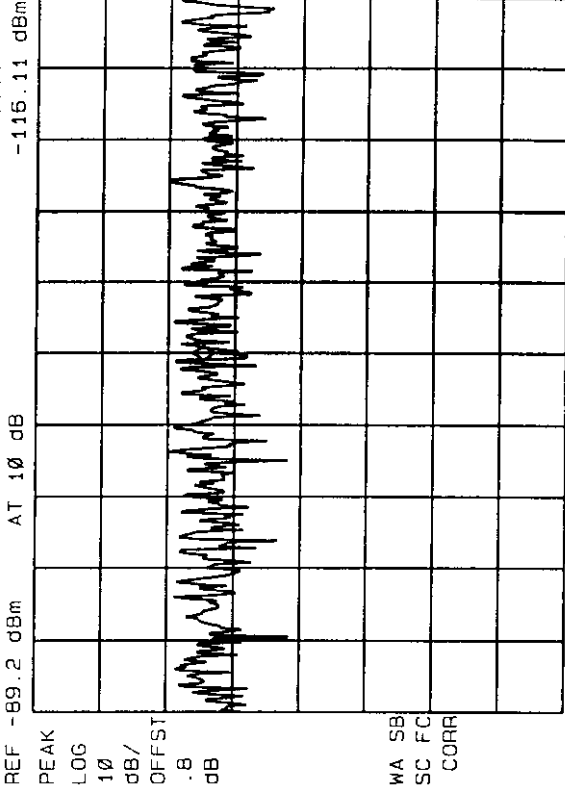
MRK 8.031690000 GHZ
-121.66 dBm



CENTER 8.031690000 GHZ
#RES BW 30 HZ #VBW 30 HZ SPAN 2.000 KHZ
#SWP 6.67 sec

00:34:48 MAR 26, 1998

MRK 8.924100000 GHZ
-115.11 dBm



CENTER 8.924100000 GHZ
#RES BW 30 HZ #VBW 30 HZ SPAN 2.000 KHZ
#SWP 6.67 sec



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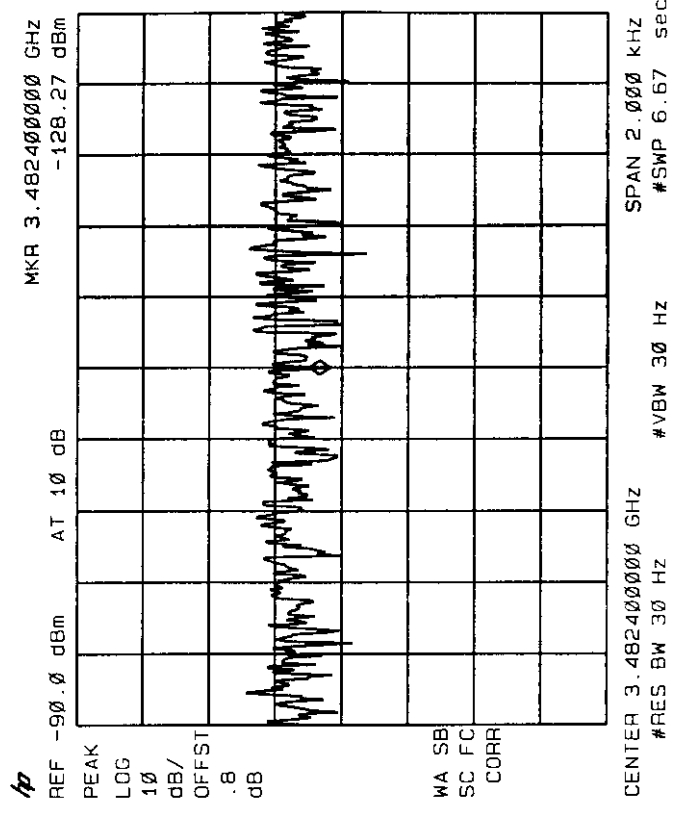
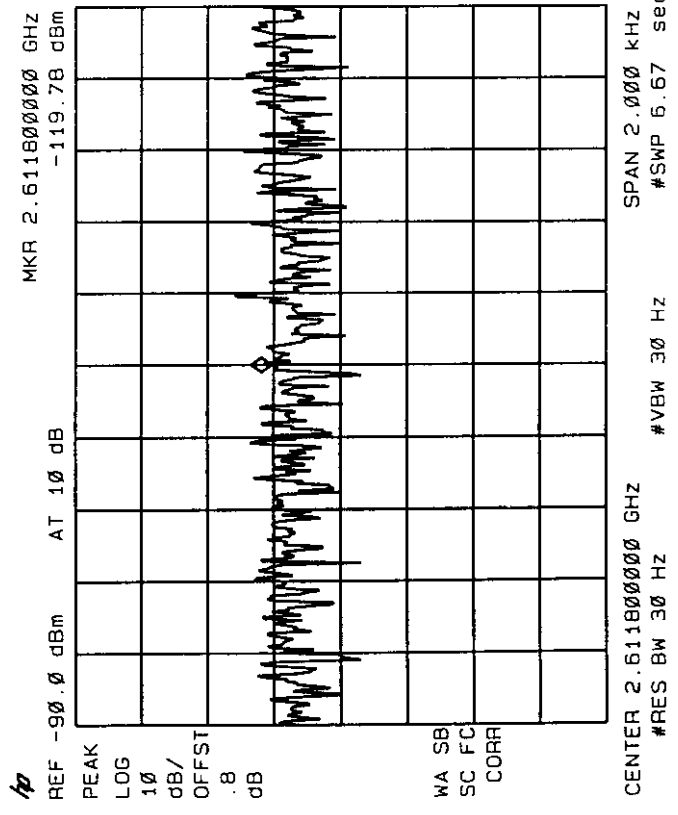
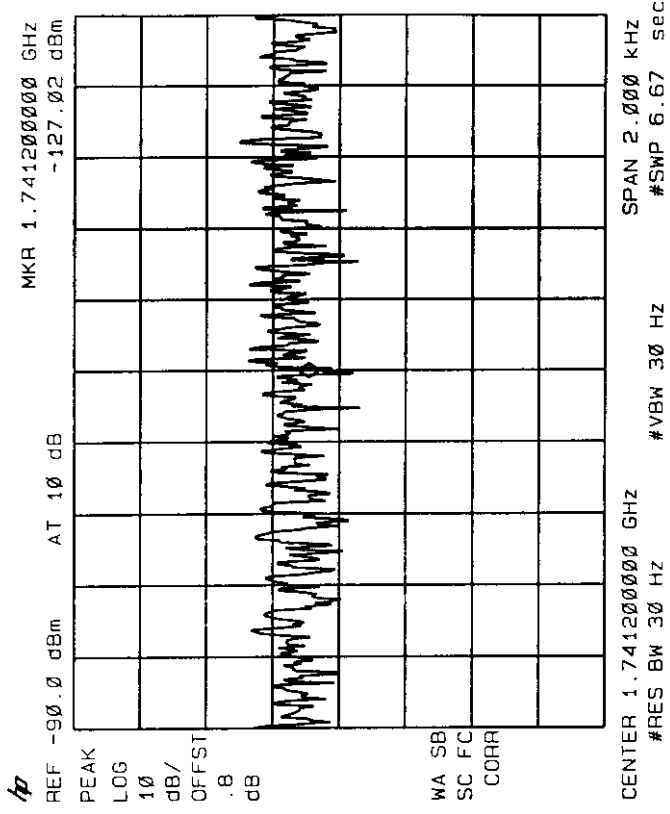
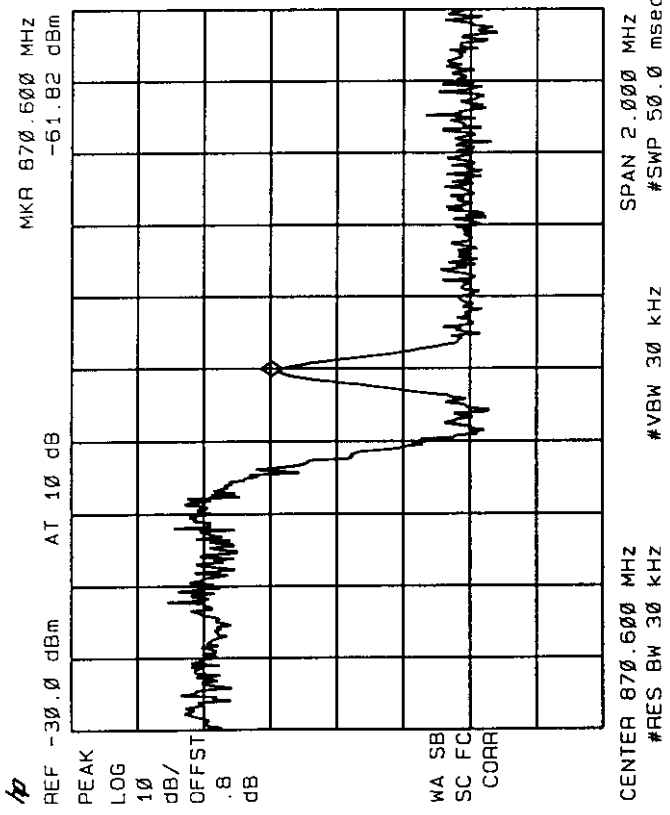
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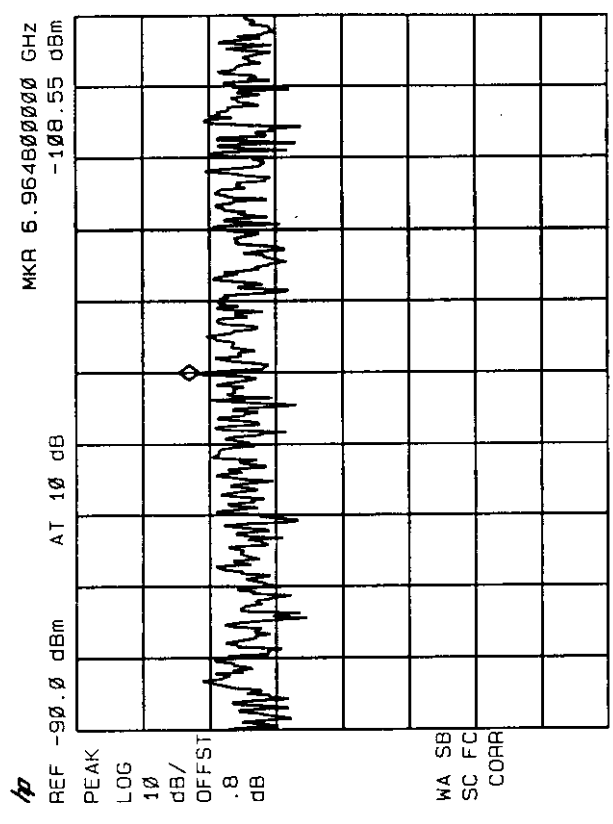
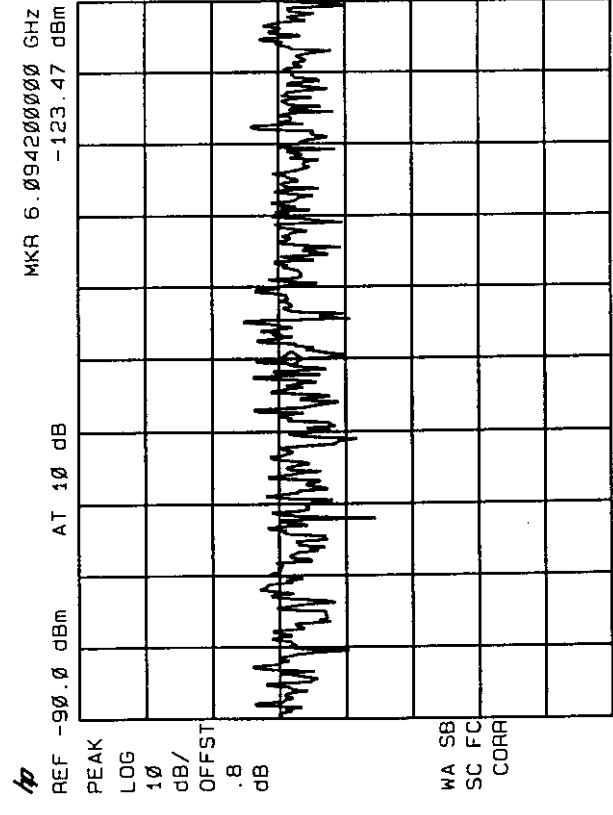
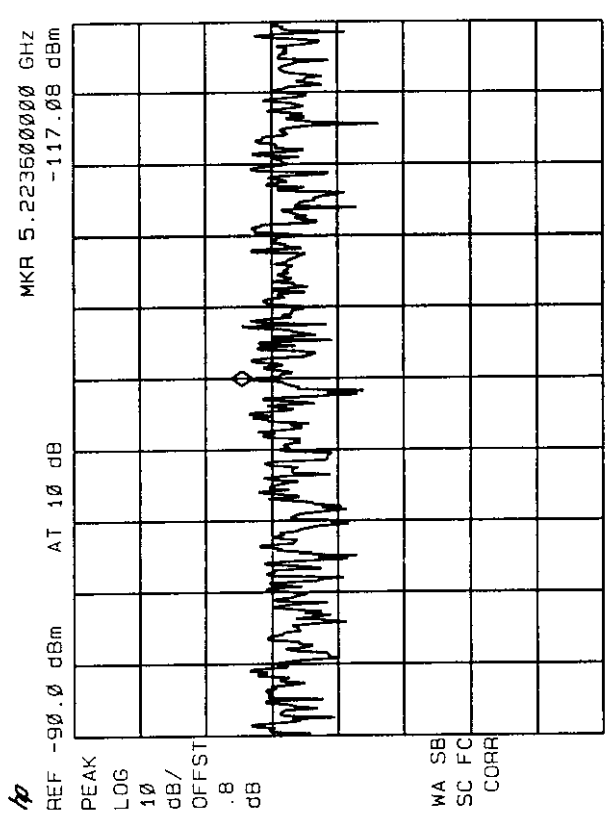
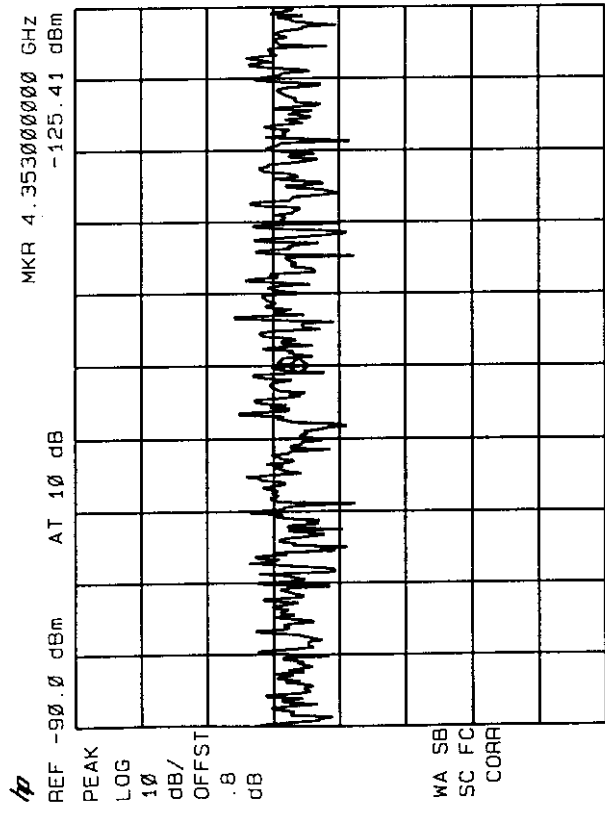
SPURIOUS & HARMONIC EMISSIONS CONDUCTED

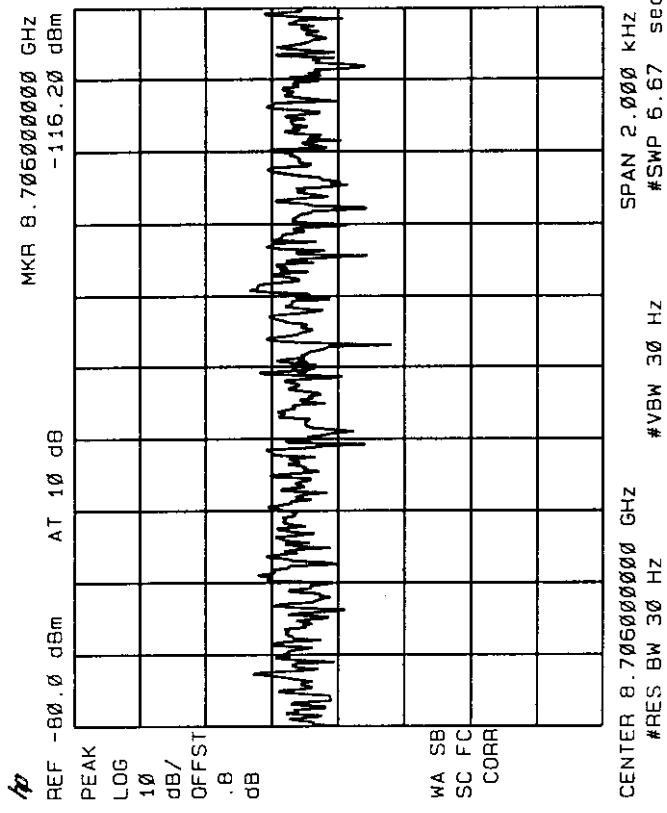
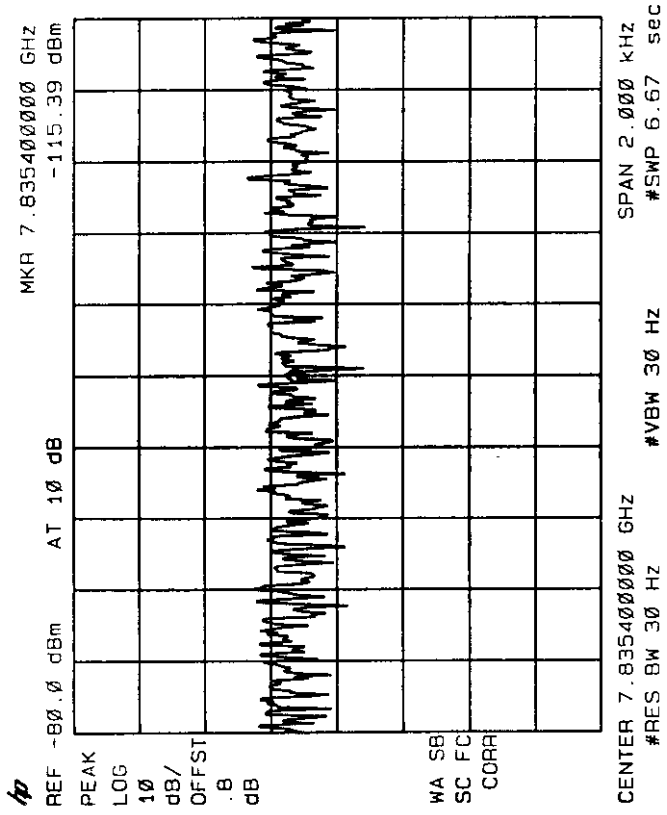
Analog Transmitter Channel 20

Minimum Power

Narrow Band









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SPURIOUS & HARMONIC EMISSIONS CONDUCTED

Analog Transmitter Channel 354

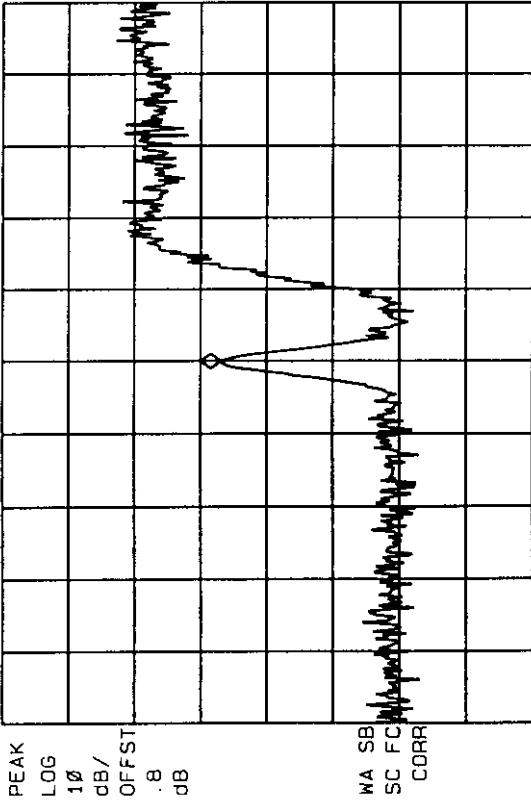
Minimum Power

Narrow Band

23:47:56 MAR 25, 1998

MKR 880.620 MHz
-63.37 dBm

REF -30.2 dBm AT 10 dB

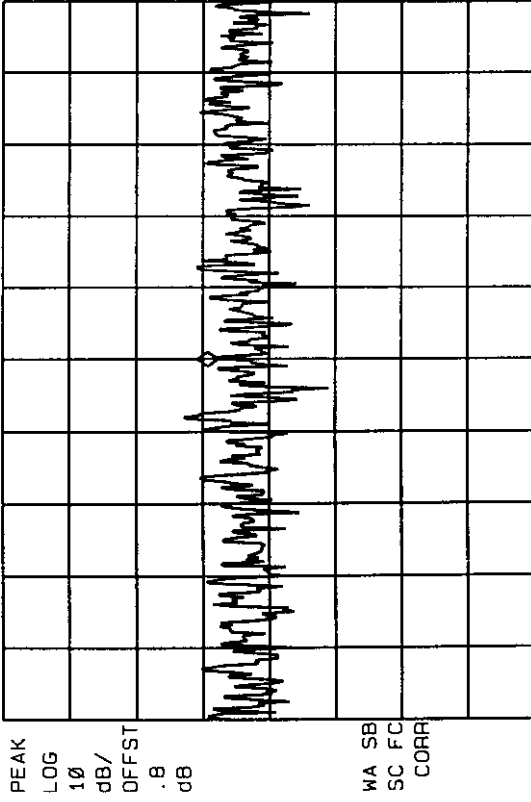


CENTER 880.620 MHz
#RES BW 30 KHZ #VBW 30 KHZ #SWP 50.0 msec

23:49:13 MAR 25, 1998

MKR 2.64186000 GHz
-119.56 dBm

REF -87.2 dBm AT 10 dB

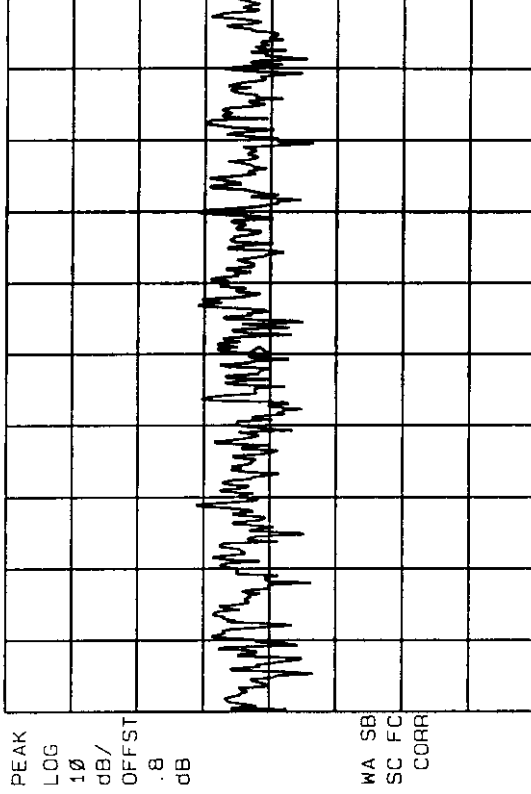


CENTER 2.64186000 GHz
#RES BW 30 HZ #VBW 30 HZ #SWP 5.67 sec

23:48:50 MAR 25, 1998

MKR 1.76124000 GHz
-127.10 dBm

REF -87.2 dBm AT 10 dB

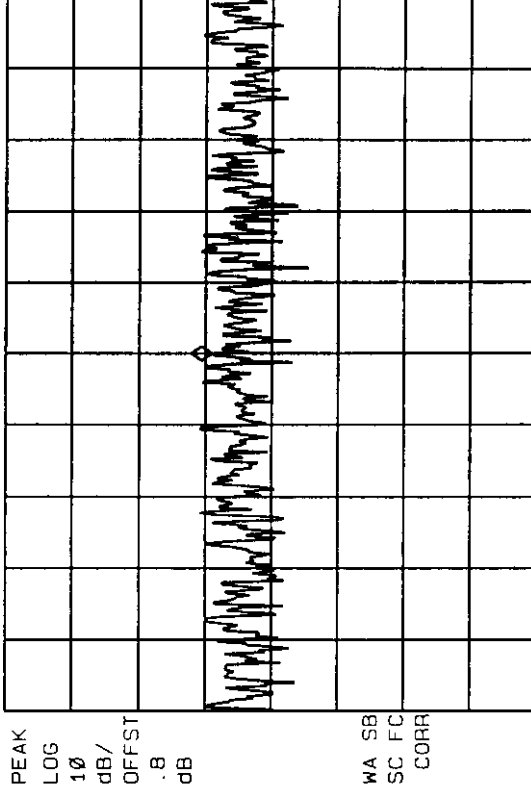


CENTER 1.76124000 GHz
#RES BW 30 HZ #VBW 30 HZ #SWP 6.67 sec

23:49:36 MAR 25, 1998

MKR 3.52248000 GHz
-118.20 dBm

REF -87.2 dBm AT 10 dB

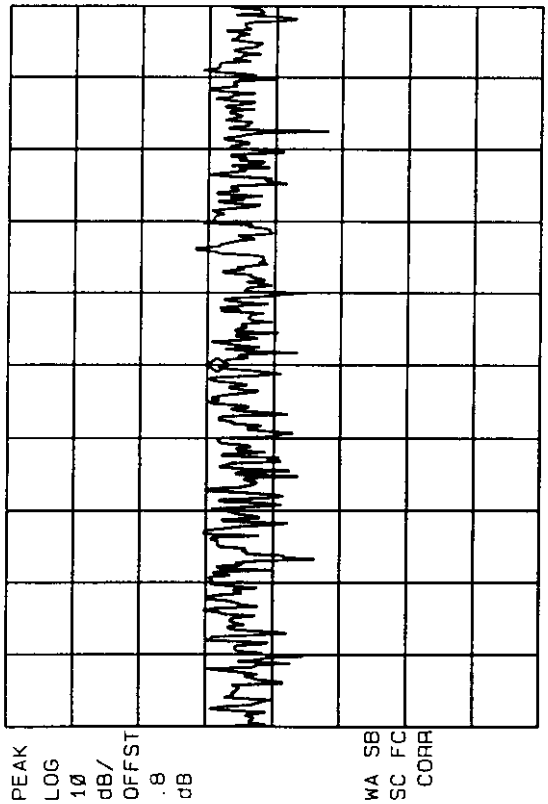


CENTER 3.52248000 GHz
#RES BW 30 HZ #VBW 30 HZ #SWP 6.67 sec

23:49:59 MAR 25, 1998

MKR 4.403100000 GHZ
-120.34 dBm

REF -87.2 dBm AT 10 dB

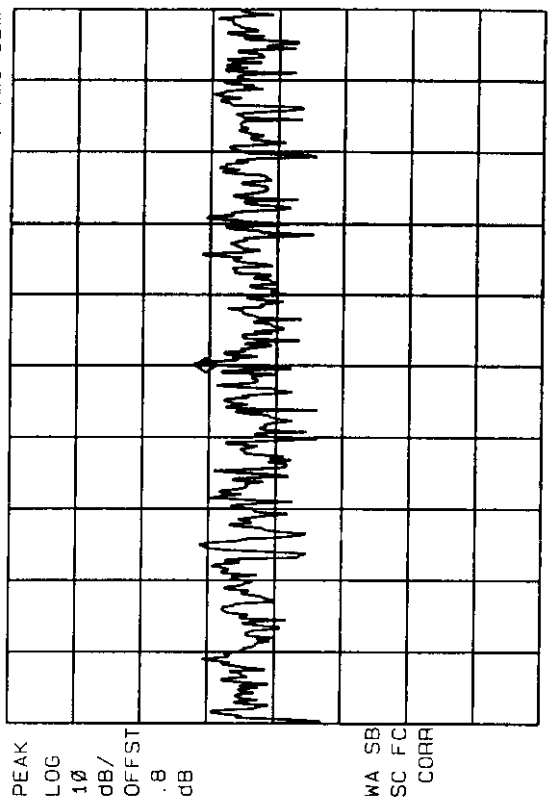


CENTER 4.403100000 GHZ
#RES BW 30 HZ #VBW 30 HZ SPAN 2.000 KHZ
#SWP 6.67 sec

23:50:21 MAR 25, 1998

MKR 5.283720000 GHZ
-118.28 dBm

REF -87.2 dBm AT 10 dB

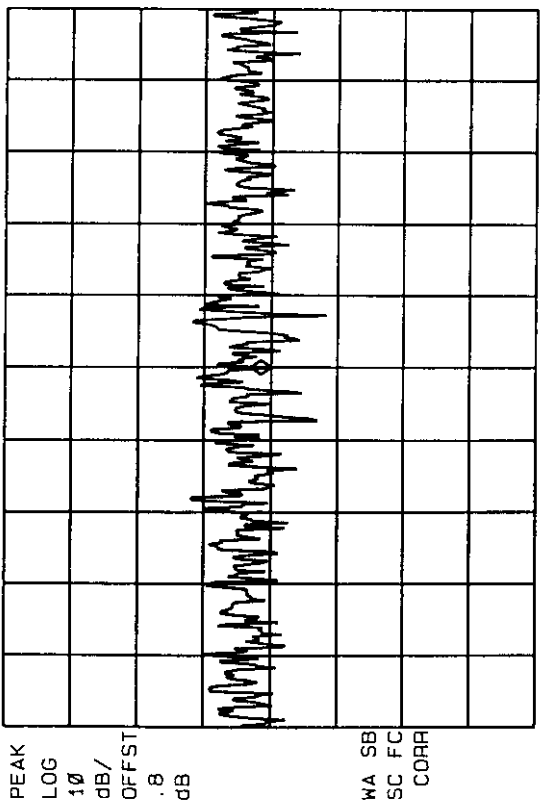


CENTER 5.283720000 GHZ
#RES BW 30 HZ #VBW 30 HZ SPAN 2.000 KHZ
#SWP 6.67 sec

23:50:44 MAR 25, 1998

MKR 6.164340000 GHZ
-127.29 dBm

REF -87.2 dBm AT 10 dB

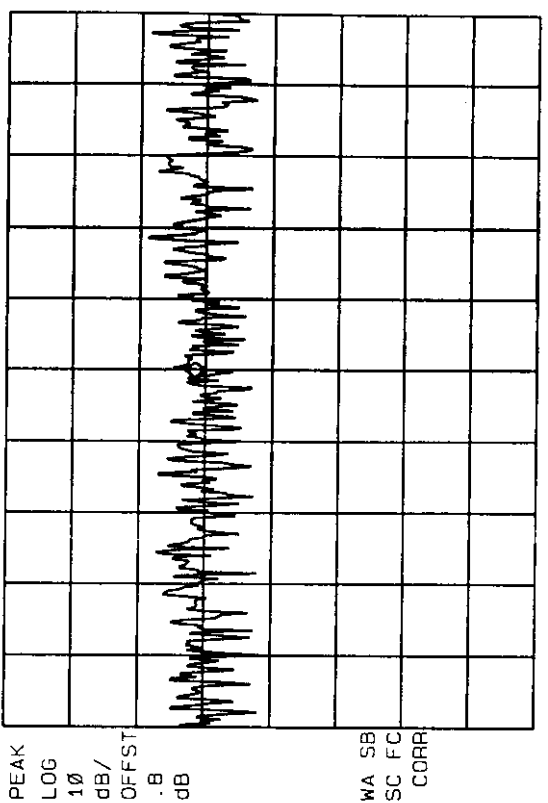


CENTER 6.164340000 GHZ
#RES BW 30 HZ #VBW 30 HZ SPAN 2.000 KHZ
#SWP 6.67 sec

23:51:08 MAR 25, 1998

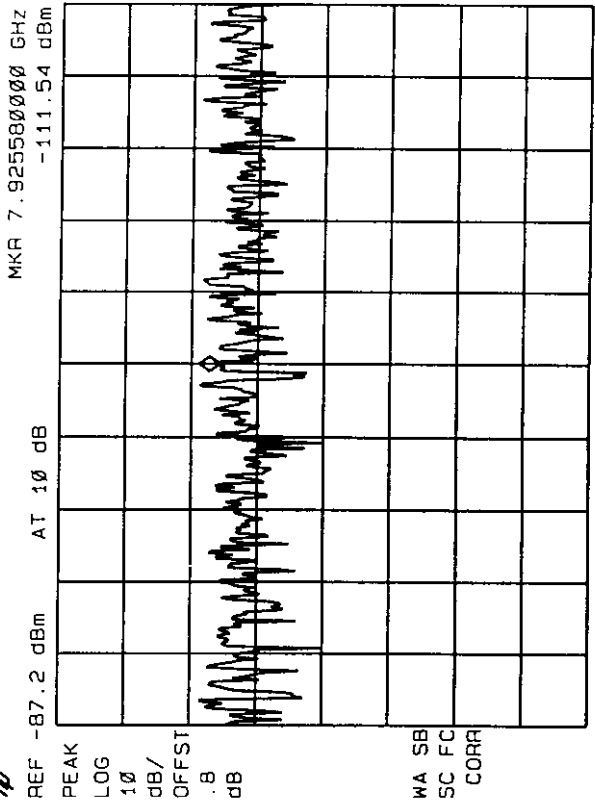
MKR 7.044960000 GHZ
-117.25 dBm

REF -87.2 dBm AT 10 dB

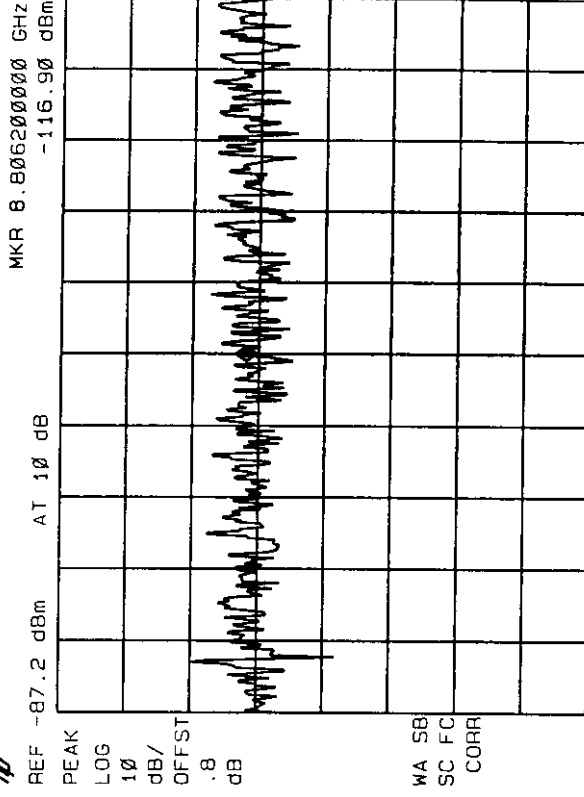


CENTER 7.044960000 GHZ
#RES BW 30 HZ #VBW 30 HZ SPAN 2.000 KHZ
#SWP 6.67 sec

23:51:44 MAR 25, 1998



23:52:06 MAR 25, 1998





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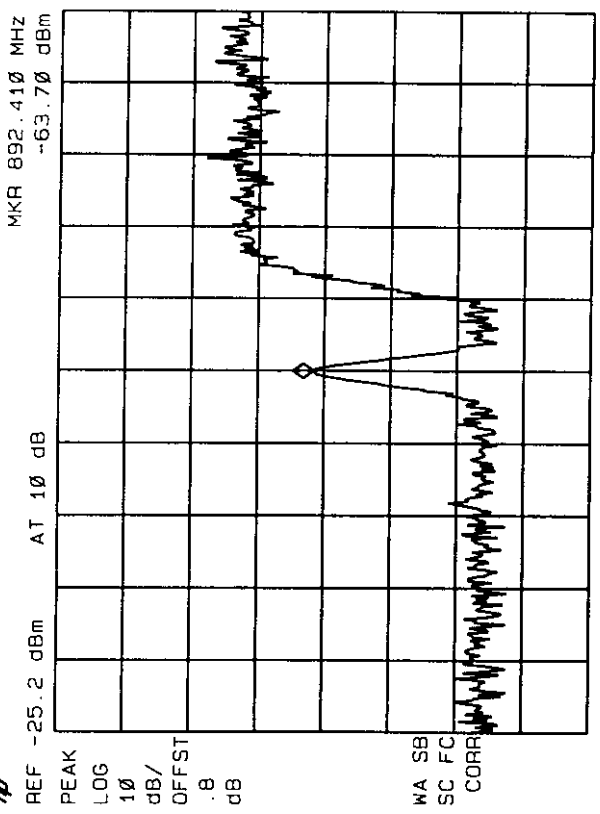
SPURIOUS & HARMONIC EMISSIONS CONDUCTED

Analog Transmitter Channel 747

Minimum Power

Narrow Band

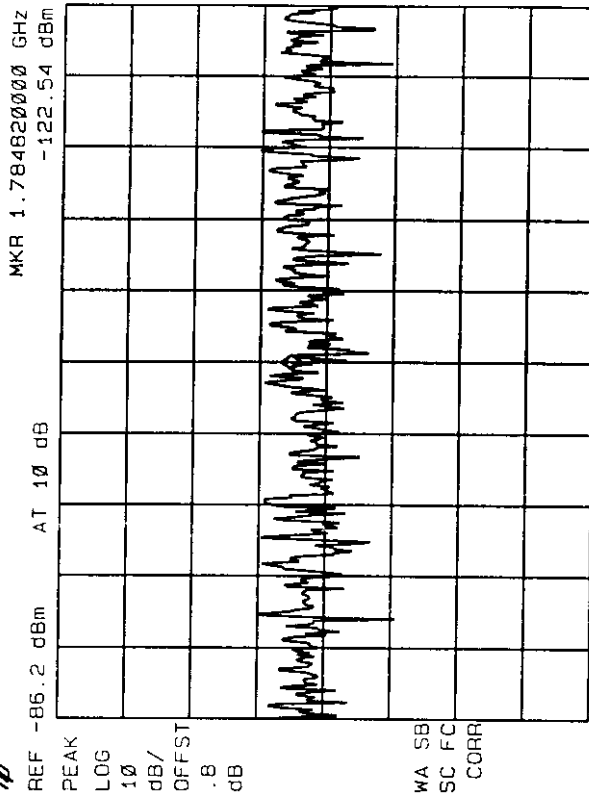
23:53:37 MAR 25, 1998



CENTER 892.410 MHz
#RES BW 30 KHZ #VBW 30 KHZ

SPAN 2.000 MHz
#SWP 50.0 msec

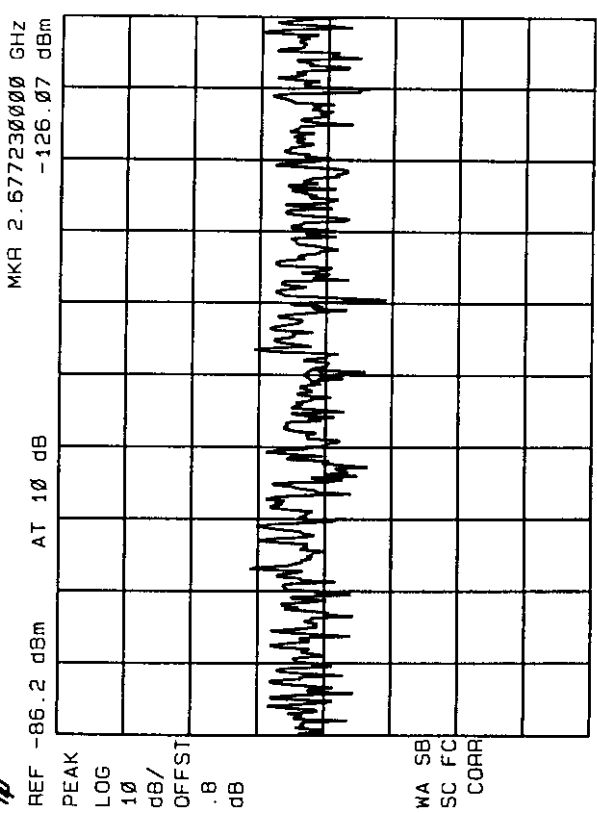
23:54:23 MAR 25, 1998



CENTER 1.784820000 GHz
#RES BW 30 HZ #VBW 30 HZ

SPAN 2.000 KHZ
#SWP 6.67 sec

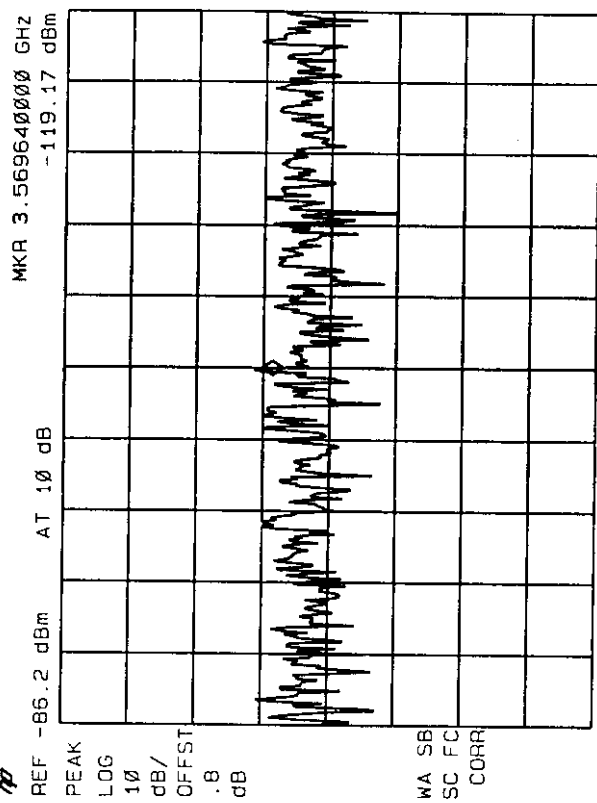
23:54:46 MAR 25, 1998



CENTER 2.677230000 GHz
#RES BW 30 HZ #VBW 30 HZ

SPAN 2.000 KHZ
#SWP 6.67 sec

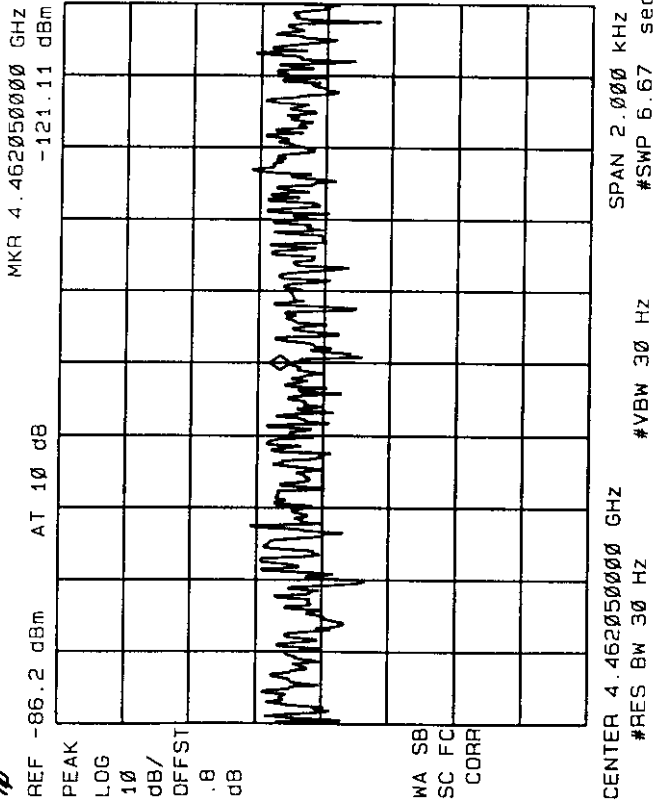
23:55:09 MAR 25, 1998



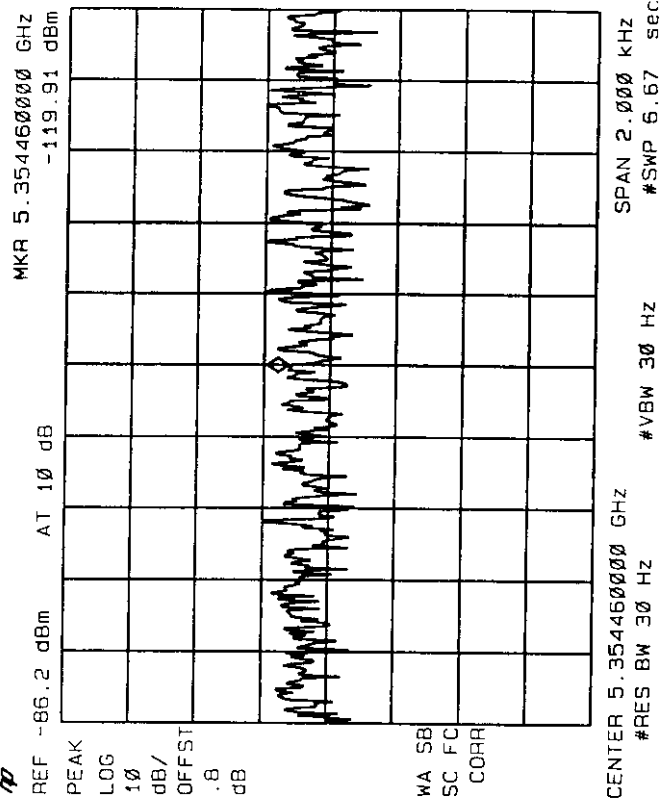
CENTER 3.569640000 GHz
#RES BW 30 HZ #VBW 30 HZ

SPAN 2.000 KHZ
#SWP 6.67 sec

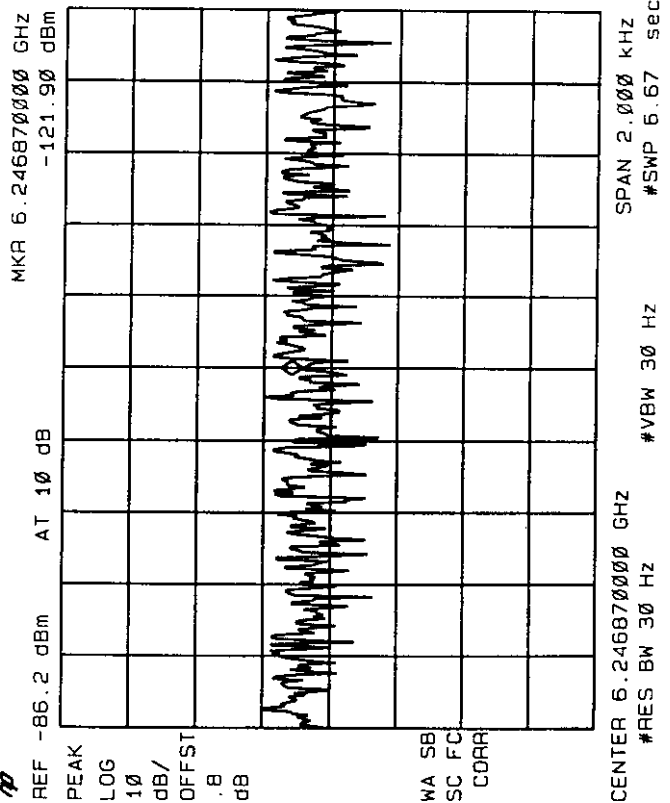
23:55:31 MAR 25, 1998



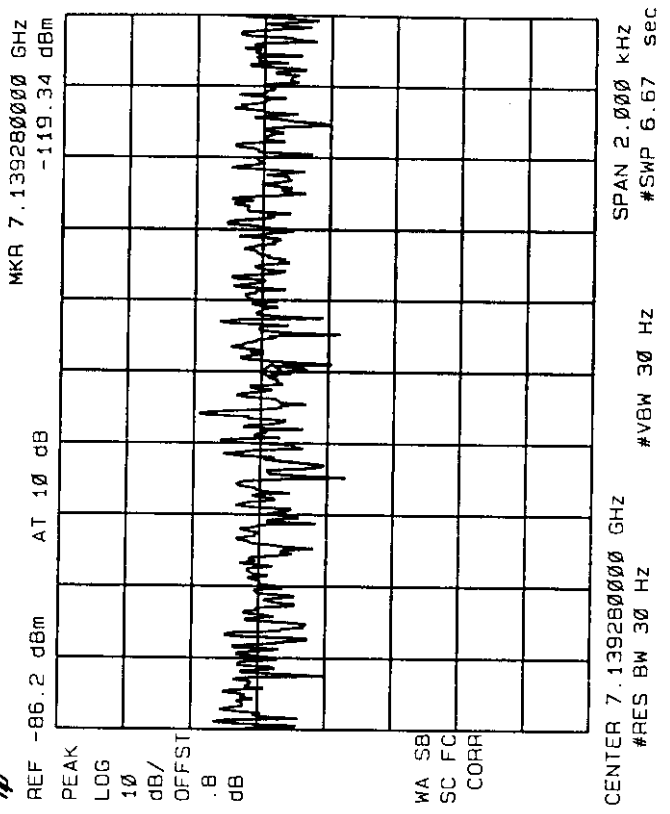
23:55:48 MAR 25, 1998



23:56:10 MAR 25, 1998



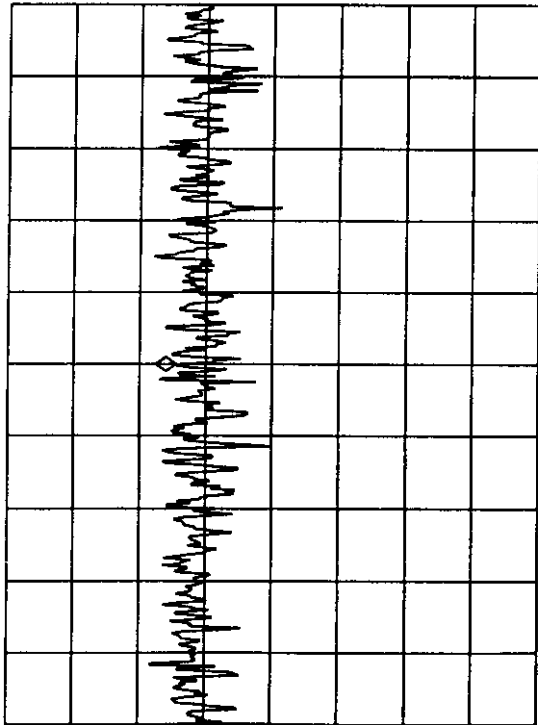
23:56:34 MAR 25, 1998



23:57:43 MAR 25, 1998

MKR 8.031690000 GHz
-111.75 dBm

REF -86.2 dBm AT 10 dB



PEAK
LOG
10
dB/
OFFST
.8
dB

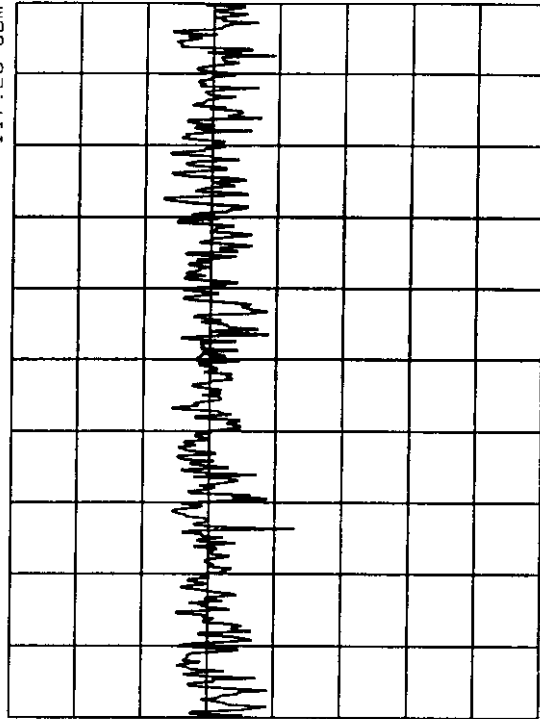
WA SB
SC FC
CORR

CENTER 8.031690000 GHz
#RES BW 30 Hz #VBW 30 Hz SPAN 2.000 KHz
#SWP 6.67 sec

23:58:09 MAR 25, 1998

MKR 8.924100000 GHz
-117.28 dBm

REF -86.2 dBm AT 10 dB



PEAK
LOG
10
dB/
OFFST
.8
dB

WA SB
SC FC
CORR

CENTER 8.924100000 GHz
#RES BW 30 Hz #VBW 30 Hz SPAN 2.000 KHz
#SWP 6.67 sec



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FCC ID: IHET5YE1

EXHIBIT #24

OCCUPIED BANDWIDTH

Analog and CDMA



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FCC ID: IHET5YE1

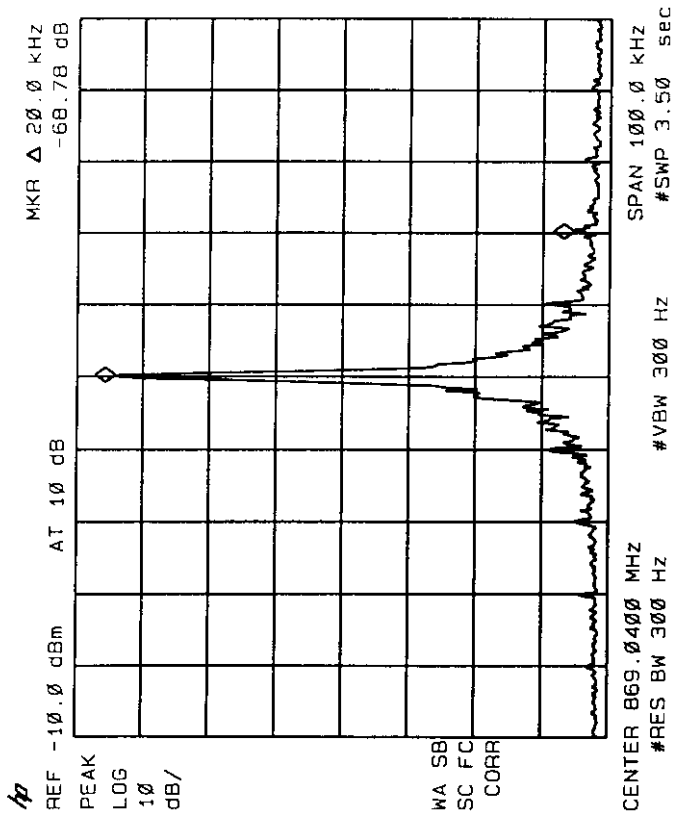
OCCUPIED BANDWIDTH

Channels 991, 354, 747

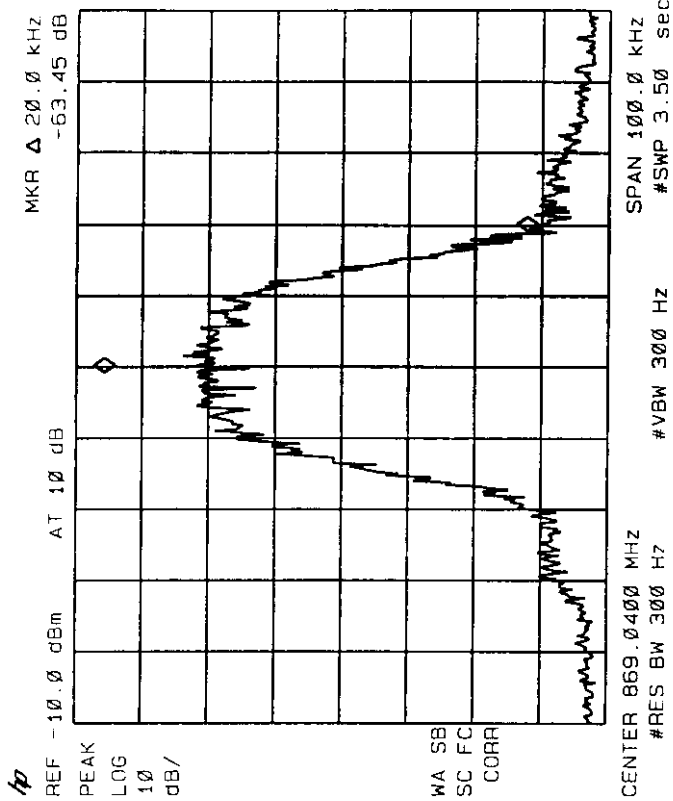
Maximum Power

Analog

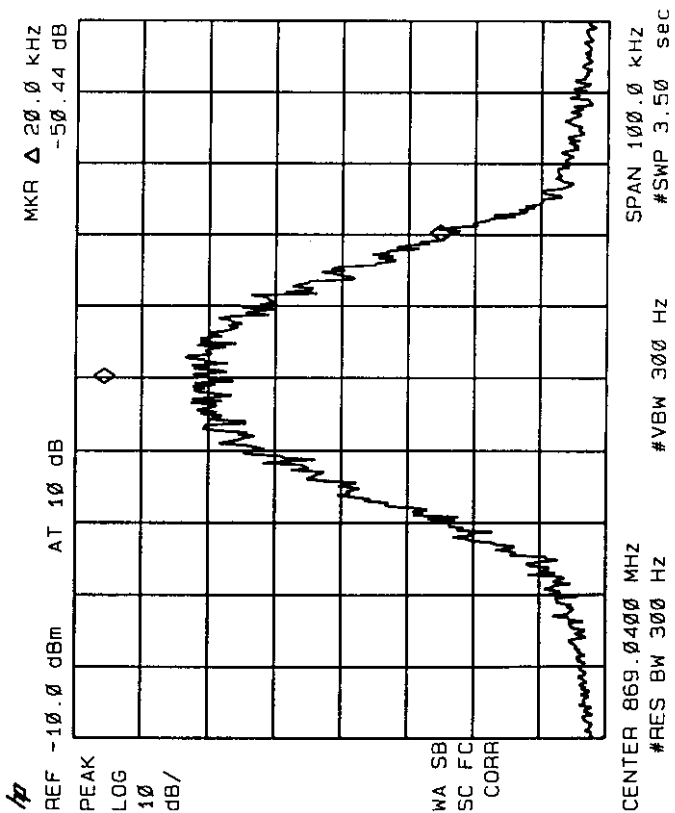
Reference



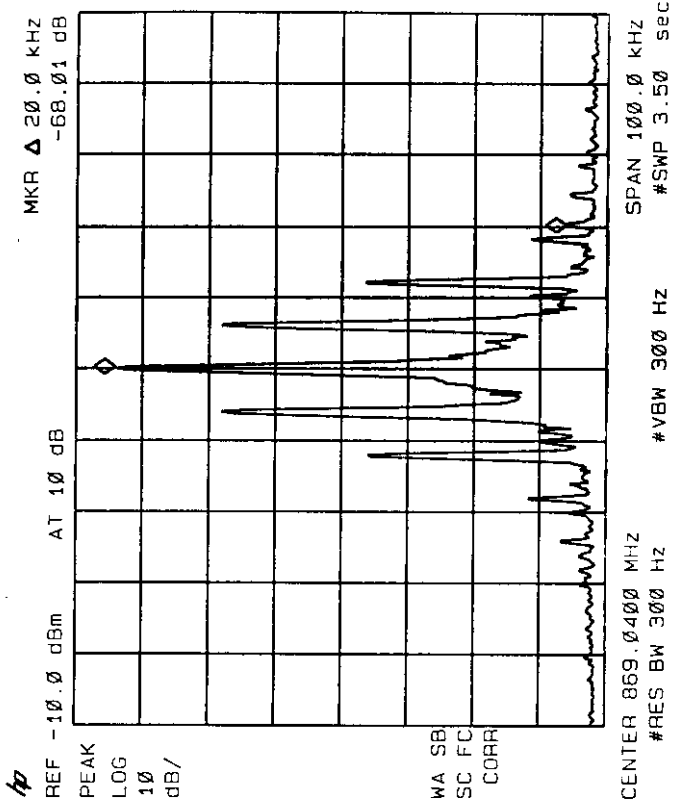
Voice Only



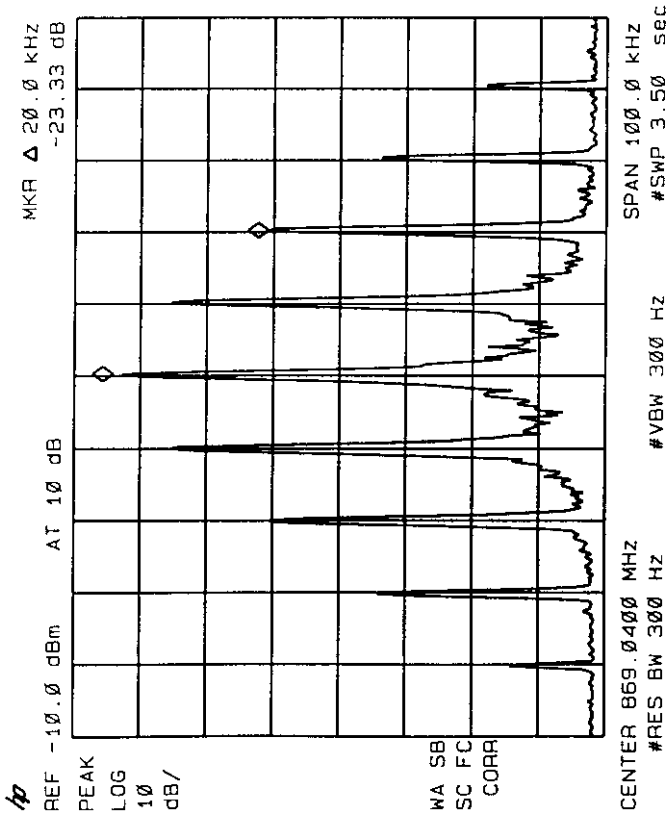
Voice + SAT



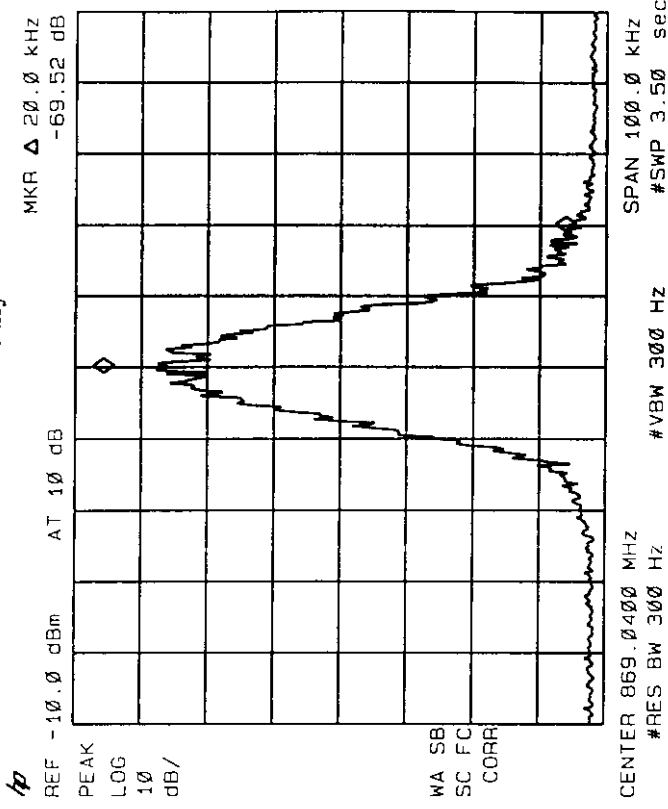
SAT Only



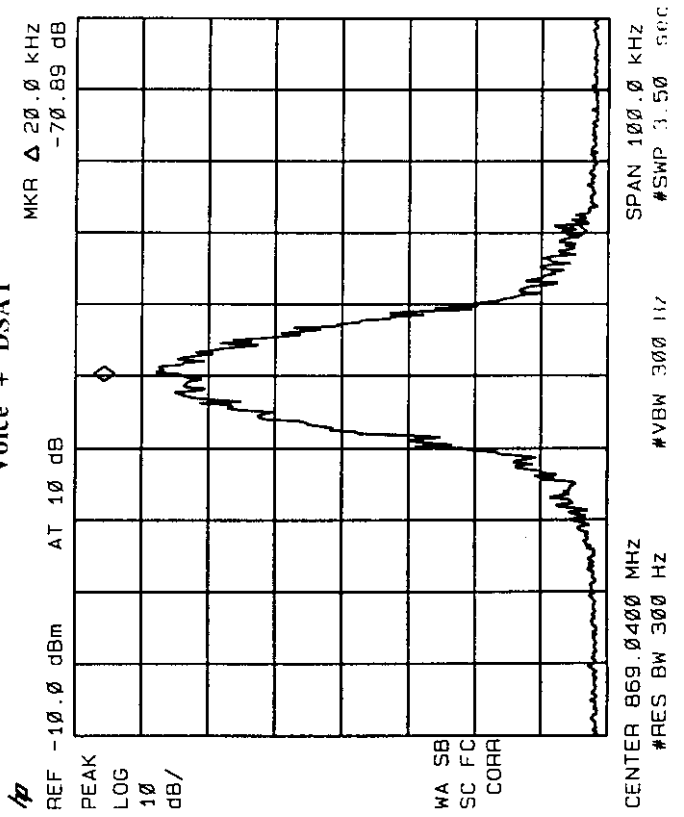
Wide Band Data



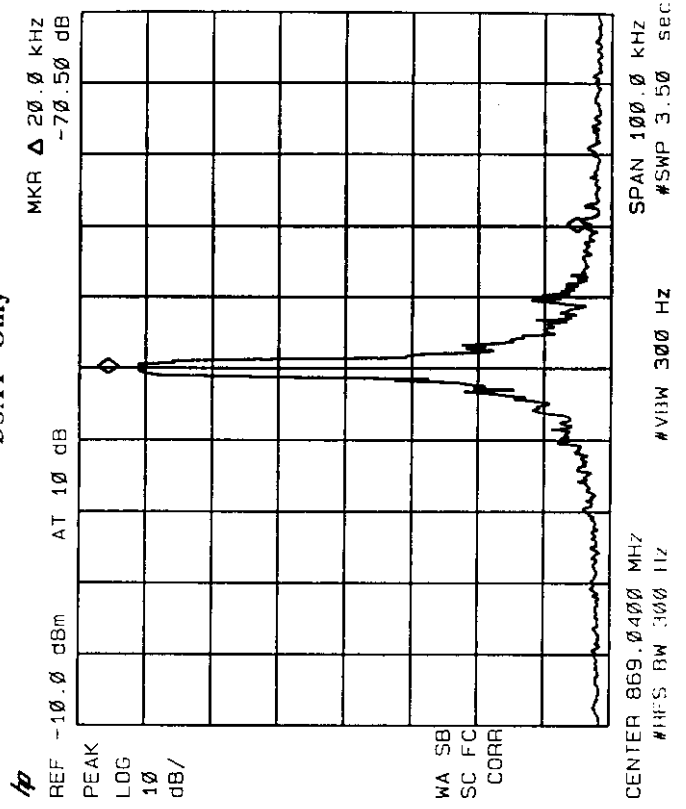
Voice Only



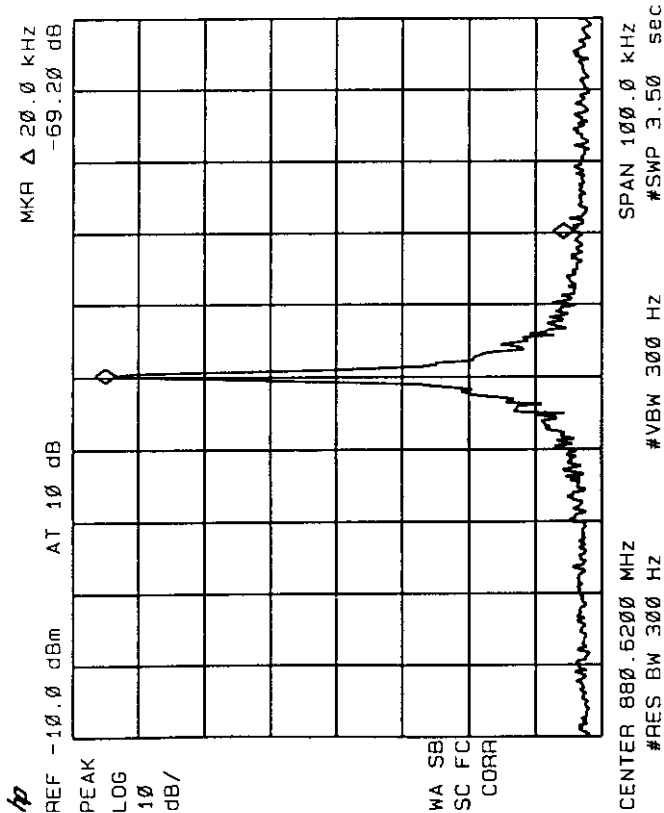
Voice + DSAT



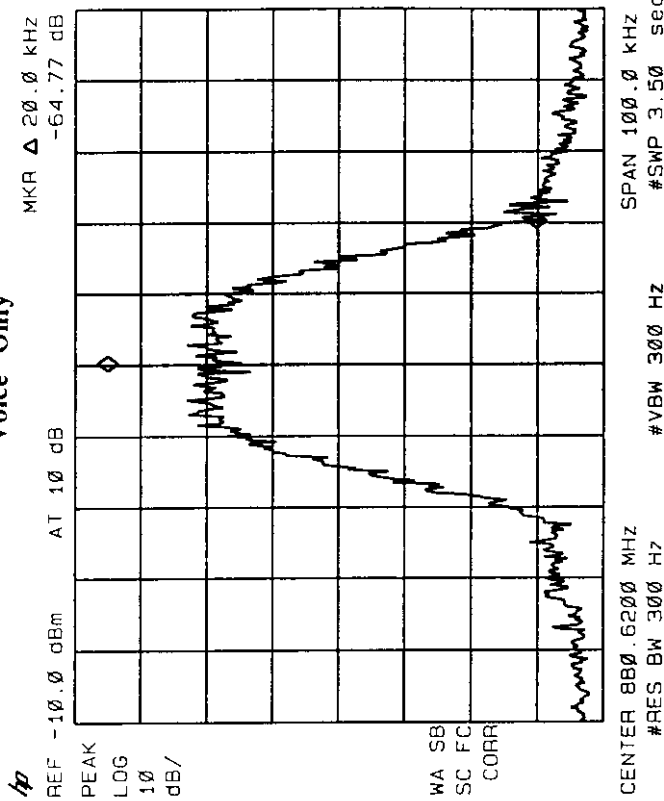
DSAT Only



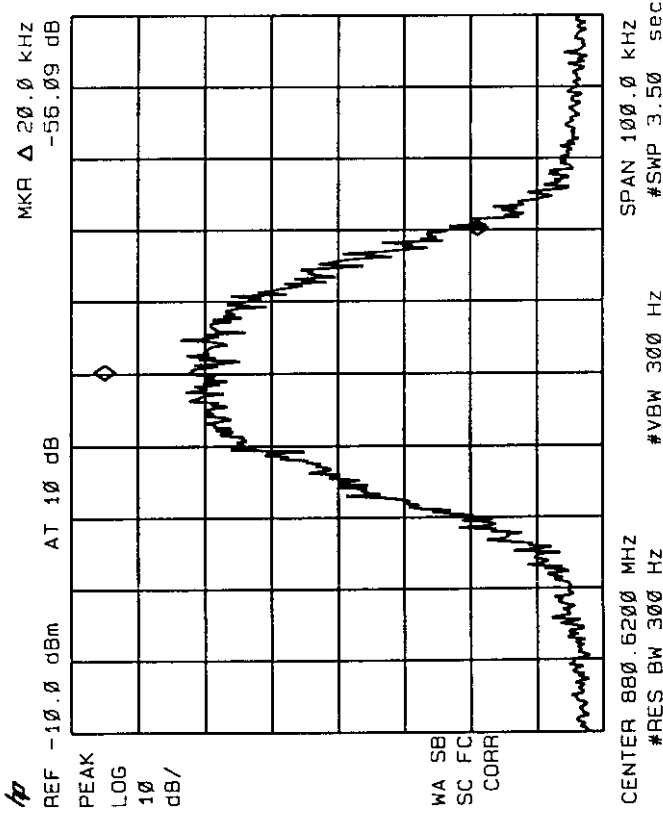
Reference



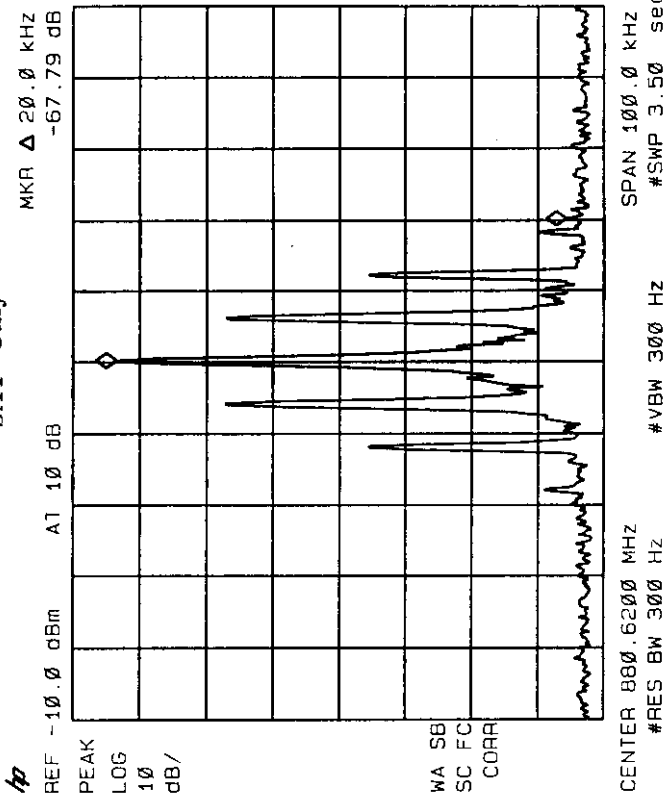
Voice Only



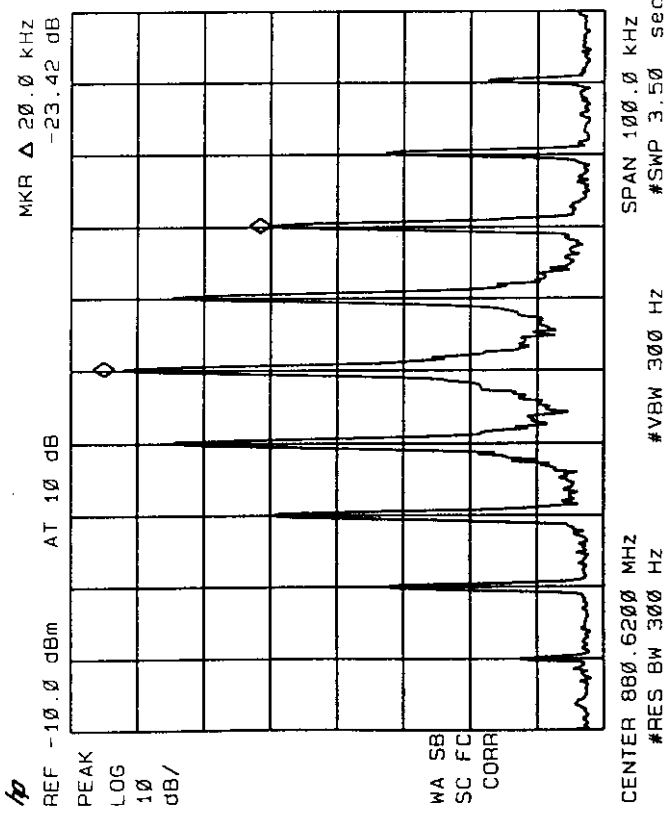
Voice + SAT



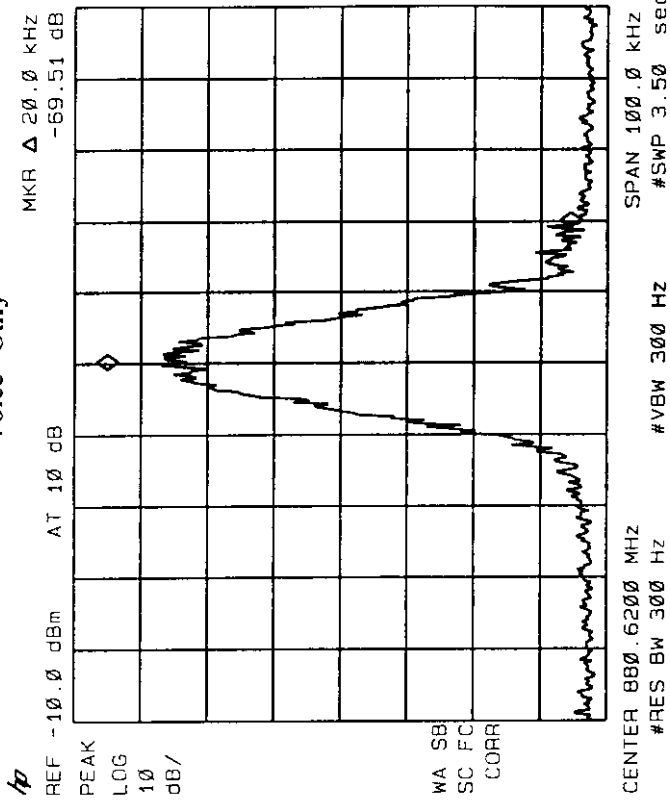
SAT Only



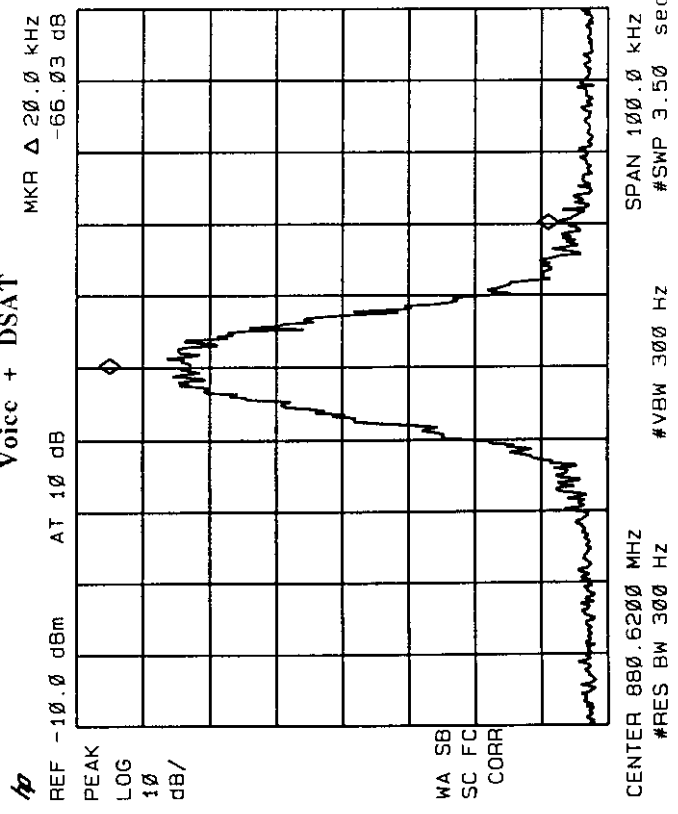
Wide Band Data



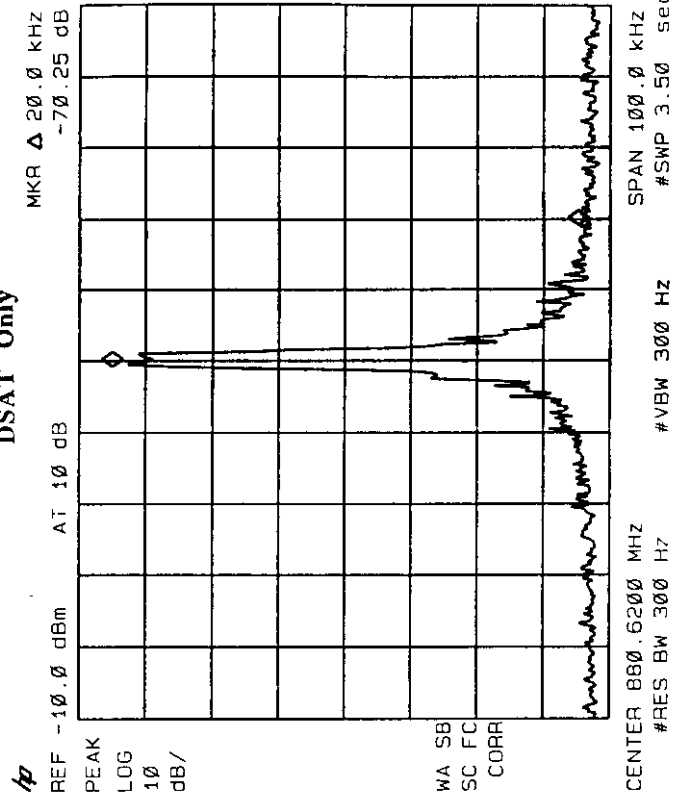
Voice Only



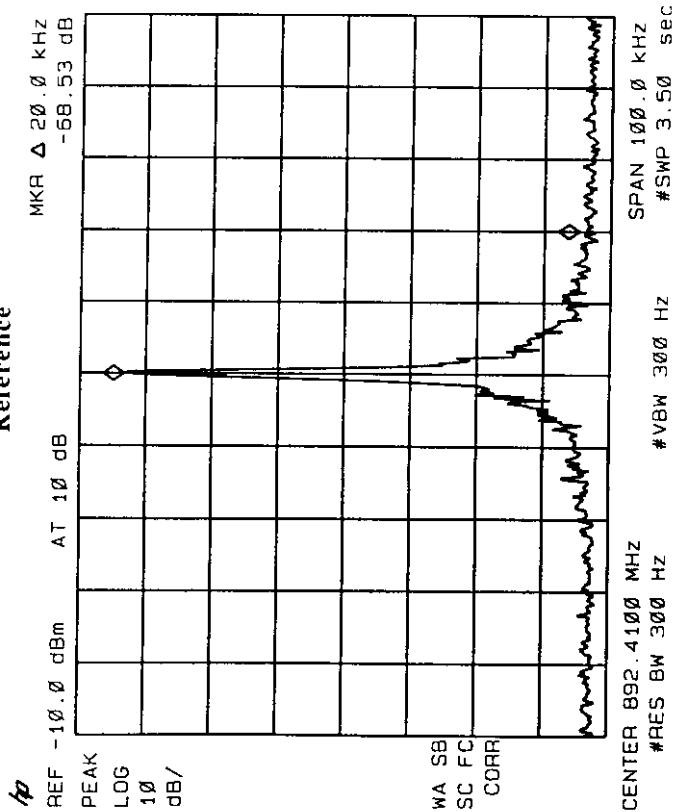
Voice + DSAT



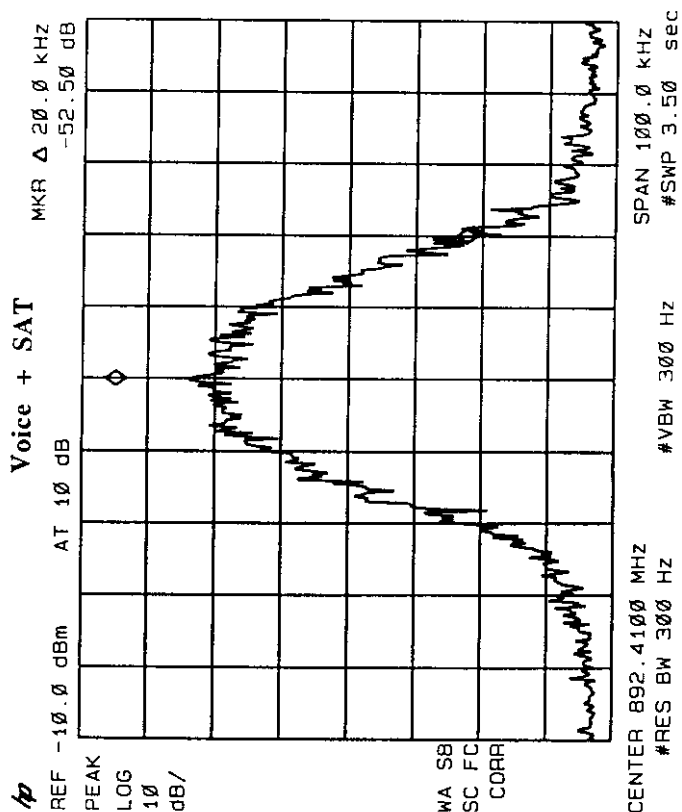
DSAT Only



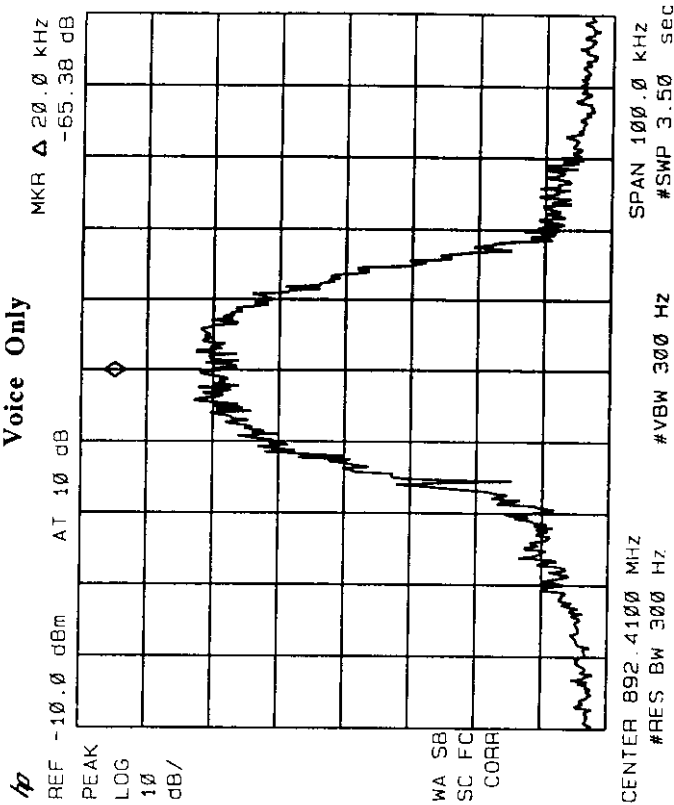
Reference



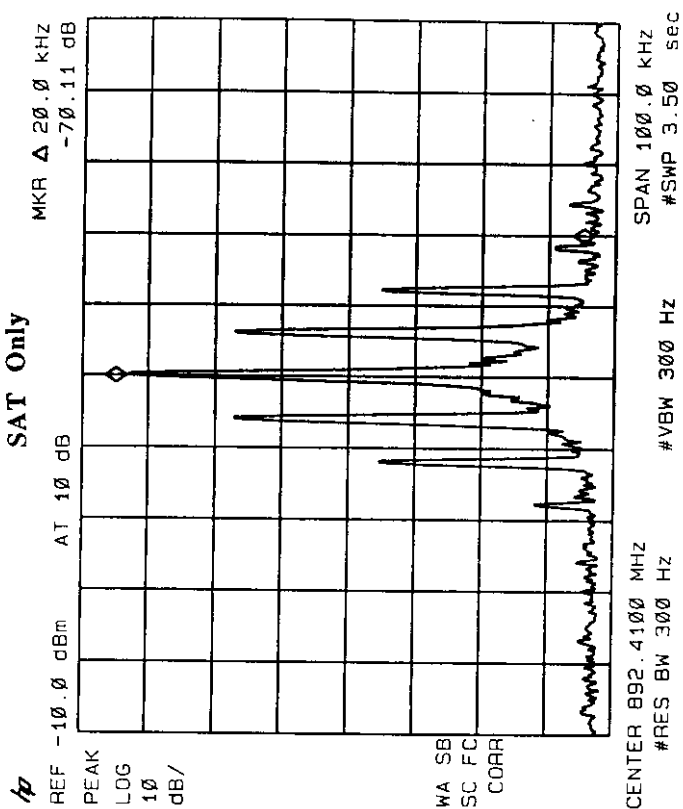
Voice + SAT



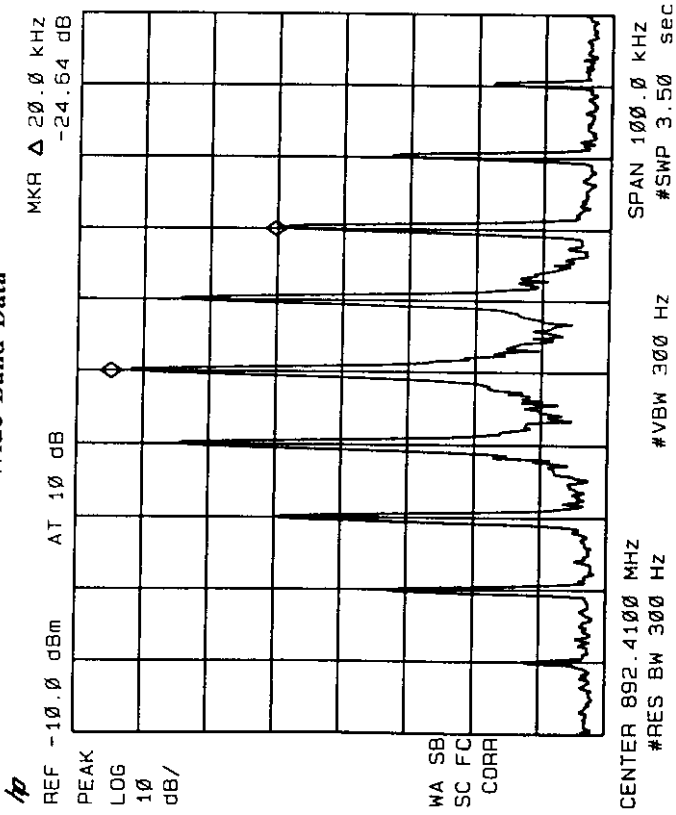
Voice Only



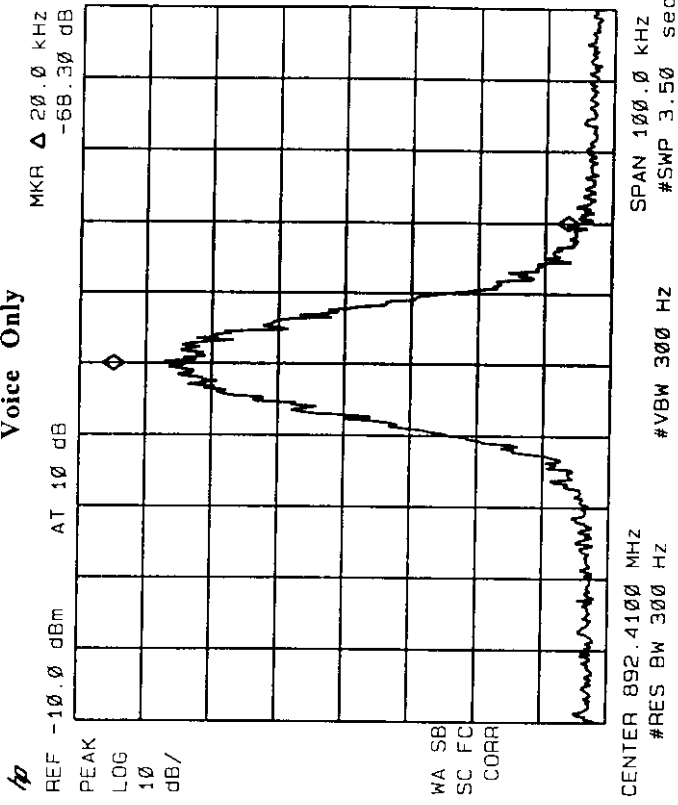
SAT Only



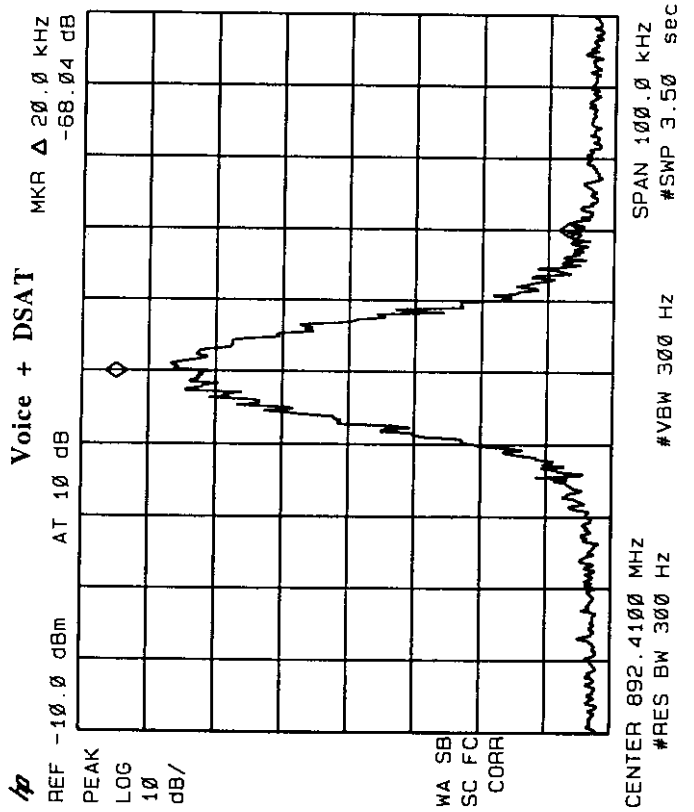
Wide Band Data



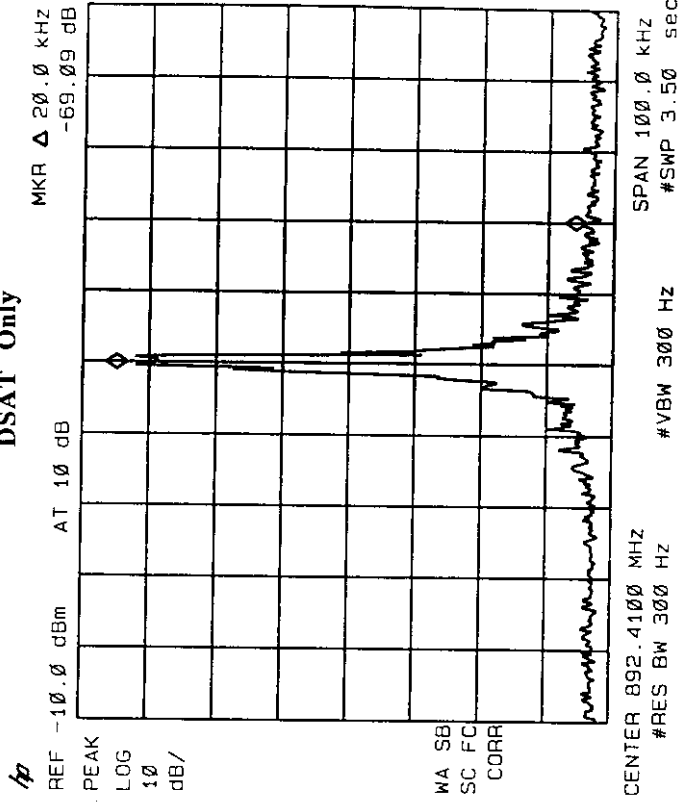
Voice Only



Voice + DSAT



DSAT Only





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FCC ID: IHETSYE1

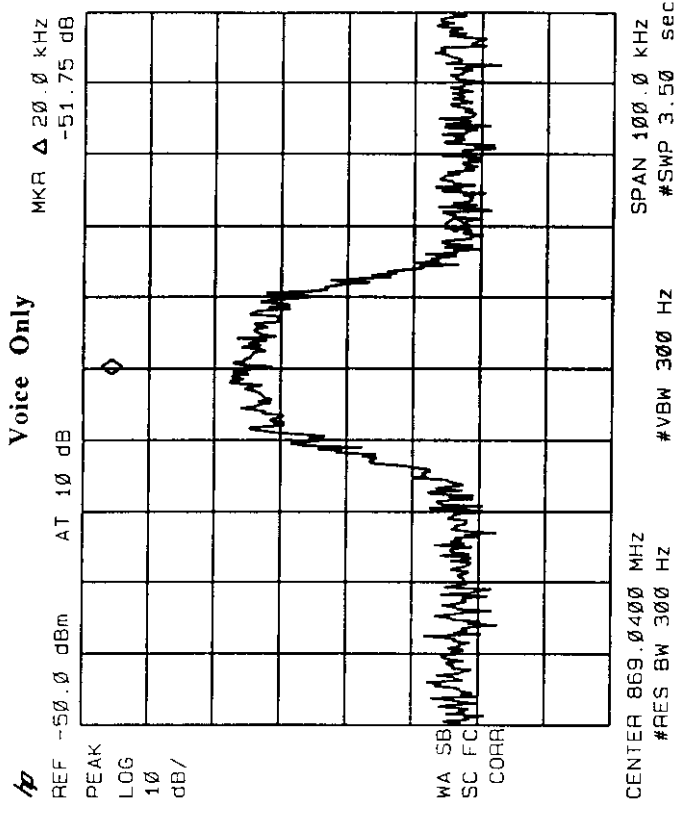
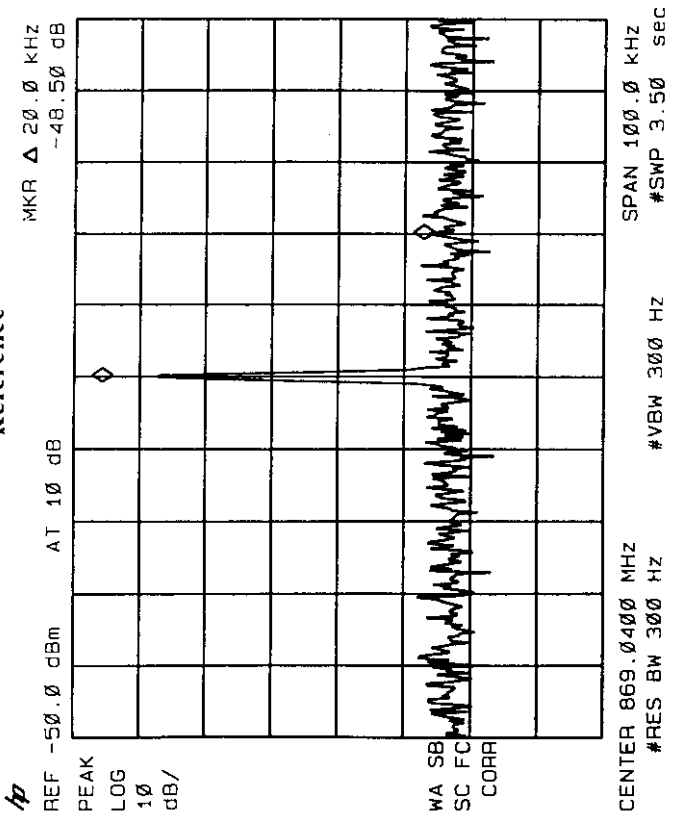
OCCUPIED BANDWIDTH

Channels 991, 354, 747

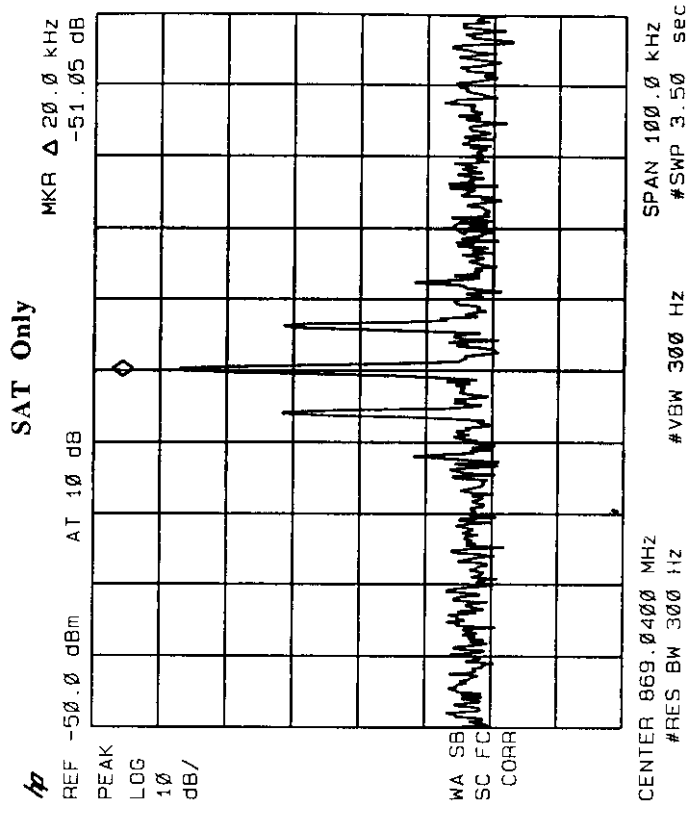
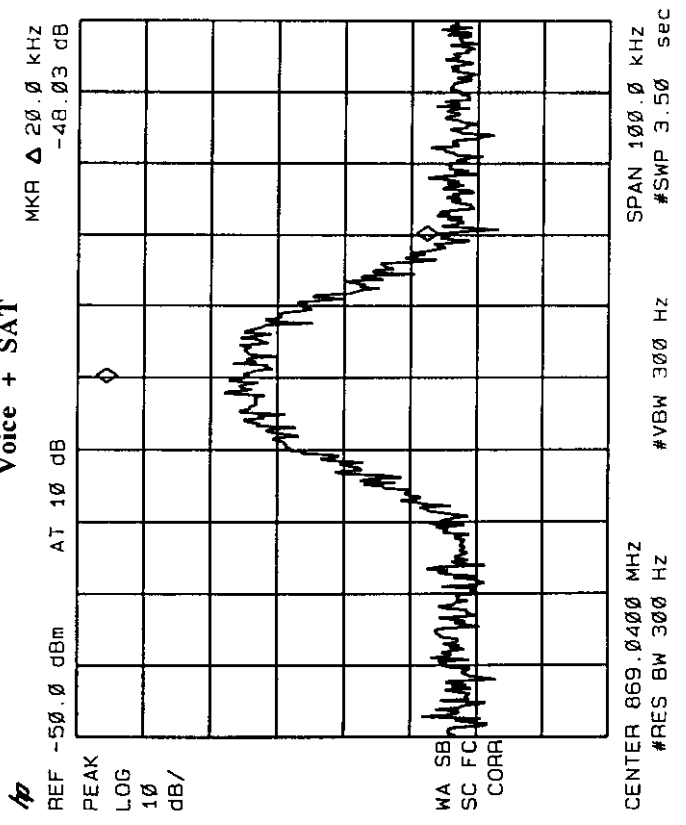
Minimum Power

Analog

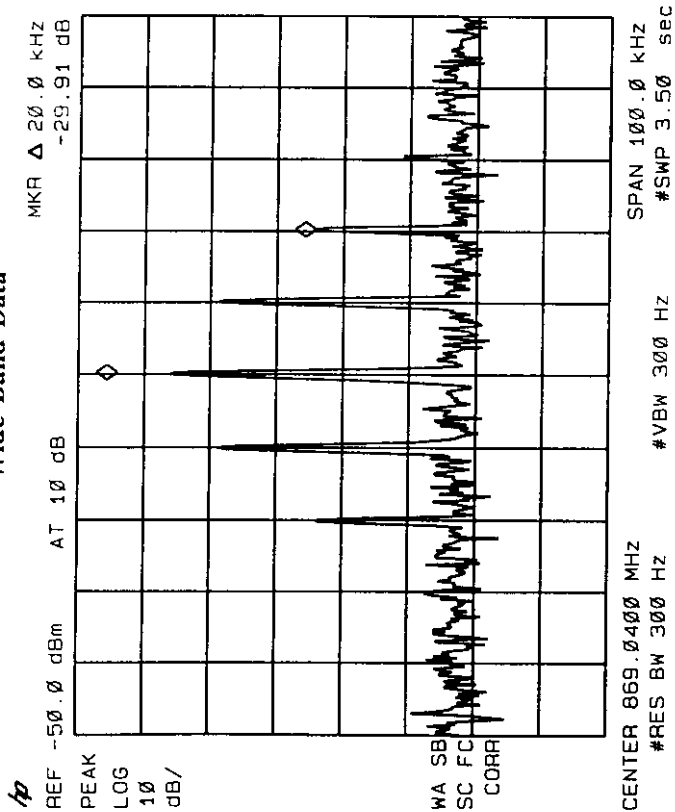
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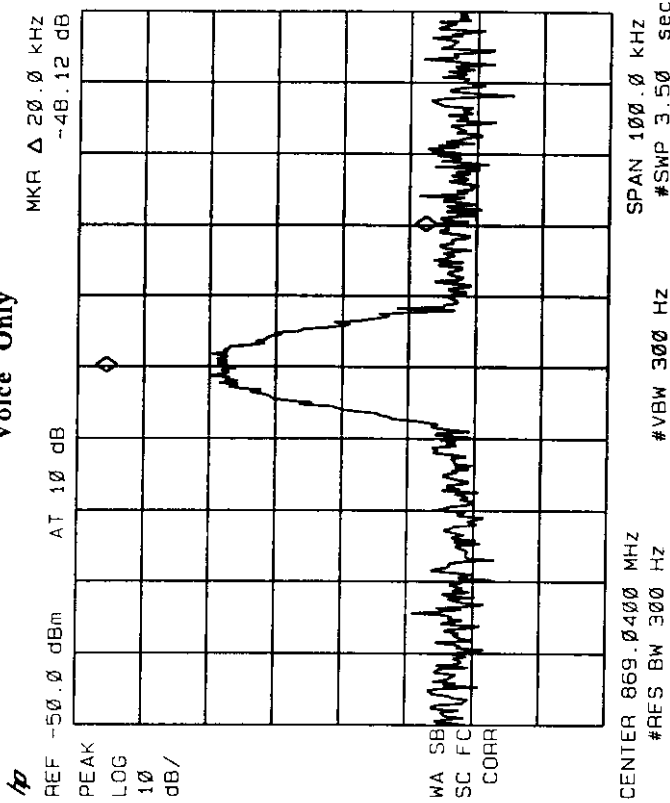
Voice + SAT



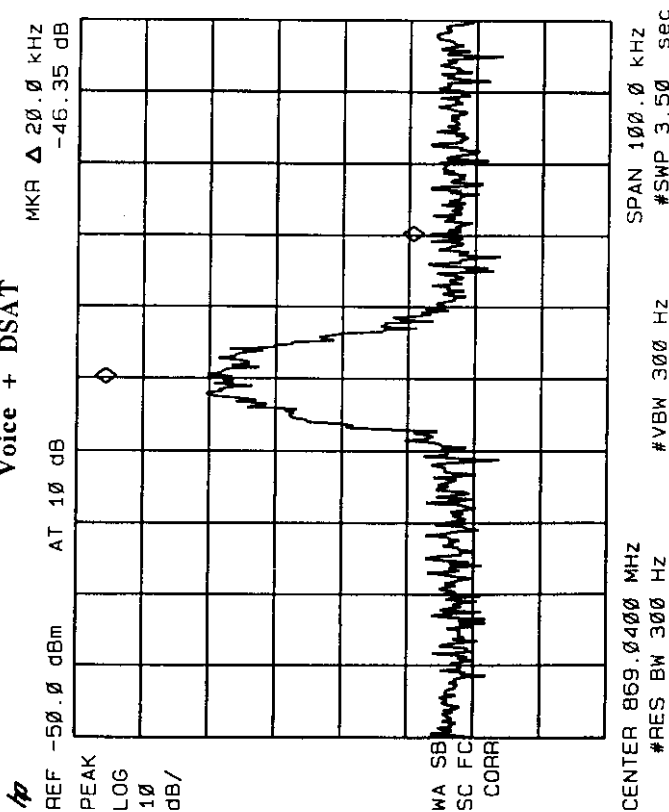
Wide Band Data



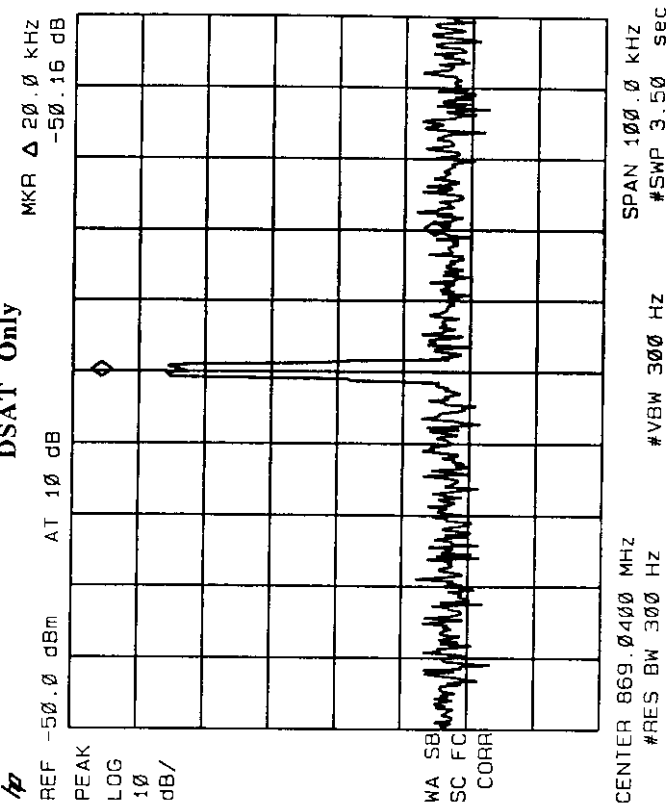
Voice Only



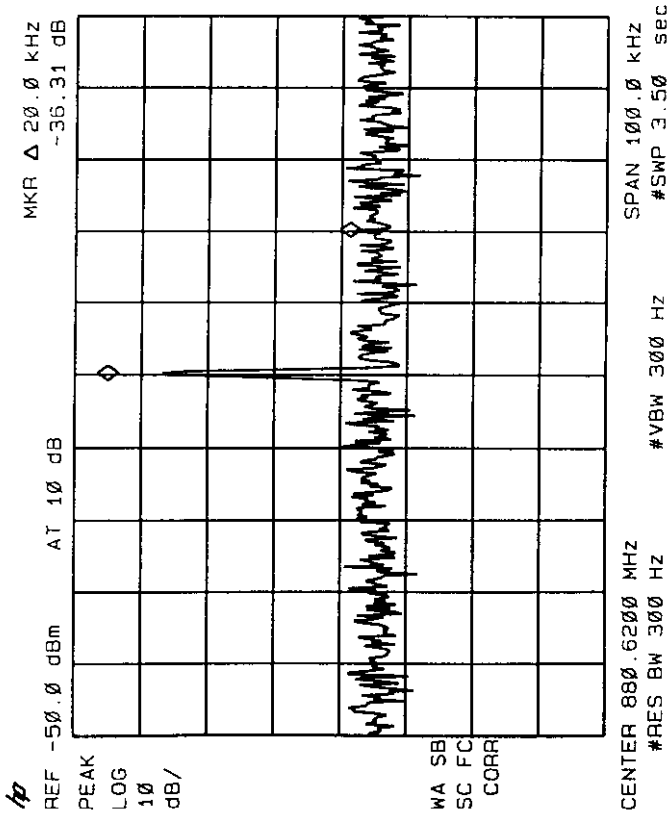
Voice + DSAT



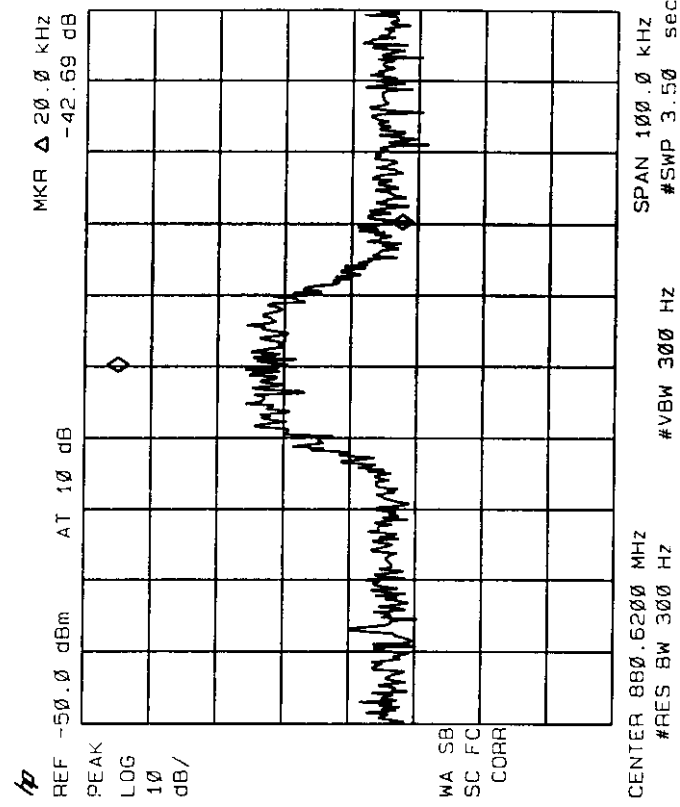
DSAT Only



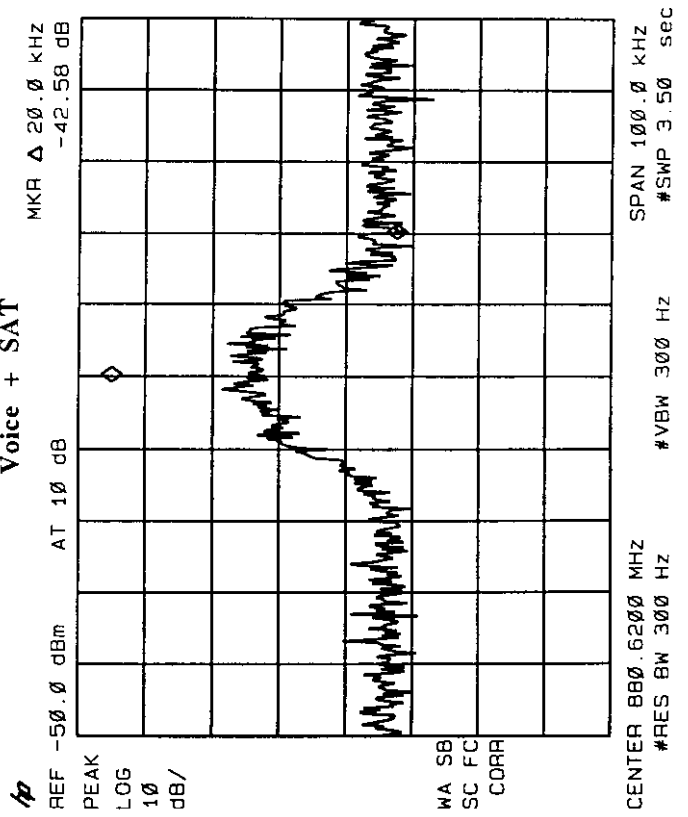
Reference



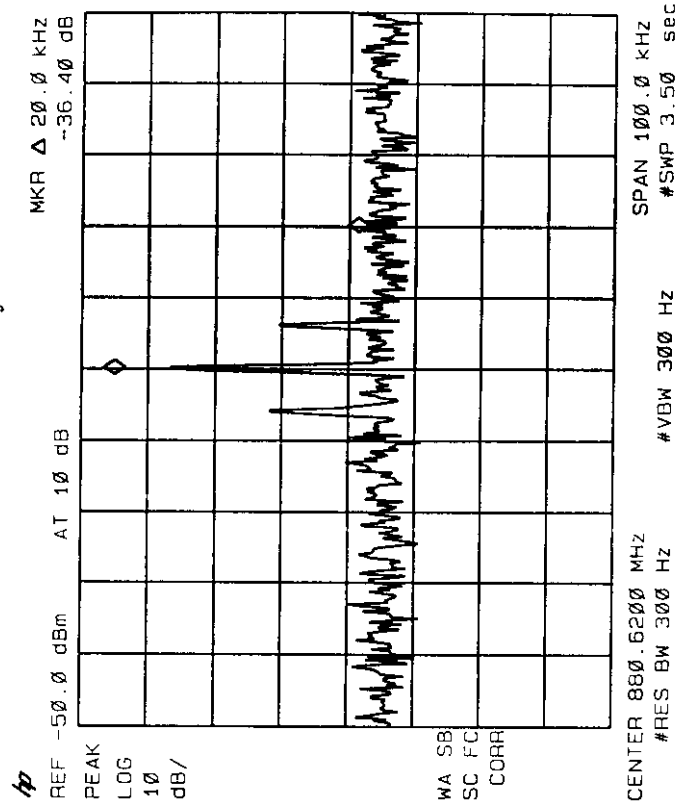
Voice Only



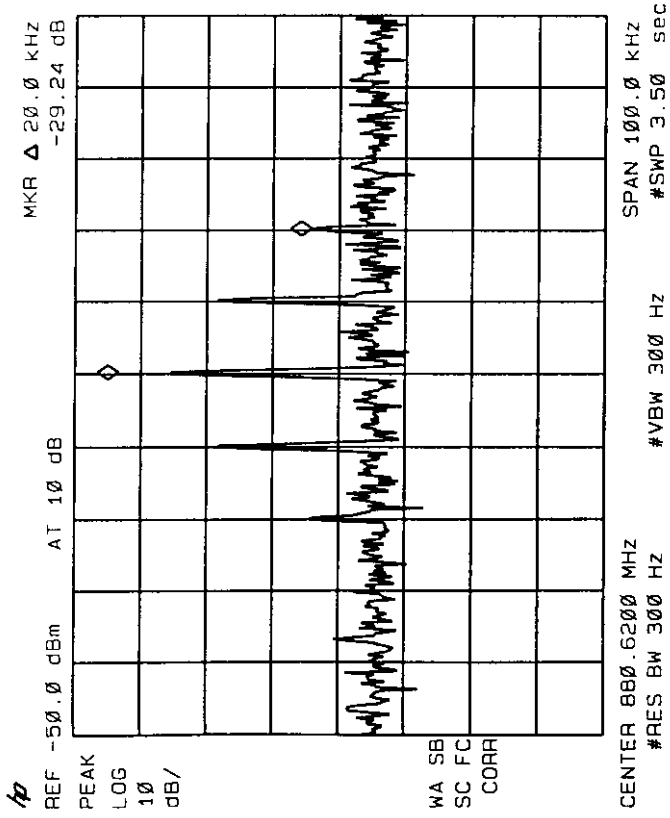
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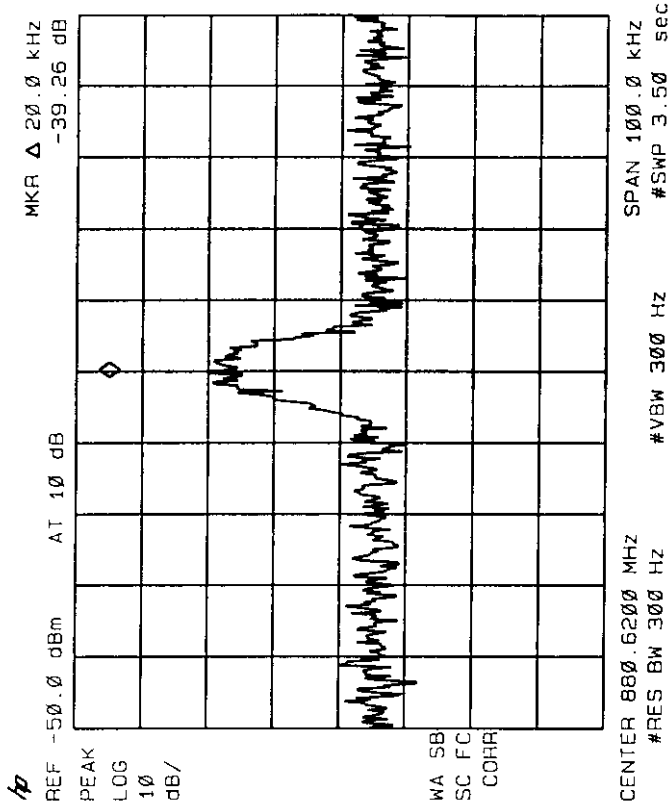
SAT Only



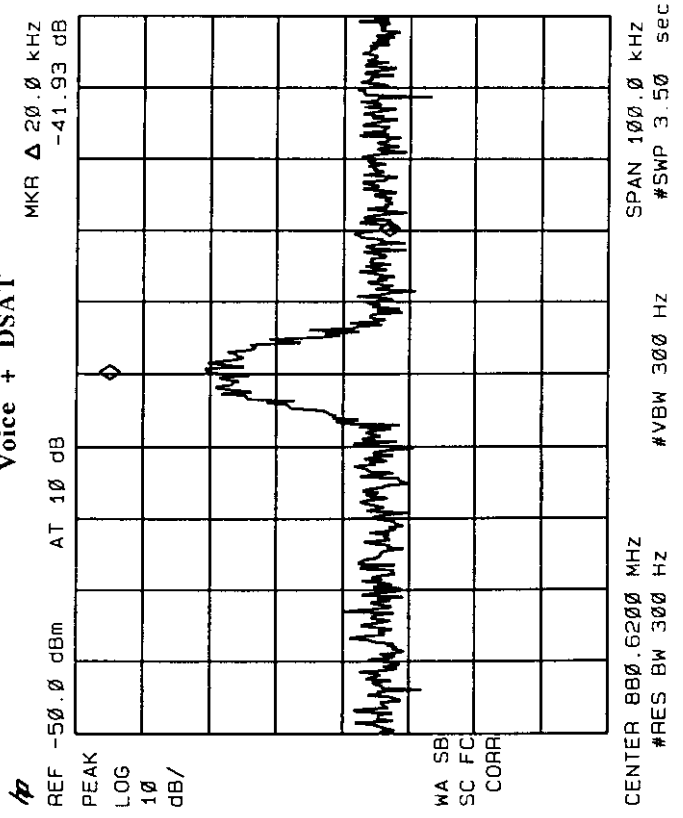
Wide Band Data



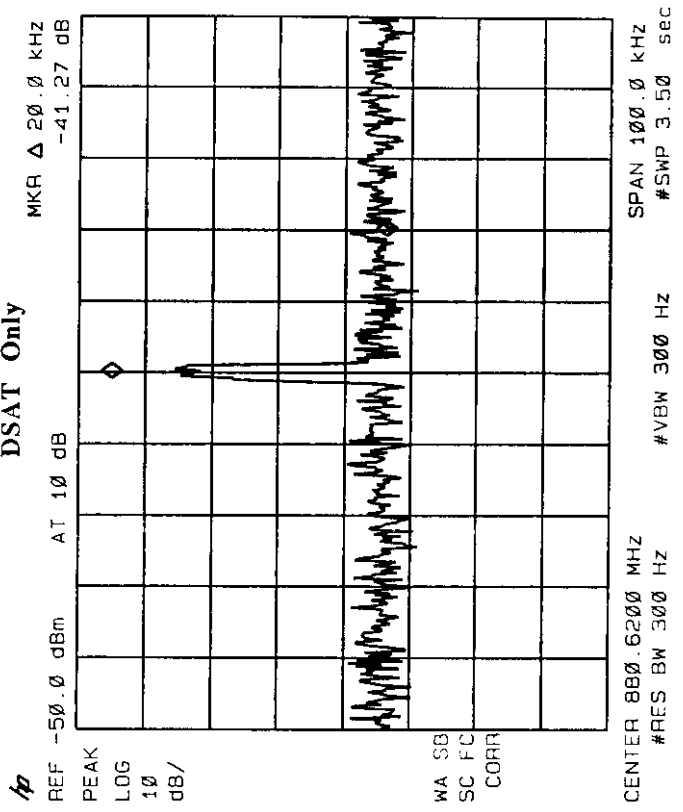
Voice Only



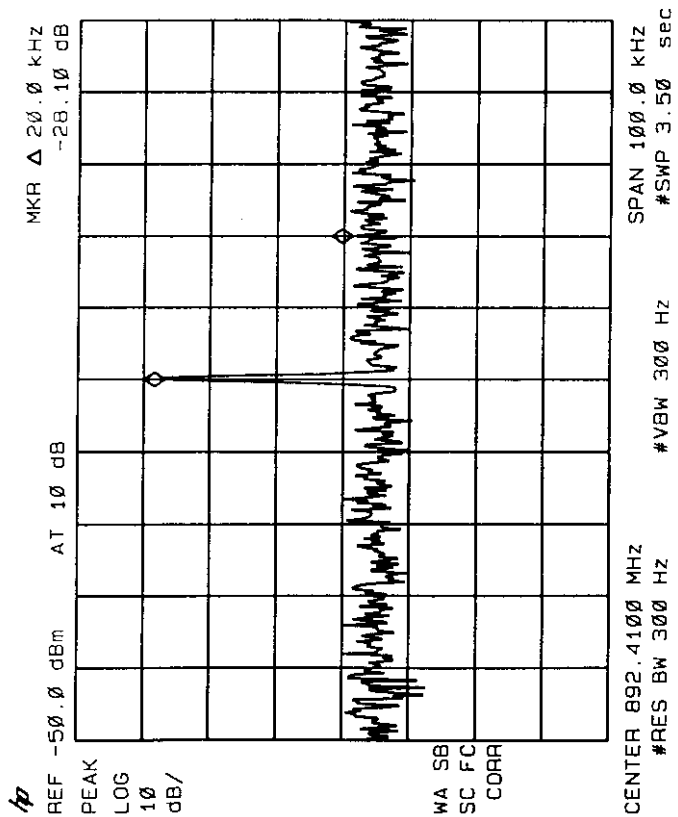
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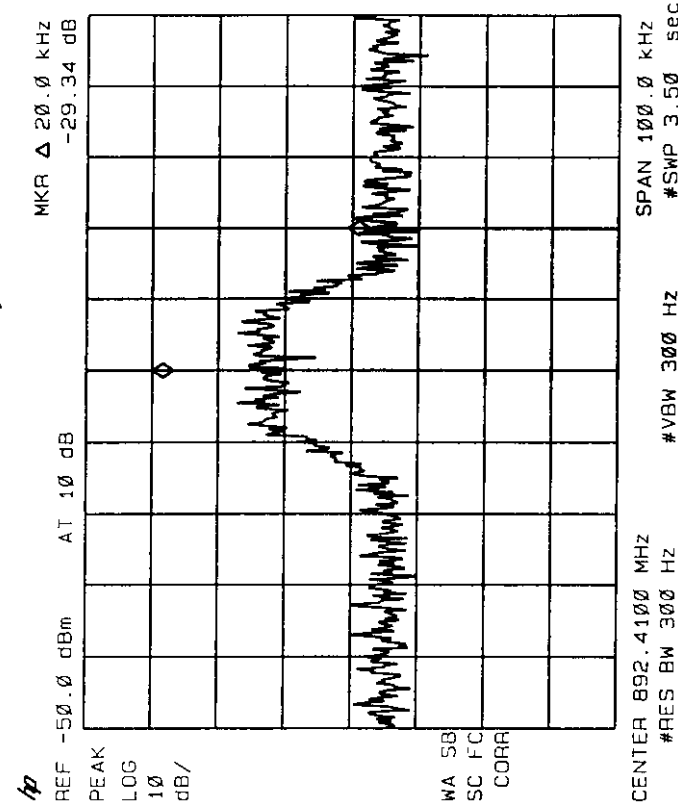
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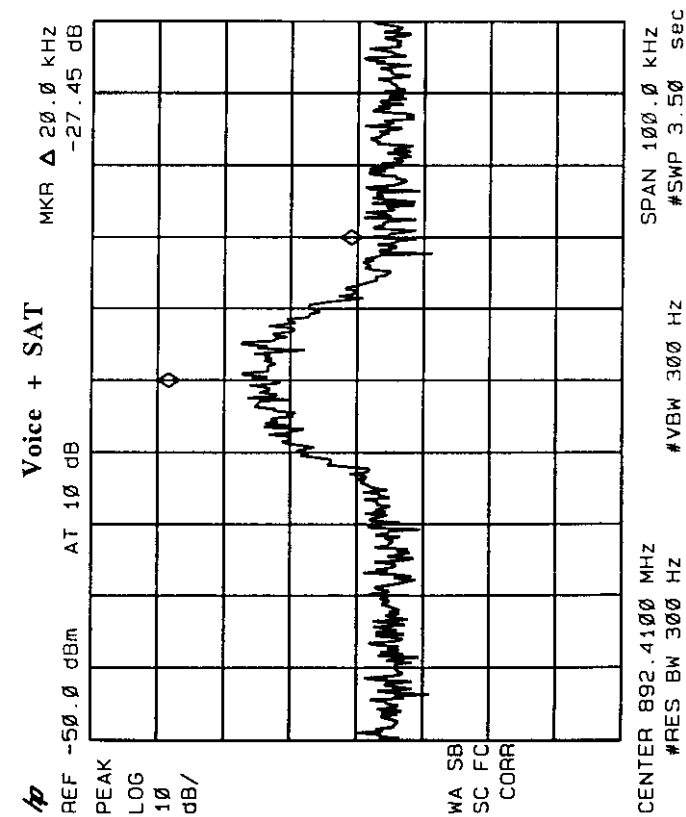
Reference



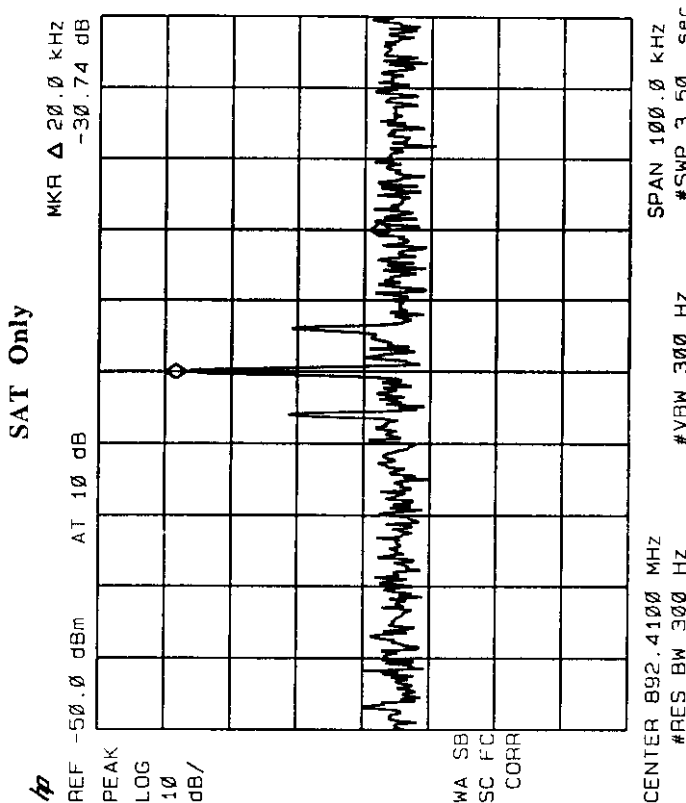
Voice Only



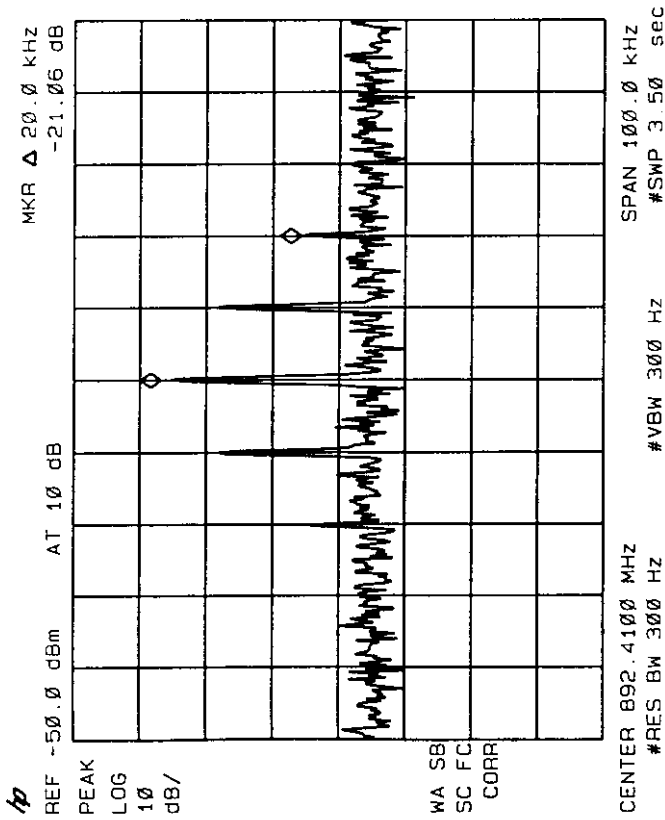
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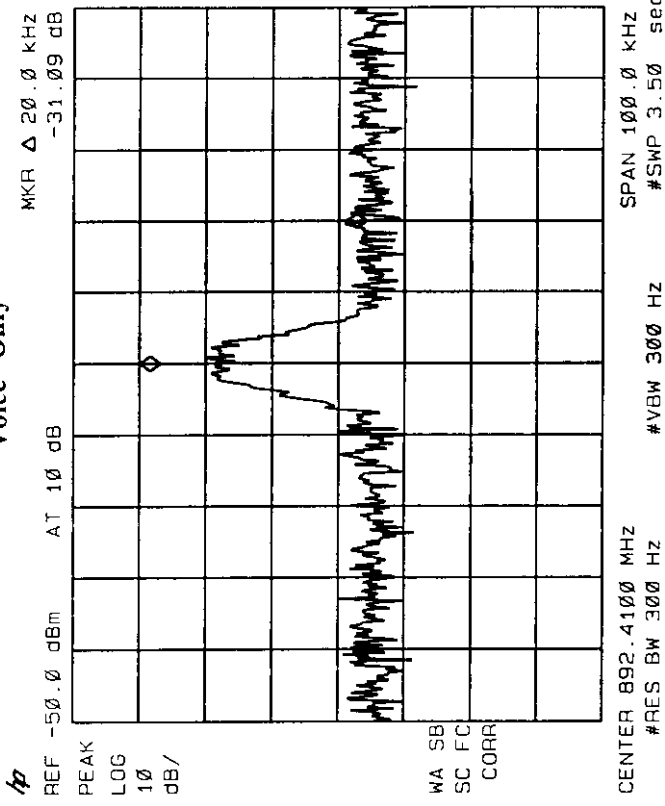
SAT Only



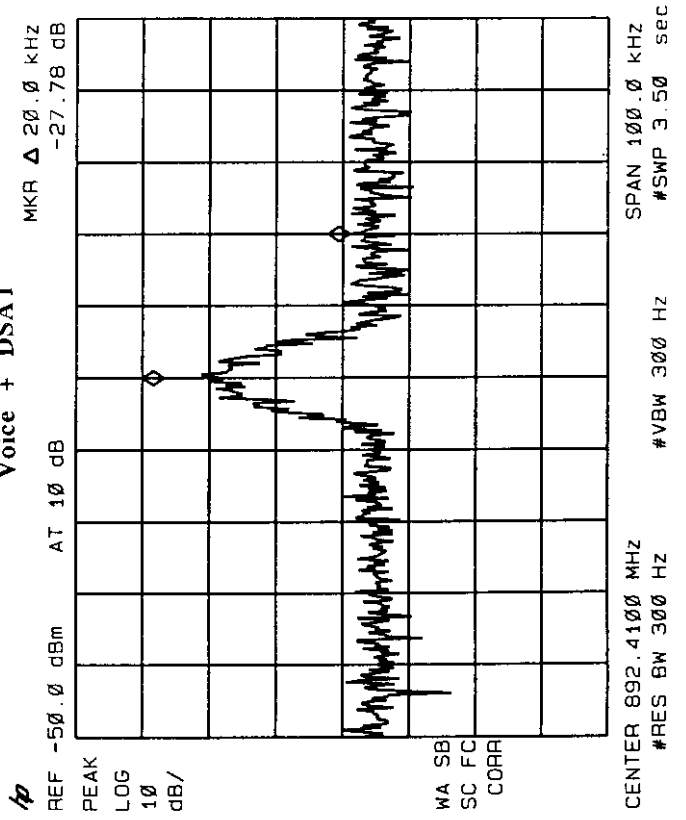
Wide Band Data



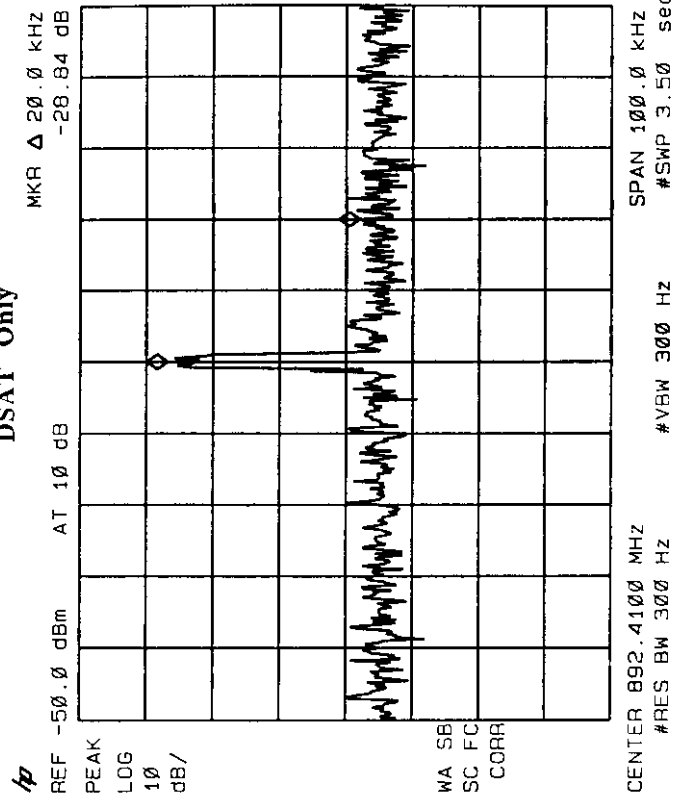
Voice Only



Voice + DSAT



DSAT Only





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Personal Communications Division*

FCC ID: IHET5YE1

OCCUPIED BANDWIDTH

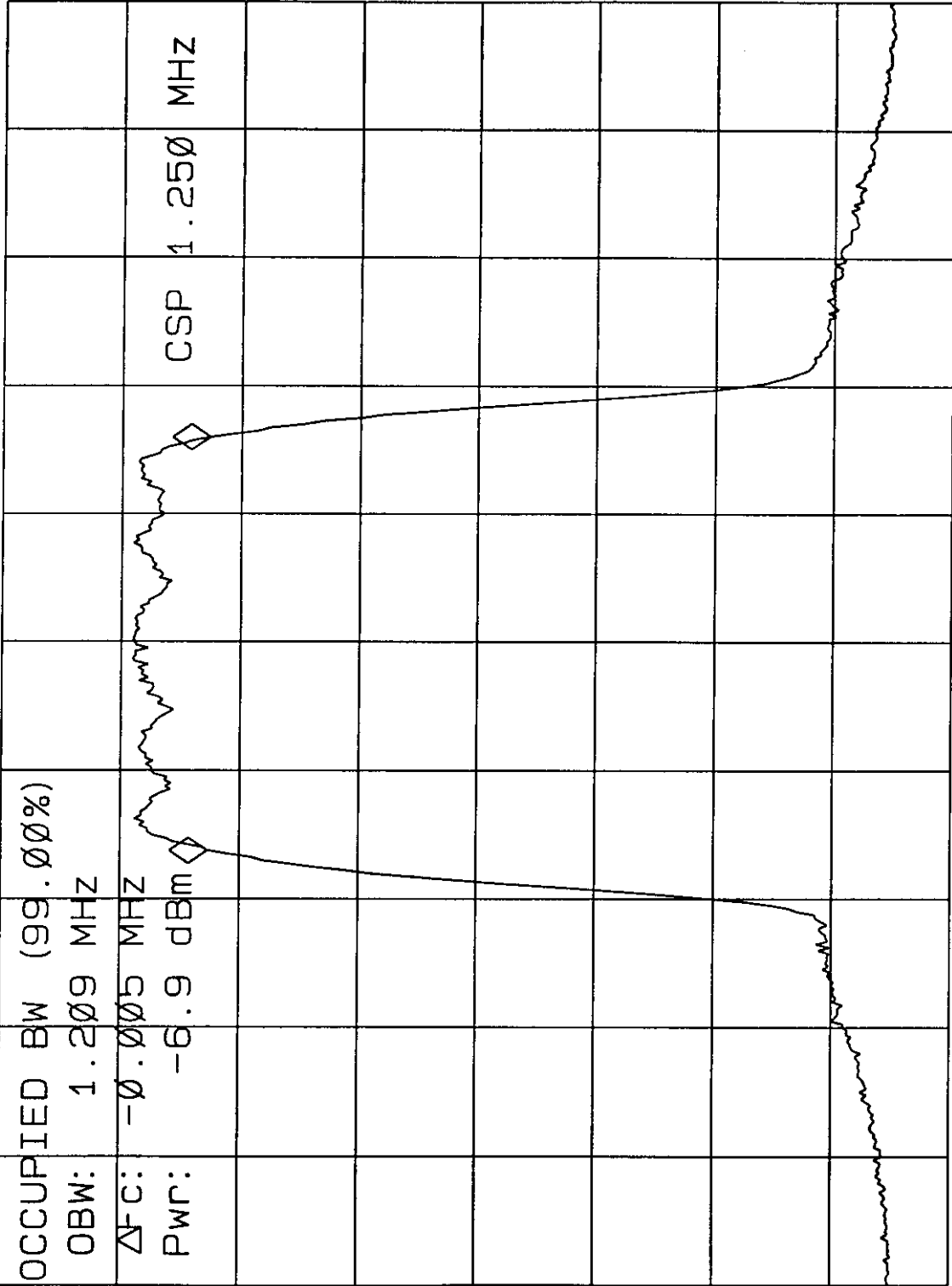
Channels 1013, 384, 777

Maximum Power

CDMA

hp

REF -10.0 dBm AT 10 dB



SMPL
LOG
10
dB/
OFFST
2.8
dB

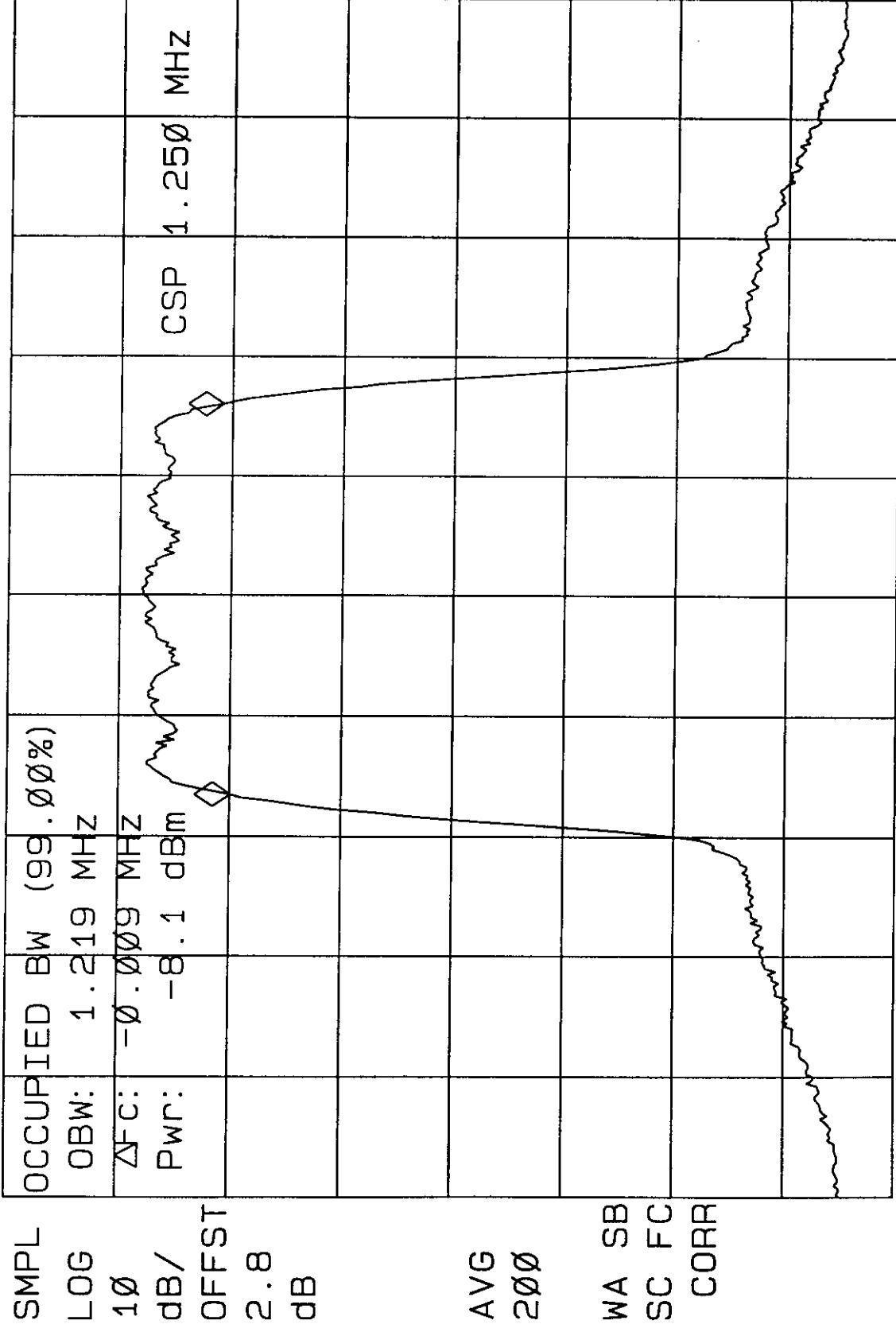
AVG
200

WA SB
SC FC
CORR

CENTER 869.700 MHz
#RES BW 30 kHz
SPAN 3.750 MHz
#SWP 20.0 msec
#VBW 30 kHz

hp

REF -10.0 dBm AT 10 dB



CENTER 893.310 MHz
#RES BW 30 KHZ

SPAN 3.750 MHz
#SWP 20.0 msec

#VBW 30 KHZ

AVG
200

WA SB
SC FC
CORR



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FCC ID: IHET5YE1

OCCUPIED BANDWIDTH

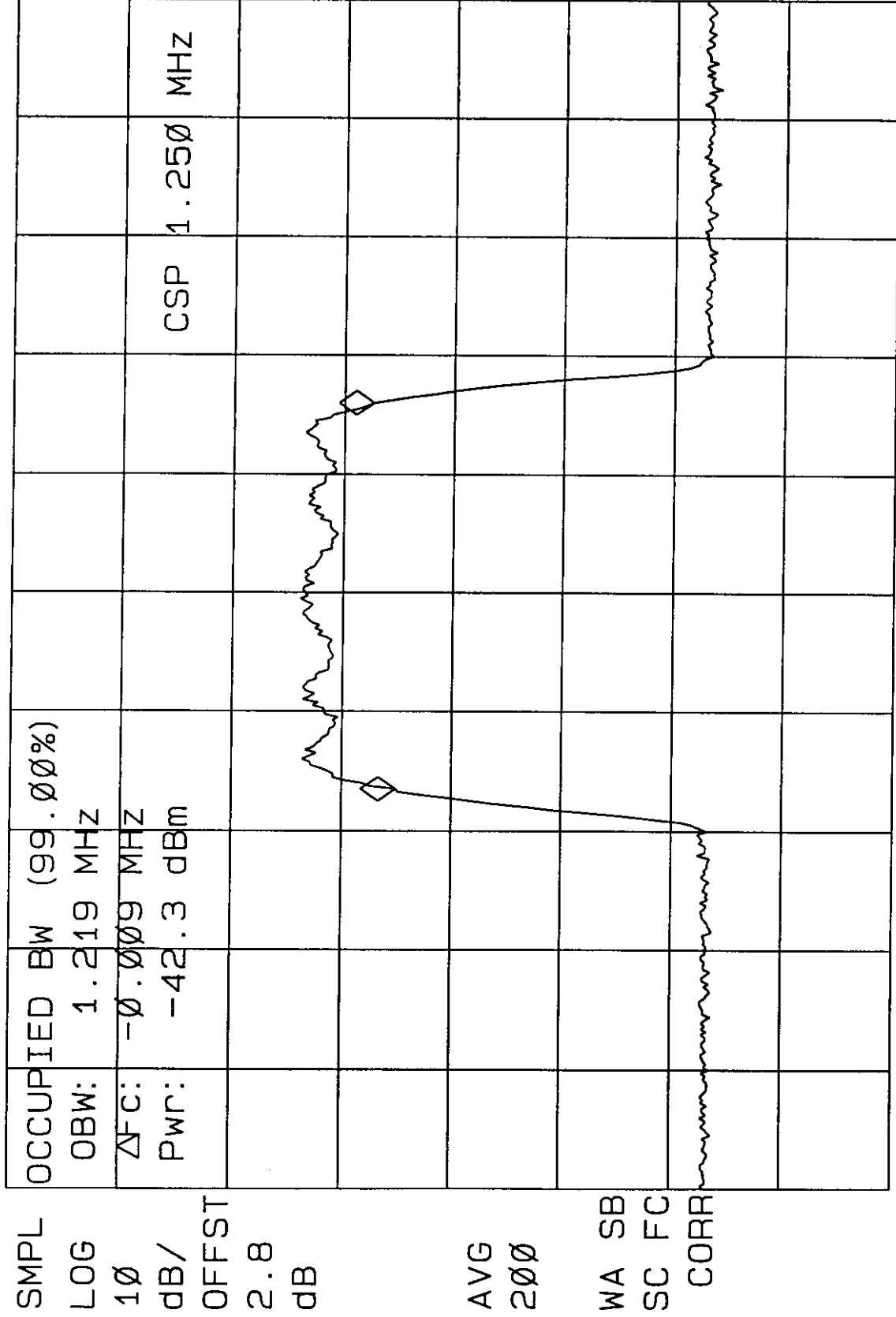
Channels 1013, 354, 777

Minimum Power

CDMA

hp

REF -30.0 dBm AT 10 dB



SMPL

LOG

10

dB/

OFFST

2.8

dB

AVG

200

WA SB

SC FC

CORR

CENTER 893.310 MHz

#RES BW 30 KHZ

#VBW 30 KHZ

SPAN 3.750 MHz
#SWP 20.0 msec



MOTOROLA

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Personal Communications Division*

FCC ID: IHET5YE1

EXHIBIT #25

FREQUENCY STABILITY

Frequency Stability Measurements

Applicant: MOTOROLA

Tranceiver Type: IHET5YE1

The frequency controlling devices in the SC9600 Mixed Mode/Multiple Carrier are designed to very stringent specifications. The voltage controlled ovenized oscillator (19.6608 MHz) from which the frame derives its carrier frequency is specified not to drift more than .005 ppm over temperature. Each oscillator is tested over frequency and voltage to ensure that it meets all specifications.

During standard operating conditions, the GPS receiver is used to send precision pulses to the 19.6608 MHz voltage controlled ovenized oscillator to maintain the correct frequency. If the GPS receiver were to fail and a secondary timing source is not installed in the frame, then the oscillator control voltage is fixed, thus maintaining the last known valid frequency plus any temperature or aging effects. By design, the temperature effects are limited to ± 0.005 ppm and the daily aging effects are limited to ± 0.00001 ppm. Therefore, assuming worst case conditions, after loss of the primary timing source the base station frequency shall vary no more than .00501 ppm, which is an order of magnitude within FCC limits.

