

APPLICANT: MOTOROLA

TRANSCIVER TYPE: IHET6YR1

SC4812T @1.9 GHz CDMA BTS Frame

EXHIBIT #6

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MOTOROLA

Cellular Infrastructure Group

FCC ID: IHET6YR1

EXHIBIT #6A

SUMMARY OF RF MEASUREMENTS

APPLICANT: MOTOROLA

TRANSCIVER TYPE: IHET6YR1

Summary of Radiated RF Measurements

WORST TRANSMIT RADIATED RF SPUR LEVEL FOR SC4812T @1.9 GHz BTS FRAME

SPUR FREQUENCY (GHz)	DISTANCE MEASURED (meters)	SPUR LEVEL MEASURED (dBμV/meter)	SPUR LEVEL MEASURED (dBm)	FCC MAX LIMIT dBm
3.97750	3	76.442	-18.79	-13

FCC Max. Limit Per 47 CFR 22.917:

- " =Transmitted Power ($10 \log_{10} (P_{\text{watt}})$) - ($43 + 10 \log_{10} (P_{\text{watt}})$)dBW
- " = $10 \log_{10} (P_{\text{watt}})$ - ($43 + 10 \log_{10} (P_{\text{watt}})$)dBW
- " =-43 dBW
- " =-13 dBm

Engineer: Melissa Chaudhri 10/9/98
Date

APPLICANT: MOTOROLA

TRANSCEIVER TYPE: IHET6YR1

Summary of Conducted RF Measurements

SPUR LEVEL MEASURED (dBm)	FREQUENCY (GHz)	SPUR LEVEL SPEC (dBm Max)
-24.95	19.8875	-13.0

Engineer: Melissa A. VanDrie 10/9/98
Date



MOTOROLA

Cellular Infrastructure Group

FCC ID: IHET6YR1

EXHIBIT #6B

MODULATION CHARACTERISTICS

CDMA ANALYZER			
Rho 0.9798 Time Offset 1.27 us		Freq Err 7.7 Hz Carrier Feedthru -32.1 dB	
Tune Freq 1931.250000 MHz Input Atten Auto/Hold 5 dB Input Port RF In/Ant	Find PN Auto/Manual PN Increment 1 Even Sec In Enable/Not	Meas Intvl 0.50 ms Gain Auto/Hold 12 dB Anl Dir Eug/Rev Anl Special Normal	Analyzer Arm Meas Single/Cont Disarm Qual Event 80 ms Tris Event Inmed

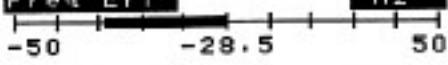
SC4812T 1.9 GHz
 CDMA BTS Frame
 IHET6YR1

Channel 25
 Maximum Power

CDMA ANALYZER			
Rho 0.9800 Time Offset 1.28 us		Freq Err -6.5 Hz Carrier Feedthru -40.4 dB	
Tune Freq 1988.750000 MHz Input Atten Auto/Hold 5 dB Input Port RF In/Ant	Find PN Auto/Manual PN Increment 1 Even Sec In Enable/Not	Meas Intvl 0.50 ms Gain Auto/Hold 18 dB Anl Dir End/Rev Anl Special Normal	Analyzer Arr Meas Single/Cont Disarr Qual Event 80 ms Trig Event Inned

SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

Channel 1175
Maximum Power

CDMA ANALYZER			
Rho 0.9600 Time Offset 1.29 us		<div style="display: flex; align-items: center;"> <div style="flex: 1;"> Freq Err  </div> <div style="flex: 0.1; text-align: center;">Hz</div> </div> Carrier Feedthru -17.1 dB	
Tune Freq 1931.250000 MHz Input Atten Auto/Hold 0 dB Input Port RF In/Ant	Find PN Auto/Manual PN Increment 1 Even Sec In Enable/Not	Meas Intvl 0.50 ms Gain Auto/Hold 30 dB Anl Dir Fwd/Rev Anl Special Normal	Analyzer Arr Meas Single/Cont Disarm Qual Event 80 ms Tris Event Inmed

SC4812T 1.9 GHz
 CDMA BTS Frame
 IHET6YR1

Channel 25
 Minimum Power

CDMA ANALYZER			
Rho 0.9726 Time Offset 1.28 us		Freq Err -21.7 Hz Carrier Feedthru -21.7 dB	
Tune Freq 1988.750000 MHz Input Atten Auto/Hold 0 dB Input Port RF In/Ant	Find PN Auto/Manual PN Increment 1 Even Sec In Enable/Not	Meas Intvl 0.50 ns Gain Auto/Hold 36 dB Anl Dir Fwd/Rev Anl Special Normal	Analyzer Arn Meas Single/Cont Disarm Qual Event 80 ms Tris Event Inned

SC4812T 1.9 GHz
 CDMA BTS Frame
 IHET6YR1

Channel 1175
 Minimum Power



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FCC ID: IHET6YR1

EXHIBIT #6C

SPURIOUS & HARMONIC EMISSIONS RADIATED

APPLICANT: MOTOROLA

TRANSCEIVER TYPE: IHET6YR1

Radiated RF Measurements

WORST RADIATED RF SPUR LEVEL FOR SC4812T @1.9 GHz

TRANSMIT CHANNEL	SPUR FREQUENCY (GHz)	MEASURED SIGNAL LEVEL dBuV/meter	MEASURED Signal Level (dBm)	FCC, Part 24 MAX LIMIT (dBm)
23V 25H	3.862 3.862	72.32 73.57	-22.91 -21.65	-13 -13
1175V 1175H	3.977 3.977	75.93 76.44	-19.90 -18.79	-13 -13

Converting dBuV/meter to dBm when Part 24 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 76.44 dBuV/m to dBm

$$(76.44 \text{ dBuV/m} / 20) * (\text{Inverse Log}) = 6638.96 \text{ uV/M}$$

$$\text{Log}(6638.96 \text{ uV/m} / 57735) * 20 = -18.79 \text{ dBm}$$

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 A. Vandine 10/9/98

Date



MOTOROLA

Cellular Infrastructure Group

FCC ID: IHET6YR1

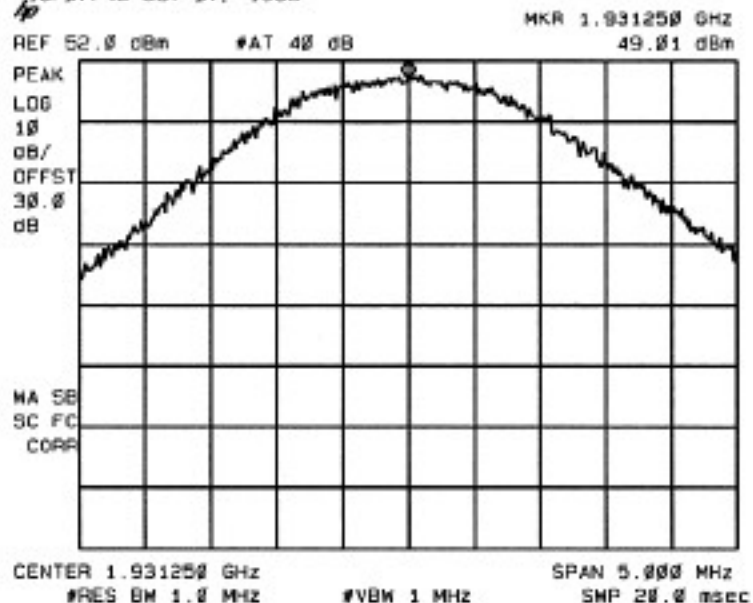
EXHIBIT #6D

SPURIOUS & HARMONIC EMISSIONS CONDUCTED

NOTE: The plots for conducted spurious and harmonic emissions are measured in peak mode. The higher (than 44.88 watts) levels measured in peak mode are expected, due to typical CDMA peak to average performance. The average power level was set to 44.88 watts using an HP438A power meter.

SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

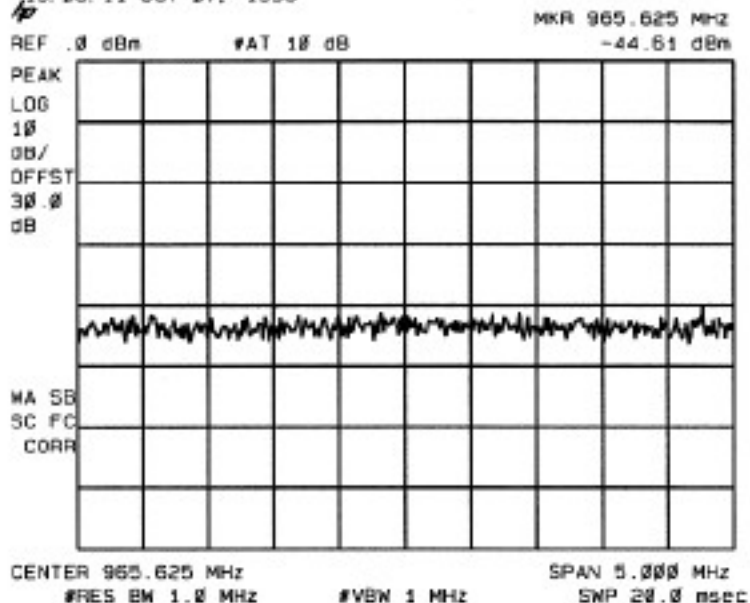
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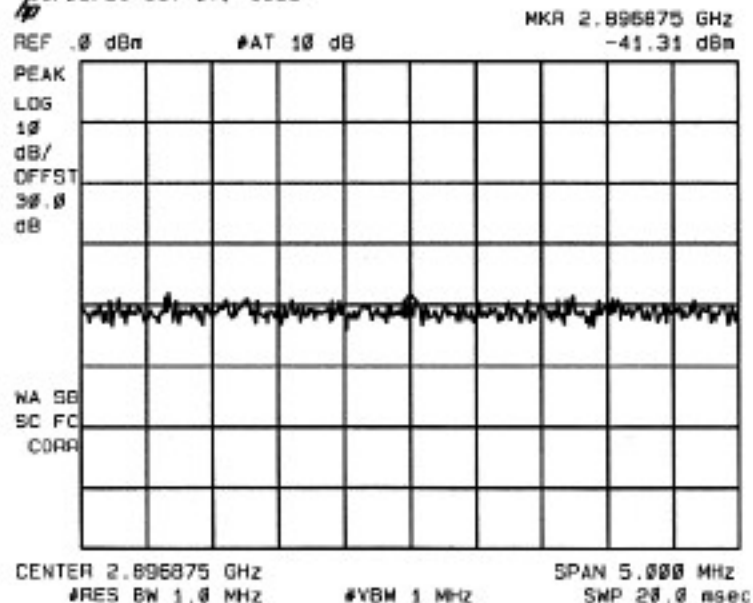
Channel 25
Maximum Power

btsate
10-07-98
17.11.18

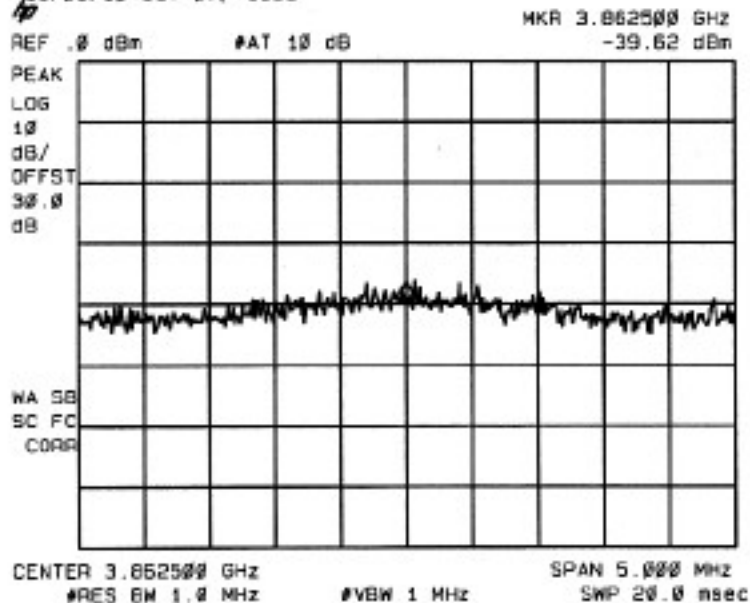
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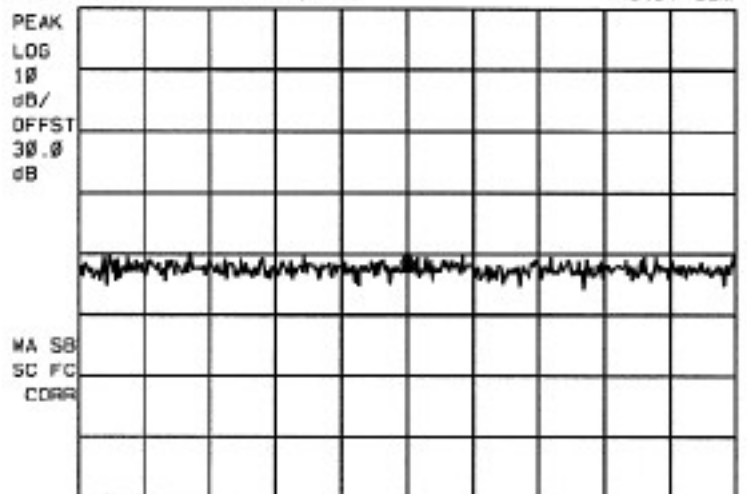
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SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

15:08:37 OCT 07, 1998

REF .0 dBm #AT 10 dB MKR 4.828125 GHz
-43.07 dBm

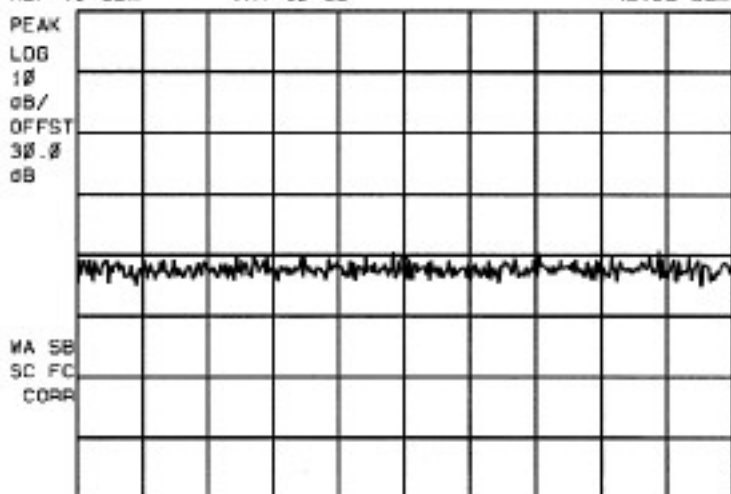


CENTER 4.828125 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SMP 20.0 msec

Channel 25
Maximum Power

15:08:45 OCT 07, 1998

REF .0 dBm #AT 10 dB MKR 5.793750 GHz
-43.05 dBm

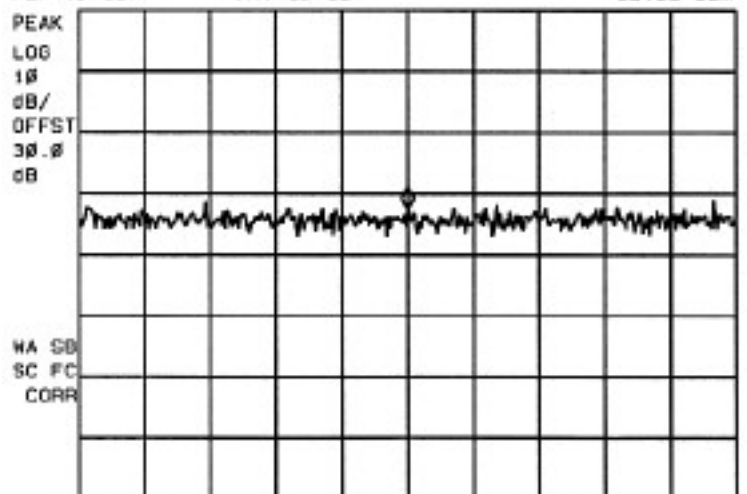


CENTER 5.793750 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SMP 20.0 msec

btsate
10-07-98
17:11:49

15:08:53 OCT 07, 1998

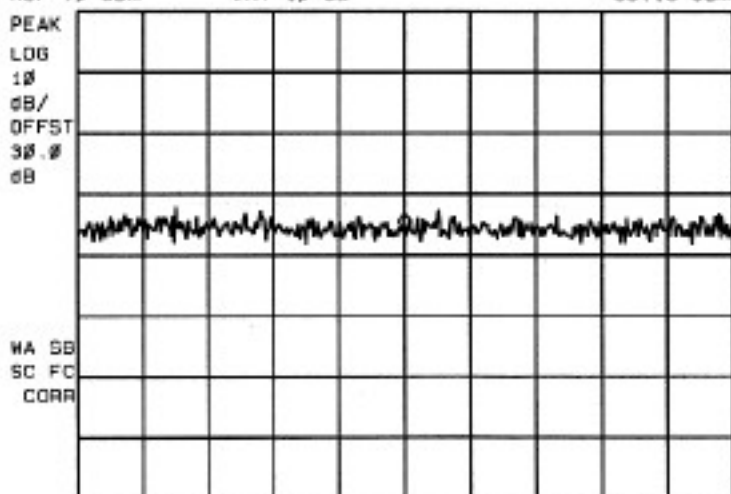
REF .0 dBm #AT 10 dB MKR 6.759375 GHz
-32.33 dBm



CENTER 6.759375 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SMP 20.0 msec

15:09:01 OCT 07, 1998

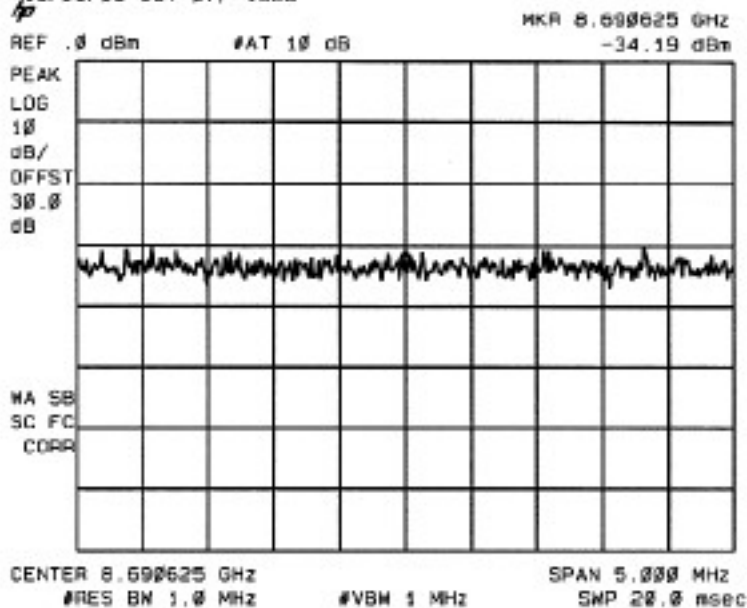
REF .0 dBm #AT 10 dB MKR 7.725000 GHz
-36.13 dBm



CENTER 7.725000 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SMP 20.0 msec

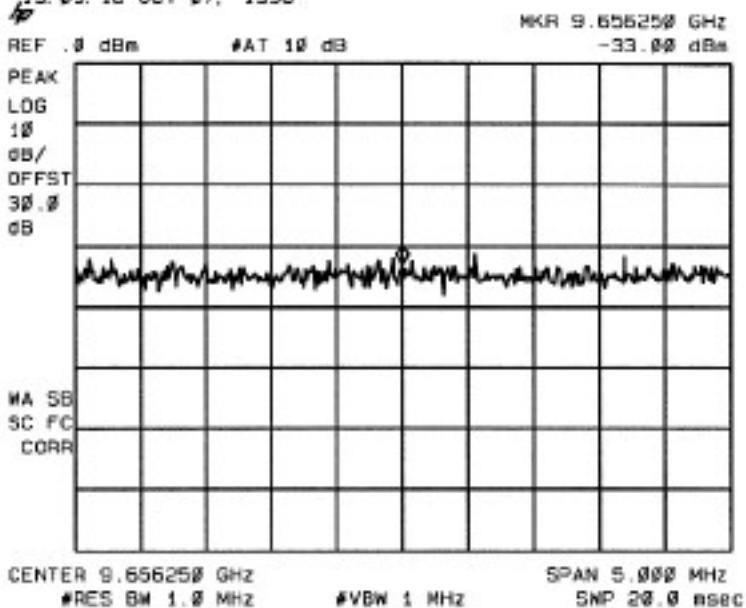
SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

15:09:08 OCT 07, 1998



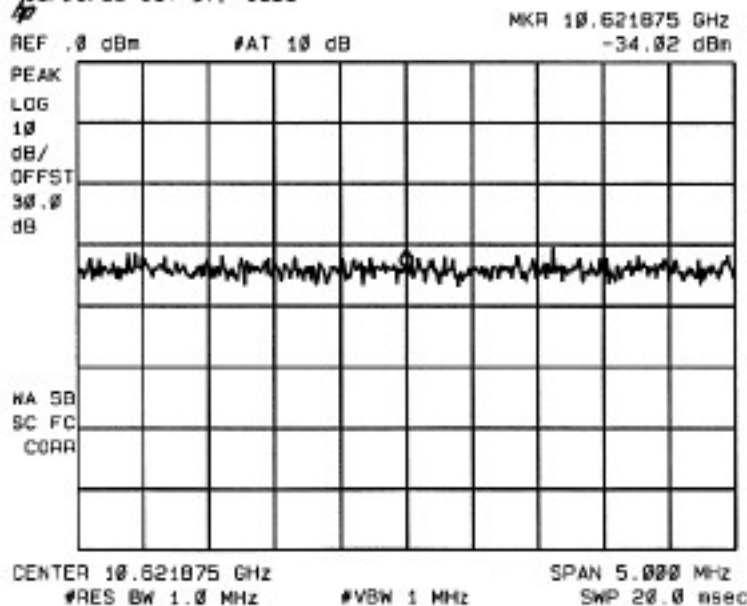
Channel 25
Maximum Power

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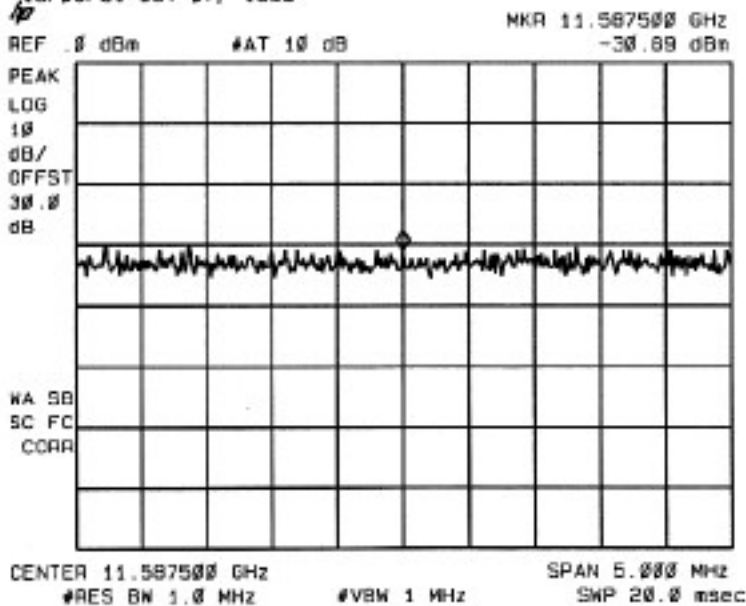


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10-07-98
17:12:19

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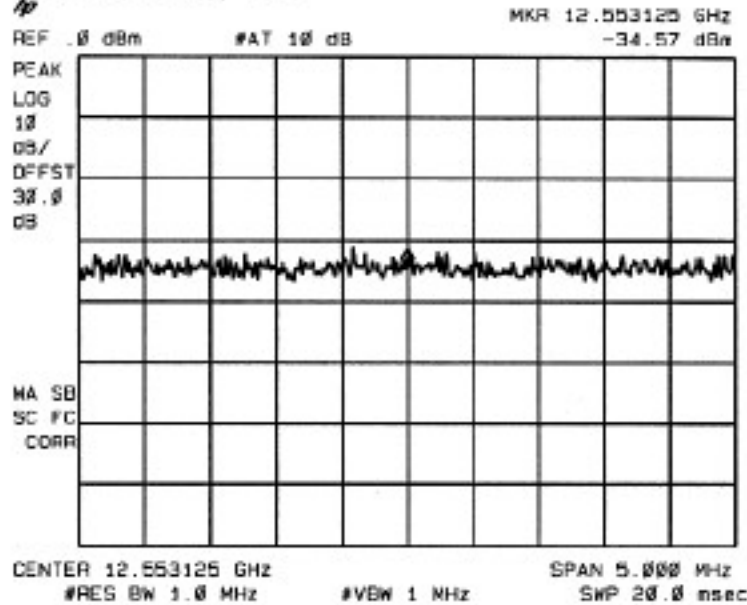


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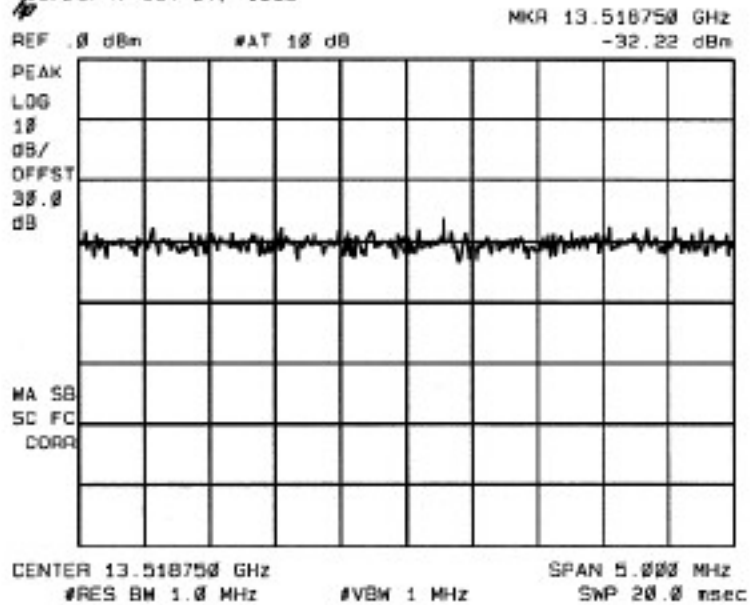
SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

15:09:39 OCT 07, 1998



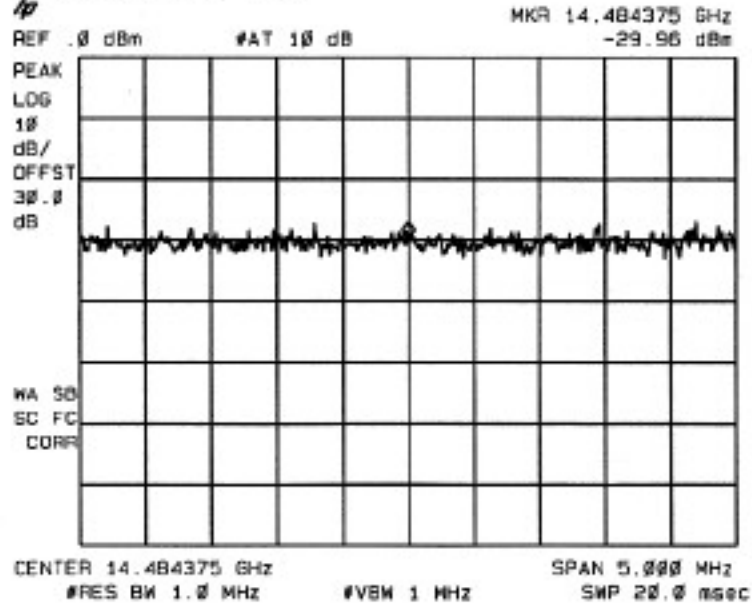
Channel 25
Maximum Power

15:09:47 OCT 07, 1998

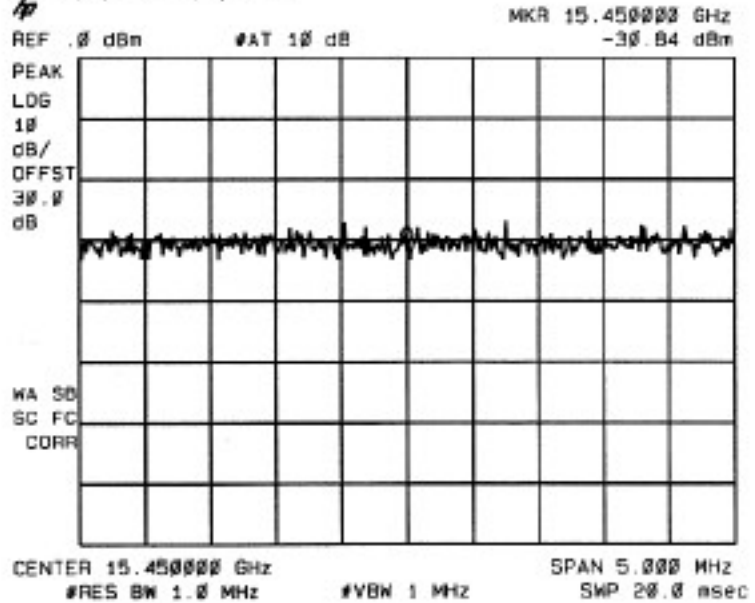


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10-07-98
17:12:50

15:09:55 OCT 07, 1998



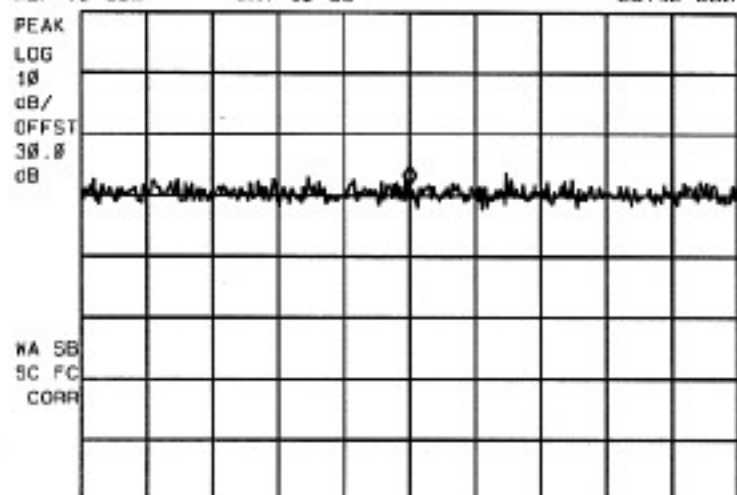
15:10:02 OCT 07, 1998



SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

15:10:10 OCT 07, 1998

REF .0 dBm #AT 10 dB MKR 16.415625 GHz
-28.42 dBm



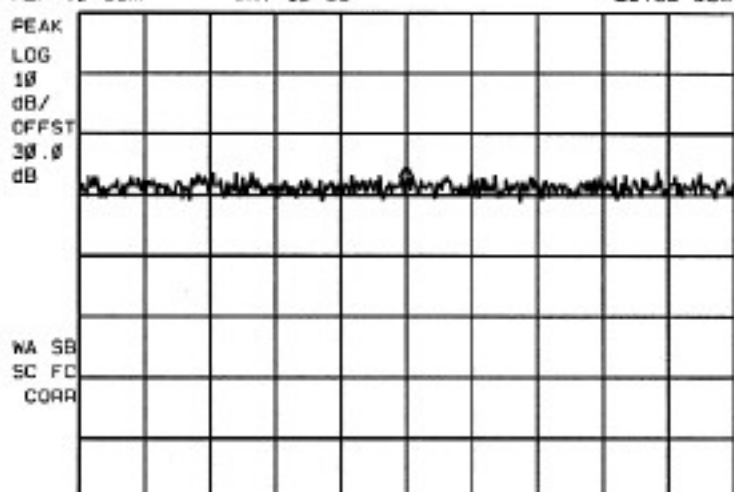
CENTER 16.415625 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

Channel 25
Maximum Power

btsate
10-07-98
17:13:38

15:10:18 OCT 07, 1998

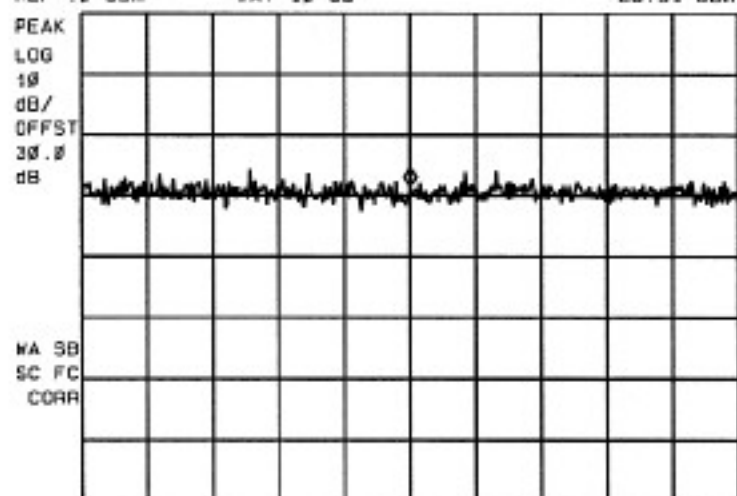
REF .0 dBm #AT 10 dB MKR 17.381250 GHz
-28.58 dBm



CENTER 17.381250 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:10:28 OCT 07, 1998

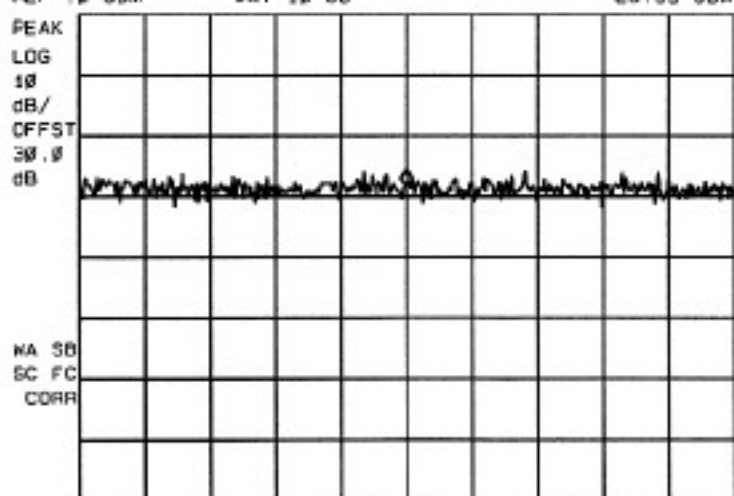
REF .0 dBm #AT 10 dB MKR 18.346875 GHz
-28.51 dBm



CENTER 18.346875 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:10:49 OCT 07, 1998

REF .0 dBm #AT 10 dB MKR 19.312500 GHz
-28.55 dBm

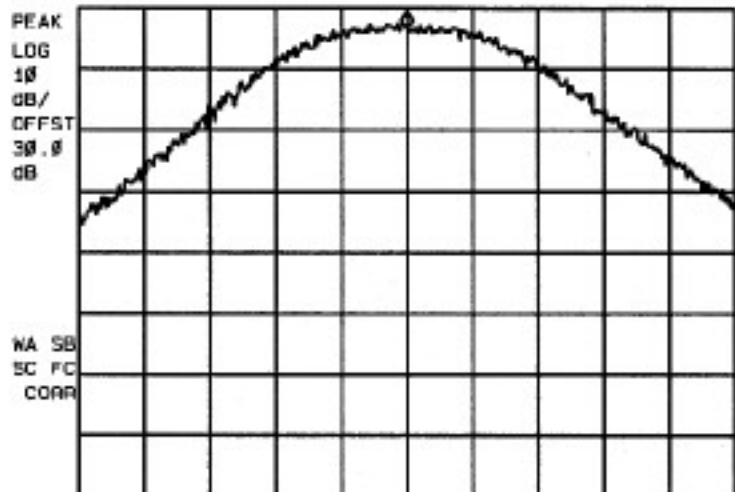


CENTER 19.312500 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

15:03:14 OCT 07, 1998

REF 52.0 dBm #AT 40 dB MKR 1.988750 GHz 48.44 dBm



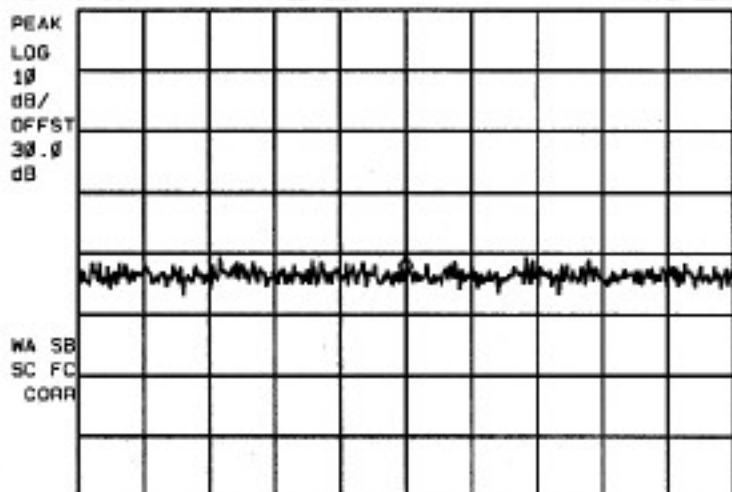
CENTER 1.988750 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

Channel 1175
Maximum Power

DEBATE
10-07-98
17:06:56

15:03:45 OCT 07, 1998

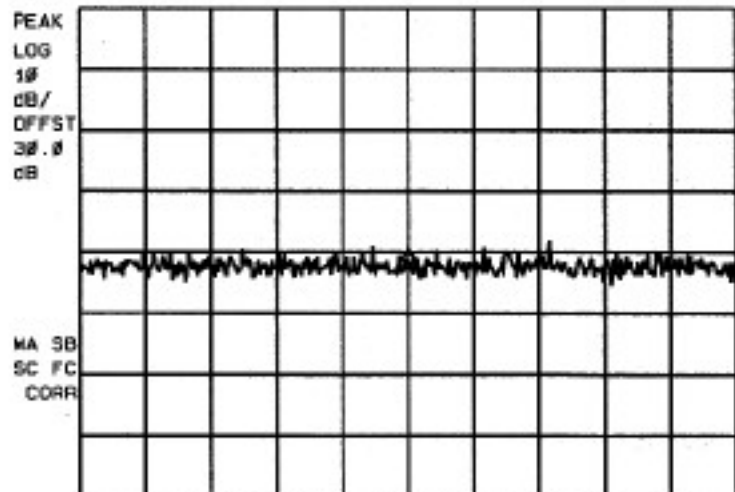
REF 0 dBm #AT 10 dB MKR 994.375 MHz -43.75 dBm



CENTER 994.375 MHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:03:57 OCT 07, 1998

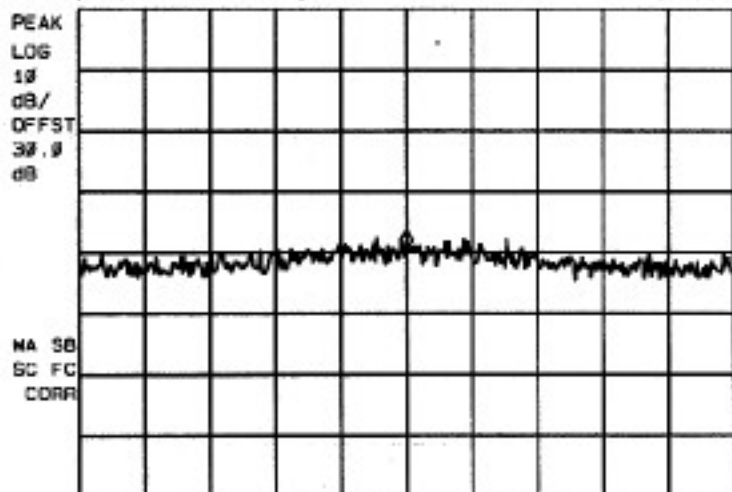
REF 0 dBm #AT 10 dB MKR 2.983125 GHz -42.66 dBm



CENTER 2.983125 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:04:00 OCT 07, 1998

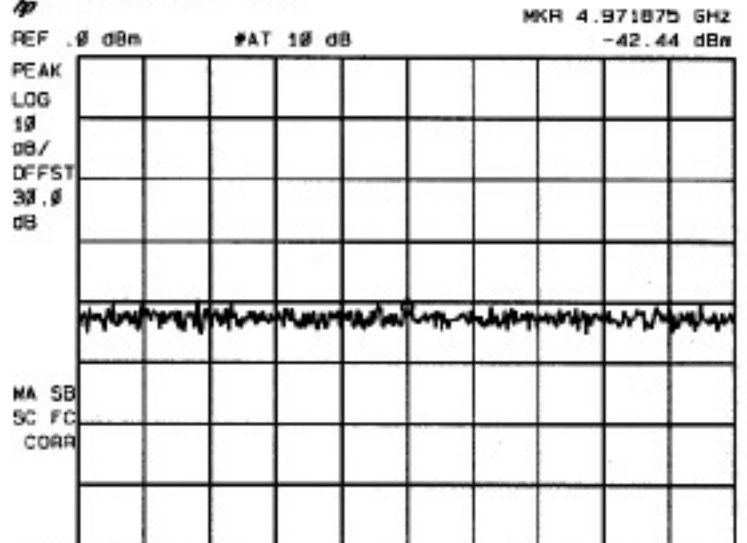
REF 0 dBm #AT 10 dB MKR 3.977500 GHz -39.51 dBm



CENTER 3.977500 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

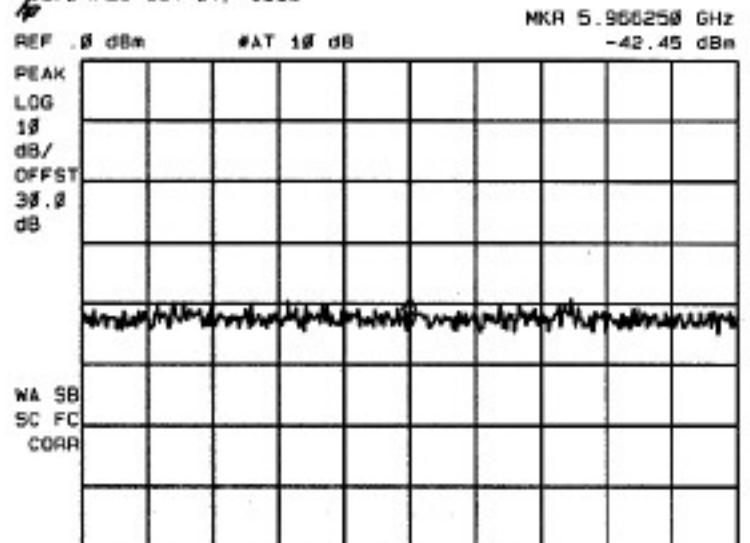
15:04:17 OCT 07, 1998



CENTER 4.971875 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

Channel 1175
Maximum Power

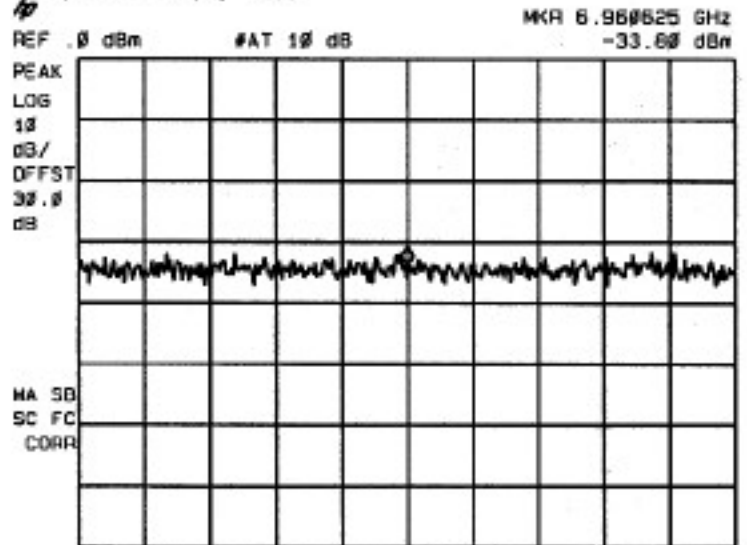
15:04:25 OCT 07, 1998



CENTER 5.956250 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

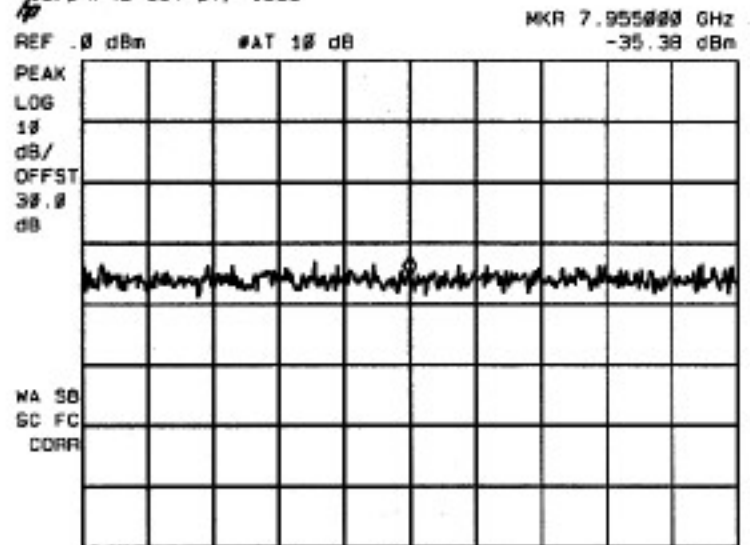
base
10-07-98
19:07:30

15:04:34 OCT 07, 1998



CENTER 6.950625 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:04:42 OCT 07, 1998

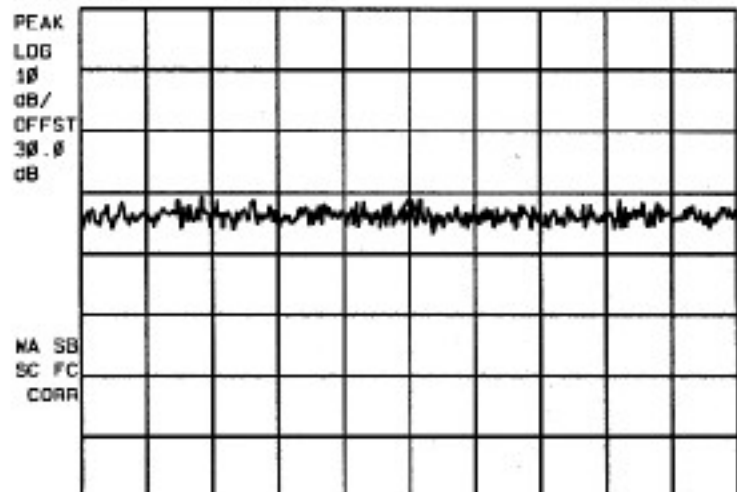


CENTER 7.955000 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

15:04:50 OCT 07, 1998

REF .0 dBm #AT 10 dB MKR 8.949375 GHz
-34.10 dBm



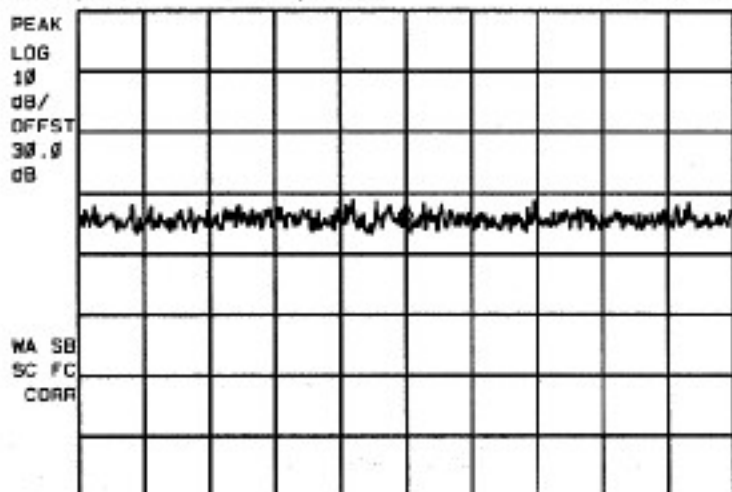
CENTER 8.949375 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

Channel 1175
Maximum Power

htmetw
10-07-98
17:00:02

15:04:50 OCT 07, 1998

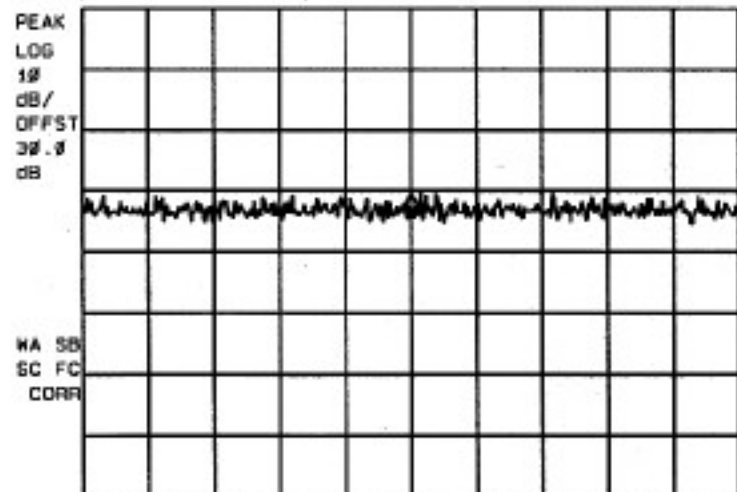
REF .0 dBm #AT 10 dB MKR 9.943750 GHz
-35.20 dBm



CENTER 9.943750 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:05:06 OCT 07, 1998

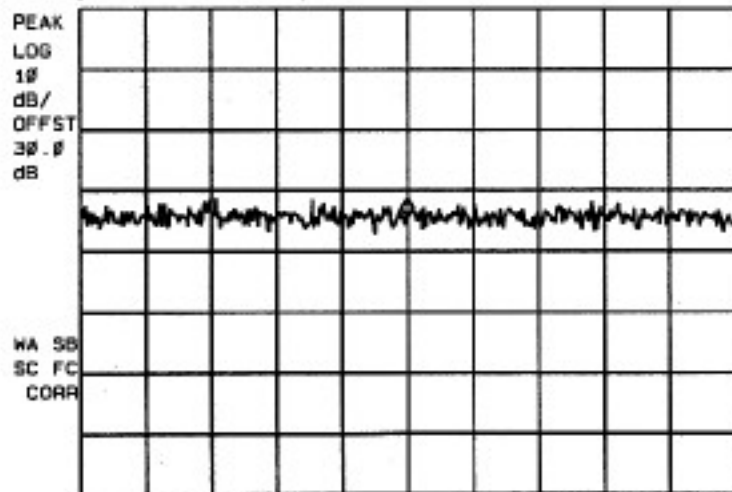
REF .0 dBm #AT 10 dB MKR 10.938125 GHz
-33.60 dBm



CENTER 10.938125 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:05:14 OCT 07, 1998

REF .0 dBm #AT 10 dB MKR 11.932500 GHz
-34.42 dBm

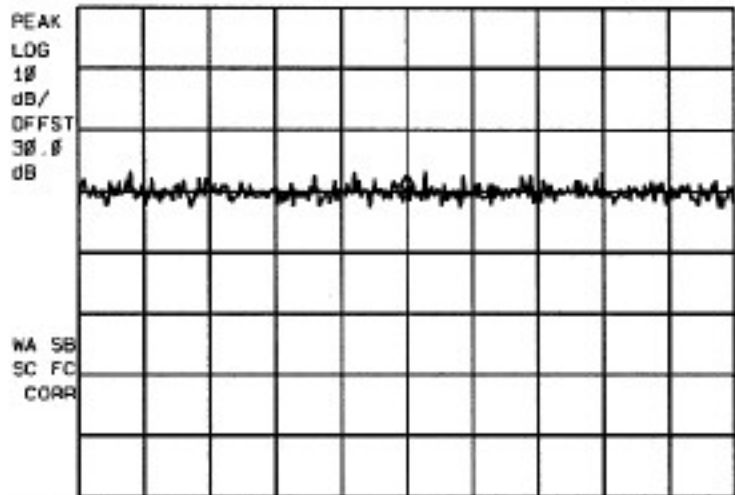


CENTER 11.932500 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

15:05:22 OCT 07, 1998

REF .0 dBm #AT 10 dB MKR 12.926875 GHz
-30.50 dBm

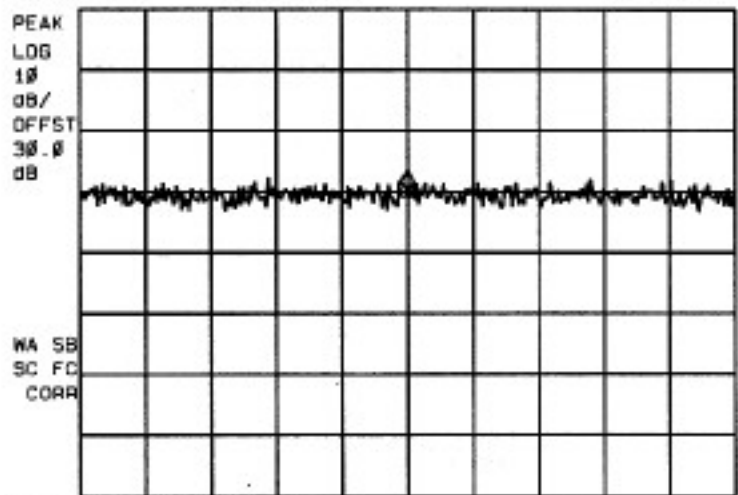


CENTER 12.926875 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

Channel 1175
Maximum Power

15:05:30 OCT 07, 1998

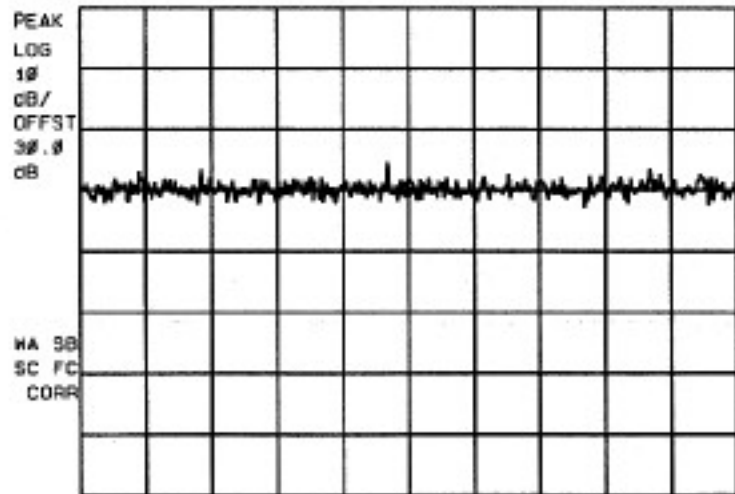
REF .0 dBm #AT 10 dB MKR 13.921250 GHz
-29.91 dBm



CENTER 13.921250 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:05:38 OCT 07, 1998

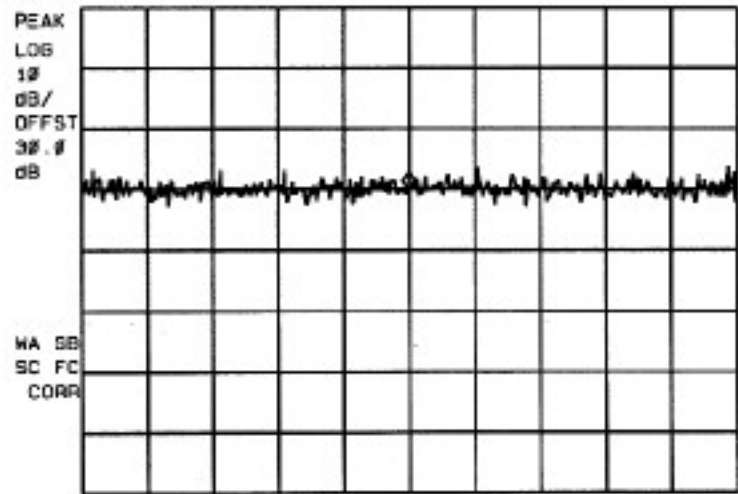
REF .0 dBm #AT 10 dB MKR 14.915625 GHz
-31.21 dBm



CENTER 14.915625 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:05:45 OCT 07, 1998

REF .0 dBm #AT 10 dB MKR 15.910000 GHz
-30.26 dBm



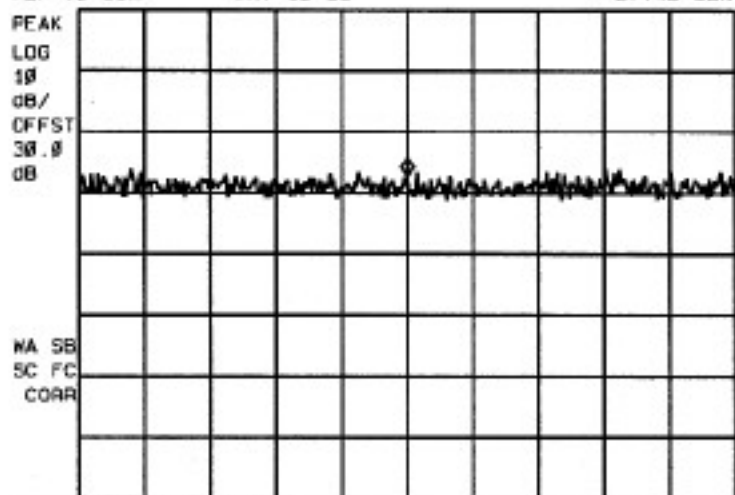
CENTER 15.910000 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

Date
10-07-98
17:08:33

SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

15:05:54 OCT 07, 1998

REF 0 dBm #AT 10 dB MKR 16.904375 GHz
-27.42 dBm



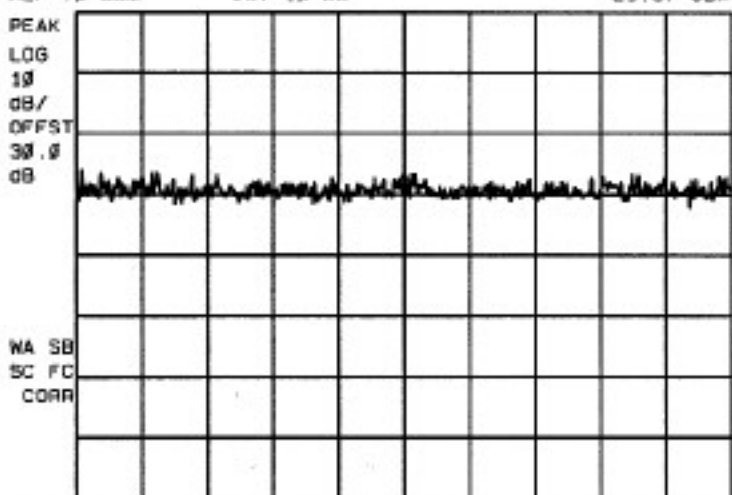
CENTER 16.904375 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

Channel 1175
Maximum Power

btscatw
10-07-98
17.09.00

15:06:01 OCT 07, 1998

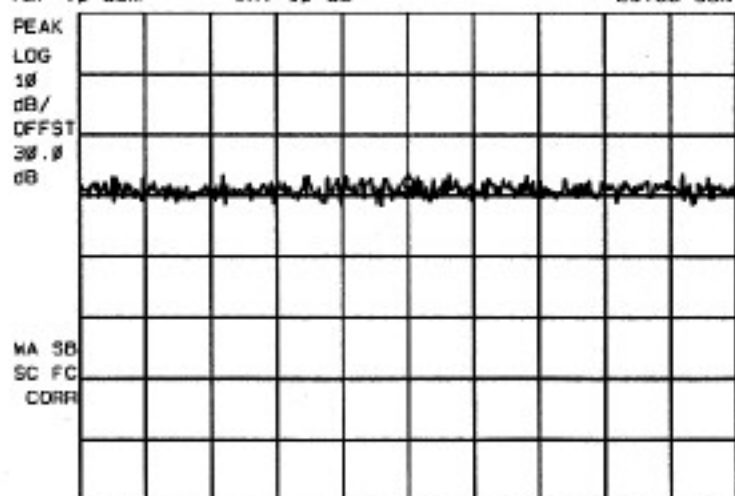
REF 0 dBm #AT 10 dB MKR 17.898750 GHz
-29.87 dBm



CENTER 17.898750 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:06:09 OCT 07, 1998

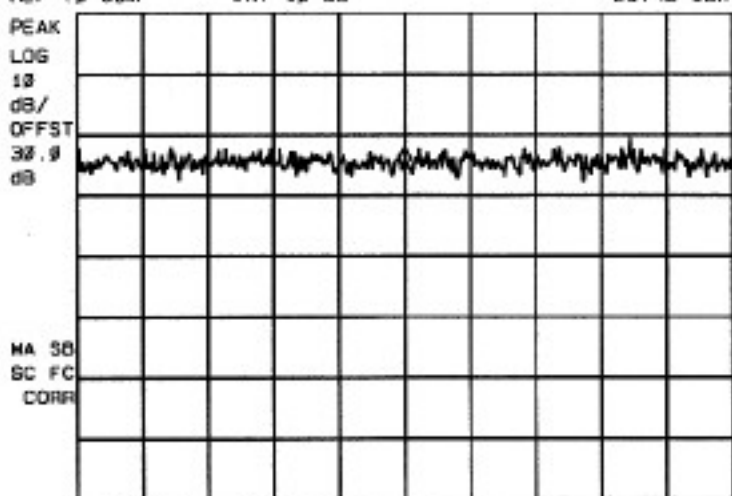
REF 0 dBm #AT 10 dB MKR 18.893125 GHz
-29.55 dBm



CENTER 18.893125 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:06:17 OCT 07, 1998

REF 0 dBm #AT 10 dB MKR 19.887500 GHz
-25.45 dBm

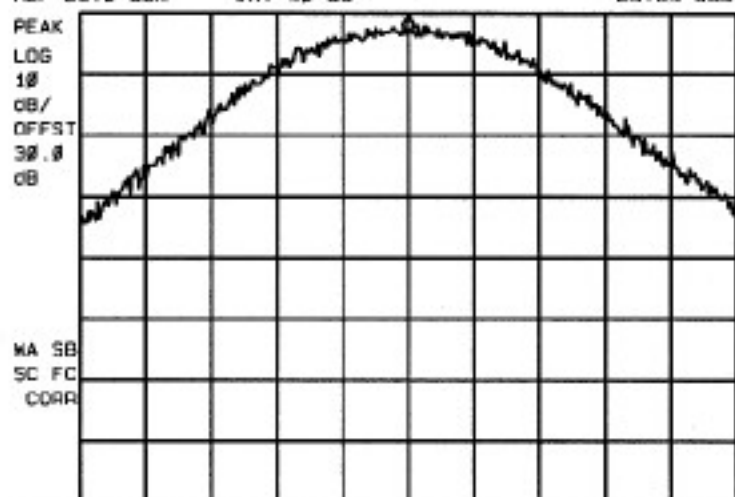


CENTER 19.887500 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

15:30:47 OCT 07, 1998

REF 29.0 dBm #AT 40 dB MKR 1.931250 GHz
25.54 dBm



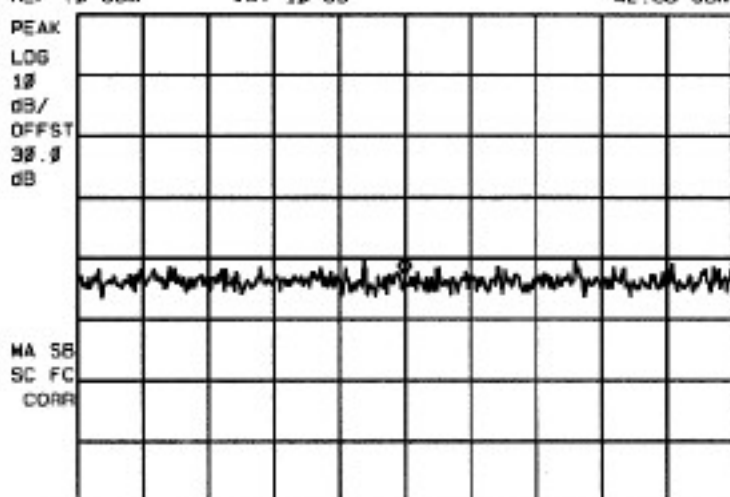
CENTER 1.931250 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

Channel 25
Minimum Power

bteate
10-07-98
17:34:39

15:31:34 OCT 07, 1998

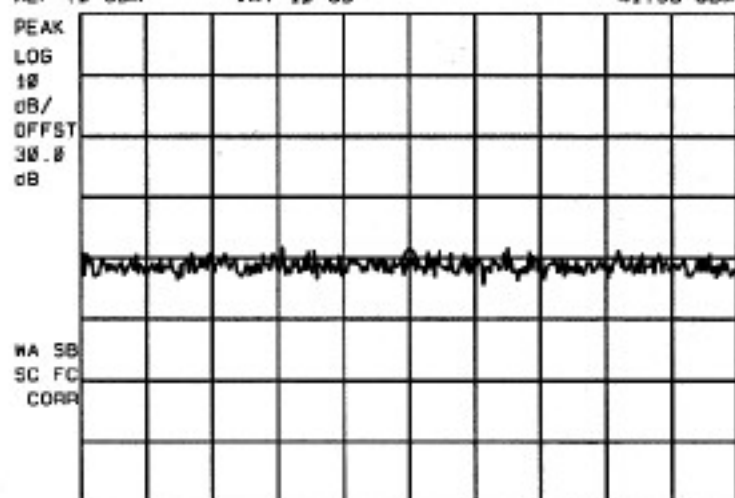
REF 0 dBm #AT 10 dB MKR 965.625 MHz
-42.00 dBm



CENTER 965.625 MHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:31:43 OCT 07, 1998

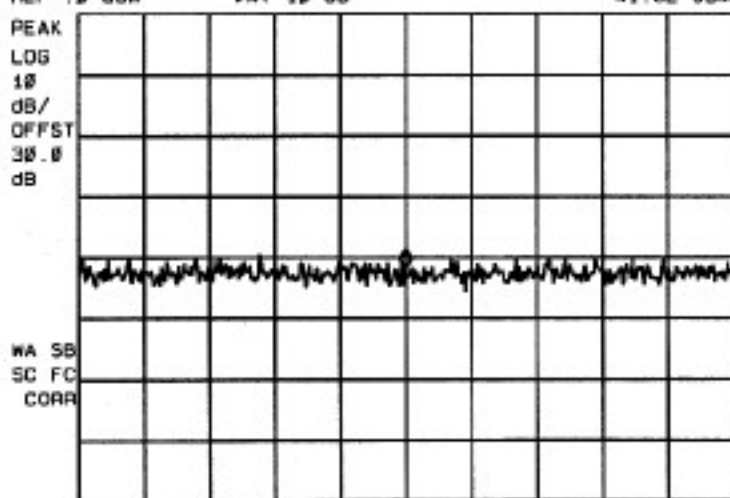
REF 0 dBm #AT 10 dB MKR 2.896875 GHz
-41.33 dBm



CENTER 2.896875 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:31:51 OCT 07, 1998

REF 0 dBm #AT 10 dB MKR 3.862500 GHz
-41.82 dBm

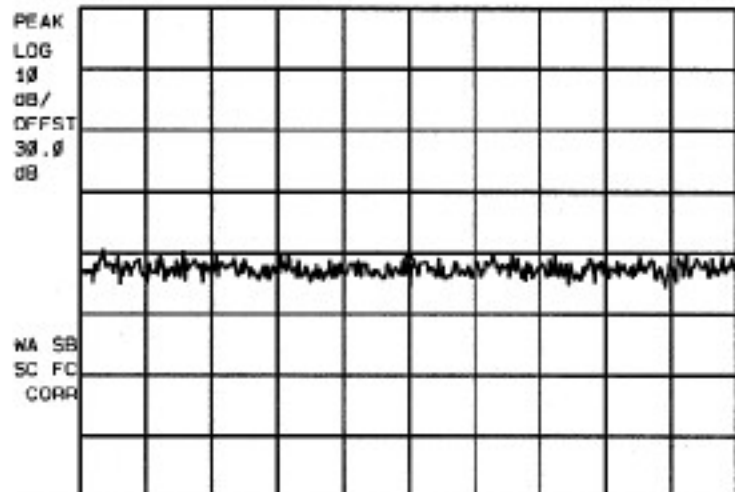


CENTER 3.862500 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

15:31:59 OCT 07, 1998

REF .0 dBm #AT 10 dB MKR 4.828125 GHz
-43.12 dBm



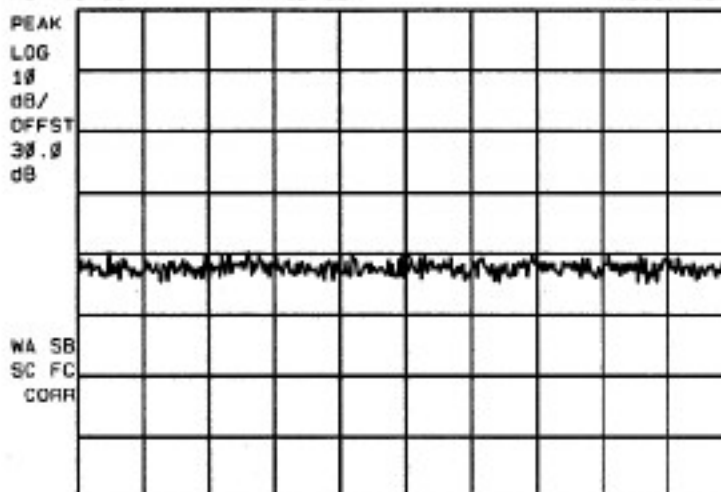
CENTER 4.828125 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

Channel 25
Minimum Power

hscate
10-07-98
17:35:10

15:32:07 OCT 07, 1998

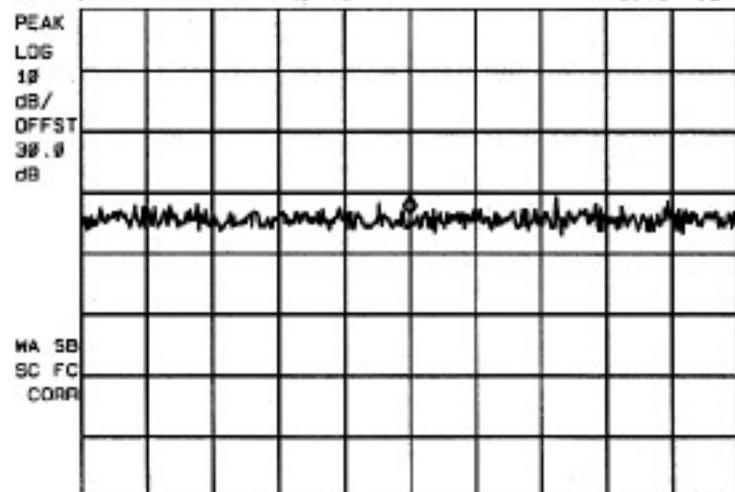
REF .0 dBm #AT 10 dB MKR 5.793750 GHz
-42.87 dBm



CENTER 5.793750 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:32:15 OCT 07, 1998

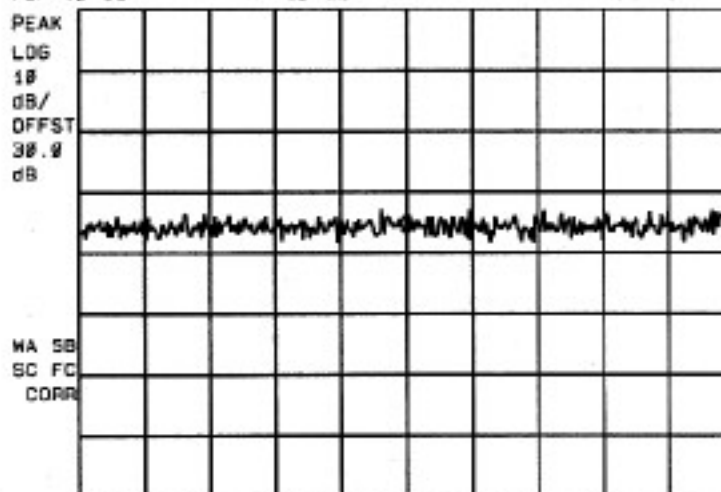
REF .0 dBm #AT 10 dB MKR 6.759375 GHz
-33.64 dBm



CENTER 6.759375 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:32:22 OCT 07, 1998

REF .0 dBm #AT 10 dB MKR 7.725000 GHz
-36.86 dBm

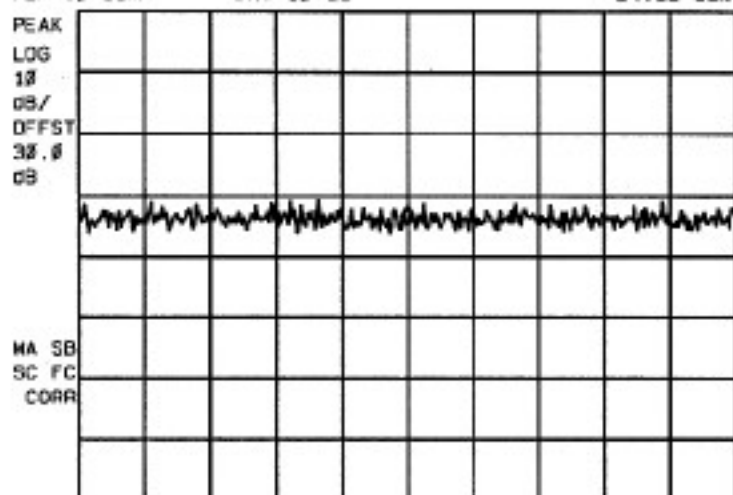


CENTER 7.725000 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

15:32:30 OCT 07, 1998

REF .0 dBm #AT 10 dB MKR 8.698625 GHz
-34.88 dBm



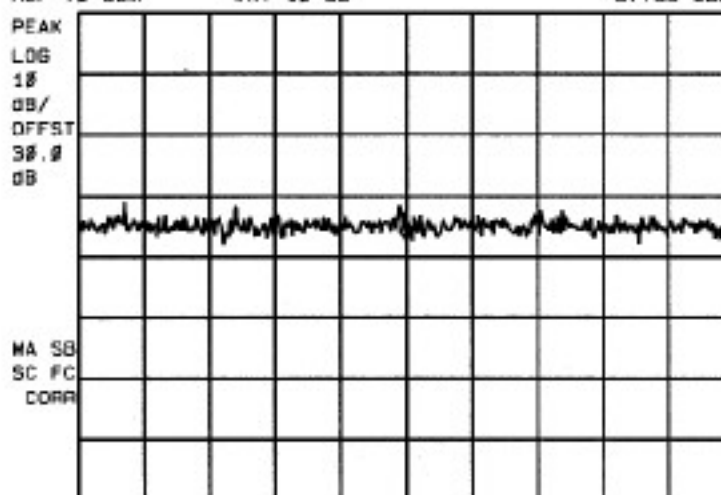
CENTER 8.698625 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

Channel 25
Minimum Power

bit/s: 10-07-98
17:35:40

15:32:37 OCT 07, 1998

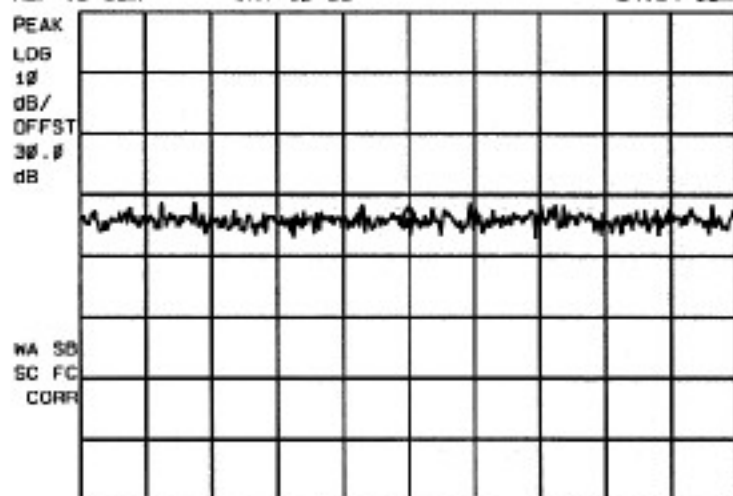
REF .0 dBm #AT 10 dB MKR 9.656250 GHz
-37.33 dBm



CENTER 9.656250 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:32:45 OCT 07, 1998

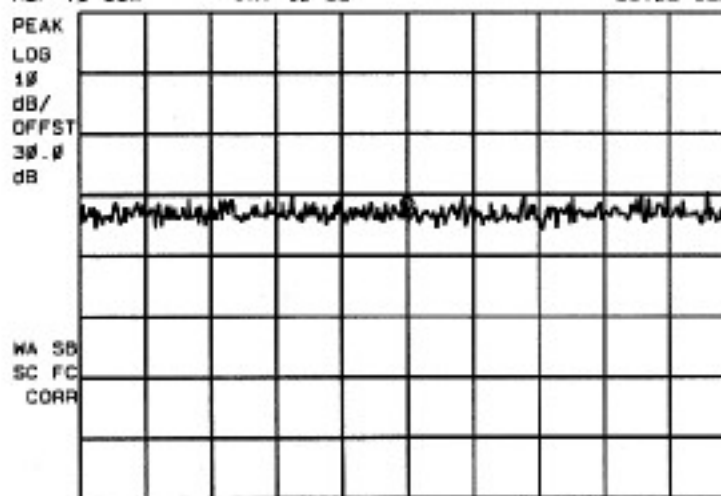
REF .0 dBm #AT 10 dB MKR 10.621875 GHz
-34.64 dBm



CENTER 10.621875 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:32:52 OCT 07, 1998

REF .0 dBm #AT 10 dB MKR 11.587500 GHz
-33.02 dBm

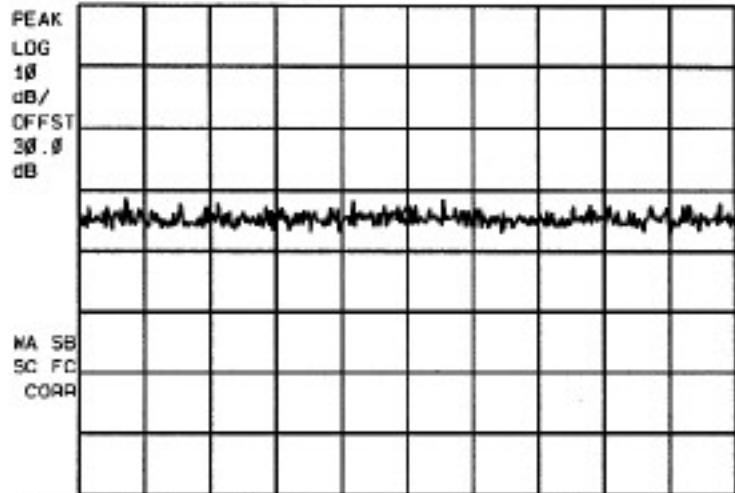


CENTER 11.587500 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

15:32:59 OCT 07, 1998

REF .0 dBm #AT 10 dB MKR 12.553125 GHz
-35.69 dBm



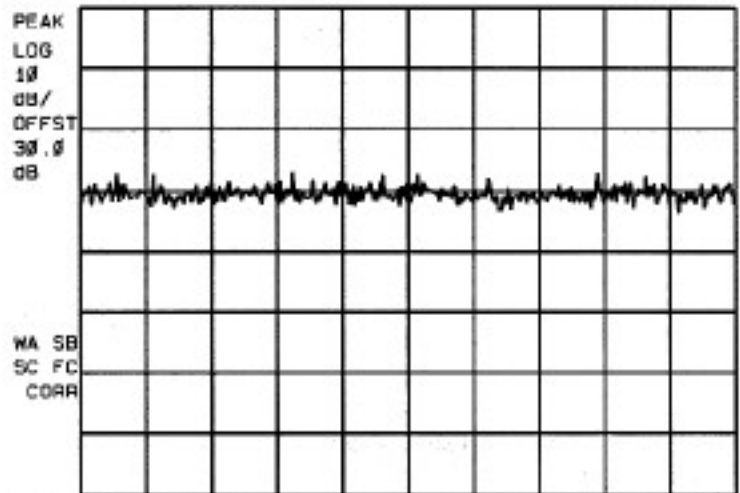
CENTER 12.553125 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

Channel 25
Minimum Power

brate
10-07-98
17:36:10

15:33:07 OCT 07, 1998

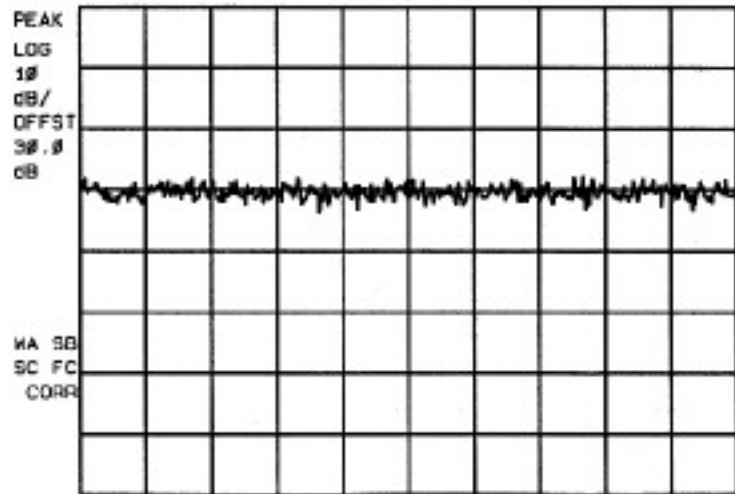
REF .0 dBm #AT 10 dB MKR 13.518750 GHz
-31.85 dBm



CENTER 13.518750 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:33:14 OCT 07, 1998

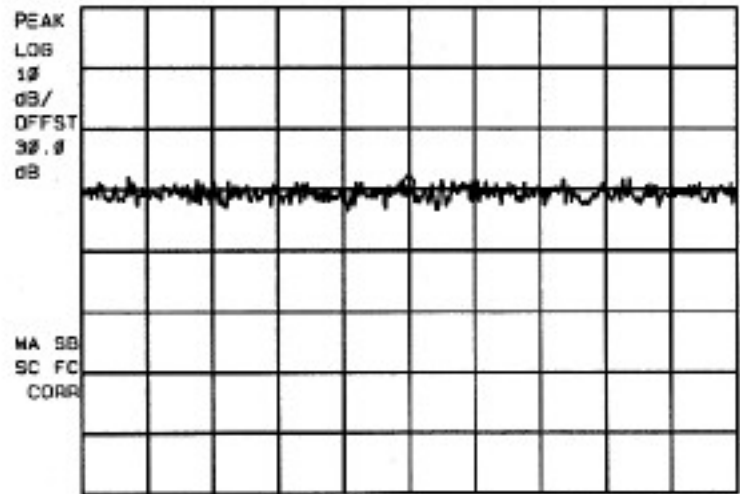
REF .0 dBm #AT 10 dB MKR 14.484375 GHz
-31.45 dBm



CENTER 14.484375 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:33:22 OCT 07, 1998

REF .0 dBm #AT 10 dB MKR 15.450000 GHz
-30.58 dBm

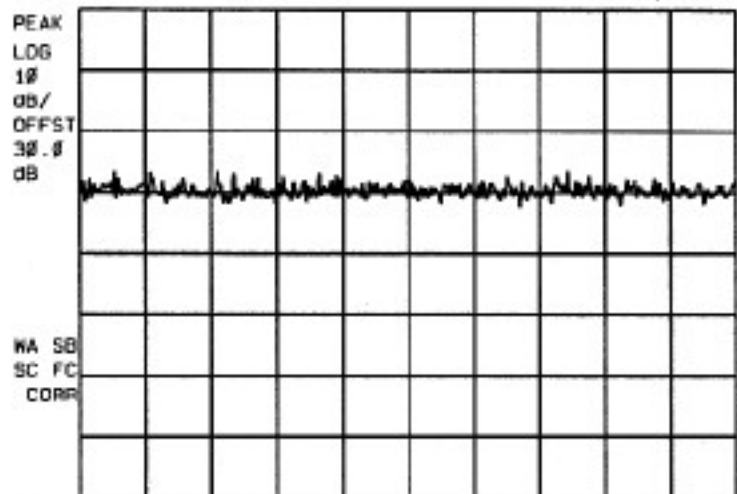


CENTER 15.450000 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

15:33:29 OCT 07, 1998

REF .0 dBm #AT 10 dB MKR 16.415625 GHz
-31.02 dBm



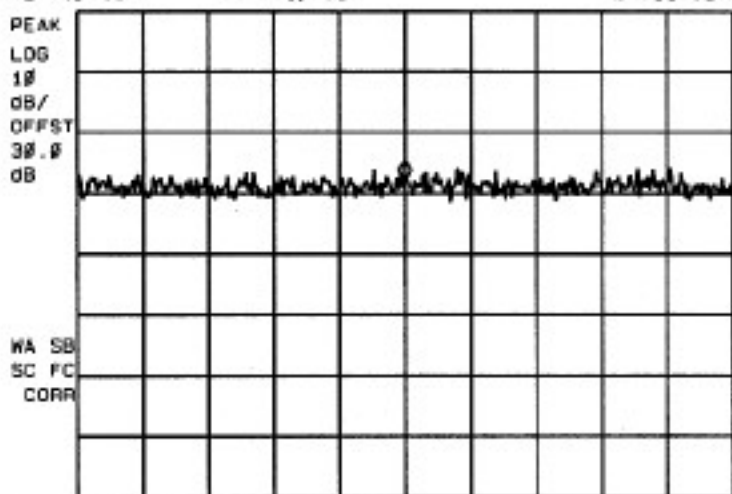
CENTER 16.415625 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SMP 20.0 msec

Channel 25
Minimum Power

10-07-98
17:16:40

15:33:37 OCT 07, 1998

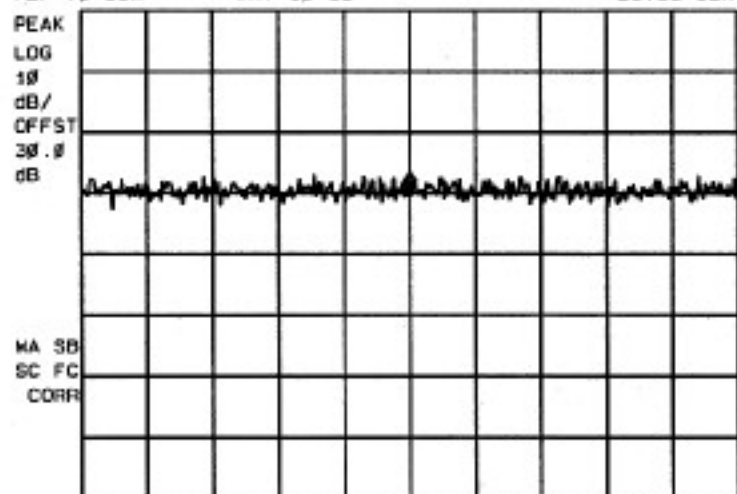
REF .0 dBm #AT 10 dB MKR 17.381250 GHz
-27.91 dBm



CENTER 17.381250 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SMP 20.0 msec

15:33:45 OCT 07, 1998

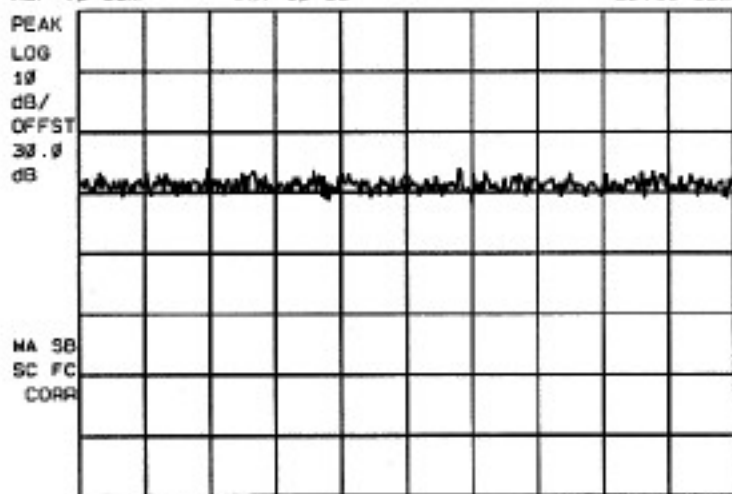
REF .0 dBm #AT 10 dB MKR 18.346875 GHz
-29.59 dBm



CENTER 18.346875 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SMP 20.0 msec

15:33:52 OCT 07, 1998

REF .0 dBm #AT 10 dB MKR 19.312500 GHz
-30.11 dBm

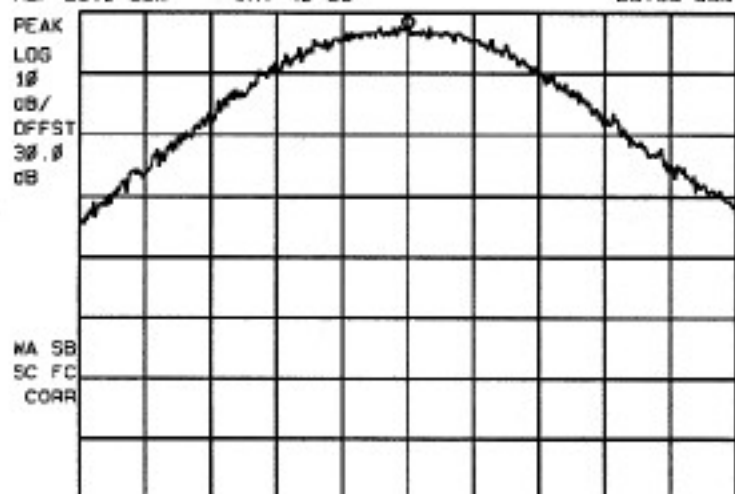


CENTER 19.312500 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SMP 20.0 msec

SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

15:35:35 OCT 07, 1998

REF 29.0 dBm #AT 40 dB MKR 1.988750 GHz
25.93 dBm



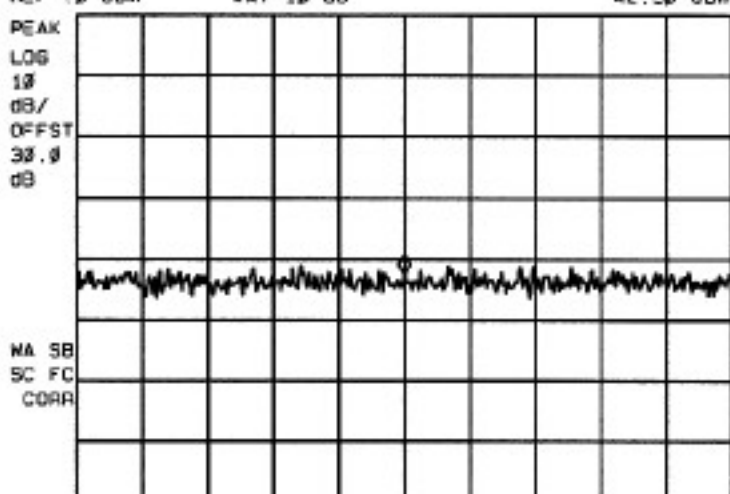
CENTER 1.988750 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

Channel 1175
Minimum Power

bcaste
10-07-98
17:39:03

15:35:56 OCT 07, 1998

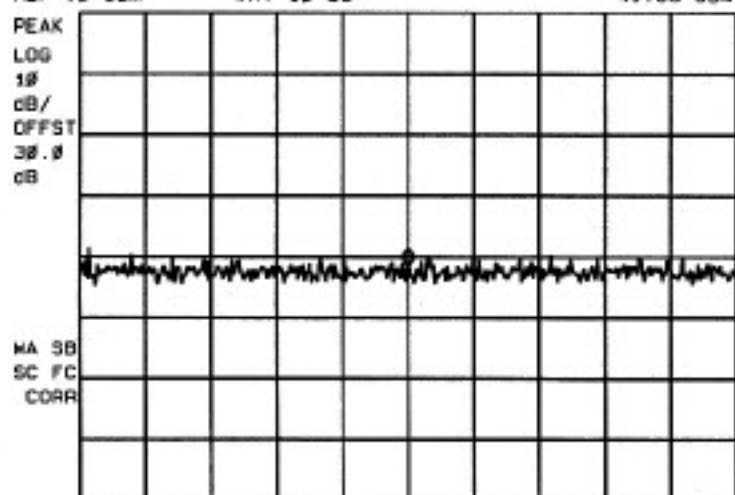
REF 0 dBm #AT 10 dB MKR 994.375 MHz
-42.50 dBm



CENTER 994.375 MHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:36:07 OCT 07, 1998

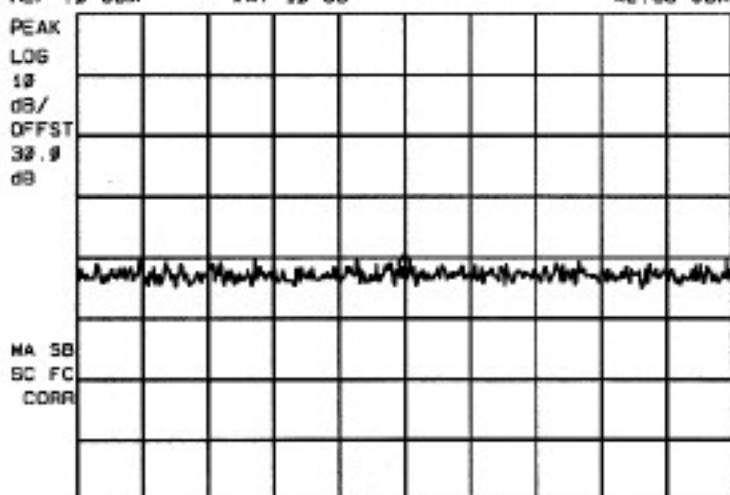
REF 0 dBm #AT 10 dB MKR 2.983125 GHz
-41.63 dBm



CENTER 2.983125 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:36:15 OCT 07, 1998

REF 0 dBm #AT 10 dB MKR 3.977500 GHz
-42.50 dBm

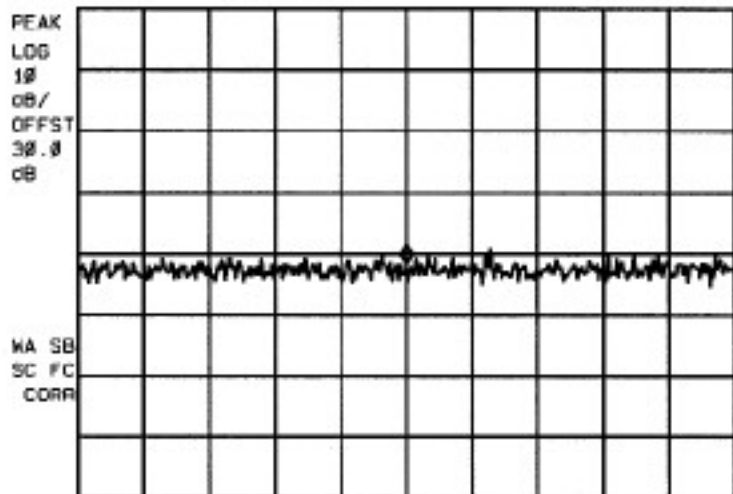


CENTER 3.977500 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

15:36:22 OCT 07, 1998

REF .0 dBm #AT 10 dB MKR 4.971875 GHz
-41.67 dBm

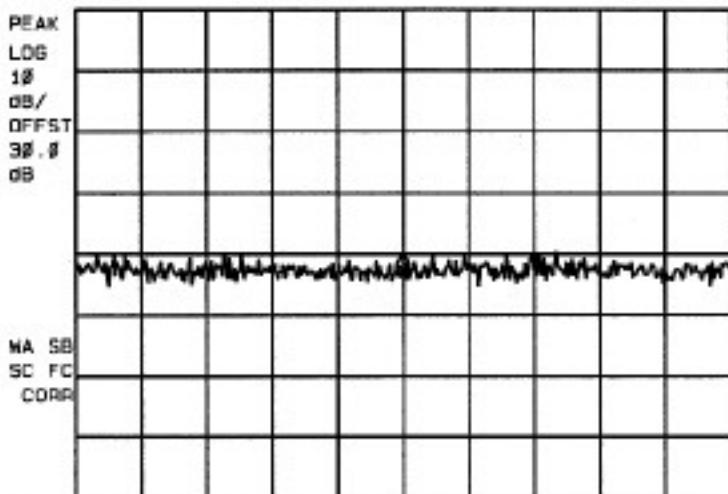


CENTER 4.971875 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

Channel 1175
Minimum Power

15:36:30 OCT 07, 1998

REF .0 dBm #AT 10 dB MKR 5.966250 GHz
-43.11 dBm

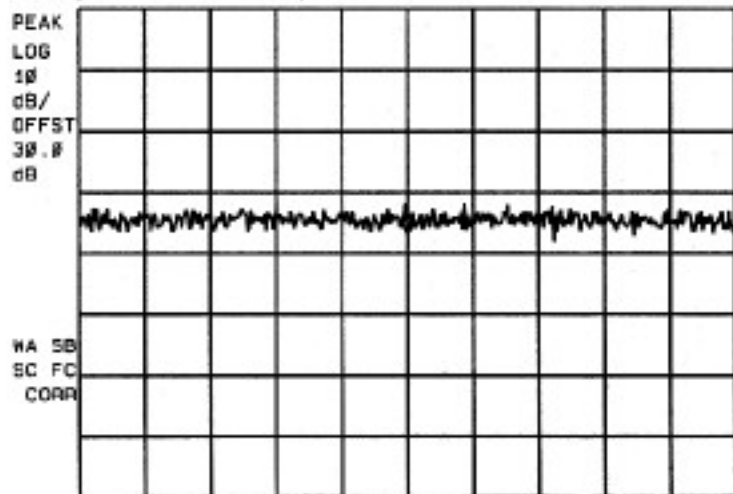


CENTER 5.966250 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

bsate
10-07-98
17:39:34

15:36:38 OCT 07, 1998

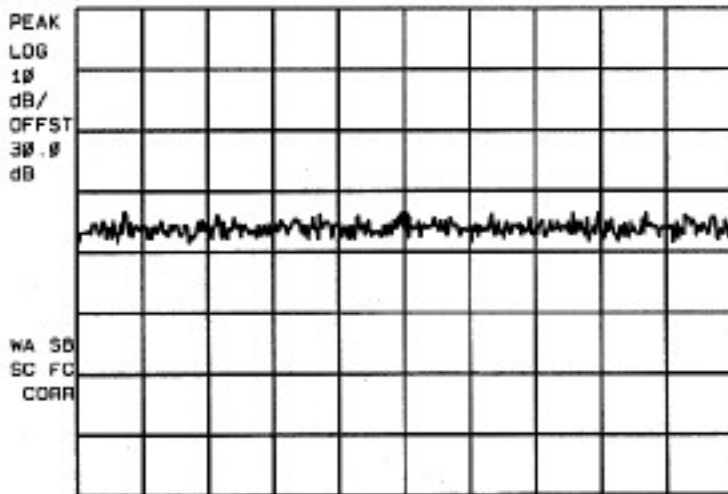
REF .0 dBm #AT 10 dB MKR 6.960625 GHz
-35.77 dBm



CENTER 6.960625 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:36:46 OCT 07, 1998

REF .0 dBm #AT 10 dB MKR 7.955000 GHz
-35.28 dBm

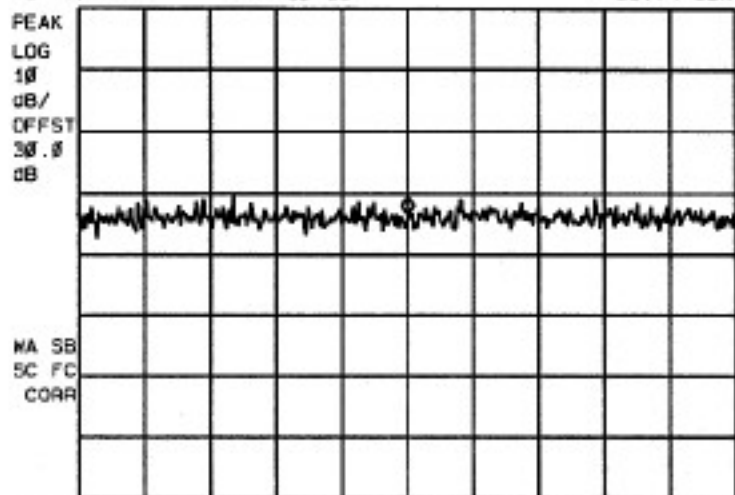


CENTER 7.955000 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

15:36:53 OCT 07, 1998

REF .0 dBm #AT 10 dB MKR 8.949375 GHz
-33.74 dBm



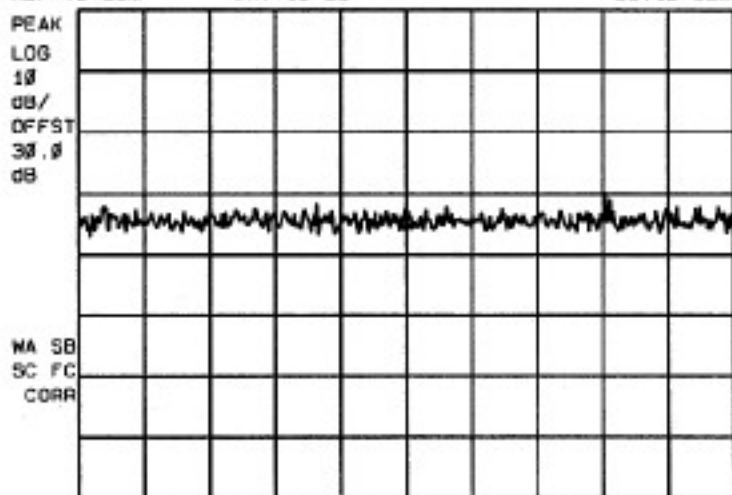
CENTER 8.949375 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

Channel 1175
Minimum Power

bcsate
10-07-98
17:40:04

15:37:01 OCT 07, 1998

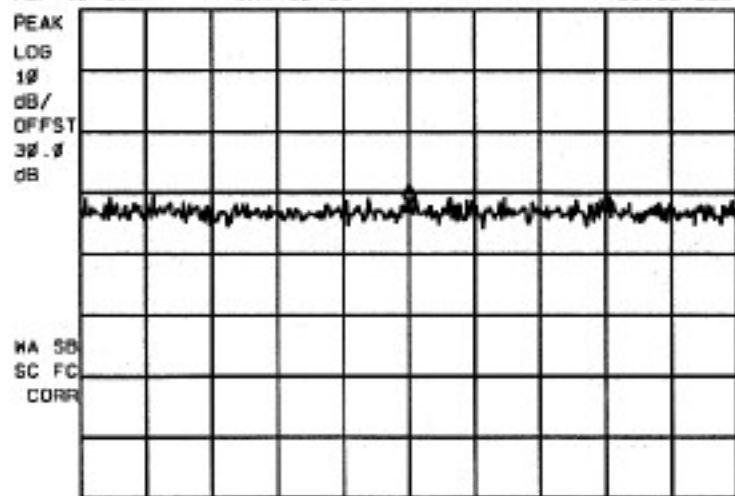
REF .0 dBm #AT 10 dB MKR 9.943750 GHz
-36.19 dBm



CENTER 9.943750 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:37:08 OCT 07, 1998

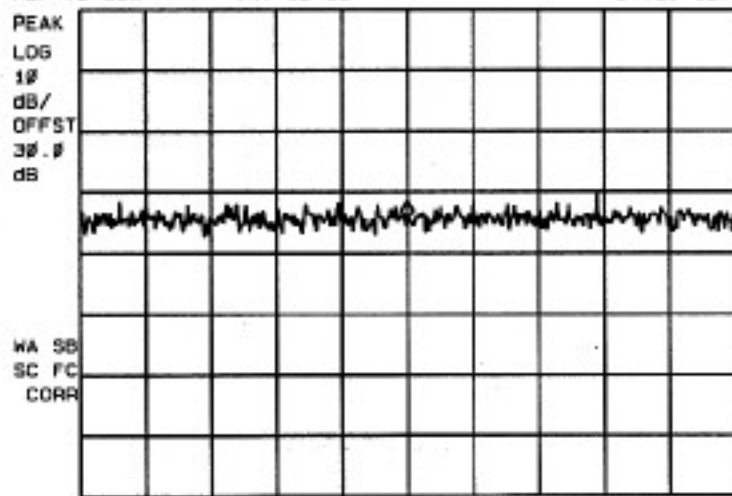
REF .0 dBm #AT 10 dB MKR 10.938125 GHz
-31.95 dBm



CENTER 10.938125 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:37:16 OCT 07, 1998

REF .0 dBm #AT 10 dB MKR 11.932500 GHz
-34.58 dBm

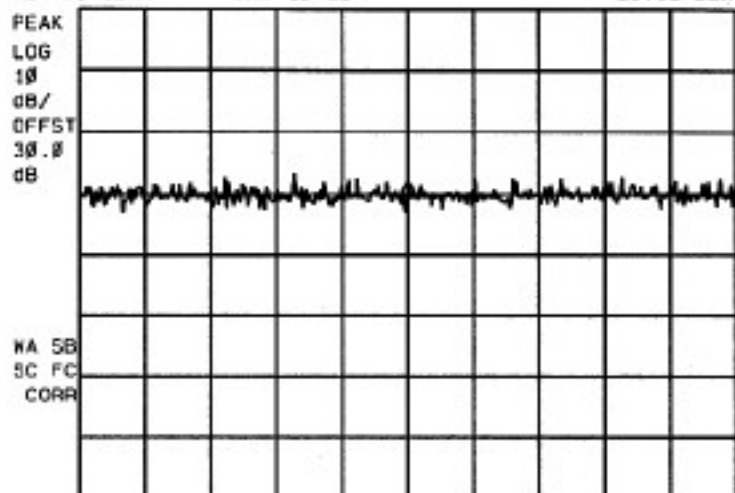


CENTER 11.932500 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

15:37:24 OCT 07, 1998

AP MKR 12.926875 GHz
REF .0 dBm #AT 10 dB -31.16 dBm



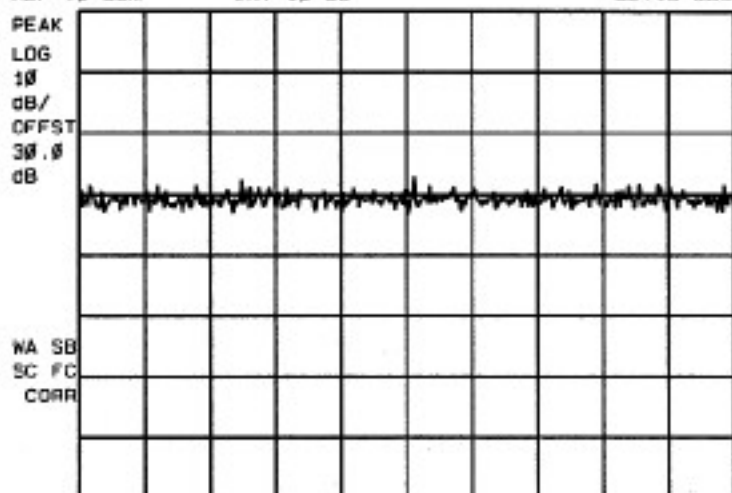
CENTER 12.926875 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

Channel 1175
Minimum Power

htxxtw
10-07-98
17:40:25

15:37:31 OCT 07, 1998

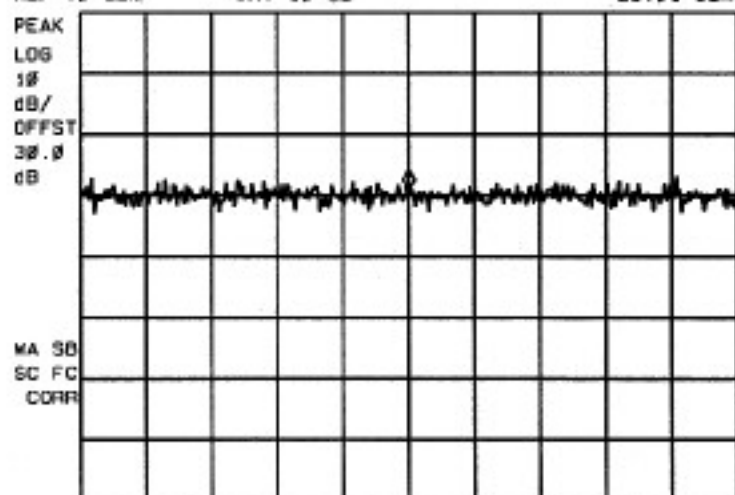
AP MKR 13.921250 GHz
REF .0 dBm #AT 10 dB -32.13 dBm



CENTER 13.921250 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:37:39 OCT 07, 1998

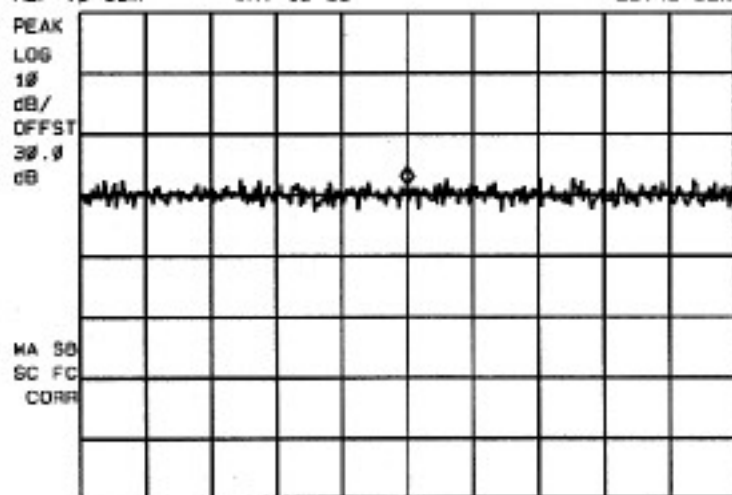
AP MKR 14.915625 GHz
REF .0 dBm #AT 10 dB -29.01 dBm



CENTER 14.915625 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:37:46 OCT 07, 1998

AP MKR 15.910000 GHz
REF .0 dBm #AT 10 dB -28.48 dBm

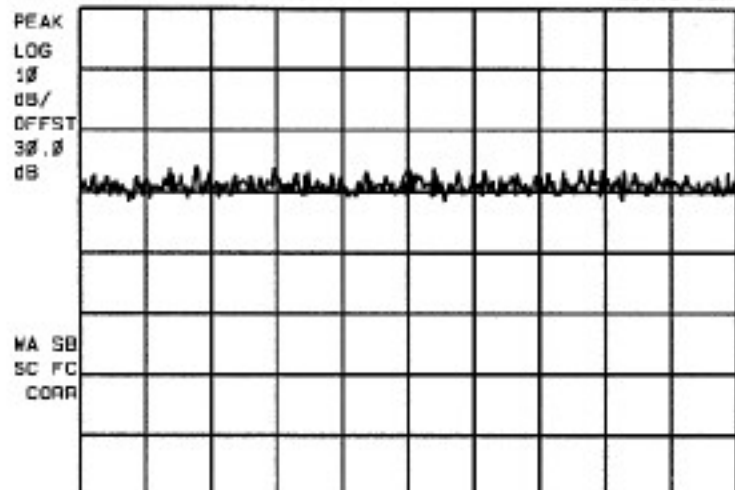


CENTER 15.910000 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

15:37:54 OCT 07, 1998

AP REF -0 dBm #AT 10 dB MKR 16.904375 GHz
-29.62 dBm



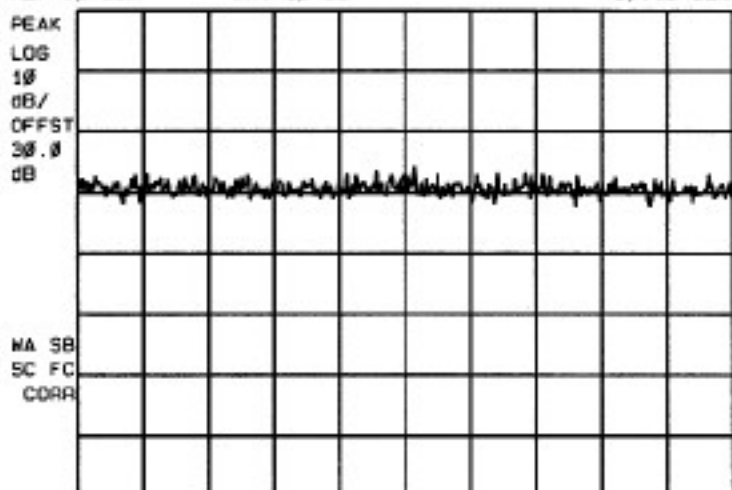
CENTER 16.904375 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

Channel 1175
Minimum Power

bcaste
10-07-98
17:41:06

15:38:02 OCT 07, 1998

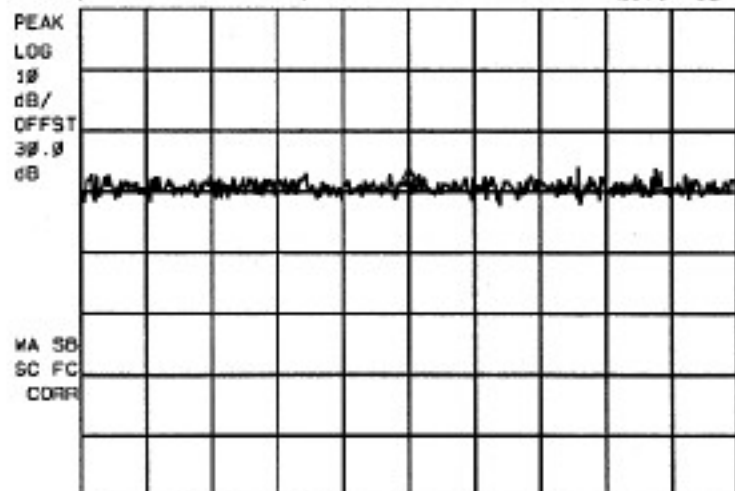
AP REF -0 dBm #AT 10 dB MKR 17.898750 GHz
-30.13 dBm



CENTER 17.898750 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:38:10 OCT 07, 1998

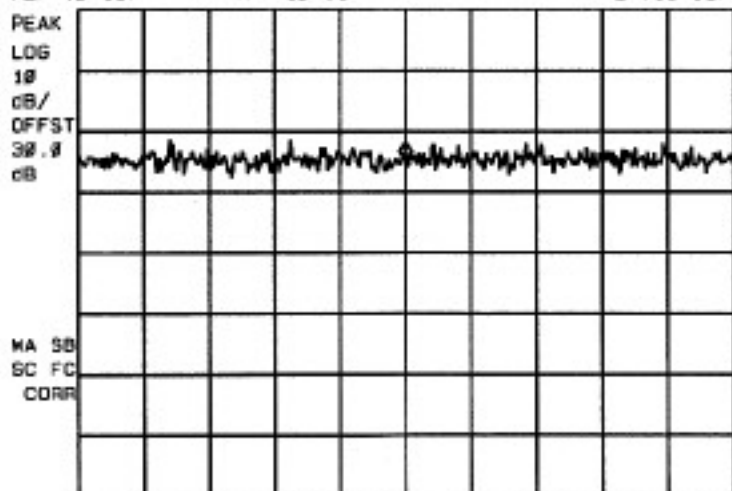
AP REF -0 dBm #AT 10 dB MKR 18.893125 GHz
-29.34 dBm



CENTER 18.893125 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec

15:38:18 OCT 07, 1998

AP REF -0 dBm #AT 10 dB MKR 19.887500 GHz
-24.95 dBm



CENTER 19.887500 GHz SPAN 5.000 MHz
#RES BW 1.0 MHz #VBW 1 MHz SWP 20.0 msec



MOTOROLA

Cellular Infrastructure Group

FCC ID: IHET6YR1

**SPURIOUS & HARMONIC
EMISSIONS CONDUCTED**

**EMISSIONS IN THE 1 MHz BW
LOCATED 1 MHz AWAY FROM
THE LOWER EDGE OF THE
FREQUENCY BLOCK AT
1928.5 MHz**

Maximum Power

**CDMA TX @ 46.5 dBm CH. 25 at
(1931.25 MHz)**

**NOTE: The configuration which created the following plots
had 30.0 dB of attenuation from the SC4812T 1.9 GHz CDMA
BTS Frame output to the spectrum analyzer input.**

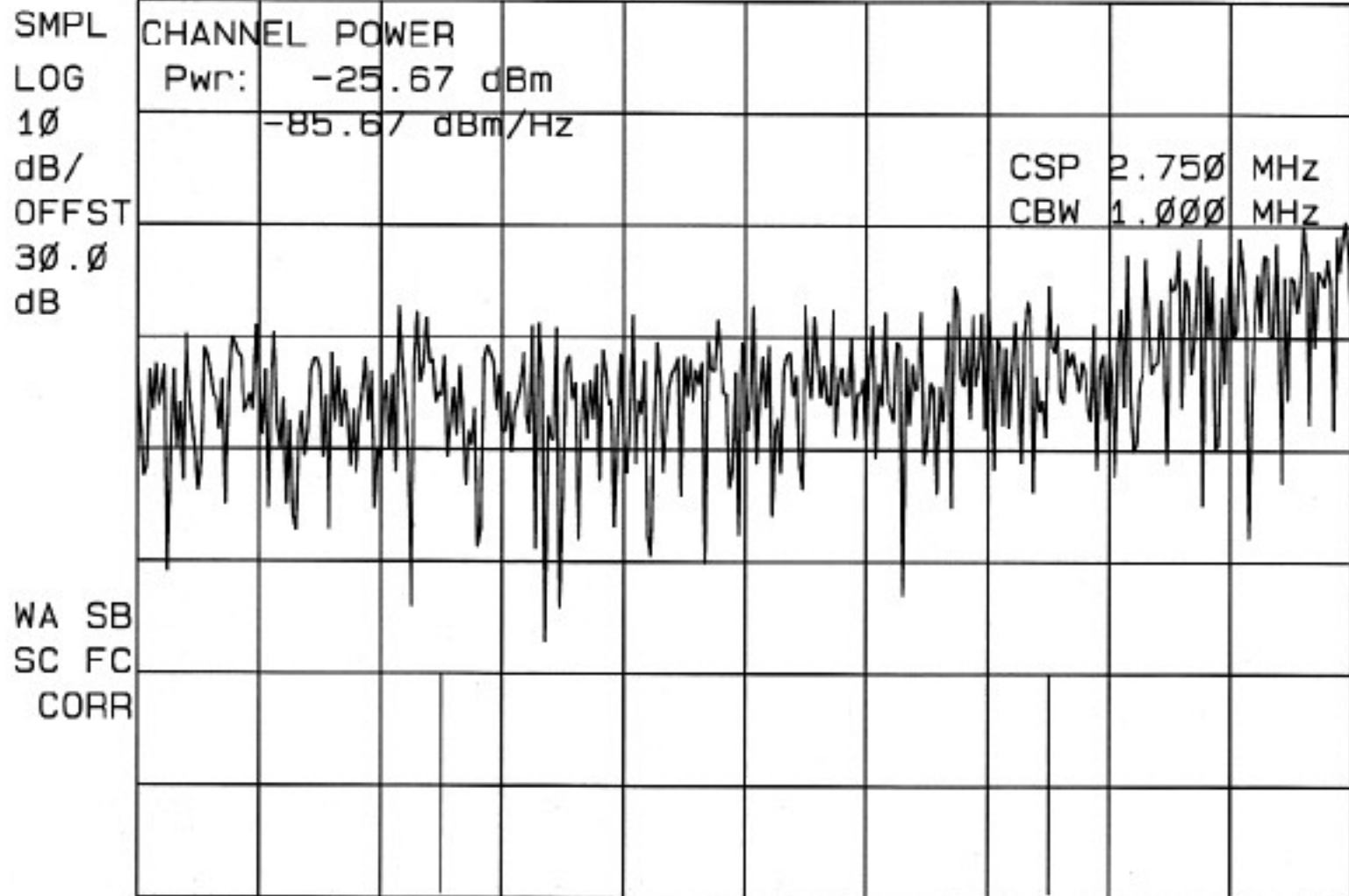
SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

Channel 25
Maximum Power

btsate
10-07-98
16:45:47

14: 42: 59 OCT 07, 1998
hp

REF -12.0 dBm #AT 30 dB



CENTER 1.928500 GHz

SPAN 2.000 MHz

#RES BW 10 kHz

#VBW 100 kHz

SWP 60.0 msec



MOTOROLA

Cellular Infrastructure Group

FCC ID: IHET6YR1

**SPURIOUS & HARMONIC
EMISSIONS CONDUCTED**

**EMISSIONS IN THE 1 MHz BW
LOCATED 1 MHz AWAY FROM
THE UPPER EDGE OF THE
FREQUENCY BLOCK AT
1991.5 MHz**

Maximum Power

**CDMA TX @ 46.5 dBm CH. 1175 at
(1988.75 MHz)**

**NOTE: The configuration which created the following plots
had 30.0 dB of attenuation from the SC4812T 1.9 GHz CDMA
BTS Frame output to the spectrum analyzer input.**

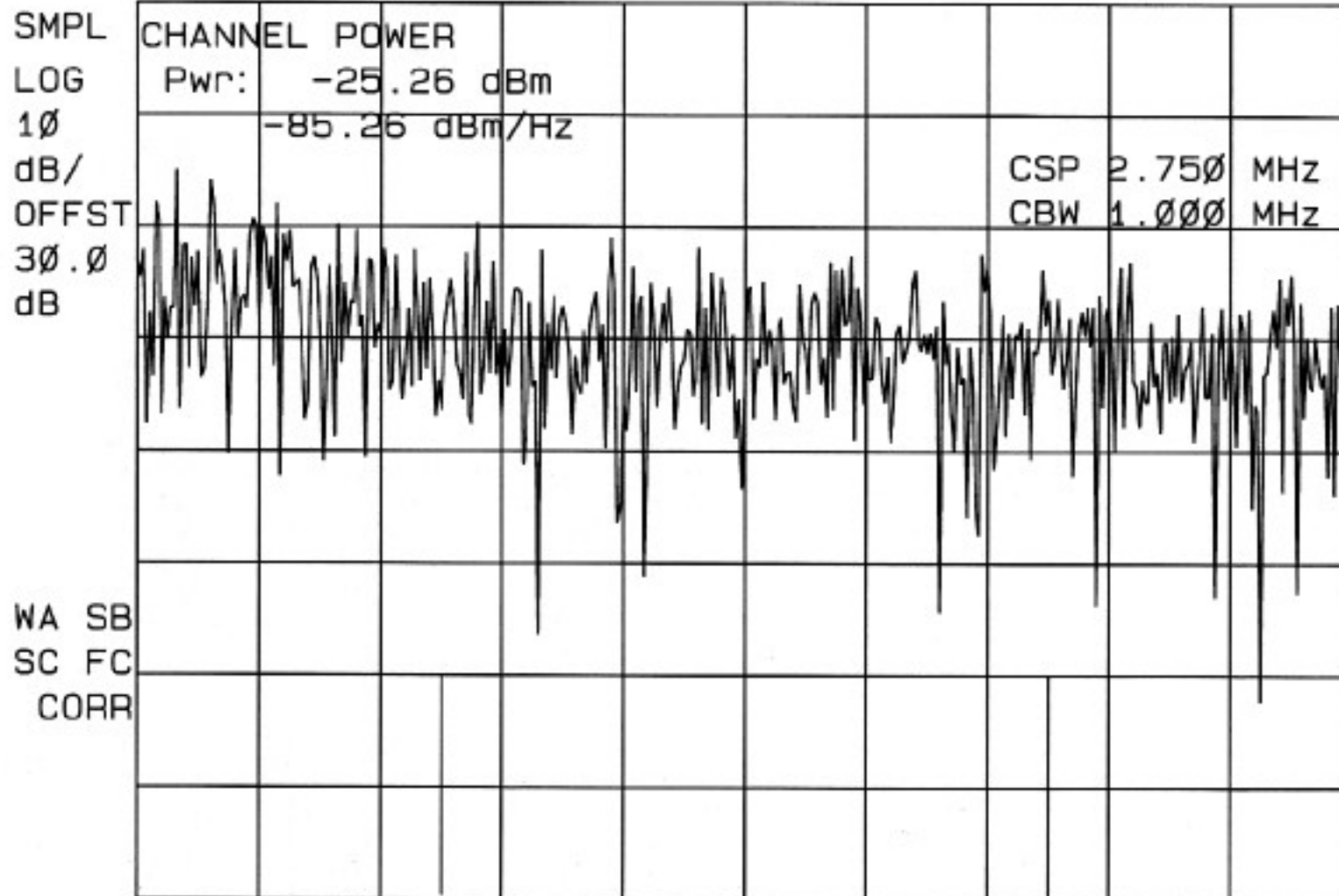
SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

Channel 1175
Maximum Power

htsate
10-07-98
17:01:40

14: 59: 01 OCT 07, 1998
hp

REF -16.0 dBm #AT 30 dB



CENTER 1.991500 GHz

#RES BW 10 kHz

#VBW 100 kHz

SPAN 2.000 MHz

SWP 60.0 msec



MOTOROLA

Cellular Infrastructure Group

FCC ID: IHET6YR1

**SPURIOUS & HARMONIC
EMISSIONS CONDUCTED**

**EMISSIONS IN THE 1 MHz BW
LOCATED 1 MHz AWAY FROM
THE LOWER EDGE OF THE
FREQUENCY BLOCK AT
1928.5 MHz**

Minimum Power

**CDMA TX @ 23.5 dBm CH. 25 at
(1931.25 MHz)**

**NOTE: The configuration which created the following plots
had 30.0 dB of attenuation from the SC4812T 1.9 GHz CDMA
BTS Frame output to the spectrum analyzer input.**

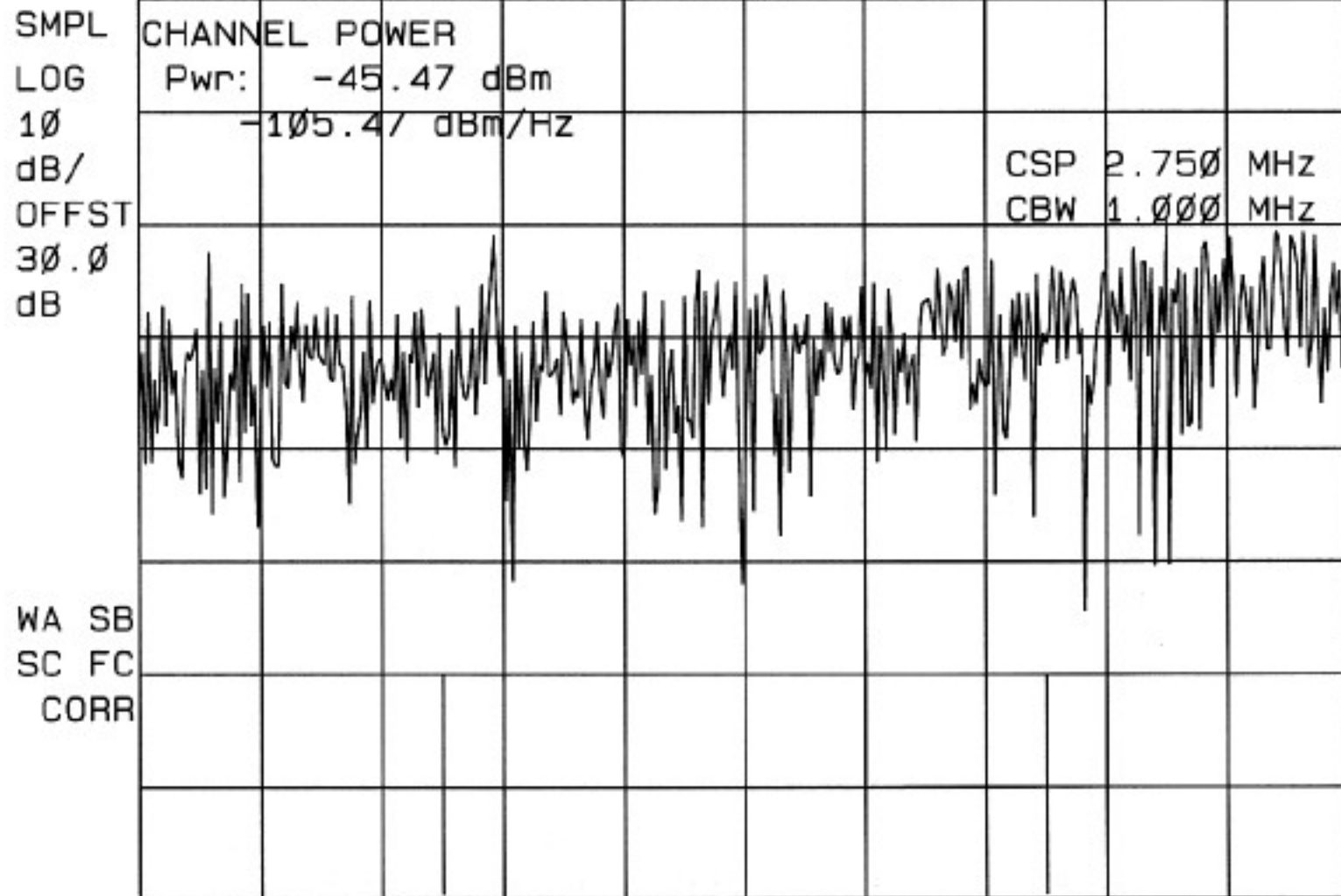
SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

Channel 25
Minimum Power

bcaste
10-07-98
18:02:43

15:59:56 OCT 07, 1998

REF -35.0 dBm #AT 10 dB



CENTER 1.928500 GHz

#RES BW 10 kHz

#VBW 100 kHz

SPAN 2.000 MHz

SWP 60.0 msec



MOTOROLA

Cellular Infrastructure Group

FCC ID: IHET6YR1

**SPURIOUS & HARMONIC
EMISSIONS CONDUCTED**

**EMISSIONS IN THE 1 MHz BW
LOCATED 1 MHz AWAY FROM
THE UPPER EDGE OF THE
FREQUENCY BLOCK AT
1991.5 MHz**

Minimum Power

**CDMA TX @ 23.5 dBm CH. 1175 at
(1988.75 MHz)**

**NOTE: The configuration which created the following plots
had 30.0 dB of attenuation from the SC4812T 1.9 GHz CDMA
BTS Frame output to the spectrum analyzer input.**

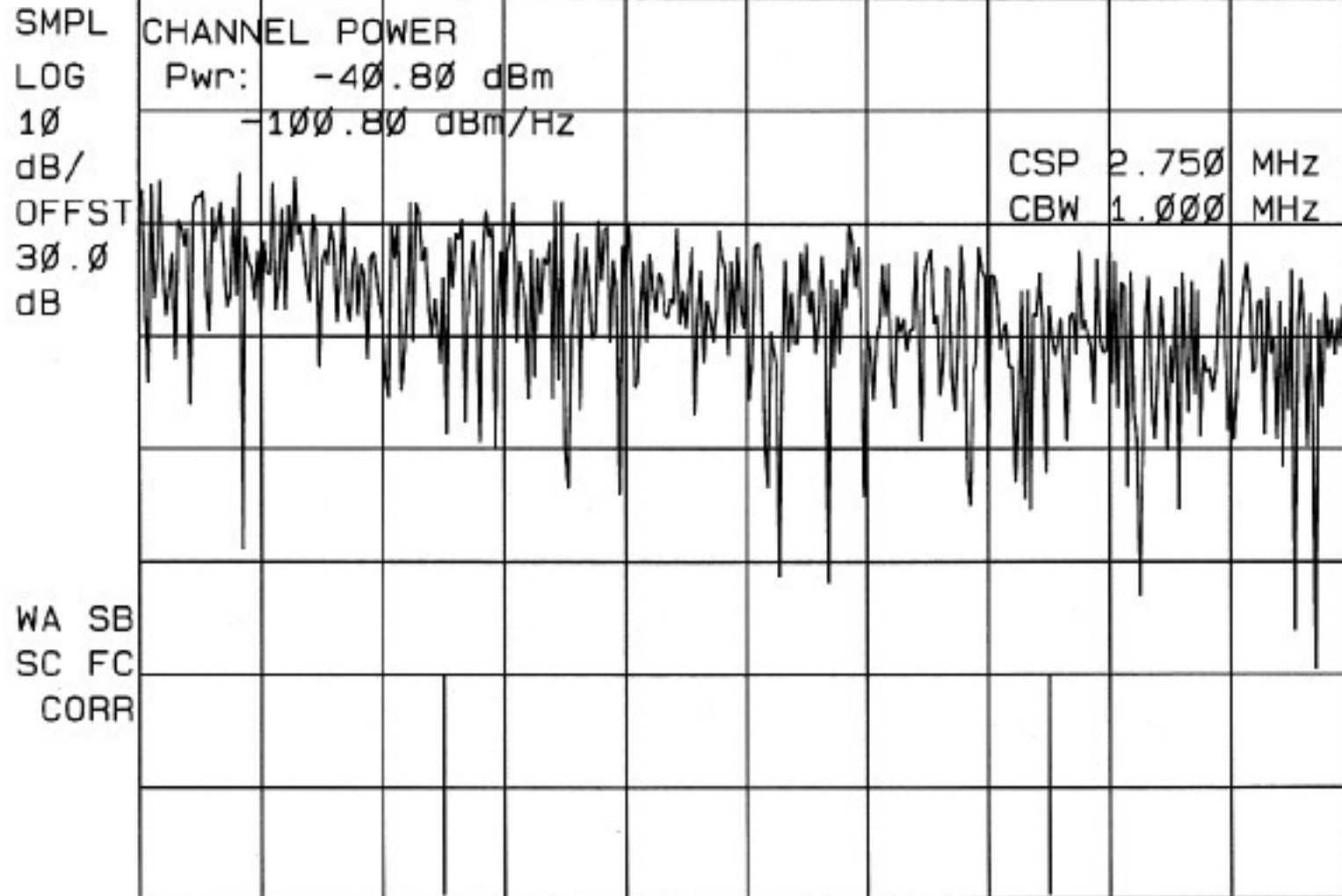
SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

Channel 1175
Minimum Power

10-07-98
10:03:47

16:01:00 OCT 07, 1998
hp

REF -35.0 dBm #AT 10 dB



CENTER 1.991500 GHz

#RES BW 10 kHz

#VBW 100 kHz

SPAN 2.000 MHz

SWP 60.0 msec



MOTOROLA

Cellular Infrastructure Group

FCC ID: IHET6YR1

EXHIBIT #6E

OCCUPIED BANDWIDTH

NOTE: The occupied bandwidth plots are measured in a 30 kHz resolution bandwidth. The following formula is used to obtain the correct zero dB reference point relative to the bandwidth of the 1.2288 MHz CDMA signal.

$$\text{Power(measured in 30 kHz bandwidth)} + 10 \log \frac{1.2288\text{MHz}}{30\text{kHz}}$$

Example: 30.49 dBm + 16.12 dB = 46.61 dBm

The output power was set to 44.88 Watts using an HP438A power meter.

SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

Channel 25
Maximum Power

btsate
10-07-98
16:53:58

14: 51: 11 OCT 07, 1998

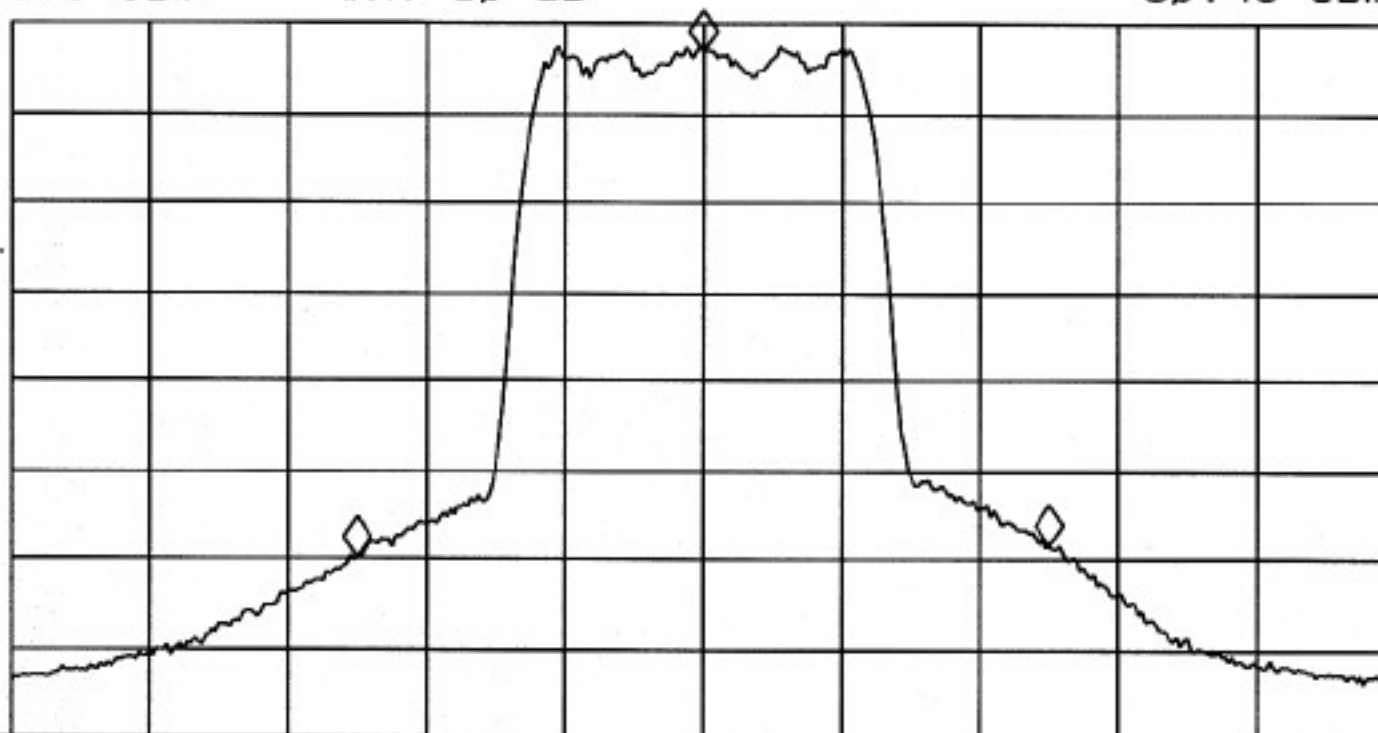
REF 33.6 dBm

#AT 30 dB

MKR 1.931250 GHz
30.49 dBm

SMPL
LOG
10
dB/
OFFST
30.6
dB

AVG
200



Marker	Trace	Type	Freq / Time	Amplitude
1:	(A)	Freq	1931.250 MHz	30.49 dBm
2:	(A)	Freq	1930.000 MHz	-26.28 dBm
3:	(A)	Freq	1932.500 MHz	-24.86 dBm
4:		Inactive		

CENTER 1.931250 GHz
RES BW 30 kHz

#VBW 100 kHz

SPAN 5.000 MHz
SWP 20.0 msec

SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

Channel 1175
Maximum Power

bcaste
10-07-98
16:58:58

14: 56: 10 OCT 07, 1998

REF 33.0 dBm

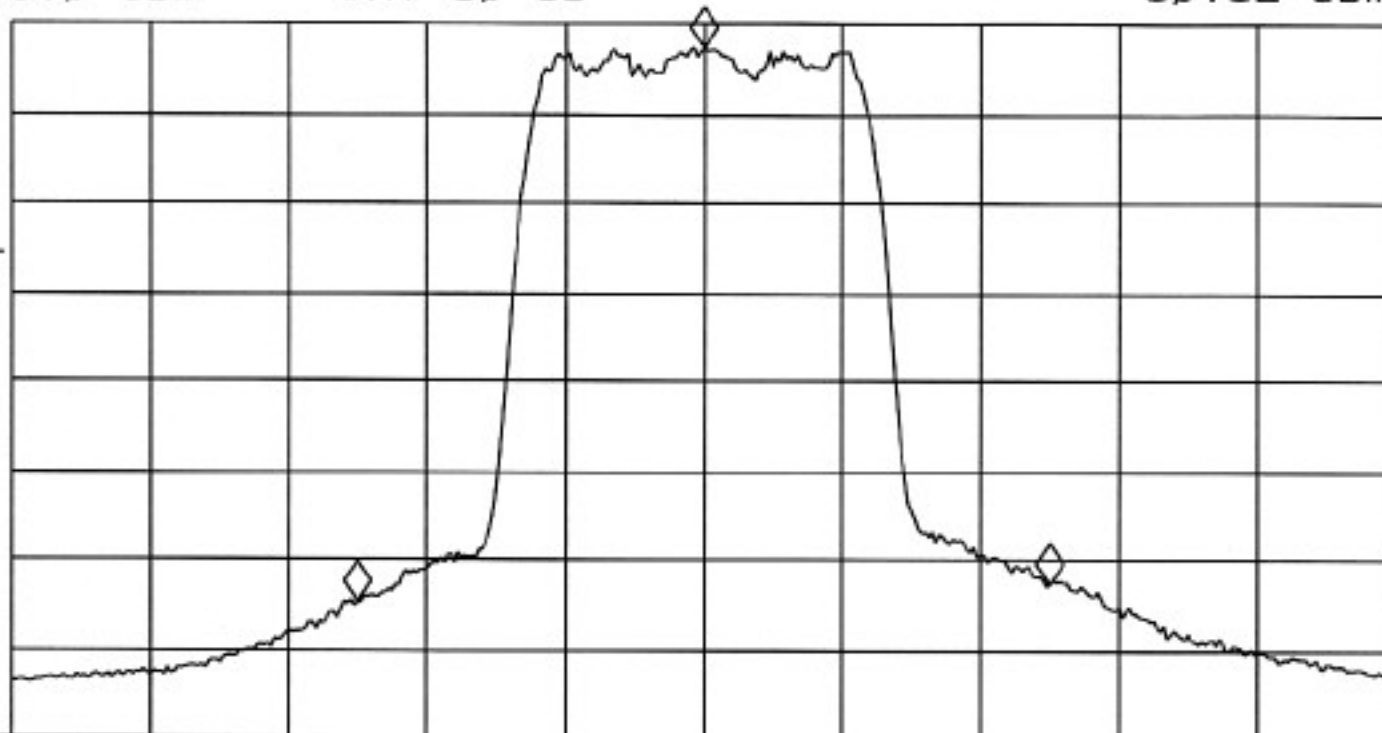
#AT 30 dB

MKR 1.988750 GHz

30.32 dBm

SMPL
LOG
10
dB/
OFFST
30.0
dB

AVG
200



Marker	Trace	Type	Freq / Time	Amplitude
1:	(A)	Freq	1988.750 MHz	30.32 dBm
2:	(A)	Freq	1987.500 MHz	-31.76 dBm
3:	(A)	Freq	1990.000 MHz	-29.71 dBm
4:	Inactive			

CENTER 1.988750 GHz

RES BW 30 kHz

SPAN 5.000 MHz

#VBW 100 kHz

SWP 20.0 msec

SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

Channel 25
Minimum Power

bcsate
10-07-98
17:59:09

15: 56: 22 OCT 07, 1998

hp

MKR 1.931250 GHz

REF 9.6 dBm

#AT 20 dB

7.36 dBm

SMPL

LOG

10

dB/

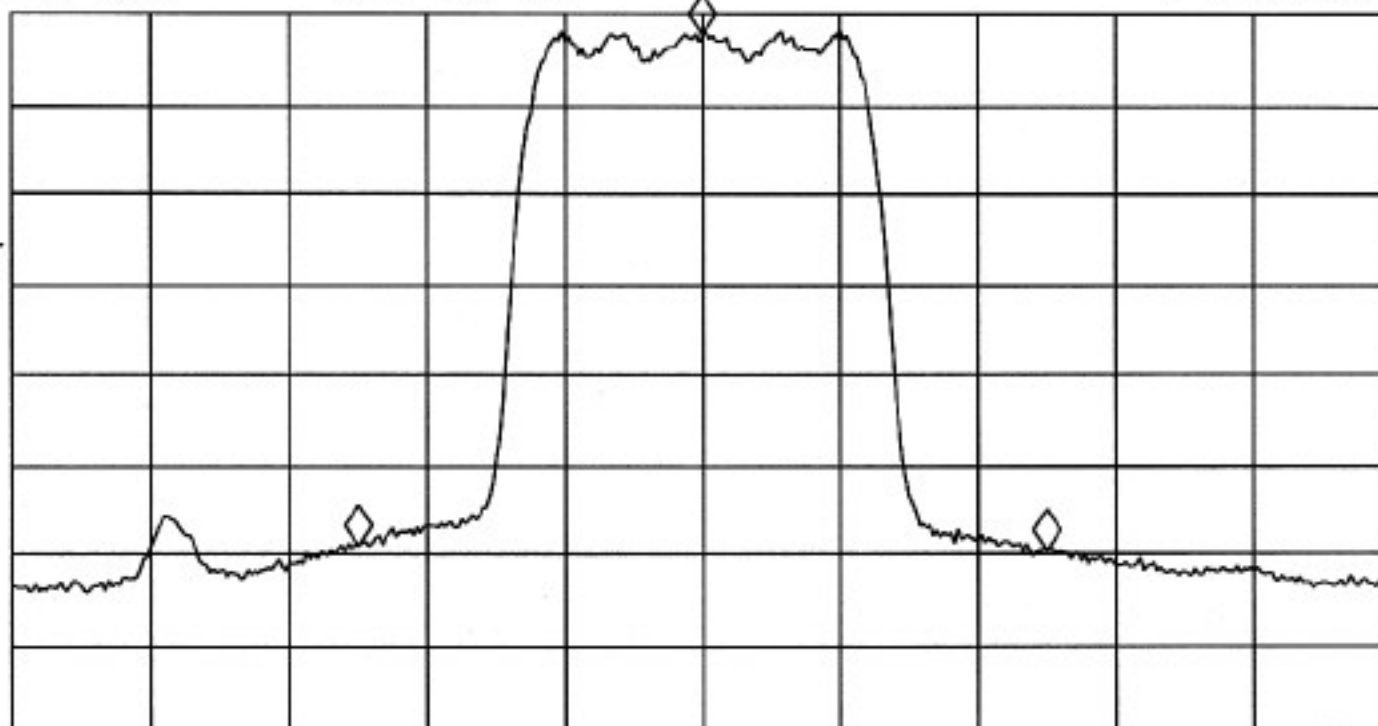
OFFST

30.6

dB

AVG

200



Marker	Trace	Type	Freq / Time	Amplitude
1:	(A)	Freq	1931.250 MHz	7.36 dBm
2:	(A)	Freq	1930.000 MHz	-49.48 dBm
3:	(A)	Freq	1932.500 MHz	-50.02 dBm
4:	Inactive			

CENTER 1.931250 GHz

#RES BW 30 kHz

SPAN 5.000 MHz

#VBW 100 kHz

SWP 20.0 msec

SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

Channel 1175
Minimum Power

hanta
10-07-98
17.52.24

15:50:36 OCT 07, 1998

hp

MKR 1.988750 GHz

REF 9.6 dBm

#AT 20 dB

7.39 dBm

SMPL

LOG

10

dB/

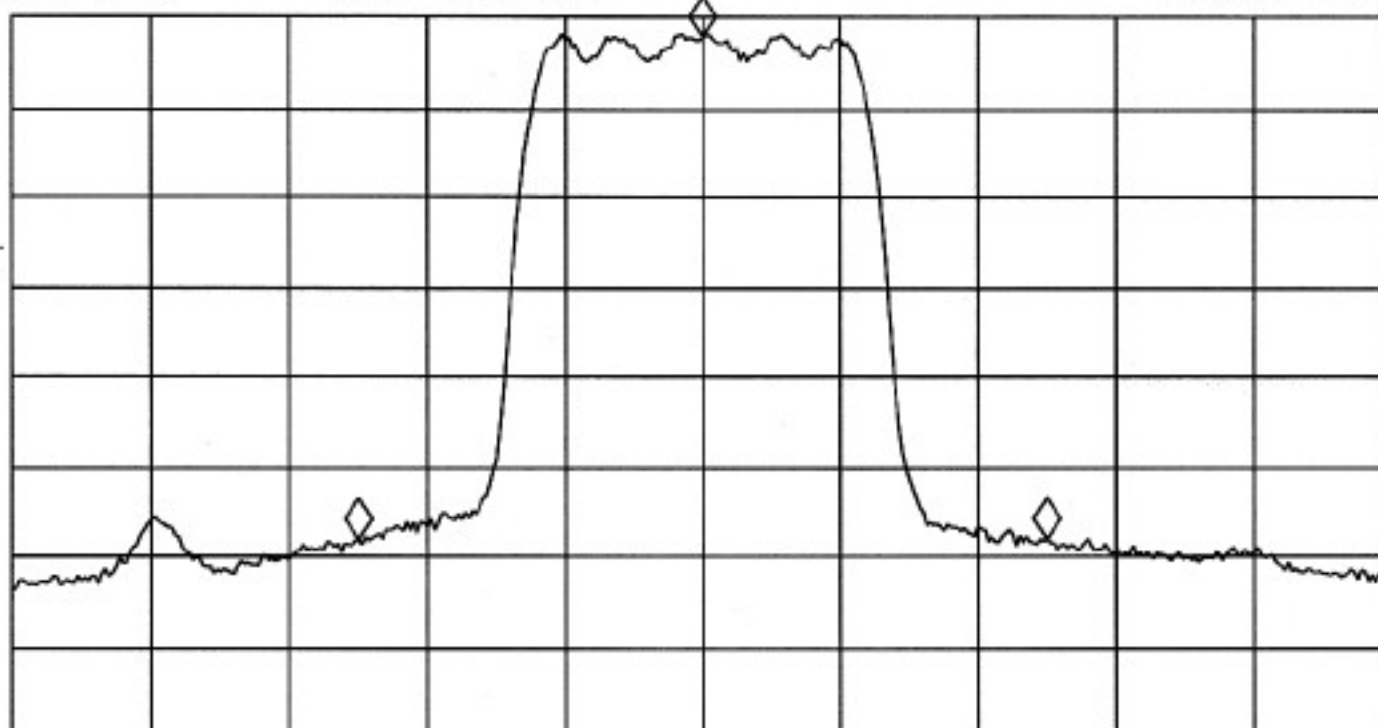
OFFST

30.6

dB

AVG

200



Marker	Trace	Type	Freq / Time	Amplitude
1:	(A)	Freq	1988.750 MHz	7.39 dBm
2:	(A)	Freq	1987.500 MHz	-48.56 dBm
3:	(A)	Freq	1990.000 MHz	-48.49 dBm
4:	Inactive			

CENTER 1.988750 GHz

#RES BW 30 kHz

SPAN 5.000 MHz

#VBW 100 kHz

SWP 20.0 msec



MOTOROLA

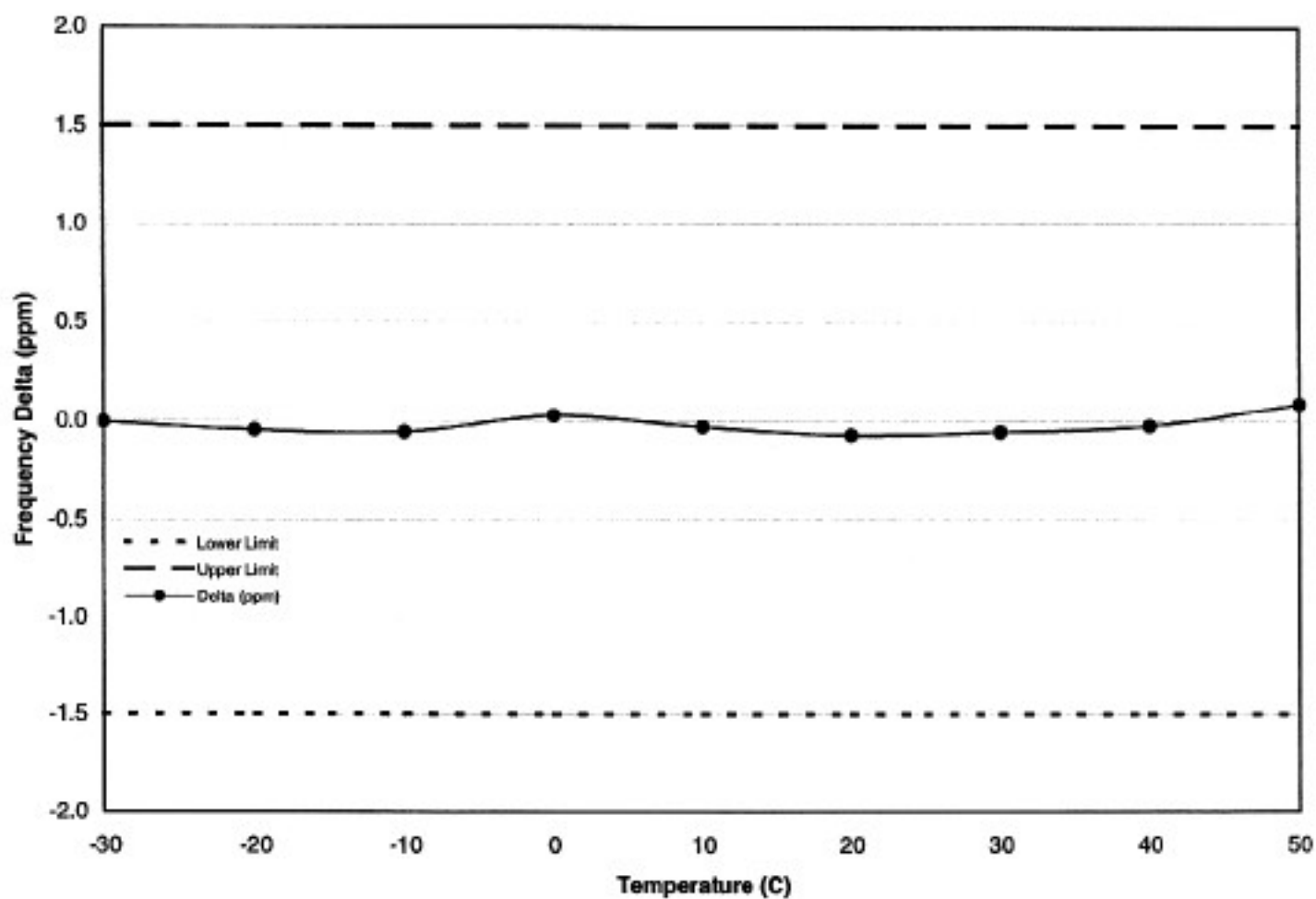
Cellular Infrastructure Group

FCC ID: IHET6YR1

EXHIBIT #6F

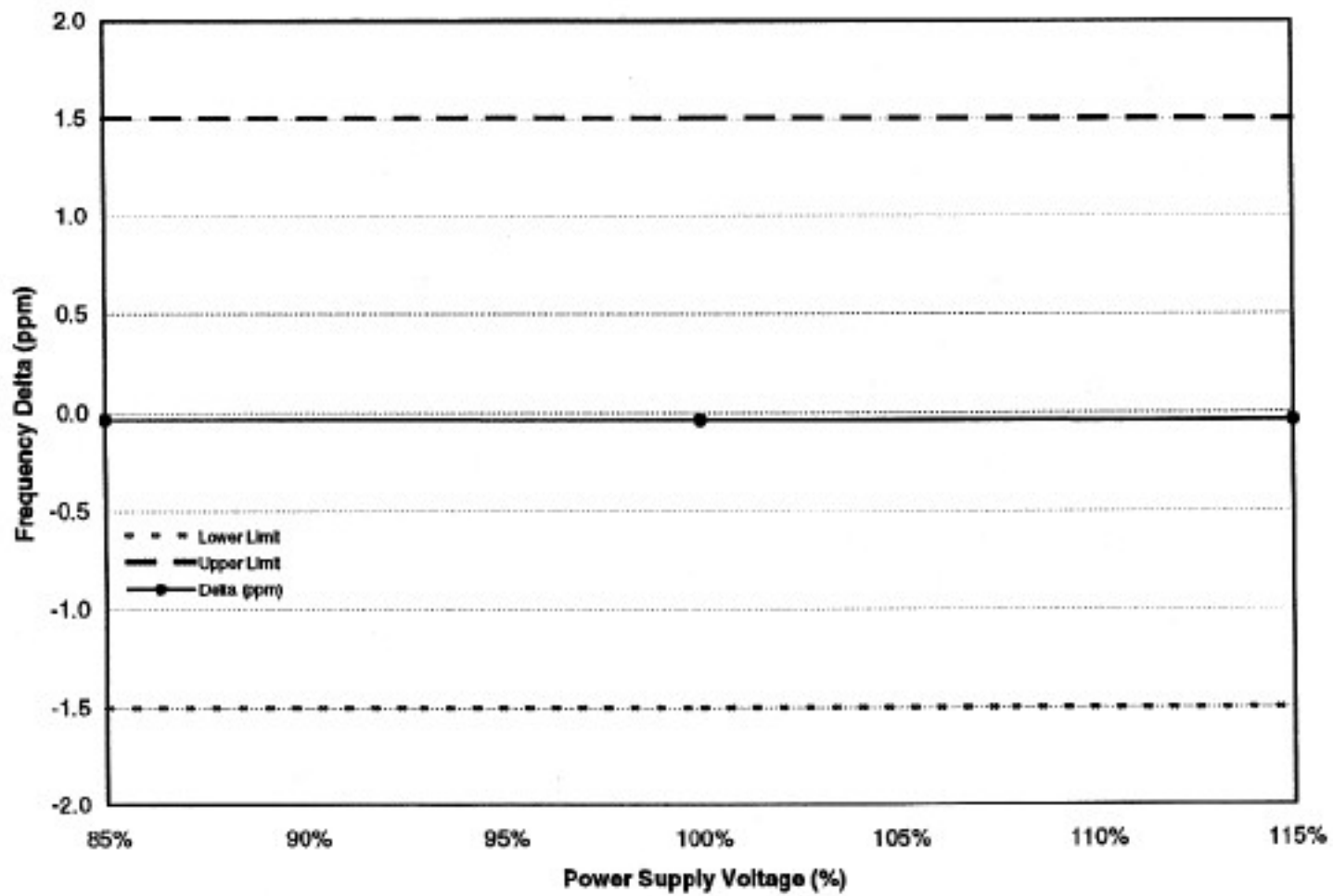
FREQUENCY STABILITY

Frequency Stability Over Temperature - CSM1



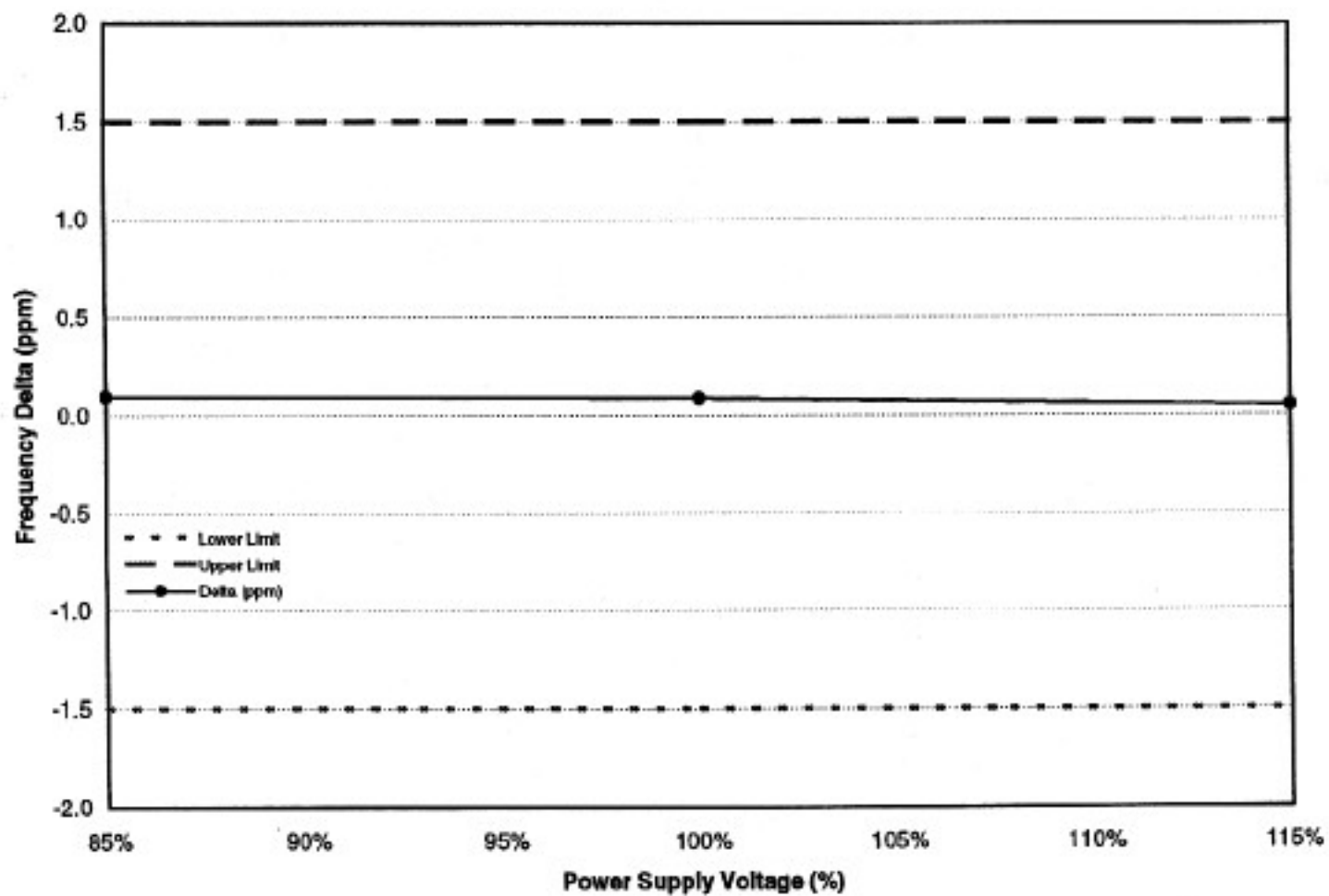
SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

Frequency Stability with Varying Supply Voltage - CSM1



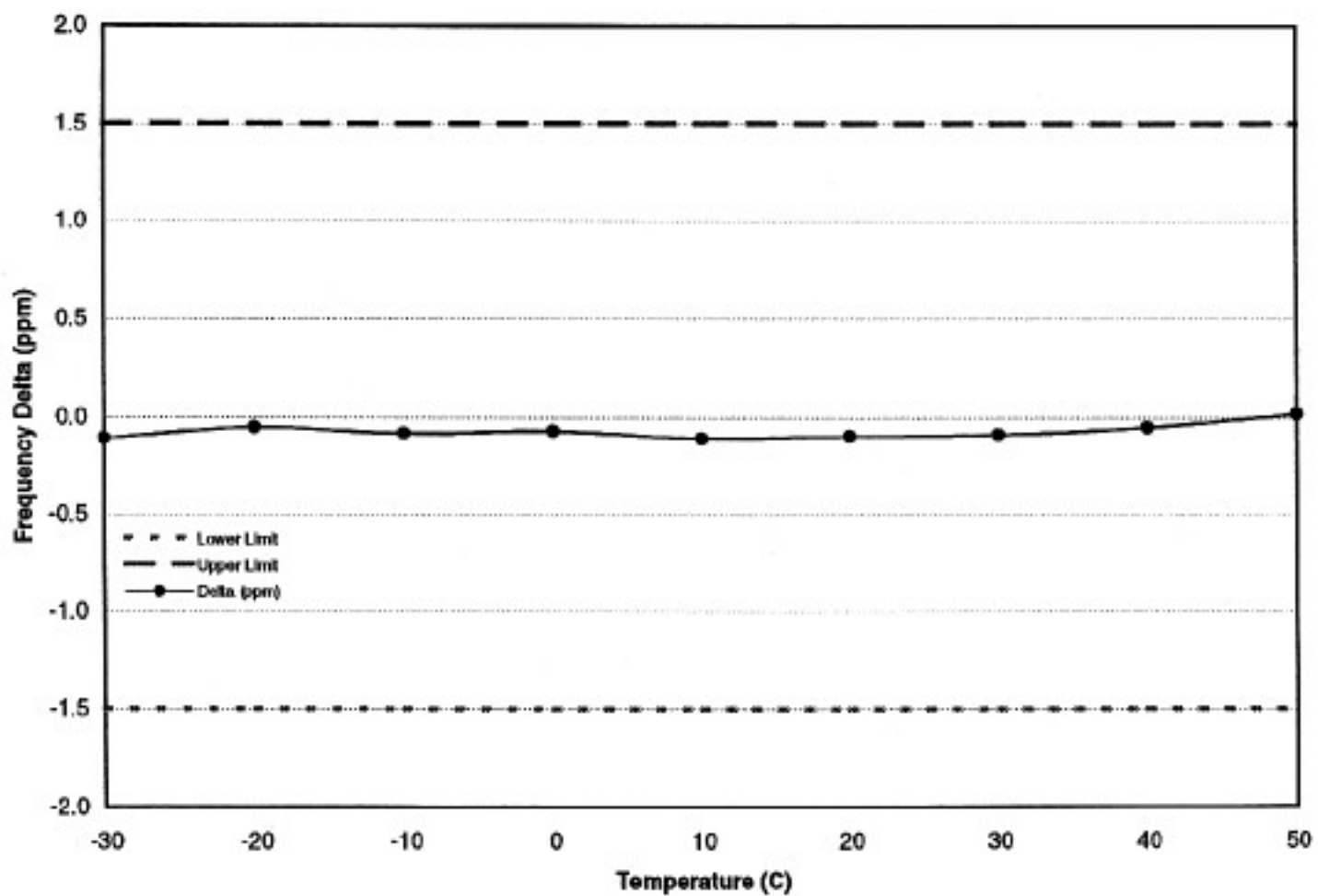
SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

Frequency Stability with Varying Supply Voltage - CSM2



SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1

Frequency Stability Over Temperature - CSM2



SC4812T 1.9 GHz
CDMA BTS Frame
IHET6YR1