

~~/P~~ FCC ID: PJ2CDM820 FM MODE

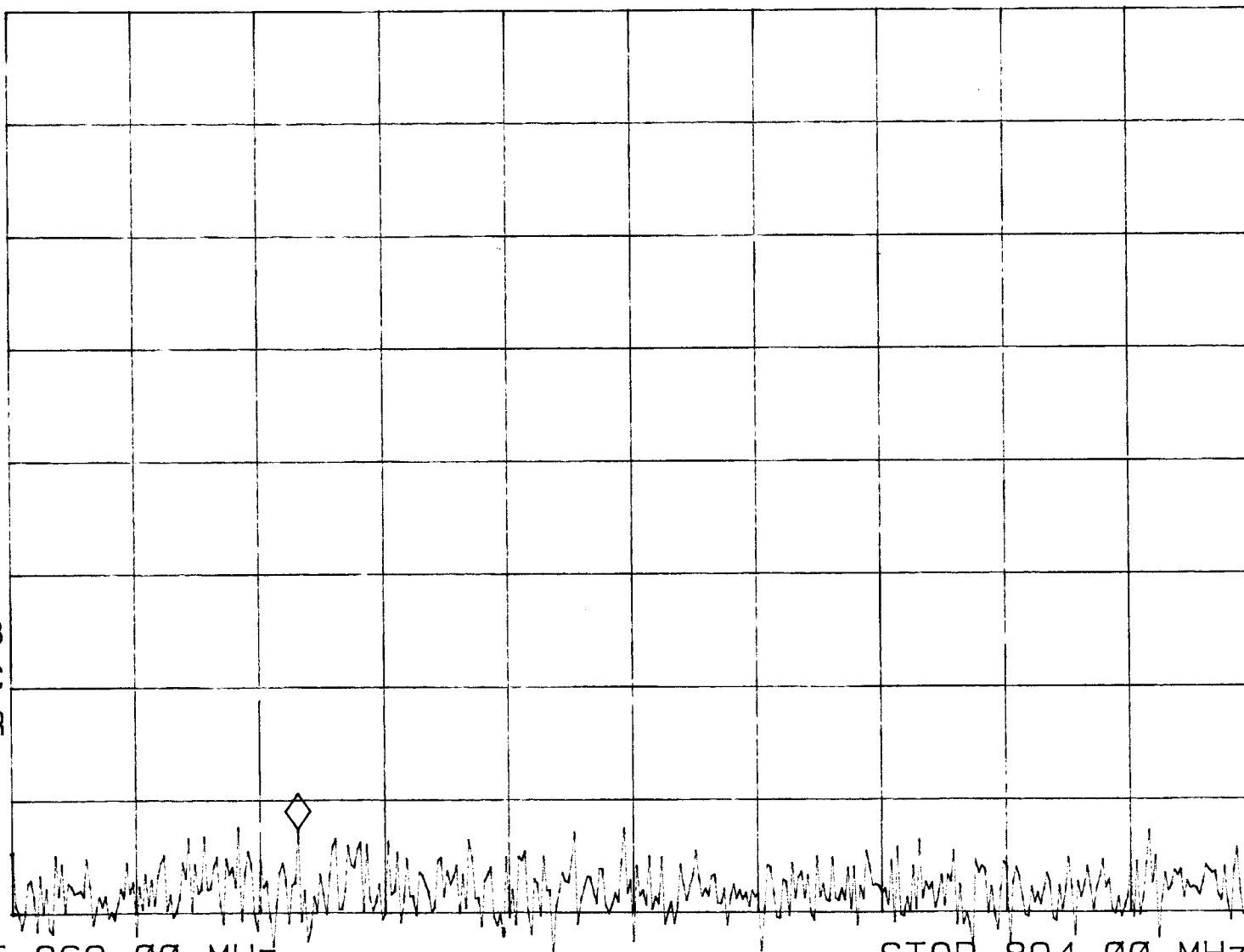
MKR 874.75 MHz

REF -60.0 dBm ATTEN 10 dB PG 25.0 dB

-96.29 dBm

PEAK
LOG
5
dB/
OFFST
6.0
dB

VA SB
SC FC
CORR



START 869.00 MHz

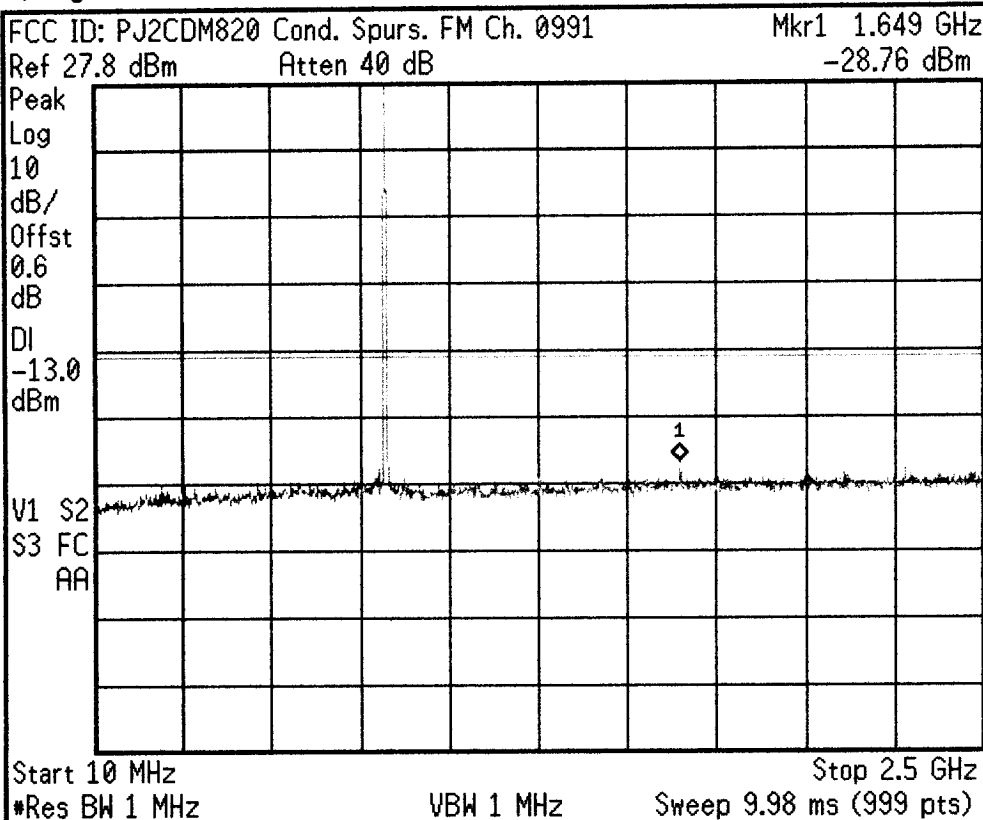
STOP 894.00 MHz

#RES BW 100 kHz

#VBW 300 kHz

#SWP 90 msec

* Agilent 09:16:57 Mar 21, 2001



Freq/Channel

Center Freq
 1.25500000 GHz

Start Freq
 10.0000000 MHz

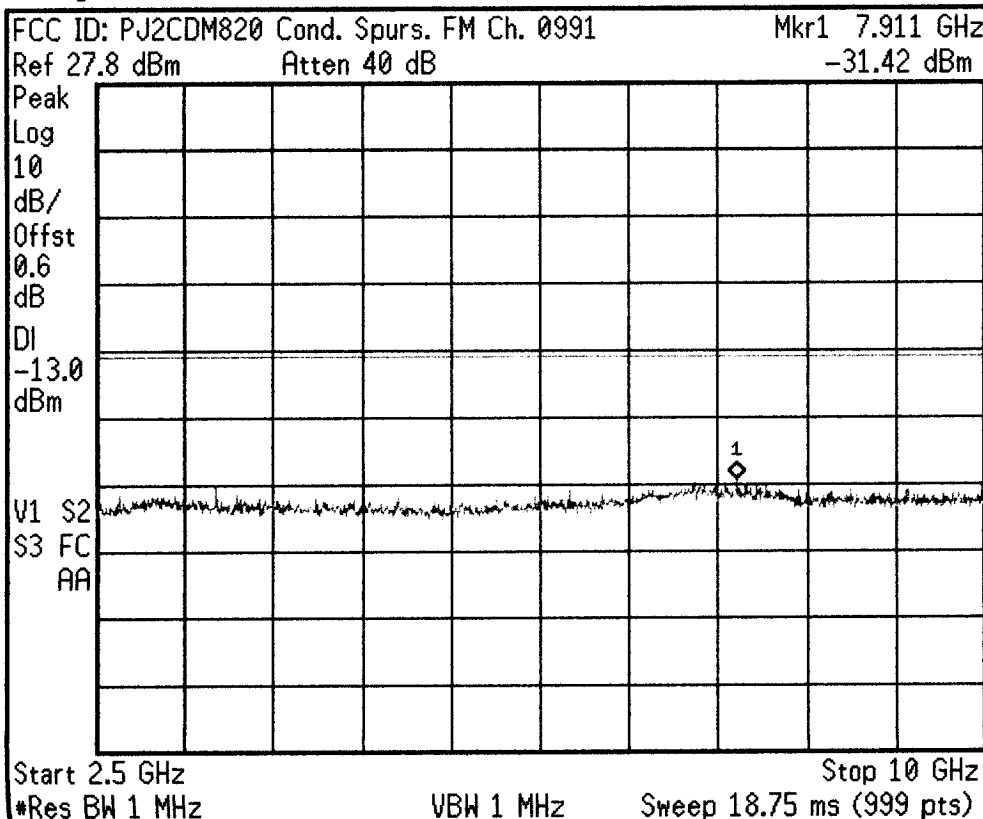
Stop Freq
 2.50000000 GHz

CF Step
 249.000000 MHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

* Agilent 09:20:04 Mar 21, 2001



Freq/Channel

Center Freq
 6.25000000 GHz

Start Freq
 2.50000000 GHz

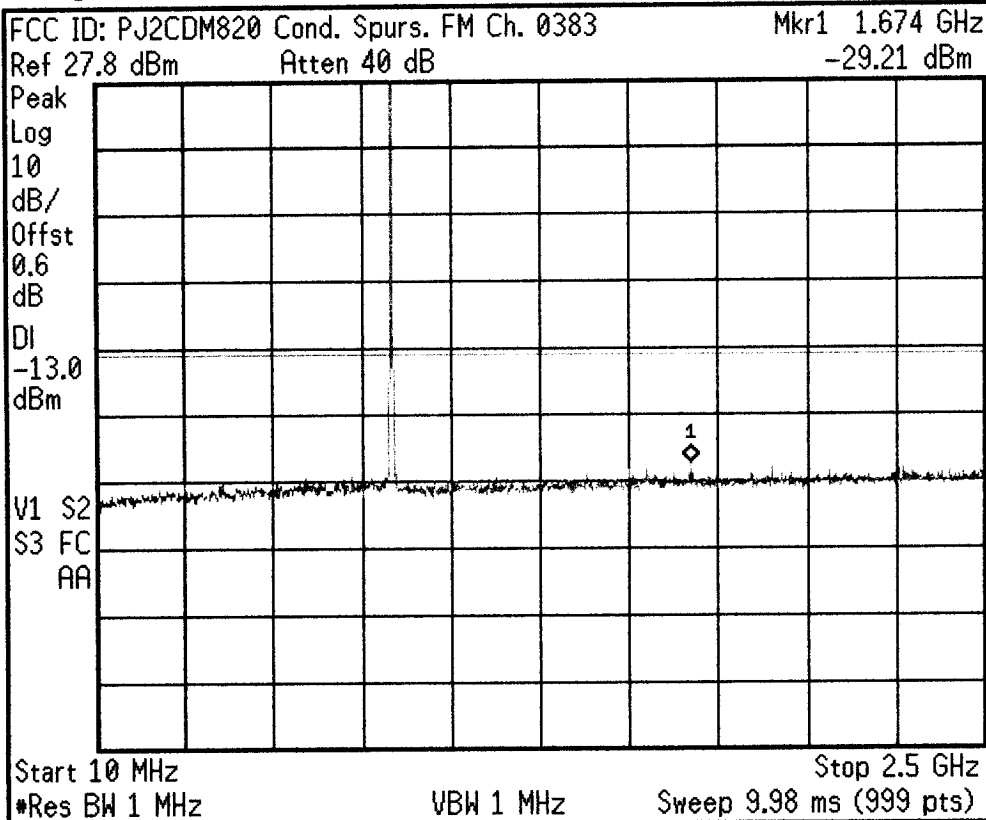
Stop Freq
 10.0000000 GHz

CF Step
 750.000000 MHz
 Auto Man

Freq Offset
 0.00000000 Hz

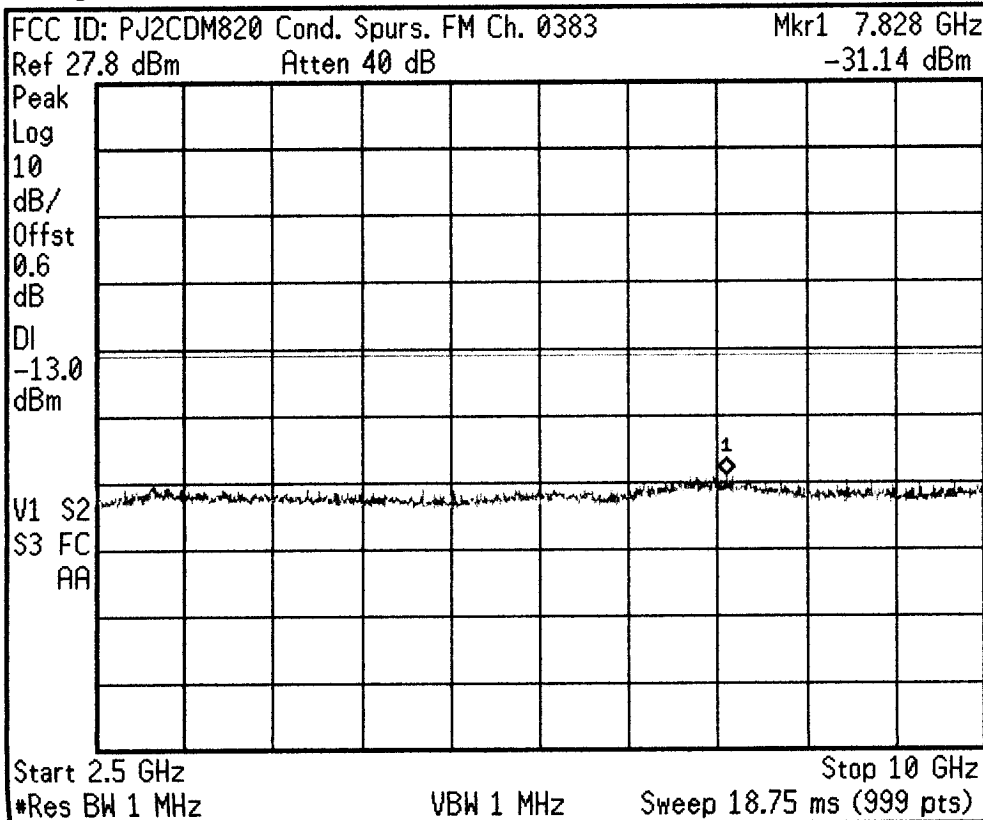
Signal Track
 On Off

* Agilent 09:13:24 Mar 21, 2001



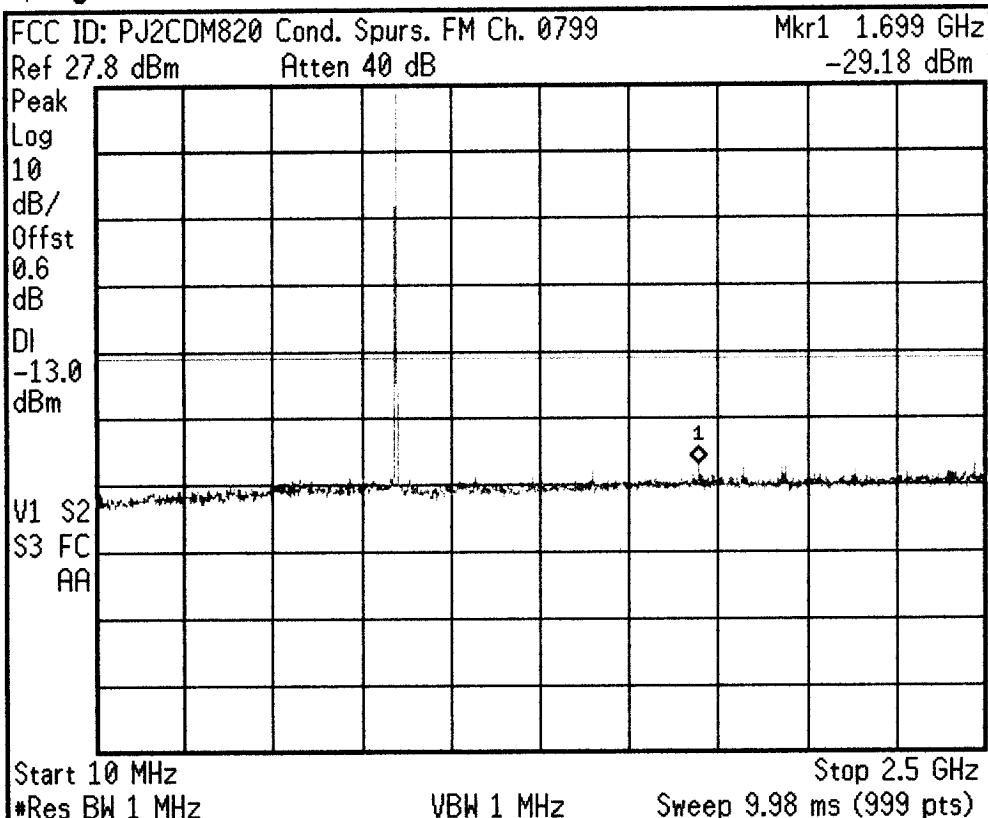
Freq/Channel
Center Freq 1.25500000 GHz
Start Freq 10.0000000 MHz
Stop Freq 2.50000000 GHz
CF Step 249.000000 MHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off

* Agilent 09:14:07 Mar 21, 2001



Freq/Channel
Center Freq 6.25000000 GHz
Start Freq 2.50000000 GHz
Stop Freq 10.0000000 GHz
CF Step 750.000000 MHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off

* Agilent 09:11:09 Mar 21, 2001



Freq/Channel

Center Freq
 1.25500000 GHz

Start Freq
 10.0000000 MHz

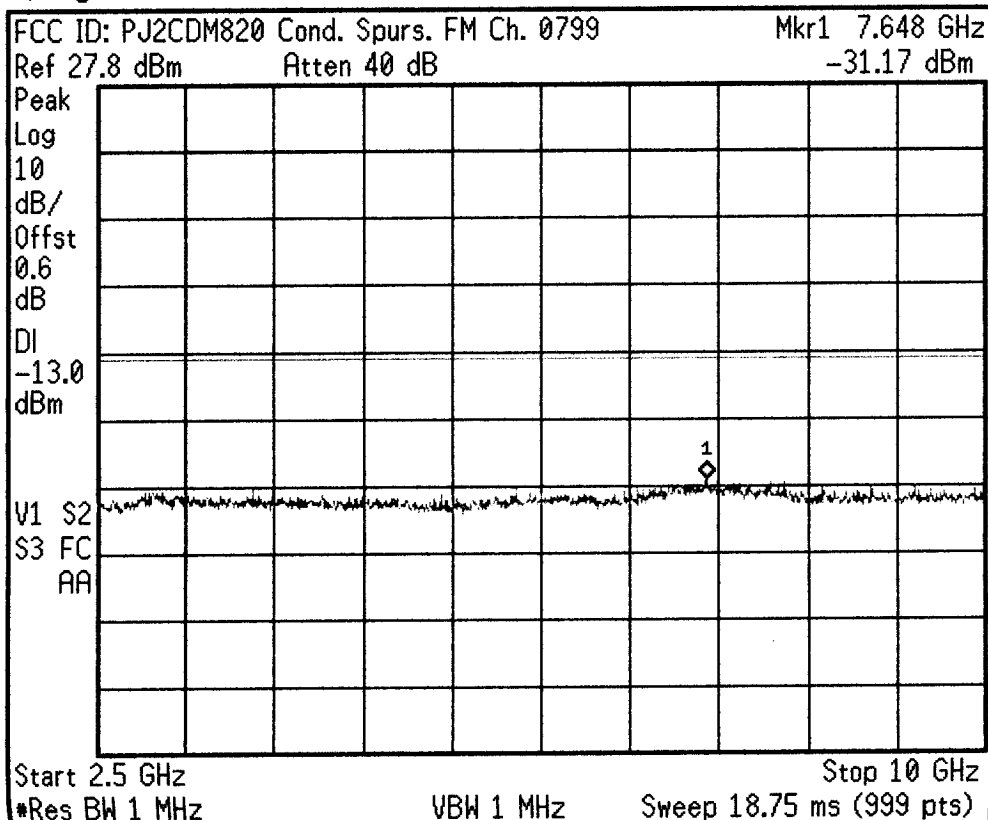
Stop Freq
 2.50000000 GHz

CF Step
 249.000000 MHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

* Agilent 09:11:58 Mar 21, 2001



Freq/Channel

Center Freq
 6.25000000 GHz

Start Freq
 2.50000000 GHz

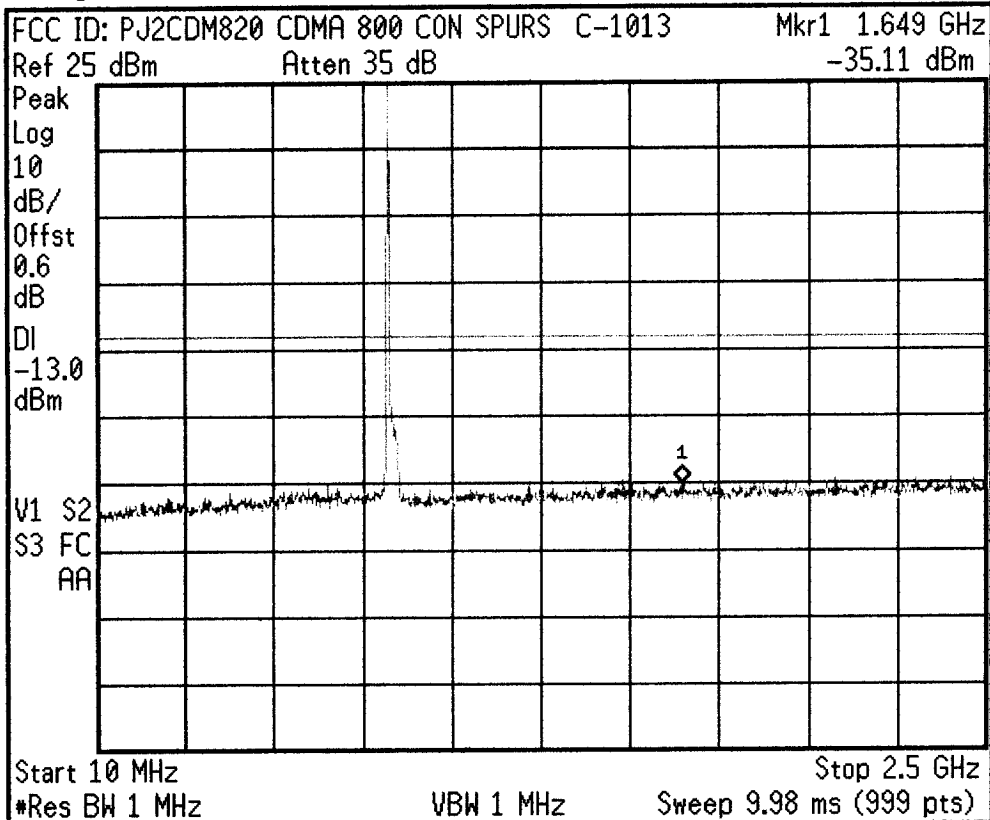
Stop Freq
 10.0000000 GHz

CF Step
 750.000000 MHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

* Agilent 12:07:15 Mar 21, 2001



Freq/Channel

Center Freq
 1.25500000 GHz

Start Freq
 10.0000000 MHz

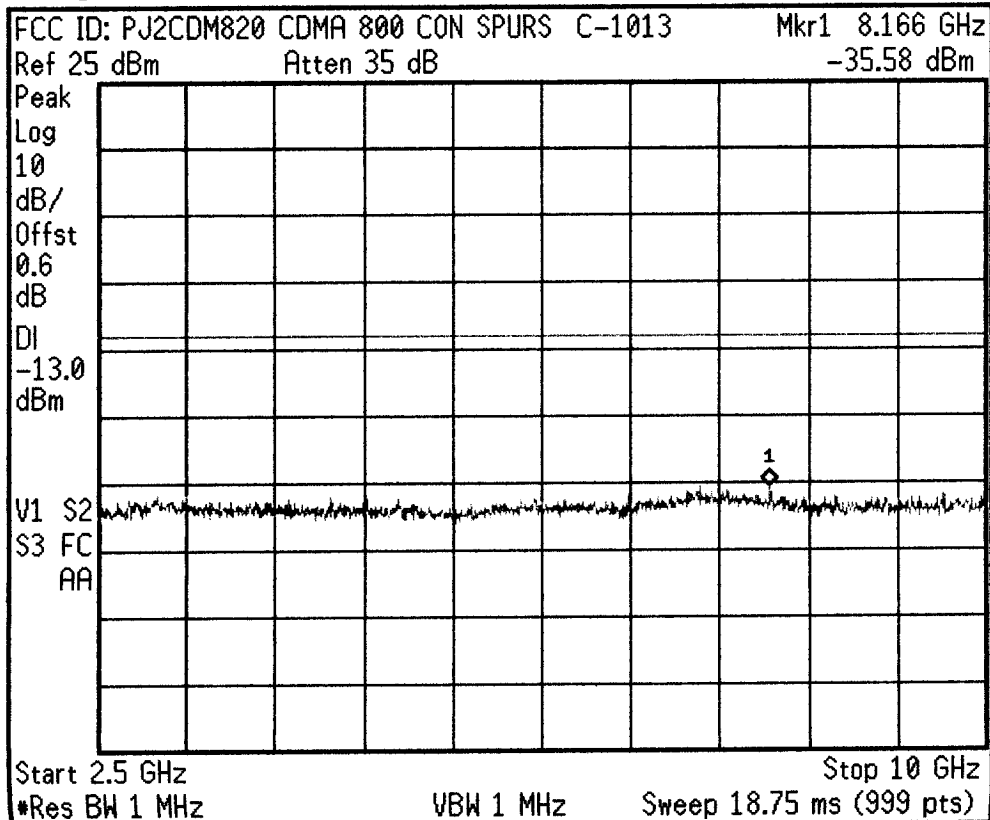
Stop Freq
 2.50000000 GHz

CF Step
 849.000000 MHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

* Agilent 12:08:24 Mar 21, 2001



Freq/Channel

Center Freq
 6.25000000 GHz

Start Freq
 2.50000000 GHz

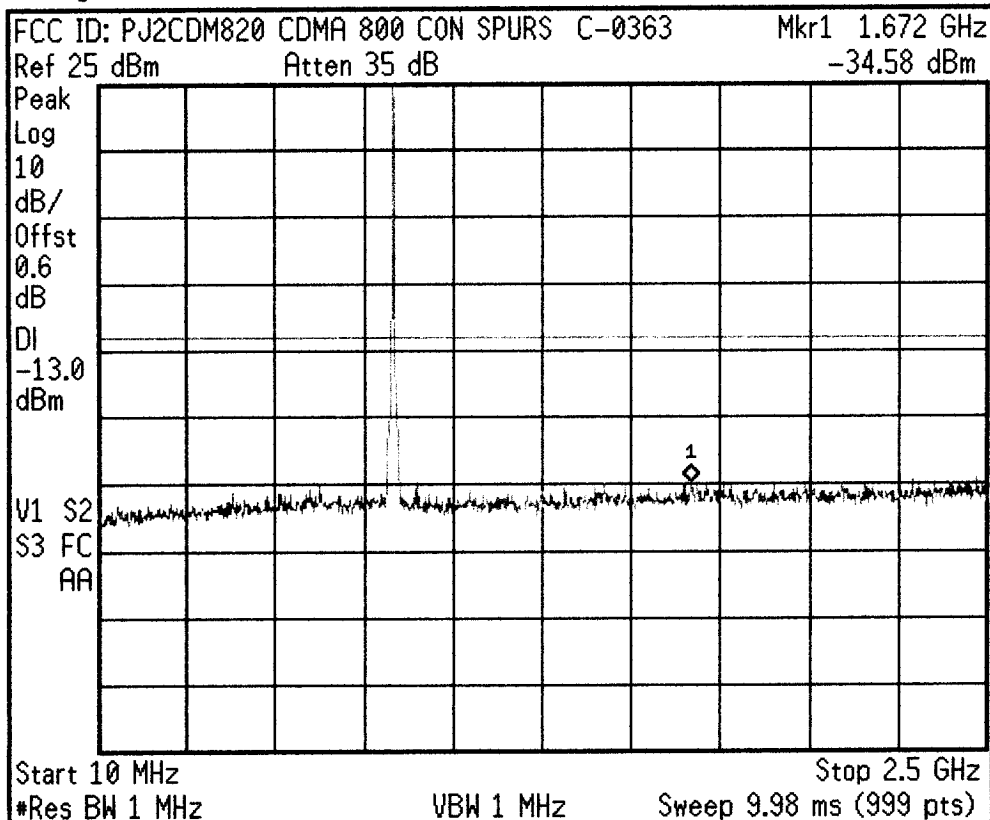
Stop Freq
 10.0000000 GHz

CF Step
 849.000000 MHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

* Agilent 12:10:02 Mar 21, 2001



Freq/Channel

Center Freq
 1.25500000 GHz

Start Freq
 10.0000000 MHz

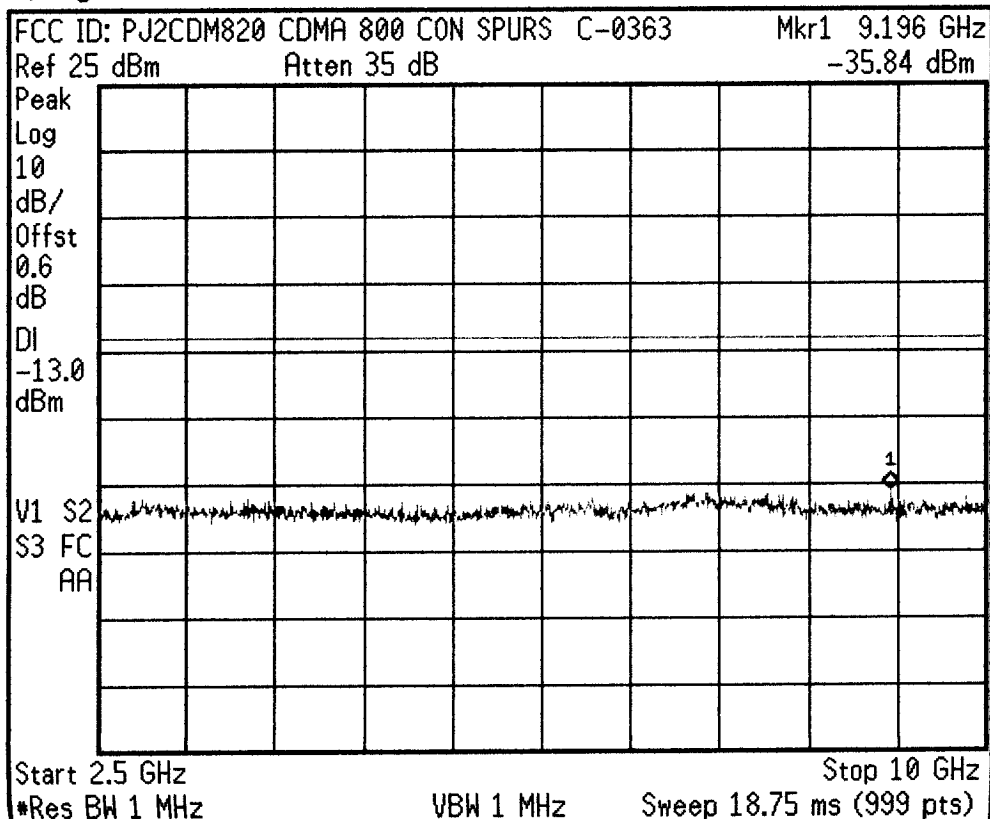
Stop Freq
 2.50000000 GHz

CF Step
 849.000000 MHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

* Agilent 12:10:54 Mar 21, 2001



Freq/Channel

Center Freq
 6.25000000 GHz

Start Freq
 2.50000000 GHz

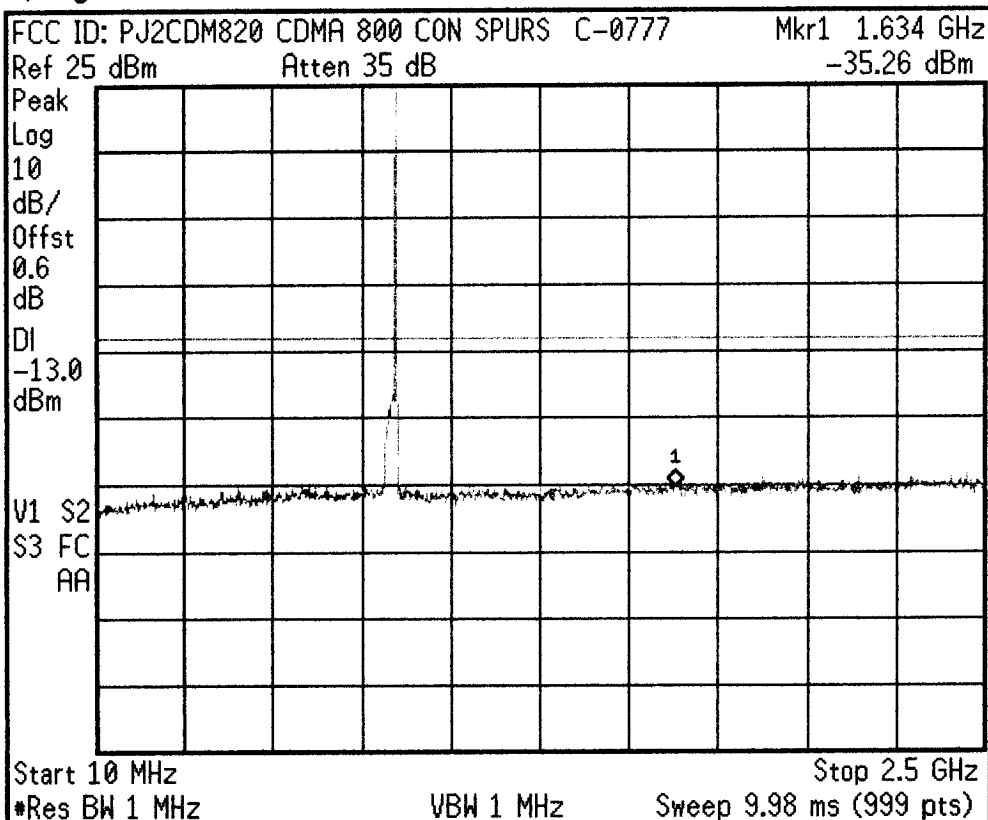
Stop Freq
 10.0000000 GHz

CF Step
 849.000000 MHz
 Auto Man

Freq Offset
 0.00000000 Hz

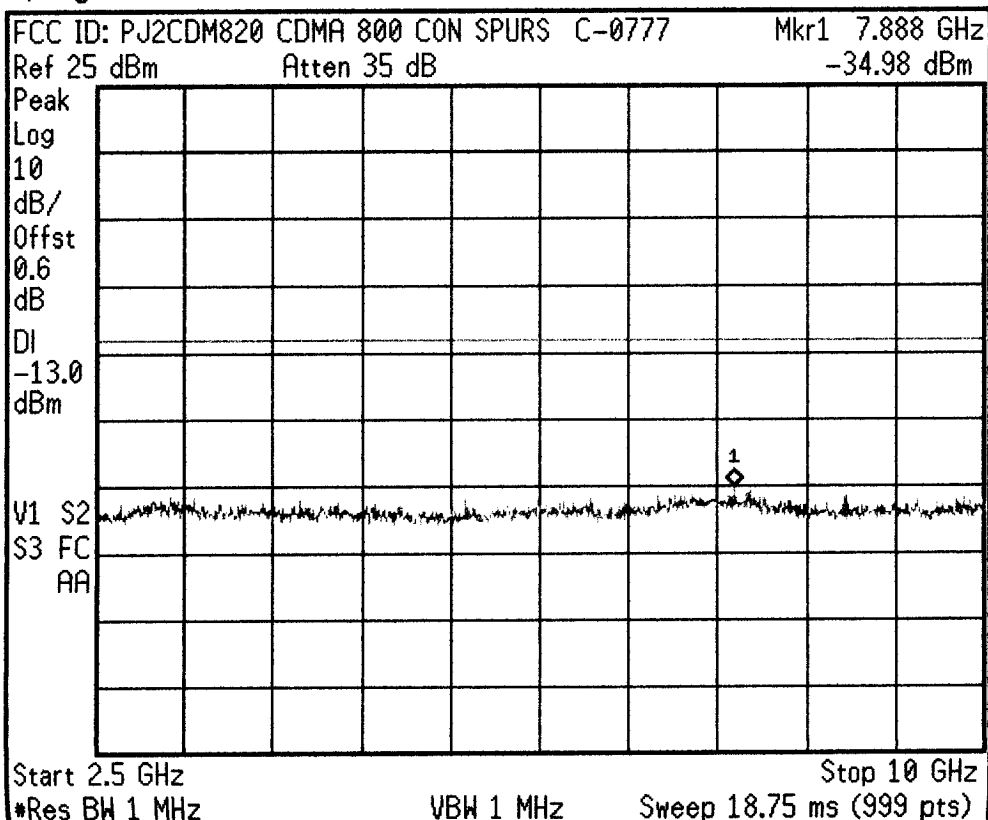
Signal Track
 On Off

* Agilent 12:12:35 Mar 21, 2001



Freq/Channel
Center Freq 1.25500000 GHz
Start Freq 10.0000000 MHz
Stop Freq 2.50000000 GHz
CF Step 849.000000 MHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off

* Agilent 12:13:47 Mar 21, 2001



Freq/Channel
Center Freq 6.25000000 GHz
Start Freq 2.50000000 GHz
Stop Freq 10.0000000 GHz
CF Step 849.000000 MHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off

* Agilent 12:23:36 Mar 21, 2001

FCC ID: PJ2CDM820 CDMA 800 BAND EDGE C-1013

Ref 25 dBm

Atten 35 dB

Peak

Log

10

dB/

Offst

0.6

dB

DI

-13.0
dBm

V1 S2

S3 FC

AA

Center 824 MHz

*Res BW 30 kHz

VBW 30 kHz

Span 5 MHz
Sweep 13.89 ms (999 pts)

Display

Full Screen

Display Line

-13.00 dBm

On

Off

Limits>

Title>

Preferences>

* Agilent 12:27:08 Mar 21, 2001

FCC ID: PJ2CDM820 CDMA 800 BAND EDGE C-0777

Ref 25 dBm

Atten 35 dB

Peak

Log

10

dB/

Offst

0.6

dB

DI

-13.0
dBm

V1 S2

S3 FC

AA

Center 849 MHz

*Res BW 30 kHz

VBW 30 kHz

Span 5 MHz
Sweep 13.89 ms (999 pts)

Freq/Channel

Center Freq

849.000000 MHz

Start Freq

846.500000 MHz

Stop Freq

851.500000 MHz

CF Step

849.000000 MHz

Auto

Man

Freq Offset

0.00000000 Hz

Signal Track

On

Off

* Agilent 12:21:00 Mar 21, 2001

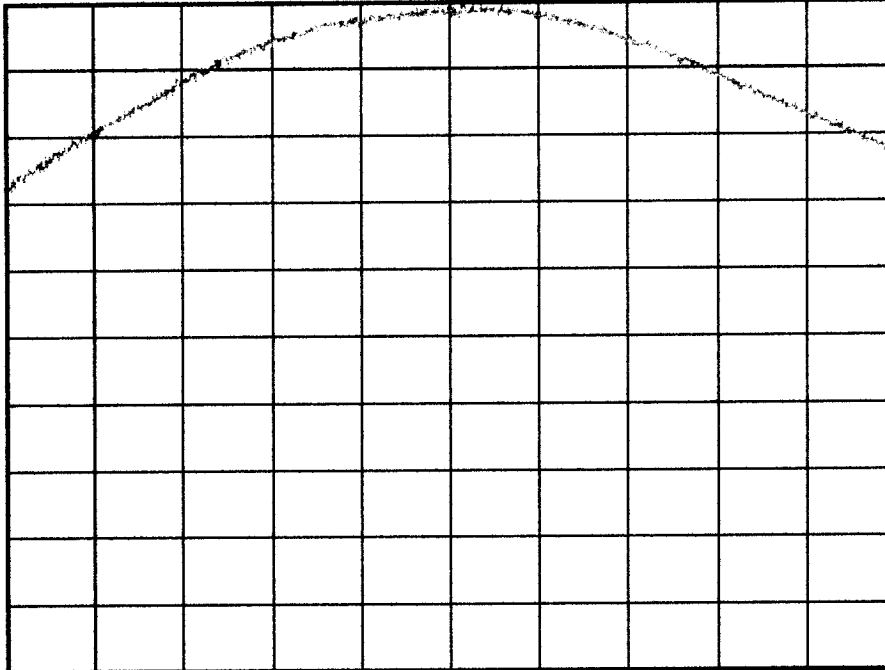
FCC ID: PJ2CDM820 CDMA 800 PWR OUT C-1013

Ref 25 dBm

Atten 35 dB

Peak
Log
10
dB/
Offst
0.6
dB

V1 S2
S3 FC
AA



Center 824.7 MHz

Span 10 MHz

*Res BW 3 MHz

VBW 3 MHz

Sweep 9.98 ms (999 pts)

Freq/Channel

Center Freq

824.700000 MHz

Start Freq

819.700000 MHz

Stop Freq

829.700000 MHz

CF Step

849.000000 MHz

Auto

Man

Freq Offset

0.00000000 Hz

Signal Track

On

Off

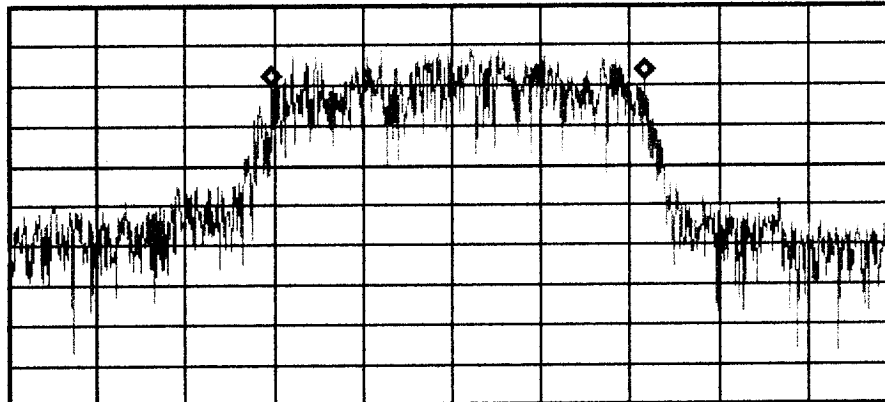
* Agilent 12:22:02 Mar 21, 2001

FCC ID: PJ2CDM820 CDMA 800 PWR OUT C-1013

Ref 25 dBm

Atten 35 dB

Samp
Log
10
dB/
Offst
0.6
dB



Center 824.7 MHz

Span 3 MHz

*Res BW 30 kHz

*VBW 300 kHz

Sweep 9.98 ms (999 pts)

Measure

Meas Off

ACP

Channel Power

Occupied BW

Emission BW

Harmonic Dist

Occupied Bandwidth Results (idle)

Occupied Bandwidth

1.253 MHz

Occ BW % Pwr 99.00 %

Transmit Freq Error 20.20 kHz

* Agilent 12:18:03 Mar 21, 2001

FCC ID: PJ2CDM820 CDMA 800 PWR OUT C-0777

Ref 25 dBm

Atten 35 dB

Peak

Log

10

dB/

Offst

0.6

dB

V1 S2

S3 FC

AA

Center 848.3 MHz

*Res BW 3 MHz

VBW 3 MHz

Span 10 MHz

Sweep 9.98 ms (999 pts)

Freq/Channel

Center Freq

848.310000 MHz

Start Freq

843.310000 MHz

Stop Freq

853.310000 MHz

CF Step

849.000000 MHz

Auto

Man

Freq Offset

0.00000000 Hz

Signal Track

On

Off

* Agilent 12:19:37 Mar 21, 2001

FCC ID: PJ2CDM820 CDMA 800 PWR OUT C-0363

Ref 25 dBm

Atten 35 dB

Peak

Log

10

dB/

Offst

0.6

dB

V1 S2

S3 FC

AA

Center 835.9 MHz

*Res BW 3 MHz

VBW 3 MHz

Span 10 MHz

Sweep 9.98 ms (999 pts)

Freq/Channel

Center Freq

835.890000 MHz

Start Freq

830.890000 MHz

Stop Freq

840.890000 MHz

CF Step

849.000000 MHz

Auto

Man

Freq Offset

0.00000000 Hz

Signal Track

On

Off

* Agilent 09:46:01 Mar 21, 2001

FCC ID: PJ2CDM820 Power Out PCS Ch. 0600

Ref 24 dBm

Atten 35 dB

Peak

Log

10

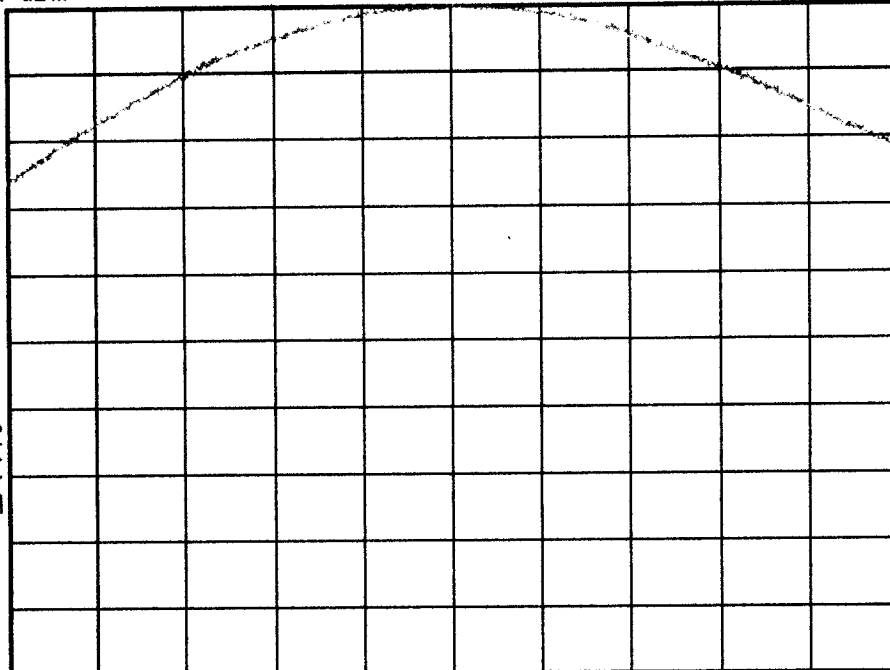
dB/

Offst

1.1

dB

V1 S2
S3 FC
AA



Center 1.88 GHz

Span 10 MHz

*Res BW 3 MHz

VBW 3 MHz

Sweep 9.98 ms (999 pts)

Freq/Channel

Center Freq

1.88000000 GHz

Start Freq

1.87500000 GHz

Stop Freq

1.88500000 GHz

CF Step

1.00000000 MHz

Auto

Man

Freq Offset

0.00000000 Hz

Signal Track

On

Off

* Agilent 09:49:31 Mar 21, 2001

FCC ID: PJ2CDM820 Power Out PCS Ch. 1175

Ref 24 dBm

Atten 35 dB

Peak

Log

10

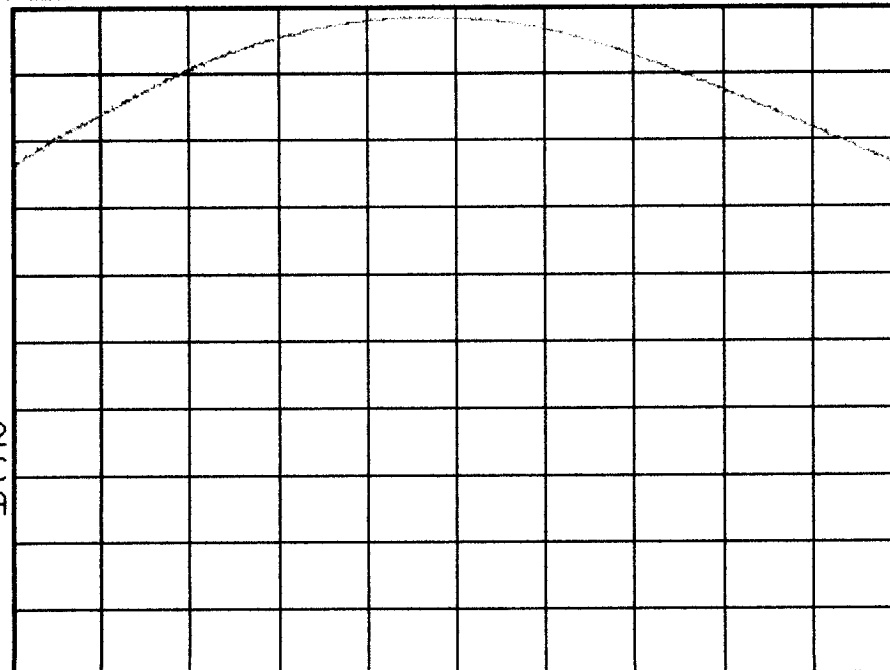
dB/

Offst

1.1

dB

V1 S2
S3 FC
AA



Center 1.909 GHz

Span 10 MHz

*Res BW 3 MHz

VBW 3 MHz

Sweep 9.98 ms (999 pts)

Freq/Channel

Center Freq

1.90900000 GHz

Start Freq

1.90400000 GHz

Stop Freq

1.91400000 GHz

CF Step

1.00000000 MHz

Auto

Man

Freq Offset

0.00000000 Hz

Signal Track

On

Off

FCC ID: PJ2CDM820 Power Out PCS Ch. 0025

Ref 24 dBm

Atten 35 dB

Peak

Log

10

dB/

Offst

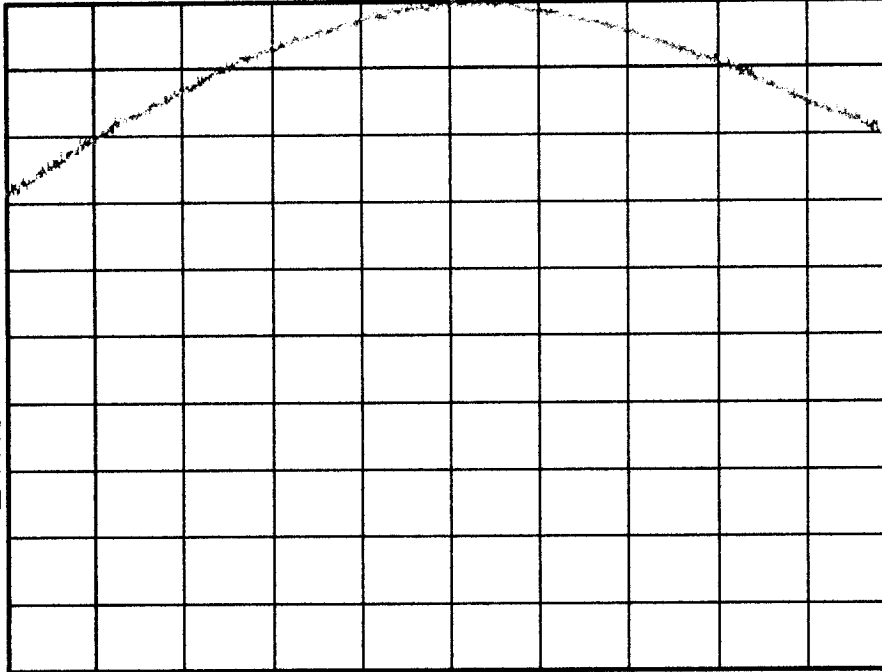
1.1

dB

V1 S2

S3 FC

AA



Center 1.851 GHz

Span 10 MHz

*Res BW 3 MHz

VBW 3 MHz

Sweep 9.98 ms (999 pts)

Freq/Channel

Center Freq

1.85100000 GHz

Start Freq

1.84600000 GHz

Stop Freq

1.85600000 GHz

CF Step

1.00000000 MHz

Auto

Man

Freq Offset

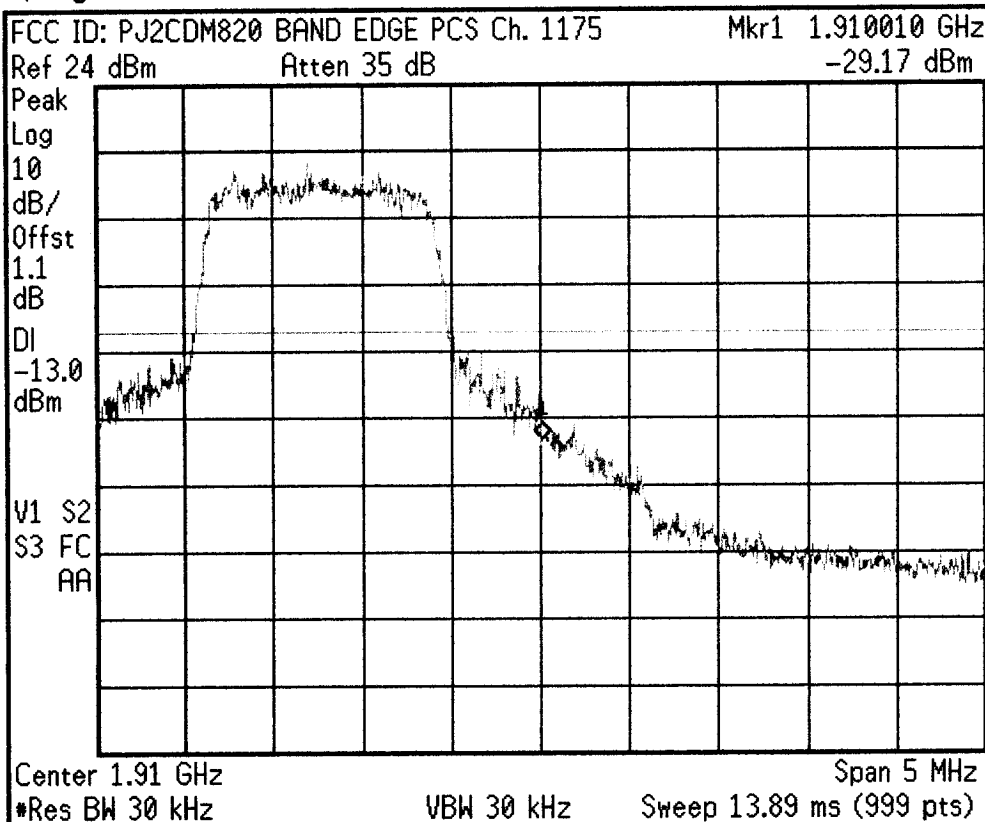
0.00000000 Hz

Signal Track

On

Off

* Agilent 09:57:20 Mar 21, 2001



Freq/Channel

Center Freq
 1.91000000 GHz

Start Freq
 1.90750000 GHz

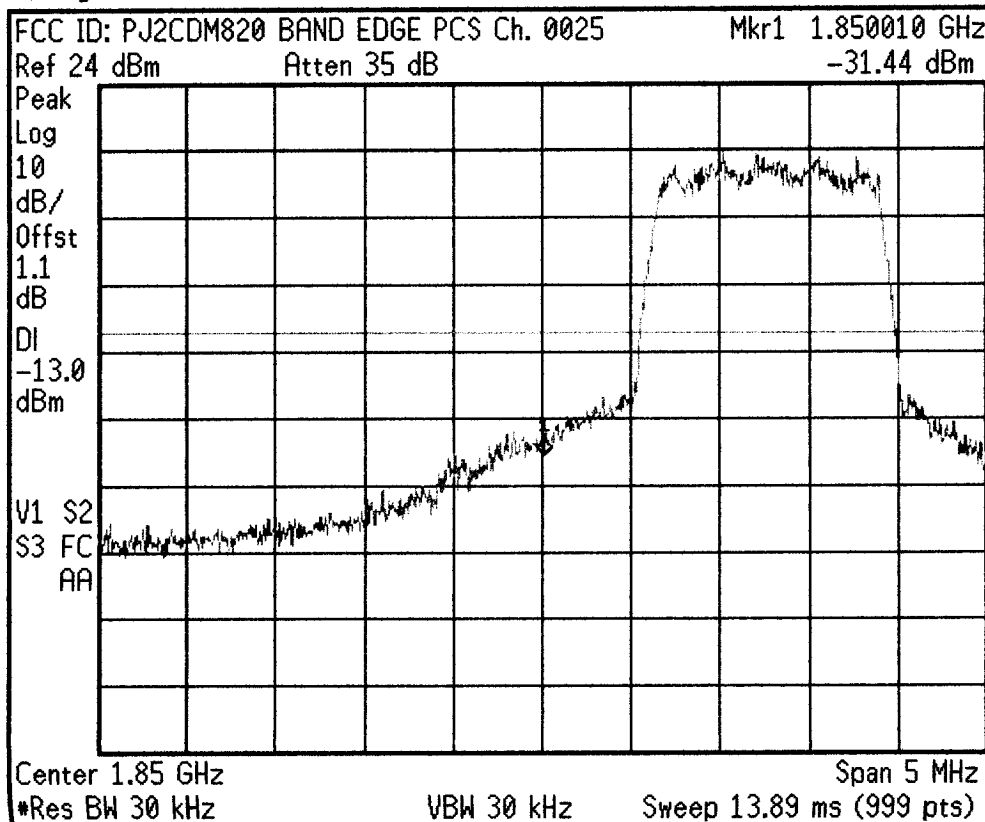
Stop Freq
 1.91250000 GHz

CF Step
 500.000000 kHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

* Agilent 09:59:25 Mar 21, 2001



Freq/Channel

Center Freq
 1.85000000 GHz

Start Freq
 1.84750000 GHz

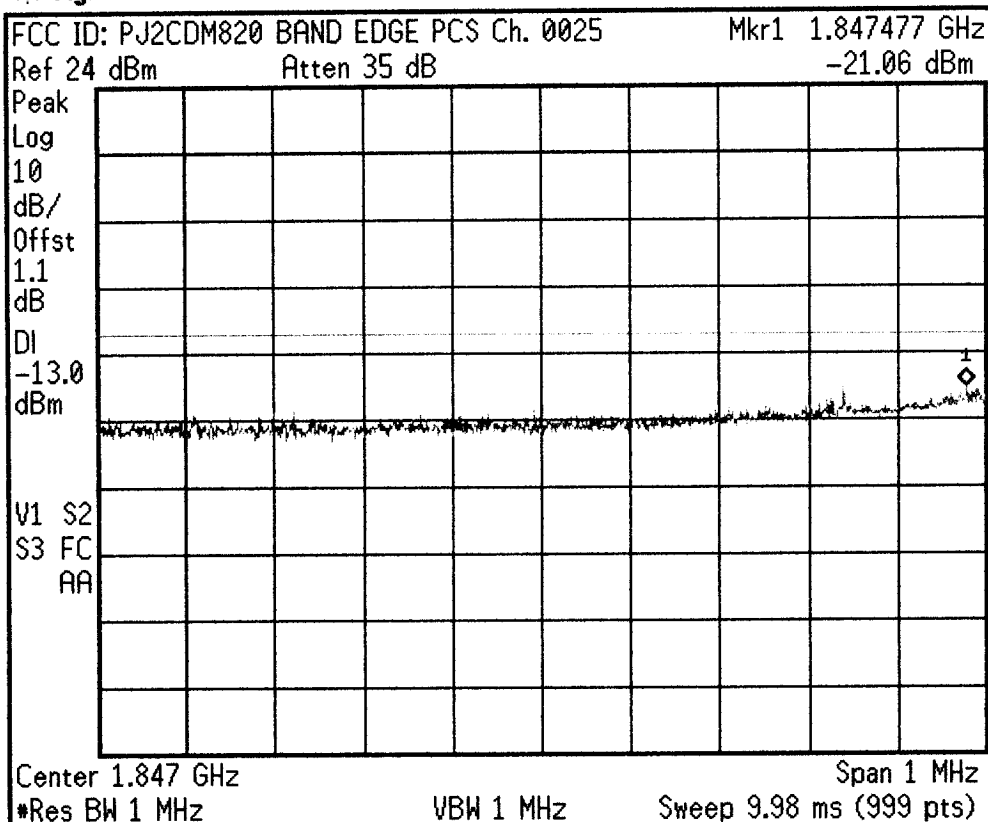
Stop Freq
 1.85250000 GHz

CF Step
 500.000000 kHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

* Agilent 10:01:25 Mar 21, 2001



Freq/Channel

Center Freq
 1.84700000 GHz

Start Freq
 1.84650000 GHz

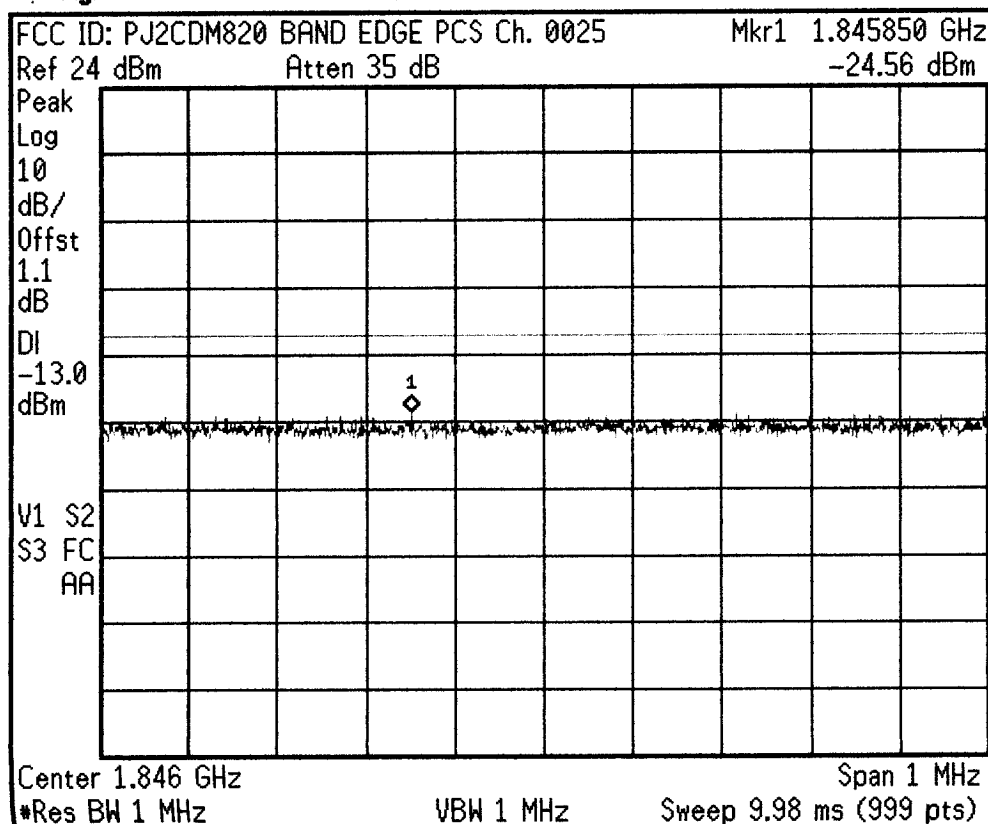
Stop Freq
 1.84750000 GHz

CF Step
 100.000000 kHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

* Agilent 10:02:22 Mar 21, 2001



Freq/Channel

Center Freq
 1.84600000 GHz

Start Freq
 1.84550000 GHz

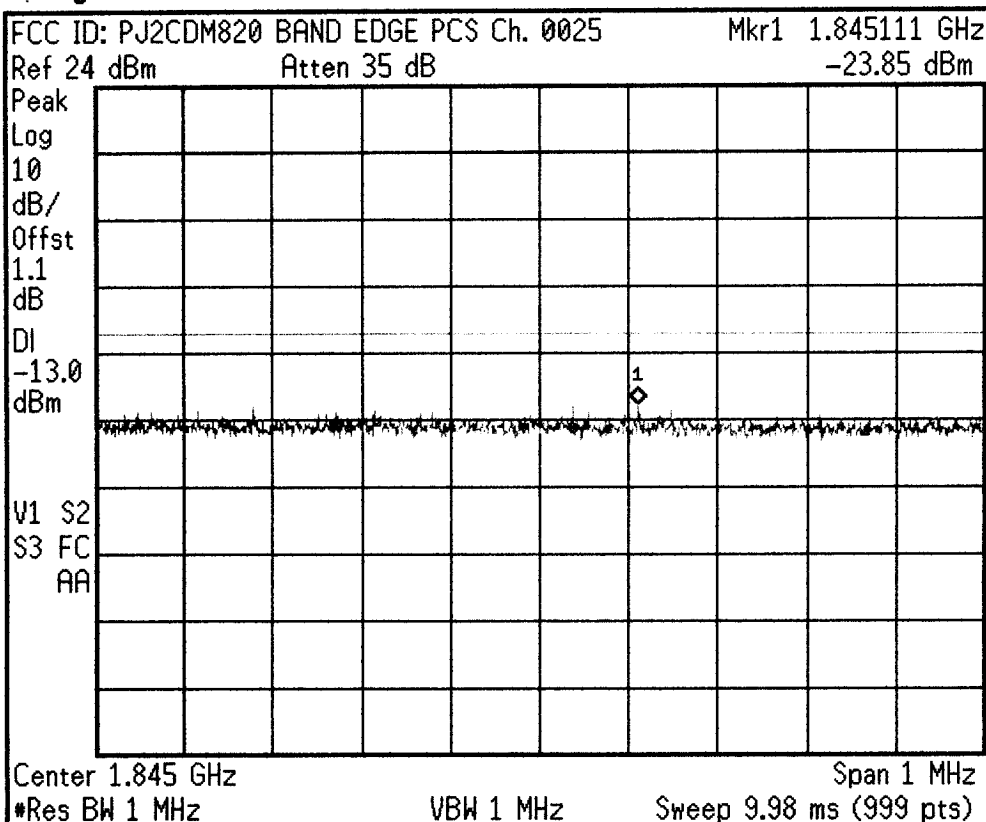
Stop Freq
 1.84650000 GHz

CF Step
 100.000000 kHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

* Agilent 10:03:03 Mar 21, 2001



Freq/Channel

Center Freq
 1.84500000 GHz

Start Freq
 1.84450000 GHz

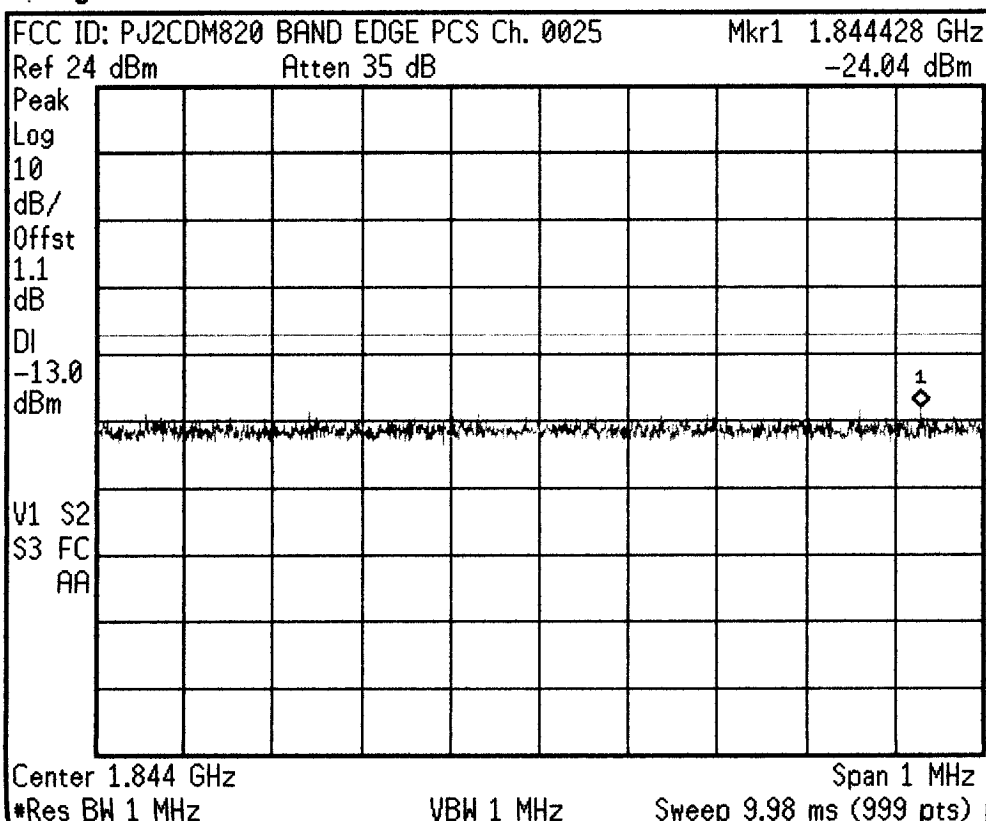
Stop Freq
 1.84550000 GHz

CF Step
 100.000000 kHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

* Agilent 10:03:33 Mar 21, 2001



Freq/Channel

Center Freq
 1.84400000 GHz

Start Freq
 1.84350000 GHz

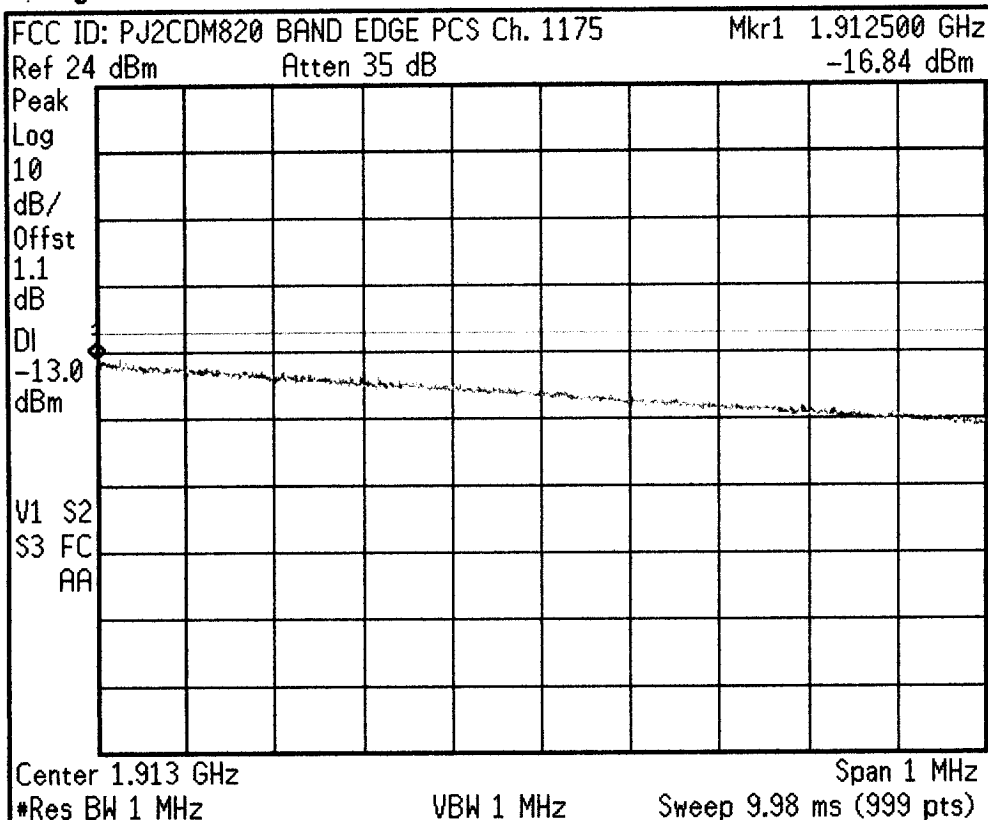
Stop Freq
 1.84450000 GHz

CF Step
 100.000000 kHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

* Agilent 10:04:50 Mar 21, 2001



Freq/Channel

Center Freq
 1.91300000 GHz

Start Freq
 1.91250000 GHz

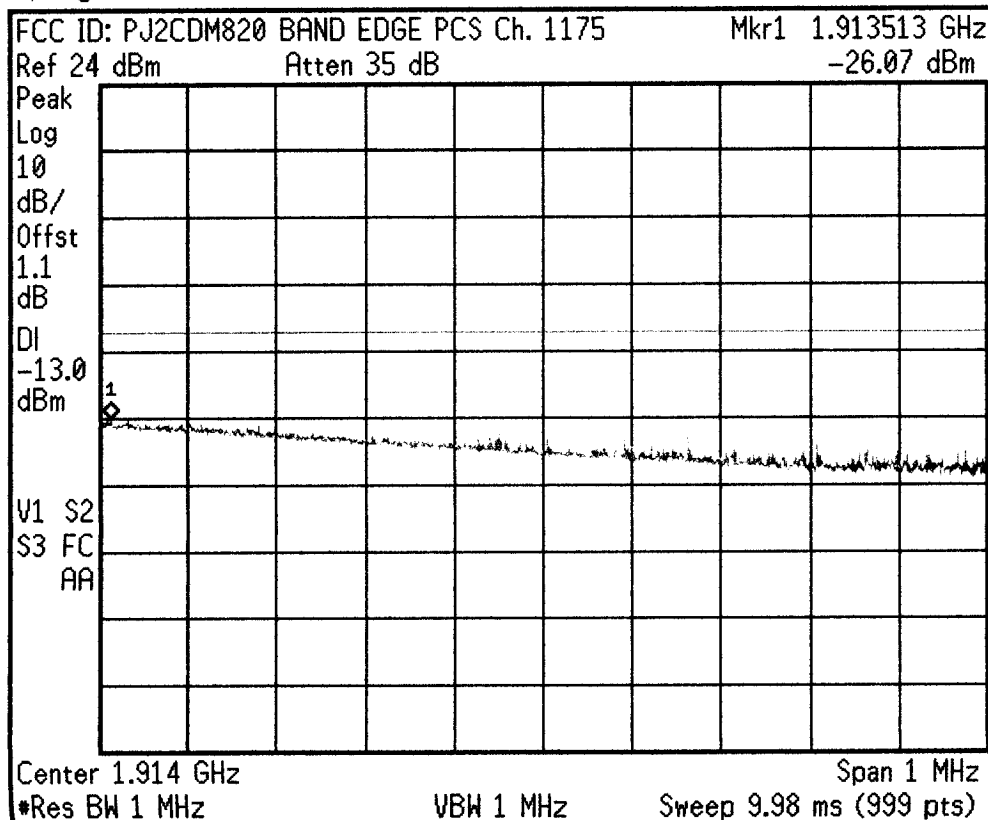
Stop Freq
 1.91350000 GHz

CF Step
 100.000000 kHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

* Agilent 10:05:27 Mar 21, 2001



Freq/Channel

Center Freq
 1.91400000 GHz

Start Freq
 1.91350000 GHz

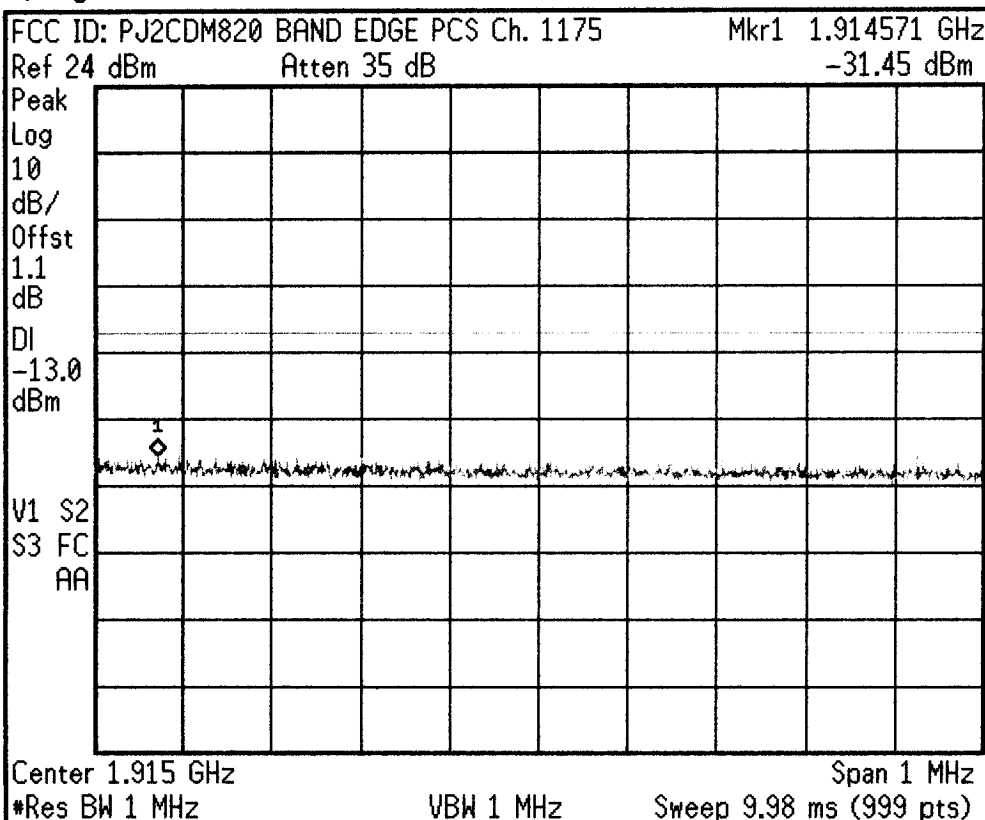
Stop Freq
 1.91450000 GHz

CF Step
 100.000000 kHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

* Agilent 10:06:01 Mar 21, 2001



Freq/Channel

Center Freq
 1.91500000 GHz

Start Freq
 1.91450000 GHz

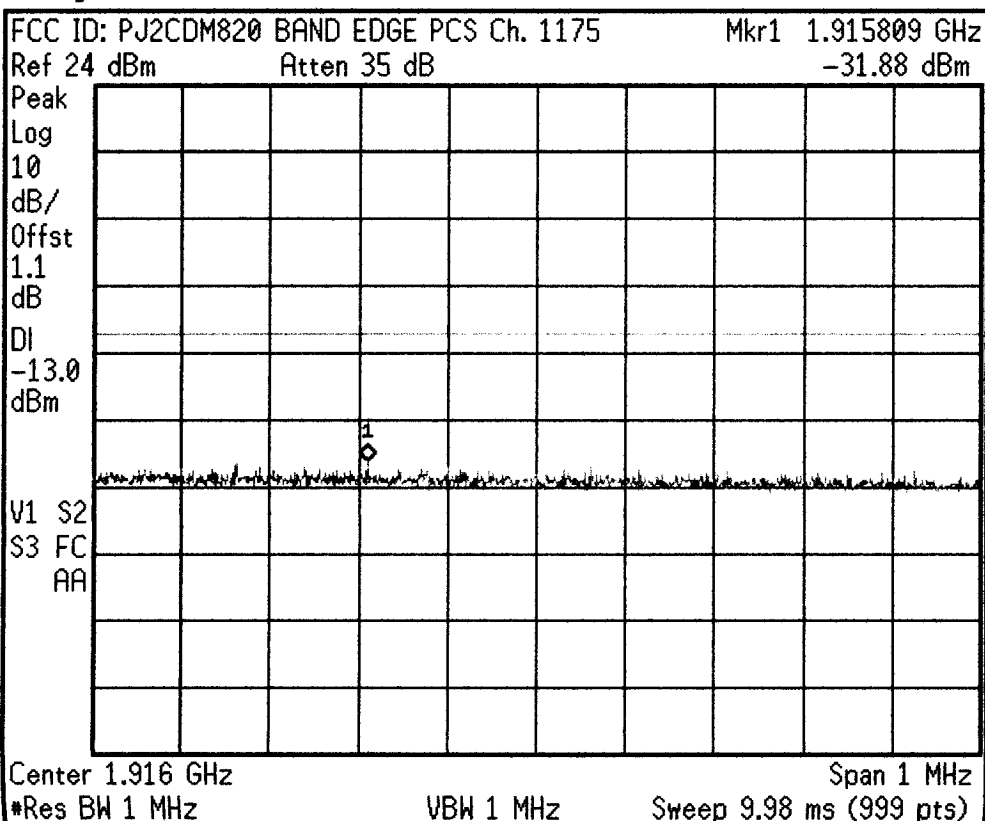
Stop Freq
 1.91550000 GHz

CF Step
 100.000000 kHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

* Agilent 10:06:39 Mar 21, 2001



Freq/Channel

Center Freq
 1.91600000 GHz

Start Freq
 1.91550000 GHz

Stop Freq
 1.91650000 GHz

CF Step
 100.000000 kHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

* Agilent 10:10:29 Mar 21, 2001

FCC ID: PJ2CDM820 POWER OUT PCS Ch. 0600

Ref 24 dBm

Atten 35 dB

Samp

Log

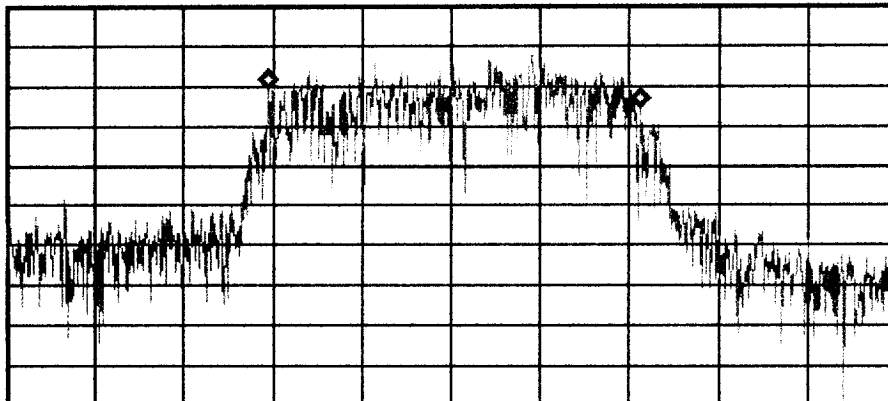
10

dB/

Offst

1.1

dB



Center 1.88 GHz

Span 3 MHz

*Res BW 30 kHz

*VBW 300 kHz

Sweep 9.98 ms (999 pts)

Occupied Bandwidth Results (idle)

Occupied Bandwidth

Occ BW % Pwr 99.00 %

1.251 MHz

Transmit Freq Error 9.391 kHz

Freq/Channel

Center Freq

1.88000000 GHz

Start Freq

1.87850000 GHz

Stop Freq

1.88150000 GHz

CF Step

300.000000 kHz

Auto

Man

Freq Offset

0.00000000 Hz

Signal Track

On

Off

FCC ID: PJ2CDM820 POWER OUT PCS Ch. 0025

Ref 24 dBm

Atten 35 dB

Samp

Log

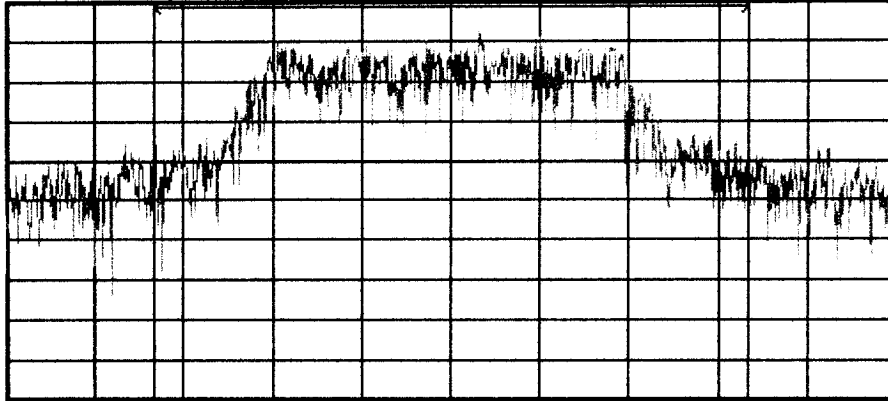
10

dB/

Offst

1.1

dB



Center 1.851 GHz

Span 3 MHz

*Res BW 30 kHz

*VBW 300 kHz

Sweep 9.98 ms (999 pts)

Channel Power Results (idle)

Channel Power

Integration BW 2.000 MHz

23.99 dBm

Density -39.02 dBm/Hz

Trace

Trace

1 2 3

Clear Write

Max Hold

Min Hold

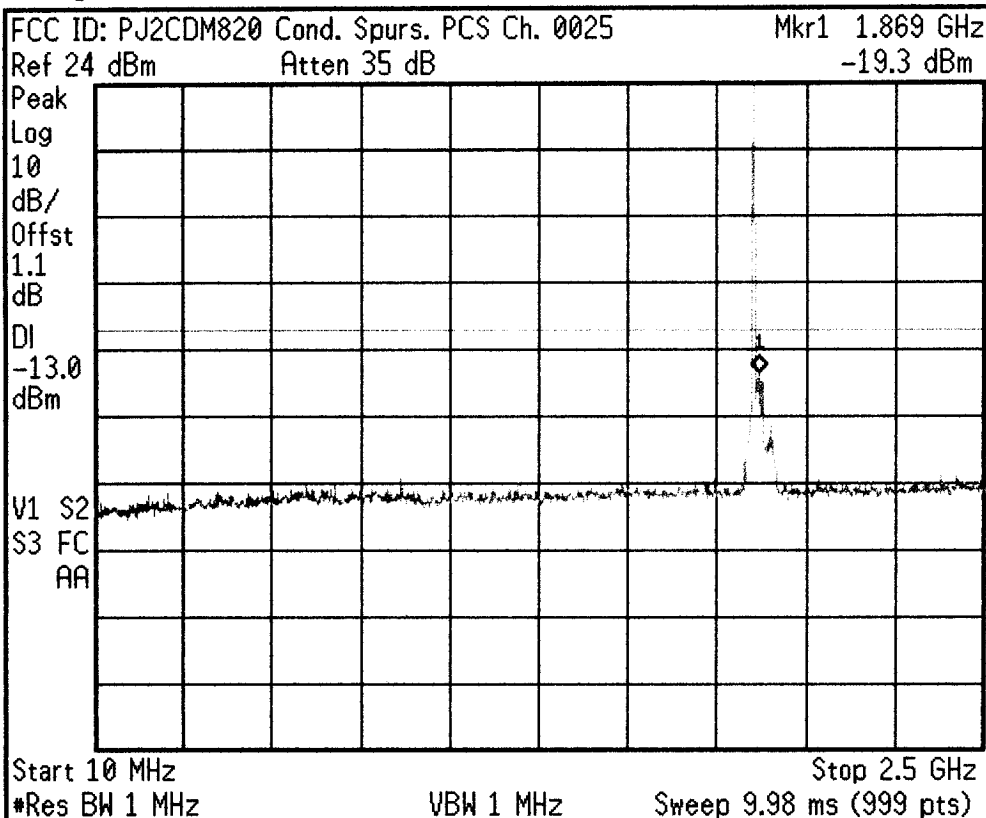
View

Blank

More

1 of 2

* Agilent 09:41:47 Mar 21, 2001



Freq/Channel

Center Freq
 1.25500000 GHz

Start Freq
 10.0000000 MHz

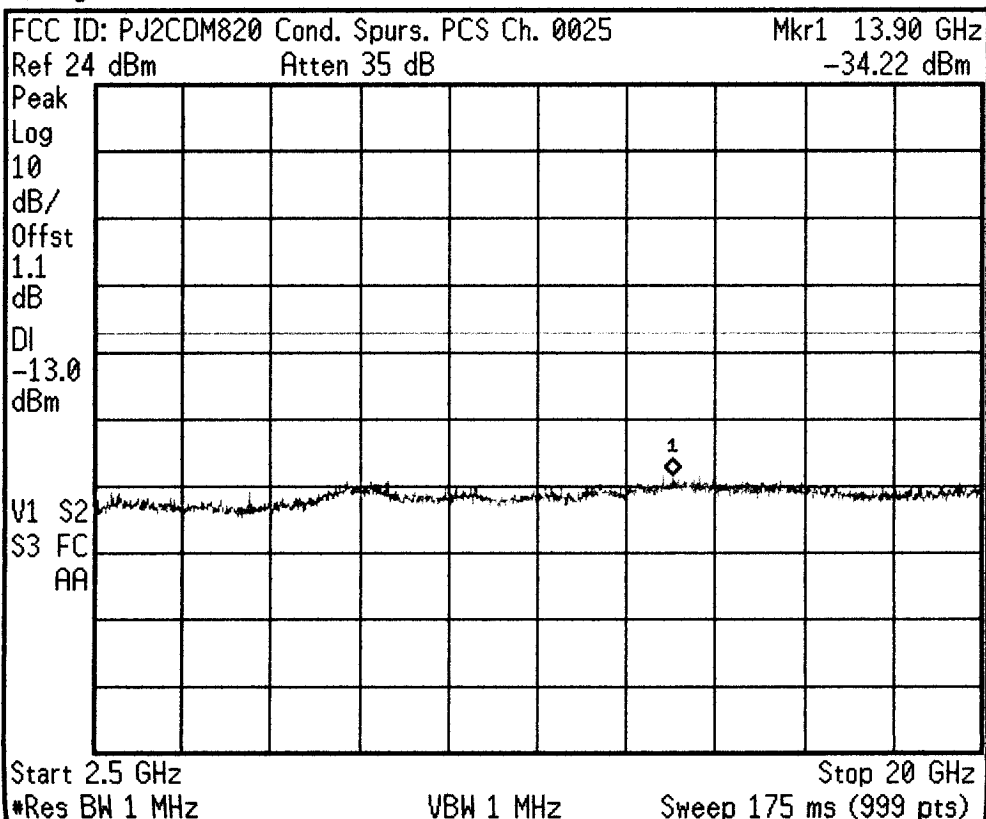
Stop Freq
 2.50000000 GHz

CF Step
 249.000000 MHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

* Agilent 09:42:34 Mar 21, 2001



Freq/Channel

Center Freq
 11.2500000 GHz

Start Freq
 2.50000000 GHz

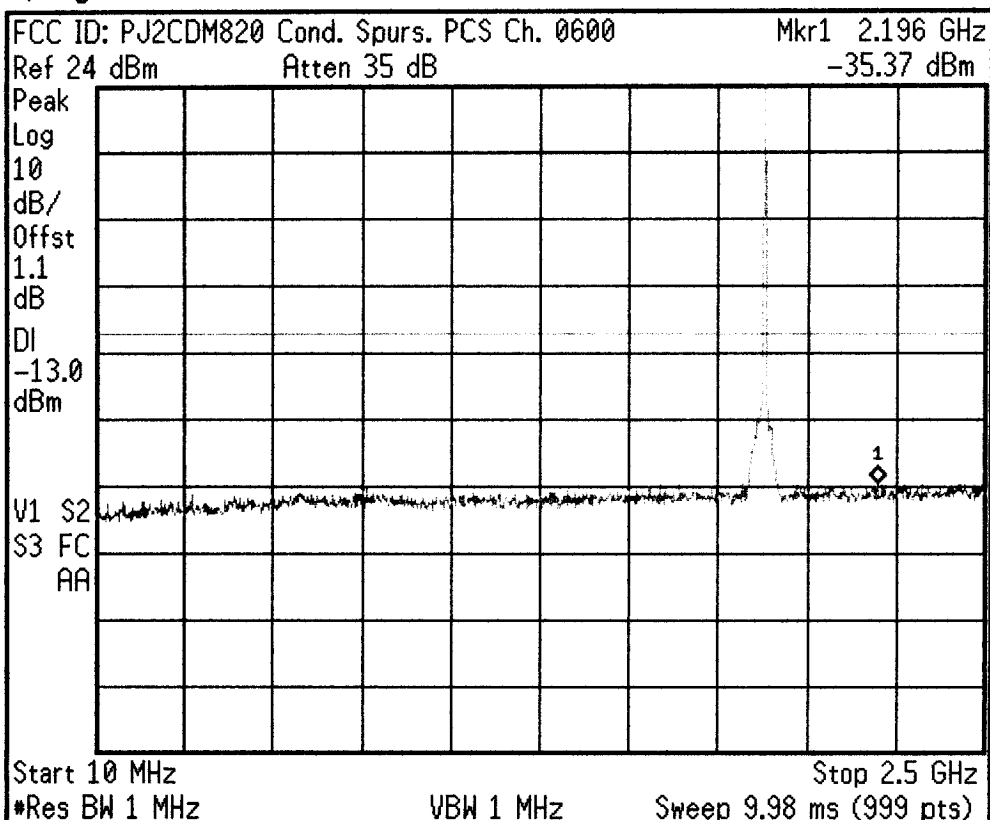
Stop Freq
 20.0000000 GHz

CF Step
 1.75000000 GHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

* Agilent 09:39:35 Mar 21, 2001



Freq/Channel

Center Freq
 1.25500000 GHz

Start Freq
 10.0000000 MHz

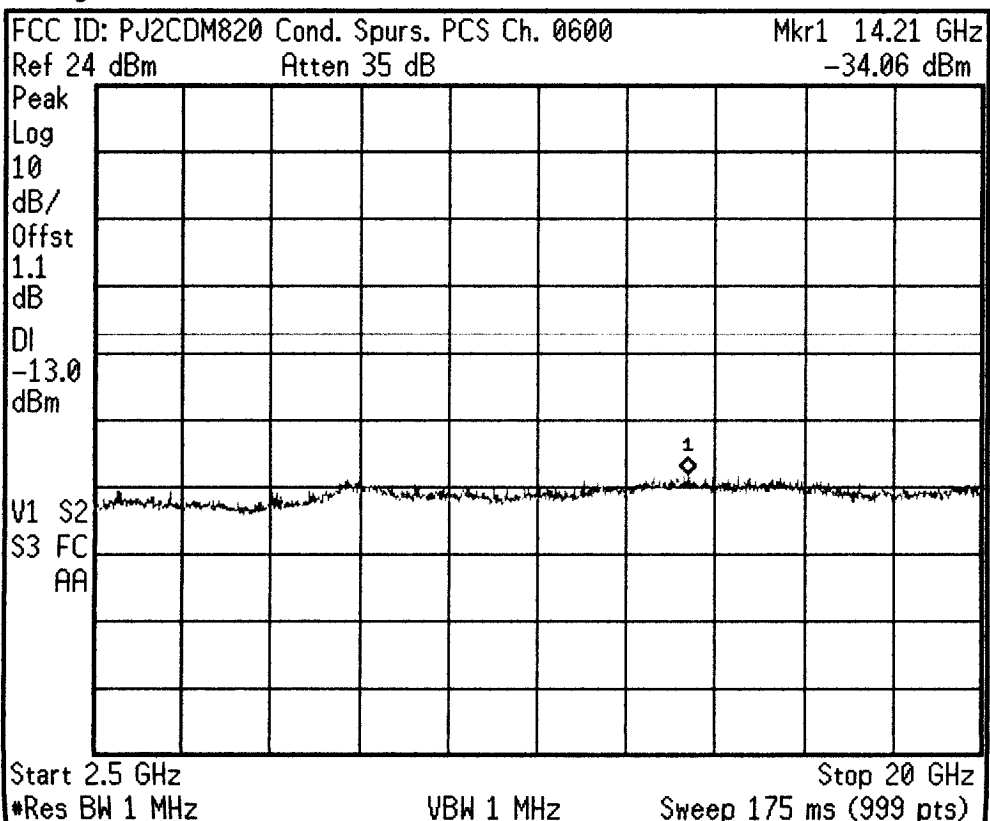
Stop Freq
 2.50000000 GHz

CF Step
 249.000000 MHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

* Agilent 09:40:13 Mar 21, 2001



Freq/Channel

Center Freq
 11.2500000 GHz

Start Freq
 2.50000000 GHz

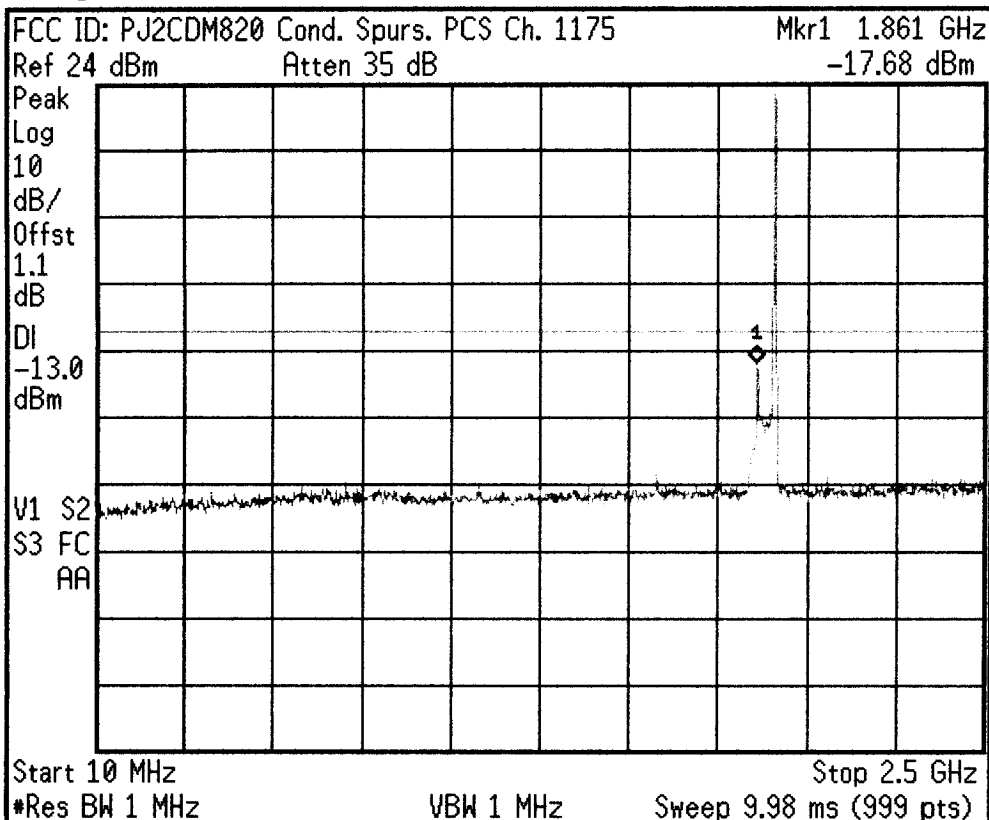
Stop Freq
 20.0000000 GHz

CF Step
 1.75000000 GHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

* Agilent 09:35:27 Mar 21, 2001



Freq/Channel

Center Freq
 1.25500000 GHz

Start Freq
 10.0000000 MHz

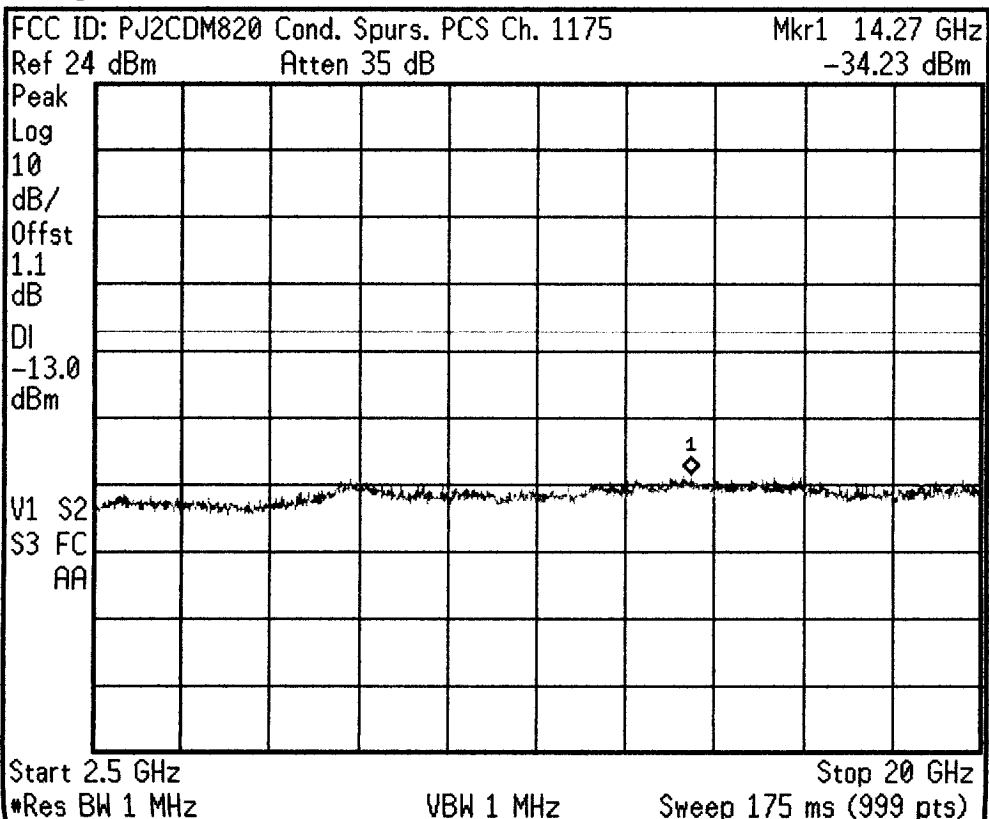
Stop Freq
 2.50000000 GHz

CF Step
 249.000000 MHz
 Auto Man

Freq Offset
 0.00000000 Hz

Signal Track
 On Off

* Agilent 09:36:37 Mar 21, 2001



Freq/Channel

Center Freq
 11.2500000 GHz

Start Freq
 2.50000000 GHz

Stop Freq
 20.0000000 GHz

CF Step
 1.75000000 GHz
 Auto Man

Freq Offset
 0.00000000 Hz

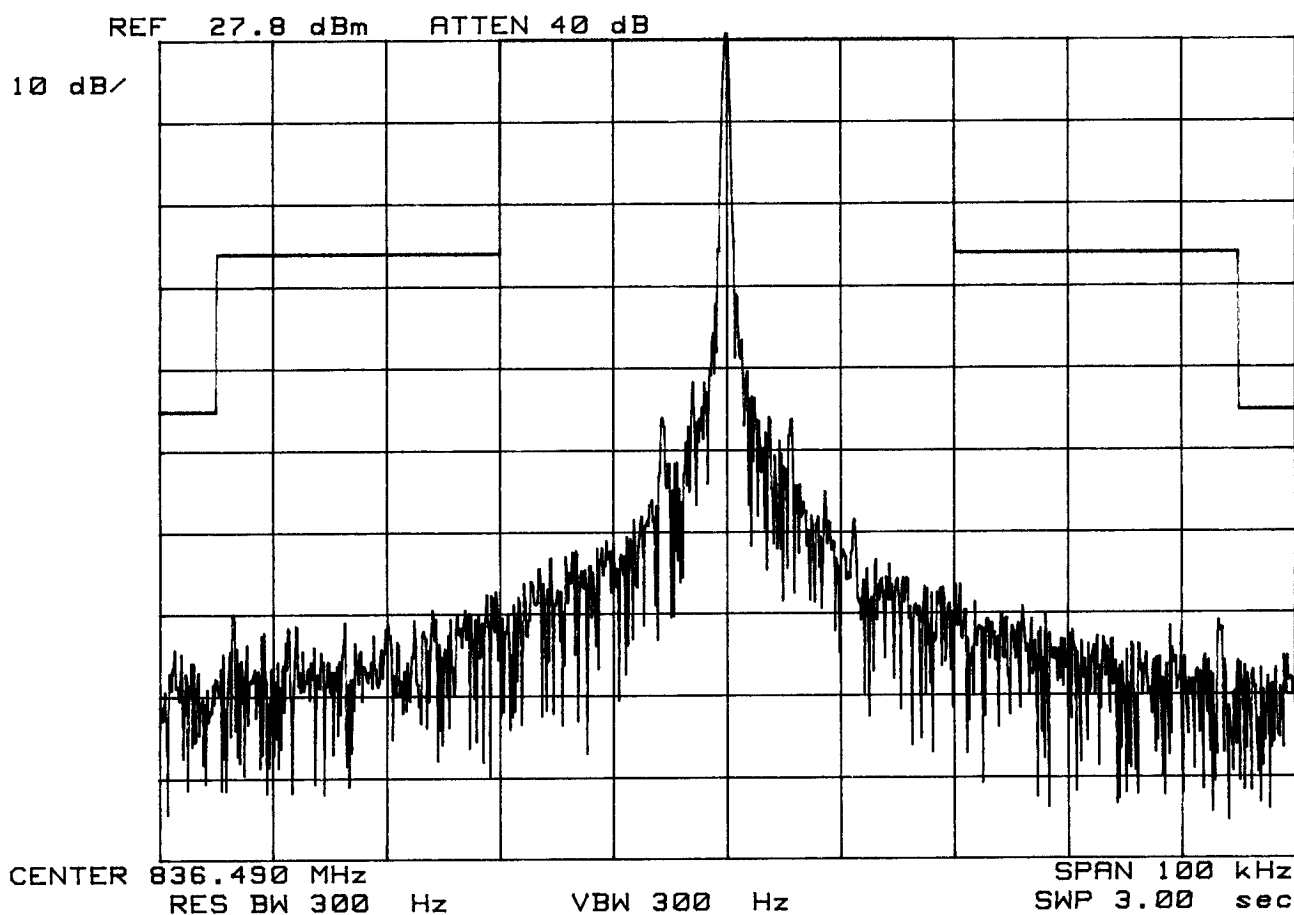
Signal Track
 On Off

PCTEST Engineering Lab.

SPECTRUM ANALYZER PRESENTATION

FCC ID: CDM820
TRI-MODE DATA MODEM
FM MODE
CH-0383
Operating Frequency: 836.490 MHz
Output Power : 27.8 dBm

Test Mode: Unmodulated Signal

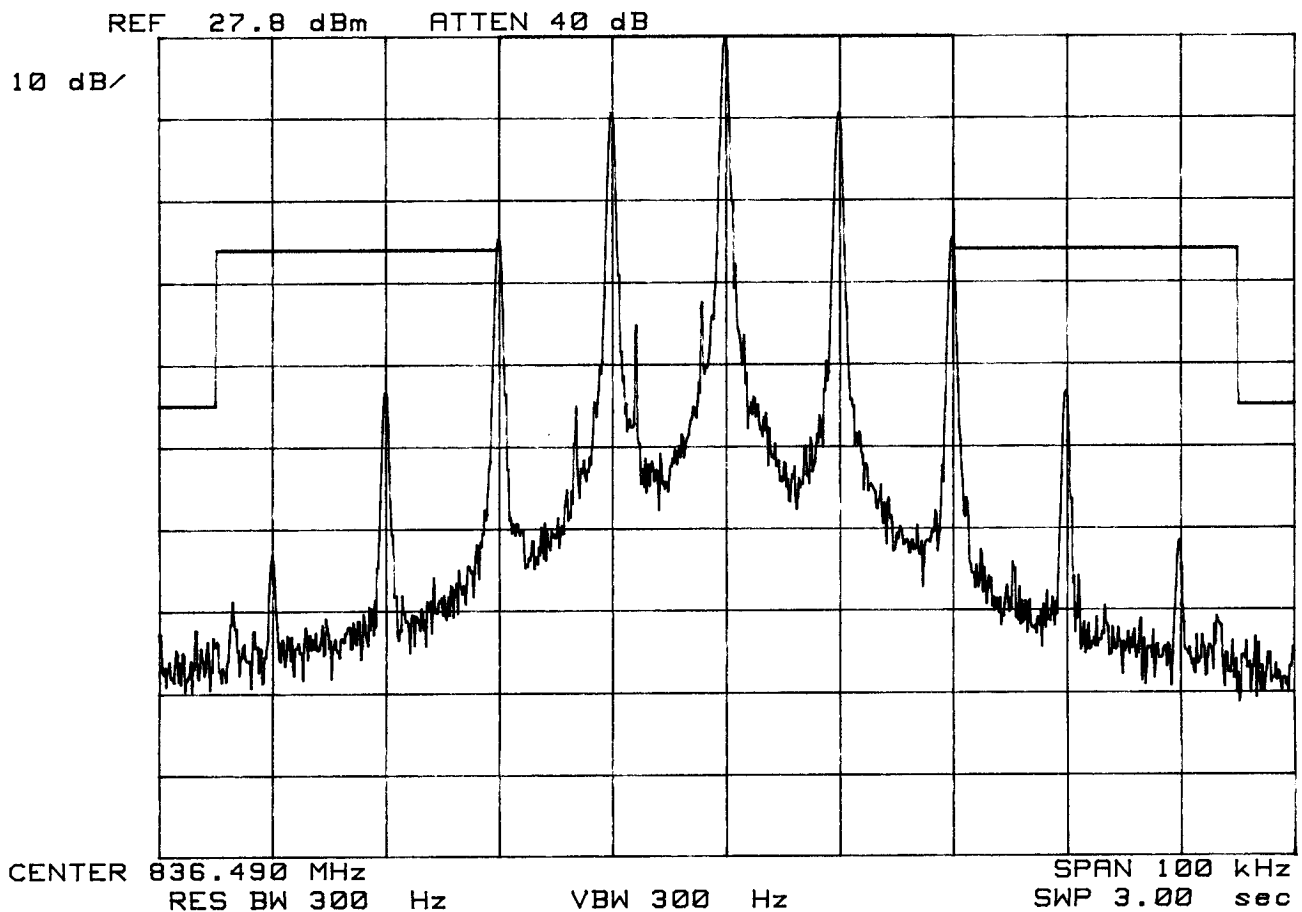


PCTEST Engineering Lab.

SPECTRUM ANALYZER PRESENTATION

FCC ID: CDM820
TRI-MODE DATA MODEM
FM MODE
CH-0383
Operating Frequency: 836.490 MHz
Output Power : 27.8 dBm

Test Mode:ST

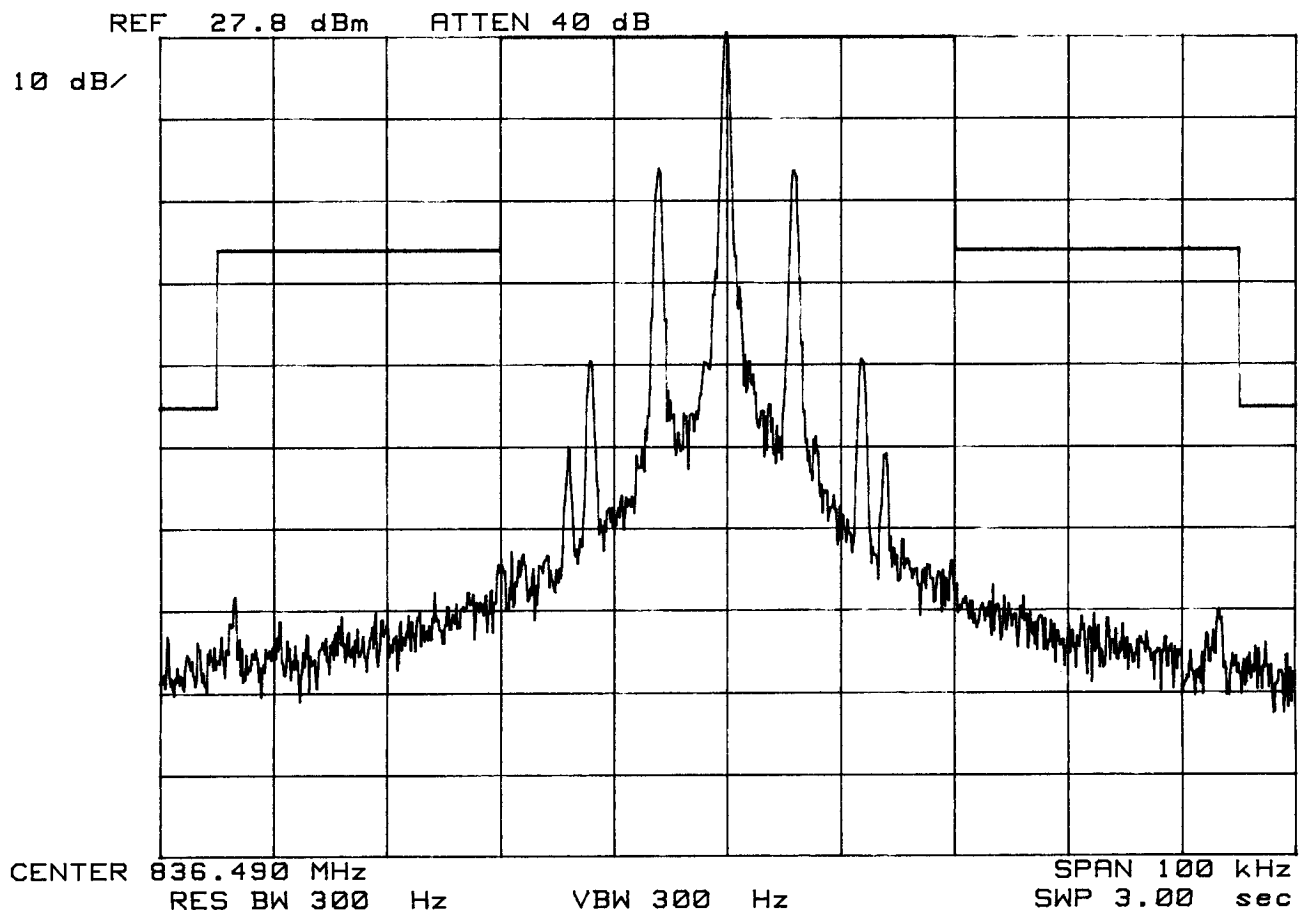


PCTEST Engineering Lab.

SPECTRUM ANALYZER PRESENTATION

FCC ID: CDM820
TRI-MODE DATA MODEM
FM MODE
CH-0383
Operating Frequency: 836.490 MHz
Output Power : 27.8 dBm

Test Mode: SAT

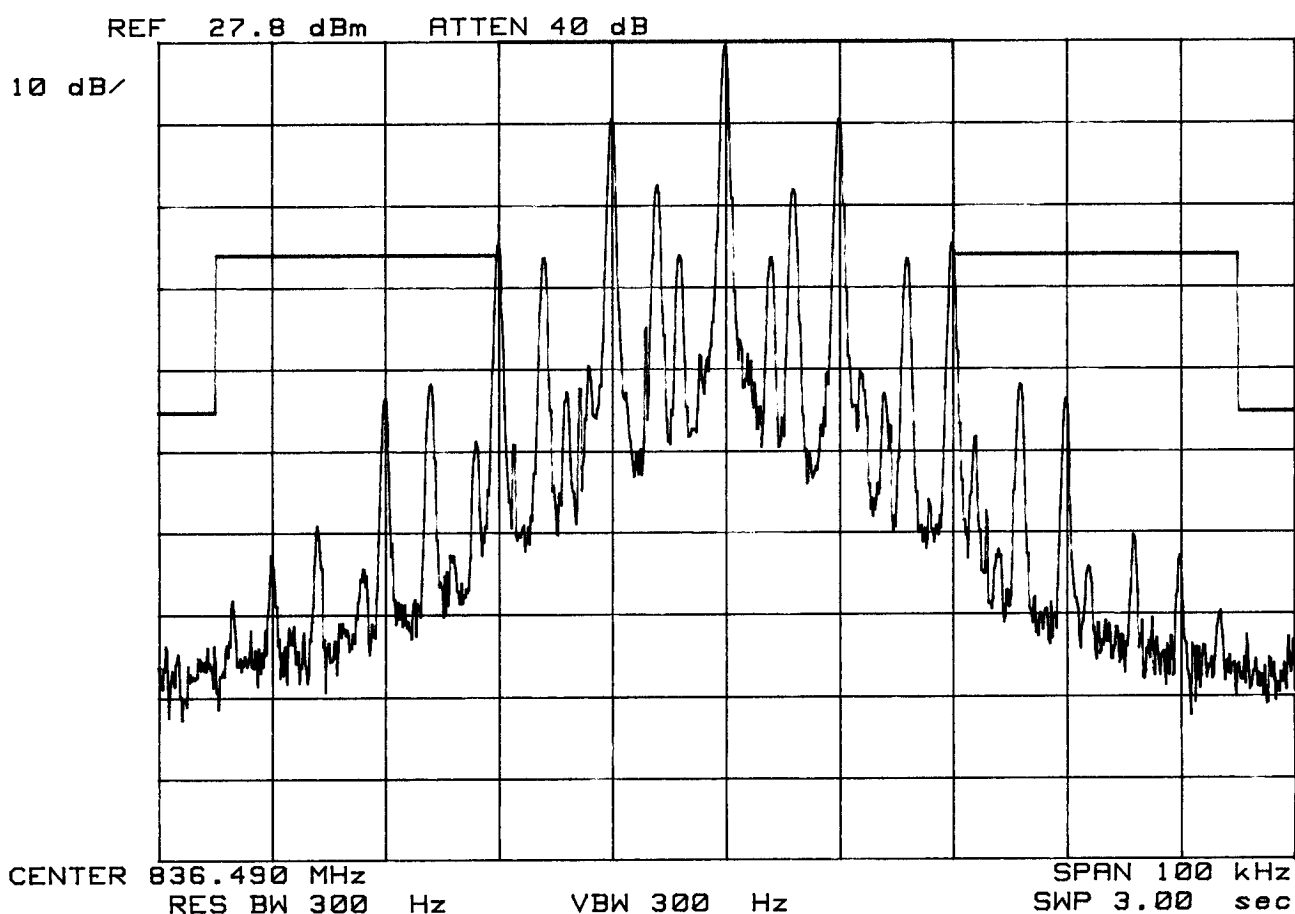


PCTEST Engineering Lab.

SPECTRUM ANALYZER PRESENTATION

FCC ID: CDM820
TRI-MODE DATA MODEM
FM MODE
CH-0383
Operating Frequency: 836.490 MHz
Output Power : 27.8 dBm

Test Mode: SAT + ST

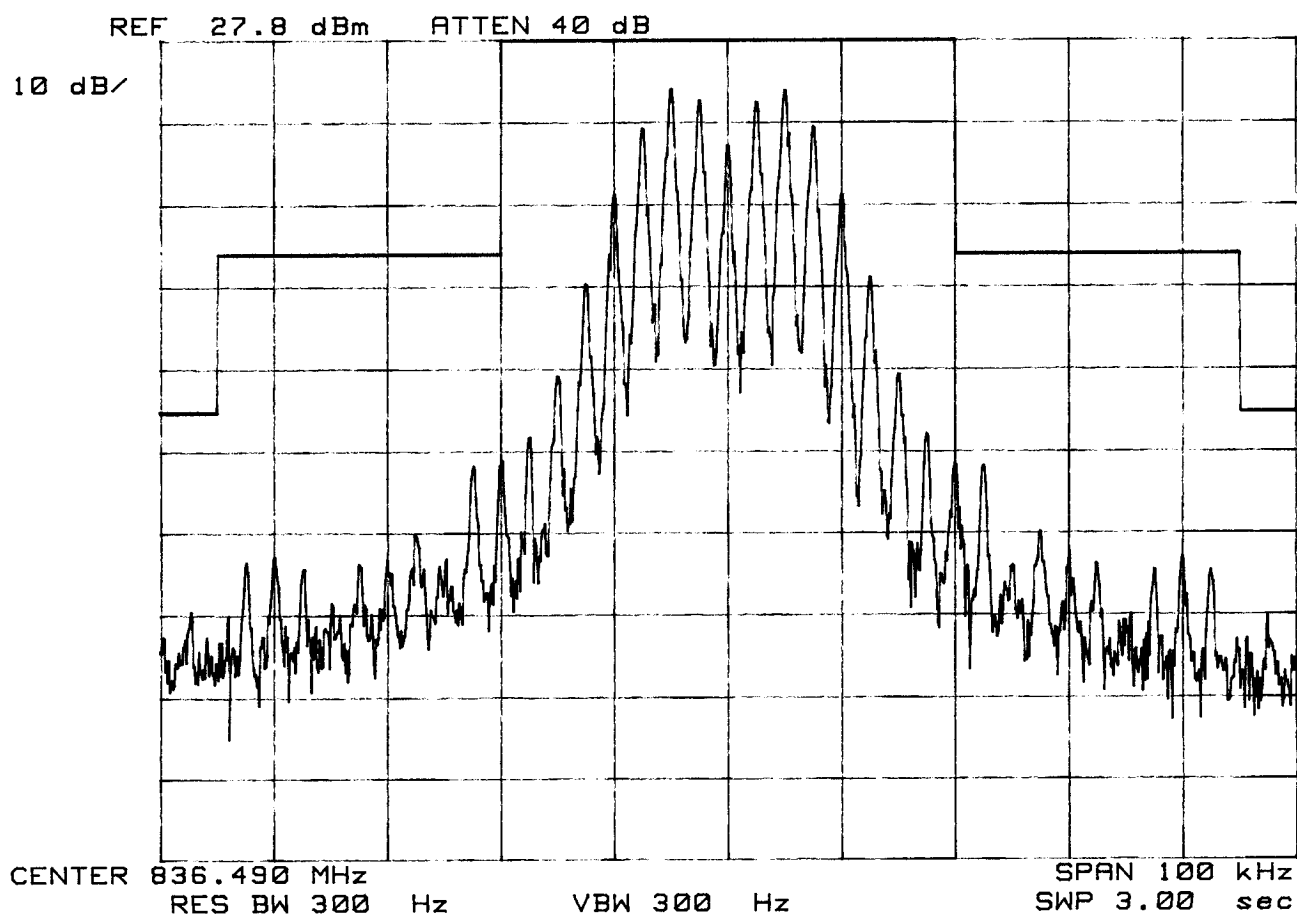


PCTEST Engineering Lab.

SPECTRUM ANALYZER PRESENTATION

FCC ID: CDM820
TRI-MODE DATA MODEM
FM MODE
CH-0383
Operating Frequency: 836.490 MHz
Output Power : 27.8 dBm

Test Mode:Voice

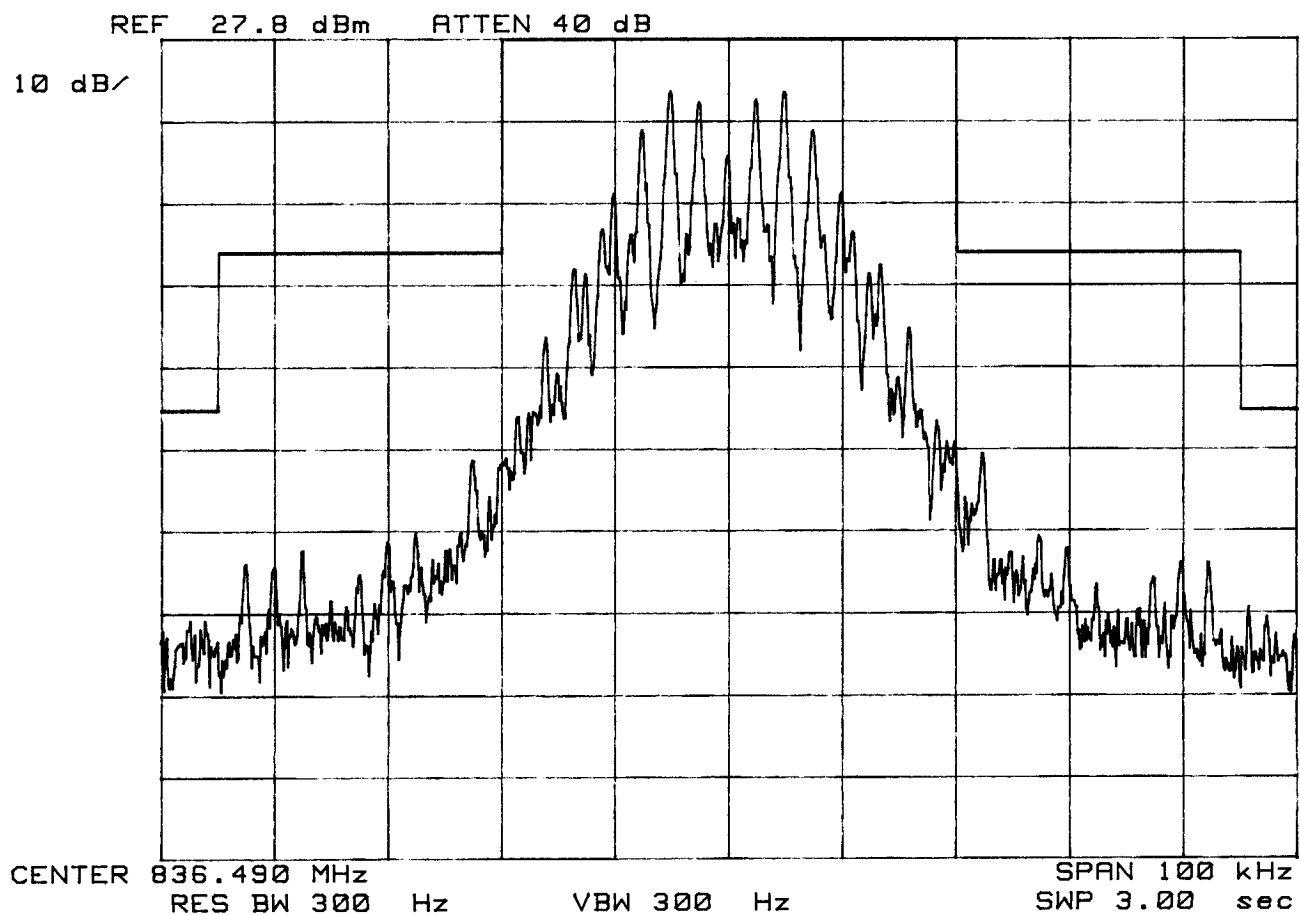


PCTEST Engineering Lab.

SPECTRUM ANALYZER PRESENTATION

FCC ID: CDM820
TRI-MODE DATA MODEM
FM MODE
CH-0383
Operating Frequency: 836.490 MHz
Output Power : 27.8 dBm

Test Mode:SAT + Voice

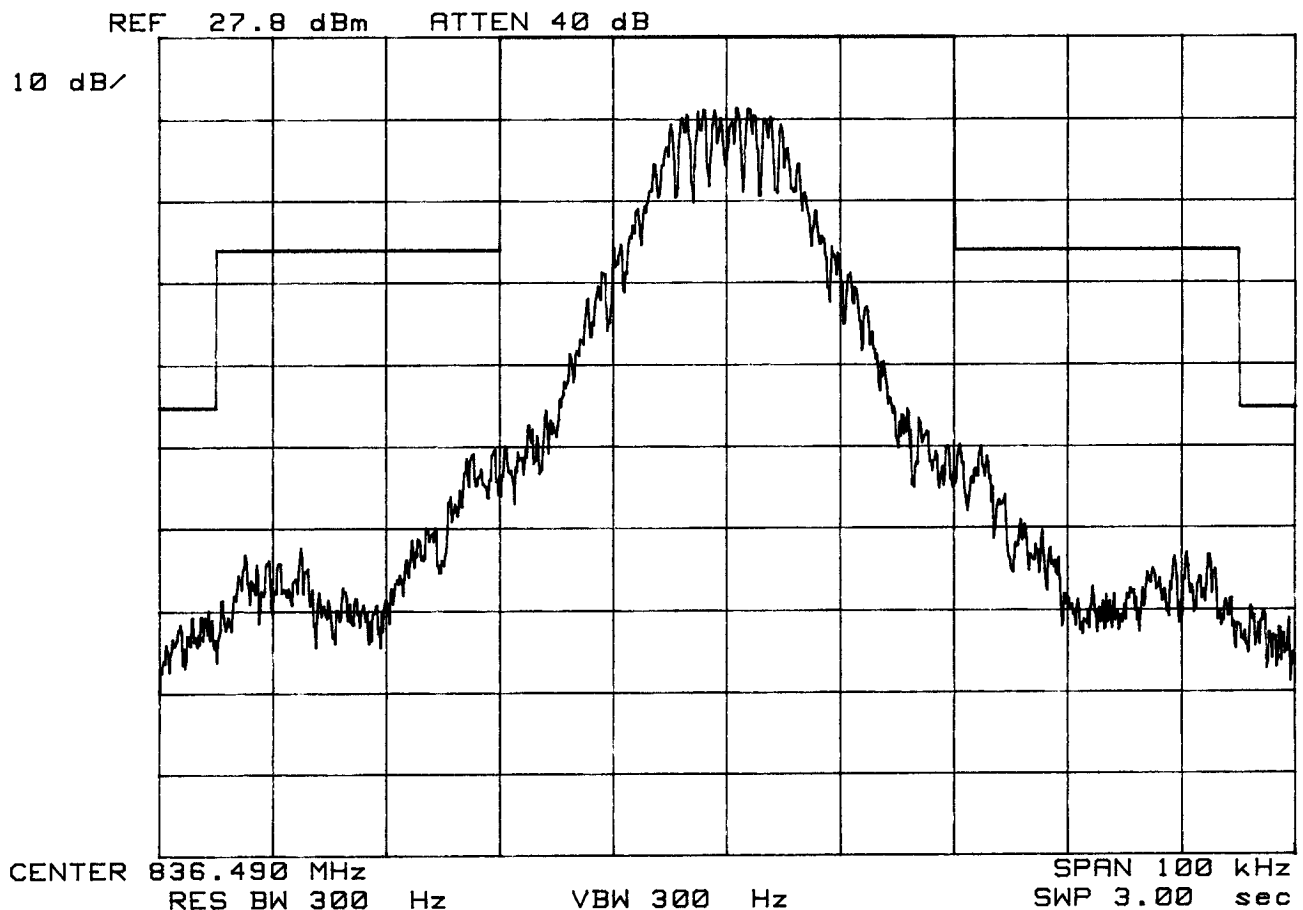


PCTEST Engineering Lab.

SPECTRUM ANALYZER PRESENTATION

FCC ID: CDM820
TRI-MODE DATA MODEM
FM MODE
CH-0383
Operating Frequency: 836.490 MHz
Output Power : 27.8 dBm

Test Mode: SAT + DTMF



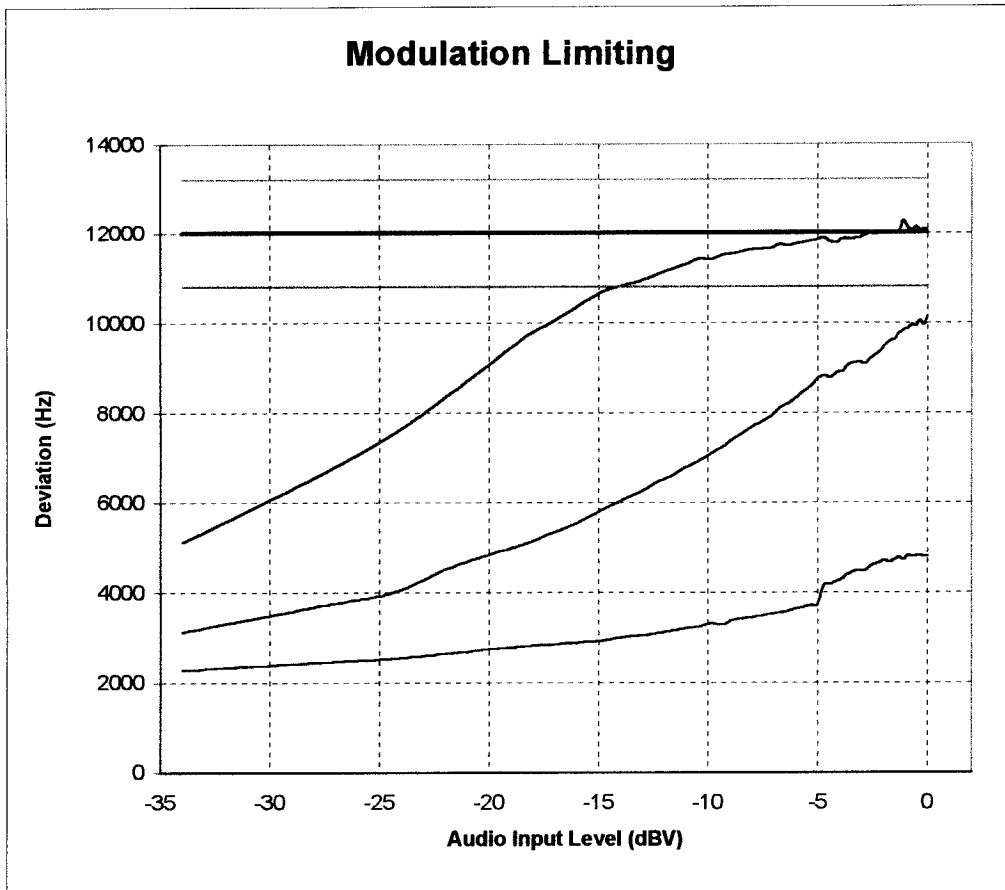
PCTEST Engineering Lab., Inc.

SUBJECT: Modulation Characteristics
FCC Part 24/22

Test Report No.: 24/22.210319159.PJ2
Test Date: 03.19.2001

EUT: SEMAX Tri-Mode Analog/PCS Wireless Data Modem (AMPS/CDMA)
Model: CDM-820
FCC ID: PJ2CDM820

REFERENCE: 1 kHz = 0 dB



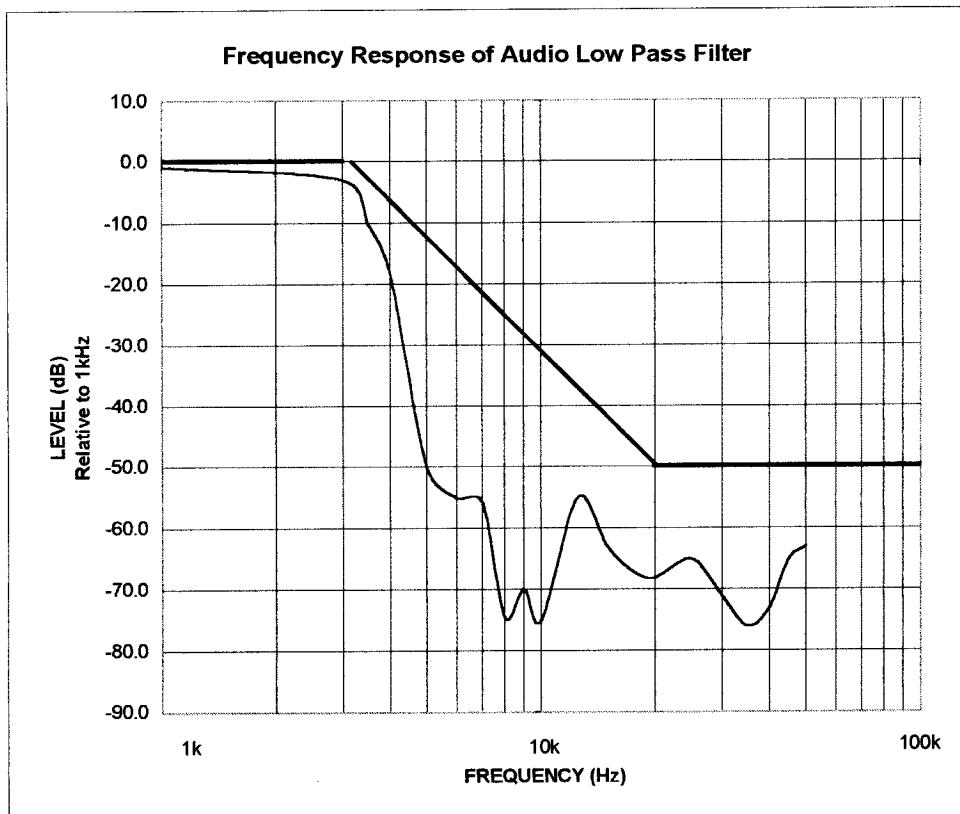
PCTEST Engineering Lab., Inc.

SUBJECT: Modulation Characteristics
FCC Part 24/22

Test Report No.: 24/22.210319159.PJ2
Test Date: 03.19.2001

EUT: SEMAX Tri-Mode Analog/PCS Wireless Data Modem (AMPS/CDMA)
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PCTEST Engineering Lab., Inc.

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