

PCTEST Engineering Lab.

SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSCHA310

SAMSUNG

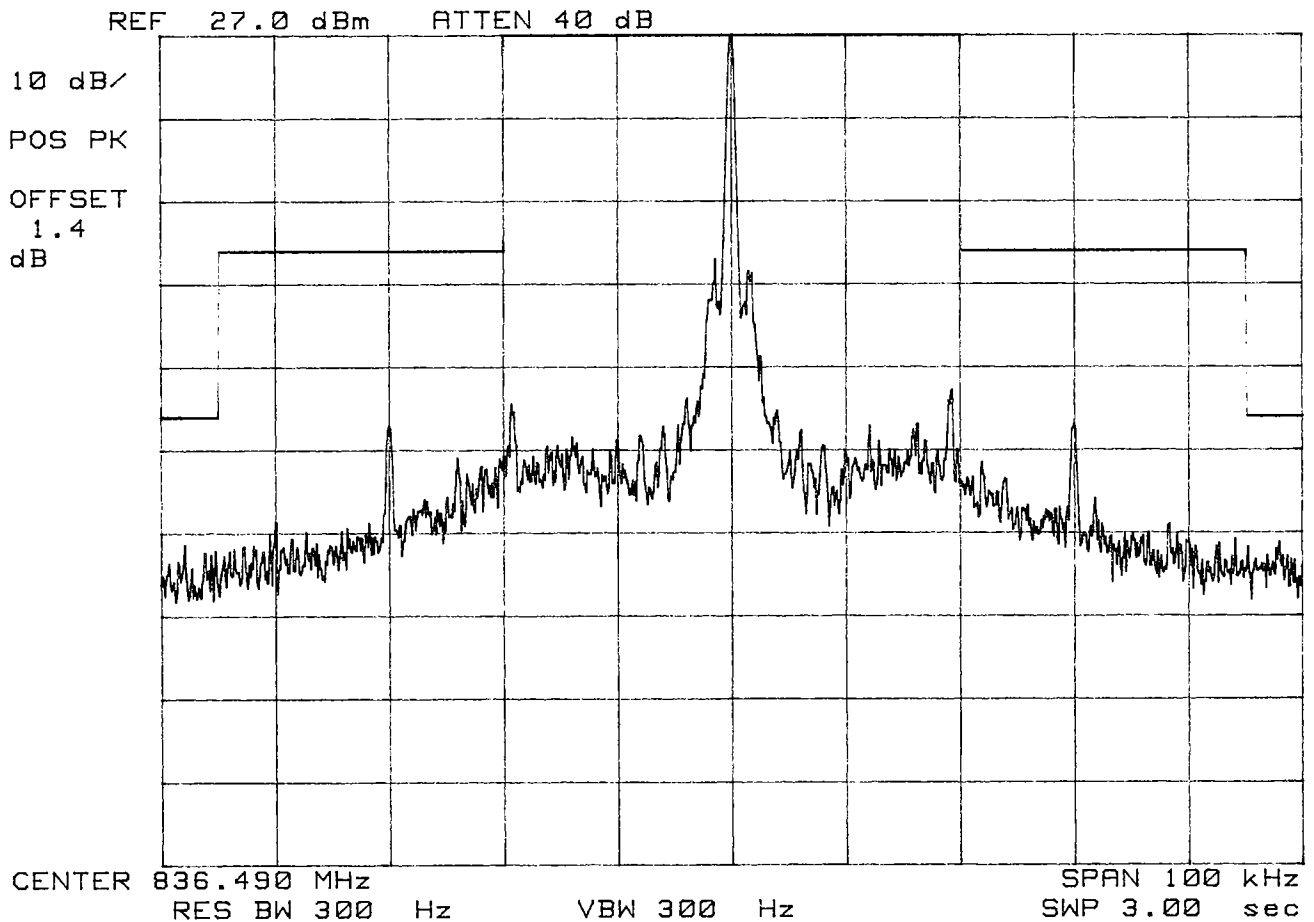
Tri-Mode Phone

FM Channel 383

Operating Frequency: 836.490 MHz

Output Power : 27.0 dBm

Test Mode:Unmodulated Signal



PCTEST Engineering Lab.

SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSCHA310

SAMSUNG

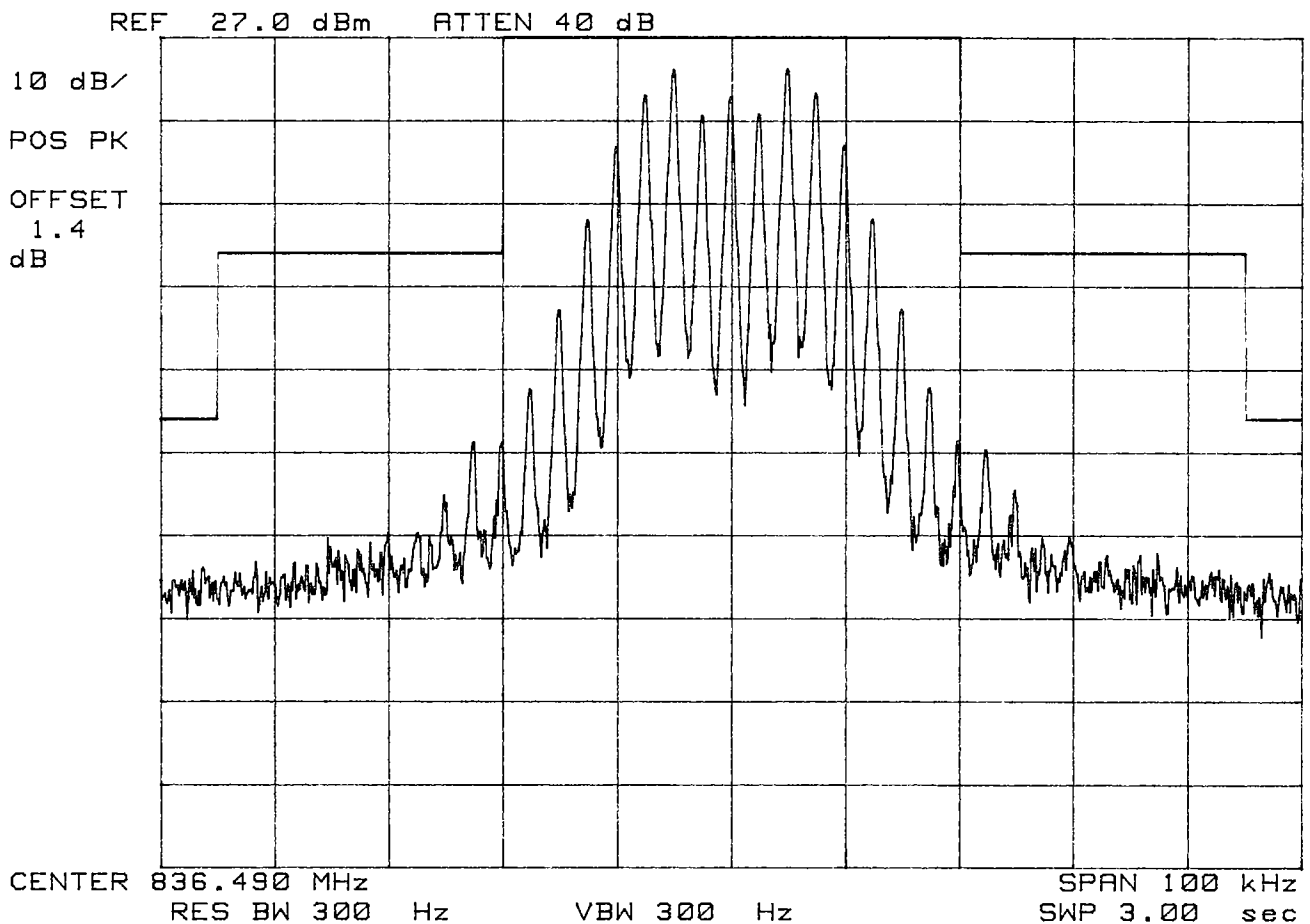
Tri-Mode Phone

FM Channel 383

Operating Frequency: 836.490 MHz

Output Power : 27.0 dBm

Test Mode:Voice

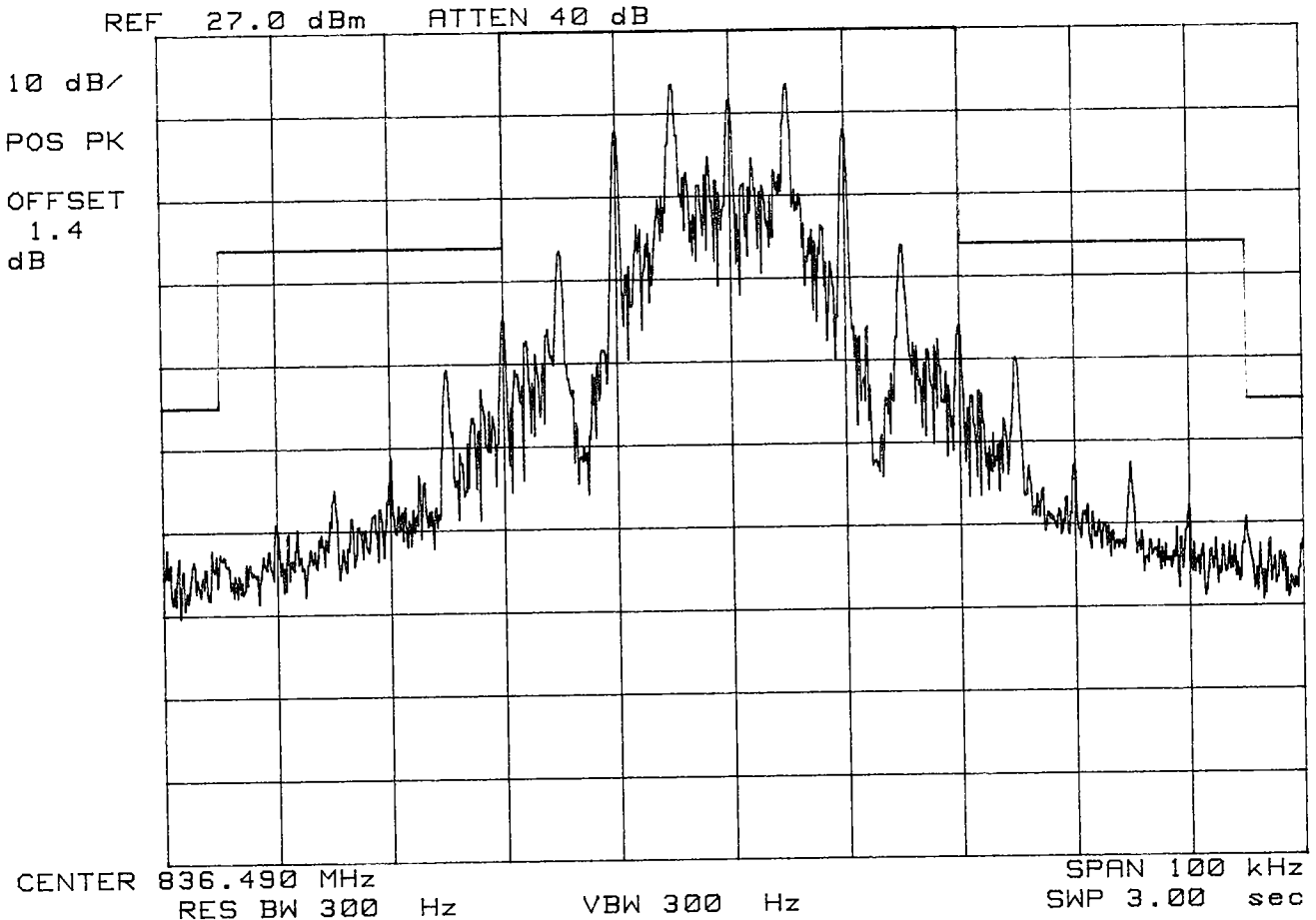


PCTEST Engineering Lab.

SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSCHA310
SAMSUNG
Tri-Mode Phone
FM Channel 383
Operating Frequency: 836.490 MHz
Output Power : 27.0 dBm

Test Mode:Wide Band Data



PCTEST Engineering Lab.

SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSCHA310

SAMSUNG

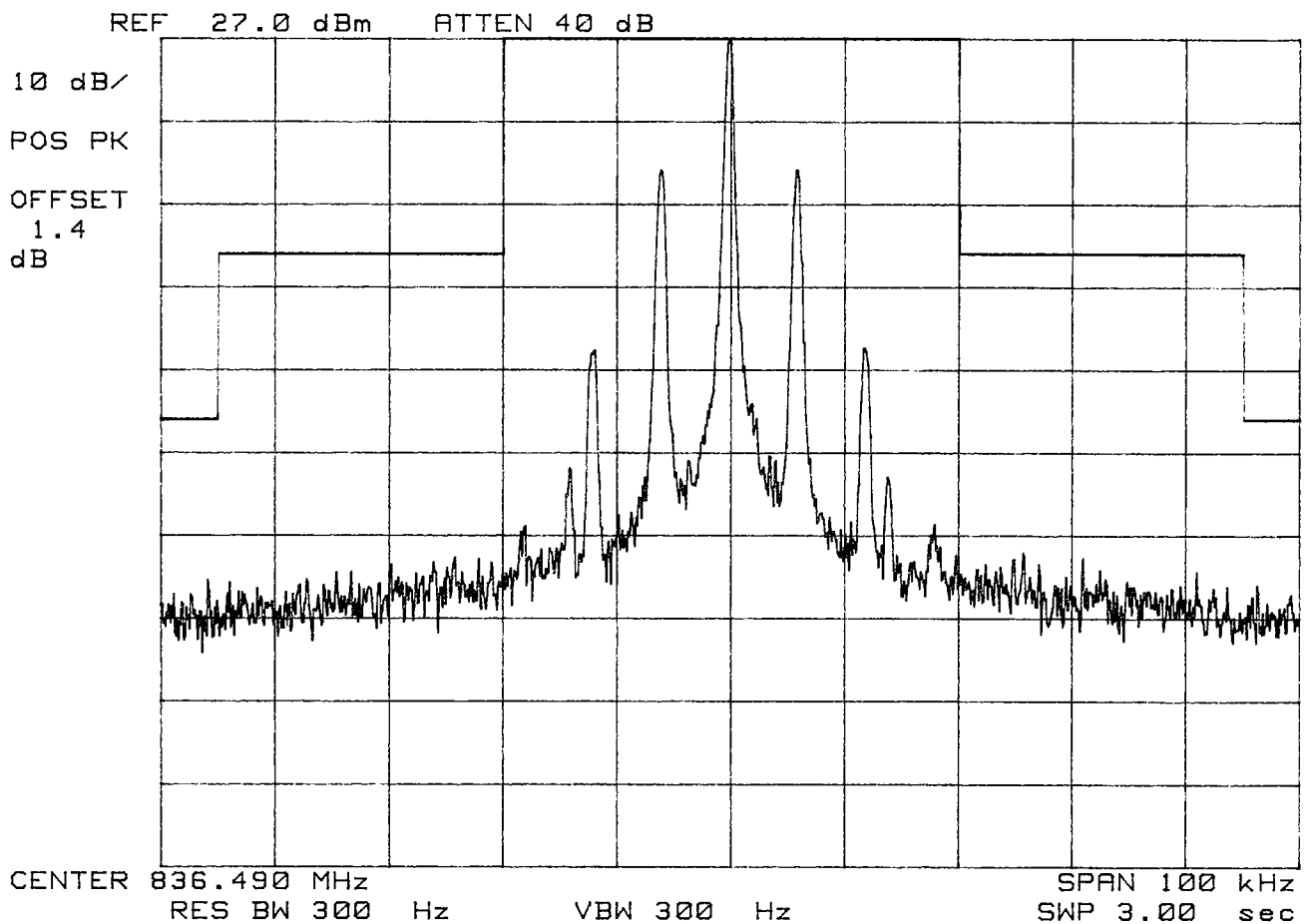
Tri-Mode Phone

FM Channel 383

Operating Frequency: 836.490 MHz

Output Power : 27.0 dBm

Test Mode:SAT



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SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSCHA310

SAMSUNG

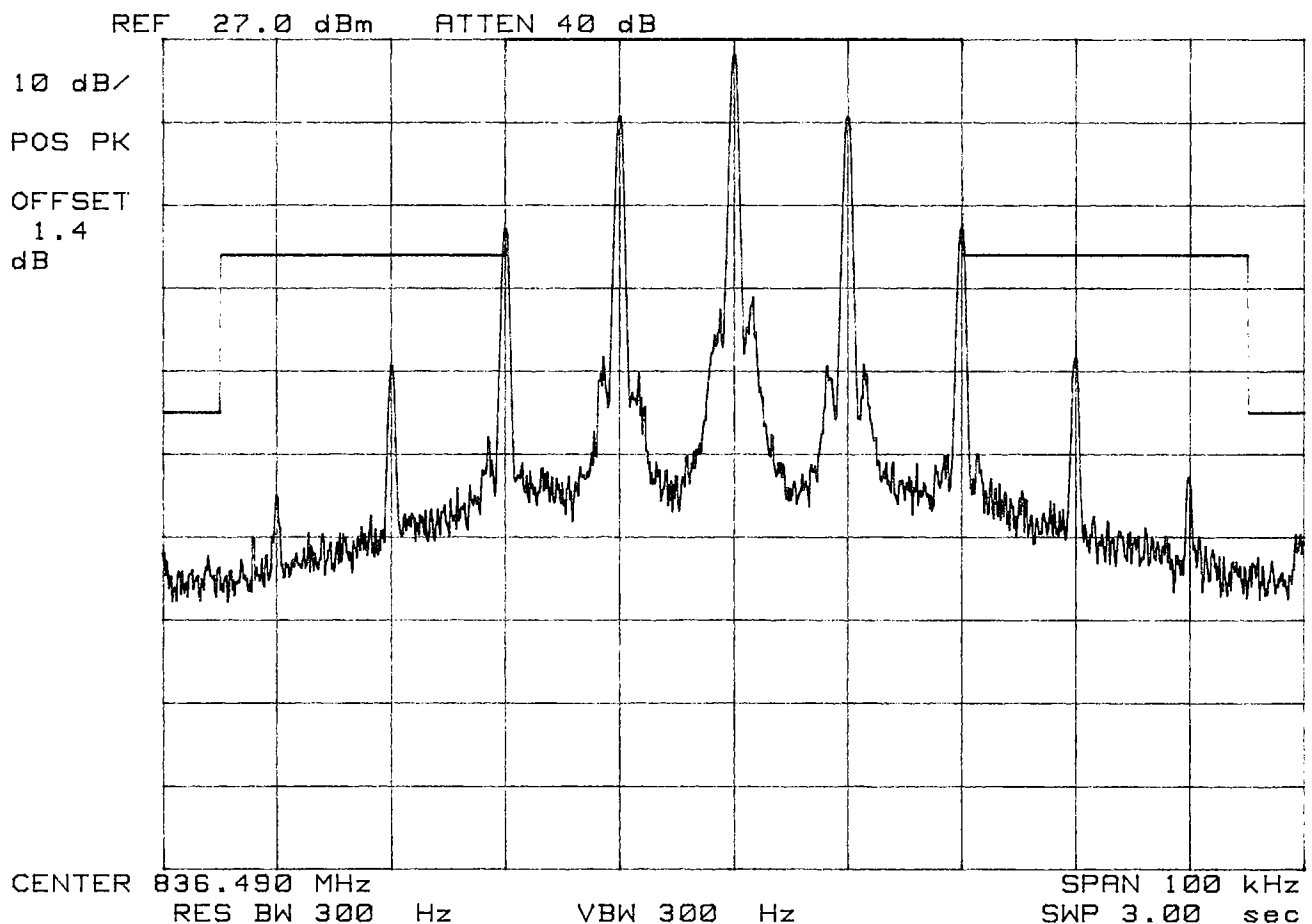
Tri-Mode Phone

FM Channel 383

Operating Frequency: 836.490 MHz

Output Power : 27.0 dBm

Test Mode:ST



PCTEST Engineering Lab.

SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSCHA310

SAMSUNG

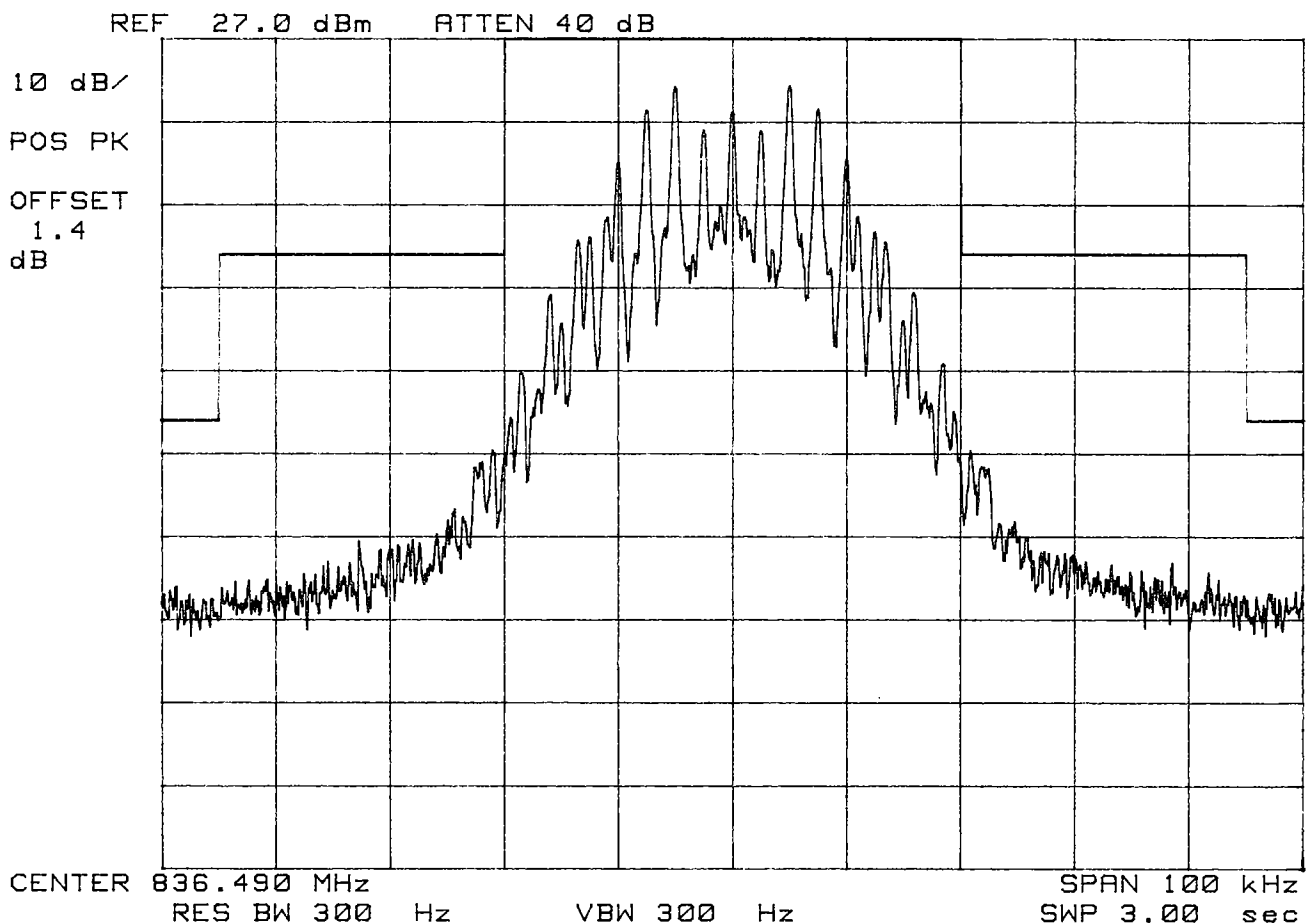
Tri-Mode Phone

FM Channel 383

Operating Frequency: 836.490 MHz

Output Power : 27.0 dBm

Test Mode:SAT + Voice



PCTEST Engineering Lab.

SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSCHA310

SAMSUNG

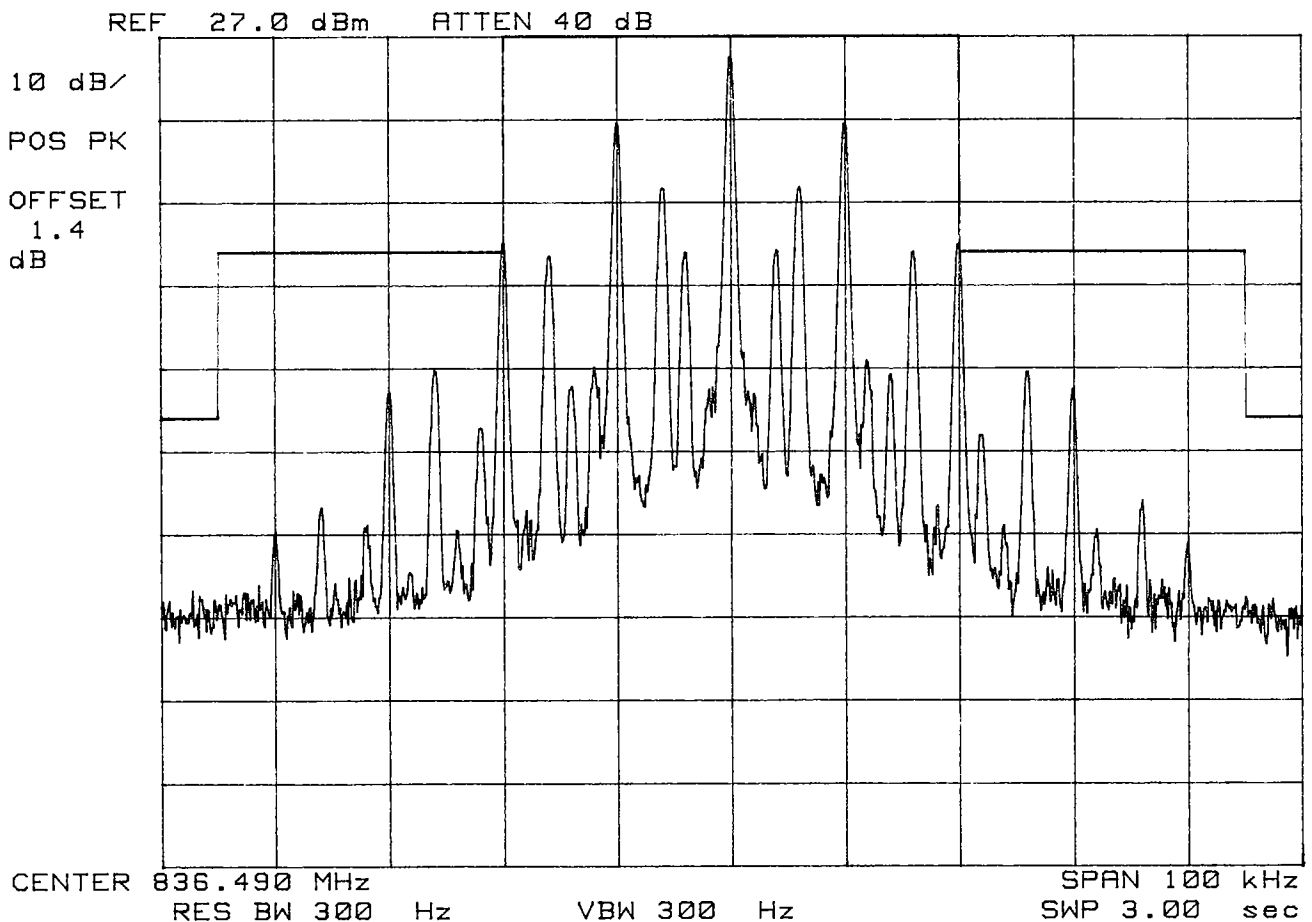
Tri-Mode Phone

FM Channel 383

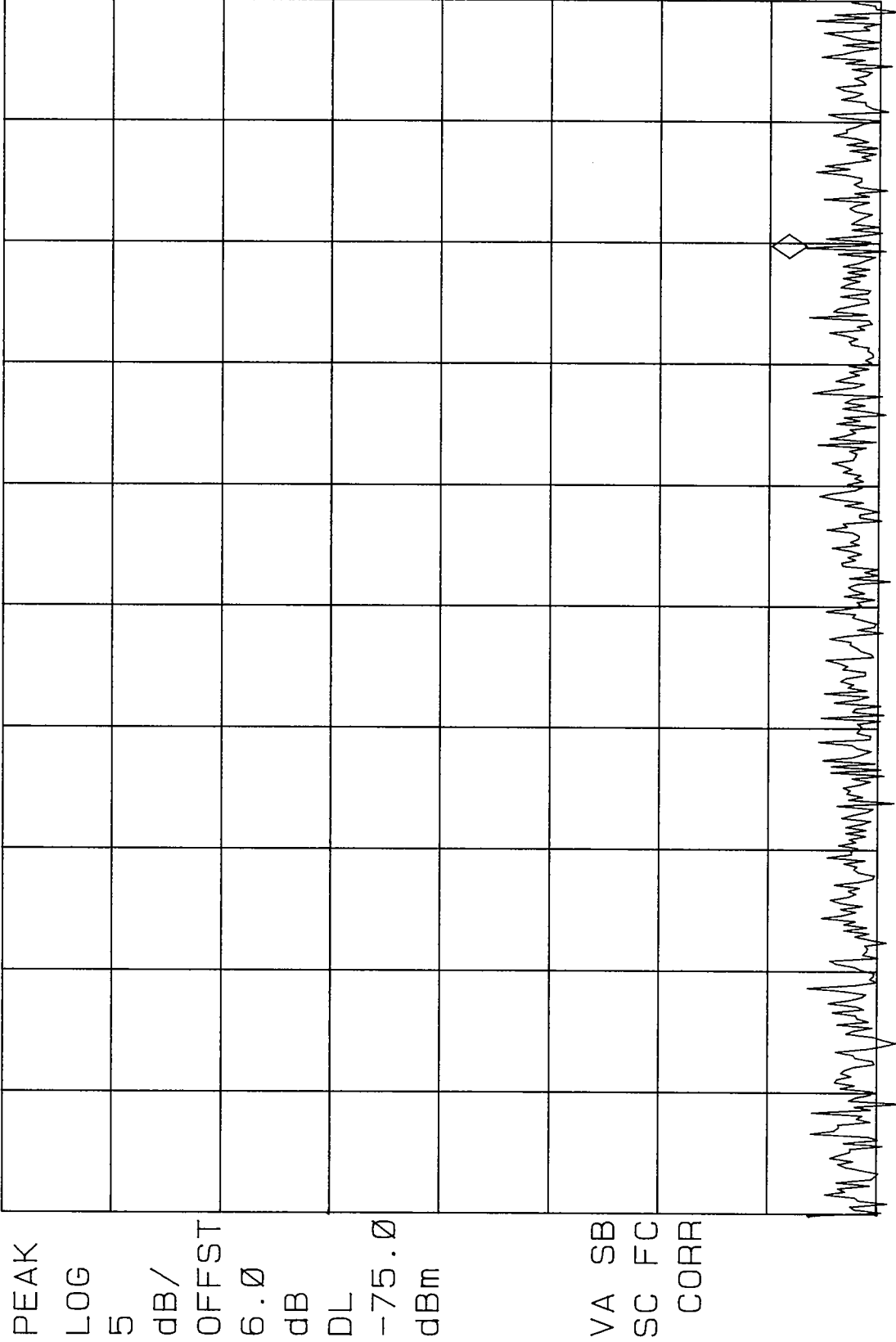
Operating Frequency: 836.490 MHz

Output Power : 27.0 dBm

Test Mode:SAT + ST



FCC ID: A3LSCHA310 FM MODE MKR 888.94 MHz
REF -60.0 dBm #ATTEN 10 dB PG 25.0 dB -96.67 dBm

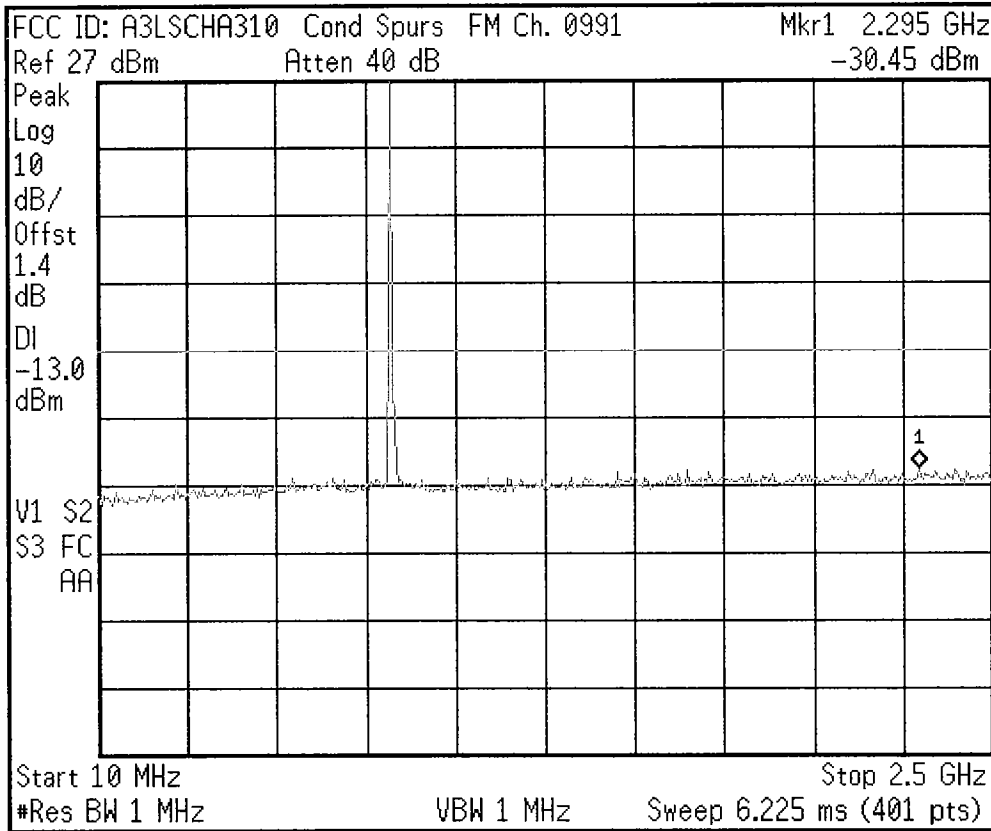


PEAK
LOG
5
dB/
OFFST
6.0
dB
DL
-75.0
dBm

VA SB
SC FC
CORR

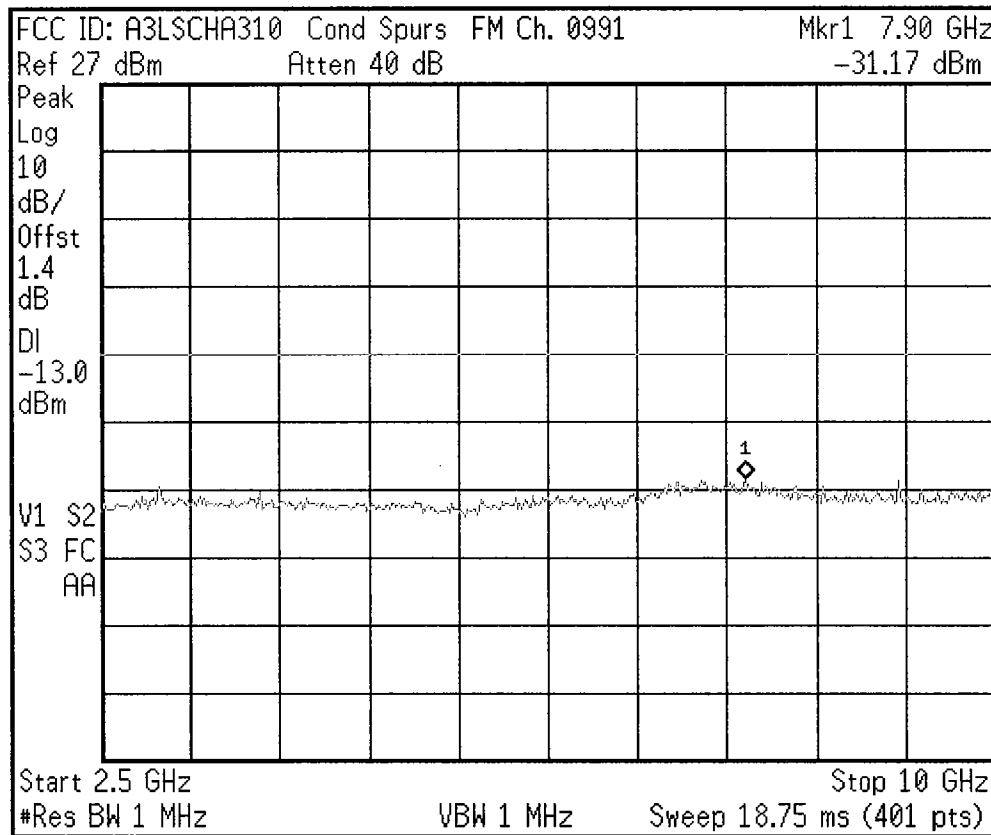
START 869.00 MHz #RES BW 100 kHz
STOP 894.00 MHz #VBW 300 kHz SWP 20 msec

* Agilent 11:09:39 Mar 4, 2002



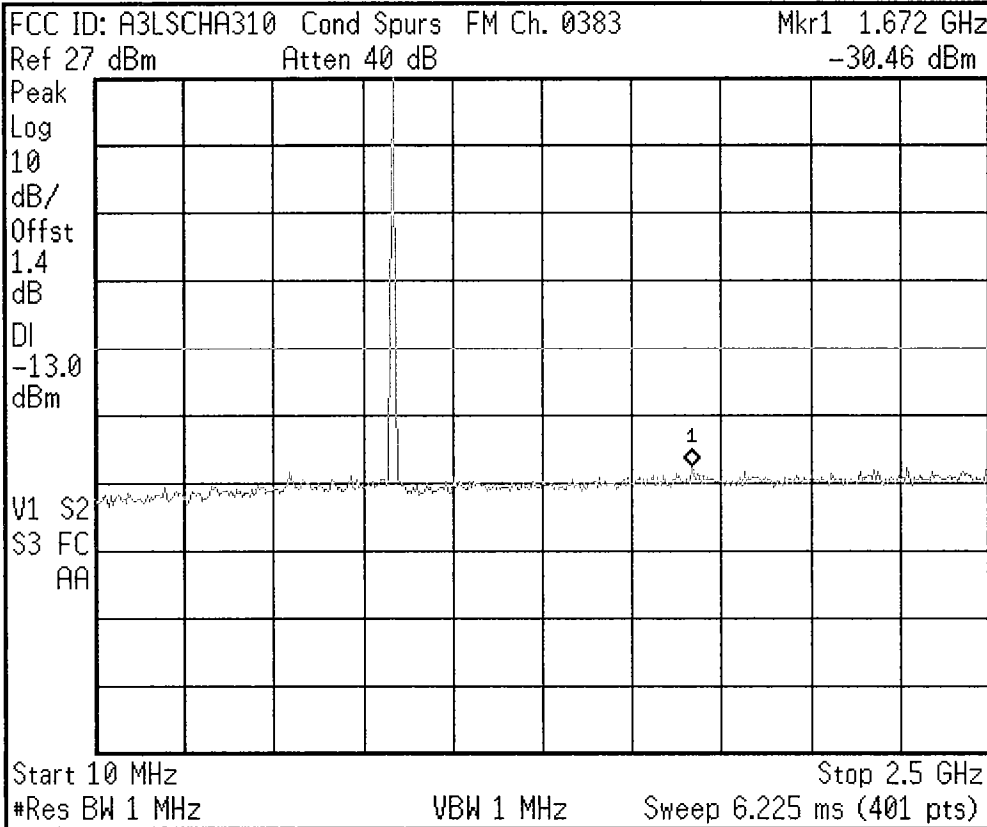
Freq/Channel
Center Freq 1.25500000 GHz
Start Freq 10.0000000 MHz
Stop Freq 2.50000000 GHz
CF Step 249.000000 MHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off

* Agilent 11:10:33 Mar 4, 2002



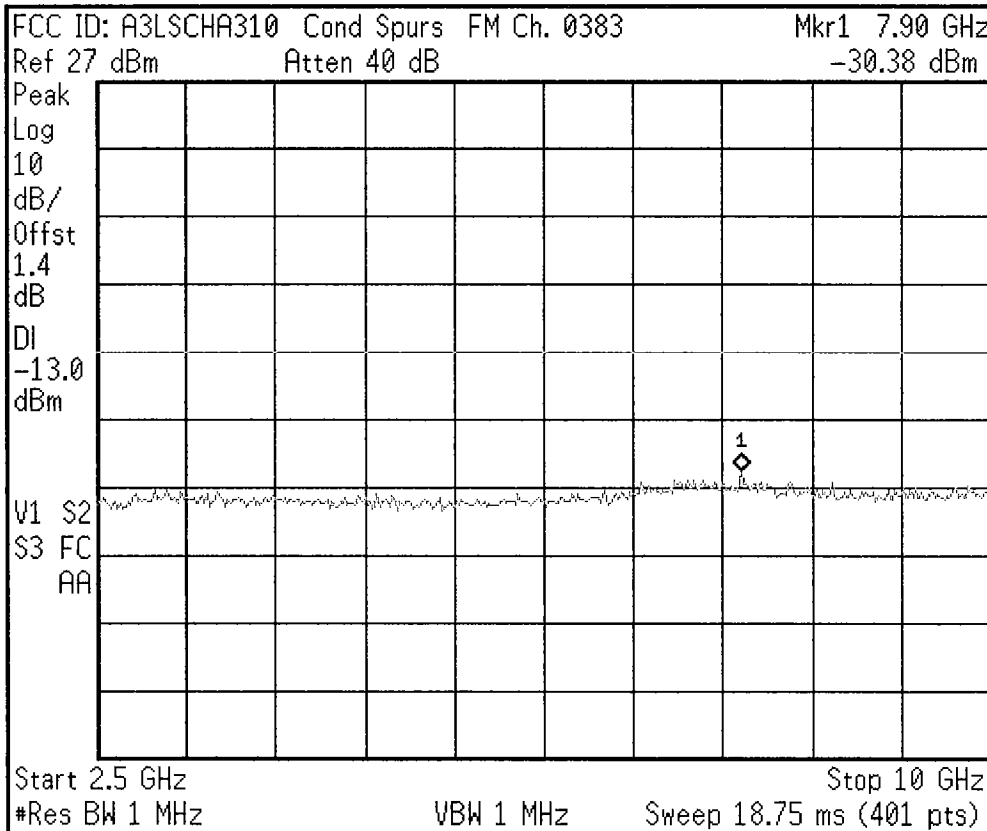
Freq/Channel
Center Freq 6.25000000 GHz
Start Freq 2.50000000 GHz
Stop Freq 10.0000000 GHz
CF Step 750.000000 MHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off

* Agilent 11:12:58 Mar 4, 2002



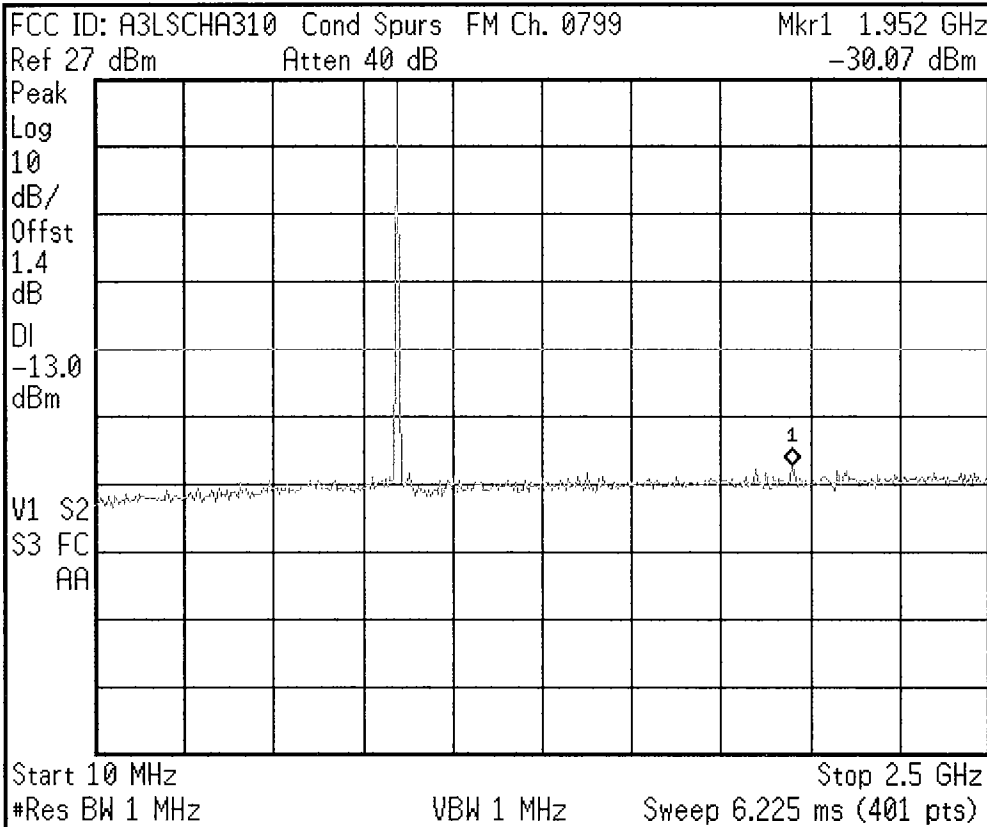
Freq/Channel
Center Freq 1.25500000 GHz
Start Freq 10.0000000 MHz
Stop Freq 2.50000000 GHz
CF Step 249.000000 MHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off

* Agilent 11:13:47 Mar 4, 2002



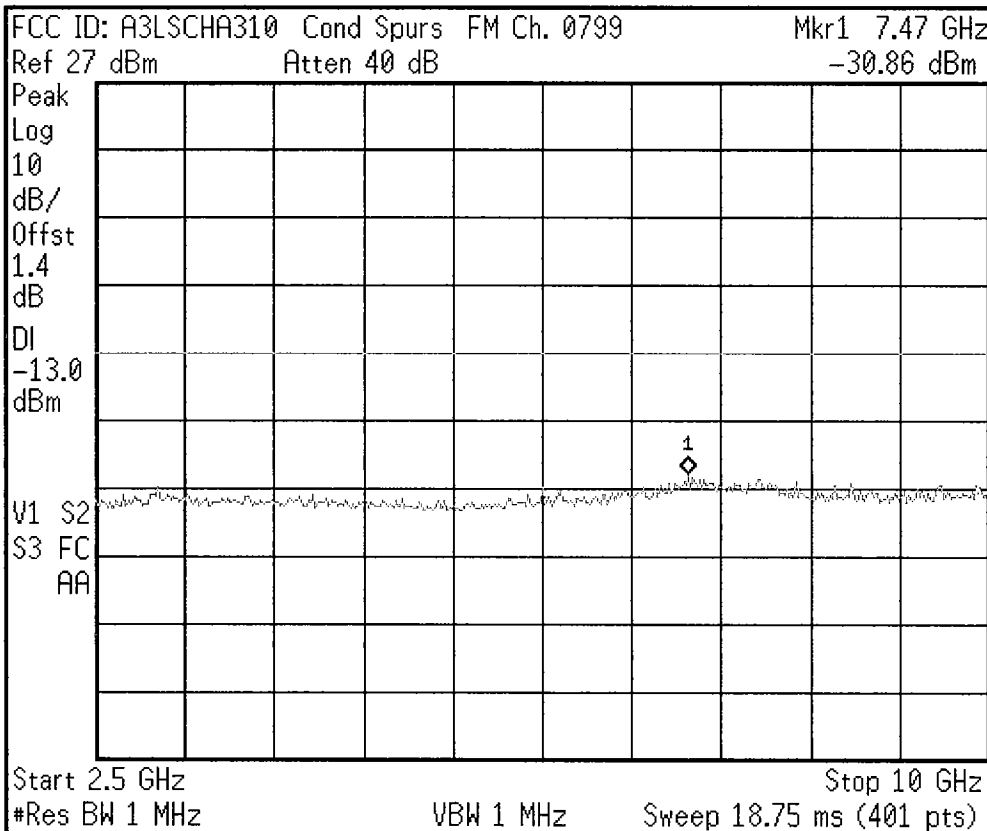
Freq/Channel
Center Freq 6.25000000 GHz
Start Freq 2.50000000 GHz
Stop Freq 10.0000000 GHz
CF Step 750.000000 MHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off

* Agilent 11:15:02 Mar 4, 2002



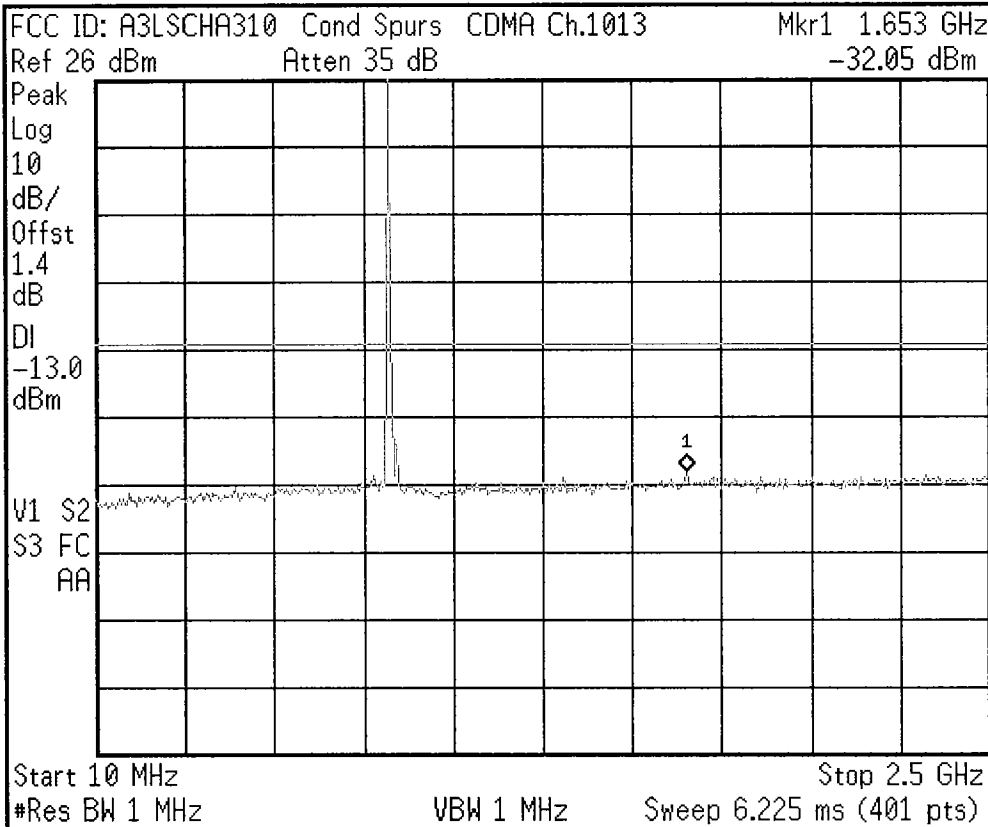
Freq/Channel
Center Freq 1.25500000 GHz
Start Freq 10.0000000 MHz
Stop Freq 2.50000000 GHz
CF Step 249.000000 MHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off

* Agilent 11:15:36 Mar 4, 2002



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 11:22:18 Mar 4, 2002



Freq/Channel

Center Freq
1.25500000 GHz

Start Freq
10.0000000 MHz

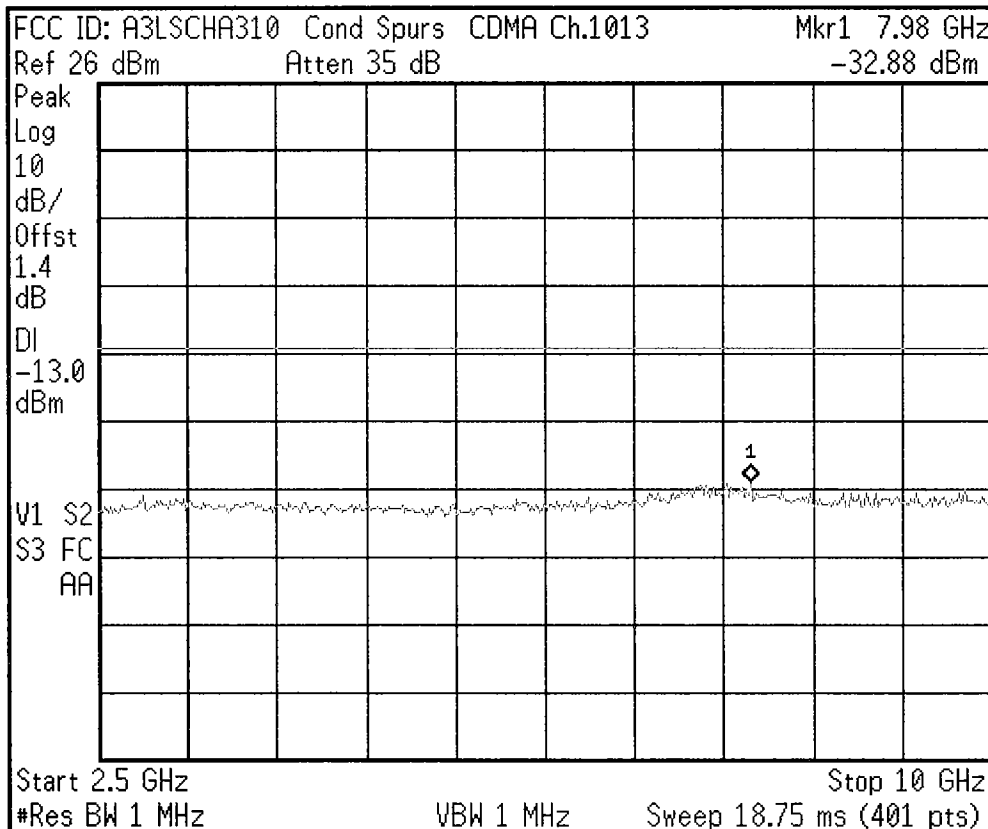
Stop Freq
2.50000000 GHz

CF Step
249.000000 MHz
Auto Man

Freq Offset
0.00000000 Hz

Signal Track
On Off

* Agilent 11:23:08 Mar 4, 2002



Freq/Channel

Center Freq
6.25000000 GHz

Start Freq
2.50000000 GHz

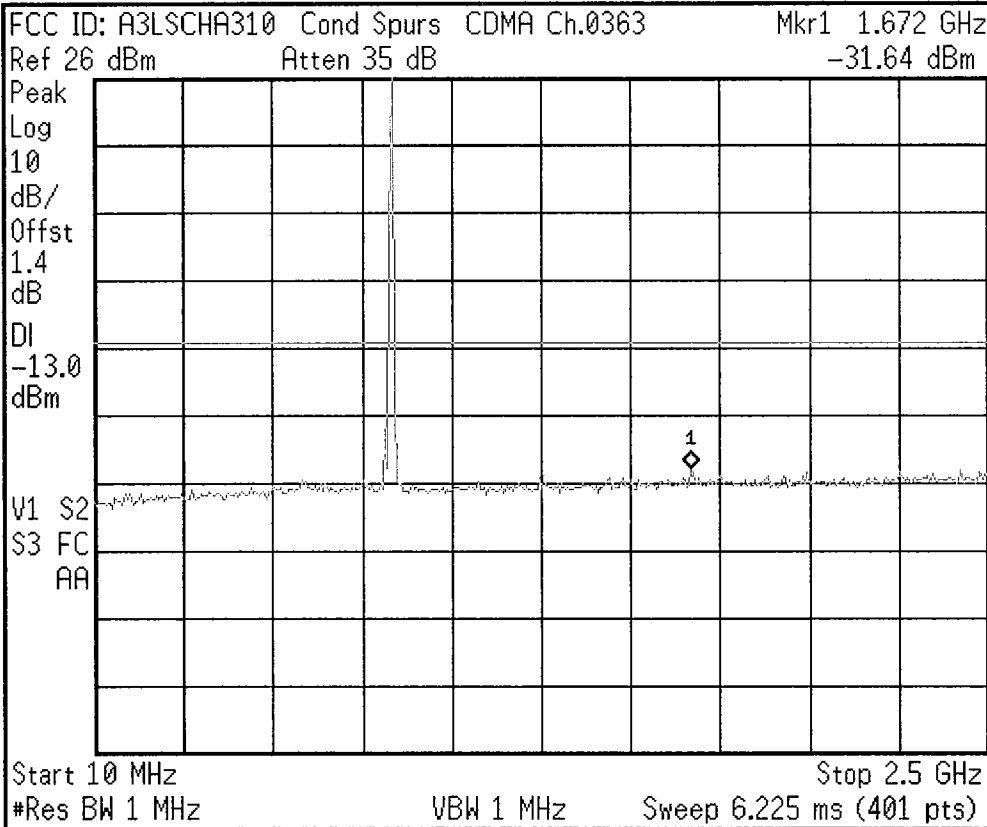
Stop Freq
10.0000000 GHz

CF Step
750.000000 MHz
Auto Man

Freq Offset
0.00000000 Hz

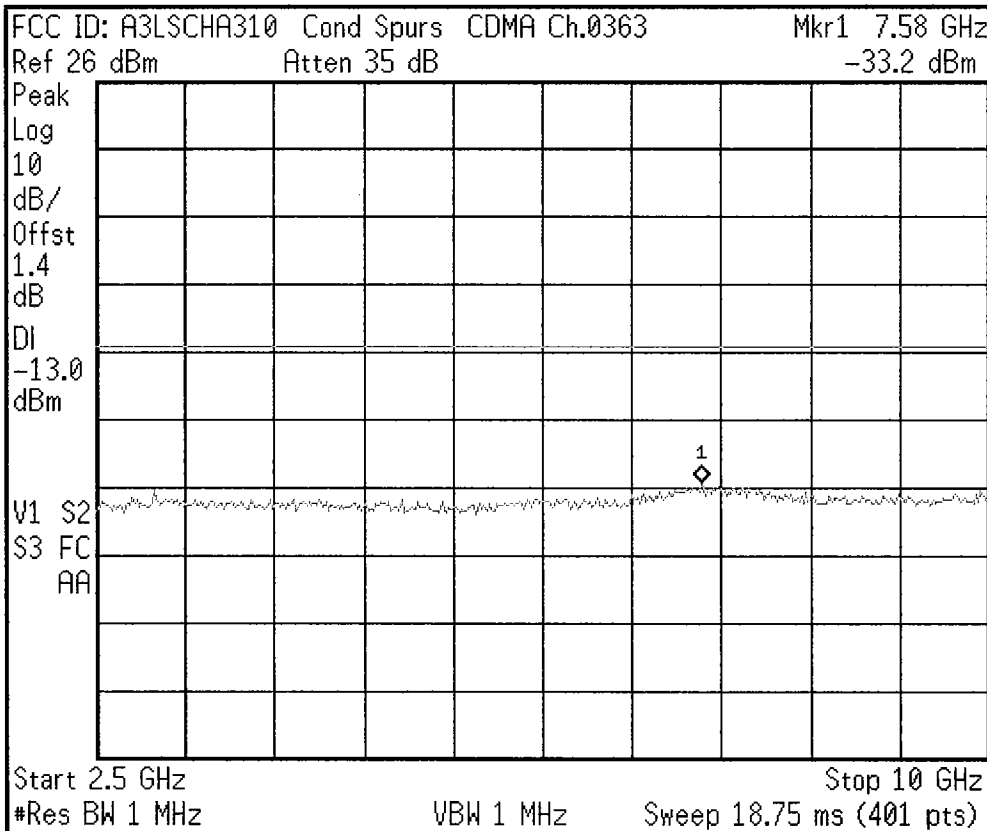
Signal Track
On Off

* Agilent 11:25:31 Mar 4, 2002



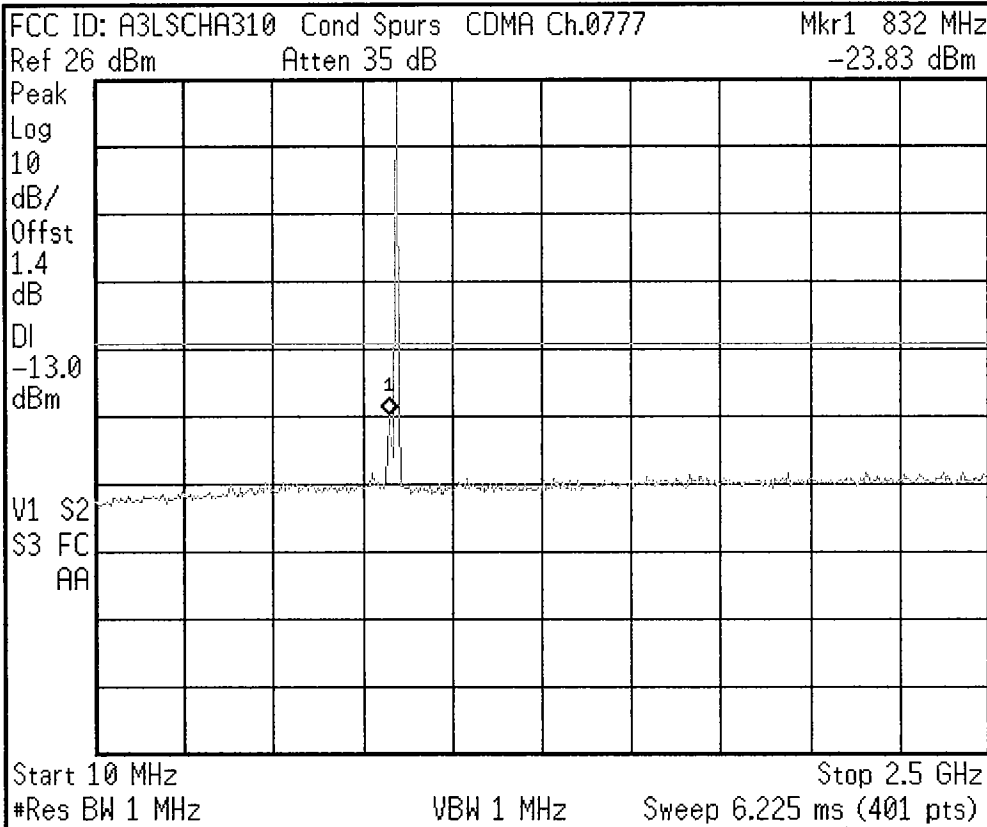
Freq/Channel
Center Freq 1.25500000 GHz
Start Freq 10.0000000 MHz
Stop Freq 2.50000000 GHz
CF Step 249.000000 MHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off

* Agilent 11:26:07 Mar 4, 2002



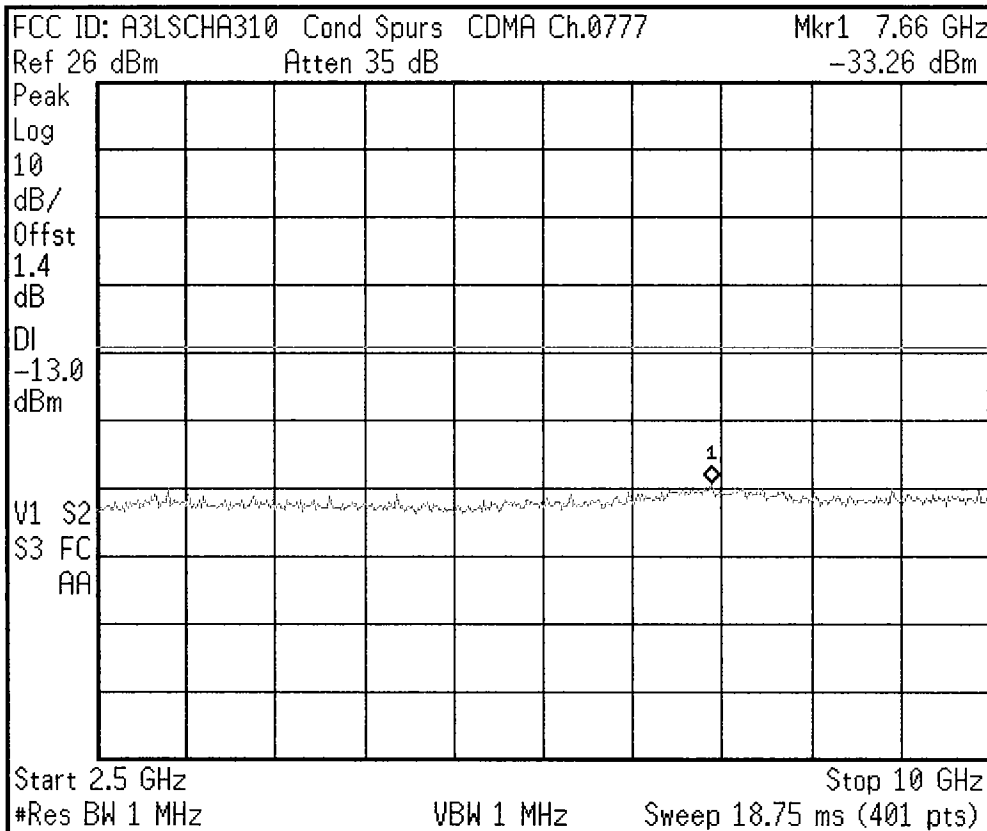
Freq/Channel
Center Freq 6.25000000 GHz
Start Freq 2.50000000 GHz
Stop Freq 10.0000000 GHz
CF Step 750.000000 MHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off

* Agilent 11:28:20 Mar 4, 2002



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 <u>Off</u>

* Agilent 11:28:56 Mar 4, 2002

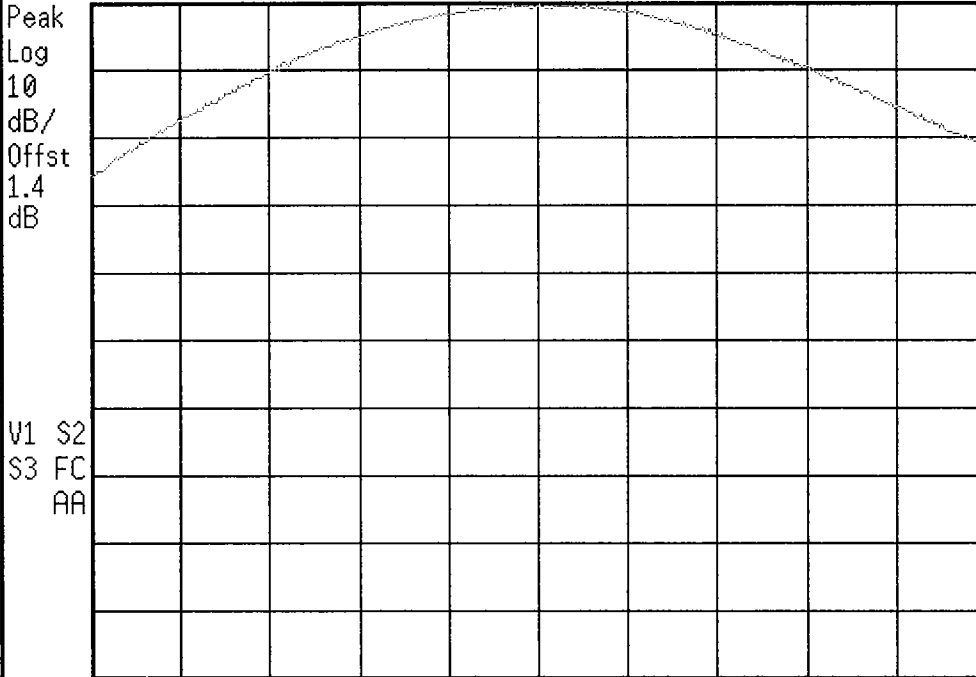


Freq/Channel
Center Freq 6.25000000 GHz
Start Freq 2.50000000 GHz
Stop Freq 10.0000000 GHz
CF Step 750.000000 MHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On <u>Off</u>

* Agilent 11:36:17 Mar 4, 2002

FCC ID: A3LSCHA310 Power Out CDMA Ch. 1013

Ref 26 dBm Atten 35 dB



Center 824.7 MHz

*Res BW 3 MHz

VBW 3 MHz

Span 10 MHz

Sweep 5 ms (401 pts)

Freq/Channel

Center Freq

824.700000 MHz

Start Freq

819.700000 MHz

Stop Freq

829.700000 MHz

CF Step

1.00000000 MHz

Auto

Man

Freq Offset

0.00000000 Hz

Signal Track

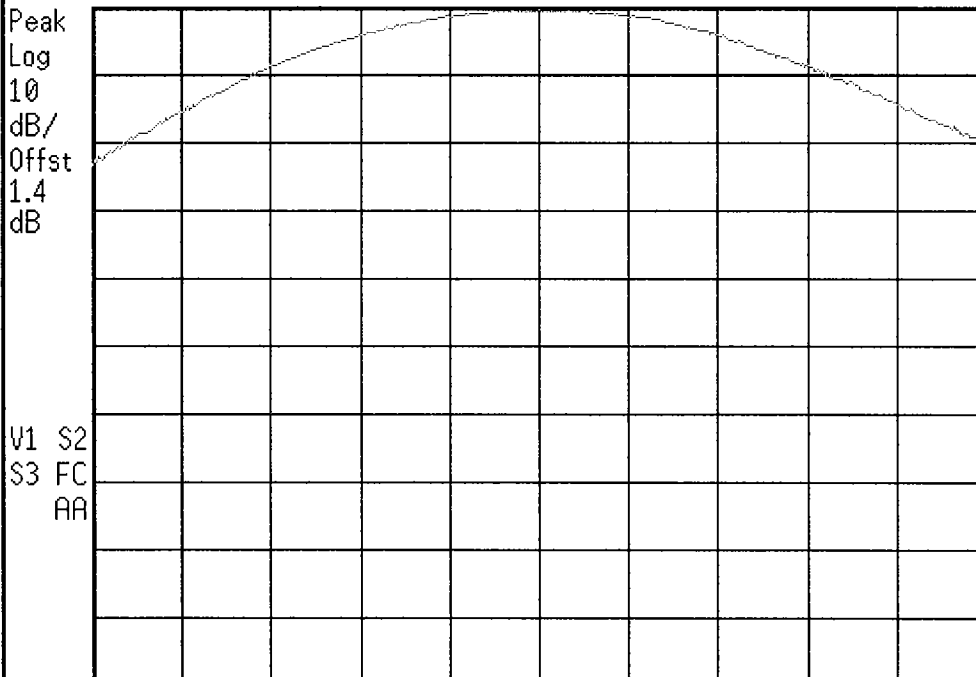
On

Off

* Agilent 11:37:59 Mar 4, 2002

FCC ID: A3LSCHA310 Power Out CDMA Ch. 0777

Ref 26 dBm Atten 35 dB



Center 848.3 MHz

*Res BW 3 MHz

VBW 3 MHz

Span 10 MHz

Sweep 5 ms (401 pts)

Freq/Channel

Center Freq

848.300000 MHz

Start Freq

843.300000 MHz

Stop Freq

853.300000 MHz

CF Step

1.00000000 MHz

Auto

Man

Freq Offset

0.00000000 Hz

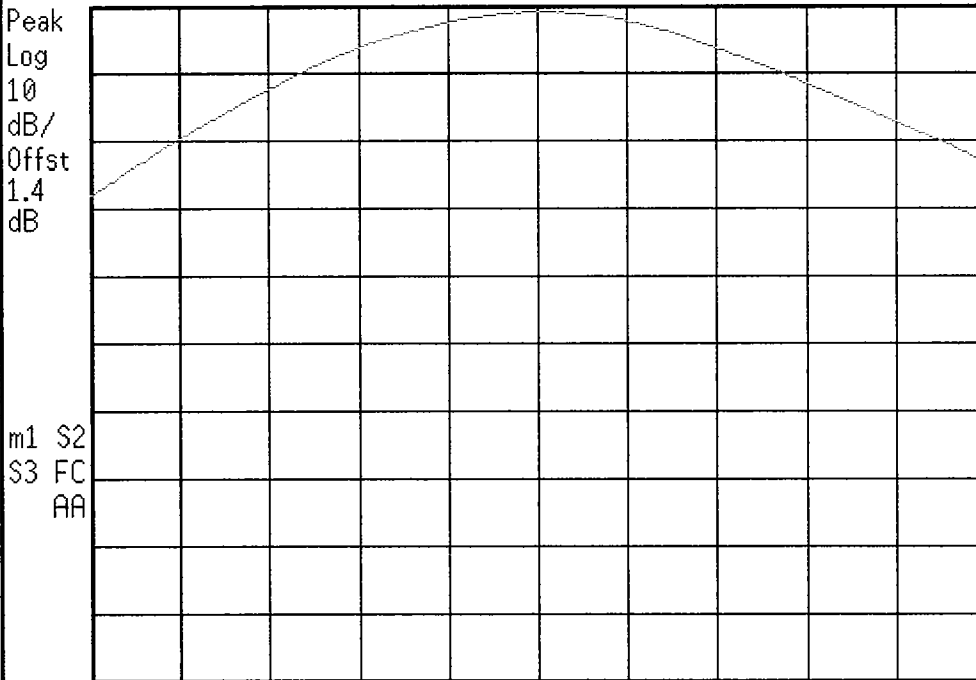
Signal Track

On

Off

* Agilent 11:42:06 Mar 4, 2002

FCC ID: A3LSCHA310 Power Out CDMA Ch. 0363
Ref 26 dBm Atten 35 dB



Center 835.9 MHz Span 10 MHz
*Res BW 3 MHz VBW 3 MHz Sweep 5 ms (401 pts)

Freq/Channel

Center Freq
835.900000 MHz

Start Freq
830.900000 MHz

Stop Freq
840.900000 MHz

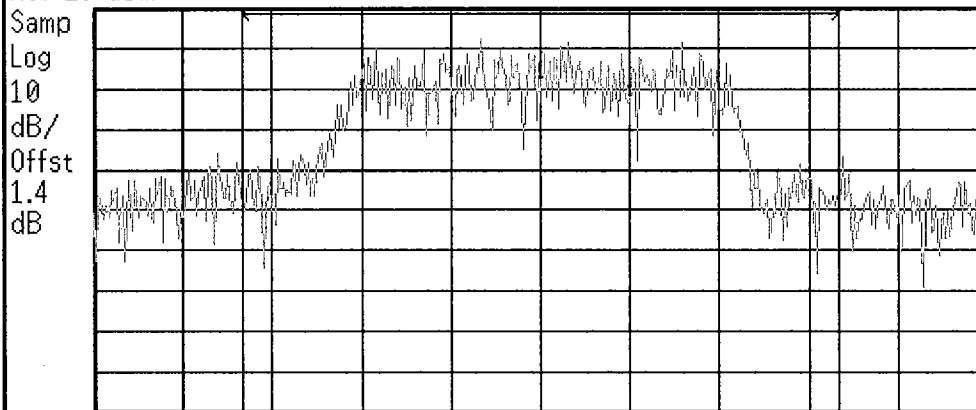
CF Step
1.00000000 MHz
Auto Man

Freq Offset
0.00000000 Hz

Signal Track
On Off

* Agilent 11:44:35 Mar 4, 2002

FCC ID: A3LSCHA310 Power Out CDMA Ch. 0363
Ref 26 dBm Atten 35 dB



Center 835.9 MHz Span 3 MHz
*Res BW 30 kHz *VBW 300 kHz Sweep 9.167 ms (401 pts)

Freq/Channel

Center Freq
835.900000 MHz

Start Freq
834.400000 MHz

Stop Freq
837.400000 MHz

CF Step
300.000000 kHz
Auto Man

Freq Offset
0.00000000 Hz

Signal Track
On Off

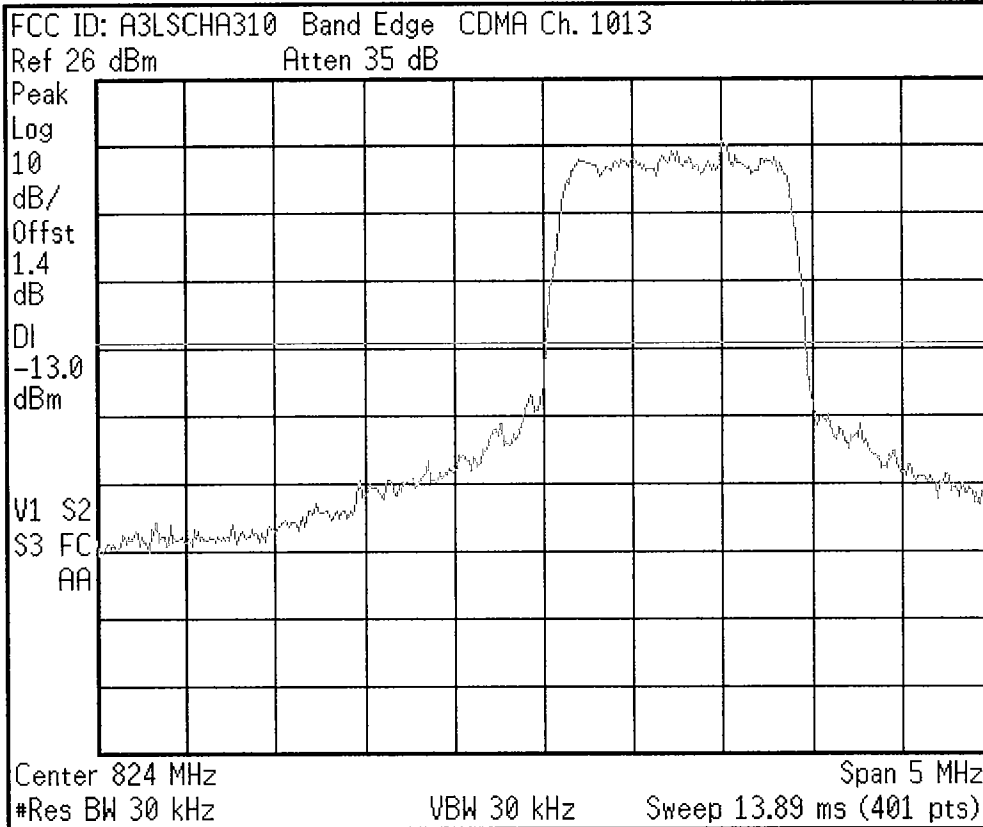
Channel Power Results (idle)

Channel Power
26.01 dBm

Integration BW 2.000 MHz

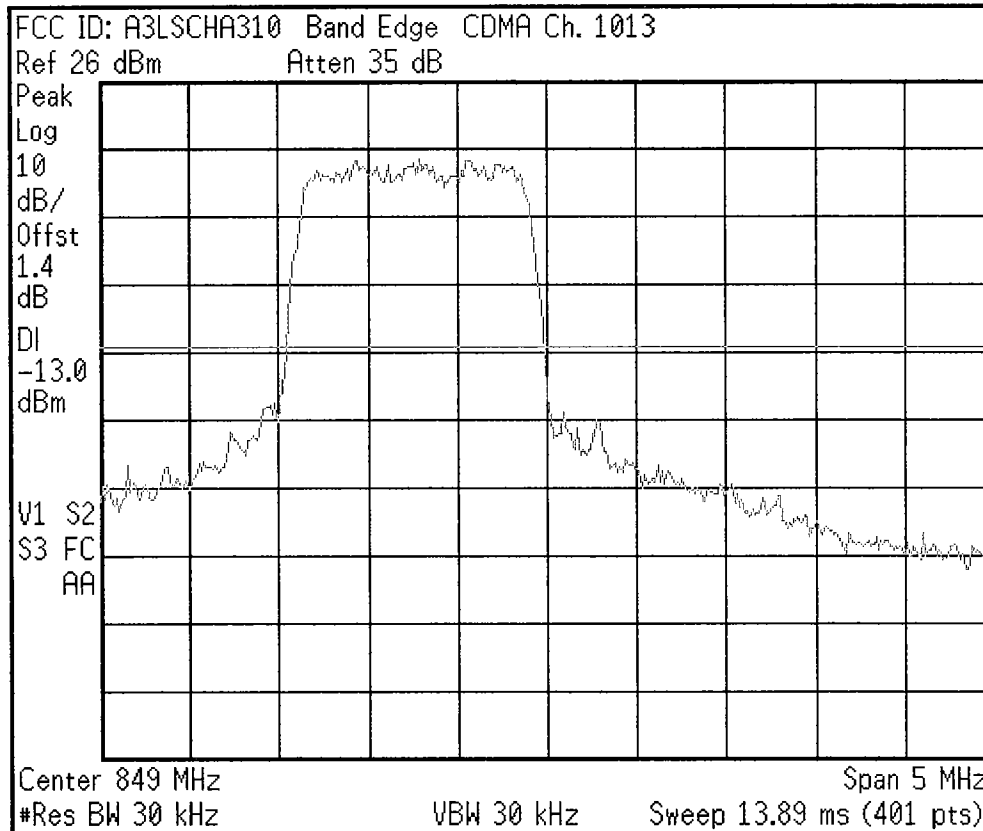
Density -37.00 dBm/Hz

* Agilent 11:47:10 Mar 4, 2002



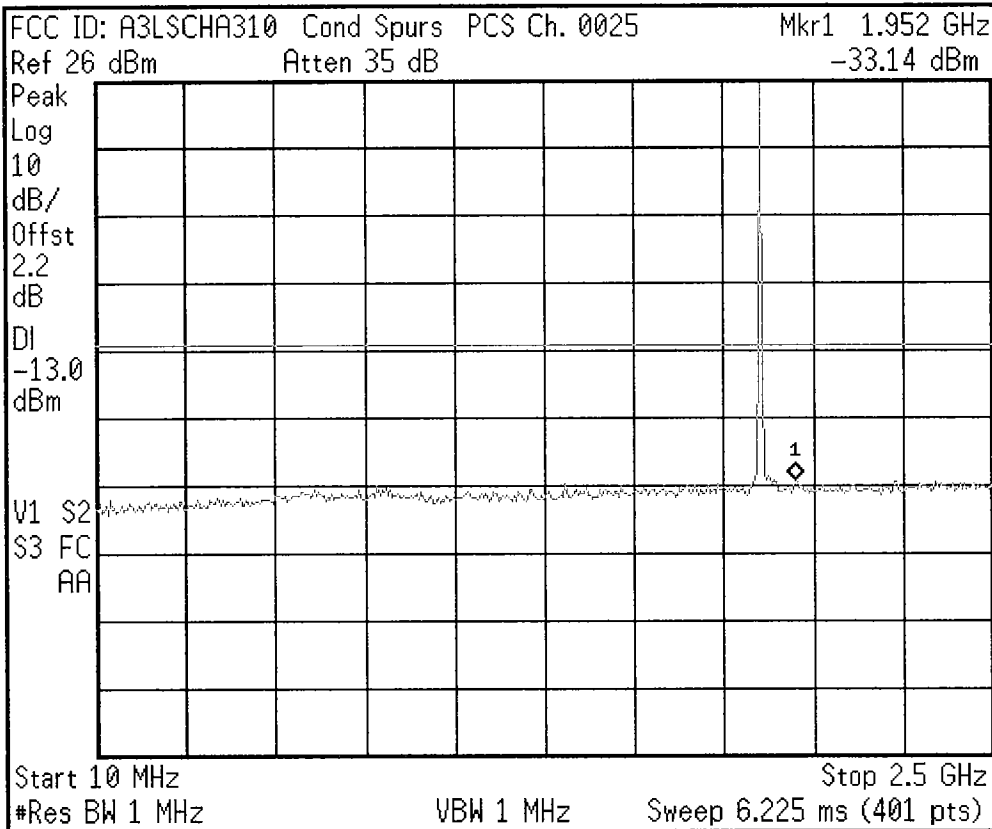
Freq/Channel
Center Freq 824.000000 MHz
Start Freq 821.500000 MHz
Stop Freq 826.500000 MHz
CF Step 500.000000 kHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off

* Agilent 11:47:59 Mar 4, 2002



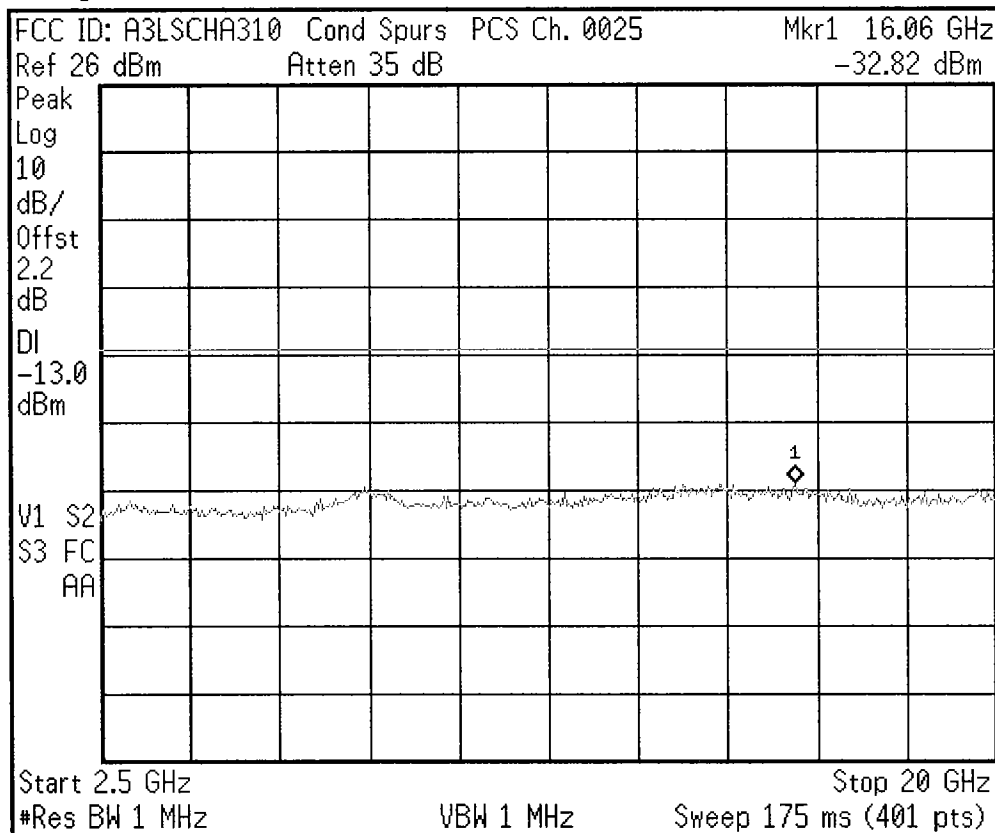
Freq/Channel
Center Freq 849.000000 MHz
Start Freq 846.500000 MHz
Stop Freq 851.500000 MHz
CF Step 500.000000 kHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off

Agilent 12:37:46 Mar 4, 2002



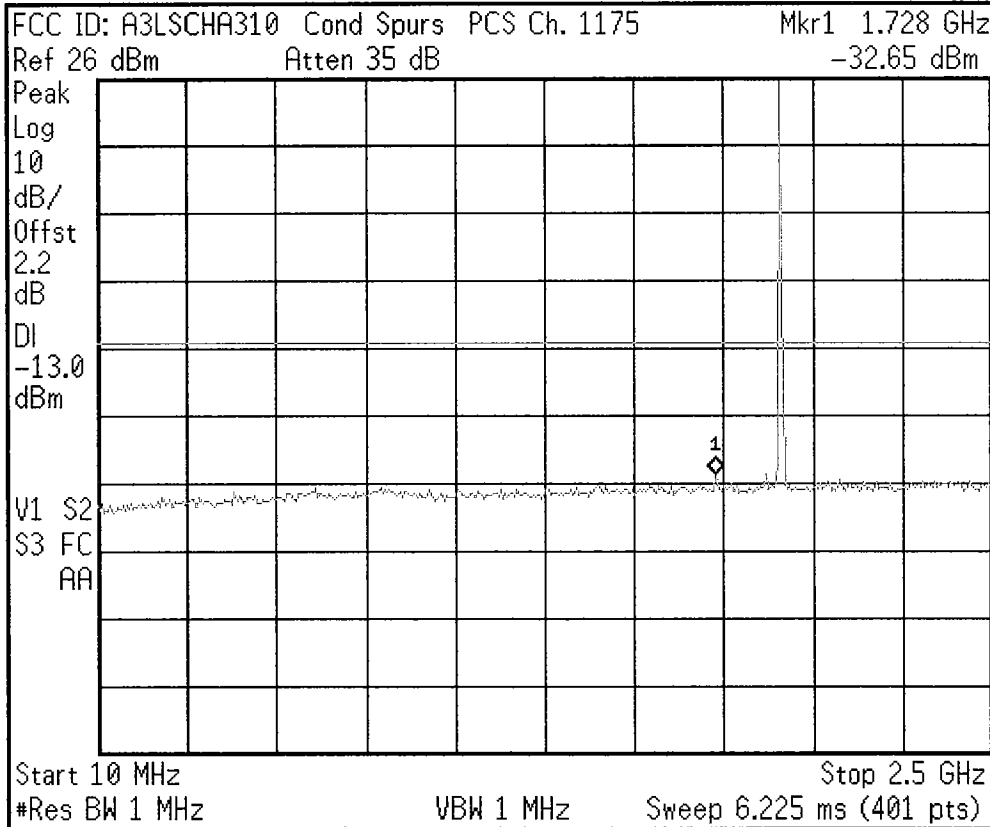
Freq/Channel
Center Freq 1.25500000 GHz
Start Freq 10.0000000 MHz
Stop Freq 2.50000000 GHz
CF Step 249.000000 MHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off

Agilent 12:38:34 Mar 4, 2002



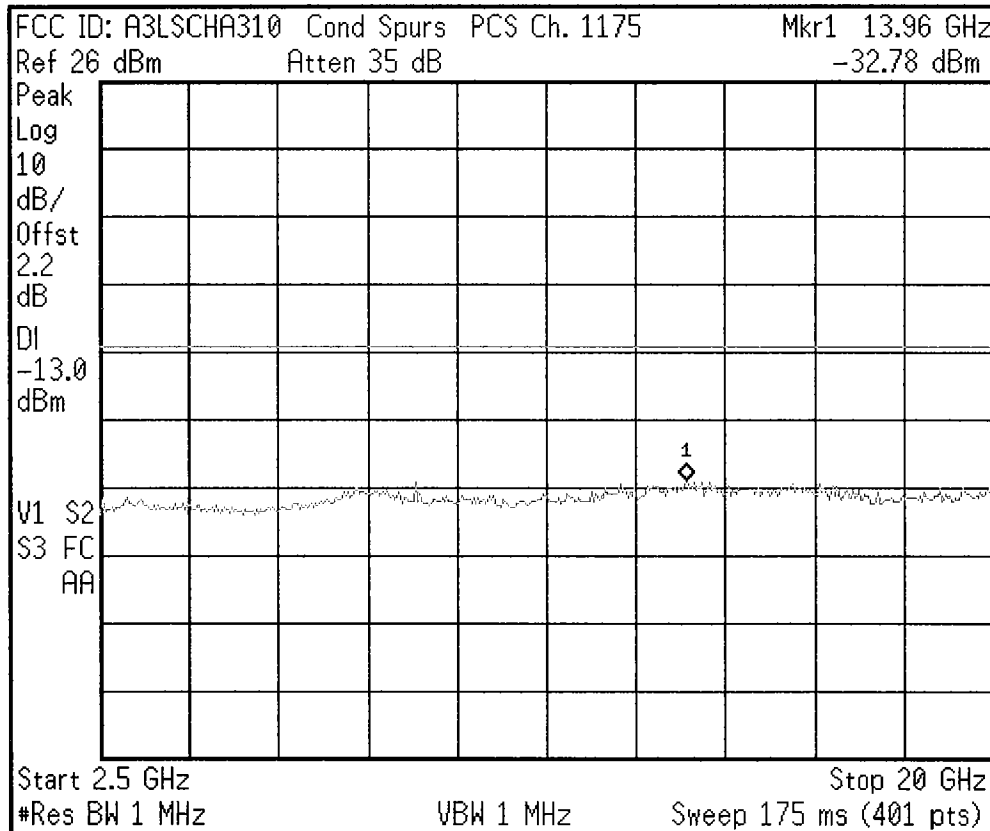
Freq/Channel
Center Freq 11.2500000 GHz
Start Freq 2.50000000 GHz
Stop Freq 20.0000000 GHz
CF Step 1.75000000 GHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off

Agilent 12:48:46 Mar 4, 2002



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 12:50:57 Mar 4, 2002

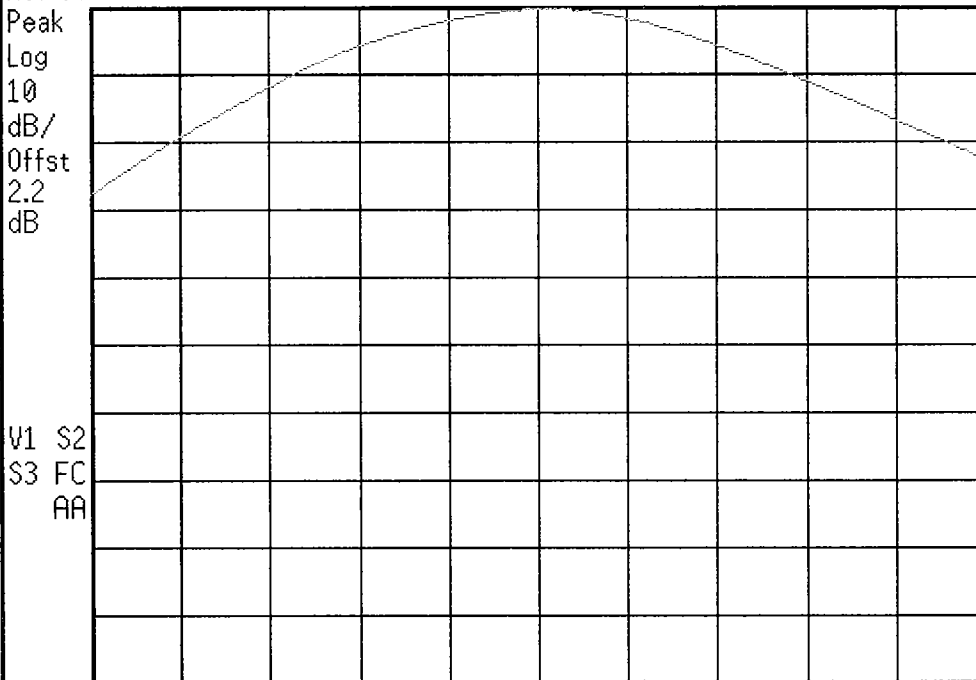


Freq/Channel
Center Freq 11.2500000 GHz
Start Freq 2.50000000 GHz
Stop Freq 20.0000000 GHz
CF Step 1.75000000 GHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off

* Agilent 12:53:38 Mar 4, 2002

FCC ID: A3LSCHA310 Power Out PCS Ch. 0600

Ref 26 dBm Atten 35 dB



Center 1.88 GHz

#Res BW 3 MHz

VBW 3 MHz

Span 10 MHz

Sweep 5 ms (401 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

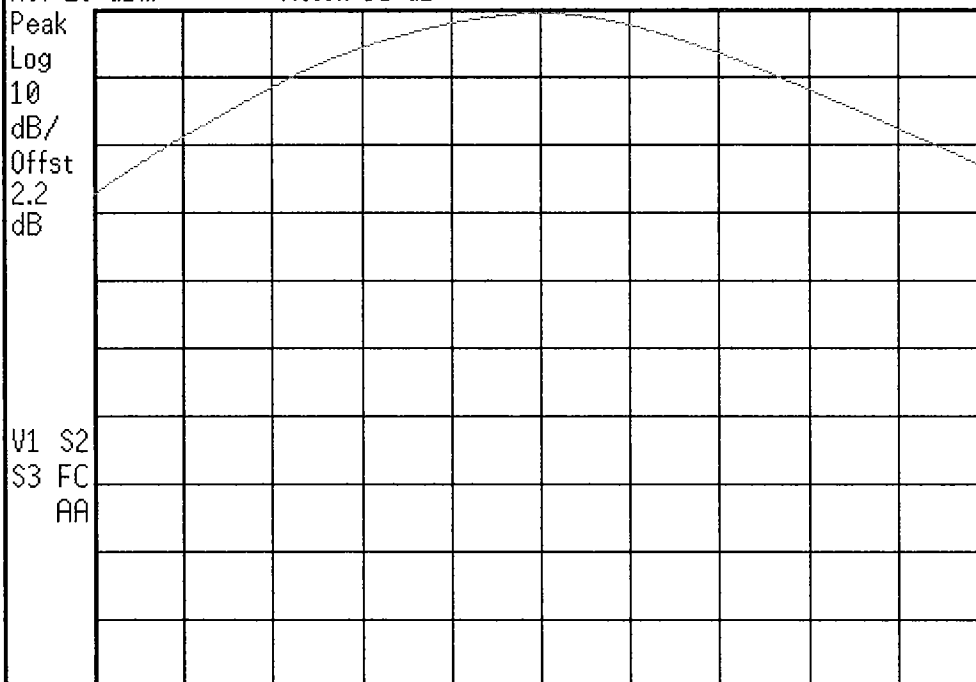
Freq Offset
0.00000000 Hz

Signal Track
On Off

* Agilent 12:55:54 Mar 4, 2002

FCC ID: A3LSCHA310 Power Out PCS Ch. 1175

Ref 26 dBm Atten 35 dB



Center 1.909 GHz

#Res BW 3 MHz

VBW 3 MHz

Span 10 MHz

Sweep 5 ms (401 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

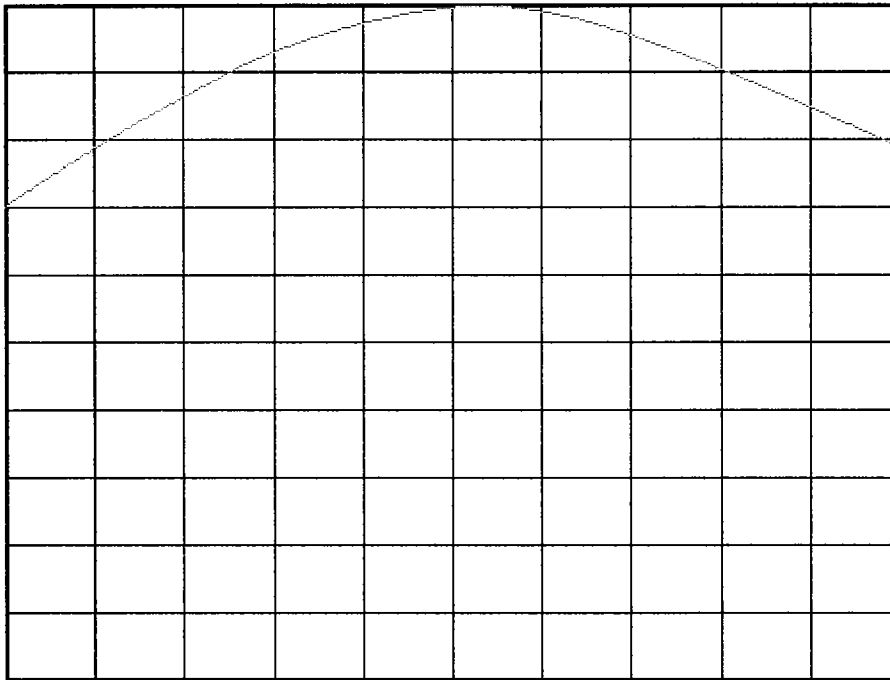
* Agilent 12:58:08 Mar 4, 2002

FCC ID: A3LSCHA310 Power Out PCS Ch. 0025

Ref 26 dBm Atten 35 dB

Peak
Log
10
dB/
Offst
2.2
dB

V1 S2
S3 FC
AA



Center 1.851 GHz

*Res BW 3 MHz

VBW 3 MHz

Span 10 MHz
Sweep 5 ms (401 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

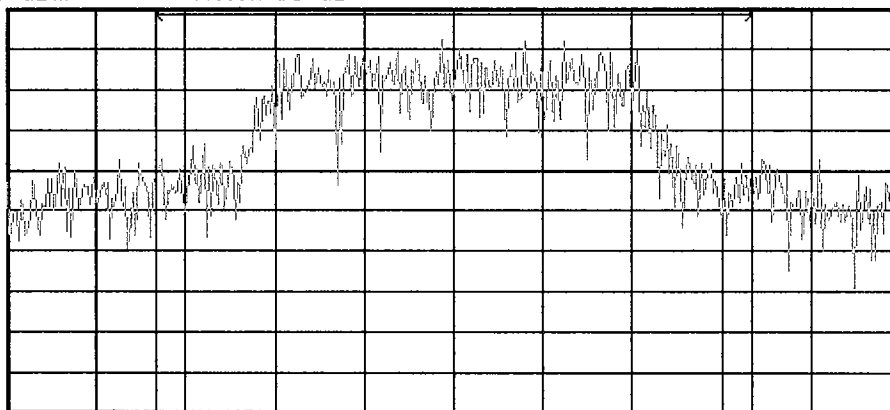
Signal Track
On Off

* Agilent 13:03:53 Mar 4, 2002

FCC ID: A3LSCHA310 Power Out PCS Ch. 0025

Ref 26 dBm Atten 35 dB

Samp
Log
10
dB/
Offst
2.2
dB



Center 1.851 GHz

*Res BW 30 kHz

*VBW 300 kHz

Span 3 MHz
Sweep 9.167 ms (401 pts)

Freq/Channel

Center Freq
1.85100000 GHz

Start Freq
1.84950000 GHz

Stop Freq
1.85250000 GHz

CF Step
300.000000 kHz
Auto Man

Freq Offset
0.00000000 Hz

Signal Track
On Off

Channel Power Results (idle)

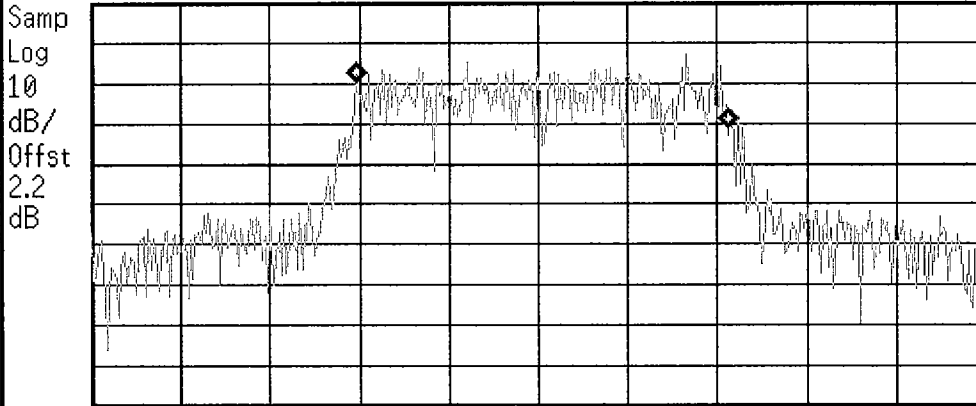
Channel Power
26.06 dBm

Integration BW 2.000 MHz

Density -36.95 dBm/Hz

FCC ID: A3LSCHA310 Power Out PCS Ch. 0600

Ref 26 dBm Atten 35 dB



Center 1.88 GHz Span 3 MHz
 #Res BW 30 kHz #VBW 300 kHz Sweep 9.167 ms (401 pts)

Occupied Bandwidth Results (idle)

Occupied Bandwidth **Occ BW % Pwr** 99.00 %
 1.250 MHz

Transmit Freq Error 15.56 kHz

Freq/Channel

Center Freq
 1.88000000 GHz

Start Freq
 1.87850000 GHz

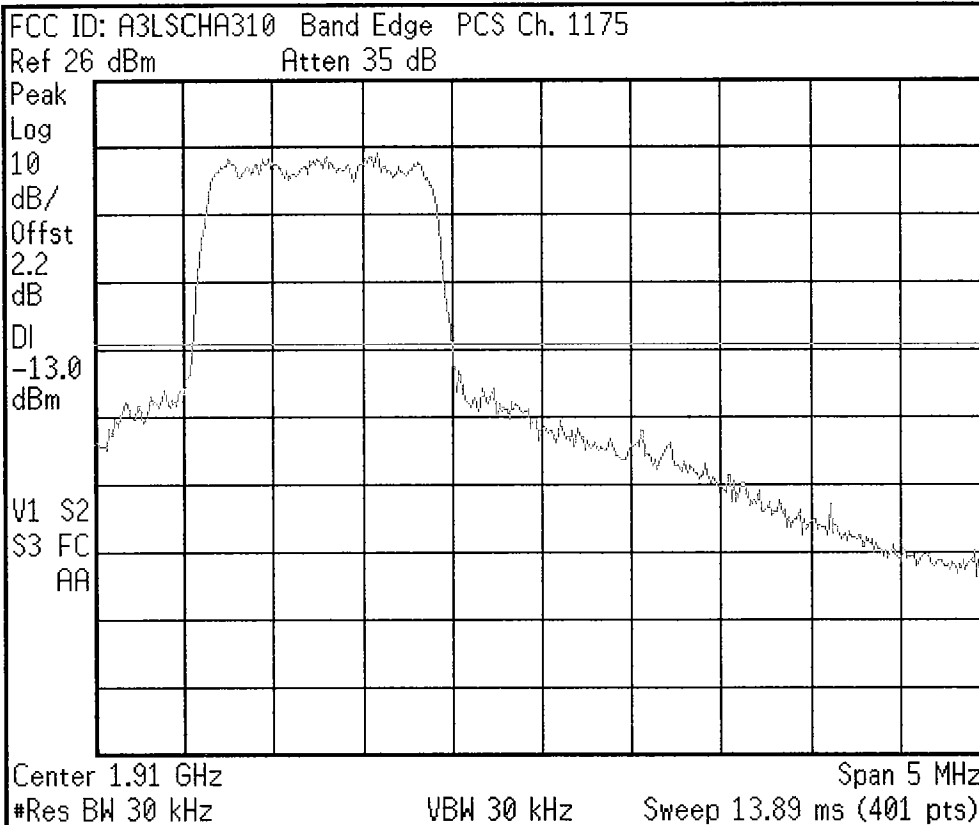
Stop Freq
 1.88150000 GHz

CF Step
 300.000000 kHz
 Auto Man

Freq Offset
 0.00000000 Hz

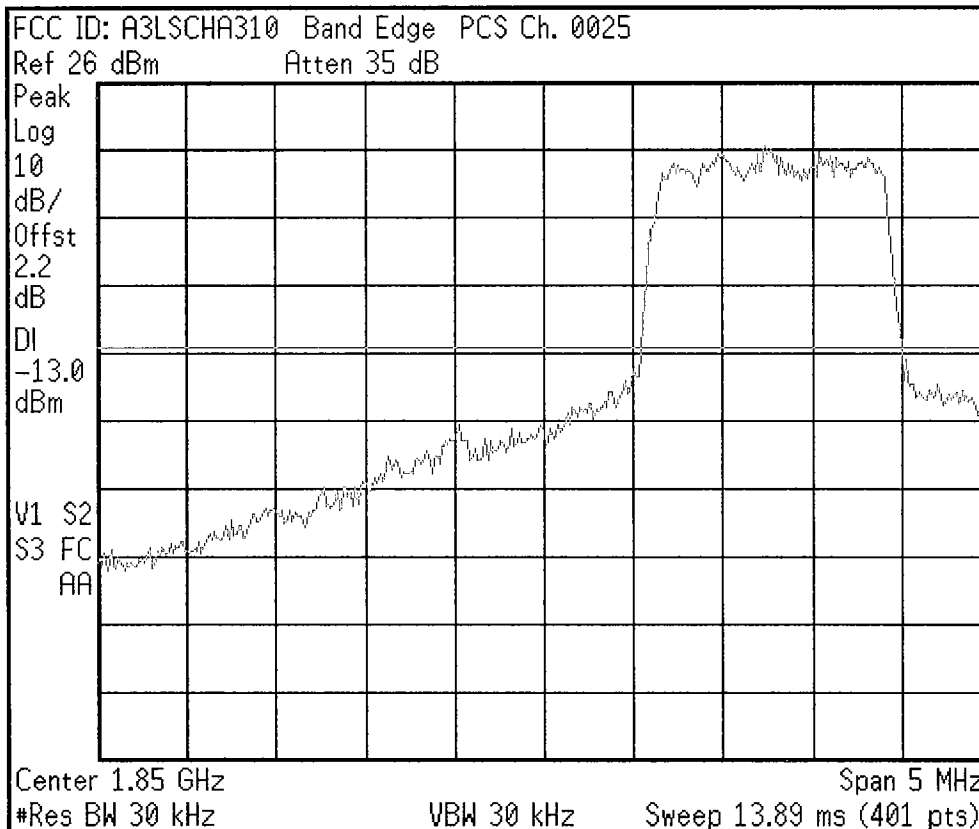
Signal Track
 On Off

* Agilent 13:47:45 Mar 4, 2002



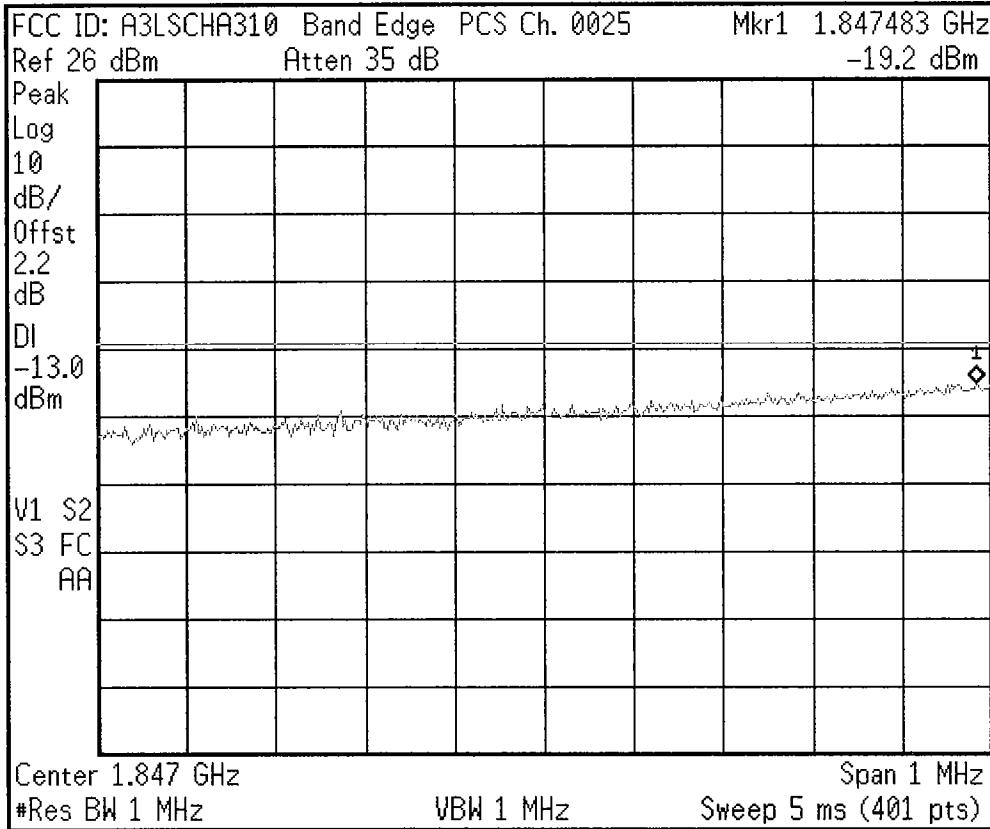
Freq/Channel
Center Freq 1.91000000 GHz
Start Freq 1.90750000 GHz
Stop Freq 1.91250000 GHz
CF Step 500.000000 kHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off

* Agilent 13:50:17 Mar 4, 2002



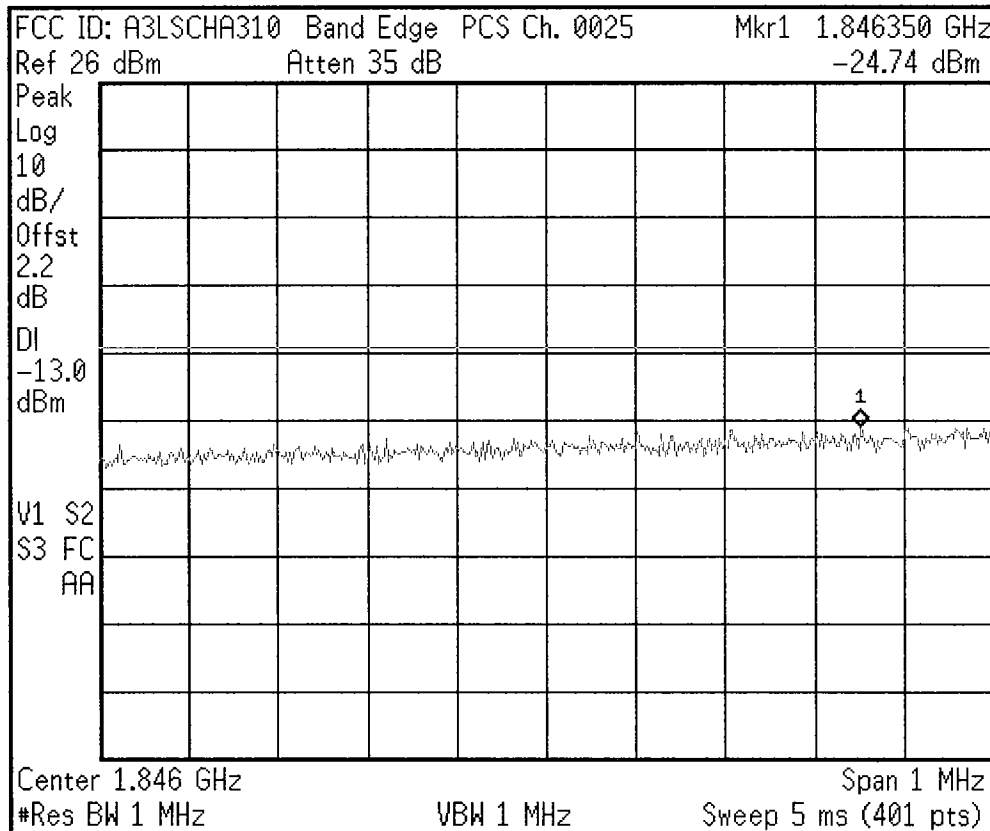
Freq/Channel
Center Freq 1.85000000 GHz
Start Freq 1.84750000 GHz
Stop Freq 1.85250000 GHz
CF Step 500.000000 kHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off

Agilent 13:51:57 Mar 4, 2002



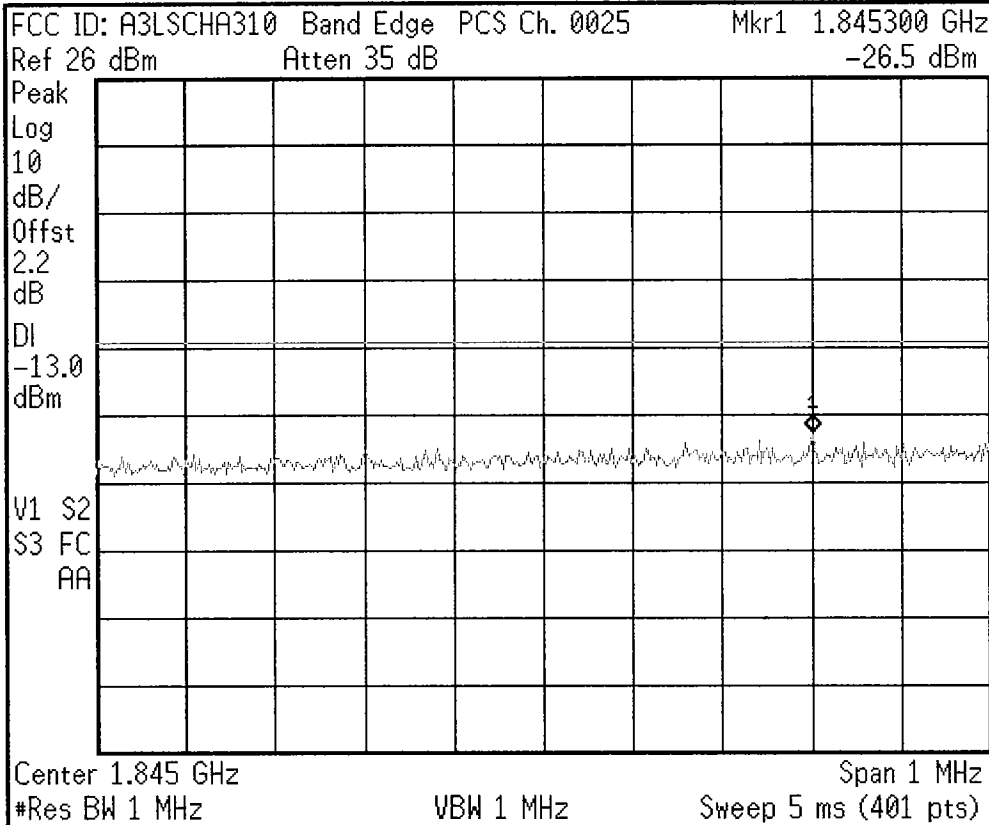
Freq/Channel
Center Freq 1.84700000 GHz
Start Freq 1.84650000 GHz
Stop Freq 1.84750000 GHz
CF Step 100.000000 kHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off

Agilent 13:52:39 Mar 4, 2002



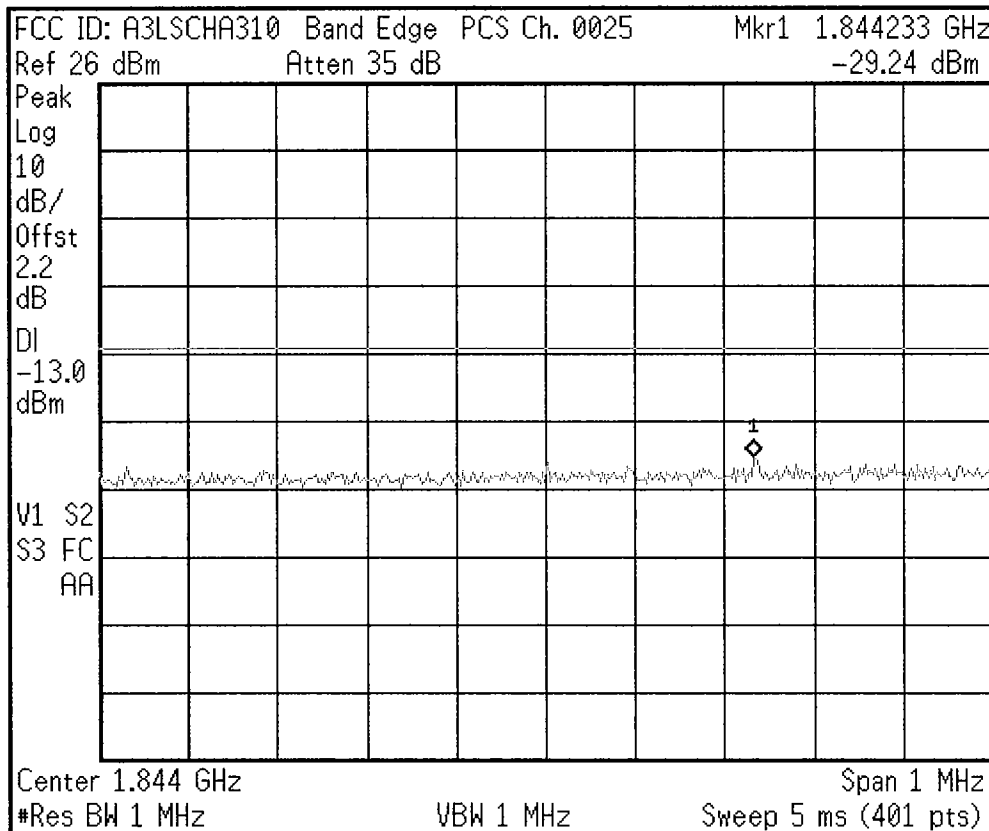
Freq/Channel
Center Freq 1.84600000 GHz
Start Freq 1.84550000 GHz
Stop Freq 1.84650000 GHz
CF Step 100.000000 kHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off

* Agilent 13:53:19 Mar 4, 2002



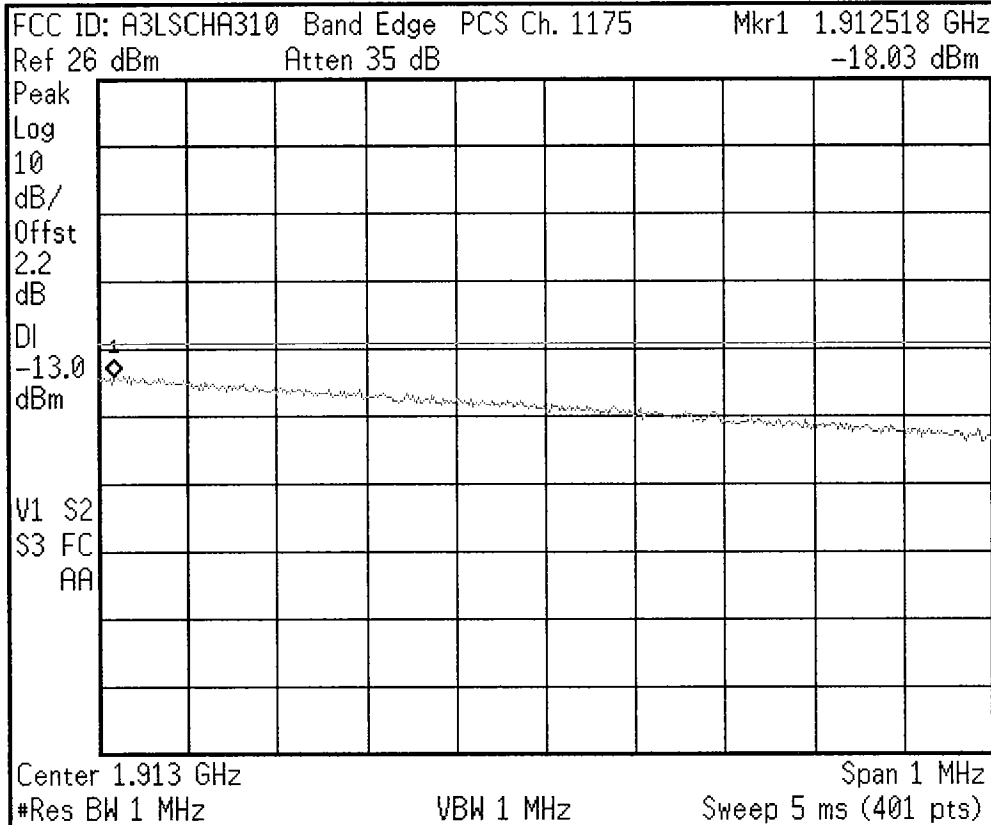
Freq/Channel
Center Freq 1.84500000 GHz
Start Freq 1.84450000 GHz
Stop Freq 1.84550000 GHz
CF Step 100.000000 kHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off

* Agilent 13:54:04 Mar 4, 2002



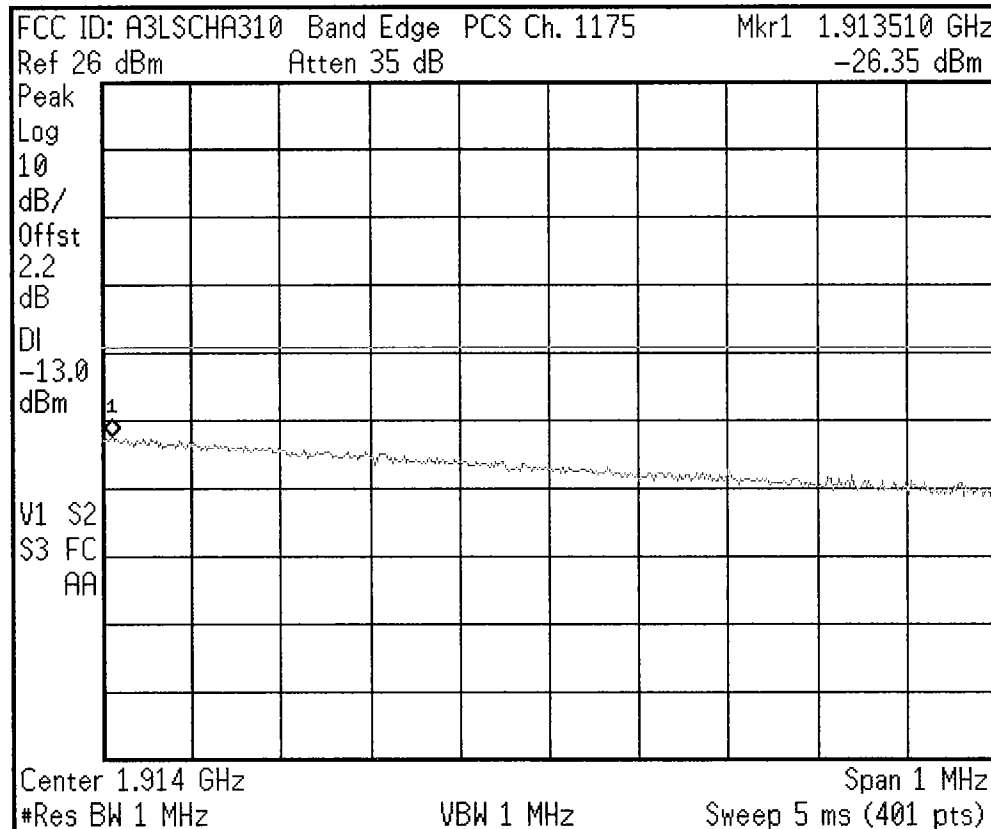
Freq/Channel
Center Freq 1.84400000 GHz
Start Freq 1.84350000 GHz
Stop Freq 1.84450000 GHz
CF Step 100.000000 kHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off

Agilent 13:55:40 Mar 4, 2002



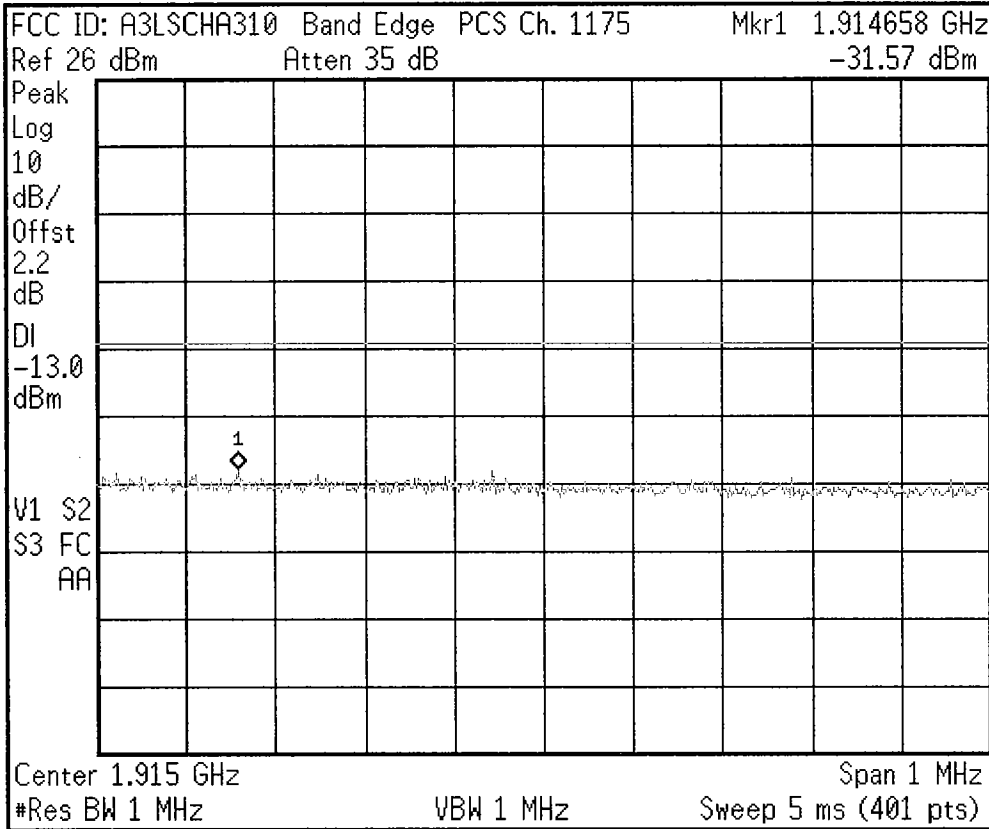
Freq/Channel
Center Freq 1.91300000 GHz
Start Freq 1.91250000 GHz
Stop Freq 1.91350000 GHz
CF Step 100.000000 kHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off

Agilent 13:56:07 Mar 4, 2002



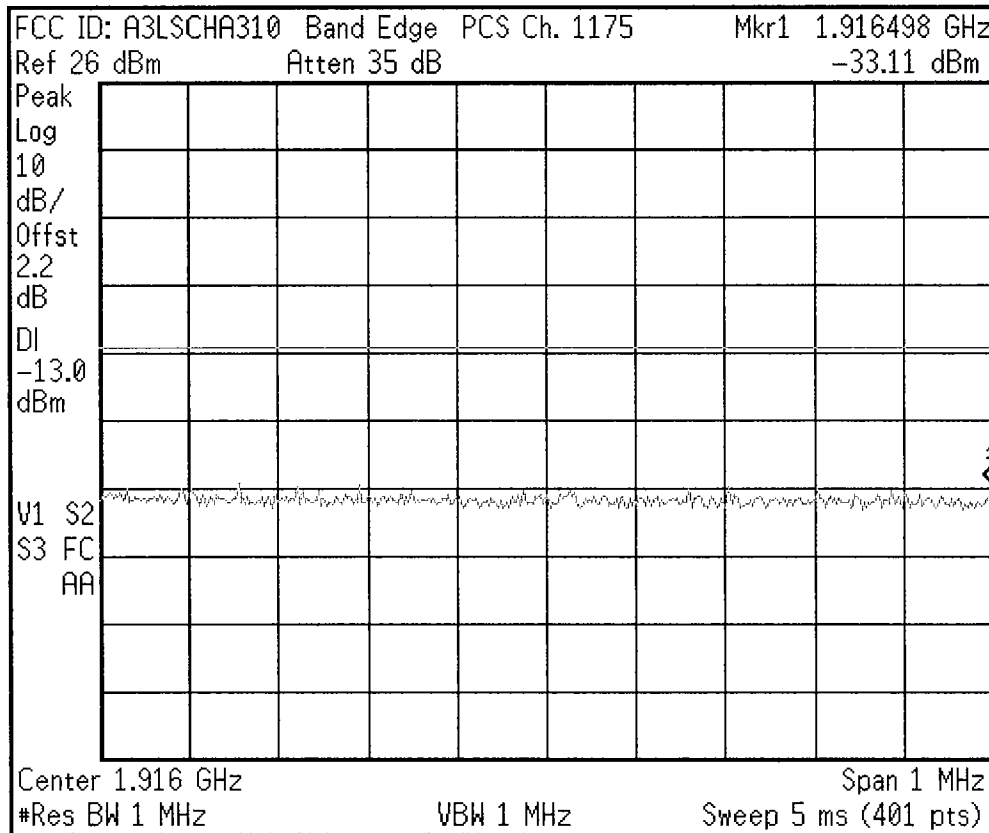
Freq/Channel
Center Freq 1.91400000 GHz
Start Freq 1.91350000 GHz
Stop Freq 1.91450000 GHz
CF Step 100.000000 kHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off

* Agilent 13:56:47 Mar 4, 2002



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 13:57:45 Mar 4, 2002



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

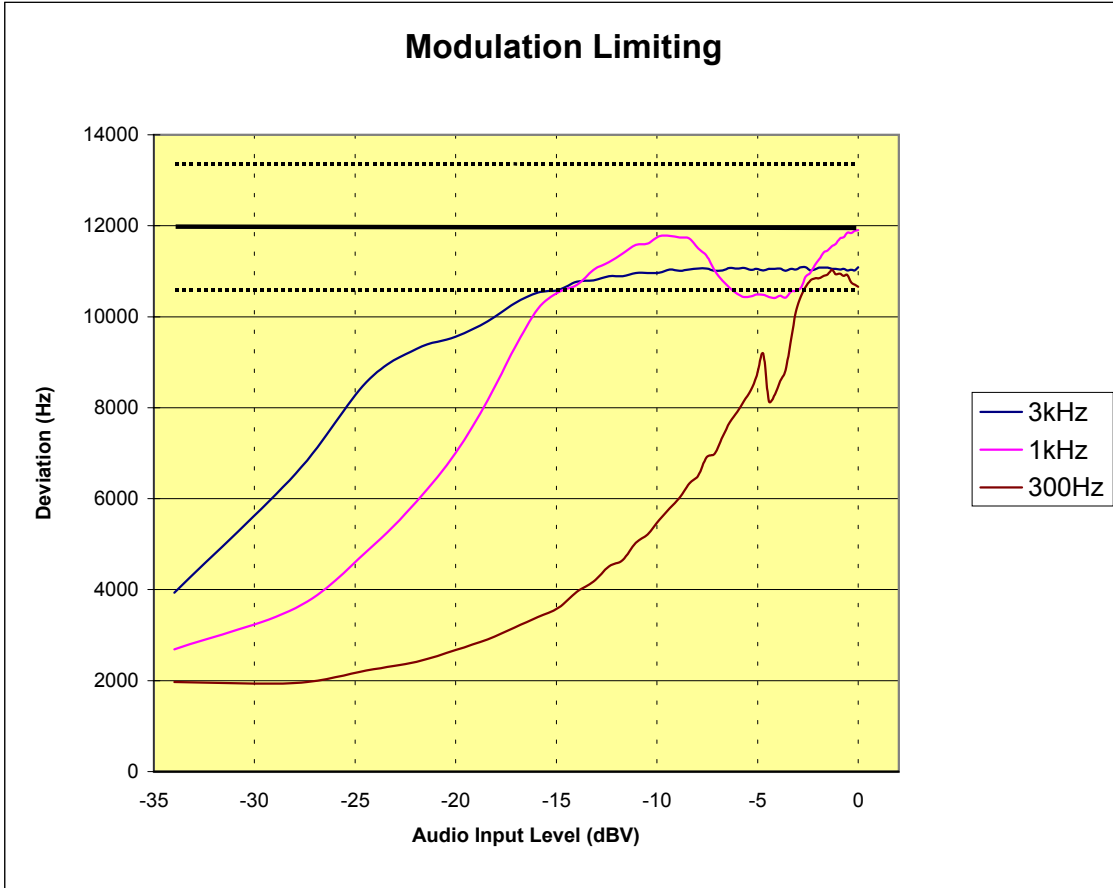
PCTEST Engineering Lab., Inc.

SUBJECT: Modulation Characteristics
FCC Part 24/22

Test Report No.: 24/22.220219076.A3L
Test Date: 02.20 - 03.01.2002

EUT: SAMSUNG Tri-Mode Dual-Band Analog/PCS Phone (AMPS/CDMA)
Model: SCH-A310
FCC ID: A3LSCHA310

REFERENCE: 1 kHz = 0 dB



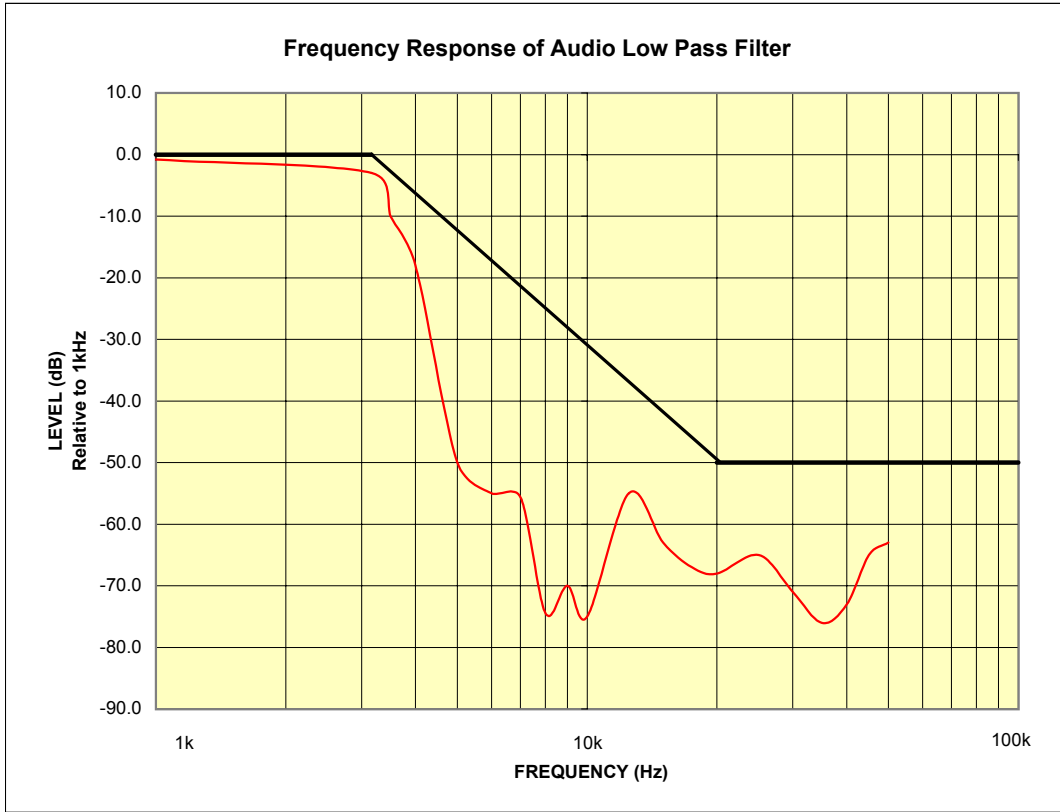
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