

# PCTEST Engineering Lab.

## SPECTRUM ANALYZER PRESENTATION

FCC ID: QMNRH-44

NOKIA

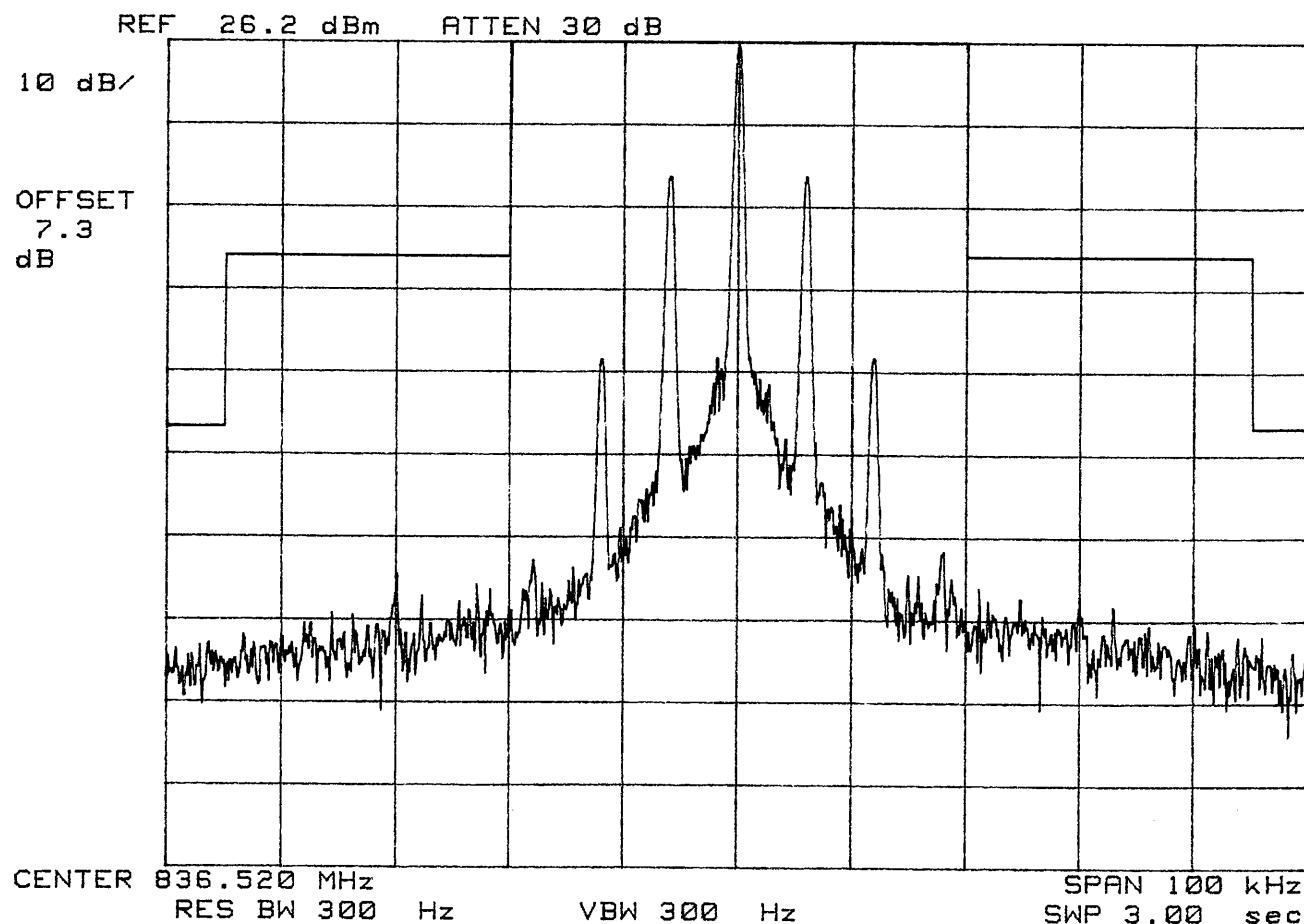
Tri-Mode Phone

FM Channel 384

Operating Frequency: 836.520 MHz

Output Power : 26.2 dBm

Test Mode: SAT



# PCTEST Engineering Lab.

## SPECTRUM ANALYZER PRESENTATION

FCC ID: QMNRH-44

NOKIA

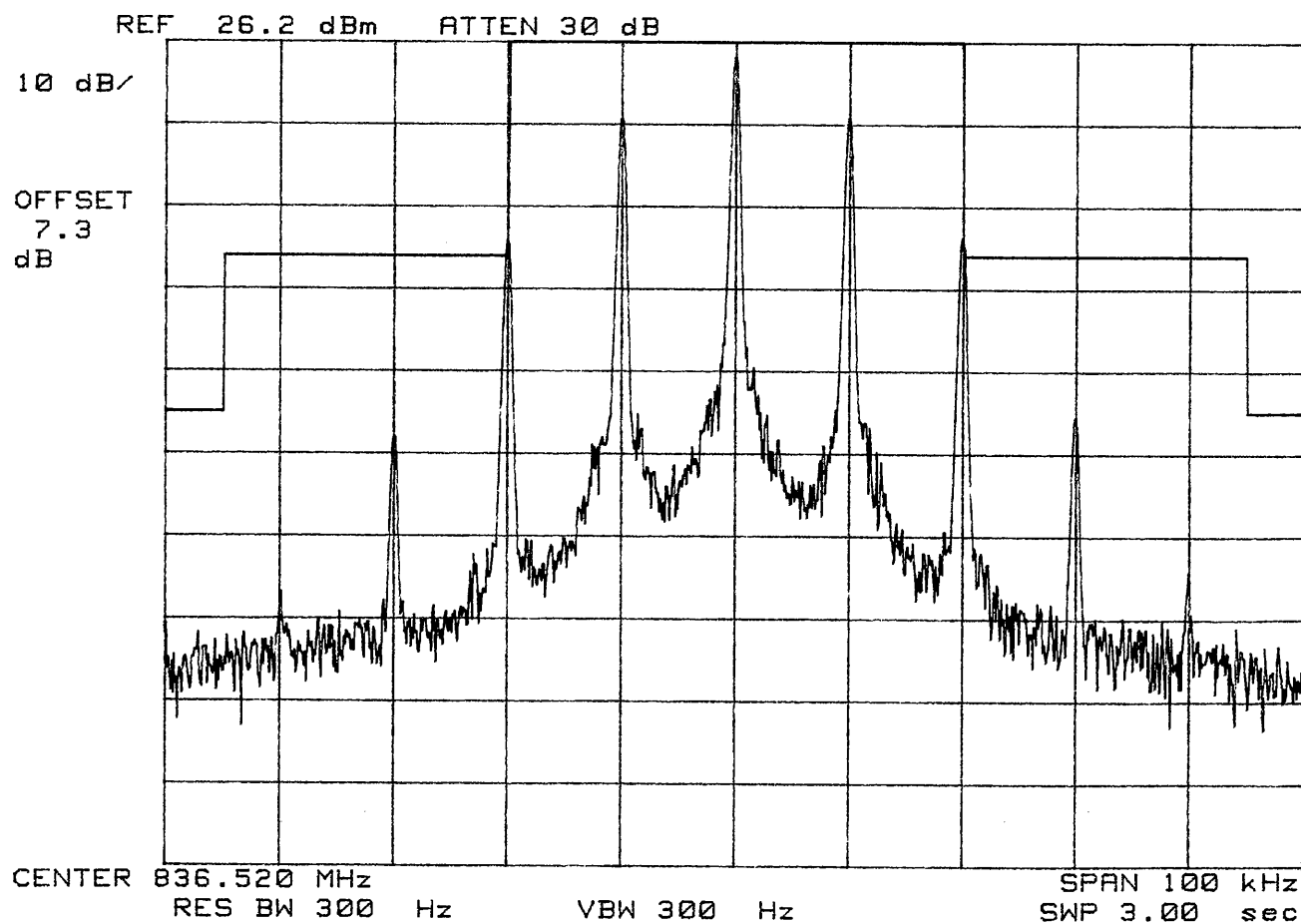
Tri-Mode Phone

FM Channel 384

Operating Frequency: 836.520 MHz

Output Power : 26.2 dBm

Test Mode: ST



# PCTEST Engineering Lab.

## SPECTRUM ANALYZER PRESENTATION

FCC ID: QMNRH-44

NOKIA

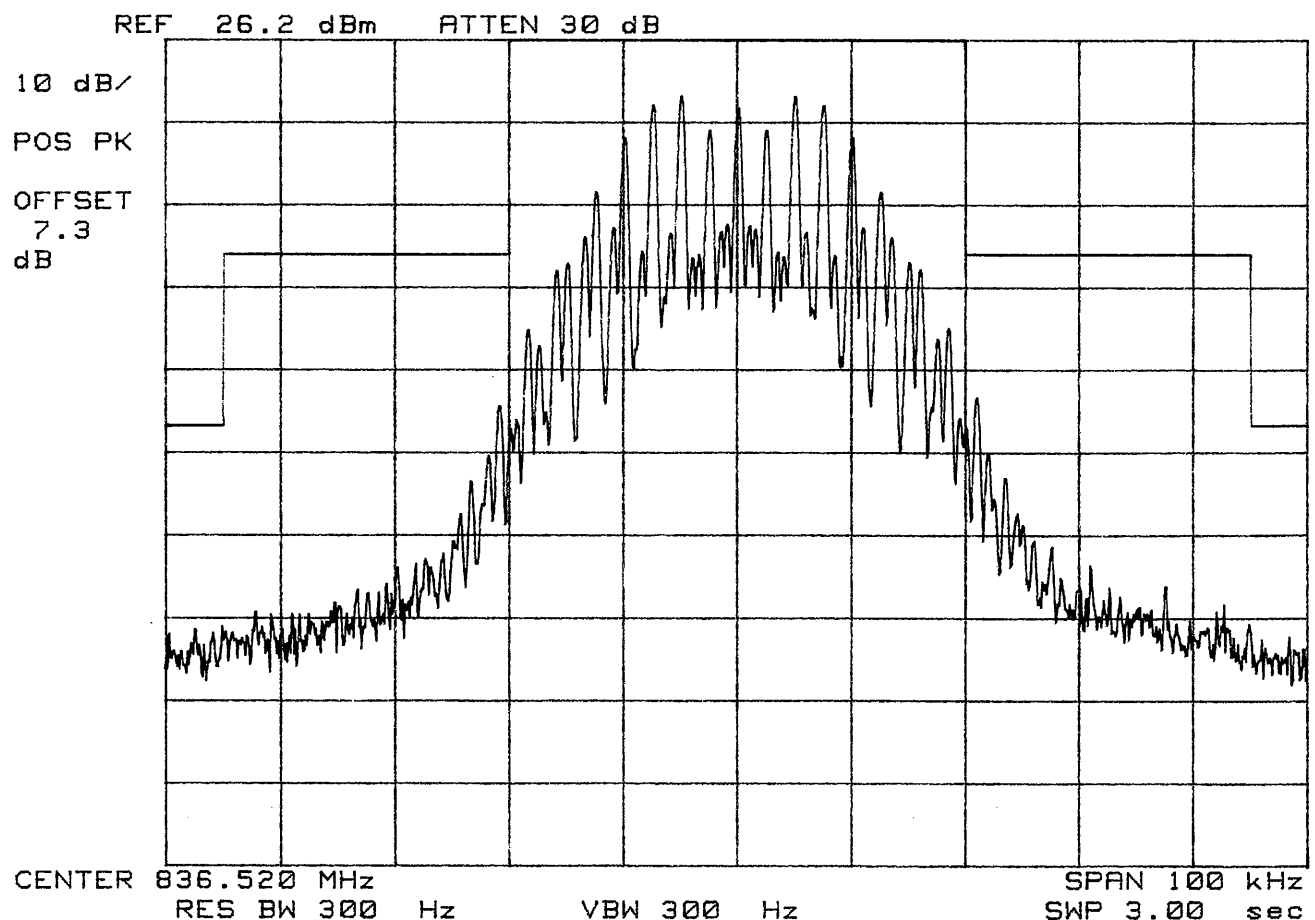
Tri-Mode Phone

FM Channel 384

Operating Frequency: 836.520 MHz

Output Power : 26.2 dBm

Test Mode: SAT + Voice



# PCTEST Engineering Lab.

## SPECTRUM ANALYZER PRESENTATION

FCC ID:QMNRH-44

NOKIA

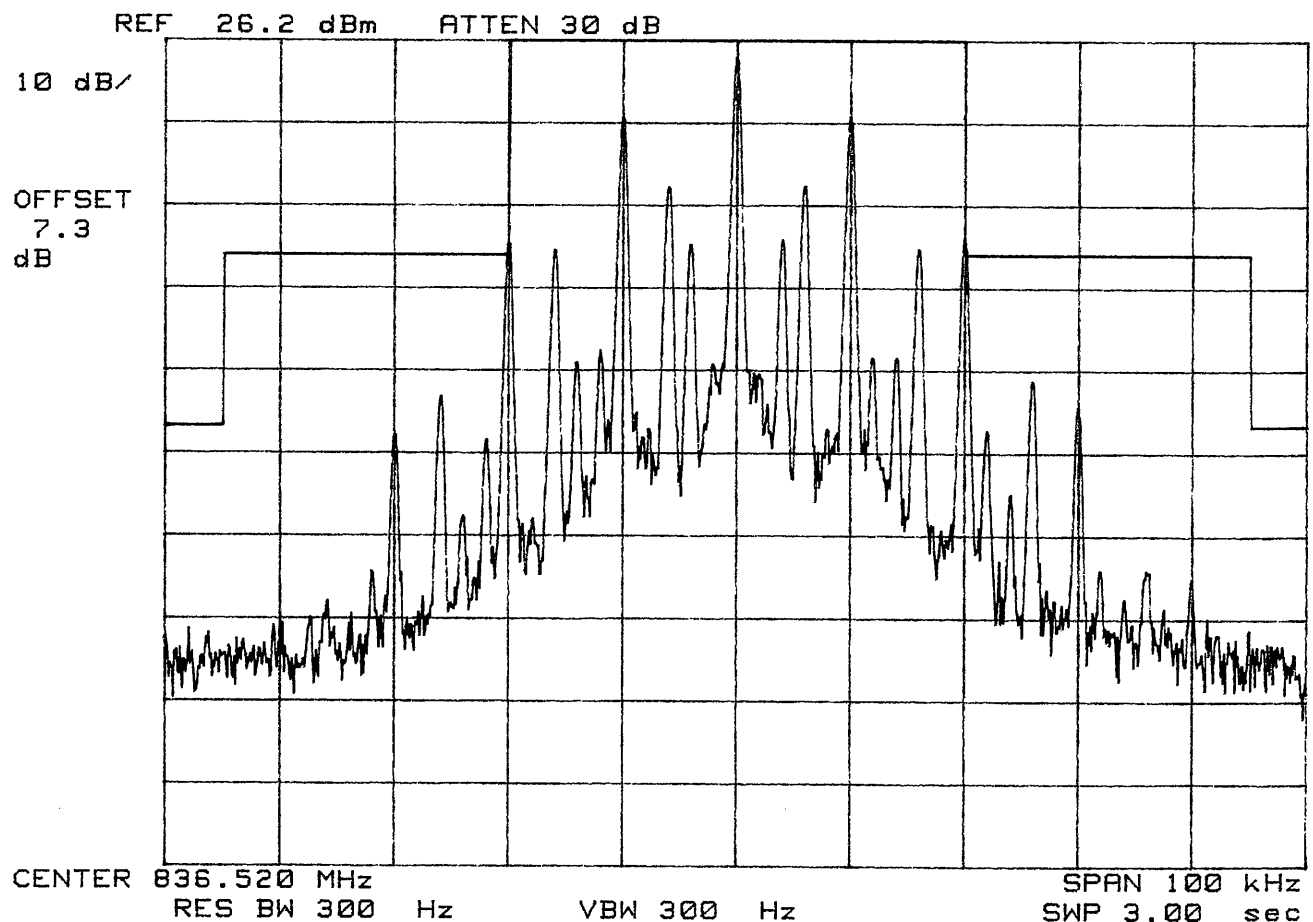
Tri-Mode Phone

FM Channel 384

Operating Frequency: 836.520 MHz

Output Power : 26.2 dBm

Test Mode:SAT + ST



# PCTEST Engineering Lab.

## SPECTRUM ANALYZER PRESENTATION

FCC ID: QMNRH-44

NOKIA

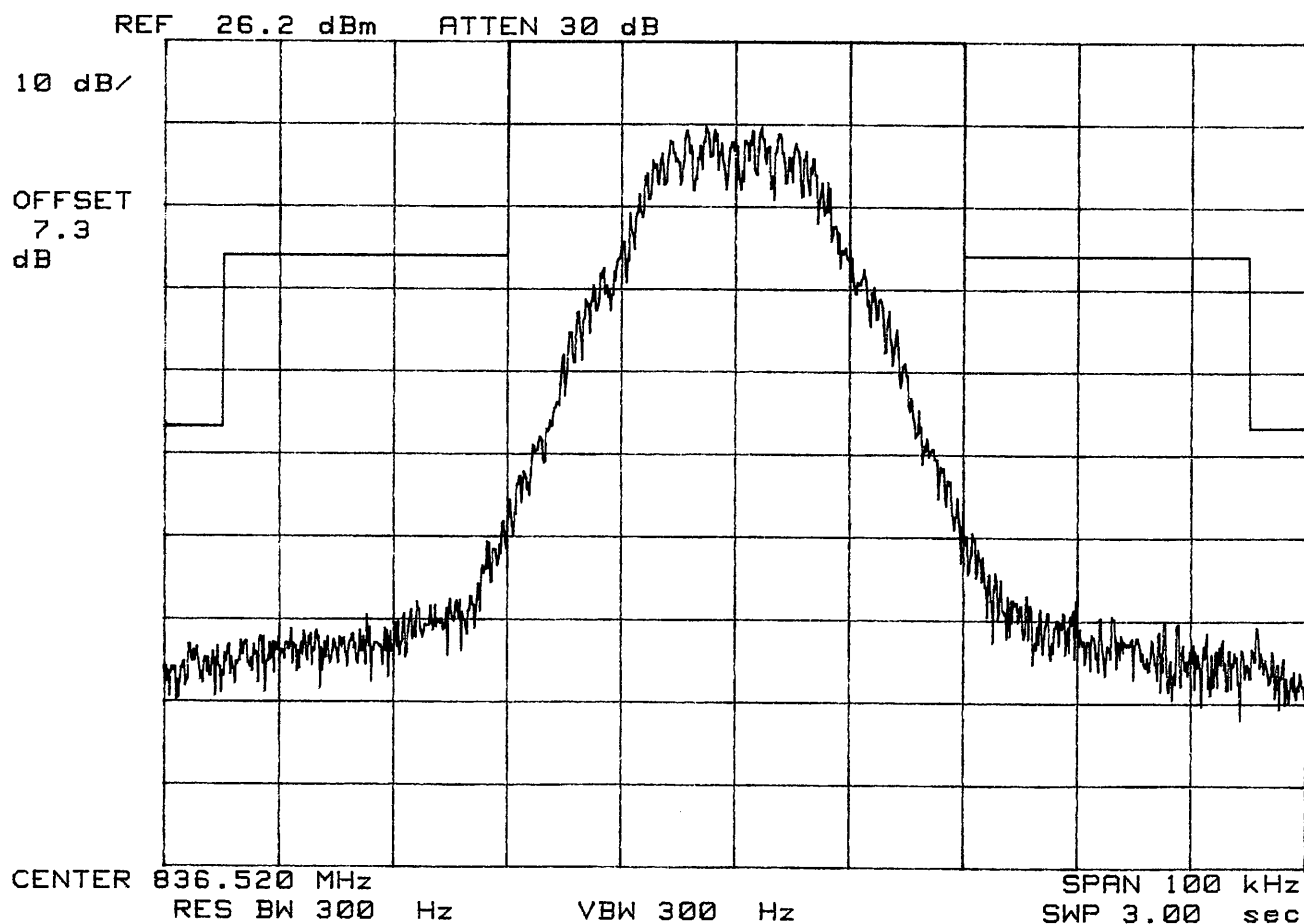
Tri-Mode Phone

FM Channel 384

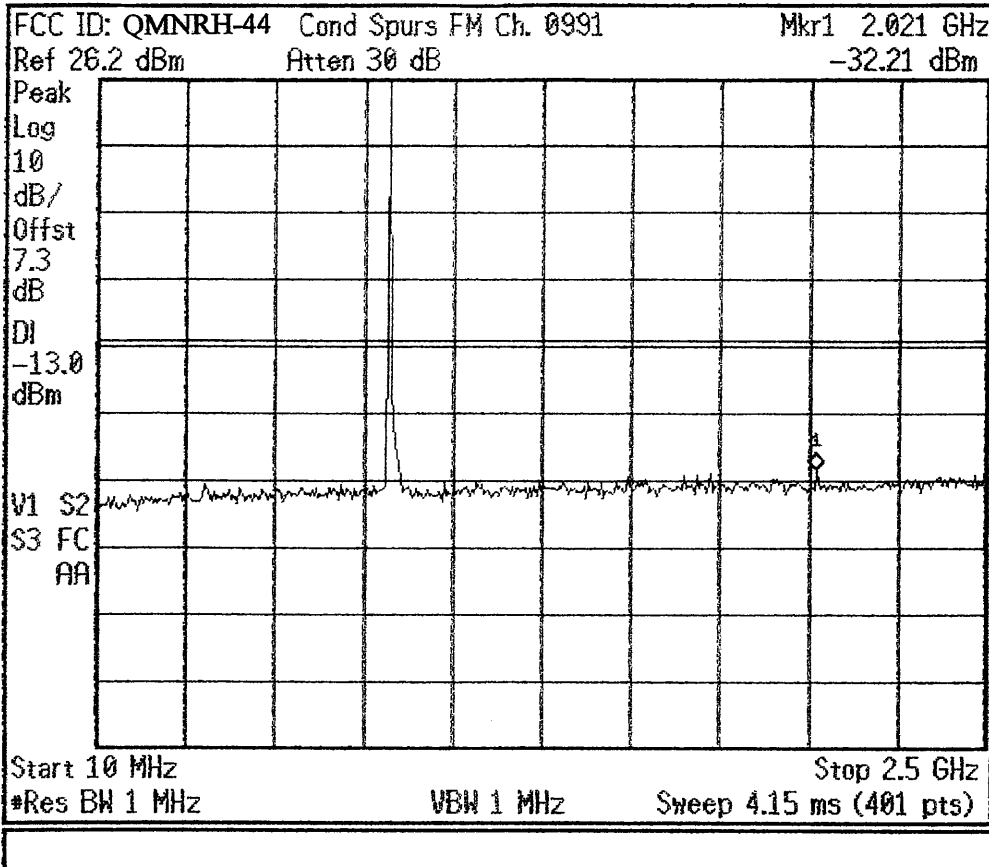
Operating Frequency: 836.520 MHz

Output Power : 26.2 dBm

Test Mode: SAT + DTMF

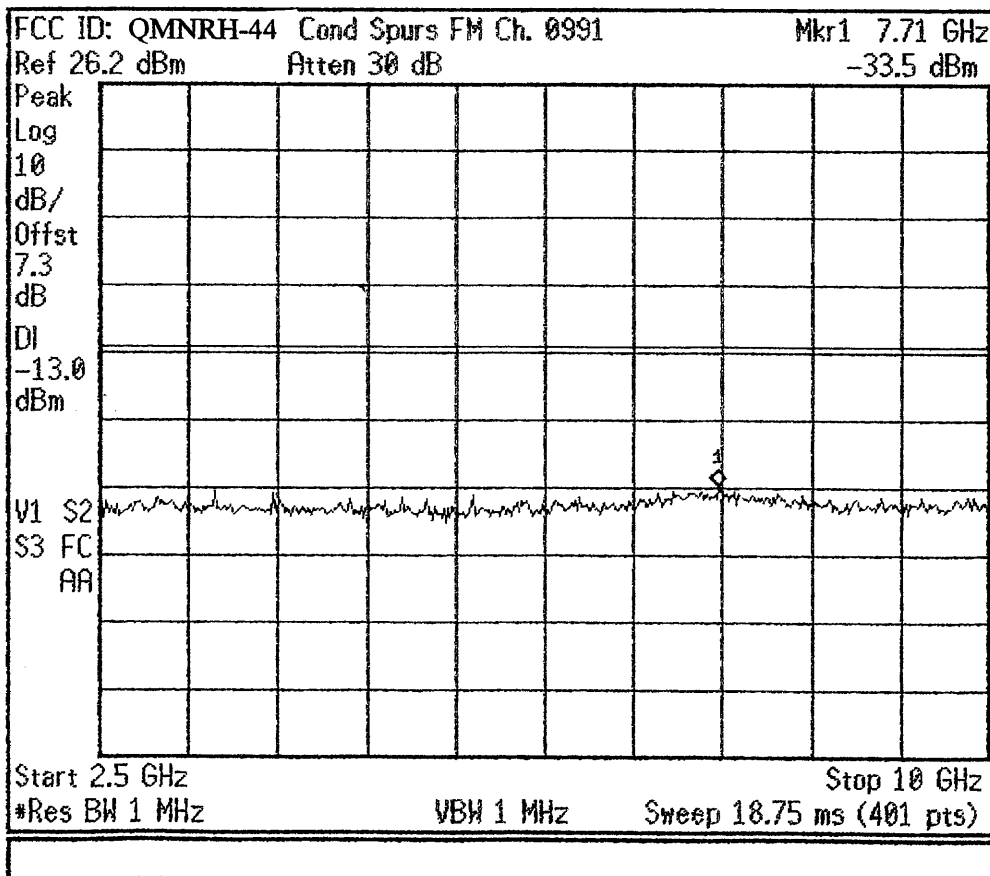


✱ Agilent 09:31:35



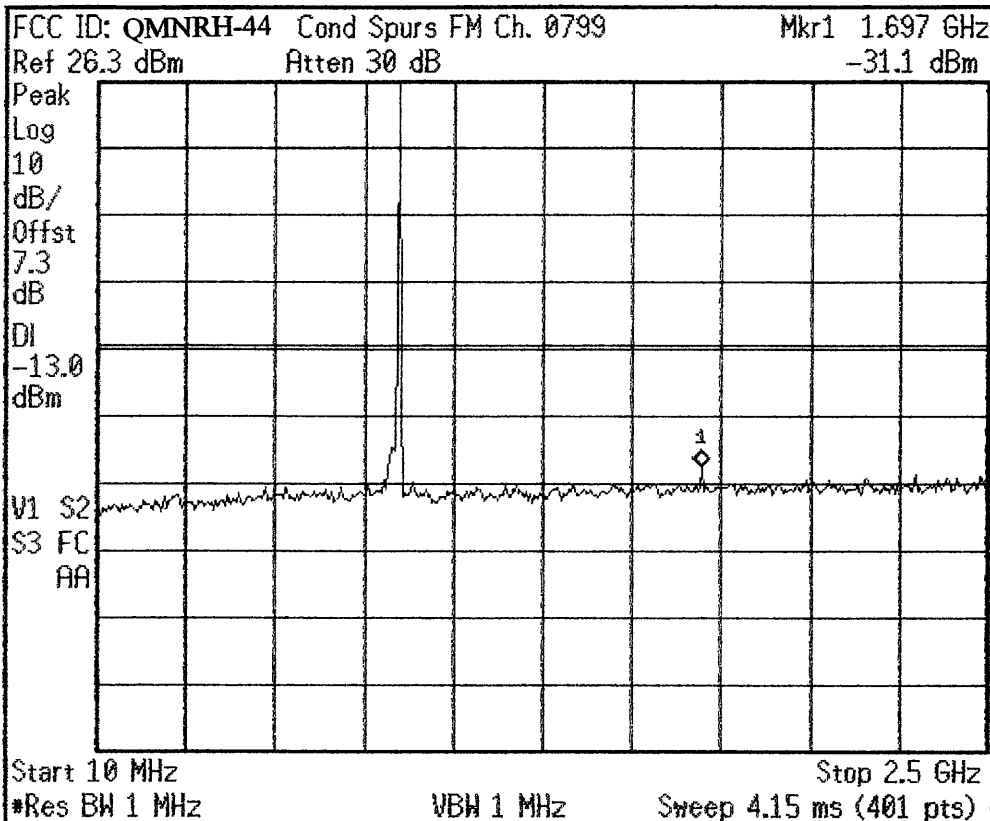
| Freq/Channel                          |
|---------------------------------------|
| Center Freq<br>1.25500000 GHz         |
| Start Freq<br>10.0000000 MHz          |
| Stop Freq<br>2.50000000 GHz           |
| CF Step<br>249.000000 MHz<br>Auto Man |
| Freq Offset<br>0.00000000 Hz          |
| Signal Track<br>On Off                |
| Scale Type<br>Log Lin                 |

✱ Agilent 09:32:17



| Freq/Channel                          |
|---------------------------------------|
| Center Freq<br>6.25000000 GHz         |
| Start Freq<br>2.50000000 GHz          |
| Stop Freq<br>10.0000000 GHz           |
| CF Step<br>750.000000 MHz<br>Auto Man |
| Freq Offset<br>0.00000000 Hz          |
| Signal Track<br>On Off                |
| Scale Type<br>Log Lin                 |

\* Agilent 09:33:39



Freq/Channel

Center Freq  
 1.25500000 GHz

Start Freq  
 10.0000000 MHz

Stop Freq  
 2.50000000 GHz

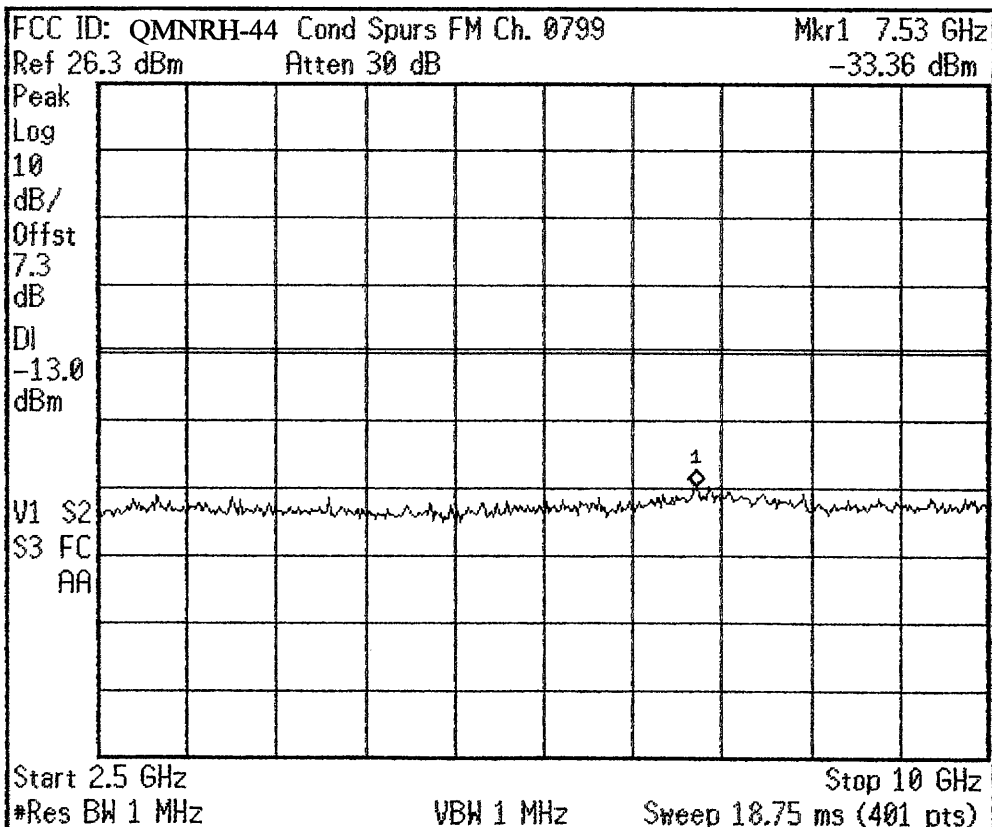
CF Step  
 249.000000 MHz  
 Auto Man

Freq Offset  
 0.00000000 Hz

Signal Track  
 On Off

Scale Type  
 Log Lin

\* Agilent 09:34:19



Freq/Channel

Center Freq  
 6.25000000 GHz

Start Freq  
 2.50000000 GHz

Stop Freq  
 10.0000000 GHz

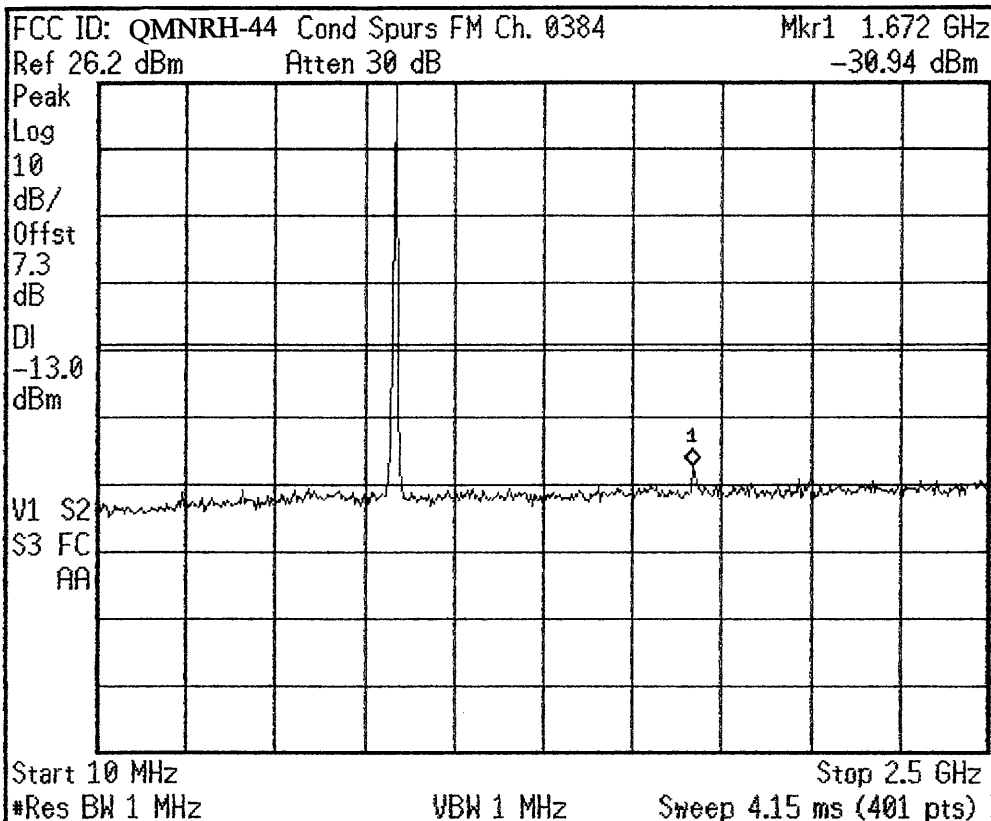
CF Step  
 750.000000 MHz  
 Auto Man

Freq Offset  
 0.00000000 Hz

Signal Track  
 On Off

Scale Type  
 Log Lin

\* Agilent 09:29:53



Freq/Channel

Center Freq  
 1.25500000 GHz

Start Freq  
 10.0000000 MHz

Stop Freq  
 2.50000000 GHz

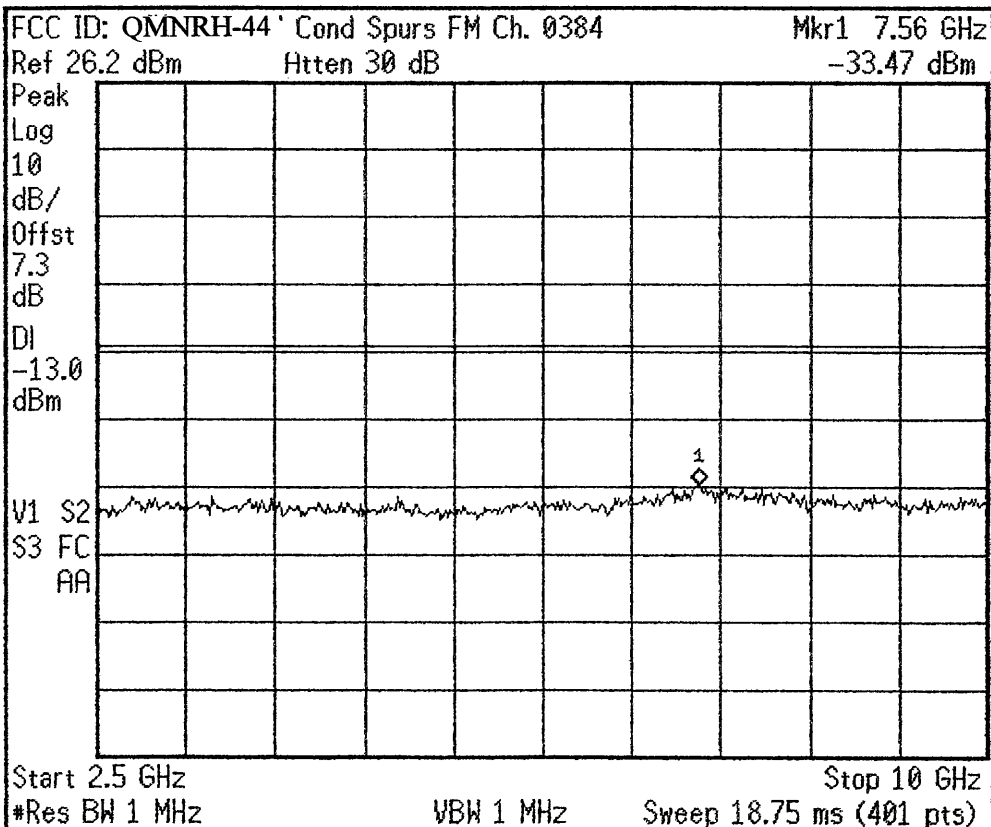
CF Step  
 249.000000 MHz  
 Auto Man

Freq Offset  
 0.00000000 Hz

Signal Track  
 On Off

Scale Type  
 Log Lin

\* Agilent 09:30:33



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

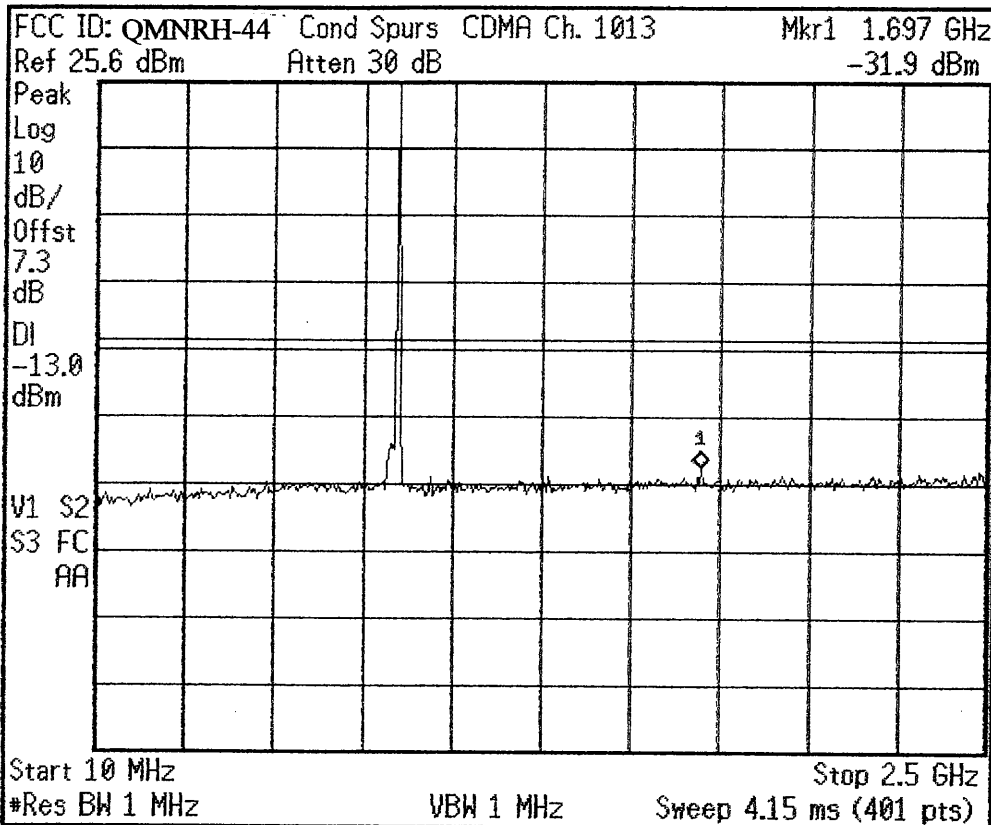
Signal Track  
 On Off

Scale Type  
 Log Lin



\* Agilent 07:13:40

L



Freq/Channel

Center Freq  
 1.25000000 GHz

Start Freq  
 10.00000000 MHz

Stop Freq  
 2.50000000 GHz

CF Step  
 249.0000000 MHz  
 Auto Man

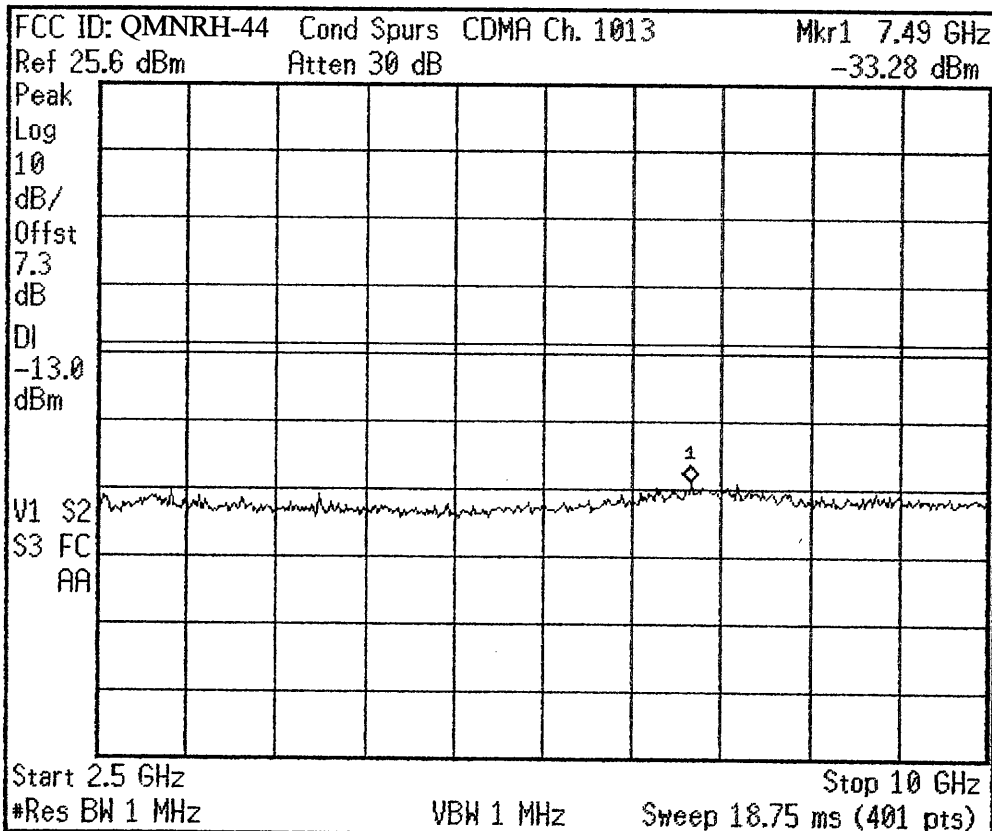
Freq Offset  
 0.00000000 Hz

Signal Track  
 On Off

Scale Type  
 Log Lin

\* Agilent 07:14:59

L



Freq/Channel

Center Freq  
 6.25000000 GHz

Start Freq  
 2.50000000 GHz

Stop Freq  
 10.00000000 GHz

CF Step  
 750.0000000 MHz  
 Auto Man

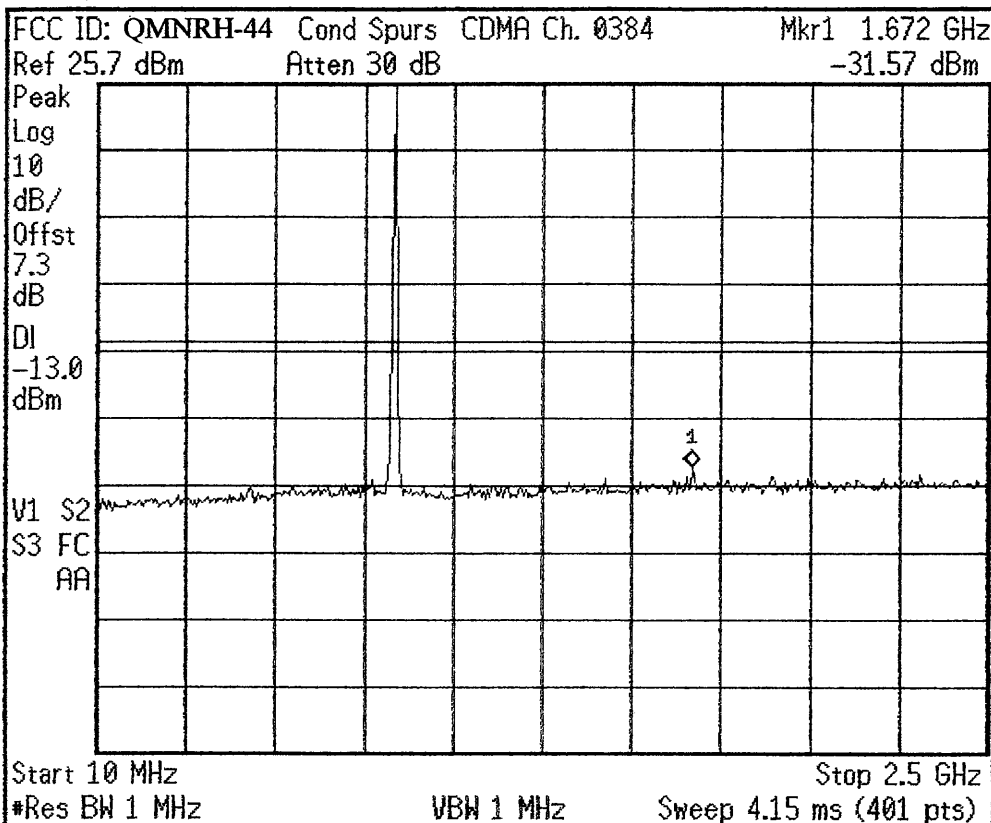
Freq Offset  
 0.00000000 Hz

Signal Track  
 On Off

Scale Type  
 Log Lin

\* Agilent 07:16:25

L



Freq/Channel

Center Freq  
 1.25500000 GHz

Start Freq  
 10.0000000 MHz

Stop Freq  
 2.50000000 GHz

CF Step  
 249.000000 MHz  
 Auto Man

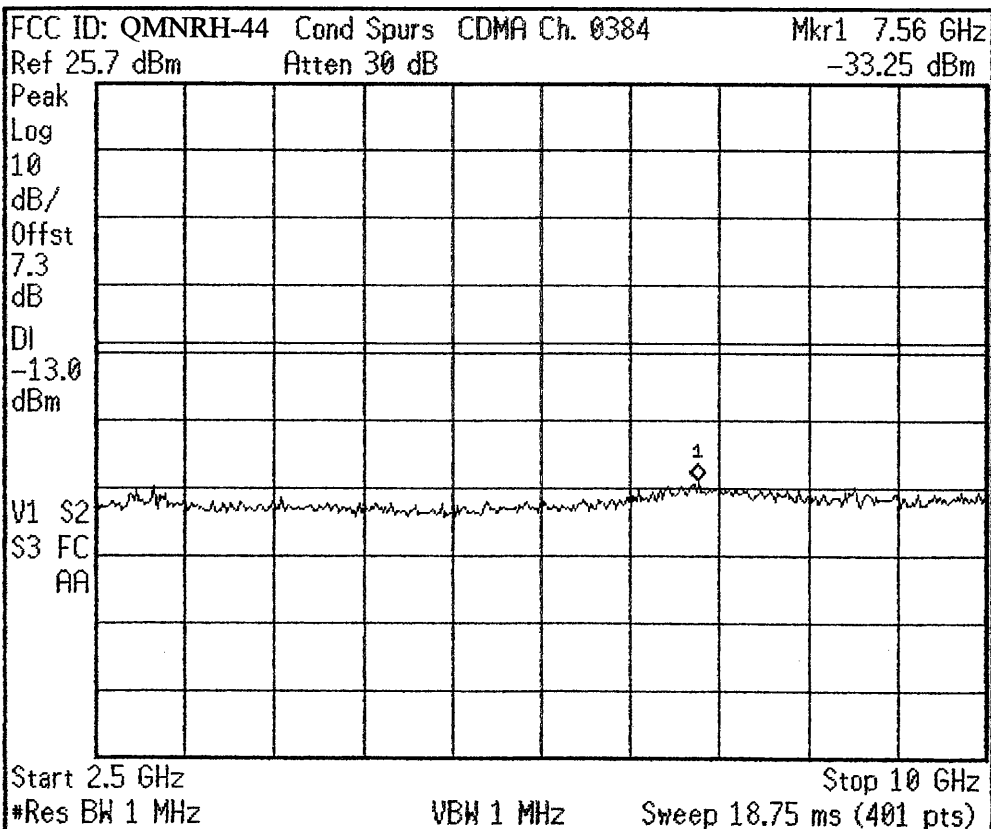
Freq Offset  
 0.00000000 Hz

Signal Track  
 On Off

Scale Type  
 Log Lin

\* Agilent 07:17:31

L



Freq/Channel

Center Freq  
 6.25000000 GHz

Start Freq  
 2.50000000 GHz

Stop Freq  
 10.0000000 GHz

CF Step  
 750.000000 MHz  
 Auto Man

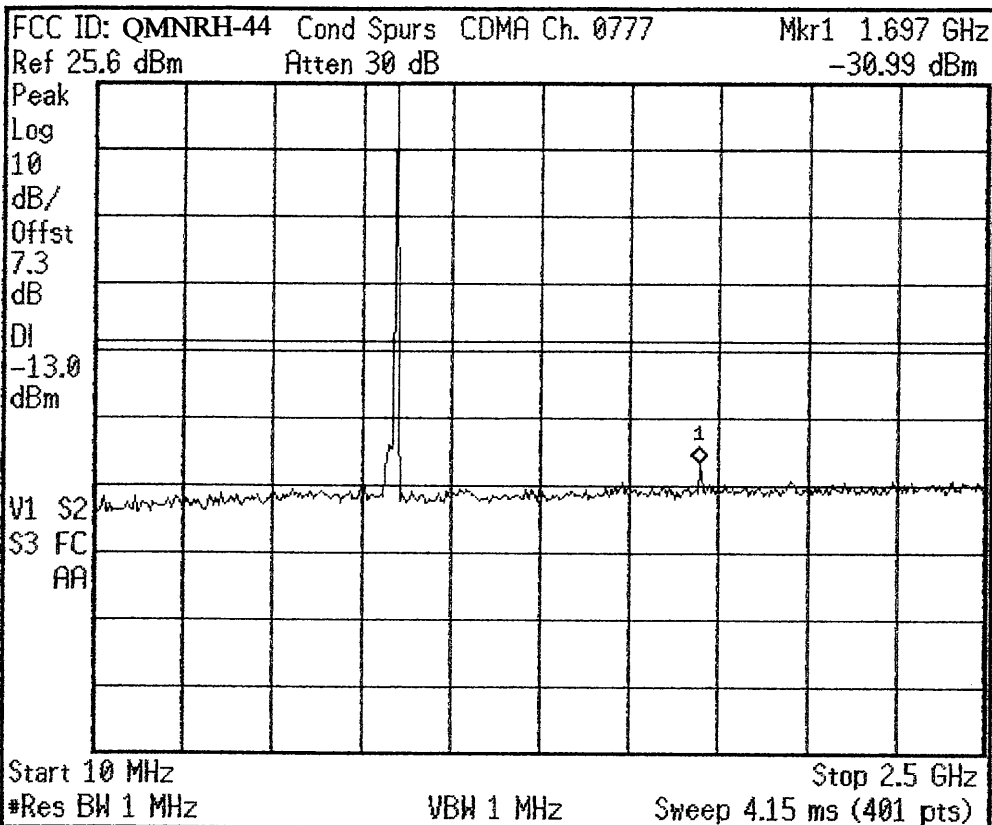
Freq Offset  
 0.00000000 Hz

Signal Track  
 On Off

Scale Type  
 Log Lin

✱ Agilent 07:20:05

L



Freq/Channel

Center Freq  
 1.25000000 GHz

Start Freq  
 10.0000000 MHz

Stop Freq  
 2.50000000 GHz

CF Step  
 249.000000 MHz  
 Auto Man

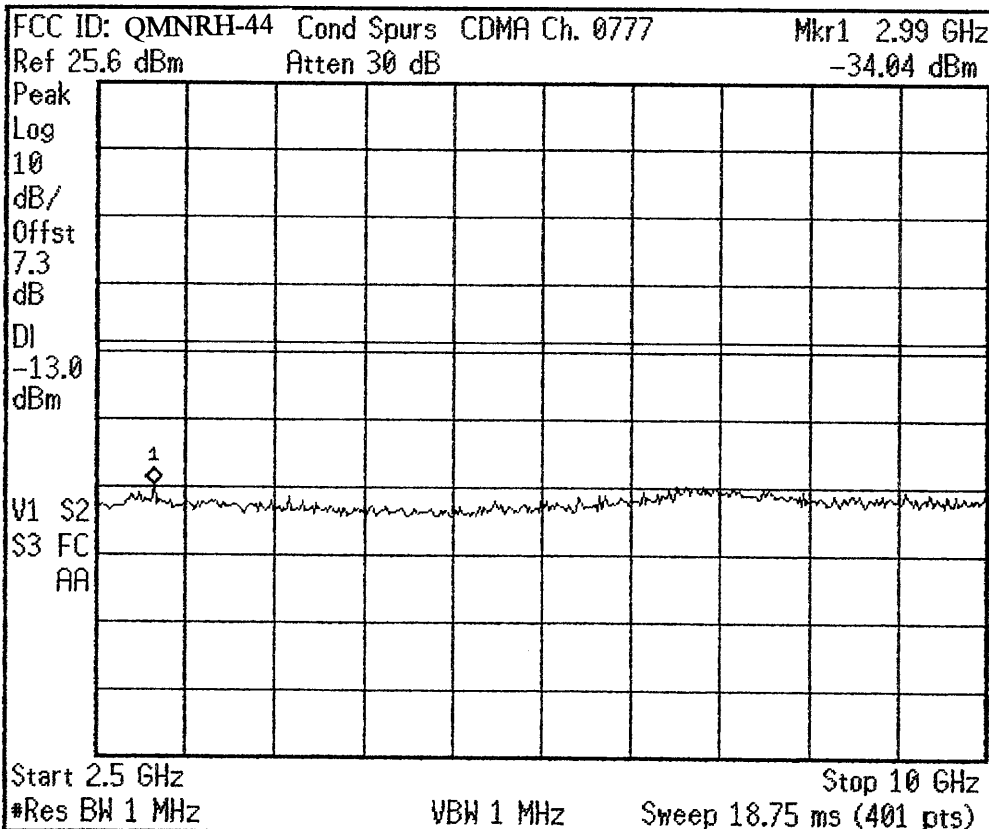
Freq Offset  
 0.00000000 Hz

Signal Track  
 On Off

Scale Type  
 Log Lin

✱ Agilent 07:21:20

L



Freq/Channel

Center Freq  
 6.25000000 GHz

Start Freq  
 2.50000000 GHz

Stop Freq  
 10.0000000 GHz

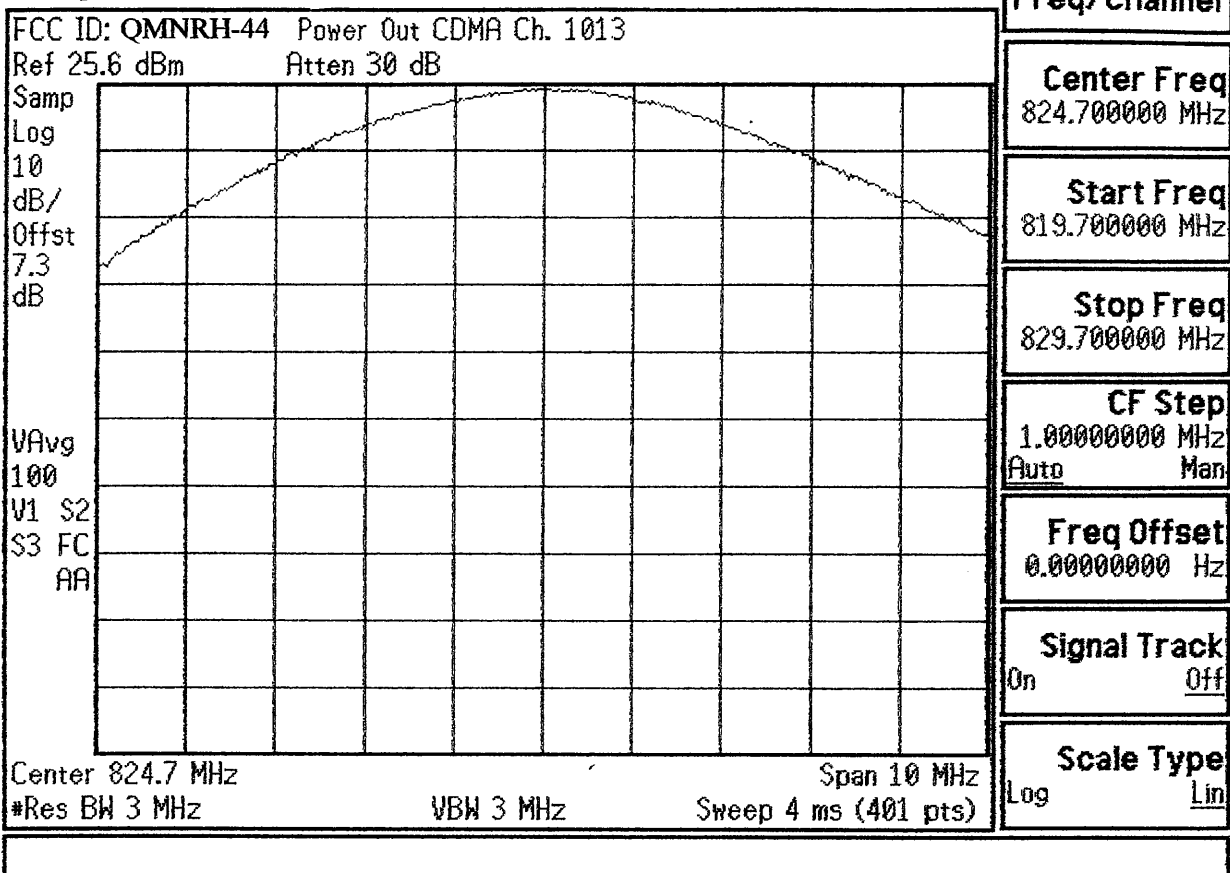
CF Step  
 750.000000 MHz  
 Auto Man

Freq Offset  
 0.00000000 Hz

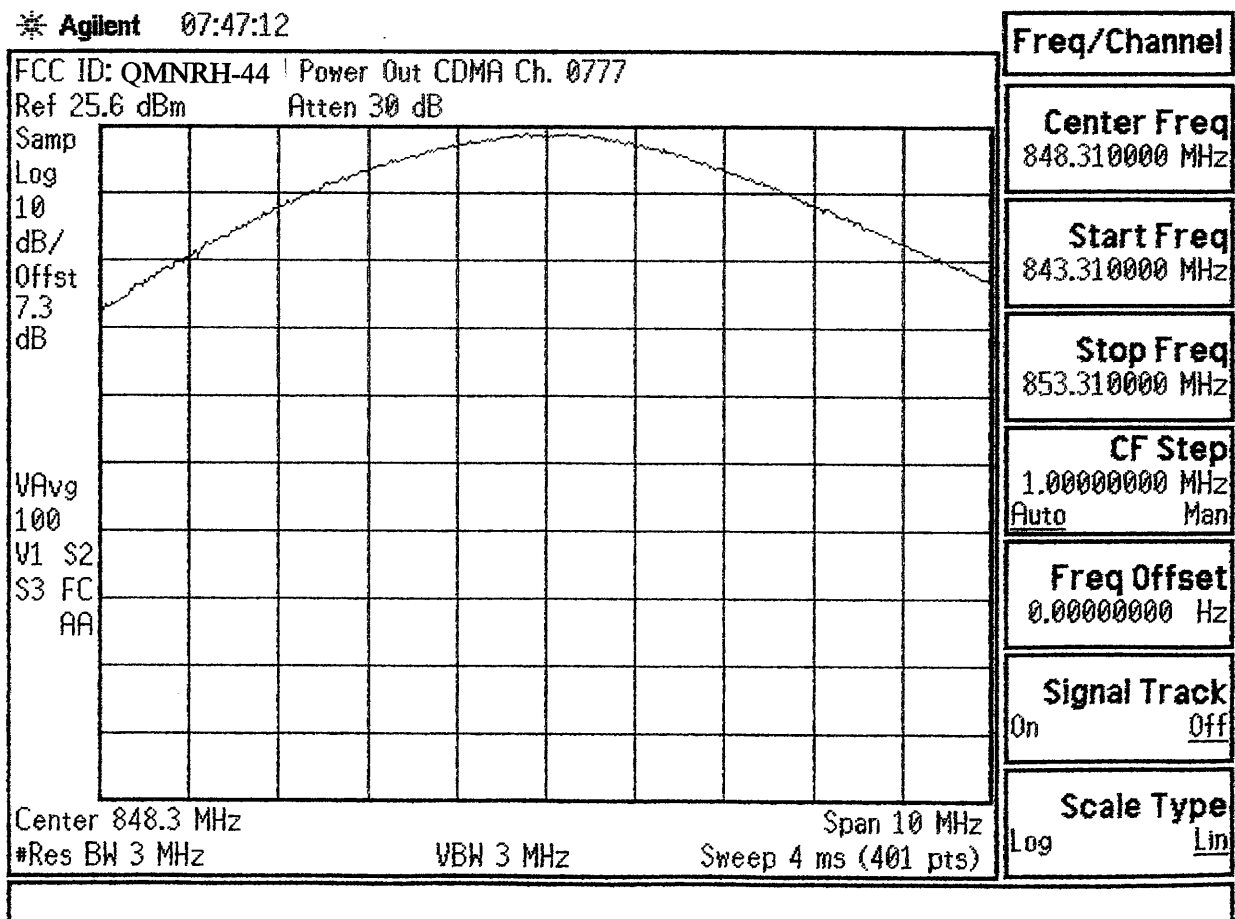
Signal Track  
 On Off

Scale Type  
 Log Lin

※ Agilent 07:44:52

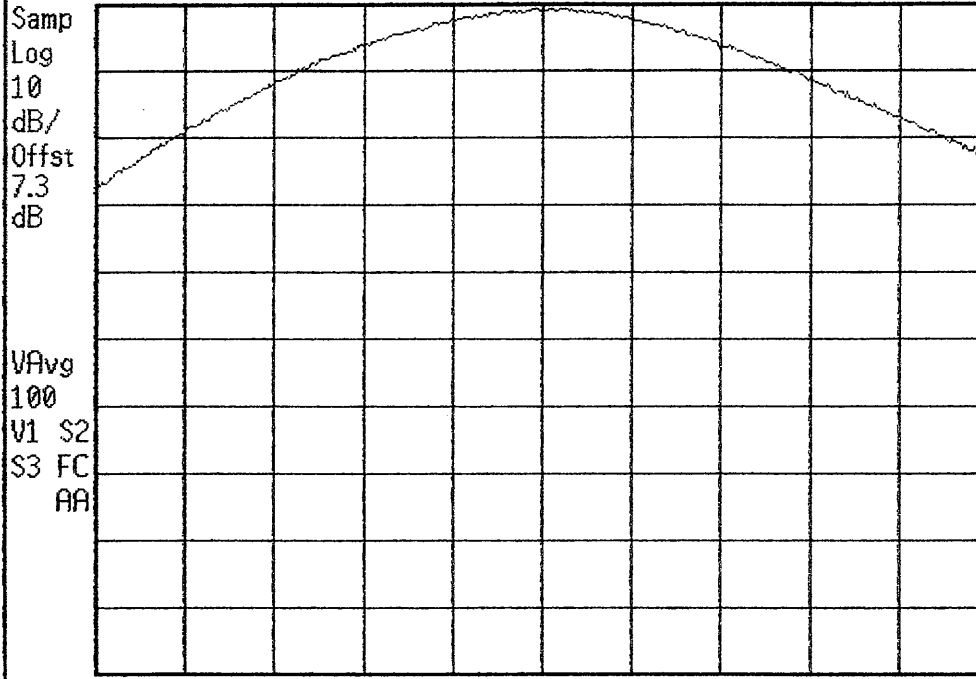


※ Agilent 07:47:12



\* Agilent 07:48:33

FCC ID: QMNRH-44 Power Out CDMA Ch. 0384  
Ref 25.7 dBm Atten 30 dB



Center 836.5 MHz Span 10 MHz  
\*Res BW 3 MHz VBW 3 MHz Sweep 4 ms (401 pts)

Freq/Channel

Center Freq  
836.520000 MHz

Start Freq  
831.520000 MHz

Stop Freq  
841.520000 MHz

CF Step  
1.00000000 MHz  
Auto Man

Freq Offset  
0.00000000 Hz

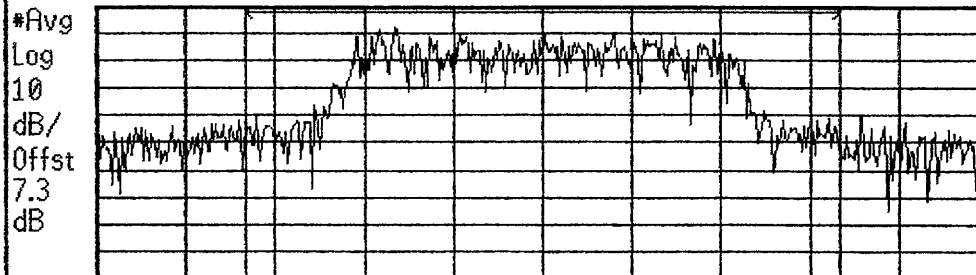
Signal Track  
On Off

Scale Type  
Log Lin

\* Agilent 07:52:02

Ch Freq 836.52 MHz Trig Free  
Channel Power

FCC ID: QMNRH-44 Power Out CDMA Ch. 0384  
Ref 25.7 dBm Atten 30 dB



Center 836.5 MHz Span 3 MHz  
Res BW 30 kHz VBW 300 kHz Sweep 8 ms (401 pts)

Channel Power

25.71 dBm /2.0000 MHz

Power Spectral Density

-37.30 dBm/Hz

Freq/Channel

Center Freq  
836.520000 MHz

Start Freq  
835.020000 MHz

Stop Freq  
838.020000 MHz

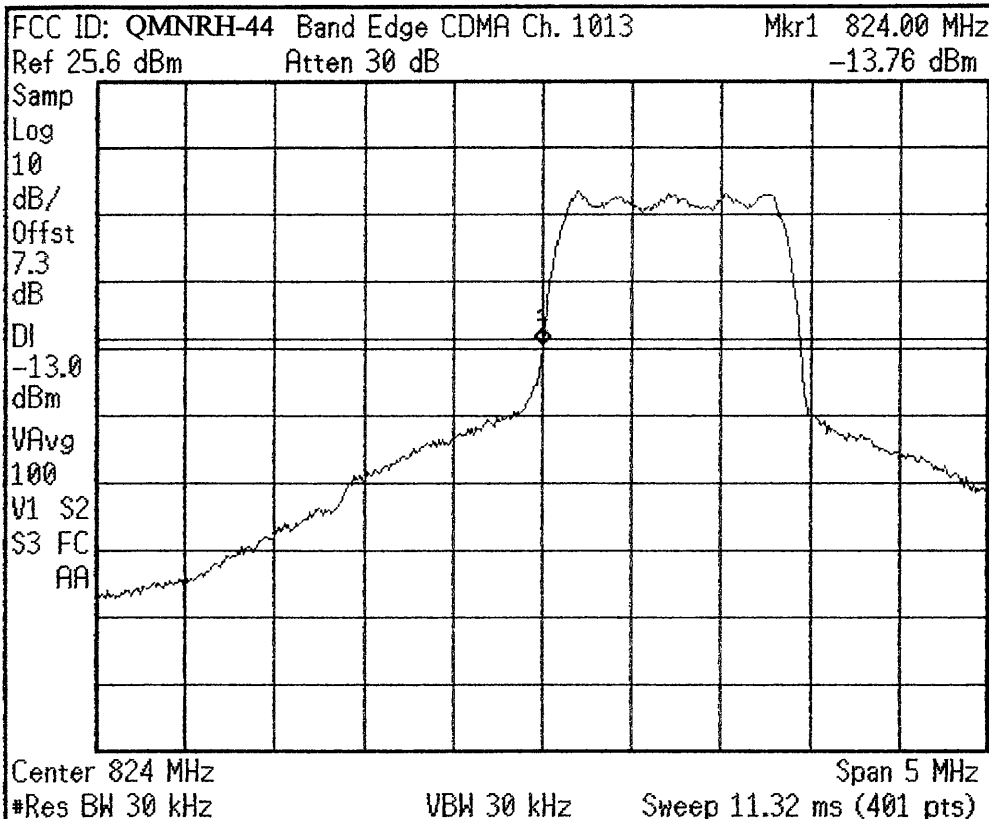
CF Step  
300.000000 kHz  
Auto Man

Freq Offset  
0.00000000 Hz

Signal Track  
On Off

Scale Type  
Log Lin

\* Agilent 08:52:47



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

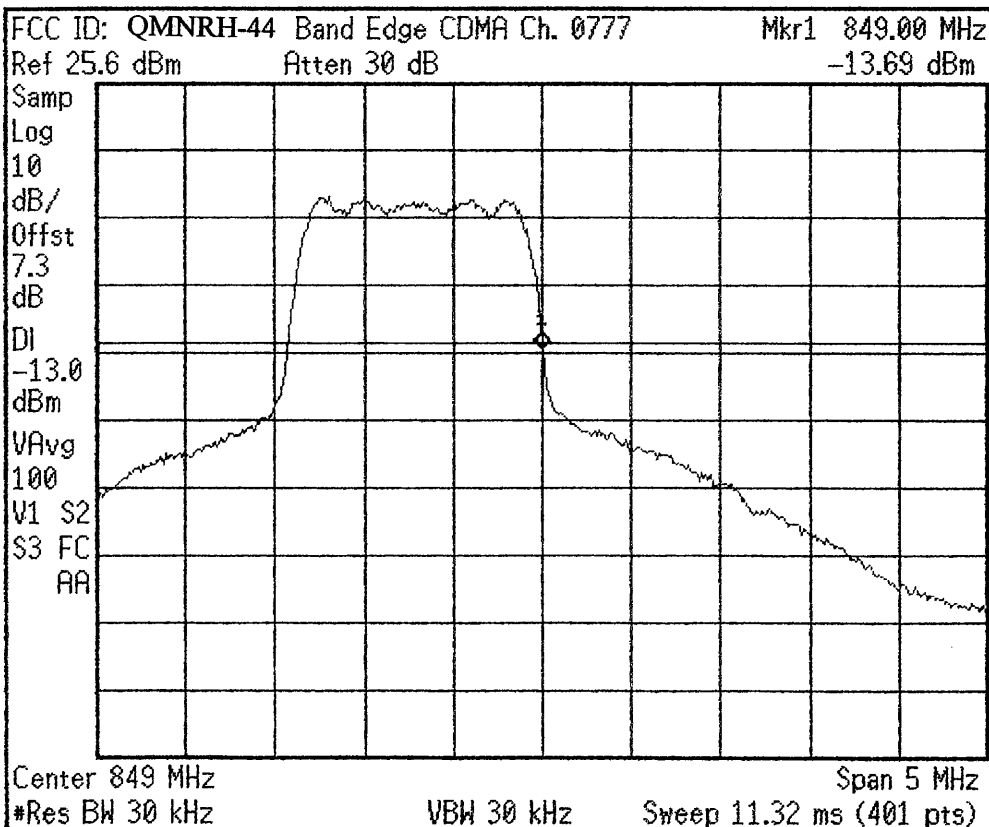
Off

Scale Type

Log

Lin

\* Agilent 09:01:52



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

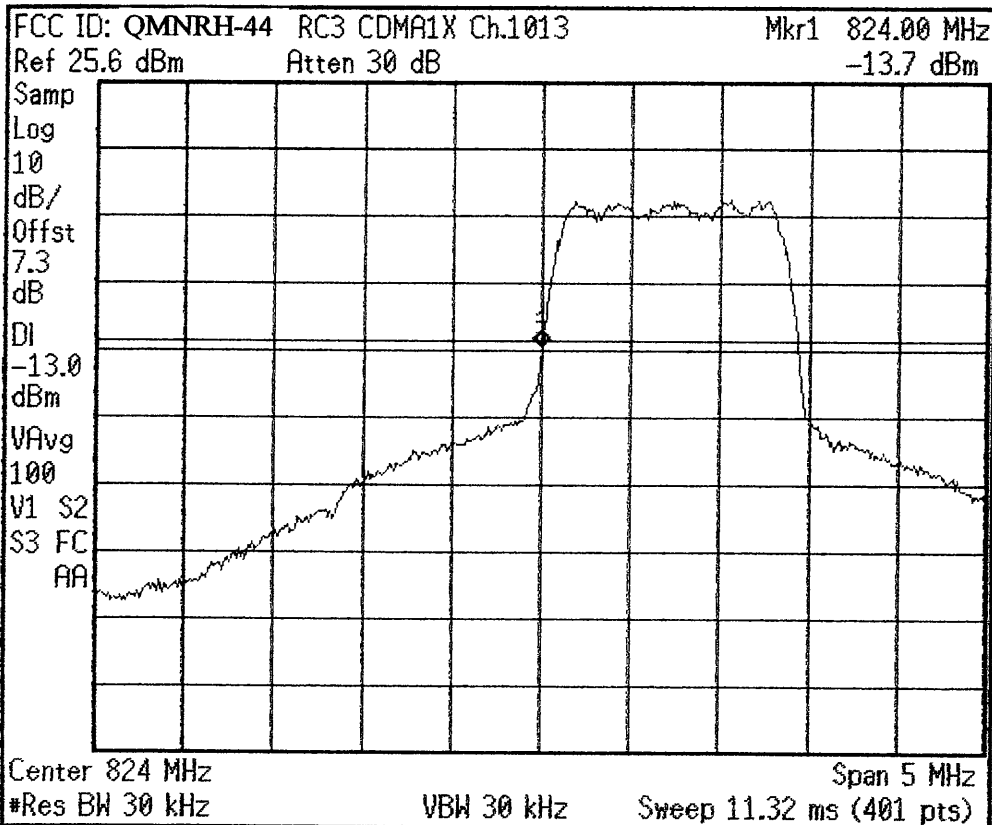
Off

Scale Type

Log

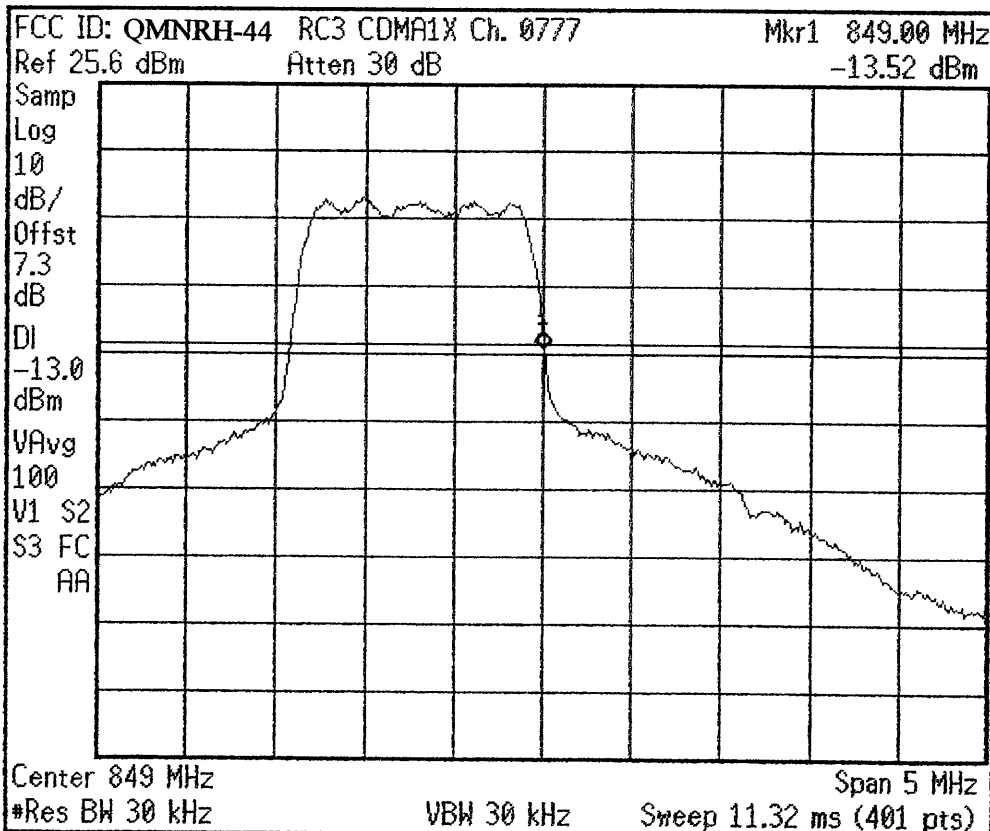
Lin

✱ Agilent 09:04:02



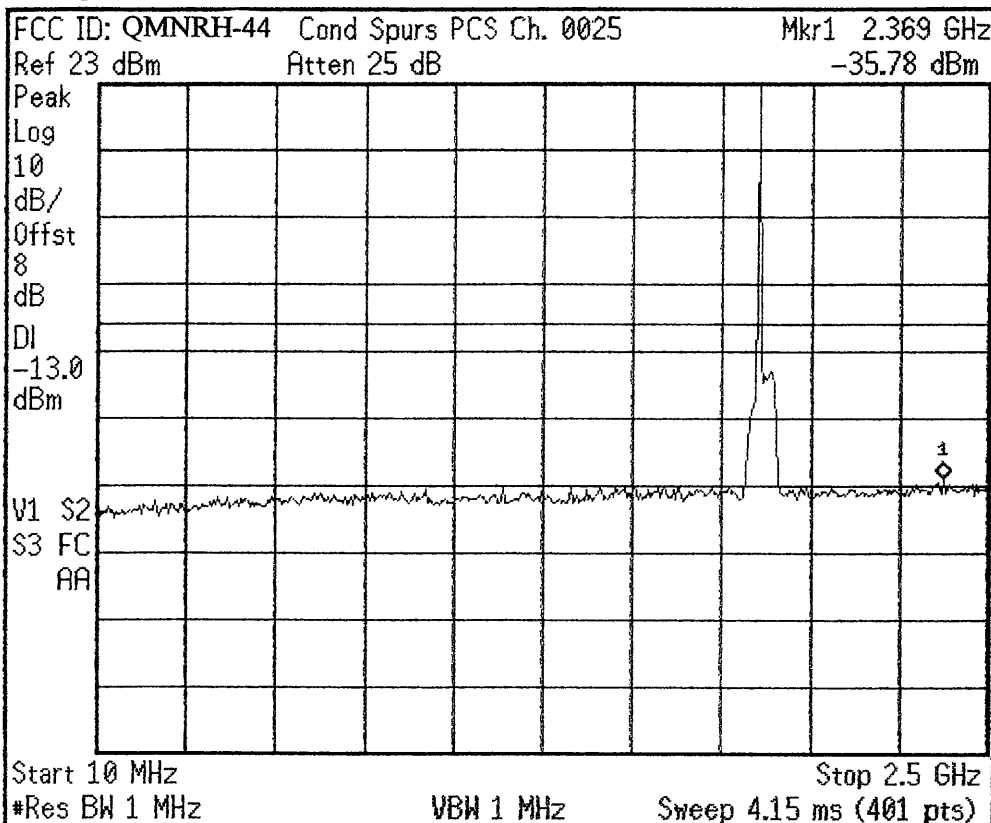
| Freq/Channel                          |
|---------------------------------------|
| Center Freq<br>824.000000 MHz         |
| Start Freq<br>821.500000 MHz          |
| Stop Freq<br>826.500000 MHz           |
| CF Step<br>500.000000 kHz<br>Auto Man |
| Freq Offset<br>0.00000000 Hz          |
| Signal Track<br>On Off                |
| Scale Type<br>Log Lin                 |

✱ Agilent 09:05:51



| Freq/Channel                          |
|---------------------------------------|
| Center Freq<br>849.000000 MHz         |
| Start Freq<br>846.500000 MHz          |
| Stop Freq<br>851.500000 MHz           |
| CF Step<br>500.000000 kHz<br>Auto Man |
| Freq Offset<br>0.00000000 Hz          |
| Signal Track<br>On Off                |
| Scale Type<br>Log Lin                 |

Agilent 08:08:51



Freq/Channel

Center Freq  
 1.25000000 GHz

Start Freq  
 10.0000000 MHz

Stop Freq  
 2.50000000 GHz

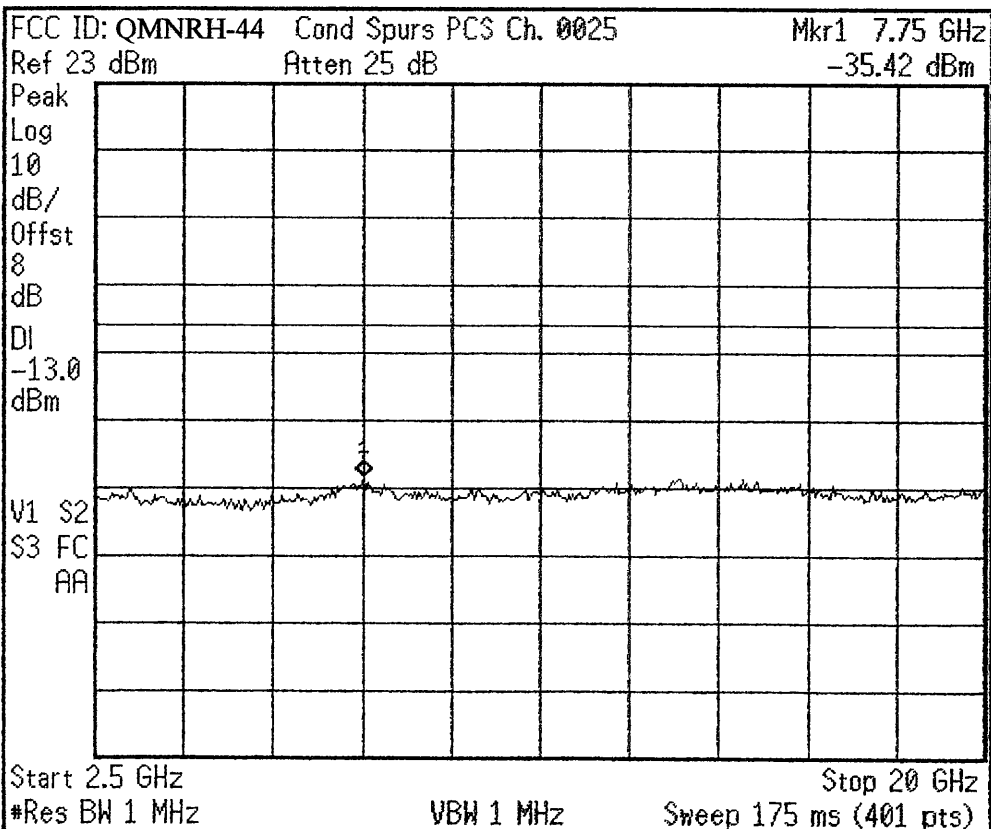
CF Step  
 249.000000 MHz  
 Auto Man

Freq Offset  
 0.00000000 Hz

Signal Track  
 On Off

Scale Type  
 Log Lin

Agilent 08:10:13



Freq/Channel

Center Freq  
 11.2500000 GHz

Start Freq  
 2.50000000 GHz

Stop Freq  
 20.0000000 GHz

CF Step  
 1.75000000 GHz  
 Auto Man

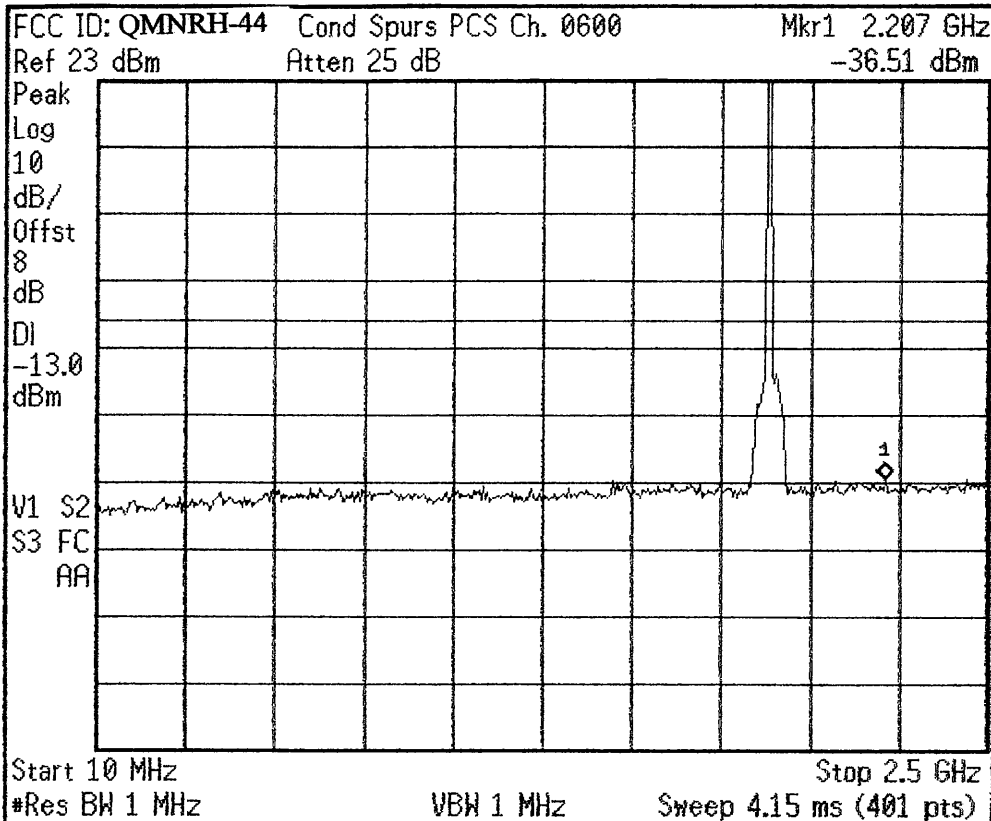
Freq Offset  
 0.00000000 Hz

Signal Track  
 On Off

Scale Type  
 Log Lin



✱ Agilent 08:06:54



Freq/Channel

Center Freq  
 1.25500000 GHz

Start Freq  
 10.0000000 MHz

Stop Freq  
 2.50000000 GHz

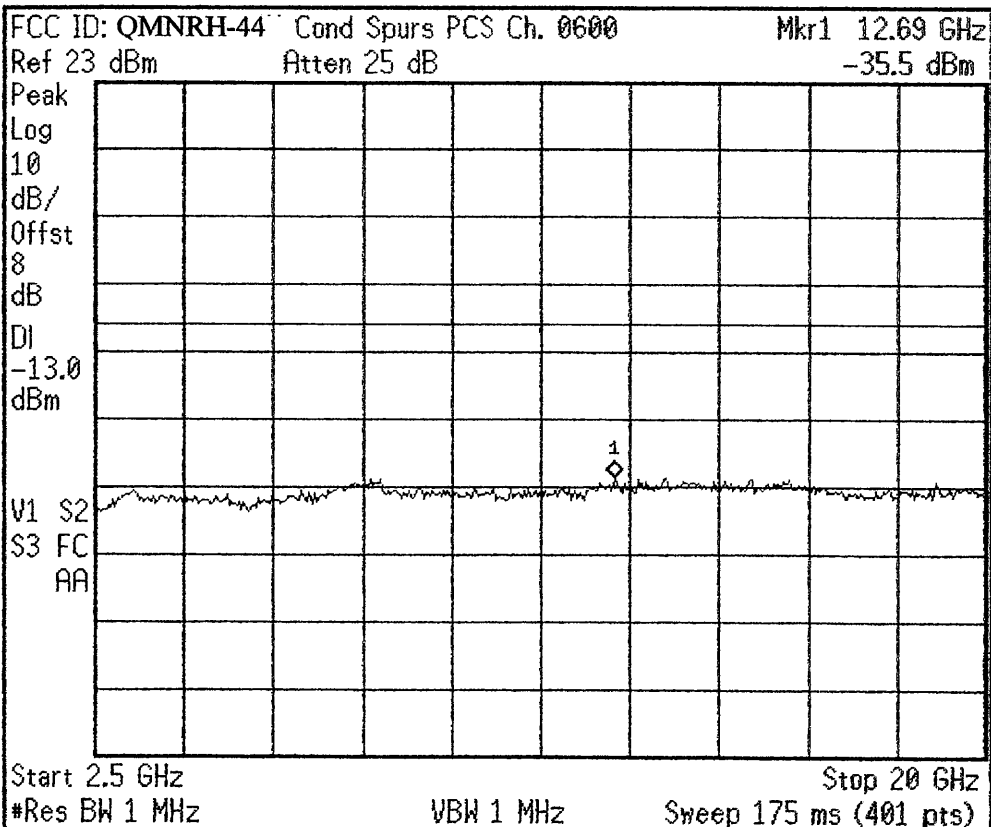
CF Step  
 249.000000 MHz  
 Auto Man

Freq Offset  
 0.00000000 Hz

Signal Track  
 On Off

Scale Type  
 Log Lin

✱ Agilent 08:07:51



Freq/Channel

Center Freq  
 11.2500000 GHz

Start Freq  
 2.50000000 GHz

Stop Freq  
 20.0000000 GHz

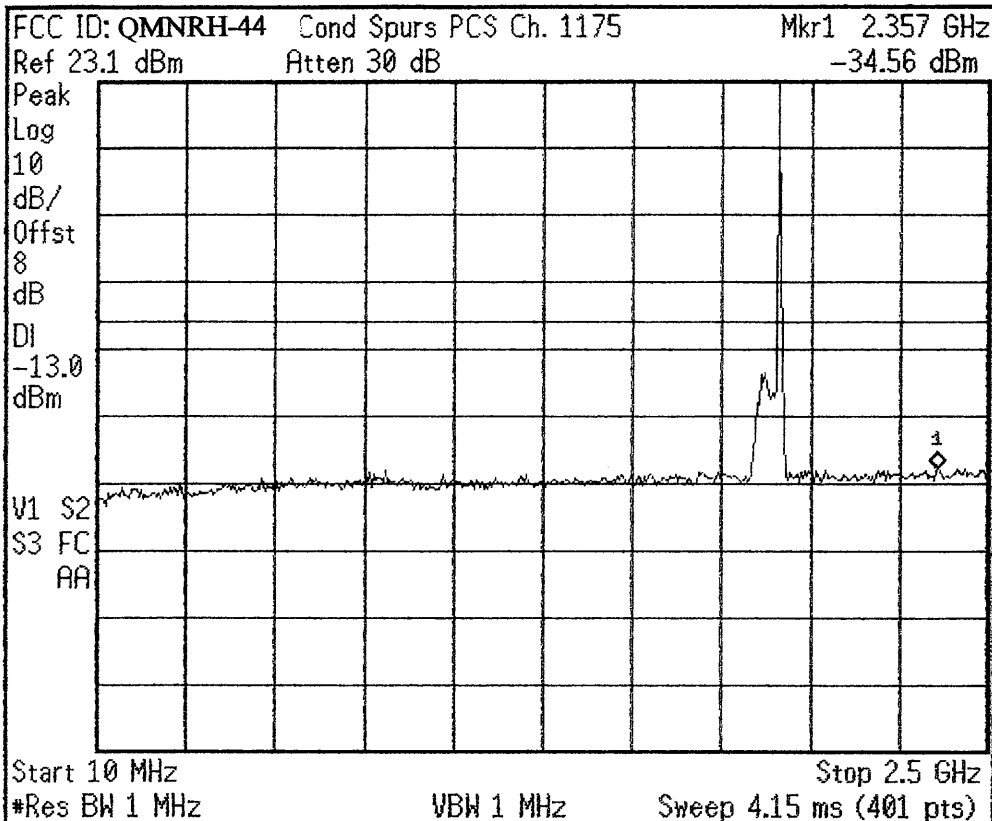
CF Step  
 1.75000000 GHz  
 Auto Man

Freq Offset  
 0.00000000 Hz

Signal Track  
 On Off

Scale Type  
 Log Lin

\* Agilent 08:11:40



Freq/Channel

Center Freq  
 1.25500000 GHz

Start Freq  
 10.0000000 MHz

Stop Freq  
 2.50000000 GHz

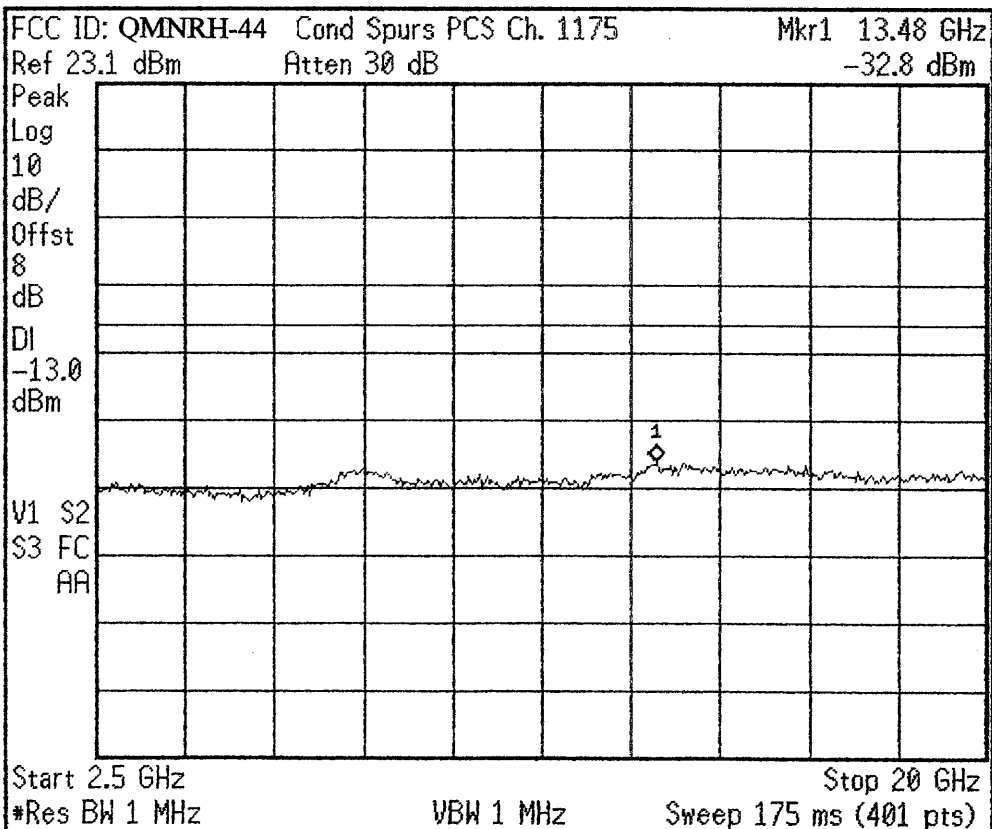
CF Step  
 249.000000 MHz  
 Auto Man

Freq Offset  
 0.00000000 Hz

Signal Track  
 On Off

Scale Type  
 Log Lin

\* Agilent 08:12:29



Freq/Channel

Center Freq  
 11.2500000 GHz

Start Freq  
 2.50000000 GHz

Stop Freq  
 20.0000000 GHz

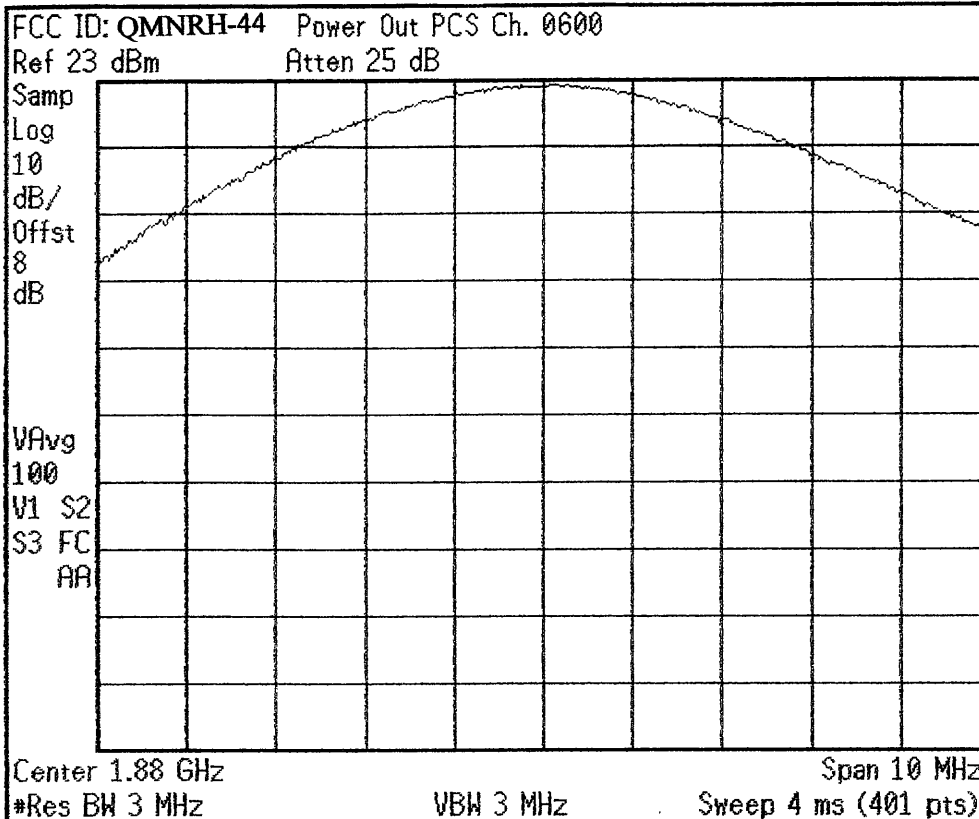
CF Step  
 1.75000000 GHz  
 Auto Man

Freq Offset  
 0.00000000 Hz

Signal Track  
 On Off

Scale Type  
 Log Lin

✱ Agilent 08:16:42



Freq/Channel

Center Freq  
 1.88000000 GHz

Start Freq  
 1.87500000 GHz

Stop Freq  
 1.88500000 GHz

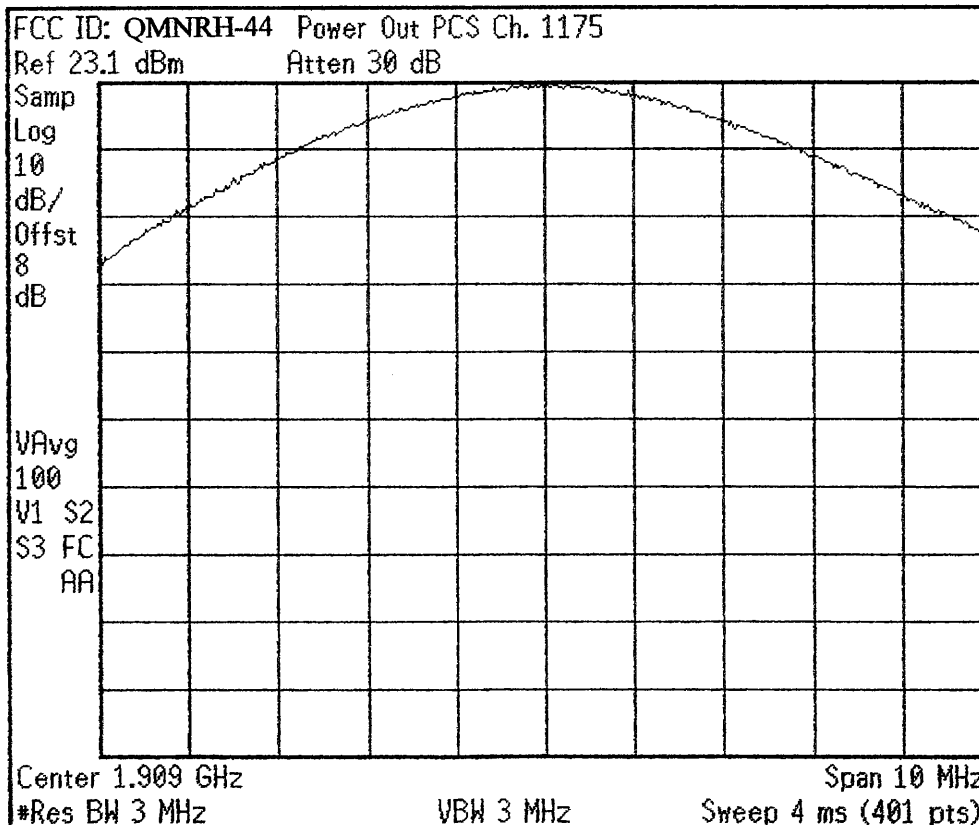
CF Step  
 1.00000000 MHz  
 Auto Man

Freq Offset  
 0.00000000 Hz

Signal Track  
 On Off

Scale Type  
 Log Lin

✱ Agilent 08:18:01



Freq/Channel

Center Freq  
 1.90875000 GHz

Start Freq  
 1.90375000 GHz

Stop Freq  
 1.91375000 GHz

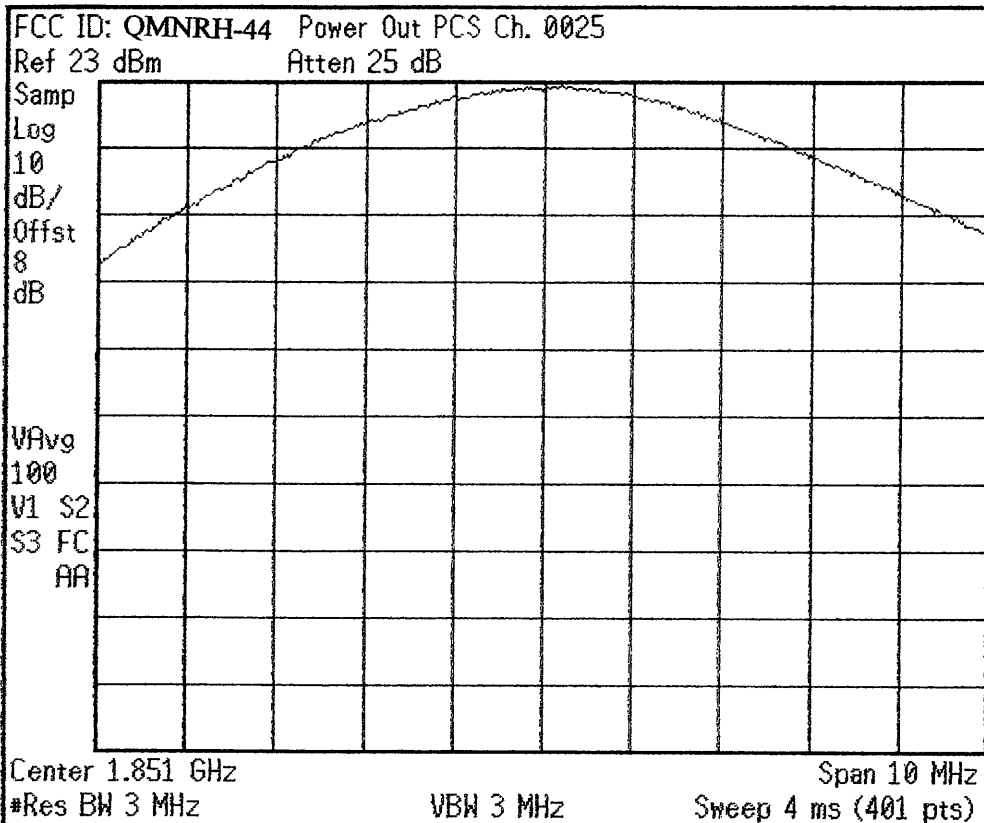
CF Step  
 1.00000000 MHz  
 Auto Man

Freq Offset  
 0.00000000 Hz

Signal Track  
 On Off

Scale Type  
 Log Lin

✱ Agilent 08:19:16



Freq/Channel

Center Freq  
 1.85125000 GHz

Start Freq  
 1.84625000 GHz

Stop Freq  
 1.85625000 GHz

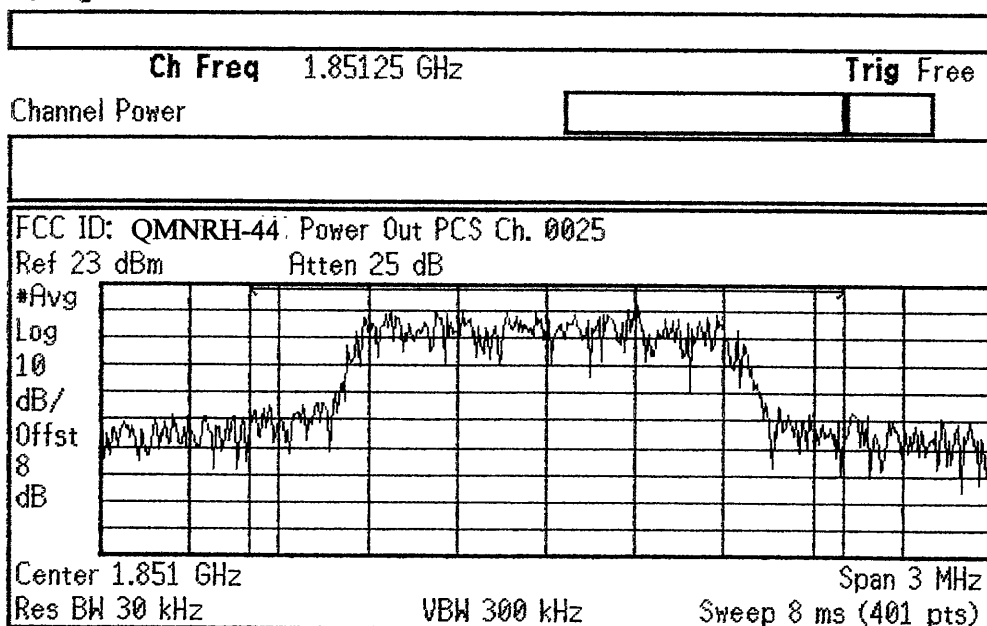
CF Step  
 1.00000000 MHz  
 Auto Man

Freq Offset  
 0.00000000 Hz

Signal Track  
 On Off

Scale Type  
 Log Lin

✱ Agilent 08:20:13



Freq/Channel

Center Freq  
 1.85125000 GHz

Start Freq  
 1.84975000 GHz

Stop Freq  
 1.85275000 GHz

CF Step  
 300.000000 kHz  
 Auto Man

Freq Offset  
 0.00000000 Hz

Signal Track  
 On Off

Scale Type  
 Log Lin

Channel Power

23.03 dBm /2.0000 MHz

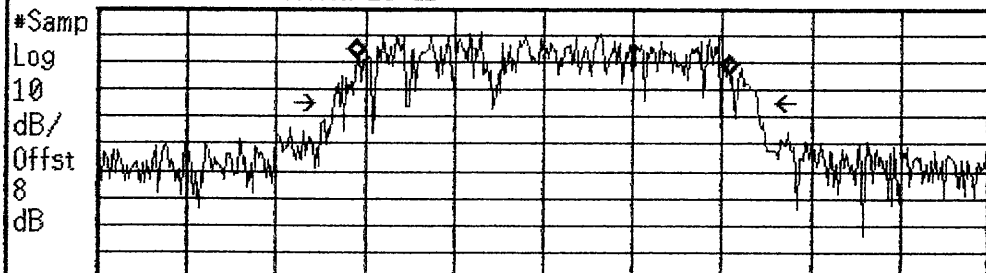
Power Spectral Density

-39.98 dBm/Hz

✱ Agilent 08:21:16

|                    |  |           |  |
|--------------------|--|-----------|--|
| Ch Freq 1.88 GHz   |  | Trig Free |  |
| Occupied Bandwidth |  |           |  |

FCC ID: QMNRH-44 Power Out PCS Ch. 0025  
 Ref 23 dBm Atten 25 dB

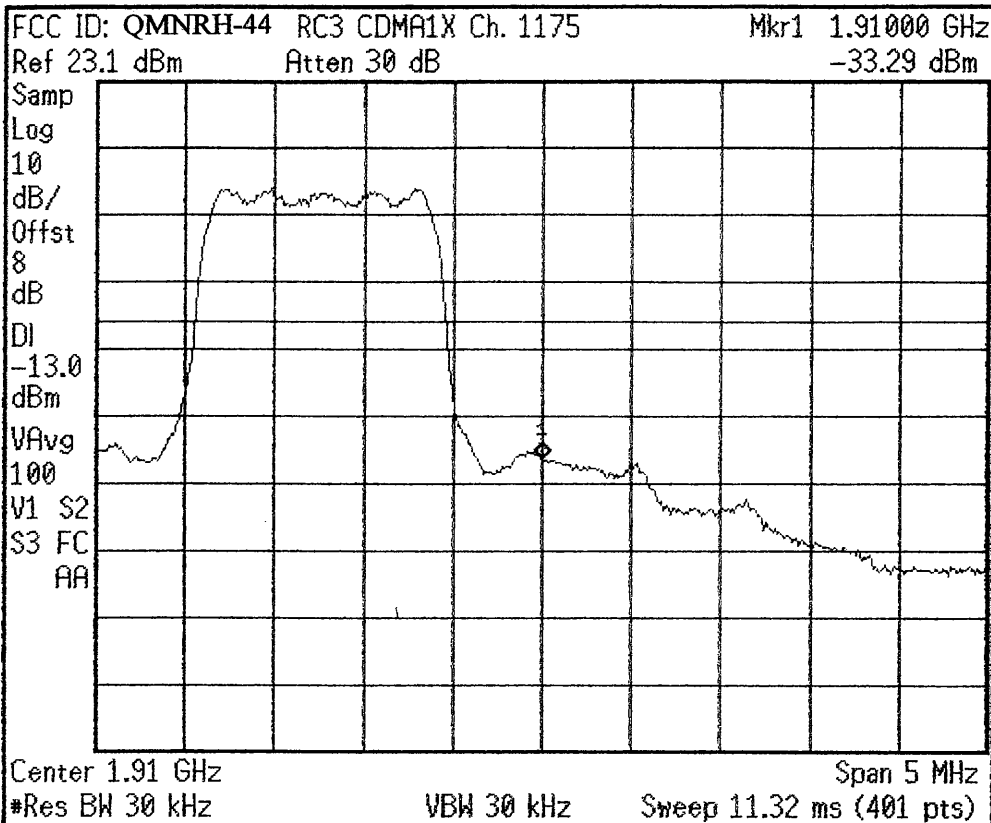


Center 1.88 GHz Span 3 MHz  
 #Res BW 30 kHz #VBW 300 kHz Sweep 5.288 ms (401 pts)

|                     |  |              |           |
|---------------------|--|--------------|-----------|
| Occupied Bandwidth  |  | Occ BW % Pwr | 99.00 %   |
| 1.2496 MHz          |  | x dB         | -26.00 dB |
| Transmit Freq Error |  | -4.863 kHz   |           |
| x dB Bandwidth      |  | 1.420 MHz*   |           |

|              |                            |
|--------------|----------------------------|
| Freq/Channel |                            |
| Center Freq  | 1.88000000 GHz             |
| Start Freq   | 1.87850000 GHz             |
| Stop Freq    | 1.88150000 GHz             |
| CF Step      | 300.000000 kHz<br>Auto Man |
| Freq Offset  | 0.00000000 Hz              |
| Signal Track | On Off                     |
| Scale Type   | Log Lin                    |

\* Agilent 08:31:29



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

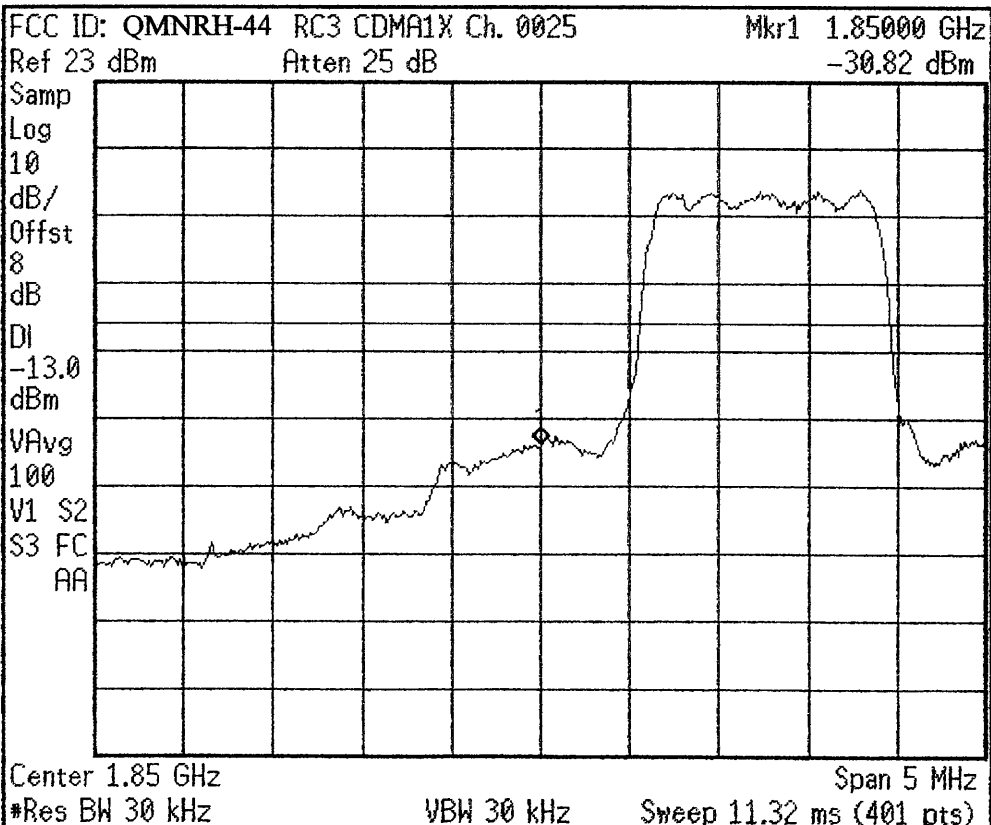
Signal Track

On Off

Scale Type

Log Lin

\* Agilent 08:33:13



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

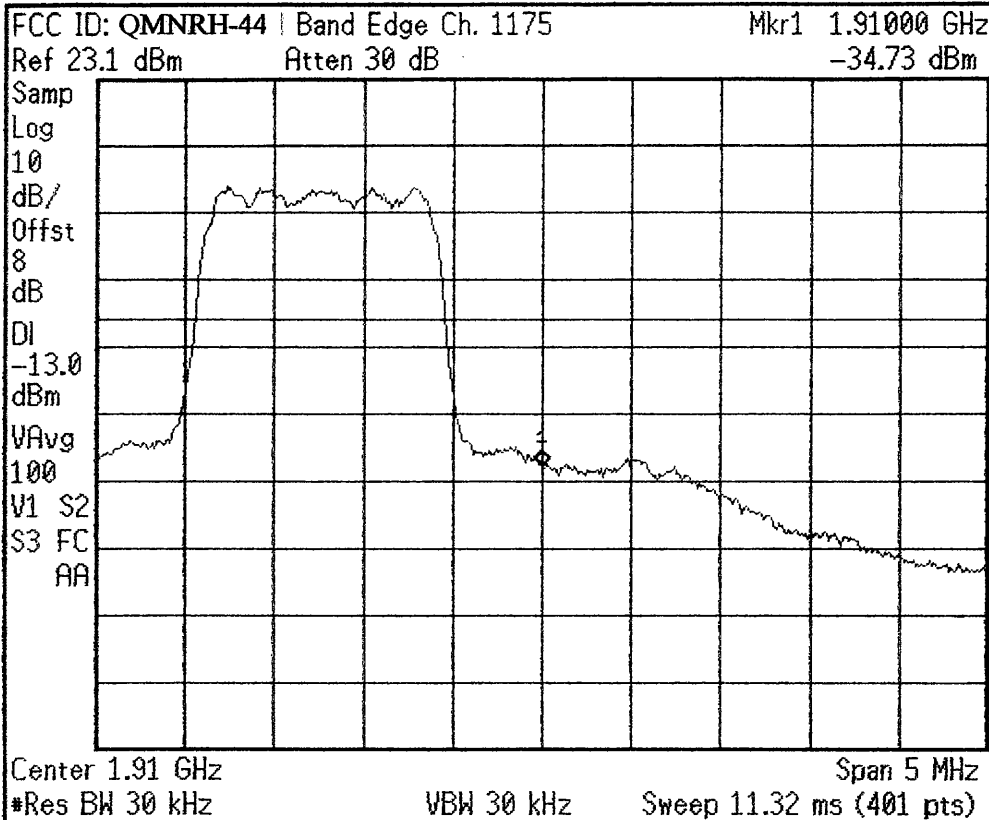
Signal Track

On Off

Scale Type

Log Lin

✱ Agilent 08:26:12



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

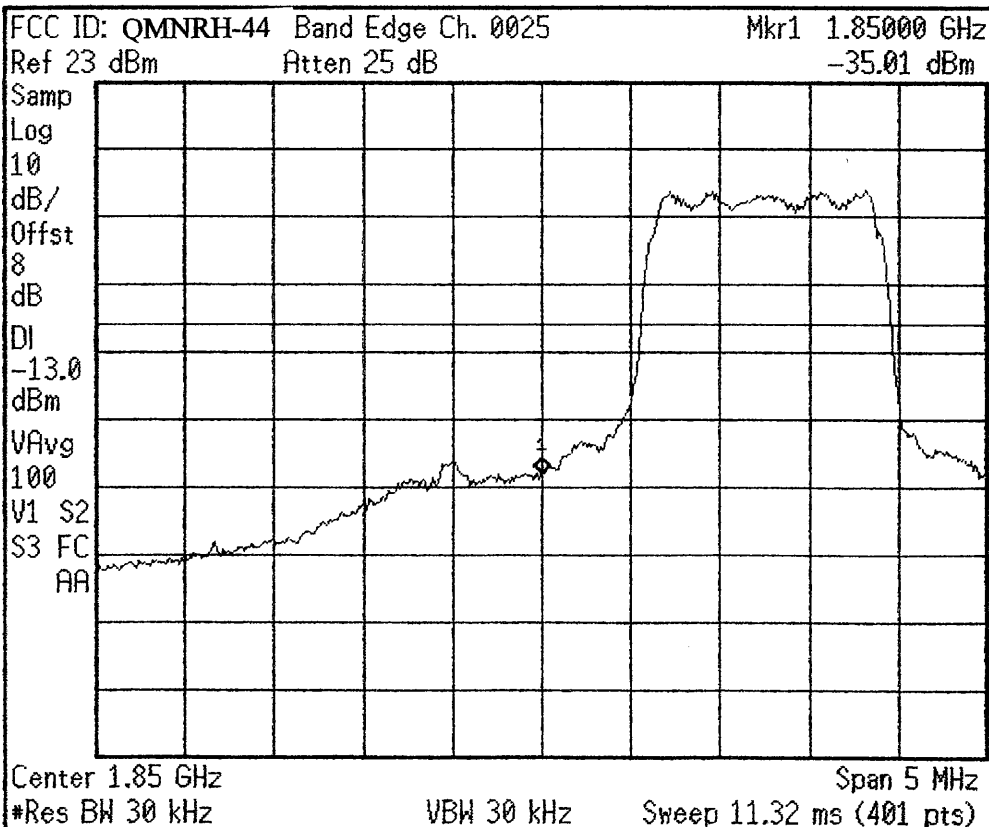
Off

Scale Type

Log

Lin

✱ Agilent 08:27:48



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

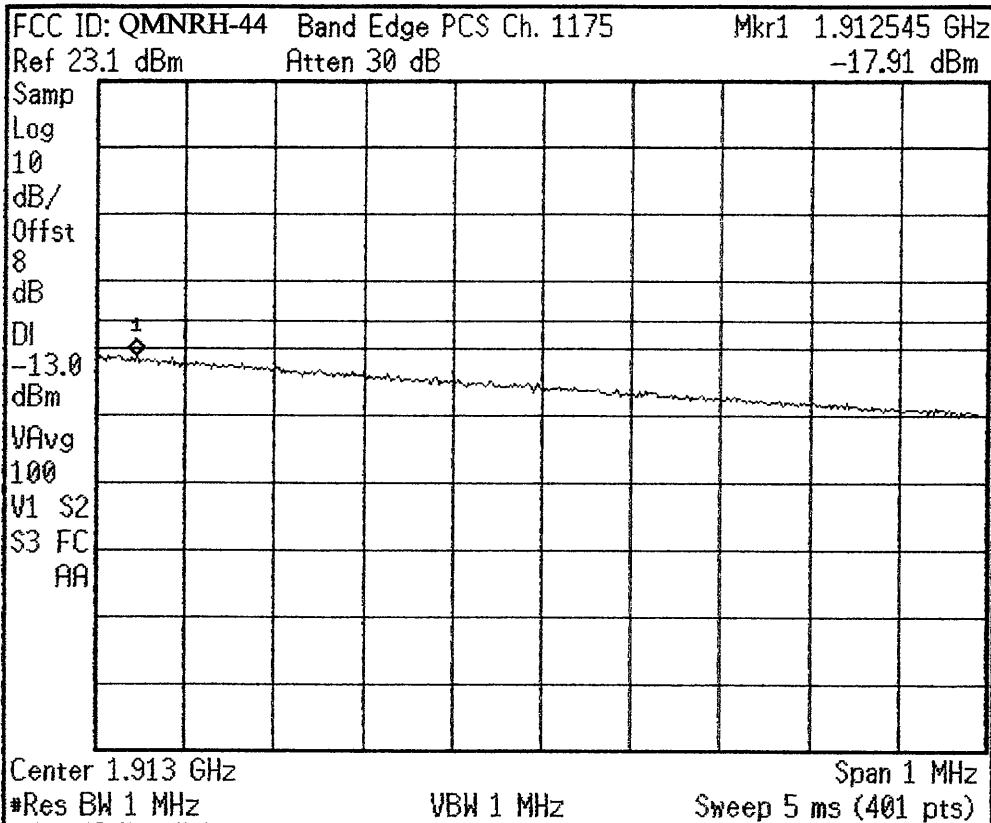
Off

Scale Type

Log

Lin

\* Agilent 08:39:07



Freq/Channel

Center Freq  
 1.91300000 GHz

Start Freq  
 1.91250000 GHz

Stop Freq  
 1.91350000 GHz

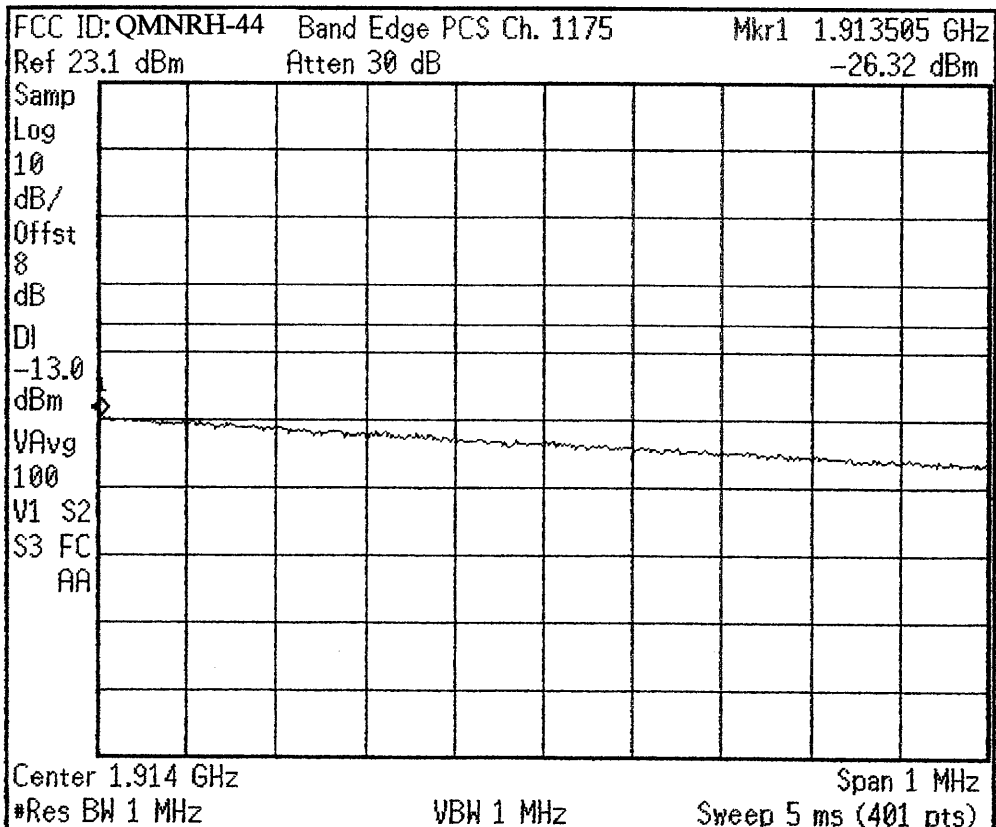
CF Step  
 100.000000 kHz  
 Auto Man

Freq Offset  
 0.00000000 Hz

Signal Track  
 On Off

Scale Type  
 Log Lin

\* Agilent 08:39:57



Freq/Channel

Center Freq  
 1.91400000 GHz

Start Freq  
 1.91350000 GHz

Stop Freq  
 1.91450000 GHz

CF Step  
 100.000000 kHz  
 Auto Man

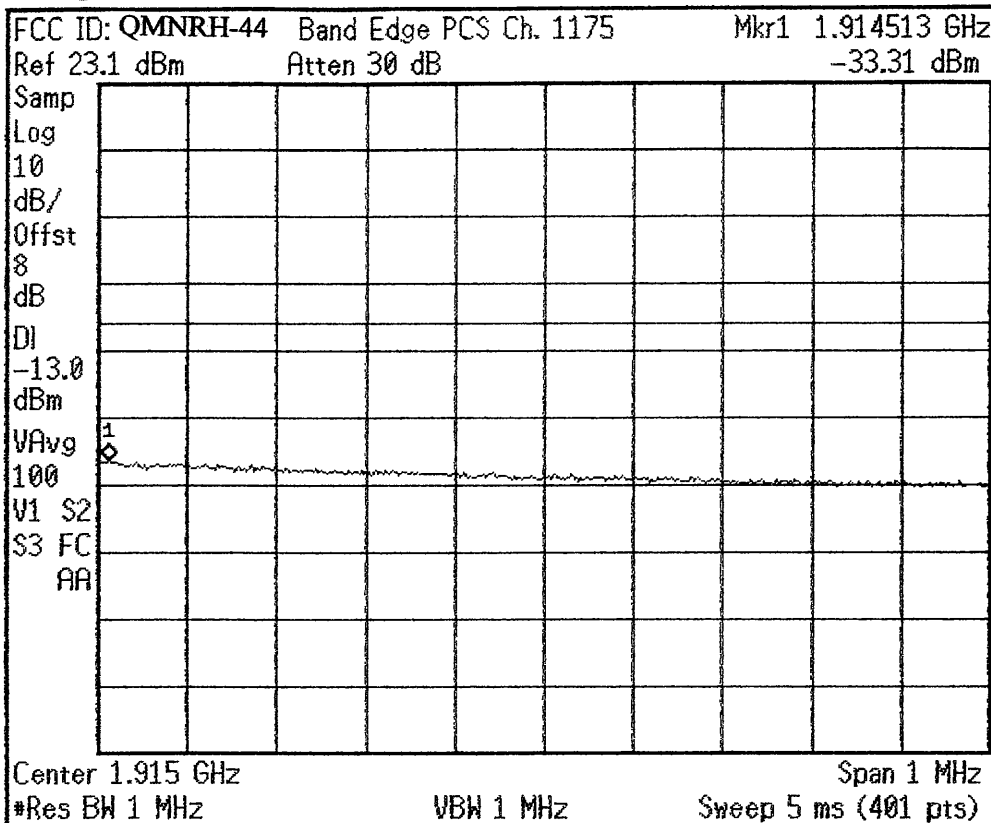
Freq Offset  
 0.00000000 Hz

Signal Track  
 On Off

Scale Type  
 Log Lin



✱ Agilent 08:40:30



Freq/Channel

Center Freq  
 1.91500000 GHz

Start Freq  
 1.91450000 GHz

Stop Freq  
 1.91550000 GHz

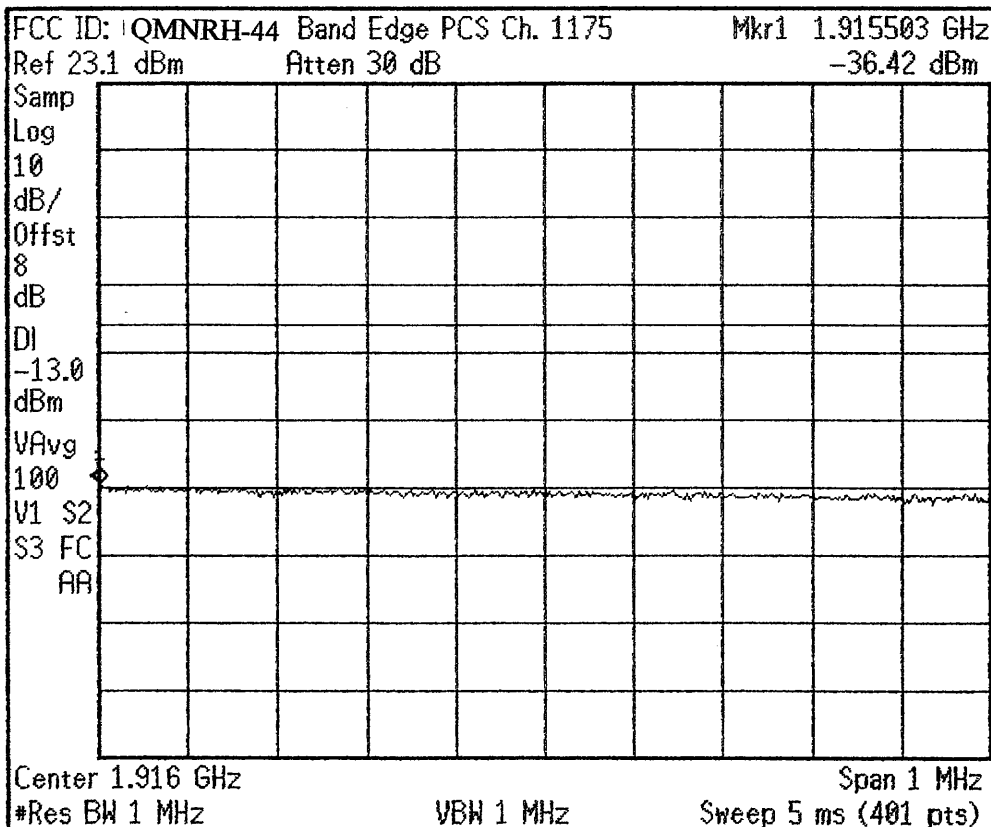
CF Step  
 100.000000 kHz  
 Auto Man

Freq Offset  
 0.00000000 Hz

Signal Track  
 On Off

Scale Type  
 Log Lin

✱ Agilent 08:41:21



Freq/Channel

Center Freq  
 1.91600000 GHz

Start Freq  
 1.91550000 GHz

Stop Freq  
 1.91650000 GHz

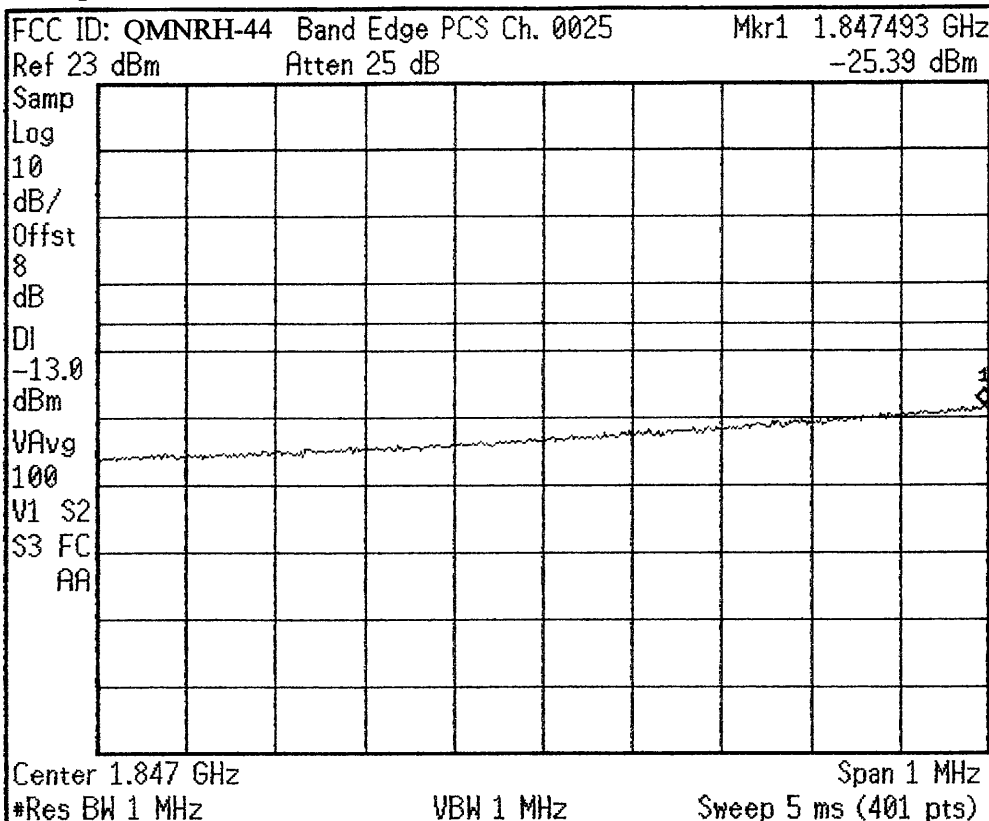
CF Step  
 100.000000 kHz  
 Auto Man

Freq Offset  
 0.00000000 Hz

Signal Track  
 On Off

Scale Type  
 Log Lin

\* Agilent 08:43:07



Freq/Channel

Center Freq  
 1.84700000 GHz

Start Freq  
 1.84650000 GHz

Stop Freq  
 1.84750000 GHz

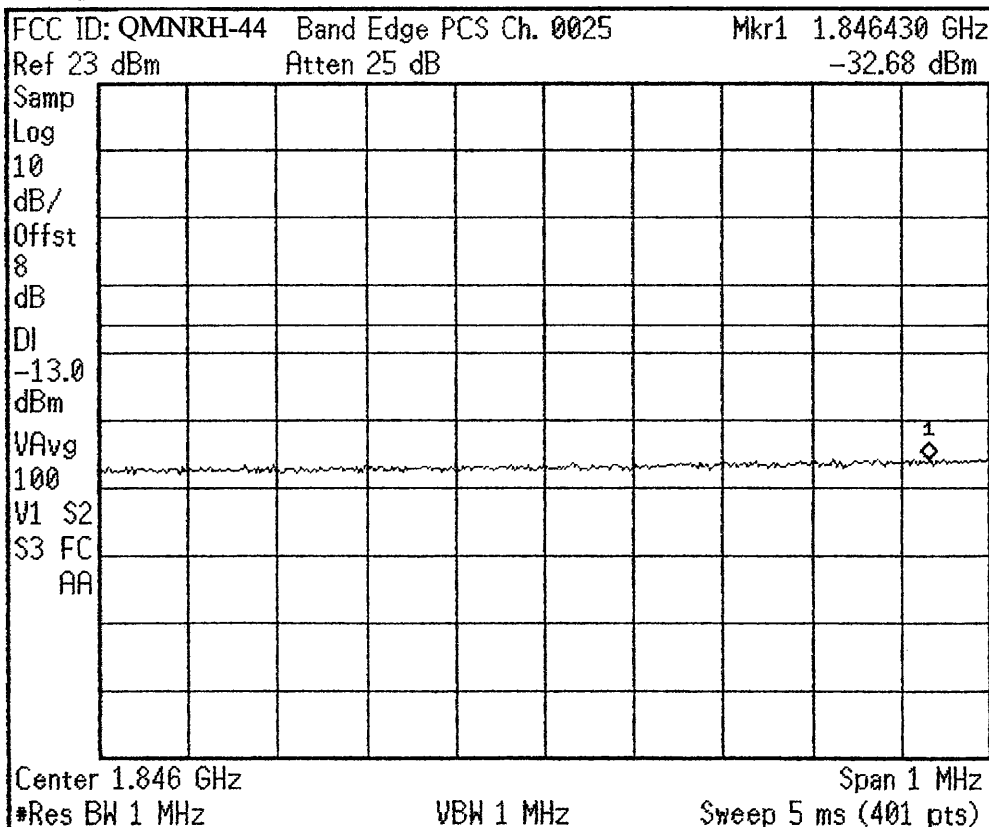
CF Step  
 100.000000 kHz  
 Auto Man

Freq Offset  
 0.00000000 Hz

Signal Track  
 On Off

Scale Type  
 Log Lin

\* Agilent 08:43:49



Freq/Channel

Center Freq  
 1.84600000 GHz

Start Freq  
 1.84550000 GHz

Stop Freq  
 1.84650000 GHz

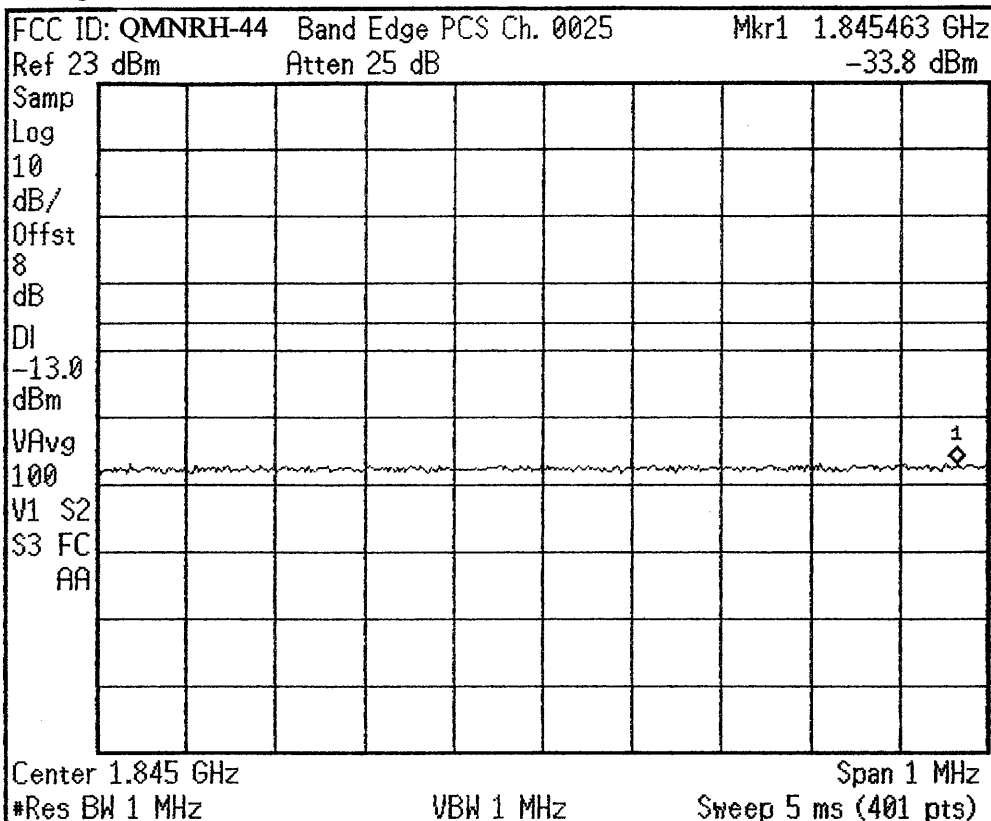
CF Step  
 100.000000 kHz  
 Auto Man

Freq Offset  
 0.00000000 Hz

Signal Track  
 On Off

Scale Type  
 Log Lin

\* Agilent 08:44:35



Freq/Channel

Center Freq  
 1.84500000 GHz

Start Freq  
 1.84450000 GHz

Stop Freq  
 1.84550000 GHz

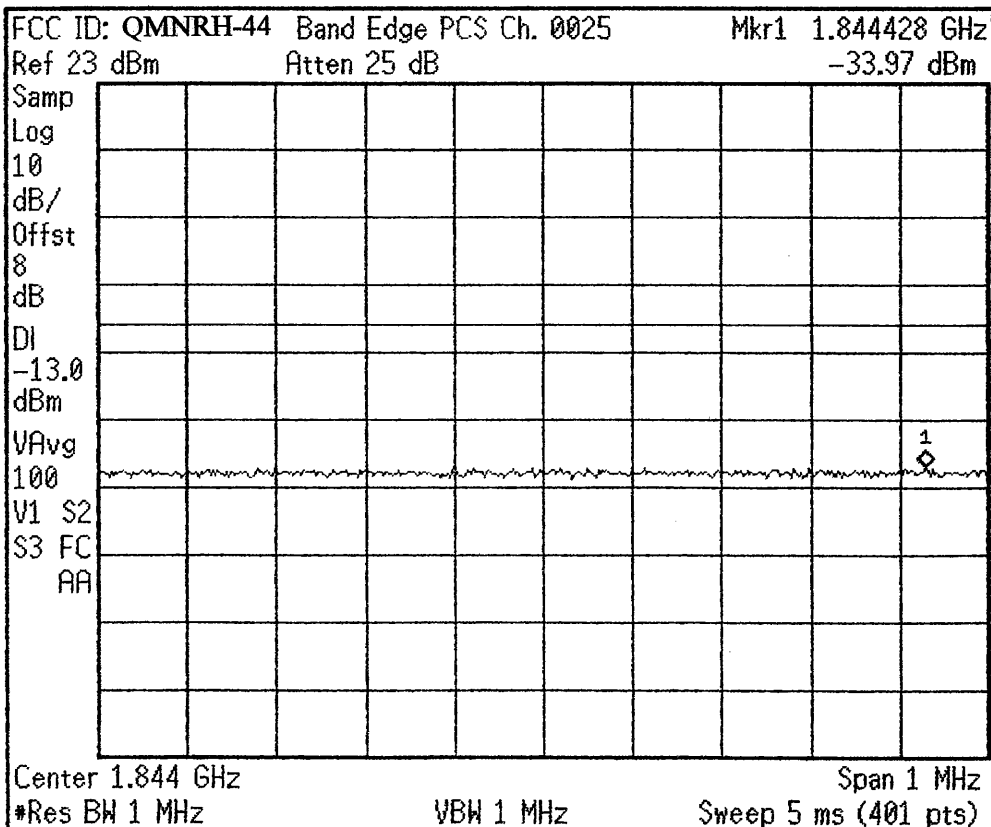
CF Step  
 100.000000 kHz  
 Auto Man

Freq Offset  
 0.00000000 Hz

Signal Track  
 On Off

Scale Type  
 Log Lin

\* Agilent 08:45:29



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

Scale Type  
 Log Lin