PCTEST Engineering Lab.

SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSPHI330
SAMSUNG
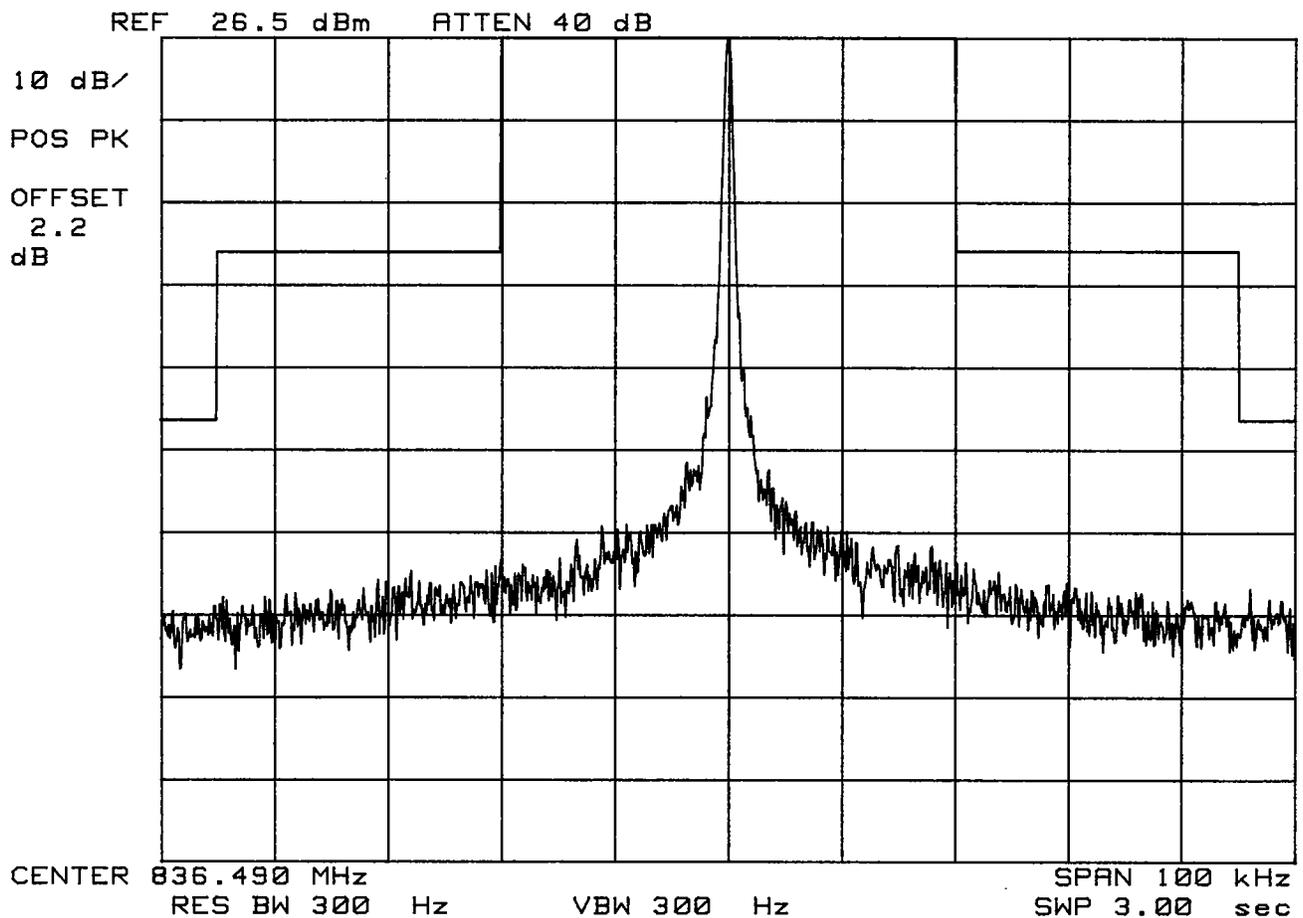Tri-Mode Phone
FM Channel 383
Operating Frequency: 836.490 MHz
Output Power   :   26.5 dBm

Test Mode:Unmodulated Signal

REF   26.5 dBm   ATTEN 40 dB

10 dB/

POS PK

OFFSET
2.2
dB

CENTER 836.490 MHz   SPAN 100 kHz
     RES BW 300 Hz   VBW 300 Hz   SWP 3.00 sec

PCTEST Engineering Lab.

SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSPHI330
SAMSUNG
Tri-Mode Phone
FM Channel 383
Operating Frequency: 836.490 MHz
Output Power   :   26.5 dBm

Test Mode:Voice

REF   26.5 dBm   ATTEN 40 dB

10 dB/

POS PK

OFFSET
2.2
dB

CENTER 836.490 MHz
RES BW 300   Hz   VBW 300   Hz   SWP 3.00   sec

SPAN 100 kHz
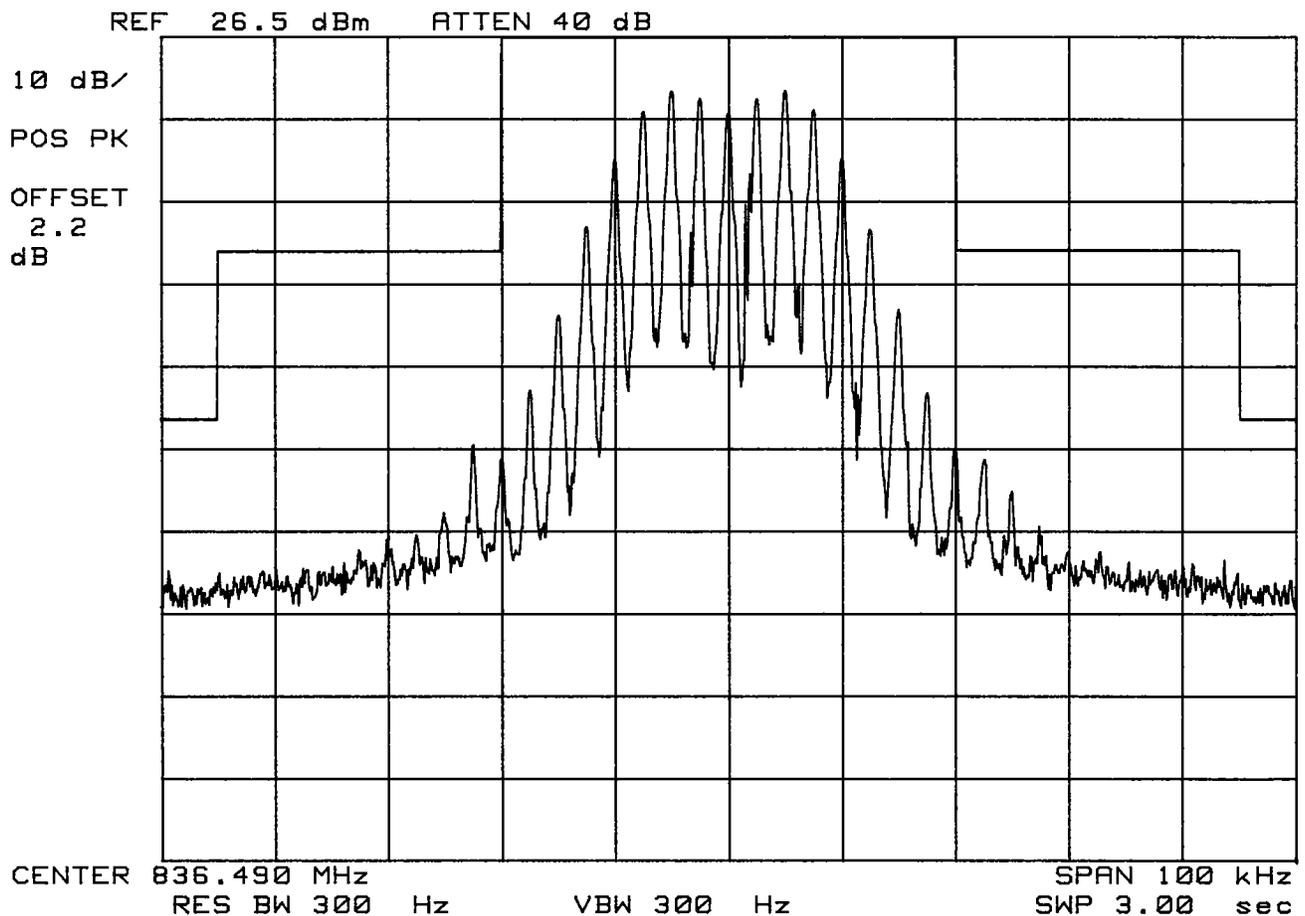
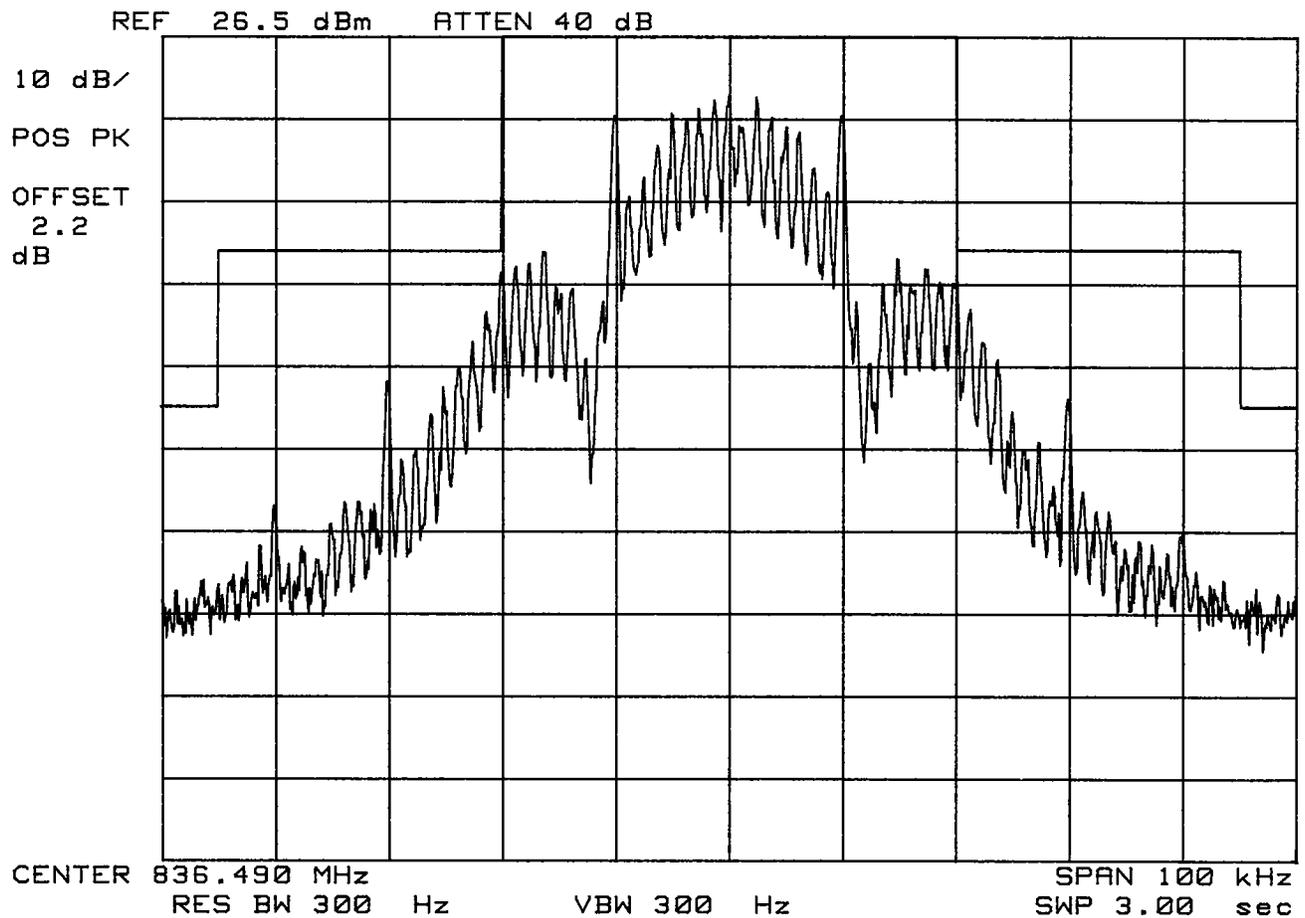# PCTEST Engineering Lab.

SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSPHI330
SAMSUNG
Tri-Mode Phone
FM Channel 383
Operating Frequency: 836.490 MHz
Output Power   :   26.5 dBm

Test Mode:Wide Band Data

REF   26.5 dBm   ATTEN 40 dB

10 dB/

POS PK

OFFSET
2.2
dB

CENTER 836.490 MHz
RES BW 300 Hz   VBW 300 Hz   SPAN 100 kHz
                                              SWP 3.00 sec

PCTEST Engineering Lab.

SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSPHI330
SAMSUNG
Tri-Mode Phone
FM Channel 383
Operating Frequency: 836.490 MHz
Output Power   :   26.5 dBm

Test Mode:SAT

REF   26.5 dBm   ATTEN 40 dB

10 dB/

POS PK

OFFSET
2.2
dB

CENTER 836.490 MHz   SPAN 100 kHz
RES BW 300   Hz   VBW 300 Hz   SWP 3.00 sec

PCTEST Engineering Lab.

SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSPHI330
SAMSUNG
Tri-Mode Phone
FM Channel 383
Operating Frequency: 836.490 MHz
Output Power   :   26.5 dBm

Test Mode:ST

REF   26.5 dBm   ATTEN 40 dB

10 dB/

POS PK

OFFSET
2.2
dB

CENTER 836.490 MHz   SPAN 100 kHz
      RES BW 300   Hz   VBW 300   Hz   SWP 3.00   sec

PCTEST Engineering Lab.

SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSPHI330
SAMSUNG
Tri-Mode Phone
FM Channel 383
Operating Frequency: 836.490 MHz
Output Power   :   26.5 dBm

Test Mode:SAT + ST

REF   26.5 dBm   ATTEN 40 dB

10 dB/

POS PK

OFFSET
2.2
dB

CENTER 836.490 MHz
  RES BW 300   Hz   VBW 300   Hz

SPAN 100 kHz
SWP 3.00 sec

PCTEST Engineering Lab.

SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSPHI330
SAMSUNG
Tri-Mode Phone
FM Channel 383
Operating Frequency: 836.490 MHz
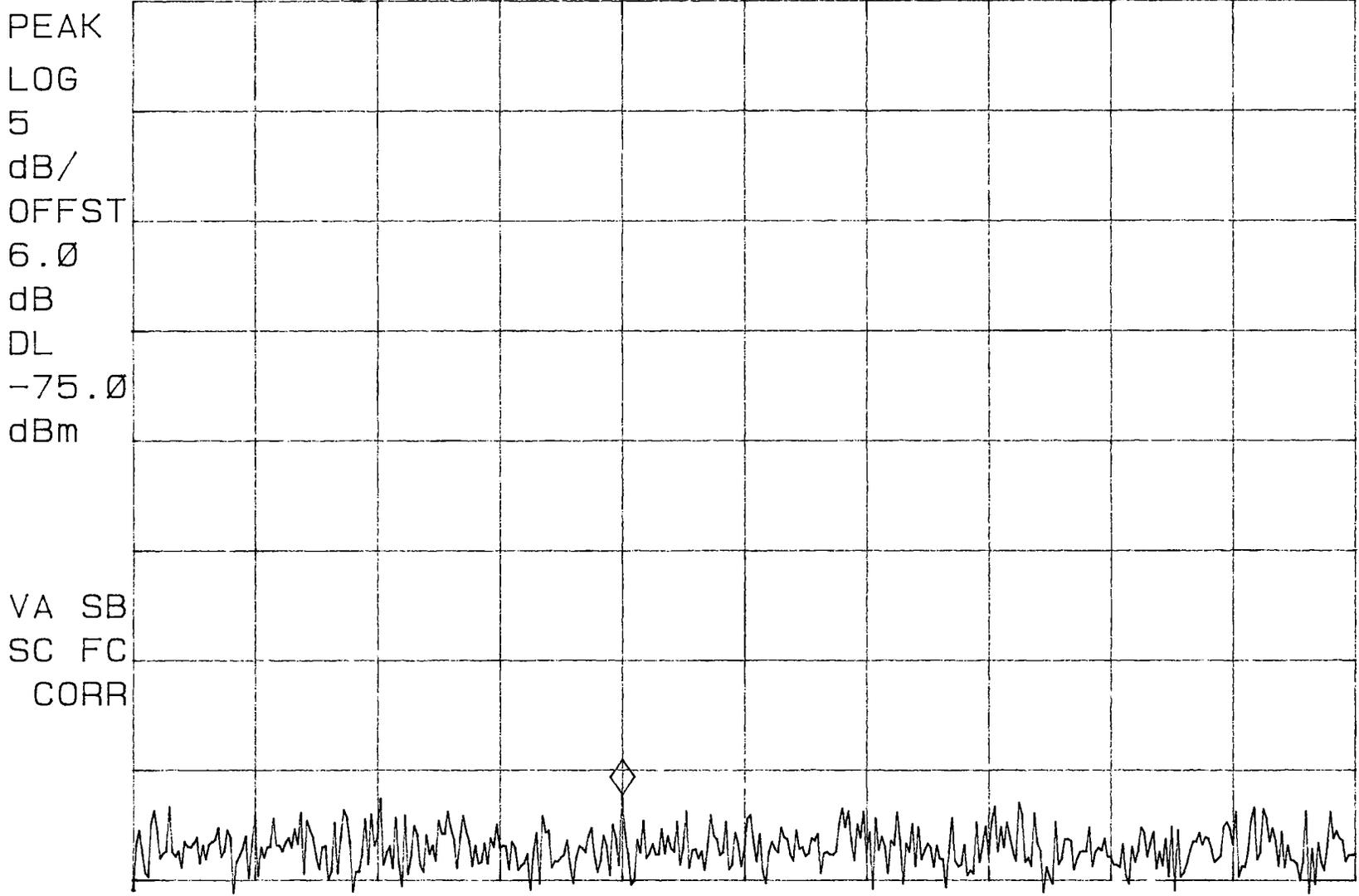Output Power   :   26.5 dBm
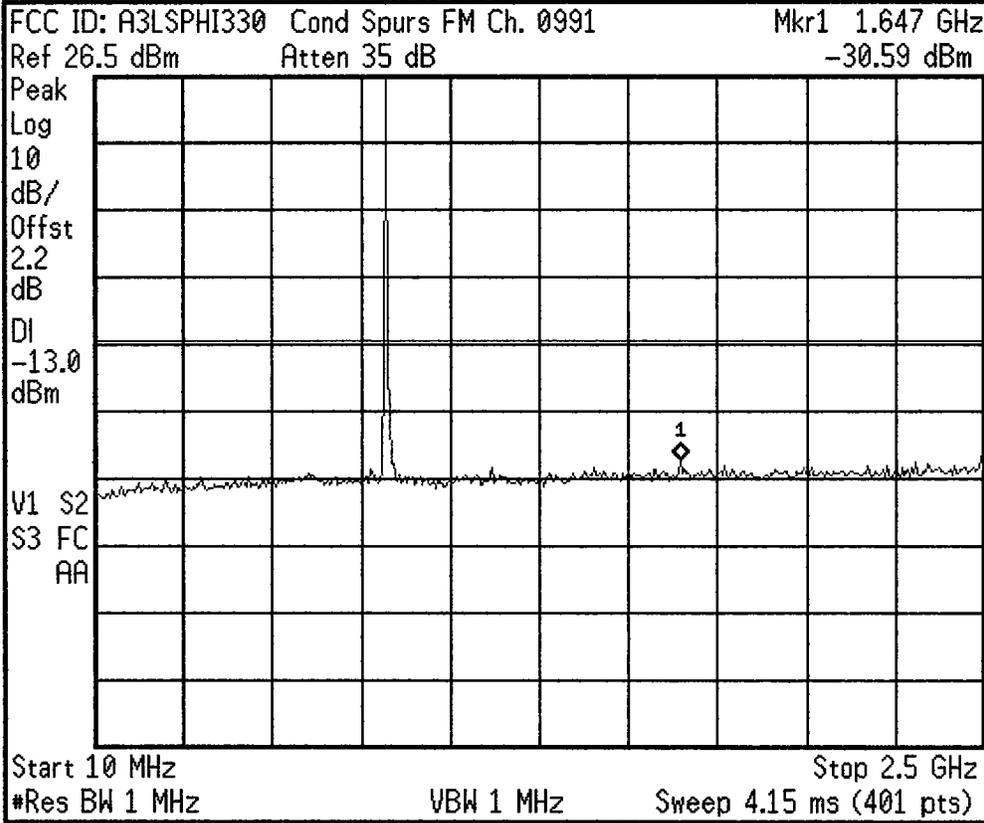

Test Mode:SAT + Voice

REF   26.5 dBm   ATTEN 40 dB

10 dB/

POS PK

OFFSET
2.2
dB

CENTER 836.490 MHz   SPAN 100 kHz
       RES BW 300 Hz   VBW 300 Hz   SWP 3.00 sec

Top plot:

Agilent

FCC ID: A3LSPHI330　Cond Spurs FM Ch. 0991　　　Mkr1　1.647 GHz
Ref 26.5 dBm　　　Atten 35 dB　　　　　　　　　　　　−30.59 dBm

Peak
Log
10
dB/
Offst
2.2
dB
DI
−13.0
dBm

V1 S2
S3 FC
AA

Start 10 MHz　　　　　　　　　　　　　　　　　　Stop 2.5 GHz
#Res BW 1 MHz　　　　　　VBW 1 MHz　　　Sweep 4.15 ms (401 pts)

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

Bottom plot:

Agilent

FCC ID: A3LSPHI330　Cond Spurs FM Ch. 0991　　　Mkr1　7.69 GHz
Ref 26.5 dBm　　　Atten 35 dB　　　　　　　　　　　　−31.81 dBm

Peak
Log
10
dB/
Offst
2.2
dB
DI
−13.0
dBm

V1 S2
S3 FC
AA

Start 2.5 GHz　　　　　　　　　　　　　　　　　　Stop 10 GHz
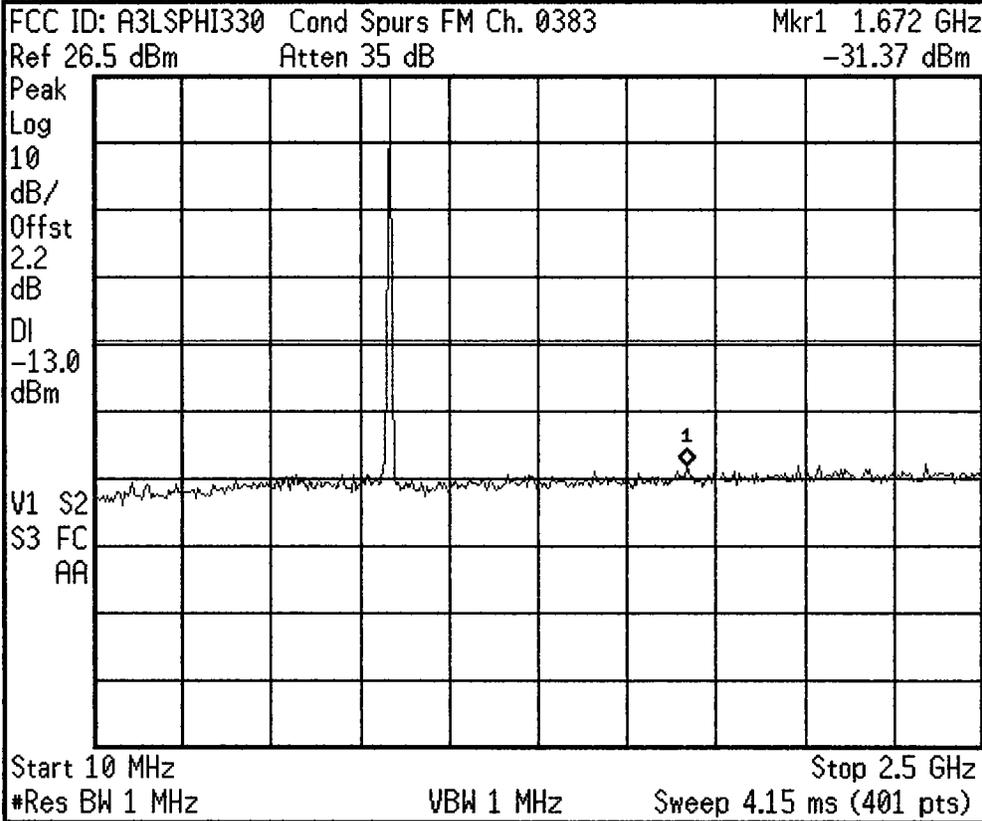#Res BW 1 MHz　　　　　　VBW 1 MHz　　　Sweep 18.75 ms (401 pts)

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

FCC ID: A3LSPHI330 Cond Spurs FM Ch. 0383   Mkr1 1.672 GHz
Ref 26.5 dBm   Atten 35 dB   −31.37 dBm

Peak
Log
10
dB/
Offst
2.2
dB
DI
−13.0
dBm

V1 S2
S3 FC
    AA

Start 10 MHz   Stop 2.5 GHz
#Res BW 1 MHz   VBW 1 MHz   Sweep 4.15 ms (401 pts)

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

FCC ID: A3LSPHI330 Cond Spurs FM Ch. 0383   Mkr1 7.43 GHz
Ref 26.5 dBm   Atten 35 dB   −32.08 dBm

Peak
Log
10
dB/
Offst
2.2
dB
DI
−13.0
dBm

V1 S2
S3 FC
    AA

Start 2.5 GHz   Stop 10 GHz
#Res BW 1 MHz   VBW 1 MHz   Sweep 18.75 ms (401 pts)

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

FCC ID: A3LSPHI330 Cond Spurs FM Ch. 0799   Mkr1 1.697 GHz
Ref 26.5 dBm   Atten 35 dB   −30.81 dBm

Peak
Log
10
dB/
Offst
2.2
dB
DI
−13.0
dBm

V1 S2
S3 FC
    AA

Start 10 MHz   Stop 2.5 GHz
#Res BW 1 MHz   VBW 1 MHz   Sweep 4.15 ms (401 pts)

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

FCC ID: A3LSPHI330 Cond Spurs FM Ch. 0799   Mkr1 7.68 GHz
Ref 26.5 dBm   Atten 35 dB   −32.75 dBm

Peak
Log
10
dB/
Offst
2.2
dB
DI
−13.0
dBm

V1 S2
S3 FC
    AA

Start 2.5 GHz   Stop 10 GHz
#Res BW 1 MHz   VBW 1 MHz   Sweep 18.75 ms (401 pts)

Freq/Channel

Center Freq
6.25000000 GHz

Start Freq
2.50000000 GHz

Stop Freq
10.0000000 GHz

CF Step
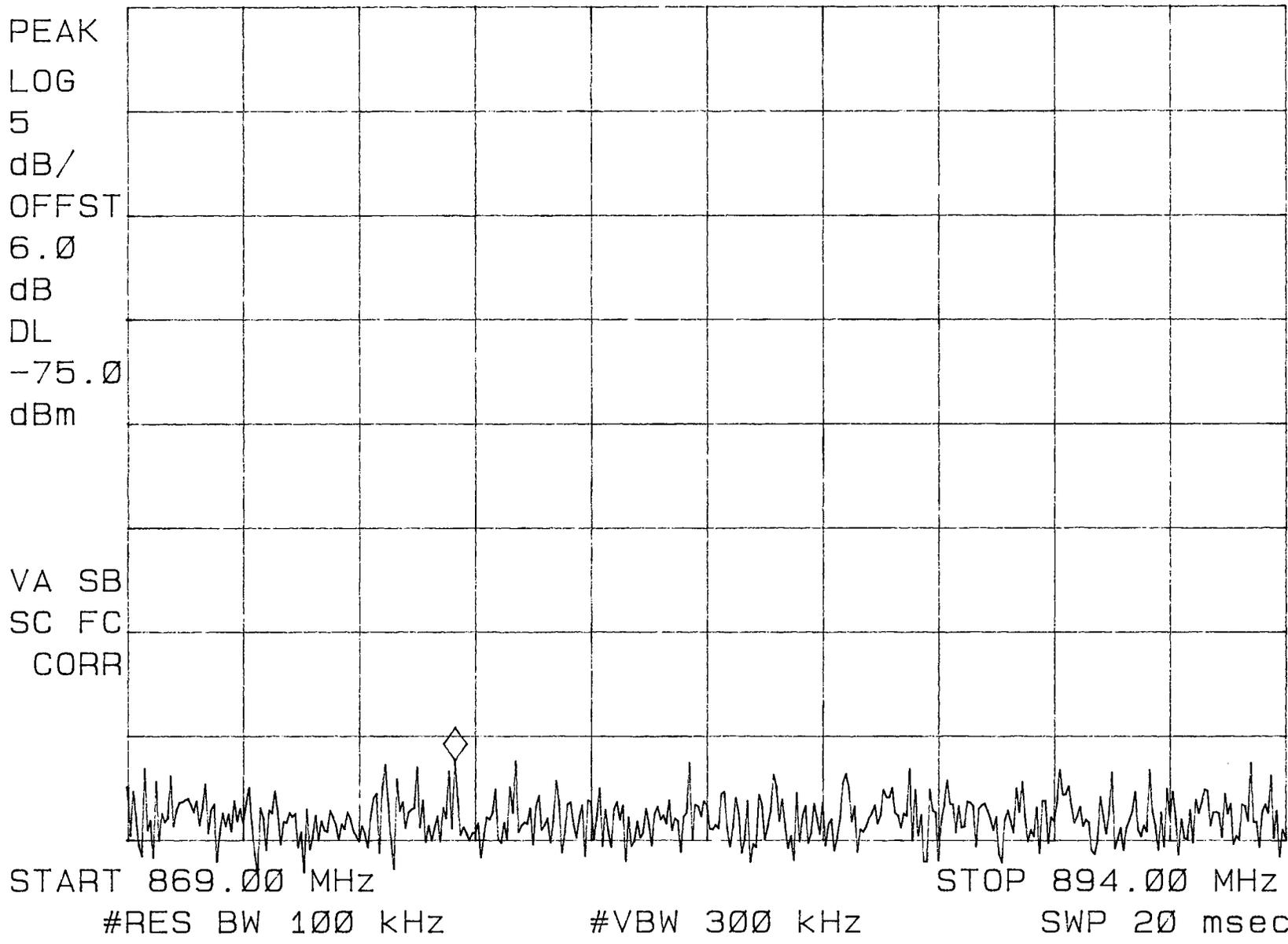750.000000 MHz
Auto   Man

Freq Offset
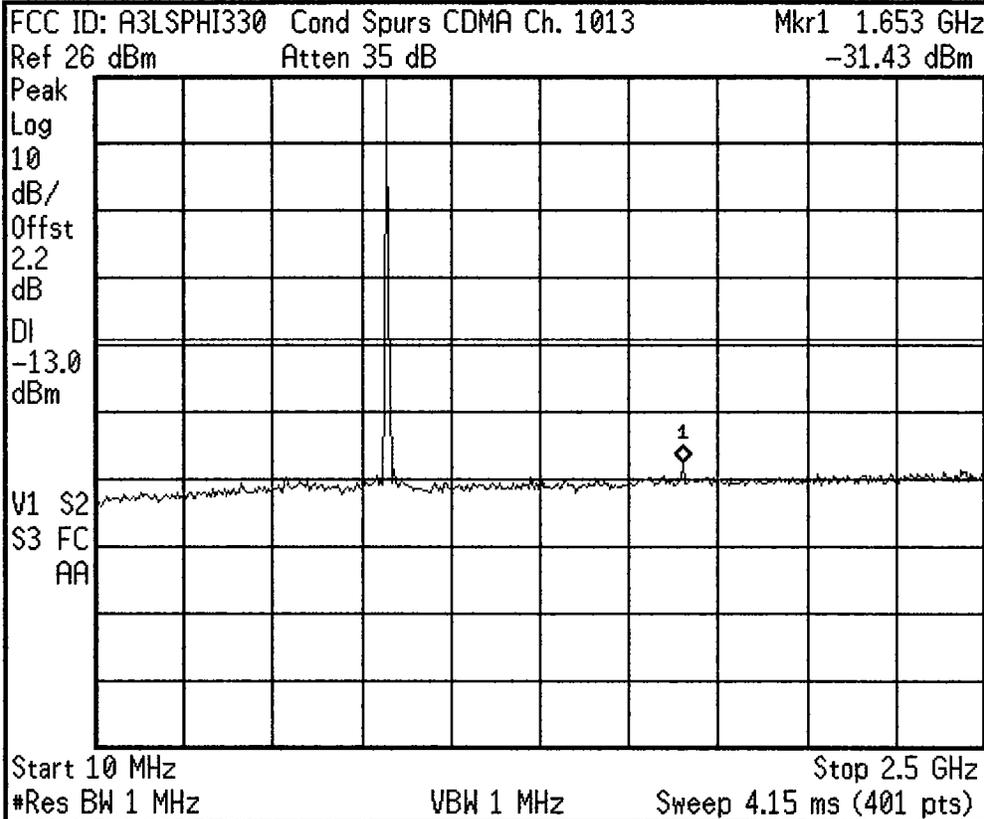0.00000000 Hz

Signal Track
On   Off

Scale Type
Log   Lin

FCC ID: A3LSPHI330   CDMA MODE   MKR 876.06 MHz
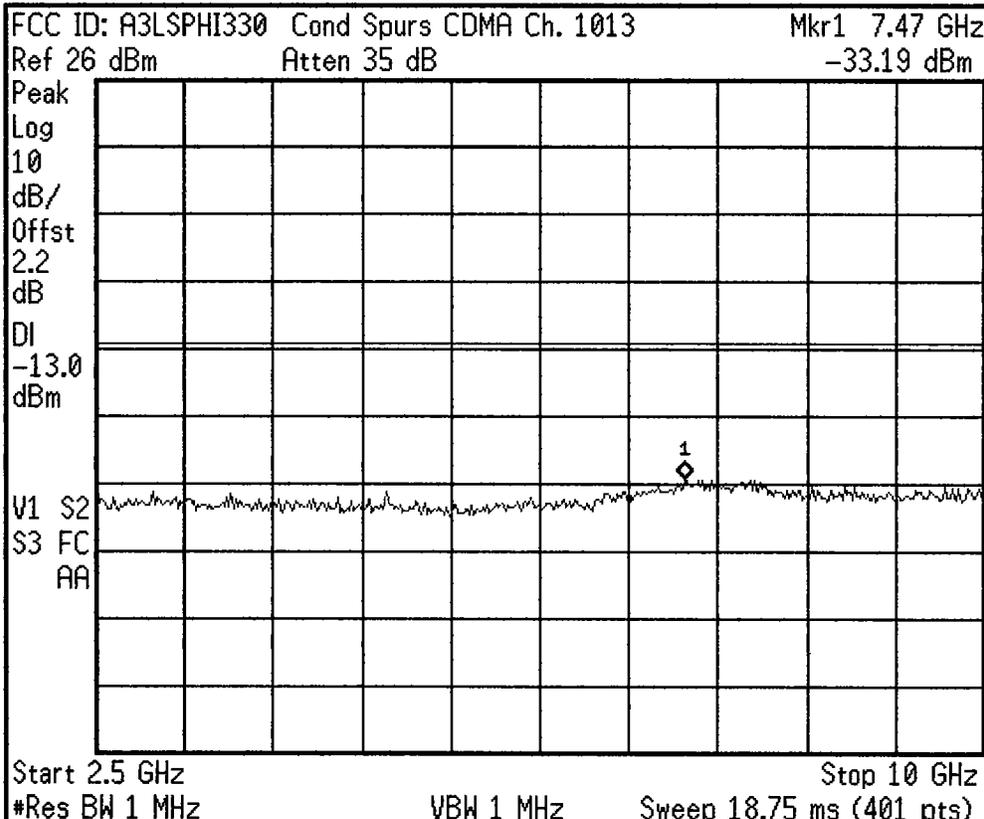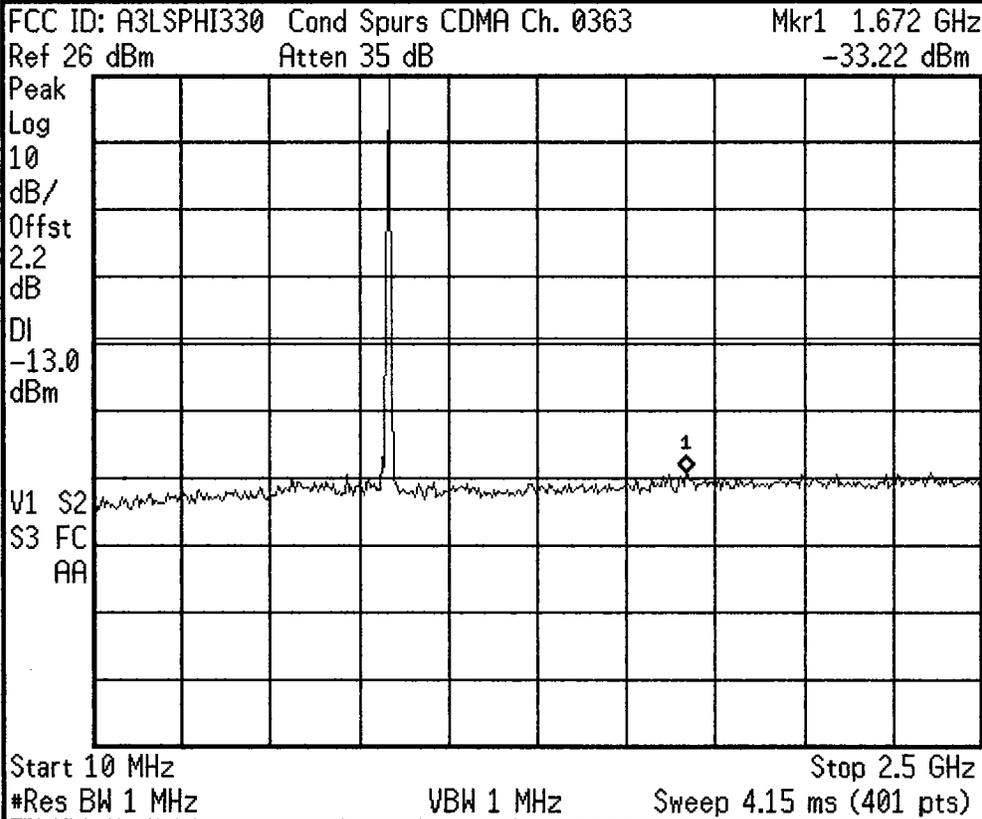REF -60.0 dBm   ATTEN 10 dB PG 25.0 dB   -96.17 dBm

PEAK

LOG

5

dB/

OFFST

6.0

dB

DL

-75.0

dBm

VA SB
SC FC
  CORR

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

❋ Agilent

FCC ID: A3LSPHI330 Cond Spurs CDMA Ch. 1013   Mkr1 1.653 GHz
Ref 26 dBm   Atten 35 dB   −31.43 dBm

Peak
Log
10
dB/
Offst
2.2
dB
DI
−13.0
dBm

V1 S2
S3 FC
AA

Start 10 MHz   Stop 2.5 GHz
#Res BW 1 MHz   VBW 1 MHz   Sweep 4.15 ms (401 pts)

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

FCC ID: A3LSPHI330 Cond Spurs CDMA Ch. 1013   Mkr1 7.47 GHz
Ref 26 dBm   Atten 35 dB   −33.19 dBm

Peak
Log
10
dB/
Offst
2.2
dB
DI
−13.0
dBm

V1 S2
S3 FC
AA

Start 2.5 GHz   Stop 10 GHz
#Res BW 1 MHz   VBW 1 MHz   Sweep 18.75 ms (401 pts)

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

FCC ID: A3LSPHI330 Cond Spurs CDMA Ch. 0363   Mkr1 1.672 GHz
Ref 26 dBm   Atten 35 dB   -33.22 dBm
Peak
Log
10
dB/
Offst
2.2
dB
DI
-13.0
dBm

V1 S2
S3 FC
AA

Start 10 MHz   Stop 2.5 GHz
#Res BW 1 MHz   VBW 1 MHz   Sweep 4.15 ms (401 pts)
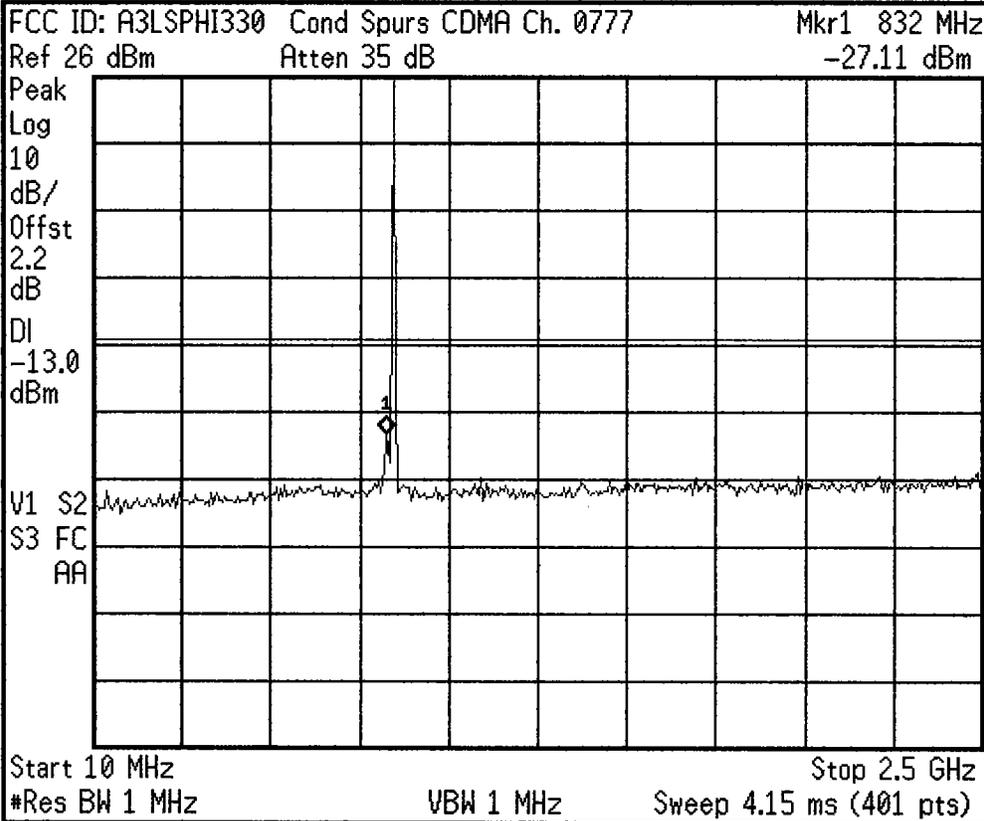
Freq/Channel

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

FCC ID: A3LSPHI330 Cond Spurs CDMA Ch. 0363   Mkr1 7.58 GHz
Ref 26 dBm   Atten 35 dB   -32.58 dBm
Peak
Log
10
dB/
Offst
2.2
dB
DI
-13.0
dBm

V1 S2
S3 FC
AA

Start 2.5 GHz   Stop 10 GHz
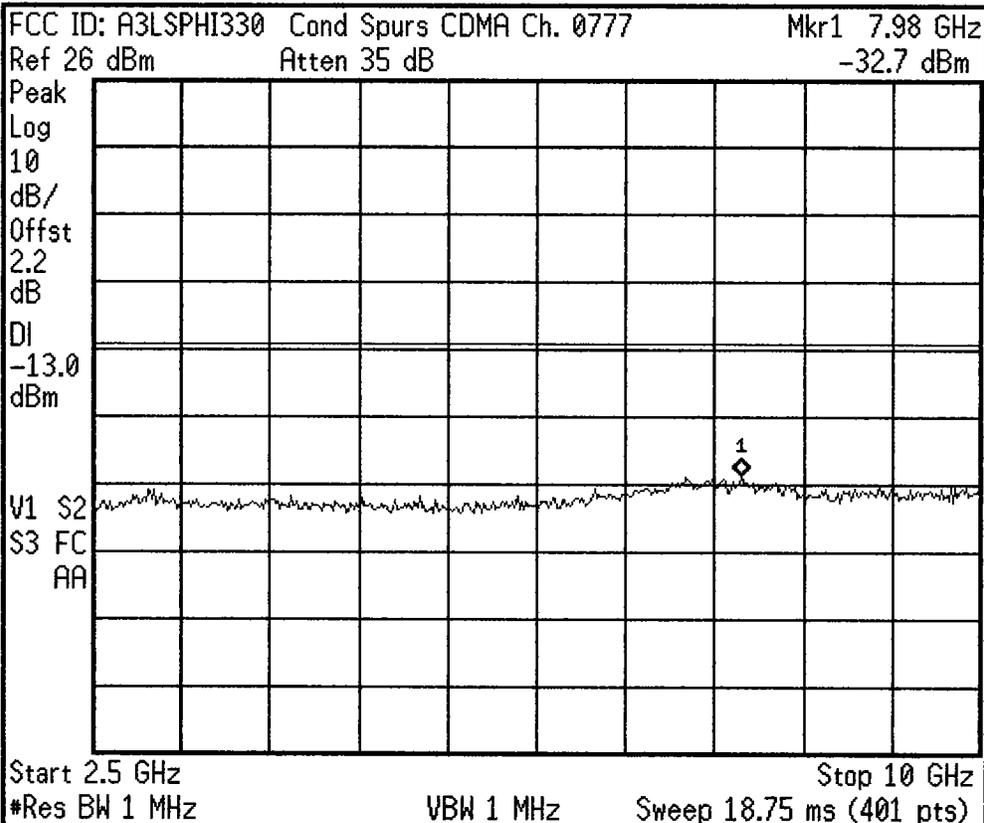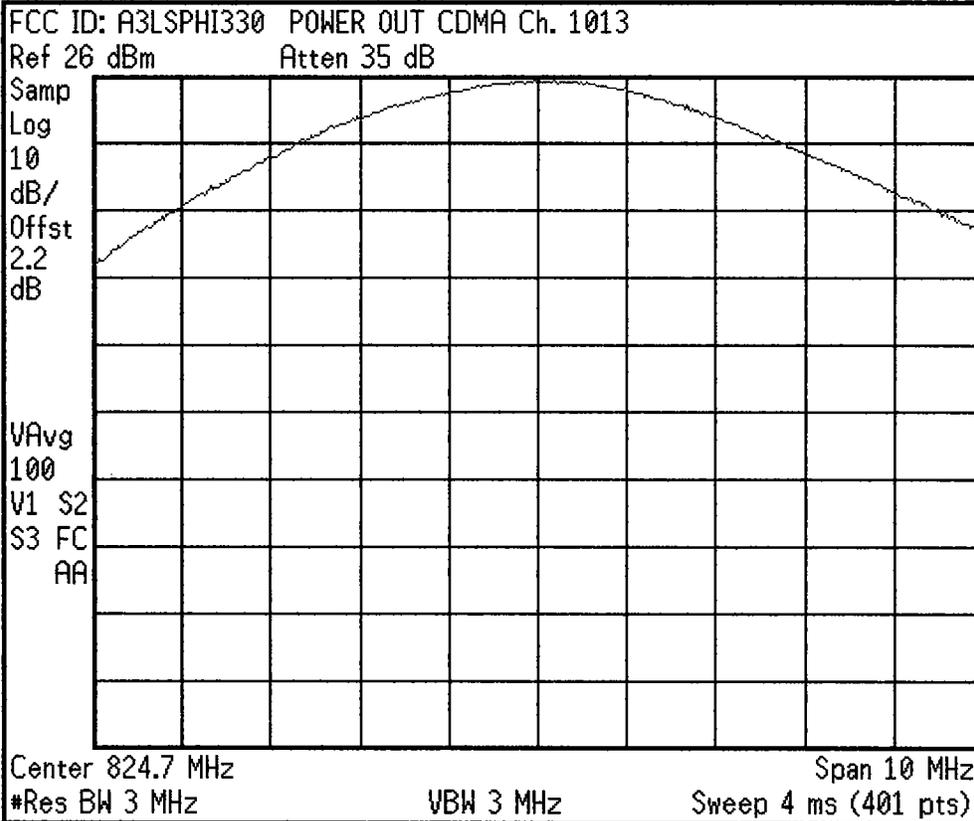#Res BW 1 MHz   VBW 1 MHz   Sweep 18.75 ms (401 pts)
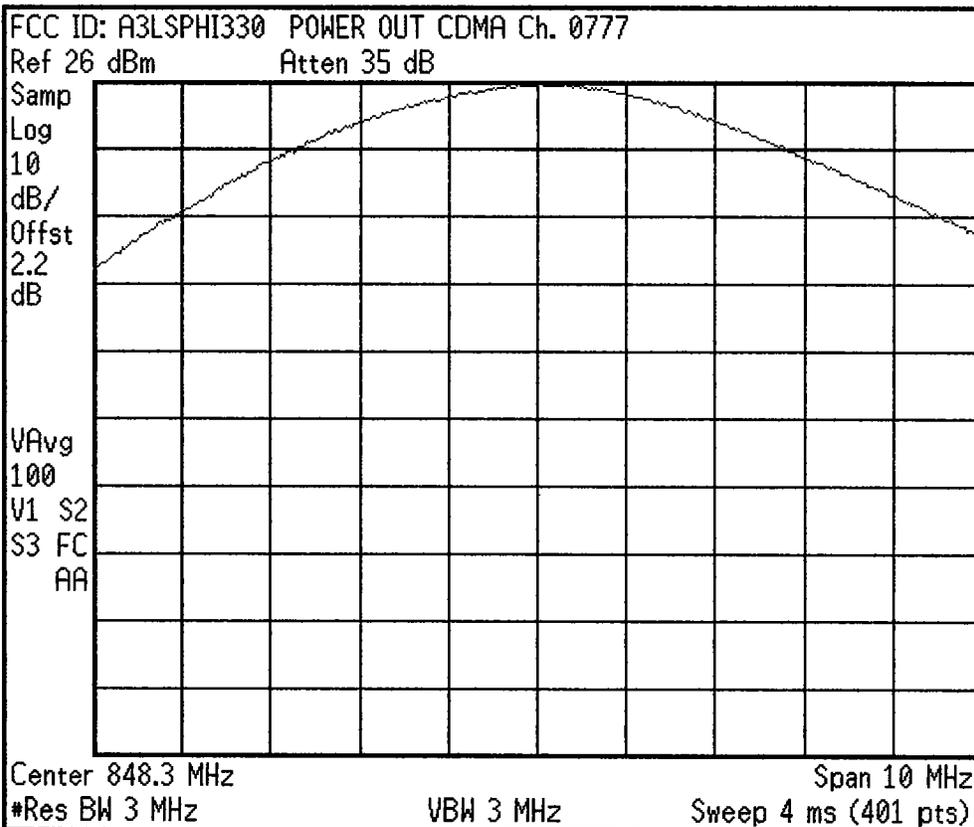
Freq/Channel

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
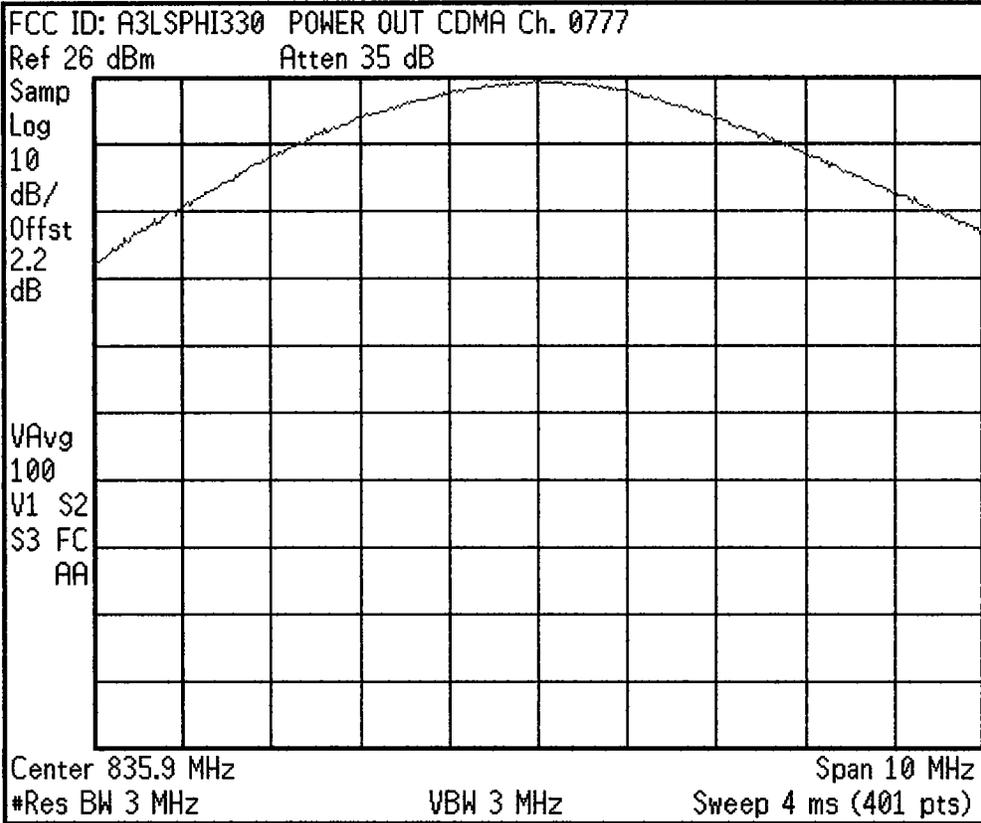On   Off

Scale Type
Log   Lin

Agilent

FCC ID: A3LSPHI330 Cond Spurs CDMA Ch. 0777										Mkr1 832 MHz

Ref 26 dBm   Atten 35 dB   −27.11 dBm

Peak
Log
10
dB/
Offst
2.2
dB
DI
−13.0
dBm

V1 S2
S3 FC
AA

Start 10 MHz   Stop 2.5 GHz
#Res BW 1 MHz   VBW 1 MHz   Sweep 4.15 ms (401 pts)

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

FCC ID: A3LSPHI330 Cond Spurs CDMA Ch. 0777   Mkr1 7.98 GHz

Ref 26 dBm   Atten 35 dB   −32.7 dBm

Peak
Log
10
dB/
Offst
2.2
dB
DI
−13.0
dBm

V1 S2
S3 FC
AA

Start 2.5 GHz   Stop 10 GHz
#Res BW 1 MHz   VBW 1 MHz   Sweep 18.75 ms (401 pts)

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

FCC ID: A3LSPHI330   POWER OUT CDMA Ch. 1013

Ref 26 dBm   Atten 35 dB

Samp
Log
10
dB/
Offst
2.2
dB

VAvg
100
V1 S2
S3 FC
   AA

Center 824.7 MHz   Span 10 MHz
#Res BW 3 MHz   VBW 3 MHz   Sweep 4 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

Scale Type
Log   Lin

FCC ID: A3LSPHI330 POWER OUT CDMA Ch. 0777

Ref 26 dBm   Atten 35 dB

Samp
Log
10
dB/
Offst
2.2
dB

VAvg
100
V1 S2
S3 FC
   AA

Center 848.3 MHz   Span 10 MHz
#Res BW 3 MHz   VBW 3 MHz   Sweep 4 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

Scale Type
Log   Lin

Top spectrum display:

❄ **Agilent**

FCC ID: A3LSPHI330   POWER OUT CDMA Ch. 0777
Ref 26 dBm   Atten 35 dB
Samp
Log
10
dB/
Offst
2.2
dB

VAvg
100
V1 S2
S3 FC
   AA

Center 835.9 MHz   Span 10 MHz
#Res BW 3 MHz   VBW 3 MHz   Sweep 4 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

Scale Type
Log   Lin

Bottom spectrum display:

❄ **Agilent**

Ch Freq   835.9 MHz   **Trig** Free
Channel Power

FCC ID: A3LSPHI330   POWER OUT CDMA Ch. 0777
Ref 26 dBm   Atten 35 dB
#Avg
Log
10
dB/
Offst
2.2
dB

Center 835.9 MHz   Span 3 MHz
Res BW 30 kHz   VBW 300 kHz   Sweep 8 ms (401 pts)

Channel Power	**Power Spectral Density**
26.04 dBm /2.0000 MHz	−36.98 dBm/Hz
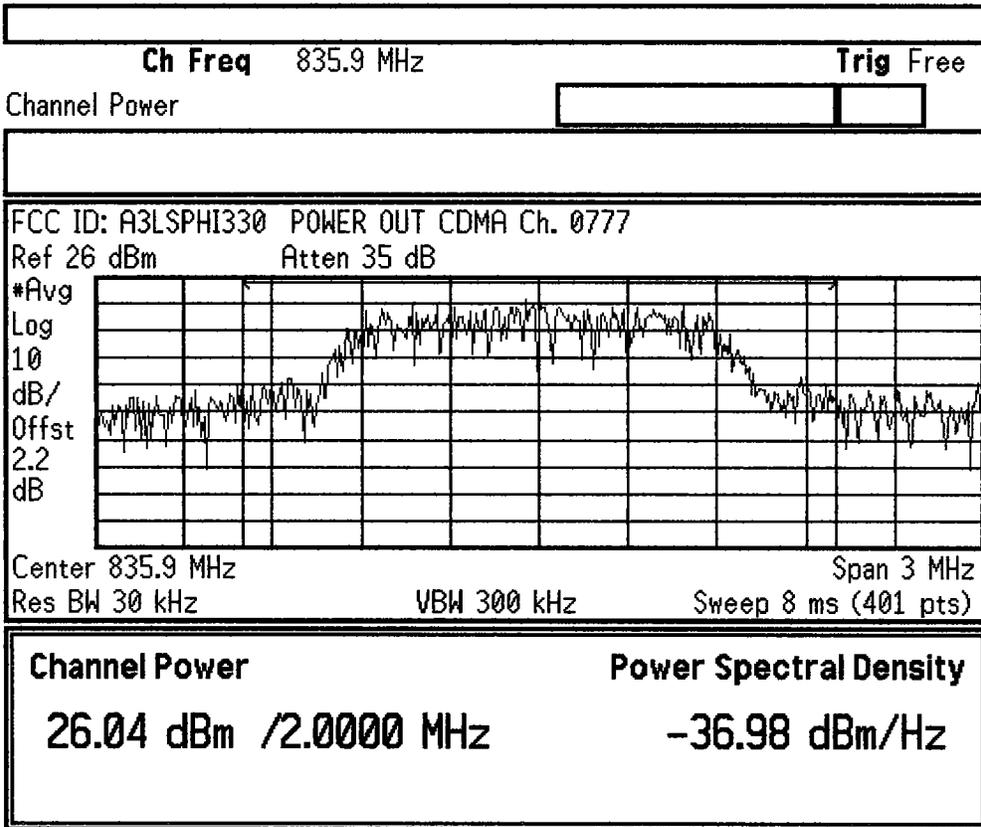
Freq/Channel

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

Scale Type
Log   Lin

Top screen:

❋ Agilent

FCC ID: A3LSPHI330 BAND EDGE CDMA Ch. 1013
Ref 26 dBm   Atten 35 dB
Samp
Log
10
dB/
Offst
2.2
dB
DI
-13.0
dBm
VAvg
100
V1 S2
S3 FC
AA

Center 824 MHz   Span 5 MHz
#Res BW 30 kHz   VBW 30 kHz   Sweep 9.533 ms (401 pts)
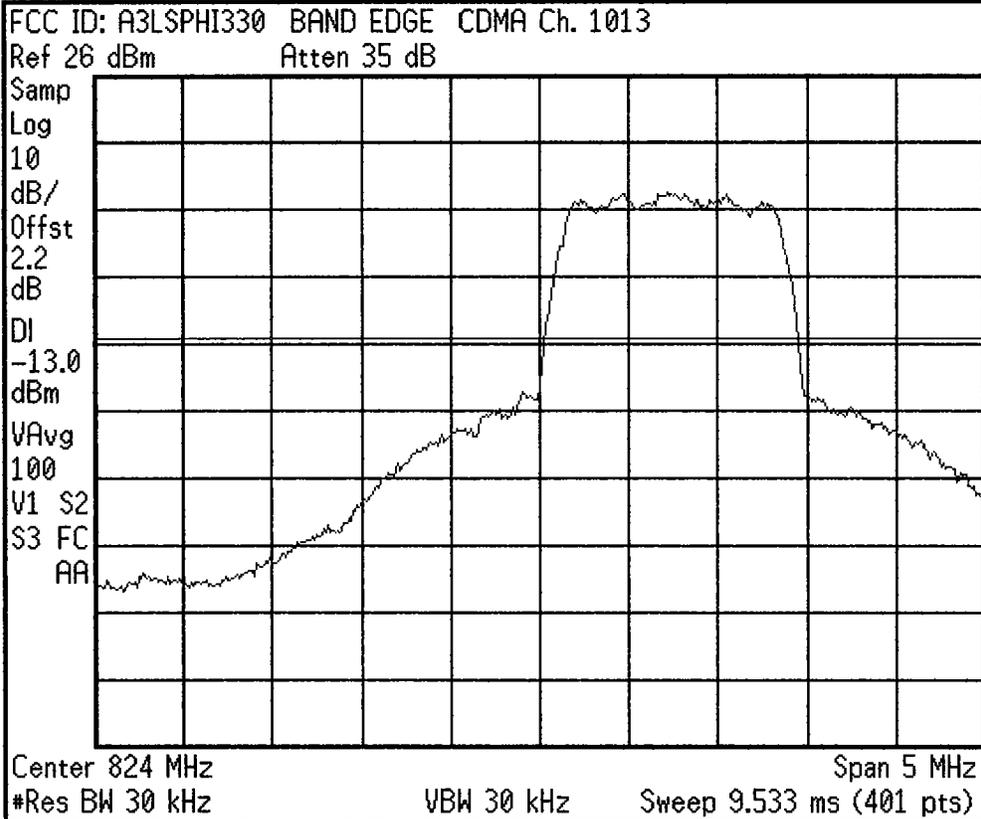
Freq/Channel

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

Bottom screen:

❋ Agilent

FCC ID: A3LSPHI330 BAND EDGE CDMA Ch. 0777
Ref 26 dBm   Atten 35 dB
Samp
Log
10
dB/
Offst
2.2
dB
DI
-13.0
dBm
VAvg
100
V1 S2
S3 FC
AA

Center 849 MHz   Span 5 MHz
#Res BW 30 kHz   VBW 30 kHz   Sweep 9.533 ms (401 pts)
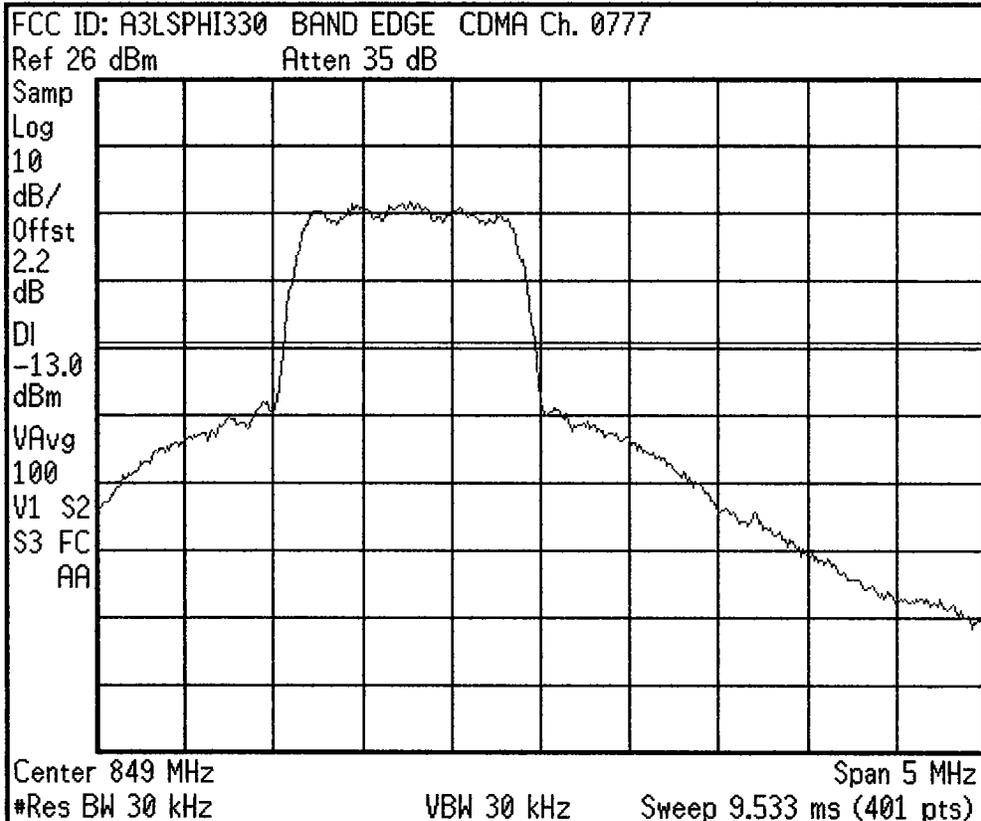
Freq/Channel

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

FCC ID: A3LSPHI330 CON SPURS PCS Ch: 0025   Mkr1 869 MHz
Ref 24.5 dBm   Atten 35 dB   −33.15 dBm

Peak
Log
10
dB/
Offst
3.5
dB
DI
−13.0
dBm

V1 S2
S3 FC
   AA

Start 10 MHz   Stop 2.5 GHz
#Res BW 1 MHz   VBW 1 MHz   #Sweep 6.225 ms (401 pts)
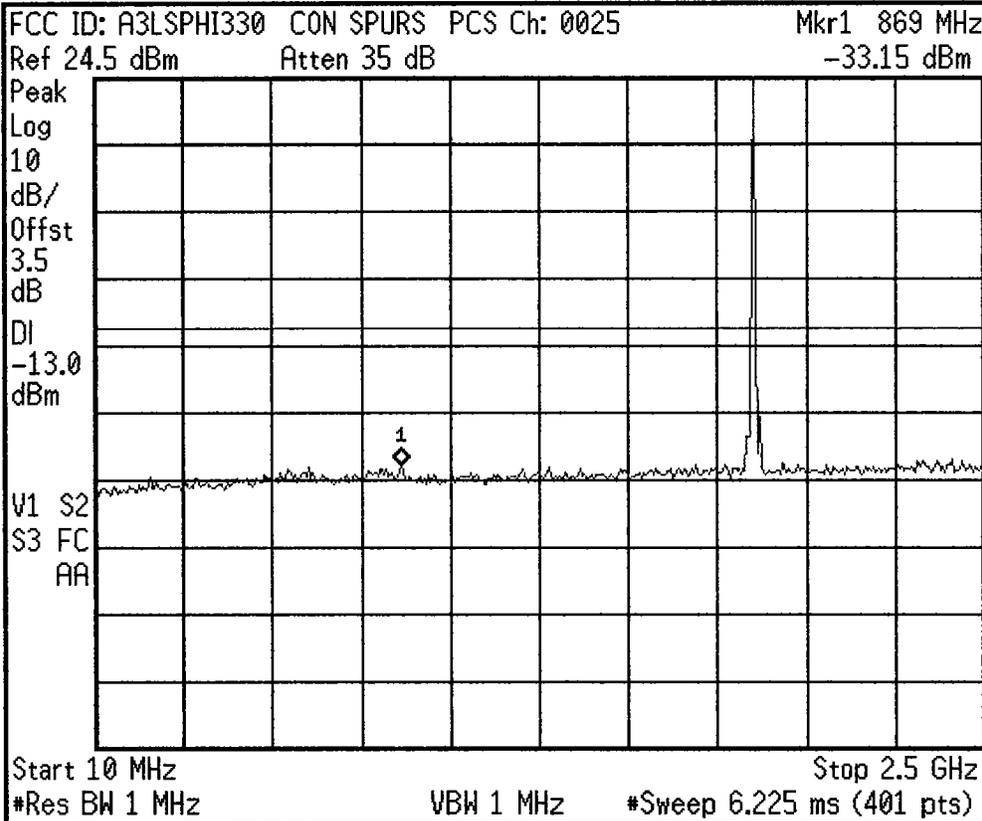
Freq/Channel

Center Freq
1.25500000 GHz

Start Freq
9.99999900 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

FCC ID: A3LSPHI330 CON SPURS PCS Ch: 0025   Mkr1 16.24 GHz
Ref 24.5 dBm   Atten 35 dB   −31.94 dBm

Peak
Log
10
dB/
Offst
3.5
dB
DI
−13.0
dBm

V1 S2
S3 FC
   AA

Start 2.5 GHz   Stop 20 GHz
#Res BW 1 MHz   VBW 1 MHz   #Sweep 175 ms (401 pts)

Freq/Channel

Center Freq
11.2500000 GHz

Start Freq
2.50000000 GHz

Stop Freq
20.0000000 GHz

CF Step
1.75000000 GHz
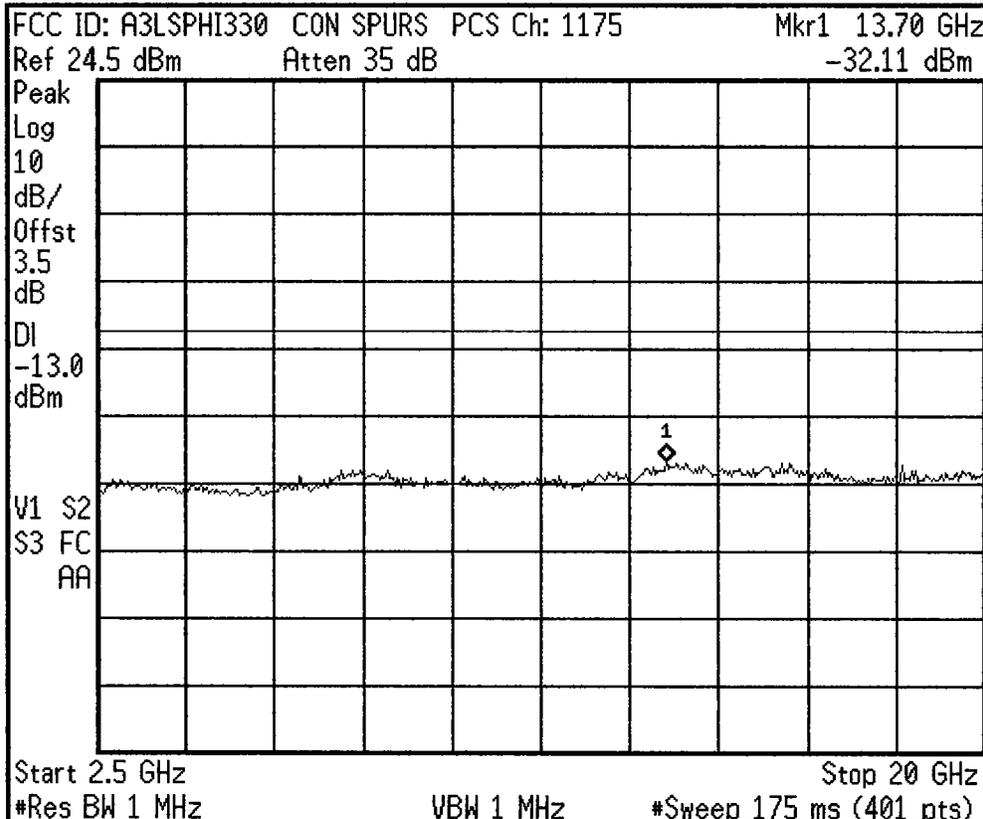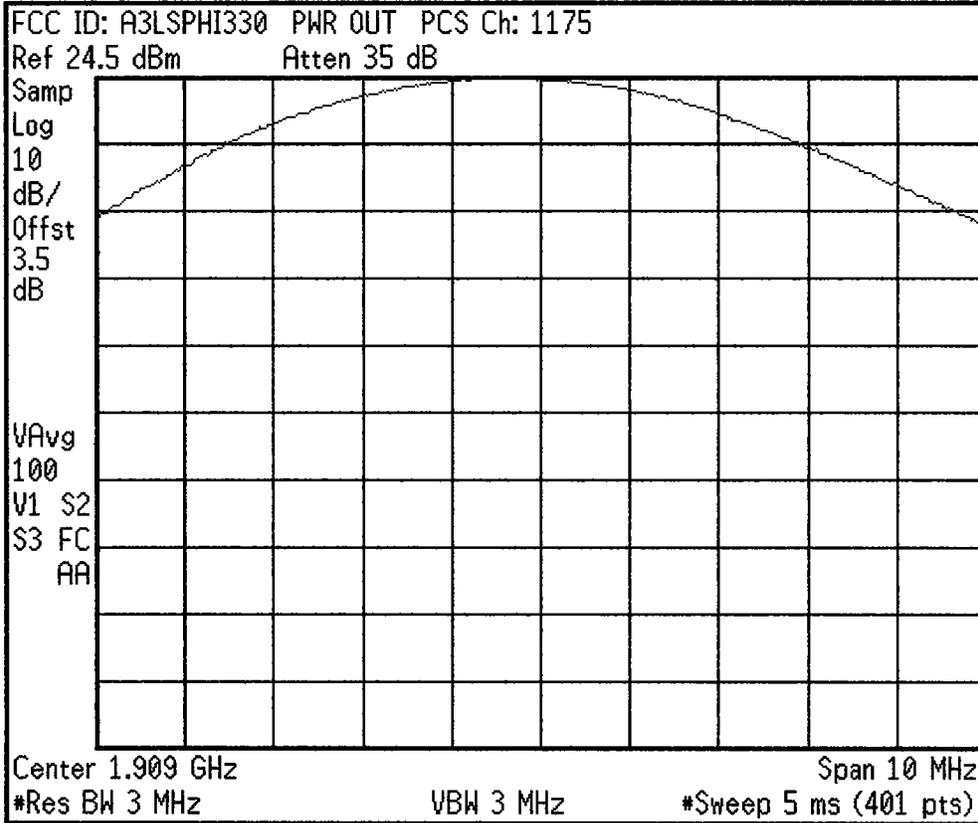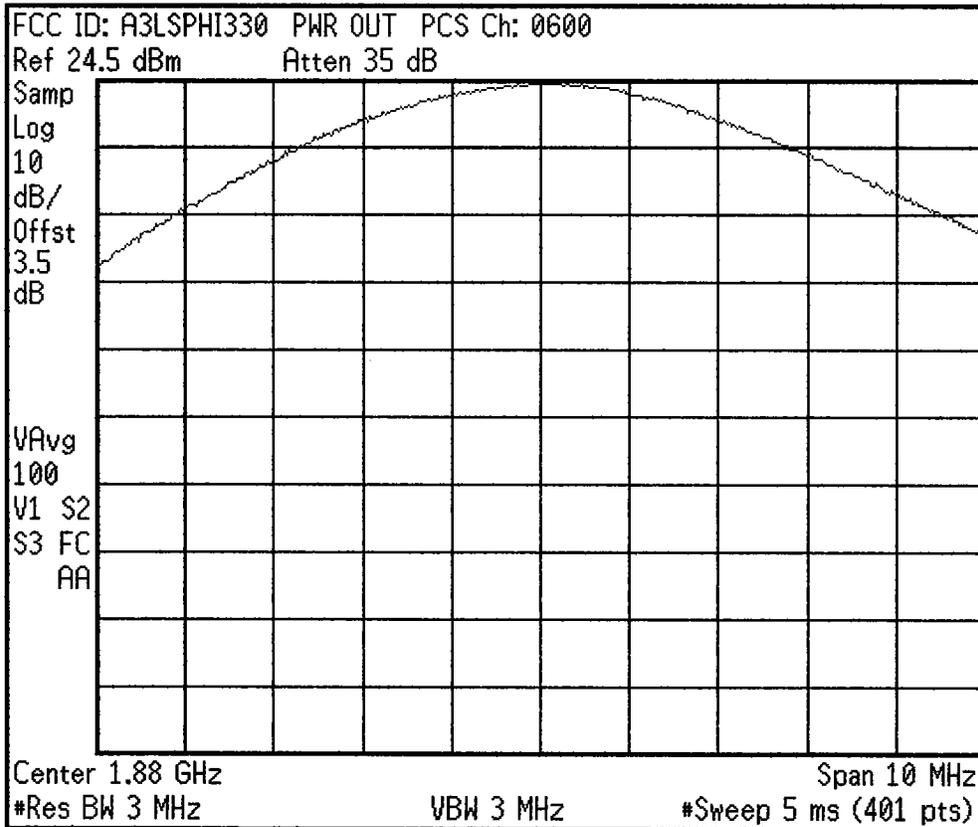Auto   Man

Freq Offset
0.00000000 Hz

Signal Track
On   Off

Scale Type
Log   Lin

Agilent

FCC ID: A3LSPHI330 CON SPURS PCS Ch: 1175   Mkr1 1.292 GHz
Ref 24.5 dBm   Atten 35 dB   −33.22 dBm

Peak
Log
10
dB/
Offst
3.5
dB
Dl
−13.0
dBm

V1 S2
S3 FC
AA

Start 10 MHz   Stop 2.5 GHz
#Res BW 1 MHz   VBW 1 MHz   #Sweep 6.225 ms (401 pts)

| 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

FCC ID: A3LSPHI330 CON SPURS PCS Ch: 1175   Mkr1 13.70 GHz
Ref 24.5 dBm   Atten 35 dB   −32.11 dBm

Peak
Log
10
dB/
Offst
3.5
dB
Dl
−13.0
dBm

V1 S2
S3 FC
AA

Start 2.5 GHz   Stop 20 GHz
#Res BW 1 MHz   VBW 1 MHz   #Sweep 175 ms (401 pts)

| 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

FCC ID: A3LSPHI330   PWR OUT   PCS Ch: 1175
Ref 24.5 dBm   Atten 35 dB

Samp
Log
10
dB/
Offst
3.5
dB

VAvg
100
V1 S2
S3 FC
   AA

Center 1.909 GHz   Span 10 MHz
#Res BW 3 MHz   VBW 3 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

Scale Type
Log   Lin

Agilent

FCC ID: A3LSPHI330   PWR OUT   PCS Ch: 0600
Ref 24.5 dBm   Atten 35 dB

Samp
Log
10
dB/
Offst
3.5
dB

VAvg
100
V1 S2
S3 FC
   AA

Center 1.88 GHz   Span 10 MHz
#Res BW 3 MHz   VBW 3 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

Scale Type
Log   Lin

Agilent

FCC ID: A3LSPHI330 PWR OUT PCS Ch: 0025
Ref 24.5 dBm   Atten 35 dB

Samp
Log
10
dB/
Offst
3.5
dB

VAvg
100
V1 S2
S3 FC
   AA

Center 1.851 GHz   Span 10 MHz
#Res BW 3 MHz   VBW 3 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
Scale Type Log   Lin

Agilent

Ch Freq   1.8512 GHz   **Trig** Free
Channel Power
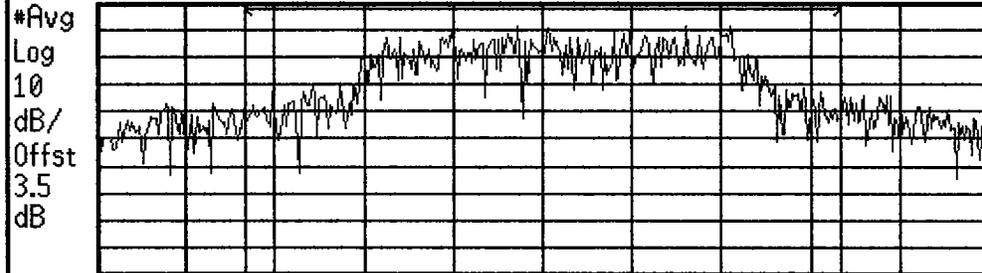
FCC ID: A3LSPHI330 PWR OUT PCS Ch: 0025
Ref 24.5 dBm   Atten 35 dB

#Avg
Log
10
dB/
Offst
3.5
dB

Center 1.851 GHz   Span 3 MHz
Res BW 30 kHz   VBW 300 kHz   Sweep 8 ms (401 pts)

Channel Power   **Power Spectral Density**

24.53 dBm /2.0000 MHz   **−38.48 dBm/Hz**

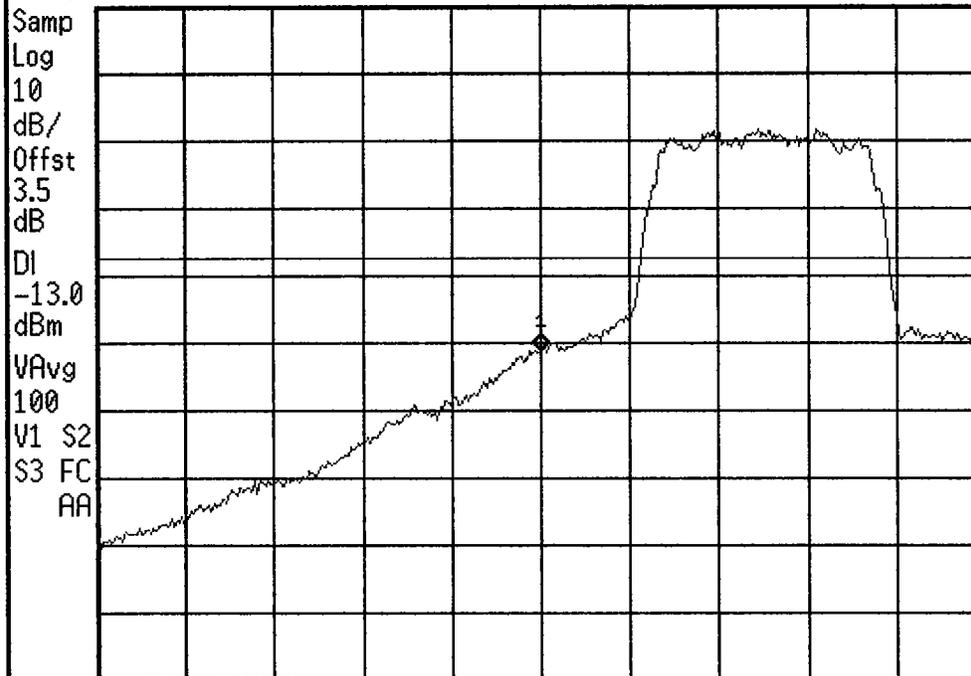| Freq/Channel |
| --- |
| **Center Freq** 1.85120000 GHz |
| **Start Freq** 1.84970000 GHz |
| **Stop Freq** 1.85270000 GHz |
| **CF Step** 300.000000 kHz — Auto   Man |
| **Freq Offset** 0.00000000 Hz |
| **Signal Track** On   Off |
| **Scale Type** Log   Lin |

Agilent

FCC ID: A3LSPHI330   BAND EDGE   PCS Ch: 1175   Mkr1 1.91000 GHz
Ref 24.5 dBm   Atten 35 dB   −27.88 dBm
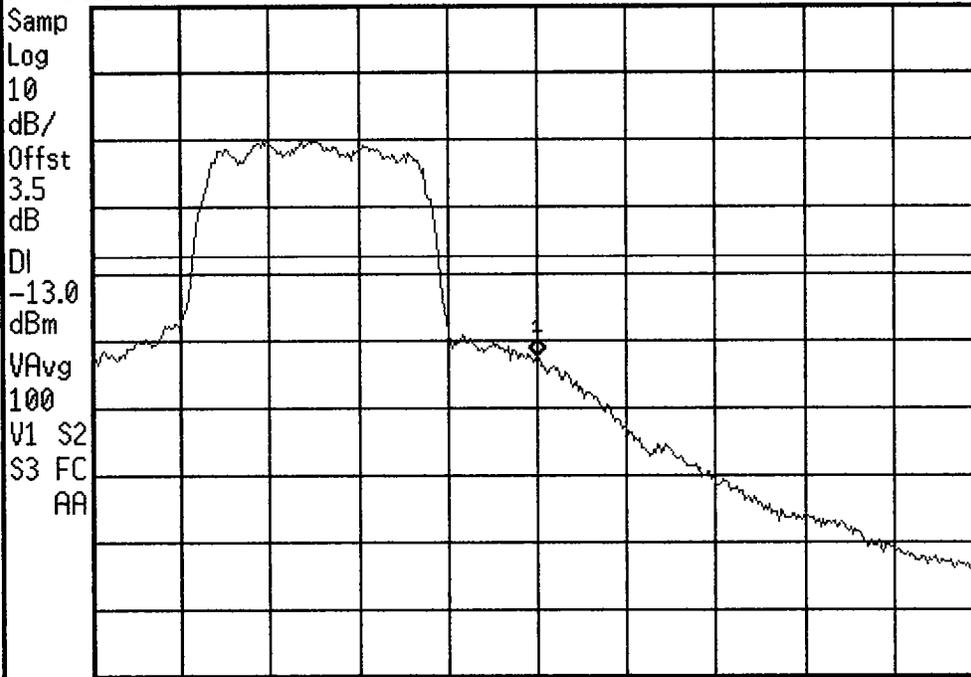
Samp
Log
10
dB/
Offst
3.5
dB
DI
−13.0
dBm
VAvg
100
V1 S2
S3 FC
    AA

Center 1.91 GHz   Span 5 MHz
#Res BW 30 kHz   #VBW 30 kHz   #Sweep 13.89 ms (401 pts)

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

FCC ID: A3LSPHI330   BAND EDGE   PCS Ch: 0025   Mkr1 1.85000 GHz
Ref 24.5 dBm   Atten 35 dB   −26.75 dBm

Samp
Log
10
dB/
Offst
3.5
dB
DI
−13.0
dBm
VAvg
100
V1 S2
S3 FC
    AA

Center 1.85 GHz   Span 5 MHz
#Res BW 30 kHz   #VBW 30 kHz   #Sweep 13.89 ms (401 pts)

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

Top instrument display:

Agilent

FCC ID: A3LSPHI330 BAND EDGE PCS Ch: 0025 Mkr1 1.845500 GHz
Ref 24.5 dBm Atten 35 dB −23.19 dBm
Peak
Log
10
dB/
Offst
3.5
dB
DI
−13.0
dBm

V1 S2
S3 FC
AA

Center 1.845 GHz Span 1 MHz
#Res BW 1 MHz #VBW 1 MHz #Sweep 5 ms (401 pts)

Freq/Channel

Center Freq
1.84500000 GHz

Start Freq
1.84450000 GHz

Stop Freq
1.84550000 GHz

CF Step
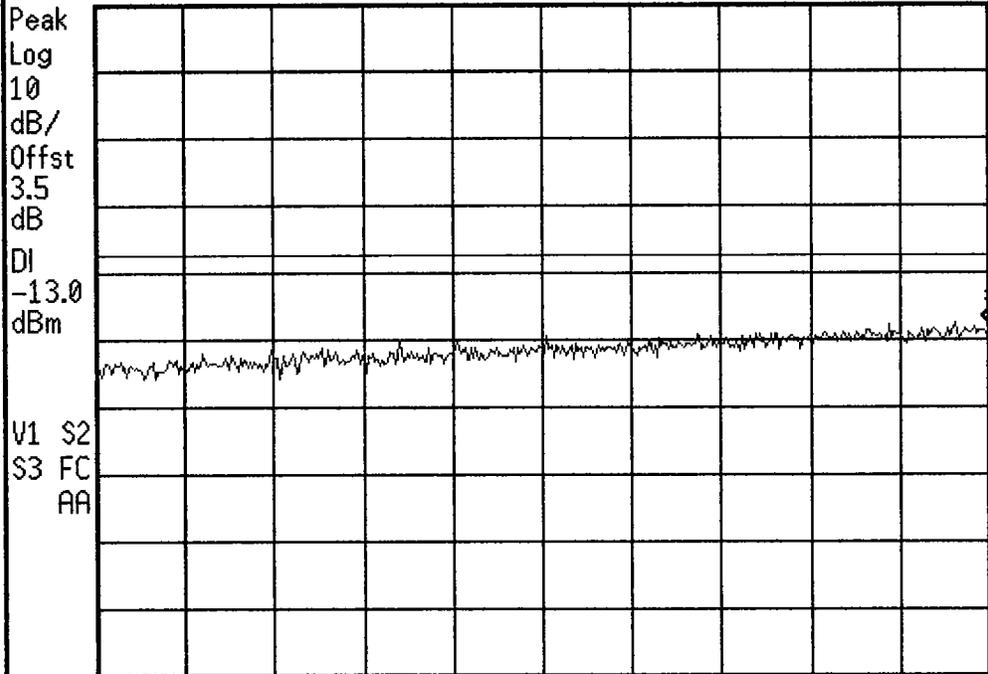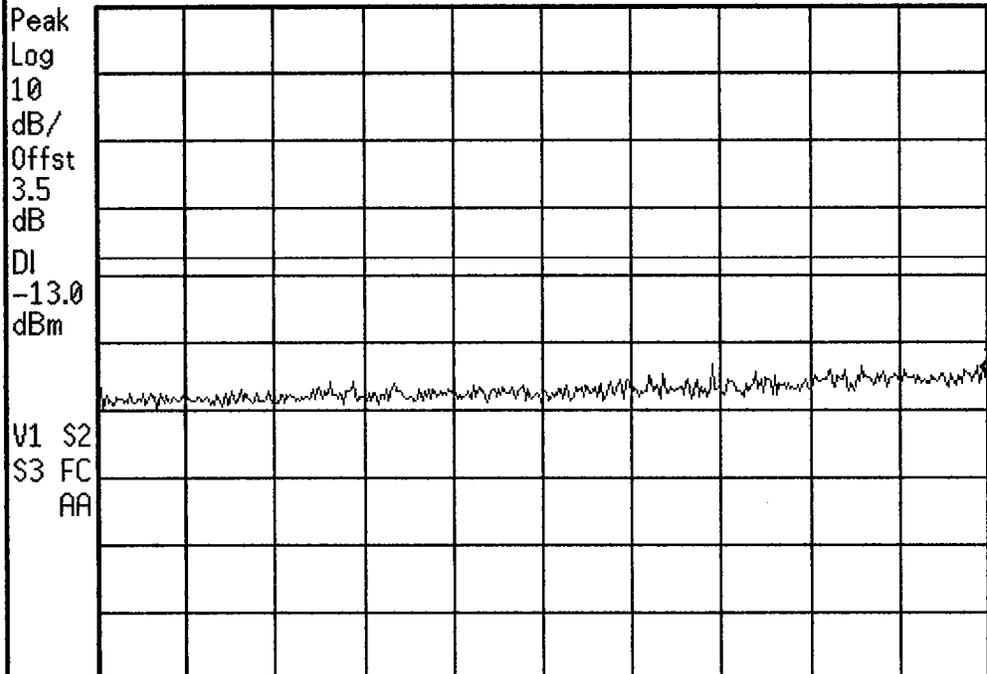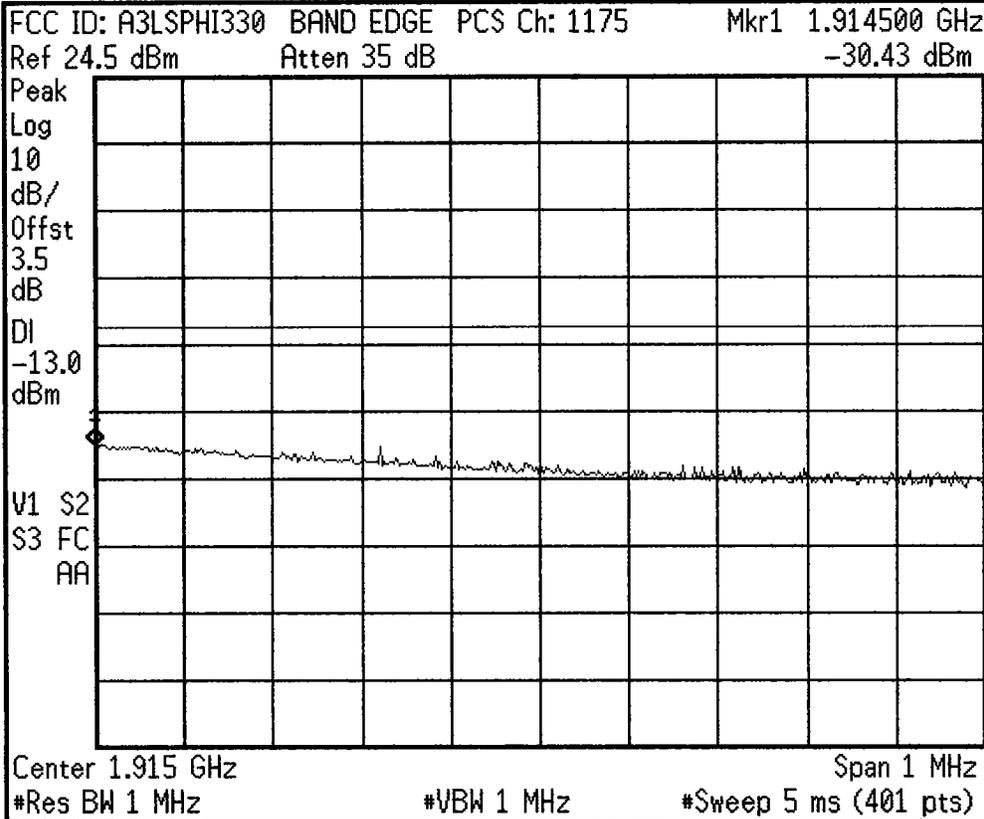100.000000 kHz
Auto Man

Freq Offset
0.00000000 Hz

Signal Track
On Off

Scale Type
Log Lin

Bottom instrument display:

Agilent

FCC ID: A3LSPHI330 BAND EDGE PCS Ch: 0025 Mkr1 1.844500 GHz
Ref 24.5 dBm Atten 35 dB −30.47 dBm
Peak
Log
10
dB/
Offst
3.5
dB
DI
−13.0
dBm

V1 S2
S3 FC
AA

Center 1.844 GHz Span 1 MHz
#Res BW 1 MHz #VBW 1 MHz #Sweep 5 ms (401 pts)

Freq/Channel

Center Freq
1.84400000 GHz

Start Freq
1.84350000 GHz

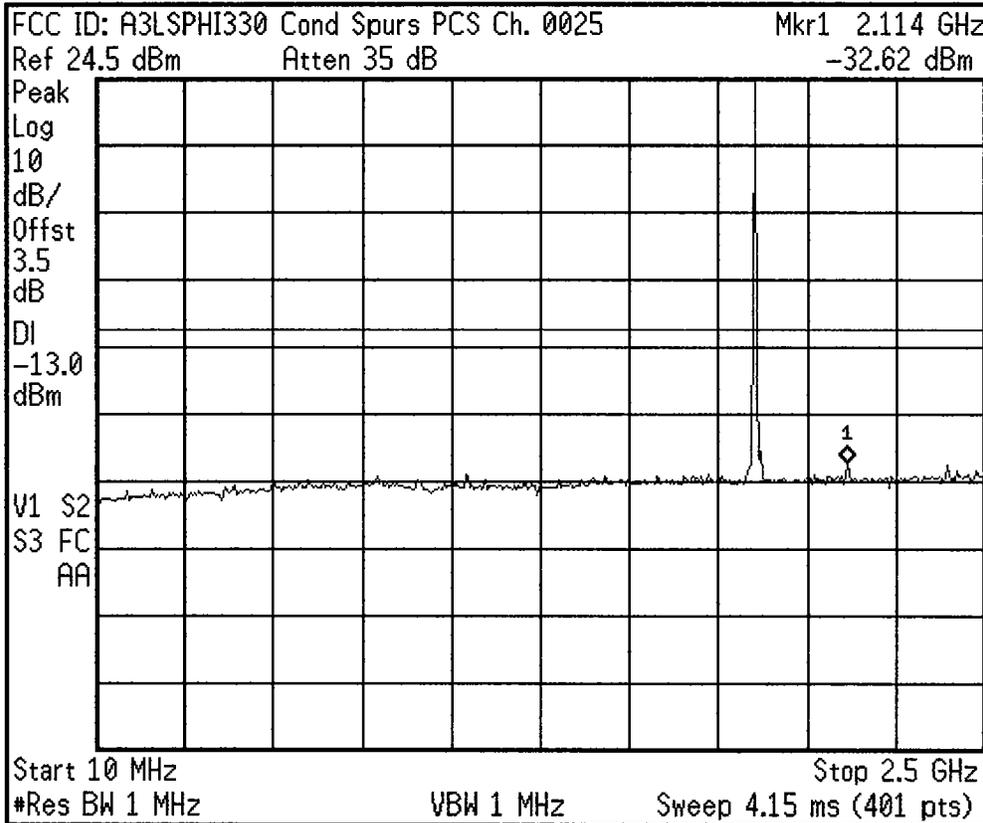Stop Freq
1.84450000 GHz

CF Step
100.000000 kHz
Auto Man

Freq Offset
0.00000000 Hz

Signal Track
On Off

Scale Type
Log Lin

Top plot labels:

* Agilent   06:52:53 May 31, 2002

FCC ID: A3LSPHI330 Cond Spurs PCS Ch. 0025   Mkr1   2.114 GHz
Ref 24.5 dBm   Atten 35 dB   −32.62 dBm

Peak
Log
10
dB/
Offst
3.5
dB
DI
−13.0
dBm

V1 S2
S3 FC
AA

Start 10 MHz   Stop 2.5 GHz
#Res BW 1 MHz   VBW 1 MHz   Sweep 4.15 ms (401 pts)

Right panel:
Freq/Channel
Center Freq 1.25500000 GHz
Start Freq 10.0000000 MHz
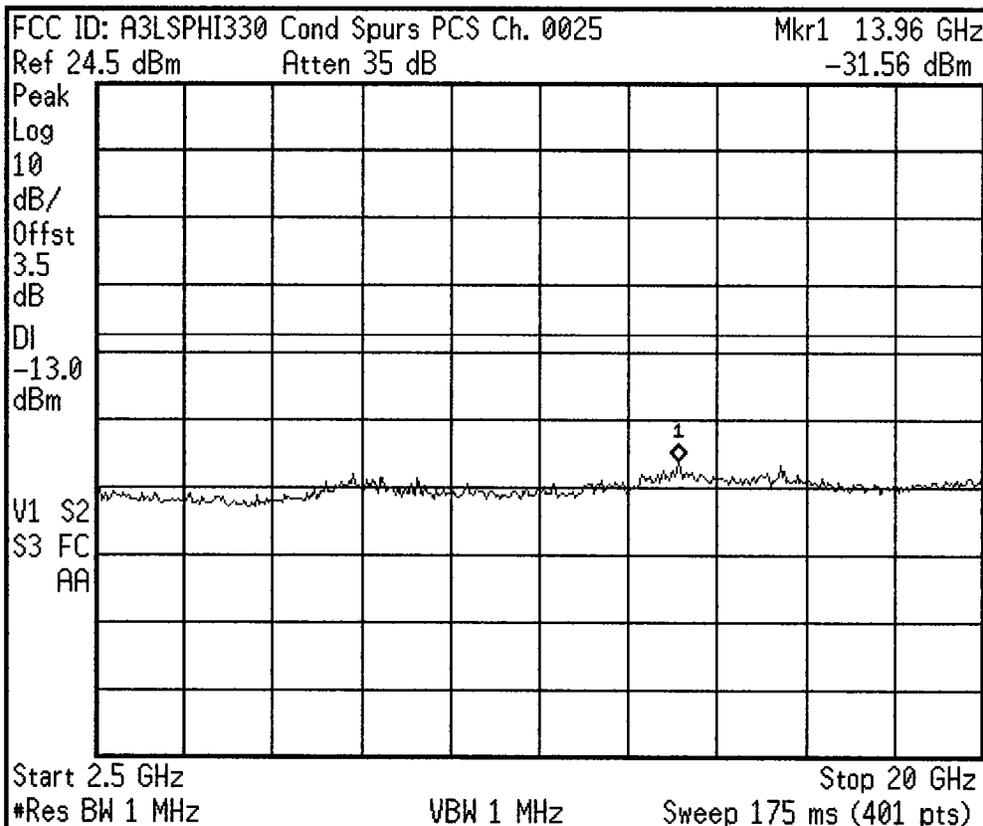Stop Freq 2.50000000 GHz
CF Step 249.000000 MHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off
Scale Type Log Lin

Bottom plot labels:

* Agilent   06:53:39 May 31, 2002

FCC ID: A3LSPHI330 Cond Spurs PCS Ch. 0025   Mkr1   13.96 GHz
Ref 24.5 dBm   Atten 35 dB   −31.56 dBm

Peak
Log
10
dB/
Offst
3.5
dB
DI
−13.0
dBm

V1 S2
S3 FC
AA

Start 2.5 GHz   Stop 20 GHz
#Res BW 1 MHz   VBW 1 MHz   Sweep 175 ms (401 pts)

Right panel:
Freq/Channel
Center Freq 11.2500000 GHz
Start Freq 2.50000000 GHz
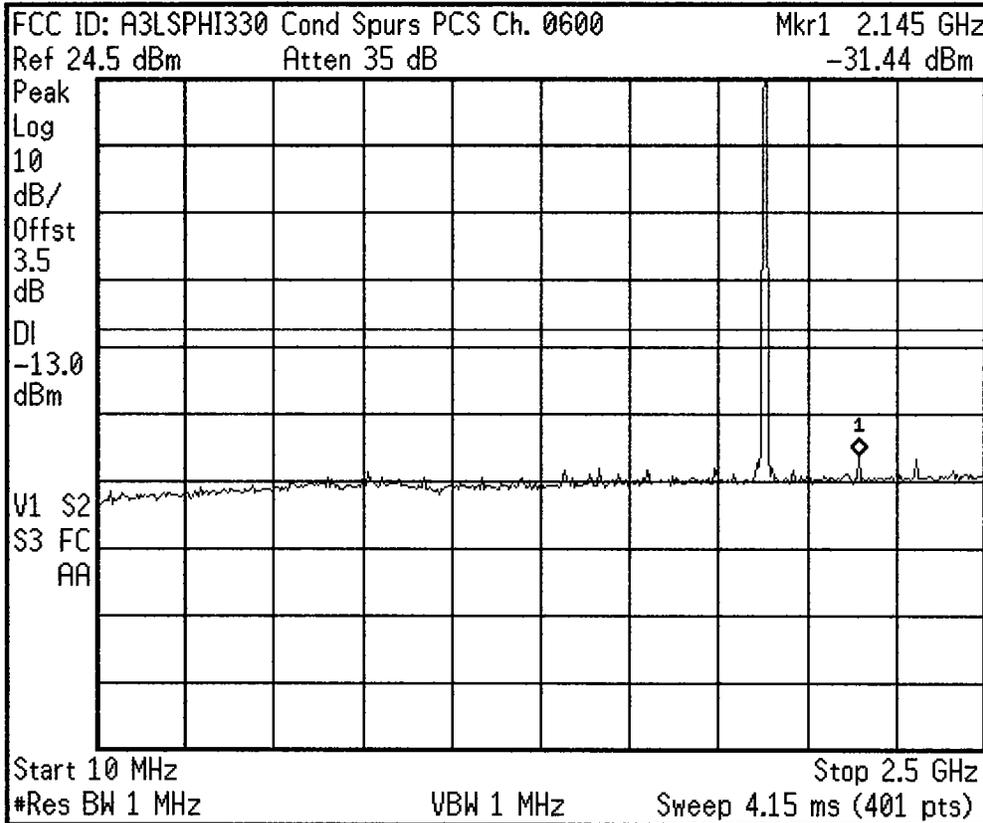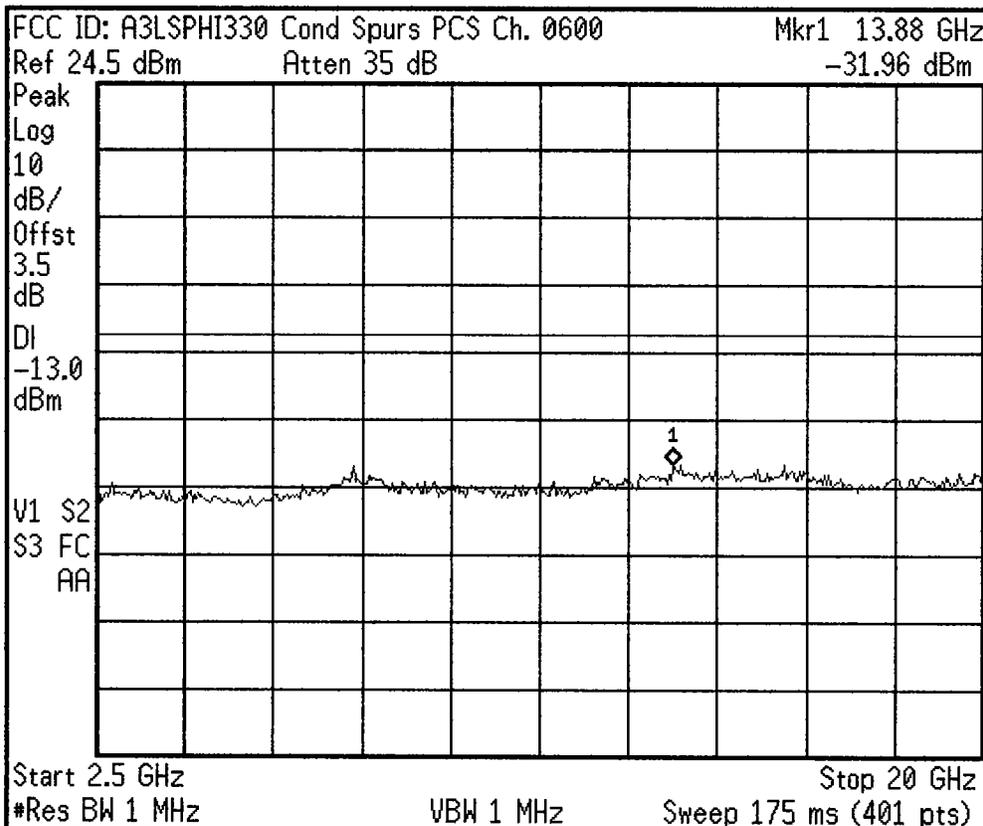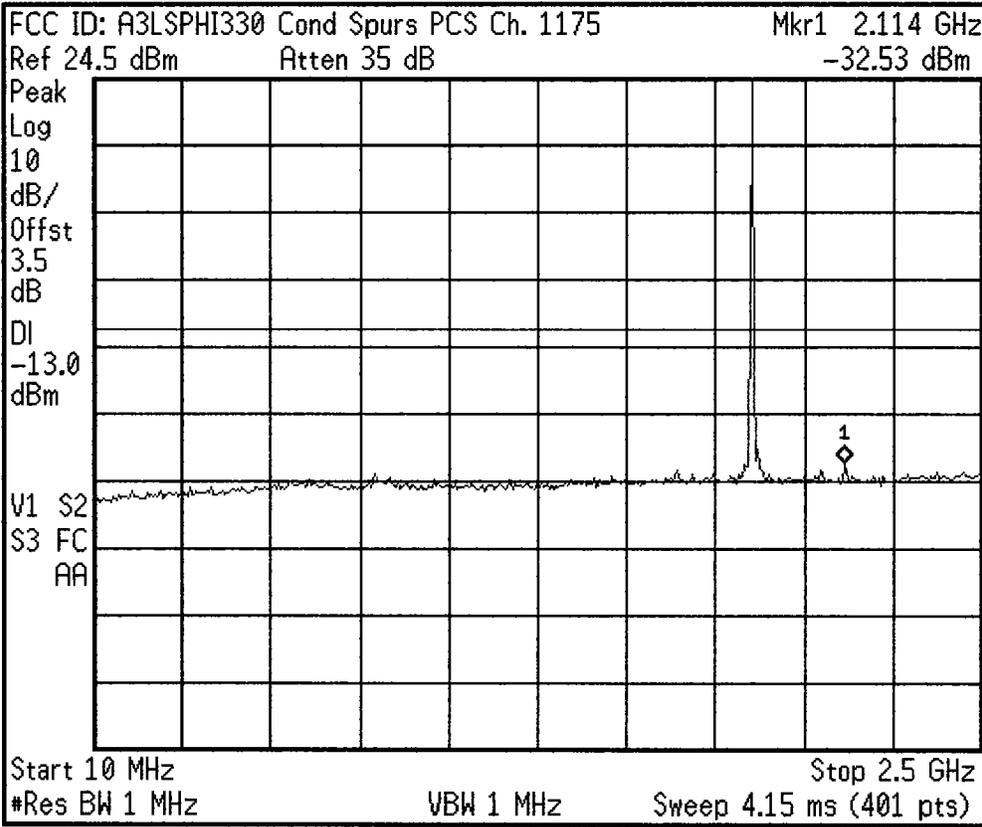Stop Freq 20.0000000 GHz
CF Step 1.75000000 GHz Auto Man
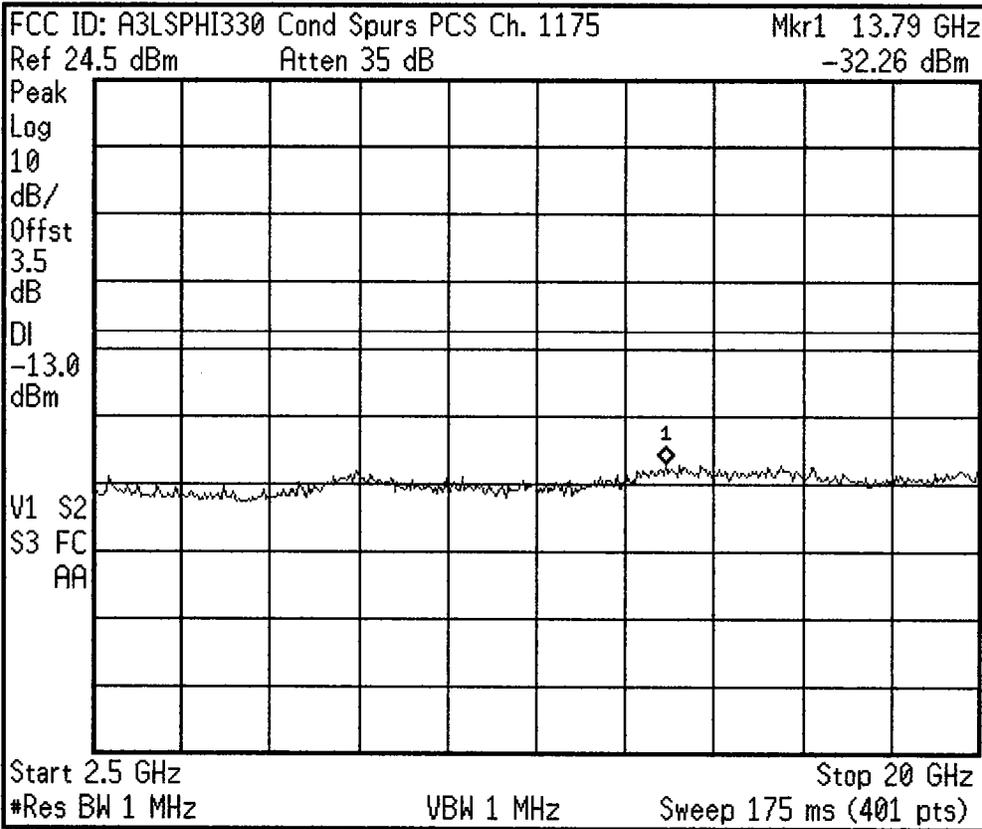Freq Offset 0.00000000 Hz
Signal Track On Off
Scale Type Log Lin

Top plot:

※ Agilent   06:56:57 May 31, 2002   **Freq/Channel**

FCC ID: A3LSPHI330 Cond Spurs PCS Ch. 1175   Mkr1 2.114 GHz
Ref 24.5 dBm   Atten 35 dB   −32.53 dBm
Peak
Log
10
dB/
Offst
3.5
dB
DI
−13.0
dBm

V1 S2
S3 FC
  AA

Start 10 MHz   Stop 2.5 GHz
#Res BW 1 MHz   VBW 1 MHz   Sweep 4.15 ms (401 pts)

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

Bottom plot:

※ Agilent   06:57:51 May 31, 2002   **Freq/Channel**

FCC ID: A3LSPHI330 Cond Spurs PCS Ch. 1175   Mkr1 13.79 GHz
Ref 24.5 dBm   Atten 35 dB   −32.26 dBm
Peak
Log
10
dB/
Offst
3.5
dB
DI
−13.0
dBm

V1 S2
S3 FC
  AA

Start 2.5 GHz   Stop 20 GHz
#Res BW 1 MHz   VBW 1 MHz   Sweep 175 ms (401 pts)

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
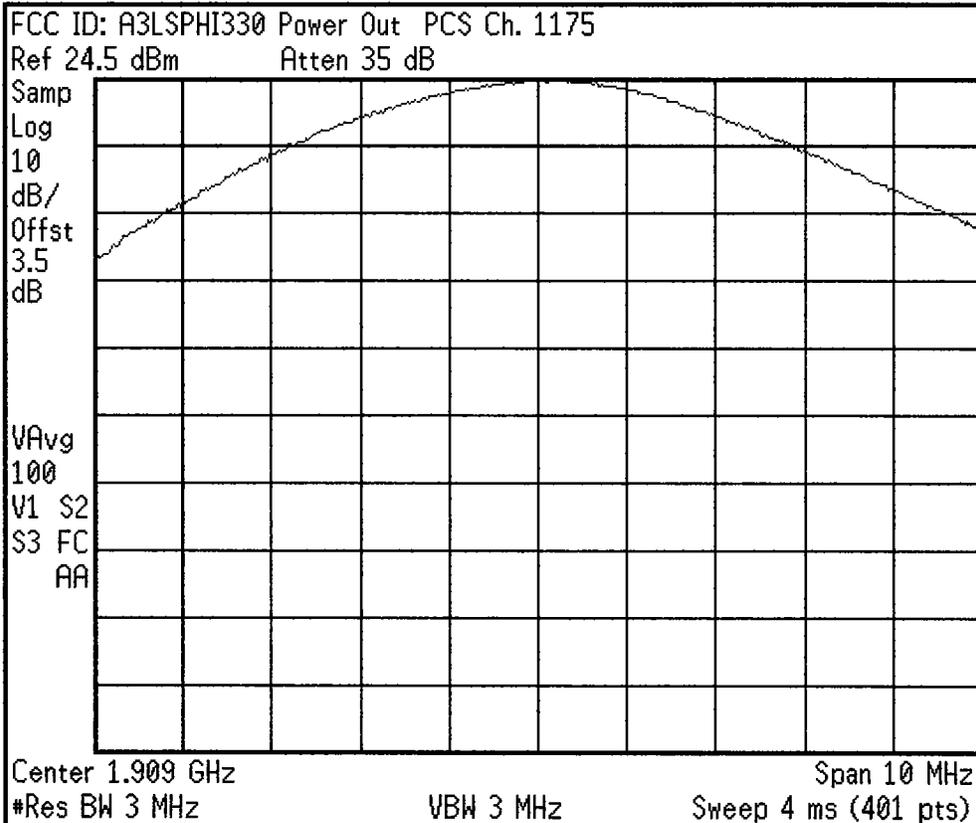**Signal Track** On Off
Scale Type Log Lin

FCC ID: A3LSPHI330 Power Out PCS Ch 0600
Ref 24.5 dBm   Atten 35 dB

Samp
Log
10
dB/
Offst
3.5
dB

VAvg
100
V1 S2
S3 FC
    AA

Center 1.88 GHz   Span 10 MHz
#Res BW 3 MHz   VBW 3 MHz   Sweep 4 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
Scale Type Log   Lin

FCC ID: A3LSPHI330 Power Out PCS Ch. 1175
Ref 24.5 dBm   Atten 35 dB

Samp
Log
10
dB/
Offst
3.5
dB

VAvg
100
V1 S2
S3 FC
    AA

Center 1.909 GHz   Span 10 MHz
#Res BW 3 MHz   VBW 3 MHz   Sweep 4 ms (401 pts)

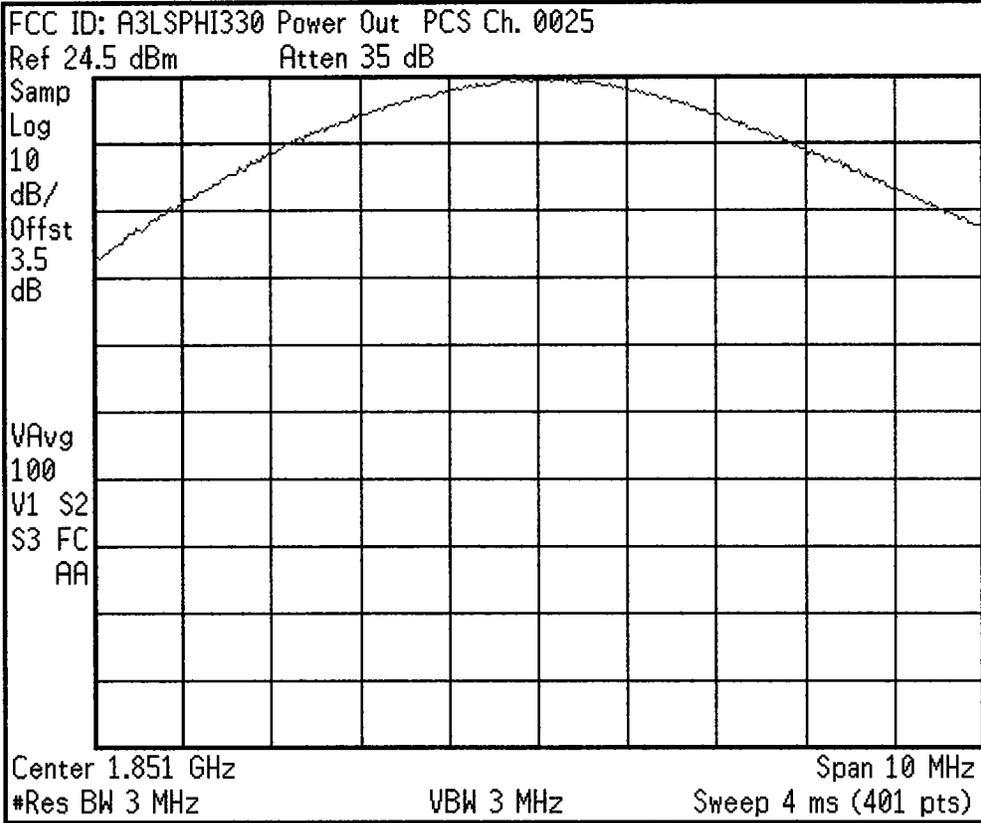| Freq/Channel |
| --- |
| **Center Freq**
1.90875000 GHz |
| **Start Freq**
1.90375000 GHz |
| **Stop Freq**
1.91375000 GHz |
| **CF Step**
1.00000000 MHz
Auto   Man |
| **Freq Offset**
0.00000000 Hz |
| **Signal Track**
On   Off |
| **Scale Type**
Log   Lin |

Agilent   07:10:36 May 31, 2002 | Freq/Channel |

FCC ID: A3LSPHI330 Power Out PCS Ch. 0025

Ref 24.5 dBm   Atten 35 dB

Samp
Log
10
dB/
Offst
3.5
dB

VAvg
100
V1 S2
S3 FC
    AA

Center 1.851 GHz   Span 10 MHz
#Res BW 3 MHz   VBW 3 MHz   Sweep 4 ms (401 pts)

| 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

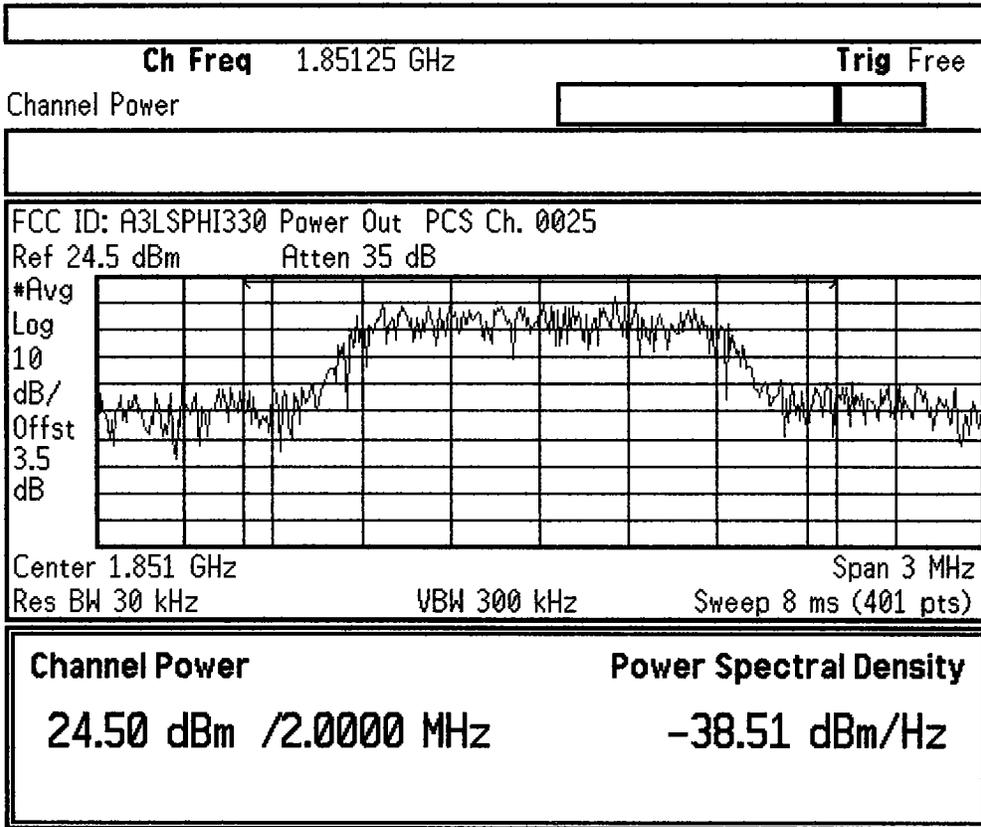**Agilent**   07:14:16 May 31, 2002 | Freq/Channel |

Ch Freq   1.85125 GHz   **Trig** Free
Channel Power

FCC ID: A3LSPHI330 Power Out PCS Ch. 0025

Ref 24.5 dBm   Atten 35 dB

#Avg
Log
10
dB/
Offst
3.5
dB

Center 1.851 GHz   Span 3 MHz
Res BW 30 kHz   VBW 300 kHz   Sweep 8 ms (401 pts)

Channel Power   **Power Spectral Density**

24.50 dBm /2.0000 MHz   **−38.51 dBm/Hz**

| 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

Ch Freq   1.88 GHz   **Trig** Free

Occupied Bandwidth

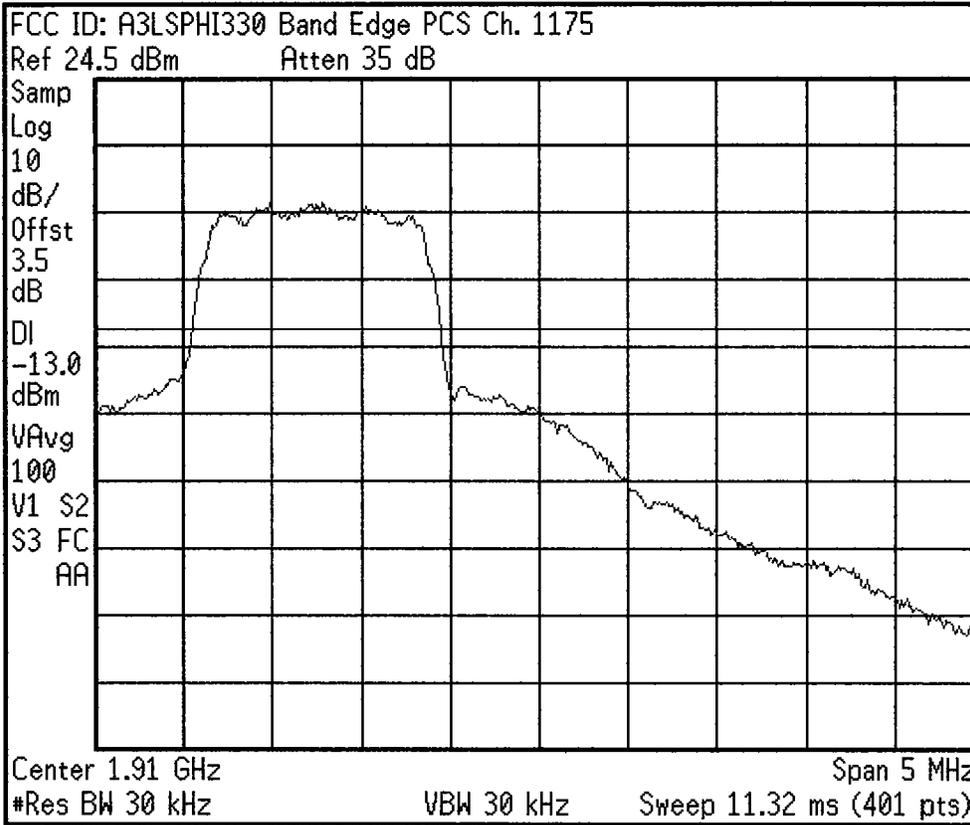FCC ID: A3LSPHI330 Power Out PCS Ch. 0600
Ref 24.5 dBm   Atten 35 dB

#Samp
Log
10
dB/
Offst
3.5
dB
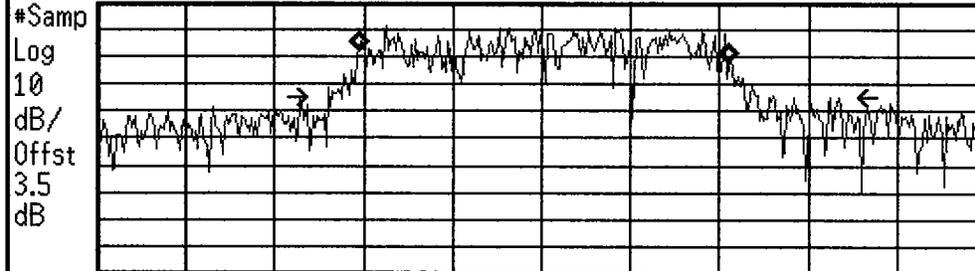
Center 1.88 GHz   Span 3 MHz
#Res BW 30 kHz   #VBW 300 kHz   Sweep 5.288 ms (401 pts)

Occupied Bandwidth	Occ BW % Pwr	99.00 %
1.2511 MHz	**x dB**	−26.00 dB

Transmit Freq Error   7.708 kHz
x dB Bandwidth   1.722 MHz*
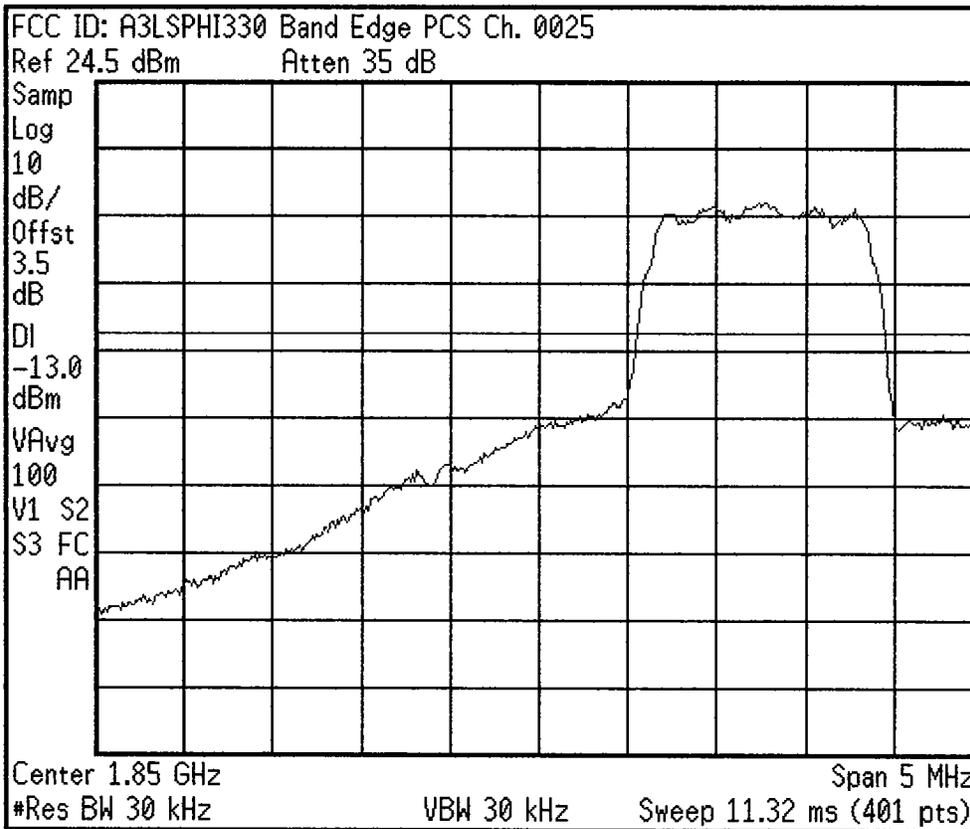

Freq/Channel

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

Scale Type
Log   Lin

FCC ID: A3LSPHI330 Band Edge PCS Ch. 1175
Ref 24.5 dBm   Atten 35 dB

Samp
Log
10
dB/
Offst
3.5
dB
DI
-13.0
dBm

VAvg
100
V1 S2
S3 FC
   AA

Center 1.91 GHz   Span 5 MHz
#Res BW 30 kHz   VBW 30 kHz   Sweep 11.32 ms (401 pts)

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

FCC ID: A3LSPHI330 Band Edge PCS Ch. 0025
Ref 24.5 dBm   Atten 35 dB

Samp
Log
10
dB/
Offst
3.5
dB
DI
-13.0
dBm

VAvg
100
V1 S2
S3 FC
   AA

Center 1.85 GHz   Span 5 MHz
#Res BW 30 kHz   VBW 30 kHz   Sweep 11.32 ms (401 pts)

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

Figure 1 (top):

Agilent 07:33:20 May 31, 2002

FCC ID: A3LSPHI330 Band Edge PCS Ch. 0025   Mkr1 1.847483 GHz
Ref 24.5 dBm   Atten 35 dB   −27.67 dBm

Samp
Log
10
dB/
Offst
3.5
dB
DI
−13.0
dBm
VAvg
100
V1 S2
S3 FC
AA

Center 1.847 GHz   Span 1 MHz
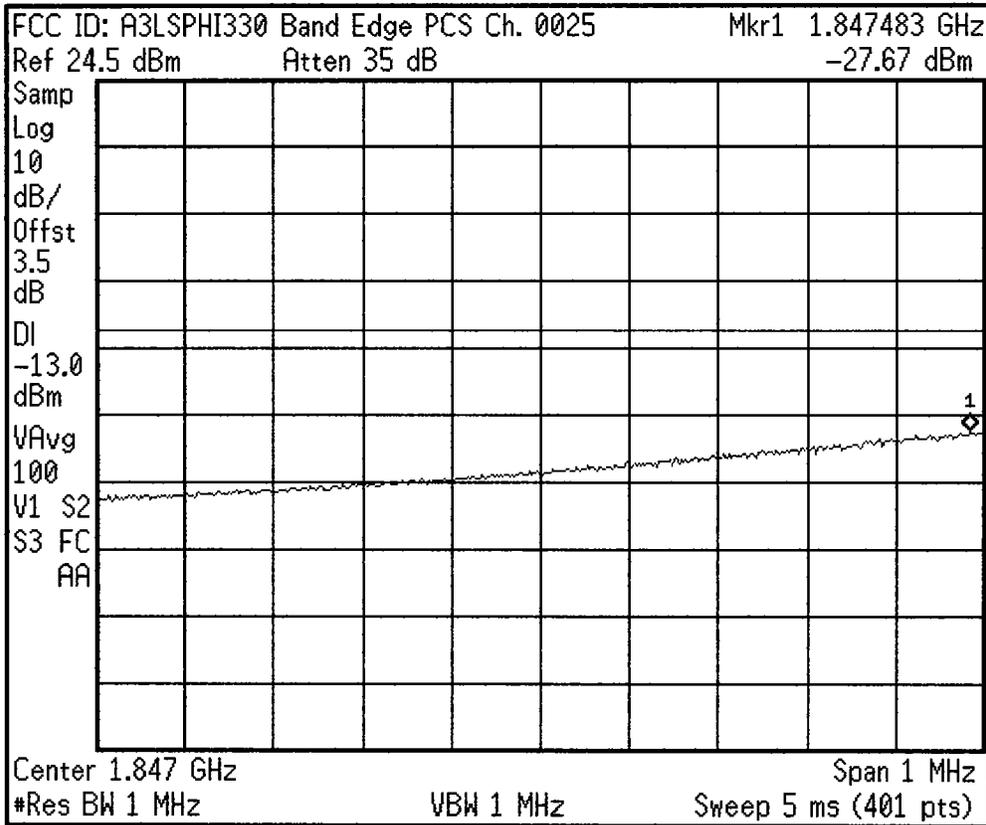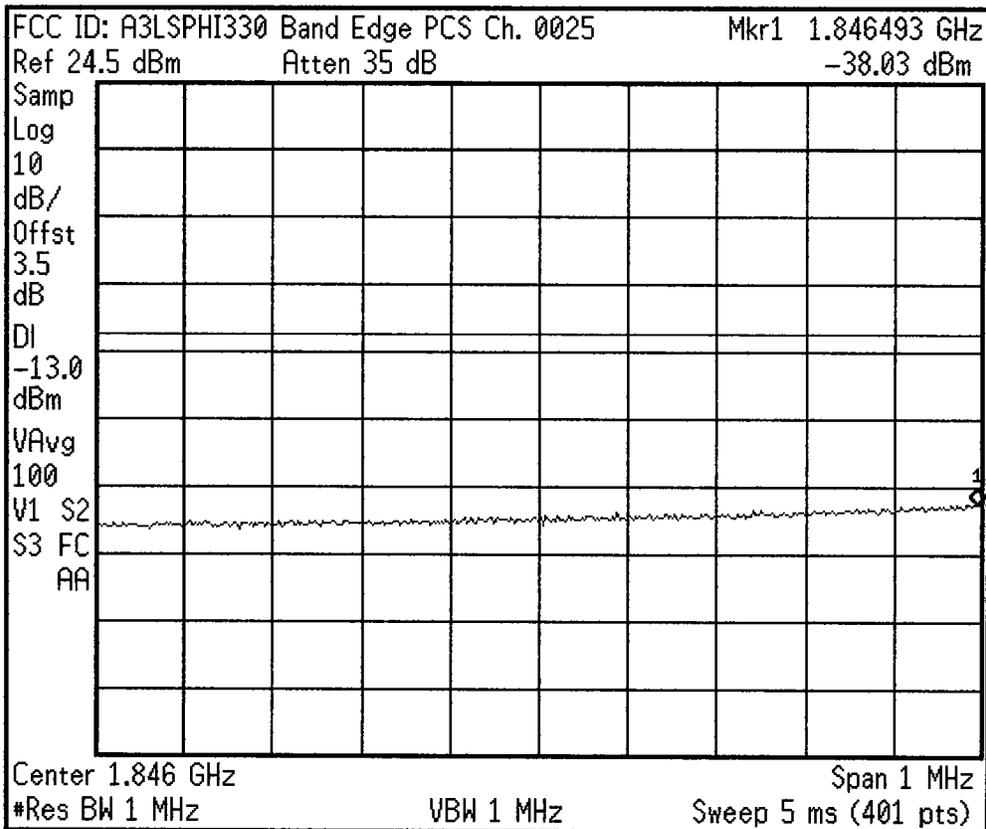#Res BW 1 MHz   VBW 1 MHz   Sweep 5 ms (401 pts)

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

Figure 2 (bottom):

Agilent 07:34:10 May 31, 2002

FCC ID: A3LSPHI330 Band Edge PCS Ch. 0025   Mkr1 1.846493 GHz
Ref 24.5 dBm   Atten 35 dB   −38.03 dBm

Samp
Log
10
dB/
Offst
3.5
dB
DI
−13.0
dBm
VAvg
100
V1 S2
S3 FC
AA

Center 1.846 GHz   Span 1 MHz
#Res BW 1 MHz   VBW 1 MHz   Sweep 5 ms (401 pts)
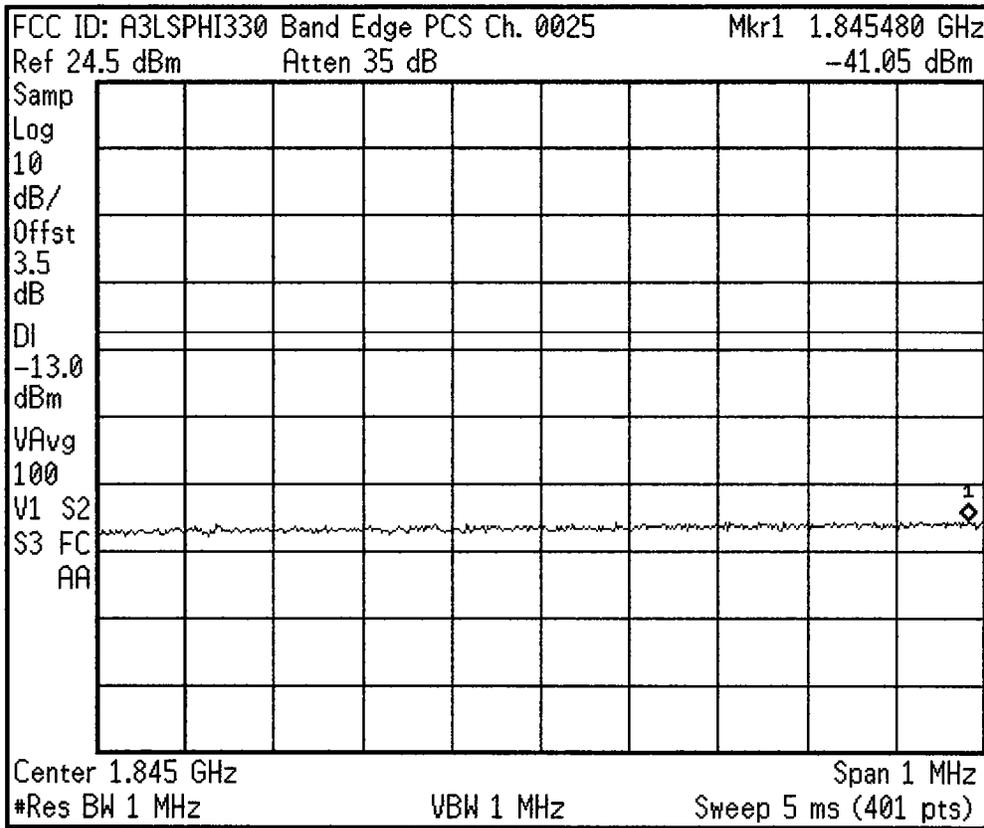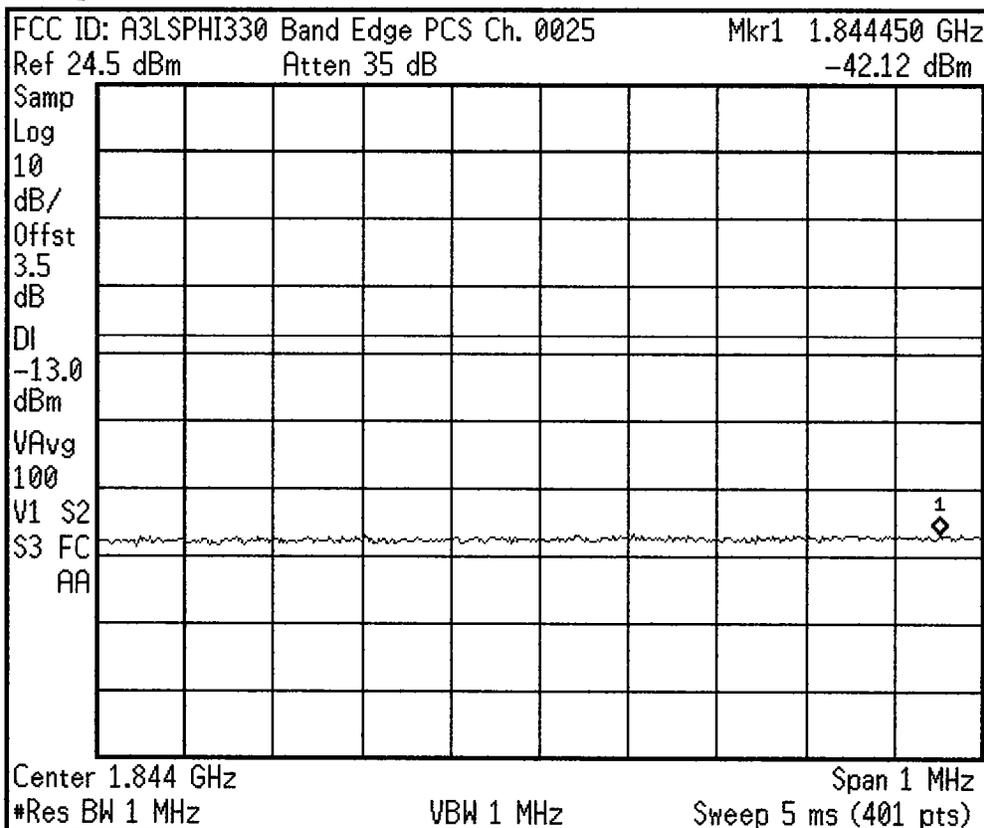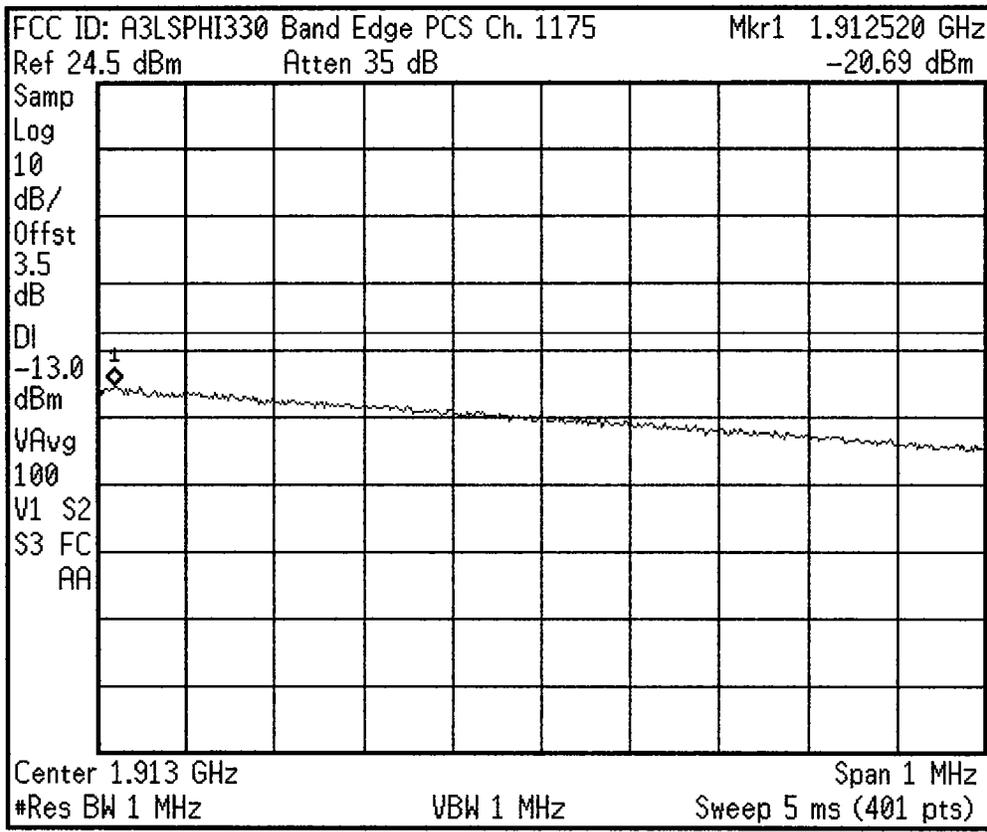
Freq/Channel

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

FCC ID: A3LSPHI330 Band Edge PCS Ch. 0025   Mkr1   1.845480 GHz
Ref 24.5 dBm   Atten 35 dB   −41.05 dBm

Samp
Log
10
dB/
Offst
3.5
dB
DI
−13.0
dBm
VAvg
100
V1 S2
S3 FC
   AA

Center 1.845 GHz   Span 1 MHz
#Res BW 1 MHz   VBW 1 MHz   Sweep 5 ms (401 pts)

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

FCC ID: A3LSPHI330 Band Edge PCS Ch. 0025   Mkr1   1.844450 GHz
Ref 24.5 dBm   Atten 35 dB   −42.12 dBm

Samp
Log
10
dB/
Offst
3.5
dB
DI
−13.0
dBm
VAvg
100
V1 S2
S3 FC
   AA

Center 1.844 GHz   Span 1 MHz
#Res BW 1 MHz   VBW 1 MHz   Sweep 5 ms (401 pts)
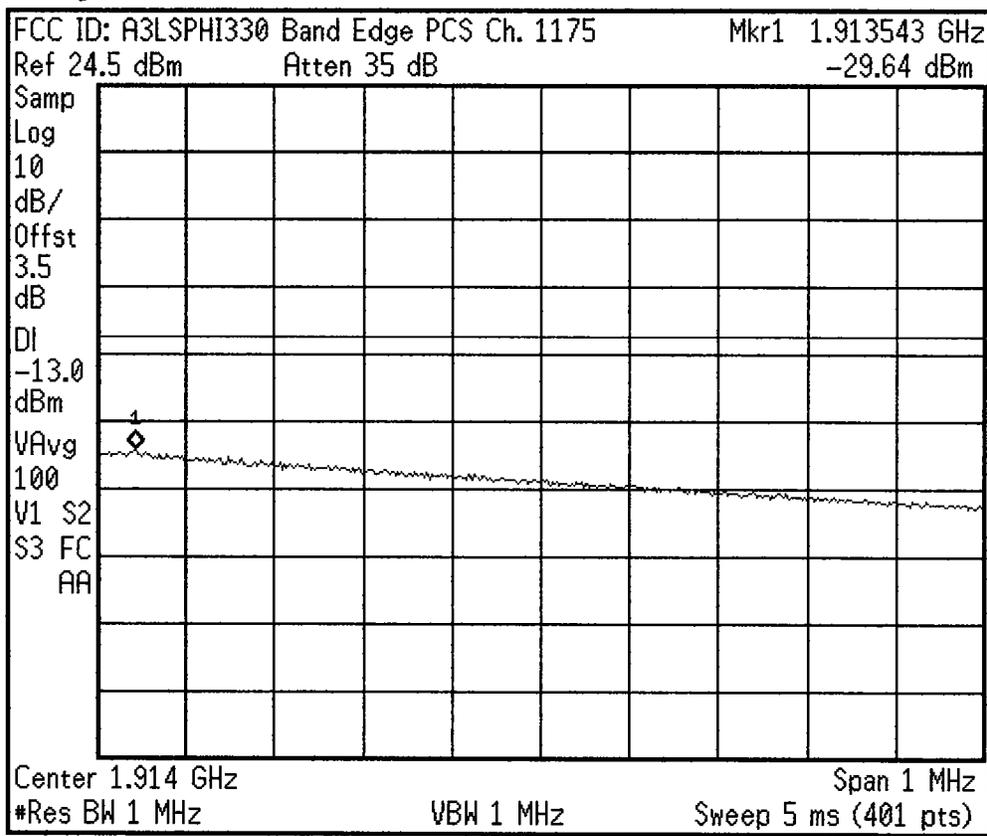
Freq/Channel

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

FCC ID: A3LSPHI330 Band Edge PCS Ch. 1175   Mkr1 1.912520 GHz
Ref 24.5 dBm   Atten 35 dB   −20.69 dBm

Samp
Log
10
dB/
Offst
3.5
dB
Dl
−13.0
dBm

VAvg
100

V1 S2
S3 FC
   AA

1

Center 1.913 GHz   Span 1 MHz
#Res BW 1 MHz   VBW 1 MHz   Sweep 5 ms (401 pts)
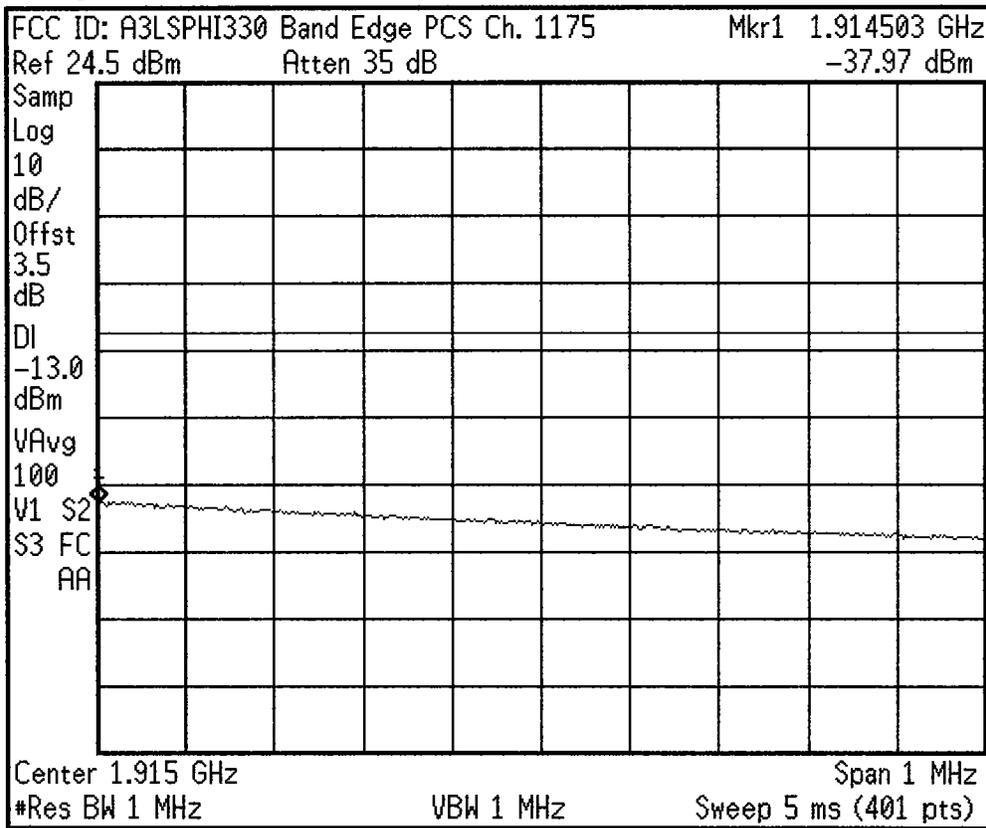
Freq/Channel

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

FCC ID: A3LSPHI330 Band Edge PCS Ch. 1175   Mkr1 1.913543 GHz
Ref 24.5 dBm   Atten 35 dB   −29.64 dBm

Samp
Log
10
dB/
Offst
3.5
dB
Dl
−13.0
dBm

VAvg
100

V1 S2
S3 FC
   AA

1

Center 1.914 GHz   Span 1 MHz
#Res BW 1 MHz   VBW 1 MHz   Sweep 5 ms (401 pts)
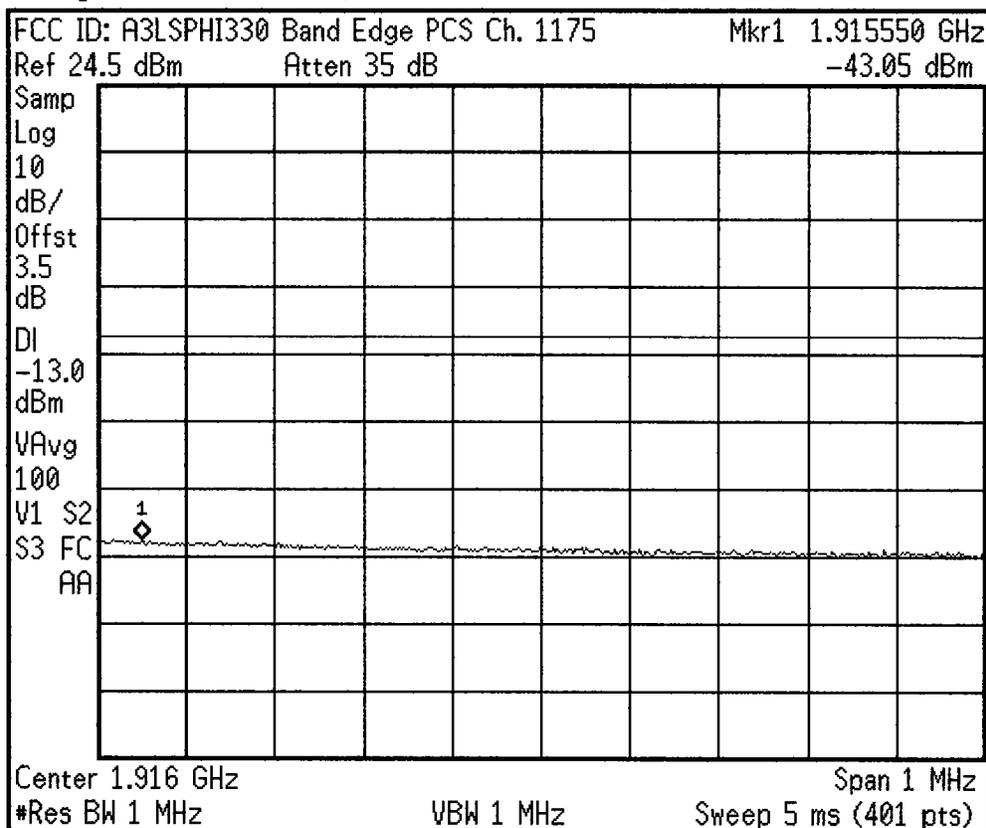
Freq/Channel

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

FCC ID: A3LSPHI330 Band Edge PCS Ch. 1175   Mkr1 1.914503 GHz
Ref 24.5 dBm   Atten 35 dB   -37.97 dBm

Samp
Log
10
dB/
Offst
3.5
dB
DI
-13.0
dBm
VAvg
100
V1 S2
S3 FC
 AA

Center 1.915 GHz   Span 1 MHz
#Res BW 1 MHz   VBW 1 MHz   Sweep 5 ms (401 pts)

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

FCC ID: A3LSPHI330 Band Edge PCS Ch. 1175   Mkr1 1.915550 GHz
Ref 24.5 dBm   Atten 35 dB   -43.05 dBm

Samp
Log
10
dB/
Offst
3.5
dB
DI
-13.0
dBm
VAvg
100
V1 S2
S3 FC
 AA

Center 1.916 GHz   Span 1 MHz
#Res BW 1 MHz   VBW 1 MHz   Sweep 5 ms (401 pts)

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
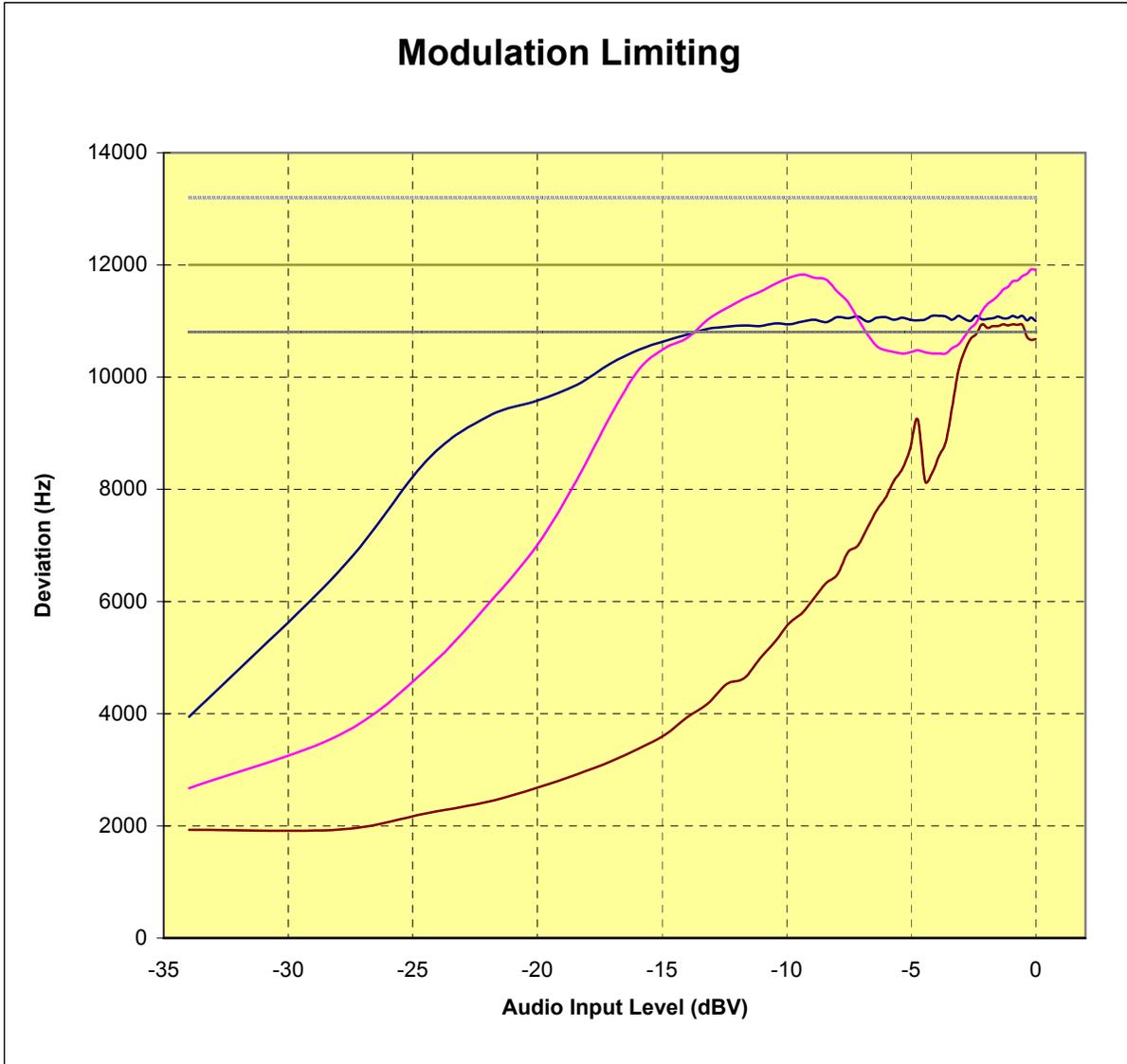0.00000000 Hz

Signal Track
On   Off

Scale Type
Log   Lin

SUBJECT: Modulation Characteristics

FCC Part 24/22

Test Report No.: 22/24.220325125.A3L

Test Date: 03.25.2002

EUT: SAMSUNG Tri-Mode Dual-Band Analog/PCS Phone (AMPS/CDMA)

Model: *SPH-i330*
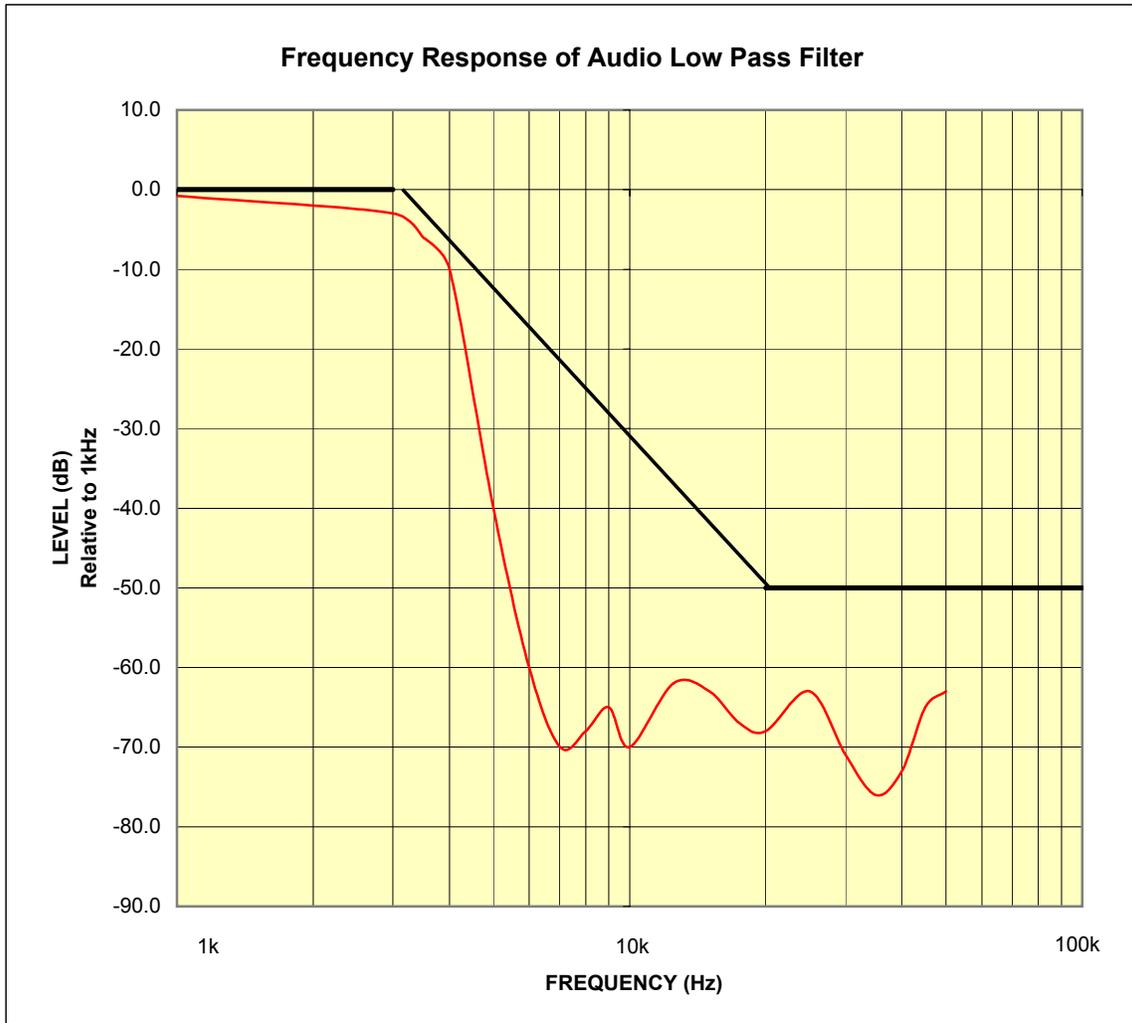
FCC ID: **A3LSPHI330**

REFERENCE: 1 kHz = 0 dB

SAMSUNG Tri-Mode Dual-Band Analog/PCS Phone (AMPS/CDMA)
FCC ID: A3LSPHI330

SUBJECT: Modulation Characteristics   Test Report No.:   22/24.220325125.A3L
FCC Part 24/22   Test Date: 03.25.2002

EUT: SAMSUNG Tri-Mode Dual-Band Analog/PCS Phone (AMPS/CDMA)
Model: *SPH-i330*
FCC ID: **A3LSPHI330**

REFERENCE: 1 kHz = 0 dB

PCTEST Engineering Lab., Inc.

SUBJECT: Modulation Characteristics   Test Report No.:   22/24.220325125.A3L
            FCC Part 24/22   Test Date: 03.25.2002

EUT: SAMSUNG Tri-Mode Dual-Band Analog/PCS Phone (AMPS/CDMA)
Model: *SPH-i330*
FCC ID: **A3LSPHI330**

REFERENCE: 1 kHz = 0 dB

SAMSUNG Tri-Mode Dual-Band Analog/PCS Phone (AMPS/CDMA)
FCC ID: A3LSPHI330