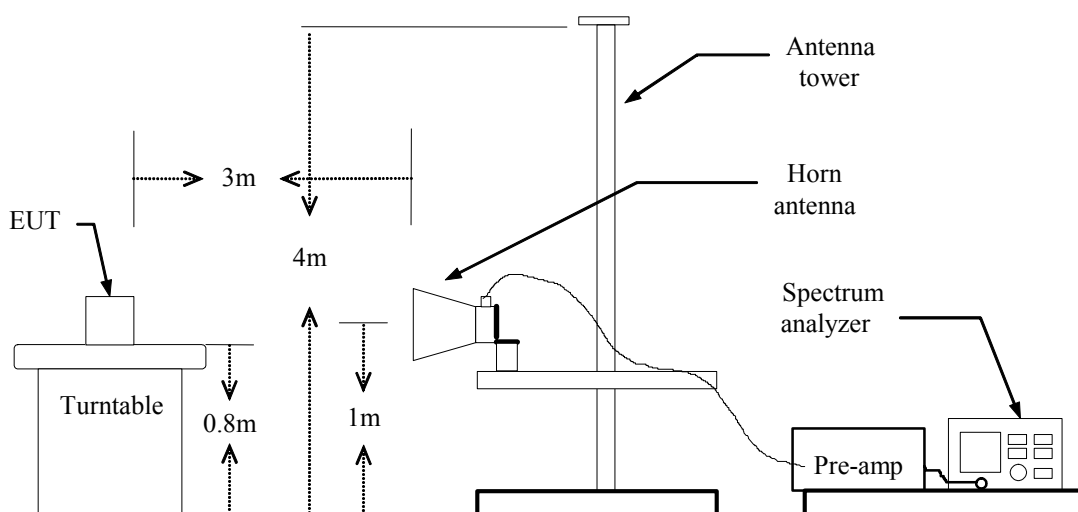


## 7.4 BAND EDGES MEASUREMENT

### LIMIT

According to §15.247(d), in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in 15.209(a) (see Section 15.205(c)).

### Test Configuration

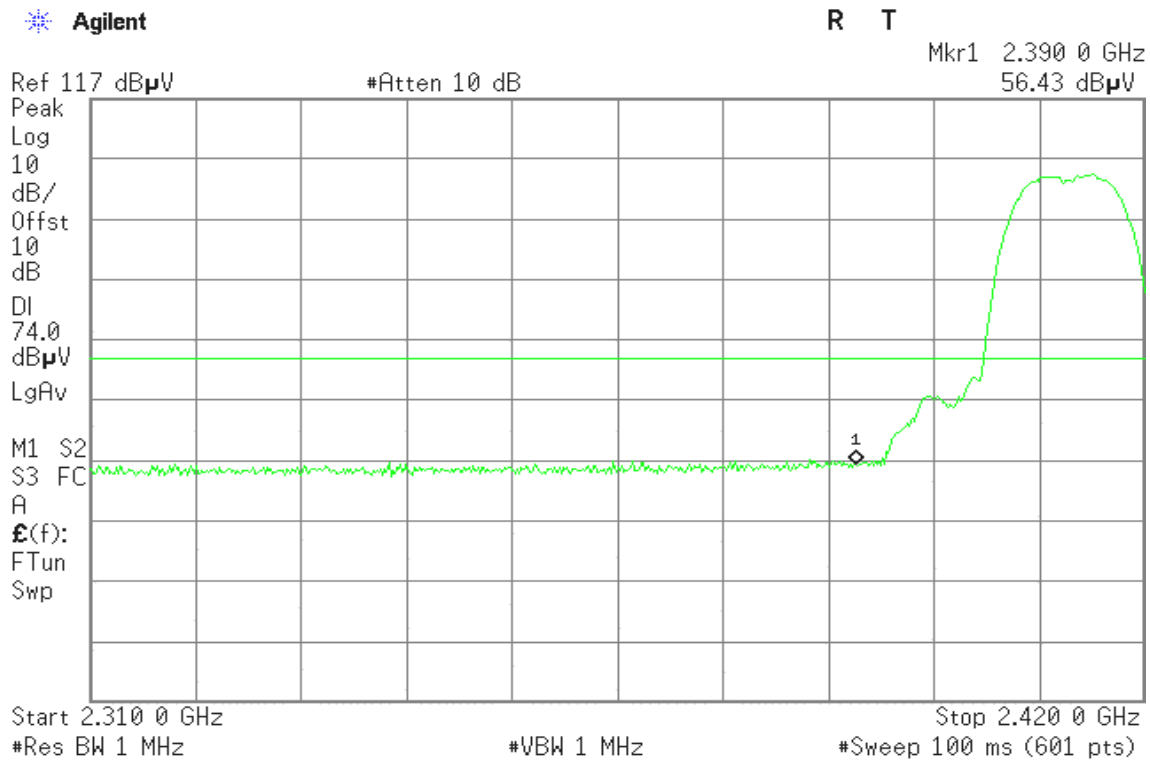
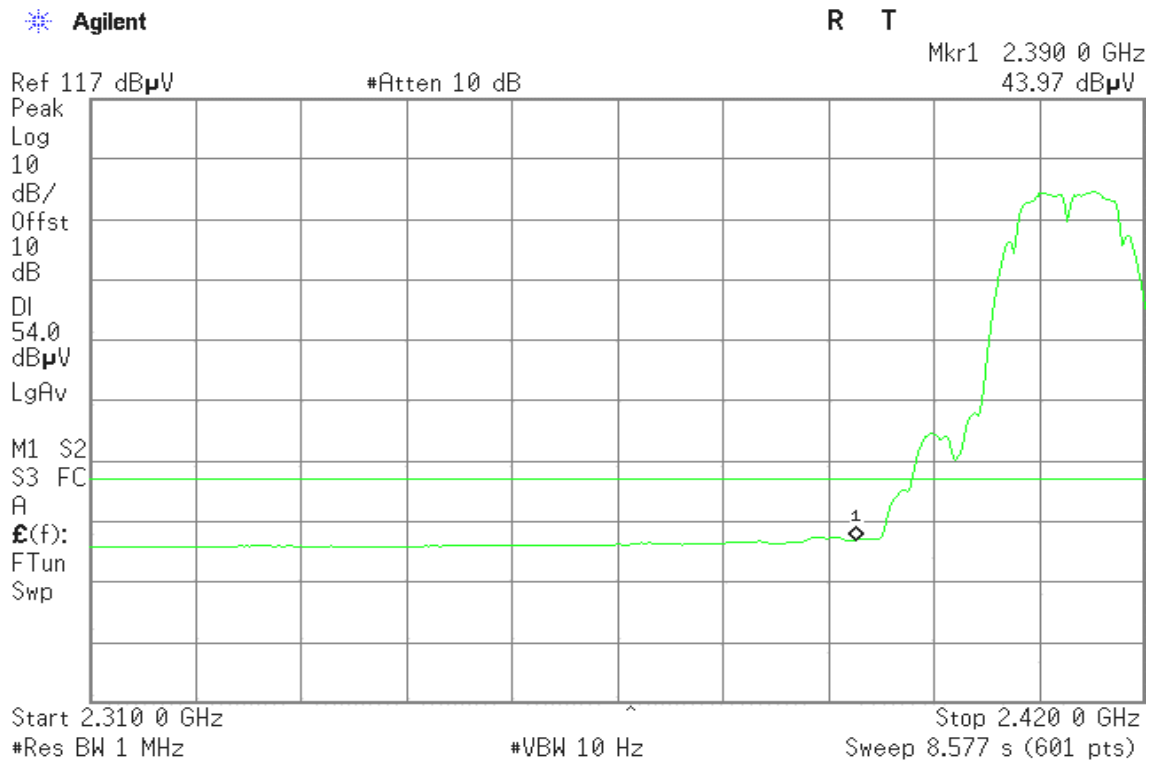


### TEST PROCEDURE

1. The EUT is placed on a turntable, which is 0.8m above the ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
  - (a) PEAK: RBW=VBW=1MHz / Sweep=AUTO
  - (b) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO
5. Repeat the procedures until all the PEAK and AVERAGE versus POLARIZATION are measured.

### TEST RESULTS

Refer to attach spectrum analyzer data chart.

**Band Edges (IEEE 802.11b mode / CH Low)****Detector mode: Peak****Polarity: Vertical****Detector mode: Average****Polarity: Vertical**

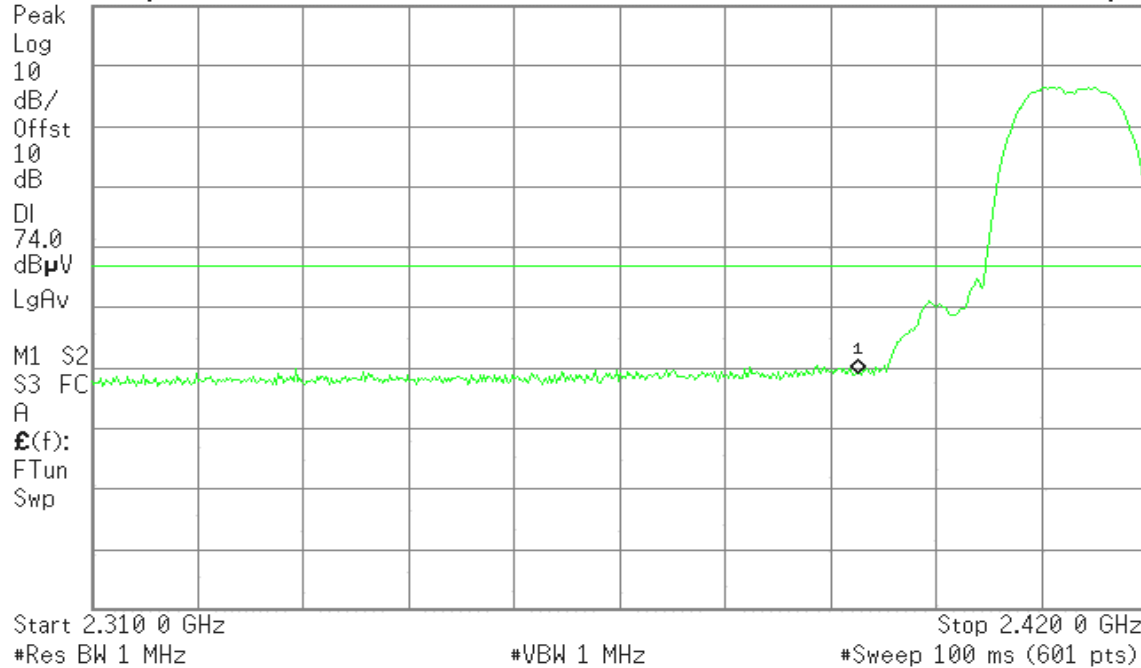
**Detector mode: Peak****Polarity: Horizontal**

\* Agilent

R T

Ref 117 dB $\mu$ V

#Atten 10 dB

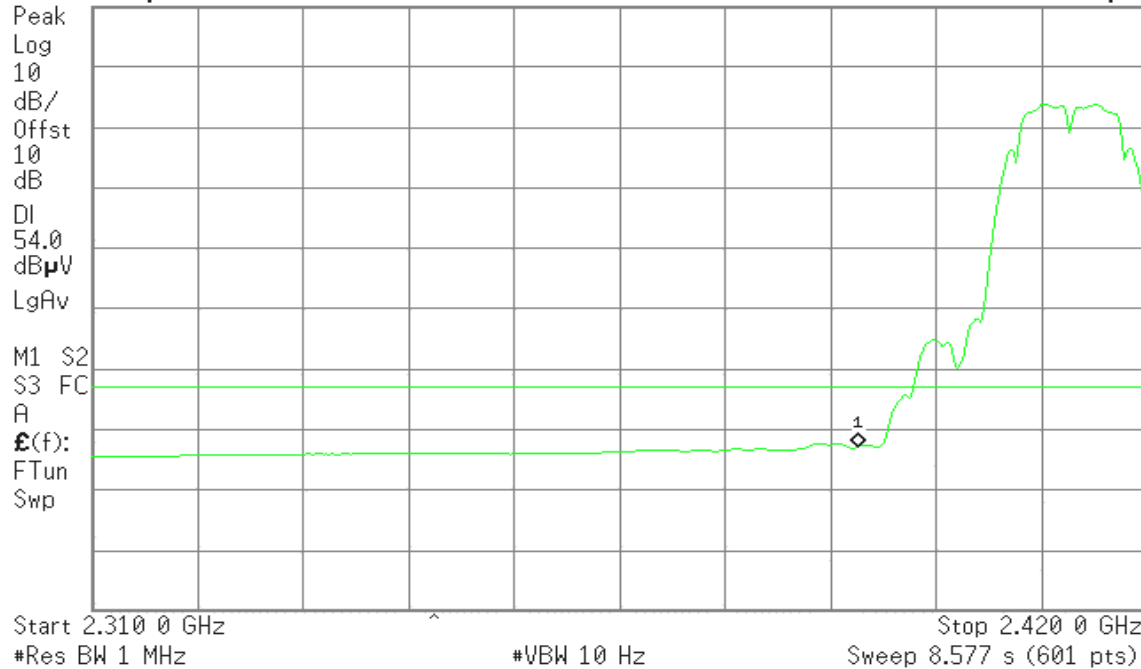
Mkr1 2.390 0 GHz  
56.18 dB $\mu$ V**Detector mode: Average****Polarity: Horizontal**

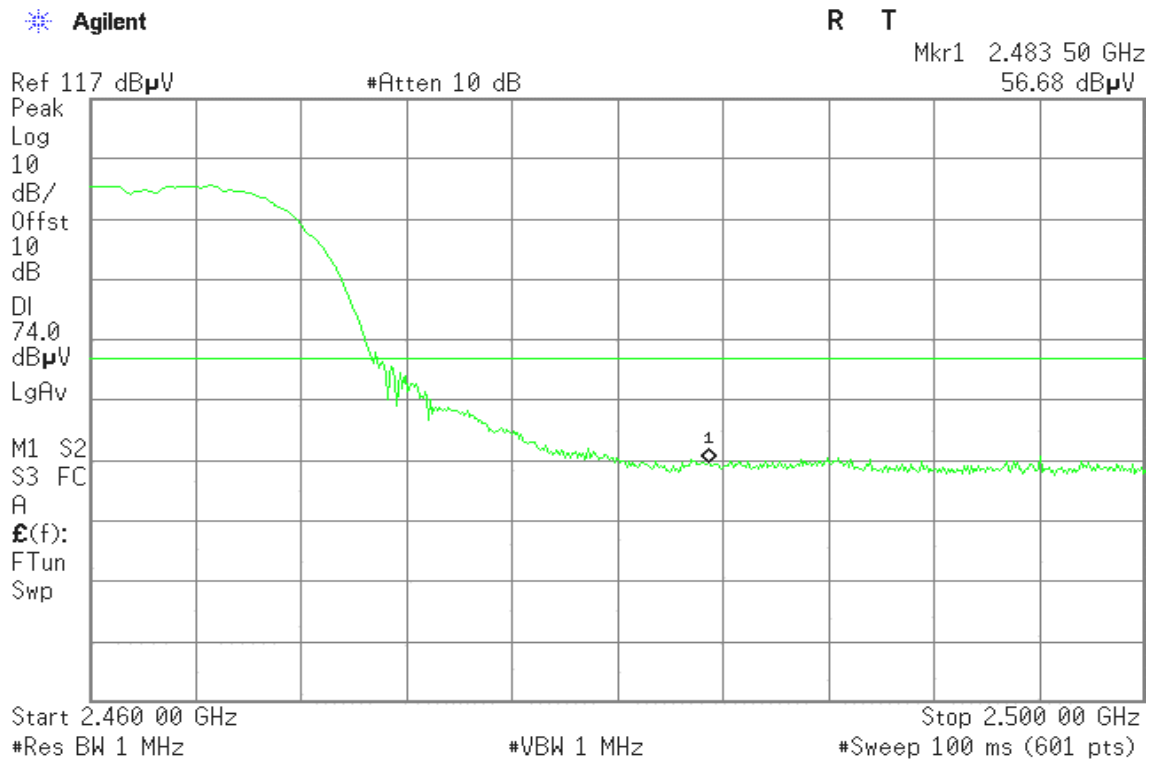
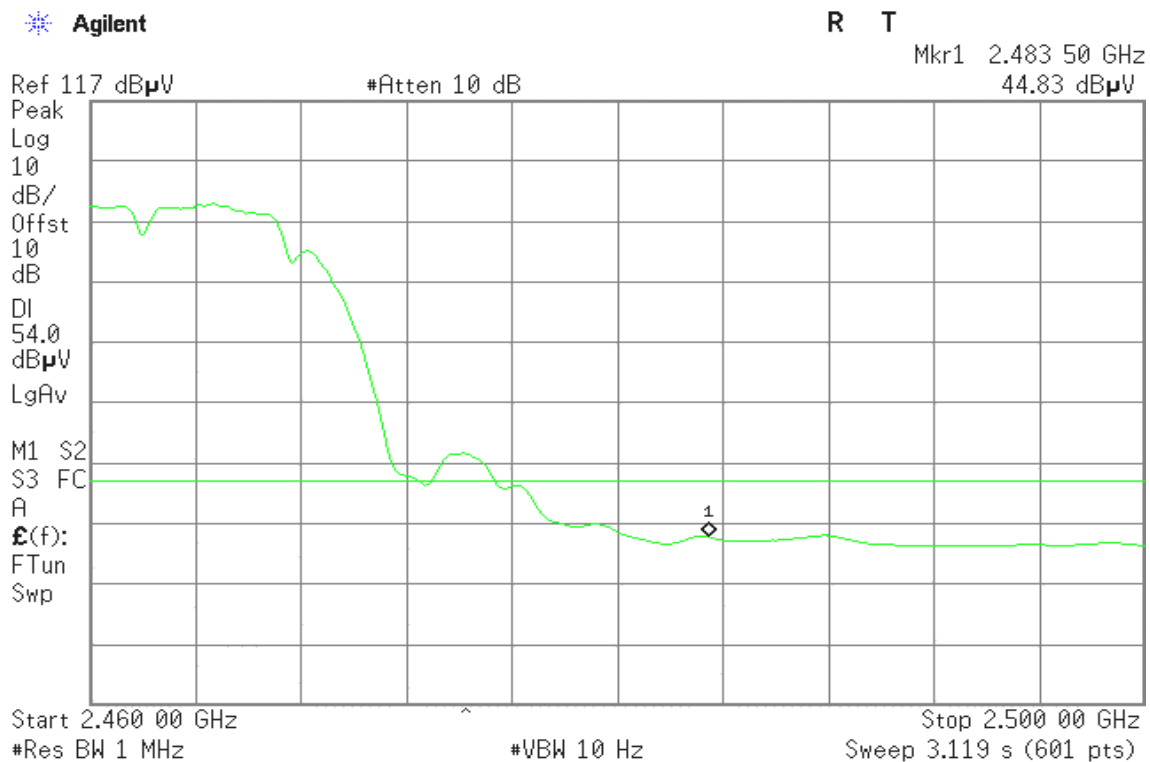
\* Agilent

R T

Ref 117 dB $\mu$ V

#Atten 10 dB

Mkr1 2.390 0 GHz  
44.18 dB $\mu$ V

**Band Edges (IEEE 802.11b mode / CH High)****Detector mode: Peak****Polarity: Vertical****Detector mode: Average****Polarity: Vertical**

**Detector mode: Peak****Polarity: Horizontal**

\* Agilent

R T

Mkr1 2.483 50 GHz  
57.44 dB $\mu$ VRef 117 dB $\mu$ V

#Atten 10 dB

Peak

Log

10

dB/

Offst

10

dB

DI

74.0

dB $\mu$ V

LgAv

M1 S2

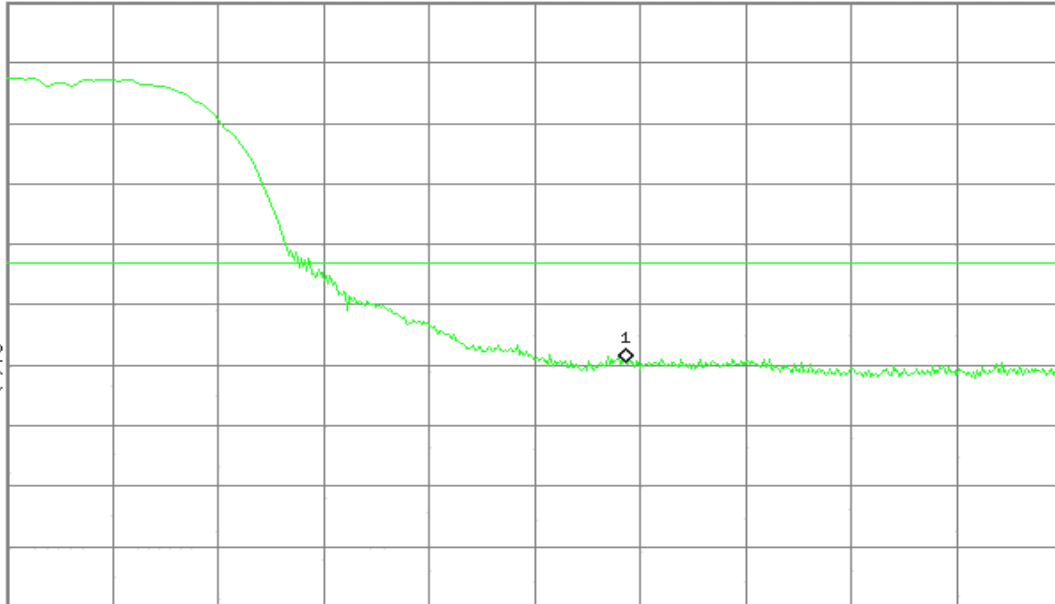
S3 FC

A

E(f):

FTun

Swp



Start 2.460 00 GHz

#Res BW 1 MHz

#VBW 1 MHz

Stop 2.500 00 GHz

#Sweep 100 ms (601 pts)

**Detector mode: Average****Polarity: Horizontal**

\* Agilent

R L

Mkr1 2.483 50 GHz  
46.27 dB $\mu$ VRef 117 dB $\mu$ V

#Atten 10 dB

Peak

Log

10

dB/

Offst

10

dB

DI

54.0

dB $\mu$ V

LgAv

M1 S2

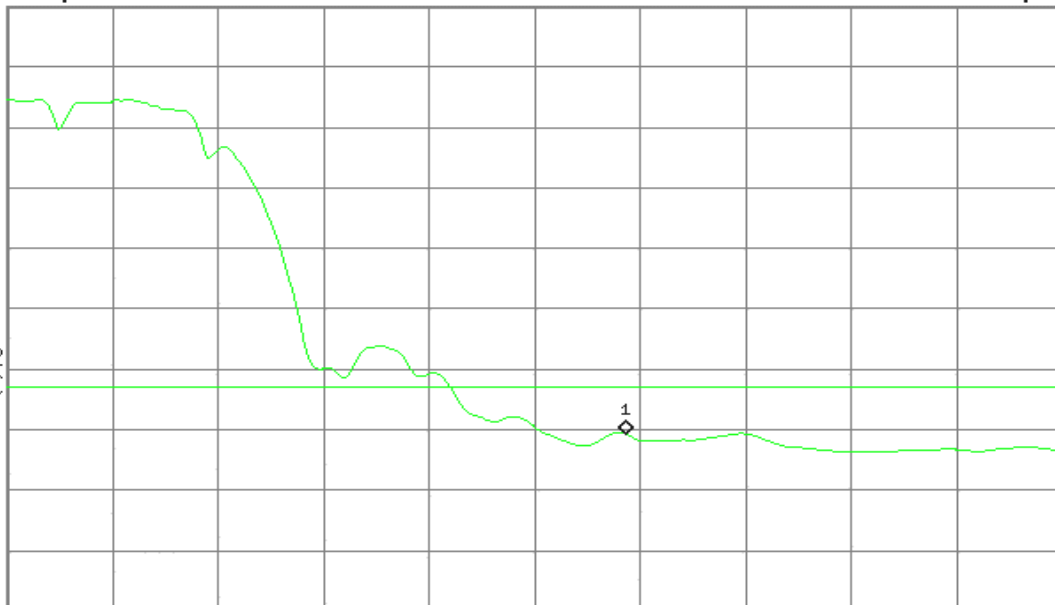
S3 FC

A

E(f):

FTun

Swp



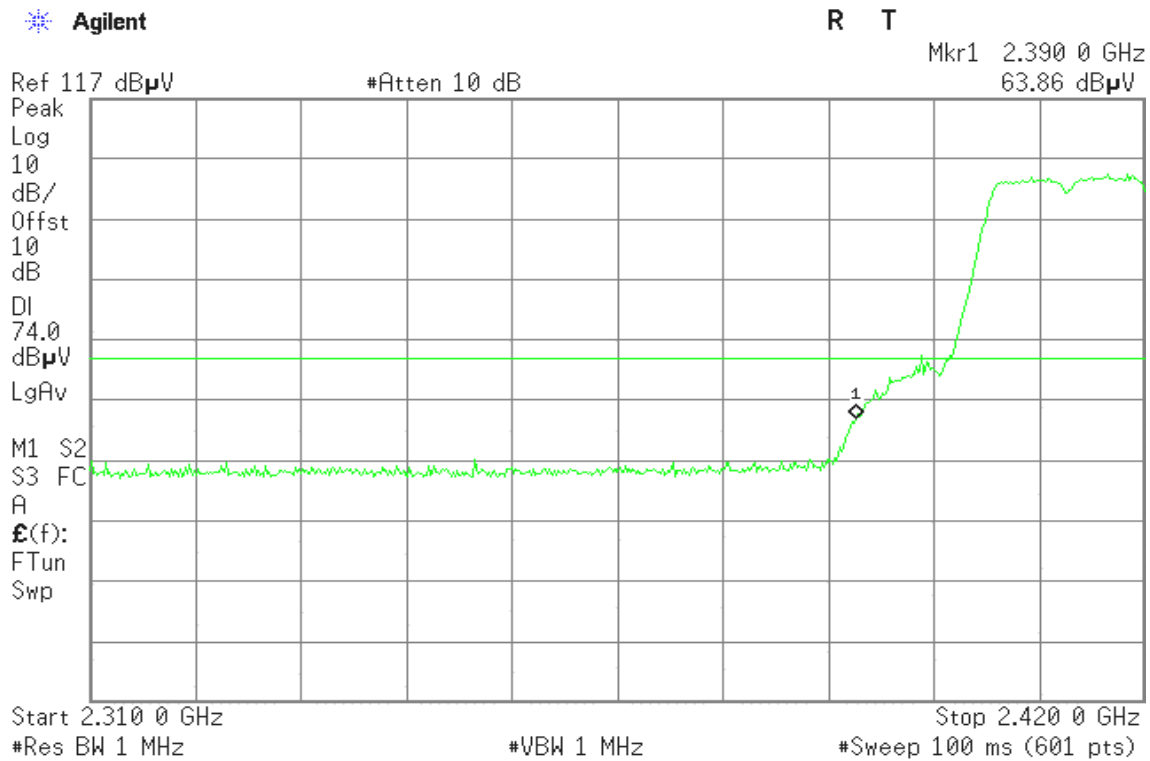
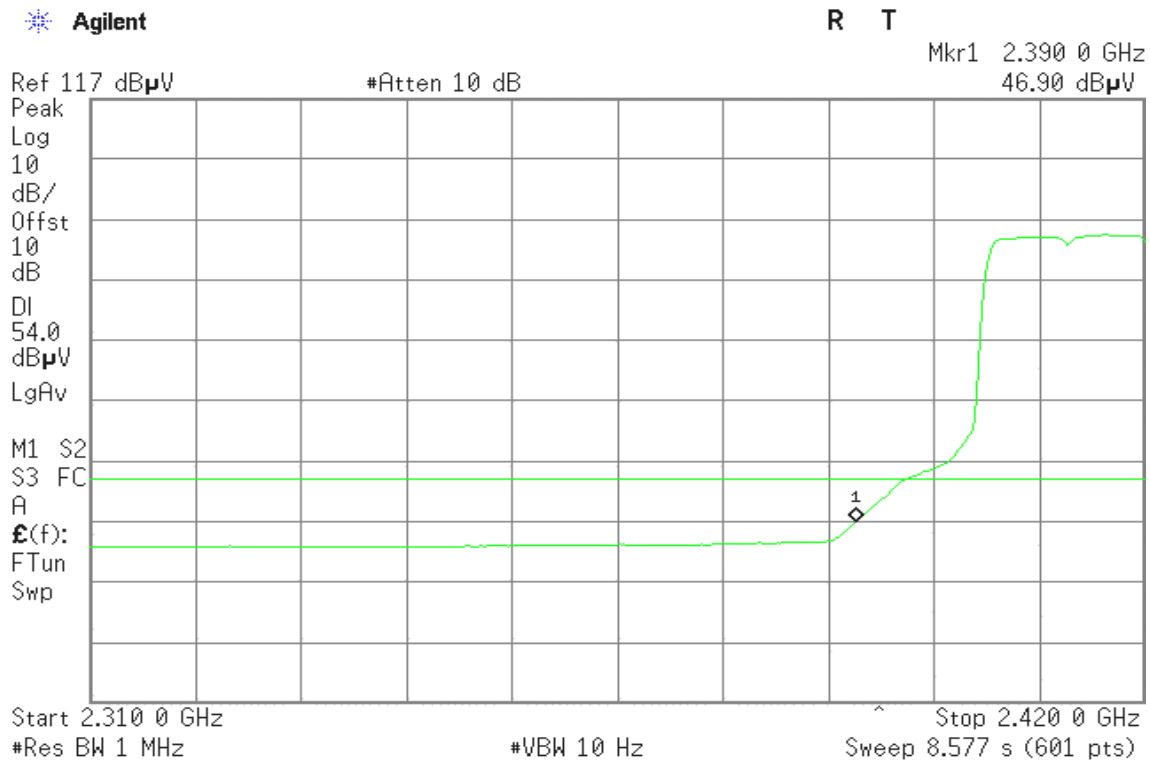
Start 2.460 00 GHz

#Res BW 1 MHz

#VBW 10 Hz

^ Stop 2.500 00 GHz

Sweep 3.119 s (601 pts)

**Band Edges (IEEE 802.11g mode / CH Low)****Detector mode: Peak****Polarity: Vertical****Detector mode: Average****Polarity: Vertical**



Detector mode: Peak

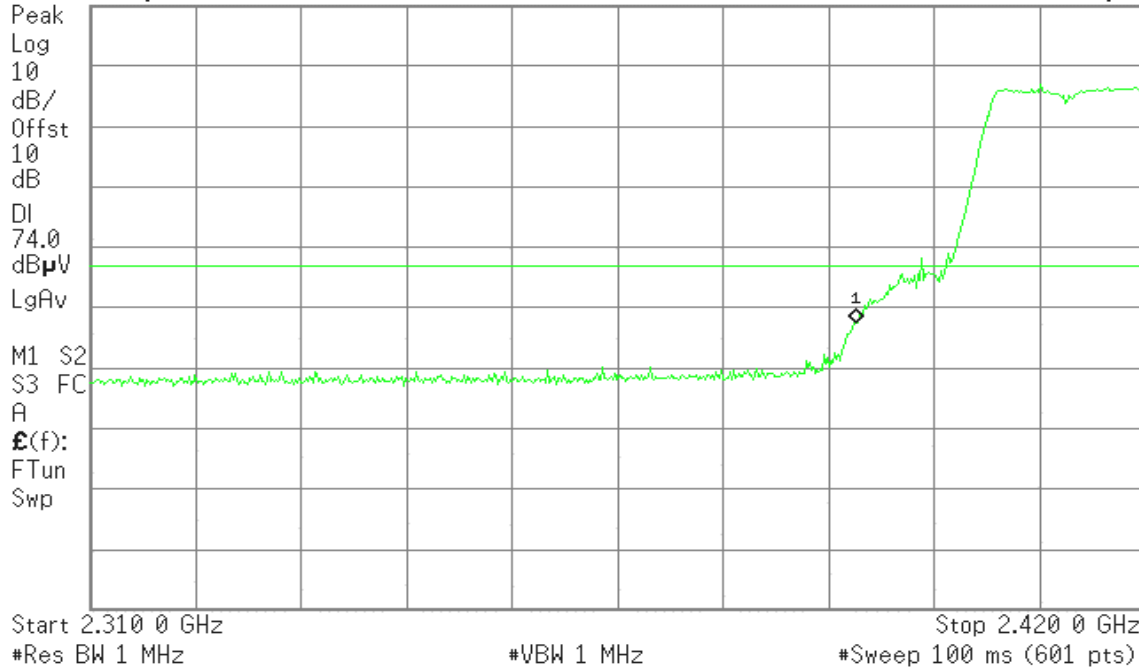
Polarity: Horizontal

Agilent

R T

Ref 117 dB $\mu$ V

#Atten 10 dB

Mkr1 2.390 0 GHz  
64.60 dB $\mu$ V

Detector mode: Average

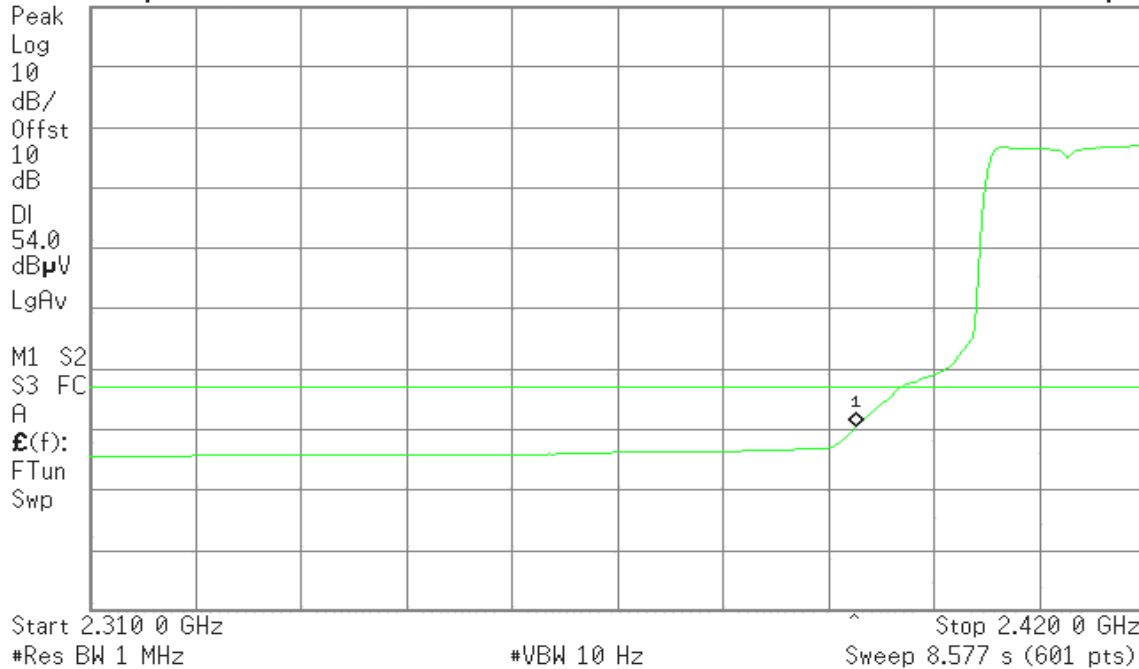
Polarity: Horizontal

Agilent

R T

Ref 117 dB $\mu$ V

#Atten 10 dB

Mkr1 2.390 0 GHz  
47.45 dB $\mu$ V

**Band Edges (IEEE 802.11g mode / CH High)****Detector mode: Peak****Polarity: Vertical**

Agilent

R T

Mkr1 2.483 50 GHz  
71.26 dB $\mu$ VRef 117 dB $\mu$ V

#Atten 10 dB

Peak

Log

10

dB/

Offst

10

dB

DI

74.0

dB $\mu$ V

LgAv

M1 S2

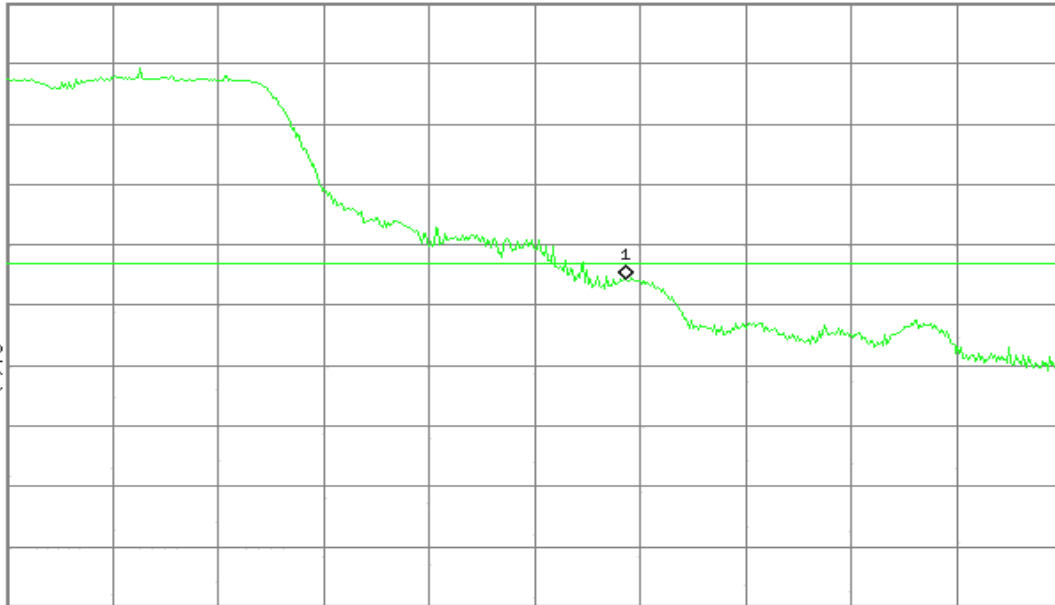
S3 FC

A

 $\mathcal{E}(f)$ :

FTun

Swp



Start 2.460 00 GHz

#Res BW 1 MHz

#VBW 1 MHz

Stop 2.500 00 GHz

#Sweep 100 ms (601 pts)

**Detector mode: Average****Polarity: Vertical**

Agilent

R T

Mkr1 2.483 50 GHz  
51.08 dB $\mu$ VRef 117 dB $\mu$ V

#Atten 10 dB

Peak

Log

10

dB/

Offst

10

dB

DI

54.0

dB $\mu$ V

LgAv

M1 S2

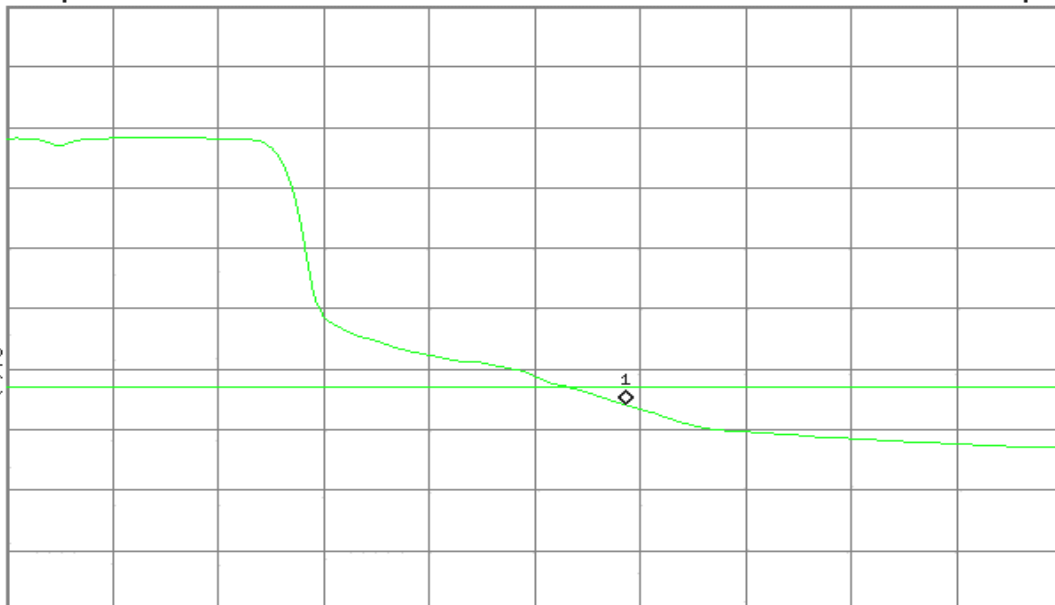
S3 FC

A

 $\mathcal{E}(f)$ :

FTun

Swp



Start 2.460 00 GHz

#Res BW 1 MHz

#VBW 10 Hz

Stop 2.500 00 GHz

Sweep 3.119 s (601 pts)





Detector mode: Peak

Polarity: Horizontal

Agilent

R T

Mkr1 2.483 50 GHz  
72.98 dB $\mu$ VRef 117 dB $\mu$ V

#Atten 10 dB

Peak

Log

10

dB/

Offst

10

dB

DI

74.0

dB $\mu$ V

LgAv

M1 S2

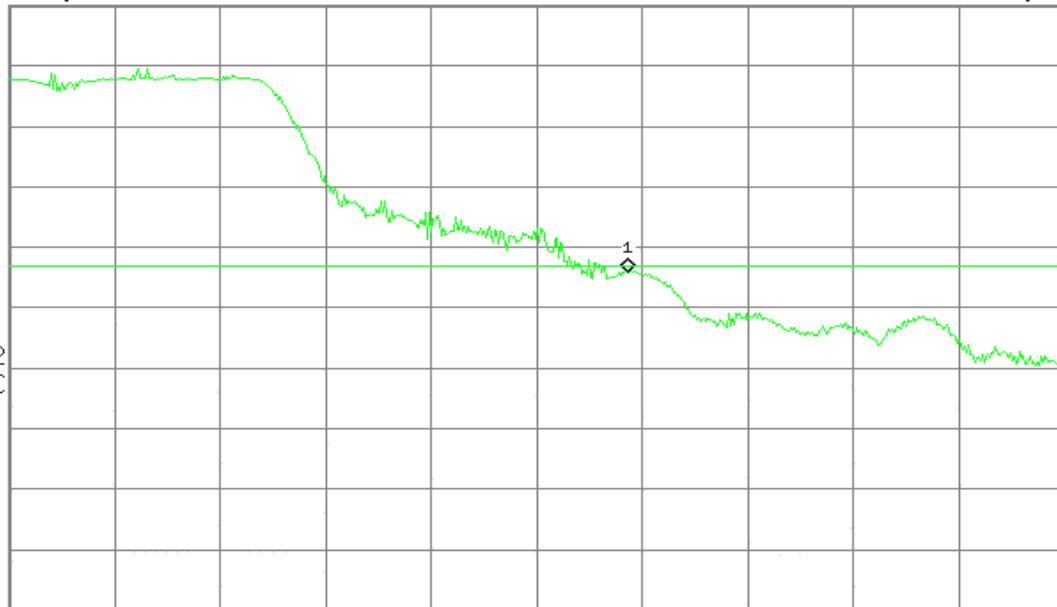
S3 FC

A

E(f):

FTun

Swp



Start 2.460 00 GHz

#Res BW 1 MHz

#VBW 1 MHz

Stop 2.500 00 GHz

#Sweep 100 ms (601 pts)

Detector mode: Average

Polarity: Horizontal

Agilent

R T

Mkr1 2.483 50 GHz  
52.42 dB $\mu$ VRef 117 dB $\mu$ V

#Atten 10 dB

Peak

Log

10

dB/

Offst

10

dB

DI

54.0

dB $\mu$ V

LgAv

M1 S2

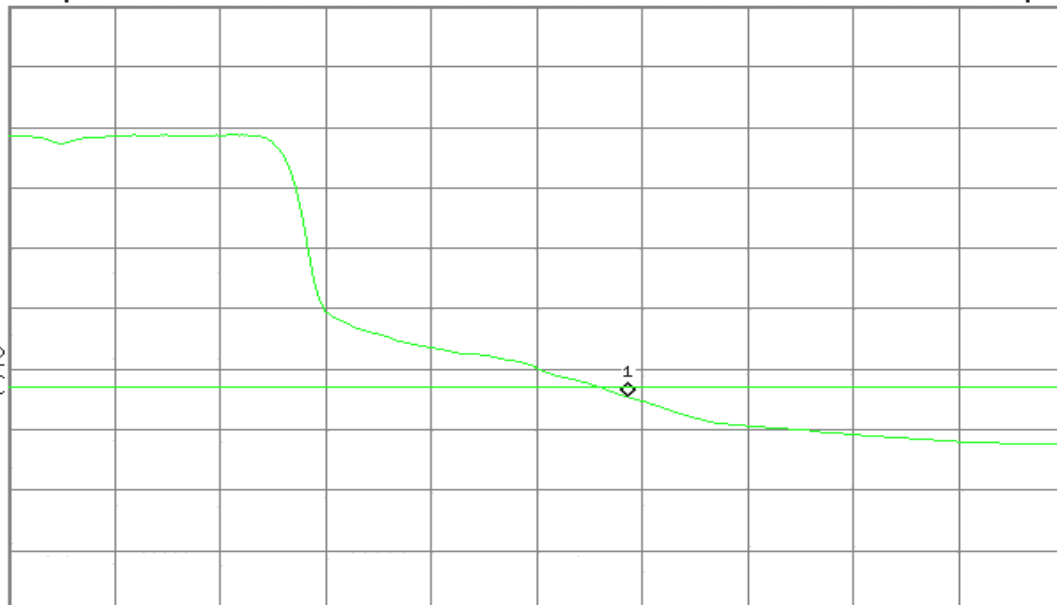
S3 FC

A

E(f):

FTun

Swp



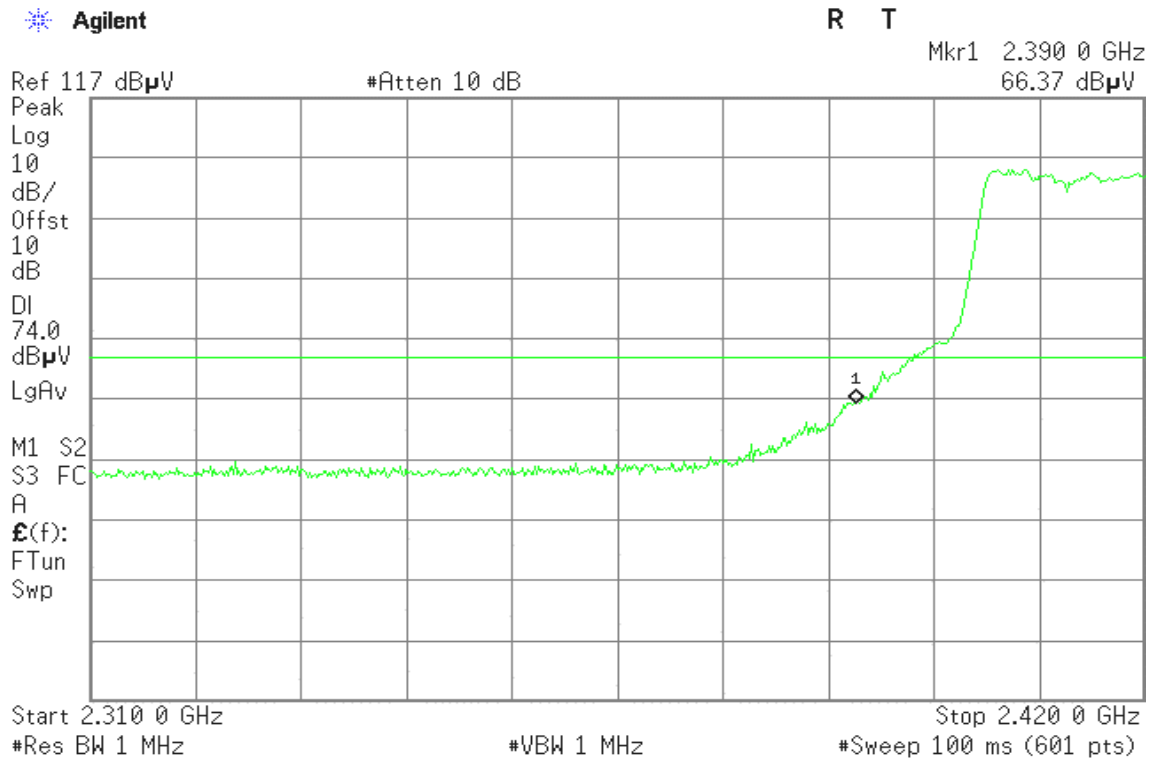
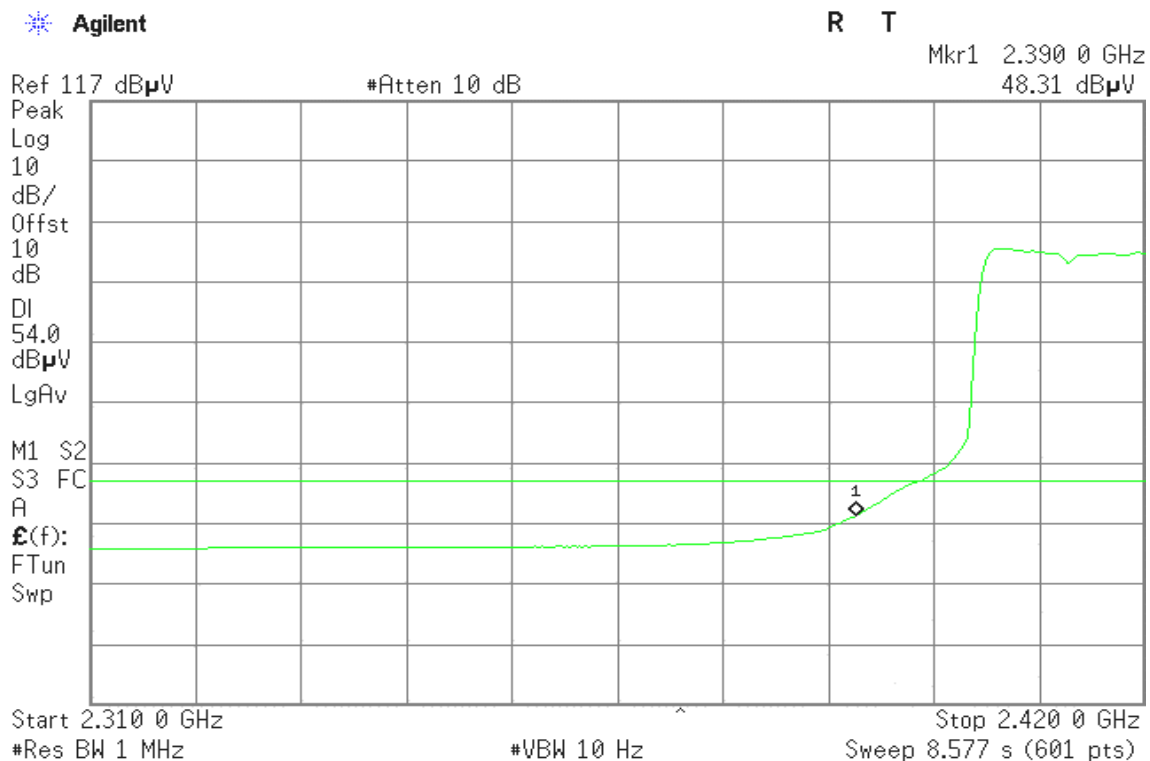
Start 2.460 00 GHz

#Res BW 1 MHz

#VBW 10 Hz

Stop 2.500 00 GHz

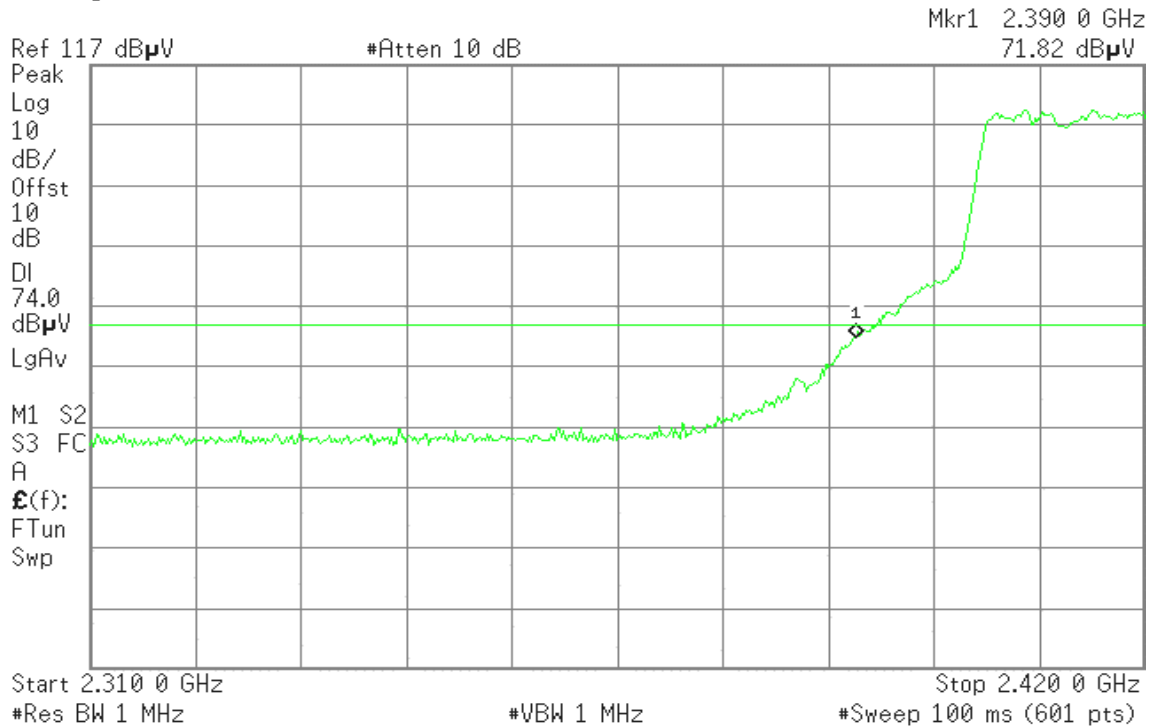
Sweep 3.119 s (601 pts)

**Band Edges (draft 802.11n Standard-20 MHz Channel mode / CH Low)****Detector mode: Peak****Polarity: Vertical****Detector mode: Average****Polarity: Vertical**

**Detector mode: Peak****Polarity: Horizontal**

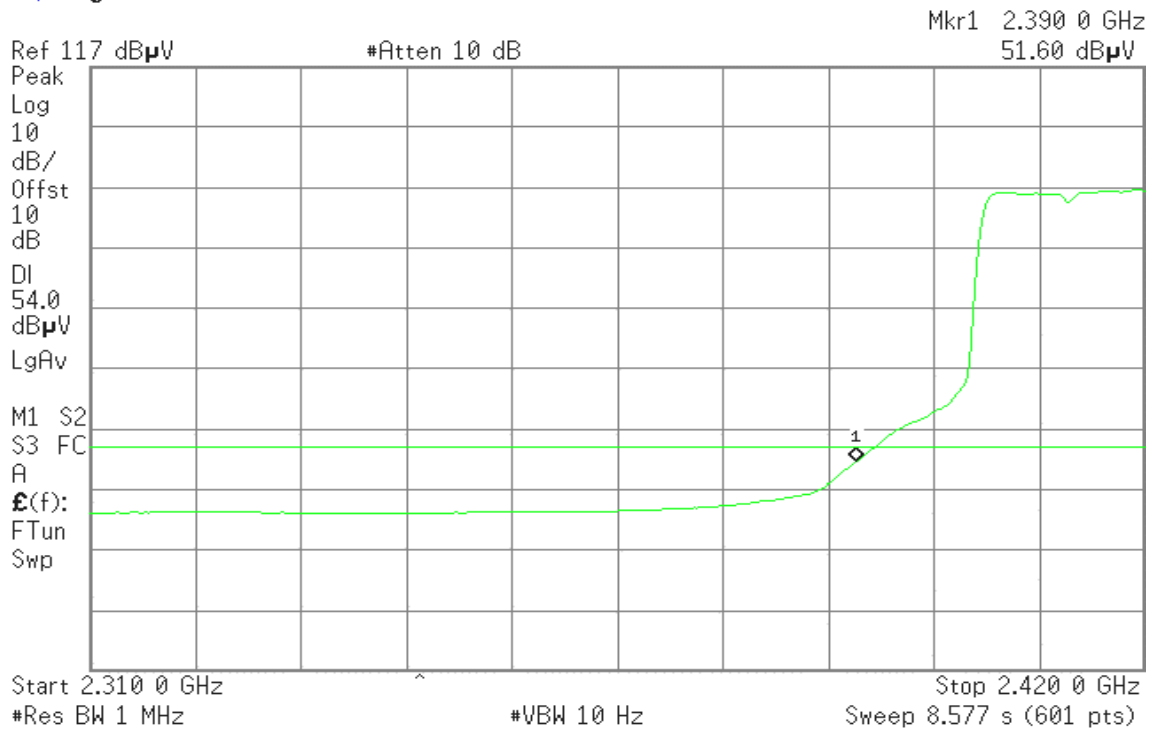
\* Agilent

R T

**Detector mode: Average****Polarity: Horizontal**

\* Agilent

R T



**Band Edges (draft 802.11n Standard-20 MHz Channel mode / CH High)****Detector mode: Peak****Polarity: Vertical**

Agilent

R T

Mkr1 2.483 50 GHz  
62.01 dB $\mu$ VRef 117 dB $\mu$ V

#Atten 10 dB

Peak

Log

10

dB/

Offst

10

dB

DI

74.0

dB $\mu$ V

LgAv

M1 S2

S3 FC

A

 $\mathcal{E}(f)$ :

FTun

Swp

Start 2.460 00 GHz

#Res BW 1 MHz

#VBW 1 MHz

Stop 2.500 00 GHz

#Sweep 100 ms (601 pts)

**Detector mode: Average****Polarity: Vertical**

Agilent

R T

Mkr1 2.483 50 GHz  
46.79 dB $\mu$ VRef 117 dB $\mu$ V

#Atten 10 dB

Peak

Log

10

dB/

Offst

10

dB

DI

54.0

dB $\mu$ V

LgAv

M1 S2

S3 FC

A

 $\mathcal{E}(f)$ :

FTun

Swp

Start 2.460 00 GHz

#Res BW 1 MHz

#VBW 10 Hz

Stop 2.500 00 GHz

Sweep 3.119 s (601 pts)



Detector mode: Peak

Polarity: Horizontal

Agilent

R T

Mkr1 2.483 50 GHz  
70.23 dB $\mu$ VRef 117 dB $\mu$ V

#Atten 10 dB

Peak

Log

10

dB/

Offst

10

dB

DI

74.0

dB $\mu$ V

LgAv

M1 S2

S3 FC

A

E(f):

FTun

Swp

Start 2.460 00 GHz

#Res BW 1 MHz

#VBW 1 MHz

Stop 2.500 00 GHz

#Sweep 100 ms (601 pts)

Detector mode: Average

Polarity: Horizontal

Agilent

R T

Mkr1 2.483 50 GHz  
51.08 dB $\mu$ VRef 117 dB $\mu$ V

#Atten 10 dB

Peak

Log

10

dB/

Offst

10

dB

DI

54.0

dB $\mu$ V

LgAv

M1 S2

S3 FC

A

E(f):

FTun

Swp

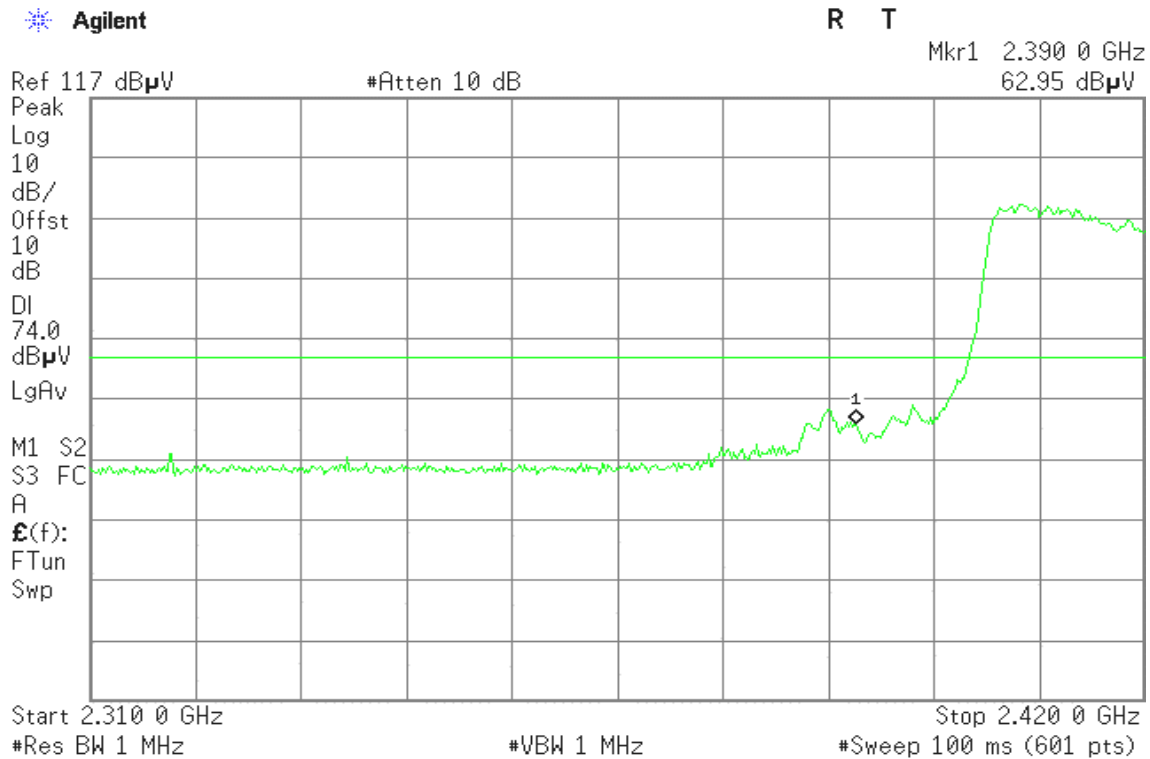
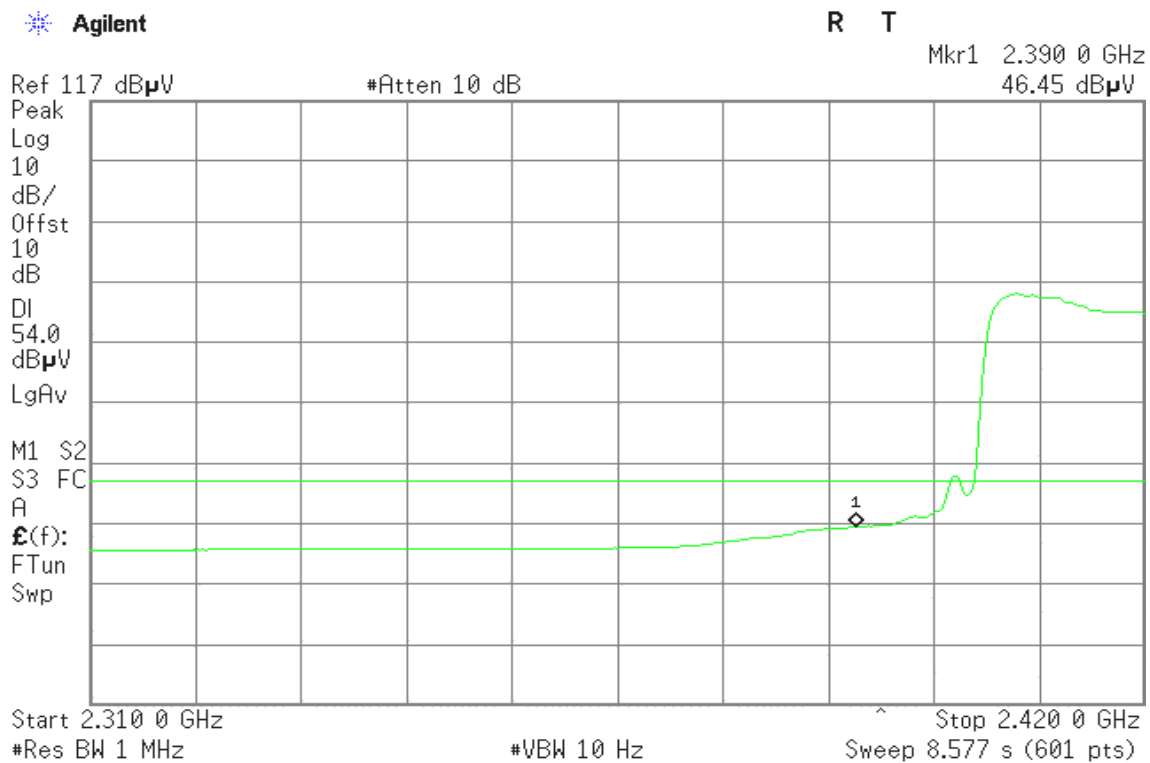
Start 2.460 00 GHz

#Res BW 1 MHz

#VBW 10 Hz

Stop 2.500 00 GHz

Sweep 3.119 s (601 pts)

**Band Edges (draft 802.11n Wide-40 MHz Channel mode / CH Low)****Detector mode: Peak****Polarity: Vertical****Detector mode: Average****Polarity: Vertical**

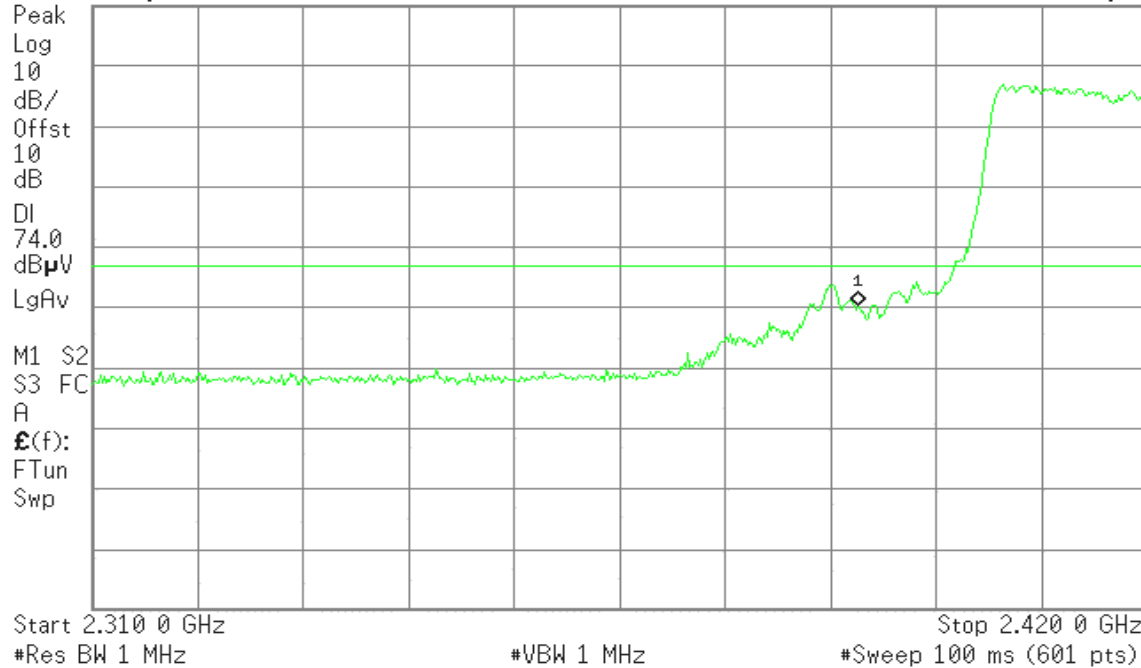
**Detector mode: Peak****Polarity: Horizontal**

\* Agilent

R T

Ref 117 dB $\mu$ V

#Atten 10 dB

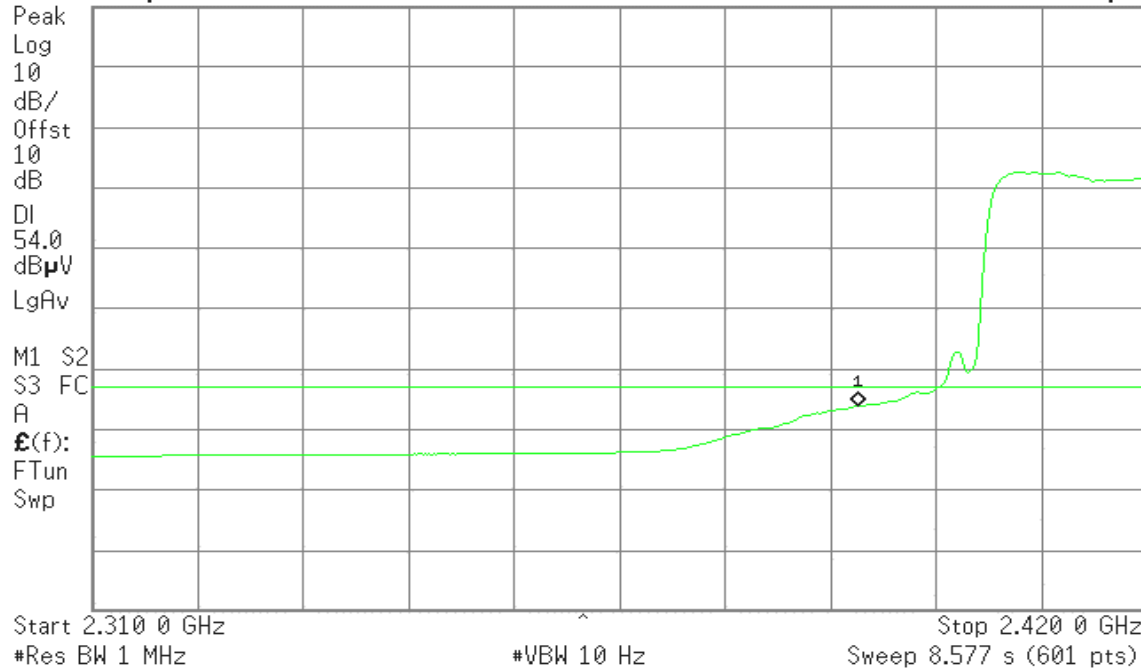
Mkr1 2.390 0 GHz  
67.39 dB $\mu$ V**Detector mode: Average****Polarity: Horizontal**

\* Agilent

R T

Ref 117 dB $\mu$ V

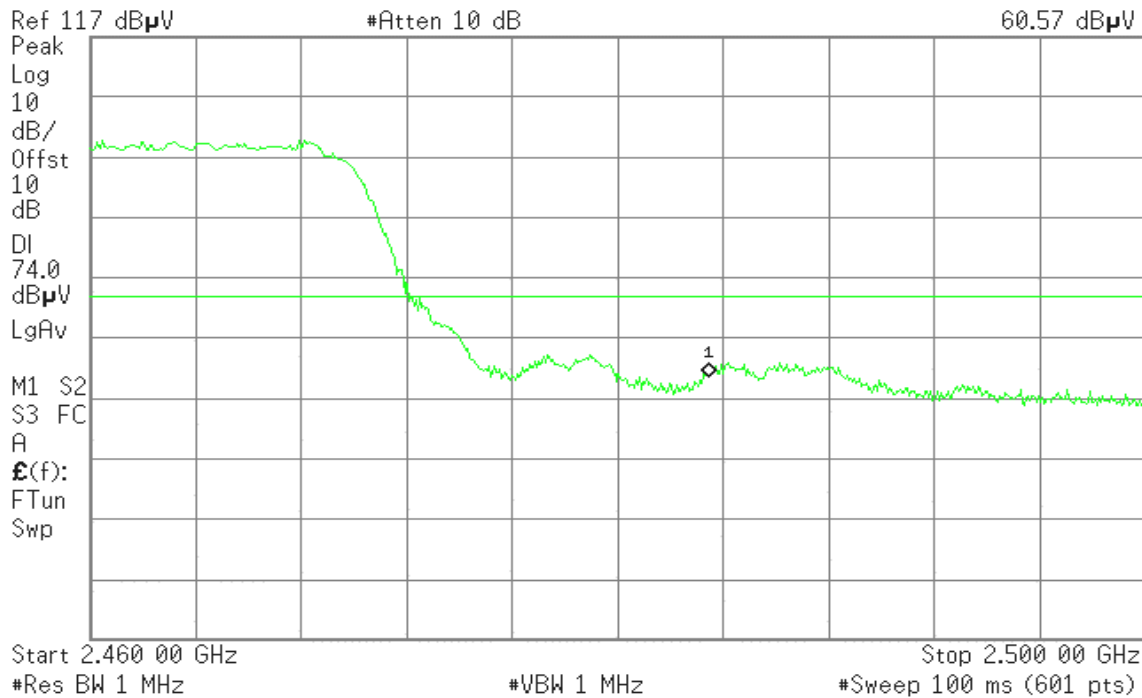
#Atten 10 dB

Mkr1 2.390 0 GHz  
50.85 dB $\mu$ V

**Band Edges (draft 802.11n Wide-40 MHz Channel mode / CH High)****Detector mode: Peak****Polarity: Vertical**

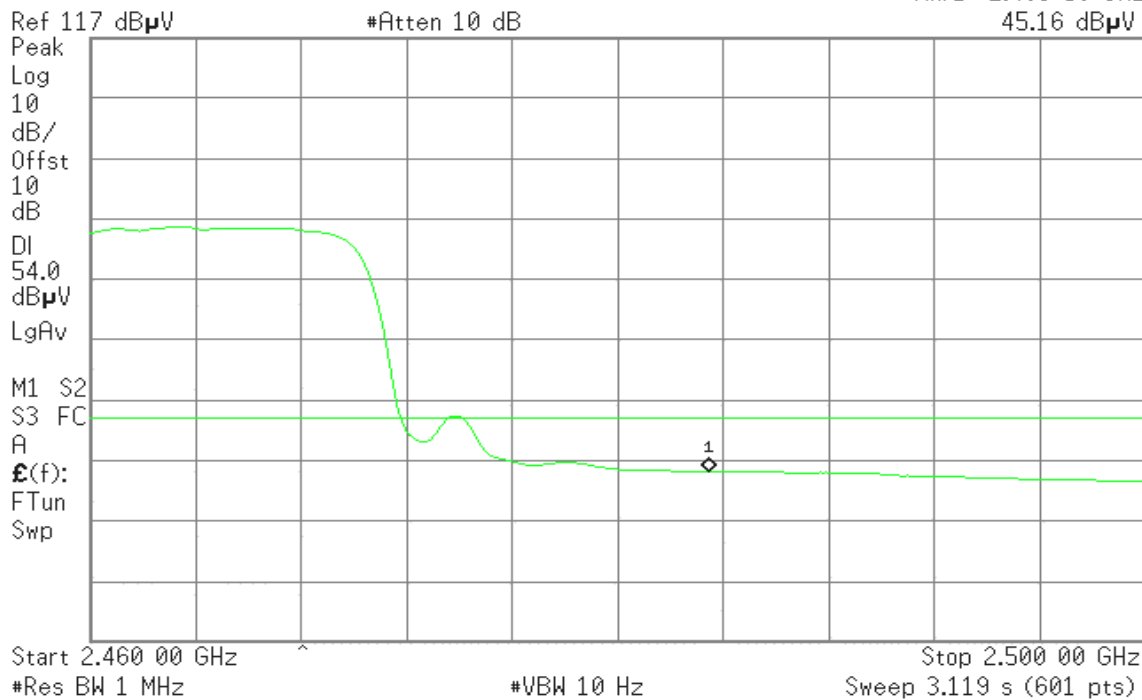
\* Agilent

R T

Mkr1 2.483 50 GHz  
60.57 dB $\mu$ V**Detector mode: Average****Polarity: Vertical**

\* Agilent

R T

Mkr1 2.483 50 GHz  
45.16 dB $\mu$ V



**Detector mode: Peak****Polarity: Horizontal**

\* Agilent

R T

Mkr1 2.486 33 GHz  
71.71 dB $\mu$ VRef 117 dB $\mu$ V

#Atten 10 dB

Peak

Log

10

dB/

Offst

10

dB

DI

74.0

dB $\mu$ V

LgAv

M1 S2

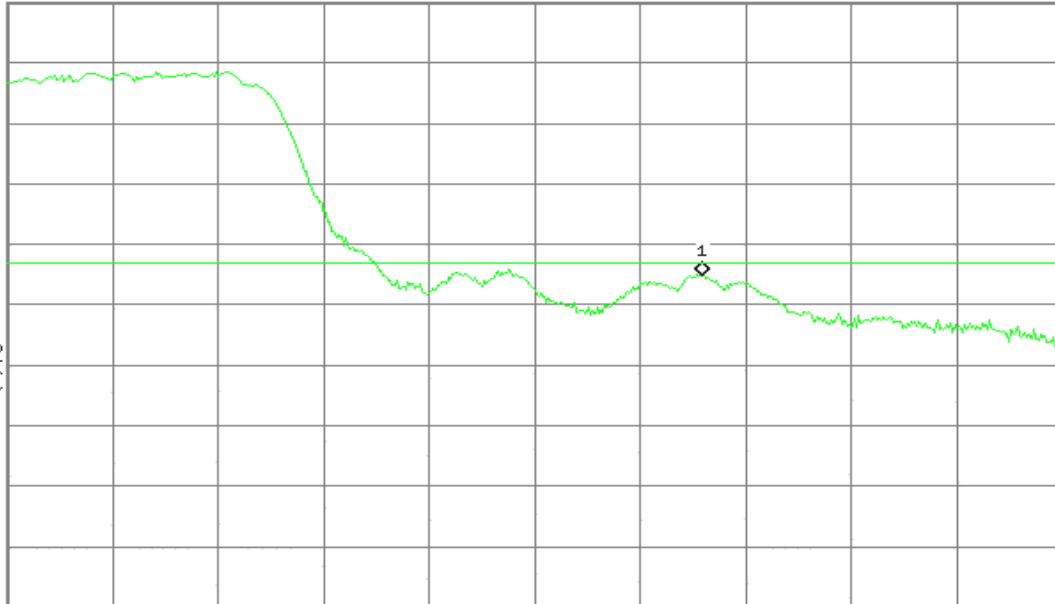
S3 FC

A

E(f):

FTun

Swp



Start 2.460 00 GHz

#Res BW 1 MHz

#VBW 1 MHz

Stop 2.500 00 GHz

#Sweep 100 ms (601 pts)

**Detector mode: Average****Polarity: Horizontal**

\* Agilent

R T

Mkr1 2.486 33 GHz  
50.23 dB $\mu$ VRef 117 dB $\mu$ V

#Atten 10 dB

Peak

Log

10

dB/

Offst

10

dB

DI

54.0

dB $\mu$ V

LgAv

M1 S2

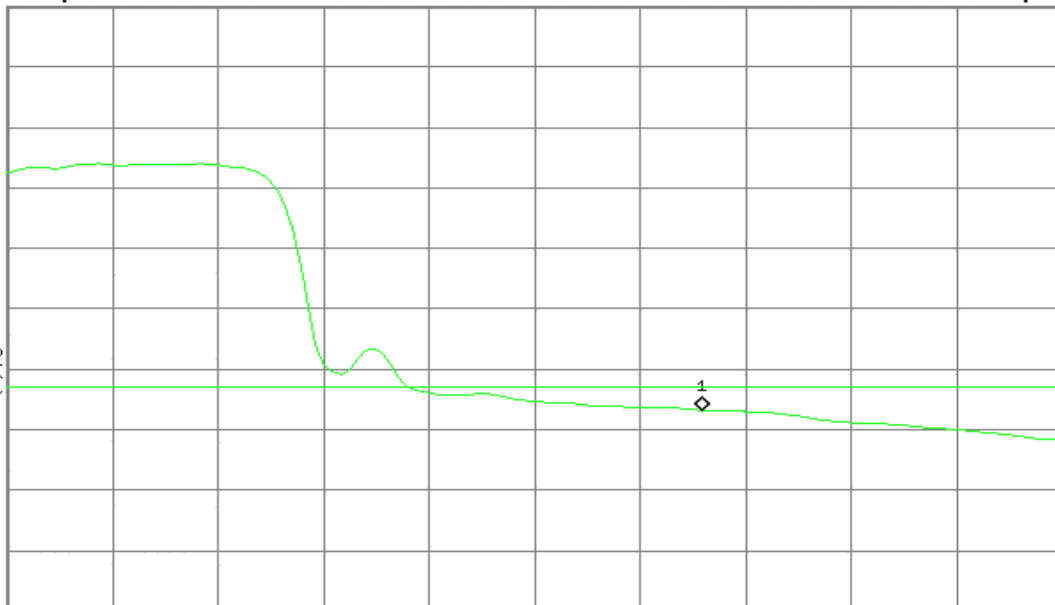
S3 FC

A

E(f):

FTun

Swp



Start 2.460 00 GHz

#Res BW 1 MHz

#VBW 10 Hz

Stop 2.500 00 GHz

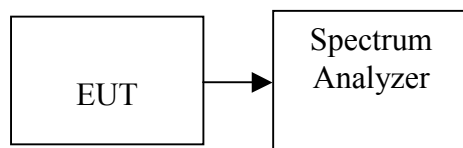
Sweep 3.119 s (601 pts)

## 7.5 PEAK POWER SPECTRAL DENSITY

### LIMIT

1. According to §15.247(e), for digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.
2. According to §15.247(f), the digital modulation operation of the hybrid system, with the frequency hopping turned off, shall comply with the power density requirements of paragraph (d) of this section.

### Test Configuration



### TEST PROCEDURE

1. Place the EUT on the table and set it in transmitting mode.  
Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
2. Set the spectrum analyzer as RBW = 3 kHz, VBW = 10 kHz, Span = 300 kHz, Sweep time = 100 s
3. Record the max reading.
4. Repeat the above procedure until the measurements for all frequencies are completed.

### TEST RESULTS

*No non-compliance noted*

**Test Data****Test mode: IEEE 802.11b**

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	2412	-11.97	8.00	PASS
Mid	2437	-12.05		PASS
High	2462	-10.73		PASS

**Test mode: IEEE 802.11g**

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	2412	-11.89	8.00	PASS
Mid	2437	-10.16		PASS
High	2462	-9.48		PASS

**Test mode: draft 802.11n Standard-20 MHz Channel mode**

Channel	Frequency (MHz)	Chain 0 PSD (dBm)	Chain 1 PSD (dBm)	Chain 2 PSD (dBm)	PPSD (dBm)	Limit (dBm)	Result
Low	2412	-13.94	-14.14	-12.40	-8.65	8.00	PASS
Mid	2437	-13.12	-12.96	-13.52	-8.42		PASS
High	2462	-13.60	-13.26	-12.55	-8.34		PASS

**Test mode: draft 802.11n Wide-40 MHz Channel mode**

Channel	Frequency (MHz)	Chain 0 PSD (dBm)	Chain 1 PSD (dBm)	Chain 2 PSD (dBm)	PPSD (dBm)	Limit (dBm)	Result
Low	2422	-16.20	-14.48	-18.05	-11.23	8.00	PASS
Mid	2437	-9.77	-7.83	-8.81	-3.96		PASS
High	2452	-14.49	-11.42	-14.41	-8.42		PASS

**Remark:** Total PSD (dBm) =  $10 \cdot \log(10^{\text{Chain 0 PSD} / 10} + 10^{\text{Chain 1 PSD} / 10} + 10^{\text{Chain 2 PSD} / 10})$

**Test mode: IEEE 802.11a mode / 5745 ~ 5825MHz**

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	5745	-14.24	8.00	PASS
Mid	5785	-13.92		PASS
High	5825	-13.29		PASS

**Test mode: draft 802.11n Standard-20 MHz Channel mode / 5745 ~ 5825MHz**

Channel	Frequency (MHz)	Chain 0 PSD (dBm)	Chain 1 PSD (dBm)	Chain 2 PSD (dBm)	PPSD (dBm)	Limit (dBm)	Result
Low	5745	-10.55	-12.42	-10.64	-6.35	8.00	PASS
Mid	5785	-11.11	-12.77	-10.65	-6.65		PASS
High	5825	-10.54	-11.04	-9.78	-5.65		PASS

**Test mode: draft 802.11n Wide-40 MHz Channel mode / 5755 ~ 5795MHz**

Channel	Frequency (MHz)	Chain 0 PSD (dBm)	Chain 1 PSD (dBm)	Chain 2 PSD (dBm)	PPSD (dBm)	Limit (dBm)	Result
Low	5755	-14.63	-14.62	-14.43	-9.79	8.00	PASS
High	5795	-15.39	-13.56	-15.40	-9.92		PASS

**Remark:** Total PSD (dBm) =  $10 \cdot \log(10^{\text{Chain 0 PSD} / 10} + 10^{\text{Chain 1 PSD} / 10} + 10^{\text{Chain 2 PSD} / 10})$

**Test mode: draft 802.11n Standard-20 MHz Channel mode with combiner**

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	2412	-9.14	8.00	PASS
Mid	2437	-8.20		PASS
High	2462	-7.12		PASS

**Test mode: draft 802.11n Wide-40 MHz Channel mode with combiner**

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	2422	-11.52	8.00	PASS
Mid	2437	-3.52		PASS
High	2452	-7.47		PASS

**Test mode: draft 802.11n Standard-20 MHz Channel / 5745 ~ 5825MHz / mode with combiner**

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	5745	-7.38	8.00	PASS
Mid	5785	-6.79		PASS
High	5825	-5.56		PASS

**Test mode: draft 802.11n Wide-40 MHz Channel mode / 5755 ~ 5795MHz with combiner**

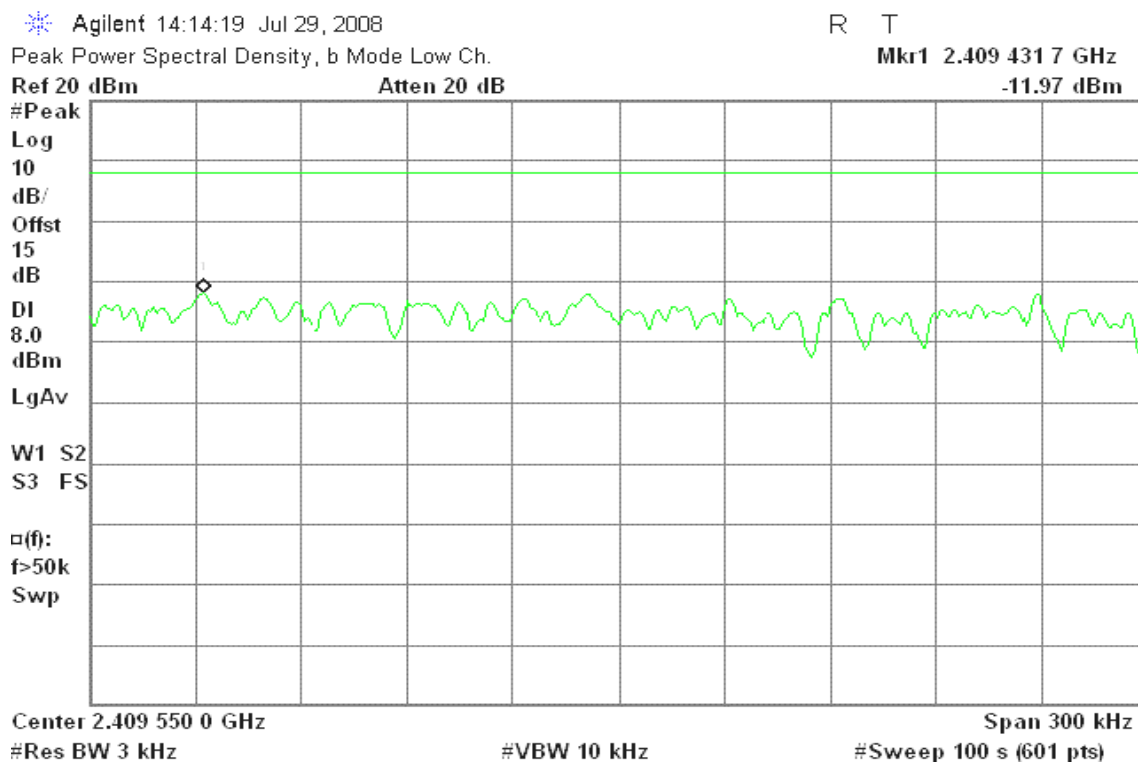
Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	5755	-9.13	8.00	PASS
High	5795	-8.90		PASS



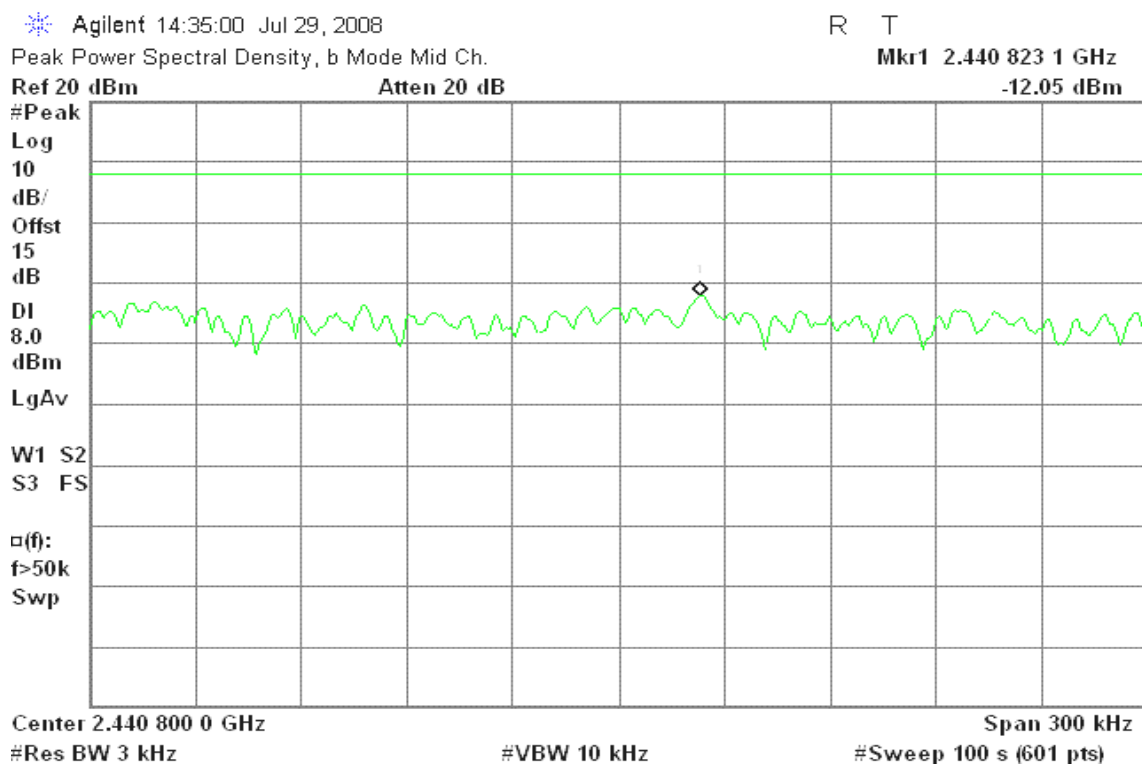
## Test Plot

### IEEE 802.11b mode

#### PPSD (CH Low)



#### PPSD (CH Mid)



**PPSD (CH High)**

\* Agilent 14:47:01 Jul 29, 2008

R T

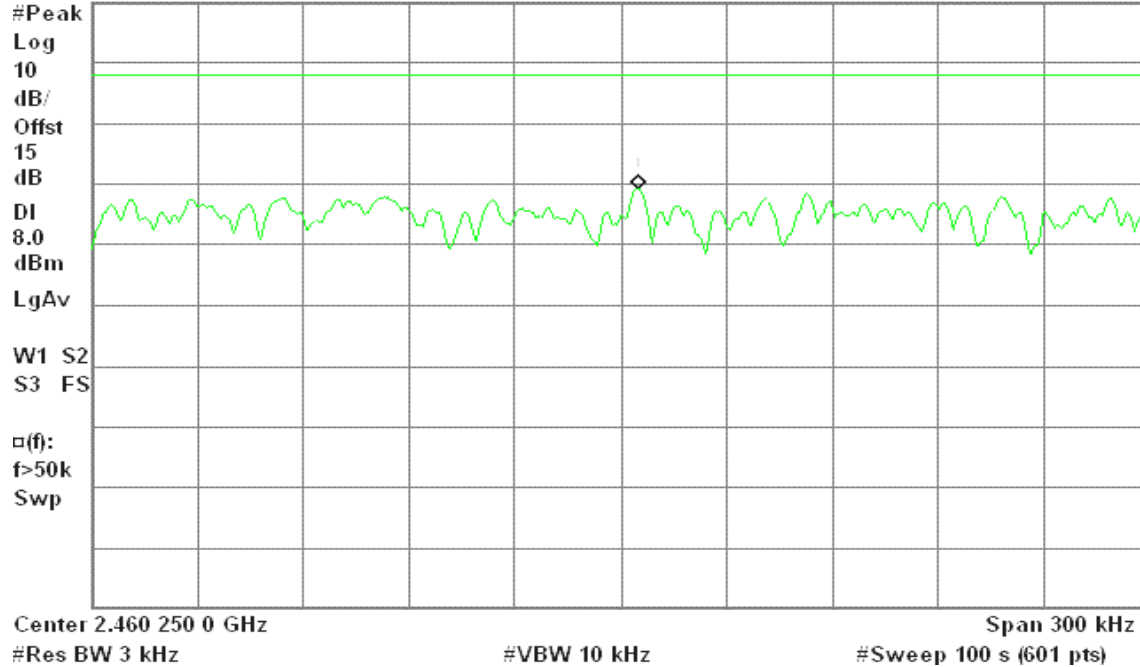
Peak Power Spectral Density, b Mode High Ch.

Mkr1 2.460 255 0 GHz

Ref 20 dBm

Atten 20 dB

-10.73 dBm

**IEEE 802.11g mode****PPSD (CH Low)**

\* Agilent 15:01:46 Jul 29, 2008

R T

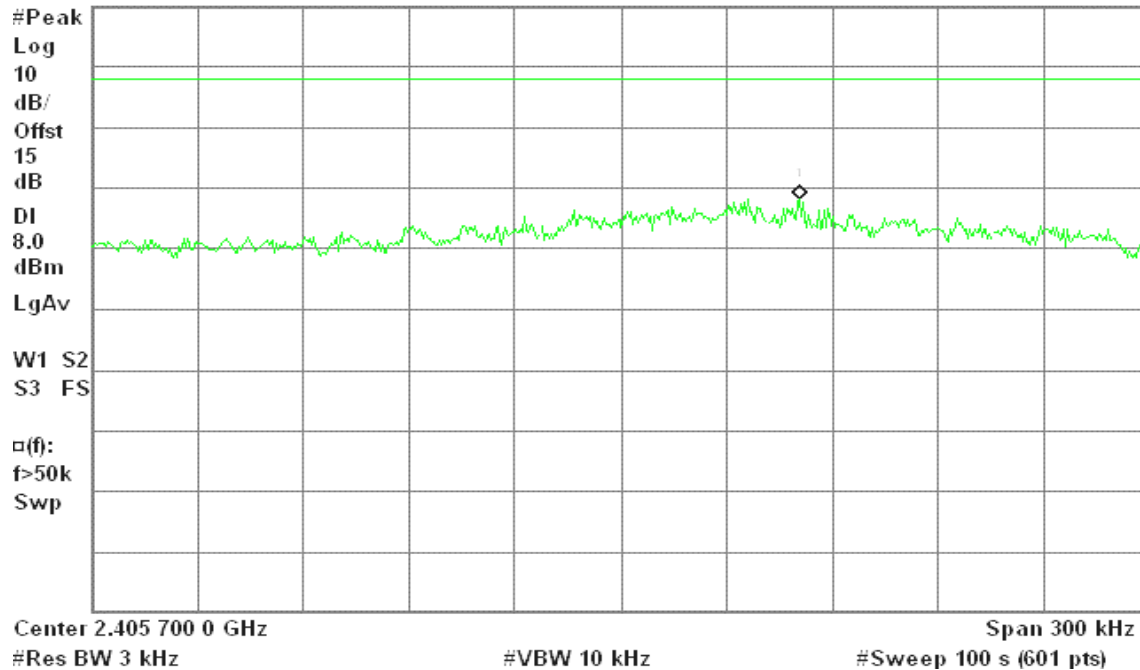
Peak Power Spectral Density, g Mode Low Ch.

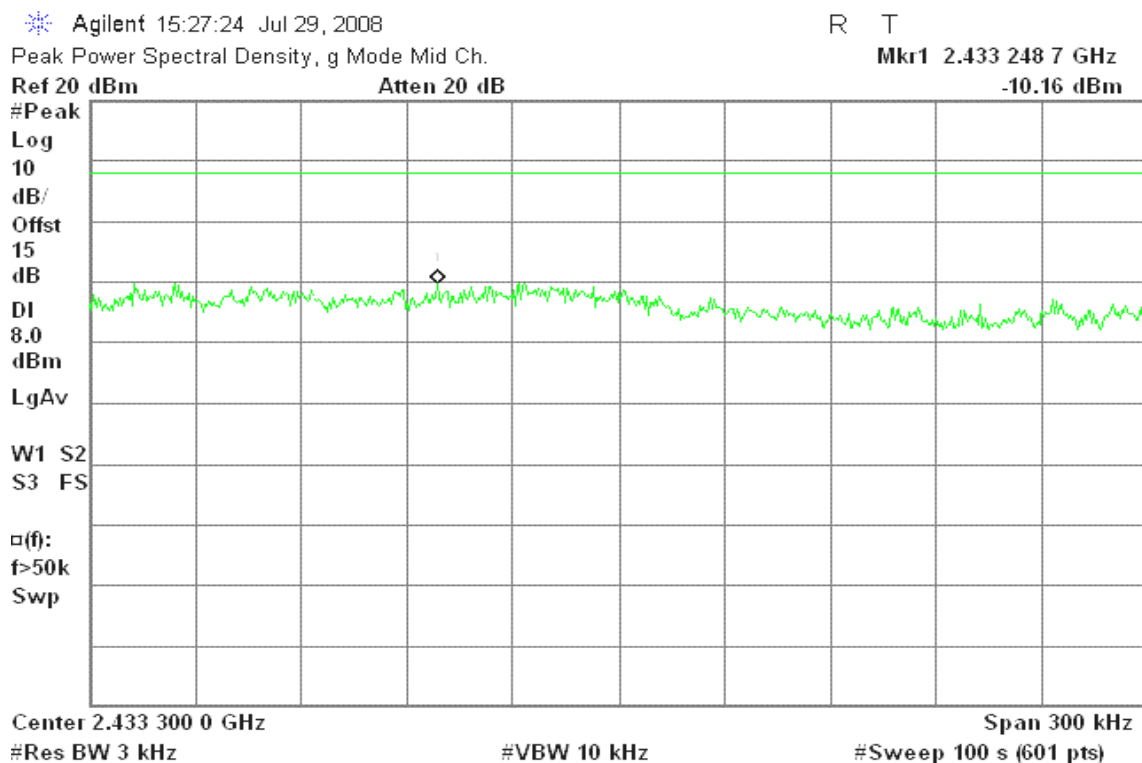
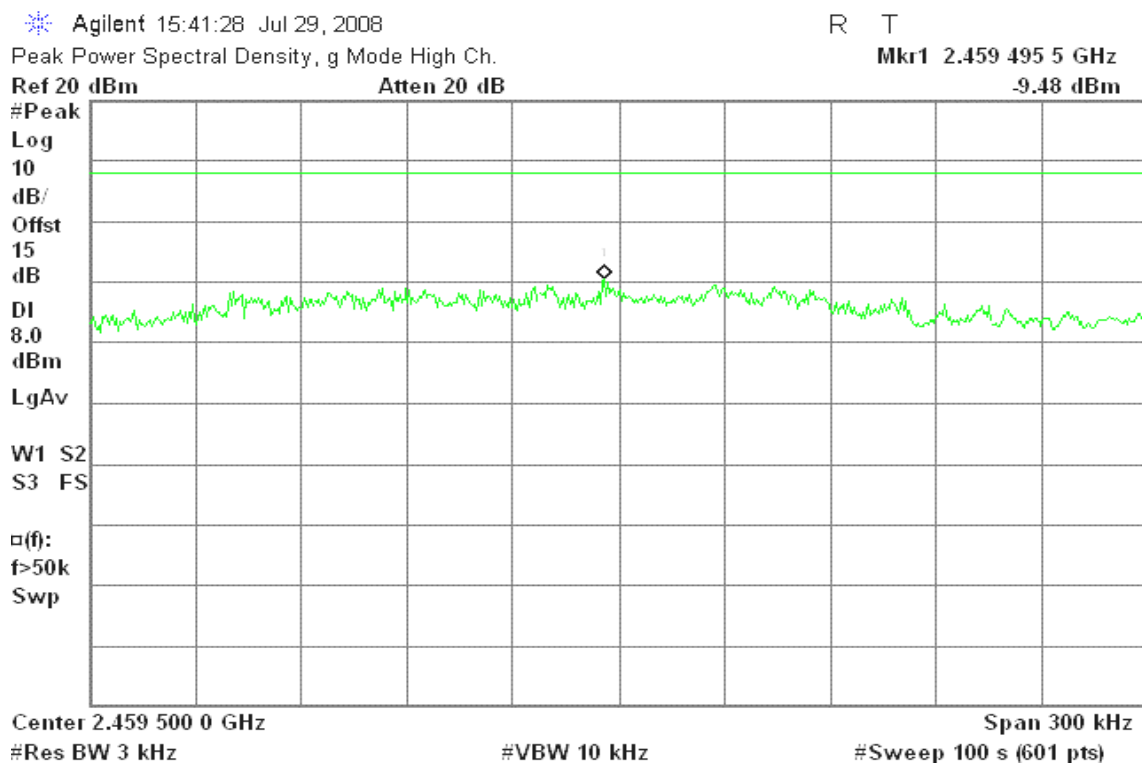
Mkr1 2.405 750 6 GHz

Ref 20 dBm

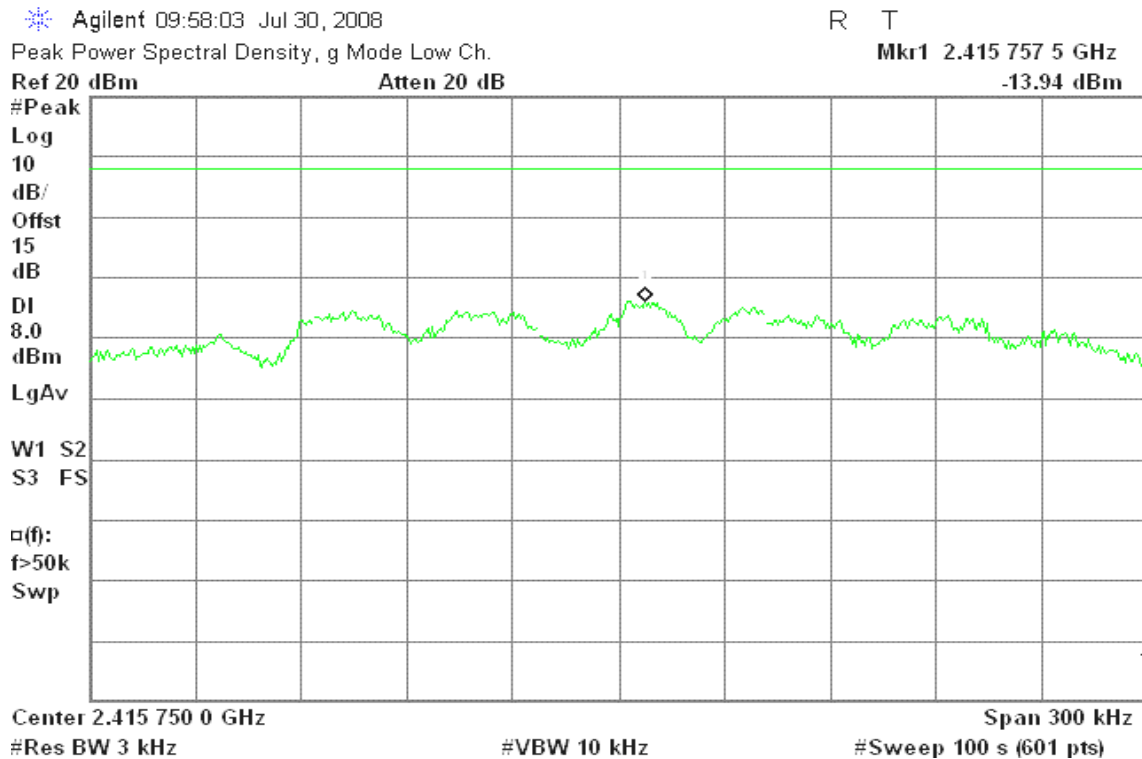
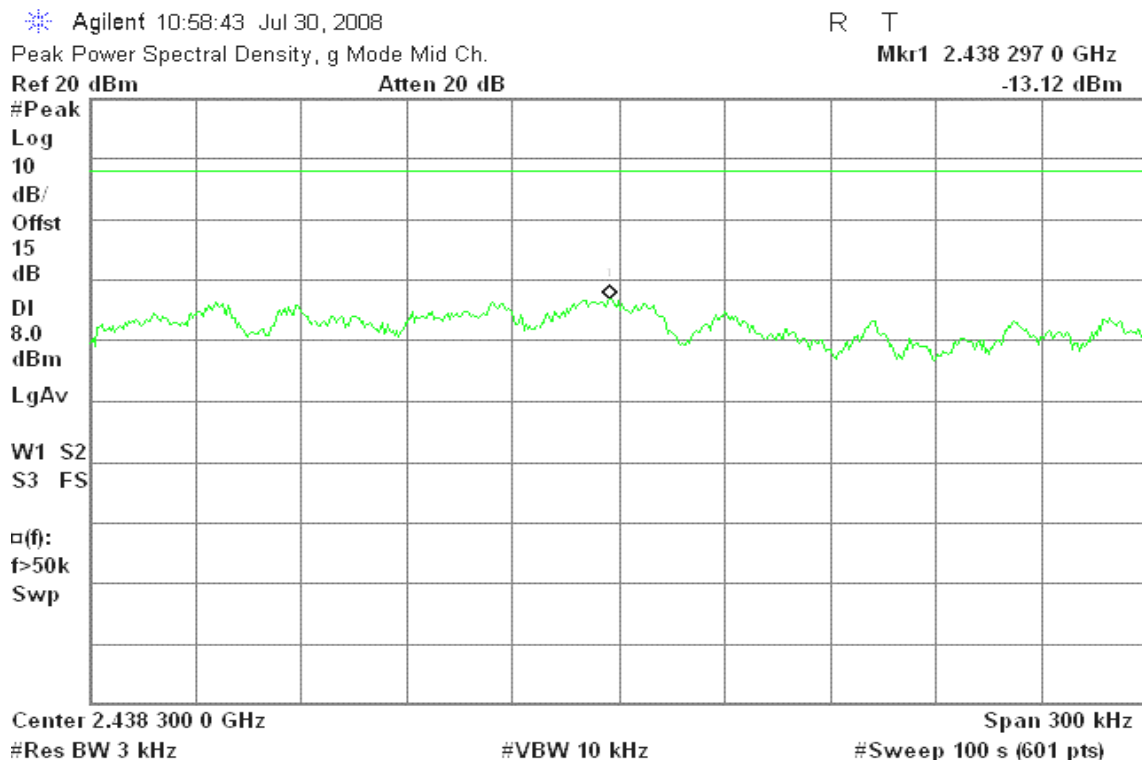
Atten 20 dB

-11.89 dBm



**PPSD (CH Mid)****PPSD (CH High)**



**draft 802.11n Standard-20 MHz Channel mode / Chain 0****PPSD (CH Low)****PPSD (CH Mid)**

**PPSD (CH High)**

\* Agilent 11:53:25 Jul 30, 2008

R T

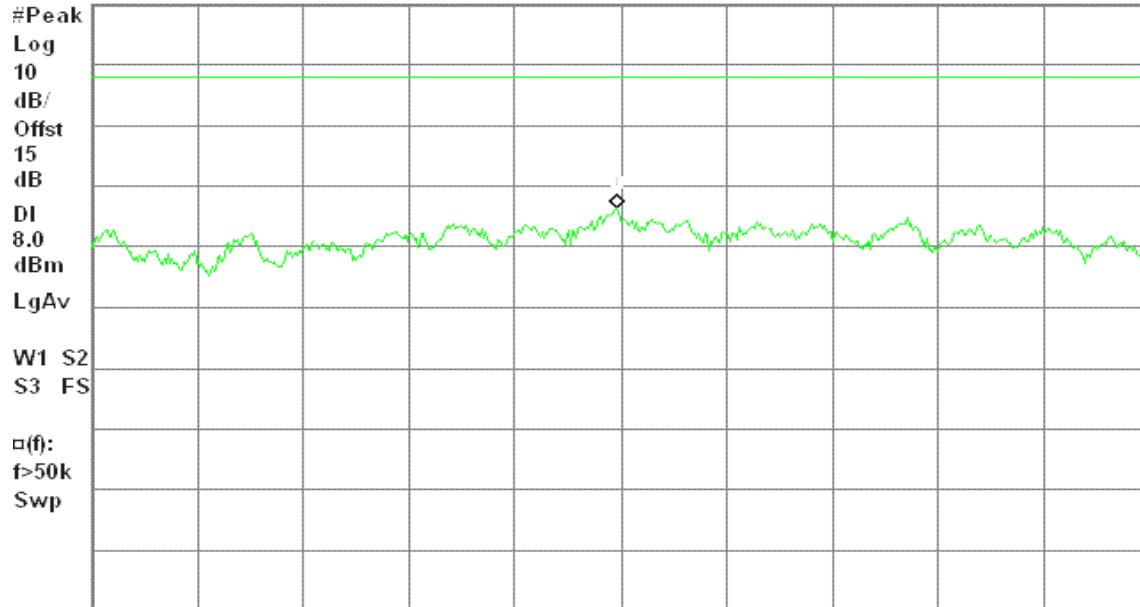
Peak Power Spectral Density, g Mode High Ch.

Mkr1 2.456 348 5 GHz

Ref 20 dBm

Atten 20 dB

-13.60 dBm



Center 2.456 350 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

**draft 802.11n Standard-20 MHz Channel mode / Chain 1****PPSD (CH Low)**

\* Agilent 10:23:32 Jul 30, 2008

R T

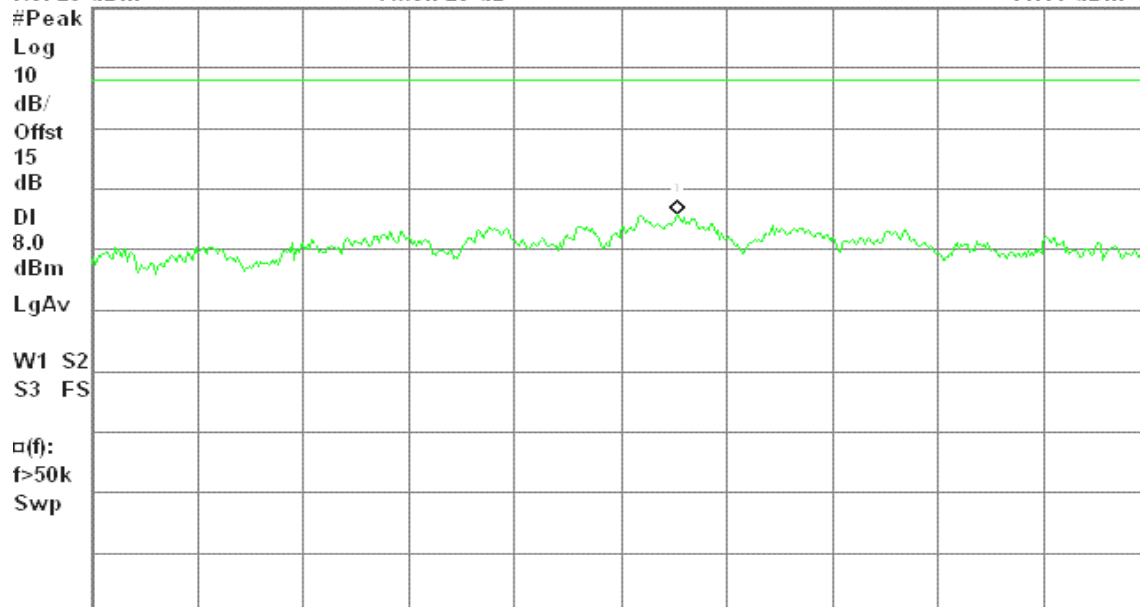
Peak Power Spectral Density, g Mode Low Ch.

Mkr1 2.419 816 1 GHz

Ref 20 dBm

Atten 20 dB

-14.14 dBm



Center 2.419 800 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)



## PPSD (CH Mid)

\* Agilent 11:06:03 Jul 30, 2008

R T

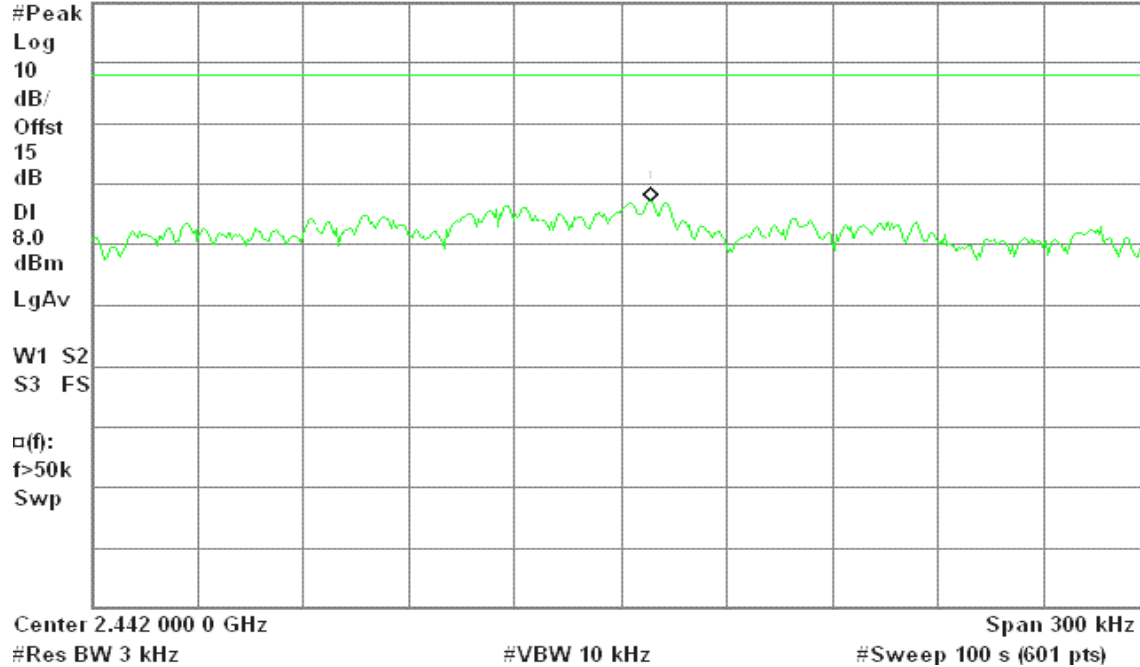
Peak Power Spectral Density, g Mode Mid Ch.

Mkr1 2.442 008 5 GHz

Ref 20 dBm

Atten 20 dB

-12.96 dBm



## PPSD (CH High)

\* Agilent 13:07:18 Jul 30, 2008

R T

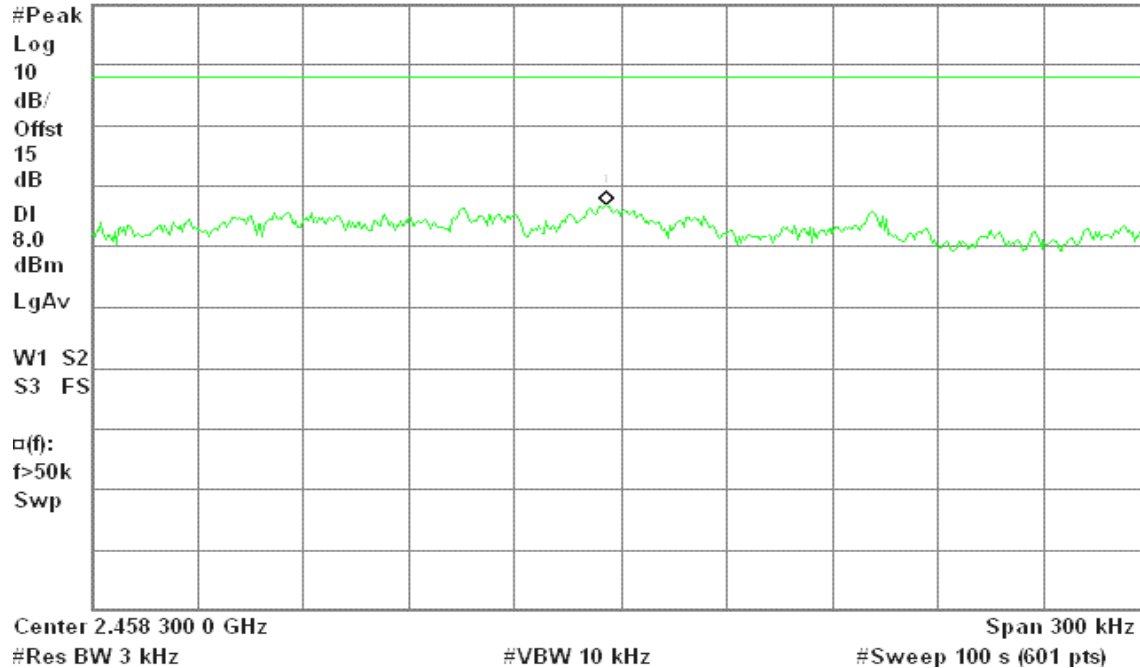
Peak Power Spectral Density, g Mode High Ch.

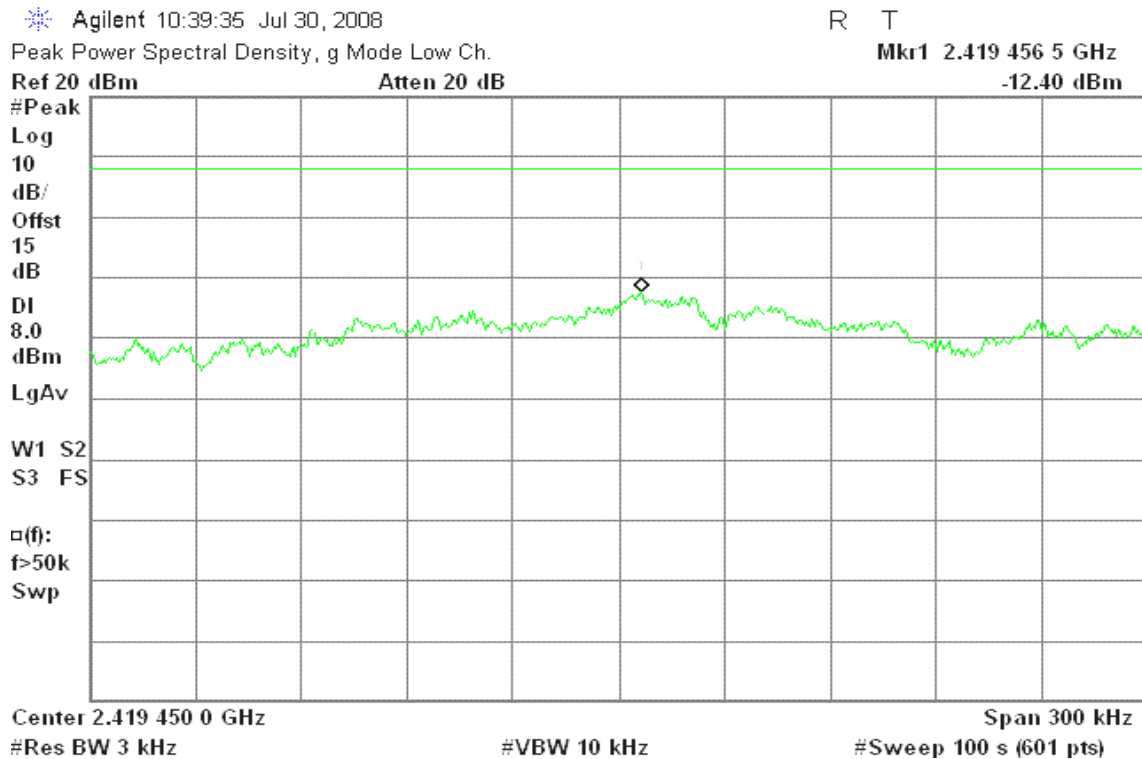
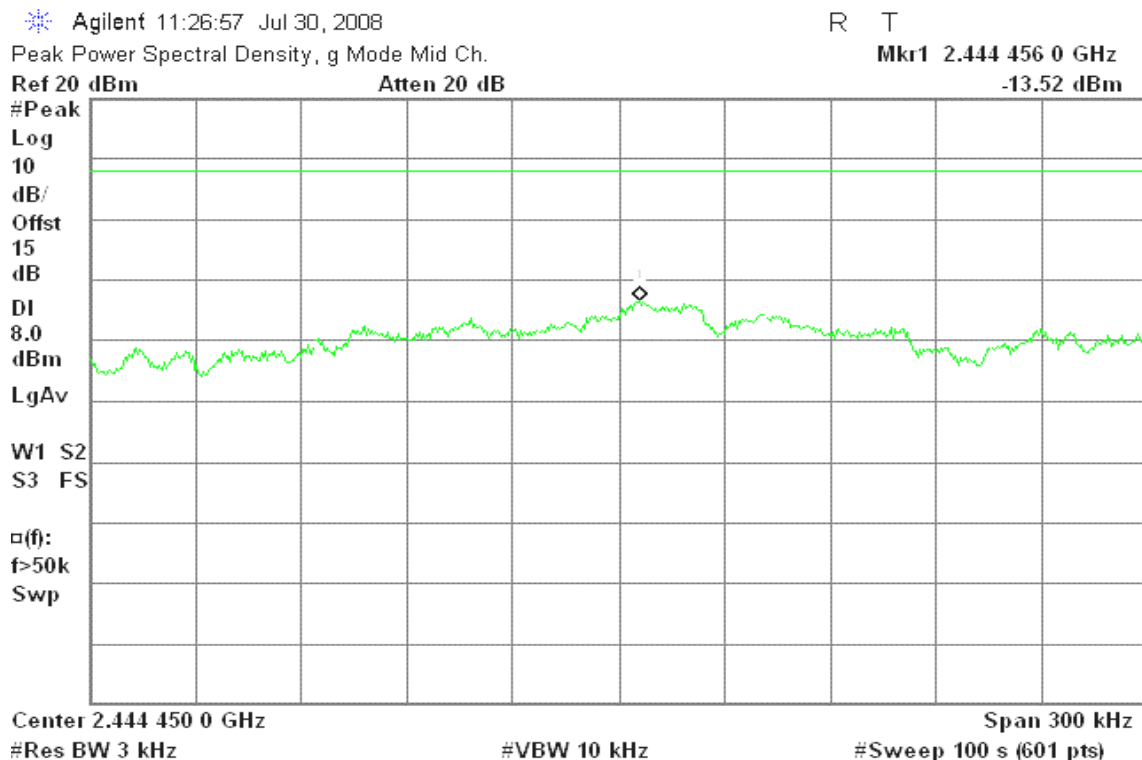
Mkr1 2.458 295 5 GHz

Ref 20 dBm

Atten 20 dB

-13.26 dBm



**draft 802.11n Standard-20 MHz Channel mode / Chain 2****PPSD (CH Low)****PPSD (CH Mid)**



## PPSD (CH High)

Agilent 13:16:56 Jul 30, 2008

R T

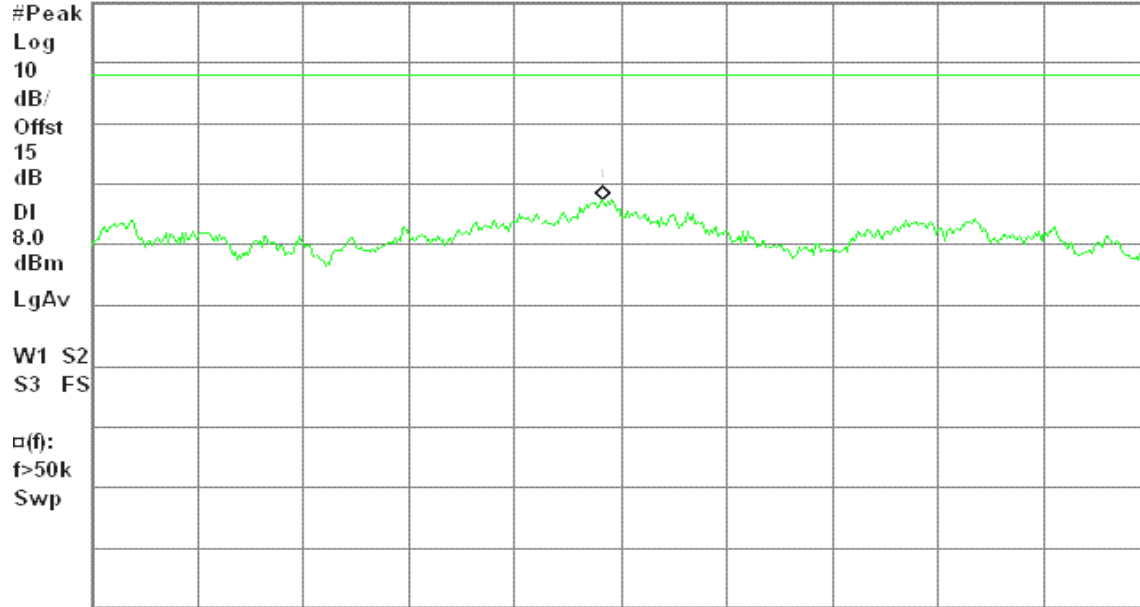
Peak Power Spectral Density, g Mode High Ch.

Mkr1 2.466 044 5 GHz

Ref 20 dBm

Atten 20 dB

-12.55 dBm



Center 2.466 050 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

**draft 802.11n Wide-40 MHz Channel mode / Chain 0****PPSD (CH Low)**

\* Agilent 14:54:20 Jul 30, 2008

R T

Peak Power Spectral Density, g Mode Low Ch.

Mkr1 2.429 517 1 GHz

Ref 20 dBm

Atten 20 dB

-16.20 dBm

#Peak

Log

10

dB/

Offst

15

dB

DI

8.0

dBm

LgAv

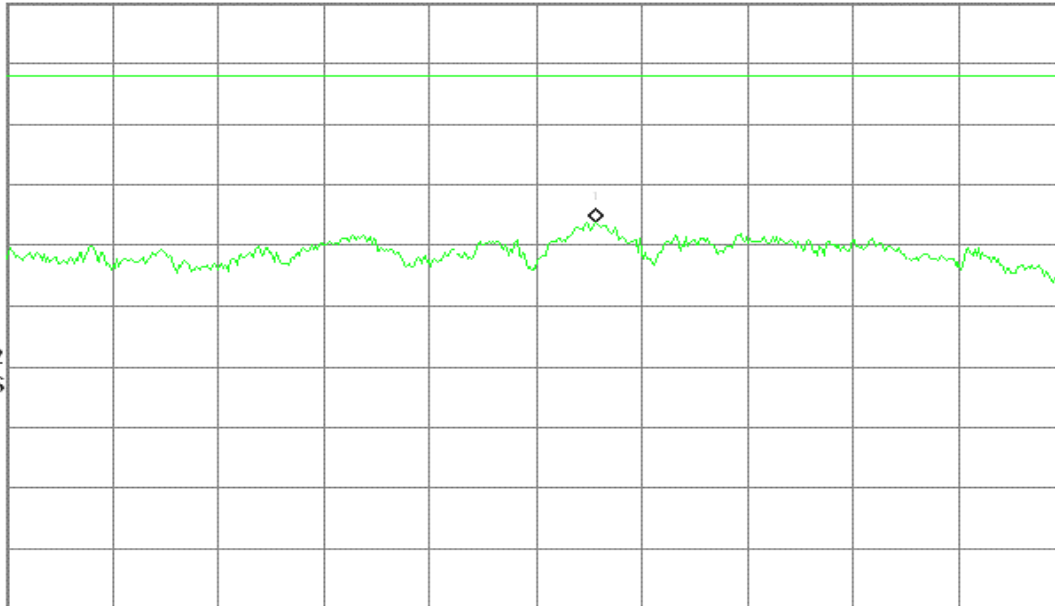
W1 S2

S3 FS

□(f):

f&gt;50k

Swp



Center 2.429 500 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

**PPSD (CH Mid)**

\* Agilent 15:04:34 Jul 30, 2008

R T

Peak Power Spectral Density, g Mode Mid Ch.

Mkr1 2.438 295 0 GHz

Ref 20 dBm

Atten 20 dB

-9.77 dBm

#Peak

Log

10

dB/

Offst

15

dB

DI

8.0

dBm

LgAv

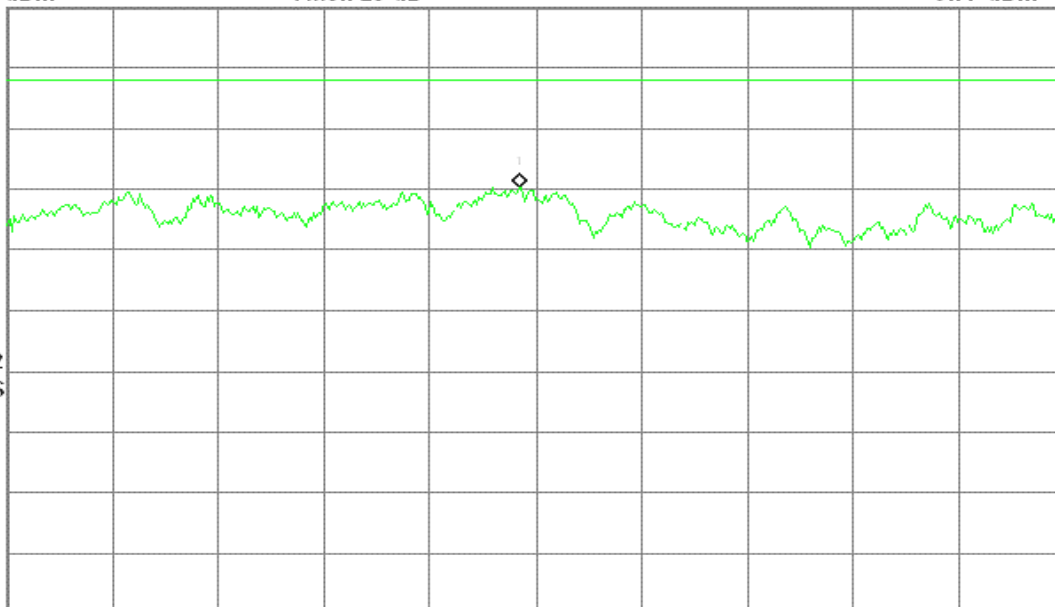
W1 S2

S3 FS

□(f):

f&gt;50k

Swp



Center 2.438 300 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

**PPSD (CH High)**

\* Agilent 15:12:16 Jul 30, 2008

Peak Power Spectral Density, g Mode High Ch.

R T

Mkr1 2.455 758 0 GHz

Ref 20 dBm

Atten 20 dB

-14.49 dBm

#Peak

Log

10

dB/

Offst

15

dB

DI

8.0

dBm

LgAv

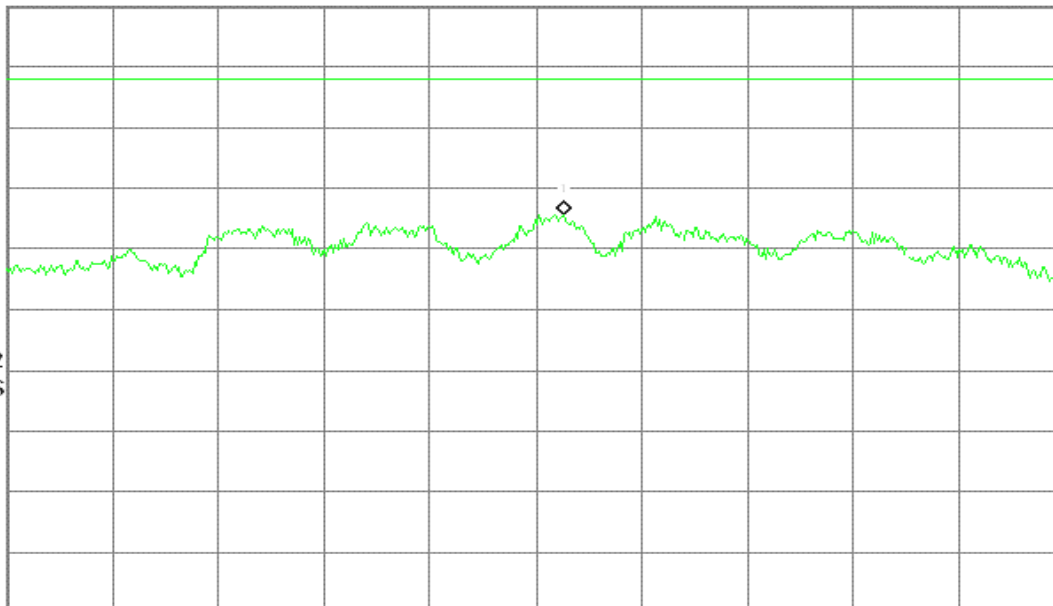
W1 S2

S3 FS

 $\alpha(f)$ :

f&gt;50k

Swp



Center 2.455 750 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

**draft 802.11n Wide-40 MHz Channel mode / Chain 1****PPSD (CH Low)**

\* Agilent 15:22:13 Jul 30, 2008

Peak Power Spectral Density, g Mode Low Ch.

R T

Mkr1 2.429 510 5 GHz

Ref 20 dBm

Atten 20 dB

-14.48 dBm

#Peak

Log

10

dB/

Offst

15

dB

DI

8.0

dBm

LgAv

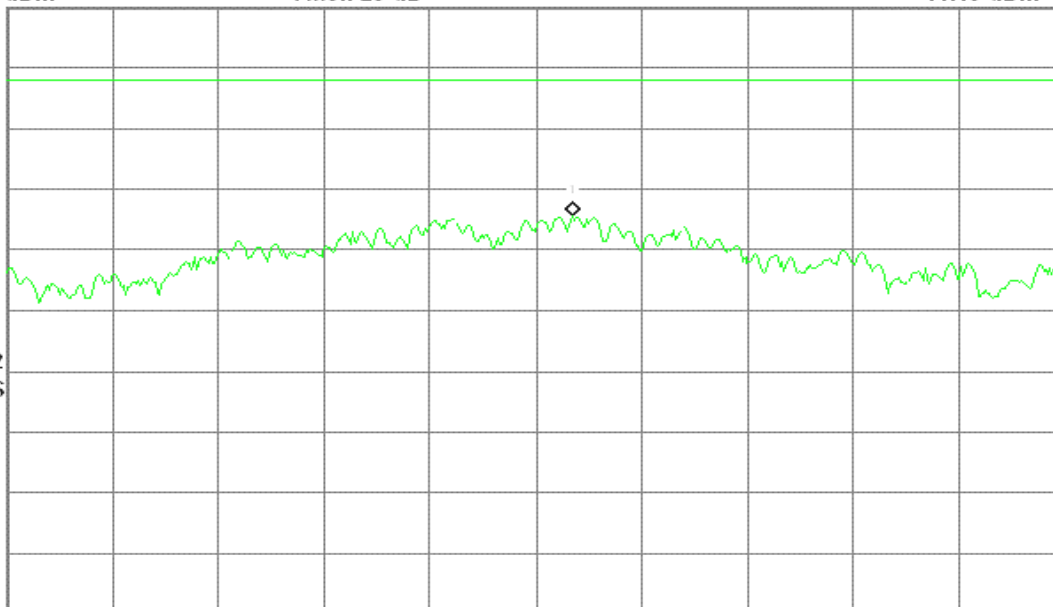
W1 S2

S3 FS

 $\alpha(f)$ :

f&gt;50k

Swp



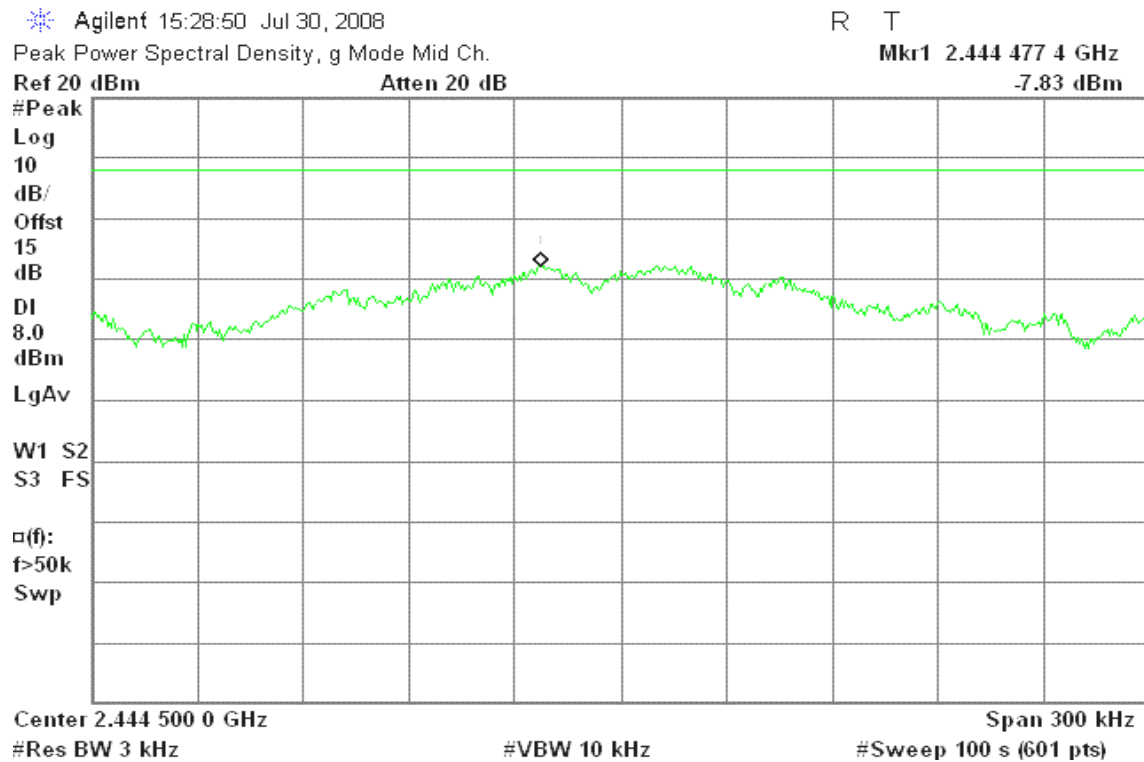
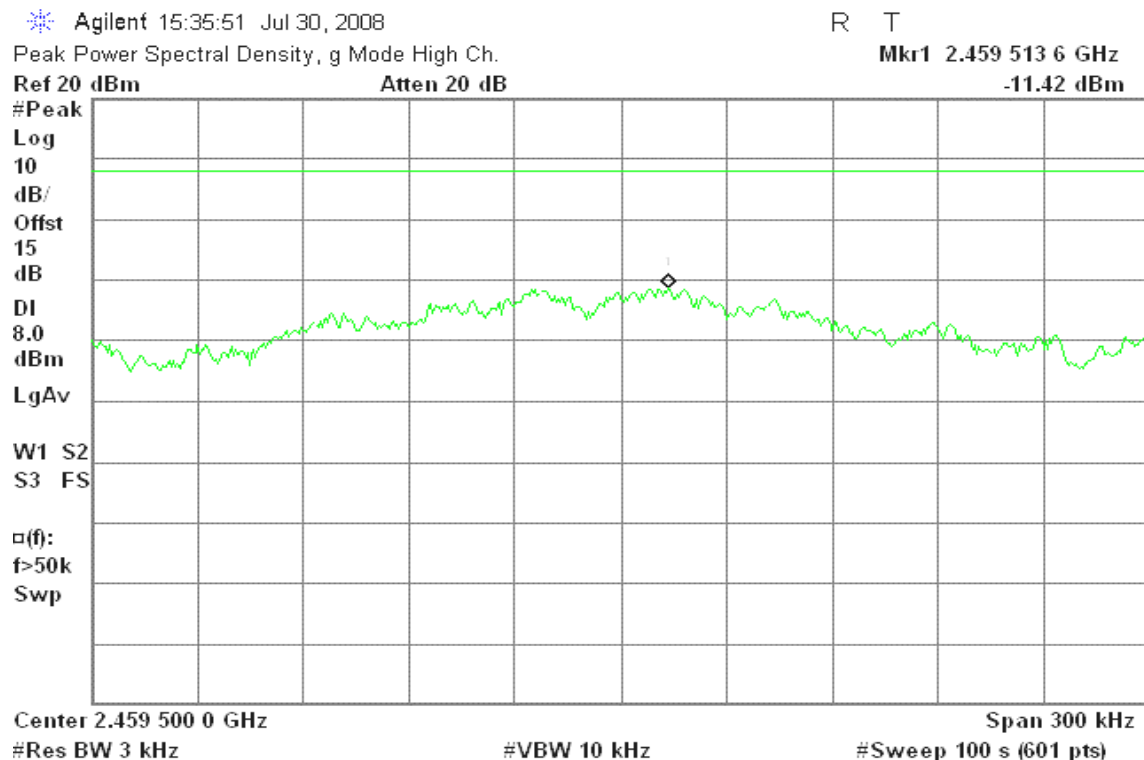
Center 2.429 500 0 GHz

Span 300 kHz

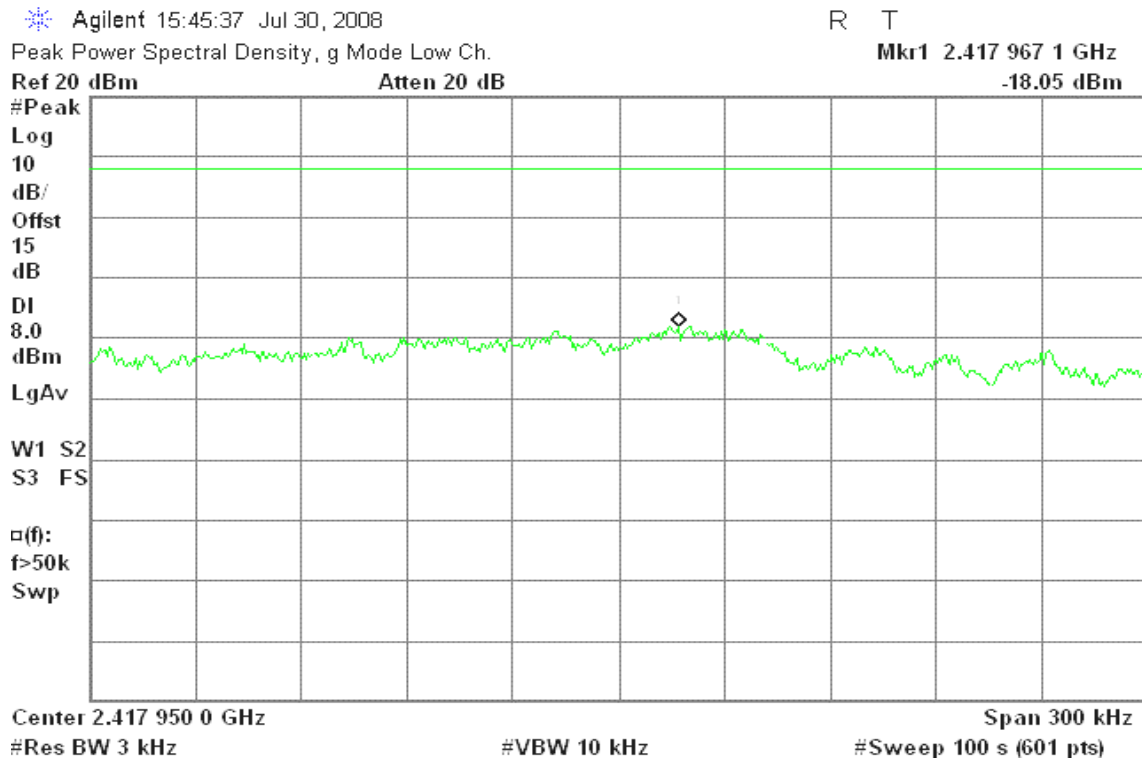
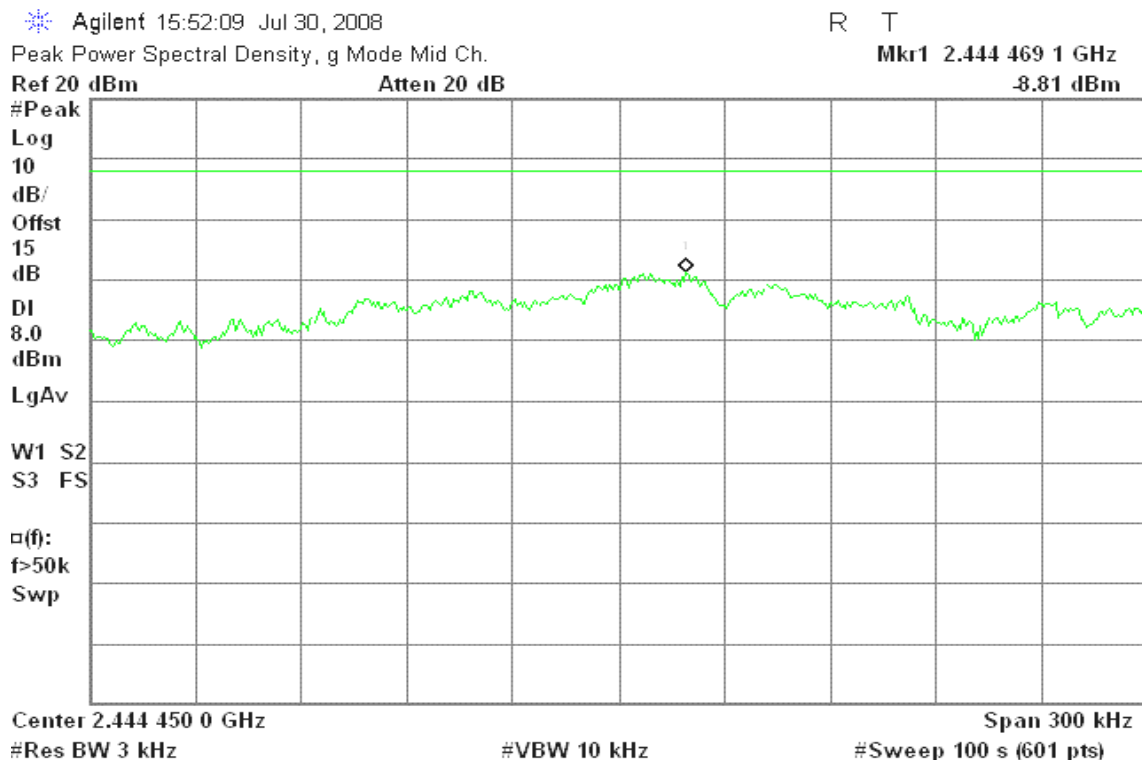
#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

**PPSD (CH Mid)****PPSD (CH High)**



**draft 802.11n Wide-40 MHz Channel mode / Chain 2****PPSD (CH Low)****PPSD (CH Mid)**



## PPSD (CH High)

Agilent 16:04:29 Jul 30, 2008

R T

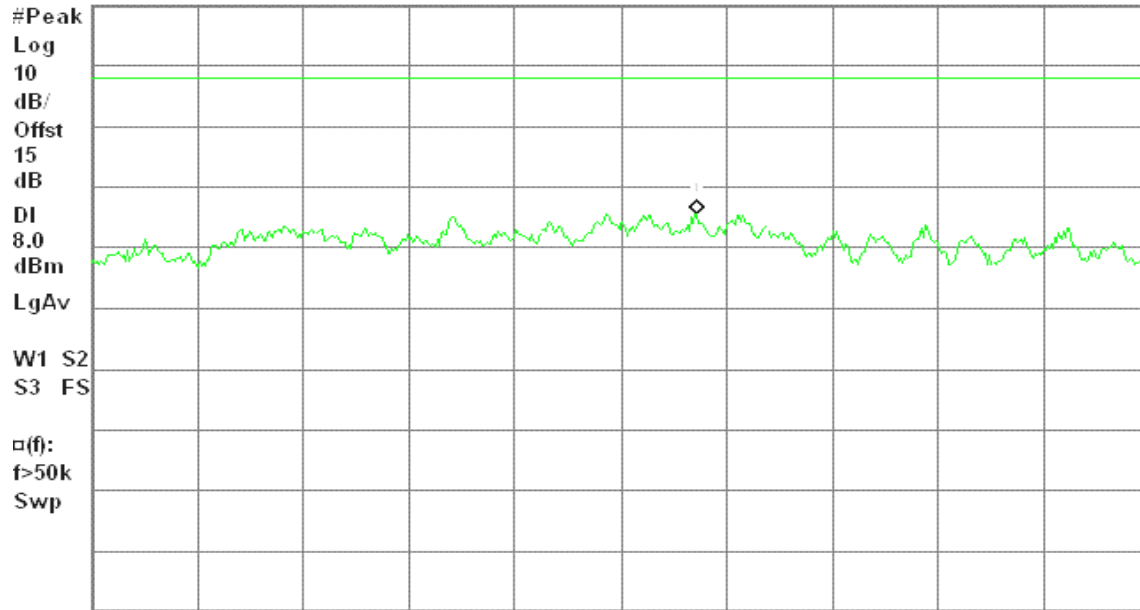
Peak Power Spectral Density, g Mode High Ch.

Mkr1 2.449 221 6 GHz

Ref 20 dBm

Atten 20 dB

-14.41 dBm



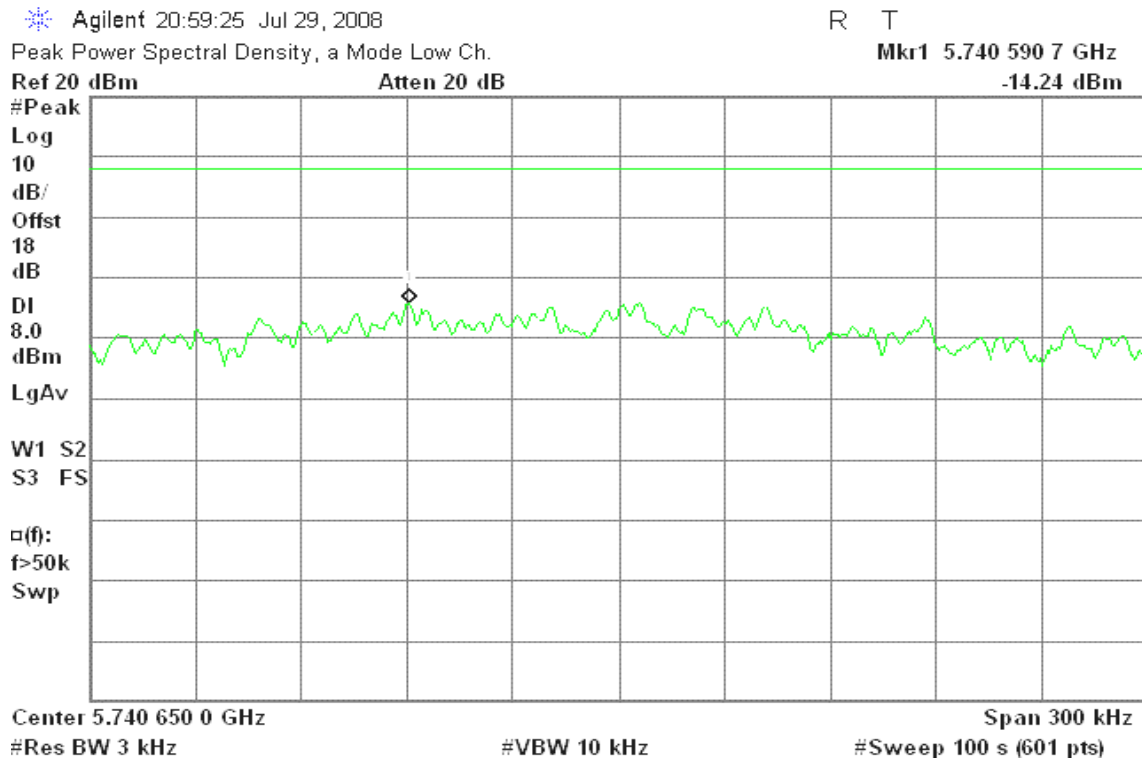
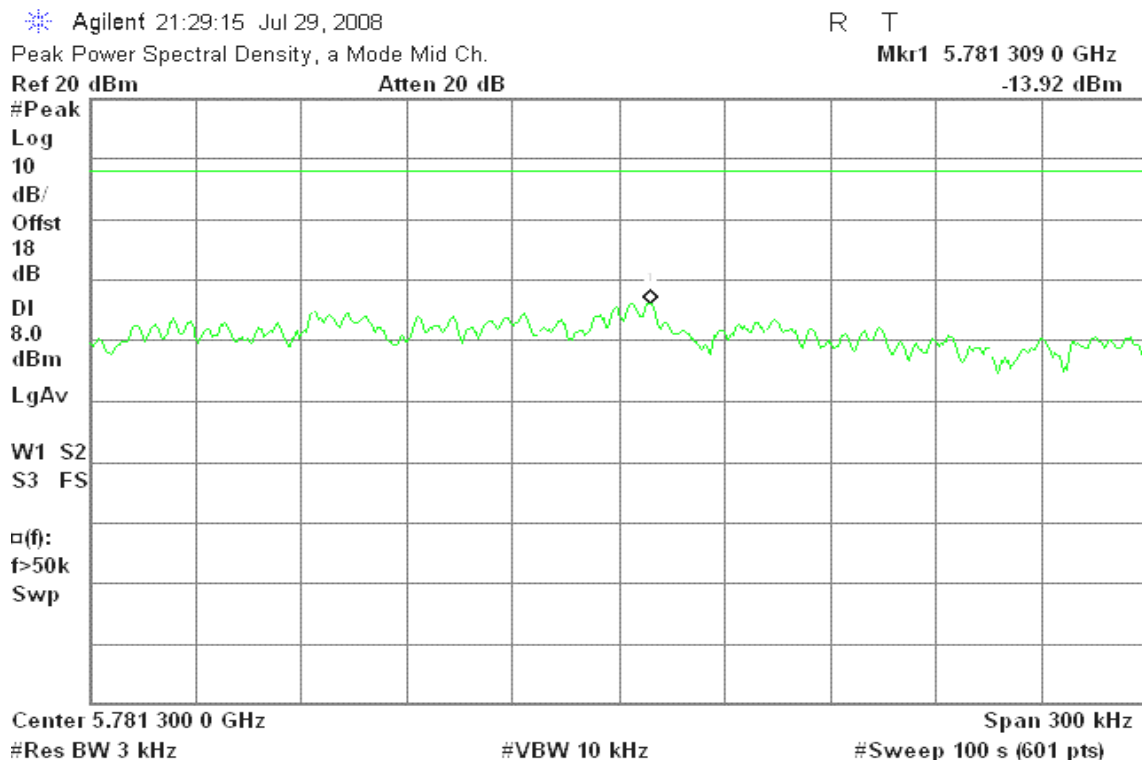
Center 2.449 200 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

**Test mode: IEEE 802.11a mode / 5745 ~ 5825MHz****PPSD (CH Low)****PPSD (CH Mid)**

**PPSD (CH High)**

\* Agilent 21:40:55 Jul 29, 2008

Peak Power Spectral Density, a Mode High Ch.

R T

Mkr1 5.821 309 0 GHz

Ref 20 dBm

Atten 20 dB

-13.29 dBm

#Peak

Log

10

dB/

Offst

18

dB

DI

8.0

dBm

LgAv

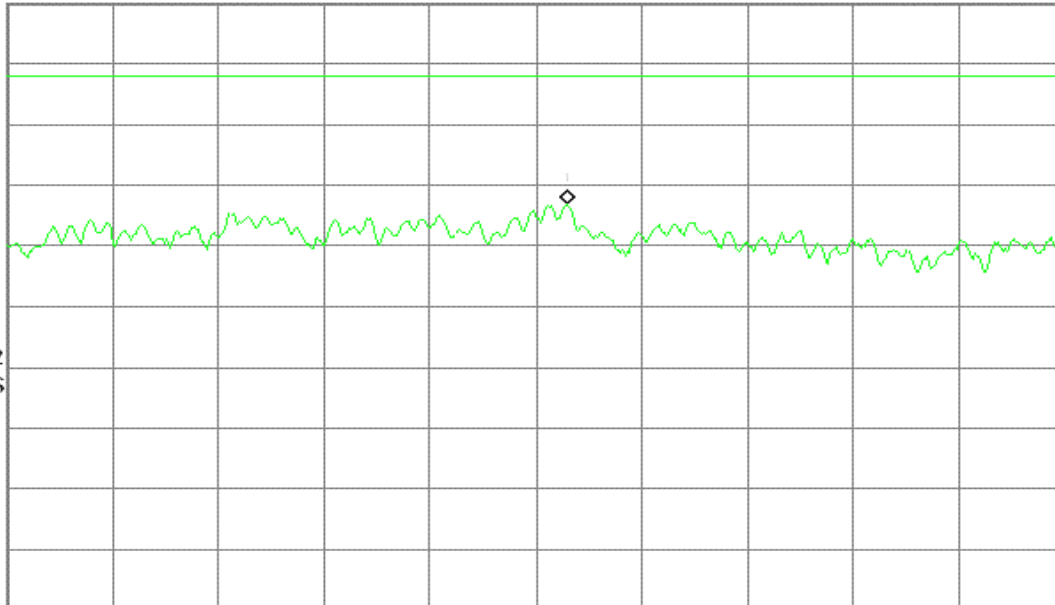
W1 S2

S3 FS

□(f):

f&gt;50k

Swp



Center 5.821 300 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

**draft 802.11n Standard-20 MHz Channel mode / 5745 ~ 5825MHz / Chain 0****PPSD (CH Low)**

\* Agilent 23:54:54 Jul 30, 2008

Peak Power Spectral Density, a Mode Low Ch.

R T

Mkr1 5.738 798 5 GHz

Ref 20 dBm

Atten 20 dB

-10.55 dBm

#Peak

Log

10

dB/

Offst

17

dB

DI

8.0

dBm

LgAv

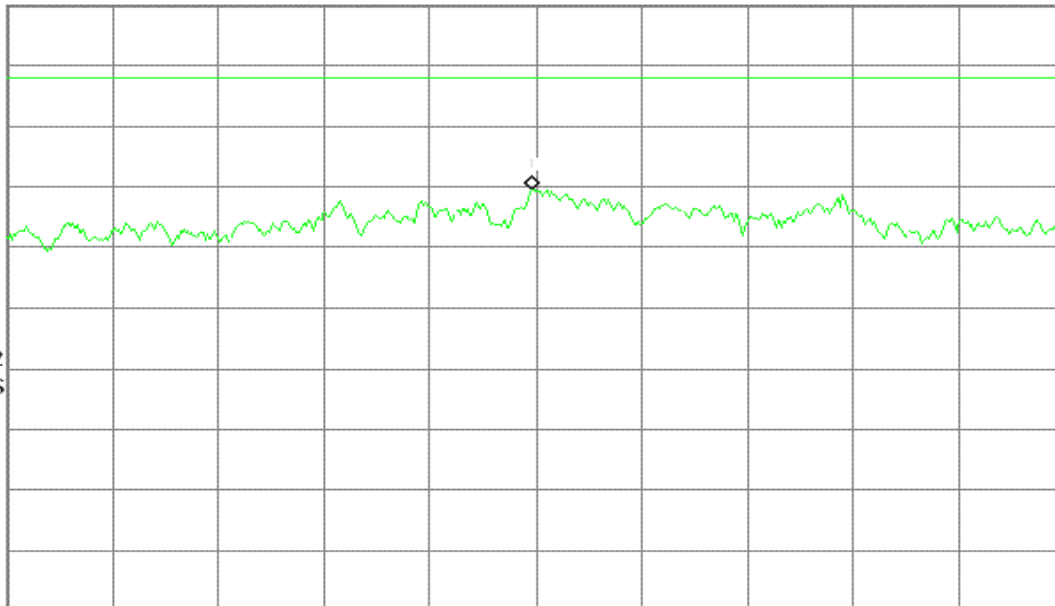
W1 S2

S3 FS

□(f):

f&gt;50k

Swp



Center 5.738 800 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

**PPSD (CH Mid)**

\* Agilent 00:03:19 Jul 31, 2008

R T

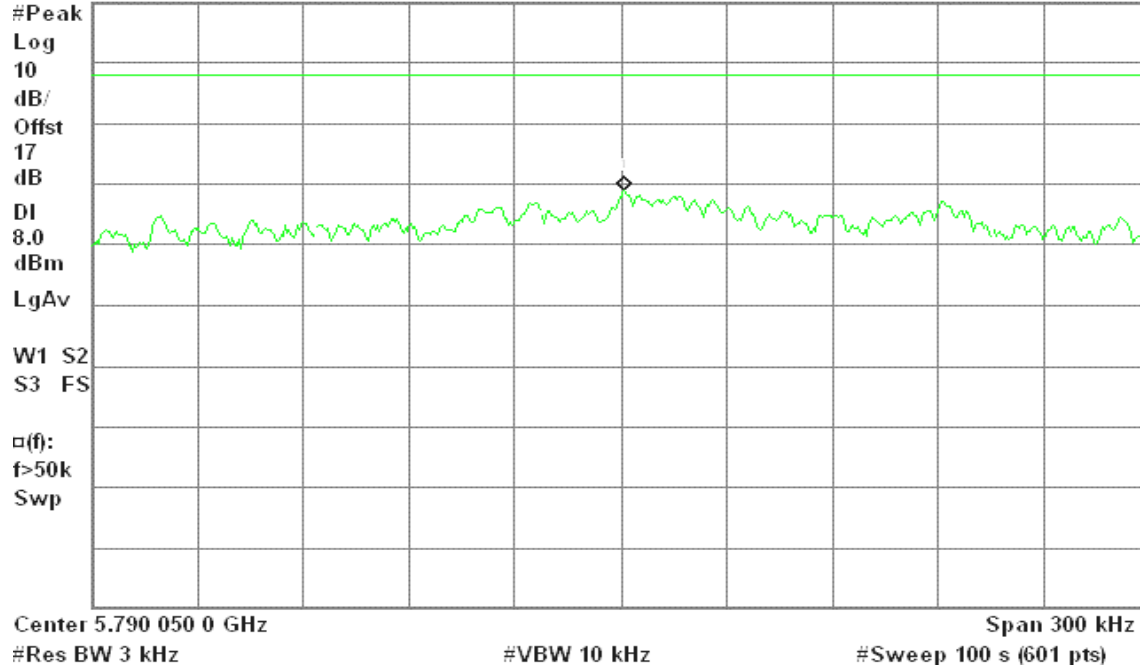
Peak Power Spectral Density, a Mode Mid Ch.

Mkr1 5.790 051 0 GHz

Ref 20 dBm

Atten 20 dB

-11.11 dBm

**PPSD (CH High)**

\* Agilent 00:10:00 Jul 31, 2008

R T

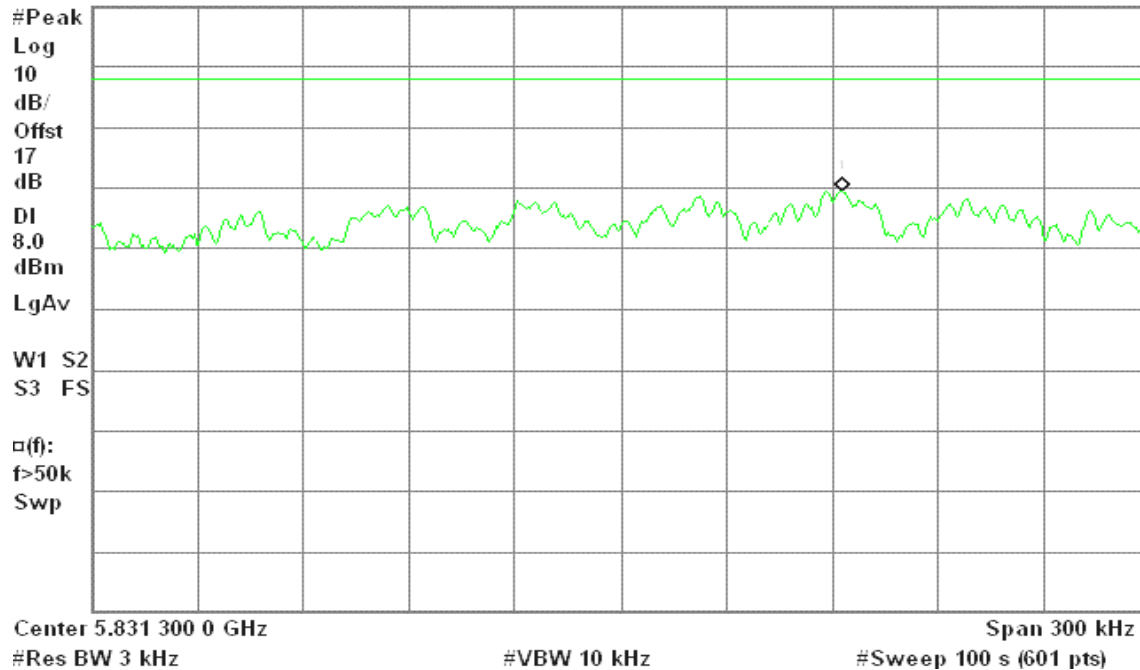
Peak Power Spectral Density, a Mode High Ch.

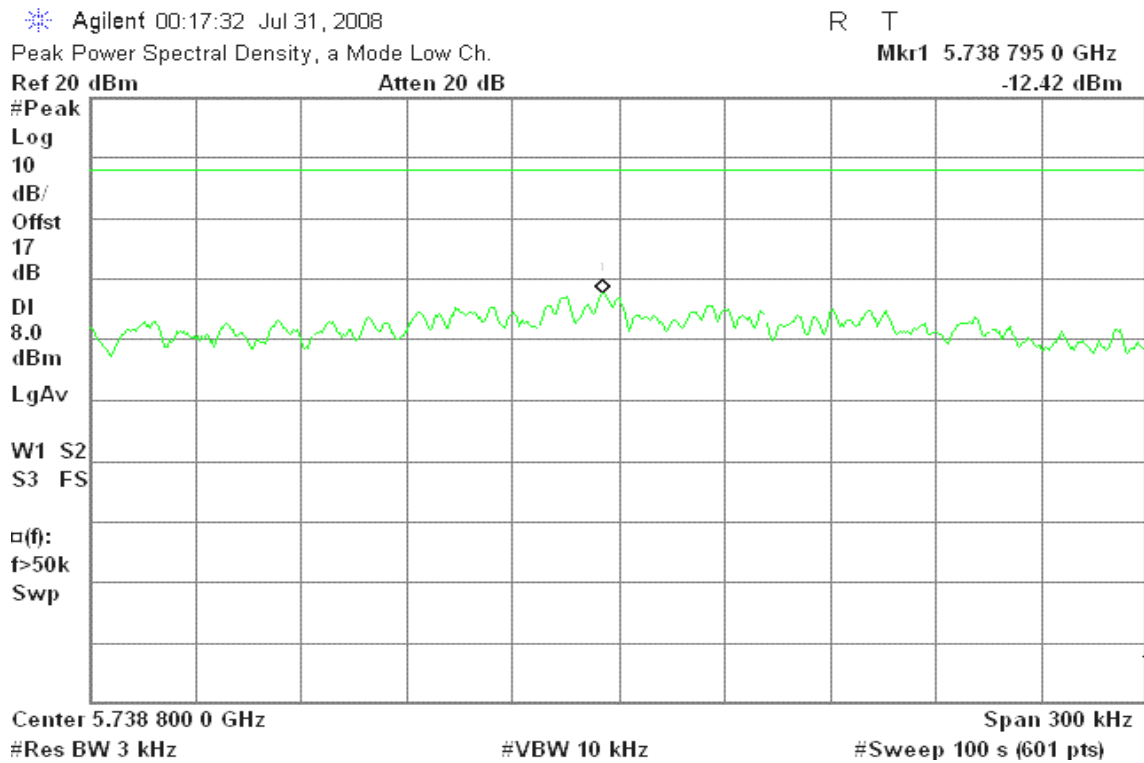
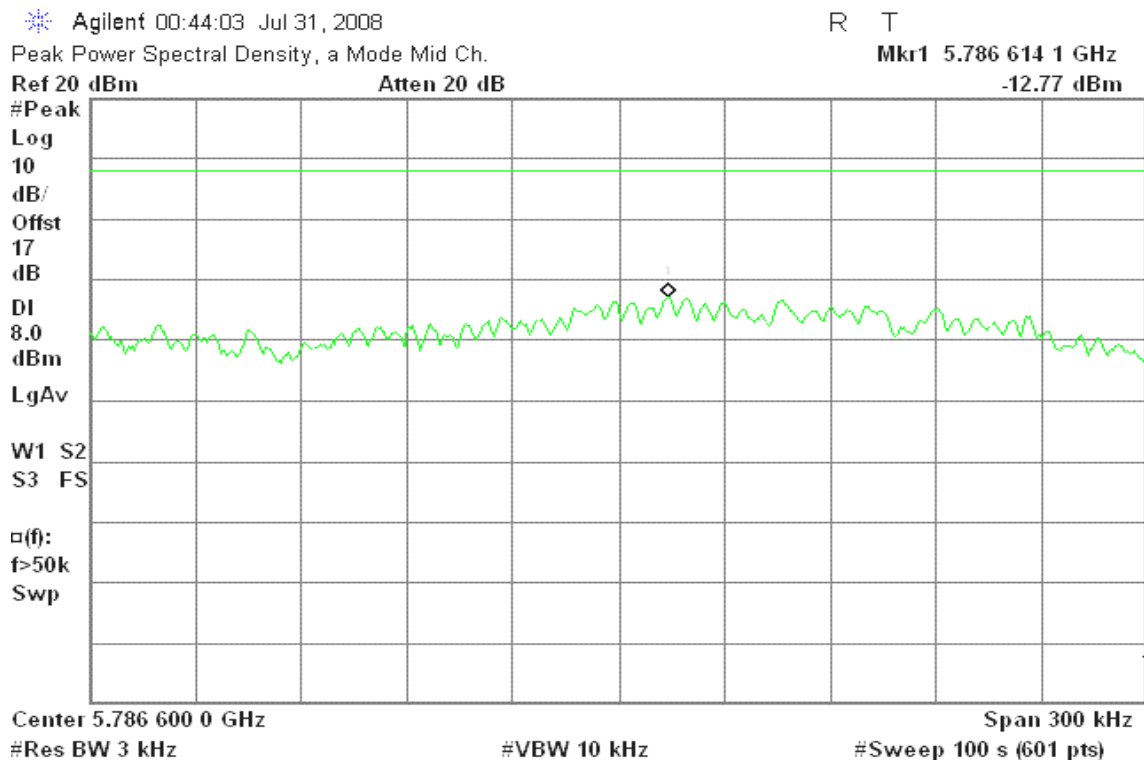
Mkr1 5.831 363 4 GHz

Ref 20 dBm

Atten 20 dB

-10.54 dBm



**draft 802.11n Standard-20 MHz Channel mode / 5745 ~ 5825MHz / Chain 1****PPSD (CH Low)****PPSD (CH Mid)**

**PPSD (CH High)**

\* Agilent 00:51:30 Jul 31, 2008

Peak Power Spectral Density, a Mode High Ch.

R T

Mkr1 5.832 561 5 GHz

Ref 20 dBm

Atten 20 dB

-11.04 dBm

#Peak

Log

10

dB/

Offst

17

dB

DI

8.0

dBm

LgAv

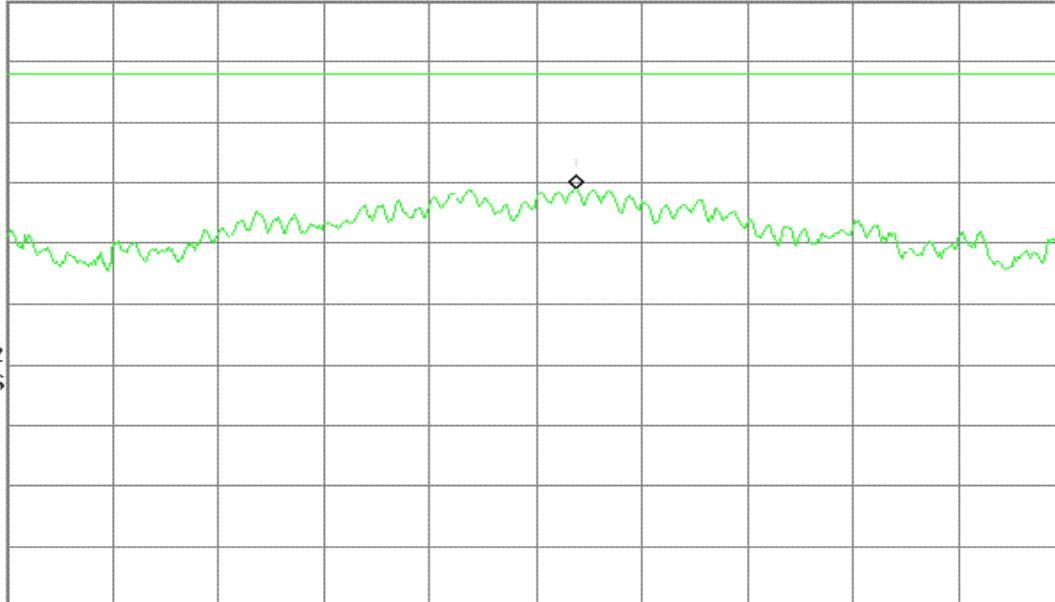
W1 S2

S3 FS

□(f):

f&gt;50k

Swp



Center 5.832 550 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

**draft 802.11n Standard-20 MHz Channel mode / 5745 ~ 5825MHz / Chain 2****PPSD (CH Low)**

\* Agilent 01:12:06 Jul 31, 2008

Peak Power Spectral Density, a Mode Low Ch.

R T

Mkr1 5.749 105 0 GHz

Ref 20 dBm

Atten 20 dB

-10.64 dBm

#Peak

Log

10

dB/

Offst

17

dB

DI

8.0

dBm

LgAv

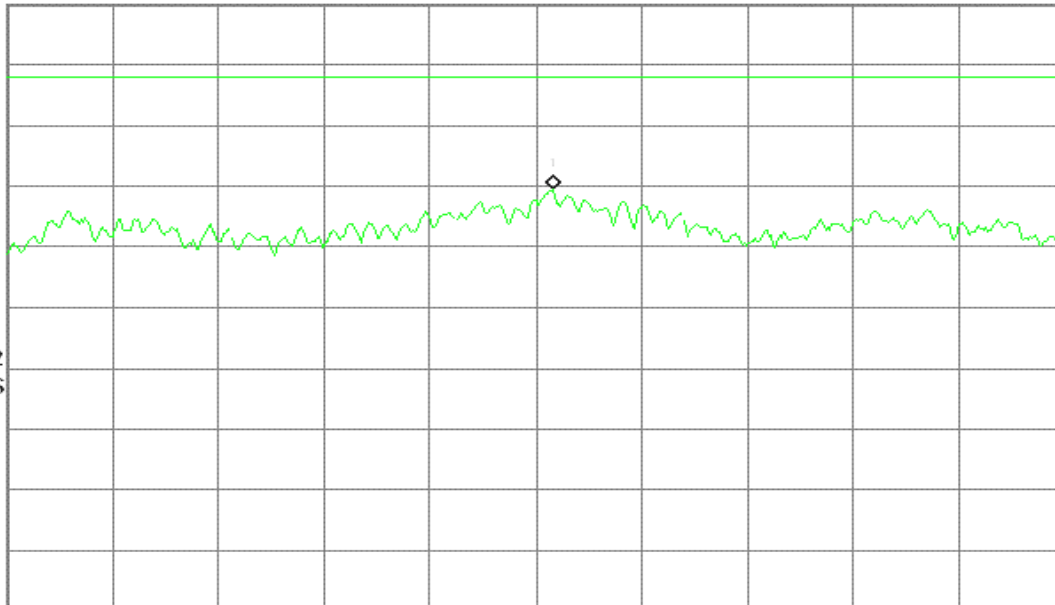
W1 S2

S3 FS

□(f):

f&gt;50k

Swp



Center 5.749 100 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

**PPSD (CH Mid)**

\* Agilent 01:19:03 Jul 31, 2008

R T

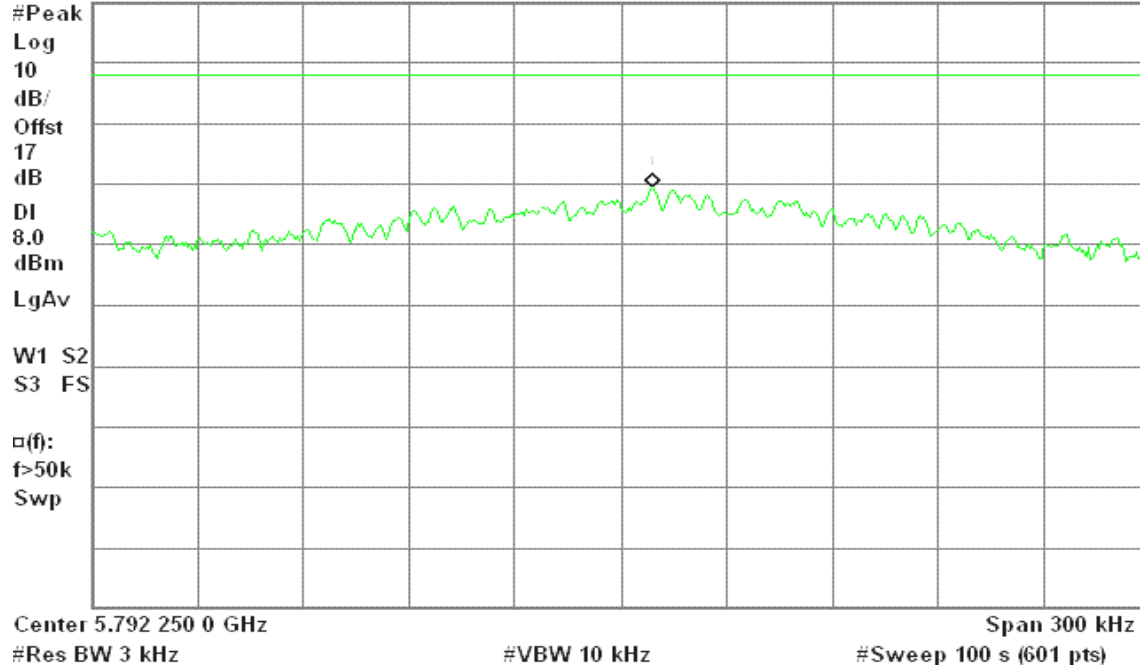
Peak Power Spectral Density, a Mode Mid Ch.

Mkr1 5.792 259 0 GHz

Ref 20 dBm

Atten 20 dB

-10.65 dBm

**PPSD (CH High)**

\* Agilent 01:26:44 Jul 31, 2008

R T

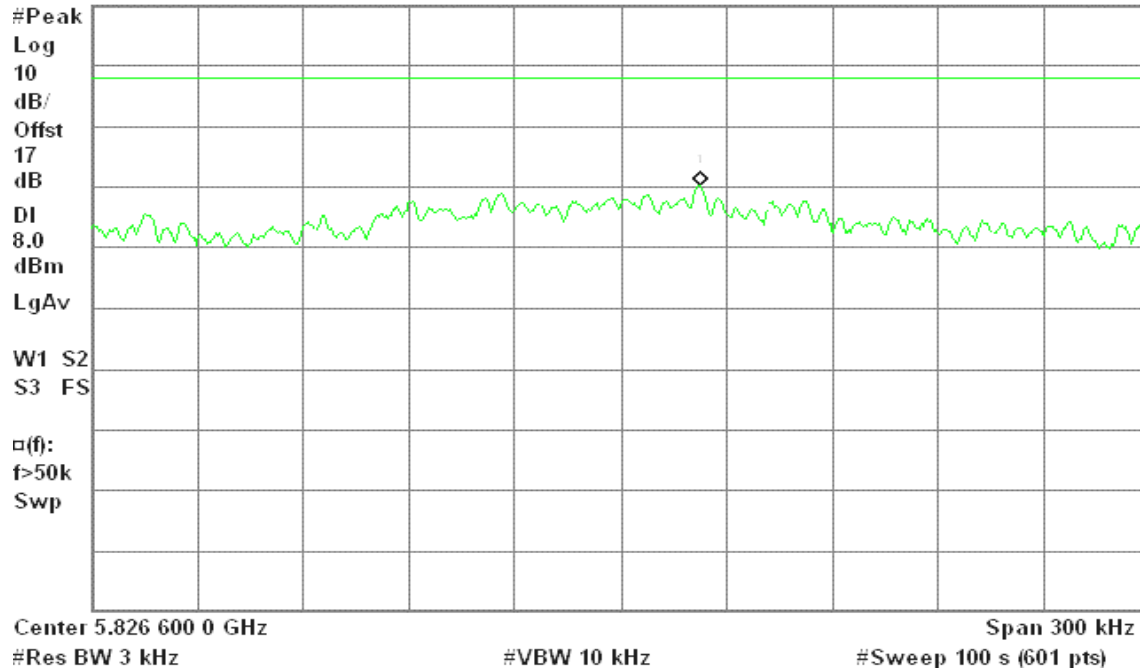
Peak Power Spectral Density, a Mode High Ch.

Mkr1 5.826 622 6 GHz

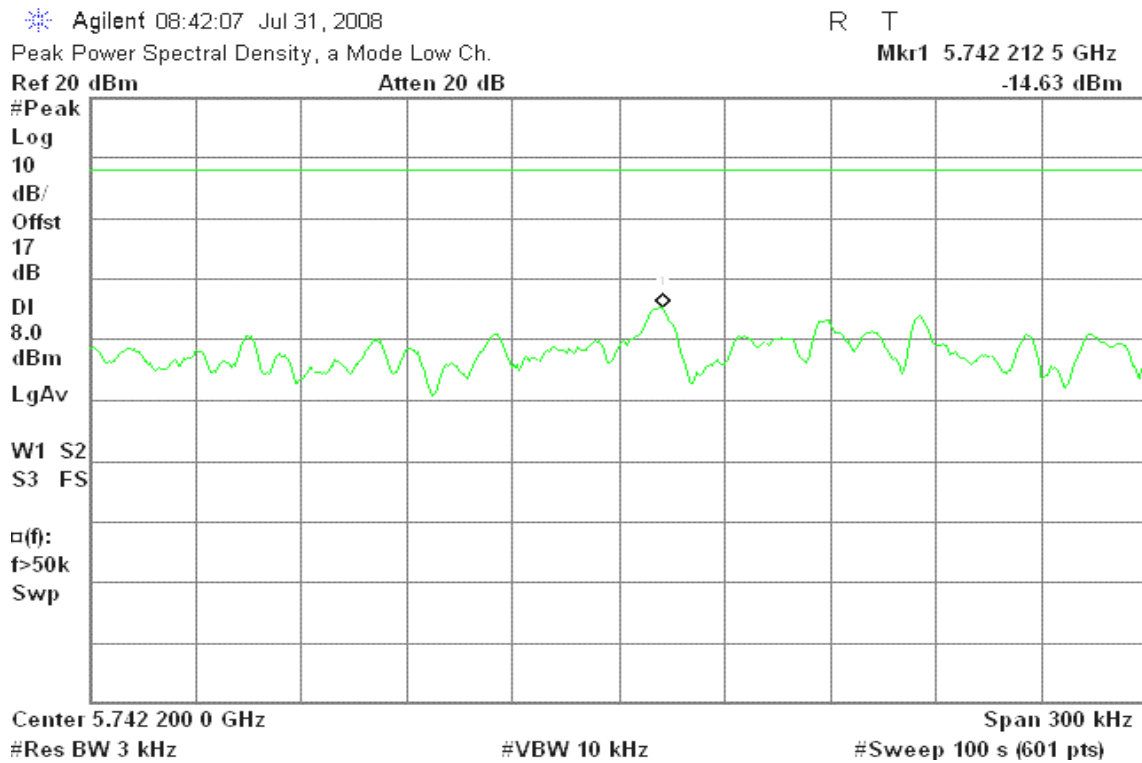
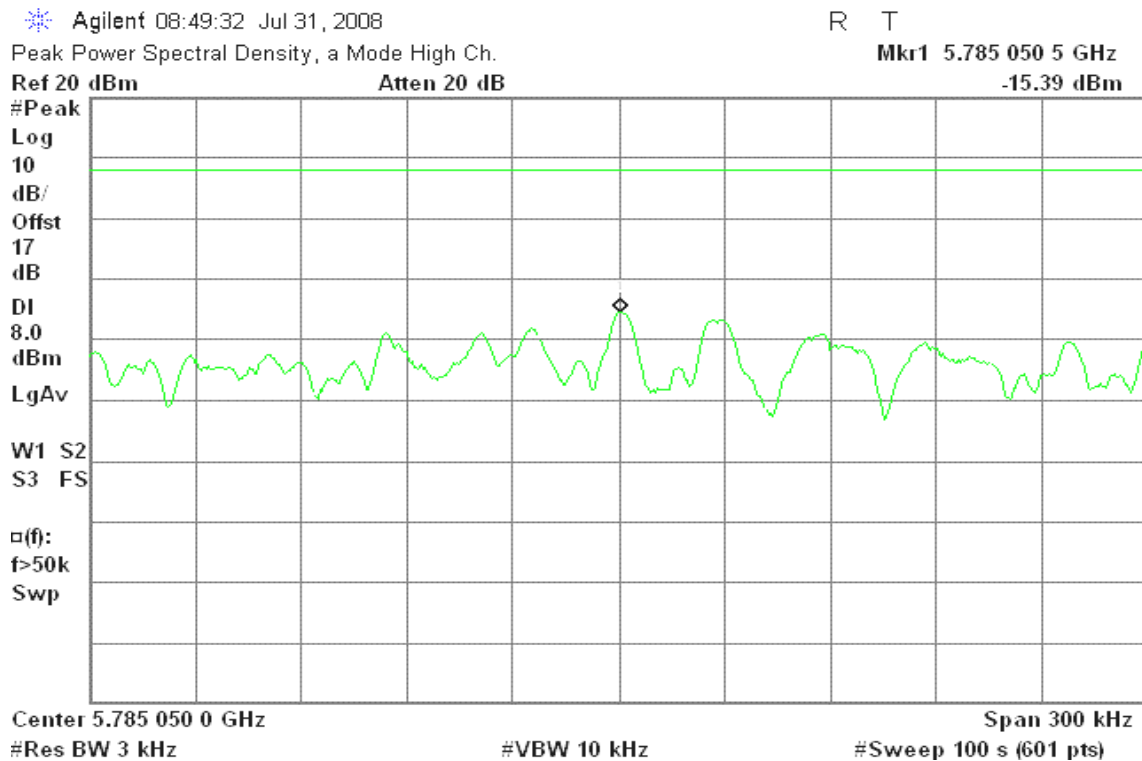
Ref 20 dBm

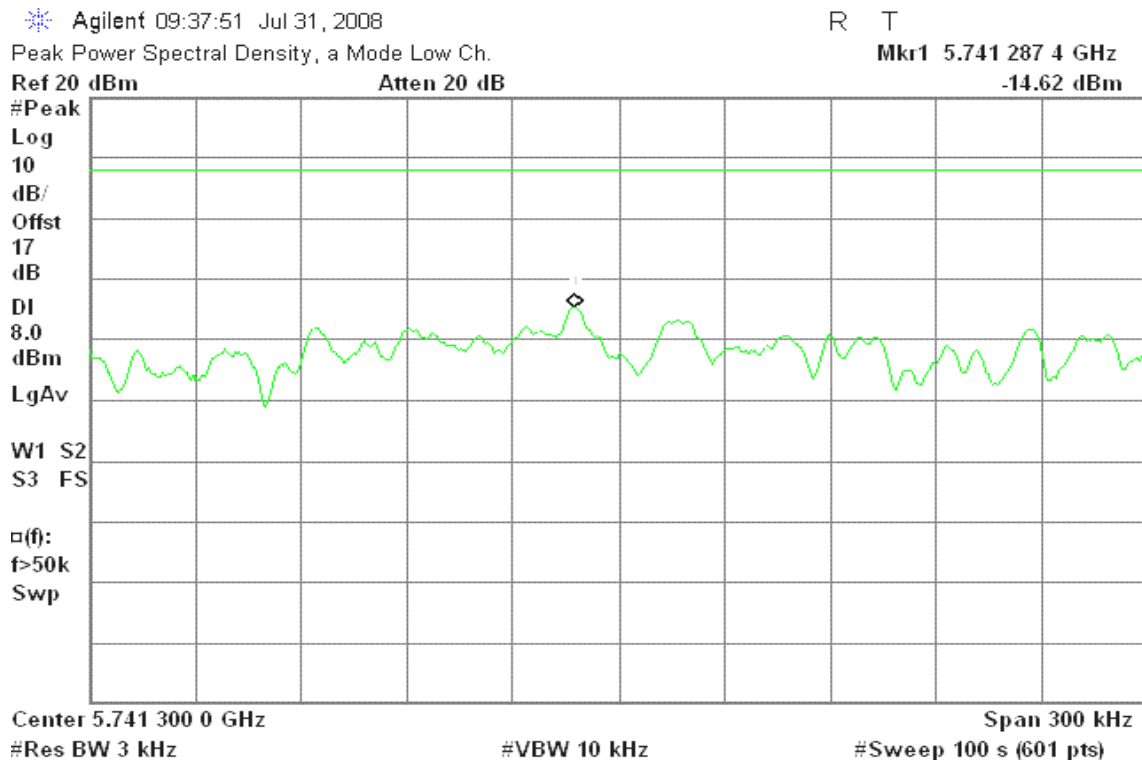
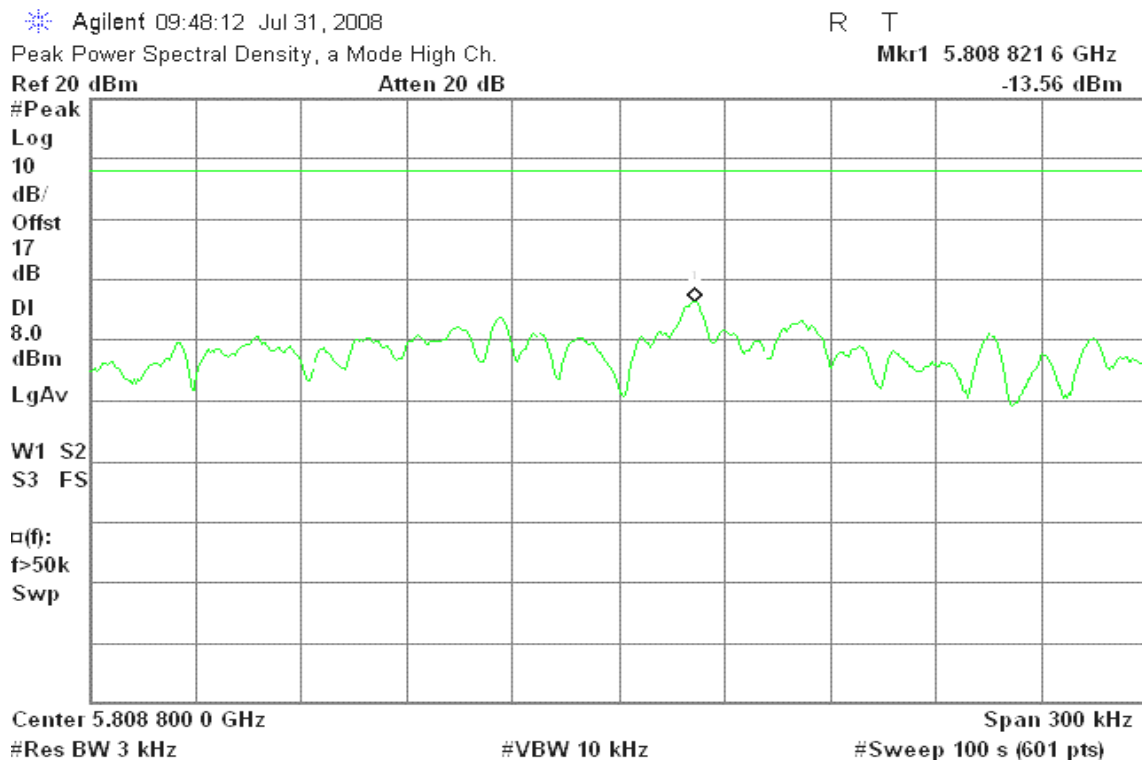
Atten 20 dB

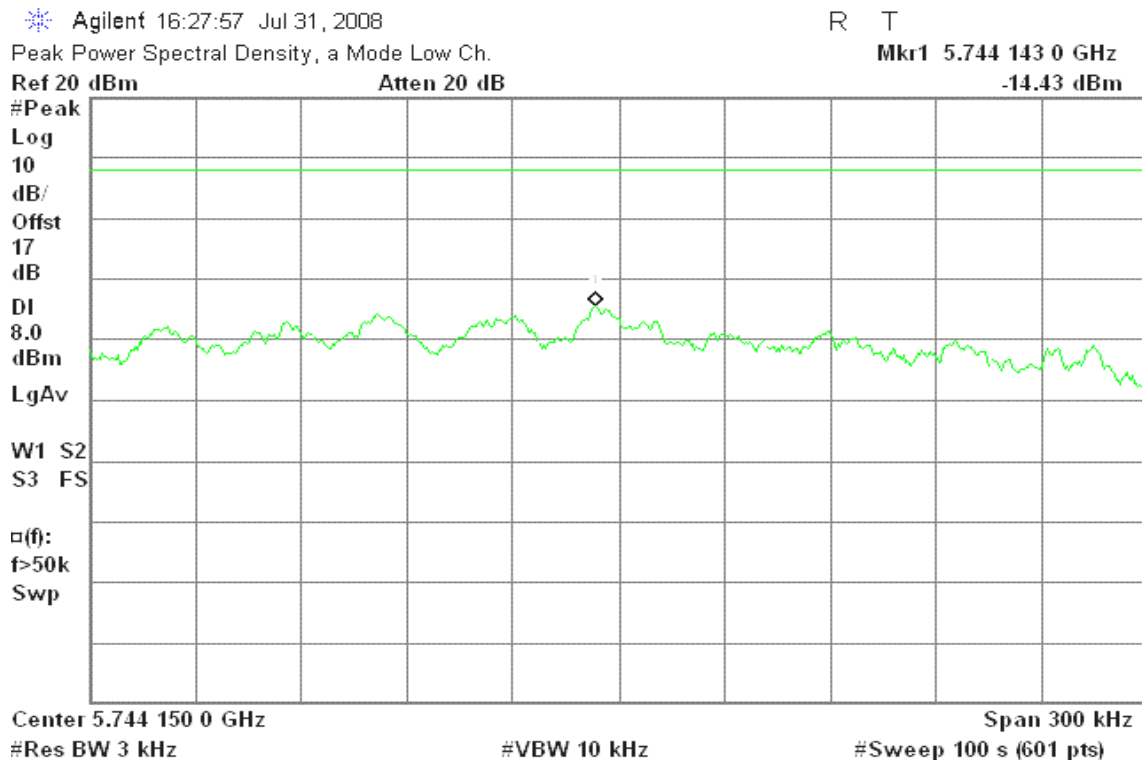
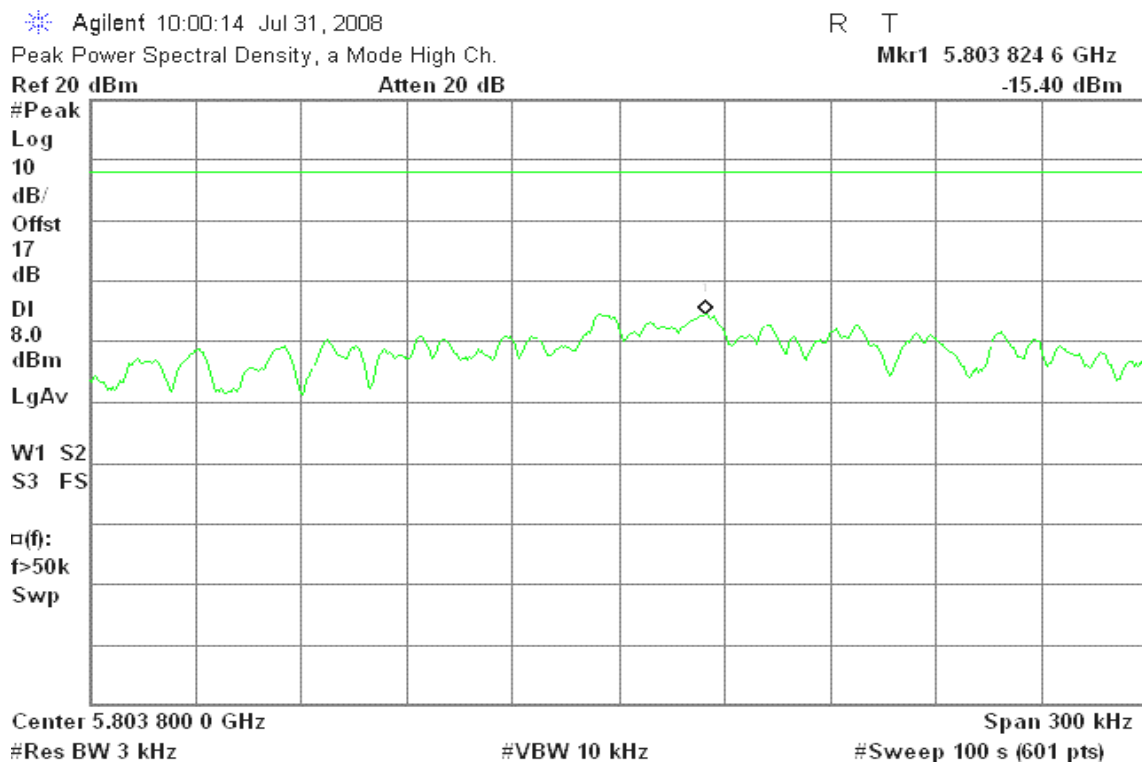
-9.78 dBm





**draft 802.11n Wide-40 MHz Channel mode / 5755 ~ 5795MHz / Chain 0****PPSD (CH Low)****PPSD (CH High)**

**draft 802.11n Wide-40 MHz Channel mode / 5755 ~ 5795MHz / Chain 1****PPSD (CH Low)****PPSD (CH High)**

**draft 802.11n Wide-40 MHz Channel mode / 5755 ~ 5795MHz / Chain 2****PPSD (CH Low)****PPSD (CH High)**

**draft 802.11n Standard-20 MHz Channel mode with combiner****PPSD (CH Low)**

Agilent 13:54:38 Jul 30, 2008

R T

Peak Power Spectral Density, g Mode Low Ch.

Mkr1 2.418 268 4 GHz

Ref 20 dBm

Atten 20 dB

-9.14 dBm

#Peak

Log

10

dB/

Offst

14

dB

DI

8.0

dBm

LgAv

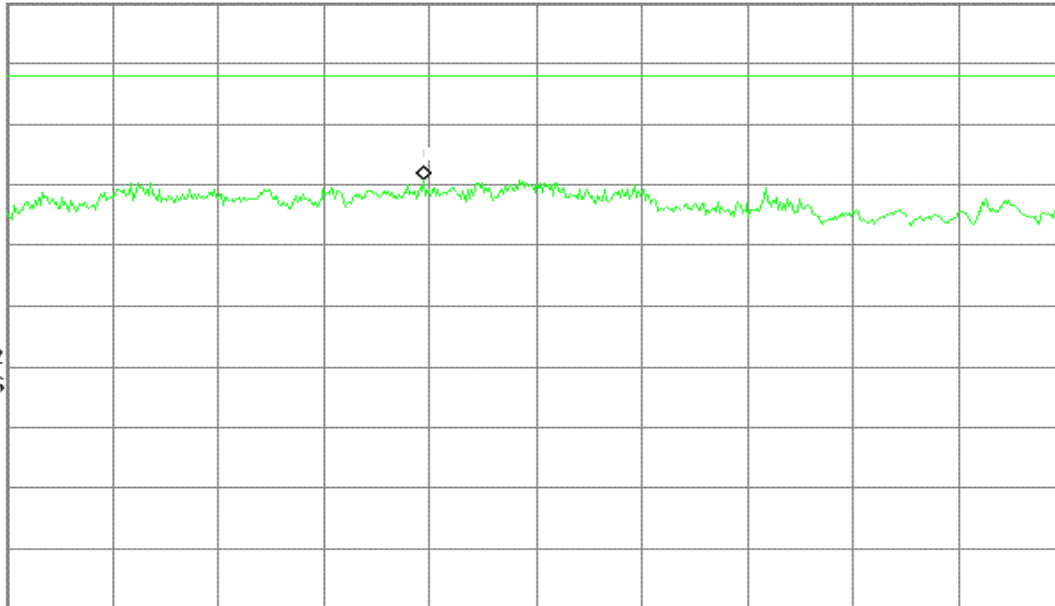
W1 S2

S3 FS

□(f):

f&gt;50k

Swp



Center 2.418 300 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

**PPSD (CH Mid)**

Agilent 13:47:16 Jul 30, 2008

R T

Peak Power Spectral Density, g Mode Mid Ch.

Mkr1 2.434 508 3 GHz

Ref 20 dBm

Atten 20 dB

-8.20 dBm

#Peak

Log

10

dB/

Offst

14

dB

DI

8.0

dBm

LgAv

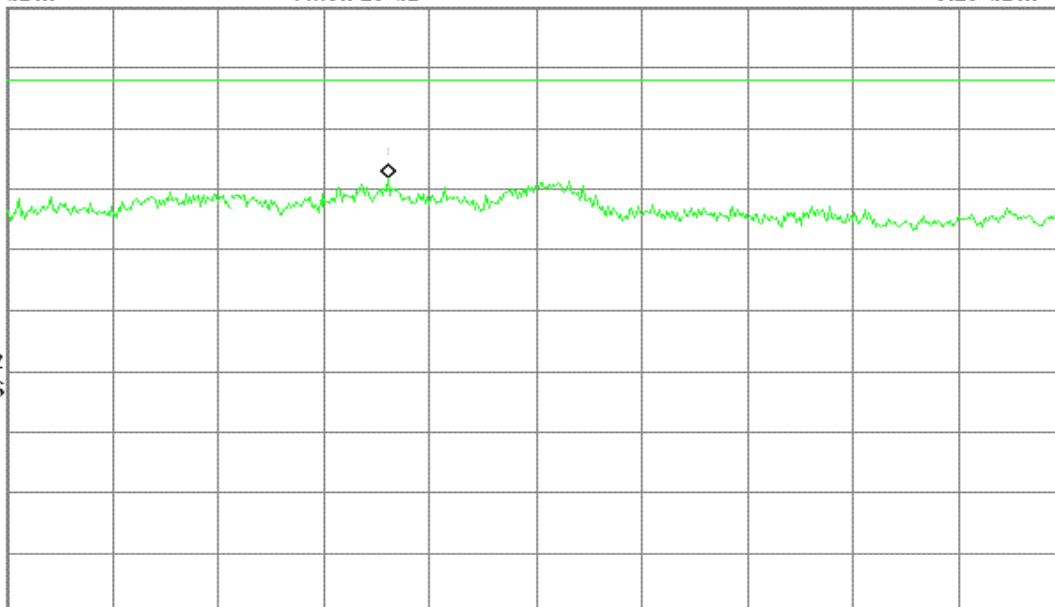
W1 S2

S3 FS

□(f):

f&gt;50k

Swp



Center 2.434 550 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

**PPSD (CH High)**

\* Agilent 13:39:03 Jul 30, 2008

R T

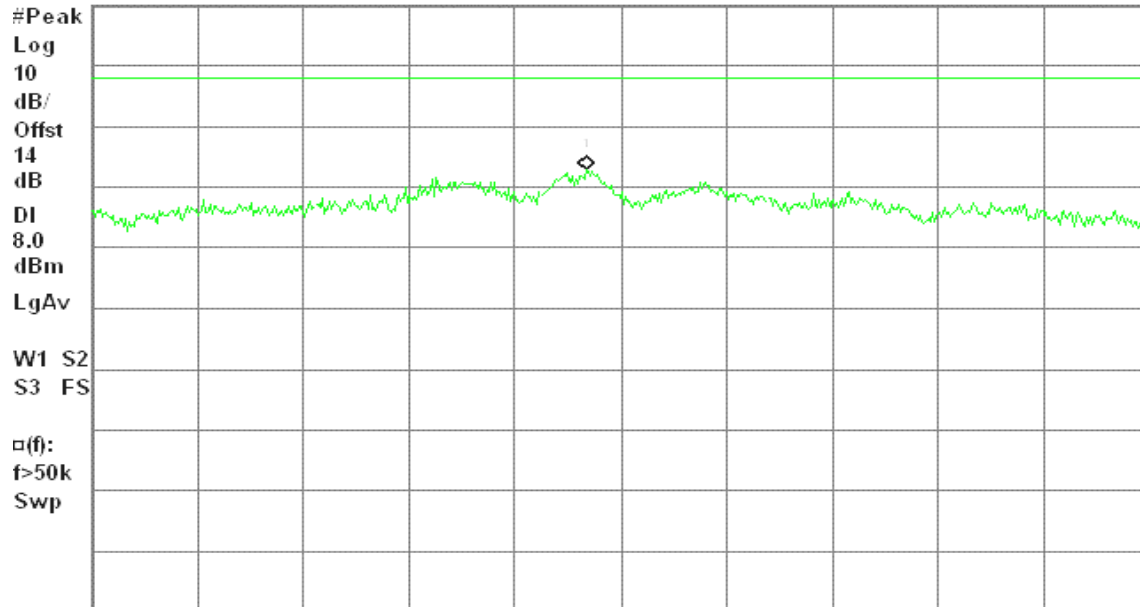
Peak Power Spectral Density, g Mode High Ch.

Mkr1 2.460 740 0 GHz

Ref 20 dBm

Atten 20 dB

-7.12 dBm



Center 2.460 750 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

**draft 802.11n Wide-40 MHz Channel mode with combiner****PPSD (CH Low)**

\* Agilent 14:06:30 Jul 30, 2008

R T

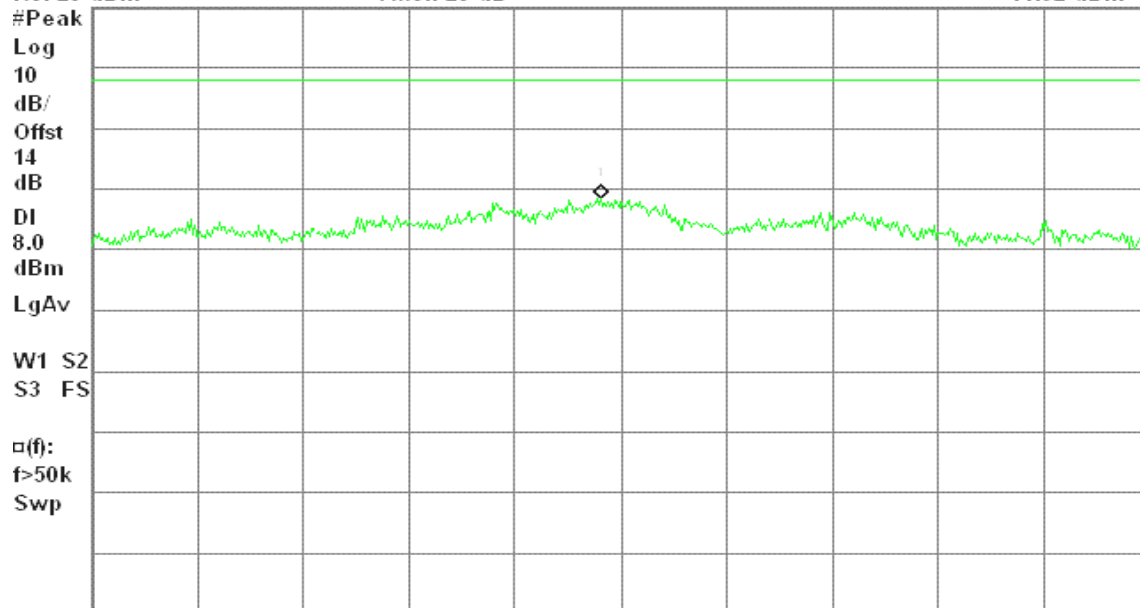
Peak Power Spectral Density, g Mode Low Ch.

Mkr1 2.426 994 0 GHz

Ref 20 dBm

Atten 20 dB

-11.52 dBm



Center 2.427 000 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

**PPSD (CH Mid)**

\* Agilent 14:16:36 Jul 30, 2008

R T

Peak Power Spectral Density, g Mode Mid Ch.

Mkr1 2.444 515 6 GHz

Ref 20 dBm

Atten 20 dB

-3.52 dBm

#Peak

Log

10

dB/

Offst

14

dB

DI

8.0

dBm

LgAv

W1 S2

S3 FS

□(f):

f&gt;50k

Swp

Center 2.444 500 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

**PPSD (CH High)**

\* Agilent 14:26:06 Jul 30, 2008

R T

Peak Power Spectral Density, g Mode High Ch.

Mkr1 2.445 739 0 GHz

Ref 20 dBm

Atten 20 dB

-7.47 dBm

#Peak

Log

10

dB/

Offst

14

dB

DI

8.0

dBm

LgAv

W1 S2

S3 FS

□(f):

f&gt;50k

Swp

Center 2.445 750 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

**draft 802.11n Standard-20 MHz Channel mode / 5745 ~ 5825MHz with combiner****PPSD (CH Low)**

\* Agilent 02:08:31 Jul 31, 2008

R T

Peak Power Spectral Density, a Mode Low Ch.

Mkr1 5.751 302 0 GHz

Ref 20 dBm

Atten 20 dB

-7.38 dBm

#Peak

Log

10

dB/

Offst

17

dB

DI

8.0

dBm

LgAv

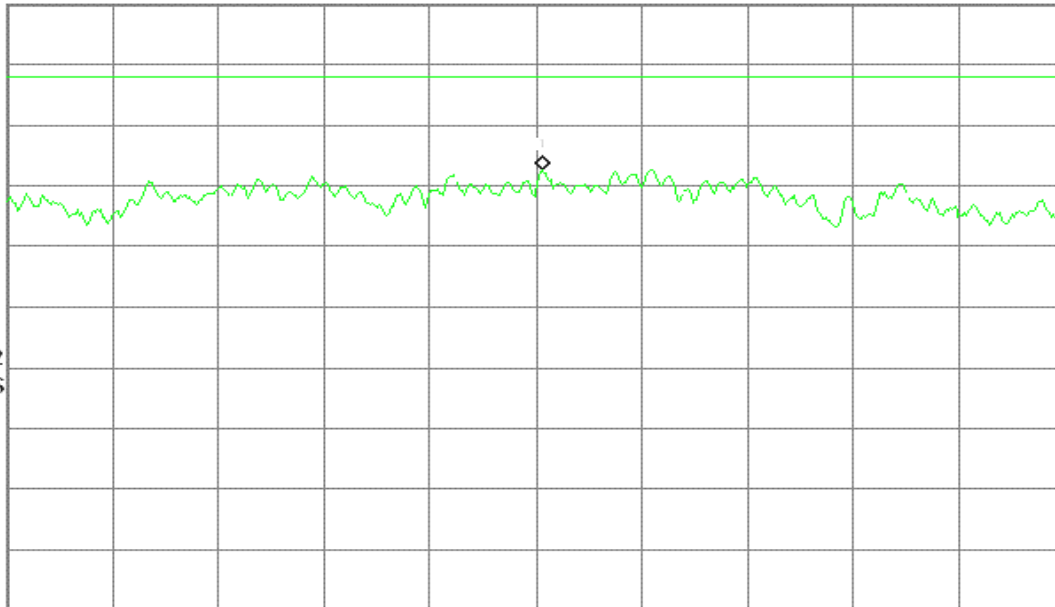
W1 S2

S3 FS

□(f):

f&gt;50k

Swp



Center 5.751 300 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

**PPSD (CH Mid)**

\* Agilent 02:18:15 Jul 31, 2008

R T

Peak Power Spectral Density, a Mode Mid Ch.

Mkr1 5.780 997 0 GHz

Ref 20 dBm

Atten 20 dB

-6.79 dBm

#Peak

Log

10

dB/

Offst

17

dB

DI

8.0

dBm

LgAv

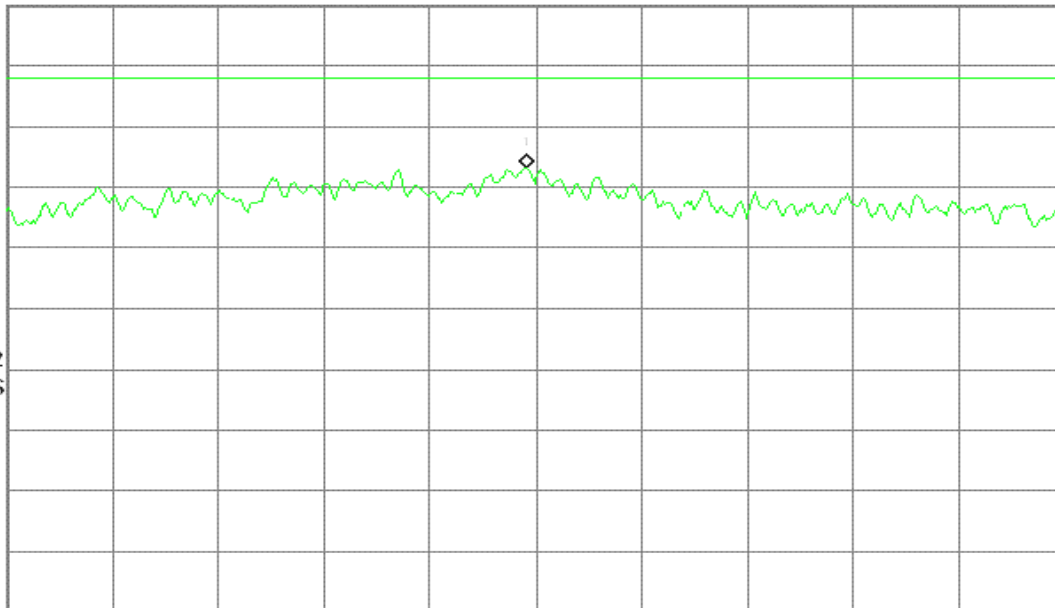
W1 S2

S3 FS

□(f):

f&gt;50k

Swp



Center 5.781 000 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

**PPSD (CH High)**

\* Agilent 02:26:46 Jul 31, 2008

R T

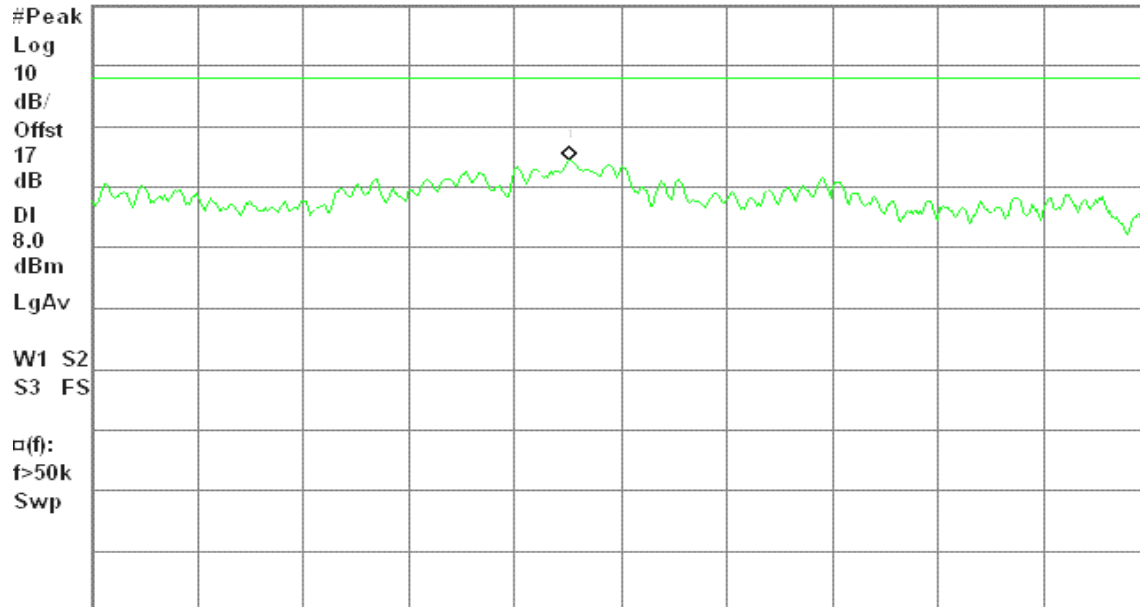
Peak Power Spectral Density, a Mode High Ch.

Mkr1 5.830 035 4 GHz

Ref 20 dBm

Atten 20 dB

-5.56 dBm



Center 5.830 050 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

**draft 802.11n Wide-40 MHz Channel mode with combiner****PPSD (CH Low)**

\* Agilent 10:29:01 Jul 31, 2008

R T

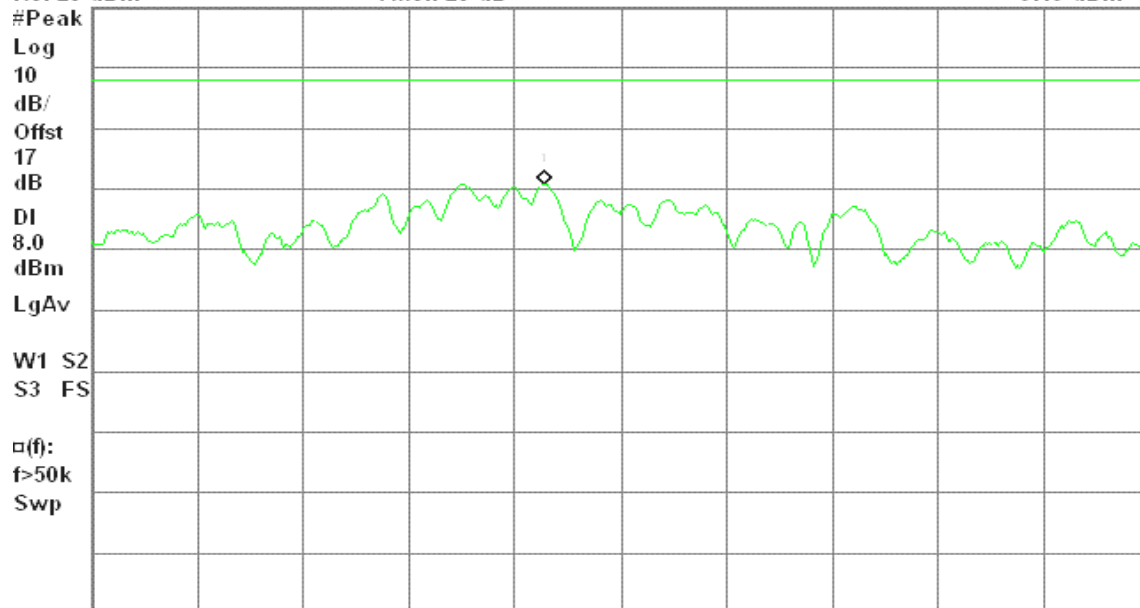
Peak Power Spectral Density, a Mode Low Ch.

Mkr1 5.740 028 4 GHz

Ref 20 dBm

Atten 20 dB

-9.13 dBm



Center 5.740 050 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)





## PPSD (CH High)

Agilent 10:37:52 Jul 31, 2008

R T

Peak Power Spectral Density, a Mode High Ch.

Mkr1 5.809 709 0 GHz

Ref 20 dBm

Atten 20 dB

-8.90 dBm

#Peak

Log

10

dB/

Offst

17

dB

DI

8.0

dBm

LgAv

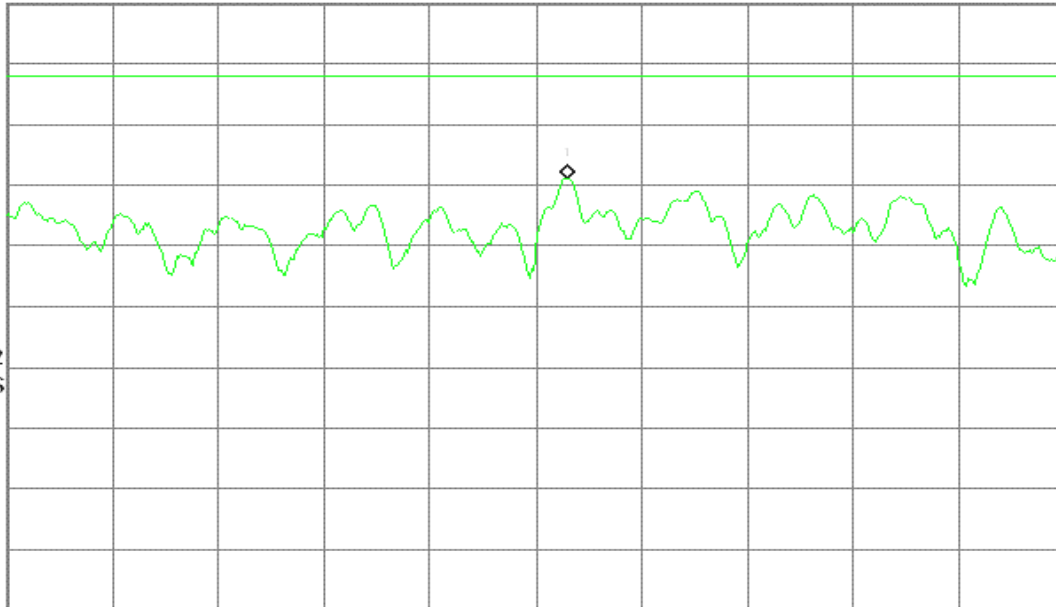
W1 S2

S3 FS

□(f):

f>50k

Swp



Center 5.809 700 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

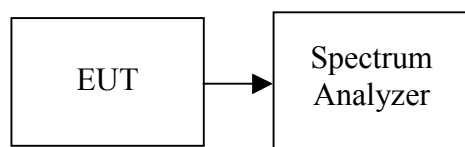
## 7.6 SPURIOUS EMISSIONS

### 7.6.1 Conducted Measurement

#### LIMIT

According to §15.247(d), in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in 15.209(a) (see Section 15.205(c)).

#### Test Configuration



#### TEST PROCEDURE

Conducted RF measurements of the transmitter output were made to confirm that the EUT antenna port conducted emissions meet the specified limit and to identify any spurious signals that require further investigation or measurements on the radiated emissions site.

The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 100 kHz.

Measurements are made over the 30MHz to 26GHz range with the transmitter set to the lowest, middle, and highest channels.

#### TEST RESULTS

*No non-compliance noted*

**Test Plot****IEEE 802.11b mode****CH Low**

\* Agilent 14:16:33 Jul 29, 2008

R T

Spurious, b Mode Low Ch.

Mkr1 2.42 GHz

Ref 20 dBm

Atten 20 dB

3.35 dBm

#Peak

Log

10

dB/

Offst

15

dB

DI

-16.6

dBm

LgAv

V1 S2

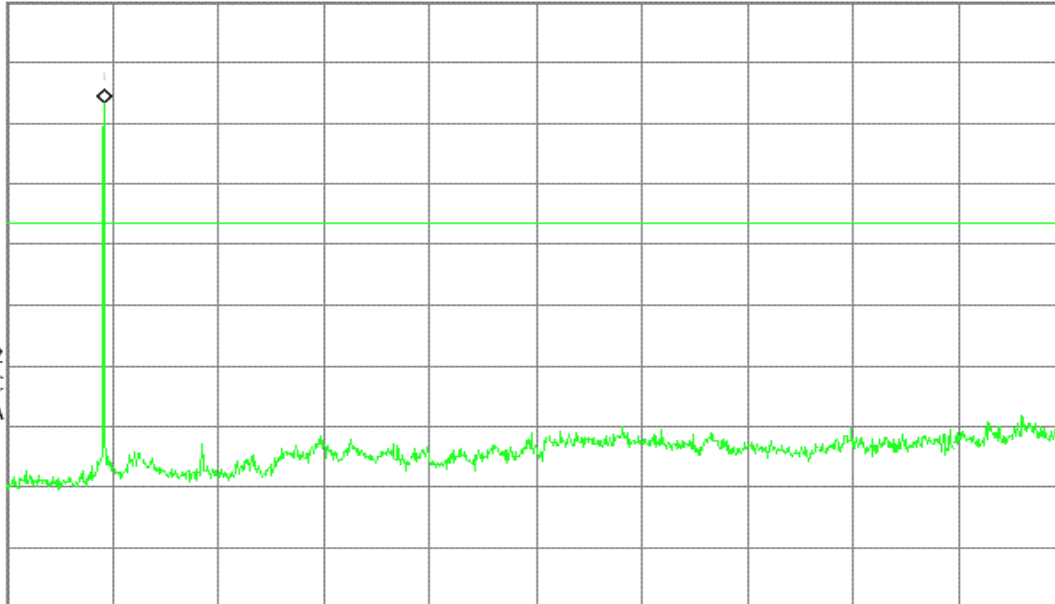
S3 FC

AA

□(f):

FTun

Swp



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

**CH Mid**

\* Agilent 14:36:50 Jul 29, 2008

R T

Spurious, b Mode Mid Ch.

Mkr1 2.45 GHz

Ref 20 dBm

Atten 20 dB

3.64 dBm

#Peak

Log

10

dB/

Offst

15

dB

DI

-16.4

dBm

LgAv

V1 S2

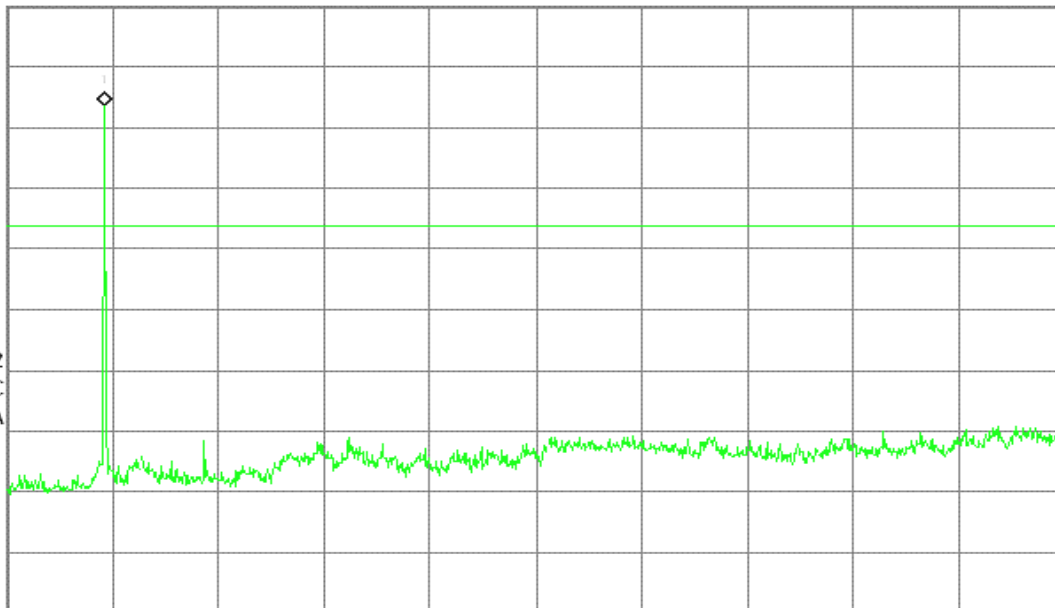
S3 FC

AA

□(f):

FTun

Swp



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

**CH High**

\* Agilent 14:48:52 Jul 29, 2008

R T

Spurious, b Mode High Ch.

Mkr1 2.47 GHz

Ref 20 dBm

Atten 20 dB

2.39 dBm

#Peak

Log

10

dB/

Offst

15

dB

DI

-17.6

dBm

LgAv

V1 S2

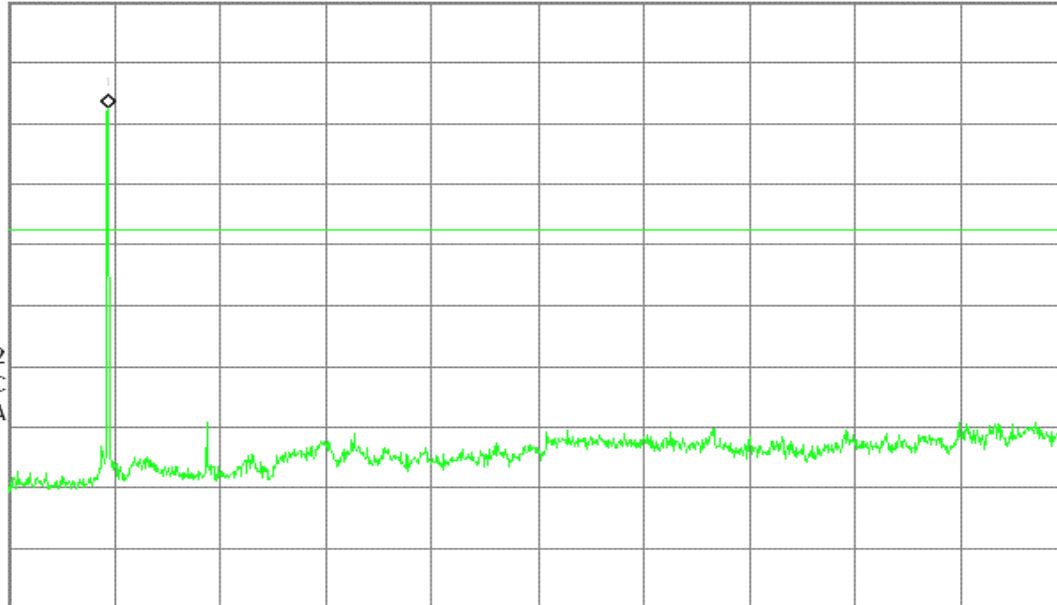
S3 FC

AA

□(f):

FTun

Swp



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

**IEEE 802.11g mode****CH Low**

\* Agilent 15:03:37 Jul 29, 2008

R T

Spurious, g Mode Low Ch.

Mkr1 2.42 GHz

Ref 20 dBm

Atten 20 dB

-2.30 dBm

#Peak

Log

10

dB/

Offst

15

dB

DI

-22.3

dBm

LgAv

V1 S2

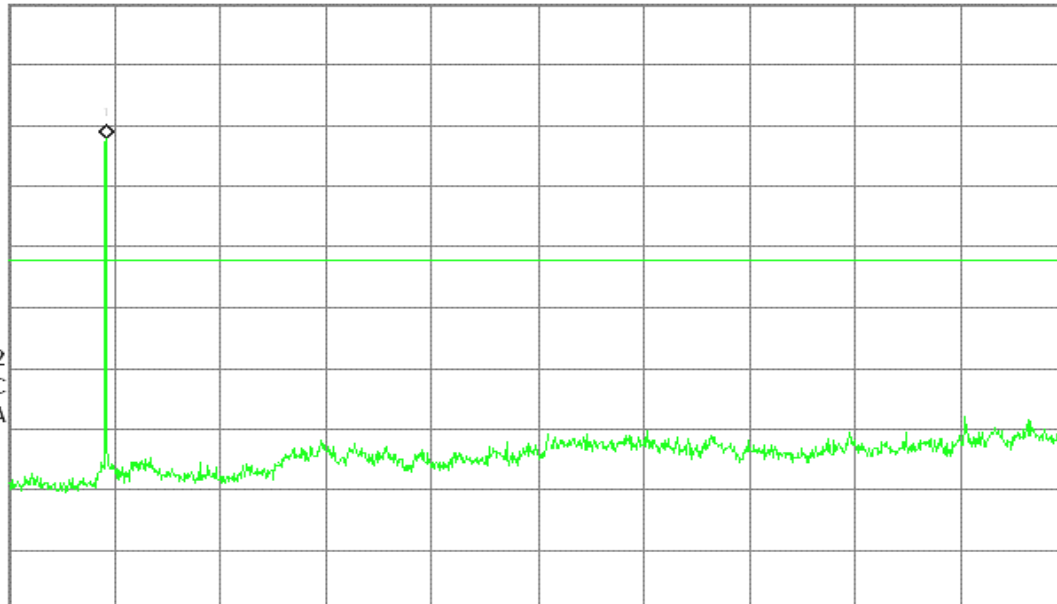
S3 FC

AA

□(f):

FTun

Swp



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

**CH Mid**

\* Agilent 15:30:40 Jul 29, 2008

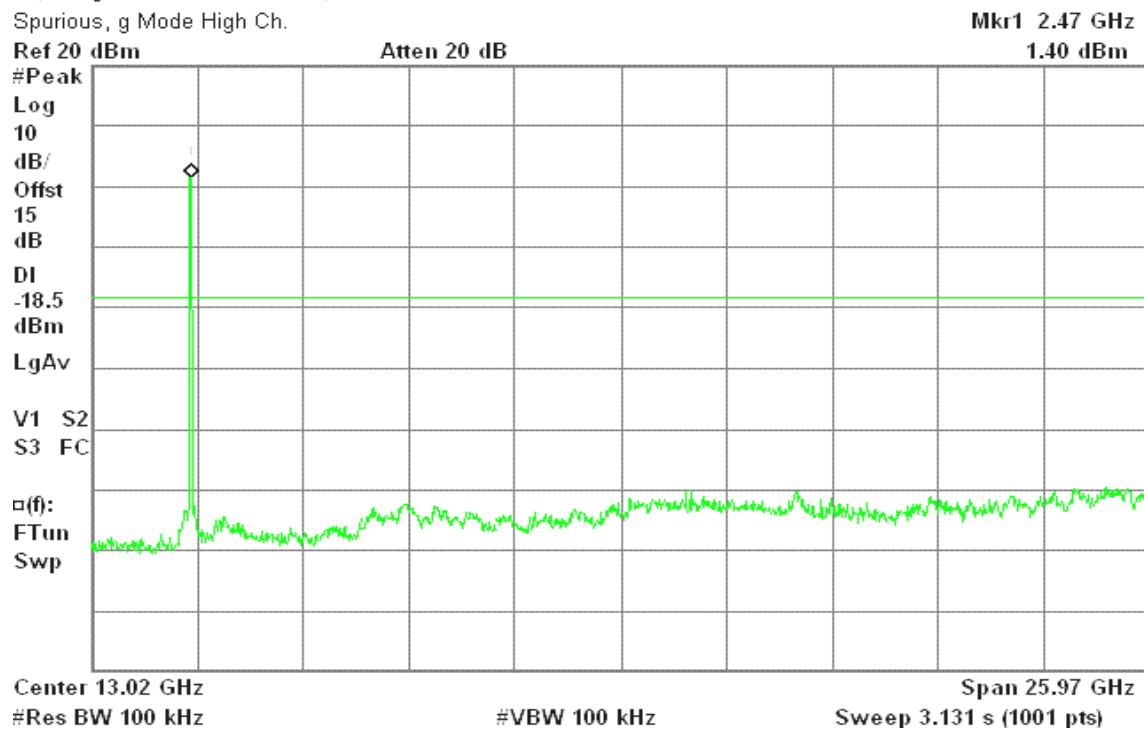
R T

**CH High**

\* Agilent 15:42:50 Jul 29, 2008

R T

Spurious, g Mode High Ch.



**draft 802.11n Standard-20 MHz Channel mode / Chain 0****CH Low**

\* Agilent 09:59:07 Jul 30, 2008

R T

Spurious, g Mode Low Ch.

Mkr1 2.42 GHz

Ref 20 dBm

Atten 20 dB

-3.45 dBm

#Peak

Log

10

dB/

Offst

15

dB

DI

-23.5

dBm

LgAv

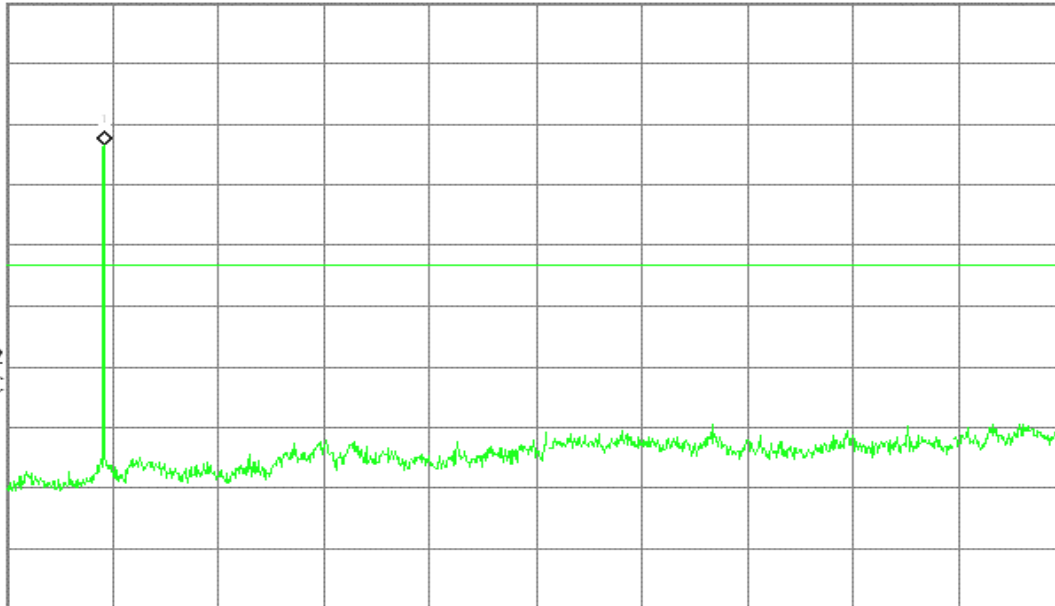
V1 S2

S3 FC

α(f):

FTun

Swp



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

**CH Mid**

\* Agilent 10:59:57 Jul 30, 2008

R T

Spurious, g Mode Mid Ch.

Mkr1 2.42 GHz

Ref 20 dBm

Atten 20 dB

-1.28 dBm

#Peak

Log

10

dB/

Offst

15

dB

DI

-21.3

dBm

LgAv

V1 S2

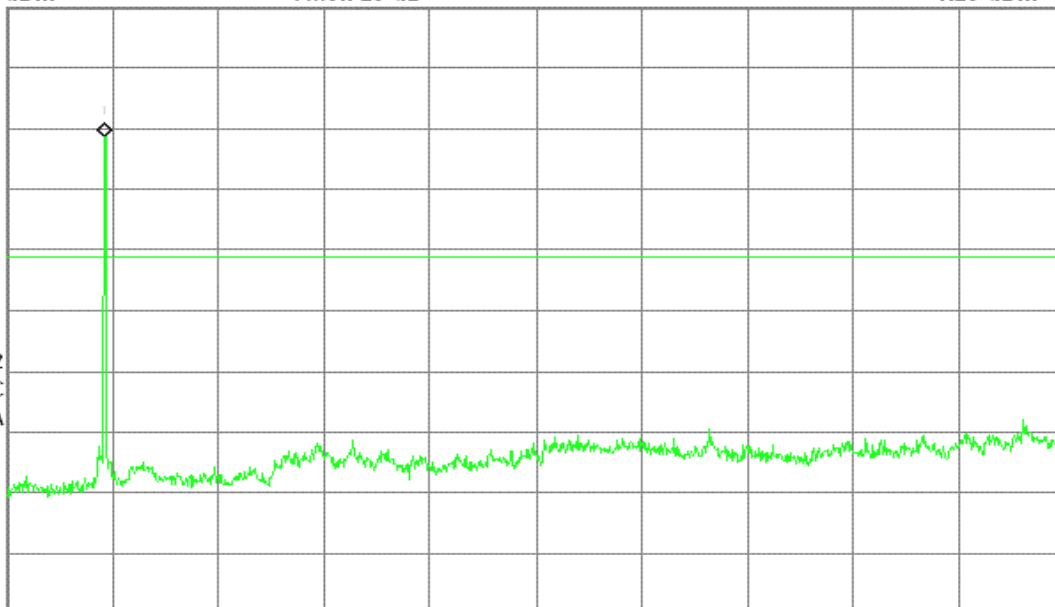
S3 FC

AA

α(f):

FTun

Swp



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

**CH High**

\* Agilent 11:54:22 Jul 30, 2008

R T

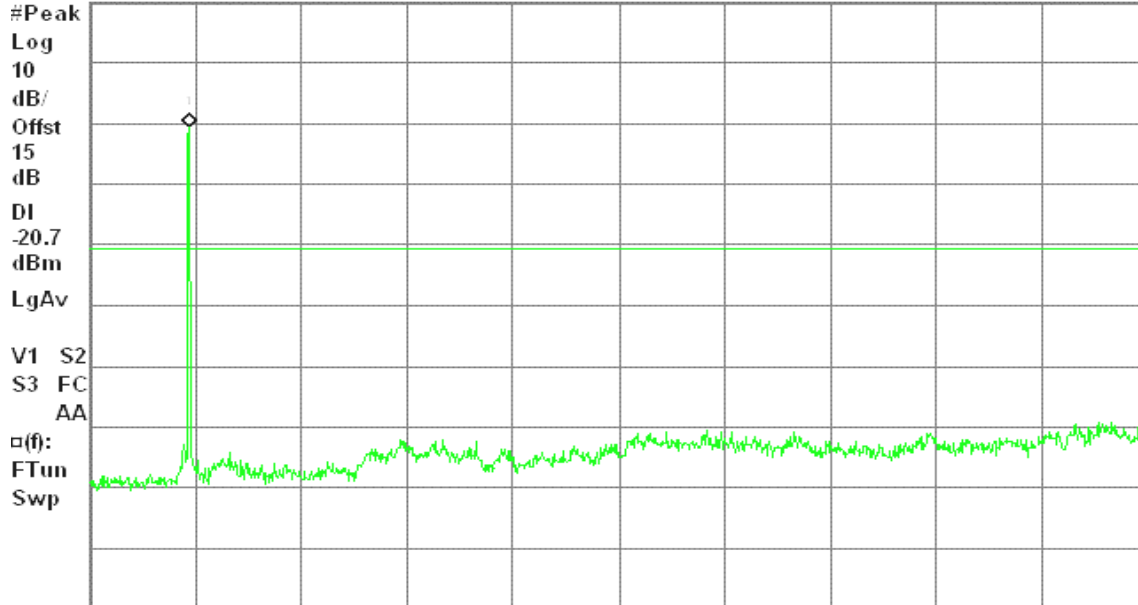
Spurious, g Mode High Ch.

Mkr1 2.47 GHz

Ref 20 dBm

Atten 20 dB

-0.69 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

**draft 802.11n Standard-20 MHz Channel mode / Chain 1****CH Low**

\* Agilent 10:24:55 Jul 30, 2008

R T

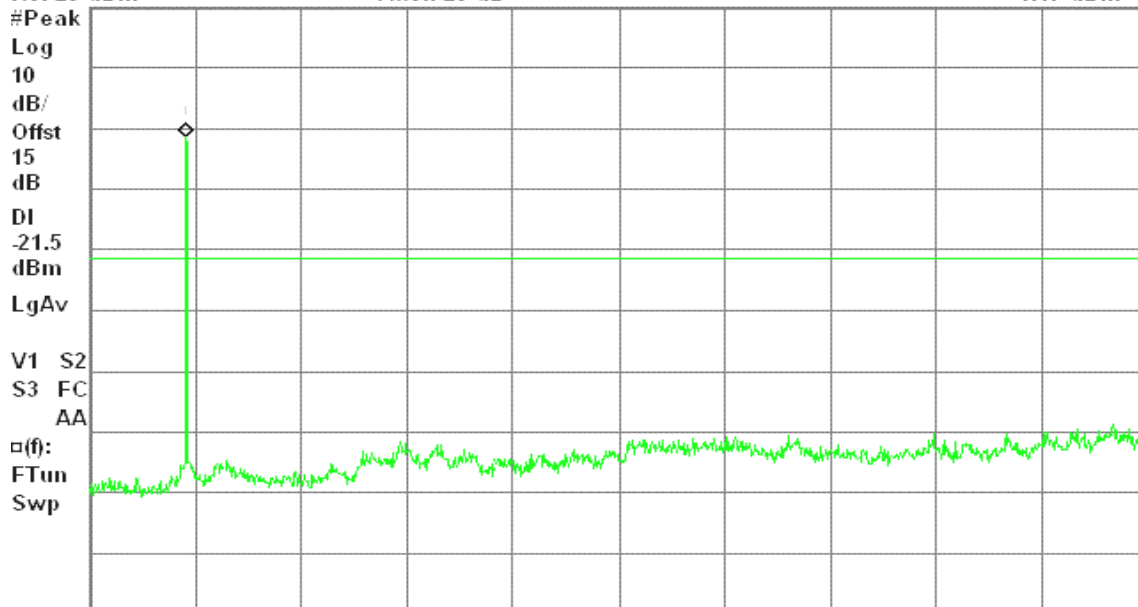
Spurious, g Mode Low Ch.

Mkr1 2.39 GHz

Ref 20 dBm

Atten 20 dB

-1.47 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

**CH Mid**

\* Agilent 11:07:06 Jul 30, 2008

R T

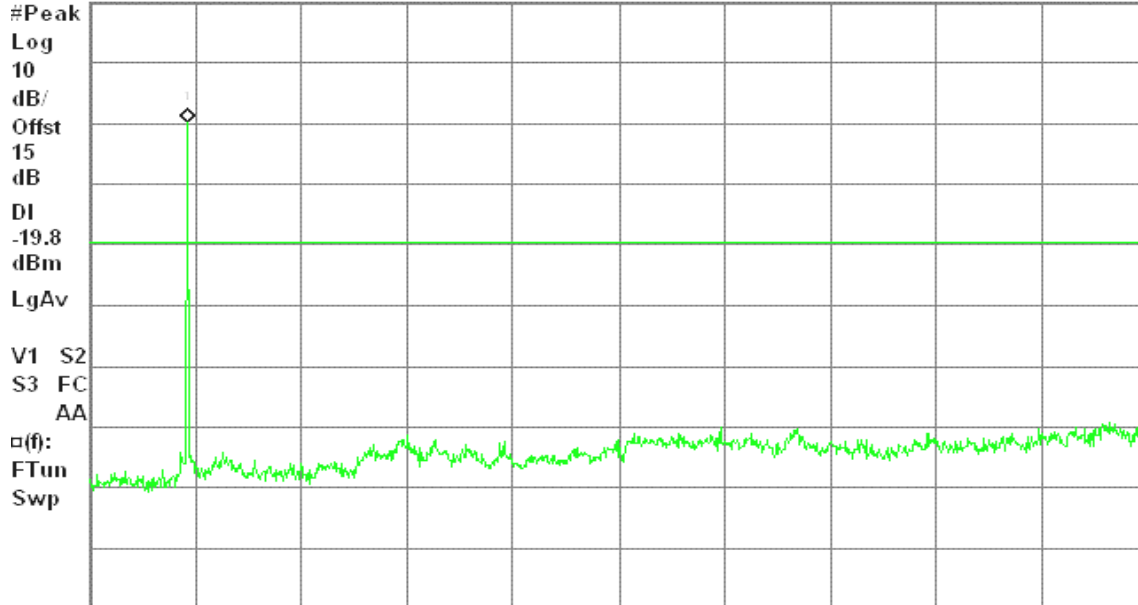
Spurious, g Mode Mid Ch.

Mkr1 2.45 GHz

Ref 20 dBm

Atten 20 dB

0.25 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

**CH High**

\* Agilent 13:08:48 Jul 30, 2008

R T

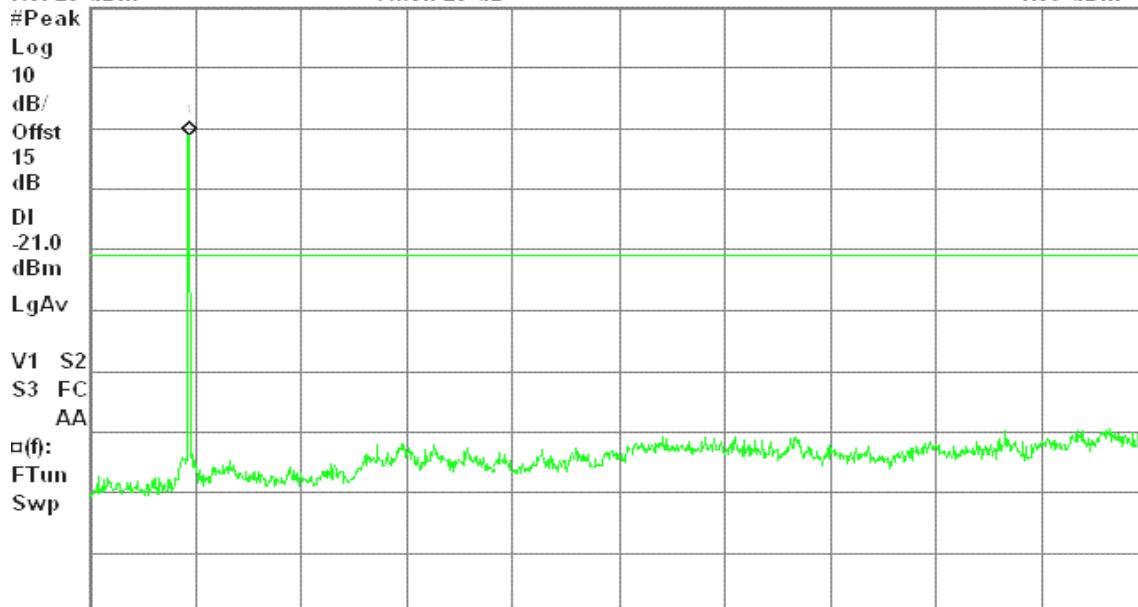
Spurious, g Mode High Ch.

Mkr1 2.47 GHz

Ref 20 dBm

Atten 20 dB

-1.05 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)



**draft 802.11n Standard-20 MHz Channel mode / Chain 2****CH Low**

\* Agilent 10:40:55 Jul 30, 2008

R T

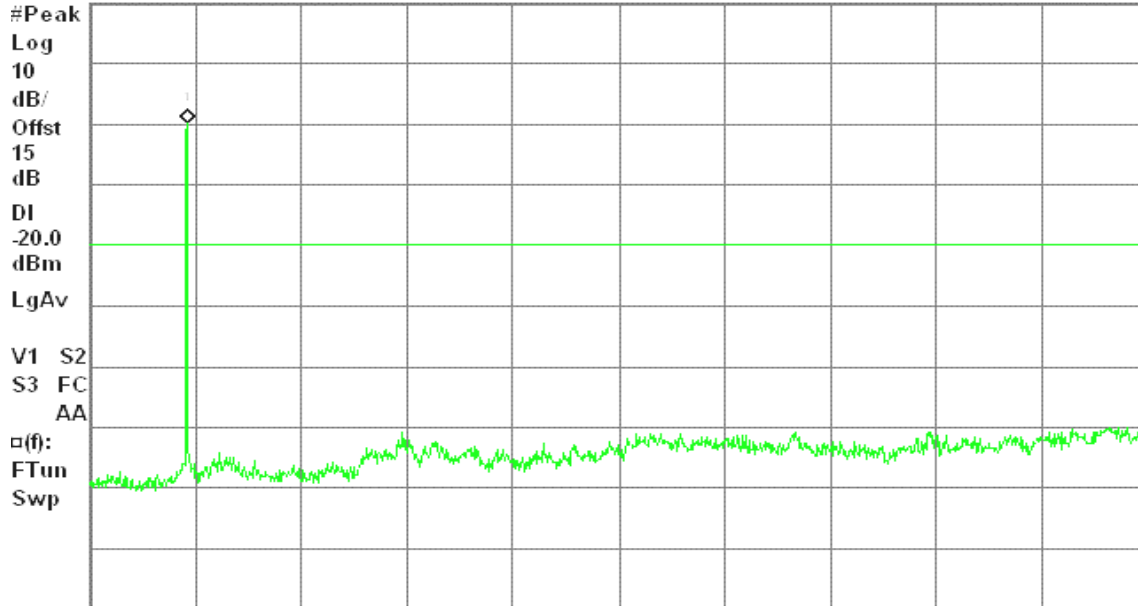
Spurious, g Mode Low Ch.

Mkr1 2.42 GHz

Ref 20 dBm

Atten 20 dB

0.03 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

**CH Mid**

\* Agilent 11:27:53 Jul 30, 2008

R T

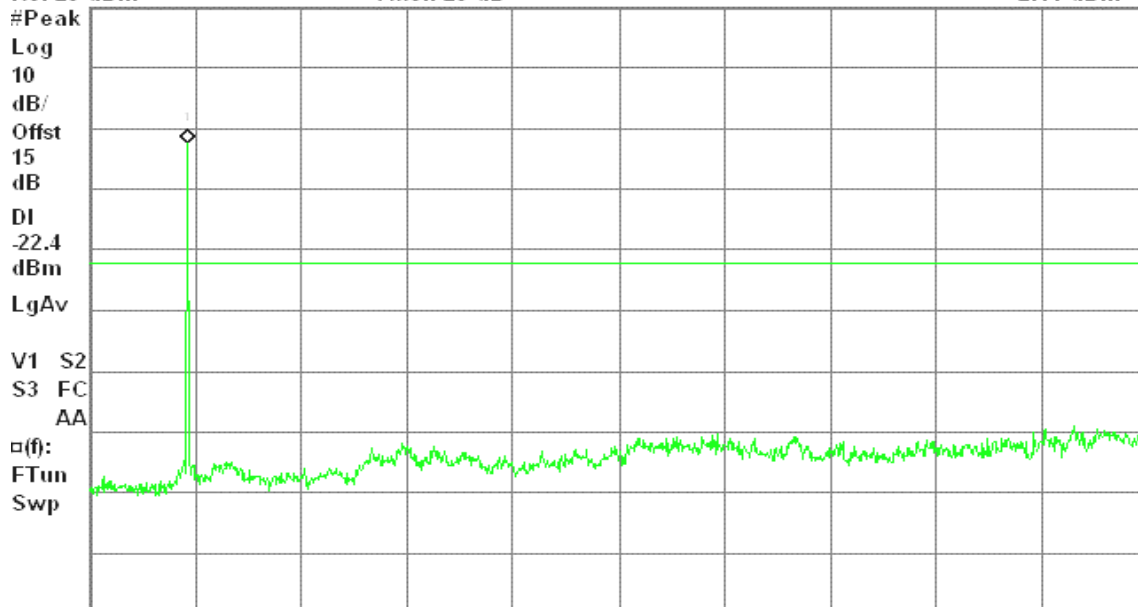
Spurious, g Mode Mid Ch.

Mkr1 2.45 GHz

Ref 20 dBm

Atten 20 dB

-2.41 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)



## CH High

\* Agilent 13:18:04 Jul 30, 2008

R T

Spurious, g Mode High Ch.

Mkr1 2.45 GHz

Ref 20 dBm

Atten 20 dB

0.98 dBm

#Peak

Log

10

dB/

Offst

15

dB

DI

-19.0

dBm

LgAv

V1 S2

S3 FC

AA

□(f):

FTun

Swp

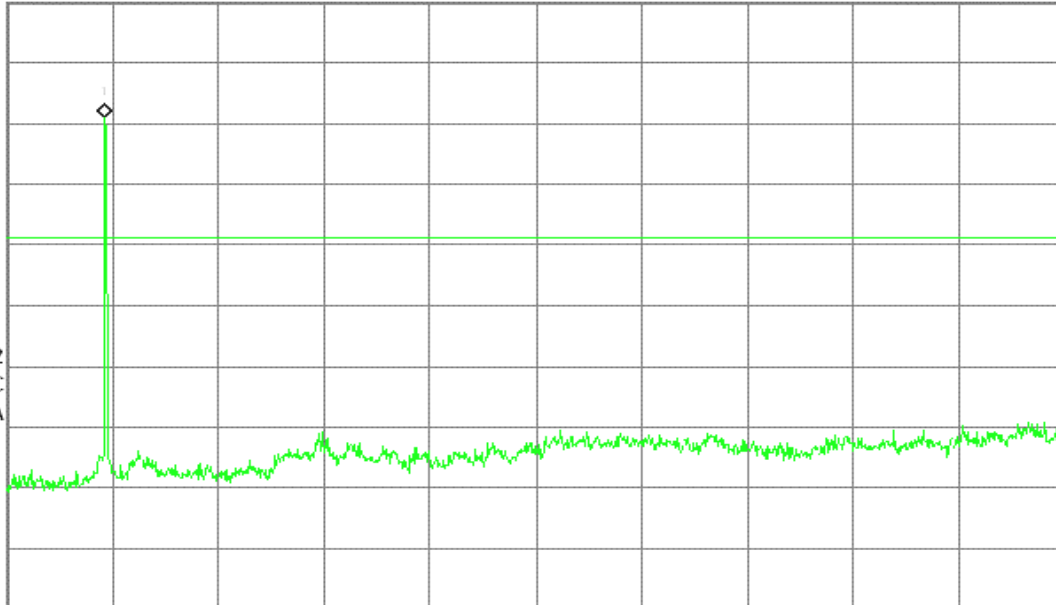
Center 13.02 GHz

#Res BW 100 kHz

#VBW 100 kHz

Span 25.97 GHz

Sweep 3.131 s (1001 pts)



**draft 802.11n Wide-40 MHz Channel mode / Chain 0****CH Low**

\* Agilent 14:55:23 Jul 30, 2008

R T

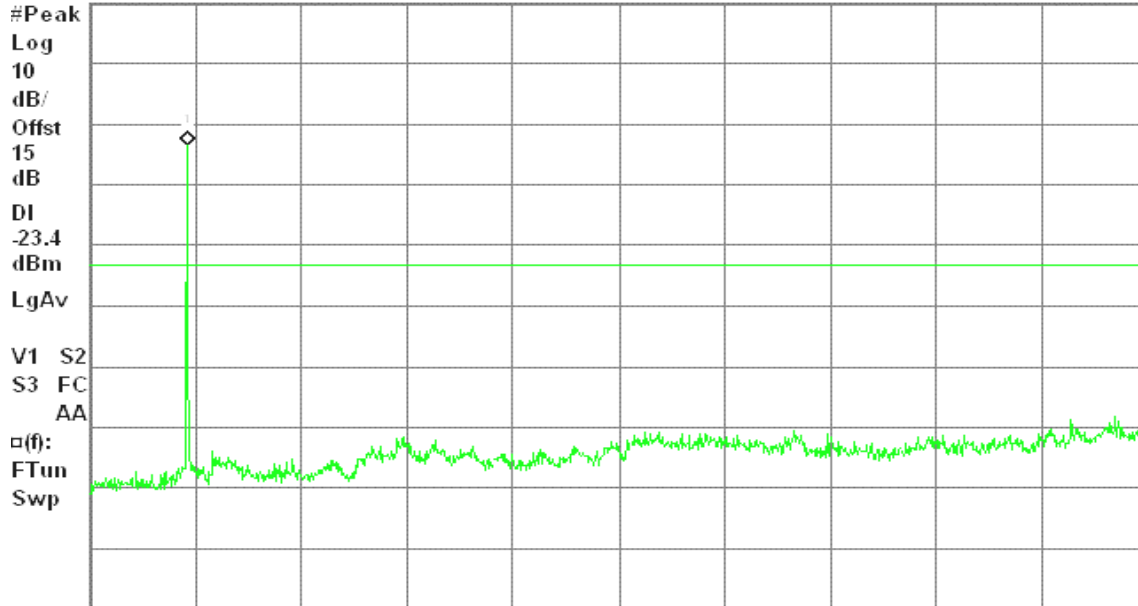
Spurious, g Mode Low Ch.

Mkr1 2.42 GHz

Ref 20 dBm

Atten 20 dB

-3.39 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

**CH Mid**

\* Agilent 15:05:23 Jul 30, 2008

R T

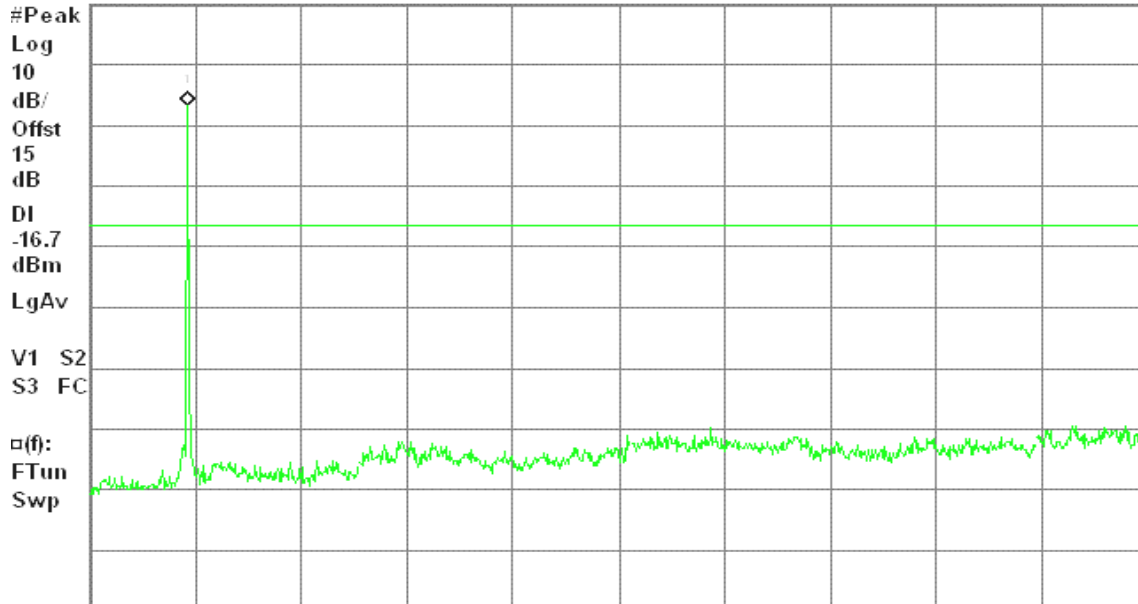
Spurious, g Mode Mid Ch.

Mkr1 2.45 GHz

Ref 20 dBm

Atten 20 dB

3.34 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

**CH High**

\* Agilent 15:13:06 Jul 30, 2008

R T

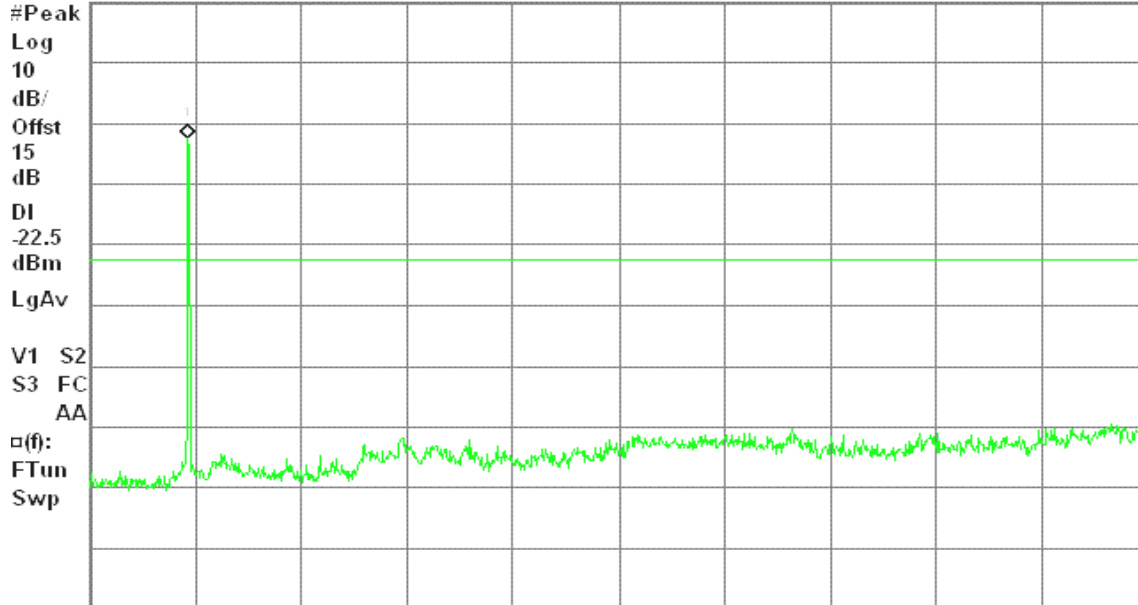
Spurious, g Mode High Ch.

Mkr1 2.45 GHz

Ref 20 dBm

Atten 20 dB

-2.46 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

**draft 802.11n Wide-40 MHz Channel mode / Chain 1****CH Low**

\* Agilent 15:23:05 Jul 30, 2008

R T

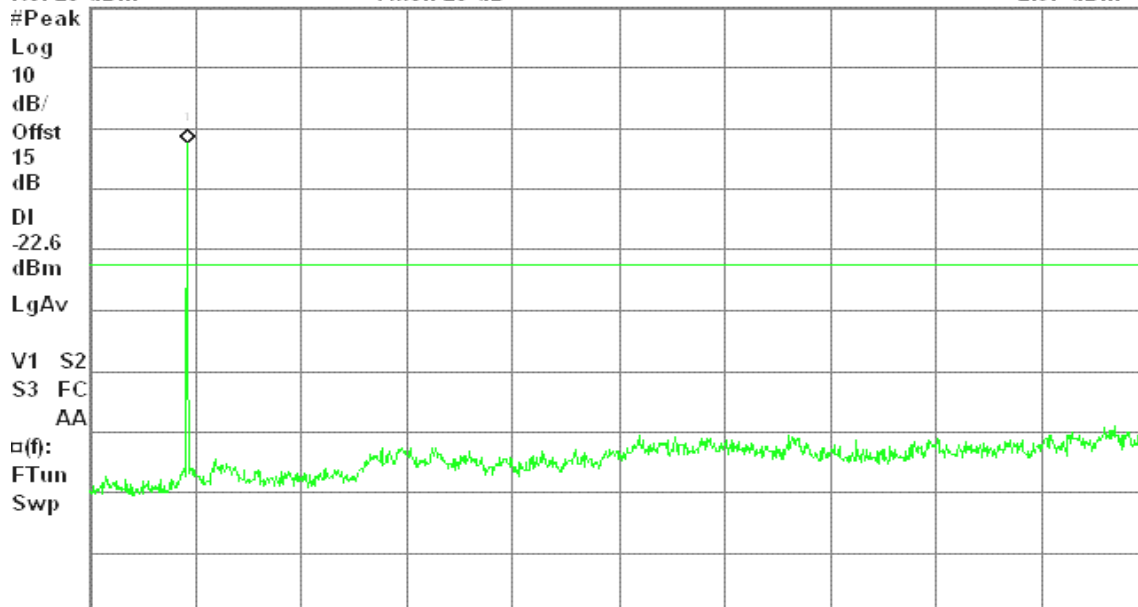
Spurious, g Mode Low Ch.

Mkr1 2.42 GHz

Ref 20 dBm

Atten 20 dB

-2.57 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)



## CH Mid

\* Agilent 15:29:56 Jul 30, 2008

R T

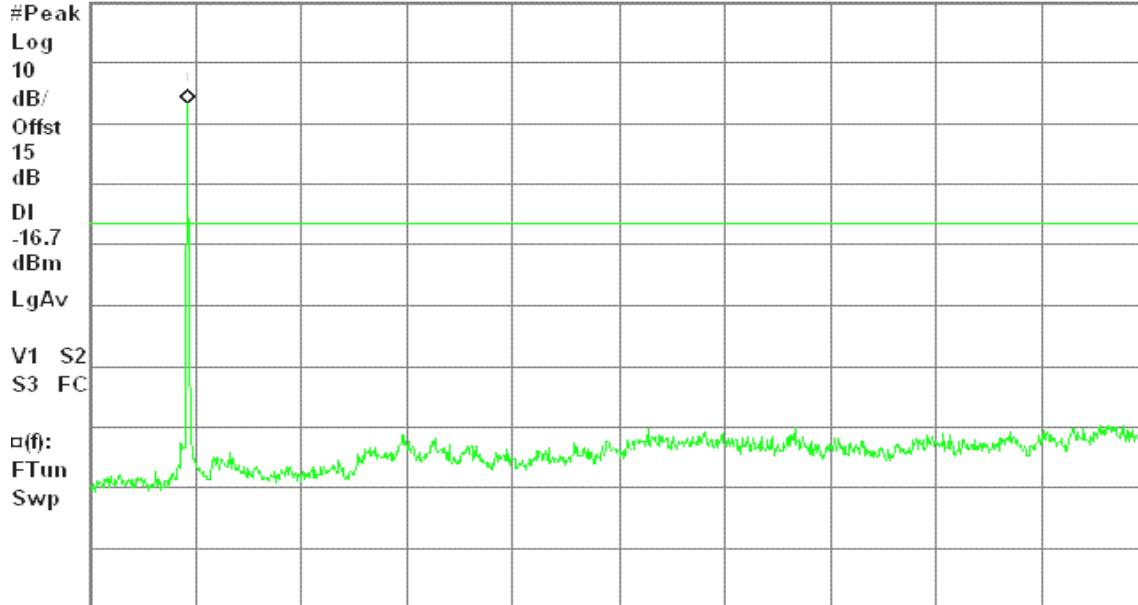
Spurious, g Mode Mid Ch.

Mkr1 2.42 GHz

Ref 20 dBm

Atten 20 dB

3.34 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

## CH High

\* Agilent 15:36:43 Jul 30, 2008

R T

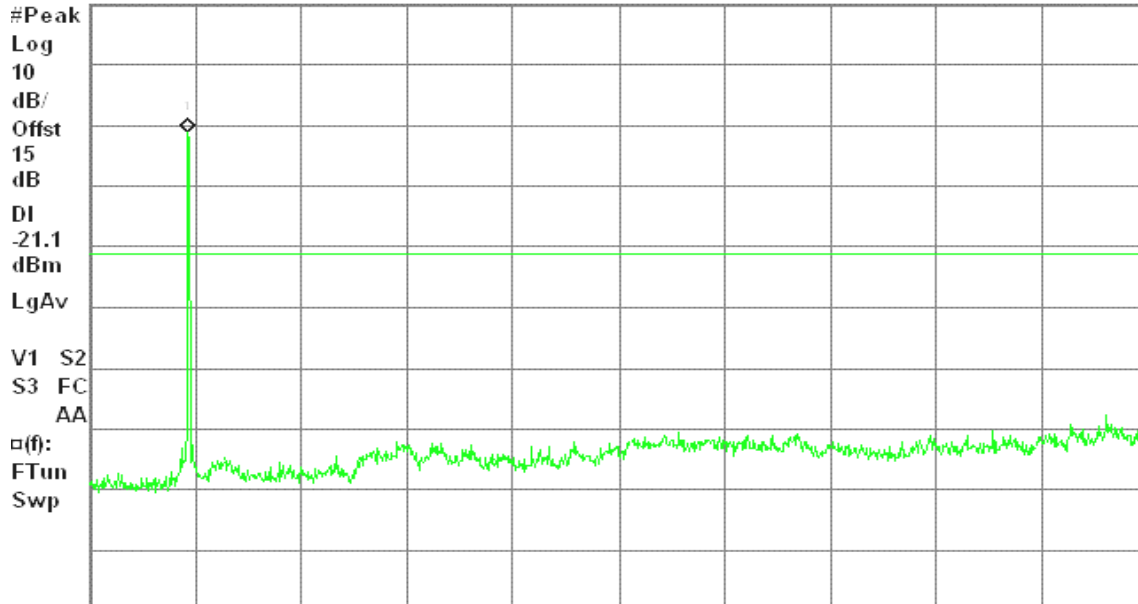
Spurious, g Mode High Ch.

Mkr1 2.45 GHz

Ref 20 dBm

Atten 20 dB

-1.13 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

**draft 802.11n Wide-40 MHz Channel mode / Chain 2****CH Low**

\* Agilent 15:46:24 Jul 30, 2008

R T

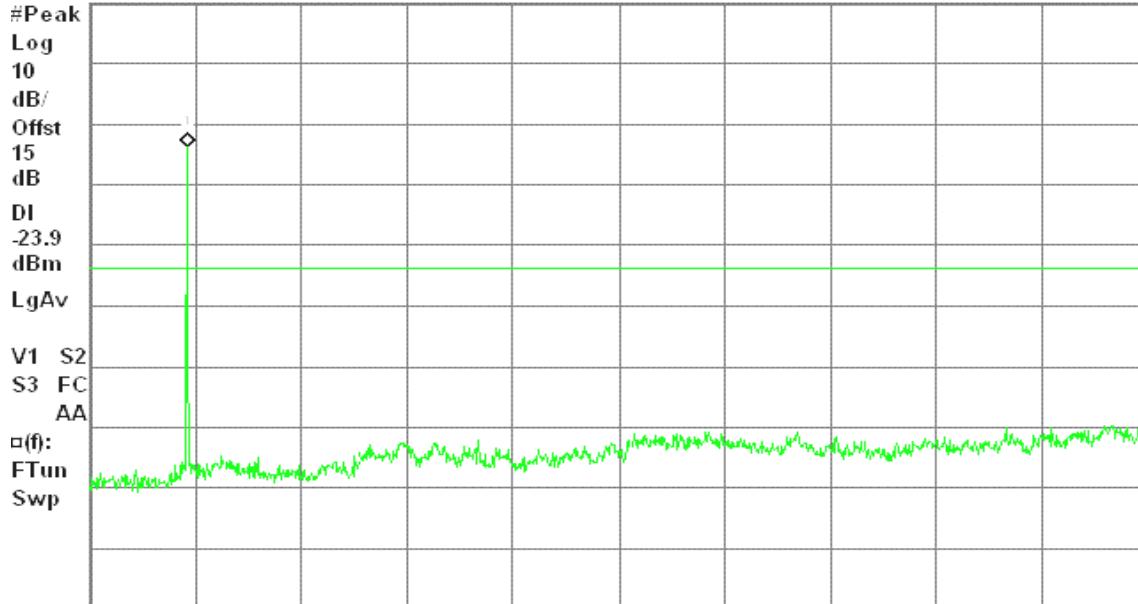
Spurious, g Mode Low Ch.

Mkr1 2.42 GHz

Ref 20 dBm

Atten 20 dB

-3.88 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

**CH Mid**

\* Agilent 15:53:11 Jul 30, 2008

R T

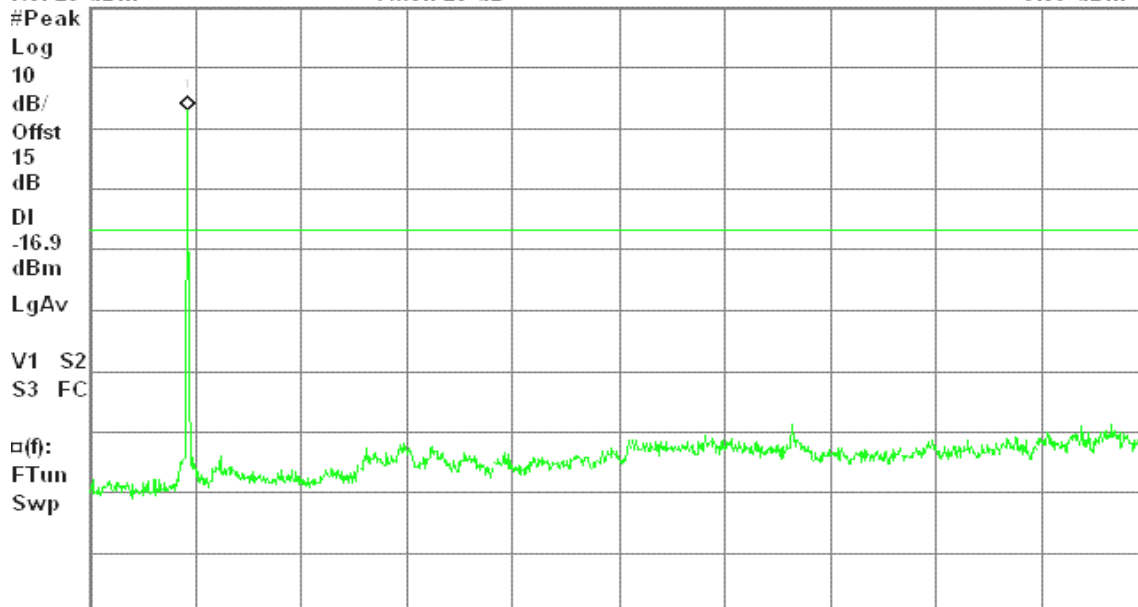
Spurious, g Mode Mid Ch.

Mkr1 2.45 GHz

Ref 20 dBm

Atten 20 dB

3.09 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)



## CH High

Agilent 16:42:48 Jul 30, 2008

R T

Spurious, g Mode High Ch.

Mkr1 2.45 GHz

Ref 20 dBm

Atten 20 dB

-1.29 dBm

#Peak

Log

10

dB/

Offst

15

dB

DI

-21.3

dBm

LgAv

V1 S2

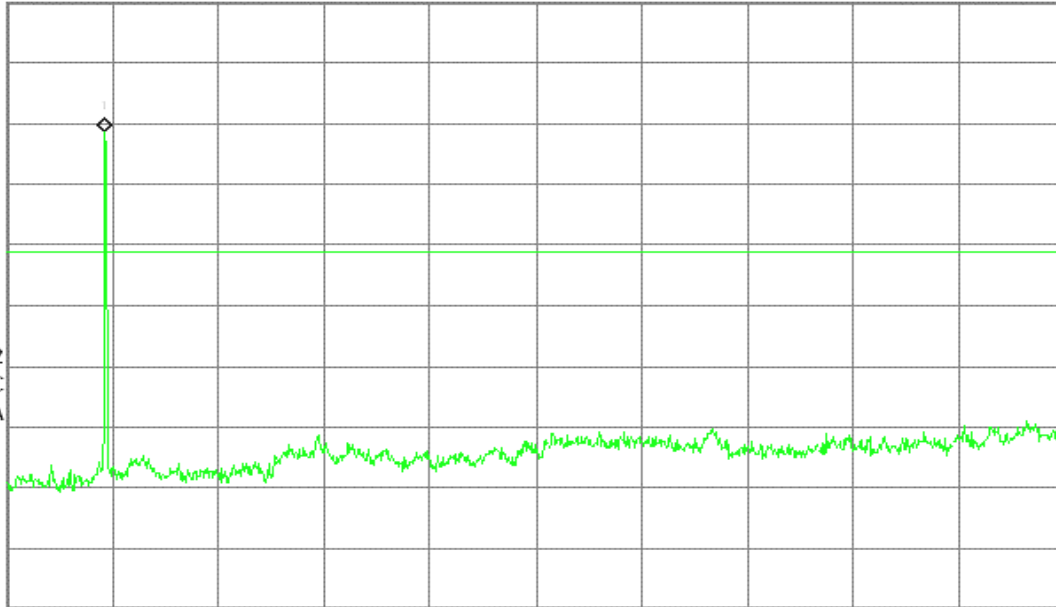
S3 FC

AA

□(f):

FTun

Swp



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

**IEEE 802.11a mode / 5745 ~ 5825MHz****CH Low**

\* Agilent 21:12:21 Jul 29, 2008

R T

Spurious, a Mode Low Ch.

Mkr1 5.75 GHz

Ref 20 dBm

Atten 20 dB

-2.83 dBm

#Peak

Log

10

dB/

Offst

18

dB

DI

-22.8

dBm

LgAv

V1 S2

Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.75 GHz	-2.83 dBm

**CH Mid**

\* Agilent 21:30:28 Jul 29, 2008

R T

Spurious, a Mode Mid Ch.

Mkr1 5.79 GHz

Ref 20 dBm

Atten 20 dB

-1.58 dBm

#Peak

Log

10

dB/

Offst

18

dB

DI

-21.6

dBm

LgAv

V1 S2

Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.79 GHz	-1.58 dBm



**CH High**

\* Agilent 21:42:12 Jul 29, 2008

R T

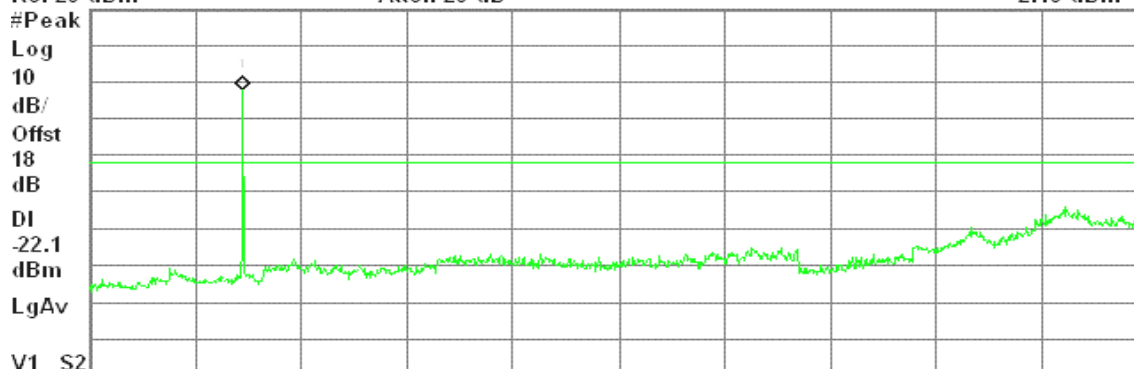
Spurious, a Mode High Ch.

Mkr1 5.83 GHz

Ref 20 dBm

Atten 20 dB

-2.10 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.83 GHz	-2.10 dBm

**draft 802.11n Standard-20 MHz Channel mode / 5745 ~ 5825MHz / Chain 0****CH Low**

\* Agilent 23:56:08 Jul 30, 2008

R T

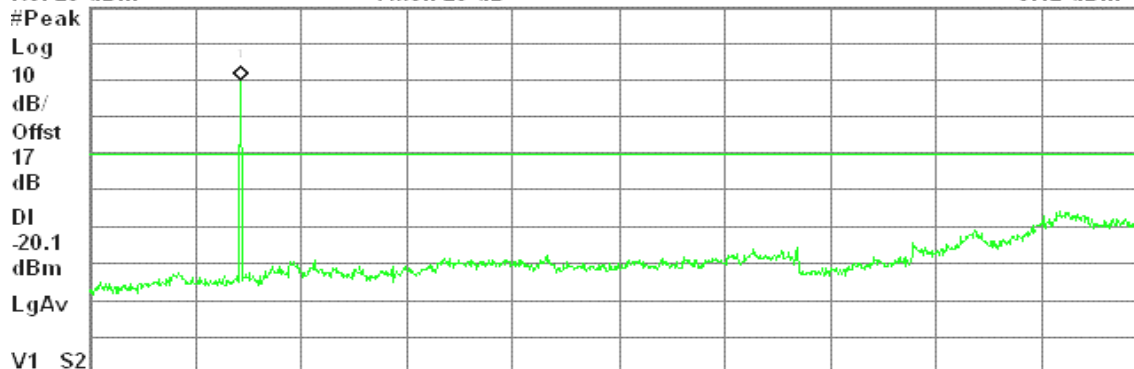
Spurious, a Mode Low Ch.

Mkr1 5.75 GHz

Ref 20 dBm

Atten 20 dB

-0.12 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.75 GHz	-0.12 dBm

**CH Mid**

\* Agilent 00:04:18 Jul 31, 2008

R T

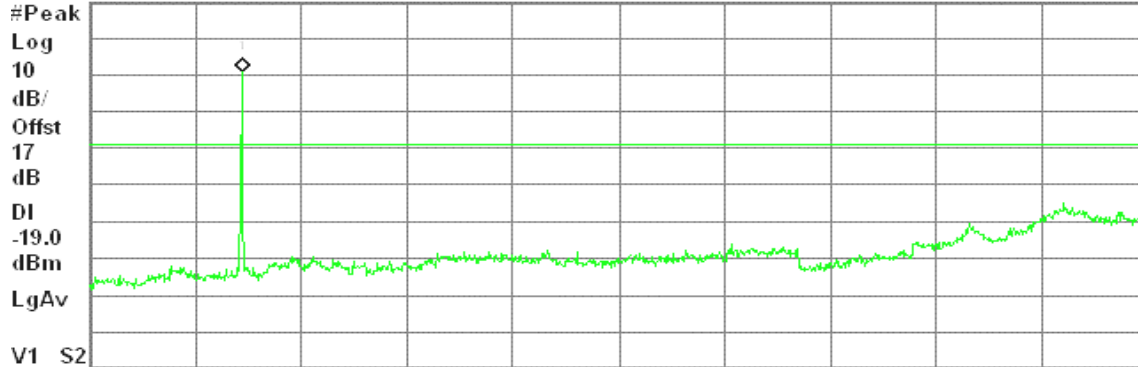
Spurious, a Mode Mid Ch.

Mkr1 5.79 GHz

Ref 20 dBm

Atten 20 dB

0.95 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.79 GHz	0.95 dBm

**CH High**

\* Agilent 00:11:02 Jul 31, 2008

R T

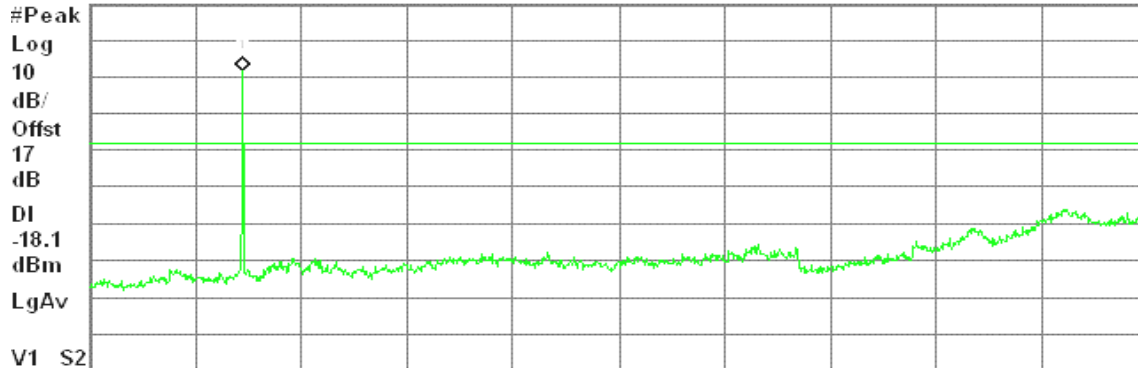
Spurious, a Mode High Ch.

Mkr1 5.83 GHz

Ref 20 dBm

Atten 20 dB

1.98 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.83 GHz	1.98 dBm

**draft 802.11n Standard-20 MHz Channel mode / 5745 ~ 5825MHz / Chain 1****CH Low**

\* Agilent 00:57:55 Jul 31, 2008

R T

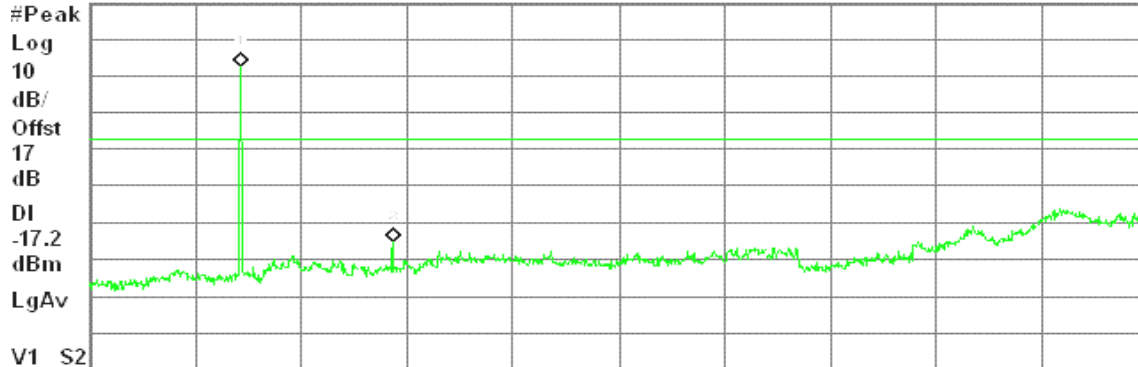
Spurious, a Mode Low Ch.

Mkr2 11.50 GHz

Ref 20 dBm

Atten 20 dB

-45.32 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.75 GHz	2.81 dBm
2	(1)	Freq	11.50 GHz	-45.32 dBm

**CH Mid**

\* Agilent 00:45:09 Jul 31, 2008

R T

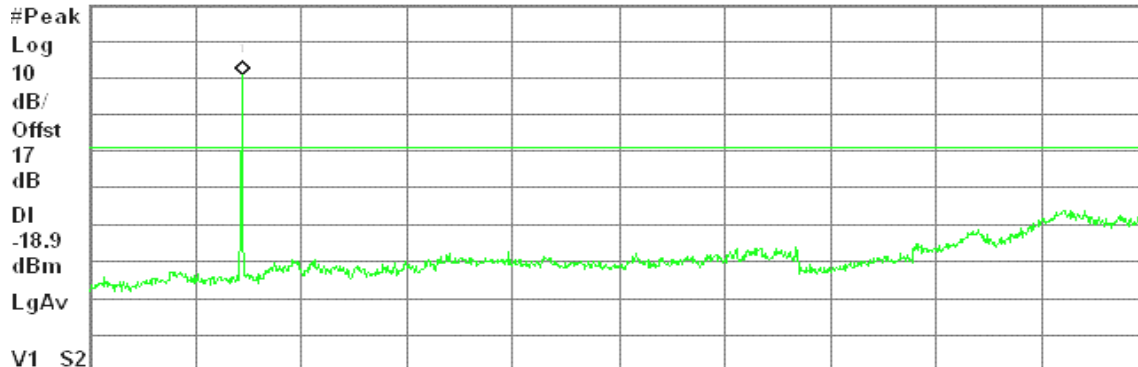
Spurious, a Mode Mid Ch.

Mkr1 5.79 GHz

Ref 20 dBm

Atten 20 dB

1.15 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.79 GHz	1.15 dBm

**CH High**

\* Agilent 00:52:33 Jul 31, 2008

R T

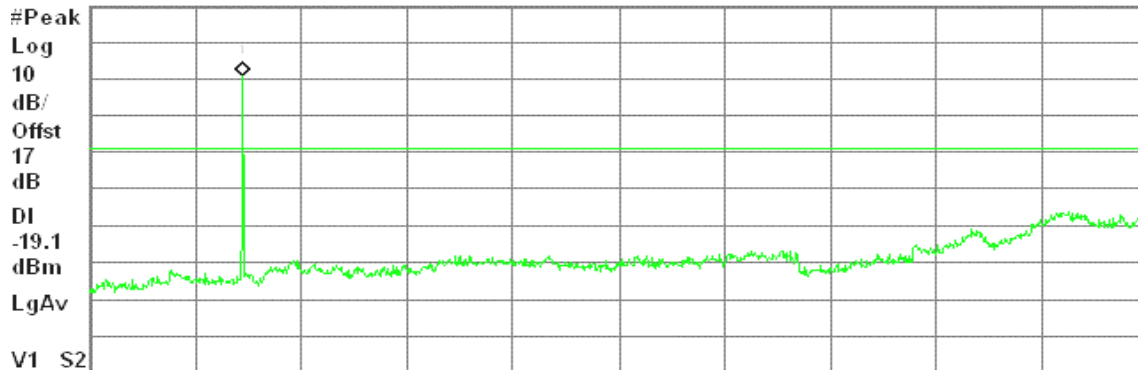
Spurious, a Mode High Ch.

Mkr1 5.83 GHz

Ref 20 dBm

Atten 20 dB

0.87 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.83 GHz	0.87 dBm

**draft 802.11n Standard-20 MHz Channel mode / 5745 ~ 5825MHz / Chain 2****CH Low**

\* Agilent 01:13:11 Jul 31, 2008

R T

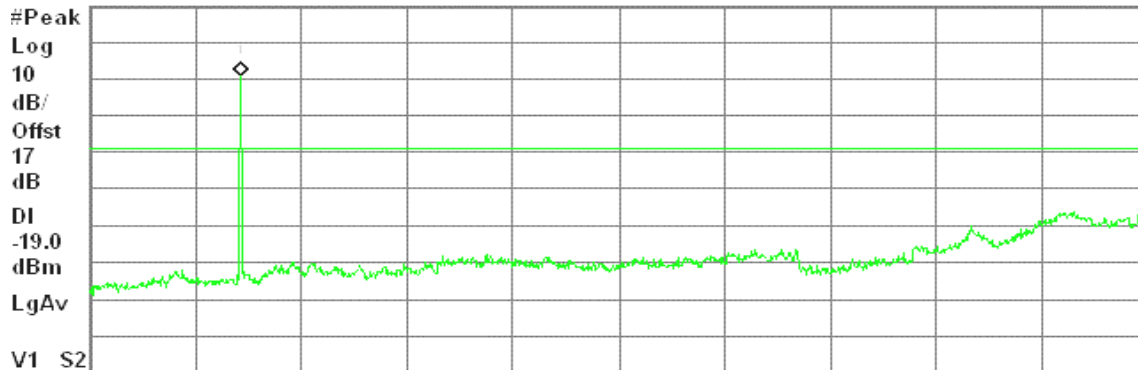
Spurious, a Mode Low Ch.

Mkr1 5.75 GHz

Ref 20 dBm

Atten 20 dB

1.05 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.75 GHz	1.05 dBm

**CH Mid**

\* Agilent 01:20:07 Jul 31, 2008

R T

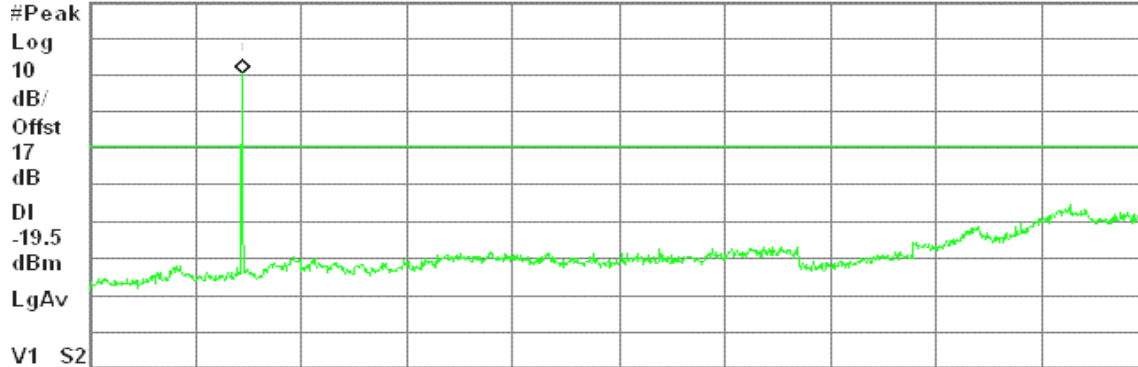
Spurious, a Mode Mid Ch.

Mkr1 5.79 GHz

Ref 20 dBm

Atten 20 dB

0.53 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.79 GHz	0.53 dBm

**CH High**

\* Agilent 01:28:22 Jul 31, 2008

R T

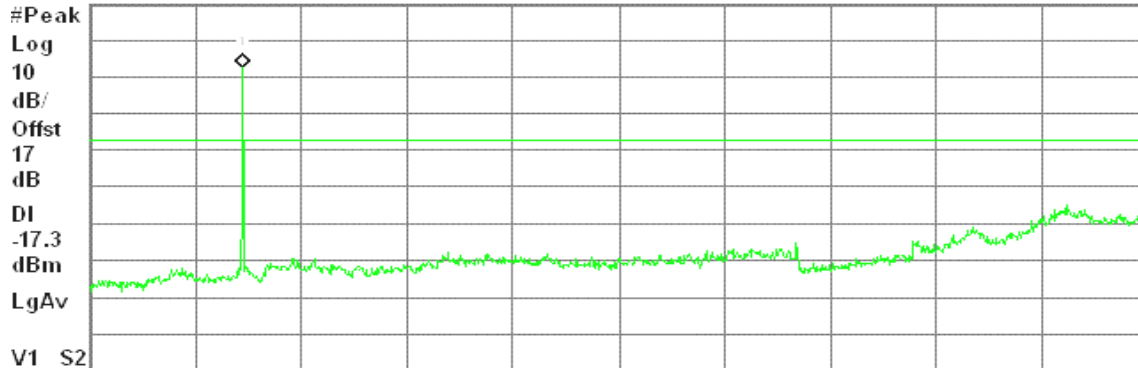
Spurious, a Mode High Ch.

Mkr1 5.83 GHz

Ref 20 dBm

Atten 20 dB

2.68 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.83 GHz	2.68 dBm

**draft 802.11n Wide-40 MHz Channel mode / 5755 ~ 5795MHz / Chain 0****CH Low**

\* Agilent 08:43:25 Jul 31, 2008

R T

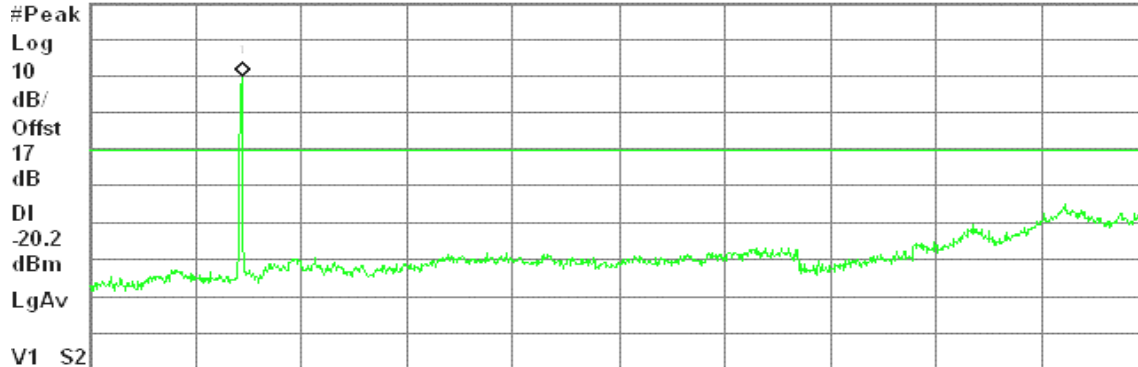
Spurious, a Mode Low Ch.

Mkr1 5.79 GHz

Ref 20 dBm

Atten 20 dB

-0.12 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.79 GHz	-0.12 dBm

**CH High**

\* Agilent 08:50:54 Jul 31, 2008

R T

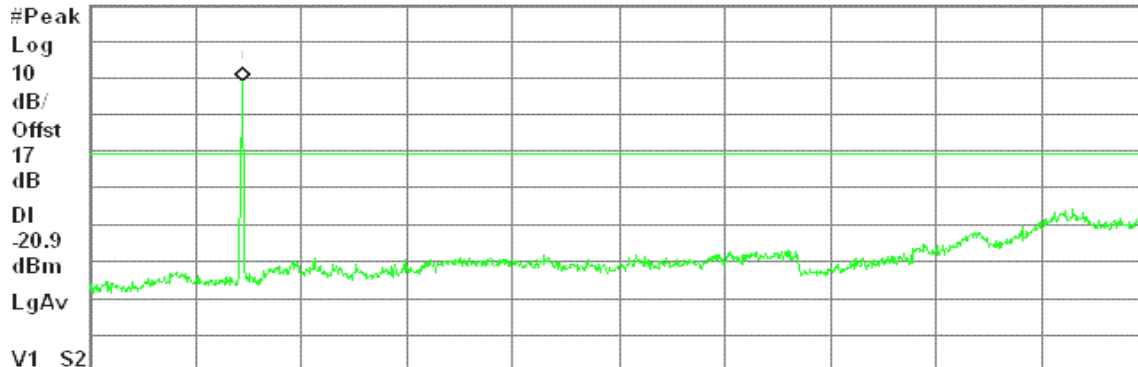
Spurious, a Mode High Ch.

Mkr1 5.83 GHz

Ref 20 dBm

Atten 20 dB

-0.91 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.83 GHz	-0.91 dBm

**draft 802.11n Wide-40 MHz Channel mode / 5755 ~ 5795MHz / Chain 1****CH Low**

\* Agilent 09:40:31 Jul 31, 2008

R T

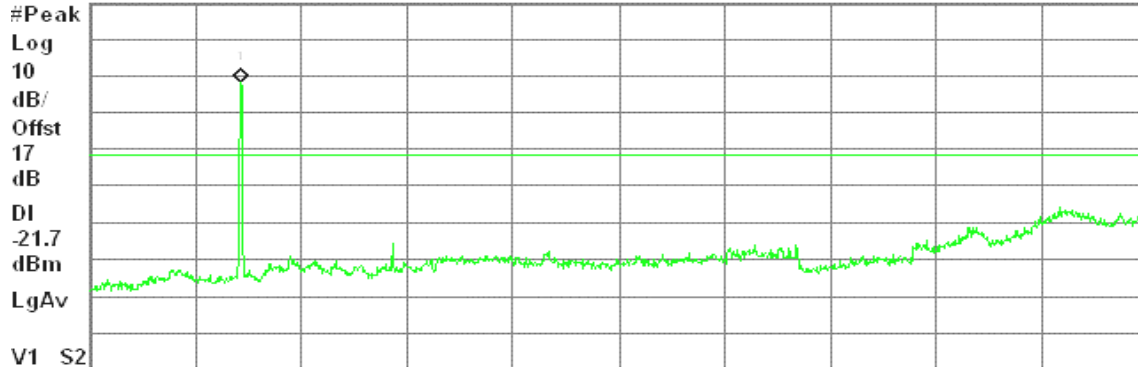
Spurious, a Mode Low Ch.

Mkr1 5.75 GHz

Ref 20 dBm

Atten 20 dB

-1.66 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.75 GHz	-1.66 dBm

**CH High**

\* Agilent 09:49:47 Jul 31, 2008

R T

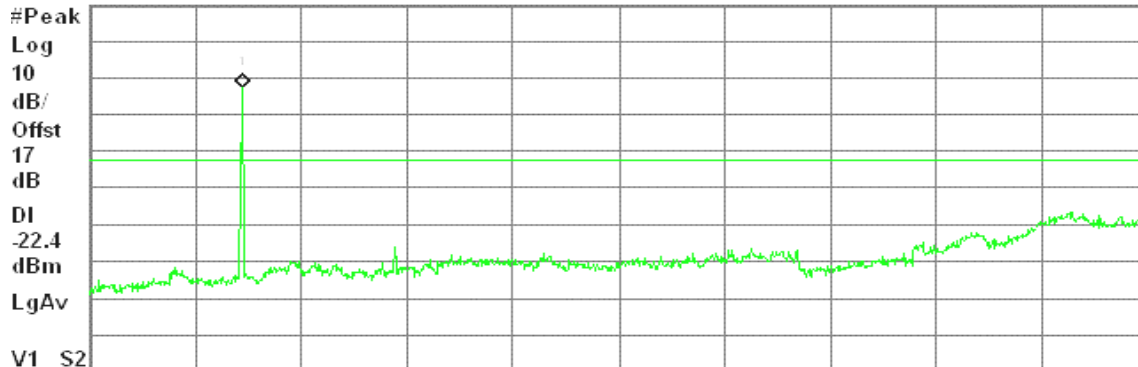
Spurious, a Mode High Ch.

Mkr1 5.79 GHz

Ref 20 dBm

Atten 20 dB

-2.36 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.79 GHz	-2.36 dBm

**draft 802.11n Wide-40 MHz Channel mode / 5755 ~ 5795MHz / Chain 2****CH Low**

Agilent 10:12:09 Jul 31, 2008

R T

Spurious, a Mode Low Ch.

Mkr1 5.75 GHz

Ref 20 dBm

Atten 20 dB

-0.03 dBm

#Peak

Log

10

dB/

Offst

17

dB

DI

-20.0

dBm

LgAv

V1 S2

Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.75 GHz	-0.03 dBm

**CH High**

Agilent 10:01:39 Jul 31, 2008

R T

Spurious, a Mode High Ch.

Mkr1 5.79 GHz

Ref 20 dBm

Atten 20 dB

-1.43 dBm

#Peak

Log

10

dB/

Offst

17

dB

DI

-21.4

dBm

LgAv

V1 S2

Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.79 GHz	-1.43 dBm



**draft 802.11n Standard-20 MHz Channel mode with combiner****CH Low**

\* Agilent 13:55:53 Jul 30, 2008

R T

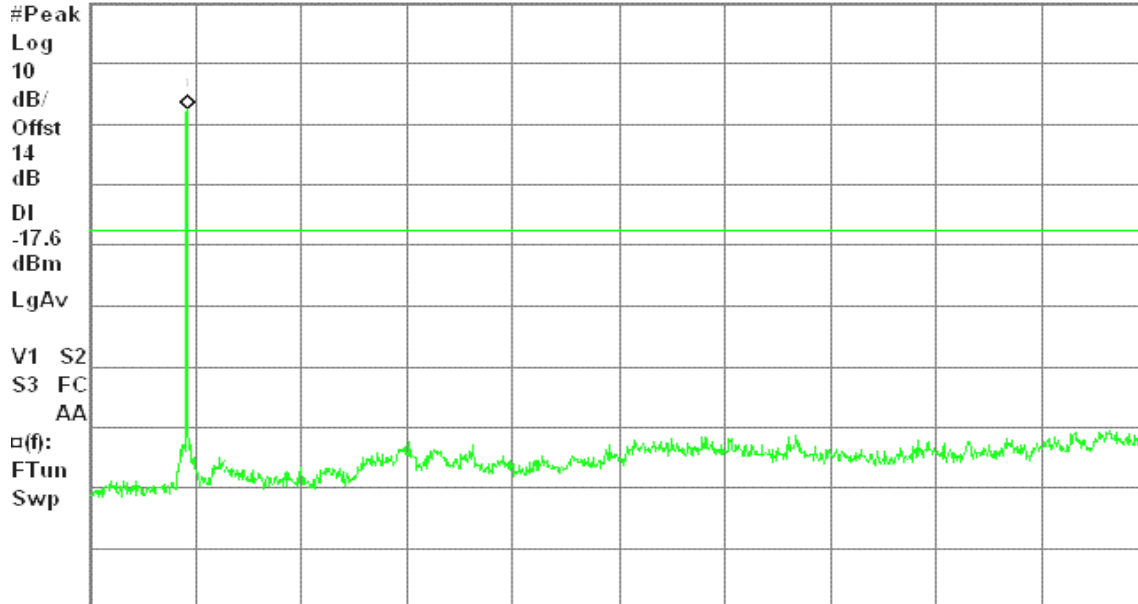
Spurious, g Mode Low Ch.

Mkr1 2.42 GHz

Ref 20 dBm

Atten 20 dB

2.41 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

**CH Mid**

\* Agilent 13:48:25 Jul 30, 2008

R T

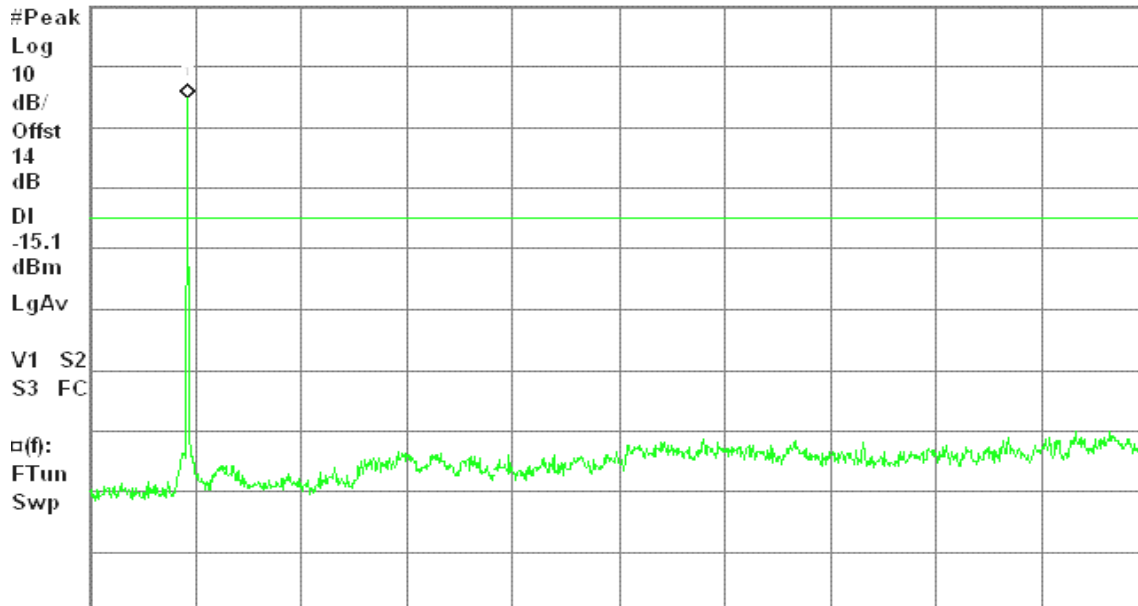
Spurious, g Mode Mid Ch.

Mkr1 2.45 GHz

Ref 20 dBm

Atten 20 dB

4.94 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

**CH High**

\* Agilent 13:40:03 Jul 30, 2008

R T

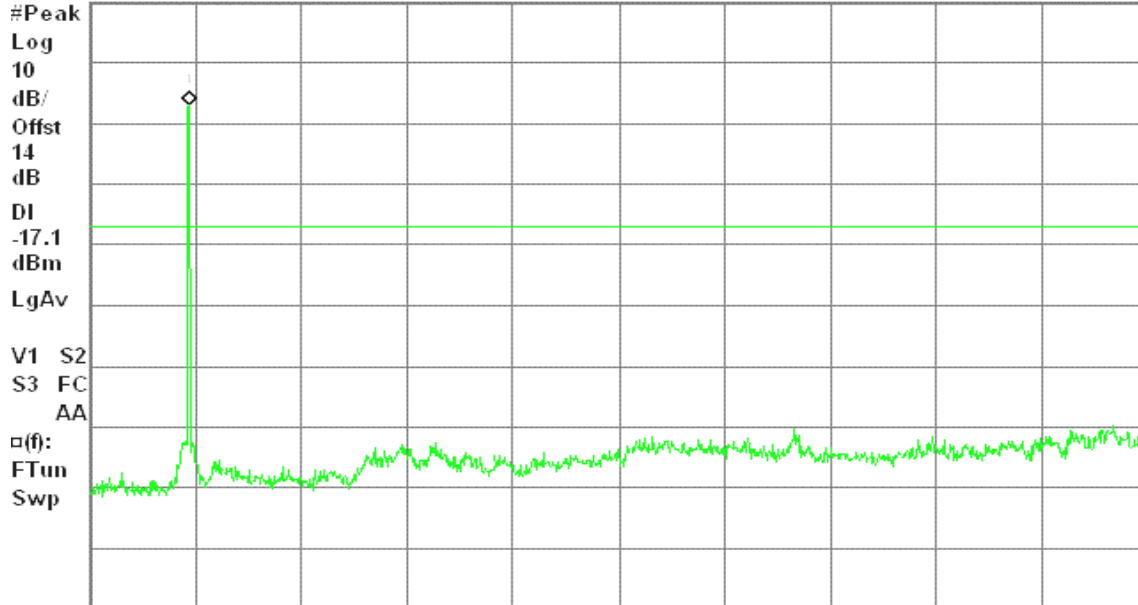
Spurious, g Mode High Ch.

Mkr1 2.47 GHz

Ref 20 dBm

Atten 20 dB

2.93 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

**draft 802.11n Wide-40 MHz Channel mode with combiner****CH Low**

\* Agilent 14:07:31 Jul 30, 2008

R T

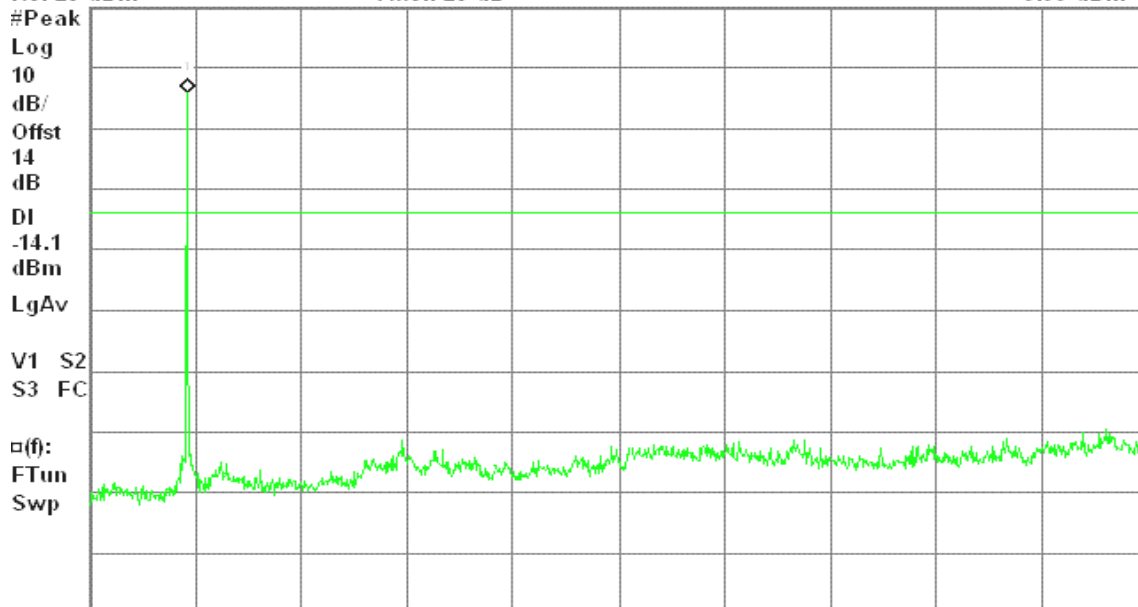
Spurious, g Mode Low Ch.

Mkr1 2.42 GHz

Ref 20 dBm

Atten 20 dB

5.95 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)



## CH Mid

\* Agilent 14:17:32 Jul 30, 2008

R T

Spurious, g Mode Mid Ch.

Mkr1 2.45 GHz

Ref 20 dBm

Atten 20 dB

6.75 dBm

#Peak

Log

10

dB/

Offst

14

dB

DI

-13.2

dBm

LgAv

V1 S2

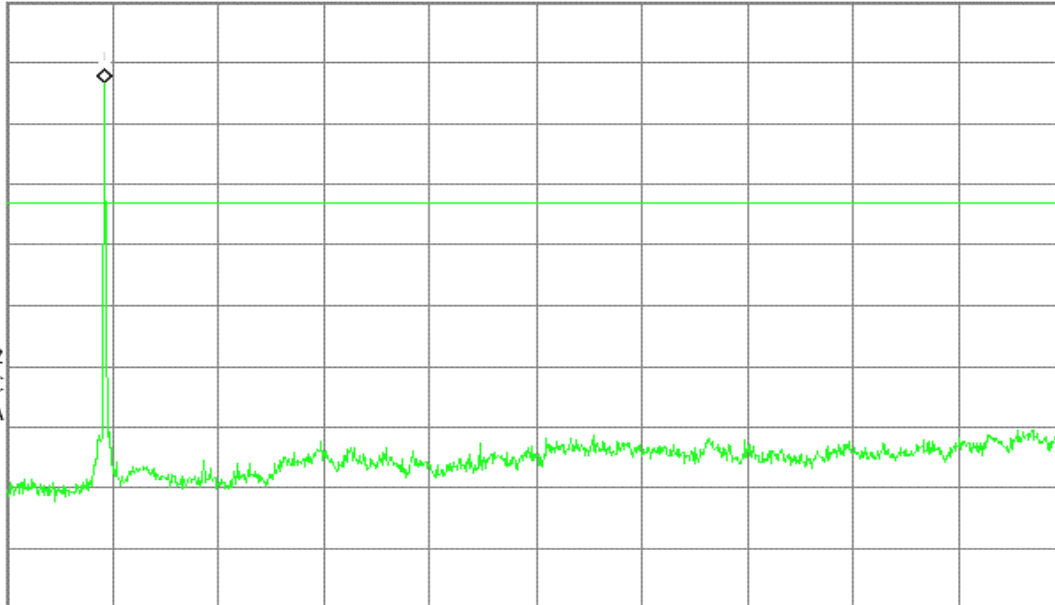
S3 FC

AA

α(f):

FTun

Swp



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

## CH High

\* Agilent 14:27:06 Jul 30, 2008

R T

Spurious, g Mode High Ch.

Mkr1 2.45 GHz

Ref 20 dBm

Atten 20 dB

2.59 dBm

#Peak

Log

10

dB/

Offst

14

dB

DI

-17.4

dBm

LgAv

V1 S2

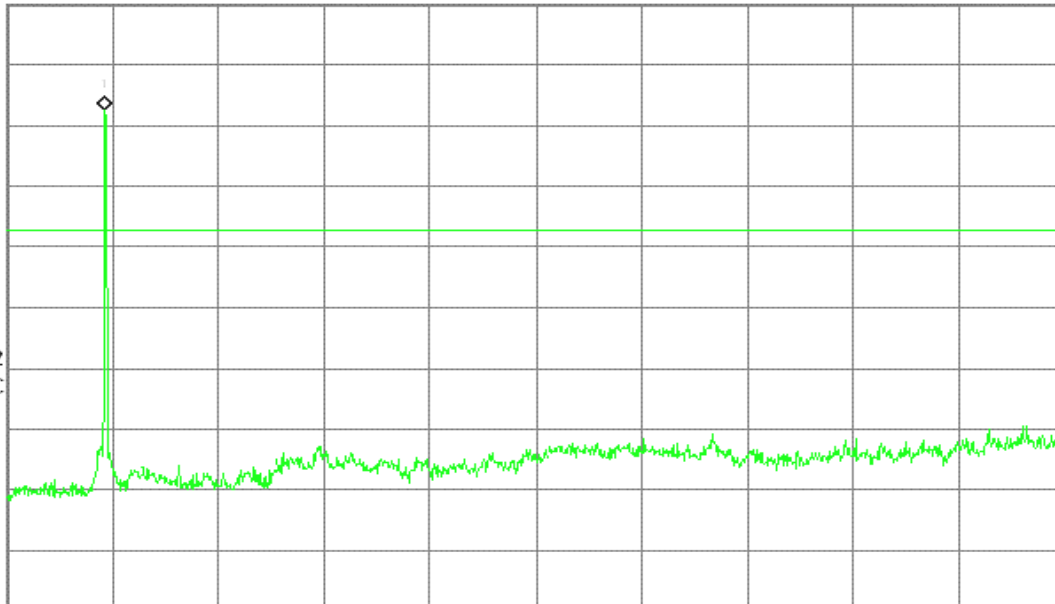
S3 FC

AA

α(f):

FTun

Swp



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

**draft 802.11n Standard-20 MHz Channel mode with combiner / 5745 ~ 5825MHz**

## CH Low

Agilent 02:09:36 Jul 31, 2008

R T

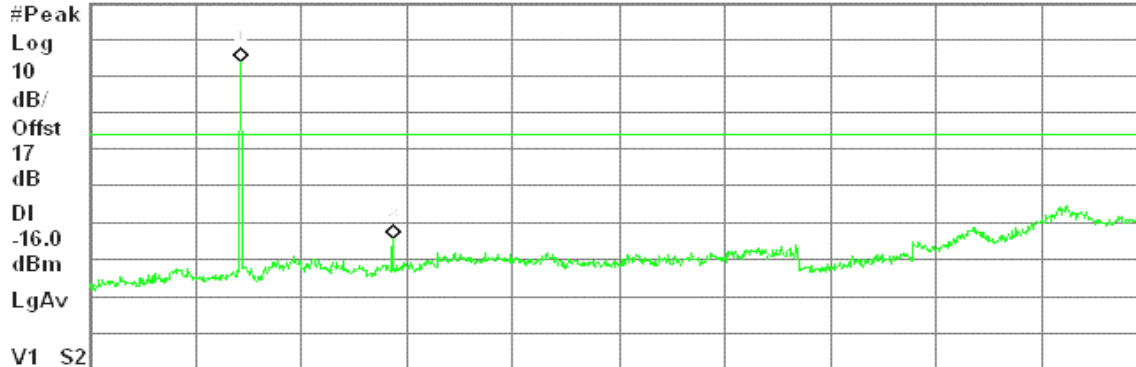
Spurious, a Mode Low Ch.

Mkr2 11.50 GHz

Ref 20 dBm

Atten 20 dB

-44.64 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.75 GHz	4.02 dBm
2	(1)	Freq	11.50 GHz	-44.64 dBm

## CH Mid

Agilent 02:19:28 Jul 31, 2008

R T

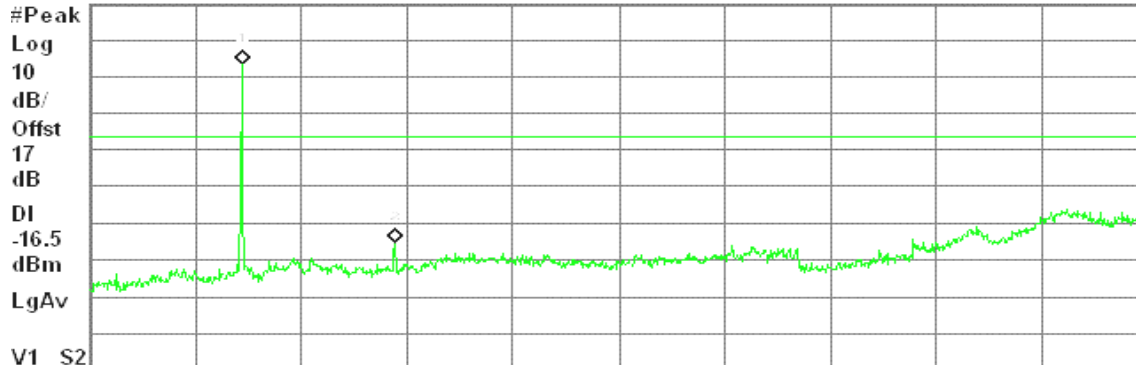
Spurious, a Mode Mid Ch.

Mkr2 11.58 GHz

Ref 20 dBm

Atten 20 dB

-45.58 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.79 GHz	3.50 dBm
2	(1)	Freq	11.58 GHz	-45.58 dBm

**CH High**

\* Agilent 02:27:49 Jul 31, 2008

R T

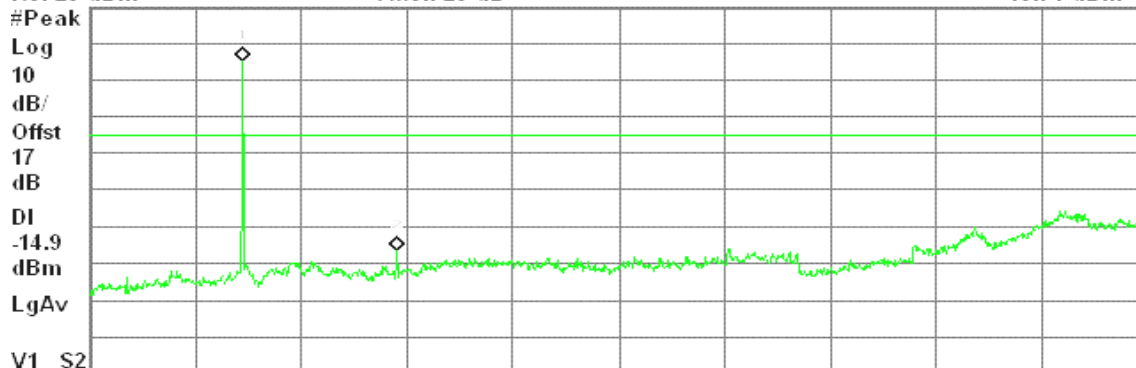
Spurious, a Mode High Ch.

Mkr2 11.66 GHz

Ref 20 dBm

Atten 20 dB

-46.71 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.83 GHz	5.12 dBm
2	(1)	Freq	11.66 GHz	-46.71 dBm

**draft 802.11n Wide-40 MHz Channel mode with combiner / 5755 ~ 5795MHz****CH Low**

\* Agilent 10:30:10 Jul 31, 2008

R T

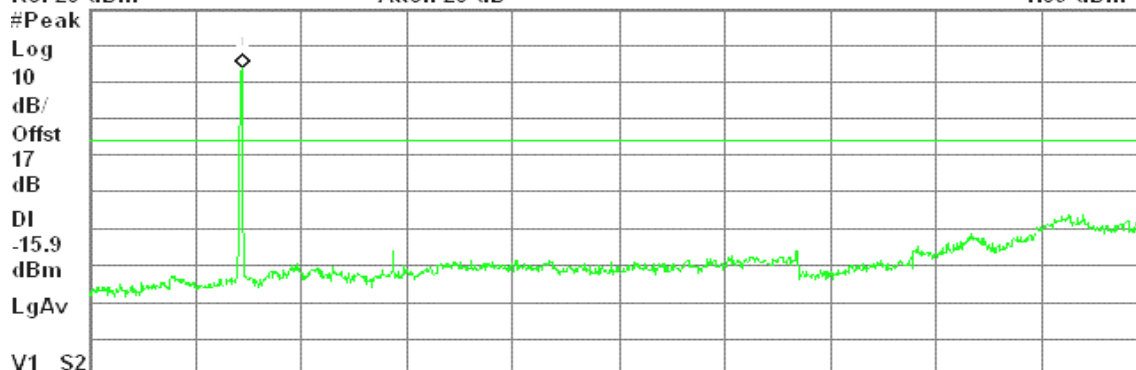
Spurious, a Mode Low Ch.

Mkr1 5.79 GHz

Ref 20 dBm

Atten 20 dB

4.09 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.79 GHz	4.09 dBm



## CH High

\* Agilent 10:39:09 Jul 31, 2008

R T

Spurious, a Mode High Ch.

Mkr1 5.79 GHz

Ref 20 dBm

Atten 20 dB

7.84 dBm

#Peak

Log

10

dB/

Offst

17

dB

DI

-12.2

dBm

LgAv

V1 S2

Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.79 GHz	7.84 dBm



## 7.7 RADIATED EMISSIONS

### LIMIT

1. According to §15.209(a), except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength ( $\mu$ V/m)	Measurement Distance (m)
30-88	100*	3
88-216	150*	3
216-960	200*	3
Above 960	500	3

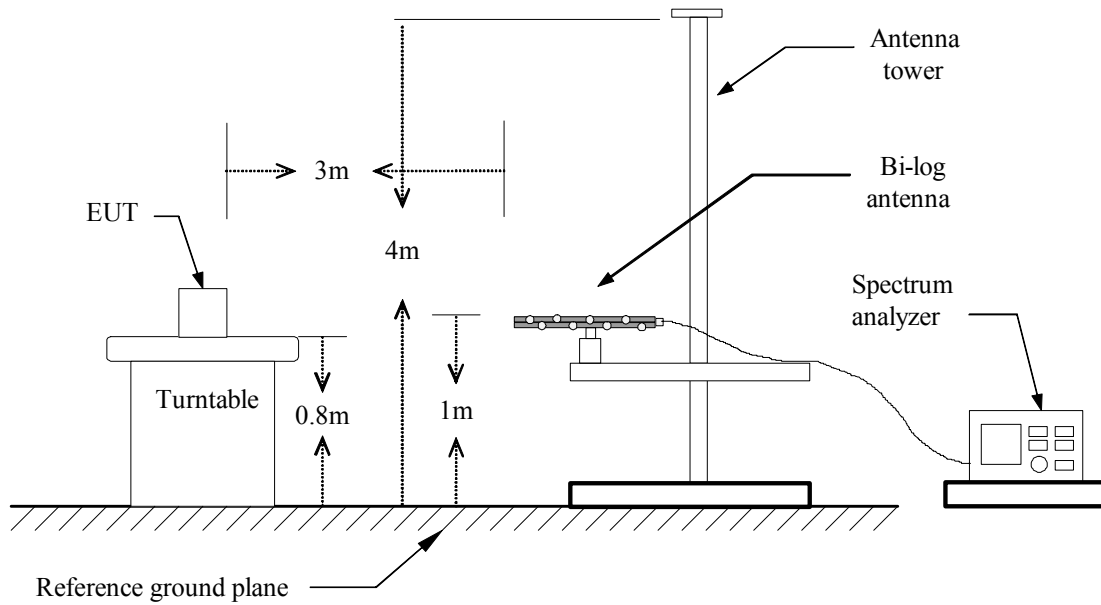
**Remark:** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

2. In the emission table above, the tighter limit applies at the band edges.

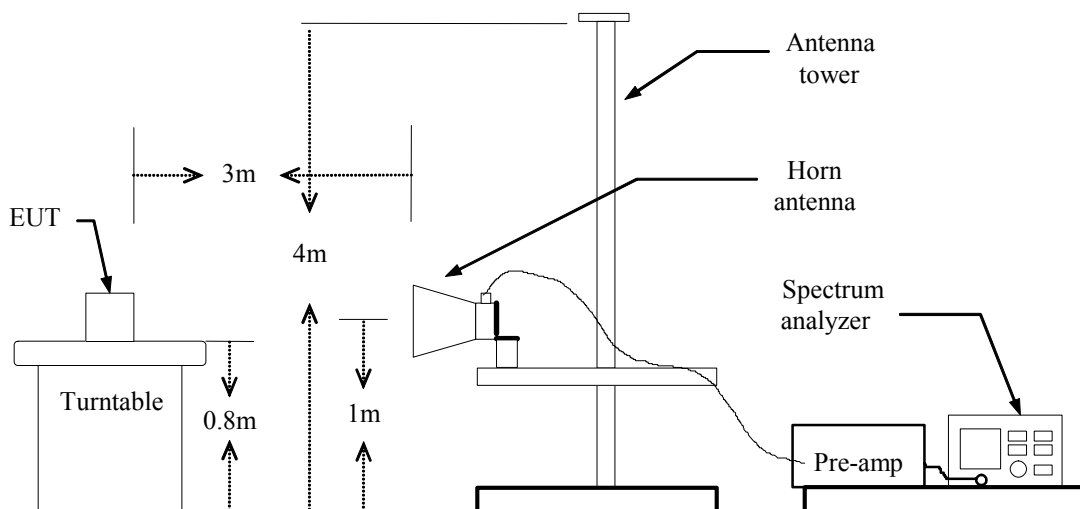
Frequency (MHz)	Field Strength ( $\mu$ V/m at 3-meter)	Field Strength (dB $\mu$ V/m at 3-meter)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

## Test Configuration

### **Below 1 GHz**



### **Above 1 GHz**







## **TEST PROCEDURE**

1. The EUT is placed on a turntable, which is 0.8m above ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Set the spectrum analyzer in the following setting as:  
Below 1GHz:  
RBW=100kHz / VBW=300kHz / Sweep=AUTO  
Above 1GHz:  
(a) PEAK: RBW=VBW=1MHz / Sweep=AUTO  
(b) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO
7. Repeat above procedures until the measurements for all frequencies are complete.

**Below 1GHz****Operation Mode:** Normal Link**Test Date:** July 29, 2008**Temperature:** 23°C**Tested by:** Mimic Yang**Humidity:** 53 % RH**Polarity:** Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
215.92	V	48.40	-8.01	40.38	43.50	-3.12	Peak
233.70	V	48.11	-7.97	40.14	46.00	-5.86	Peak
288.67	V	48.57	-6.46	42.11	46.00	-3.89	Peak
361.42	V	45.51	-4.55	40.96	46.00	-5.04	Peak
502.07	V	40.77	-0.50	40.27	46.00	-5.73	Peak
610.38	V	38.71	1.38	40.09	46.00	-5.91	Peak
217.53	H	50.26	-8.08	42.19	46.00	-3.81	Peak
287.05	H	49.14	-6.49	42.66	46.00	-3.34	Peak
359.80	H	44.21	-4.61	39.60	46.00	-6.40	Peak
717.08	H	36.95	3.13	40.08	46.00	-5.92	Peak
788.22	H	35.21	4.95	40.16	46.00	-5.84	Peak
933.72	H	30.50	7.04	37.54	46.00	-8.46	QP

**Remark:**

1. Measuring frequencies from 30 MHz to the 1GHz.
2. Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using peak/quasi-peak detector mode.
3. Quasi-peak test would be performed if the peak result were greater than the quasi-peak limit or as required by the applicant.
4. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
5. Margin (dB) = Remark result (dBuV/m) – Quasi-peak limit (dBuV/m).

**Above 1 GHz****Operation Mode:** TX / IEEE 802.11b / CH Low**Test Date:** July 24, 2008**Temperature:** 25°C**Tested by:** Jerry Lin**Humidity:** 50 % RH**Polarity:** Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
N/A										
N/A										

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser; with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

**Operation Mode:** TX / IEEE 802.11b / CH Mid**Test Date:** July 24, 2008**Temperature:** 25°C**Tested by:** Jerry Lin**Humidity:** 50 % RH**Polarity:** Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
N/A										
4875.00	H	48.17	---	0.24	48.40	---	74.00	54.00	-5.60	Peak
N/A										

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser; with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

**Operation Mode:** TX / IEEE 802.11b / CH High**Test Date:** July 24, 2008**Temperature:** 25°C**Tested by:** Jerry Lin**Humidity:** 50 % RH**Polarity:** Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
N/A										
4925.00	H	48.10	---	0.13	48.23	---	74.00	54.00	-5.77	Peak
N/A										

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser; with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

**Operation Mode:** TX / IEEE 802.11g / CH Low**Test Date:** July 24, 2008**Temperature:** 25°C**Tested by:** Jerry Lin**Humidity:** 50 % RH**Polarity:** Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
N/A										
N/A										

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser; with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

**Operation Mode:** TX / IEEE 802.11g / CH Mid**Test Date:** July 24, 2008**Temperature:** 25°C**Tested by:** Jerry Lin**Humidity:** 50 % RH**Polarity:** Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
4883.33	V	45.70	---	0.22	45.92	---	74.00	54.00	-8.08	Peak
N/A										
N/A										

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser; with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

**Operation Mode:** TX / IEEE 802.11g / CH High**Test Date:** July 24, 2008**Temperature:** 25°C**Tested by:** Jerry Lin**Humidity:** 50 % RH**Polarity:** Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
N/A										
N/A										

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser; with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).





**Operation Mode:** TX / draft 802.11n Standard-20 MHz Channel mode / CH Low

**Test Date:** July 15, 2008

**Temperature:** 23°C

**Tested by:** Jerry Lin

**Humidity:** 53 % RH

**Polarity:** Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1413.33	V	59.67	---	-8.56	51.10	---	74.00	54.00	-2.90	Peak
N/A										
1453.33	H	58.83	---	-8.47	50.36	---	74.00	54.00	-3.64	Peak
N/A										

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** TX / draft 802.11n Standard-20 MHz Channel mode / CH Mid

**Test Date:** July 15, 2008

**Temperature:** 23°C

**Tested by:** Jerry Lin

**Humidity:** 53 % RH

**Polarity:** Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1323.33	V	59.12	---	-8.78	50.34	---	74.00	54.00	-3.66	Peak
N/A										
1296.67	H	60.56	---	-8.84	51.72	---	74.00	54.00	-2.28	Peak
N/A										

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** TX / draft 802.11n Standard-20 MHz Channel mode / CH High

**Test Date:** July 15, 2008

**Temperature:** 23°C

**Tested by:** Jerry Lin

**Humidity:** 53 % RH

**Polarity:** Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1366.67	V	58.83	---	-8.67	50.15	---	74.00	54.00	-3.85	Peak
N/A										
1440.00	H	58.61	---	-8.50	50.11	---	74.00	54.00	-3.89	Peak
N/A										

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser; with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** TX / draft 802.11n Wide-40 MHz Channel mode  
/ CH Low

**Test Date:** July 19, 2008

**Temperature:** 23°C

**Tested by:** Jerry Lin

**Humidity:** 53 % RH

**Polarity:** Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1330.00	V	59.06	---	-8.76	50.30	---	74.00	54.00	-3.70	Peak
N/A										
1356.67	H	58.27	---	-8.70	49.57	---	74.00	54.00	-4.43	Peak
N/A										

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser; with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

**Operation Mode:** TX / draft 802.11n Wide-40 MHz Channel mode  
/ CH Mid**Test Date:** July 19, 2008**Temperature:** 23°C**Tested by:** Jerry Lin**Humidity:** 53 % RH**Polarity:** Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1363.33	V	58.55	---	-8.68	49.87	---	74.00	54.00	-4.13	Peak
N/A										
1366.67	H	58.71	---	-8.67	50.03	---	74.00	54.00	-3.97	Peak
N/A										

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** TX / draft 802.11n Wide-40 MHz Channel mode  
/ CH High

**Test Date:** July 19, 2008

**Temperature:** 23°C

**Tested by:** Jerry Lin

**Humidity:** 53 % RH

**Polarity:** Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1296.67	V	59.74	---	-8.84	50.90	---	74.00	54.00	-3.10	Peak
N/A										
1356.67	H	59.77	---	-8.70	51.07	---	74.00	54.00	-2.93	Peak
N/A										

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser; with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** Tx / IEEE 802.11a mode / 5745 ~ 5825MHz / CH Low **Test Date:** July 23, 2008

**Temperature:** 25°C

**Tested by:** Jerry Lin

**Humidity:** 50% RH

**Polarity:** Ver. / Hor.

Frequency (MHz)	Ant.Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1193.33	V	52.46	---	-9.08	43.38	---	74.00	54.00	-10.62	Peak
1453.33	V	53.83	---	-8.47	45.36	---	74.00	54.00	-8.64	Peak
2383.33	V	50.27	---	-2.99	47.28	---	74.00	54.00	-6.72	Peak
N/A										
1456.67	H	49.13	---	-8.46	40.67	---	74.00	54.00	-13.33	Peak
1520.00	H	48.90	---	-8.19	40.71	---	74.00	54.00	-13.29	Peak
2516.67	H	47.59	---	-2.59	45.00	---	74.00	54.00	-9.00	Peak
N/A										

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** Tx / IEEE 802.11a mode / 5745 ~ 5825MHz / CH Mid **Test Date:** July 23, 2008  
**Temperature:** 25°C **Tested by:** Jerry Lin  
**Humidity:** 50% RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Ant.Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1193.33	V	52.64	---	-9.08	43.56	---	74.00	54.00	-10.44	Peak
1600.00	V	50.54	---	-7.52	43.02	---	74.00	54.00	-10.98	Peak
2386.67	V	50.27	---	-2.98	47.29	---	74.00	54.00	-6.71	Peak
2516.67	V	48.28	---	-2.59	45.69	---	74.00	54.00	-8.31	Peak
N/A										
1456.67	H	50.48	---	-8.46	42.02	---	74.00	54.00	-11.98	Peak
1730.00	H	48.42	---	-6.44	41.99	---	74.00	54.00	-12.01	Peak
N/A										

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).





**Operation Mode:** Tx / IEEE 802.11a mode / 5745 ~ 5825MHz / CH High **Test Date:** July 23, 2008  
**Temperature:** 25°C **Tested by:** Jerry Lin  
**Humidity:** 50% RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Ant.Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1836.67	V	52.54	---	-5.54	47.00	---	74.00	54.00	-7.00	Peak
2383.33	V	48.14	---	-2.99	45.15	---	74.00	54.00	-8.85	Peak
N/A										
1600.00	H	49.64	---	-7.52	42.11	---	74.00	54.00	-11.89	Peak
2516.67	H	48.01	---	-2.59	45.42	---	74.00	54.00	-8.58	Peak
N/A										

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** Tx / draft 802.11n Standard-20 MHz Channel mode / 5745 ~ 5825MHz / CH Low **Test Date:** July 19, 2008

**Temperature:** 23°C **Tested by:** Jerry Lin

**Humidity:** 53% RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Ant.Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
N/A										
2383.33	H	50.82	---	-2.99	47.82	---	74.00	54.00	-6.18	Peak
N/A										

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** Tx / draft 802.11n Standard-20 MHz Channel  
mode / 5745 ~ 5825MHz / CH Mid

**Test Date:** July 19, 2008

**Temperature:** 23°C

**Tested by:** Jerry Lin

**Humidity:** 53% RH

**Polarity:** Ver. / Hor.

Frequency (MHz)	Ant.Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1603.33	V	52.04	---	-7.50	44.55	---	74.00	54.00	-9.45	Peak
N/A										
1336.67	H	54.33	---	-8.75	45.58	---	74.00	54.00	-8.42	Peak
1406.67	H	54.27	---	-8.58	45.69	---	74.00	54.00	-8.31	Peak
N/A										

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** Tx / draft 802.11n Standard-20 MHz Channel mode / 5745 ~ 5825MHz / CH High **Test Date:** July 19, 2008

**Temperature:** 23°C **Tested by:** Jerry Lin

**Humidity:** 53% RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Ant.Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1330.00	V	56.27	---	-8.76	47.51	---	74.00	54.00	-6.49	Peak
1423.33	V	54.98	---	-8.54	46.44	---	74.00	54.00	-7.56	Peak
N/A										
1336.67	H	55.58	---	-8.75	46.83	---	74.00	54.00	-7.17	Peak
N/A										

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** Tx / draft 802.11n Wide-40 MHz Channel  
mode / 5755 ~ 5795MHz / CH Low

**Test Date:** July 20, 2008

**Temperature:** 23°C

**Tested by:** Jerry Lin

**Humidity:** 53% RH

**Polarity:** Ver. / Hor.

Frequency (MHz)	Ant.Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1403.33	V	55.19	---	-8.59	46.60	---	74.00	54.00	-7.40	AVG
N/A										
1410.00	H	55.98	---	-8.57	47.41	---	74.00	54.00	-6.59	Peak
N/A										

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser; with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** Tx / draft 802.11n Wide-40 MHz Channel  
mode / 5755 ~ 5795MHz / CH High

**Test Date:** July 20, 2008

**Temperature:** 23°C

**Tested by:** Jerry Lin

**Humidity:** 53% RH

**Polarity:** Ver. / Hor.

Frequency (MHz)	Ant.Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1470.00	V	53.57	---	-8.43	45.14	---	74.00	54.00	-8.86	Peak
N/A										
1736.67	H	51.82	---	-6.38	45.44	---	74.00	54.00	-8.56	Peak
N/A										

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

## 7.8 POWERLINE CONDUCTED EMISSIONS

### LIMIT

According to §15.207(a), except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50  $\mu$ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency Range (MHz)	Limits (dB $\mu$ V)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

\* Decreases with the logarithm of the frequency.

### Test Configuration

See test photographs attached in Appendix II for the actual connections between EUT and support equipment.

### TEST PROCEDURE

1. The EUT was placed on a table, which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured were complete.



## TEST RESULTS

The initial step in collecting conducted data is a spectrum analyzer peak scan of the measurement range. Significant peaks are then marked as shown on the following data page, and these signals are then quasi-peaked.

### Test Data

**Operation Mode:** Normal Link      **Test Date:** July 31, 2008  
**Temperature:** 22°C      **Tested by:** Jerry Lin  
**Humidity:** 45% RH

Freq. (MHz)	QP Reading (dBuV)	AV Reading (dBuV)	Corr. factor (dB/m)	QP Result (dBuV/m)	AV Result (dBuV/m)	QP Limit (dBuV)	AV Limit (dBuV)	QP Margin (dB)	AV Margin (dB)	Note
0.1550	49.40	28.90	0.20	49.60	29.10	65.73	55.73	-16.13	-26.63	L1
0.2350	40.56	27.86	0.14	40.70	28.00	62.27	52.27	-21.57	-24.27	L1
0.2700	36.67	15.27	0.13	36.80	15.40	61.12	51.12	-24.32	-35.72	L1
0.3250	31.29	8.49	0.11	31.40	8.60	59.58	49.58	-28.18	-40.98	L1
0.4100	27.23	9.23	0.07	27.30	9.30	57.65	47.65	-30.35	-38.35	L1
16.7800	33.14	24.64	0.66	33.80	25.30	60.00	50.00	-26.20	-24.70	L1
0.1800	50.23	28.93	0.17	50.40	29.10	64.49	54.49	-14.09	-25.39	L2
0.2350	53.66	35.66	0.14	53.80	35.80	62.27	52.27	-8.47	-16.47	L2
0.2900	48.49	30.49	0.11	48.60	30.60	60.52	50.52	-11.92	-19.92	L2
0.3400	43.61	23.81	0.09	43.70	23.90	59.20	49.20	-15.50	-25.30	L2
0.4100	42.13	25.03	0.07	42.20	25.10	57.65	47.65	-15.45	-22.55	L2
0.5100	35.27	18.27	0.03	35.30	18.30	56.00	46.00	-20.70	-27.70	L2

### Remark:

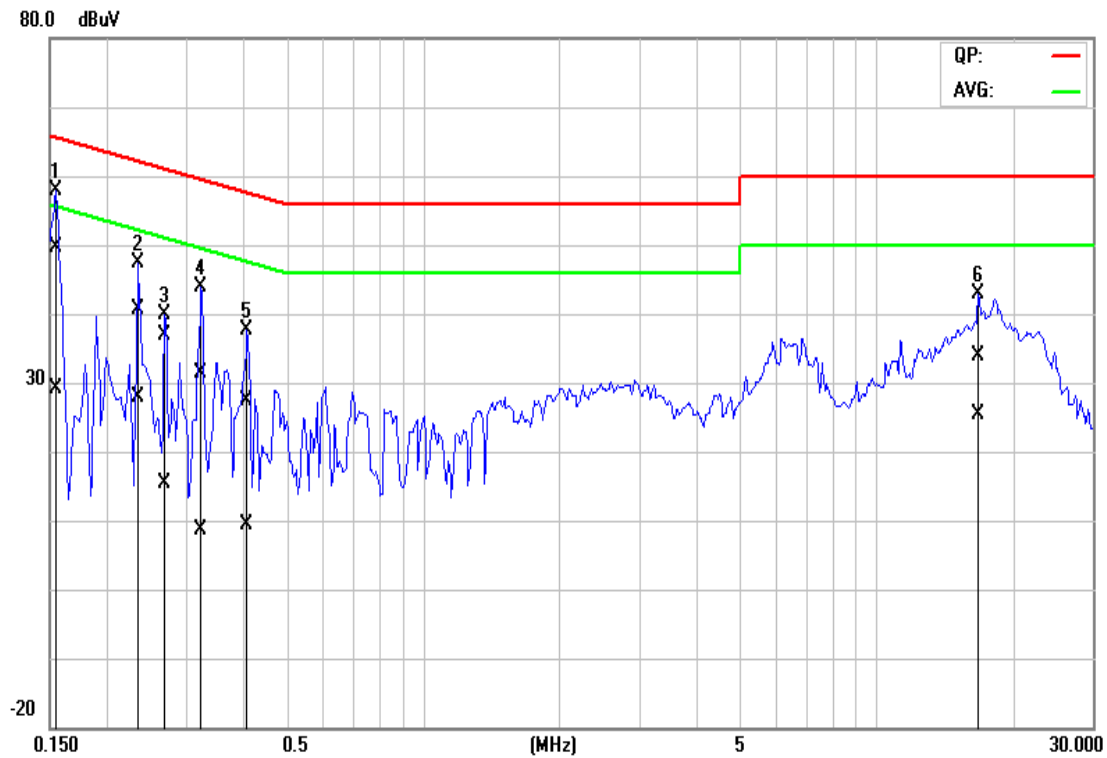
1. Measuring frequencies from 0.15 MHz to 30MHz.
2. The emissions measured in frequency range from 0.15 MHz to 30MHz were made with an instrument using Quasi-peak detector and average detector.
3. The IF bandwidth of SPA between 0.15MHz and 30MHz was 10 kHz; the IF bandwidth of Test Receiver between 0.15MHz and 30MHz was 9 kHz;
4. L1 = Line One (Live Line) / L2 = Line Two (Neutral Line)





## Test Plots

### Conducted emissions (Line 1)



### Conducted emissions (Line 2)

