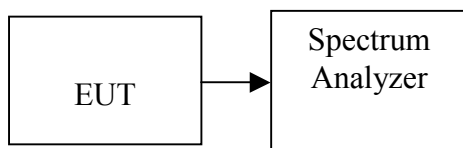


## 8.5 PEAK POWER SPECTRAL DENSITY

### 8.5.1 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



### 8.5.2 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 = 3kHz, VBW = 10kHz, Span = 300kHz, Sweep=100s.
3. Record the max. reading.
4. Repeat the above procedure until the measurements for all frequencies are completed.



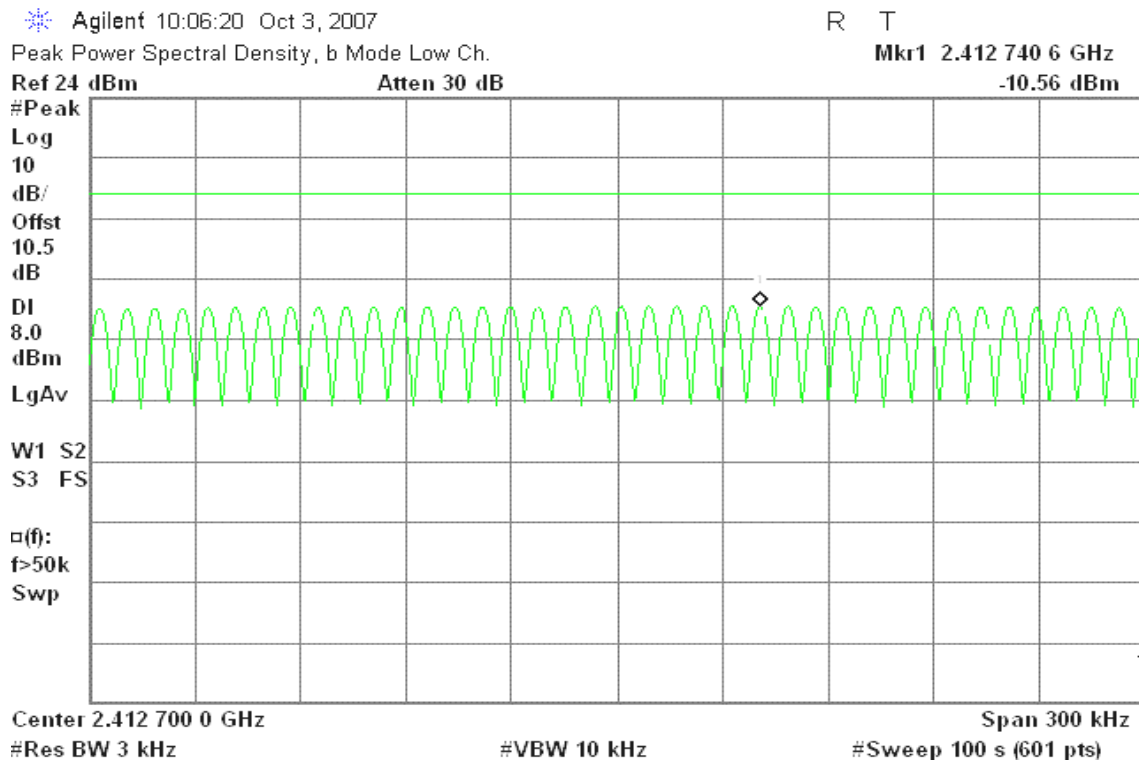
### 8.5.3 TEST RESULTS

No non-compliance noted

#### Test Data

Test mode: IEEE 802.11b mode				
Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	2412	-10.56	8.00	PASS
Mid	2437	-11.27		PASS
High	2462	-11.14		PASS

#### PPSD (CH Low)





### PPSD (CH Mid)

Agilent 10:15:12 Oct 3, 2007

R T

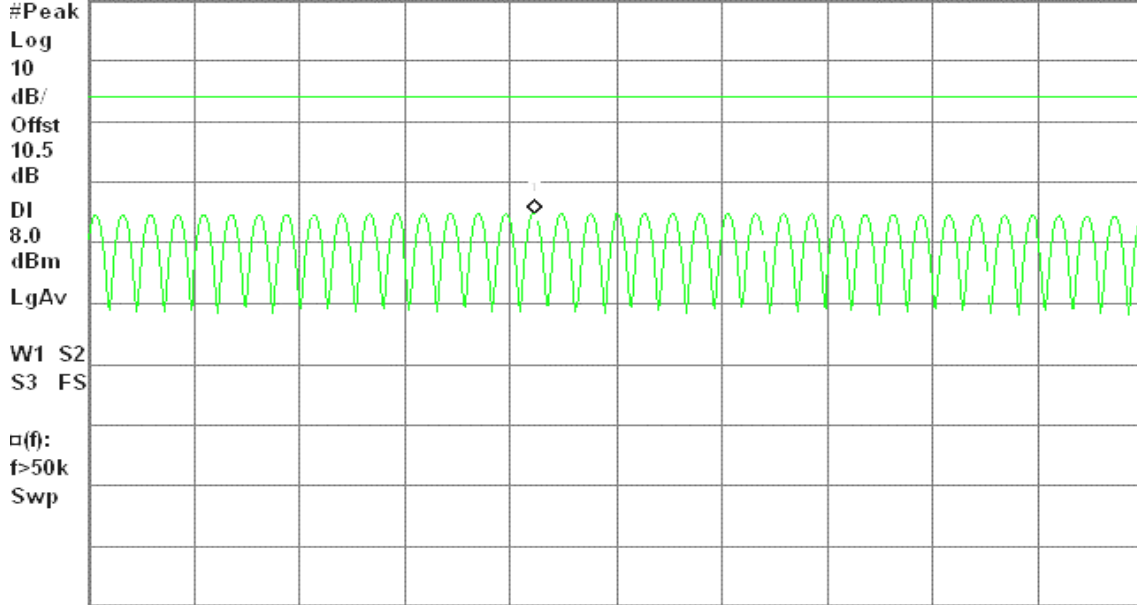
Peak Power Spectral Density, b Mode Mid Ch.

Mkr1 2.436 276 9 GHz

Ref 24 dBm

Atten 30 dB

-11.27 dBm



Center 2.436 300 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

### PPSD (CH High)

Agilent 10:21:19 Oct 3, 2007

R T

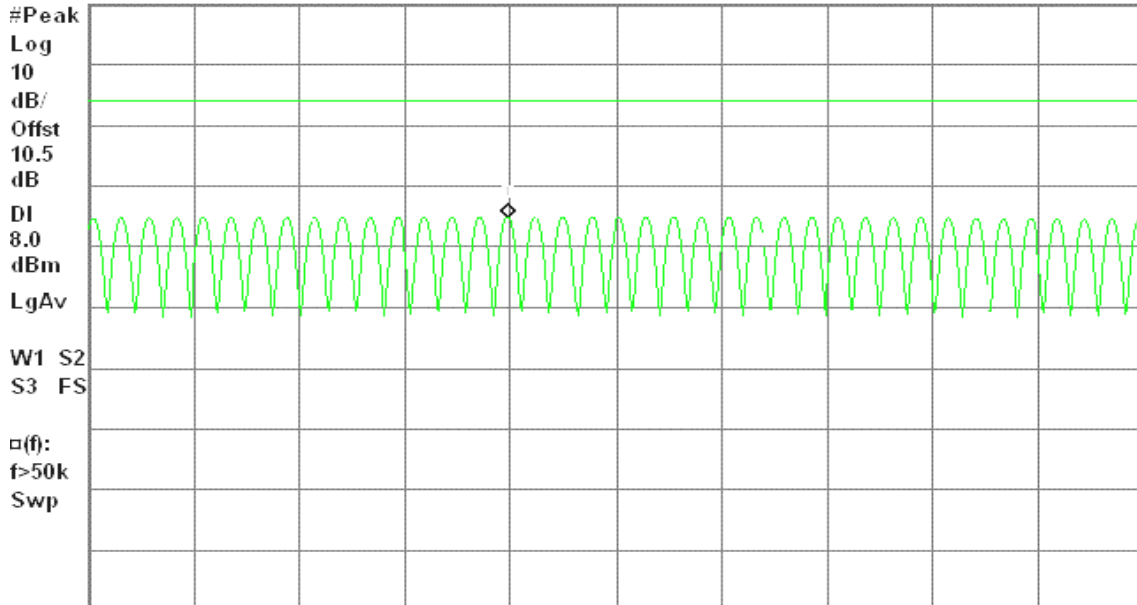
Peak Power Spectral Density, b Mode High Ch.

Mkr1 2.461 269 4 GHz

Ref 24 dBm

Atten 30 dB

-11.14 dBm



Center 2.461 300 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

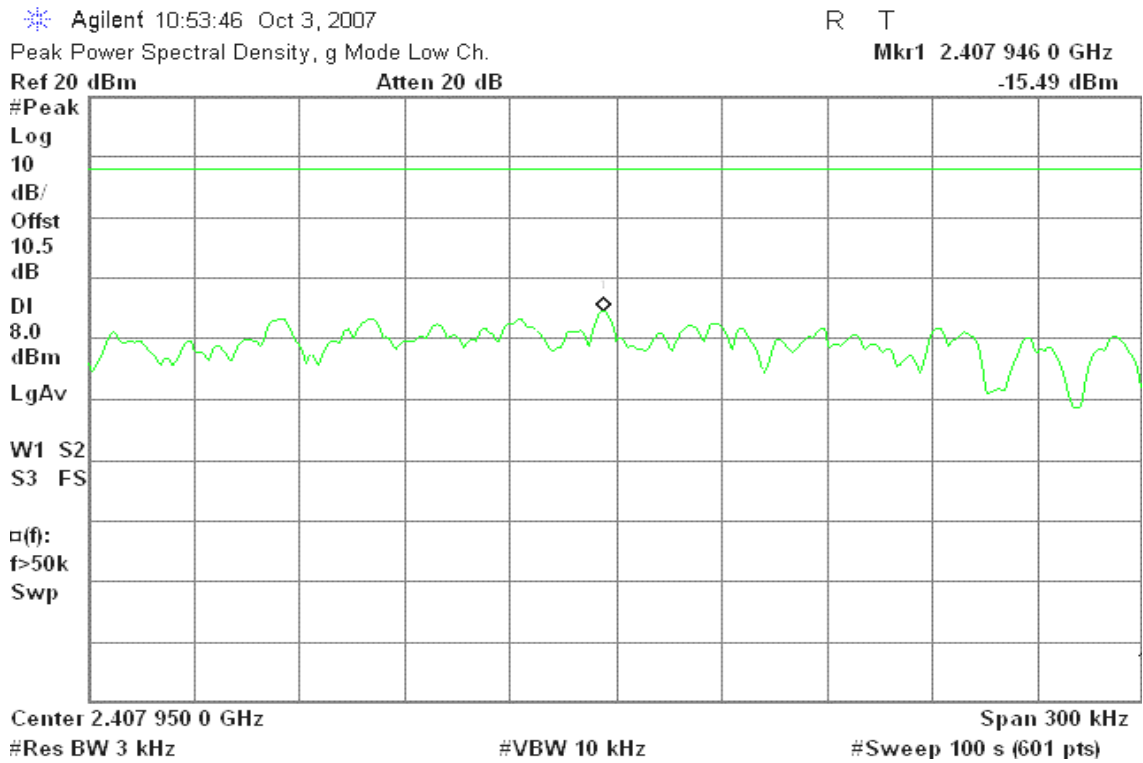
#Sweep 100 s (601 pts)



Test Data

Test mode: IEEE 802.11g mode				
Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	2412	-15.49	8.00	PASS
Mid	2437	-14.85		PASS
High	2462	-15.86		PASS

PPSD (CH Low)





### PPSD (CH Mid)

Agilent 10:59:25 Oct 3, 2007

R T

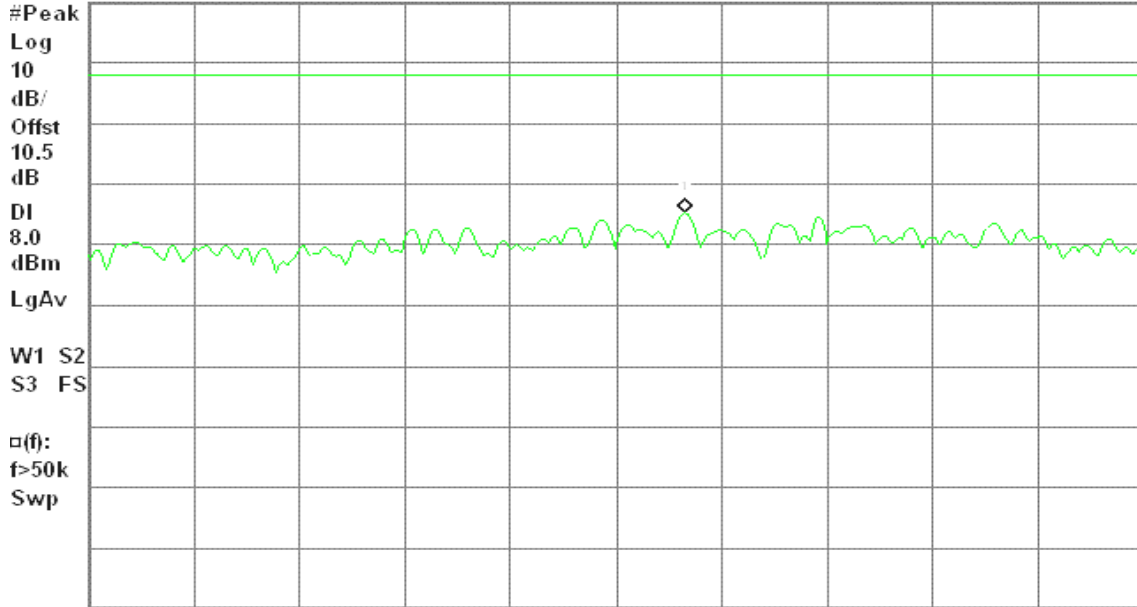
Peak Power Spectral Density, g Mode Mid Ch.

Mkr1 2.440 719 6 GHz

Ref 20 dBm

Atten 20 dB

-14.85 dBm



Center 2.440 700 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

### PPSD (CH High)

Agilent 11:05:54 Oct 3, 2007

R T

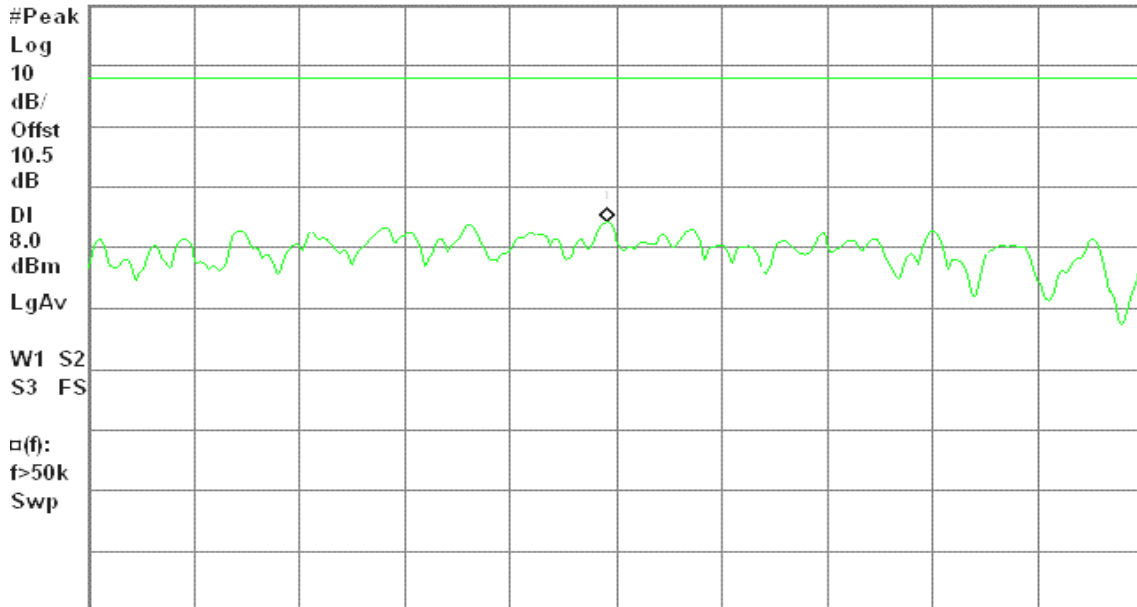
Peak Power Spectral Density, g Mode High Ch.

Mkr1 2.467 947 0 GHz

Ref 20 dBm

Atten 20 dB

-15.86 dBm



Center 2.467 950 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)



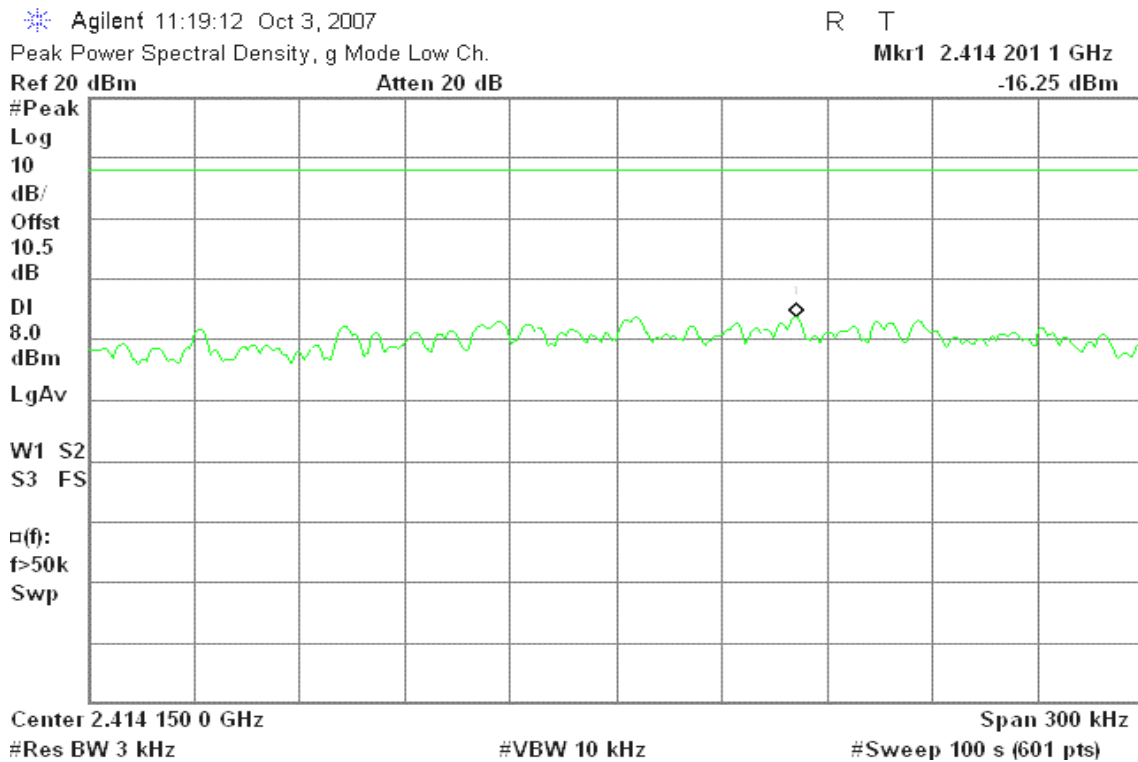
Test Data

Test mode: draft 802.11n Standard-20 MHz Channel mode						
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	PPSD (dBm)	Limit (dBm)	Result
Low	2412	-16.25	-10.32	-9.33	8.00	PASS
Mid	2437	-15.36	-15.24	-12.29		PASS
High	2462	-14.84	-16.42	-12.55		PASS

Remark: Total (PPSD) (dBm) = 10\*LOG(10^(Chain 0 (PPSD) / 10)+10^(Chain 1 (PPSD) / 10))

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

PPSD (CH Low)





### PPSD (CH Mid)

Agilent 11:25:27 Oct 3, 2007

R T

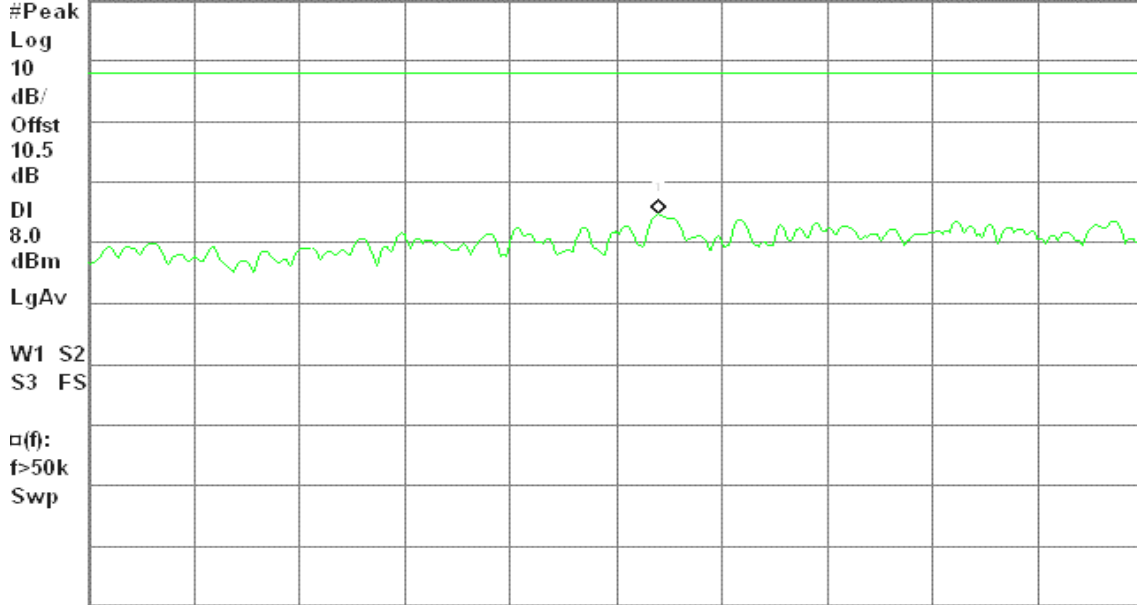
Peak Power Spectral Density, g Mode Mid Ch.

Mkr1 2.430 362 0 GHz

Ref 20 dBm

Atten 20 dB

-15.36 dBm



Center 2.430 350 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

### PPSD (CH High)

Agilent 11:31:31 Oct 3, 2007

R T

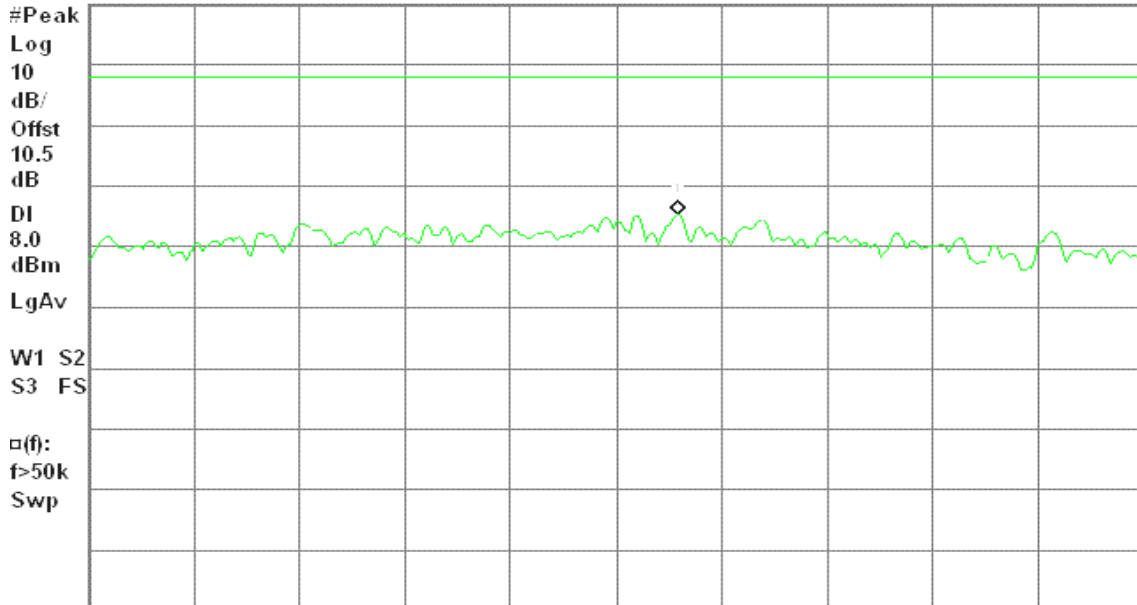
Peak Power Spectral Density, g Mode High Ch.

Mkr1 2.464 217 6 GHz

Ref 20 dBm

Atten 20 dB

-14.84 dBm



Center 2.464 200 0 GHz

Span 300 kHz

#Res BW 3 kHz

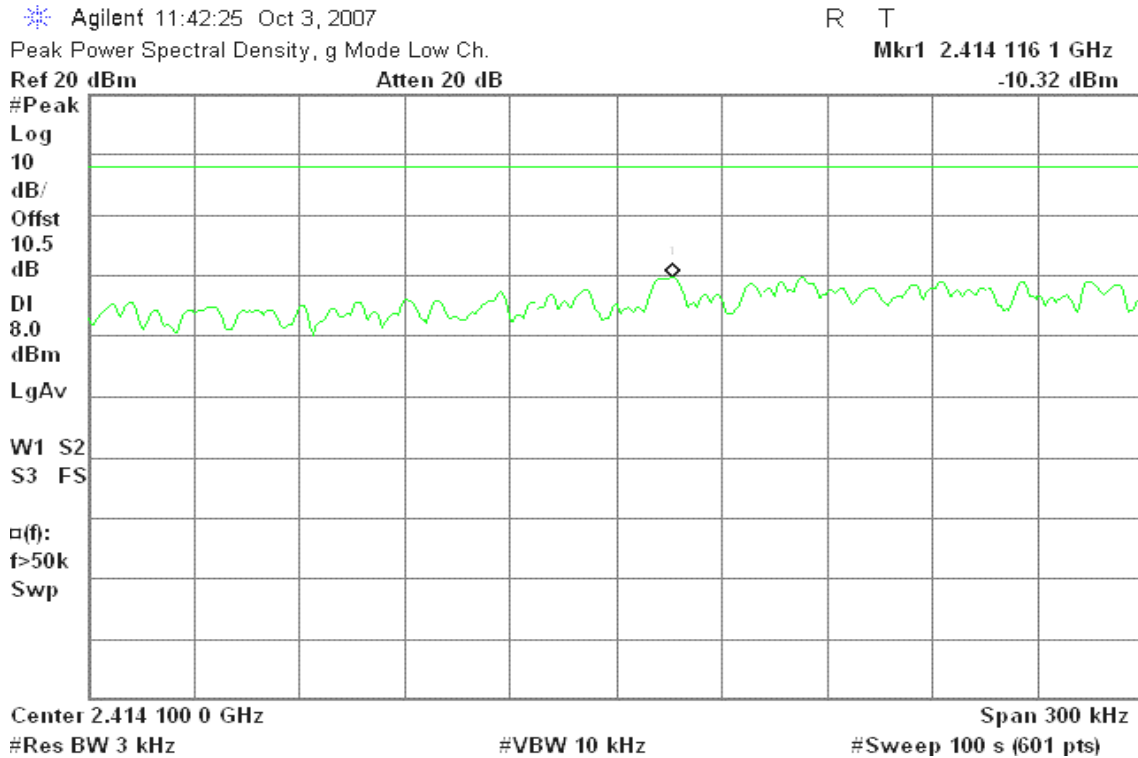
#VBW 10 kHz

#Sweep 100 s (601 pts)

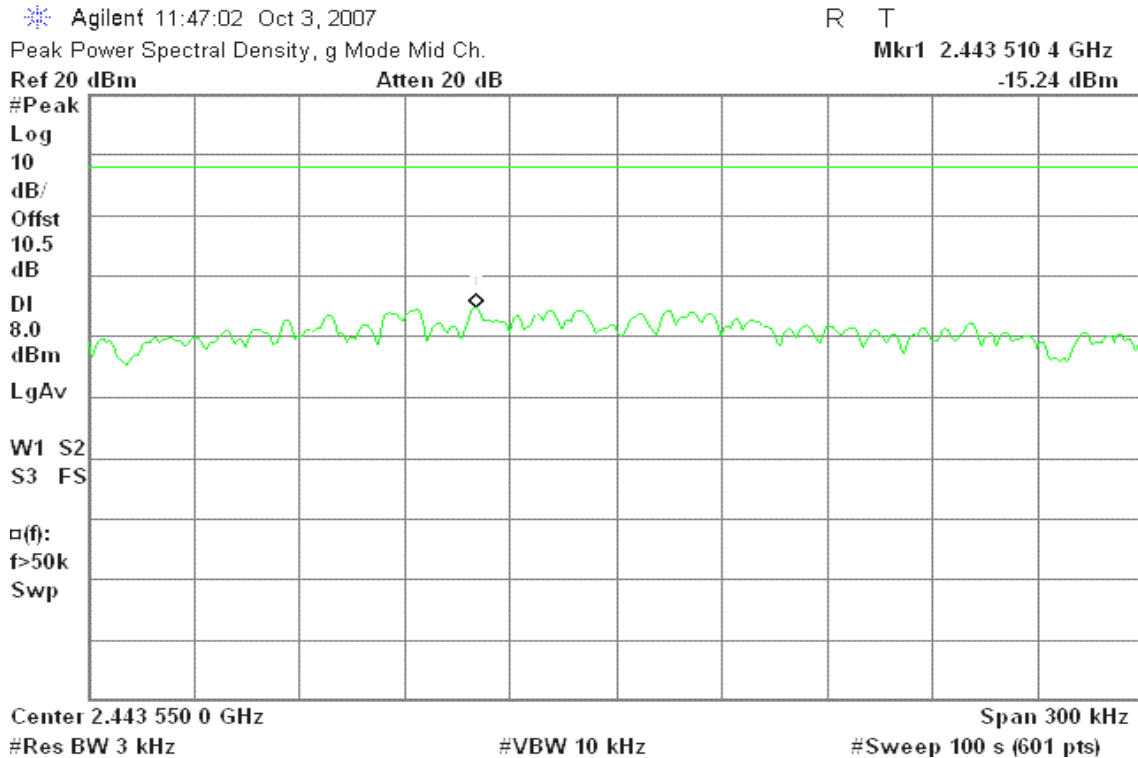


draft 802.11n Standard-20 MHz Channel mode / Chain 1

PPSD (CH Low)



PPSD (CH Mid)







### PPSD (CH High)

Agilent 11:52:09 Oct 3, 2007

R T

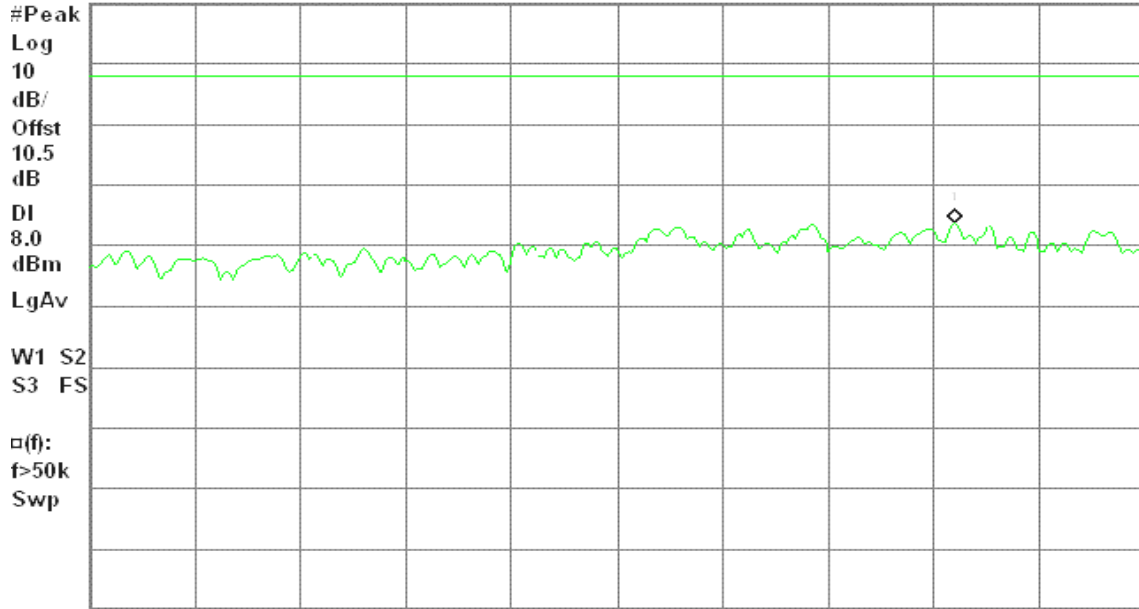
Peak Power Spectral Density, g Mode High Ch.

Mkr1 2.464 196 6 GHz

Ref 20 dBm

Atten 20 dB

-16.42 dBm



Center 2.464 100 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)



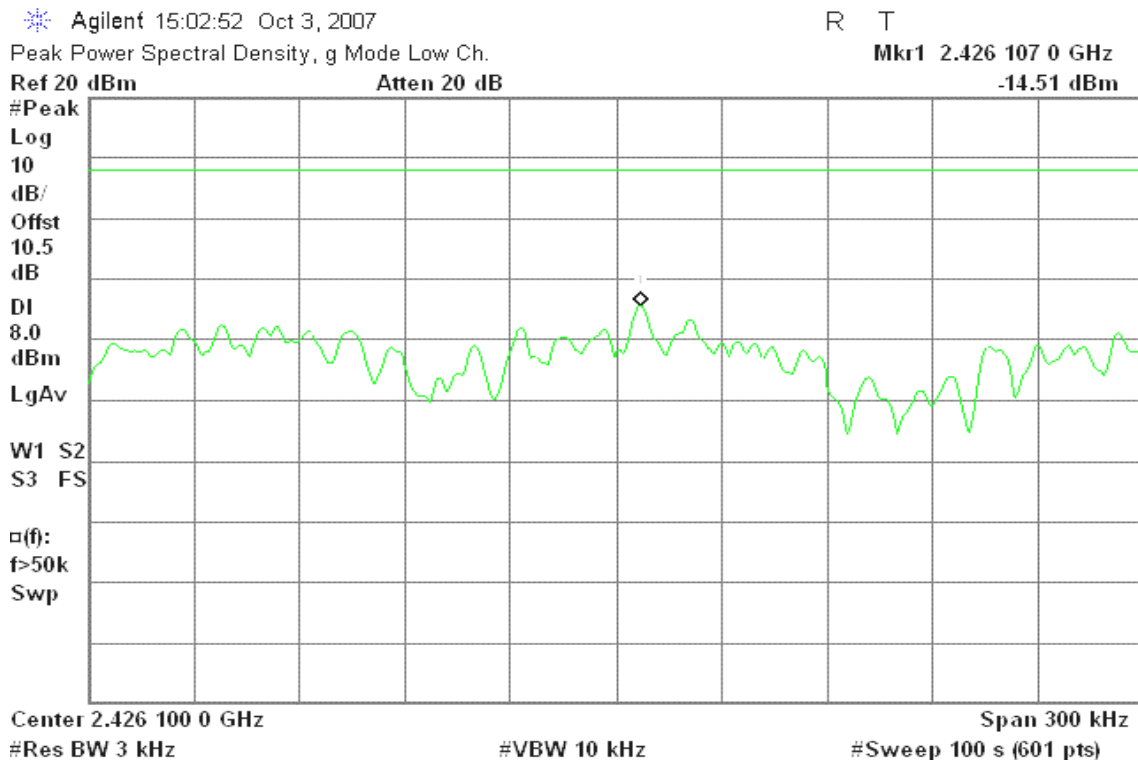
Test Data

Test mode: draft 802.11n Wide-40 MHz Channel mode						
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	PPSD (dBm)	Limit (dBm)	Result
Low	2422	-14.51	-9.81	-8.54	8.00	PASS
Mid	2437	-16.20	-15.74	-12.95		PASS
High	2452	-17.32	-15.75	-13.45		PASS

Remark: Total PPSD (dBm) = 10\*LOG(10^(Chain 0 PPSD / 10)+10^(Chain 1 PPSD / 10))

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

PPSD (CH Low)





### PPSD (CH Mid)

Agilent 15:07:38 Oct 3, 2007

R T

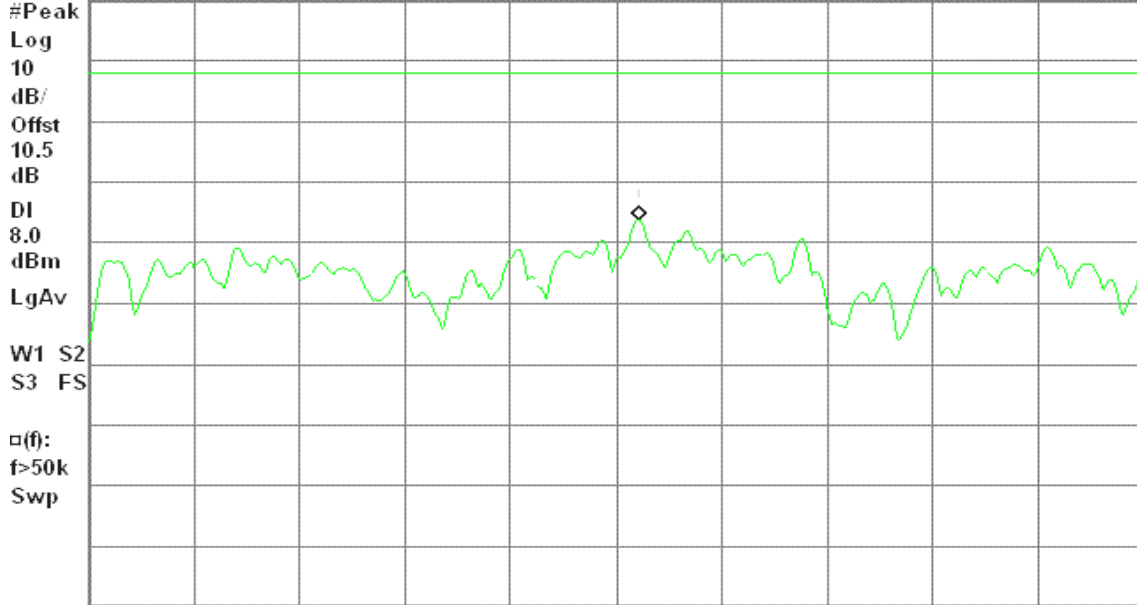
Peak Power Spectral Density, g Mode Mid Ch.

Mkr1 2.441 356 5 GHz

Ref 20 dBm

Atten 20 dB

-16.20 dBm



Center 2.441 350 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

### PPSD (CH High)

Agilent 15:14:39 Oct 3, 2007

R T

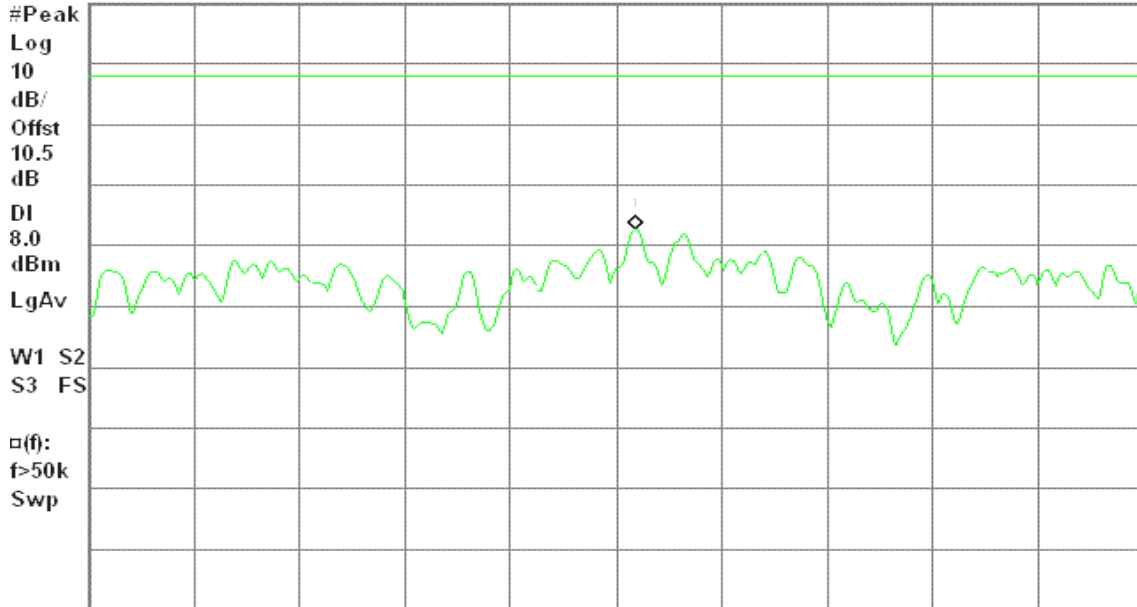
Peak Power Spectral Density, g Mode High Ch.

Mkr1 2.461 355 5 GHz

Ref 20 dBm

Atten 20 dB

-17.32 dBm



Center 2.461 350 0 GHz

Span 300 kHz

#Res BW 3 kHz

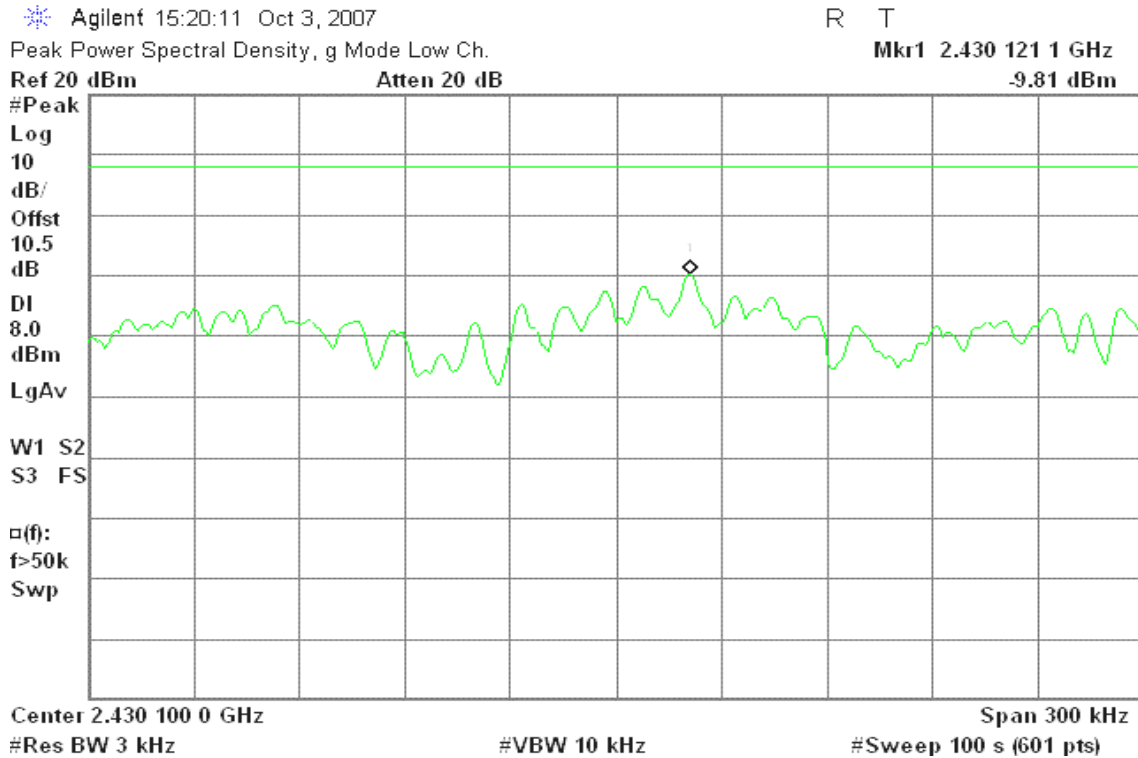
#VBW 10 kHz

#Sweep 100 s (601 pts)

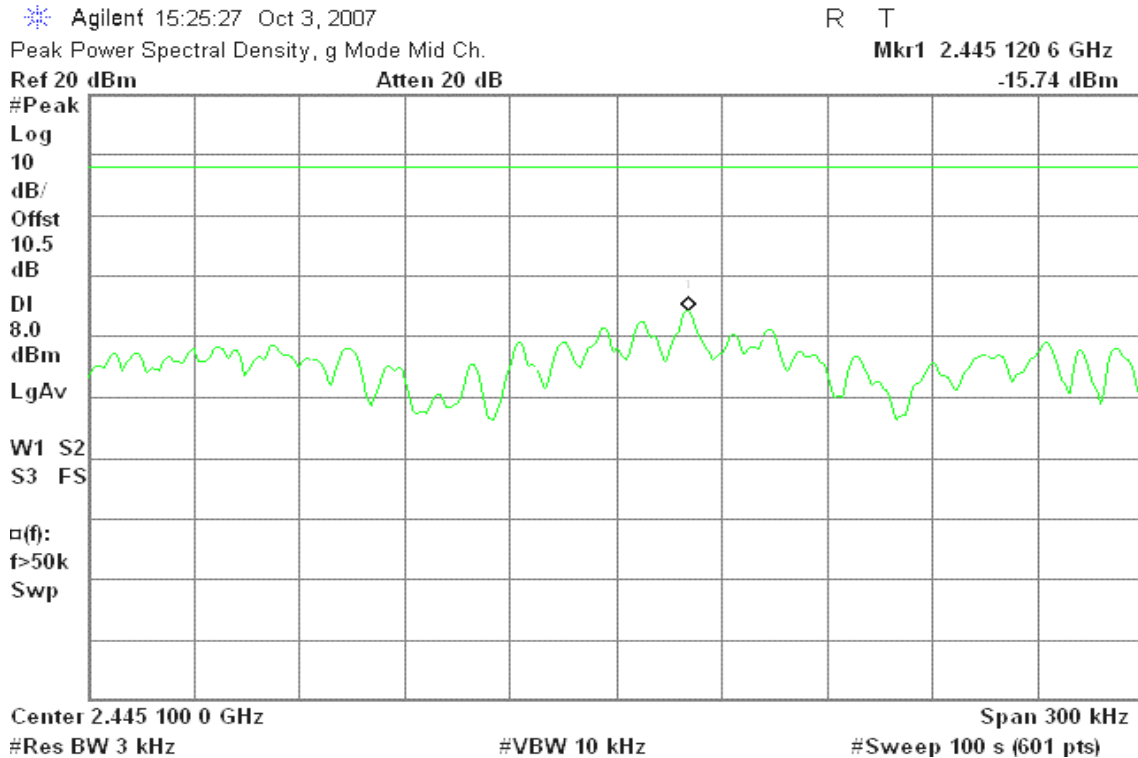


draft 802.11n Wide-40 MHz Channel mode / Chain 1

PPSD (CH Low)



PPSD (CH Mid)





### PPSD (CH High)

Agilent 15:30:31 Oct 3, 2007

R T

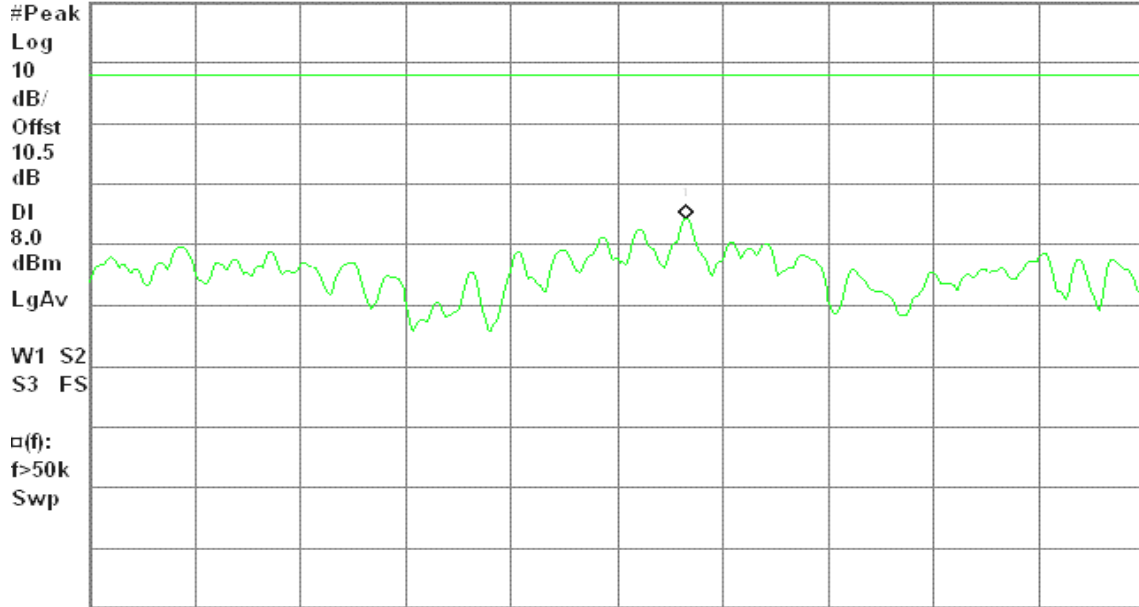
Peak Power Spectral Density, g Mode High Ch.

Mkr1 2.460 119 6 GHz

Ref 20 dBm

Atten 20 dB

-15.75 dBm



Center 2.460 100 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

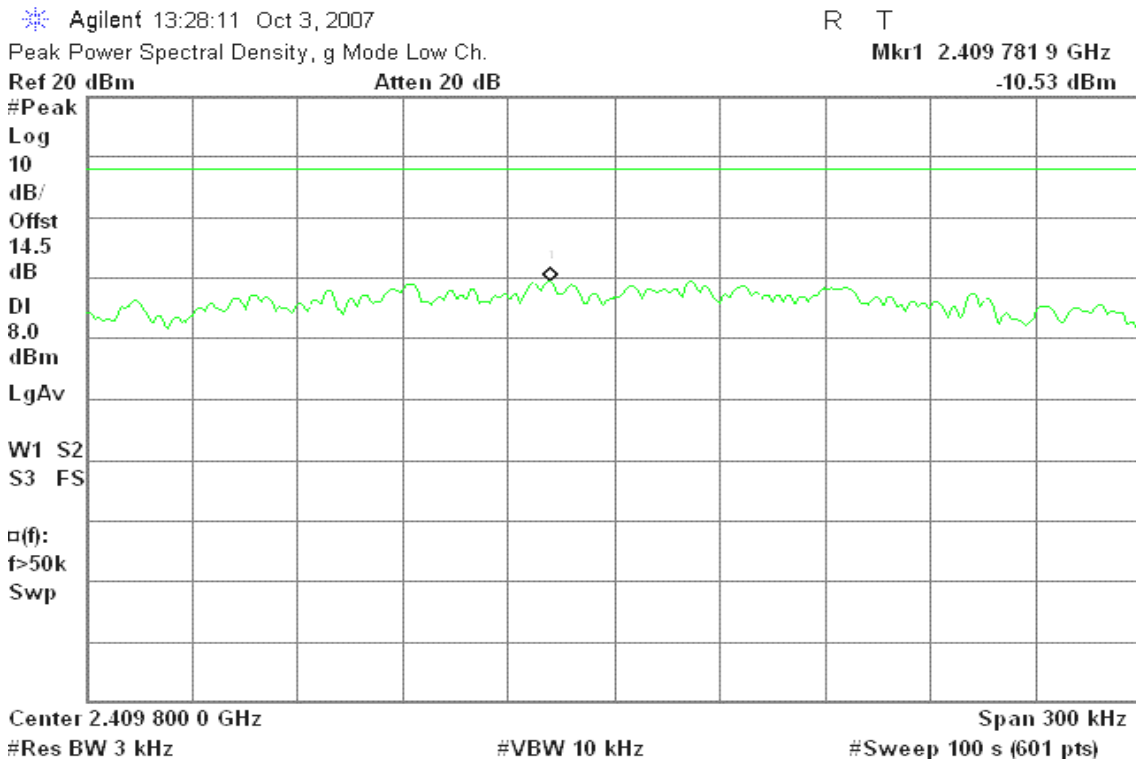
#Sweep 100 s (601 pts)



Test Data

Test mode: draft 802.11n Standard-20 MHz Channel mode with combiner				
Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	2412	-10.53	8.00	PASS
Mid	2437	-8.88		PASS
High	2462	-8.89		PASS

PPSD (CH Low)





### PPSD (CH Mid)

Agilent 13:36:18 Oct 3, 2007

R T

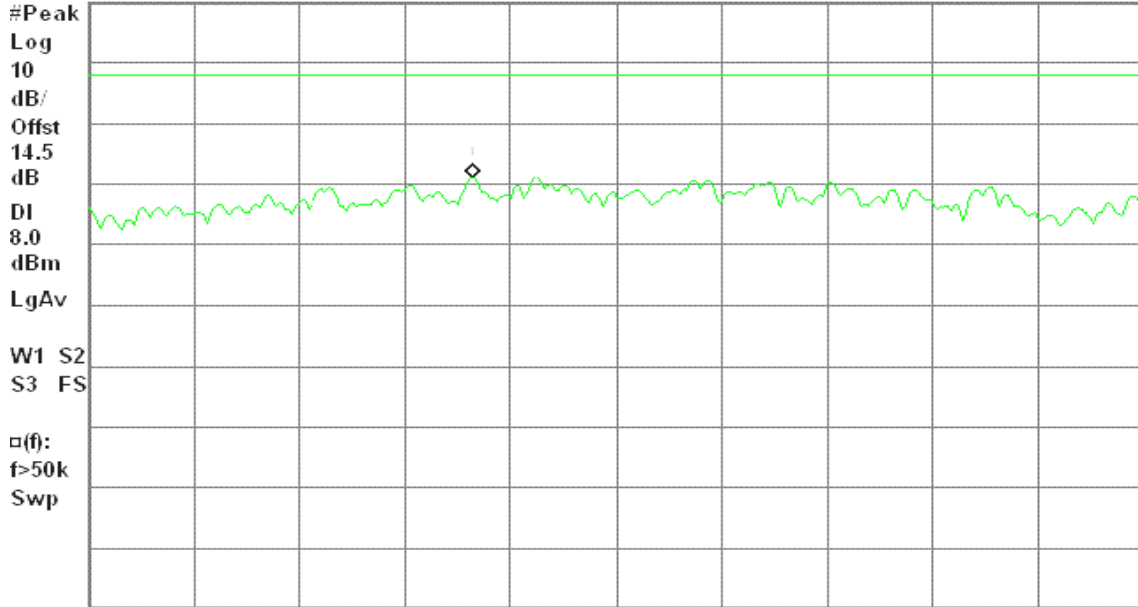
Peak Power Spectral Density, g Mode Mid Ch.

Mkr1 2.434 759 3 GHz

Ref 20 dBm

Atten 20 dB

-8.88 dBm



Center 2.434 800 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

### PPSD (CH High)

Agilent 13:41:17 Oct 3, 2007

R L

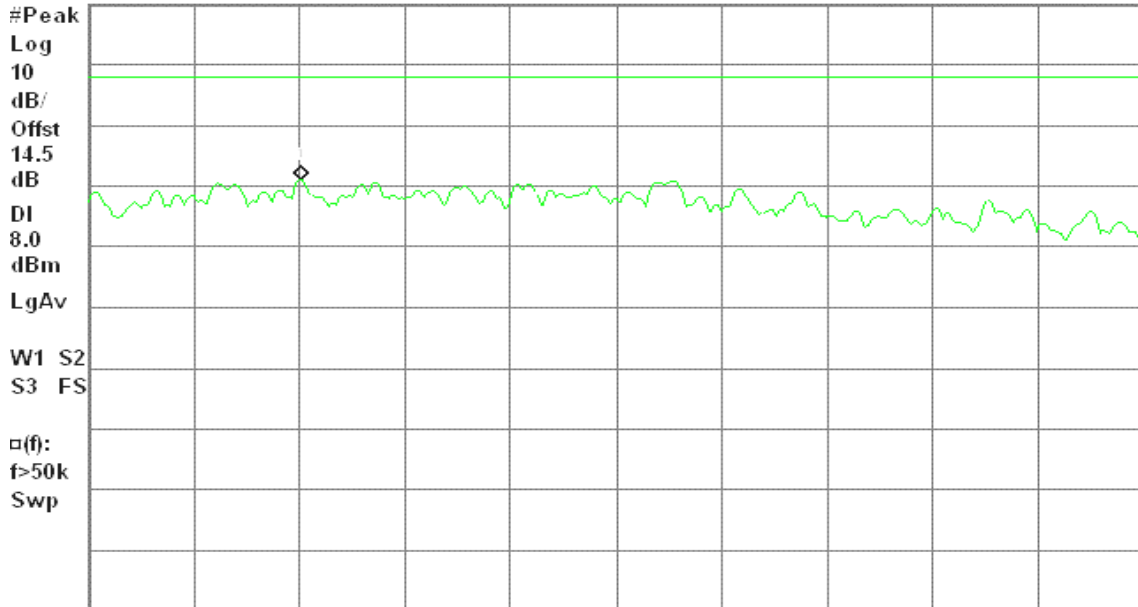
Peak Power Spectral Density, g Mode High Ch.

Mkr1 2.468 510 0 GHz

Ref 20 dBm

Atten 20 dB

-8.89 dBm



Center 2.468 600 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

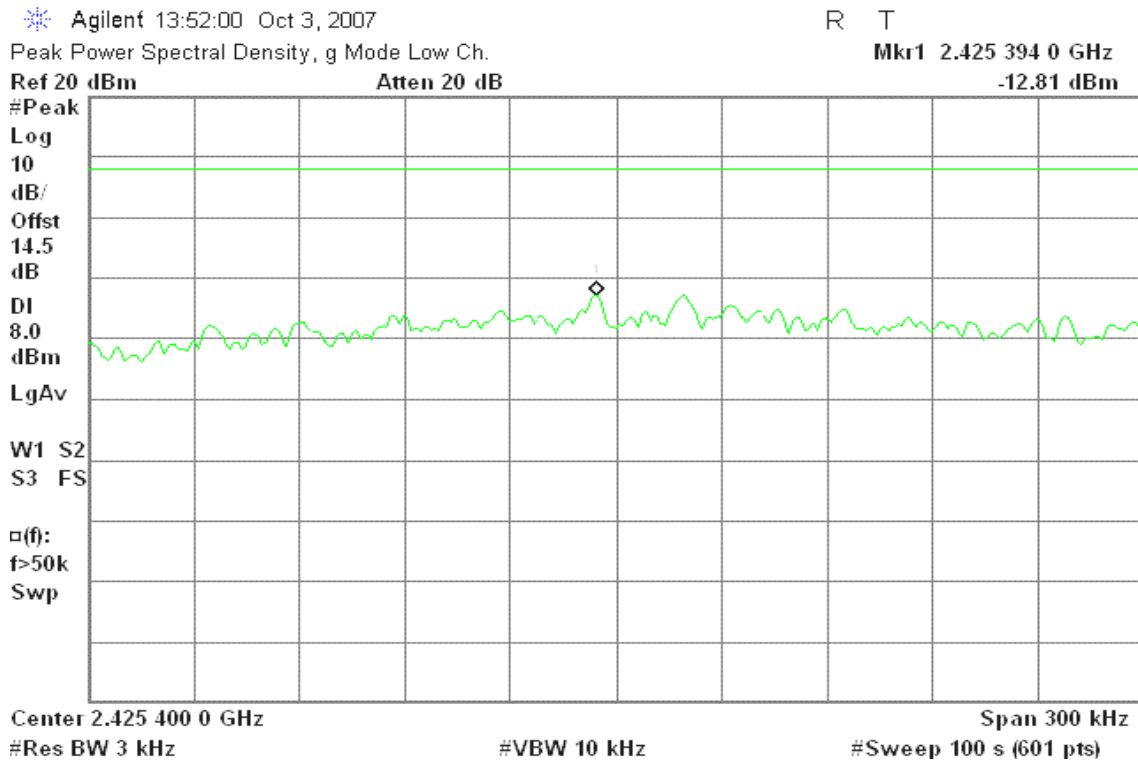
#Sweep 100 s (601 pts)



Test Data

Test mode: draft 802.11n Wide-40 MHz Channel mode with combiner				
Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	2422	-12.81	8.00	PASS
Mid	2437	-12.80		PASS
High	2452	-11.10		PASS

PPSD (CH Low)







### PPSD (CH Mid)

Agilent 13:57:21 Oct 3, 2007

R T

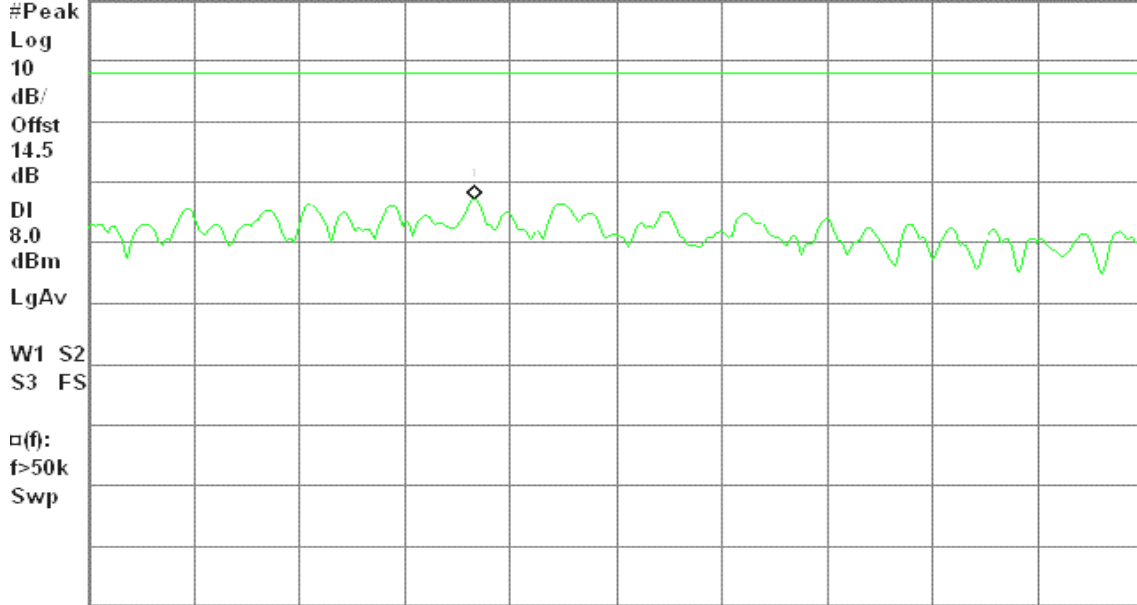
Peak Power Spectral Density, g Mode Mid Ch.

Mkr1 2.434 809 8 GHz

Ref 20 dBm

Atten 20 dB

-12.80 dBm



Center 2.434 850 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

### PPSD (CH High)

Agilent 14:02:34 Oct 3, 2007

R T

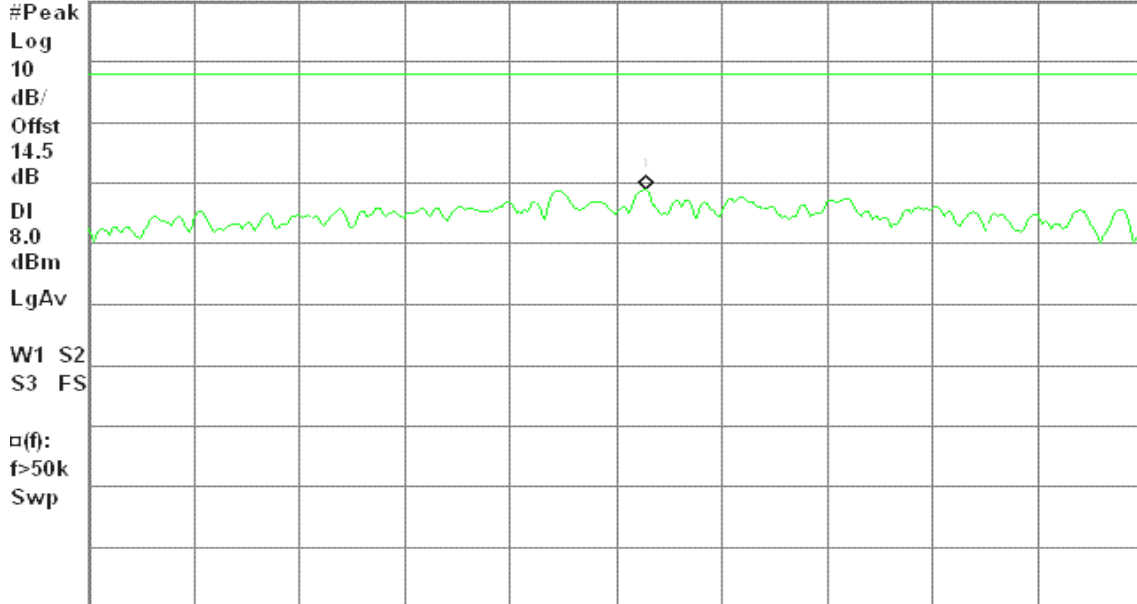
Peak Power Spectral Density, g Mode High Ch.

Mkr1 2.448 558 5 GHz

Ref 20 dBm

Atten 20 dB

-11.10 dBm



Center 2.448 550 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

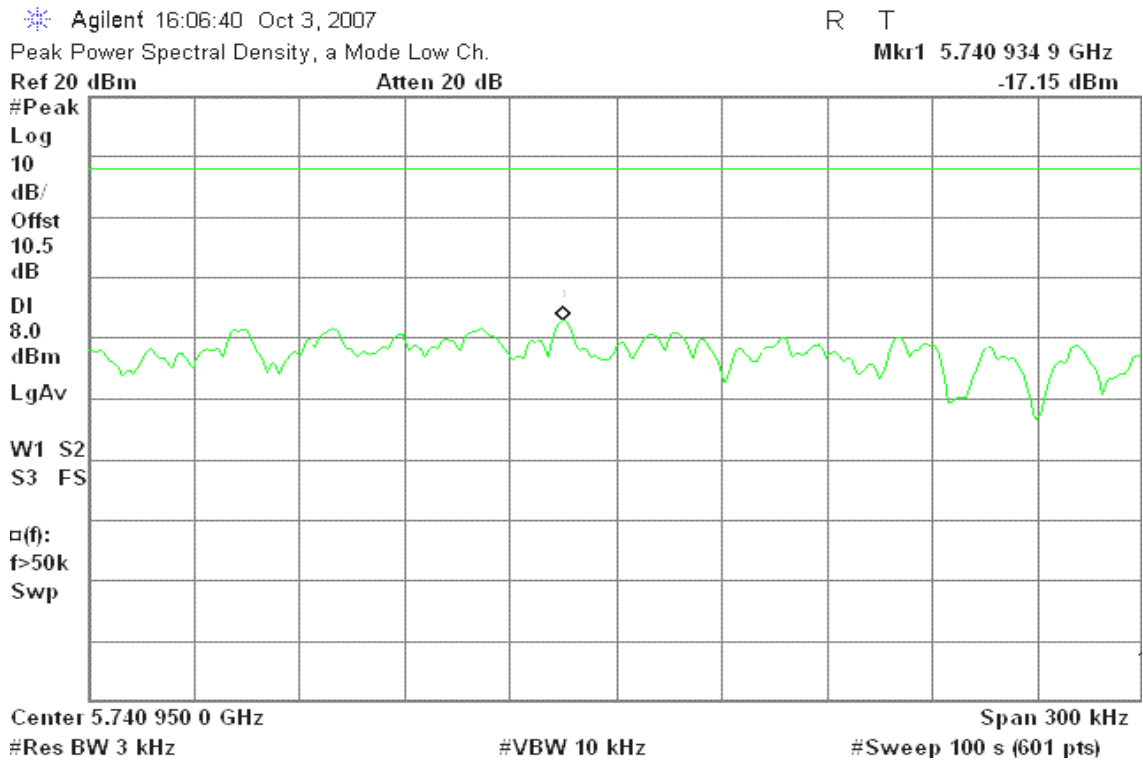
#Sweep 100 s (601 pts)



Test Data

Test mode: IEEE 802.11a mode				
Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	5745	-17.15	8.00	PASS
Mid	5785	-17.95		PASS
High	5825	-17.95		PASS

PPSD (CH Low)





### PPSD (CH Mid)

Agilent 16:12:38 Oct 3, 2007

R T

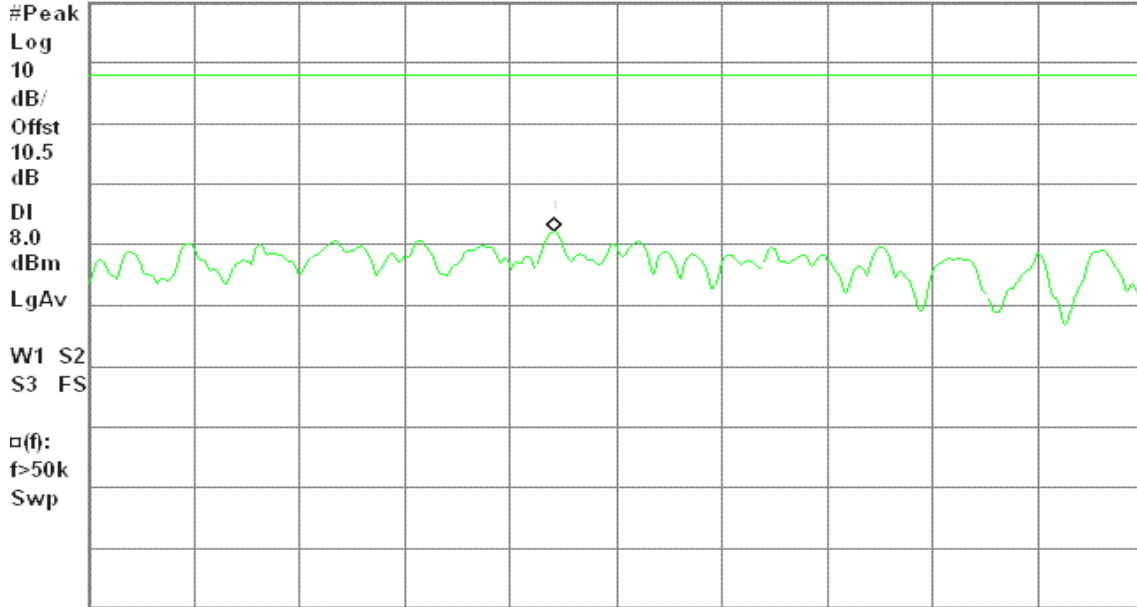
Peak Power Spectral Density, a Mode Mid Ch.

Mkr1 5.790 932 4 GHz

Ref 20 dBm

Atten 20 dB

-17.95 dBm



Center 5.790 950 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

### PPSD (CH High)

Agilent 16:23:45 Oct 3, 2007

R T

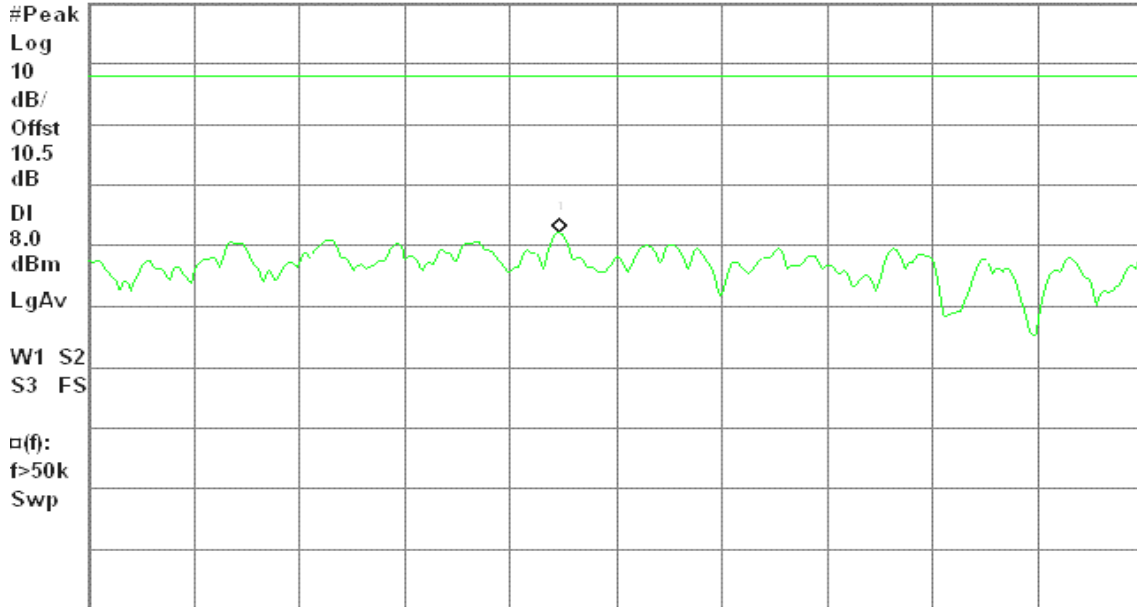
Peak Power Spectral Density, a Mode High Ch.

Mkr1 5.820 933 9 GHz

Ref 20 dBm

Atten 20 dB

-17.95 dBm



Center 5.820 950 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)



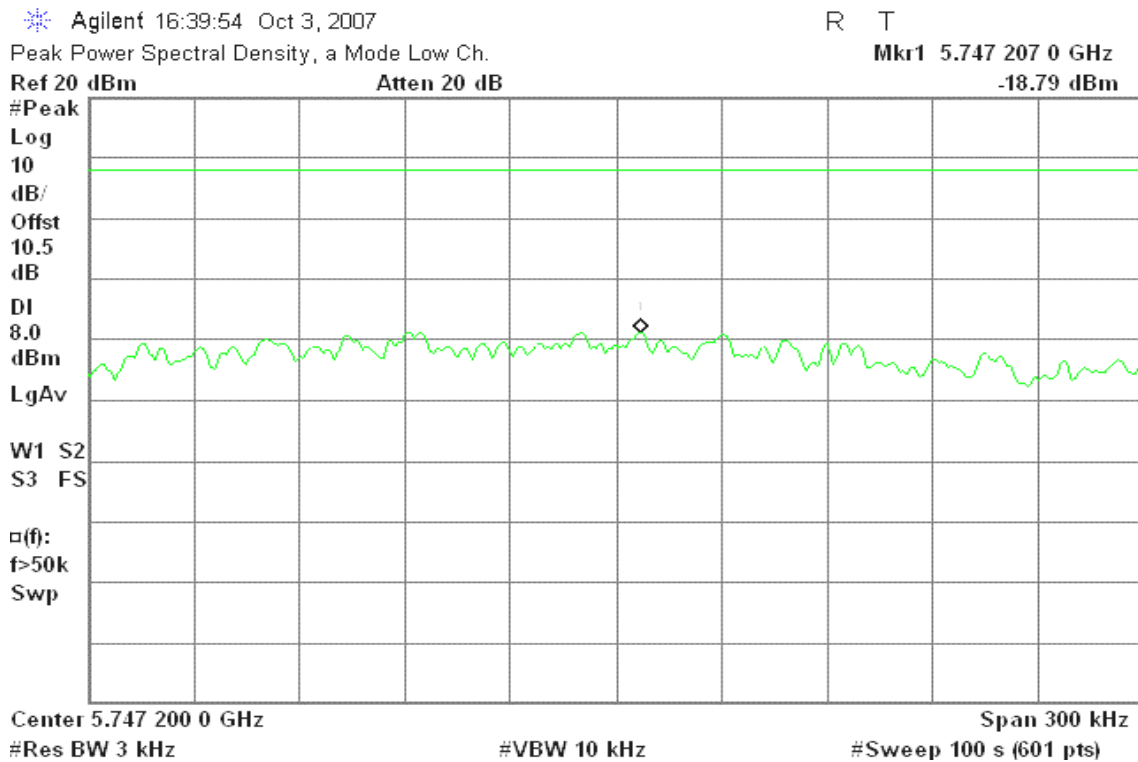
Test Data

Test mode: draft 802.11n Standard-20 MHz Channel mode						
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	PPSD (dBm)	Limit (dBm)	Result
Low	5745	-18.79	-18.54	-15.65	8.00	PASS
Mid	5785	-17.90	-18.85	-15.34		PASS
High	5825	-18.16	-18.00	-15.07		PASS

Remark: Total PPSD (dBm) = 10\*LOG(10^(Chain 0 PPSD / 10)+10^(Chain 1 PPSD / 10))

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

PPSD (CH Low)





### PPSD (CH Mid)

Agilent 16:46:43 Oct 3, 2007

R T

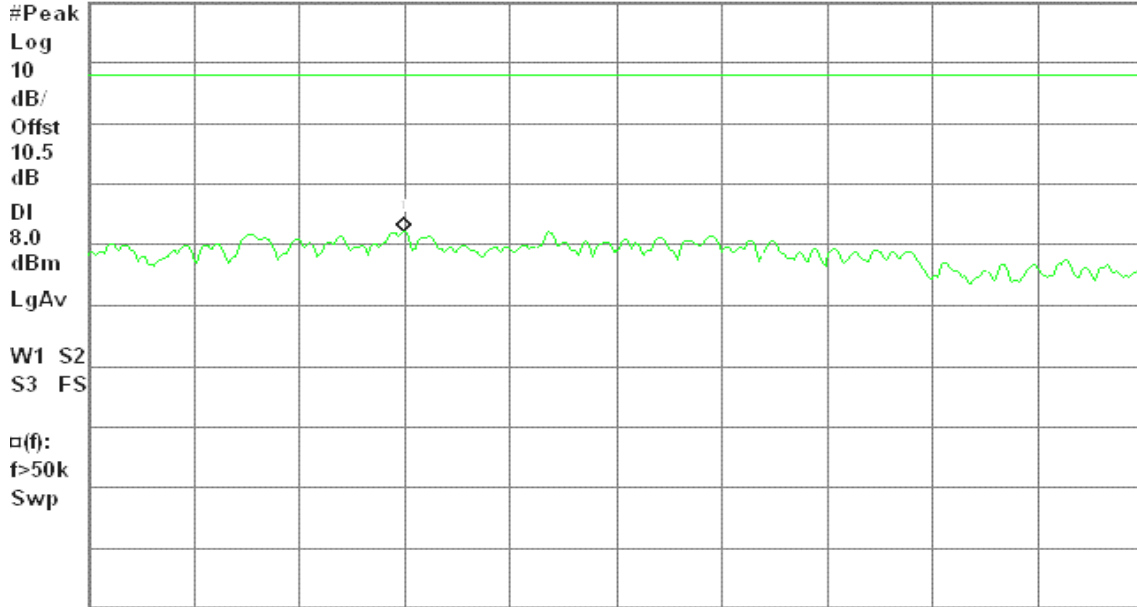
Peak Power Spectral Density, a Mode Mid Ch.

Mkr1 5.787 139 9 GHz

Ref 20 dBm

Atten 20 dB

-17.90 dBm



Center 5.787 200 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

### PPSD (CH High)

Agilent 16:52:37 Oct 3, 2007

R T

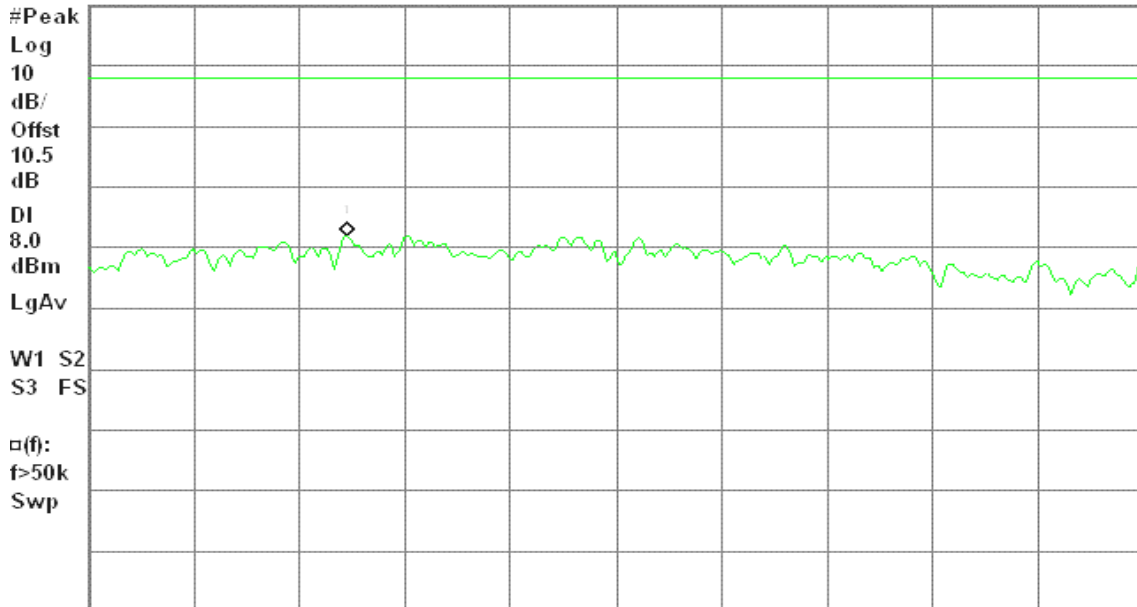
Peak Power Spectral Density, a Mode High Ch.

Mkr1 5.827 123 0 GHz

Ref 20 dBm

Atten 20 dB

-18.16 dBm



Center 5.827 200 0 GHz

Span 300 kHz

#Res BW 3 kHz

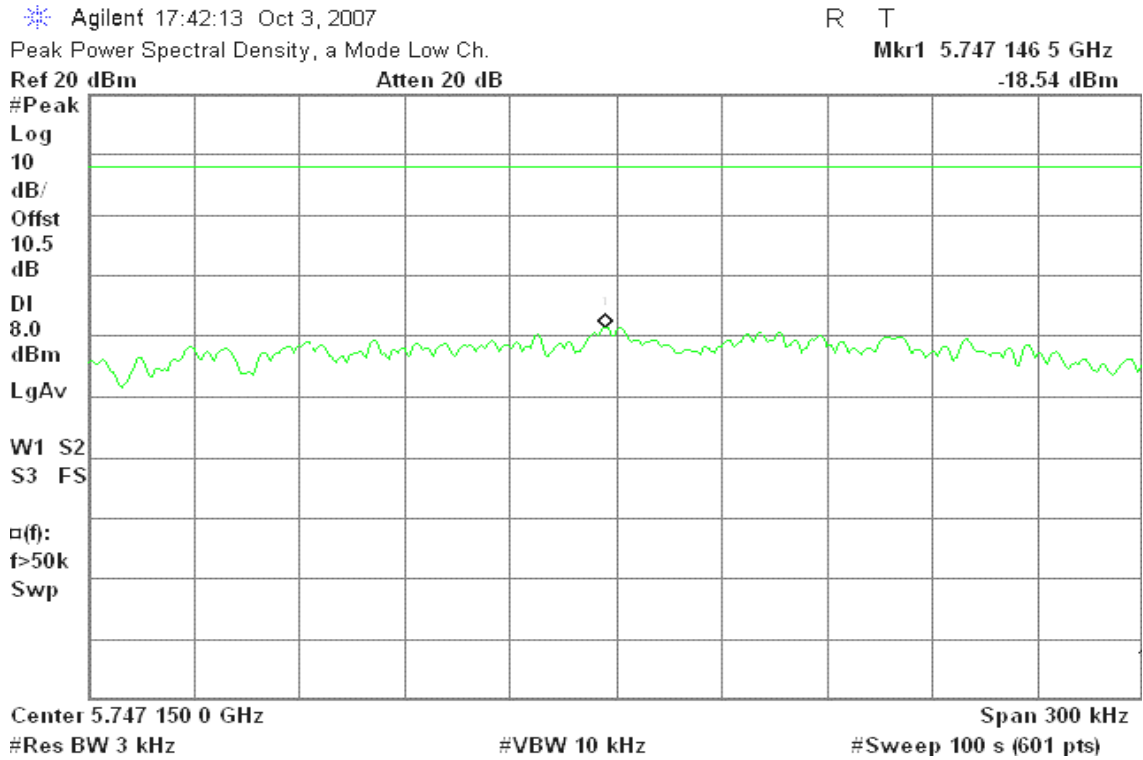
#VBW 10 kHz

#Sweep 100 s (601 pts)

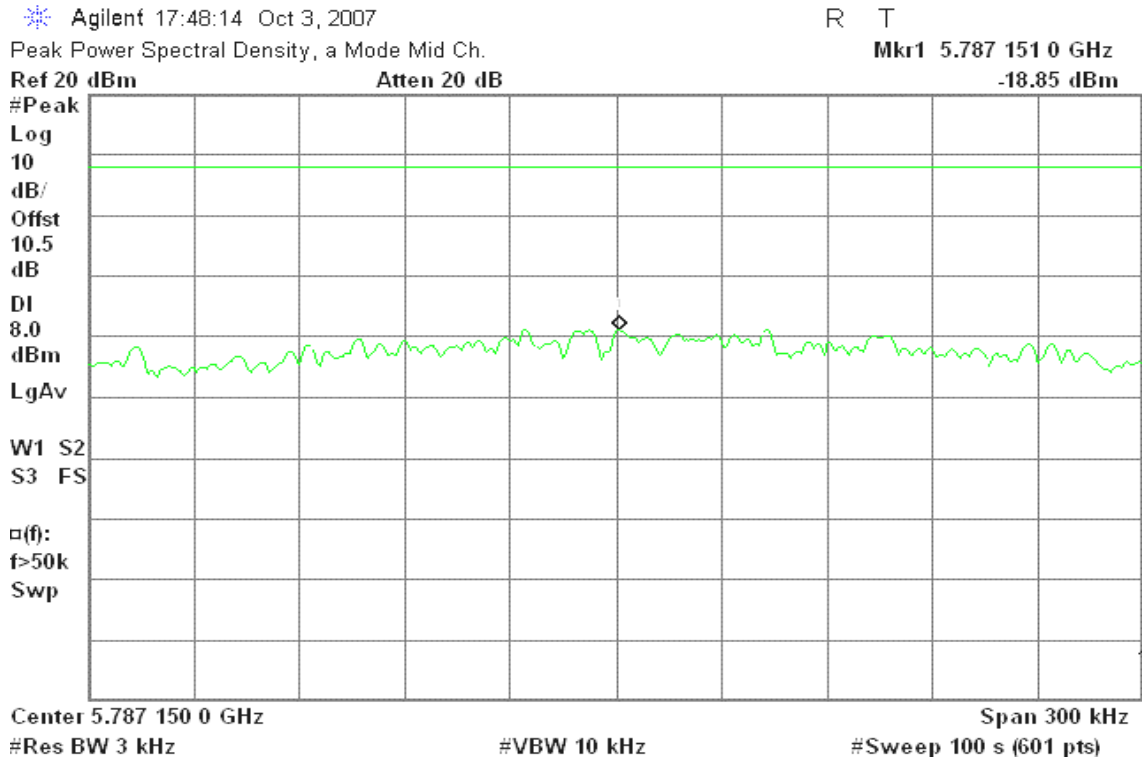


draft 802.11n Standard-20 MHz Channel mode / Chain 1

PPSD (CH Low)



PPSD (CH Mid)





### PPSD (CH High)

Agilent 17:53:25 Oct 3, 2007

R T

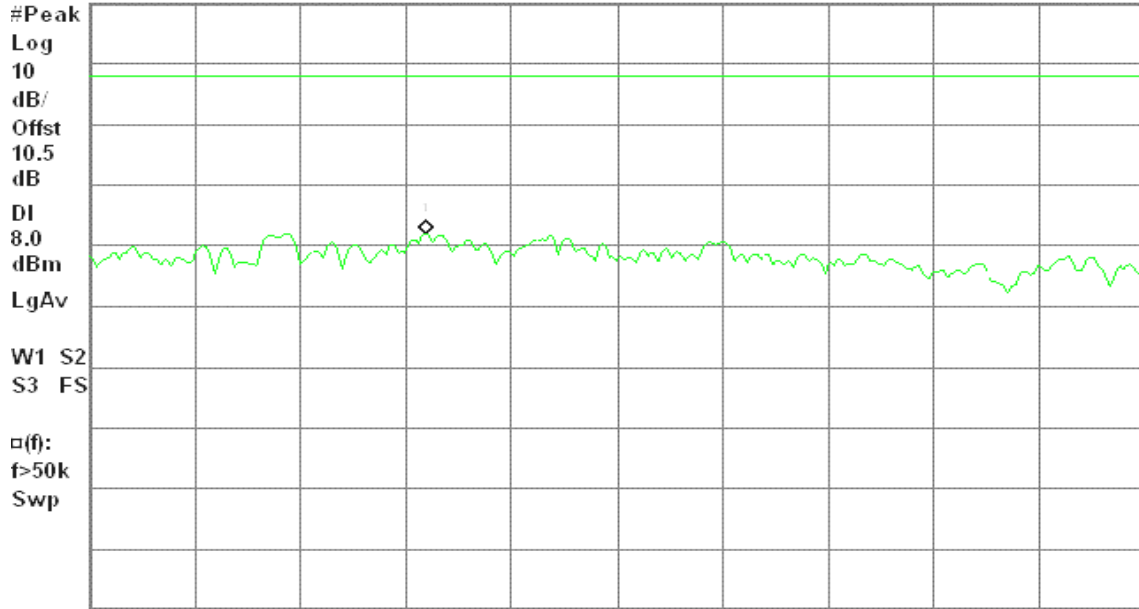
Peak Power Spectral Density, a Mode High Ch.

Mkr1 5.827 145 7 GHz

Ref 20 dBm

Atten 20 dB

-18.00 dBm



Center 5.827 200 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)



**Test Data**

<b>Test mode: draft 802.11n Wide-40 MHz Channel mode</b>						
<b>Channel</b>	<b>Frequency (MHz)</b>	<b>Chain 0 PPSD (dBm)</b>	<b>Chain 1 PPSD (dBm)</b>	<b>PPSD (dBm)</b>	<b>Limit (dBm)</b>	<b>Result</b>
Low	5755	-19.44	-18.04	-15.67	8.00	PASS
High	5795	-19.17	-18.97	-16.06		PASS

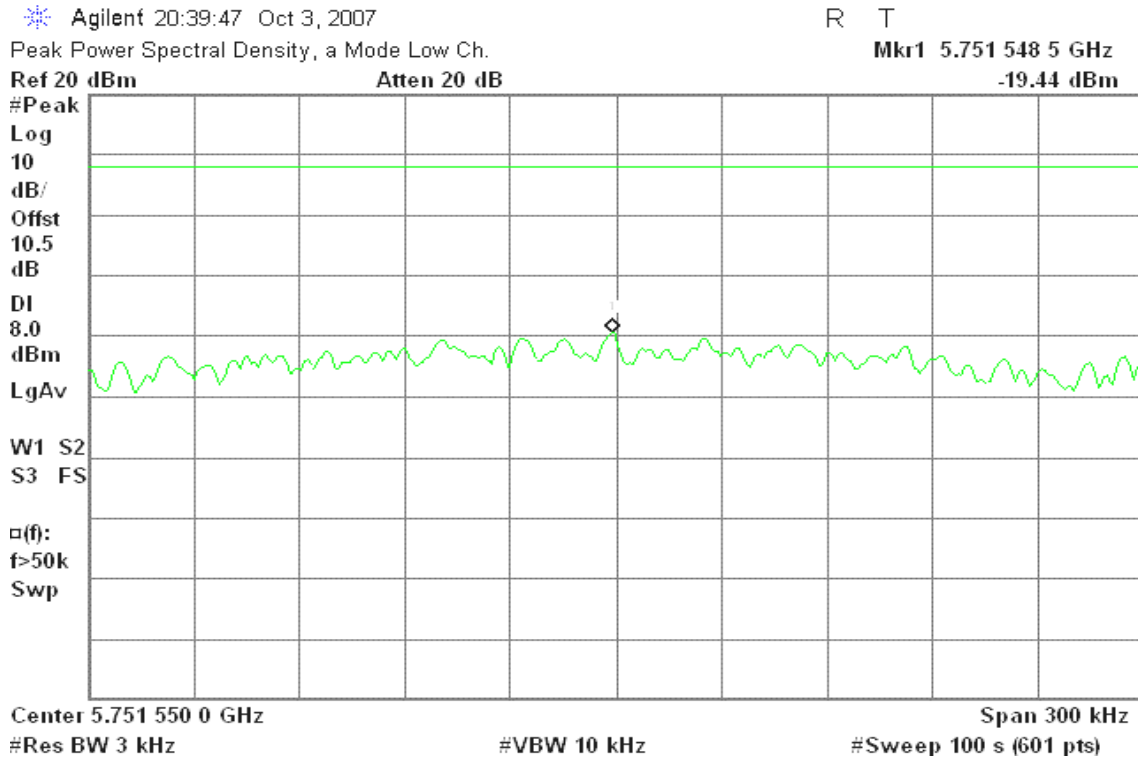
**Remark:** Total PPSD (dBm) =  $10 * \text{LOG}(10^{(\text{Chain 0 PPSD} / 10)} + 10^{(\text{Chain 1 PPSD} / 10)})$



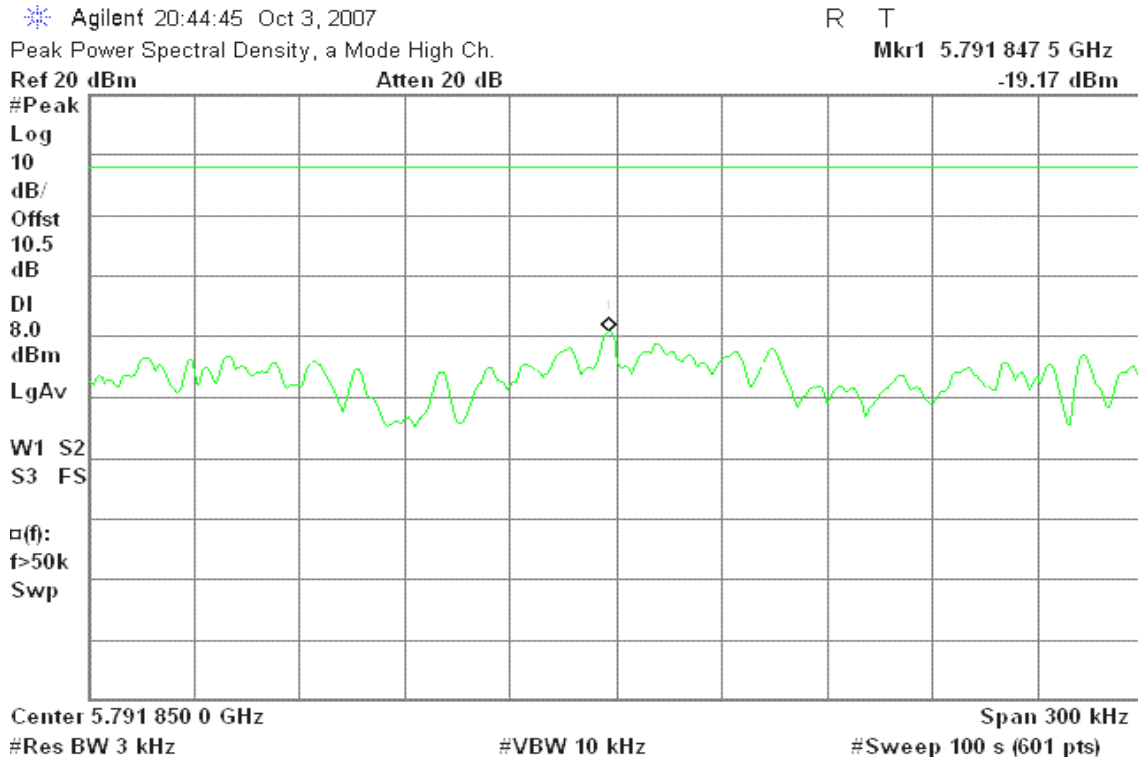


draft 802.11n Wide-40 MHz Channel mode / Chain 0

PPSD (CH Low)



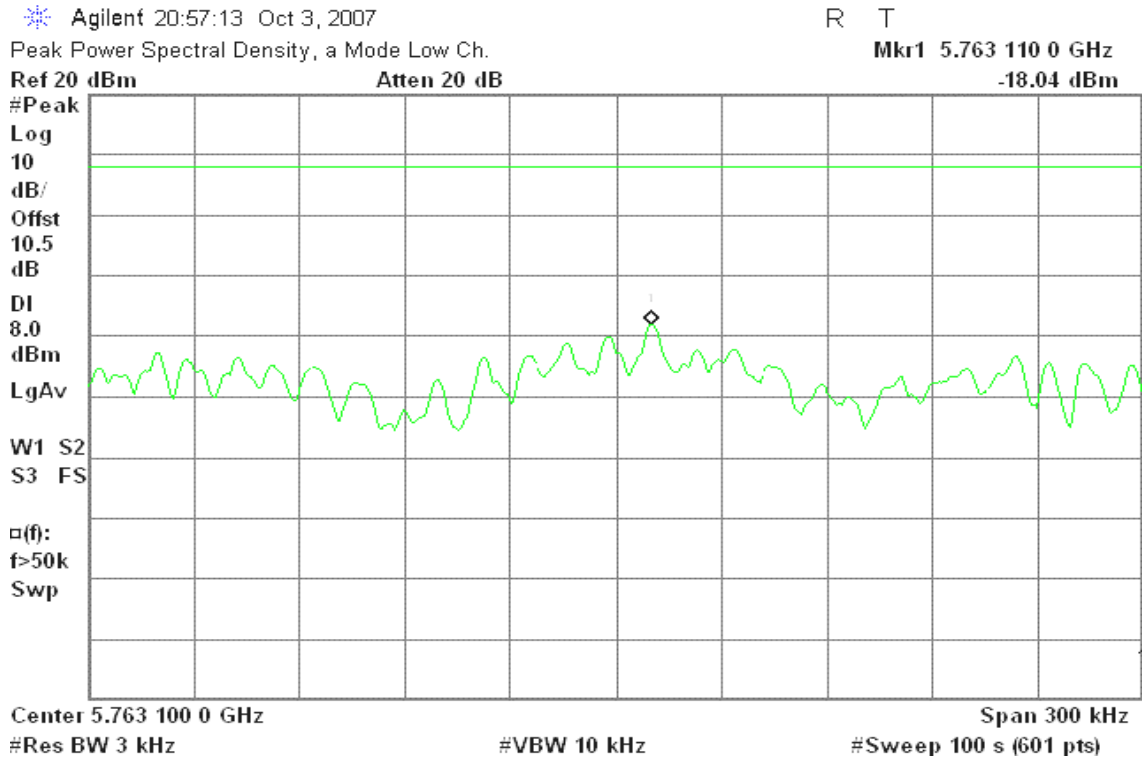
PPSD (CH High)



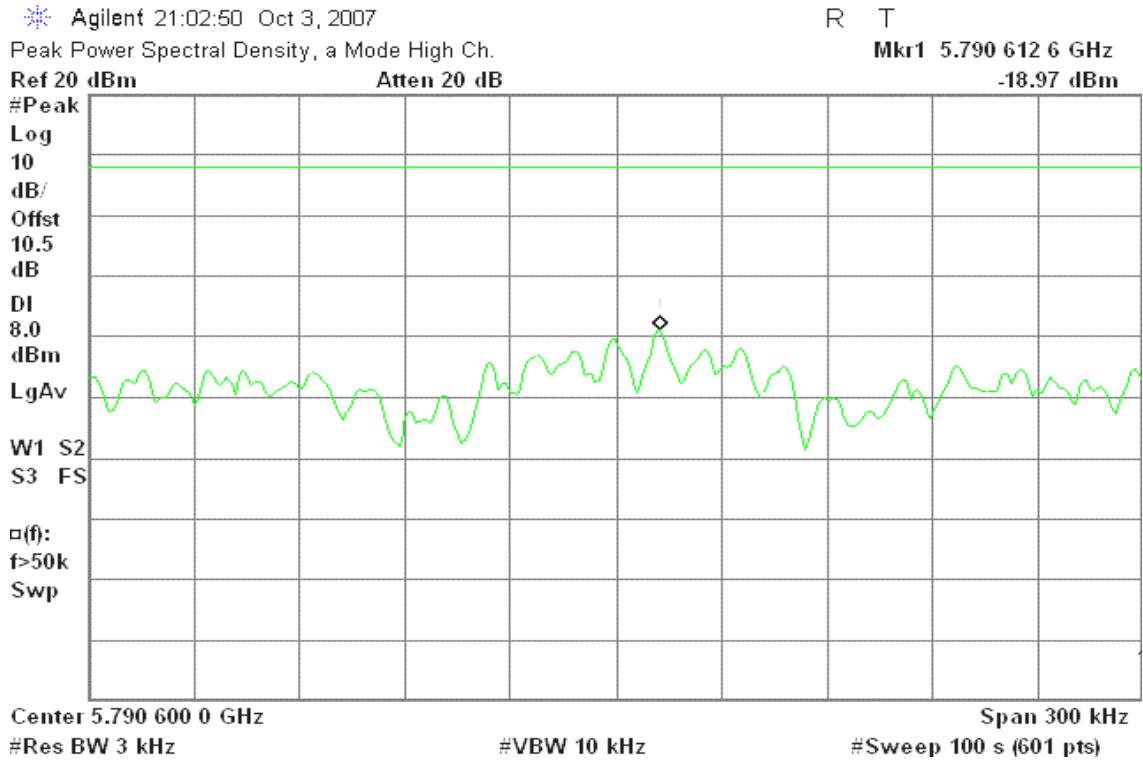


draft 802.11n Wide-40 MHz Channel mode / Chain 1

PPSD (CH Low)



PPSD (CH High)

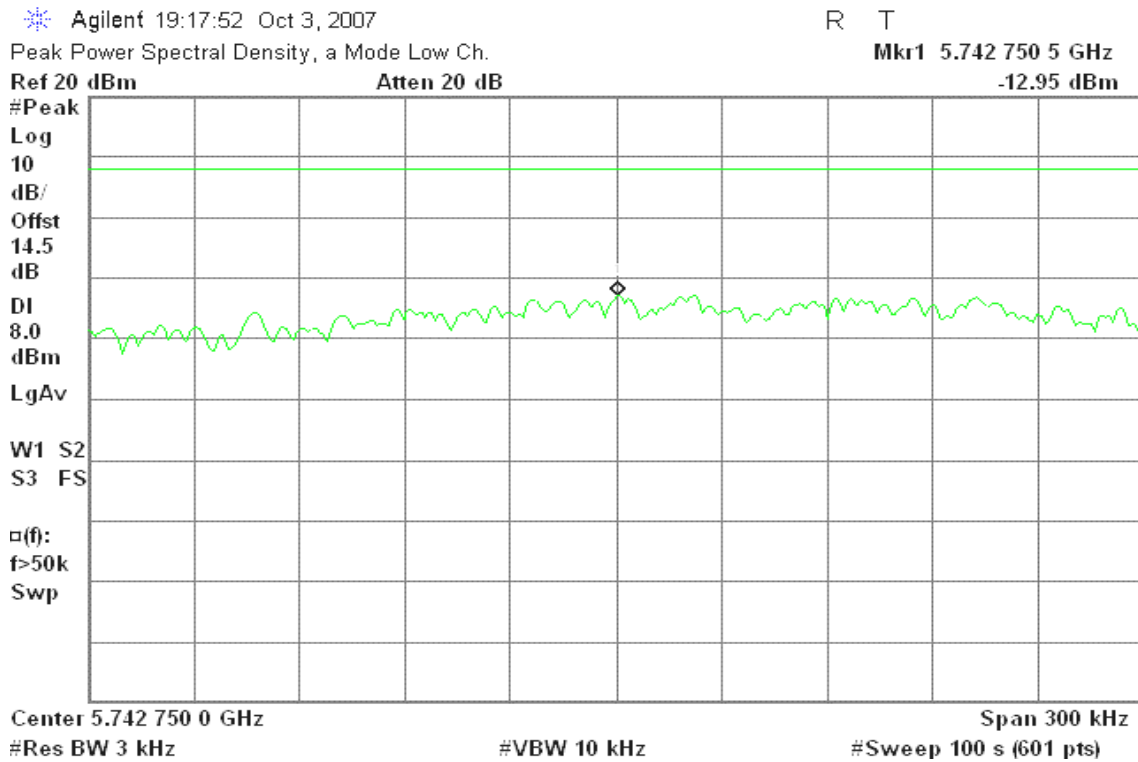




Test Data

Test mode: draft 802.11n Standard-20 MHz Channel mode with combiner				
Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	5745	-12.95	8.00	PASS
Mid	5785	-13.02		PASS
High	5825	-13.45		PASS

PPSD (CH Low)





### PPSD (CH Mid)

Agilent 18:51:00 Oct 3, 2007

R T

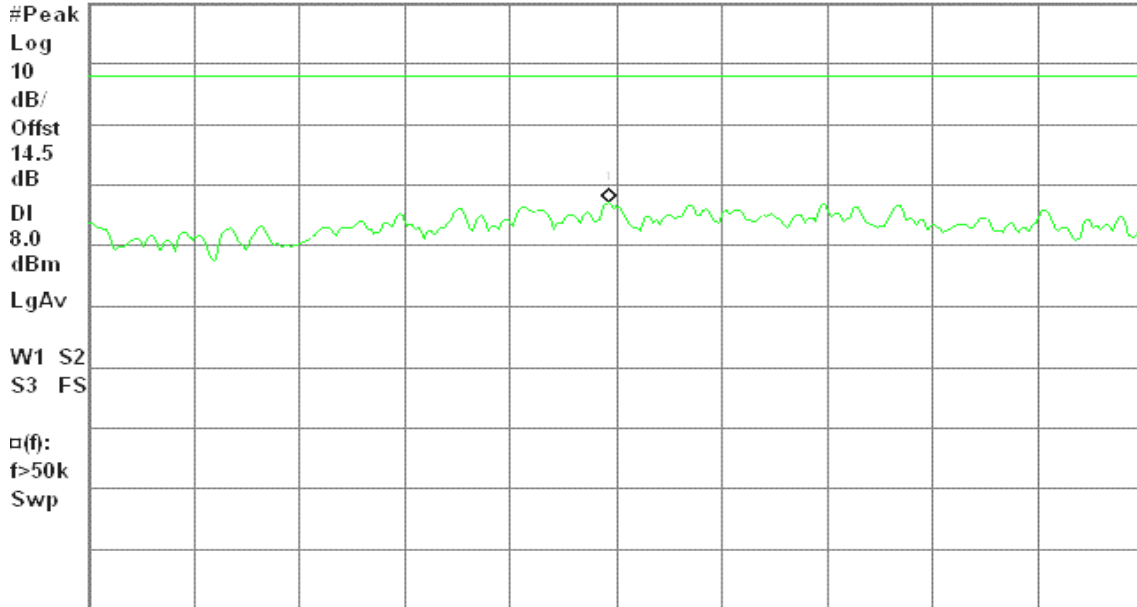
Peak Power Spectral Density, a Mode Mid Ch.

Mkr1 5.782 747 5 GHz

Ref 20 dBm

Atten 20 dB

-13.02 dBm



Center 5.782 750 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

### PPSD (CH High)

Agilent 19:10:47 Oct 3, 2007

R T

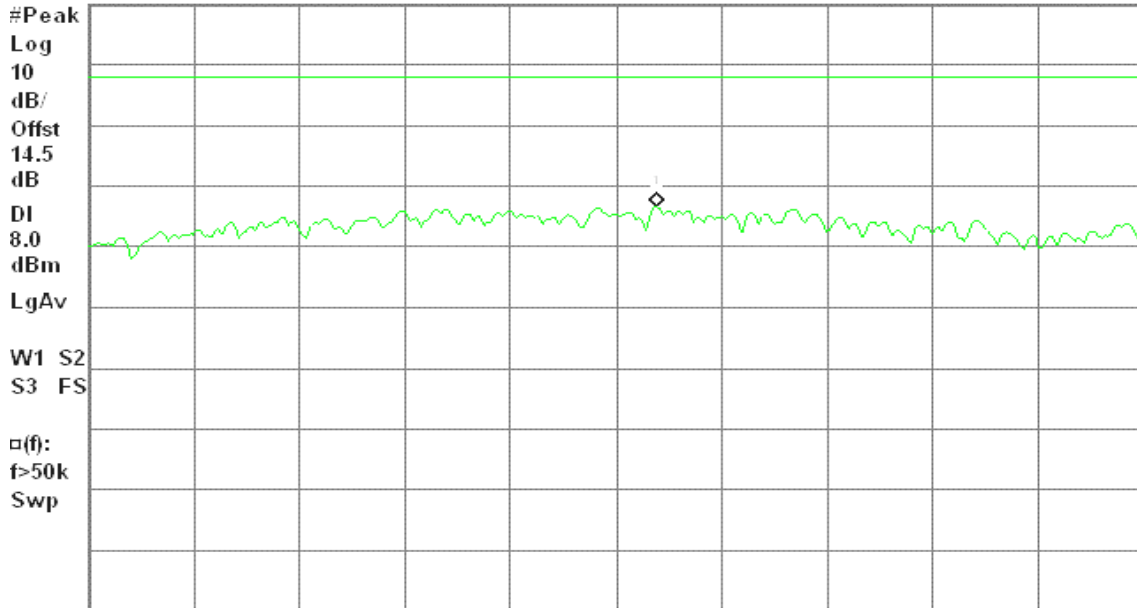
Peak Power Spectral Density, a Mode High Ch.

Mkr1 5.822 811 5 GHz

Ref 20 dBm

Atten 20 dB

-13.45 dBm



Center 5.822 800 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)



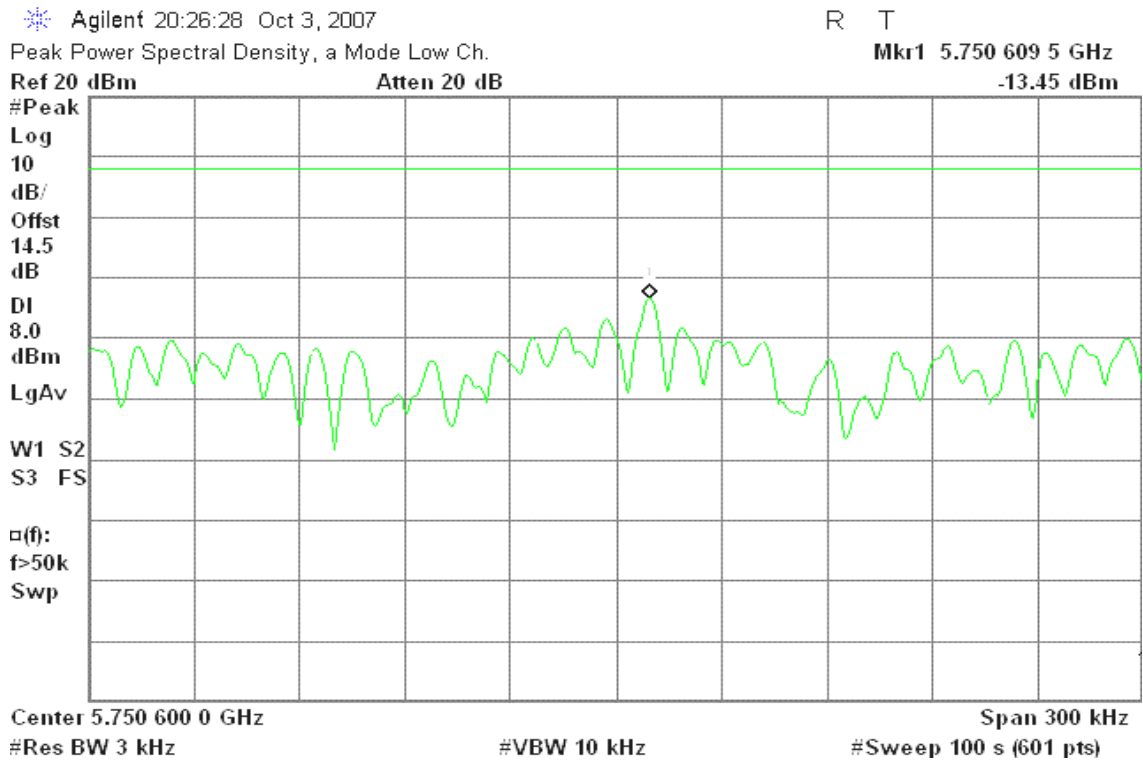
**Test Data**

<b>Test mode: draft 802.11n Wide-40 MHz Channel mode with combiner</b>				
<b>Channel</b>	<b>Frequency (MHz)</b>	<b>PPSD (dBm)</b>	<b>Limit (dBm)</b>	<b>Result</b>
Low	5755	-13.45	8.00	PASS
High	5795	-15.86		PASS

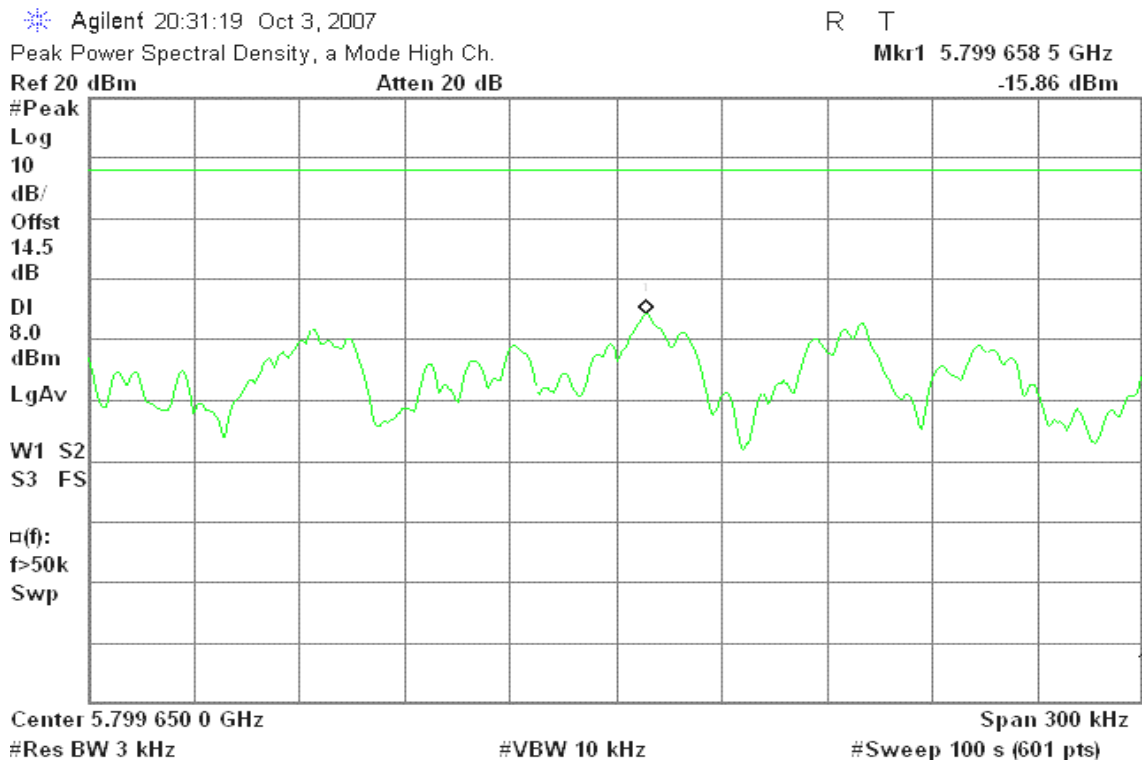


### draft 802.11n Wide-40 MHz Channel mode with combiner

#### PPSD (CH Low)



#### PPSD (CH High)



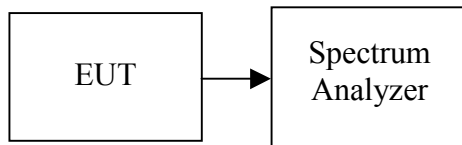
## 8.6 SPURIOUS EMISSIONS

### 8.6.1 CONDUCTED MEASUREMENT

#### 8.6.1.1 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



#### 8.6.1.2 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 & 300kHz.

Measurements are made over the 30MHz to 26GHz range for IEEE 802.11b/g, 30MHz to 40GHz range for IEEE 802.11a with the transmitter set to the lowest, middle, and highest channels.

#### 8.6.1.3 TEST RESULTS

*No non-compliance noted.*



Test Plot

IEEE 802.11b mode

SPURIOUS EMISSIONS (CH Low)

Agilent 10:08:02 Oct 3, 2007

R T

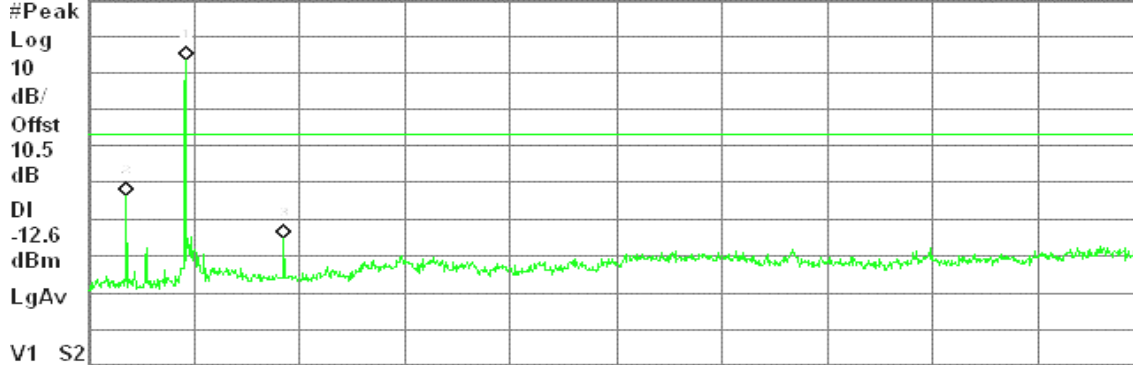
Spurious, b Mode Low Ch.

Mkr1 2.42 GHz

Ref 24 dBm

Atten 30 dB

7.36 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.42 GHz	7.36 dBm
2	(1)	Freq	960 MHz	-29.87 dBm
3	(1)	Freq	4.83 GHz	-41.35 dBm

SPURIOUS EMISSIONS (CH Mid)

Agilent 10:16:26 Oct 3, 2007

R T

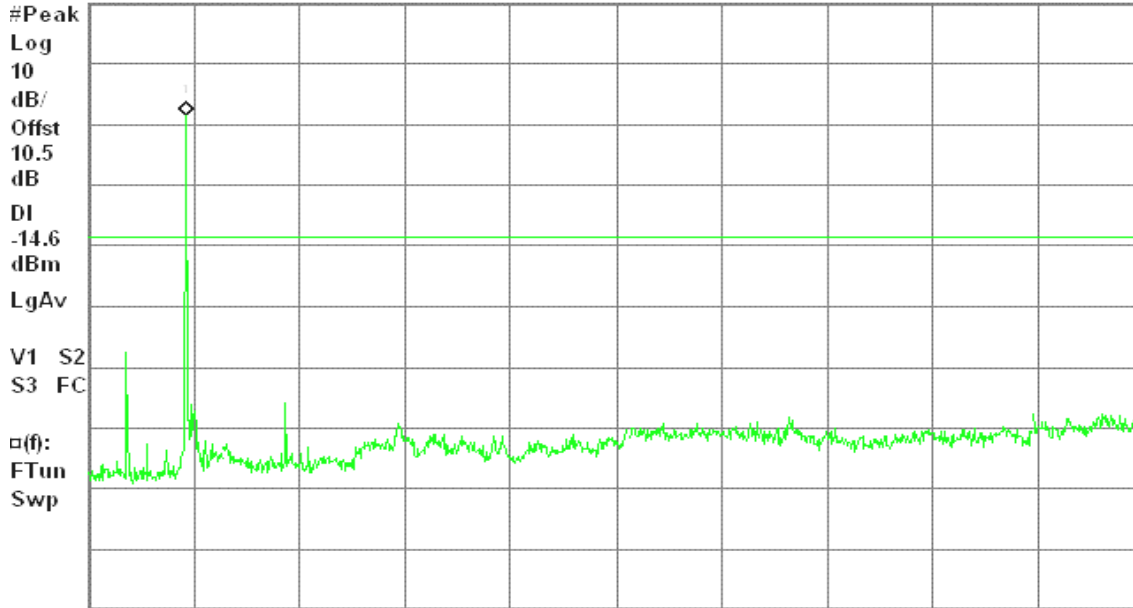
Spurious, b Mode Mid Ch.

Mkr1 2.45 GHz

Ref 24 dBm

Atten 30 dB

5.45 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)





### SPURIOUS EMISSIONS (CH High)

Agilent 10:22:03 Oct 3, 2007

R T

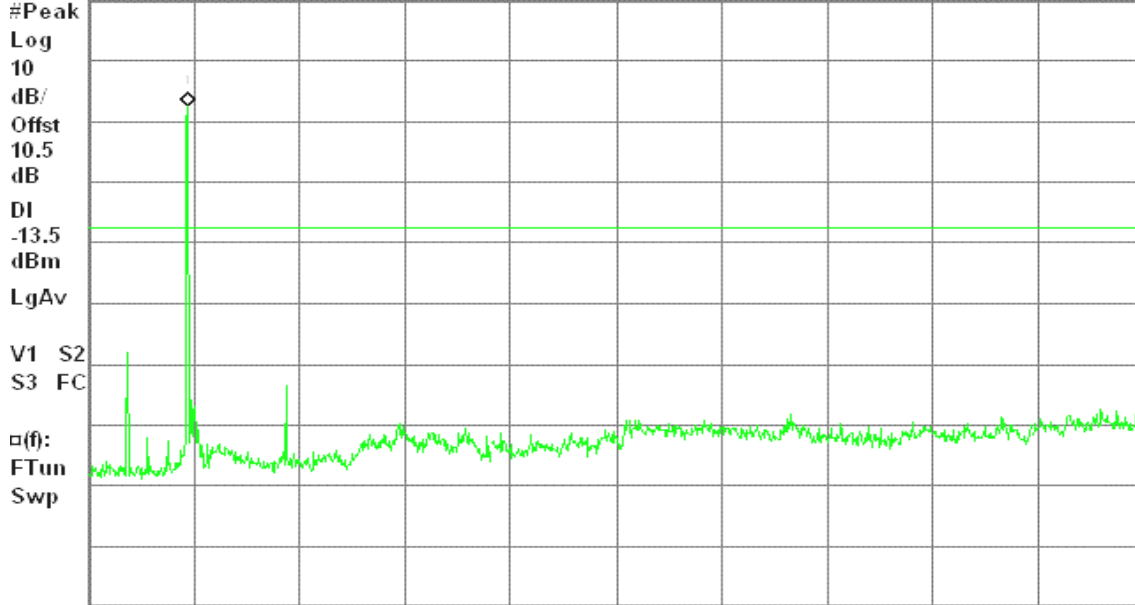
Spurious, b Mode High Ch.

Mkr1 2.47 GHz

Ref 24 dBm

Atten 30 dB

6.47 dBm



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

### SPURIOUS EMISSIONS (CH Low)

Agilent 10:54:38 Oct 3, 2007

R T

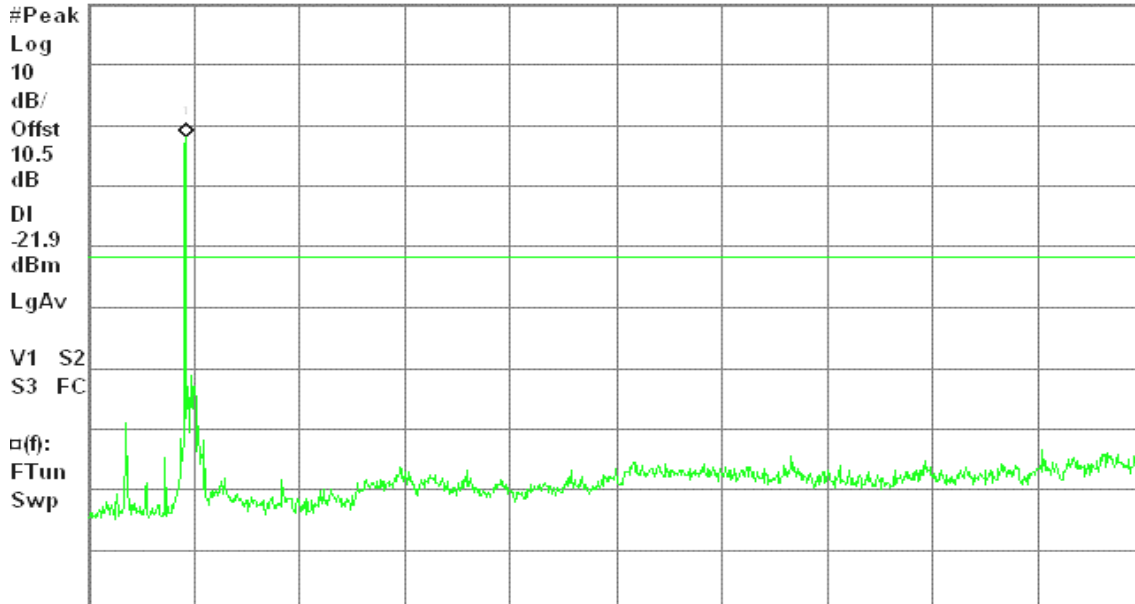
Spurious, g Mode Low Ch.

Mkr1 2.42 GHz

Ref 20 dBm

Atten 20 dB

-1.87 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)



### SPURIOUS EMISSIONS (CH Mid)

Agilent 11:00:23 Oct 3, 2007

R T

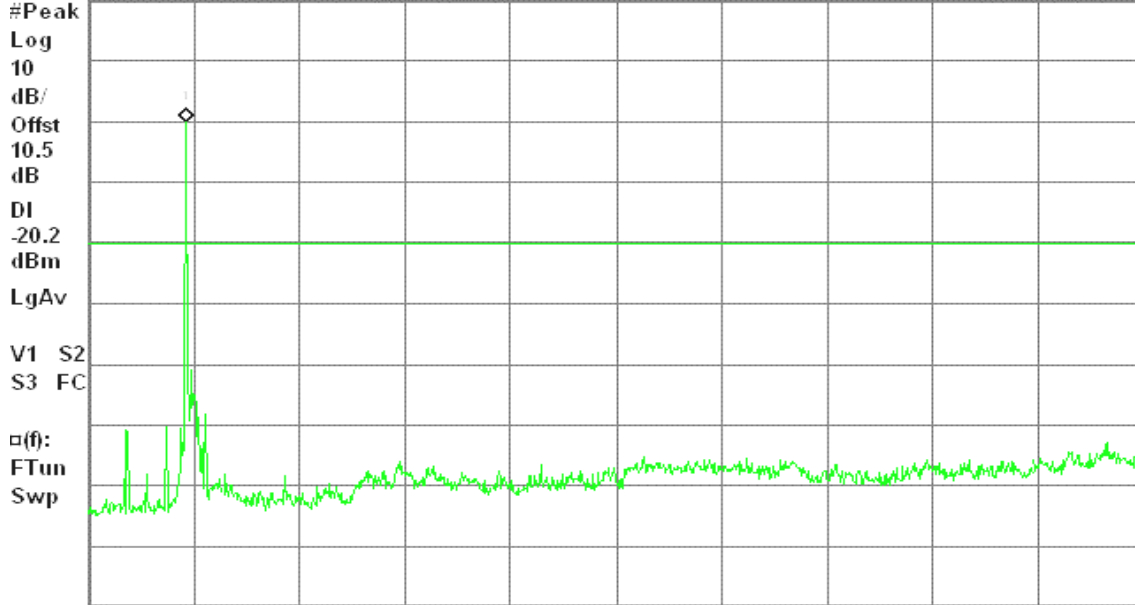
Spurious, g Mode Mid Ch.

Mkr1 2.45 GHz

Ref 20 dBm

Atten 20 dB

-0.17 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

### SPURIOUS EMISSIONS (CH High)

Agilent 11:06:39 Oct 3, 2007

R T

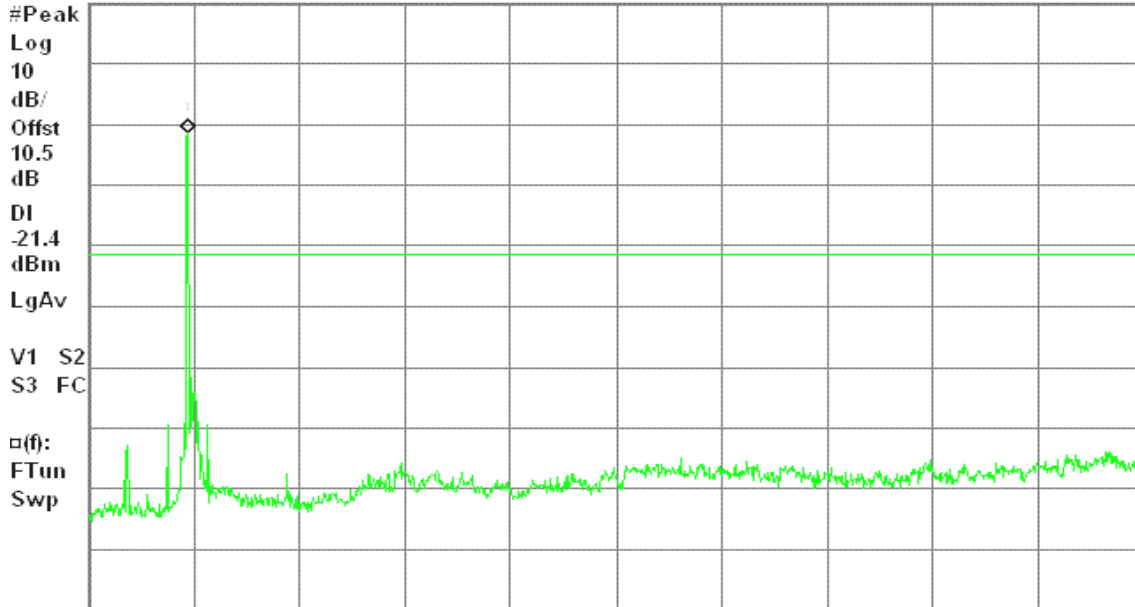
Spurious, g Mode High Ch.

Mkr1 2.47 GHz

Ref 20 dBm

Atten 20 dB

-1.40 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

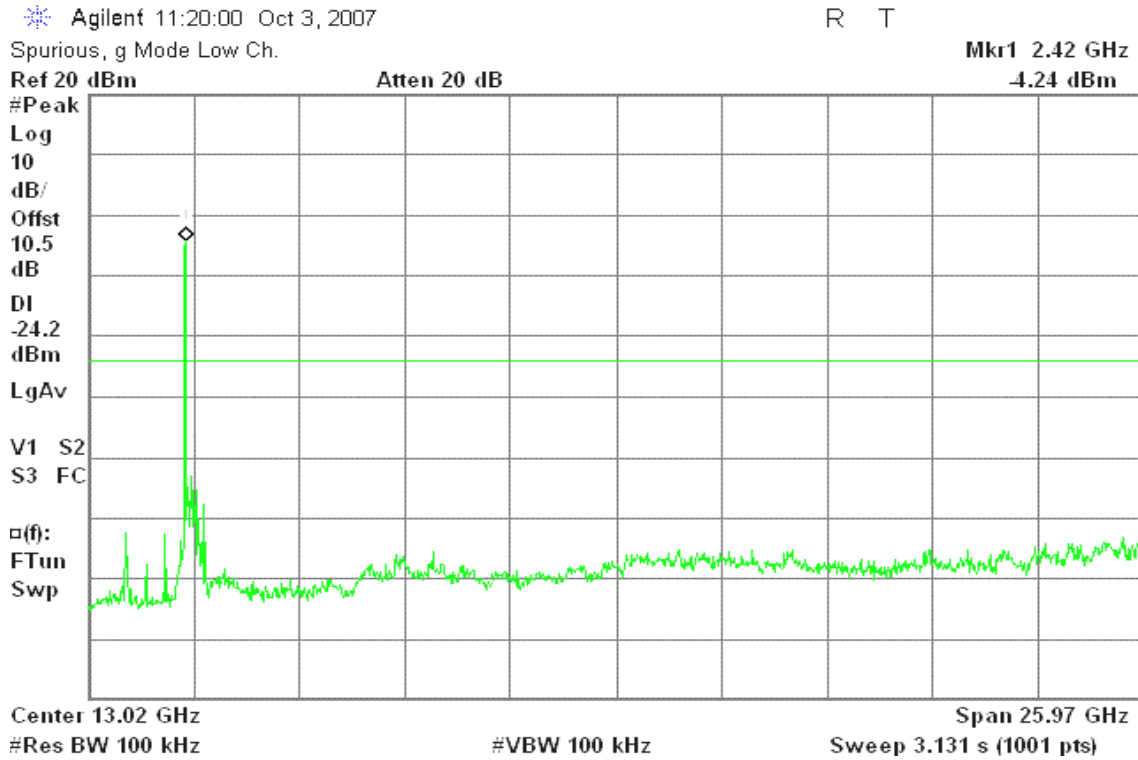
#VBW 100 kHz

Sweep 3.131 s (1001 pts)

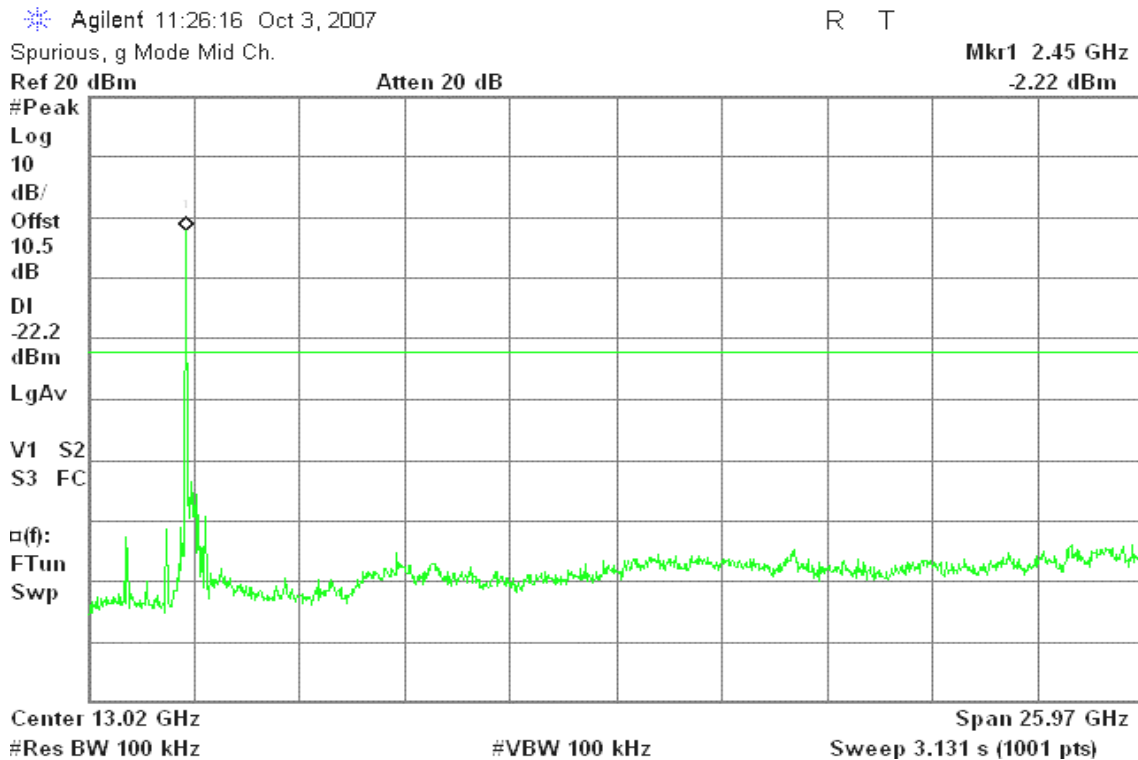


### draft 802.11n Standard-20 MHz Channel mode / Chain 0

### SPURIOUS EMISSIONS (CH Low)

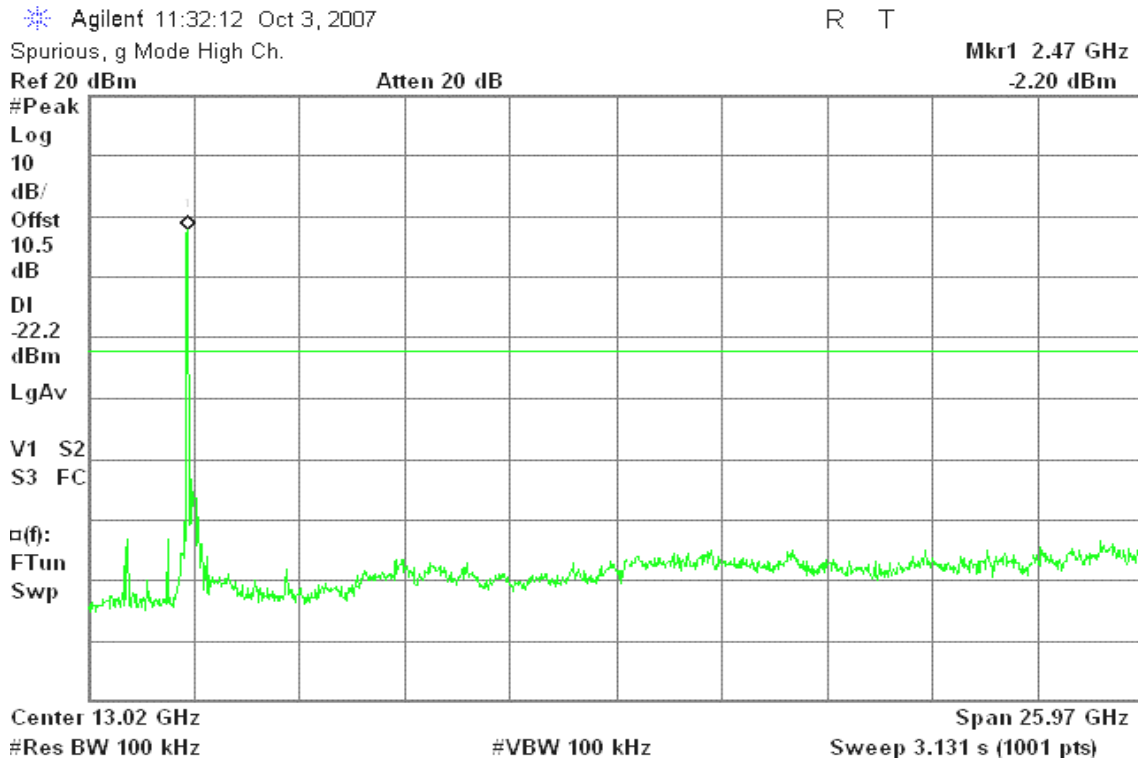


### SPURIOUS EMISSIONS (CH Mid)



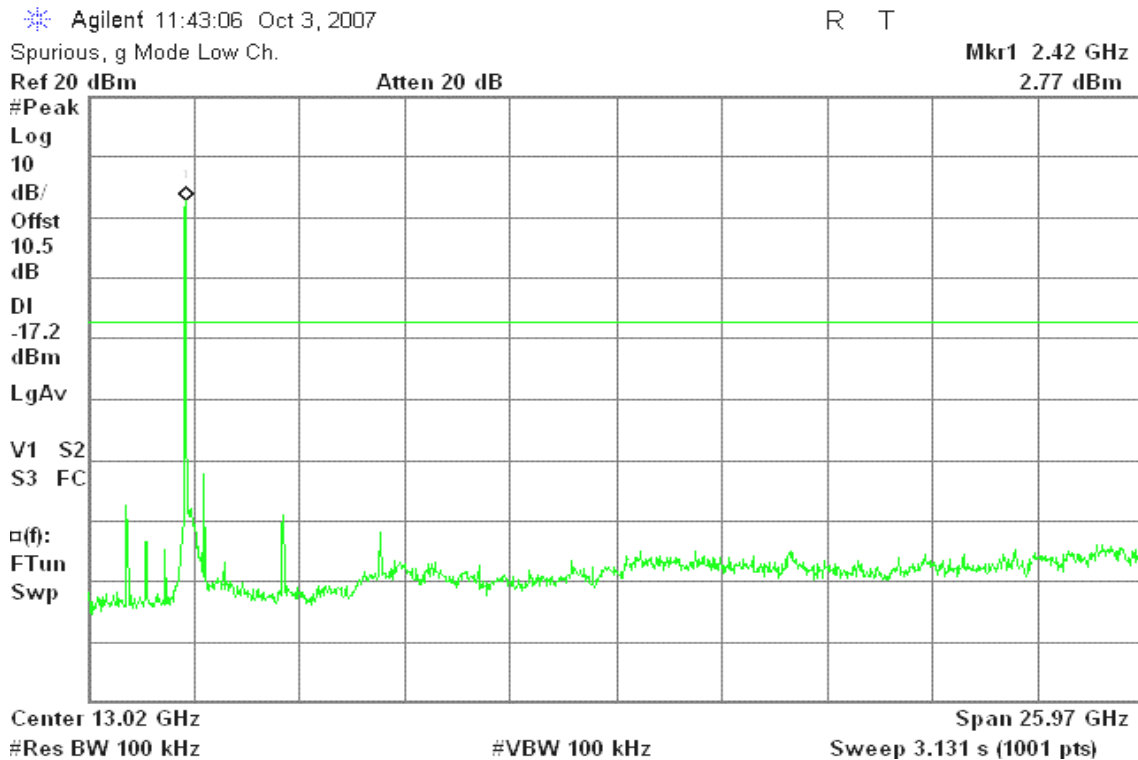


### SPURIOUS EMISSIONS (CH High)



### draft 802.11n Standard-20 MHz Channel mode / Chain 1

### SPURIOUS EMISSIONS (CH Low)





### SPURIOUS EMISSIONS (CH Mid)

Agilent 11:47:53 Oct 3, 2007

R T

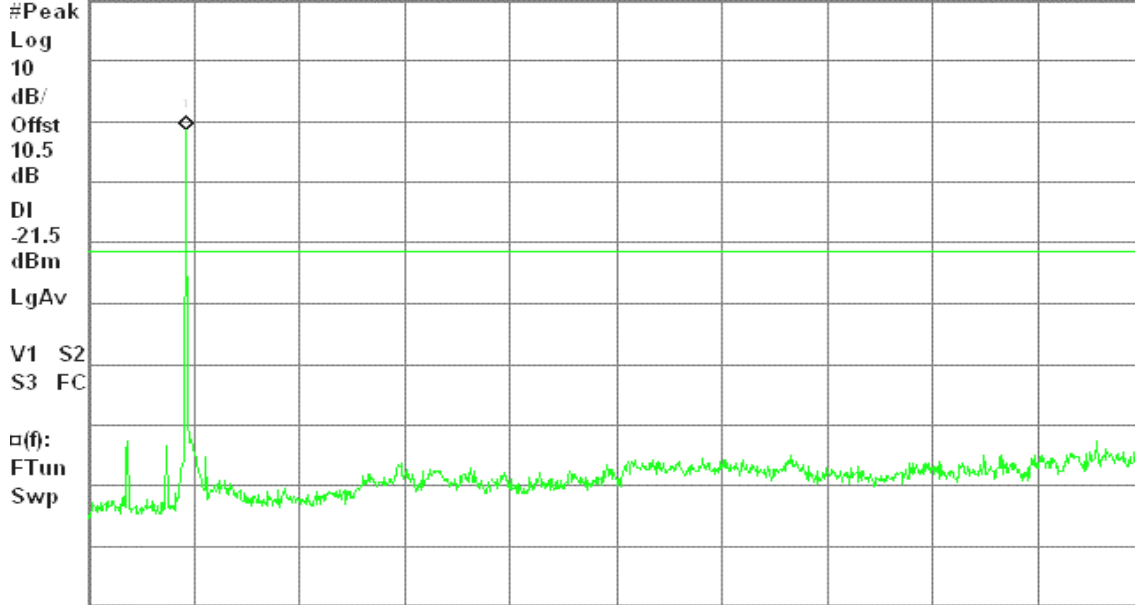
Spurious, g Mode Mid Ch.

Mkr1 2.45 GHz

Ref 20 dBm

Atten 20 dB

-1.52 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

### SPURIOUS EMISSIONS (CH High)

Agilent 11:52:49 Oct 3, 2007

R T

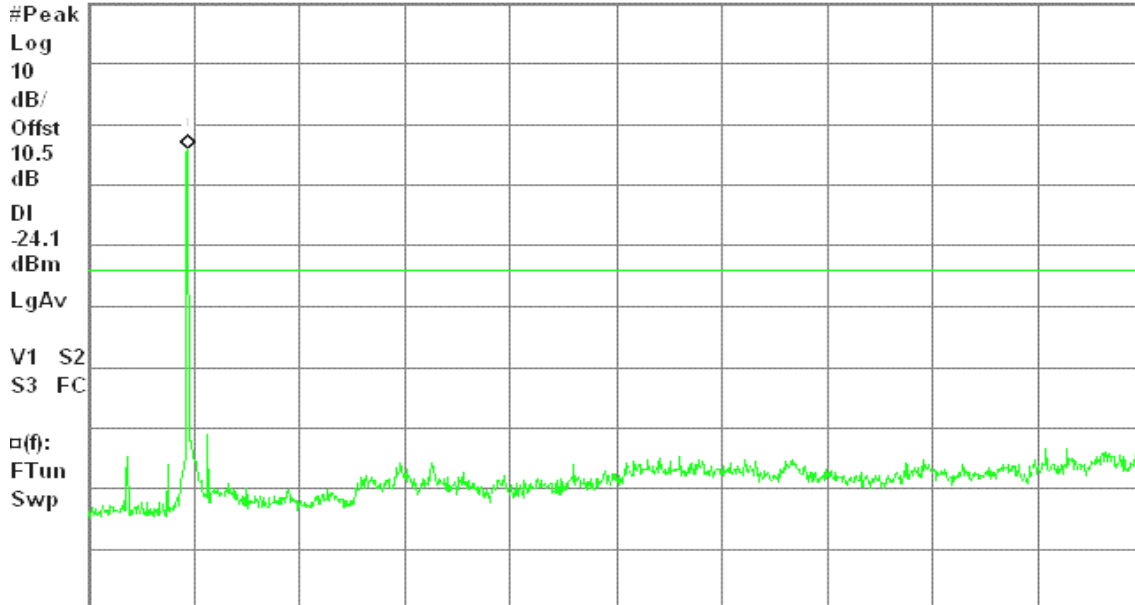
Spurious, g Mode High Ch.

Mkr1 2.47 GHz

Ref 20 dBm

Atten 20 dB

-4.10 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

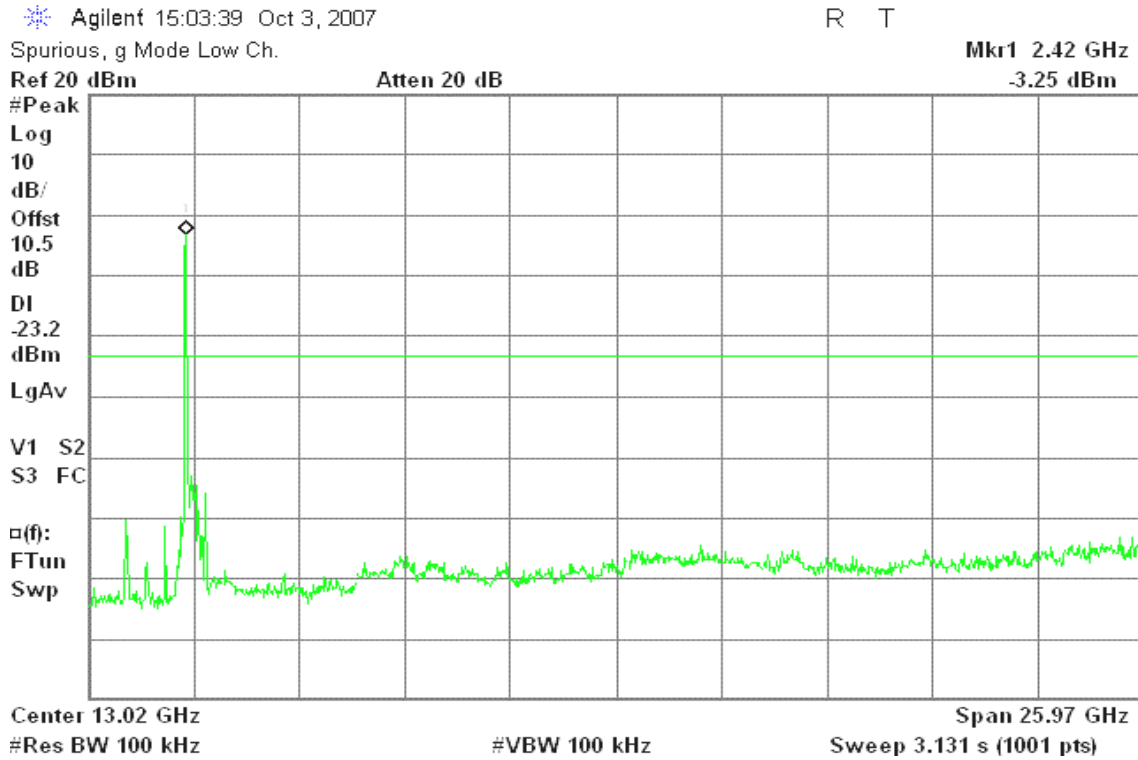
#VBW 100 kHz

Sweep 3.131 s (1001 pts)

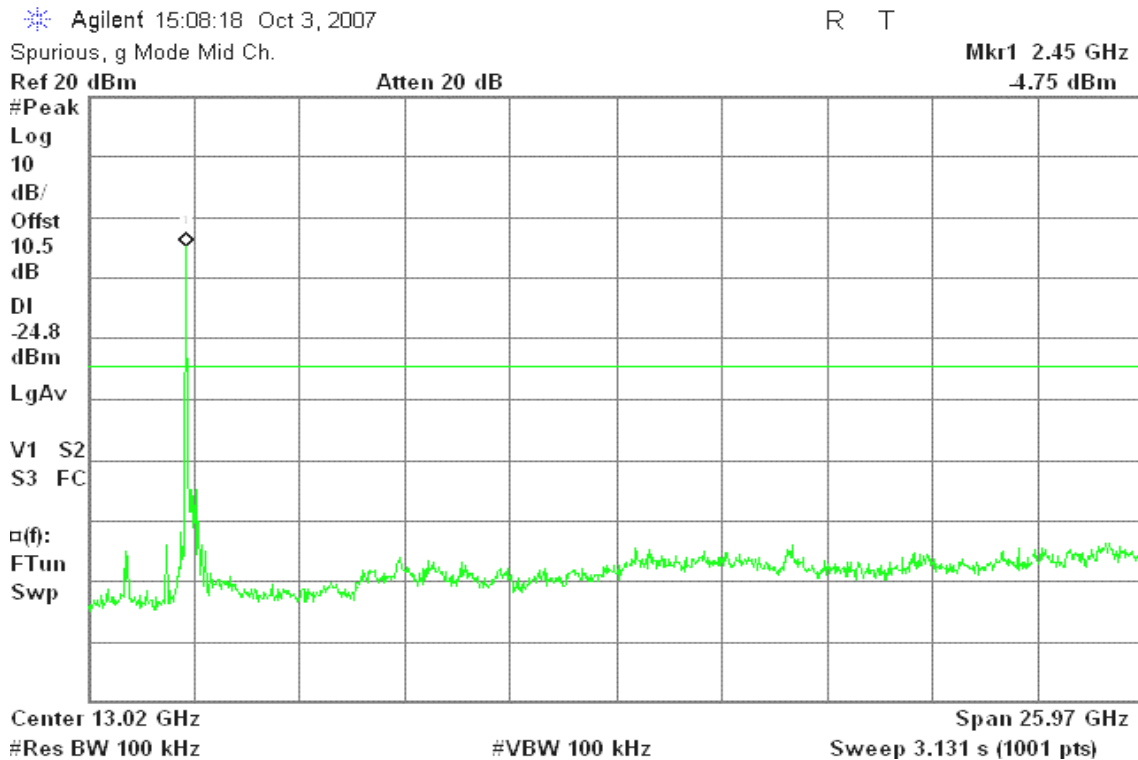


draft 802.11n Wide-40 MHz Channel mode / Chain 0

SPURIOUS EMISSIONS (CH Low)



SPURIOUS EMISSIONS (CH Mid)





### SPURIOUS EMISSIONS (CH High)

Agilent 15:15:19 Oct 3, 2007

R T

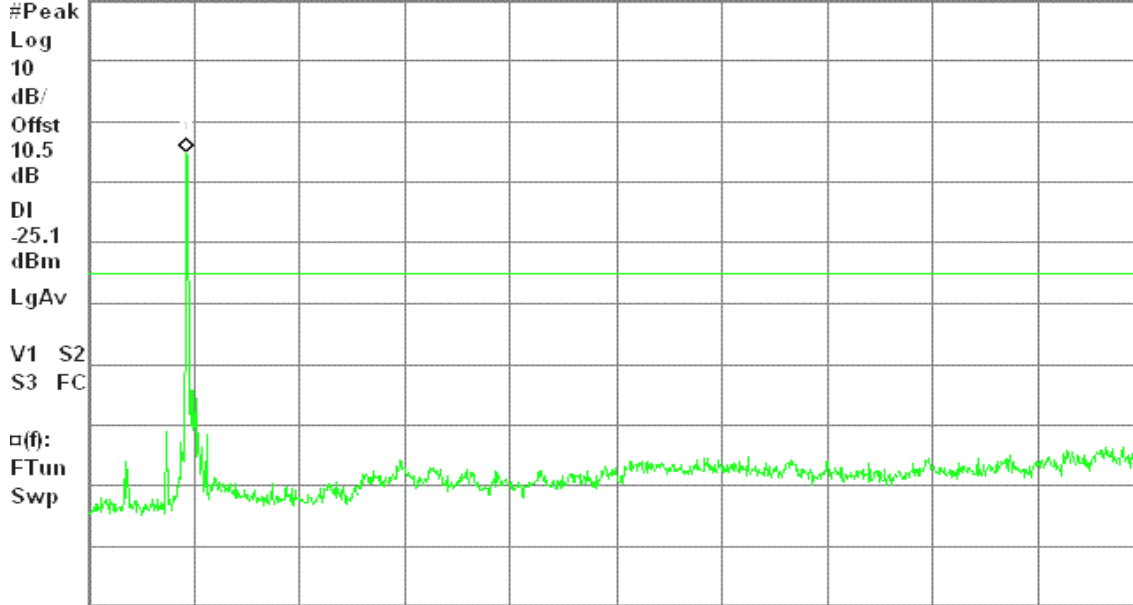
Spurious, g Mode High Ch.

Mkr1 2.45 GHz

Ref 20 dBm

Atten 20 dB

-5.07 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

### SPURIOUS EMISSIONS (CH Low)

Agilent 15:21:03 Oct 3, 2007

R T

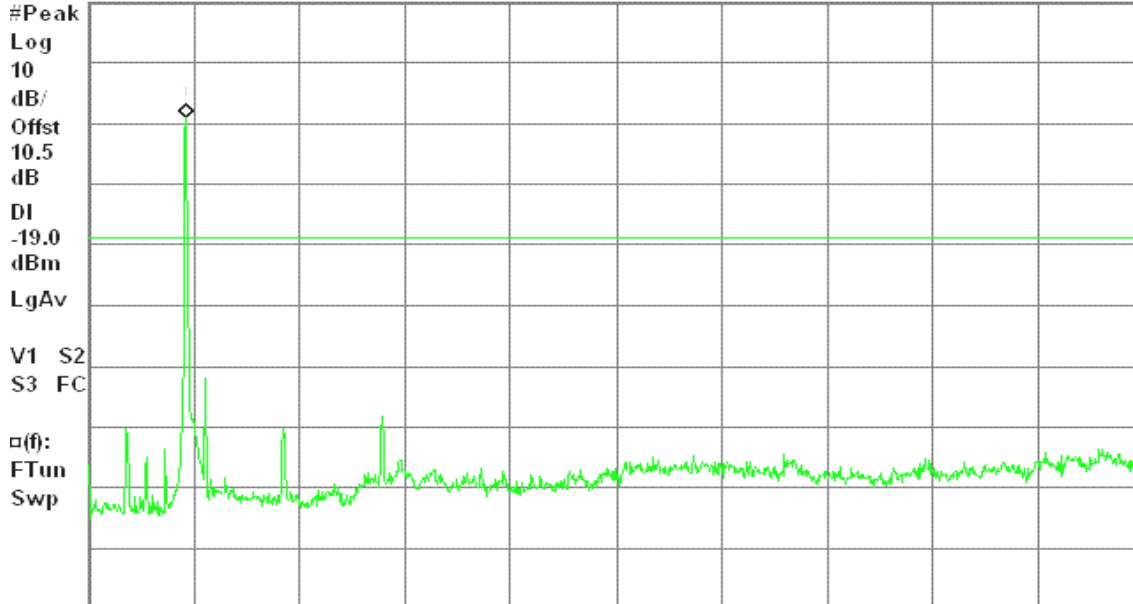
Spurious, g Mode Low Ch.

Mkr1 2.42 GHz

Ref 20 dBm

Atten 20 dB

1.01 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)



### SPURIOUS EMISSIONS (CH Mid)

Agilent 15:26:19 Oct 3, 2007

R T

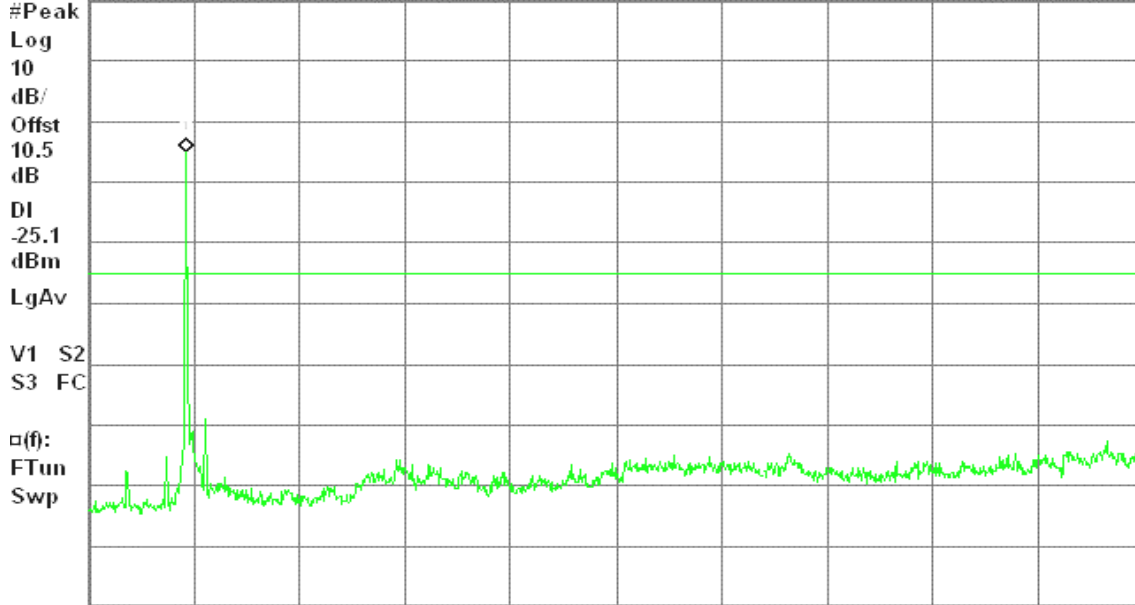
Spurious, g Mode Mid Ch.

Mkr1 2.45 GHz

Ref 20 dBm

Atten 20 dB

-5.07 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

### SPURIOUS EMISSIONS (CH High)

Agilent 15:31:11 Oct 3, 2007

R T

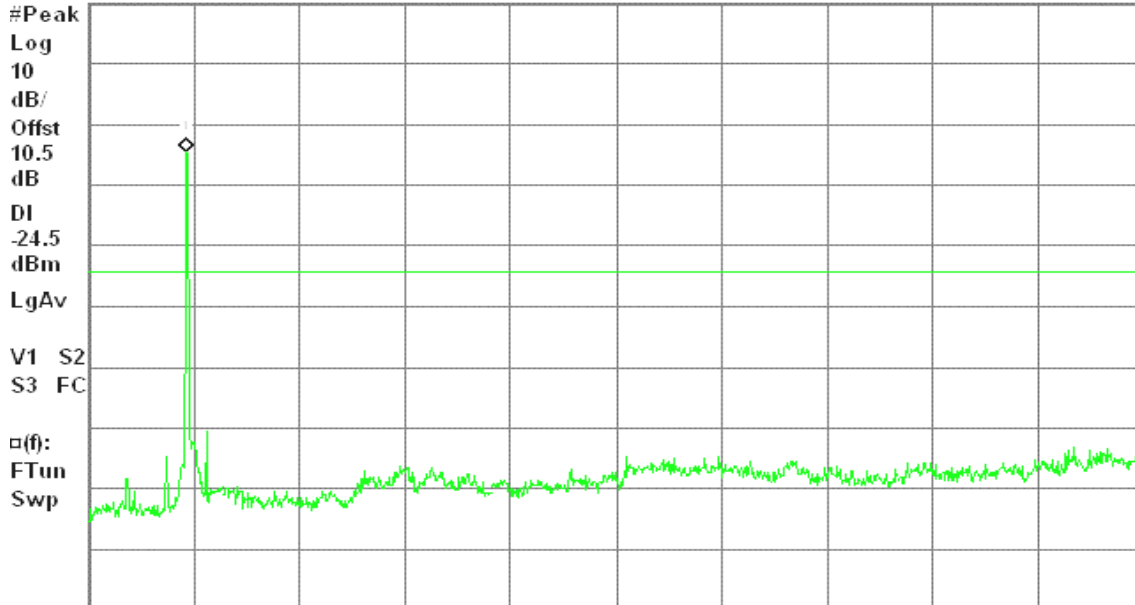
Spurious, g Mode High Ch.

Mkr1 2.45 GHz

Ref 20 dBm

Atten 20 dB

-4.47 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 with combiner

SPURIOUS EMISSIONS (CH Low)

Agilent 13:32:10 Oct 3, 2007

R T

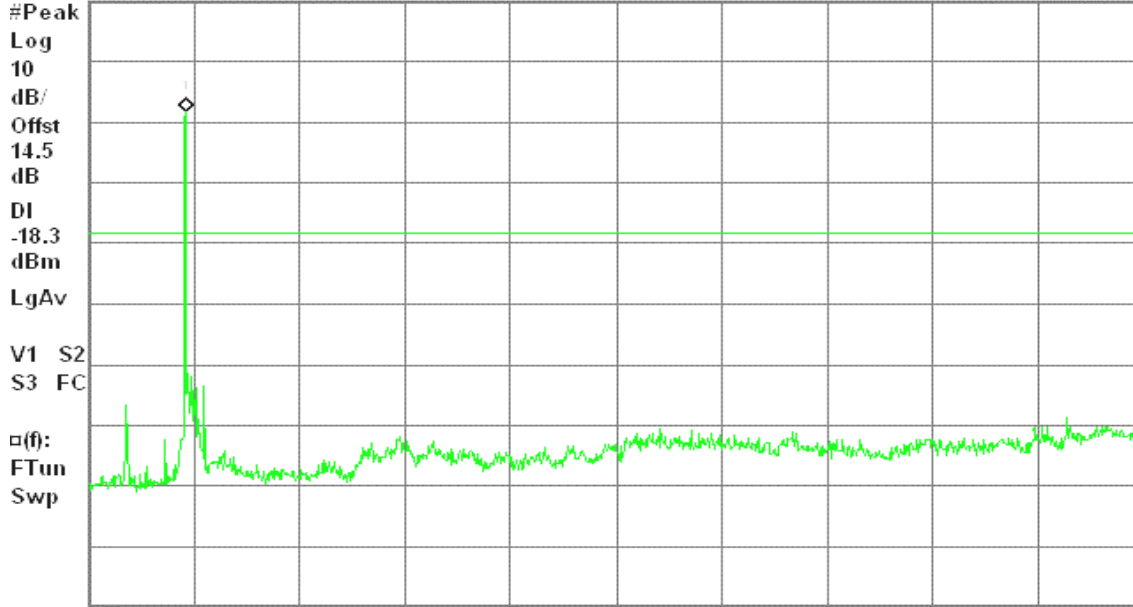
Spurious, g Mode Low Ch.

Mkr1 2.42 GHz

Ref 20 dBm

Atten 20 dB

1.67 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

SPURIOUS EMISSIONS (CH Mid)

Agilent 13:37:03 Oct 3, 2007

R T

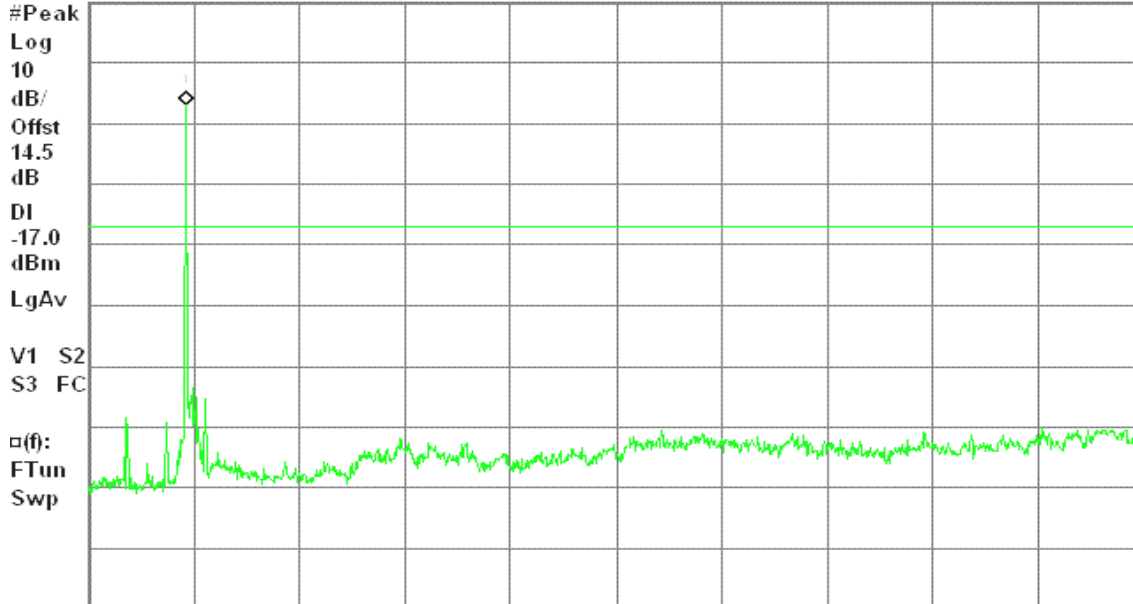
Spurious, g Mode Mid Ch.

Mkr1 2.45 GHz

Ref 20 dBm

Atten 20 dB

3.04 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)



### SPURIOUS EMISSIONS (CH High)

Agilent 13:42:02 Oct 3, 2007

R T

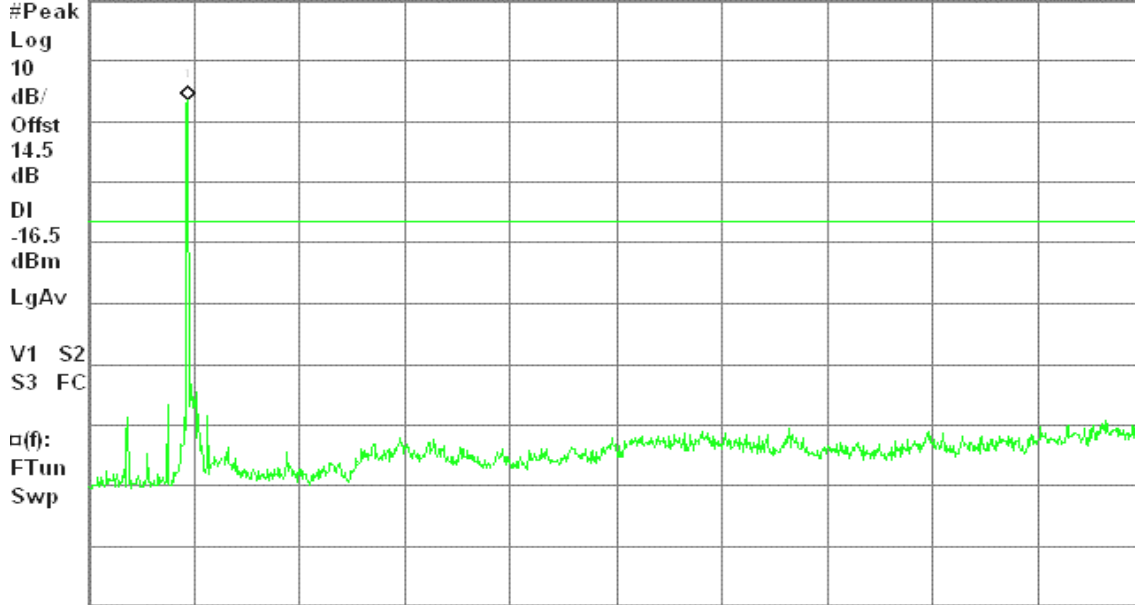
Spurious, g Mode High Ch.

Mkr1 2.47 GHz

Ref 20 dBm

Atten 20 dB

3.46 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 with combiner

### SPURIOUS EMISSIONS (CH Low)

Agilent 13:52:51 Oct 3, 2007

R T

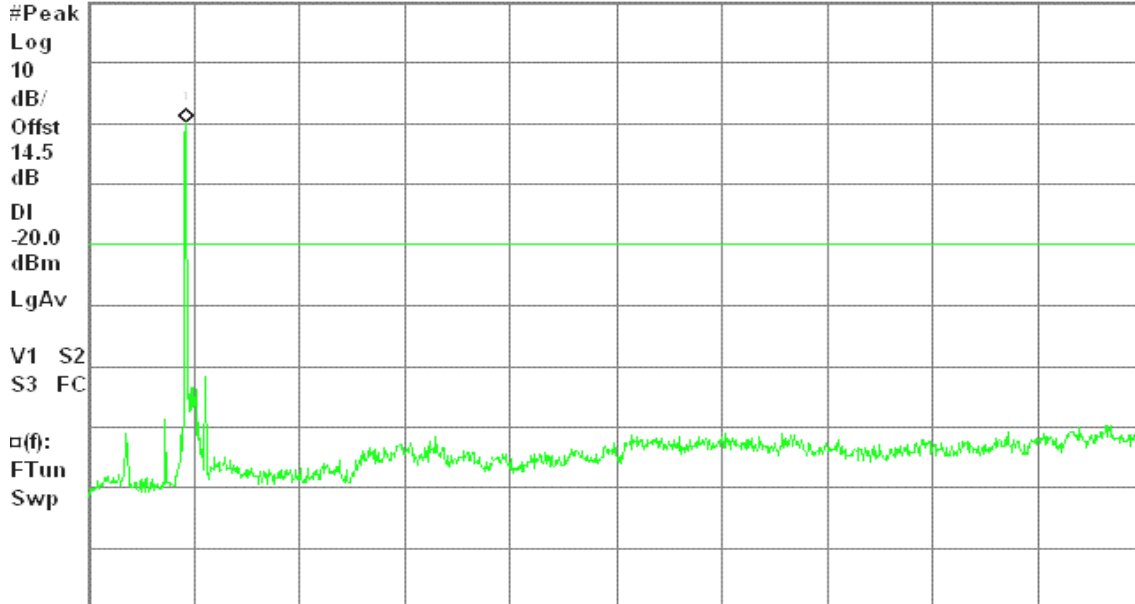
Spurious, g Mode Low Ch.

Mkr1 2.42 GHz

Ref 20 dBm

Atten 20 dB

0.04 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)



### SPURIOUS EMISSIONS (CH Mid)

Agilent 13:58:06 Oct 3, 2007

R T

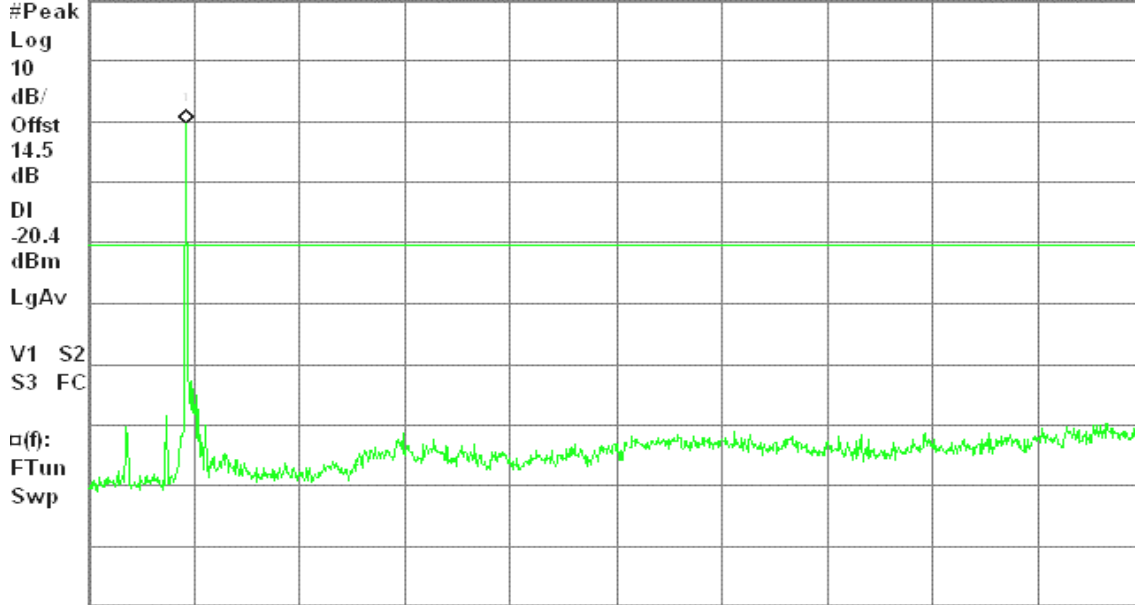
Spurious, g Mode Mid Ch.

Mkr1 2.45 GHz

Ref 20 dBm

Atten 20 dB

-0.39 dBm



Center 13.02 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.131 s (1001 pts)

### SPURIOUS EMISSIONS (CH High)

Agilent 14:03:18 Oct 3, 2007

R T

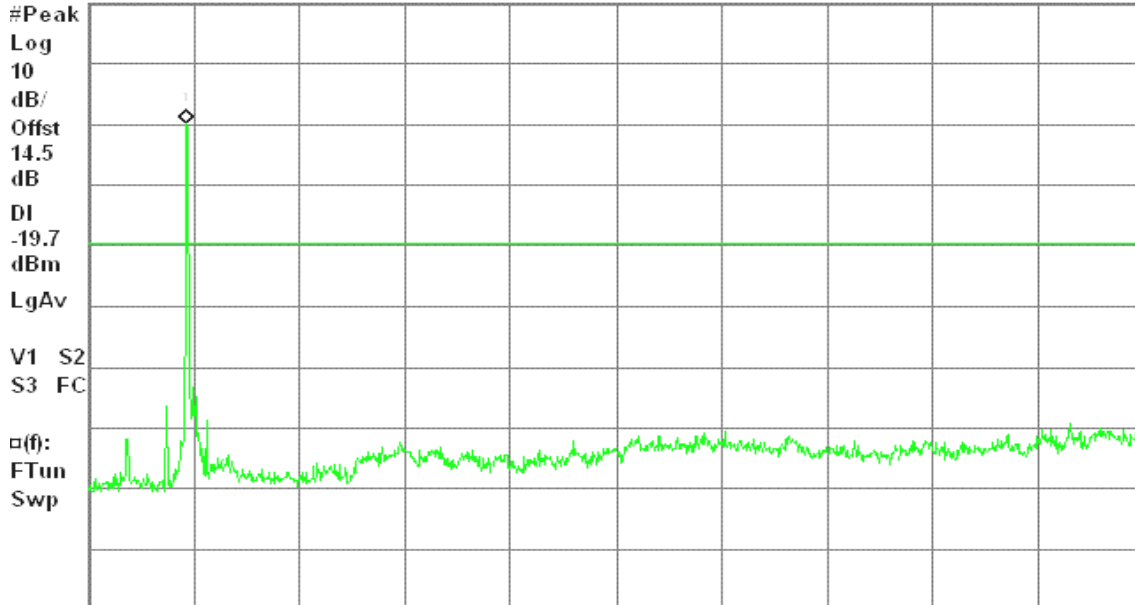
Spurious, g Mode High Ch.

Mkr1 2.45 GHz

Ref 20 dBm

Atten 20 dB

0.27 dBm



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

### SPURIOUS EMISSIONS (CH Low)

Agilent 16:08:20 Oct 3, 2007

R T

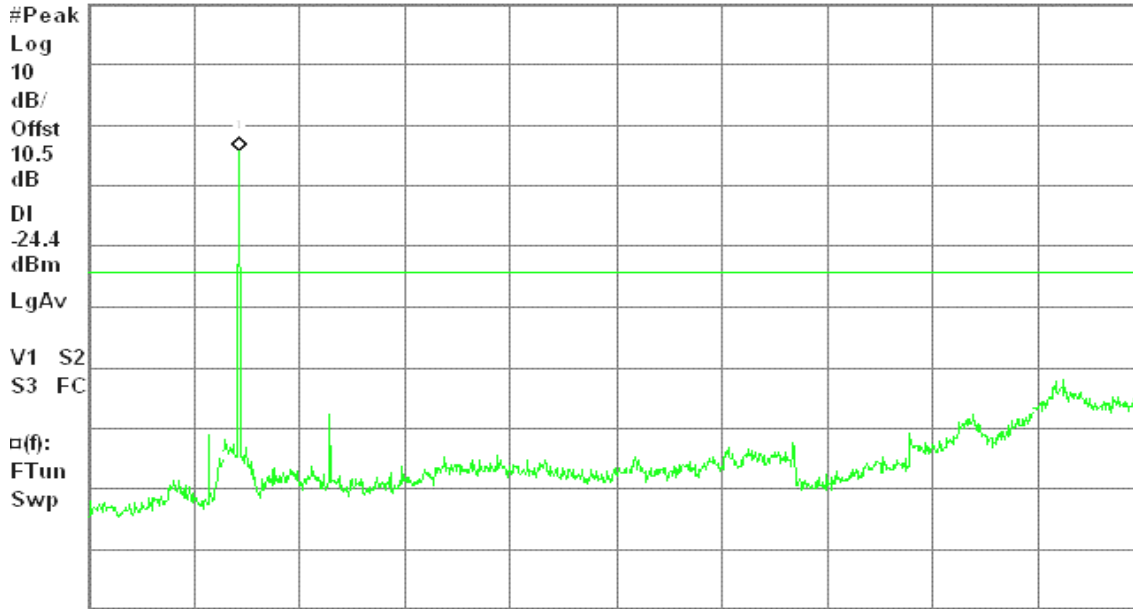
Spurious, a Mode Low Ch.

Mkr1 5.75 GHz

Ref 20 dBm

Atten 20 dB

-4.39 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

### SPURIOUS EMISSIONS (CH Mid)

Agilent 16:13:40 Oct 3, 2007

R T

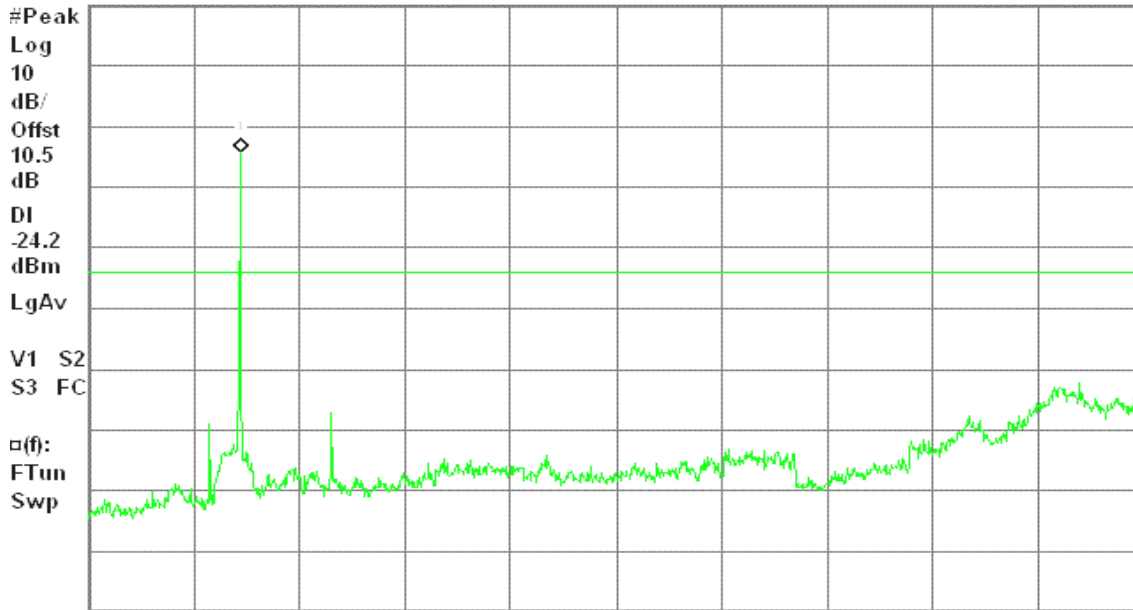
Spurious, a Mode Mid Ch.

Mkr1 5.79 GHz

Ref 20 dBm

Atten 20 dB

-4.22 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)



### SPURIOUS EMISSIONS (CH High)

Agilent 16:24:36 Oct 3, 2007

R T

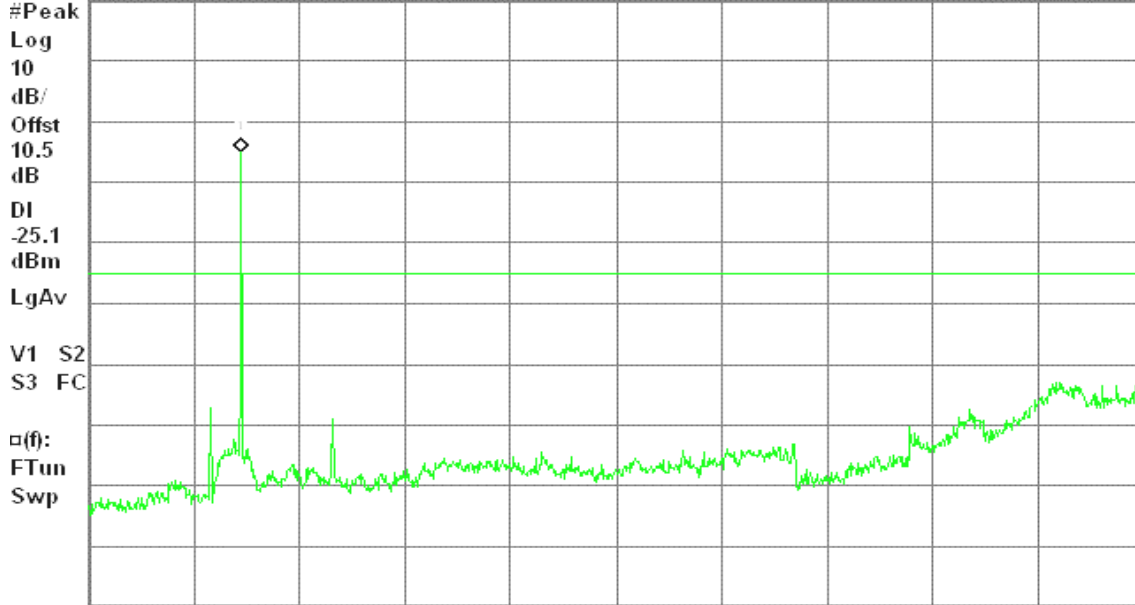
Spurious, a Mode High Ch.

Mkr1 5.83 GHz

Ref 20 dBm

Atten 20 dB

-5.12 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

### draft 802.11n Standard-20 MHz Channel mode / Chain 0

### SPURIOUS EMISSIONS (CH Low)

Agilent 16:40:52 Oct 3, 2007

R T

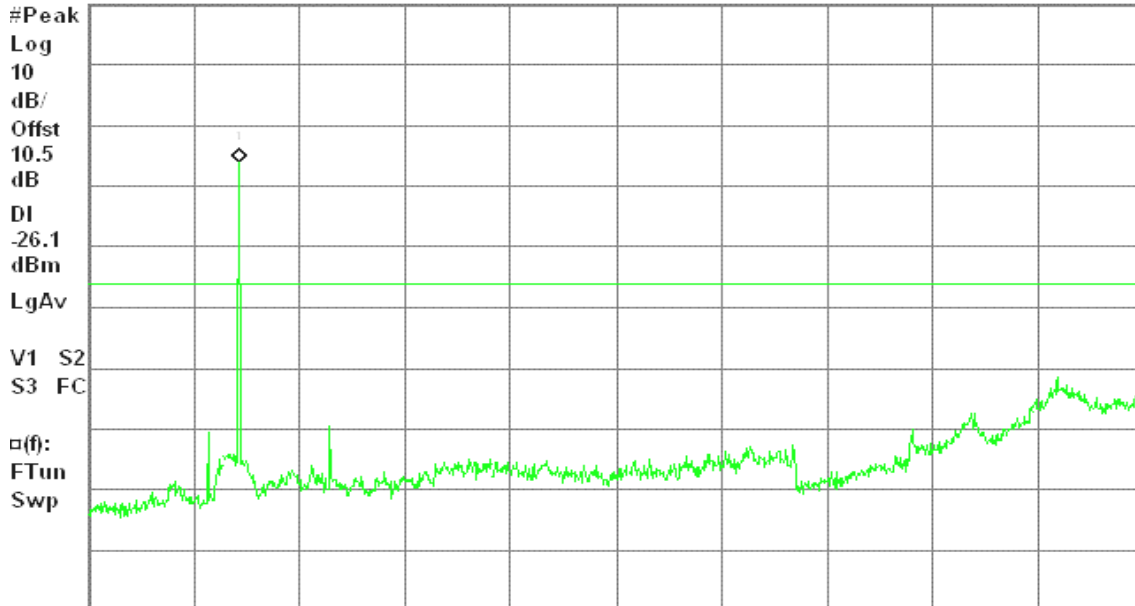
Spurious, a Mode Low Ch.

Mkr1 5.75 GHz

Ref 20 dBm

Atten 20 dB

-6.15 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)



### SPURIOUS EMISSIONS (CH Mid)

Agilent 16:47:29 Oct 3, 2007

R T

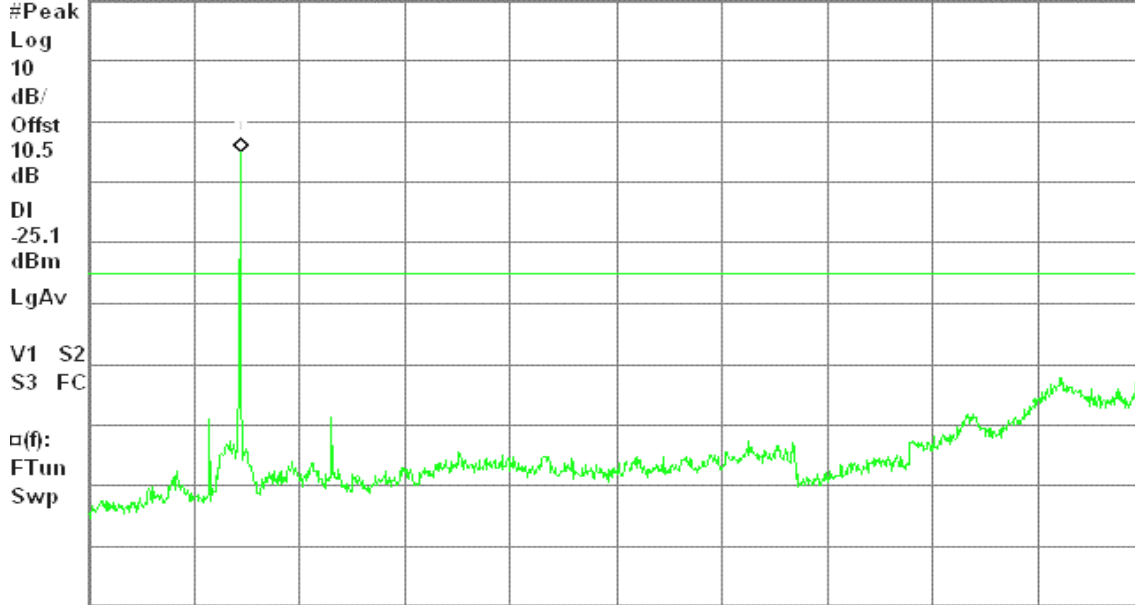
Spurious, a Mode Mid Ch.

Mkr1 5.79 GHz

Ref 20 dBm

Atten 20 dB

-5.14 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

### SPURIOUS EMISSIONS (CH High)

Agilent 16:53:23 Oct 3, 2007

R T

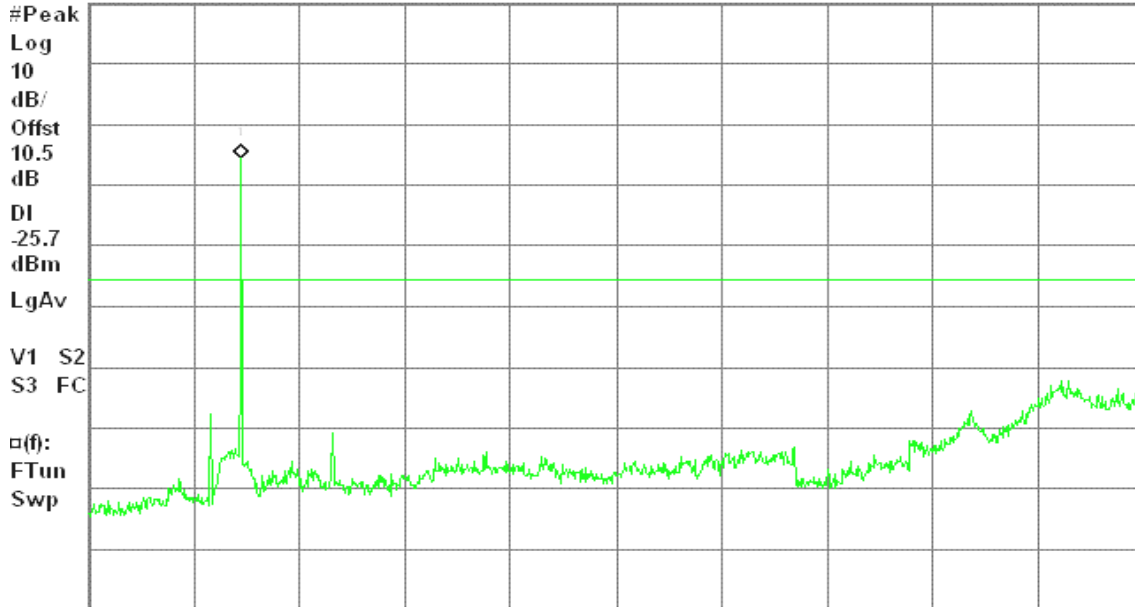
Spurious, a Mode High Ch.

Mkr1 5.83 GHz

Ref 20 dBm

Atten 20 dB

-5.69 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)



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

SPURIOUS EMISSIONS (CH Low)

Agilent 17:43:04 Oct 3, 2007

R T

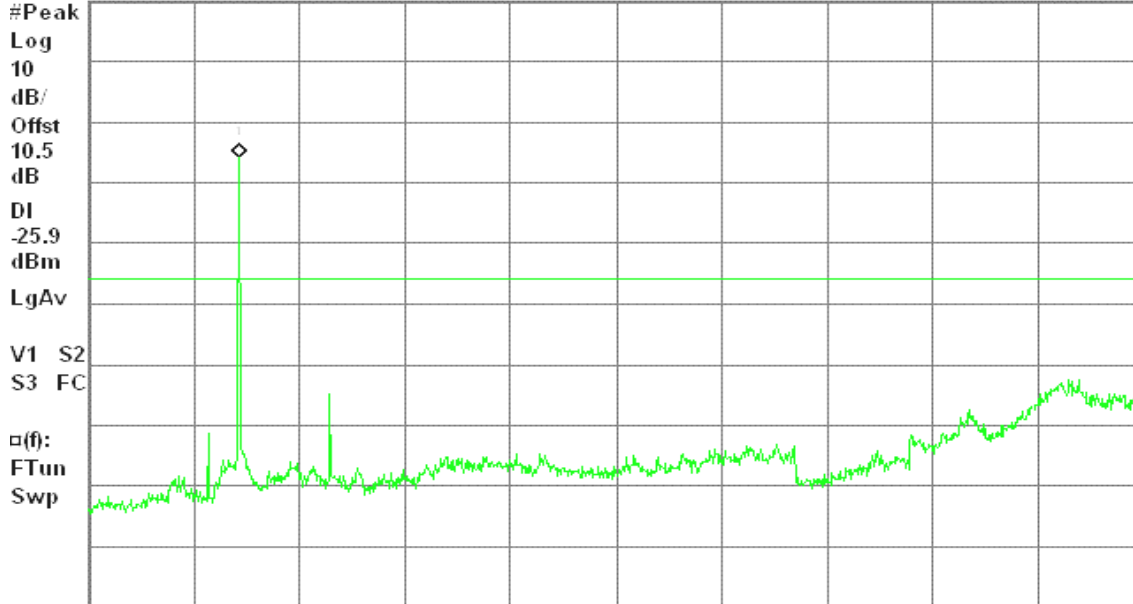
Spurious, a Mode Low Ch.

Mkr1 5.75 GHz

Ref 20 dBm

Atten 20 dB

-5.86 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

SPURIOUS EMISSIONS (CH Mid)

Agilent 17:49:01 Oct 3, 2007

R T

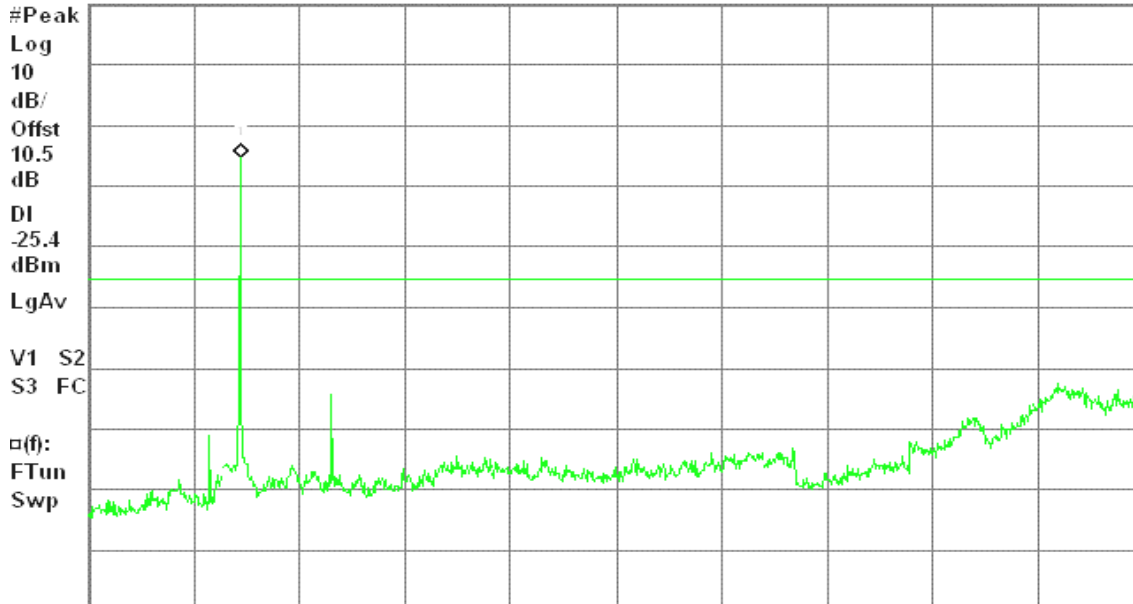
Spurious, a Mode Mid Ch.

Mkr1 5.79 GHz

Ref 20 dBm

Atten 20 dB

-5.36 dBm



Center 20.02 GHz

Span 39.97 GHz

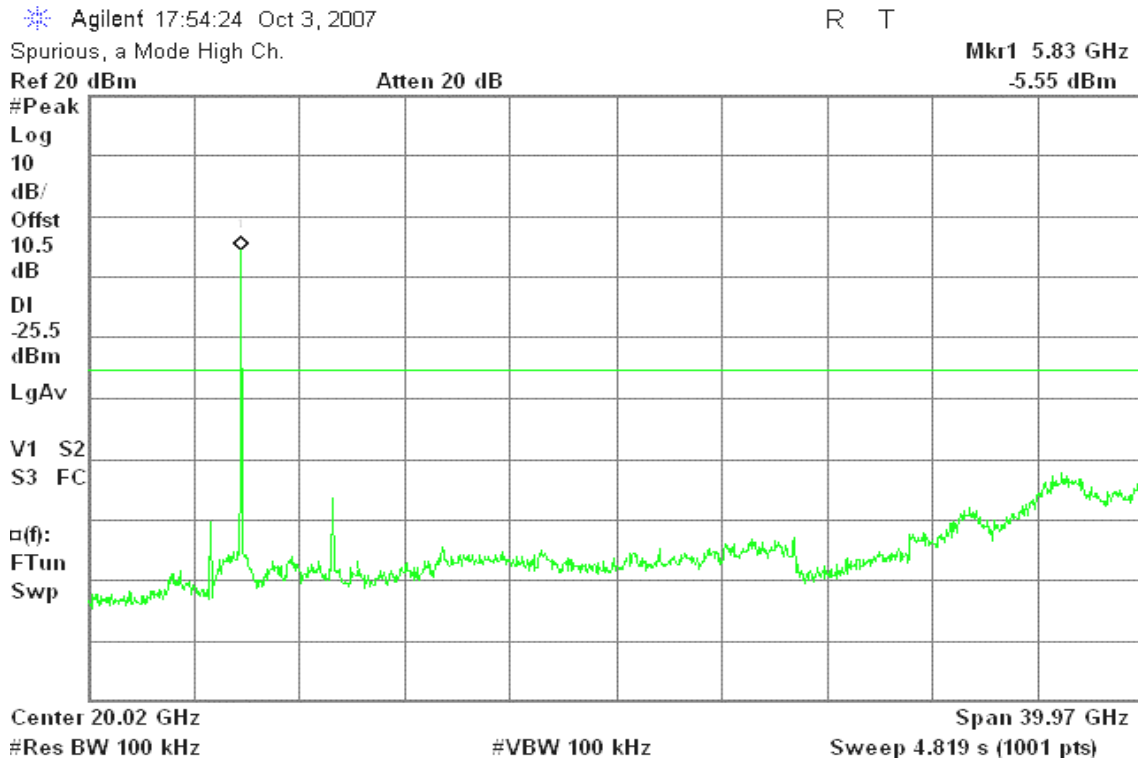
#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

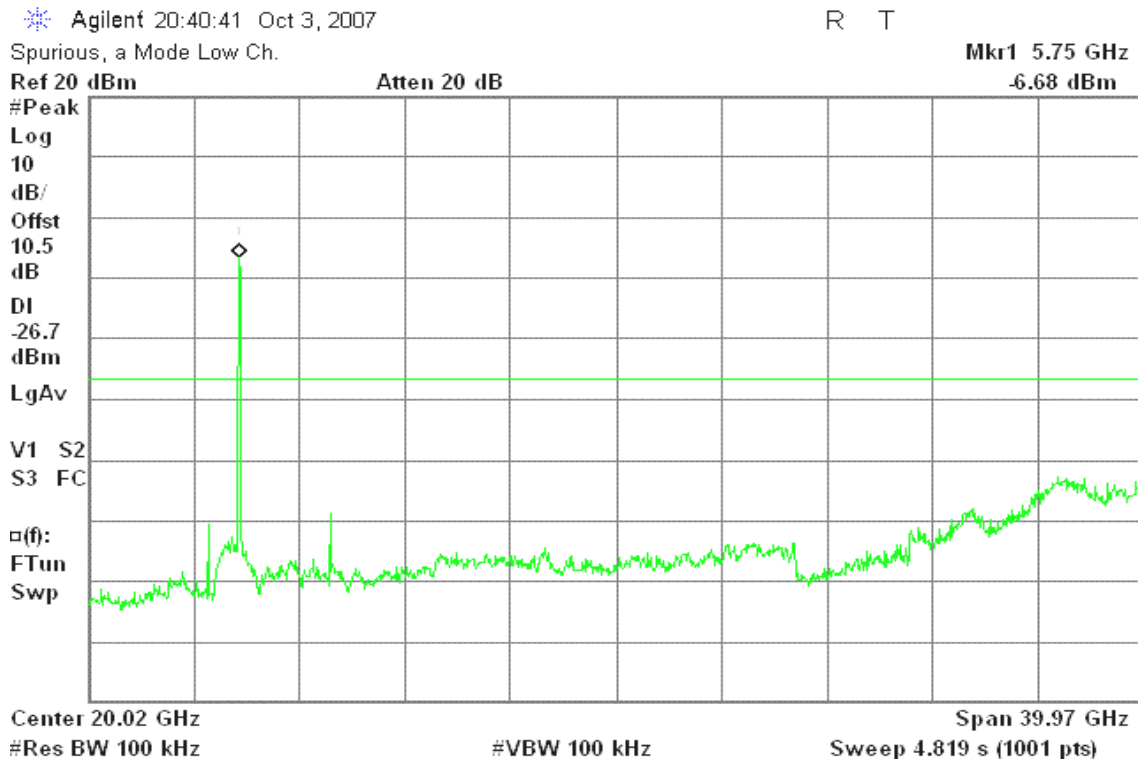


### SPURIOUS EMISSIONS (CH High)



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

### SPURIOUS EMISSIONS (CH Low)







### SPURIOUS EMISSIONS (CH High)

Agilent 20:45:37 Oct 3, 2007

R T

Spurious, a Mode High Ch.

Mkr1 5.79 GHz

Ref 20 dBm

Atten 20 dB

-7.08 dBm

#Peak

Log

10

dB/

Offst

10.5

dB

DI

-27.1

dBm

LgAv

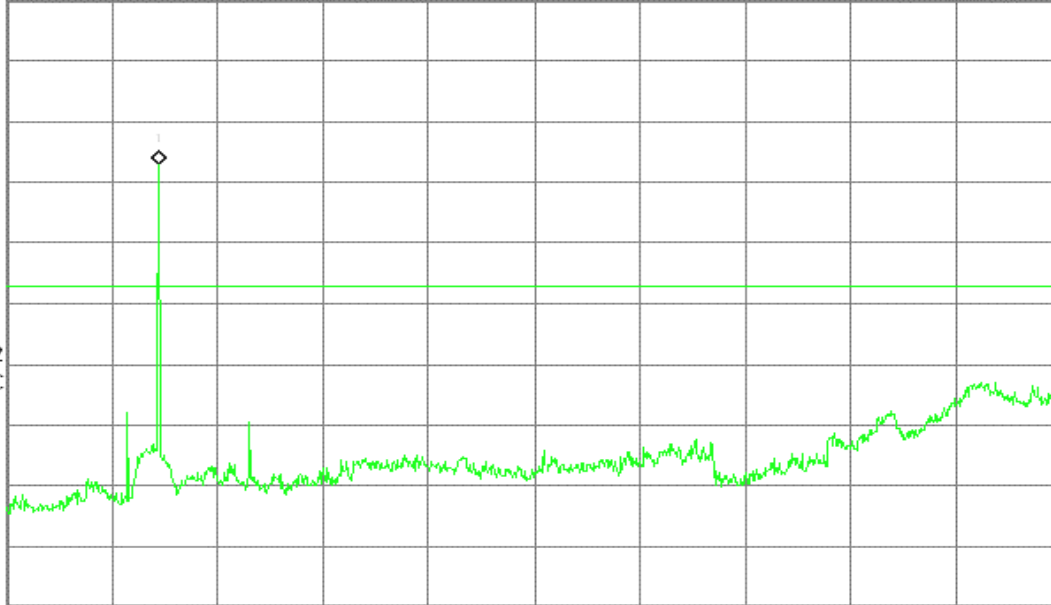
V1 S2

S3 FC

□(f):

FTun

Swp



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

### draft 802.11n Wide-40 MHz Channel mode / Chain 1

### SPURIOUS EMISSIONS (CH Low)

Agilent 20:58:14 Oct 3, 2007

R T

Spurious, a Mode Low Ch.

Mkr1 5.75 GHz

Ref 20 dBm

Atten 20 dB

-8.45 dBm

#Peak

Log

10

dB/

Offst

10.5

dB

DI

-28.5

dBm

LgAv

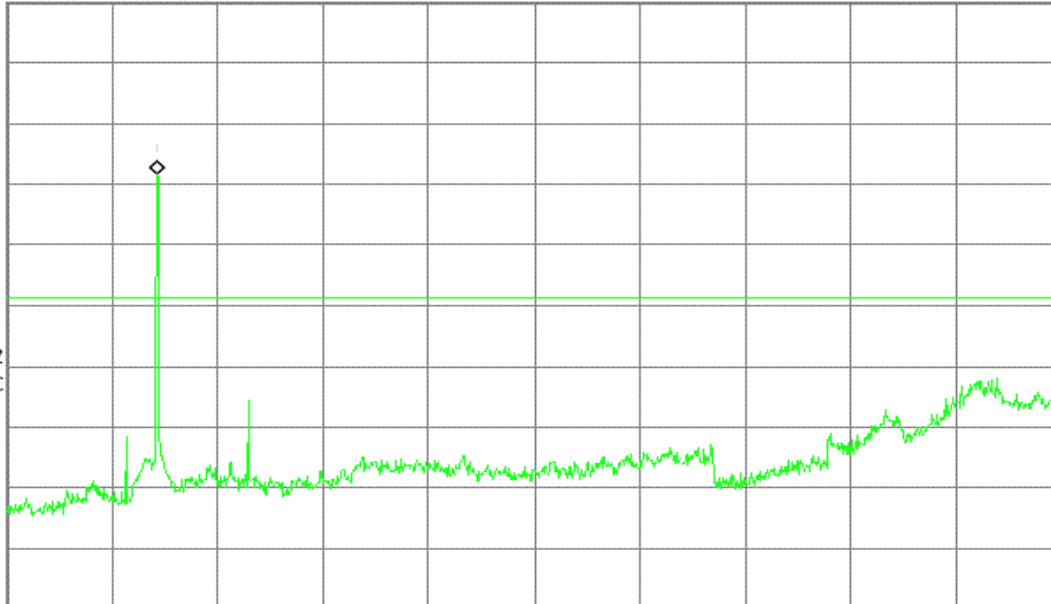
V1 S2

S3 FC

□(f):

FTun

Swp



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)



### SPURIOUS EMISSIONS (CH High)

Agilent 21:03:42 Oct 3, 2007

R T

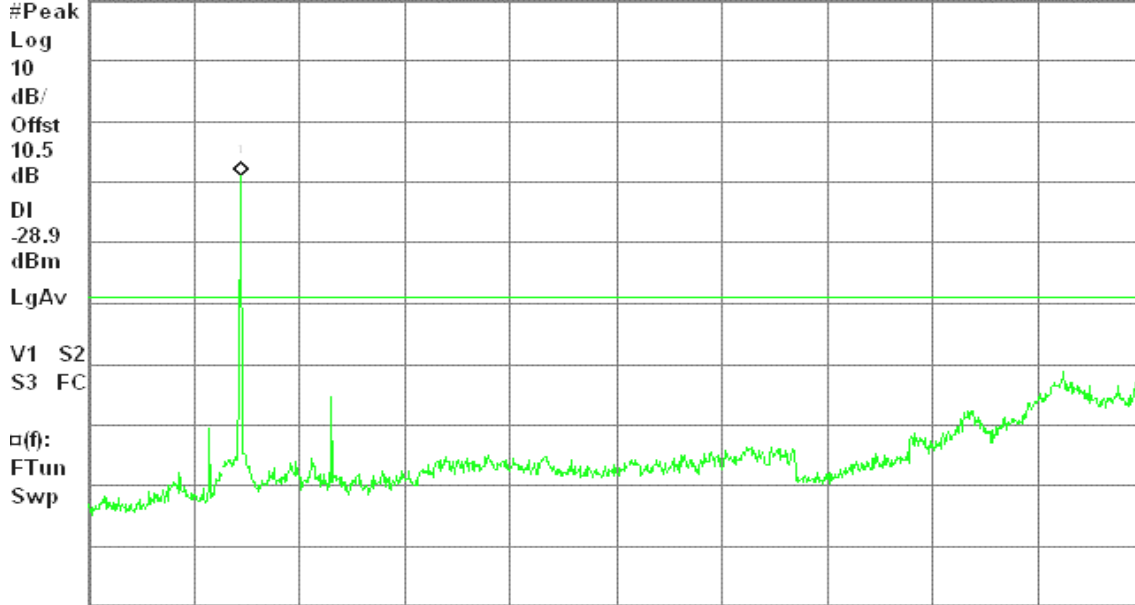
Spurious, a Mode High Ch.

Mkr1 5.79 GHz

Ref 20 dBm

Atten 20 dB

-8.85 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

### draft 802.11n Standard-20 MHz Channel mode with combiner

### SPURIOUS EMISSIONS (CH Low)

Agilent 19:18:42 Oct 3, 2007

R T

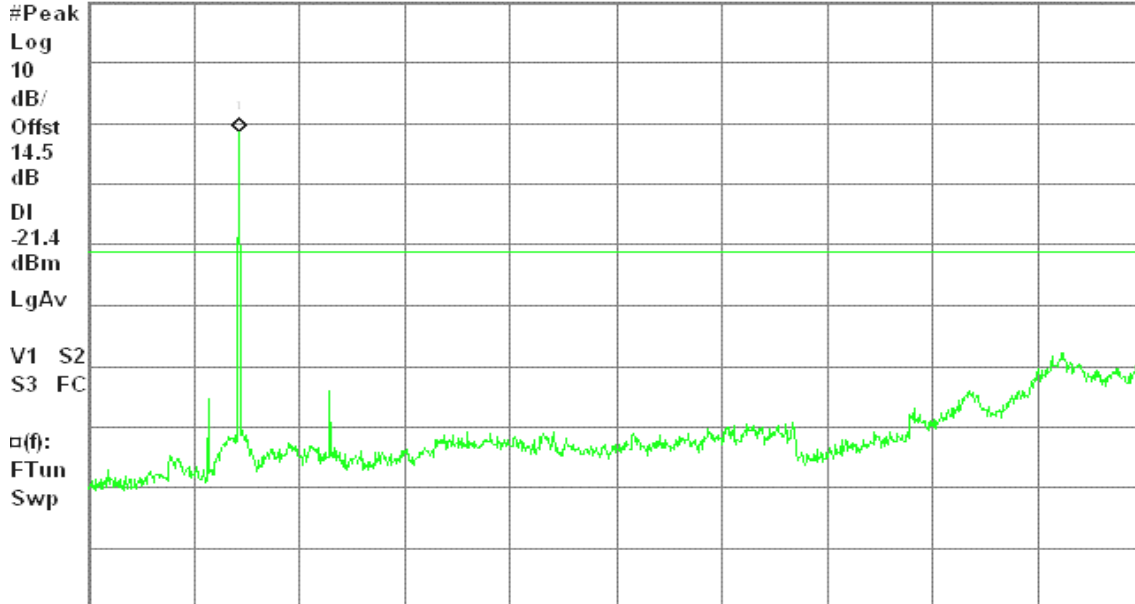
Spurious, a Mode Low Ch.

Mkr1 5.75 GHz

Ref 20 dBm

Atten 20 dB

-1.36 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)



### SPURIOUS EMISSIONS (CH Mid)

Agilent 18:52:06 Oct 3, 2007

R T

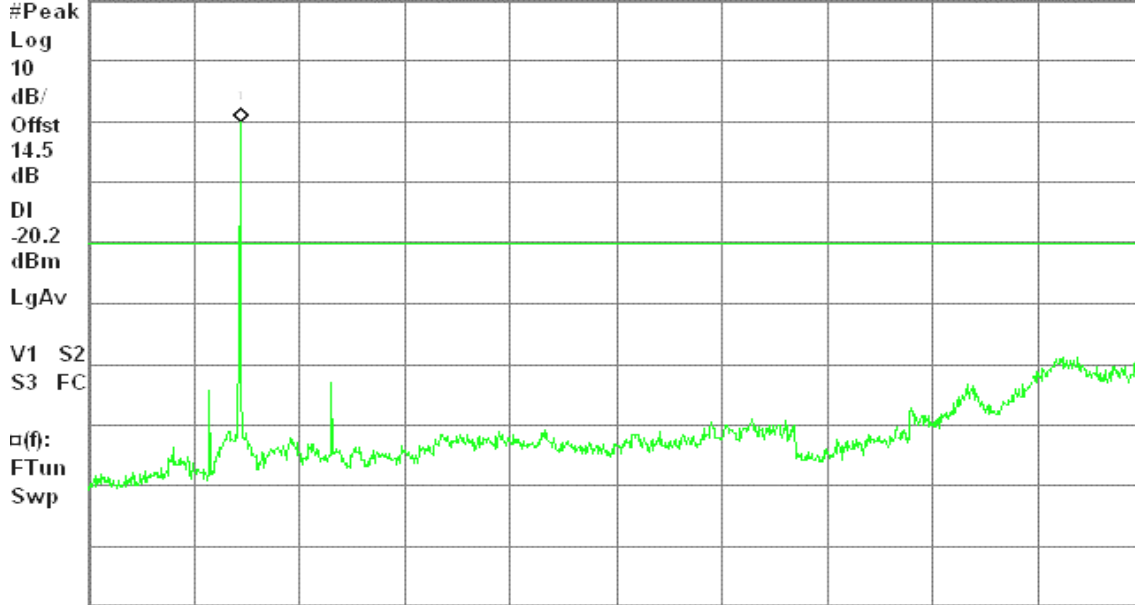
Spurious, a Mode Mid Ch.

Mkr1 5.79 GHz

Ref 20 dBm

Atten 20 dB

-0.23 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

### SPURIOUS EMISSIONS (CH High)

Agilent 19:11:52 Oct 3, 2007

R T

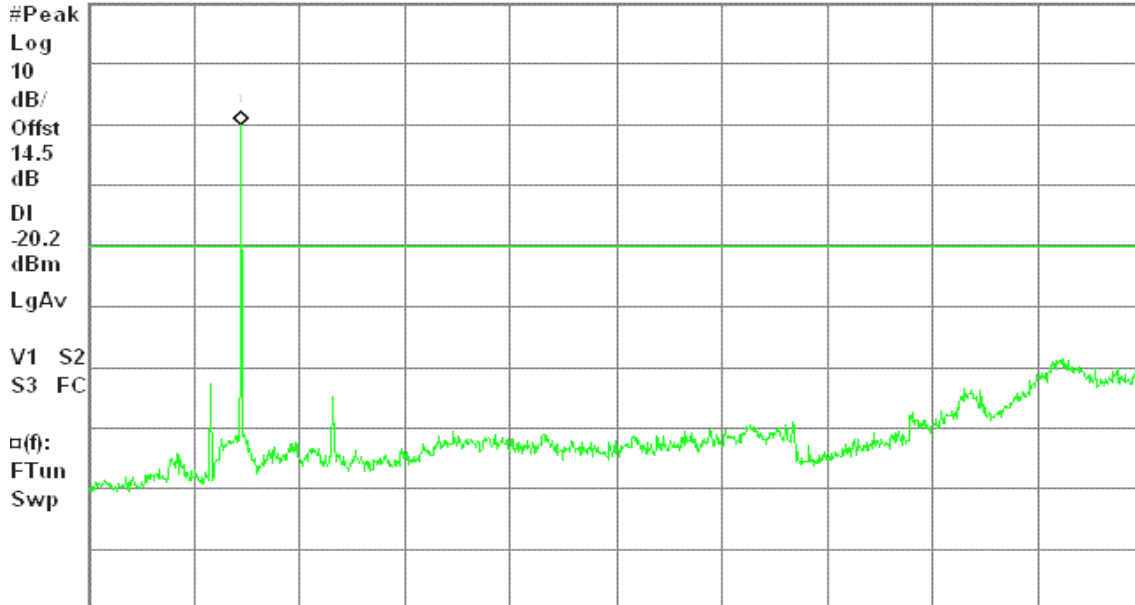
Spurious, a Mode High Ch.

Mkr1 5.83 GHz

Ref 20 dBm

Atten 20 dB

-0.17 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)



draft 802.11n Wide-40 MHz Channel mode with combiner

SPURIOUS EMISSIONS (CH Low)

Agilent 20:27:17 Oct 3, 2007

R T

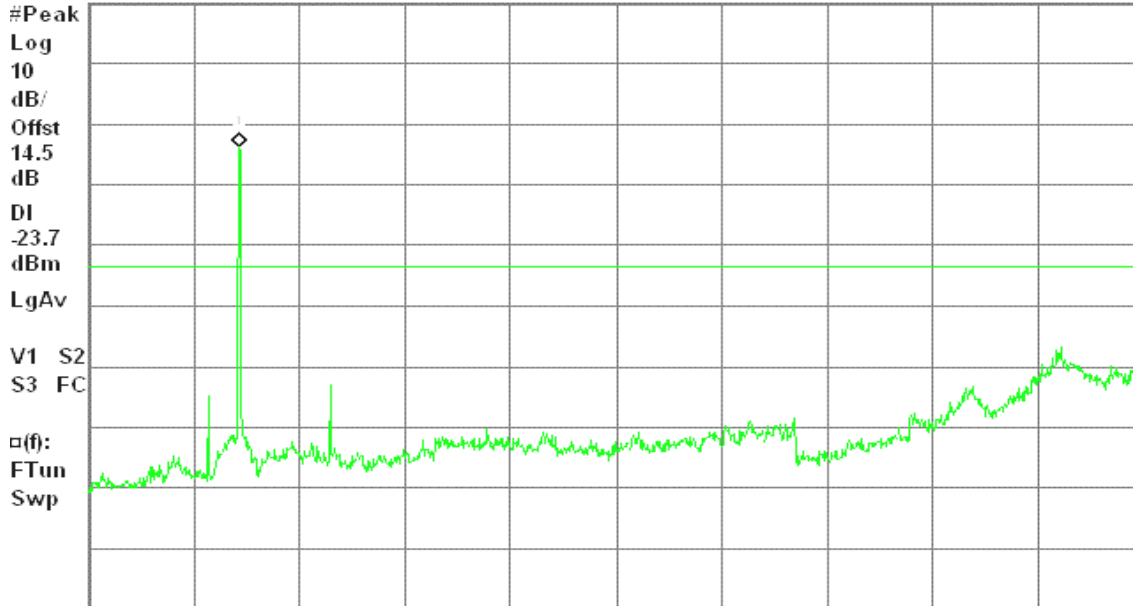
Spurious, a Mode Low Ch.

Mkr1 5.75 GHz

Ref 20 dBm

Atten 20 dB

-3.70 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

SPURIOUS EMISSIONS (CH High)

Agilent 20:32:03 Oct 3, 2007

R T

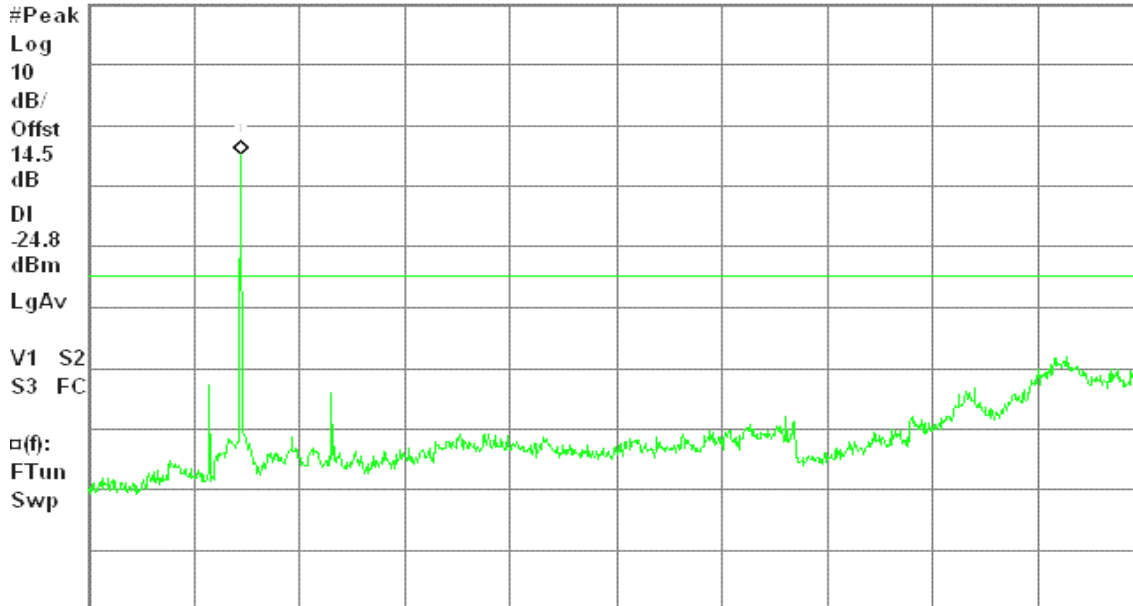
Spurious, a Mode High Ch.

Mkr1 5.79 GHz

Ref 20 dBm

Atten 20 dB

-4.83 dBm



Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 4.819 s (1001 pts)

## 8.6.2 RADIATED EMISSIONS

### 8.6.2.1 LIMIT - ABOVE 1 GHz

1. 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 ( $\mu\text{V/m}$ )	Measurement Distance (m)
Above 960	500	3

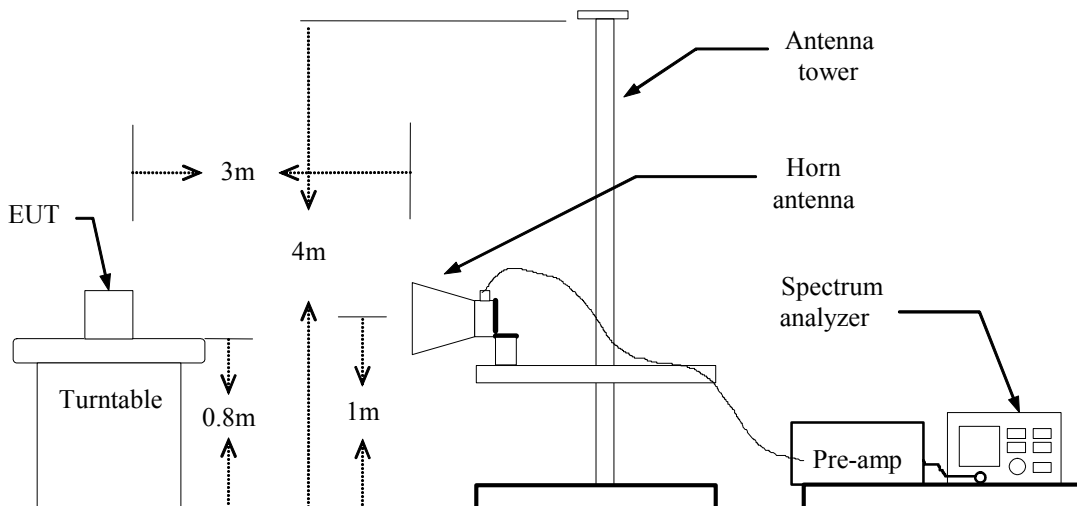
**Remark:** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections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

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

Frequency (MHz)	Field Strength ( $\mu\text{V/m}$ at 3-meter)	Field Strength (dB $\mu\text{V/m}$ at 3-meter)
Above 960	500	54

### Test Configuration

#### Above 1 GHz





### **8.6.2.2 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:  
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.



### 8.6.2.3 TEST RESULTS

No non-compliance noted

#### Above 1 GHz

Operation Mode: Tx / IEEE 802.11b mode / CH Low

Test Date: October 2, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55% RH

Polarity: Ver. / Hor.

Test Mode: 2

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
1446.67	V	57.83	---	-10.06	47.77	---	74.00	54.00	-26.23	Peak
2640.00	V	64.97	56.80	-3.39	61.58	53.41	74.00	54.00	-0.59	AVG
3375.00	V	48.14	---	-1.97	46.17	---	74.00	54.00	-27.83	Peak
4825.00	V	53.95	52.39	0.55	54.50	52.94	74.00	54.00	-1.06	AVG
N/A										
1446.67	H	67.62	62.01	-10.06	57.56	51.95	74.00	54.00	-2.05	AVG
4825.00	H	44.92	---	0.55	45.48	---	74.00	54.00	-28.52	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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



Operation Mode: Tx / IEEE 802.11b mode / CH Mid

Test Date: October 2, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55% RH

Polarity: Ver. / Hor.

Test Mode: 2

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
1460.00	V	57.95	---	-10.04	47.91	---	74.00	54.00	-26.09	Peak
2680.00	V	64.89	56.89	-3.28	61.61	53.61	74.00	54.00	-0.39	AVG
4875.00	V	56.39	52.99	0.60	56.99	53.59	74.00	54.00	-0.41	AVG
N/A										
4875.00	H	49.00	---	0.60	49.61	---	74.00	54.00	-24.39	Peak
6741.67	H	44.71	---	3.47	48.18	---	74.00	54.00	-25.82	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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).





Operation Mode: Tx / IEEE 802.11b mode / CH High

Test Date: October 2, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55% RH

Polarity: Ver. / Hor.

Test Mode: 2

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
2640.00	V	64.92	56.93	-3.39	61.53	53.54	74.00	54.00	-0.46	AVG
4925.00	V	56.42	53.04	0.65	57.07	53.69	74.00	54.00	-0.31	AVG
N/A										
1476.67	H	62.11	---	-10.01	52.09	---	74.00	54.00	-21.91	Peak
4925.00	H	45.46	---	0.65	46.11	---	74.00	54.00	-27.89	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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



Operation Mode: Tx / IEEE 802.11g mode / CH Low

Test Date: October 2, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55% RH

Polarity: Ver. / Hor.

Test Mode: 2

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
2560.00	V	64.89	56.98	-3.60	61.29	53.38	74.00	54.00	-0.62	AVG
2640.00	V	64.70	56.67	-3.39	61.31	53.28	74.00	54.00	-0.72	AVG
3366.67	V	46.30	---	-1.98	44.31	---	74.00	54.00	-29.69	Peak
4825.00	V	45.37	---	0.55	45.92	---	74.00	54.00	-28.08	Peak
6683.33	V	44.41	---	3.36	47.77	---	74.00	54.00	-26.23	Peak
N/A										
5175.00	H	44.46	---	0.96	45.43	---	74.00	54.00	-28.57	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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



Operation Mode: Tx / IEEE 802.11g mode/ CH Mid

Test Date: October 2, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55% RH

Polarity: Ver. / Hor.

Test Mode: 2

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
2560.00	V	64.78	56.88	-3.60	61.18	53.28	74.00	54.00	-0.72	AVG
2640.00	V	64.56	56.75	-3.39	61.17	53.36	74.00	54.00	-0.64	AVG
6691.67	V	44.17	---	3.37	47.54	---	74.00	54.00	-26.46	Peak
N/A										
6941.67	H	44.09	---	3.88	47.97	---	74.00	54.00	-26.03	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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



Operation Mode: Tx / IEEE 802.11g mode/ CH High

Test Date: October 2, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55% RH

Polarity: Ver. / Hor.

Test Mode: 2

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
2560.00	V	64.50	57.05	-3.60	60.90	53.45	74.00	54.00	-0.55	AVG
2640.00	V	64.86	57.11	-3.39	61.47	53.72	74.00	54.00	-0.28	AVG
6341.67	V	44.99	---	2.70	47.69	---	74.00	54.00	-26.31	Peak
N/A										
6291.67	H	44.41	---	2.61	47.02	---	74.00	54.00	-26.98	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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



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

Test Date: October 3, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55 % RH

Polarity: Ver. / Hor.

Test Mode: 2

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
2893.33	V	62.33	54.31	-2.73	59.60	51.58	74.00	54.00	-2.42	AVG
3366.67	V	48.28	---	-1.98	46.29	---	74.00	54.00	-27.71	Peak
6391.67	V	45.16	---	2.79	47.96	---	74.00	54.00	-26.04	Peak
N/A										
6950.00	H	43.90	---	3.89	47.79	---	74.00	54.00	-26.21	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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



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

Test Date: October 3, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55 % RH

Polarity: Ver. / Hor.

Test Mode: 2

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
3408.33	V	45.80	---	-1.93	43.87	---	74.00	54.00	-30.13	Peak
N/A										
7041.67	H	44.20	---	3.92	48.11	---	74.00	54.00	-25.89	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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



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

Test Date: October 3, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55 % RH

Polarity: Ver. / Hor.

Test Mode: 2

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
7166.67	V	44.34	---	3.68	48.02	---	74.00	54.00	-25.98	Peak
N/A										
7008.33	H	43.66	---	3.98	47.64	---	74.00	54.00	-26.36	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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** TX / draft 802.11n Wide-40 MHz Channel mode / CH Low      **Test Date:** October 3, 2007  
**Temperature:** 25°C      **Tested by:** Wolf Huang  
**Humidity:** 55 % RH      **Polarity:** Ver. / Hor.  
**Test Mode:** 2

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
2893.33	V	62.33	54.31	-2.73	59.60	51.58	74.00	54.00	-2.42	AVG
3366.67	V	48.28	---	-1.98	46.29	---	74.00	54.00	-27.71	Peak
6391.67	V	45.16	---	2.79	47.96	---	74.00	54.00	-26.04	Peak
N/A										
6950.00	H	43.90	---	3.89	47.79	---	74.00	54.00	-26.21	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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).





**Operation Mode:** TX / draft 802.11n Wide-40 MHz Channel mode / CH Mid **Test Date:** October 3, 2007  
**Temperature:** 25°C **Tested by:** Wolf Huang  
**Humidity:** 55 % RH **Polarity:** Ver. / Hor.  
**Test Mode:** 2

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
3408.33	V	45.80	---	-1.93	43.87	---	74.00	54.00	-30.13	Peak
N/A										
7041.67	H	44.20	---	3.92	48.11	---	74.00	54.00	-25.89	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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** TX / draft 802.11n Wide-40 MHz Channel mode / CH High **Test Date:** October 3, 2007  
**Temperature:** 25°C **Tested by:** Wolf Huang  
**Humidity:** 55 % RH **Polarity:** Ver. / Hor.  
**Test Mode:** 2

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
7166.67	V	44.34	---	3.68	48.02	---	74.00	54.00	-25.98	Peak
N/A										
7008.33	H	43.66	---	3.98	47.64	---	74.00	54.00	-26.36	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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



Operation Mode: Tx / IEEE 802.11a mode/ CH Low

Test Date: October 3, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55% RH

Polarity: Ver. / Hor.

Test Mode: 2

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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



Operation Mode: Tx / IEEE 802.11a mode/ CH Mid

Test Date: October 3, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55% RH

Polarity: Ver. / Hor.

Test Mode: 2

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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



Operation Mode: Tx / IEEE 802.11a mode/ CH High

Test Date: October 3, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55% RH

Polarity: Ver. / Hor.

Test Mode: 2

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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



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

Test Date: October 3, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55 % RH

Polarity: Ver. / Hor.

Test Mode: 2

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
9200.00	V	48.57	41.39	9.87	58.44	51.26	74.00	54.00	-2.74	AVG
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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



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

Test Date: August 11, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55 % RH

Polarity: Ver. / Hor.

Test Mode: 2

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
9250.00	V	48.47	41.49	10.10	58.57	51.59	74.00	54.00	-2.41	AVG
N/A										
4826.67	H	54.21	42.17	0.56	54.77	42.73	74.00	54.00	-11.27	AVG
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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



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

Test Date: October 3, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55 % RH

Polarity: Ver. / Hor.

Test Mode: 2

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
9316.67	V	48.48	41.46	10.40	58.88	51.86	74.00	54.00	-2.14	AVG
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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).





**Operation Mode:** TX / draft 802.11n Wide-40 MHz Channel mode / CH Low      **Test Date:** October 4, 2007  
**Temperature:** 25°C      **Tested by:** Wolf Huang  
**Humidity:** 55 % RH      **Polarity:** Ver. / Hor.  
**Test Mode:** 2

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
9266.67	V	46.70	37.25	10.17	56.87	47.42	74.00	54.00	-6.58	AVG
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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** TX / draft 802.11n Wide-40 MHz Channel mode / CH High **Test Date:** October 4, 2007  
**Temperature:** 25°C **Tested by:** Wolf Huang  
**Humidity:** 55 % RH **Polarity:** Ver. / Hor.  
**Test Mode:** 2

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
11600.00	V	40.29	34.00	15.31	55.59	49.31	74.00	54.00	-4.69	AVG
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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



Operation Mode: Tx / IEEE 802.11b mode / CH Low

Test Date: October 4, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55% RH

Polarity: Ver. / Hor.

Test Mode: 5

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
4825.00	V	48.27	---	0.55	48.82	---	74.00	54.00	-25.18	Peak
6358.33	V	44.63	---	2.73	47.36	---	74.00	54.00	-26.64	Peak
N/A										
2560.00	H	65.87	57.12	-3.60	62.27	53.52	74.00	54.00	-0.48	AVG
3375.00	H	45.84	---	-1.97	43.86	---	74.00	54.00	-30.14	Peak
4825.00	H	57.77	52.83	0.55	58.32	53.38	74.00	54.00	-0.62	AVG
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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



Operation Mode: Tx / IEEE 802.11b mode / CH Mid

Test Date: October 4, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55% RH

Polarity: Ver. / Hor.

Test Mode: 5

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
4875.00	V	46.63	---	0.60	47.23	---	74.00	54.00	-26.77	Peak
N/A										
2560.00	H	62.30	56.80	-3.60	58.70	53.20	74.00	54.00	-0.80	AVG
4875.00	H	54.95	52.83	0.60	55.55	53.43	74.00	54.00	-0.57	AVG
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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



Operation Mode: Tx / IEEE 802.11b mode / CH High

Test Date: October 4, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55% RH

Polarity: Ver. / Hor.

Test Mode: 5

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
4925.00	V	47.17	---	0.65	47.82	---	74.00	54.00	-26.18	Peak
N/A										
2560.00	H	63.81	56.71	-3.60	60.21	53.11	74.00	54.00	-0.89	AVG
4925.00	H	58.08	53.12	0.65	58.73	53.77	74.00	54.00	-0.23	AVG
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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



Operation Mode: Tx / IEEE 802.11g mode / CH Low

Test Date: October 4, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55% RH

Polarity: Ver. / Hor.

Test Mode: 5

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
6683.33	V	44.22	---	3.36	47.58	---	74.00	54.00	-26.42	Peak
N/A										
2560.00	H	63.67	57.35	-3.60	60.07	53.75	74.00	54.00	-0.25	AVG
6316.67	H	44.73	---	2.66	47.39	---	74.00	54.00	-26.61	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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



Operation Mode: Tx / IEEE 802.11g mode/ CH Mid

Test Date: October 4, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55% RH

Polarity: Ver. / Hor.

Test Mode: 5

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
7200.00	V	44.51	---	3.62	48.12	---	74.00	54.00	-25.88	Peak
N/A										
2560.00	H	64.45	57.19	-3.60	60.85	53.59	74.00	54.00	-0.41	AVG
4875.00	H	45.07	---	0.60	45.68	---	74.00	54.00	-28.32	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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



Operation Mode: Tx / IEEE 802.11g mode/ CH High

Test Date: October 4, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55% RH

Polarity: Ver. / Hor.

Test Mode: 5

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
6941.67	V	43.79	---	3.88	47.67	---	74.00	54.00	-26.33	Peak
N/A										
2560.00	H	62.45	56.99	-3.60	58.85	53.39	74.00	54.00	-0.61	AVG
4925.00	H	45.47	---	0.65	46.12	---	74.00	54.00	-27.88	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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).





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

Test Date: October 4, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55 % RH

Polarity: Ver. / Hor.

Test Mode: 5

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
7033.33	V	44.43	---	3.93	48.36	---	74.00	54.00	-25.64	Peak
N/A										
2560.00	H	63.57	57.11	-3.60	59.97	53.51	74.00	54.00	-0.49	AVG
6391.67	H	45.08	---	2.79	47.87	---	74.00	54.00	-26.13	Peak
7191.67	H	43.55	---	3.63	47.18	---	74.00	54.00	-26.82	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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



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

Test Date: October 4, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55 % RH

Polarity: Ver. / Hor.

Test Mode: 5

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
6983.33	V	44.42	---	3.96	48.38	---	74.00	54.00	-25.62	Peak
N/A										
6383.33	H	44.51	---	2.78	47.29	---	74.00	54.00	-26.71	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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



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

Test Date: October 4, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55 % RH

Polarity: Ver. / Hor.

Test Mode: 5

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
6058.33	V	44.87	---	2.20	47.07	---	74.00	54.00	-26.93	Peak
N/A										
4866.67	H	45.19	---	0.59	45.78	---	74.00	54.00	-28.22	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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** TX / draft 802.11n Wide-40 MHz Channel mode / CH Low **Test Date:** October 4, 2007  
**Temperature:** 25°C **Tested by:** Wolf Huang  
**Humidity:** 55 % RH **Polarity:** Ver. / Hor.  
**Test Mode:** 5

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
5108.33	V	45.49	---	0.87	46.36	---	74.00	54.00	-27.64	Peak
6441.67	V	44.65	---	2.88	47.53	---	74.00	54.00	-26.47	Peak
N/A										
6658.33	H	44.29	---	3.31	47.59	---	74.00	54.00	-26.41	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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** TX / draft 802.11n Wide-40 MHz Channel mode / CH Mid **Test Date:** October 4, 2007  
**Temperature:** 25°C **Tested by:** Wolf Huang  
**Humidity:** 55 % RH **Polarity:** Ver. / Hor.  
**Test Mode:** 5

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
6816.67	V	43.72	---	3.62	47.34	---	74.00	54.00	-26.66	Peak
N/A										
5266.67	H	45.05	---	1.09	46.14	---	74.00	54.00	-27.86	Peak
6358.33	H	44.64	---	2.73	47.38	---	74.00	54.00	-26.62	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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** TX / draft 802.11n Wide-40 MHz Channel mode / CH High **Test Date:** October 4, 2007  
**Temperature:** 25°C **Tested by:** Wolf Huang  
**Humidity:** 55 % RH **Polarity:** Ver. / Hor.  
**Test Mode:** 5

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
5758.33	V	44.95	---	1.76	46.72	---	74.00	54.00	-27.28	Peak
6958.33	V	43.74	---	3.91	47.65	---	74.00	54.00	-26.35	Peak
N/A										
5175.00	H	44.71	---	0.96	45.67	---	74.00	54.00	-28.33	Peak
6950.00	H	43.94	---	3.89	47.83	---	74.00	54.00	-26.17	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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



Operation Mode: Tx / IEEE 802.11a mode/ CH Low

Test Date: October 5, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55% RH

Polarity: Ver. / Hor.

Test Mode: 5

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
9200.00	V	46.86	39.12	9.87	56.73	48.99	74.00	54.00	-5.01	AVG
N/A										
9200.00	H	43.36	---	9.87	53.23	---	74.00	54.00	-20.77	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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



Operation Mode: Tx / IEEE 802.11a mode/ CH Mid

Test Date: October 5, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55% RH

Polarity: Ver. / Hor.

Test Mode: 5

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
9250.00	V	42.91	---	10.10	53.01	---	74.00	54.00	-20.99	Peak
N/A										
9250.00	H	41.43	---	10.10	51.52	---	74.00	54.00	-22.48	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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).





Operation Mode: Tx / IEEE 802.11a mode/ CH High

Test Date: October 5, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55% RH

Polarity: Ver. / Hor.

Test Mode: 5

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
9316.67	V	43.54	---	10.40	53.93	---	74.00	54.00	-20.07	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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



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

Test Date: October 5, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55 % RH

Polarity: Ver. / Hor.

Test Mode: 5

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
9200.00	V	48.89	42.77	9.87	58.76	52.64	74.00	54.00	-1.36	AVG
N/A										
9200.00	H	49.65	43.87	9.87	59.52	53.74	74.00	54.00	-0.26	AVG
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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



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

Test Date: October 5, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55 % RH

Polarity: Ver. / Hor.

Test Mode: 5

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
9250.00	V	47.79	43.11	10.10	57.89	53.21	74.00	54.00	-0.79	AVG
N/A										
9250.00	H	47.97	43.36	10.10	58.07	53.46	74.00	54.00	-0.54	AVG
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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



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

Test Date: October 5, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55 % RH

Polarity: Ver. / Hor.

Test Mode: 5

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
9316.67	V	46.89	42.32	10.40	57.29	52.72	74.00	54.00	-1.28	AVG
N/A										
9316.67	H	46.87	42.36	10.40	57.27	52.76	74.00	54.00	-1.24	AVG
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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** TX / draft 802.11n Wide-40 MHz Channel mode / CH Low      **Test Date:** October 5, 2007  
**Temperature:** 25°C      **Tested by:** Wolf Huang  
**Humidity:** 55 % RH      **Polarity:** Ver. / Hor.  
**Test Mode:** 5

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
9200.00	V	43.99	---	9.87	53.86	---	74.00	54.00	-20.14	Peak
N/A										
9200.00	H	43.89	---	9.87	53.76	---	74.00	54.00	-20.24	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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).



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

Test Date: October 5, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55 % RH

Polarity: Ver. / Hor.

Test Mode: 5

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
9266.67	V	45.67	42.98	10.17	55.84	53.15	74.00	54.00	-0.85	AVG
N/A										
9266.67	H	43.22	---	10.17	53.39	---	74.00	54.00	-20.61	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) = Peak Remark result (dBuV/m) – Peak limit (dBuV/m) or Average Remark result (dBuV/m) – Average limit (dBuV/m).

### 8.6.2.4 LIMIT - BELOW 1 GHZ

1. 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 ( $\mu\text{V/m}$ )	Measurement Distance (m)
0.009 – 0.490	2400/F (kHz)	300
0.490 – 1.706	24000/F (kHz)	30
1.705 – 30.0	30	30
30-88	100*	3
88-216	150*	3
216-960	200*	3

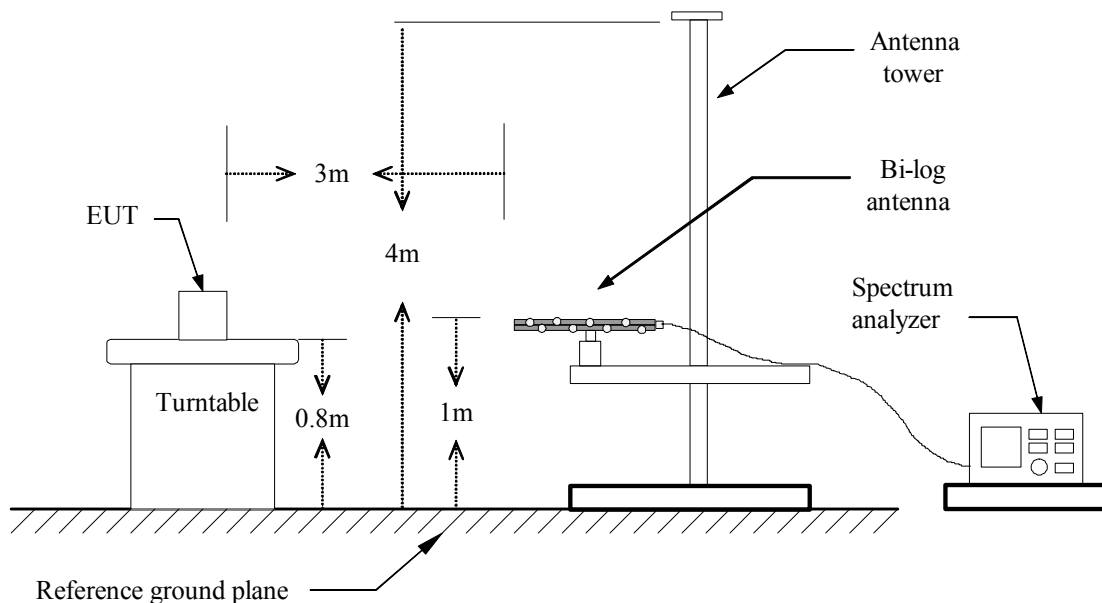
**Remark:** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections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

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

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

### Test Configuration

#### Below 1 GHz





### **8.6.2.5 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
7. Repeat above procedures until the measurements for all frequencies are complete.





## 8.6.2.6 TEST RESULTS

### Below 1 GHz

**Operation Mode:** Mode 2**Test Date:** October 9, 2007**Temperature:** 25°C**Tested by:** Wolf Huang**Humidity:** 55% 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
38.08	V	40.72	-11.60	29.13	40.00	-10.87	Peak
99.52	V	44.26	-16.93	27.33	43.50	-16.17	Peak
165.80	V	50.50	-14.55	35.96	43.50	-7.54	Peak
298.37	V	42.29	-12.47	29.82	46.00	-16.18	Peak
479.43	V	37.78	-7.71	30.08	46.00	-15.92	Peak
912.70	V	34.19	-1.80	32.39	46.00	-13.61	Peak
165.80	H	47.81	-14.55	33.26	43.50	-10.24	Peak
232.08	H	45.96	-14.68	31.29	46.00	-14.71	Peak
299.98	H	47.67	-12.43	35.24	46.00	-10.76	Peak
479.43	H	42.71	-7.71	35.00	46.00	-11.00	Peak
566.73	H	38.88	-6.42	32.45	46.00	-13.55	Peak
912.70	H	37.69	-1.80	35.89	46.00	-10.11	Peak

**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).



Operation Mode: Mode 5

Test Date: October 9, 2007

Temperature: 25°C

Tested by: Wolf Huang

Humidity: 55% 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
36.47	V	40.35	-10.49	29.86	40.00	-10.14	Peak
99.52	V	43.84	-16.93	26.92	43.50	-16.58	Peak
165.80	V	50.75	-14.55	36.20	43.50	-7.30	Peak
232.08	V	43.84	-14.68	29.16	46.00	-16.84	Peak
299.98	V	42.40	-12.43	29.97	46.00	-16.03	Peak
566.73	V	35.88	-6.42	29.45	46.00	-16.55	Peak
165.80	H	44.37	-14.55	29.82	43.50	-13.68	Peak
232.08	H	46.57	-14.68	31.89	46.00	-14.11	Peak
299.98	H	47.53	-12.43	35.10	46.00	-10.90	Peak
400.22	H	42.88	-10.00	32.88	46.00	-13.12	Peak
765.58	H	37.82	-3.60	34.22	46.00	-11.78	Peak
912.70	H	37.39	-1.80	35.59	46.00	-10.41	Peak

**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).



## 8.7 POWERLINE CONDUCTED EMISSIONS

### 8.7.1 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.

### 8.7.2 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.



### 8.7.3 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:** Mode 2 **Test Date:** October 15, 2007  
**Temperature:** 25°C **Tested by:** Wolf Huang  
**Humidity:** 55% RH

Freq. (MHz)	QP Reading	AV Reading	Corr. factor	QP Result	QP Limit	QP Margin	AV Result	AV Limit	AV Margin	Note
0.198	47.140	44.620	0.112	47.252	63.694	-16.442	44.732	53.694	-8.962	L1
0.268	41.110	38.620	0.085	41.195	61.180	-19.985	38.705	51.180	-12.475	L1
0.400	36.120	34.950	0.037	36.157	57.853	-21.697	34.987	47.853	-12.867	L1
0.534	30.620	29.960	0.000	30.620	56.000	-25.380	29.960	46.000	-16.040	L1
0.670	28.940	28.570	0.000	28.940	56.000	-27.060	28.570	46.000	-17.430	L1
4.884	37.180	34.290	0.097	37.277	56.000	-18.723	34.387	46.000	-11.613	L1
0.199	46.500	43.690	0.111	46.611	63.659	-17.048	43.801	53.659	-9.858	L2
0.268	40.890	38.220	0.085	40.975	61.180	-20.205	38.305	51.180	-12.875	L2
0.403	34.710	32.810	0.036	34.746	57.791	-23.046	32.846	47.791	-14.946	L2
0.536	30.520	30.030	0.000	30.520	56.000	-25.480	30.030	46.000	-15.970	L2
0.670	28.760	28.440	0.000	28.760	56.000	-27.240	28.440	46.000	-17.560	L2
4.620	34.770	33.530	0.089	34.859	56.000	-21.141	33.619	46.000	-12.381	L2

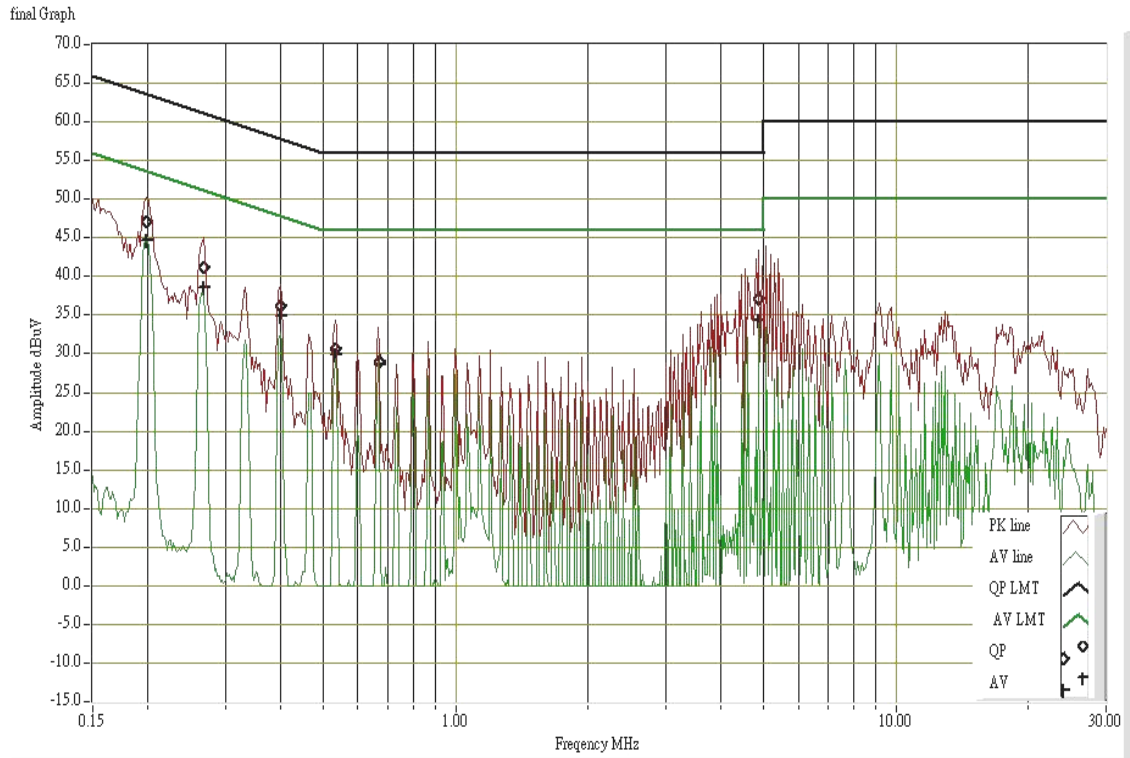
#### **Remark:**

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 to 30MHz was 10kHz; the IF bandwidth of Test Receiver between 0.15MHz to 30MHz was 9kHz.*
4. *L1 = Line One (Live Line) / L2 = Line Two (Neutral Line)*

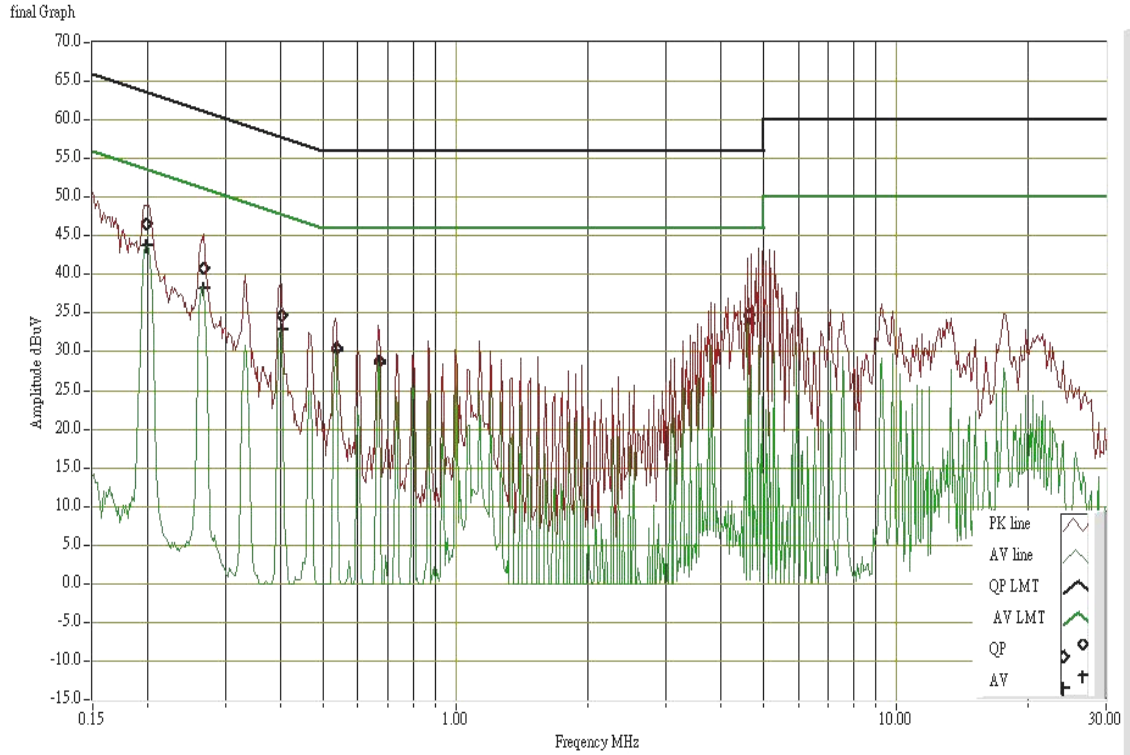


### Test Plots

#### Conducted emissions (Line 1)



#### Conducted emissions (Line 2)





Operation Mode: Mode 5  
Temperature: 25°C  
Humidity: 55% RH

Test Date: October 15, 2007  
Tested by: Wolf Huang

Freq. (MHz)	QP Reading	AV Reading	Corr. factor	QP Result	QP Limit	QP Margin	AV Result	AV Limit	AV Margin	Note
0.198	47.100	44.620	0.112	47.212	63.694	-16.482	44.732	53.694	-8.962	L1
0.264	41.050	38.110	0.087	41.137	61.305	-20.168	38.197	51.305	-13.108	L1
0.400	34.170	31.210	0.037	34.207	57.853	-23.647	31.247	47.853	-16.607	L1
0.532	29.610	29.170	0.000	29.610	56.000	-26.390	29.170	46.000	-16.830	L1
4.667	35.850	34.550	0.090	35.940	56.000	-20.060	34.640	46.000	-11.360	L1
10.334	29.220	28.030	0.308	29.528	60.000	-30.472	28.338	50.000	-21.662	L1
0.200	46.540	43.880	0.110	46.650	63.611	-16.961	43.990	53.611	-9.621	L2
0.264	40.910	38.160	0.087	40.997	61.305	-20.308	38.247	51.305	-13.058	L2
0.400	34.670	32.310	0.037	34.707	57.853	-23.147	32.347	47.853	-15.507	L2
0.532	30.250	29.960	0.000	30.250	56.000	-25.750	29.960	46.000	-16.040	L2
0.666	29.810	29.490	0.000	29.810	56.000	-26.190	29.490	46.000	-16.510	L2
4.474	34.570	33.730	0.084	34.654	56.000	-21.346	33.814	46.000	-12.186	L2

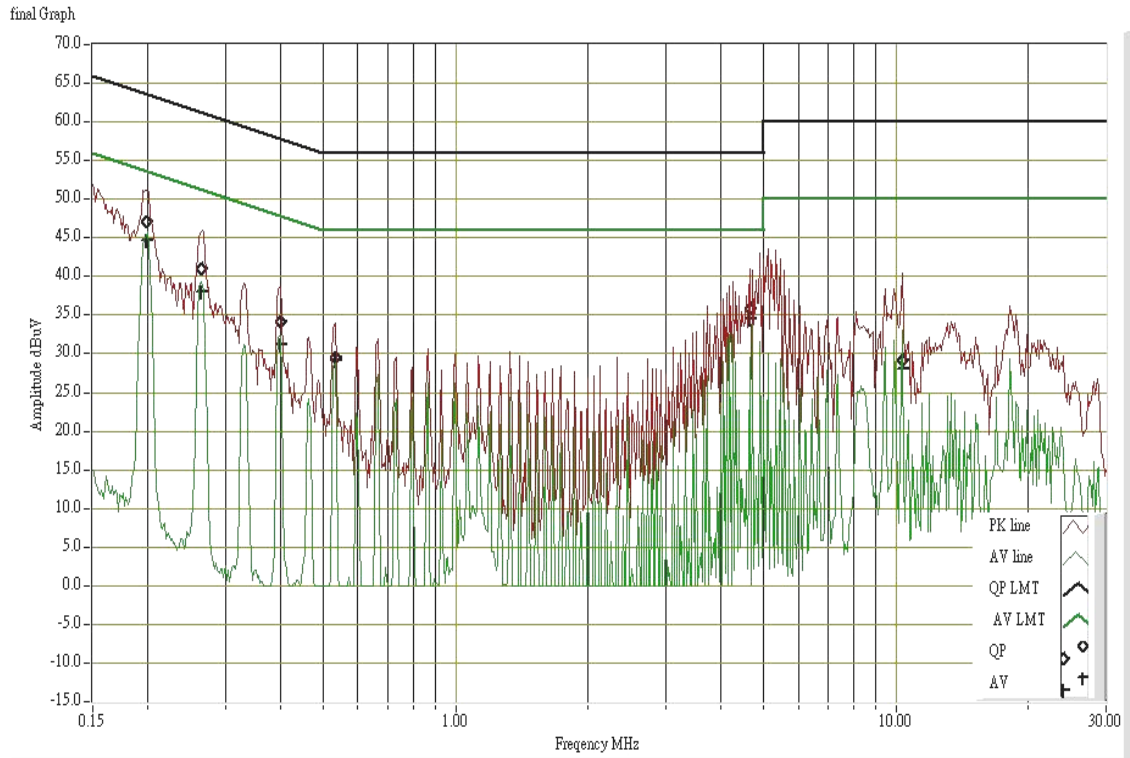
**Remark:**

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 to 30MHz was 10kHz; the IF bandwidth of Test Receiver between 0.15MHz to 30MHz was 9kHz.
4. L1 = Line One (Live Line) / L2 = Line Two (Neutral Line)

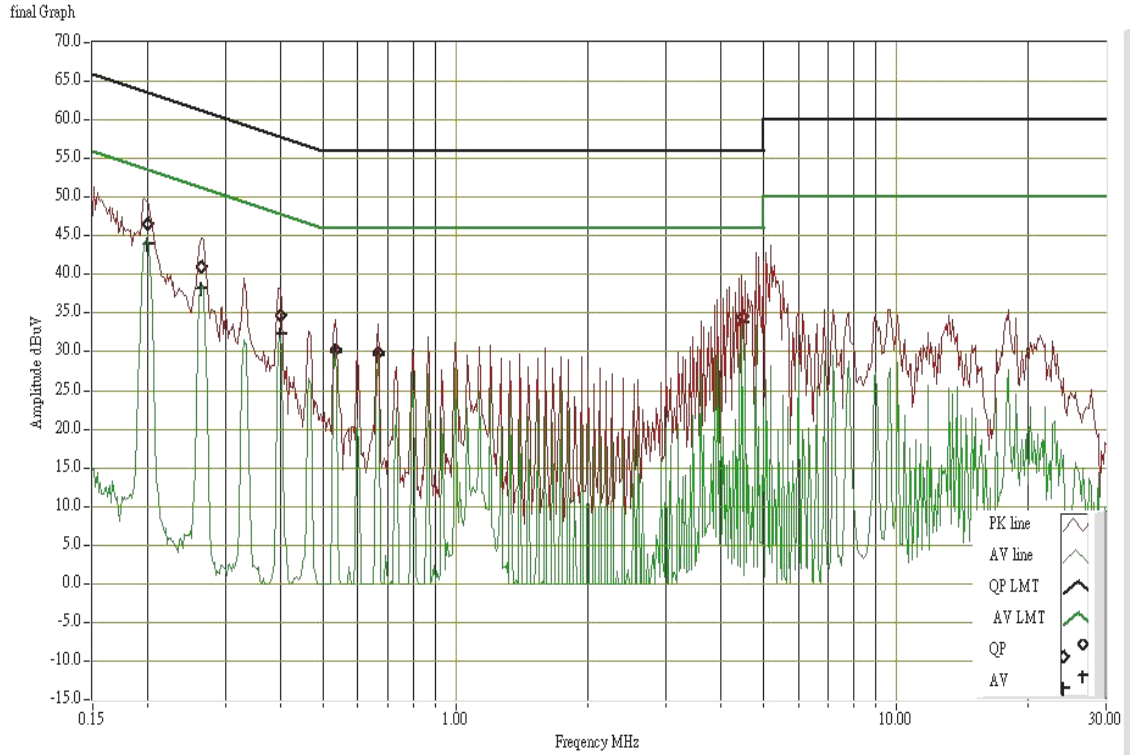


### Test Plots

#### Conducted emissions (Line 1)



#### Conducted emissions (Line 2)





# APPENDIX I RADIO FREQUENCY EXPOSURE

## LIMIT

According to §15.247(i), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines. See § 1.1307(b)(1) of this chapter.

## EUT Specification

<b>EUT</b>	Wireless 802.11N DUAL BAND MINI PCI MODULE
<b>Frequency band (Operating)</b>	<input checked="" type="checkbox"/> WLAN: 2.412GHz ~ 2.462GHz <input type="checkbox"/> WLAN: 5.745GHz ~ 5.825GHz <input type="checkbox"/> Others: Bluetooth: 2.402GHz ~ 2.480GHz
<b>Device category</b>	<input type="checkbox"/> Portable (<20cm separation) <input checked="" type="checkbox"/> Mobile (>20cm separation) <input type="checkbox"/> Others
<b>Exposure classification</b>	<input type="checkbox"/> Occupational/Controlled exposure (S = 5mW/cm2) <input checked="" type="checkbox"/> General Population/Uncontrolled exposure (S=1mW/cm2)
<b>Antenna diversity</b>	<input type="checkbox"/> Single antenna <input checked="" type="checkbox"/> Multiple antennas <input type="checkbox"/> Tx diversity <input type="checkbox"/> Rx diversity <input checked="" type="checkbox"/> Tx/Rx diversity
<b>Max. output power</b>	IEEE 802.11b mode: 20.99 dBm (125.60mW) IEEE 802.11g mode: 17.88 dBm (61.38mW) draft 802.11n Standard-20 MHz Channel mode: 21.94 dBm (156.31mW) draft 802.11n Wide-40 MHz Channel mode: 23.11 dBm (204.64mW)
<b>Antenna gain (Max)</b>	Dipole Antenna / 2.4GHz: Gain: 1.8 dBi (Numeric gain: 1.51) PCB Antenna / 2.4GHz: Gain: 1.8 dBi (Numeric gain: 1.51)
<b>Evaluation applied</b>	<input checked="" type="checkbox"/> MPE Evaluation* <input type="checkbox"/> SAR Evaluation <input type="checkbox"/> N/A

### Remark:

- The maximum output power is 23.11dBm (204.64mW) at 2422MHz (with 1.51 numeric antenna gain.)
- DTS device is not subject to routine RF evaluation; MPE estimate is used to justify the compliance.
- For mobile or fixed location transmitters, no SAR consideration applied. The maximum power density is  $1.0 \text{ mW/cm}^2$  even if the calculation indicates that the power density would be larger.

## TEST RESULTS

No non-compliance noted.





**Calculation**

Given  $E = \frac{\sqrt{30 \times P \times G}}{d}$  &  $S = \frac{E^2}{3770}$

Where  $E =$  Field strength in Volts / meter

$P =$  Power in Watts

$G =$  Numeric antenna gain

$d =$  Distance in meters

$S =$  Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{3770d^2}$$

Changing to units of mW and cm, using:

$$P (mW) = P (W) / 1000 \text{ and}$$

$$d (cm) = d(m) / 100$$

Yields

$$S = \frac{30 \times (P/1000) \times G}{3770 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2} \quad \text{Equation 1}$$

Where  $d =$  Distance in cm

$P =$  Power in mW

$G =$  Numeric antenna gain

$S =$  Power density in mW / cm<sup>2</sup>

**Maximum Permissible Exposure**

EUT output power = 204.64mW

Numeric Antenna gain = 1.51

Substituting the MPE safe distance using d = 20 cm into Equation 1:

Yields

$$S = 0.000199 \times P \times G$$

Where  $P =$  Power in mW

$G =$  Numeric antenna gain

$S =$  Power density in mW / cm<sup>2</sup>

→ Power density = 0.06149 mW / cm<sup>2</sup>

(For mobile or fixed location transmitters, the maximum power density is 1.0 mW/cm<sup>2</sup> even if the calculation indicates that the power density would be larger.)



<b>EUT</b>	Wireless 802.11N DUAL BAND MINI PCI MODULE
<b>Frequency band (Operating)</b>	<input type="checkbox"/> WLAN: 2.412GHz ~ 2.462GHz <input checked="" type="checkbox"/> WLAN: 5.745GHz ~ 5.825GHz <input type="checkbox"/> Others: <u>Bluetooth: 2.402GHz ~ 2.480GHz</u>
<b>Device category</b>	<input type="checkbox"/> Portable (<20cm separation) <input checked="" type="checkbox"/> Mobile (>20cm separation) <input type="checkbox"/> Others
<b>Exposure classification</b>	<input type="checkbox"/> Occupational/Controlled exposure (S = 5mW/cm <sup>2</sup> ) <input checked="" type="checkbox"/> General Population/Uncontrolled exposure (S=1mW/cm <sup>2</sup> )
<b>Antenna diversity</b>	<input type="checkbox"/> Single antenna <input checked="" type="checkbox"/> Multiple antennas <input type="checkbox"/> Tx diversity <input type="checkbox"/> Rx diversity <input checked="" type="checkbox"/> Tx/Rx diversity
<b>Max. output power</b>	IEEE 802.11a mode: 16.41 dBm (43.75mW) draft 802.11n Standard-20 MHz Channel mode: 17.53 dBm (56.62mW) draft 802.11n Wide-40 MHz Channel mode: 17.38 dBm (54.70mW)
<b>Antenna gain (Max)</b>	Dipole Antenna /5.0GHz: 1.3 dBi (Numeric gain: 1.34) PCB Antenna / 5.0GHz: 1.8 dBi (Numeric gain: 1.51)
<b>Evaluation applied</b>	<input checked="" type="checkbox"/> MPE Evaluation* <input type="checkbox"/> SAR Evaluation <input type="checkbox"/> N/A
<b>Remark:</b>	
1. <i>The maximum output power is <u>17.53dBm (56.62mW)</u> at <u>5785MHz</u> (with <u>1.51 numeric antenna gain.</u>)</i> 2. <i>DTS device is not subject to routine RF evaluation; MPE estimate is used to justify the compliance.</i> 3. <i>For mobile or fixed location transmitters, no SAR consideration applied. The maximum power density is 1.0 mW/cm<sup>2</sup> even if the calculation indicates that the power density would be larger.</i>	

**TEST RESULTS**

*No non-compliance noted.*



**Calculation**

Given  $E = \frac{\sqrt{30 \times P \times G}}{d}$  &  $S = \frac{E^2}{3770}$

Where  $E =$  Field strength in Volts / meter

$P =$  Power in Watts

$G =$  Numeric antenna gain

$d =$  Distance in meters

$S =$  Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{3770d^2}$$

Changing to units of mW and cm, using:

$$P (mW) = P (W) / 1000 \text{ and}$$

$$d (cm) = d(m) / 100$$

Yields

$$S = \frac{30 \times (P/1000) \times G}{3770 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2} \quad \text{Equation 1}$$

Where  $d =$  Distance in cm

$P =$  Power in mW

$G =$  Numeric antenna gain

$S =$  Power density in mW / cm<sup>2</sup>

**Maximum Permissible Exposure**

EUT output power = 56.62mW

Numeric Antenna gain = 1.51

Substituting the MPE safe distance using d = 20 cm into Equation 1:

Yields

$$S = 0.000199 \times P \times G$$

Where  $P =$  Power in mW

$G =$  Numeric antenna gain

$S =$  Power density in mW / cm<sup>2</sup>

→ Power density = 0.0170 mW / cm<sup>2</sup>

(For mobile or fixed location transmitters, the maximum power density is 1.0 mW/cm<sup>2</sup> even if the calculation indicates that the power density would be larger.)