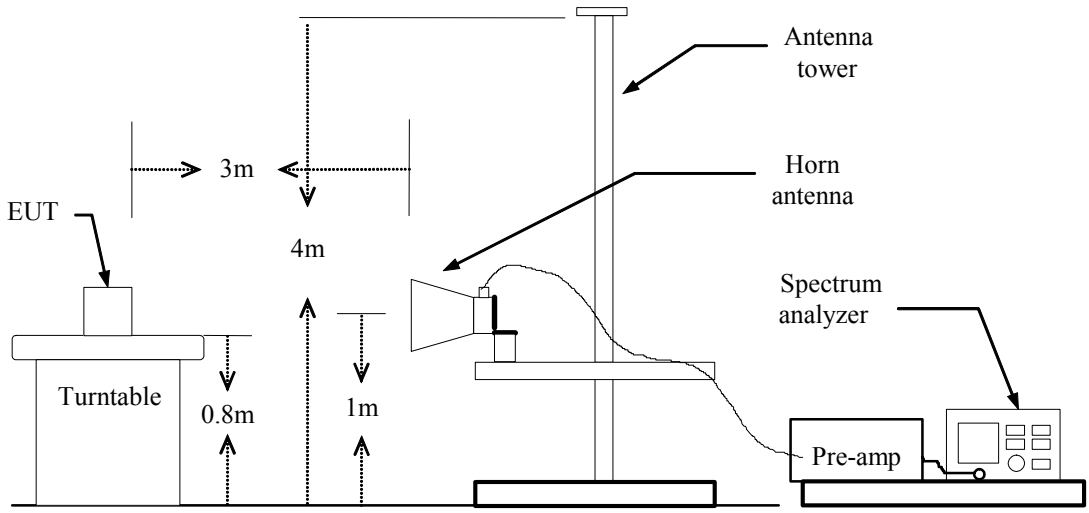
8.5 BAND EDGES MEASUREMENT

LIMIT

According to §15.247(d) & RSS-210 §A8.5, in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in 15.209(a) (see Section 15.205(c)).

Test Configuration



TEST PROCEDURE

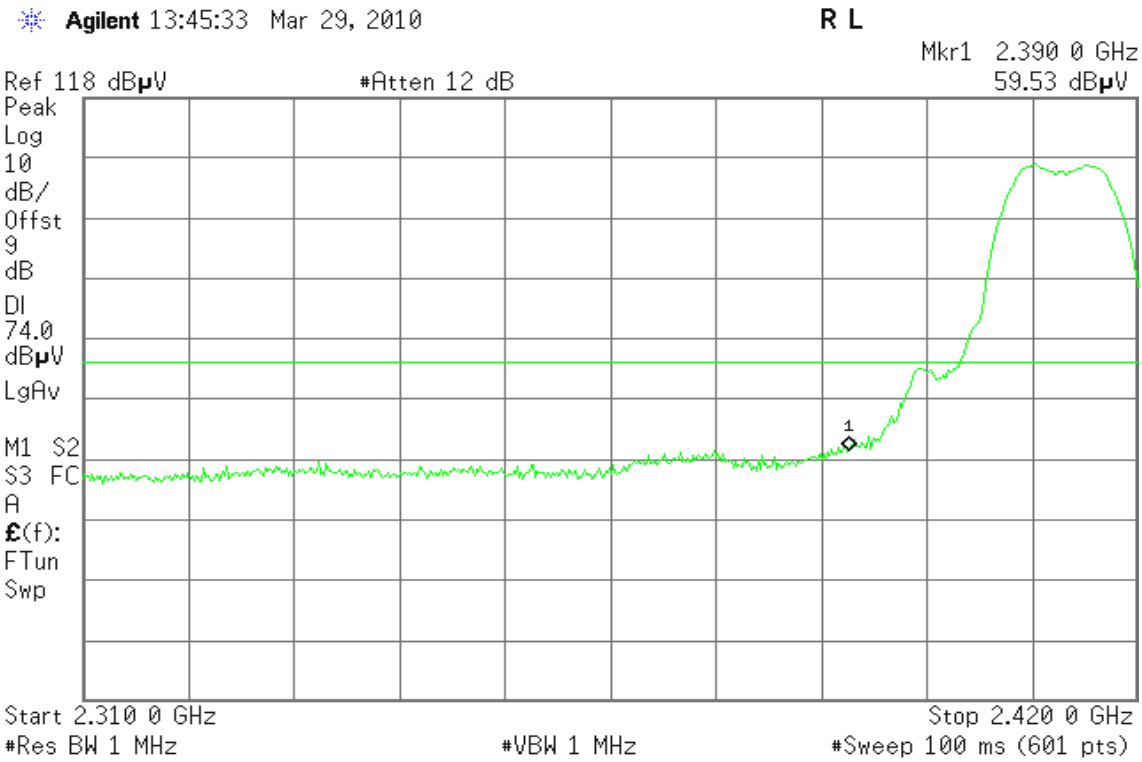
1. The EUT is placed on a turntable, which is 0.8m above the ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
4. Set the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

TEST RESULTS

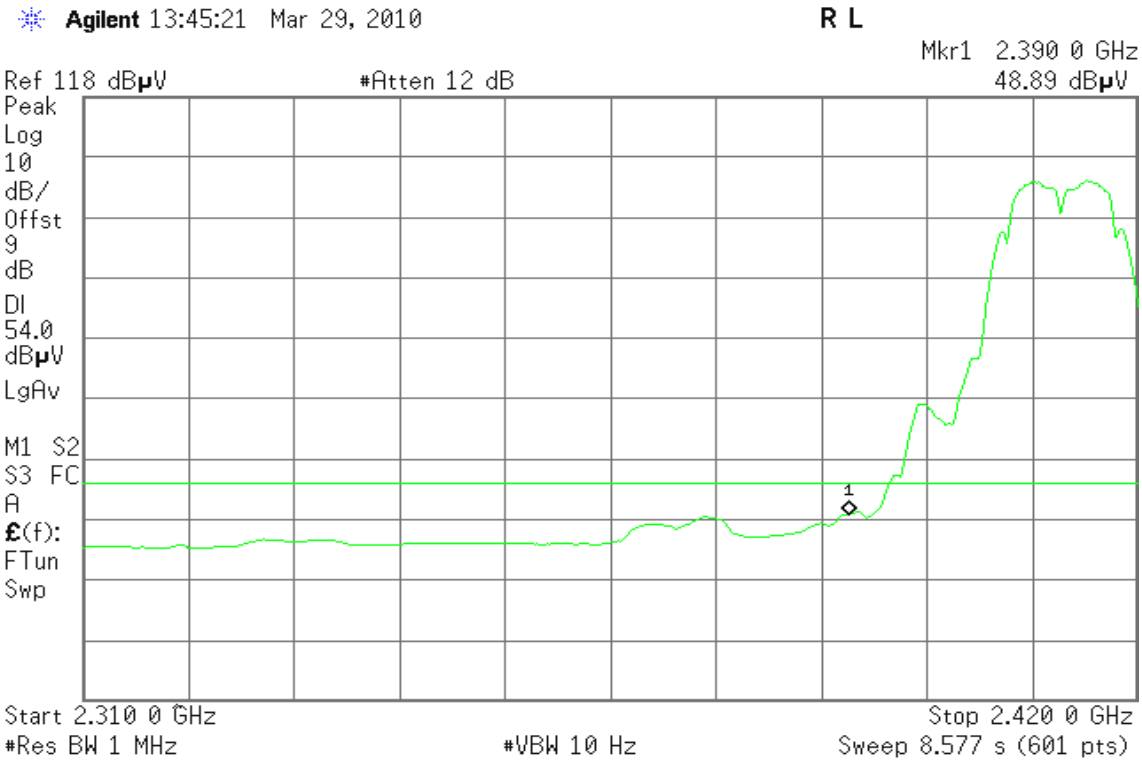
Refer to attach spectrum analyzer data chart.

Band Edges (IEEE 802.11b mode / CH Low)

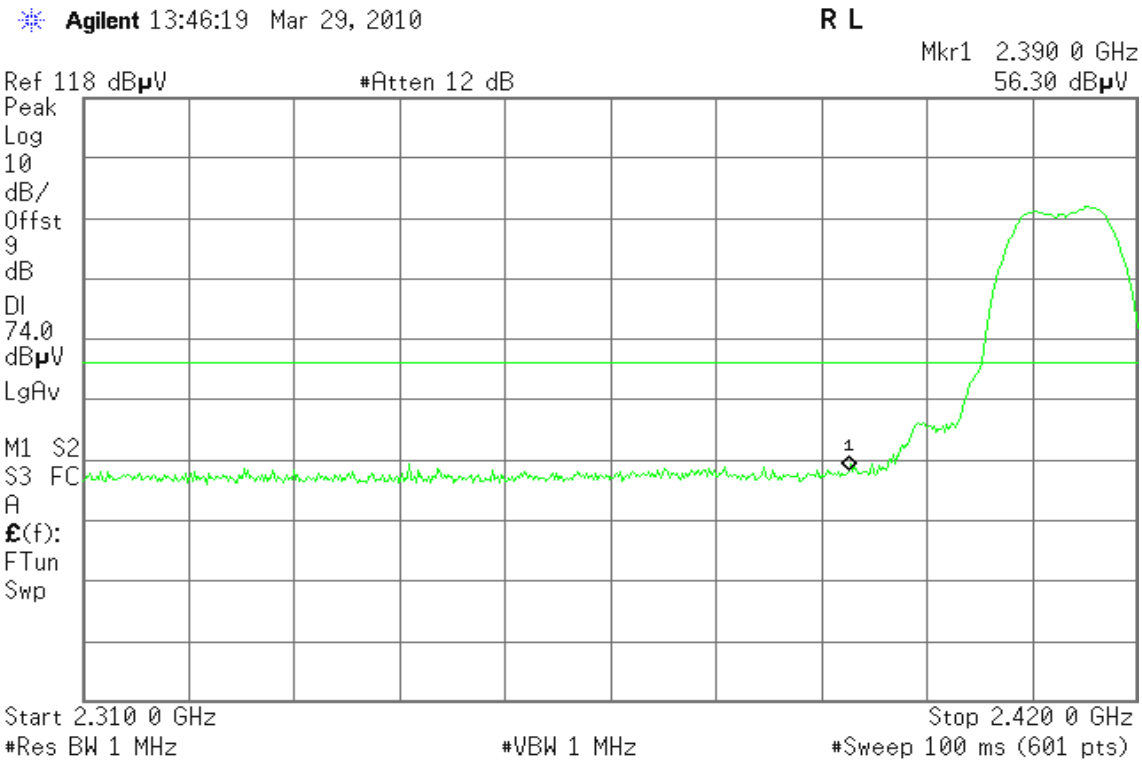
Detector mode: Peak Polarity: Vertical



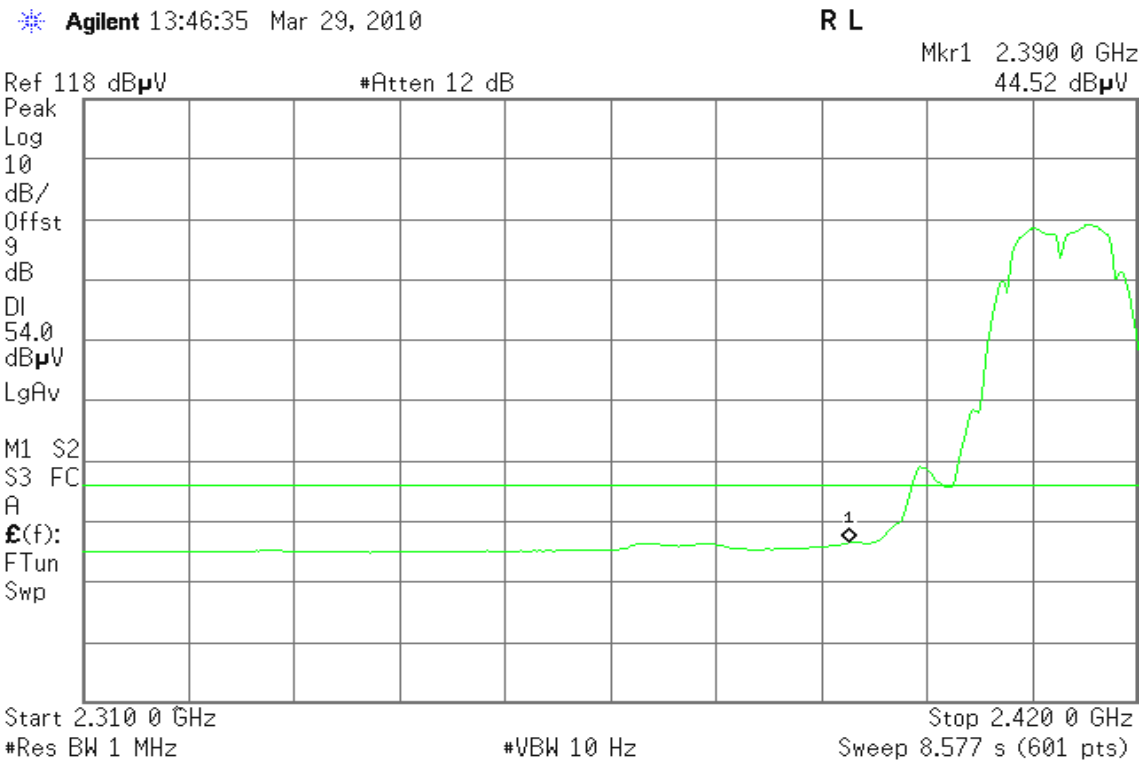
Detector mode: Average Polarity: Vertical



Detector mode: Peak **Polarity: Horizontal**

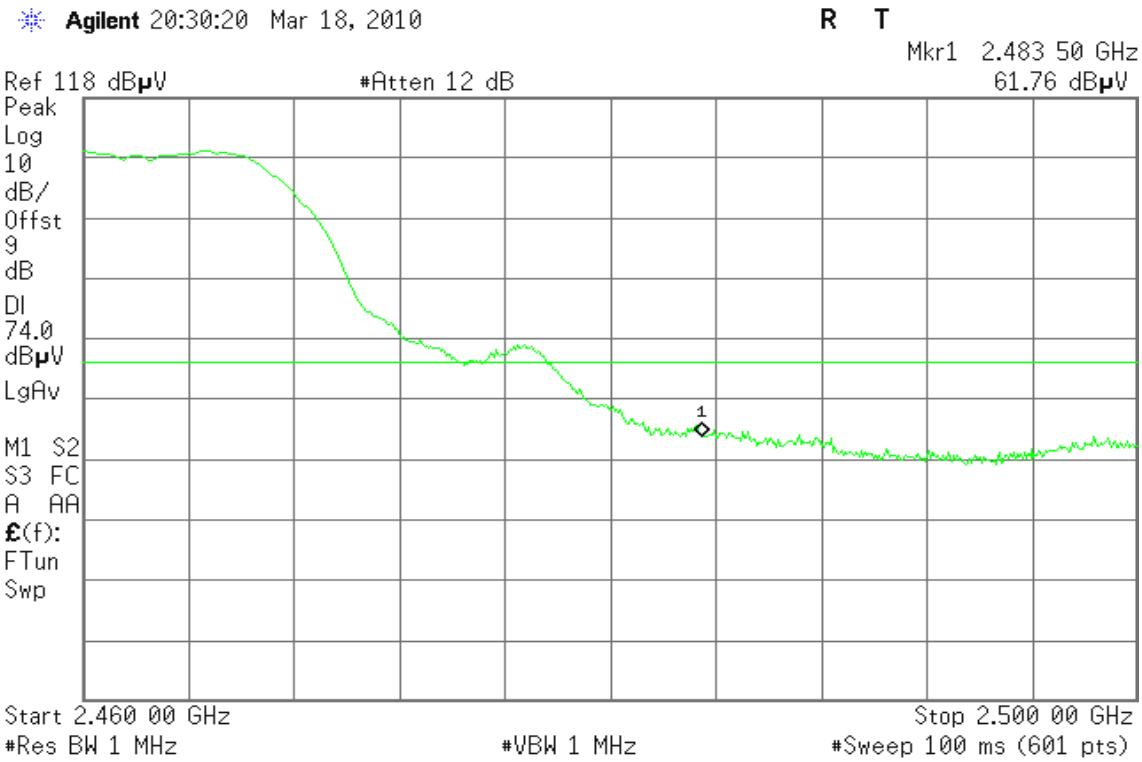


Detector mode: Average **Polarity: Horizontal**

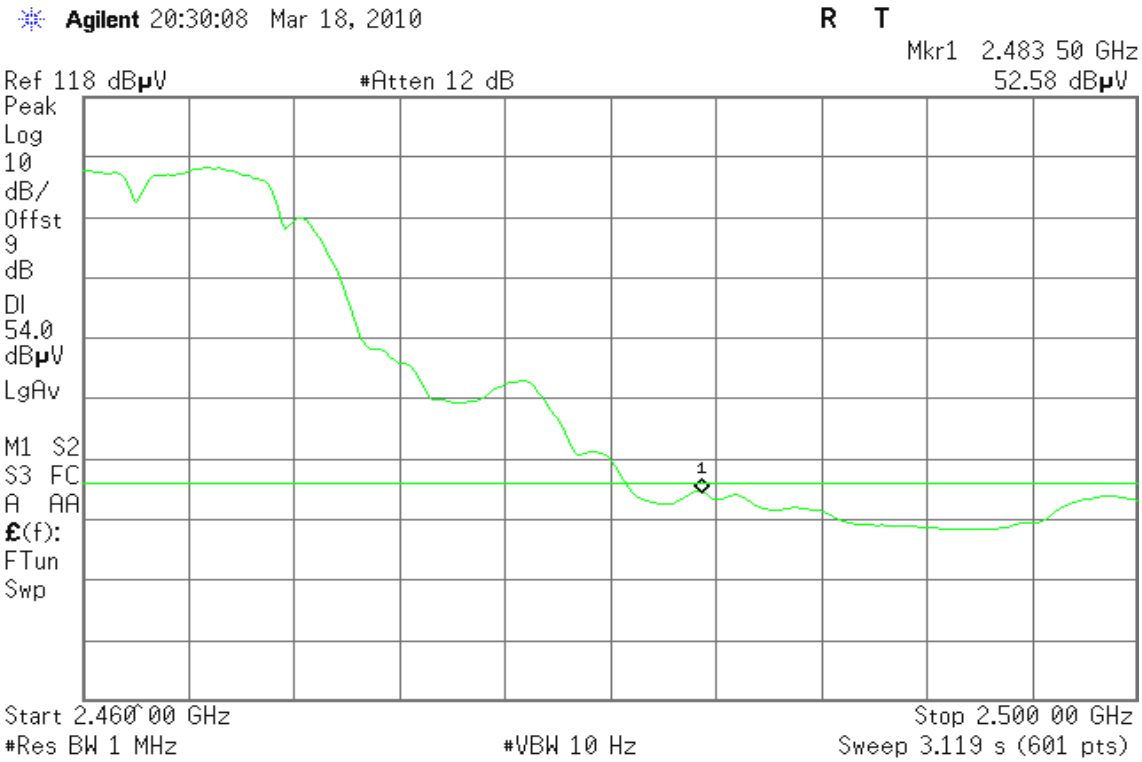


Band Edges (IEEE 802.11b mode / CH High)

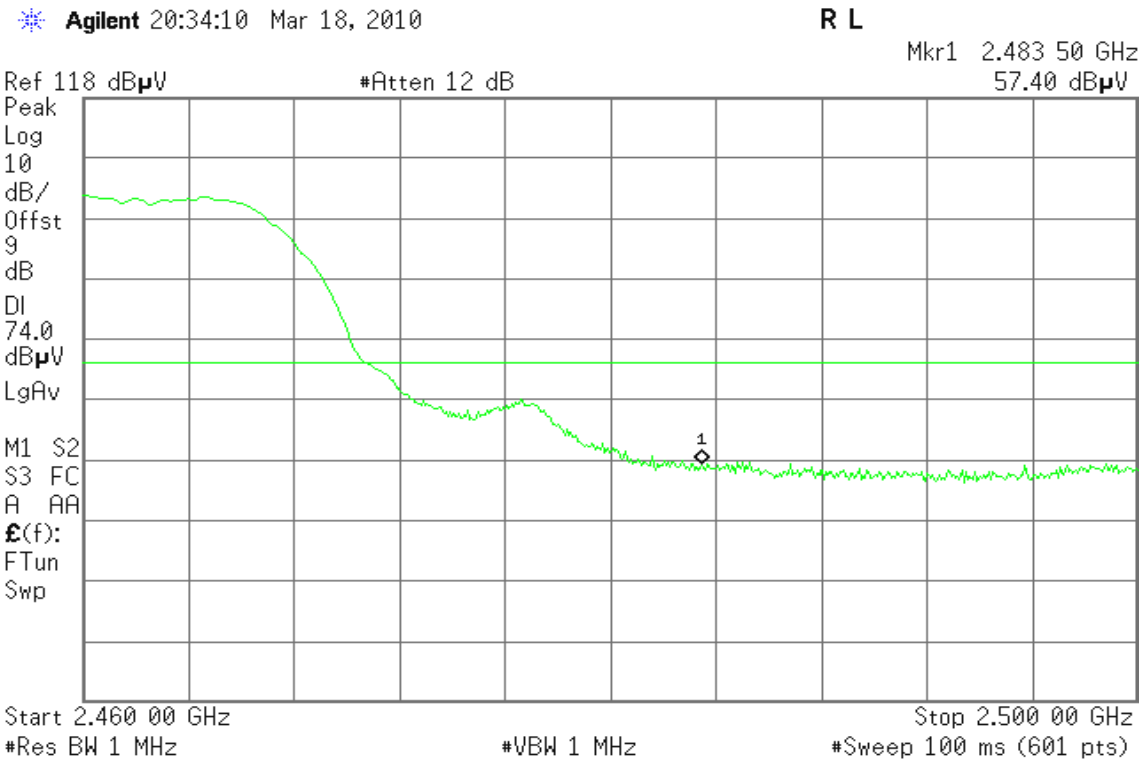
Detector mode: Peak Polarity: Vertical



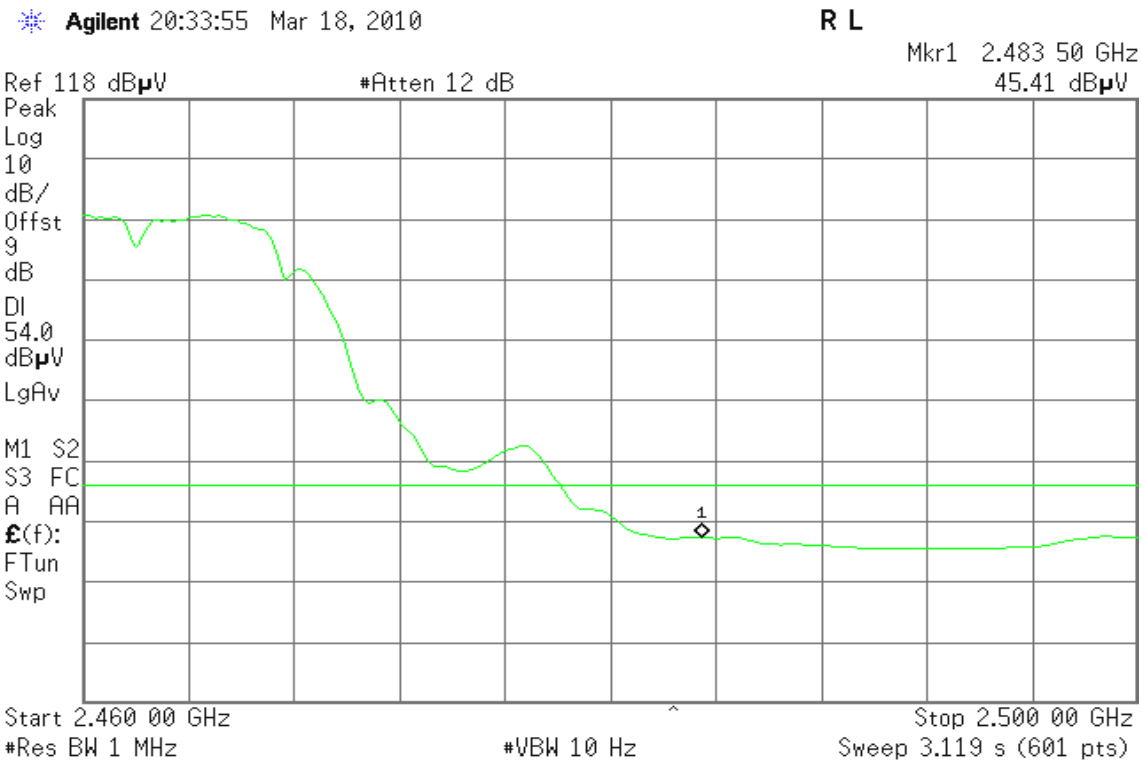
Detector mode: Average Polarity: Vertical



Detector mode: Peak **Polarity: Horizontal**

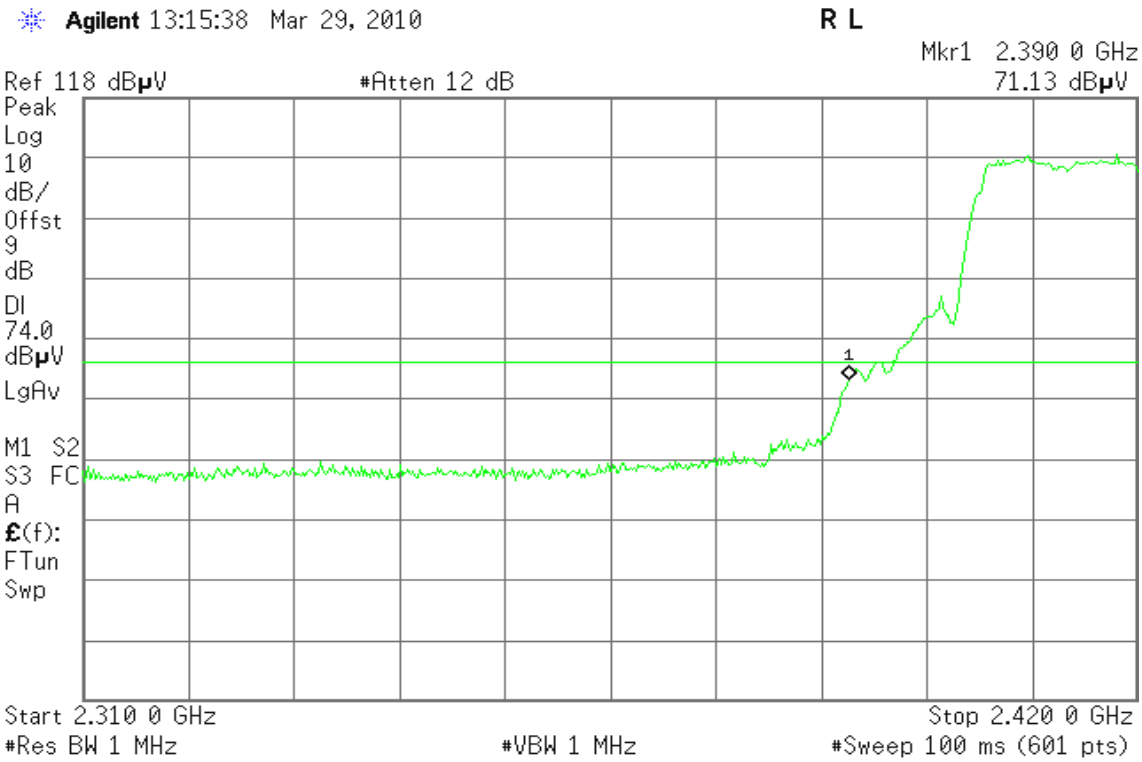


Detector mode: Average **Polarity: Horizontal**

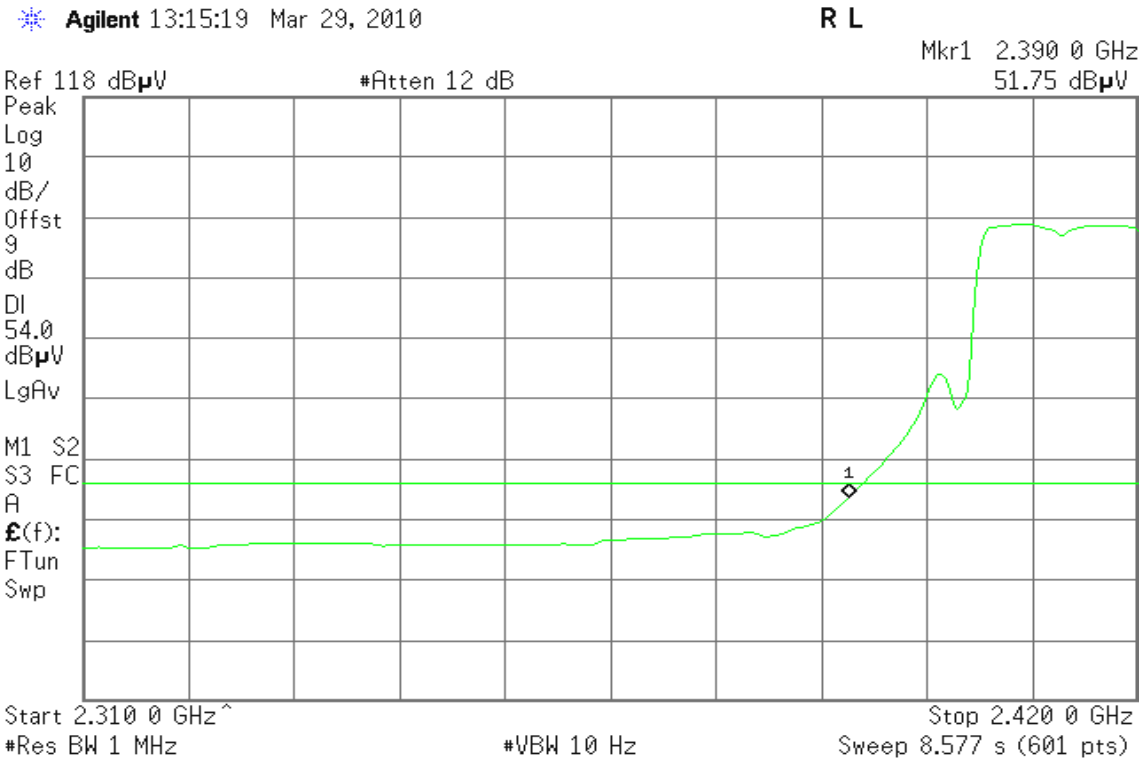


Band Edges (IEEE 802.11g mode / CH Low)

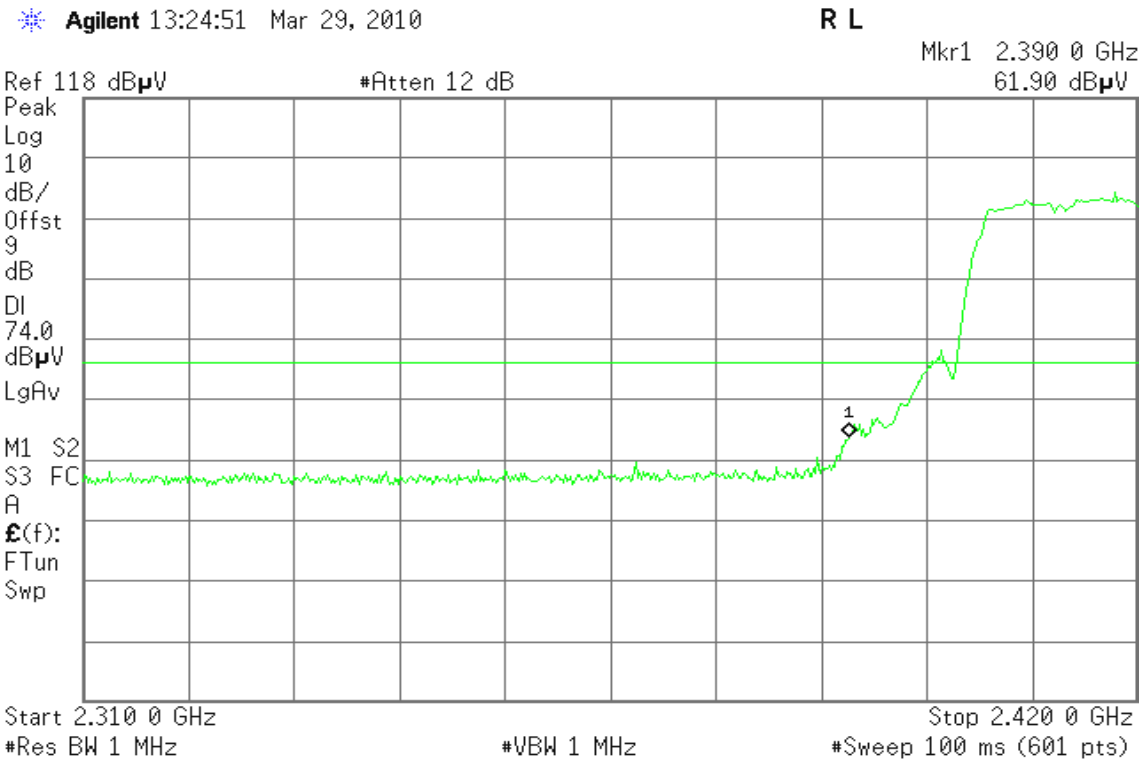
Detector mode: Peak Polarity: Vertical



Detector mode: Average Polarity: Vertical



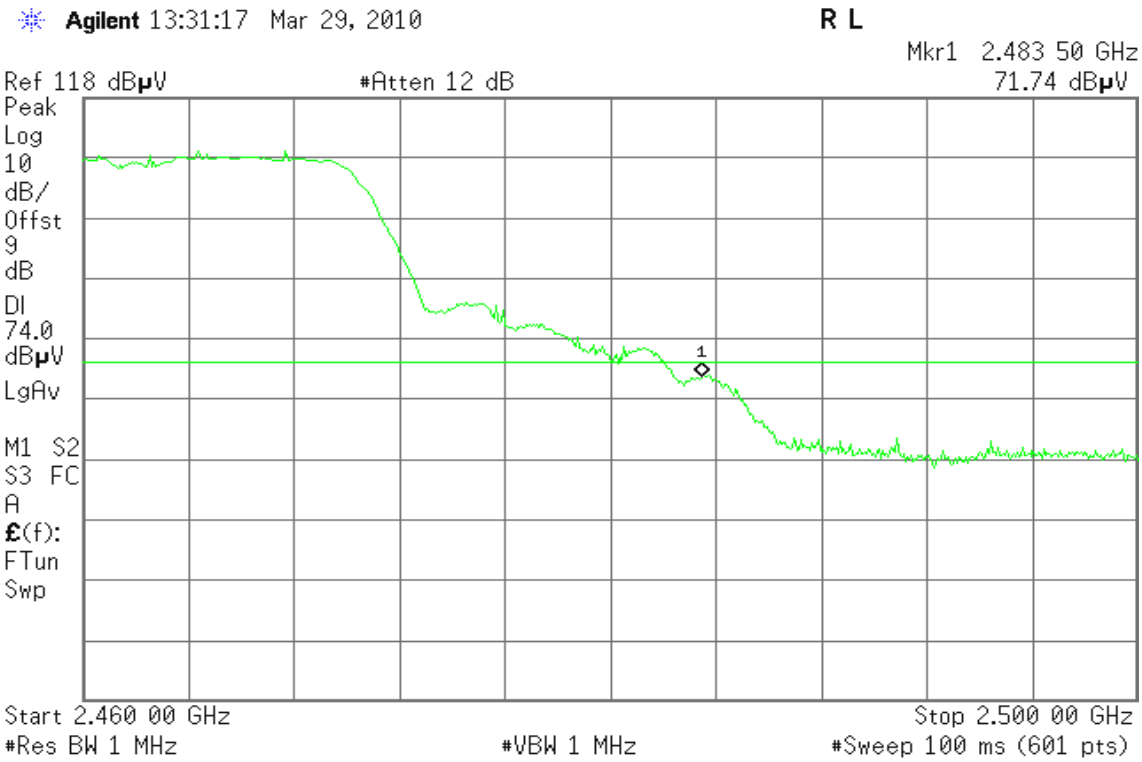
Detector mode: Peak **Polarity: Horizontal**



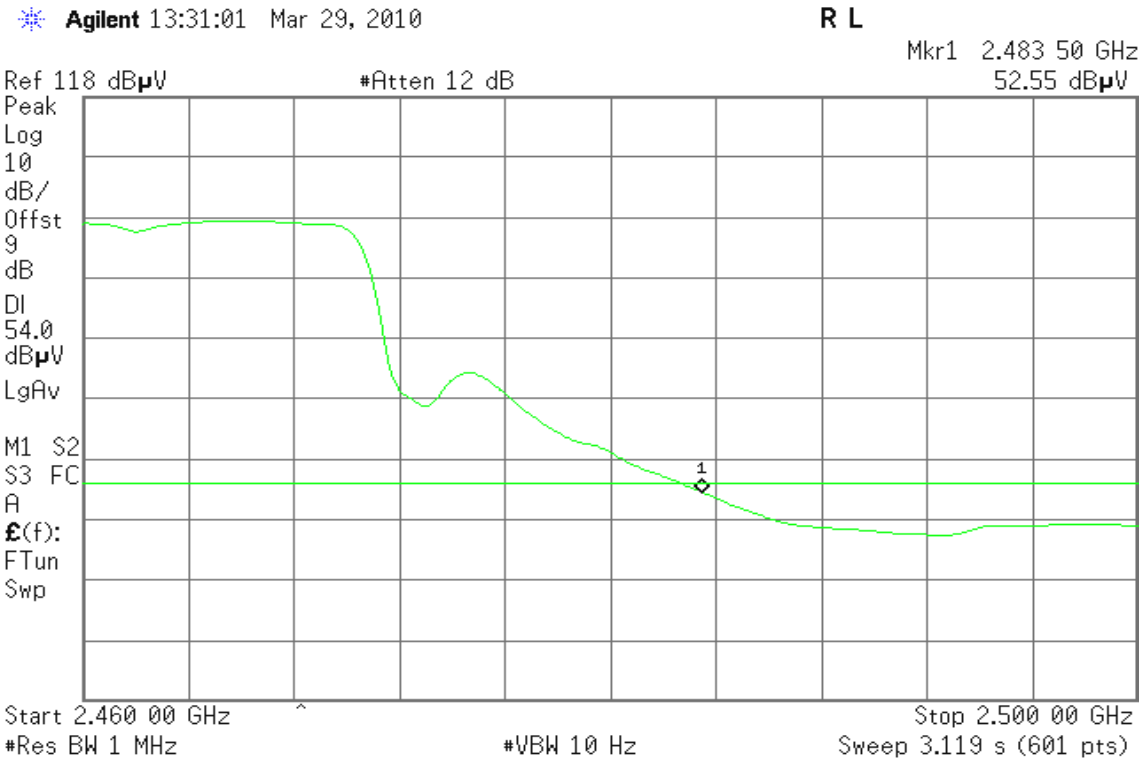
Detector mode: Average **Polarity: Horizontal**

Band Edges (IEEE 802.11g mode / CH High)

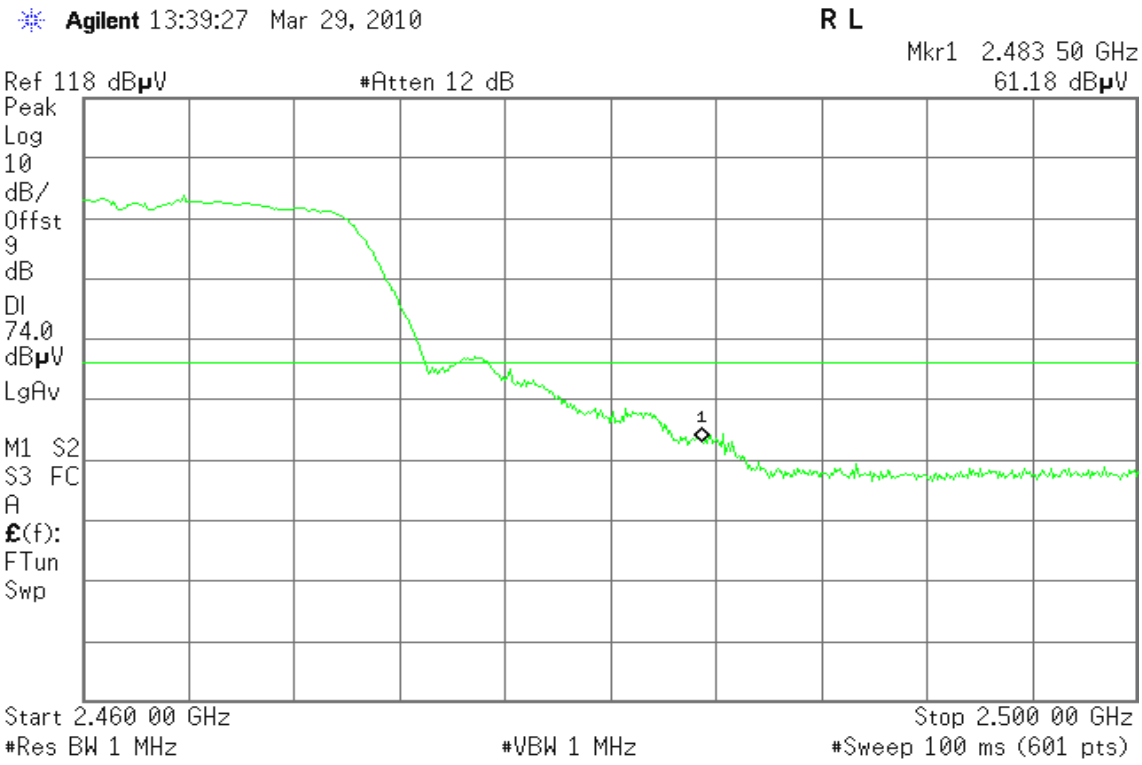
Detector mode: Peak Polarity: Vertical



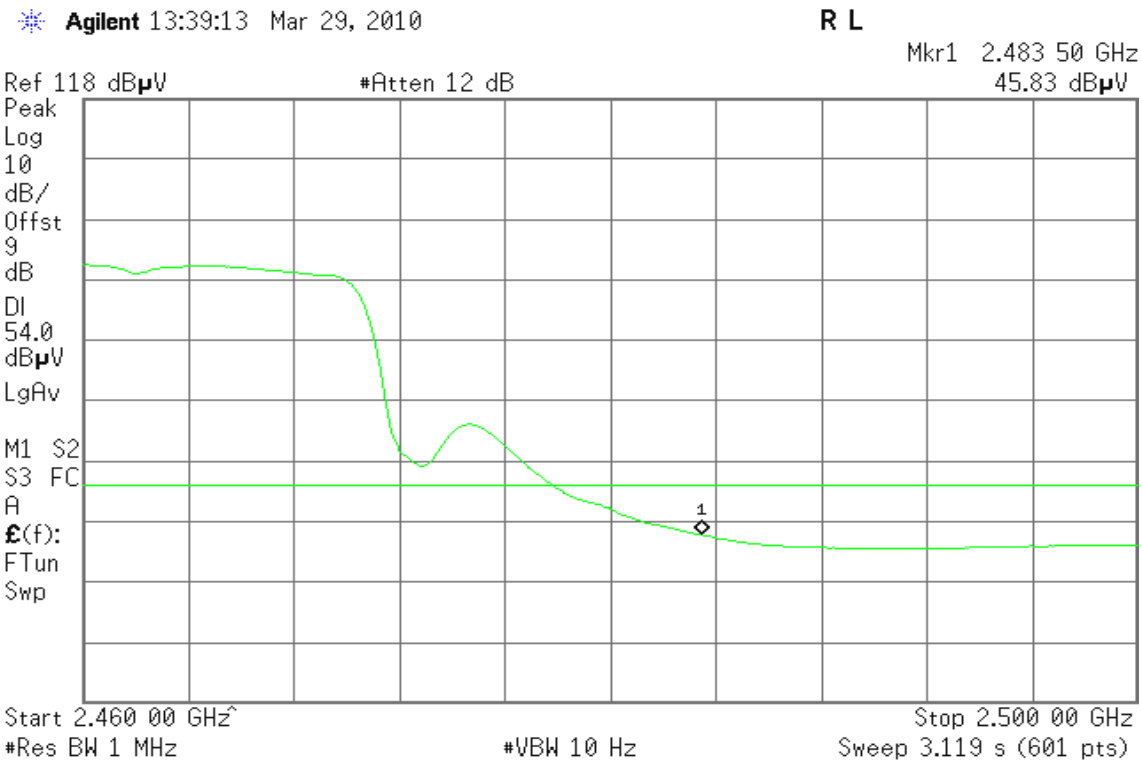
Detector mode: Average Polarity: Vertical



Detector mode: Peak **Polarity: Horizontal**

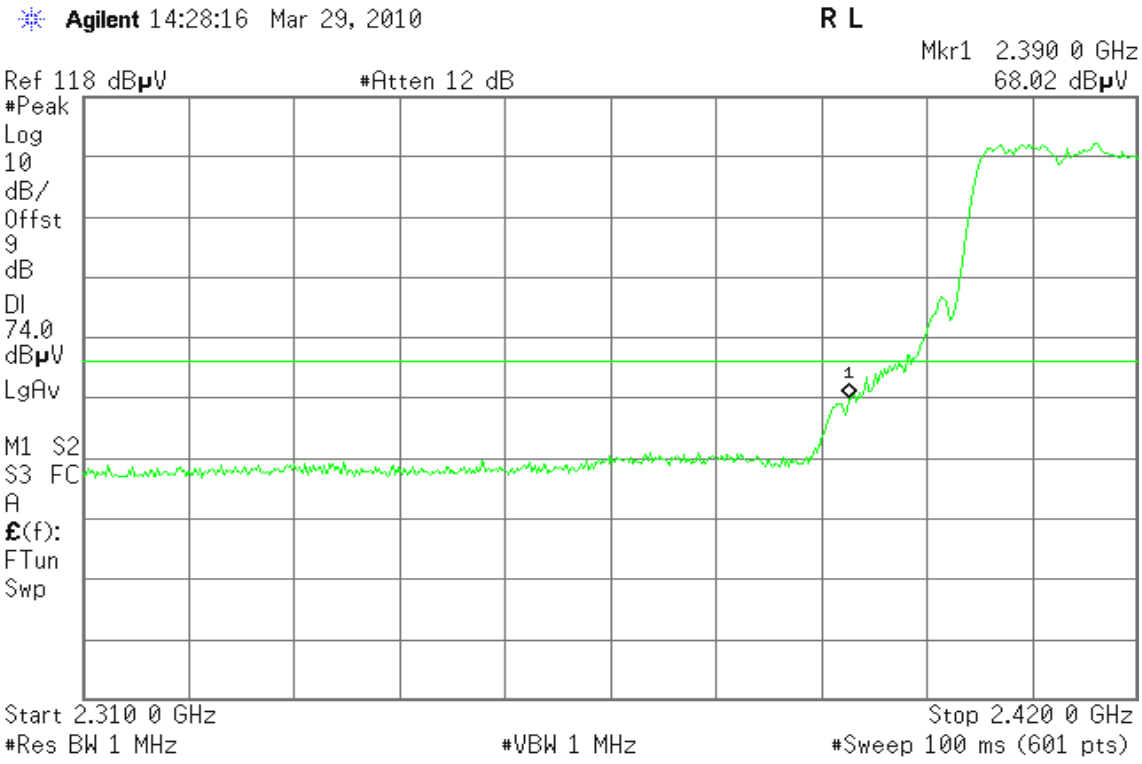


Detector mode: Average **Polarity: Horizontal**



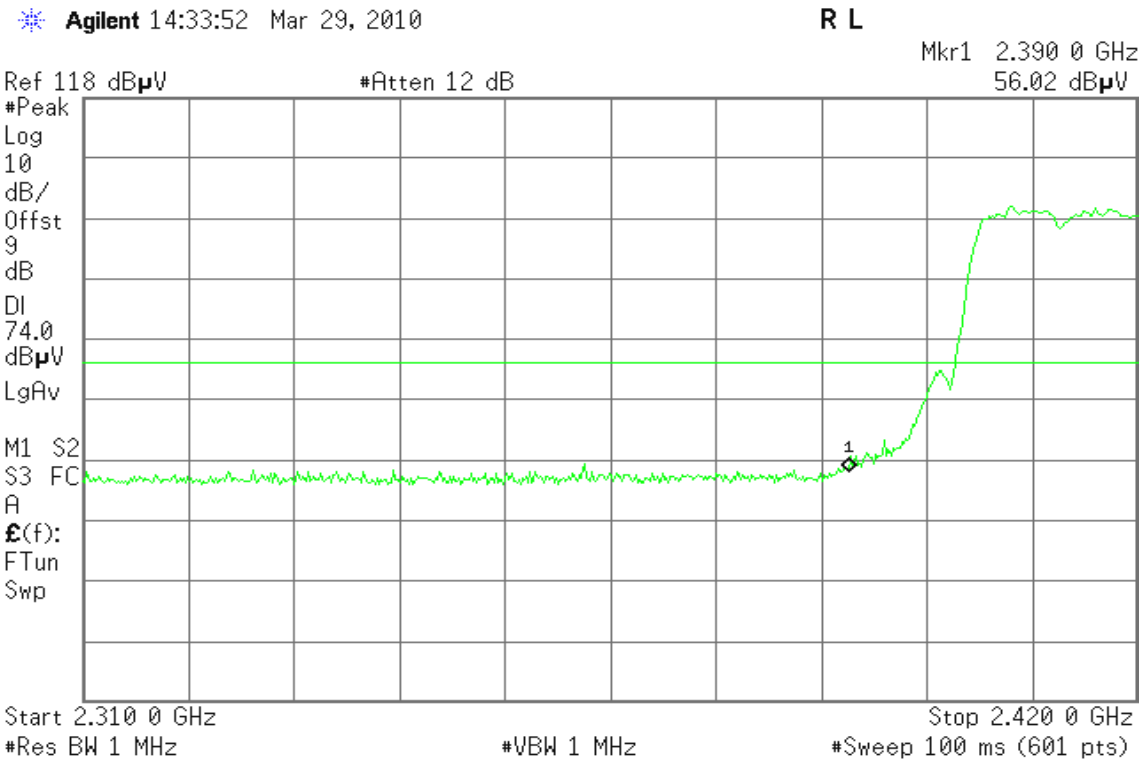
Band Edges (draft 802.11n Standard-20 MHz Channel mode / CH Low)

Detector mode: Peak **Polarity: Vertical**

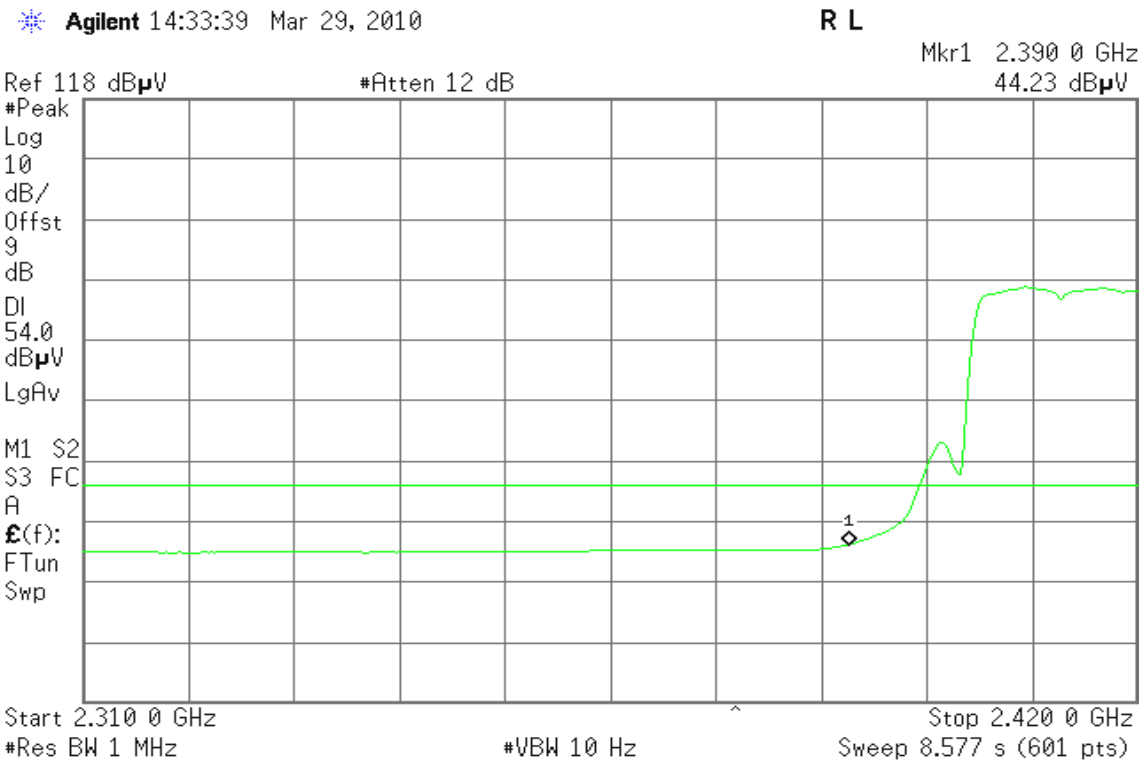


Detector mode: Average **Polarity: Vertical**

Detector mode: Peak **Polarity: Horizontal**

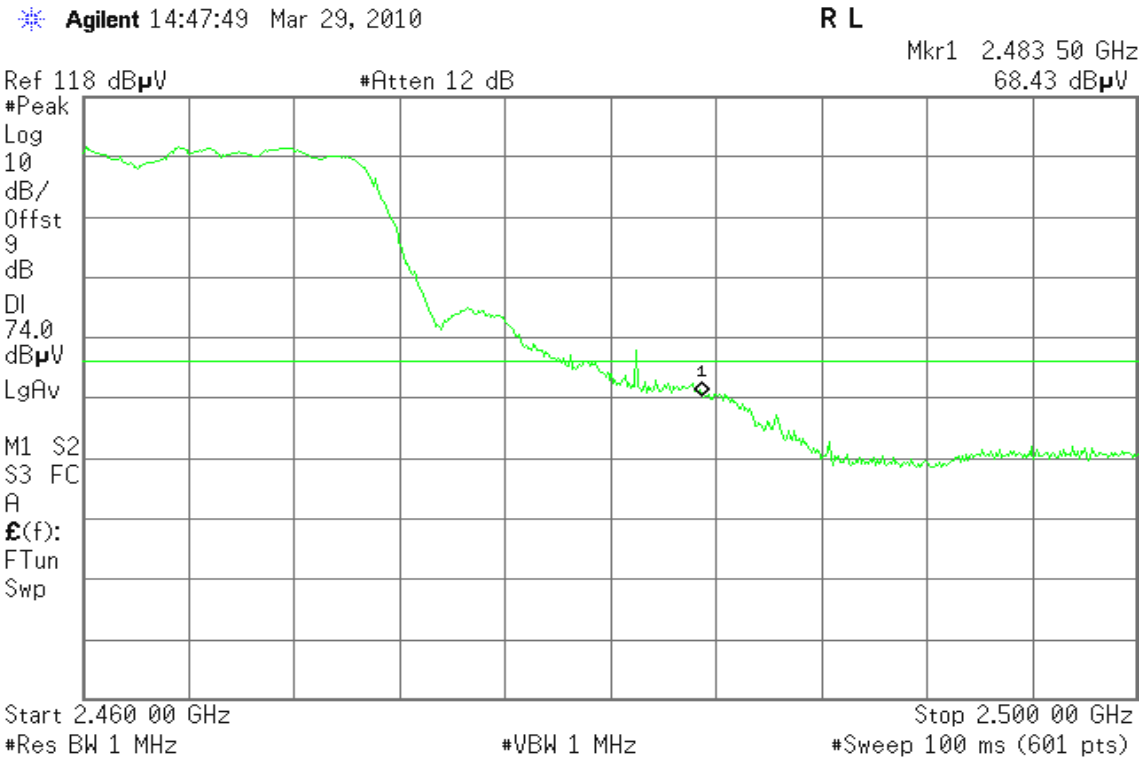


Detector mode: Average **Polarity: Horizontal**

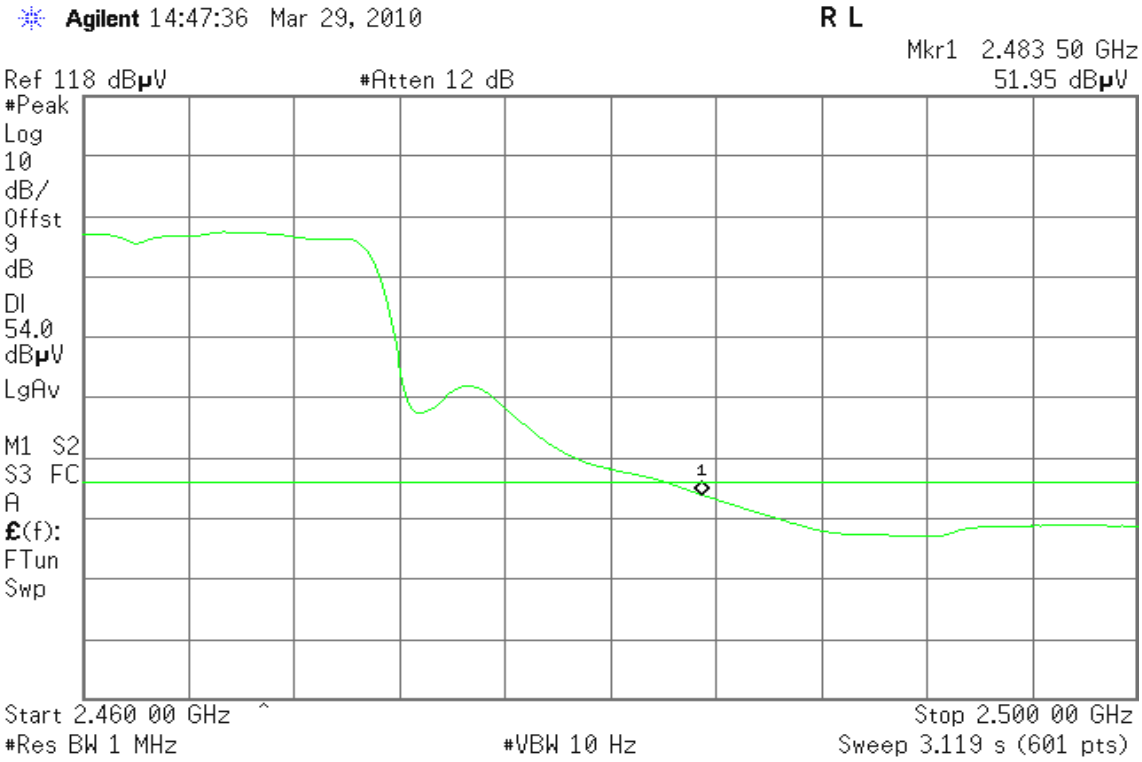


Band Edges (draft 802.11n Standard-20 MHz Channel mode / CH High)

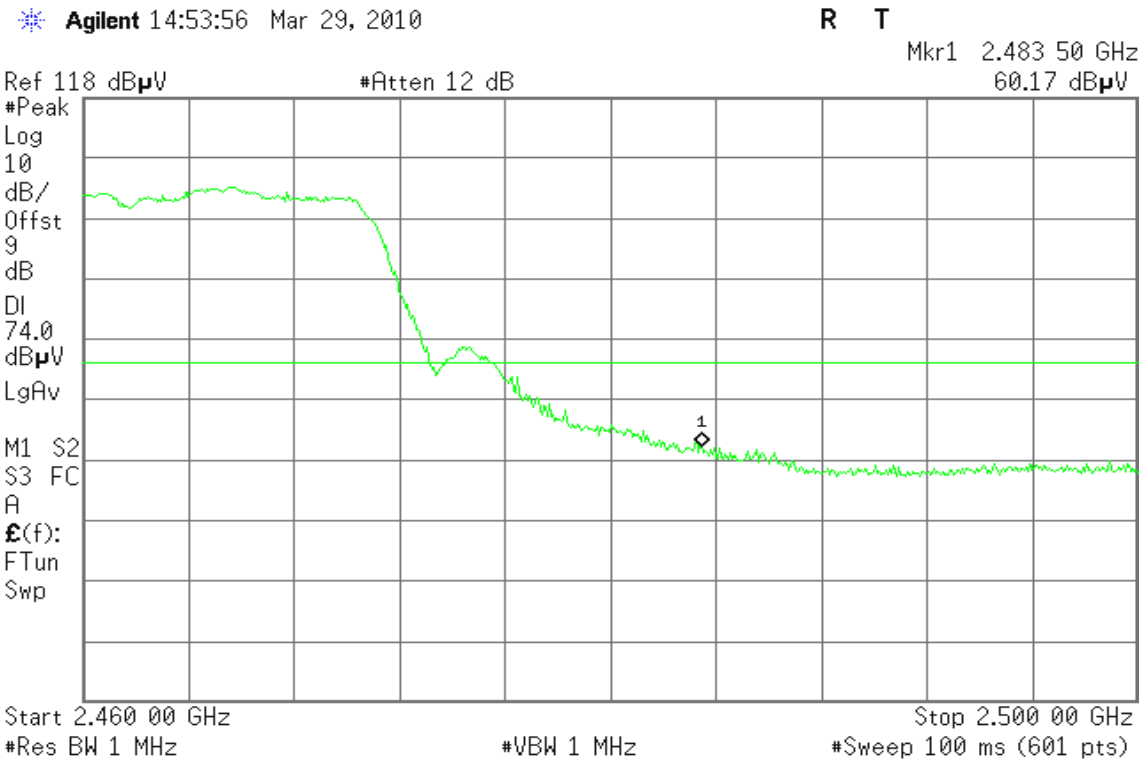
Detector mode: Peak **Polarity: Vertical**



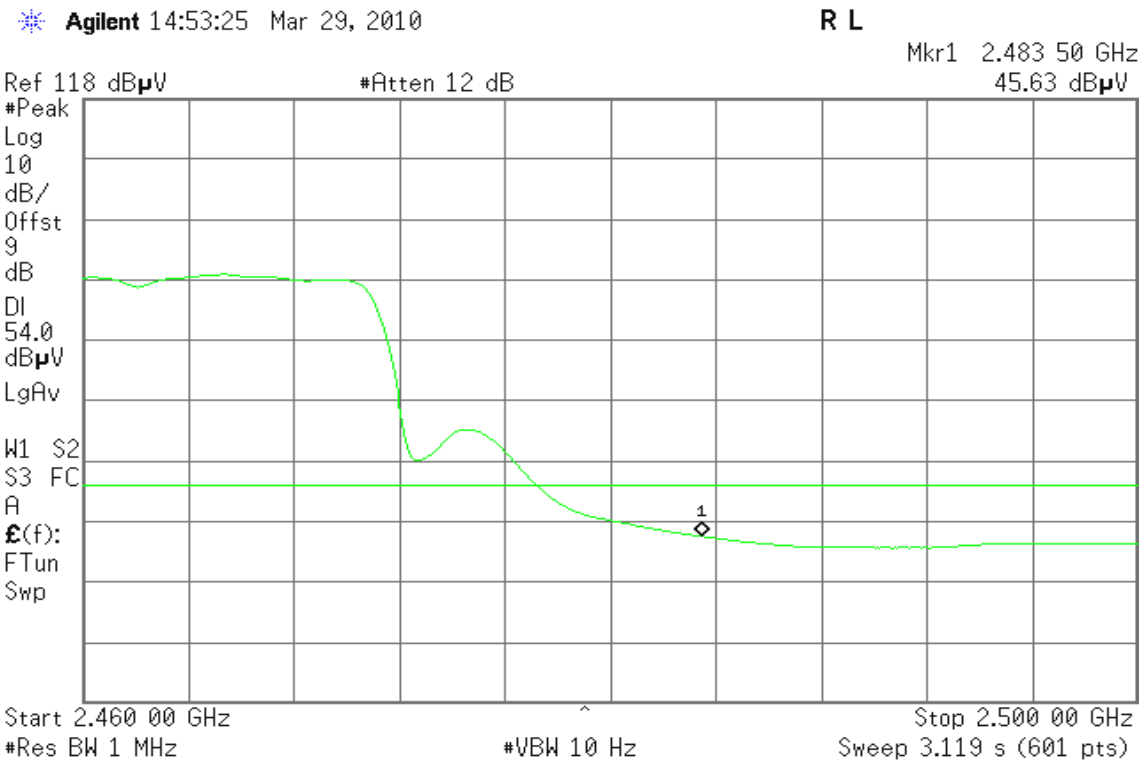
Detector mode: Average **Polarity: Vertical**



Detector mode: Peak **Polarity: Horizontal**

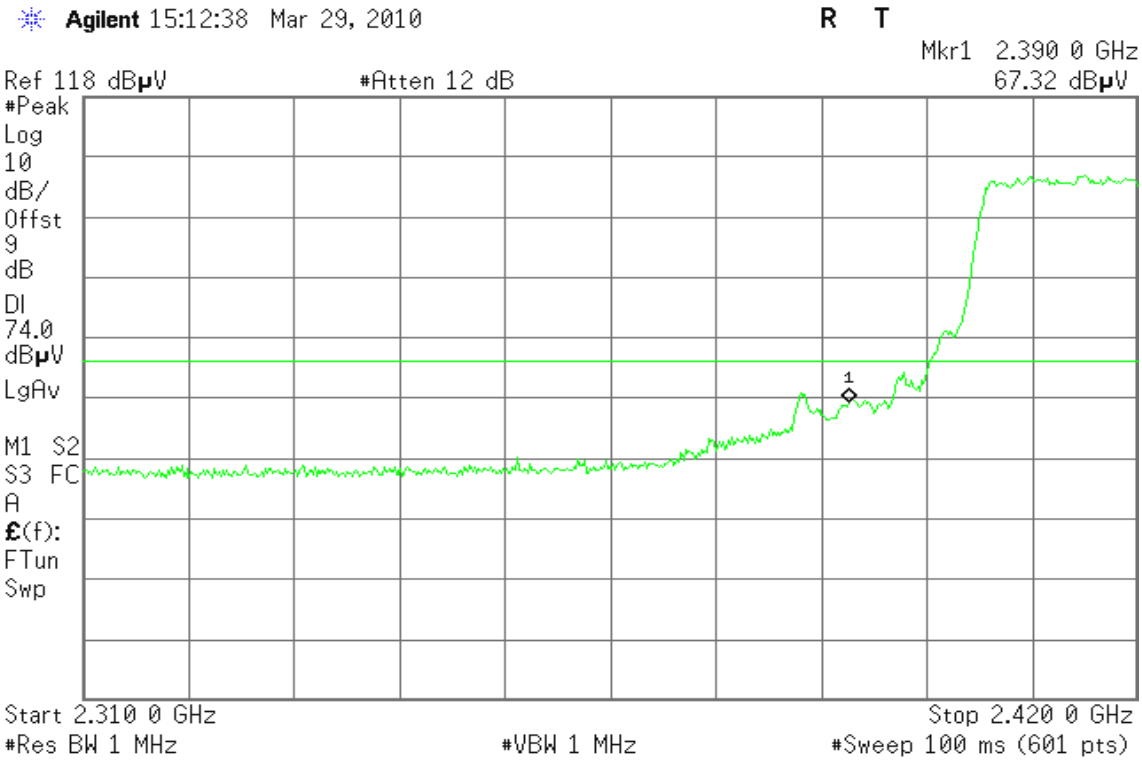


Detector mode: Average **Polarity: Horizontal**



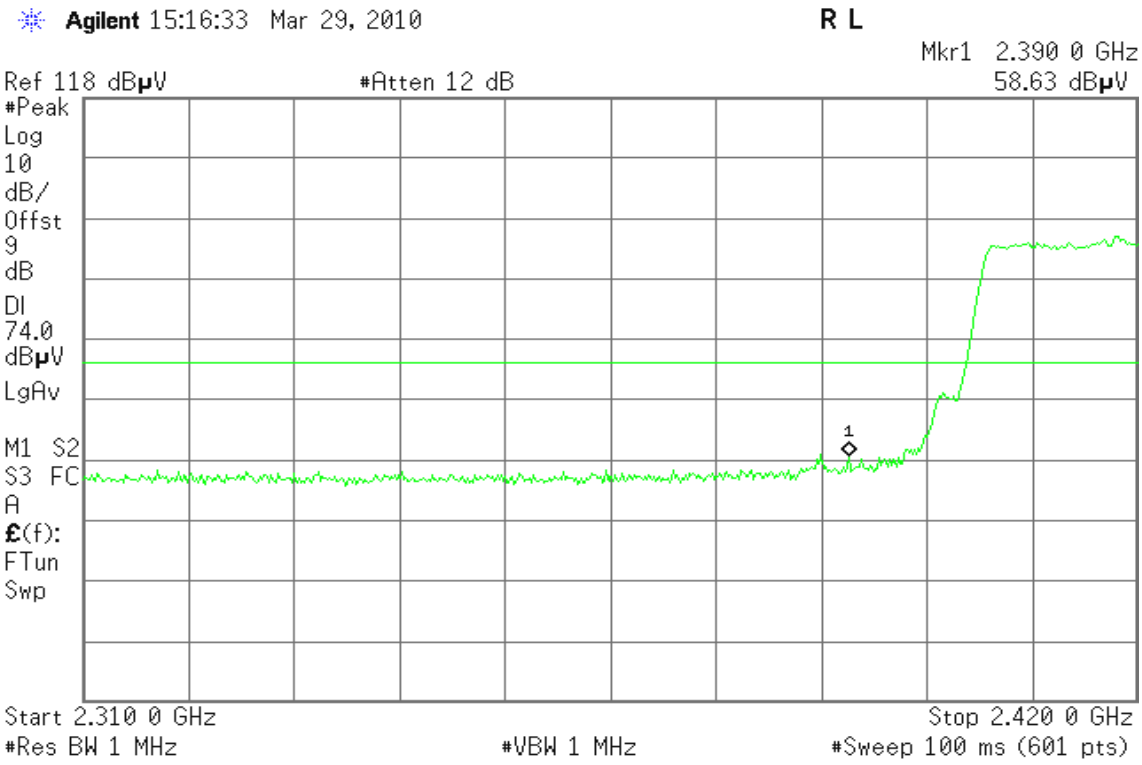
Band Edges (draft 802.11n Wide-40 MHz Channel mode / CH Low)

Detector mode: Peak **Polarity: Vertical**



Detector mode: Average **Polarity: Vertical**

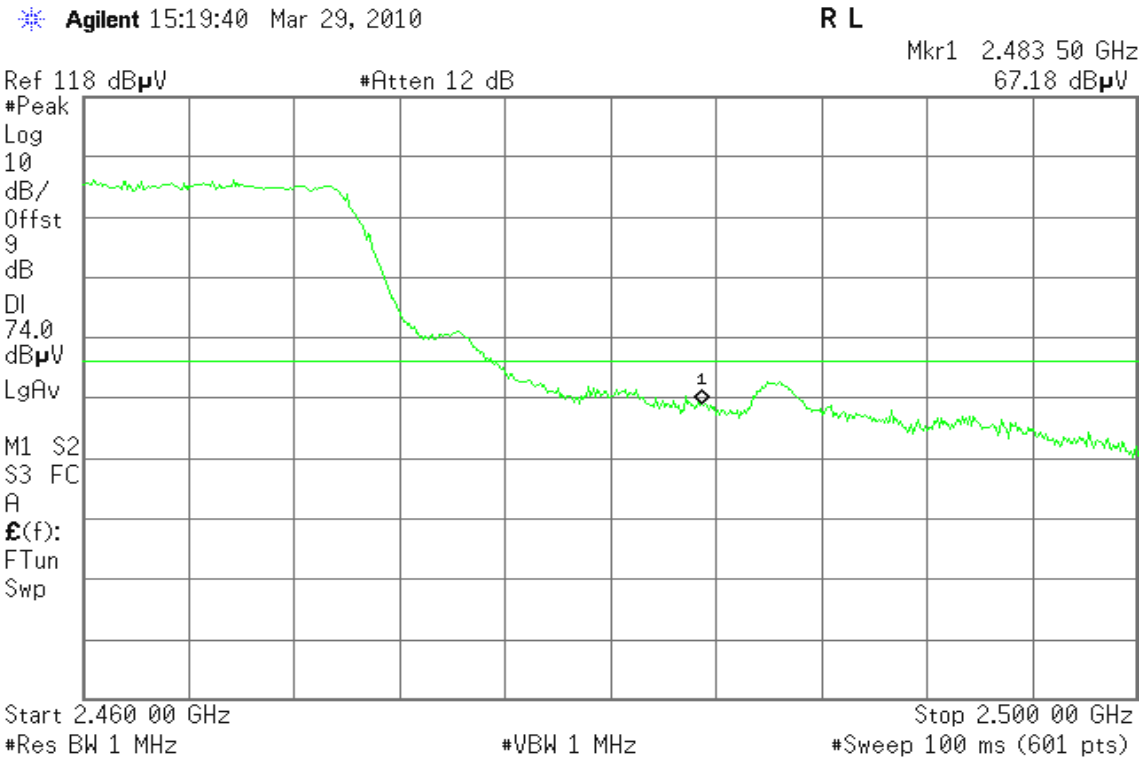
Detector mode: Peak **Polarity: Horizontal**



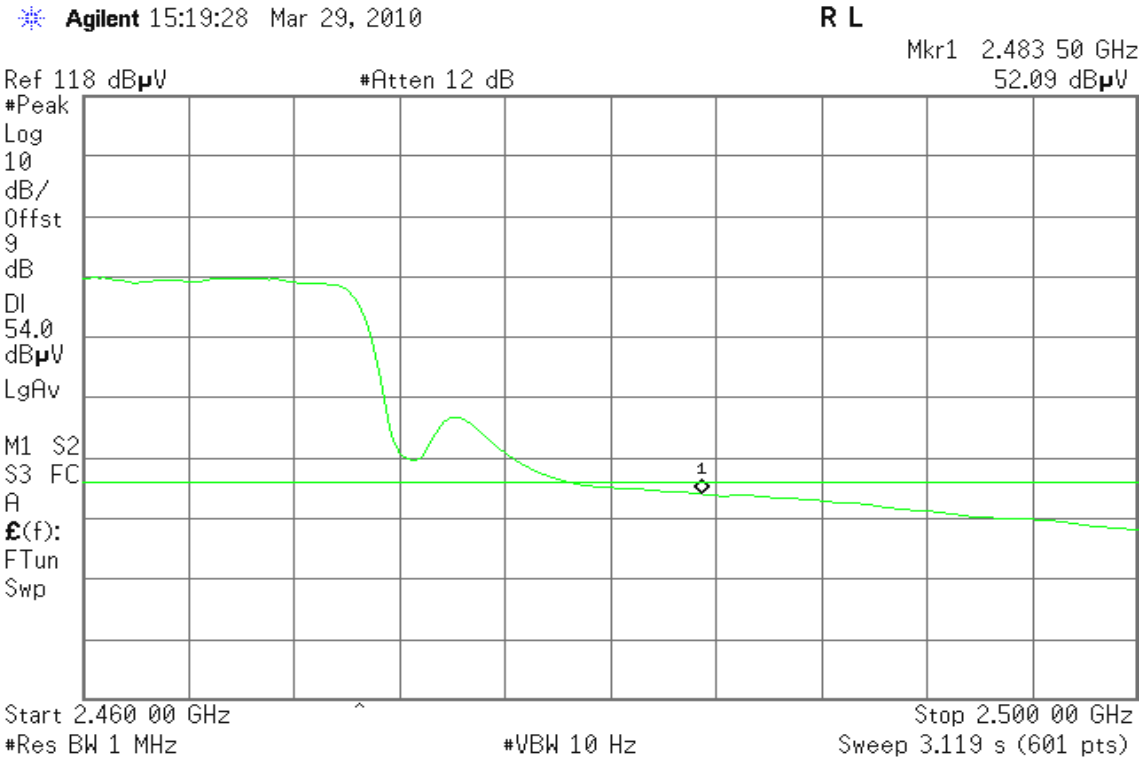
Detector mode: Average **Polarity: Horizontal**

Band Edges (draft 802.11n Wide-40 MHz Channel mode / CH High)

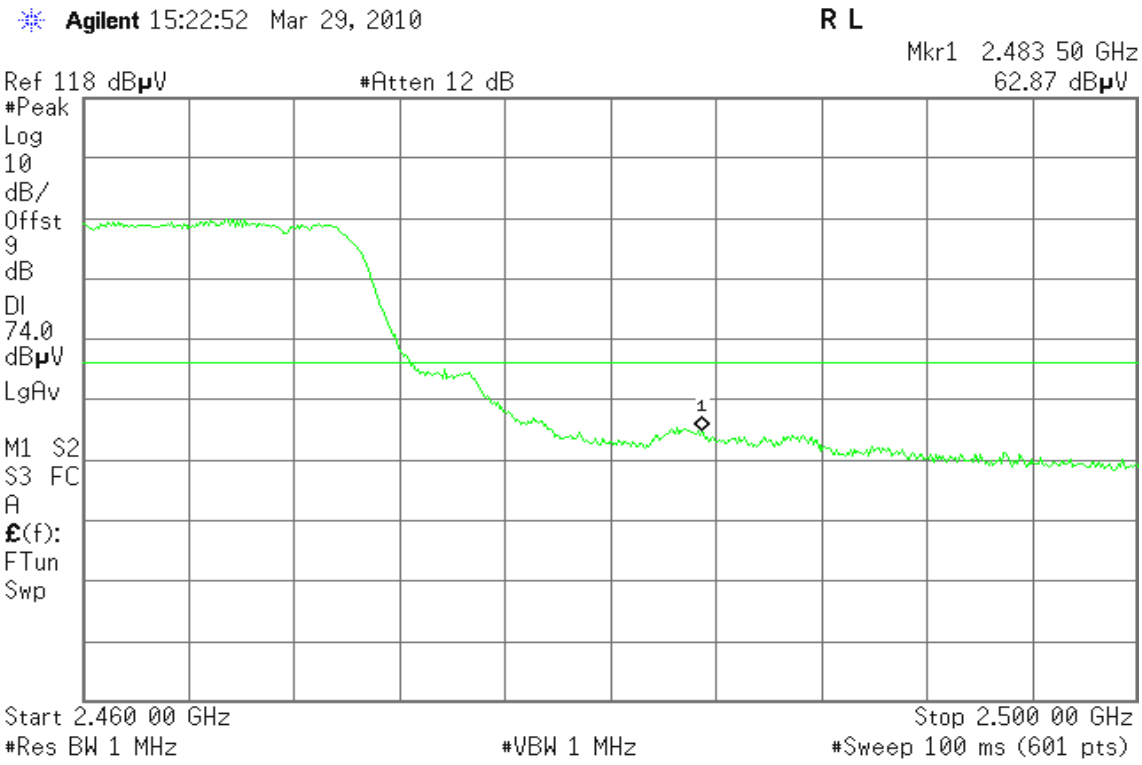
Detector mode: Peak **Polarity: Vertical**



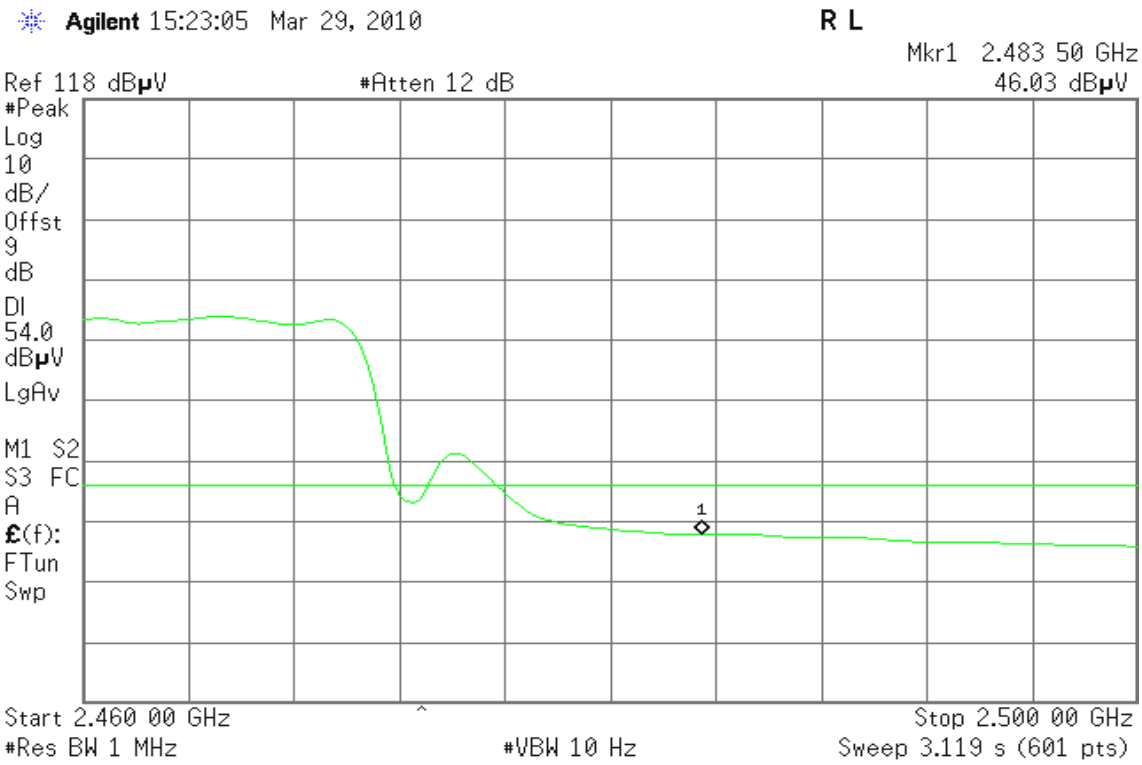
Detector mode: Average **Polarity: Vertical**



Detector mode: Peak **Polarity: Horizontal**



Detector mode: Average **Polarity: Horizontal**

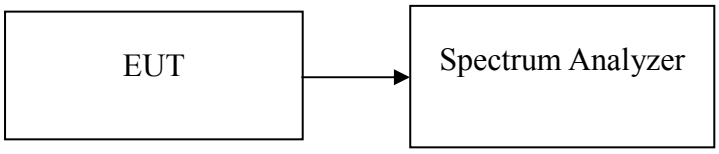


8.6 PEAK POWER SPECTRAL DENSITY

LIMIT

1. According to §15.247(e) & RSS-210 §A8.2, 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) & RSS-210 §A8.3, the digital modulation operation of the hybrid system, with the frequency hopping turned off, shall comply with the power density requirements of paragraph (d) of this section.

Test Configuration



TEST PROCEDURE

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

TEST RESULTS

No non-compliance noted

Test Data

Test mode: IEEE 802.11b mode

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	2412	-9.32	8.00	PASS
Mid	2437	0.56		PASS
High	2462	-2.66		PASS

Test mode: IEEE 802.11g mode

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	2412	-13.12	8.00	PASS
Mid	2437	-13.12		PASS
High	2462	-13.32		PASS

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	-15.70	-16.69	-13.16	8.00	PASS
Mid	2437	-15.35	-17.15	-13.15		PASS
High	2462	-15.37	-18.16	-13.53		PASS

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	-20.57	-20.07	-17.30	8.00	PASS
Mid	2437	-21.12	-20.90	-18.00		PASS
High	2452	-22.14	-21.34	-18.71		PASS

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

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

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	2412	-11.47	8.00	PASS
Mid	2437	-12.40		PASS
High	2462	-13.05		PASS

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

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	2422	-14.94	8.00	PASS
Mid	2437	-15.02		PASS
High	2452	-15.21		PASS

Test mode: IEEE 802.11a mode

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	5745	-10.72	8.00	PASS
Mid	5785	-11.72		PASS
High	5825	-13.51		PASS

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	-11.62	-12.29	-8.93	8.00	PASS
Mid	5785	-15.04	-14.89	-11.95		PASS
High	5825	-13.25	-15.59	-11.25		PASS

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	5755	-17.62	-15.44	-13.38	8.00	PASS
High	5795	-17.10	-14.56	-12.64		PASS

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

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

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	5745	-8.64	8.00	PASS
Mid	5785	-8.93		PASS
High	5825	-8.26		PASS

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

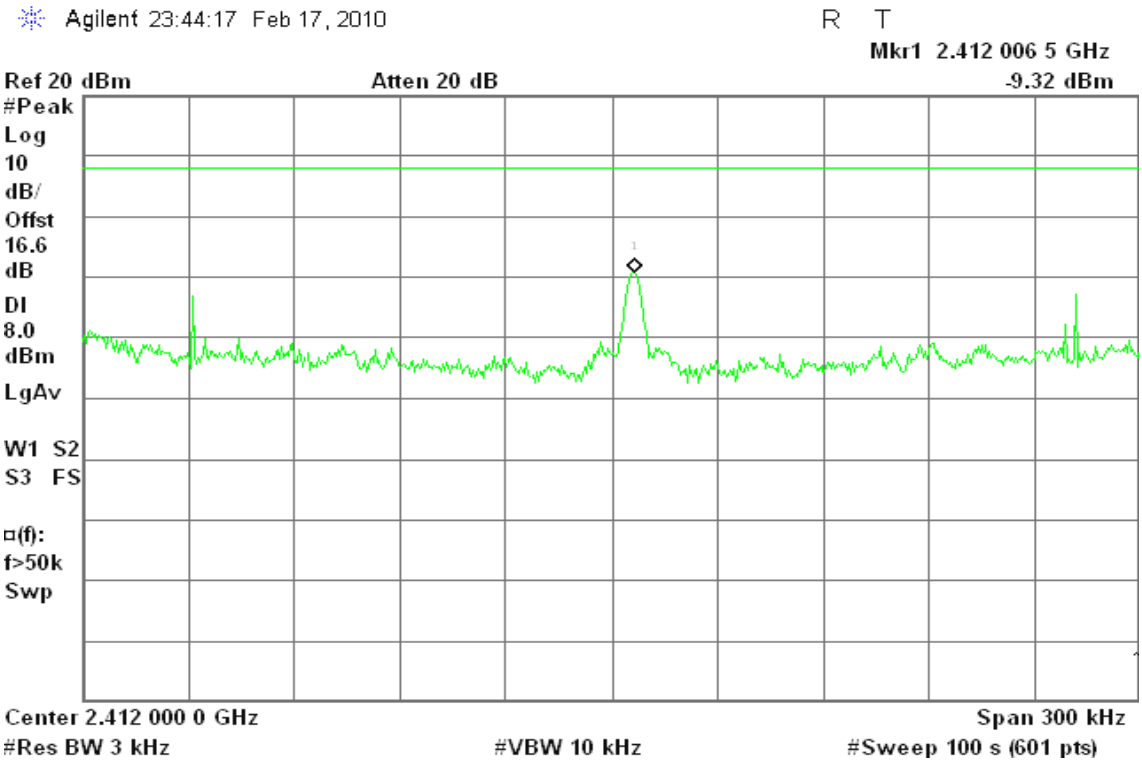
Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	5755	-13.02	8.00	PASS
High	5795	-13.36		PASS

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

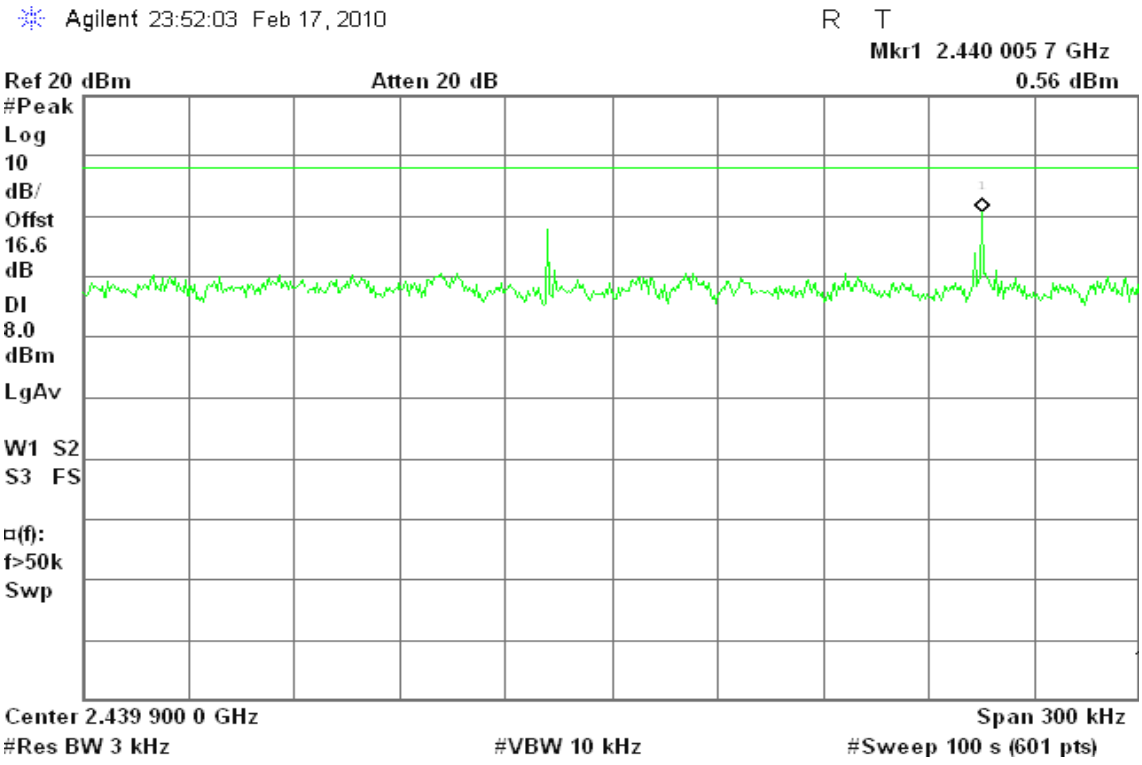
Test Plot

IEEE 802.11b mode

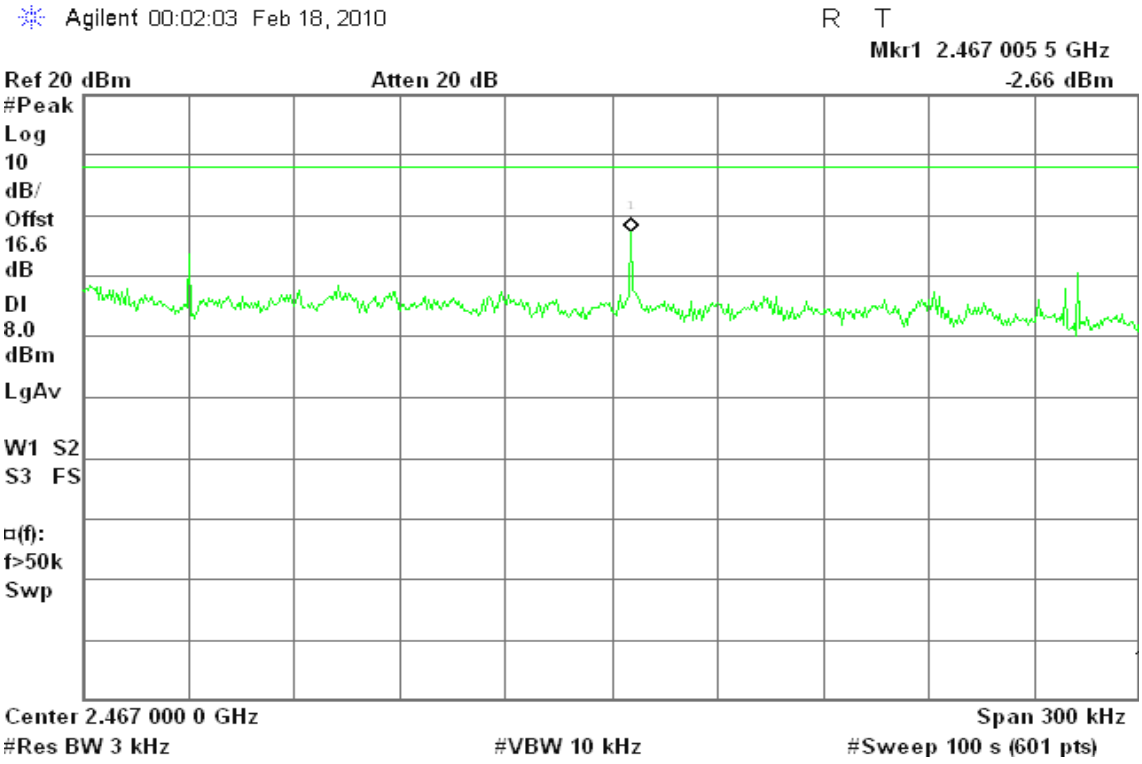
PPSD (CH Low)



PPSD (CH Mid)

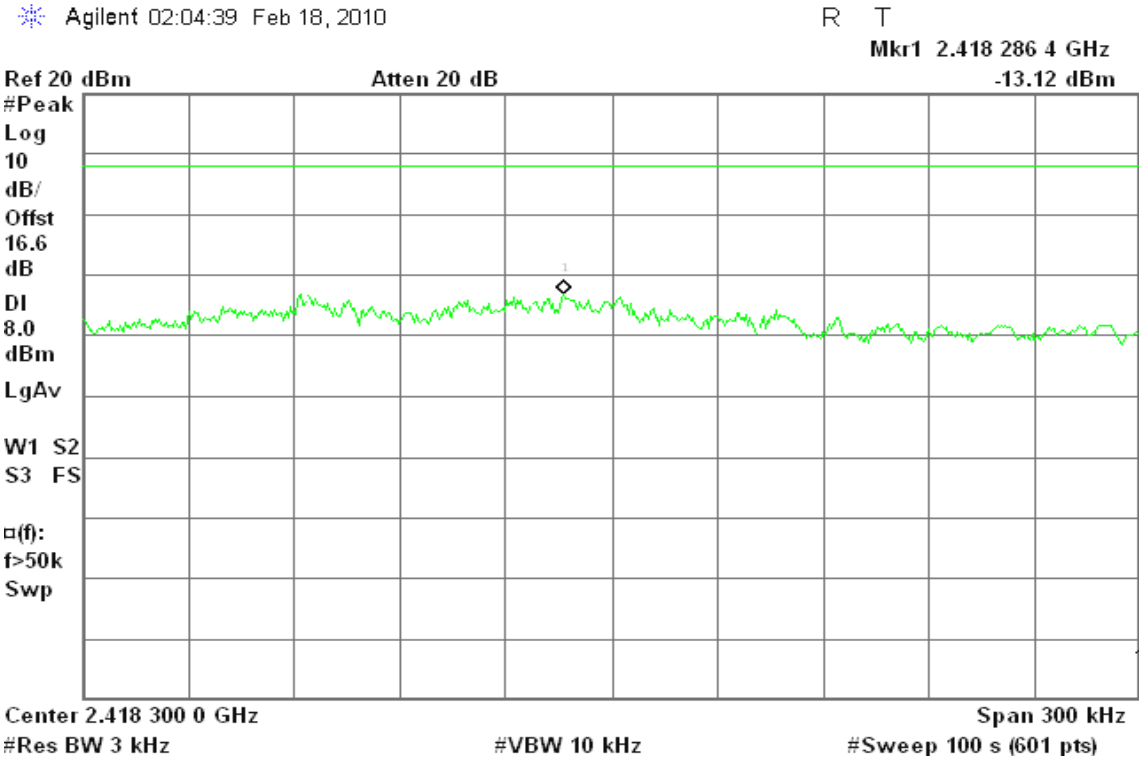


PPSD (CH High)

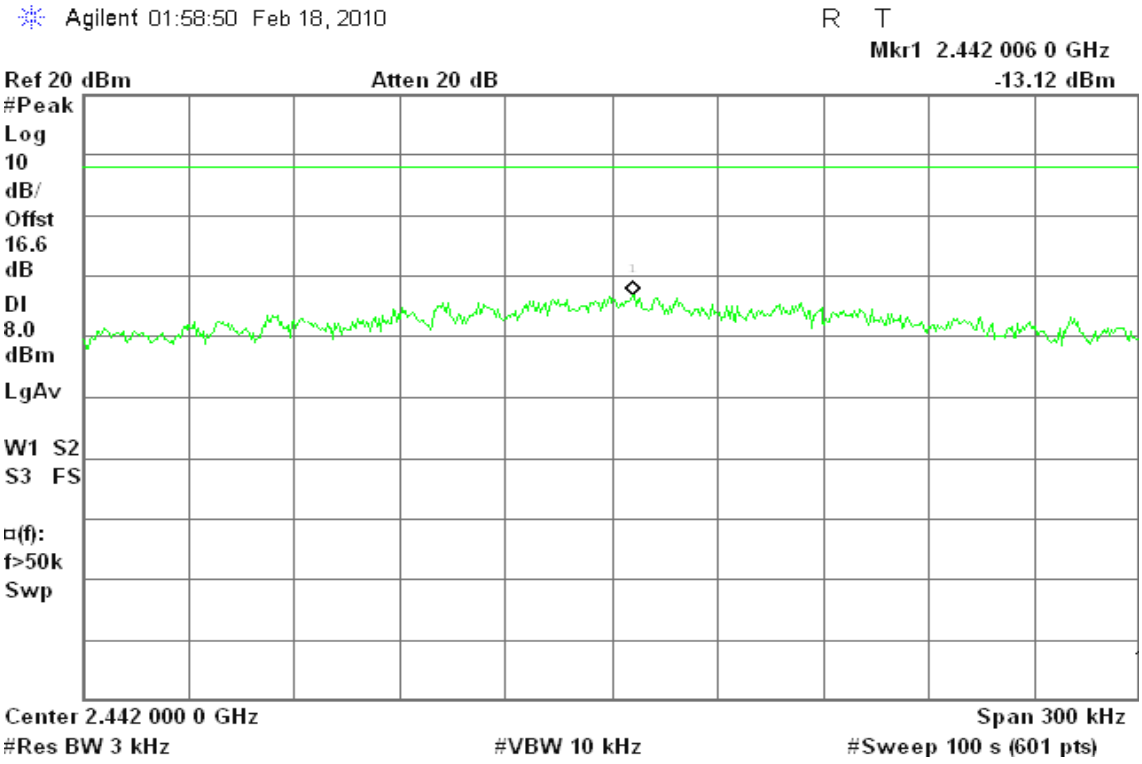


IEEE 802.11g mode

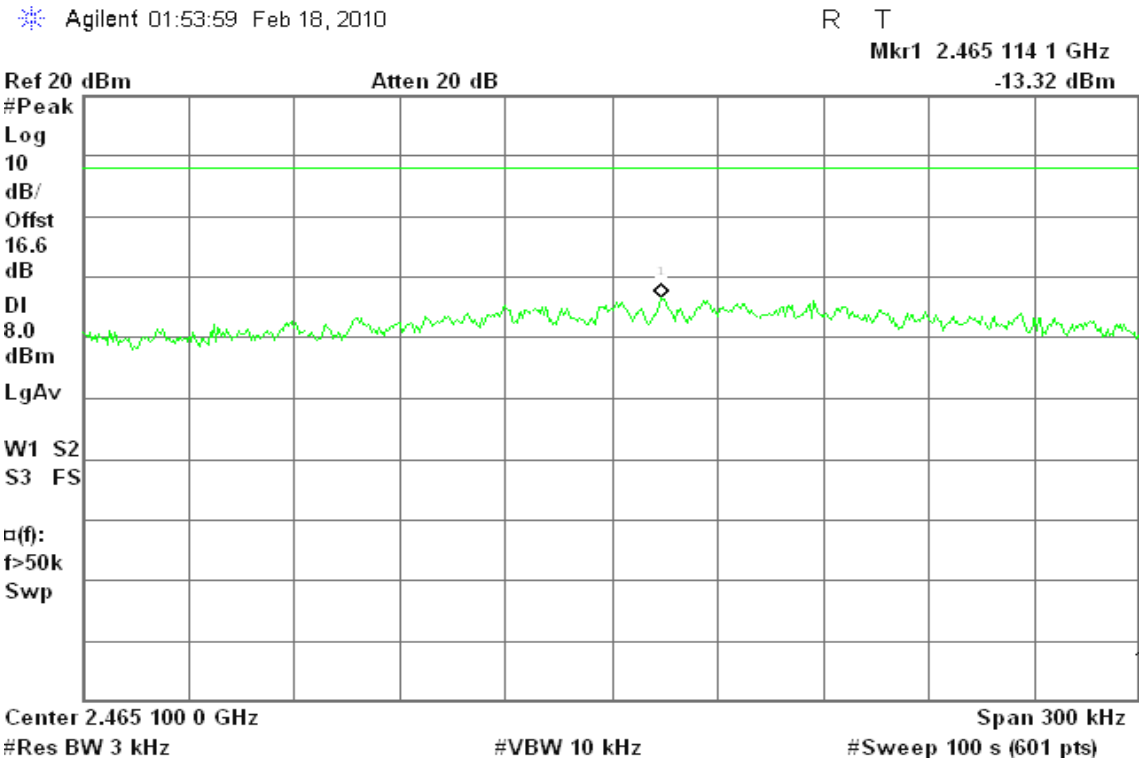
PPSD (CH Low)



PPSD (CH Mid)

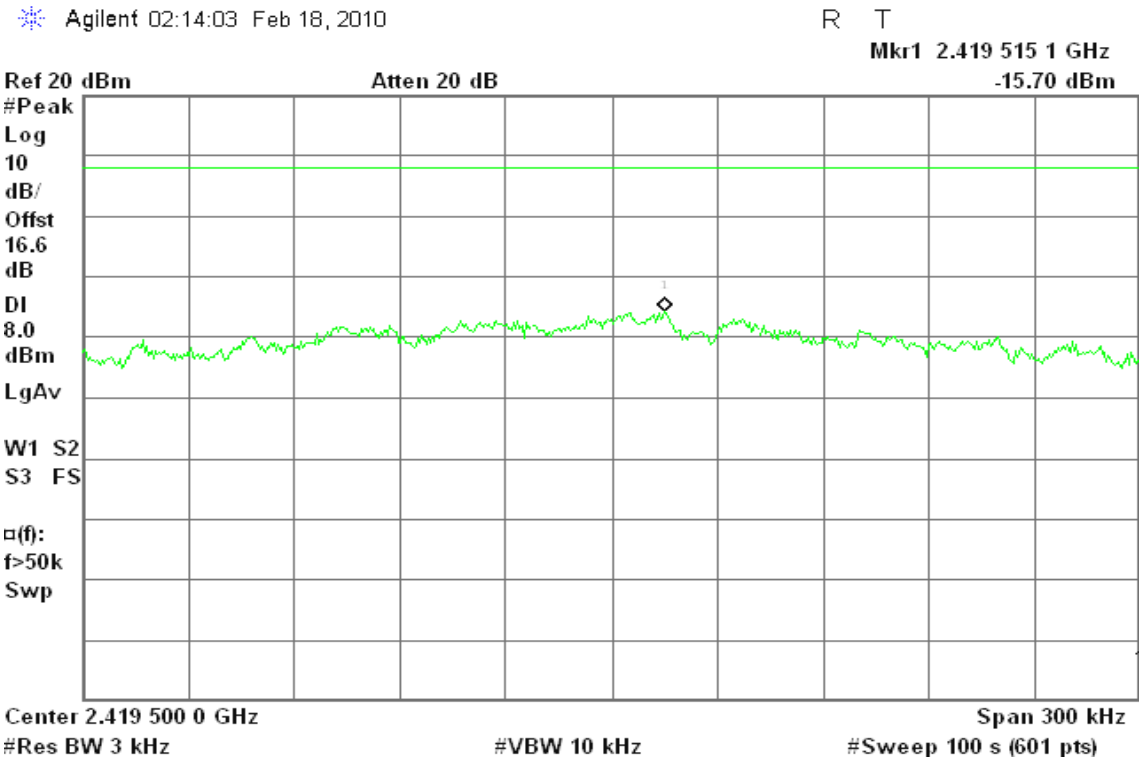


PPSD (CH High)

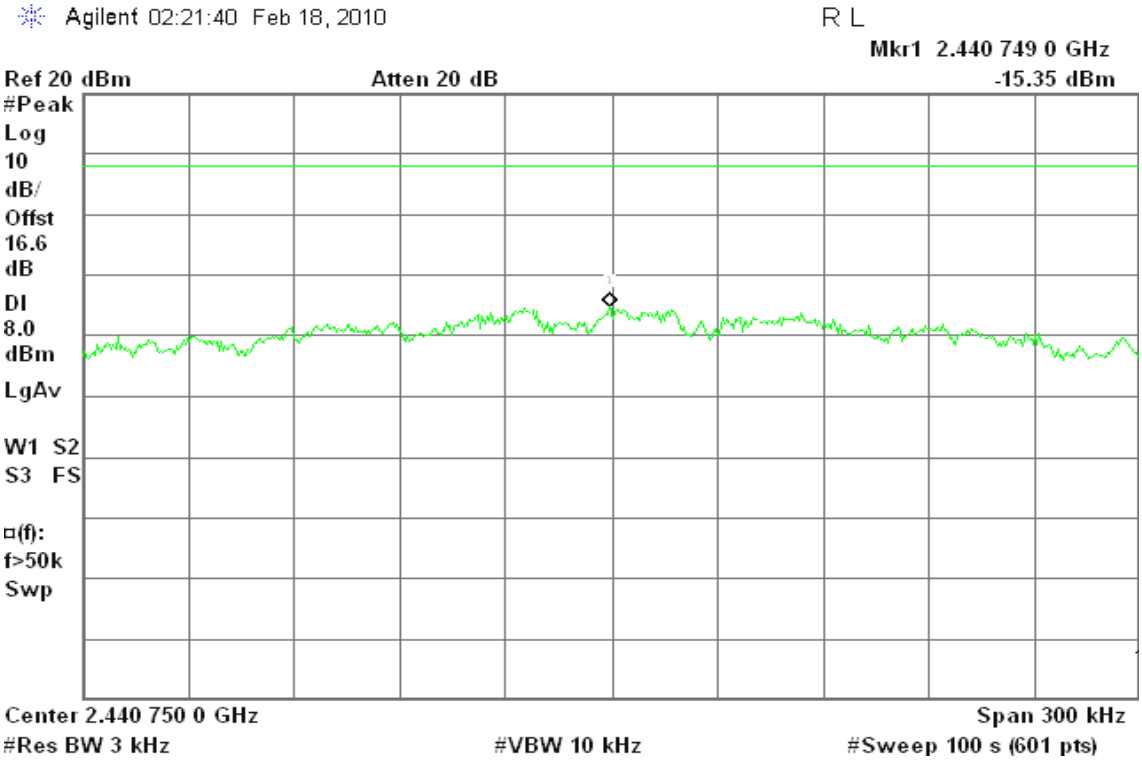


draft 802.11n Standard-20 MHz Channel mode / Chain 0

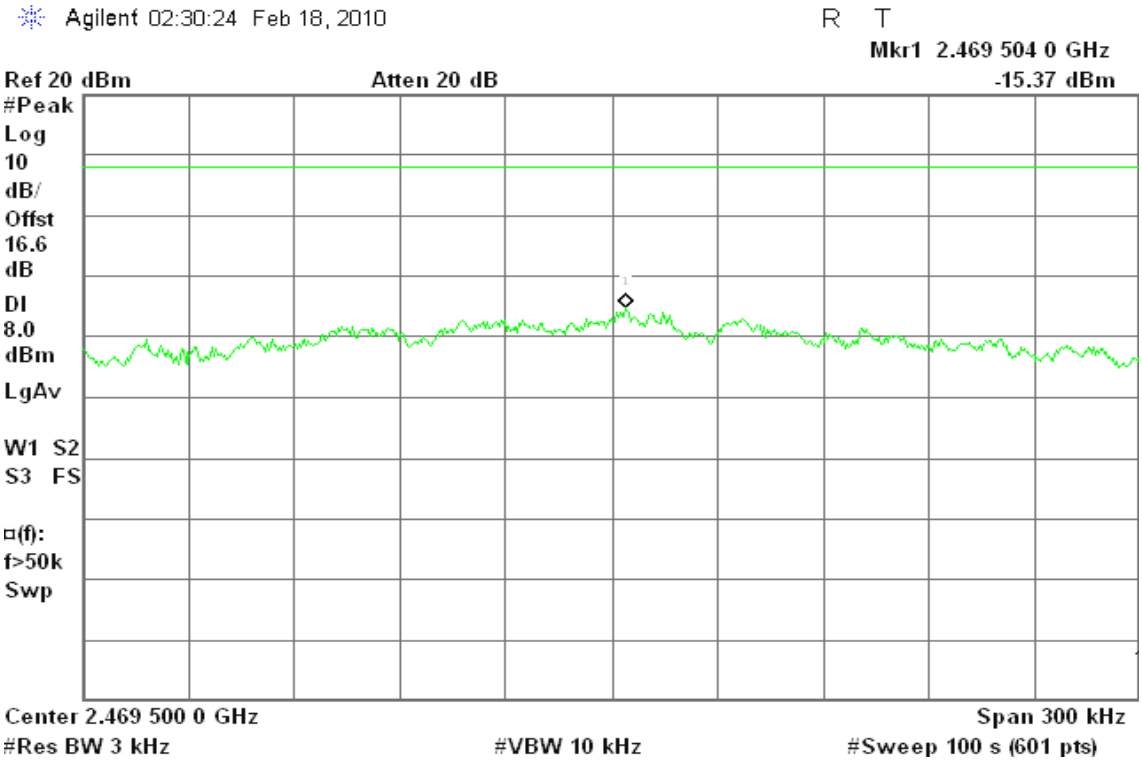
PPSD (CH Low)



PPSD (CH Mid)

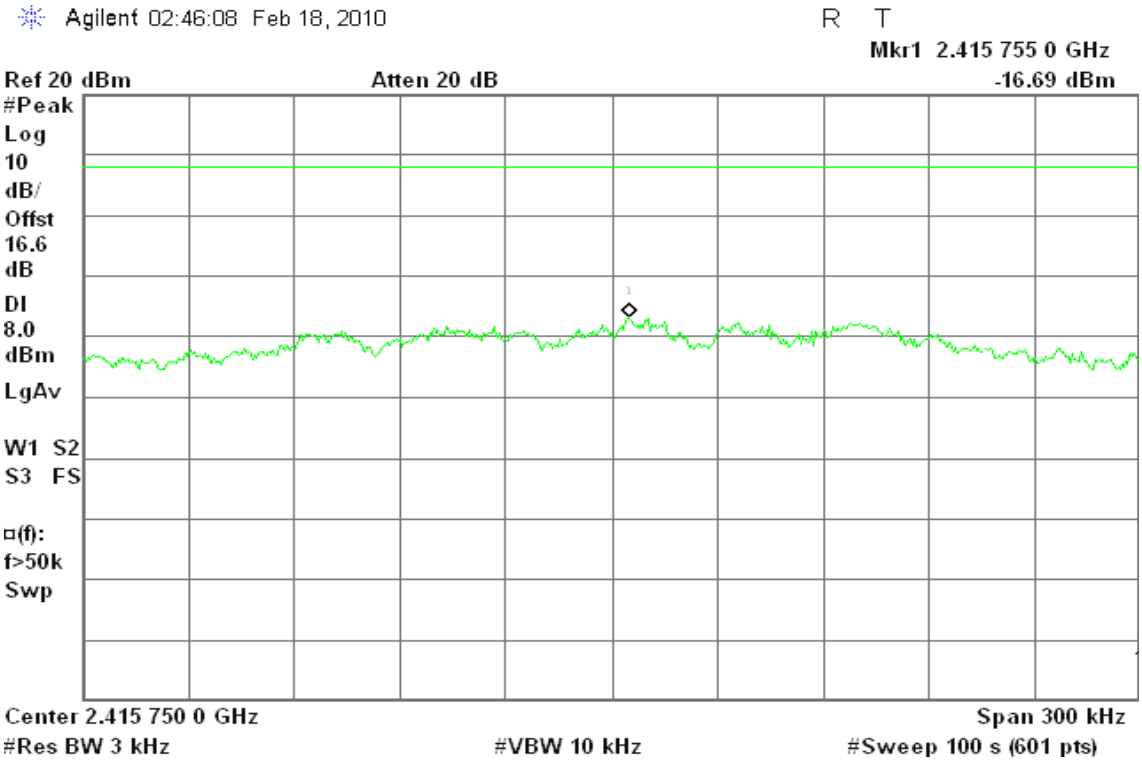


PPSD (CH High)

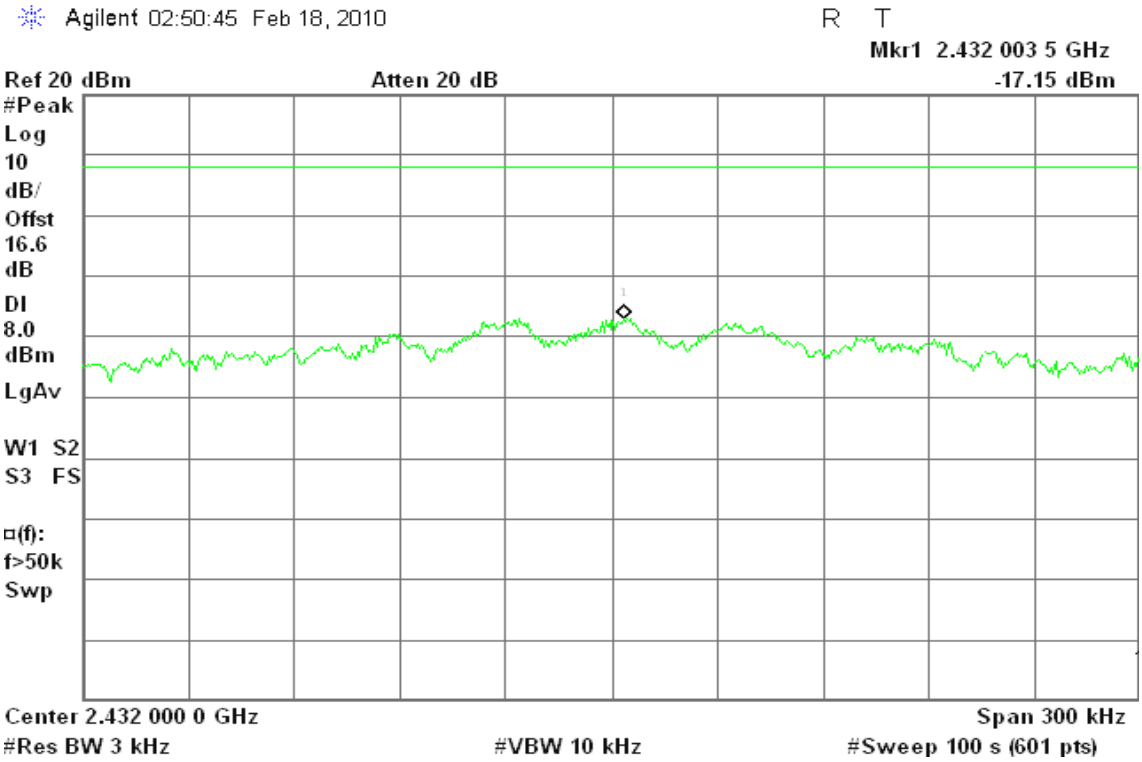


draft 802.11n Standard-20 MHz Channel mode / Chain 1

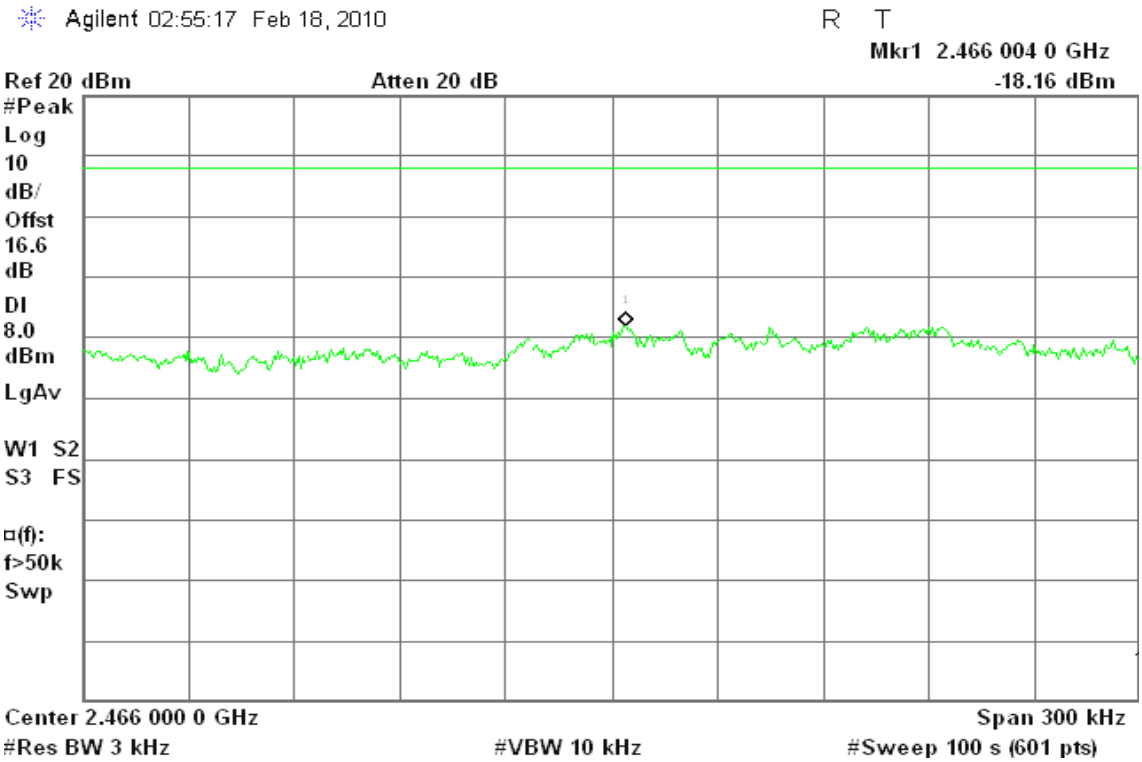
PPSD (CH Low)



PPSD (CH Mid)

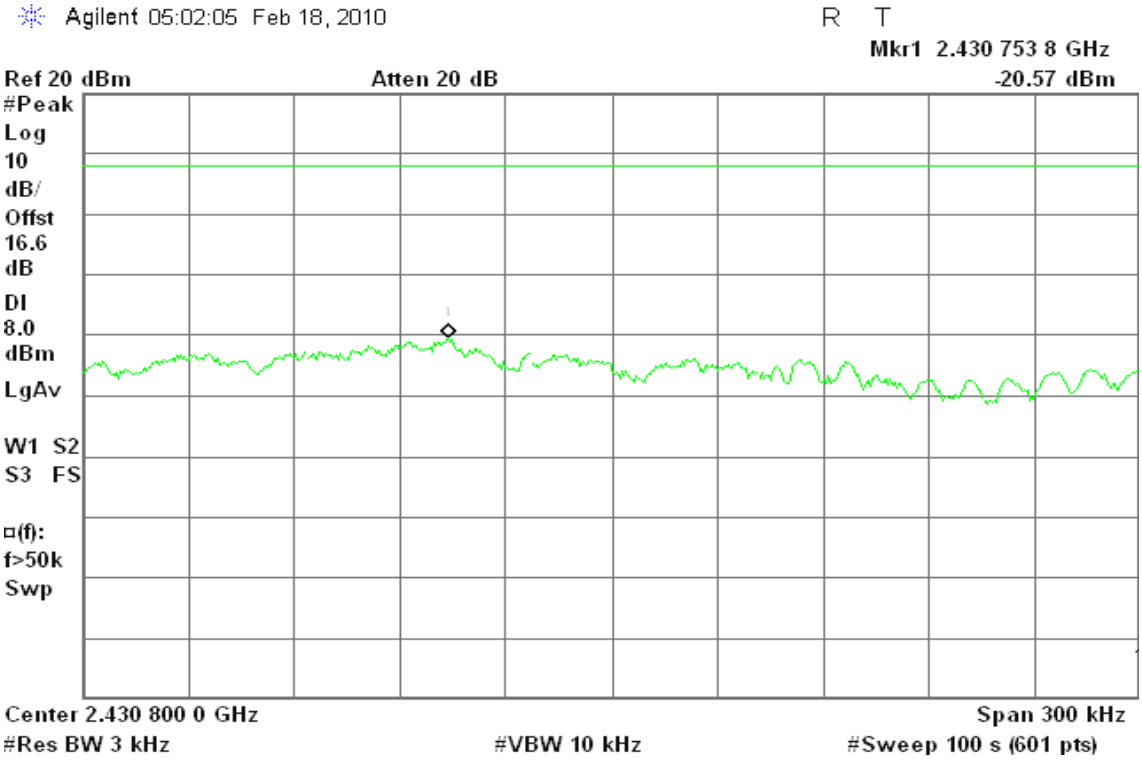


PPSD (CH High)

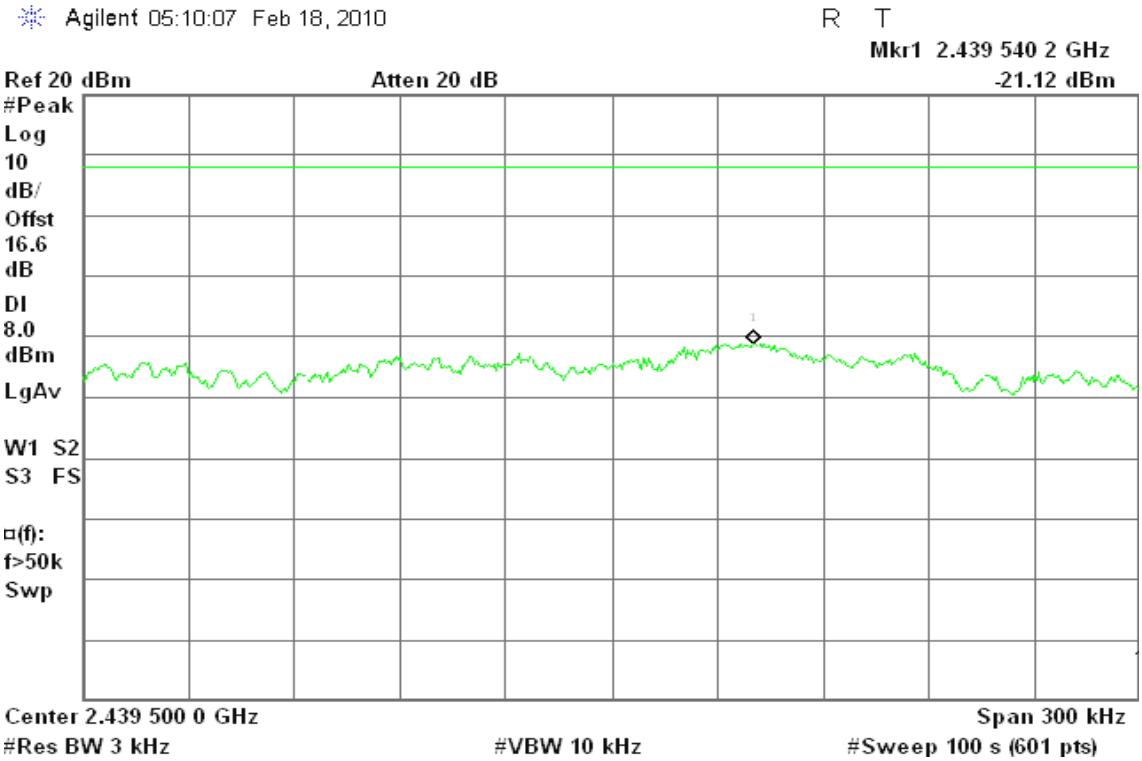


draft 802.11n Wide-40 MHz Channel mode / Chain 0

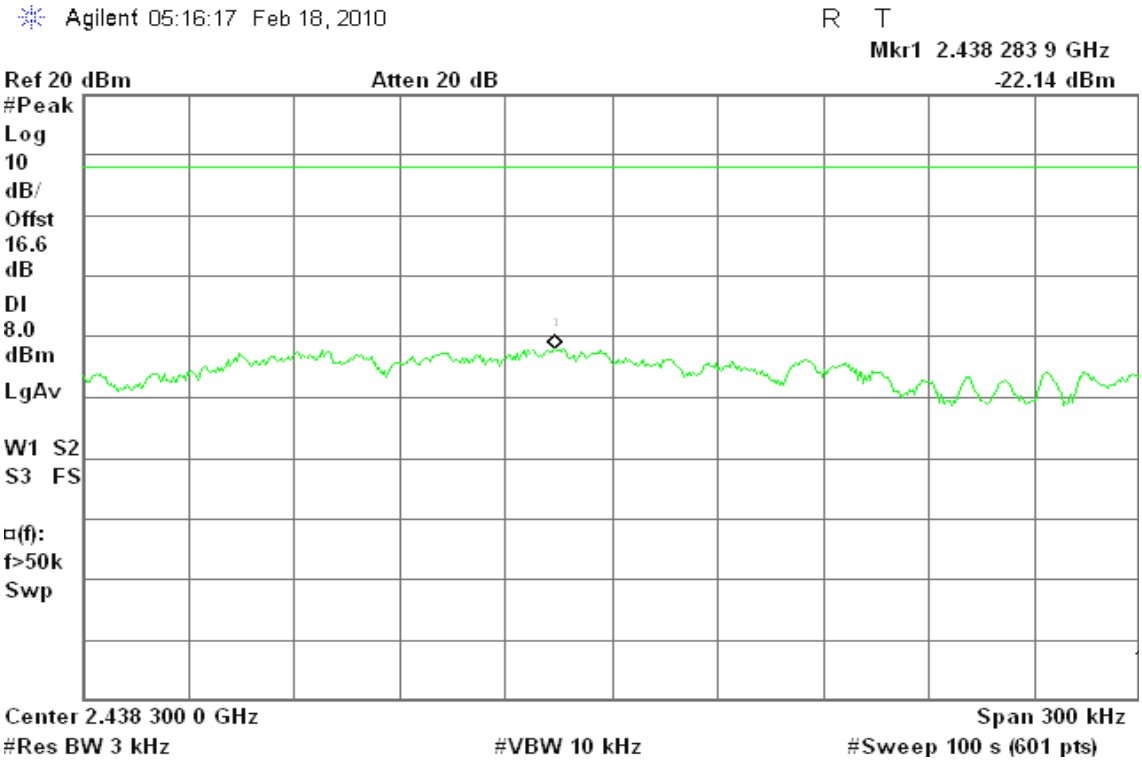
PPSD (CH Low)



PPSD (CH Mid)

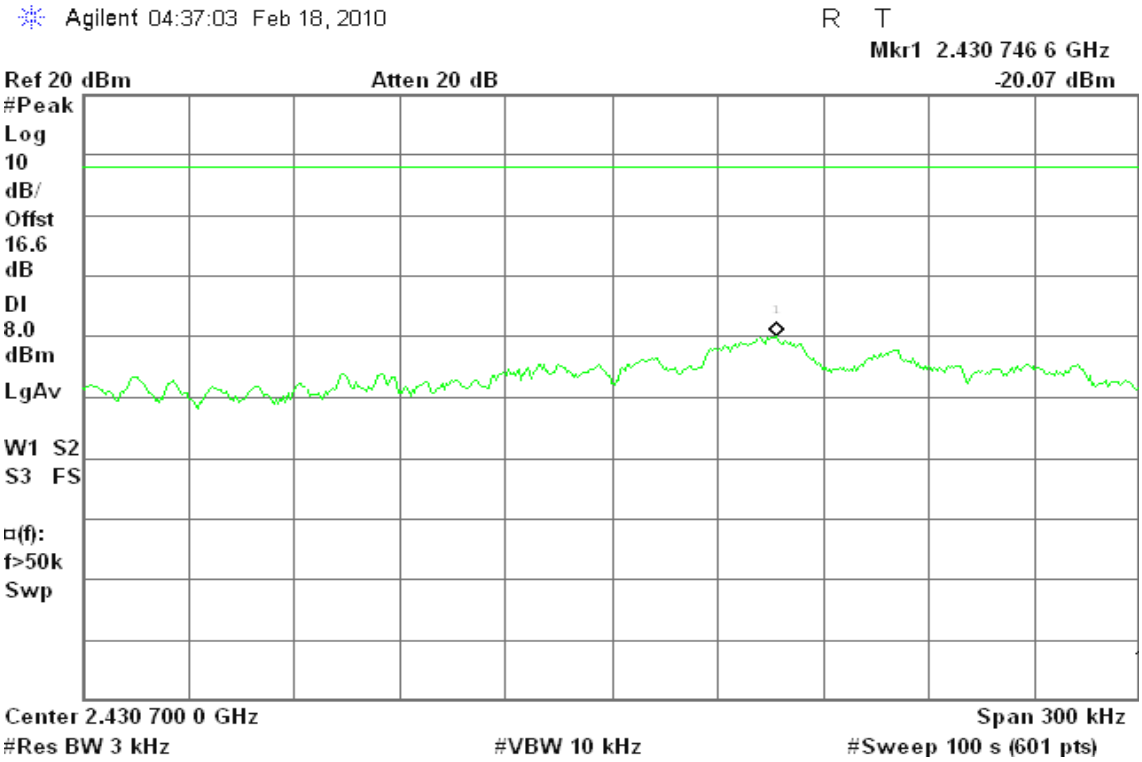


PPSD (CH High)

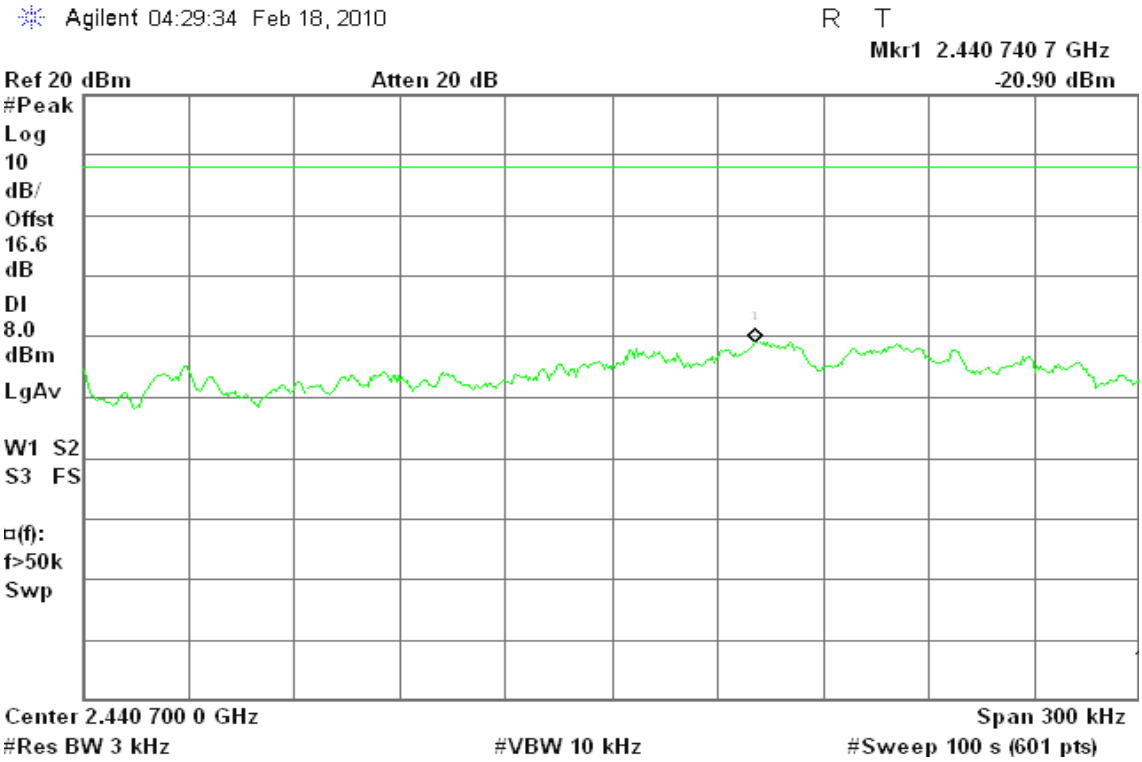


draft 802.11n Wide-40 MHz Channel mode / Chain 1

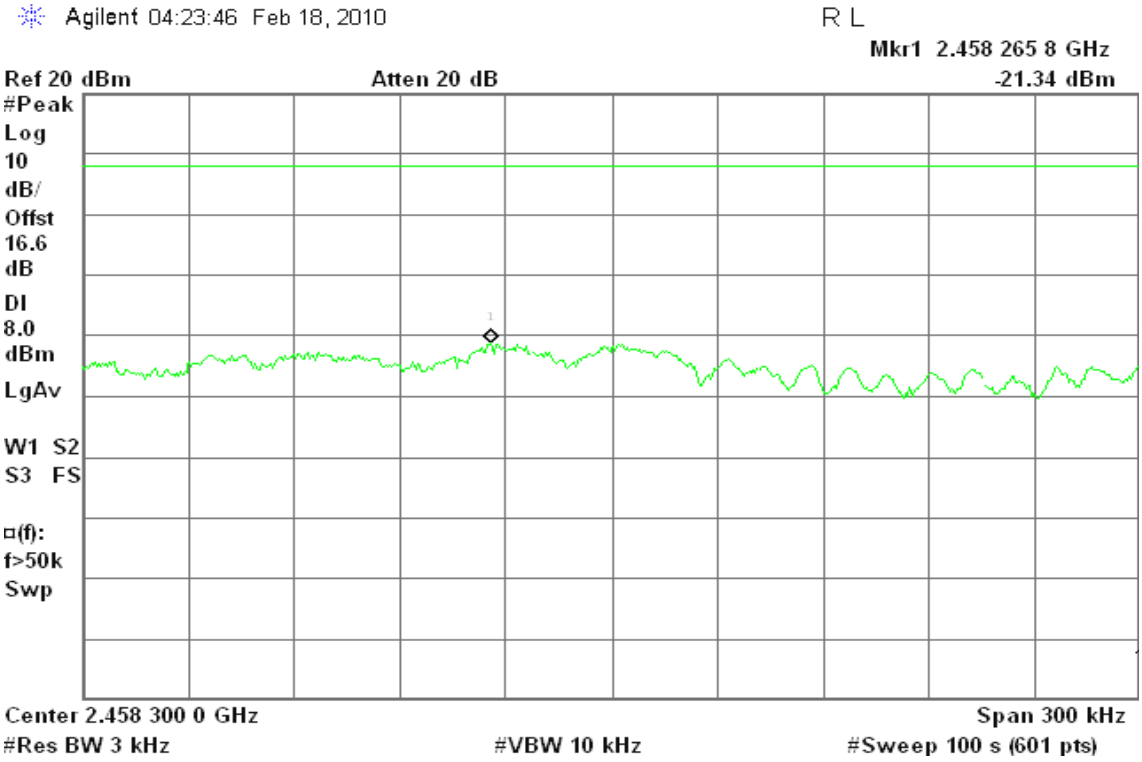
PPSD (CH Low)



PPSD (CH Mid)

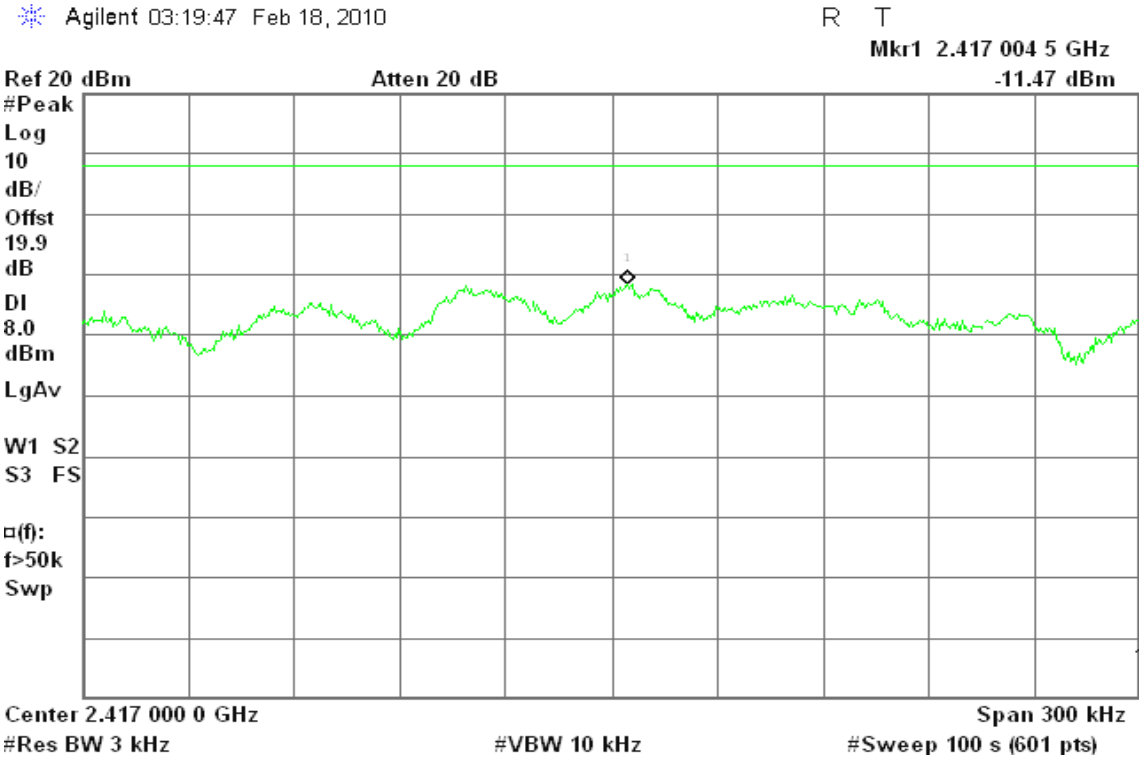


PPSD (CH High)

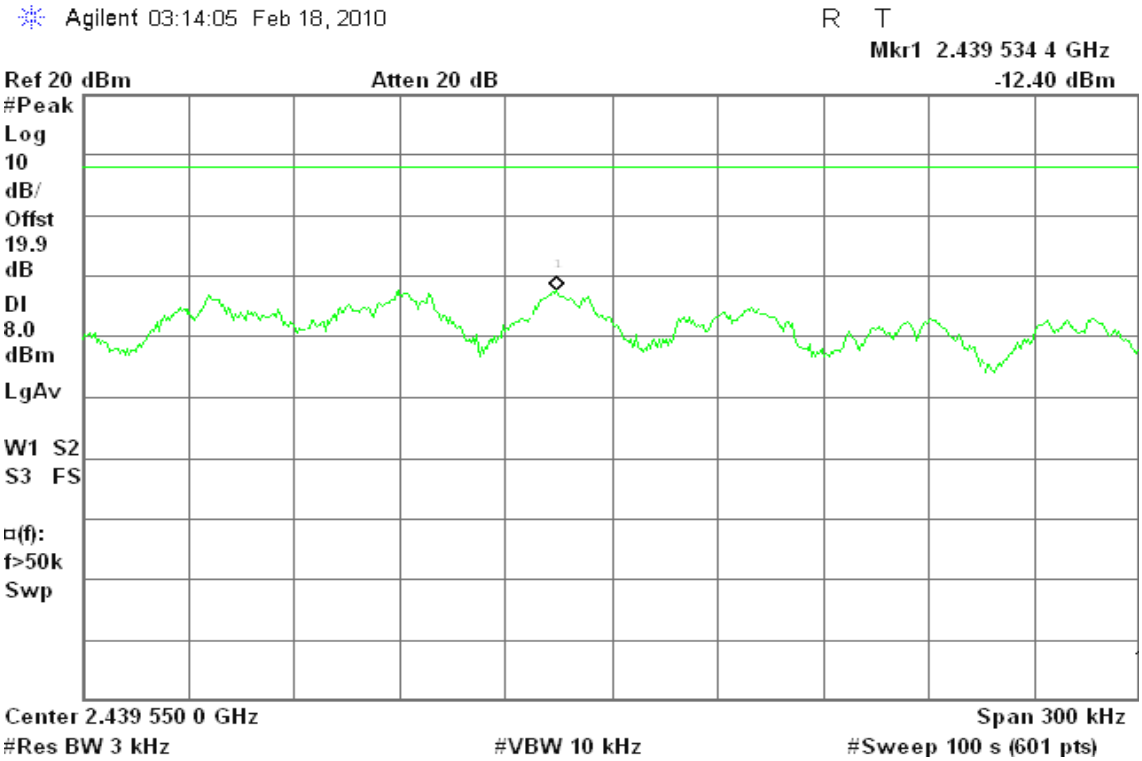


draft 802.11n Standard-20 MHz Channel mode with combiner

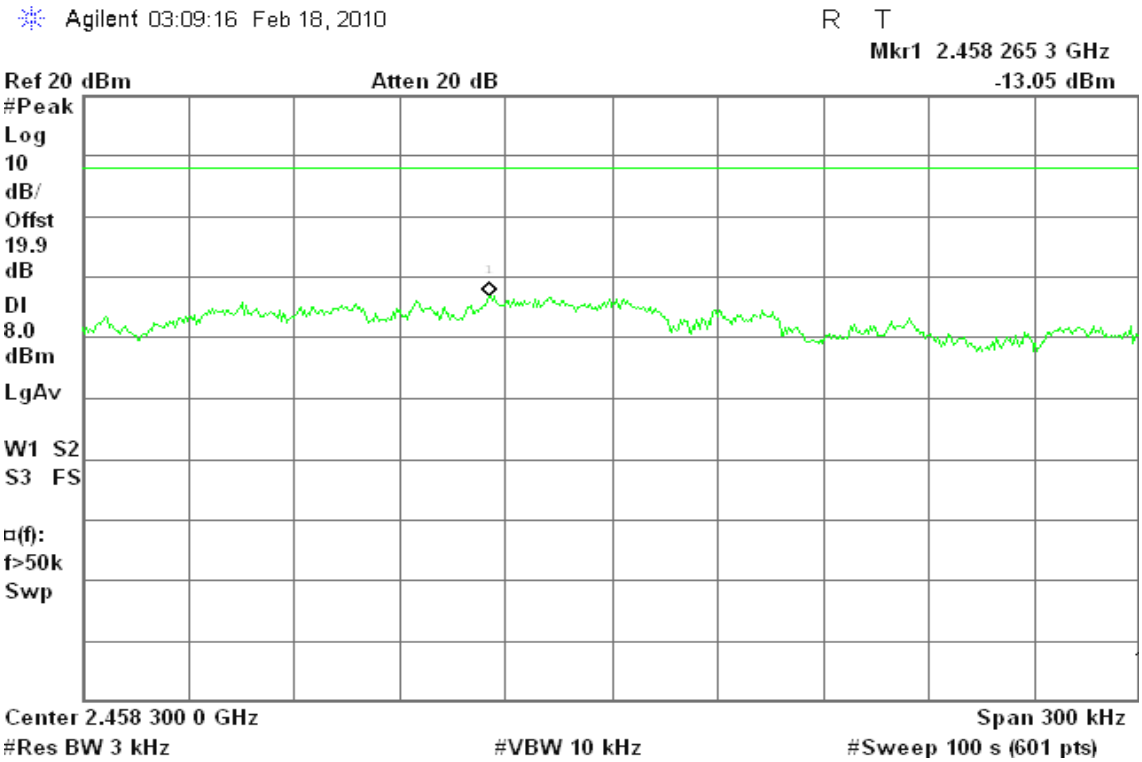
PPSD (CH Low)



PPSD (CH Mid)

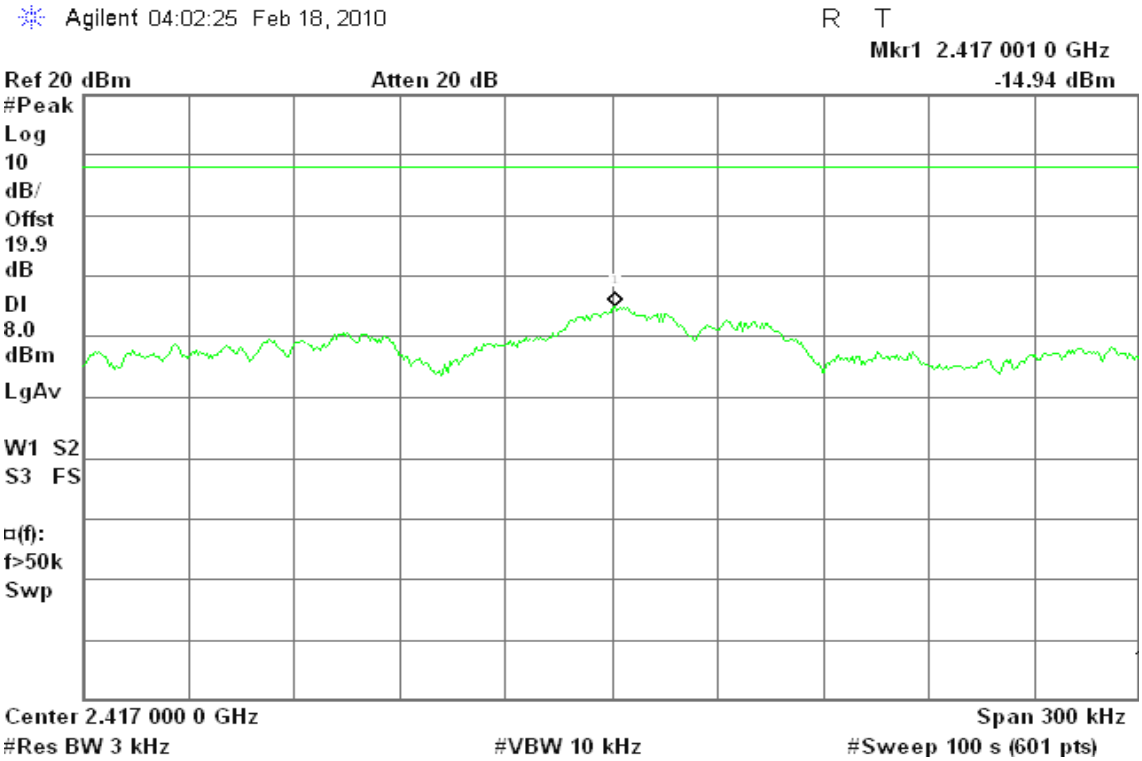


PPSD (CH High)

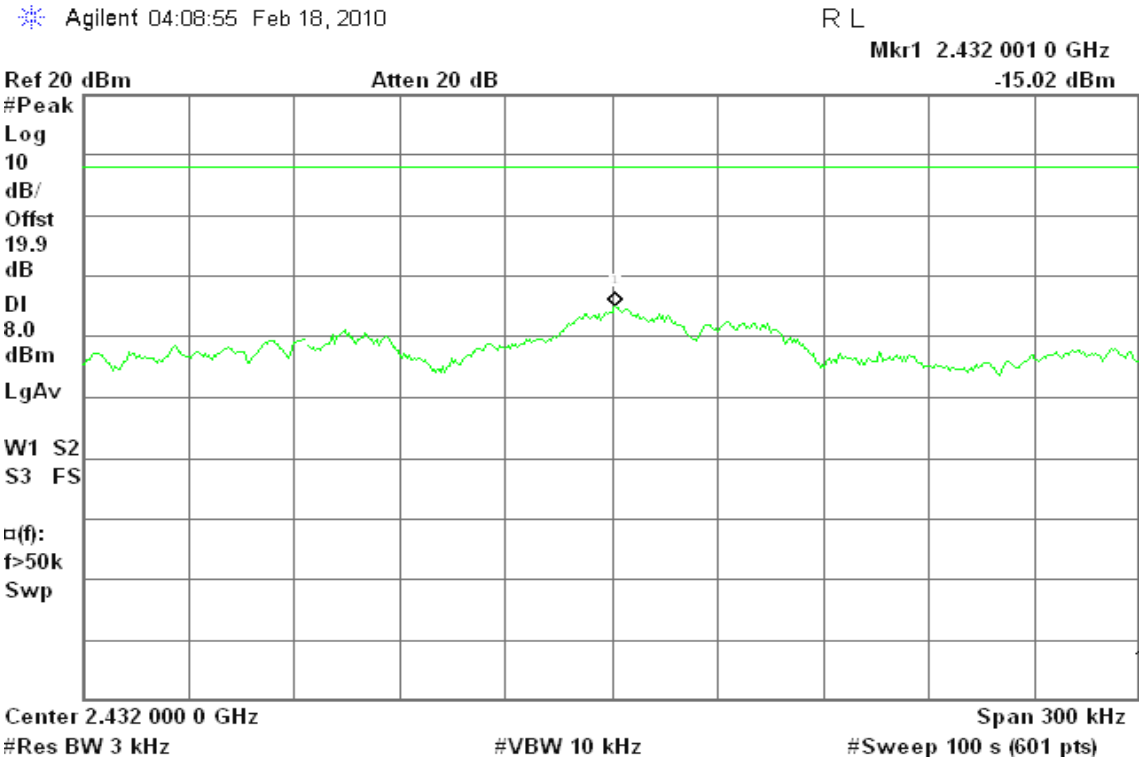


draft 802.11n Wide-40 MHz Channel mode with combiner

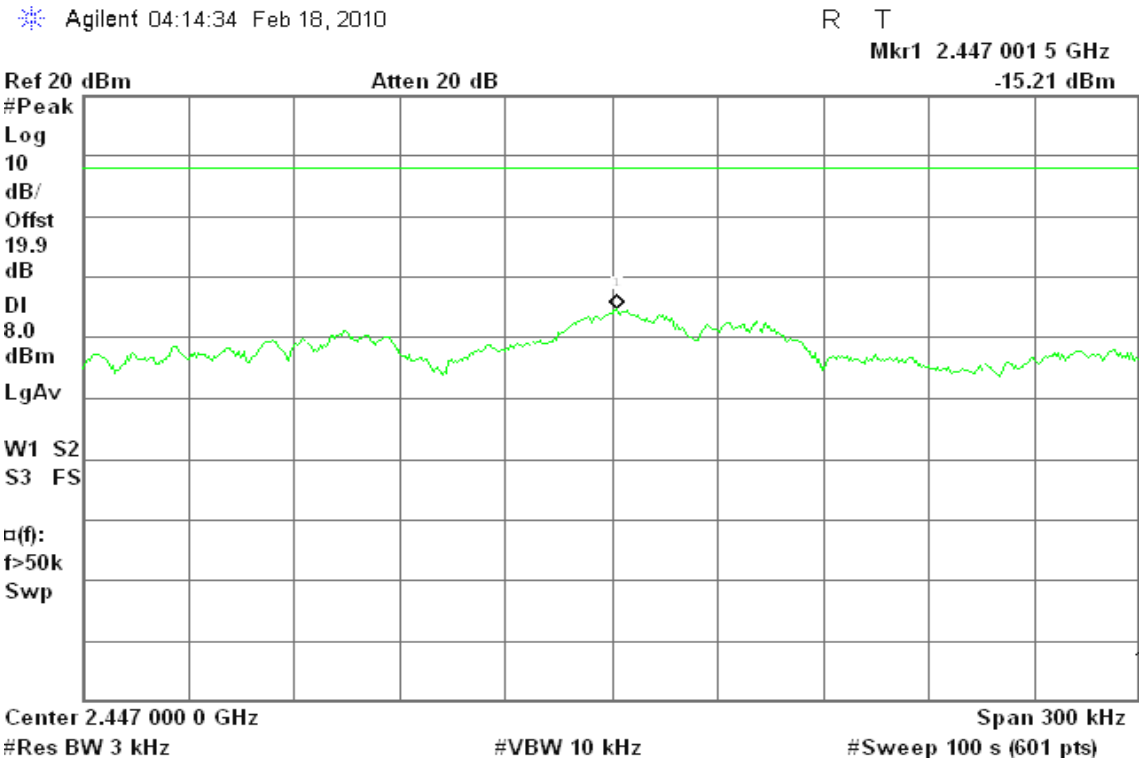
PPSD (CH Low)



PPSD (CH Mid)

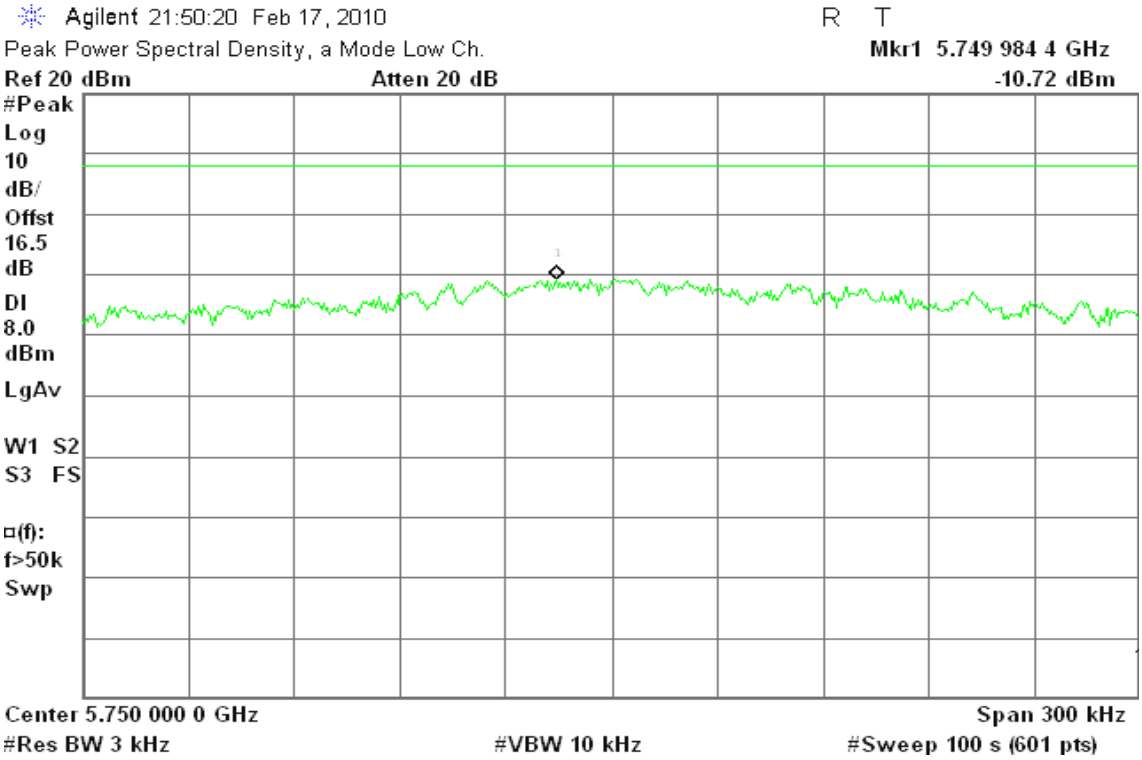


PPSD (CH High)

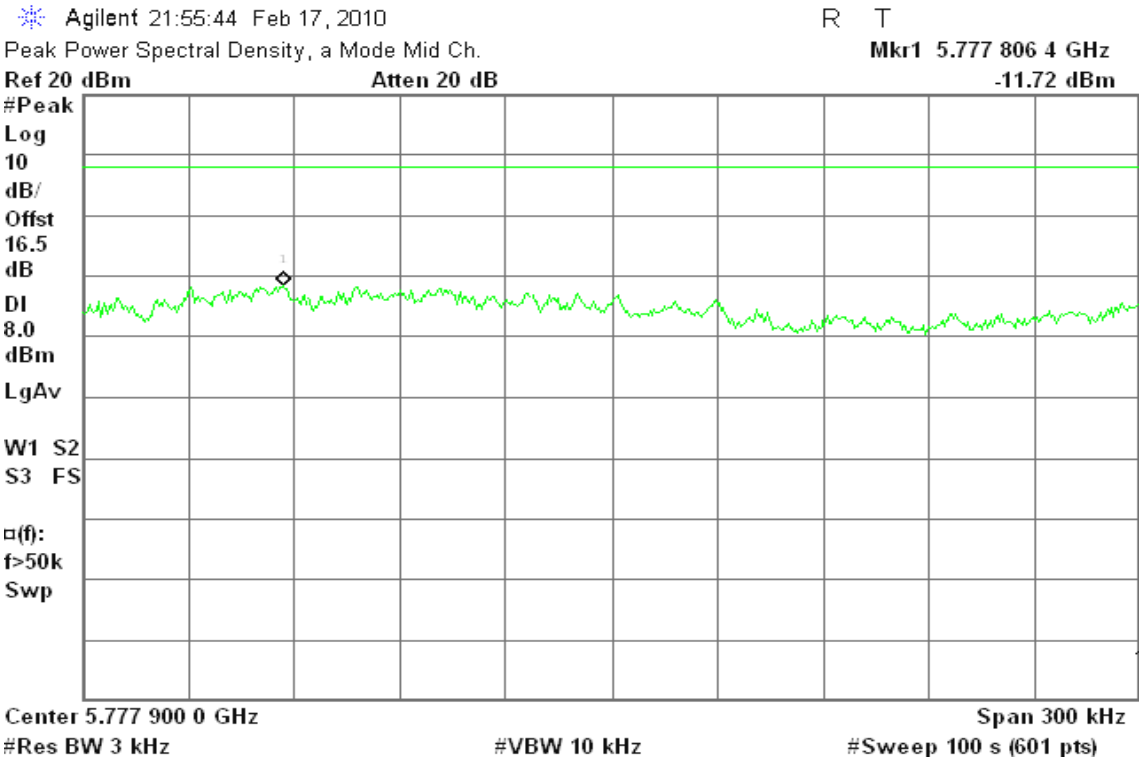


IEEE 802.11a mode:

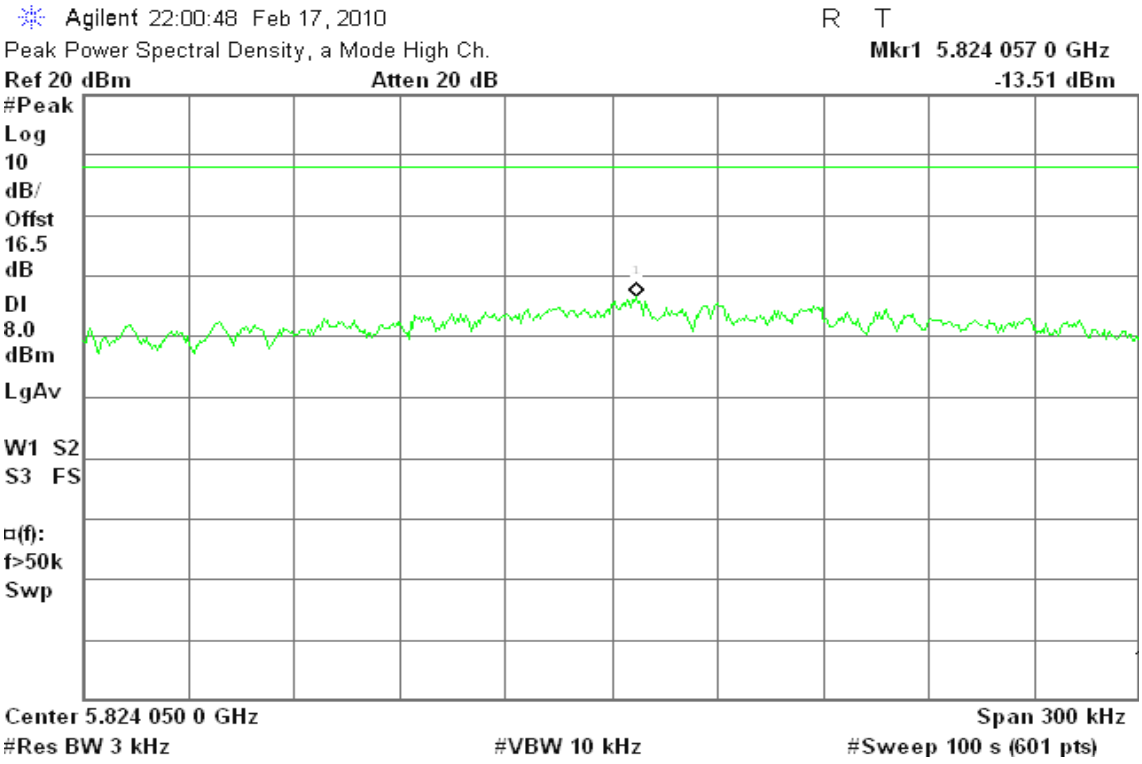
PPSD (CH Low)



PPSD (CH Mid)

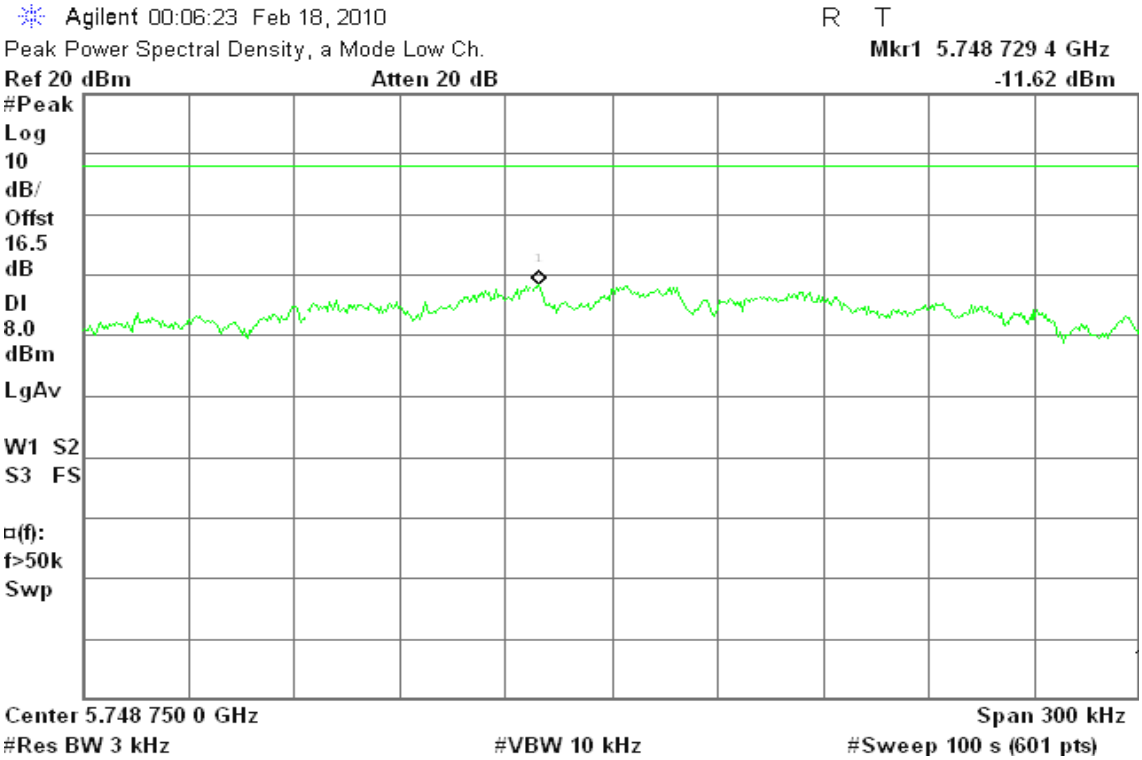


PPSD (CH High)

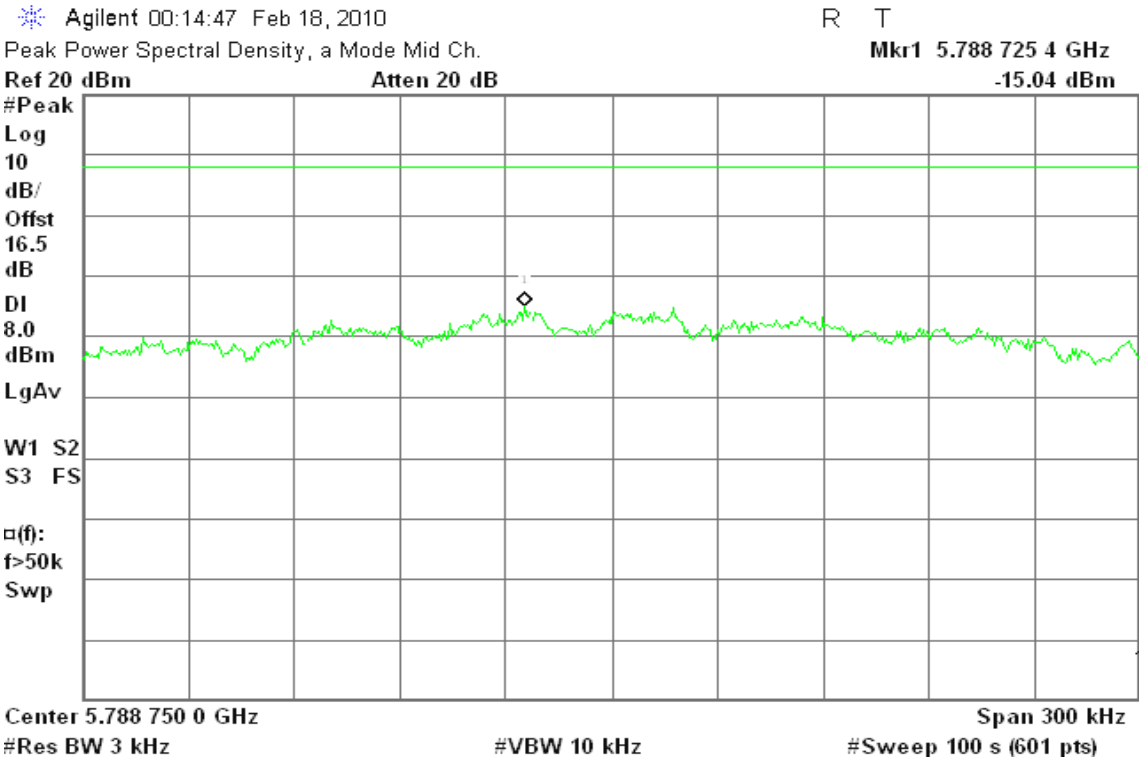


draft 802.11n Standard-20 MHz Channel mode / Chain 0

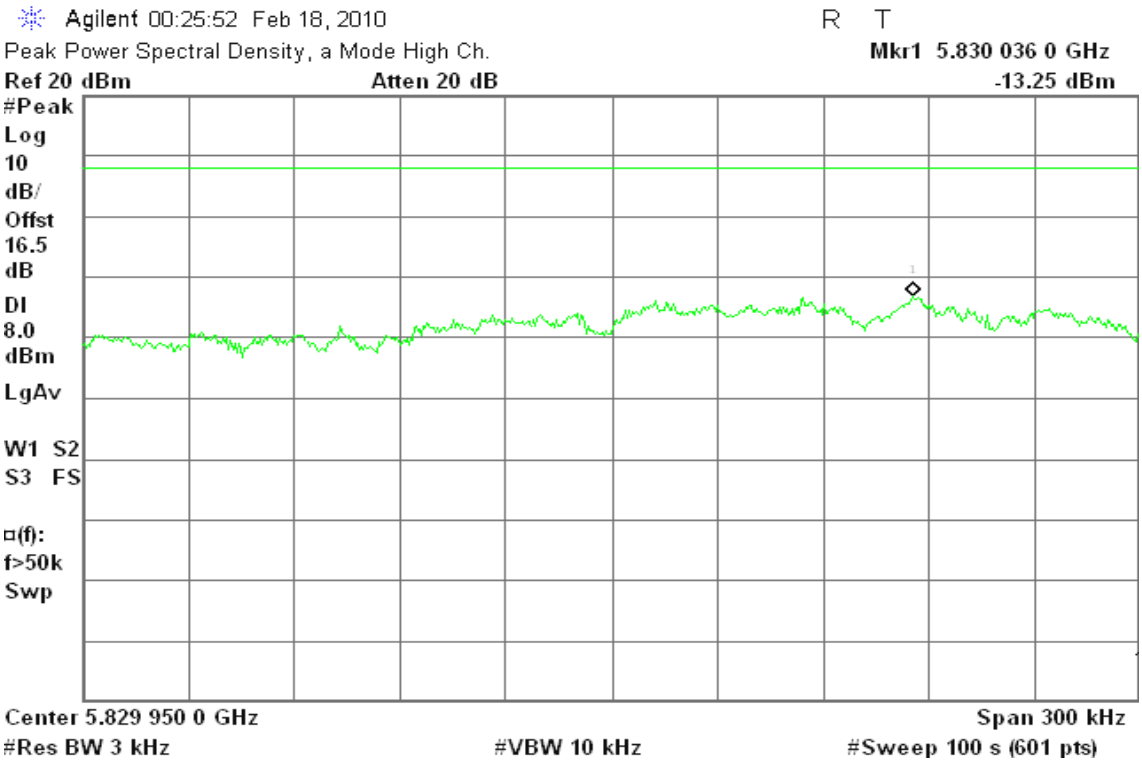
PPSD (CH Low)



PPSD (CH Mid)

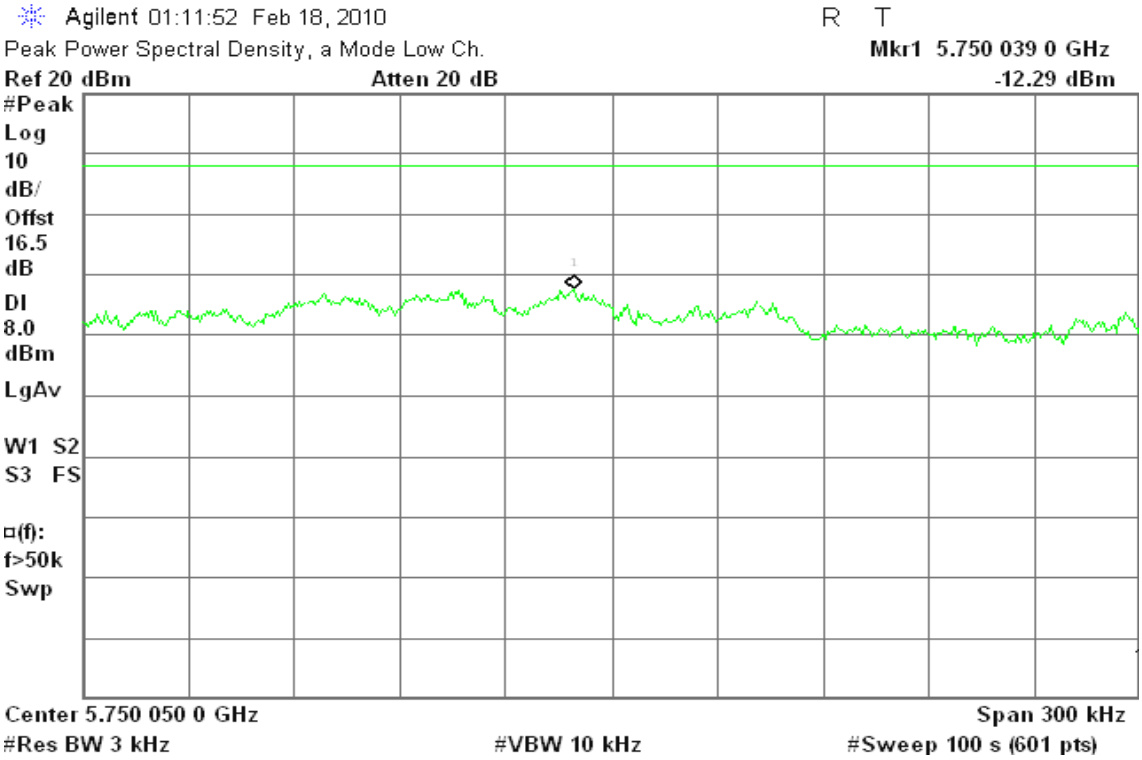


PPSD (CH High)

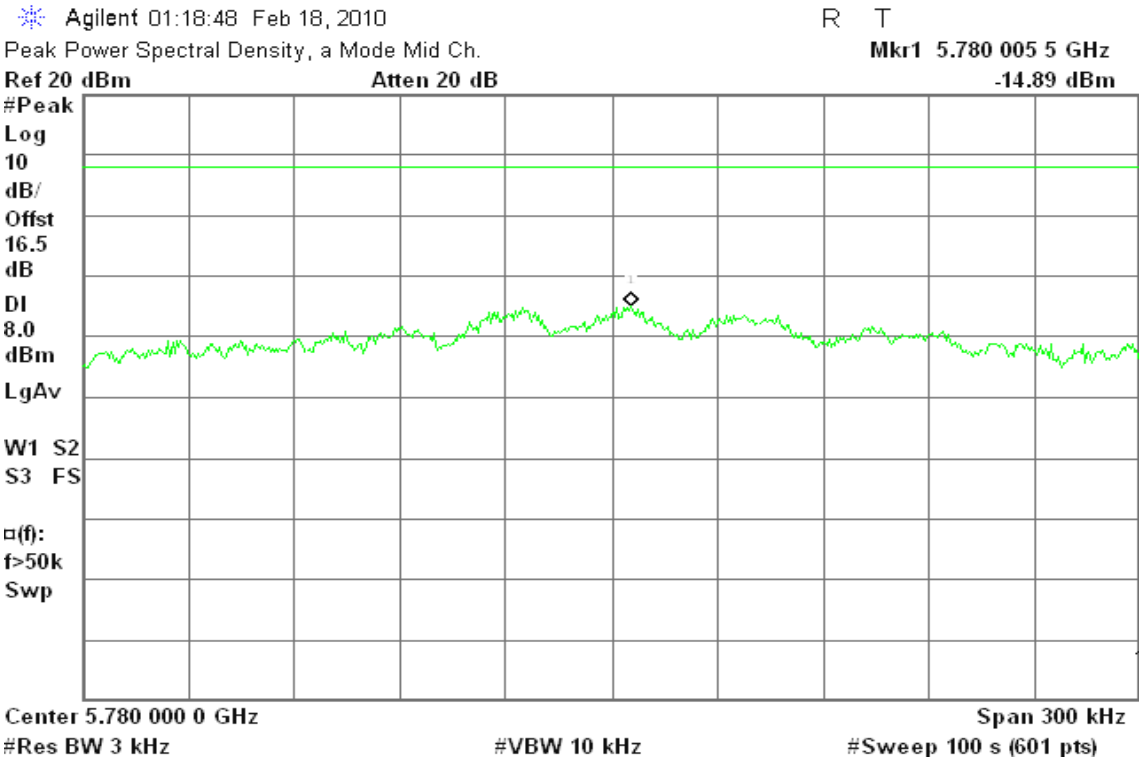


draft 802.11n Standard-20 MHz Channel mode / Chain 1

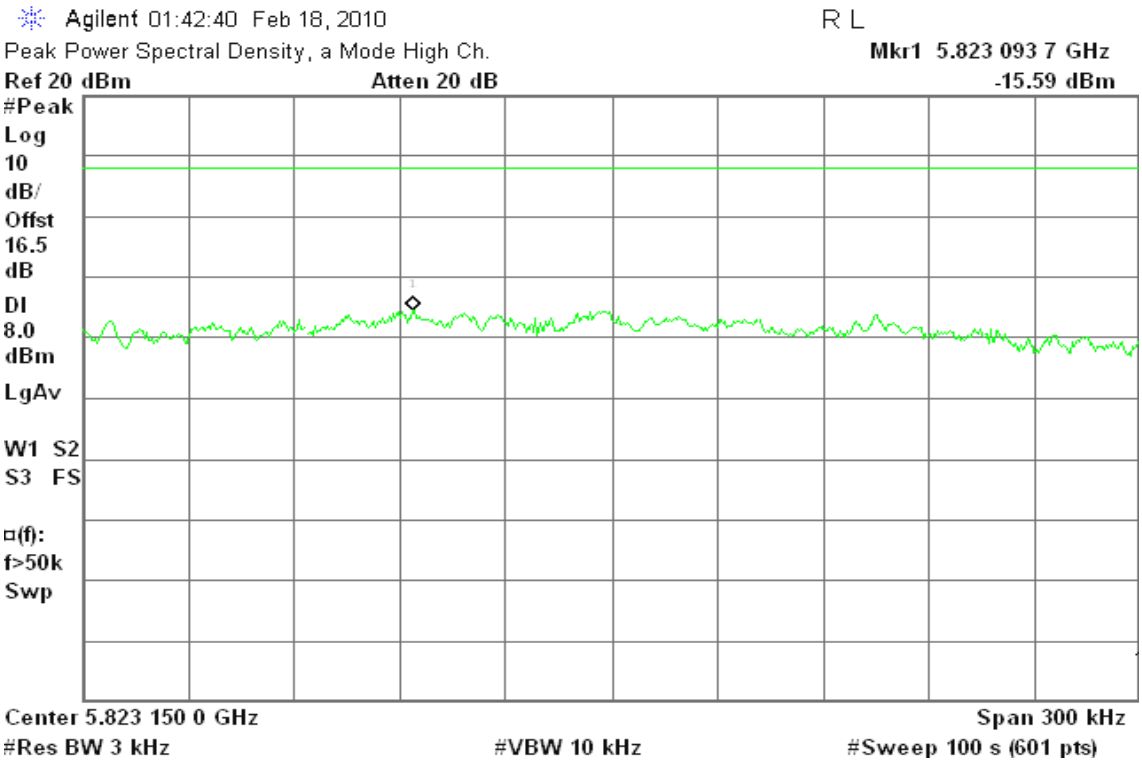
PPSD (CH Low)



PPSD (CH Mid)

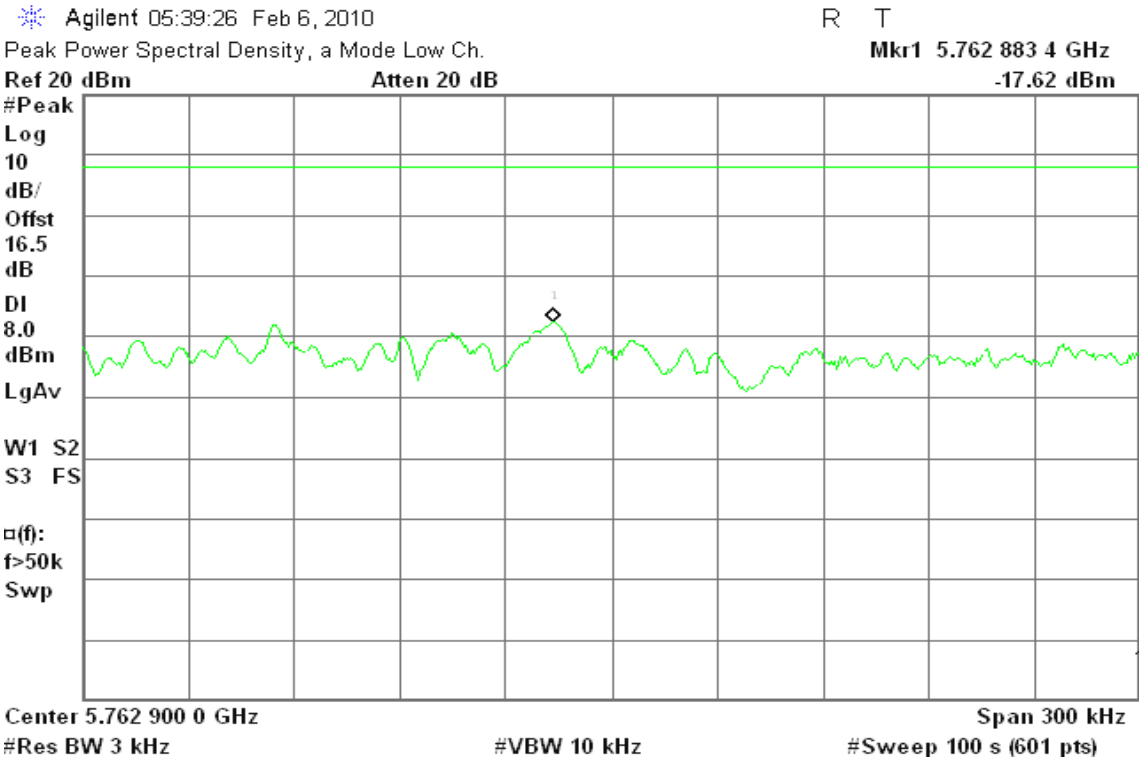


PPSD (CH High)

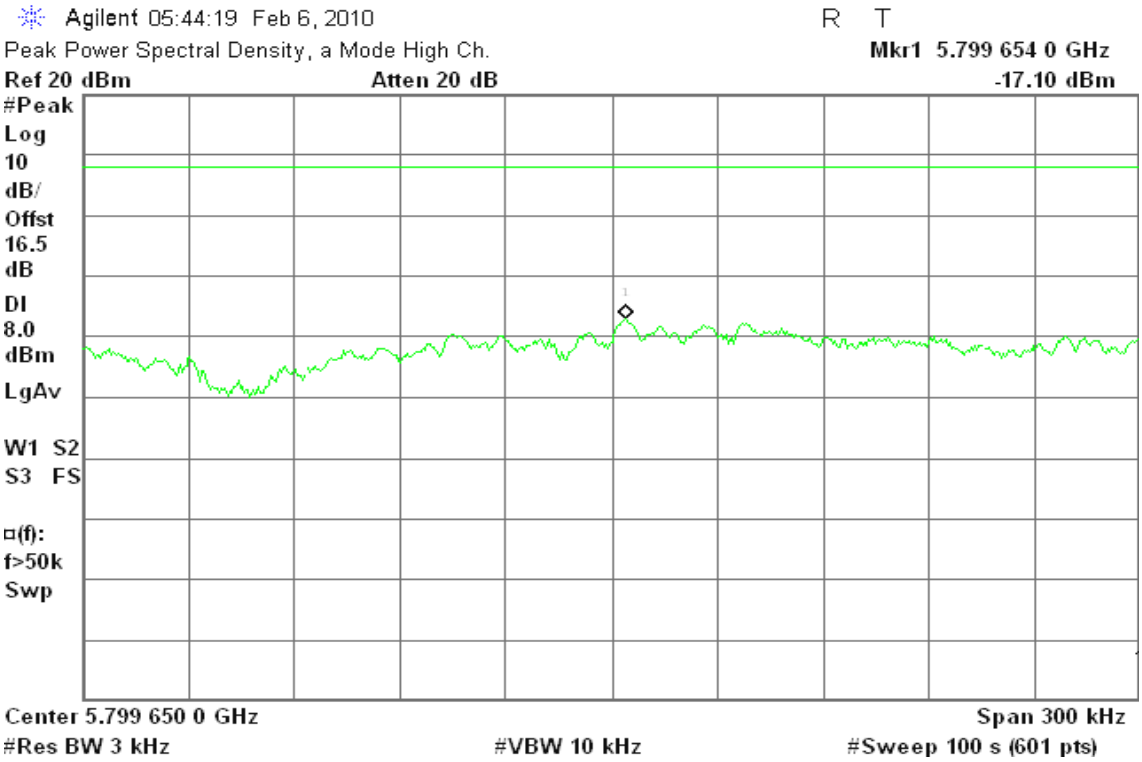


draft 802.11n Wide-40 MHz Channel mode / Chain 0

PPSD (CH Low)

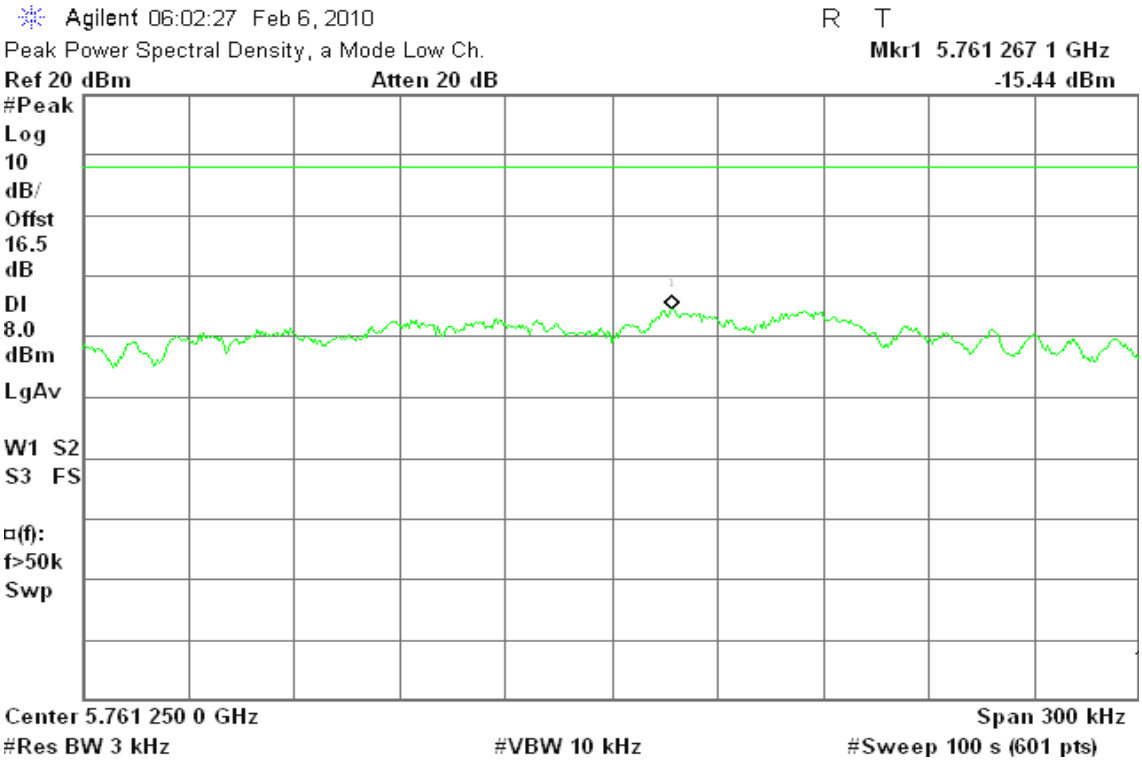


PPSD (CH High)

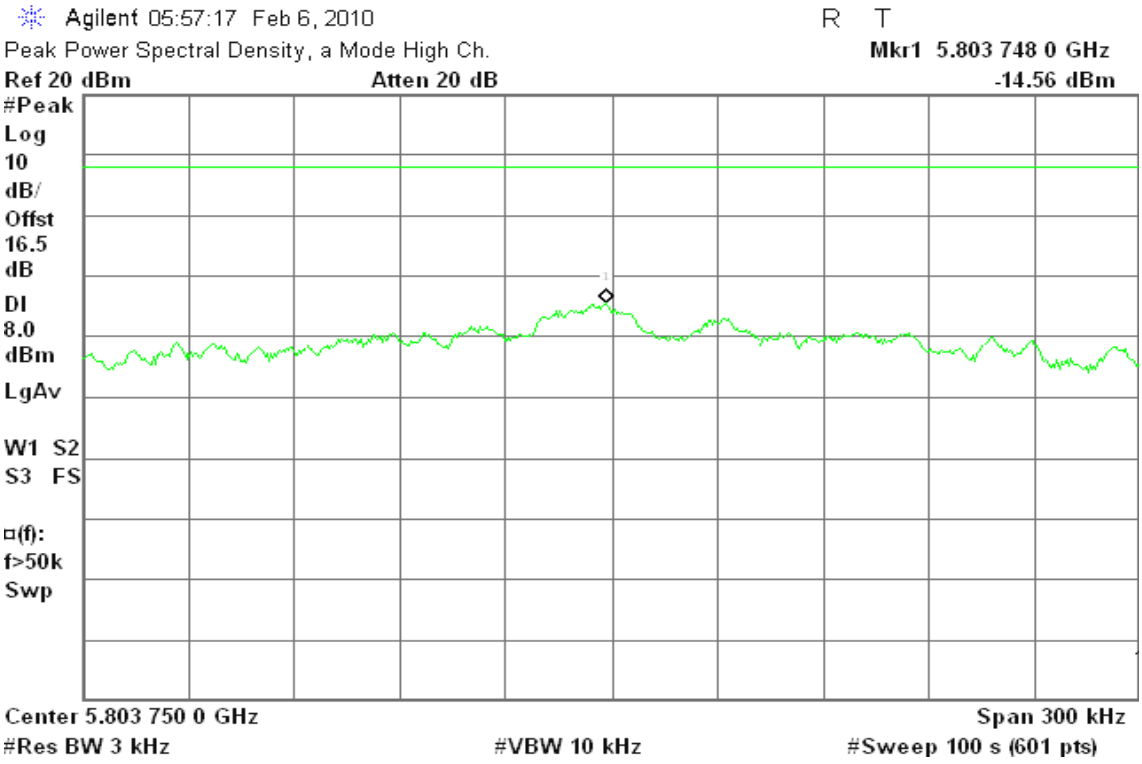


draft 802.11n Wide-40 MHz Channel mode / Chain 1

PPSD (CH Low)

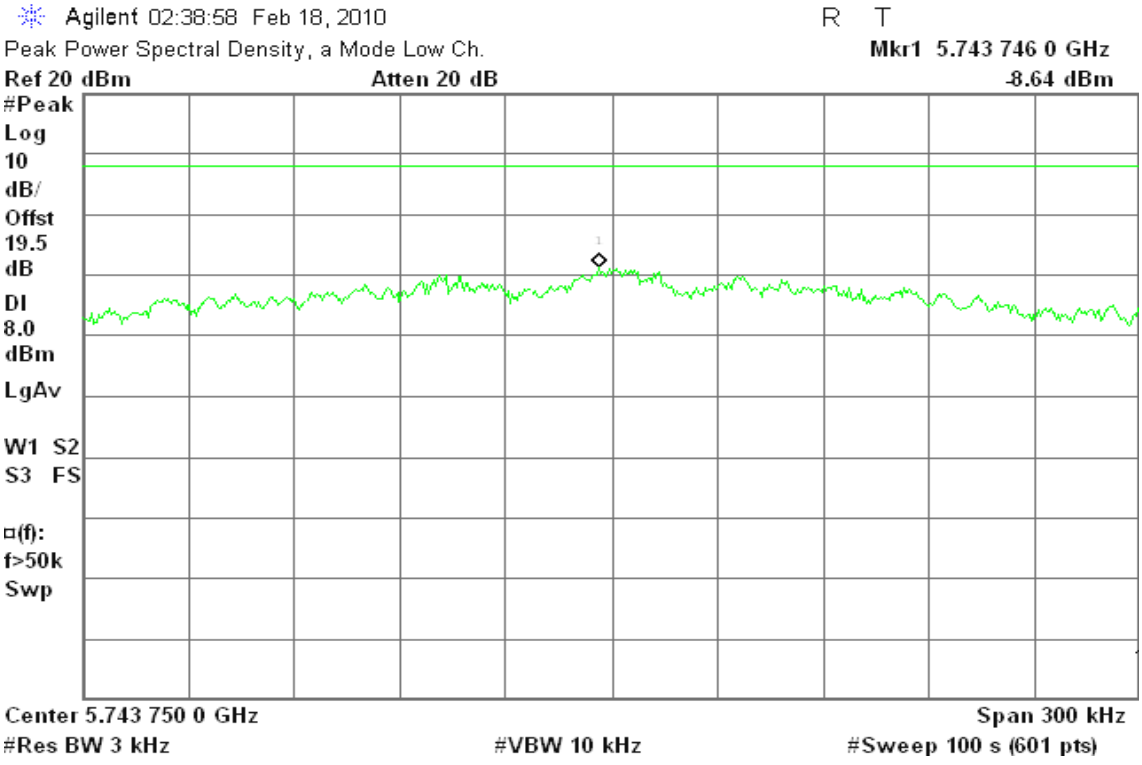


PPSD (CH High)

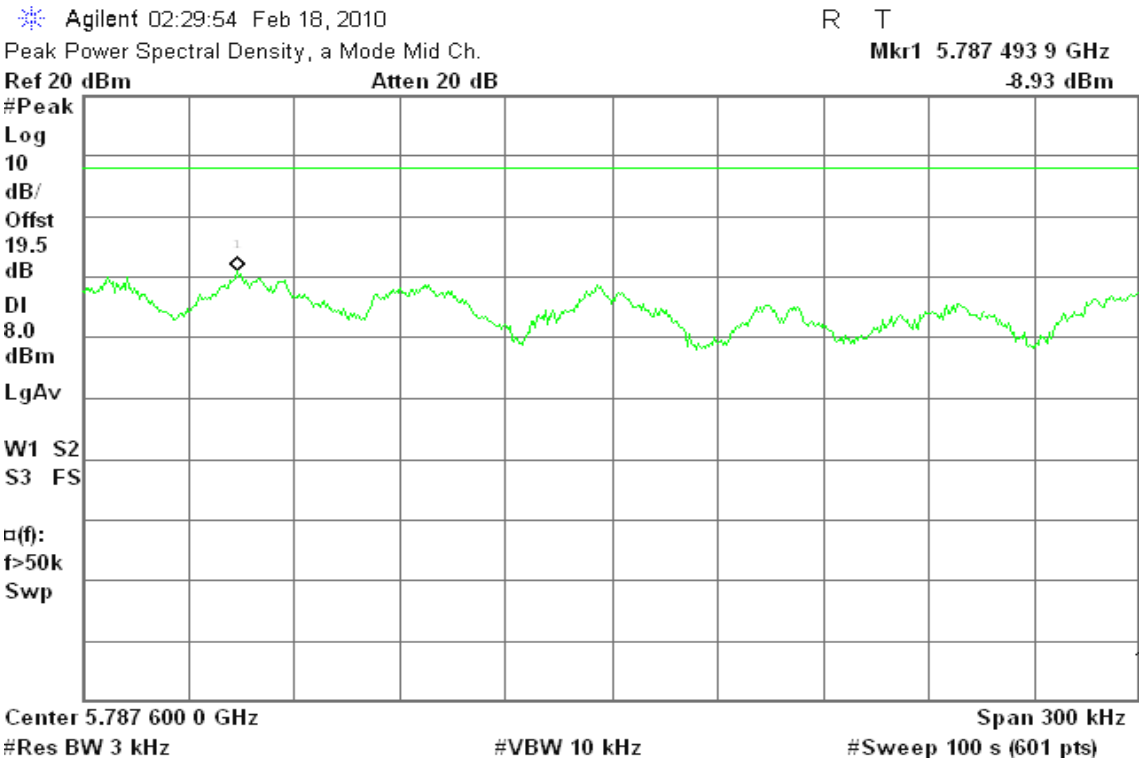


draft 802.11n Standard-20 MHz Channel mode with combiner

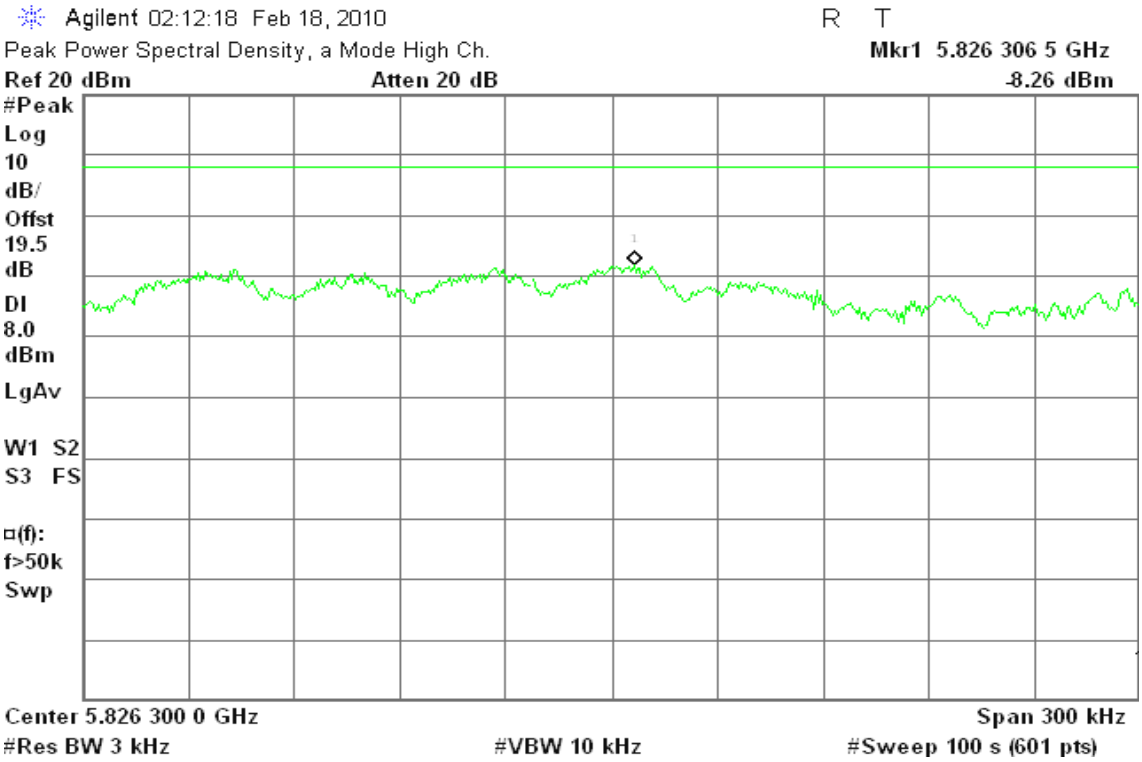
PPSD (CH Low)



PPSD (CH Mid)

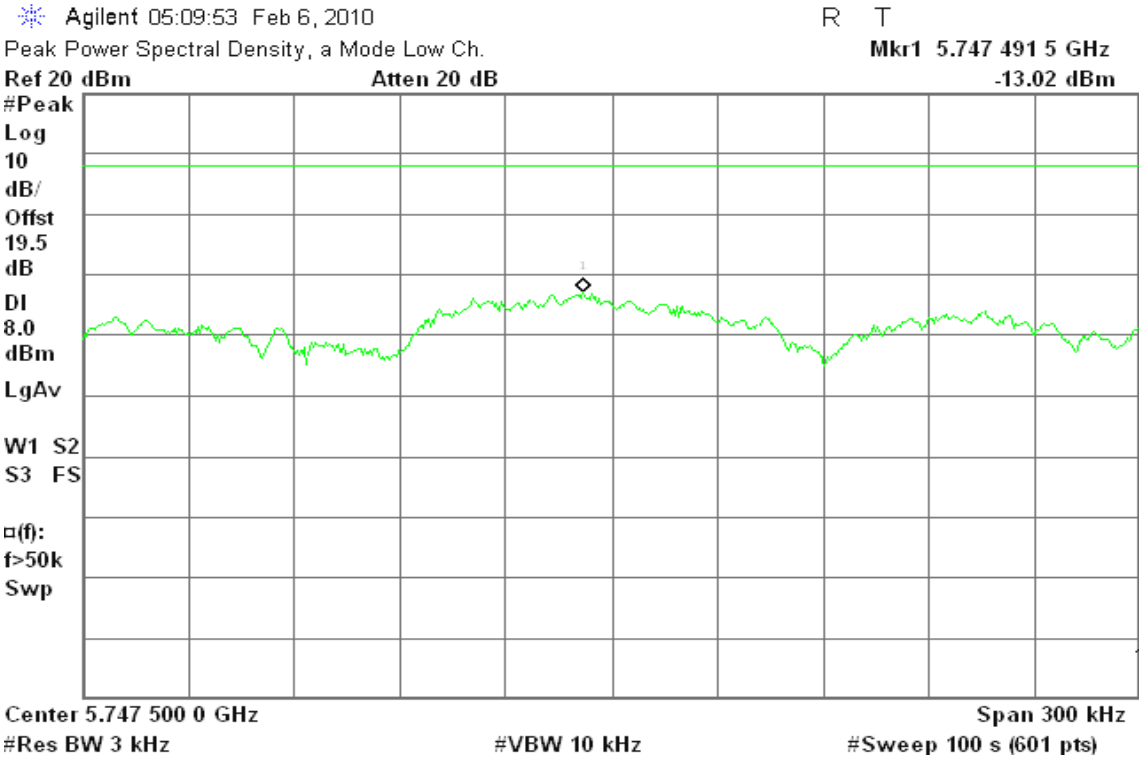


PPSD (CH High)

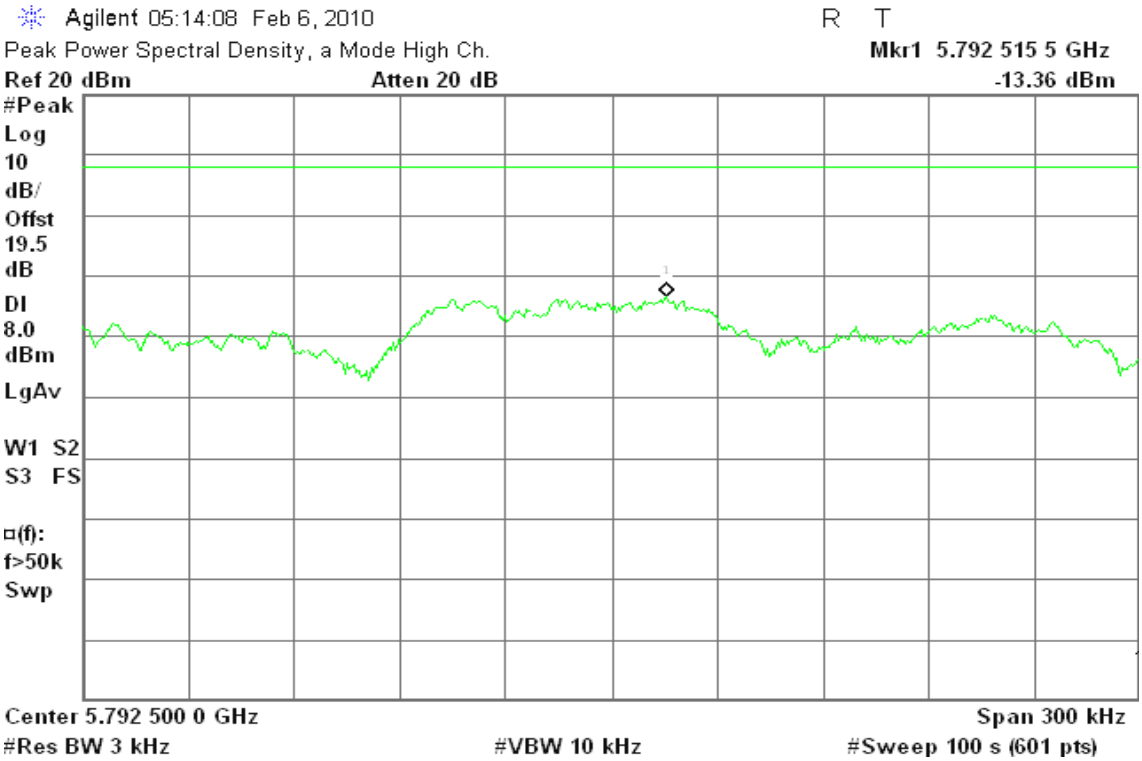


draft 802.11n Wide-40 MHz Channel mode with combiner

PPSD (CH Low)



PPSD (CH High)



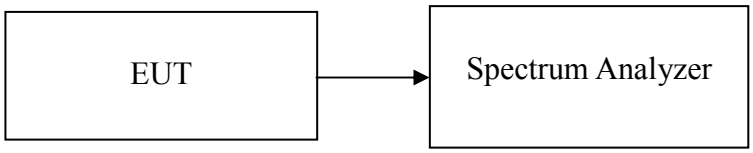
8.7 SPURIOUS EMISSIONS

8.7.1 Conducted Measurement

LIMIT

According to §15.247(d) & RSS-210 §A8.5, in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in 15.209(a) (see Section 15.205(c)).

Test Configuration



TEST PROCEDURE

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

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

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

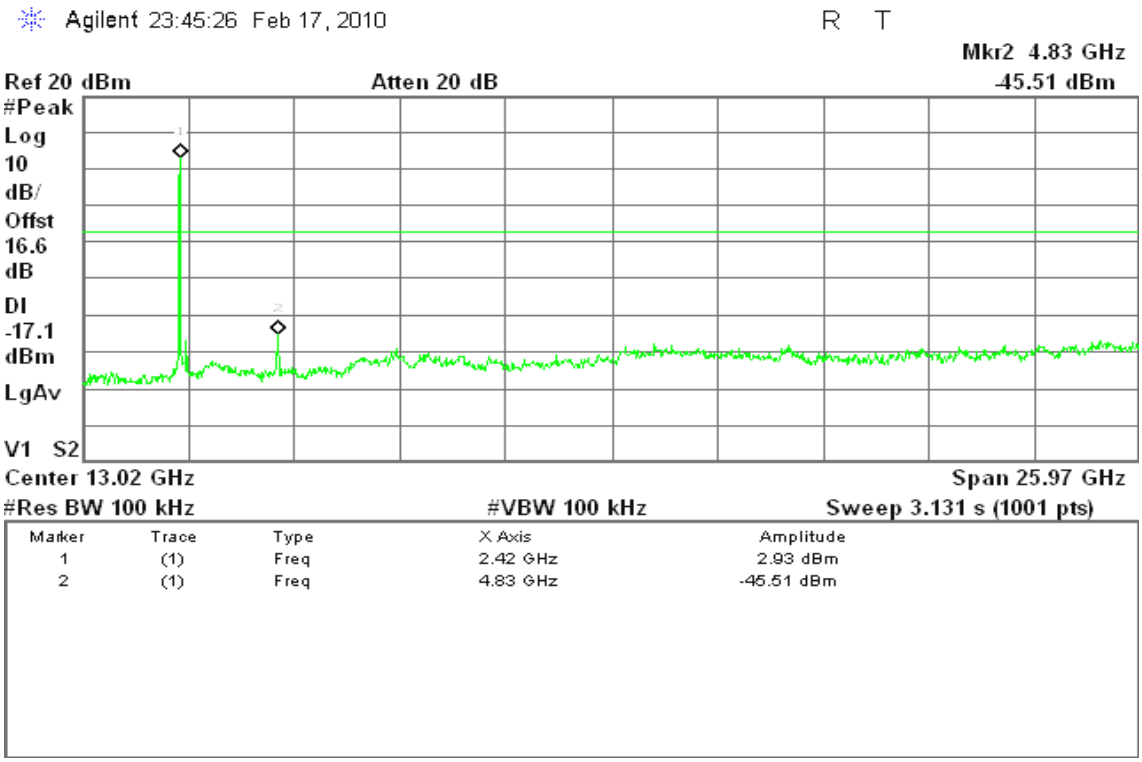
TEST RESULTS

No non-compliance noted

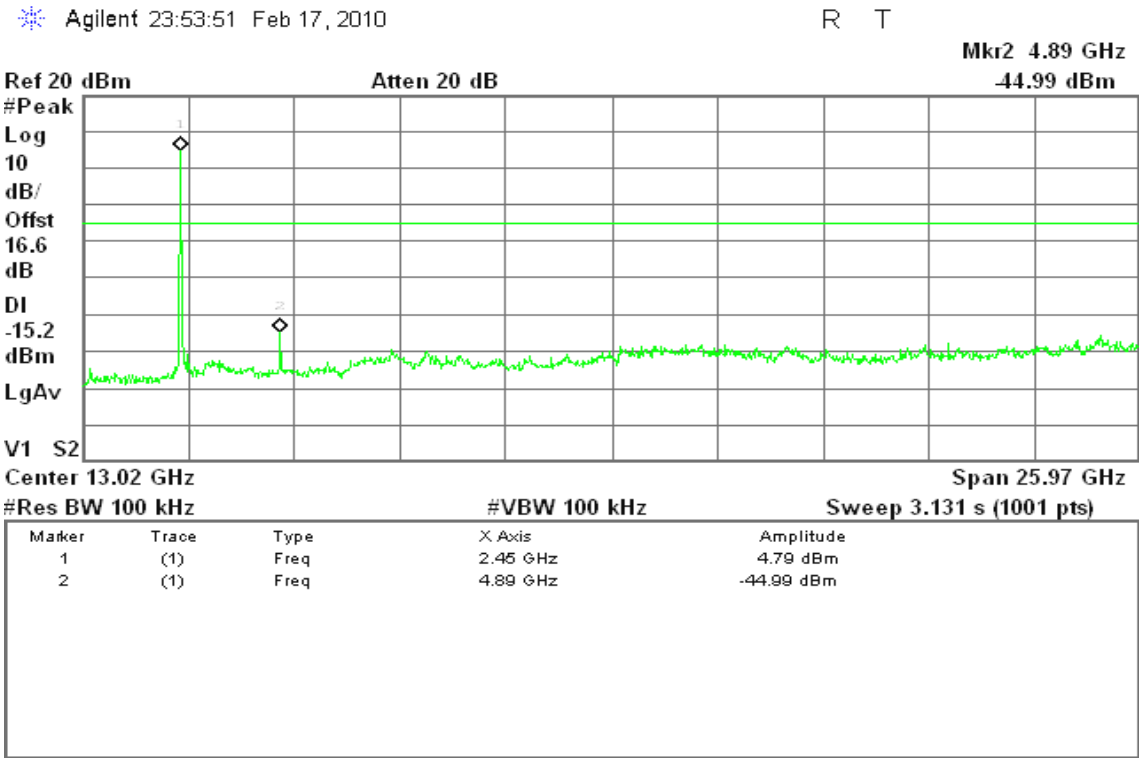
Test Plot

IEEE 802.11b mode

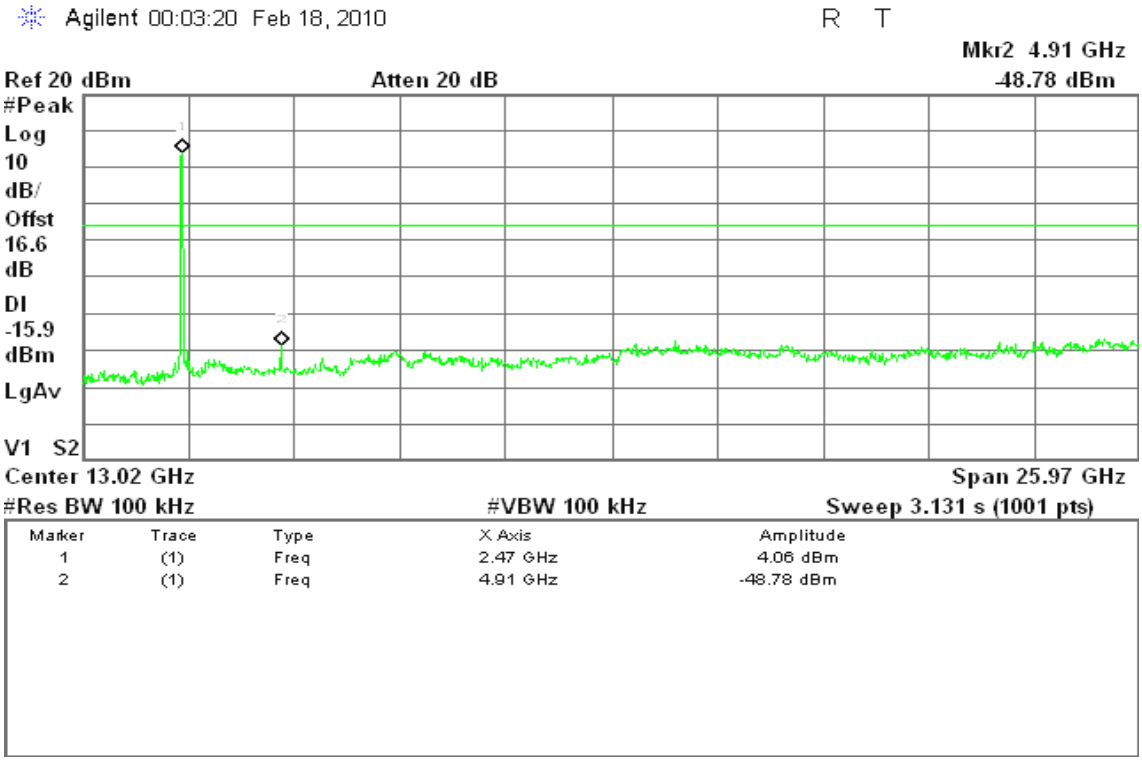
CH Low



CH Mid

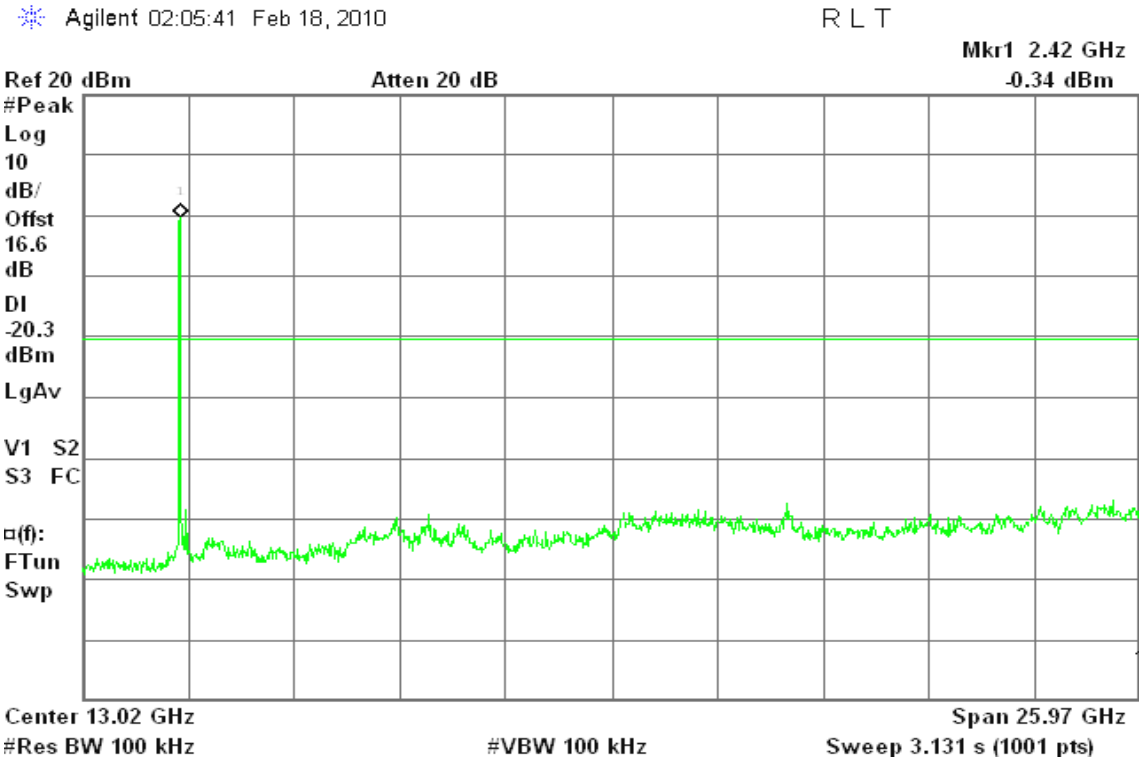


CH High

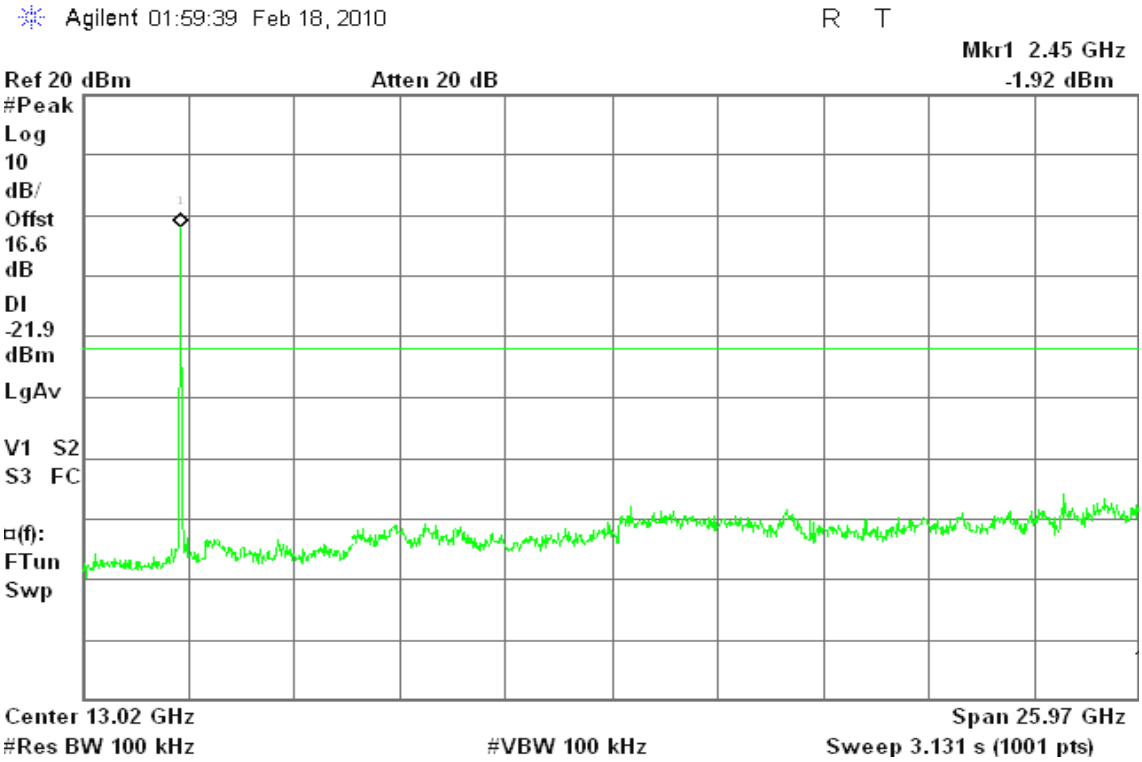


IEEE 802.11g mode

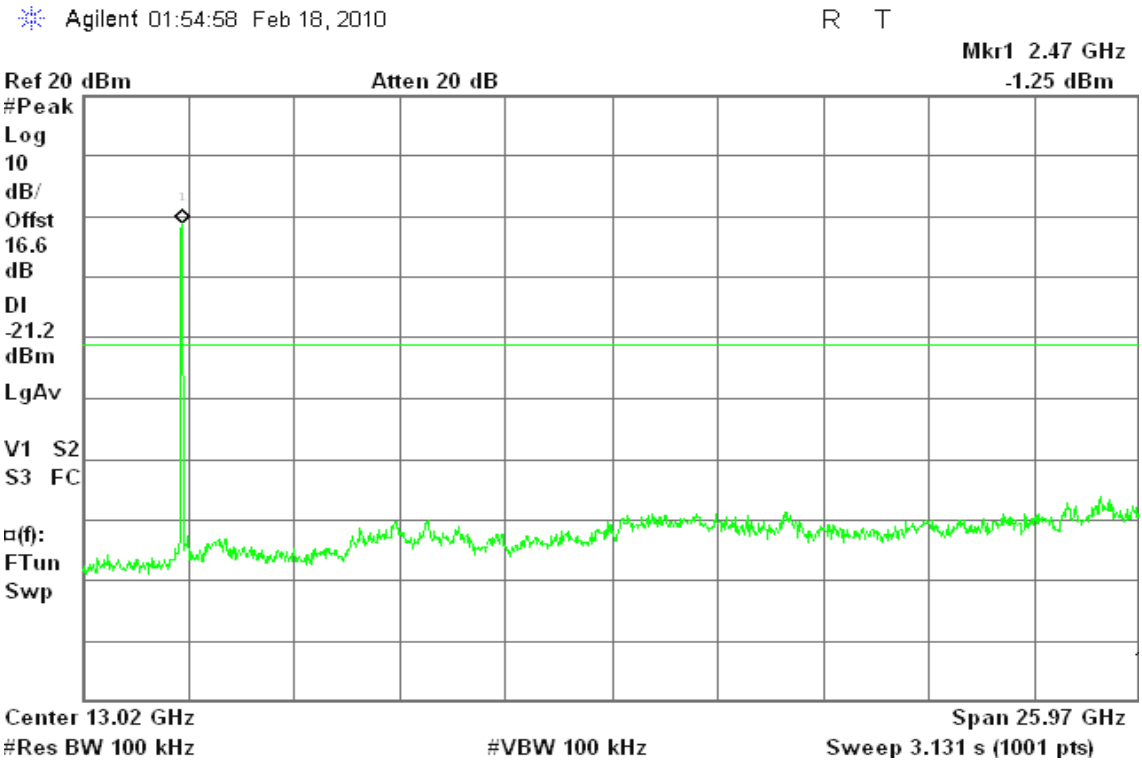
CH Low



CH Mid

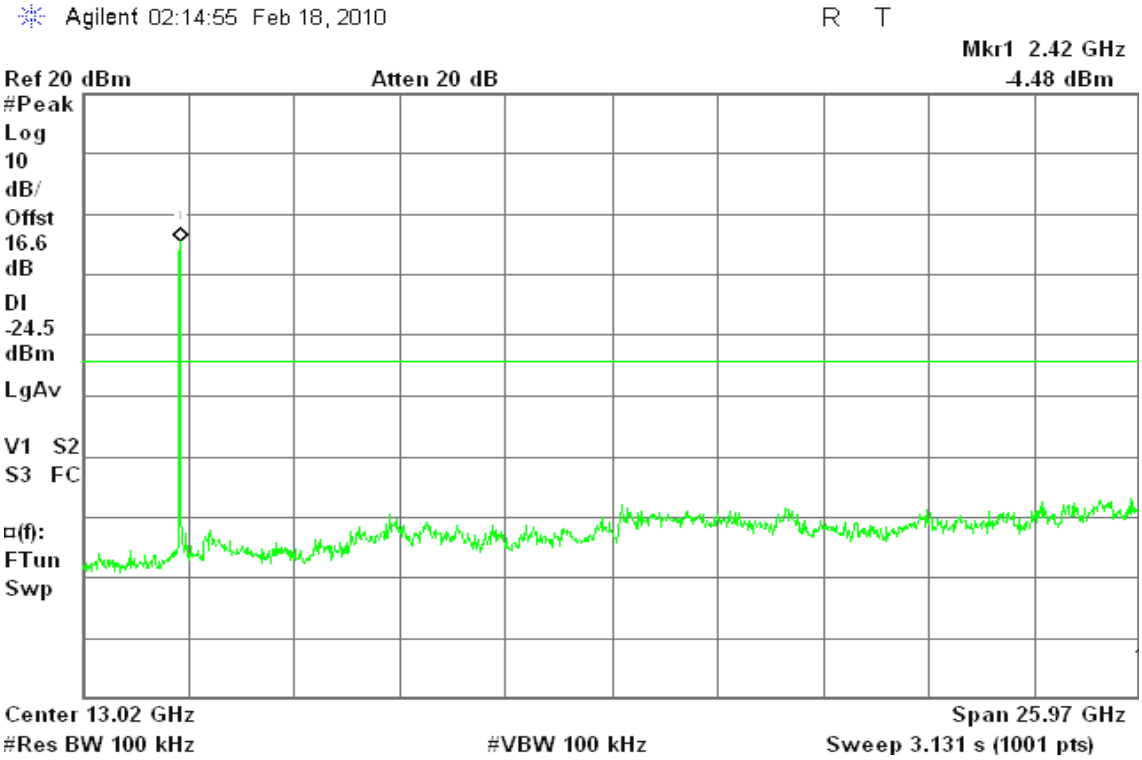


CH High

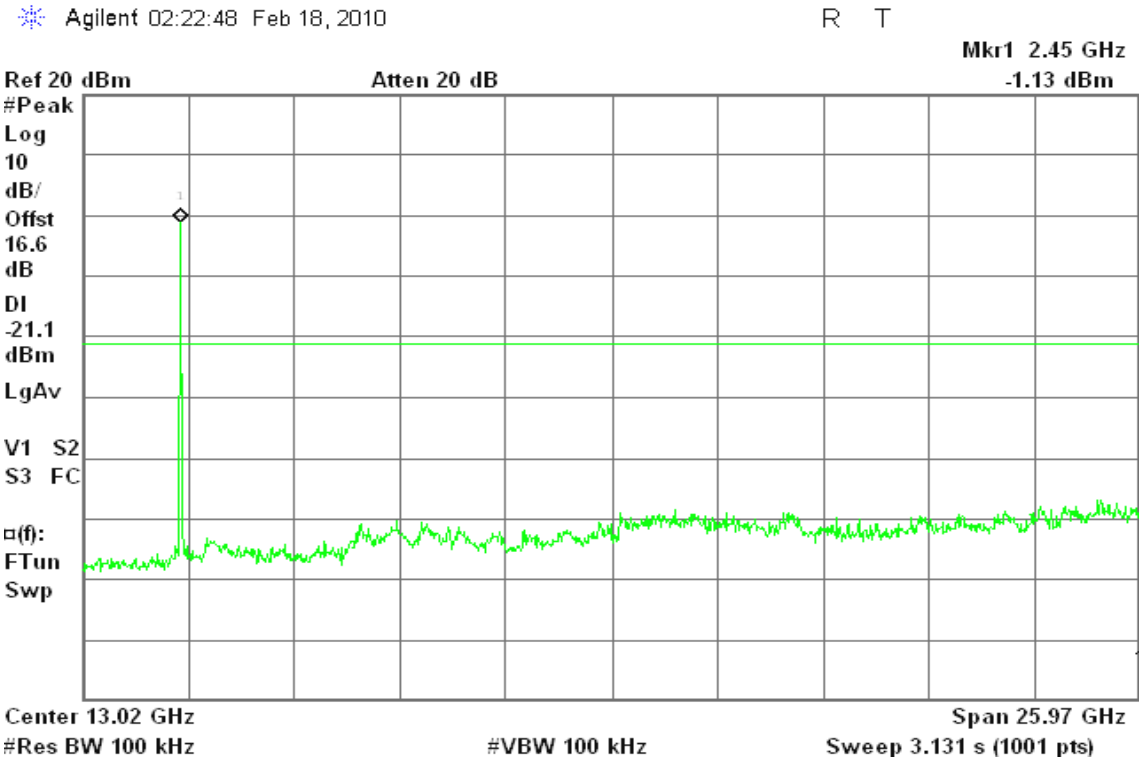


draft 802.11n Standard-20 MHz Channel mode / Chain 0

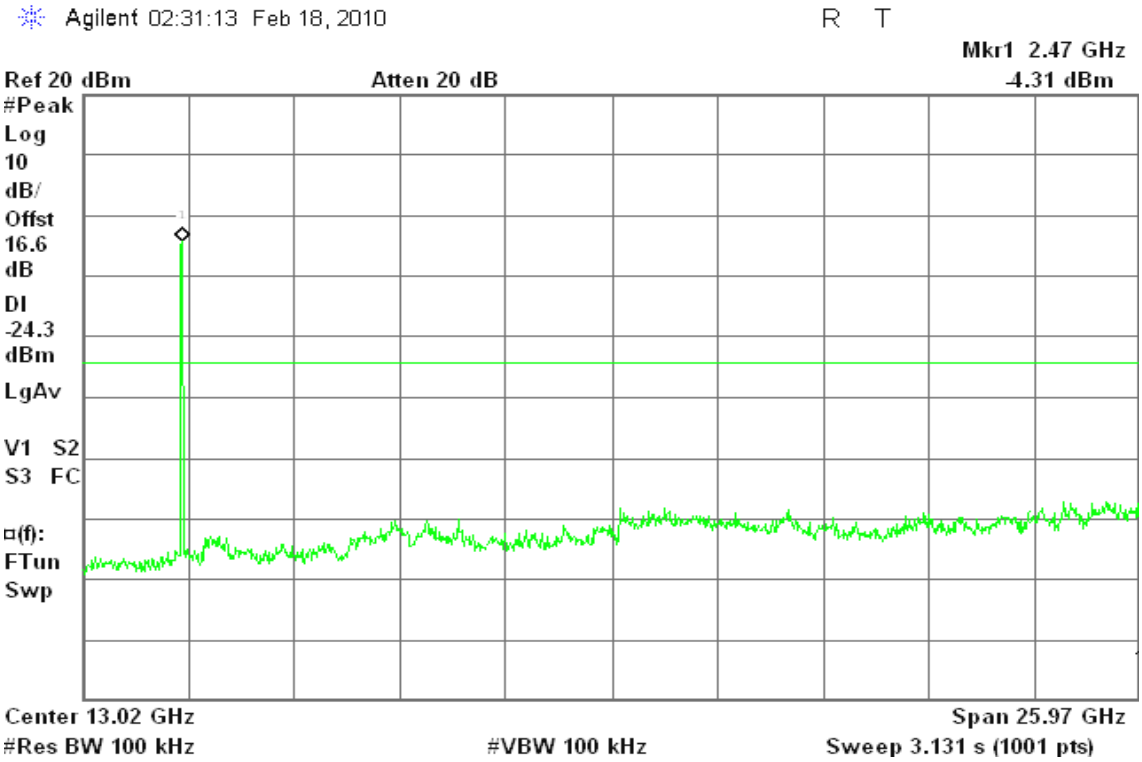
CH Low



CH Mid

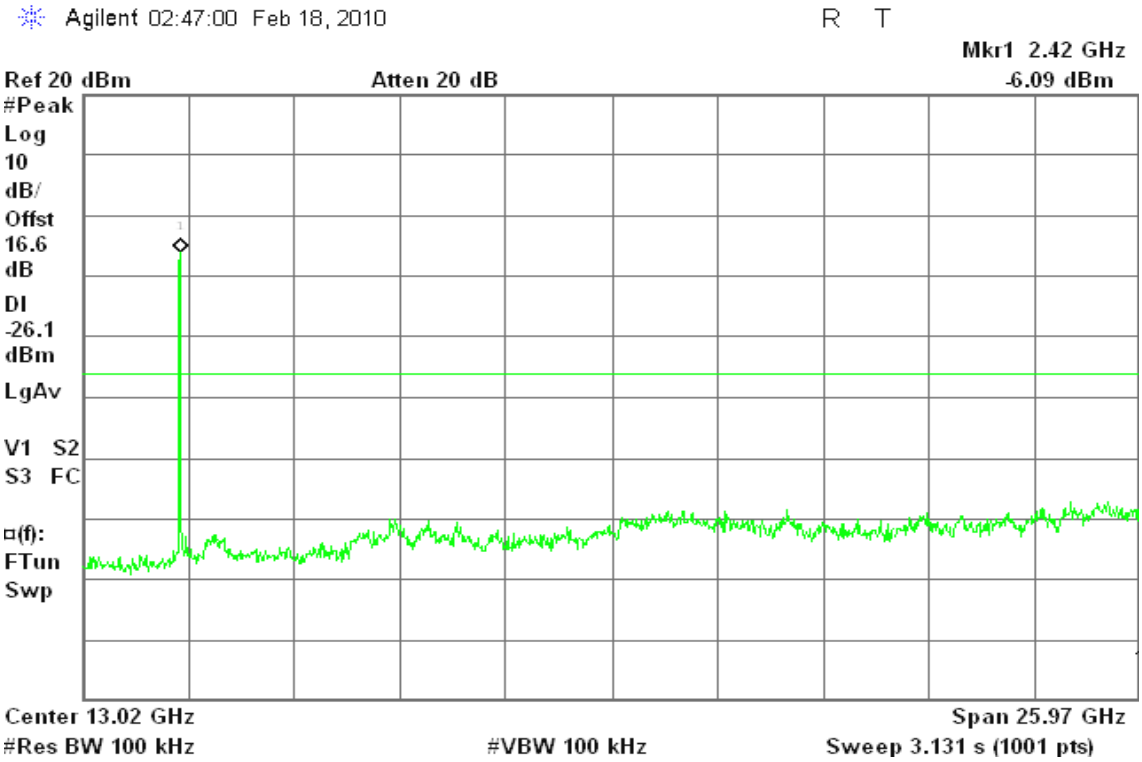


CH High

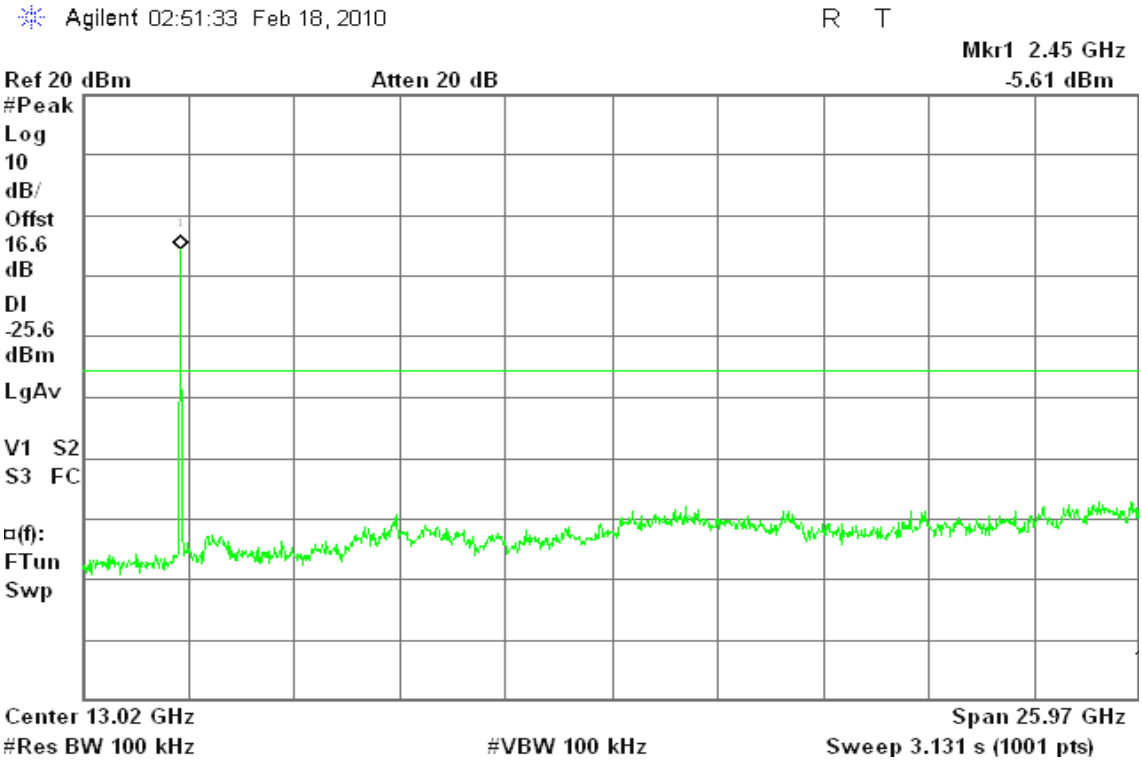


draft 802.11n Standard-20 MHz Channel mode / Chain 1

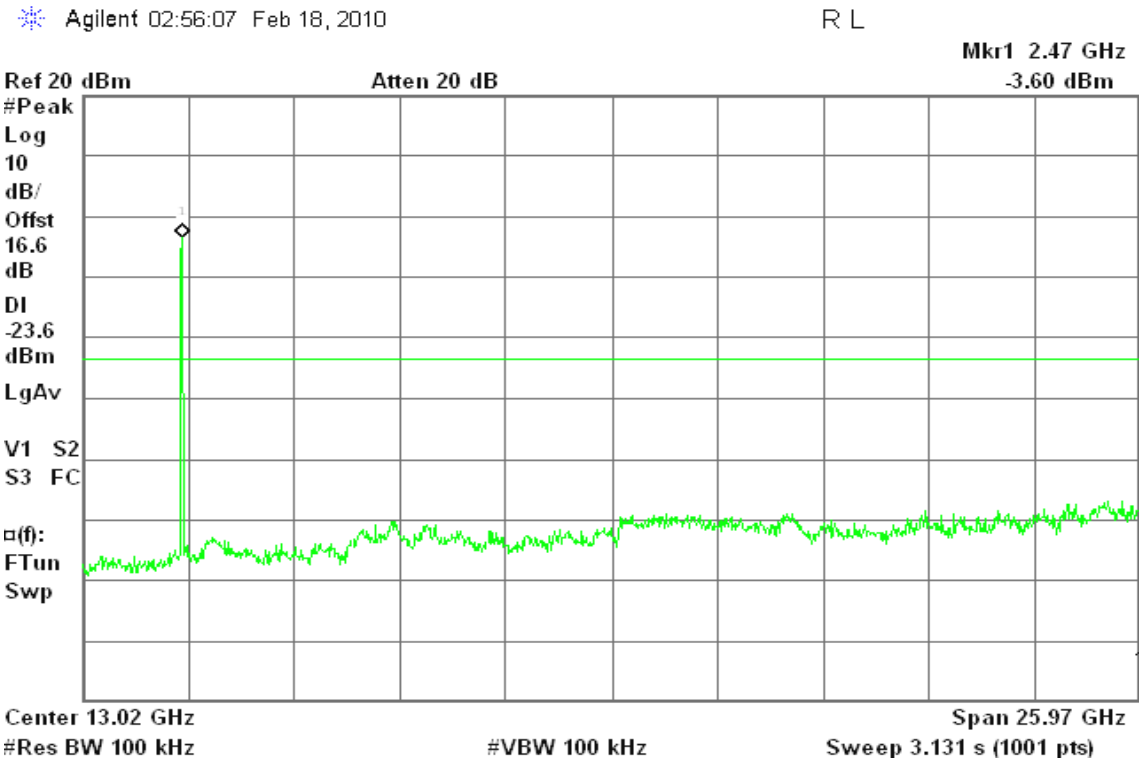
CH Low



CH Mid

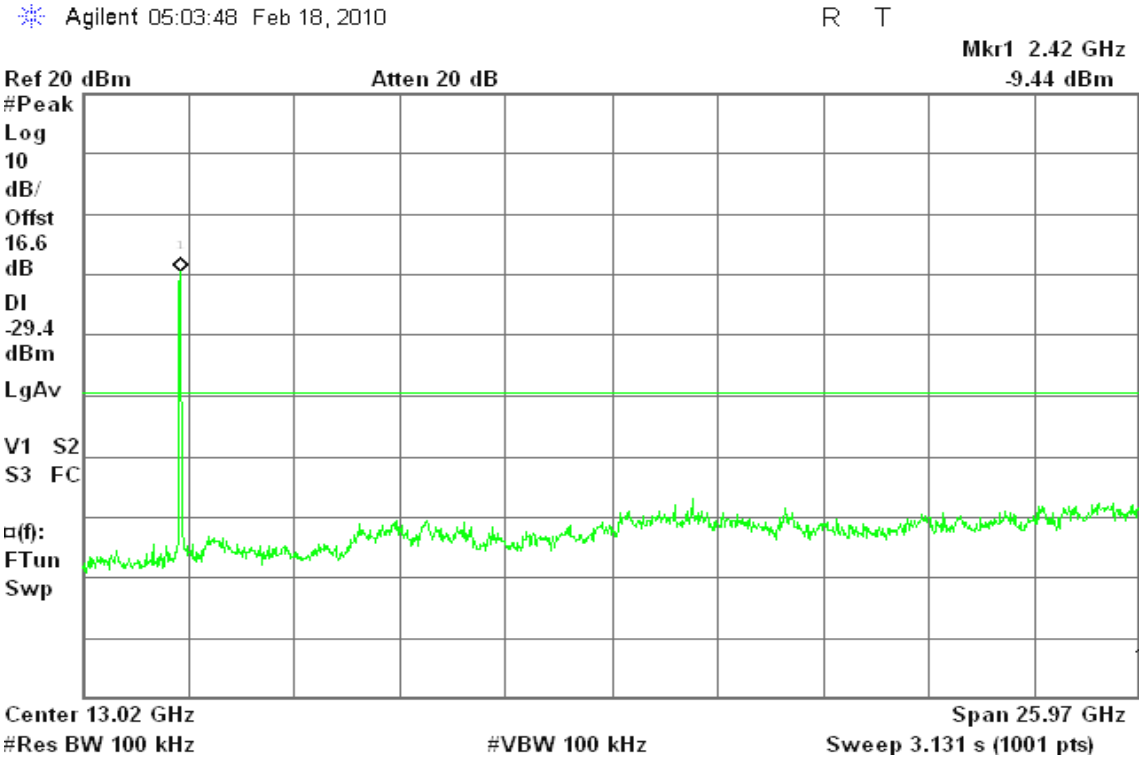


CH High

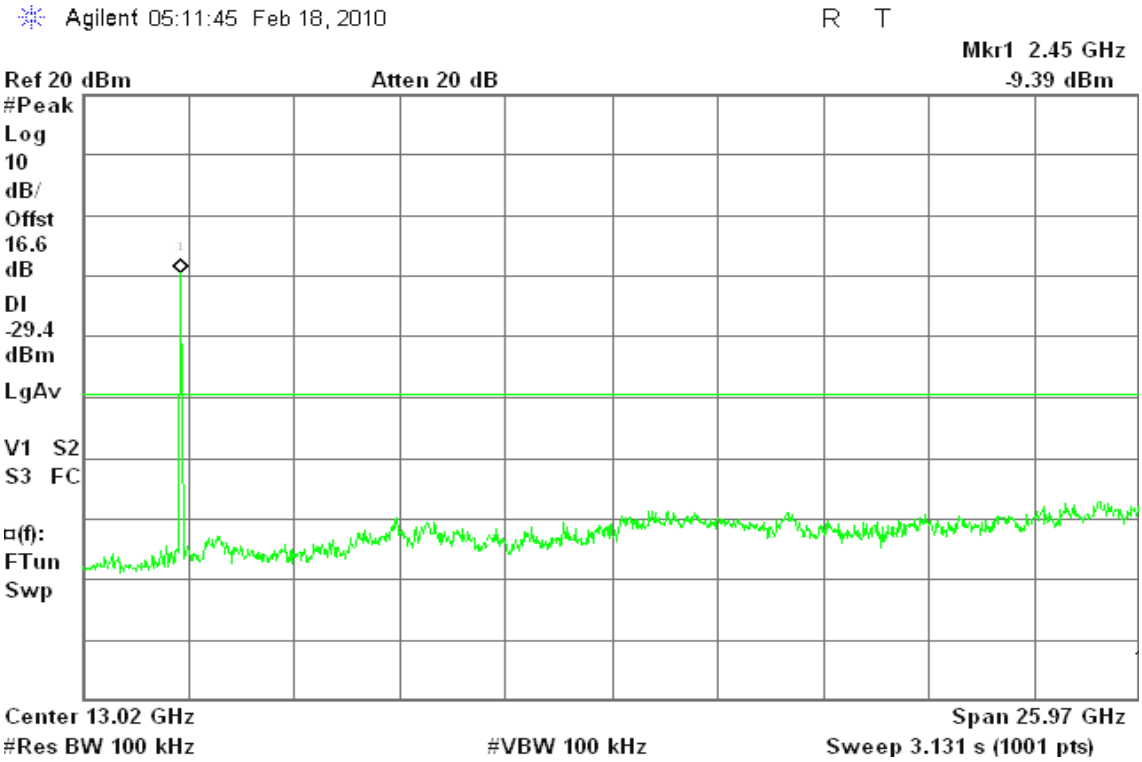


draft 802.11n Wide-40 MHz Channel mode / Chain 0

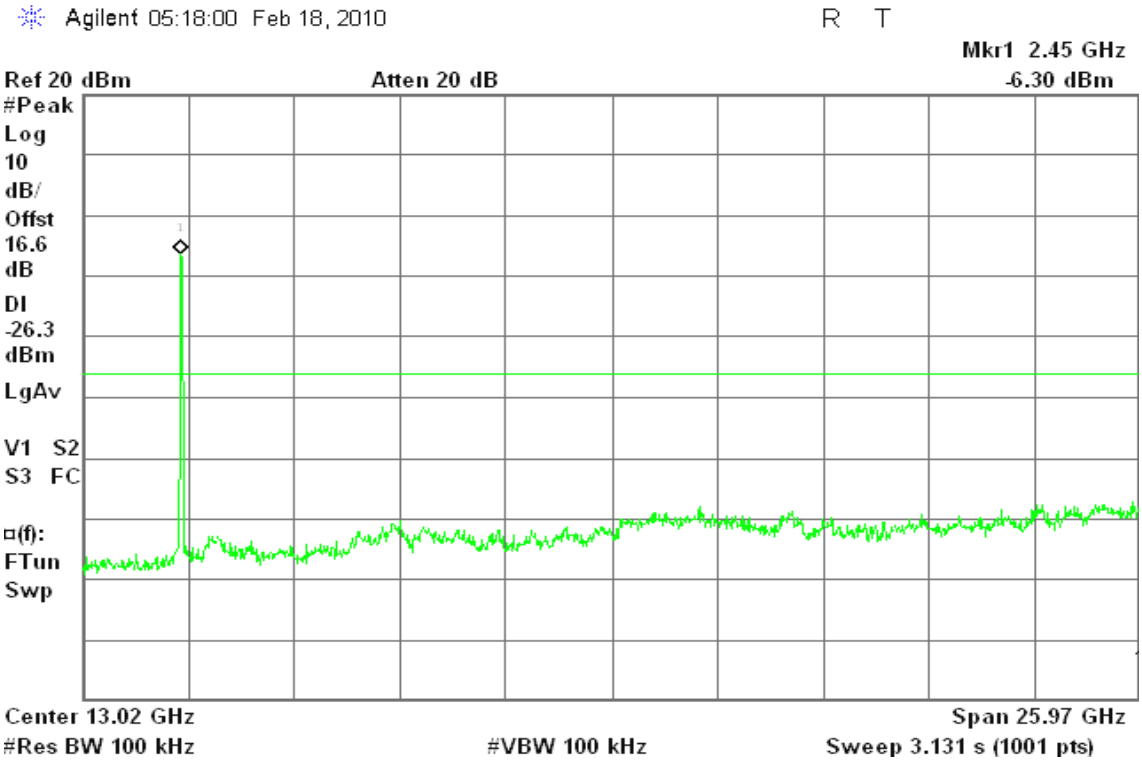
CH Low



CH Mid

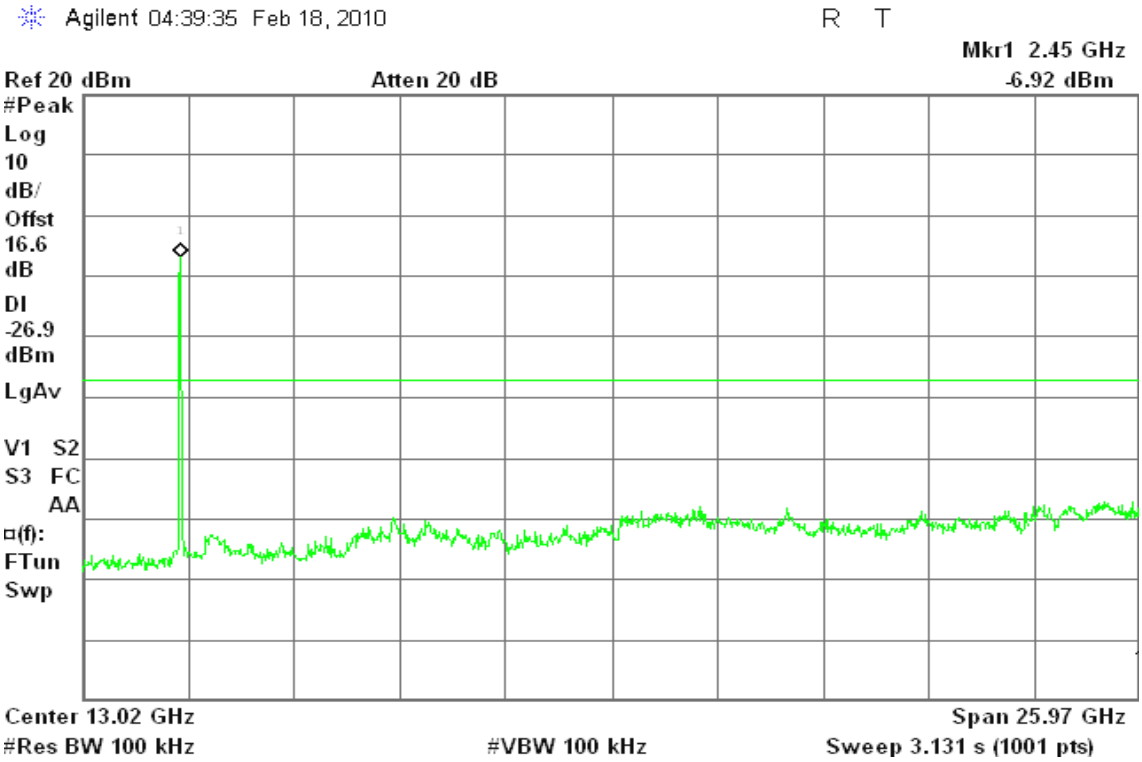


CH High

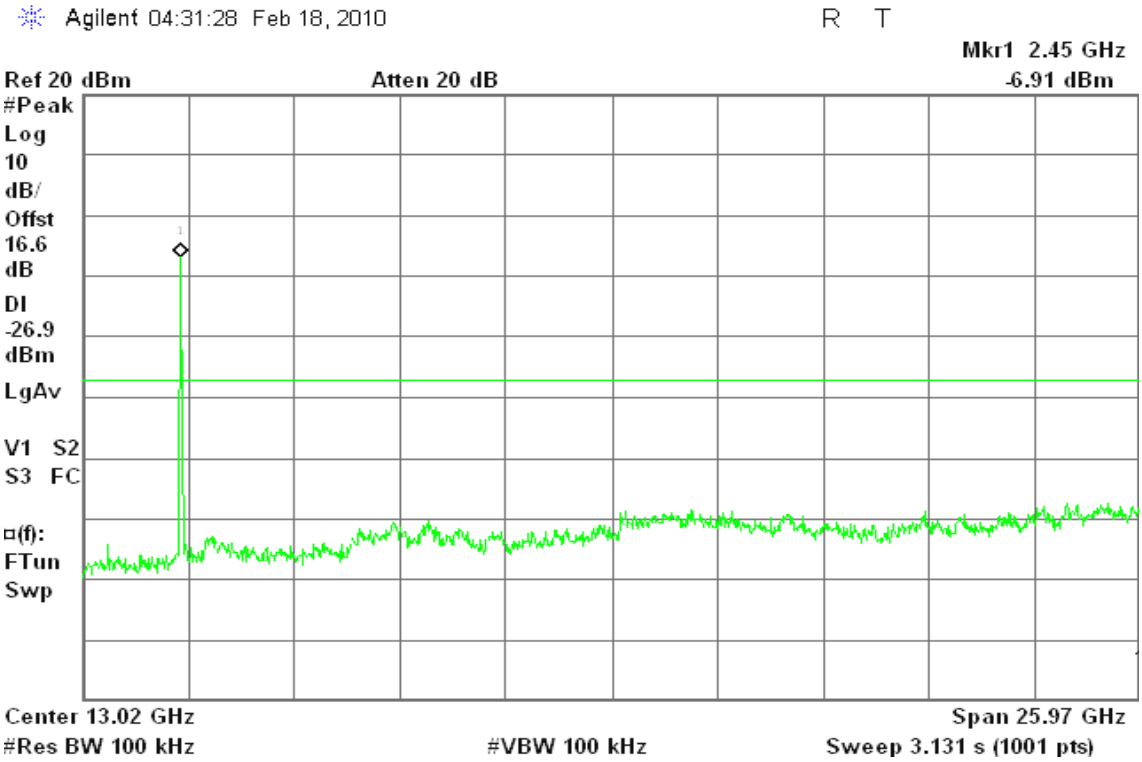


draft 802.11n Wide-40 MHz Channel mode / Chain 1

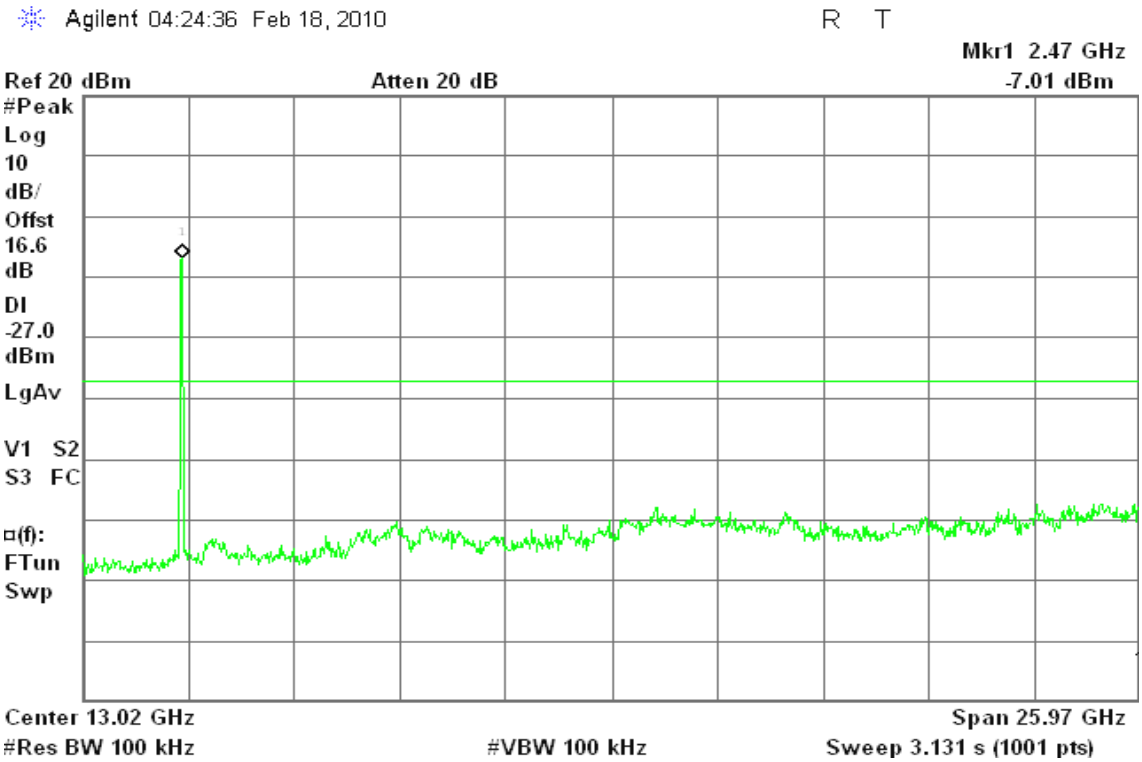
CH Low



CH Mid

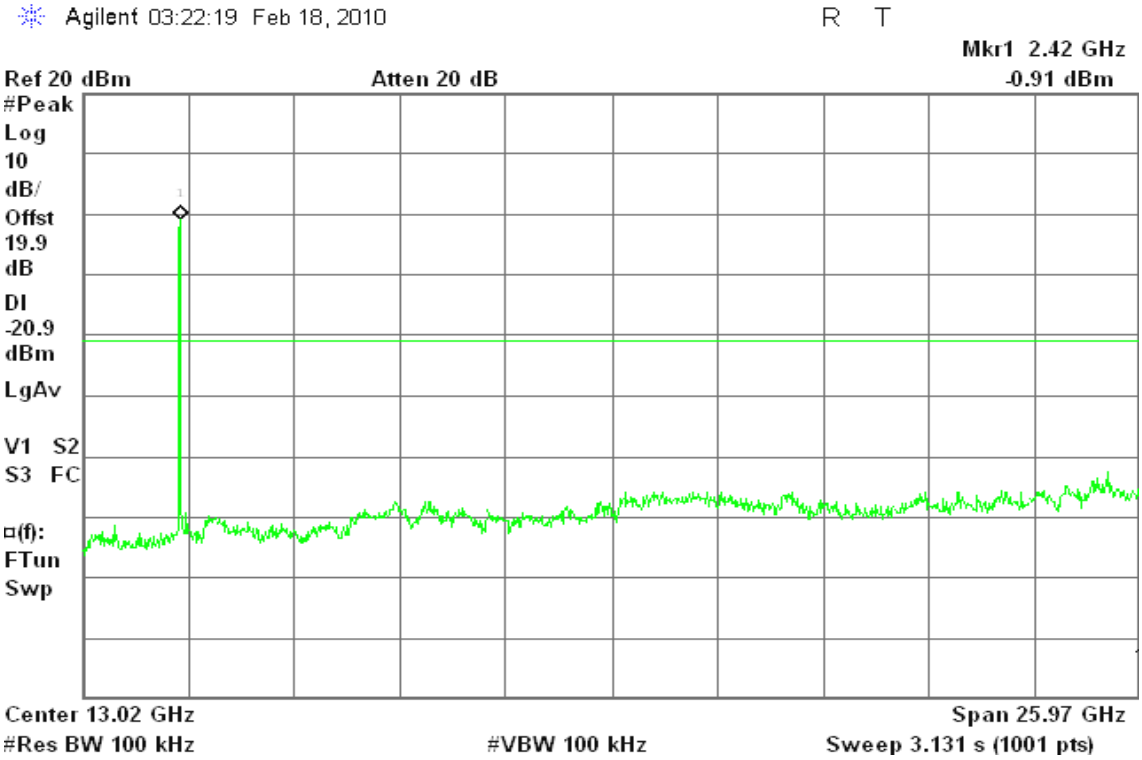


CH High

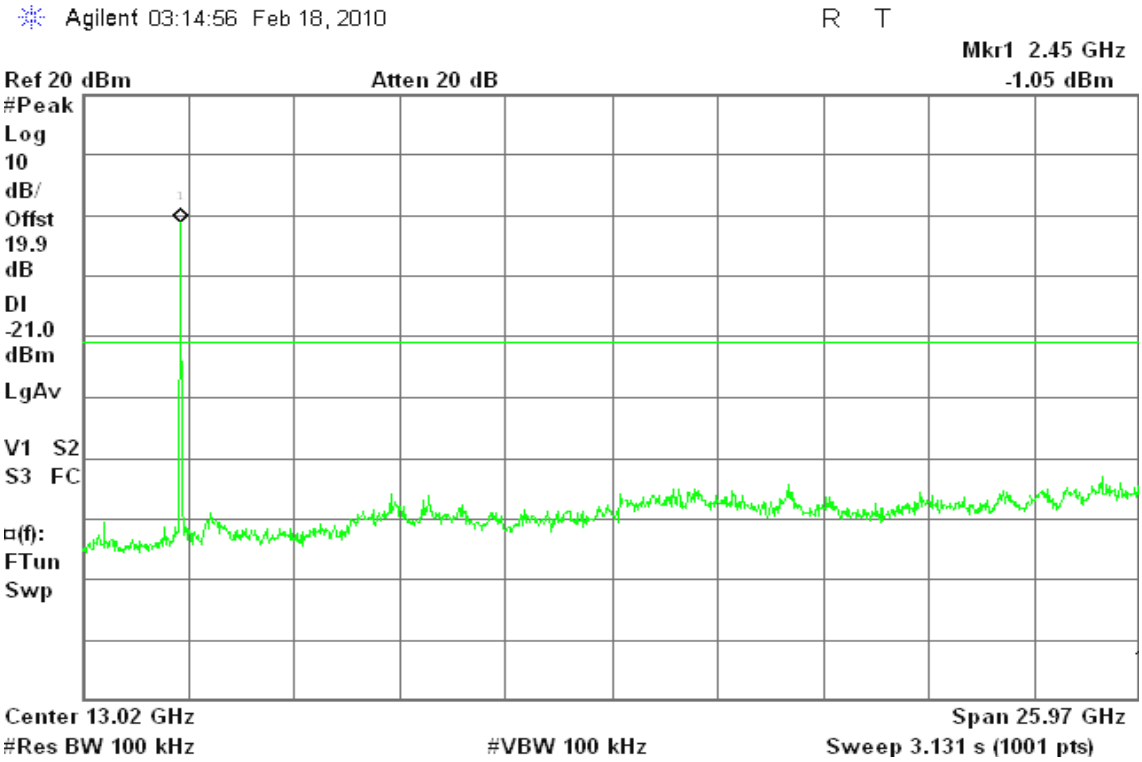


draft 802.11n Standard-20 MHz Channel mode with combiner

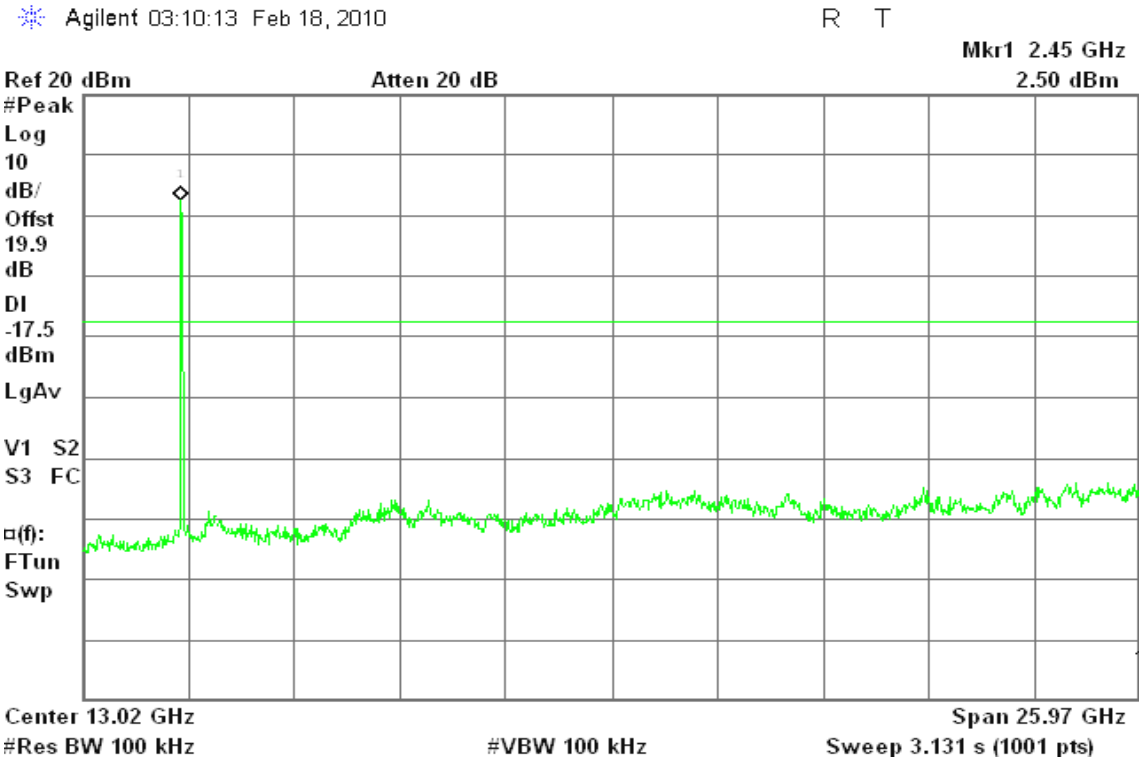
CH Low



CH Mid

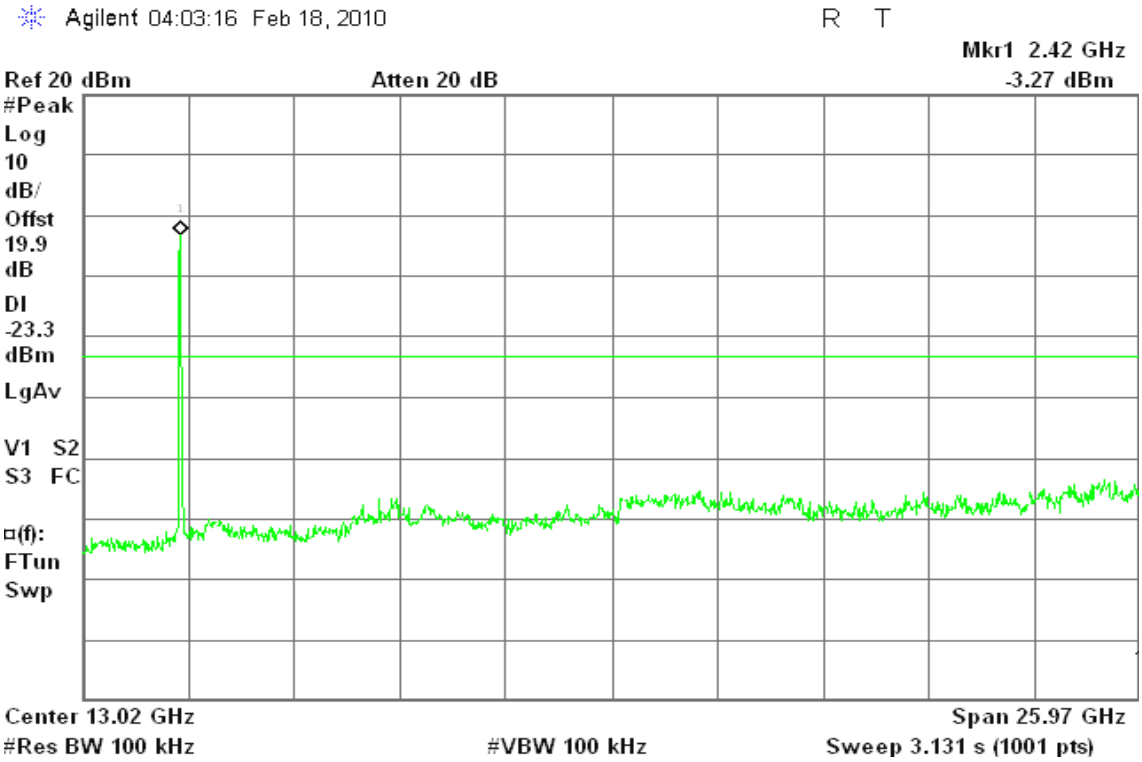


CH High

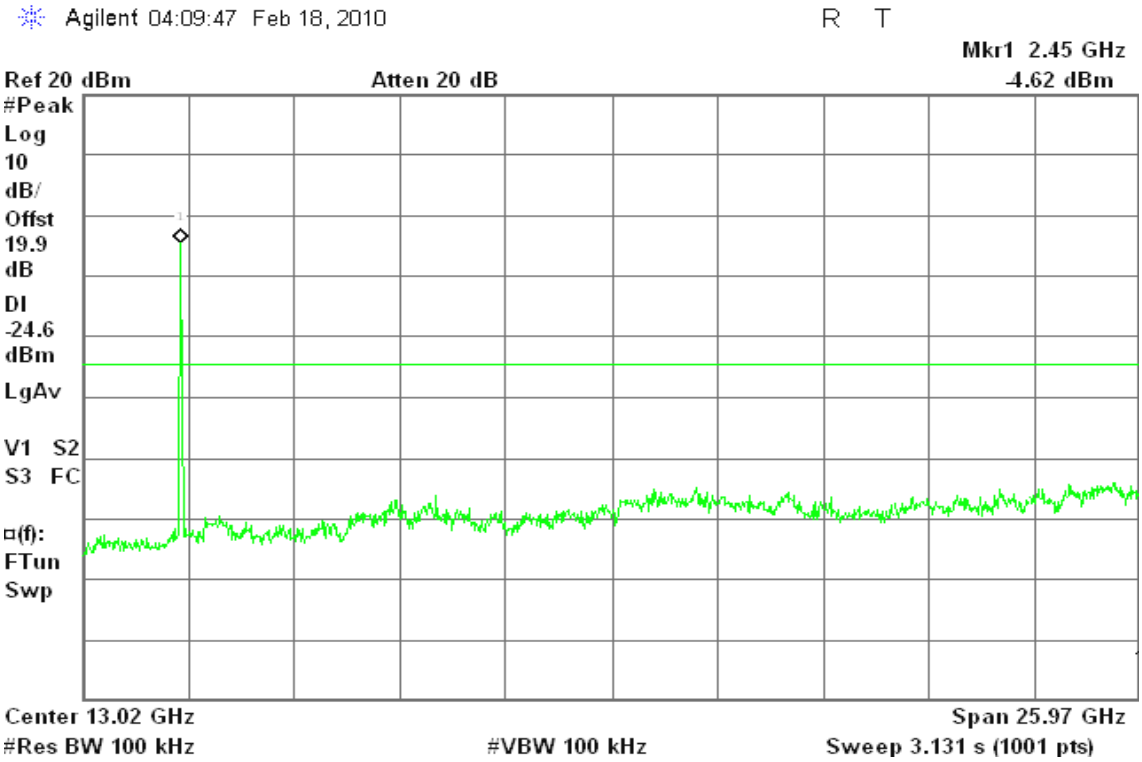


draft 802.11n Wide-40 MHz Channel mode with combiner

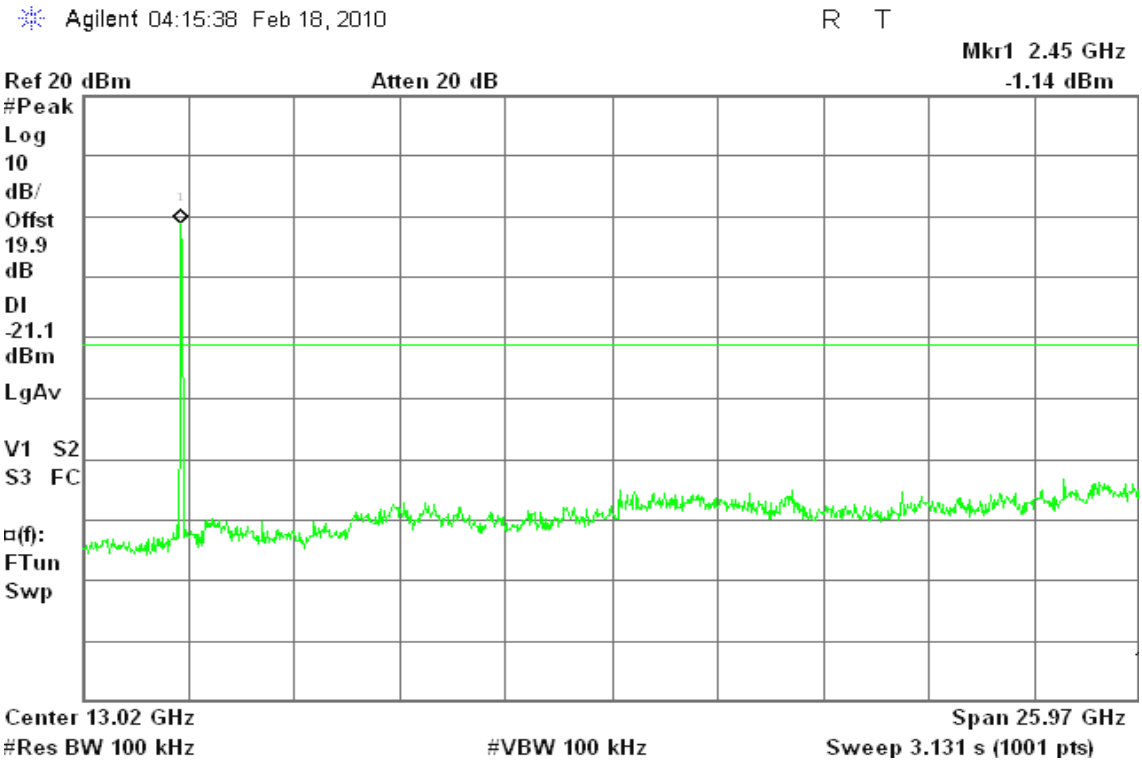
CH Low



CH Mid

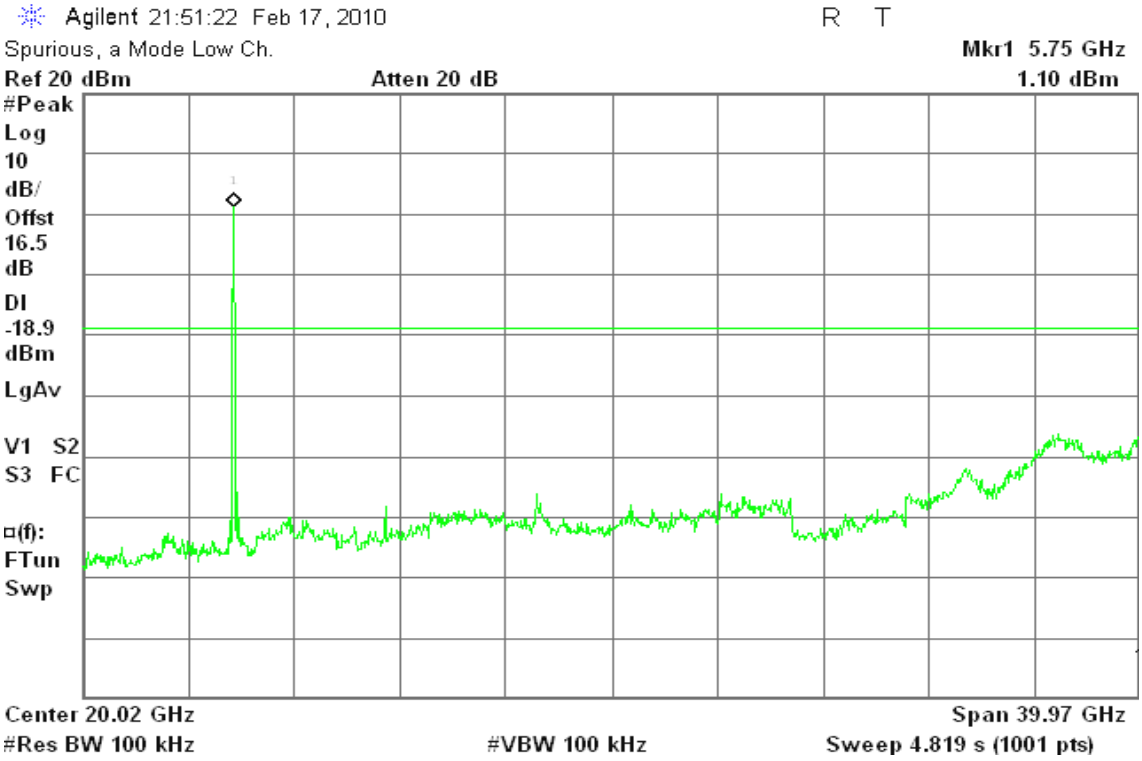


CH High

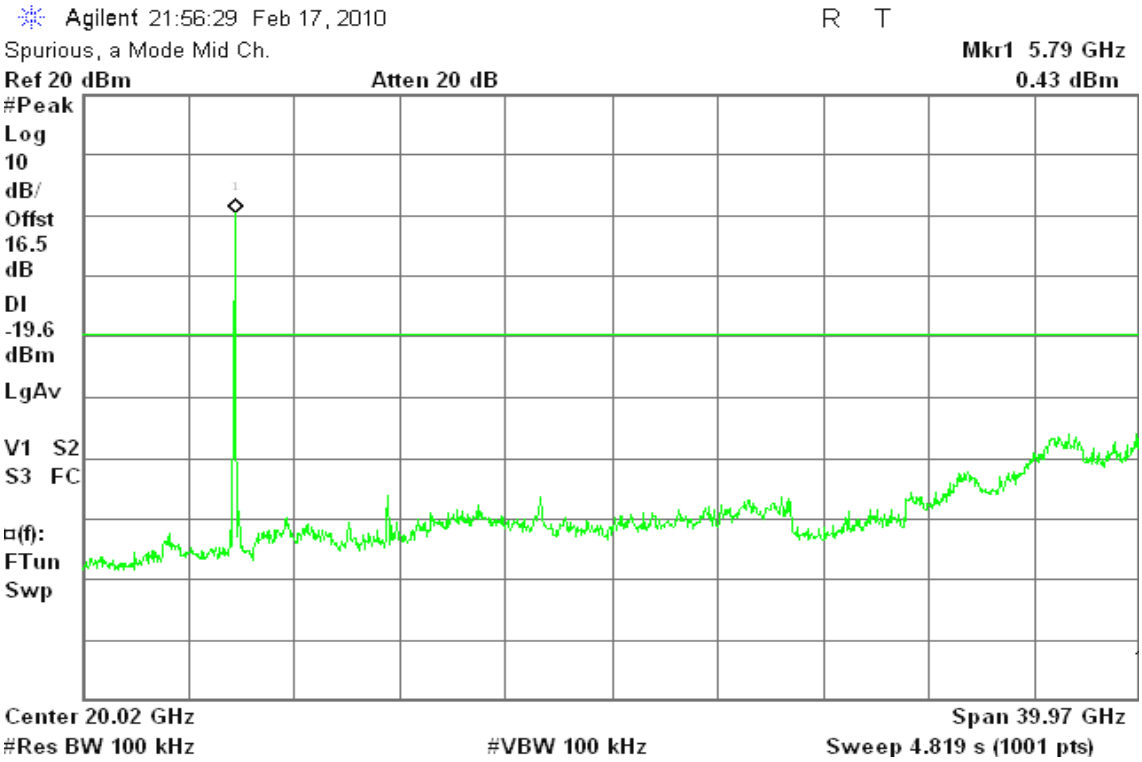


IEEE 802.11a mode

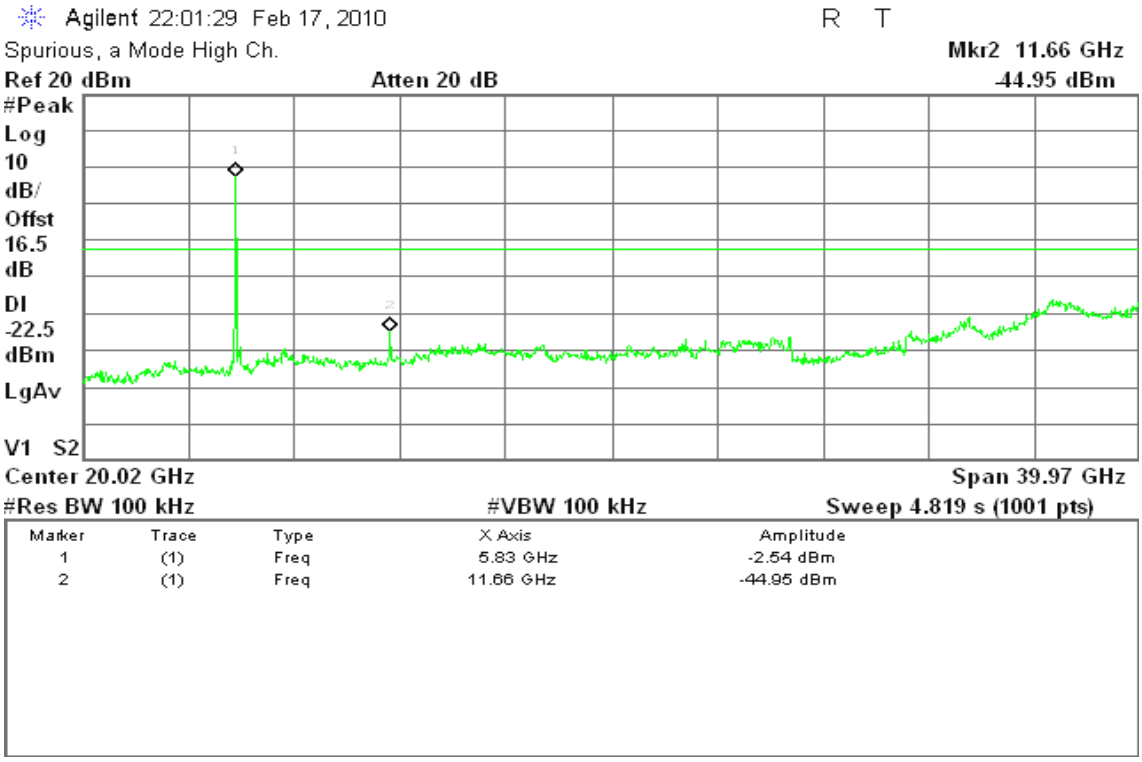
CH Low



CH Mid

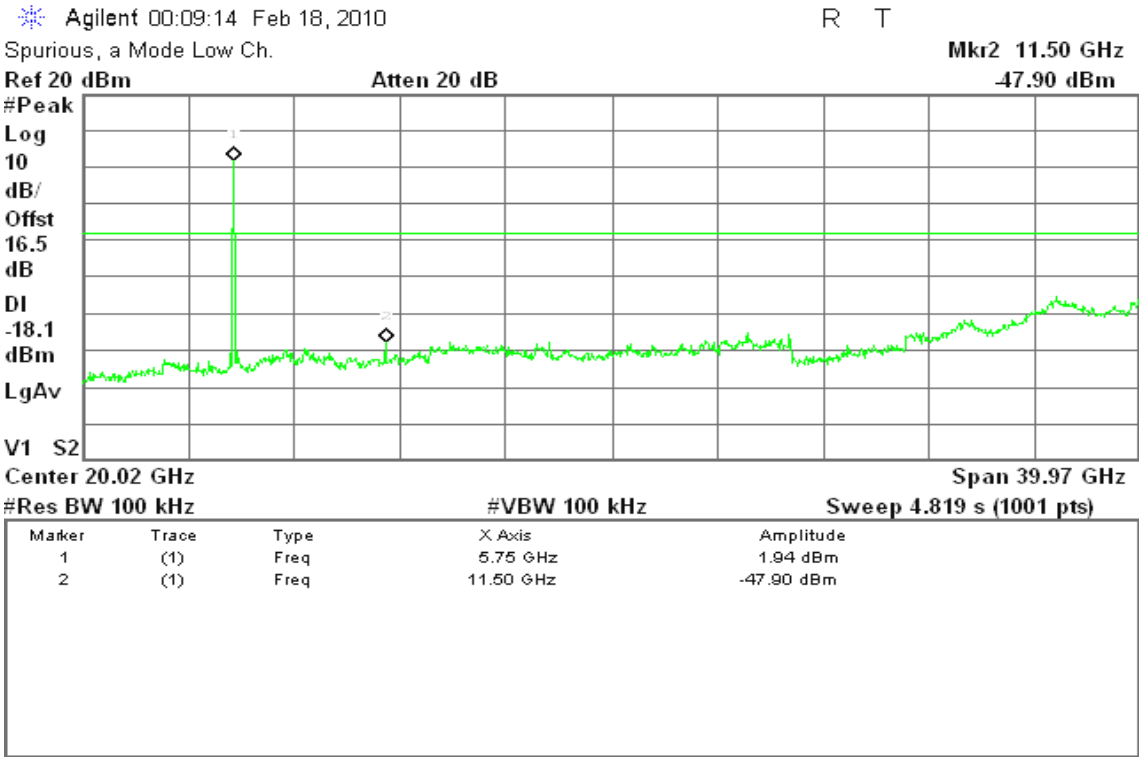


CH High

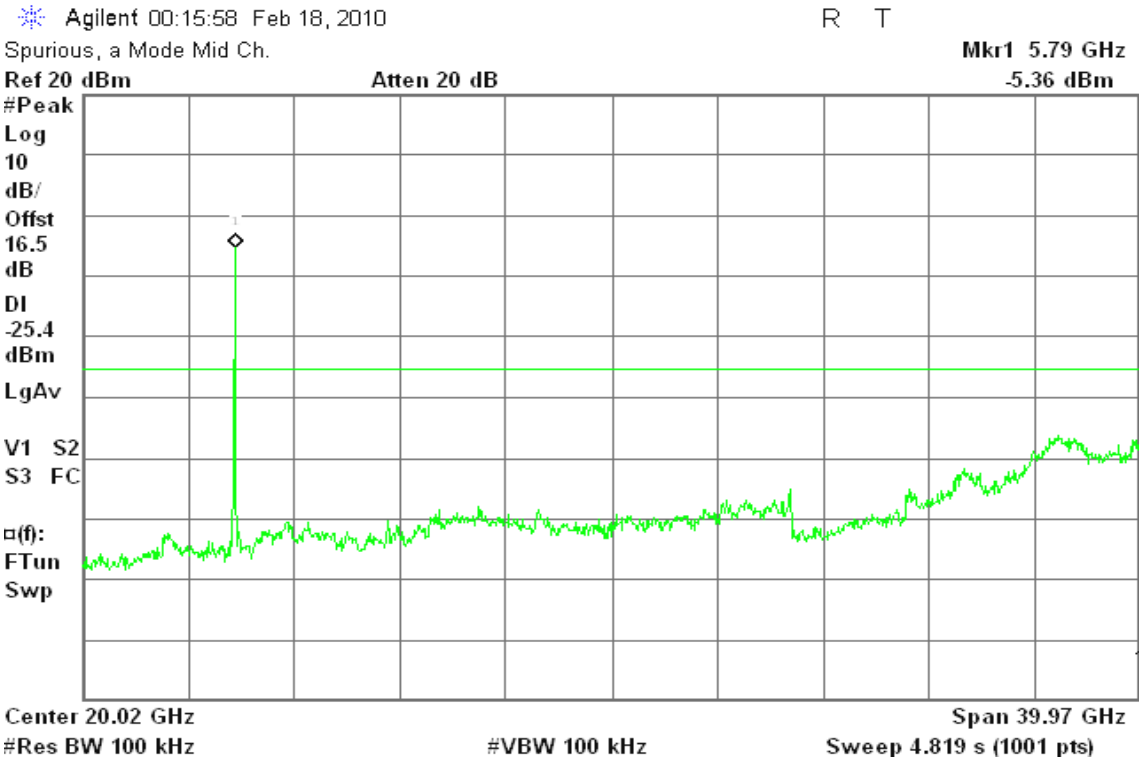


draft 802.11n Standard-20 MHz Channel mode / Chain 0

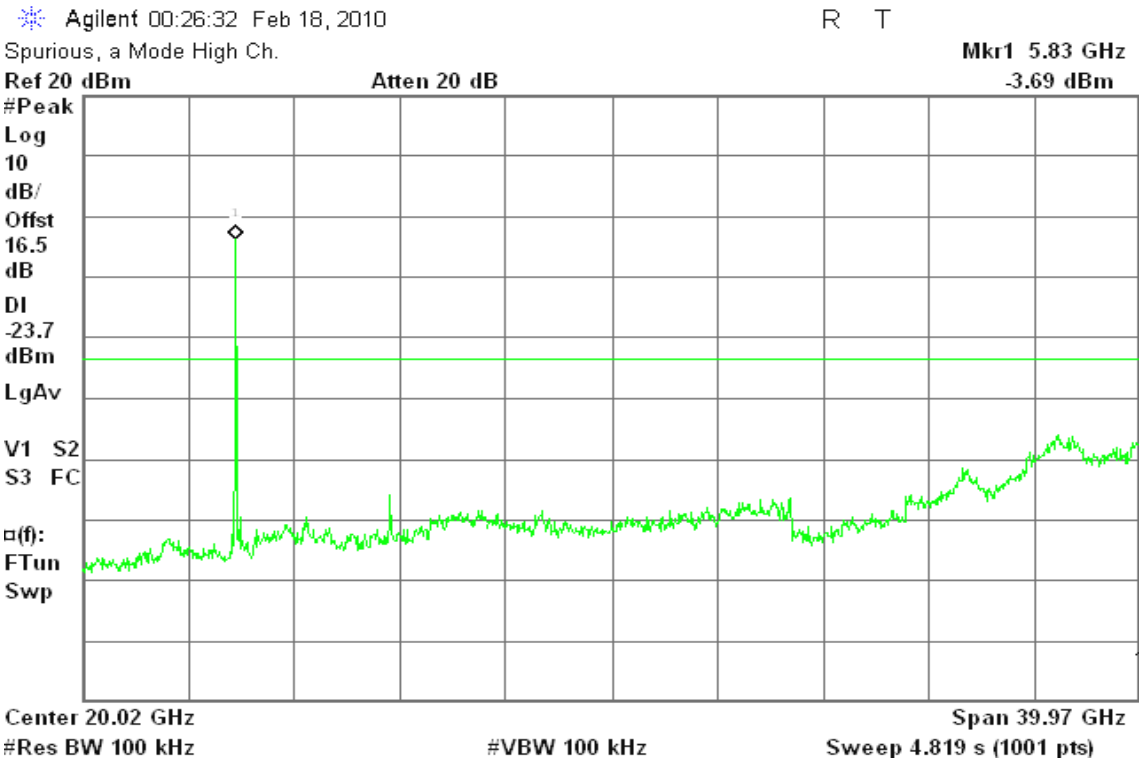
CH Low



CH Mid

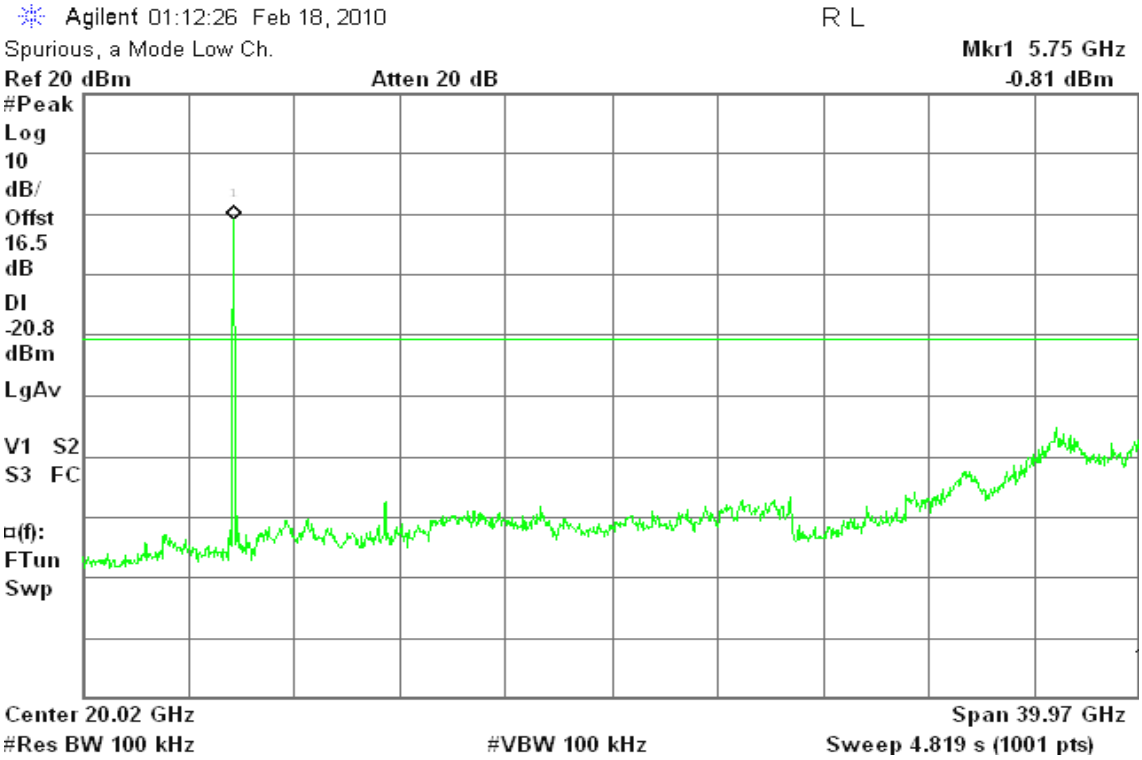


CH High

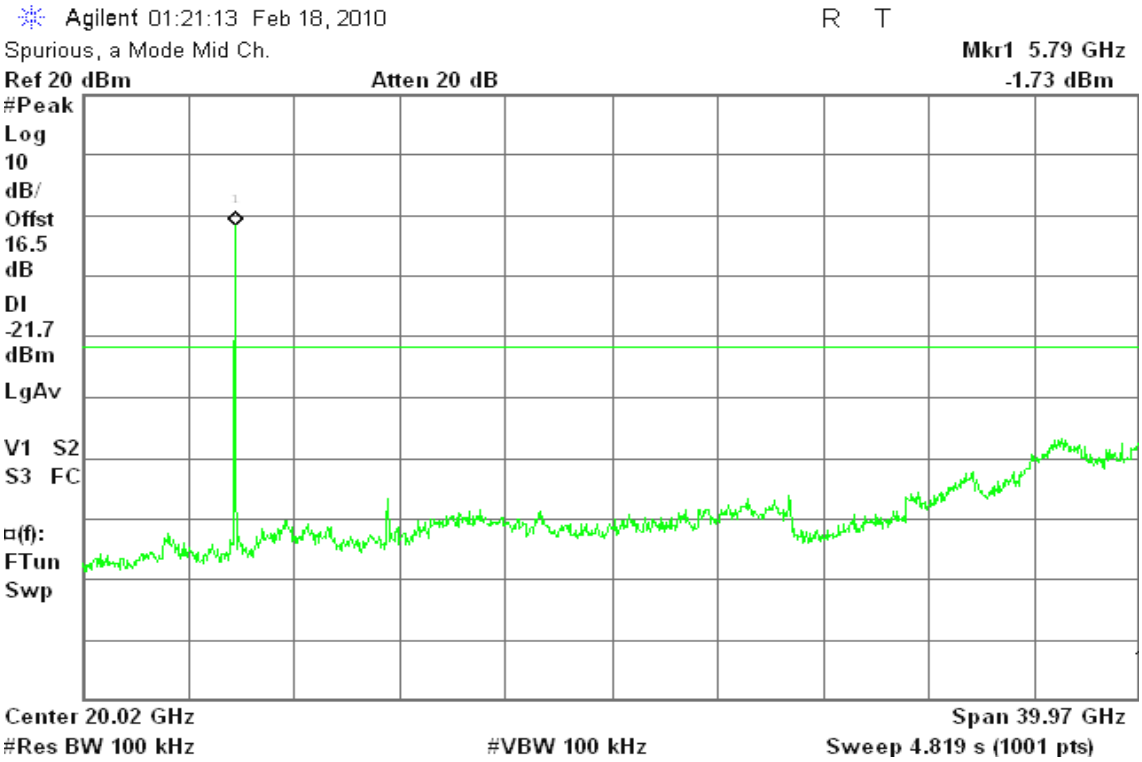


draft 802.11n Standard-20 MHz Channel mode / Chain 1

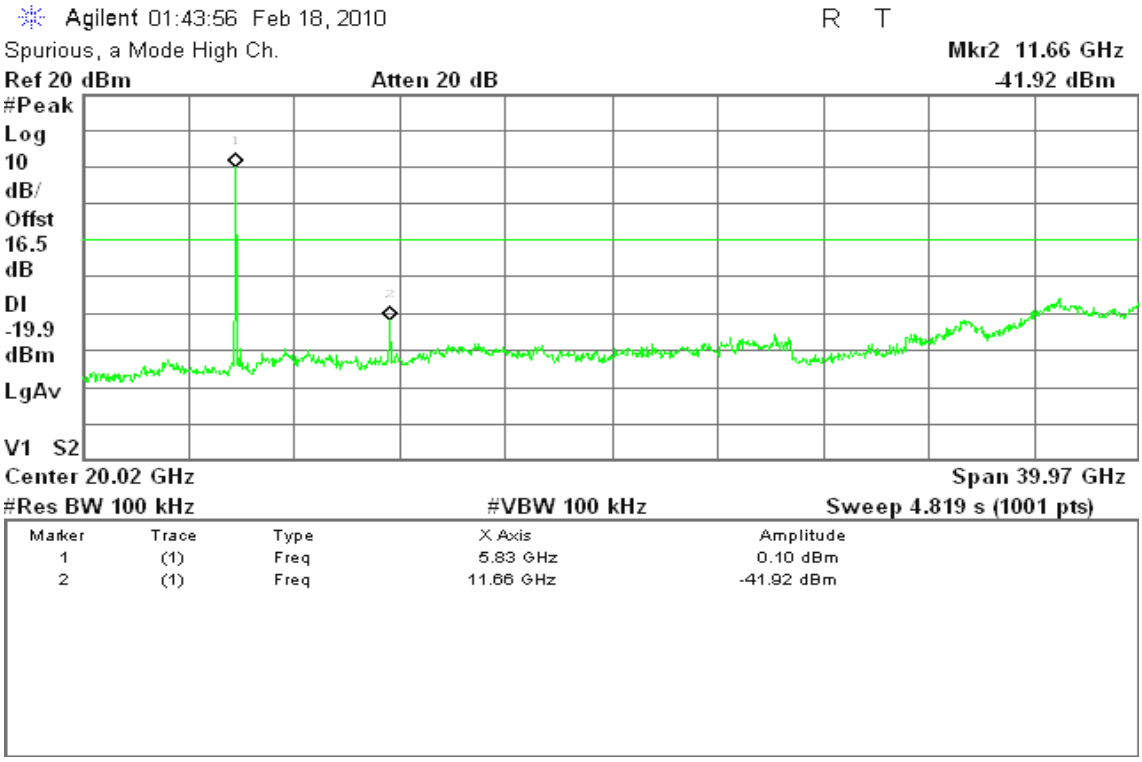
CH Low



CH Mid

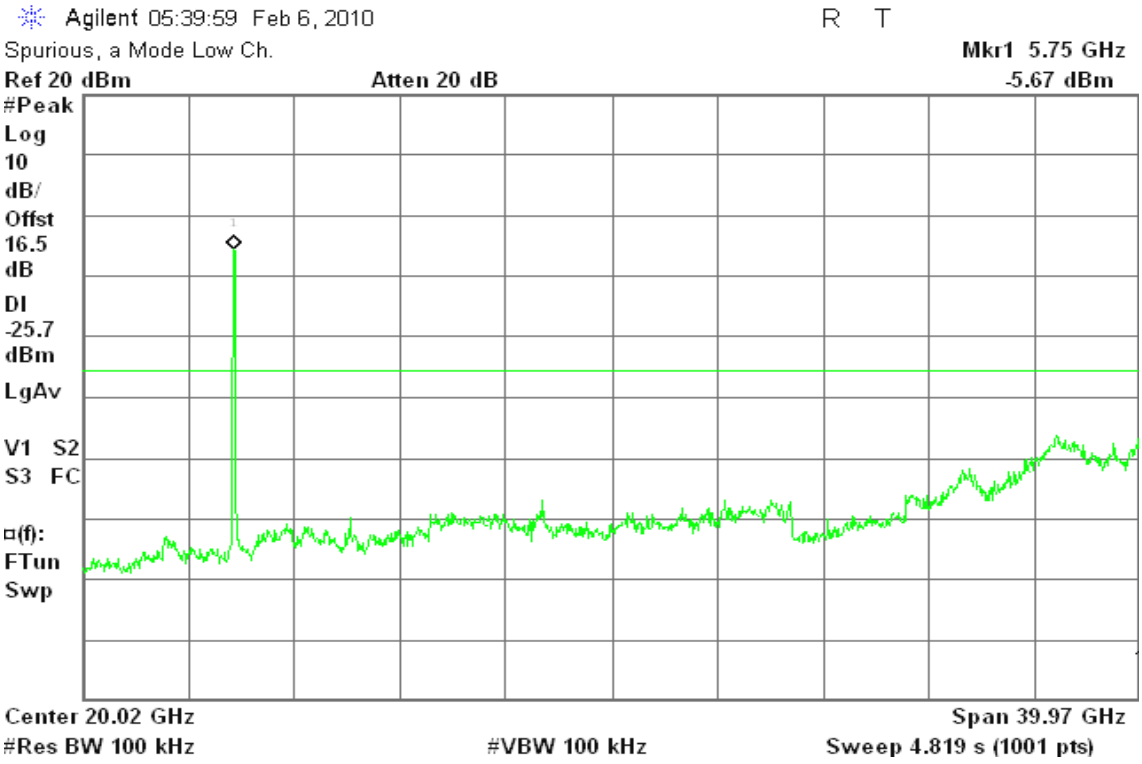


CH High

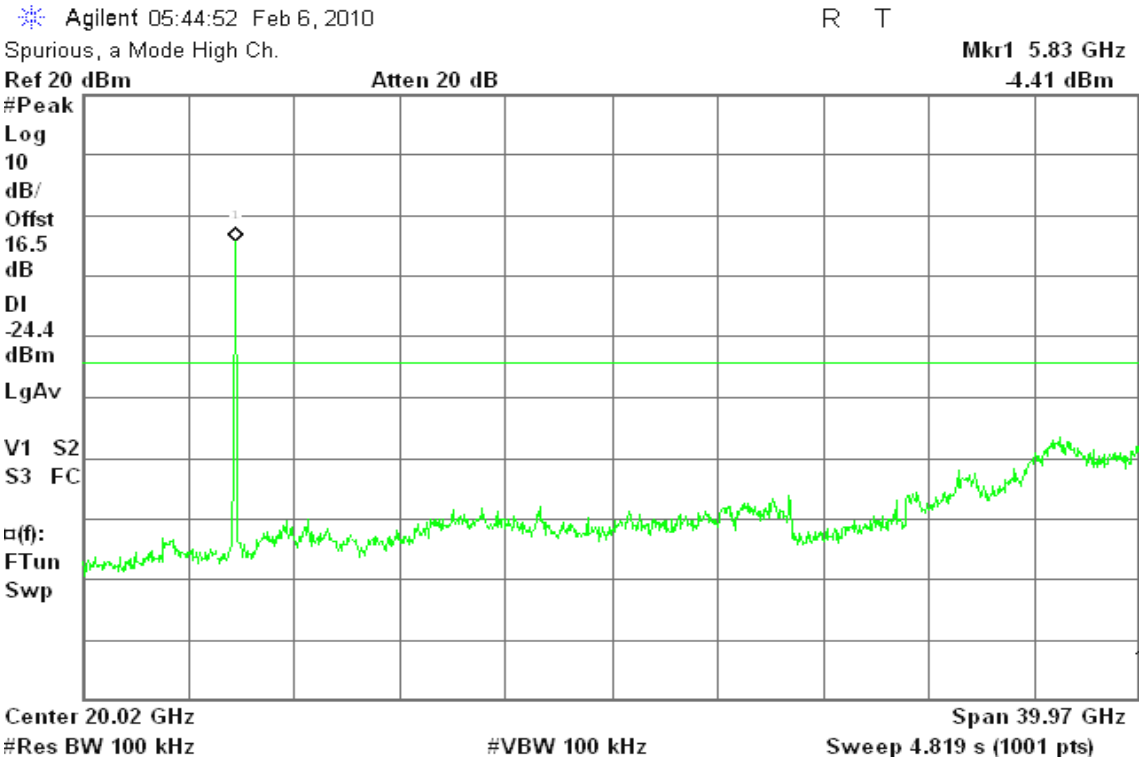


draft 802.11n Wide-40 MHz Channel mode / Chain 0

CH Low

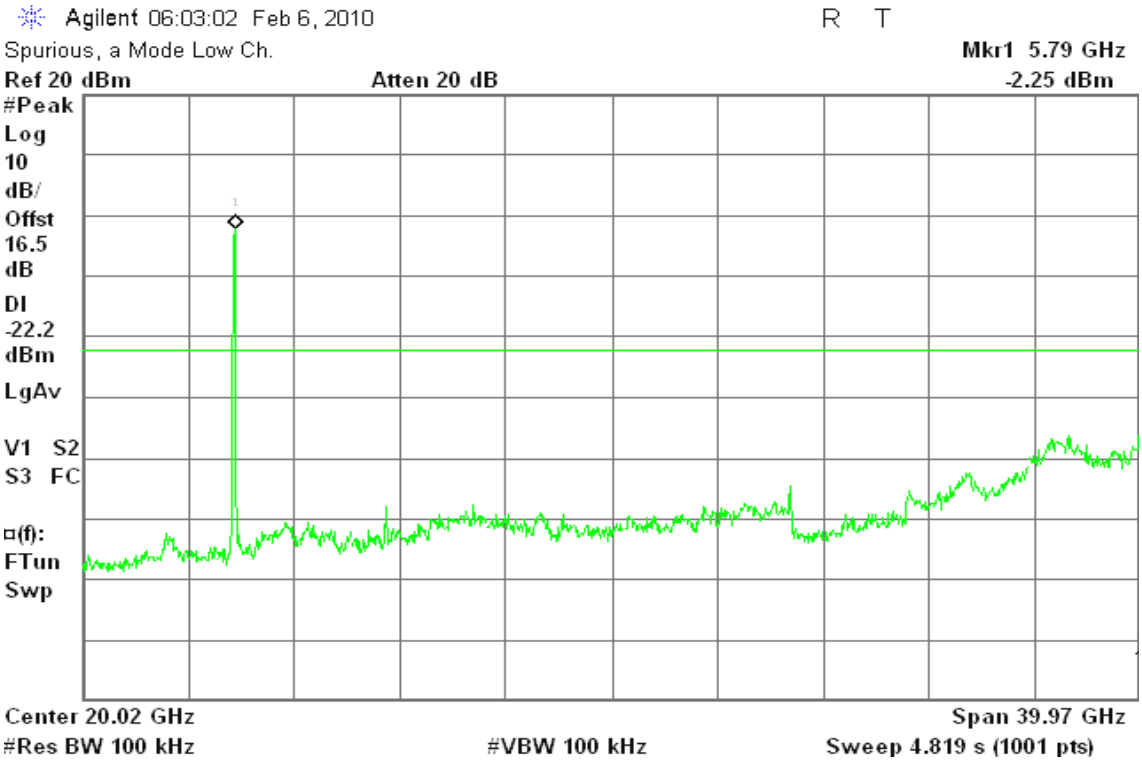


CH High

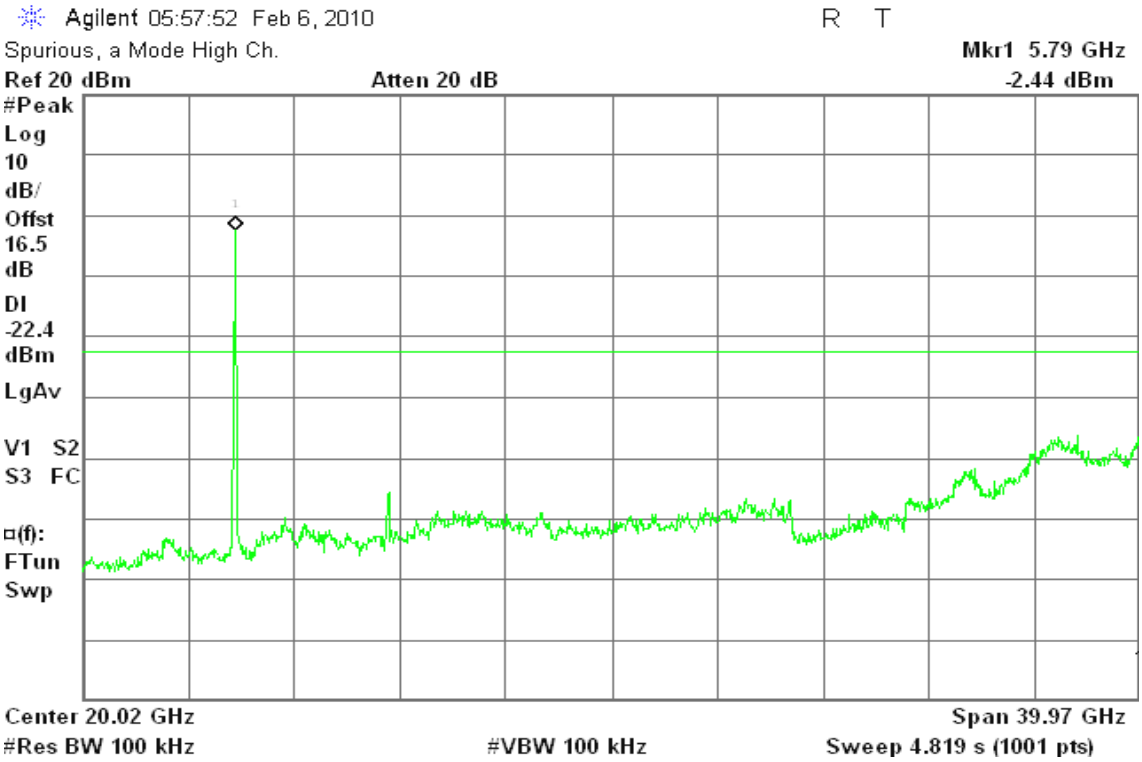


draft 802.11n Wide-40 MHz Channel mode / Chain 1

CH Low

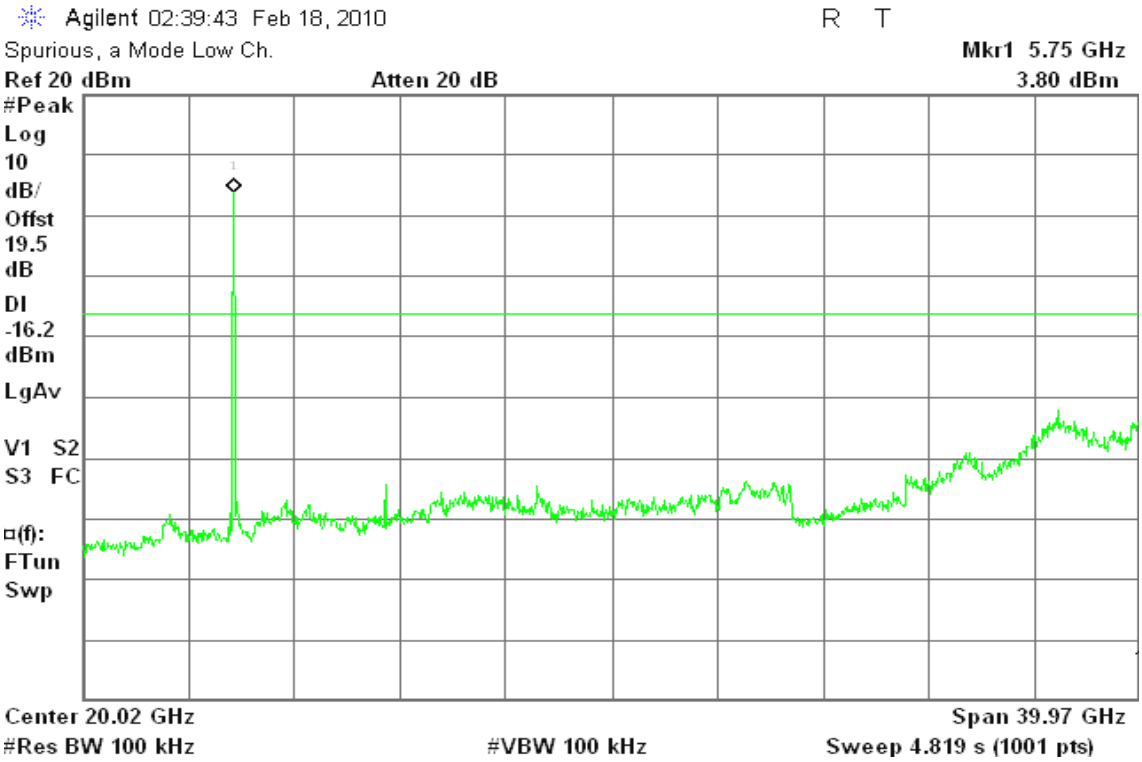


CH High

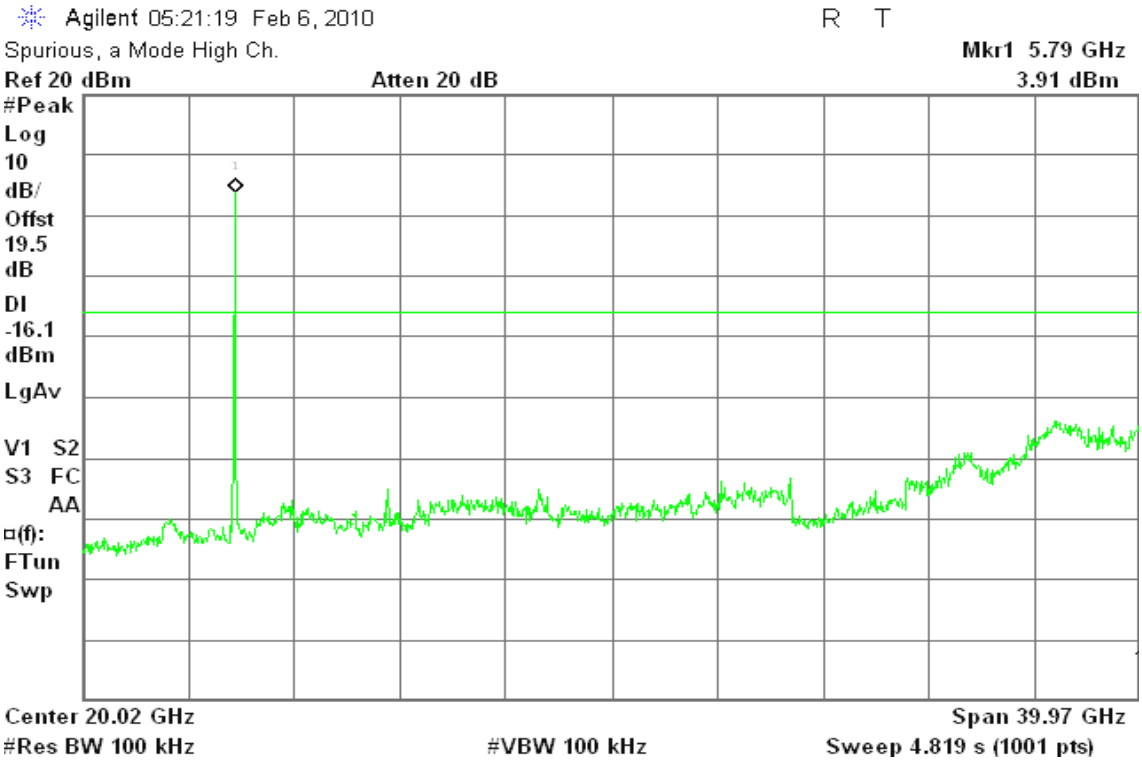


draft 802.11n Standard-20 MHz Channel mode with combiner

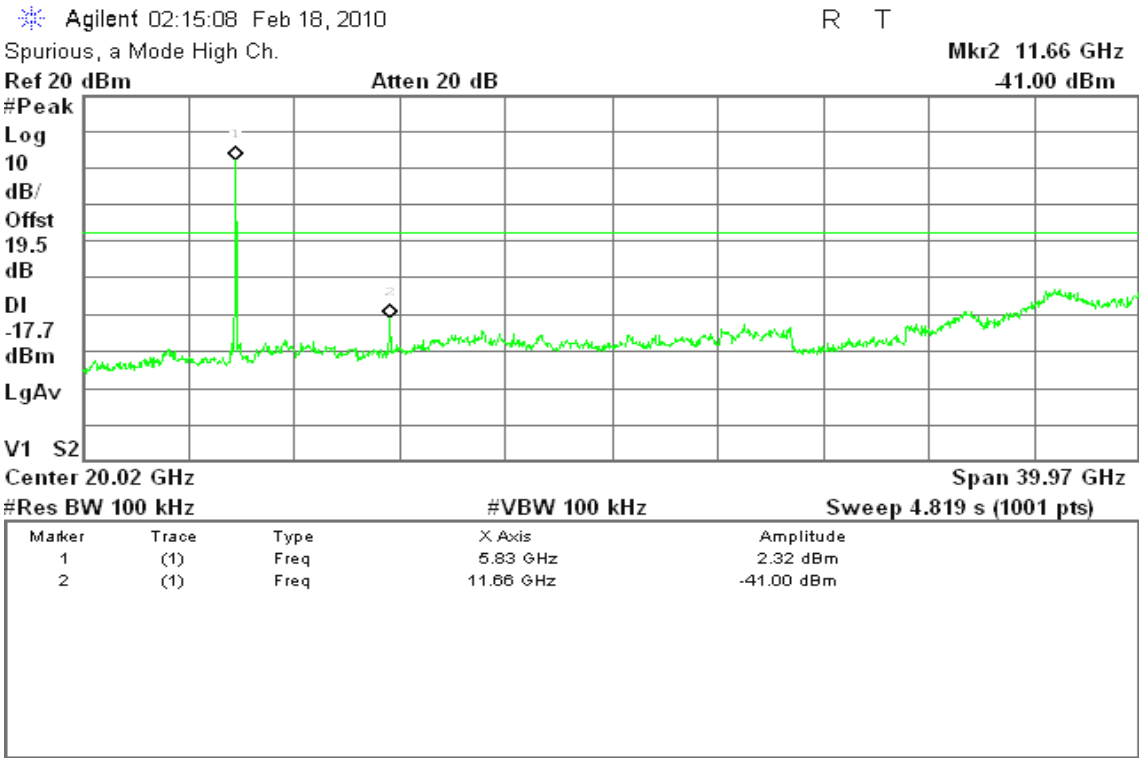
CH Low



CH Mid

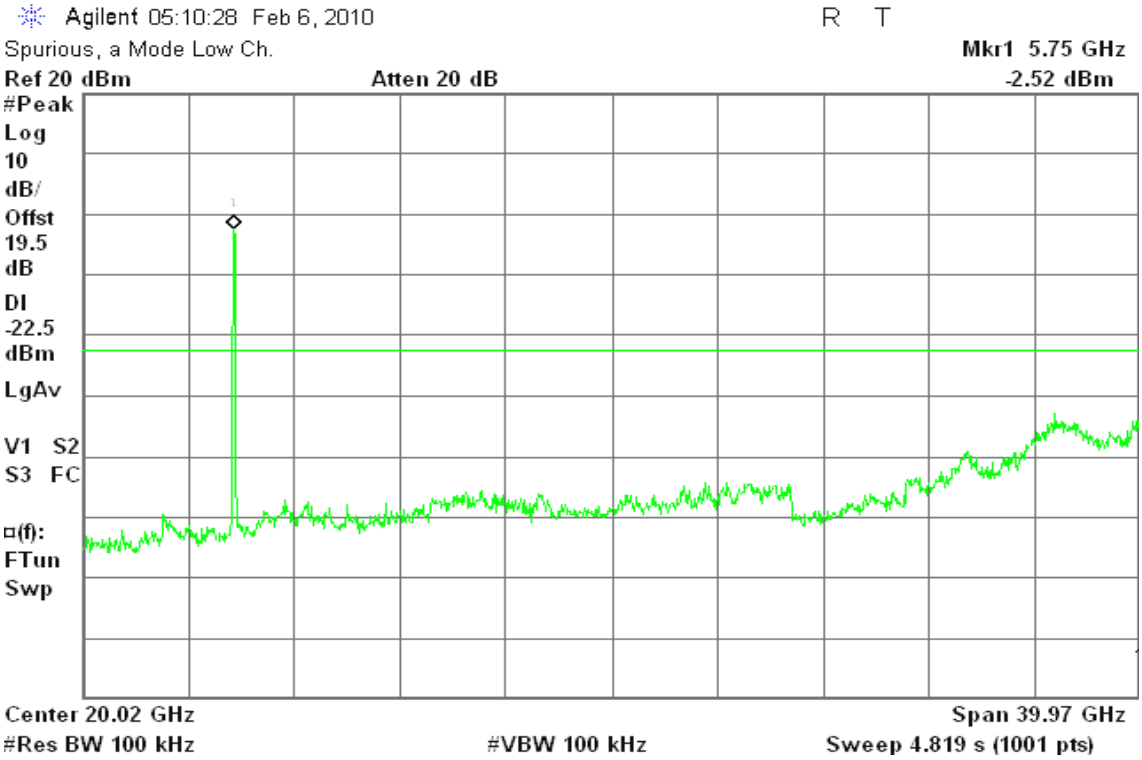


CH High

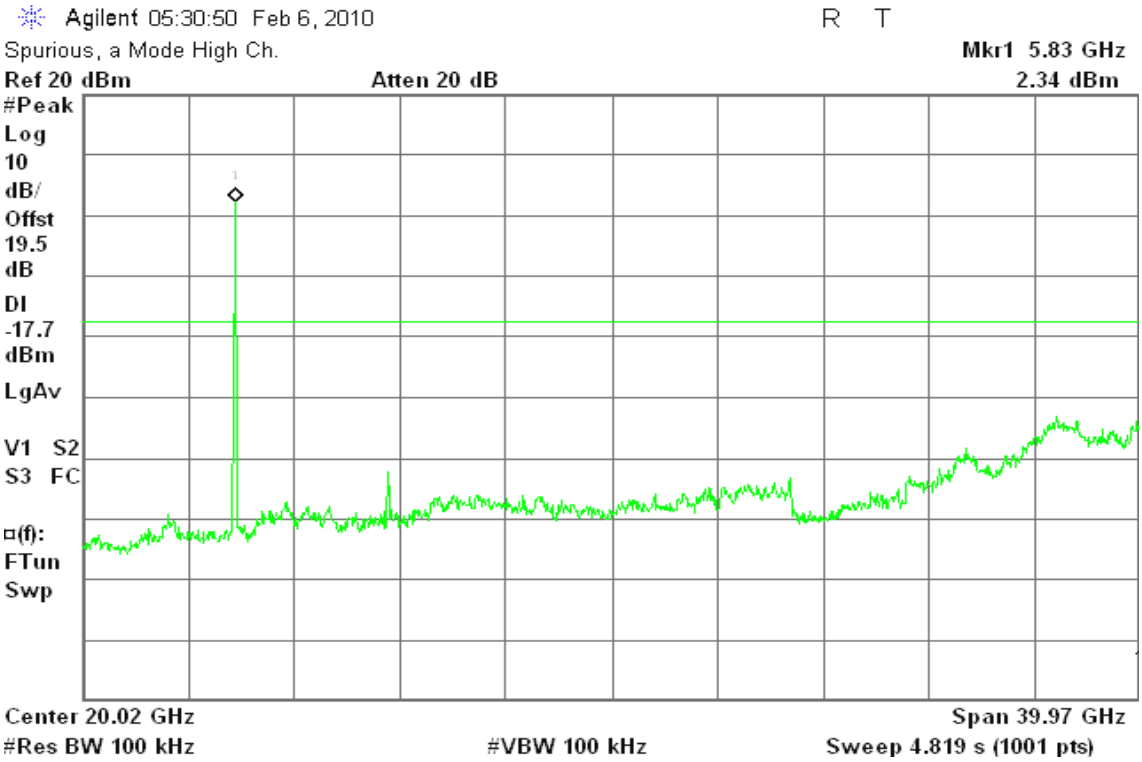


draft 802.11n Wide-40 MHz Channel mode with combiner

CH Low



CH High



8.8 RADIATED EMISSIONS

LIMIT

1. According to §15.205, 209(a) & RSS-210 Clause 2.6 (Transmitter) and IC RSS-GEN Clause 6 (Receiver), 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 (µV/m)	Measurement Distance (m)
30-88	100*	3
88-216	150*	3
216-960	200*	3
Above 960	500	3

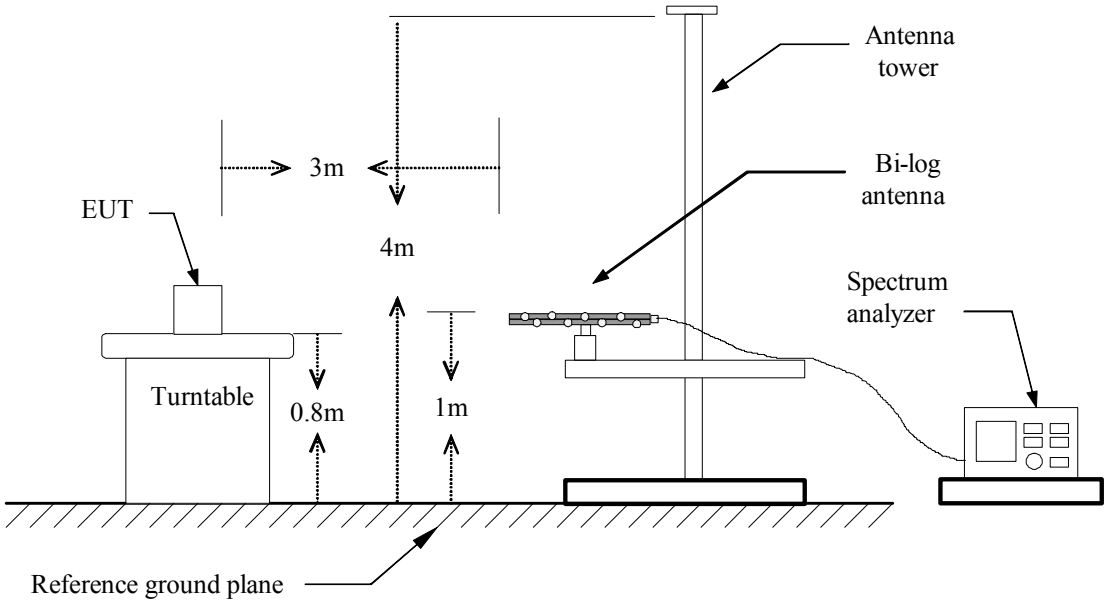
Remark: *Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of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

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

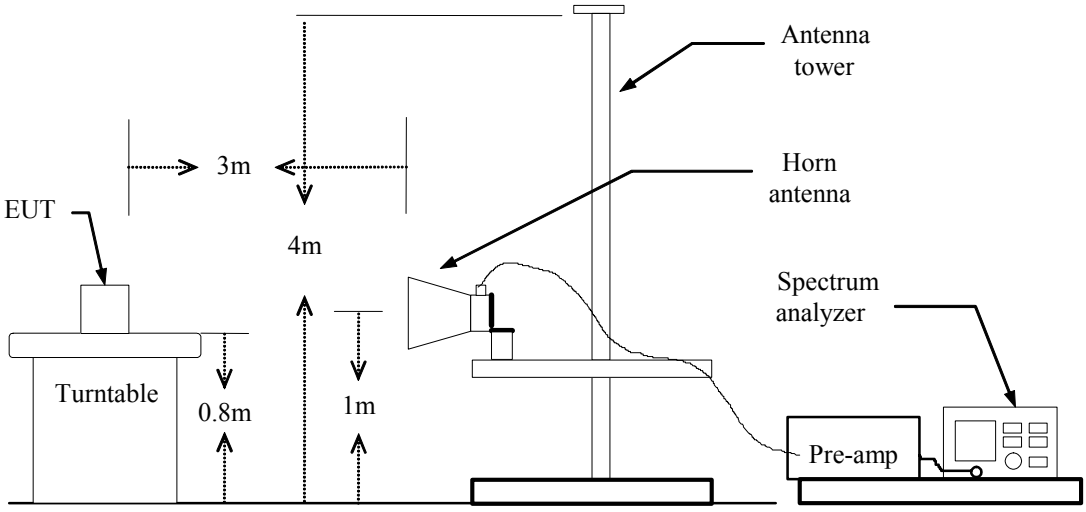
Frequency (MHz)	Field Strength (µV/m at 3-meter)	Field Strength (dBµV/m at 3-meter)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Test Configuration

Below 1 GHz



Above 1 GHz



TEST PROCEDURE

1. The EUT is placed on a turntable, which is 0.8m above ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Set the spectrum analyzer in the following setting as:

   Below 1GHz:

   RBW=100kHz / VBW=300kHz / Sweep=AUTO

   Above 1GHz:

   (a) PEAK: RBW=VBW=1MHz / Sweep=AUTO

   (b) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO
7. Repeat above procedures until the measurements for all frequencies are complete.

Below 1GHz

Operation Mode: Normal Link **Test Date:** March 30, 2010

Temperature: 25°C **Tested by:** Ming Chen

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
39.70	V	45.34	-9.01	36.32	40.00	-3.68	Peak
70.42	V	51.14	-14.61	36.53	40.00	-3.47	QP
125.38	V	50.56	-9.65	40.91	43.50	-2.59	Peak
500.45	V	50.03	-5.14	44.89	46.00	-1.11	QP
749.42	V	42.06	-1.83	40.23	46.00	-5.77	Peak
875.52	V	42.91	-0.73	42.18	46.00	-3.82	Peak
125.38	H	45.78	-9.65	36.13	43.50	-7.37	Peak
291.90	H	47.04	-9.33	37.71	46.00	-8.29	Peak
374.35	H	44.73	-7.58	37.15	46.00	-8.85	Peak
500.45	H	47.86	-5.14	42.72	46.00	-3.28	QP
749.42	H	41.77	-1.83	39.94	46.00	-6.06	Peak
875.52	H	43.87	-0.73	43.14	46.00	-2.86	QP

Remark:

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

Above 1 GHz

Operation Mode: TX / IEEE 802.11b / CH Low **Test Date:** March 29, 2010

Temperature: 23°C **Tested by:** Mimic Yang

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

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
2570.00	V	59.47	50.54	-2.46	57.01	48.08	74.00	54.00	-5.92	AVG
4825.00	V	53.55	51.41	1.18	54.73	52.59	74.00	54.00	-1.41	AVG
N/A										
1663.33	H	61.27	45.60	-7.25	54.02	38.35	74.00	54.00	-15.65	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) = Remark result (dBuV/m) – Average limit (dBuV/m).*

Operation Mode: TX / IEEE 802.11b / CH Mid **Test Date:** March 29, 2010

Temperature: 23°C **Tested by:** Mimic Yang

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

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
2603.33	V	58.75	51.13	-2.36	56.39	48.77	74.00	54.00	-5.23	AVG
4875.00	V	54.47	50.65	1.16	55.63	51.81	74.00	54.00	-2.19	AVG
N/A										
1663.33	H	61.36	46.10	-7.25	54.11	38.85	74.00	54.00	-15.15	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) = Remark result (dBuV/m) – Average limit (dBuV/m).*

Operation Mode: TX / IEEE 802.11b / CH High **Test Date:** March 29, 2010

Temperature: 23°C **Tested by:** Mimic Yang

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

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
2623.33	V	60.21	51.68	-2.30	57.91	49.38	74.00	54.00	-4.62	AVG
4925.00	V	53.30	50.06	1.14	54.44	51.20	74.00	54.00	-2.80	AVG
N/A										
1663.33	H	59.11	---	-7.25	51.85	---	74.00	54.00	-2.15	Peak
N/A										

Remark:

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

Operation Mode: TX / IEEE 802.11g / CH Low **Test Date:** March 29, 2010

Temperature: 23°C **Tested by:** Mimic Yang

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

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1540.00	V	57.98	---	-8.39	49.59	---	74.00	54.00	-4.41	Peak
4950.00	V	50.75	---	1.14	51.89	---	74.00	54.00	-2.11	Peak
N/A										
1663.33	H	61.65	46.11	-7.25	54.40	38.86	74.00	54.00	-15.14	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) = Remark result (dBuV/m) – Average limit (dBuV/m).*

Operation Mode: TX / IEEE 802.11g / CH Mid **Test Date:** March 29, 2010

Temperature: 23°C **Tested by:** Mimic Yang

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

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
2603.33	V	58.13	50.06	-2.36	55.77	47.70	74.00	54.00	-6.30	AVG
N/A										
1660.00	H	61.56	45.96	-7.28	54.28	38.68	74.00	54.00	-15.32	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) = Remark result (dBuV/m) – Average limit (dBuV/m).*

Operation Mode: TX / IEEE 802.11g / CH High **Test Date:** March 29, 2010

Temperature: 23°C **Tested by:** Mimic Yang

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

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1626.67	V	58.91	---	-7.59	51.32	---	74.00	54.00	-2.68	Peak
2623.33	V	57.78	51.34	-2.30	55.48	49.04	74.00	54.00	-4.96	AVG
N/A										
1663.33	H	61.82	46.20	-7.25	54.57	38.95	74.00	54.00	-15.05	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) = Remark result (dBuV/m) – Average limit (dBuV/m).*

Operation Mode:	TX / draft 802.11n Standard-20 MHz Channel mode / CH Low	**Test Date:**	March 29, 2010
Temperature:	23°C	**Tested by:**	Mimic Yang
Humidity:	53 % RH	**Polarity:**	Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1400.00	V	56.96	---	-8.93	48.03	---	74.00	54.00	-5.97	Peak
N/A										
1610.00	H	57.14	---	-7.75	49.40	---	74.00	54.00	-4.60	Peak
N/A										

Remark:

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

Operation Mode:	TX / draft 802.11n Standard-20 MHz Channel mode / CH Mid	**Test Date:**	March 29, 2010
Temperature:	23°C	**Tested by:**	Mimic Yang
Humidity:	53 % RH	**Polarity:**	Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1626.67	V	57.77	---	-7.59	50.18	---	74.00	54.00	-3.82	Peak
N/A										
1666.67	H	61.49	46.70	-7.22	54.27	39.48	74.00	54.00	-14.52	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) = Remark result (dBuV/m) – Average limit (dBuV/m).*

Operation Mode:	TX / draft 802.11n Standard-20 MHz Channel mode / CH High	**Test Date:**	March 29, 2010
Temperature:	23°C	**Tested by:**	Mimic Yang
Humidity:	53 % RH	**Polarity:**	Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1623.33	V	58.73	---	-7.62	51.10	---	74.00	54.00	-2.90	Peak
N/A										
1660.00	H	58.47	---	-7.28	51.19	---	74.00	54.00	-2.81	Peak
N/A										

Remark:

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

Operation Mode:	TX / draft 802.11n Wide-40 MHz Channel mode / CH Low	**Test Date:**	March 29, 2010
Temperature:	23°C	**Tested by:**	Mimic Yang
Humidity:	53 % RH	**Polarity:**	Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1373.33	V	57.96	---	-8.97	48.99	---	74.00	54.00	-5.01	Peak
N/A										
1666.67	H	58.98	---	-7.22	51.76	---	74.00	54.00	-2.24	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) = Remark result (dBuV/m) – Average limit (dBuV/m).*

Operation Mode:	TX / draft 802.11n Wide-40 MHz Channel mode / CH Mid	**Test Date:**	March 29, 2010
Temperature:	23°C	**Tested by:**	Mimic Yang
Humidity:	53 % RH	**Polarity:**	Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1600.00	V	58.00	---	-7.84	50.16	---	74.00	54.00	-3.84	Peak
N/A										
1660.00	H	58.86	---	-7.28	51.58	---	74.00	54.00	-2.42	Peak
N/A										

Remark:

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

Operation Mode:	TX / draft 802.11n Wide-40 MHz Channel mode / CH High	**Test Date:**	March 29, 2010
Temperature:	23°C	**Tested by:**	Mimic Yang
Humidity:	53 % RH	**Polarity:**	Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1600.00	V	58.51	---	-7.84	50.67	---	74.00	54.00	-3.33	Peak
N/A										
1663.33	H	58.12	---	-7.25	50.86	---	74.00	54.00	-3.14	Peak
N/A										

Remark:

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

Operation Mode: TX / IEEE 802.11a mode/ CH Low **Test Date:** April 1, 2010

Temperature: 23°C **Tested by:** Mimic Yang

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

Frequency (MHz)	Ant.Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1200.00	V	56.94	---	-9.26	47.68	---	74.00	54.00	-6.32	Peak
1600.00	V	58.14	---	-7.84	50.30	---	74.00	54.00	-3.70	Peak
1623.33	V	54.38	---	-7.62	46.75	---	74.00	54.00	-7.25	Peak
1666.67	V	55.57	---	-7.22	48.35	---	74.00	54.00	-5.65	Peak
5583.33	V	57.65	49.40	1.94	59.58	51.34	74.00	54.00	-2.66	AVG
11500.00	V	43.74	33.44	16.62	60.36	50.06	74.00	54.00	-3.94	AVG
1400.00	H	54.86	---	-8.93	45.93	---	74.00	54.00	-8.07	Peak
2013.33	H	52.58	---	-4.11	48.47	---	74.00	54.00	-5.53	Peak
11483.33	H	41.30	30.76	16.59	57.89	47.35	74.00	54.00	-6.65	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) = Remark result (dBuV/m) – Average limit (dBuV/m).*

Operation Mode: TX / IEEE 802.11a mode/ CH Mid **Test Date:** April 1, 2010

Temperature: 23°C **Tested by:** Mimic Yang

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

Frequency (MHz)	Ant.Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1200.00	V	56.74	---	-9.26	47.48	---	74.00	54.00	-6.52	Peak
1600.00	V	58.22	---	-7.84	50.39	---	74.00	54.00	-3.61	Peak
1663.33	V	55.95	---	-7.25	48.70	---	74.00	54.00	-5.30	Peak
1750.00	V	54.01	---	-6.46	47.56	---	74.00	54.00	-6.44	Peak
5625.00	V	57.78	48.90	2.00	59.78	50.90	74.00	54.00	-3.10	AVG
11583.33	V	47.27	36.08	16.75	64.02	52.83	74.00	54.00	-1.17	AVG
1663.33	H	53.52	---	-7.25	46.27	---	74.00	54.00	-7.73	Peak
2000.00	H	52.70	---	-4.15	48.55	---	74.00	54.00	-5.45	Peak
11566.67	H	43.31	32.09	16.72	60.03	48.81	74.00	54.00	-5.19	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) = Remark result (dBuV/m) – Average limit (dBuV/m).*

Operation Mode: TX / IEEE 802.11a mode/ CH High **Test Date:** April 1, 2010
Temperature: 23°C **Tested by:** Mimic Yang
Humidity: 53% RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Ant.Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1200.00	V	57.17	---	-9.26	47.92	---	74.00	54.00	-6.08	Peak
1600.00	V	58.28	---	-7.84	50.44	---	74.00	54.00	-3.56	Peak
1663.33	V	55.84	---	-7.25	48.58	---	74.00	54.00	-5.42	Peak
1750.00	V	53.88	---	-6.46	47.43	---	74.00	54.00	-6.57	Peak
5658.33	V	56.31	46.09	2.04	58.35	48.13	74.00	54.00	-5.87	AVG
5983.33	V	57.20	48.85	2.50	59.70	51.35	74.00	54.00	-2.65	AVG
1400.00	H	55.59	---	-8.93	46.66	---	74.00	54.00	-7.34	Peak
1663.33	H	53.04	---	-7.25	45.79	---	74.00	54.00	-8.21	Peak
11650.00	H	41.53	30.81	16.85	58.37	47.66	74.00	54.00	-6.34	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) = Remark result (dBuV/m) – Average limit (dBuV/m).*

Operation Mode:	TX / draft 802.11n Standard-20 MHz Channel mode / CH Low	**Test Date:**	March 29, 2010
Temperature:	23°C	**Tested by:**	Mimic Yang
Humidity:	53% RH	**Polarity:**	Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1200.00	V	56.98	---	-9.26	47.72	---	74.00	54.00	-6.28	Peak
1600.00	V	57.88	---	-7.84	50.04	---	74.00	54.00	-3.96	Peak
1660.00	V	57.00	---	-7.28	49.71	---	74.00	54.00	-4.29	Peak
5583.33	V	59.07	48.84	1.94	61.01	50.78	74.00	54.00	-3.22	AVG
5900.00	V	57.07	47.84	2.38	59.45	50.22	74.00	54.00	-3.78	AVG
11483.33	V	43.09	32.53	16.59	59.68	49.12	74.00	54.00	-4.88	AVG
1400.00	H	54.68	---	-8.93	45.76	---	74.00	54.00	-8.24	Peak
1663.33	H	54.88	---	-7.25	47.63	---	74.00	54.00	-6.37	Peak
2000.00	H	54.03	---	-4.15	49.88	---	74.00	54.00	-4.12	Peak
N/A										

Remark:

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

Operation Mode:	TX / draft 802.11n Standard-20 MHz Channel mode / CH Mid	**Test Date:**	August 11, 2007
Temperature:	23°C	**Tested by:**	Mimic Yang
Humidity:	53% RH	**Polarity:**	Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1200.00	V	57.42	---	-9.26	48.16	---	74.00	54.00	-5.84	Peak
1600.00	V	58.08	---	-7.84	50.24	---	74.00	54.00	-3.76	Peak
1663.33	V	55.56	---	-7.25	48.31	---	74.00	54.00	-5.69	Peak
2000.00	V	53.43	---	-4.15	49.28	---	74.00	54.00	-4.72	Peak
5633.33	V	58.03	46.65	2.01	60.04	48.66	74.00	54.00	-5.34	AVG
5950.00	V	56.69	43.24	2.45	59.14	45.69	74.00	54.00	-8.31	AVG
1400.00	H	55.54	---	-8.93	46.62	---	74.00	54.00	-7.38	Peak
1663.33	H	53.74	---	-7.25	46.49	---	74.00	54.00	-7.51	Peak
N/A										

Remark:

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

Operation Mode:	TX / draft 802.11n Standard-20 MHz Channel mode / CH High	**Test Date:**	March 29, 2010
Temperature:	23°C	**Tested by:**	Mimic Yang
Humidity:	53% RH	**Polarity:**	Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1200.00	V	56.34	---	-9.26	47.09	---	74.00	54.00	-6.91	Peak
1600.00	V	58.29	---	-7.84	50.46	---	74.00	54.00	-3.54	Peak
1663.33	V	55.04	---	-7.25	47.79	---	74.00	54.00	-6.21	Peak
1750.00	V	54.13	---	-6.46	47.68	---	74.00	54.00	-6.32	Peak
5658.33	V	58.73	47.16	2.04	60.77	49.20	74.00	54.00	-4.80	AVG
5991.67	V	57.52	48.24	2.51	60.03	50.75	74.00	54.00	-3.25	AVG
1400.00	H	55.35	---	-8.93	46.42	---	74.00	54.00	-7.58	Peak
N/A										

Remark:

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

Operation Mode:	TX / draft 802.11n Wide-40 MHz Channel mode / CH Low	**Test Date:**	April 1, 2010
Temperature:	23°C	**Tested by:**	Mimic Yang
Humidity:	53% RH	**Polarity:**	Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1200.00	V	57.12	---	-9.26	47.86	---	74.00	54.00	-6.14	Peak
1600.00	V	58.81	---	-7.84	50.97	---	74.00	54.00	-3.03	Peak
1660.00	V	54.45	---	-7.28	47.17	---	74.00	54.00	-6.83	Peak
1750.00	V	55.78	---	-6.46	49.32	---	74.00	54.00	-4.68	Peak
N/A										
1200.00	H	54.72	---	-9.26	45.46	---	74.00	54.00	-8.54	Peak
1400.00	H	55.16	---	-8.93	46.23	---	74.00	54.00	-7.77	Peak
1660.00	H	54.41	---	-7.28	47.12	---	74.00	54.00	-6.88	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) = Remark result (dBuV/m) – Average limit (dBuV/m).*

Operation Mode:	TX / draft 802.11n Wide-40 MHz Channel mode / CH High	**Test Date:**	April 1, 2010
Temperature:	23°C	**Tested by:**	Mimic Yang
Humidity:	53% RH	**Polarity:**	Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1200.00	V	57.03	---	-9.26	47.77	---	74.00	54.00	-6.23	Peak
1600.00	V	58.43	---	-7.84	50.59	---	74.00	54.00	-3.41	Peak
1750.00	V	54.68	---	-6.46	48.22	---	74.00	54.00	-5.78	Peak
11583.33	V	43.44	31.05	16.75	60.18	47.80	74.00	54.00	-6.20	AVG
N/A										
1200.00	H	55.02	---	-9.26	45.76	---	74.00	54.00	-8.24	Peak
1400.00	H	55.11	---	-8.93	46.18	---	74.00	54.00	-7.82	Peak
1660.00	H	55.10	---	-7.28	47.82	---	74.00	54.00	-6.18	Peak
N/A										

Remark:

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

Operation Mode: RX / IEEE 802.11g / CH Mid **Test Date:** March 29, 2010
Temperature: 23°C **Tested by:** Mimic Yang
Humidity: 53% RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1600.00	V	57.04	---	-7.84	49.20	---	74.00	54.00	-4.80	Peak
N/A										
N/A										

Remark:

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

Operation Mode: RX / IEEE 802.11a mode / CH Mid **Test Date:** April 1, 2010
Temperature: 23°C **Tested by:** Mimic Yang
Humidity: 53% RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Ant.Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1200.00	V	57.94	---	-9.26	48.69	---	74.00	54.00	-5.31	Peak
1600.00	V	58.41	---	-7.84	50.57	---	74.00	54.00	-3.43	Peak
1750.00	V	55.41	---	-6.46	48.95	---	74.00	54.00	-5.05	Peak
N/A										
1200.00	H	55.63	---	-9.26	46.37	---	74.00	54.00	-7.63	Peak
1400.00	H	56.13	---	-8.93	47.20	---	74.00	54.00	-6.80	Peak
1666.67	H	55.31	---	-7.22	48.08	---	74.00	54.00	-5.92	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.*
4. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
5. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
6. *Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).*

8.9 POWERLINE CONDUCTED EMISSIONS

LIMIT

According to §15.207(a) & RSS-Gen §7.2.2, 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 µH/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 (dBµV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

** Decreases with the logarithm of the frequency.*

Test Configuration

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

TEST PROCEDURE

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

TEST RESULTS

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

Test Data

Operation Mode:	Normal Link	**Test Date:**	January 23, 2010
Temperature:	20°C	**Tested by:**	Webber Chung
Humidity:	69% RH		

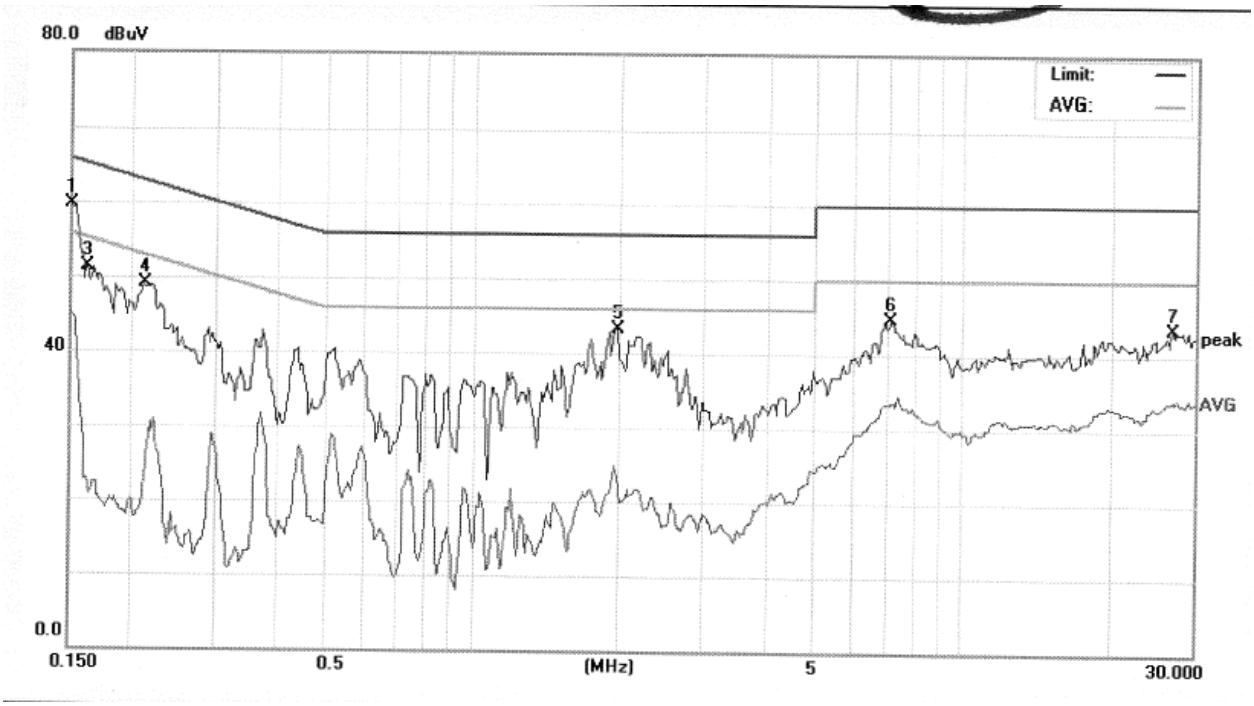
Freq. (MHz)	QP Reading (dBuV)	AV Reading (dBuV)	Corr. factor (dB/m)	QP Result (dBuV/m)	AV Result (dBuV/m)	QP Limit (dBuV)	AV Limit (dBuV)	QP Margin (dB)	AV Margin (dB)	Note
0.1500	59.58	45.33	0.06	59.64	45.39	65.99	55.99	-6.35	-10.60	L1
0.1624	51.33	---	0.06	51.39	---	65.34	---	-13.95	---	L1
0.2130	48.97	---	0.06	49.03	---	63.08	---	-14.05	---	L1
1.9829	43.26	---	0.14	43.40	---	56.00	---	-12.60	---	L1
7.1524	44.41	---	0.33	44.74	---	60.00	---	-15.26	---	L1
26.8471	42.47	---	1.09	43.56	---	60.00	---	-16.44	---	L1
0.1500	62.27	47.74	0.06	62.33	47.80	65.99	55.99	-3.66	-8.19	L2
0.2164	50.74	---	0.06	50.80	---	62.95	---	-12.15	---	L2
0.3604	44.37	---	0.05	44.42	---	58.72	---	-14.30	---	L2
0.5158	41.75	---	0.06	41.81	---	56.00	---	-14.19	---	L2
2.2887	42.12	---	0.15	42.27	---	56.00	---	-13.73	---	L2
7.3254	44.97	---	0.33	45.30	---	60.00	---	-14.70	---	L2

Remark:

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

Test Plots

Conducted emissions (Line 1)



Conducted emissions (Line 2)