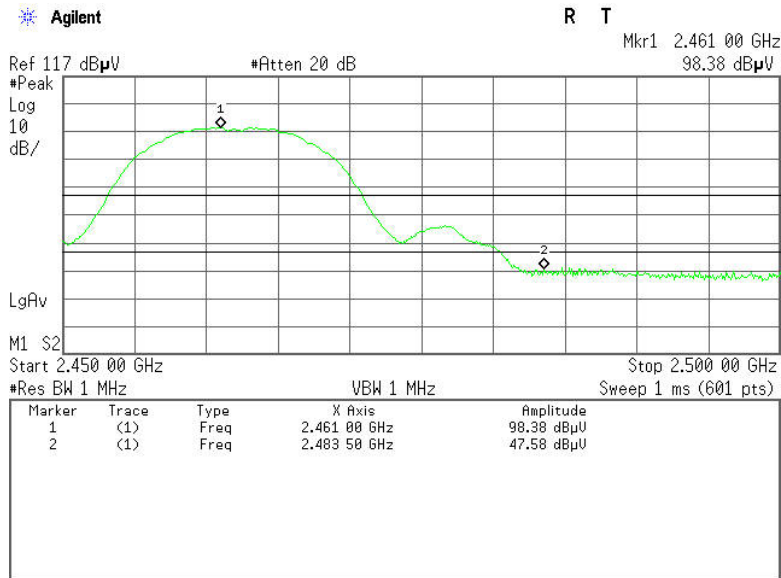




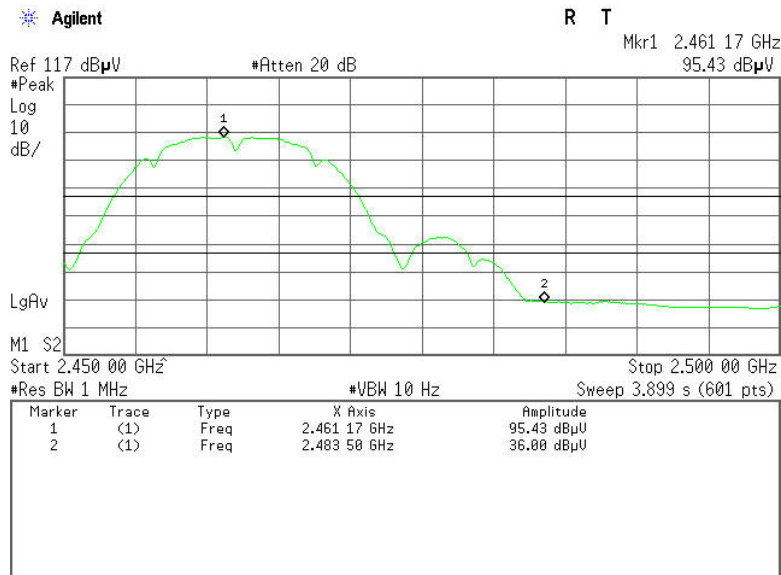
Detector mode: Peak

Polarity: Horizontal



Detector mode: Average

Polarity: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	41.34	-6.24	47.58	74.00	-26.42	Peak	Horizontal
2	2483.5000	29.76	-6.24	36.00	54.00	-18.00	AVG	Horizontal



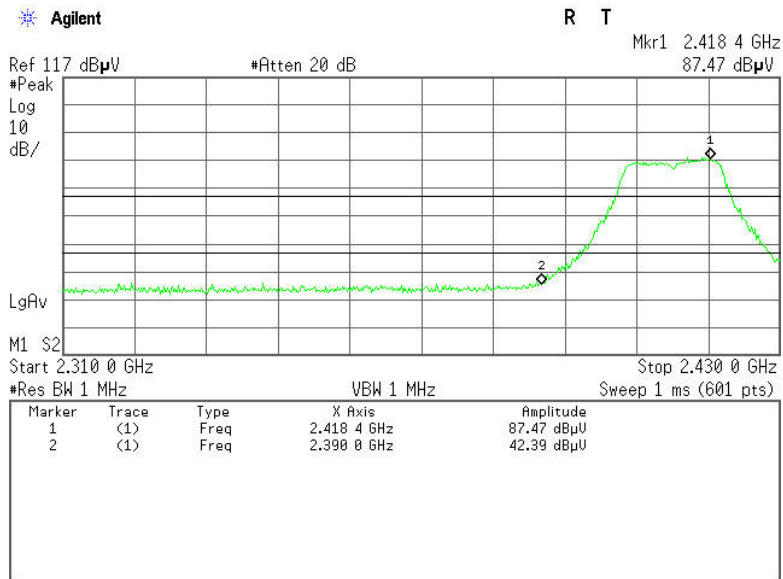
Antenna 0

IEEE 802.11g mode

Band Edges (CH Low:2412MHz)

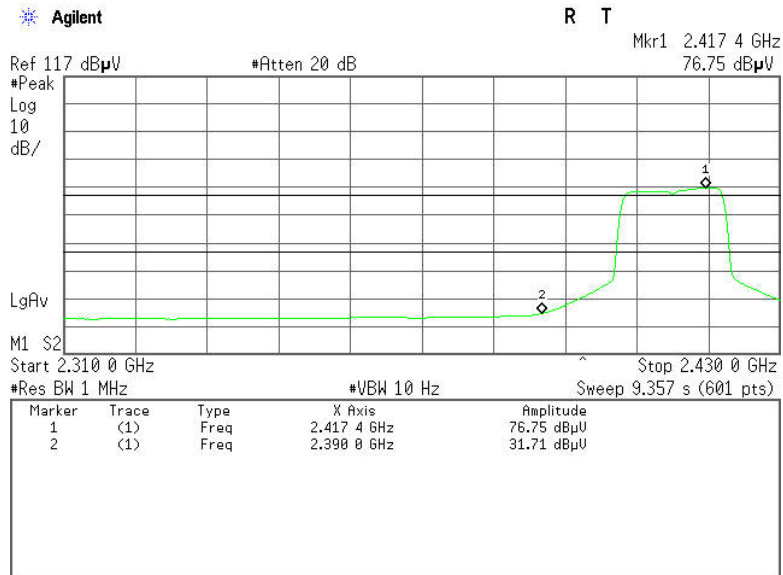
Detector mode: Peak

Polarity: Vertical



Detector mode: Average

Polarity: Vertical

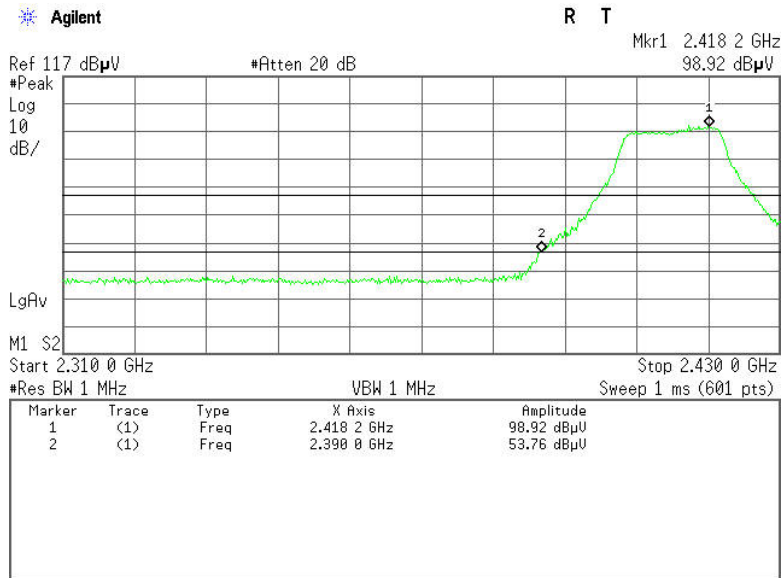


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	35.79	-6.60	42.39	74.00	-31.61	Peak	Vertical
2	2390.0000	25.11	-6.60	31.71	54.00	-22.29	Average	Vertical



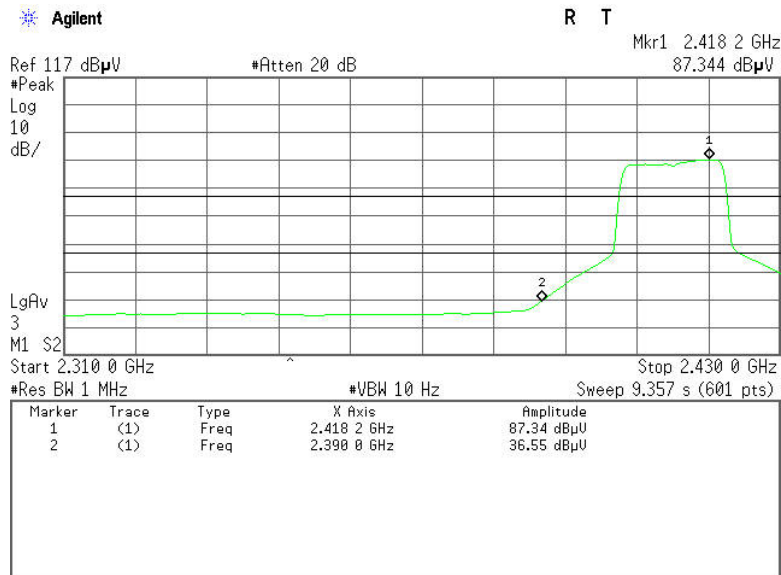
Detector mode: Peak

Polarity: Horizontal



Detector mode: Average

Polarity: Horizontal



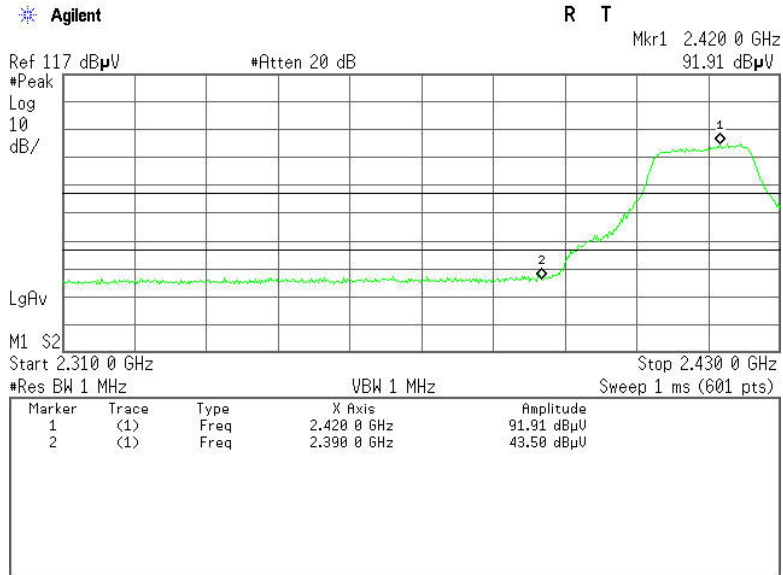
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	47.16	-6.60	53.76	74.00	-20.24	Peak	Horizontal
2	2390.0000	29.95	-6.60	36.55	54.00	-17.45	Average	Horizontal



Band Edges (CH Low:2417MHz)

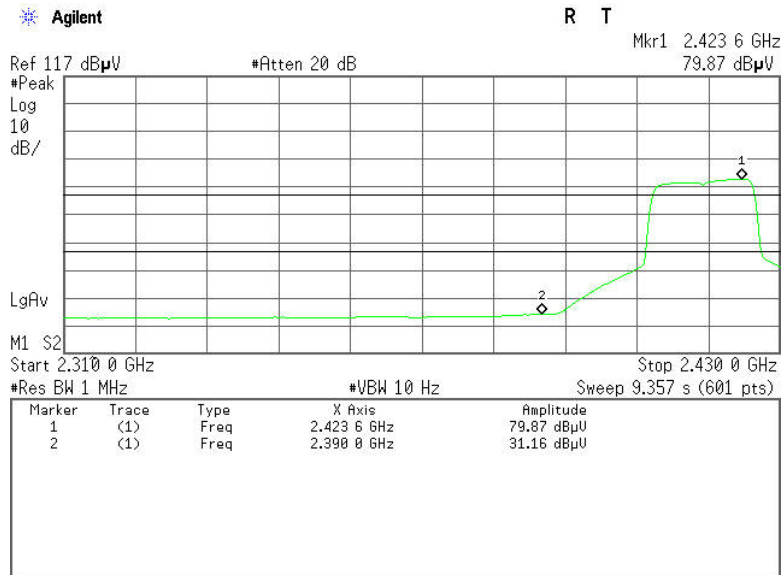
Detector mode: Peak

Polarity: Vertical



Detector mode: Average

Polarity: Vertical

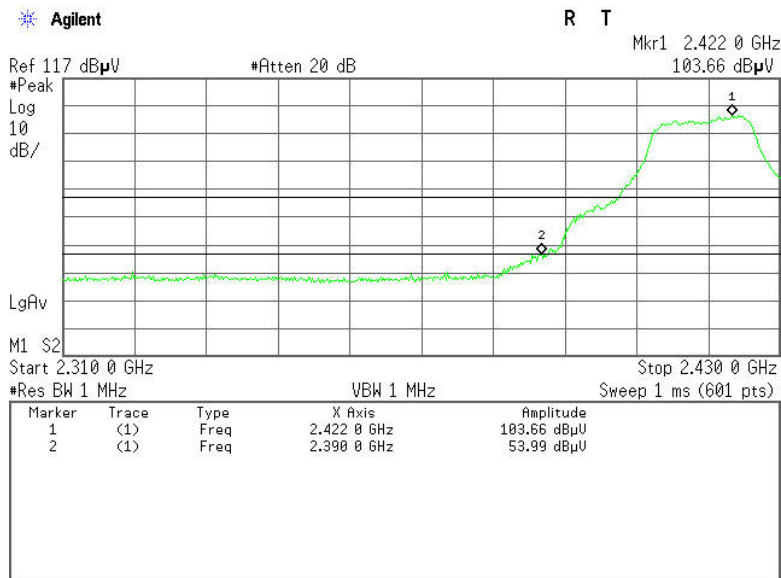


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	36.90	-6.60	43.50	74.00	-30.50	Peak	Vertical
2	2390.0000	24.56	-6.60	31.16	54.00	-22.84	Average	Vertical



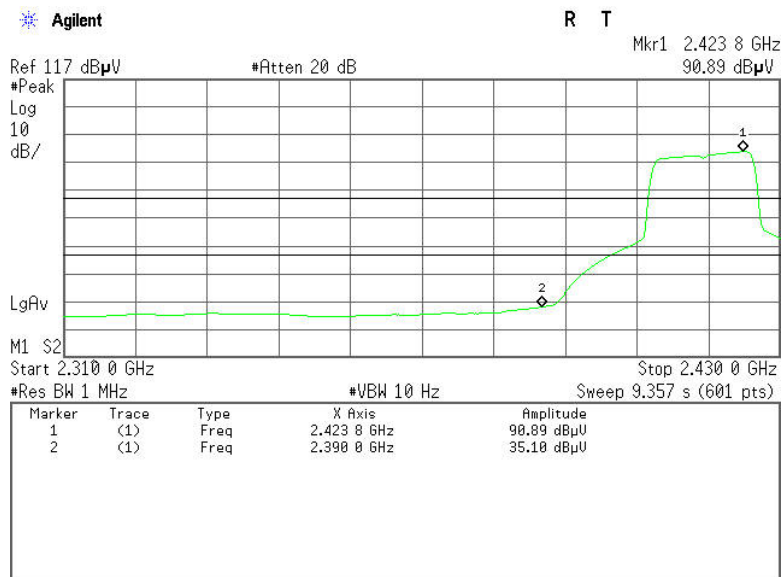
Detector mode: Peak

Polarity: Horizontal



Detector mode: Average

Polarity: Horizontal



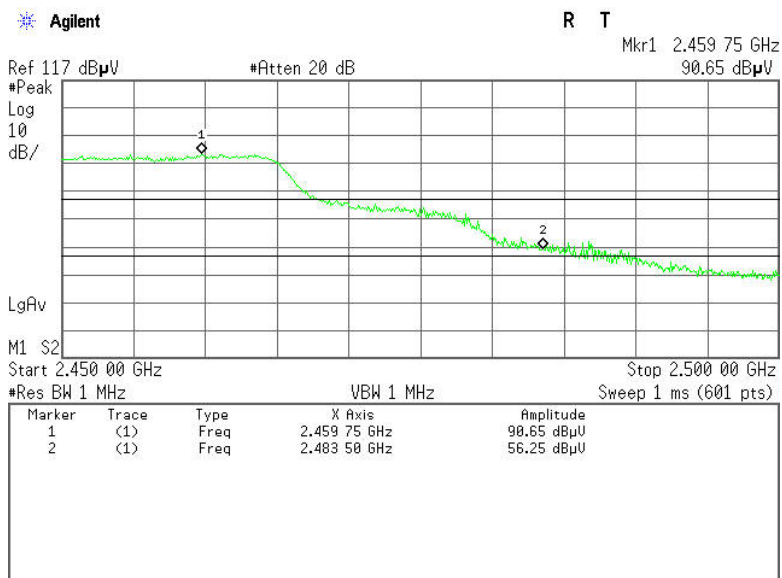
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	47.39	-6.60	53.99	74.00	-20.01	Peak	Horizontal
2	2390.0000	28.50	-6.60	35.10	54.00	-18.90	Average	Horizontal



Band Edges (CH High: 2457MHz)

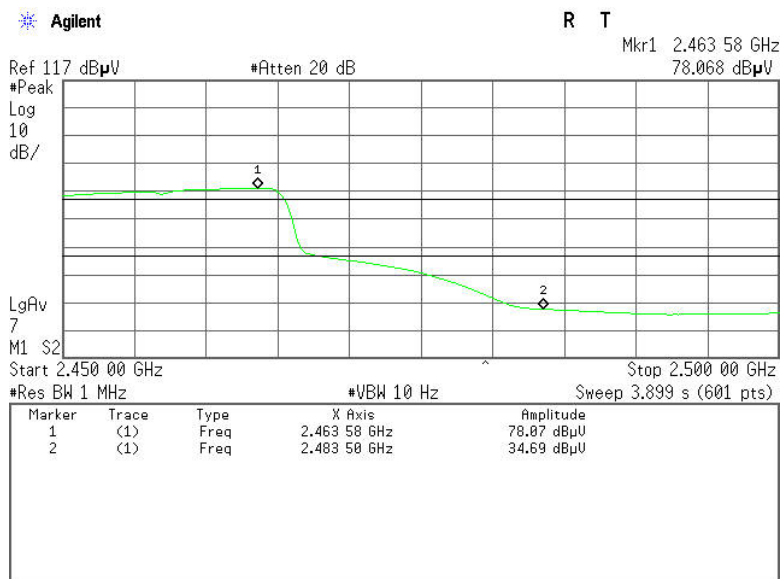
Detector mode: Peak

Polarity: Vertical



Detector mode: Average

Polarity: Vertical

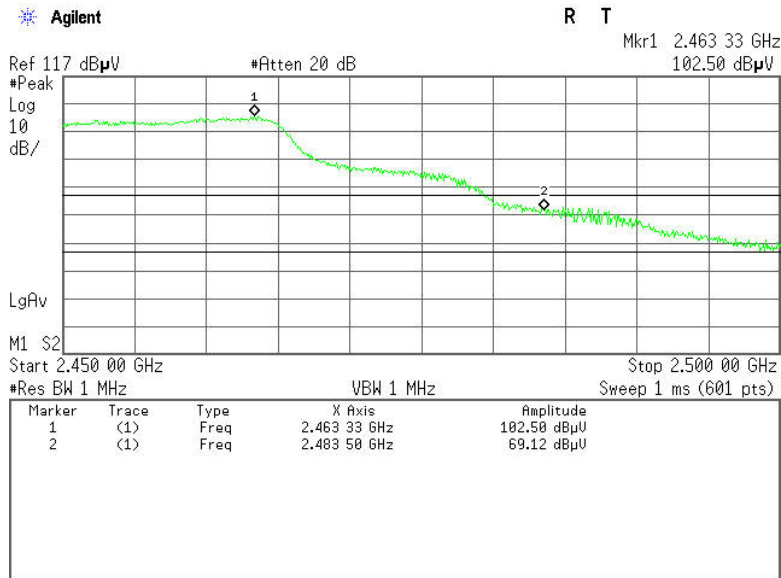


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	50.01	-6.24	56.25	74.00	-17.75	Peak	Vertical
2	2483.5000	28.45	-6.24	34.69	54.00	-19.31	AVG	Vertical



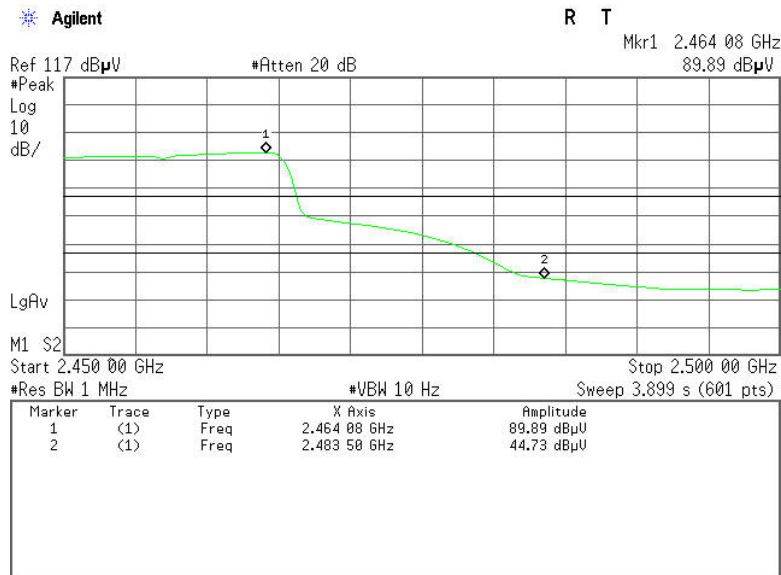
Detector mode: Peak

Polarity: Horizontal



Detector mode: Average

Polarity: Horizontal



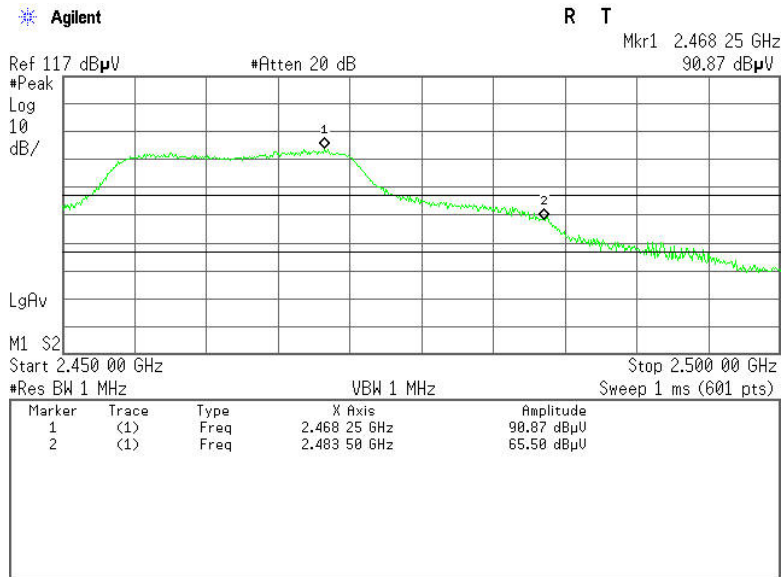
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	62.88	-6.24	69.12	74.00	-4.88	Peak	Horizontal
2	2483.5000	38.49	-6.24	44.73	54.00	-9.27	AVG	Horizontal



Band Edges (CH High: 2462MHz)

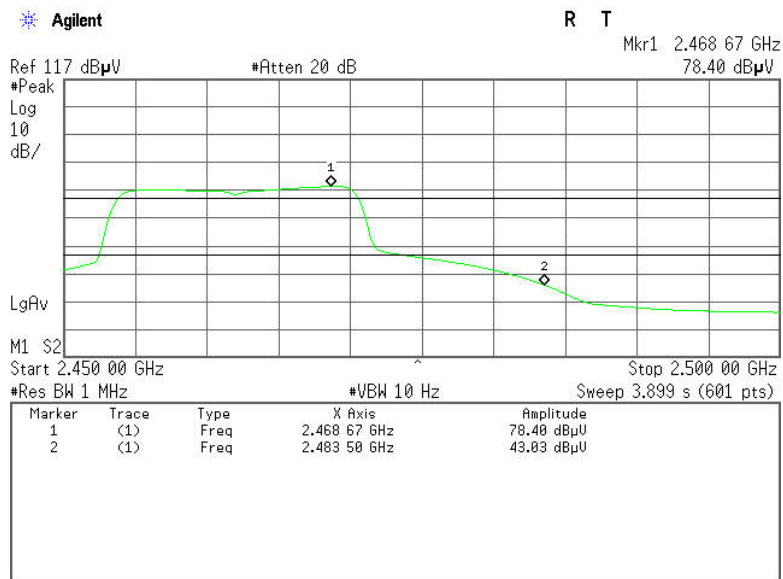
Detector mode: Peak

Polarity: Vertical



Detector mode: Average

Polarity: Vertical

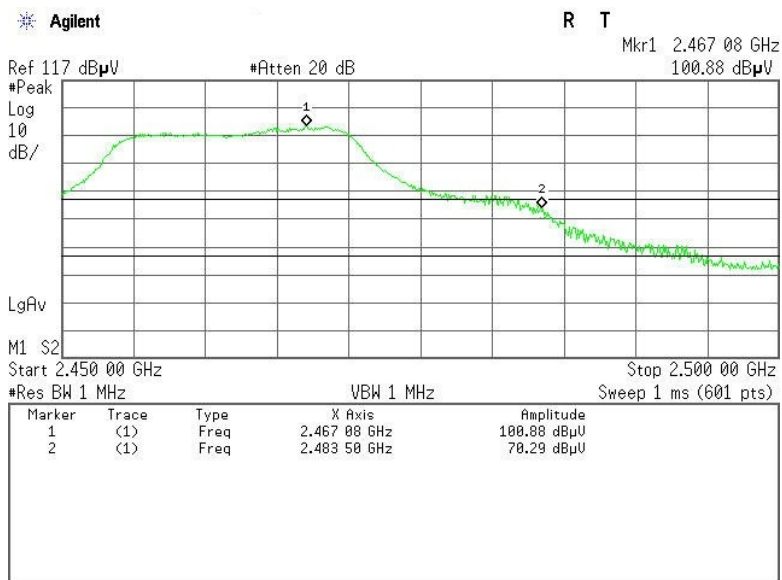


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	59.26	-6.24	65.50	74.00	-8.50	Peak	Vertical
2	2483.5000	36.79	-6.24	43.03	54.00	-10.97	AVG	Vertical



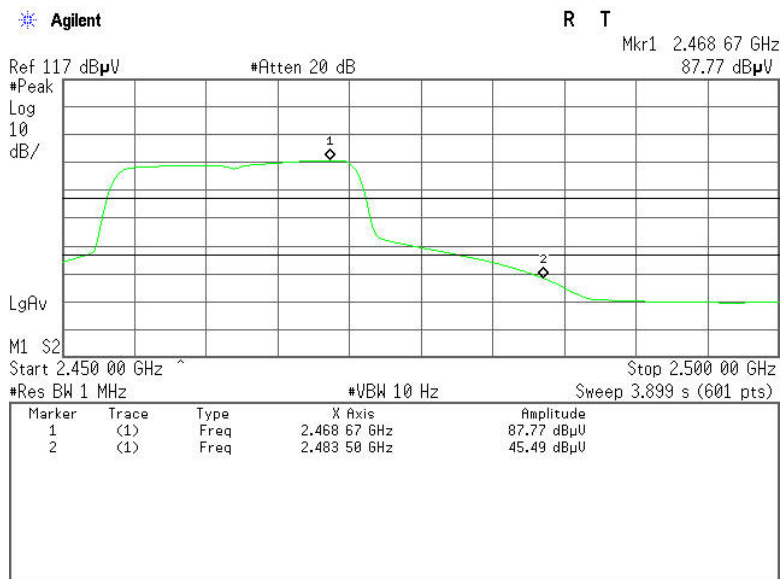
Detector mode: Peak

Polarity: Horizontal



Detector mode: Average

Polarity: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	64.05	-6.24	70.29	74.00	-3.71	Peak	Horizontal
2	2483.5000	39.25	-6.24	45.49	54.00	-8.51	AVG	Horizontal



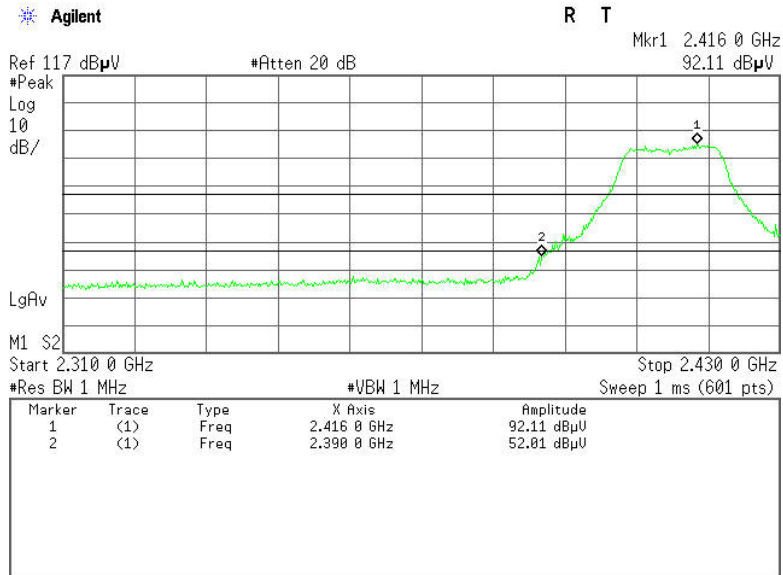
Antenna 1

IEEE 802.11g mode

Band Edges (CH Low:2412MHz)

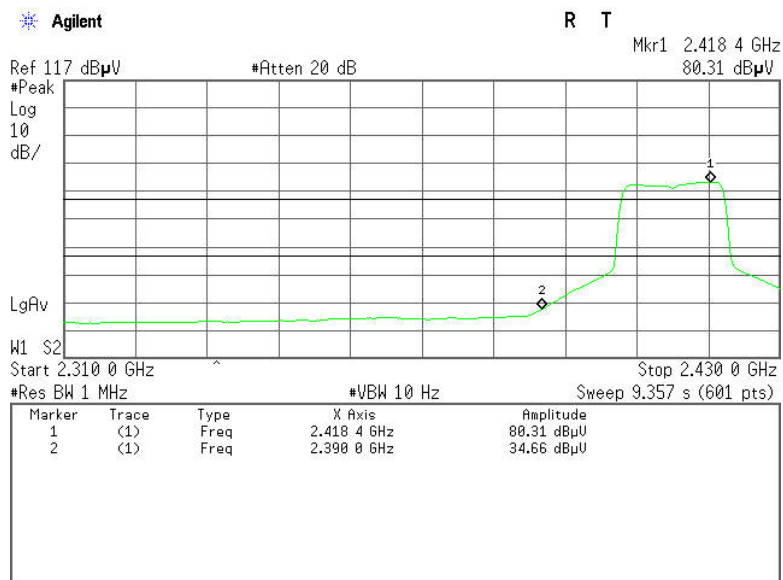
Detector mode: Peak

Polarity: Vertical



Detector mode: Average

Polarity: Vertical

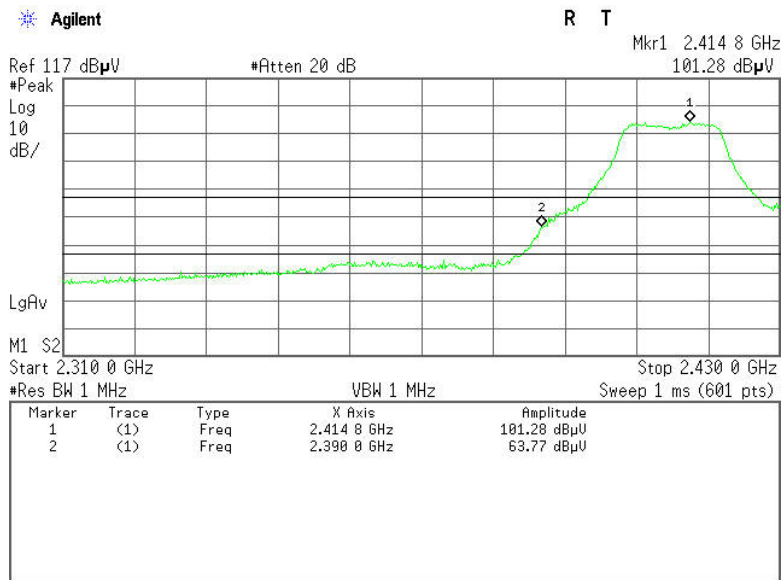


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	45.41	-6.60	52.01	74.00	-21.99	Peak	Vertical
2	2390.0000	28.06	-6.60	34.66	54.00	-19.34	Average	Vertical



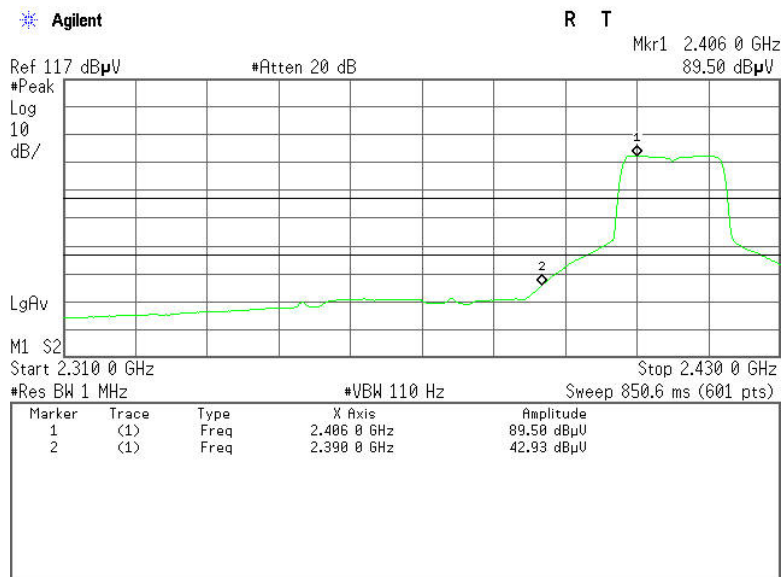
Detector mode: Peak

Polarity: Horizontal



Detector mode: Average

Polarity: Horizontal



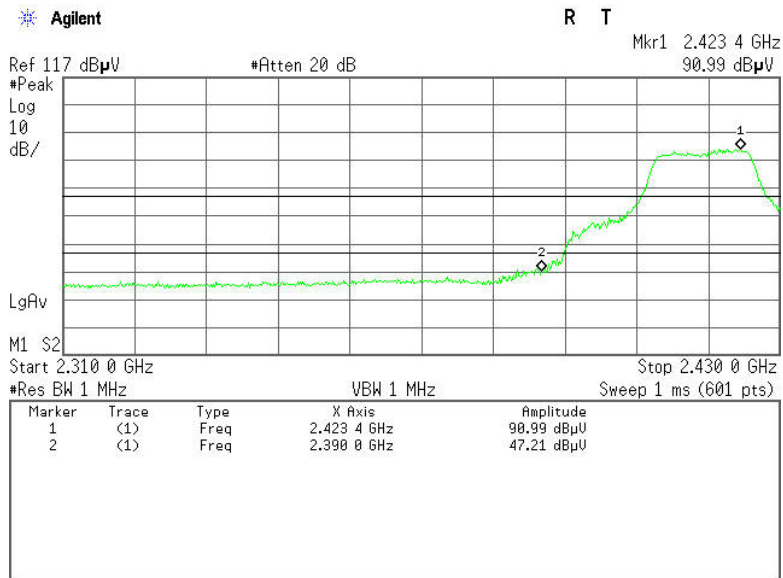
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	57.17	-6.60	63.77	74.00	-10.23	Peak	Horizontal
2	2390.0000	36.33	-6.60	42.93	54.00	-11.07	Average	Horizontal



Band Edges (CH Low:2417MHz)

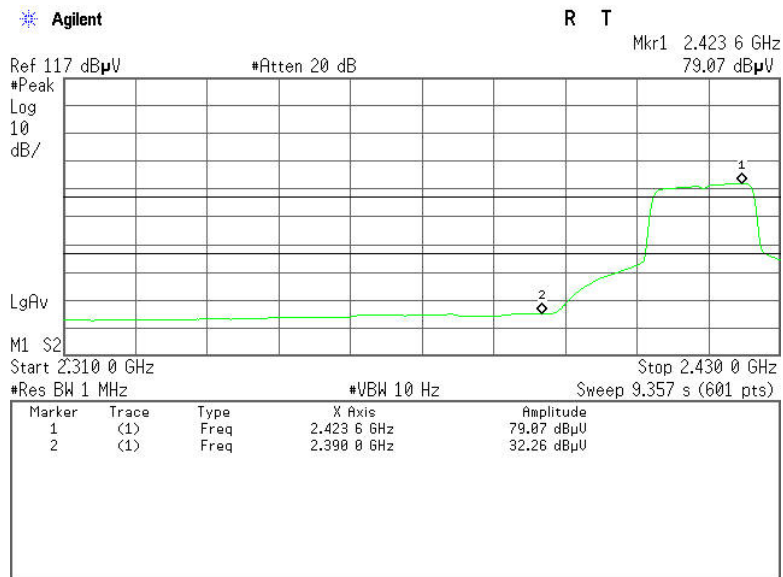
Detector mode: Peak

Polarity: Vertical



Detector mode: Average

Polarity: Vertical

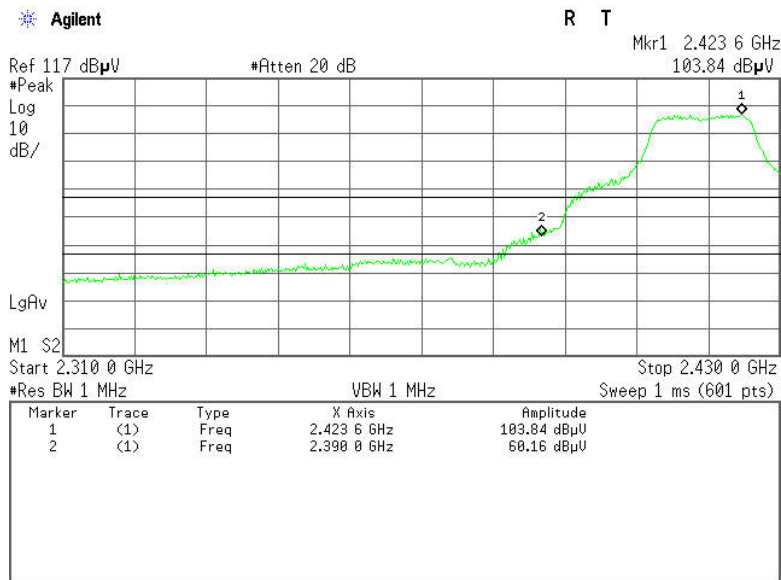


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	40.61	-6.60	47.21	74.00	-26.79	Peak	Vertical
2	2390.0000	25.66	-6.60	32.26	54.00	-21.74	Average	Vertical



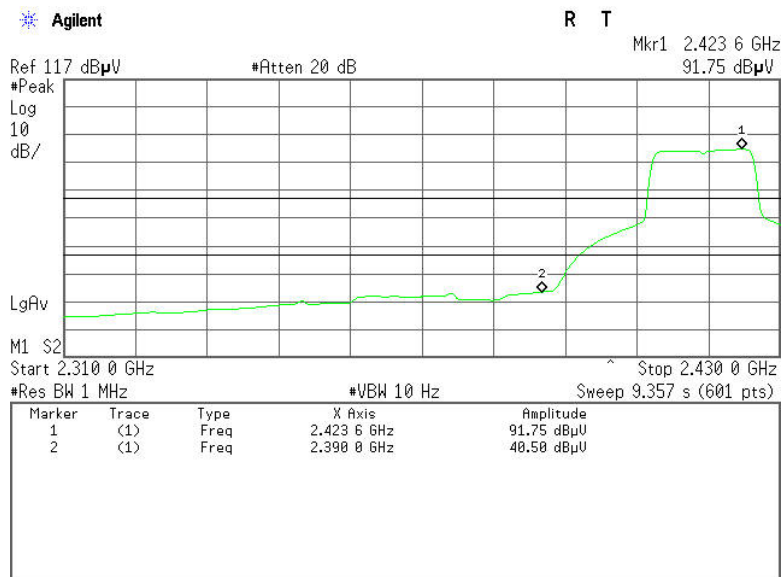
Detector mode: Peak

Polarity: Horizontal



Detector mode: Average

Polarity: Horizontal



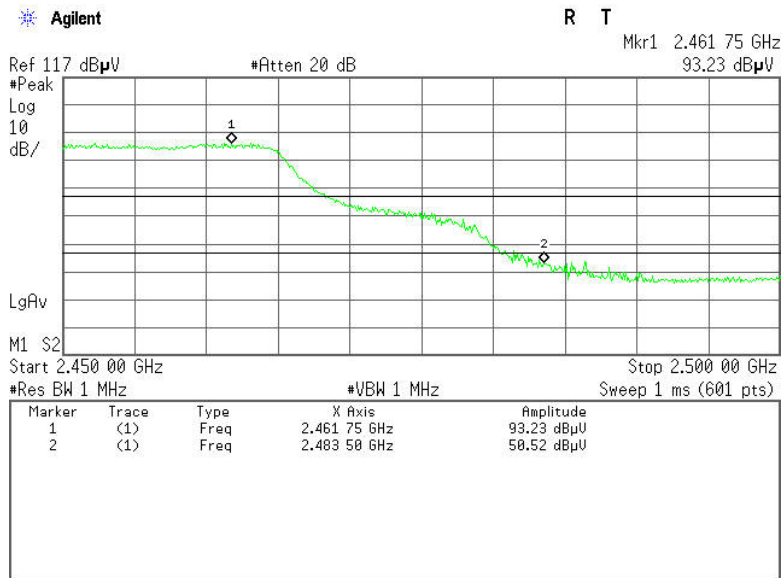
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	53.56	-6.60	60.16	74.00	-13.84	Peak	Horizontal
2	2390.0000	33.90	-6.60	40.50	54.00	-13.50	Average	Horizontal



Band Edges (CH High: 2457MHz)

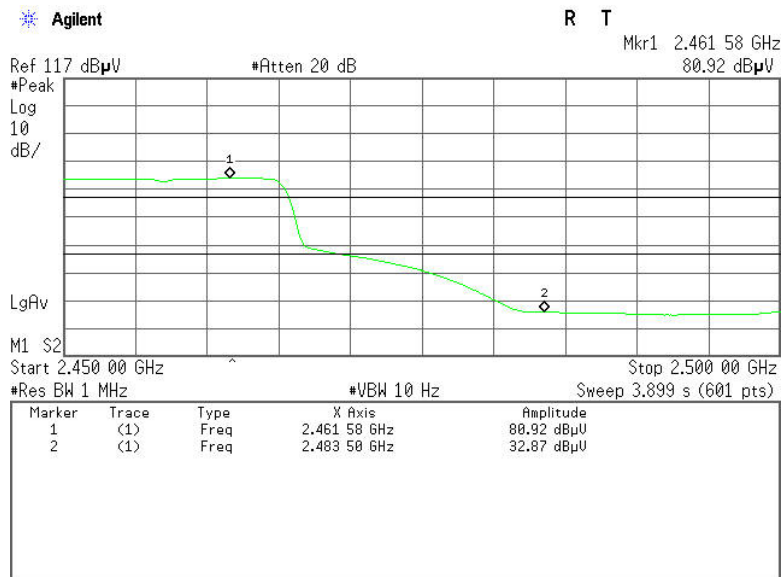
Detector mode: Peak

Polarity: Vertical



Detector mode: Average

Polarity: Vertical

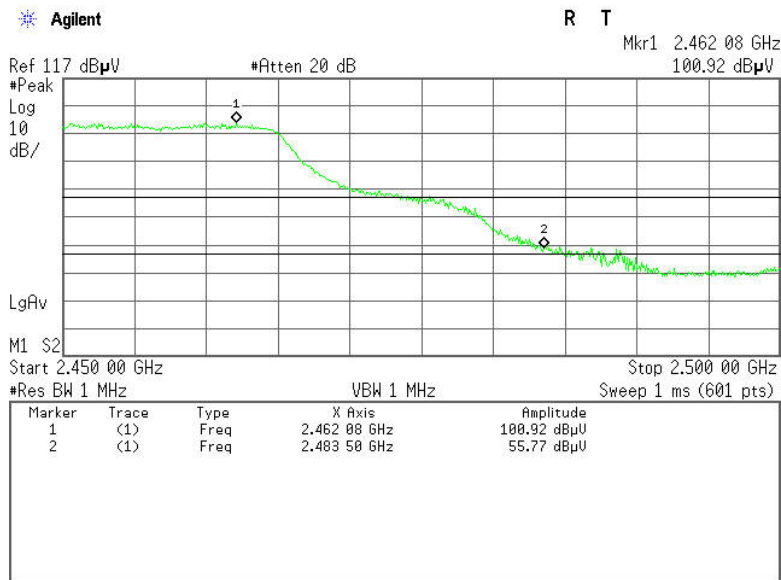


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	44.28	-6.24	50.52	74.00	-23.48	Peak	Vertical
2	2483.5000	26.63	-6.24	32.87	54.00	-21.13	AVG	Vertical



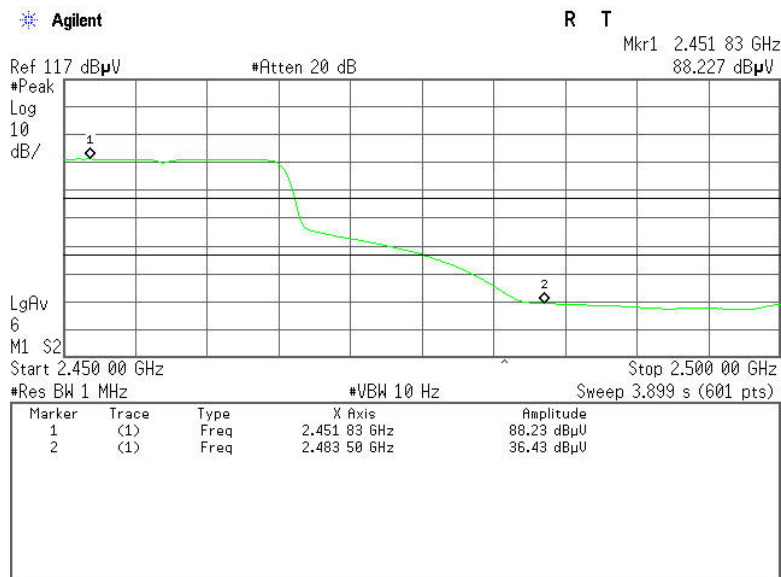
Detector mode: Peak

Polarity: Horizontal



Detector mode: Average

Polarity: Horizontal



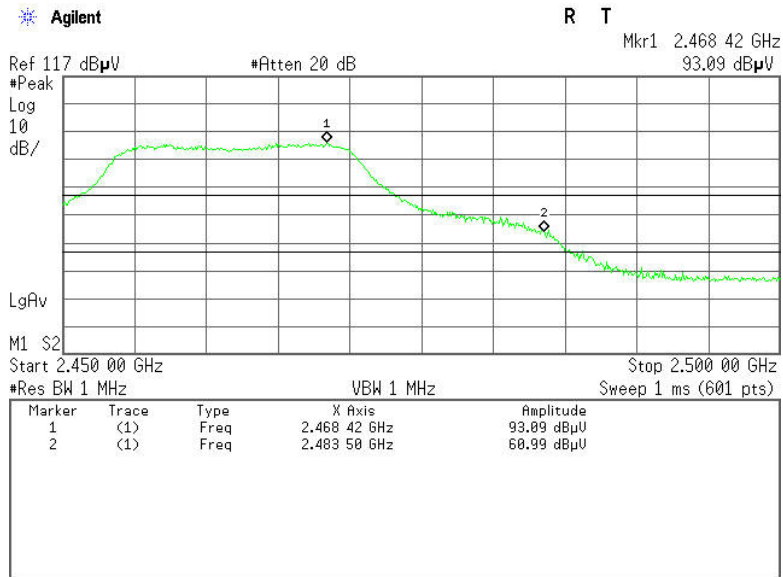
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	49.53	-6.24	55.77	74.00	-18.23	Peak	Horizontal
2	2483.5000	30.19	-6.24	36.43	54.00	-17.57	AVG	Horizontal



Band Edges (CH High: 2462MHz)

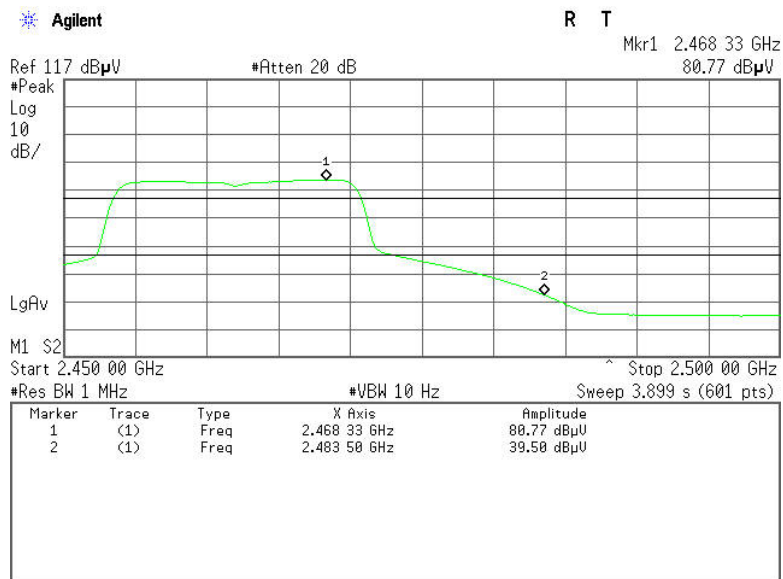
Detector mode: Peak

Polarity: Vertical



Detector mode: Average

Polarity: Vertical

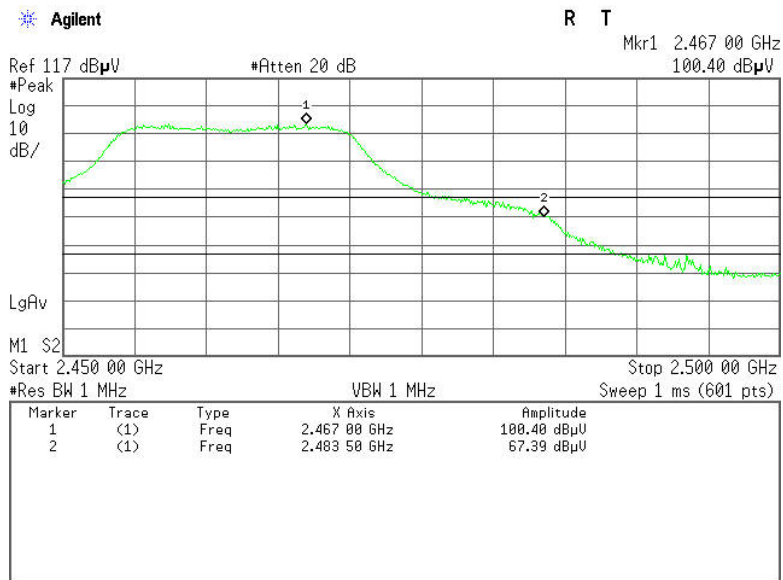


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	54.75	-6.24	60.99	74.00	-13.01	Peak	Vertical
2	2483.5000	33.26	-6.24	39.50	54.00	-14.50	AVG	Vertical



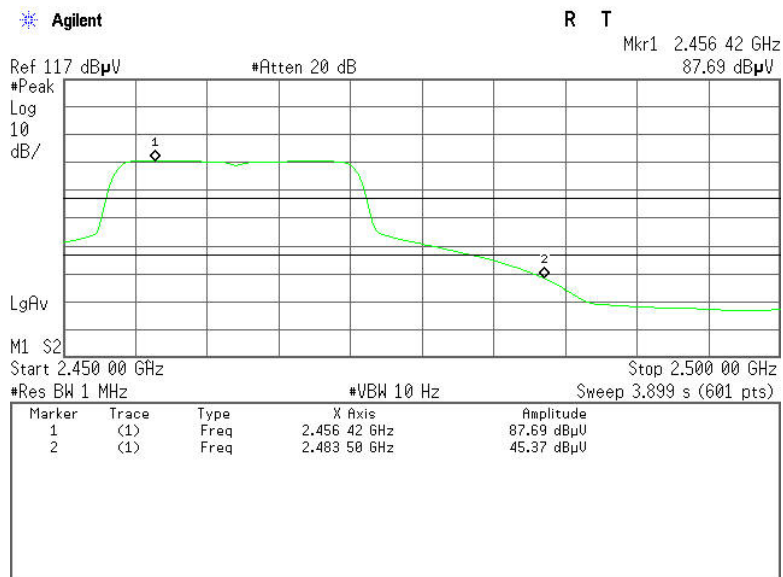
Detector mode: Peak

Polarity: Horizontal



Detector mode: Average

Polarity: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	61.15	-6.24	67.39	74.00	-6.61	Peak	Horizontal
2	2483.5000	39.13	-6.24	45.37	54.00	-8.63	AVG	Horizontal



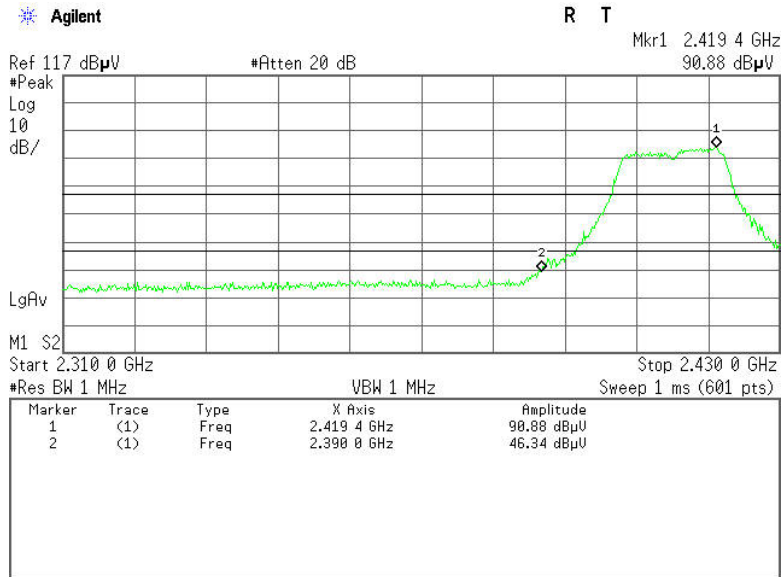
Antenna 0 + Antenna 1

IEEE 802.11n HT20 MHz mode

Band Edges (CH Low: 2412MHz)

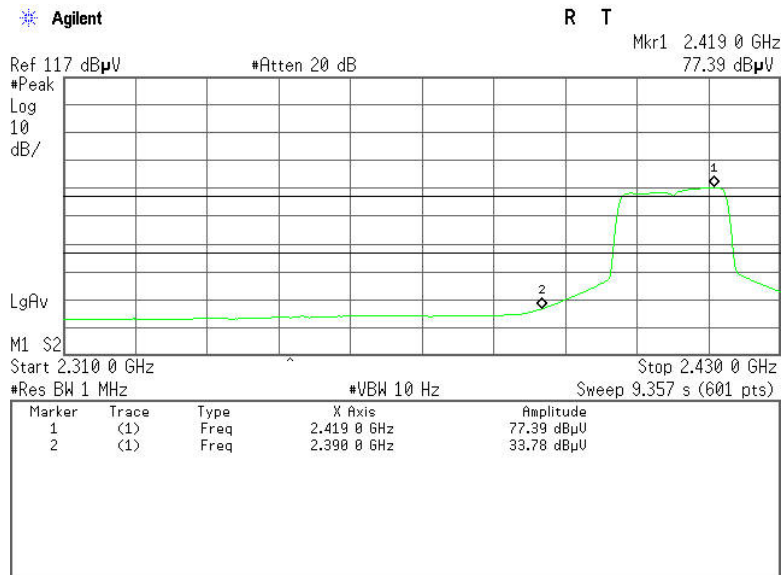
Detector mode: Peak

Polarity: Vertical



Detector mode: Average

Polarity: Vertical

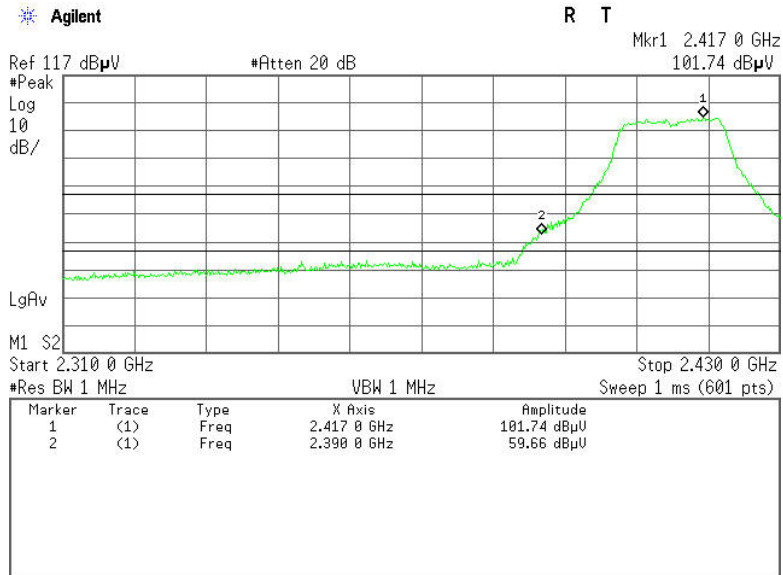


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	39.74	-6.60	46.34	74.00	-27.66	Peak	Vertical
2	2390.0000	27.18	-6.60	33.78	54.00	-20.22	Average	Vertical



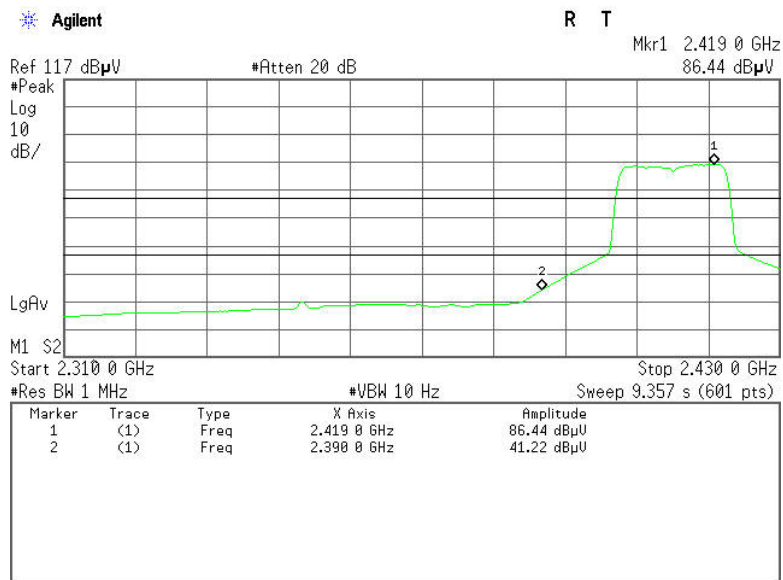
Detector mode: Peak

Polarity: Horizontal



Detector mode: Average

Polarity: Horizontal



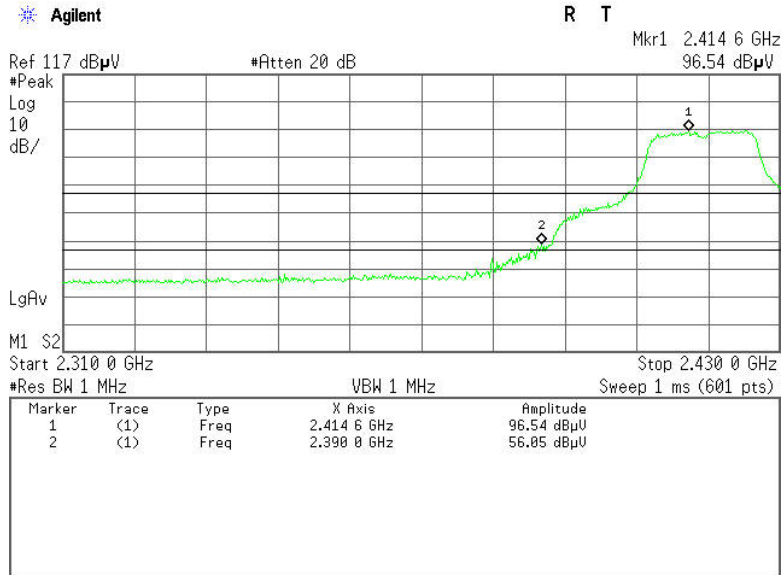
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	53.06	-6.60	59.66	74.00	-14.34	Peak	Horizontal
2	2390.0000	34.62	-6.60	41.22	54.00	-12.78	Average	Horizontal



Band Edges (CH Low: 2417MHz)

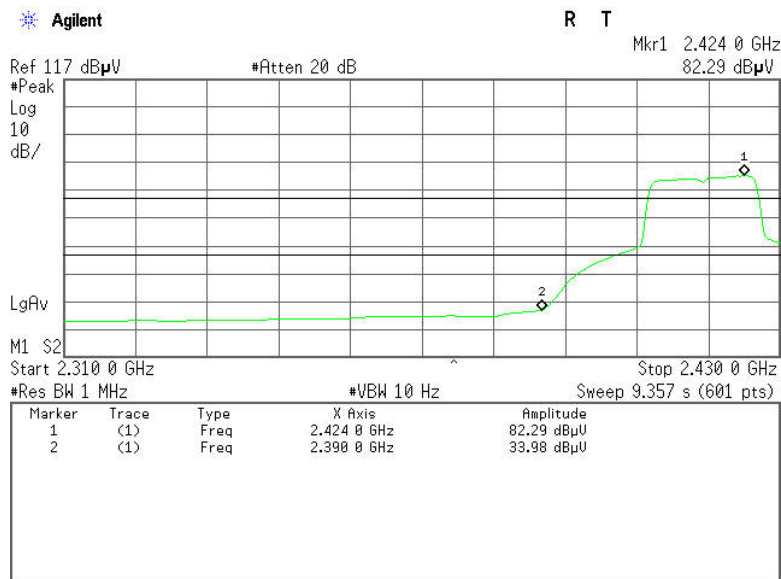
Detector mode: Peak

Polarity: Vertical



Detector mode: Average

Polarity: Vertical

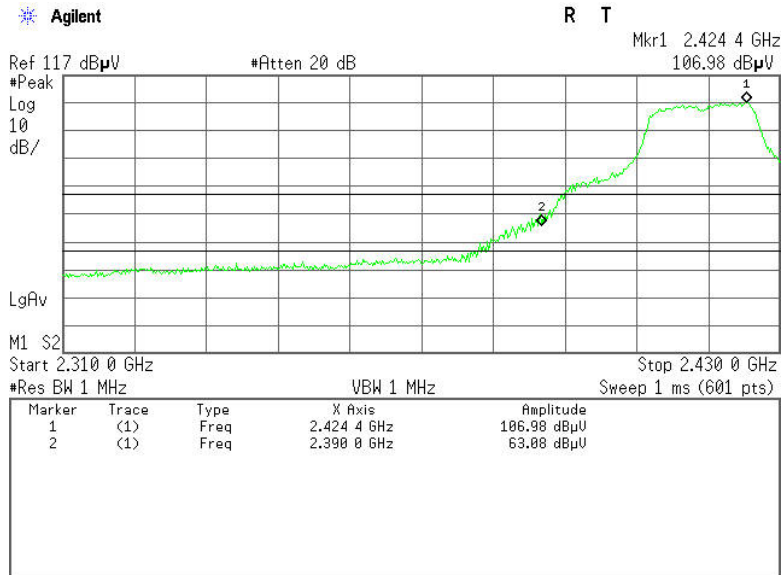


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	49.45	-6.60	56.05	74.00	-17.95	Peak	Vertical
2	2390.0000	27.38	-6.60	33.98	54.00	-20.02	Average	Vertical



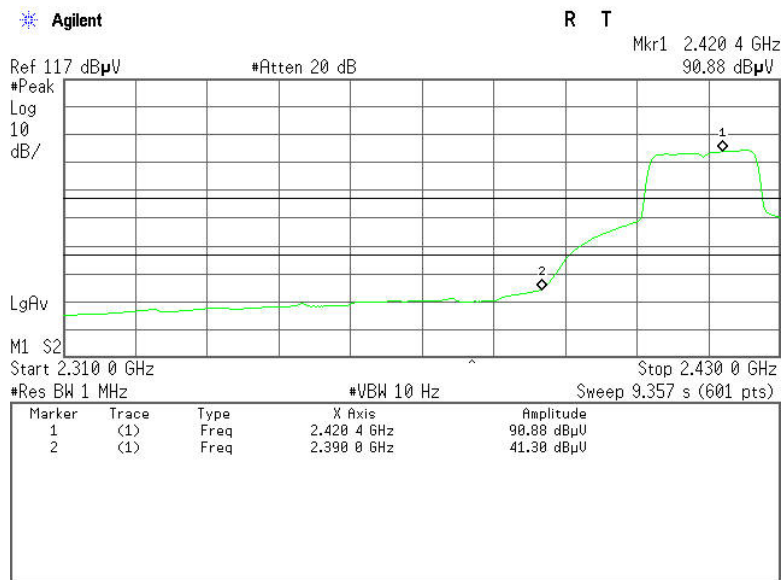
Detector mode: Peak

Polarity: Horizontal



Detector mode: Average

Polarity: Horizontal



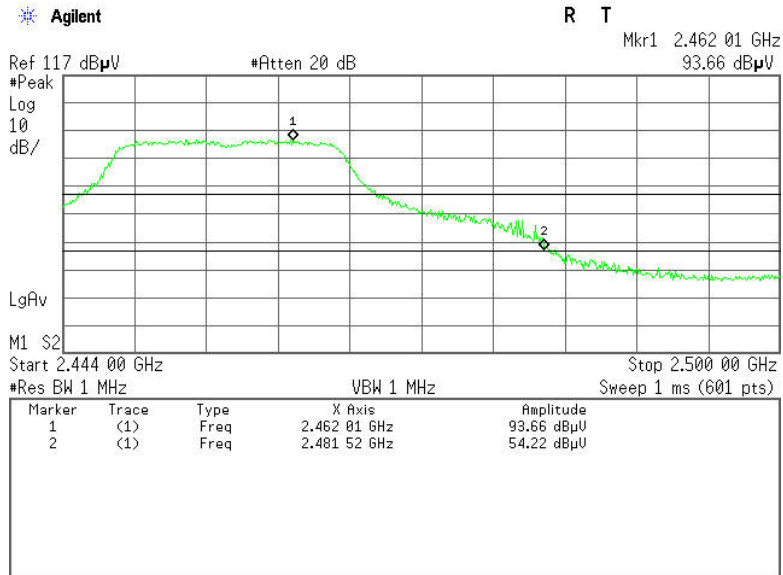
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	56.48	-6.60	63.08	74.00	-10.92	Peak	Horizontal
2	2390.0000	34.70	-6.60	41.30	54.00	-12.70	Average	Horizontal



Band Edges (CH High: 2457MHz)

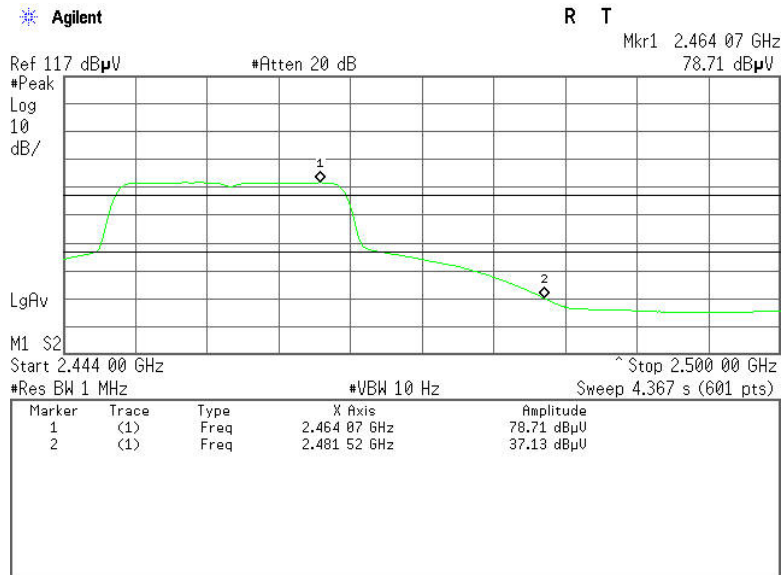
Detector mode: Peak

Polarity: Vertical



Detector mode: Average

Polarity: Vertical

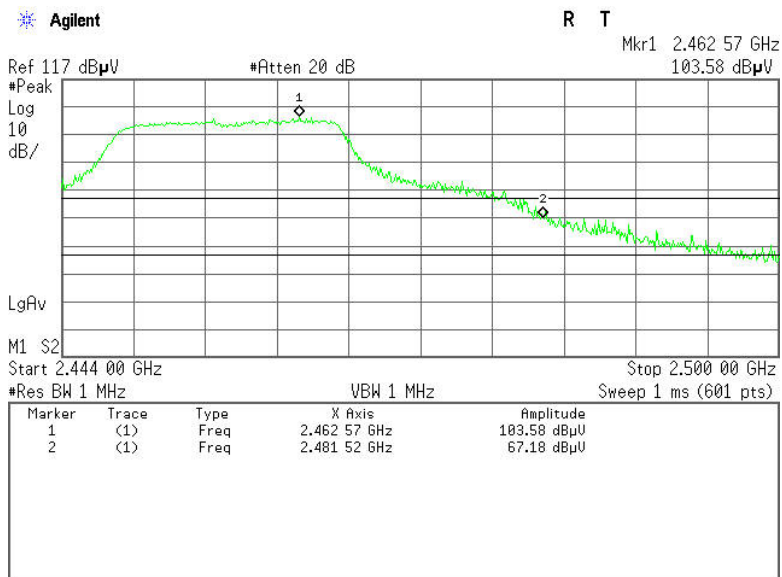


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	47.98	-6.24	54.22	74.00	-19.78	Peak	Vertical
2	2483.5000	30.89	-6.24	37.13	54.00	-16.87	AVG	Vertical



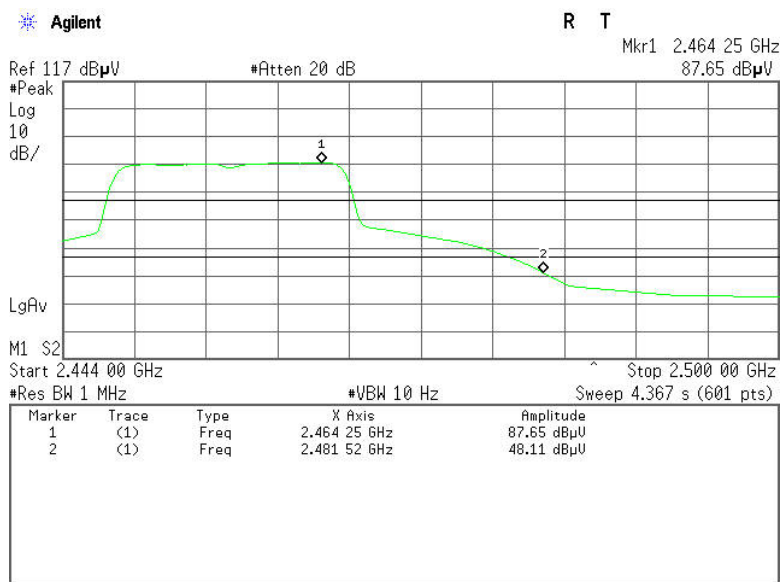
Detector mode: Peak

Polarity: Horizontal



Detector mode: Average

Polarity: Horizontal



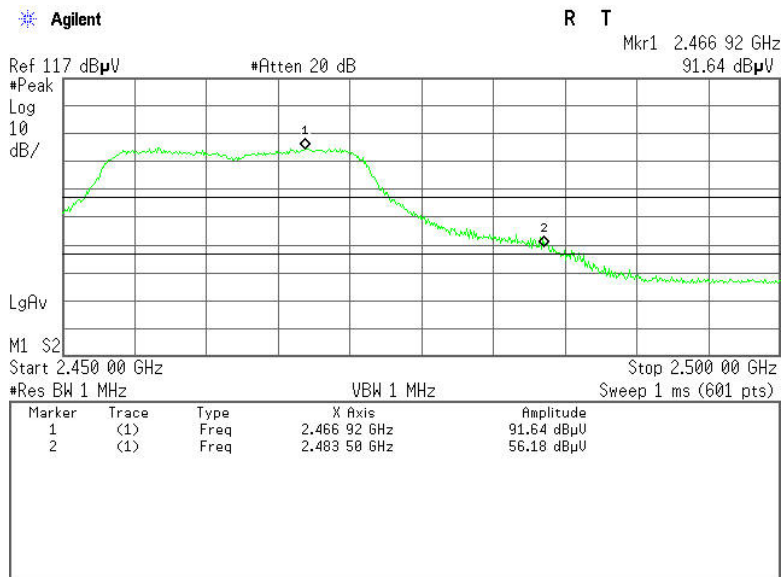
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	60.94	-6.24	67.18	74.00	-6.82	Peak	Horizontal
2	2483.5000	41.87	-6.24	48.11	54.00	-5.89	AVG	Horizontal



Band Edges (CH High: 2462MHz)

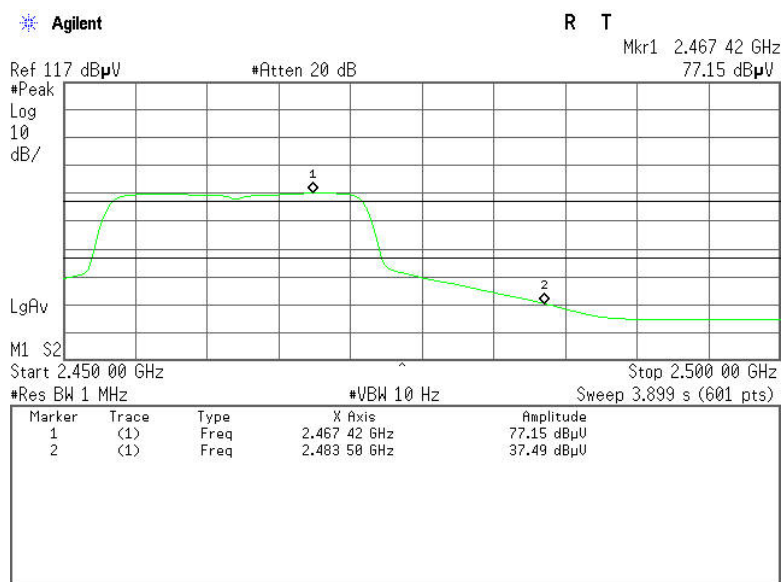
Detector mode: Peak

Polarity: Vertical



Detector mode: Average

Polarity: Vertical

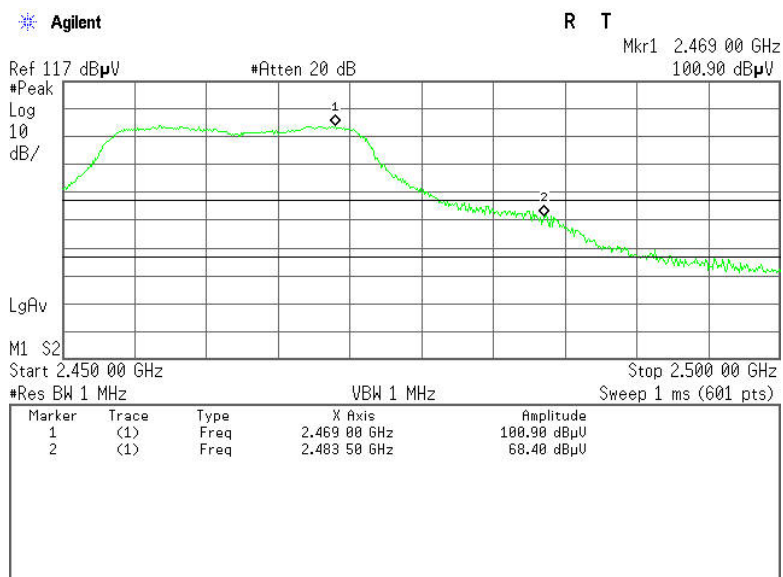


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	49.94	-6.24	56.18	74.00	-17.82	Peak	Vertical
2	2483.5000	31.25	-6.24	37.49	54.00	-16.51	AVG	Vertical



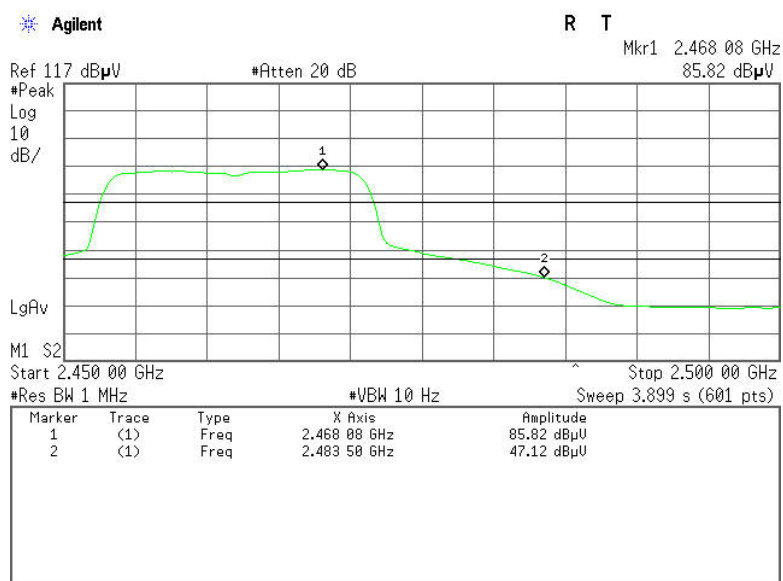
Detector mode: Peak

Polarity: Horizontal



Detector mode: Average

Polarity: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	62.16	-6.24	68.40	74.00	-5.60	Peak	Horizontal
2	2483.5000	40.88	-6.24	47.12	54.00	-6.88	AVG	Horizontal



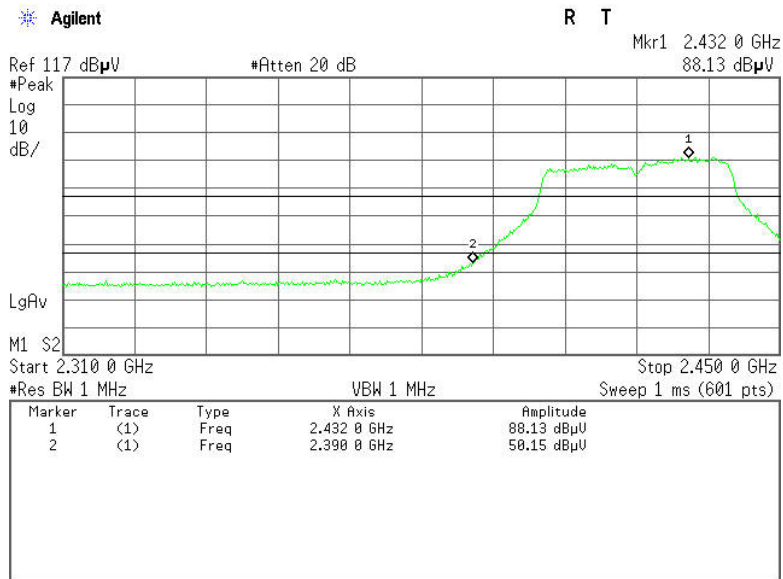
Antenna 0 + Antenna 1

IEEE 802.11n HT40 MHz mode

Band Edges (CH Low)

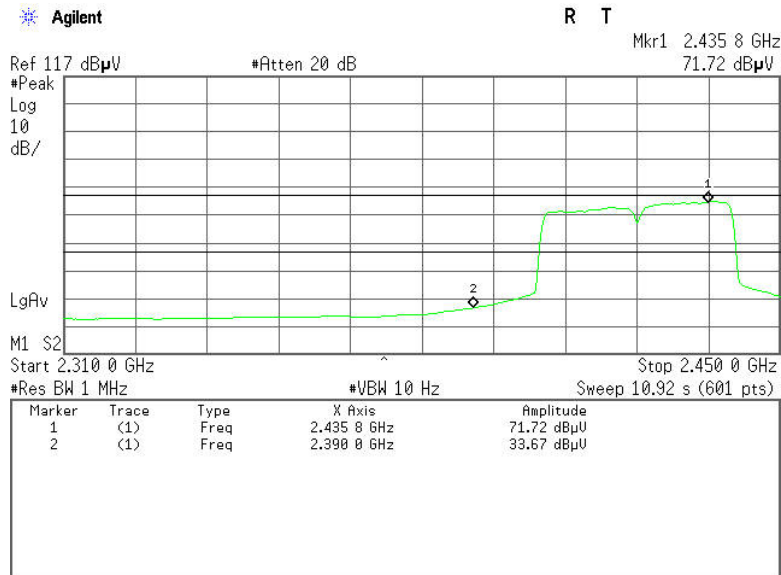
Detector mode: Peak

Polarity: Vertical



Detector mode: Average

Polarity: Vertical

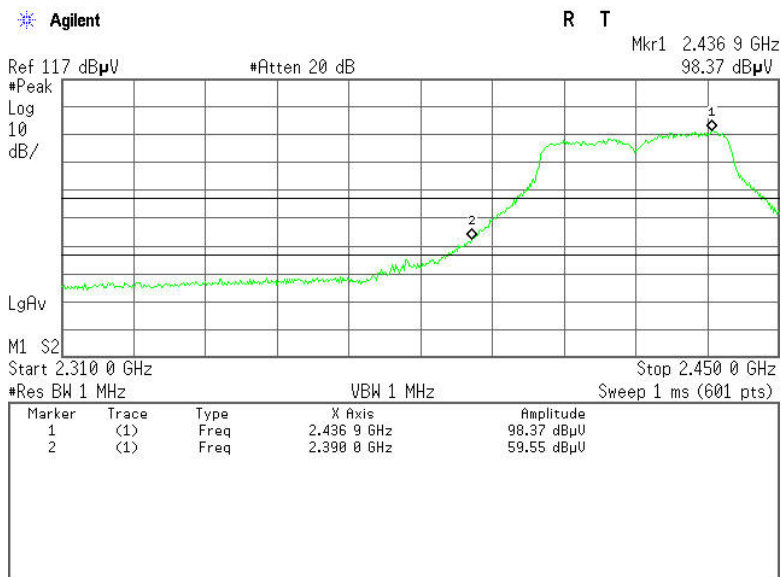


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	43.55	-6.60	50.15	74.00	-23.85	Peak	Vertical
2	2390.0000	27.07	-6.60	33.67	54.00	-20.33	Average	Vertical



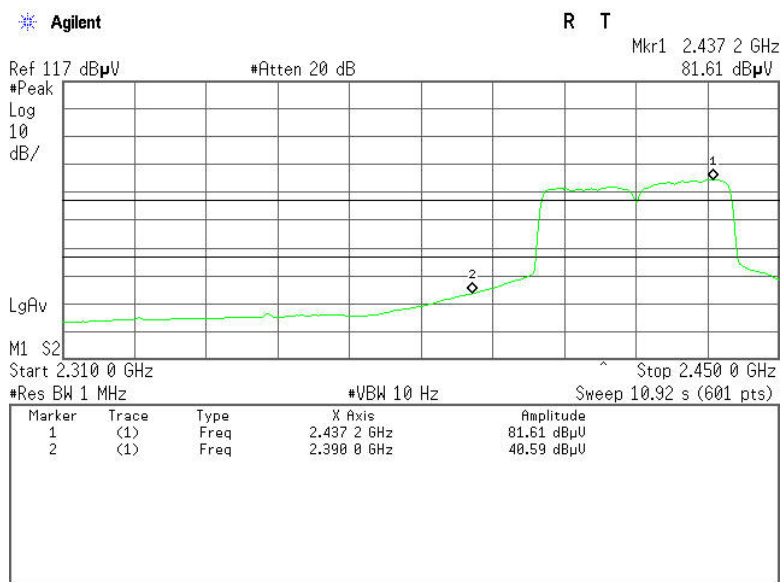
Detector mode: Peak

Polarity: Horizontal



Detector mode: Average

Polarity: Horizontal



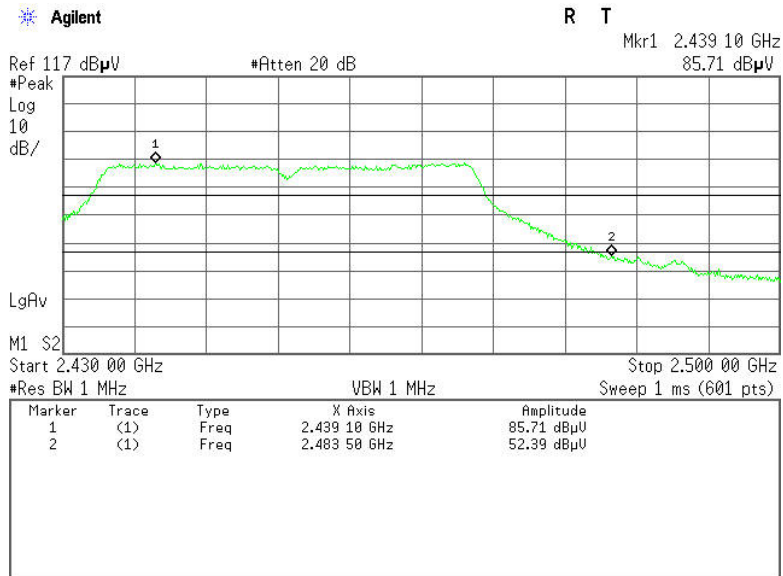
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	52.95	-6.60	59.55	74.00	-14.45	Peak	Horizontal
2	2390.0000	33.99	-6.60	40.59	54.00	-13.41	Average	Horizontal



Band Edges (CH High)

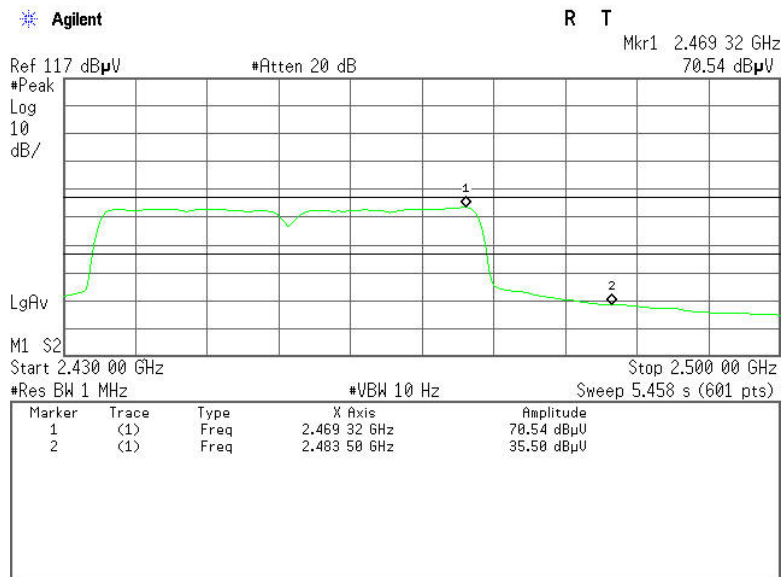
Detector mode: Peak

Polarity: Vertical



Detector mode: Average

Polarity: Vertical

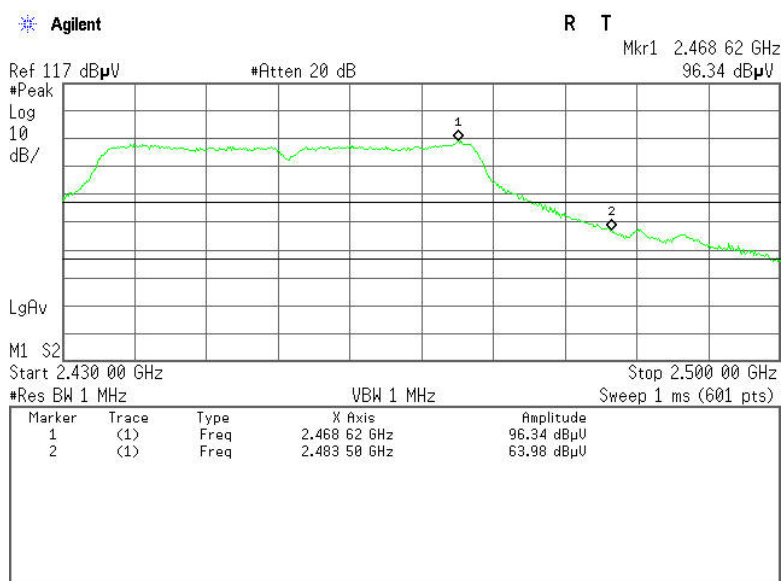


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	46.15	-6.24	52.39	74.00	-21.61	Peak	Vertical
2	2483.5000	29.26	-6.24	35.50	54.00	-18.50	AVG	Vertical



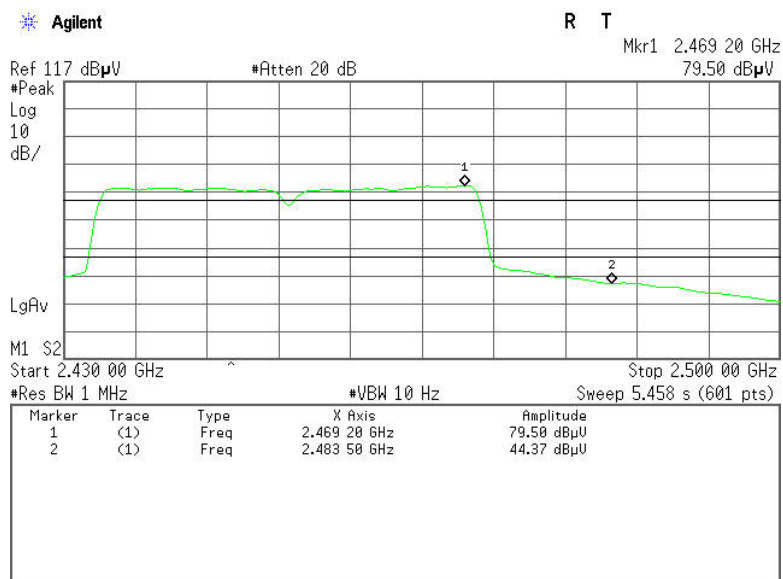
Detector mode: Peak

Polarity: Horizontal



Detector mode: Average

Polarity: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	57.74	-6.24	63.98	74.00	-10.02	Peak	Horizontal
2	2483.5000	38.13	-6.24	44.37	54.00	-9.63	AVG	Horizontal



7.6. PEAK POWER SPECTRAL DENSITY MEASUREMENT

7.6.1. LIMITS

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.

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.

7.6.2. TEST INSTRUMENTS

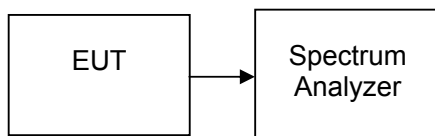
Name of Equipment	Manufacturer	Model	Serial Number	Last Calibration	Calibration Due
Spectrum Analyzer	Agilent	E4446A	US44300399	03/09/2013	03/08/2014

7.6.3. TEST PROCEDURES (please refer to measurement standard)

§15.247(e) specifies a conducted power spectral density (PSD) limit of 8 dBm in any 3 kHz band segment within the fundamental EBW during any time interval of continuous transmission. The same method as used to determine the conducted output power shall be used to determine the power spectral density (i.e., if peak-detected fundamental power was measured then use the peak PSD procedure and if average fundamental power was measured then use the average PSD procedure).

1. Use this procedure when the maximum peak conducted output power in the fundamental emission is used to demonstrate compliance.
2. Set the RBW = 100 kHz.
3. Set the VBW $\geq$ 300 kHz.
4. Set the span to 5-30 % greater than the EBW.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.
10. Scale the observed power level to an equivalent value in 3 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where $BWCF = 10\log(3 \text{ kHz}/100 \text{ kHz}) = -15.2 \text{ dB}$.
11. The resulting peak PSD level must be $\leq 8 \text{ dBm}$.

7.6.4. TEST SETUP



**7.6.5. TEST RESULTS***No non-compliance noted***Test Data****Antenna 0****Test mode: IEEE 802.11b**

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Test Result
Low	2412	-12.85	8	PASS
Mid	2437	-12.68		PASS
High	2462	-13.97		PASS

Antenna 1**Test mode: IEEE 802.11b**

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Test Result
Low	2412	-12.86	8	PASS
Mid	2437	-11.75		PASS
High	2462	-10.75		PASS

Antenna 0**Test mode: IEEE 802.11g**

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Test Result
Low	2412	-15.25	8	PASS
Mid	2437	-11.00		PASS
High	2462	-16.17		PASS

Antenna 1**Test mode: IEEE 802.11g**

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Test Result
Low	2412	-16.49	8	PASS
Mid	2437	-11.68		PASS
High	2462	-15.30		PASS

**Antenna 0 + Antenna 1****Test mode: IEEE 802.11n HT20 MHz**

Channel	Frequency (MHz)	PPSD (dBm)			Limit (dBm)	Test Result
		(Chain 0)	(Chain 1)	(Total)		
Low	2412	-17.85	-19.11	-15.42	8	PASS
Mid	2437	-13.55	-12.30	-9.87		PASS
High	2462	-20.55	-18.27	-16.25		PASS

Antenna 0 + Antenna 1**Test mode: IEEE 802.11n HT40 MHz**

Channel	Frequency (MHz)	PPSD (dBm)			Limit (dBm)	Test Result
		(Chain 0)	(Chain 1)	(Total)		
Low	2422	-22.14	-23.42	-19.72	8	PASS
Mid	2437	-23.96	-25.53	-21.66		PASS
High	2452	-22.86	-25.08	-20.82		PASS

Note : Combine Power Calculation :

$$\text{Total PPSS(dBm)} = \log(10^{(\text{chain 0 PPSS}/10)} + 10^{(\text{chain 1 PPSS}/10)}) * 10$$

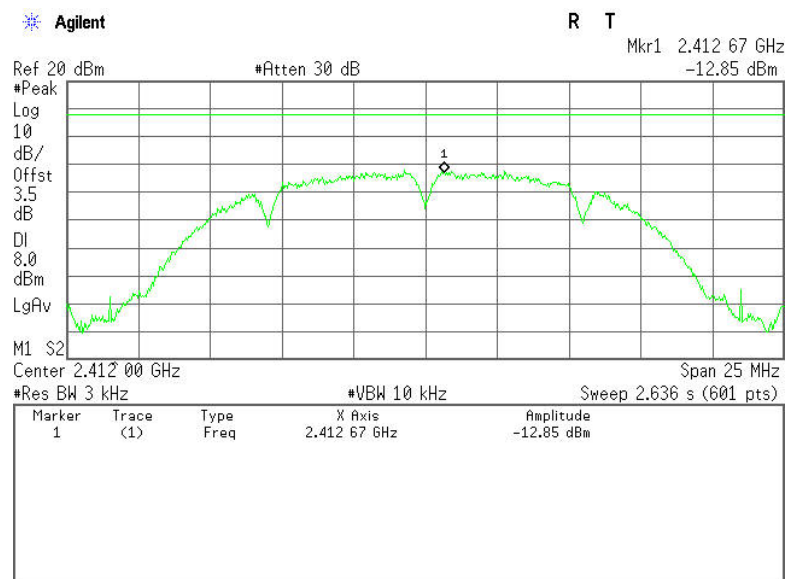


Test Plot

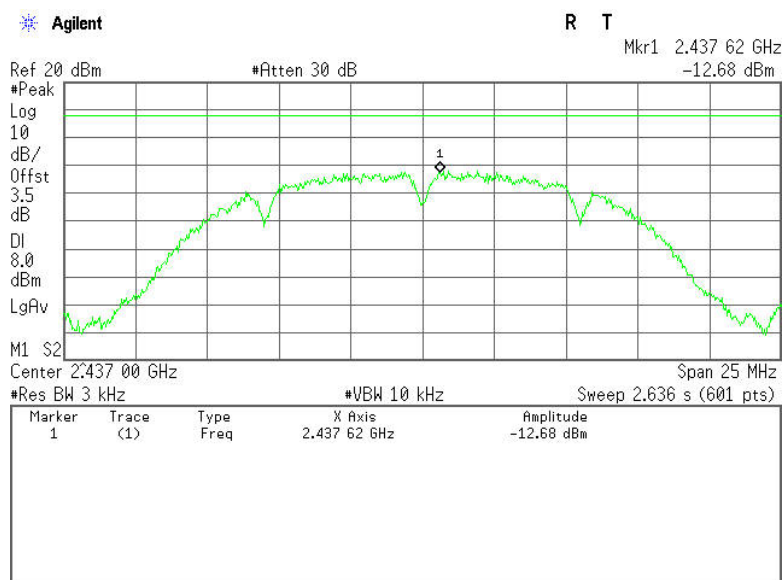
Antenna 0

IEEE 802.11b mode

PPSD (CH Low)

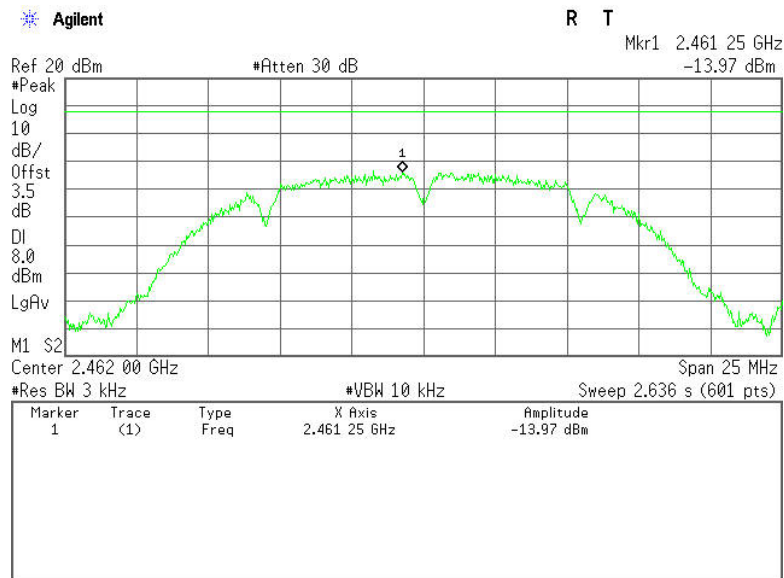


PPSD (CH Mid)





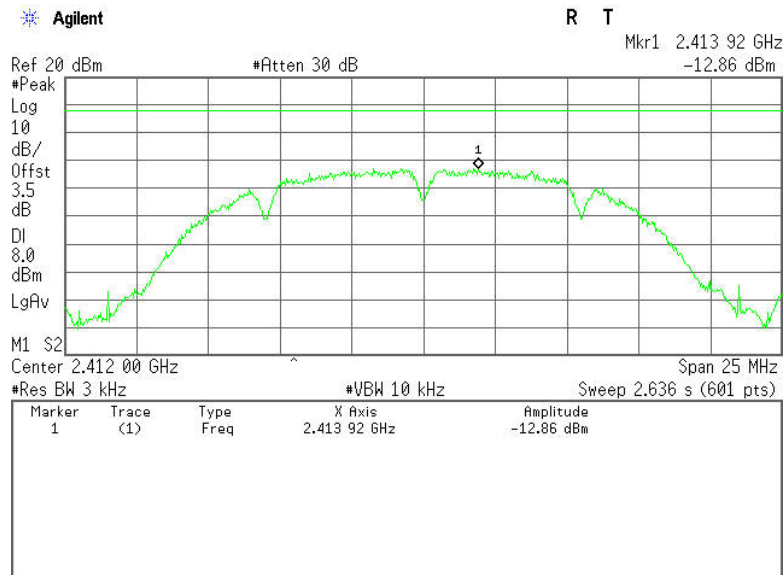
PPSD (CH High)



Antenna 1

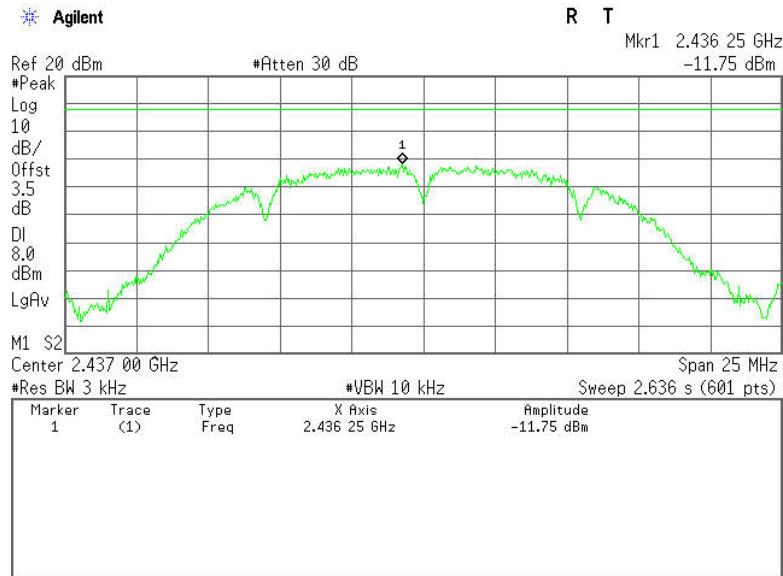
IEEE 802.11b mode

PPSD (CH Low)

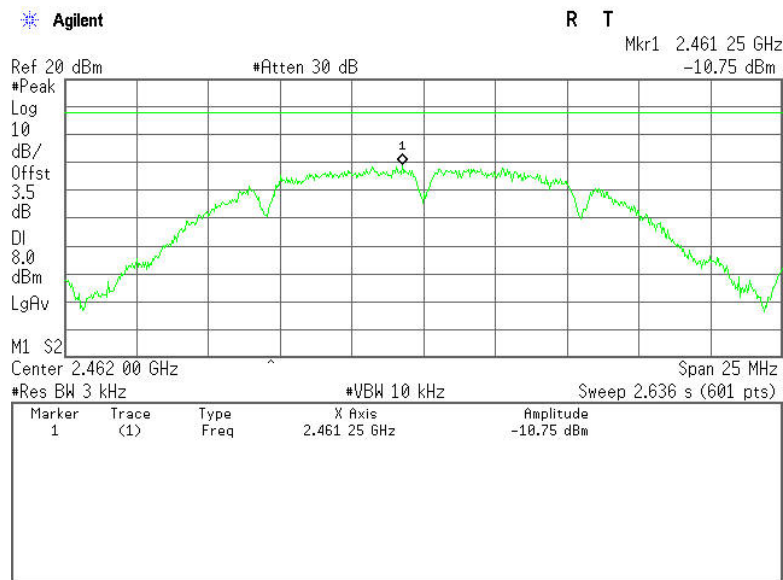




PPSD (CH Mid)



PPSD (CH High)

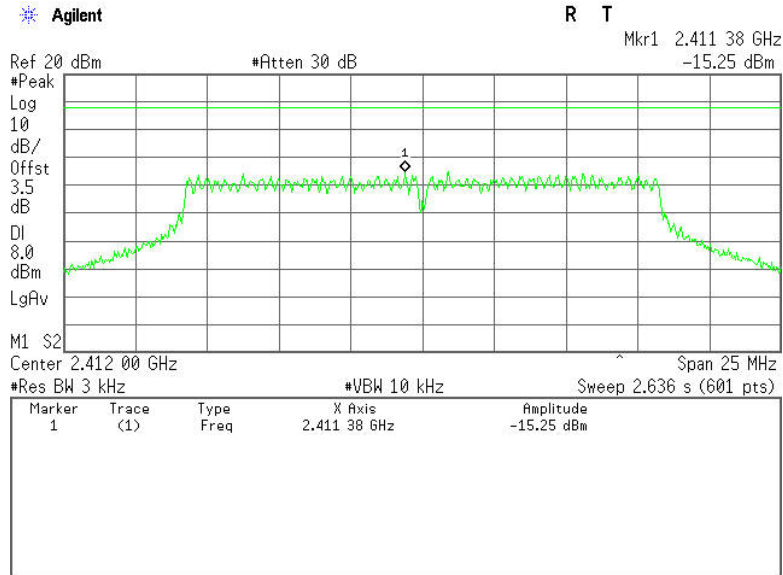




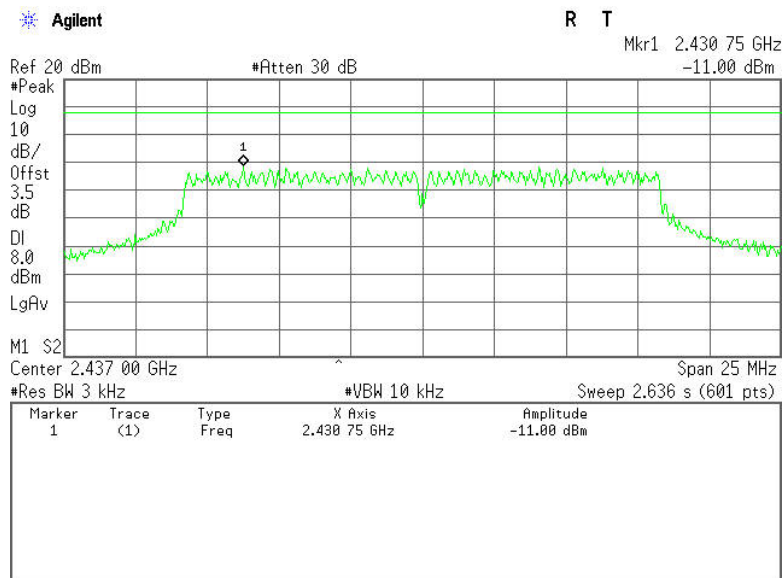
Antenna 0

IEEE 802.11g mode

PPSD (CH Low)

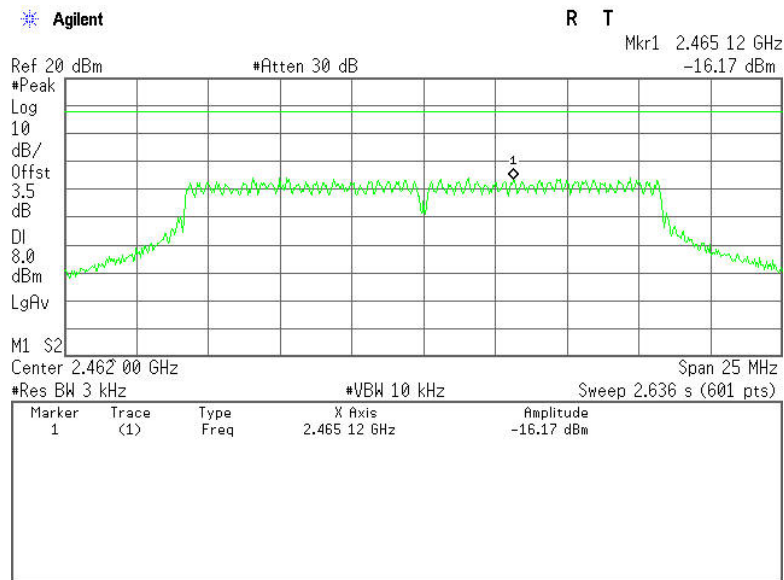


PPSD (CH Mid)





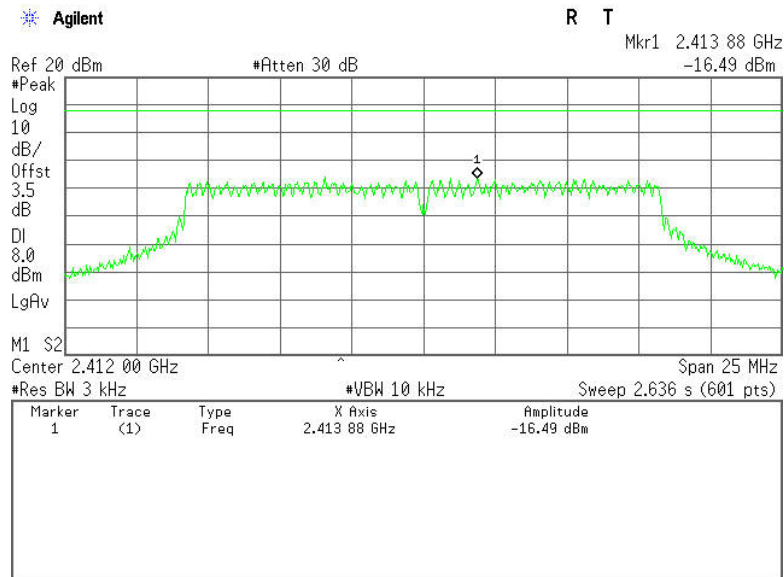
PPSD (CH High)



Antenna 1

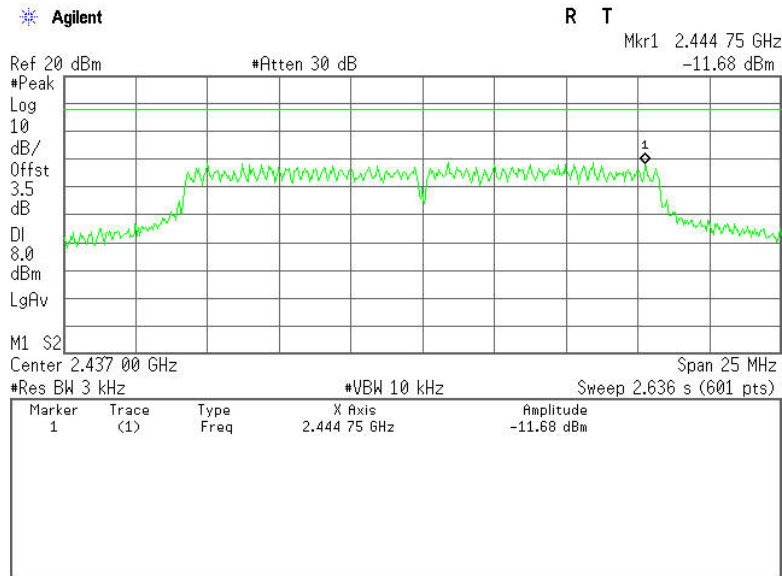
IEEE 802.11g mode

PPSD (CH Low)

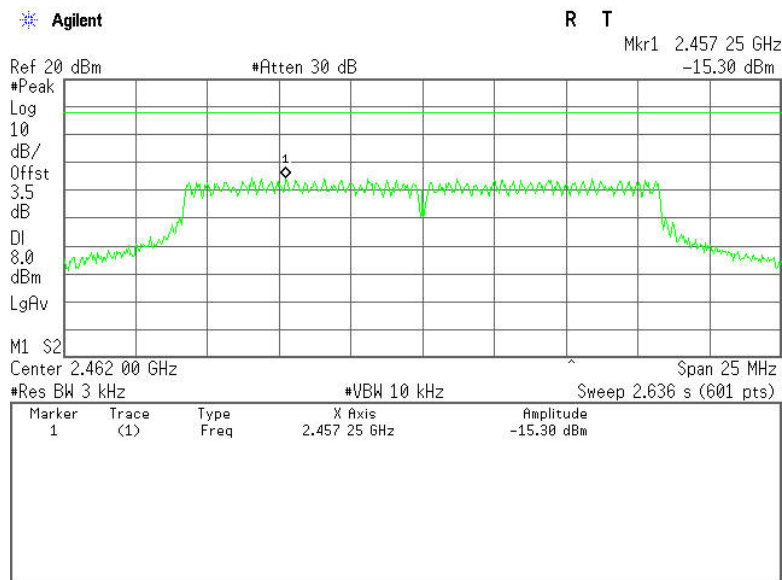




PPSD (CH Mid)



PPSD (CH High)

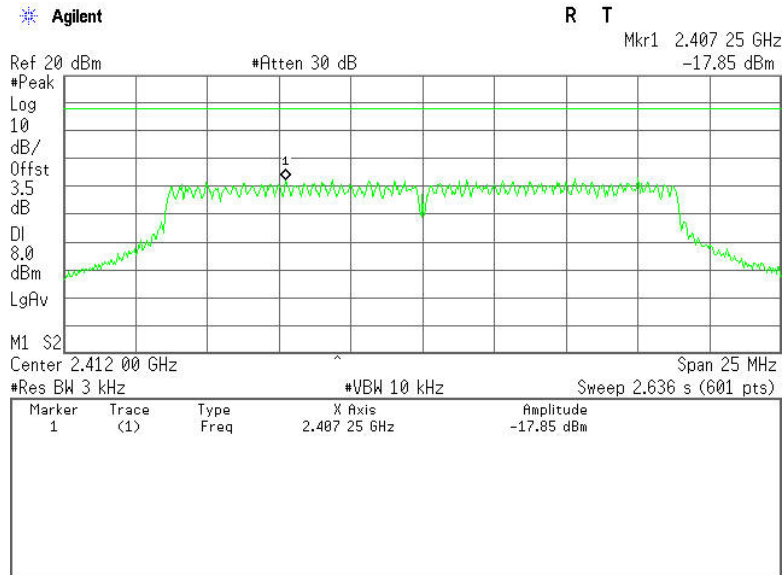




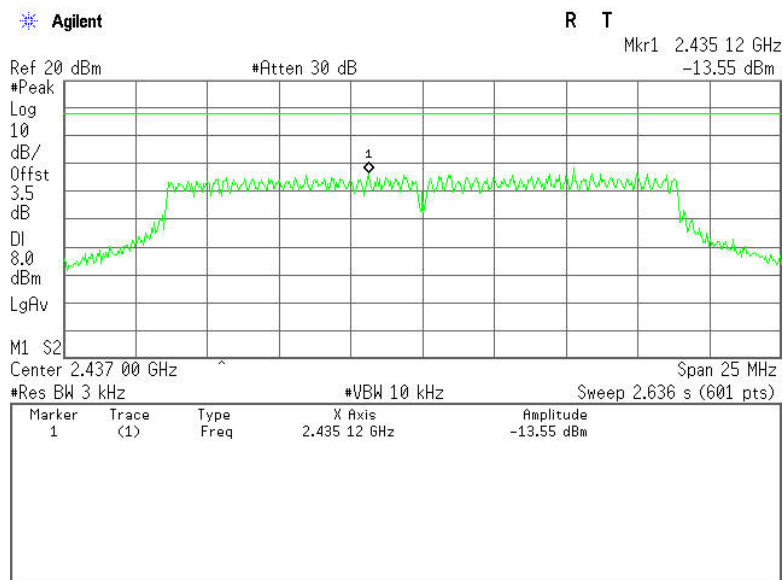
Antenna 0

IEEE 802.11n HT20 MHz mode

PPSD (CH Low)

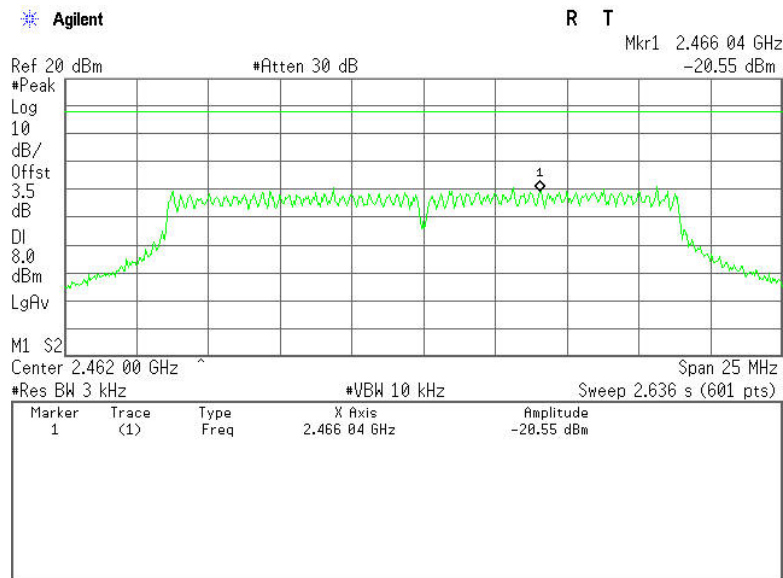


PPSD (CH Mid)





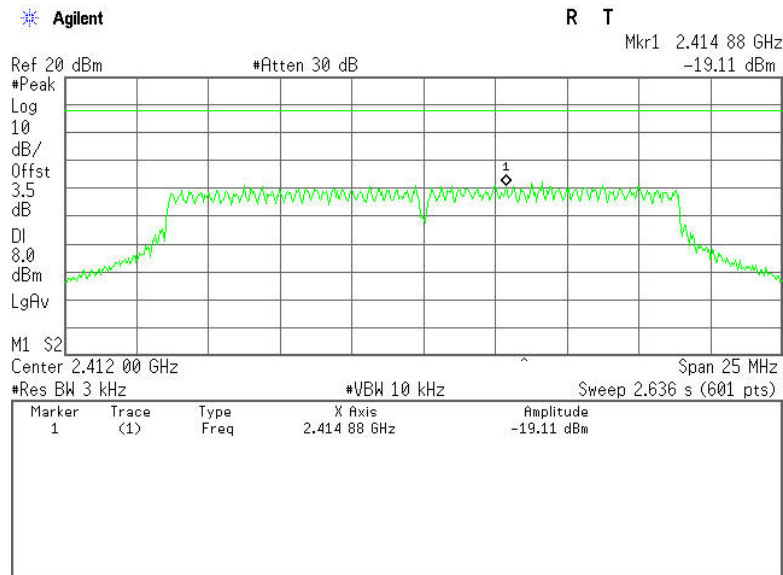
PPSD (CH High)



Antenna 1

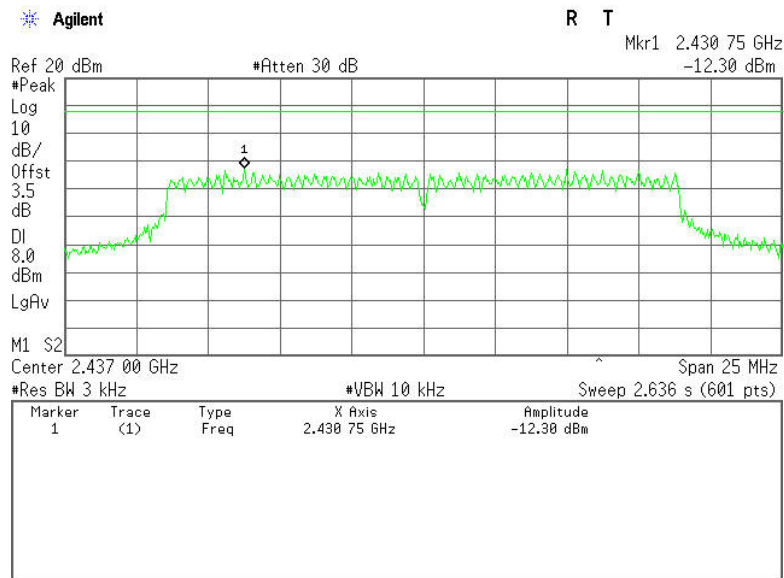
IEEE 802.11n HT20 MHz mode

PPSD (CH Low)

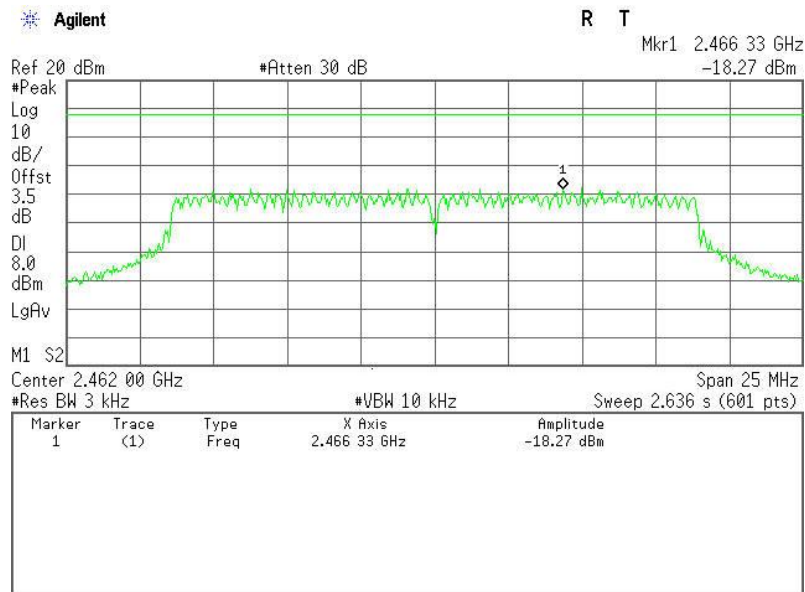




PPSD (CH Mid)



PPSD (CH High)

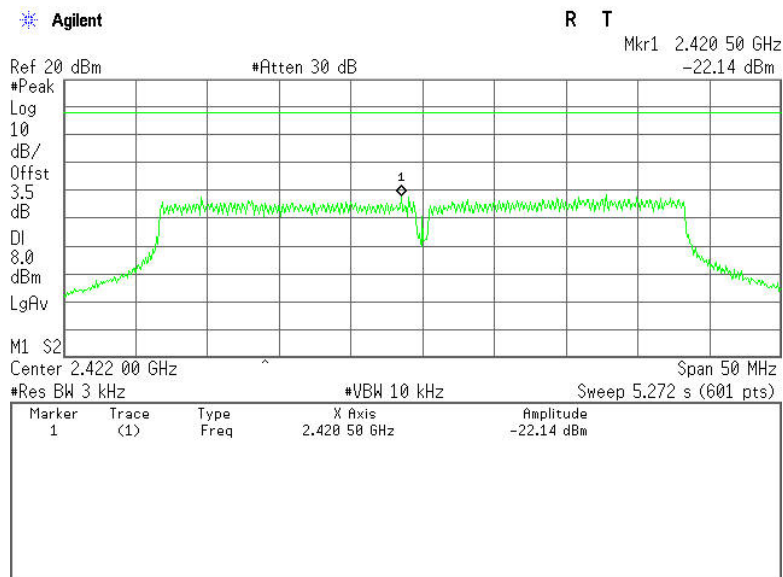




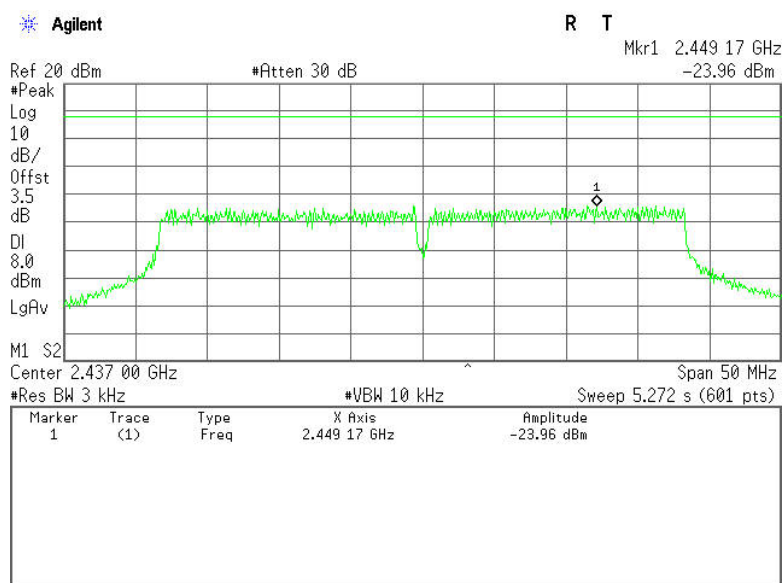
Antenna 0

IEEE 802.11n HT40 MHz mode

PPSD (CH Low)

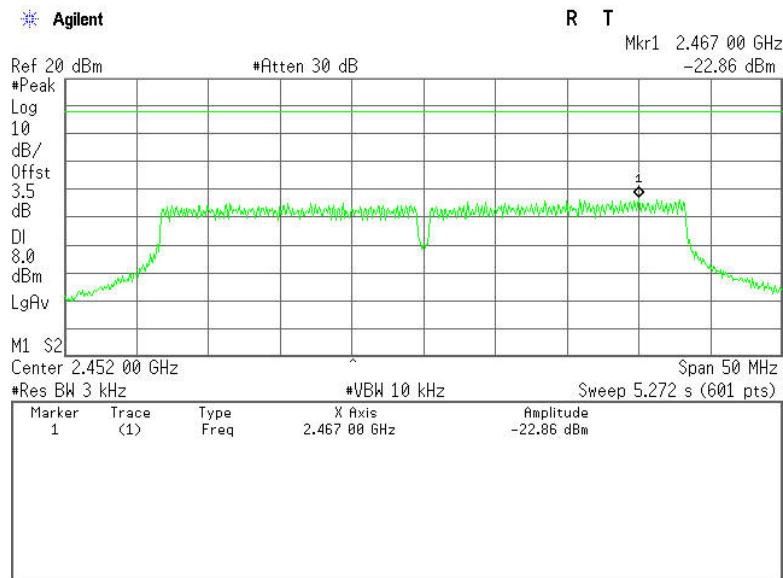


PPSD (CH Mid)





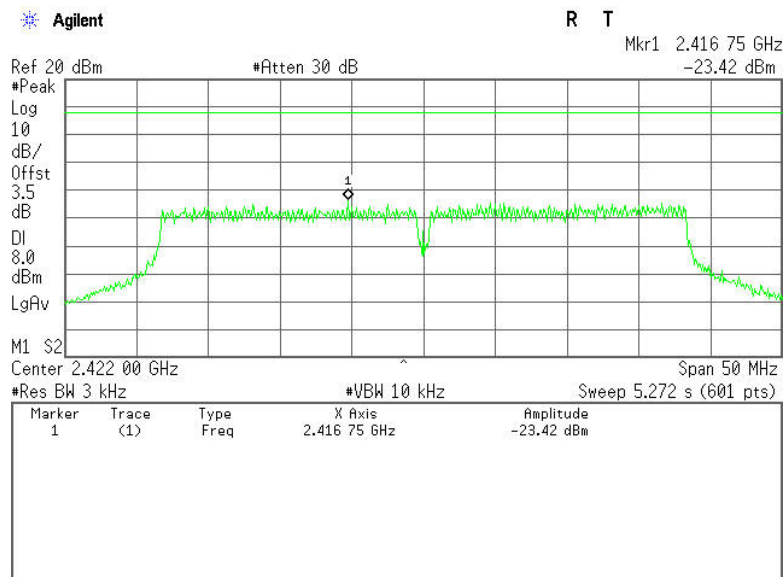
PPSD (CH High)



Antenna 1

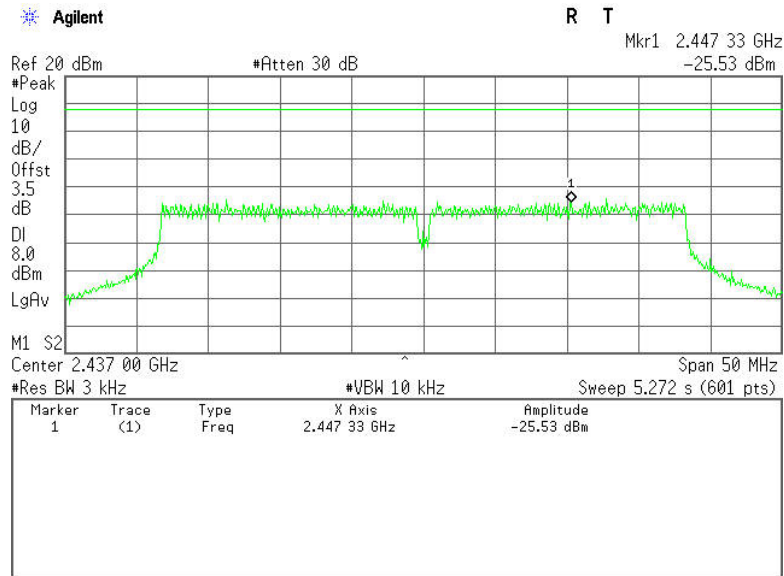
IEEE 802.11n HT40 MHz mode

PPSD (CH Low)





PPSD (CH Mid)



PPSD (CH High)

