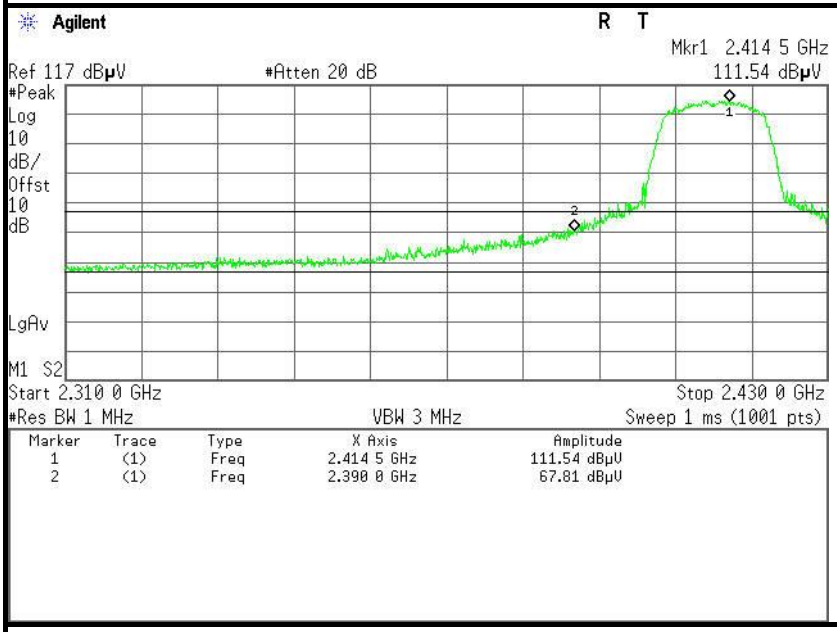
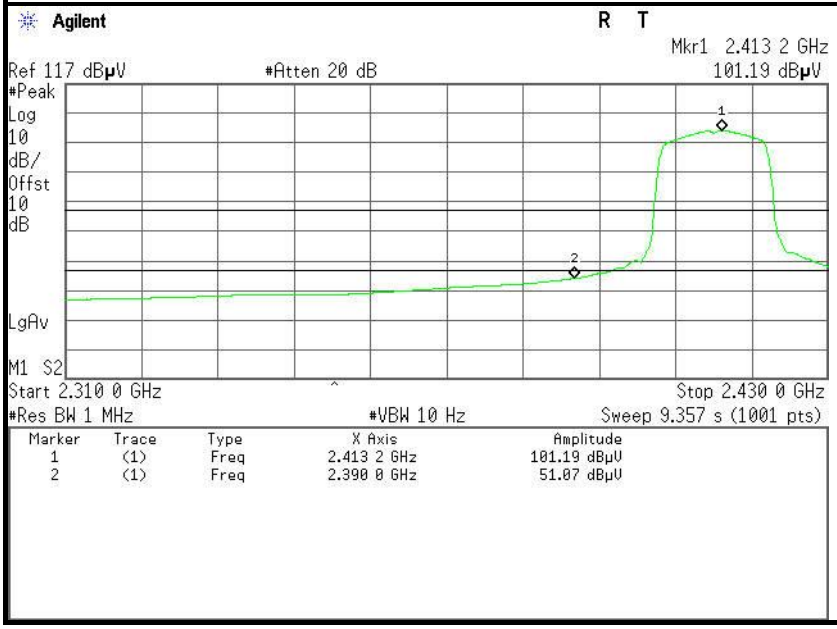
Model: PW5003

Band Edges (CH Low)

Detector mode: Peak **Polarity: Vertical**

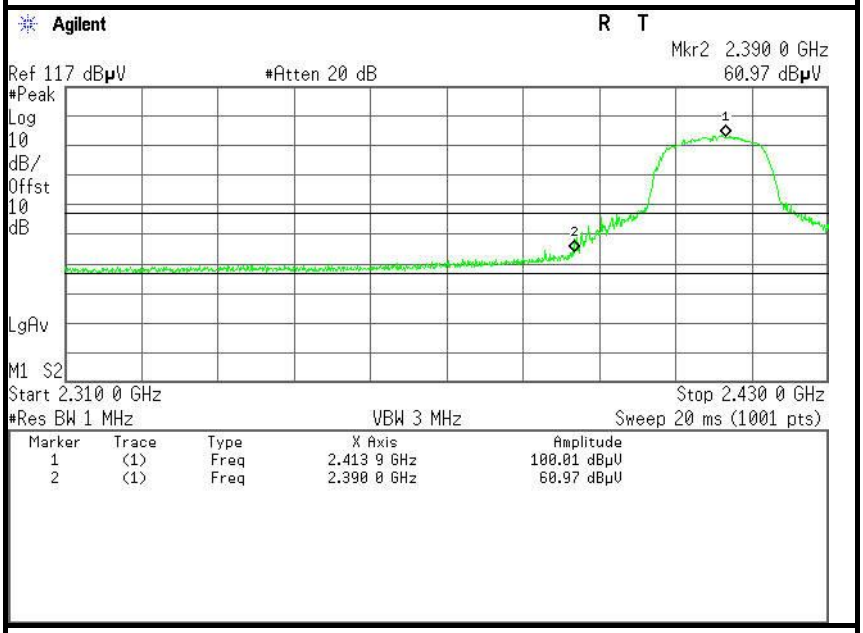


Detector mode: Average **Polarity: Vertical**

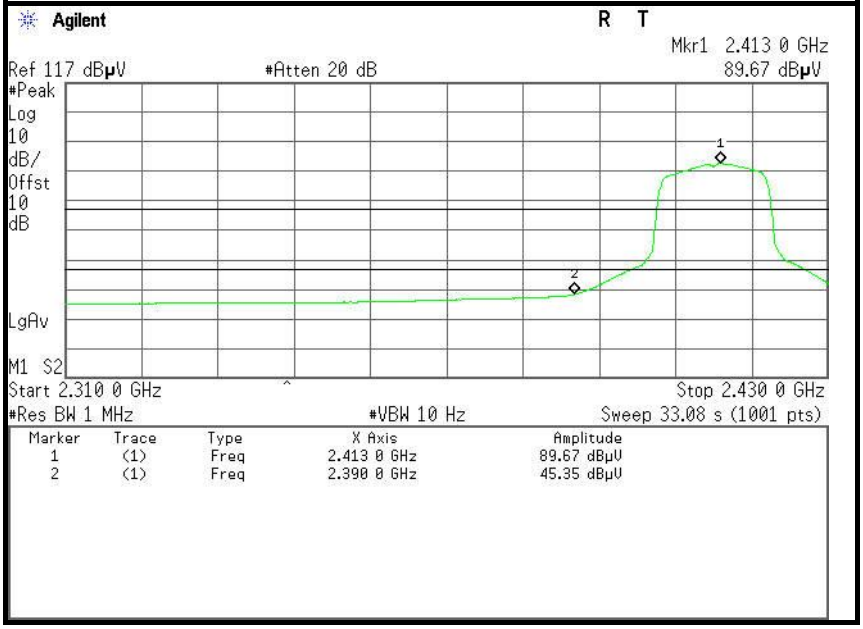


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	61.21	-6.60	67.81	74.00	-6.19	Peak	Vertical
2	2390.0000	44.47	-6.60	51.07	54.00	-2.93	Average	Vertical

Detector mode: Peak **Polarity: Horizontal**



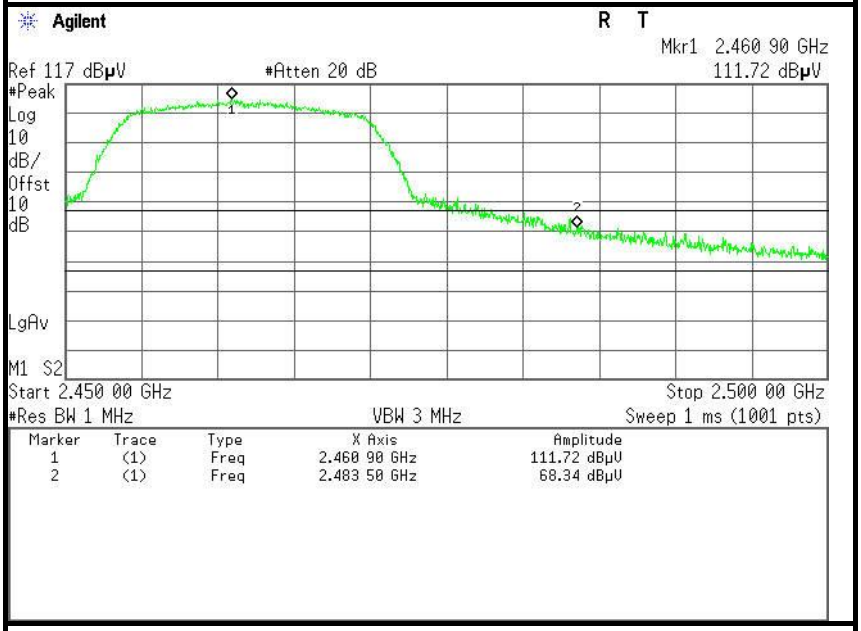
Detector mode: Average **Polarity: Horizontal**



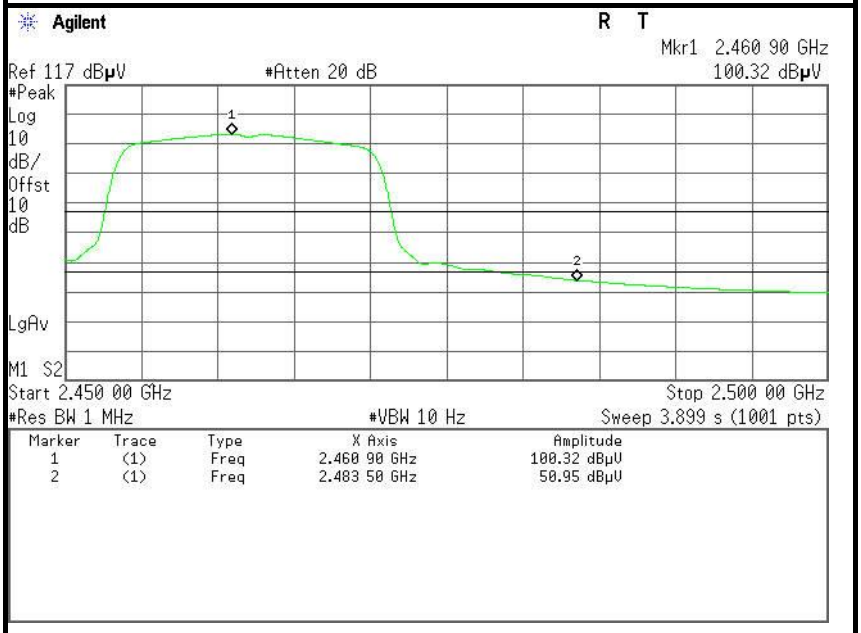
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	54.37	-6.60	60.97	74.00	-13.03	Peak	Horizontal
2	2390.0000	38.75	-6.60	45.35	54.00	-8.65	Average	Horizontal

Band Edges (CH High)

Detector mode: Peak **Polarity: Vertical**

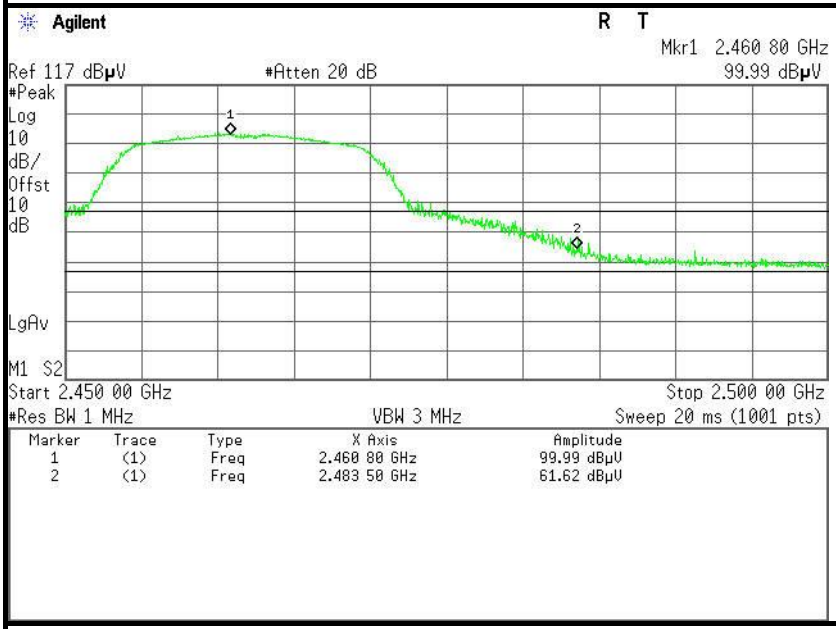


Detector mode: Average **Polarity: Vertical**

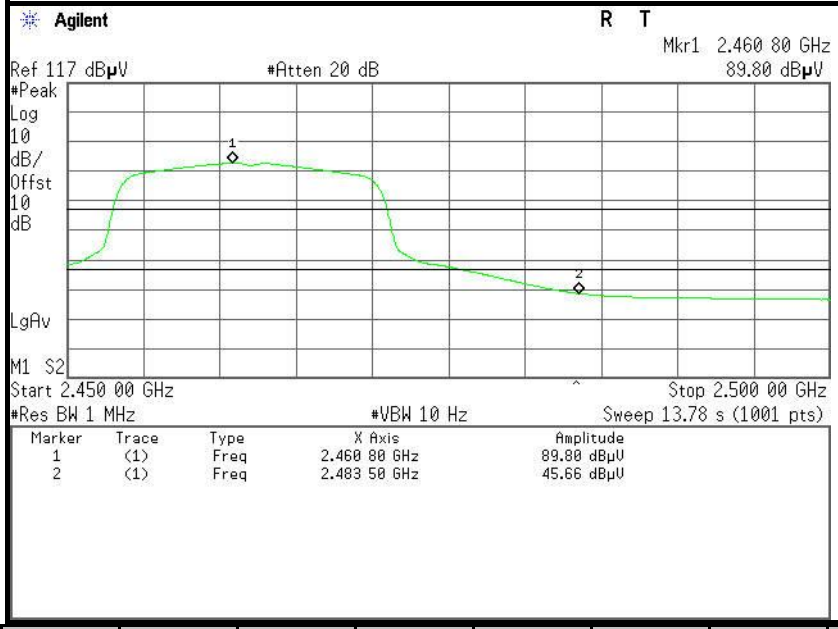


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	62.10	-6.24	68.34	74.00	-5.66	Peak	Vertical
2	2483.5000	44.71	-6.24	50.95	54.00	-3.05	Average	Vertical

Detector mode: Peak **Polarity: Horizontal**



Detector mode: Average **Polarity: Horizontal**



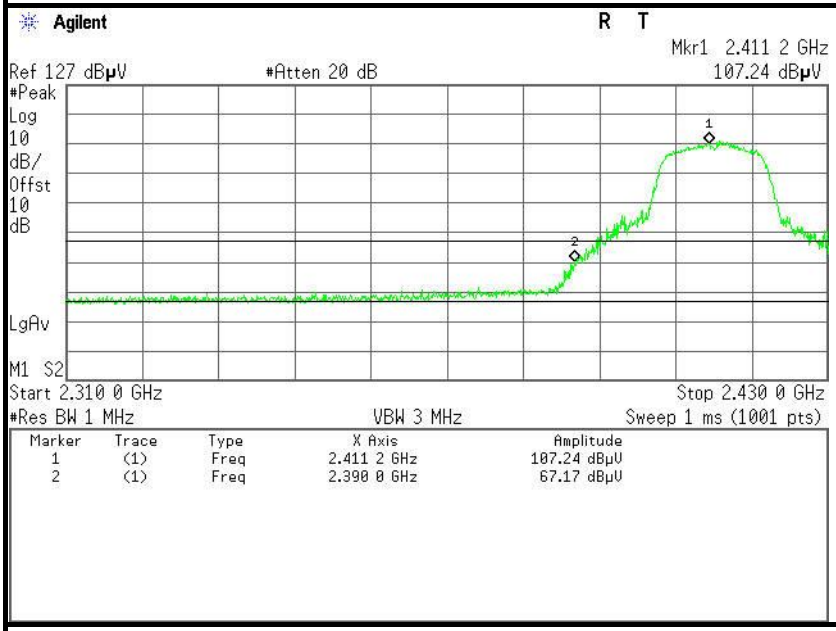
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	55.38	-6.24	61.62	74.00	-12.38	Peak	Horizontal
2	2483.5000	39.42	-6.24	45.66	54.00	-8.34	Average	Horizontal

IEEE 802.11g mode (Antenna 2)

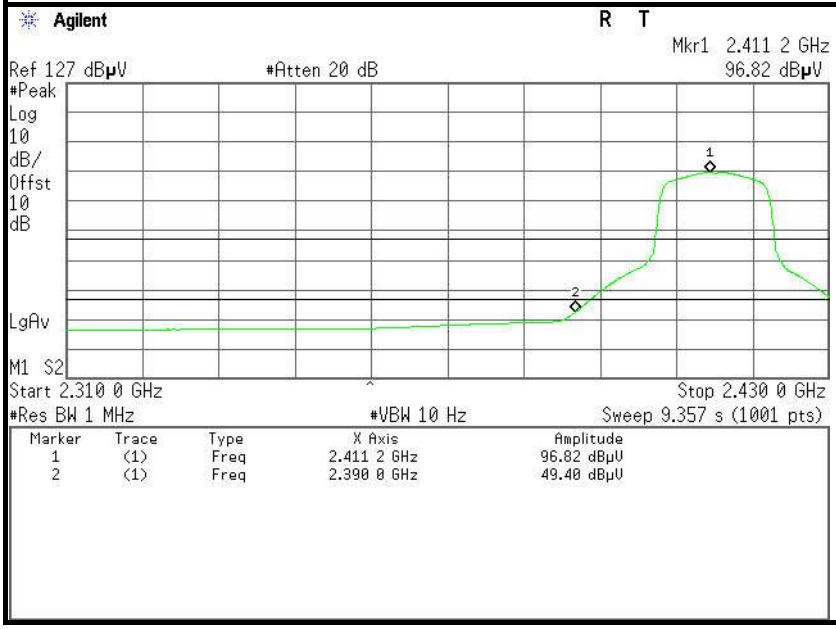
Model: PW5002

Band Edges (CH Low)

Detector mode: Peak **Polarity: Vertical**

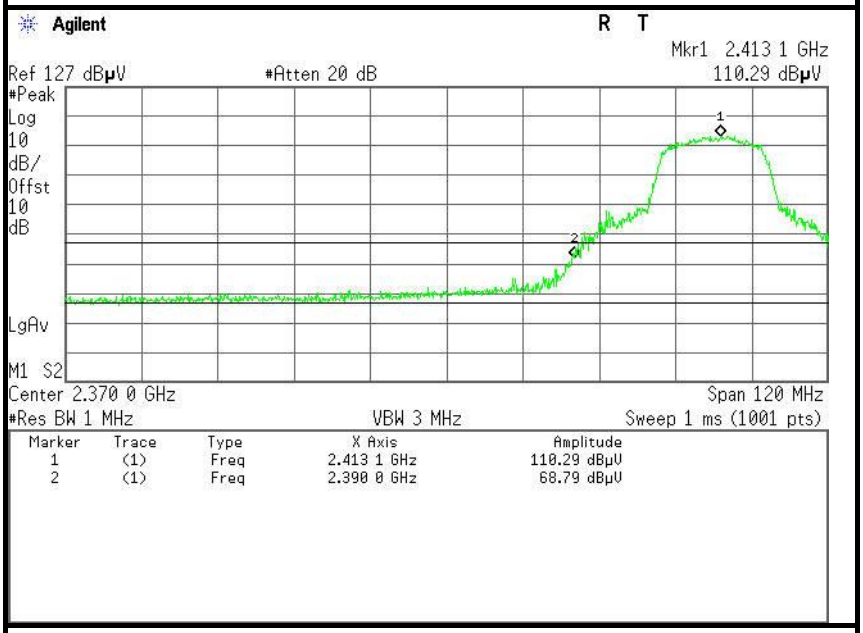


Detector mode: Average **Polarity: Vertical**

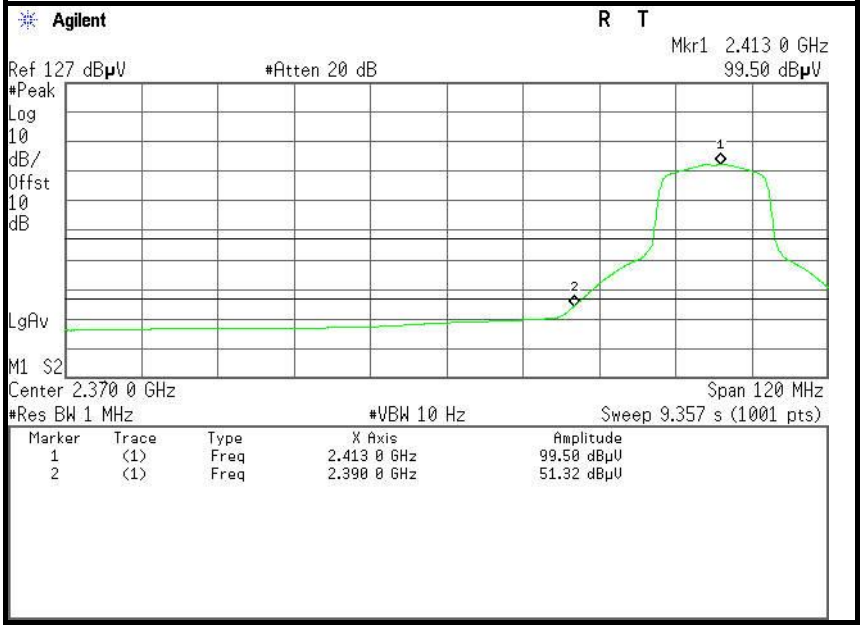


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	60.57	-6.60	67.17	74.00	-6.83	Peak	Vertical
2	2390.0000	42.80	-6.60	49.40	54.00	-4.60	Average	Vertical

Detector mode: Peak **Polarity: Horizontal**



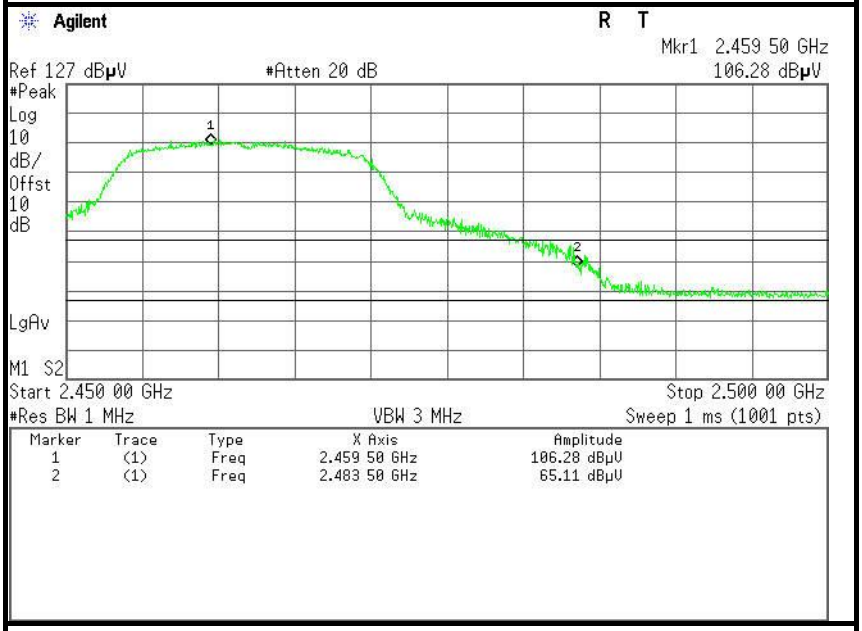
Detector mode: Average **Polarity: Horizontal**



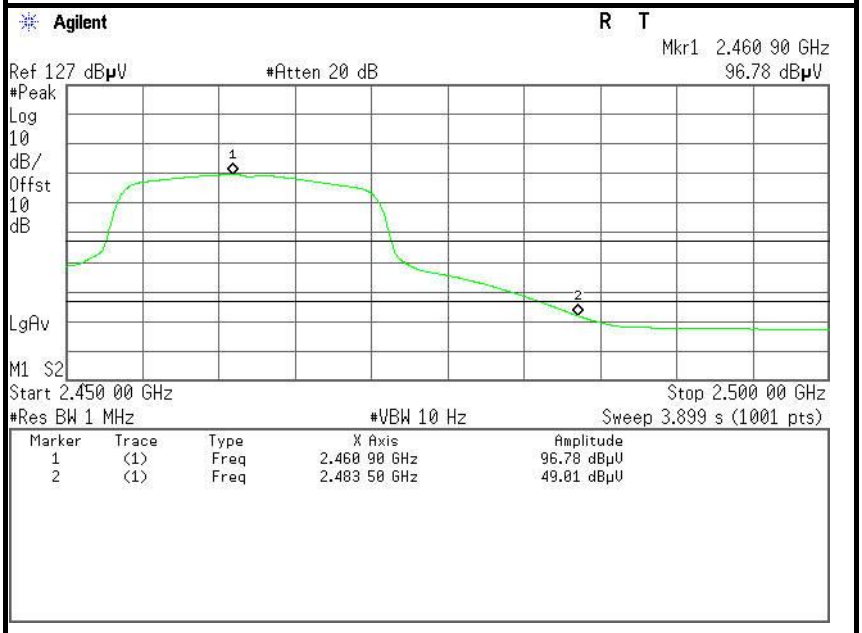
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	62.19	-6.60	68.79	74.00	-5.21	Peak	Horizontal
2	2390.0000	44.72	-6.60	51.32	54.00	-2.68	Average	Horizontal

Band Edges (CH High)

Detector mode: Peak **Polarity: Vertical**

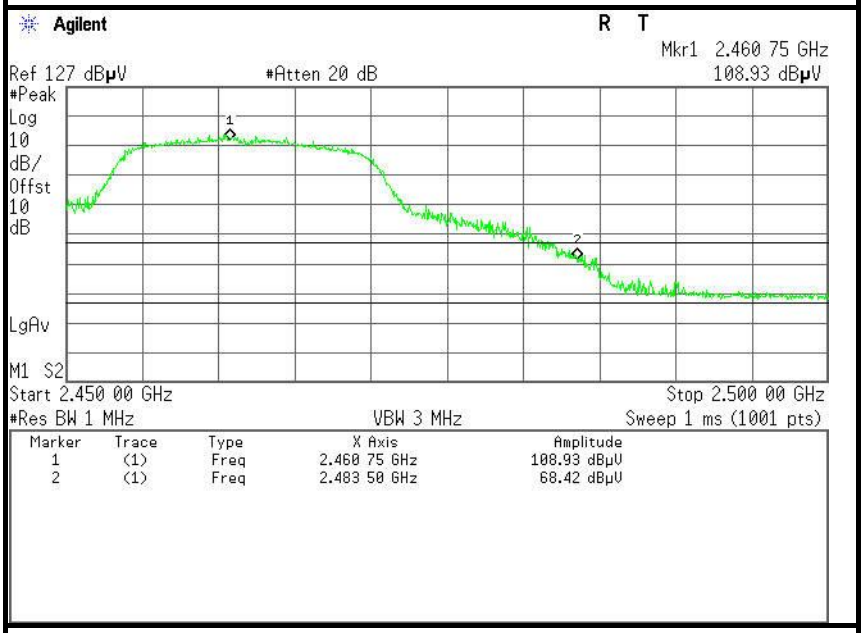


Detector mode: Average **Polarity: Vertical**

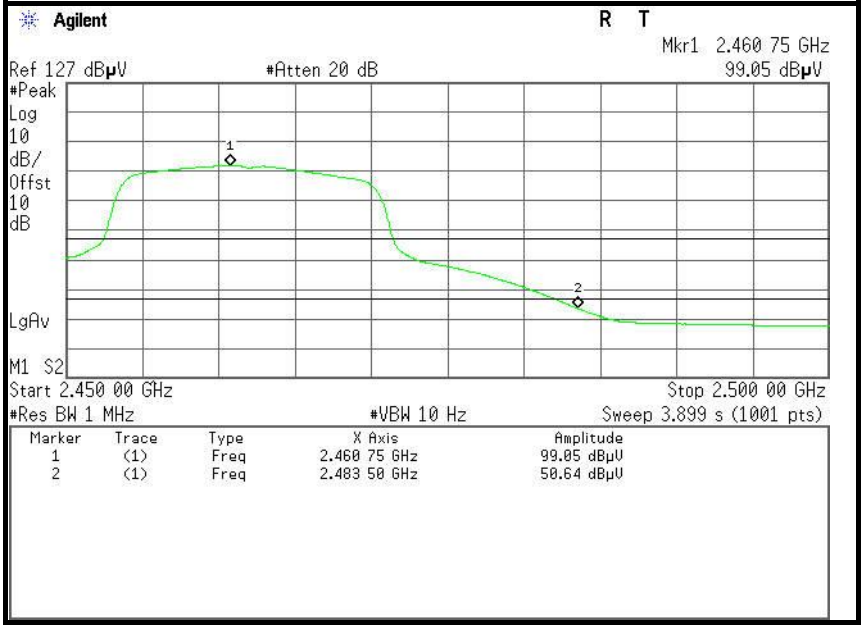


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	58.87	-6.24	65.11	74.00	-8.89	Peak	Vertical
2	2483.5000	42.77	-6.24	49.01	54.00	-4.99	Average	Vertical

Detector mode: Peak **Polarity: Horizontal**



Detector mode: Average **Polarity: Horizontal**

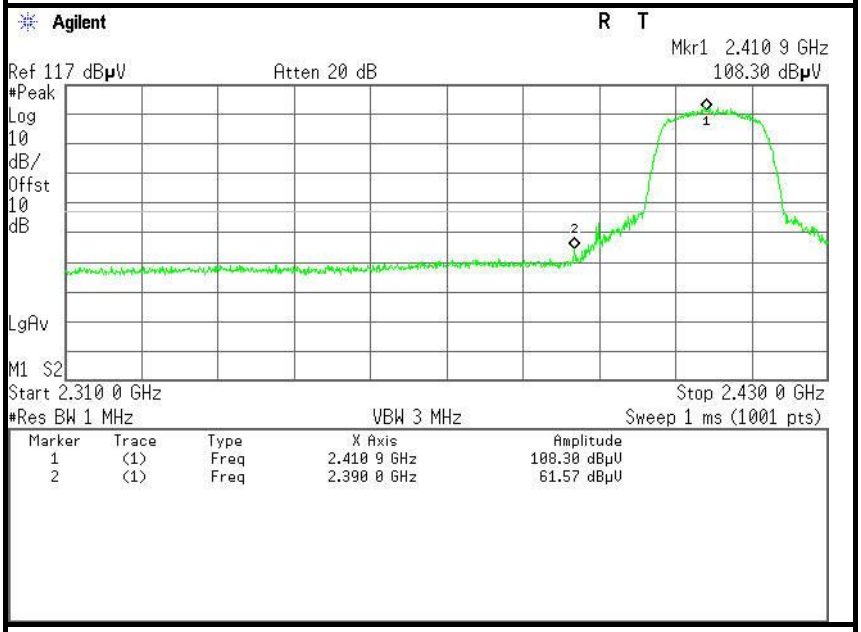


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	62.18	-6.24	68.42	74.00	-5.58	Peak	Horizontal
2	2483.5000	44.40	-6.24	50.64	54.00	-3.36	Average	Horizontal

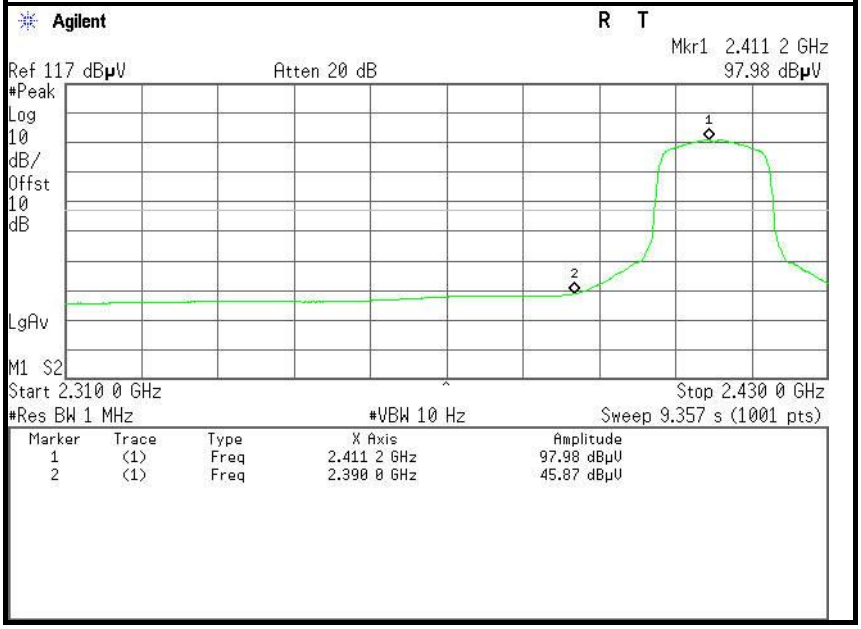
Model: PW5003

Band Edges (CH Low)

Detector mode: Peak **Polarity: Vertical**

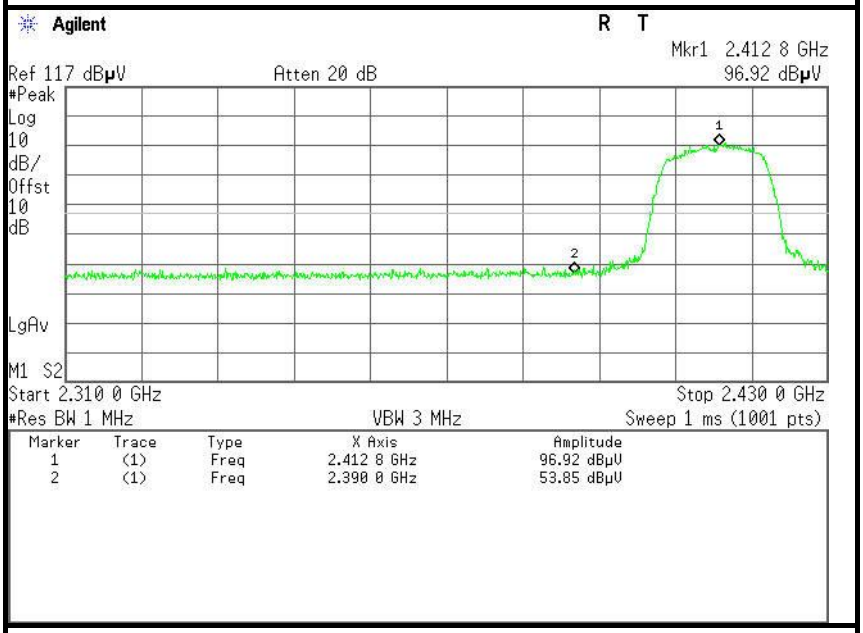


Detector mode: Average **Polarity: Vertical**

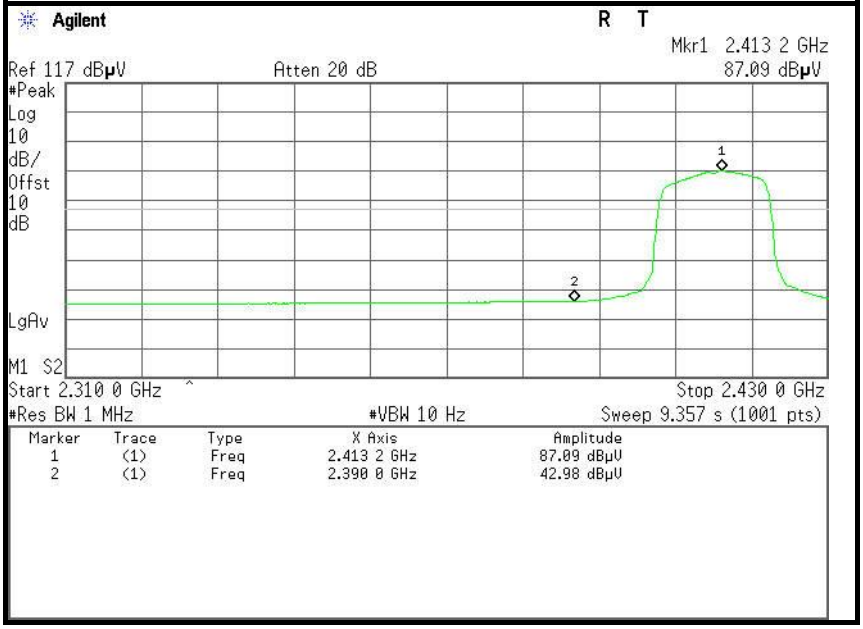


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	54.97	-6.60	61.57	74.00	-12.43	Peak	Vertical
2	2390.0000	39.27	-6.60	45.87	54.00	-8.13	Average	Vertical

Detector mode: Peak **Polarity: Horizontal**



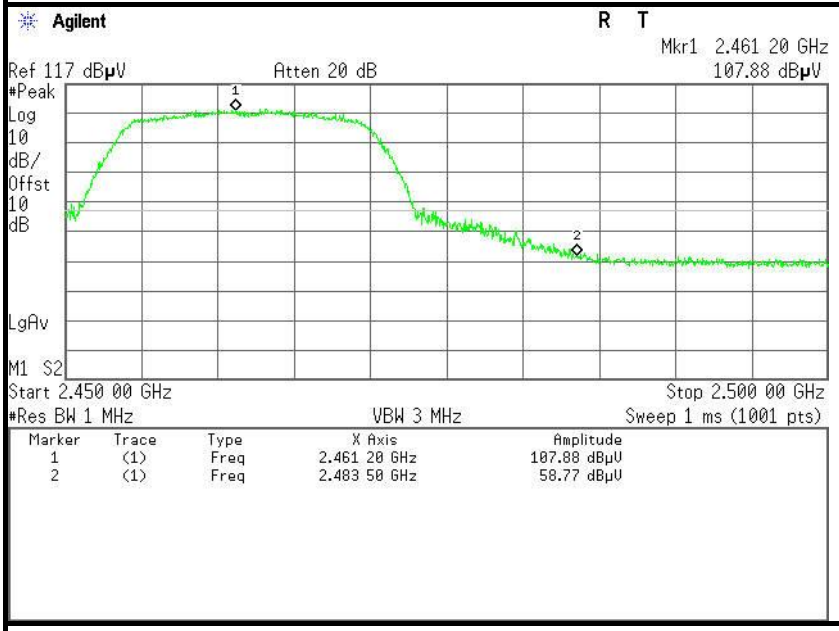
Detector mode: Average **Polarity: Horizontal**



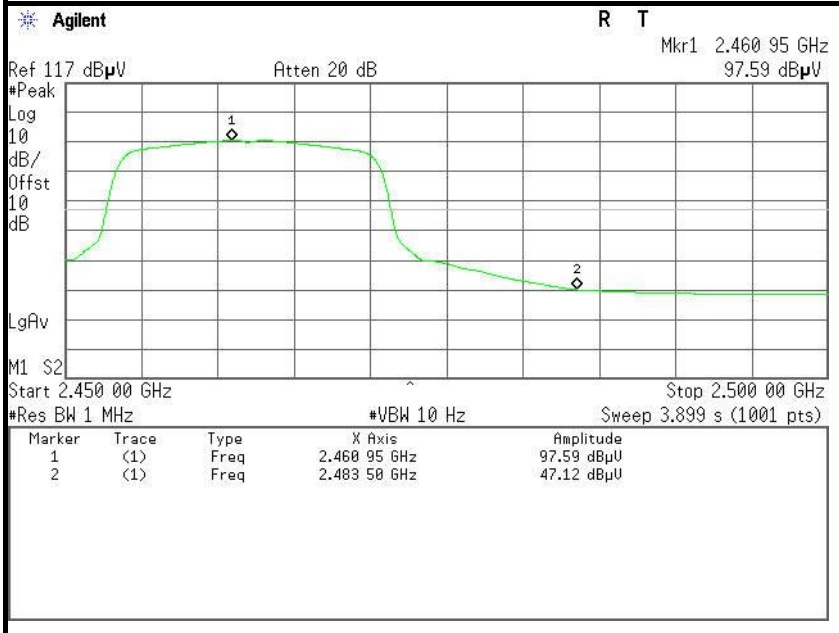
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	47.25	-6.60	53.85	74.00	-20.15	Peak	Horizontal
2	2390.0000	36.38	-6.60	42.98	54.00	-11.02	Average	Horizontal

Band Edges (CH High)

Detector mode: Peak **Polarity: Vertical**

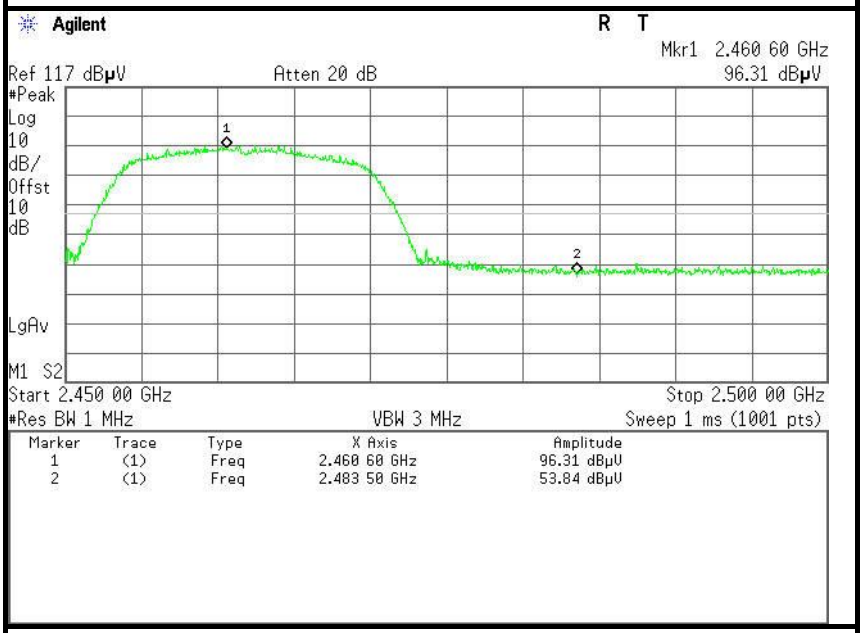


Detector mode: Average **Polarity: Vertical**

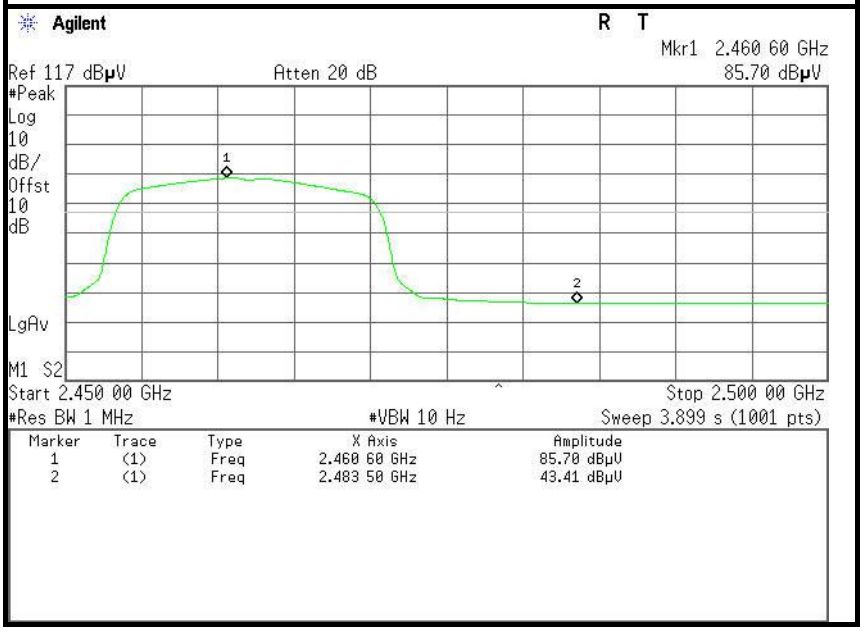


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	52.53	-6.24	58.77	74.00	-15.23	Peak	Vertical
2	2483.5000	40.88	-6.24	47.12	54.00	-6.88	Average	Vertical

Detector mode: Peak **Polarity: Horizontal**



Detector mode: Average **Polarity: Horizontal**



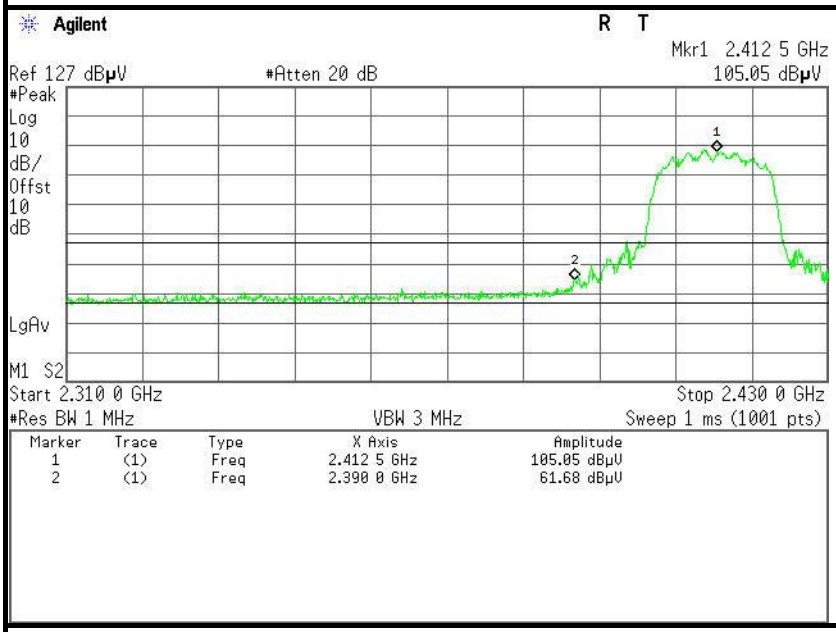
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	47.60	-6.24	53.84	74.00	-20.16	Peak	Horizontal
2	2483.5000	37.17	-6.24	43.41	54.00	-10.59	Average	Horizontal

IEEE 802.11n HT20 MHz mode (Combine with Antenna 1 and Antenna 2)

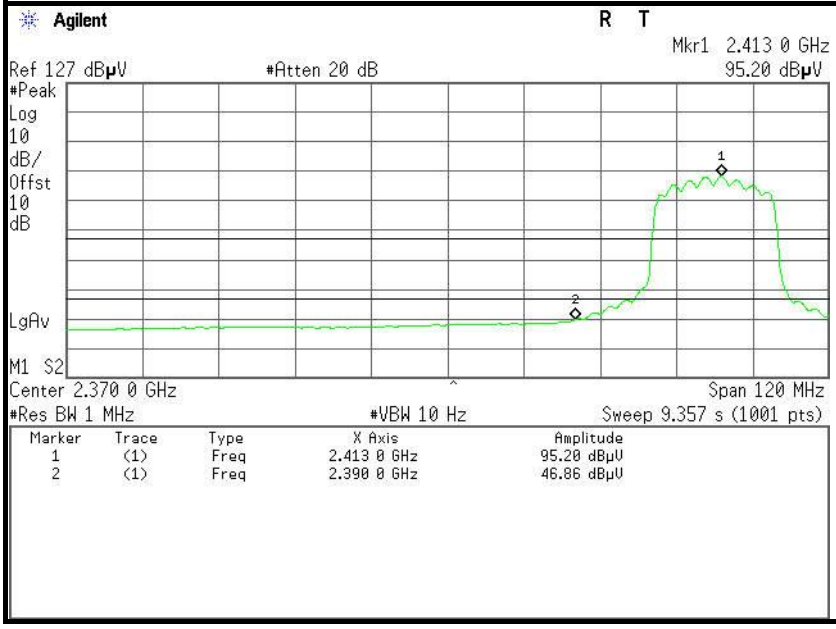
Model: PW5002

Band Edges (CH Low)

Detector mode: Peak **Polarity: Vertical**

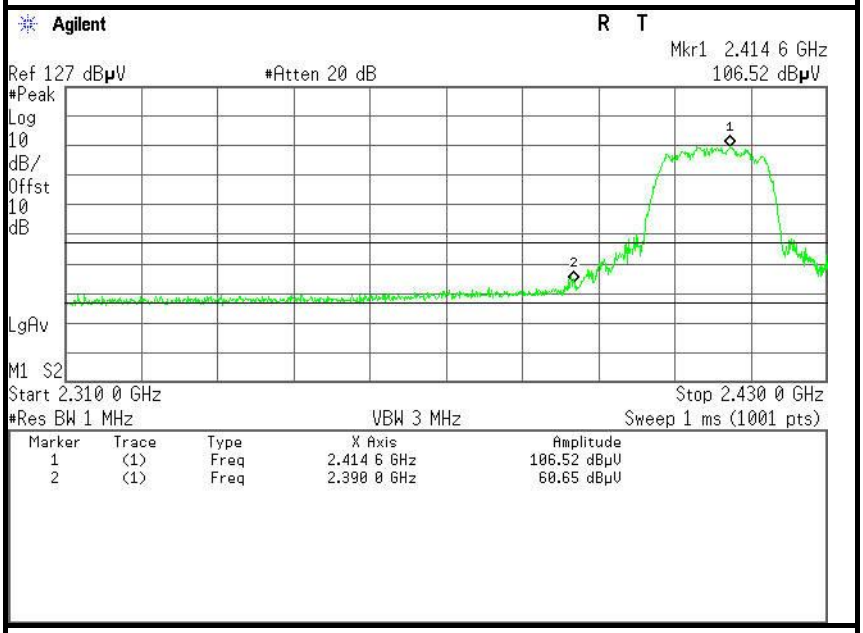


Detector mode: Average **Polarity: Vertical**

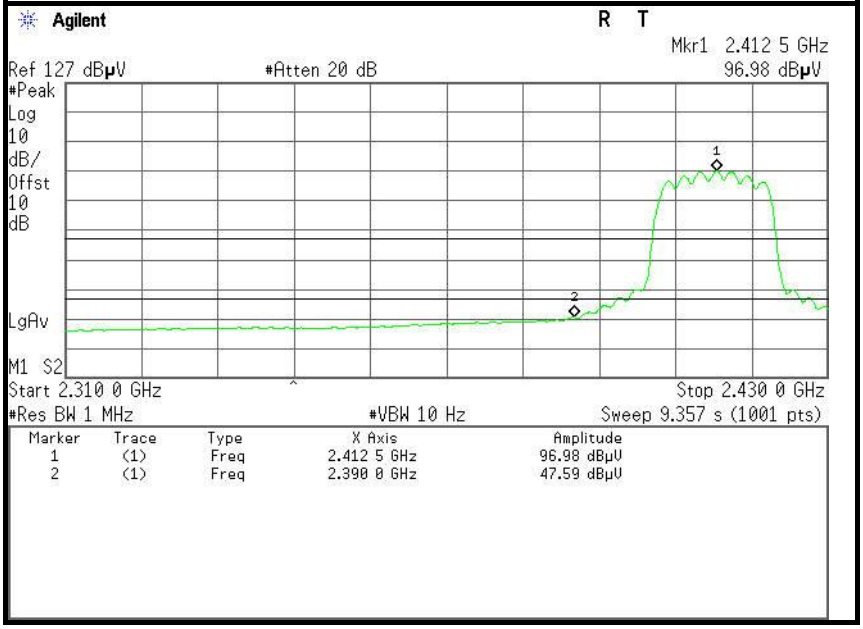


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	55.08	-6.60	61.68	74.00	-12.32	Peak	Vertical
2	2390.0000	40.26	-6.60	46.86	54.00	-7.14	Average	Vertical

Detector mode: Peak **Polarity: Horizontal**



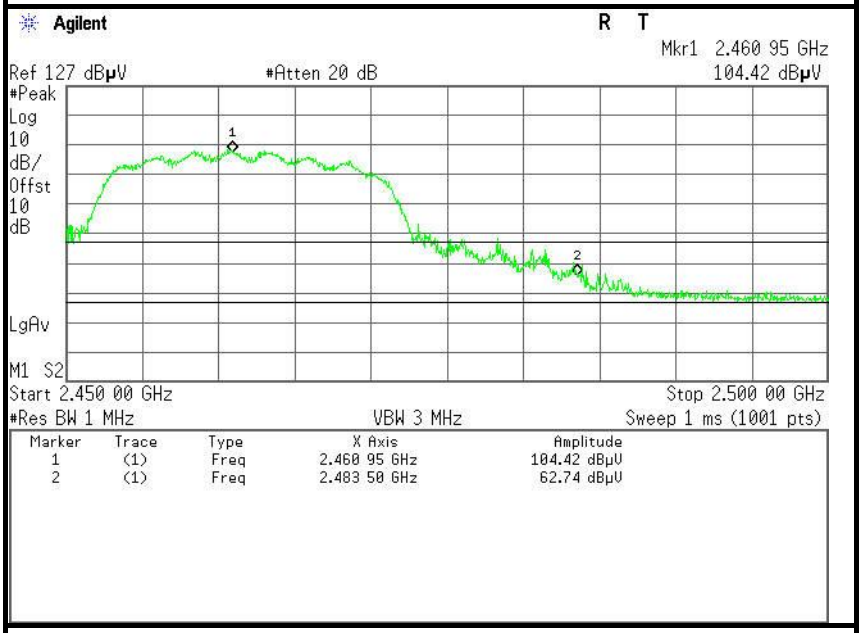
Detector mode: Average **Polarity: Horizontal**



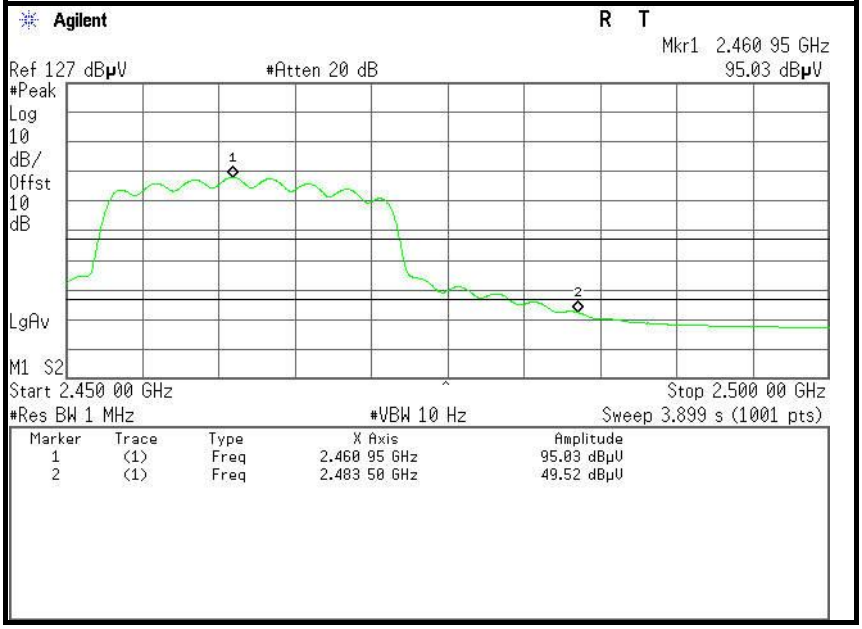
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	54.05	-6.60	60.65	74.00	-13.35	Peak	Horizontal
2	2390.0000	40.99	-6.60	47.59	54.00	-6.41	Average	Horizontal

Band Edges (CH High)

Detector mode: Peak **Polarity: Vertical**

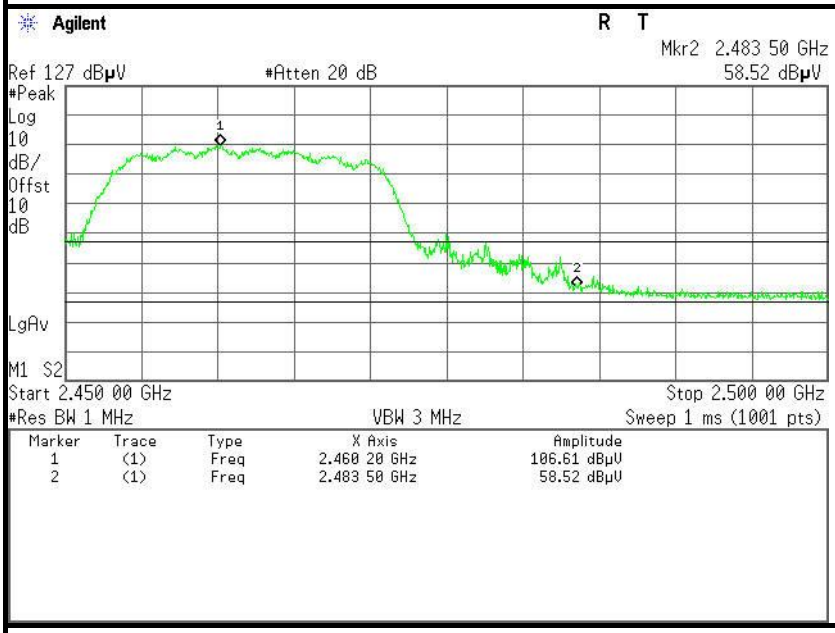


Detector mode: Average **Polarity: Vertical**

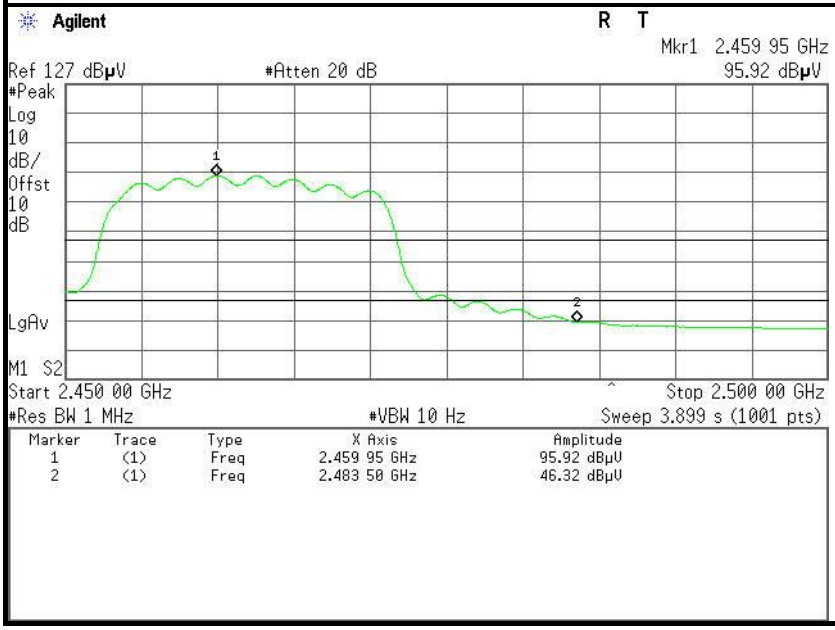


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	56.50	-6.24	62.74	74.00	-11.26	Peak	Vertical
2	2483.5000	43.28	-6.24	49.52	54.00	-4.48	Average	Vertical

Detector mode: Peak **Polarity: Horizontal**



Detector mode: Average **Polarity: Horizontal**

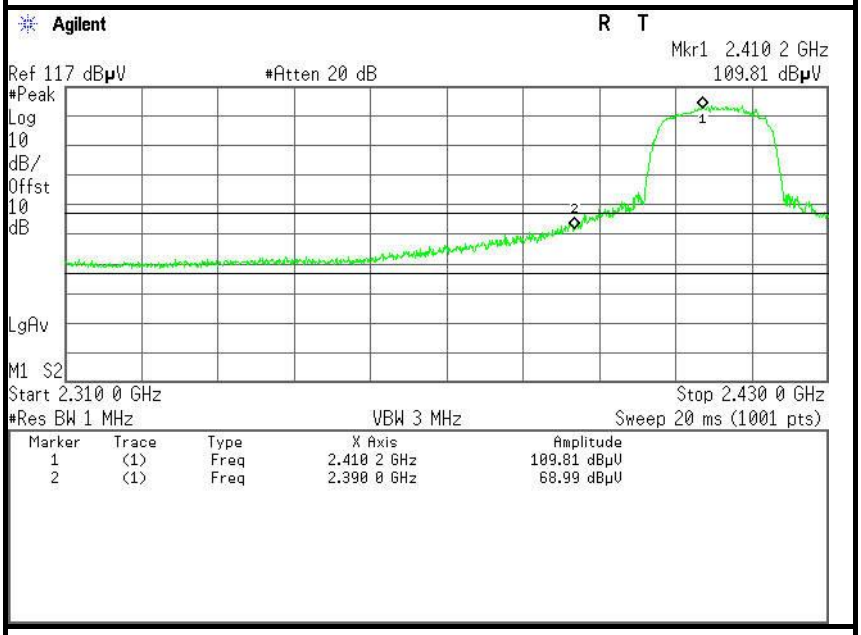


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	52.28	-6.24	58.52	74.00	-15.48	Peak	Horizontal
2	2483.5000	40.08	-6.24	46.32	54.00	-7.68	Average	Horizontal

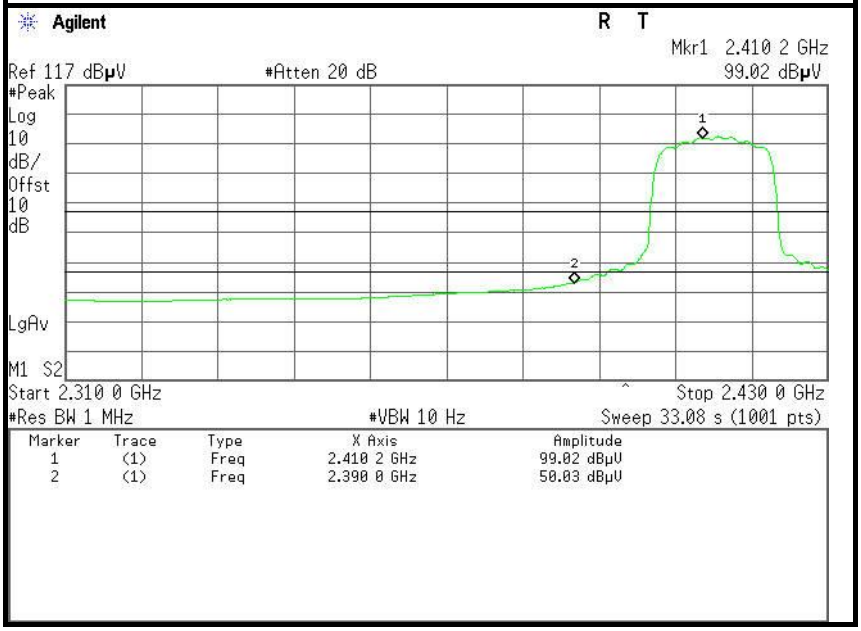
Model: PW5003

Band Edges (CH Low)

Detector mode: Peak **Polarity: Vertical**

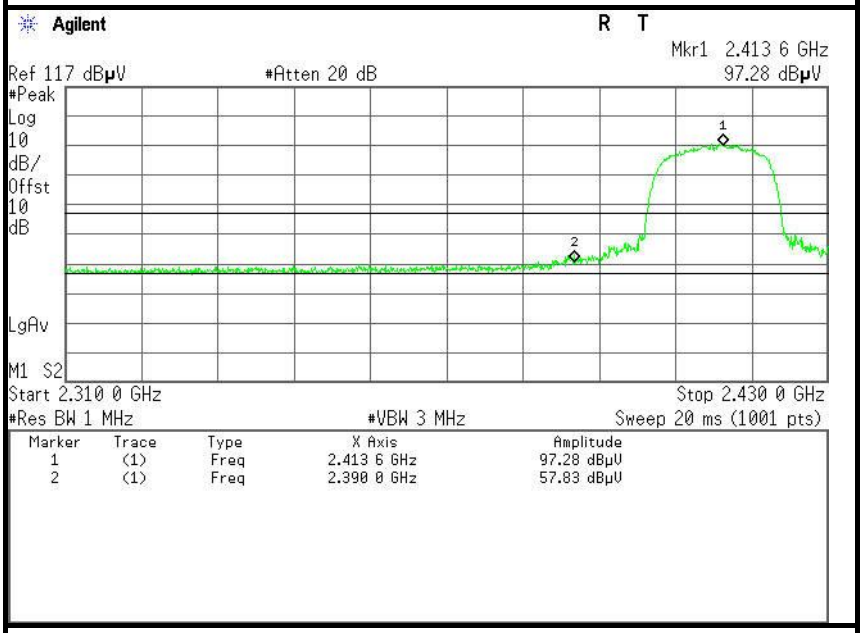


Detector mode: Average **Polarity: Vertical**

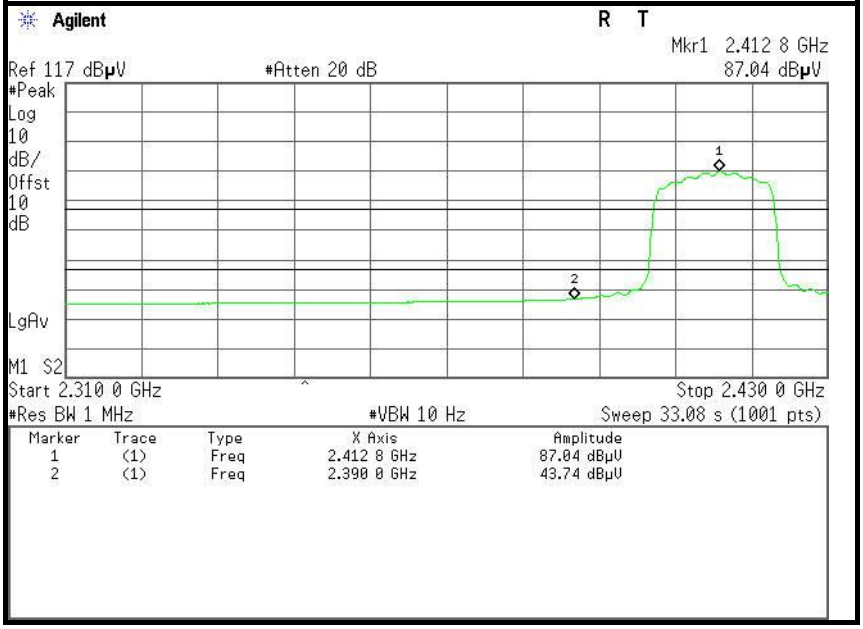


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	62.39	-6.60	68.99	74.00	-5.01	Peak	Vertical
2	2390.0000	43.43	-6.60	50.03	54.00	-3.97	Average	Vertical

Detector mode: Peak **Polarity: Horizontal**



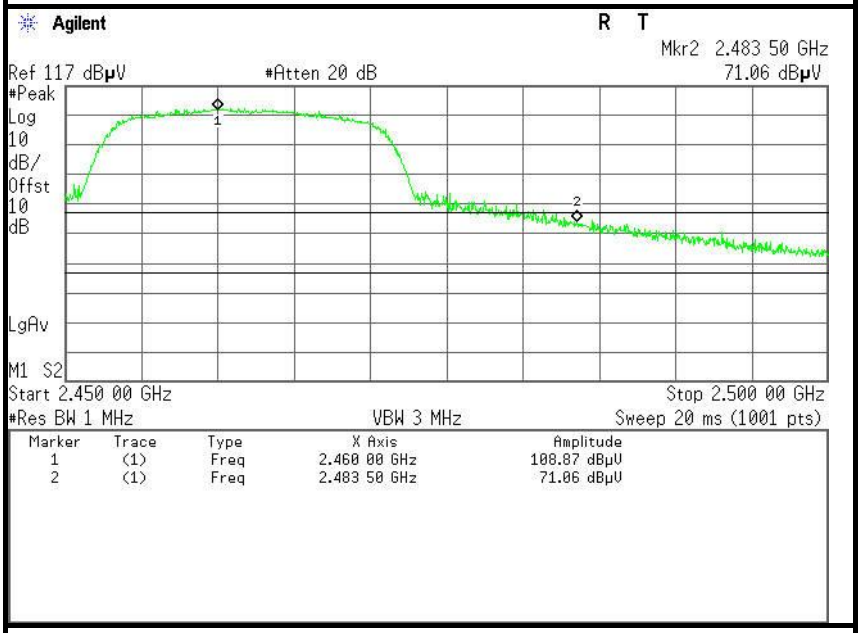
Detector mode: Average **Polarity: Horizontal**



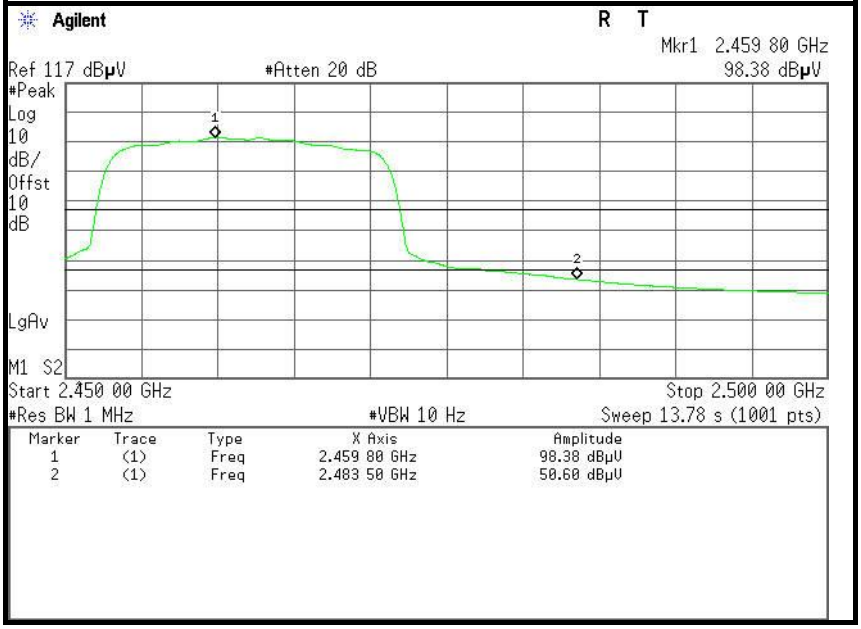
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	51.23	-6.60	57.83	74.00	-16.17	Peak	Horizontal
2	2390.0000	37.14	-6.60	43.74	54.00	-10.26	Average	Horizontal

Band Edges (CH High)

Detector mode: Peak **Polarity: Vertical**

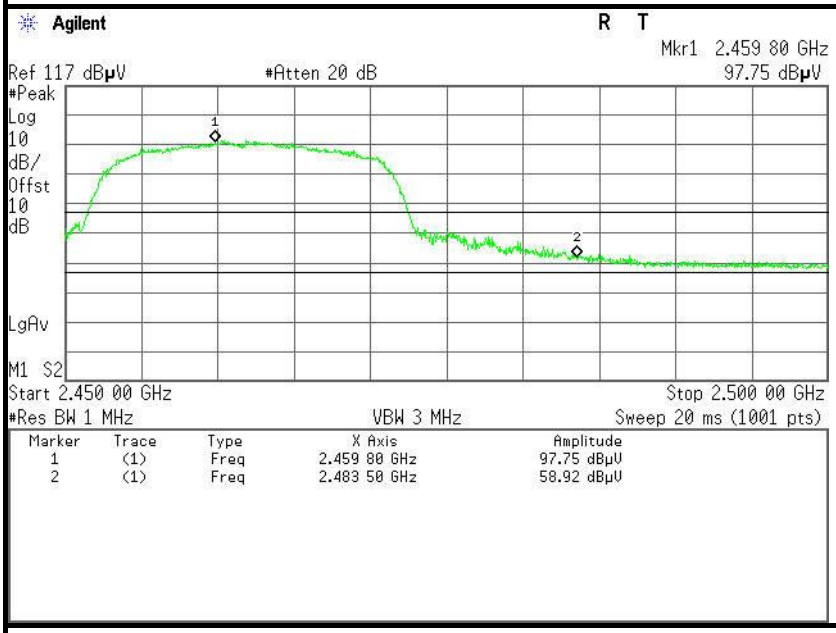


Detector mode: Average **Polarity: Vertical**

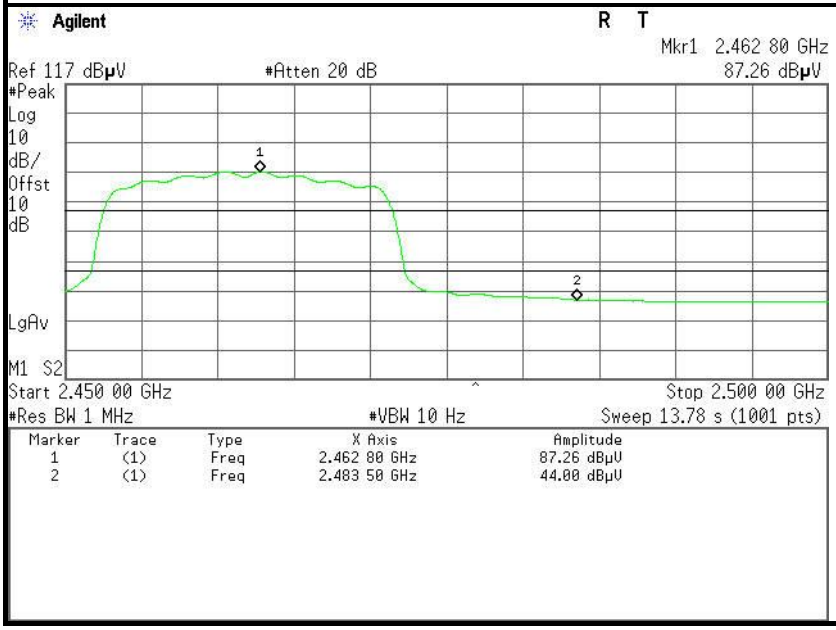


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	64.82	-6.24	71.06	74.00	-2.94	Peak	Vertical
2	2483.5000	44.36	-6.24	50.60	54.00	-3.40	Average	Vertical

Detector mode: Peak **Polarity: Horizontal**



Detector mode: Average **Polarity: Horizontal**



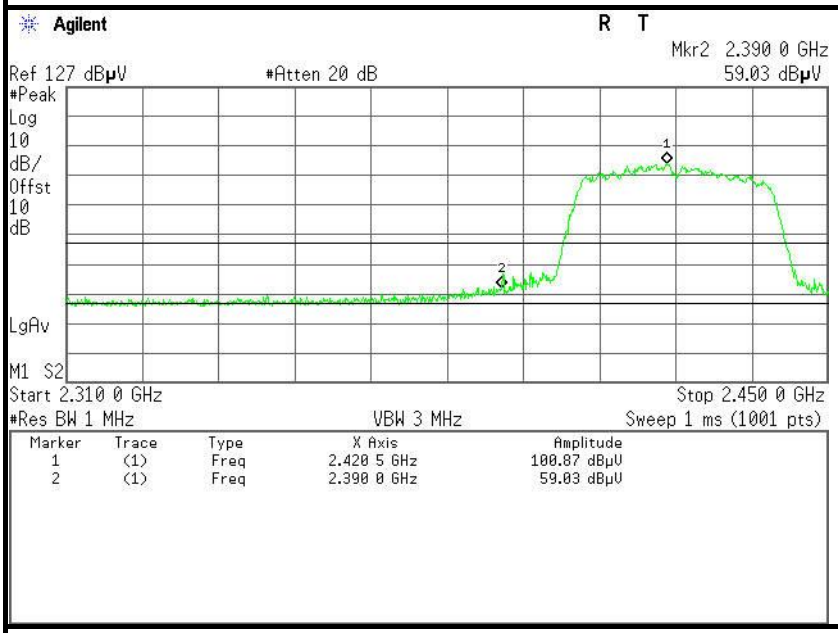
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	52.68	-6.24	58.92	74.00	-15.08	Peak	Horizontal
2	2483.5000	37.76	-6.24	44.00	54.00	-10.00	Average	Horizontal

IEEE 802.11n HT40 MHz mode (Combine with Antenna 1 and Antenna 2)

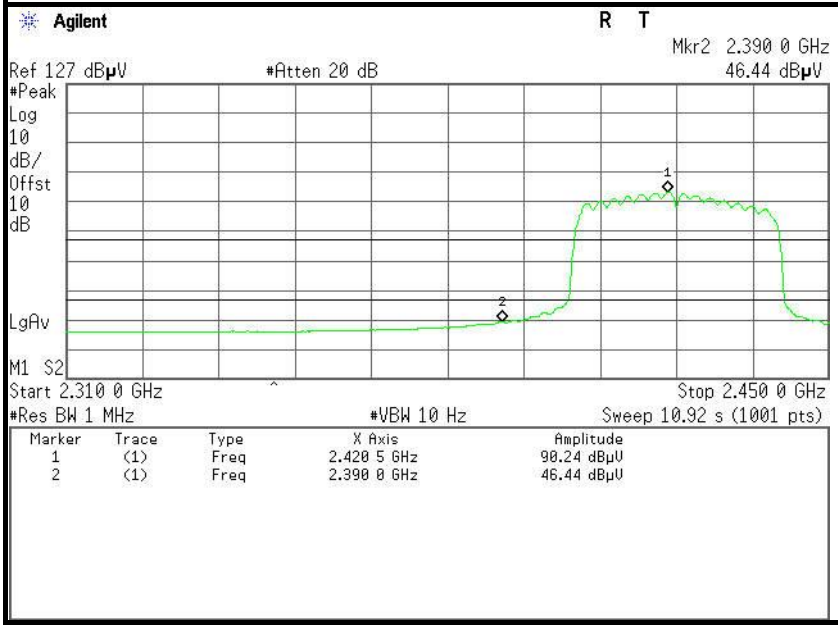
Model: PW5002

Band Edges (CH Low)

Detector mode: Peak **Polarity: Vertical**

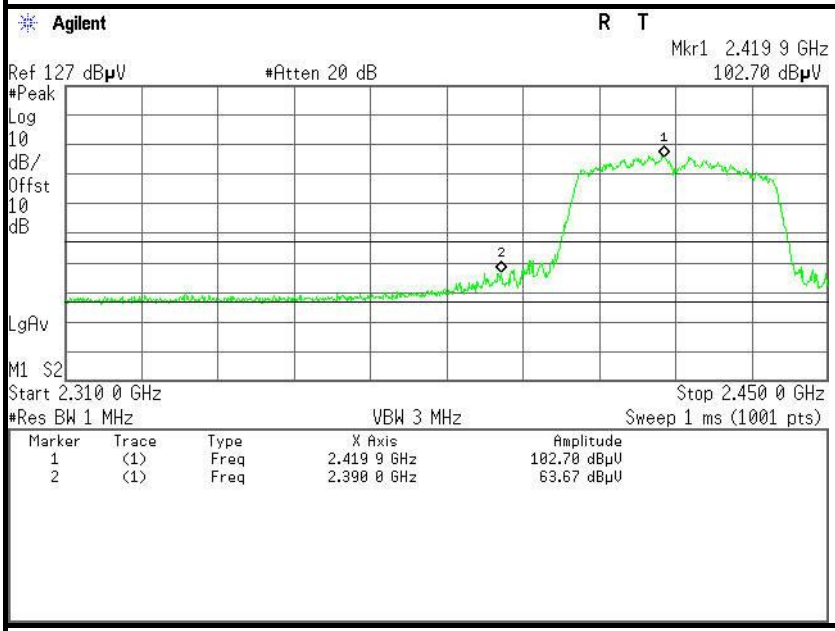


Detector mode: Average **Polarity: Vertical**

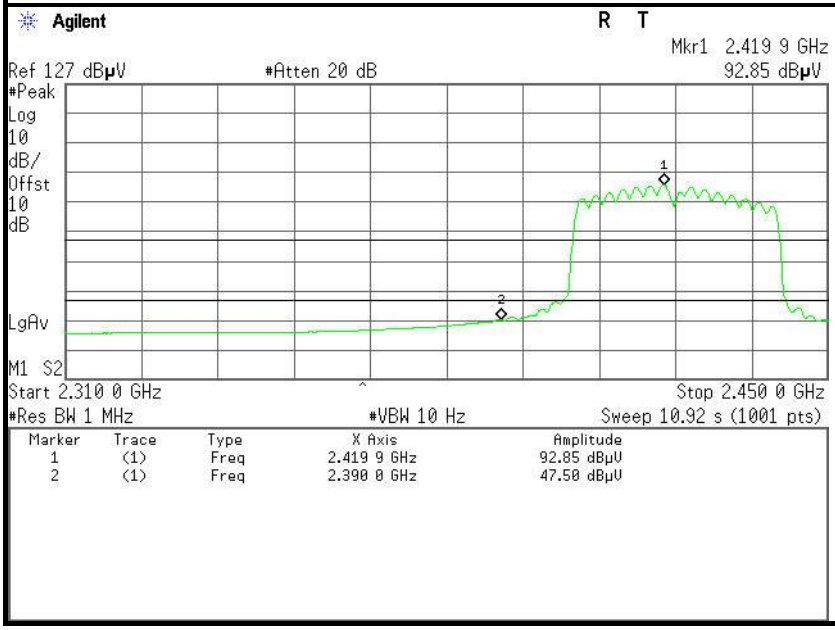


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	52.43	-6.60	59.03	74.00	-14.97	Peak	Vertical
2	2390.0000	57.84	-6.60	64.44	54.00	10.44	Average	Vertical

Detector mode: Peak **Polarity: Horizontal**



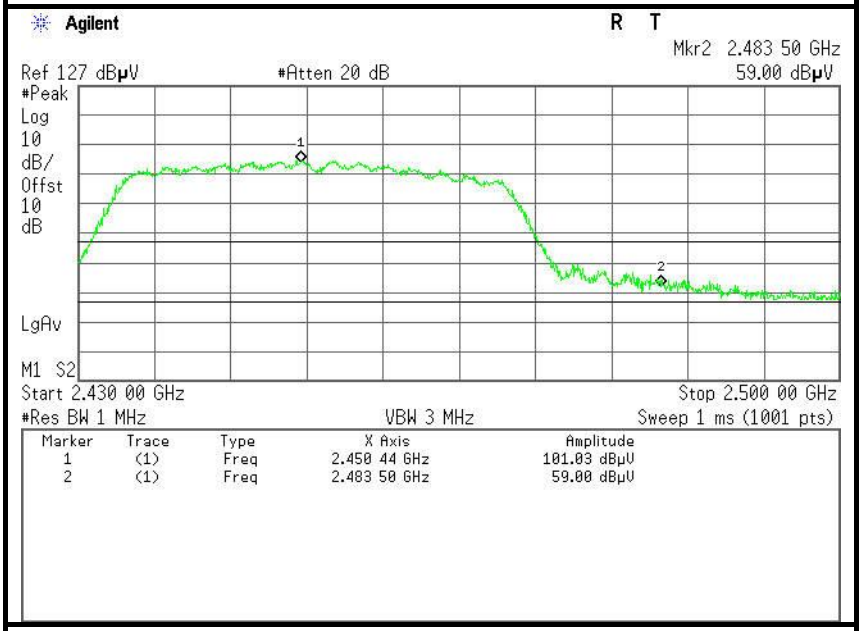
Detector mode: Average **Polarity: Horizontal**



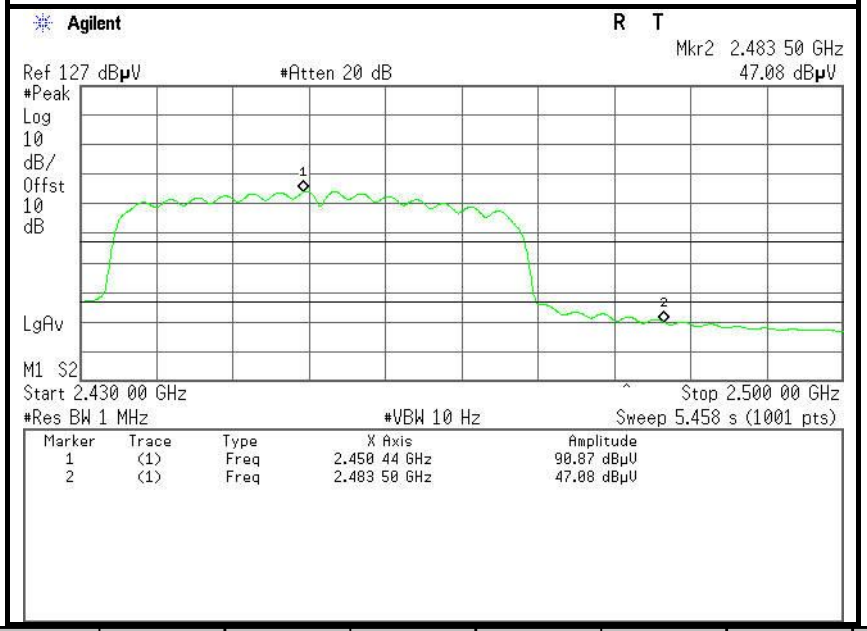
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	57.07	-6.60	63.67	74.00	-10.33	Peak	Horizontal
2	2390.0000	40.90	-6.60	47.50	54.00	-6.50	Average	Horizontal

Band Edges (CH High)

Detector mode: Peak **Polarity: Vertical**

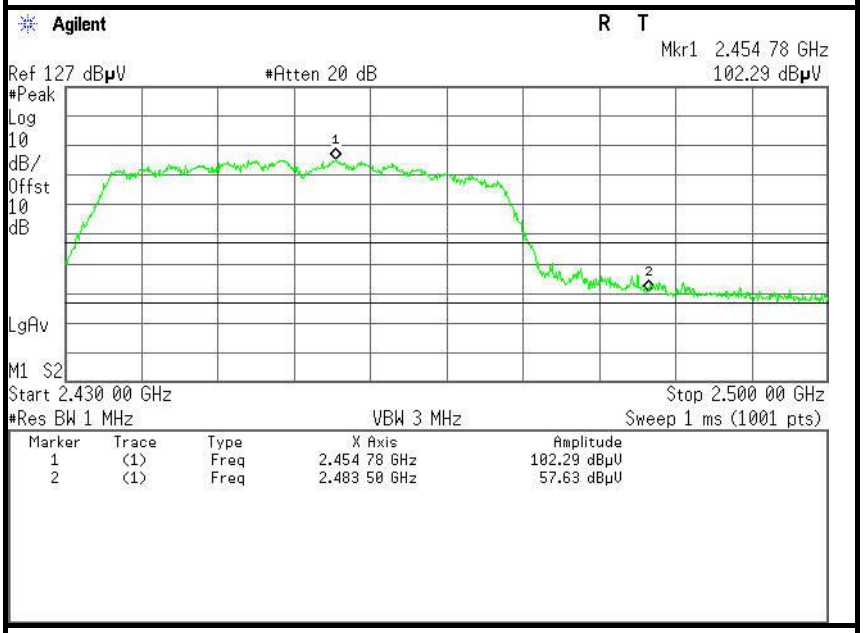


Detector mode: Average **Polarity: Vertical**

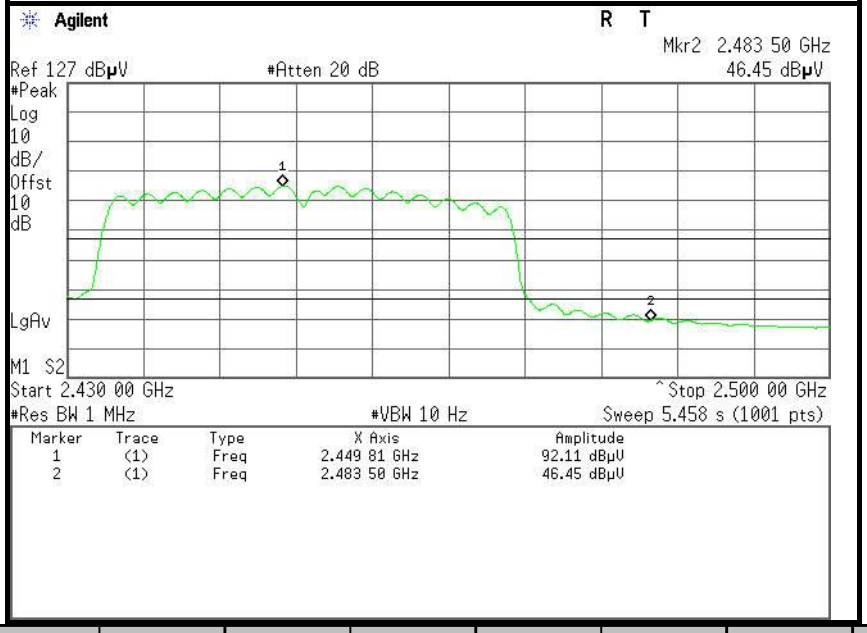


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	52.76	-6.24	59.00	74.00	-15.00	Peak	Vertical
2	2483.5000	40.84	-6.24	47.08	54.00	-6.92	Average	Vertical

Detector mode: Peak **Polarity: Horizontal**



Detector mode: Average **Polarity: Horizontal**

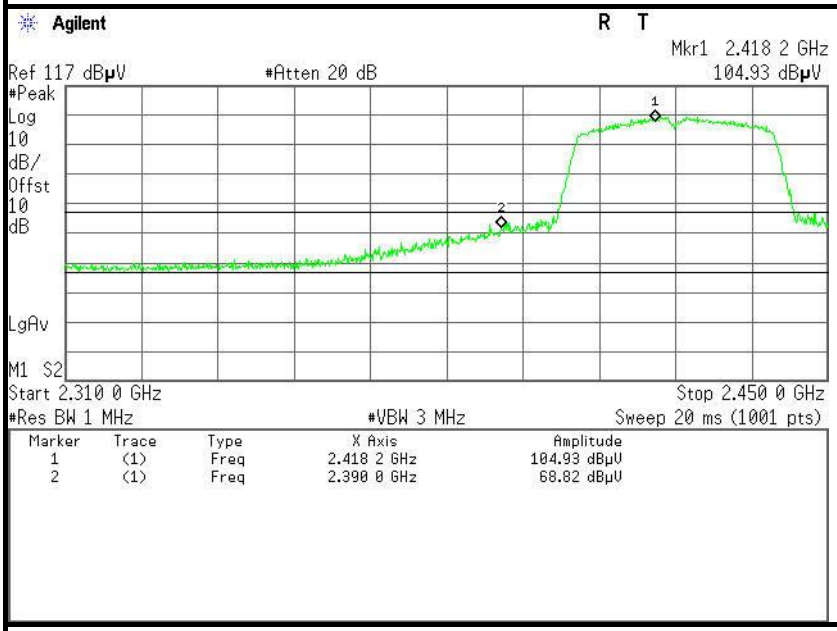


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	51.39	-6.24	57.63	74.00	-16.37	Peak	Horizontal
2	2483.5000	40.21	-6.24	46.45	54.00	-7.55	Average	Horizontal

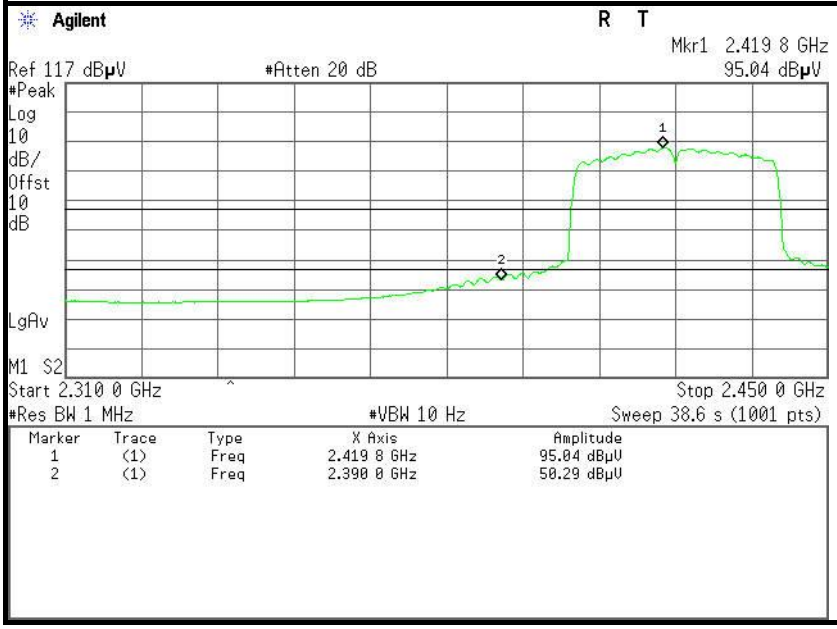
Model: PW5003

Band Edges (CH Low)

Detector mode: Peak **Polarity: Vertical**

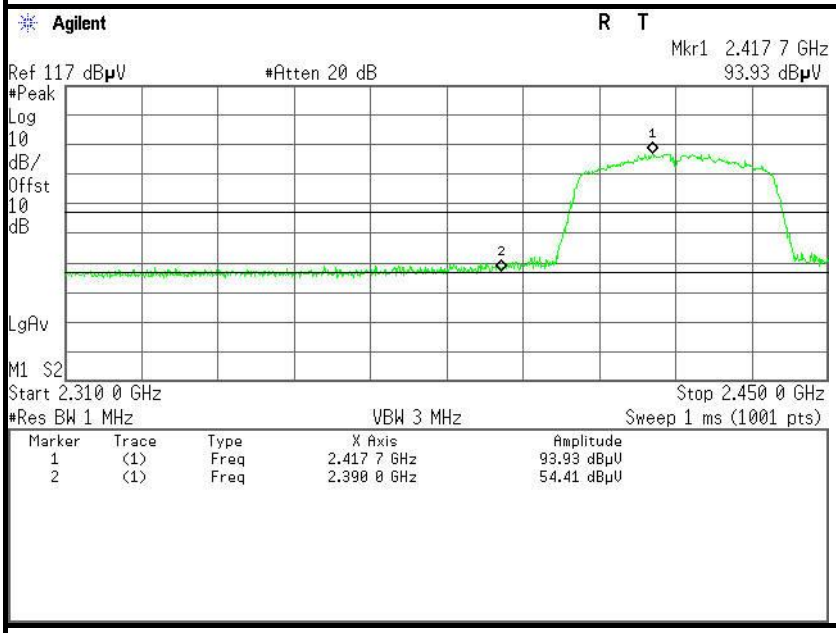


Detector mode: Average **Polarity: Vertical**

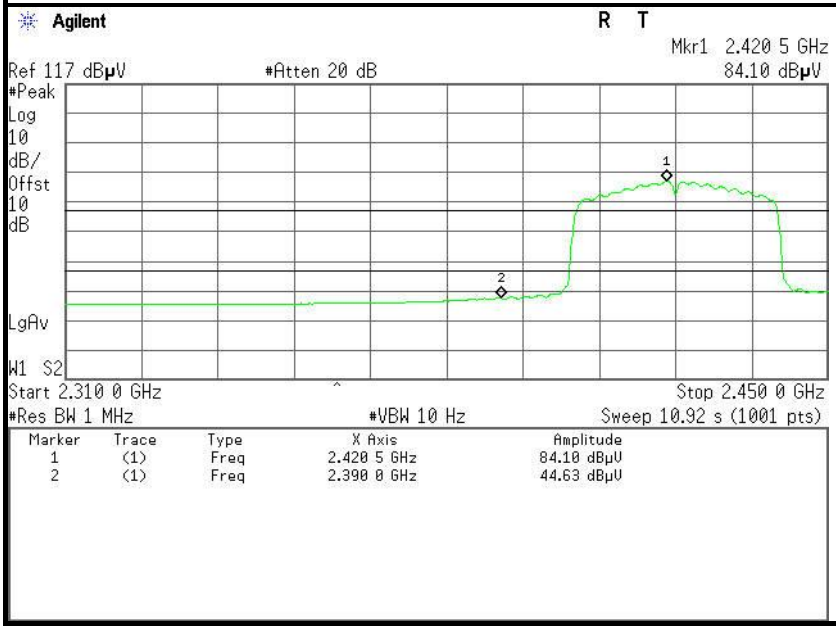


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	62.22	-6.60	68.82	74.00	-5.18	Peak	Vertical
2	2390.0000	43.69	-6.60	50.29	54.00	-3.71	Average	Vertical

Detector mode: Peak **Polarity: Horizontal**



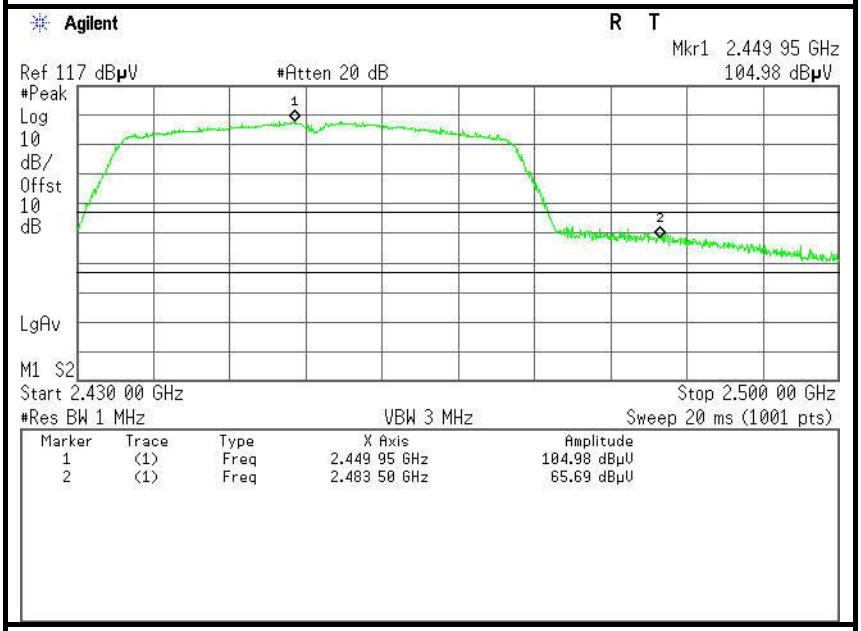
Detector mode: Average **Polarity: Horizontal**



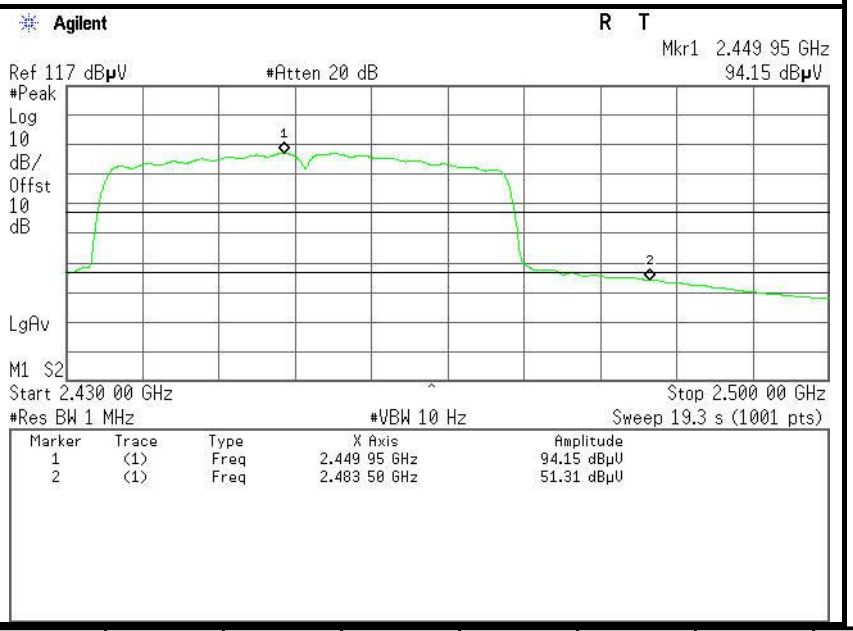
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	47.81	-6.60	54.41	74.00	-19.59	Peak	Horizontal
2	2390.0000	38.03	-6.60	44.63	54.00	-9.37	Average	Horizontal

Band Edges (CH High)

Detector mode: Peak **Polarity: Vertical**

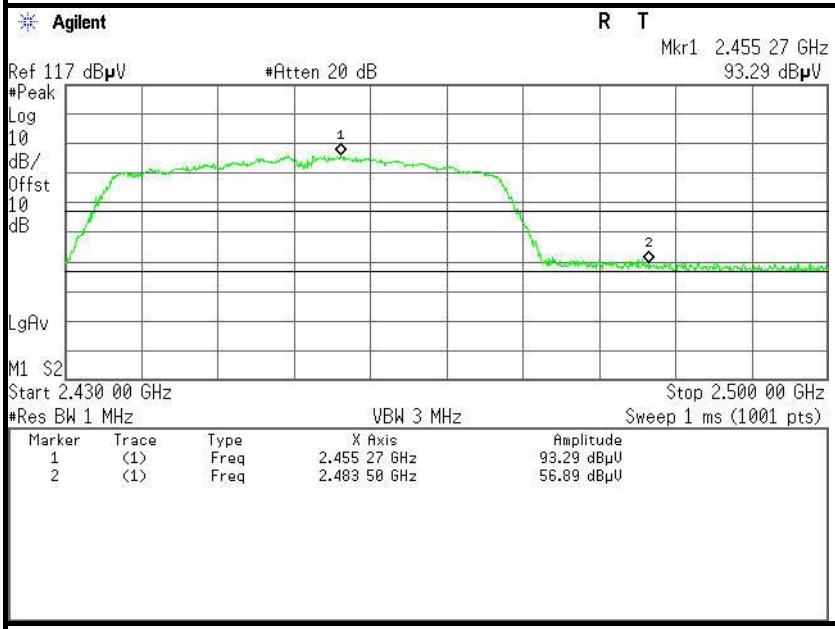


Detector mode: Average **Polarity: Vertical**

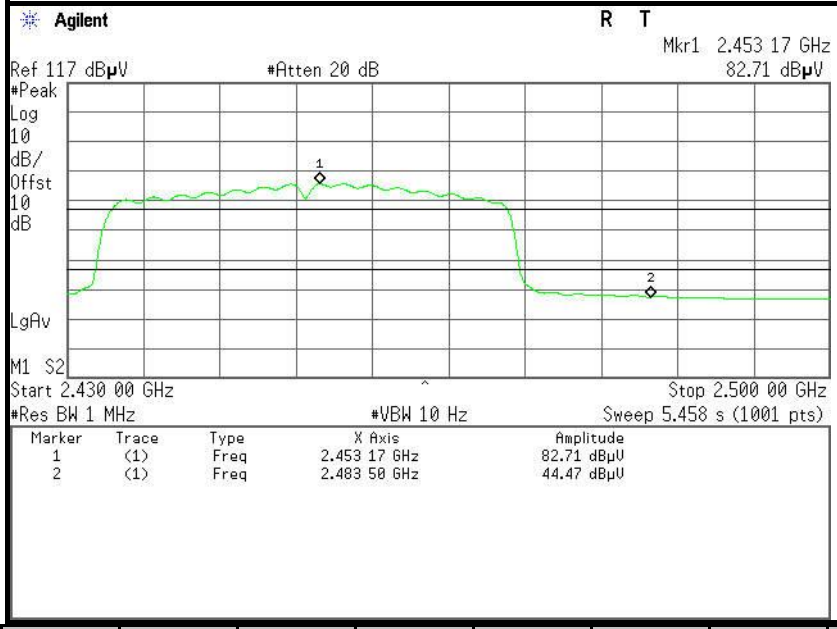


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	59.45	-6.24	65.69	74.00	-8.31	Peak	Vertical
2	2483.5000	45.07	-6.24	51.31	54.00	-2.69	Average	Vertical

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	2483.5000	50.65	-6.24	56.89	74.00	-17.11	Peak	Horizontal
2	2483.5000	38.23	-6.24	44.47	54.00	-9.53	Average	Horizontal

7.7. PEAK POWER SPECTRAL DENSITY MEASUREMENT

7.7.1. 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.

7.7.2. TEST INSTRUMENTS

Name of Equipment	Manufacturer	Model	Serial Number	Last Calibration	Calibration Due
Spectrum Analyzer	Agilent	N9010A	MY52221469	02/21/2016	02/20/2017

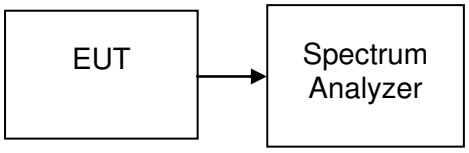
7.7.3. TEST PROCEDURES (please refer to measurement standard)

§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).

10.2 Method PKPSD (peak PSD)

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS bandwidth.
3. Set the RBW to: 3 kHz ≤ RBW ≤ 100 kHz.
4. Set the VBW ≥ 3 x RBW.
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 amplitude level within the RBW.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

7.7.4. TEST SETUP



7.7.5. TEST RESULTS

No non-compliance noted

Test Data

Test mode: IEEE 802.11b (Antenna 1)

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Test Result
Low	2412	-10.360	8	PASS
Mid	2437	-10.646		PASS
High	2462	-8.544		PASS

Test mode: IEEE 802.11b (Antenna 2)

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Test Result
Low	2412	-9.772	8	PASS
Mid	2437	-10.015		PASS
High	2462	-10.379		PASS

Test mode: IEEE 802.11g (Antenna 1)

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Test Result
Low	2412	-11.901	8	PASS
Mid	2437	-10.933		PASS
High	2462	-12.403		PASS

Test mode: IEEE 802.11g (Antenna 2)

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Test Result
Low	2412	-15.230	8	PASS
Mid	2437	-18.230		PASS
High	2462	-15.346		PASS

Test mode: IEEE 802.11n HT20 MHz (Combine with Antenna 1 and Antenna 2)

Channel	Frequency (MHz)	PPSD (dBm)			Limit (dBm)	Test Result
		Antenna 1	Antenna 2	Total		
Low	2412	-18.663	-15.204	-13.588	8	PASS
Mid	2437	-18.525	-16.331	-14.281		PASS
High	2462	-17.938	-16.064	-13.890		PASS

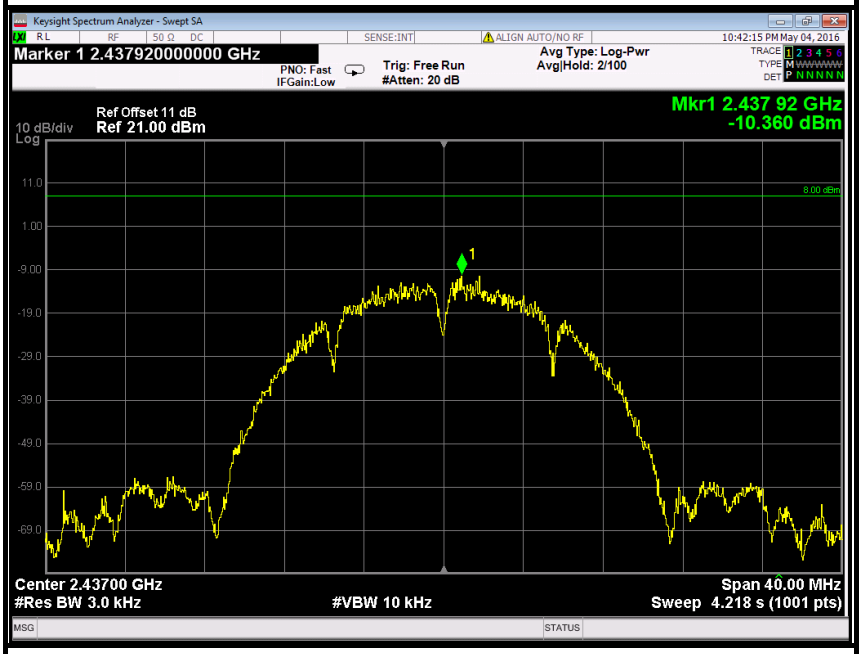
Test mode: IEEE 802.11n HT40 MHz (Combine with Antenna 1 and Antenna 2)

Channel	Frequency (MHz)	PPSD (dBm)			Limit (dBm)	Test Result
		Antenna 1	Antenna 2	Total		
Low	2422	-19.013	-17.092	-14.937	8	PASS
Mid	2437	-17.859	-18.184	-15.008		PASS
High	2452	-17.272	-11.913	-10.803		PASS

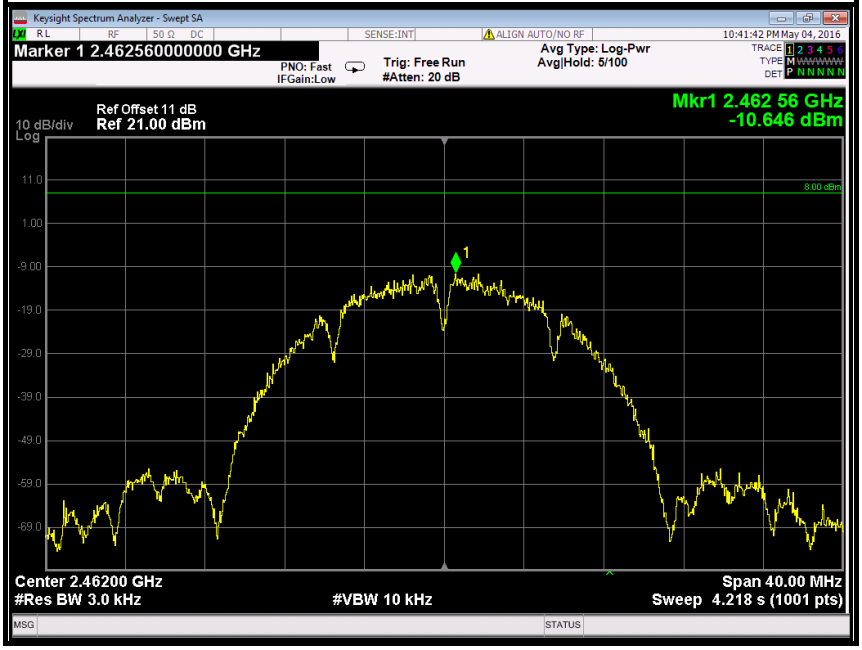
Test Plot

IEEE 802.11b mode (Antenna 1)

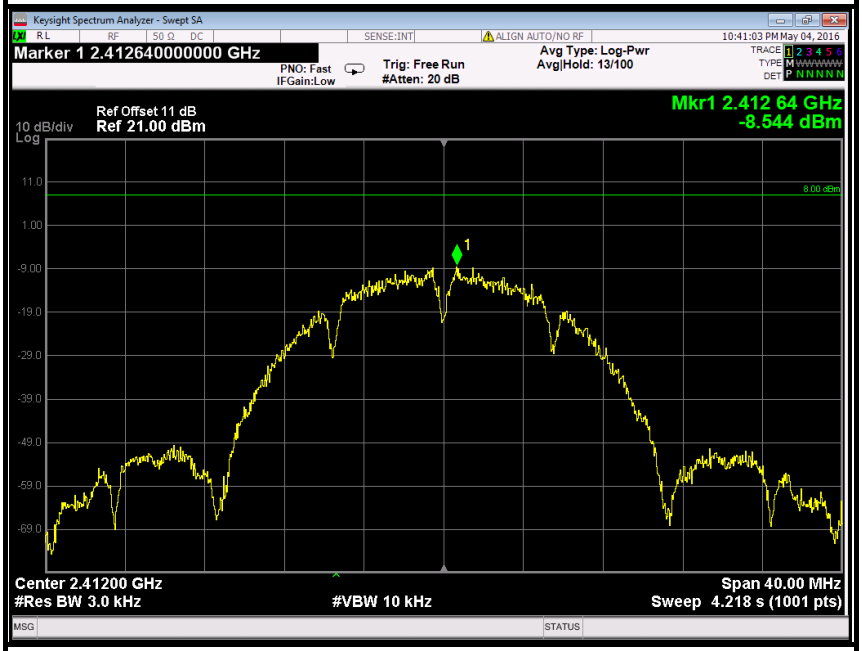
PPSD (CH Low)



PPSD (CH Mid)

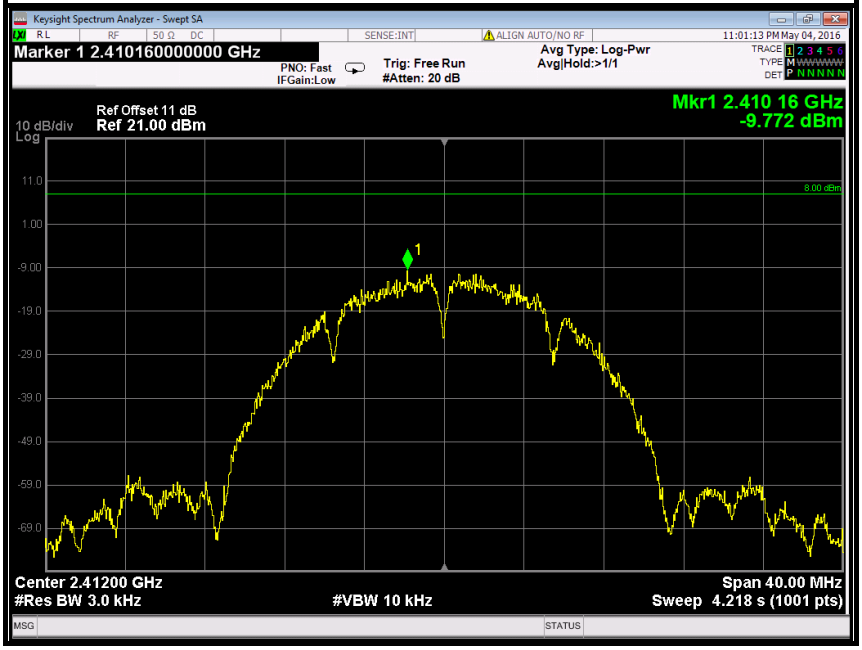


PPSD (CH High)

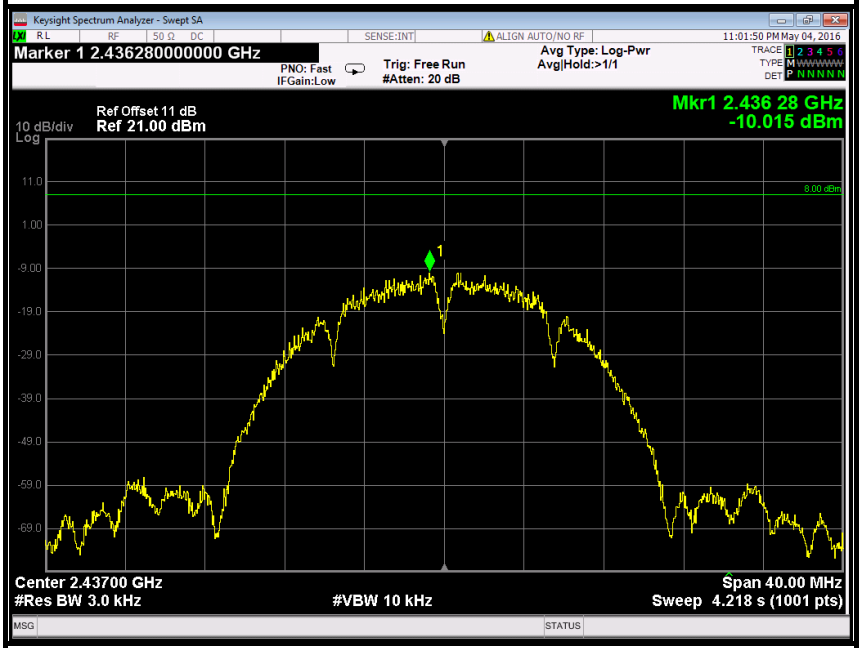


IEEE 802.11b mode (Antenna 2)

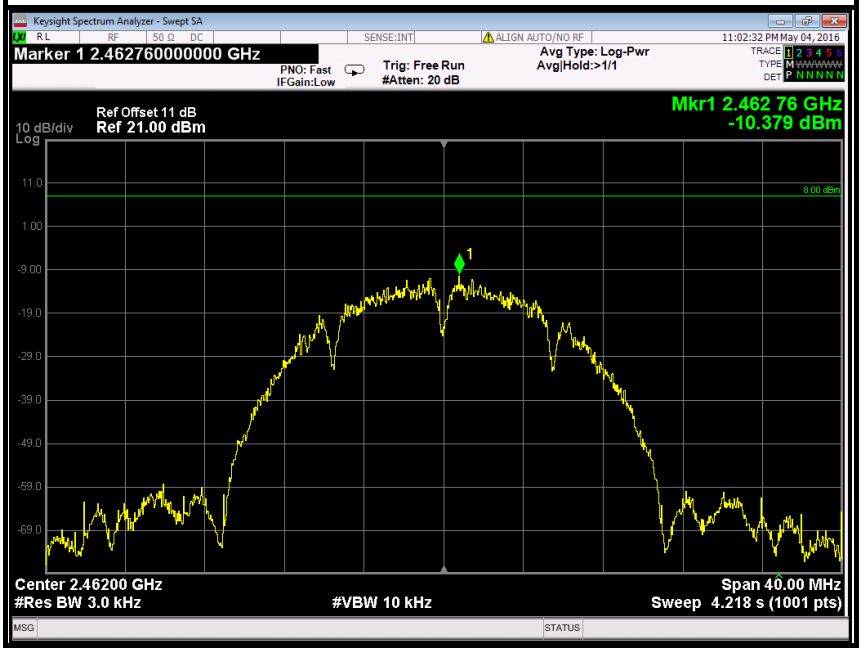
PPSD (CH Low)



PPSD (CH Mid)

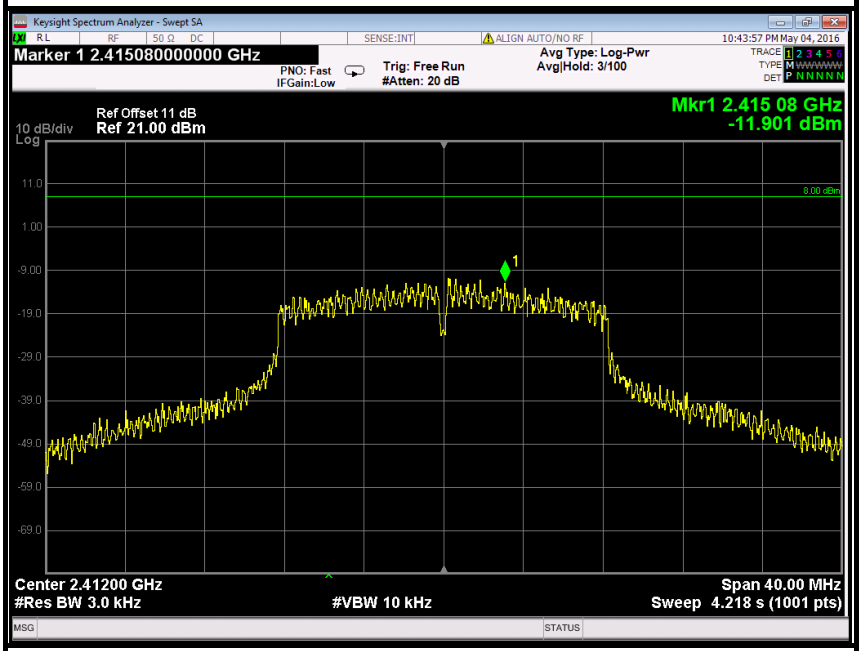


PPSD (CH High)

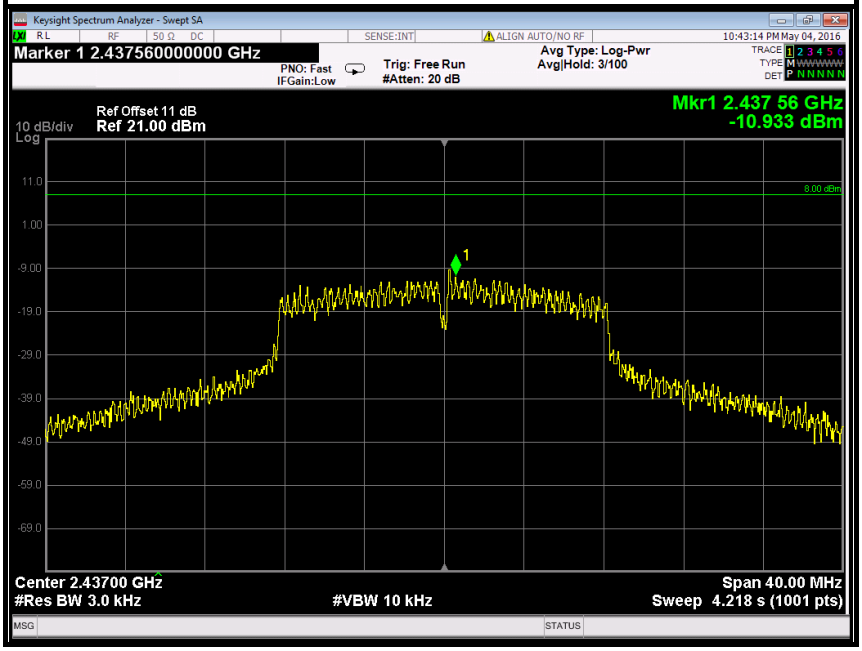


IEEE 802.11g mode (Antenna 1)

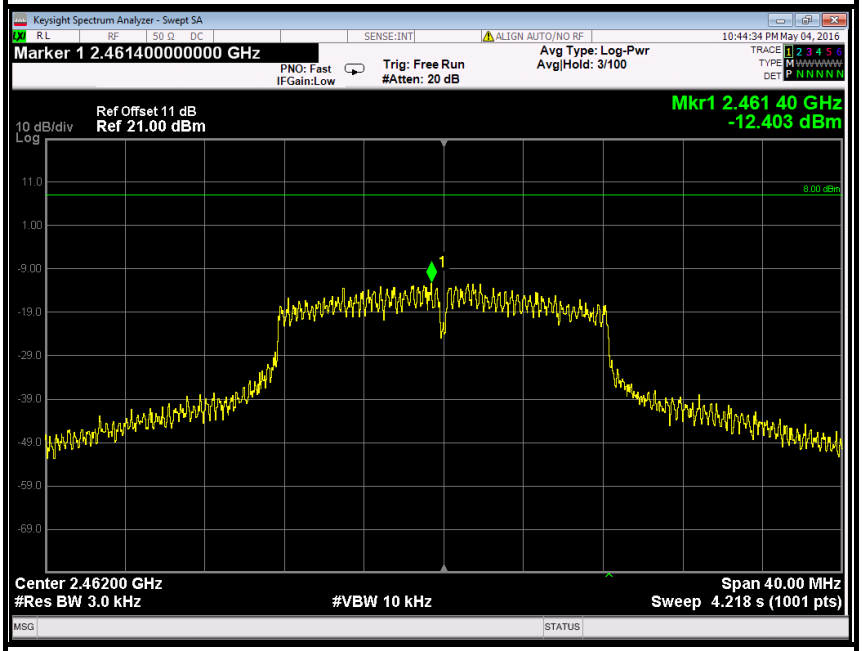
PPSD (CH Low)



PPSD (CH Mid)

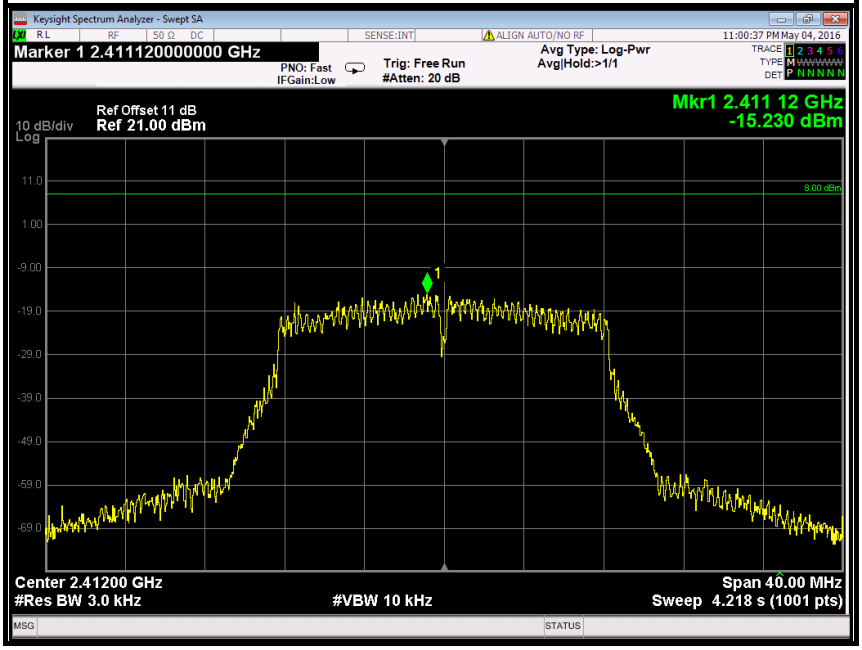


PPSD (CH High)

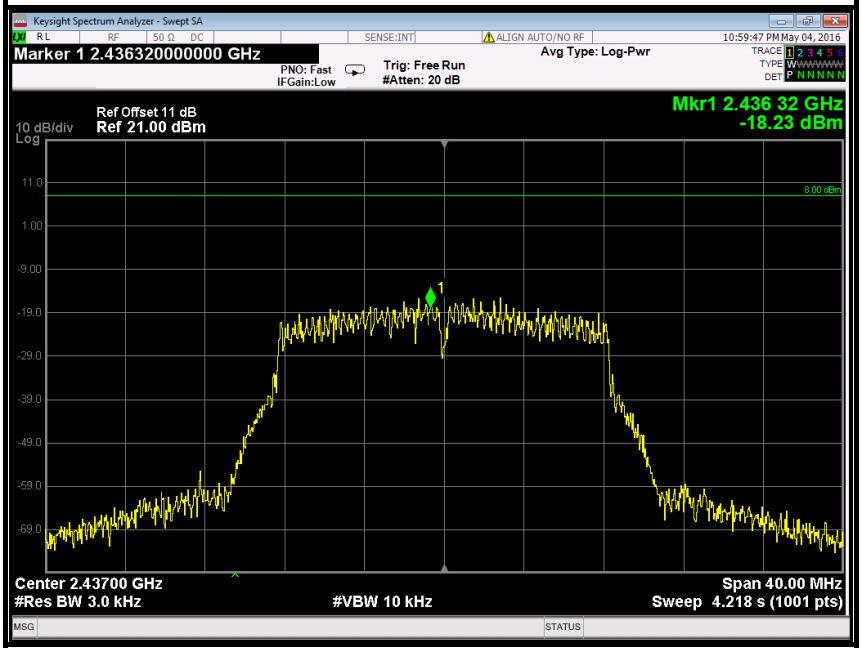


IEEE 802.11g mode (Antenna 2)

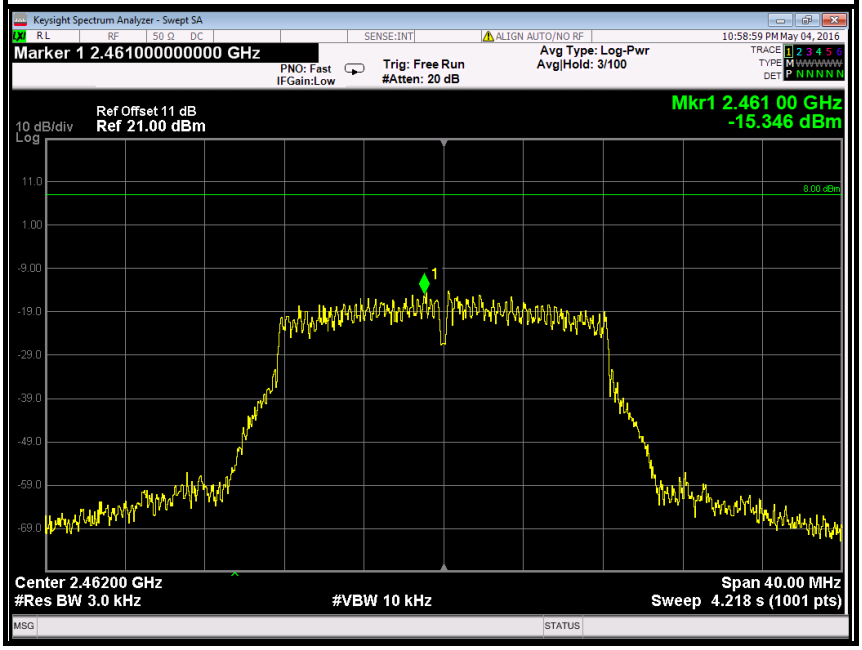
PPSD (CH Low)



PPSD (CH Mid)

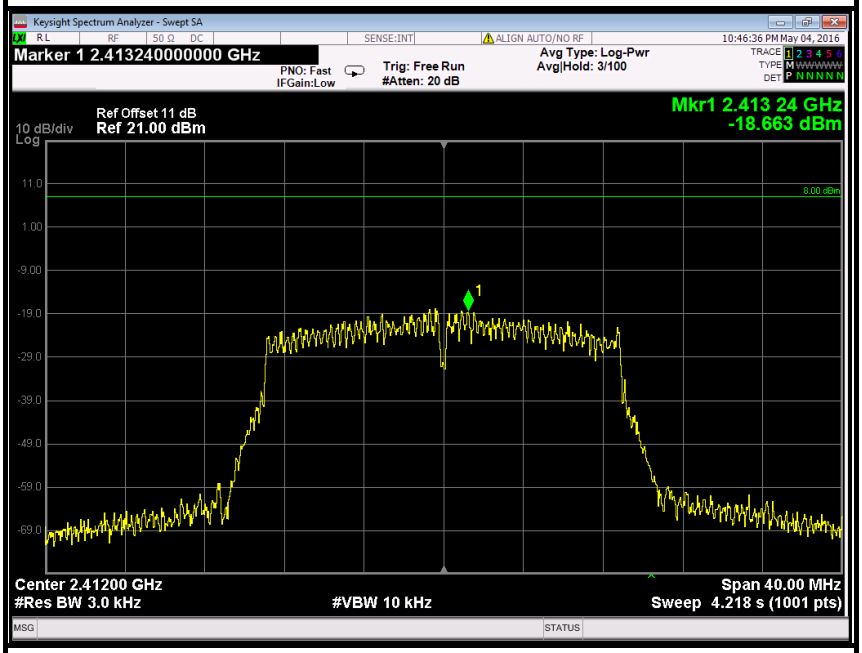


PPSD (CH High)

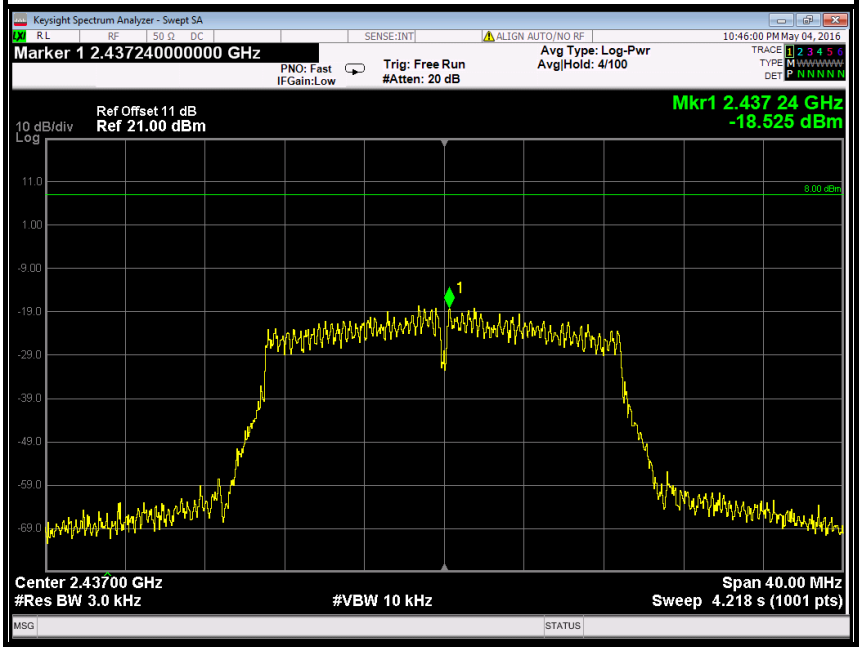


IEEE 802.11n HT20 MHz mode (Antenna 1)

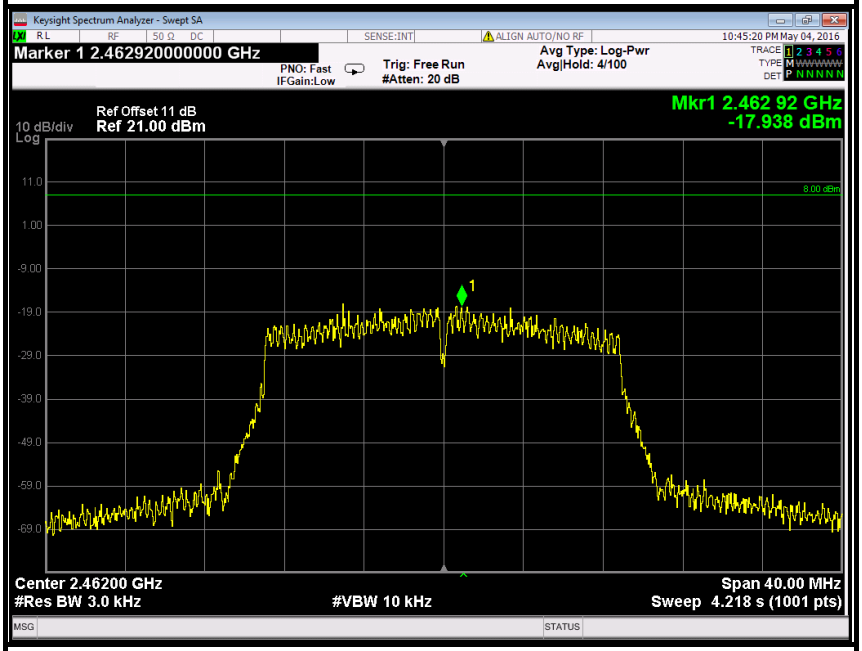
PPSD (CH Low)



PPSD (CH Mid)

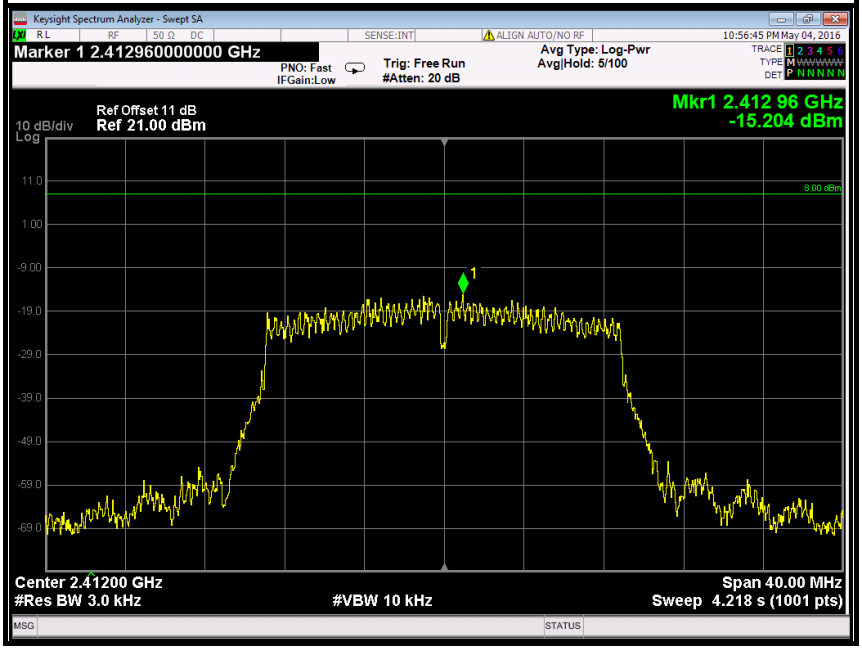


PPSD (CH High)

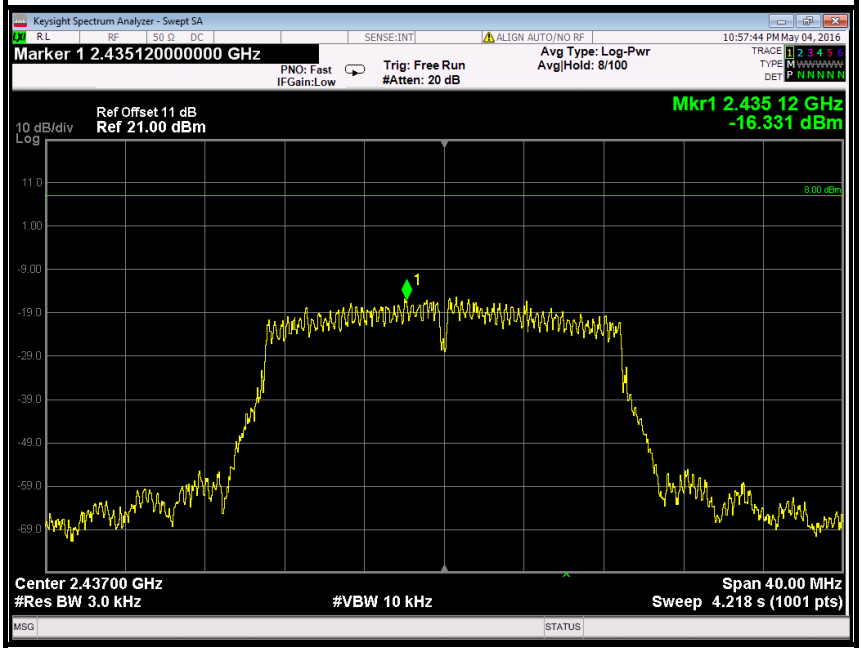


IEEE 802.11n HT20 MHz mode (Antenna 2)

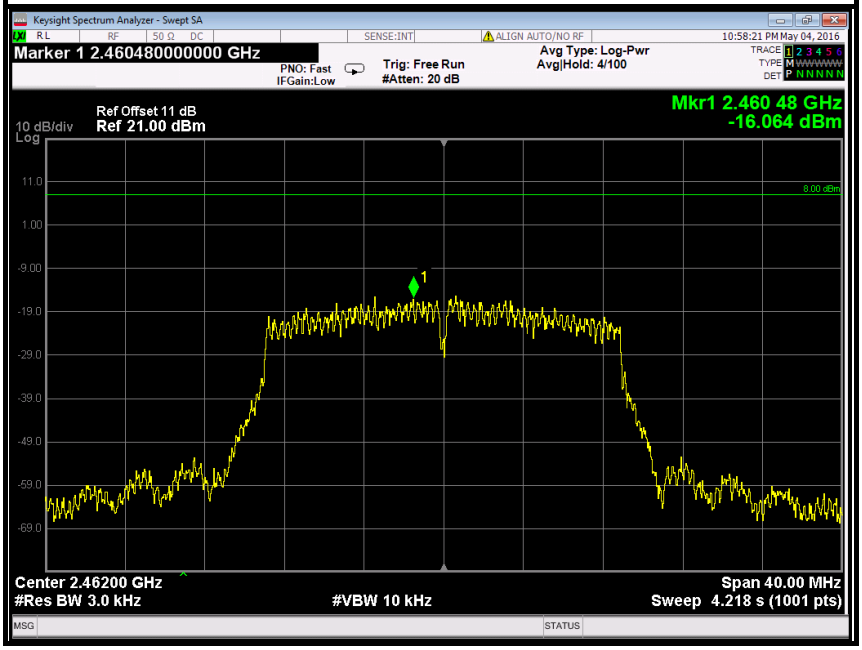
PPSD (CH Low)



PPSD (CH Mid)

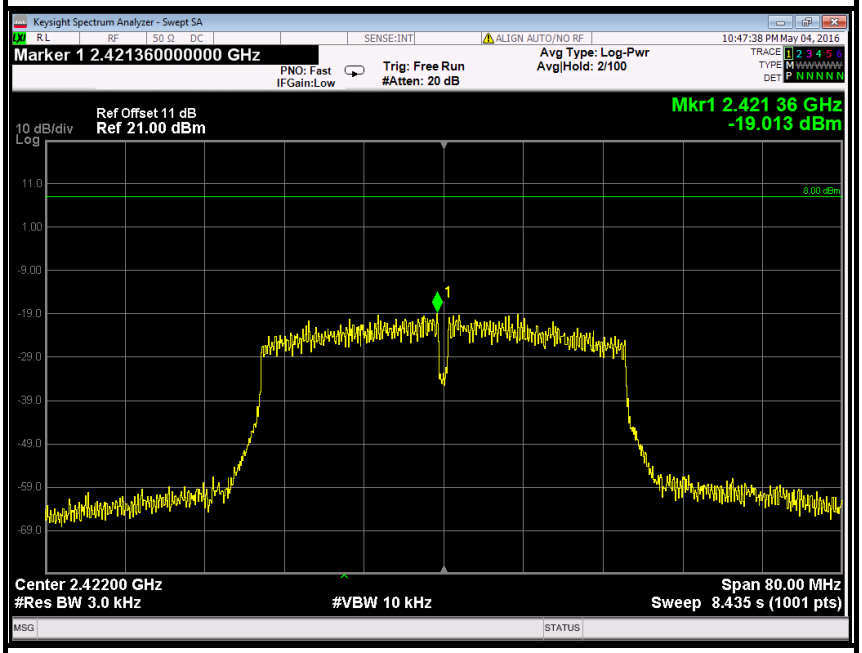


PPSD (CH High)

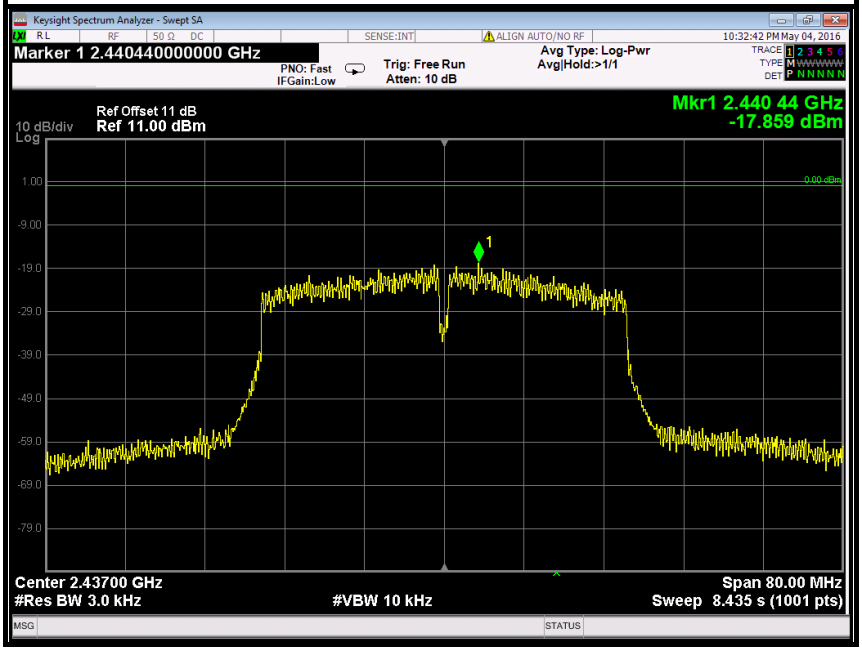


IEEE 802.11n HT40 MHz mode (Antenna 1)

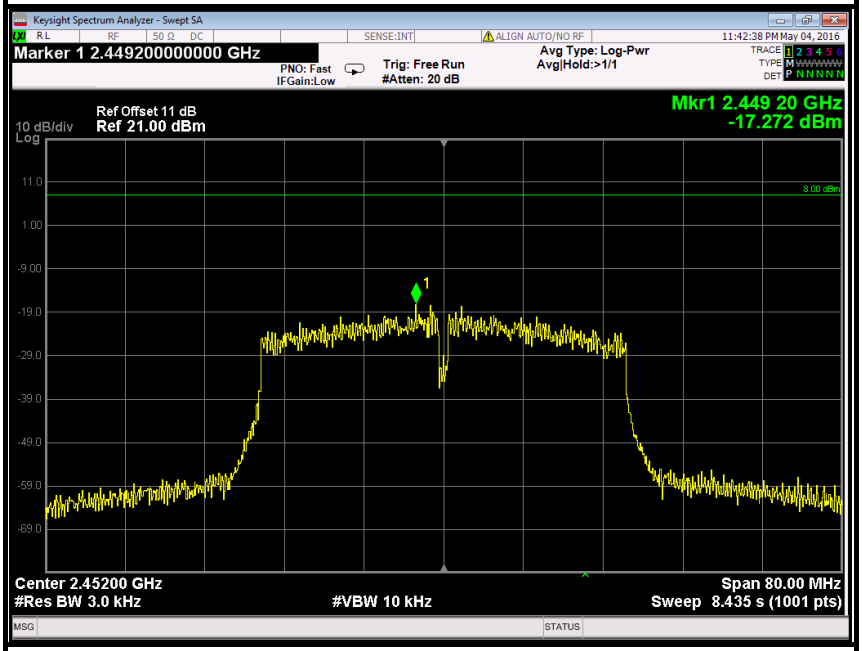
PPSD (CH Low)



PPSD (CH Mid)

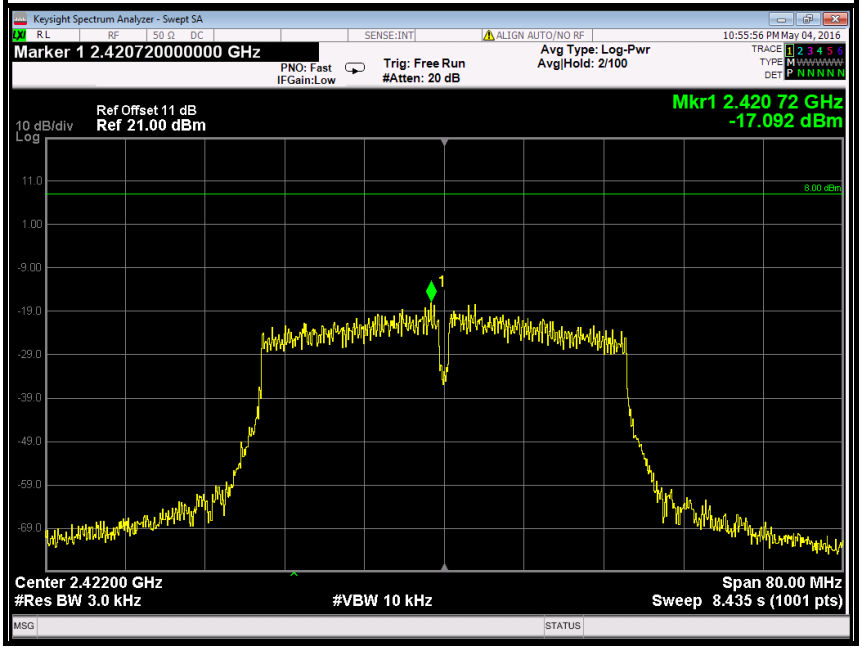


PPSD (CH High)

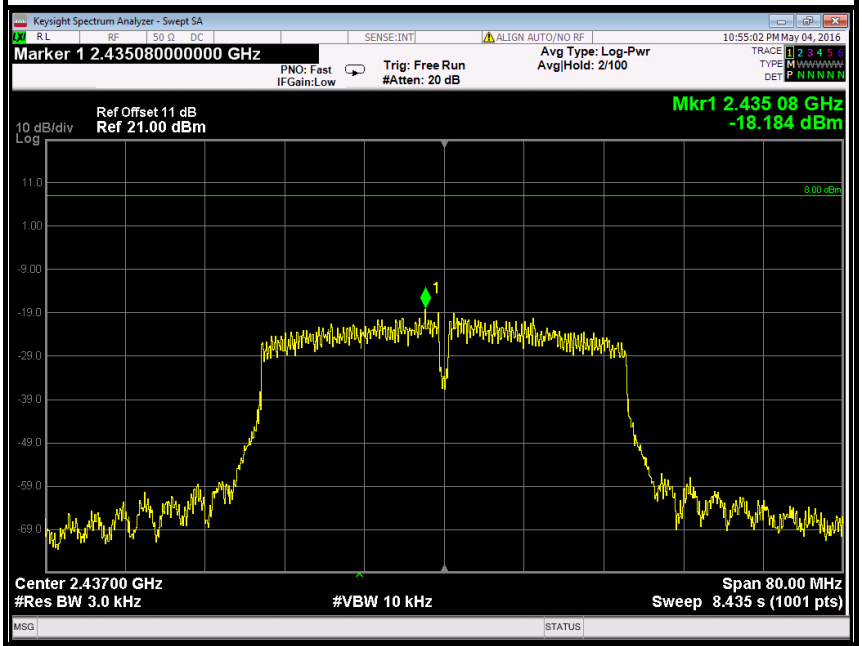


IEEE 802.11n HT40 MHz mode (Antenna 2)

PPSD (CH Low)



PPSD (CH Mid)



PPSD (CH High)