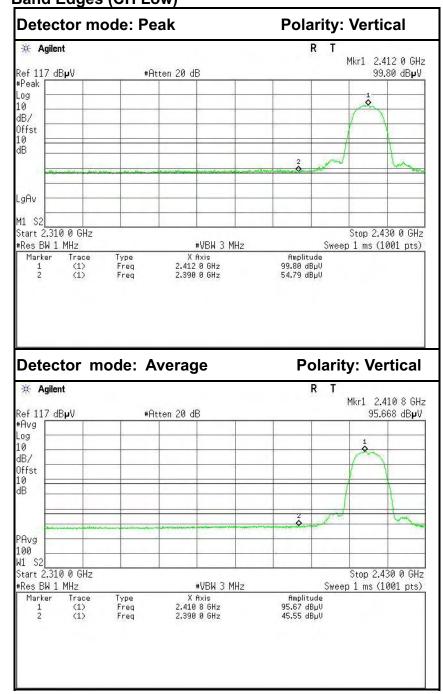


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	48.03	-6.24	54.27	74.00	-19.73	Peak	Horizontal
2	2483.5000	39.11	-6.24	45.35	54.00	-8.65	Average	Horizontal

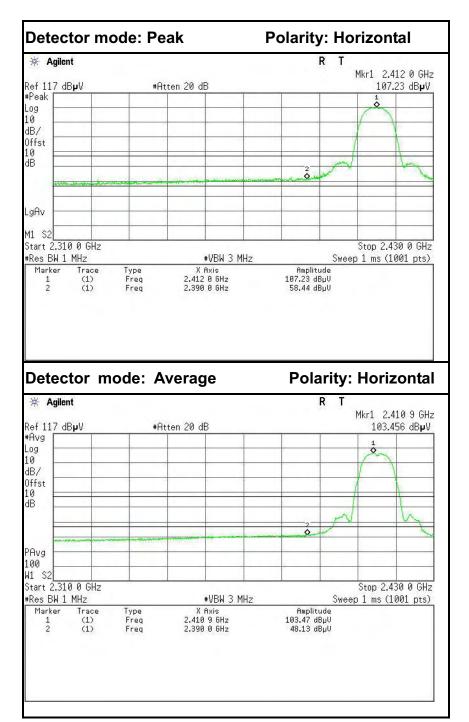
IEEE 802.11b mode (Antenna 2)



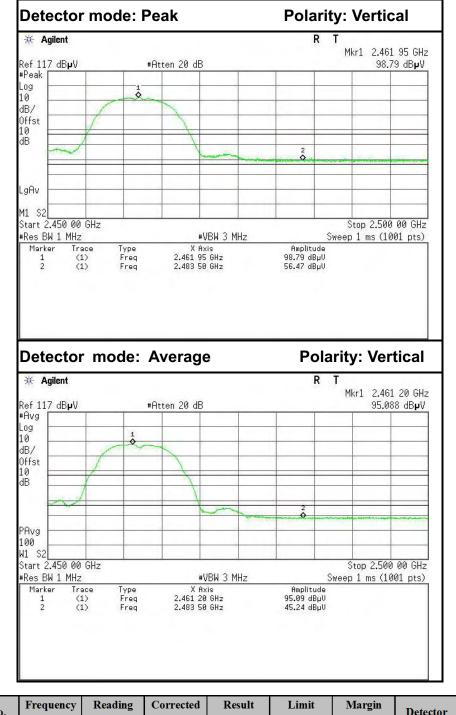
Band Edges	(CH Low)
Bana Eagoo	(0)) = 0,007

No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	48.19	-6.60	54.79	74.00	-19.21	Peak	Vertical
2	2390.0000	38.95	-6.60	45.55	54.00	-8.45	Average	Vertical



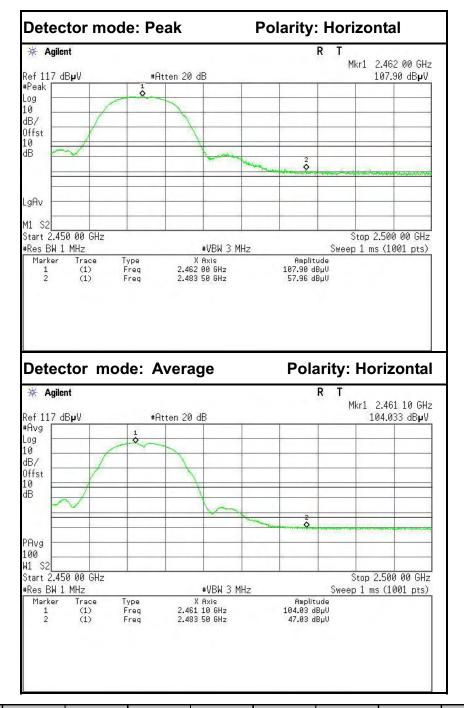


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	51.84	-6.60	58.44	74.00	-15.56	Peak	Horizontal
2	2390.0000	41.53	-6.60	48.13	54.00	-5.87	Average	Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	50.23	-6.24	56.47	74.00	-17.53	Peak	Vertical
2	2483.5000	39.00	-6.24	45.24	54.00	-8.76	Average	Vertical

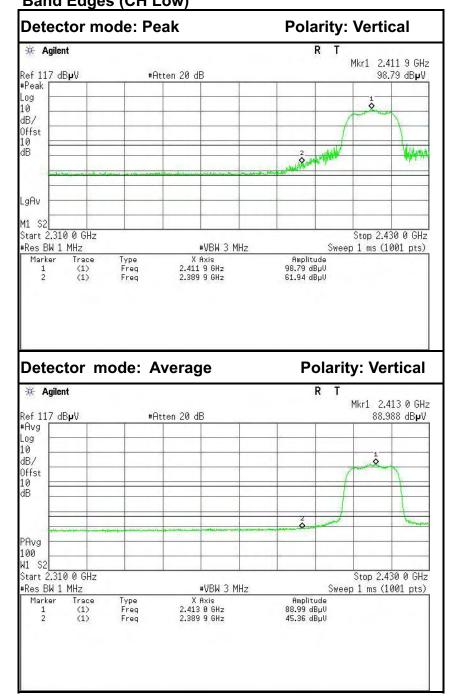




No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	51.72	-6.24	57.96	74.00	-16.04	Peak	Horizontal
2	2483.5000	40.79	-6.24	47.03	54.00	-6.97	Average	Horizontal



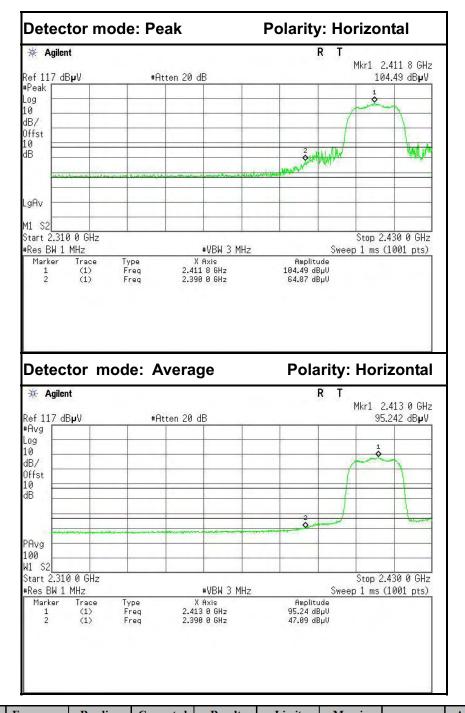
IEEE 802.11g mode (Antenna 1)



Band Edges (CH Low)

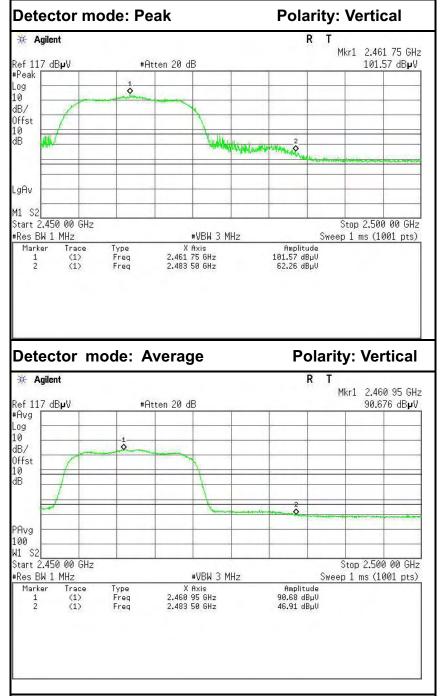
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	55.34	-6.60	61.94	74.00	-12.06	Peak	Vertical
2	2390.0000	38.76	-6.60	45.36	54.00	-8.64	Average	Vertical





No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	58.27	-6.60	64.87	74.00	-9.13	Peak	Horizontal
2	2390.0000	40.49	-6.60	47.09	54.00	-6.91	Average	Horizontal

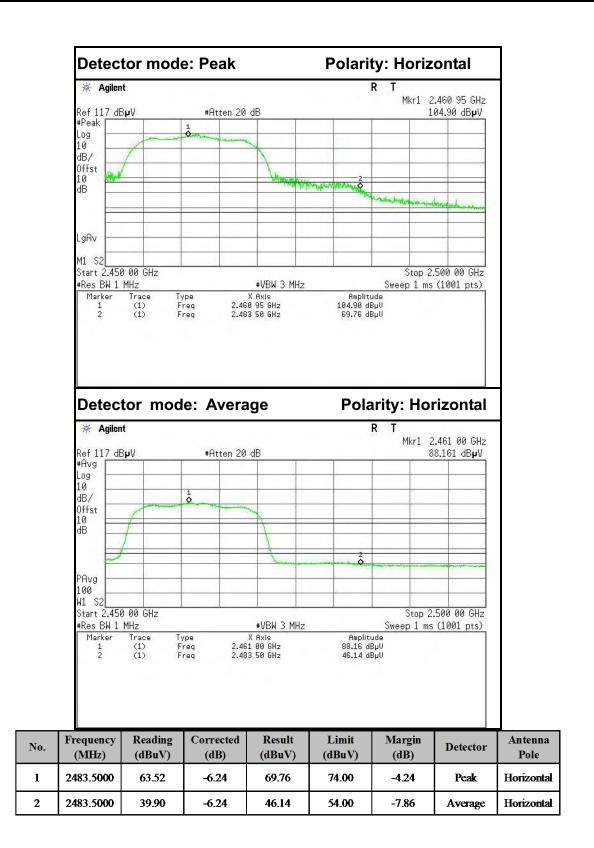




No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	56.02	-6.24	62.26	74.00	-11.74	Peak	Vertical
2	2483.5000	40.67	-6.24	46.91	54.00	-7.09	Average	Vertical

FCC ID: X4YSPARX2W Page 98 / 126 This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.



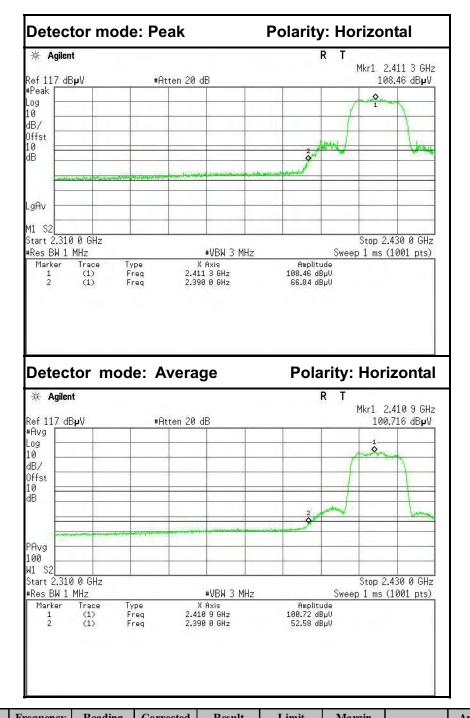


Detector mode: Peak Polarity: Vertical 🔆 Agilent R T Mkr1 2.412 2 GHz 98.19 dBµV Ref 117 dB**µ**V #Peak [#Atten 20 dB Log 10 ò dB/ Offst 10 dB mest al 2 LgAv M1 S2 Start 2.310 0 GHz Stop 2.430 0 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 1 ms (1001 pts) Trace (1) (1) Type Freq Freq X Axis 2.412 2 GHz 2.390 0 GHz Amplitude 98.19 dBµV 56.80 dBµV Marker 12 Detector mode: Average **Polarity: Vertical** R T 💥 Agilent Mkr1 2.412 2 GHz Ref 117 dB**µ**V #Avg 86.910 dBµV #Atten 20 dB Log 10 dB/ Offst ō 10 dB PAvg 100 W1 S2 Start 2.310 0 GHz Stop 2.430 0 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 1 ms (1001 pts) Trace (1) (1) Type Freq Freq X Axis 2.412 2 GHz 2.390 0 GHz Amplitude 86.91 dBµV 44.57 dBµV Marker 12

)

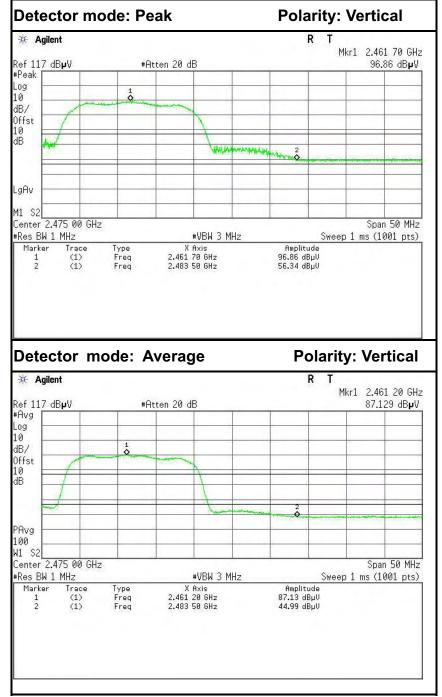
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	50.20	-6.60	56.80	74.00	-17.20	Peak	Vertical
2	2390.0000	37.97	-6.60	44.57	54.00	-9.43	Average	Vertical

Band Edges (CH Low)



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	60.24	-6.60	66.84	74.00	-7.16	Peak	Horizontal
2	2390.0000	45.98	-6.60	52.58	54.00	-1.42	Average	Horizontal

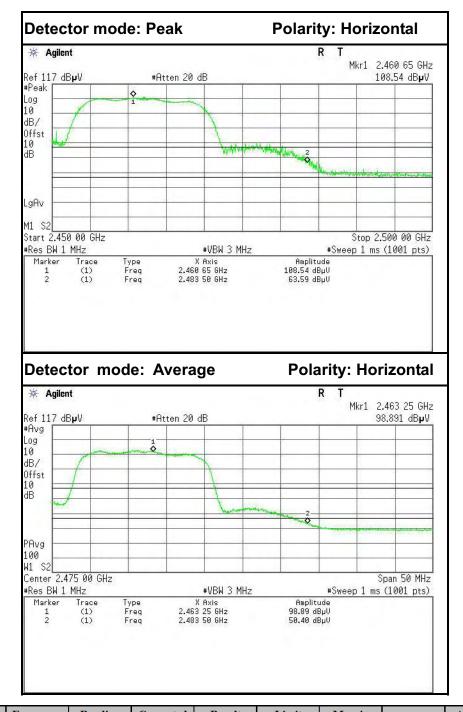




No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	50.10	-6.24	56.34	74.00	-17.66	Peak	Vertical
2	2483.5000	38.75	-6.24	44.99	54.00	-9.01	Average	Vertical

FCC ID: X4YSPARX2W Page 102 / 126 This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

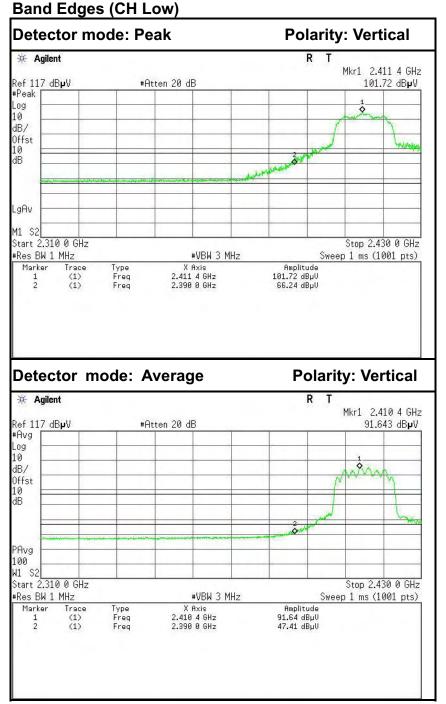




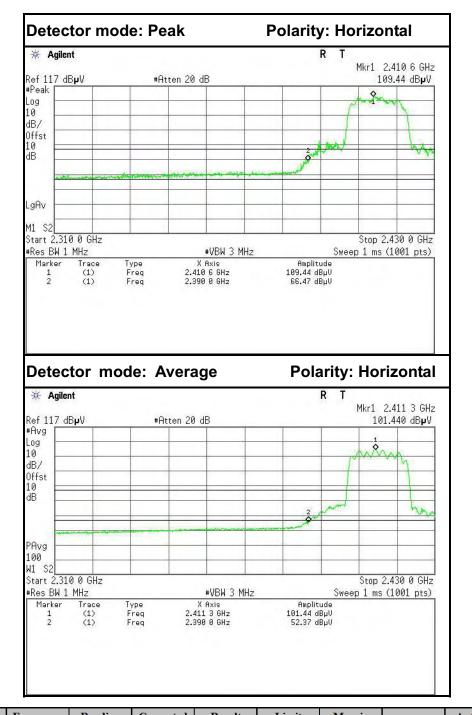
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	57.35	-6.24	63.59	74.00	-10.41	Peak	Horizontal
2	2483.5000	44.16	-6.24	50.40	54.00	-3.60	Average	Horizontal



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



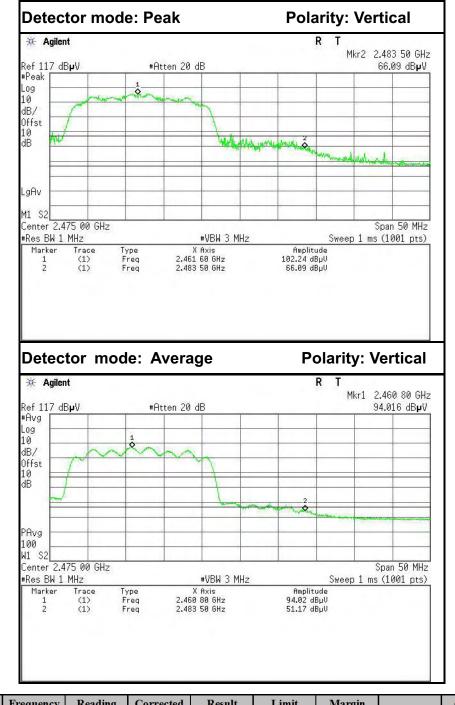
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	59.64	-6.60	66.24	74.00	-7.76	Peak	Vertical
2	2390.0000	40.81	-6.60	47.41	54.00	-6.59	Average	Vertical



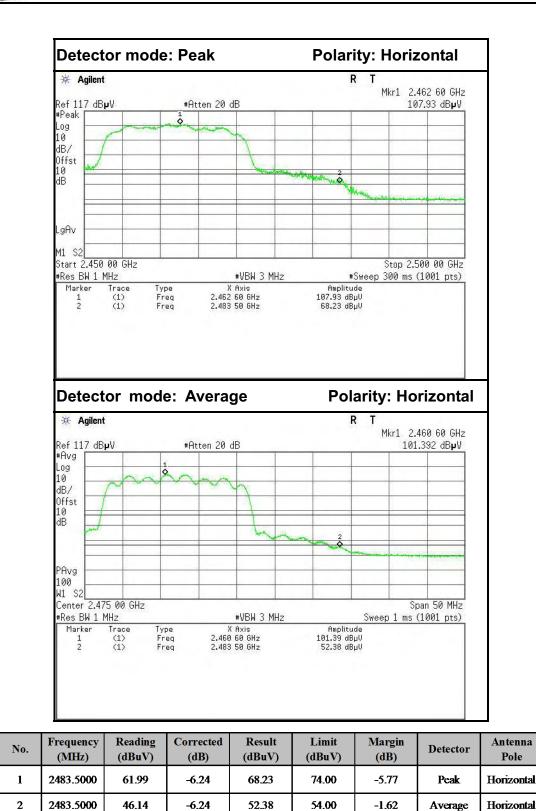
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	59.87	-6.60	66.47	74.00	-7.53	Peak	Horizontal
2	2390.0000	45.77	-6.60	52.37	54.00	-1.63	Average	Horizontal







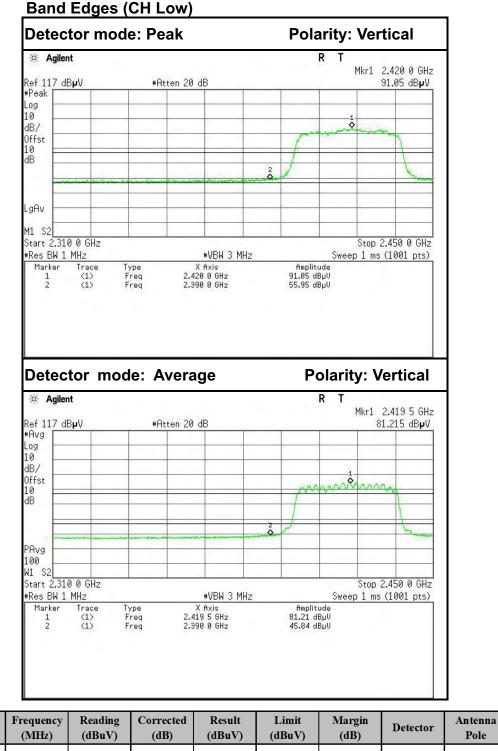
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	59.85	-6.24	66.09	74.00	-7.91	Peak	Vertical
2	2483.5000	44.93	-6.24	51.17	54.00	-2.83	Average	Vertical



Pole

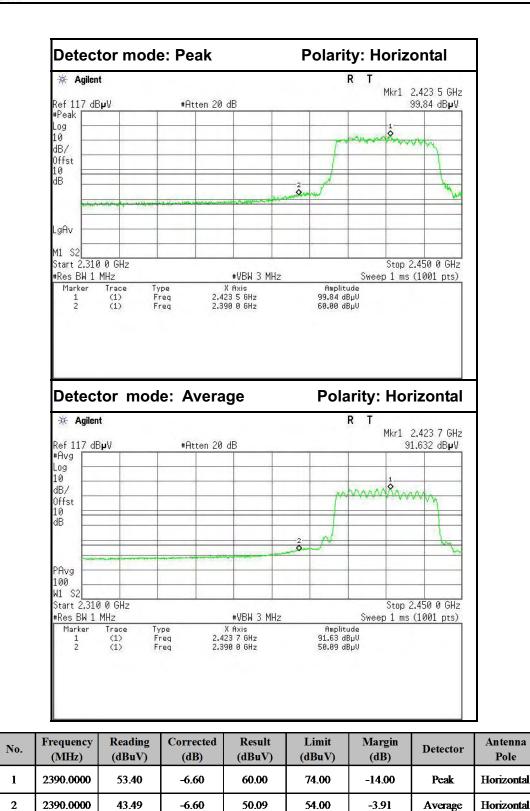


IEEE 802.11n HT40 MHz mode (Combine with Antenna 1 and Antenna 2)

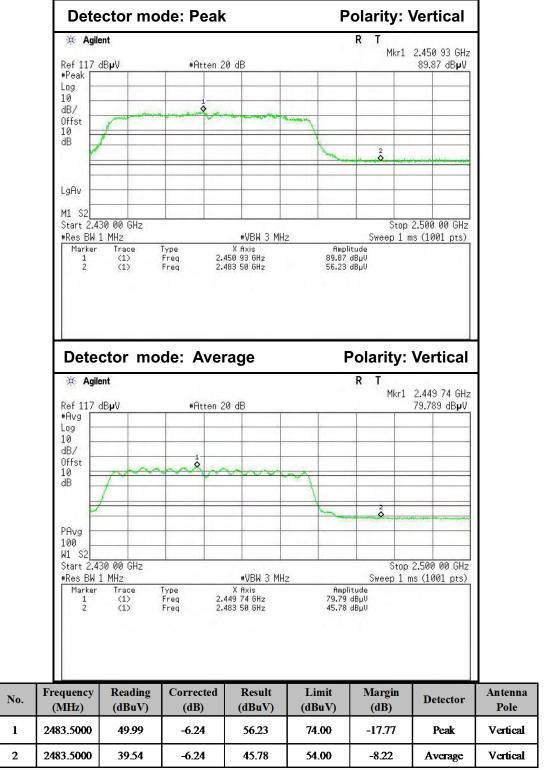


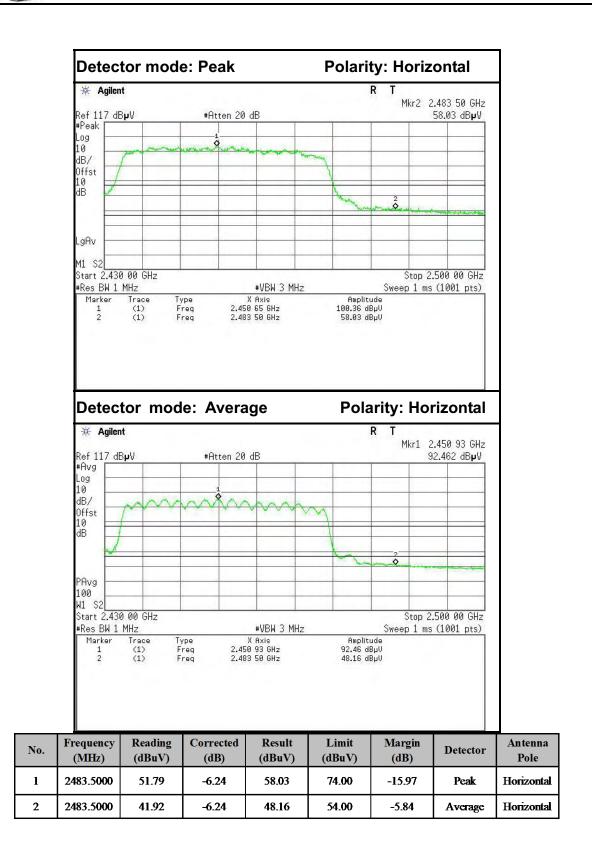
1 239	0.0000 49	9.35 -6.6	0 55.95	74.00	-18.05	Peak	Vertical
2 239	0.0000 39	9.24 -6.6	0 45.84	54.00	-8.16	Average	Vertical

No.











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	10/25/2014	10/24/2015

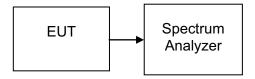
7.7.3. TEST PROCEDURES (please refer to measurement standard)

§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: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- 4. Set the VBW \geq 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

<u>Test Data</u>

Test mode: IEEE 802.11b (Antenna 1)

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Test Result
Low	2412	-4.212		PASS
Mid	2437	-4.511	8	PASS
High	2462	-5.992	e.	PASS

Test mode: IEEE 802.11b (Antenna 2)

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Test Result
Low	2412	-3.716		PASS
Mid	2437	-4.527	8	PASS
High	2462	-2.686		PASS

Test mode: IEEE 802.11g (Antenna 1)

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Test Result
Low	2412	-14.874		PASS
Mid	2437	-15.517	8	PASS
High	2462	-15.502		PASS

Test mode: IEEE 802.11g (Antenna 2)

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Test Result
Low	2412	-13.448		PASS
Mid	2437	-13.001	8	PASS
High	2462	-14.359		PASS



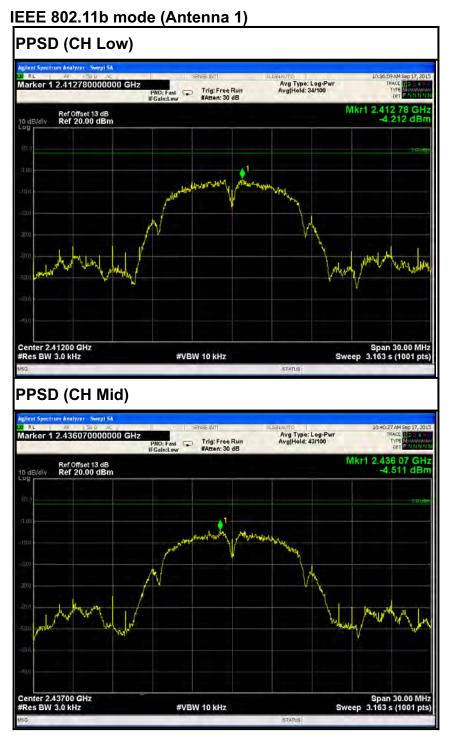
icst mode					ina i an	
Channel	Frequency (MHz)		PPSD (dBm)		Limit (dBm)	Test Result
	(1911 12)	Antenna 1	Antenna 2	Total	(abiii)	
Low	2412	-15.121	-14.582	-11.833		PASS
Mid	2437	-17.120	-15.984	-13.505	8	PASS
High	2462	-16.542	-13.989	-12.070	1	PASS
Test mode	IEEE 802.1	nna 1 and	d Antenna 2			
			PPSD			

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

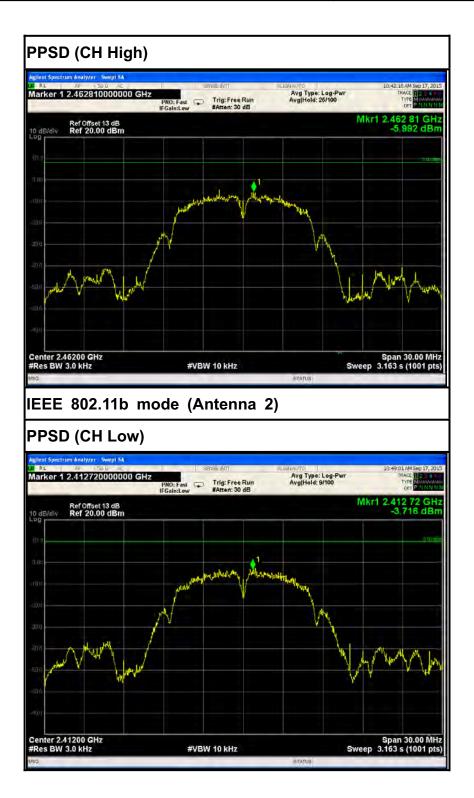
Test mode: IEEE 802.11n HT40 MHz (Combine with Antenna 1 and Antenna 2						
Channel	Frequency (MHz)	PPSD (dBm)			Limit (dBm)	Test Result
		Antenna 1	Antenna 2	Total	(abiii)	
Low	2422	-24.020	-21.944	-19.849		PASS
Mid	2437	-20.218	-19.939	-17.066	8	PASS
High	2452	-24.712	-22.407	-20.398		PASS



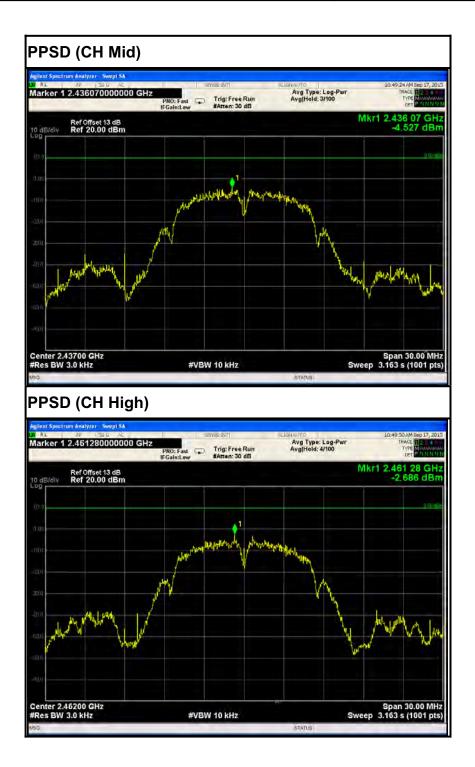
<u>Test Plot</u>



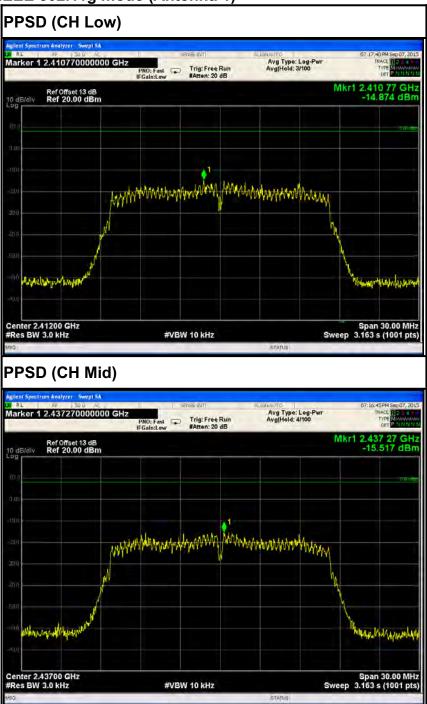






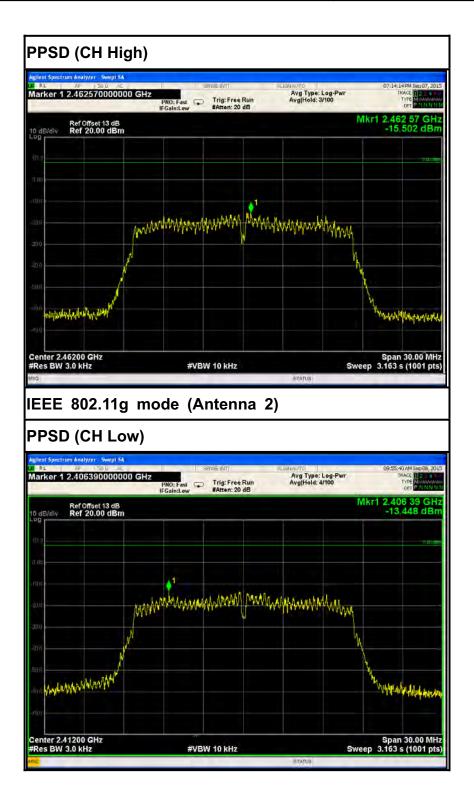




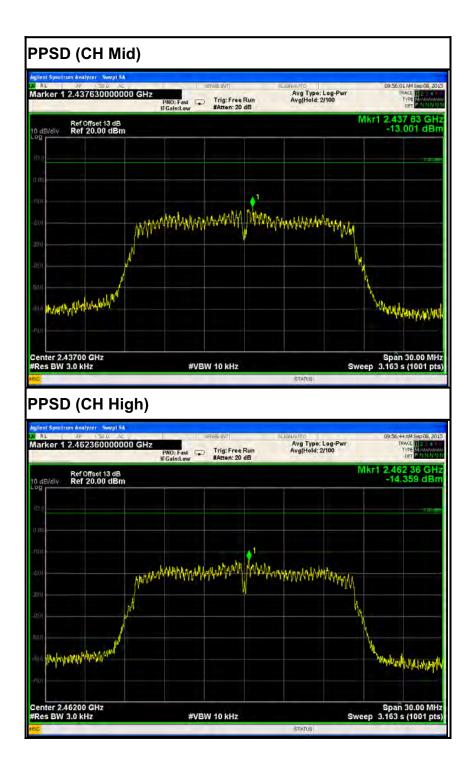


IEEE 802.11g mode (Antenna 1)

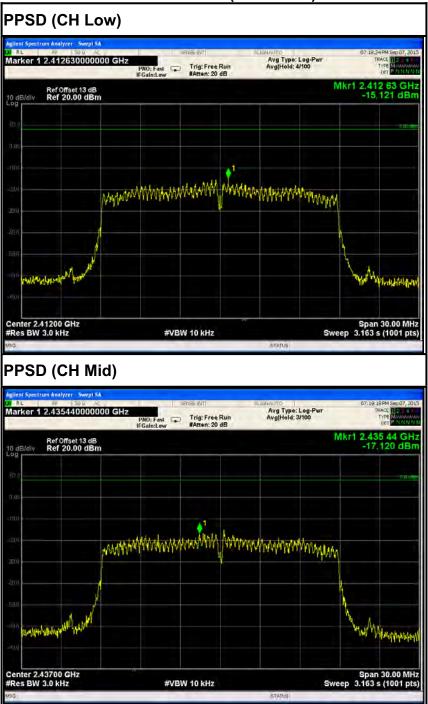






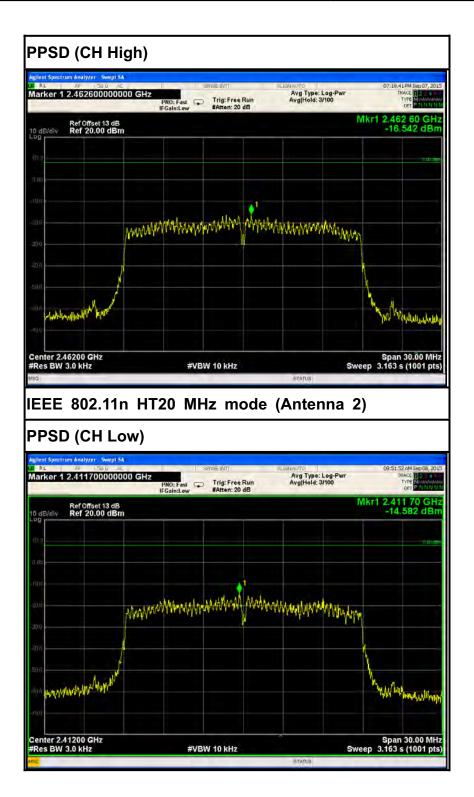




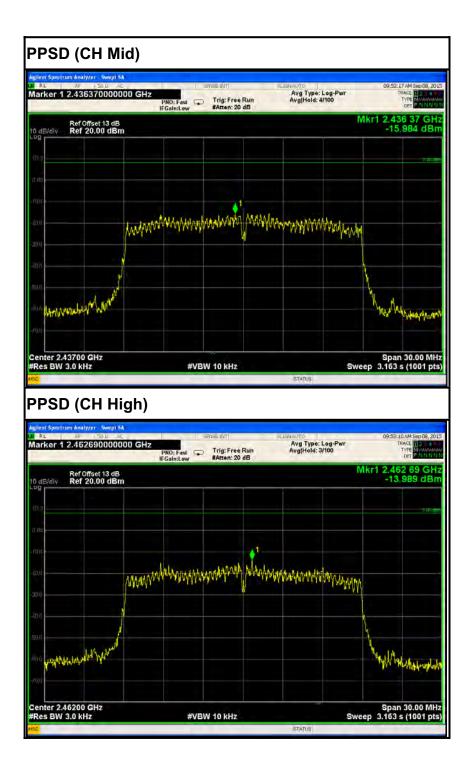


IEEE 802.11n HT20 MHz mode (Antenna 1)

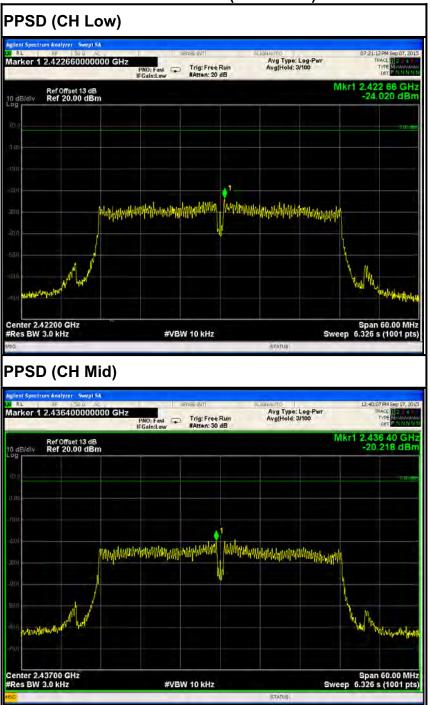












IEEE 802.11n HT40 MHz mode (Antenna 1)



