



7.4. ANTENNA GAIN

MEASUREMENT

The antenna gain of the complete system is calculated by the difference of radiated power in EIRP and the conducted power of the module. For normal WLAN devices, the DSSS mode is used.

MEASUREMENT PARAMETERS

Measurement parameter						
Detector	Peak					
Sweep time	Auto					
Resolution bandwidth	3 MHz					
Video bandwidth	3 MHz					
Trace-Mode	Max hold					

LIMITS

FCC	IC					
Antenna Gain						
6 dl	Bi					

TEST RESULTS

IEEE 802.11b mode (Antenna 1)

T _{nom}	V _{nom}	Lowest channel 2412MHz	Middle channel 2437MHz	Highest channel 2462MHz
Conducted power Measured with DS		7.56	6.88	6.71
Radiated power [o Measured with DS		4.75	3.79	2.82
Gain [dBi] Calculated		-2.81	-3.89	
Measurement und	ertainty	± 1.5	dB (cond.) / ± 3 dB	(rad.)

IEEE 802.11b mode (Antenna 2)

T _{nom}	V _{nom}	Lowest channel 2412MHz	Middle channel 2437MHz	Highest channel 2462MHz
Conducted power Measured with DS		14.34	13.35	11.49
Radiated power [of Measured with DS		12.59	11.71	12.82
Gain [dBi] Calculated		1.75	1.64	-1.33
Measurement und	ertainty	± 1.5	dB (cond.) / ± 3 dB	(rad.)

7.5. PEAK OUTPUT POWER

7.5.1. LIMITS

The maximum peak output power of the intentional radiator shall not exceed the following:

- 1. According to §15.247(b)(3), for systems using digital modulation in the bands of 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz: 1 Watt.
- 2. According to §15.247(b)(4), the conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

7.5.2. TEST INSTRUMENTS

Name of Equipment	Manufacturer	Model	Serial Number	Last Calibration	Calibration Due
Power Meter	Anritsu	ML2495A	1204003	02/21/2016	02/20/2017
Power Sensor	Anritsu	MA2411B	1126150	02/21/2016	02/20/2017

7.5.3. TEST PROCEDURES (please refer to measurement standard)

9.1.1 RBW ≥ DTS bandwidth

This procedure shall be used when the measurement instrument has available a resolution bandwidth that is greater than the *DTS bandwidth*.

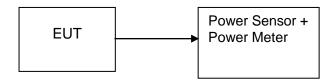
- a) Set the RBW ≥ DTS bandwidth.
- b) Set VBW ≥ 3 RBW.
- c) Set span ≥ 3 x RBW
- d) Sweep time = auto couple.
- e) Detector = peak.
- f) Trace mode = max hold.
- g) Allow trace to fully stabilize.
- h) Use peak marker function to determine the peak amplitude level.

9.1.2 PKPM1 Peak power meter method

The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall utilize a fast-responding diode detector.

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7.5.4. TEST SETUP



7.5.5. TEST RESULTS

No non-compliance noted

Test Data

Test mode: IEEE 802.11b (Antenna 1)

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (dBm)	Peak / AVG	Result
Low	2412	18.35	0.06839			PASS
Mid	2437	17.67	0.05848	29	Peak	PASS
High	2462	17.50	0.05623			PASS
Low	2412	14.88	0.03076			PASS
Mid	2437	14.28	0.02679	29	AVG	PASS
High	2462	14.08	0.02559			PASS

Test mode: IEEE 802.11b (Antenna 2)

rest mode. IEEE ooz. 118 (Antenna E)									
Channel	Frequency Output Pow (MHz) (dBm)		Output Power (W)	Limit (dBm)	Peak / AVG	Result			
Low	2412	25.13	0.32584			PASS			
Mid	2437	24.14	0.25942	29	Peak	PASS			
High	2462	22.28	0.16904			PASS			
Low	2412	21.13	0.12972			PASS			
Mid	2437	20.42	0.11015	29	AVG	PASS			
High	2462	18.49	0.07063			PASS			

Test mode: IEEE 802.11g (Antenna 1)

Channel	Frequency Output Power (MHz) (dBm)		Output Power (W)	Limit (dBm)	Peak / AVG	Result
Low	2412	23.56	0.22699			PASS
Mid	2437	23.40	0.21878	29	Peak	PASS
High	2462	22.37	0.17258			PASS
Low	2412	14.34	0.02716			PASS
Mid	2437	13.46	0.02218	29	AVG	PASS
High	2462	13.55	0.02265			PASS

Test mode: IEEE 802.11g (Antenna 2)

Channel	Frequency Output Pow (MHz) (dBm)		Output Power (W)	Limit (dBm)	Peak / AVG	Result
Low	2412	27.23	0.52845			PASS
Mid	2437	26.88	0.48753	29	Peak	PASS
High	2462	26.10	0.40738			PASS
Low	2412	18.46	0.07015			PASS
Mid	2437	17.62	0.05781	29	AVG	PASS
High	2462	16.79	0.04775			PASS

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

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Channel	Frequency (MHz)	Ot	utput Power (dBm)	` '		Limit (dBm)	Peak /	Result
	(Antenna 1	Antenna 2	Total	(W)	(GDIII)	7110	
Low	2412	21.30	26.25	27.46	0.55659			PASS
Mid	2437	20.79	25.78	26.98	0.49839	29	Peak	PASS
High	2462	19.49	24.81	25.93	0.39161			PASS
Low	2412	12.56	17.03	18.36	0.06850			PASS
Mid	2437	11.66	16.52	17.75	0.05953	29	AVG	PASS
High	2462	10.77	15.41	16.69	0.04669			PASS

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

Channel	Frequency (MHz)	Ou	utput Power (dBm)	•		Limit (dBm)	Peak /	Result
	(101112)	Antenna 1	Antenna 2	Total	(W)	(abiii)	AVO	
Low	2422	19.15	26.11	26.91	0.49054			PASS
Mid	2437	18.33	25.53	26.29	0.42535	29	Peak	PASS
High	2452	18.17	24.64	25.52	0.35669			PASS
Low	2422	10.11	16.56	17.45	0.05555			PASS
Mid	2437	9.60	16.06	16.94	0.04948	29	AVG	PASS
High	2452	9.00	15.36	16.26	0.04230			PASS

7.6. BAND EDGES MEASUREMENT

7.6.1. LIMITS

According to §15.247(d), 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)).

7.6.2. TEST INSTRUMENTS

	Radiated Emission Test Site 966 (2)											
Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration							
PSA Series Spectrum Analyzer	Agilent	N9010A	MY52221469	02/21/2016	02/20/2017							
EMI TEST RECEIVER	ROHDE&SCHWARZ	ESCI	100783	02/21/2016	02/20/2017							
Amplifier	EMEC	EM330	060661	03/18/2016	03/17/2017							
High Noise Amplifier	Agilent	8449B	3008A01838	02/21/2016	02/20/2017							
Loop Antenna	COM-POWER	AL-130	121044	09/25/2015	09/24/2016							
Bilog Antenna	SCHAFFNER	CBL6143	5082	02/21/2016	02/20/2017							
Horn Antenna	SCHWARZBECK	BBHA9120	D286	02/28/2016	02/27/2017							
Board-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170-497	02/28/2016	02/27/2017							
Turn Table	N/A	N/A	N/A	N.C.R	N.C.R							
Antenna Tower	SUNOL	TLT2	N/A	N.C.R	N.C.R							
Controller	Sunol Sciences	SC104V	022310-1	N.C.R	N.C.R							
Controller	СТ	N/A	N/A	N.C.R	N.C.R							
Temp. / Humidity Meter	Anymetre	JR913	N/A	02/21/2016	02/20/2017							
Test S/W	FARAD		LZ-RF / CCS	S-SZ-3A2								

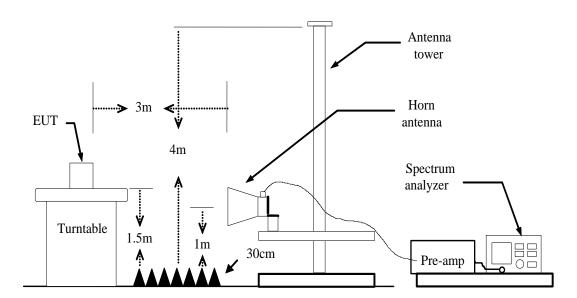
NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

- 2. The FCC Site Registration number is 101879.
- 3. N.C.R = No Calibration Required.

7.6.3. TEST PROCEDURES (please refer to measurement standard)

- 1. The EUT is placed on a turntable, which is 1.5m 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=1MHz / VBW=3MHz / Sweep=AUTO
 - (b) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO
- 5. Repeat the procedures until all the PEAK and AVERAGE versus POLARIZATION are

7.6.4. TEST SETUP

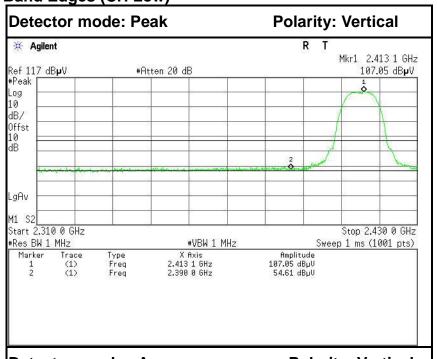


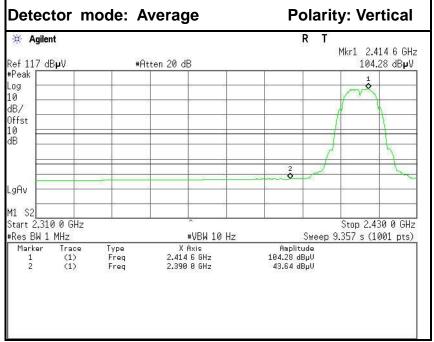
7.6.5. TEST RESULTS

Test Plot

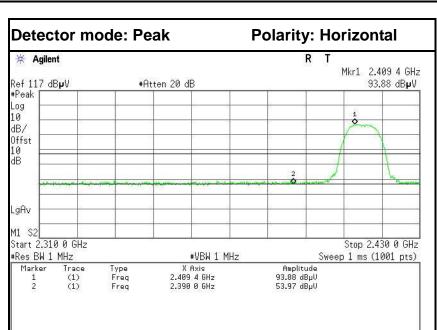
IEEE 802.11b mode (Antenna 1)

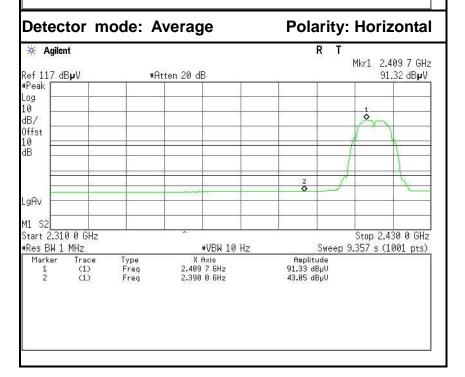
Band Edges (CH Low)





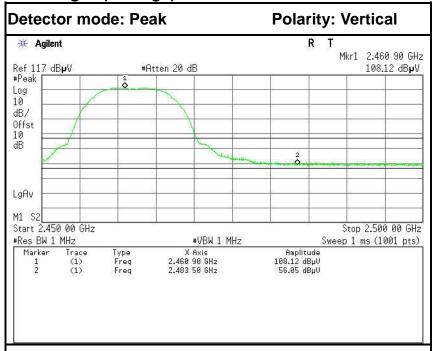
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	48.01	-6.60	54.61	74.00	-19.39	Peak	Vertical
2	2390.0000	37.04	-6.60	43.64	54.00	-10.36	Average	Vertical

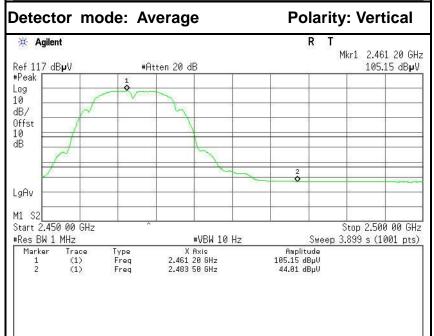




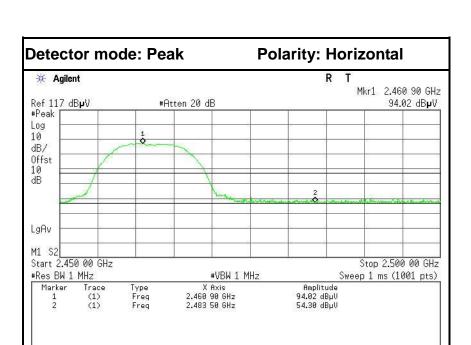
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	47.37	-6.60	53.97	74.00	-20.03	Peak	Horizontal
2	2390.0000	36.45	-6.60	43.05	54.00	-10.95	Average	Horizontal

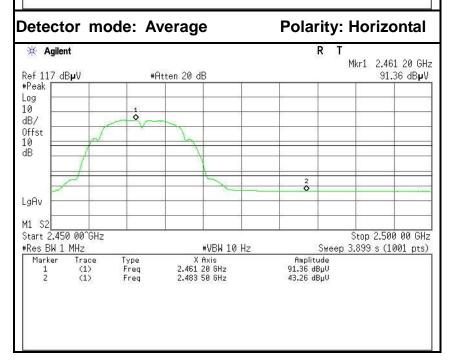
Band Edges (CH High)





No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	49.81	-6.24	56.05	74.00	-17.95	Peak	Vertical
2	2483.5000	37.77	-6.24	44.01	54.00	-9.99	Average	Vertical

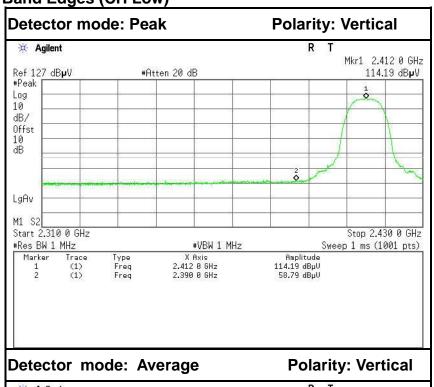


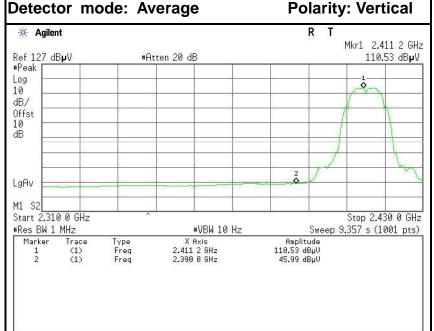


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	48.06	-6.24	54.30	74.00	-19.70	Peak	Horizontal
2	2483.5000	37.02	-6.24	43.26	54.00	-10.74	Average	Horizontal

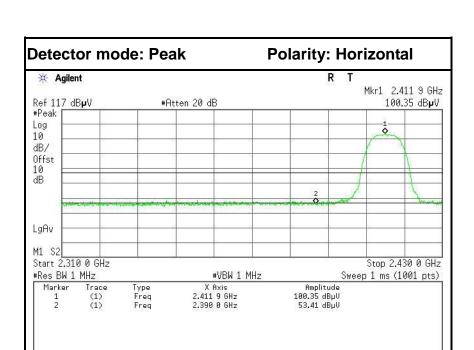
IEEE 802.11b mode (Antenna 2)

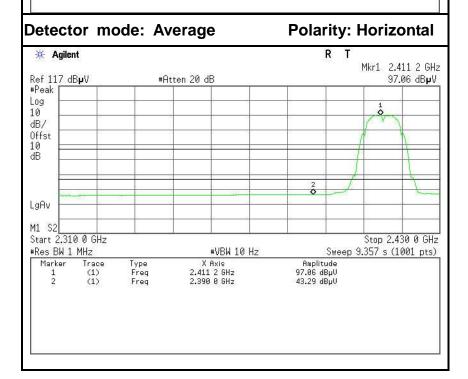
Band Edges (CH Low)





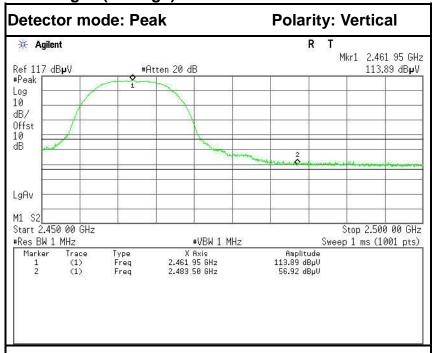
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	52.19	-6.60	58.79	74.00	-15.21	Peak	Vertical
2	2390.0000	39.39	-6.60	45.99	54.00	-8.01	Average	Vertical

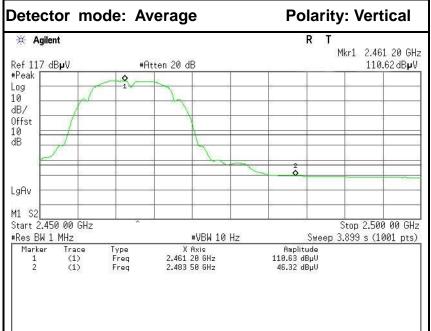




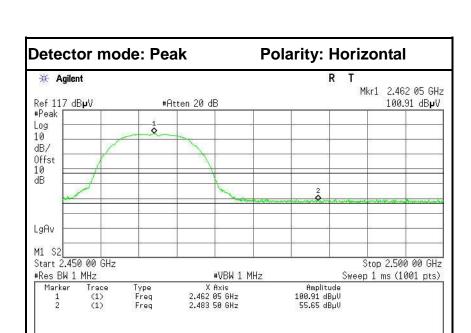
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	46.81	-6.60	53.41	74.00	-20.59	Peak	Horizontal
2	2390.0000	36.69	-6.60	43.29	54.00	-10.71	Average	Horizontal

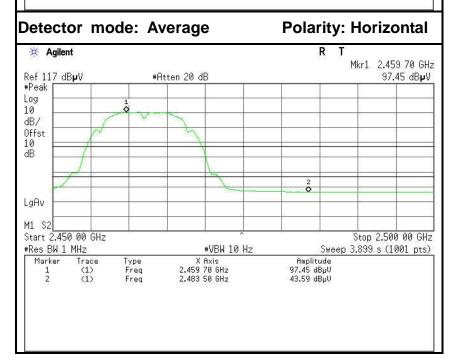
Band Edges (CH High)





No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	50.68	-6.24	56.92	74.00	-17.08	Peak	Vertical
2	2483.5000	40.08	-6.24	46.32	54.00	-7.68	Average	Vertical

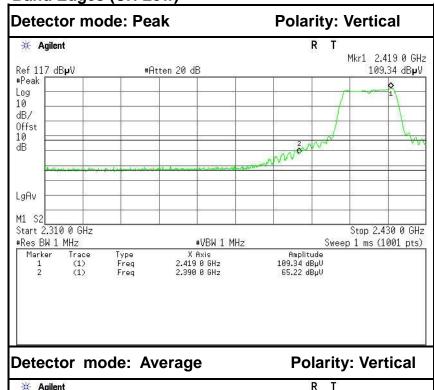


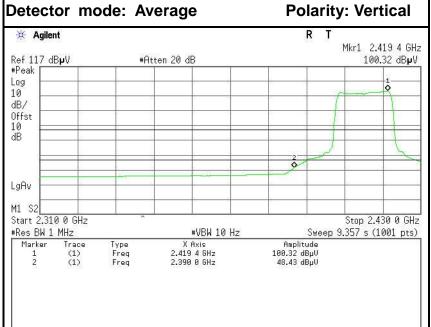


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	49.41	-6.24	55.65	74.00	-18.35	Peak	Horizontal
2	2483.5000	37.35	-6.24	43.59	54.00	-10.41	Average	Horizontal

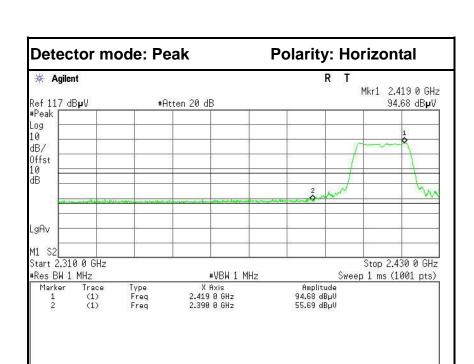
IEEE 802.11g mode (Antenna 1)

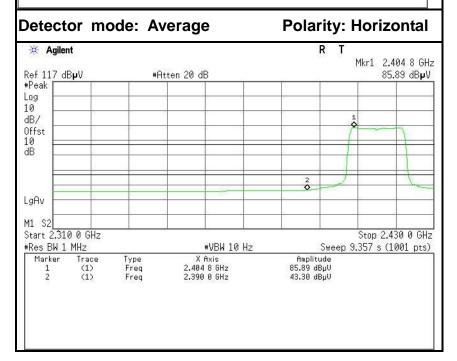
Band Edges (CH Low)





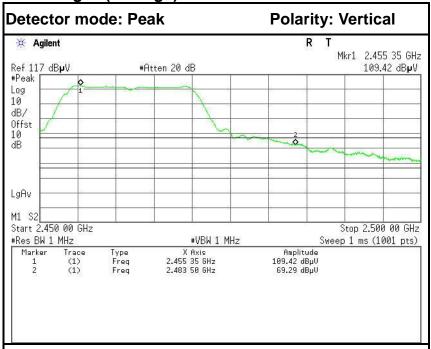
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1	2390.0000	58.62	-6.60	65.22	74.00	-8.78	Peak	Vertical
2	2390.0000	41.83	-6.60	48.43	54.00	-5.57	Average	Vertical

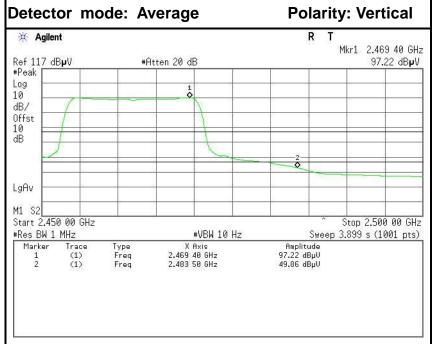




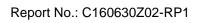
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	49.09	-6.60	55.69	74.00	-18.31	Peak	Horizontal
2	2390.0000	36.70	-6.60	43.30	54.00	-10.70	Average	Horizontal

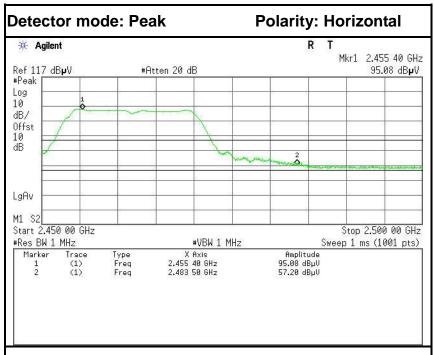


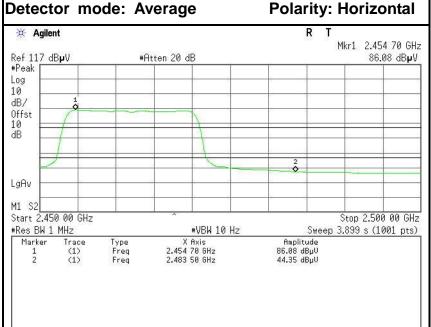




No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	63.05	-6.24	69.29	74.00	-4.71	Peak	Vertical
2	2483.5000	43.62	-6.24	49.86	54.00	-4.14	Average	Vertical



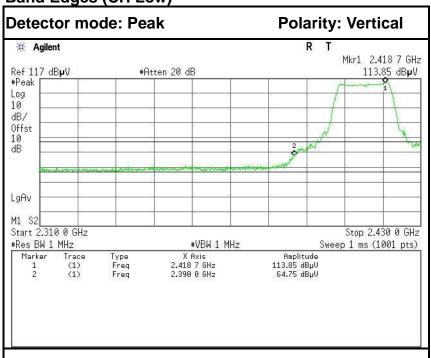




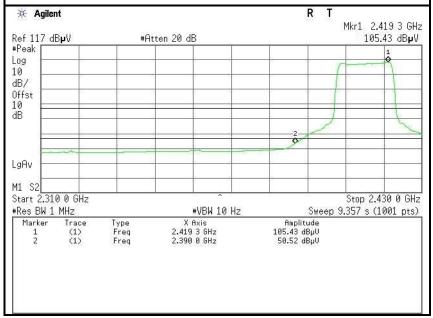
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	50.96	-6.24	57.20	74.00	-16.80	Peak	Horizontal
2	2483.5000	38.11	-6.24	44.35	54.00	-9.65	Average	Horizontal

IEEE 802.11g mode (Antenna 2)

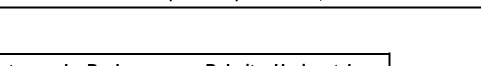
Band Edges (CH Low)

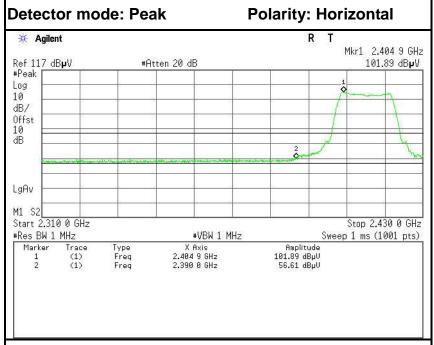


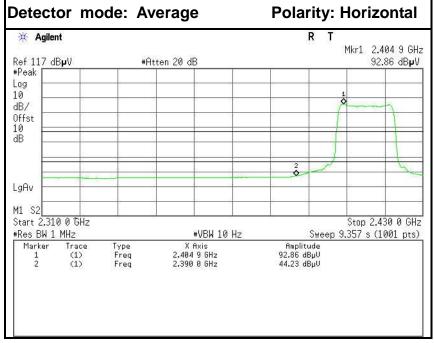
Detector mode: Average Polarity: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	58.15	-6.60	64.75	74.00	-9.25	Peak	Vertical
2	2390.0000	43.92	-6.60	50.52	54.00	-3.48	Average	Vertical

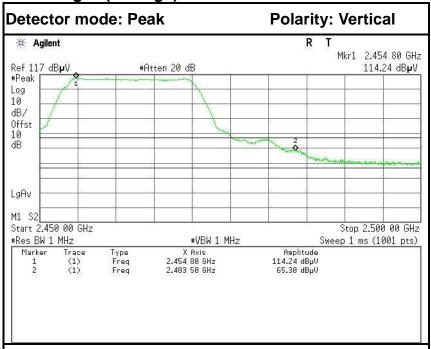


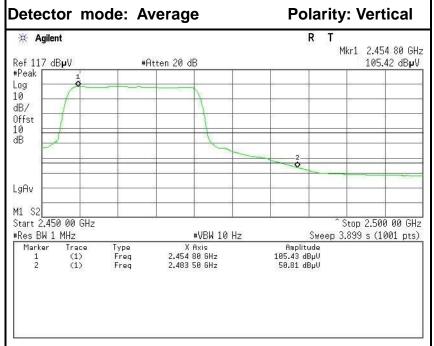




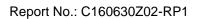
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	50.01	-6.60	56.61	74.00	-17.39	Peak	Horizontal
2	2390.0000	37.63	-6.60	44.23	54.00	-9.77	Average	Horizontal

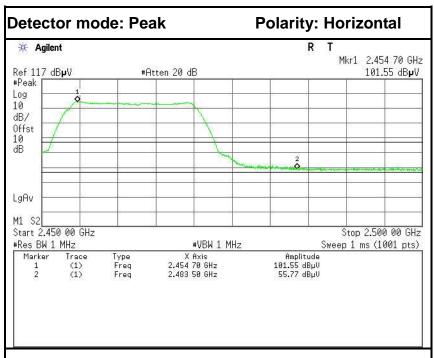


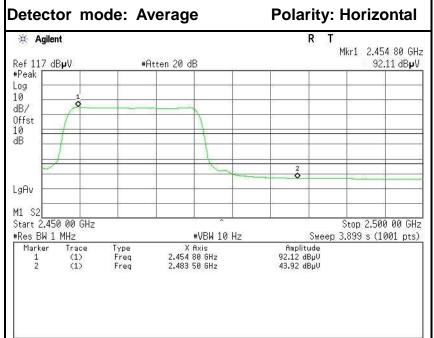




No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	59.06	-6.24	65.30	74.00	-8.70	Peak	Vertical
2	2483.5000	44.57	-6.24	50.81	54.00	-3.19	Average	Vertical





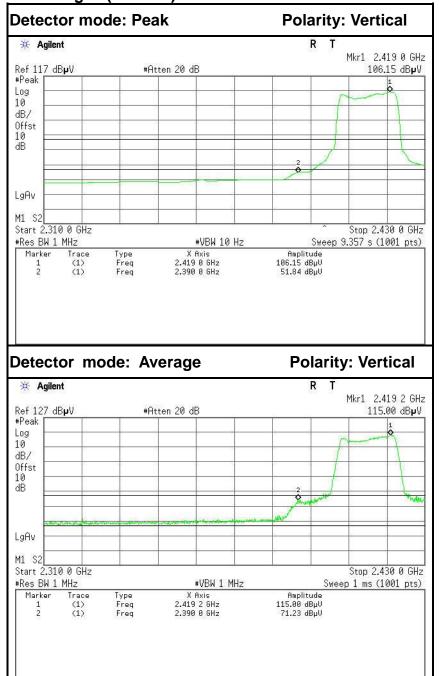


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	49.53	-6.24	55.77	74.00	-18.23	Peak	Horizontal
2	2483.5000	37.68	-6.24	43.92	54.00	-10.08	Average	Horizontal

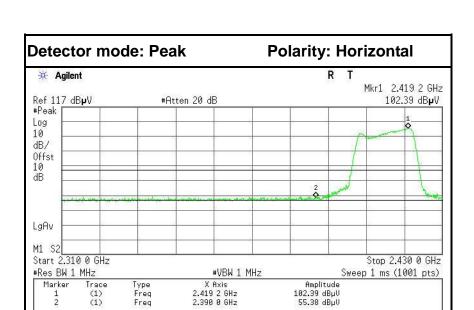
IEEE 802.11n HT20 MHz mode (Combine with Antenna 1 and Antenna 2)

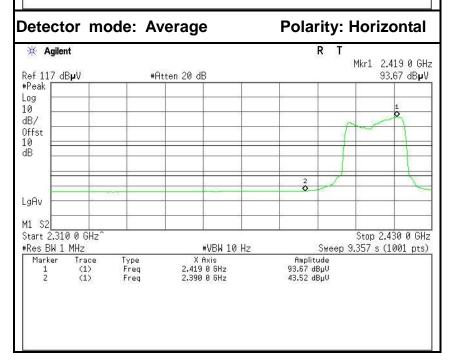
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Band Edges (CH Low)



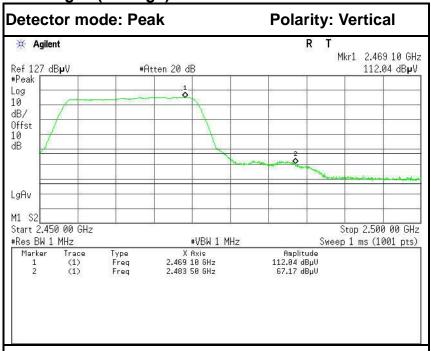
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	45.24	-6.60	51.84	74.00	-22.16	Peak	Vertical
2	2390.0000	64.63	-6.60	71.23	54.00	17.23	Average	Vertical





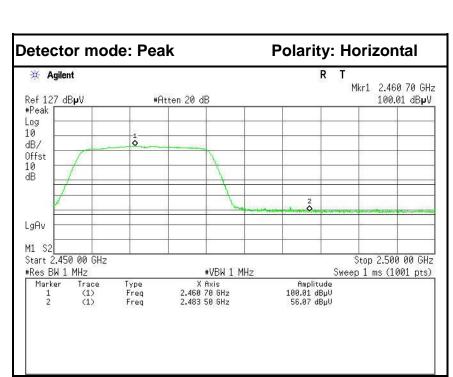
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	48.78	-6.60	55.38	74.00	-18.62	Peak	Horizontal
2	2390.0000	37.92	-6.60	44.52	54.00	-9.48	Average	Horizontal

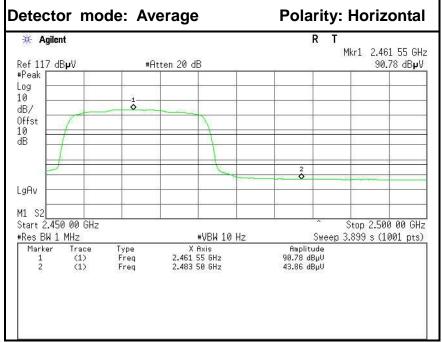
Band Edges (CH High)



Detector mode: Average **Polarity: Vertical** R # Agilent Mkr1 2.463 80 GHz Ref 127 dBpV #Atten 20 dB 104.16 dBpV #Peak Log 10 dB/ Offst 10 dB LgAv M1 S2 Stop 2.500 00 GHz Start 2.450 00 GHz #Res BW 1 MHz #VBW 10 Hz Sweep 3.899 s (1001 pts) X Axis 2.463 80 GHz 2.483 50 GHz Amplitude 104.16 dBµV 49.36 dBµV Type Freq Freq Marker Trace

No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	60.93	-6.24	67.17	74.00	-6.83	Peak	Vertical
2	2483.5000	43.12	-6.24	49.36	54.00	-4.64	Average	Vertical



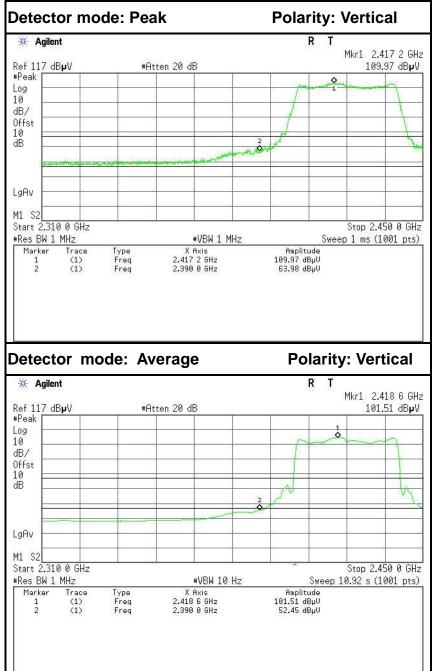


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	49.83	-6.24	56.07	74.00	-17.93	Peak	Horizontal
2	2483.5000	37.62	-6.24	43.86	54.00	-10.14	Average	Horizontal

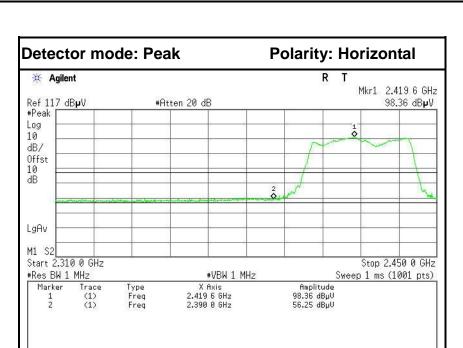
IEEE 802.11n HT40 MHz mode (Combine with Antenna 1 and Antenna 2)

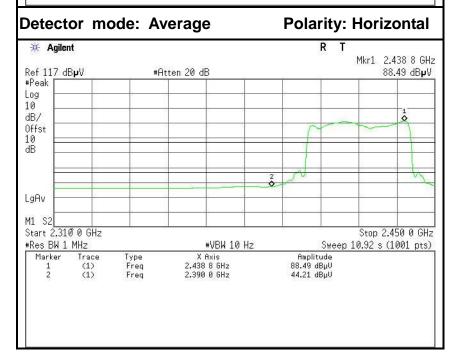
Report No.: C160630Z02-RP1

Band Edges (CH Low)



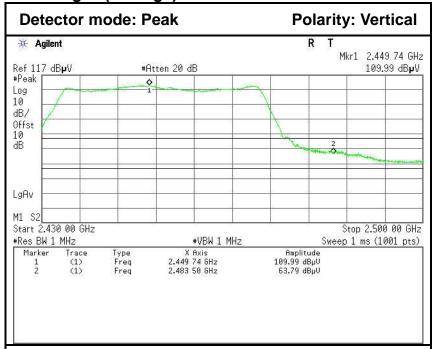
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	57.38	-6.60	63.98	74.00	-10.02	Peak	Vertical
2	2390.0000	45.85	-6.60	52.45	54.00	-1.55	Average	Vertical



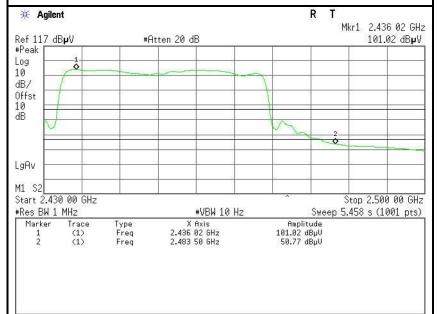


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	49.65	-6.60	56.25	74.00	-17.75	Peak	Horizontal
2	2390.0000	37.61	-6.60	44.21	54.00	-9.79	Average	Horizontal

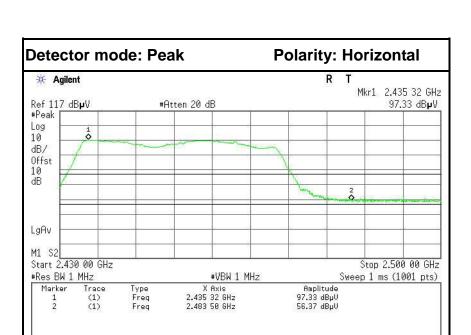
Band Edges (CH High)

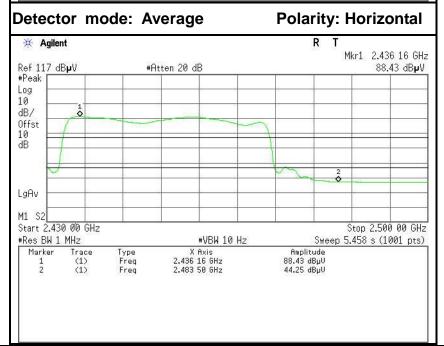


Detector mode: Average Polarity: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	57.55	-6.24	63.79	74.00	-10.21	Peak	Vertical
2	2483.5000	44.53	-6.24	50.77	54.00	-3.23	Average	Vertical





No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	50.13	-6.24	56.37	74.00	-17.63	Peak	Horizontal
2	2483.5000	38.01	-6.24	44.25	54.00	-9.75	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.

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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	E4446A	US44300399	02/21/2016	02/20/2017

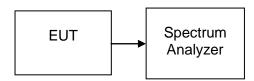
7.7.3. TEST PROCEDURES (please refer to measurement standard)

§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: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- 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

Test Data

Test mode: IEEE 802.11b (Antenna 1)

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Test Result	
Low	2412	-16.053		PASS	
Mid	2437	-15.184	8	PASS	
High	2462	-16.027		PASS	

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Test mode: IEEE 802.11b (Antenna 2)

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Test Result	
Low	2412	-1.786		PASS	
Mid	2437	-2.462	8	PASS	
High	2462	-3.004		PASS	

Test mode: IEEE 802.11g (Antenna 1)

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Test Result
Low	2412	-15.195		PASS
Mid	2437	-15.903	8	PASS
High	2462	-14.948		PASS

Test mode: IEEE 802.11g (Antenna 2)

Channel	Frequency (MHz)	PPSD Limit (dBm)		Test Result
Low	2412	-1.777		PASS
Mid	2437	-2.670	8	PASS
High	2462	-2.171		PASS

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

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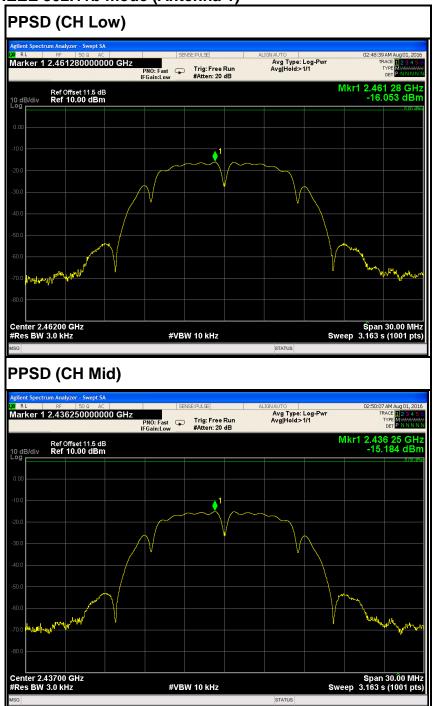
Channel	Frequency (MHz)	PPSD (dBm)		Limit (dBm)	Test Result	
	(141112)	Antenna 1	Antenna 2	Total	(dBiii)	
Low	2412	-15.873	-2.230	-2.046		PASS
Mid	2437	-15.662	-2.645	-2.433	8	PASS
High	2462	-17.819	-3.666	-3.502		PASS

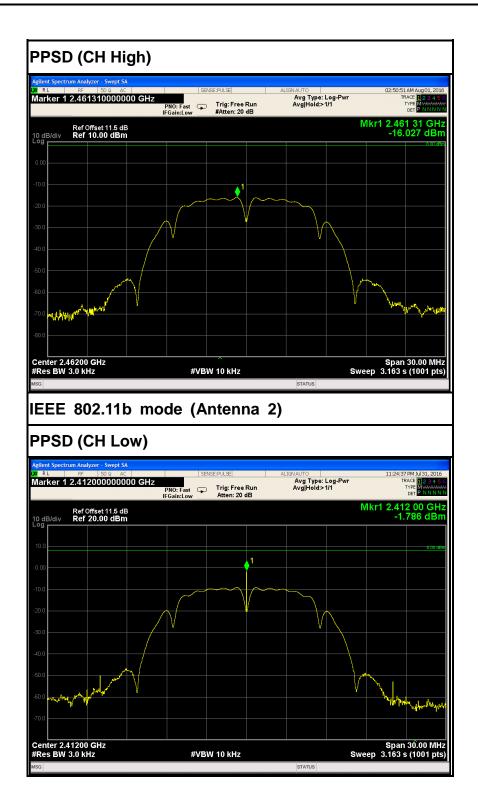
Test mode: IEEE 802.11n HT40 MHz (Combine with Antenna 1 and Antenna 2)

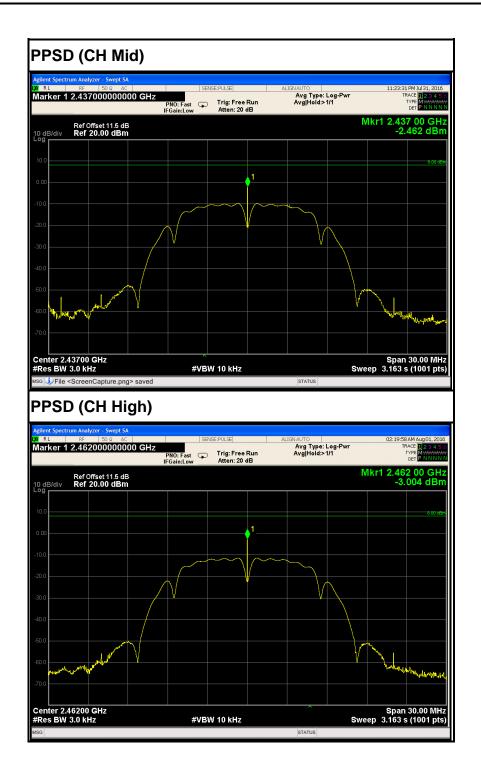
Channel Frequency (MHz)			PPSD (dBm)	Limit (dBm)	Test Result	
		Antenna 1	Antenna 2	Total	(uBiii)	
Low	2422	-20.943	-1.942	-1.888	8	PASS
Mid	2437	-21.951	-2.431	-2.383		PASS
High	2452	-20.536	-2.767	-2.695		PASS

Test Plot

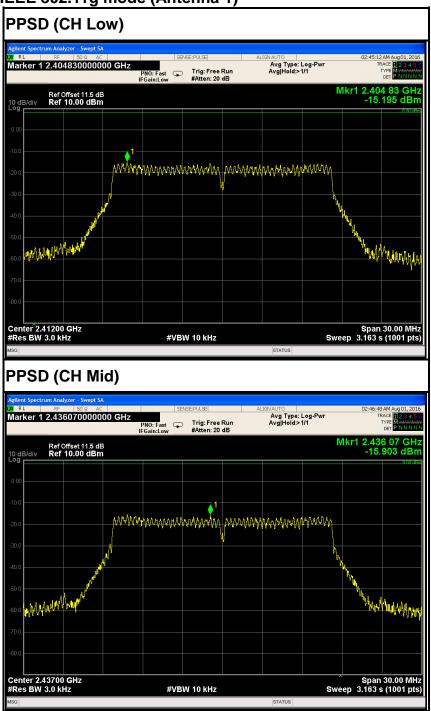
IEEE 802.11b mode (Antenna 1)

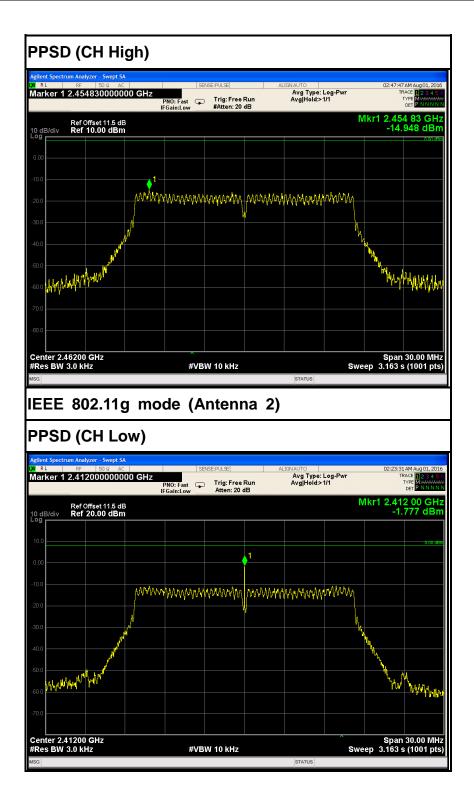


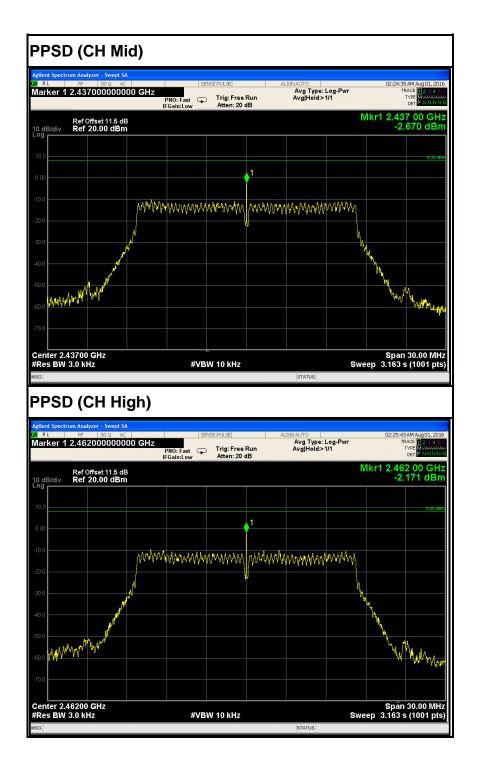




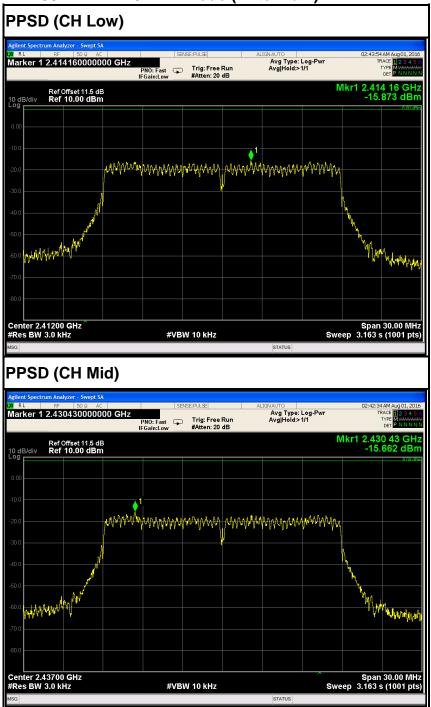
IEEE 802.11g mode (Antenna 1)

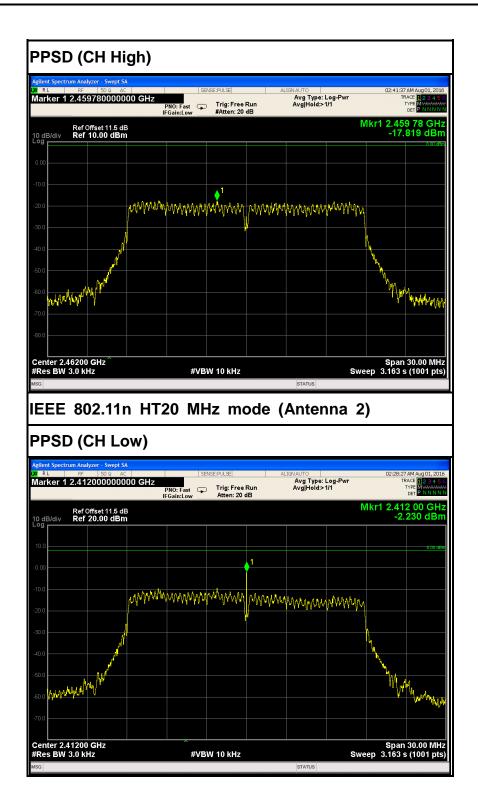


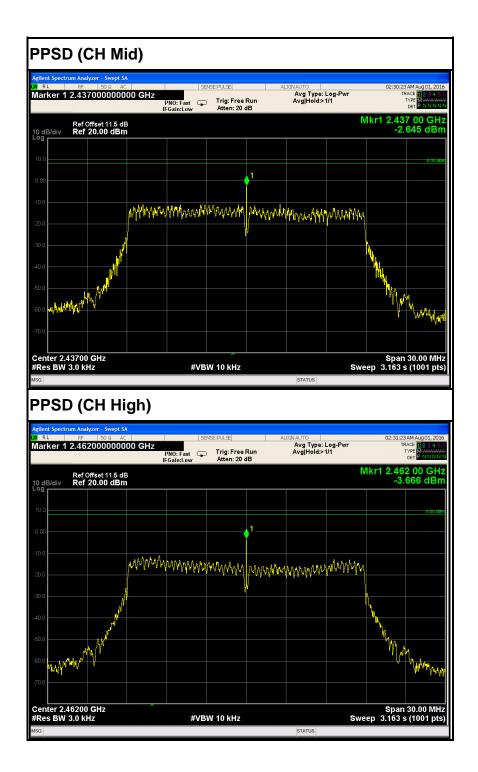




IEEE 802.11n HT20 MHz mode (Antenna 1)







IEEE 802.11n HT40 MHz mode (Antenna 1)

