



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	a Gain
6 d	Ві

TEST RESULTS

IEEE 802.11b mode (Antenna 0)

T _{nom}	V _{nom}	Lowest channel 2412MHz	Middle channel 2437MHz	Highest channel 2462MHz	
Conducted power Measured with DS		0.58	2.79	3.94	
Radiated power [o Measured with DS		2.41	4.28	5.36	
Gain [dBi] Calculated		1.83	1.42		
Measurement und	ertainty	± 1.5 dB (cond.) / ± 3 dB (rad.)			

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IEEE 802.11b mode (Antenna 1)

T _{nom}	V _{nom}	Lowest channel 2412MHz	Middle channel 2437MHz	Highest channel 2462MHz
Conducted power Measured with DS		2.79	4.00	5.44
Radiated power [o Measured with DS		4.34	5.59	6.89
Gain [dBi] Calculated		1.55 1.59		1.45
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

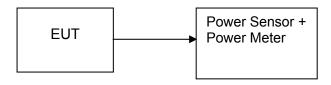
This procedure shall be used when the measurement instrument has available a resolution bandwidth that is greater than the *DTS bandwidth*.

- 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.

7.5.4. TEST SETUP



7.5.5. TEST RESULTS

No non-compliance noted

Test Data

Test mode: IEEE 802.11b (Antenna 0)

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Peak / AVG	Limit (W)	Result
Low	2412	11.98	0.01578			PASS
Mid	2437	14.19	0.02624	Peak	1	PASS
High	2462	15.35	0.03428			PASS
Low	2412	10.09	0.01021			PASS
Mid	2437	12.28	0.01690	AVG	1	PASS
High	2462	13.78	0.02388			PASS

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Test mode: IEEE 802.11b (Antenna 1)

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Peak / AVG	Limit (W)	Result
Low	2412	14.19	0.02624			PASS
Mid	2437	15.41	0.03475	Peak	1	PASS
High	2462	16.86	0.04853			PASS
Low	2412	12.49	0.01774			PASS
Mid	2437	13.85	0.02427	AVG	1	PASS
High	2462	15.28	0.03373			PASS

Test mode: IEEE 802.11g (Antenna 0)

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Peak / AVG	Limit (W)	Result
Low	2412	17.33	0.05408			PASS
Mid	2437	18.64	0.07311	Peak	1	PASS
High	2462	20.50	0.11220			PASS
Low	2412	8.80	0.00759			PASS
Mid	2437	10.62	0.01153	AVG	1	PASS
High	2462	11.90	0.01549			PASS

Test mode: IEEE 802.11g (Antenna 1)

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Peak / AVG	Limit (W)	Result
Low	2412	16.28	0.04246			PASS
Mid	2437	17.35	0.05433	Peak	1	PASS
High	2462	19.27	0.08453			PASS
Low	2412	7.29	0.00536			PASS
Mid	2437	9.13	0.00818	AVG	1	PASS
High	2462	10.45	0.01109			PASS

Test mode: IEEE 802.11n HT20 MHz(Combine with Antenna 0 and Antenna 1)

Channel Frequency (MHz)		Output Power (dBm)			Output Power	Peak / AVG	Limit	Result
	(IVITIZ)	Antenna 0	Antenna 1	Total	(W)	AVG	(W)	
Low	2412	17.11	16.86	20.00	0.09993			PASS
Mid	2437	17.63	17.23	20.44	0.11079	Peak	1	PASS
High	2462	19.24	18.61	21.95	0.15656			PASS
Low	2412	8.18	7.49	10.86	0.01219			PASS
Mid	2437	9.57	9.81	12.70	0.01863	AVG	1	PASS
High	2462	10.96	10.81	13.90	0.02452			PASS

Test mode: IEEE 802.11n HT40 MHz(Combine with Antenna 0 and Antenna 1)

Channel Frequency (MHz)		Output Power (dBm)			Output Power	Peak / AVG	Limit (W)	Result
	(IVITIZ)	Antenna 0	Antenna 1	Total	(W)	AVG	(VV)	
Low	2422	21.77	18.01	23.30	0.21356			PASS
Mid	2437	22.32	18.58	23.85	0.24272	Peak	1	PASS
High	2452	21.98	20.05	24.13	0.25892			PASS
Low	2422	9.89	6.63	11.57	0.01435			PASS
Mid	2437	10.68	7.21	12.29	0.01696	AVG	1	PASS
High	2452	11.13	9.87	13.56	0.02268			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	E4446A	US44300399	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	09/25/2016	09/24/2017							
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.

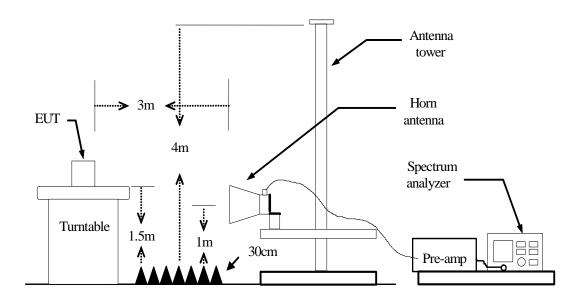
7.6.3. TEST PROCEDURES (please refer to measurement standard)

- 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.

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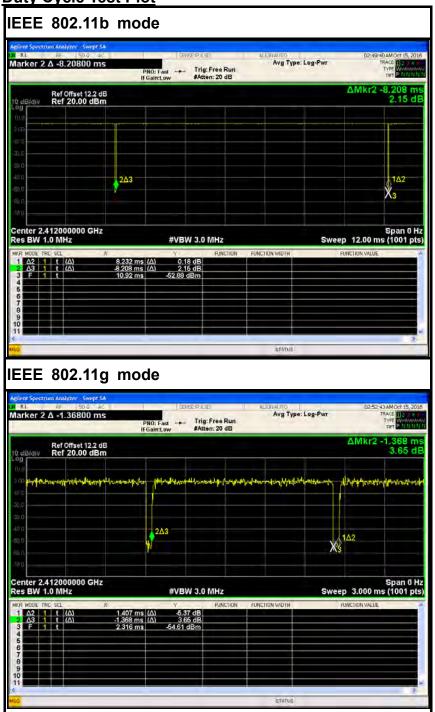
- 3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
- 4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
 - (a) PEAK: RBW=1MHz / VBW=1MHz / Sweep=AUTO
 - (b) AVERAGE: RBW=1MHz / VBW=10Hz, 750Hz, 1.6kHz / Sweep=AUTO / Detector=PEAK
- 5. Repeat the procedures until all the PEAK and AVERAGE versus POLARIZATION are

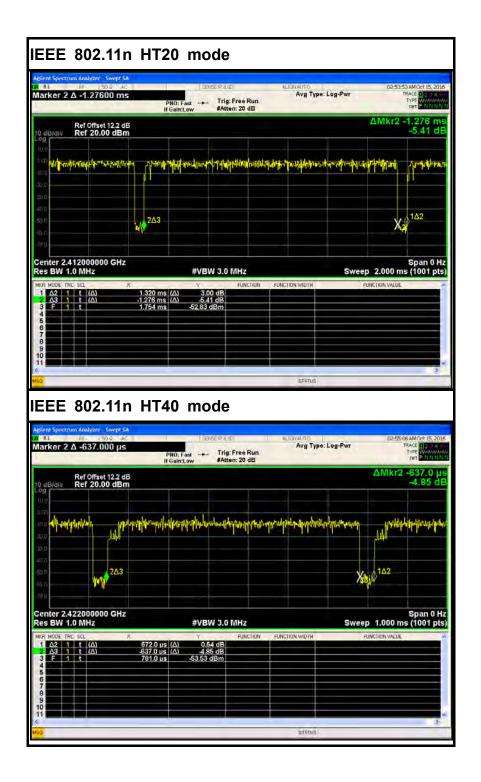
7.6.4. TEST SETUP



7.6.5. TEST RESULTS

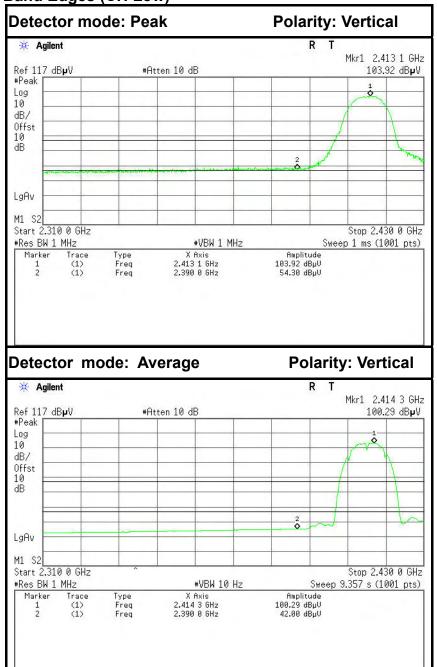
Duty Cycle Test Plot





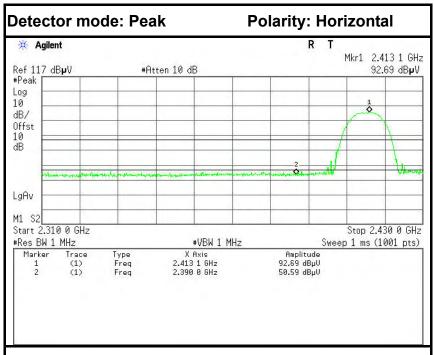
Test Plot

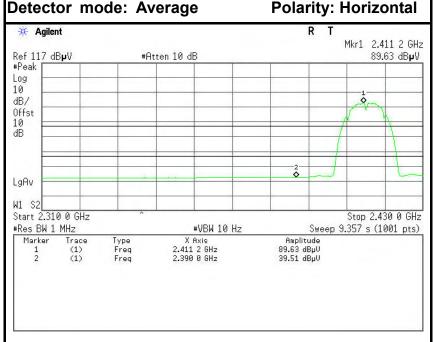
IEEE 802.11b mode (Antenna 0)



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	47.70	-6.60	54.30	74.00	-19.70	Peak	Vertical
2	2390.0000	35.40	-6.60	42.00	54.00	-12.00	Average	Vertical

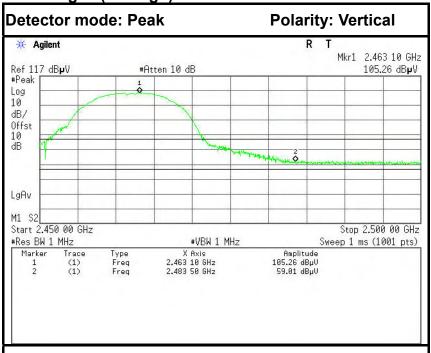


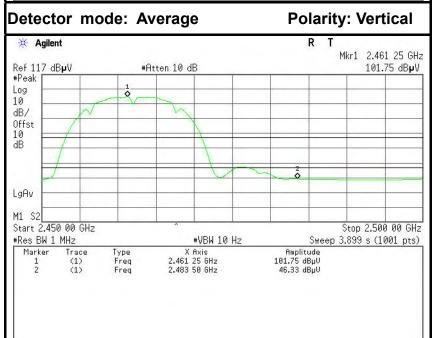




No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	43.99	-6.60	50.59	74.00	-23.41	Peak	Horizontal
2	2390.0000	32.91	-6.60	39.51	54.00	-14.49	Average	Horizontal

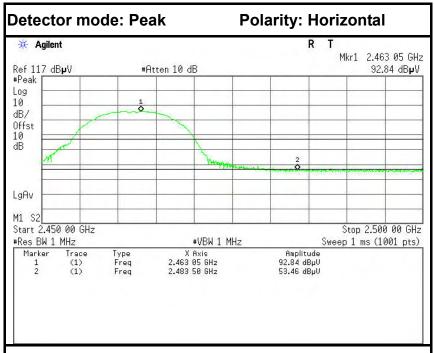


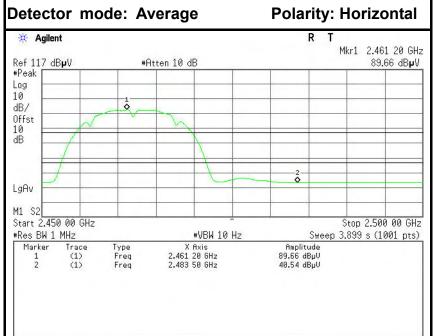




No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	52.77	-6.24	59.01	74.00	-14.99	Peak	Vertical
2	2483.5000	40.09	-6.24	46.33	54.00	-7.67	Average	Vertical

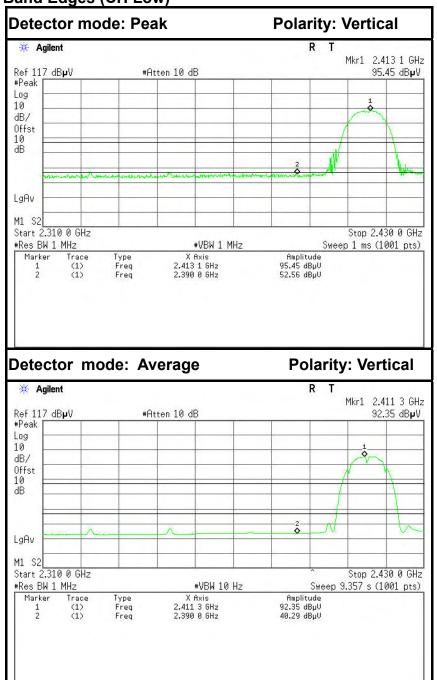






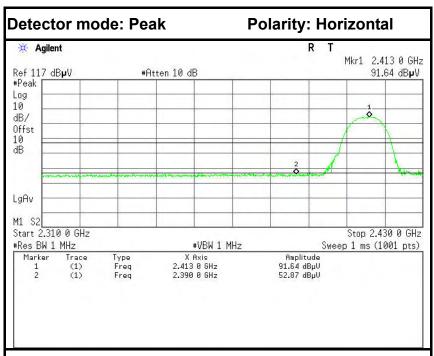
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	47.22	-6.24	53.46	74.00	-20.54	Peak	Horizontal
2	2483.5000	34.30	-6.24	40.54	54.00	-13.46	Average	Horizontal

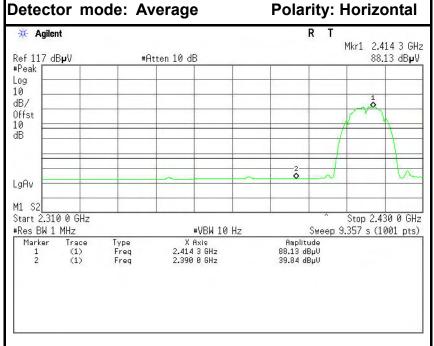
IEEE 802.11b mode (Antenna 1)



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	45.96	-6.60	52.56	74.00	-21.44	Peak	Vertical
2	2390.0000	33.69	-6.60	40.29	54.00	-13.71	Average	Vertical

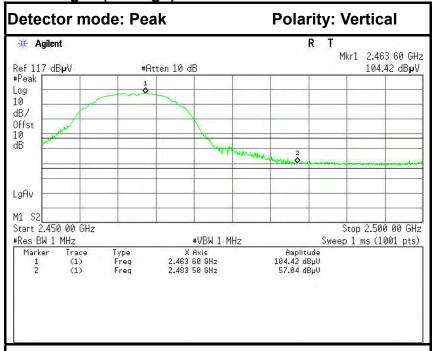


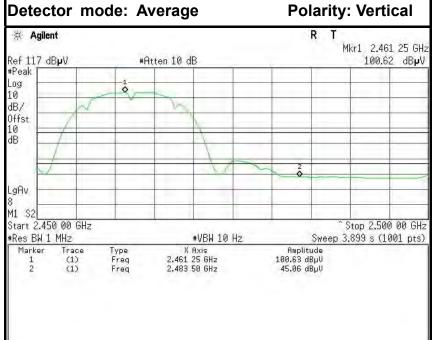




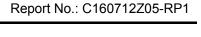
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	46.27	-6.60	52.87	74.00	-21.13	Peak	Horizontal
2	2390.0000	33.24	-6.60	39.84	54.00	-14.16	Average	Horizontal

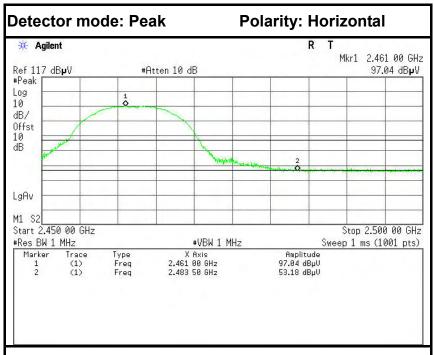
Band Edges (CH High)

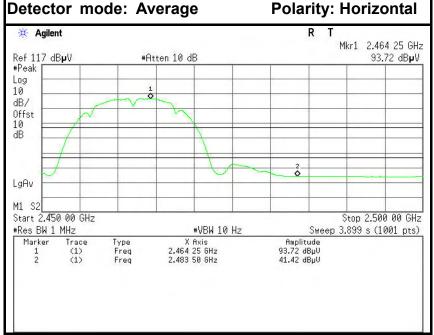




No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	50.80	-6.24	57.04	74.00	-16.96	Peak	Vertical
2	2483.5000	38.82	-6.24	45.06	54.00	-8.94	Average	Vertical



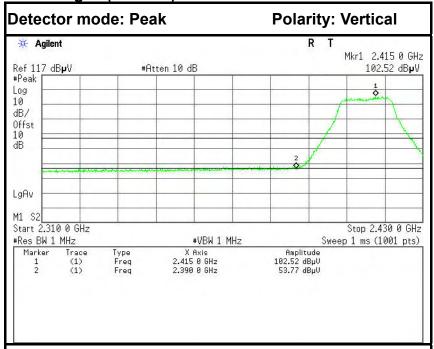


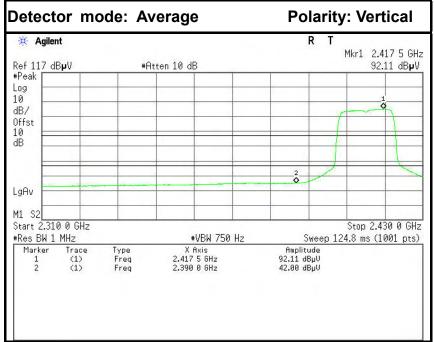


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	46.94	-6.24	53.18	74.00	-20.82	Peak	Horizontal
2	2483.5000	35.18	-6.24	41.42	54.00	-12.58	Average	Horizontal

IEEE 802.11g mode (Antenna 0)

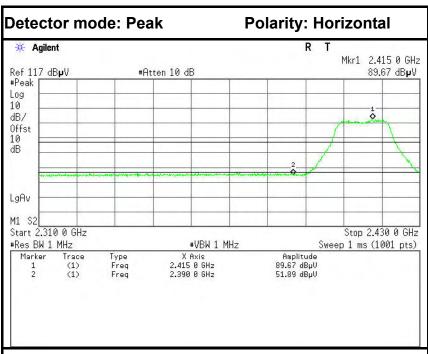
Report No.: C160712Z05-RP1

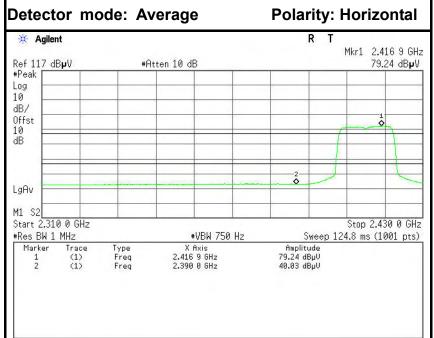




No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	47.17	-6.60	53.77	74.00	-20.23	Peak	Vertical
2	2390.0000	35.40	-6.60	42.00	54.00	-12.00	Average	Vertical

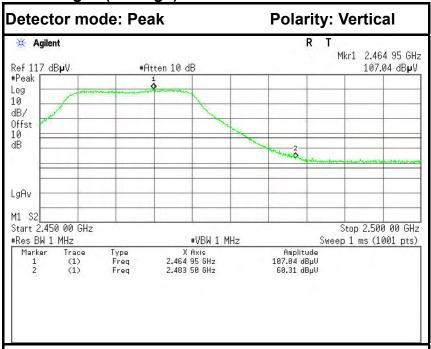


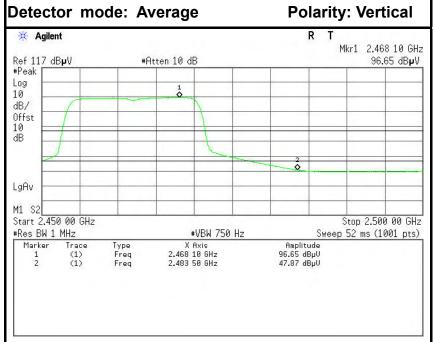




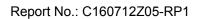
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	45.29	-6.60	51.89	74.00	-22.11	Peak	Horizontal
2	2390.0000	33.43	-6.60	40.03	54.00	-13.97	Average	Horizontal

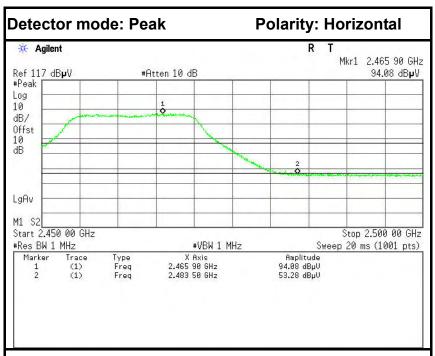


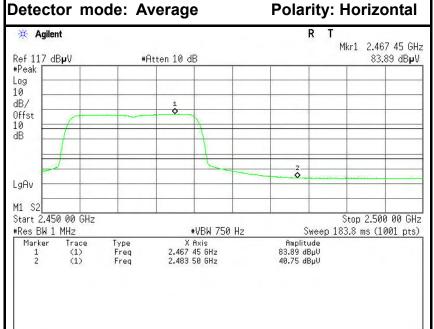




No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	54.07	-6.24	60.31	74.00	-13.69	Peak	Vertical
2	2483.5000	41.63	-6.24	47.87	54.00	-6.13	Average	Vertical



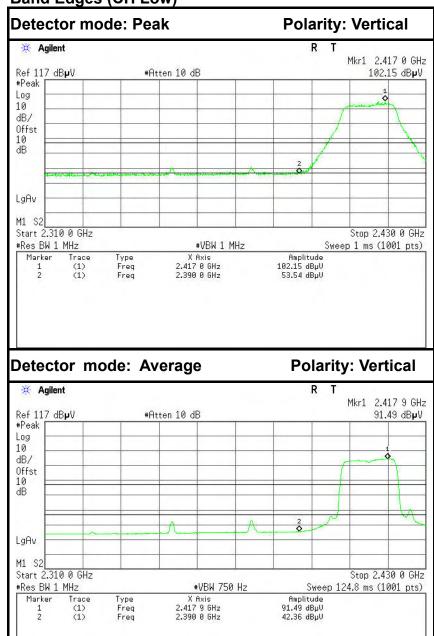




No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	47.04	-6.24	53.28	74.00	-20.72	Peak	Horizontal
2	2483.5000	34.51	-6.24	40.75	54.00	-13.25	Average	Horizontal

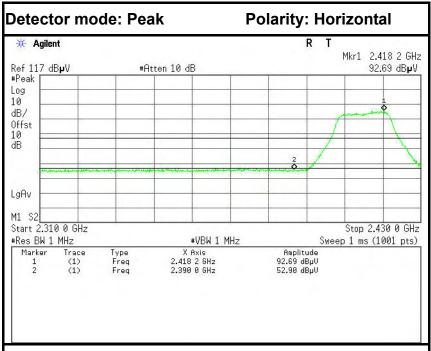
IEEE 802.11g mode (Antenna 1)

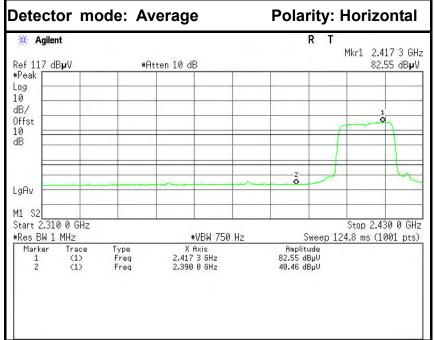
Band Edges (CH Low)



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	46.94	-6.60	53.54	74.00	-20.46	Peak	Vertical
2	2390.0000	35.76	-6.60	42.36	54.00	-11.64	Average	Vertical

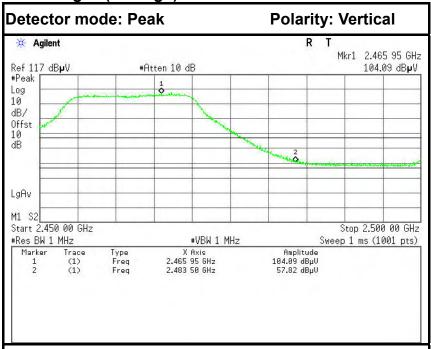


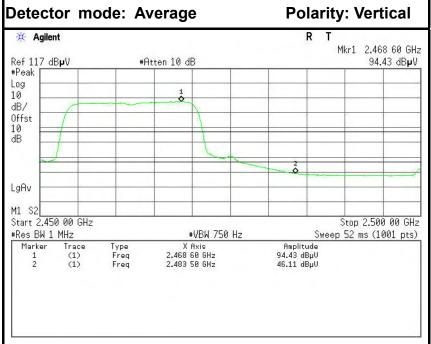




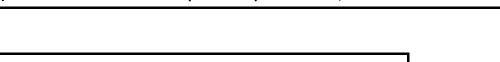
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	46.36	-6.60	52.96	74.00	-21.04	Peak	Horizontal
2	2390.0000	33.86	-6.60	40.46	54.00	-13.54	Average	Horizontal

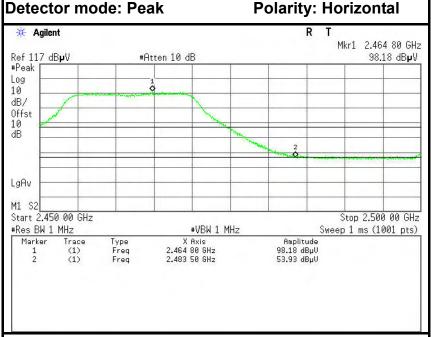


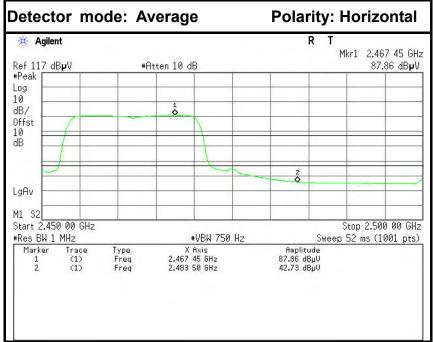




No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	51.58	-6.24	57.82	74.00	-16.18	Peak	Vertical
2	2483.5000	39.87	-6.24	46.11	54.00	-7.89	Average	Vertical



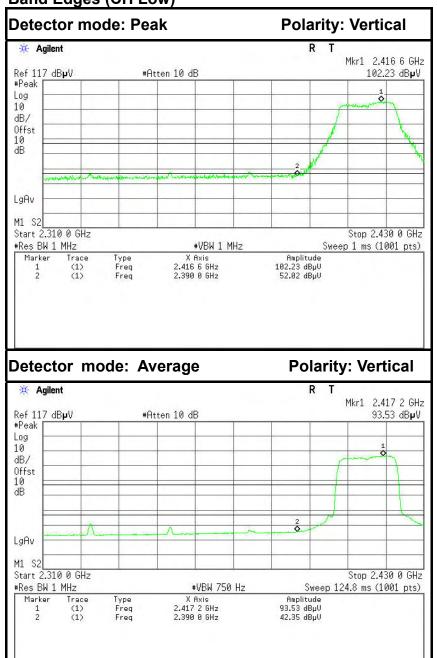




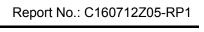
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	47.69	-6.24	53.93	74.00	-20.07	Peak	Horizontal
2	2483.5000	36.49	-6.24	42.73	54.00	-11.27	Average	Horizontal

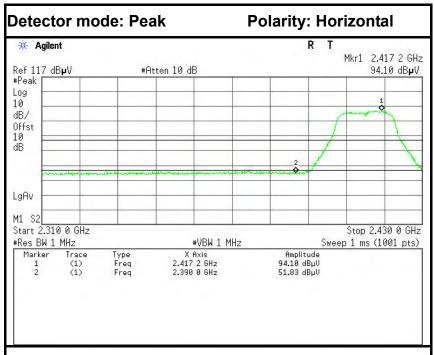
IEEE 802.11n HT20 MHz mode (Combine with Antenna 0 and Antenna 1)

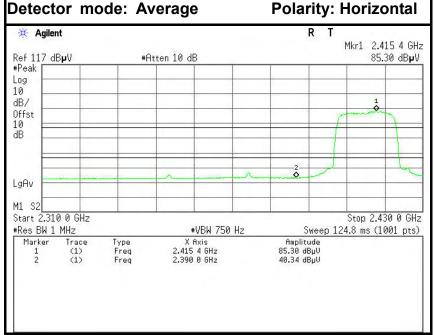
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No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	45.42	-6.60	52.02	74.00	-21.98	Peak	Vertical
2	2390.0000	35.75	-6.60	42.35	54.00	-11.65	Average	Vertical

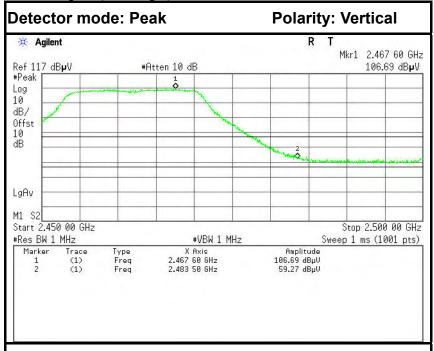






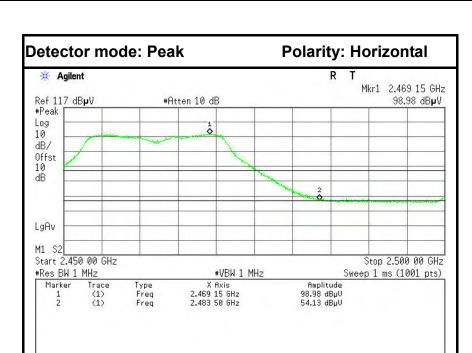
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	45.23	-6.60	51.83	74.00	-22.17	Peak	Horizontal
2	2390.0000	33.74	-6.60	40.34	54.00	-13.66	Average	Horizontal

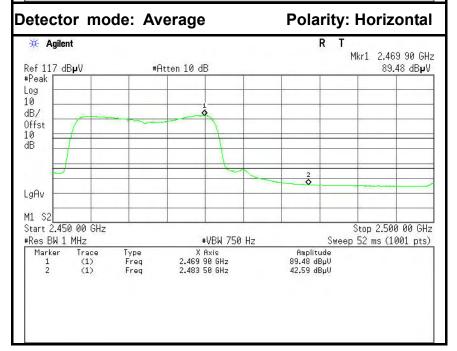




Detector mode: Average **Polarity: Vertical** R # Agilent Mkr1 2.466 70 GHz Ref 117 dBpV #Atten 10 dB 97.23 dB**µ**V #Peak Log 10 dB/ Offst 10 dB LgAv M1 S2 Start 2.450 00 GHz Stop 2.500 00 GHz #Res BW 1 MHz #VBW 750 Hz Sweep 52 ms (1001 pts) X Axis 2.466 70 GHz 2.483 50 GHz Amplitude 97.23 dBµV 47.38 dBµV Marker Type Freq Freq

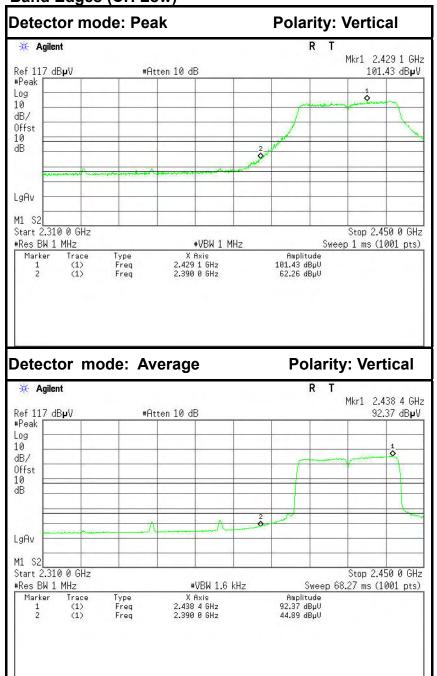
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	53.03	-6.24	59.27	74.00	-14.73	Peak	Vertical
2	2483.5000	41.14	-6.24	47.38	54.00	-6.62	Average	Vertical



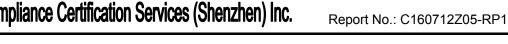


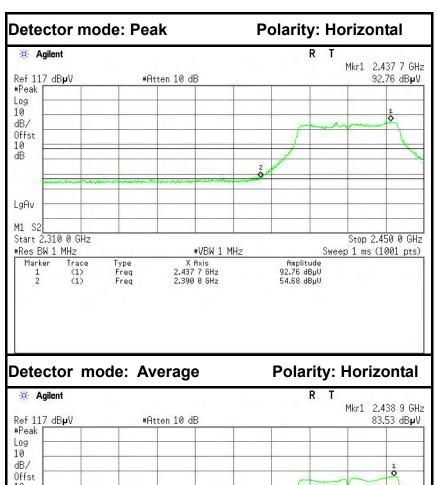
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	47.89	-6.24	54.13	74.00	-19.87	Peak	Horizontal
2	2483.5000	36.35	-6.24	42.59	54.00	-11.41	Average	Horizontal

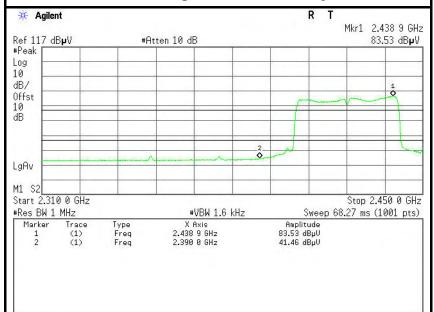
IEEE 802.11n HT40 MHz mode (Combine with Antenna 0 and Antenna 1)



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	55.66	-6.60	62.26	74.00	-11.74	Peak	Vertical
2	2390.0000	38.29	-6.60	44.89	54.00	-9.11	Average	Vertical

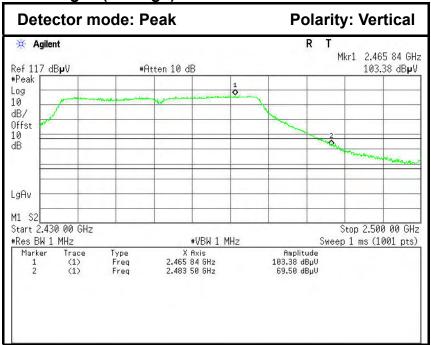




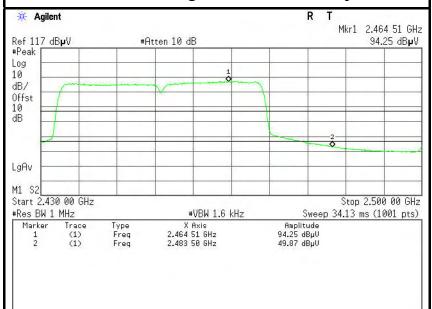


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	48.08	-6.60	54.68	74.00	-19.32	Peak	Horizontal
2	2390.0000	34.86	-6.60	41.46	54.00	-12.54	Average	Horizontal

Band Edges (CH High)

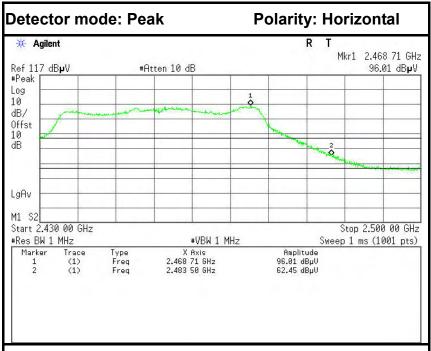


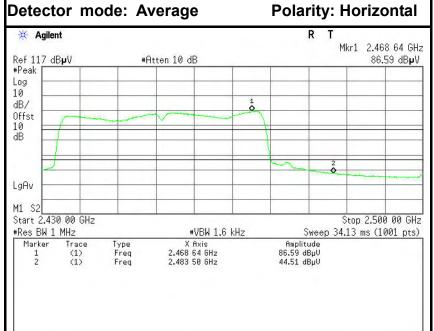
Detector mode: Average Polarity: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	63.26	-6.24	69.50	74.00	-4.50	Peak	Vertical
2	2483.5000	43.63	-6.24	49.87	54.00	-4.13	Average	Vertical







No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	56.21	-6.24	62.45	74.00	-11.55	Peak	Horizontal
2	2483.5000	38.27	-6.24	44.51	54.00	-9.49	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	N9010A	MY52221469	02/21/2016	02/20/2017

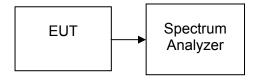
7.7.3. TEST PROCEDURES (please refer to measurement standard)

§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: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- 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 0)

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Test Result	
Low	2412	-12.876		PASS	
Mid	2437	-12.327	8	PASS	
High	2462	-9.921		PASS	

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Test mode: IEEE 802.11b (Antenna 1)

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Test Result
Low	2412	-12.380		PASS
Mid	2437	-10.975	8	PASS
High	2462	-8.619		PASS

Test mode: IEEE 802.11g (Antenna 0)

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Test Result
Low	2412	-16.611		PASS
Mid	2437	-15.439	8	PASS
High	2462	-14.328		PASS

Test mode: IEEE 802.11g (Antenna 1)

100t moder 1222 002111g (7 mtoma 1)							
Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Test Result			
Low	2412	-17.051		PASS			
Mid	2437	-13.869	8	PASS			
High	2462	-13.996		PASS			

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Test mode: IEEE 802.11n HT20 MHz (Combine with Antenna 0 and Antenna 1)

Channel	Frequency (MHz)		PPSD (dBm)		Limit (dBm)	Test Result
	(1411 12)	Antenna 0	Antenna 1	Total	(aBiii)	
Low	2412	-18.916	-16.858	-14.756		PASS
Mid	2437	-15.808	-16.268	-13.022	8	PASS
High	2462	-15.191	-13.602	-11.314		PASS

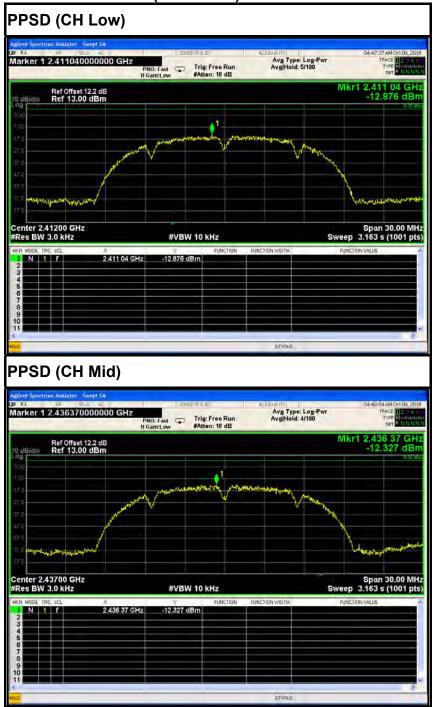
Report No.: C160712Z05-RP1

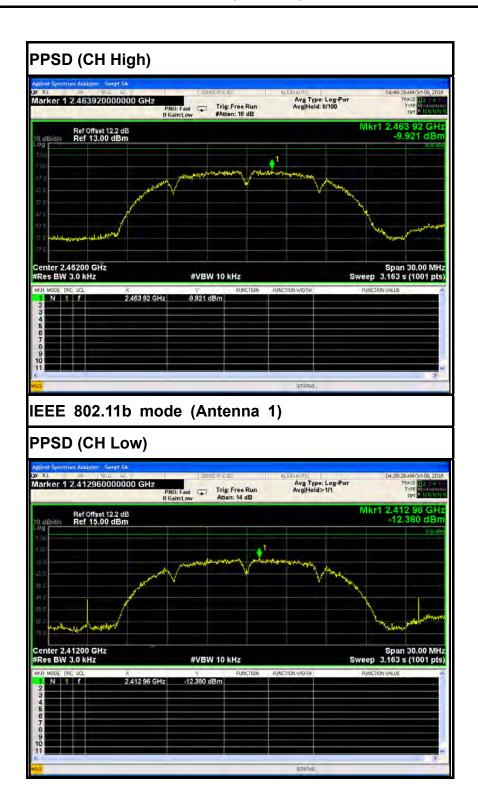
Test mode: IEEE 802.11n HT40 MHz (Combine with Antenna 0 and Antenna 1)

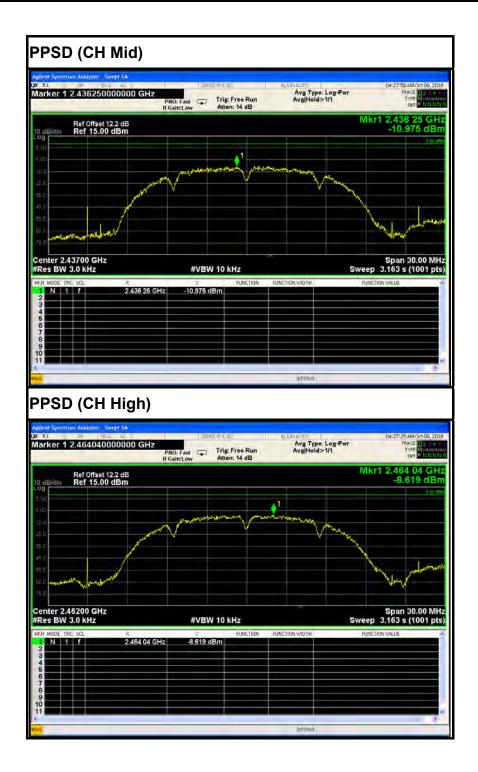
Channel	Frequency (MHz)		PPSD (dBm)		Limit (dBm)	Test Result
	(141112)	Antenna 0	Antenna 1	Total	(uBiii)	
Low	2422	-20.975	-20.296	-17.612		PASS
Mid	2437	-19.766	-18.382	-16.009	8	PASS
High	2452	-19.659	-17.351	-15.343		PASS

Test Plot

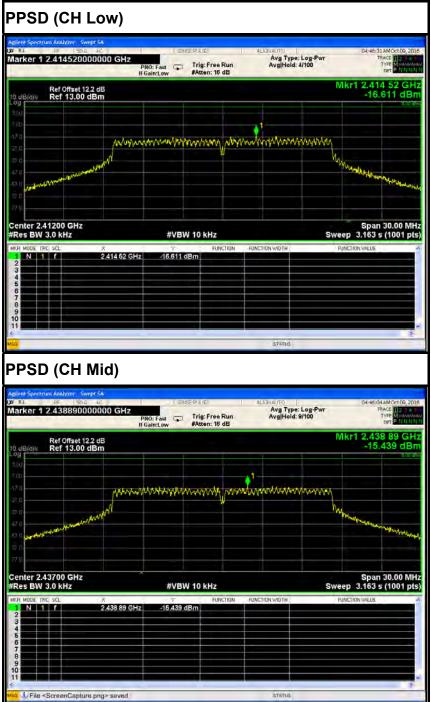
IEEE 802.11b mode (Antenna 0)

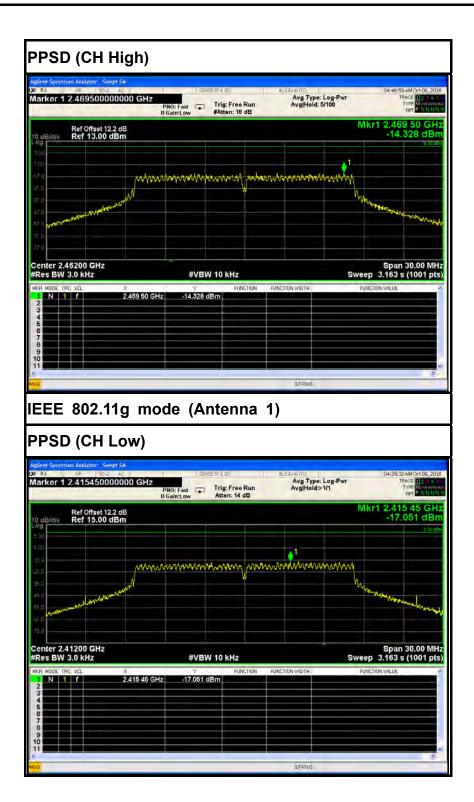


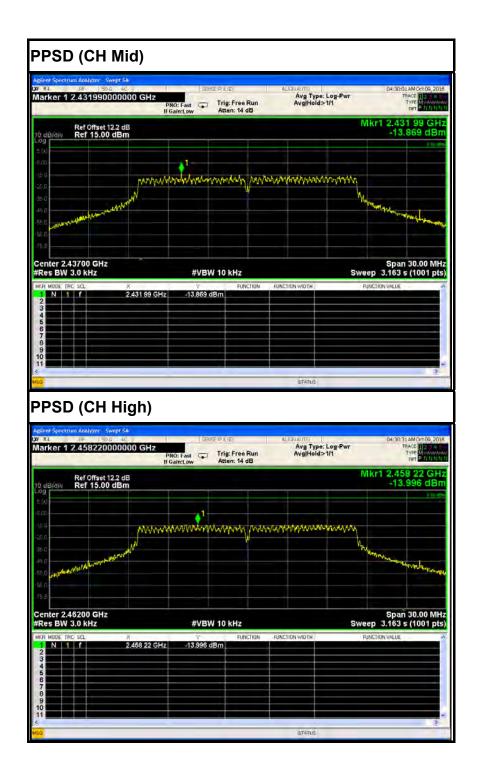




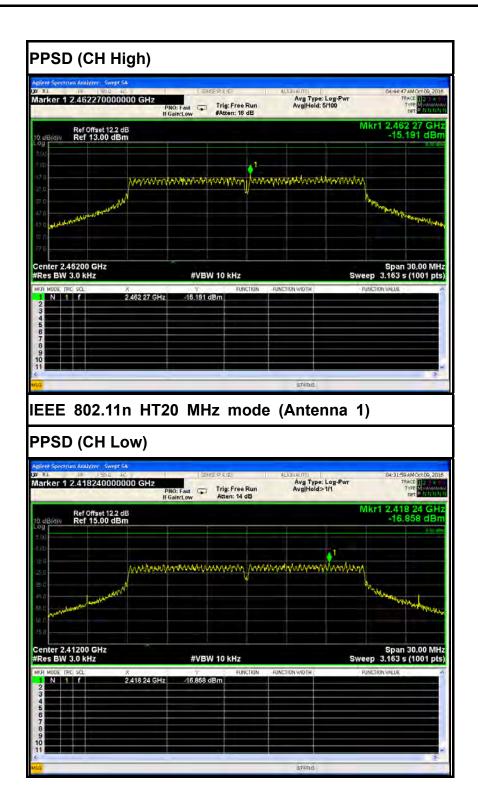
IEEE 802.11g mode (Antenna 0)

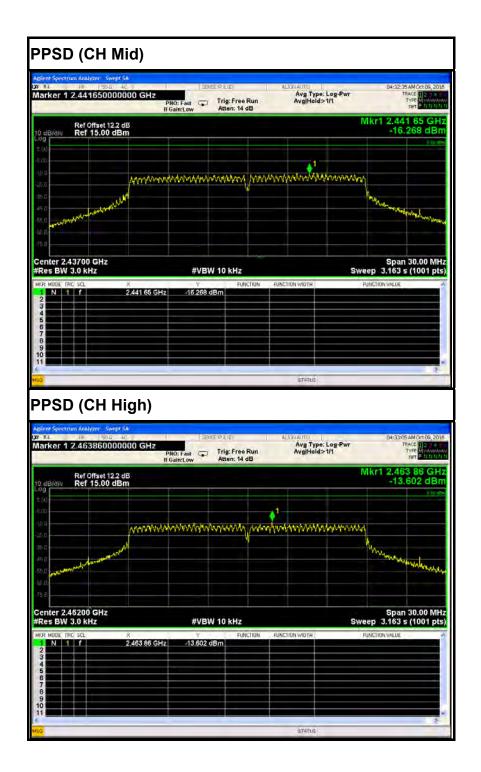






IEEE 802.11n HT20 MHz mode (Antenna 0) PPSD (CH Low) PNO: Fast Trig: Free Run IF Gain: Low #Atten: 16 dB Avg Type: Log-Pwr Avg|Hold: 6/100 Ref Offset 12.2 dB Ref 13.00 dBm properties of the second participation of the second properties of the second participation of the second particip Center 2.41200 GHz #Res BW 3.0 kHz #VBW 10 kHz PPSD (CH Mid) Avg Type: Log-Pwr Avg|Hold: 4/100 PNO: Fast Trig: Free Run #EGain:Low #Atten: 16 dB Ref Offset 12.2 dB Ref 13.00 dBm proportion of the proportion of the second proportion of the second Center 2.43700 GHz #Res BW 3.0 kHz Span 30,00 MHz Sweep 3,163 s (1001 pts) #VBW 10 kHz 2 434 51 GHz





IEEE 802.11n HT40 MHz mode (Antenna 0) PPSD (CH Low) PNO: Fast Trig: Free Run IF Gain: Low #Atten: 20 dB Avg Type: Log-Pwr Avg|Hold: 2/100 Ref Offset 12.2 dB Ref 15.00 dBm Center 2.42200 GHz #Res BW 3.0 kHz #VBW 10 kHz PPSD (CH Mid) Avg Type: Log-Pwr Avg|Hold: 2/100 PNO: Fast Trig: Free Run IF Gain: Low #Atten: 20 dB Ref Offset 12.2 dB Ref 15.00 dBm #VBW 10 kHz 2 453 32 GHz

