

TEST REPORT ADDENDUM – RADIATED

FROM



Test of: Hewlett Packard Enterprise APIN0344, APIN0345

To: FCC Subpart C 15.247 (DTS), ISED RSS-247

Test Report Serial No.: HPEN111-U5_Radiated WiFi Rev A

Issue Date: 22nd August 2017

Master Document Number	Addendum Reports
HPEN111-U5_Master WiFi	HPEN111-U5_Conducted WiFi
	HPEN111-U5_Radiated WiFi

This report is only valid in conjunction with the reports listed in the above table. Together these reports address the requirements for the type of device operating under the standard as listed.

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1. MEASUREMENT AND PRESENTATION OF TEST DATA

The measurement and graphical data presented in this test report was generated automatically using state-of-the-art technology creating an easy to read report structure. Numerical measurement data is separated from supporting graphical data (plots) through hyperlinks. Numerical measurement data can be reviewed without scrolling through numerous graphical pages to arrive at the next data matrix.

Plots have been relegated into the Appendix 'Graphical Data' Section of this report

Testing and report automation was performed by [MiTest](#). [MiTest](#) is an automated test system developed by MiCOM Labs. [MiTest](#) is the first cloud based modular test system enabling end-to-end automation of regulatory compliance testing for regulatory compliance.

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2. TEST RESULTS

2.1. Emissions

2.1.1. Radiated Emissions

Radiated Test Conditions for Radiated Spurious and Band-Edge Emissions (Restricted Bands)			
Standard:	FCC CFR 47 Part 15 Subpart C 15.247 (DTS)	Ambient Temp. (°C):	20.0 - 24.5
Test Heading:	Radiated Spurious and Band-Edge Emissions	Rel. Humidity (%):	32 - 45
Standard Section(s):	15.205, 15.209	Pressure (mBars):	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for Radiated Spurious and Band-Edge Emissions (Restricted Bands)
Radiated emissions for restricted bands above 1 GHz are measured in the anechoic chamber at a 3-meter distance on every azimuth in both horizontal and vertical polarities. The emissions are recorded and maximized as a function of azimuth by rotation through 360° with a spectrum analyzer in peak hold mode. Depending on the frequency band spanned a notch filter and waveguide filter was used to remove the fundamental frequency. The highest emissions relative to the limit are listed for each frequency spanned. Measurements on any restricted band frequency or frequencies above 1 GHz are based on the use of measurement instrumentation employing peak and average detectors. All measurements were performed using a resolution bandwidth of 1 MHz.

Test configuration and setup for Radiated Spurious and Band-Edge Measurement were per the Radiated Test Set-up specified in this document.

Limits for Restricted Bands
Peak emission: 74 dBuV/m
Average emission: 54 dBuV/m

Field Strength Calculation
The field strength is calculated by adding the Antenna Factor and Cable Loss, and subtracting Amplifier Gain from the measured reading. All factors are included in the reported data.
 $FS = R + AF + CORR - FO$

where:
FS = Field Strength
R = Measured Spectrum analyzer Input Amplitude
AF = Antenna Factor
CORR = Correction Factor = CL – AG + NFL
CL = Cable Loss
AG = Amplifier Gain
FO = Distance Falloff Factor
NFL = Notch Filter Loss or Waveguide Loss

Example:
Given receiver input reading of 51.5 dBmV; Antenna Factor of 8.5 dB; Cable Loss of 1.3 dB; Falloff Factor of 0 dB, an Amplifier Gain of 26 dB and Notch Filter Loss of 1 dB. The Field Strength (FS) of the measured emission is:

$$FS = 51.5 + 8.5 + 1.3 - 26.0 + 1 = 36.3 \text{ dBmV/m}$$

Conversion between dBmV/m (or dBmV) and mV/m (or mV) are as follows:
Level (dBmV/m) = 20 * Log (level (mV/m))

40 dBmV/m = 100 mV/m
48 dBmV/m = 250 mV/m

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Restricted Bands of Operation (15.205)

(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

Restricted Frequency Bands			
MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	Above 38.6
13.36-13.41			

(b) Except as provided in paragraphs (d) and (e) of this section, the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in §15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in §15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in §15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in §15.35 apply to these measurements.

(c) Except as provided in paragraphs (d) and (e) of this section, regardless of the field strength limits specified elsewhere in this subpart, the provisions of this section apply to emissions from any intentional radiator.

(d) The following devices are exempt from the requirements of this section:

- (1) Swept frequency field disturbance sensors operating between 1.705 and 37 MHz provided their emissions only sweep through the bands listed in paragraph (a) of this section, the sweep is never stopped with the fundamental emission within the bands listed in paragraph (a) of this section, and the fundamental emission is outside of the bands listed in paragraph (a) of this section more than 99% of the time the device is actively transmitting, without compensation for duty cycle.
- (2) Transmitters used to detect buried electronic markers at 101.4 kHz which are employed by telephone companies.
- (3) Cable locating equipment operated pursuant to §15.213.
- (4) Any equipment operated under the provisions of §15.253, 15.255, and 15.256 in the frequency band 75-85 GHz, or §15.257 of this part.
- (5) Biomedical telemetry devices operating under the provisions of §15.242 of this part are not subject to the restricted band 608-614 MHz but are subject to compliance within the other restricted bands.
- (6) Transmitters operating under the provisions of subparts D or F of this part.

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(7) Devices operated pursuant to §15.225 are exempt from complying with this section for the 13.36-13.41 MHz band only.

(8) Devices operated in the 24.075-24.175 GHz band under §15.245 are exempt from complying with the requirements of this section for the 48.15-48.35 GHz and 72.225-72.525 GHz bands only, and shall not exceed the limits specified in §15.245(b).

(9) Devices operated in the 24.0-24.25 GHz band under §15.249 are exempt from complying with the requirements of this section for the 48.0-48.5 GHz and 72.0-72.75 GHz bands only, and shall not exceed the limits specified in §15.249(a).

(e) Harmonic emissions appearing in the restricted bands above 17.7 GHz from field disturbance sensors operating under the provisions of §15.245 shall not exceed the limits specified in §15.245(b).

Graphical Image Abbreviations

RB – Restricted Band

NRB – Non-Restricted Band

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2.1.1.1. TX Spurious & Restricted Band Emissions

Antenna: AP-ANT-13B

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AP-ANT-13B	Variant:	802.11b
Antenna Gain (dBi):	2.30	Modulation:	CCK
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	1.00 MBit/s
Power Setting:	76	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2410.68	51.05	2.69	-11.80	41.94	Fundamental	Horizontal	151	0	--	--	
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.												

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Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AP-ANT-13B	Variant:	802.11b
Antenna Gain (dBi):	2.30	Modulation:	CCK
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2437.00	Data Rate:	1.00 MBit/s
Power Setting:	100	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz

Num	Frequency MHz	Raw dB μ V	Cable Loss dB	AF dB	Level dB μ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB μ V/m	Margin dB	Pass /Fail
#1	2439.51	60.34	2.72	-11.72	51.34	Fundamental	Horizontal	151	0	--	--	
#2	9747.86	52.60	5.29	-6.23	51.66	Peak (NRB)	Vertical	151	0	--	--	Pass

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH6 b mode.

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Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AP-ANT-13B	Variant:	802.11b
Antenna Gain (dBi):	2.30	Modulation:	CCK
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	1.00 MBit/s
Power Setting:	76	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz

Num	Frequency MHz	Raw dB μ V	Cable Loss dB	AF dB	Level dB μ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB μ V/m	Margin dB	Pass /Fail
#1	2462.89	59.47	2.74	-11.67	50.54	Fundamental	Horizontal	100	0	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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Antenna: AP-ANT-19

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AP-ANT-19	Variant:	802.11b
Antenna Gain (dBi):	3.00	Modulation:	CCK
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	1.00 MBit/s
Power Setting:	75	Tested By:	OC

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2412.72	51.42	2.70	-11.79	42.33	Fundamental	Vertical	100	40	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AP-ANT-19	Variant:	802.11b
Antenna Gain (dBi):	3.00	Modulation:	CCK
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2437.00	Data Rate:	1.00 MBit/s
Power Setting:	100	Tested By:	OC

Test Measurement Results

1000.00 - 18000.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2438.52	67.69	2.72	-11.72	58.69	Fundamental	Vertical	100	23	--	--	
#2	4876.09	50.62	3.56	-11.25	42.93	Max Peak	Horizontal	172	354	74.0	-31.1	Pass
#3	4876.09	37.17	3.56	-11.25	29.48	Max Avg	Horizontal	172	354	54.0	-24.5	Pass
#4	9747.85	55.23	5.29	-6.23	54.29	Max Peak	Vertical	100	66	74.0	-19.7	Pass
#5	9747.85	50.73	5.29	-6.23	49.79	Max Avg	Vertical	100	66	54.0	-4.2	Pass

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH6 b mode.

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Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AP-ANT-19	Variant:	802.11b
Antenna Gain (dBi):	3.00	Modulation:	CCK
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	1.00 MBit/s
Power Setting:	67	Tested By:	OC

Test Measurement Results

1000.00 - 18000.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2462.89	65.47	2.74	-11.67	56.54	Fundamental	Vertical	100	21	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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Antenna: AP-ANT-1W

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AP-ANT-1W	Variant:	802.11b
Antenna Gain (dBi):	3.80	Modulation:	CCK
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	1.00 MBit/s
Power Setting:	77	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2410.51	52.88	2.69	-11.80	43.77	Fundamental	Horizontal	100	115	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AP-ANT-1W	Variant:	802.11b
Antenna Gain (dBi):	3.80	Modulation:	CCK
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2437.00	Data Rate:	1.00 MBit/s
Power Setting:	100	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz

Num	Frequency MHz	Raw dB μ V	Cable Loss dB	AF dB	Level dB μ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB μ V/m	Margin dB	Pass /Fail
#1	2438.52	63.46	2.72	-11.72	54.46	Fundamental	Horizontal	151	61	--	--	
#2	9747.89	50.61	5.29	-6.23	49.67	Peak (NRB)	Vertical	151	61	--	--	Pass
#3	14621.86	50.44	5.71	-3.57	52.58	Peak (NRB)	Vertical	151	175	--	--	Pass

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH6 b mode.

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Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AP-ANT-1W	Variant:	802.11b
Antenna Gain (dBi):	3.80	Modulation:	CCK
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	1.00 MBit/s
Power Setting:	77	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2463.06	63.95	2.74	-11.67	55.02	Fundamental	Horizontal	100	88	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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Antenna: AP-ANT-20W

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AP-ANT-20W	Variant:	802.11b
Antenna Gain (dBi):	2.00	Modulation:	CCK
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	1.00 MBit/s
Power Setting:	75	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2410.95	52.38	2.69	-11.80	43.27	Fundamental	Horizontal	151	90	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AP-ANT-20W	Variant:	802.11b
Antenna Gain (dBi):	2.00	Modulation:	CCK
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2437.00	Data Rate:	1.00 MBit/s
Power Setting:	100	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2438.41	62.91	2.72	-11.73	53.90	Fundamental	Horizontal	100	70	--	--	
#2	9747.89	50.59	5.29	-6.23	49.65	Peak (NRB)	Vertical	100	70	--	--	Pass

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH6 b mode.

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Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AP-ANT-20W	Variant:	802.11b
Antenna Gain (dBi):	2.00	Modulation:	CCK
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	1.00 MBit/s
Power Setting:	75	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz

Num	Frequency MHz	Raw dB μ V	Cable Loss dB	AF dB	Level dB μ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB μ V/m	Margin dB	Pass /Fail
#1	2463.00	63.44	2.74	-11.67	54.51	Fundamental	Horizontal	151	66	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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Antenna: AP-ANT-40

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AP-ANT-40	Variant:	802.11b
Antenna Gain (dBi):	4.00	Modulation:	CCK
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	1.00 MBit/s
Power Setting:	82	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2414.58	49.02	2.70	-11.79	39.93	Fundamental	Horizontal	151	99	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AP-ANT-40	Variant:	802.11b
Antenna Gain (dBi):	4.00	Modulation:	CCK
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2437.00	Data Rate:	1.00 MBit/s
Power Setting:	100	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2438.08	57.82	2.72	-11.73	48.81	Fundamental	Horizontal	100	0	--	--	
#2	9747.87	52.07	5.29	-6.23	51.13	Peak (NRB)	Horizontal	200	0	--	--	Pass

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH6 b mode.

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Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AP-ANT-40	Variant:	802.11b
Antenna Gain (dBi):	4.00	Modulation:	CCK
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	1.00 MBit/s
Power Setting:	74	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz

Num	Frequency MHz	Raw dB μ V	Cable Loss dB	AF dB	Level dB μ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB μ V/m	Margin dB	Pass /Fail
#1	2463.00	60.48	2.74	-11.67	51.55	Fundamental	Horizontal	200	64	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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Antenna: AP-ANT-45

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AP-ANT-45	Variant:	802.11b
Antenna Gain (dBi):	4.50	Modulation:	CCK
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	1.00 MBit/s
Power Setting:	75	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2412.94	52.60	2.70	-11.79	43.51	Fundamental	Horizontal	100	56	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AP-ANT-45	Variant:	802.11b
Antenna Gain (dBi):	4.50	Modulation:	CCK
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2437.00	Data Rate:	1.00 MBit/s
Power Setting:	100	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2439.62	63.63	2.72	-11.72	54.63	Fundamental	Horizontal	100	45	--	--	
#2	9747.89	54.44	5.29	-6.23	53.50	Peak (NRB)	Horizontal	151	63	--	--	Pass

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH6 b mode.

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Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AP-ANT-45	Variant:	802.11b
Antenna Gain (dBi):	4.50	Modulation:	CCK
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	1.00 MBit/s
Power Setting:	75	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz

Num	Frequency MHz	Raw dB μ V	Cable Loss dB	AF dB	Level dB μ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB μ V/m	Margin dB	Pass /Fail
#1	2462.89	62.47	2.74	-11.67	53.54	Fundamental	Horizontal	100	42	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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Antenna: AP-ANT-48

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AP-ANT-48	Variant:	802.11b
Antenna Gain (dBi):	8.50	Modulation:	CCK
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	1.00 MBit/s
Power Setting:	75	Tested By:	OC

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2413.73	54.73	2.70	-11.79	45.64	Fundamental	Vertical	100	55	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AP-ANT-48	Variant:	802.11b
Antenna Gain (dBi):	8.50	Modulation:	CCK
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2437.00	Data Rate:	1.00 MBit/s
Power Setting:	100	Tested By:	OC

Test Measurement Results

1000.00 - 18000.00 MHz

Num	Frequency MHz	Raw dB μ V	Cable Loss dB	AF dB	Level dB μ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB μ V/m	Margin dB	Pass /Fail
#1	2438.52	62.58	2.72	-11.72	53.58	Fundamental	Horizontal	100	0	--	--	
#2	9749.23	49.66	5.26	-6.24	48.68	Peak (NRB)	Vertical	100	39	--	--	Pass

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH6 b mode.

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Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AP-ANT-48	Variant:	802.11b
Antenna Gain (dBi):	8.50	Modulation:	CCK
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	1.00 MBit/s
Power Setting:	75	Tested By:	OC

Test Measurement Results

1000.00 - 18000.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2463.00	63.39	2.74	-11.67	54.46	Fundamental	Vertical	100	29	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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Antenna: Metal Sheet

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba Metal Sheet	Variant:	802.11b
Antenna Gain (dBi):	3.10	Modulation:	CCK
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	1.00 MBit/s
Power Setting:	75	Tested By:	OC

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2413.02	51.18	2.70	-11.79	42.09	Fundamental	Vertical	185	62	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba Metal Sheet	Variant:	802.11b
Antenna Gain (dBi):	3.10	Modulation:	CCK
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2437.00	Data Rate:	1.00 MBit/s
Power Setting:	100	Tested By:	OC

Test Measurement Results

1000.00 - 18000.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2438.52	62.72	2.72	-11.72	53.72	Fundamental	Vertical	178	0	--	--	
#2	4874.02	56.93	3.54	-11.24	49.23	Max Peak	Vertical	156	358	74.0	-24.8	Pass
#3	4874.02	51.59	3.54	-11.24	43.89	Max Avg	Vertical	156	358	54.0	-10.1	Pass

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH6 b mode.

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Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba Metal Sheet	Variant:	802.11b
Antenna Gain (dBi):	3.10	Modulation:	CCK
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	1.00 MBit/s
Power Setting:	71	Tested By:	OC

Test Measurement Results

1000.00 - 18000.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2462.89	64.40	2.74	-11.67	55.47	Fundamental	Vertical	100	67	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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2.1.1.2. Lower Restricted Edge & Band-Edge Emissions

Aruba AP-ANT-13B		Band-Edge Freq	Limit 74.0dB μ V/m	Limit 54.0dB μ V/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dB μ V/m	dB μ V/m	
802.11b	2412.00	2390.00	63.50	53.89	76
802.11g	2412.00	2390.00	73.94	53.64	58
802.11n HT-20	2412.00	2390.00	73.55	53.23	60
802.11n HT-40	2422.00	2390.00	72.69	53.23	60

Aruba AP-ANT-19		Band-Edge Freq	Limit 74.0dB μ V/m	Limit 54.0dB μ V/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dB μ V/m	dB μ V/m	
802.11b	2412.00	2390.00	62.55	51.98	75
802.11g	2412.00	2390.00	72.30	53.10	59
802.11n HT-20	2412.00	2390.00	72.91	53.50	61
802.11n HT-40	2422.00	2390.00	73.62	53.44	58

Aruba AP-ANT-1W		Band-Edge Freq	Limit 74.0dB μ V/m	Limit 54.0dB μ V/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dB μ V/m	dB μ V/m	
802.11b	2412.00	2390.00	62.70	53.37	77
802.11g	2412.00	2390.00	72.98	53.57	65
802.11n HT-20	2412.00	2390.00	73.52	53.10	63
802.11n HT-40	2422.00	2390.00	72.27	52.20	60

Aruba AP-ANT-20W		Band-Edge Freq	Limit 74.0dB μ V/m	Limit 54.0dB μ V/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dB μ V/m	dB μ V/m	
802.11b	2412.00	2390.00	63.41	53.50	75
802.11g	2412.00	2390.00	72.66	53.50	60
802.11n HT-20	2412.00	2390.00	73.34	53.64	64
802.11n HT-40	2422.00	2390.00	73.40	53.35	60

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Aruba AP-ANT-40		Band-Edge Freq	Limit 74.0dB μ V/m	Limit 54.0dB μ V/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dB μ V/m	dB μ V/m	
802.11b	2412.00	2390.00	63.31	53.89	82
802.11g	2412.00	2390.00	72.82	53.64	69
802.11n HT-20	2412.00	2390.00	73.67	53.89	68
802.11n HT-40	2422.00	2390.00	72.01	53.94	63

Aruba AP-ANT-45		Band-Edge Freq	Limit 74.0dB μ V/m	Limit 54.0dB μ V/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dB μ V/m	dB μ V/m	
802.11b	2412.00	2390.00	62.21	50.71	75
802.11g	2412.00	2390.00	73.44	52.81	58
802.11n HT-20	2412.00	2390.00	72.97	53.30	54
802.11n HT-40	2422.00	2390.00	72.34	53.50	53

Aruba AP-ANT-48		Band-Edge Freq	Limit 74.0dB μ V/m	Limit 54.0dB μ V/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dB μ V/m	dB μ V/m	
802.11b	2412.00	2390.00	59.15	47.41	75
802.11g	2412.00	2390.00	65.73	49.11	61
802.11n HT-20	2412.00	2390.00	73.29	52.44	61
802.11n HT-40	2422.00	2390.00	72.12	53.75	60

Aruba Metal Sheet		Band-Edge Freq	Limit 74.0dB μ V/m	Limit 54.0dB μ V/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dB μ V/m	dB μ V/m	
802.11b	2412.00	2390.00	59.72	50.15	75
802.11g	2412.00	2390.00	72.46	53.77	65
802.11n HT-20	2412.00	2390.00	73.03	53.82	67
802.11n HT-40	2422.00	2390.00	71.92	53.57	62

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Antenna: AP-ANT-13B

Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-13B	Variant:	802.11b
Antenna Gain (dBi):	2.30	Modulation:	CCK
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	1.00 MBit/s
Power Setting:	76	Tested By:	JMH

Test Measurement Results

2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2389.33	19.17	2.68	32.04	53.89	Max Avg	Horizontal	152	324	54.0	-0.1	Pass
#2	2390.00	28.77	2.69	32.04	63.50	Max Peak	Horizontal	152	324	74.0	-10.5	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-13B	Variant:	802.11g
Antenna Gain (dBi):	2.30	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	6.00 MBit/s
Power Setting:	58	Tested By:	JMH

Test Measurement Results

2310.00 - 2422.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2390.00	18.91	2.69	32.04	53.64	Max Avg	Horizontal	152	324	54.0	-0.4	Pass
#2	2390.00	39.21	2.69	32.04	73.94	Max Peak	Horizontal	152	324	74.0	-0.1	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 g mode.

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Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-13B	Variant:	802.11n HT-20
Antenna Gain (dBi):	2.30	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	6.50 MBit/s
Power Setting:	60	Tested By:	JMH

Test Measurement Results

2310.00 - 2422.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2389.57	38.82	2.69	32.04	73.55	Max Peak	Horizontal	152	324	74.0	-0.5	Pass
#2	2389.78	18.50	2.69	32.04	53.23	Max Avg	Horizontal	152	324	54.0	-0.8	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 n HT20 mode.

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Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-13B	Variant:	802.11n HT-40
Antenna Gain (dBi):	2.30	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2422.00	Data Rate:	13.50 MBit/s
Power Setting:	60	Tested By:	JMH

Test Measurement Results

2310.00 - 2422.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2386.86	37.99	2.68	32.02	72.69	Max Peak	Horizontal	152	324	74.0	-1.3	Pass
#2	2389.68	18.50	2.69	32.04	53.23	Max Avg	Horizontal	152	324	54.0	-0.8	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH3 n HT40 mode.

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Antenna: AP-ANT-19

Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-19	Variant:	802.11b
Antenna Gain (dBi):	3.00	Modulation:	CCK
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	1.00 MBit/s
Power Setting:	75	Tested By:	OC

Test Measurement Results

2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2389.33	17.26	2.68	32.04	51.98	Max Avg	Vertical	173	318	54.0	-2.0	Pass
#2	2390.00	27.82	2.69	32.04	62.55	Max Peak	Vertical	173	318	74.0	-11.5	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-19	Variant:	802.11g
Antenna Gain (dBi):	3.00	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	6.00 MBit/s
Power Setting:	59	Tested By:	OC

Test Measurement Results

2310.00 - 2422.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2390.00	18.37	2.69	32.04	53.10	Max Avg	Vertical	173	318	54.0	-0.9	Pass
#2	2390.00	37.57	2.69	32.04	72.30	Max Peak	Vertical	173	318	74.0	-1.7	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 g mode.

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Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-19	Variant:	802.11n HT-20
Antenna Gain (dBi):	3.00	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	6.50 MBit/s
Power Setting:	61	Tested By:	OC

Test Measurement Results

2310.00 - 2422.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2389.78	38.18	2.69	32.04	72.91	Max Peak	Vertical	173	318	74.0	-1.1	Pass
#2	2390.00	18.77	2.69	32.04	53.50	Max Avg	Vertical	173	318	54.0	-0.5	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 n HT20 mode.

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Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-19	Variant:	802.11n HT-40
Antenna Gain (dBi):	3.00	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2422.00	Data Rate:	13.50 MBit/s
Power Setting:	58	Tested By:	OC

Test Measurement Results

2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2390.00	18.71	2.69	32.04	53.44	Max Avg	Vertical	173	318	54.0	-0.6	Pass
#2	2390.00	38.89	2.69	32.04	73.62	Max Peak	Vertical	173	318	74.0	-0.4	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH3 n HT40 mode.

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Antenna: AP-ANT-1W

Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-1W	Variant:	802.11b
Antenna Gain (dBi):	3.80	Modulation:	CCK
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	1.00 MBit/s
Power Setting:	77	Tested By:	JMH

Test Measurement Results

2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2389.10	27.98	2.68	32.04	62.70	Max Peak	Horizontal	152	83	74.0	-11.3	Pass
#2	2389.55	18.64	2.69	32.04	53.37	Max Avg	Horizontal	152	83	54.0	-0.6	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-1W	Variant:	802.11g
Antenna Gain (dBi):	3.80	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	6.00 MBit/s
Power Setting:	65	Tested By:	JMH

Test Measurement Results

2310.00 - 2422.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2390.00	18.84	2.69	32.04	53.57	Max Avg	Horizontal	152	83	54.0	-0.4	Pass
#2	2390.00	38.25	2.69	32.04	72.98	Max Peak	Horizontal	152	83	74.0	-1.0	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 g mode.

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Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-1W	Variant:	802.11n HT-20
Antenna Gain (dBi):	3.80	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	6.50 MBit/s
Power Setting:	63	Tested By:	JMH

Test Measurement Results

2310.00 - 2422.00 MHz

Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	2389.78	18.37	2.69	32.04	53.10	Max Avg	Horizontal	152	83	54.0	-0.9	Pass
#2	2389.78	38.79	2.69	32.04	73.52	Max Peak	Horizontal	152	83	74.0	-0.5	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 n HT20 mode.

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Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-1W	Variant:	802.11n HT-40
Antenna Gain (dBi):	3.80	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2422.00	Data Rate:	13.50 MBit/s
Power Setting:	60	Tested By:	JMH

Test Measurement Results

2310.00 - 2422.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2387.43	17.50	2.68	32.02	52.20	Max Avg	Horizontal	152	83	54.0	-1.8	Pass
#2	2387.43	37.57	2.68	32.02	72.27	Max Peak	Horizontal	152	83	74.0	-1.7	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH3 n HT40 mode.

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Antenna: AP-ANT-20W

Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-20W	Variant:	802.11b
Antenna Gain (dBi):	2.00	Modulation:	CCK
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	1.00 MBit/s
Power Setting:	75	Tested By:	JMH

Test Measurement Results

2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2389.55	18.77	2.69	32.04	53.50	Max Avg	Horizontal	99	85	54.0	-0.5	Pass
#2	2390.00	28.68	2.69	32.04	63.41	Max Peak	Horizontal	99	85	74.0	-10.6	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-20W	Variant:	802.11g
Antenna Gain (dBi):	2.00	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	6.00 MBit/s
Power Setting:	60	Tested By:	JMH

Test Measurement Results

2310.00 - 2422.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2390.00	18.77	2.69	32.04	53.50	Max Avg	Horizontal	99	85	54.0	-0.5	Pass
#2	2390.00	37.93	2.69	32.04	72.66	Max Peak	Horizontal	99	85	74.0	-1.3	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 g mode.

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Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-20W	Variant:	802.11n HT-20
Antenna Gain (dBi):	2.00	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	6.50 MBit/s
Power Setting:	64	Tested By:	JMH

Test Measurement Results

2310.00 - 2422.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2389.33	38.62	2.68	32.04	73.34	Max Peak	Horizontal	99	85	74.0	-0.7	Pass
#2	2390.00	18.91	2.69	32.04	53.64	Max Avg	Horizontal	99	85	54.0	-0.4	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 n HT20 mode.

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Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-20W	Variant:	802.11n HT-40
Antenna Gain (dBi):	2.00	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2422.00	Data Rate:	13.50 MBit/s
Power Setting:	60	Tested By:	JMH

Test Measurement Results

2310.00 - 2422.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2386.99	38.70	2.68	32.02	73.40	Max Peak	Horizontal	99	85	74.0	-0.6	Pass
#2	2387.31	18.65	2.68	32.02	53.35	Max Avg	Horizontal	99	85	54.0	-0.7	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH3 n HT40 mode.

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Antenna: AP-ANT-40

Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-40	Variant:	802.11b
Antenna Gain (dBi):	4.00	Modulation:	CCK
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	1.00 MBit/s
Power Setting:	82	Tested By:	JMH

Test Measurement Results

2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2389.55	19.16	2.69	32.04	53.89	Max Avg	Horizontal	174	300	54.0	-0.1	Pass
#2	2389.78	28.58	2.69	32.04	63.31	Max Peak	Horizontal	174	300	74.0	-10.7	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. connected to laptop outside chamber via telnet.

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Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-40	Variant:	802.11g
Antenna Gain (dBi):	4.00	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	6.00 MBit/s
Power Setting:	69	Tested By:	JMH

Test Measurement Results

2310.00 - 2422.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2390.00	18.91	2.69	32.04	53.64	Max Avg	Horizontal	174	300	54.0	-0.4	Pass
#2	2390.00	38.09	2.69	32.04	72.82	Max Peak	Horizontal	174	300	74.0	-1.2	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 g mode.

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Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-40	Variant:	802.11n HT-20
Antenna Gain (dBi):	4.00	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	6.50 MBit/s
Power Setting:	68	Tested By:	JMH

Test Measurement Results

2310.00 - 2422.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2389.33	38.95	2.68	32.04	73.67	Max Peak	Horizontal	174	300	74.0	-0.3	Pass
#2	2389.55	19.16	2.69	32.04	53.89	Max Avg	Horizontal	174	300	54.0	-0.1	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 n HT20 mode.

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Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-40	Variant:	802.11n HT-40
Antenna Gain (dBi):	4.00	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2422.00	Data Rate:	13.50 MBit/s
Power Setting:	63	Tested By:	JMH

Test Measurement Results

2310.00 - 2422.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2387.31	37.31	2.68	32.02	72.01	Max Peak	Horizontal	174	300	74.0	-2.0	Pass
#2	2387.53	19.23	2.68	32.03	53.94	Max Avg	Horizontal	174	300	54.0	-0.1	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH3 n HT40 mode.

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Antenna: AP-ANT-45

Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-45	Variant:	802.11b
Antenna Gain (dBi):	4.50	Modulation:	CCK
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	1.00 MBit/s
Power Setting:	75	Tested By:	JMH

Test Measurement Results

2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2389.33	15.99	2.68	32.04	50.71	Max Avg	Horizontal	146	346	54.0	-3.3	Pass
#2	2390.00	27.48	2.69	32.04	62.21	Max Peak	Horizontal	146	346	74.0	-11.8	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-45	Variant:	802.11g
Antenna Gain (dBi):	4.50	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	6.00 MBit/s
Power Setting:	58	Tested By:	JMH

Test Measurement Results

2310.00 - 2422.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2389.90	18.08	2.69	32.04	52.81	Max Avg	Horizontal	146	346	54.0	-1.2	Pass
#2	2390.00	38.71	2.69	32.04	73.44	Max Peak	Horizontal	146	346	74.0	-0.6	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 g mode.

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Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-45	Variant:	802.11n HT-20
Antenna Gain (dBi):	4.50	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	6.50 MBit/s
Power Setting:	54	Tested By:	JMH

Test Measurement Results

2310.00 - 2422.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2389.78	18.57	2.69	32.04	53.30	Max Avg	Horizontal	146	346	54.0	-0.7	Pass
#2	2390.00	38.24	2.69	32.04	72.97	Max Peak	Horizontal	146	346	74.0	-1.0	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 n HT20 mode.

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Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-45	Variant:	802.11n HT-40
Antenna Gain (dBi):	4.50	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2422.00	Data Rate:	13.50 MBit/s
Power Setting:	53	Tested By:	JMH

Test Measurement Results

2310.00 - 2422.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2389.78	18.77	2.69	32.04	53.50	Max Avg	Horizontal	146	346	54.0	-0.5	Pass
#2	2390.00	37.61	2.69	32.04	72.34	Max Peak	Horizontal	146	346	74.0	-1.7	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH3 n HT40 mode.

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Antenna: AP-ANT-48

Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-48	Variant:	802.11b
Antenna Gain (dBi):	8.50	Modulation:	CCK
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	1.00 MBit/s
Power Setting:	75	Tested By:	OC

Test Measurement Results

2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2388.65	12.69	2.68	32.04	47.41	Max Avg	Horizontal	177	349	54.0	-6.6	Pass
#2	2390.00	24.42	2.69	32.04	59.15	Max Peak	Horizontal	177	349	74.0	-14.9	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-48	Variant:	802.11g
Antenna Gain (dBi):	8.50	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	6.00 MBit/s
Power Setting:	61	Tested By:	OC

Test Measurement Results

2310.00 - 2422.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2390.00	14.38	2.69	32.04	49.11	Max Avg	Horizontal	177	349	54.0	-4.9	Pass
#2	2390.00	31.00	2.69	32.04	65.73	Max Peak	Horizontal	177	349	74.0	-8.3	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 g mode.

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Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-48	Variant:	802.11n HT-20
Antenna Gain (dBi):	8.50	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	6.50 MBit/s
Power Setting:	61	Tested By:	OC

Test Measurement Results

2310.00 - 2422.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2388.43	38.58	2.68	32.03	73.29	Max Peak	Horizontal	177	349	74.0	-0.7	Pass
#2	2388.65	17.72	2.68	32.04	52.44	Max Avg	Horizontal	177	349	54.0	-1.6	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 n HT20 mode.

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Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-48	Variant:	802.11n HT-40
Antenna Gain (dBi):	8.50	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2422.00	Data Rate:	13.50 MBit/s
Power Setting:	60	Tested By:	OC

Test Measurement Results

2310.00 - 2422.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2388.43	19.04	2.68	32.03	53.75	Max Avg	Horizontal	177	349	54.0	-0.3	Pass
#2	2388.43	37.41	2.68	32.03	72.12	Max Peak	Horizontal	177	349	74.0	-1.9	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH3 n HT40 mode.

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Antenna: Metal Sheet

Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba Metal Sheet	Variant:	802.11b
Antenna Gain (dBi):	3.10	Modulation:	CCK
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	1.00 MBit/s
Power Setting:	75	Tested By:	JMH

Test Measurement Results

2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2389.78	24.99	2.69	32.04	59.72	Max Peak	Horizontal	180	282	74.0	-14.3	Pass
#2	2390.00	15.42	2.69	32.04	50.15	Max Avg	Horizontal	180	282	54.0	-3.9	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba Metal Sheet	Variant:	802.11g
Antenna Gain (dBi):	3.10	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	6.00 MBit/s
Power Setting:	65	Tested By:	JMH

Test Measurement Results

2310.00 - 2422.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2390.00	19.04	2.69	32.04	53.77	Max Avg	Horizontal	180	282	54.0	-0.2	Pass
#2	2390.00	37.73	2.69	32.04	72.46	Max Peak	Horizontal	180	282	74.0	-1.5	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 g mode.

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Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba Metal Sheet	Variant:	802.11n HT-20
Antenna Gain (dBi):	3.10	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2412.00	Data Rate:	6.50 MBit/s
Power Setting:	67	Tested By:	JMH

Test Measurement Results

2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2388.20	19.11	2.68	32.03	53.82	Max Avg	Horizontal	180	282	54.0	-0.2	Pass
#2	2388.20	38.32	2.68	32.03	73.03	Max Peak	Horizontal	180	282	74.0	-1.0	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 n HT20 mode.

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Equipment Configuration for Radiated - Lower Restricted Band-Edge Emissions

Antenna:	Aruba Metal Sheet	Variant:	802.11n HT-40
Antenna Gain (dBi):	3.10	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2422.00	Data Rate:	13.50 MBit/s
Power Setting:	62	Tested By:	JMH

Test Measurement Results

2310.00 - 2422.00 MHz

Num	Frequency MHz	Raw dB μ V	Cable Loss dB	AF dB	Level dB μ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB μ V/m	Margin dB	Pass /Fail
#1	2390.00	18.84	2.69	32.04	53.57	Max Avg	Horizontal	180	282	54.0	-0.4	Pass
#2	2390.00	37.19	2.69	32.04	71.92	Max Peak	Horizontal	180	282	74.0	-2.1	Pass
#3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH3 n HT40 mode.

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2.1.1.3. Upper Restricted Edge & Band-Edge Emissions

Summary

Aruba AP-ANT-13B		Band-Edge Freq	Limit 74.0dBµV/m	Limit 54.0dBµV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBµV/m	dBµV/m	
802.11b	2462.00	2483.50	63.54	53.55	76
802.11g	2462.00	2483.50	73.34	53.34	59
802.11n HT-20	2462.00	2483.50	73.24	50.63	51
802.11n HT-40	2452.00	2483.50	72.96	53.34	47

Aruba AP-ANT-19		Band-Edge Freq	Limit 74.0dBµV/m	Limit 54.0dBµV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBµV/m	dBµV/m	
802.11b	2462.00	2483.50	63.90	53.34	67
802.11g	2462.00	2483.50	73.04	52.60	56
802.11n HT-20	2462.00	2483.50	73.43	52.83	56
802.11n HT-40	2452.00	2483.50	69.59	53.48	41

Aruba AP-ANT-1W		Band-Edge Freq	Limit 74.0dBµV/m	Limit 54.0dBµV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBµV/m	dBµV/m	
802.11b	2462.00	2483.50	62.50	53.55	77
802.11g	2462.00	2483.50	72.58	53.34	64
802.11n HT-20	2462.00	2483.50	73.18	49.60	50
802.11n HT-40	2452.00	2483.50	73.01	53.61	51

Aruba AP-ANT-20W		Band-Edge Freq	Limit 74.0dBµV/m	Limit 54.0dBµV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBµV/m	dBµV/m	
802.11b	2462.00	2483.50	63.23	53.69	75
802.11g	2462.00	2483.50	73.73	52.98	58
802.11n HT-20	2462.00	2483.50	72.60	52.37	60
802.11n HT-40	2452.00	2483.50	73.29	53.05	50

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Aruba AP-ANT-40		Band-Edge Freq	Limit 74.0dBµV/m	Limit 54.0dBµV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBµV/m	dBµV/m	
802.11b	2462.00	2483.50	62.32	53.27	74
802.11g	2462.00	2483.50	73.33	52.98	57
802.11n HT-20	2462.00	2483.50	73.49	52.52	62
802.11n HT-40	2452.00	2483.50	73.45	52.98	50

Aruba AP-ANT-45		Band-Edge Freq	Limit 74.0dBµV/m	Limit 54.0dBµV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBµV/m	dBµV/m	
802.11b	2462.00	2483.50	61.86	51.19	75
802.11g	2462.00	2483.50	73.59	53.68	61
802.11n HT-20	2462.00	2483.50	73.43	50.72	54
802.11n HT-40	2452.00	2483.50	72.78	53.41	50

Aruba AP-ANT-48		Band-Edge Freq	Limit 74.0dBµV/m	Limit 54.0dBµV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBµV/m	dBµV/m	
802.11b	2462.00	2483.50	61.17	49.16	75
802.11g	2462.00	2483.50	69.16	50.53	58
802.11n HT-20	2462.00	2483.50	72.19	51.54	48
802.11n HT-40	2452.00	2483.50	68.44	53.82	45

Aruba Metal Sheet		Band-Edge Freq	Limit 74.0dBµV/m	Limit 54.0dBµV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBµV/m	dBµV/m	
802.11b	2462.00	2483.50	63.27	53.61	71
802.11g	2462.00	2483.50	72.02	53.12	59
802.11n HT-20	2462.00	2483.50	72.78	52.37	55
802.11n HT-40	2452.00	2483.50	73.34	51.97	47

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Antenna: AP-ANT-13B

Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-13B	Variant:	802.11b
Antenna Gain (dBi):	2.30	Modulation:	CCK
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	1.00 MBit/s
Power Setting:	76	Tested By:	JMH

Test Measurement Results

2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#2	2486.09	28.44	2.73	32.37	63.54	Max Peak	Horizontal	157	320	74.0	-10.5	Pass
#3	2486.63	18.45	2.73	32.37	53.55	Max Avg	Horizontal	157	320	54.0	-0.5	Pass
#1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-13B	Variant:	802.11g
Antenna Gain (dBi):	2.30	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	6.00 MBit/s
Power Setting:	59	Tested By:	JMH

Test Measurement Results

2452.00 - 2520.00 MHz

Num	Frequency MHz	Raw dB μ V	Cable Loss dB	AF dB	Level dB μ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB μ V/m	Margin dB	Pass /Fail
#1	2483.50	18.24	2.73	32.37	53.34	Max Avg	Horizontal	157	320	54.0	-0.7	Pass
#2	2483.50	38.24	2.73	32.37	73.34	Max Peak	Horizontal	157	320	74.0	-0.7	Pass
#3	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 g mode.

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Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-13B	Variant:	802.11n HT-20
Antenna Gain (dBi):	2.30	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	6.50 MBit/s
Power Setting:	51	Tested By:	JMH

Test Measurement Results

2452.00 - 2520.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#2	2484.45	38.14	2.73	32.37	73.24	Max Peak	Horizontal	157	320	74.0	-0.8	Pass
#3	2484.59	15.53	2.73	32.37	50.63	Max Avg	Horizontal	157	320	54.0	-3.4	Pass
#1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 n HT20 mode.

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Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-13B	Variant:	802.11n HT-40
Antenna Gain (dBi):	2.30	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2452.00	Data Rate:	13.50 MBit/s
Power Setting:	47	Tested By:	JMH

Test Measurement Results

2452.00 - 2520.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#2	2486.41	18.24	2.73	32.37	53.34	Max Avg	Horizontal	157	320	54.0	-0.7	Pass
#3	2486.41	37.86	2.73	32.37	72.96	Max Peak	Horizontal	157	320	74.0	-1.0	Pass
#1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH9 n HT40 mode.

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Antenna: AP-ANT-19

Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-19	Variant:	802.11b
Antenna Gain (dBi):	3.00	Modulation:	CCK
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	1.00 MBit/s
Power Setting:	67	Tested By:	OC

Test Measurement Results

2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2483.50	18.24	2.73	32.37	53.34	Max Avg	Vertical	173	318	54.0	-0.7	Pass
#2	2483.50	28.80	2.73	32.37	63.90	Max Peak	Vertical	173	318	74.0	-10.1	Pass
#3	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-19	Variant:	802.11g
Antenna Gain (dBi):	3.00	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	6.00 MBit/s
Power Setting:	56	Tested By:	OC

Test Measurement Results

2452.00 - 2520.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2483.50	17.50	2.73	32.37	52.60	Max Avg	Vertical	173	318	54.0	-1.4	Pass
#2	2483.50	37.94	2.73	32.37	73.04	Max Peak	Vertical	173	318	74.0	-1.0	Pass
#3	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 g mode.

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Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-19	Variant:	802.11n HT-20
Antenna Gain (dBi):	3.00	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	6.50 MBit/s
Power Setting:	56	Tested By:	OC

Test Measurement Results

2452.00 - 2520.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#2	2486.63	38.33	2.73	32.37	73.43	Max Peak	Vertical	173	318	74.0	-0.6	Pass
#3	2486.77	17.73	2.73	32.37	52.83	Max Avg	Vertical	173	318	54.0	-1.2	Pass
#1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 n HT20 mode.

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Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-19	Variant:	802.11n HT-40
Antenna Gain (dBi):	3.00	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2452.00	Data Rate:	13.50 MBit/s
Power Setting:	41	Tested By:	OC

Test Measurement Results

2452.00 - 2520.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#2	2486.91	18.38	2.73	32.37	53.48	Max Avg	Vertical	173	318	54.0	-0.5	Pass
#3	2486.91	34.49	2.73	32.37	69.59	Max Peak	Vertical	173	318	74.0	-4.4	Pass
#1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH9 n HT40 mode.

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Antenna: AP-ANT-1W

Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-1W	Variant:	802.11b
Antenna Gain (dBi):	3.80	Modulation:	CCK
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	1.00 MBit/s
Power Setting:	77	Tested By:	JMH

Test Measurement Results

2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#2	2486.36	18.45	2.73	32.37	53.55	Max Avg	Horizontal	152	274	54.0	-0.5	Pass
#3	2486.36	27.40	2.73	32.37	62.50	Max Peak	Horizontal	152	274	74.0	-11.5	Pass
#1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-1W	Variant:	802.11g
Antenna Gain (dBi):	3.80	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	6.00 MBit/s
Power Setting:	64	Tested By:	JMH

Test Measurement Results

2452.00 - 2520.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2483.50	18.24	2.73	32.37	53.34	Max Avg	Horizontal	152	274	54.0	-0.7	Pass
#2	2483.50	37.48	2.73	32.37	72.58	Max Peak	Horizontal	152	274	74.0	-1.4	Pass
#3	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 g mode.

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Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-1W	Variant:	802.11n HT-20
Antenna Gain (dBi):	3.80	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	6.50 MBit/s
Power Setting:	50	Tested By:	JMH

Test Measurement Results

2452.00 - 2520.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2483.50	14.50	2.73	32.37	49.60	Max Avg	Horizontal	152	274	54.0	-4.4	Pass
#2	2483.50	38.08	2.73	32.37	73.18	Max Peak	Horizontal	152	274	74.0	-0.8	Pass
#3	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 n HT20 mode.

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Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-1W	Variant:	802.11n HT-40
Antenna Gain (dBi):	3.80	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2452.00	Data Rate:	13.50 MBit/s
Power Setting:	51	Tested By:	JMH

Test Measurement Results

2452.00 - 2520.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2483.50	18.51	2.73	32.37	53.61	Max Avg	Horizontal	152	274	54.0	-0.4	Pass
#2	2483.50	37.91	2.73	32.37	73.01	Max Peak	Horizontal	152	274	74.0	-1.0	Pass
#3	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH9 n HT40 mode.

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Antenna: AP-ANT-20W

Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-20W	Variant:	802.11b
Antenna Gain (dBi):	2.00	Modulation:	CCK
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	1.00 MBit/s
Power Setting:	75	Tested By:	JMH

Test Measurement Results

2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#2	2486.36	28.13	2.73	32.37	63.23	Max Peak	Horizontal	100	115	74.0	-10.8	Pass
#3	2486.63	18.59	2.73	32.37	53.69	Max Avg	Horizontal	100	115	54.0	-0.3	Pass
#1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-20W	Variant:	802.11g
Antenna Gain (dBi):	2.00	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	6.00 MBit/s
Power Setting:	58	Tested By:	JMH

Test Measurement Results

2452.00 - 2520.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2483.50	17.88	2.73	32.37	52.98	Max Avg	Horizontal	100	115	54.0	-1.0	Pass
#2	2483.50	38.63	2.73	32.37	73.73	Max Peak	Horizontal	100	115	74.0	-0.3	Pass
#3	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 g mode.

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Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-20W	Variant:	802.11n HT-20
Antenna Gain (dBi):	2.00	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	6.50 MBit/s
Power Setting:	60	Tested By:	JMH

Test Measurement Results

2452.00 - 2520.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#2	2486.89	17.27	2.73	32.37	52.37	Max Avg	Horizontal	100	115	54.0	-1.6	Pass
#3	2486.89	37.50	2.73	32.37	72.60	Max Peak	Horizontal	100	115	74.0	-1.4	Pass
#1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 n HT20 mode.

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Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-20W	Variant:	802.11n HT-40
Antenna Gain (dBi):	2.00	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2452.00	Data Rate:	13.50 MBit/s
Power Setting:	50	Tested By:	JMH

Test Measurement Results

2452.00 - 2520.00 MHz

Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#2	2484.98	17.95	2.73	32.37	53.05	Max Avg	Horizontal	100	115	54.0	-1.0	Pass
#3	2486.75	38.19	2.73	32.37	73.29	Max Peak	Horizontal	100	115	74.0	-0.7	Pass
#1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH9 n HT40 mode.

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Antenna: AP-ANT-40

Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-40	Variant:	802.11b
Antenna Gain (dBi):	4.00	Modulation:	CCK
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	1.00 MBit/s
Power Setting:	74	Tested By:	JMH

Test Measurement Results

2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2483.50	18.17	2.73	32.37	53.27	Max Avg	Horizontal	171	310	54.0	-0.7	Pass
#3	2483.77	27.22	2.73	32.37	62.32	Max Peak	Horizontal	171	310	74.0	-11.7	Pass
#2	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-40	Variant:	802.11g
Antenna Gain (dBi):	4.00	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	6.00 MBit/s
Power Setting:	57	Tested By:	JMH

Test Measurement Results

2452.00 - 2520.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2483.50	17.88	2.73	32.37	52.98	Max Avg	Horizontal	171	310	54.0	-1.0	Pass
#2	2483.50	38.23	2.73	32.37	73.33	Max Peak	Horizontal	171	310	74.0	-0.7	Pass
#3	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 g mode.

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Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-40	Variant:	802.11n HT-20
Antenna Gain (dBi):	4.00	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	6.50 MBit/s
Power Setting:	62	Tested By:	JMH

Test Measurement Results

2452.00 - 2520.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2483.50	17.42	2.73	32.37	52.52	Max Avg	Horizontal	171	310	54.0	-1.5	Pass
#3	2483.64	38.39	2.73	32.37	73.49	Max Peak	Horizontal	171	310	74.0	-0.5	Pass
#2	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 n HT20 mode.

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Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-40	Variant:	802.11n HT-40
Antenna Gain (dBi):	4.00	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2452.00	Data Rate:	13.50 MBit/s
Power Setting:	50	Tested By:	JMH

Test Measurement Results

2452.00 - 2520.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#2	2486.89	38.35	2.73	32.37	73.45	Max Peak	Horizontal	171	310	74.0	-0.6	Pass
#3	2487.02	17.88	2.73	32.37	52.98	Max Avg	Horizontal	171	310	54.0	-1.0	Pass
#1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH9 n HT40 mode.

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Antenna: AP-ANT-45

Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-45	Variant:	802.11b
Antenna Gain (dBi):	4.50	Modulation:	CCK
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	1.00 MBit/s
Power Setting:	75	Tested By:	JMH

Test Measurement Results

2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#2	2486.34	26.76	2.73	32.37	61.86	Max Peak	Horizontal	147	331	74.0	-12.1	Pass
#3	2486.61	16.09	2.73	32.37	51.19	Max Avg	Horizontal	147	331	54.0	-2.8	Pass
#1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-45	Variant:	802.11g
Antenna Gain (dBi):	4.50	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	6.00 MBit/s
Power Setting:	61	Tested By:	JMH

Test Measurement Results

2452.00 - 2520.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2483.50	18.58	2.73	32.37	53.68	Max Avg	Horizontal	147	331	54.0	-0.3	Pass
#2	2483.50	38.49	2.73	32.37	73.59	Max Peak	Horizontal	147	331	74.0	-0.4	Pass
#3	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 g mode.

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Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-45	Variant:	802.11n HT-20
Antenna Gain (dBi):	4.50	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	6.50 MBit/s
Power Setting:	54	Tested By:	JMH

Test Measurement Results

2452.00 - 2520.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#2	2483.64	15.62	2.73	32.37	50.72	Max Avg	Horizontal	147	331	54.0	-3.3	Pass
#3	2484.05	38.33	2.73	32.37	73.43	Max Peak	Horizontal	147	331	74.0	-0.6	Pass
#1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 n HT20 mode.

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Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-45	Variant:	802.11n HT-40
Antenna Gain (dBi):	4.50	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2452.00	Data Rate:	13.50 MBit/s
Power Setting:	50	Tested By:	JMH

Test Measurement Results

2452.00 - 2520.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#2	2484.71	18.31	2.73	32.37	53.41	Max Avg	Horizontal	147	331	54.0	-0.6	Pass
#3	2484.71	37.68	2.73	32.37	72.78	Max Peak	Horizontal	147	331	74.0	-1.2	Pass
#1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH9 n HT40 mode.

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Antenna: AP-ANT-48

Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-48	Variant:	802.11b
Antenna Gain (dBi):	8.50	Modulation:	CCK
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	1.00 MBit/s
Power Setting:	75	Tested By:	OC

Test Measurement Results

2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#2	2484.05	14.06	2.73	32.37	49.16	Max Avg	Horizontal	177	349	54.0	-4.8	Pass
#3	2484.05	26.07	2.73	32.37	61.17	Max Peak	Horizontal	177	349	74.0	-12.8	Pass
#1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-48	Variant:	802.11g
Antenna Gain (dBi):	8.50	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	6.00 MBit/s
Power Setting:	58	Tested By:	OC

Test Measurement Results

2452.00 - 2520.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#2	2483.77	34.06	2.73	32.37	69.16	Max Peak	Horizontal	177	349	74.0	-4.8	Pass
#3	2484.59	15.43	2.73	32.37	50.53	Max Avg	Horizontal	177	349	54.0	-3.5	Pass
#1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 g mode.

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Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-48	Variant:	802.11n HT-20
Antenna Gain (dBi):	8.50	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	6.50 MBit/s
Power Setting:	48	Tested By:	OC

Test Measurement Results

2452.00 - 2520.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2483.50	16.44	2.73	32.37	51.54	Max Avg	Horizontal	177	349	54.0	-2.5	Pass
#2	2483.50	37.09	2.73	32.37	72.19	Max Peak	Horizontal	177	349	74.0	-1.8	Pass
#3	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 n HT20 mode.

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Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba AP-ANT-48	Variant:	802.11n HT-40
Antenna Gain (dBi):	8.50	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	2452.00	Data Rate:	13.50 MBit/s
Power Setting:	45	Tested By:	OC

Test Measurement Results

2452.00 - 2520.00 MHz

Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	2483.50	18.72	2.73	32.37	53.82	Max Avg	Horizontal	177	349	54.0	-0.2	Pass
#3	2484.05	33.34	2.73	32.37	68.44	Max Peak	Horizontal	177	349	74.0	-5.6	Pass
#2	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH9 n HT40 mode.

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Antenna: Metal Sheet

Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba Metal Sheet	Variant:	802.11b
Antenna Gain (dBi):	3.10	Modulation:	CCK
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	1.00 MBit/s
Power Setting:	71	Tested By:	JMH

Test Measurement Results

2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2483.50	18.51	2.73	32.37	53.61	Max Avg	Horizontal	163	292	54.0	-0.4	Pass
#2	2483.50	28.17	2.73	32.37	63.27	Max Peak	Horizontal	163	292	74.0	-10.7	Pass
#3	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba Metal Sheet	Variant:	802.11g
Antenna Gain (dBi):	3.10	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	6.00 MBit/s
Power Setting:	59	Tested By:	JMH

Test Measurement Results

2452.00 - 2520.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2483.50	18.02	2.73	32.37	53.12	Max Avg	Horizontal	163	292	54.0	-0.9	Pass
#2	2483.50	36.92	2.73	32.37	72.02	Max Peak	Horizontal	163	292	74.0	-2.0	Pass
#3	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 g mode.

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Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba Metal Sheet	Variant:	802.11n HT-20
Antenna Gain (dBi):	3.10	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2462.00	Data Rate:	6.50 MBit/s
Power Setting:	55	Tested By:	JMH

Test Measurement Results

2452.00 - 2520.00 MHz

Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	2483.50	17.27	2.73	32.37	52.37	Max Avg	Horizontal	163	292	54.0	-1.6	Pass
#3	2483.64	37.68	2.73	32.37	72.78	Max Peak	Horizontal	163	292	74.0	-1.2	Pass
#2	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 n HT20 mode.

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Equipment Configuration for Radiated - Upper Restricted Band-Edge Emissions

Antenna:	Aruba Metal Sheet	Variant:	802.11n HT-40
Antenna Gain (dBi):	3.10	Modulation:	OFDM
Beam Forming Gain (Y):	6	Duty Cycle (%):	99
Channel Frequency (MHz):	2452.00	Data Rate:	13.50 MBit/s
Power Setting:	47	Tested By:	JMH

Test Measurement Results

2452.00 - 2520.00 MHz

Num	Frequency MHz	Raw dB μ V	Cable Loss dB	AF dB	Level dB μ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB μ V/m	Margin dB	Pass /Fail
#2	2485.93	16.87	2.73	32.37	51.97	Max Avg	Horizontal	163	292	54.0	-2.0	Pass
#3	2486.20	38.24	2.73	32.37	73.34	Max Peak	Horizontal	163	292	74.0	-0.7	Pass
#1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH9 n HT40 mode.

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APPENDIX A - GRAPHICAL IMAGES

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A.1. Emissions

A.1.1. Radiated Emissions

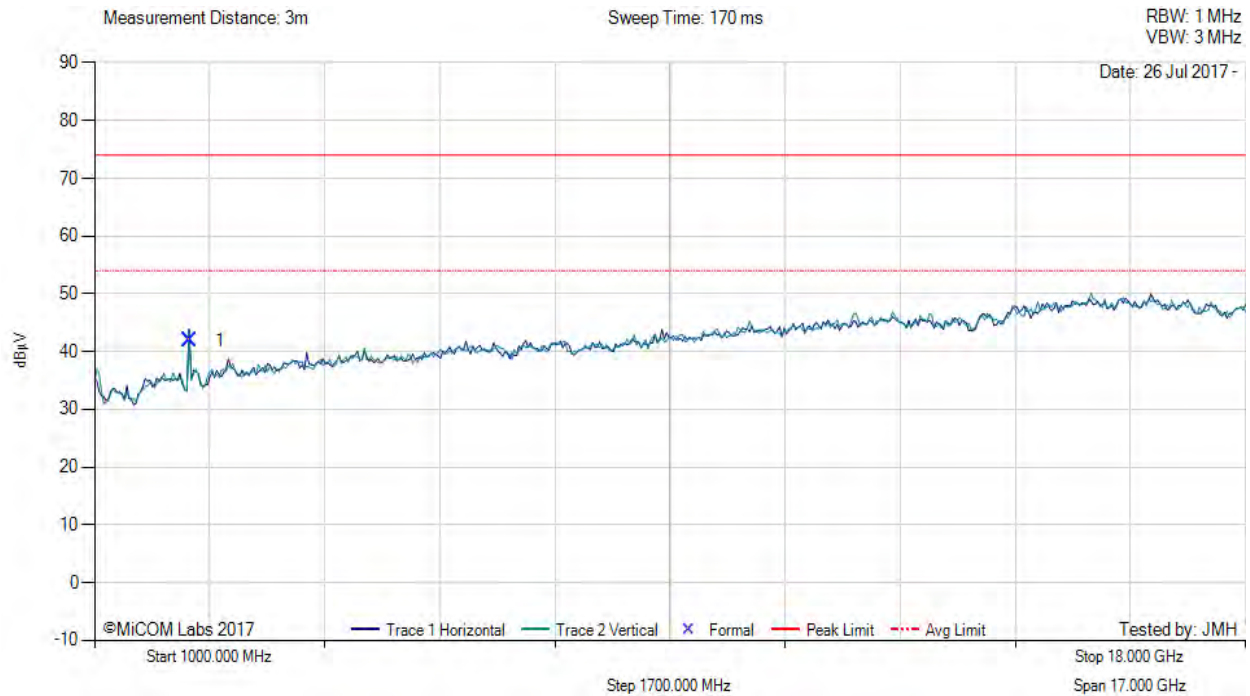
A.1.1.1. TX Spurious & Restricted Band Emissions

Antenna: AP-ANT-13B



TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11b, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-13B, Power Setting: 76, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2410.68	51.05	2.69	-11.80	41.94	Fundamental	Horizontal	151	0	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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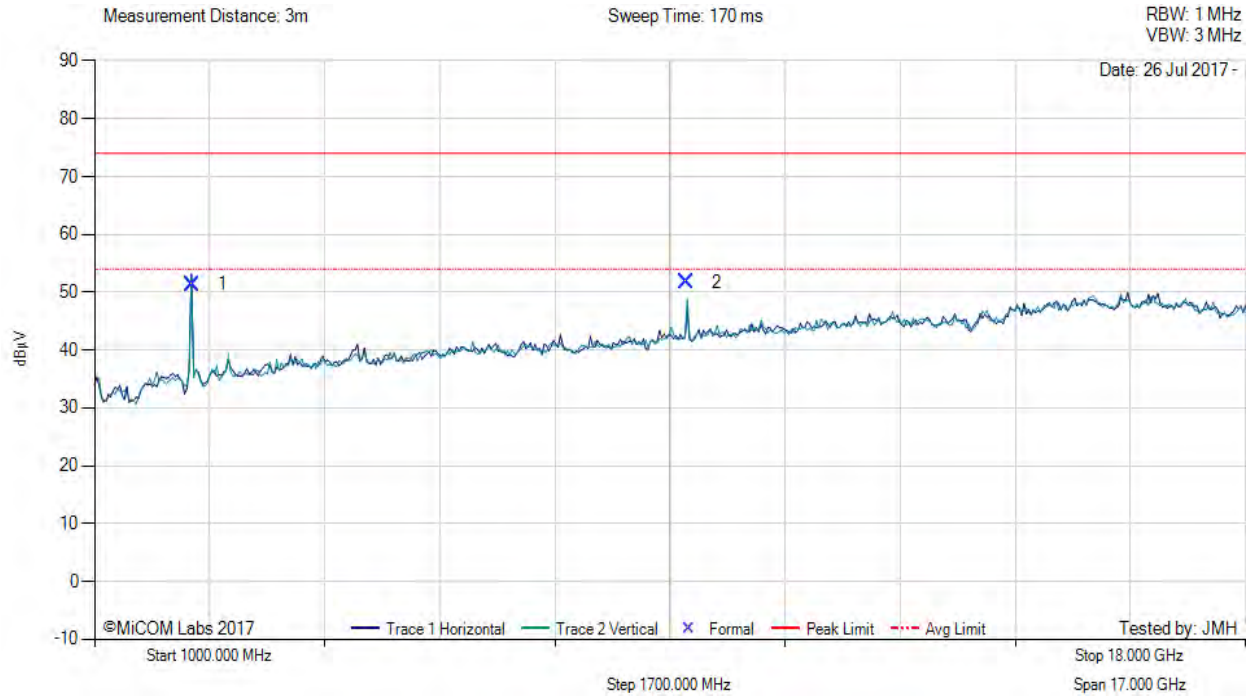


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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11b, Test Freq: 2437.00 MHz, Antenna: Aruba AP-ANT-13B, Power Setting: 100, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2439.51	60.34	2.72	-11.72	51.34	Fundamental	Horizontal	151	0	--	--	
2	9747.86	52.60	5.29	-6.23	51.66	Peak (NRB)	Vertical	151	0	--	--	Pass

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH6 b mode.

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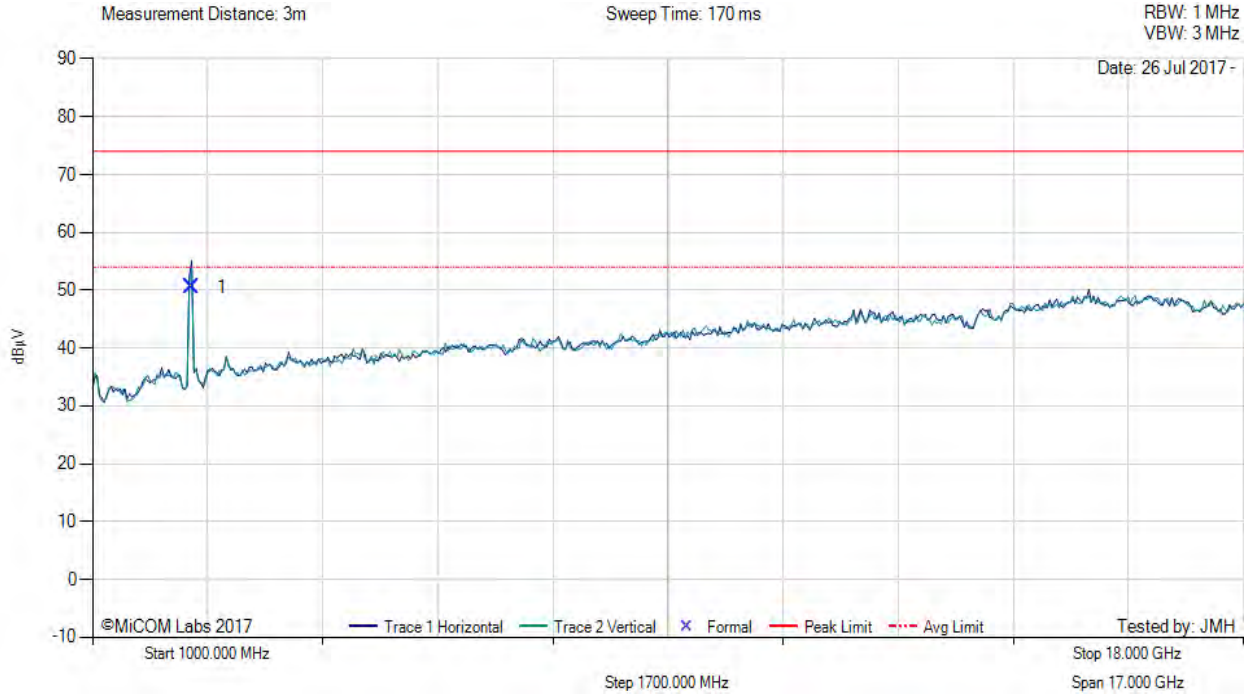


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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11b, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-13B, Power Setting: 76, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2462.89	59.47	2.74	-11.67	50.54	Fundamental	Horizontal	100	0	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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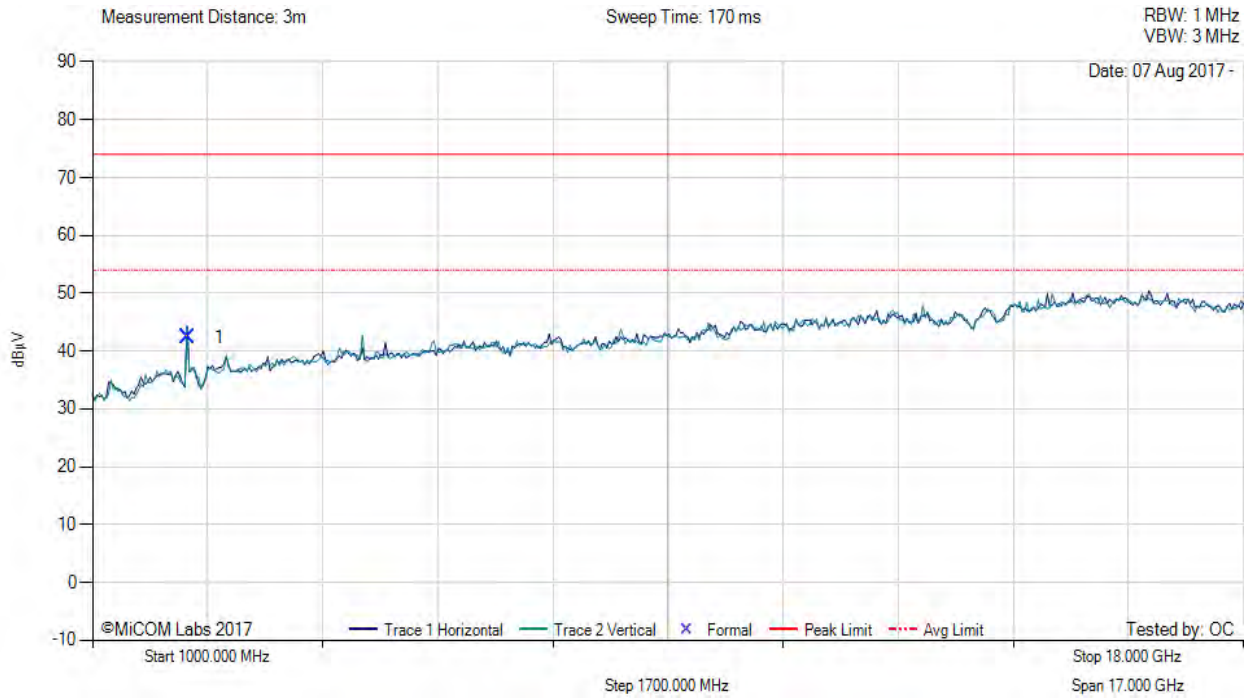
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Antenna: AP-ANT-19



TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11b, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-19, Power Setting: 75, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2412.72	51.42	2.70	-11.79	42.33	Fundamental	Vertical	100	40	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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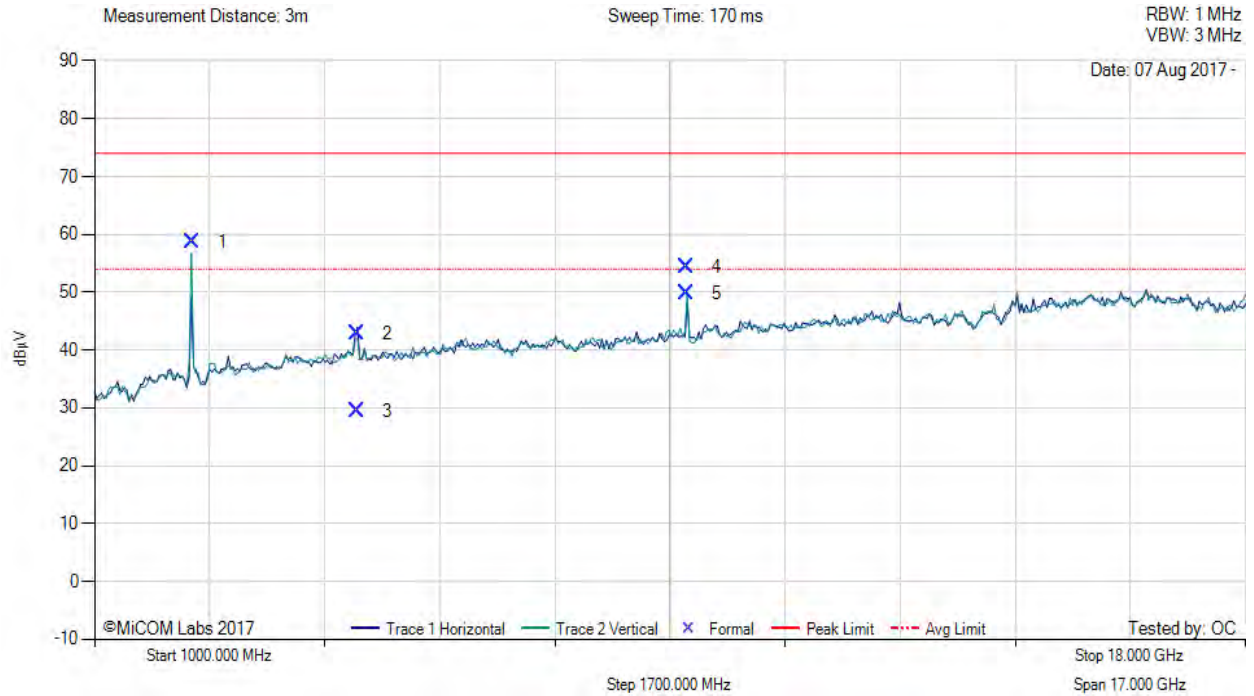


Title: Hewlett Packard Enterprise APIN0344 & APIN0345
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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11b, Test Freq: 2437.00 MHz, Antenna: Aruba AP-ANT-19, Power Setting: 100, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2438.52	67.69	2.72	-11.72	58.69	Fundamental	Vertical	100	23	--	--	
2	4876.09	50.62	3.56	-11.25	42.93	Max Peak	Horizontal	172	354	74.0	-31.1	Pass
3	4876.09	37.17	3.56	-11.25	29.48	Max Avg	Horizontal	172	354	54.0	-24.5	Pass
4	9747.85	55.23	5.29	-6.23	54.29	Max Peak	Vertical	100	66	74.0	-19.7	Pass
5	9747.85	50.73	5.29	-6.23	49.79	Max Avg	Vertical	100	66	54.0	-4.2	Pass

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH6 b mode.

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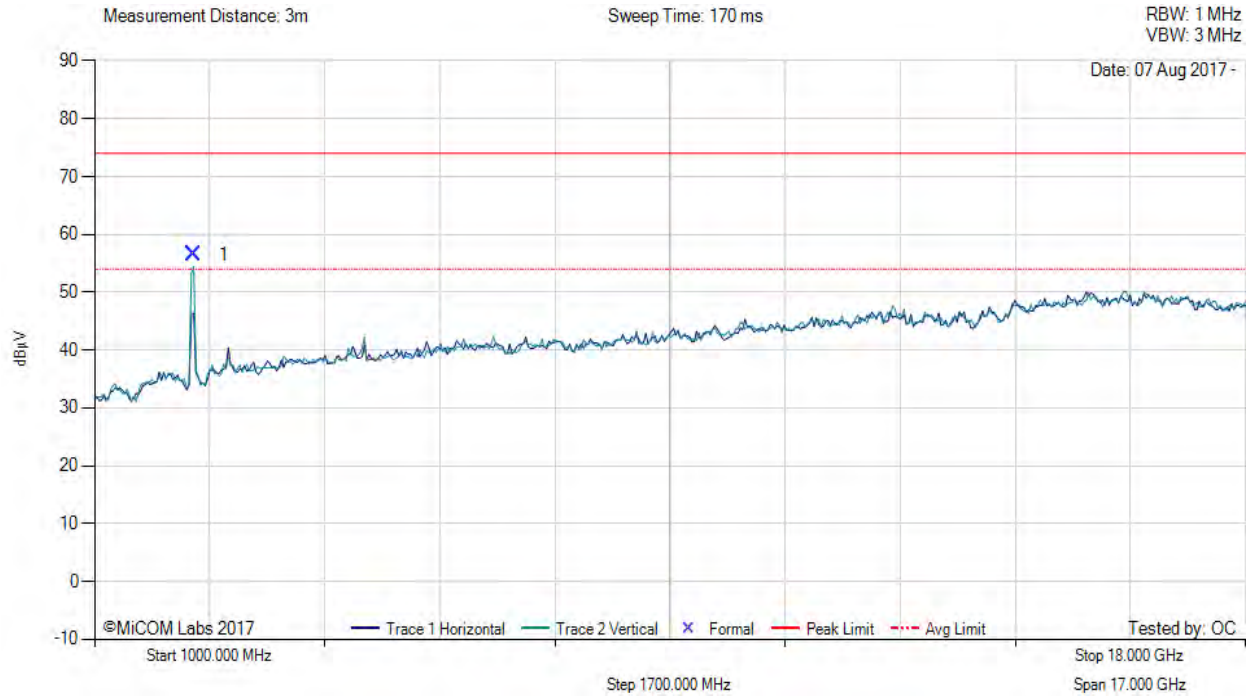


Title: Hewlett Packard Enterprise APIN0344 & APIN0345
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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11b, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-19, Power Setting: 67, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2462.89	65.47	2.74	-11.67	56.54	Fundamental	Vertical	100	21	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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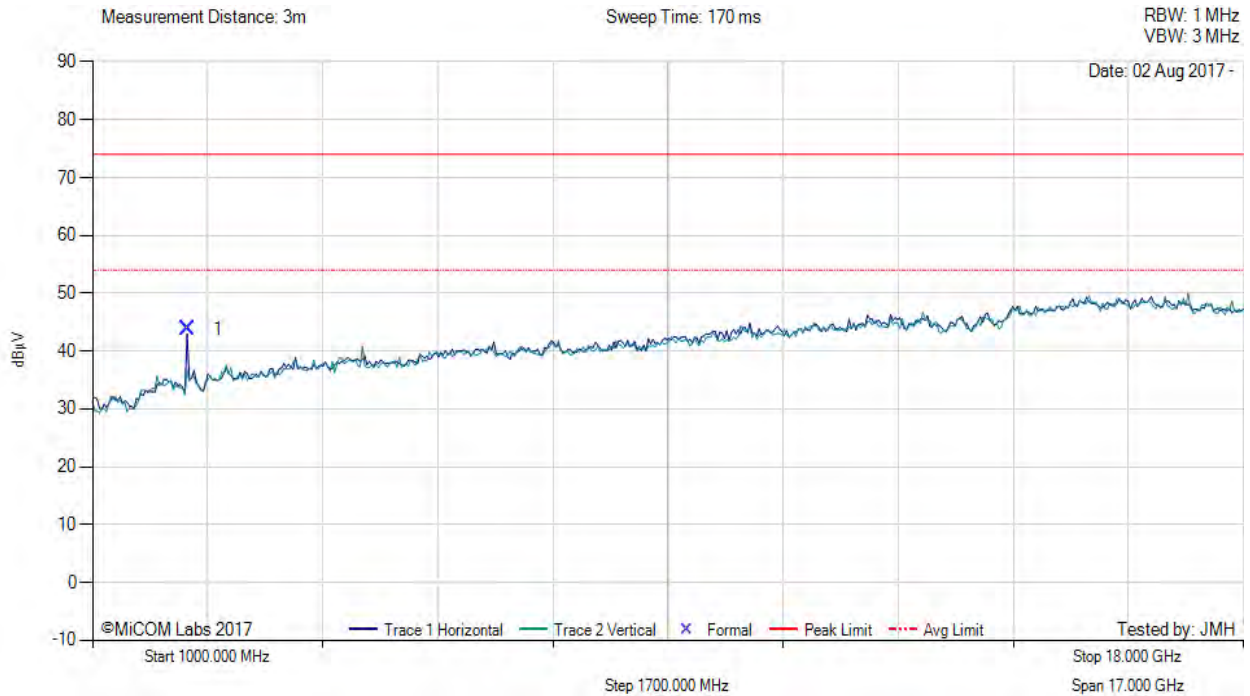
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Antenna: AP-ANT-1W



TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11b, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-1W, Power Setting: 77, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2410.51	52.88	2.69	-11.80	43.77	Fundamental	Horizontal	100	115	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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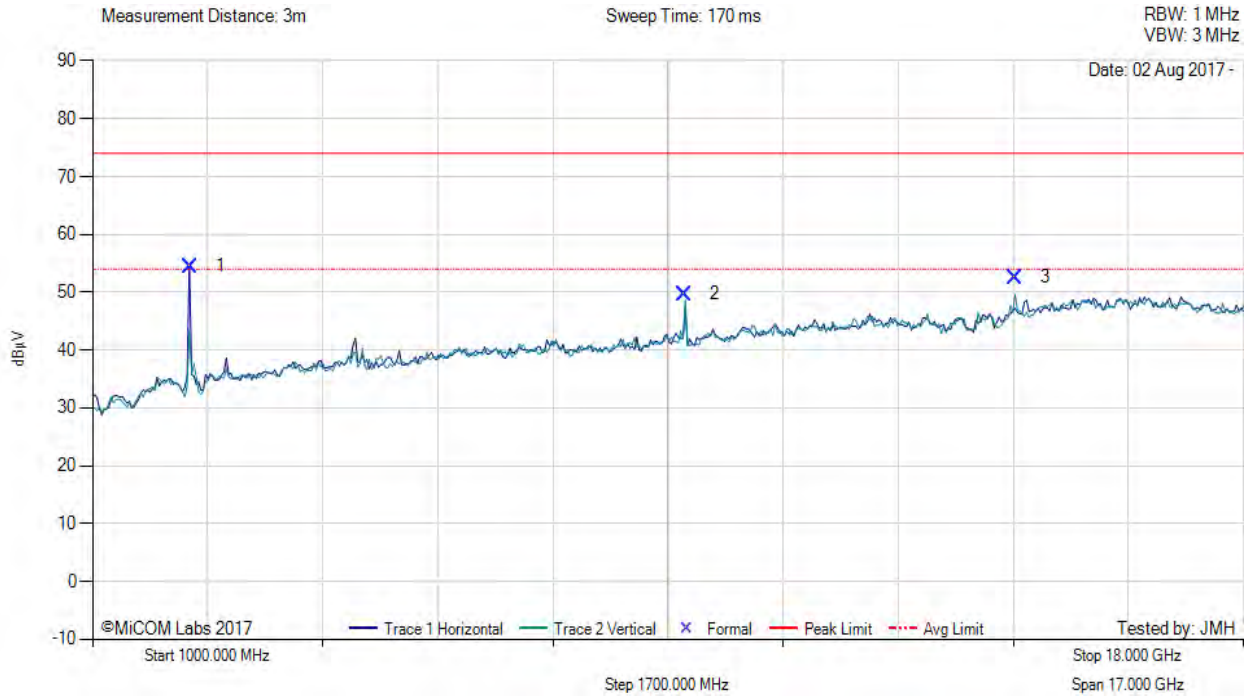


Title: Hewlett Packard Enterprise APIN0344 & APIN0345
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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11b, Test Freq: 2437.00 MHz, Antenna: Aruba AP-ANT-1W, Power Setting: 100, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2438.52	63.46	2.72	-11.72	54.46	Fundamental	Horizontal	151	61	--	--	
2	9747.89	50.61	5.29	-6.23	49.67	Peak (NRB)	Vertical	151	61	--	--	Pass
3	14621.86	50.44	5.71	-3.57	52.58	Peak (NRB)	Vertical	151	175	--	--	Pass

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH6 b mode.

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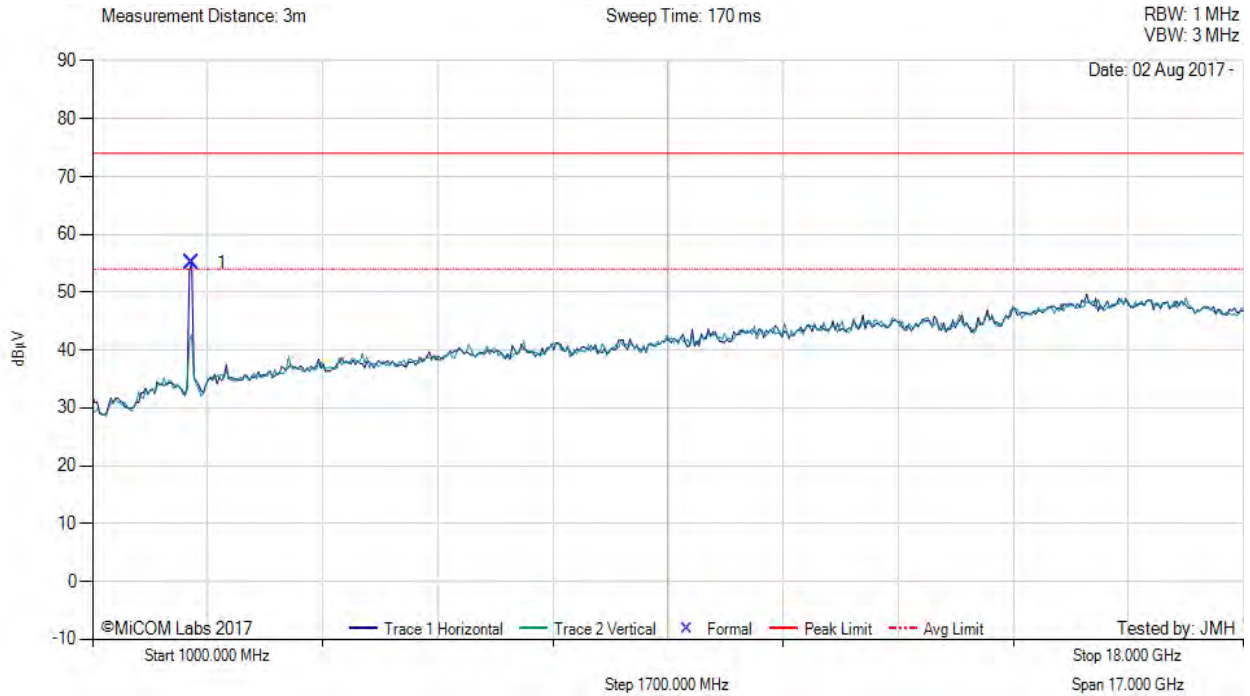


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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11b, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-1W, Power Setting: 77, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2463.06	63.95	2.74	-11.67	55.02	Fundamental	Horizontal	100	88	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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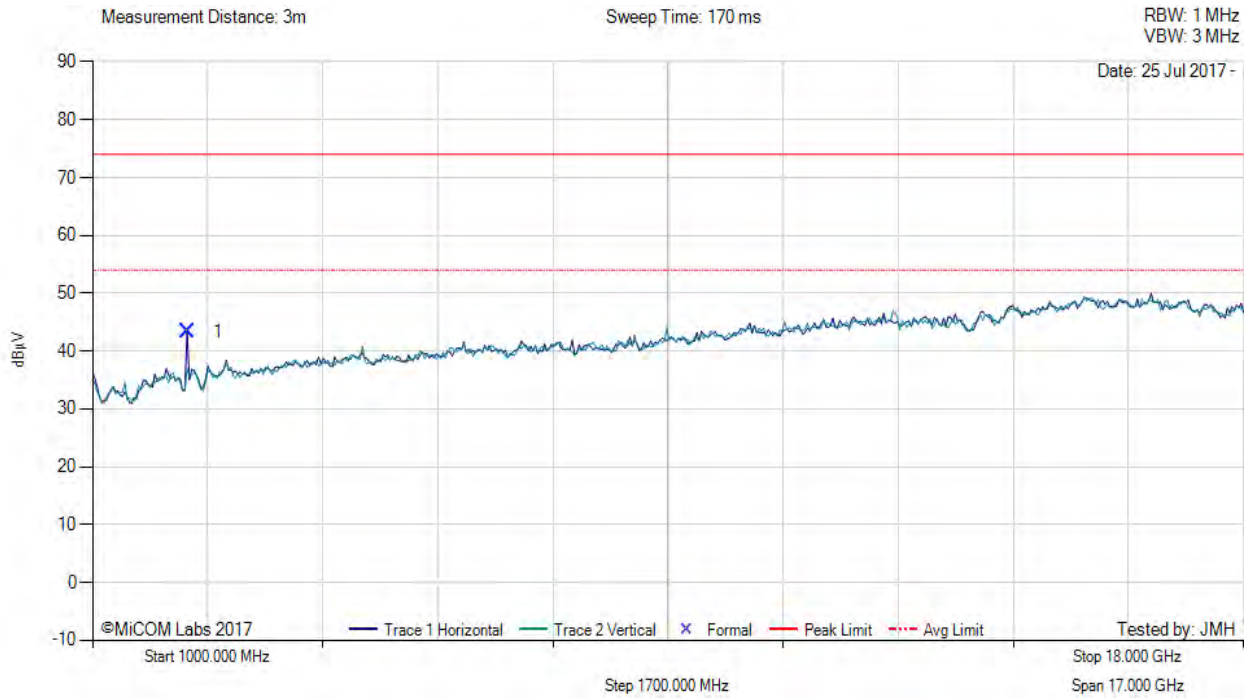
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Antenna: AP-ANT-20W



TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11b, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-20W, Power Setting: 75, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2410.95	52.38	2.69	-11.80	43.27	Fundamental	Horizontal	151	90	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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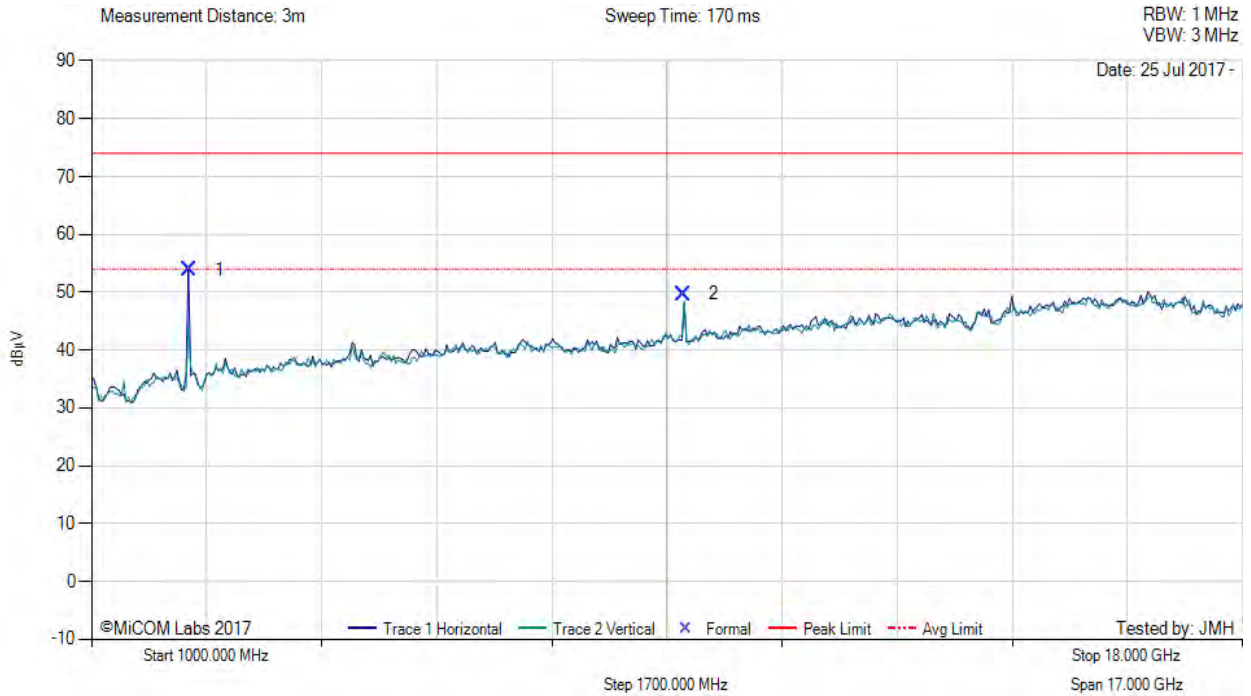


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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11b, Test Freq: 2437.00 MHz, Antenna: Aruba AP-ANT-20W, Power Setting: 100, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2438.41	62.91	2.72	-11.73	53.90	Fundamental	Horizontal	100	70	--	--	
2	9747.89	50.59	5.29	-6.23	49.65	Peak (NRB)	Vertical	100	70	--	--	Pass

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH6 b mode.

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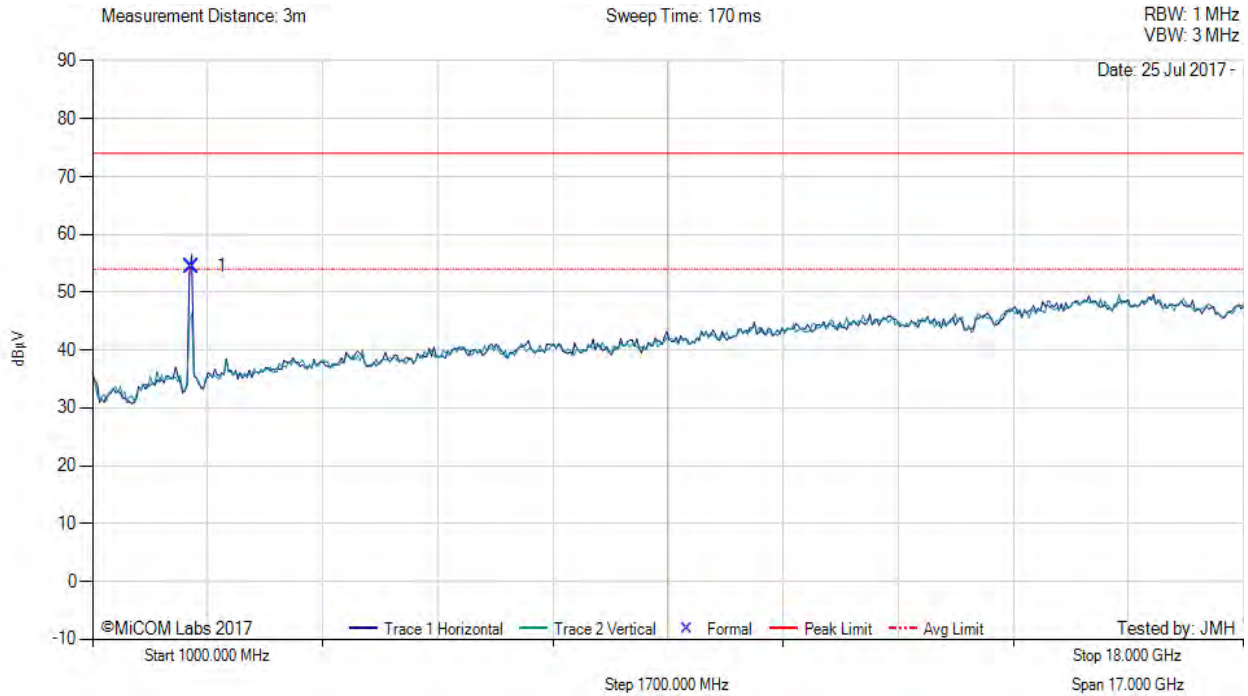


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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11b, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-20W, Power Setting: 75, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2463.00	63.44	2.74	-11.67	54.51	Fundamental	Horizontal	151	66	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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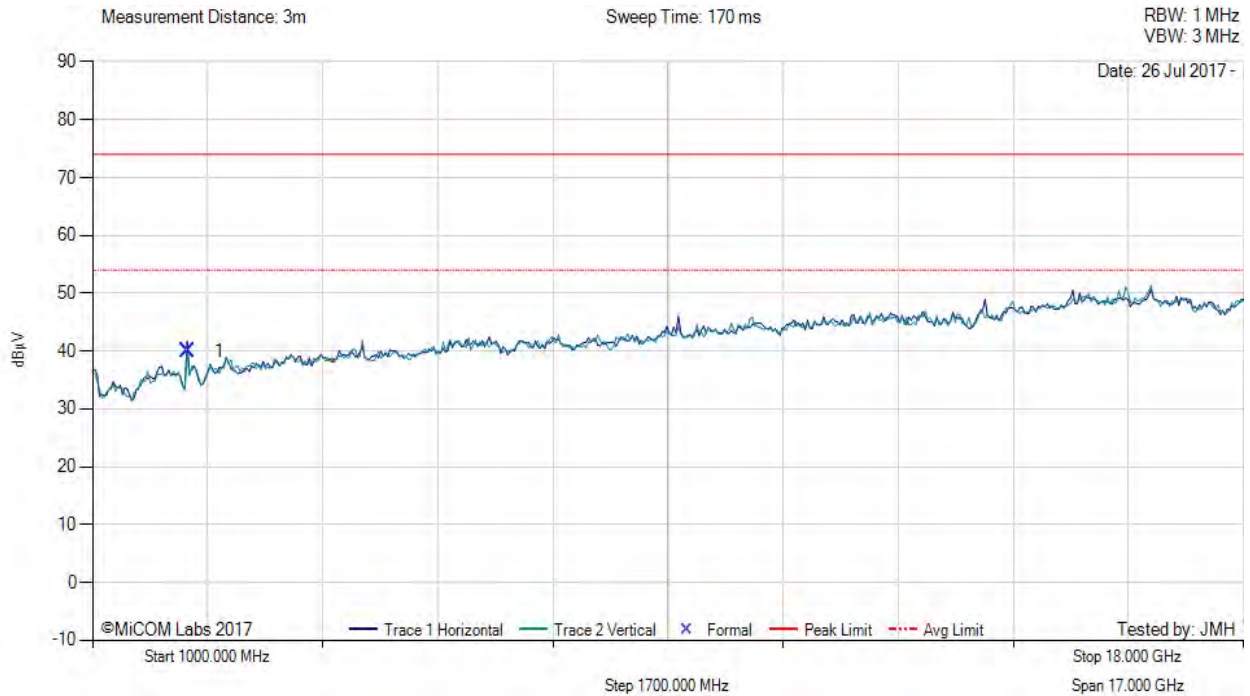
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Antenna: AP-ANT-40



TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11b, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-40, Power Setting: 82, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2414.58	49.02	2.70	-11.79	39.93	Fundamental	Horizontal	151	99	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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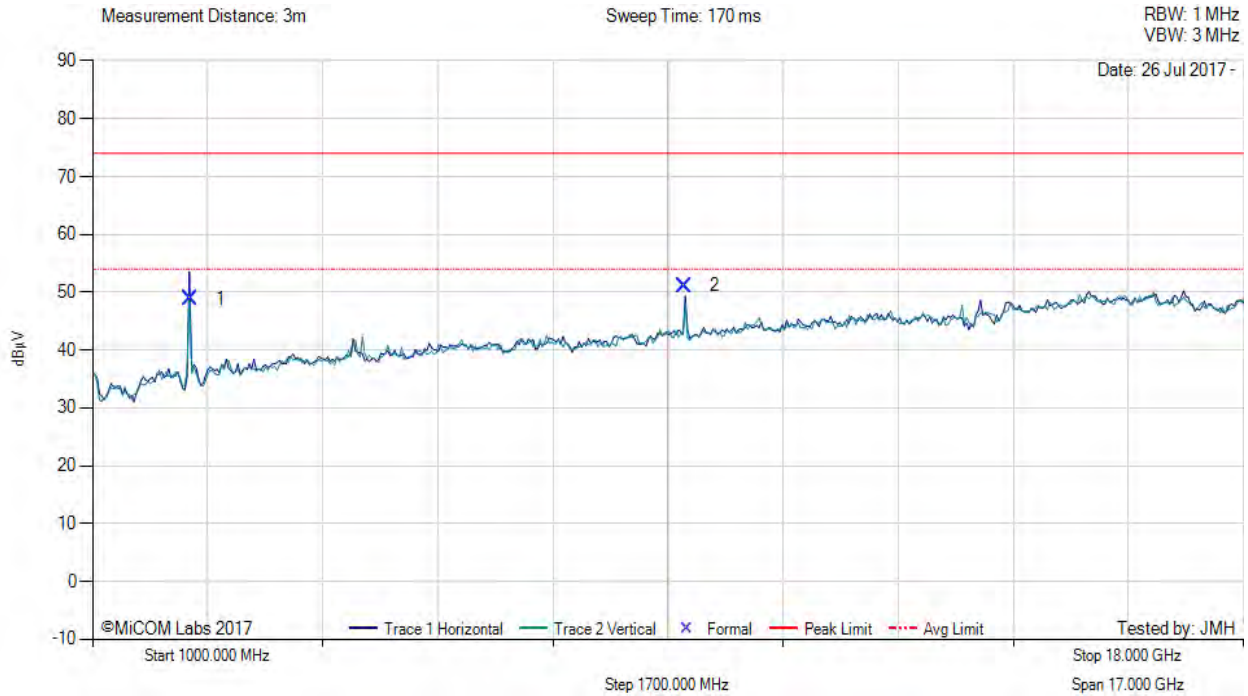


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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11b, Test Freq: 2437.00 MHz, Antenna: Aruba AP-ANT-40, Power Setting: 100, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2438.08	57.82	2.72	-11.73	48.81	Fundamental	Horizontal	100	0	--	--	
2	9747.87	52.07	5.29	-6.23	51.13	Peak (NRB)	Horizontal	200	0	--	--	Pass

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH6 b mode.

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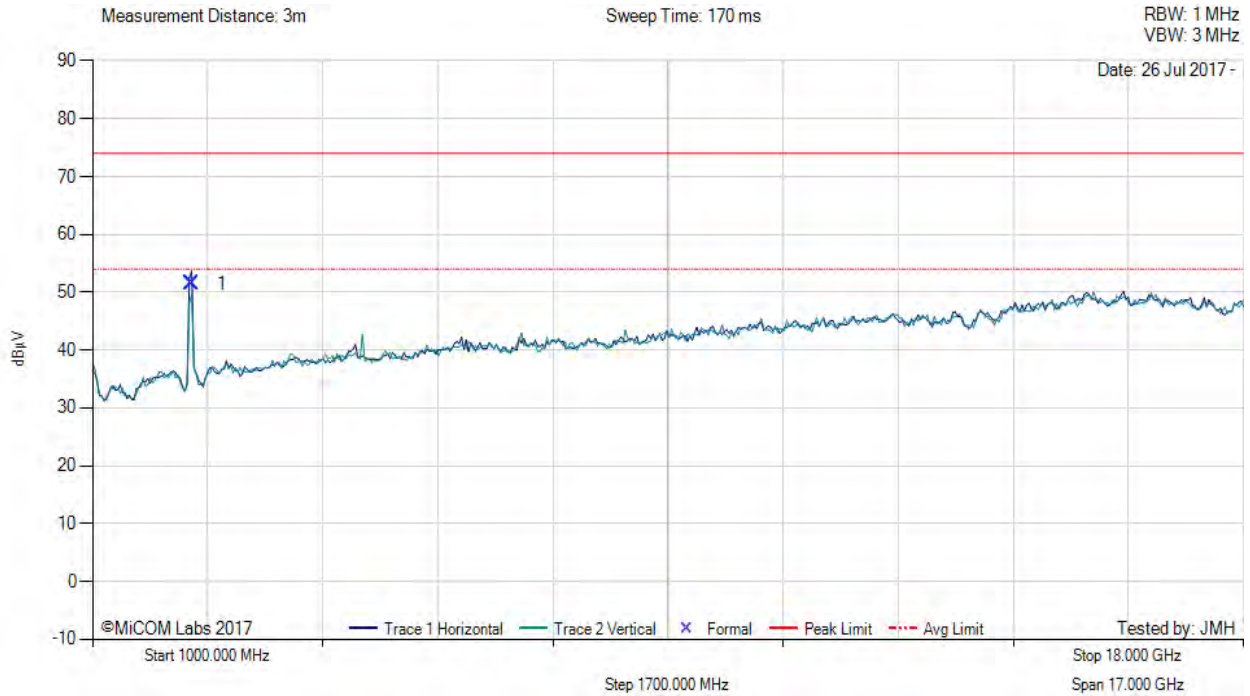


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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11b, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-40, Power Setting: 74, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2463.00	60.48	2.74	-11.67	51.55	Fundamental	Horizontal	200	64	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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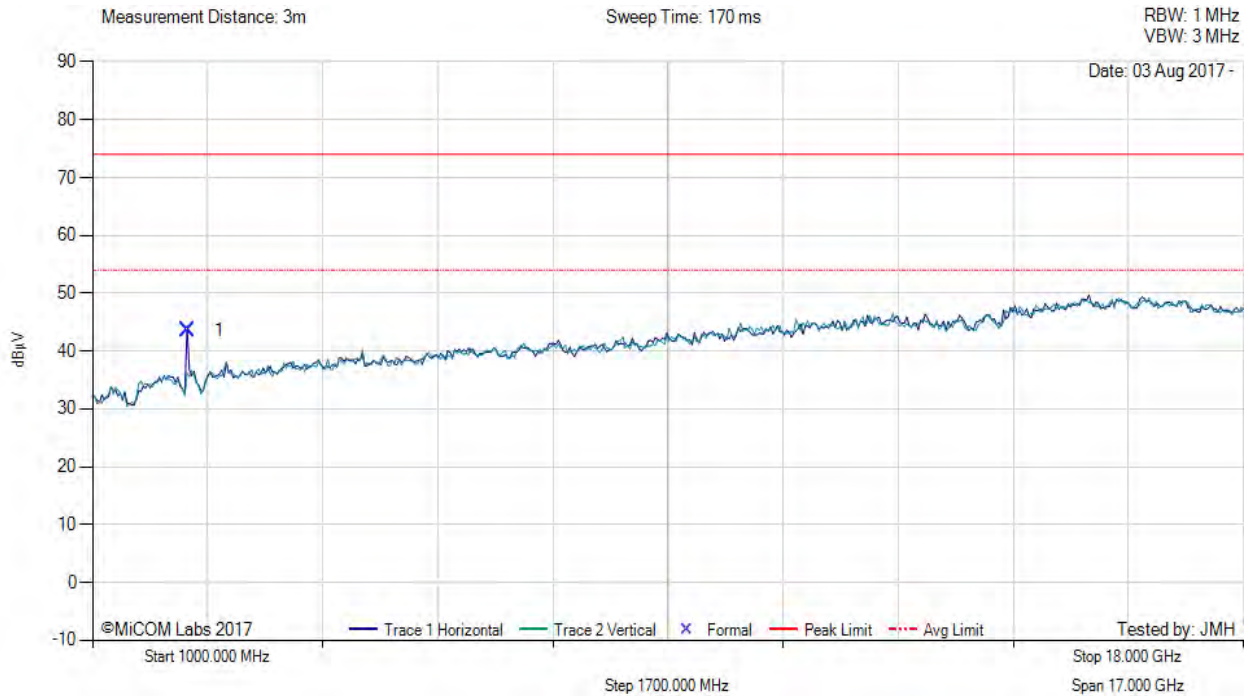
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Antenna: AP-ANT-45



TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11b, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-45, Power Setting: 75, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2412.94	52.60	2.70	-11.79	43.51	Fundamental	Horizontal	100	56	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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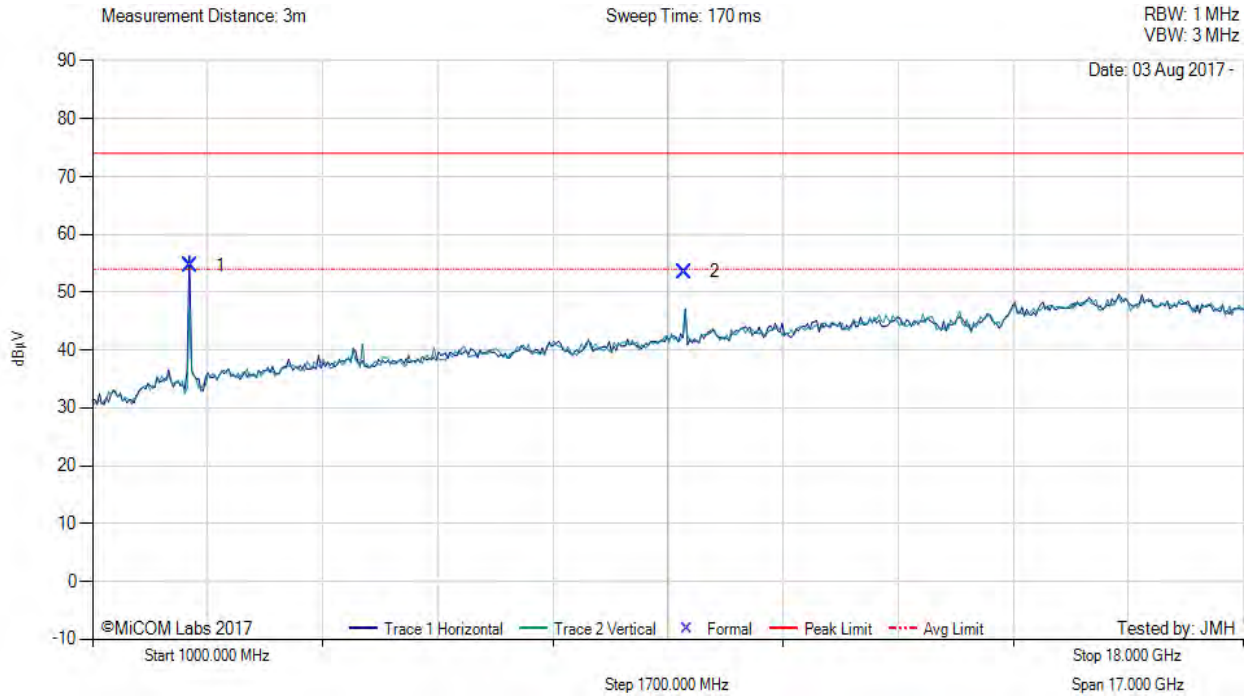


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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11b, Test Freq: 2437.00 MHz, Antenna: Aruba AP-ANT-45, Power Setting: 100, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2439.62	63.63	2.72	-11.72	54.63	Fundamental	Horizontal	100	45	--	--	
2	9747.89	54.44	5.29	-6.23	53.50	Peak (NRB)	Horizontal	151	63	--	--	Pass

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH6 b mode.

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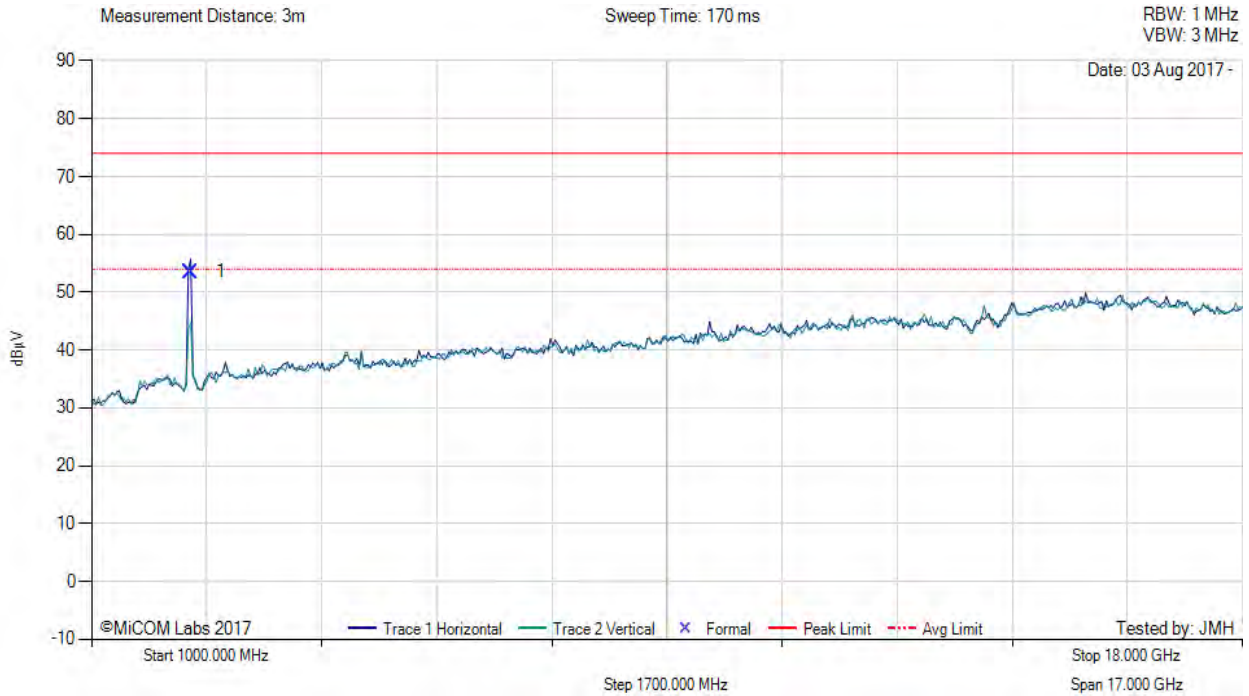


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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11b, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-45, Power Setting: 75, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2462.89	62.47	2.74	-11.67	53.54	Fundamental	Horizontal	100	42	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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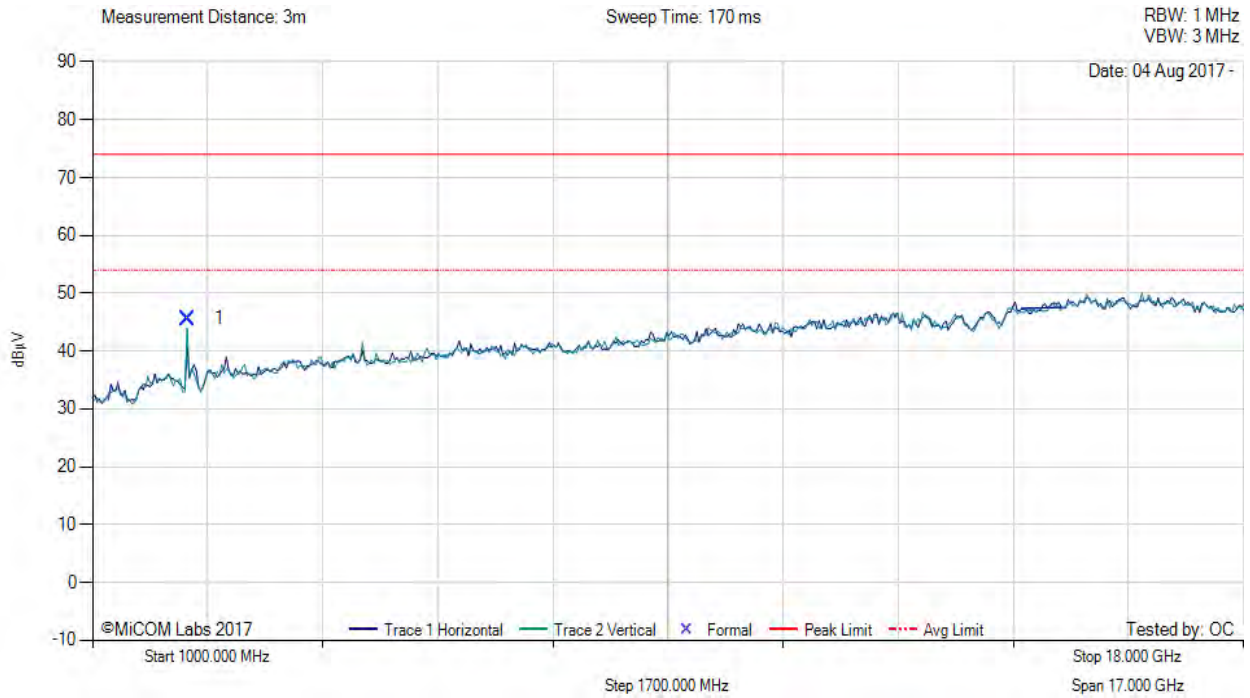
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Antenna: AP-ANT-48



TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11b, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-48, Power Setting: 75, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2413.73	54.73	2.70	-11.79	45.64	Fundamental	Vertical	100	55	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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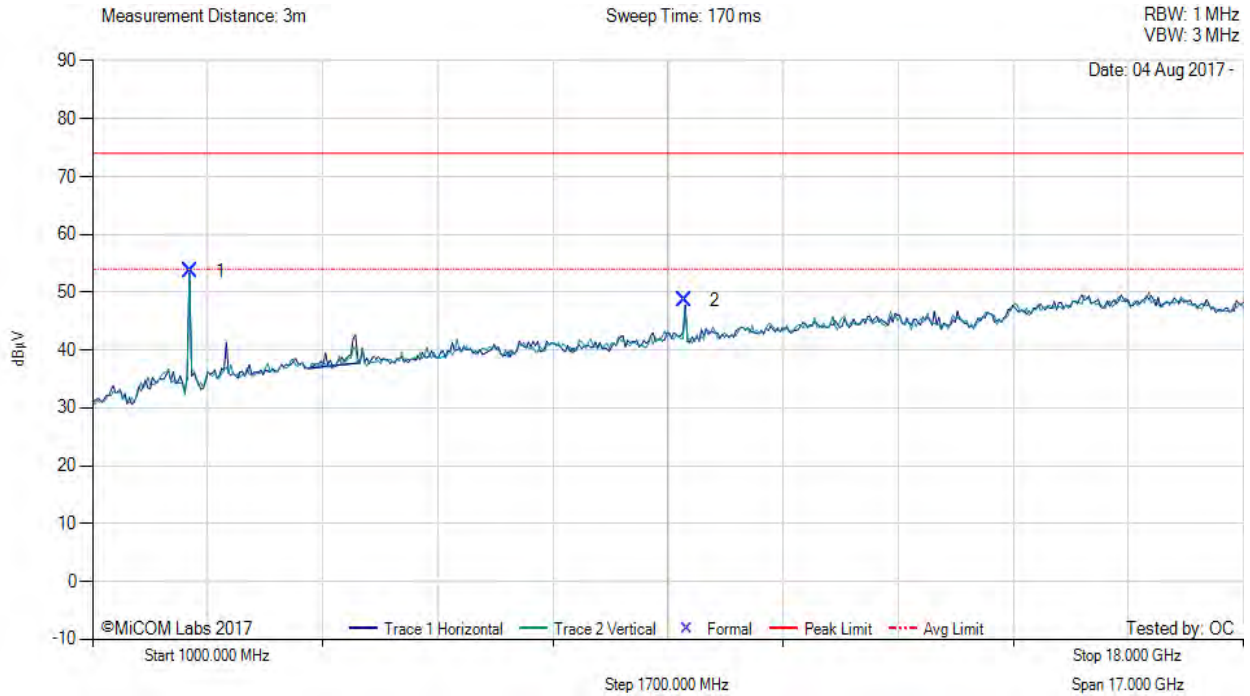


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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11b, Test Freq: 2437.00 MHz, Antenna: Aruba AP-ANT-48, Power Setting: 100, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2438.52	62.58	2.72	-11.72	53.58	Fundamental	Horizontal	100	0	--	--	
2	9749.23	49.66	5.26	-6.24	48.68	Peak (NRB)	Vertical	100	39	--	--	Pass

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH6 b mode.

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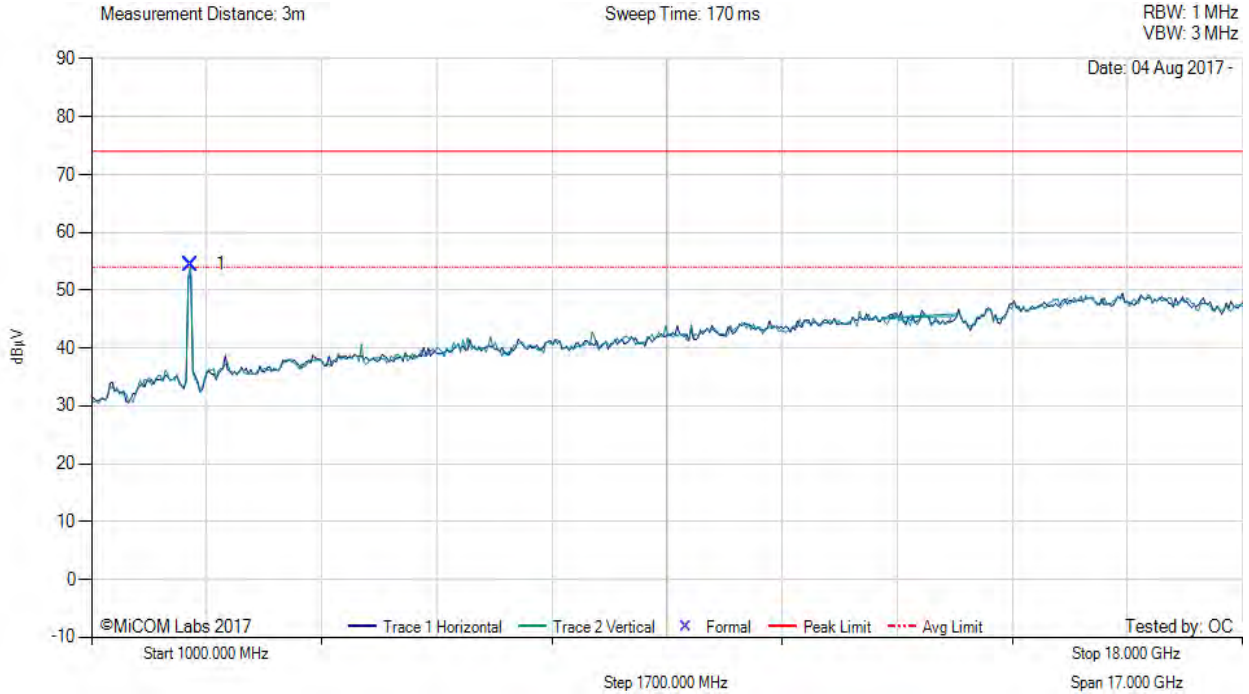


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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11b, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-48, Power Setting: 75, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2463.00	63.39	2.74	-11.67	54.46	Fundamental	Vertical	100	29	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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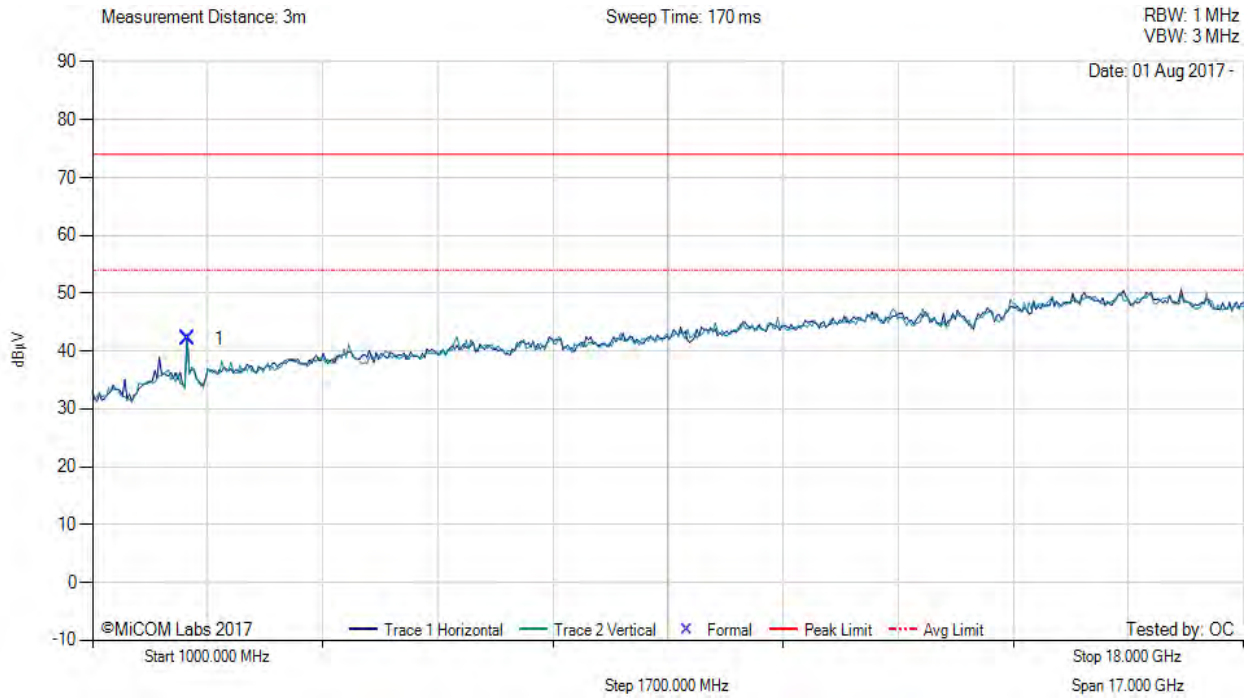
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Antenna: Metal Sheet



TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11b, Test Freq: 2412.00 MHz, Antenna: Aruba Metal Sheet, Power Setting: 75, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2413.02	51.18	2.70	-11.79	42.09	Fundamental	Vertical	185	62	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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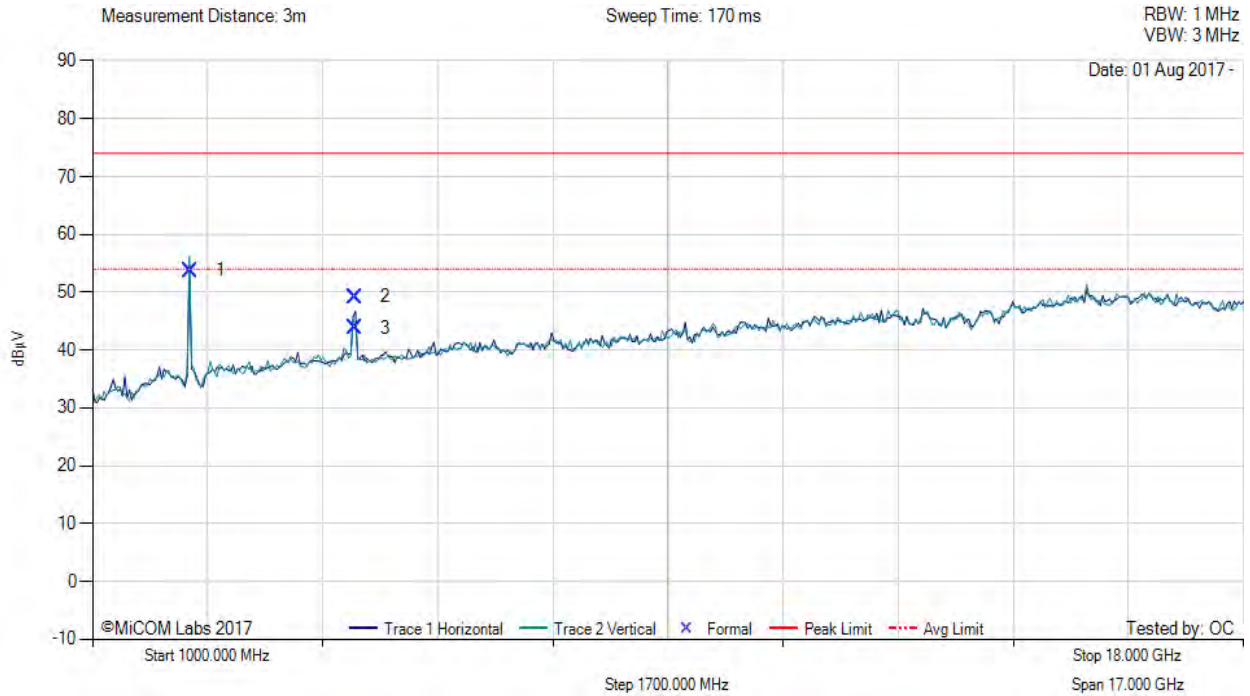


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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11b, Test Freq: 2437.00 MHz, Antenna: Aruba Metal Sheet, Power Setting: 100, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2438.52	62.72	2.72	-11.72	53.72	Fundamental	Vertical	178	0	--	--	
2	4874.02	56.93	3.54	-11.24	49.23	Max Peak	Vertical	156	358	74.0	-24.8	Pass
3	4874.02	51.59	3.54	-11.24	43.89	Max Avg	Vertical	156	358	54.0	-10.1	Pass

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH6 b mode.

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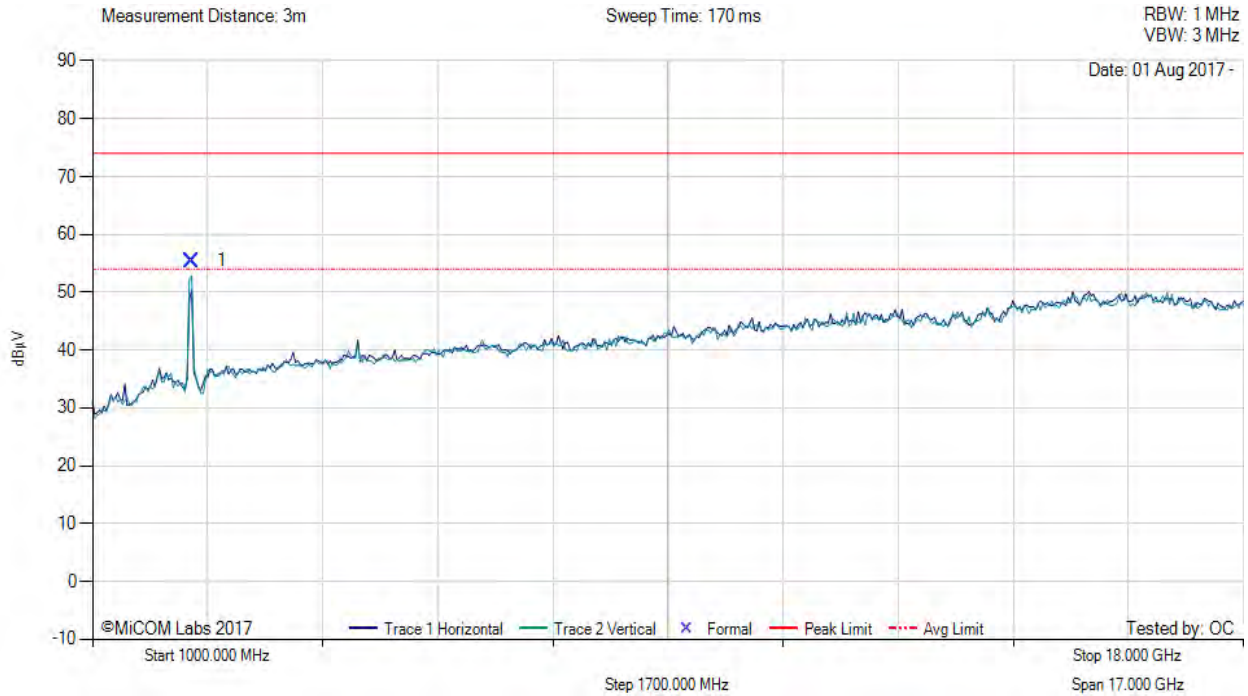


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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11b, Test Freq: 2462.00 MHz, Antenna: Aruba Metal Sheet, Power Setting: 71, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2462.89	64.40	2.74	-11.67	55.47	Fundamental	Vertical	100	67	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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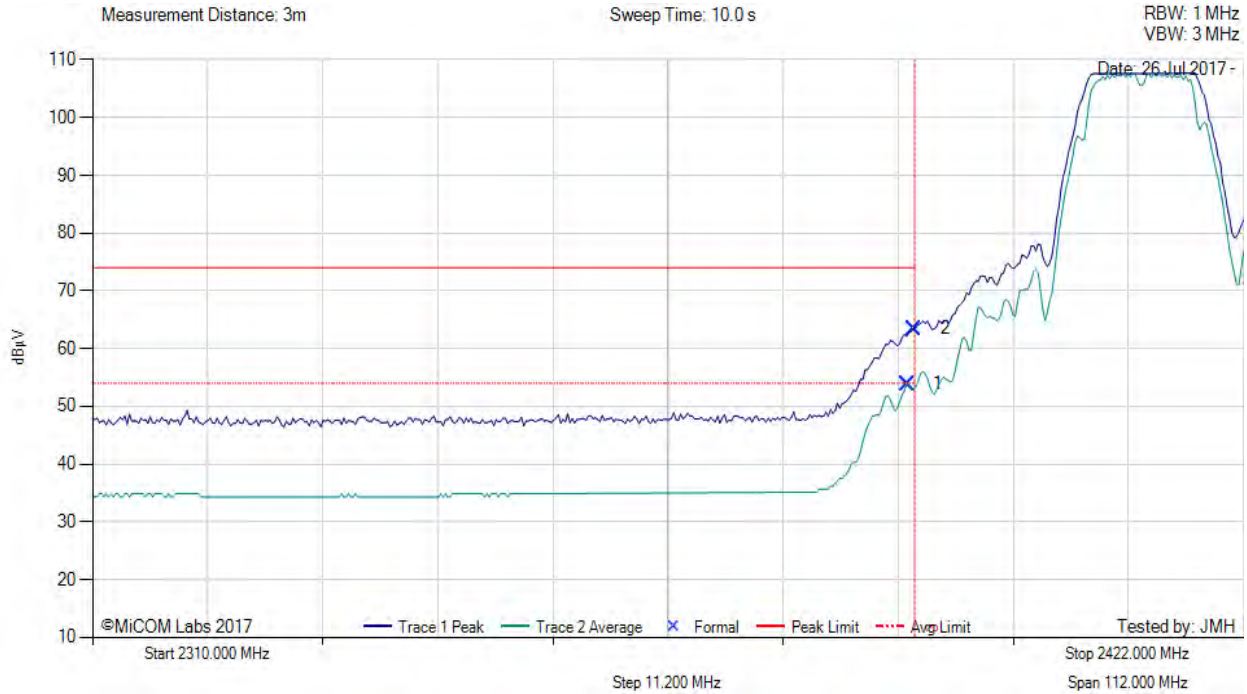
A.1.1.2. Restricted Edge & Band-Edge Emissions

Antenna: AP-ANT-13B



RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11b, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-13B, Power Setting: 76, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2389.33	19.17	2.68	32.04	53.89	Max Avg	Horizontal	152	324	54.0	-0.1	Pass
2	2390.00	28.77	2.69	32.04	63.50	Max Peak	Horizontal	152	324	74.0	-10.5	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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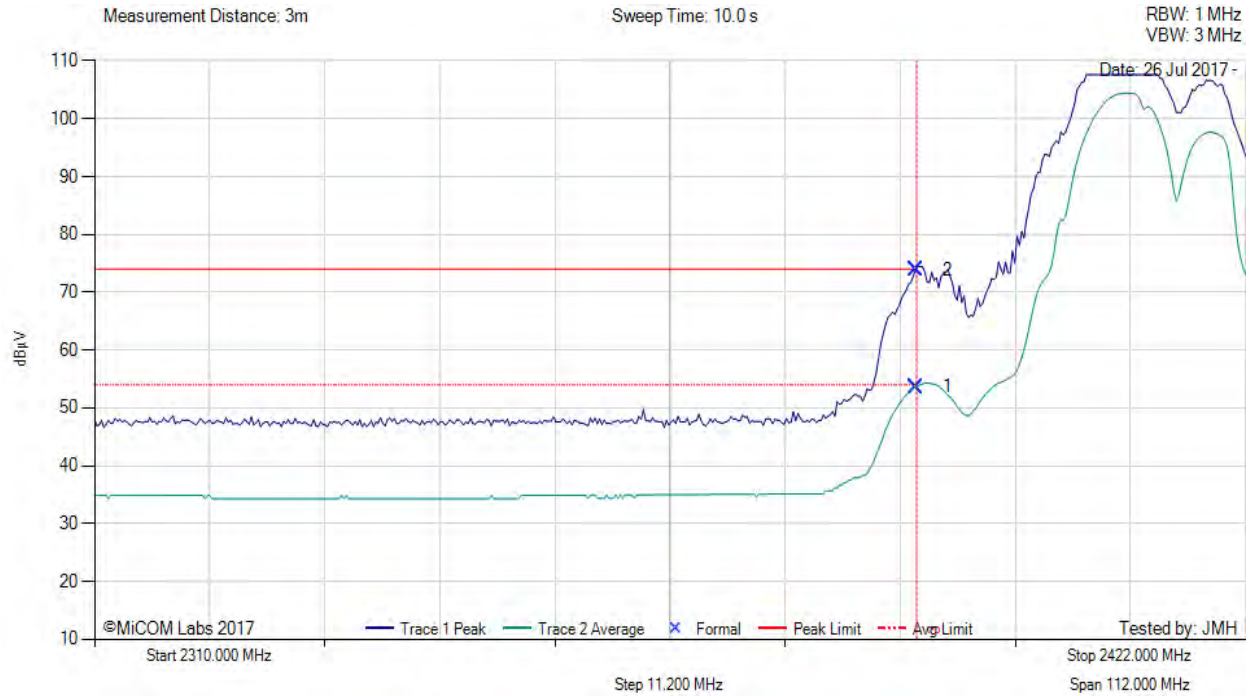


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RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11g, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-13B, Power Setting: 58, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2390.00	18.91	2.69	32.04	53.64	Max Avg	Horizontal	152	324	54.0	-0.4	Pass
2	2390.00	39.21	2.69	32.04	73.94	Max Peak	Horizontal	152	324	74.0	-0.1	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 g mode.

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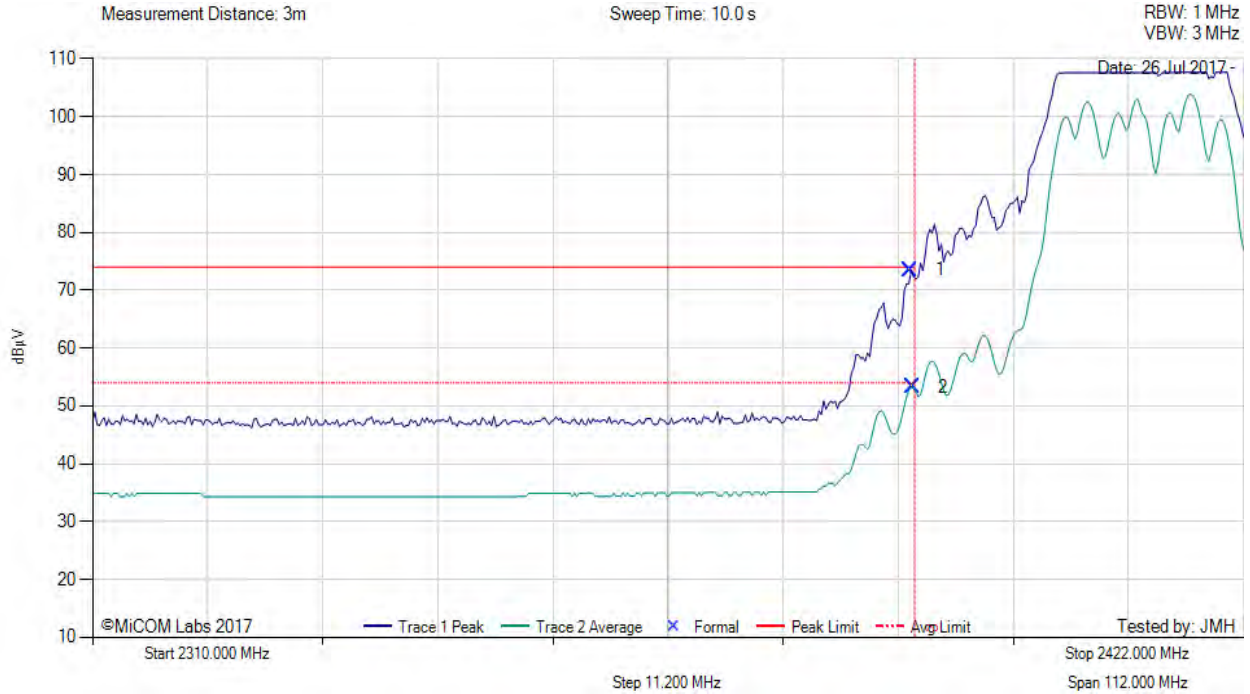


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RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11n HT-20, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-13B, Power Setting: 60, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2389.57	38.82	2.69	32.04	73.55	Max Peak	Horizontal	152	324	74.0	-0.5	Pass
2	2389.78	18.50	2.69	32.04	53.23	Max Avg	Horizontal	152	324	54.0	-0.8	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 n HT20 mode.

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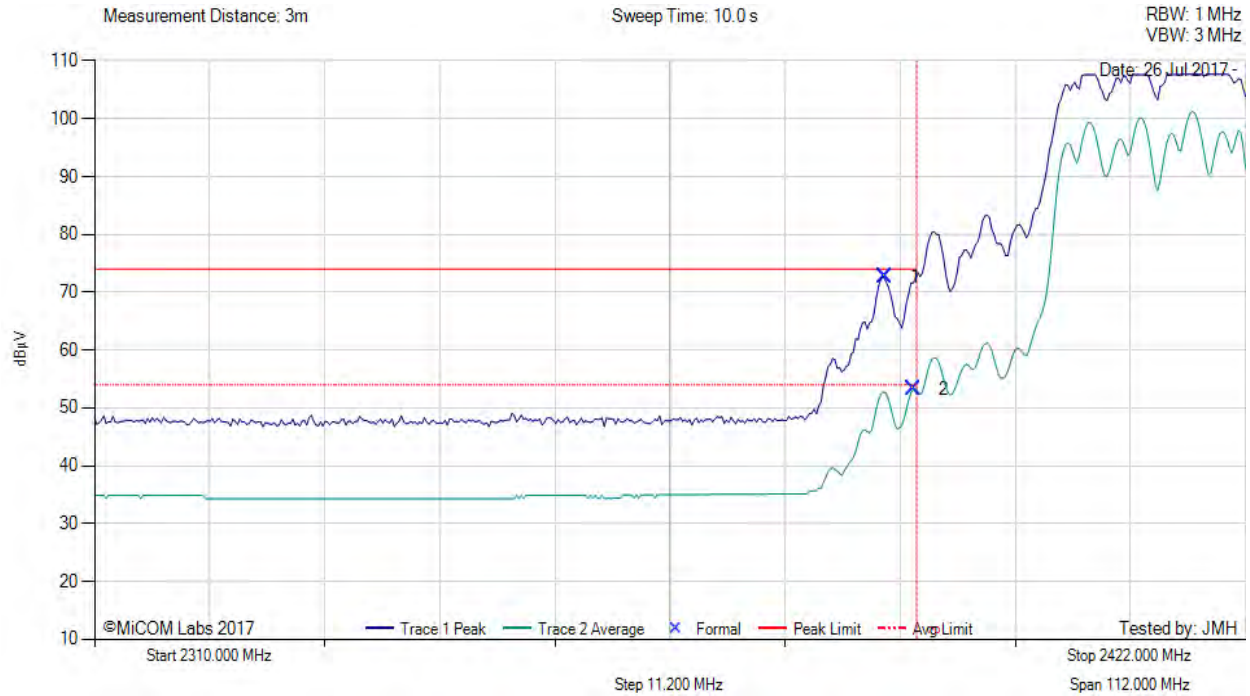


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RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS



Variant: 802.11n HT-40, Test Freq: 2422.00 MHz, Antenna: Aruba AP-ANT-13B, Power Setting: 60, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2386.86	37.99	2.68	32.02	72.69	Max Peak	Horizontal	152	324	74.0	-1.3	Pass
2	2389.68	18.50	2.69	32.04	53.23	Max Avg	Horizontal	152	324	54.0	-0.8	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH3 n HT40 mode.

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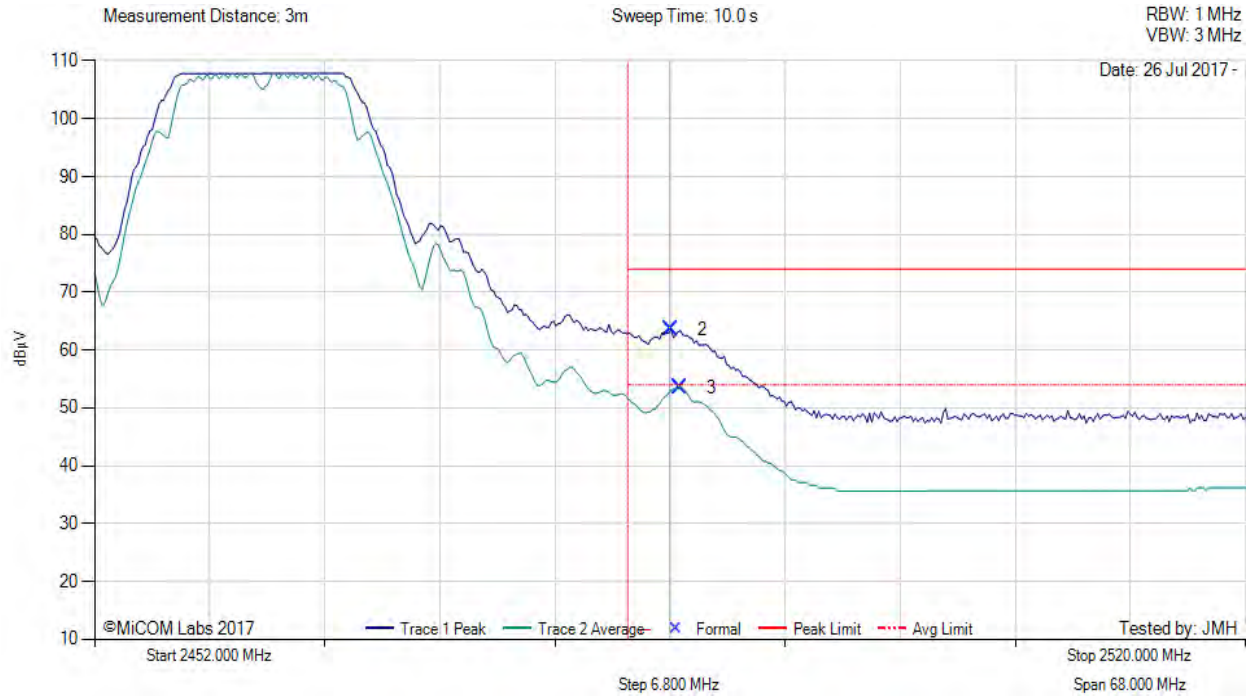


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11b, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-13B, Power Setting: 76, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
2	2486.09	28.44	2.73	32.37	63.54	Max Peak	Horizontal	157	320	74.0	-10.5	Pass
3	2486.63	18.45	2.73	32.37	53.55	Max Avg	Horizontal	157	320	54.0	-0.5	Pass
1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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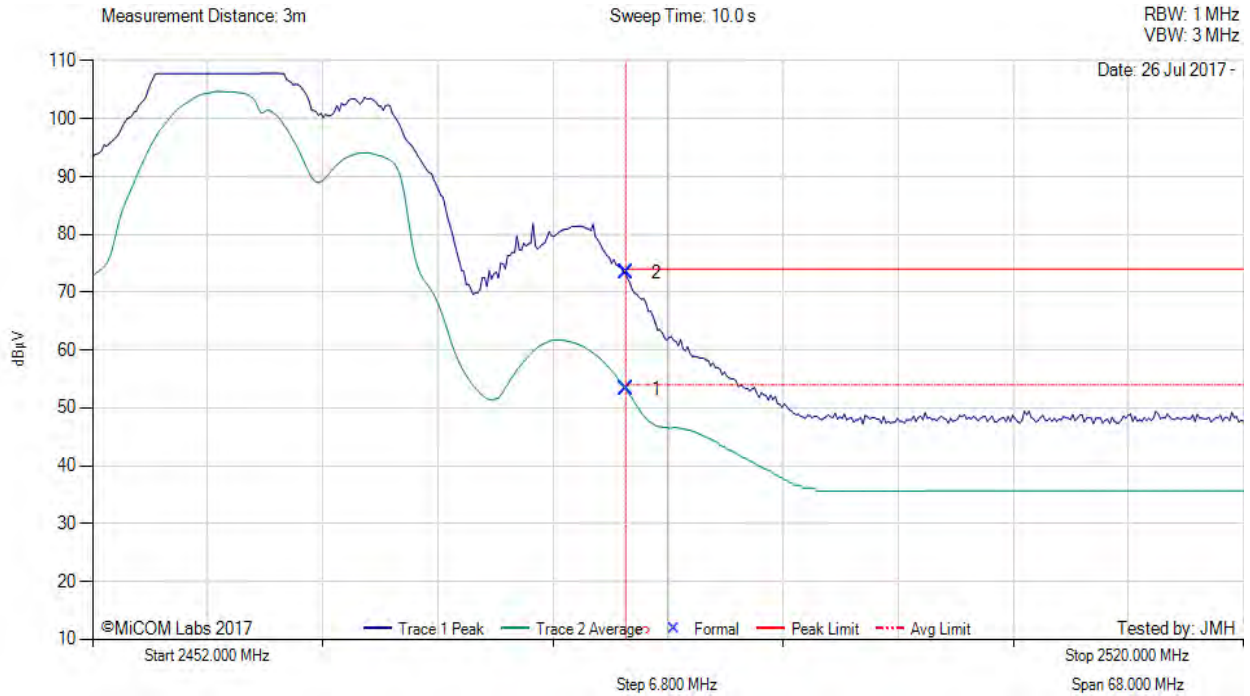


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11g, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-13B, Power Setting: 59, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2483.50	18.24	2.73	32.37	53.34	Max Avg	Horizontal	157	320	54.0	-0.7	Pass
2	2483.50	38.24	2.73	32.37	73.34	Max Peak	Horizontal	157	320	74.0	-0.7	Pass
3	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 g mode.

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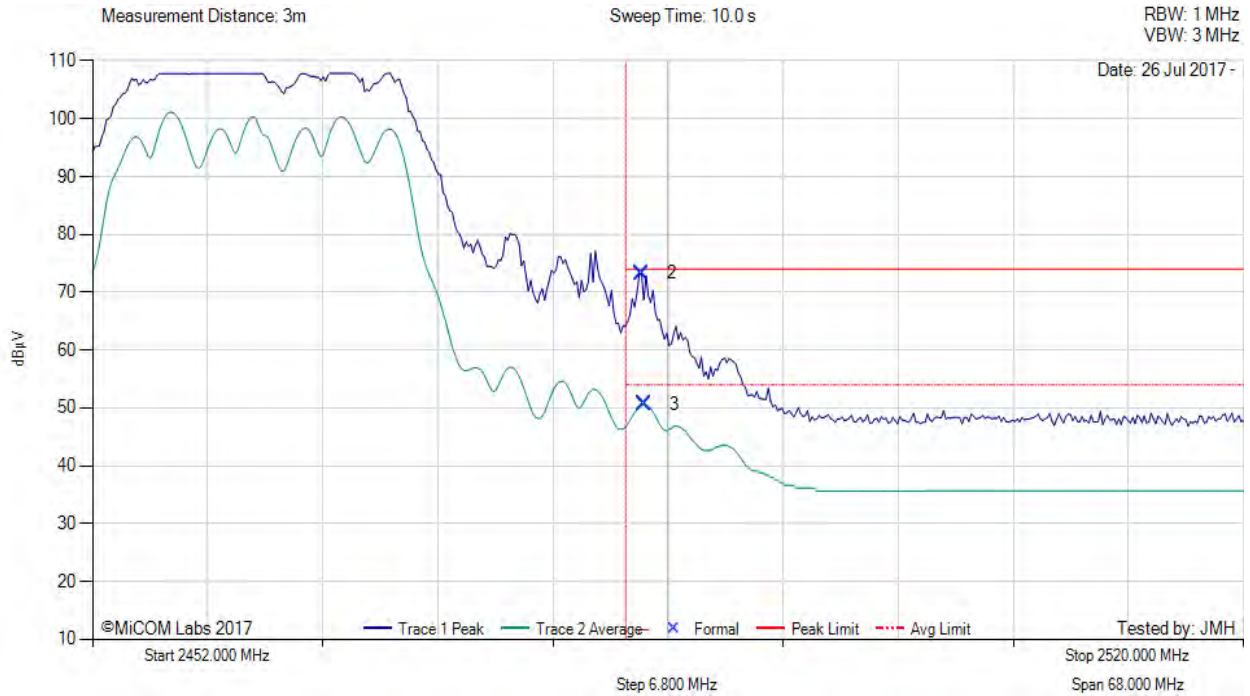


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11n HT-20, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-13B, Power Setting: 51, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
2	2484.45	38.14	2.73	32.37	73.24	Max Peak	Horizontal	157	320	74.0	-0.8	Pass
3	2484.59	15.53	2.73	32.37	50.63	Max Avg	Horizontal	157	320	54.0	-3.4	Pass
1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 n HT20 mode.

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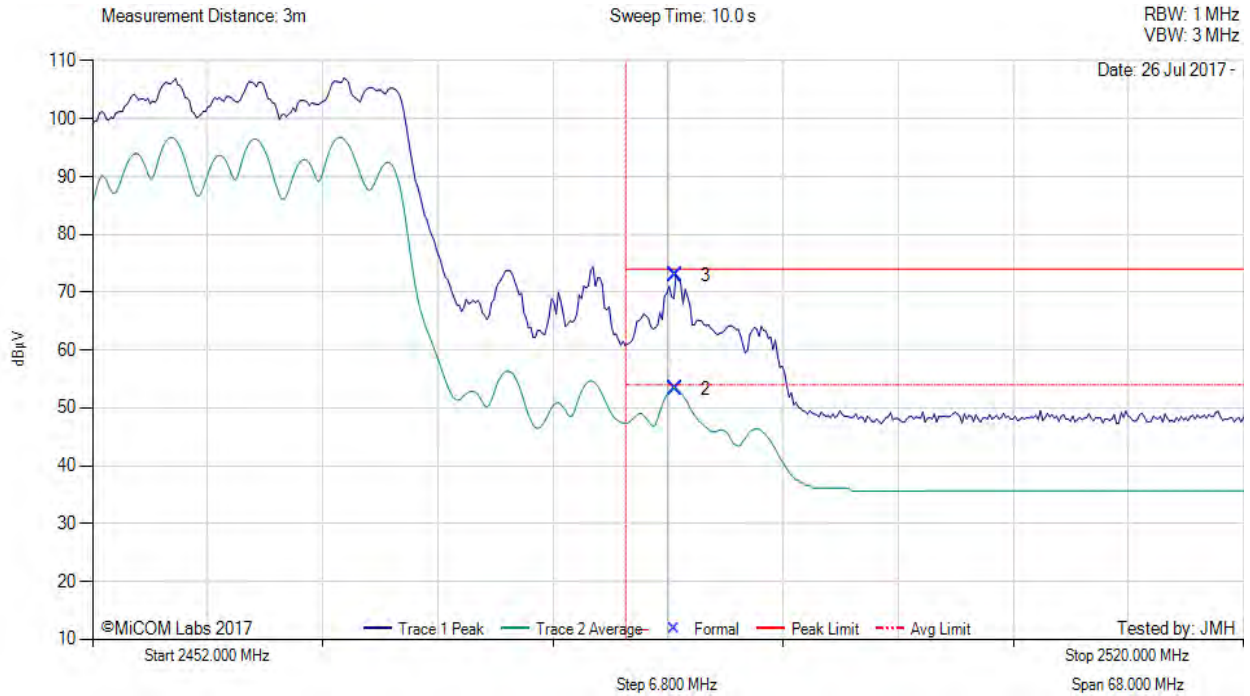


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11n HT-40, Test Freq: 2452.00 MHz, Antenna: Aruba AP-ANT-13B, Power Setting: 47, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
2	2486.41	18.24	2.73	32.37	53.34	Max Avg	Horizontal	157	320	54.0	-0.7	Pass
3	2486.41	37.86	2.73	32.37	72.96	Max Peak	Horizontal	157	320	74.0	-1.0	Pass
1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH9 n HT40 mode.

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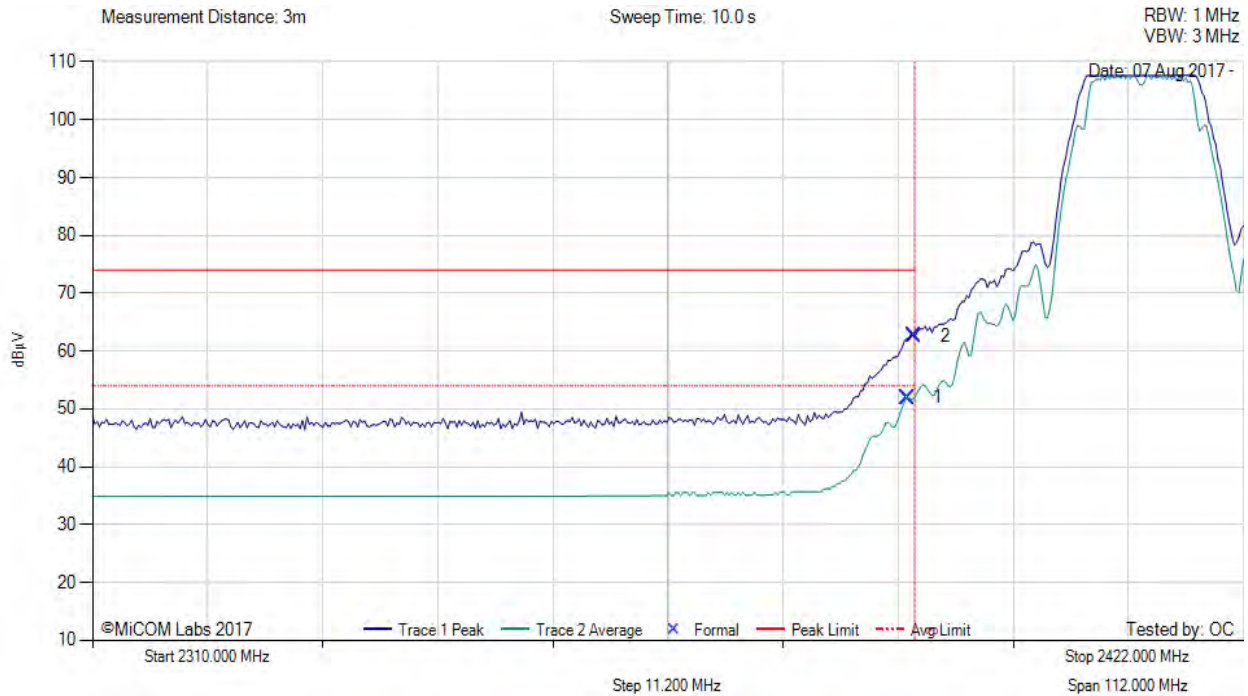
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Antenna: AP-ANT-19



RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11b, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-19, Power Setting: 75, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2389.33	17.26	2.68	32.04	51.98	Max Avg	Vertical	173	318	54.0	-2.0	Pass
2	2390.00	27.82	2.69	32.04	62.55	Max Peak	Vertical	173	318	74.0	-11.5	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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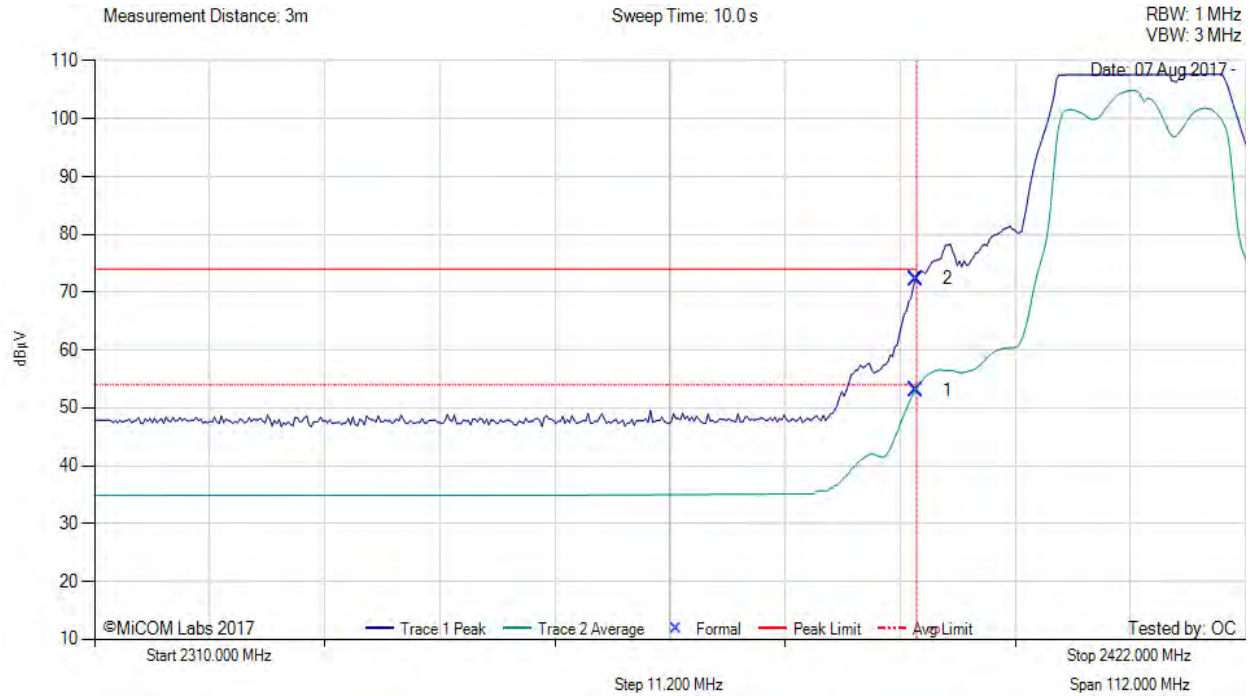


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RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11g, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-19, Power Setting: 59, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2390.00	18.37	2.69	32.04	53.10	Max Avg	Vertical	173	318	54.0	-0.9	Pass
2	2390.00	37.57	2.69	32.04	72.30	Max Peak	Vertical	173	318	74.0	-1.7	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 g mode.

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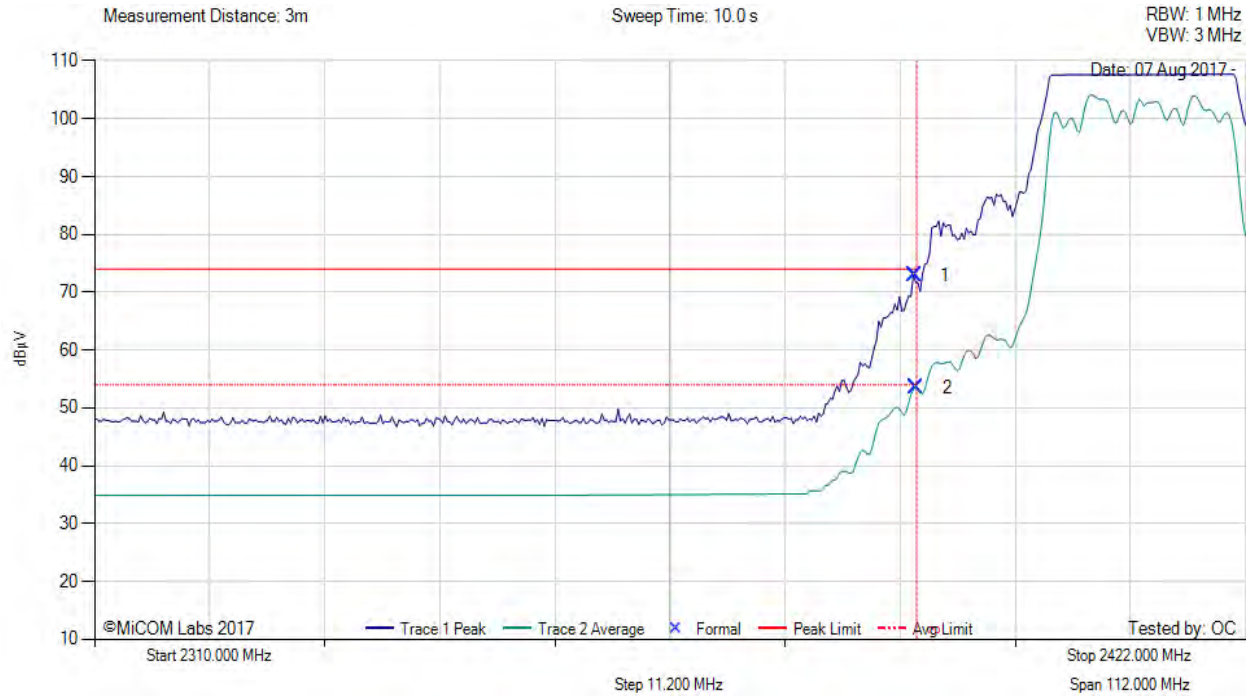


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RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS



Variant: 802.11n HT-20, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-19, Power Setting: 61, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2389.78	38.18	2.69	32.04	72.91	Max Peak	Vertical	173	318	74.0	-1.1	Pass
2	2390.00	18.77	2.69	32.04	53.50	Max Avg	Vertical	173	318	54.0	-0.5	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 n HT20 mode.

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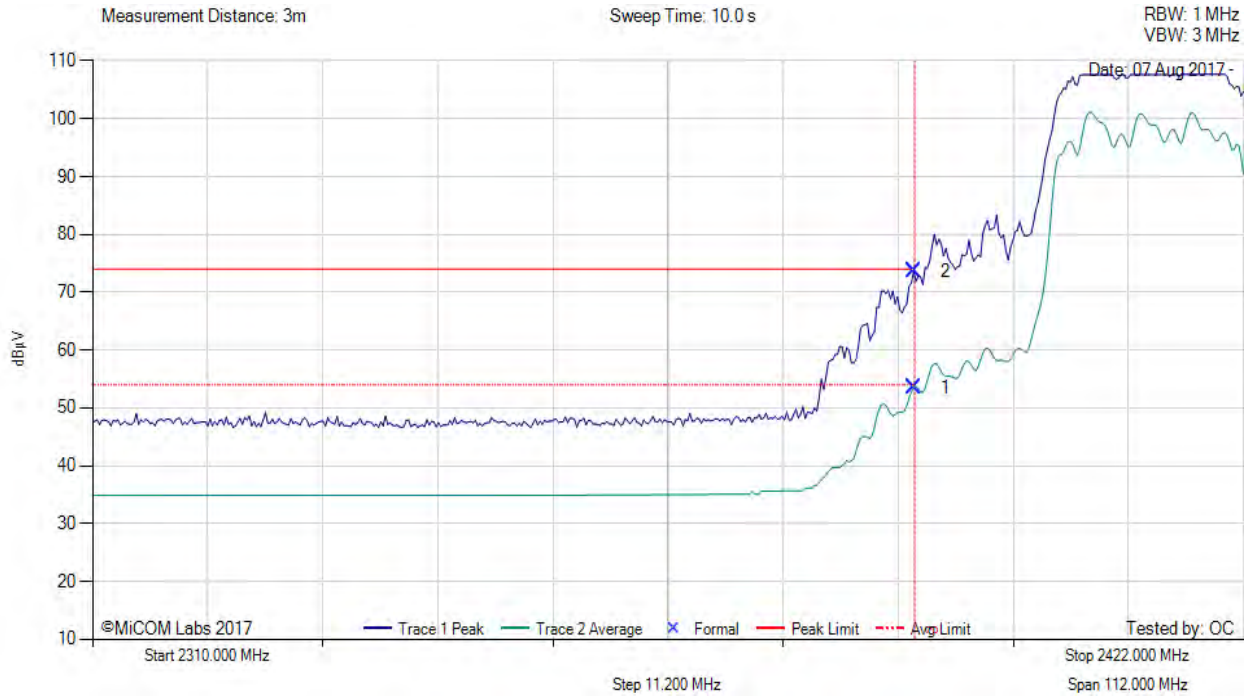


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RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11n HT-40, Test Freq: 2422.00 MHz, Antenna: Aruba AP-ANT-19, Power Setting: 58, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2390.00	18.71	2.69	32.04	53.44	Max Avg	Vertical	173	318	54.0	-0.6	Pass
2	2390.00	38.89	2.69	32.04	73.62	Max Peak	Vertical	173	318	74.0	-0.4	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH3 n HT40 mode.

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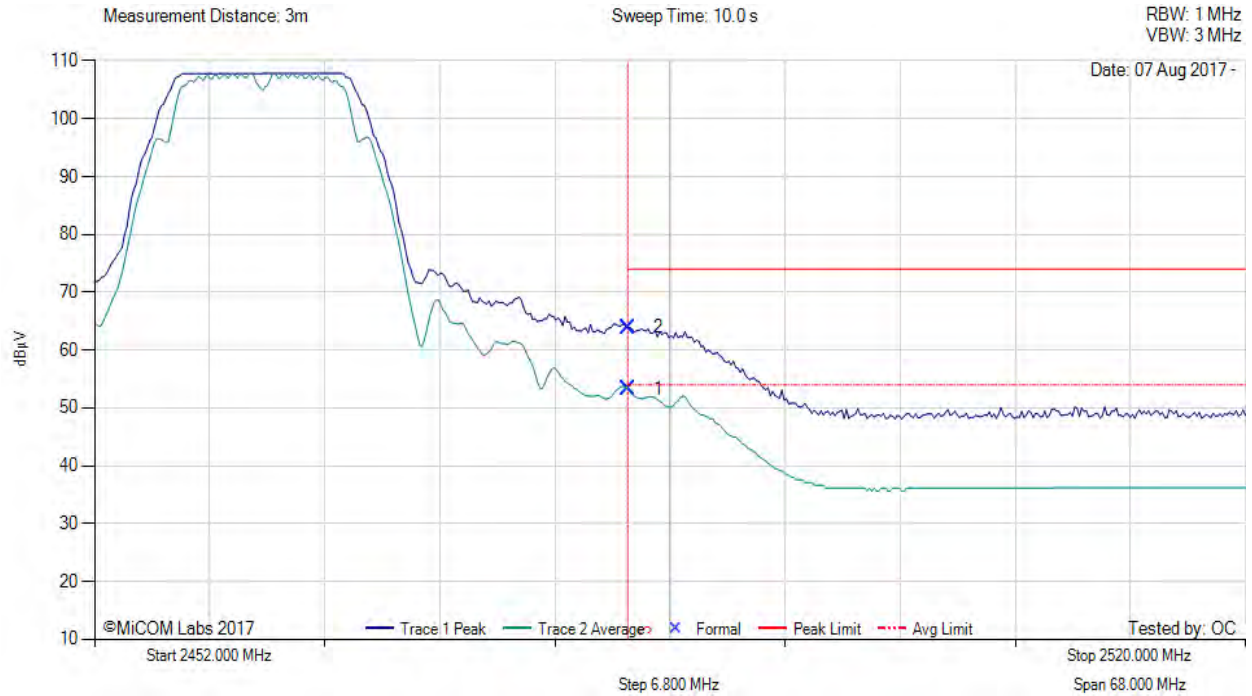


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11b, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-19, Power Setting: 67, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2483.50	18.24	2.73	32.37	53.34	Max Avg	Vertical	173	318	54.0	-0.7	Pass
2	2483.50	28.80	2.73	32.37	63.90	Max Peak	Vertical	173	318	74.0	-10.1	Pass
3	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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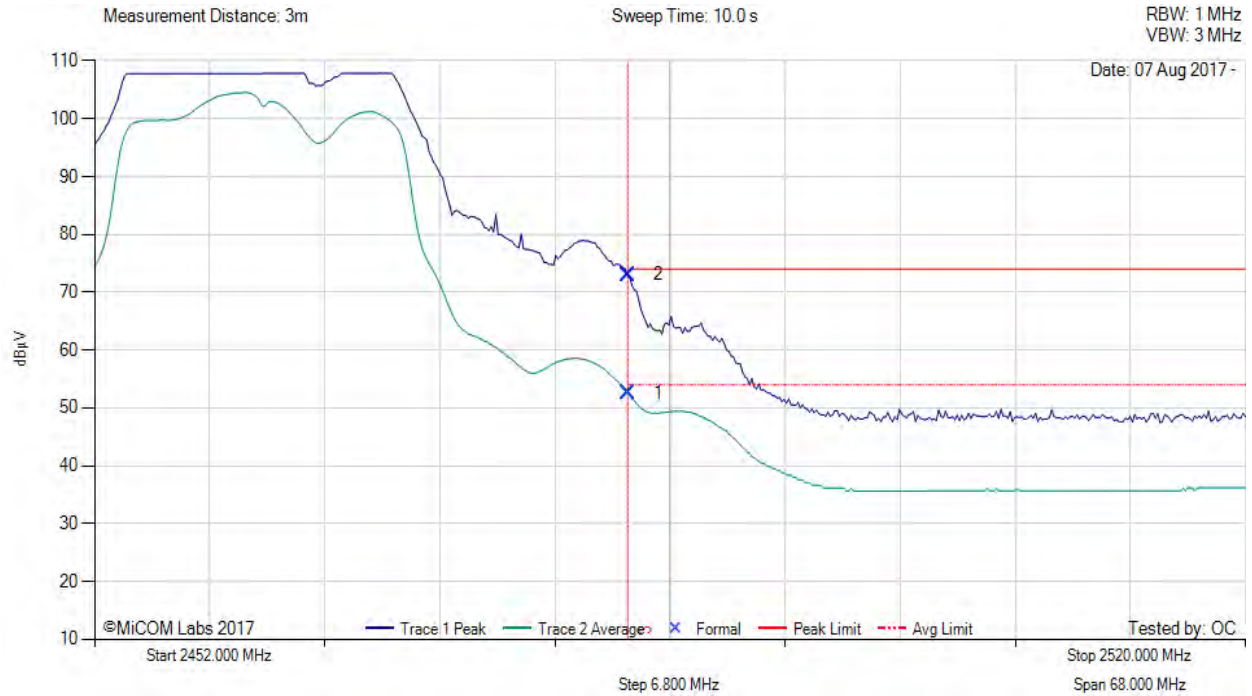


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11g, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-19, Power Setting: 56, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2483.50	17.50	2.73	32.37	52.60	Max Avg	Vertical	173	318	54.0	-1.4	Pass
2	2483.50	37.94	2.73	32.37	73.04	Max Peak	Vertical	173	318	74.0	-1.0	Pass
3	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 g mode.

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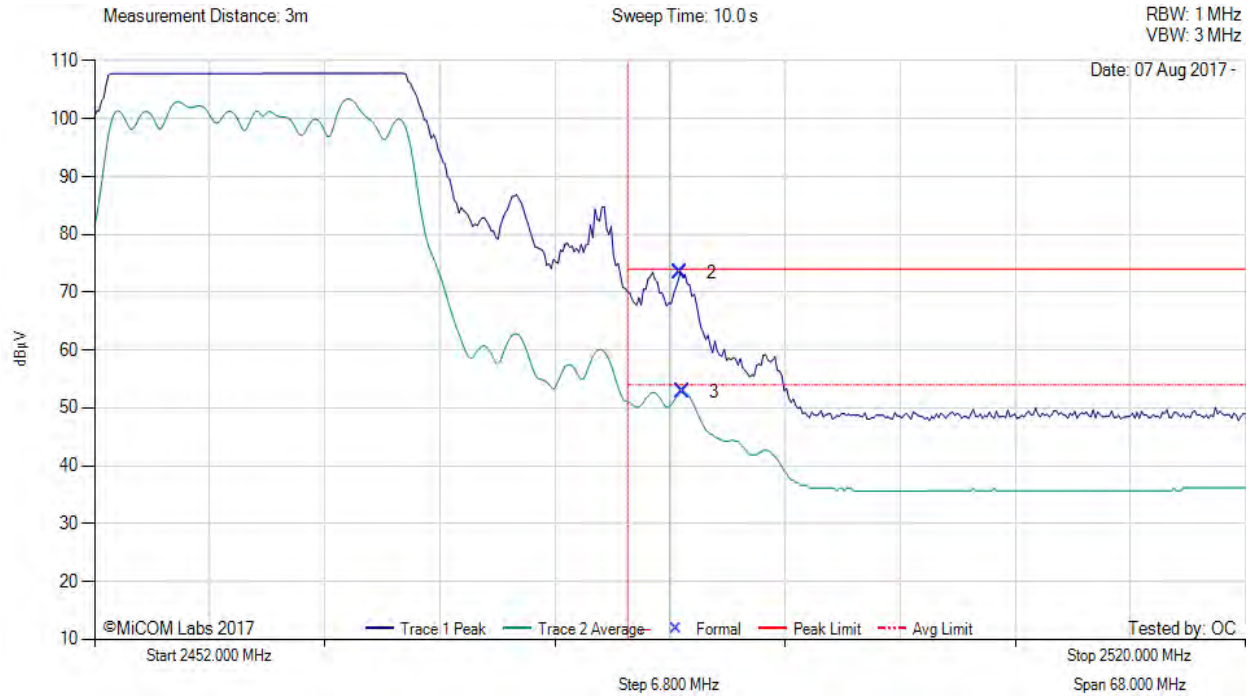


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11n HT-20, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-19, Power Setting: 56, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
2	2486.63	38.33	2.73	32.37	73.43	Max Peak	Vertical	173	318	74.0	-0.6	Pass
3	2486.77	17.73	2.73	32.37	52.83	Max Avg	Vertical	173	318	54.0	-1.2	Pass
1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 n HT20 mode.

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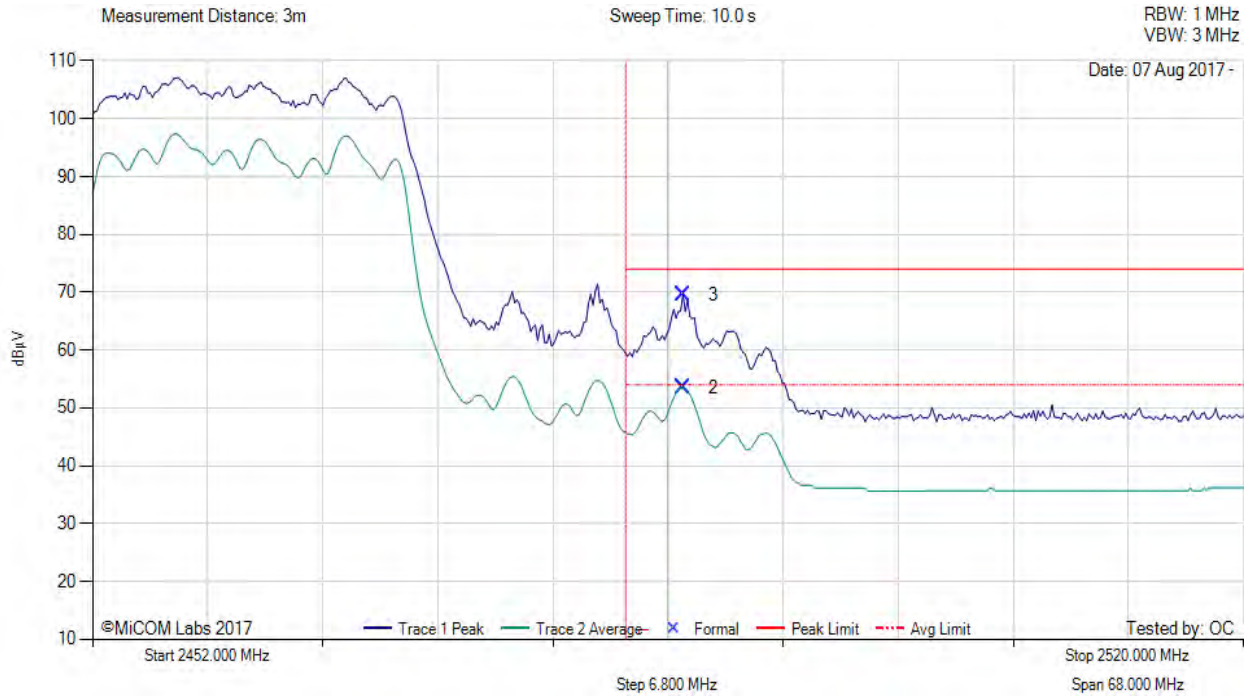


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS



Variant: 802.11n HT-40, Test Freq: 2452.00 MHz, Antenna: Aruba AP-ANT-19, Power Setting: 41, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
2	2486.91	18.38	2.73	32.37	53.48	Max Avg	Vertical	173	318	54.0	-0.5	Pass
3	2486.91	34.49	2.73	32.37	69.59	Max Peak	Vertical	173	318	74.0	-4.4	Pass
1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH9 n HT40 mode.

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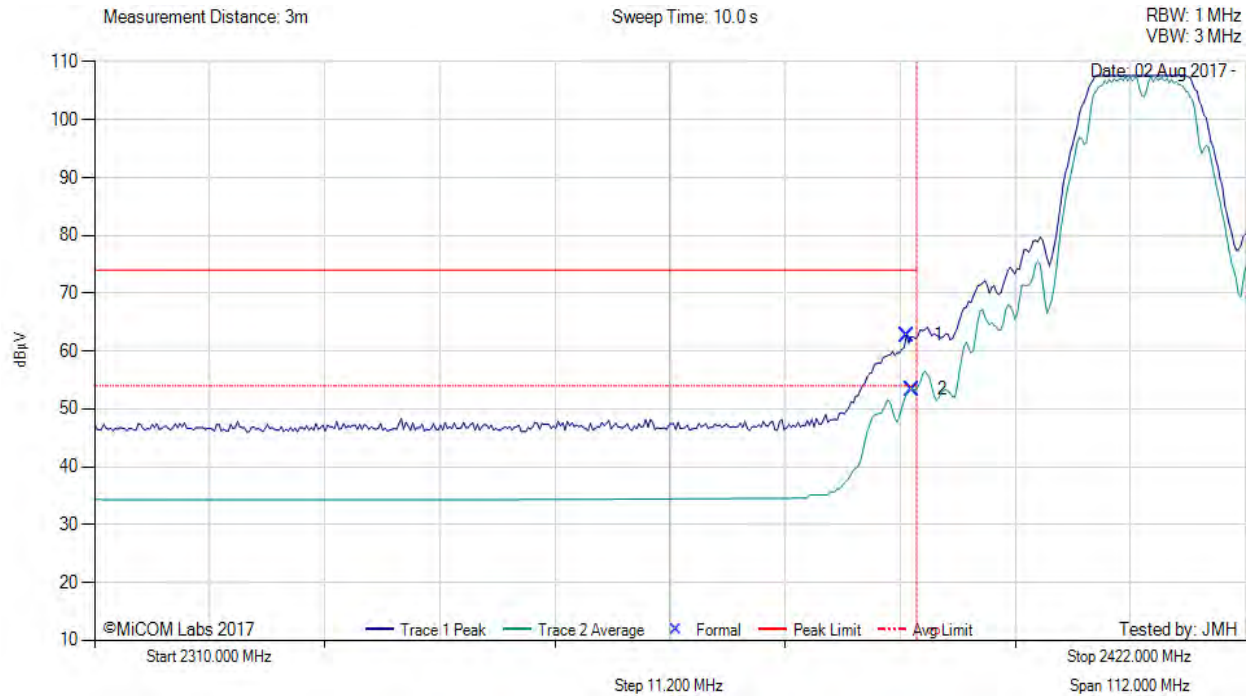
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Antenna: AP-ANT-1W



RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11b, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-1W, Power Setting: 77, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2389.10	27.98	2.68	32.04	62.70	Max Peak	Horizontal	152	83	74.0	-11.3	Pass
2	2389.55	18.64	2.69	32.04	53.37	Max Avg	Horizontal	152	83	54.0	-0.6	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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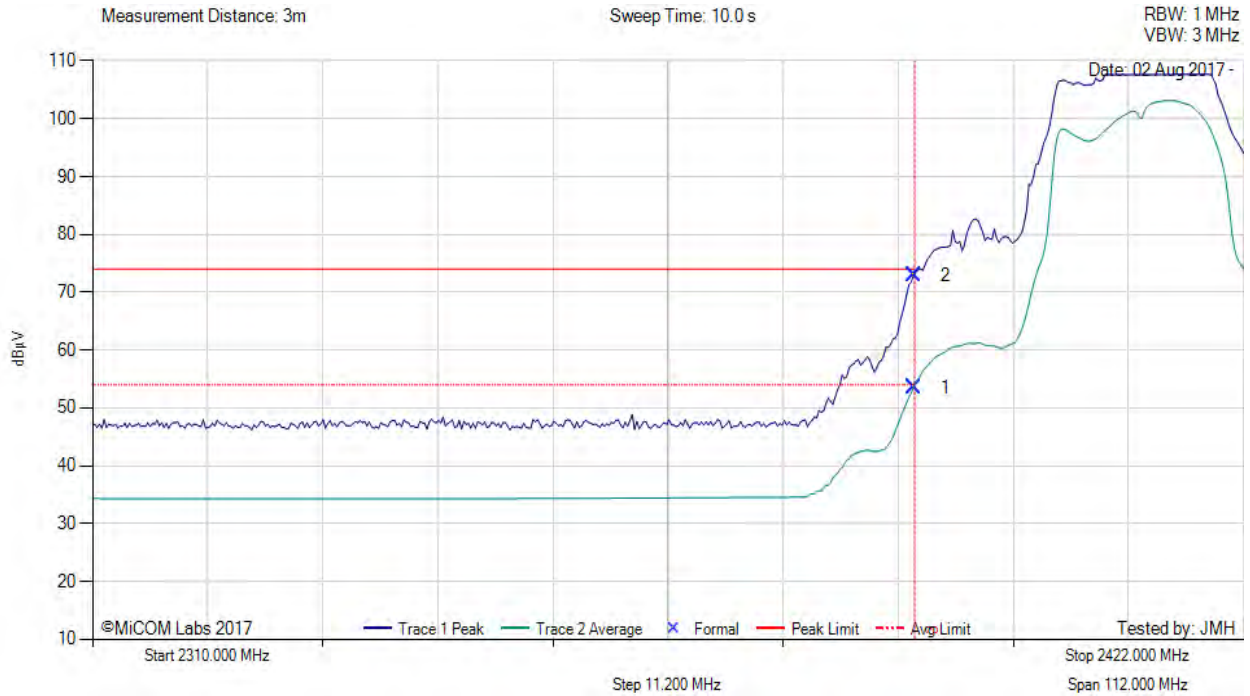


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RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11g, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-1W, Power Setting: 65, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2390.00	18.84	2.69	32.04	53.57	Max Avg	Horizontal	152	83	54.0	-0.4	Pass
2	2390.00	38.25	2.69	32.04	72.98	Max Peak	Horizontal	152	83	74.0	-1.0	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 g mode.

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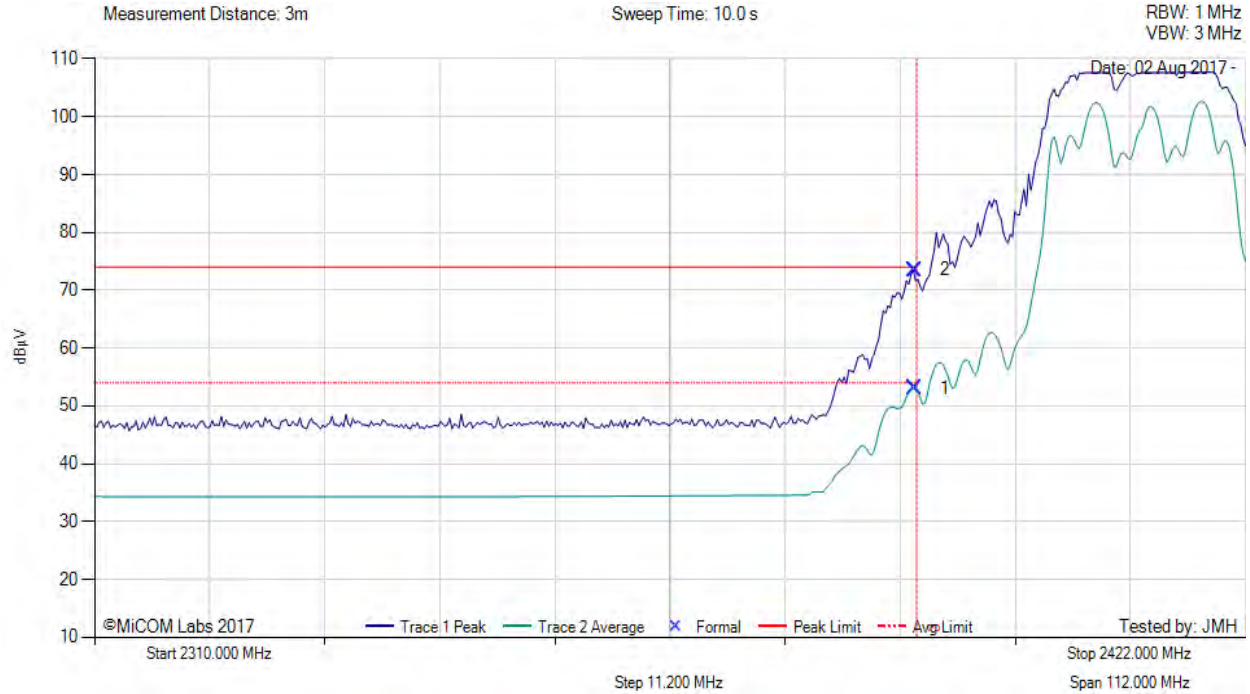


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RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11n HT-20, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-1W, Power Setting: 63, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2389.78	18.37	2.69	32.04	53.10	Max Avg	Horizontal	152	83	54.0	-0.9	Pass
2	2389.78	38.79	2.69	32.04	73.52	Max Peak	Horizontal	152	83	74.0	-0.5	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 n HT20 mode.

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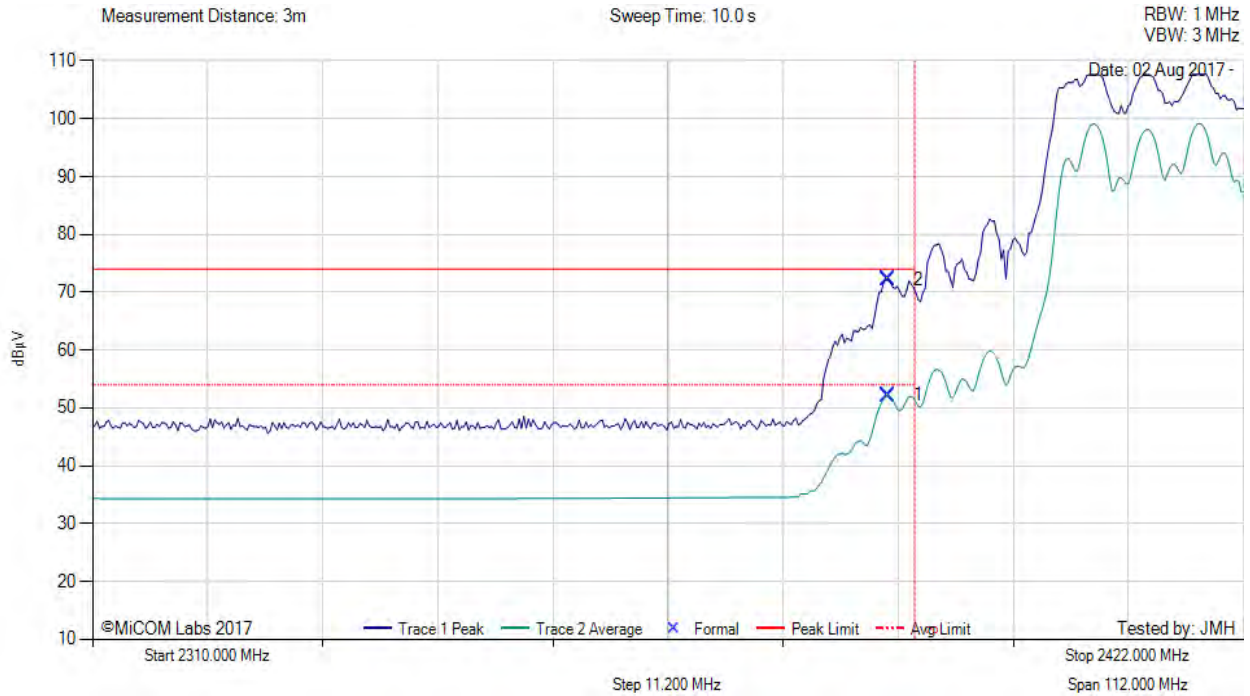


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RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS



Variant: 802.11n HT-40, Test Freq: 2422.00 MHz, Antenna: Aruba AP-ANT-1W, Power Setting: 60, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2387.43	17.50	2.68	32.02	52.20	Max Avg	Horizontal	152	83	54.0	-1.8	Pass
2	2387.43	37.57	2.68	32.02	72.27	Max Peak	Horizontal	152	83	74.0	-1.7	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH3 n HT40 mode.

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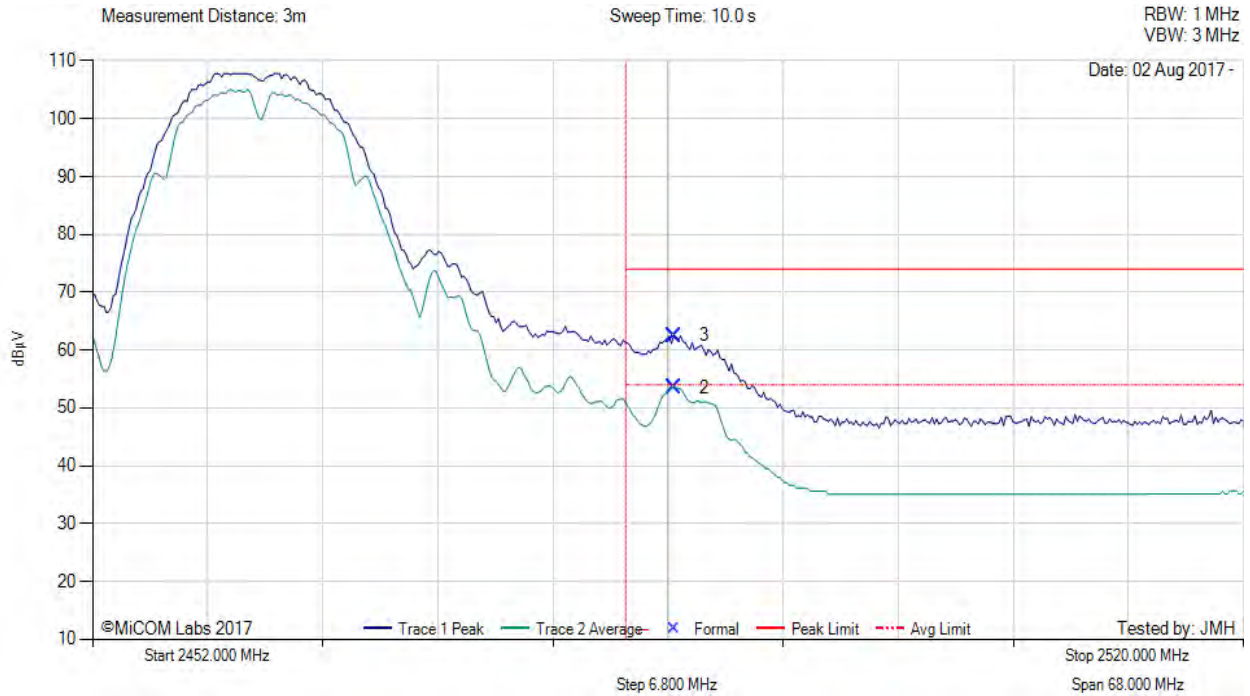


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11b, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-1W, Power Setting: 77, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
2	2486.36	18.45	2.73	32.37	53.55	Max Avg	Horizontal	152	274	54.0	-0.5	Pass
3	2486.36	27.40	2.73	32.37	62.50	Max Peak	Horizontal	152	274	74.0	-11.5	Pass
1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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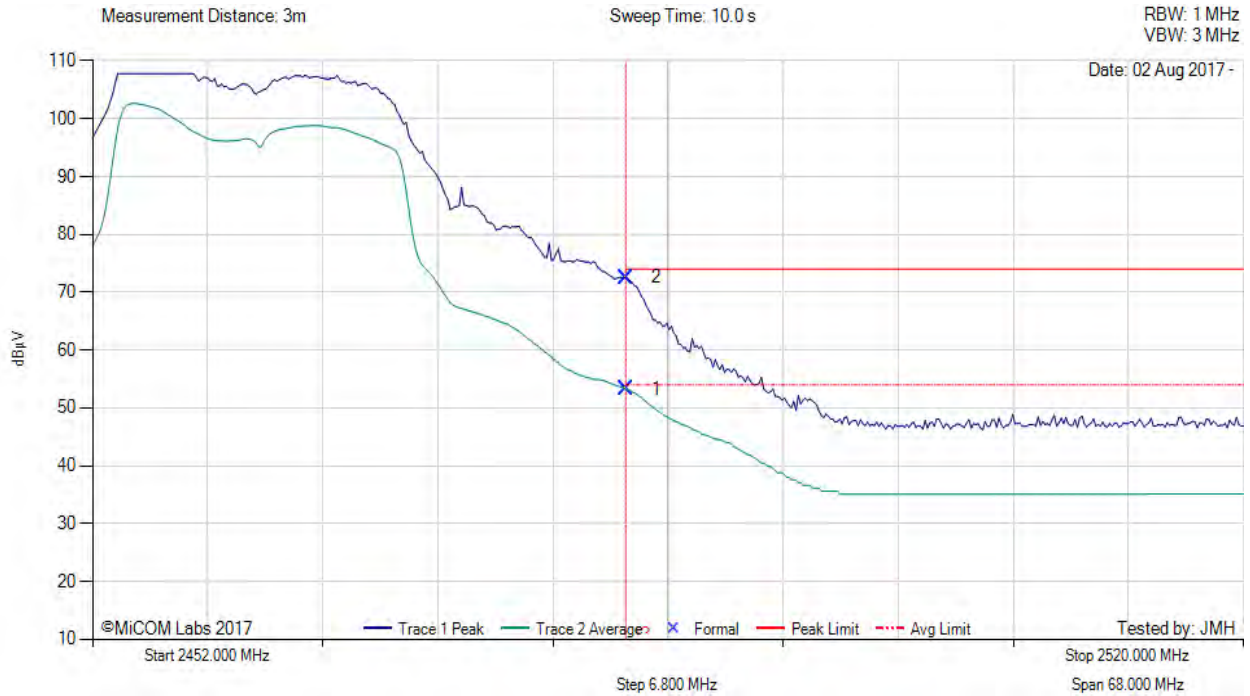


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11g, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-1W, Power Setting: 64, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2483.50	18.24	2.73	32.37	53.34	Max Avg	Horizontal	152	274	54.0	-0.7	Pass
2	2483.50	37.48	2.73	32.37	72.58	Max Peak	Horizontal	152	274	74.0	-1.4	Pass
3	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 g mode.

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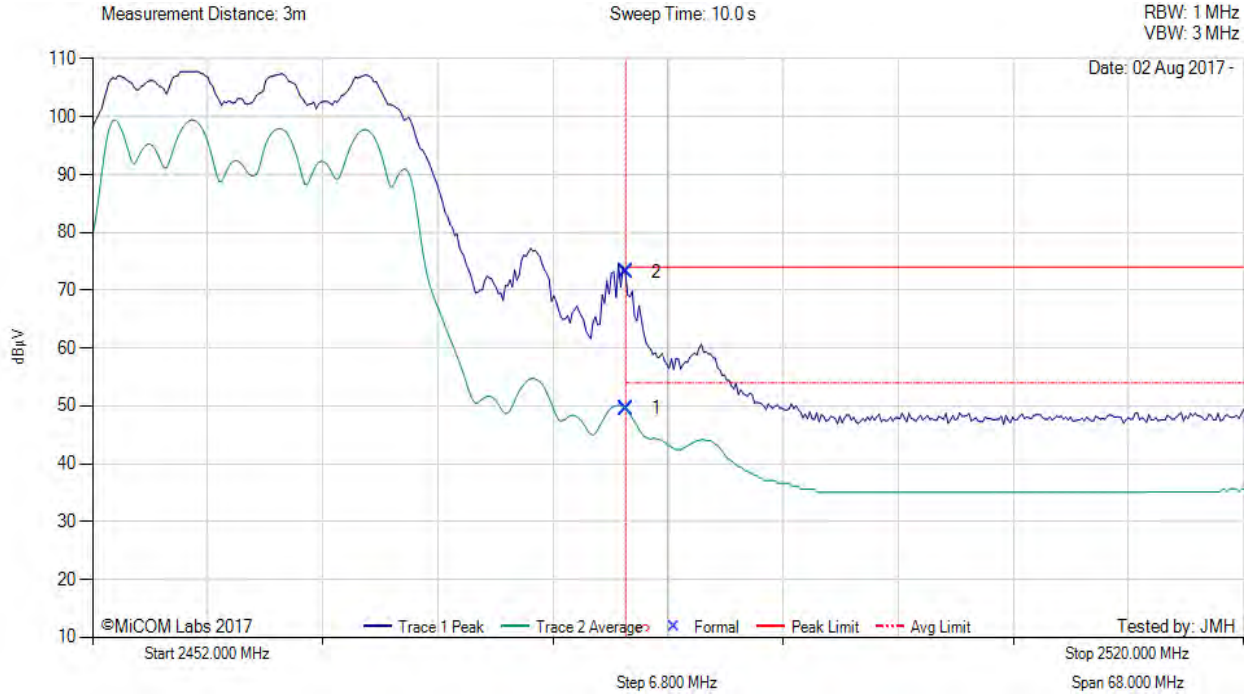


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11n HT-20, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-1W, Power Setting: 50, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2483.50	14.50	2.73	32.37	49.60	Max Avg	Horizontal	152	274	54.0	-4.4	Pass
2	2483.50	38.08	2.73	32.37	73.18	Max Peak	Horizontal	152	274	74.0	-0.8	Pass
3	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 n HT20 mode.

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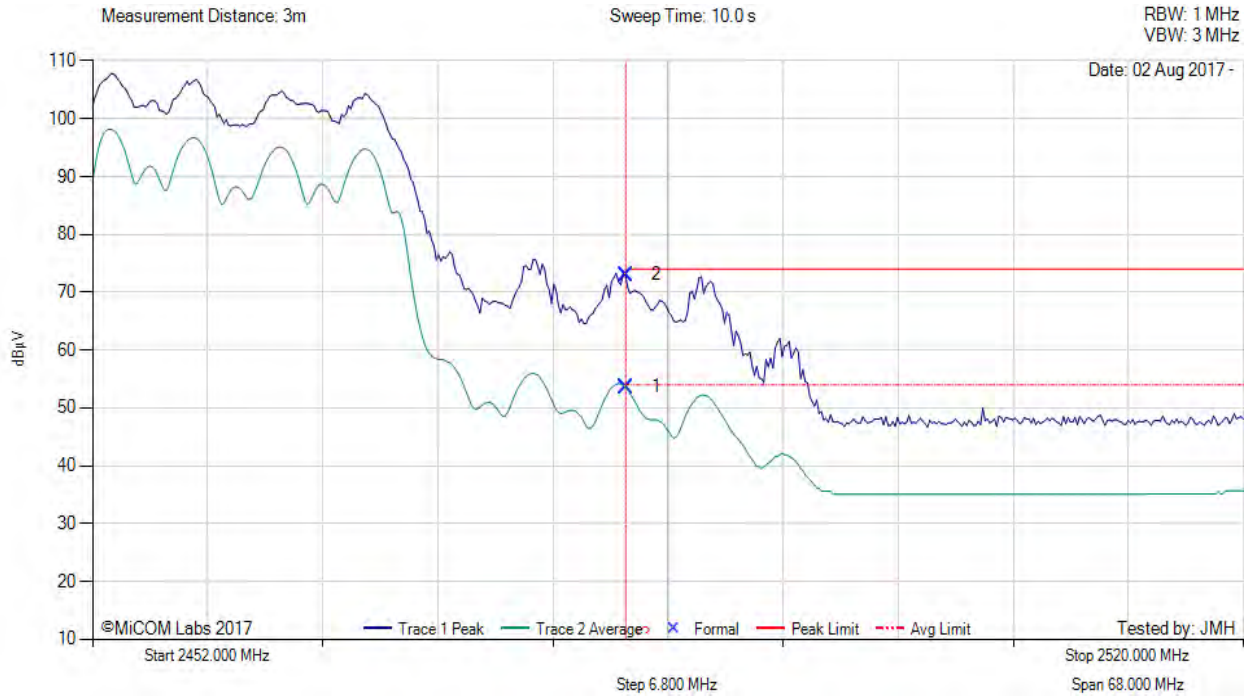


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11n HT-40, Test Freq: 2452.00 MHz, Antenna: Aruba AP-ANT-1W, Power Setting: 51, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2483.50	18.51	2.73	32.37	53.61	Max Avg	Horizontal	152	274	54.0	-0.4	Pass
2	2483.50	37.91	2.73	32.37	73.01	Max Peak	Horizontal	152	274	74.0	-1.0	Pass
3	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH9 n HT40 mode.

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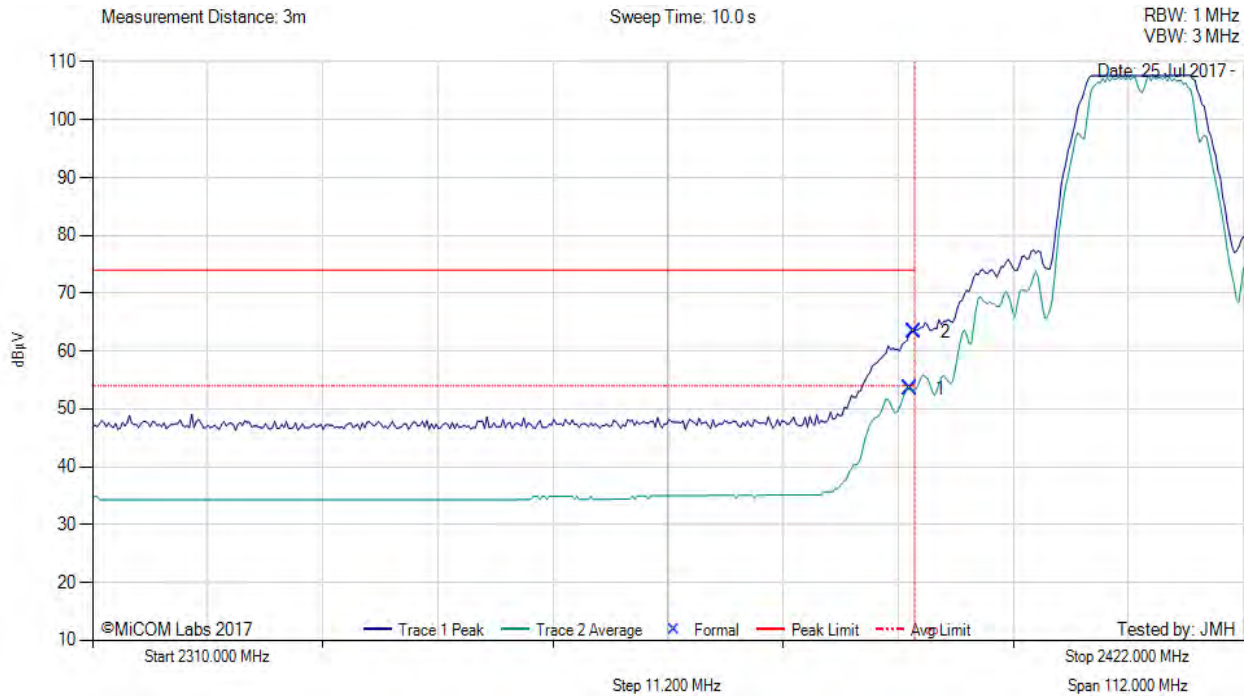
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Antenna: AP-ANT-20W



RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11b, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-20W, Power Setting: 75, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2389.55	18.77	2.69	32.04	53.50	Max Avg	Horizontal	99	85	54.0	-0.5	Pass
2	2390.00	28.68	2.69	32.04	63.41	Max Peak	Horizontal	99	85	74.0	-10.6	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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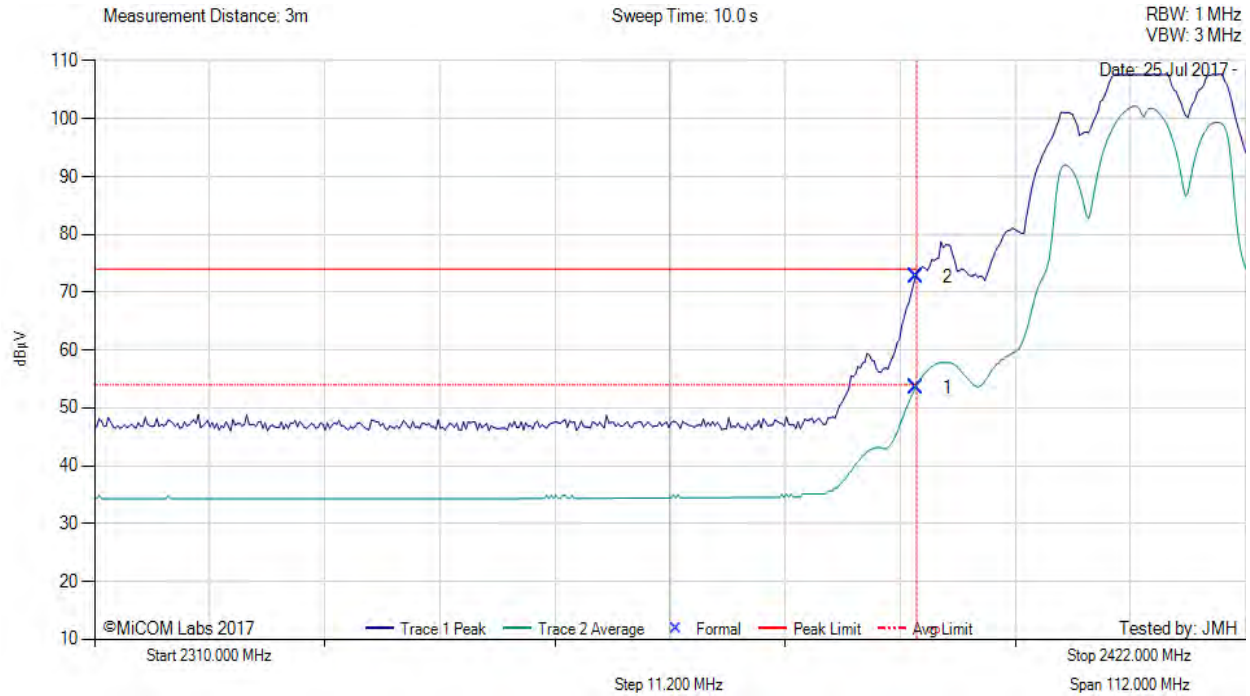


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RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11g, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-20W, Power Setting: 60, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2390.00	18.77	2.69	32.04	53.50	Max Avg	Horizontal	99	85	54.0	-0.5	Pass
2	2390.00	37.93	2.69	32.04	72.66	Max Peak	Horizontal	99	85	74.0	-1.3	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 g mode.

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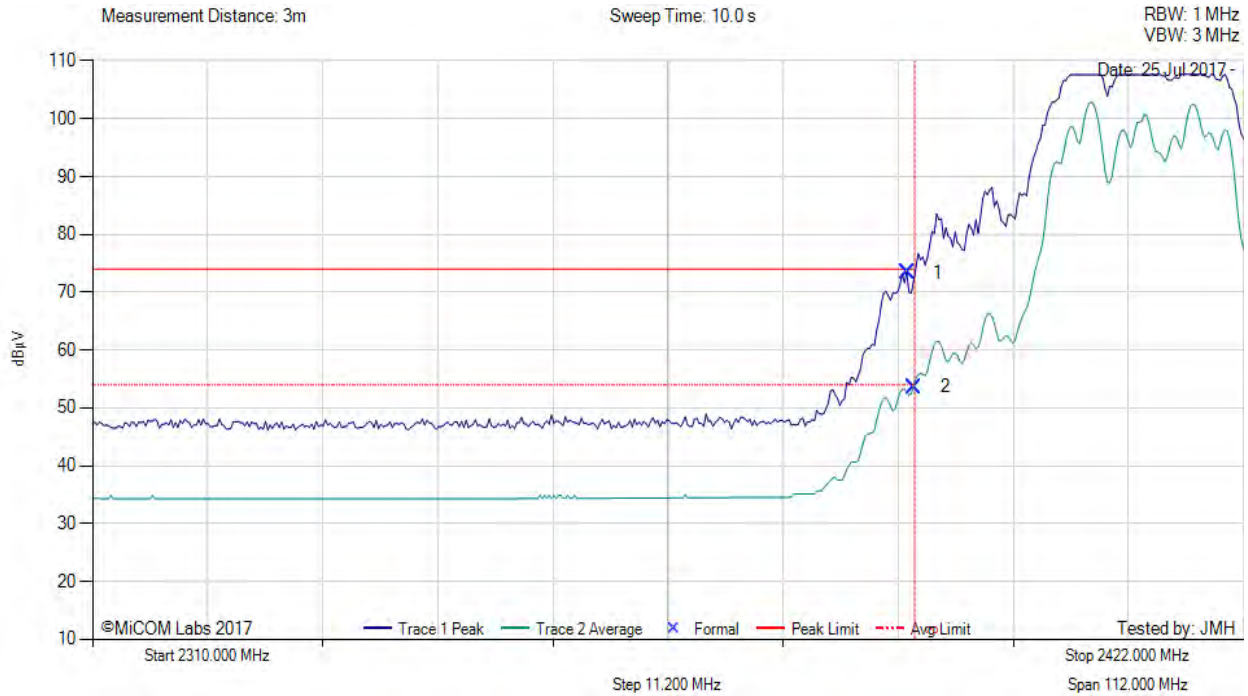


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RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS



Variant: 802.11n HT-20, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-20W, Power Setting: 64, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2389.33	38.62	2.68	32.04	73.34	Max Peak	Horizontal	99	85	74.0	-0.7	Pass
2	2390.00	18.91	2.69	32.04	53.64	Max Avg	Horizontal	99	85	54.0	-0.4	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 n HT20 mode.

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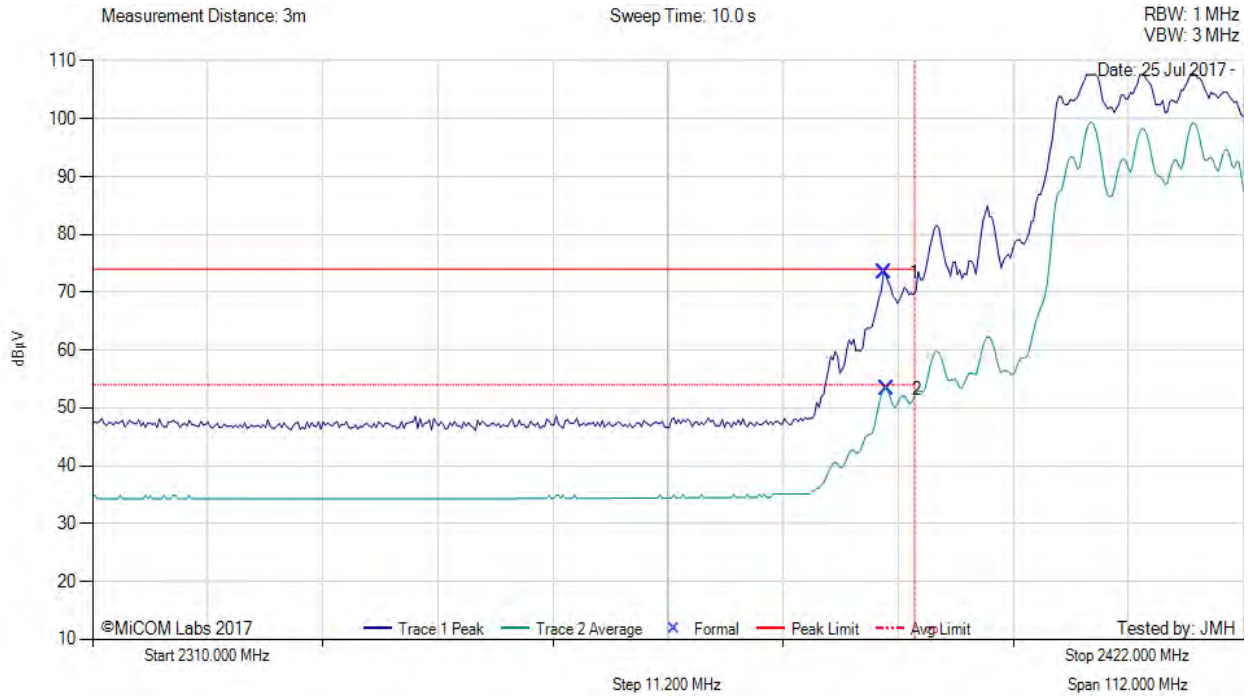


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RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11n HT-40, Test Freq: 2422.00 MHz, Antenna: Aruba AP-ANT-20W, Power Setting: 60, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2386.99	38.70	2.68	32.02	73.40	Max Peak	Horizontal	99	85	74.0	-0.6	Pass
2	2387.31	18.65	2.68	32.02	53.35	Max Avg	Horizontal	99	85	54.0	-0.7	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH3 n HT40 mode.

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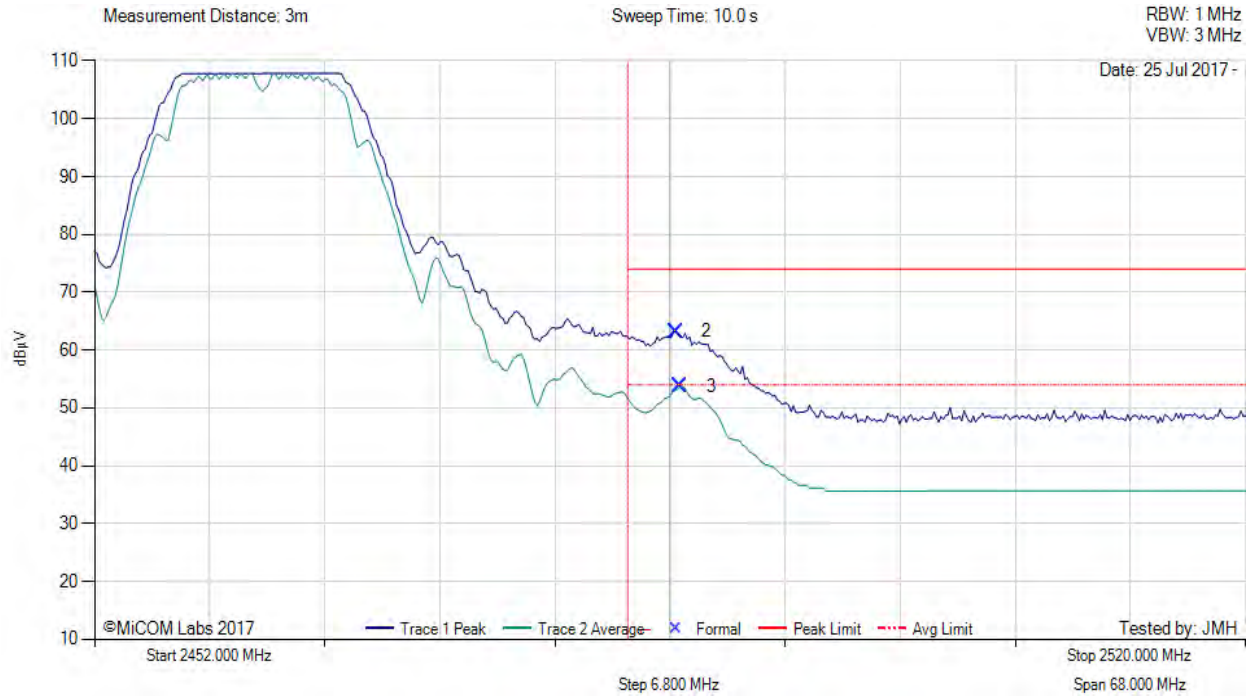


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11b, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-20W, Power Setting: 75, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
2	2486.36	28.13	2.73	32.37	63.23	Max Peak	Horizontal	100	115	74.0	-10.8	Pass
3	2486.63	18.59	2.73	32.37	53.69	Max Avg	Horizontal	100	115	54.0	-0.3	Pass
1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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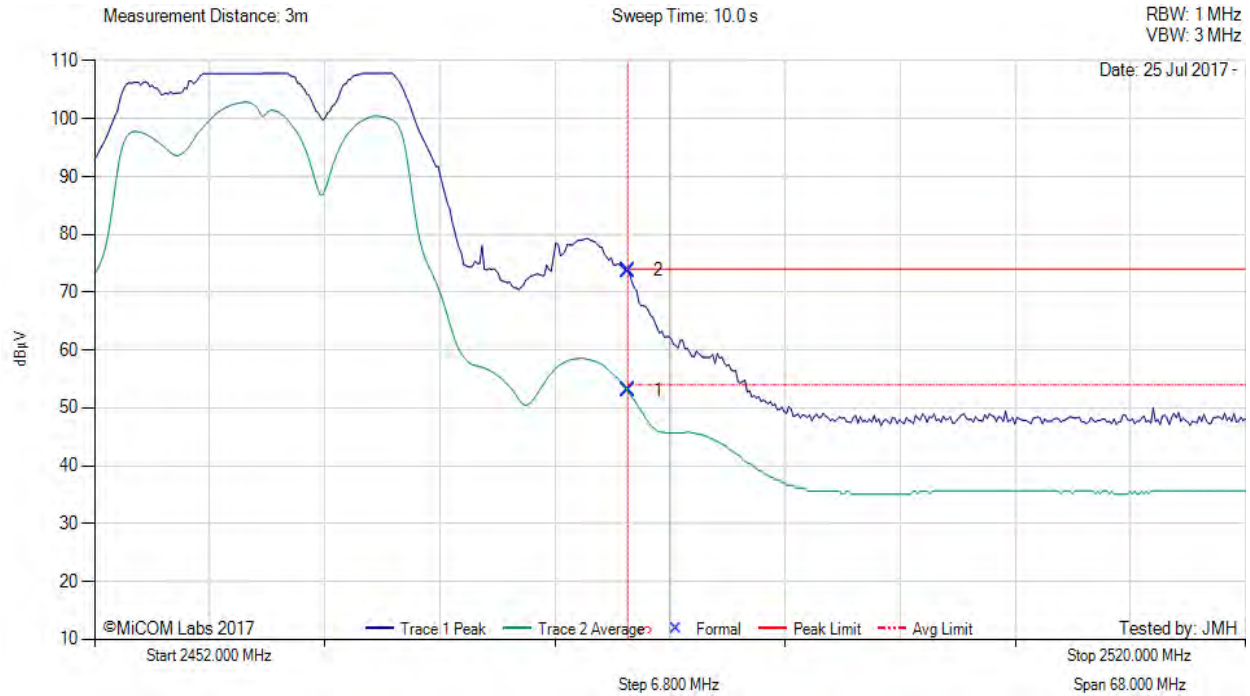


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11g, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-20W, Power Setting: 58, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2483.50	17.88	2.73	32.37	52.98	Max Avg	Horizontal	100	115	54.0	-1.0	Pass
2	2483.50	38.63	2.73	32.37	73.73	Max Peak	Horizontal	100	115	74.0	-0.3	Pass
3	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 g mode.

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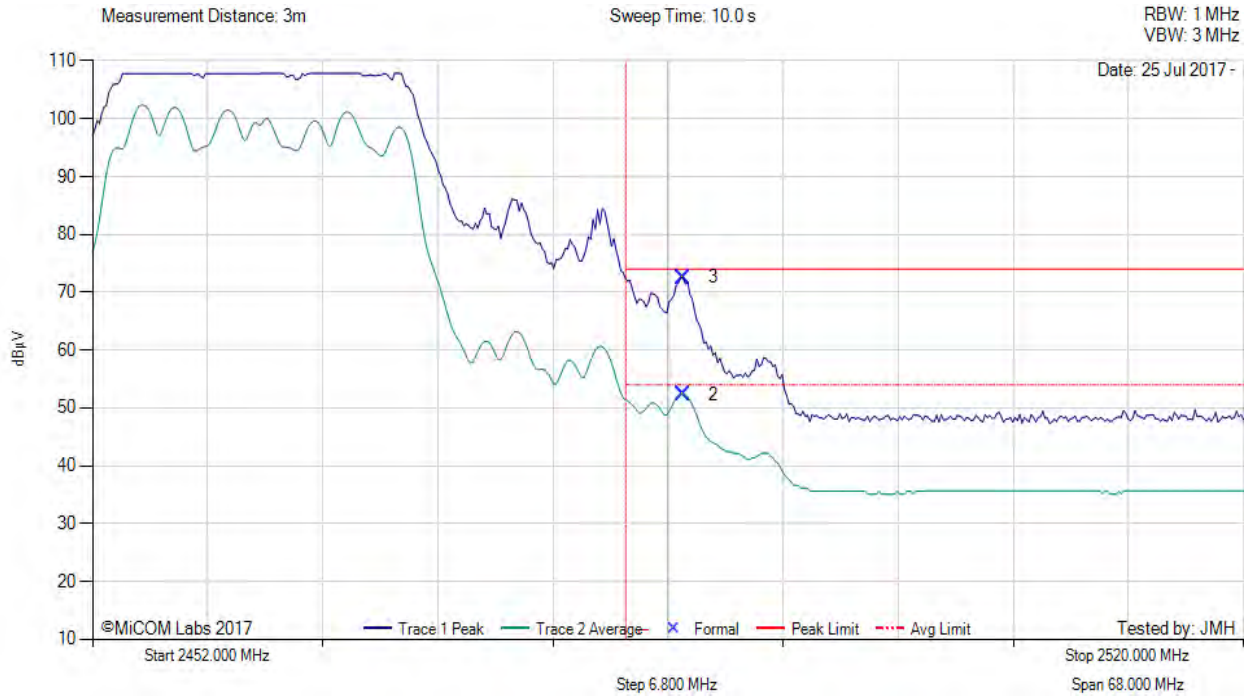


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS



Variant: 802.11n HT-20, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-20W, Power Setting: 60, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
2	2486.89	17.27	2.73	32.37	52.37	Max Avg	Horizontal	100	115	54.0	-1.6	Pass
3	2486.89	37.50	2.73	32.37	72.60	Max Peak	Horizontal	100	115	74.0	-1.4	Pass
1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 n HT20 mode.

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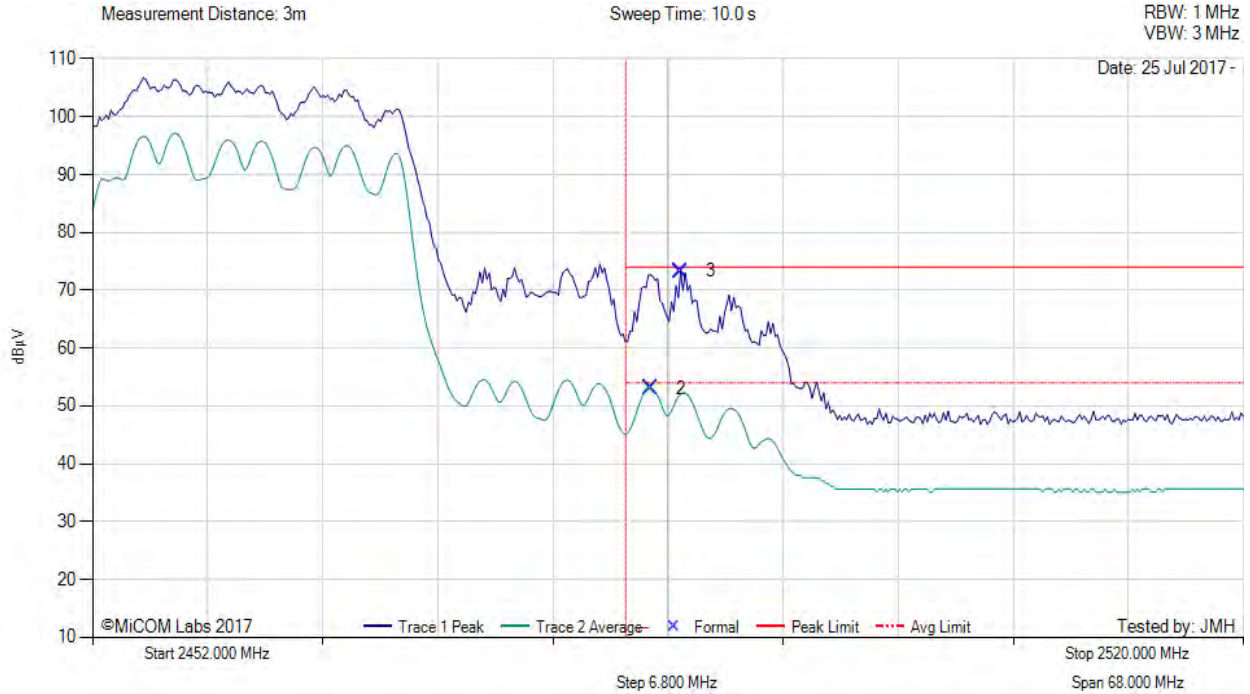


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS



Variant: 802.11n HT-40, Test Freq: 2452.00 MHz, Antenna: Aruba AP-ANT-20W, Power Setting: 50, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
2	2484.98	17.95	2.73	32.37	53.05	Max Avg	Horizontal	100	115	54.0	-1.0	Pass
3	2486.75	38.19	2.73	32.37	73.29	Max Peak	Horizontal	100	115	74.0	-0.7	Pass
1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH9 n HT40 mode.

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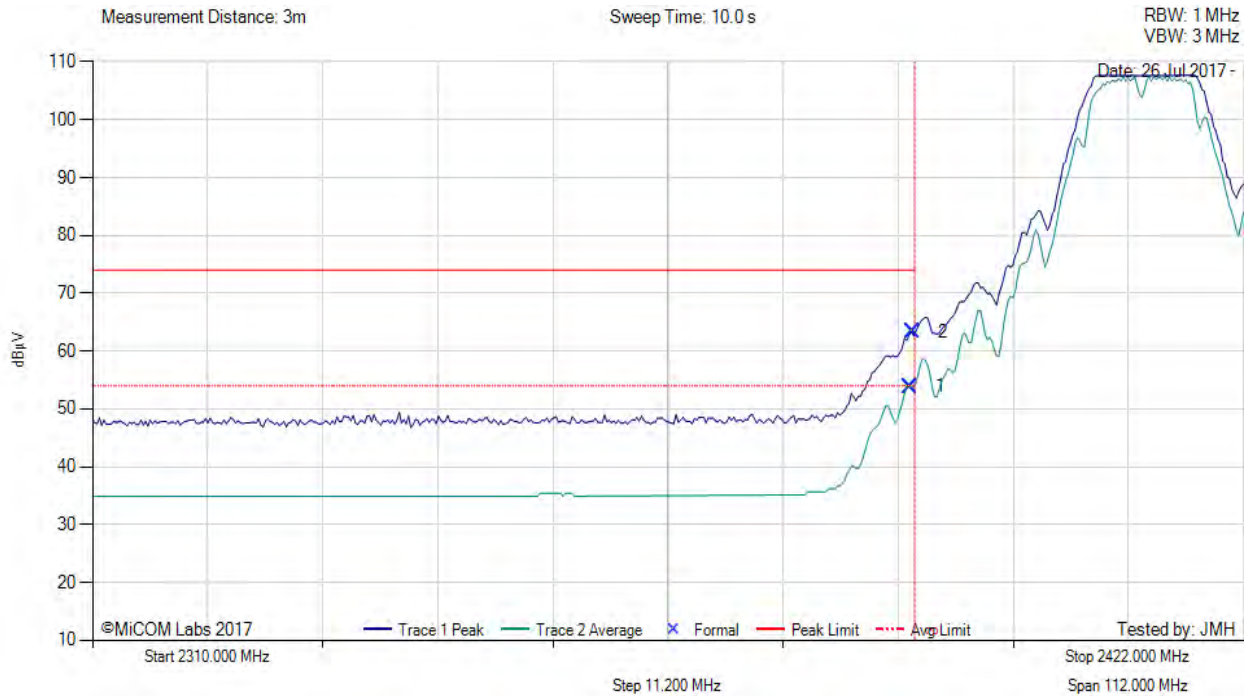
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Antenna: AP-ANT-40



RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11b, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-40, Power Setting: 82, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2389.55	19.16	2.69	32.04	53.89	Max Avg	Horizontal	174	300	54.0	-0.1	Pass
2	2389.78	28.58	2.69	32.04	63.31	Max Peak	Horizontal	174	300	74.0	-10.7	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. connected to laptop outside chamber via telnet.

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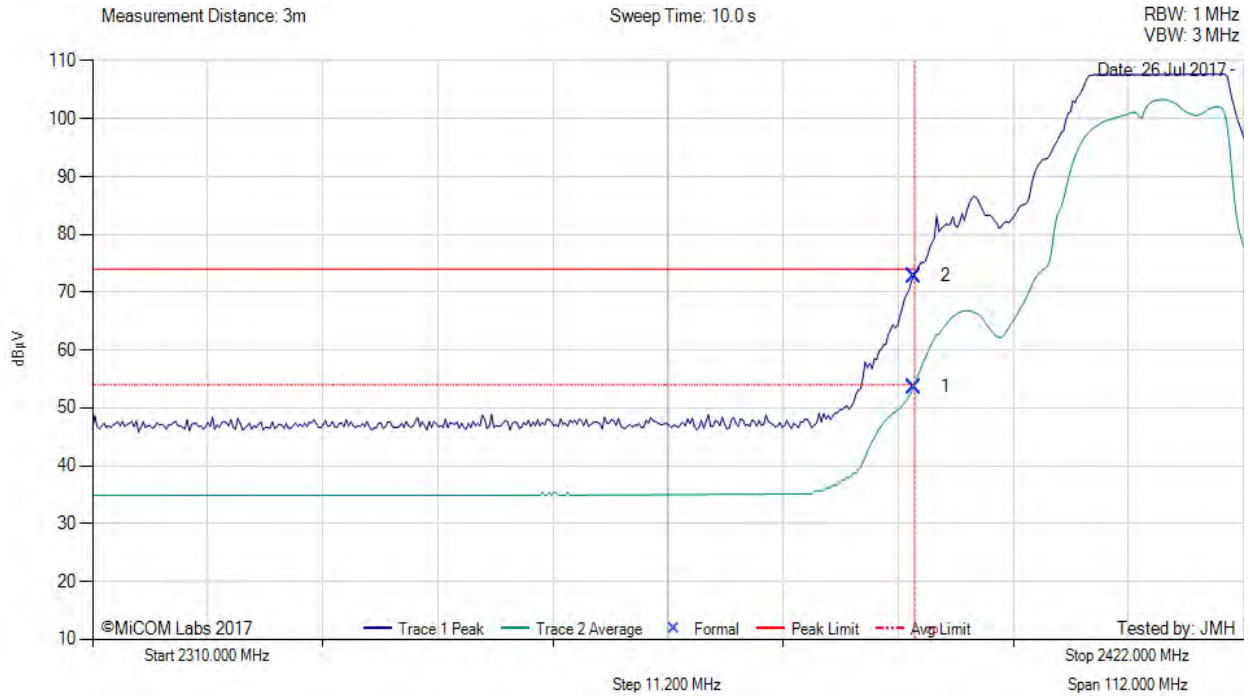


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RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11g, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-40, Power Setting: 69, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2390.00	18.91	2.69	32.04	53.64	Max Avg	Horizontal	174	300	54.0	-0.4	Pass
2	2390.00	38.09	2.69	32.04	72.82	Max Peak	Horizontal	174	300	74.0	-1.2	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 g mode.

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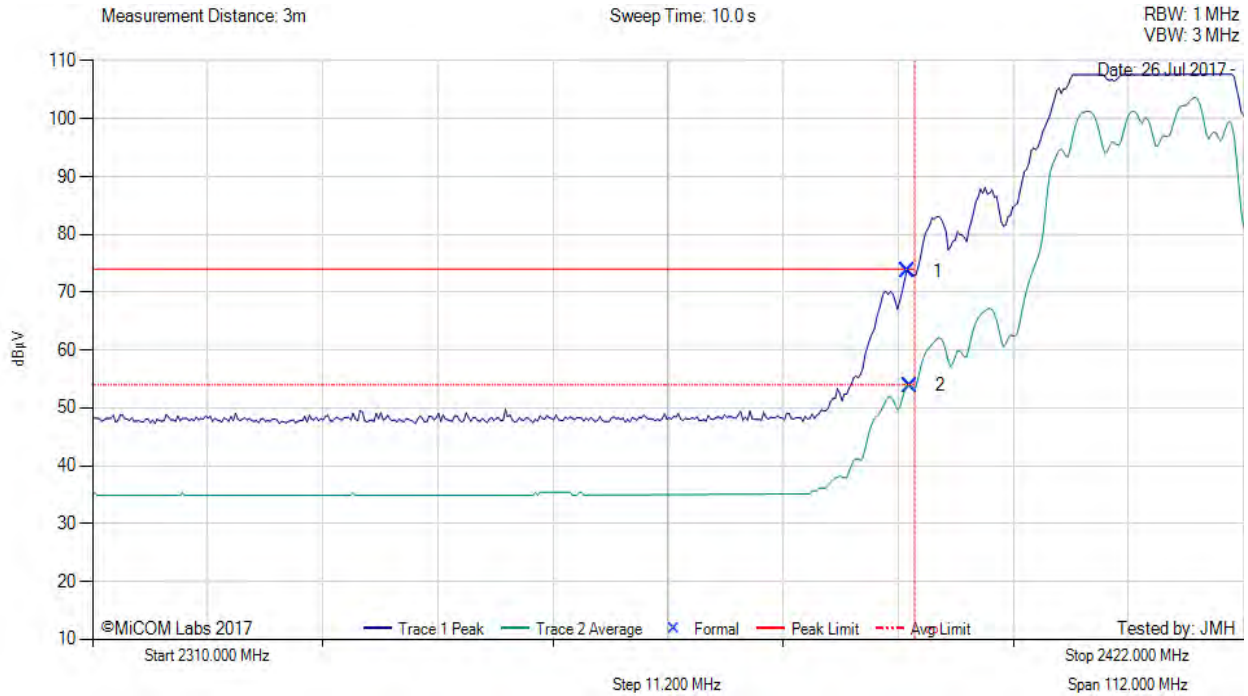


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RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS



Variant: 802.11n HT-20, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-40, Power Setting: 68, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2389.33	38.95	2.68	32.04	73.67	Max Peak	Horizontal	174	300	74.0	-0.3	Pass
2	2389.55	19.16	2.69	32.04	53.89	Max Avg	Horizontal	174	300	54.0	-0.1	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 n HT20 mode.

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RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS



Variant: 802.11n HT-40, Test Freq: 2422.00 MHz, Antenna: Aruba AP-ANT-40, Power Setting: 63, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2387.31	37.31	2.68	32.02	72.01	Max Peak	Horizontal	174	300	74.0	-2.0	Pass
2	2387.53	19.23	2.68	32.03	53.94	Max Avg	Horizontal	174	300	54.0	-0.1	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH3 n HT40 mode.

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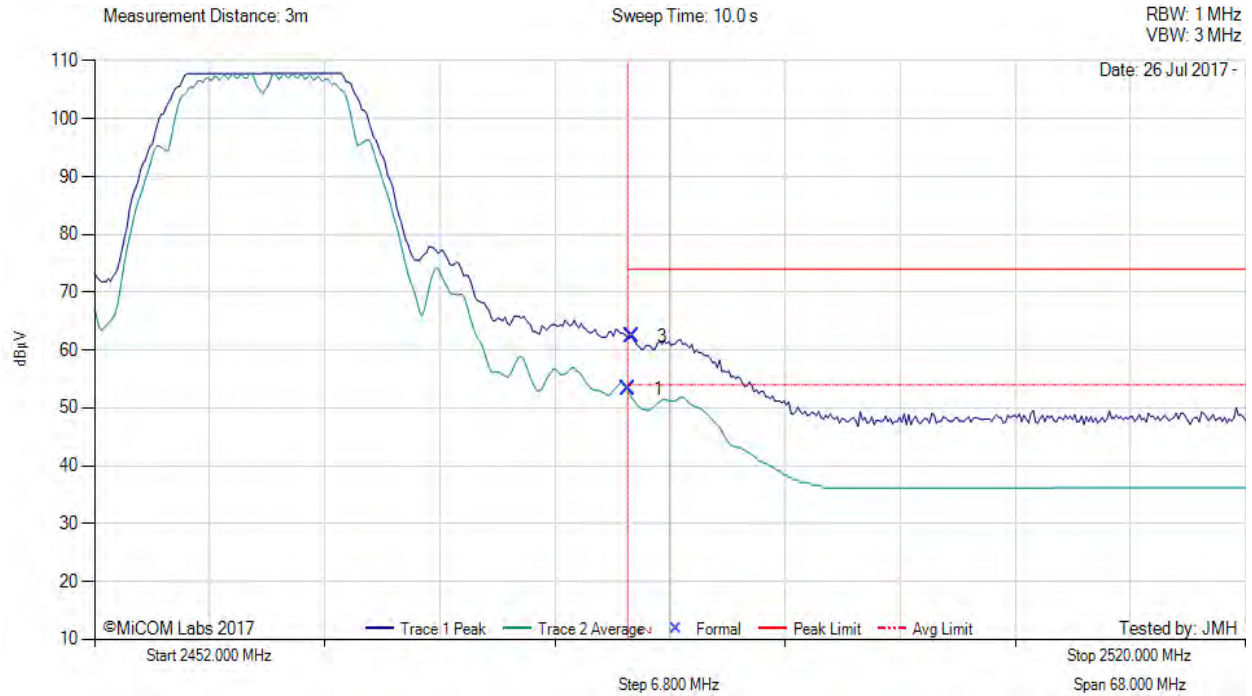


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11b, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-40, Power Setting: 74, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2483.50	18.17	2.73	32.37	53.27	Max Avg	Horizontal	171	310	54.0	-0.7	Pass
3	2483.77	27.22	2.73	32.37	62.32	Max Peak	Horizontal	171	310	74.0	-11.7	Pass
2	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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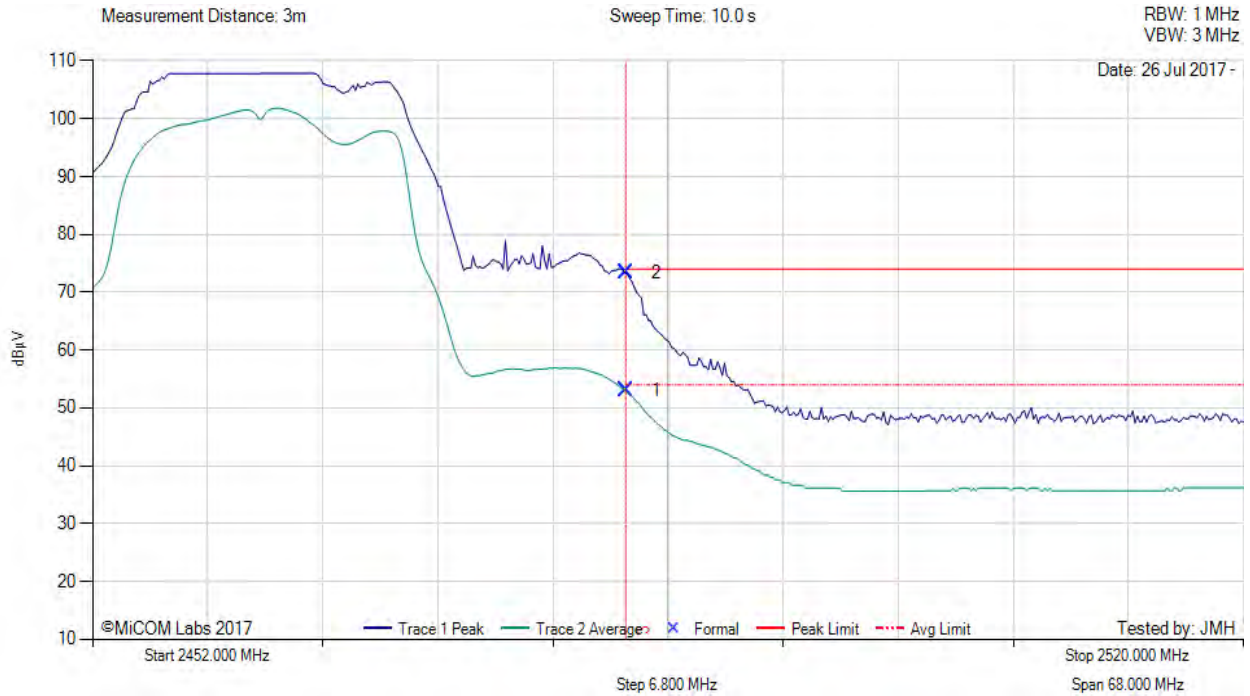


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11g, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-40, Power Setting: 57, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2483.50	17.88	2.73	32.37	52.98	Max Avg	Horizontal	171	310	54.0	-1.0	Pass
2	2483.50	38.23	2.73	32.37	73.33	Max Peak	Horizontal	171	310	74.0	-0.7	Pass
3	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 g mode.

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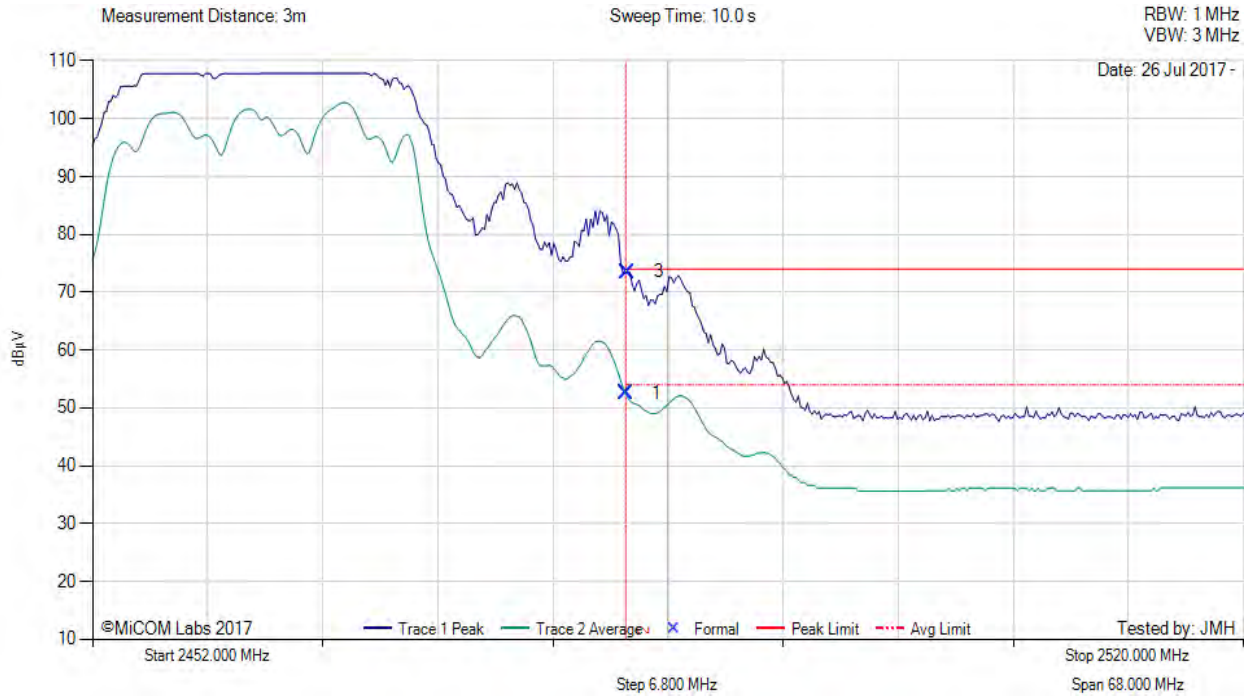


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11n HT-20, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-40, Power Setting: 62, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2483.50	17.42	2.73	32.37	52.52	Max Avg	Horizontal	171	310	54.0	-1.5	Pass
3	2483.64	38.39	2.73	32.37	73.49	Max Peak	Horizontal	171	310	74.0	-0.5	Pass
2	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 n HT20 mode.

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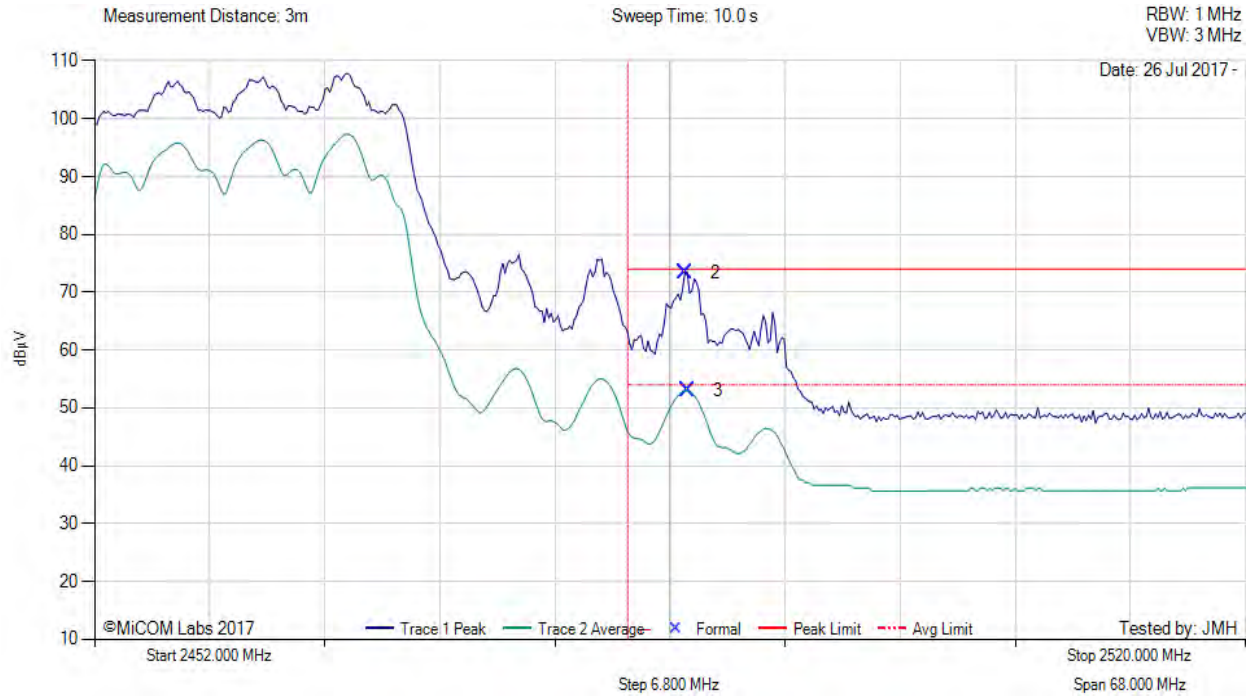


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11n HT-40, Test Freq: 2452.00 MHz, Antenna: Aruba AP-ANT-40, Power Setting: 50, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
2	2486.89	38.35	2.73	32.37	73.45	Max Peak	Horizontal	171	310	74.0	-0.6	Pass
3	2487.02	17.88	2.73	32.37	52.98	Max Avg	Horizontal	171	310	54.0	-1.0	Pass
1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH9 n HT40 mode.

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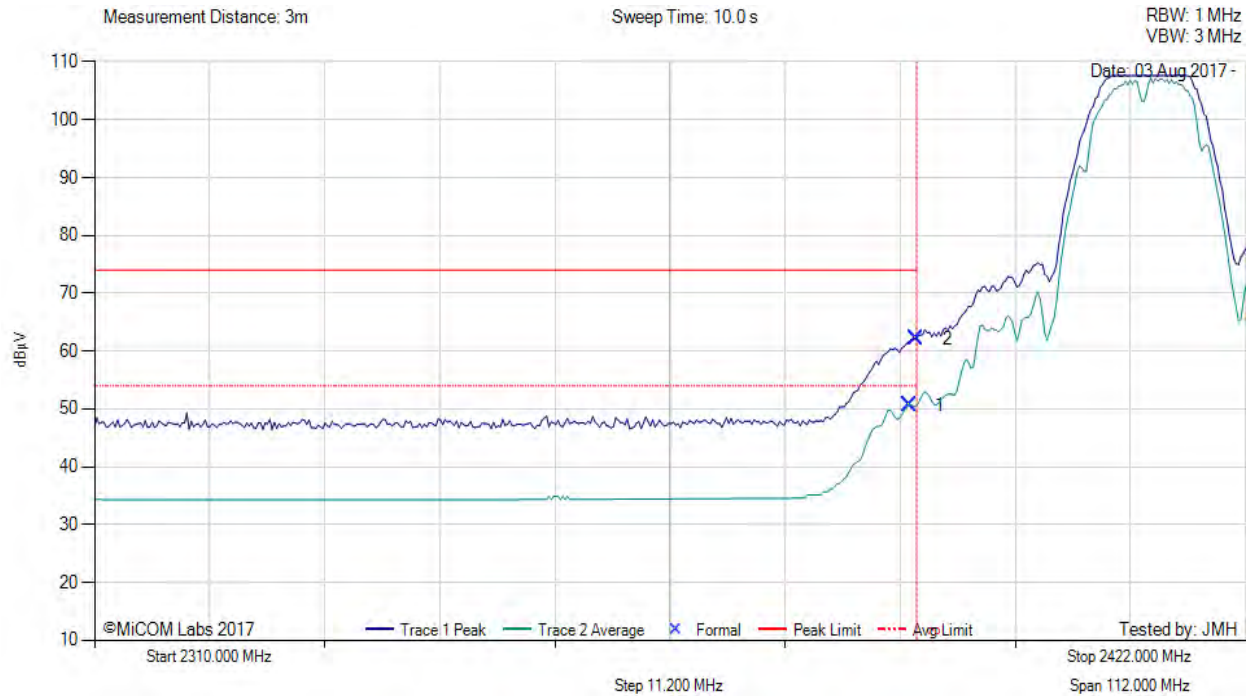
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Antenna: AP-ANT-45



RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11b, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-45, Power Setting: 75, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2389.33	15.99	2.68	32.04	50.71	Max Avg	Horizontal	146	346	54.0	-3.3	Pass
2	2390.00	27.48	2.69	32.04	62.21	Max Peak	Horizontal	146	346	74.0	-11.8	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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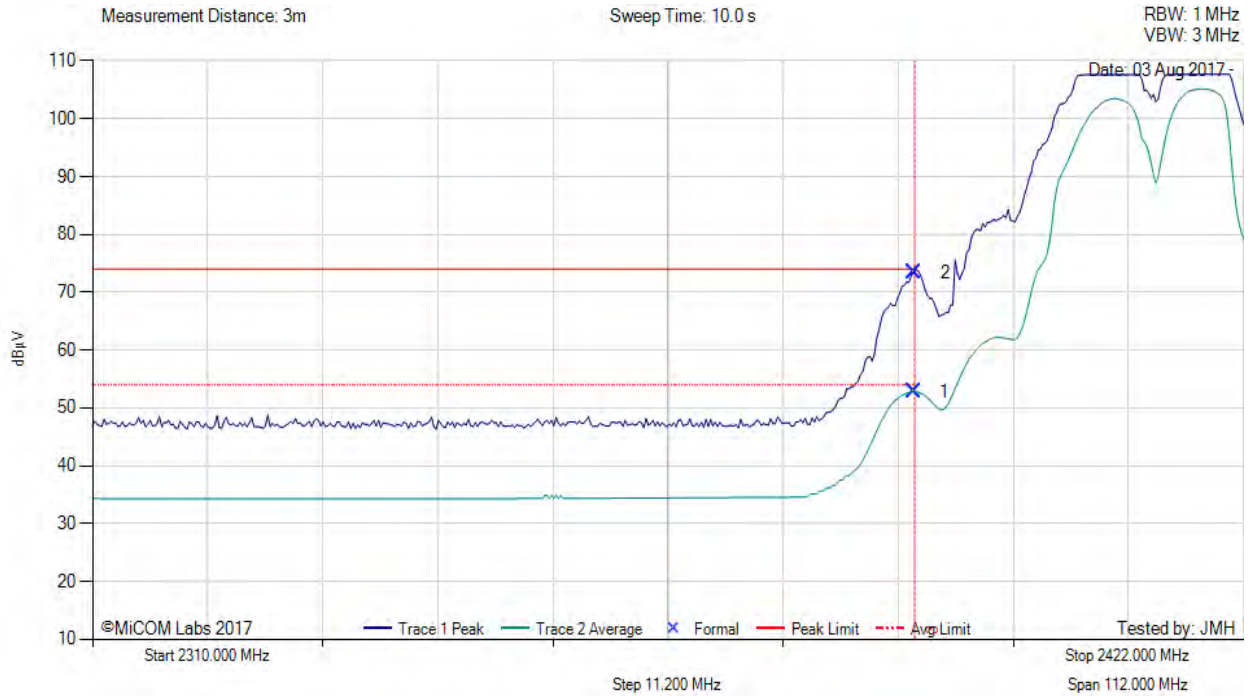


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RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11g, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-45, Power Setting: 58, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2389.90	18.08	2.69	32.04	52.81	Max Avg	Horizontal	146	346	54.0	-1.2	Pass
2	2390.00	38.71	2.69	32.04	73.44	Max Peak	Horizontal	146	346	74.0	-0.6	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 g mode.

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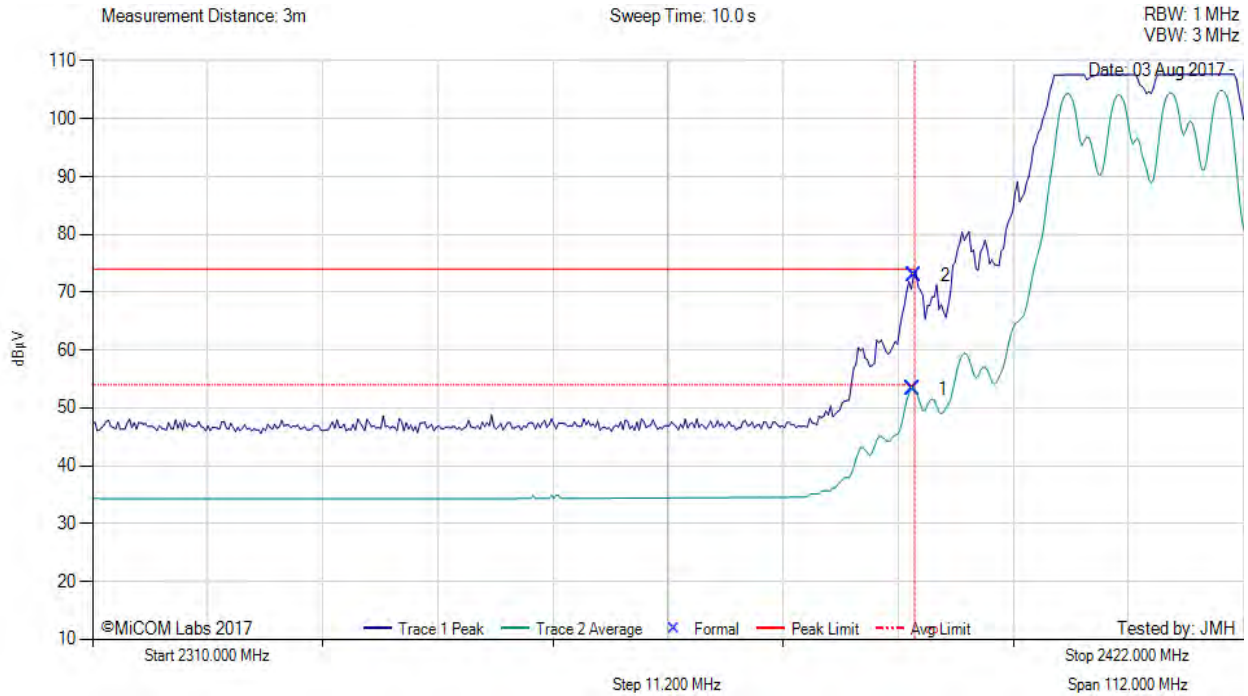


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RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS



Variant: 802.11n HT-20, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-45, Power Setting: 54, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2389.78	18.57	2.69	32.04	53.30	Max Avg	Horizontal	146	346	54.0	-0.7	Pass
2	2390.00	38.24	2.69	32.04	72.97	Max Peak	Horizontal	146	346	74.0	-1.0	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 n HT20 mode.

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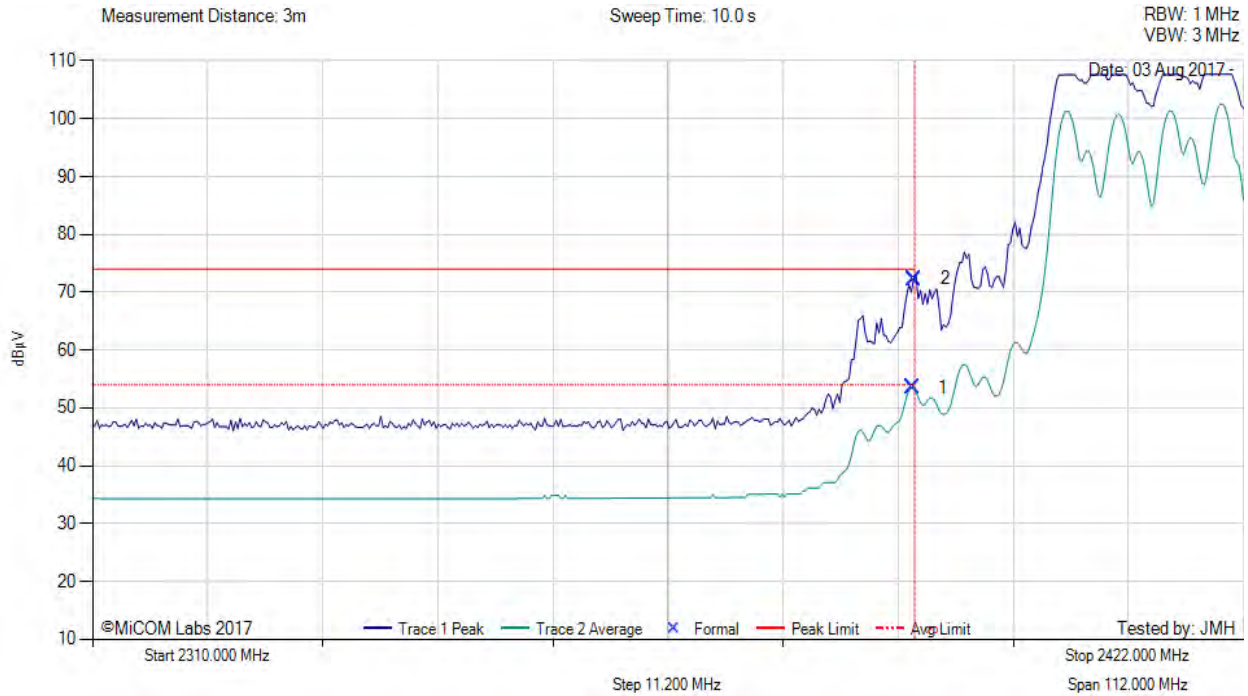


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RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS



Variant: 802.11n HT-40, Test Freq: 2422.00 MHz, Antenna: Aruba AP-ANT-45, Power Setting: 53, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2389.78	18.77	2.69	32.04	53.50	Max Avg	Horizontal	146	346	54.0	-0.5	Pass
2	2390.00	37.61	2.69	32.04	72.34	Max Peak	Horizontal	146	346	74.0	-1.7	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH3 n HT40 mode.

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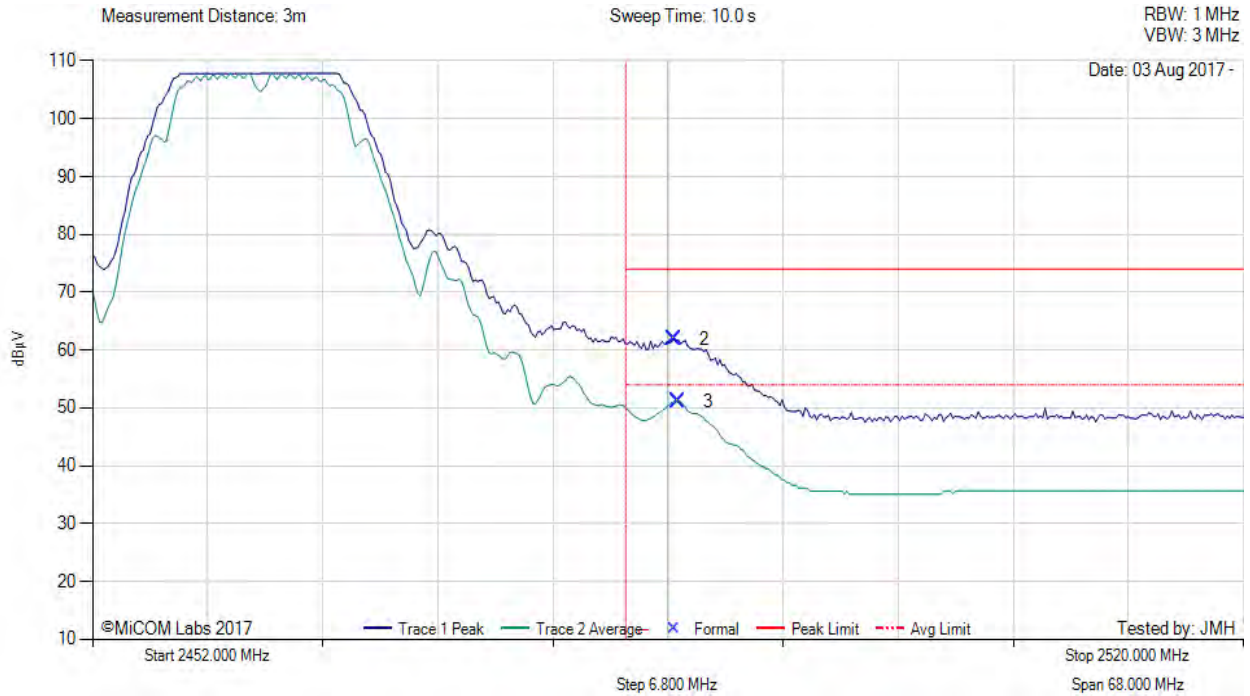


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11b, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-45, Power Setting: 75, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
2	2486.34	26.76	2.73	32.37	61.86	Max Peak	Horizontal	147	331	74.0	-12.1	Pass
3	2486.61	16.09	2.73	32.37	51.19	Max Avg	Horizontal	147	331	54.0	-2.8	Pass
1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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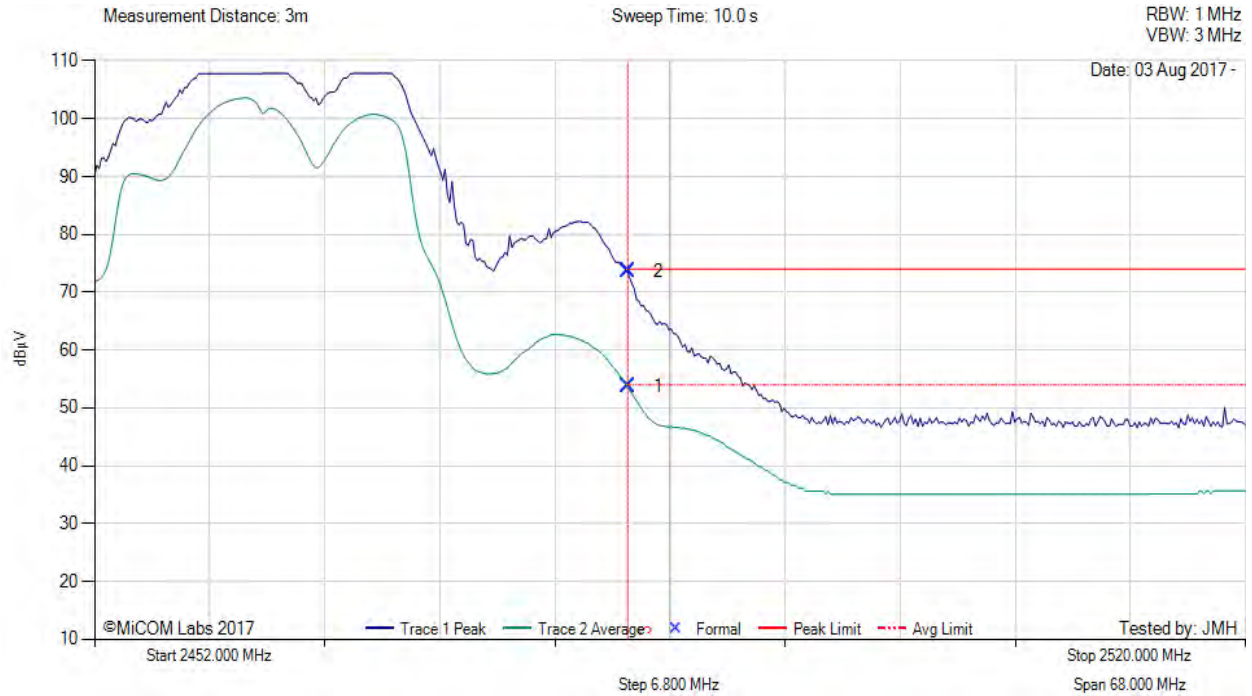


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11g, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-45, Power Setting: 61, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2483.50	18.58	2.73	32.37	53.68	Max Avg	Horizontal	147	331	54.0	-0.3	Pass
2	2483.50	38.49	2.73	32.37	73.59	Max Peak	Horizontal	147	331	74.0	-0.4	Pass
3	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 g mode.

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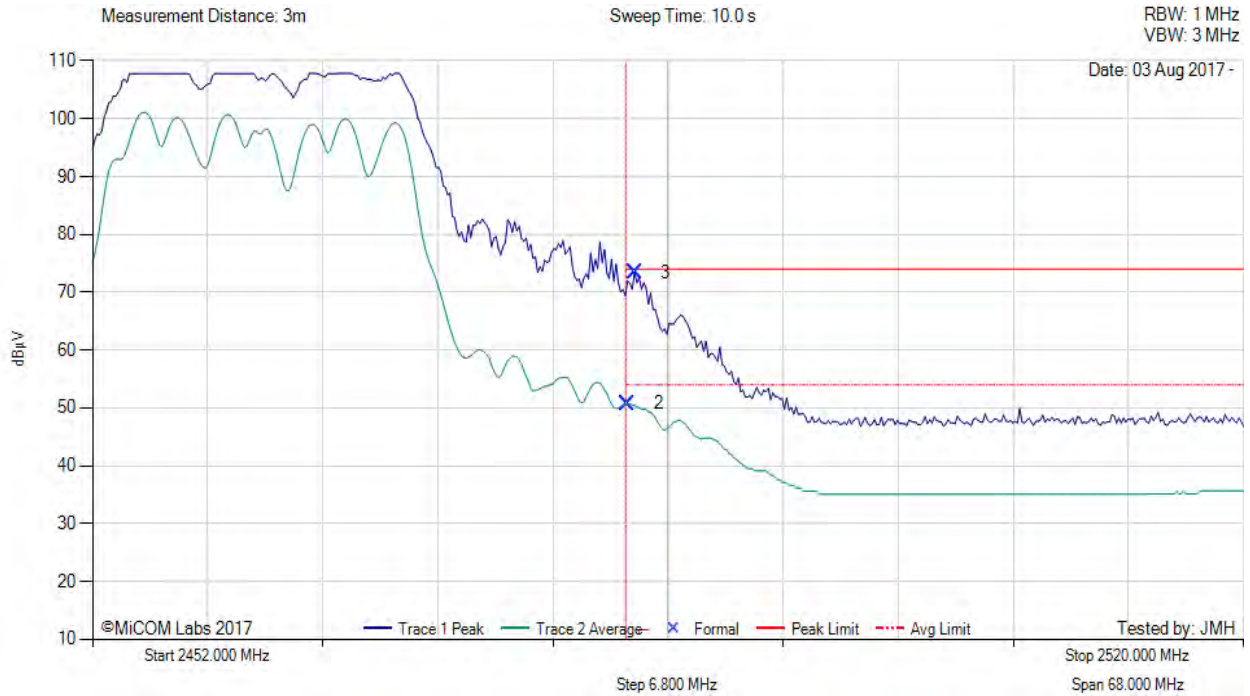


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11n HT-20, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-45, Power Setting: 54, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
2	2483.64	15.62	2.73	32.37	50.72	Max Avg	Horizontal	147	331	54.0	-3.3	Pass
3	2484.05	38.33	2.73	32.37	73.43	Max Peak	Horizontal	147	331	74.0	-0.6	Pass
1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 n HT20 mode.

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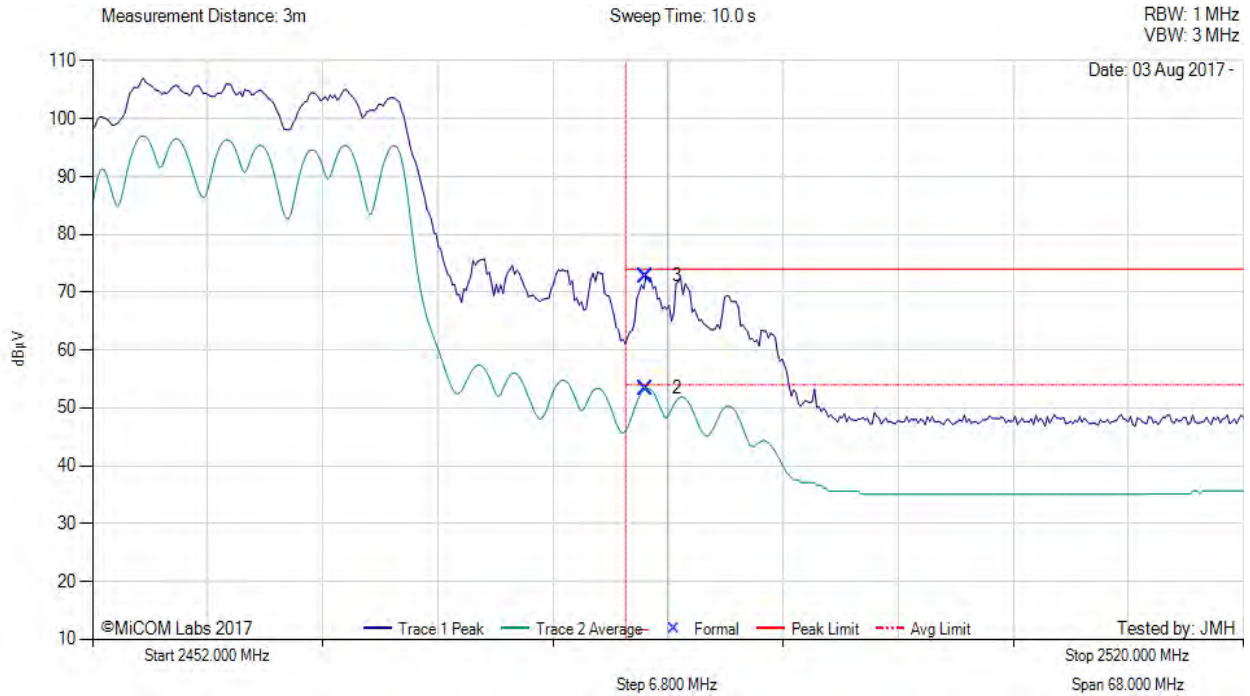


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS



Variant: 802.11n HT-40, Test Freq: 2452.00 MHz, Antenna: Aruba AP-ANT-45, Power Setting: 50, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
2	2484.71	18.31	2.73	32.37	53.41	Max Avg	Horizontal	147	331	54.0	-0.6	Pass
3	2484.71	37.68	2.73	32.37	72.78	Max Peak	Horizontal	147	331	74.0	-1.2	Pass
1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH9 n HT40 mode.

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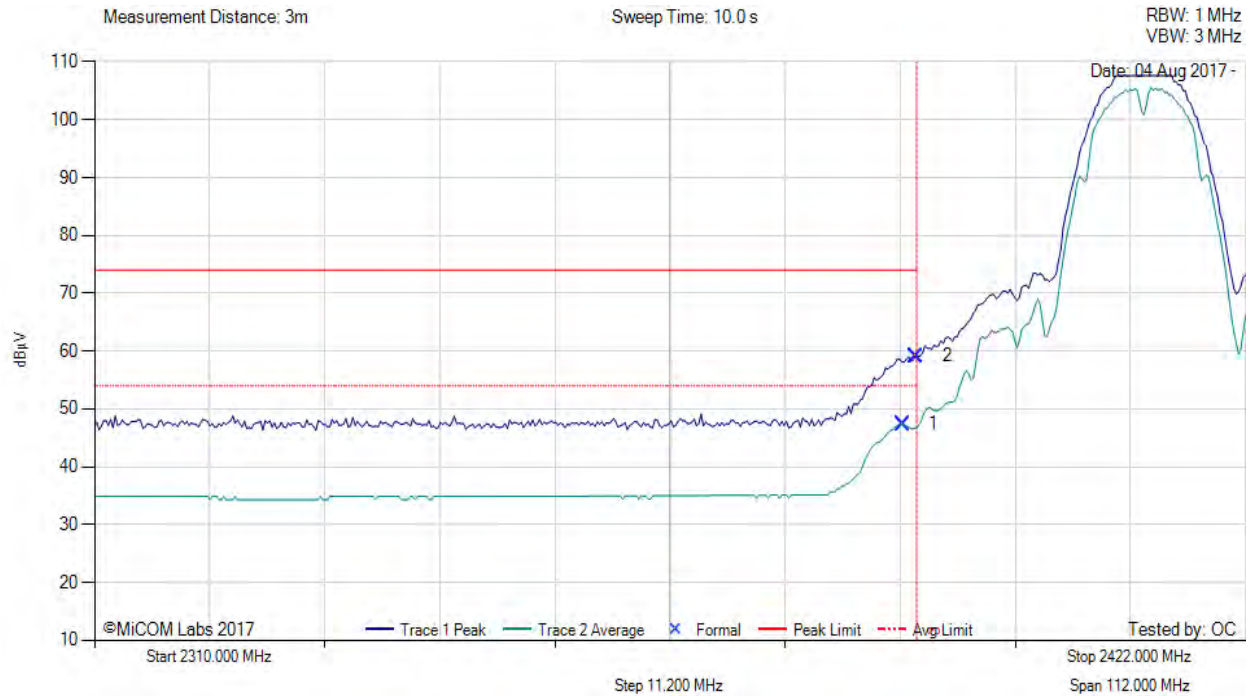
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Antenna: AP-ANT-48



RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11b, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-48, Power Setting: 75, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2388.65	12.69	2.68	32.04	47.41	Max Avg	Horizontal	177	349	54.0	-6.6	Pass
2	2390.00	24.42	2.69	32.04	59.15	Max Peak	Horizontal	177	349	74.0	-14.9	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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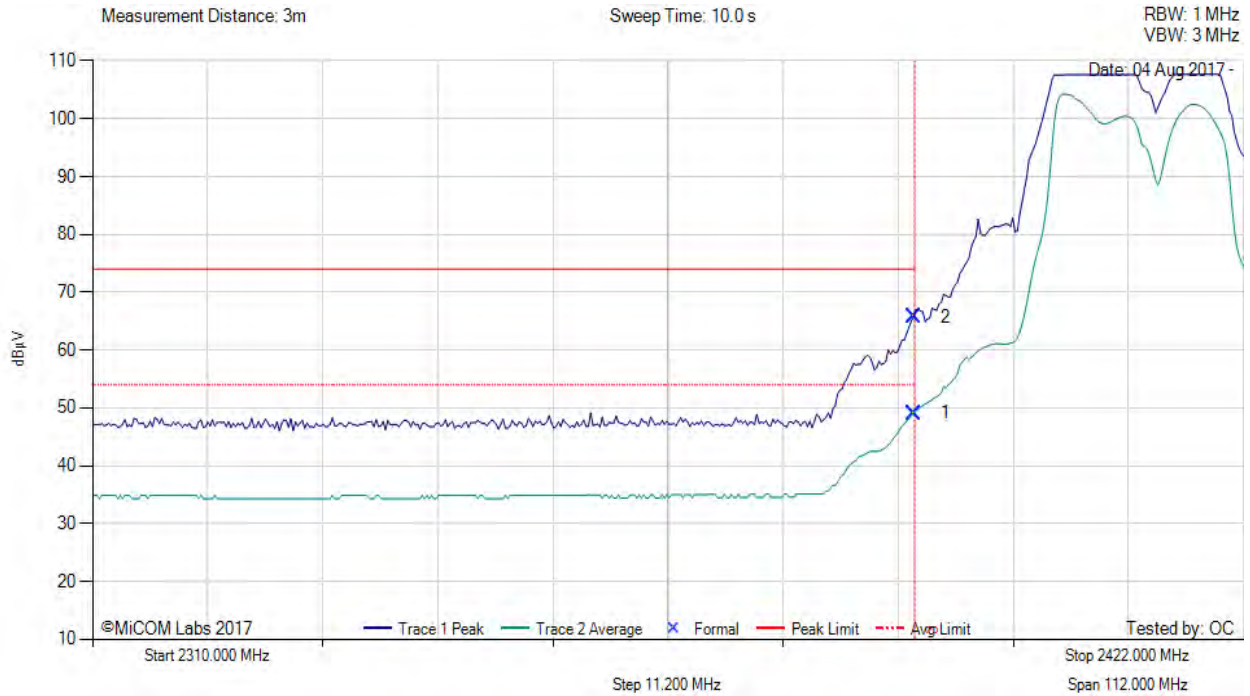


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RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11g, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-48, Power Setting: 61, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2390.00	14.38	2.69	32.04	49.11	Max Avg	Horizontal	177	349	54.0	-4.9	Pass
2	2390.00	31.00	2.69	32.04	65.73	Max Peak	Horizontal	177	349	74.0	-8.3	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 g mode.

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RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS



Variant: 802.11n HT-20, Test Freq: 2412.00 MHz, Antenna: Aruba AP-ANT-48, Power Setting: 61, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2388.43	38.58	2.68	32.03	73.29	Max Peak	Horizontal	177	349	74.0	-0.7	Pass
2	2388.65	17.72	2.68	32.04	52.44	Max Avg	Horizontal	177	349	54.0	-1.6	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 n HT20 mode.

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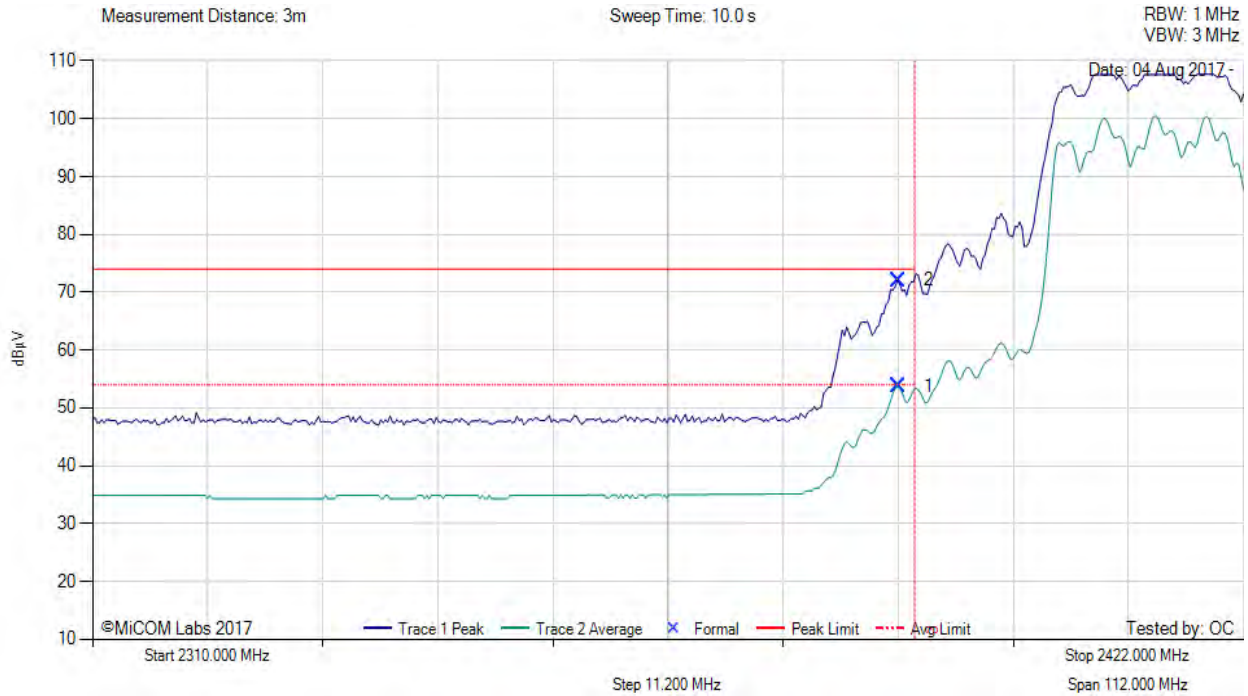


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RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS



Variant: 802.11n HT-40, Test Freq: 2422.00 MHz, Antenna: Aruba AP-ANT-48, Power Setting: 60, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2388.43	19.04	2.68	32.03	53.75	Max Avg	Horizontal	177	349	54.0	-0.3	Pass
2	2388.43	37.41	2.68	32.03	72.12	Max Peak	Horizontal	177	349	74.0	-1.9	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH3 n HT40 mode.

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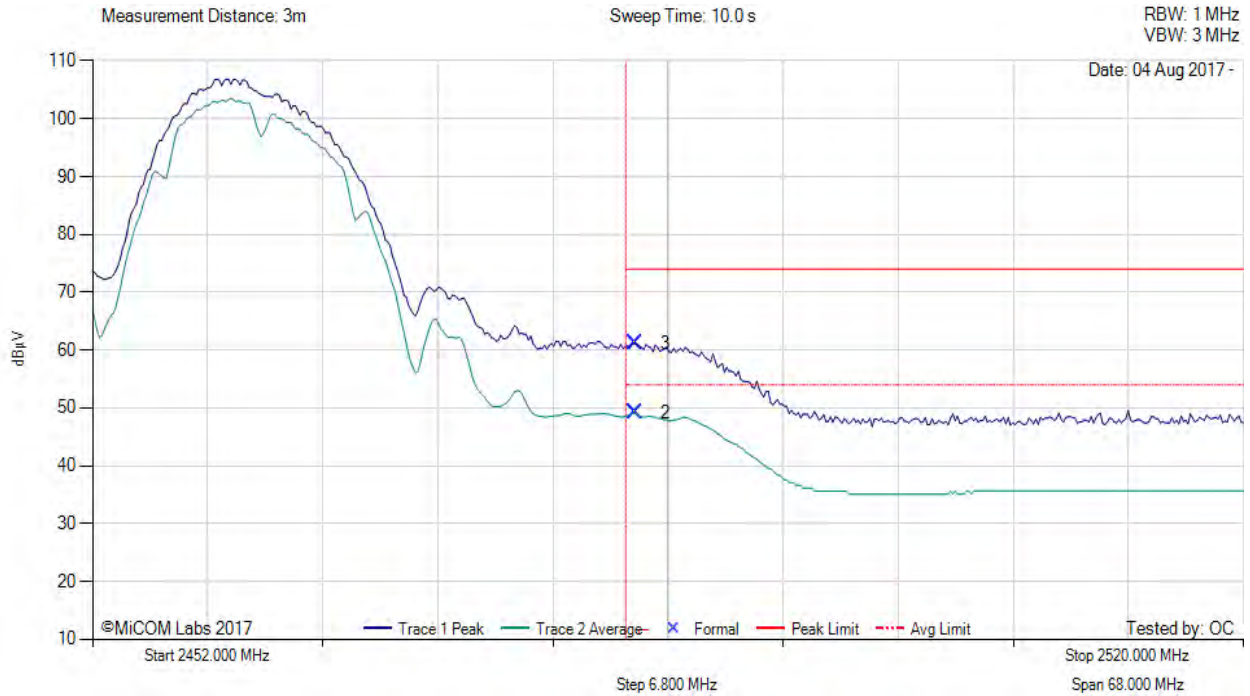


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11b, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-48, Power Setting: 75, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
2	2484.05	14.06	2.73	32.37	49.16	Max Avg	Horizontal	177	349	54.0	-4.8	Pass
3	2484.05	26.07	2.73	32.37	61.17	Max Peak	Horizontal	177	349	74.0	-12.8	Pass
1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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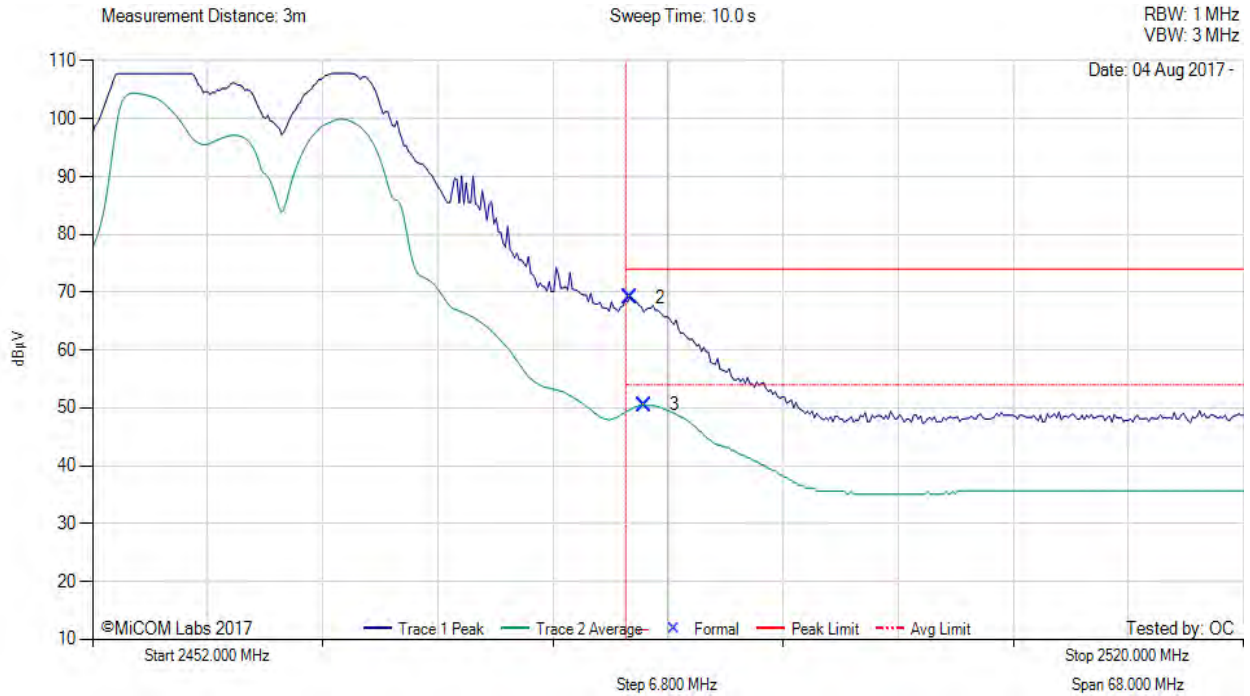


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11g, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-48, Power Setting: 58, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
2	2483.77	34.06	2.73	32.37	69.16	Max Peak	Horizontal	177	349	74.0	-4.8	Pass
3	2484.59	15.43	2.73	32.37	50.53	Max Avg	Horizontal	177	349	54.0	-3.5	Pass
1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 g mode.

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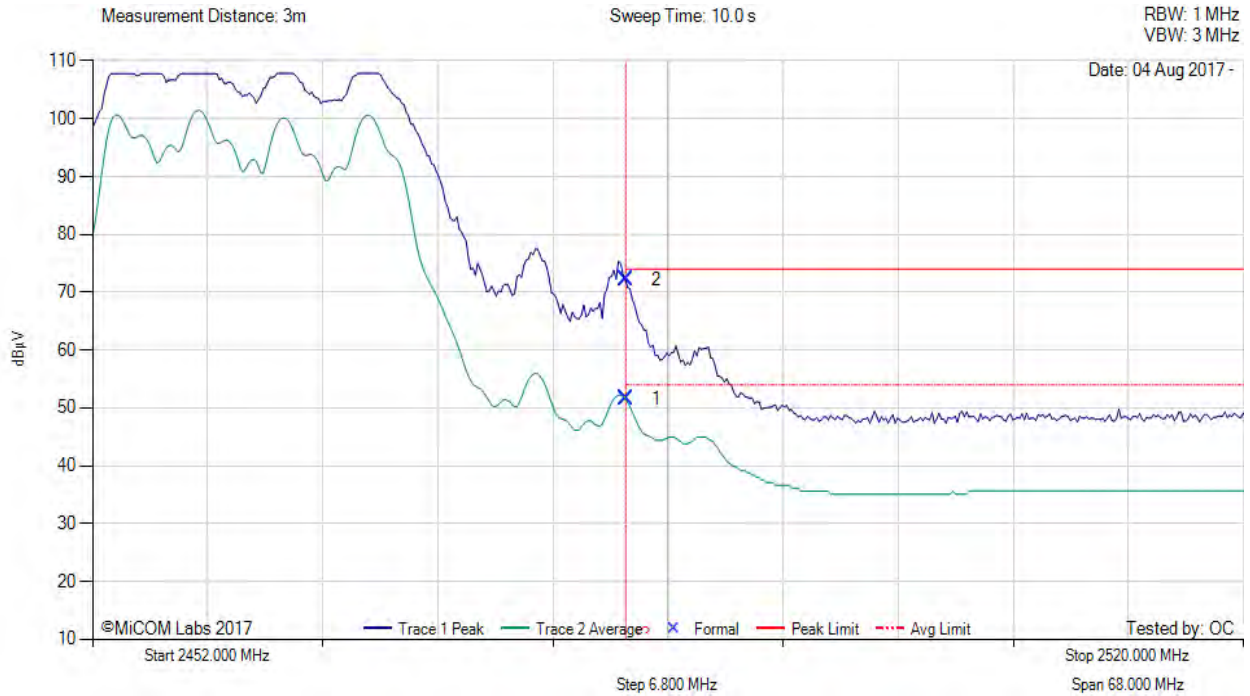


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11n HT-20, Test Freq: 2462.00 MHz, Antenna: Aruba AP-ANT-48, Power Setting: 48, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2483.50	16.44	2.73	32.37	51.54	Max Avg	Horizontal	177	349	54.0	-2.5	Pass
2	2483.50	37.09	2.73	32.37	72.19	Max Peak	Horizontal	177	349	74.0	-1.8	Pass
3	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 n HT20 mode.

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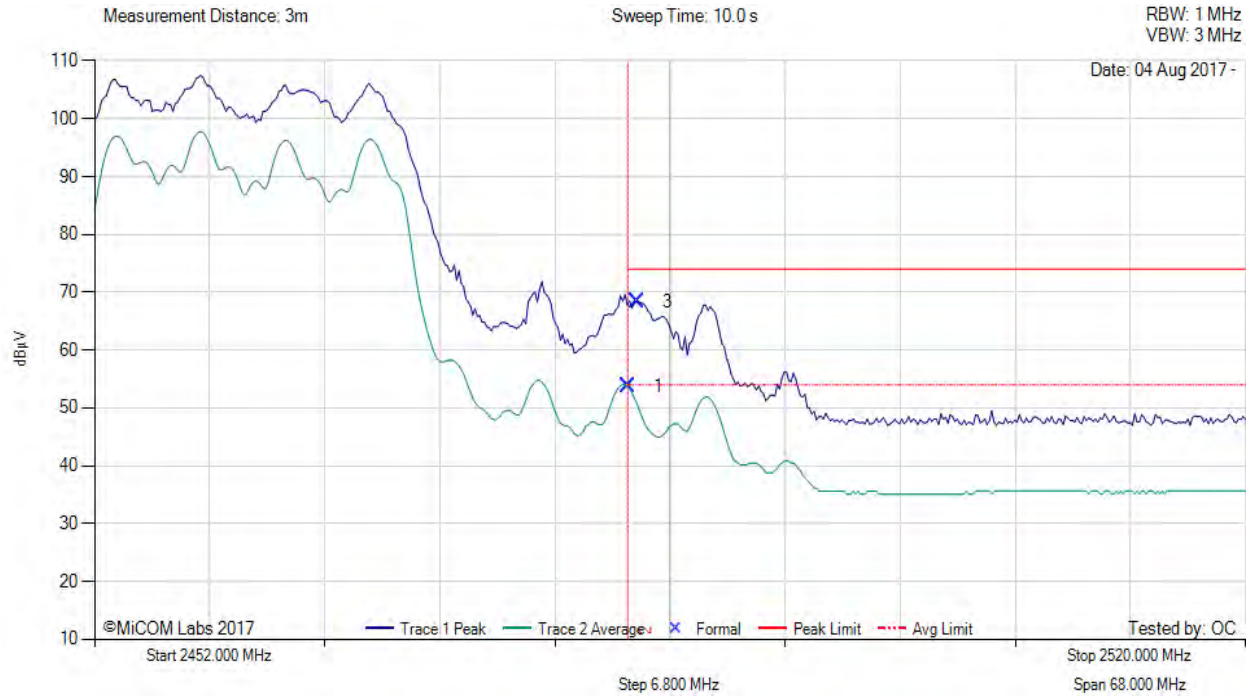


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS



Variant: 802.11n HT-40, Test Freq: 2452.00 MHz, Antenna: Aruba AP-ANT-48, Power Setting: 45, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2483.50	18.72	2.73	32.37	53.82	Max Avg	Horizontal	177	349	54.0	-0.2	Pass
3	2484.05	33.34	2.73	32.37	68.44	Max Peak	Horizontal	177	349	74.0	-5.6	Pass
2	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH9 n HT40 mode.

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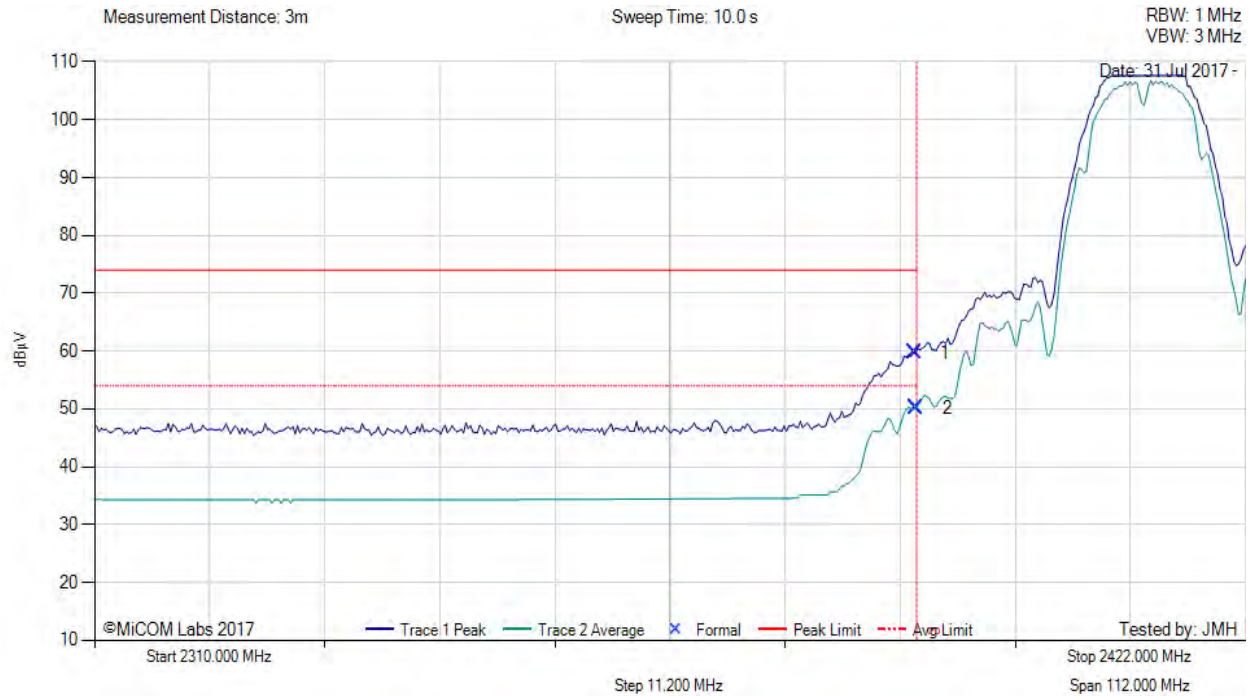
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Antenna: Metal Sheet



RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11b, Test Freq: 2412.00 MHz, Antenna: Aruba Metal Sheet, Power Setting: 75, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2389.78	24.99	2.69	32.04	59.72	Max Peak	Horizontal	180	282	74.0	-14.3	Pass
2	2390.00	15.42	2.69	32.04	50.15	Max Avg	Horizontal	180	282	54.0	-3.9	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 b mode.

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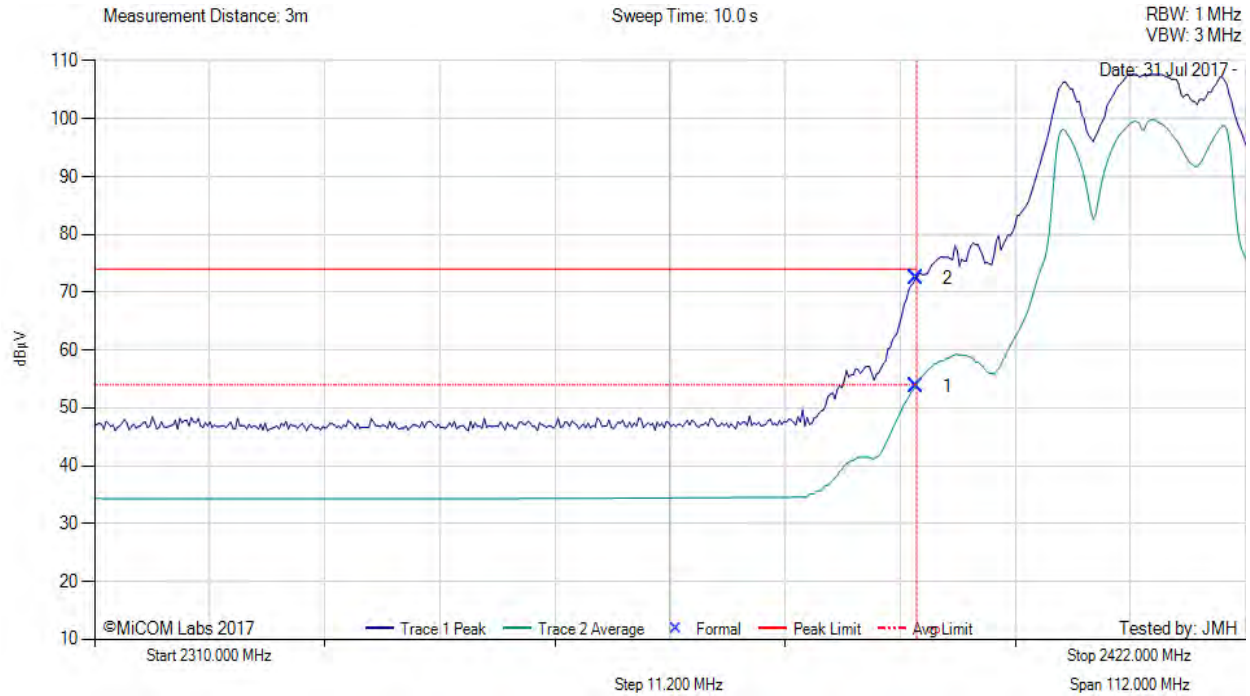


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RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11g, Test Freq: 2412.00 MHz, Antenna: Aruba Metal Sheet, Power Setting: 65, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2390.00	19.04	2.69	32.04	53.77	Max Avg	Horizontal	180	282	54.0	-0.2	Pass
2	2390.00	37.73	2.69	32.04	72.46	Max Peak	Horizontal	180	282	74.0	-1.5	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 g mode.

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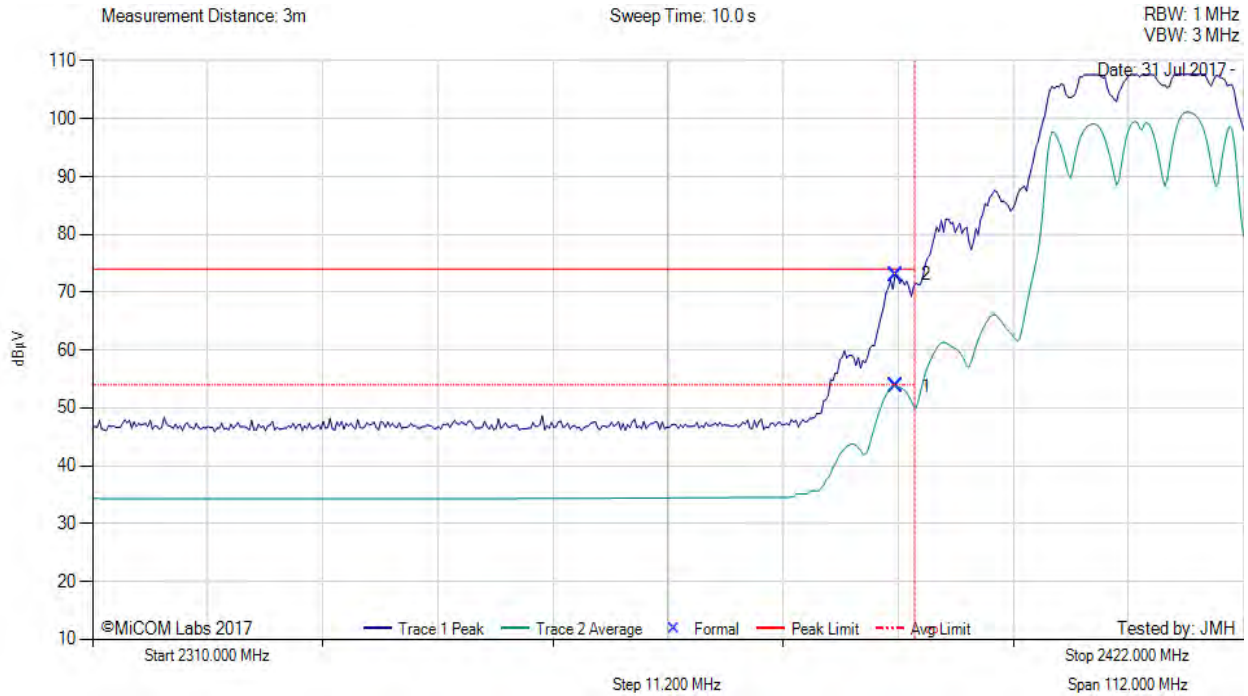


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RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS



Variant: 802.11n HT-20, Test Freq: 2412.00 MHz, Antenna: Aruba Metal Sheet, Power Setting: 67, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2388.20	19.11	2.68	32.03	53.82	Max Avg	Horizontal	180	282	54.0	-0.2	Pass
2	2388.20	38.32	2.68	32.03	73.03	Max Peak	Horizontal	180	282	74.0	-1.0	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH1 n HT20 mode.

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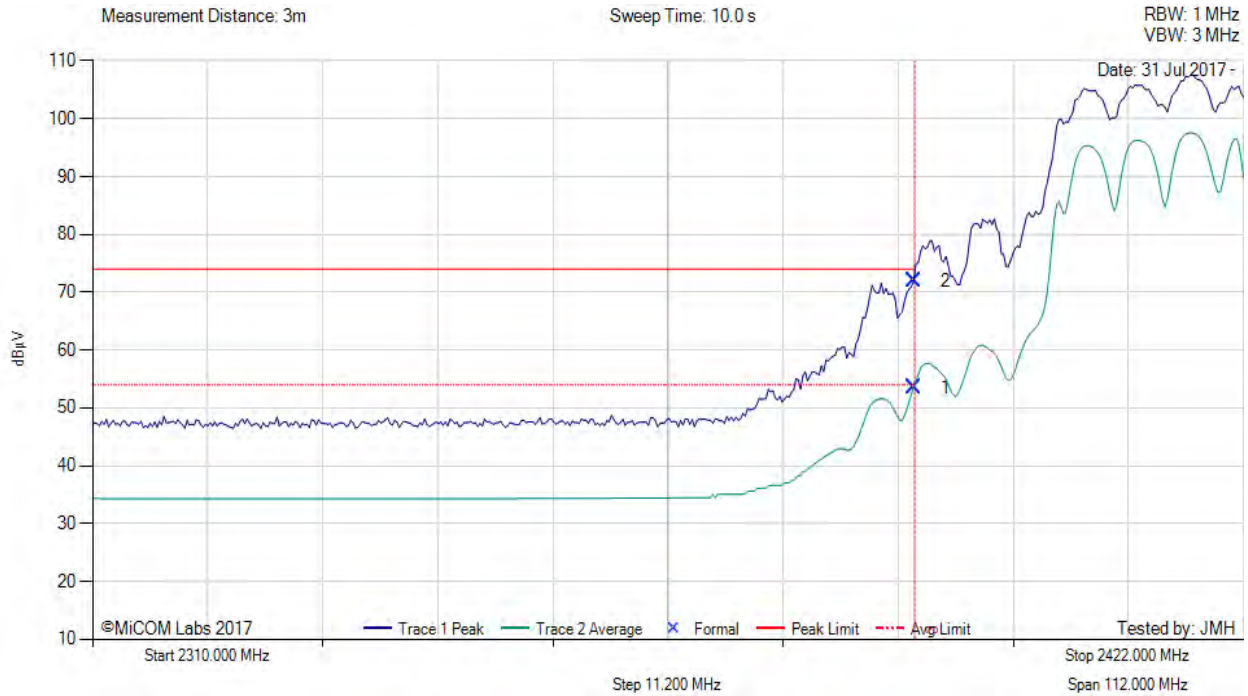


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RADIATED - LOWER RESTRICTED BAND-EDGE EMISSIONS



Variant: 802.11n HT-40, Test Freq: 2422.00 MHz, Antenna: Aruba Metal Sheet, Power Setting: 62, Duty Cycle (%): 99



2310.00 - 2422.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2390.00	18.84	2.69	32.04	53.57	Max Avg	Horizontal	180	282	54.0	-0.4	Pass
2	2390.00	37.19	2.69	32.04	71.92	Max Peak	Horizontal	180	282	74.0	-2.1	Pass
3	2390.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH3 n HT40 mode.

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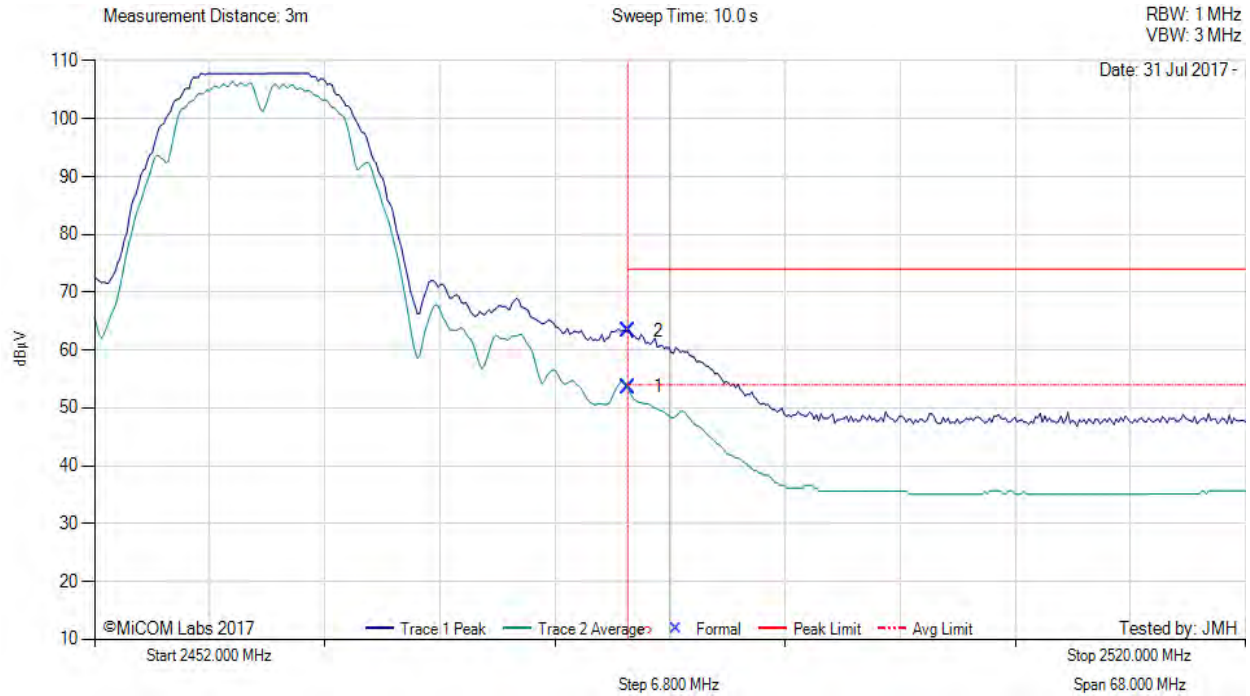


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11b, Test Freq: 2462.00 MHz, Antenna: Aruba Metal Sheet, Power Setting: 71, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2483.50	18.51	2.73	32.37	53.61	Max Avg	Horizontal	163	292	54.0	-0.4	Pass
2	2483.50	28.17	2.73	32.37	63.27	Max Peak	Horizontal	163	292	74.0	-10.7	Pass
3	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 b mode.

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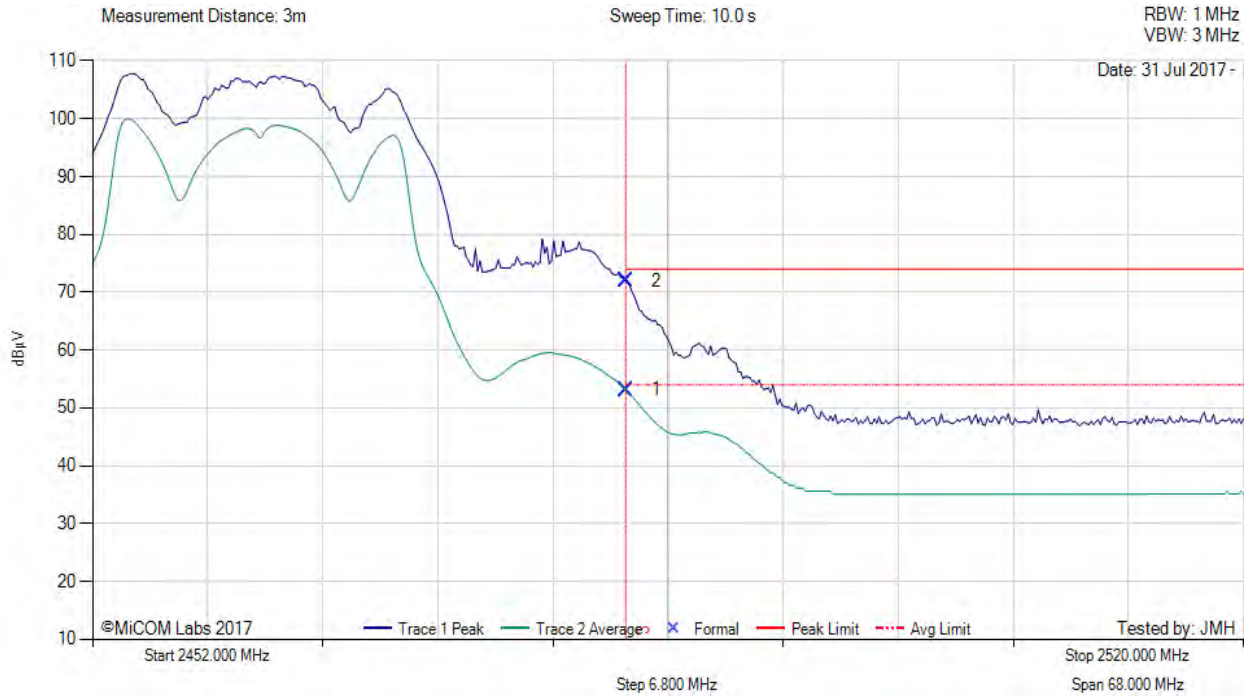


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11g, Test Freq: 2462.00 MHz, Antenna: Aruba Metal Sheet, Power Setting: 59, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2483.50	18.02	2.73	32.37	53.12	Max Avg	Horizontal	163	292	54.0	-0.9	Pass
2	2483.50	36.92	2.73	32.37	72.02	Max Peak	Horizontal	163	292	74.0	-2.0	Pass
3	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 g mode.

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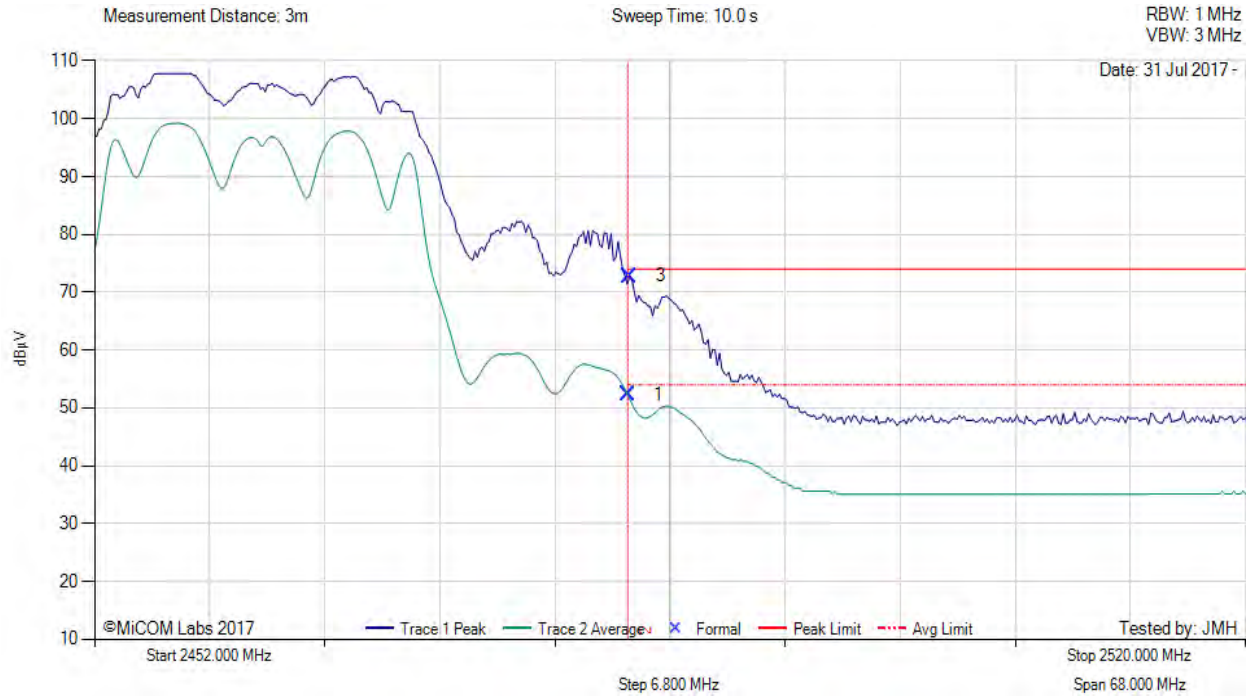


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS

Variant: 802.11n HT-20, Test Freq: 2462.00 MHz, Antenna: Aruba Metal Sheet, Power Setting: 55, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2483.50	17.27	2.73	32.37	52.37	Max Avg	Horizontal	163	292	54.0	-1.6	Pass
3	2483.64	37.68	2.73	32.37	72.78	Max Peak	Horizontal	163	292	74.0	-1.2	Pass
2	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH11 n HT20 mode.

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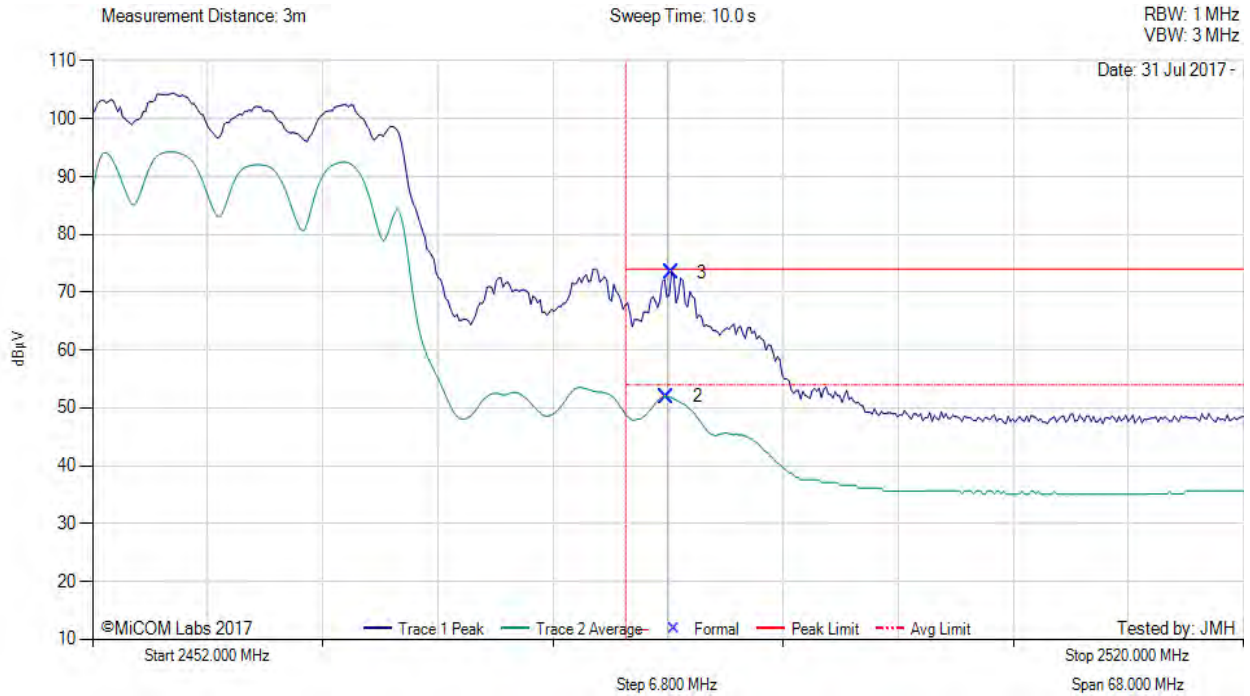


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RADIATED - UPPER RESTRICTED BAND-EDGE EMISSIONS



Variant: 802.11n HT-40, Test Freq: 2452.00 MHz, Antenna: Aruba Metal Sheet, Power Setting: 47, Duty Cycle (%): 99



2452.00 - 2520.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
2	2485.93	16.87	2.73	32.37	51.97	Max Avg	Horizontal	163	292	54.0	-2.0	Pass
3	2486.20	38.24	2.73	32.37	73.34	Max Peak	Horizontal	163	292	74.0	-0.7	Pass
1	2483.50	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber via telnet software. Annotation: 2.4F, 5GF Mode 1 Radio 1 CH9 n HT40 mode.

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