

# RADIATED TEST REPORT



Test of: Mimosa Networks A5c, A5-14, A5-18

To: FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS Bands)

Test Report Serial No.: MIMO09-U5\_Radiated Addendum Rev A

Issue Date: 2<sup>nd</sup> August 2016

Master Document Number	Addendum Reports
MIMO09-U5_Master	MIMO09-U5_Conducted
	MIMO09-U5_Radiated
	MIMO09-U2_(FCC Part15B & ICES-003) A5c
	MIMO09-U3_(FCC Part15B & ICES-003) A5-14, A5-18



**Title:** Mimosa Networks A5c, A4-14, A5-18  
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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'.

Test 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 conducted RF testing.



The MiCOM Labs "[MiTest](#)" Automated Test System" (Patent Pending)

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## 2. TEST RESULTS

### 2.1. Radiated

Radiated Test Conditions for Radiated Spurious and Band-Edge Emissions			
<b>Standard:</b>	FCC CFR 47:15.407	<b>Ambient Temp. (°C):</b>	20.0 - 24.5
<b>Test Heading:</b>	Radiated Spurious and Band-Edge Emissions	<b>Rel. Humidity (%):</b>	32 - 45
<b>Standard Section(s):</b>	15.407 (b), 15.205, 15.209	<b>Pressure (mBars):</b>	999 - 1001
<b>Reference Document(s):</b>	See Normative References		

#### Test Procedure for Radiated Spurious and Band-Edge Emissions

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 Undesirable Measurement were per the Radiated Test Set-up specified in this document.

15.407 (b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.
- (6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.
- (7) The provisions of §15.205 apply to intentional radiators operating under this section.
- (8) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.

#### Limits for Restricted Bands (15.205, 15.209)

**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**

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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:**

The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength (dBμV/m);

$$E = 1000000 \times \sqrt{30P} / 3 \text{ } \mu\text{V/m}$$

where P is the EIRP in Watts

Therefore: -27 dBm/MHz equates to 68.23 dBμV/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

#### 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:

Frequency Band			
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

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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.

(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).

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## 2.1.1. Restricted Band Emissions

### 2.1.1.1. A-18

#### Equipment Configuration for Radiated Spurious - Restricted Band Emissions

<b>Antenna:</b>	A-18	<b>Variant:</b>	802.11n ac20
<b>Antenna Gain (dBi):</b>	8.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5165.00	<b>Data Rate:</b>	6.50 MBit/s
<b>Power Setting:</b>	0x16	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5178.60	57.56	3.69	-11.51	49.74	Fundamental	Vertical	101	160	--	--	
#2	6235.24	49.72	3.91	-8.67	44.96	Peak (NRB)	Horizontal	154	0	--	--	Pass
#3	6895.92	47.72	4.12	-7.56	44.28	Peak (NRB)	Vertical	199	360	--	--	Pass
#4	7310.73	57.31	4.24	-7.29	54.26	Max Peak	Vertical	120	324	74.0	-19.7	Pass
#5	7310.73	35.10	4.24	-7.29	32.05	Max Avg	Vertical	120	324	54.0	-22.0	Pass

Test Notes: EUT A5-18 SN: 2119591877 on 150cm table, powered by Mimosa POE PS 502-00002.

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#### Equipment Configuration for Radiated Spurious - Restricted Band Emissions

<b>Antenna:</b>	A-18	<b>Variant:</b>	802.11n ac20
<b>Antenna Gain (dBi):</b>	8.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5200.00	<b>Data Rate:</b>	6.50 MBit/s
<b>Power Setting:</b>	0x16	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5201.56	73.93	3.66	-11.46	66.13	Fundamental	Vertical	200	1	--	--	
#2	6249.99	52.34	3.93	-8.57	47.70	Peak (NRB)	Horizontal	200	166	--	--	Pass
#3	6933.18	49.38	4.11	-7.49	46.00	Peak (NRB)	Vertical	200	166	--	--	Pass
#4	7310.43	56.94	4.23	-7.29	53.88	Max Peak	Vertical	114	317	74.0	-20.1	Pass
#5	7310.43	35.15	4.23	-7.29	32.09	Max Avg	Vertical	114	317	54.0	-21.9	Pass

Test Notes: EUT A5-18 SN: 2119591877 on 150cm table, powered by Mimosa POE PS 502-00002.

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#### Equipment Configuration for Radiated Spurious - Restricted Band Emissions

<b>Antenna:</b>	A-18	<b>Variant:</b>	802.11n ac20
<b>Antenna Gain (dBi):</b>	8.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5240.00	<b>Data Rate:</b>	6.50 MBit/s
<b>Power Setting:</b>	0x16	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5241.56	73.99	3.63	-11.36	66.26	Fundamental	Vertical	200	1	--	--	
#2	7311.88	57.18	4.24	-7.29	54.13	Max Peak	Vertical	182	315	74.0	-19.9	Pass
#3	7311.88	35.06	4.24	-7.29	32.01	Max Avg	Vertical	182	315	54.0	-22.0	Pass

Test Notes: EUT A5-18 SN: 2119591877 on 150cm table, powered by Mimosa POE PS 502-00002.

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#### Equipment Configuration for Radiated Spurious - Restricted Band Emissions

<b>Antenna:</b>	A-18	<b>Variant:</b>	802.11n HT-20
<b>Antenna Gain (dBi):</b>	Not Applicable	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5745.00	<b>Data Rate:</b>	6.50 MBit/s
<b>Power Setting:</b>	0x16	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBµV	Cable Loss	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	5737.51	57.46	3.82	-10.67	50.61	Fundamental	Vertical	200	0	--	--	
#2	6185.05	57.59	3.91	-9.01	52.49	Peak (NRB)	Vertical	200	181	--	--	Pass
#3	7312.36	56.93	4.24	-7.29	53.88	Max Peak	Vertical	179	315	74.0	-20.1	Pass
#4	7312.36	34.97	4.24	-7.29	31.92	Max Avg	Vertical	179	315	54.0	-22.1	Pass

Test Notes: EUT A5-18 SN: 2119591877 on 150cm table, powered by Mimosa POE PS 502-00002.

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#### Equipment Configuration for Radiated Spurious - Restricted Band Emissions

<b>Antenna:</b>	A5-18	<b>Variant:</b>	802.11n ac20
<b>Antenna Gain (dBi):</b>	Not Applicable	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5785.00	<b>Data Rate:</b>	6.50 MBit/s
<b>Power Setting:</b>	0x15	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5785.57	59.51	3.79	-10.44	52.86	Fundamental	Vertical	200	1	--	--	
#2	6231.12	58.66	3.91	-8.70	53.87	Peak (NRB)	Vertical	200	144	--	--	Pass

Test Notes: EUT A5-18 SN: 2119591877 on 150cm table, powered by Mimosa POE PS 502-00002.

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#### Equipment Configuration for Radiated Spurious - Restricted Band Emissions

<b>Antenna:</b>	A-18	<b>Variant:</b>	802.11n ac20
<b>Antenna Gain (dBi):</b>	Not Applicable	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5825.00	<b>Data Rate:</b>	6.50 MBit/s
<b>Power Setting:</b>	0x15	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBµV	Cable Loss	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	5819.48	63.42	3.82	-10.28	56.96	Fundamental	Vertical	200	18	--	--	
#2	6284.07	58.09	3.92	-8.47	53.54	Peak (NRB)	Vertical	200	41	--	--	Pass

Test Notes: EUT A5-18 SN: 2119591877 on 150cm table, powered by Mimosa POE PS 502-00002.

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#### 2.1.1.2. KP Performance KPPA-5GHZHV4P65-17 X4

##### Equipment Configuration for Radiated Spurious - Restricted Band Emissions

<b>Antenna:</b>	KP Performance KPPA-5GHZHV4P65-17 X4	<b>Variant:</b>	802.11n ac20
<b>Antenna Gain (dBi):</b>	17.30	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5165.00	<b>Data Rate:</b>	6.50 MBit/s
<b>Power Setting:</b>	0x08	<b>Tested By:</b>	JMH

##### Test Measurement Results

Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5188.02	69.48	3.68	-11.49	61.67	Fundamental	Vertical	151	1	--	--	

Test Notes: EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002.5G notch filter added in front of amp to prevent overload

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#### Equipment Configuration for Radiated Spurious - Restricted Band Emissions

<b>Antenna:</b>	KP Performance KPPA-5GHZHV4P65-17 X4	<b>Variant:</b>	802.11n ac20
<b>Antenna Gain (dBi):</b>	17.30	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5200.00	<b>Data Rate:</b>	6.50 MBit/s
<b>Power Setting:</b>	0x08	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5198.76	65.82	3.66	-11.47	58.01	Fundamental	Vertical	101	1	--	--	

Test Notes: EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002. 5G notch filter added in front of amp to prevent overload

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**Serial #:** MIMO09-U5\_Radiated Addendum Rev A  
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#### Equipment Configuration for Radiated Spurious - Restricted Band Emissions

<b>Antenna:</b>	KP Performance KPPA-5GHZHV4P65-17 X4	<b>Variant:</b>	802.11n ac20
<b>Antenna Gain (dBi):</b>	17.30	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5240.00	<b>Data Rate:</b>	6.50 MBit/s
<b>Power Setting:</b>	0x08	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5231.86	74.49	3.63	-11.39	66.73	Fundamental	Vertical	151	1	--	--	

Test Notes: EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002. 5G notch filter added in front of amp to prevent overload

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#### Equipment Configuration for Radiated Spurious - Restricted Band Emissions

<b>Antenna:</b>	KP Performance KPPA-5GHZHV4P65-17 X4	<b>Variant:</b>	802.11n HT-20
<b>Antenna Gain (dBi):</b>	Not Applicable	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5745.00	<b>Data Rate:</b>	6.50 MBit/s
<b>Power Setting:</b>	0x08	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5711.86	62.07	3.83	-10.77	55.13	Fundamental	Vertical	151	0	--	--	
#2	6250.27	52.51	3.93	-8.57	47.87	Peak (NRB)	Horizontal	151	0	--	--	Pass

Test Notes: EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002. 5G notch filter added in front of amp to prevent overload

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#### Equipment Configuration for Radiated Spurious - Restricted Band Emissions

<b>Antenna:</b>	KP Performance KPPA-5GHZHV4P65-17 X4	<b>Variant:</b>	802.11n HT-20
<b>Antenna Gain (dBi):</b>	Not Applicable	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5785.00	<b>Data Rate:</b>	6.50 MBit/s
<b>Power Setting:</b>	0x07	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5786.32	56.25	3.79	-10.44	49.60	Fundamental	Vertical	151	1	--	--	
#2	6227.61	55.24	3.91	-8.72	50.43	Peak (NRB)	Horizontal	151	1	--	--	Pass

Test Notes: EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002. 5G notch filter added in front of amp to prevent overload

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#### Equipment Configuration for Radiated Spurious - Restricted Band Emissions

<b>Antenna:</b>	KP Performance KPPA-5GHZHV4P65-17 X4	<b>Variant:</b>	802.11n HT-20
<b>Antenna Gain (dBi):</b>	Not Applicable	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5825.00	<b>Data Rate:</b>	6.50 MBit/s
<b>Power Setting:</b>	0x07	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5816.80	57.85	3.82	-10.29	51.38	Fundamental	Vertical	151	1	--	--	
#2	6219.21	51.27	3.92	-8.78	46.41	Peak (NRB)	Horizontal	151	1	--	--	Pass
#3	6233.96	53.11	3.91	-8.68	48.34	Peak (NRB)	Horizontal	151	1	--	--	Pass

Test Notes: EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002. 5G notch filter added in front of amp to prevent overload

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## 2.1.2. Restricted Band-Edge Emissions

### 2.1.2.3. A-18

#### RESULTS SUMMARY FOR RADIATED BAND-EDGE EMISSIONS

5150 - 5250 MHz

A-18		Band-Edge Freq	Limit 74.0dBμV/m	Limit 54.0dBμV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBμV/m	dBμV/m	
802.11ac-80	5210.00	5150.00	67.05	52.75	0x14
802.11n ac20	5165.00	5150.00	64.25	50.79	0x16
802.11n ac40	5175.00	5150.00	66.87	53.82	0x14

5725 - 5850 MHz

KP Performance KPPA-5GHZHV4P65-17 X4		Band-Edge Freq	Limit 68.23dBμV/m	Limit 78.23dBμV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBμV/m	dBμV/m	
802.11ac-80	5775.00	5725.00	58.20	59.69	0x15
802.11n ac20	5745.00	5725.00	56.01	58.53	0x16
802.11n ac40	5755.00	5725.00	59.40	61.63	0x15

5725 - 5850 MHz

KP Performance KPPA-5GHZHV4P65-17 X4		Band-Edge Freq	Limit 78.2dBμV/m	Limit 68.2dBμV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBμV/m	dBμV/m	
802.11ac-80	5775.00	5850.00	55.02	54.55	0x15
802.11n ac20	5825.00	5850.00	55.02	55.04	0x16
802.11n ac40	5795.00	5850.00	55.02	54.55	0x15

Click on the links to view the data.

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#### Equipment Configuration for Restricted Lower Band-Edge Emissions

<b>Antenna:</b>	A-18	<b>Variant:</b>	802.11ac-80
<b>Antenna Gain (dBi):</b>	8.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5210.00	<b>Data Rate:</b>	29.30 MBit/s
<b>Power Setting:</b>	0x14	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5147.14	14.96	3.68	34.11	52.75	Max Avg	Vertical	200	71	54.0	-1.3	Pass
#2	5147.55	29.26	3.68	34.11	67.05	Max Peak	Vertical	200	71	74.0	-7.0	Pass
#3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT A5-18 SN: 2119591877 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002.  
Power Reduction to meet band edge limits

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#### Equipment Configuration for Restricted Lower Band-Edge Emissions

<b>Antenna:</b>	A-18	<b>Variant:</b>	802.11n ac20
<b>Antenna Gain (dBi):</b>	8.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5165.00	<b>Data Rate:</b>	6.50 MBit/s
<b>Power Setting:</b>	0x16	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5143.89	26.43	3.70	34.12	64.25	Max Peak	Vertical	200	71	74.0	-9.8	Pass
#2	5150.00	13.01	3.67	34.11	50.79	Max Avg	Vertical	200	71	54.0	-3.2	Pass
#3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002. 5G notch filter added in front of amp to prevent overload

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#### Equipment Configuration for Restricted Lower Band-Edge Emissions

<b>Antenna:</b>	A-18	<b>Variant:</b>	802.11n ac40
<b>Antenna Gain (dBi):</b>	8.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5175.00	<b>Data Rate:</b>	13.50 MBit/s
<b>Power Setting:</b>	0x14	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5147.24	29.08	3.68	34.11	66.87	Max Peak	Vertical	200	71	74.0	-7.1	Pass
#2	5148.05	16.03	3.68	34.11	53.82	Max Avg	Vertical	200	71	54.0	-0.2	Pass
#3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT A5-18 SN: 2119591877 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002. Power reduction to meet band edge limit.

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#### Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions

<b>Antenna:</b>	A-18	<b>Variant:</b>	802.11ac-80
<b>Antenna Gain (dBi):</b>	Not Applicable	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5775.00	<b>Data Rate:</b>	29.30 MBit/s
<b>Power Setting:</b>	0x15	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5714.03	20.04	3.82	34.34	58.20	Max Avg	Vertical	200	103	68.2	-10.0	Pass
#2	5725.00	21.55	3.79	34.35	59.69	Max Avg	Vertical	200	103	78.2	-18.5	Pass
#3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT A5-18 SN: 2119591877 on 150cm table, powered by Mimosa POE PS 502-00002.

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**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
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#### Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions

<b>Antenna:</b>	A-18	<b>Variant:</b>	802.11n ac20
<b>Antenna Gain (dBi):</b>	Not Applicable	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5745.00	<b>Data Rate:</b>	6.50 MBit/s
<b>Power Setting:</b>	0x16	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5715.00	17.86	3.81	34.34	56.01	Max Avg	Vertical	200	103	68.2	-12.2	Pass
#2	5725.00	20.39	3.79	34.35	58.53	Max Avg	Vertical	200	103	78.2	-19.7	Pass
#3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT A5-18 SN: 2119591877 on 150cm table, powered by Mimosa POE PS 502-00002.

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#### Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions

<b>Antenna:</b>	A5-18	<b>Variant:</b>	802.11n ac40
<b>Antenna Gain (dBi):</b>	Not Applicable	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5755.00	<b>Data Rate:</b>	13.50 MBit/s
<b>Power Setting:</b>	0x15	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5715.00	21.25	3.81	34.34	59.40	Max Avg	Vertical	200	103	68.2	-8.8	Pass
#2	5725.00	23.49	3.79	34.35	61.63	Max Avg	Vertical	200	103	78.2	-16.6	Pass
#3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT A5-18 SN: 2119591877 on 150cm table, powered by Mimosa POE PS 502-00002.

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#### Equipment Configuration for 5850 MHz Radiated Band-Edge Emissions

<b>Antenna:</b>	A5-18	<b>Variant:</b>	802.11ac-80
<b>Antenna Gain (dBi):</b>	Not Applicable	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5775.00	<b>Data Rate:</b>	29.30 MBit/s
<b>Power Setting:</b>	0x15	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5850.00	16.58	3.81	34.63	55.02	Max Avg	Vertical	200	108	78.2	-23.2	Pass
#3	5860.00	16.04	3.86	34.65	54.55	Max Avg	Vertical	200	108	68.2	-13.7	Pass
#2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT A5-18 SN: 2119591877 on 150cm table, powered by Mimosa POE PS 502-00002.

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#### Equipment Configuration for 5850 MHz Radiated Band-Edge Emissions

<b>Antenna:</b>	A5-18	<b>Variant:</b>	802.11n HT-20
<b>Antenna Gain (dBi):</b>	Not Applicable	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5825.00	<b>Data Rate:</b>	6.50 MBit/s
<b>Power Setting:</b>	0x15	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5850.00	16.58	3.81	34.63	55.02	Max Avg	Vertical	200	108	78.2	-23.2	Pass
#3	5860.00	16.53	3.86	34.65	55.04	Max Avg	Vertical	200	108	68.2	-13.2	Pass
#2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT A5-18 SN: 2119591877 on 150cm table, powered by Mimosa POE PS 502-00002.

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#### Equipment Configuration for 5850 MHz Radiated Band-Edge Emissions

<b>Antenna:</b>	A5-18	<b>Variant:</b>	802.11n HT-40
<b>Antenna Gain (dBi):</b>	Not Applicable	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5795.00	<b>Data Rate:</b>	13.50 MBit/s
<b>Power Setting:</b>	0x15	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBµV	Cable Loss	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	5850.00	16.58	3.81	34.63	55.02	Max Avg	Vertical	200	108	78.2	-23.2	Pass
#3	5860.00	16.04	3.86	34.65	54.55	Max Avg	Vertical	200	108	68.2	-13.7	Pass
#2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT A5-18 SN: 2119591877 on 150cm table, powered by Mimosa POE PS 502-00002.

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#### 2.1.2.4. KP Performance KPPA-5GHZHV4P65-17 X4

##### RESULTS SUMMARY FOR RADIATED BAND-EDGE EMISSIONS

###### 5150 - 5250 MHz

KP Performance KPPA-5GHZHV4P65-17 X4		Band-Edge Freq	Limit 74.0dBμV/m	Limit 54.0dBμV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBμV/m	dBμV/m	
802.11ac-80	5210.00	5150.00	69.62	52.85	0x07
802.11n ac20	5165.00	5150.00	61.48	48.79	0x08
802.11n ac40	5175.00	5150.00	68.38	52.75	0x05

###### 5725 - 5850 MHz

KP Performance KPPA-5GHZHV4P65-17 X4		Band-Edge Freq	Limit 68.2dBμV/m	Limit 78.2dBμV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBμV/m	dBμV/m	
802.11ac-80	5775.00	0.00	55.13	56.02	0x07
802.11n ac20	5745.00	0.00	55.71	56.71	0x08
802.11n ac40	5755.00	0.00	56.61	58.28	0x07

###### 5725 - 5850 MHz

KP Performance KPPA-5GHZHV4P65-17 X4		Band-Edge Freq	Limit 78.2dBμV/m	Limit 68.2dBμV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBμV/m	dBμV/m	
802.11ac-80	5775.00	0.00	52.86	52.23	0x07
802.11n ac20	5825.00	0.00	54.04	54.08	0x07
802.11n ac40	5795.00	0.00	53.39	52.72	0x07

Click on the links to view the data.

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**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
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#### Equipment Configuration for Restricted Lower Band-Edge Emissions

<b>Antenna:</b>	KP Performance KPPA-5GHZHV4P65-17 X4	<b>Variant:</b>	802.11ac-80
<b>Antenna Gain (dBi):</b>	Not Applicable	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5210.00	<b>Data Rate:</b>	29.30 MBit/s
<b>Power Setting:</b>	0x07	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5147.01	31.83	3.68	34.11	69.62	Max Peak	Vertical	164	358	74.0	-4.4	Pass
#2	5147.67	15.06	3.68	34.11	52.85	Max Avg	Vertical	164	358	54.0	-1.2	Pass
#3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002.  
Power reduction to meet band edge limit

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#### Equipment Configuration for Restricted Lower Band-Edge Emissions

<b>Antenna:</b>	KP Performance KPPA-5GHZHV4P65-17 X4	<b>Variant:</b>	802.11n ac20
<b>Antenna Gain (dBi):</b>	17.30	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5165.00	<b>Data Rate:</b>	6.50 MBit/s
<b>Power Setting:</b>	0x08	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5145.79	23.68	3.69	34.11	61.48	Max Peak	Vertical	164	358	74.0	-12.5	Pass
#2	5150.00	11.01	3.67	34.11	48.79	Max Avg	Vertical	164	358	54.0	-5.2	Pass
#3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002.  
Correction factor includes .9 dB addition for connecting cables

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#### Equipment Configuration for Restricted Lower Band-Edge Emissions

<b>Antenna:</b>	KP Performance KPPA-5GHZHV4P65-17 X4	<b>Variant:</b>	802.11n ac40
<b>Antenna Gain (dBi):</b>	Not Applicable	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5175.00	<b>Data Rate:</b>	13.50 MBit/s
<b>Power Setting:</b>	0x05	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5150.00	14.97	3.67	34.11	52.75	Max Avg	Vertical	164	358	54.0	-1.3	Pass
#2	5150.00	30.60	3.67	34.11	68.38	Max Peak	Vertical	164	358	74.0	-5.6	Pass
#3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002.  
Power reduction to meet band edge limit

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#### Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions

<b>Antenna:</b>	KP Performance KPPA-5GHZHV4P65-17 X4	<b>Variant:</b>	802.11ac-80
<b>Antenna Gain (dBi):</b>	Not Applicable	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5775.00	<b>Data Rate:</b>	29.30 MBit/s
<b>Power Setting:</b>	0x07	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5699.00	16.94	3.86	34.33	55.13	Max Avg	Horizontal	164	362	68.2	-13.1	Pass
#2	5719.91	17.87	3.80	34.35	56.02	Max Avg	Horizontal	164	362	78.2	-22.2	Pass
#3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002

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#### Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions

<b>Antenna:</b>	KP Performance KPPA-5GHZHV4P65-17 X4	<b>Variant:</b>	802.11n ac20
<b>Antenna Gain (dBi):</b>	Not Applicable	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5745.00	<b>Data Rate:</b>	6.50 MBit/s
<b>Power Setting:</b>	0x08	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5715.00	17.62	3.81	34.34	55.77	Max Avg	Horizontal	164	362	68.2	-12.5	Pass
#2	5725.00	18.57	3.79	34.35	56.71	Max Avg	Horizontal	164	362	78.2	-21.5	Pass
#3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002

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#### Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions

<b>Antenna:</b>	KP Performance KPPA-5GHZHV4P65-17 X4	<b>Variant:</b>	802.11n ac40
<b>Antenna Gain (dBi):</b>	Not Applicable	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5755.00	<b>Data Rate:</b>	13.50 MBit/s
<b>Power Setting:</b>	0x07	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5715.00	18.46	3.81	34.34	56.61	Max Avg	Horizontal	164	362	68.2	-11.6	Pass
#2	5719.67	20.13	3.80	34.35	58.28	Max Avg	Horizontal	164	362	78.2	-20.0	Pass
#3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002

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#### Equipment Configuration for 5850 MHz Radiated Band-Edge Emissions

<b>Antenna:</b>	KP Performance KPPA-5GHZHV4P65-17 X4	<b>Variant:</b>	802.11ac-80
<b>Antenna Gain (dBi):</b>	Not Applicable	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5775.00	<b>Data Rate:</b>	29.30 MBit/s
<b>Power Setting:</b>	0x07	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#2	5857.58	14.36	3.85	34.65	52.86	Max Avg	Horizontal	164	362	78.2	-25.4	Pass
#3	5867.79	13.73	3.82	34.68	52.23	Max Avg	Horizontal	164	362	68.2	-16.0	Pass
#1	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002

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#### Equipment Configuration for 5850 MHz Radiated Band-Edge Emissions

<b>Antenna:</b>	KP Performance KPPA-5GHZHV4P65-17 X4	<b>Variant:</b>	802.11n ac20
<b>Antenna Gain (dBi):</b>	Not Applicable	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5825.00	<b>Data Rate:</b>	6.50 MBit/s
<b>Power Setting:</b>	0x07	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5850.00	15.60	3.81	34.63	54.04	Max Avg	Horizontal	164	362	78.2	-24.2	Pass
#3	5871.15	15.59	3.81	34.68	54.08	Max Avg	Horizontal	164	362	68.2	-14.2	Pass
#2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002

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#### Equipment Configuration for 5850 MHz Radiated Band-Edge Emissions

<b>Antenna:</b>	KP Performance KPPA-5GHZHV4P65-17 X4	<b>Variant:</b>	802.11n ac40
<b>Antenna Gain (dBi):</b>	Not Applicable	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5795.00	<b>Data Rate:</b>	13.50 MBit/s
<b>Power Setting:</b>	0x07	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dBµV	Cable Loss	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	5850.00	14.95	3.81	34.63	53.39	Max Avg	Horizontal	164	362	78.2	-24.8	Pass
#3	5860.00	14.21	3.86	34.65	52.72	Max Avg	Horizontal	164	362	68.2	-15.5	Pass
#2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002

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## **A. APPENDIX - GRAPHICAL IMAGES**

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## A.1. Radiated

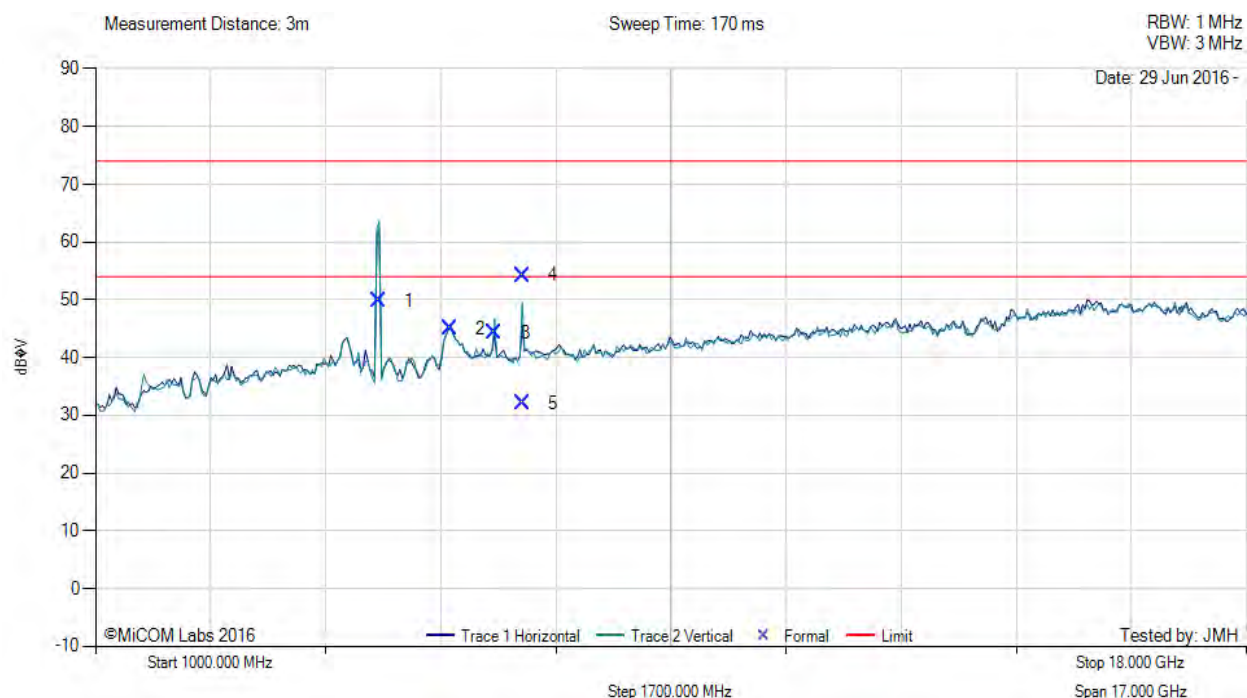
### A.1.1. Restricted Band Emissions

#### A.1.1.1. A5-18



#### RADIATED SPURIOUS - RESTRICTED BAND EMISSIONS

Variant: 802.11n ac20, Test Freq: 5165.00 MHz, Antenna: A5-18, Power Setting: 0x16, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5178.60	57.56	3.69	-11.51	49.74	Fundamental	Vertical	101	160	--	--	
2	6235.24	49.72	3.91	-8.67	44.96	Peak (NRB)	Horizontal	154	0	--	--	Pass
3	6895.92	47.72	4.12	-7.56	44.28	Peak (NRB)	Vertical	199	360	--	--	Pass
4	7310.73	57.31	4.24	-7.29	54.26	Max Peak	Vertical	120	324	74.0	-19.7	Pass
5	7310.73	35.10	4.24	-7.29	32.05	Max Avg	Vertical	120	324	54.0	-22.0	Pass

**Test Notes:** EUT A5-18 SN: 2119591877 on 150cm table, powered by Mimosa POE PS 502-00002.

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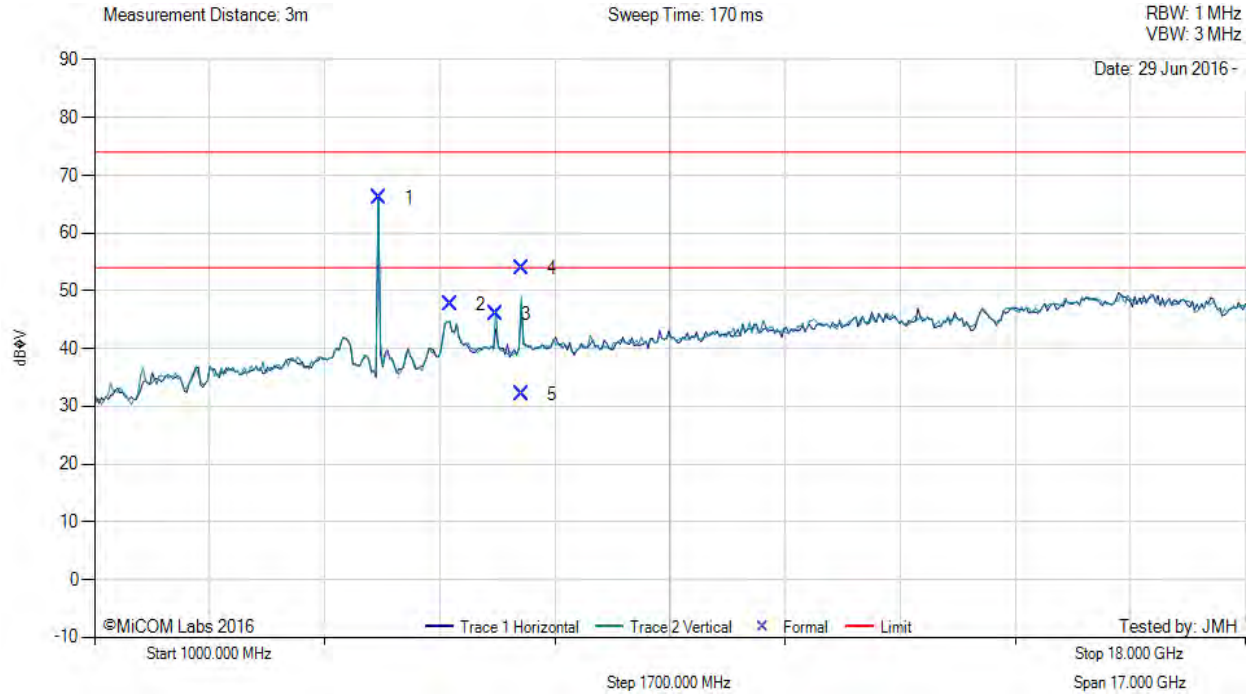


**Title:** Mimosa Networks A5c, A4-14, A5-18  
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#### RADIATED SPURIOUS - RESTRICTED BAND EMISSIONS

Variant: 802.11n ac20, Test Freq: 5200.00 MHz, Antenna: A5-18, Power Setting: 0x16, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5201.56	73.93	3.66	-11.46	66.13	Fundamental	Vertical	200	1	--	--	
2	6249.99	52.34	3.93	-8.57	47.70	Peak (NRB)	Horizontal	200	166	--	--	Pass
3	6933.18	49.38	4.11	-7.49	46.00	Peak (NRB)	Vertical	200	166	--	--	Pass
4	7310.43	56.94	4.23	-7.29	53.88	Max Peak	Vertical	114	317	74.0	-20.1	Pass
5	7310.43	35.15	4.23	-7.29	32.09	Max Avg	Vertical	114	317	54.0	-21.9	Pass

**Test Notes:** EUT A5-18 SN: 2119591877 on 150cm table, powered by Mimosa POE PS 502-00002.

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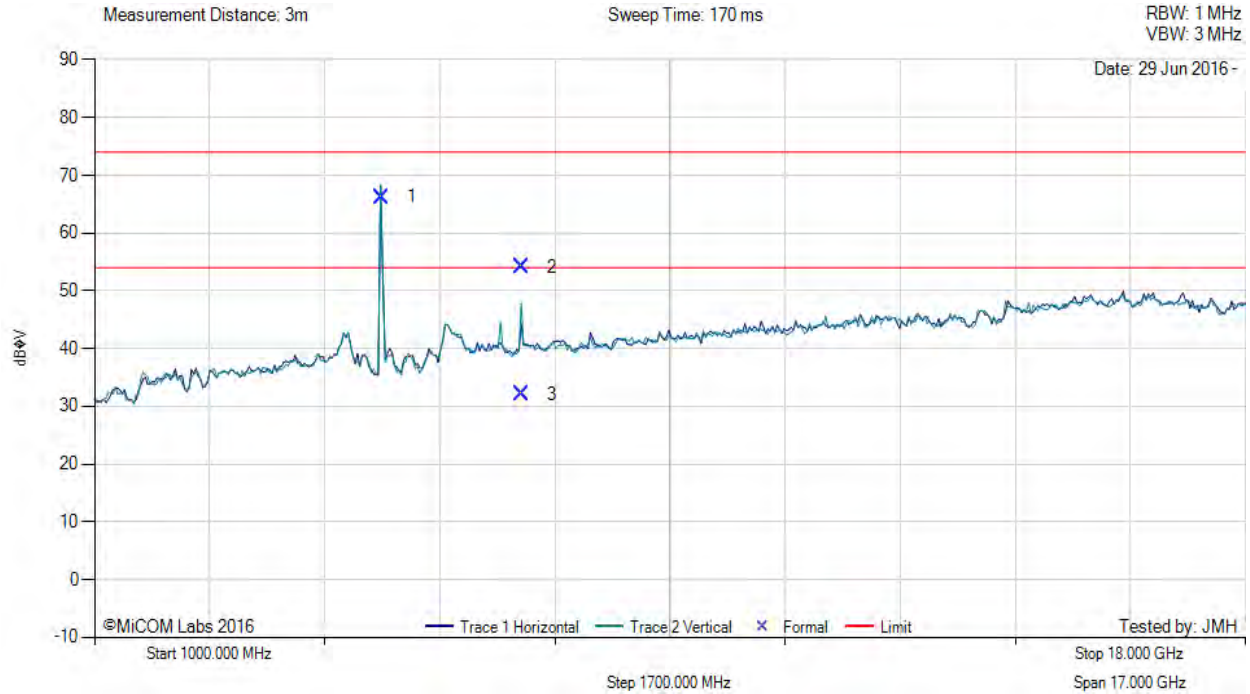


**Title:** Mimosa Networks A5c, A4-14, A5-18  
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#### RADIATED SPURIOUS - RESTRICTED BAND EMISSIONS

Variant: 802.11n ac20, Test Freq: 5240.00 MHz, Antenna: A5-18, Power Setting: 0x16, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5241.56	73.99	3.63	-11.36	66.26	Fundamental	Vertical	200	1	--	--	
2	7311.88	57.18	4.24	-7.29	54.13	Max Peak	Vertical	182	315	74.0	-19.9	Pass
3	7311.88	35.06	4.24	-7.29	32.01	Max Avg	Vertical	182	315	54.0	-22.0	Pass

**Test Notes:** EUT A5-18 SN: 2119591877 on 150cm table, powered by Mimosa POE PS 502-00002.

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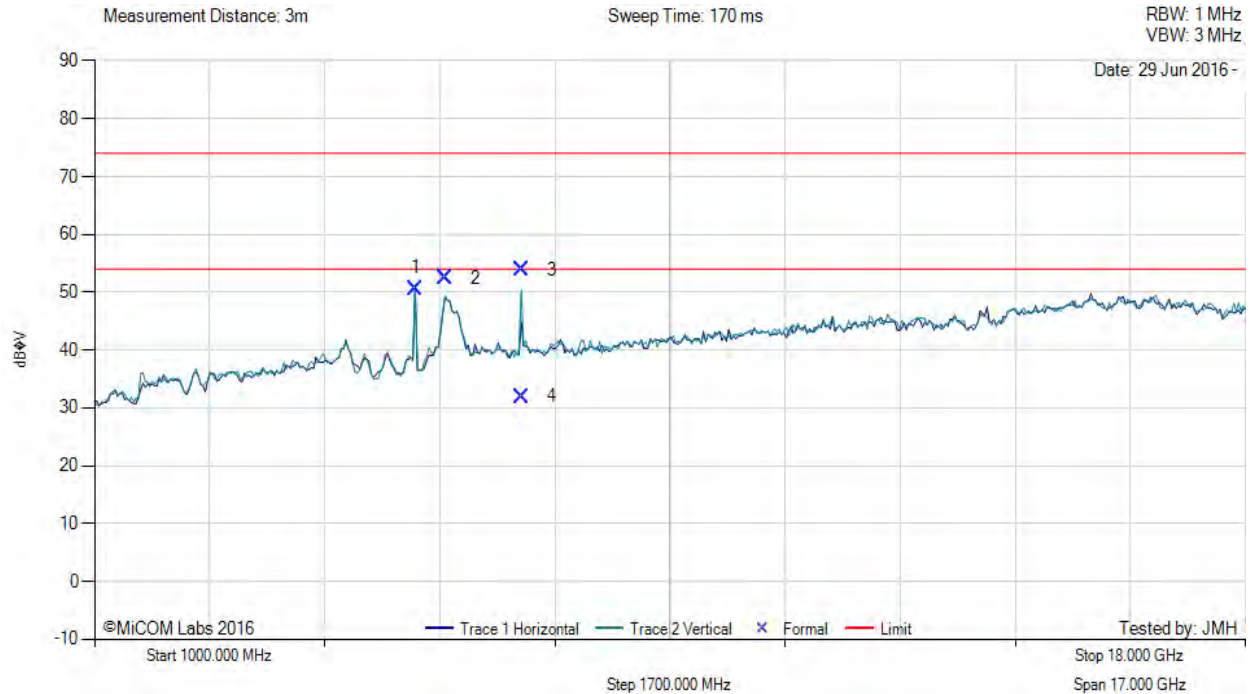


**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
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#### RADIATED SPURIOUS - RESTRICTED BAND EMISSIONS

Variant: 802.11n HT-20, Test Freq: 5745.00 MHz, Antenna: A5-18, Power Setting: 0x16, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5737.51	57.46	3.82	-10.67	50.61	Fundamental	Vertical	200	0	--	--	
2	6185.05	57.59	3.91	-9.01	52.49	Peak (NRB)	Vertical	200	181	--	--	Pass
3	7312.36	56.93	4.24	-7.29	53.88	Max Peak	Vertical	179	315	74.0	-20.1	Pass
4	7312.36	34.97	4.24	-7.29	31.92	Max Avg	Vertical	179	315	54.0	-22.1	Pass

**Test Notes:** EUT A5-18 SN: 2119591877 on 150cm table, powered by Mimosa POE PS 502-00002.

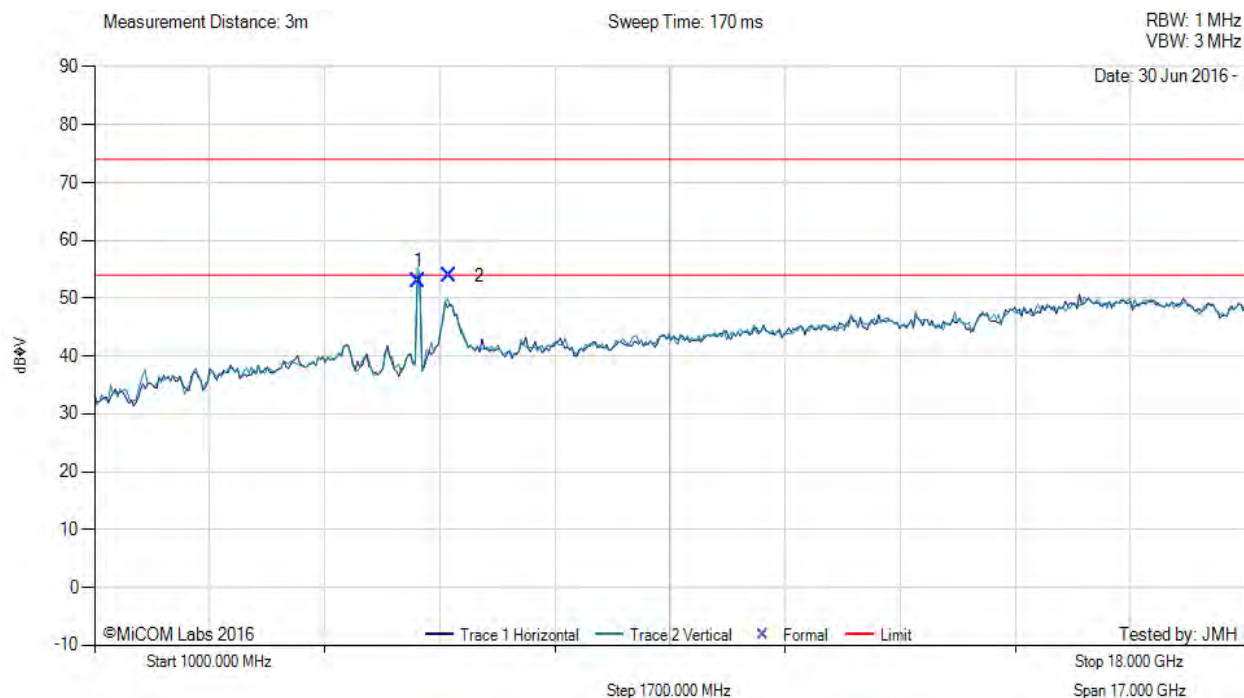
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# RADIATED SPURIOUS - RESTRICTED BAND EMISSIONS

Variant: 802.11n ac20, Test Freq: 5785.00 MHz, Antenna: A5-18, Power Setting: 0x15, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5785.57	59.51	3.79	-10.44	52.86	Fundamental	Vertical	200	1	--	--	
2	6231.12	58.66	3.91	-8.70	53.87	Peak (NRB)	Vertical	200	144	--	--	Pass

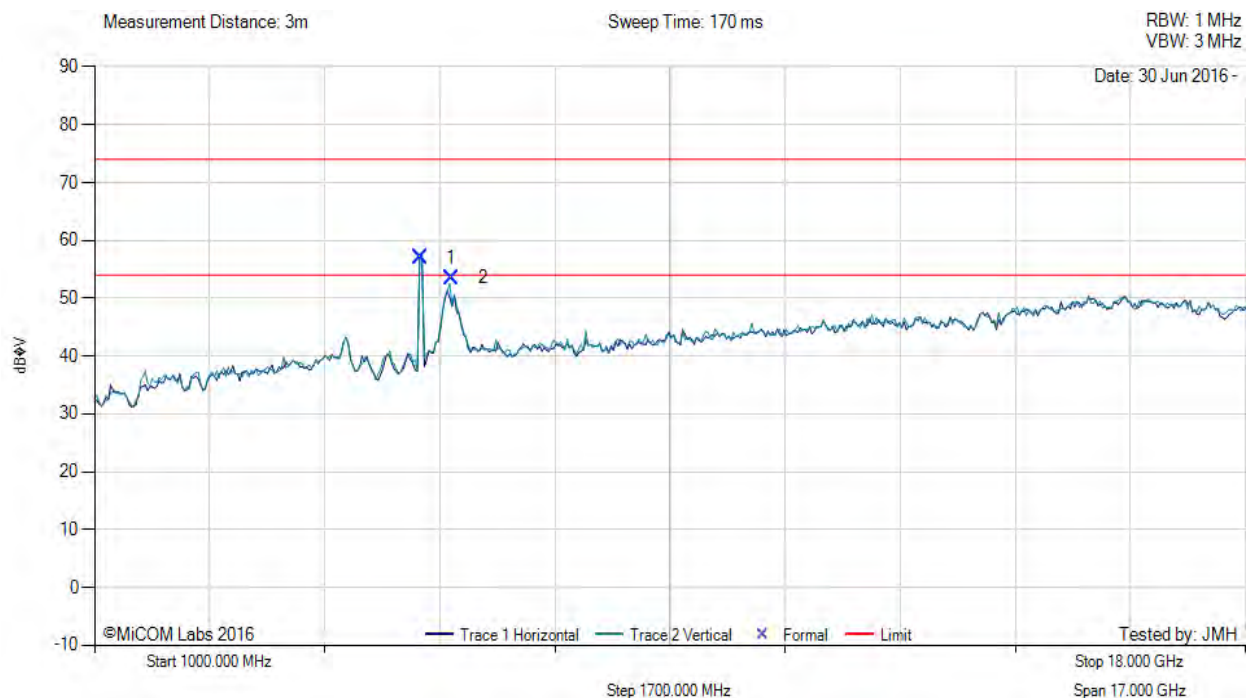
**Test Notes:** EUT A5-18 SN: 2119591877 on 150cm table, powered by Mimosa POE PS 502-00002.

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# RADIATED SPURIOUS - RESTRICTED BAND EMISSIONS

Variant: 802.11n ac20, Test Freq: 5825.00 MHz, Antenna: A5-18, Power Setting: 0x15, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5819.48	63.42	3.82	-10.28	56.96	Fundamental	Vertical	200	18	--	--	
2	6284.07	58.09	3.92	-8.47	53.54	Peak (NRB)	Vertical	200	41	--	--	Pass

**Test Notes:** EUT A5-18 SN: 2119591877 on 150cm table, powered by Mimosa POE PS 502-00002.

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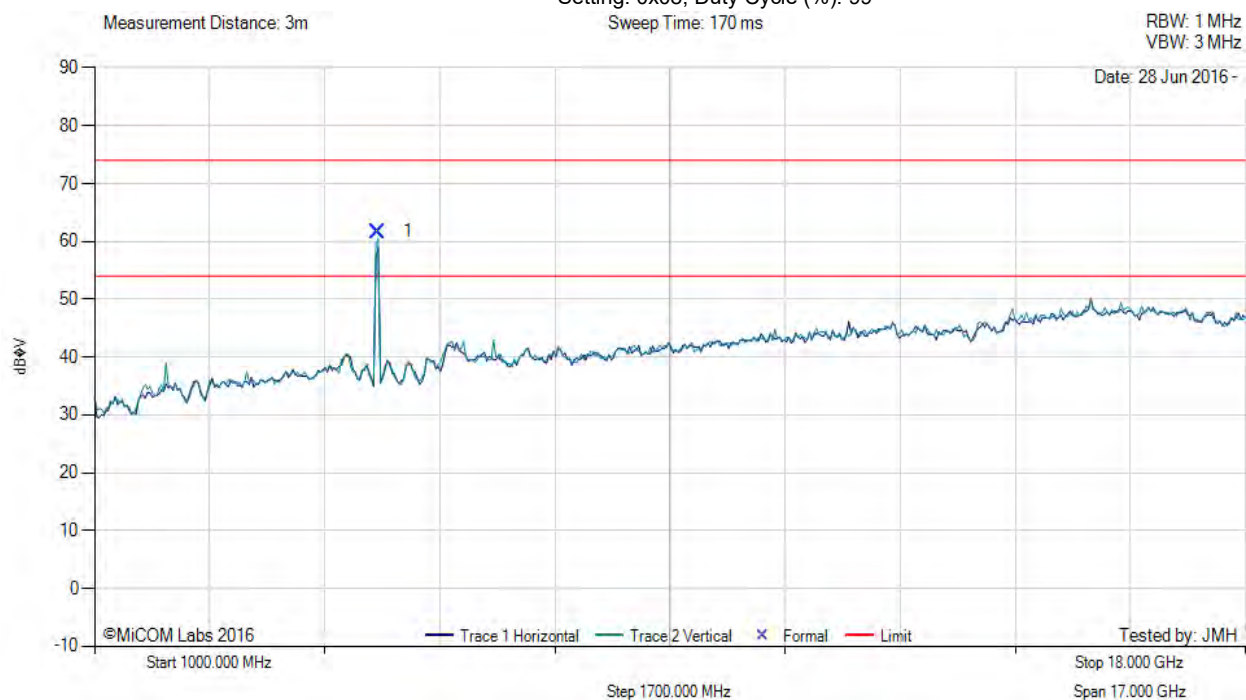
**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
**Serial #:** MIMO09-U5\_Radiated Addendum Rev A  
**Issue Date:** 2<sup>nd</sup> August 2016  
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#### A.1.1.2. KP Performance KPPA-5GHZHV4P65-17 X4



##### RADIATED SPURIOUS - RESTRICTED BAND EMISSIONS

Variant: 802.11n ac20, Test Freq: 5165.00 MHz, Antenna: KP Performance KPPA-5GHZHV4P65-17 X4, Power Setting: 0x08, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5188.02	69.48	3.68	-11.49	61.67	Fundamental	Vertical	151	1	--	--	

**Test Notes:** EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002.5G notch filter added in front of amp to prevent overload

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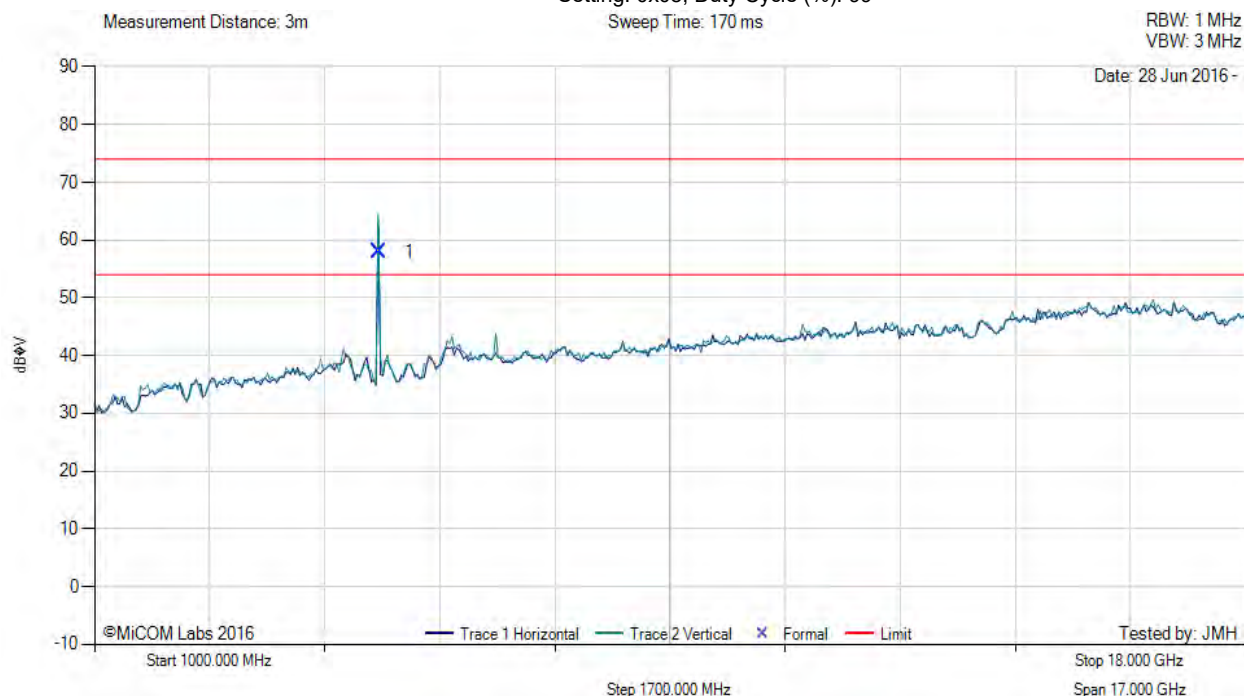


**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
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#### RADIATED SPURIOUS - RESTRICTED BAND EMISSIONS

Variant: 802.11n ac20, Test Freq: 5200.00 MHz, Antenna: KP Performance KPPA-5GHZHV4P65-17 X4, Power Setting: 0x08, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5198.76	65.82	3.66	-11.47	58.01	Fundamental	Vertical	101	1	--	--	

**Test Notes:** EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002. 5G notch filter added in front of amp to prevent overload

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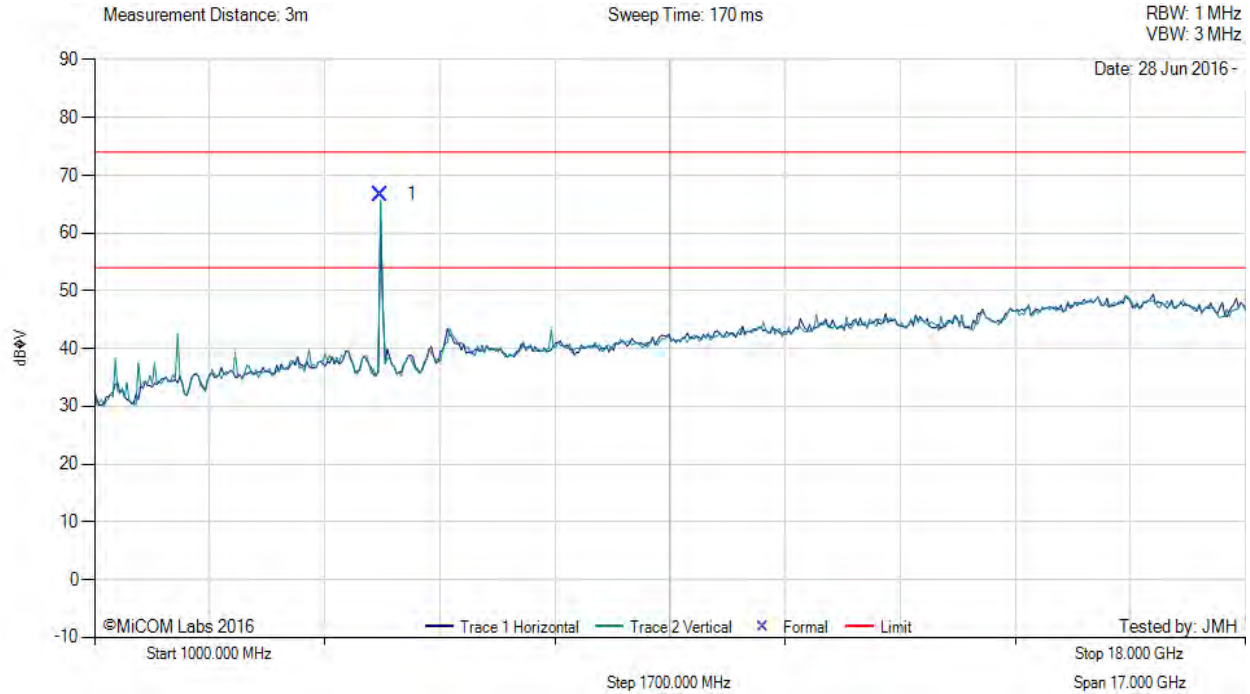


**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
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#### RADIATED SPURIOUS - RESTRICTED BAND EMISSIONS

Variant: 802.11n ac20, Test Freq: 5240.00 MHz, Antenna: KP Performance KPPA-5GHZHV4P65-17 X4, Power Setting: 0x08, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5231.86	74.49	3.63	-11.39	66.73	Fundamental	Vertical	151	1	--	--	

**Test Notes:** EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002. 5G notch filter added in front of amp to prevent overload

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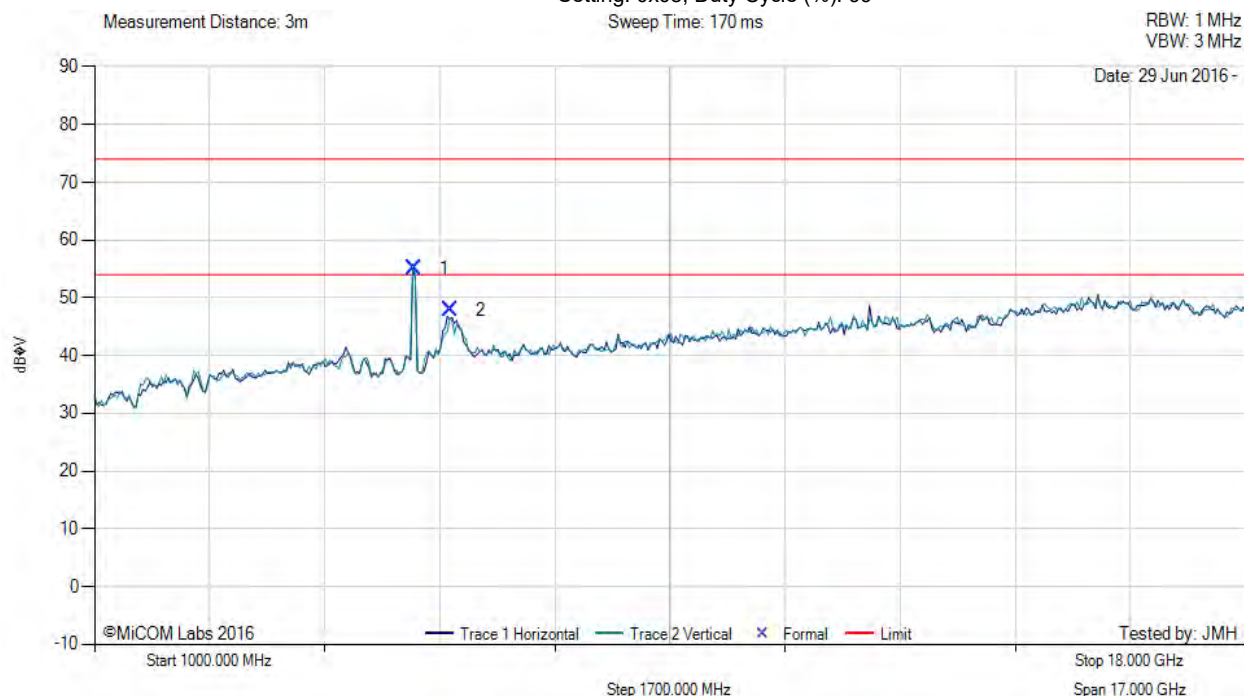
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# RADIATED SPURIOUS - RESTRICTED BAND EMISSIONS

Variant: 802.11n HT-20, Test Freq: 5745.00 MHz, Antenna: KP Performance KPPA-5GHZHV4P65-17 X4, Power Setting: 0x08, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5711.86	62.07	3.83	-10.77	55.13	Fundamental	Vertical	151	0	--	--	
2	6250.27	52.51	3.93	-8.57	47.87	Peak (NRB)	Horizontal	151	0	--	--	Pass

**Test Notes:** EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002. 5G notch filter added in front of amp to prevent overload

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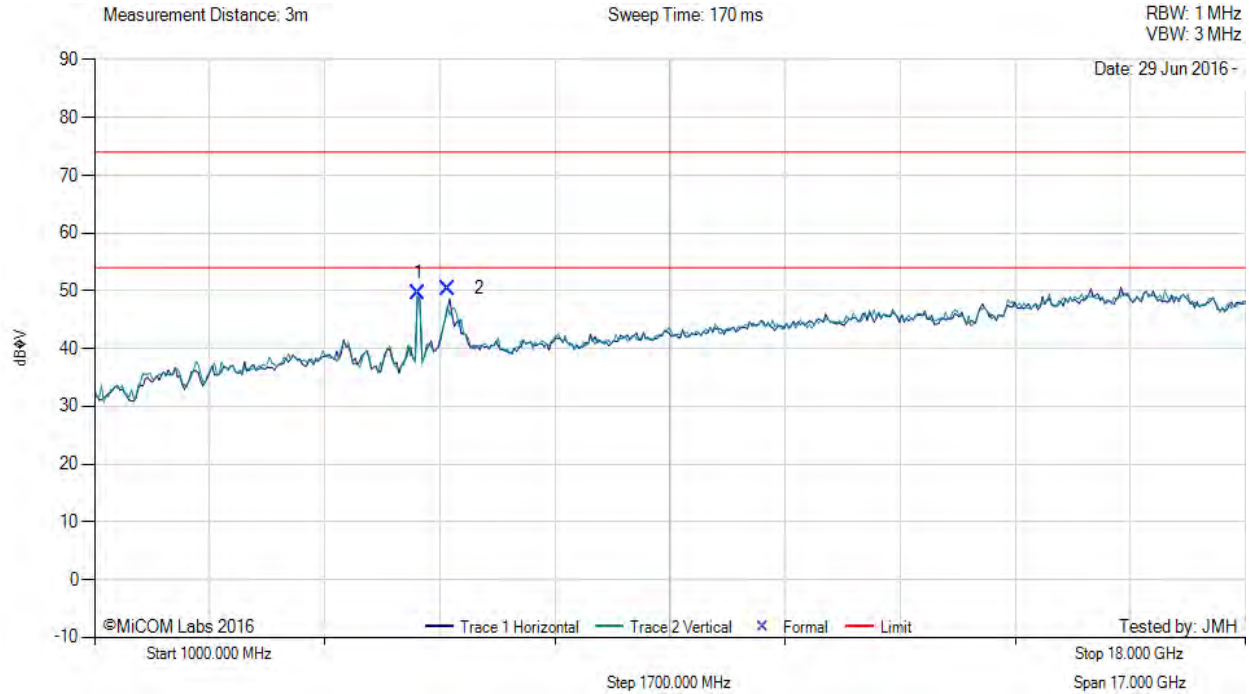


**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
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#### RADIATED SPURIOUS - RESTRICTED BAND EMISSIONS

Variant: 802.11n HT-20, Test Freq: 5785.00 MHz, Antenna: KP Performance KPPA-5GHZHV4P65-17 X4, Power Setting: 0x07, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5786.32	56.25	3.79	-10.44	49.60	Fundamental	Vertical	151	1	--	--	
2	6227.61	55.24	3.91	-8.72	50.43	Peak (NRB)	Horizontal	151	1	--	--	Pass

**Test Notes:** EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002. 5G notch filter added in front of amp to prevent overload

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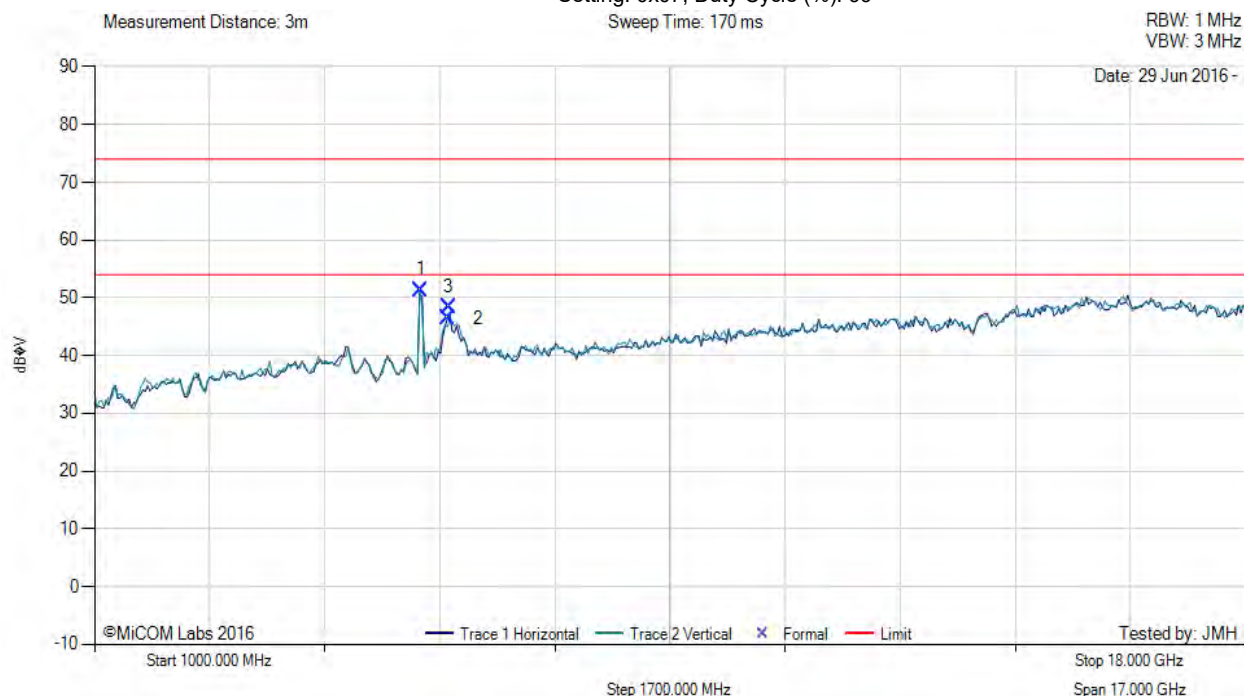


**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
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#### RADIATED SPURIOUS - RESTRICTED BAND EMISSIONS

Variant: 802.11n HT-20, Test Freq: 5825.00 MHz, Antenna: KP Performance KPPA-5GHZHV4P65-17 X4, Power Setting: 0x07, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5816.80	57.85	3.82	-10.29	51.38	Fundamental	Vertical	151	1	--	--	
2	6219.21	51.27	3.92	-8.78	46.41	Peak (NRB)	Horizontal	151	1	--	--	Pass
3	6233.96	53.11	3.91	-8.68	48.34	Peak (NRB)	Horizontal	151	1	--	--	Pass

**Test Notes:** EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002. 5G notch filter added in front of amp to prevent overload

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**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
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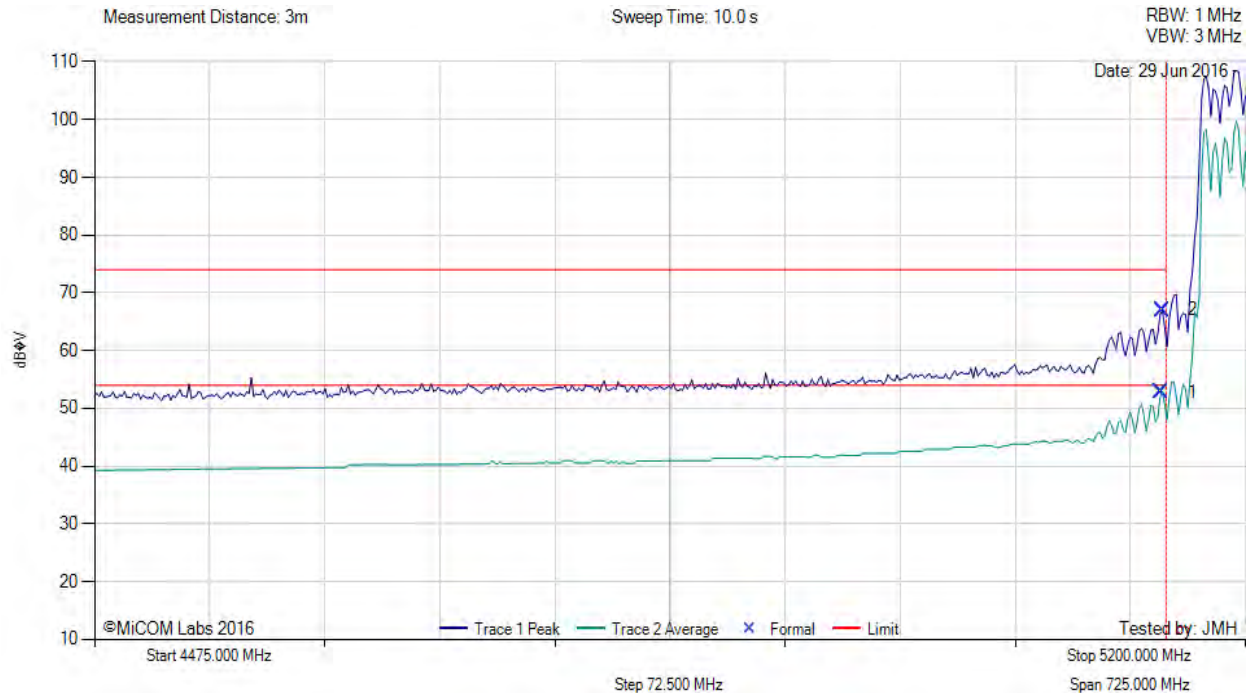
## A.1.2. Restricted Band-Edge Emissions

### A.1.2.3. A5-18



#### RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11ac-80, Test Freq: 5210.00 MHz, Antenna: A5-18, Power Setting: 0x14, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5147.14	14.96	3.68	34.11	52.75	Max Avg	Vertical	200	71	54.0	-1.3	Pass
2	5147.55	29.26	3.68	34.11	67.05	Max Peak	Vertical	200	71	74.0	-7.0	Pass
3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

**Test Notes:** EUT A5-18 SN: 2119591877 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002. Power Reduction to meet band edge limits

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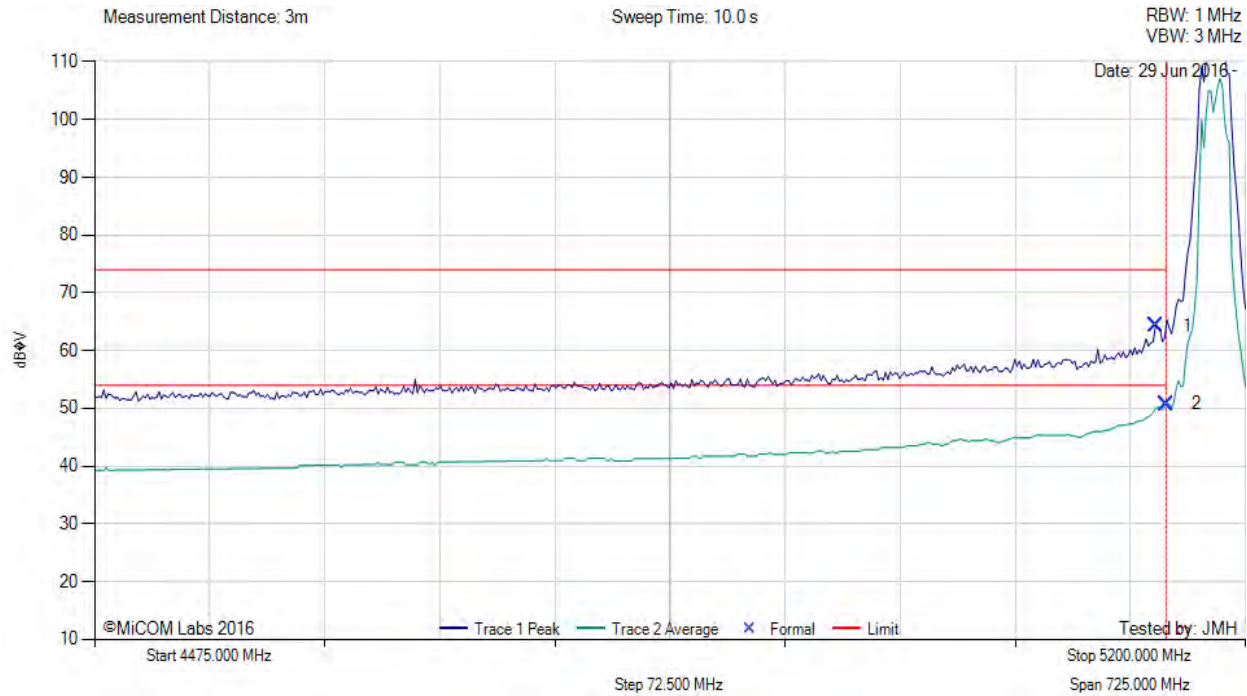


**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
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#### RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11n ac20, Test Freq: 5165.00 MHz, Antenna: A5-18, Power Setting: 0x16, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5143.89	26.43	3.70	34.12	64.25	Max Peak	Vertical	200	71	74.0	-9.8	Pass
2	5150.00	13.01	3.67	34.11	50.79	Max Avg	Vertical	200	71	54.0	-3.2	Pass
3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

**Test Notes:** EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002. 5G notch filter added in front of amp to prevent overload

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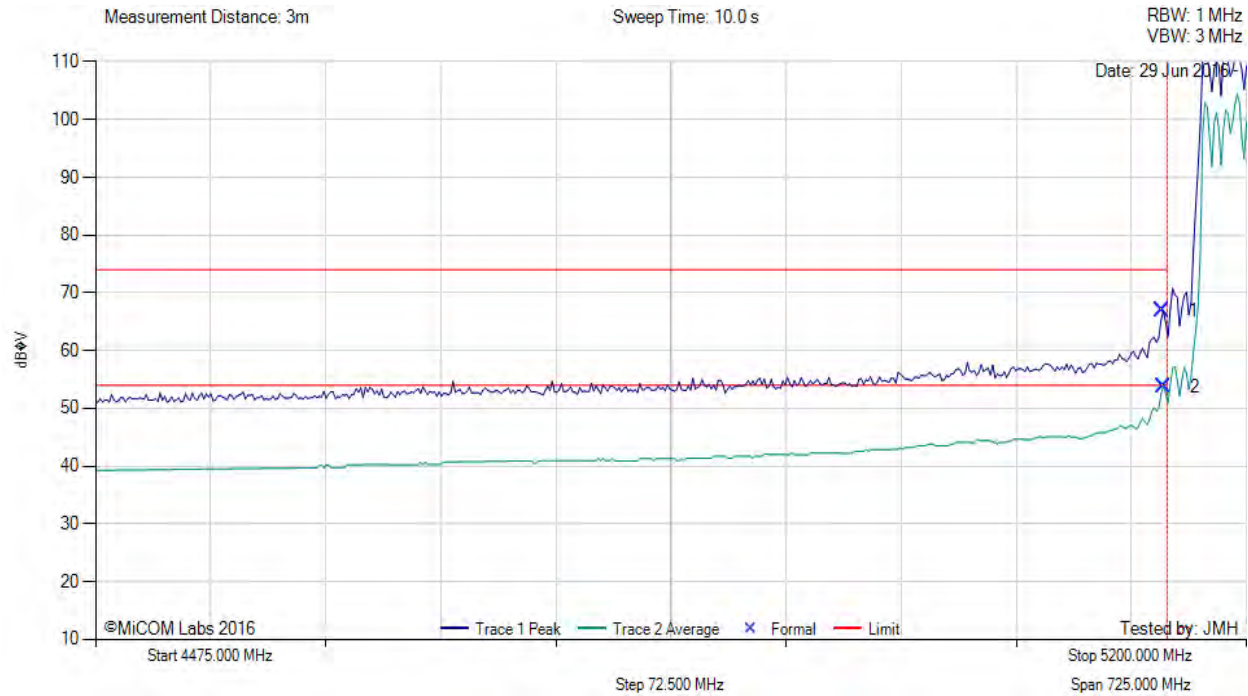


**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
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#### RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11n ac40, Test Freq: 5175.00 MHz, Antenna: A5-18, Power Setting: 0x14, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5147.24	29.08	3.68	34.11	66.87	Max Peak	Vertical	200	71	74.0	-7.1	Pass
2	5148.05	16.03	3.68	34.11	53.82	Max Avg	Vertical	200	71	54.0	-0.2	Pass
3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

**Test Notes:** EUT A5-18 SN: 2119591877 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002. Power reduction to meet band edge limit.

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**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
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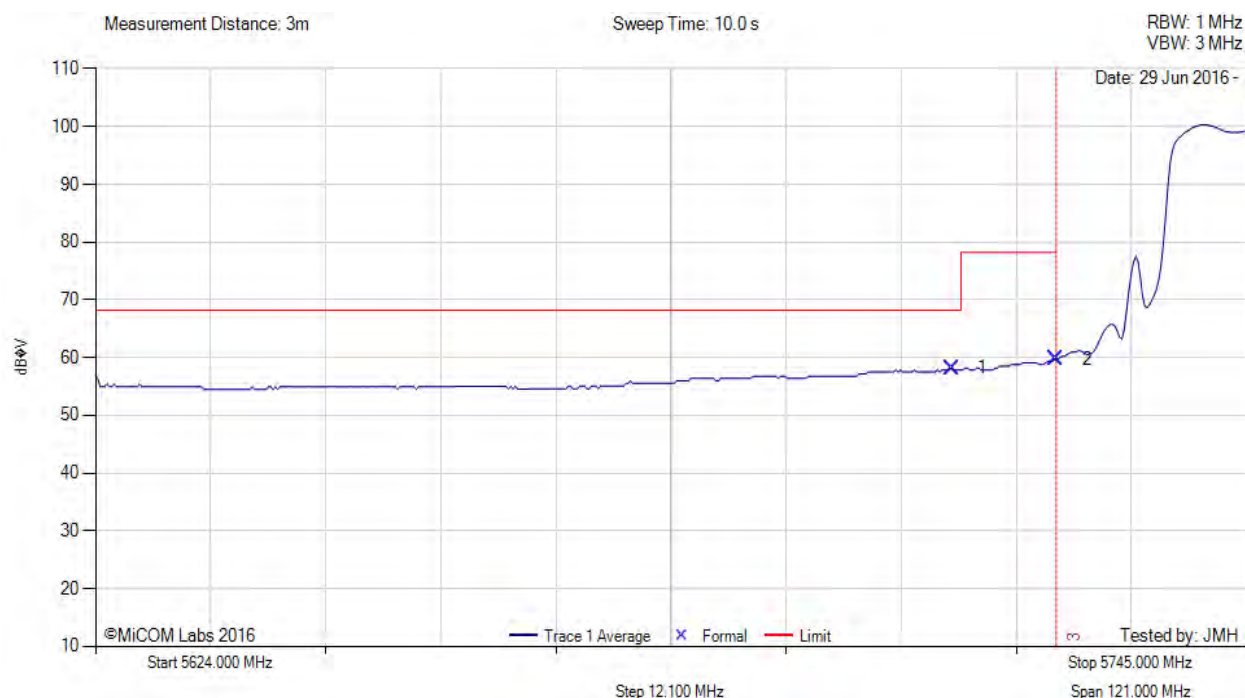


**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
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#### 5725 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11ac-80, Test Freq: 5775.00 MHz, Antenna: A5-18, Power Setting: 0x15, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5714.03	20.04	3.82	34.34	58.20	Max Avg	Vertical	200	103	68.2	-10.0	Pass
2	5725.00	21.55	3.79	34.35	59.69	Max Avg	Vertical	200	103	78.2	-18.5	Pass
3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

**Test Notes:** EUT A5-18 SN: 2119591877 on 150cm table, powered by Mimosa POE PS 502-00002.

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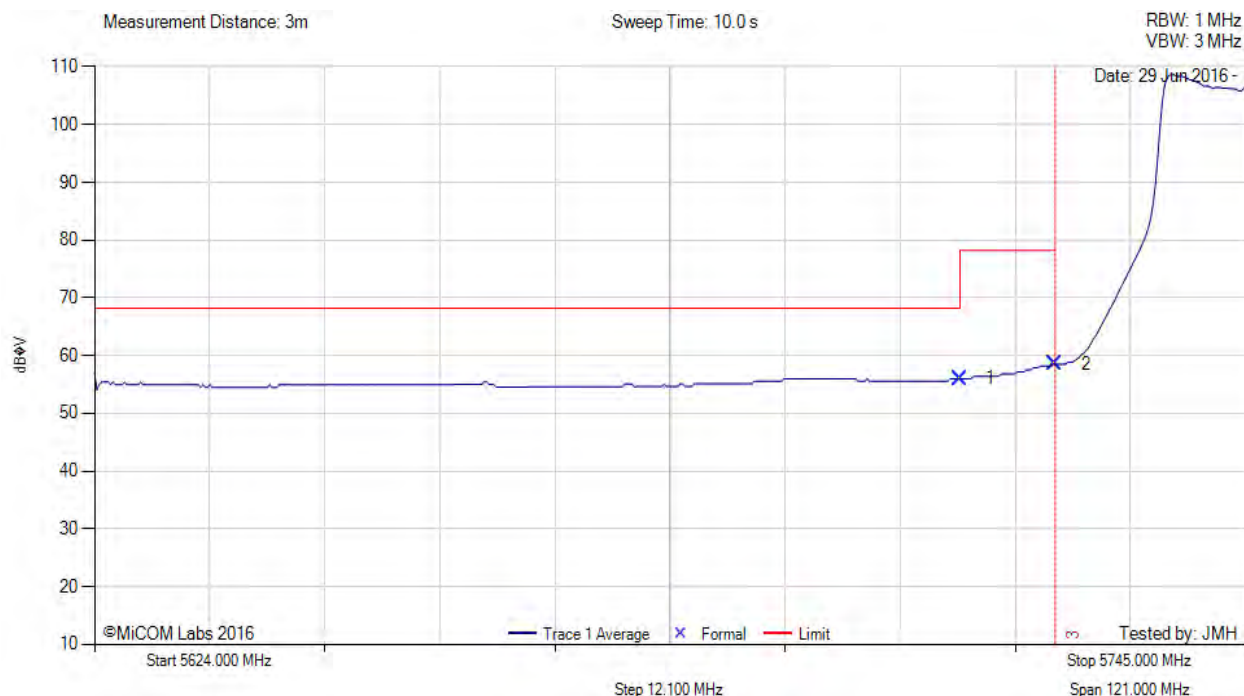


**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
**Serial #:** MIMO09-U5\_Radiated Addendum Rev A  
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#### 5725 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11n ac20, Test Freq: 5745.00 MHz, Antenna: A5-18, Power Setting: 0x16, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5715.00	17.86	3.81	34.34	56.01	Max Avg	Vertical	200	103	68.2	-12.2	Pass
2	5725.00	20.39	3.79	34.35	58.53	Max Avg	Vertical	200	103	78.2	-19.7	Pass
3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

**Test Notes:** EUT A5-18 SN: 2119591877 on 150cm table, powered by Mimosa POE PS 502-00002.

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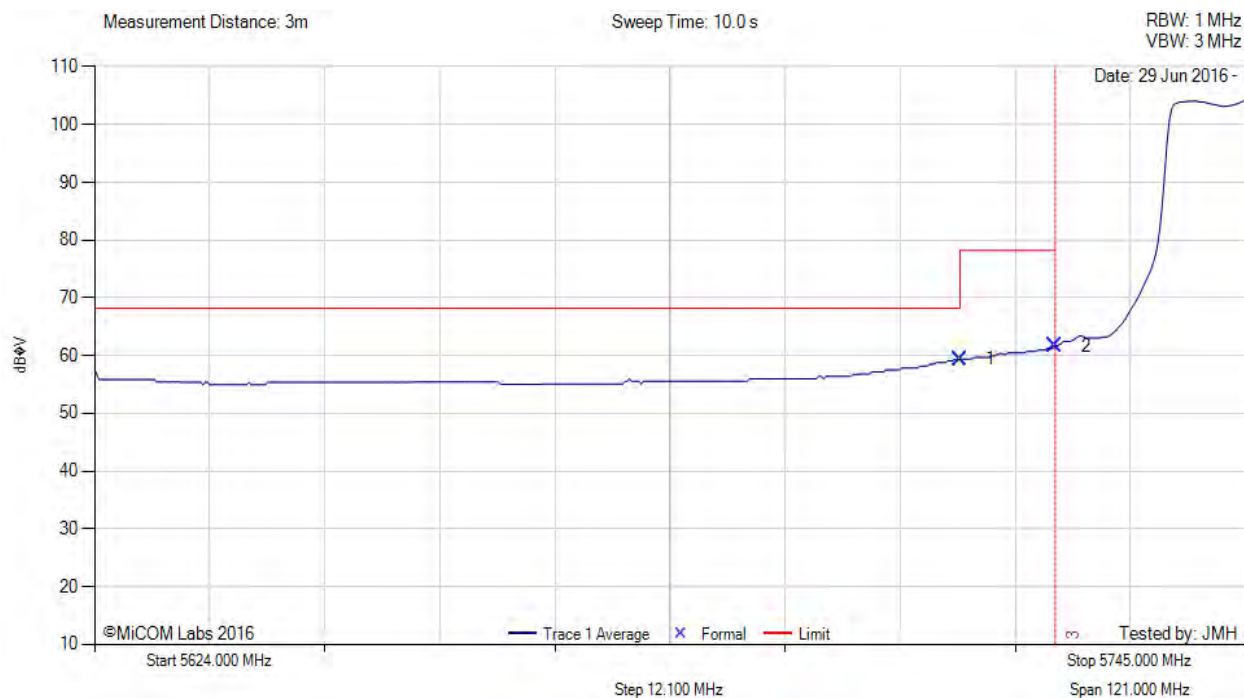


**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
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#### 5725 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11n ac40, Test Freq: 5755.00 MHz, Antenna: A5-18, Power Setting: 0x15, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5715.00	21.25	3.81	34.34	59.40	Max Avg	Vertical	200	103	68.2	-8.8	Pass
2	5725.00	23.49	3.79	34.35	61.63	Max Avg	Vertical	200	103	78.2	-16.6	Pass
3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

**Test Notes:** EUT A5-18 SN: 2119591877 on 150cm table, powered by Mimosa POE PS 502-00002.

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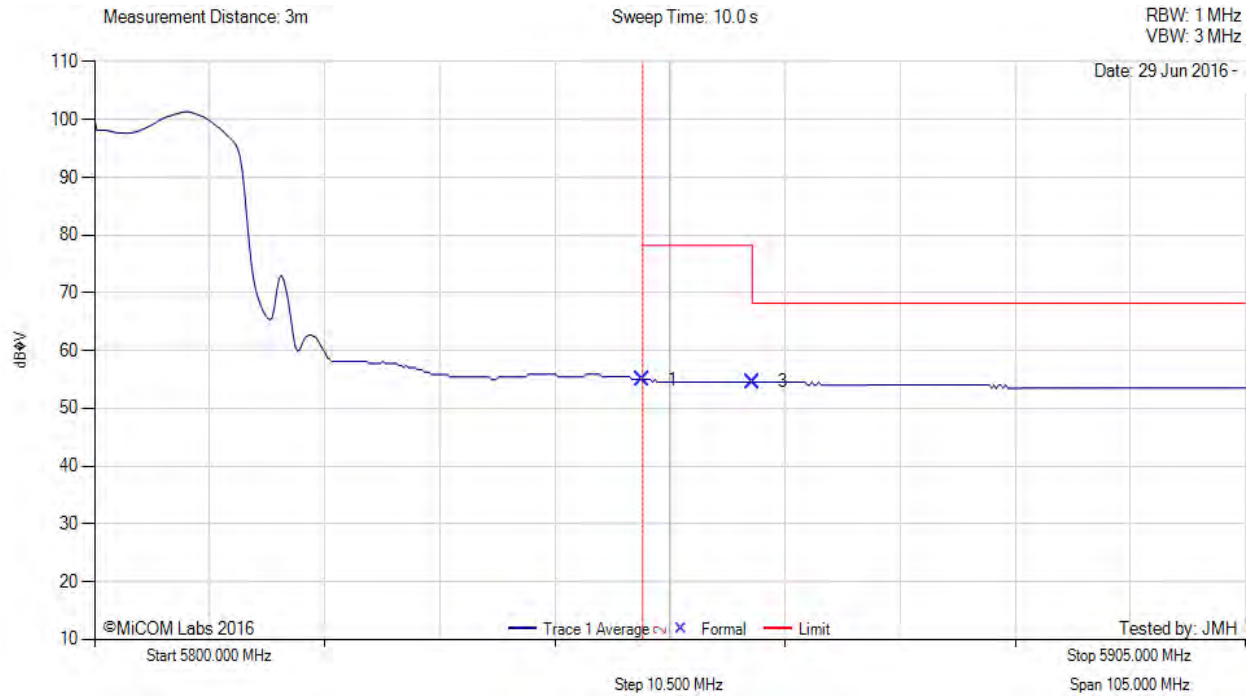


**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
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#### 5850 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11ac-80, Test Freq: 5775.00 MHz, Antenna: A5-18, Power Setting: 0x15, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5850.00	16.58	3.81	34.63	55.02	Max Avg	Vertical	200	108	78.2	-23.2	Pass
3	5860.00	16.04	3.86	34.65	54.55	Max Avg	Vertical	200	108	68.2	-13.7	Pass
2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

**Test Notes:** EUT A5-18 SN: 2119591877 on 150cm table, powered by Mimosa POE PS 502-00002.

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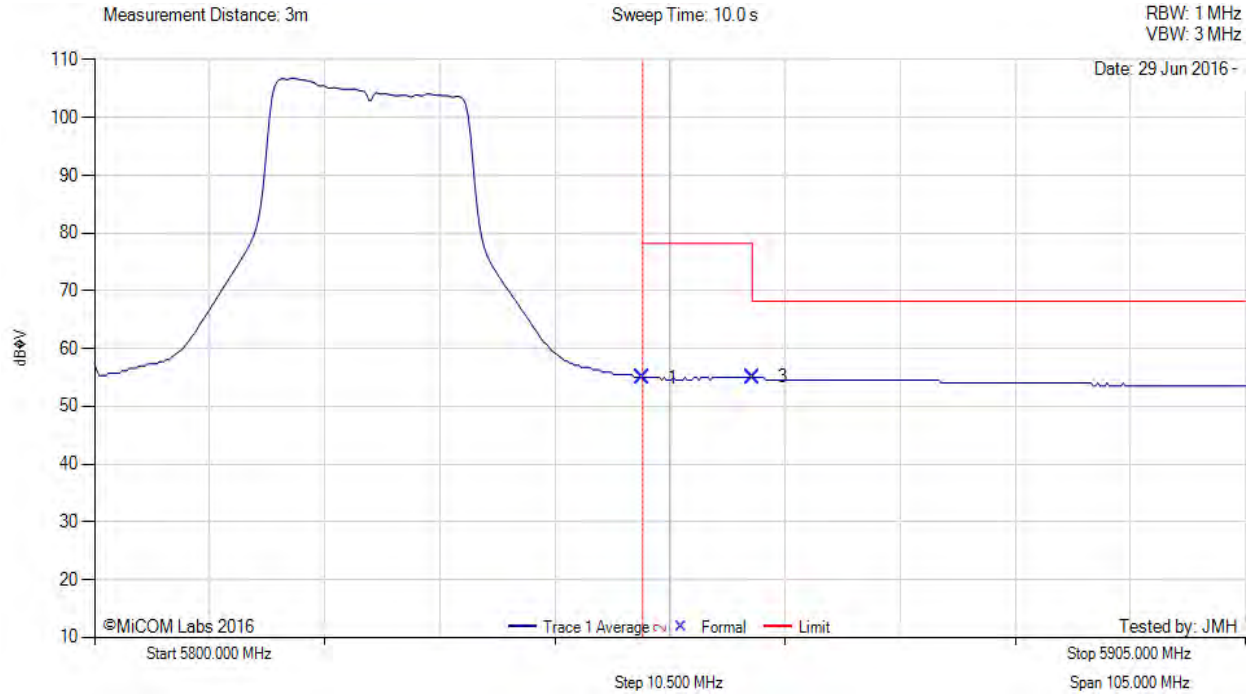


**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
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#### 5850 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11n HT-20, Test Freq: 5825.00 MHz, Antenna: A5-18, Power Setting: 0x15, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5850.00	16.58	3.81	34.63	55.02	Max Avg	Vertical	200	108	78.2	-23.2	Pass
3	5860.00	16.53	3.86	34.65	55.04	Max Avg	Vertical	200	108	68.2	-13.2	Pass
2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

**Test Notes:** EUT A5-18 SN: 2119591877 on 150cm table, powered by Mimosa POE PS 502-00002.

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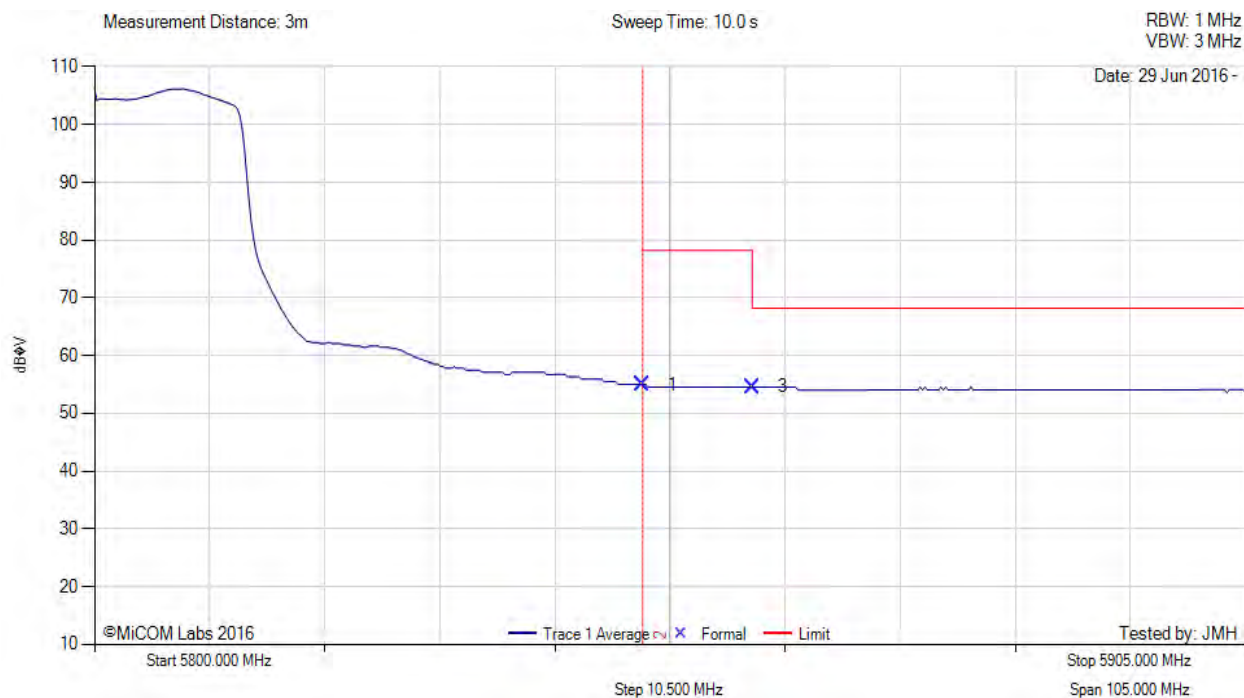


**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
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#### 5850 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11n HT-40, Test Freq: 5795.00 MHz, Antenna: A5-18, Power Setting: 0x15, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5850.00	16.58	3.81	34.63	55.02	Max Avg	Vertical	200	108	78.2	-23.2	Pass
3	5860.00	16.04	3.86	34.65	54.55	Max Avg	Vertical	200	108	68.2	-13.7	Pass
2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

**Test Notes:** EUT A5-18 SN: 2119591877 on 150cm table, powered by Mimosa POE PS 502-00002.

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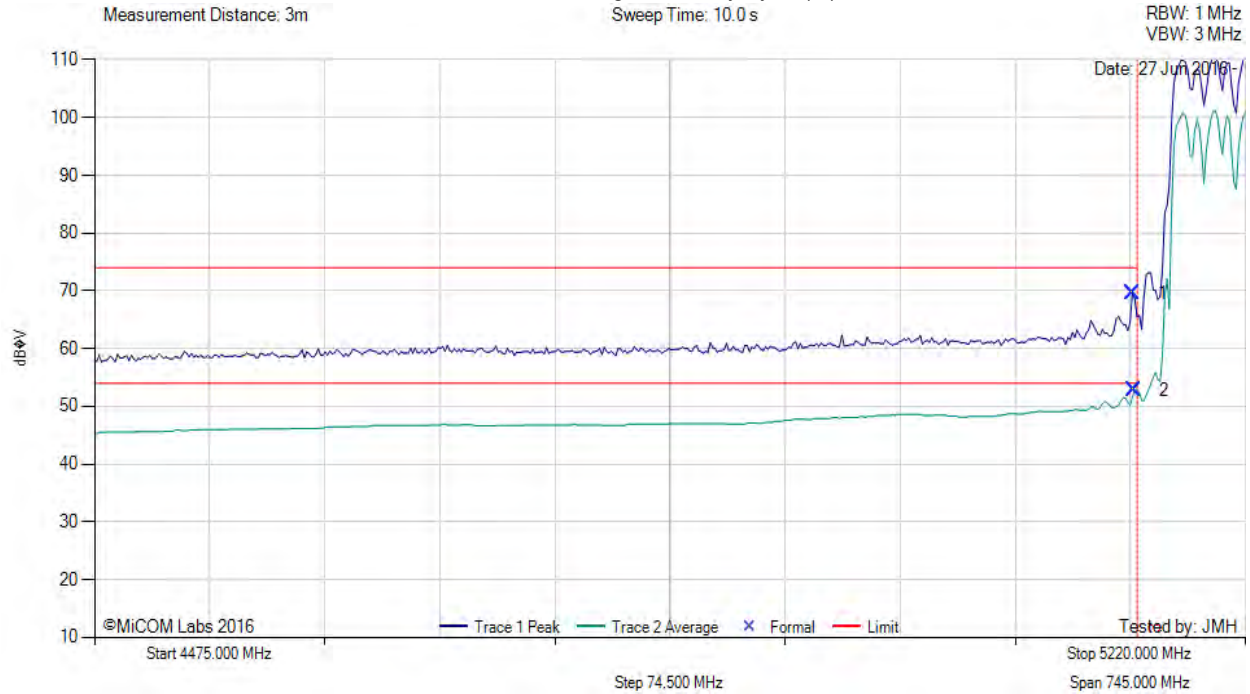
**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
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#### A.1.2.4. KP Performance KPPA-5GHZHV4P65-17 X4



##### RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11ac-80, Test Freq: 5210.00 MHz, Antenna: KP Performance KPPA-5GHZHV4P65-17 X4, Power Setting: 0x07, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5147.01	31.83	3.68	34.11	69.62	Max Peak	Vertical	164	358	74.0	-4.4	Pass
2	5147.67	15.06	3.68	34.11	52.85	Max Avg	Vertical	164	358	54.0	-1.2	Pass
3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

**Test Notes:** EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002. Power reduction to meet band edge limit

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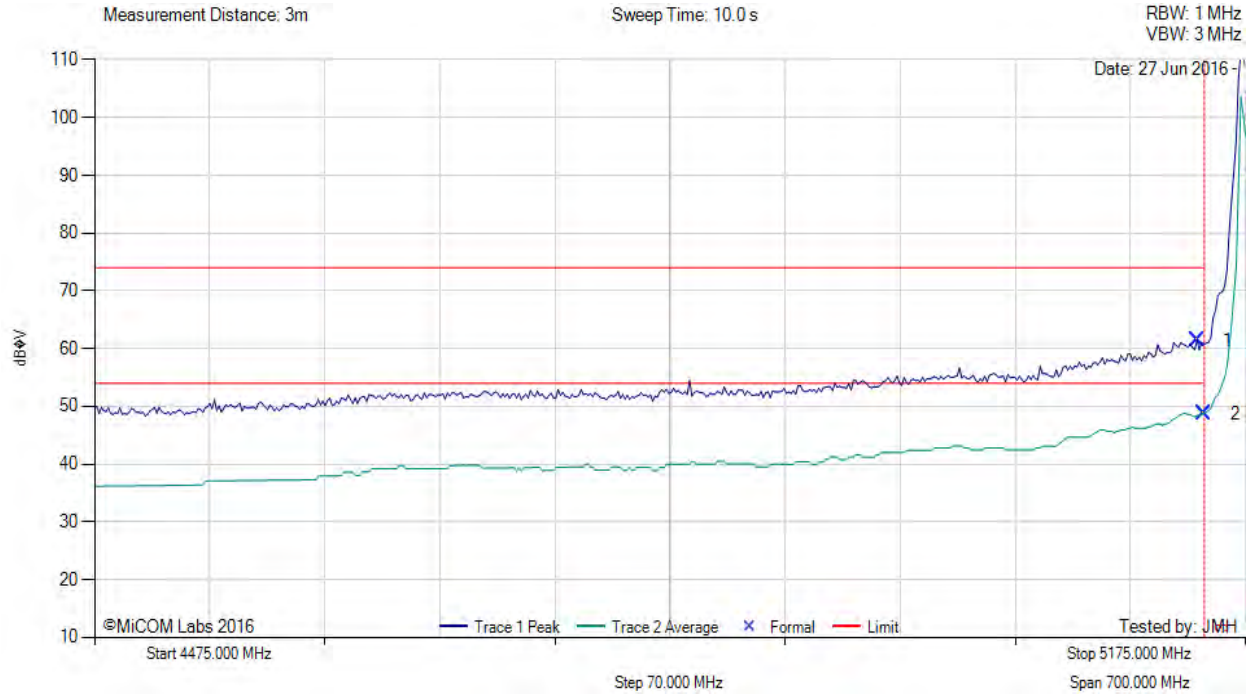


**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
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#### RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11n ac20, Test Freq: 5165.00 MHz, Antenna: KP Performance KPPA-5GHZHV4P65-17 X4, Power Setting: 0x08, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5145.79	23.68	3.69	34.11	61.48	Max Peak	Vertical	164	358	74.0	-12.5	Pass
2	5150.00	11.01	3.67	34.11	48.79	Max Avg	Vertical	164	358	54.0	-5.2	Pass
3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

**Test Notes:** EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002. Correction factor includes .9 dB addition for connecting cables

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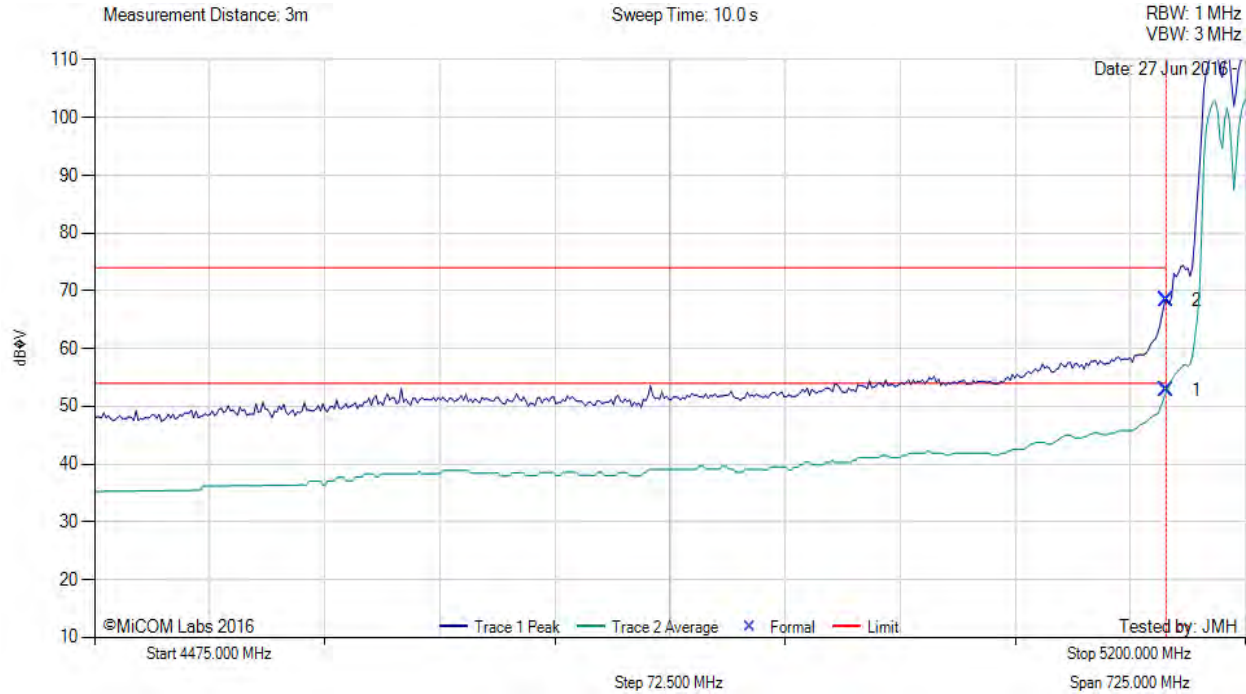


**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
**Serial #:** MIMO09-U5\_Radiated Addendum Rev A  
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#### RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11n ac40, Test Freq: 5175.00 MHz, Antenna: KP Performance KPPA-5GHZHV4P65-17 X4, Power Setting: 0x05, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5150.00	14.97	3.67	34.11	52.75	Max Avg	Vertical	164	358	54.0	-1.3	Pass
2	5150.00	30.60	3.67	34.11	68.38	Max Peak	Vertical	164	358	74.0	-5.6	Pass
3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

**Test Notes:** EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002. Power reduction to meet band edge limit

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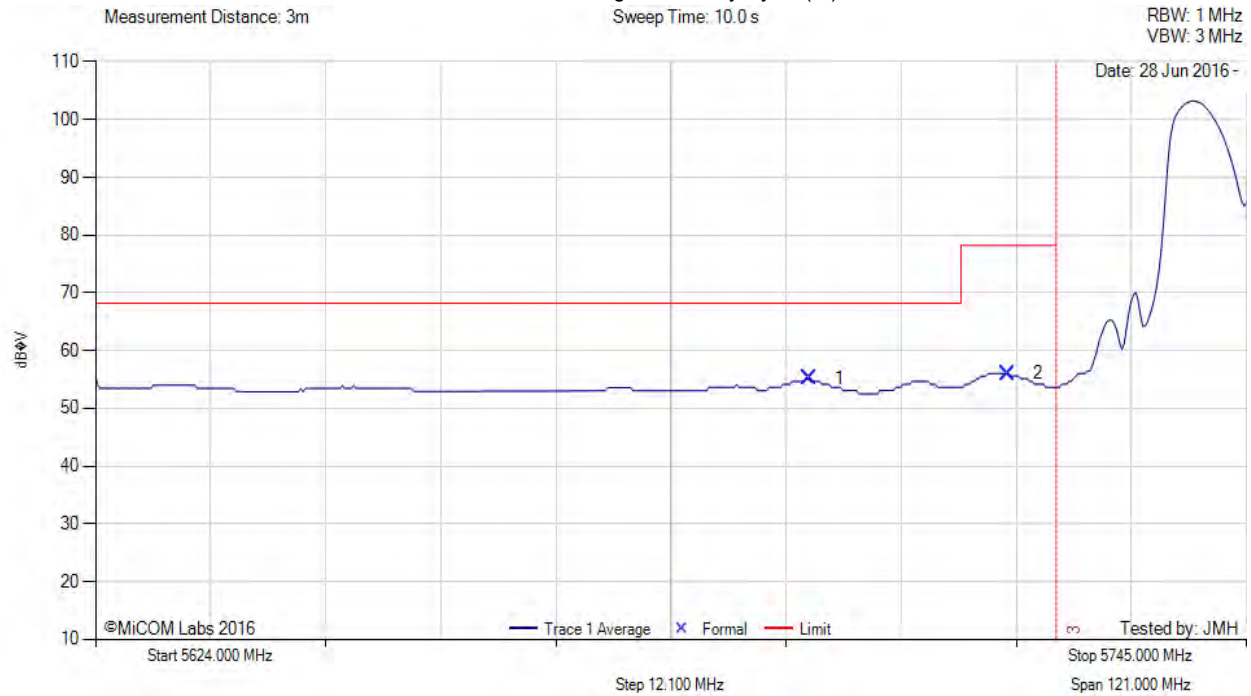


**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
**Serial #:** MIMO09-U5\_Radiated Addendum Rev A  
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#### 5725 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11ac-80, Test Freq: 5775.00 MHz, Antenna: KP Performance KPPA-5GHZHV4P65-17 X4, Power Setting: 0x07, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5699.00	16.94	3.86	34.33	55.13	Max Avg	Horizontal	164	362	68.2	-13.1	Pass
2	5719.91	17.87	3.80	34.35	56.02	Max Avg	Horizontal	164	362	78.2	-22.2	Pass
3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

**Test Notes:** EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002

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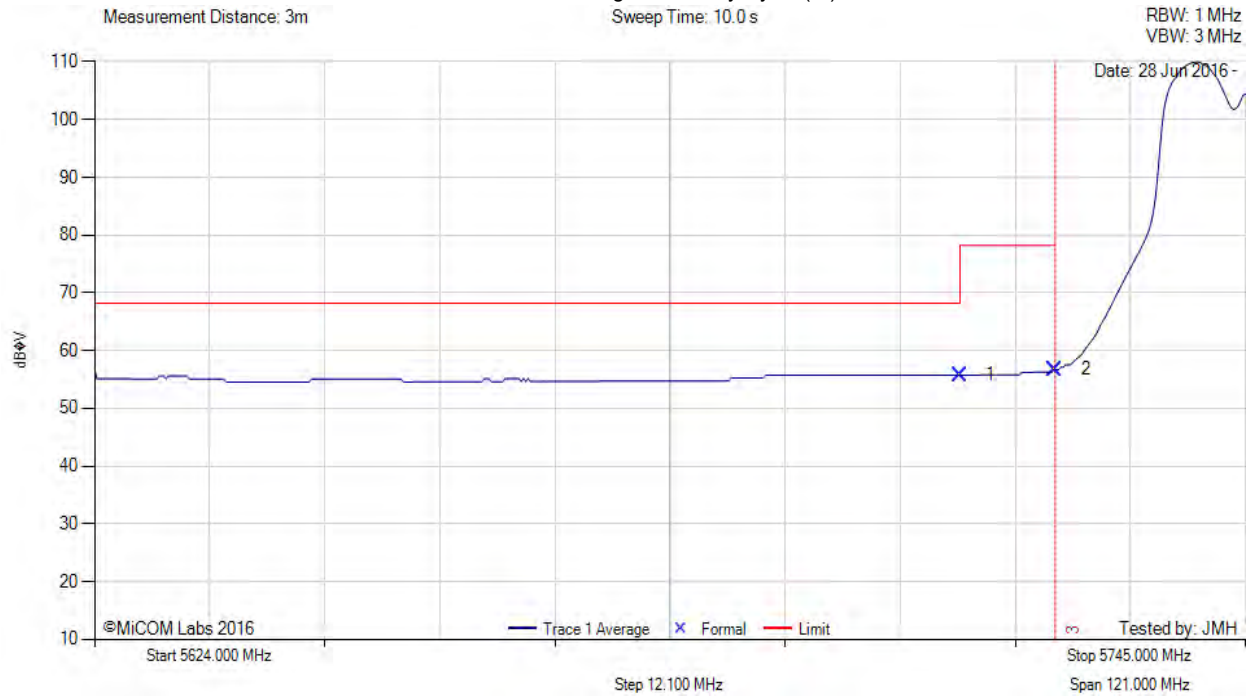


**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
**Serial #:** MIMO09-U5\_Radiated Addendum Rev A  
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#### 5725 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11n ac20, Test Freq: 5745.00 MHz, Antenna: KP Performance KPPA-5GHZHV4P65-17 X4, Power Setting: 0x08, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5715.00	17.62	3.81	34.34	55.77	Max Avg	Horizontal	164	362	68.2	-12.5	Pass
2	5725.00	18.57	3.79	34.35	56.71	Max Avg	Horizontal	164	362	78.2	-21.5	Pass
3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

**Test Notes:** EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002

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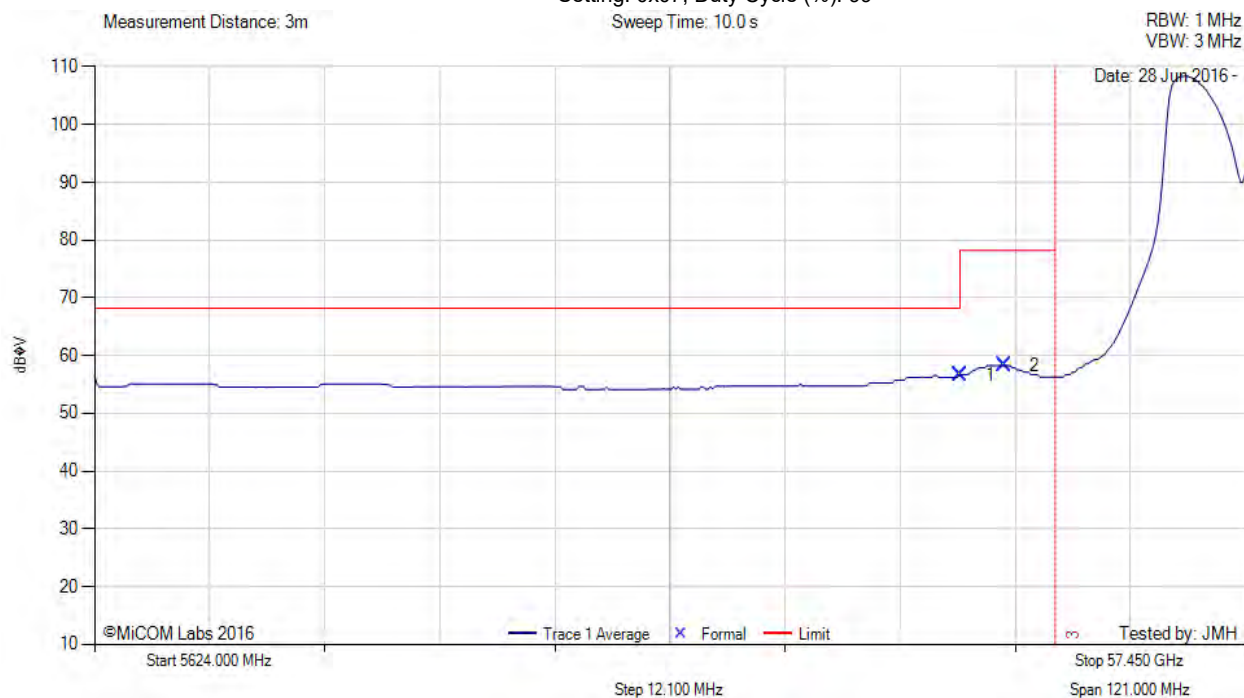


**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
**Serial #:** MIMO09-U5\_Radiated Addendum Rev A  
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#### 5725 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11n ac40, Test Freq: 5755.00 MHz, Antenna: KP Performance KPPA-5GHZHV4P65-17 X4, Power Setting: 0x07, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5715.00	18.46	3.81	34.34	56.61	Max Avg	Horizontal	164	362	68.2	-11.6	Pass
2	5719.67	20.13	3.80	34.35	58.28	Max Avg	Horizontal	164	362	78.2	-20.0	Pass
3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

**Test Notes:** EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002

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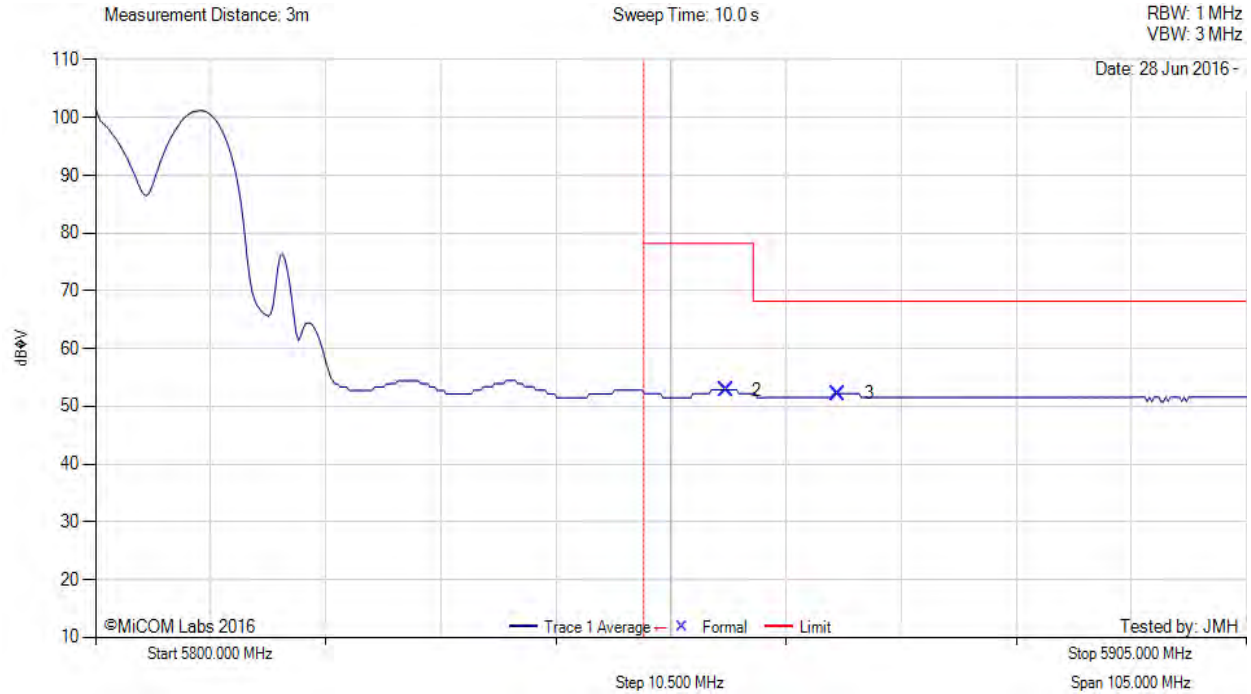


**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
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#### 5850 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11ac-80, Test Freq: 5775.00 MHz, Antenna: KP Performance KPPA-5GHZHV4P65-17 X4, Power Setting: 0x07, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
2	5857.58	14.36	3.85	34.65	52.86	Max Avg	Horizontal	164	362	78.2	-25.4	Pass
3	5867.79	13.73	3.82	34.68	52.23	Max Avg	Horizontal	164	362	68.2	-16.0	Pass
1	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

**Test Notes:** EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002

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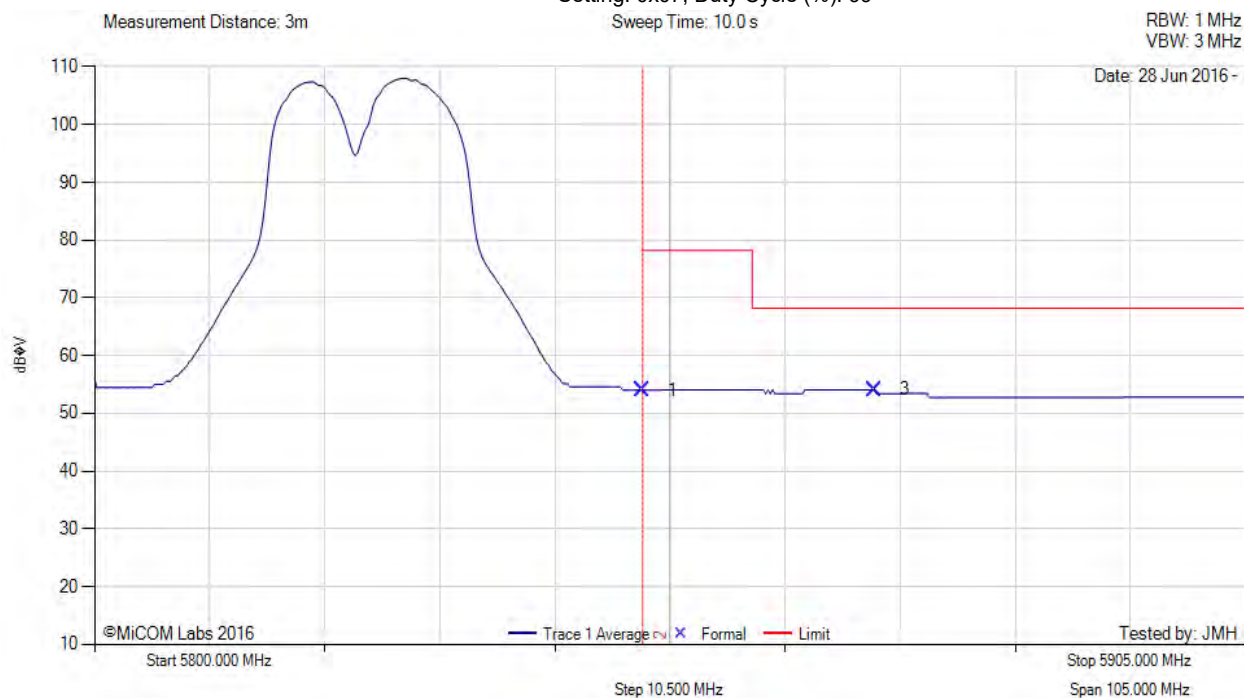


**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
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#### 5850 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11n ac20, Test Freq: 5825.00 MHz, Antenna: KP Performance KPPA-5GHZHV4P65-17 X4, Power Setting: 0x07, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5850.00	15.60	3.81	34.63	54.04	Max Avg	Horizontal	164	362	78.2	-24.2	Pass
3	5871.15	15.59	3.81	34.68	54.08	Max Avg	Horizontal	164	362	68.2	-14.2	Pass
2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

**Test Notes:** EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002

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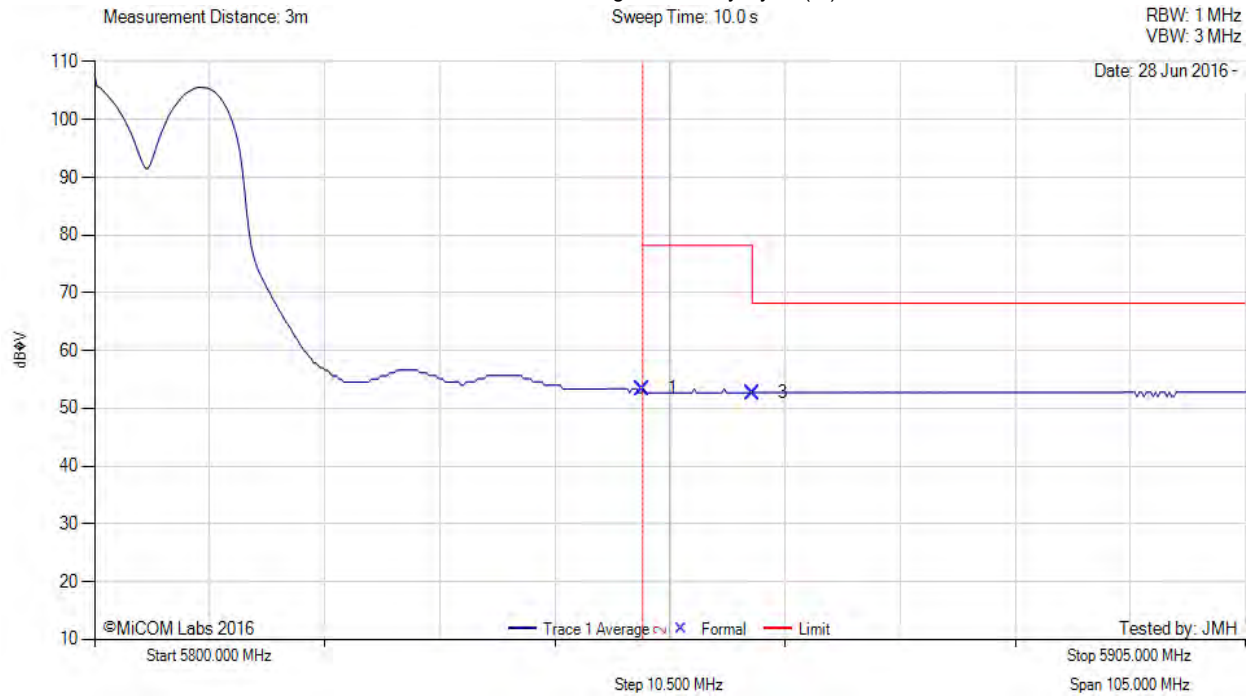


**Title:** Mimosa Networks A5c, A4-14, A5-18  
**To:** FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS bands)  
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#### 5850 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11n ac40, Test Freq: 5795.00 MHz, Antenna: KP Performance KPPA-5GHZHV4P65-17 X4, Power Setting: 0x07, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5850.00	14.95	3.81	34.63	53.39	Max Avg	Horizontal	164	362	78.2	-24.8	Pass
3	5860.00	14.21	3.86	34.65	52.72	Max Avg	Horizontal	164	362	68.2	-15.5	Pass
2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

**Test Notes:** EUT A5c SN: 2118161852 on 150cm table connected to KPPA antenna powered by Mimosa POE PS 502-00002

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