



7.7. Frequency Stability Measurement

7.7.1.TestLimit

Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

The transmitter center frequency tolerance shall be ± 20 ppm maximum for the 5GHz band (IEEE 802.11 specification).

7.7.2.Test Procedure Used

Frequency Stability Under Temperature Variations:

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to highest. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C decreased per stage until the lowest temperature reached.

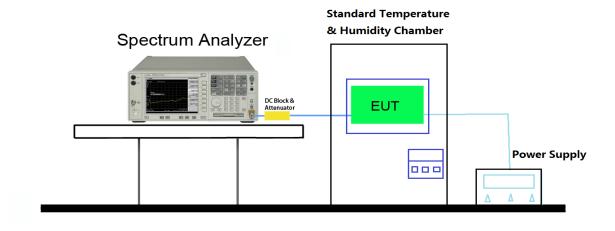
Frequency Stability Under Voltage Variations:

Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation (±15%) and endpoint, record the maximum frequency change.



7.7.3.Test Setup





7.7.4.Test Result

Test Engineer	Kevin Ker	Temperature	-30 ~ 50°C
Test Time	2017/08/27	Relative Humidity	48 ~ 55%RH
Test Mode	5180MHz (Carrier Mode)	Test Site	SR2

Voltage (%)	Power (VAC)	Temp (°C)	Frequency Tolerance (ppm)
		- 30	2.10
		- 20	2.07
		- 10	2.03
		0	1.82
100%	120	+ 10	1.67
		+ 20 (Ref)	1.67
		+ 30	0.23
		+ 40	-1.44
		+ 50	-2.56
115%	138	+ 20	1.57
85%	102	+ 20	0.97

Note: Frequency Tolerance (ppm) = {[Measured Frequency (Hz) - Declared Frequency (Hz)] / Declared Frequency (Hz)} $*10^{6}$.



7.8. Radiated Spurious Emission Measurement

7.8.1.Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title

47CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209						
Frequency	Measured Distance					
[MHz]	[uV/m]	[Meters]				
0.009 - 0.490	2400/F (kHz)	300				
0.490 - 1.705	24000/F (kHz)	30				
1.705 - 30	30	30				
30 - 88	100	3				
88 - 216	150	3				
216 - 960	200	3				
Above 960	500	3				

7.8.2.Test Procedure Used

ANSI C63.10 Section 6.3 (General Requirements)

ANSI C63.10 Section 6.4 (Standard test method below 30MHz)

ANSI C63.10 Section 6.5 (Standard test method above 30MHz to 1GHz)

ANSI C63.10 Section 6.6 (Standard test method above 1GHz)

7.8.3.Test Setting

Table 1 - RBW as a function of frequency

Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz



Quasi-Peak Measurements below 1GHz

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. Span was set greater than 1MHz
- 3. RBW = as specified in Table 1
- 4. Detector = CISPR quasi-peak
- 5. Sweep time = auto couple
- 6. Trace was allowed to stabilize

Peak Measurements above 1GHz

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = 1MHz
- 3. VBW = 3MHz
- 4. Detector = peak
- 5. Sweep time = auto couple
- 6. Trace mode = max hold
- 7. Trace was allowed to stabilize

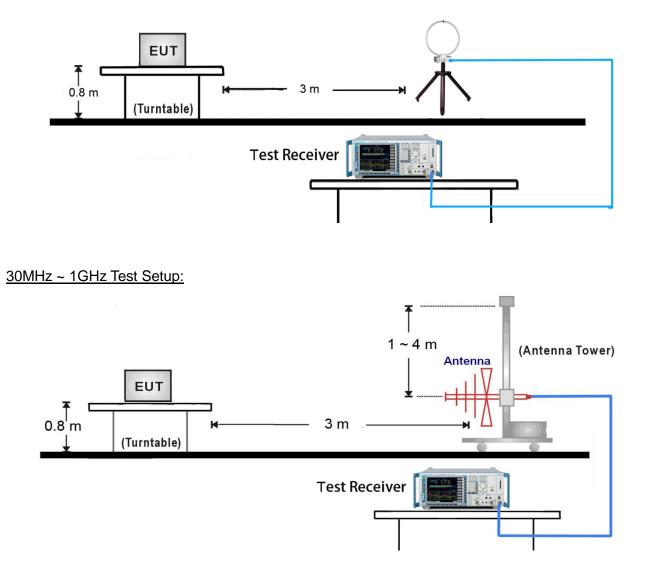
Average Measurements above 1GHz (Method VB)

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = 1MHz
- 3. VBW; If the EUT is configured to transmit with duty cycle \ge 98%, set VBW = 10 Hz.
- If the EUT duty cycle is < 98%, set VBW \geq 1/T. T is the minimum transmission duration.
- 4. Detector = Peak
- 5. Sweep time = auto
- 6. Trace mode = max hold
- 7. Trace was allowed to stabilize



7.8.4.Test Setup

9kHz ~30MHz Test Setup:

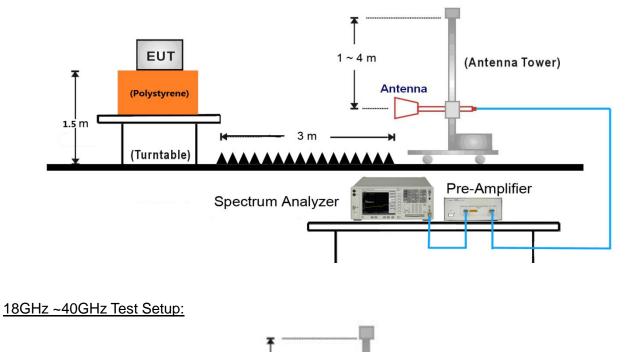




Spectrum Analyzer

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1GHz ~18GHz Test Setup:

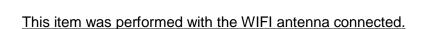


1~4 m

Antenna

(Antenna Tower)

Pre-Amplifier



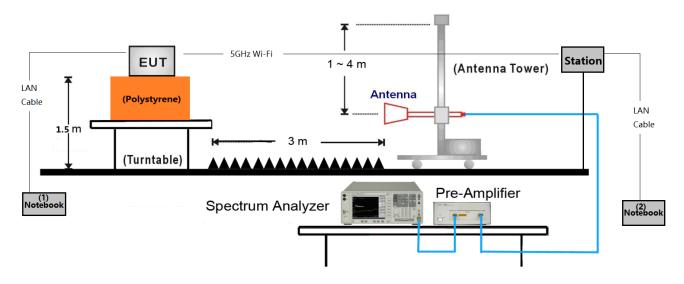
EUT

(Polystyrene)

(Turntable)

1.5 m C





Additional Beam-Forming Mode Test Setup (Apply to all BF radiated emission test frequency range)

Make the EUT connect with the station by 5GHz wireless.

Input some commands in the notebook (1) to open the EUT Beam Forming function, and setup the related test channel & data rate & power setting.

Make the notebook (1) ping with notebook (2) using the "iperf" software that can produce one bigger duty cycle waveform.

Test Mode	Duty Cycle	T = Transmission Duration
	(%)	(ms)
802.11n-HT20	95.80	1.986
802.11n-HT40	93.80	1.740
802.11ac-VHT20	95.64	1.995
802.11ac-VHT40	95.84	2.003
802.11ac-VHT80	96.38	1.968



7.8.5.Test Result

Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C		
Test Engineer	Kevin Ker	Relative Humidity	57 %		
Test Site	AC1	Test Date	2017/08/16		
Test Mode:	802.11a - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	36		
Remark:	 Average measurement was not performed if peak level lower than average limit. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. 				

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8922.0	32.0	14.0	46.0	68.2	-22.2	Peak	Horizontal
*	9687.0	33.3	14.6	47.9	68.2	-20.3	Peak	Horizontal
	10868.5	31.3	18.2	49.5	54.0	-4.5	Peak	Horizontal
	11591.0	31.7	19.5	51.2	54.0	-2.8	Peak	Horizontal
*	8633.0	32.2	13.5	45.7	68.2	-22.5	Peak	Vertical
*	9865.5	31.3	16.0	47.3	68.2	-20.9	Peak	Vertical
	11574.0	31.7	19.5	51.2	54.0	-2.8	Peak	Vertical
	12092.5	31.2	18.9	50.1	54.0	-3.9	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C		
Test Engineer	Kevin Ker	Relative Humidity	57 %		
Test Site	AC1	Test Date	2017/08/16		
Test Mode:	802.11a - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	44		
Remark:	 Average measurement was not performed if peak level lower than average limit. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. 				

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8803.0	31.7	14.0	45.7	68.2	-22.5	Peak	Horizontal
*	9857.0	31.8	16.2	48.0	68.2	-20.2	Peak	Horizontal
	11455.0	31.3	19.2	50.5	54.0	-3.5	Peak	Horizontal
	12449.5	31.6	18.4	50.0	54.0	-4.0	Peak	Horizontal
*	8641.5	32.6	13.5	46.1	68.2	-22.1	Peak	Vertical
*	9857.0	31.6	16.2	47.8	68.2	-20.4	Peak	Vertical
	11633.5	31.4	19.4	50.8	54.0	-3.2	Peak	Vertical
	12585.5	31.9	18.7	50.6	54.0	-3.4	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C		
Test Engineer	Kevin Ker	Relative Humidity	57 %		
Test Site	AC1	Test Date	2017/08/16		
Test Mode:	802.11a - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	48		
Remark:	 Average measurement was not performed if peak level lower than average limit. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. 				

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8718.0	31.3	13.8	45.1	68.2	-23.1	Peak	Horizontal
*	9857.0	30.9	16.2	47.1	68.2	-21.1	Peak	Horizontal
	11548.5	30.5	19.4	49.9	54.0	-4.1	Peak	Horizontal
	12084.0	30.8	18.9	49.7	54.0	-4.3	Peak	Horizontal
*	8684.0	31.7	13.7	45.4	68.2	-22.8	Peak	Vertical
*	9678.5	32.8	14.6	47.4	68.2	-20.8	Peak	Vertical
	11140.5	31.0	18.7	49.7	54.0	-4.3	Peak	Vertical
	11982.0	31.7	18.7	50.4	54.0	-3.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C		
Test Engineer	Kevin Ker	Relative Humidity	57 %		
Test Site	AC1	Test Date	2017/08/16		
Test Mode:	802.11a - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	149		
Remark:	 Average measurement was not performed if peak level lower than average limit. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. 				

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8905.0	31.4	14.0	45.4	68.2	-22.8	Peak	Horizontal
*	9874.0	32.3	15.8	48.1	68.2	-20.1	Peak	Horizontal
	10902.5	31.9	18.3	50.2	54.0	-3.8	Peak	Horizontal
	12228.5	31.8	18.7	50.5	54.0	-3.5	Peak	Horizontal
*	8658.5	32.2	13.6	45.8	68.2	-22.4	Peak	Vertical
*	9636.0	32.4	14.4	46.8	68.2	-21.4	Peak	Vertical
	10817.5	31.0	18.0	49.0	54.0	-5.0	Peak	Vertical
	11591.0	30.7	19.5	50.2	54.0	-3.8	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11a - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	157
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ũ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8769.0	29.7	13.9	43.6	68.2	-24.6	Peak	Horizontal
*	9729.5	31.6	14.7	46.3	68.2	-21.9	Peak	Horizontal
	11565.5	31.8	19.5	51.3	54.0	-2.7	Peak	Horizontal
	12143.5	30.7	18.9	49.6	54.0	-4.4	Peak	Horizontal
*	8811.5	30.6	14.0	44.6	68.2	-23.6	Peak	Vertical
*	9721.0	31.4	14.7	46.1	68.2	-22.1	Peak	Vertical
	11591.0	31.0	19.5	50.5	54.0	-3.5	Peak	Vertical
	12126.5	31.4	18.9	50.3	54.0	-3.7	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11a - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	165
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ũ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8692.5	31.9	13.7	45.6	68.2	-22.6	Peak	Horizontal
*	9755.0	32.5	14.8	47.3	68.2	-20.9	Peak	Horizontal
	11149.0	31.6	18.7	50.3	54.0	-3.7	Peak	Horizontal
	11531.5	31.3	19.4	50.7	54.0	-3.3	Peak	Horizontal
*	8582.0	32.1	13.4	45.5	68.2	-22.7	Peak	Vertical
*	9848.5	31.7	16.1	47.8	68.2	-20.4	Peak	Vertical
	10877.0	31.0	18.2	49.2	54.0	-4.8	Peak	Vertical
	11616.5	31.0	19.4	50.4	54.0	-3.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	36
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8854.0	31.7	14.0	45.7	68.2	-22.5	Peak	Horizontal
*	9848.5	31.2	16.1	47.3	68.2	-20.9	Peak	Horizontal
	10996.0	31.3	18.5	49.8	54.0	-4.2	Peak	Horizontal
	12101.0	31.6	18.9	50.5	54.0	-3.5	Peak	Horizontal
*	8624.5	32.0	13.5	45.5	68.2	-22.7	Peak	Vertical
*	9721.0	32.3	14.7	47.0	68.2	-21.2	Peak	Vertical
	10783.5	31.9	17.8	49.7	54.0	-4.3	Peak	Vertical
	11591.0	30.9	19.5	50.4	54.0	-3.6	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	44
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8820.0	30.7	14.0	44.7	68.2	-23.5	Peak	Horizontal
*	9789.0	31.6	15.0	46.6	68.2	-21.6	Peak	Horizontal
	11115.0	31.4	18.6	50.0	54.0	-4.0	Peak	Horizontal
	12016.0	31.2	18.7	49.9	54.0	-4.1	Peak	Horizontal
*	8599.0	32.7	13.4	46.1	68.2	-22.1	Peak	Vertical
*	9865.5	32.0	16.0	48.0	68.2	-20.2	Peak	Vertical
	10911.0	31.5	18.4	49.9	54.0	-4.1	Peak	Vertical
	11514.5	30.8	19.4	50.2	54.0	-3.8	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	48
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8582.0	32.7	13.4	46.1	68.2	-22.1	Peak	Horizontal
*	9857.0	30.8	16.2	47.0	68.2	-21.2	Peak	Horizontal
	11064.0	31.3	18.5	49.8	54.0	-4.2	Peak	Horizontal
	11659.0	31.2	19.3	50.5	54.0	-3.5	Peak	Horizontal
*	8582.0	32.6	13.4	46.0	68.2	-22.2	Peak	Vertical
*	9857.0	31.0	16.2	47.2	68.2	-21.0	Peak	Vertical
	11174.5	31.8	18.7	50.5	54.0	-3.5	Peak	Vertical
	12152.0	30.9	18.9	49.8	54.0	-4.2	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	149
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8641.5	32.2	13.5	45.7	68.2	-22.5	Peak	Horizontal
*	9670.0	32.5	14.5	47.0	68.2	-21.2	Peak	Horizontal
	10928.0	31.2	18.4	49.6	54.0	-4.4	Peak	Horizontal
	11480.5	31.5	19.3	50.8	54.0	-3.2	Peak	Horizontal
*	8667.0	32.2	13.6	45.8	68.2	-22.4	Peak	Vertical
*	9848.5	30.8	16.1	46.9	68.2	-21.3	Peak	Vertical
	10877.0	30.7	18.2	48.9	54.0	-5.1	Peak	Vertical
	11582.5	31.4	19.5	50.9	54.0	-3.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	157
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8641.5	32.0	13.5	45.5	68.2	-22.7	Peak	Horizontal
*	9874.0	31.4	15.8	47.2	68.2	-21.0	Peak	Horizontal
	11208.5	31.0	18.8	49.8	54.0	-4.2	Peak	Horizontal
	12177.5	31.2	18.8	50.0	54.0	-4.0	Peak	Horizontal
*	8633.0	32.3	13.5	45.8	68.2	-22.4	Peak	Vertical
*	9848.5	31.4	16.1	47.5	68.2	-20.7	Peak	Vertical
	10928.0	31.9	18.4	50.3	54.0	-3.7	Peak	Vertical
	11642.0	31.9	19.4	51.3	54.0	-2.7	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	165
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8590.5	32.2	13.4	45.6	68.2	-22.6	Peak	Horizontal
*	9797.5	31.9	15.1	47.0	68.2	-21.2	Peak	Horizontal
	10894.0	31.0	18.3	49.3	54.0	-4.7	Peak	Horizontal
	11633.5	31.1	19.4	50.5	54.0	-3.5	Peak	Horizontal
*	8888.0	31.7	14.0	45.7	68.2	-22.5	Peak	Vertical
*	9755.0	32.3	14.8	47.1	68.2	-21.1	Peak	Vertical
	11633.5	30.8	19.4	50.2	54.0	-3.8	Peak	Vertical
	12500.5	31.9	18.5	50.4	54.0	-3.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT40 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	38
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8658.5	30.8	13.6	44.4	68.2	-23.8	Peak	Horizontal
*	9857.0	31.0	16.2	47.2	68.2	-21.0	Peak	Horizontal
	11055.5	30.0	18.5	48.5	54.0	-5.5	Peak	Horizontal
	12084.0	30.5	18.9	49.4	54.0	-4.6	Peak	Horizontal
*	8658.5	31.6	13.6	45.2	68.2	-23.0	Peak	Vertical
*	9891.0	31.0	15.5	46.5	68.2	-21.7	Peak	Vertical
	10885.5	30.3	18.3	48.6	54.0	-5.4	Peak	Vertical
	11591.0	29.8	19.5	49.3	54.0	-4.7	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT40 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	46
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8845.5	30.9	14.0	44.9	68.2	-23.3	Peak	Horizontal
*	9865.5	30.9	16.0	46.9	68.2	-21.3	Peak	Horizontal
	11047.0	31.0	18.5	49.5	54.0	-4.5	Peak	Horizontal
	12135.0	31.1	18.9	50.0	54.0	-4.0	Peak	Horizontal
*	8879.5	31.7	14.0	45.7	68.2	-22.5	Peak	Vertical
*	9789.0	31.2	15.0	46.2	68.2	-22.0	Peak	Vertical
	10860.0	31.7	18.2	49.9	54.0	-4.1	Peak	Vertical
	12177.5	31.8	18.8	50.6	54.0	-3.4	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT40 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	151
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8735.0	31.4	13.9	45.3	68.2	-22.9	Peak	Horizontal
*	9848.5	31.3	16.1	47.4	68.2	-20.8	Peak	Horizontal
	10877.0	31.3	18.2	49.5	54.0	-4.5	Peak	Horizontal
	11506.0	30.3	19.4	49.7	54.0	-4.3	Peak	Horizontal
*	8760.5	31.0	13.9	44.9	68.2	-23.3	Peak	Vertical
*	9857.0	31.3	16.2	47.5	68.2	-20.7	Peak	Vertical
	11004.5	31.1	18.5	49.6	54.0	-4.4	Peak	Vertical
	11531.5	30.6	19.4	50.0	54.0	-4.0	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT40 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	159
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ũ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8599.0	31.1	13.4	44.5	68.2	-23.7	Peak	Horizontal
*	9840.0	30.9	16.0	46.9	68.2	-21.3	Peak	Horizontal
	10843.0	32.1	18.1	50.2	54.0	-3.8	Peak	Horizontal
	11616.5	30.8	19.4	50.2	54.0	-3.8	Peak	Horizontal
*	8616.0	31.7	13.5	45.2	68.2	-23.0	Peak	Vertical
*	9789.0	32.8	15.0	47.8	68.2	-20.4	Peak	Vertical
	11038.5	31.0	18.5	49.5	54.0	-4.5	Peak	Vertical
	11557.0	31.3	19.5	50.8	54.0	-3.2	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	36
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8879.5	31.3	14.0	45.3	68.2	-22.9	Peak	Horizontal
*	9976.0	32.0	15.3	47.3	68.2	-20.9	Peak	Horizontal
	11557.0	30.7	19.5	50.2	54.0	-3.8	Peak	Horizontal
	12220.0	30.4	18.7	49.1	54.0	-4.9	Peak	Horizontal
*	8675.5	31.4	13.7	45.1	68.2	-23.1	Peak	Vertical
*	9865.5	31.2	16.0	47.2	68.2	-21.0	Peak	Vertical
	11574.0	31.0	19.5	50.5	54.0	-3.5	Peak	Vertical
	12143.5	30.7	18.9	49.6	54.0	-4.4	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	44
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8582.0	31.5	13.4	44.9	68.2	-23.3	Peak	Horizontal
*	9925.0	32.1	15.3	47.4	68.2	-20.8	Peak	Horizontal
	10741.0	32.4	17.6	50.0	54.0	-4.0	Peak	Horizontal
	11506.0	31.1	19.4	50.5	54.0	-3.5	Peak	Horizontal
*	8650.0	32.8	13.6	46.4	68.2	-21.8	Peak	Vertical
*	9933.5	32.4	15.3	47.7	68.2	-20.5	Peak	Vertical
	11106.5	31.4	18.6	50.0	54.0	-4.0	Peak	Vertical
	11616.5	31.4	19.4	50.8	54.0	-3.2	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	48
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8616.0	31.4	13.5	44.9	68.2	-23.3	Peak	Horizontal
*	9729.5	32.8	14.7	47.5	68.2	-20.7	Peak	Horizontal
	11506.0	31.3	19.4	50.7	54.0	-3.3	Peak	Horizontal
	12135.0	31.4	18.9	50.3	54.0	-3.7	Peak	Horizontal
*	8641.5	30.8	13.5	44.3	68.2	-23.9	Peak	Vertical
*	9806.0	31.2	15.2	46.4	68.2	-21.8	Peak	Vertical
	11565.5	30.7	19.5	50.2	54.0	-3.8	Peak	Vertical
	12084.0	31.0	18.9	49.9	54.0	-4.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	149
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8633.0	31.7	13.5	45.2	68.2	-23.0	Peak	Horizontal
*	9840.0	31.4	16.0	47.4	68.2	-20.8	Peak	Horizontal
	10741.0	31.8	17.6	49.4	54.0	-4.6	Peak	Horizontal
	11608.0	31.5	19.4	50.9	54.0	-3.1	Peak	Horizontal
*	8709.5	31.2	13.8	45.0	68.2	-23.2	Peak	Vertical
*	9840.0	31.1	16.0	47.1	68.2	-21.1	Peak	Vertical
	10996.0	31.0	18.5	49.5	54.0	-4.5	Peak	Vertical
	11574.0	31.2	19.5	50.7	54.0	-3.3	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	157
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8641.5	31.7	13.5	45.2	68.2	-23.0	Peak	Horizontal
*	9848.5	31.3	16.1	47.4	68.2	-20.8	Peak	Horizontal
	11650.5	31.1	19.3	50.4	54.0	-3.6	Peak	Horizontal
	12033.0	31.1	18.8	49.9	54.0	-4.1	Peak	Horizontal
*	8735.0	32.5	13.9	46.4	68.2	-21.8	Peak	Vertical
*	9797.5	31.9	15.1	47.0	68.2	-21.2	Peak	Vertical
	11132.0	31.1	18.6	49.7	54.0	-4.3	Peak	Vertical
	11676.0	31.3	19.2	50.5	54.0	-3.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	165
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8879.5	31.0	14.0	45.0	68.2	-23.2	Peak	Horizontal
*	9610.5	32.3	14.4	46.7	68.2	-21.5	Peak	Horizontal
	10681.5	31.2	17.4	48.6	54.0	-5.4	Peak	Horizontal
	11642.0	30.8	19.4	50.2	54.0	-3.8	Peak	Horizontal
*	8913.5	30.9	14.0	44.9	68.2	-23.3	Peak	Vertical
*	9738.0	33.3	14.8	48.1	68.2	-20.1	Peak	Vertical
	11599.5	30.7	19.4	50.1	54.0	-3.9	Peak	Vertical
	12118.0	31.0	18.9	49.9	54.0	-4.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11ac-VHT40 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	38	
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8871.0	31.3	14.0	45.3	68.2	-22.9	Peak	Horizontal
*	9746.5	32.0	14.8	46.8	68.2	-21.4	Peak	Horizontal
	10877.0	30.5	18.2	48.7	54.0	-5.3	Peak	Horizontal
	11540.0	30.5	19.4	49.9	54.0	-4.1	Peak	Horizontal
*	8641.5	31.7	13.5	45.2	68.2	-23.0	Peak	Vertical
*	9925.0	31.7	15.3	47.0	68.2	-21.2	Peak	Vertical
	10681.5	32.3	17.4	49.7	54.0	-4.3	Peak	Vertical
	12203.0	31.1	18.8	49.9	54.0	-4.1	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11ac-VHT40 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	46	
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ũ	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8607.5	32.0	13.5	45.5	68.2	-22.7	Peak	Horizontal
*	9925.0	32.3	15.3	47.6	68.2	-20.6	Peak	Horizontal
	11446.5	31.3	19.2	50.5	54.0	-3.5	Peak	Horizontal
	12126.5	31.0	18.9	49.9	54.0	-4.1	Peak	Horizontal
*	8888.0	31.1	14.0	45.1	68.2	-23.1	Peak	Vertical
*	9780.5	32.2	14.9	47.1	68.2	-21.1	Peak	Vertical
	11004.5	31.2	18.5	49.7	54.0	-4.3	Peak	Vertical
	11591.0	30.5	19.5	50.0	54.0	-4.0	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11ac-VHT40 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	151	
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8684.0	32.9	13.7	46.6	68.2	-21.6	Peak	Horizontal
*	9738.0	31.3	14.8	46.1	68.2	-22.1	Peak	Horizontal
	11004.5	30.3	18.5	48.8	54.0	-5.2	Peak	Horizontal
	11625.0	31.1	19.4	50.5	54.0	-3.5	Peak	Horizontal
*	8675.5	31.0	13.7	44.7	68.2	-23.5	Peak	Vertical
*	9789.0	31.2	15.0	46.2	68.2	-22.0	Peak	Vertical
	11098.0	32.1	18.6	50.7	54.0	-3.3	Peak	Vertical
	11956.5	32.0	18.6	50.6	54.0	-3.4	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11ac-VHT40 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	159	
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8726.5	30.8	13.8	44.6	68.2	-23.6	Peak	Horizontal
*	9763.5	31.6	14.9	46.5	68.2	-21.7	Peak	Horizontal
	11055.5	31.0	18.5	49.5	54.0	-4.5	Peak	Horizontal
	12058.5	31.3	18.8	50.1	54.0	-3.9	Peak	Horizontal
*	8633.0	31.6	13.5	45.1	68.2	-23.1	Peak	Vertical
*	9840.0	31.7	16.0	47.7	68.2	-20.5	Peak	Vertical
	10970.5	31.2	18.4	49.6	54.0	-4.4	Peak	Vertical
	11616.5	30.9	19.4	50.3	54.0	-3.7	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11ac-VHT80 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	42	
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8633.0	31.7	13.5	45.2	68.2	-23.0	Peak	Horizontal
*	9865.5	31.3	16.0	47.3	68.2	-20.9	Peak	Horizontal
	11106.5	30.3	18.6	48.9	54.0	-5.1	Peak	Horizontal
	11744.0	31.4	18.9	50.3	54.0	-3.7	Peak	Horizontal
*	8692.5	31.4	13.7	45.1	68.2	-23.1	Peak	Vertical
*	9857.0	31.1	16.2	47.3	68.2	-20.9	Peak	Vertical
	10792.0	31.4	17.9	49.3	54.0	-4.7	Peak	Vertical
	12203.0	31.8	18.8	50.6	54.0	-3.4	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11ac-VHT80 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	155	
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8522.5	32.4	13.0	45.4	68.2	-22.8	Peak	Horizontal
*	9857.0	32.1	16.2	48.3	68.2	-19.9	Peak	Horizontal
	11149.0	30.7	18.7	49.4	54.0	-4.6	Peak	Horizontal
	12109.5	31.0	18.9	49.9	54.0	-4.1	Peak	Horizontal
*	8871.0	32.3	14.0	46.3	68.2	-21.9	Peak	Vertical
*	9848.5	32.0	16.1	48.1	68.2	-20.1	Peak	Vertical
	11030.0	31.0	18.5	49.5	54.0	-4.5	Peak	Vertical
	12152.0	31.2	18.9	50.1	54.0	-3.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT80+80 - Ant 0 + 1 / Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	42
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7434.5	33.6	12.7	46.3	54.0	-7.7	Peak	Horizontal
	8497.0	32.4	12.8	45.2	54.0	-8.8	Peak	Horizontal
*	10010.0	32.4	15.4	47.8	68.2	-20.4	Peak	Horizontal
*	12866.0	30.8	19.3	50.1	68.2	-18.1	Peak	Horizontal
	7570.5	33.3	12.8	46.1	54.0	-7.9	Peak	Vertical
	8276.0	32.9	11.9	44.8	54.0	-9.2	Peak	Vertical
*	10103.5	32.1	15.7	47.8	68.2	-20.4	Peak	Vertical
*	12721.5	32.0	18.8	50.8	68.2	-17.4	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT80+80 - Ant 0 + 1 / Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	155
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7366.5	33.6	12.5	46.1	54.0	-7.9	Peak	Horizontal
	8429.0	33.3	12.4	45.7	54.0	-8.3	Peak	Horizontal
*	10120.5	32.5	15.8	48.3	68.2	-19.9	Peak	Horizontal
*	12840.5	31.4	19.2	50.6	68.2	-17.6	Peak	Horizontal
	7366.5	33.6	12.5	46.1	54.0	-7.9	Peak	Vertical
	8242.0	32.9	11.9	44.8	54.0	-9.2	Peak	Vertical
*	9984.5	31.8	15.4	47.2	68.2	-21.0	Peak	Vertical
*	13070.0	32.0	20.0	52.0	68.2	-16.2	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11ac-VHT80+80 - Ant 2 + 3 / Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	2017/08/16 42 er than average	
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7545.0	32.6	12.8	45.4	54.0	-8.6	Peak	Horizontal
	8463.0	32.4	12.6	45.0	54.0	-9.0	Peak	Horizontal
*	10120.5	32.6	15.8	48.4	68.2	-19.8	Peak	Horizontal
*	12951.0	31.2	19.7	50.9	68.2	-17.3	Peak	Horizontal
	7545.0	32.6	12.8	45.4	54.0	-8.6	Peak	Vertical
	8352.5	32.5	12.0	44.5	54.0	-9.5	Peak	Vertical
*	9942.0	31.9	15.3	47.2	68.2	-21.0	Peak	Vertical
*	12815.0	32.7	19.1	51.8	68.2	-16.4	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT80+80 - Ant 2 + 3 / Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	155
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7545.0	32.6	12.8	45.4	54.0	-8.6	Peak	Horizontal
	8463.0	32.4	12.6	45.0	54.0	-9.0	Peak	Horizontal
*	10120.5	32.6	15.8	48.4	68.2	-19.8	Peak	Horizontal
*	12951.0	31.2	19.7	50.9	68.2	-17.3	Peak	Horizontal
	7545.0	32.6	12.8	45.4	54.0	-8.6	Peak	Vertical
	8352.5	32.5	12.0	44.5	54.0	-9.5	Peak	Vertical
*	9942.0	31.9	15.3	47.2	68.2	-21.0	Peak	Vertical
*	12815.0	32.7	19.1	51.8	68.2	-16.4	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	36
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7570.5	31.2	12.8	44.0	54.0	-10.0	Peak	Horizontal
	8352.5	30.9	12.0	42.9	54.0	-11.1	Peak	Horizontal
*	10171.5	31.3	16.1	47.4	68.2	-20.8	Peak	Horizontal
*	13070.0	32.0	20.0	52.0	68.2	-16.2	Peak	Horizontal
	7434.5	31.0	12.7	43.7	54.0	-10.3	Peak	Vertical
	8208.0	31.1	11.9	43.0	54.0	-11.0	Peak	Vertical
*	10120.5	29.6	15.8	45.4	68.2	-22.8	Peak	Vertical
*	13070.0	32.0	20.0	52.0	68.2	-16.2	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	44
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7434.5	31.0	12.7	43.7	54.0	-10.3	Peak	Horizontal
	8208.0	28.7	11.9	40.6	54.0	-13.4	Peak	Horizontal
*	10120.5	29.9	15.8	45.7	68.2	-22.5	Peak	Horizontal
*	12849.0	28.0	19.2	47.2	68.2	-21.0	Peak	Horizontal
	7519.5	28.8	12.8	41.6	54.0	-12.4	Peak	Vertical
	8259.0	28.5	11.9	40.4	54.0	-13.6	Peak	Vertical
*	10061.0	28.0	15.6	43.6	68.2	-24.6	Peak	Vertical
*	12849.0	28.0	19.2	47.2	68.2	-21.0	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	48
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7519.5	28.8	12.8	41.6	54.0	-12.4	Peak	Horizontal
	8310.0	28.9	11.9	40.8	54.0	-13.2	Peak	Horizontal
*	10214.0	27.6	16.3	43.9	68.2	-24.3	Peak	Horizontal
*	12951.0	28.0	19.7	47.7	68.2	-20.5	Peak	Horizontal
	7477.0	30.4	12.8	43.2	54.0	-10.8	Peak	Vertical
	8412.0	30.8	12.3	43.1	54.0	-10.9	Peak	Vertical
*	10078.0	29.1	15.6	44.7	68.2	-23.5	Peak	Vertical
*	12951.0	28.0	19.7	47.7	68.2	-20.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	149
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7332.5	30.2	12.4	42.6	54.0	-11.4	Peak	Horizontal
	8327.0	31.5	11.9	43.4	54.0	-10.6	Peak	Horizontal
*	9993.0	30.2	15.4	45.6	68.2	-22.6	Peak	Horizontal
*	12951.0	29.7	19.7	49.4	68.2	-18.8	Peak	Horizontal
	7443.0	31.3	12.7	44.0	54.0	-10.0	Peak	Vertical
	8259.0	31.1	11.9	43.0	54.0	-11.0	Peak	Vertical
*	10078.0	28.8	15.6	44.4	68.2	-23.8	Peak	Vertical
*	12951.0	29.7	19.7	49.4	68.2	-18.8	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	157	
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7443.0	31.3	12.7	44.0	54.0	-10.0	Peak	Horizontal
	8471.5	31.0	12.6	43.6	54.0	-10.4	Peak	Horizontal
*	10188.5	28.6	16.2	44.8	68.2	-23.4	Peak	Horizontal
*	12891.5	29.5	19.4	48.9	68.2	-19.3	Peak	Horizontal
	7400.5	31.0	12.6	43.6	54.0	-10.4	Peak	Vertical
	8352.5	30.7	12.0	42.7	54.0	-11.3	Peak	Vertical
*	10137.5	29.1	15.9	45.0	68.2	-23.2	Peak	Vertical
*	12891.5	29.5	19.4	48.9	68.2	-19.3	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	165
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7400.5	31.0	12.6	43.6	54.0	-10.4	Peak	Horizontal
	8276.0	30.0	11.9	41.9	54.0	-12.1	Peak	Horizontal
*	10231.0	28.7	16.4	45.1	68.2	-23.1	Peak	Horizontal
*	12840.5	30.2	19.2	49.4	68.2	-18.8	Peak	Horizontal
	7400.5	28.9	12.6	41.5	54.0	-12.5	Peak	Vertical
	8352.5	29.5	12.0	41.5	54.0	-12.5	Peak	Vertical
*	10214.0	30.1	16.3	46.4	68.2	-21.8	Peak	Vertical
*	12840.5	30.2	19.2	49.4	68.2	-18.8	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT40 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	38
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7443.0	30.1	12.7	42.8	54.0	-11.2	Peak	Horizontal
	8429.0	31.0	12.4	43.4	54.0	-10.6	Peak	Horizontal
*	10171.5	29.7	16.1	45.8	68.2	-22.4	Peak	Horizontal
*	12857.5	29.6	19.3	48.9	68.2	-19.3	Peak	Horizontal
	7298.5	28.7	12.3	41.0	54.0	-13.0	Peak	Vertical
	8267.5	30.1	11.9	42.0	54.0	-12.0	Peak	Vertical
*	10171.5	30.5	16.1	46.6	68.2	-21.6	Peak	Vertical
*	12857.5	29.6	19.3	48.9	68.2	-19.3	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT40 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	46
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7298.5	28.7	12.3	41.0	54.0	-13.0	Peak	Horizontal
	8259.0	28.6	11.9	40.5	54.0	-13.5	Peak	Horizontal
*	9899.5	30.5	15.4	45.9	68.2	-22.3	Peak	Horizontal
*	13197.5	27.3	20.3	47.6	68.2	-20.6	Peak	Horizontal
	7375.0	31.1	12.5	43.6	54.0	-10.4	Peak	Vertical
	8284.5	28.9	11.9	40.8	54.0	-13.2	Peak	Vertical
*	10103.5	31.3	15.7	47.0	68.2	-21.2	Peak	Vertical
*	12789.5	29.2	19.0	48.2	68.2	-20.0	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT40 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	151
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7426.0	31.1	12.7	43.8	54.0	-10.2	Peak	Horizontal
	8301.5	31.3	11.9	43.2	54.0	-10.8	Peak	Horizontal
*	10061.0	30.0	15.6	45.6	68.2	-22.6	Peak	Horizontal
*	12857.5	28.0	19.3	47.3	68.2	-20.9	Peak	Horizontal
	7332.5	29.5	12.4	41.9	54.0	-12.1	Peak	Vertical
	8335.5	31.8	11.9	43.7	54.0	-10.3	Peak	Vertical
*	9993.0	29.2	15.4	44.6	68.2	-23.6	Peak	Vertical
*	12857.5	28.0	19.3	47.3	68.2	-20.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT40 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	159
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7451.5	29.9	12.8	42.7	54.0	-11.3	Peak	Horizontal
	8276.0	29.5	11.9	41.4	54.0	-12.6	Peak	Horizontal
*	10001.5	29.2	15.4	44.6	68.2	-23.6	Peak	Horizontal
*	12908.5	26.2	19.5	45.7	68.2	-22.5	Peak	Horizontal
	7511.0	31.0	12.8	43.8	54.0	-10.2	Peak	Vertical
	8386.5	32.1	12.1	44.2	54.0	-9.8	Peak	Vertical
*	10129.0	30.7	15.9	46.6	68.2	-21.6	Peak	Vertical
*	12908.5	26.2	19.5	45.7	68.2	-22.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	36
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7332.5	29.5	12.4	41.9	54.0	-12.1	Peak	Horizontal
	8318.5	29.4	11.9	41.3	54.0	-12.7	Peak	Horizontal
*	9942.0	29.5	15.3	44.8	68.2	-23.4	Peak	Horizontal
*	12815.0	28.4	19.1	47.5	68.2	-20.7	Peak	Horizontal
	7400.5	30.8	12.6	43.4	54.0	-10.6	Peak	Vertical
	8497.0	30.5	12.8	43.3	54.0	-10.7	Peak	Vertical
*	10333.0	31.2	16.7	47.9	68.2	-20.3	Peak	Vertical
*	13070.0	30.3	20.0	50.3	68.2	-17.9	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	44
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7400.5	30.8	12.6	43.4	54.0	-10.6	Peak	Horizontal
	8386.5	28.8	12.1	40.9	54.0	-13.1	Peak	Horizontal
*	9967.5	27.6	15.3	42.9	68.2	-25.3	Peak	Horizontal
*	12806.5	28.8	19.1	47.9	68.2	-20.3	Peak	Horizontal
	7434.5	30.1	12.7	42.8	54.0	-11.2	Peak	Vertical
	8463.0	28.7	12.6	41.3	54.0	-12.7	Peak	Vertical
*	10273.5	31.0	16.5	47.5	68.2	-20.7	Peak	Vertical
*	12806.5	28.8	19.1	47.9	68.2	-20.3	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	48
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7434.5	30.1	12.7	42.8	54.0	-11.2	Peak	Horizontal
	8352.5	30.1	12.0	42.1	54.0	-11.9	Peak	Horizontal
*	9984.5	27.2	15.4	42.6	68.2	-25.6	Peak	Horizontal
*	12900.0	29.4	19.5	48.9	68.2	-19.3	Peak	Horizontal
	7383.5	29.2	12.5	41.7	54.0	-12.3	Peak	Vertical
	8276.0	29.4	11.9	41.3	54.0	-12.7	Peak	Vertical
*	10171.5	27.6	16.1	43.7	68.2	-24.5	Peak	Vertical
*	12900.0	29.4	19.5	48.9	68.2	-19.3	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	149
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7366.5	29.9	12.5	42.4	54.0	-11.6	Peak	Horizontal
	8276.0	29.5	11.9	41.4	54.0	-12.6	Peak	Horizontal
*	10035.5	28.4	15.5	43.9	68.2	-24.3	Peak	Horizontal
*	12721.5	27.7	18.8	46.5	68.2	-21.7	Peak	Horizontal
	7494.0	30.1	12.8	42.9	54.0	-11.1	Peak	Vertical
	8344.0	31.1	12.0	43.1	54.0	-10.9	Peak	Vertical
*	10265.0	28.8	16.5	45.3	68.2	-22.9	Peak	Vertical
*	12721.5	27.7	18.8	46.5	68.2	-21.7	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	157	
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·		

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7494.0	30.1	12.8	42.9	54.0	-11.1	Peak	Horizontal
	8352.5	31.2	12.0	43.2	54.0	-10.8	Peak	Horizontal
*	9899.5	29.9	15.4	45.3	68.2	-22.9	Peak	Horizontal
*	12934.0	28.7	19.6	48.3	68.2	-19.9	Peak	Horizontal
	7468.5	29.2	12.8	42.0	54.0	-12.0	Peak	Vertical
	8352.5	29.7	12.0	41.7	54.0	-12.3	Peak	Vertical
*	10120.5	29.2	15.8	45.0	68.2	-23.2	Peak	Vertical
*	12934.0	28.7	19.6	48.3	68.2	-19.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	165	
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7468.5	29.2	12.8	42.0	54.0	-12.0	Peak	Horizontal
	8301.5	29.9	11.9	41.8	54.0	-12.2	Peak	Horizontal
*	10171.5	29.1	16.1	45.2	68.2	-23.0	Peak	Horizontal
*	12840.5	29.2	19.2	48.4	68.2	-19.8	Peak	Horizontal
	7332.5	28.4	12.4	40.8	54.0	-13.2	Peak	Vertical
	8199.5	29.6	12.0	41.6	54.0	-12.4	Peak	Vertical
*	10120.5	29.3	15.8	45.1	68.2	-23.1	Peak	Vertical
*	12840.5	29.2	19.2	48.4	68.2	-19.8	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11ac-VHT40 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	38	
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·		

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7511.0	31.0	12.8	43.8	54.0	-10.2	Peak	Horizontal
	8318.5	30.9	11.9	42.8	54.0	-11.2	Peak	Horizontal
*	9814.5	28.8	15.4	44.2	68.2	-24.0	Peak	Horizontal
*	12781.0	29.3	19.0	48.3	68.2	-19.9	Peak	Horizontal
	7587.5	28.6	12.7	41.3	54.0	-12.7	Peak	Vertical
	8403.5	29.5	12.2	41.7	54.0	-12.3	Peak	Vertical
*	10112.0	28.6	15.8	44.4	68.2	-23.8	Peak	Vertical
*	12781.0	29.3	19.0	48.3	68.2	-19.9	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11ac-VHT40 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	46	
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·		

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7587.5	28.6	12.7	41.3	54.0	-12.7	Peak	Horizontal
	8250.5	30.1	11.9	42.0	54.0	-12.0	Peak	Horizontal
*	9993.0	27.9	15.4	43.3	68.2	-24.9	Peak	Horizontal
*	12951.0	29.5	19.7	49.2	68.2	-19.0	Peak	Horizontal
	7366.5	30.1	12.5	42.6	54.0	-11.4	Peak	Vertical
	8199.5	29.4	12.0	41.4	54.0	-12.6	Peak	Vertical
*	9899.5	29.1	15.4	44.5	68.2	-23.7	Peak	Vertical
*	12951.0	29.5	19.7	49.2	68.2	-19.0	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11ac-VHT40 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	151	
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·		

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7400.5	31.2	12.6	43.8	54.0	-10.2	Peak	Horizontal
	8352.5	30.8	12.0	42.8	54.0	-11.2	Peak	Horizontal
*	10061.0	28.8	15.6	44.4	68.2	-23.8	Peak	Horizontal
*	13010.5	28.7	19.9	48.6	68.2	-19.6	Peak	Horizontal
	7545.0	28.9	12.8	41.7	54.0	-12.3	Peak	Vertical
	8276.0	30.3	11.9	42.2	54.0	-11.8	Peak	Vertical
*	10078.0	29.5	15.6	45.1	68.2	-23.1	Peak	Vertical
*	13010.5	28.7	19.9	48.6	68.2	-19.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT40 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	159
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7545.0	28.9	12.8	41.7	54.0	-12.3	Peak	Horizontal
	8403.5	30.7	12.2	42.9	54.0	-11.1	Peak	Horizontal
*	9950.5	28.5	15.3	43.8	68.2	-24.4	Peak	Horizontal
*	12925.5	27.6	19.6	47.2	68.2	-21.0	Peak	Horizontal
	7358.0	27.9	12.4	40.3	54.0	-13.7	Peak	Vertical
	8386.5	29.2	12.1	41.3	54.0	-12.7	Peak	Vertical
*	9899.5	28.1	15.4	43.5	68.2	-24.7	Peak	Vertical
*	12925.5	27.6	19.6	47.2	68.2	-21.0	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT80 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	42
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7358.0	27.9	12.4	40.3	54.0	-13.7	Peak	Horizontal
	8352.5	29.3	12.0	41.3	54.0	-12.7	Peak	Horizontal
*	10052.5	29.0	15.5	44.5	68.2	-23.7	Peak	Horizontal
*	12925.5	28.3	19.6	47.9	68.2	-20.3	Peak	Horizontal
	7485.5	30.9	12.8	43.7	54.0	-10.3	Peak	Vertical
	8310.0	30.0	11.9	41.9	54.0	-12.1	Peak	Vertical
*	10171.5	29.5	16.1	45.6	68.2	-22.6	Peak	Vertical
*	12925.5	28.3	19.6	47.9	68.2	-20.3	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT80 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	155
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7579.0	27.8	12.7	40.5	54.0	-13.5	Peak	Horizontal
	8386.5	29.7	12.1	41.8	54.0	-12.2	Peak	Horizontal
*	10180.0	27.6	16.1	43.7	68.2	-24.5	Peak	Horizontal
*	12823.5	27.1	19.2	46.3	68.2	-21.9	Peak	Horizontal
	7434.5	31.3	12.7	44.0	54.0	-10.0	Peak	Vertical
	8386.5	30.8	12.1	42.9	54.0	-11.1	Peak	Vertical
*	10222.5	29.3	16.3	45.6	68.2	-22.6	Peak	Vertical
*	12823.5	27.1	19.2	46.3	68.2	-21.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
	802.11ac-VHT80+80 - Ant 0 + 1 /		
Test Mode:	Ant 0 + 1 + 2 + 3	Test Channel:	42
	(Beam-Forming Mode)		
Remark:	1. Average measurement was not p	performed if peak level lo	wer than average
	limit.		
	2. Other frequency was 20dB below	v limit line within 1-18GH	z, there is not show
	in the report.		

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7825.5	33.8	12.4	46.2	68.2	-22.0	Peak	Horizontal
*	8590.5	32.9	13.4	46.3	68.2	-21.9	Peak	Horizontal
	9347.0	31.5	14.5	46.0	54.0	-8.0	Peak	Horizontal
	11514.5	31.2	19.4	50.6	54.0	-3.4	Peak	Horizontal
*	7910.5	31.5	12.4	43.9	68.2	-24.3	Peak	Vertical
*	8650.0	32.6	13.6	46.2	68.2	-22.0	Peak	Vertical
	9330.0	31.4	14.6	46.0	54.0	-8.0	Peak	Vertical
	11514.5	30.8	19.4	50.2	54.0	-3.8	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
	802.11ac-VHT80+80 - Ant 0 + 1 /		
Test Mode:	Ant 0 + 1 + 2 + 3	Test Channel:	155
	(Beam-Forming Mode)		
Remark:	1. Average measurement was not p	performed if peak level lo	wer than average
	limit.		
	2. Other frequency was 20dB below	v limit line within 1-18GH	z, there is not show
	in the report.		

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7927.5	31.2	12.4	43.6	68.2	-24.6	Peak	Horizontal
*	8590.5	32.6	13.4	46.0	68.2	-22.2	Peak	Horizontal
	9168.5	32.7	14.7	47.4	54.0	-6.6	Peak	Horizontal
	11514.5	31.6	19.4	51.0	54.0	-3.0	Peak	Horizontal
*	7987.0	30.9	12.5	43.4	68.2	-24.8	Peak	Vertical
*	8573.5	31.9	13.3	45.2	68.2	-23.0	Peak	Vertical
	9449.0	30.6	14.4	45.0	54.0	-9.0	Peak	Vertical
	11591.0	31.1	19.5	50.6	54.0	-3.4	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
	802.11ac-VHT80+80 - Ant 2 + 3 /		
Test Mode:	Ant 0 + 1 + 2 + 3	Test Channel:	42
	(Beam-Forming Mode)		
Remark:	1. Average measurement was not p	performed if peak level lo	wer than average
	limit.		
	2. Other frequency was 20dB below	v limit line within 1-18GH	z, there is not show
	in the report.		

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7783.0	33.2	12.4	45.6	68.2	-22.6	Peak	Horizontal
*	8650.0	32.3	13.6	45.9	68.2	-22.3	Peak	Horizontal
	9109.0	32.4	14.5	46.9	54.0	-7.1	Peak	Horizontal
	11540.0	31.6	19.4	51.0	54.0	-3.0	Peak	Horizontal
*	7876.5	31.0	12.4	43.4	68.2	-24.8	Peak	Vertical
*	8607.5	31.7	13.5	45.2	68.2	-23.0	Peak	Vertical
	9389.5	32.1	14.5	46.6	54.0	-7.4	Peak	Vertical
	11599.5	31.1	19.4	50.5	54.0	-3.5	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Omni Antenna (AP-ANT-19)	Temperature	26°C		
Test Engineer	Kevin Ker	Relative Humidity	57 %		
Test Site	AC1	Test Date	2017/08/16		
	802.11ac-VHT80+80 - Ant 2 + 3 /				
Test Mode:	Ant 0 + 1 + 2 + 3	Test Channel:	155		
	(Beam-Forming Mode)				
Remark:	1. Average measurement was not p	erformed if peak level lov	wer than average		
	limit.				
	2. Other frequency was 20dB below				
	in the report.				

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7859.5	32.4	12.4	44.8	68.2	-23.4	Peak	Horizontal
*	8684.0	32.8	13.7	46.5	68.2	-21.7	Peak	Horizontal
	9466.0	30.9	14.4	45.3	54.0	-8.7	Peak	Horizontal
	11472.0	30.5	19.3	49.8	54.0	-4.2	Peak	Horizontal
*	7825.5	32.8	12.4	45.2	68.2	-23.0	Peak	Vertical
*	8641.5	32.5	13.5	46.0	68.2	-22.2	Peak	Vertical
	9338.5	32.2	14.6	46.8	54.0	-7.2	Peak	Vertical
	11650.5	31.4	19.3	50.7	54.0	-3.3	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11a - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	36
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7664.0	33.3	12.5	45.8	54.0	-8.2	Peak	Horizontal
	8420.5	31.9	12.3	44.2	54.0	-9.8	Peak	Horizontal
*	9840.0	31.6	16.0	47.6	68.2	-20.6	Peak	Horizontal
*	12951.0	30.4	19.7	50.1	68.2	-18.1	Peak	Horizontal
	7494.0	32.9	12.8	45.7	54.0	-8.3	Peak	Vertical
	8140.0	32.6	12.2	44.8	54.0	-9.2	Peak	Vertical
*	9865.5	31.4	16.0	47.4	68.2	-20.8	Peak	Vertical
*	12951.0	30.4	19.7	50.1	68.2	-18.1	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11a - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	44
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7341.0	33.1	12.4	45.5	54.0	-8.5	Peak	Horizontal
	8140.0	32.6	12.2	44.8	54.0	-9.2	Peak	Horizontal
*	9746.5	32.7	14.8	47.5	68.2	-20.7	Peak	Horizontal
*	13010.5	31.1	19.9	51.0	68.2	-17.2	Peak	Horizontal
	7570.5	32.7	12.8	45.5	54.0	-8.5	Peak	Vertical
	8378.0	31.9	12.1	44.0	54.0	-10.0	Peak	Vertical
*	10511.5	31.7	17.2	48.9	68.2	-19.3	Peak	Vertical
*	13010.5	31.1	19.9	51.0	68.2	-17.2	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11a - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	48
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ū.

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7494.0	32.8	12.8	45.6	54.0	-8.4	Peak	Horizontal
	8378.0	31.9	12.1	44.0	54.0	-10.0	Peak	Horizontal
*	9967.5	32.6	15.3	47.9	68.2	-20.3	Peak	Horizontal
*	12849.0	30.7	19.2	49.9	68.2	-18.3	Peak	Horizontal
	7553.5	32.1	12.8	44.9	54.0	-9.1	Peak	Vertical
	8463.0	31.6	12.6	44.2	54.0	-9.8	Peak	Vertical
*	10180.0	30.4	16.1	46.5	68.2	-21.7	Peak	Vertical
*	12849.0	30.7	19.2	49.9	68.2	-18.3	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11a - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	149
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7375.0	32.3	12.5	44.8	54.0	-9.2	Peak	Horizontal
	9398.0	31.5	14.5	46.0	54.0	-8.0	Peak	Horizontal
*	12832.0	31.3	19.2	50.5	68.2	-17.7	Peak	Horizontal
*	13801.0	31.6	22.1	53.7	68.2	-14.5	Peak	Horizontal
	7451.5	32.9	12.8	45.7	54.0	-8.3	Peak	Vertical
	9160.0	33.1	14.7	47.8	54.0	-6.2	Peak	Vertical
*	10494.5	30.6	17.2	47.8	68.2	-20.4	Peak	Vertical
*	13801.0	31.6	22.1	53.7	68.2	-14.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11a - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	157
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7468.5	33.0	12.8	45.8	54.0	-8.2	Peak	Horizontal
	9109.0	31.8	14.5	46.3	54.0	-7.7	Peak	Horizontal
*	10273.5	31.8	16.5	48.3	68.2	-19.9	Peak	Horizontal
*	12806.5	31.4	19.1	50.5	68.2	-17.7	Peak	Horizontal
	7536.5	32.5	12.8	45.3	54.0	-8.7	Peak	Vertical
	8199.5	32.7	12.0	44.7	54.0	-9.3	Peak	Vertical
*	10146.0	31.8	16.0	47.8	68.2	-20.4	Peak	Vertical
*	12721.5	32.0	18.8	50.8	68.2	-17.4	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11a - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	165
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7536.5	32.5	12.8	45.3	54.0	-8.7	Peak	Horizontal
	9304.5	31.5	14.7	46.2	54.0	-7.8	Peak	Horizontal
*	10248.0	31.8	16.4	48.2	68.2	-20.0	Peak	Horizontal
*	12891.5	31.2	19.4	50.6	68.2	-17.6	Peak	Horizontal
	7579.0	33.5	12.7	46.2	54.0	-7.8	Peak	Vertical
	9126.0	32.2	14.6	46.8	54.0	-7.2	Peak	Vertical
*	10239.5	32.0	16.4	48.4	68.2	-19.8	Peak	Vertical
*	12891.5	31.2	19.4	50.6	68.2	-17.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	36
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7579.0	33.5	12.7	46.2	54.0	-7.8	Peak	Horizontal
	8114.5	32.8	12.2	45.0	54.0	-9.0	Peak	Horizontal
*	9976.0	32.7	15.3	48.0	68.2	-20.2	Peak	Horizontal
*	13546.0	31.3	21.9	53.2	68.2	-15.0	Peak	Horizontal
	8072.0	32.5	12.4	44.9	54.0	-9.1	Peak	Vertical
	9415.0	31.7	14.5	46.2	54.0	-7.8	Peak	Vertical
*	10350.0	30.0	16.8	46.8	68.2	-21.4	Peak	Vertical
*	13546.0	31.3	21.9	53.2	68.2	-15.0	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	44	
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 			

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7443.0	31.5	12.7	44.2	54.0	-9.8	Peak	Horizontal
	9092.0	32.5	14.4	46.9	54.0	-7.1	Peak	Horizontal
*	10282.0	31.6	16.5	48.1	68.2	-20.1	Peak	Horizontal
*	12781.0	30.1	19.0	49.1	68.2	-19.1	Peak	Horizontal
	8072.0	32.5	12.4	44.9	54.0	-9.1	Peak	Vertical
	9109.0	31.9	14.5	46.4	54.0	-7.6	Peak	Vertical
*	10035.5	31.6	15.5	47.1	68.2	-21.1	Peak	Vertical
*	13146.5	32.1	20.1	52.2	68.2	-16.0	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	48	
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7485.5	32.4	12.8	45.2	54.0	-8.8	Peak	Horizontal
	9126.0	31.6	14.6	46.2	54.0	-7.8	Peak	Horizontal
*	10112.0	33.2	15.8	49.0	68.2	-19.2	Peak	Horizontal
*	13146.5	32.1	20.1	52.2	68.2	-16.0	Peak	Horizontal
	7485.5	32.4	12.8	45.2	54.0	-8.8	Peak	Vertical
	9100.5	32.4	14.4	46.8	54.0	-7.2	Peak	Vertical
*	10214.0	31.1	16.3	47.4	68.2	-20.8	Peak	Vertical
*	12951.0	31.0	19.7	50.7	68.2	-17.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode: 802.11n-HT20 - Ant 0 + 1 + 2 (CDD Mode)		Test Channel:	149
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7366.5	31.2	12.5	43.7	54.0	-10.3	Peak	Horizontal
	9066.5	30.3	14.3	44.6	54.0	-9.4	Peak	Horizontal
*	10188.5	31.6	16.2	47.8	68.2	-20.4	Peak	Horizontal
*	13078.5	30.6	20.0	50.6	68.2	-17.6	Peak	Horizontal
	7366.5	31.2	12.5	43.7	54.0	-10.3	Peak	Vertical
	9134.5	30.5	14.6	45.1	54.0	-8.9	Peak	Vertical
*	10307.5	30.5	16.6	47.1	68.2	-21.1	Peak	Vertical
*	12925.5	30.5	19.6	50.1	68.2	-18.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	157	
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7400.5	31.5	12.6	44.1	54.0	-9.9	Peak	Horizontal
	8242.0	32.0	11.9	43.9	54.0	-10.1	Peak	Horizontal
*	10248.0	31.0	16.4	47.4	68.2	-20.8	Peak	Horizontal
*	12925.5	30.5	19.6	50.1	68.2	-18.1	Peak	Horizontal
	7400.5	31.5	12.6	44.1	54.0	-9.9	Peak	Vertical
	8114.5	32.2	12.2	44.4	54.0	-9.6	Peak	Vertical
*	9916.5	31.6	15.3	46.9	68.2	-21.3	Peak	Vertical
*	12823.5	31.2	19.2	50.4	68.2	-17.8	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	165	
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7596.0	31.8	12.7	44.5	54.0	-9.5	Peak	Horizontal
	9177.0	30.5	14.7	45.2	54.0	-8.8	Peak	Horizontal
*	10494.5	31.2	17.2	48.4	68.2	-19.8	Peak	Horizontal
*	12823.5	31.2	19.2	50.4	68.2	-17.8	Peak	Horizontal
	7596.0	31.8	12.7	44.5	54.0	-9.5	Peak	Vertical
	9092.0	31.6	14.4	46.0	54.0	-8.0	Peak	Vertical
*	10358.5	30.9	16.8	47.7	68.2	-20.5	Peak	Vertical
*	12891.5	31.3	19.4	50.7	68.2	-17.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11n-HT40 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	38	
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7426.0	30.7	12.7	43.4	54.0	-10.6	Peak	Horizontal
	8276.0	30.4	11.9	42.3	54.0	-11.7	Peak	Horizontal
*	10324.5	31.7	16.7	48.4	68.2	-19.8	Peak	Horizontal
*	12891.5	31.3	19.4	50.7	68.2	-17.5	Peak	Horizontal
	7426.0	30.7	12.7	43.4	54.0	-10.6	Peak	Vertical
	8437.5	32.2	12.4	44.6	54.0	-9.4	Peak	Vertical
*	9916.5	32.3	15.3	47.6	68.2	-20.6	Peak	Vertical
*	13180.5	29.5	20.2	49.7	68.2	-18.5	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode: 802.11n-HT40 - Ant 0 + 1 + 2 + 3 (CDD Mode)		Test Channel:	46
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7519.5	33.3	12.8	46.1	54.0	-7.9	Peak	Horizontal
	8471.5	32.0	12.6	44.6	54.0	-9.4	Peak	Horizontal
*	9814.5	31.6	15.4	47.0	68.2	-21.2	Peak	Horizontal
*	13180.5	29.5	20.2	49.7	68.2	-18.5	Peak	Horizontal
	7519.5	33.3	12.8	46.1	54.0	-7.9	Peak	Vertical
	8386.5	31.8	12.1	43.9	54.0	-10.1	Peak	Vertical
*	9814.5	31.3	15.4	46.7	68.2	-21.5	Peak	Vertical
*	12874.5	30.8	19.3	50.1	68.2	-18.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT40 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	151
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7400.5	31.7	12.6	44.3	54.0	-9.7	Peak	Horizontal
	8114.5	31.1	12.2	43.3	54.0	-10.7	Peak	Horizontal
*	10265.0	30.8	16.5	47.3	68.2	-20.9	Peak	Horizontal
*	12832.0	30.2	19.2	49.4	68.2	-18.8	Peak	Horizontal
	7400.5	31.7	12.6	44.3	54.0	-9.7	Peak	Vertical
	8429.0	30.4	12.4	42.8	54.0	-11.2	Peak	Vertical
*	10129.0	30.3	15.9	46.2	68.2	-22.0	Peak	Vertical
*	12857.5	29.6	19.3	48.9	68.2	-19.3	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode: 802.11n-HT40 - Ant 0 + 1 + 2 + 3 (CDD Mode)		Test Channel:	159
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7366.5	33.2	12.5	45.7	54.0	-8.3	Peak	Horizontal
	8437.5	32.1	12.4	44.5	54.0	-9.5	Peak	Horizontal
*	10197.0	31.6	16.2	47.8	68.2	-20.4	Peak	Horizontal
*	12840.5	29.6	19.2	48.8	68.2	-19.4	Peak	Horizontal
	7366.5	33.2	12.5	45.7	54.0	-8.3	Peak	Vertical
	8361.0	31.5	12.0	43.5	54.0	-10.5	Peak	Vertical
*	10154.5	32.4	16.0	48.4	68.2	-19.8	Peak	Vertical
*	13163.5	31.1	20.2	51.3	68.2	-16.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	36
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7332.5	30.8	12.4	43.2	54.0	-10.8	Peak	Horizontal
	8310.0	31.7	11.9	43.6	54.0	-10.4	Peak	Horizontal
*	10146.0	31.7	16.0	47.7	68.2	-20.5	Peak	Horizontal
*	13163.5	31.1	20.2	51.3	68.2	-16.9	Peak	Horizontal
	7332.5	30.8	12.4	43.2	54.0	-10.8	Peak	Vertical
	8199.5	32.3	12.0	44.3	54.0	-9.7	Peak	Vertical
*	10265.0	32.1	16.5	48.6	68.2	-19.6	Peak	Vertical
*	13044.5	31.4	20.0	51.4	68.2	-16.8	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode: 802.11ac-VHT20 - Ant 0 + 1 + 2 (CDD Mode)		Test Channel:	44	
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·		

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7366.5	31.4	12.5	43.9	54.0	-10.1	Peak	Horizontal
	8378.0	32.0	12.1	44.1	54.0	-9.9	Peak	Horizontal
*	10171.5	31.6	16.1	47.7	68.2	-20.5	Peak	Horizontal
*	13044.5	31.4	20.0	51.4	68.2	-16.8	Peak	Horizontal
	7366.5	31.4	12.5	43.9	54.0	-10.1	Peak	Vertical
	8131.5	31.5	12.2	43.7	54.0	-10.3	Peak	Vertical
*	9729.5	32.3	14.7	47.0	68.2	-21.2	Peak	Vertical
*	12891.5	31.2	19.4	50.6	68.2	-17.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	48
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7400.5	31.3	12.6	43.9	54.0	-10.1	Peak	Horizontal
	8199.5	31.2	12.0	43.2	54.0	-10.8	Peak	Horizontal
*	10562.5	32.0	17.2	49.2	68.2	-19.0	Peak	Horizontal
*	12891.5	31.2	19.4	50.6	68.2	-17.6	Peak	Horizontal
	7400.5	31.3	12.6	43.9	54.0	-10.1	Peak	Vertical
	8335.5	32.7	11.9	44.6	54.0	-9.4	Peak	Vertical
*	10035.5	31.8	15.5	47.3	68.2	-20.9	Peak	Vertical
*	13061.5	31.2	20.0	51.2	68.2	-17.0	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	149
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7400.5	31.2	12.6	43.8	54.0	-10.2	Peak	Horizontal
	8361.0	31.5	12.0	43.5	54.0	-10.5	Peak	Horizontal
*	10214.0	30.6	16.3	46.9	68.2	-21.3	Peak	Horizontal
*	12747.0	30.5	18.9	49.4	68.2	-18.8	Peak	Horizontal
	7392.0	32.3	12.6	44.9	54.0	-9.1	Peak	Vertical
	9134.5	30.6	14.6	45.2	54.0	-8.8	Peak	Vertical
*	10571.0	31.4	17.3	48.7	68.2	-19.5	Peak	Vertical
*	12883.0	31.1	19.4	50.5	68.2	-17.7	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	157
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	9151.5	31.7	14.7	46.4	54.0	-7.6	Peak	Horizontal
	11582.5	30.7	19.5	50.2	54.0	-3.8	Peak	Horizontal
*	12840.5	31.1	19.2	50.3	68.2	-17.9	Peak	Horizontal
*	13410.0	30.6	21.5	52.1	68.2	-16.1	Peak	Horizontal
	8276.0	31.3	11.9	43.2	54.0	-10.8	Peak	Vertical
	11523.0	30.9	19.4	50.3	54.0	-3.7	Peak	Vertical
*	12840.5	29.9	19.2	49.1	68.2	-19.1	Peak	Vertical
*	13401.5	28.9	21.4	50.3	68.2	-17.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	165
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		Ũ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7596.0	32.9	12.7	45.6	54.0	-8.4	Peak	Horizontal
	8352.5	32.7	12.0	44.7	54.0	-9.3	Peak	Horizontal
*	9950.5	31.3	15.3	46.6	68.2	-21.6	Peak	Horizontal
*	12891.5	31.4	19.4	50.8	68.2	-17.4	Peak	Horizontal
	9177.0	31.5	14.7	46.2	54.0	-7.8	Peak	Vertical
	11591.0	31.4	19.5	50.9	54.0	-3.1	Peak	Vertical
*	12951.0	30.3	19.7	50.0	68.2	-18.2	Peak	Vertical
*	13486.5	31.3	21.7	53.0	68.2	-15.2	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT40 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	38
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7468.5	32.6	12.8	45.4	54.0	-8.6	Peak	Horizontal
	9134.5	31.6	14.6	46.2	54.0	-7.8	Peak	Horizontal
*	10401.0	30.3	16.9	47.2	68.2	-21.0	Peak	Horizontal
*	13010.5	31.2	19.9	51.1	68.2	-17.1	Peak	Horizontal
	7451.5	32.5	12.8	45.3	54.0	-8.7	Peak	Vertical
	9134.5	30.5	14.6	45.1	54.0	-8.9	Peak	Vertical
*	10401.0	30.4	16.9	47.3	68.2	-20.9	Peak	Vertical
*	13010.5	31.2	19.9	51.1	68.2	-17.1	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT40 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	46
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7451.5	32.5	12.8	45.3	54.0	-8.7	Peak	Horizontal
	9100.5	31.6	14.4	46.0	54.0	-8.0	Peak	Horizontal
*	10061.0	31.7	15.6	47.3	68.2	-20.9	Peak	Horizontal
*	12968.0	30.1	19.8	49.9	68.2	-18.3	Peak	Horizontal
	7434.5	32.0	12.7	44.7	54.0	-9.3	Peak	Vertical
	9134.5	31.1	14.6	45.7	54.0	-8.3	Peak	Vertical
*	10307.5	30.6	16.6	47.2	68.2	-21.0	Peak	Vertical
*	12968.0	30.1	19.8	49.9	68.2	-18.3	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT40 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	151
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	9177.0	30.3	14.7	45.0	54.0	-9.0	Peak	Horizontal
	11472.0	31.7	19.3	51.0	54.0	-3.0	Peak	Horizontal
*	12747.0	29.3	18.9	48.2	68.2	-20.0	Peak	Horizontal
*	13486.5	29.3	21.7	51.0	68.2	-17.2	Peak	Horizontal
	7596.0	32.3	12.7	45.0	54.0	-9.0	Peak	Vertical
	9177.0	30.3	14.7	45.0	54.0	-9.0	Peak	Vertical
*	10171.5	32.5	16.1	48.6	68.2	-19.6	Peak	Vertical
*	12891.5	31.3	19.4	50.7	68.2	-17.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11ac-VHT40 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	159	
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 			

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7332.5	32.1	12.4	44.5	54.0	-9.5	Peak	Horizontal
	8131.5	31.6	12.2	43.8	54.0	-10.2	Peak	Horizontal
*	10231.0	31.8	16.4	48.2	68.2	-20.0	Peak	Horizontal
*	12891.5	31.3	19.4	50.7	68.2	-17.5	Peak	Horizontal
	9041.0	31.9	14.2	46.1	54.0	-7.9	Peak	Vertical
	11540.0	31.0	19.4	50.4	54.0	-3.6	Peak	Vertical
*	12959.5	31.2	19.7	50.9	68.2	-17.3	Peak	Vertical
*	13580.0	30.5	21.8	52.3	68.2	-15.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT80 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel: 42	
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7502.5	32.7	12.8	45.5	54.0	-8.5	Peak	Horizontal
	9041.0	31.9	14.2	46.1	54.0	-7.9	Peak	Horizontal
*	10290.5	31.4	16.6	48.0	68.2	-20.2	Peak	Horizontal
*	12713.0	31.1	18.8	49.9	68.2	-18.3	Peak	Horizontal
	7477.0	32.4	12.8	45.2	54.0	-8.8	Peak	Vertical
	8412.0	32.0	12.3	44.3	54.0	-9.7	Peak	Vertical
*	10095.0	31.8	15.7	47.5	68.2	-20.7	Peak	Vertical
*	12713.0	31.1	18.8	49.9	68.2	-18.3	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT80 - Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	155
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7502.5	32.0	12.8	44.8	54.0	-9.2	Peak	Horizontal
	9041.0	30.5	14.2	44.7	54.0	-9.3	Peak	Horizontal
*	10307.5	30.8	16.6	47.4	68.2	-20.8	Peak	Horizontal
*	12738.5	30.7	18.9	49.6	68.2	-18.6	Peak	Horizontal
	7443.0	31.5	12.7	44.2	54.0	-9.8	Peak	Vertical
	8310.0	31.6	11.9	43.5	54.0	-10.5	Peak	Vertical
*	10171.5	30.3	16.1	46.4	68.2	-21.8	Peak	Vertical
*	12738.5	30.7	18.9	49.6	68.2	-18.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity		
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11ac-VHT80+80 - Ant 0 + 1 / Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel: 42		
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ũ	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7434.5	32.4	12.7	45.1	54.0	-8.9	Peak	Horizontal
	8310.0	33.2	11.9	45.1	54.0	-8.9	Peak	Horizontal
*	9746.5	34.3	14.8	49.1	68.2	-19.1	Peak	Horizontal
*	12755.5	33.2	18.9	52.1	68.2	-16.1	Peak	Horizontal
	7477.0	33.1	12.8	45.9	54.0	-8.1	Peak	Vertical
	8386.5	32.4	12.1	44.5	54.0	-9.5	Peak	Vertical
*	10307.5	33.6	16.6	50.2	68.2	-18.0	Peak	Vertical
*	12755.5	33.2	18.9	52.1	68.2	-16.1	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT80+80 - Ant 0 + 1 / Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel: 155	
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ũ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7553.5	32.6	12.8	45.4	54.0	-8.6	Peak	Horizontal
	8386.5	32.6	12.1	44.7	54.0	-9.3	Peak	Horizontal
*	10418.0	30.8	17.0	47.8	68.2	-20.4	Peak	Horizontal
*	13036.0	31.7	20.0	51.7	68.2	-16.5	Peak	Horizontal
	7366.5	32.5	12.5	45.0	54.0	-9.0	Peak	Vertical
	8352.5	32.5	12.0	44.5	54.0	-9.5	Peak	Vertical
*	10120.5	32.5	15.8	48.3	68.2	-19.9	Peak	Vertical
*	12781.0	31.5	19.0	50.5	68.2	-17.7	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT80+80 - Ant 2 + 3 / Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	42
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ũ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7502.5	34.2	12.8	47.0	54.0	-7.0	Peak	Horizontal
	8293.0	32.3	11.9	44.2	54.0	-9.8	Peak	Horizontal
*	9593.5	32.0	14.4	46.4	68.2	-21.8	Peak	Horizontal
*	12806.5	32.0	19.1	51.1	68.2	-17.1	Peak	Horizontal
	7434.5	32.4	12.7	45.1	54.0	-8.9	Peak	Vertical
	8242.0	32.9	11.9	44.8	54.0	-9.2	Peak	Vertical
*	10214.0	33.4	16.3	49.7	68.2	-18.5	Peak	Vertical
*	12806.5	32.0	19.1	51.1	68.2	-17.1	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT80+80 - Ant 2 + 3 / Ant 0 + 1 + 2 + 3 (CDD Mode)	Test Channel:	155
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ŭ

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7460.0	33.9	12.8	46.7	54.0	-7.3	Peak	Horizontal
	8293.0	33.1	11.9	45.0	54.0	-9.0	Peak	Horizontal
*	10069.5	31.9	15.6	47.5	68.2	-20.7	Peak	Horizontal
*	12789.5	31.4	19.0	50.4	68.2	-17.8	Peak	Horizontal
	7400.5	34.0	12.6	46.6	54.0	-7.4	Peak	Vertical
	8174.0	33.2	12.0	45.2	54.0	-8.8	Peak	Vertical
*	10095.0	33.6	15.7	49.3	68.2	-18.9	Peak	Vertical
*	12789.5	31.4	19.0	50.4	68.2	-17.8	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	36
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7366.5	29.9	12.5	42.4	54.0	-11.6	Peak	Horizontal
	8429.0	31.6	12.4	44.0	54.0	-10.0	Peak	Horizontal
*	9899.5	29.0	15.4	44.4	68.2	-23.8	Peak	Horizontal
*	12891.5	27.0	19.4	46.4	68.2	-21.8	Peak	Horizontal
	7358.0	31.3	12.4	43.7	54.0	-10.3	Peak	Vertical
	8242.0	31.5	11.9	43.4	54.0	-10.6	Peak	Vertical
*	9848.5	29.7	16.1	45.8	68.2	-22.4	Peak	Vertical
*	12891.5	27.0	19.4	46.4	68.2	-21.8	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	44
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7358.0	31.3	12.4	43.7	54.0	-10.3	Peak	Horizontal
	8199.5	29.9	12.0	41.9	54.0	-12.1	Peak	Horizontal
*	10078.0	29.8	15.6	45.4	68.2	-22.8	Peak	Horizontal
*	13036.0	26.5	20.0	46.5	68.2	-21.7	Peak	Horizontal
	7638.5	29.0	12.6	41.6	54.0	-12.4	Peak	Vertical
	8318.5	28.9	11.9	40.8	54.0	-13.2	Peak	Vertical
*	10078.0	28.9	15.6	44.5	68.2	-23.7	Peak	Vertical
*	13036.0	26.5	20.0	46.5	68.2	-21.7	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	48
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7638.5	29.0	12.6	41.6	54.0	-12.4	Peak	Horizontal
	8369.5	29.6	12.1	41.7	54.0	-12.3	Peak	Horizontal
*	10052.5	29.8	15.5	45.3	68.2	-22.9	Peak	Horizontal
*	13010.5	26.1	19.9	46.0	68.2	-22.2	Peak	Horizontal
	7494.0	29.1	12.8	41.9	54.0	-12.1	Peak	Vertical
	8361.0	30.3	12.0	42.3	54.0	-11.7	Peak	Vertical
*	10078.0	29.2	15.6	44.8	68.2	-23.4	Peak	Vertical
*	13010.5	26.1	19.9	46.0	68.2	-22.2	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	149
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7468.5	28.9	12.8	41.7	54.0	-12.3	Peak	Horizontal
	8403.5	29.0	12.2	41.2	54.0	-12.8	Peak	Horizontal
*	9942.0	28.3	15.3	43.6	68.2	-24.6	Peak	Horizontal
*	12781.0	26.6	19.0	45.6	68.2	-22.6	Peak	Horizontal
	7366.5	29.5	12.5	42.0	54.0	-12.0	Peak	Vertical
	8352.5	29.2	12.0	41.2	54.0	-12.8	Peak	Vertical
*	10120.5	28.2	15.8	44.0	68.2	-24.2	Peak	Vertical
*	12781.0	26.6	19.0	45.6	68.2	-22.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	157
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7366.5	29.5	12.5	42.0	54.0	-12.0	Peak	Horizontal
	8310.0	28.7	11.9	40.6	54.0	-13.4	Peak	Horizontal
*	9942.0	29.2	15.3	44.5	68.2	-23.7	Peak	Horizontal
*	12840.5	26.1	19.2	45.3	68.2	-22.9	Peak	Horizontal
	7434.5	28.1	12.7	40.8	54.0	-13.2	Peak	Vertical
	8352.5	28.4	12.0	40.4	54.0	-13.6	Peak	Vertical
*	10120.5	28.7	15.8	44.5	68.2	-23.7	Peak	Vertical
*	12840.5	26.1	19.2	45.3	68.2	-22.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:802.11n-HT20 - Ant 0 + 1 + 2 + (Beam-Forming Mode)		Test Channel:	165
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7434.5	28.1	12.7	40.8	54.0	-13.2	Peak	Horizontal
	8310.0	28.6	11.9	40.5	54.0	-13.5	Peak	Horizontal
*	9899.5	29.1	15.4	44.5	68.2	-23.7	Peak	Horizontal
*	13070.0	25.7	20.0	45.7	68.2	-22.5	Peak	Horizontal
	7468.5	28.6	12.8	41.4	54.0	-12.6	Peak	Vertical
	8463.0	28.3	12.6	40.9	54.0	-13.1	Peak	Vertical
*	10035.5	29.1	15.5	44.6	68.2	-23.6	Peak	Vertical
*	13070.0	25.7	20.0	45.7	68.2	-22.5	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:802.11n-HT40 - Ant 0 + 1 + 2 + (Beam-Forming Mode)		Test Channel:	38
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7468.5	28.6	12.8	41.4	54.0	-12.6	Peak	Horizontal
	8386.5	28.6	12.1	40.7	54.0	-13.3	Peak	Horizontal
*	10078.0	28.8	15.6	44.4	68.2	-23.8	Peak	Horizontal
*	13070.0	26.2	20.0	46.2	68.2	-22.0	Peak	Horizontal
	7400.5	29.9	12.6	42.5	54.0	-11.5	Peak	Vertical
	8386.5	29.4	12.1	41.5	54.0	-12.5	Peak	Vertical
*	10120.5	28.0	15.8	43.8	68.2	-24.4	Peak	Vertical
*	13070.0	26.2	20.0	46.2	68.2	-22.0	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:802.11n-HT40 - Ant 0 + 1 + 2 + 3(Beam-Forming Mode)		Test Channel:	46
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7400.5	29.9	12.6	42.5	54.0	-11.5	Peak	Horizontal
	8403.5	29.9	12.2	42.1	54.0	-11.9	Peak	Horizontal
*	9925.0	27.9	15.3	43.2	68.2	-25.0	Peak	Horizontal
*	12891.5	26.7	19.4	46.1	68.2	-22.1	Peak	Horizontal
	7596.0	30.5	12.7	43.2	54.0	-10.8	Peak	Vertical
	8386.5	29.5	12.1	41.6	54.0	-12.4	Peak	Vertical
*	9899.5	30.2	15.4	45.6	68.2	-22.6	Peak	Vertical
*	12891.5	26.7	19.4	46.1	68.2	-22.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT40 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	151
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7434.5	29.3	12.7	42.0	54.0	-12.0	Peak	Horizontal
	8386.5	28.9	12.1	41.0	54.0	-13.0	Peak	Horizontal
*	10129.0	27.7	15.9	43.6	68.2	-24.6	Peak	Horizontal
*	12840.5	26.5	19.2	45.7	68.2	-22.5	Peak	Horizontal
	7332.5	28.7	12.4	41.1	54.0	-12.9	Peak	Vertical
	8429.0	29.1	12.4	41.5	54.0	-12.5	Peak	Vertical
*	9976.0	28.0	15.3	43.3	68.2	-24.9	Peak	Vertical
*	12840.5	26.5	19.2	45.7	68.2	-22.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode: 802.11n-HT40 - Ant 0 + 1 + 2 + (Beam-Forming Mode)		Test Channel:	159
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7332.5	28.7	12.4	41.1	54.0	-12.9	Peak	Horizontal
	8352.5	28.7	12.0	40.7	54.0	-13.3	Peak	Horizontal
*	9899.5	30.2	15.4	45.6	68.2	-22.6	Peak	Horizontal
*	12721.5	26.2	18.8	45.0	68.2	-23.2	Peak	Horizontal
	7434.5	30.3	12.7	43.0	54.0	-11.0	Peak	Vertical
	8386.5	28.0	12.1	40.1	54.0	-13.9	Peak	Vertical
*	10171.5	28.6	16.1	44.7	68.2	-23.5	Peak	Vertical
*	12721.5	26.2	18.8	45.0	68.2	-23.2	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	36
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7434.5	30.3	12.7	43.0	54.0	-11.0	Peak	Horizontal
	8352.5	29.2	12.0	41.2	54.0	-12.8	Peak	Horizontal
*	9942.0	28.0	15.3	43.3	68.2	-24.9	Peak	Horizontal
*	12891.5	26.9	19.4	46.3	68.2	-21.9	Peak	Horizontal
	7468.5	28.5	12.8	41.3	54.0	-12.7	Peak	Vertical
	8386.5	28.8	12.1	40.9	54.0	-13.1	Peak	Vertical
*	10078.0	28.4	15.6	44.0	68.2	-24.2	Peak	Vertical
*	12891.5	26.9	19.4	46.3	68.2	-21.9	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	44
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7468.5	28.5	12.8	41.3	54.0	-12.7	Peak	Horizontal
	8420.5	29.2	12.3	41.5	54.0	-12.5	Peak	Horizontal
*	10146.0	27.5	16.0	43.5	68.2	-24.7	Peak	Horizontal
*	12730.0	25.5	18.8	44.3	68.2	-23.9	Peak	Horizontal
	7400.5	27.7	12.6	40.3	54.0	-13.7	Peak	Vertical
	8233.5	28.7	11.9	40.6	54.0	-13.4	Peak	Vertical
*	10035.5	28.9	15.5	44.4	68.2	-23.8	Peak	Vertical
*	12730.0	25.5	18.8	44.3	68.2	-23.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	48	
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7400.5	27.7	12.6	40.3	54.0	-13.7	Peak	Horizontal
	8352.5	28.8	12.0	40.8	54.0	-13.2	Peak	Horizontal
*	10035.5	29.0	15.5	44.5	68.2	-23.7	Peak	Horizontal
*	12840.5	26.9	19.2	46.1	68.2	-22.1	Peak	Horizontal
	7502.5	28.1	12.8	40.9	54.0	-13.1	Peak	Vertical
	8352.5	29.2	12.0	41.2	54.0	-12.8	Peak	Vertical
*	9993.0	28.2	15.4	43.6	68.2	-24.6	Peak	Vertical
*	12891.5	27.4	19.4	46.8	68.2	-21.4	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	149
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7468.5	29.0	12.8	41.8	54.0	-12.2	Peak	Horizontal
	8429.0	30.2	12.4	42.6	54.0	-11.4	Peak	Horizontal
*	10078.0	28.0	15.6	43.6	68.2	-24.6	Peak	Horizontal
*	13070.0	26.2	20.0	46.2	68.2	-22.0	Peak	Horizontal
	7468.5	28.7	12.8	41.5	54.0	-12.5	Peak	Vertical
	8429.0	29.6	12.4	42.0	54.0	-12.0	Peak	Vertical
*	9993.0	28.5	15.4	43.9	68.2	-24.3	Peak	Vertical
*	13070.0	26.2	20.0	46.2	68.2	-22.0	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	157
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7468.5	28.7	12.8	41.5	54.0	-12.5	Peak	Horizontal
	8463.0	29.6	12.6	42.2	54.0	-11.8	Peak	Horizontal
*	10035.5	29.4	15.5	44.9	68.2	-23.3	Peak	Horizontal
*	13010.5	26.4	19.9	46.3	68.2	-21.9	Peak	Horizontal
	7434.5	28.5	12.7	41.2	54.0	-12.8	Peak	Vertical
	8310.0	28.3	11.9	40.2	54.0	-13.8	Peak	Vertical
*	9857.0	27.1	16.2	43.3	68.2	-24.9	Peak	Vertical
*	13010.5	26.4	19.9	46.3	68.2	-21.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	165
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7434.5	28.5	12.7	41.2	54.0	-12.8	Peak	Horizontal
	8429.0	29.3	12.4	41.7	54.0	-12.3	Peak	Horizontal
*	10171.5	28.2	16.1	44.3	68.2	-23.9	Peak	Horizontal
*	12781.0	26.7	19.0	45.7	68.2	-22.5	Peak	Horizontal
	7468.5	28.6	12.8	41.4	54.0	-12.6	Peak	Vertical
	8276.0	28.7	11.9	40.6	54.0	-13.4	Peak	Vertical
*	10078.0	28.7	15.6	44.3	68.2	-23.9	Peak	Vertical
*	12781.0	26.7	19.0	45.7	68.2	-22.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT40 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	38
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7468.5	28.6	12.8	41.4	54.0	-12.6	Peak	Horizontal
	8310.0	28.3	11.9	40.2	54.0	-13.8	Peak	Horizontal
*	10035.5	28.9	15.5	44.4	68.2	-23.8	Peak	Horizontal
*	13010.5	26.0	19.9	45.9	68.2	-22.3	Peak	Horizontal
	7332.5	28.8	12.4	41.2	54.0	-12.8	Peak	Vertical
	8386.5	29.4	12.1	41.5	54.0	-12.5	Peak	Vertical
*	10120.5	27.8	15.8	43.6	68.2	-24.6	Peak	Vertical
*	13010.5	26.0	19.9	45.9	68.2	-22.3	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT40 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	46
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7332.5	28.8	12.4	41.2	54.0	-12.8	Peak	Horizontal
	8429.0	29.2	12.4	41.6	54.0	-12.4	Peak	Horizontal
*	10035.5	28.7	15.5	44.2	68.2	-24.0	Peak	Horizontal
*	12951.0	25.7	19.7	45.4	68.2	-22.8	Peak	Horizontal
	7366.5	29.2	12.5	41.7	54.0	-12.3	Peak	Vertical
	8242.0	29.2	11.9	41.1	54.0	-12.9	Peak	Vertical
*	9993.0	29.1	15.4	44.5	68.2	-23.7	Peak	Vertical
*	12951.0	25.7	19.7	45.4	68.2	-22.8	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT40 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	151
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7570.5	29.7	12.8	42.5	54.0	-11.5	Peak	Horizontal
	8199.5	28.7	12.0	40.7	54.0	-13.3	Peak	Horizontal
*	9942.0	28.9	15.3	44.2	68.2	-24.0	Peak	Horizontal
*	13070.0	25.9	20.0	45.9	68.2	-22.3	Peak	Horizontal
	7604.5	29.3	12.7	42.0	54.0	-12.0	Peak	Vertical
	8429.0	29.2	12.4	41.6	54.0	-12.4	Peak	Vertical
*	10120.5	27.9	15.8	43.7	68.2	-24.5	Peak	Vertical
*	13070.0	25.9	20.0	45.9	68.2	-22.3	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11ac-VHT40 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	159	
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7604.5	29.3	12.7	42.0	54.0	-12.0	Peak	Horizontal
	8310.0	28.7	11.9	40.6	54.0	-13.4	Peak	Horizontal
*	9942.0	28.6	15.3	43.9	68.2	-24.3	Peak	Horizontal
*	13070.0	25.6	20.0	45.6	68.2	-22.6	Peak	Horizontal
	7570.5	29.2	12.8	42.0	54.0	-12.0	Peak	Vertical
	8327.0	29.8	11.9	41.7	54.0	-12.3	Peak	Vertical
*	10120.5	28.1	15.8	43.9	68.2	-24.3	Peak	Vertical
*	13070.0	25.6	20.0	45.6	68.2	-22.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT80 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	42
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7570.5	29.2	12.8	42.0	54.0	-12.0	Peak	Horizontal
	8386.5	29.0	12.1	41.1	54.0	-12.9	Peak	Horizontal
*	9899.5	28.9	15.4	44.3	68.2	-23.9	Peak	Horizontal
*	12951.0	25.6	19.7	45.3	68.2	-22.9	Peak	Horizontal
	7400.5	29.0	12.6	41.6	54.0	-12.4	Peak	Vertical
	8310.0	29.0	11.9	40.9	54.0	-13.1	Peak	Vertical
*	10035.5	29.7	15.5	45.2	68.2	-23.0	Peak	Vertical
*	12951.0	25.6	19.7	45.3	68.2	-22.9	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT80 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)	Test Channel:	155
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7366.5	30.1	12.5	42.6	54.0	-11.4	Peak	Horizontal
	8386.5	28.5	12.1	40.6	54.0	-13.4	Peak	Horizontal
*	10035.5	29.6	15.5	45.1	68.2	-23.1	Peak	Horizontal
*	12891.5	26.5	19.4	45.9	68.2	-22.3	Peak	Horizontal
	7570.5	29.0	12.8	41.8	54.0	-12.2	Peak	Vertical
	8165.5	29.0	12.1	41.1	54.0	-12.9	Peak	Vertical
*	9993.0	28.2	15.4	43.6	68.2	-24.6	Peak	Vertical
*	12891.5	26.5	19.4	45.9	68.2	-22.3	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
	802.11ac-VHT80+80 - Ant 0 + 1 /		
Test Mode:	Ant 0 + 1 + 2 + 3	Test Channel:	42
	(Beam-Forming Mode)		
Remark:	1. Average measurement was not p	performed if peak level lo	wer than average
	limit.		
	2. Other frequency was 20dB below	/ limit line within 1-18GH	z, there is not show
	in the report.		

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7919.0	32.0	12.4	44.4	68.2	-23.8	Peak	Horizontal
*	8633.0	32.5	13.5	46.0	68.2	-22.2	Peak	Horizontal
	9457.5	31.8	14.4	46.2	54.0	-7.8	Peak	Horizontal
	11599.5	31.7	19.4	51.1	54.0	-2.9	Peak	Horizontal
*	7936.0	33.0	12.4	45.4	68.2	-22.8	Peak	Vertical
*	8607.5	32.6	13.5	46.1	68.2	-22.1	Peak	Vertical
	9440.5	31.7	14.4	46.1	54.0	-7.9	Peak	Vertical
	11633.5	31.7	19.4	51.1	54.0	-2.9	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
	802.11ac-VHT80+80 - Ant 0 + 1 /		
Test Mode:	Ant 0 + 1 + 2 + 3	Test Channel:	155
	(Beam-Forming Mode)		
Remark:	1. Average measurement was not p	performed if peak level lo	wer than average
	limit.		
	2. Other frequency was 20dB below	limit line within 1-18GH	z, there is not show
	in the report.		

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7893.5	32.1	12.4	44.5	68.2	-23.7	Peak	Horizontal
*	8709.5	32.6	13.8	46.4	68.2	-21.8	Peak	Horizontal
	9330.0	32.1	14.6	46.7	54.0	-7.3	Peak	Horizontal
	11395.5	31.0	19.1	50.1	54.0	-3.9	Peak	Horizontal
*	7876.5	31.0	12.4	43.4	68.2	-24.8	Peak	Vertical
*	8599.0	32.8	13.4	46.2	68.2	-22.0	Peak	Vertical
	9423.5	31.9	14.5	46.4	54.0	-7.6	Peak	Vertical
	11633.5	31.6	19.4	51.0	54.0	-3.0	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
	802.11ac-VHT80+80 - Ant 2 + 3 /		
Test Mode:	Ant 0 + 1 + 2 + 3	Test Channel:	42
	(Beam-Forming Mode)		
Remark:	1. Average measurement was not p	performed if peak level lo	wer than average
	limit.		
	2. Other frequency was 20dB below	/ limit line within 1-18GH	z, there is not show
	in the report.		

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7910.5	31.3	12.4	43.7	68.2	-24.5	Peak	Horizontal
*	8641.5	32.3	13.5	45.8	68.2	-22.4	Peak	Horizontal
	9338.5	31.2	14.6	45.8	54.0	-8.2	Peak	Horizontal
	11591.0	31.0	19.5	50.5	54.0	-3.5	Peak	Horizontal
*	7885.0	32.2	12.4	44.6	68.2	-23.6	Peak	Vertical
*	8641.5	32.1	13.5	45.6	68.2	-22.6	Peak	Vertical
	9330.0	31.4	14.6	46.0	54.0	-8.0	Peak	Vertical
	11523.0	31.8	19.4	51.2	54.0	-2.8	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Product	ACCESS POINT - Directional Antenna (AP-ANT-48)	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
	802.11ac-VHT80+80 - Ant 2 + 3 /		
Test Mode:	Ant 0 + 1 + 2 + 3	Test Channel:	155
	(Beam-Forming Mode)		
Remark:	1. Average measurement was not p	performed if peak level lo	wer than average
	limit.		
	2. Other frequency was 20dB below	limit line within 1-18GH	z, there is not show
	in the report.		

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7970.0	32.4	12.5	44.9	68.2	-23.3	Peak	Horizontal
*	8556.5	32.6	13.2	45.8	68.2	-22.4	Peak	Horizontal
	9381.0	31.9	14.5	46.4	54.0	-7.6	Peak	Horizontal
	11616.5	31.7	19.4	51.1	54.0	-2.9	Peak	Horizontal
*	7842.5	32.5	12.4	44.9	68.2	-23.3	Peak	Vertical
*	8641.5	32.4	13.5	45.9	68.2	-22.3	Peak	Vertical
	9398.0	32.5	14.5	47.0	54.0	-7.0	Peak	Vertical
	11548.5	31.3	19.4	50.7	54.0	-3.3	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



70 60

(m/Vu

The Worst Case of Radiated Emission below 1GHz:

Time: 0017/00/07 10:55			
Time: 2017/09/07 - 19:55			
Engineer: Kevin Ker			
Polarity: Horizontal			
Power: AC 120V/60Hz			
cy range 30MHz~1GHz.			

Level(dBt	40 30 20 ~ 10	~~~~	1 	Manna	m A	Muna Muna	matheway	5 Wyner Hannan	6
	-10 30			100	Frequ	ency(MHz)			100
No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			55.220	18.629	3.940	-21.371	40.000	14.689	QP
2		*	149.900	33.241	23.650	-10.259	43.500	9.591	QP
3			219.625	30.433	17.650	-15.567	46.000	12.783	QP
4			322.940	24.937	9.580	-21.063	46.000	15.357	QP
5			485.900	20.939	2.600	-25.061	46.000	18.339	QP
6			845.280	26.478	2.640	-19.522	46.000	23.838	QP

Note 1: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 40GHz), therefore no data appear in the report.



Site	: AC1				-	Time: 2017/09/07 - 19:57				
Limi	it: FCC	_Part15	5.209_RE(3m)		Engineer: Kevin Ker				
Prol	Probe: VULB 9168_20-2000MHz					Polarity: Vertical				
EUT	: ACCE	ESS PC	NINT			Power: AC 120V/60Hz				
Tes	t Mode	: There	is the worst	t case within	frequency	range 30MHz	z∼1GHz.			
	90									
	80			<u> </u>						
	70								I I I	
	60									
(m)	50									
l evel(dBuV/m)	40					3				
- I eve	301		×	2	NW	the man		5	6	
	20 months and			1 2	1.70					
	20		- Contra	human	mm	"Nuha	Man Anna Anna Maria	Asting a strategic and a strat		
	20			Junior	nmul	- Why	manude	And and a state of the second s		
				Junerow	mmul	- "Who	ManAnnideanning	And and a second design of the		
	10 0 -10				mml		ManAndreamhine			
	10 — 0 —			100	Frequ	ency(MHz)	ManAnitation		1000	
No	10 0 -10	Mark	Frequency	100 Measure	Freque Reading	ency(MHz) Margin	Limit	Factor	1000 Type	
No	10 0 -10 30	Mark	Frequency (MHz)				Limit (dBuV/m)	Factor (dB)		
No	10 0 -10 30	Mark		Measure	Reading	Margin				
No 1	10 0 -10 30	Mark		Measure Level	Reading Level	Margin				
	10 0 -10 30	Mark	(MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	(dBuV/m)	(dB)	Туре	
1	10 0 -10 30	Mark	(MHz) 30.000	Measure Level (dBuV/m) 25.541	Reading Level (dBuV) 13.500	Margin (dB) -14.459	(dBuV/m) 40.000	(dB) 12.041	Type QP	
1	10 0 -10 30		(MHz) 30.000 69.280	Measure Level (dBuV/m) 25.541 27.219	Reading Level (dBuV) 13.500 16.050	Margin (dB) -14.459 -12.781	(dBuV/m) 40.000 40.000	(dB) 12.041 11.169	Type QP QP	
1 2 3	10 0 -10 30		(MHz) 30.000 69.280 171.130	Measure Level (dBuV/m) 25.541 27.219 31.281	Reading Level (dBuV) 13.500 16.050 20.840	Margin (dB) -14.459 -12.781 -12.219	(dBuV/m) 40.000 40.000 43.500	(dB) 12.041 11.169 10.441	Type QP QP QP	

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 40GHz), therefore no data appear in the report.



7.9. Radiated RestrictedBand Edge Measurement

7.9.1.Test Limit

For 15.205 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a).

Frequency	Frequency	Frequency	Frequency
(MHz)	(MHz)	(MHz)	(GHz)
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 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	8.25 - 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 - 156.525	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	(²)
13.36 - 13.41			

For 15.407(b) requirement:

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.

For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.



Refer to KDB 789033 D02v02r01 G)2)c), as specified in § 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a maximum emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in § 15.407(b)(4)). However, an out-of-band emission that complies with both the peak and average limits of § 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz maximum emission limit.

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209				
Frequency	Field Strength Measured Distance			
[MHz]	[uV/m]	[Meters]		
0.009 - 0.490	2400/F (kHz)	300		
0.490 - 1.705	24000/F (kHz)	30		
1.705 - 30	30	30		
30 - 88	100	3		
88 - 216	150	3		
216 - 960	- 960 200 3			
Above 960	500	3		

7.9.2.Test Procedure Used

ANSI C63.10 Section 6.3 (General Requirements)

ANSI C63.10 Section 6.6 (Standard test method above 1GHz)

7.9.3.Test Setting

Peak Measurements above 1GHz

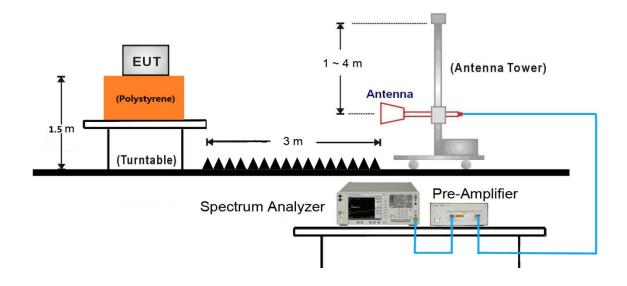
- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = 1MHz
- 3. VBW = 3MHz
- 4. Detector = peak
- 5. Sweep time = auto couple
- 6. Trace mode = max hold
- 7. Trace was allowed to stabilize



Average Field Strength Measurements

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = 1MHz
- 3. VBW ≥ 1/T
- 4. De As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to "Voltage" regardless of the display mode
- 5. Detector = Peak
- 6. Sweep time = auto
- 7. Trace mode = max hold
- 8. Allow max hold to run for at least 50 times (1/duty cycle) traces

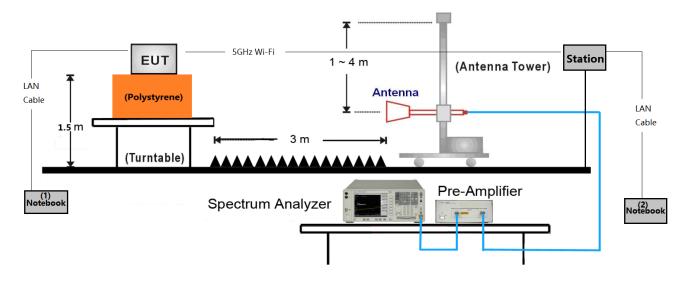
7.9.4.Test Setup



This item was performed with the WIFI antenna connected.



Additional Beam-Forming Mode Test Setup



Make the EUT connect with the station by 5GHz wireless.

Input some commands in the notebook (1) to open the EUT Beam Forming function, and setup the related test channel & data rate & power setting.

Make the notebook (1) ping with notebook (2) using the "iperf" software that can produce one bigger duty cycle waveform.

Test Mode	Duty Cycle	T = Transmission Duration
	(%)	(ms)
802.11n-HT20	95.80	1.986
802.11n-HT40	93.80	1.740
802.11ac-VHT20	95.64	1.995
802.11ac-VHT40	95.84	2.003
802.11ac-VHT80	96.38	1.968



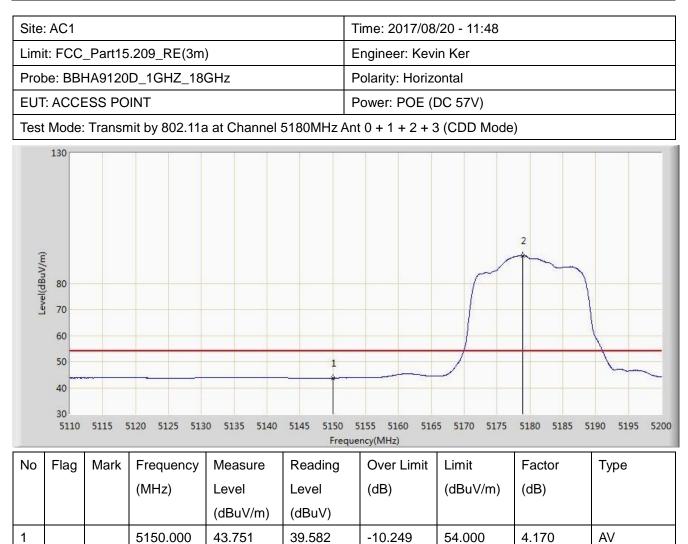
7.9.5.Test Result

For Omni Antenna (AP-ANT-19):

Site: AC1			Т	Time: 2017/08/20 - 11:47					
Limit: FCC_Part15.209_RE(3m)				E	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHZ_18GHz				F	Polarity: Horizontal				
EUT		ESS PC	INT		F	Power: POE (DC 57V)			
Test	Mode:	Transn	nit by 802.11a	at Channel s	5180MHz Ani	t 0 + 1 + 2 + 3	3 (CDD Mode)	
Level(dBuV/m)	130 80 70 60 50 40 30 5110	<i>Mailuu dha</i> 5115 :	1 1 5120 5125 513	0 5135 5140		155 5160 516 ncy(MHz)	5 5170 5175	3	.90 5195 5200
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5130.250	58.210	54.035	-15.790	74.000	4.175	PK
2			5150.000	56.140	51.971	-17.860	74.000	4.170	PK
3		*	5182.945	103.787	99.729	N/A	N/A	4.059	PK

Note: Measure Level $(dB\mu V/m)$ = Reading Level $(dB\mu V)$ + Factor (dB)





90.718

5178.895

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

86.645

N/A

N/A

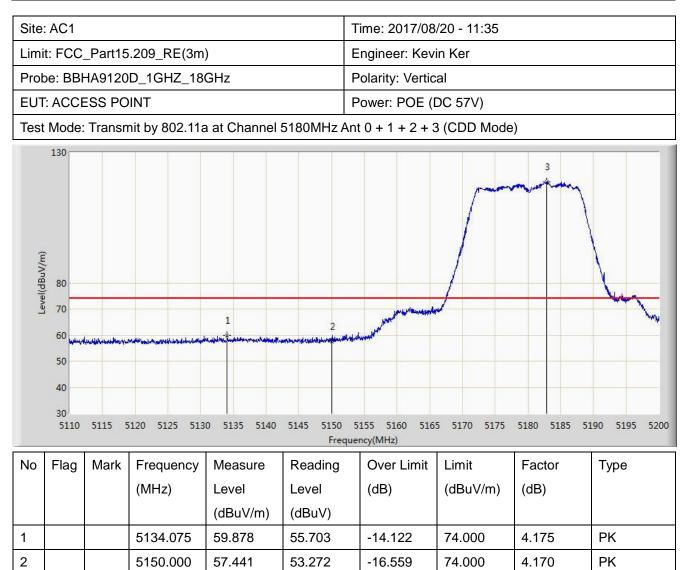
4.073

AV

*

2





118.730

5182.855

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

114.671

N/A

N/A

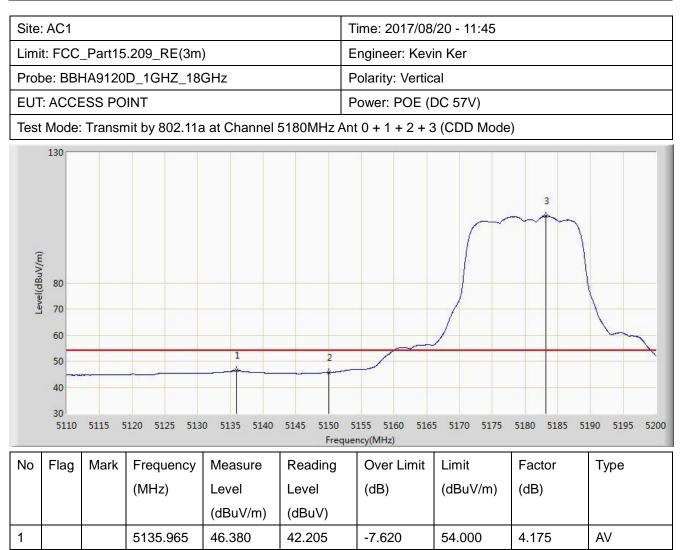
4.059

ΡK

3

*





45.685

105.721

5150.000

5183.215

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

41.516

101.664

-8.315

N/A

54.000

N/A

4.170

4.057

AV

AV

2

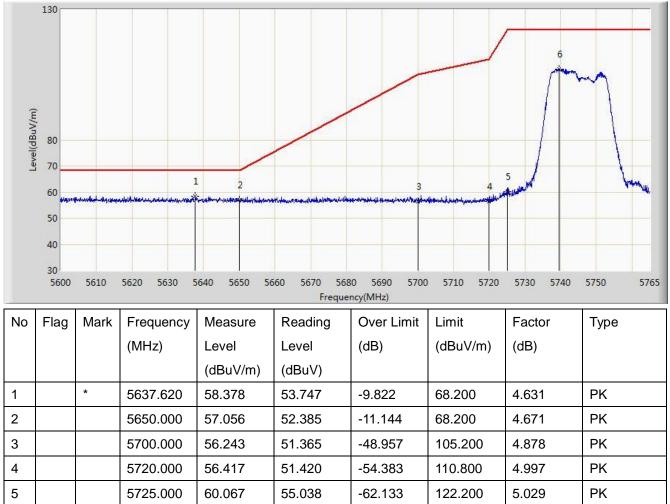
3

*



Site: AC1	Time: 2017/08/20 - 12:22	
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker	
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Horizontal	
EUT: ACCESS POINT Power: POE (DC 57V)		
Test Meder Trenemit by 202 44s at Channel 5745MUs Ant 0 + 4 + 2 + 2 (CDD Mede)		

Test Mode: Transmit by 802.11a at Channel 5745MHz Ant 0 + 1 + 2 + 3 (CDD Mode)



N/A

Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

5739.590

107.227

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

102.105

N/A

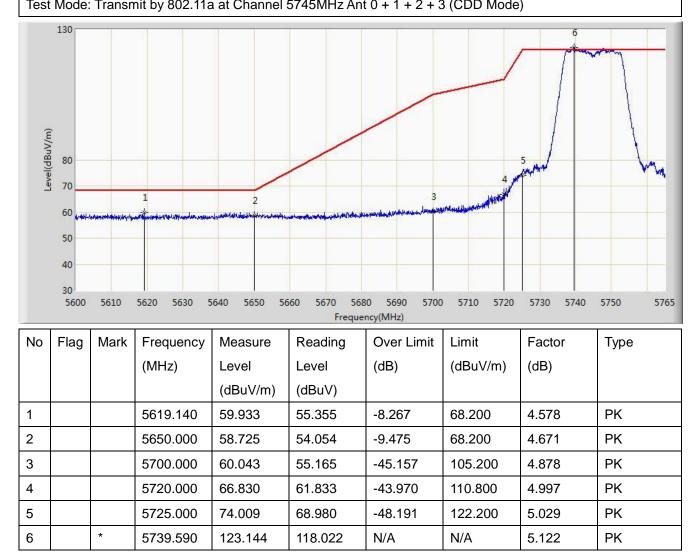
6

ΡK

5.122



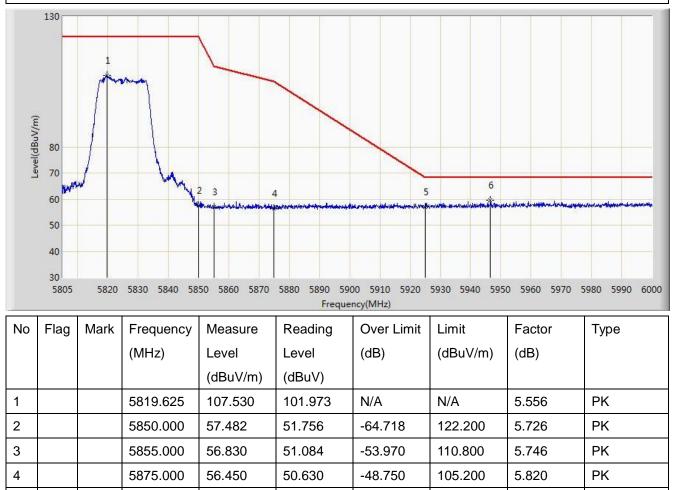
Site: AC1	Time: 2017/08/20 - 12:16		
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker		
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Vertical		
EUT: ACCESS POINT Power: POE (DC 57V)			
Test Mode: Transmit by 802 11a at Channel 57/5MHz Ant $0 \pm 1 \pm 2 \pm 3$ (CDD Mode)			





Site: AC1	Time: 2017/08/20 - 12:28
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: POE (DC 57V)

Test Mode: Transmit by 802.11a at Channel 5825MHz Ant 0 + 1 + 2 + 3 (CDD Mode)



Note: Measure Level $(dB\mu V/m)$ = Reading Level $(dB\mu V)$ + Factor (dB)

57.014

59.456

5925.000

5946.570

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

51.048

53.437

-11.186

-8.744

68.200

68.200

*

5

6

ΡK

ΡK

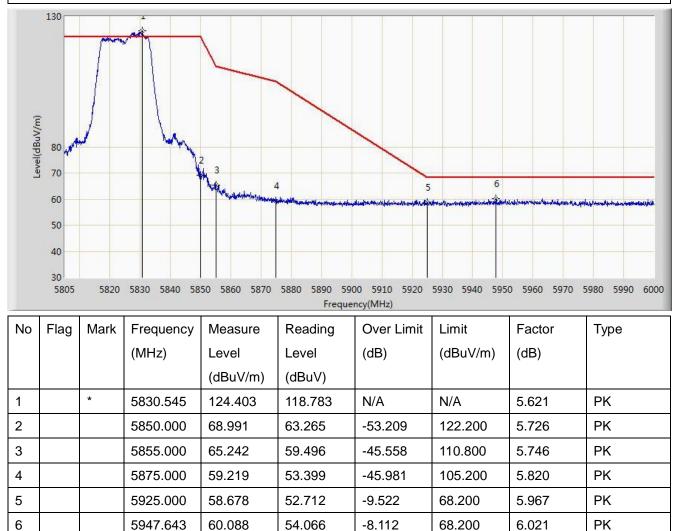
5.967

6.019



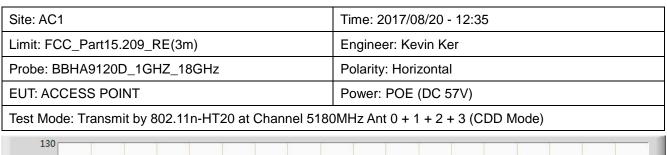
Site: AC1	Time: 2017/08/20 - 12:25
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: POE (DC 57V)

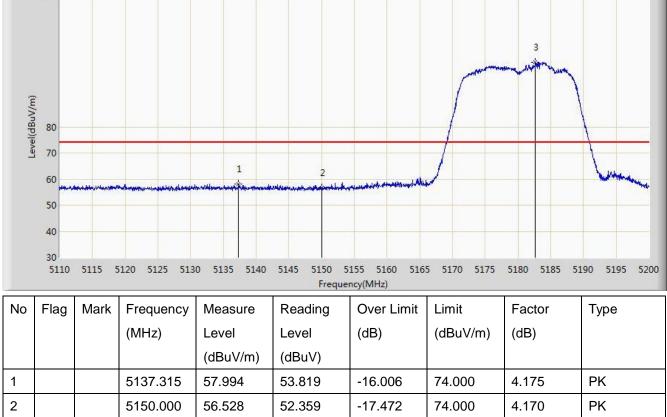
Test Mode: Transmit by 802.11a at Channel 5825MHz Ant 0 + 1 + 2 + 3 (CDD Mode)



Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)







104.837

5182.630

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

100.777

N/A

N/A

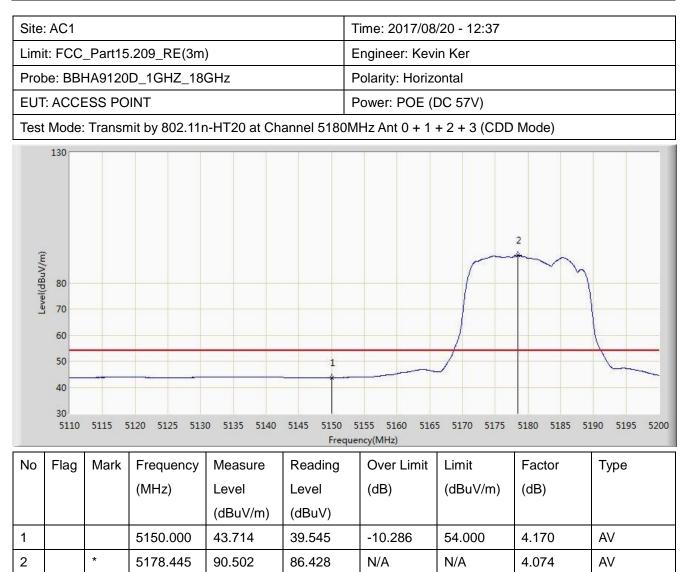
4.060

ΡK

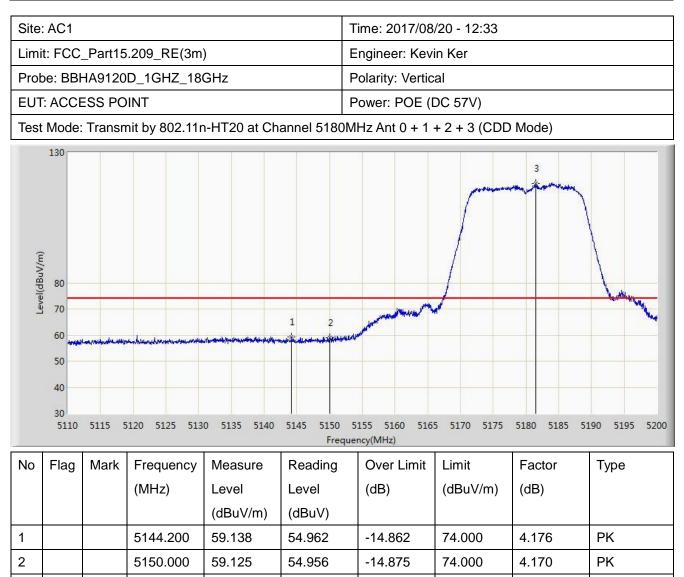
3

*









118.241

5181.505

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

114.178

N/A

N/A

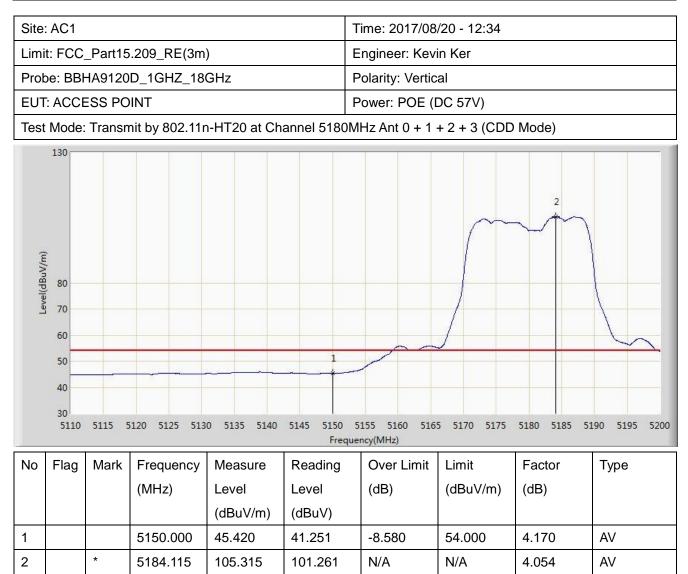
4.064

ΡK

3

*







Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker		
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Horizontal		
EUT: ACCESS POINT Power: POE (DC 57V)			

Test Mode: Transmit by 802.11n-HT20 at Channel 5745MHz Ant 0 + 1 + 2 + 3 (CDD Mode)



Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

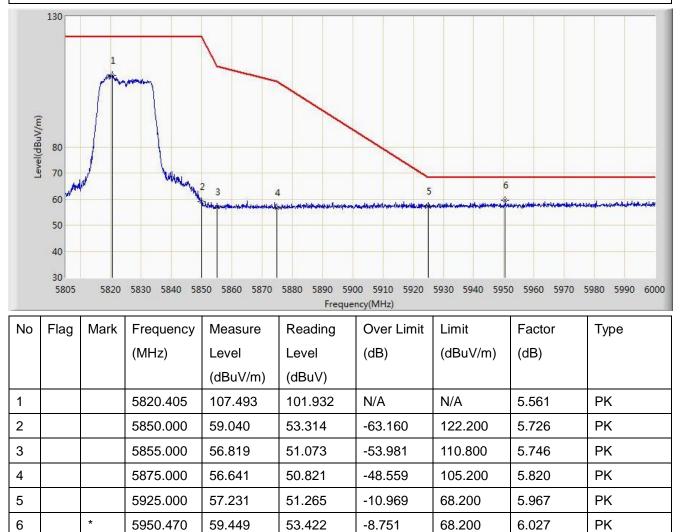


Site	Site: AC1 Limit: FCC_Part15.407_RE(3m)					Time: 2017/08/20 - 13:01			
Limi						Engineer: Kevin Ker			
Prob	be: BBI	HA9120	D_1GHZ_18	GHz	F	olarity: Vertic	al		
EUT	: ACCE	ESS PC	INT		F	Power: POE (I	DC 57V)		
Test	Mode:	Transn	nit by 802.11r	-HT20 at Ch	annel 5745M	Hz Ant 0 + 1	+ 2 + 3 (CDD	Mode)	
	130			1 1 1					5
Level(dBuV/m)	80						3,00	4	
e	3 70 60 ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	5610	5620 5630 5	1 640 5650 56	60 5670 568 Freque	2 30 5690 5700 ncy(MHz)	9 5710 5720	5730 5740	5750 5765
No	60 , Jlu , 50 40 30	5610 Mark	5620 5630 5 Frequency	1 640 5650 56 Measure			5710 5720 Limit	5730 5740 Factor	5750 5765 Type
	60 ,, 50 40 30 5600				Freque	ncy(MHz)			
	60 ,, 50 40 30 5600		Frequency	Measure	Freque Reading	ncy(MHz) Over Limit	Limit	Factor	
	60 ,, 50 40 30 5600		Frequency	Measure Level	Freque Reading Level	ncy(MHz) Over Limit	Limit	Factor	
No	60 ,, 50 40 30 5600		Frequency (MHz)	Measure Level (dBuV/m)	Freque Reading Level (dBuV)	ncy(MHz) Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Туре
No 1	60 ,, 50 40 30 5600		Frequency (MHz) 5650.000	Measure Level (dBuV/m) 59.939	Freque Reading Level (dBuV) 55.268	ncy(MHz) Over Limit (dB) -8.261	Limit (dBuV/m) 68.200	Factor (dB) 4.671	Type PK
No 1 2	60 ,, 50 40 30 5600		Frequency (MHz) 5650.000 5700.000	Measure Level (dBuV/m) 59.939 60.350	Freque Reading Level (dBuV) 55.268 55.472	ncy(MHz) Over Limit (dB) -8.261 -44.850	Limit (dBuV/m) 68.200 105.200	Factor (dB) 4.671 4.878	Type PK PK



Site: AC1	Time: 2017/08/20 - 13:42
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: POE (DC 57V)

Test Mode: Transmit by 802.11n-HT20 at Channel 5825MHz Ant 0 + 1 + 2 + 3 (CDD Mode)

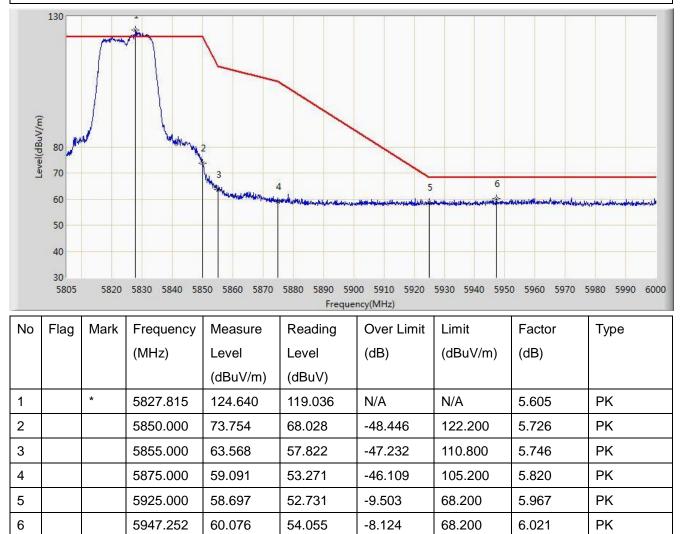


Note: Measure Level $(dB\mu V/m)$ = Reading Level $(dB\mu V)$ + Factor (dB)



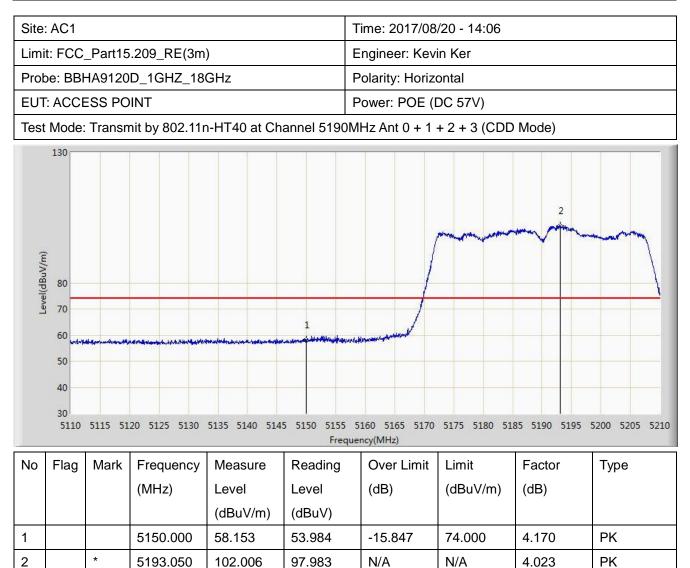
Site: AC1	Time: 2017/08/20 - 13:37
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: POE (DC 57V)

Test Mode: Transmit by 802.11n-HT20 at Channel 5825MHz Ant 0 + 1 + 2 + 3 (CDD Mode)

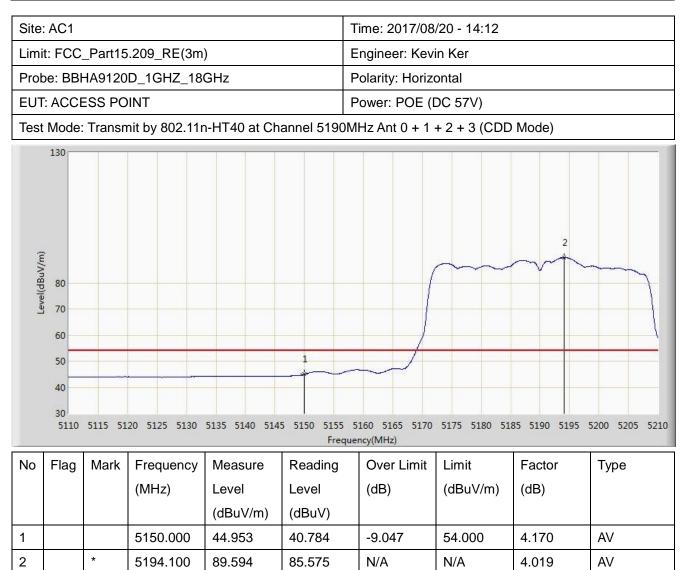


Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



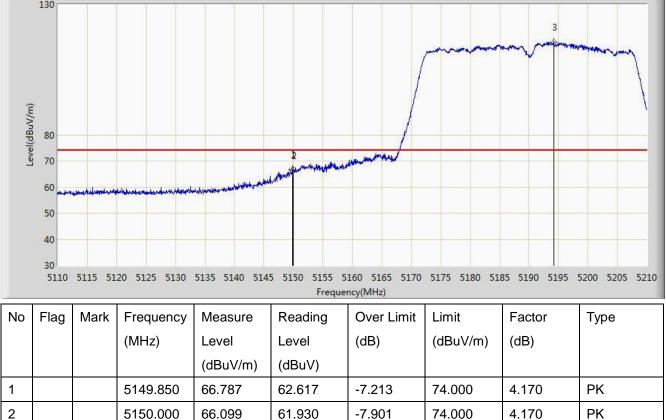








Site: AC1	Time: 2017/08/20 - 14:02			
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker			
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Vertical			
EUT: ACCESS POINT	Power: POE (DC 57V)			
Test Mode: Transmit by 802.11n-HT40 at Channel 5190MHz Ant 0 + 1 + 2 + 3 (CDD Mode)				
130				



115.544

5194.150

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

111.525

N/A

N/A

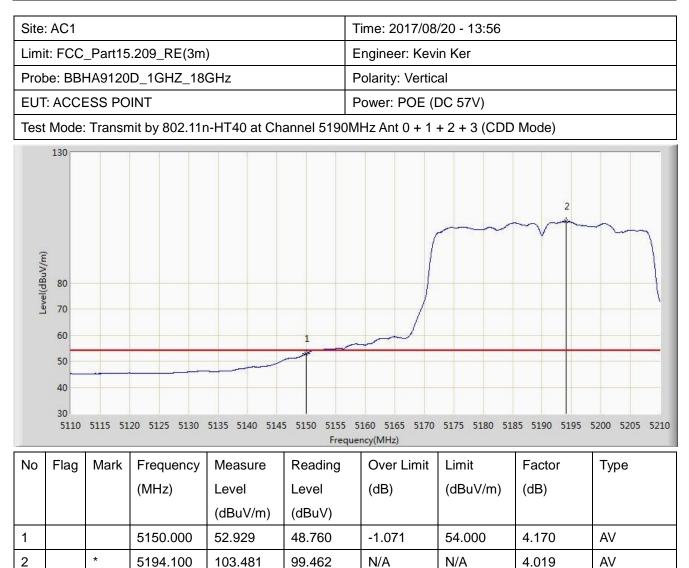
*

3

ΡK

4.019

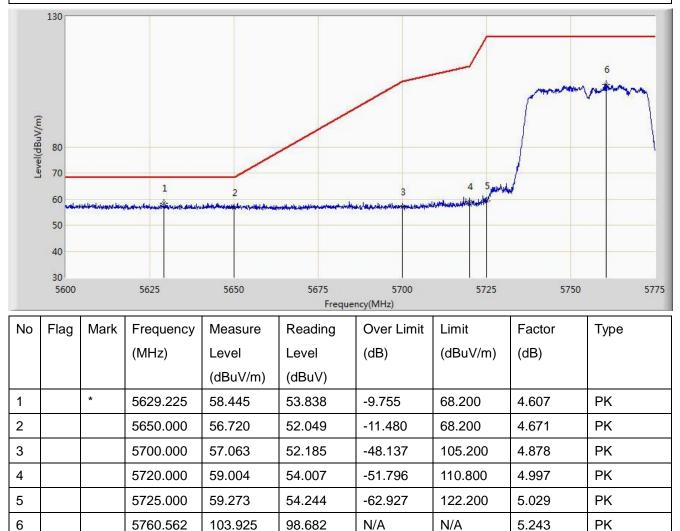






Site: AC1	Time: 2017/08/20 - 14:48
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: POE (DC 57V)

Test Mode: Transmit by 802.11n-HT40 at Channel 5755MHz Ant 0 + 1 + 2 + 3 (CDD Mode)

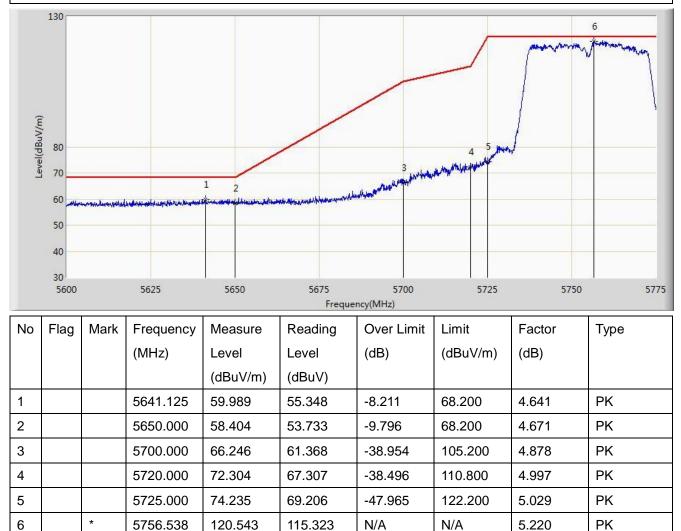


Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Site: AC1	Time: 2017/08/20 - 14:44
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: POE (DC 57V)

Test Mode: Transmit by 802.11n-HT40 at Channel 5755MHz Ant 0 + 1 + 2 + 3 (CDD Mode)

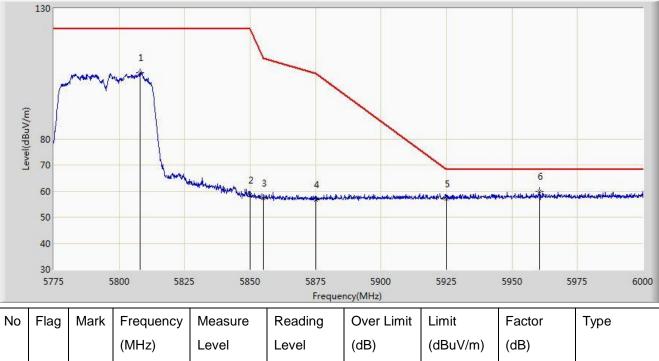


Note: Measure Level $(dB\mu V/m)$ = Reading Level $(dB\mu V)$ + Factor (dB)



Site: AC1	Time: 2017/08/20 - 14:53
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: POE (DC 57V)

Test Mode: Transmit by 802.11n-HT40 at Channel 5795MHz Ant 0 + 1 + 2 + 3 (CDD Mode)



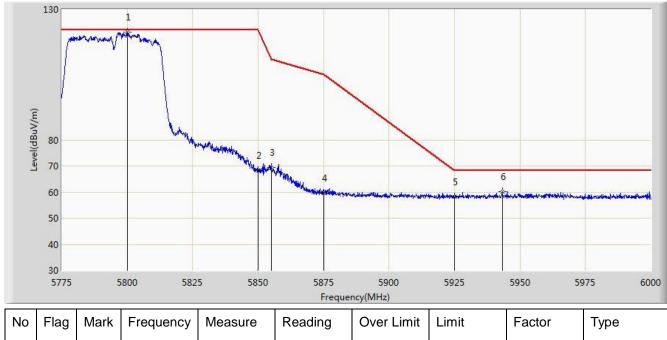
		(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
			(dBuV/m)	(dBuV)				
1		5807.962	105.327	99.838	N/A	N/A	5.489	PK
2		5850.000	58.408	52.682	-63.792	122.200	5.726	PK
3		5855.000	57.269	51.523	-53.531	110.800	5.746	PK
4		5875.000	56.691	50.871	-48.509	105.200	5.820	PK
5		5925.000	56.978	51.012	-11.222	68.200	5.967	PK
6	*	5960.625	59.993	53.948	-8.207	68.200	6.045	PK

Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Site: AC1	Time: 2017/08/20 - 15:02
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: POE (DC 57V)

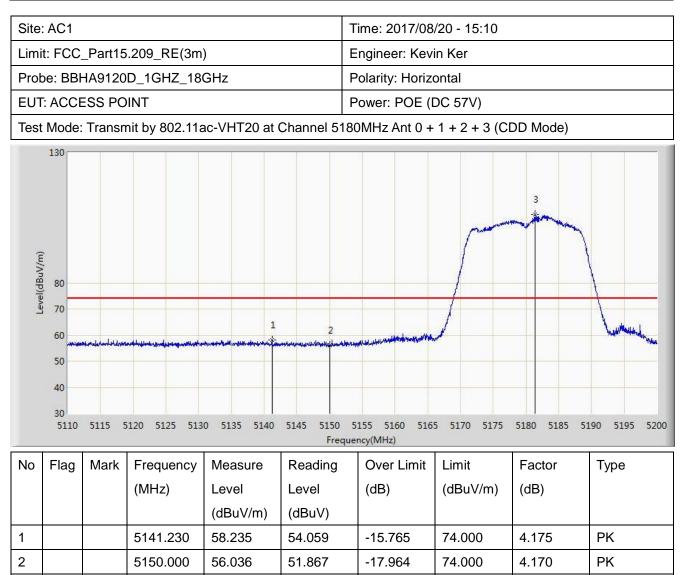
Test Mode: Transmit by 802.11n-HT40 at Channel 5795MHz Ant 0 + 1 + 2 + 3 (CDD Mode)



NO	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	5800.087	121.326	115.880	N/A	N/A	5.445	PK
2			5850.000	68.349	62.623	-53.851	122.200	5.726	PK
3			5855.000	69.538	63.792	-41.262	110.800	5.746	PK
4			5875.000	59.531	53.711	-45.669	105.200	5.820	PK
5			5925.000	58.060	52.094	-10.140	68.200	5.967	PK
6			5943.187	60.183	54.172	-8.017	68.200	6.011	PK

Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)





106.354

5181.415

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

102.290

N/A

N/A

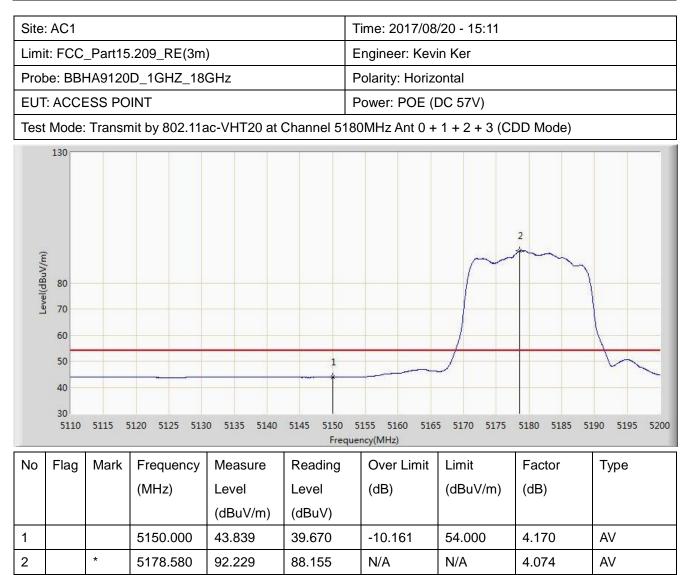
4.064

ΡK

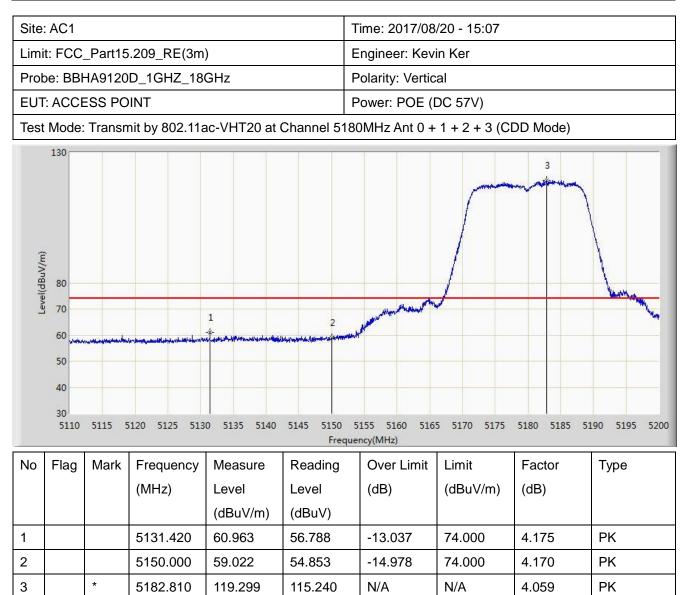
3

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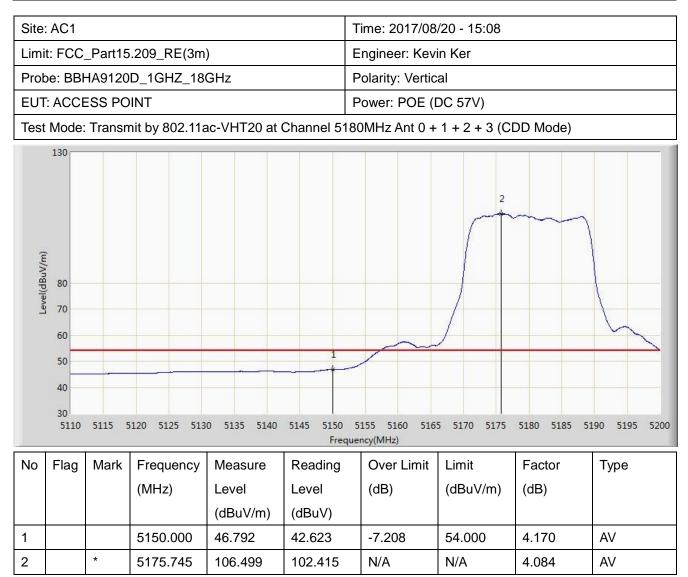






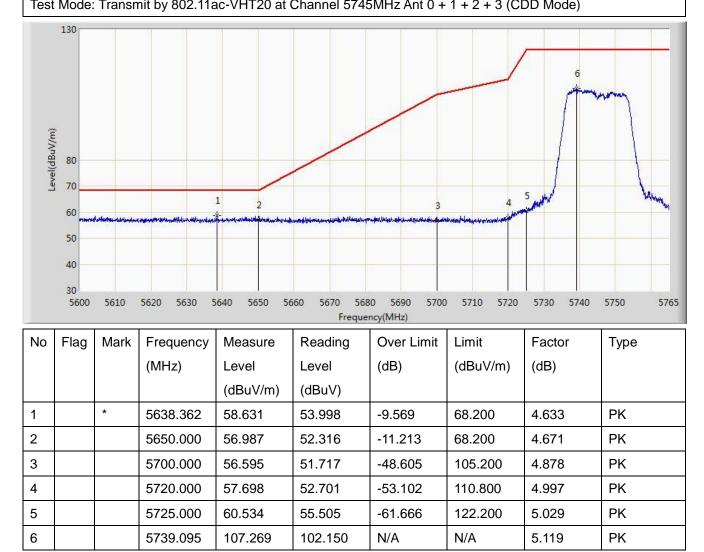








Site: AC1	Time: 2017/08/20 - 15:37			
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker			
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Horizontal			
EUT: ACCESS POINT	Power: POE (DC 57V)			
Test Mode: Transmit by 802 11 ac-V/HT20 at Channel 57/15MHz Apt $0 \pm 1 \pm 2 \pm 3$ (CDD Mode)				



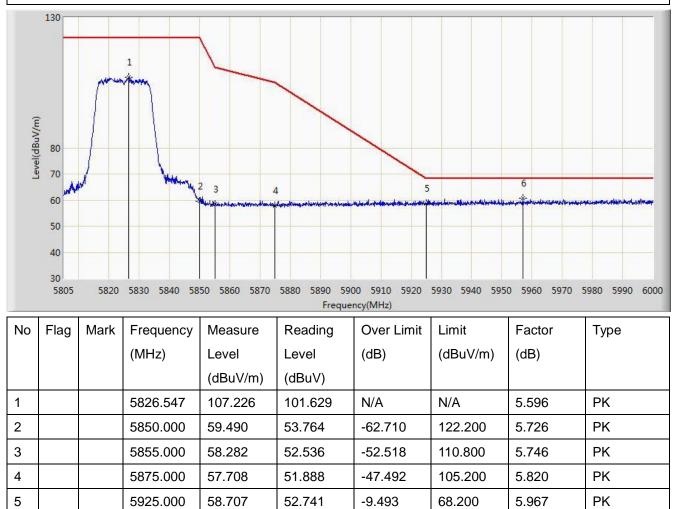


	AC1					Time: 2017/08/20 - 15:41			
Limi	nit: FCC_Part15.407_RE(3m)					Engineer: Kevin Ker			
Prot	Probe: BBHA9120D_1GHZ_18GHz					Polarity: Vertical			
EUT: ACCESS POINT					F	Power: POE (DC 57V)			
Test	Mode:	Transn	nit by 802.11a	ac-VHT20 at (Channel 574	5MHz Ant 0 +	1 + 2 + 3 (CI	DD Mode)	
Level(dBuV/m)				2		3	4 Mar	5 Avril	and the second s
	60 50 40 30 5600	5610	5620 5630 5	640 5650 56	60 5670 568 Freque	80 5690 5700 ency(MHz)) 5710 5720	5730 5740	5750 5765
No	50 40 30	5610 Mark	5620 5630 5 Frequency (MHz)	640 5650 56 Measure Level			5710 5720 Limit (dBuV/m)	5730 5740 Factor (dB)	5750 5765 Type
No	50 40 30 5600		Frequency	Measure	Freque Reading	over Limit	Limit	Factor	
No 1	50 40 30 5600		Frequency	Measure Level	Freque Reading Level	over Limit	Limit	Factor	
1	50 40 30 5600		Frequency (MHz)	Measure Level (dBuV/m)	Freque Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Туре
1 2	50 40 30 5600		Frequency (MHz) 5636.382	Measure Level (dBuV/m) 59.984	Freque Reading Level (dBuV) 55.357	Over Limit (dB) -8.216	Limit (dBuV/m) 68.200	Factor (dB) 4.627	Туре
1 2 3	50 40 30 5600		Frequency (MHz) 5636.382 5650.000	Measure Level (dBuV/m) 59.984 58.189	Freque Reading Level (dBuV) 55.357 53.518	-8.216 -10.011	Limit (dBuV/m) 68.200 68.200	Factor (dB) 4.627 4.671	Type PK PK
	50 40 30 5600		Frequency (MHz) 5636.382 5650.000 5700.000	Measure Level (dBuV/m) 59.984 58.189 61.150	Freque Reading Level (dBuV) 55.357 53.518 56.272	-8.216 -10.011 -44.050	Limit (dBuV/m) 68.200 68.200 105.200	Factor (dB) 4.627 4.671 4.878	Type PK PK PK



Site: AC1	Time: 2017/08/20 - 15:44
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: POE (DC 57V)

Test Mode: Transmit by 802.11ac-VHT20 at Channel 5825MHz Ant 0 + 1 + 2 + 3 (CDD Mode)



-7.484

68.200

Note: Measure Level $(dB\mu V/m)$ = Reading Level $(dB\mu V)$ + Factor (dB)

60.716

5956.905

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

54.678

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6

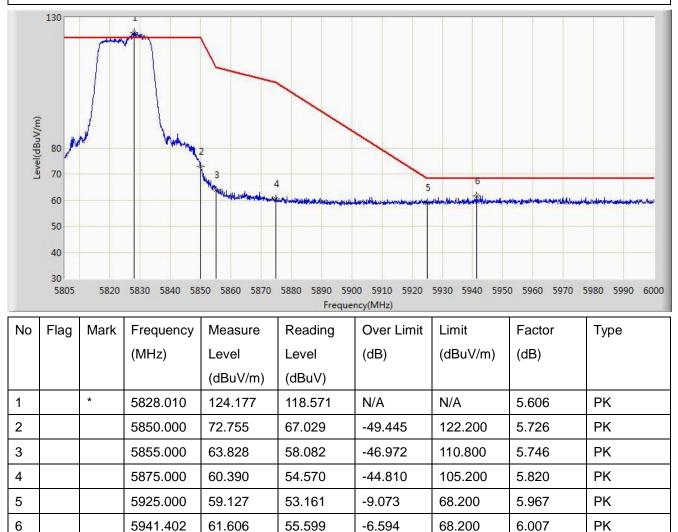
ΡK

6.038



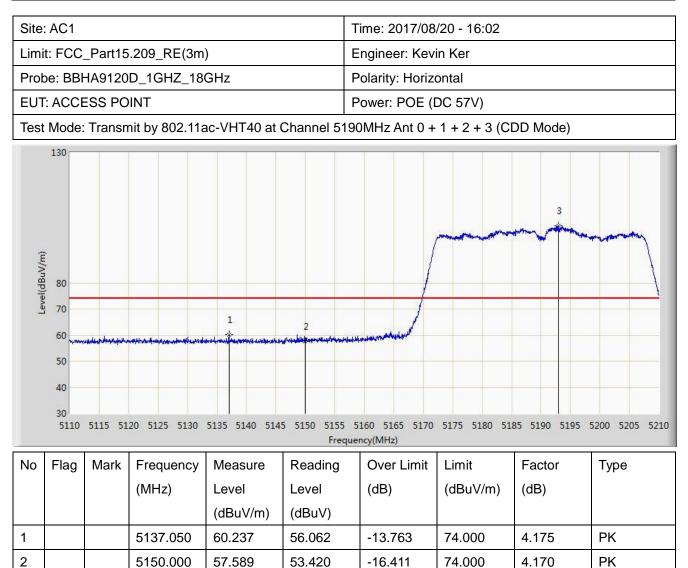
Site: AC1	Time: 2017/08/20 - 15:49
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Vertical
EUT: ACCESS POINT	Power: POE (DC 57V)

Test Mode: Transmit by 802.11ac-VHT20 at Channel 5825MHz Ant 0 + 1 + 2 + 3 (CDD Mode)



Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)





101.922

5192.900

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

97.899

N/A

N/A

4.023

ΡK

3

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