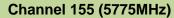
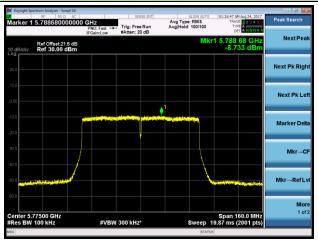


802.11ac-VHT80 Power Spectral Density - Ant 2 / Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)

Channel 42 (5210MHz)







802.11ac-VHT80+80 Power Spectral Density - Ant 2 / Ant 2 + 3 (Ant 0 + 1 + 2 + 3) (Beam-Forming Mode)

Channel 42 (5210MHz)

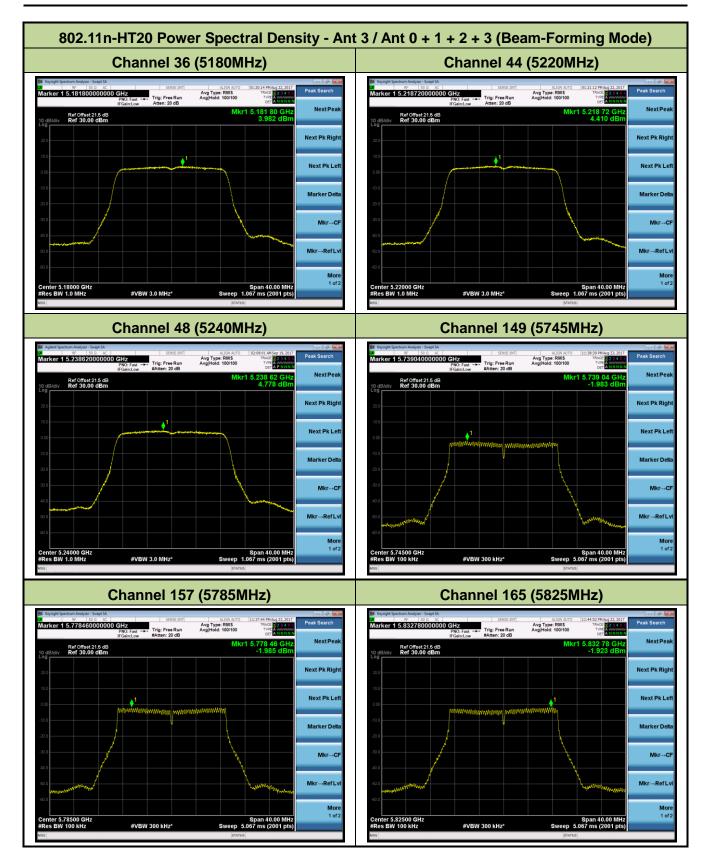
Channel 155 (5775MHz)





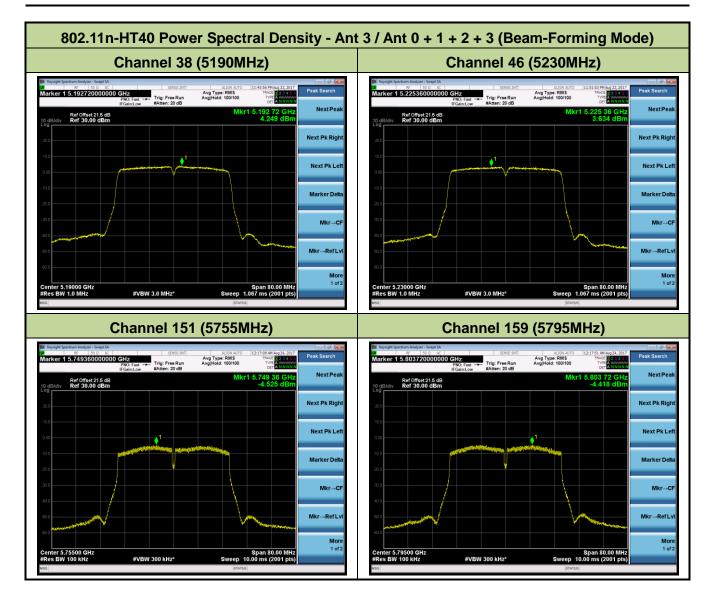
FCC ID: Q9DAPIN0318 Page Number: 146 of 505





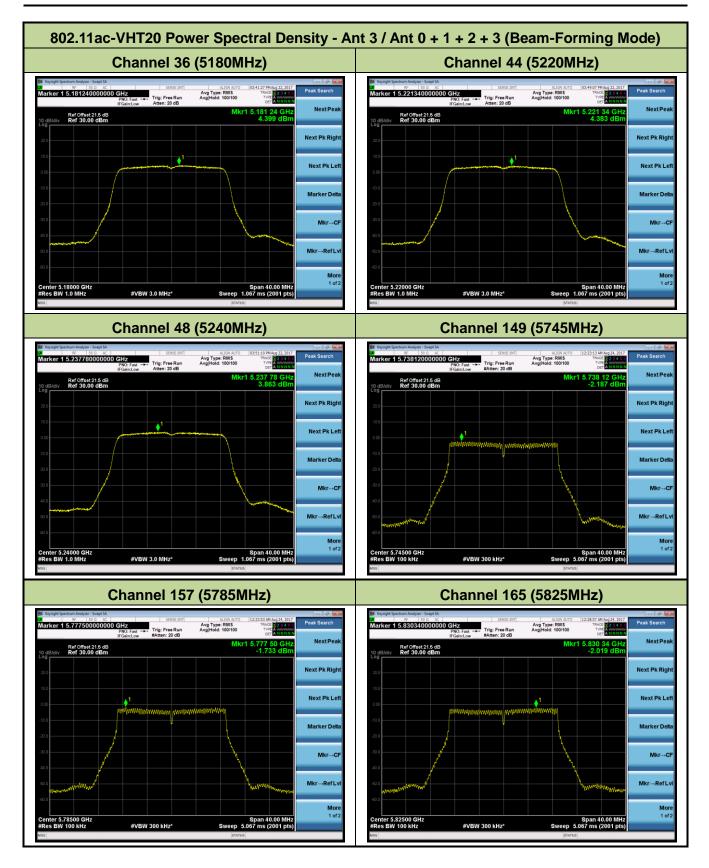
FCC ID: Q9DAPIN0318 Page Number: 147 of 505





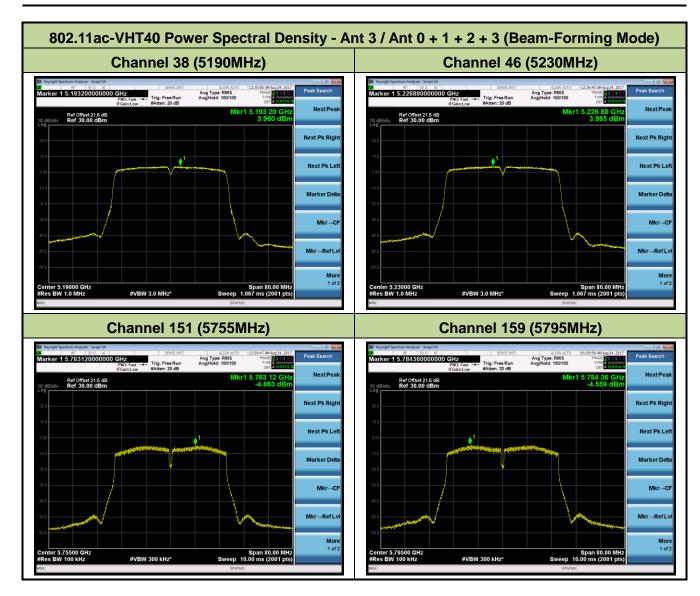
FCC ID: Q9DAPIN0318 Page Number: 148 of 505





FCC ID: Q9DAPIN0318 Page Number: 149 of 505



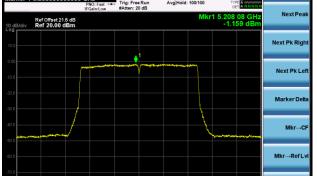


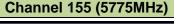
FCC ID: Q9DAPIN0318 Page Number: 150 of 505



802.11ac-VHT80 Power Spectral Density - Ant 3 / Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)

Channel 42 (5210MHz) Avg Type: RMS Avg|Hold: 100/100







802.11ac-VHT80+80 Power Spectral Density - Ant 3 / Ant 2 + 3 (Ant 0 + 1 + 2 + 3) (Beam-Forming Mode)

Channel 42 (5210MHz)



Channel 155 (5775MHz)



FCC ID: Q9DAPIN0318 Page Number: 151 of 505



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:

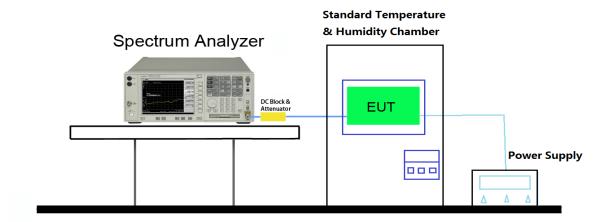
Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

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

FCC ID: Q9DAPIN0318 Page Number: 152 of 505



7.7.3.Test Setup



FCC ID: Q9DAPIN0318 Page Number: 153 of 505



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	Temp	Frequency Tolerance
(%)	(VAC)	(°C)	(ppm)
		- 30	2.10
		- 20	2.07
		- 10 2.03	
		0 1.8	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) = $\{[Measured\ Frequency\ (Hz)\ -\ Declared\ Frequency\ (Hz)]\ /\ Declared\ Frequency\ (Hz)\} *10^6$.

FCC ID: Q9DAPIN0318 Page Number: 154 of 505



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 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	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

FCC ID: Q9DAPIN0318 Page Number: 155 of 505



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 ≥ 98%, set VBW = 10 Hz.

If the EUT duty cycle is < 98%, set VBW ≥ 1/T. T is the minimum transmission duration.

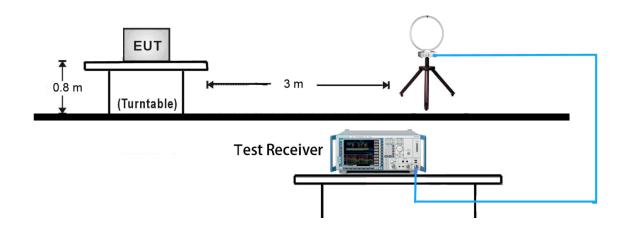
- 4. Detector = Peak
- 5. Sweep time = auto
- 6. Trace mode = max hold
- 7. Trace was allowed to stabilize

FCC ID: Q9DAPIN0318 Page Number: 156 of 505

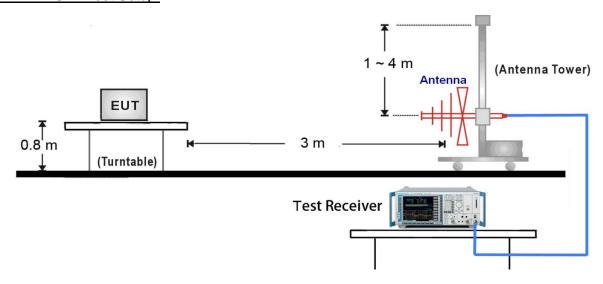


7.8.4.Test Setup

9kHz ~30MHz Test Setup:



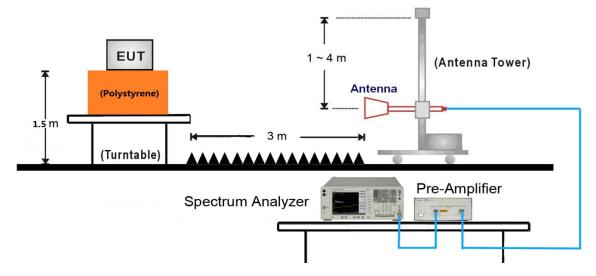
30MHz ~ 1GHz Test Setup:



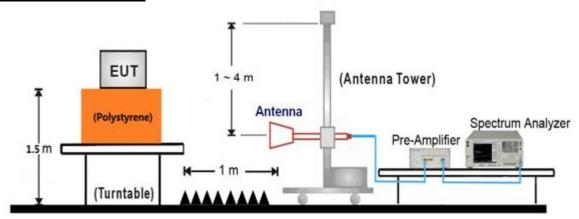
FCC ID: Q9DAPIN0318 Page Number: 157 of 505



1GHz ~18GHz Test Setup:



18GHz ~40GHz Test Setup:

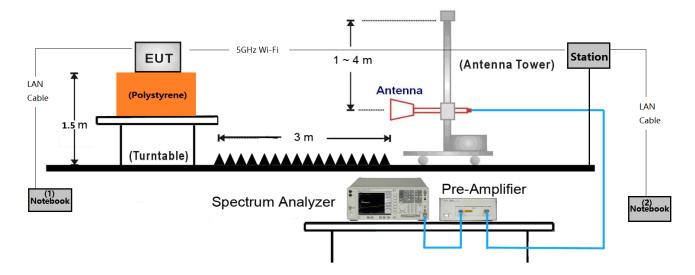


This item was performed with the WIFI antenna connected.

FCC ID: Q9DAPIN0318 Page Number: 158 of 505



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

FCC ID: Q9DAPIN0318 Page Number: 159 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ü

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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 160 of 505



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 p limit. Other frequency was 20dB below in the report. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 161 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 162 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 163 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 164 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ü

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)

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

FCC ID: Q9DAPIN0318 Page Number: 165 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů

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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 166 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 167 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ç

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)

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

FCC ID: Q9DAPIN0318 Page Number: 168 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	, and the second

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)

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

FCC ID: Q9DAPIN0318 Page Number: 169 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 170 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 171 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů

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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 172 of 505



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. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 173 of 505



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. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 174 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 175 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů

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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 176 of 505



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 plimit. 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	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)

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

FCC ID: Q9DAPIN0318 Page Number: 177 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ü

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)

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

FCC ID: Q9DAPIN0318 Page Number: 178 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ü

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)

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

FCC ID: Q9DAPIN0318 Page Number: 179 of 505



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. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 180 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 181 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ü

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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 182 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	, and the second

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)

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

FCC ID: Q9DAPIN0318 Page Number: 183 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ü

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)

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

FCC ID: Q9DAPIN0318 Page Number: 184 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Č	

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)

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

FCC ID: Q9DAPIN0318 Page Number: 185 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů

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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 186 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 187 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů

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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 188 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 189 of 505



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:	42	
Remark:	 Average measurement was not plimit. Other frequency was 20dB below in the report. 	·	Ů	

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)

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

FCC ID: Q9DAPIN0318 Page Number: 190 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 191 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů	

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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 192 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů	

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)

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

FCC ID: Q9DAPIN0318 Page Number: 193 of 505



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. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 194 of 505



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 plimit. 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	30.2	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)

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

FCC ID: Q9DAPIN0318 Page Number: 195 of 505



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. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 196 of 505



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. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 197 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Č

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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 198 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	J	

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)

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

FCC ID: Q9DAPIN0318 Page Number: 199 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ü

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)

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

FCC ID: Q9DAPIN0318 Page Number: 200 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů	

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)

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

FCC ID: Q9DAPIN0318 Page Number: 201 of 505



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. 	·	Ů

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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 202 of 505



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 plimit. 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	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)

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

FCC ID: Q9DAPIN0318 Page Number: 203 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 204 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Č

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)

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

FCC ID: Q9DAPIN0318 Page Number: 205 of 505



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:	Test Mode: 802.11ac-VHT20 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)		157
Remark:	 Average measurement was not plimit. 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)

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

FCC ID: Q9DAPIN0318 Page Number: 206 of 505



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)		165
Remark:	 Average measurement was not plimit. Other frequency was 20dB below in the report. 	·	Č

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)

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

FCC ID: Q9DAPIN0318 Page Number: 207 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ü

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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 208 of 505



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:	Test Mode: 802.11ac-VHT40 - Ant 0 + 1 + 2 + 3 (Beam-Forming Mode)		46
Remark:	 Average measurement was not plimit. 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)

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

FCC ID: Q9DAPIN0318 Page Number: 209 of 505



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)		151
Remark:	 Average measurement was not plimit. Other frequency was 20dB below in the report. 	·	Č

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)

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

FCC ID: Q9DAPIN0318 Page Number: 210 of 505



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. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 211 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů	

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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 212 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů	

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)

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

FCC ID: Q9DAPIN0318 Page Number: 213 of 505



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 lov	wer than average			
	limit.					
	2. 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)				
*	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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 214 of 505



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 lov	wer than average			
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency (MHz)	Reading Level	Factor (dB)	Measure Level	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	((dBµV)	(3.2)	(dBµV/m)	(3.2 3.7111)	(0.2)		
*	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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 215 of 505



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 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)				
*	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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 216 of 505



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 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)				
*	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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 217 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	, and the second	

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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 218 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 219 of 505



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 plimit. 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)				
	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)

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

FCC ID: Q9DAPIN0318 Page Number: 220 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	, and the second	

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)

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

FCC ID: Q9DAPIN0318 Page Number: 221 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 222 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů	

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)

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

FCC ID: Q9DAPIN0318 Page Number: 223 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů

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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 224 of 505



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 plimit. 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)

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

FCC ID: Q9DAPIN0318 Page Number: 225 of 505



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 plimit. 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)				
	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)

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

FCC ID: Q9DAPIN0318 Page Number: 226 of 505



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:	149
Remark:	 Average measurement was not plimit. Other frequency was 20dB below in the report. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 227 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	, and the second

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)

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

FCC ID: Q9DAPIN0318 Page Number: 228 of 505



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 plimit. 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)				
	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)

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

FCC ID: Q9DAPIN0318 Page Number: 229 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	, and the second

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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 230 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	, and the second

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)

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

FCC ID: Q9DAPIN0318 Page Number: 231 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	, and the second

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)

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

FCC ID: Q9DAPIN0318 Page Number: 232 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 233 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	, and the second

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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 234 of 505



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: 44	
Remark:	 Average measurement was not plimit. Other frequency was 20dB below in the report. 	·	, and the second

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)

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

FCC ID: Q9DAPIN0318 Page Number: 235 of 505



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 plimit. 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)				
	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)

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

FCC ID: Q9DAPIN0318 Page Number: 236 of 505



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. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 237 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 238 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 239 of 505



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 plimit. 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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 240 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	, and the second

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)

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

FCC ID: Q9DAPIN0318 Page Number: 241 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ü

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)

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

FCC ID: Q9DAPIN0318 Page Number: 242 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů	

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)

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

FCC ID: Q9DAPIN0318 Page Number: 243 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ü

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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 244 of 505



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 plimit. 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)

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

FCC ID: Q9DAPIN0318 Page Number: 245 of 505



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:	42
Remark:	 Average measurement was not plimit. Other frequency was 20dB below in the report. 	·	, and the second

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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 246 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 247 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů	

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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 248 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ü	

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)

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

FCC ID: Q9DAPIN0318 Page Number: 249 of 505



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 plimit. 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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 250 of 505



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 plimit. 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)

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

FCC ID: Q9DAPIN0318 Page Number: 251 of 505



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 plimit. 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)

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

FCC ID: Q9DAPIN0318 Page Number: 252 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů	

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)

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

FCC ID: Q9DAPIN0318 Page Number: 253 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	, and the second

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)

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

FCC ID: Q9DAPIN0318 Page Number: 254 of 505



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:	165
Remark:	 Average measurement was not plimit. 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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 255 of 505



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:	38	
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	, and the second	

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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 256 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Č

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)

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

FCC ID: Q9DAPIN0318 Page Number: 257 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ü

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)

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

FCC ID: Q9DAPIN0318 Page Number: 258 of 505



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:	159
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ü

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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 259 of 505



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. 	·	Ů

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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 260 of 505



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)		44
Remark:	 Average measurement was not plimit. Other frequency was 20dB below in the report. 	·	Č

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)

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

FCC ID: Q9DAPIN0318 Page Number: 261 of 505



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 plimit. 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)

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

FCC ID: Q9DAPIN0318 Page Number: 262 of 505



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. 	·	, and the second

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)

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

FCC ID: Q9DAPIN0318 Page Number: 263 of 505



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)		157
Remark:	 Average measurement was not plimit. 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)

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

FCC ID: Q9DAPIN0318 Page Number: 264 of 505



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. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 265 of 505



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 plimit. 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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 266 of 505



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 plimit. 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)

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

FCC ID: Q9DAPIN0318 Page Number: 267 of 505



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 plimit. 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)

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

FCC ID: Q9DAPIN0318 Page Number: 268 of 505



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 plimit. 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)

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

FCC ID: Q9DAPIN0318 Page Number: 269 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů	

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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 270 of 505



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 plimit. Other frequency was 20dB below in the report. 	·	Ů

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)

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

FCC ID: Q9DAPIN0318 Page Number: 271 of 505



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 lov	wer than average			
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not sh					
	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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 272 of 505



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	Test Channel:	155
	(Beam-Forming Mode)		
Remark:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	·	Ü

Mark	Frequency (MHz)	Reading Level	Factor (dB)	Measure Level	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
		(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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 273 of 505



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 lov	wer than average			
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not s					
	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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

FCC ID: Q9DAPIN0318 Page Number: 274 of 505



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	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.						

Mark	Frequency (MHz)	Reading Level	Factor (dB)	Measure Level	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	,	(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 (dBµV/m) = Reading Level (dBµV) + Factor (dB)

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

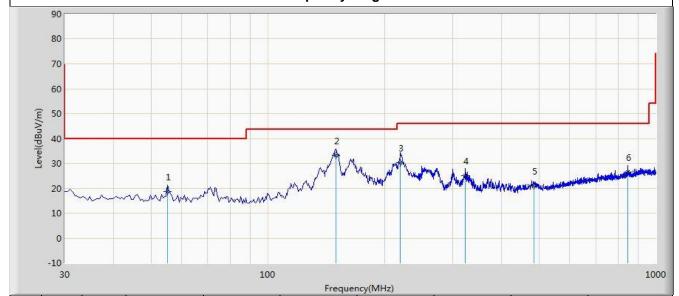
FCC ID: Q9DAPIN0318 Page Number: 275 of 505



The Worst Case of Radiated Emission below 1GHz:

Site: AC1	Time: 2017/09/07 - 19:55
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker
Probe: VULB 9168_20-2000MHz	Polarity: Horizontal
EUT: ACCESS POINT	Power: AC 120V/60Hz

Test Mode: There is the worst case within frequency range 30MHz~1GHz.



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)

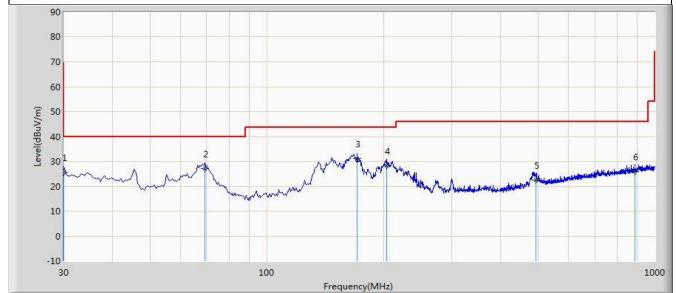
Note 2: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 40GHz), therefore no data appear in the report.

FCC ID: Q9DAPIN0318 Page Number: 276 of 505



Site: AC1	Time: 2017/09/07 - 19:57
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker
Probe: VULB 9168_20-2000MHz	Polarity: Vertical
EUT: ACCESS POINT	Power: AC 120V/60Hz

Test Mode: There is the worst case within frequency range 30MHz~1GHz.



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			30.000	25.541	13.500	-14.459	40.000	12.041	QP
2			69.280	27.219	16.050	-12.781	40.000	11.169	QP
3		*	171.130	31.281	20.840	-12.219	43.500	10.441	QP
4			203.630	28.142	15.680	-15.358	43.500	12.462	QP
5	·		493.150	22.442	3.980	-23.558	46.000	18.462	QP
6			887.480	26.007	1.680	-19.993	46.000	24.327	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: $9kHz \sim 30MHz$, $18GHz \sim 40GHz$), therefore no data appear in the report.

FCC ID: Q9DAPIN0318 Page Number: 277 of 505



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 (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (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.

FCC ID: Q9DAPIN0318 Page Number: 278 of 505



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	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

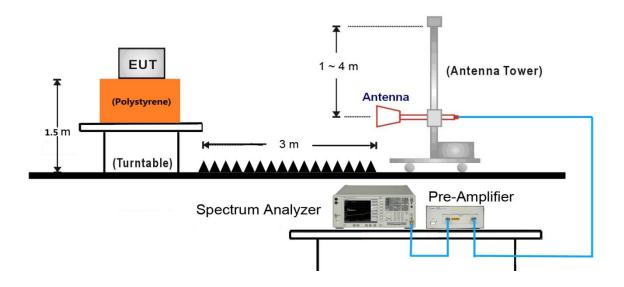
FCC ID: Q9DAPIN0318 Page Number: 279 of 505



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

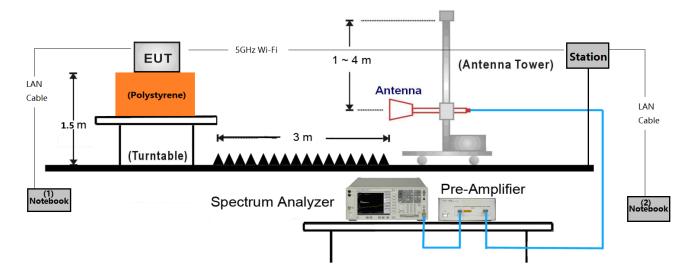


This item was performed with the WIFI antenna connected.

FCC ID: Q9DAPIN0318 Page Number: 280 of 505



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

FCC ID: Q9DAPIN0318 Page Number: 281 of 505



7.9.5.Test Result

For Omni Antenna (AP-ANT-19):

Site: AC1	Time: 2017/08/20 - 11:47			
Limit: FCC_Part15.209_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 5180MHz Ant 0 + 1 + 2 + 3 (CDD Mode)				

130

80

1

2

60

40

30

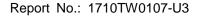
5110 5115 5120 5125 5130 5135 5140 5145 5150 5155 5160 5165 5170 5175 5180 5185 5190 5195 5200
Frequency(MHz)

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 μ V/m) = Reading Level (dB μ V) + Factor (dB)

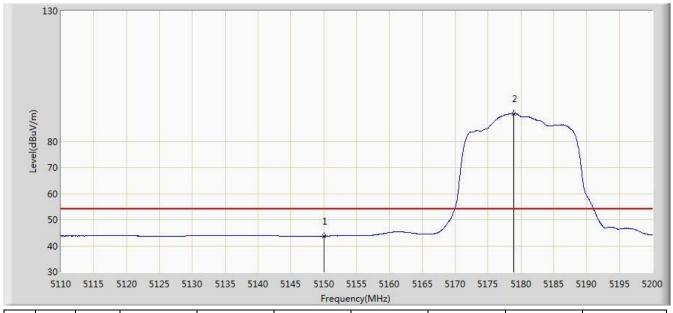
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: Q9DAPIN0318 Page Number: 282 of 505





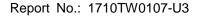
Site: AC1	Time: 2017/08/20 - 11:48			
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker			
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Horizontal			
EUT: ACCESS POINT	Power: POE (DC 57V)			
Test Mode: Transmit by 802.11a at Channel 5180MHz Ant 0 + 1 + 2 + 3 (CDD Mode)				



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5150.000	43.751	39.582	-10.249	54.000	4.170	AV
2		*	5178.895	90.718	86.645	N/A	N/A	4.073	AV

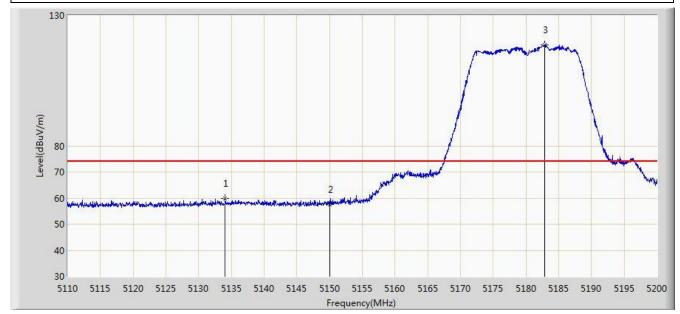
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: Q9DAPIN0318 Page Number: 283 of 505





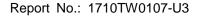
Site: AC1	Time: 2017/08/20 - 11:35			
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker			
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Vertical			
EUT: ACCESS POINT	Power: POE (DC 57V)			
Test Mode: Transmit by 802.11a at Channel 5180MHz Ant 0 + 1 + 2 + 3 (CDD Mode)				



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5134.075	59.878	55.703	-14.122	74.000	4.175	PK
2			5150.000	57.441	53.272	-16.559	74.000	4.170	PK
3		*	5182.855	118.730	114.671	N/A	N/A	4.059	PK

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

FCC ID: Q9DAPIN0318 Page Number: 284 of 505





Site: AC1	Time: 2017/08/20 - 11:45			
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 802.11a at Channel 5180MHz Ant 0 + 1 + 2 + 3 (CDD Mode)				



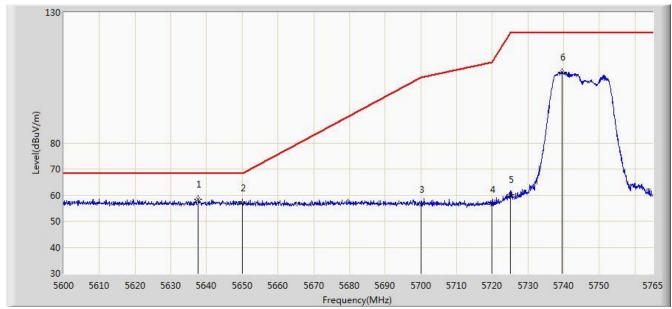
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5135.965	46.380	42.205	-7.620	54.000	4.175	AV
2			5150.000	45.685	41.516	-8.315	54.000	4.170	AV
3		*	5183.215	105.721	101.664	N/A	N/A	4.057	AV

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

FCC ID: Q9DAPIN0318 Page Number: 285 of 505



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



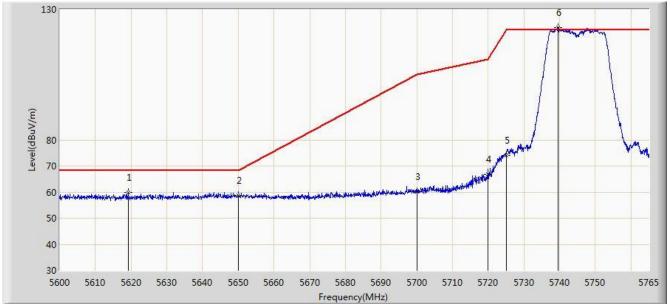
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	5637.620	58.378	53.747	-9.822	68.200	4.631	PK
2			5650.000	57.056	52.385	-11.144	68.200	4.671	PK
3			5700.000	56.243	51.365	-48.957	105.200	4.878	PK
4			5720.000	56.417	51.420	-54.383	110.800	4.997	PK
5			5725.000	60.067	55.038	-62.133	122.200	5.029	PK
6			5739.590	107.227	102.105	N/A	N/A	5.122	PK

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

FCC ID: Q9DAPIN0318 Page Number: 286 of 505



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 5745MHz Ant 0 + 1 + 2 + 3 (CDD Mode)					

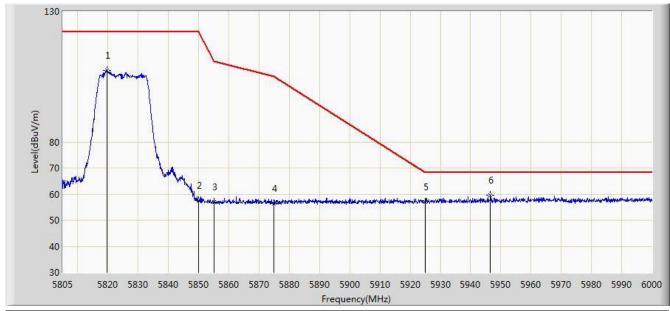


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5619.140	59.933	55.355	-8.267	68.200	4.578	PK
2			5650.000	58.725	54.054	-9.475	68.200	4.671	PK
3			5700.000	60.043	55.165	-45.157	105.200	4.878	PK
4			5720.000	66.830	61.833	-43.970	110.800	4.997	PK
5			5725.000	74.009	68.980	-48.191	122.200	5.029	PK
6		*	5739.590	123.144	118.022	N/A	N/A	5.122	PK

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



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)					



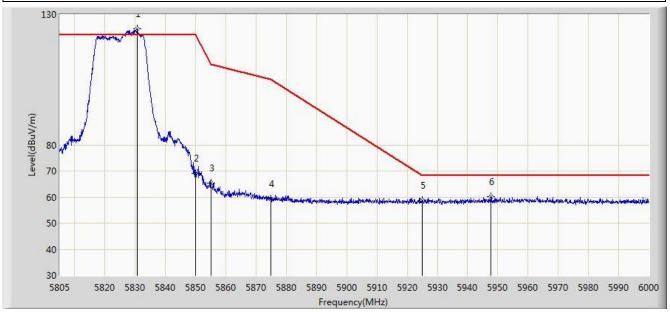
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5819.625	107.530	101.973	N/A	N/A	5.556	PK
2			5850.000	57.482	51.756	-64.718	122.200	5.726	PK
3			5855.000	56.830	51.084	-53.970	110.800	5.746	PK
4			5875.000	56.450	50.630	-48.750	105.200	5.820	PK
5			5925.000	57.014	51.048	-11.186	68.200	5.967	PK
6		*	5946.570	59.456	53.437	-8.744	68.200	6.019	PK

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

FCC ID: Q9DAPIN0318 Page Number: 288 of 505



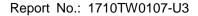
Site: AC1	Time: 2017/08/20 - 12:25				
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Vertical				
EUT: ACCESS POINT	Power: POE (DC 57V)				
Test Mode: Transmit by 802.11a at Channel 5825MHz Ant 0 + 1 + 2 + 3 (CDD Mode)					



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	5830.545	124.403	118.783	N/A	N/A	5.621	PK
2			5850.000	68.991	63.265	-53.209	122.200	5.726	PK
3			5855.000	65.242	59.496	-45.558	110.800	5.746	PK
4			5875.000	59.219	53.399	-45.981	105.200	5.820	PK
5			5925.000	58.678	52.712	-9.522	68.200	5.967	PK
6			5947.643	60.088	54.066	-8.112	68.200	6.021	PK

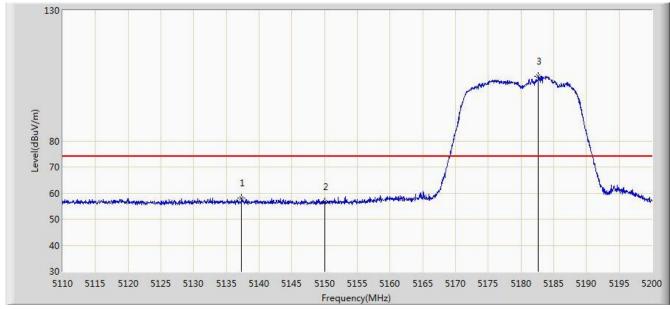
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: Q9DAPIN0318 Page Number: 289 of 505





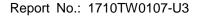
Site: AC1	Time: 2017/08/20 - 12:35					
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker					
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Horizontal					
EUT: ACCESS POINT	Power: POE (DC 57V)					
Test Mode: Transmit by 802.11n-HT20 at Channel 5180MHz Ant 0 + 1 + 2 + 3 (CDD Mode)						



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5137.315	57.994	53.819	-16.006	74.000	4.175	PK
2			5150.000	56.528	52.359	-17.472	74.000	4.170	PK
3		*	5182.630	104.837	100.777	N/A	N/A	4.060	PK

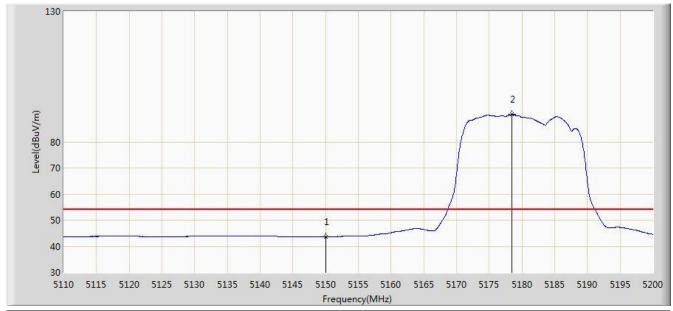
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: Q9DAPIN0318 Page Number: 290 of 505





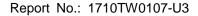
Site: AC1	Time: 2017/08/20 - 12:37					
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker					
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Horizontal					
EUT: ACCESS POINT	Power: POE (DC 57V)					
Test Mode: Transmit by 802.11n-HT20 at Channel 5180MHz Ant 0 + 1 + 2 + 3 (CDD Mode)						



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5150.000	43.714	39.545	-10.286	54.000	4.170	AV
2		*	5178.445	90.502	86.428	N/A	N/A	4.074	AV

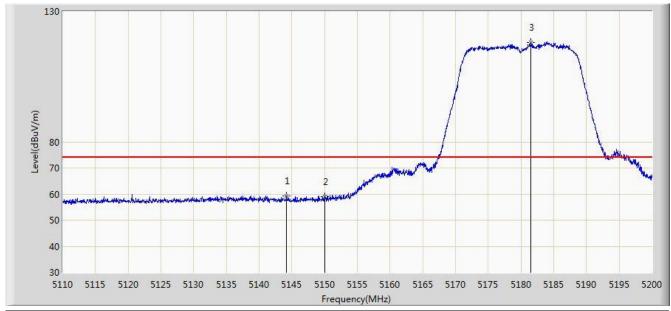
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: Q9DAPIN0318 Page Number: 291 of 505





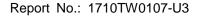
Site: AC1	Time: 2017/08/20 - 12:33					
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker					
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Vertical					
EUT: ACCESS POINT	Power: POE (DC 57V)					
Test Mode: Transmit by 802.11n-HT20 at Channel 5180MHz Ant 0 + 1 + 2 + 3 (CDD Mode)						



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5144.200	59.138	54.962	-14.862	74.000	4.176	PK
2			5150.000	59.125	54.956	-14.875	74.000	4.170	PK
3		*	5181.505	118.241	114.178	N/A	N/A	4.064	PK

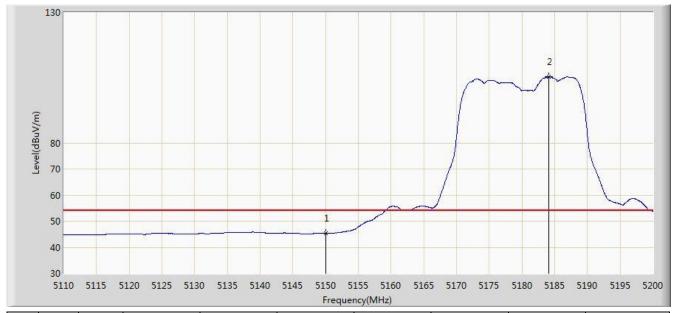
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: Q9DAPIN0318 Page Number: 292 of 505





Site: AC1	Time: 2017/08/20 - 12:34				
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-HT20 at Channel 5180MHz Ant 0 + 1 + 2 + 3 (CDD Mode)					



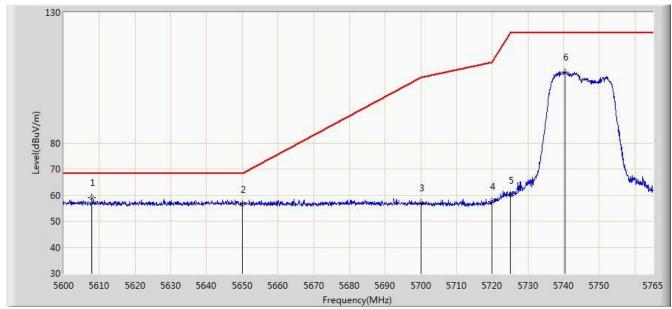
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5150.000	45.420	41.251	-8.580	54.000	4.170	AV
2		*	5184.115	105.315	101.261	N/A	N/A	4.054	AV

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

FCC ID: Q9DAPIN0318 Page Number: 293 of 505



Site: AC1	Time: 2017/08/20 - 13:05				
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)					



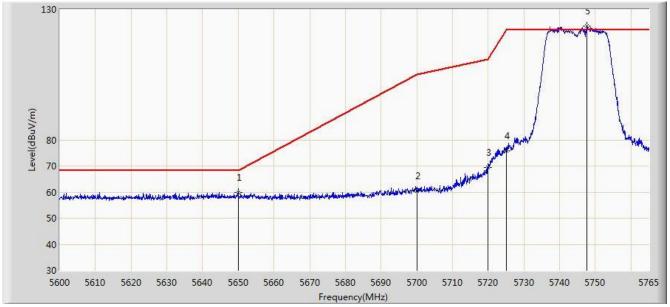
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	5607.837	59.083	54.537	-9.117	68.200	4.545	PK
2			5650.000	56.367	51.696	-11.833	68.200	4.671	PK
3			5700.000	56.962	52.084	-48.238	105.200	4.878	PK
4			5720.000	57.480	52.483	-53.320	110.800	4.997	PK
5			5725.000	59.805	54.776	-62.395	122.200	5.029	PK
6			5740.498	107.194	102.066	N/A	N/A	5.128	PK

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

FCC ID: Q9DAPIN0318 Page Number: 294 of 505



Site: AC1	Time: 2017/08/20 - 13:01				
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 5745MHz Ant 0 + 1 + 2 + 3 (CDD Mode)					

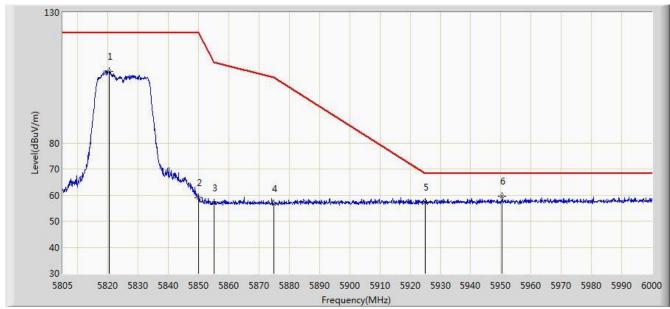


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5650.000	59.939	55.268	-8.261	68.200	4.671	PK
2			5700.000	60.350	55.472	-44.850	105.200	4.878	PK
3			5720.000	69.297	64.300	-41.503	110.800	4.997	PK
4			5725.000	75.855	70.826	-46.345	122.200	5.029	PK
5		*	5747.592	123.659	118.489	N/A	N/A	5.170	PK

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



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)					



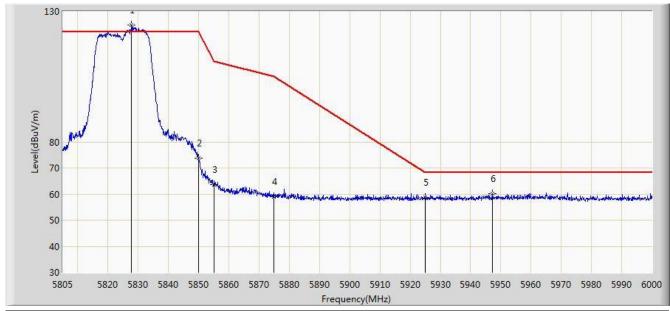
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5820.405	107.493	101.932	N/A	N/A	5.561	PK
2			5850.000	59.040	53.314	-63.160	122.200	5.726	PK
3			5855.000	56.819	51.073	-53.981	110.800	5.746	PK
4			5875.000	56.641	50.821	-48.559	105.200	5.820	PK
5			5925.000	57.231	51.265	-10.969	68.200	5.967	PK
6		*	5950.470	59.449	53.422	-8.751	68.200	6.027	PK

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

FCC ID: Q9DAPIN0318 Page Number: 296 of 505



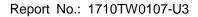
Site: AC1	Time: 2017/08/20 - 13:37				
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Vertical				
EUT: ACCESS POINT	Power: POE (DC 57V)				
Test Mode: Transmit by 802.11n-HT20 at Channel 5825MHz Ant 0 + 1 + 2 + 3 (CDD Mode)					



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	5827.815	124.640	119.036	N/A	N/A	5.605	PK
2			5850.000	73.754	68.028	-48.446	122.200	5.726	PK
3			5855.000	63.568	57.822	-47.232	110.800	5.746	PK
4			5875.000	59.091	53.271	-46.109	105.200	5.820	PK
5			5925.000	58.697	52.731	-9.503	68.200	5.967	PK
6			5947.252	60.076	54.055	-8.124	68.200	6.021	PK

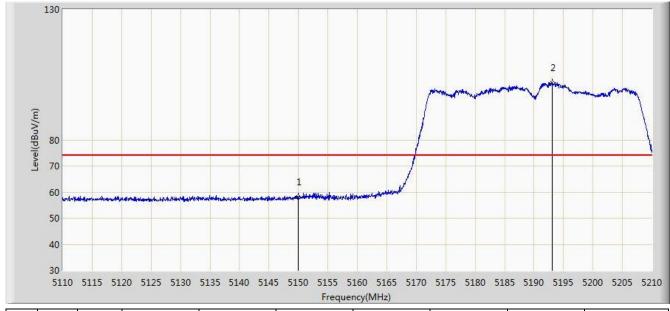
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: Q9DAPIN0318 Page Number: 297 of 505





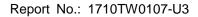
Site: AC1	Time: 2017/08/20 - 14:06				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Horizontal				
EUT: ACCESS POINT	Power: POE (DC 57V)				
Test Mode: Transmit by 802.11n-HT40 at Channel 5190MHz Ant 0 + 1 + 2 + 3 (CDD Mode)					



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5150.000	58.153	53.984	-15.847	74.000	4.170	PK
2		*	5193.050	102.006	97.983	N/A	N/A	4.023	PK

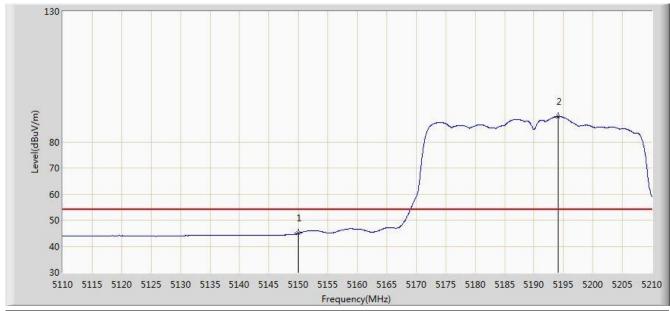
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: Q9DAPIN0318 Page Number: 298 of 505





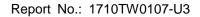
Site: AC1	Time: 2017/08/20 - 14:12				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Horizontal				
EUT: ACCESS POINT	Power: POE (DC 57V)				
Test Mode: Transmit by 802.11n-HT40 at Channel 5190MHz Ant 0 + 1 + 2 + 3 (CDD Mode)					



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5150.000	44.953	40.784	-9.047	54.000	4.170	AV
2		*	5194.100	89.594	85.575	N/A	N/A	4.019	AV

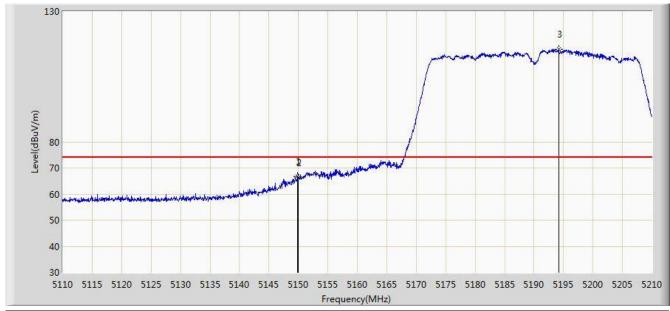
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: Q9DAPIN0318 Page Number: 299 of 505





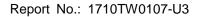
Site: AC1	Time: 2017/08/20 - 14:02				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Vertical				
EUT: ACCESS POINT	Power: POE (DC 57V)				
Test Mode: Transmit by 802.11n-HT40 at Channel 5190MHz Ant 0 + 1 + 2 + 3 (CDD Mode)					



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5149.850	66.787	62.617	-7.213	74.000	4.170	PK
2			5150.000	66.099	61.930	-7.901	74.000	4.170	PK
3		*	5194.150	115.544	111.525	N/A	N/A	4.019	PK

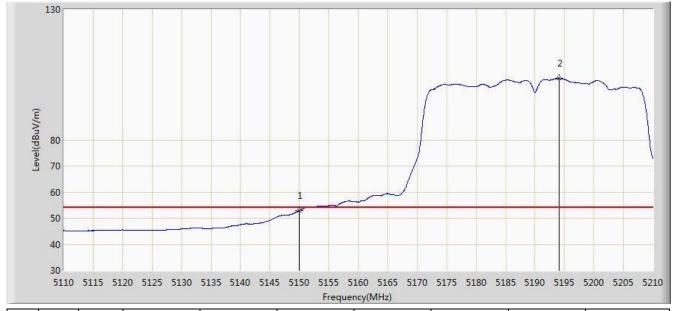
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: Q9DAPIN0318 Page Number: 300 of 505





Site: AC1	Time: 2017/08/20 - 13:56				
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)					



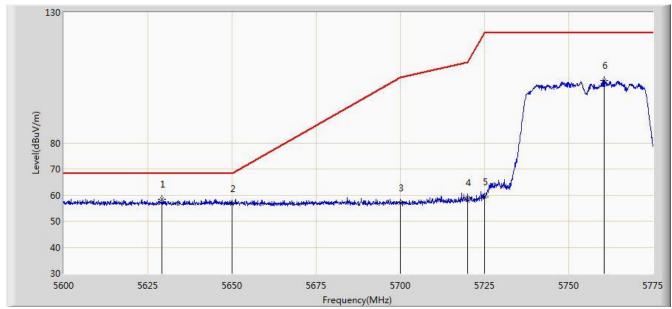
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5150.000	52.929	48.760	-1.071	54.000	4.170	AV
2		*	5194.100	103.481	99.462	N/A	N/A	4.019	AV

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

FCC ID: Q9DAPIN0318 Page Number: 301 of 505



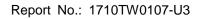
Site: AC1	Time: 2017/08/20 - 14:48				
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Horizontal				
EUT: ACCESS POINT	Power: POE (DC 57V)				
Test Mode: Transmit by 802.11n-HT40 at Channel 5755MHz Ant 0 + 1 + 2 + 3 (CDD Mode)					



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	5629.225	58.445	53.838	-9.755	68.200	4.607	PK
2			5650.000	56.720	52.049	-11.480	68.200	4.671	PK
3			5700.000	57.063	52.185	-48.137	105.200	4.878	PK
4			5720.000	59.004	54.007	-51.796	110.800	4.997	PK
5			5725.000	59.273	54.244	-62.927	122.200	5.029	PK
6			5760.562	103.925	98.682	N/A	N/A	5.243	PK

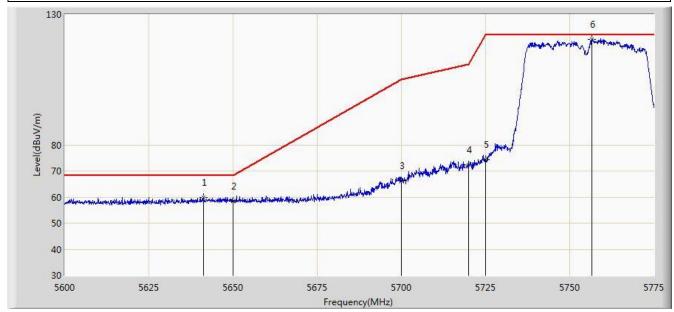
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: Q9DAPIN0318 Page Number: 302 of 505





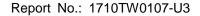
Site: AC1	Time: 2017/08/20 - 14:44				
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Vertical				
EUT: ACCESS POINT	Power: POE (DC 57V)				
Test Mode: Transmit by 802.11n-HT40 at Channel 5755MHz Ant 0 + 1 + 2 + 3 (CDD Mode)					



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5641.125	59.989	55.348	-8.211	68.200	4.641	PK
2			5650.000	58.404	53.733	-9.796	68.200	4.671	PK
3			5700.000	66.246	61.368	-38.954	105.200	4.878	PK
4			5720.000	72.304	67.307	-38.496	110.800	4.997	PK
5			5725.000	74.235	69.206	-47.965	122.200	5.029	PK
6		*	5756.538	120.543	115.323	N/A	N/A	5.220	PK

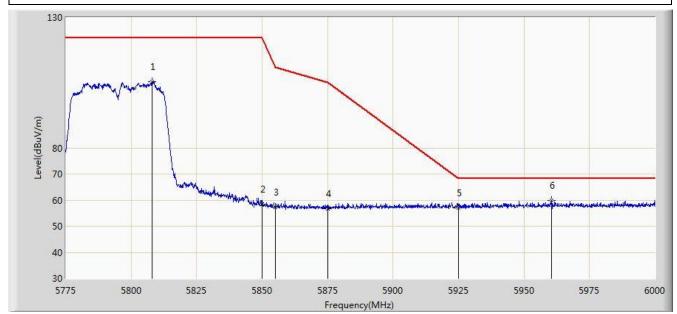
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: Q9DAPIN0318 Page Number: 303 of 505





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)					



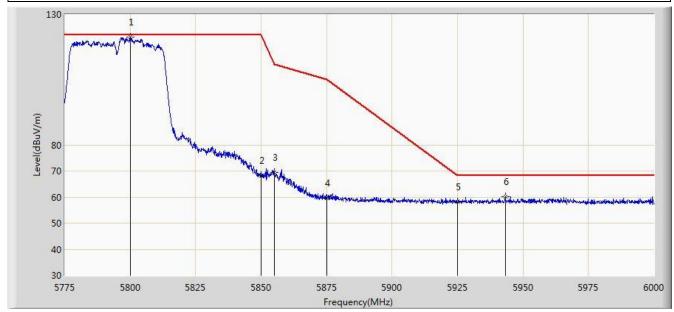
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5807.962	105.327	99.838	N/A	N/A	5.489	PK
2			5850.000	58.408	52.682	-63.792	122.200	5.726	PK
3			5855.000	57.269	51.523	-53.531	110.800	5.746	PK
4			5875.000	56.691	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

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

FCC ID: Q9DAPIN0318 Page Number: 304 of 505



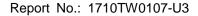
Site: AC1	Time: 2017/08/20 - 15:02				
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Vertical				
EUT: ACCESS POINT	Power: POE (DC 57V)				
Test Mode: Transmit by 802.11n-HT40 at Channel 5795MHz Ant 0 + 1 + 2 + 3 (CDD Mode)					



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

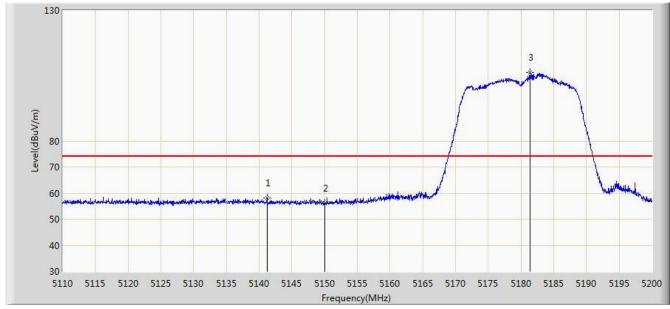
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: Q9DAPIN0318 Page Number: 305 of 505





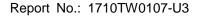
Site: AC1	Time: 2017/08/20 - 15:10				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Horizontal				
EUT: ACCESS POINT	Power: POE (DC 57V)				
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5180MHz Ant 0 + 1 + 2 + 3 (CDD Mode)					



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5141.230	58.235	54.059	-15.765	74.000	4.175	PK
2			5150.000	56.036	51.867	-17.964	74.000	4.170	PK
3		*	5181.415	106.354	102.290	N/A	N/A	4.064	PK

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

FCC ID: Q9DAPIN0318 Page Number: 306 of 505





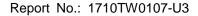
Site: AC1	Time: 2017/08/20 - 15:11				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Horizontal				
EUT: ACCESS POINT	Power: POE (DC 57V)				
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5180MHz Ant 0 + 1 + 2 + 3 (CDD Mode)					



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5150.000	43.839	39.670	-10.161	54.000	4.170	AV
2		*	5178.580	92.229	88.155	N/A	N/A	4.074	AV

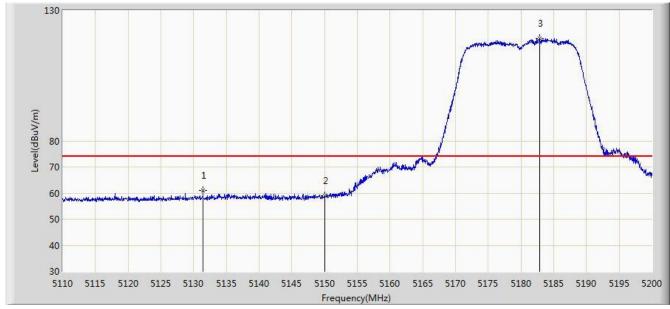
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: Q9DAPIN0318 Page Number: 307 of 505





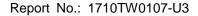
Site: AC1	Time: 2017/08/20 - 15:07					
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker					
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Vertical					
EUT: ACCESS POINT	Power: POE (DC 57V)					
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5180MHz Ant 0 + 1 + 2 + 3 (CDD Mode)						



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5131.420	60.963	56.788	-13.037	74.000	4.175	PK
2			5150.000	59.022	54.853	-14.978	74.000	4.170	PK
3		*	5182.810	119.299	115.240	N/A	N/A	4.059	PK

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

FCC ID: Q9DAPIN0318 Page Number: 308 of 505





Site: AC1	Time: 2017/08/20 - 15:08				
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 802.11ac-VHT20 at Channel 5180MHz Ant 0 + 1 + 2 + 3 (CDD Mode)					



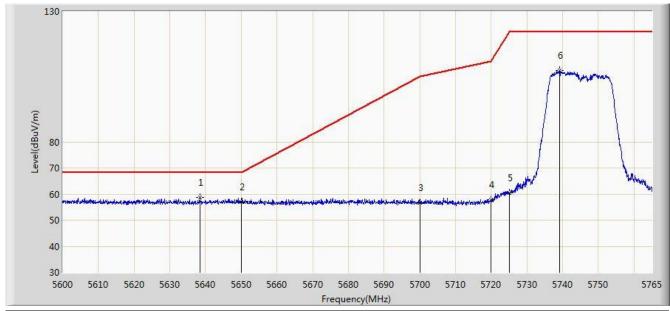
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5150.000	46.792	42.623	-7.208	54.000	4.170	AV
2		*	5175.745	106.499	102.415	N/A	N/A	4.084	AV

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

FCC ID: Q9DAPIN0318 Page Number: 309 of 505



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 802.11ac-VHT20 at Channel 5745MHz Ant 0 + 1 + 2 + 3 (CDD Mode)						



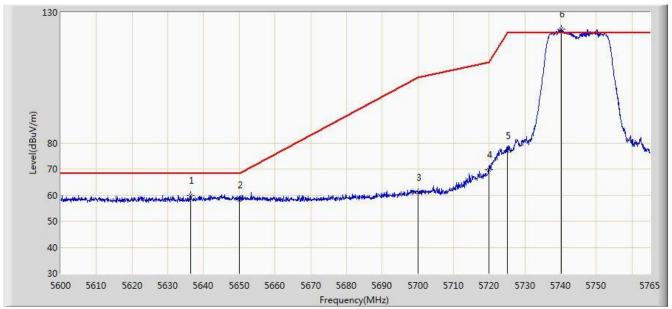
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	5638.362	58.631	53.998	-9.569	68.200	4.633	PK
2			5650.000	56.987	52.316	-11.213	68.200	4.671	PK
3			5700.000	56.595	51.717	-48.605	105.200	4.878	PK
4			5720.000	57.698	52.701	-53.102	110.800	4.997	PK
5			5725.000	60.534	55.505	-61.666	122.200	5.029	PK
6			5739.095	107.269	102.150	N/A	N/A	5.119	PK

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

FCC ID: Q9DAPIN0318 Page Number: 310 of 505



Site: AC1	Time: 2017/08/20 - 15:41				
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 5745MHz Ant 0 + 1 + 2 + 3 (CDD Mode)					

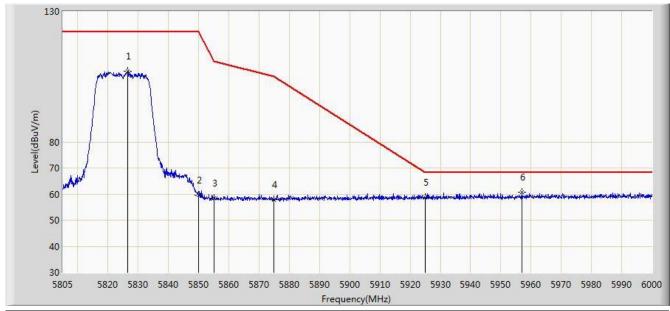


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5636.382	59.984	55.357	-8.216	68.200	4.627	PK
2			5650.000	58.189	53.518	-10.011	68.200	4.671	PK
3			5700.000	61.150	56.272	-44.050	105.200	4.878	PK
4			5720.000	69.701	64.704	-41.099	110.800	4.997	PK
5			5725.000	77.031	72.002	-45.169	122.200	5.029	PK
6		*	5740.250	123.583	118.457	N/A	N/A	5.127	PK

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



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)					



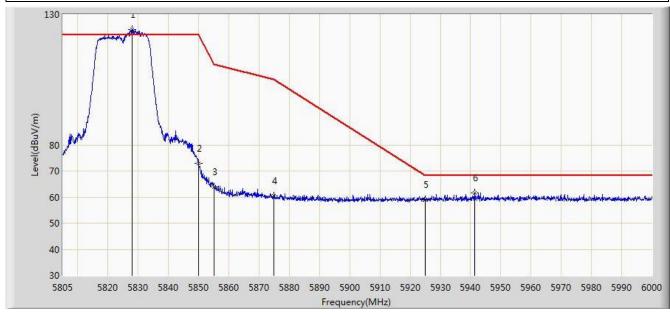
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5826.547	107.226	101.629	N/A	N/A	5.596	PK
2			5850.000	59.490	53.764	-62.710	122.200	5.726	PK
3			5855.000	58.282	52.536	-52.518	110.800	5.746	PK
4			5875.000	57.708	51.888	-47.492	105.200	5.820	PK
5			5925.000	58.707	52.741	-9.493	68.200	5.967	PK
6		*	5956.905	60.716	54.678	-7.484	68.200	6.038	PK

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

FCC ID: Q9DAPIN0318 Page Number: 312 of 505



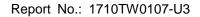
Site: AC1	Time: 2017/08/20 - 15:49					
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker					
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Vertical					
EUT: ACCESS POINT	Power: POE (DC 57V)					
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5825MHz Ant 0 + 1 + 2 + 3 (CDD Mode)						



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	5828.010	124.177	118.571	N/A	N/A	5.606	PK
2			5850.000	72.755	67.029	-49.445	122.200	5.726	PK
3			5855.000	63.828	58.082	-46.972	110.800	5.746	PK
4			5875.000	60.390	54.570	-44.810	105.200	5.820	PK
5			5925.000	59.127	53.161	-9.073	68.200	5.967	PK
6			5941.402	61.606	55.599	-6.594	68.200	6.007	PK

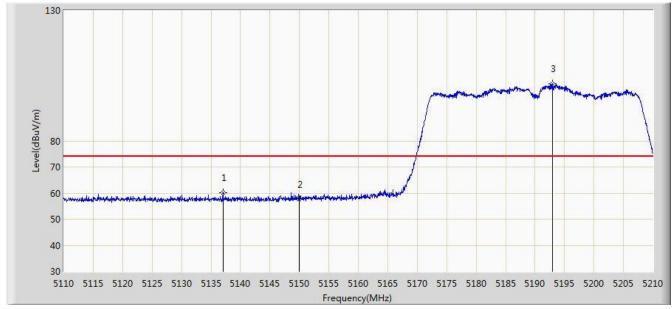
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: Q9DAPIN0318 Page Number: 313 of 505





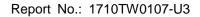
Site: AC1	Time: 2017/08/20 - 16:02			
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker			
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Horizontal			
EUT: ACCESS POINT	Power: POE (DC 57V)			
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5190MHz Ant 0 + 1 + 2 + 3 (CDD Mode)				



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5137.050	60.237	56.062	-13.763	74.000	4.175	PK
2			5150.000	57.589	53.420	-16.411	74.000	4.170	PK
3		*	5192.900	101.922	97.899	N/A	N/A	4.023	PK

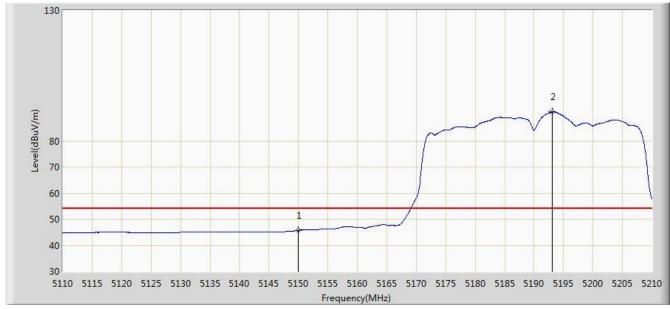
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: Q9DAPIN0318 Page Number: 314 of 505





Site: AC1	Time: 2017/08/20 - 16:03			
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker			
Probe: BBHA9120D_1GHZ_18GHz	Polarity: Horizontal			
EUT: ACCESS POINT	Power: POE (DC 57V)			
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5190MHz 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			5150.000	45.731	41.562	-8.269	54.000	4.170	AV
2		*	5193.100	91.031	87.009	N/A	N/A	4.023	AV

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

FCC ID: Q9DAPIN0318 Page Number: 315 of 505