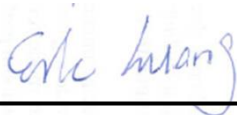


RF Exposure Evaluation Report

APPLICANT : Hewlett Packard Enterprise Company
EQUIPMENT : Wireless Access Point
BRAND NAME : aruba 、 Hewlett Packard Enterprise
MODEL NAME : APIN0207
FCC ID : Q9DAPIN0207
STANDARD : 47 CFR Part 2.1091

We, SPORTON INTERNATIONAL INC., would like to declare that the device has been evaluated in accordance with 47 CFR Part 2.1091, and pass the limit. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.



Reviewed by: Eric Huang / Deputy Manager



Approved by: Jones Tsai / Manager



SPORTON INTERNATIONAL INC.

No.52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Taoyuan City, Taiwan (R.O.C.)



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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA671301A	Rev. 01	Initial issue of report	Jul. 07, 2017



1. Administration Data

1.1. Testing Laboratory

Testing Laboratory	
Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No.52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978

Applicant	
Company Name	Hewlett Packard Enterprise Company
Address	3000 Hanover Street, Palo Alto, CA 94304

Manufacturer	
Company Name	Hewlett Packard Enterprise Company
Address	3000 Hanover Street, Palo Alto, CA 94304

2. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	Wireless Access Point
Brand Name	aruba \ Hewlett Packard Enterprise
Model Name	APIN0207
FCC ID	Q9DAPIN0207
Wireless Technology and Frequency Range	WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5720 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz
Mode	802.11a/b/g/n/ac HT20/HT40/VHT20/VHT40/VHT80 Bluetooth LE
SW Version	6.5.1.0 build 55848
EUT Stage	Identical Prototype
Remark:	
1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.	
2. This is variant report to enable 5.3/5.5GHz WLAN.	



3. Maximum RF average output power among production units

Band / Frequency (MHz)		IEEE 802.11 Average Power (dBm)					
		Ant 1+2					
		11a	HT20	HT40	VHT20	VHT40	VHT80
5.3GHz Band	5260	21.5	21.5		21.5		
	5270			22		21.5	
	5290						18
	5300	21.5	21.5		21.5		
	5310			19.5		19.5	
	5320	20	20		20		

Band / Frequency (MHz)		IEEE 802.11 Average Power (dBm)					
		Ant 1+2					
		11a	HT20	HT40	VHT20	VHT40	VHT80
5.5GHz Band	5500	20.5	21.5		21.5		
	5510			19.5		20	
	5530						18
	5550			21.5		21.5	
	5580	20.5	21.5		21.5		
	5610						21.5
	5670			21.5		21.5	
	5690						21.5
	5700	19.5	20.5		20.5		
	5710			21.5		21.5	
5720	21.5	21.5		21.5			

Note:

1. MIMO Ant. 1+2 average power is a combined result from sum of the power MIMO Ant. 1 and MIMO Ant. 2.



4. RF Exposure Limit Introduction

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f ²)	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:

S = Power Density

P = Output Power at Antenna Terminals

G = Gain of Transmit Antenna (linear gain)

R = Distance from Transmitting Antenna

5. Radio Frequency Radiation Exposure Evaluation

5.1. Standalone Power Density Calculation

Band	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Maximum EIRP (W)	Average EIRP (mW)	Power Density at 20cm (mW/cm ²)	Limit (mW/cm ²)	Power Density / Limit
5.3/5.5GHz WLAN	4.50	22.00	26.500	0.447	446.684	0.089	1.000	0.089

Note:

- In the above table have assessed WLAN 5.3/5.5GHz by referring to their maximum antenna gain and maximum power.

<For Beamforming mode>

Band	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Maximum EIRP (W)	Average EIRP (mW)	Power Density at 20cm (mW/cm ²)	Limit (mW/cm ²)	Power Density / Limit
5.3/5.5GHz WLAN	7.51	22.00	29.510	0.893	893.305	0.178	1.000	0.178

Note:

- This device support Beamforming for WLAN5GHz HT20/HT40/VHT20/VHT40/VHT80,
 - For WLAN 5GHz Beamforming mode, the maximum direction Gain is 7.51 dBi.
- In the above table have assessed WLAN 5.3/5.5GHz by referring to their maximum direction Gain and maximum power.

5.2. Collocated Power Density Calculation

2.4GHz WLAN Power Density / Limit	5GHz WLAN Power Density / Limit	Bluetooth Power Density / Limit	Σ(Power Density / Limit) of 2.4GHz WLAN + 5GHz WLAN + Bluetooth
0.093	0.178	0.002	0.273

Note:

- The table above has considered the collocation of power density for all radio transmitters, for BT / WLAN2.4GHz / WLAN5.2GHZ / WLAN 5.8GHz power density can refer to Sporton RF Exposure Evaluation Original Report, Report No: FA671301.
- Σ(Power Density / Limit): This is a summation of [(power density for each transmitter/antenna included in the simultaneous transmission)/ (corresponding MPE limit)], for 2.4GHz WLAN + 5GHz WLAN + Bluetooth.
- Considering the all antennas collocation of the EIRP performance listed in the table above, the aggregated (power density /limit) is smaller than 1, and MPE of 3 collocated transmitters is compliant

Conclusion:

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.