RF Exposure Evaluation Report

APPLICANT	**:**	**PAX Technology Limited**
EQUIPMENT	**:**	**Smart Tablet**
BRAND NAME	**:**	**PAX**
MODEL NAME	**:**	**Aries6**
FCC ID	**:**	**V5PAR6LITE**
STANDARD	**:**	**47 CFR Part 2.1091**
		FCC KDB 447498 D01 v06

We, Sporton International (Shenzhen) Inc., would like to declare that the device has been evaluated in accordance with 47 CFR Part 2.1091 and FCC KDB 447498 D01 v06, and pass the limit. Without written approval of Sporton International (Shenzhen) Inc., the test report shall not be reproduced except in full.

Reviewed by: Long Liang / Supervisor

Approved by: Johnny Chen / Manager

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People's Republic of China

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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA941109-01	Rev. 01	Initial issue of report	Dec. 19, 2019

1. Administration Data

1.1. Testing Laboratory

Sporton International (Shenzhen) Inc. is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Testing Laboratory		
Test Firm	Sporton International (Shenzhen) Inc.	
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595	
Test Site No.	**FCC Designation No.**	**FCC Test Firm Registration No.**
	CN1256	421272

Applicant	
Company Name	PAX Technology Limited
Address	Room 2416, 24/F., Sun Hung Kai Centre, 30 Harbour Road, Wanchai, Hong Kong

Manufacturer	
Company Name	PAX Computer Technology (Shenzhen) Co., Ltd.
Address	4/F, No.3 Building, Software Park, Second Central Science-Tech Road, High-Tech industrial Park, Shenzhen, Guangdong, P.R.C.

2. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	Smart Tablet
Brand Name	PAX
Model Name	Aries6
FCC ID	V5PAR6LITE
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 NFC : 13.56 MHz
Mode	WLAN 2.4GHz 802.11b/g/n HT20 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE NFC:ASK
HW Version	N/A
SW Version	N/A
EUT Stage	Production Unit
Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description. 1. WLAN operating in 5600~5650MHz is notched. 2. This device does not support voice function. 3. 802.11n-HT40 is not supported in 2.4GHz WLAN.	

Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

3. Maximum RF average output power among production units

<Bluetooth>

Mode	Maximum Average Power (dBm)
Bluetooth BR/EDR	7.0
Bluetooth LE	4.5

<WLAN 2.4GHz>

Mode	Maximum Average Power (dBm)
802.11b	17.0
802.11g	16.5
802.11n-HT20	15.5

<WLAN 5GHz Mode>

Mode		Maximum Average Power (dBm)
WLAN 5.2GHz	802.11a	14.0
	802.11n-HT20	13.5
	802.11n-HT40	13.5
	802.11ac-VHT20	13.5
	802.11ac-VHT40	13.5
	802.11ac-VHT80	12.0
WLAN 5.3GHz	802.11a	14.0
	802.11n-HT20	13.5
	802.11n-HT40	13.5
	802.11ac-VHT20	13.5
	802.11ac-VHT40	13.5
	802.11ac-VHT80	11.5
WLAN 5.5GHz	802.11a	15.0
	802.11n-HT20	14.0
	802.11n-HT40	14.0
	802.11ac-VHT20	14.0
	802.11ac-VHT40	14.0
	802.11ac-VHT80	13.5
WLAN 5.8GHz	802.11a	14.5
	802.11n-HT20	14.0
	802.11n-HT40	14.0
	802.11ac-VHT20	14.0
	802.11ac-VHT40	14.0
	802.11ac-VHT80	14.0

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/f2)	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/f2)	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 20.0 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	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Maximum EIRP (W)	Average EIRP (mW)	Power Density at 20cm (mW/mW^2)	Limit (mW/mW^2)
WLAN 5GHz	5180.0	1.73	15.00	16.73	0.047	47.098	0.009	1.000
WLAN 2.4GHz	2412.0	1.50	17.00	18.50	0.071	70.795	0.014	1.000
Bluetooth	2402.0	1.50	7.00	8.50	0.007	7.079	0.001	1.000

Note:

1. For conservativeness, the lowest uplink frequency of each band is used to determine the MPE limit of that band.
2. In the above table have assessed WLAN 2.4GHz and WLAN 5GHz by referring to their maximum direction gain and maximum output power.
3. EUT will choose either WLAN 2.4GHz or WLAN 5GHz according to the network signal condition; therefore, 2.4GHz WLAN and 5GHz WLAN will not operate simultaneously at any moment.
4. WLAN5GHz and WLAN2.4GHz can't transmit simultaneously with Bluetooth.

Conclusion:

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