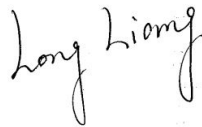


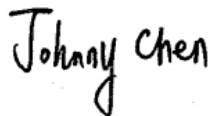
# RF Exposure Evaluation Report

APPLICANT : PAX Technology Limited  
EQUIPMENT : Smart Payment Terminal  
BRAND NAME : PAX  
MODEL NAME : A30  
FCC ID : V5PA30BW  
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



**Sporton International (ShenZhen) Inc.**

1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055

People's Republic of China



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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA040220	Rev. 01	Initial issue of report	Jun. 16, 2020



**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 Payment Terminal
Brand Name	PAX
Model Name	A30
FCC ID	V5PA30BW
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/HT40 WLAN 5GHz : 802.11a/n/ac HT20/HT40/VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE NFC:ASK
HW Version	N/A
SW Version	N/A
EUT Stage	Production Unit
<b>Remark:</b> 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 device does not support voice function.	

**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	9.0
Bluetooth LE	6.0

**<WLAN 2.4GHz>**

Mode	Maximum Average Power (dBm)
802.11b CH01	11.0
802.11b CH06	14.0
802.11b CH11	10.0
802.11g	14.0
802.11n-HT20	14.0
802.11n-HT40	14.0

**<WLAN 5GHz>**

Mode		Maximum Average Power (dBm)
WLAN 5.2GHz	802.11a	13.0
	802.11n-HT20	13.0
	802.11n-HT40	13.0
	802.11ac-VHT20	13.0
	802.11ac-VHT40	13.0
	802.11ac-VHT80	13.0
WLAN 5.3GHz	802.11a	13.0
	802.11n-HT20	13.0
	802.11n-HT40	13.0
	802.11ac-VHT20	13.0
	802.11ac-VHT40	13.0
	802.11ac-VHT80	13.0
WLAN 5.5GHz	802.11a	13.0
	802.11n-HT20	13.0
	802.11n-HT40	13.0
	802.11ac-VHT20	13.0
	802.11ac-VHT40	13.0
	802.11ac-VHT80	13.0
WLAN 5.8GHz	802.11a	13.0
	802.11n-HT20	13.0
	802.11n-HT40	13.0
	802.11ac-VHT20	13.0
	802.11ac-VHT40	13.0
	802.11ac-VHT80	13.0

#### **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 <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposures</b>				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f <sup>2</sup> )	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f <sup>2</sup> )	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	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Maximum EIRP (W)	Average EIRP (mW)	Power Density at 20cm (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
2.4GHz WLAN	2412	1.1	14	15.100	0.032	32.359	0.006	1.000
WLAN 5.2GHz	5180	1.1	13	14.100	0.026	25.704	0.005	1.000
WLAN 5.3GHz	5260	1.1	13	14.100	0.026	25.704	0.005	1.000
WLAN 5.5GHz	5500	1.1	13	14.100	0.026	25.704	0.005	1.000
WLAN 5.8GHz	5745	1.1	13	14.100	0.026	25.704	0.005	1.000
Bluetooth	2402	1.1	9	10.100	0.010	10.233	0.002	1.000

**Note:**

1. For conservativeness, the lowest frequency of each band is used to determine the MPE limit of that band.
2. Chose the maximum power to do MPE analysis.
3. WLAN and Bluetooth share the same antenna, and cannot transmit simultaneously.

**Conclusion:**

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

-----THE END-----