

RF EXPOSURE REPORT

Product: POS Terminal

Model Name: PX7A

FCC ID: V5PPX7ABW

Applicant: PAX Technology Limited

Address: Room 2416, 24/F., Sun Hung Kai Centre, 30 Harbour Road,
Wanchai, Hong Kong

Manufacturer: 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.

Prepared by: BV 7Layers Communications Technology (Shenzhen) Co. Ltd

Lab Location: No.B102, Dazu Chuangxin Mansion, North of Beihuan Avenue,
North Area, Hi-Tech Industrial Park, Nanshan District, Shenzhen,
Guangdong, China

TEL: +86 755 8869 6566

FAX: +86 755 8869 6577

E-MAIL: customerservice.dg@cn.bureauveritas.com

Report No.: SA170920W007

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Test Date: Nov. 13, 2017 ~ Dec. 11, 2017

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA170920W007	Original release	Dec. 12, 2017



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1 CERTIFICATION

PRODUCT: POS Terminal
BRAND NAME: PAX
MODEL NAME: PX7A
APPLICANT: PAX Technology Limited
TESTED: Nov. 13, 2017 ~ Dec. 11, 2017
TEST SAMPLE: Production Unit
STANDARDS: FCC Part 2 (Section 2.1091)
FCC OET Bulletin 65, Supplement C (01-01)
KDB 447498 D01 General RF Exposure Guidance v06
IEEE C95.1

The above equipment has been tested by **Bureau Veritas Shenzhen Co., Ltd. Dongguan Branch** and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : Yuqiang, **DATE:** Dec. 12, 2017
(Yuqiang Yin/ Engineer)

APPROVED BY : Bill, **DATE:** Dec. 12, 2017
(Bill Yao / Manager)

2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	POS Terminal	
MODEL NAME	PX7A	
NOMINAL VOLTAGE	9.0Vdc (adapter or host equipment) 3.0Vdc (button battery)	
OPERATING TEMPERATURE RANGE	-10 ~ 50°C	
MODULATION TYPE	WLAN	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
	Bluetooth	GFSK, $\pi/4$ -DQPSK, 8DPSK
	BT_LE	BT-LE(GFSK) for DTS
	NFC	ASK
OPERATING FREQUENCY	WLAN	2412 ~ 2462MHz for 11b/g/n(HT20)
	Bluetooth/BT_LE	2402MHz ~ 2480MHz
	NFC	13.56MHz
ANTENNA TYPE	PCB Antenna with 2dBi gain	
HW VERSION	PX7A-XXX-XXX-XXXX	
SW VERSION	25.00.XXXX	
I/O PORTS	Refer to user's manual	
CABLE SUPPLIED	USB cable 1: non-shielded, detachable, 3.0m USB cable 2: non-shielded, detachable, 4.5m	

NOTE:

- For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
- The EUT was powered by the following adapter:

ADAPTER	
BRAND:	HONOR
MODEL:	ADS-18SG-09-3
INPUT:	AC 100-240V, 600mA
OUTPUT:	DC 9V, 1000mA

- The EUT matched the following USB cables:

USB CABLE 1	
BRAND:	PNINO
MODEL:	P301-0443-1
SIGNAL LINE:	3.0 METER



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USB CABLE 2	
BRAND:	JETOSH
MODEL:	17-B01-117
SIGNAL LINE:	4.5 METER

4. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.

3 RF EXPOSURE

3.1 LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

FREQUENCY RANGE (MHz)	ELECTRIC FIELD STRENGTH (V/m)	MAGNETIC FIELD STRENGTH (A/m)	POWER DENSITY (mW/cm ²)	AVERAGE TIME (minutes)
LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE				
300-1500	F/1500	30
1500-100,000	1.0	30

F = Frequency in MHz

3.2 MPE CALCULATION FORMULA

$$P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$$

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

3.3 CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile device**.



3.4 CONDUCTED POWER

WIFI 2.4G

802.11b

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)	PASS/FAIL
1	2412	16.42	N/A
6	2437	16.74	N/A
11	2462	16.57	N/A

802.11g

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)	PASS/FAIL
1	2412	15.14	N/A
6	2437	15.98	N/A
11	2462	15.17	N/A

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)	PASS/FAIL
1	2412	14.58	N/A
6	2437	14.79	N/A
11	2462	14.89	N/A

Bluetooth

GFSK

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)	PASS/FAIL
0	2402	9.62	N/A
39	2441	9.23	N/A
78	2480	9.03	N/A

DQPSK

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)	PASS/FAIL
0	2402	4.83	N/A
39	2441	4.95	N/A
78	2480	5.11	N/A

8DPSK

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)	PASS/FAIL
0	2402	4.98	N/A
39	2441	5.02	N/A
78	2480	5.34	N/A

BT-LE (GFSK)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)	PASS/FAIL
0	2402	8.17	N/A
19	2440	7.83	N/A
39	2480	7.81	N/A

3.5 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

TUNE-UP POWER TABLE

Band	Frequency (MHz)	Operating Mode	Tune-Up Power And Tolerance (dBm)
Bluetooth	2402	BT_GFSK	9.5 ± 0.5
WIFI 2.4G	2437	11b	16.5 ± 0.5

BT & WIFI 2.4G

Band	Frequency (MHz)	Operating Mode	Antenna Gain (dBi)	Tune-up Power (dBm)	E.I.R.P Power (mW)	Power Density (mW/cm ²)	limit (mW/cm ²)	PASS / FAIL
Bluetooth	2402	BT_GFSK	2	10.0	0.316	0.000	1.00	PASS
WIFI 2.4G	2437	11b	2	17.0	79.433	0.016	1.00	PASS

--END--