



## RF EXPOSURE REPORT

**Product:** Integrated Smart Terminal

Model Name: E700

FCC ID: V5PE700BW

Applicant: PAX Technology Limited

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Kong China

Manufacturer: PAX Computer Technology (Shenzhen) Co., Ltd.

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Report No.: W7L-P21100003SA01

Received Date: Sep. 29, 2021

**Test Date:** Sep. 29, 2021 ~ Oct. 27, 2021

**Issued Date:** Oct. 28, 2021

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## **RELEASE CONTROL RECORD**

ISSUE NO.	LREASON FOR CHANGE	DATE ISSUED	
W7L-P21100003SA01	Original release	Oct. 28, 2021	

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## 1 CERTIFICATION

**PRODUCT:** Integrated Smart Terminal

BRAND NAME: PAX
MODEL NAME: E700

APPLICANT: PAX Technology Limited

**TESTED:** Sep. 29, 2021 ~ Oct. 27, 2021

**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** 

**FCC Designation** 

CN1171

No.

The above equipment has been tested by **BV 7Layers Communications Technology (Shenzhen) Co. Ltd** 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:	Timon	,	DATE:	Oct. 28, 2021	
	(Simon Wang / Engineer)				

APPROVED BY : \_\_\_\_\_\_\_, DATE: \_\_\_\_\_\_\_\_, Oct. 28, 2021

( Luke Lu / Manager)



## **2 GENERAL INFORMATION**

### 2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Integrated Smart Terminal			
MODEL NAME	E700			
NOMINAL VOLTAGE	24Vdc (adapter) 3.63Vdc (Li-ion, battery) 3.6 Vdc (Li-ion, battery)			
OPERATING TEMPERATURE RANGE	0 ~ 50°C			
	WLAN	DSSS, OFDM		
MODULATION TYPE	BT_LE	GFSK		
MODULATION THE	Bluetooth	GFSK, π/4-DQPSK, 8DPSK		
	NFC	ASK		
OPERATING	WLAN	2412 ~ 2462MHz for 11b/g/n(HT20) 5180 ~ 5240MHz for 11a/ n(HT20)/ n(HT40) / ac(VHT20)/ ac(VHT40) / ac(VHT80)		
FREQUENCY	Bluetooth/BT_LE	2402MHz ~ 2480MHz		
	NFC	13.56 MHz		
ANTENNA GAIN	PIFA Antenna with 1dBi gain for Bluetooth/ BT_LE/ W PIFA Antenna with 2dBi gain for WIFI 5G			
I/O PORTS	Refer to user's manual			
CABLE SUPPLIED	N/A			

## NOTE:

- 1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
- 2. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.

## **List of Accessory:**

ACCESSORIES	BRAND	MODEL	SPECIFICATION
Battery1	EVE	A0671-LE	Capacity: 3.63vdc 2550mAh
Battery2	EVE	A0671B	Capacity: 3.6vdc 2550mAh
AC Adapter	НОМОТО	ADS-65HI-19A-3 24065E	I/P:100-240Vac, 1.5A O/P: 24Vdc, 2.7A

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## 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/cm²)	AVERAGE TIME (minutes)					
LIMI	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

Pd = (Pout\*G) / (4\*pi\*r2)

where

Pd = power density in mW/cm2

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.14

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**.

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#### 3.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

Worst case as below:

#### **BT & WIFI 2.4G & WIFI 5G**

Band	Frequency (MHz)	Antenna Gain (dBi)	Tune-up Conducted Power (dBm)	Tune-up Conducted Power (mW)	Doncity	limit (mW/cm^2)	PASS/ FAIL
Bluetooth	2402	1	8.16	6.55	0.0016	1.0	PASS
WIFI 2.4G	2412	1	23.95	248.31	0.0622	1.0	PASS
WIFI 5G B1	5180	2	14.22	26.42	0.0083	1.0	PASS

### 3.5 CONCLUSION OF SIMULTANEOUS TRANSMITTER

BT,WLAN and WWAN plug-in device can transmit simultaneously, the formula of calculated the MPE is:

CPD1/LPD1+CPD2/LPD2+.....etc. < 1

CPD = Calculation power density

LPD = Limit of power density

Therefore the worst-case situation is 0.0016/1.00+0.0622/1.00=0.0638, which is less than "1", This confirmed that the device comply with FCC 1.1310 MPE limit.

--END--

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