



Certificate #4312.01

RF EXPOSURE EVALUATION REPORT

Product Name: Smart Payment Terminal
Trade Mark: PAX
Model No.: A30
Report Number: 25070818937RFC-6
Test Standards: FCC 47 CFR Part 1 Subpart I
FCC ID: V5PA30
Test Result: PASS
Date of Issue: August 21, 2025

Prepared for:

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Version

Version No.	Date	Description
V1.0	July 29, 2025	Original
V1.1	August 21, 2025	Revise TCB comments



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1. GENERAL INFORMATION

1.1 CLIENT INFORMATION

Applicant:	PAX Technology Limited
Address of Applicant:	Room 2416, 24/F., Sun Hung Kai Centre, 30 Harbour Road, Wanchai, Hong Kong
Manufacturer:	PAX Computer Technology (Shenzhen) Co., Ltd.
Address of Manufacturer:	Room 701, PAX Technology Building, Shanxia Community, Pinghu Sub-district, Longgang District, Shenzhen, China

1.2 EUT INFORMATION

Product Name:	Smart Payment Terminal		
Model No.:	A30		
Trade Mark:	PAX		
DUT Stage:	Identical Prototype		
EUT Supports Function: (Provided by the customer)	GSM Bands:	GSM850 / P-GSM 900 / DCS 1800	
	UTRA Bands:	WCDMA Band II/ IV / V / VIII	
	E-UTRA Bands:	FDD Band 2/ 4/ 5/ 7 / 8 / 28 / 66	
		TDD Band 41	
	2.4 GHz ISM Band:	IEEE 802.11b/g/n	
		Bluetooth 5.0	
	5 GHz U-NII Bands:	5 150 to 5 250 MHz	IEEE 802.11a/n/ac
		5 250 to 5 350 MHz	IEEE 802.11a/n/ac
		5 470 to 5 725 MHz	IEEE 802.11a/n/ac
		5 725 to 5 850 MHz	IEEE 802.11a/n/ac
RNSS Bands:	1559-1610 MHz	BDS/ Galileo/ GLONASS/ GPS/ SBAS	
NFC:	13.553 MHz to 13.567 MHz		
Sample Received Date:	July 8, 2025		
Remark: The above EUT's information was provided by customer. Please refer to the specifications or user's manual for more detailed description.			

1.2.1 Description of Accessories

Refer to Report 25070818937EMC-1 for accessories.

1.3 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD

GSM Bands:	GSM850	
UTRA Bands:	WCDMA Band II/ Band IV / Band V	
E-UTRA Bands:	FDD Band 2/ 4/ 5/ 7 / 66	
	TDD Band 41	
2.4 GHz ISM Band:	IEEE 802.11b/g/n	
	Bluetooth 5.0	
5 GHz U-NII Bands:	5 150 to 5 250 MHz	IEEE 802.11a/n/ac
	5 250 to 5 350 MHz	IEEE 802.11a/n/ac
	5 470 to 5 725 MHz	IEEE 802.11a/n/ac
	5 725 to 5 850 MHz	IEEE 802.11a/n/ac
NFC:	13.553 MHz to 13.567 MHz	

1.4 OTHER INFORMATION

None.

1.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF product, according to the specifications of the manufacturers. It must comply with the requirements of the following standards:

FCC 47 CFR Part 1 Subpart I

All test items have been performed and recorded as per the above standards

1.6 TEST LOCATION

Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F, Block A, Building 6th, Baoneng Science and Technology Park, Longhua Street, Longhua District, Shenzhen, China

Telephone: +86 (0) 755 2823 0888

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1.7 TEST FACILITY

The test facility is recognized, certified, or accredited by the following organizations:

CNAS-Lab Code: L9069

The measuring equipment utilized to perform the tests documented in this report has been calibrated once a year or in accordance with the manufacturer's recommendations, and is traceable under the ISO/IEC 17025 to international or national standards. Equipment has been calibrated by accredited calibration laboratories.

A2LA-Lab Certificate No.: 4312.01

Shenzhen UnionTrust Quality and Technology Co., Ltd. has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

ISED Wireless Device Testing Laboratories

CAB identifier: CN0032

FCC Accredited Lab.

Designation Number: CN1194

Test Firm Registration Number: 259480

1.8 DEVIATION FROM STANDARDS

None.

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1.9 ABNORMALITIES FROM STANDARD CONDITIONS

None.

1.10 OTHER INFORMATION REQUESTED BY THE CUSTOMER

None.

2. EQUIPMENT LIST

Please refer to the RF test report.



3. MPE EVALUATION

3.1 REFERENCE DOCUMENTS FOR EVALUATION

No.	Identity	Document Title
1	FCC 47 CFR Part 1 Subpart I	PROCEDURES IMPLEMENTING THE NATIONAL ENVIRONMENTAL POLICY ACT OF 1969
2	KDB 447498 D01 General RF Exposure Guidance v06	RF EXPOSURE PROCEDURES AND EQUIPMENT AUTHORIZATION POLICIES FOR MOBILE AND PORTABLE DEVICES

3.2 MPE COMPLIANCE REQUIREMENT

3.2.1 Limits

3.2.1.1 FCC 47 CFR Part 1 Subpart I

According to §1.1307(b)(1), system operating under the provisions of this section shall be operating in a manner that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure.

Table 1 to § 1.1310(e)(1)—Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Times E ² , H ² or S (minutes)
Limits for Occupational / Controlled Exposure				
0.3-3.0	614	1.63	(100)*	≤6
3.0-30	1842/f	4.89/f	(900/f)*	<6
30-300	61.4	0.163	1.0	<6
300-1500	/	/	F/300	<6
1500-100000	/	/	5	<6
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)*	<30
30-300	27.5	0.073	0.2	<30
300-1500	/	/	F/1500	<30
1500-100000	/	/	1	<30

Note: f = frequency in MHz: * = Plane-wave equivalents power density.

3.2.2 Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

3.3 MPE CALCULATION METHOD

$$S = PG/4\pi R^2 = EIRP/4\pi R^2$$

S = power density (in appropriate units, e.g., mw/cm²)

P = power input to the antenna (in appropriate units, e.g., mw)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor is normally numeric gain.

R = 20cm distance to the center of radiation of the antenna (in appropriate units, e.g., cm)

3.4 MPE CALCULATION RESULTS

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

3.4.1 Standalone MPE calculation

Operating Mode	Freq.	Declared maximum conducted Average output power	Max. positive tolerance according manufacturer	Max. Antenna Gain	Calculated maximum EIRP	Declared maximum EIRP	MPE Limit	MPE Value
	(MHz)	(dBm)		(dBi)	(dBm)	(mW)		(mW/cm ²)
Bluetooth	2402-2480	9.0	+0.5/-1.5	2.26	11.76	14.9968	1	0.0030
IEEE 802.11b/g/n / 2.4GHz	2412-2462	17.5	+0.5/-1.5	2.26	20.26	106.1696	1	0.0211
IEEE 802.11a/n/ac 5.2G WLAN	5180-5240	14.5	+0.5/-1.5	5.86	20.86	121.8990	1	0.0243
IEEE 802.11a/n/ac 5.3G WLAN	5260-5320	14.0	+0.5/-1.5	5.86	20.36	108.6426	1	0.0216
IEEE 802.11a/n/ac 5.6G WLAN	5500-5700	14.0	+0.5/-1.5	4.80	19.3	85.1138	1	0.0169
IEEE 802.11a/n/ac 5.8G WLAN	5745-5825	13.0	+0.5/-1.5	5.14	18.64	73.1139	1	0.0145
GSM/GPRS 850 (GMSK, 2Tx-slot) (Frame-Averaged)	824-849	25.0	+0.5/-1.5	-1.4	24.1	257.0396	0.5495	0.0511
WCDMA FDD Band 2 (RMS-Value)	1850-1910	23.5	+0.5/-1.5	-1.87	22.13	163.3052	1	0.0325
WCDMA FDD Band 4 (RMS-Value)	1710-1755	23.0	+0.5/-1.5	-0.91	22.59	181.5516	1	0.0361
WCDMA FDD Band 5 (RMS-Value)	824-849	23.5	+0.5/-1.5	-1.4	22.6	181.9701	0.5509	0.0362
LTE Band 2 (RMS-Value)	1850-1910	23.5	+0.5/-1.5	-1.87	22.13	163.3052	1	0.0325
LTE Band 4 (RMS-Value)	1710-1755	24.0	+0.5/-1.5	-0.91	23.59	228.5599	1	0.0455
LTE Band 5 (RMS-Value)	824-849	23.5	+0.5/-1.5	-1.4	22.6	181.9701	0.5493	0.0362
LTE Band 7 (RMS-Value)	2500-2570	23.5	+0.5/-1.5	3.24	27.24	529.6634	1	0.1054
LTE Band 66 (RMS-Value)	1710-1780	24.0	+0.5/-1.5	-0.91	23.59	228.5599	1	0.0455
LTE Band 41 (RMS-Value)	2555-2655	24.0	+0.5/-1.5	3.24	27.74	594.2922	1	0.1182
NFC	13.56	-25.5	+0.5/-1.5	N/A	-25.0	0.0032	13.274	0.000001

1). The EIRP and ERP calculated method is shown as below:

EIRP = Average Power + Antenna Gain

ERP = EIRP – 2.15dB

2). Frame-averaged power = 10 x log (Burst-averaged power mW x Slot used / 8)

3.4.2 Simultaneous Multi-band Transmission MPE Analysis

3.4.2.1 List of Mode for Simultaneous Multi-band Transmission

No.	Configurations	Support/Not Support
1	WLAN + Bluetooth	No
2	WWAN + WLAN + NFC	Yes
3	WWAN + BT + NFC	Yes
4	WWAN + WLAN + Bluetooth	No

Note:

- 1) The WLAN and Bluetooth cannot transmit simultaneously, so there is no co-location test requirement for WLAN and Bluetooth.
- 2) Both GSM/WCDMA and LTE can transmit through either WWAN MAIN Ant. However, only one technology (GSM or WCDMA or LTE) can transmit from an antenna at a time, and the other technology transmits through the other antenna.

3.4.2.1 Results for transmit simultaneously

For MPE ratios

No.	Operating Mode	Limits (mW/cm ²)	Maximum MPE Value (mw/cm ²)	MPE ratios
1	Bluetooth	1	0.0030	0.0030
2	IEEE 802.11b/g/n / 2.4GHz	1	0.0211	0.0211
3	IEEE 802.11a/n/ac 5.2G WLAN	1	0.0243	0.0243
4	IEEE 802.11a/n/ac 5.3G WLAN	1	0.0216	0.0216
5	IEEE 802.11a/n/ac 5.6G WLAN	1	0.0169	0.0169
6	IEEE 802.11a/n/ac 5.8G WLAN	1	0.0145	0.0145
7	GSM/GPRS 850 (GMSK, 2Tx-slot) (Frame-Averaged)	0.5495	0.0511	0.0930
8	WCDMA FDD Band 2 (RMS-Value)	1	0.0325	0.0325
9	WCDMA FDD Band 4 (RMS-Value)	1	0.0361	0.0361
10	WCDMA FDD Band 5 (RMS-Value)	0.5509	0.0362	0.0657
11	LTE Band 2 (RMS-Value)	1	0.0325	0.0325
12	LTE Band 4 (RMS-Value)	1	0.0455	0.0455
13	LTE Band 5 (RMS-Value)	0.5493	0.0362	0.0659
14	LTE Band 7 (RMS-Value)	1	0.1054	0.1054
15	LTE Band 66 (RMS-Value)	1	0.0455	0.0455
16	LTE Band 41 (RMS-Value)	1	0.1182	0.1182
17	NFC	13.274	0.000001	0.0000001

Note 1: According to KDB 447498 D01 General RF Exposure Guidance v06, At the transmit simultaneously calculation method is as follows:

Transmit simultaneously MPE = Σ of MPE ratios

MPE ratios = Field strengths or power density / MPE limit at the test frequency

For Transmit simultaneously MPE

No.	Configurations	Maximum MPE Ratios				Transmit simultaneously	Limit	Results
		Max. WWAN MPE Ratios	Max. WLAN MPE Ratios	Max. BT MPE ratios	Max. NFC MPE ratios			
1	WWAN + WLAN + NFC	0.1182	0.0243	--	0.0000001	0.1425	1	PASS
2	WWAN + BT + NFC	0.1182	--	0.0030	0.0000001	0.1212	1	PASS

Note 1: According to KDB 447498 D01 General RF Exposure Guidance v06, At the transmit simultaneously calculation method is as follows:

Transmit simultaneously MPE = Σ of MPE ratios

MPE ratios = Field strengths or power density / MPE limit at the test frequency

APPENDIX 1 PHOTOS OF TEST SETUP

N/A

APPENDIX 2 PHOTOS OF EUT CONSTRUCTIONAL DETAILS

Refer to Appendix 2 for EUT external and internal Photos.

*** End of Report ***

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