

TEST REPORT

Reference No...... : WTF19S12088767W005
FCC ID : V5PQ25LWT
Applicant..... : PAX Technology Limited
Address..... : Room 2416, 24/F., Sun Hung Kai Centre, 30 Harbour, 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.
Product..... : POS Terminal
Model(s) : Q25
Brand Name : PAX
Standards..... : FCC 1.1307
Date of Receipt sample : 2019-12-20
Date of Test : 2019-12-21 to 2020-01-06
Date of Issue..... : 2020-01-07
Test Result..... : **Pass**

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

Prepared By:

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2 Contents

	Page
1 COVER PAGE.....	1
2 CONTENTS	2
3 REVISION HISTORY	3
4 GENERAL INFORMATION.....	4
4.1 GENERAL DESCRIPTION OF E.U.T.	4
4.2 DETAILS OF E.U.T.	4
4.3 TEST FACILITY	4
5 TEST SUMMARY	5
6 RF EXPOSURE.....	6
6.1 REQUIREMENTS.....	6
6.2 THE PROCEDURES / LIMIT	6
6.3 MPE CALCULATION METHOD	7

3 Revision History

Test report No.	Date of Receipt sample	Date of Test	Date of Issue	Purpose	Comment	Approved
WTF19S12088 767W005	2019-12-20	2019-12-21 to 2020-01-06	2020-01-07	original	-	Valid

4 General Information

4.1 General Description of E.U.T.

Product:	POS Terminal
Model(s):	Q25
Model Description:	N/A
Wi-Fi Specification:	2.4G-802.11b/g/n HT20/n HT40 5G-802.11a/ n(HT20/40)/ac(HT20/40/80)
NFC:	Support
Hardware Version:	Q25-0UA-R75-0xLx
Software Version:	15.00.xx xxxx
Highest frequency (Exclude Radio):	1.25GHz
Storage Location:	Internal Storage
Note:	N/A

4.2 Details of E.U.T.

Ratings:	DC 5V, 1.0A, charging from adapter (Adapter Input: 100-240V~50/60Hz 0.4A)
Adapter:	Manufacturer: Shenzhen Sorghum red Electronics Technology Co., Ltd. Model No.: A18A-050100U-US2

4.3 Test Facility

The test facility has a test site registered with the following organizations:

ISED CAB identifier: CN0013. Test Firm Registration No.: 7760A.

Waltek Services(Shenzhen) Co., Ltd. Has been registered and fully described in a report filed with the Industry Canada. The acceptance letter from the Industry Canada is maintained in our files.

Registration number 7760A, October 15, 2016.

FCC Designation No.: CN1201. Test Firm Registration No.: 523476.

Waltek Services(Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration number 523476, September 10, 2019.

5 Test Summary

Test Items	Test Requirement	Result
Maximum Permissible Exposure (Exposure of Humans to RF Fields)	1.1307(b)(1)	PASS

6 RF Exposure

Requirement: FCC Part 1.1307

Test Mode: The EUT work in test mode(Tx).

6.1 Requirements

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device.

6.2 The procedures / limit

FCC Part 1.1307:

(A) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
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
1500-100,000			5	6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
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
1500-100,000			1.0	30

Note: f = frequency in MHz ; *Plane-wave equivalent power density

6.3 MPE Calculation Method

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d}$$

$$\text{Power Density: } Pd \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

E = Electric field (V/m)

P = Peak RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained

2.4G Wifi:

Antenna Gain	Antenna Gain	Peak Output Power	Peak Output Power	Power Density	Limit of Power Density
(dBi)	(numeric)	(dBm)	(mW)	(mW/cm ²)	(mW/cm ²)
0.60	1.148	20.67	116.68	0.026651	1

5G Wifi:

U-NII-1

Antenna Gain	Antenna Gain	Peak Output Power	Peak Output Power	Power Density	Limit of Power Density
(dBi)	(numeric)	(dBm)	(mW)	(mW/cm ²)	(mW/cm ²)
0.60	1.148	17.87	61.24	0.013987	1

U-NII-2A

Antenna Gain	Antenna Gain	Peak Output Power	Peak Output Power	Power Density	Limit of Power Density
(dBi)	(numeric)	(dBm)	(mW)	(mW/cm ²)	(mW/cm ²)
0.60	1.148	18.35	68.39	0.015621	1

U-NII-2C

Antenna Gain	Antenna Gain	Peak Output Power	Peak Output Power	Power Density	Limit of Power Density
(dBi)	(numeric)	(dBm)	(mW)	(mW/cm ²)	(mW/cm ²)
0.60	1.148	18.07	64.12	0.014646	1

U-NII-3

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (mW/cm ²)	Limit of Power Density (mW/cm ²)
0.60	1.148	18.35	68.39	0.015621	1

NFC:

Frequency	Antenna Gain (dBi)	Antenna Gain (numeric)	Max.Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (mW/cm ²)	Limit of Power Density (mW/cm ²)
13.56MHz	0.60	1.148	10.73	11.83	0.002702	13.274

Note: the following is Source-based time-averaged maximum output power Calculation

Frequency	Source-based time-averaged maximum output power	Substituted (0dBm)	Source-based time-averaged maximum output power
(MHz)	(dBμV/m)	(dBμV/m)	(dBm)
13.56	105.93	95.2	10.73

=====End of Report=====