

# **Spot Check Evaluation**

APPLICANT	:	PAX Technology Limited
EQUIPMENT	:	UNATTENDED PAYMENT TERMINAL
BRAND NAME	:	ΡΑΧ
MODEL NAME	:	IM30
FCC ID	:	V5PIM30BWL
STANDARD	:	47 CFR Part 15 Subpart C §15.225
		47 CFR Part 15 Subpart C §15.247
		47 CFR Part 15 Subpart E §15.407

We, Sporton International Inc. (Shenzhen), would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (Shenzhen), the test report shall not be reproduced except in full.

JasonJia

Approved by: Jason Jia



**Sporton International Inc. (ShenZhen)** 1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China



# TABLE OF CONTENTS

RE	VISIO	N HISTORY	.3
1	GEN	ERAL DESCRIPTION	.4
	1.1	Applicant	.4
	1.2	Manufacturer	.4
	1.3	Product Feature of Equipment Under Test	.4
	1.4	Modification of EUT	.4
	1.5	Testing Site	.5
	1.6	Test Software	.5
	1.7	Applicable Standards	.5
2	RE-U	SE OF MEASURED DATA	.6
	2.1	Introduction Section	.6
	2.2	Model Difference Information	.6
	2.3	Reference detail Section:	.6
	2.4	Spot Check Verification Data Section	.7
3	LIST	OF MEASURING EQUIPMENT	.8
4	MEA	SUREMENT UNCERTAINTY	.9
A	PENI	DIX A. SETUP PHOTOGRAPHS	



# **REVISION HISTORY**

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
380711-01A	Rev. 01	Initial issue of report	Oct. 12, 2023

#### Conformity Assessment Condition:

 The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.

2. The measurement uncertainty please refer to each test result in the section "Measurement Uncertainty"

#### **Disclaimer:**

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

# **1** General Description

## 1.1 Applicant

#### PAX Technology Limited

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

### 1.2 Manufacturer

#### PAX Computer Technology (Shenzhen) Co., Ltd.

401 and 402, Building 3, Shenzhen Software Park, Nanshan District, Shenzhen City, Guangdong Province, P.R.C

## **1.3 Product Feature of Equipment Under Test**

Product Feature				
Equipment	UNATTENDED PAYMENT TERMINAL			
Brand Name	PAX			
Model Name	IM30			
FCC ID	V5PIM30BWL			
SN Code	e Conducted: 1640169811 Radiation: 1640169773			
HW Version	NA			
SW Version	NA			
EUT Stage	Production Unit			

**Remark:** The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

# 1.4 Modification of EUT

No modifications are made to the EUT during all test items.



# 1.5 Testing Site

Sporton International Inc. (ShenZhen) is accredited to ISO/IEC 17025:2017 by American Association

for Laboratory Accreditation with Certificate Number 5145.01.

Test Firm	Sporton International Inc. (ShenZhen)					
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.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.			
	TH01-SZ	CN1256	421272			
Test Firm	Sporton International Inc. (ShenZhen)					
Test Site Location	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City, Guangdong Province 518103 People's Republic of China TEL: +86-755-86066985					
Test Site No						
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.			

## 1.6 Test Software

ltem	Site	Manufacturer	Name	Version
1.	03CH01-SZ	AUDIX	E3	6.2009-8-24

## **1.7 Applicable Standards**

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC KDB 484596 D01 Referencing Test Data v01
- 47 CFR Part 15 Subpart C §15.225
- 47 CFR Part 15 Subpart C §15.247
- 47 CFR Part 15 Subpart E §15.407
- ANSI C63.10-2013



# 2 Re-use of Measured Data

## 2.1 Introduction Section

This application re-uses data collected on a similar device. The subject device of this application (Model: IM30, FCC ID: V5PIM30BWL) is electrically identical to the reference device (Model: IM30, FCC ID: V5PIM304GBWL) for the portions of the circuitry corresponding to the data being re-used. Based on their similarity, the FCC Part 15C (equipment class: DTS, DSS, DXX) and FCC Part 15E (equipment class: NII) reuse the original model's result and do spot-check, following the FCC KDB 484596 D01 Referencing Test Data v01.

The applicant takes full responsibility that the test data as referenced in this report represent compliance for this FCC ID: V5PIM30BWL.

## 2.2 Model Difference Information

The main difference between FCC ID: V5PIM30BWL and FCC ID: V5PIM304GBWL is as below:

• Remove WWAN module.

Other differences and all the details of similarity and difference can be found in the confidential documents (IM30\_Operational Description of Product Equality Declaration).

Rule Part	Equipment Class	Frequency Band (MHz)	Reference FCC ID (Parent)	Type Grant/ Permissive Change	Reference Title	FCC ID Filling (Variant)	Report Title/Section
	DSS (BR/EDR)	2400~2483.5	V5PIM304GBWL	Original Grant	FR380711A	V5PIM30BWL	All sections applicable
150	DTS (BLE)	2400~2483.5	V5PIM304GBWL	Original Grant	FR380711B	V5PIM30BWL	All sections applicable
150	DTS (WLAN)	2400~2483.5	V5PIM304GBWL	Original Grant	FR380711C	V5PIM30BWL	All sections applicable
	DXX (NFC)	13.56	V5PIM304GBWL	Original Grant	FR380711D	V5PIM30BWL	All sections applicable
		5180~5240	V5PIM304GBWL	Original Grant	FR380711E	V5PIM30BWL	All sections applicable
		5260~5320	V5PIM304GBWL	Original Grant	FR380711E	V5PIM30BWL	All sections applicable
15E	U-NII	5500~5700	V5PIM304GBWL	Original Grant	FR380711E	V5PIM30BWL	All sections applicable
		5745~5825	V5PIM304GBWL	Original Grant	FR380711E	V5PIM30BWL	All sections applicable
		5260~5320 5500~5700	V5PIM304GBWL	Original Grant	FZ380711	V5PIM30BWL	All sections applicable

### 2.3 Reference detail Section:



# 2.4 Spot Check Verification Data Section

Conducted power test and radiated spurious emission test against the variant model based on the worst-case condition from the original model was performed in this filing to demonstrate the test data from original model remains representative for the variant model.

All test procedures follow the related section of parent report.

Test Item	Mode	V5PIM304GBWL Parent Worst Result	V5PIM30BWL Variant Check Result	Difference (dB)
	BDR(DH)	8.01	7.86	-0.15
	EDR(2DH)	6.05	5.88	-0.17
	EDR(3DH)	6.21	6.05	-0.16
	BLE 1M	3.45	3.27	-0.18
	2.4G 11b	15.93	15.88	-0.05
	2.4G 11g	14.76	14.72	-0.04
Conducted	2.4G 11n20	14.82	14.78	-0.04
Power	5G 11a UNII-2C	14.63	14.57	-0.06
(dBm)	5G 11a UNII-3	13.98	13.84	-0.14
	5G 11n20 UNII-2C	14.22	14.15	-0.07
	5G 11n20 UNII-3	13.82	13.73	-0.09
	5G 11n40 UNII-2C	13.19	12.97	-0.22
	5G 11n40 UNII-3	13.33	13.18	-0.15
	5G 11AC80 UNII-2A	10.2	10.03	-0.17
	5G 11AC80 UNII-3	9.55	9.47	-0.08

Summary for power and RSE spot check for each rule entry and technology is listed as below:

Test Item	Mode	V5PIM304GBWL Parent Worst Result	V5PIM30BWL Variant Check Result	Difference (dB)
Field Strength (dBuV/m)	NFC 13.56MHz	67.59	67.48	-0.11

Conclusion:

Radiated spurious emission test against the variant model based on the worst-case condition from the original model was performed in this filing to demonstrate the test data from original model remains representative for the variant model.

Based on the spot check test result, the test data from the original model is representative for the variant model. The power level and RSE spot check are shown within expected level compliant to limit line.

We are using power and ERP/EIRP measurements from the original parent model reports to list on the grant.

The same DFS detection mechanism/software is used in the variant. Hence, there is no spot check data for DFS hand-shaking mechanism.

We confirm that the test data reuse policy of FCC KDB 484596 D01 Referencing Test Data v01 has been followed and the test data as referenced from the parent model report represents compliance with new FCC ID.



# 3 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 06, 2023	Aug. 25, 2023	Apr. 05, 2024	Conducted (TH01-SZ)
Pulse Power Senor	Anritsu	MA2411B	1339473	30MHz~40GHz	Dec. 27, 2022	Aug. 25, 2023	Dec. 26, 2023	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1542004	50MHz Bandwidth	Dec. 27, 2022	Aug. 25, 2023	Dec. 26, 2023	Conducted (TH01-SZ)
EMI Test Receiver	R&S	ESR7	101404	9kHz~7GHz	Oct. 19, 2022	Aug. 30, 2023	Oct. 18, 2023	Radiation (03CH04-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY551502 13	10Hz~44GHz	Jul. 07, 2023	Aug. 30, 2023	Jul. 06, 2024	Radiation (03CH04-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jun. 28, 2022	Aug. 30, 2023	Jun. 27, 2024	Radiation (03CH04-SZ)
Bilog Antenna	TeseQ	CBL6111D	41909	30MHz~1GHz	May 14, 2023	Aug. 30, 2023	May 13, 2024	Radiation (03CH04-SZ)
Amplifier	Burgeon	BPA-530	102211	0.01Hz ~3000MHz	Oct. 19, 2022	Aug. 30, 2023	Oct. 18, 2023	Radiation (03CH04-SZ)
AC Power Source	APC	AFV-S-600B	F11905001 9	N/A	Nov. 10. 2022	Aug. 30, 2023	Nov. 10. 2023	Radiation (03CH04-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Aug. 30, 2023	NCR	Radiation (03CH04-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Aug. 30, 2023	NCR	Radiation (03CH04-SZ)

NCR: No Calibration Required.



# 4 Measurement Uncertainty

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.26-2015. All the measurement uncertainty value were shown with a coverage K=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

#### **Uncertainty of Conducted Measurement**

Test Item	Uncertainty
Conducted Power	±1.34 dB

#### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.1dB
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#### Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of	4.8dB
Confidence of 95% (U = 2Uc(y))	

-THE END-