



# RF EXPOSURE REPORT

**Product:** Smart Kiosk

Model Name: SK600

Additional model: SK800

FCC ID: V5PSK600

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.: SA191120W002-1

Received Date: Jul. 09, 2019

**Test Date:** Jul. 10, 2019 ~ Jul. 11, 2019

Issued Date: Dec. 11, 2019

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# **TABLE OF CONTENTS**

R	RF EXPOSURE REPORT	1
R	RELEASE CONTROL RECORD	3
1	CERTIFICATION	4
2	GENERAL INFORMATION	5
	2.1 GENERAL DESCRIPTION OF EUT	5
3	RF EXPOSURE	7
	3.1 LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)	7
	3.2 MPE CALCULATION FORMULA	7
	3.3 CLASSIFICATION	7
	3.4 CONDUCTED POWER	8
	3.5 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER	9
	3.6 CONCLUSION OF SIMULTANEOUS TRANSMITTER	10

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# **RELEASE CONTROL RECORD**

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA190429W001-1	Original release	Jul. 13, 2019
SA191120W002-1	Based on the original product add one model SK800, changed power module. All test date is copied from the original test report SA190429W001-1.	Dec. 11, 2019

Tel: +86 755 8869 6566 Fax: +86 755 8869 6577

Email: customerservice.dg@cn.bureauveritas.com



# 1 CERTIFICATION

**PRODUCT:** Smart Kiosk

**BRAND NAME:** PAX

MODEL NAME: SK600

**ADDITIONAL MODEL: SK800** 

**APPLICANT:** PAX Technology Limited

**TESTED:** Jul. 09, 2019 ~ Jul. 10, 2019

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 **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 :

DATE: Dec. 1

( ..... -... -... -... -... )

APPROVED BY

DATE: |

Dec. 11, 2019



# **2 GENERAL INFORMATION**

### 2.1 GENERAL DESCRIPTION OF EUT

MODEL NAME   SK600
NOMINAL VOLTAGE   AC120V
NOMINAL VOLTAGE   OPERATING   TEMPERATURE RANGE   O ~ 50°C
OPERATING TEMPERATURE RANGE         0 ~ 50°C           WLAN         802.11b : DSSS 802.11a/g/n/ac : OFDM Bluetooth : GFSK, π/4-DQPSK, 8-DPSK, LE           WCDMA         BPSK/QPSK           LTE         QPSK, 16QAM           WLAN : 2412 ~ 2462, 5150 ~ 5350, 5470 ~ 5725, 5725 ~ 5825 Bluetooth : 2402 ~ 2480           WCDMA         1852.4MHz ~ 1907.6MHz (FOR WCDMA II) 826.4MHz ~ 846.6MHz (FOR WCDMA V)           PERATING FREQUENCY         1850.7MHz ~ 1909.3MHz (FOR LTE Band2) 1710.7MHz ~ 1754.3MHz (FOR LTE Band4)
NODULATION TYPE   WLAN   802.11b : DSSS   802.11a/g/n/ac : OFDM   Bluetooth : GFSK, π/4-DQPSK, 8-DPSK, LE
WLAN       802.11a/g/n/ac : OFDM Bluetooth : GFSK, π/4-DQPSK, 8-DPSK, LE         WCDMA       BPSK/QPSK         LTE       QPSK, 16QAM         WLAN : 2412 ~ 2462, 5150 ~ 5350, 5470 ~ 5725, 5725 ~ 5825 Bluetooth : 2402 ~ 2480         WCDMA       1852.4MHz ~ 1907.6MHz (FOR WCDMA II) 826.4MHz ~ 846.6MHz (FOR WCDMA V)         FREQUENCY         1850.7MHz ~ 1909.3MHz (FOR LTE Band2) 1710.7MHz ~ 1754.3MHz (FOR LTE Band4)
WCDMA   BPSK/QPSK
WIFI 2.4G  WLAN: 2412 ~ 2462, 5150 ~ 5350, 5470 ~ 5725, 5725 ~ 5825 Bluetooth: 2402 ~ 2480  WCDMA  1852.4MHz ~ 1907.6MHz (FOR WCDMA II) 826.4MHz ~ 846.6MHz (FOR WCDMA V) 1850.7MHz ~ 1909.3MHz (FOR LTE Band2) 1710.7MHz ~ 1754.3MHz (FOR LTE Band4)
WIFI 2.4G 5725 ~ 5825 Bluetooth : 2402 ~ 2480  WCDMA 1852.4MHz ~ 1907.6MHz (FOR WCDMA II) 826.4MHz ~ 846.6MHz (FOR WCDMA V) 1850.7MHz ~ 1909.3MHz (FOR LTE Band2) 1710.7MHz ~ 1754.3MHz (FOR LTE Band4)
OPERATING FREQUENCY         826.4MHz ~ 846.6MHz (FOR WCDMA V)           1850.7MHz ~ 1909.3MHz (FOR LTE Band2)         1710.7MHz ~ 1754.3MHz (FOR LTE Band4)
1710.7MHz ~ 1754.3MHz (FOR LTE Band4)
699.7MHz ~ 715.3MHz (FOR LTE Band12) 706.5MHz ~ 713.5MHz (FOR LTE Band17)
WLAN 2.4G External Antenna with 1.5dBi gain
WLAN 5G  External Antenna with 6.04dBi gain for B1 External Antenna with 5.79dBi gain for B2 External Antenna with 5.25dBi gain for B3 External Antenna with 4.75dBi gain for B4
WCDMA V Fixed External Antenna with 1.0dBi gain
ANTENNA GAIN WCDMA II Fixed External Antenna with 1.5dBi gain
LTE Band 2 Fixed External Antenna with 1.5dBi gain
LTE Band 4 Fixed External Antenna with 1.5dBi gain
LTE Band 5 Fixed External Antenna with 1.0dBi gain
LTE Band 12 Fixed External Antenna with 1.0dBi gain
LTE Band 17 Fixed External Antenna with 1.0dBi gain
HW VERSION NA
SW VERSION NA



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. The hardware differences between SK800 with SK600:

Product size and weight					
SK600	Size: 660 x325 x 178 (mm) Weight: 7.8kg				
SK800	Size: 965x 390x 175 (mm) Weight: 13kg				

Product screen size					
SK600	screen size: 15"				
SK800	screen size: 23.8"				

Except Listings above, the others are the same.

3. 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/cm²)	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

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 = 3.1416

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

#### **TUNE-UP POWER TABLE**

Band	Frequency (MHz)	Operating Mode	Tune-Up Power And Tolerance (dBm)
ВТ	2441	GFSK	9.5
WIFI 2.4G	2437	11b(20MHz)	16.0
WIFI 5G B1	5230	11a(20MHz)	15.0
WIFI 5G B2	5270	11a(20MHz)	15.0
WIFI 5G B3	5510	11a(20MHz)	15.0
WIFI 5G B4	5755	11a(20MHz)	15.0
WCDMA II	1880	RMC12.2K	23.0
WCDMA V	836.4	RMC12.2K	23.0
LTE 2	1880	QPSK	23.0
LTE 4	1732.5	QPSK	22.0
LTE 5	836.5	QPSK	23.0
LTE 12	707.5	QPSK	23.0
LTE 17	710	QPSK	22.0

 $\textbf{Email:} \ \underline{\texttt{customerservice.dg@cn.bureauveritas.com}}$ 



### 3.5 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

#### BT

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	2441	BT_GFSK	1.50	9.50	12.589	0.003	1.00	PASS

#### **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
<b>WIFI 2.4G</b>	2437	11b	1.50	16.00	56.234	0.011	1.00	PASS

#### WIFI 5G

*****								
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
WIFI 5G B1	5230	11a	6.04	15.00	127.057	0.025	1.00	PASS
WIFI 5G B2	5270	11a	5.79	15.00	119.950	0.024	1.00	PASS
WIFI 5G B3	5510	11a	5.25	15.00	105.925	0.021	1.00	PASS
WIFI 5G B4	5755	11a	4.75	15.00	94.406	0.019	1.00	PASS

#### **WCDMA**

- WODI	VIA.							
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
WCDMA II	1880.0	RMC12.2K	1.50	23.00	281.838	0.056	1.00	PASS
WCDMA V	846.4	RMC12.2K	1.00	23.00	251.189	0.050	0.56	PASS

## LTE

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
Band 2	1880	QPSK	1.50	23.00	281.838	0.056	1.00	PASS
Band 4	1732.5	QPSK	1.50	22.00	223.872	0.045	1.00	PASS
Band 5	836.5	QPSK	1.00	23.00	251.189	0.050	0.56	PASS
Band 12	707.5	QPSK	1.00	23.00	251.189	0.050	0.47	PASS
Band 17	710.0	QPSK	1.00	22.00	199.526	0.040	0.47	PASS



#### 3.6 CONCLUSION OF SIMULTANEOUS TRANSMITTER

Both of the WLAN and 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, which is less than "1", This confirmed that the device comply with FCC 1.1310 MPE limit.

Band	Frequency (MHz)	Power Density (mW/cm^2)	limit (mW/cm^2)	Power Density / Limit	Total Power Density / Limit	MPE Limit	PASS / FAIL
WIFI 5G-11a	5230	0.025 1 0.025		0.025	0.004	1.000	PASS
<b>LTE Band 2</b> 1880		0.056	1	0.056	0.081		

--END--