

FCC TEST REPORT

FCC ID: 2AG6FV10

Product Name : POS System

Model Name : V10,V6,V7,V8,V9

Brand : 

Report No. : PT800231151222E-FC05

Prepared for

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Prepared by

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TEST RESULT CERTIFICATION

Applicant's name : CITAQ CO., LTD.
Address : 9th Floor, Chuangye Building, 6 Keji Middle Road, New Hi-Tech Zone, Shantou, Guangdong China
Manufacture's name : CITAQ CO., LTD.
Address : 9th Floor, Chuangye Building, 6 Keji Middle Road, New Hi-Tech Zone, Shantou, Guangdong China
Product name : POS System
Model name : V10,V6,V7,V8,V9
Standards : FCC CFR47 Part 1.1307(b)(1)
Test procedure : FCC Part 2.1091
Test Date : Dec. 25, 2015 ~ Jan.4, 2016
Date of Issue : Jan.4, 2016
Test Result : Pass

This device described above has been tested by PTS, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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2 Test Summary

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

Remark:

N/A: Not Applicable



3 General Information

3.1 General Description of E.U.T.

Product Name	:	POS System
Model Name	:	V10,V6,V7,V8,V9
Model Description	:	Only the model names are different
GSM Band(s)		GSM 850/1900
GPRS/EGPRS Class		12
WCDMA Band(s)		FDD Band II/V
Bluetooth Version	:	V4.0(with BLE)
Operating frequency	:	GSM/GPRS/EDGE 850: 824~849MHz
		PCS/GPRS/EDGE 1900: 1850~1910MHz
		WCDMA/UPA/DPA Band V: 824~849MHz
		WCDMA/UPA/DPA Band II: 1850~1910MHz
		Bluetooth: 2402-2480MHz
		WIFI
Max. RF output power		802.11b/g/n HT20:2412-2462MHz
		802.11n HT40:2422-2452MHz
		GSM 850: 32.35dBm
		PCS 1900: 29.18dBm
		WCDMA Band V: 22.66dBm
		WCDMA Band II: 22.47dBm
Type of Modulation		Bluetooth: 2.04dBm
		WIFI: 9.44dBm
		GSM,GPRS: GMSK
		EDGE: 8PSK
		WCDMA: QPSK
		Bluetooth: GFSK, Pi/4 DQPSK,8DPSK
Antenna installation:		WIFI: CCK, OFDM
		GSM/WCDMA: internal permanent antenna
Antenna Gain:		WIFI/Bluetooth: internal permanent antenna
		GSM 850/ WCDMA Band V: -0.5dBi
		PCS 1900/ WCDMA Band II: 1.2dBi
		WIFI: 0dBi
Power supply	:	Bluetooth: 0dBi
Adapter	:	DC 24V 2.71A Power by AC adapter
	:	Input:100-240V ~50/60Hz 1.7A max Output: DC 24V 2.71A

4 RF Exposure

Test Requirement : FCC Part 1.1307(b)(1)

Evaluation Method : FCC Part 2.1091

4.1 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.

4.2 The procedures / limit

(A) Limits for Occupational / Controlled Exposure

Frequency Range	Electric Field	Magnetic Field	Power Density (S)	Averaging Time
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	Electric Field	Magnetic Field	Power Density (S)	Averaging Time
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



4.3 MPE Calculation Method

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d} \qquad \text{Power Density: } Pd \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

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

4.4 Test Result

Item	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (mW/cm ²)	Limit of Power Density (mW/cm ²)	Result
GSM850	0.891	33.00	2000	0.355	0.549	Pass
PCS1900	1.318	30.00	1000	0.262	1	Pass
WCDMA BANDII	0.891	23.50	223.87	0.040	1	Pass
WCDMA BANDV	1.318	23.50	223.87	0.059	0.549	Pass
BT	1	2.50	1.78	0.0004	1	Pass
WIFI	1	9.50	8.91	0.0018	1	Pass

Remark: The power is maximum tune-up power.

*****THE END REPORT*****