

FCC TEST REPORT

FCC ID: 2AG6FH7

Product	:	POS System
Model Name	:	H7,H1,H2,H3,H4,H5,H6,H8,H9,H10
Brand	:	
Report No.	:	PT800429160509E-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 : POS System
Standards : H7,H1,H2,H3,H4,H5,H6,H8,H9,H10
Test procedure : KDB 447498 D01 General RF Exposure Guidance v05
Test Date : May. 11, 2016 ~ Jun.14, 2016
Date of Issue : Jun.16, 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	:	H7,H1,H2,H3,H4,H5,H6, H8,H9,H10
Model Description	:	Only the model names are different.
Bluetooth Version	:	V4.0(With BLE)
Operating frequency	:	GSM/GPRS/EDGE 850: 824~849MHz GSM/GPRS/EDGE 900: 925-960MHz DCS 1800: 1805-1880MHz PCS 1900: 1850~1910MHz WCDMA Band I: 1920-1980MHz WCDMA Band II: 1850-1910MHz WCDMA Band V: 824~849MHz WiFi: 802.11b/g/n HT20: 2412-2462MHz 802.11n HT40: 2422-2452MHz Bluetooth:2402-2480MHz
Max. RF output power	:	GSM 850: 32.54dBm PCS1900: 29.79dBm WCDMA Band II: 21.75dBm WCDMA Band V: 22.70dBm WiFi: 9.38dBm Bluetooth: -1.14dBm
Type of Modulation	:	GSM,GPRS: GMSK EDGE: 8PSK WCDMA: QPSK WiFi: CCK, OFDM Bluetooth: GFSK, Pi/4 DQPSK,8DPSK
Antenna installation:	:	GSM/WCDMA: internal permanent antenna WIFI/Bluetooth: internal permanent antenna
Antenna Gain:	:	GSM 850/ WCDMA Band V: -0.5dBi PCS 1900/ WCDMA Band II: 1.2dBi WIFI: 0dBi Bluetooth: 0dBi
Power supply	:	DC 24V 2.71A Power by AC adapter
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

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

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

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

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	32.54	1794.73	0.3181	0.549	Pass
PCS1900	1.318	29.79	952.80	0.2498	1	Pass
WCDMA BANDII	0.891	21.75	149.62	0.0265	1	Pass
WCDMA BANDV	1.318	22.70	186.21	0.0488	0.549	Pass
BT	1	-1.14	0.77	0.0002	1	Pass
WIFI	1	9.38	8.67	0.0017	1	Pass

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