



FCC TEST REPORT FCC ID: 2AVZVW10

Product	:	POS SYSTEM			
Model Name	:	W10			
Additional model	:	W10-1,W10-2,W10-3,W10-4,W10-5			
Brand		CITAQ			
Report No.	:	PTC19082202504E-FC04			
Prepared for					
		CITAQ CO., LTD.			
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TEST RESULT CERTIFICATION

Applicant's name : CITAQ CO., LTD.

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Zone, Shantou., Guangdong

Manufacture's name : CITAQ CO., LTD.

Address 9F&13F.,Chuangye Bldg.,Keji Middle Road.,Hi-Tech

Zone, Shantou., Guangdong

Product name : POS System

W10

Model name

Additional model . W10-1,W10-2,W10-3,W10-4,W10-5

Test procedure KDB 447498 D01 General RF Exposure Guidance v05

Test Date : Dec. 18, 2019 to Jan.13, 2020

Date of Issue : Jan.13, 2020

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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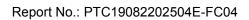
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2 Test Summary

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	:	W10		
Additional model		V10-1,W10-2,W10-3,W10-4,W10-5		
Model Description	:	nly the model names are different.		
Bluetooth Version	:	/4.2(With Br+Edr+BLE)		
Operating frequency		WiFi: 802.11b/g/n HT20: 2412-2462MHz 802.11n HT40: 2422-2452MHz Bluetooth:2402-2480MHz		
Max. RF output power		WiFi: 18.85dBm Bluetooth: -2.52dBm		
Type of Modulation	: WiFi: CCK, OFDM Bluetooth: GFSK, Pi/4 DQPSK,8DPSK			
Antenna installation:	:	WIFI/Bluetooth: internal permanent antenna		
Power supply	:	DC 24V 2.5A Power by AC adapter ;Adapter model:PA1060-240T1A250		
Adapter	:	Input:100-240V ~50/60Hz 1.8A max Output: DC 24V 2.5A		



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	27.0	0.070	-	
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

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d}$$
Power Density: Pd (W/m²) = $\frac{E^2}{377}$

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/cm2)	Limit of Power Density (mW/cm2)	Result
ВТ	1.58	-3.28	0.47	0.0001	1	Pass
WIFI	1.58	18.85	76.74	0.0241	1	Pass
BLE	1.58	-2.52	0.56	0.0002	1	Pass

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