



# 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          |
| <b>Prepared for</b>  |   |                               |
| CITAQ CO., LTD.  |   |                               |
| 9F&13F.,Chuangye Bldg.,Keji Middle Road.,Hi-Tech Zone,Shantou.,Guangdong       |   |                               |
| <b>Prepared by</b>   |   |                               |
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## TEST RESULT CERTIFICATION

Applicant's name : CITAQ CO., LTD.  
Address : 9F&13F.,Chuangye Bldg.,Keji Middle Road.,Hi-Tech 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  
Model name : W10  
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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Test Engineer:

A handwritten signature in black ink that reads "Leo Yang" with a long, sweeping underline.

Leo Yang / Engineer

Technical Manager:

A handwritten signature in black ink that appears to read "Chris Du" in a stylized, cursive font.

Chris Du / Manager



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## 2 Test Summary

| Test Items  | Test Requirement | Result |
|---|------------------|--------|
| Maximum Permissible Exposure<br>(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      | : | W10-1,W10-2,W10-3,W10-4,W10-5   |
| Model Description     | : | Only the model names are different.   |
| Bluetooth Version     | : | V4.2(With Br+Edr+BLE)   |
| Operating frequency   | : | WiFi:<br>802.11b/g/n HT20: 2412-2462MHz<br>802.11n HT40: 2422-2452MHz<br>Bluetooth:2402-2480MHz |
| Max. RF output power  | : | WiFi: 18.85dBm<br>Bluetooth: -2.52dBm   |
| Type of Modulation    | : | WiFi: CCK, OFDM<br>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        |                |                | 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 <sup>2</sup> ) | Limit of Power Density (mW/cm <sup>2</sup> ) | Result |
|------|------------------------|------------------------------|------------------------|-------------------------------------|--|--------|
| BT   | 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\*\*\*\*\*