



# TEST REPORT

**Reference No.**..... : WTZ20F10078714-2W  
**FCC ID** ..... : 2AYCY-UB5  
**Applicant**..... : ZHUHAI LITECH TECHNOLOGY CO., LTD  
**Address**..... : 15th Build, No.3, Pingdong 6th Road, Nanping Technical Industrial Park, 519060 Zhuhai, Guangdong, PEOPLE'S REPUBLIC OF CHINA  
**Manufacturer** ..... : The same as above  
**Address**..... : The same as above  
**Product Name**..... : Smart touch panel (control panel)  
**Model No**..... : UB1, UB2, UB3, UB4, UB5  
**Standards**..... : FCC CFR47 Part 15 Subpart C (Section 15.247): 2019  
**Date of Receipt sample** .... : 2020-11-13  
**Date of Test** ..... : 2020-12-02  
**Date of Issue**..... : 2020-12-03  
**Test Result**..... : **Pass**

## Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

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## 1 Revision History

| Test Report No.   | Date of Issue | Description | Status |
|-------------------|---------------|-------------|--------|
| WTZ20F10078714-2W | 2020-12-03    | Original    | Valid  |

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### 3 General Information

#### 3.1 General Description of E.U.T

|                         |                                                                                                         |
|-------------------------|---------------------------------------------------------------------------------------------------------|
| Product Name .....      | Smart touch panel (control panel)                                                                       |
| Model No. ....          | UB1, UB2, UB3, UB4, UB5                                                                                 |
| Model Description ..... | All models are identical except for the function. Therefore the full tests were performed on model UB5. |
| Rated Voltage.....      | DC 12-24V                                                                                               |
| Battery Capacity .....  | ---                                                                                                     |
| Power Adapter .....     | ---                                                                                                     |

#### 3.2 Technical Characteristics of EUT

|                            |                      |
|----------------------------|----------------------|
| Bluetooth Version.....     | V5.0(BLE mode)       |
| Frequency Range .....      | 2402-2480MHz         |
| RF Output Power .....      | 0.88dBm (Conducted ) |
| Modulation .....           | GFSK                 |
| Data Rate .....            | 2Mbps                |
| Quantity of Channels ..... | 40                   |
| Channel Separation.....    | 2MHz                 |
| Type of Antenna .....      | PCB Printed Antenna  |
| Antenna Gain .....         | 0dBi                 |
| Lowest Oscillation.....    | 12MHz                |



## 4 MAXIMUM PERMISSIBLE EXPOSURE (MPE)

### 4.1 Standard Applicable

According to §1.1307(b)(1) and KDB 447498 D01 General RF Exposure Guidance v06, system operating under the provisions of this section shall be operating in a manner that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure.

#### (a) Limits for Occupational / Controlled Exposure

| Frequency range (MHz) | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/cm <sup>2</sup> ) | Averaging Times   E   <sup>2</sup> ,   H   <sup>2</sup> or S (minutes) |
|-----------------------|-----------------------------------|-----------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 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                                                                      |
| 1500-100000           | /                                 | /                                 | 5                                       | 6                                                                      |

#### (b) Limits for General Population / Uncontrolled Exposure

| Frequency range (MHz) | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/cm <sup>2</sup> ) | Averaging Times   E   <sup>2</sup> ,   H   <sup>2</sup> or S (minutes) |
|-----------------------|-----------------------------------|-----------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 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                                                                     |
| 1500-100000           | /                                 | /                                 | 1                                       | 30                                                                     |

Note: f = frequency in MHz; \* = Plane-wave equivalents power density



## 4.2 MPE Calculation Method

$$S = (30 \cdot P \cdot G) / (377 \cdot R^2)$$

S = power density (in appropriate units, e.g., mW/cm<sup>2</sup>)

P = power input to the antenna (in appropriate units, e.g., mW)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor is normally numeric gain.

R = distance to the center of radiation of the antenna (in appropriate units, e.g., cm)

## 4.3 MPE Calculation Result

| Prediction distance (mm) | Prediction frequency (MHz) | Antenna Gain (dBi) | Numeric gain | Maximum Tune-up output power (dBm) | Maximum peak output power (mW) | PD (mW/cm <sup>2</sup> ) | Limit (mW/cm <sup>2</sup> ) |
|--------------------------|----------------------------|--------------------|--------------|------------------------------------|--------------------------------|--------------------------|-----------------------------|
| >200                     | 2480                       | 0                  | 1            | 0.88                               | 1.225                          | 0.000244                 | 1.0                         |

Result: Pass

=====End of Report=====

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