

# TEST REPORT

**Reference No.**..... : WTN16S1064145-4E  
**FCC ID**..... : 2AI5MT1165Q  
**Applicant**..... : CHUNGHSIN INTERNATIONAL ELECTRONICS CO., LTD  
**Address**..... : 618 GONGREN WEST ROAD, JIAOJIANG AREA, TAIZHOU, CHINA  
**Manufacturer** ..... : The same as above  
**Address**..... : The same as above  
**Product Name**..... : tablet  
**Model No.**..... : TM101A620MBSP, TM101A620MGM, TM101A620MRGM,  
TM101A620MRD, TM101A620MPL, TM101A620MPPM, TM101A620M  
**Standards**..... : FCC CFR47 Part 15 C Section 15.247:2016  
**Date of Receipt sample**..... : Oct. 31, 2016  
**Date of Test**..... : Nov. 01 – 07. 2016  
**Date of Issue**..... : Nov. 09, 2016  
**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.

**Prepared By:**

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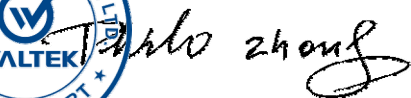
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Approved by:



Philo Zhong / Manager

## 2 **Contents**

|                                          | <b>Page</b> |
|------------------------------------------|-------------|
| <b>1 COVER PAGE.....</b>                 | <b>1</b>    |
| <b>2 CONTENTS.....</b>                   | <b>2</b>    |
| <b>3 REVISION HISTORY.....</b>           | <b>3</b>    |
| <b>4 GENERAL INFORMATION.....</b>        | <b>4</b>    |
| 4.1 GENERAL DESCRIPTION OF E.U.T.....    | 4           |
| 4.2 DETAILS OF E.U.T.....                | 4           |
| 4.3 TEST FACILITY.....                   | 4           |
| <b>5 EQUIPMENT USED DURING TEST.....</b> | <b>5</b>    |
| 5.1 EQUIPMENTS LIST.....                 | 5           |
| 5.2 MEASUREMENT UNCERTAINTY.....         | 6           |
| 5.3 TEST EQUIPMENT CALIBRATION.....      | 6           |
| <b>6 RF EXPOSURE.....</b>                | <b>7</b>    |
| 6.1 REQUIREMENTS.....                    | 7           |
| 6.2 THE PROCEDURES / LIMIT.....          | 7           |

### 3 **Revision History**

| Test report No.  | Date of Receipt sample | Date of Test       | Date of Issue | Purpose  | Comment | Approved |
|------------------|------------------------|--------------------|---------------|----------|---------|----------|
| WTN16S1064145-4E | Oct. 31, 2016          | Nov. 01 – 07, 2016 | Nov. 09, 2016 | original | -       | Valid    |

## 4 General Information

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

|                        |                                                                                                                                                                                      |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name:          | tablet                                                                                                                                                                               |
| Model No.:             | TM101A620MBSP, TM101A620MGM, TM101A620MRGM,<br>TM101A620MRD, TM101A620MPL, TM101A620MPPM, TM101A620M                                                                                 |
| Model Difference:      | Only the color of the bottom plate is different.<br>The model TM101A620MGM is the tested sample.                                                                                     |
| Operation Frequency:   | 2402MHz ~ 2480MHz for BT<br>2412MHz ~ 2462MHz for Wi-Fi                                                                                                                              |
| The Lowest Oscillator: | 32.768KHz                                                                                                                                                                            |
| Antenna Type:          | Internal Intergrated Antenna                                                                                                                                                         |
| Antenna Gain:          | 2.0 dBi                                                                                                                                                                              |
| Type of modulation:    | GFSK, Pi/4 DQPSK, 8DPSK<br>IEEE 802.11b (CCK/QPSK/BPSK, 11Mbps max.)<br>IEEE 802.11g (BPSK/QPSK/16QAM/64QAM, 54Mbps max.)<br>IEEE 802.11n (BPSK/QPSK/16QAM/64QAM, HT20: 72Mbps max.) |

### 4.2 Details of E.U.T.

|                 |                                                                                                                                                                         |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Technical Data: | INPUT : DC 5.0V, 2.0A by Adapter,<br>DC 3.7V, 5000mAh by Battery<br>(Adapter Input: 100-240V~, 50/60Hz, 0.3A,<br>Output: DC 5.0V === 2.0A, Model: BSY012U050200U U1USB) |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 4.3 Test Facility

The test facility has a test site registered with the following organizations:

- **IC – Registration No.: 7760A-1**  
Waltek Services(Shenzhen) Co., Ltd. Has been registered and fully described in a report filed with the Industry Canada. The acceptance letter from the Industry Canada is maintained in our files.  
Registration number 7760A-1, October 15, 2015.
- **FCC Test Site 1#– Registration No.: 880581**  
Waltek Services(Shenzhen) Co., Ltd. EMC Laboratory `has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 880581, April 29, 2014.
- **FCC Test Site 2#– Registration No.: 328995**  
Waltek Services(Shenzhen) Co., Ltd. EMC Laboratory `has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 328995, December 3, 2014.

## 5 **Equipment Used during Test**

### 5.1 Equipments List

| RF Conducted Testing |                             |                   |           |            |                       |                      |
|----------------------|-----------------------------|-------------------|-----------|------------|-----------------------|----------------------|
| Item                 | Equipment                   | Manufacturer      | Model No. | Serial No. | Last Calibration Date | Calibration Due Date |
| 1                    | EXA Signal Analyzer         | Malaysia Keysight | N9010A    | MY50520207 | Apr.29, 2016          | Apr.28, 2017         |
| 2                    | ESG VECTOR SIGNAL GENERATOR | Malaysia Keysight | 4438C     | MY45092536 | Apr.13, 2016          | Apr.12, 2017         |
| 3                    | EXG Analog Signal Generator | Malaysia Keysight | N5171B    | MY53050845 | Sep.12, 2016          | Sep.11, 2017         |
| 4                    | Signal Generater            | Agilent           | N5182A    | MY46240814 | Sep.12, 2016          | Sep.11, 2017         |
| 5                    | USB Wideband Power Sensor   | Malaysia Keysight | U2021XA   | MY54340009 | Apr.29, 2016          | Apr.28, 2017         |

## 5.2 Measurement Uncertainty

| Parameter                         | Uncertainty                           |
|-----------------------------------|---------------------------------------|
| Radio Frequency                   | $\pm 1 \times 10^{-6}$                |
| RF Power                          | $\pm 1.0$ dB                          |
| RF Power Density                  | $\pm 2.2$ dB                          |
| Radiated Spurious Emissions test  | $\pm 5.03$ dB (30M~1000MHz)           |
|                                   | $\pm 5.47$ dB (1000M~25000MHz)        |
| Conducted Spurious Emissions test | $\pm 3.64$ dB (AC mains 150KHz~30MHz) |

## 5.3 Test Equipment Calibration

All the test equipments used are valid and calibrated by CEPREI Certification Body that address is No.110 Dongguan Zhuang RD. Guangzhou, P.R.China.

## 6 RF Exposure

Test Requirement: FCC Part 1.1307

Evaluation Method FCC Part 2.1093 & KDB 447498 D01 General RF Exposure Guidance v06

### 6.1 Requirements

1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$$
 for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR where

1.  $f(\text{GHz})$  is the RF channel transmit frequency in GHz
2. Power and distance are rounded to the nearest mW and mm before calculation
3. The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion.

### 6.2 The procedures / limit

| Conducted Peak power(dBm) | Conducted Peak power(mW) | Source-based time-averaged maximum conducted output power(mW) | Minimum test separation distance required for the exposure conditions (mm) | SAR Test Exclusion Thresholds(mW) | Result     |
|---------------------------|--------------------------|---------------------------------------------------------------|----------------------------------------------------------------------------|-----------------------------------|------------|
| 4.00 for BT               | 2.51                     | 2.51                                                          | 5                                                                          | 10                                | Compliance |
| 9.47 for WIFI             | 8.85                     | 8.85                                                          | 5                                                                          | 10                                | Compliance |

Remark: Max. duty factor is 100%

Calculation formula: Source-based time-averaged maximum conducted output power(mW) = Conducted peak power(mW) \* Duty factor

For frequency in 2.402GHz: SAR Test Exclusion Thresholds  $\leq 3.0 / [\sqrt{f(\text{GHz})}] * (\text{min. test separation distance, mm}) = 3.0 / (\sqrt{2.402}) * 5 = 9.679 \text{ mW} \approx 10 \text{ mW}$

For frequency in 2.480GHz: SAR Test Exclusion Thresholds  $\leq 3.0 / [\sqrt{f(\text{GHz})}] * (\text{min. test separation distance, mm}) = 3.0 / (\sqrt{2.480}) * 5 = 9.525 \text{ mW} \approx 10 \text{ mW}$

### 5.2 Result: Compliance

No SAR measurement is required.

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