

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:

Waltek Services (Shenzhen) Co., Ltd.

Address: 1/F., Fukangtai Building, West Baima Road, Songgang Street, Baoan District, Shenzhen, Guangdong, China

Tel :+86-755-83551033

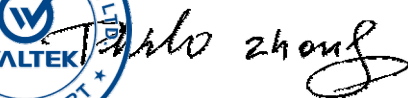
Fax:+86-755-83552400

Compiled by:



Zero Zhou / Test Engineer

Approved by:



Philo Zhong / Manager

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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, TM101A620MRD, TM101A620MPL, TM101A620MPPM, TM101A620M
Model Difference:	Only the color of the bottom plate is different. The model TM101A620MGM is the tested sample.
Operation Frequency:	2402MHz ~ 2480MHz for BT 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 IEEE 802.11b (CCK/QPSK/BPSK,11Mbps max.) IEEE 802.11g (BPSK/QPSK/16QAM/64QAM,54Mbps max.) 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, DC 3.7V, 5000mAh by Battery (Adapter Input: 100-240V~, 50/60Hz, 0.3A, Output: DC 5.0V === 2.0A, Model: BSY012U050200U U1USB)
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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	± 1.0 dB
RF Power Density	± 2.2 dB
Radiated Spurious Emissions test	± 5.03 dB (30M~1000MHz)
	± 5.47 dB (1000M~25000MHz)
Conducted Spurious Emissions test	± 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 ≤ 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 ≤ 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 ≤ 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=====