

TEST REPORT

Reference No. : WTD18S08121912-2W
FCC ID : 2ARDR-BTS30
Applicant : GP Acoustics (UK) Ltd.
Address : Eccleston Road, Tovil, Maidstone Kent, ME15 6QP, United Kingdom.
Manufacturer : Mansion Industry Co., Ltd.
Address : No.402, Xiangshan Rd., The 3rd Industrial Park, Luotian Community, Songgang Street, Baoan District, Shenzhen, Guangdong, 518105 China
Product : Bluetooth Keypad and Compact Amplifier System
Model(s) : BTS30
Standards : FCC CFR47 Part 1 Section 1.1037:2018
: FCC CFR47 Part 2 Section 2.1091:2018
Date of Receipt sample : 2018-08-23
Date of Test : 2018-08-24 to 2018-09-10
Date of Issue : 2018-09-12
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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Test site/Test location:

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Tested by:

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Frank Yin / Test Engineer

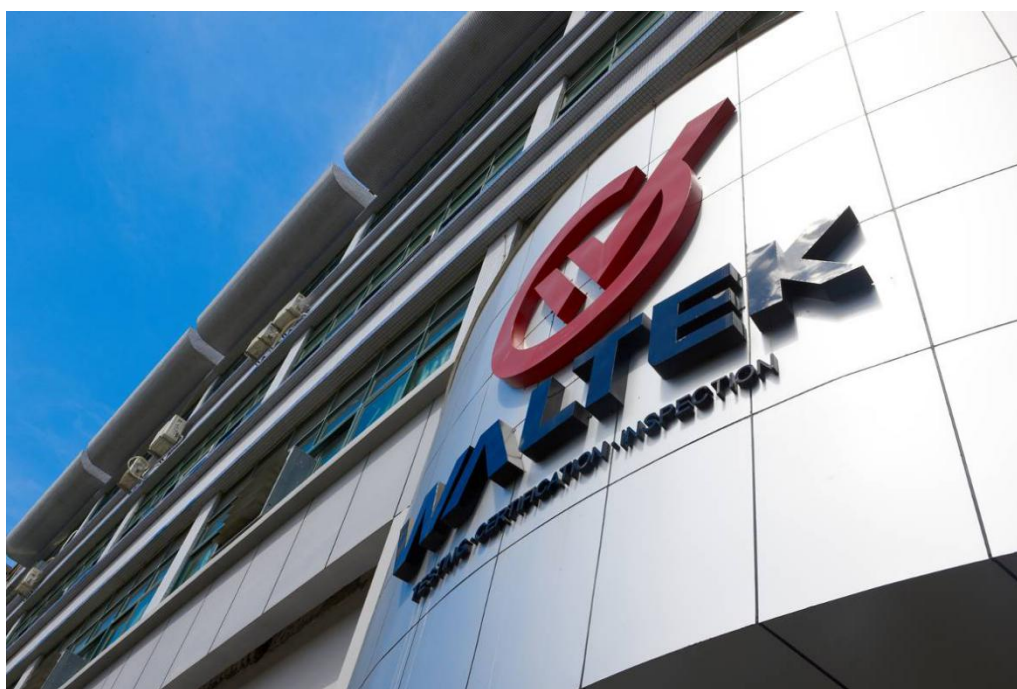
Approved by:



Philo Zhong / Manager

2 Laboratories Introduction

Waltek Services (Shenzhen) Co., Ltd is a professional third-party testing and certification laboratory with multi-year product testing and certification experience, established strictly in accordance with ISO/IEC 17025 requirements, and accredited by ILAC (International Laboratory Accreditation Cooperation) member. A2LA (American Association for Laboratory Accreditation, the certification number is 4243.01) of USA, CNAS (China National Accreditation Service for Conformity Assessment, the registration number is L3110) of China. Meanwhile, Waltek has got recognition as registration and accreditation laboratory from EMSD (Electrical and Mechanical Services Department), and American Energy star, FCC (The Federal Communications Commission), CEC (California energy efficiency), ISED Canada (Innovation, Science and Economic Development Canada). It's the strategic partner and data recognition laboratory of international authoritative organizations, such as Intertek (ETL-SEMKO), TÜV Rheinland, TÜV SÜD, etc.



Waltek Services (Shenzhen) Co., Ltd is one of the largest and the most comprehensive third party testing laboratory in China. Our test capability covered four large fields: safety test. ElectroMagnetic Compatibility (EMC), and energy performance, wireless radio. As a professional, comprehensive, justice international test organization, we still keep the scientific and rigorous work attitude to help each client satisfy the international standards and assist their product enter into globe market smoothly.

2.1 Test Facility

A. Accreditations for Conformity Assessment (International)

1. FCC Designation No.: CN1201. Test Firm Registration No.: 523476.

2. ISED Canada Registration No.: 7760A

B.TCBs and Notify Bodies Recognized Testing Laboratory.

Recognized Testing Laboratory of ...	Notify body number
TUV Rheinland	Optional.
Intertek	
TUV SUD	
SGS	
Phoenix Testlab GmbH	0700
Element Materials Technology Warwick Ltd.	0891
Timco Engineering, Inc.	1177
Eurofins Product Service GmbH	0681

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4 Revision History

Test report No.	Date of Receipt sample	Date of Test	Date of Issue	Purpose	Comment	Approved
WTD18S08121912-2W	2018-08-23	2018-08-24 to 2018-09-10	2018-09-12	original	-	Valid

5 General Information

5.1 General Description of E.U.T

Product : Bluetooth Keypad and Compact Amplifier System

Model(s) : BTS30

5.2 Details of E.U.T

Ratings Power Supply by RJ45 Port.

6 FCC ID: 2ARDR-BTS30 RF Exposure

Test Requirement: FCC Part 1.1307

Evaluation Method FCC Part2.1093 & 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:

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

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 Calculation Value	SAR Test Exclusion Thresholds Limit	Result
6.56	4.53	4.53	5	1.427	3.0	Compliance

Remark: Max. duty factor is 100%

Low Chanel: $f=2402\text{MHz}=2.402\text{GHz}$, so $\sqrt{f(\text{GHz})}=1.550$

High Chanel: $f=2480\text{MHz}=2.480\text{GHz}$, so $\sqrt{f(\text{GHz})}=1.575$

6.3 Result: Compliance

No SAR measurement is required.

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