



中国认可
国际互认
检测
TESTING
CNAS L4595

HEALTH TEST REPORT

For

KHADAS TECHNOLOGY CO., LTD

BT Magic Bluetooth Module

Test Model: BT Magic

Prepared for : KHADAS TECHNOLOGY CO., LTD
Address : 2709 QIANCHENG CENTER, HAICHENG ROAD, XIXIANG STREET, BAO'AN DISTRICT, SHENZHEN, CHINA. 518101

Prepared by : Shenzhen LCS Compliance Testing Laboratory Ltd.
Address : Room 101, 201, Building A and Room 301, Building C, Juji Industrial Park, Yabianxueziwei, Shajing Street, Bao'an District, Shenzhen, Guangdong, China

Tel : (+86)755-82591330
Fax : (+86)755-82591332
Web : www.LCS-cert.com
Mail : webmaster@LCS-cert.com

Date of receipt of test sample : September 07, 2022
Number of tested samples : 2
Serial number : Prototype
Date of Test : September 07, 2022 ~ September 28, 2022
Date of Report : September 29, 2022





HEALTH TEST REPORT EN 62479: 2010 & EN 50663: 2017	
Generic standard for assessment of low power electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (10 MHz - 300 GHz)	
Report Reference No.	: LCSA090722074ED
Date of Issue	: September 29, 2022
Testing Laboratory Name	: Shenzhen LCS Compliance Testing Laboratory Ltd.
Address	: Room 101, 201, Building A and Room 301, Building C, Juji Industrial Park, Yabianxueziwei, Shajing Street, Bao'an District, Shenzhen, Guangdong, China
Testing Location/ Procedure	: Full application of Harmonised standards <input checked="" type="checkbox"/> Partial application of Harmonised standards <input type="checkbox"/> Other standard testing method <input type="checkbox"/>
Applicant's Name	: KHADAS TECHNOLOGY CO., LTD
Address	: 2709 QIANCHENG CENTER, HAICHENG ROAD, XIXIANG STREET, BAO'AN DISTRICT, SHENZHEN, CHINA. 518101
Test Specification	
Standard	: EN 62479: 2010 EN 50663: 2017
Test Report Form No.	: LCSEMC-1.0
TRF Originator	: Shenzhen LCS Compliance Testing Laboratory Ltd.
Master TRF	: Dated 2011-03
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Test Item Description	: BT Magic Bluetooth Module
Trade Mark	: KHADAS
Test Model	: BT Magic
Ratings	: Input: DC 5V, 20mA
Result	: Positive

Compiled by:

Rory Huang/ Administrator

Supervised by:

Cary Luo/ Technique principal

Approved by:

Gavin Liang/ Manager





HEALTH --TEST REPORT

Test Report No. : LCSA090722074ED	<u>September 29, 2022</u> Date of issue
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Test Model	: BT Magic
EUT.....	: BT Magic Bluetooth Module
Applicant.....	: KHADAS TECHNOLOGY CO., LTD
Address.....	: 2709 QIANCHENG CENTER, HAICHENG ROAD, XIXIANG STREET, BAO'AN DISTRICT, SHENZHEN, CHINA. 518101
Telephone.....	: /
Fax.....	: /
Manufacturer.....	: KHADAS TECHNOLOGY CO., LTD
Address.....	: 2709 QIANCHENG CENTER, HAICHENG ROAD, XIXIANG STREET, BAO'AN DISTRICT, SHENZHEN, CHINA. 518101
Telephone.....	: /
Fax.....	: /
Factory.....	: KHADAS TECHNOLOGY CO., LTD
Address.....	: 2709 QIANCHENG CENTER, HAICHENG ROAD, XIXIANG STREET, BAO'AN DISTRICT, SHENZHEN, CHINA. 518101
Telephone.....	: /
Fax.....	: /

Test Result	Positive
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The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.





Revision History

Report Version	Issue Date	Revision Content	Revised By
000	September 29, 2022	Initial Issue	---





1. GENERAL INFORMATION

1.1. Product Description for Equipment Under Test (EUT)

EUT : BT Magic Bluetooth Module
Test Model : BT Magic
Power Supply : Input: DC 5V, 20mA
Hardware Version : V13
Software Version : V1.0
Bluetooth :
Frequency Range : 2402MHz~2480MHz
Channel Number : 79 channels for Bluetooth V5.1 (BDR/EDR)
40 channels for Bluetooth V5.1 (BT LE/ BT 2LE)
Channel Spacing : 1MHz for Bluetooth V5.1 (BDR/EDR)
2MHz for Bluetooth V5.1 (BT LE/ BT 2LE)
Modulation Type : GFSK, $\pi/4$ -DQPSK, 8-DPSK for Bluetooth V5.1 (BDR/EDR)
GFSK for Bluetooth V5.1 (BT LE/ BT 2LE)
Bluetooth Version : V5.1
Antenna Description : FPC Antenna, 1.0dBi(Max.)





1.2. Objective

According to its specifications, the EUT must comply with the requirements of the following standards:

EN 62479: 2010 – Generic standard for assessment of low power electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (10 MHz - 300 GHz)

EN 50663: 2017 – Generic standard for assessment of low power electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (10 MHz - 300 GHz)

1.3. Test Methodology

All measurements contained in this report were conducted with EN 62479: 2010 and EN 50663: 2017.

1.4. Facilities

All measurement facilities used to collect the measurement data are located at Room 101, 201, Building A and Room 301, Building C, Juji Industrial Park, Yabianxueziwei, Shajing Street, Bao'an District, Shenzhen, Guangdong, China .

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.

1.5. Host System Configuration List and Details

Manufacturer	Description	Model	Serial Number	Certificate
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1.6. External I/O Cable

I/O Port Description	Quantity	Cable
Type-C Port	1	N/A





1.7. Equipment

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, bi-conical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements. Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

1.8. Laboratory Accreditations And Listings

Site

Description

EMC Lab. : NVLAP Accreditation Code is 600167-0.
FCC Designation Number is CN5024.
CAB identifier is CN0071.
CNAS Registration Number is L4595.

Name of Firm : Shenzhen LCS Compliance Testing Laboratory Ltd.

Site Location : Room 101, 201, Building A and Room 301, Building C, Juji Industrial Park, Yabianxueziwei, Shajing Street, Bao'an District, Shenzhen, Guangdong, China

1.9. Measurement Uncertainty

Test Item	Uncertainty
Radio Frequency	0.9 x 10 ⁻⁴
Total RF Power, Conducted	1.0 dB
RF Power Density, Conducted	1.8 dB
Spurious Emissions, Conducted	1.8 dB
All Emissions, Radiated	3.1 dB
Temperature	0.5°C
Humidity	1 %
DC And Low Frequency Voltages	1 %





2. HUMAN EXPOSURE TO THE ELECTROMAGNETIC FIELDS

2.1 Test Methodology

2.1.1. General description of applied standards

According to its specifications, the EUT must comply with the requirements of the following standards:

EN 62479- Assessment of the compliance of low power electronic and electrical equipment with the basic restrictions related to human exposure to electromagnetic fields (10 MHz to 300 GHz)

EN 50663- Generic standard for assessment of low power electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (10 MHz - 300 GHz).

2.1.2. Description of test modes

The EUT has been tested under its typical operating condition. Pre-defined engineering program for regulatory testing used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

2.2 Test limit

If the average power emitted by apparatus operating in the frequency range 10 MHz – 300GHz is less than or equal to 20 mW and the transmitting peak power is less than 20 W then the apparatus is deemed to comply with the basic restrictions without testing.

2.3 Test Results

Since Max.output power for Bluetooth is 1.96mW (2.92dBm According to radio test report LCSA090722074EB, LCSA090722074EC) less than 20mW specified in EN 62479 and EN 50663. This unit will not generate the harmful EM emission above the reference level as specified in EC Council Recommendation (1999/519/EC).

The unit complies with the EN 62479 and EN 50663 for RF exposure requirement.

No non-compliance noted.



-----THE END OF TEST REPORT-----



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: Room 101, 201, Building A and Room 301, Building C, Juji Industrial Park, Yabianxueziwei, Shajing Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

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