



# TEST REPORT

**Reference No.**..... : WTX22F03046333W002  
**FCC ID** ..... : 2ATEV-LB4E26  
**Applicant**..... : Hangzhou BroadLink Technology Co., Ltd.  
**Address**..... : Unit C, Building 1, No.57 Jiang'er Road, Changhe Street, Binjiang District, Hangzhou, Zhejiang, P.R.China  
**Manufacturer** ..... : The same as above  
**Address**..... : The same as above  
**Product Name**..... : Smart Bulb  
**Model No.**..... : LB4E26, LB4E27, LB4, LB26B1, LB26-RGBCW  
**Test specification**..... : FCC CFR47 Part 15 Subpart C (Section 15.247): 2020  
**Date of Receipt sample** .... : 2022-03-29  
**Date of Test** ..... : 2022-03-30 to 2022-04-01  
**Date of Issue**..... : 2022-04-02  
**Test Report Form No.** ..... : WEW-MPE-01A  
**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 approver.

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## 1 Revision History

Test Report No.	Date of Issue	Description	Status
WTX22F03046333W002	2022-04-02	Original	Valid

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## 2 Contents

	Page
1 REVISION HISTORY.....	2
2 CONTENTS.....	3
3 GENERAL INFORMATION.....	4
3.1 GENERAL DESCRIPTION OF E.U.T .....	4
3.2 TECHNICAL CHARACTERISTICS OF EUT .....	4
4 MAXIMUM PERMISSIBLE EXPOSURE (MPE).....	5
4.1 STANDARD APPLICABLE.....	5
4.2 MPE CALCULATION METHOD.....	6
4.3 MPE CALCULATION RESULT.....	6

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### 3 General Information

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

<b>Product Name</b> .....	: Smart Bulb
<b>Model No.</b> .....	: LB4E26, LB4E27, LB4, LB26B1, LB26-RGBCW
<b>Model Description</b> .....	: All models are identical except for the model name. Therefore the RF exposure evaluation was performed on model LB4E26.
<b>Rated Voltage</b> .....	: AC 110-130V, 50/60Hz, 9W
<b>Battery Capacity</b> .....	: ---
<b>Power Adapter</b> .....	: ---

#### 3.2 Technical Characteristics of EUT

<b>Bluetooth Version</b> .....	: V4.2(BLE mode)
<b>Frequency Range</b> .....	: 2402-2480MHz
<b>RF Output Power</b> .....	: 8.06dBm (Conducted )
<b>Modulation</b> .....	: GFSK
<b>Data Rate</b> .....	: 1Mbps
<b>Quantity of Channels</b> .....	: 40
<b>Channel Separation</b> .....	: 2MHz
<b>Type of Antenna</b> .....	: PCB Printed Antenna
<b>Antenna Gain</b> .....	: 0dBi
<b>Lowest Oscillation</b> .....	: 32MHz



## 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 equivalent 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	2402	0	1	8.06	6.397	0.0012726	1.0

Result: Pass

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

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