

RF Exposure Evaluation Report

Product : Infrared Thermometer
Trade mark : N/A
Model/Type reference : E127B
Serial Number : T18L0000012
Report Number : EED32L00077902
FCC ID : 2AHLE-IRTB001
Date of Issue : May 20, 2019
Test Standards : 47 CFR Part 1.1307
47 CFR Part 2.1093
KDB 447498 D01 v06
Test result : PASS

Prepared for:

Bioland Technology Ltd.

A6b7 (Block G), Shangrong Ind. Zone Baolong 5th Rd, Longgang District 518116, Shenzhen, Guangdong, China

Prepared by:

**Centre Testing International Group Co., Ltd.
Hongwei Industrial Zone, Bao'an 70 District,
Shenzhen, Guangdong, China**

TEL: +86-755-3368 3668

FAX: +86-755-3368 3385

Tested By:

Jay Zheng

Jay Zheng

Compiled by:

Kevin Lan

Kevin Lan

Reviewed by:

Ware Xin

Ware Xin

Approved by:

Kevin Yang

Kevin yang

Date:

May 20, 2019

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2 Version

Version No.	Date	Description
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4 General Information

4.1 Client Information

Applicant:	Bioland Technology Ltd.
Address of Applicant:	A6b7 (Block G), Shangrong Ind. Zone Baolong 5th Rd, Longgang District 518116, Shenzhen, Guangdong, China
Manufacturer:	Bioland Technology Ltd.
Address of Manufacturer:	A6b7 (Block G), Shangrong Ind. Zone Baolong 5th Rd, Longgang District 518116, Shenzhen, Guangdong, China
Factory:	Bioland Technology Ltd.
Address of Factory:	A6b7 (Block G), Shangrong Ind. Zone Baolong 5th Rd, Longgang District 518116, Shenzhen, Guangdong, China

4.2 General Description of EUT

Product Name:	Infrared Thermometer
Model No.(EUT):	E127B
Trade mark:	N/A
EUT Supports Radios application:	BT: 4.0 BT Single mode, 2402MHz to 2480MHz

4.3 Product Specification subjective to this standard

Frequency Range:	2402MHz~2480MHz
Modulation Type:	GFSK
Number of Channels:	40
Hardware version:	1.1 (manufacturer declare)
Firmware version:	V1.0 (manufacturer declare)
Antenna Type:	PCB antenna
Antenna Gain:	0.15dBi
Power Supply:	DC 3.0V
Max Conducted Peak Output Power:	1.158dBm
	The Max Conducted Peak Output Power data refer to the report EED32L00077901
Sample Received Date:	Apr. 28, 2019
Sample tested Date:	Apr. 28, 2019 to May 20, 2019
Remark: The tested sample(s) and the sample information are provided by the client.	

4.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax:+86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 SAR Evaluation

5.1 RF Exposure Compliance Requirement

5.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06
Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

5.1.2 Limits

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:

$$\left[\frac{\text{max. power of channel, including tune-up tolerance, mW}}{(\text{min. test separation distance, mm})} \right] \cdot \sqrt{f(\text{GHz})} \leq 3.0$$
 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where $f(\text{GHz})$ is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation¹⁷

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

5.1.3 EUT RF Exposure

The Max Conducted Peak Output Power is 1.158dBm in highest channel(2.402GHz);

The best case gain of the antenna is 0.15dBi.

$EIRP = 1.158\text{dBm} + 0.15\text{dBi} = 1.308\text{dBm}$

1.308dBm logarithmic terms convert to numeric result is nearly 1.35mW

According to the formula. calculate the EIRP test result:

$$\left[\frac{\text{max. power of channel, including tune-up tolerance, mW}}{(\text{min. test separation distance, mm})} \right] \cdot \sqrt{f(\text{GHz})}$$

General RF Exposure = $(1.35\text{mW} / 5 \text{ mm}) \times \sqrt{2.402\text{GHz}} = 0.054$ ①

SAR requirement:

S = 3.0

② ;

① < ②.

So the SAR report is not required.

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32L00077901 for EUT external and internal photos.

*** End of Report ***

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