

FCC TEST REPORT

Report No.....: AB26040428FW04

FCC ID.....: **2BVNN-SMARTCORE100**

Applicant.....: Lumenly Lamps Inc

Address.....: 251 Little Falls Dr, Wilmington, DE 19808

Manufacturer.....: eSmart Tech Inc.

Address.....: 16835 W Bernardo Dr., Suite 205, San Diego CA 92127

Product Name.....: SmartCore

Trade Mark.....: /

Test Model.....: SmartCore 100

Additional Model(s).....: /

Standard.....: FCC Part 2 (Section 2.1091)
KDB 447498 D01v06
IEEE C95.1

Date of Receipt.....: 2026.04.23

Date of Issue.....: 2026.05.09

Test Result.....: Pass

Compiled by:
(Printed Name + Signature)

Huaijie Li

Huaijie Li

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(Printed Name + Signature)

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David Huang

Approved by:
(Printed Name + Signature)

Jay Liu

Jay Liu

Testing Laboratory Name.....: Aibo Standard Technology (Shenzhen) Co., Ltd.

Address.....: 101, Building B, Tuori New Energy Industrial Park, High-tech Park,
Tianliao Community, Yutang Street, Guangming District, Shenzhen
City, Guangdong Province, China

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FCC TEST REPORT

EUT.....	: SmartCore
Test Model.....	: SmartCore 100
Applicant.....	: Lumenly Lamps Inc
Address.....	: 251 Little Falls Dr, Wilmington, DE 19808
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Test Result	Positive
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The test report merely corresponds to the test sample.

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REPORT VERSION

Version No.	Issue Date	Description
01	2026.05.09	Initial Issue

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1. GENERAL INFORMATION

1.1. GENERAL DESCRIPTION OF EUT

Product Name:	SmartCore
Trade Mark:	/
Test Model:	SmartCore 100
Additional Model(s):	/
Hardware Version:	/
Software Version:	/
Power Supply:	DC 5V/1.2A
EUT Supports Function: (Provided by the customer)	2.4GHz ISM Bands
Test Sample(s) Number:	AB26040428-01 (Engineer Sample) AB26040428-02 (Normal Sample)
Radio Specification Subject to this Report	
Bluetooth Version:	Bluetooth LE
Frequency Range:	2402MHz~2480MHz
Modulation Type:	GFSK
Channel Spacing:	2MHz
Channel Number(s):	40
Antenna Type:	Chip antenna
Antenna Gain:	2.8dBi
Radio Specification Subject to this Report	
Radio Specification:	IEEE 802.11b/g/n/ax
Frequency Range:	2412MHz~2462MHz for IEEE 802.11b/g/n(HT20)/ax(HE20)
Modulation Type:	IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64-QAM, 16-QAM, QPSK, BPSK) IEEE 802.11n(HT20): OFDM (64-QAM, 16-QAM, QPSK, BPSK) IEEE 802.11ax(HE20): OFDM (1024-QAM,256-QAM, 64-QAM, 16-QAM, QPSK, BPSK)
Channel Spacing:	5MHz
Channel Number(s):	11 Channels for IEEE 802.11b/g/n(HT20)/ax(HE20)
Antenna Type:	Antenna 1: Dipole Antenna; Antenna 2: Chip Antenna.
Antenna Gain:	ANT1:1.27dBi ANT2:2.8dBi
Radio Specification Subject to this Report	
Radio Specification:	IEEE 802.11a/n/ac/ax
Frequency Range:	5180MHz~5240MHz for U-NII Band1

	5745MHz~5825MHz for U-NII Band3	
Modulation Type:	IEEE 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64-QAM, 16-QAM, QPSK, BPSK) IEEE 802.11ac: OFDM(256QAM, 64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ax: OFDM(1024QAM,256QAM, 64QAM, 16QAM, QPSK, BPSK)	
Channel Spacing:	IEEE 802.11a/n(HT20)/ac(VHT20)/ax(HE20): 20MHz	
Channel Number(s):	U-NII Band1: 4 for IEEE 802.11a/n(HT20)/ac(VHT20)/ax(HE20) U-NII Band3: 5 for IEEE 802.11a/n(HT20)/ac(VHT20)/ax(HE20)	
Antenna Type:	Antenna 1: Dipole antenna Antenna 2: Chip antenna	
Antenna Gain:	U-NII Band1:	ANT 1:2.07dBi ANT 2:4.0dBi
	U-NII Band3:	ANT 1:1.72dBi ANT 2:4.0dBi
TPC Function:	Not Support	
DFS Function:	Slave without radar detection	

1.2. DESCRIPTION OF TEST FACILITY

Test Lab: Aibo Standard Technology (Shenzhen) Co., Ltd.

Address: 101, Building B, Tuori New Energy Industrial Park, High-tech Park, Tianliao Community, Yutang Street, Guangming District, Shenzhen City, Guangdong Province, China

Tel.: +86 755 85250797

E-mail: aibo@aibonorm.com

Website: www.aibonorm.com

The test facility is recognized, certified, or accredited by the following organizations:

A2LA-Lab Certificate No.: 7514.01

Aibo Standard Technology (Shenzhen) Co., Ltd. has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

FCC Accredited Lab.

Designation Number: CN1411

Test Firm Registration Number: 567066

ISED Wireless Device Testing Laboratories

Company Number: 33924

CAB identifier: CN0185

2. RF EXPOSURE EVALUATION

2.1 Limit

The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f ²)	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

f = frequency in MHz

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * r^2)$

Where

P_d = power density in mW/cm², P_{out} = output power to antenna in mW;

G = gain of antenna in linear scale, $\pi = 3.1416$;

R = distance between observation point and center of the radiator in cm

P_d is the limit of MPE, 1 mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

2.2 Evaluation Result

Mode	Total Power (dBm)	Antenna Gain	Max.EIRP (dBm)	Max.EIRP (mW)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
BLE	2.65	2.8	5.450	3.508	0.000698	1.0	PASS
2.4G WIFI	7.07	2.8	9.870	9.705	0.001931	1.0	PASS
5.1G WIFI	6.9	4.0	10.9	12.303	0.002448	1.0	PASS
5.8G WIFI	7.05	4.0	11.05	12.735	0.002534	1.0	PASS

Results for transmit simultaneously

No.	Configurations	Maximum MPE Value mW/cm ²		Transmit simultaneously	Limits
1	2.4G WIFI+ BLE	0.001931	0.00069780	0.0026288	1
2	5G WIFI+ BLE	0.002534	0.00069780	0.0032318	1

At the transmit simultaneously calculation method is as follows:

Transmit simultaneously MPE = Σ of MPE ratios²

MPE ratios = Field strengths or power density / MPE limit at the test frequency

So a SAR test is not required

*****THE END*****