

RF Exposure Evaluation Report

Product : Bodyclock Luxe 700FM (US)
Trade mark : Lumie
Model/Type reference : Bodyclock Luxe 700FM (US)
Serial Number : N/A
Report Number : EED32P80278103
FCC ID : 2BA9B-LUXE-700FM
Date of Issue : Jul. 06, 2023
Test Standards : 47 CFR Part 1.1307
47 CFR Part 1.1310
47 CFR Part 2.1091
47 CFR Part 2.1093
447498 D04 Interim General RF
Exposure Guidance v01
Test result : PASS

Prepared for:

Outside In (Cambridge) Ltd.

Lumie, 3 The Links, Trafalgar Way, Bar Hill, Cambridge, CB23 8UD, UK.

Prepared by:

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2 Version

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4 General Information

4.1 Client Information

Applicant:	Outside In (Cambridge) Ltd.
Address of Applicant:	Lumie, 3 The Links, Trafalgar Way, Bar Hill, Cambridge, CB23 8UD, UK.
Manufacturer:	Outside In (Cambridge) Ltd.
Address of Manufacturer:	Lumie, 3 The Links, Trafalgar Way, Bar Hill, Cambridge, CB23 8UD, UK.
Factory:	Gloria Technology LLC
Address of Factory:	Kunlun Road, Tongshan Hi-tech Industrial Development Zone, Xuzhou City, Jiangsu Province, P.R.China

4.2 General Description of EUT

Product Name:	Bodyclock Luxe 700FM (US)
Model No.(EUT):	Bodyclock Luxe 700FM (US)
Trade Mark:	Lumie

4.3 Product Specification subjective to this standard

Frequency Range:	2402MHz~2480MHz	
Modulation Type:	BLE: GFSK BT: GFSK, π /4DQPSK, 8DPSK	
Test Power Grade:	Default	
Test Software of EUT:	BlueTest3	
Antenna Type:	PCB Antenna	
Antenna Gain:	2.01dBi	
Power Supply:	Adapter	Model:GQ24-240100-AU Input:100-240V~50/60Hz 1.0A Max Output:24V--- 1.0A
Sample Received Date:	Mar. 03, 2023	
Sample tested Date:	Mar. 03, 2023 to Apr. 08, 2023	
Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.		

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 Limits

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold P_{th} (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by Formula

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and f is in GHz, d is the separation distance (cm), and $ERP_{20 \text{ cm}}$ is per Formula (B.1).

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

The 1 mW Blanket Exemption of § 1.1307(b)(3)(i)(A) applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power of no more than 1 mW, regardless of separation distance.

5.1.2 Test Procedure

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

5.1.3 EUT RF Exposure Evaluation**For Stand alone:****For BLE**

Frequency (MHz)	Max. Conducted Output power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	ERP (dBm)	ERP (mW)	Limit (mW)	Result
2402	1.97	2.01	3.98	1.83	1.524	3060	PASS

For BT Classic

Frequency (MHz)	Max. Conducted Output power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	ERP (dBm)	ERP (mW)	Limit (mW)	Result
2402	4.49	2.01	6.50	4.35	2.723	3060	PASS

Note:

- ① EIRP=conducted power+antenna gain;
- ② ERP=EIRP-2.15
- ③ Only the worst case data was recorded in the report.

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.

*** End of Report ***