

RF Exposure Evaluation Report

Report No.: 2405S57095C

Applicant: Kontakt Micro-Location Sp. z o.o.

Address: ul. Stoczniowcow 3, 30-709 Krakow, Poland

Product Name: Smart Badge 3

Product Model: KHWBC303F001

Multiple Models: N/A

Trade Mark: Kontakt.io

FCC ID: 2ADAO-KHWBC303F001

Standards: 47 CFR §1.1310

KDB 447498 D01 General RF Exposure Guidance v06

Test Date: 2024-04-08

Test Result: Complied

Report Date: 2024-04-19

Reviewed by:

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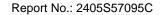
World Alliance Testing & Certification (Shenzhen) Co., Ltd

No. 1002, East Block, Laobing Building, Xingye Road 3012, Xixiang street, Bao'an District, Shenzhen, Guangdong, People's Republic of China



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Revision History

Version No. Issued Date		Description		
00	2024-04-19	Original		

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1 General Information

1.1 Client Information

Applicant:	Kontakt Micro-Location Sp. z o.o.
Address:	ul.Stoczniowcow 3, 30-709 Krakow, Poland
Manufacturer: Kontakt Micro-Location Sp. z o.o.	
Address:	ul.Stoczniowcow 3, 30-709 Krakow, Poland

1.2 Product Description of EUT

The EUT is Smart Badge 3 that contains BLE(1M/2M) radio.

Sample Serial Number	2JJU-2 (assigned by WATC)		
Sample Received Date	2024-04-07		
Sample Status	Good Condition		
Frequency Range	2402MHz - 2480MHz(BLE1M/2M)		
Maximum Conducted Output Power	3.72dBm		
Modulation Technology	GFSK		
Antenna Gain [#]	6.28dBi		
Spatial Streams	SISO (1TX, 1RX)		
Power Supply	DC3.0V from battery		
Operating temperature#	0 deg.C to +50 deg.C		
Adapter Information	N/A		
Modification	Sample No Modification by the test lab		

1.3 Laboratory Location

World Alliance Testing & Certification (Shenzhen) Co., Ltd

No. 1002, East Block, Laobing Building, Xingye Road 3012, Xixiang street, Bao'an District, Shenzhen, Guangdong, People's Republic of China

Tel: +86-755-29691511, Email: ga@watc.com.cn

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 463912, the FCC Designation No. : CN5040.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0160.

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2 RF Exposure Evaluation

2.1 Standard

According to §1.1310, radio frequency devices shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

According to KDB447498 D01 General RF Exposure Guidance v06:

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:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] • [$\sqrt{f(GHz)}$] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

The test exclusions are applicable only when the minimum test separation distance is \leq 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 according to 5) in section 4.1 is applied to determine SAR test exclusion.

2.2 Result

Radio	Frequency (MHz)	Maximum Conducted Power including Tune-up Tolerance		Min. test separation distance	Result (1-g SAR)	Exclusion Limit	Verdict
		(dBm)	(mW)	(mm)		(1-g SAR)	
BLE	2402-2480	4.0	2.51	5	0.8	3.0	Pass

Note: The Maximum Conducted Power including Tune-up Tolerance was declared by manufacturer.

Result: Complied, No need standalone SAR test.

---End of Report---

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