



Radio Frequency Exposure Evaluation Report

For:
Hygiene IQ LLC

Model:
BDG010

Product Description:

Hand IQ Badge

FCC ID: 2A5AE-BDG010
ISED ID: 28303-BDG010

Applied Rules and Standards:
CFR 47 Part 2 (2.1093),
FCC KDB 447498 D01 General RF Exposure Guidance v06
ISED RSS-102 Issue 5

Report number: EMC_HANDI-002-22001_Badge_FCC_ISED_SAREX

DATE: 2022-04-22



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1. Assessment

The following device was evaluated against the limits for general population uncontrolled exposure specified in CFR 47 Part 2.1093 according to SAR evaluation exclusion requirements specified in FCC regulation as listed in KDB 447498, and ISED RSS-102 Issue 5.

The device meets the requirements for SAR exclusion as stipulated by the above given FCC/ISED rules.

Company	Description	Model #
Hygiene IQ LLC	Hand IQ Badge	BDG010

Responsible for Testing Laboratory:

2022-04-22	Compliance	Kevin Wang (Lab Manager)	
Date	Section	Name	Signature

Responsible for the Report:

2022-04-22	Compliance	Kris Lazarov (EMC Engineer)	
Date	Section	Name	Signature

The test results of this test report relate exclusively to the test item specified in Section 3.
CETECOM Inc. USA does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item. The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written approval of CETECOM Inc. USA.

2. Administrative Data

2.1. Identification of the Testing Laboratory Issuing the Test Report

Company Name:	CETECOM Inc.
Department:	Compliance
Street Address:	411 Dixon Landing Road
City/Zip Code	Milpitas, CA 95035
Country	USA
Telephone:	+1 (408) 586 6200
Fax:	+1 (408) 586 6299
Lab Manager:	Kevin Wang
Responsible Project Leader:	Phillip Quintal

2.2. Identification of the Client / Manufacturer

Client's Name:	Hygiene IQ LLC
Street Address:	636 Moulton Ave
City/Zip Code	Los Angeles, CA, 90031
Country	USA

Manufacturer's Name:	Laritech Inc
Manufacturers Address:	5898 Condor Drive
City/Zip Code	Moorpark, CA, 93021
Country	USA

3. Equipment under Assessment

Model No	BDG010
HW Version	1.0
SW Version	1.0
FCC-ID	2A5AE-BDG010
ISED-ID:	28303-BDG010
FWIN:	1.0
HVIN	1.0
PMN	Hand IQ Badge
Product Description	Hand IQ Badge
Device Category	☐ Fixed Installation ☐ Mobile ☒ Portable ☐ Mixed Mobile and Portable
Frequency Range / number of channels	BT LE: 2402 MHz (ch 0) – 2480 MHz (ch 39), 40 channels
Declared Output power	-12dBm +/- 2dB
Max. declared antenna gain	5.05 dBi
Minimum distance of antenna or radiating parts to user	5mm
Power Supply/ Rated Operating Voltage Range	2.4V typical / 3.3V max
Operating Temperature Range	0°C to + 80°C
Co-located Transmitters / Antennas	☐ Yes ☒ No
Sample Revision	☐ Prototype ☐ Production ☒ Pre-Production
Exposure Category	☐ Occupational/ Controlled ☒ General Population/ Uncontrolled

4. FCC and ISED Exemption Limits for Routine Evaluation

4.1. FCC SAR test exclusions per KDB 447498 4.3.1. Standalone SAR test exclusion considerations

Appendix A: SAR Test Exclusion Thresholds for 100 MHz – 6 GHz and ≤ 50 mm

Frequency (MHz)	d[mm]	SAR Test Exclusion Threshold (mW)
2480	5	9.5

4.2. ISED SAR test exclusions per IC RSS-102 Issue 5

ISED RSS-102 Section: 2.5.1 Exemption Limits for Routine Evaluation — SAR Evaluation
SAR evaluation is required if the separation distance between the user and/or bystander and the antenna and/or radiating element of the device is less than or equal to 20 cm, except when the device operates at or below the applicable output power level (adjusted for tune-up tolerance) for the specified separation distance defined in Table 1. Output power level shall be the higher of the maximum conducted or equivalent isotropically radiated power (e.i.r.p.) source-based, time-averaged output power.

Table with limits for the frequencies off interest

Frequency (MHz)	d[mm]	Exemption Limits [mW]
2450	5	4

5. Stand-alone Transmission SAR Exclusion Evaluation

5.1. Justification for using the 5 mm Distance

The conservative distance of 5 mm is an estimate of how close a human body can be to the device in its typical application.

5.2. SAR Exclusion Calculation Table

FCC / ISED Standalone Transmission SAR Exclusion Calculations						
Band	f [MHz]	Max Output Power [mW]	Max EIRP [mW]	FCC Limit ¹ @ 5 mm [mW]	ISED Limit @ 5 mm [mW]	SAR Exclusion applicable (Yes/No)
BTLE	2480	0.1	0.3	9.5	4	Yes

Note 1: The FCC limit is calculated using the maximum output power passing the threshold for 1-g SAR exclusion

6. Revision History

Date	Report Name	Changes to report	Report prepared by
2022-04-22	EMC_HANDI-002-22001_Badge_FCC_ISED_SAREX	Initial version	Kris Lazarov

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