



# FCC RF EXPOSURE REPORT FCC ID: 2AKSOH1001

**Project No.** : 2107C053

**Equipment**: H10 Low Latency Headband

Brand Name : AIAIAI
Test Model : H10
Series Model : N/A

**Applicant**: AIAIAI ApS

Address : Studiestræde 31,DK-1455 Copenhagen K,Denmark

Manufacturer : AIAIAI ApS

Address : Studiestræde 31,DK-1455 Copenhagen K,Denmark

Factory : OSM HUIZHOU LIMITED

Address : A02, Taixiang Road, High-tech Industrial Park, Sandong Town, Huicheng

District, Huizhou City, Guangdong Province, P.R.C

Date of Receipt : Jul. 09, 2021

**Date of Test** : Jul. 14, 2021 ~ Nov. 02, 2021

**Issued Date** : Nov. 04, 2021

Report Version : R02

**Test Sample** : Engineering Sample No.: DG20210712160

Standard(s) : FCC Guidelines for Human Exposure IEEE C95.1 & KDB447498 D01

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

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lac-MRA



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# **REPORT ISSUED HISTORY**

| Report Version | Description                         | Issued Date   |
|----------------|-------------------------------------|---------------|
| R00            | Original Issue.                     | Oct. 26, 2021 |
| R01            | Revised report to address comments. | Nov. 02, 2021 |
| R02            | Revised report to address comments. | Nov. 04, 2021 |



# 1. TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No. 3 Jinshagang 1st Rd. Shixia, Dalang Town, Dongguan City, Guangdong, People's Republic of China.

BTL's Test Firm Registration Number for FCC: 357015

BTL's Designation Number for FCC: CN1240

# 2. GENERAL CONCULUSION

According to FCC KDB447498 D01, Appendix A, SAR Test Exclusion Thresholds for 100 MHz − 6 GHz and ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

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

|      | Appendix A - SAR Test Exclusion Thresholds for 100 MHz - 6 GHz |    |     |     |     |     |     |     |     |     |                    |
|------|--|----|-----|-----|-----|-----|-----|-----|-----|-----|--------------------|
|      | and <u>&lt;</u> 50 mm  |    |     |     |     |     |     |     |     |     |                    |
| MHz  | 5  | 10 | 15  | 20  | 25  | 30  | 35  | 40  | 45  | 50  | mm                 |
| 150  | 39   | 77 | 116 | 155 | 194 | 232 | 271 | 310 | 349 | 387 |                    |
| 300  | 27   | 55 | 82  | 110 | 137 | 164 | 192 | 219 | 246 | 274 |                    |
| 450  | 22   | 45 | 67  | 89  | 112 | 134 | 157 | 179 | 201 | 224 |                    |
| 835  | 16   | 33 | 49  | 66  | 82  | 98  | 115 | 131 | 148 | 164 |                    |
| 900  | 16   | 32 | 47  | 63  | 79  | 95  | 111 | 126 | 142 | 158 |                    |
| 1500 | 12   | 24 | 37  | 49  | 61  | 73  | 86  | 98  | 110 | 122 | SAR Test Exclusion |
| 1900 | 11   | 22 | 33  | 44  | 54  | 65  | 76  | 87  | 98  | 109 | Thresholds (mW)    |
| 2450 | 10   | 19 | 29  | 38  | 48  | 57  | 67  | 77  | 86  | 96  |                    |
| 3600 | 8  | 16 | 24  | 32  | 40  | 47  | 55  | 63  | 71  | 79  |                    |
| 5200 | 7  | 13 | 20  | 26  | 33  | 39  | 46  | 53  | 59  | 66  |                    |
| 5400 | 6  | 13 | 19  | 26  | 32  | 39  | 45  | 52  | 58  | 65  |                    |
| 5800 | 6  | 12 | 19  | 25  | 31  | 37  | 44  | 50  | 56  | 62  |                    |





# 3. TABLE FOR FILED ANTENNA

### For BT&LE:

| Ant. | Brand     | Model Name        | Antenna Type | Connector | Gain (dBi) |
|------|-----------|-------------------|--------------|-----------|------------|
| 1    | OSM GROUP | H10 2.45GH BT ANT | IFA PCB      | N/A       | -1.8       |

Note: The antenna gain is provided by the manufacturer.

### For 2.4G SRD:

| Ant. | Brand                     | Model Name        | Antenna Type | Connector | Gain (dBi) |
|------|---------------------------|-------------------|--------------|-----------|------------|
| 1    | OSM GROUP H10 2.45GH BT A |                   | IFA PCB      | N/A       | -1.8       |
| 2    | OSM GROUP                 | H10 2.45GH BT ANT | IFA PCB      | N/A       | -1.8       |

### Note:

- (1) Smart antenna systems with two transmit/receive chains, but operating in a mode where only one transmit/receive chain is used.
- (2) Both Ant.1 and Ant.2 had been tested, in this report only recorded the worst case.
- (3) The antenna gain is provided by the manufacturer.

# 4. TEST RESULTS

| Tune up tolerance (dBm) |          |        |  |  |  |
|-------------------------|----------|--------|--|--|--|
| ВТ                      | 2.4G SRD |        |  |  |  |
| ≤ 4.50                  | ≤ 5.20   | ≤ 4.50 |  |  |  |

### For BT:

| Frequency<br>(MHz) | Max Tune-up power (dBm) | Max Tune-up power<br>(mW) | Result | Limit |
|--------------------|-------------------------|---------------------------|--------|-------|
| 2402.00            | 4.50                    | 2.818                     | 0.874  | 3.0   |

### For LE:

| ٠. | O1 LL.             |                         |                        |        |       |
|----|--------------------|-------------------------|------------------------|--------|-------|
|    | Frequency<br>(MHz) | Max Tune-up power (dBm) | Max Tune-up power (mW) | Result | Limit |
|    | 2402.00            | 5.20                    | 3.311                  | 1.026  | 3.0   |

### For 2.4G SRD:

| Frequency<br>(MHz) | Max Tune-up power (dBm) | Max Tune-up power<br>(mW) | Result | Limit |
|--------------------|-------------------------|---------------------------|--------|-------|
| 2403.35            | 4.50                    | 2.818                     | 0.874  | 3.0   |

### Note:

- (1) Output power including tune up tolerance.
- (2) No SAR evaluation required since transmitter power is below FCC threshold.
- (3) The product can only use one of 2.4G and Bluetooth functions at a time, not at the same time.

# **End of Test Report**