

Dates of Tests: September 04, 2024

Test Report S/N: LR500112409B

Test Site : LTA CO., LTD.

## CERTIFICATION OF COMPLIANCE

FCC ID.

**2BAM7DPK12A**

APPLICANT

**dot incorporation**

|                           |   |                                                |
|---------------------------|---|------------------------------------------------|
| Equipment Class           | : | Digital Transmission System (DTS)              |
| Manufacturing Description | : | Portable Braille device for Visually impaired  |
| Manufacturer              | : | dot incorporation                              |
| Model name                | : | DPK12A                                         |
| Contains Modules FCC ID   | : | A8TBM70ABCDEFGH<br>A8TBM78ABCDEFGH             |
| Test Device Serial No.:   | : | Identical prototype                            |
| Rule Part(s)              | : | FCC Part 15.247 Subpart C ; ANSI C63.10 - 2013 |
| Frequency Range           | : | 2405 ~ 2480 MHz                                |
| Max. Output Power         | : | 0.0017 W                                       |
| Data of issue             | : | September 05, 2024                             |

This test report is issued under the authority of:



Ja-Beom Koo, Manager

The test was supervised by:



Eun-Hwan Jung, Test Engineer

**TABLE OF CONTENTS**

1. GENERAL INFORMATION ----- 3

2. INFORMATION ABOUT TEST ITEM ----- 4

3. TEST REPORT ----- 5

    3.1 SUMMARY OF TESTS ----- 5

    3.2 RF EXPOSURE EVULATION----- 6

1. General information

1-1 Test Performed

Company name : LTA Co., Ltd.  
Address : 243, Jubug-ri, Yangji-Myeon, Youngin-Si, Kyunggi-Do, Korea. 449-822  
Web site : <http://www.ltalab.com>  
E-mail : [chahn@ltalab.com](mailto:chahn@ltalab.com)  
Telephone : +82-31-323-6008  
Facsimile : +82-31-323-6010

Quality control in the testing laboratory is implemented as per ISO/IEC 17025 which is the “General requirements for the competents of calibration and testing laboratory”.

1-2 Accredited agencies

LTA Co., Ltd. is approved to perform EMC testing by the following agencies:

| Agency | Country | Accreditation No. | Validity   | Reference           |
|--------|---------|-------------------|------------|---------------------|
| RRA    | KOREA   | KR0049            | -          | EMC accredited Lab. |
| FCC    | U.S.A   | 649054            | 2025-03-29 | FCC CAB             |
| VCCI   | JAPAN   | C-4948,           | 2026-09-10 | VCCI registration   |
| VCCI   | JAPAN   | T-2416,           | 2026-09-10 | VCCI registration   |
| VCCI   | JAPAN   | R-4483(10 m),     | 2026-10-15 | VCCI registration   |
| VCCI   | JAPAN   | G-847             | 2024-12-13 | VCCI registration   |
| IC     | CANADA  | 5799A-1           | 2025-08-15 | IC filing           |

## 2. Information about test item

### 2-1 Client & Manufacturer

Client Company name : dot incorporation

Address : 401~405, 146, Gasan digital 1-ro, Geumcheon-gu, Seoul, Republic of Korea

Tel / Fax : +82-31-696-9829 / +82-31-696-9899

Manufacturer : dot incorporation

Address : 401~405, 146, Gasan digital 1-ro, Geumcheon-gu, Seoul, Republic of Korea

Tel / Fax : +82-31-696-9829 / +82-31-696-9899

### 2-2 Equipment Under Test (EUT)

Model name : 2BAM7DPK12A

Serial number : Identical prototype

Date of receipt : August 20,2024

EUT condition : Pre-production, not damaged

Antenna type : Chip Antenna (Max Gain : 1.69 dBi)

Frequency Range : 2402 ~ 2480 MHz

RF output power : Max 4.57 dBm – Conducted

Type of Modulation : Pi/4 DQPSK, 8DPSK, GFSK

Power Source : DC 3.7 V

### 2-3 Tested frequency

| Bluetooth       | LOW  | MID  | HIGH |
|-----------------|------|------|------|
| Frequency (MHz) | 2405 | 2440 | 2480 |

### 2-4 Ancillary Equipment

| Equipment | Model No. | Serial No. | Manufacturer |
|-----------|-----------|------------|--------------|
| -         | -         | -          | -            |

3. Test Report

3.1 Summary of tests

| FCC Part<br>Section(s)  | Parameter             | Limit | Test<br>Condition | Status<br>(note 1) |
|-------------------------|-----------------------|-------|-------------------|--------------------|
| § 1.1310 and<br>§2.1091 | RF EXPOSURE EVULATION | -     | -                 | C                  |

Note 1: C=Complies    NC=Not Complies    NT=Not Tested    NA=Not Applicable

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3.2 RF EXPOSURE EVULATION

1.1 Limit

According to §1.1310 and §2.1091 RF exposure is calculated.

(B) Limits for General Population/Uncontrolled Exposures

| Frequency range (MHz) | Electric field<br>Strength | Magnetic field<br>Strength | Power density<br>(mW/cm <sup>2</sup> ) | Averaging<br>time |
|-----------------------|----------------------------|----------------------------|----------------------------------------|-------------------|
| 1.34 - 30.....        | 824/f                      | 2.19/f                     | *(180/ f <sup>2</sup> )                | 30                |
| 30 - 300.....         | 27.5                       | 0.073                      | 0.2                                    | 30                |
| 300 - 1500.....       | .....                      | .....                      | <b>f/1500</b>                          | 30                |
| 1500 - 100.000.....   | .....                      | .....                      | 1.0                                    | 30                |

F = frequency in MHz  
\* = Plane-wave equivalent power density

1.2 MAXIMUM PERMISSIBLE EXPOSURE Prediction

Prediction of MPE limit at a given distance

Power density at the specific separation:

|                                                                                                       |                                                                                                                                                                                                                                    |
|-------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| $S = PG/(4R^2 \pi )$<br><br>$S = (1.7 * 1.48) / (4 * 5^2 * \pi )$<br><br>$S = 0.0005 \text{ mW/cm}^2$ | Where,<br>S = Maximum power density (mW/cm <sup>2</sup> )<br>P = Power input to the antenna (mW)<br>G = Numeric power gain of the antenna<br>R = Distance to the center of the radiation of the antenna<br>(20 cm = limit for MPE) |
|-------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 1.3 MAXIMUM PERMISSIBLE EXPOSURE Prediction

- Calculated under the worst-case conditions of each mode.

(Measured power 2 dBm  $\pm$  0.5dB)

#### 3-1. 2.4 GHz Mode

|                                                             |       |                    |
|-------------------------------------------------------------|-------|--------------------|
| Max Peak output Power at antenna input terminal             | 2.3   | dBm                |
| Max Peak output Power at antenna input terminal             | 1.7   | mW                 |
| Prediction distance                                         | 5     | mm                 |
| Prediction frequency                                        | 2,402 | MHz                |
| Antenna Gain(typical)                                       | 1.69  | dBi                |
| Antenna Gain(numeric)                                       | 1.48  | -                  |
| Power density at prediction frequency( S)                   | 0.007 | mW/cm <sup>2</sup> |
| MPE limit for uncontrolled exposure at prediction frequency | 0.024 | mW/cm <sup>2</sup> |

SAR Test exclusion thresholds for 100MHz to 6GHz at test separation distance  $\leq$  50 mm = **Used**

$[(\text{max.power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] * [\sqrt{f}(\text{GHz})]$

$= [1.7 / 5] * [\sqrt{2.402}] = 0.53 \leq 3.0$ , for 1g SAR

**Thus, SAR for this device is not required.**