

## Test Report

Prepared for: Wavetronix LLC

Model: 106-0043

Serial Number: 106-0043-0000001

Project No: p2630015

FCC ID: PCB-FA02

To

FCC Part 1.1310

FCC Part 2.1091

447498 D04 Interim General RF Exposure Guidance v01

Date of Issue: April 30, 2026

On behalf of the applicant:

Wavetronix LLC  
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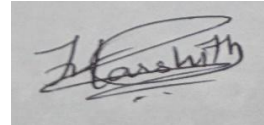
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Prepared By:

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ANAB Cert#: AT-2901  
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ISED Site Reg. #2044A-2

Reviewed / Authorized By:



Harshith Devaraja  
EMC Engineer

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### Test Report Revision History

| Revision | Date           | Revised By        | Reason for Revision                   |
|----------|----------------|-------------------|---------------------------------------|
| 1.0      | April 30, 2026 | Harshith Devaraja | Original Document                     |
| 2.0      | July 22, 2026  | Harshith Devaraja | Antenna Gain and Calculations updated |

*Current revision of the test report replaces any prior versions. Only the current version of the test report is valid.*

## EUT Description

|                                |                                                                                                                                                                                                                                                                                                     |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Model:</b>                  | <b>106-0043</b>                                                                                                                                                                                                                                                                                     |
| <b>Serial:</b>                 | <b>106-0043-0000001</b>                                                                                                                                                                                                                                                                             |
| <b>Firmware:</b>               | <b>host_test_LP_EM_CC2745R10_Q1_antSwitch_HIGH_ant2</b>                                                                                                                                                                                                                                             |
| <b>Description:</b>            | <b>RV Bluetooth device to interface with the Fathom Tensor sensor</b>                                                                                                                                                                                                                               |
| <b>Additional Information:</b> | <p><b>Radio Frequency Range and Operational Info: 2.402 – 2.480 GHz<br/>BLE GFSK (1Mbps)</b></p> <p><b>Usage: Mobile</b></p> <p><b>The Bluetooth device contains two non-simultaneous transmission antennas controlled by an RF switch after the module<br/>RF Antenna 1 &amp; RF Antenna 2</b></p> |
| <b>Receipt of Sample(s):</b>   | <b>April 06, 2026</b>                                                                                                                                                                                                                                                                               |
| <b>EUT Condition:</b>          | <p><b>Visual Damage</b> No</p> <p><b>State of Development</b> Production/Production Equivalent</p>                                                                                                                                                                                                  |

## Power calculations

RF Antenna 1 gain = 4 dBi

RF Antenna 2 gain = 4 dBi

**EIRP = Conducted peak power (dBm) + Antenna gain (dBi)**

### RF Antenna 1

| Tuned Frequency (MHz) | Conducted Peak Output Power (dBm) | Conducted Peak Output Power (mW) | EIRP (dBm) | EIRP (mW) |
|-----------------------|-----------------------------------|----------------------------------|------------|-----------|
| 2402                  | 0.69                              | 1.172                            | 4.69       | 2.9       |
| 2440                  | 0.43                              | 1.104                            | 4.43       | 2.8       |
| 2480                  | 0.17                              | 1.039                            | 4.17       | 2.6       |

### RF Antenna 2

| Tuned Frequency (MHz) | Conducted Peak Output Power (dBm) | Conducted Peak Output Power (mW) | EIRP (dBm) | EIRP (mW) |
|-----------------------|-----------------------------------|----------------------------------|------------|-----------|
| 2402                  | 1.36                              | 1.367                            | 5.36       | 3.4       |
| 2440                  | 0.82                              | 1.207                            | 4.82       | 3.0       |
| 2480                  | 0.25                              | 1.059                            | 4.25       | 2.7       |

## MPE Evaluation

This is a mobile device used in Uncontrolled Exposure environment.

### Limits Controlled Exposure 47 CFR 1.1310 Table 1, (A)

|                  |                                                     |
|------------------|-----------------------------------------------------|
| 0.3-3.0 MHz:     | Limit [mW/cm <sup>2</sup> ] = 100                   |
| 3.0-30 MHz:      | Limit [mW/cm <sup>2</sup> ] = (900/f <sup>2</sup> ) |
| 30-300 MHz:      | Limit [mW/cm <sup>2</sup> ] = 1.0                   |
| 300-1500 MHz:    | Limit [mW/cm <sup>2</sup> ] = f/300                 |
| 1500-100,000 MHz | Limit [mW/cm <sup>2</sup> ] = 5                     |

### Limits Uncontrolled Exposure 47 CFR 1.1310 Table 1, (B)

|                  |                                                     |
|------------------|-----------------------------------------------------|
| 0.3-1.234 MHz:   | Limit [mW/cm <sup>2</sup> ] = 100                   |
| 1.34-30 MHz:     | Limit [mW/cm <sup>2</sup> ] = (180/f <sup>2</sup> ) |
| 30-300 MHz:      | Limit [mW/cm <sup>2</sup> ] = 0.2                   |
| 300-1500 MHz:    | Limit [mW/cm <sup>2</sup> ] = f/1500                |
| 1500-100,000 MHz | Limit [mW/cm <sup>2</sup> ] = 1.0                   |

## Test Data

|                              |       |
|------------------------------|-------|
| Test Frequency, MHz          | 2402  |
| Conducted peak Power, mW (P) | 1.367 |
| Antenna Gain Isotropic       | 4 dBi |
| Antenna Gain Numeric (G)     | 2.51  |
| Distance (R)                 | 20 cm |

|                                      |
|--------------------------------------|
| $S = \frac{P * G}{4\pi r^2}$         |
| Power Density (S) mw/cm <sup>2</sup> |
|                                      |

|                                                     |
|-----------------------------------------------------|
| Power Density (S) = 0.000682 mw/cm <sup>2</sup>     |
| Limit = (from above table) = 1.0 mw/cm <sup>2</sup> |

**Determination of Exemption  
47 CFR 2.1091 (c)(1)**

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

$ERP_{20\text{ cm}} = 3060\text{ mW}$

Separation distance (d) = 20 cm

$P_{th} = 3060\text{ mW}$

| Tuned Frequency (MHz) | Conducted Peak Output Power (dBm) | Conducted Peak Output Power (mW) | EIRP (dBm) | EIRP (mW) | ERP=EIRP-2.15 (dBm) | ERP (mW) |
|-----------------------|-----------------------------------|----------------------------------|------------|-----------|---------------------|----------|
| 2402                  | 1.36                              | 1.367                            | 5.36       | 3.4       | 1.25                | 1.3      |

ERP of the EUT = 1.3 mW

$ERP_{EUT} < P_{th}$  :

**Result:- Pass**

**The EUT is SAR test exempt.**

**END OF TEST REPORT**