

## Test Report

Prepared for: Envision Technology, LLC.

Model: MARS

Description: Miniature Advanced Rangefinder System with BT

Serial Number: N/A

FCC ID: 2BQJI-MARS

To

FCC Part 1.1310

FCC Part 1.1307

Date of Issue: September 9, 2025

On the behalf of the applicant:

Envision Technology, LLC.  
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Attention of:

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John Michalowicz  
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### Test Report Revision History

| Revision | Date              | Revised By        | Reason for Revision                                                |
|----------|-------------------|-------------------|--------------------------------------------------------------------|
| 1.0      | August 13, 2025   | John Michalowicz  | Original Document                                                  |
| 2.0      | September 9, 2025 | Harshith Devaraja | Added 47 CFR 1.1307 RF exposure Calculations. Updated antenna gain |
|          |                   |                   |                                                                    |
|          |                   |                   |                                                                    |

## ANAB

Compliance Testing, LLC, has been accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to the joint ISO-ILAC-IAF Communiqué dated January 2009).

The tests results contained within this test report all fall within our scope of accreditation, unless noted below.

Please refer to <http://www.compliancetesting.com/labscope.html> for current scope of accreditation.



**FCC Site Reg. #750616**

**IC Site Reg. #2044A-2**

**Non-accredited tests contained in this report:**

**N/A**

### EUT Description

|                                |                                                                                                              |
|--------------------------------|--------------------------------------------------------------------------------------------------------------|
| <b>Model:</b>                  | <b>MARS</b>                                                                                                  |
| <b>Serial:</b>                 | <b>002099</b>                                                                                                |
| <b>Firmware:</b>               | <b>62:48</b>                                                                                                 |
| <b>Software:</b>               | <b>2.10.1</b>                                                                                                |
| <b>Description:</b>            | <b>Miniature Advanced Rangefinder System with BT</b>                                                         |
| <b>Additional Information:</b> | <b>Radio Frequency Range and Operational Info: 2402 – 2480 MHz BLE 1 Mbit and 2 Mbit<br/>Usage: Portable</b> |
| <b>Receipt of Sample(s):</b>   | <b>June 30<sup>th</sup> 2025</b>                                                                             |
| <b>EUT Condition:</b>          | <b>Visual Damage No<br/><br/>State of Development Production/Production Equivalent</b>                       |

### Average Power calculations

Average Power = Peak Power \* duty-cycle%

| Tuned Frequency<br>(MHz) | Radiated Peak Output Power<br>(mW) | Duty Cycle<br>(%) | Average Power<br>(mW) |
|--------------------------|------------------------------------|-------------------|-----------------------|
| 2402                     | 0.2479                             | 100               | 0.2479 mW             |

## MPE Evaluation

This is a portable device used in Uncontrolled Exposure environment.

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

|                  |                                                     |
|------------------|-----------------------------------------------------|
| 0.3-1.34 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          |
| Power, Radiated, mW (P)  | 0.2479        |
| Antenna Gain Isotropic   | 3.4 dBi       |
| Antenna Gain Numeric (G) | 2.19          |
| Antenna Type             | Flex Monopole |
| Distance (R)             | .5 cm         |

|                                      |
|--------------------------------------|
| $S = \frac{P * G}{4\pi r^2}$         |
| Power Density (S) mw/cm <sup>2</sup> |
| 0.0789113481                         |

|                                  |
|----------------------------------|
| Power Density (S) =0.0789113481  |
| Limit = (from above table) = 1.0 |

### 47 CFR 1.1307 paragraph (b)(3)(i)(A)

The output power of the EUT is below 1 mW and is exempt from routine evaluation.

### 47 CFR 1.1307 paragraph (b)(3)(i)(B)

The available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold P<sub>th</sub> (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive). P<sub>th</sub> is given by:

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

$$x = -\log_{10} \left( \frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right) \text{ and } f \text{ is in GHz;}$$

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

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

$$\begin{aligned} X &= -\log_{10}(60 / 3060 \sqrt{f}) \\ &= -\log_{10}(60 / 3060 \sqrt{2.402}) \\ &= 1.8979 \end{aligned}$$

Separation distance (d) = 0.5 cm

$$\begin{aligned} P_{\text{th}} &= 3060 \times \left(\frac{0.5}{20}\right)^{1.8979} \\ &= 2.7872 \text{ mW} \end{aligned}$$

Average power = 0.2479 mW < 2.7872 mW

END OF TEST REPORT