



Radio Frequency Exposure Evaluation Report

For:
ActivBody, Inc

Model Name:
ActivM2

Product Description:

ActivForce 2 digital dynamometer and goniometer: measures muscular force resistance and joint range of motion

FCC ID: 2AGCI-AVM2
ISED: 22259-AVM2

Applied Rules and Standards:

CFR Part Part1 (1.1307 &1.1310), Part 2 (2.1091),
FCC KDB 447498 D01 General RF Exposure Guidance v06
ISED RSS-102 Issue 6

Report number: EMC_ACTIV_003_25001_RF_Exposure

DATE: 2025-07-18



CETECOM Inc.

411 Dixon Landing Road • Milpitas, CA 95035 • U.S.A.

Phone: + 1 (408) 586 6200 • Fax: + 1 (408) 586 6299 • E-mail: info@cetecom.com • <http://www.cetecom.com>
CETECOM Inc. is a Delaware Corporation with Corporation number: 2905571

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1 Assessment

This RF Exposure evaluation report provides evidence for compliance of the below identified device with the RF Exposure limits for mobile devices as defined in FCC CFR Part 1 (1.1307 &1.1310), Part 2 (2.1093) and ISED standard RSS-102 issue 6 under worst case conditions (measured or rated RF output power, antenna gain, distance towards human body, multiple transmitter information as presented by the applicant).

In addition, maximum antenna gain or minimum distance towards the human body is calculated respectively, where relevant.

The device meets the limits as stipulated by the above given FCC and ISED rule parts based on available specifications
Device is exempt from routine evaluation, maximum power is $\leq 1\text{mW}$

| Company | Description | Module Model # |
|----------------|---|----------------|
| ActivBody, Inc | ActivForce 2 digital dynamometer and goniometer: measures muscular force resistance and joint range of motion | ActivM2 |

Report Reviewer:

| 2025-07-18 | Compliance | Alvin, Ilarina (Senior Manager Regulatory Services) |
|------------|------------|--|
| Date | Section | Name |

Responsible for the Report:

| 2025-07-18 | Compliance | Art Thammanavarat (Senior EMC Engineer) |
|------------|------------|--|
| Date | Section | Name |

The test results of this test report relate exclusively to the test item specified in Section3.

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2 Administrative Data

2.1 Identification of the Testing Laboratory Issuing the EMC 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 |
| EMC Lab Manager: | Alvin, Ilarina |
| Responsible Project Leader: | Ruby, Hall |

2.2 Identification of the Client

| | |
|--------------------------|-------------------------------|
| Client Firm/Name: | ActivBody, Inc |
| Street Address: | 4350 Executive Dr., Suite 200 |
| City/Zip Code | San Diego CA / 92121 |
| Country | USA |

2.3 Identification of the Manufacturer

| | |
|-------------------------------|----------------|
| Manufacturer's Name: | |
| Manufacturers Address: | Same as Client |
| City/Zip Code | |
| Country | |

3 Equipment under Assessment

3.1 EUT Specifications

| | |
|---|---|
| Product Description: | ActivForce 2 digital dynamometer and goniometer: measures muscular force resistance and joint range of motion |
| Model Name: | ActivM2 |
| HW Version: | 9.0 |
| SW Version: | 4.12.1-106 |
| FCC-ID: | 2AGCI-AVM2 |
| ISED: | 22259-AVM2 |
| Frequency Range / number of channels: | Nominal band: 2400 MHz – 2483.5 MHz; Center to center: 2402 MHz (ch 0) – 2480 MHz (ch 39), 40 channels |
| Bands/Modes Supported | Bluetooth Modules Model Name : ActivM2 FCC ID: 2AGCI-AVM2 ISED: 22259-AVM2 Wireless Technologies Bluetooth |
| Modes of Operation: | Peripheral Mode, LE Advertising, LE Secure Connection |
| Antenna Information as declared: | 2.4 GHz Inverted F / 1.09 dBi |
| Max. Peak Output Power: | Conducted Power -1.30 dBm |
| Other Radios included in the device | N/A |
| Power Supply/ Rated Operating Voltage Range | 1.5V DC / 3.0V DC |
| Operating Temperature Range | 0 to 35 °C / 32 to 95 °F |
| Sample Revision | <input type="checkbox"/> Production <input checked="" type="checkbox"/> Pre-Production |
| EUT Dimensions | 95mm x 78mm x 33mm |
| EUT Diameter | <input checked="" type="checkbox"/> < 60 cm <input type="checkbox"/> Other _____ |
| Note: The information of the EUT specifications in the table above is provided by the client. | |

4 RF Exposure Limits and FCC and ISED Basic Rules

FCC

4.1.1 § 2.1093(c)(1)

Evaluation of compliance with the exposure limits in § 1.1310 of this chapter, and preparation of an EA if the limits are exceeded, is necessary for portable devices having single RF sources with more than an available maximum time-averaged power of 1 mW, more than the ERP listed in Table 1 to § 1.1307(b)(3)(i)(C), or more than the P_{th} in the following formula, whichever is greater. The following formula shall only be used in conjunction with portable devices not exempt by § 1.1307(b)(3)(i)(C) at distances from 0.5 centimeters to 20 centimeters and frequencies from 0.3 GHz to 6 GHz.

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

4.1.2 § 2.1093(c)(2)

For multiple mobile or portable RF sources within a device operating in the same time averaging period, routine environmental evaluation is required if the formula in § 1.1307(b)(3)(ii)(B) of this chapter is applied to determine the exemption ratio and the result is greater than 1.

4.1.3 § 1.1307(b)(3)(ii)(B)

in the case of fixed RF sources operating in the same time-averaging period, or of multiple mobile or portable RF sources within a device operating in the same time averaging period, if the sum of the fractional contributions to the applicable thresholds is less than or equal to 1 as indicated in the following equation.

$$\sum_{i=1}^a \frac{P_i}{P_{th,i}} + \sum_{j=1}^b \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^c \frac{Evaluated_k}{Exposure\ Limit_k} \leq 1$$

ISED RSS-102

4.1.4 Clause 6.3 SAR exemption limits

Devices operating at or below the applicable output power levels (adjusted for tune-up tolerance) specified in table 11, based on the separation distance, are exempt from SAR evaluation. The separation distance, defined as the distance between the user and/or bystander and the antenna and/or radiating element of the device or the outer surface of the device, shall be less than or equal to 20 cm for these exemption limits to apply.

Table 11: Power limits for exemption from routine SAR evaluation based on the separation distance

| Frequency (MHz) | ≤ 5 mm (mW) | 10 mm (mW) | 15 mm (mW) | 20 mm (mW) | 25 mm (mW) | 30 mm (mW) | 35 mm (mW) | 40 mm (mW) | 45 mm (mW) | > 50 mm (mW) |
|-----------------|-------------|------------|------------|------------|------------|------------|------------|------------|------------|--------------|
| ≤ 300 | 45 | 116 | 139 | 163 | 189 | 216 | 246 | 280 | 319 | 362 |
| 450 | 32 | 71 | 87 | 104 | 124 | 147 | 175 | 208 | 248 | 296 |
| 835 | 21 | 32 | 41 | 54 | 72 | 96 | 129 | 172 | 228 | 298 |
| 1900 | 6 | 10 | 18 | 33 | 57 | 92 | 138 | 194 | 257 | 323 |
| 2450 | 3 | 7 | 16 | 32 | 56 | 89 | 128 | 170 | 209 | 245 |
| 3500 | 2 | 6 | 15 | 29 | 50 | 72 | 94 | 114 | 134 | 158 |
| 5800 | 1 | 5 | 13 | 23 | 32 | 41 | 54 | 74 | 102 | 128 |

The exemption limits in table 11 are based on measurements and simulations of half-wave dipole antennas at separation distances of 5 mm to 50 mm from a flat phantom, which provides a SAR value of approximately 0.4 W/kg for 1 g of tissue.

For limb-worn devices where the 10 gram of tissue applies, the exemption limits for routine evaluation in table 11 are multiplied by a factor of 2.5.

For controlled-use devices where the 8 W/kg for 1 gram of tissue applies, the exemption limits for routine evaluation in table 11 are multiplied by a factor of 5.

When the operating frequency of the device is between two frequencies located in table 11, linear interpolation shall be applied for the applicable separation distance. If the separation distance of the device is between two distances located in table 11, linear interpolation may be applied for the applicable frequency. Alternatively, the limit corresponding to the smaller distance may be employed. For example, in case of a 7 mm separation distance, either use the exception value for a 5 mm separation distance or interpolate between the limits corresponding to 5 mm and 10 mm separation distances.

For implanted medical devices, the exemption limit for routine SAR evaluation is set at an output power of 1 mW, regardless of frequency.

5 Evaluations

5.1 FCC RF Exposure (Standalone)

| Radio | Tech-Band | Freq-Low [GHz] | Pwr [dBm] | Power [W] | AG [dBi] | EIRP [W] | ERP [W] | ERP [mW] | FCC 2.1091(c)(1) Power < 1 [mW] |
|-------|-----------|----------------|-----------|-----------|----------|----------|---------|----------|------------------------------------|
| BT | LE | 2.4020 | -1.30 | 0.0007 | 1.09 | 0.001 | 0.001 | 0.58 | yes |

Conclusion:

- The available maximum time-averaged power of transmitting antennas is less than 1mW. The device is exempt from RF Exposure evaluation.

5.2 ISED RF Exposure (Standalone)

| Radio | Tech-Band | Freq-Low [MHz] | Pwr [dBm] | Power [W] | Ant-G [dBi] | EIRP [W] | EIRP [mW] | SAR | |
|-------|-----------|----------------|-----------|-----------|-------------|----------|-----------|---|-----------------|
| | | | | | | | | RSS-102 6.3 D≤20 cm (300 ≤ Freq ≤ 5800 MHz) | Exemption (Y/N) |
| BT | LE | 2402.00 | -1.30 | 0.0007 | 1.09 | 0.00 | 0.95 | 3.26 | Yes |

Conclusion:

- The maximum output power from routine SAR evaluation is less than 1mW or the separation distance is ≤ 5mm. The device is exempt from RF Exposure evaluation.

5.3 RF Exposure Test Exemptions for Simultaneous Transmission Sources

BTLE radio complies with routine environmental evaluation requirements for RF exposure. Simultaneous transmission with other radios is not support.

6 Revision History

| Date | Report Name | Changes to report | Report prepared by |
|------------|---------------------------------|-------------------|--------------------|
| 2025-07-18 | EMC_ACTIV_003_25001_RF_Exposure | Initial Version | Art Thammanavarat |
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