



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



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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:

Alvin, Ilarina

2025-07-18

Compliance

(Senior Manager Regulatory Services)

Date	Section	Name	Signature
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Responsible for the Report:

Art Thammanavarat

2025-07-18

Compliance

(Senior EMC Engineer)

Date	Section	Name	Signature
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The test results of this test report relate exclusively to the test item specified in Section 3.

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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:	Same as Client
Manufacturers Address:	
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 Pth 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)

								SAR	
								RSS-102 6.3 D≤20 cm (300 ≤ Freq ≤ 5800 MHz)	
Radio	Tech-Band	Freq-Low [MHz]	Pwr _[dBm]	Power _[W]	Ant-G [dBi]	EIRP _[W]	EIRP _[mW]	Exemption limit for Routine Evaluation	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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