

Radio Frequency Exposure Evaluation Report

For:
Resmed Pty Ltd.

Brand:
Resmed Pty Ltd.

Marketing Name:
AIRMINI AUTOSET W AMER

Model:
38113

Product Description:
Continuous Positive Airway Pressure (CPAP) Device

FCC ID: 2ACHL-AMBT122
IC: 9103A-AMBT122

Applied Rules and Standards:
CFR 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_RSEME_041_25001_RF_Exposure_Rev1

DATE: 2026-07-28



IC recognized #
3462B

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

TABLE OF CONTENTS

1	Assessment.....	3
2	Administrative Data	4
2.1	Identification of the Testing Laboratory Issuing the EMC Test Report	4
2.2	Identification of the Client	4
2.3	Identification of the Manufacturer.....	4
3	Equipment under Assessment.....	5
3.1	EUT Specifications	5
4	RF Exposure Limits and FCC and ISED Basic Rules	6
	FCC	6
	ISED RSS 102.....	7
5	Evaluations.....	8
5.1	<u>FCC RF Exposure (Standalone)</u>	8
5.2	<u>ISED RF Exposure (Standalone)</u>	8
5.3	<u>RF Exposure Test Exemptions for Simultaneous Transmission Sources</u>	8
6	Revision History	9

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 (2.1091 & 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 for worst-case conditions at 3 cm distance to the body.

Company Name	Product Description	Model No.
Resmed Pty Ltd.	Continuous Positive Airway Pressure (CPAP) Device	38113

Report Authorized by:

Responsible for testing Laboratory:

		Cheng Song	Cheng Song
		CN = Cheng Song email =	CN = Cheng Song email =
		cheng.song@cetecom.com	cheng.song@cetecom.com
		C = US O = CETECOM	C = US O = CETECOM
		INC.	INC.
2026-07-28	Compliance	Cheng Song	2026.07.28 14:44:58 -07'00'
		(EMC Engineer)	
Date	Section	Name	Signature

Responsible for the Report:

		Art	Art
		Thammanavarat	Thammanavarat
		DN: CN = Art Thammanavarat email	DN: CN = Art Thammanavarat email
		= art.thammanavarat@cetecom.	= art.thammanavarat@cetecom.
		com C = AD	com C = AD
		Date: 2026.07.28 12:10:46 -07'00'	Date: 2026.07.28 12:10:46 -07'00'
2026-07-28	Compliance	Art Thammanavarat	
		(Lead Engineer)	
Date	Section	Name	Signature

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

CETECOM Inc. USA does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item. The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written approval of CETECOM Inc. USA.

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:	David, Bare
Responsible Project Leader:	Ruby, Hall

2.2 Identification of the Client

Client Firm/Name:	Resmed Pty Ltd.
Street Address:	1 Elizabeth Macarthur Dr.
City/Zip Code	Bella Vista NSW 2153
Country	Australia

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

Model No:	38113
HW Version :	R380-71035
SW Version :	SW03900
FCC-ID :	2ACHL-AMBT122
IC:	9103A-AMBT122
FVIN:	SW03900
HVIN:	38113
PMN:	AIRMINI AUTOSET W AMER
Product Description:	Continuous Positive Airway Pressure (CPAP) Device
Bands/Modes Supported	<u>Bluetooth Modules</u> Brand Name : Silicon Labs Model Number : BT122-A FCC : QOQ-BT122 IC : 5123A-BT122 <u>Wireless Technologies</u> Bluetooth BDR/EDR : GFSK, $\pi/4$ DQPSK, 8DPSK
Power Supply/ Rated Operating Voltage Range:	20W AC Adapter AC Input range: 100-240V, 50-60Hz, 0.5-0.3A, 115V, 400Hz (Aircraft use), 0.4A DC Output: 24V, 0.83A Typical power consumption: 6.3W, Standby: 1W, Peak: 27W
Operating Temperature Range	Low : 5 °C to High 35 °C
Other Radios included in the device:	None
Sample Revision	☐ Production ☒ Pre-Production
EUT Dimensions	136mm x 84mm x 52mm

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 § 2.1091(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 mobile devices with single RF sources having either more than an available maximum time-averaged power of 1 mW or more than the ERP listed in Table 1 to § 1.1307(b)(3)(i)(C), whichever is greater. For mobile devices not exempt by § 1.1307(b)(3)(i)(C) at distances from 20 centimeters to 40 centimeters and frequencies from 0.3 GHz to 6 GHz, evaluation of compliance with the exposure limits in § 1.1310 of this chapter is necessary if the ERP of the device is greater than ERP_{20cm} in the formula below. If the ERP of a single RF source at distances from 20 centimeters to 40 centimeters and frequencies from 0.3 GHz to 6 GHz is not easily obtained, then the available maximum time-averaged power may be used (i.e., without consideration of ERP) in comparison with the following formula only if the physical dimensions of the radiating structure(s) do not exceed the electrical length of $\lambda/4$ or if the antenna gain is less than that of a half-wave dipole (1.64 linear value).

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

4.1.2 § 2.1091(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]	Ant-G _[dBi]	EIRP _[W]	ERP _[W]	ERP _[mW]	ERP _{20cm} (mW)	$x = -\log_{10}(60/ERP_{20cm} \geq \sqrt{f_{GHz}})$	FCC 1.1307(b)(3)(i)(B) P _{th} _[mW]	[%] of limit used up
BT	BR	2.4020	11.10	0.013	2.10	0.021	0.013	12.74	3060.00	1.90	13.10	0.98
	EDR	2.4020	6.70	0.005	2.10	0.008	0.005	4.62	3060.00	1.90	13.10	0.36
	EDR	2.4020	7.30	0.005	2.10	0.009	0.005	5.31	3060.00	1.90	13.10	0.41

Conclusion:

- The maximum RF emissions from this equipment fulfills the RF exclusion threshold limits for separation distance between the antenna and the human body greater than 1.13 cm. No RF Exposure evaluation is required.

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	BR	2402.00	11.10	0.0129	2.10	0.02	20.89	29.26	Yes
	EDR	2402.00	6.70	0.00	2.10	0.01	7.59	29.26	Yes
	EDR	2402.00	7.30	0.01	2.10	0.01	8.71	29.26	Yes

NOTE:

Calculation Summary

- EIRP: (Unadjusted Peak Power)
11.1 dBm + 2.1 dBi = 13.2 dBm = 20.89 mW
- Time-Averaged EIRP: (Time-Averaged Power)
13.2 dBm – 1.11 dB = 12.09 dBm = 16.18 mW

Summary Comparison (1-g Body/Head SAR)

- Unadjusted Peak Power (20.89 mW EIRP): 17 mm
- Time-Averaged Power (16.18 mW EIRP): 16 mm

Therefore, based on the duty cycle-adjusted calculation, the minimum required separation distance is 16 mm (1.6 cm).

Conclusion:

- The maximum RF emissions from this equipment fulfills the RF exclusion threshold limits for separation distance between the antenna and the human body greater than 1.6 cm. No RF Exposure evaluation is required.

5.3 RF Exposure Test Exemptions for Simultaneous Transmission Sources

Conclusion:

- The 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
2026-06-10	EMC_RSEME_041_25001_RF_Exposure	Initial Version	Art Thammanavarat
2026-07-28	EMC_RSEME_041_25001_RF_Exposure_Rev1	Updated IC Section 4.1.4: Updated statement. Section 5.1 & 5.2: Updated table and Added note.	Art Thammanavarat

<<< The End >>>