

RF EXPOSURE REPORT

For

AOB Products Company

1800 North Route Z, Suite A, Columbia, MO 65202, United States of America

FCC ID: 2AF3W-1134904

Report Type: Original Report	Product Name: Velociradar
Report Number:	<u>RKSA240426001-00B</u>
Report Date:	<u>2024-07-01</u>
Reviewed By:	<u>Jenny Yang</u>
Approved By:	<u>Kyle Xu</u>
Test Laboratory:	Bay Area Compliance Laboratories Corp. (Kunshan) No.248 Chenghu Road, Kunshan, Jiangsu Province, China Tel: +86-512-86175000 Fax: +86-512-88934268 www.baclcorp.com.cn

Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Kunshan). This report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, or any agency of the U.S.Government.

TABLE OF CONTENTS

REPORT REVISION HISTORY.....	3
GENERAL INFORMATION.....	4
PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT).....	4
OBJECTIVE	4
§1.1307 (B) (3) & §2.1091 – RF EXPOSURE	5
APPLICABLE STANDARD	5
RESULT	5
EUT PHOTOGRAPHS	6

DRAFT

REPORT REVISION HISTORY

Number of Revisions	Report No.	Version	Issue Date	Description
0	RKSA240426001-00B	R1V1	2024-07-01	Initial Release

DRAFT

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:	AOB Products Company
Tested Model:	1134904
Product Name:	Velociradar
Power Supply:	DC 7.4V powered from battery
RF Function:	24G SRD
Operating Band/Frequency:	24.075~24.175GHz
Maximum Field Strength of Fundamental:	100.19 dB μ V/m @3m
Antenna Type:	Patch Array antenna
★Maximum Antenna Gain:	31.8 dBi

Note: The maximum antenna gain is provided by the applicant.

All measurement and test data in this report was gathered from production sample serial number: RKSA240426001-1. (Assigned by the BACL. The EUT supplied by the applicant was received on 2024-04-26)

Objective

This type approval report is prepared for AOB Products Company in accordance with Part 2-Subpart J, and Part 15-Subparts A and C of the Federal Communication Commission rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209, 15.215 and 15.249 rules.

§1.1307 (b) (3) & §2.1091 – RF EXPOSURE

Applicable Standard

According to subpart 2.1091 systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

According to KDB 447498 D04 Interim General RF Exposure Guidance

MPE-Based Exemption:

General frequency and separation-distance dependent MPE-based effective radiated power(ERP) thresholds are in Table B.1 [Table 1 of § 1.1307(b)(1)(i)(C)] to support an exemption from further evaluation from 300 kHz through 100 GHz.

Table 1 to § 1.1307(b)(3)(i)(C) - Single RF Sources Subject to Routine Environmental Evaluation

RF Source frequency (MHz)	Threshold ERP (watts)
0.3-1.34	$1,920 R^2$
1.34-30	$3,450 R^2 / f^2$
30-300	$3.83 R^2$
300-1,500	$0.0128 R^2 f$
1,500-100,000	$19.2 R^2$

R is the minimum separation distance in meters
f = frequency in MHz

Result

Frequency (GHz)	★Tune up EIRP (dBm)	ERP		Evaluation Distance (m)	ERP Limit (W)
		(dBm)	(W)		
24.075-24.175	6	3.85	0.00243	0.2	0.768

1. Chose the maximum power to do RF exposure analysis.
2. This device maximum E-Field level is 100.19 dB μ V/m at 3m, so the EIRP power is 4.99 dBm.
3. EIRP (dBm)=Field Strength of Fundamental(dBuV/m)-95.2 (dB)
- 4 ERP (dBm)= EIRP (dBm) -2.15(dB)

Result: Compliant.

EUT PHOTOGRAPHS

Please refer to the attachment EXHIBIT A-EUT EXTERNAL PHOTOGRAPHS and EXHIBIT B-EUT INTERNAL PHOTOGRAPHS.

DRAFT

Declarations

1. The laboratory is not responsible for the authenticity of any information provided by the applicant. Information from the applicant that may affect test results is marked with “★”.
2. The test data was only valid for the test sample(s).
3. This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.
4. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.
5. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor $k=2$ with the 95.45% confidence interval.

DRAFT

*****END OF REPORT*****