

RF Exposure Evaluation Report

APPLICANT : AXEND,Inc.
EQUIPMENT : Area Security Radar
MODEL NAME : RA500, RA200, RP500, RS04H, RS16H,
TXPR500-W, TXPR200-W, TXPR400-X,
TXPR500-P, TXPR500-X, AXDUD05H
FCC ID : 2A5R6RA500
STANDARD : 47 CFR Part 2.1091
FCC KDB 447498 D01 v06

The product evaluation date was started from Aug. 07, 2026 and completed on Aug. 07, 2026. We, Sporton International Inc. (Kunshan), would like to declare that the device has been evaluated in accordance with 47 CFR Part 2.1091 and FCC KDB 447498 D01 v06, and pass the limit. Without written approval of Sporton International Inc. (Kunshan), the test report shall not be reproduced except in full.



Approved by: Si Zhang

Sporton International Inc. (Kunshan)

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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA641512	Rev. 01	Initial issue of report.	Aug. 11, 2026



1. Administration Data

1.1. Testing Laboratory

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Testing Laboratory			
Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	SAR01-KS	CN1257	314309

Applicant	
Company Name	AXEND,Inc.
Address	2637 Manhattan Beach Blvd, Redondo Beach,CA 90278,USA

Manufacturer	
Company Name	AXEND,Inc.
Address	2637 Manhattan Beach Blvd, Redondo Beach,CA 90278,USA



2. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	Area Security Radar
Model Name	RA500, RA200, RP500, RS04H, RS16H, TXPR500-W, TXPR200-W, TXPR400-X, TXPR500-P, TXPR500-X, AXDUD05H
FCC ID	2A5R6RA500
Wireless Technology and Frequency Range	Radar: 24.05 GHz ~ 24.25 GHz
Mode	FMCW
Antenna Type	Radar: PCB Antenna

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. The different model names are intended for different sales territories, and these differences do not affect the MPE analysis results.

Comments and Explanations:

1. The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.
2. The maximum RF output tune up power, antenna gain also the safe distance used for evaluate RF exposure were declared by manufacturer.

3. RF Exposure Limit Introduction

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f ²)	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:

S = Power Density

P = Output Power at Antenna Terminals

G = Gain of Transmit Antenna (linear gain)

R = Distance from Transmitting Antenna



4. Radio Frequency Radiation Exposure Evaluation

4.1. Standalone Power Density Calculation

Band	Frequency (MHz)	Maximum EIRP (dBm)	Maximum EIRP (W)	Average EIRP (mW)	Power Density at 20cm (mW/cm ²)	Limit (mW/cm ²)
Radar	24050	-25.010	0.000003	0.003	0.000001	1.000

Note:

1. For conservativeness, the lowest frequency of each band is used to determine the MPE limit of that band.
2. The maximum EIRP power of 24G Radar is calculated from the 24G Radar E-Field level in the RF test report (Sporton Report No: FR641801).
 - 1) This device maximum E-Field level is 70.22dBuV/m at 3m, so the EIRP power is -25.01dBm(0.003mW).
 - 2) Pout EIRP (dBm) = Field Strength of Fundamental (dBuV/m) - 95.23 (dB)

Conclusion:

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.

-----THE END-----