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1.0 Maximum Permissible Exposure Evaluation (Supplements the test report.)

The measured power is considered for the intended use of the device and resulting RF exposure to the user.

1.2 Criteria

Section Reference	Date
447498 D01 General RF Exposure Guidance v06 // RSS-102 Issue 5	15 Jun 2021

1.3 Procedure

Using measurement of peak power and considering the intended application, determine the permissible exposure level, applicability of exclusion, or whether additional exposure tests (SAR) are indicated. When applicable justify conclusion for selected exposure level and separation distance.

1.4 Power to Exposure Calculation

For 372 MHz radio power is determined by radiated field measurement. SAR exemption method was applied for 5 mm spacing. Direct contact with antenna is prevented by the plastic enclosure that measures 15 mm thick. As such, the spacing to the user will be greater than 5 mm. Since actual use is to raise or lower watercraft/boat, the exposure is a conservative calculation with no duty cycle considered.

Table 1.4.1 Power Calculation for Exposure, (Highest frequency 0.372 GHz)

Measured EIRP Radiated Power mW	Restated as EIRP dBm	Source Duty Cycle Factor dB	Antenna Gain dBi	Calculated Average EIRP dBm	EIRP In Linear Terms mW
0.014	-18.5	0	0.0*	-18.5	0.014

*Effect of antenna gain included in the field strength measurement.

1.5 SAR Exemption Calculation – FCC

Applicable requirement: KDB 447498 Clause 4.3.1 Section 1

Calculation (max power including tune up tolerance = 0.014 mW):

$$[(0.014\ \text{mW})/(5\ \text{mm})] \cdot [\sqrt{0.372}\ (\text{GHz})] = 0.002$$

$$0.002 \leq 3.0$$

Therefore, the device meets the applicable FCC SAR exemption requirements.

Signed:

Eric Lifsey

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