

RF exposure analysis for the equipment Polar 6B (FCC ID: INW6B; IC: 6248A-6B)

The output power of the device is low (3.5 mW) and below the 10-g Extremity SAR Test Exclusion threshold 25 mW for 2.45 GHz frequency band as detailed in Appendix A of KDB 447498 D01 General RF Exposure Guidance v06. According to the formula 4.3.1 a) :

$$\left[\frac{3.5 \text{ mW}}{5 \text{ mm}} \right] * [\sqrt{2.440 \text{ GHz}}] = 1.09 \leq 7.5$$

The output power of the device (3.5mW) is also below 7.5 mW output power limit for 2.45 GHz frequency band set in section 6.3 of RSS-102, issue 6 (December 15, 2023) in the Table 11: SAR evaluation – Exemption limits for routine evaluation based on frequency and separation distance, separate distance of ≤ 5 mm on 2.45 GHz frequency.

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

RSS-102, issue 6 clause 7.1.8. SAR estimation for exempted transmitters, calculation:

$$SAR_{estimated} = \frac{P_{max}}{P_{max, exemption}} \times 0.25 \times SAR_{limit} \text{ W/kg}$$

$$SAR_{estimated} = \frac{3.5 \text{ mW}}{7.5 \text{ mW}} \times 0.25 \times 4 \text{ W/kg}$$

$$SAR_{estimated} = 0.47 \text{ W/kg}$$

For that reason the equipment is categorically excluded from routine environmental evaluation for RF exposure and it is deemed to comply with FCC and ISED limits for exposure to electromagnetic fields.

Signed on behalf of Polar Electro Oy in Kempele on September 16th, 2024.



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