Calculation: RF-Exposure for 2.4 GHz WLAN transmitter

Type identification: ODIN-W161

In accordance to the **CFR Part 47, §1.1310**

S: Limit for power density according to CFR Part 47, §1.1310:

        10 W/m^2

P: 178 mW (averaged over 30 min)

G: 1 dBi = 1.26

D: Duty cycle: 100 % = 1

R: Distance in what the limit of S has to be reached: 0.2 m

$$S = \frac{P \cdot G \cdot D}{4 \cdot \pi \cdot R^2} \quad \Rightarrow \quad \underline{\underline{S}} = \frac{0.178W \cdot 1.26 \cdot 1}{4 \cdot \pi \cdot (0.2m)^2} \quad = \quad \underline{\underline{0.45 \frac{W}{m^2}}}$$

The value for the "General population / Uncontrolled Exposure" of the power density is below the limit of CFR Part 47, §1.1310.