Calculation: RF-Exposure for 5 GHz transmitter

Type identification: ODIN-W160

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: 151.4 mW (averaged over 30 min)

G: 3 dBi = 2

D: Duty cycle: 100 % = 1

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

$$S = \frac{P \cdot G \cdot D}{4 \cdot \pi \cdot R^2} \Rightarrow \underline{\underline{S}} = \frac{0.1514W \cdot 2 \cdot 1}{4 \cdot \pi \cdot (0.2\,m)^2} = \underline{\underline{0.6 \frac{W}{m^2}}}$$

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