Calculation: RF-Exposure for 5 GHz transmitter

Type identification: EWLAN2

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: 12.6 mW (averaged over 30 min)

G: 21 dBi = 125.9

D: Duty cycle: 100 % = 1

R: Distance in what the limit of S has to be reached: 0.5 m

$$S = \frac{P \cdot G \cdot D}{4 \cdot \pi \cdot R^2} \quad \Rightarrow \quad \underline{S} = \frac{0.0126W \cdot 125.9 \cdot 1}{4 \cdot \pi \cdot (0.5m)^2} \quad = \quad \underline{\underline{0.51 \frac{W}{m^2}}}$$

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