Calculation: RF-Exposure

Type identification: **SePem01 Logger**

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

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

f(MHz)/1500 (mW/cm^2) = 461/1500 (mW/cm^2) = 0.307 mW/cm^2 = 3.074 W/m^2

P: Maximum conducted rf-power: *
G: Antenna gain: *

* Because no antenna gain is available from the antenna manufacturer as P * G the radiated output power was taken for the calculation instead.

D: Duty cycle: 10 % = 0.1
R: Distance in what the limit of S has to be reached: 0.02 m

$$S = \frac{P \cdot G \cdot D}{4 \cdot \pi \cdot R^2} \Rightarrow \underline{\underline{S}} = \frac{0.0331W \cdot 0.1}{4 \cdot \pi \cdot (0.02m)^2} = \underline{\underline{0.658 \frac{W}{m^2}}}$$

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