

Calculation: RF-Exposure

Type identification: **77V13CRN**

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

- S: Limit for power density according to
- CFR Part 47, §1.1310: 10 W/m²
- P: 0.112 W (20.5 dBm, rms value, refer clause 5.4 of test report F201003E1)
- G: 0 dBi = 1 (Power is measured as radiated power)
- D: Duty cycle: 100 % = 1
- R: Distance in what the limit of S has to be reached: 0.2 m (refer also to the manufacturers installation / user manual)

$$S = \frac{P \cdot G \cdot D}{4 \cdot \pi \cdot R^2} \Rightarrow \underline{S} = \frac{0.112W \cdot 1 \cdot 1}{4 \cdot \pi \cdot (0.2m)^2} = \underline{\underline{0.22 \frac{W}{m^2}}}$$

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

Base of the above calculations is the highest peak power measured under extreme operating conditions of the EUT.