Calculation: RF-Exposure

Type identification: **CRAT81**

In accordance to the **CFR Part 47, §1.13101310** and **RSS-102 Issue 5**

S: Limit for power density according to
       - CFR Part 47, §1.1310:   10.0 W/m^2
       - RSS-102 Issue 5, Table 4: 10.0 W/m^2

P: 0.0209 W * (e.i.r.p.)

*:   This value is calculated in accordance to ANSI C63.10: 2013 Annex G from
       the radiated field strength value of 78.4 dBμV/m as documented in test report
       F152175E1

G: Not applicable (power is e.i.r.p.)

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)

$$S = \frac{P \cdot D}{4 \cdot \pi \cdot R^2} \quad \Rightarrow \quad \underset{=}{S} = \frac{0.0209 \ W \cdot 1}{4 \cdot \pi \cdot (0.2m)^2} \ = \ \underline{\underline{0.4158 \frac{W}{m^2}}}$$

The value of the power density is below the limit of CFR Part 47, §1.1310 for the
"General population / Uncontrolled Exposure" and below the limit of
RSS-102 Issue 5, Table 4 "General Public (uncontrolled environment)".