Calculation: RF-Exposure for 915 MHz transmitter

Type identification: **RFU610-10601**

In accordance to the **CFR Part 47, §1.1310** and **RSS-102 Issue 5**

S: Limit for power density according to
- CFR Part 47, §1.1310: 6.02 W/m^2
- RSS-102 Issue 5, Table 4: 2.74 W/m^2

P: 295 mW (peak value, refer clause 5.5 of test report F181673E3)

G: -4.5 dBi = 0.35

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)

$$S = \frac{P * G * D}{4 * \pi * R^2} \rightarrow S = \frac{0.295\,mW * 0.35 * 1}{4 * \pi * (0.2\,m)^2} = 0.21 \frac{W}{m^2}$$

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)".
Base of the above calculations is the lowest possible frequency in combination with the highest output power of the EUT.