Calculation: RF-Exposure for SePem 155 transmitter

FCC ID: WSP-SF02A0205

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

Basis for the following assessment is the maximum conducted output power of 21 mW from the test report no. F161191E1 from PHOENIX TESTLAB GmbH.

S: Limit for power density according to
- CFR Part 47, §1.1310: 3.07 W/m^2

P: 0.021 W

G: 1.8 dBi = 1.51

D: Duty cycle: 10 % = 0.1

R: Distance in what the limit of S has to be reached: 0.2 m

$$S = \frac{P \cdot G \cdot D}{4 \cdot \pi \cdot R^2} = \frac{0.021W \cdot 1.51 \cdot 0.1}{4 \cdot \pi \cdot (0.2m)^2} = 0.0063W / m^2$$

As the calculation above has shown the value of the power density is below the limit of CFR Part 47, §1.1310 for the “General population / Uncontrolled Exposure”.
The above calculations are based on the lowest possible frequency in combination with the highest output power of the EUT and no cable loss.