Calculation: RF-Exposure for a 2.4 GHz Transmitter

FCC ID: **XUS-SKYDL2**
Type of Device: **TrackSense Pro SKY**

In accordance with **CFR47, §1.1310 Radiofrequency radiation exposure limits and**
☒ 447498 D01 General RF Exposure Guidance v06
☐ 447498 D04 Interim General RF Exposure Guidance v01

S: Limit for power density according to Table 1 to § 1.1310(e)(1)
☐ (i) Occupational / Controlled Exposure
☒ (ii) General Population / Uncontrolled Exposure
(1.500~100.000 MHz - Limit **1,0 mW/cm²**)

P: **2,75 mW** (max conducted output power leading to highest radiated power)

G: **7,08** (numeric gain based on measured antenna gain 8,5 dBi)

D: Duty cycle: **1** (100%)

R: Distance in what the limit of S must be reached: **20 cm**
(refer also to the manufacturers installation / user manual)

$$S = \frac{P \cdot G \cdot D}{4 \cdot \pi \cdot R^2} \Rightarrow \underline{S} = \frac{2{,}75\ mW \cdot 7{,}08 \cdot 1}{4 \cdot \pi \cdot (20cm)^2} = \underline{\mathbf{0,00387}\ \frac{\boldsymbol{mW}}{\boldsymbol{cm^2}}}$$

Conclusion: The value of the calculated power density at the recommended minimum separation distance of 20cm is well below the applicable limit. Furthermore the conducted output power meets the SAR exemption Limit of KDB 447498v06 for 2450 MHz and test separation up to 5 mm.