



Certification Exhibit

FCC ID: 2AVE9-TILE01

FCC Rule Part: 47 CFR Part 2.1091

Project Number: 72154447

Manufacturer: Swarm Technologies, Inc.

Product: Tile

Model: TILE01

RF Exposure

General Information:

Applicant: Swarm Technologies, Inc.
 Device Category: Mobile
 Environment: General Population/Uncontrolled Exposure

Technical Information:

Antenna Type: ¼ Wave Whip (PulseLarsen, P/N: NMOQ), ½ Wave Whip (PulseLarsen, P/N: WB VHF)
 Antenna Gain: 2 dBi (PulseLarsen, P/N: NMOQ), 2 dBi (PulseLarsen, P/N: WB VHF)
 Maximum Transmitter Conducted Power: 29.34 dBm, 859.01mW
 Maximum System EIRP: 31.34 dBm, 1361.44 mW
 Exposure Conditions: Greater than 29 centimeters

MPE Calculation

The Power Density (mW/cm²) is calculated as follows:

$$S = \frac{PG}{4\pi R^2}$$

Where:

- S = power density (in appropriate units, e.g. mW/cm²)
- P = power input to the antenna (in appropriate units, e.g., mW)
- G = power gain of the antenna in the direction of interest relative to an isotropic radiator
- R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

Table 1: MPE Calculation

Transmit Frequency (MHz)	Radio Power (dBm)	Power Density Limit (mW/cm ²)	Radio Power (mW)	Antenna Gain (dBi)	Antenna Gain (mW eq.)	Distance (cm)	Power Density (mW/cm ²)
148.0039	29.34	0.20	859.01	2	1.585	29	0.129