

Re: FCC ID DGF-OPTICOMGPS
Applicant: 3M Safety & Security Systems
Division
Correspondence Reference Number: 23453
731 Confirmation Number: EA237644

Please provide an RF Exposure statement as required by FCC Rules Part 15.247(b)(4). This may be based on an MPE calculation since the device is for mobile use.

The radio system is a TDMA system that operates 3 times per second, in 3 millisecond transmissions; this is the maximum duty cycle when the mobile is requesting priority. No transmissions occur when the mobile is not requesting priority.

Frequency range of operation is 2.400 – 2.483 GHz

System antenna is a dipole, gain = 2.2 db maximum (antenna is internal to the unit/radome)

Maximum Transmitter power output = 30 dbm Typical Po = 29 dbm maximum

Maximum EIRP = 32.2 dbm (1.66W) Typical EIRP = 31 dbm (1.26W)

Maximum Duty Factor = .009 (3 transmissions / sec with a duration of 3 mSec in this TDMA system)

Maximum Average Power = (Maximum EIRP) X (Maximum Duty Factor) = 14.94 mW

From 1.1310 Table 1 (B) MPE = $1\text{mW}/\text{cm}^2$

Using Maximum Average Power, the radius from the antenna where the limit MPE = $1\text{mW}/\text{cm}^2$ is reached is **1.09 cm**. This distance is inside the units' radome.

If you have any further questions you can contact below:

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