

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:

Ed Ring  
651-733-8587  
[ejringl@mmm.com](mailto:ejringl@mmm.com)