Trimble Navigation Ltd. FCC ID: JUP-8311891

4 FCC §2.1091 & §15.247 (i) – RF Exposure

4.1 Applicable Standard

According to FCC §15.247(i) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for General Population/Uncontrolled Exposure

| Frequency Range (MHz) | Electric Field Strength (V/m) | Magnetic Field Strength (A/m) | Power Density (mW/cm ²) | Averaging Time (minutes) |
|---|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|
| Limits for General Population/Uncontrolled Exposure | | | | |
| 0.3-1.34 | 614 | 1.63 | * (100) | 30 |
| 1.34-30 | 824/f | 2.19/f | $*(180/f^2)$ | 30 |
| 30-300 | 27.5 | 0.073 | 0.2 | 30 |
| 300-1500 | / | / | f/1500 | 30 |
| 1500-100,000 | / | / | 1.0 | 30 |

f = frequency in MHz

4.2 MPE Prediction

Predication of MPE limit at a given distance, Equation from OET Bulletin 65, Edition 97-01

$$S = PG/4\pi R^2$$

Where: S = power density

P = power input to antenna

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

4.3 MPE Results

Maximum peak output power at antenna input terminal (dBm): 28.62

Maximum peak output power at antenna input terminal (mW): 727.78

Prediction distance (cm): 20

Prediction frequency (MHz): 902.6

Maximum Antenna Gain, typical (dBi): 5

Maximum Antenna Gain (numeric): 3.162

Power density of prediction frequency at 20.0 cm (mW/cm²): 0.4579

MPE limit for uncontrolled exposure at prediction frequency (mW/cm²): 0.6017

^{* =} Plane-wave equivalent power density