

Federal Communication Commission Authorization and Evaluation Division 7435 Oakland Mills Road Columbia, MD 21046

## Attention: Reviewing Engineer

The Trimble Navigation Trimtrac 1.5 is a GPS/GSM Locator.

Due to the construction and the position of the antenna a distance under normal operating conditions of more than 25 cm is guaranteed.

The user manual information includes the following: The TrimTrac 1.5 is not intended for handheld use or to be worn on the body. A minimum separation of ten (10") inches (25 cm) be maintained between the TrimTrac 1.5 and any persons' body.

The maximum output power of the Burst is 4270W (36.30 dBm) EIRP.

Regarding MPE limits, GPUC environment limits maximum exposure to

## LIMIT < 1 mW/cm<sup>2</sup> for 1900MHz and f/1500 for 850MHz = $0.57 \text{ mW/cm}^2$

The power density is:

$$S = E^2/3770 = -13 H^2 < limit$$

Where: S = Power density [mW/cm<sup>2</sup>]E = electrical field strength [V/m]

This formula converted using the EIRP is

 $P_{out}*G/4\pi*r^2 = mW/cm^2$ 

Where: EIRP  $[W] = P_{out} * G$ 

For 25cm Distance :

 $4270/(4\pi * 25 * 25) = 0.54 \text{ mW/cm}^2$ 

Calculations are based on standard formula for calculating field strength at a distance and converting power density using free space impedance.

If you should have any questions regarding this submission, please feel free to contact the undersigned.

Yours truly,

Midael Jp

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