RF Exposure / MPE Calculation / Statement of Compliance

Applicant : Trimble Europe BV
Type of Equipment : Embedded Wireless Module
Model No. : **SX-SDMAC-2832S**
FCC ID: **NZI-PMACS**
IC ID:

Trimble Europe BV declares that Model: **SX-SDMAC-2832S** complies with FCC radiation exposure requirement specified in the FCC Rule 2.1091 (for mobile), as well as ISED requirements in RSS-102 Section 2.5.2

RF Exposure Calculation (FCC):

The following information provides the minimum separation distance for the highest gain antenna provided with the **SX-SDMAC-2832S** as calculated from (B) Limits for General Population / Uncontrolled Exposure of TABLE 1- LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE) of §1.1310 Radiofrequency radiation exposure limits.

This calculation is based on the highest EIRP possible from the system, considering maximum power and antenna gain, and considering a 1mW/cm^2 uncontrolled exposure limit.
Friis formula:

$$S = \frac{P \times G}{4 \times \pi \times r^2}$$

Where
P = 63.096 mW (Maximum average output power)

Burst power average was used for the above value in consideration of worst condition.

G = -2.0 dBi (@2,45 GHz 900 MHz)
r = 20 cm (Separation distance)

Power Density Result S = 0,0079 **mW/cm2**
Even taking into account the tolerance, this device can be satisfied with the limits.

RF Exposure Calculation (ISED):

At or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 1.31 x 10-2 f^0.6834 W (adjusted for tune-up tolerance), where f is in MHz