

## RF Exposure Compliance for Simultaneous Operations

### Configurations for Simultaneous Operations

Configuration 1: GW950MHz + LTE B12 + Bluetooth

Configuration 2: GW950MHz + LTEB2 + Bluetooth

Power Density is calculated from Maximum Conducted Power and Antenna Gain at prediction distance

| RF Function                                  | ITS950 GW | LTE B12 | LTE B2 | BT     | $\Sigma$ of MPE ratios |
|----------------------------------------------|-----------|---------|--------|--------|------------------------|
| Frequency (MHz)                              | 902       | 699.7   | 1909.3 | 2402   |                        |
| Conducted Output Power (dBm)                 | 9.59      | 25.00   | 25.00  | 0.00   |                        |
| Tune Up Tolerance (dB)                       | 0.00      | 0.00    | 0.00   | 0.00   |                        |
| Output Power incl. Tune Up Tolerance (W)     | 0.009     | 0.316   | 0.316  | 0.001  |                        |
| Antenna Gain (dBi)                           | 15.00     | 3.00    | 3.00   | 0.00   |                        |
| Antenna Gain (Numeric)                       | 31.62     | 2.00    | 2.00   | 1.00   |                        |
| Prediction Distance (cm)                     | 20        | 20      | 20     | 20     |                        |
| Time Averaged Duty Cycle (%)                 | 100       | 100     | 100    | 100    |                        |
| Calculated Power Density (W/m <sup>2</sup> ) | 0.572     | 1.255   | 1.255  | 0.002  |                        |
| Requirement (W/m <sup>2</sup> )              | 6.013     | 4.665   | 10.000 | 10.000 |                        |
| MPE ratio (Power Density/Requirement)        | 0.095     | 0.269   | 0.126  | 0.000  |                        |
| Configuration 1 (MPE Ratio)                  | 0.095     | 0.269   |        | 0.000  | <b>0.364</b>           |
| Configuration 2 (MPE Ratio)                  | 0.095     |         | 0.126  | 0.000  | <b>0.221</b>           |

**Requirement:  $\Sigma$  of MPE ratios  $\leq 1$**

Power values for GSM and UMTS are from Exposure Report for UBLOX Module (FCC ID: XPY2AGQN4NNN)

Gain values for cellular antenna is from Data Sheet for Taoglas FXUB63.07.0150C antenna