

| Model: GMN-02303 | | Test Number: 191028 | |
|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|------------------------------------------|
| MPE Calculator | RF Exposure uses EIRP for calculation. EIRP is based on TX power added to the antenna gain in dBi. dBi = dB gain compared to an isotropic radiator. S = power density in mW/cm ² | | |
| | Transmitter Output power (dBm) | 14.61 | |
| | Transmitter Output power (mW) | 28.91 | |
| Output Power for % duty Cycle operation (Watts) | 100 | 0.0289 | Antenna Gain (dBi) 2.2 |
| Output Power for 100% duty Cycle operation (Watts) | | 0.029 | Antenna Gain (Numeric) 1.66 |
| Tx Frequency (MHz) | 2437 | Calculation power (Watts) | 0.029 |
| | | | dBd + 2.17 = dBi |
| | | | dBi to dBd 2.2 |
| Cable Loss (dB) | 0.0 | Adjusted Power (dBm) | 14.61 |
| | | | Antenna Gain (dBd) 0.03 |
| | | | Antenna minus cable (dBi) 2.20 |
| | | | Antenna Gain (Numeric) 1.66 |
| | Calculated ERP (mw) 29.107 | | EIRP = Po(dBm) + Gain (dB) |
| | Calculated EIRP (mw) 47.973 | | Radiated (EIRP) dBm 16.810 |
| | | | ERP = EIRP - 2.17 dB |
| | | | Radiated (ERP) dBm 14.640 |
| | <div style="border: 1px solid black; padding: 5px; width: fit-content;"> $\text{Power density (S) mW/cm}^2 = \frac{\text{EIRP}}{4 \pi r^2}$ <p>r (cm) EIRP (mW)</p> </div> | | |
| | Occupational Limit | FCC radio frequency radiation exposure limits per 1.1310 | |
| 5 | mW/cm ² | Frequency (MHz) | Occupational Limit (mW/cm ²) |
| 50 | W/m ² | 30-300 | 1 |
| | General Public Limit | 300-1,500 | 1/300 |
| 1 | mW/cm ² | 1,500-10,000 | 5 |
| 10 | W/m ² | | 1 |
| | Occupational Limit | IC radio frequency radiation exposure limits per RSS-102 | |
| 0.6455 f ^{0.5} | W/m ² | Frequency (MHz) | Occupational Limit (W/m ²) |
| 39.7 | W/m ² | 100-6,000 | 0.6455 f ^{0.5} |
| | General Public Limit | 6,000-15,000 | 50 |
| 0.02619 f ^{0.6834} | W/m ² | 48-300 | 1.291 |
| 5.4 | W/m ² | 300-6,000 | 0.02619 f ^{0.6834} |
| | | 6,000-15,000 | 10 |
| f = Transmit Frequency (MHz) | | f (MHz) = | 2437 MHz |
| P _T = Power Input to Antenna (mW) | | P _T (mW) = | 28.9068 mW |
| Duty cycle (percentage of operation) | | % = | 100 % |
| P _A = Adjusted Power due to Duty cycle or Cable Loss (mW) | | P _A (mW) = | 28.91 mW |
| G _N = Numeric Gain of the Antenna | | G _N (numeric) = | 1.66 numeric |
| S ₂₀ = Power Density of device at 20cm (mW/m ²) | | S ₂₀ (mW/m ²) = | 0.01 mW/m ² |
| S ₂₀ = Power Density of device at 20cm (W/m ²) | | S ₂₀ (W/m ²) = | 0.10 W/m ² |
| S _L = Power Density Limit (W/m ²) | | S _L (W/m ²) = | 5.404 W/m ² |
| R _C = Minimum distance to the Radiating Element for Compliance (cm) | | R _C (cm) = | 2.7 cm |
| S _C = Power Density of the device at the Compliance Distance R _C (W/m ²) | | S _C (W/m ²) = | 5.40 W/m ² |
| R ₂₀ = 20cm | | R ₂₀ = | 20 cm |
| | For Compliance with Canada General Population Limits, User Manual must indicate a minimum separation distance of | | 2.7 cm |
| | Or in Meters for Compliance with Canada General Population Limits, a minimum separation distance of | | 0.03 Meters |

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Revision 1

Garmin International, Inc.
Model: GMN-02303
Test: 191028
Test to: CFR47 15C, RSS-210, RSS-247
File: GMN02303 MPE Exclusion

SN's: FF3, F17
FCC ID: IPH-03880
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