



Date of Report: 1/31/08

Maximum Permissible Exposure Statement

Calculations prepared for:

Wilson Electronics

Calculations prepared by:

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Model Number: 271240

Fundamental Operating Frequency: Uplink – 824 to 849 MHz
Downlink – 869 to 894 MHz

Maximum Rated Output Power: Uplink 200mW
Downlink 10 mW

Measured Output Power: Uplink 22.2 dBm (5V input)
Uplink 25.3 dBm (8V input)
Downlink 12.9 dBm

Maximum Antenna Gain: Uplink (vehicle mounted) +5.12 dBi
Downlink (internal) – 2.86

Power Output and Operating Frequency Information used for these calculations were from:
CKC Laboratories, Test Report # FC08-011

Device and Antenna Operating Configuration:

Device is configured with an integral antenna for interior use and has an antenna connector for an exterior mounted antenna. Antenna gains are listed for uplink for mobile applications only, fixed pole mounted exterior antennas are excluded from this report.

Test Procedure:

This equipment is evaluated in accordance with the guidelines set forth in OET Guide 65.

Other Considerations:

None.

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MPE Calculations:

MPE Limit in accordance with 1.1310:

- Occupational / Controlled Exposure
- X General Population / Uncontrolled Exposure

$$\begin{aligned} \text{MPE Limit} &= f / 1500 \text{ (mW/cm}^2\text{)} \\ \text{Uplink Limit} &= 0.55 \text{ (mW/cm}^2\text{)} \\ \text{Downlink Limit} &= 0.59 \text{ (mW/cm}^2\text{)} \end{aligned}$$

Note: Limit is calculated based on the midband frequency used in the operating frequency range.

$$\text{PowerDensity(mW / cm}^2\text{)} = \frac{\text{EIRP}}{4\pi d^2} \quad \text{Given: EIRP in mW and d in cm}$$

EIRP (mW)	Distance (cm)	Power Density (mW/cm ²)	Result
537.03	8.81	0.55	Pass
1096.48	12.60	0.55	Pass
10.00	1.16	0.59	Pass

First entry indicates uplink exterior antenna with 5 VDC input, second entry indicates uplink exterior antenna with 8VDC input and third indicates downlink interior antenna.

Statement of Compliance:

This device demonstrates compliance under the operating conditions specified in this document. Under normal operating conditions, the antenna is designed to be installed in accordance with the manufacturer’s instructions in such a manor to maintain the minimum separation distance. The MPE calculations shown above demonstrate compliance to the provisions of 1.1310 in accordance with the guidelines of OET 65.

As can be seen from the MPE results, this device satisfies the limits specified in 1.1310 under normal operating conditions.