



Excellence in Compliance Testing

Certification Exhibit

**FCC ID: SDBIDTB002
IC: 2220A-IDTB002**

**FCC Rule Part: CFR 47 Part 24 Subpart D, Part 90 Subpart I, Part 101
Subpart C
IC Radio Standards Specification: RSS 119, RSS 134**

ACS Report Number: 09-0322-LD

**Applicant: Sensus Metering Systems
Model: IDTB002**

RF Exposure

General Information:

Applicant: Sensus Metering Systems, Inc.
 ACS Project: 09-0322-LD
 FCC ID: SDBIDTB002
 Device Category: Mobile
 Environment: Uncontrolled/General Population

Technical Information:

Antenna Type: PCB Printed Monopole
 Antenna Gain: 0dBi
 Maximum Transmitter Conducted Power: 30.78dBm
 Maximum System EIRP: 30.78dBm, 1.197 W
 Exposure Conditions: Greater than 20 centimeters

MPE Calculation

The Power Density (mW/cm^2) is calculated as follows:

$$S = \frac{PG}{4\pi R^2}$$

Where:

S = power density (in appropriate units, e.g. mW/cm^2)

P = power input to the antenna (in appropriate units, e.g., mW)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

MPE Calculator for Mobile Equipment							
Limits for General Population/Uncontrolled Exposure							
Transmit Frequency (MHz)	Radio Power (dBm)	Power Density Limit (mW/Cm^2)	Radio Power (mW)	Antenna Gain (dBi)	Antenna Gain (mW eq.)	Distance (cm)	Power Density (mW/cm^2)
896.01875	30.1	0.60	1023.29	0	1.000	20	0.204
928.925	30.44	0.62	1106.62	0	1.000	20	0.220
959.925	30.78	0.64	1196.74	0	1.000	20	0.238

Installation Guidelines

The installation manual should contain text similar to the following advising how to install the equipment to maintain compliance with the FCC RF exposure requirements:

RF Exposure

In accordance with FCC requirements of human exposure to radio frequency fields, the radiating element shall be installed such that a minimum separation distance of 20 centimeters will be maintained.

Conclusion

This device complies with the MPE requirements by providing adequate separation between the device, any radiating structure and the general population.