



Excellence in Compliance Testing

Certification Exhibit

**FCC ID: SDBM400BV02
IC: 2220A-M400BV02**

**FCC Rule Part: CFR 47 Part 101 Subpart C
IC Radio Standards Specification: RSS 119**

ACS Project Number: 13-2039

**Manufacturer: Sensus Metering Systems, Inc.
Model: M400B-02**

RF Exposure

General Information:

Applicant: Sensus Metering Systems, Inc.
 ACS Project: 13-2039
 Device Category: Fixed
 Environment: General Population/Uncontrolled Exposure

Technical Information:

Antenna Type: Dipole
 Antenna Gain: 12.15 dBi
 Maximum Transmitter Conducted Power: 38.25 dBm, 6683.439 mW
 Maximum System EIRP: 50.4 dBm, 109647.8 mW
 Exposure Conditions: Greater than 120 centimeters

MPE Calculation

The Power Density (mW/cm²) is calculated as follows:

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

Where:

- S = power density (in appropriate units, e.g. mW/cm²)
- 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)
941.125	38.25	0.63	6683.44	12.15	16.406	120	0.606

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 120 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.