



Excellence in Compliance Testing

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## **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/cm<sup>2</sup>) is calculated as follows:

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

Where:

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

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 <sup>2</sup> )	Radio Power (mW)	Antenna Gain (dBi)	Antenna Gain (mW eq.)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )
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.