

Certification Exhibit

FCC ID: SDBM400G2900

FCC Rule Part: 47 CFR Part 2.1091

ACS Project Number: 16-3040

Manufacturer: Sensus Metering Systems Inc.
Model: M400G2900

RF Exposure

General Information:

Applicant: Sensus Metering Systems, Inc.
 Device Category: Fixed
 Environment: General Population/Uncontrolled Exposure

Technical Information:

Antenna Type: Omni-Directional
 Antenna Gain: 12.15 dBi
 Maximum Transmitter Conducted Power: 46.06 dBm, 40.4 W
 Maximum System EIRP: 58.21 dBm, 662.2W
 Exposure Conditions: Greater than 3 meters

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)
901	46.06	0.60	40364.54	12.15	16.406	300	0.586

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 300 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.