



Excellence in Compliance Testing

---

## **Certification Exhibit**

**FCC ID: SDBSGW100**

**FCC Rule Part: 47 CFR Part 2.1091**

**ACS Project Number: 15-3018**

Manufacturer: Sensus Metering Systems, Inc.  
Model: SGW100

## **RF Exposure**

**General Information:**

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

**Technical Information:**

Antenna Type: Monopole  
 Antenna Gain: 2 dBi dBi  
 Maximum Transmitter Conducted Power: 29.51 dBm, 893.31 mW  
 Maximum System EIRP: 31.51 dBm, 1415.79 mW  
 Exposure Conditions: 20 centimeters or greater

**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)

**Table 1: MPE Calculation**

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> )
901	29.51	0.6	893.31	2	1.585	20	0.282

**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 greater than 20 centimeters be maintained.

**Conclusion**

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