

## **Transmitter Certification** **Test Report**

**FCC ID: SDBAMDS1000TR-1**

**FCC Rule Part: Part 24D, 90, and 101**

**ACS Report Number: 05-0052-LD**

Manufacturer: AMDS  
Equipment Type: Electricity Meter Transmitter  
Model: AMDS-1000TR-1

## **RF Exposure**

**General Information:**

Applicant: ADVANCED METERING DATA SYSTEMS, LLC  
 ACS Project: 05-0052  
 FCC ID: SDBAMDS1000TR-1  
 Device Category: Mobile  
 Environment: Uncontrolled/General Population

**Technical Information:**

Antenna Type: PCB  
 Antenna Gain: 0dBi  
 Max Transmitter Output Power: 30.00  
 Max System EIRP: 30.00  
 Operating Configuration: Fixed Mounted to a Wall  
 Exposure Conditions: Greater than 20cm

**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)

Calculations were performed at low and high channels within the band of operation. The low channel coincided with the maximum transmitter output power of 1W.

MPE Calculator for Mobile Equipment Limits for General Population/Uncontrolled Exposure*							
Transmit Freq. (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> )
896.05	30.00	0.60	1000.00	0	1	20	0.199
941.23125	29.03	0.63	799.83	0	1	20	0.159

**Installation Guidelines**

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

“RF Exposure (Intentional Radiators Only)

In accordance with FCC requirements of human exposure to radiofrequency fields, the radiating element shall be installed such that a minimum separation distance of (20cm).”

**Conclusion**

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