



Excellence in Compliance Testing

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## **Certification Exhibit**

**Composite Device:  
Frequency Hopping Spread Spectrum Transmitter  
Digital Transmission System Transmitter**

**FCC ID: SK9AMI-1A  
IC: 864G-AMI1A**

**FCC Rule Part: 15.247  
IC Radio Standards Specification: RSS-210**

**ACS Report Number(s): 07-0272-900-DSS, 07-0272-2400-DTS**

**Manufacturer: Itron Electricity Metering Inc.  
Model(s): CVSO-A, CVSOD-A**

## **RF Exposure**

**General Information:**

Applicant: Itron Electricity Metering Inc.  
 ACS Project: 07-0272  
 FCC ID: SK9AMI-1A  
 Device Category: Mobile  
 Environment: General Population/Uncontrolled Exposure  
 Exposure Conditions: Greater than 20 centimeters  
 Simultaneous Tx: No

**Technical Information:**

Radio	900 MHz LAN	2.4GHz Zigbee
Antenna Type	single-band patch	half wavelength slot
Antenna Gain	3dBi	1dBi
Conducted Power	21.92dBm	18.71dBm
Maximum EIRP	0.310W	0.094W
Maximum ERP	0.189W	0.057W

**Power Density**

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> )
902.25	21.92	0.60	155.60	3	1.995	20	0.062
2405	18.71	1.00	74.30	1	1.259	20	0.019

**Installation Guidelines:**

The installation manual shall contain text similar to the following 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 is maintained from the general population.”

**Conclusion:**

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