Excellence in Compliance Testing

Transceiver Certification Test Report

FCC ID: SDBAPXCVR01
IC: 2220A-APXCVR01

FCC Rule Part: CFR 47 Part 15.247, Part 24 Subpart D, Part 90 Subpart I, Part 101 Subpart C
IC Standards Specification: RSS-210, RSS-119, RSS-134

ACS Report Number: 07-0351

Manufacturer: Sensus Metering Systems
Model: APXCVR01

RF Exposure

General Information:

Applicant: Sensus Metering Systems
ACS Project: 07-0351
FCC ID: SDBAPXCVR01
Device Category: Mobile
Environment: General Population/Uncontrolled Exposure

Technical Information:

Antenna Type: Printed Monopole
Antenna Gain: 0dBi
Transmitter Conducted Power: 29.99dBm
Maximum System EIRP: 29.99dBm
Exposure Conditions: Greater than 20 centimeters

MPE Calculation

The Power Density (mW/cm^2) 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/Cm2)	Radio Power (mW)	Antenna Gain (dBi)	Antenna Gain (mW eq.)	Distance (cm)	Power Density (mW/cm^2)
896.0125	29.99	0.60	997.70	0	1.000	20	0.198

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 20 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.