Certification Exhibit

FCC ID: SDBM400G2900

FCC Rule Part: 47 CFR Part 2.1091

TÜV SÜD Project Number: 72159521

Manufacturer: Sensus USA, Inc.
Model: M400G2900

RF Exposure

General Information:

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

Technical Information:

Antenna Type: Panel Antenna
Antenna Gain: 20.1 dBi
Maximum Transmitter Conducted Power: 46.06 dBm, 40.36 W
Maximum System EIRP: 66.16 dBm, 4130.48 W
Exposure Conditions: Greater than 7.5 meters

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)

Table 1: MPE Calculation

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)
930.5	46.06	0.62	40364.54	20.1	102.329	750	0.584

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 750 centimeters will be maintained.

CFR 47 Part 101 limits the radiated power to 1000W in the 941.0MHz to 941.5MHz band. Use of a 20.15 dBi antenna may require the use of an inline RF attenuator. Professional installation required.

Conclusion

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