



Excellence in Compliance Testing

Certification Exhibit

FCC ID: QZC-RX2EA4FI

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

ACS Project Number: 14-0372

Manufacturer: Elster Solutions, LLC
Model: RX2EA4FI

RF Exposure

General Information:

Applicant: Elster Solutions, LLC
 Environment: General Population/Uncontrolled Exposure
 Exposure Conditions: Mobile

Technical Information:

Antenna Type: Inverted F-type Antenna
 Antenna Gain: 3.5 dBi
 Maximum Transmitter Conducted Power: 23.99 dBm, 250.61 mW
 Maximum System EIRP: 27.49 dBm, 561.05 mW

Technical Information:

Antenna Type: Dipole Antenna
 Antenna Gain: 5.15 dBi
 Maximum Transmitter Conducted Power: 23.99 dBm, 250.61 mW
 Maximum System EIRP: 29.14 dBm, 820.35 mW

Technical Information:

Antenna Type: Stubby Antenna
 Antenna Gain: 3 dBi
 Maximum Transmitter Conducted Power: 23.99 dBm, 250.61 mW
 Maximum System EIRP: 26.99 dBm, 500.03 mW

MPE Calculation

The Power Density (mW/cm²) 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/Cm ²)	Radio Power (mW)	Antenna Gain (dBi)	Antenna Gain (mW eq.)	Distance (cm)	Power Density (mW/cm ²)
916	23.99	0.61	250.61	3.5	2.239	20	0.112
916	23.99	0.61	250.61	5.15	3.273	20	0.163

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.