



Excellence in Compliance Testing

Certification Exhibit

FCC ID: QZC-ELIR1

FCC Rule Part: 47 CFR Part 2.1091

ACS Project Number: 16-3066

Manufacturer: Elster Solutions, LLC
Model: ELIR1

RF Exposure

General Information:

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

Technical Information:

Antenna Type: Intergral omini-directional Inverted-F
 Antenna Gain: 3.3 dBi
 Maximum Transmitter Conducted Power: 22.51 dBm, 178.24 mW
 Maximum System EIRP: 25.81 dBm, 381.07 mW
 Exposure Conditions: 20 centimeters or greater

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)

Table 1: MPE Calculation

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)
902.4	22.51	0.60	178.24	3.3	2.138	20	0.076