Excellence in Compliance Testing

Certification Exhibit

FCC ID: QZC-ILC24F
IC: 4557A-ILC24F

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

ACS Project Number: 15-0013

Manufacturer: Elster Solutions, LLC
Model: ILC24F

RF Exposure

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

Technical Information:
Antenna Type: Inverted F-type Antenna
Antenna Gain: 3.49dBi
Maximum Transmitter Conducted Power: 23.55 dBm, 226.46 mW
Maximum System EIRP: 27.04 dBm, 505.82 mW
Exposure Conditions: Greater than 20 centimeters

Technical Information:
Antenna Type: Monopole Antenna
Antenna Gain: 5.15dBi
Maximum Transmitter Conducted Power: 23.55 dBm, 226.46 mW
Maximum System EIRP: 28.7 dBm, 741.31 mW
Exposure Conditions: Greater than 20 centimeters

Technical Information:
Antenna Type: Stubby Antenna
Antenna Gain: 3dBi
Maximum Transmitter Conducted Power: 23.55 dBm, 226.46 mW
Maximum System EIRP: 26.55 dBm, 451.86 mW
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)**
902.4	23.55	0.60	226.46	5.15	3.273	20	0.147

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.