Certification Exhibit

FCC ID: SK9ACT2

FCC Rule Part: 47 CFR Part 2.1091

Project Number: AT72166854

Manufacturer: Itron, Inc.
Model: ACT2

RF Exposure

General Information:

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

Technical Information (900MHz Radio):

Antenna Type(s) / Gain(s): External antennas connected to patch coupling antenna
PCTEST, Inc. ASPG918 Whip Antenna / 3.0 dBi
Larson LP800 Low Profile Radome Antenna / 2.14 dBi
Contelco A158192B Stub Antenna / 2.0 dBi
Maximum Transmitter Conducted Power: 16.36dBm, 43.25mW
Maximum System EIRP: 19.36dBm, 86.30mW
*Maximum antenna gain from all antennas used to determine maximum system EIRP.
Exposure Conditions: Greater than 20 centimeters

Technical Information (2.4GHz Wi-Fi Radio):

Antenna Type: ¼ Wave Embedded Slot Antenna
Antenna Gain: 4.5dBi
Maximum Transmitter Conducted Power: 15.3dBm, 33.88mW
Maximum System EIRP: 19.8 dBm, 95.50mW

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/cm^2)	Radio Power (mW)	Antenna Gain (dBi)	Antenna Gain (mW eq.)	Distance (cm)	Power Density (mW/cm^2)
927.6	16.36	0.62	43.25	3.0	1.995	20	0.017
2412	15.30	1.00	33.88	4.5	2.818	20	0.019

*****Power output was determined at the input to the external transmit antenna; accounting for over-the-air loss between the onboard 900 MHz module antenna, patch coupling antenna efficiency on the host and associated cable loss of external antennas.

Table 2: Simultaneous Transmissions Calculations

Technology	Transmit Frequency (MHz)	Power Density Limit (mW/cm^2)	Power Density (mW/cm^2)	MPE Ratio to Limit (%)	Sum of MPE Ratios (%)	Limit (%)
Sub-GHz	927.6	0.62	0.017	0.03	0.05	100
Wi-Fi 2.4GHz	2412	1.00	0.019	0.02		