

Company: Itron.

Evaluation of: RIVA MOD LE

To: FCC CFR 47 Part 1.1310

Report No.: ITRO09-U2\_FCC\_MPE

**MPE/RF EXPOSURE TEST REPORT**



# MPE/RF EXPOSURE REPORT

FROM



Evaluation of: Itron RIVA MOD LE

To: FCC CFR 47 Part 1.1310

Report Serial No.: ITRO09-U2\_FCC\_MPE Rev A

This report supersedes: NONE

Applicant: Itron  
2111 N. Molter Rd  
Liberty Lake, Washington 99019  
USA

Product Function; Wireless Tag

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## **This Test Report is Issued Under the Authority of:**

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## 1. MAXIMUM PERMISSABLE EXPOSURE

### Calculations for Maximum Permissible Exposure Levels

Power Density =  $P_d$  (mW/cm<sup>2</sup>) =  $EIRP / (4 * \pi * d^2)$

$EIRP = P * G$

$P$  = Peak output power (mW)

$G$  = Antenna numeric gain (numeric)

$d$  = Separation distance (cm)

Numeric Gain =  $10^{(G \text{ (dBi)}/10)}$

The calculations in the table below use the highest measured conducted power values together with the antenna gain specified for the EUT. These calculations represent worst case in terms of the exposure levels.

### Specification - Maximum Permissible Exposure Limits.

The Limit is defined in Table 1 of FCC §1.1310.

Freq. Band (MHz)	Ant Gain (dBi)	Numeric Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Calculated Power Density (mW/cm <sup>2</sup> ) @ 20cm	Power Density Limit (mW/cm <sup>2</sup> )	Min Calculated safe distance for Limit (cm)
900 FHSS	2.0	1.58	29.53	897.43	0.283	0.6	13.74

**Note:** for mobile or fixed location transmitters the minimum separation distance is 20cm, even if calculations indicate the MPE distance to be less.

### Specification

#### Maximum Permissible Exposure Limits

##### FCC §1.1310 Table 1

300 to 1500MHz =  $f/1500$  (mW/cm<sup>2</sup>)

1500 to 100,000MHz = 1 mW/cm<sup>2</sup>

### Laboratory Measurement Uncertainty for Power Measurements

Measurement uncertainty	±1.33 dB
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