MPE/RF EXPOSURE EVALUATION REPORT

FCC CFR 47 Part 1.1310

Report No.: ITRO67-U9A Rev A

Company: Itron, Inc

Model Name: ERG-5600-001

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Model Name: ERG-5600-001

To: FCC CFR 47 Part 1.1310

Test Report Serial No.: ITRO67-U9A Rev A

This report supersedes: NONE

Applicant: Itron, Inc
2401 North State St.
Waseca, Minnesota 56093
USA

Issue Date: 11th July 2024

This Test Report is Issued Under the Authority of:

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TESTING CERT #2381.01

MiCOM Labs is an ISO 17025 Accredited Testing Laboratory

1. MAXIMUM PERMISSABLE EXPOSURE

Calculations for Maximum Permissible Exposure Levels
Power Density = Pd (mW/cm^2) = 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 (dBi)/10)

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

Band	Freq (MHz)	Ant Gain (dBi)	Numeric Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Calculated Power Density (mW/cm^2) @ 20cm	Power Density Limit (mWc/m^2)	Min Calculated safe distance for Limit (cm)	RATIO Power Density/ Limit
902.0 - 928.0	902.0	2.23	1.67	24.18	261.82	0.087	0.60	7.61	0.145

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

SUMMARY; Minimum safe distance to meet the RF exposure requirements = 20cm

Specification - Maximum Permissible Exposure Limits
The Limits are defined in Table 1 of FCC §1.1310.

The Limits for General Population/Uncontrolled Exposure apply to the ERG-5600 due to its intended use.

Table 1 to § 1.1310(e)(1)—Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(ii) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	<30
1.34-30	824/f	2.19/f	*($180/f^2$)	<30
30-300	27.5	0.073	0.2	<30
300-1,500			f/1500	<30
1,500-100,000			1.0	<30

The Itron ERG-5600-001 is also marketed as the following Model Numbers per Manufacturer Declaration of Similarity (refer to Section 2 of this report).

ERG-5600-002
ERG-5600-003
ERG-5600-004
ERG-5600-009

2. Manufacturer Declaration of Similarity

Itron, Inc.
2401 N. State St.
Waseca, MN 56093
507-781-4300
www.itron.com

June 28, 2024

Subject: Declaration of Similarity: EWQ100GTA, 864D-100GTA

Dear Sir or Madam,

We declare the product models listed below are electrically identical.

Product Information	
Marketing Name	100G ERT Module
Description	Gas utility AMR device
Models(s)	ERG-5600-001, ERG-5600-002, ERG-5600-003, ERG-5600-004, ERG-5600-009

The only difference between these variant models is the housing and the gas meter wriggler interface. The differences of these variants does not affect any RF or EMC performance.

Sincerely,

Dan Bomsta
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