

# **Itron Mobile Radio 2**

Itron Mobile Radio 2 provides improved RF range and allows 40/50 Series Endpoint programming

The Itron Mobile Radio is an all-purpose, walk-by reader and programmer for use with Itron's smart meters and endpoint solutions. This lightweight, portable device utilizes Itron's proven SRead technology in a two-way 900 MHz radio for communicating with electric, gas, water and telemetry endpoints using Itron Mobile or Field Deployment Manager apps. The Itron Mobile Radio is designed to handle the rigors of a field environment, providing a reliable hardware platform for utility personnel. Additionally, the Itron Mobile Radio has been designed and tested to handle environmental elements and ensure integrity as it relates to dust, rain, shock and vibration conditions.

### INTRODUCTION

Walk-by meter reading is performed with the Itron Mobile Radio using a Bluetooth Low Energy (BLE) or Bluetooth Classic connection to a smart phone or tablet. Communications are quick and easy. The Itron Mobile Radio supports Advanced AMR two-way commands with Itron endpoints for reading consumption, extracting datalogging messages and performing secured shutoff and reconnect operations.

Field activities such as endpoint installation, programming, field investigations, unlocking and resetting devices are also performed with the Itron Mobile Radio.

The Itron Mobile Radio, coupled with a Bluetooth-enabled laptop or tablet, streamlines field activities to help make field workers more productive and efficient in their daily tasks. This is an ideal solution for utilities who already utilize mobile computing solution equipment in the field,

or for those with in-house operations (such as a meter shop) where the lightweight, easy-to-use Itron Mobile Radio is a practical fit.

### **DESIGNED FOR DEPENDABILITY**

The Itron Mobile Radio uses an internal 2270 mAh lithium-ion rechargeable battery, providing operating time in excess of 10 hours on a single charge (results may vary based upon usage and target endpoint types). The battery can be replaced if necessary. Recharging can be done with standard micro-USB charging cable (supplied) or commonly available micro-USB phone charger.

The Itron Mobile Radio features an integrated circuit that gauges battery life, capable of accurate battery information in the form of percent remaining life as reported to supported applications. Additionally, the power indicator (LED) lets the user know when the battery is low.

# Advanced Metering and Telemetry for Gas, Water and Electricity\*

The Itron Mobile Radio supports a variety of advanced AMR commands that work with Itron ERTs, meters and sensors.

- » Extract 40 days of daily or hourly interval data from advanced gas and water endpoints
- » Extract 40 days of daily, hourly or 15 minute interval data from CENTRON® Bridge meters
- » Perform real-time demand reset and extract TOU data from CENTRON Bridge meters
- » Remote disconnect for gas, water and electricity services
- » Extract up to 480 days of voltage readings from the 100T-CP module
- » Collect leak data from water endpoints equipped with acoustic leak sensors
- » Fulfill special read requests such as move-ins and move-outs

- » Daily data for customer service and billing disputes
- » Monthly gas balancing reads
- » Data to facilitate load studies and conservation programs
- » Data to support mid-cycle rate changes
- \* Supported features vary across applications

## What's in the Box: Itron Mobile Radio Kit

Each Itron Mobile Radio package contains the following items:

- » Itron Mobile Radio with built-in antenna
- » AC power adapter
- » Micro USB cable
- » Itron Mobile Radio Quick Reference Guide

### **Optional Components**

 Shoulder carry strap with belt-clip feature

### **SPECIFICATIONS**

### **Functional**

- » Power source: Internal 2270 mAh, 3.7V single-cell lithium-ion battery\*
- » Operating temperature: -15°C to +50°C
- » Humidity limits: 0 to 95% relative humidity, non-condensing
- » Bluetooth 4.0
  - Bluetooth Class 1 for optimum performance to tablet /smartphone
  - Supported distances between the Itron Mobile Radio and endpoints vary across products and are rated for walk-by reading operations
  - Bluetooth is enabled when IMR is running on battery power or is connected to AC power. Bluetooth is disabled when IMR is connected to a host computer via USB

\*Lithium-ion batteries will not charge below 0°C or above 45°C  $\,$ 

# Applications and Hardware Compatibility

- » Field Tools (All platforms)
- » FDM (Windows 7/10 only)

- » Itron Mobile 2.3 and greater (All platforms)
- » Temetra Mobile (All platforms)
- » Android and iOS are Bluetooth Low Energy only (use app to pair)
- » Windows 7/10 are USB or Bluetooth Classic (download Itron Pairing Tool)

### **Physical**

- » Dimensions: 2.09 in x 2.90 in x 5.63 in (53mm x 74mm x 143mm)
- » Weight: 0.66lb or 10.6 ounces (0.3 kg)

### **Transmitter/Receiver Characteristics**

- » Legacy wake-up transmitter: 952 or 956 MHz Licensed Frequency (MAS Band)
- » Legacy wake-up transmitter peak power: 0.631 Watts Conducted
- » Receiver: 908–924 MHz (ISM Band)
- » Two-way command transmitter: 908– 924 MHz (ISM Band)
- » Two-way command transmitter peak power: 0.996 Watts Conducted
- » Output impedance: 50 ohms
- » Data integrity: verified in every message

## Antenna Specifications transmit/receive)

- » Internal MAS band antenna 2.0 dBi
- » Internal ISM band antenna 1.2 dBi

### **Regulatory Information**

- » Legacy wake-up transmitter, MAS band: FCC Part 101 compliance ISED RSS-119 compliance
- » Two-way transmitter/receiver, ISM band: FCC Part 15.247 compliance ISED RSS-247 compliance
- » USA, FCC spectrum compliance: This device complies with Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. Operation is subject to the following two conditions:
  - This device may not cause harmful interference.

- This device must accept any interference that may cause undesirable operation.
- » Canada, ISED spectrum compliance: This device complies with Innovation, Science and Economic Development Canada (ISED) license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, (2) this device must accept any interference, including interference that may cause undesired operation of the device.
- PRF Exposure for FCC and ISED for IMR2: This device has been evaluated and found to be compliant for RF Safety with regards to Specific Absorption Rate (SAR) for portable device equipment set forth in the United States and Canada. The SAR limit for wireless mobile and/or portable devices used by the public is 1.6W per kilogram averaged over 1g of tissue. The standard incorporates a substantial margin of safety to get additional protection for the public and to account for any variations in measurements.

### **Approved Endpoints\***

- » All legacy Itron ERT® modules
- » 40G / 40GB gas ERT modules
- » 100G gas ERT modules
- » 500G OpenWay® Riva gas ERT modules in mobile mode
- » 40W / 50W water ERT Modules
- » 60W water ERT modules
- » 100W water ERT modules
- » OpenWay Riva Water modules in mobile mode
- » Itron CENTRON Bridge Polyphase electricity meters in mobile mode
- » Itron CENTRON electricity meters equipped with R300 or R400 modules
- » Itron CENTRON Polyphase electricity meters equipped with R300 or R400 modules
- » Itron SENTINEL® electricity meters equipped with R300 modules



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<sup>\*</sup>Supported endpoints can vary across applications.