MC3 represents the next generation in drive-by data collection and command and control capabilities from Itron. Its performance and portability combines GPS mapping with meter reading, two-way wireless radio communications and backward compatibility. The MC3 provides improvements in a utility’s operational efficiencies, regardless of the type or size of their service – streamlining business processes and reducing costs associated with meter reading operations and service delivery, enhanced customer service and improved employee safety.

INTRODUCTION
Powered by Itron SRead™ radio technology, the MC3 can handle everything from basic consumption reads to the collection of interval data and performing other two-way communications to gas, water and electricity meters, sensors and other devices such as service control valves and switches. The MC3 eliminates the need for a dedicated vehicle by being small enough to easily transfer among drivers as necessary.

FEATURES
Whether it’s gas, water, electricity or telemetry, the MC3 offers multi-function capabilities in an easy-to-use solution.

» Collect gas, water and electricity interval data
» Read both “bubble-up” and “wake-up” endpoints
» Two-way radio communications for remote service dis/connect
» Simultaneous reading capability for multiple routes
» GPS mapping for reduced drive times
» Out-of-route read collection to reduce special read visits
» Exceptional meter reading performance in a small size
» Wired or wireless data transfer using any Internet connection

FUNCTIONALITY PROFILE
MC3 has the capacity to process up to 30,000 meters simultaneously in one or many routes and store up to 100,000 meters. The potential savings are substantial when compared to the few hundred meters read per day by a typical walk-by employee. The MC3 can also collect out-of-route readings used to fulfill off-cycle reading requests without dispatching a technician. Itron SRead radio technology offers increased read sensitivity, simultaneously listens to over 80 channels and can conduct up to 50 two-way communications simultaneously all to improve range and route processing times.

GPS MAPPING
A built-in GPS and on-board mapping software allow a user to see where the vehicle is in relation to the ERT modules and meters. Various icons indicate the completion status of each endpoint in addition to those accounts that take priority or require other special operations such as remote disconnect. A satellite view is available when the computer is connected to the Internet.
Advanced Metering and Telemetry for Gas, Water and Electricity

The MC3 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

SPECIFICATIONS

Transmitter/Receiver Characteristics

» Legacy wake-up transmitter: 952 or 956 MHz Licensed Frequency
» Receiver: 908–924 MHz (ISM Band)
» Two-way command transmitter: 908–924 MHz (ISM Band)
» Output power: 6.5 Watts peak
» Data integrity: verified in every message

Environmental

» Operating temperature: -4°F to +122°F (-20°C to +50°C)
» Storage temperature: -40°F to +160°F (-40°C to +71°C)
» Humidity limits: 5 to 95% noncondensing relative humidity

Physical Dimensions

» MC3 Radio: 13"W x 11.25"L x 2.75"H
» Sled: 13"W x 19"L x 9.5"H
» CF-31 Laptop: 11.9"W x 11.5"L x 2.9"H

Weight

» MC3 Radio: 10 lbs
» Sled: 13.2 lbs
» CF-31 Laptop: 8.2 lbs
MC3 comes complete with MC3 radio, mounting and wiring hardware, and optionally with the Panasonic Toughbook CF-31 laptop.

Laptop Computer (Optional)

» Fully rugged computer: Panasonic Toughbook CF-31
» Processor: 2.6 GHz Intel® Core™ i5-3320M processor
» Disk Space: 500GB
» Memory: 4GB SDRAM
» Display: 13.3" 1024x768 XGA LCD touchscreen (2-1100 nit sunlight viewable)
» Interface: 3x USB 2.0, 1x USB 3.0, Type II PC Card slot, SDXC card
» Operating System: Genuine Windows® 10
» Network: 10/100/1000 Ethernet, Intel Wi-Fi a/b/g/n (Broadband Gobi optional)

Power

» Power supply: 12Volts DC vehicle power supply
» Power consumption: 5 Amps maximum

Mounting and Wiring Options

» Wiring Options
  • Permanent – Permanent wiring includes a through-the-roof antenna base and a fuse block power cable
  • Portable – Portable wiring includes a magnetic-mount antenna base and a cigarette lighter power cable

Mounting Options

• Sled Mount – The Panasonic Toughbook vehicle dock comes attached to a sled that can be easily and safely installed on any seat in the vehicle.
• Pedestal Mount – The Panasonic Toughbook comes with a vehicle dock that can be attached to a pedestal that is installed in the vehicle (note: the pedestal is not included).

Endpoint Compatibility

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

Host Processing Software

MC3 is compatible with Itron Mobile and the Itron Field Collection System (FCS).