Gen™5 500W ERT® Module

The Gen5 500W ERT Module leverages Itron's long history of ERT Module design and can be read under Itron's multi-purpose Gen5 Internet of Things (IoT) network as well as legacy meter reading applications. With added features for Gen5 network operation such as on-demand read from the back office and extended data storage, Itron's Gen5 500W ERT Module offers additional value while continuing to offer the reliability, accuracy, battery life, security, and intrinsic safety that you have come to expect from Itron.

Gen5 Features

» Downloadable firmware from the head end assures future-proofing and access to the latest features without replacing the module.

» Programmable interval data (60, 30, 15 and 5 minutes) for increased granularity to support investigations and load studies.

» Continually stores and updates the last 5,952 intervals of read data – 8 months of hourly data, or 2 months of 15-minute interval data.

» Enhanced security using Gen5 security protocols for network operation.

Features

» Designed for 20-year battery life to ensure low operating and maintenance costs.

» Module design makes installation fast and easy.

» Made in the USA at Itron's facility in Waseca, Minnesota.

Gen5 500W ERT Modules

Gen5 ERT Modules offer advanced two-way communications designed for Itron's Gen5 solution as well as Itron's industry-leading mobile solutions. Gen5 500W ERT Modules enable easy migration from mobile to network operations as your business needs evolve.

The ability to perform firmware downloads over the network allows utilities to ensure they have the latest features available without having to visit each account. With Itron's complementary communications technology, network and mobile systems can be deployed side-by-side in hybrid configurations to ensure maximum efficiency and reliability in both high and low-density meter populations.

Gen5 500W ERT Modules are available in two housing designs, supporting both water pit and remote installations. Both pit and remote modules support encoder and pulsar register types. Itron's auto sensing technology allows the 500W ERT Modules to detect what encoder register model it is attached to, removing the need to program the endpoint at installation.

Gen5 500W Modules include a telemetry port standard. A single pit SKU is compatible for both encoders and pulsers; and one remote SKU is compatible for both encoders and pulsers. The telemetry port enables the use of Itron's acoustic leak sensor or third-party remote disconnect valves.

Functional Specifications

Power Source: Four or two "A" cell lithium batteries warranted for 20 years.

» Maximum meter register pulse frequency. (pulse version only): 4 Hertz

» Operating temperature:
  • -104°F to +158°F (-40°C to +70°C) for remote applications.
  • -68°F to +140°F (-20°C to +60°C) for pit applications.

» Storage temperature: -104°F to +158°F (-40°C to +70°C).

» Humidity limits: 0 to 100% (submersible).

» Maximum register cable dimension: 300 feet with Itron-approved cable and splice connectors.

» Meter compatibility: See *Water Module Meter Compatibility Guide.*

Minimum Software Required for Gen5 Network Operation

» Gen3, Gen4, or Gen5 Constantly Powered Device (CPD) hardware with firmware 5.0

» UtilityIQ® 4.15

» Itron Security Manager (ISM) 4.2

» Field Deployment Manager (FDM) 4.3

Physical Characteristics

4-Battery Model

Pit Module	Width: 3.2" x Height: 4.8" x Depth: 2.3"	Weight: 9.6 ounces
Remote Module	Width: 5.05" x Height: 4.5" x Depth: 3"	Weight: 9.6 ounces

2-Battery Model

Pit Module	Width: 3.2" x Height: 4.8" x Depth: 1.7"	Weight: 6.3 ounces
Remote Module	Width: 5.05" x Height: 4.5" x Depth: 2"	Weight: 5.1 ounces

Programming Mode Options

» Gen5 500W network mode should be chosen when being read by a Gen5 network. Output power is +27 dBm.

» 100W mobile mode should be chosen when being read by legacy mobile readers.

Mobile Meter Reading Compatibility

» Field Collection System (FCS) 4.2.3

» Itron Mobile 2.2

» Mobile Collection 3.8.2

Battery Life and Design Life

» All 500W ERT Modules are designed for a 20-year total life.

Operational

» All 500W ERT Modules operate without the need for an FCC or IC license.

» Data integrity: Verified in every message.

Physical

All 500W ERT Modules have encapsulated electronics for protection against environmental hazards and tampering. All 500W ERT Module housings are made of gray polycarbonate.

Meter Compatibility

Refer to *Water Meter and Telemetry Module Compatibility List* for detailed information on water meter and telemetry compatibility.

Related Documentation

» *Gen™5 500W ERT® Module Pit Installation Guide*

» *Gen™5 500W ERT® Module Remote Installation Guide*

» *500W Modules Ordering Guide*

» *Field Deployment Manager (FDM) Tools Mobile Application Guide*

» *Field Deployment Manager (FDM) Tools Configuration Guide*

» *Field Deployment Manager (FDM) Endpoint Checklist*

NON-USA/CANADA COMPLIANCE

When this device is sold and shipped outside the USA and Canada, it is configured and labeled accordingly to be compliant with the local spectrum regulatory regulations and standards. Frequencies, channels, power out, emissions and so on may deviate from USA/Canada devices.

Note: Certain accessories, options, modules and modes may not be available, such as the Remote Antenna Kit, Remote or Pit Modules, Leak Sensors, OpenWay Riva, GenX, or legacy ChoiceConnect™ modes. Consult your Itron Technical Representative for any questions.

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