

Remote Telemetry Module™ - ANSI C12.18/19 Wireless Communications for Metering

The Telemetric Remote Telemetry Module™ (RTM) is a cost-effective communication solution for remote reading and control of any meter that supports the new ANSI C12.18/19 protocol.

The RTM includes an integrated two-way radio that communicates using the cellular data network with very good coverage in North America.

The model **C12-RTM-GSM** communicates using General Packet Radio Service (GPRS) over the GSM cellular data network. The units can be installed anywhere Cingular/AT&T GPRS or EDGE service is available. They are ideally suited for load profile metering or other applications requiring frequent reads, larger amounts of data or minimum latency.

Standard GPRS authentication and encryption is augmented with additional security features at Telemetric.

The C12-RTM is supported by extensive cellular coverage in North America by Cingular/AT&T plus all of their roaming partners. No license or local cellular account is required.

The RTM reads the connected meter on a user defined schedule and transmits the data to the secure Telemetric Network Operation Center (NOC). The RTM returns all of the meter values the user has configured or set up in the meter and included in the C12-RTM profile. This minimizes communication costs while providing real-time information.

Access to the meter data can be gained using Telemetric's Intelligent Web Server Applications. The data can be viewed with a standard browser application by logging onto a secure account or accounts for each user. The hosted applications have multiple levels of access and the administrator has the ability to grant access to additional users. The access levels range from view only to the ability to read and reset the meters.



Benefits

- Designed specifically to communicate with meters from leading manufacturers such as GE, Itron, Elster, Landis & Gyr, and many others.
- Communicates via standard RS-232 serial connection with the IED. The RTM functions as the master, in the master-slave relationship, polling the meter for information.
- **Intelligent report by exception**
 - user defined alarms
 - user scheduled read times
 - reads on demand via the secure hosted applications
- Monitors the meter for user defined alarms.
- Meter data is sent to the secure Telemetric Network Operations Center, and optionally to the utility meter billing or forecasting system.
- Secure two-way communications allow direct meter reads and control of the meter by authorized personnel.



- Integration kits, including specific device profiles, are available for most popular meters to facilitate simple and easy installation.

Features

- MS Windows-based program creates unique configuration profiles for all meter values configured by the user. For each meter the user can specify criteria such as:
 - Three reporting set points per register
 - Time scheduled reads or reports with configurable reporting interval from 1 minute up to 41 days
- Automated user notifications (by email or pager) can provide immediate information on events such as excessive demand.

- No master software or local cellular account is required
- Accessible from the secure Telemetric Intelligent Web Server for monitoring, control and automated notifications
- Time scheduled calls can report meter data at a variety of call frequencies
- Telemetric device management tools for communications diagnostics and call/data volume monitoring
- All meter data is available to user applications from Telemetric's secure network operation center. Contact Telemetric for more information.

Specifications

Processor

- 32 bit microcontroller, 12 MHz
- 384K non-volatile Flash memory
- 256K RAM

Communications

Two Serial Ports

- RS-232 local configuration port, DB-9 female
- - Supports MS Windows based local configuration and test program, included
- One DNP IED communications port
- - RS-232 with DB-9, RJ-45 and terminal block connectors

Cellular Data Network

- Two-way – all commands are acknowledged
- Transmit power: 0.6 to 1.2 Watt (auto-adjusting)
- Frequency: 850/1900 MHz
- 50 Ohm SMA antenna connector

Operating Power

- 12 VDC, 90mA typical, 1.4A max (<7 sec.)

Environmental Data

- Operating temperature Range: -30° to +70°C
- Transient Immunity per ANSI/IEEE C37.90.1-2002

Enclosures

The standard enclosure is painted steel suitable for mounting inside a meter enclosure. Features include:

- NEMA 1 rating
- Integrated mounting flanges
- Gray steel construction
- Dimensions: 5.6"H x 4"W x 1.7"D
- Optional NEMA 4X enclosure with 120VAC – 12VDC power supply; 11"H x 8.3"W x 3.3"D; 3 lbs

IEDs Supported

See <http://www.telemetric.net/ied> for a current list of supported IEDs.

The product is available directly from Telemetric or, in many cases, as a factory option from the IED manufacturer.