



OpenWay[®] CENTRON[®]

Cellular 3G

The smart meter for the smart grid, the OpenWay CENTRON, is now available with a 3G EVDO Itron Cellular Module (ICM). This integrated OpenWay Cellular solution provides a complementary communication pathway by incorporating WAN functionality—under the OpenWay CENTRON meter cover—to connect the meter directly to the OpenWay Collection Engine via a public wireless network.

The OpenWay CENTRON Cellular 3G includes both a ZigBee[®] wireless component and a 3G EVDO ICM that can be tailored to fit your unique needs. The module comes factory installed within the OpenWay CENTRON meter—the solution ships as one complete unit, ready for field deployment.

FEATURES AND BENEFITS

Flexible Two-Way Communications

- » Execute all supported reading, configuration and firmware download functionality through user-configurable schedules controlled by head-end meter data management software
- » Acquire readings on an on-demand basis when necessary

Automated Interval Data/Energy Usage Retrieval

- » Receive and transmit meter interval data for up to four unique energy values in intervals as small as five minutes. Recorded events and exceptions with each interval are also transmitted to the head-end software, which interprets them and logs appropriate messages (such as time adjustments)

Automated Register, Self-Read and TOU Retrieval

- » Configure the module to read and transmit totals, self-reads, maximum demand, time-of-use (TOU) and critical peak pricing (CPP) values

Demand Reset Capability

- » Perform demand resets, over the network or locally via tools or the demand reset switch

Power Outage and Restoration Alarms

- » Transmit a real-time “last gasp” notification when detecting an AC power outage with built-in ultracapacitor energy storage. The meter then notifies the head-end when the AC power is restored

Service Diagnostic and Tamper Detection Alerts

- » The OpenWay CENTRON Cellular 3G can detect and report exceptions for meter inversion, meter removal, reverse energy flow and power outages. The OpenWay CENTRON Cellular 3G architecture provides the power outage notification (PON) and tamper associated with a meter removal immediately upon power down. This results in two exception messages upon power down, PON and Removal tamper.

Secure Boot

- » The OpenWay CENTRON Cellular 3G has the capability to validate digital signature prior to uploading and applying any new ICM firmware.

Bi-Directional Metering

- » Support bi-directional net metering with the OpenWay CENTRON. Both received and delivered data metrics are stored in the meter and can be sent to the utility as needed to support green-credit electricity programs for consumers who own renewable energy facilities or participate in vehicle-to-grid systems

Automated ID Tracking

- » Attach barcode labels and important identifiers (such as the ICC-ID / MS-ISDN) to the integrated module for tracking and troubleshooting purposes

On-Demand Reads for Move In/Outs and Remote Disconnect

- » Perform remote disconnects through the Collection Engine by retrieving a final read for a customer and then an initial read for a subsequent customer
- » Allow service to be disconnected or reconnected remotely as well via a load-limiting service switch in the meter, eliminating the need to roll a truck to turn service on or off

900 MHz ERT Reader

- » The ICM now has an optional 900MHz Encoder Receiver Transmitter (ERT) Reader to support transmitting data for the 100G DLS gas modules. The ICM can collect consumption data and tamper counts from nearby 100G ERT modules and report this back up to the Collection Engine and other upstream systems.

Clock Synchronization

- » Synchronize the meter clock automatically when time deviation falls within a user-defined boundary

Integration & Installation

- » Ensure simplified installation in the field. The ICM is a fully integrated, under-the-cover option installed within the OpenWay CENTRON. The solution is shipped from the factory as one complete unit with the module installed, ready for field deployment

Regulatory and Industry Specifications

- » FCC Part 15 Class B
- » ANSI C37.90.1 – 1989: (SWC)
- » ANSI C12.20 (Class 0.5) – 1998
- » PTCRB Certified
- » Network Carrier Certified

HARDWARE

CPU board (CPU)	32-bit ARM processor, 64MB RAM, 128MB flash
Capacitor Storage Bank (CSB)	Supplies power for data transmissions and all functions during power outages – no batteries required
ICM Modem	Modem communicates with head-end using EVDO and SMS services
ZigBee Transceiver	Enables communication with Home Area Network (HAN) devices
Internal/External Antennas	flexible dual frequency internal antenna for the modem and ERT
Tilt Detector	Detects unauthorized movement or removal of the device

INPUT/OUTPUT SIGNAL

ICM Power Input Voltage	120-240 VAC
Capacitor Storage Bank (CSB)	3.3V / TTL compatible asynchronous
ERT Reader	900 MHz radio

VERSION AND COMPATIBILITY

Meter Hardware Version	3.1 (3.060)
Meter Firmware Version	SR6.0 or higher
OpenWay Tools Compatibility	2.85 or higher
OpenWay Collection Engine Compatibility	SR6.0 or higher

SPECIFICATIONS

Temperature Range:

- » Operating: [-40°C, +85°C]
- » Transmission (wireless): [-30°C, +70°C]

Humidity Range

- » 0% to 95% non-condensing

Accuracy

- » Meets ANSI 12.20 for accuracy class 0.5%

Supported Meter Forms

Singlephase without Disconnect

- » CL 200: 1S, 2S, 12S, 25S

- » CL 320: 2S

Single-phase with Disconnect

- » CL 200: 1S, 2S, 12S, 25S

Carriers Supported:

- » Verizon Wireless



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CORPORATE HEADQUARTERS

2111 N Molter Road
Liberty Lake, WA 99019
USA

Phone: 1.800.635.5461
Fax: 1.509.891.3355

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