



OpenWay[®]

Smart Grid Cell Router

The new, high performance OpenWay Smart Grid Cell Router is part of Itron's commitment to providing standards-based, forward-thinking solutions for simplified deployment and management of the smart grid.

The OpenWay Smart Grid Cell Router is designed for maximum flexibility, with a modular architecture supporting multiple communications types, as well as expanded, plug and play I/O options. In addition, the Smart Grid Cell Router delivers enhanced throughput, IP routing with multi-application support, and traffic prioritization. These features let utilities move ahead with implementing the specific applications they need today, confident that they have an infrastructure investment that will support emerging new solutions for years.

The Smart Grid Cell Router provides several compelling and forward-looking capabilities that ensure it will meet both the current and future needs of utilities deploying AMI and smart grid infrastructures.

- » Reduced infrastructure costs with support for up to 4,000 smart grid devices and meters connected via OpenWay RFLAN
- » IP Routing for multi-application support with traffic priority (QoS)
- » Full IPv6 support including IPv4-to-IPv6 bridging

- » Modular design with I/O expansion to address rapid technology evolution
- » Developer Kit for efficient integration into third-party network solutions

FEATURES

Two-Way Communications

- » End-to-end IP support for smart grid evolution
- » Bi-directional data flow between upstream applications and smart grid edge devices
- » IP routing capabilities for smart grid applications:
 - Distribution Automation
 - Demand Response
 - Advanced Data Collection (i.e., OpenWay Collection Engine)
- » Supports all current Cell Relay communications functionalities

WLAN Support

- » RFLAN: Ruggedized and self-contained 900 MHz radio module
 - Spread Spectrum/Frequency Hopping within the 902MHz to 928MHz ISM band

- USB interface to LINUX-based operating system
- Commercially available as standalone module for integration into private mid-tier networks (via SDK)
- Modular RF certification

Multiple WAN Support

- Ruggedized and self-contained 3G cellular modules
- Provision for a single modem/carrier or two modems/carriers
- Offers flexibility in deployment and carrier selection
- Modular RF certification allowing migration path to technology upgrades (i.e., 4G)
- » Wired-LAN
 - 10/100Base-T Ethernet
 - IP67 weatherproof RJ45 interface
- » Configurable failover scenarios

IP Routing

- » Full support for IP routing
- » IPv6 and IPv4 support for routing across hybrid networks

Flexible Installation and Support

- » Mounting
 - Lightweight and small form factor, with multiple mounting options permit single lineman install
 - Ease of installation to utility poles (vertical, horizontal and diagonal) or flat surfaces
 - Customizable hardware that meets service location specification (i.e., pad-mounts)
- » Installation & Field Support
 - Internal LED status indicators (LAN, WAN, VAC & battery) for installers
 - Lockable hinged door with sensors to remotely monitor for device tampering
 - SNMP-based secure access for field diagnostics via 2.4 GHz IEEE 802.11g (Wi-Fi) interface

FEATURES

Modular/Expandable Design

- » LINUX operating system supports USB & Ethernet I/O ports
- » Field upgradable modules (RFLAN, WAN, battery) to reduce maintenance costs
- » Customizable enclosures to meet customer-specific requirements
 - Re-size enclosure to integrate customer-specific modules into a single and manageable package
 - Expansion I/O port for 2nd Ethernet or USB interface

Battery Backup Option

- » Up to eight hour hold-up time
- » Ease of access for hot swap field replacement

Time Synchronization

- » Synchronize device time using USB-based GPS module
- » Weather-proof GPS module to protect against elements

Developer Kit for 3rd Party Integration

- » For utilities planning to deploy a private mid-tier network, the OpenWay Smart Grid Cell Router was developed as a developer kit to allow for efficient integration of the RFLAN Comms Module, WAN Module and Linux-based software into a number of mid-tier options
 - RFLAN standalone module with standard interface (USB)
 - Software porting to standard Linux OS platforms (Linux 3.6.32 kernel)
 - Multiple applications available via open source: DNP3 (Serial and Network), Modbus, IEC 61850, ANSI C12.22, IEC 60870, IEC 62056 / DLMS, etc

Technical Data

- » RFLAN: 900 MHz radio, Spread Spectrum/Frequency Hopping within the 902MHz to 928MHz ISM band
- » Ethernet: 10/100Mbps, Weatherproof Unshielded Twisted Pair with one or two port options
- » WiFi: 2.4GHz Radio, 802.11g (Secure Field Access)
- » WAN: 3G and 4G ready options on multiple carriers with single or dual modems

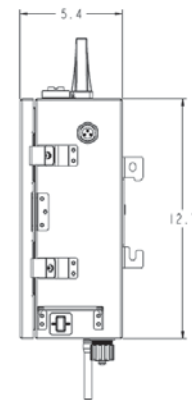
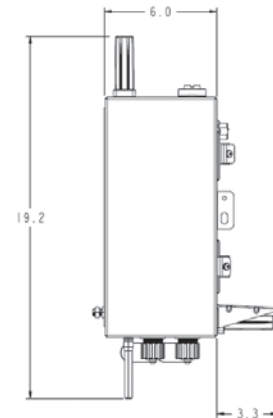
Approvals

- » FCC CFR Part 15, Class B
- » EN 301 489-17, 300 328, 301 893, 60950

Specifications

Power Requirements	Power Input Voltage: 90VAC to 265VAC Auto Ranging Frequency: 47 Hz to 63 Hz
Operating Temperature	-40°C to +70°C*
Operating Humidity	0% to 95% non-condensing
Certification	Meets or exceeds applicable ANSI C12.1 or equivalent standards
Regulatory & Standards	FCC CFR 47, Part 15, Class B Certified
Wind Survivability	Up to 165 mph

* Long-term operating temperature. Also tested at short-term operating temperatures of +85°C.



Itron is the leading provider of energy and water resource management solutions for nearly 8,000 utilities around the world. We offer end-to-end solutions that include electricity, gas, water and heat measurement and control technology; communications systems; software; and professional services. With nearly 10,000 employees doing business in more than 130 countries, Itron empowers utilities to responsibly and efficiently manage energy and water. To realize your smarter energy and water future, start here: www.itron.com

CORPORATE HEADQUARTERS

2111 N Molter Road
Liberty Lake, WA 99019
USA

Phone: 1.800.635.5461
Fax: 1.509.891.3355