Trilliant CellReader® Meter

SENTINEL®

The Itron SENTINEL solid-state electricity meter now provides utilities the industry's leading wireless communication solutions for commercial and industrial applications. The SENTINEL Meter with Trilliant CellReader technology offers utilities RF communications capabilities, superior data acquisition and on-site monitoring. Complex meter information is available any time, from anywhere, via this under-the-cover solution. The SENTINEL CellReader meter is ideal for remote interval and time-of-use (TOU) data collection, including all necessary register, load profile and meter diagnostic data. Using today's digital cellular technology, SENTINEL meters can provide public network radio frequency (RF) communications with the best available wireless network coverage at the best available cost.

FEATURES

Key Features & Benefits

- Cost-effective meter communications for all load profile, register and diagnostic data
- Internal card for commercial and industrial solid-state Itron SENTINEL Meter
- Saves time and money — no telephone line connections, easy to install, near-zero operating costs
- Under-the-cover mounting
- Easy to retrofit and secure
- Tamper-resistant operation
- No external power supply
- No batteries
- Secure communications and data transfers
- Affordable on-demand, two-way communications for data retrieval or programming
- Configurable, programmable, and readable through public networks and even the Private iDENTM network
- GPRS and 1xRTT Networks offer Static IP addressable packet-switched mode

Network Communications Options

A SENTINEL meter equipped with Trilliant CellReaders GPRS or 1xRTT communications is effectively always on and always connected.

» CDMA/1xRTT

Trilliant CellReaders enable SENTINEL meters to communicate meter data via any public CDMA network, such as Verizon Wireless, Bell Mobility, Telus Mobility and Spring Nextel. Packet data mode works on the latest generation of CDMA technology known as 1xRTT or CDMA2000.

» GSM/GPRS

Utilizing Trilliant CellReader, SENTINEL meters operate on any public GSM network, such as those operated by Rogers Wireless, T-Mobile, and AT&T Wireless. Packet data mode is available on GSM networks with GPRS data services.

SPECIFICATIONS

Supply

» Uses meter's internal power supply

Local Port

» Supports meter ANSI Type 2 optical port

» Communications protocol: ANSI C12.18

Environmental

» Operating temperature: -30° C to 60° C

» Humidity range: 0-95% (non-condensing)

Mechanical

» Enclosure: Fits inside meter

» Weight: 5 oz. (0.142 kg)

AMR Features

» Fully transparent gateway

» Total meter data accessibility

» Data traffic reduction and optimization

» ANSI C12.19 gives it the familiar look and feel of commonly used software applications

Security

CellReader products allow VPN connections to be established to support IP connectivity over secured subnets. The user can also configure each CellReader unit with a WAN Access Control List, thereby explicitly limiting the IP addresses that are allowed access to the unit. The CellReader module supports all three levels of the meter's ANSI password security in addition to the security provided by use of VPN access and the WAN Access Control List.

Plug and Play Flexibility

CellReader equipped Sentinel meters can be used to create a new AMI deployment of C&I meters, to extend the coverage of an existing AMI or Smart Grid network to C&I meters that may not be otherwise reachable, to conduct specific load research projects, or to replace meters previously supported over analog cellular services or telephone lines. Moreover, a utility can use its existing operational assets by employing existing meter data collection software or native meter tools.

Systems Supported

» Itron MV-90 xi and data acquisition systems

» Itron PC-PRO+® Advanced

» Trilliant SerViewCom™ Communications

Server Software

» Trilliant Table TestBench programming software

Antenna

» Internal 3db patch antenna

Optional Antenna

» External 4.9db omnidirectional whip antenna

» V.S.W.R.: 1.5:1 or less

» Impedance: 50 ohms

» Cable: RG-174A/U

» Standard termination: SMA male

COMMUNICATIONS

CDMA

» Power consumption:

- 1.8 maximum W
- (Average: <0.4W)
- (Maximum: <2W)

» CDMA/1xRTT communications:

- Packet switched data mode: Up to 153 kbps

» Total isotropic sensitivity: -101 dBm

» Security: VPN termination restricted to sub-net, Access control list by IP address and Sentinel's ANSI security

» Approvals:

- FCC: RI7CC864-DUAL
- IC: 5131A-CC864DUAL

GSM

» GSM/GPRS communications:

- Packet switched data mode: Up to 40.4/60.7 bps (transmit/receive)

» Reception sensitivity: -101.5 dBm

» Approvals:

- FCC: TMB-TVQ24PL
- IC: 6028A-TNQ24PL

Itron

At Itron, we're dedicated to delivering end-to-end smart grid and smart distribution solutions to electric, gas and water utilities around the globe. Our company is the world's leading provider of smart metering, data collection and utility software systems, with over 8,000 utilities worldwide relying on our technology to optimize the delivery and use of 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