

Itron CENTRON TPM Controller

Smart communications for Itron's popular
solid-state 120 V and 240 V meters



Tantalus TUNet® communication modules for Itron Centron smart meters provide a true synergy between electric metering and AMI

The TC-1116 and TC-1216 provide groundbreaking computing technology and power to advanced metering. This TUNet module is a truly versatile multi-processing engine incorporating six processors instead of just one or two to drive a full Linux operating system offering functionality previously unavailable in electric meters.

- Triple the number of on-board processors (increased from one or two to six)
- Full Linux-based operating system
- Increased memory
- Increased efficiency in task prioritization

In metering terms, this means that there is no conflict between functions with readings proceeding in parallel with error handling, diagnostics, complex calculations and general purpose applications such as reading surrounding water, gas and electric meters enabled WITH Itron ERT or Badger Orion technology. This new technology is fully compatible with previously installed TUNet meters, but offers a suite of enhanced ERT and Orion meter reading capabilities in new deployments preserving investments already made in TUNet, Itron ERTs or Badger Orion meters.



SMART METERING

The TUNet-enabled Centron meter reads and pushes data from other TUNet-enabled meters, Itron-enabled ERT meters, or Orion-enabled meters—in hourly intervals or more frequently if needed—to support dynamic TOU, CPP, or RTP billing. It enables a utility to precisely monitor power quality as well as instantly detect outages and verify restorations. It also allows control center staff to read in/out new customers and troubleshoot problems at the operations center. Reporting parameters can be changed remotely so a utility can tailor performance metrics without a site visit. Itron and Tantalus deliver precision and flexibility. By integrating CENTRON solid-state meters into TUNet, a utility can go beyond basic kWh monitoring and implement a two-way Smart Grid communications network. Tantalus gives a utility the freedom to introduce advanced functionality where the needs are greatest or where the return on investment is most attractive.

TANTALUS ADVANTAGES

- Fully factory-integrated under-glass smart meter platform
- Reports kWh energy consumption, voltage, outage and restorals
- TPM Controller module is the Register of Record to eliminating register to register discrepancies
- Reports near real-time consumption in periods as low as 15-minute intervals, without the need for on-request pings
- Each TUNet meter acts as an ERT collector for electric, water, and gas ERT readings
- Supports Badger Orion water reading capability
- Supports net metering
- On-request reads allow customer service to respond to inquiries and closely monitor endpoints remotely
- TUNEup™ over-the-air meter programming and configuration can be performed over TUNet - eliminating a costly field visit
- Measures voltage from:
 - TC-1116: 85 to 130 V; accurate to $\pm 1\%$
 - TC-1216: 170 to 260 V; accurate to $\pm 1\%$
- Reports voltage sags / swells / blinks to help ensure high quality power delivery to each home
- Field initiated outage & restoration alerts instantly notify staff of critical events
- Non-volatile memory maintains more than 90 days of data during outages
- Automatically negotiates the best communications path

Meter Forms Supported

- TC-1116 (120 V): 1S, 3S, 12S / 25S
- TC-1216 (240 V): 2S, 3S, 4S

Radio

- Frequency range: 902-928 MHz ISM Band
- TUNet TruPush™ Technology
- Vectored Channels: 64,000

Power

- Supply: 120 VAC from AC line mains (TC-1116)

- Supply: 240 VAC from AC line mains (TC-1216)

Physical

- Operating temperature range: -40° to $+158^{\circ}$ F / -40° to $+70^{\circ}$ C
- Operating humidity range: 5% to 95% non-condensing

Approvals / Standards

- ANSI C12.1 & C12.20 including California Utilities extensions
- FCC for CFR Title 47 Part 15b
- Measurement Canada

