



Synergize™

RF Electric Meter Transmission Unit Residential and Commercial

Aclara Meter Transmission Units for single- and poly-phase, solid-state, ANSI-certified residential and commercial meters minimize risk and ensure accurate, reliable and efficient measurements.

Aclara Meter Transmission Units provide superior measurement performance, affordability, accuracy and reliability. In addition to reading meters, the units support demand, load profiling, time-of-use, and net metering for distributed generation.

Meter Transmission Units are a critical component of Aclara's Synergize™ RF network solution, which offers unequalled performance and expandability while providing reliable, flexible and two-way communications for electric meters and other smart-infrastructure devices on distribution networks.

Today, Aclara supports the GE I 210+ family of residential meters as well as the GE kV2c commercial meter. Aclara's implementation takes advantage of the unique ability of GE I210+ meters to measure reactive power – which positions these meters to provide accurate billing reads.



Features and Benefits

- Operates on FCC licensed 450-470 MHz frequencies, reducing the risk of interference
- Employs NIST-standard, approved Advanced Encryption Standard 256-bit encryption (AES-256) for communications with the headend
- Uses X.509 digital certificate-based client and server authentication
- Uses the IEC 61968-9 standard (Application Integration at Electric Utilities) to transact CIM-based messages
- Provides up to six last-gasp messages across 20 minutes for reliable reporting
- Offers an outage event buffer to reduce the number of false momentary alarms
- Accesses data directly from ANSI C12.19 tables
- Supports integrated disconnect functionality

Synergize™

RF Electric Meter Transmission Unit

Residential and Commercial

Meter Transmission Unit Specifications

| | |
|---|--|
| Meter compatibility | GE I-210+ residential and kV2c commercial meters |
| Data speed | 9.6 kbps per RF channel throughput |
| Load profile data | 15-minute, 30-minute, hourly, daily |
| Read rate, commercial meters | 5-minute reads transmitted every 5 minutes, 6 channels |
| Read rate, residential meters | 15-minute reads transmitted every 15 minutes, 4 channels |
| On-demand read response rate | Within 15 seconds |
| Transmitter power | 1 W/30 dBm per transmitter channel |
| Messaging standard | IEC 61968-9 CIM |
| Receiver sensitivity | -105 dBm for 10 ⁻⁶ BER per receiver channel |
| Security standards | AES-256 encryption with X.509 certificate authentication, DTLS v1.2 and NEMA SG-AMI 1, FIPS 197, FIPS 186-4, FIPS 108-4, SP800-90A |
| Outage/restoration event buffer timer | 5 to 300 seconds from meter notification |
| Super-capacitor capability | Up to 6 outage notification messages during 20 minute period |
| Alarms | Outage event/last gasp; restoration event |
| On-request commands (if supported by meter) | Connect/disconnect, demand reset |

Convert Data to Information

Data transmitted to the utility is turned into actionable information by Aclara's iiDEAS® software, a full-featured headend that provides a single user-friendly interface for control and command.

Out-of-the-box functions in iiDEAS are on-demand reads, outage and restoration reporting, connect/disconnect, firmware downloads, alarms and validation, estimation and editing capability. Aclara offers additional value-added modules for loss analysis, transformer analysis, voltage analysis, meter exchange, power billing, fault detection and localization and more.



Aclara is a world-class supplier of smart infrastructure technologies to water, gas and electric utilities globally. Over 700 utilities in nine countries rely on proven Aclara solutions to connect with their customers. Visit us at www.Aclara.com and follow us on Twitter @AclaraSolutions.

Contact Aclara today!

www.aclara.com
800.297.2728
info@aclara.com