EDGE RTU

INNOVATIVE REMOTE TECHNOLOGY

The advanced EDGE™ remote provides seamless integration of analog, status, and control processing with flexible communications options. With a compact enclosure, the unit is ideal for pole mount, panel mount, data concentration, and small substation applications. Specifically engineered to bridge the gap between low-cost, limited functionality units and expensive high-end devices, the EDGE offers state-of-the-art automation technology at a highly competitive price.

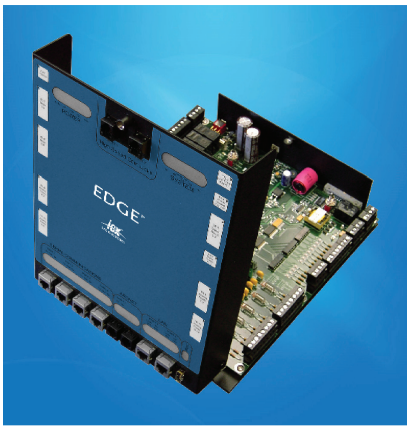
In addition to supporting traditional, real-time SCADA information management, the EDGE is optimized for the automation of motor-operated switches. Software routines enable the monitoring of historical switching events, leading to accurate maintenance scheduling and predictive failure analysis. The EDGE is driven by DAQ's CallistoView™ configuration utility, providing users with the protocols, programmable logic tools, and applications necessary for any type of installation.

CORE APPLICATIONS

- New or retrofit pole-mounted RTU
- IED integration
- Logical algorithms for automation
- Accurate fault and voltage event detection and analysis

ADVANCED FUNCTIONS

- Motor-operated switch control
- Voltage regulator control
- Capacitor bank control
- Designed for simple expansion



The Callisto EDGE remote offers powerful solutions for both pole mount and distributed substation applications.

KEY FEATURES

- 12 status inputs
- 12 analog inputs (AC or DC)
- 8 control outputs, configurable as:
  - 8 direct operate commands
  - 4 select-before-operate trip/close pairs
- Communications
  - 4 serial ports (RS232 or RS485)
  - USB port
  - Ethernet port
  - ArcNET port
- Asynchronous, byte or bit-oriented protocols
- Real-time and historical data
- IEC 1131-compliant PLC programmability

CALLISTO™

TECHNICAL SPECIFICATIONS

PROCESSING

Hardware Platform
- ARM9-powered Printed Circuit Board (PCB)

Processors
- 200 MHz ARM9 Microcontroller
- 200 MHz SHARC DSP Processor

Operating System
- Thread X real-time, multi-tasking

Memory
- 16MB RAM
- 2MB Flash
- 64KB Serial Flash

Time Synchronization
- Real time clock maintains time and date during loss of power
- 1ppm crystal accuracy (1ms per 15 minute interval)
- Real time synchronization for all nodes on the LAN
- Maintains 1ms time-tagging accuracy for all events on the network

COMMUNICATIONS

Serial Input/Output
- 4 independent serial communication ports, individually configurable as RS232 or RS485
- Up to 115200 bit/sec, individually configurable per serial port
- USB host port
- Ethernet IP port, 10/100 MB
- ArcNET port for compatibility with legacy DAQ products
- Byte or bit-oriented, asynchronous protocols
- Support for external modems, both leased line and/or PSTN circuits
- Support for fiber, radio, trunked radio, and packet radio media

ADDITIONAL SPECIFICATIONS

Isolation
- Surge withstand 5kV ANSI/IEEE C37.90.2002 SWC

Power
- 18 - 36 AC/DC directly
- 48 VDC, 120 VDC, 110 VAC via external power supplies or transformer
- Auxiliary power output: 13.8 VDC at 2A

Environmental
- Operating range: -20 to +70˚C
- Storage range: -20 to +70˚C
- Relative humidity: 5 to 95% non-condensing
- Vibration: 5 to 65Hz

MEASUREMENTS / CONTROLS

Analog Inputs
- 12 analog inputs (AC or DC), definable for transducer, PT, CT, battery, or line post sensor on a per point basis

Analog Calculations
- Average and RMS volts and amps
- Neutral current
- Single and three phase watts, VARS, VA, PF
- Positive, negative, and zero sequence voltages and currents
- 2nd through 31st harmonic and THD for voltage and current
- Fault currents up to 20x nominal

Digital Inputs
- 12 digital inputs, individually configured to monitor status, SOE, or Form A/C accumulator inputs
- Opto-isolation > 5kV input-to-input and input-to-ground

Digital Outputs
- 8 control outputs configurable as 8 direct operate commands or 4 select-before-operate trip/close pairs
- Relays: 1 Form A contact rated for 16 A @ 277 VAC

DIMENSIONS

Printed Circuit Board
- 2 standard 4-layer Double PCBs
- 9 ½" x 9 ¾"
- 8" x 9 ¾"

Enclosure
- 11 ½" x 9 ½" x 3"

PROTOCOL SUPPORT

In addition to the protocols listed, DAQ can also accommodate special user requirements

Master Station and IED
- CDC Type II, Conitel, DNP 3.0 (serial and IP), Modicon MODBus, PMS-91, QUICS IV, SES-92, Landis & Gyr 8979, Valmet Series V

Master Station
- CDC Type I, Harris 5000/6000, IEC 870-5 Profile 103, PG&E 2179

IED
- Cooper 2179, Eaton Incom, IEC 870-5 Profile 101 (Siemens), JEM 1, PSE Quad 4 Meter, Quantum Qdip, Schweitzer Relay Protocol (221/251/351), SPABUS, Transdata Mark V Meter

CONTACT

DAQ Electronics, LLC
262B Old New Brunswick Road
Piscataway, NJ 08854 USA

T 732.981.0050 F 732.981.0058
www.daq.net