

JACE-300E



Overview

Tridium's JACE-300E is a compact, embedded controller/server platform. It combines integrated control, supervision, data logging, alarming, scheduling and network management functions with Internet connectivity and web serving capabilities in a small, compact platform. The JACE-3E makes it possible to control and manage external devices over the Internet and present real time information to users in web-based graphical views.

The JACE-3E is a member of Tridium's suite of Java-based controller/server products, software applications and tools, which are designed to integrate a variety of devices and protocols into unified, distributed systems. Building upon the JACE-2's success, the JACE-3E offers faster performance to utilize new Niagara^{AX} features. The JACE-3E device capacity has been increased by up to 20%.

Tridium products are powered by the revolutionary Niagara^{AX} Framework, the industry's first software technology designed to integrate diverse systems and devices into a seamless system. Niagara supports a wide range of protocols including LonWorks[™], BACnet[™], MODbus, oBIX and Internet standards. The Niagara^{AX} Framework also includes integrated network management tools to support the design, configuration, installation and maintenance of interoperable networks.

Applications

The JACE-3E is ideal for smaller facilities, remote sites, and for distributing control and monitoring throughout large facilities. Optional input/output modules can be plugged in for applications where local control is required. The JACE-3E also supports a wide range of field busses for connection to remote I/O and stand-alone controllers. In small facility applications, the JACE-3E is all you need for a complete system.

The JACE-3E serves data and rich graphical displays to a standard web browser via an Ethernet LAN or remotely over the Internet. In larger facilities, multi-building applications and large-scale control system integrations, Niagara^{AX} Supervisor[™] software can be used to aggregate information (real-time data, history, alarms, etc.) from large numbers of JACEs into a single unified application.

Features

- Embedded Power PC platform @ 400 MHz
- Supports open and legacy protocols
- QNX Real-time Operating System
- Web User interface (standard) serves rich graphical browser presentations
- Run stand-alone control, energy management, and integration applications within the T-300E series controllers
- Supports two optional communications boards
- Optional 16 and 34 point I/O Modules
- Data Recovery Services prevents data loss during power interruptions
- Optional battery is available for extended runtime

Ordering Information - JACE and Memory Upgrade Option

Part Number	Description
T-300E	Base Unit including two Ethernet ports, one RS-232 port, and one RS-485 port. Web User Interface and Niagara Connectivity included. oBIX Client/Server driver included.
NPM-256	NPM-256 - Memory Upgrade option. Upgrades T-300E JAVA Heap from 24MB up to 96MB

Ordering Information - Optional Communications Cards

Part Number	Description
NPB-LON	Optional 78 Kbps FTT10 A Lon Adapter
NPB-232	NPB-232 - Optional RS-232 port adapter with 9 pin D- shell connector
NPB-2X-485	Optional dual port RS-485 adapter; electrically isolated
NPB-GPRS-W	GPRS Modem Option Card
NPB-ZWAVE-US	ZWAVE Option Card for North America
NPB-ZWAVE-EU	ZWAVE Option Card for Europe
NPB-SED-001	Sedona Wireless Option Card

Ordering Information - Power Supply & Optional Power Modules

Part Number	Description
NPB-PWR	Optional: 24 Volt AC/DC power supply module, Din Rail mounted
WPM-US	120 Vac, 50-60 Hz. US
WPM-EUR	230 Vac. 50-60 Hz. Europe/Asia
WPM-UK	WPM-UK - 230 Vac 50-60 Hz. UK
WPM-JP	100 Vac 50-60 Hz. Japan
NPB-PWR-UN	Optional universal voltage input power supply module, Din Rail mounted. Input voltage is 90-263 Volts AC, 50/60 Hz auto adjusting. Acceptable for ambient temperatures between 0-50°C
NPB-BATT	Optional Battery Kit. Provides up to 10 minutes of runtime during power outages and disturbances

Specifications

Platform

- Power PC 405EX 400MHz processor
- 256MB SDRAM & 128MB Flash Memory
- Data Recovery Services with SRAM
- Real-time clock

Operating System

- QNX RTOS
- Oracle Hotspot JAVA VM
- Niagara^{AX} 3.7.106 or later
- Niagara 4.0 Ready

Communications

- 2 Ethernet Ports – 10/100 Mbps (RJ-45 Connectors)
- 1 RS 232 Port (9 pin D-shell connector)
- 1 RS 485 non isolated port (3 Screw Connector on base board)

Chassis

- Construction: Plastic, din rail or screw mount chassis, plastic cover
- Cooling: Internal air convection
- Dimensions: 6.313" (16.04 cm) W x 4.820"(12.24 cm) H (including connectors) x 2.438" (6.19 cm) D

Environment

- Operating temperature range: 0-60°C (32°F to 140°F)
- Operating temperature range: 0-50°C (32°F to 122°F) w/ optional battery kit
- Storage Temperature range: 0° to 70°C (32°F to 158°F)
- Relative humidity range: 5% to 95%, non-condensing

Agency Listings

- RoHS Compliant
- UL 916
- C-UL listed to Canadian Standards Association (CSA) C22.2 No. 205-M1983 "Signal Equipment"
- CE
- FCC part 15 Class B
- C-tick (Australia)

**Optional I/O Modules***IO-34 - 34 Point I/O Module*

- Max of 1 per T-300E; includes integral 24 volt AC/DC input power supply for T-300E and IO; no other power required
- 16 Universal Inputs (Type 3 (10k) Thermistors, 0-1000 ohm, 0-10 volts, 0-20 mA with external resistor)
- 10 relay outputs (Form A contacts, 24 VAC @.5 amp rated)
- 8 analog outputs (0-10 volt DC)

IO-16 - 16 Point I/O Module

- Up to 4 per T-300E, 2 per T-300E if combined with a 34 Point I/O module
- 8 Universal Inputs (Type 3 (10k) Thermistors, 0-1000 ohm, 0-10 volts, 0-20 mA with external resistor)
- 4 relay outputs (Form A contacts, 24 VAC @.5 amp rated)
- 4 analog outputs (0-10 volt DC)

Architecture

