JENE-PC645
Series Controller

Overview

The JENEsys® JENE-PC645 is an embedded controller/server platform designed for remote monitoring and control applications. The unit 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 JENE-PC645 makes it possible to control and manage external devices over the Internet and present real time information to users in web-based graphical views.

In addition to supporting Niagara^{AX} Framework applications, the JENE-PC645 can optionally support Niagara R2 applications. This option provides the ideal platform for projects currently utilizing Niagara R2 technology where cost effective migration to the Niagara^{AX} Framework is desired. The Niagara^{AX} Framework compatible platform can be installed an optionally configured to support a facility utilizing a Niagara R2 Framework application today. At a later date, the facility can migrate to a Niagara^{AX} Framework application, thus spreading the cost of the migration across multiple phases.

The JENE-PC645 is part of the JENEsys portfolio of Java-based controller/server products, software applications and tools, designed to integrate a variety of devices and protocols into unified, distributed systems. JENEsys products are powered by the Niagara^{AX} Framework, the industry's leading software technology that integrates diverse systems and devices into a seamless system. Niagara^{AX} supports a range of protocols including LonWorks®, BACnet®, Modbus, oBIX and many Internet standards. The Niagara^{AX} Framework also includes integrated management tools to support the design, configuration and maintenance of a unified, real-time controls network. The LonWorks FTT-10A port, RS-485 port, RS-232 port, metal enclosure and line voltage input power supply, make this platform ideal for a wide variety of integration applications.

Applications

The JENE-PC645 is ideal for small facilities, remote sites, and for distributing control and monitoring throughout large facilities. It is also ideal for managing and controlling today's energy applications. The JENE-PC603 includes one LonWorks FTT-10A port and on RS-485 port providing support for a wide range of field buss connections to remote I/O and stand-alone controllers. In small facility applications, the JENE-PC645 is all you need for a complete system. The JENE-PC603 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, AX Supervisor™ software can be used to aggregate information (real-time data, history, alarms, etc.) from large numbers of JENE-PC645 controllers into a single unified application.

Features

- Embedded PowerPC Platform @ 524MHz
- One LonWorks FTT10A port for LON device integration
- One RS-485 port for connection to open and proprietary protocol devices
- One RS-232 port for integration or technical support
- WebUI services to support many simultaneous users over the intranet or Internet via a standard web browser
- One Niagara^{AX} Framework option slot supporting JENE-PC-XXX option modules. This features is not available for Niagara R2 applications.

Specifications

Platform:

- PowerPC 440 524MHz Processor
- 128MB DDR RAM & 128 MB Serial Flash
- Optional 256 MB DDR RAM
- SLA Battery Backup
- Real-time clock

Operating System:

- QNX RTOS (Real-time Operating System)
- Sun HotSpot JVM Java Virtual Machine
- Niagara^{AX} 3.6.45 or later

Chassis

- Housed metal enclosure, intended for indoor wall mounting only
- Cooling: Internal air convection
- Dimensions: 11" Wide X 14" High X 2.5" Deep (27.94 cm Wide X 35.56 cm High X 6.35 cm Deep)
- Weight: Net 4 lbs. (1.814 kg), Gross 5 lbs. (2.268 kg)

Environment

- Operating temperature range: 0^0 to 50^0 C (32^0F to 122^0F)
- Storage temperature range: 0^0 to 70^0C (32^0F to 158^0F)
- Relative humidity range: 5% to 95% ,non-condensing

Power Options:

- JENE-PC645: 120 Vac, 50/60 Hz
- JENE-PC645I: 230 Vac, 50/60 Hz
- 25 VA maximum
- Lead wires for hot/neutral (wire nut), stud for ground connection. JENE-PC603I has two-screw terminal strip for AC power connections, plus a stud for ground

Agency Listings

- UL 916, FCC part 15 Class B, RoHS Compliant
- CE, C-UL listed to Canadian Standards Association (CSA) C22.2 No. 205-M1983 "Single Equipment"
- BTL B-BC BACnet Building Controller listed when the BACnet driver is installed and configured

Communications:

- Two Ethernet Ports - 10/100 Mbps (RJ-45 Connectors)
- Two RJ-45 connector for RS-232 Port
- Four screw terminal RS-485 Port (up to 78,600 baud for MSTP)
- One LonWorks port - FTT-10A with Weidmuller connector
- One Niagara^{AX} 32 Pin Option Card Slot

Available Niagara^{AX} Option Modules

- JENE-PC-LONCARD - Lon Card
- JENE-PC-232 RS-232 Card
- JENE-PC-485 Dual port RS-485 Card
- JENE-PC-GPRS-W GPRS Modem with Wyless SIM Card
- JENE-PC-ZWAVE-US ZWAVE Card/Driver US
- JENE-PC-SED-001 Sedona Wired/Wireless Card

Other

- Maximum LON devices = up to 124
- Maximum MSTP devices per RS-485 port = 31 standard load
  - 124 1/4 load devices; requires one MSTP driver per port
  - Port speeds supported are:
    - 4,800 baud; 9,600 baud; 19,200 baud; 38,400 baud; 57,600 baud; 76,800 baud

Battery Backup

- Battery backup provided for all on board functions
- Battery is monitored and trickle charged
- Battery maintains processor operation through power failures for a pre-determined interval, then writes all data to flash memory, shuts processor down, and maintains clock for a minimum of five years

Ordering Information

JENE-PC603 Series Controller

Model #	Description
JENE-PC645	Base Unit including two Ethernet ports, two RS-232 port, one LonWorks® FTT-10A port and four RS-485 ports. Web User Interface and Niagara Connectivity licenses are included. oBix Client/Server and LonWorks drivers are included.
JENE-PC645I	Base Unit including two Ethernet ports, one RS-232 port, one LonWorks® FTT-10A port, and four RS-485 ports. Web User Interface and Niagara Connectivity licenses are included. oBix Client/Server and LonWorks drivers are included. For International installations.
JENE-PC6XX-RB-R2	Niagara R2 application option which allows the installer to utilize a Niagara R2 based station on the JENE-PC645 platform. Includes Niagara R2 station license and individual drivers transferred from original license.

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