GE RX3i PacSystem Series Service Manual

IC695CPE400

1. Description

The IC695CPE400 is a Rackless Central Processing Units (CPU). It is part of the PACSystem RX3i platform, currently under Emerson Automation, formerly produced by GE Intelligent Platforms (GE IP). This CPU is a DIN rail mount device that comes with a quad-core microprocessor and 64 Mbytes of configurable data and program memory, supporting up to 768 Program Blocks with each having a maximum size of 128 bytes. It supports addressing of up to 32 K bits of discrete input and output and 32 KWords of

3. Product Information

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Brand GE Fanuc

Series PACSystem RX3i

Manufacturer Emerson Automation

Manufacturer GE Intelligent Platforms (Former); Emerson Automation (Current)

Part Number IC695CPE400

Product Description Rackless controller

Series PACSystem RX3i

Product Description Rackless CPU

Communication ports Six (6) Ethernet ports

Part Number IC695CPE400

Processor 1.2 GHz AMD G Series Quad-Core

RAM 64 MB

Processor Type 1.2 GHz AMD G Series quad-core microprocessor

Operating System VxWorks

Flash Memory 64 MB

Supported programming language Ladder Diagram, Structured Text, Function Block Diagram, or C

Program Storage 64 Mbytes of User Memory

Processor speed 1.2GHz AMD G quad core

IO Memory 32 Kbits Discrete I/O; 32 KWords Analog I/O

Type of Memory Storage SRAM, Flash

Operating system VxWorks

No. of Program blocks 768 Program block

Input Power Requirement 20 Watts

Supported protocols SRTP, Modbus TCP, Ethernet Global Data (EGD), PROFINET, MRP and OPC-UA Server

Maximum Program block size 128 KB

Display OLED

Local display OLED display

User Memory 64 MB

Ethernet Port Yes

Secure Boot Yes

Communication Ports Five (5) LAN Ports; One (1) RJ45 Serial COM port

Secure Boot Yes

Peripheral Ports Two (2) USB Port; One (1) Video display port; One (1) IICS Cloud Port (EFA)

Trusted Platform Module Yes

USB Ports Two (2) Embedded USB ports

Media Redundancy Supported via LAN 2

Protocol Support SRTP, PROFINET, MRP, Modbus TCP

Memory Backup Energy Pack (IC695ACC403)

Controller Redundancy Supported via Synchronization Port LAN3

Supported Protocols Ethernet, SRTP Server, Modbus TCP Server, and EGD protocols

Power Supply 24 VDC

The IC695CPE400 is a Central Processing Unit (CPU) module from the PACSystem RX3i series, formerly manufactured by GE Intelligent Platforms, now under Emerson Automation. This module is designed for DIN Rail mounting and comes with a variety of communication, peripheral and connectivity ports such as Five (5) LAN ports, Two (2) USB interfaces located at the front panel; One (1) RJ45Serial COM port, One (1) Video display port; One (1) IICS Cloud Port (EFA) installed on the rear panel of the device. It has a 1.2 GHz AMD G Series quad-core microprocessor, 64 Mbytes memory and programmable using a variety of languages such as Ladder Diagram, Structured Text, Function Block Diagram, or C. The IC695CPE400 I/O memory can support up to 32 Kbits of Discrete input (%I) and Discrete Output (%Q) and 32KWords of analog input (%AI) and analog output (%AQ). Bulk memory (%W) is also supported by this module for data exchanges. Up to 768 Program blocks can be downloaded to this module with maximum individual block size of 128 KB. LAN 1 of this module is designed for liner communication while LAN2 and LAN3 are embedded switch ports with LAN3 used to provide high-speed communication and synchronization port between redundant processors. All ports support 10/100/1000 Mbps communication speed supporting full and half-duplex mode, straight and crossover cable connectors. In addition, LAN 1 and LAN 2 supports communication with PME programming station using SRTP protocol. Furthermore, LAN2 supports media redundancy protocol. This rackless CPU module is designed to operate at nominal external supply voltage of 24 VDC.

The IC695CPE400 CPU is a central processing unit that belongs to the RX3i PacSystems series of modules manufactured by GE Fanuc. It is also part of the Industrial Internet Control System. The IC695CPE400 CPU provides secure communication by using a cloud-based application. It features a 1.2 GHz AMD G Series Quad-Core microprocessor for high-speed execution and efficient performance. It also supports a wide variety of communication protocols including the PROFINET protocol with an 8-millisecond fast I/O update rate and the

Ethernet interface for rapid and secure data interchange. This CPU has 64 MB of configurable program and data memory. The users can program the CPU by using a variety of programming languages such as the ladder diagram, function block diagram, C, and structured text languages. The IC695CPE400 CPU supports 4 independent Ethernet LANs which are located on the front panel. It has extended security with secure booting, trusted platform modules, and encrypted firmware updates. The OLED display of the module provides basic information and status updates including operating mode updates, fault alerts, and IP addresses. An alternative adapter plate for panel mounting is also shipped with the module. It consists of 6 user-accessible pushbuttons for easy and reliable operation. It also equipped with a serial COM port and a video display port which are located on the underside of the IC695CPE400 CPU module. The IC695ACC403 energy pack and the IC695CBL003 cable are compatible accessories for this device. It features a micro-SD card slot and 2 USB ports for extended data transferring facilities. This module is designed for mounting on a DIN rail. If panel mounting is required, the users can use the panel-mounting adapter which is provided with the module.