

PACSystems* RX7i

IC698CPE010/CPE020

Central Processing Unit

GFK-2244AG

February 2012

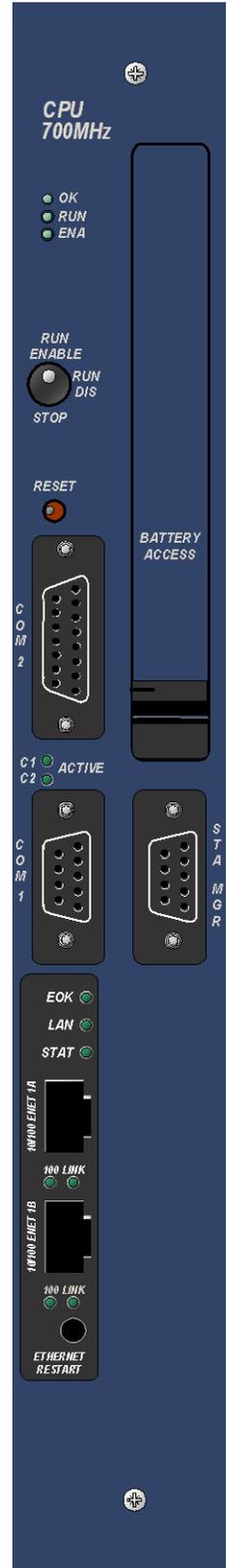
The RX7i CPUs are programmed and configured by the programming software to perform real time control of machines, processes, and material handling systems. The CPU communicates with I/O and smart option modules over a rack-mounted backplane using the VME64 Standard format. It communicates with the programmer and HMI devices via the embedded Ethernet ports or a serial port using SNP Slave protocol.

CPE010: 300MHz Celeron microprocessor

CPE020: 700MHz Pentium III microprocessor

Features

- Contains 10 Mbytes of battery-backed user memory and 10 Mbytes of non-volatile flash user memory.
- Provides access to bulk memory via reference table %W.
- Configurable data and program memory.
- Programming in Ladder Diagram, C, Structured Text, and Function Block Diagram.
- Supports auto-located Symbolic Variables that can use any amount of user memory.
- Reference table sizes include 32Kbits for discrete %I and %Q and up to 32K words each for analog %AI and %AQ.
- Supports Series 90-70 discrete and analog I/O, communications, and other modules. For a list of modules supported, refer to the *PACSystems RX7i Installation Manual*, GFK-2223.
- Supports all VME modules supported by Series 90-70.
- Supports RX7i data monitoring over the web. Allows a combined total of up to 16 web server and FTP connections.
- Supports up to 512 program blocks. Maximum size for a block is 128KB.
- Test Edit mode allows you to easily test modifications to a running program.
- Bit-in-word referencing.
- Battery-backed calendar clock.
- In-system upgradeable firmware.
- Three isolated serial ports: an RS-485 serial port, an RS-232 serial port, and an RS-232 Ethernet station manager serial port.
- The embedded Ethernet interface provides:
 - Data exchange using Ethernet Global Data (EGD)
 - TCP/IP communication services using SRTP
 - Support for SRTP Channels, Modbus/TCP Server, and Modbus/TCP Client
 - Full programming and configuration services
 - Comprehensive station management and diagnostic tools
 - Two full-duplex 10BaseT/100BaseT/TX (RJ-45 Connector) ports with an internal network switch providing auto-negotiated network speed, duplex mode, and crossover detection.
 - User-configurable Redundant IP address
 - Time synchronization to SNTP time server on Ethernet network (when used with Release 5.00 or later CPU module).



* indicates a trademark of GE Intelligent Platforms, Inc. and/or its affiliates. All other trademarks are the property of their respective owners. All rights reserved.

GFK-2244AG

Specifications

For environmental specifications and compliance to standards (for example, FCC or European Union Directives), refer to Appendix A of the *PACSystems RX7i Installation Manual*, GFK-2223.

Battery Memory retention	For details on battery operation, refer to the applicable battery module datasheet (page 25).
Program storage	Up to 10 Mbytes of battery-backed RAM 10 Mbytes of non-volatile flash user memory
Power requirements CPE010 CPE020	+5 VDC: 3.2 Amps nominal +12 VDC: 0.042 Amps nominal -12 VDC: 0.008 Amps nominal +5 VDC: 4.5 Amps nominal +12 VDC: 0.042 Amps nominal -12 VDC: 0.008 Amps nominal
Operating temperature	CPE010: 0 to 50°C (32°F to 122°F) 0 to 60°C (32°F to 140°F) with fan tray CPE020: 0 to 60°C (32°F to 140°F) with fan tray, required
Floating point	Yes
Boolean execution speed, typical CPE010 CPE020	0.33ms per 1000 Boolean contacts/coils 0.14ms per 1000 Boolean contacts/coils
Time of Day Clock accuracy	Maximum of 9 seconds per day
Elapsed Time Clock (internal timing) accuracy	0.01% maximum
Embedded communications	RS-232, RS-485, Ethernet interface
Ethernet Ports	Embedded auto-sensing 10/100 Mbps half/full duplex Ethernet interface
Serial protocols supported	Modbus RTU Slave, SNP, Serial I/O
VME Compatibility	System designed to support the VME64 standard ANSI/VITA 1
Program blocks	Up to 512 program blocks. Maximum size for a block is 128KB.
Memory	%I and %Q: 32Kbits for discrete %AI and %AQ: configurable up to 32Kwords %W: configurable up the maximum available user RAM Symbolic: configurable up to 10Mbytes
<i>Ethernet Interface Specifications</i>	
Web-based data monitoring	Up to 16 web server and FTP connections (combined)
Ethernet data rate	10Mb/sec and 100Mb/sec
Physical interface	10BaseT RJ45
WinLoader support	Yes
Number of EGD configuration-based pages	255
Time synchronization	SNTP
Selective consumption of EGD	Yes
Load EGD configuration from CPU to programmer	Yes
Remote Station Manager over UDP	Yes
Local Station Manager (RS-232)	Dedicated RS-232 port
Configurable Advanced User Parameters	Yes