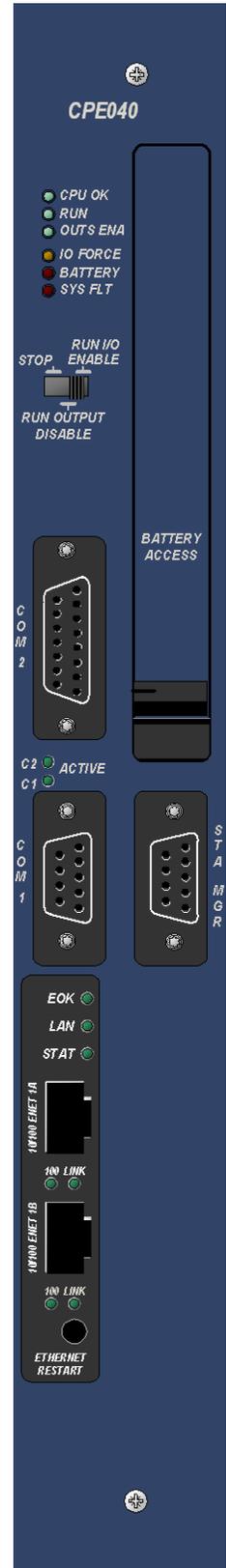*GFK-2438W*
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The RX7i CPUs are programmed and configured by the programming software to perform real time control of machines, processes, and material handling systems. The CPU communicates with I/O and smart option modules over a rack-mounted backplane 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.

CPE030: 600MHz Pentium-M microprocessor with 64 MB of user memory and 64 MB of user flash

CPE040: 1800MHz Pentium-M microprocessor with 64 MB of user memory and 64 MB of user flash

Features

- Contains 64 Mbytes each of battery-backed user memory and non-volatile flash user memory for user data (program, configuration, register data, and symbolic variable) storage.

- Access to bulk memory via reference table %W.

- Configurable data and program memory.

- Programming in Ladder Diagram, C, Structured Text, and Function Block Diagram.

- Auto-located Symbolic Variables that can use any amount of user memory.

- Support for 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.

- Support for all VME modules supported by Series 90-70.

- Rx7i data monitoring over the web. Allows a combined total of up to 16 web server and FTP connections.

- Up to 512 program blocks. Maximum size for a block is 128KB.

- Test Edit mode that allows you to easily test modifications to a running program.

- Bit-in-word referencing

- Battery-backed calendar clock.

- CPU and module firmware upgrades via Winloader through CPU's RS-232 or RS-485 serial port.

- Three isolated serial ports: an RS-485 serial port, an RS-232 serial port, and an RS-232 Ethernet station manager serial port.

- An embedded Ethernet interface with:
  - 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).

Specifications

Note: 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 battery selection, installation and estimated life, refer to the *PACSystems Controller Battery and Energy Pack Manual,* GFK-2741.
Program storage	Up to 64 Mbytes of battery-backed RAM 64 Mbytes of non-volatile flash user memory
Power requirements: CPE030	+5 VDC: 3.2 Amps nominal +12 VDC: 0.003 Amps nominal -12 VDC: 0.003 Amps nominal
CPE040	+5 VDC: 6.8 Amps nominal +12 VDC: 0.003 Amps nominal -12 VDC: 0.003 Amps nominal
Operating temperature: CPE030	0 to 50°C (32°F to 122°F) 0 to 60°C (32°F to 140°F) with fan tray
CPE040	0 to 60°C (32°F to 140°F), fan tray required
Boolean execution speed, typical: CPE030	0.069ms per 1000 Boolean contacts/coils
CPE040	0.02391ms per 1000 Boolean contacts/coils
Time of Day Clock accuracy	Maximum drift of $\pm$2 seconds per day
Elapsed Time Clock (internal timing) accuracy	±0.01% maximum
Embedded communications	RS-232, RS-485, Ethernet interface
Serial Protocols supported	Modbus RTU Slave, SNP, Serial I/O
Ethernet Ports	Embedded auto-sensing 10/100 Mbps half/full duplex Ethernet interface
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 (For a detailed listing of memory areas, refer to the *CPU Reference Manual,* GFK-2222.)	*%I and %Q:* 32Kbits for discrete *%AI and %AQ:* configurable up to 32Kwords *%W:* configurable up to the maximum available user RAM Managed memory (*Symbolic and I/O variables combined):* configurable up to 10 Mbytes
Ethernet Interface Specifications	
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 RX7i to programmer	Yes
Remote Station Manager over UDP	Yes
Local Station Manager (RS-232)	Dedicated RS-232 port
Configurable Advanced User Parameters	Yes