MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

GE PACSYSTEMS RX7I

IC698CPE030

RX7I ETHERNET CONTROLLER

Used with the applicable PACSystems RX7i controllers configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: GE official manufacturer documentation

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 PLC to programmer	Yes
Remote Station Manager over UDP	Yes
Local Station Manager (RS-232)	Dedicated RS-232 port
Configurable Advanced User Parameters	Yes

Battery Life Estimates for IC698CPE030/CRE030 and IC698CPE040/CRE040

To avoid loss of RAM memory contents, routine maintenance procedures should include scheduled replacement of the IC693ACC302 battery pack. The following table lists estimates of battery life that can be used to develop a battery replacement schedule.

Nominal Battery Life with Applied Power OFF (100% Usage)

0ºC*	***20ºC***	***60ºC****
20 days	30 days	35 days

* The nominal backup values are estimated at 20ºC. Backup time increases approximately 17% at 60ºC and decreases approximately 32% at 0ºC.

Error Checking and Correction, IC698CRE030 and IC698CRE040

Redundancy CPUs are shipped with error checking and correction (ECC) enabled. Enabling ECC results in slightly slower system performance, primarily during power-up, because it uses an extra 8 bits that must be initialized. If you upgrade the firmware on a non-redundancy CPU model to support redundancy, you must set the ECC jumper to the enabled state as described in the installation instructions provided with the upgrade kit.

For details on ECC, refer to the *PACSystems Hot Standby CPU Redundancy User's Guide,* GFK-2308.

Note: Multiple Recoverable Memory Error faults may be generated when a single-bit ECC error is detected. When a single-bit ECC error is detected, the value presented to the microprocessor is corrected. However, the value stored in RAM is not corrected until the next time the microprocessor writes to that RAM location.

PACSystems CPU Models

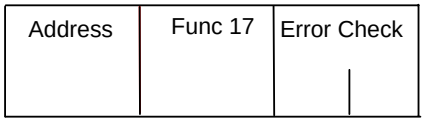
Family	Catalog Number	Description
RX3i CPUs	IC695CPU310	300MHz Celeron CPU, 10 MB user memory
	IC695CPU320	1 GHz Celeron-M CPU, 64 MB user memory
	IC695NIU001	300MHz Celeron NIU. For information, see the *PACSystems RX3i Ethernet NIU User's Manual,* GFK-2439
RX7i CPUs with embedded Ethernet Interface	IC698CPE010	300MHz, Celeron CPU, 10MB user memory
	IC698CPE020	700MHz, Pentium CPU, 10 MB user memory,
	IC698CPE030	600MHz, Pentium-M CPU, 64MB user memory
	IC698CPE040	1800MHz, Pentium-M CPU, 64MB user memory
RX7i Redundancy CPUs with embedded Ethernet Interface	IC698CRE020	700MHz, Pentium CPU, 10 MB user memory
	IC698CRE030	600MHz, Pentium-M CPU, 64MB user memory
	IC698CRE040	1800MHz, Pentium-M CPU, 64MB user memory

PACSystems CPU models have the following features in common:

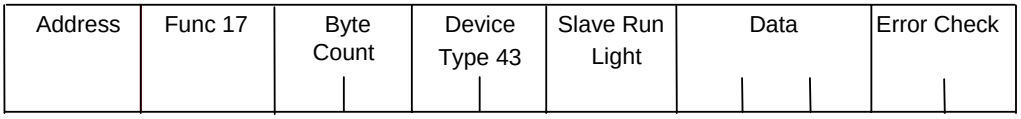
- Programming in Ladder Diagram, Function Block Diagram, Structured Text and C.
- Floating point (real) data functions.
- Configurable data and program memory.
- Battery-backed RAM for user data (program, configuration, register data, and symbolic variable) storage
- Non-volatile built-in flash memory for user data (program, configuration, register data, and symbolic variable) storage. Use of this flash memory is optional.
- Battery backup for program, data, and time of day clock.
- Configurable Run/Stop mode switch.
- Embedded RS-232 and RS-485 communications.
- Up to 512 program blocks. Maximum size for a block is 128KB.
- Auto Located Symbolic Variables, which allows you to create a variable without specifying a reference address.
- Bulk memory area accessed via reference table %W. The upper limit of this memory area can be configured to the maximum available user RAM.
- Larger reference table sizes, compared to Series 90 CPUs: 32Kbits for discrete %I and %Q and up to 32K words each for analog %AI and %AQ.
- Online Editing mode that allows you to easily test modifications to a running program. (For details on using this feature, refer to the programming software online help and *Proficy™ Logic Developer Getting Started,* GFK-1918.)
- Bit in word referencing that allows you to specify individual bits in a WORD reference in retentive memory as inputs and outputs of Boolean expressions, function blocks, and calls that accept bit parameters.
- In-system upgradeable firmware.

Message (17): Report Device Type

Format:



Query



Normal Response

Query:

The Report Device Type query is sent by the master to a slave in order to learn what type of programmable control or other computer it is.

- An address of zero is not allowed as this cannot be a broadcast request.
- The function code is 17.

Response:

- The byte count field is one byte in length and is equal to 5.
- The device type field is one byte in length and is equal to 43 (hexadecimal) for the PACSystems
- The slave run light field is one byte in length. The slave run light byte is equal to OFFH if the CPU is in RUN mode. It is equal to 0 if the CPU is not in RUN mode.
- The data field contains three bytes. For PACSystems CPUs, the first byte is the Minor Type, and the remaining bytes are zeroes. The following table lists minor types.

Response Data (Minor Type)	***CPU Model***
02 hex	IC698CPE010
04 hex	IC698CPE020
05 hex	IC698CRE020
06 hex	IC698CPE030
08 hex	IC698CPE040
0A hex	IC695CPU310
10 hex	IC695CPU320