GE RX3i PacSystem Series Service Manual

IC695ETM001

1. Description

The IC695ETM001 is an Ethernet Transmitter module that is part of the GE / Emerson PACSystems Rx3i product family. This module features Two (2) RJ45 connectors that support Ethernet I/P communication protocol and One (1) 9-pin Sub-D Station manager female connector. It is also provided with a reset pushbutton. This is a single slot module that is installed to an Rx3i rack.

2. Specifications

Specification	Value
Brand	**GE / Emerson**
Series	**RX3i PacSystem**
Part	**Number IC695ETM001**
Product	**Type Ethernet interface module**
Compatibility	**PACSystems RX3i**
Ethernet	**Ports 2x 10/100 Mbps**
Serial	**RS-232 Yes**
Serial	**Data Rates 1200 bps to 115200 bps**
Hot-swappable	**Yes**
Autosensing	**Ports Yes**
Ethernet	**Processor speed 200 MHz**
Non-volatile	**memory Yes - Allows daisy-chaining of Ethernet nodes**
Transmission	**Rate 10/100 Mbps**
Ethernet	**Connectors 8-pin female shielded RJ45**
Serial	**Connector 9-pin female D-connector**
Duplex	**Modes Half and full duplex**
The	**IC695ETM001 is a PACSystem Rx31 module that is manufactured by GE which was recently acquired by Emerson. The IC695ETM001 is specifically a Two (2) port Ethernet transmitter module that enables Ethernet connectivity which support 10/100 Mbps transmission rate with auto-negotiation functionality.**

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Technical specifications for IC695ETM001

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The IC695ETM001 is a single slot module that fits into an RX3i slot. It enables the PACSystem to communication with other controller platforms such as Series 90 an VersaMax controllers. This module is capable of Service Request Transport Protocol (SRTP), Modbus TCP, and Ethernet Global Data (EGD) protocols over a four-layer TCP/IP (Internet) stack.

This Ethernet Transmitter module supports periodic data exchange via Ethernet Global data, implement EGD commands to read and write controllers. It also supports TCP/IP services using Serial Real-Time Transport Protocol (SRTP) and SRTP channels, capable of acting as MODBUS TCP server and MODBUS TCP Client. It has an embedded switch that may be configured for Auto negotiation, Sense, Speed, and crossover detection. This module may also be used for Time Sychronization to SNTP Time Server on Ethernet TCP/IP.

The IC695ETM001 has an Ethernet processor speed of 200 MHz. It is provided with LED status indicators, such as Ethernet OK, LAN OK, Log Empty, Individual port and speed LED status indicators.

When installing the IC695ETM001, compatible backplane for use are IC695CHS007, CHS012 or CHS016. It is compatible with any other PACSystem RX3i module except the CPE400. It is ideally installed to an unpowered RX3i backplane however, supports insertion under power or even when the processor is in RUN mode. This is also known as Hot-Swap capability. To enable hot swap, firmware revision 2.51 must be installed.

A RS-232 serial port is also provided on the IC695ETM001 module and supports data rates of 1200 bps to 115200 bps. The built-in Station Manager function of the module can be accessed over both serial and Ethernet connections and it provides supervisory access. The services available through Station Manager include commands for polling and controlling the station, access for monitoring the statistics, logs, and configuration parameters, and password security. The IC695ETM001 module can be used for synchronizing the timestamps of EGD exchanges through the SNTP protocol. Features of the IC695ETM001 modules include PLC configuration and programming features, periodic data exchange through EGD, TCP/IP communication over SRTP, and diagnostic and station management tools. The IC695ETM001 module can be installed in any empty RX3i slot. The IC695ETM001 module is hot-swappable. The module firmware can be upgraded in the field through software tools provided by GE Fanuc.