MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

EMERSON

IC695ETM001 IC695ETM001-LDAB

ETHERNET NETWORK INTERFACE MODULE

Used with the applicable PACSystems RX3i ETM001 configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: GE GFK-2332Z, IC695ETM001 Ethernet Interface Module, pp.1 to 2; base-family data only

PACSystems* RX3i

IC695ETM001-JX

GFK-2332Z

Ethernet Interface Module

November 2017

Important Product Information

The Ethernet Interface Module, IC695ETM001, connects a PACSystems RX3i controller to an Ethernet network. It enables the RX3i controller to communicate with other PACSystems equipment and with Series 90 and VersaMax controllers. The Ethernet Interface provides Transmission Control Protocol and Internet Protocol (TCP/IP) communications with other control systems, host computers running the Host Communications Toolkit or programmer software, and computers running the TCP/IP version of the programming software. These communications use the Service Request Transport Protocol (SRTP), Modbus TCP, and Ethernet Global Data (EGD) protocols over a four-layer TCP/IP (Internet) stack.

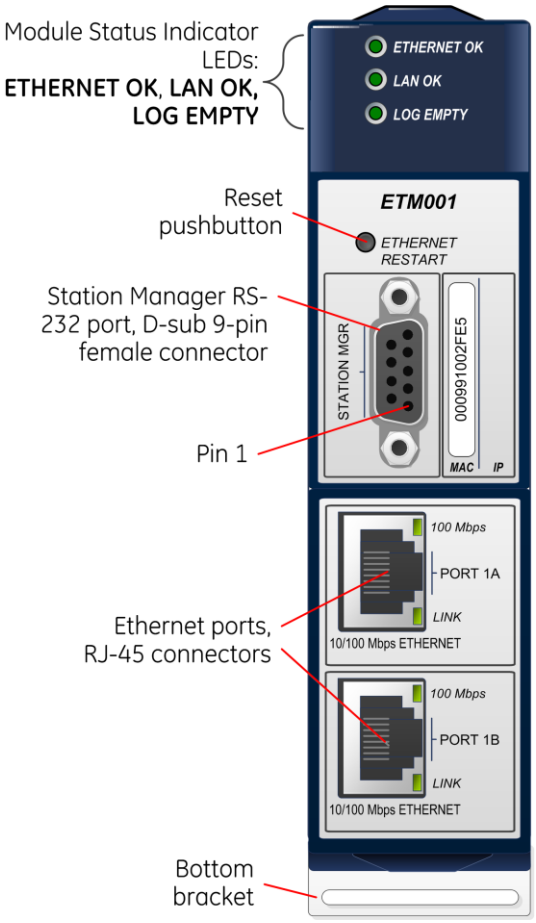


Figure 1: ETM001 Front View

Features of the RX3i Ethernet Interface include:

- Full programming and configuration services. Firmware upgrades from the RX3i CPU using the WinLoader software utility, which is supplied with updates to the Ethernet Interface software.
- Periodic data exchange using Ethernet Global Data (EGD).
- EGD Commands to read and write controller and EGD exchange memory over the network.
- TCP/IP communication services using SRTP.
- Support for SRTP Channels, Modbus/TCP Server, and Modbus/TCP Client
- Built-in Station Manager for on-line supervisory access to the Ethernet Interface. Dedicated Station Manager port.
- Two auto-sensing 10Base T / 100Base TX RJ45 shielded twisted-pair Ethernet ports for direct connection to either a 10BaseT or 100BaseTX IEEE 802.3 network without an external transceiver. There is only one interface to the network (only one Ethernet MAC address and only one IP Address).
- Internal network switch with Auto negotiate, Sense, Speed, and crossover detection.
- Recessed Ethernet Restart pushbutton permits manually restarting the Ethernet firmware without power cycling the system.
- LEDs: Ethernet OK, LAN OK, Log Empty, individual port activity and speed LEDs.
- Configurable stand-alone Redundant IP Addressing, which allows a single IP Address to be assigned to corresponding Ethernet modules in two different controllers. The Redundant IP Address is configured in addition to the normal unique IP Address of each Ethernet module. Under application logic control, only the Ethernet module in the active unit can use the Redundant IP Address.
- Time synchronization to SNTP Time Server on Ethernet network (when used with Release 5.00 or later CPU module).

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IC695ETM001 Specifications

Ethernet Processor Speed	200 MHz
Connectors	- Station Manager (RS-232) Port: 9-pin female D-connector - Two 10BaseT / 100BaseTX Ports: 8-pin female shielded RJ45
LAN	IEEE 802.2 Logical Link Control Class I IEEE 802.3 CSMA/CD Medium Access Control 10/100 Mbps
Number of IP Addresses	One
Number of Ethernet Port Connectors	Two. both are 10BaseT / 100BaseTX with auto-sensing RJ45 connection.
Embedded Ethernet Switch	Yes – Allows daisy-chaining of Ethernet nodes.
Serial Port	Station Manager Port: RS-232 DCE, 1200 – 115,200 bps.

Refer to the *PACSystems RX3i System Manual*, GFK-2314, for product standards and general specifications.

Ethernet Interface Status Bits

Note: Unless **LAN Interface OK** (Status Bit 16) is set, the other status bits are invalid. Bit 1 is lsb.

LAN Interface Status Bits

1	Port 1A full duplex
2	Port 1A 100Mbps
3	Port 1B full duplex
4	Port 1B 100 Mbps
5	Network Time Locked
6	Redundant IP Address is active
7-8	Reserved
9	Any Channel Error (error on any channel)
10–12	Reserved
13	LAN OK
14	Resource problem
15	Module Overtemperature
16	LAN Interface OK

Channel Status Bits (two for each channel)

17	Channel 1 Status (SRTP: Data Transfer)
18	Channel 1 Status (SRTP: Channel Error)
...	...
79	Channel 32 Status (SRTP: Data Transfer)
80	Channel 32 Status (SRTP: Channel Error)