General Electric IC698RMX016

01 Redundant Memory Exchange Module / system role

Product function and operating context

General-purpose memory sharing and redundancy synchronization are different configured roles, even though they use the same module family.

Memory offsets determine which segment a node exchanges. Network packet size affects useful throughput, while the optical line rate describes the physical link. Application design must avoid treating line speed as guaranteed application payload performance.

Integration checkpoints

- Capture the memory map
- Protect the optical path
- Restore the intended role
- Verify redundancy behavior when used

Data architecture	reflective memory shared through a fiber ring
Configured role	general exchange or supported redundancy link
Diagnostic separation	optical presence, ring circulation and controller readiness

The RMX indicators distinguish local and remote readiness, active roles, optical signal detection and circulation of the node’s own data. An illuminated optical receiver indicator alone does not establish a complete ring or a healthy redundancy configuration.

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02 Technical operating envelope

Reflective memory	16 MB with parity	Transfer rate	43–174 Mbit/s, packet-size dependent
Optical link	2.1 Gbit/s	Multimode link distance	Up to 304.8 m
Network nodes	Up to 256	Optical connector	LC transmit and receive ports
Packet size	4–64 bytes	Network interrupts	4 general-purpose interrupts with 32-bit data

Values retain their individual conditions and interface boundaries. Technical values apply to IC698RMX016 with the stated operating conditions. Check supplied revision and the configured installation.

What distinguishes IC698RMX016 redundancy-link configuration from ordinary reflective memory?

Redundancy has CPU-role and supported-system requirements in addition to memory transfer. Confirm the intended role and compatible controller configuration before connecting the link.

Can IC698RMX016 be directly combined with a single-mode redundancy link solely because both use fiber?

No. Match the supported optical type and module combination. Multimode RMX016 and single-mode alternatives are not automatically interchangeable.

How should local and remote readiness on IC698RMX016 be interpreted during a switchover test?

Check readiness and active-role indications together with controller status. A role transition is accepted only when the intended controller and I/O behavior match the redundancy design.

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03 System integration and applications

RX7i memory sharing

Exchange the configured memory segment among compatible reflective-memory nodes.

Supported CPU redundancy

Assign the module as a redundancy link only within a compatible controller architecture.

Fiber-ring installations

Use the correct multimode optical direction and complete ring path.

Network data diagnostics

Compare packet return, optical detection and CPU roles to distinguish wiring faults from configuration errors.

System and supply context

The IC698RMX016 belongs to the PACSystems RX7i Memory Xchange arrangement with its specified field interfaces.

Application boundary

Applications must satisfy the module or transducer boundary and the actual controller, receiver or target conditions.

Is the 2.1 Gbit/s link speed of IC698RMX016 the application transfer rate?

No. Useful transfer rate depends on packet size and network operation. Use the specified payload-performance range when budgeting exchanged data.

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04 Engineering selection decisions

Why can IC698RMX016 detect an optical signal without receiving its own data?

Signal Detect confirms light at the receiver; Own Data confirms a packet has returned around the network. Inspect ring continuity, transmit/receive routing and node configuration separately.

How can a memory-offset mismatch affect IC698RMX016 data exchange?

Nodes can address different memory segments even while the physical ring is intact. Reconcile the configured segment and application offsets across communicating nodes.

Why should IC698RMX016 transmit and receive fibers be traced individually?

A ring requires each transmitter to reach the correct next receiver. Connector fit alone does not establish direction or complete the return path.

What should be checked before adding another IC698RMX016 to an RX7i rack?

Review the total Memory Xchange module count, the number assigned as redundancy links and the configured controller architecture. Physical slot availability is only one constraint.

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05 Configuration boundary and references

Lifecycle and support

The current production and manufacturer-support stage of IC698RMX016 is unconfirmed. Replacement planning must preserve the supported system and the supplied hardware execution.

Replacement assessment

Record node identity, memory offsets and configured role. Preserve the associated RX7i CPU and redundancy settings before module replacement.

Document roles

Use the original manufacturer excerpt for its preserved technical tables and drawings. This product brief explains selection and system context. The separate installation guide covers preparation, connection, tests and handover; use it together with the applicable manufacturer instructions.

Technical basis

Emerson Memory Xchange Module User Manual, GFK-2300G.

Related product navigation

- General Electric IC693BEM321
- General Electric IC693CMM302

These are related references, not confirmed substitutes or an automatically approved assembly.

Product enquiries