

I/A Series® Hardware

Fiber Optic Carrierband LAN Interface



The Fiber Optic Carrierband LAN Interface module is an I/A Series Station which provides a communication interface between the Fiber Optic LAN and the I/A Series Nodebus. Packaged as a Z-module for installation in I/A Series enclosures, the Fiber Optic Carrierband LAN Interface connects to the Fiber Optic LAN cable system with two duplex fiber cables.

The Fiber Optic Carrierband LAN Interface is optionally fault-tolerant. In this configuration, it is installed adjacent to another Fiber Optic Carrierband LAN Interface that is connected to the same redundant fiber optic LAN cable network.

One Fiber Optic Carrierband LAN Interface occupies one mounting structure slot, while a fault-tolerant pair occupies two adjacent slots.

Six LEDs mounted on the front of the module indicate the following network activities: sending to the LAN (A or B), receiving from the LAN (A or B), and error in transmission to or from the LAN (A or B).

FIBER OPTIC CARRIERBAND LAN INTERFACE FUNCTIONAL SPECIFICATIONS

Power Requirement

INPUT VOLTAGE RANGE (REDUNDANT VOLTAGE)
26 to 42 V dc
CONSUMPTION
10.3 W

Fiber Optic Cable Ports

INPUT
Power Range
-33 dBm to -9 dBm peak
OUTPUT
Transmit Level, HI
-13 dBm to -9 dBm peak
Transmit Level, LO
-22 dBm to -18 dBm peak
Center Wavelength
1250 nm to 1335 nm

Fiber Optic Cable Ports (Cont.)

OUTPUT (CONT.)
Spectral Width
145 nm (maximum)
Rise/Fall Time
10 ns (maximum)

Indicators

Red, yellow, and green light-emitting diodes (LEDs) indicate operational status.

Internal Diagnostics

Self-checking performed at power-up. Runtime checks and watchdog timer function performed during operation. Upon detection of an error, both fault-tolerant modules run internal self-diagnostic tests to determine which module is defective.

ENVIRONMENTAL SPECIFICATIONS(A)

Operating

TEMPERATURE
0 to 60°C (32 to 140°F)
RELATIVE HUMIDITY
5 to 95% (Noncondensing)
ALTITUDE
-300 to +3,000 m (-1,000 to +10,000 ft)

Storage

TEMPERATURE
-40 to +70°C (-40 to 158°F)
RELATIVE HUMIDITY
5 to 95% (Noncondensing)
ALTITUDE
-300 to +12,000 m (-1,000 to +40,000 ft)

Environmental Contamination Level

Class G3 (Harsh) as defined in ISA Standard S71.04

(a) The environmental ranges can be extended by the type of Enclosure containing the module. [Refer to applicable Product Specification Sheet (PSS) which describes the specific Enclosure that is to be used.]

PHYSICAL SPECIFICATIONS

Configuration

Single-width Z-module. The fault-tolerant version consists of two single-width Z-modules.

Mass (Maximum)(a)

1.2 kg (2.7 lb)

(a) For a single Fiber Optic Carrierband LAN Interface Z-Module.

Mounting

May be placed in any mounting structure slot. In the fault-tolerant version, the two single-width modules must be mounted in adjacent mounting structure slots.

FIBER OPTIC LAN FUNCTIONAL SPECIFICATIONS**Bus Type**

Fiber optic network conforming to IEEE 802.4
token passing standard

Data Transfer Rate

5 megabits per second

Medium

62.5/125 micron multi-mode duplex fiber

Fiber Connectors(a)

4 ST TYPE CONNECTIONS

1. RXA cable
2. TXA cable
3. RXB cable
4. TXB cable

Number of Nodes

The allowable number of nodes is limited by the
software address limit. Contact Foxboro for additional
information.

(a) For a single Fiber Optic Carrierband LAN Interface Z-Module.

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