

I/A Series® Hardware Communications Processor 15



The Communications Processor 15 comprises the foundation for various intelligent device interfaces, and for computer and information network connections. It is packaged as a non-expandable single width X-Module that connects to the Mounting Structure Bus and accesses the nodebus. Peripheral connections are made via cable connectors secured to the top or bottom of the mounting structure that houses the communications processor. The processor hardware architecture consists of the following:

- Processor
- Dynamic RAM Memory
- Nodebus Interface
- Up to Four RS-232-C Interface I/O Ports
- 8087 Numeric Coprocessor

As this unit is the base hardware for multiple products, the number of supported ports is determined by the product on which it is used.

FUNCTIONAL SPECIFICATIONS**Processor Type**

80C86 Microprocessor with 8087 numeric coprocessor

Memory

32K byte EEPROM; 896K byte parity DRAM

Protocol Capability

Asynchronous 5 to 8 bit characters; odd, even or no parity; 1 or 2 stop bits
Synchronous HDLC or SDLC

Ports

Four RS-232-C (asynchronous)
One RS-232-C (synchronous)

Channel Performance

Four asynchronous I/O ports at a combined speed of 9.6K bits/second, or
One synchronous I/O port with speeds up to 64K bits/second

Intra-System Communication

Redundant Nodebus

Power Requirements

INPUT VOLTAGE (REDUNDANT)

39 V dc

CONSUMPTION (HEAT DISSIPATION)

11 W (maximum)

Isolation

All four channels of the RS-232-C are isolated from the system power source. All signals for the RS-232-C are isolated for 500 V.

Internal Diagnostics

Self-checking performed at power-up. Runtime checks and watchdog timer function performed during operation.

ENVIRONMENTAL SPECIFICATIONS**Operating**

TEMPERATURE

0 to 60°C, (32 to 140°F)

RELATIVE HUMIDITY

5 to 95% (Noncondensing)

ALTITUDE

-300 to +3000 m (-1000 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 (-1000 to +40,000 ft)

Contamination

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

(a) The environmental limits of this module may be enhanced by the type of enclosure containing the module. [Refer to the applicable Product Specification Sheet (PSS) which describes the specific type of enclosure that is to be used.]

PHYSICAL SPECIFICATIONS**Mounting**

May be placed in any system mounting structure.

Mass (Maximum)

2.2 kg (4.9 lb)

Indicators

Red and green light-emitting diodes (LEDs) indicate status

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