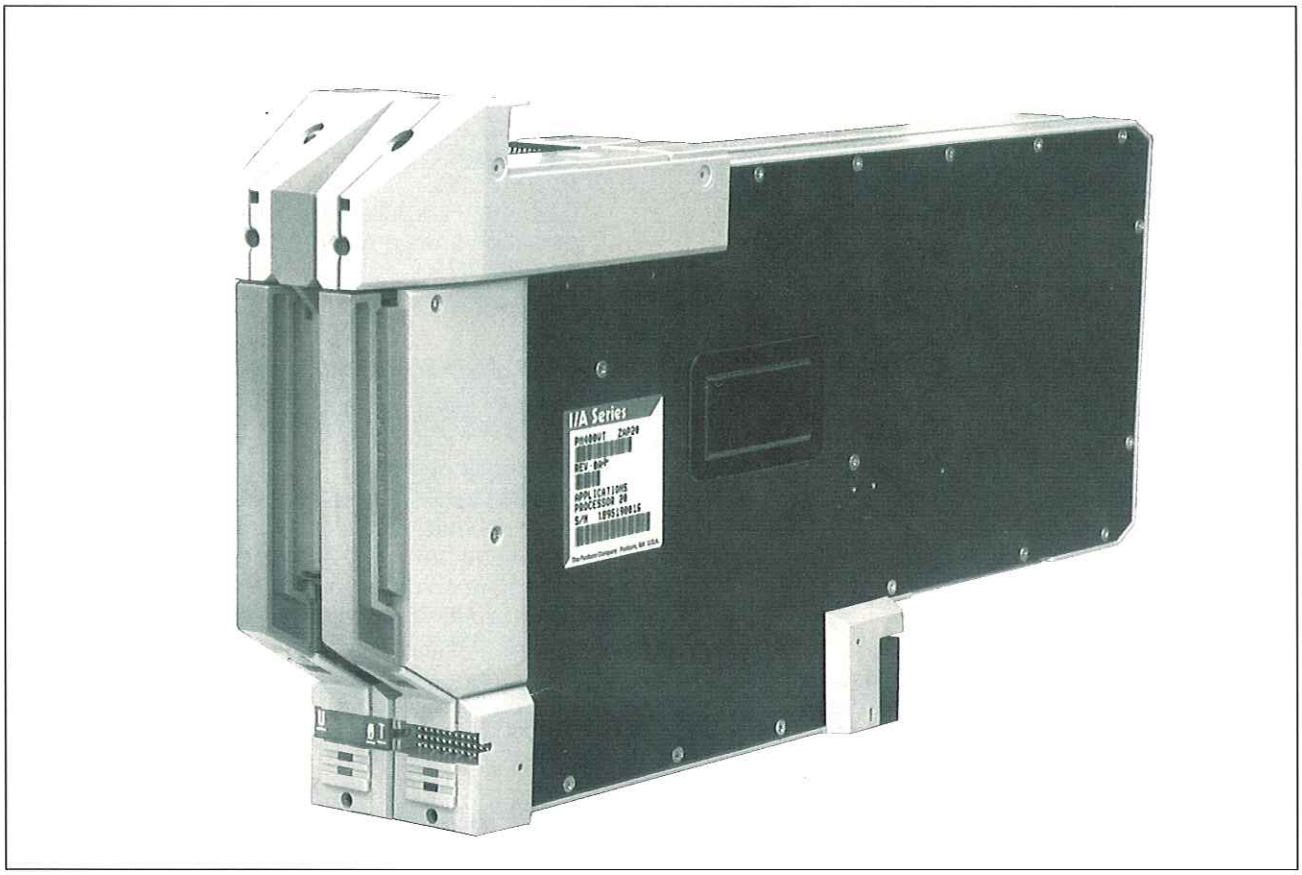
Cancelled Per Trans 021-01
May 1998.

I/A Series®
Application Processor 20



Application Processor 20 performs one or more of the following functions in an I/A Series system:

- Execution of application functions, such as those relating to:
  - Displays
  - Production control
  - User applications
  - Diagnostics
  - Configuration
- Development and execution of applications functions (Foxboro and other) requiring extensive data processing and file serving capabilities.
- Processing of bulk storage file requests from tasks either within the same application processor or from other stations.

In conjunction with one or more file storage devices (e.g., disk drives), Application Processor 20 can be used to load other stations in the system. It can also be used to execute production control tasks such as data reconciliation, spreadsheet and performance calculations; provide support facilities such as operator "help" and electronic documentation; and provide application development facilities such as compilers, linkers, and text editors.

The non-fault-tolerant version of Application Processor 20 consists of a single module having a double-width Z-Module form factor. The fault-tolerant version consists of two modules, each having a double-width Z-Module form factor. The non-fault-tolerant version contains the following elements:

- Microprocessors (2)
- Dynamic RAM Memory
- Nodebus Interface
- Small Computer System Interface (SCSI)

FOXBORO®
A SIEBE COMPANY

APPLICATION PROCESSOR 20 FUNCTIONAL SPECIFICATIONS

(For non-fault-tolerant version, except as otherwise noted.)

Quantities and Types of Devices Served[a][b]

SCSI[c] *PERIPHERALS*
One Floppy Disk Controller (interfaces up to 2 floppy drives); up to four Streamer Tape Drives, with Controllers; up to seven Hard Disk Drives, with Embedded Controllers

NON-SCSI PERIPHERALS
None

Microprocessor Types
80286 Processor, 80287 Coprocessor

RAM Memory
2 MB

Power Requirements

INPUT VOLTAGE (REDUNDANT)
26 to 36 V, ac or dc

CONSUMPTION
14 W

Error Detection

COMMUNICATION ERRORS
Cyclic Redundancy Codes (CRC) and checksum codes

MEMORY ERRORS
Parity code

DISK ERRORS
CRC and Reed-Solomon codes (used for error detection and correction)

SCSI ERRORS
Parity code

Indicators
Red and green light-emitting diodes (LEDs) indicate operational status. Amber LEDs indicate SCSI bus activity and SCSI terminator status (on when lit).

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

(a) The total number of SCSI controllers on one non-fault-tolerant application processor may not exceed seven. For example, if one floppy p-adapter, a streamer, and four hard drives are selected, one more SCSI device may be added.
(b) For fault-tolerant application processors, redundant hard disk drives must be included with identical images. Floppy disk drives and tape drives cannot be configured redundant.
(c) Small Computer System Interface (ANSI standard ANSC X3T9.2).

ENVIRONMENTAL SPECIFICATIONS[a]

Operating

TEMPERATURE
0 to 60° C (32 to 140°F)

RELATIVE HUMIDITY
5 to 95% (Noncondensing)

ALTITUDE
-300 to +3000 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

(For non-fault-tolerant version, except as otherwise noted.)

Configuration
Double-width Z-Module form factor.

Mass (Maximum)
2.3 kg (4.5 lb)

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