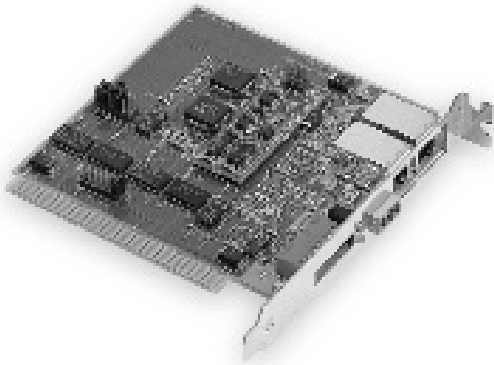


### Network Interface Modules for PC/XT/AT Bus Computers



- Utilises COM20020 ARCNET controller
- Interfaces ARCNET with XT/AT (ISA) bus computers
- I/O-only mapping reduces bus contention problems

- No requirement for wait-state arbitration
- Enhanced software capabilities over earlier generation ARCNET controllers
- Supports coaxial, fibre optic, and twisted-pair cabling including EIA-485
- Node address switch selects one of 255 possible station addresses
- Variable data rates up to 5 Mbps
- Suitable with all Contemporary Controls MOD HUB and AI Series active hubs
- CMOS design for low-power consumption
- CE Mark
- RoHS

### PRODUCT OVERVIEW

**The PCX20 Series of Network Interface Modules (NIMs) offers dependable ARCNET connectivity for XT/AT compatible computers.**

This product is designed with the COM20020 ARCNET controller chip. Features include command chaining, sequential access to internal RAM, duplicate node ID detection, and variable data rates up to 5 Mbps. There is no requirement for wait-state arbitration.

**Each PCX20 module has two LEDs on the board for monitoring network operation and bus access to the module.** It also has an external DIP switch so that node addresses can be easily reassigned without removing the module or opening the computer case.

**There are eight models within the PCX20 Series.**

The PCX20-CXS supports coaxial star configurations requiring external hubs if other than point-to-point communication is needed. The PCX20-CXB accommodates a multidrop or coaxial bus configuration, typically without any hubs. Other versions include the PCX20-FOG-ST for fibre optic cable with ST connectors. The PCX20-TPB supports multidrop twisted-pair cabling using RJ-11 and screw terminal connectors. Two units provide DC-coupled EIA-485 operation: the PCX20-485 allows backplane mode to be controlled by the user's software, while the PCX20-485D forces backplane mode via hardware for those users having legacy software that is incapable of invoking backplane control. The PCX20-485X offers transformer-coupled EIA-485 operation with the backplane mode forced through hardware.

### Specifications

#### Environmental

Operating temperature	0°C to +60°C
Storage temperature	-40°C to +85°C

#### Functionality

Data rate	
PCX20-CXB, -CXS, -TPB	2.5 Mbps
PCX20-FOG-ST, -485, -485D	5 Mbps, 2.5 Mbps, 1.25 Mbps, 625 kbps, 312.5 kbps, 156.25 kbps
PCX20-485X	5 Mbps, 2.5 Mbps, 1.25 Mbps
Dimensions	3.9" x 4.3" (99 mm x 109 mm)
Shipping weight	1 lb. (0.45 kg)
I/O mapping	Supports I/O mapping on any 16-byte boundary
Interrupt lines	Supports strapping of IRQ 2/9, 3, 4, 6 or 7
Compliance	PCX20 Series NIMs are fully compatible with all of Contemporary Controls' ARCNET products and PC/XT/AT computers.

#### Transceiver Specifications

Transceiver	Description	Cable	Connectors	Cable Length		Max Nodes/ Bus Segment
				Min	Max	
-CXB	Coaxial bus	RG-62/u	BNC	6ft/2m <sup>1</sup>	1000ft/305m	8
-CXS	Coaxial star	RG-59/u	BNC	0	1500ft/457m	N/A
-CXS	Coaxial star	RG-62/u	BNC	0	2000ft/610m	N/A
-FOG	Duplex fibre optic	50/125	ST	0	3000ft/915m	N/A
-FOG	Duplex fibre optic	62.5/125	ST	0	6000ft/1825m	N/A
-FOG	Duplex fibre optic	100/140	ST	0 <sup>2</sup>	9000ft/2740m	N/A
-TPB	Twisted-pair bus	IBM Type 3	RJ-11, screw	6ft/2m <sup>1</sup>	400ft/122m	8
-485 <sup>3</sup>	DC-coupled EIA-485	IBM Type 3	RJ-11, screw	0	900ft/274m	17
-485D	DC-coupled EIA-485	IBM Type 3	RJ-11, screw	0	900ft/274m	17
-485X	AC-coupled EIA-485	IBM Type 3	RJ-11, screw	0	700ft/213m	13

<sup>1</sup> This represents the minimum distance between any two nodes or between a node and a hub.

<sup>2</sup> This minimum can only be achieved by removing a jumper on the transceiver circuitry.

<sup>3</sup> Backplane mode operation.

**Power Requirements**

<b>Model</b>	<b>+5 V</b>	<b>-12V</b>
PCX20-485	200 mA	N/A
PCX20-485D	200 mA	N/A
PCX20-485X	200 mA	N/A
PCX20-CXB	200 mA	50 mA
PCX20-CXS	200 mA	20 mA
PCX20-FOG-ST	300 mA	N/A
PCX20-TPB	200 mA	50 mA

**Ordering Information**

<b>Model</b>	<b>Description</b>
PCX20-485	20020 DC-coupled EIA-485 NIM allows software control of backplane mode
PCX20-485D	20020 DC-coupled EIA-485 NIM forces backplane mode via hardware
PCX20-485X	20020 AC-coupled EIA-485 NIM forces backplane mode via hardware
PCX20-CXB	20020 coaxial bus NIM
PCX20-CXS	20020 coaxial star NIM
PCX20-FOG-ST	20020 ST fibre optic NIM
PCX20-TPB	20020 twisted-pair bus NIM

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[www.ccontrols.com](http://www.ccontrols.com)

Contemporary Control Systems, Inc.  
 2431 Curtiss Street  
 Downers Grove, Illinois 60515 USA

Telephone (630) 963-7070  
 Fax (630) 963-0109