Network Interface Modules for PC/XT/AT (ISA) Bus Computers

- **Supports coaxial, twisted-pair, or glass fibre optic cabling**
- **Supports 16 kB memory mapping, minimising memory addressing conflicts**
- **Provides socket for 8 kB auto-boot ROM**
- **Node address switch accessible without removing the PCX from computer**
- **CMOS design for low-power consumption**
- **CE Mark**

- **Utilises COM90C65 ARCNET controller**
- **Interfaces ARCNET with XT/AT (ISA) bus computers**
- **One-third height PC board**

PRODUCT OVERVIEW

The PCX Series of Network Interface Modules (NIMs) links XT/AT (ISA) compatible computers with the ARCNET Local Area Network (LAN). The series is perfect for XT bus ISA compatibility.

The PCX incorporates the COM90C65 ARCNET controller chip, and the module works with either XT or AT (ISA) backplanes. Jumpers are used to set the interrupt, and the base addresses for memory and I/O.

Each PCX 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. Interrupt lines are jumper selectable.

The PCX Series is available in five cabling options. The PCX-CXS supports coaxial cable in a star configuration. The PCX-CXB accommodates coaxial cable in a bus configuration. Both the PCX-TPS and PCX-TPB support twisted-pair, respectively in a star and bus configuration. The PCX-FOG accommodates duplex glass fiber optic cable with ST connectors.

The PCX Series is now an end-of-life product. Therefore, it is not recommended for new installations.

CONTEMPORARY CONTROLS®

Specifications

Environmental	
Operating temperature	0°C to +60°C
Storage temperature	–40°C to +85°C

Functionality	
Data rate	2.5 Mbps
Dimensions	3.9" x 4.3" (99 mm x 109 mm)
Shipping weight	1 lb. (0.45 kg)
Interrupt lines	Supports strapping of IRQ 2/9, 3, 4, 5 or 7
Compliance	PCX Series NIMs are fully compatible with all of Contemporary Controls' ARCNET products and PC/XT/AT computers.

Memory Base Addressing*

Packet Buffer				ROM
C:0000	C:0800	C:1000	C:1800	C:2000
C:4000	C:4800	C:5000	C:5800	C:6000
C:C000	C:C800	C:D000	C:D800	C:E000
D:0000	D:0800	D:1000	D:1800	D:2000
D:4000	D:4800	D:5000	D:5800	D:6000
D:8000	D:8800	D:9000	D:9800	D:A000
D:C000	D:C800	D:D000	D:D800	D:E000
E:0000	E:0800	E:1000	E:1800	E:2000

*Packet buffer occupies a 2K page and the ROM an 8K page.

I/O Base Addressing*

260	300
290	350
2E0	380
2F0	3E0

*I/O ports occupy 16 bytes.

Transceiver Specifications

Transceiver	Description	Cable	Connectors	Cable Length		Max Nodes/
				Min	Max	Bus Segment
-CXB	Coaxial bus	RG-62/u	BNC	6ft/2m[1]	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[2]	9000ft/2740m	N/A
-TPB	Twisted-pair bus	IBM Type 3	RJ-11, screw	6ft/2m[1]	400ft/122m	8
-TPS	Twisted-pair star	IBM Type 3	RJ-11	0	328ft/100m	N/A

[1] This represents the minimum distance between any two nodes or between a node and a hub.

[2] This minimum can only be achieved by removing a jumper on the transceiver circuitry.

Power Requirements

Model	+5 V	–5V[1]
PCX-CXB	150 mA	50 mA
PCX-CXS	150 mA	15 mA
PCX-FOG-ST	220 mA	N/A
PCX-TPB	150 mA	50 mA
PCX-TPS	150 mA	15 mA

[1] Contact factory regarding operation from –12 Volts.

Ordering Information

Model	Description
PCX-CXB	9065 coaxial bus NIM
PCX-CXS	9065 coaxial star NIM
PCX-FOG-ST	9065 ST Fibre optic NIM
PCX-TPB	9065 twisted-pair bus NIM
PCX-TPS	9065 twisted-pair star NIM

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