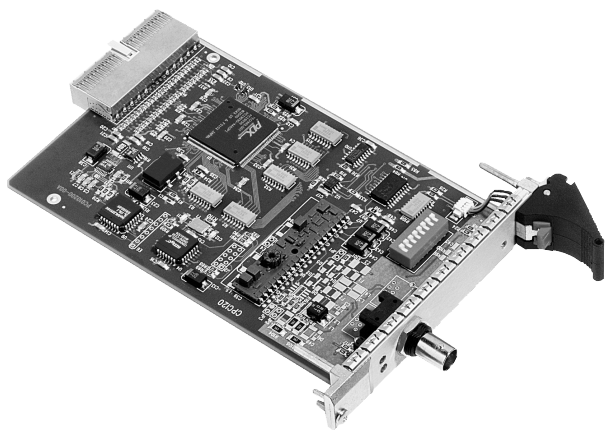


Network Interface Modules for CompactPCI Bus



- Utilises COM20022 ARCNET controller
- Interfaces ARCNET with CompactPCI bus computers
- Low-profile 3U form factor

- Hot-swapping
- Supports coaxial, fibre optic, and twisted-pair cabling including EIA-485
- Automatic configuration of I/O and interrupt
- High-speed I/O access to the COM20022
- NDIS or null stack driver for Windows®
- Suitable with all Contemporary Controls MOD HUB and AI Series active hubs
- CMOS design for low-power consumption

PRODUCT OVERVIEW

The CPCI22 Series links CompactPCI bus compatible computers with the ARCNET Local Area Network (LAN) for a complete solution for industrial and telecommunications applications. You'll find this product has a low-profile, 3U form factor with hot-swap capability and high-performance.

This device allows for both jumperless configuration and Plug-and-Play (PnP) operation. Hot-swapping is a significant benefit for operators of high-availability systems. Both NDIS and null-stack drivers are available for use with the module in a Windows environment.

It is equipped with the ARCNET COM20022 controller chip and includes these features: command chaining, sequential access to internal RAM, duplicate node ID detection and variable data rates up to 10 Mbps. Bus contention problems are reduced since the module's interrupt level and I/O base address are assigned through PnP. There is no requirement for wait-state arbitration.

Each CPCI22 module has two LEDs for monitoring network operation and bus access to the module. It is designed with an 8-position, general-purpose DIP switch typically employed to assign the ARCNET node address. If the node address is configured via software, the DIP switch could instead indicate a user-defined function such as data rate, cable interface, or master/slave status of the CompactPCI system.

Six models of the CPCI22 are available. The CPCI22-4000 provides transformer-coupled AC EIA-485 operation. The CPCI22-485 supports DC-coupled EIA-485 backplane mode. The CPCI22-CXB supports a coaxial bus configuration — often requiring no hubs. The CPCI22-CXS supports coaxial star configurations requiring external active or passive hubs if other than peer-to-peer topology is used. Other versions include the CPCI22-FOG-ST which supports fibre optic cable and ST connectors and the CPCI22-TB5 which supports twisted-pair cabling using RJ-45 connectors.

Specifications

Environmental

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

Functionality

Data rate	
CPCI22-CXB, -CXS, -TB5	2.5 Mbps
CPCI22-FOG-ST, -485	10 Mbps, 5 Mbps, 2.5 Mbps, 1.25 Mbps, 625 kbps, 312.5 kbps, 156.25 kbps
CPCI22-4000	10 Mbps, 5 Mbps, 2.5 Mbps, 1.25 Mbps
Dimensions	100 mm x 160 mm (3U size)
Shipping weight	1 lb. (0.45 kg)
I/O mapping	COM20022 occupies 16 bytes of I/O space
Interrupt lines	Supports PCI INTA
Compliance	CPCI22 Series NIMs are fully compatible with all Contemporary Controls ARCNET products and with CompactPCI bus computers.

Transceiver Specifications

Transceiver	Description	Cable	Connectors	Cable Length		Max Nodes/ Bus Segment
				Min	Max	
-4000	AC-coupled EIA-485	IBM Type 3	RJ-45, screw	0	262ft/80m	13
-485	DC-coupled EIA-485	IBM Type 3	RJ-45, screw	0	900ft/274m	17
-CXB	Coaxial bus	RG-62/u	BNC	6ft/2m ¹	1000ft/305m	8
-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
-TB5	Twisted-pair bus	IBM Type 3	RJ-45, screw	6ft/2m ¹	400ft/122m	8

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.

Ordering Information

Model	Description
CPCI22-4000	COM20022 AC-coupled EIA-485 NIM (backplane set by software)
CPCI22-485	COM20022 DC-coupled EIA-485 NIM (backplane set by software)
CPCI22-CXB	COM20022 coaxial bus NIM
CPCI22-CXS	COM20022 coaxial star NIM
CPCI22-FOG-ST	COM20022 ST fibre optic NIM
CPCI22-TB5	COM20022 twisted-pair bus NIM

Contemporary Controls, ARC Control, ARC DETECT, EXTEND-A-BUS and CTRLink are registered trademarks or trademarks of Contemporary Control Systems, Inc. Specifications are subject to change without notice. Other product names may be trademarks or registered trademarks of their respective companies.

© Copyright 2007 Contemporary Control Systems, Inc.

CONTEMPORARY CONTROLS®
www.ccontrols.com

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

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