CIO-COM422



FEATURES

RS422, RS232 or Current loop Serial Interface. COM1, COM2, COM3 or COM4.
5, 6, 7 or 8 bit character length, even, odd or no parity. RTS/CTS/DTR handshaking.
56K Baud RS232 or RS422, 4.8 K Baud Current Loop. CIO-COM422/550 adds 16 byte data buffer.

The CIO-COM422 is a 100% IBM Asynch adapter compatible serial interface. It is also compatible with MetraByte's COM-422.

The CIO-COM422 adds one EIA compliant RS232 or RS422 port to your computer. The RS422 interface supports longer transmission lines (up to 1.2 Kilometers) and is often the interface of choice for instruments.

CIO-DUAL422



FEATURES

Dual RS422 Serial Interfaces. COM1, COM2, COM3 or COM4. 5, 6, 7 or 8 bit character length, even, odd or no parity. RTS/CTS handshaking. 56K Baud RS422. CIO-DUAL422/550 adds 16 byte data buffer per port.

RS422 is the serial communication standard endorsed by the EIA to replace RS232. Supporting longer transmission lines due to relatively noise immune differential drivers, the RS422 standard is designed with industrial instrument and data acquisition module communication in mind.

The CIO-COM422 is a simple way to upgrade your computer from standard ports to state of the art RS422 serial interfaces.

CIO-COM485



FEATURES

RS485 Serial Interface, software enabled Tx & Rx Network up to 4000 feet. COM1, COM2, COM3 or COM4. 56K Baud. 16550 COM chip has 16 byte data buffer.

Designed for low-cost serial networks, the CIO-COM485 places the transmit and receive transceivers under software control. The RS485 standard allows for multiple transmitters as well as multiple receivers.

Individual RS485 devices may be located as far as 4000 feet from each other. The interfaces are not isolated so must share a common ground. The interface lines are fused to protect the computer should there be a ground fault between networked RS485 devices.

STANDARD 9 and 25 PIN CONNECTORS

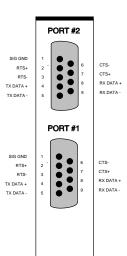
The CIO-COM422 combines an RS232 and an RS422 interface with a single communi-

SIG GND RTS+ CTS+ RTS-RX DATA + TX DATA -RCV CL DATA EIA RI +XMIT CL CARRIER DET FIA DTR SIG GND DATA SET READY +RCV CL DATA CLEAR TO SEND EIA RTS EIA TX DATA ROM REAR OF P

cations port. RS232 is commonly a 25 pin connector, while RS422 is a 9 pin connector.

The pin assignments shown here conform to the RS232 and RS422 standards.

The CIO-DUAL422 combines a pair of communications ports each with RS422



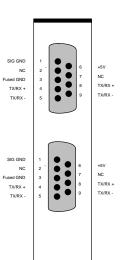
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standard interfaces. Each COM portuses one of the 9 pin connectors shown here.

Since each COM chip may be configured as COM 1, 2, 3 or 4, the assignment of COM ports to connectors is flexible.

Each connector carries the communications signals of a complete RS422 interface.

The CIO-COM485 is equipped with two DB9 connectors for RS485 standard 9 pin



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connectors and cables. The RS485 standard allows multiple transmitters and receivers on a single communications cable.

The CIO-COM485 facilitates interconnection by providing two connectors wired in parallel to the single communications port. In this manner, standard cables may be used without the addition of a'T'

BASE ADDRESS

Α9

A 8

Α7

A 6

Α5

A 4

А3

Personal Computer COM1, 2, 3 or 4 ports are assigned through a

Base Address Switch Set for COM1 or COM2 9 8 7 6 5 4 3 COM1 HEX SW (3F8) 200 All Down 100 80 40 20 COM2 10 2F8 8 SW8 up for COM2

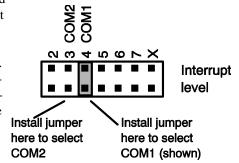
combination of base address and interrupt level. Each COM board has one base address switch for each COM chip.

> To operate correctly with personal computer COM# software drivers, the guidelines for both address and interrupt level should be adhered to.

INTERRUPT LEVEL JUMPER

Communications software such as the standard COM drivers

included with DOS and Windows use interrupt service routines assigned to specific innumbers. terrupt Choose the correct interrupt number by setting the jumper on the CIO-COM board.



COM422 Protocol Select

There are 5 possible protocol selections available through the protocol select switch.

- 1) Standard RS232 with RTS, DTR & CTS.
- 2) RS232 without RTS, DTR & CTS.
- 3) Current Loop
- 4) RS422 with RTS and CTS control signals.
- 5) RS422 without RTS & CTS.

Protocol Selection Switch



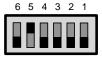
RS-232 with STD control signals



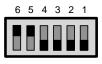
RS-232 without STD control signals



Current Loop



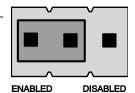
RS-422 with RTS and CTS enabled



RS-422 without CTS or DTS signals

CIO-DUAL422 CTS/RTS Enable

RS422 may be used with or without hardware handshaking. The Clear To Send (CTS) and RTS signal lines may be enabled or disabled by setting a jumper on the CIO-DUAL422.



CTS/RTS ENABLE/DISABLE

SPECIFICATIONS

	CIO-COM422	CIO-DUALA22	CIO-COM485
Protocol	RS232 & RS422	RS422	RS485
COM Ports	One	Two	One
UART (Standard)	16450	16450	16550
UART (/550 models)	16550	16550	N/A
Power Consumption	+5V @ 500mA, -12V @ 30mA, +12V @ 30mA		
Environmental	Operating Temp 0-50C, Storage -55 to 125C		
Size	Height 4.25" X Length 5" @ 4.5 oz.		

ORDERING GUIDE

RS232 or RS422 Serial Interface, Single Com Port	CIO-COM422
Same but with 16550 COM chip	CIO-COM422/550
RS422 Serial Interfaces (Two), Dual Com Ports	CIO-DUAL422
Same but with 16550 COM chip	CIO-DUAL422/550
RS485 Serial Interface, Single Com Port	CIO-COM485