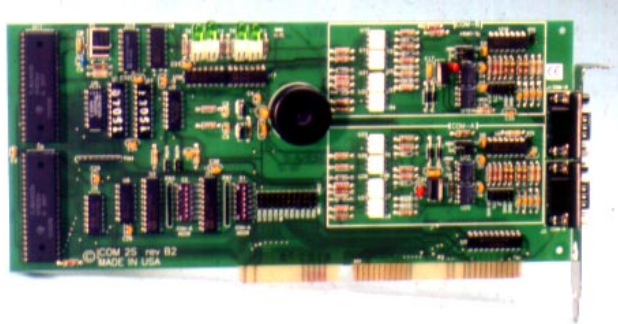


Model ISO-COM485/2

Dual Port Isolated 422/485 Adapters



FEATURES

- *Dual Port Isolated RS-422/485*
- *Supports Extended AT Interrupts*
- *Supports 2- or 4-Wire RS-422/485 Operation*
- *Automatic Control of RS-485 Enable*
- *Compatible with Existing Communication Drivers*
- *LED Status Monitors on Transmit & Receive*

DESCRIPTION

The Model ISO-COM485/2 card can be installed in XT or AT-class ISA bus computers and is designed for transmission/reception over long bus lines in noisy environments. The opto-isolators assure reliable communication when large common mode noise is superimposed on the transmit/receive lines. Opto-isolators are also provided on the RTS and CTS handshaking control lines. Further, an on-board D-DC converter provides isolated +5 VDC to power the transceiver and RTS and CTS circuits.

The card supports all of the most popular asynchronous communication protocols. The card is 100% compatible with MS-DOS with support for the standard COM1 through COM4 serial port addresses. However, you are not limited only to those address. Continuous address selection is available anywhere in the I/O address range of 000 to 3FF.

A crystal-controlled oscillator is located on the card. This oscillator permits selection of standard baud rates from 50 to 115,200 baud. The opto-isolators limit operation to 38,400 baud, but higher speed isolators are optionally available. For operation above 115k baud, a non-isolated version is available, Model COM485/2.

The transceiver used, a type 75176, is capable of driving extremely long communication lines at high baud rates. It is capable of driving up to 60mA on balanced lines and receiving inputs as low as a 200mV differential signal. Also, in case of a communication conflict, the transceivers feature a thermal shutdown mode.

In addition to differential Transmit and Receive lines, single-ended, buffered RTS and CTS lines are provided at the I/O connector. Normally, CTS must be pulled up to +5VDC for the card to operate, but you can position a jumper so that the ISO-COM485/2 will auto detect the transition between transmit and receive operations. The both the ISO-COM485/2 and the COM485/2 support full, duplex, half duplex and simplex operations selected by jumpers.

A transmission line should be terminated at the receiving end in its characteristic impedance. You can install a jumper which applies a resistive load across the input for RS-422 mode and across the transmit/receive input/output for RS-485 operation. When noise is a potential problem on long lines, the terminating resistor should be divided and its center point grounded to help reduce noise voltage pickup. To accomplish this, you can also install a jumper for termination resistance on the positive and negative branches of the receiving lines.



SPECIFICATIONS

Number of Ports

Two RS-422/485 (RS232 also available on COM485/2)

UART

16550

Isolation

True 500VDC isolation

Maximum Data Rate

38.4kbps (115.2kbps for COM485/2)

Receiver Input Sensitivity

±200mV, differential input

Power Requirements

+5VDC @ 400mA

Temperature

Operating: 0° to 65°C

Storage: -50° to 120°C

PINOUT CONNECTIONS (ISO-COM485/2)

Pin 1	DCD	Data Carrier Detect (input)
Pin 2	RD	Receive Data (input)
Pin 3	TD	Transmit Data (output)
Pin 4	DTR	Data Terminal Ready (output)
Pin 5	Gnd	Signal Ground
Pin 6	DSR	Data Set Ready (input)
Pin 7	RTS	Request to Send (output)
Pin 8	CTS	Clear to Send (input)
Pin 9	RI	Ring Indicator (input)

PINOUT CONNECTORS (COM485/2)

Pin Connections

		<u>RS-232 Functions</u>		<u>RS-422/485 Functions</u>	
Pin 1	-	DCD	Data Carrier Detect (Input)	Rx ⁻	Receive Data
Pin 2	-	RD	Receive Data (input)	Tx ⁺	Transmit Data
Pin 3	-	TD	Transmit Data (output)	Tx ⁻	Transmit Data
Pin 4	-	DTR	Data Terminal Ready (output)		
Pin 5	-	Gnd	Signal Ground	GND	Ground
Pin 6	-	DSR	Data Set Ready (input)		
Pin 7	-	RTS	Request to Send (output)		
Pin 8	-	CTS	Clear to Send (input)		
Pin 9	-	RI	Ring Indicator (input)	Rx ⁺	Receive Data

ORDERING GUIDE

Model ISO-COM485/2

Isolated card, manual, software
RS-422/485

Model COM485/2

Non-isolated card, manual, software
RS-232/422/485



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