

## IP-Serial

### IndustryPack Module With Two EIA-232/422/485 Multiprotocol Serial Ports

#### Application Information

The IP-Serial IndustryPack module implements two EIA-232/422/485 multiprotocol serial ports, each with a full set of handshake and clock signals. Protocols include SDLC, HDLC, BiSync, NRZ, NRZI, and Biphase.

Selection between EIA-232 and EIA-422 is performed by shunts. EIA-485 must be special-ordered from the factory and can only be supported on one channel.

The asynchronous receiver has a three-character FIFO. For synchronous operation (SDLC/HDLC) a frame status FIFO is provided that is ten frames deep.

#### Features

- Two EIA-232/422 ports on a single-wide IndustryPack
- Option for one port as EIA-485
- Multiprotocol support including SDLC, HDLC, BiSync, NRZ, NRZI, and Biphase
- Support for RXD+, RXD-, TXD+, TXD-, RTS+, RTX-, CTS+, RTS-, DSR+, DSR-, DTR+, DTR-, DCD/RXC+, DCD/RXC-, TXC+, TXC-, GND
- One channel can be clocked by the other
- Data rates up to 2 Mbps synchronous with external clock
- A conduction-cooled version of this board is also available

## Specifications

Form Factor	Single-wide Type I IndustryPack
IndustryPack Interface	Complies with ANSI/VITA-4
Number of Serial Ports	Two
Signals Supported	RXD+, RXD-, TXD+, TXD-, RTS+, RTX-, CTS+, RTS-, DSR+, DSR-, DTR+, DTR-, DCD/RXC+, DCD/RXC-, TXC+, TXC-, GND
General-Purpose Inputs	None
Termination	Socketted resistor packs
UART	Z85C30
Crystal	3.6864 MHz
Baud Rates	50 to 57.6 kbps from supplied crystal Up to 2 Mbps async with external clock
Stop Bits	Programmable in 1/16 bit increments from 0 to 2
Receiver FIFO	3 characters per port
Transmitter FIFO	None
Timers	None
ESD Protection	None
Interrupts	Maskable, vectored
Dimensions	1.8 inches x 3.9 inches
Weight	0.06 kg (0.15 lb)
Power Requirements (no load)	+5 VDC, 330 mA typ +12 VDC, 35 mA typ -12 VDC, 35 mA typ
Environmental	Operating temperature: -0 to +50°C Humidity: 5 to 95% non-condensing Storage: -40 to +85°C

A conduction-cooled version of this board is also available. Contact factory for details.

## Compatibility

This IndustryPack has no compatible transition modules. Standard serial pin assignments are achieved via cable sets supplied in the engineering kits.



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## Ordering Information

IP-SERIAL	IndustryPack with two EIA-232/422/485 multiprotocol serial ports
EKIP50-SERIAL	Engineering kit for IP-Serial if mounted on a carrier with 50-pin ribbon cable header front panel I/O connectors. Contains: Six foot ribbon cable to two DB25 female (C-IP50F-2D25F) <i>(More items as below)</i>
EKHD50-SERIAL	Engineering kit for IP-Serial if mounted on a carrier with HD50 front panel I/O connectors. Contains: Two foot cable HD50 male two DB25 male (C-HD50M-2D25M) <i>(More items as below)</i>
EKCM50-SERIAL	Engineering kit for IP-Serial if mounted on a carrier with Champ50 front panel I/O connectors. Contains: Six foot ribbon cable to two DB25 female (C-IP50F-2D25F) Three foot Champ50 male to ribbon cable (C-CM50M-IP50M) <i>(More items as below)</i>
All IP-SERIAL engineering kits include:	Printed hardware user annual Two null modem adaptors (NULL-MODEM) Bill of materials Board schematics Assembly diagram Zilog Z85C30 data sheet

## Associated Products

IP-MPSERIAL	IndustryPack with two EIA-232/422/485 high speed multiprotocol serial ports
IP-COMM302	68302-based intelligent high-speed three channel multiprotocol IndustryPack
IP-COMM360	68360-based intelligent high-speed four channel multiprotocol IndustryPack
C-IP50F-2D25F	Six foot, 50 conductor ribbon cable to two DB25 males
C-IP50F-IP50F-3	Three foot 50 conductor ribbon cable
C-IP50F-IP50F-6	Six foot 50 conductor ribbon cable
C-CM50M-IP50M	Three foot Champ50 male to ribbon cable
C-IP50F-HD50M-2	Two foot ribbon header to HD50 male cable
C-HD50M-HD50M	Six foot HD50 male to HD50 male cable
C-HD50M-CM50M	Six foot Champ50 male to HD50 male cable
C-HD50M-2D25M	Two foot cable HD50 male two DB25 male
IP-TERM	50 screw terminal block with ribbon cable connector
IP-TERM-HD50	50 screw terminal block with HD50 female connector
NULL-MODEM	DB25 null modem adaptor