SBS Technologies, Inc.

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IP-Octal-232

IndustryPack Module With Eight EIA-232 Async Serial Ports

Application Information

The IP-Octal-232 IndustryPack module implements eight EIA-232 asynchronous serial ports, each with RXD, TXD, RTS, and CTS signals. In addition, eight general-purpose input lines are provided with TTL switching levels.

Serial ports are implements with the Signetics SCC2698B octal UART. Each channel has a three-character FIFO on its receiver to allow longer interrupt servicing latencies. Eighteen programmable baud rates up to 38.4 kbps, and programmable bit length, parity, and stop bits are supported.

Four independent 16-bit timers are provided. The serial ports support automatic CTS control of the transmitter and change-of-state interrupts.

The IndustryPack Strobe* pin may be used as a clock input or output depending on the setting of user shunts. Two serial channels may be configured for DMA use.

Features

- Eight EIA-232 ports on a single-wide IndustryPack
- Three-level FIFOs on all receivers
- Support for RXD, TXD, RTS, CTS and GND on each channel
- Eight general-purpose inputs
- Programmable baud rates in 18 steps up to 38.4 kbps
- Four 16-bit timers
- Configurable for DMA on two channels

Specifications

Form Factor	Single-wide Type I IndustryPack
IndustryPack Interface	Complies with ANSI/VITA-4 DMA supported on two serial ports
Number of Async Serial Ports	Eight
Signals Supported	RXD, TXD, RTS, CTS, GND
General-Purpose Inputs	Eight, TTL level
UART	Signetics SCC2698B
Baud Rates	Programmable in 18 steps to 34.8 kbps
Stop Bits	Programmable in 1/16 bit increments from 0 to 2
Receiver FIFO	3 characters
Transmitter FIFO	None
Timers	Four, independent, 16 bit
Interrupts	32 sources, maskable, vectored
Dimensions	1.8 inches x 3.9 inches
Weight	0.06 kg (0.1 lb)
Power Requirements	+5 VDC, 170 mA typ +12 VDC, 22 mA typ -12 VDC, 9 mA typ
Environmental	Operating temperature: -0 to +50°C Humidity: 5 to 95% non-condensing Storage: –40 to +85°C

Note: If the interrupt vector is to be used, this product occupies IndustryPack memory space if the carrier it is plugged into does not permit writes into ID PROM space. This situation applies to the MVME162.

Compatability

The following transition modules are compatible with this IndustryPack::

Order Code	Description
XM-OCTAL	19" rack-mountable 16 serial port transition module with DB9 females
XM-OCTAL-6U-D	6U-mountable front panel transition module with eight 25D females
XM-OCTAL-6U-RJ8	6U-mountable front panel transition module with eight RJ45s
XM-OCTAL-6U-RJ16	6U-mountable front panel transition module with sixteen RJ11s

Note that carriers with Champ50 connectors are not compatible with these transition modules.

Ordering Information

IP-OCTAL-232	IndustryPack with eight EIA-232 async serial ports
EKIP50-OCTAL	Engineering kit for IP-Octal-232 if mounted on a carrier with 50-pin ribbon cable header front panel I/O connectors. Contains: Printed hardware user manual IP-Octal transition module (XM-OCTAL) Six foot 50 conductor ribbon cable (C-IP50F-IP50F-6) Bill of materials Board schematics Assembly diagram Signetics SCC2698B data sheet
EKHD50-OCTAL	Engineering kit for IP-Octal-232 if mounted on a carrier with HD50 front panel I/O connectors. Contains: Printed hardware user manual IP-Octal transition module (XM-OCTAL) Two foot cable HD50 male to ribbon header (C-IP50F-HD50M-2) Bill of materials Board schematics Assembly diagram Signetics SCC2698B data sheet
EKCM50-OCTAL	Engineering kit for IP-Octal-232 if mounted on a carrier with Champ50 front panel I/O connectors. Contains: Printed hardware user manual Six foot Champ50 male to HD50 male cable (C-HD50M-CM50M) 50 screw terminal block with female HD50 connector (IP-TERM-HD50) Bill of materials Board schematics Assembly diagram Signetics SCC2698B data sheet *Note that the XM-Octal transition module is not compatible with carriers that use Champ50 connectors*

Associated Products

IP-OCTALOPTO	IndustryPack with eight opto-isolated EIA-232 async serial ports
IP-OCTALPRO-232	IndustryPack with eight EIA-232 serial ports with deep FIFOs
XM-OCTAL	19" rack-mountable 16 serial port transition module with DB9 females
XM-OCTAL-6U-D	6U-mountable front panel transition module with eight 25D females
XM-OCTAL-6U-RJ8	6U-mountable front panel transition module with eight RJ45s
XM-OCTAL-6U-RJ16	6U-mountable front panel transition module with sixteen RJ11s
C-IP50F-IP50F-3	Three foot 50 conductor ribbon cable
C-IP50F-IP50F-6	Six foot 50 conductor ribbon cable
C-IP50F-HD50M-2	Two foot ribbon header to HD50 male cable
C-HD50M-CM50M	Six foot Champ50 male to HD50 male cable
IP-TERM	50 screw terminal block with ribbon cable female connector
IP-TERM-HD50	50 screw terminal block with HD50 female connector

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