

Digi-Port

4- and 8-Port Serial Communication Boards

FEATURES

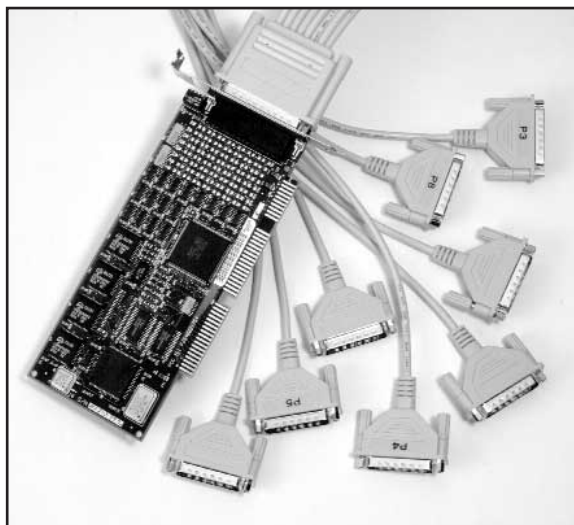
- 4 or 8 asynchronous serial ports
- Fully programmable serial interface channels
- Up to 115.2 Kbaud communications rate
- Available for ISA platforms
- 8530 serial communication controller
- Compatible with DOS, Windows 3.1, 3.11, 95, 98, NT, 2000, OS/2, UNIX and others

APPLICATIONS

- Interface with modems, printers, or networks
- High speed remote LAN access
- High speed Windows and multiuser communications

Functional Description

The Digi-Port boards are intelligent, high-speed multi-channel serial communications boards offered by Keithley. The Digi-Port Series supports rapid data transfer rates and flexible port configuration in 4-port (Digi-4Port) and 8-port (Digi-8Port) models. These boards are compatible with most ISA bus computers.



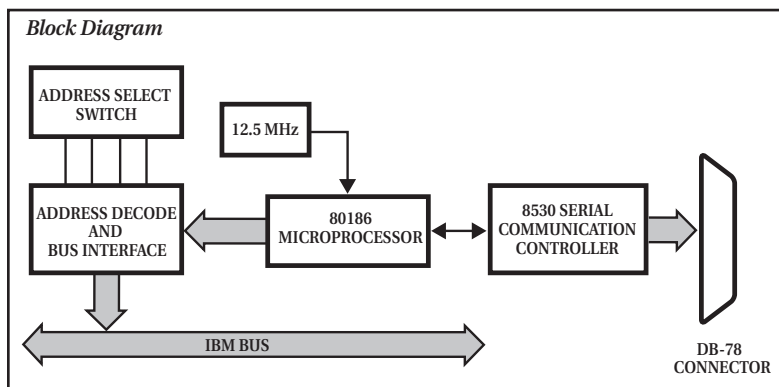
The Digi-Port Series feature a 16-bit architecture. An onboard microprocessor relieves the host CPU of serial I/O processing tasks. The Digi-Port Series supports full modem control and full hardware handshaking (CTS, RTS, DSR, DTR, and DCD) on all channels.

The Digi-Port Series ships with its own software and is compatible with many software products.

High Speed Serial Ports. The Digi-Port Series offers 4-port and 8-port solutions that provide serial data communication rates significantly higher than possible through standard, non-intelligent serial COM1/COM2 ports.

I/O Interface. The Digi-Port Series have four 8-bit registers to facilitate the control of, and communications with, the microprocessor on the board. The I/O port is mapped to any one of seven I/O port addresses via a four-position DIP switch.

The Digi-Port Series allows you to software-select the host computer's interrupt line. Most Digi-Port device drivers use polling to control the data flow and do not require an IRQ setting for the board.



Firmware Features. The Digi-Port Series has onboard firmware that provides extensive diagnostic capabilities and a high-level shared-memory interface for optimum system performance. The firmware consists of two modules: BIOS and Digi-Port's Front End Processor/Operating System (FEP/OS).

The BIOS is a diagnostic/utility program that performs power-up self-test procedures, and will service requests to do low-level manipulation of the board's hardware.

The FEP/OS is the control program used by the host to perform serial I/O tasks. This high-level module relieves the host from all device interrupt handling, performs all processing, and handles all hardware and software flow control.

Onboard Serial I/O Processing. The Digi-Port Series comes equipped with a dedicated Intel 12.5MHz 80186 microprocessor and the built-in firmware described above.

To transmit data, the host system puts the character(s) to be transmitted into a buffer on the Digi-Port board. The FEP/OS constantly polls each channel for characters to transmit and sends them out the appropriate channel. The FEP/OS also receives characters from a channel and places them in the buffer. The FEP/OS can then either interrupt the host or wait for the host to poll for the received data. As a result, all serial I/O processing is handled on the board, which increases response time, throughput, and overall performance.

QUESTIONS ?

1-800-552-1115 (U.S. only)

Call toll free for technical assistance, product support or ordering information, or visit our website at www.keithley.com.

Digi-Port

Software

The Digi-Port Series comes with the Standard Software Package. This package is specifically engineered to work in concert with multiple operating systems such as DOS, Windows 3, 3.1, 3.11, 95 98, NT, 2000, OS/2, UNIX, Xenix, and Novell.

SCO and SVR4 UNIX drivers have the Digi-Port Menu Port Interface (MPI)[™], a software package designed to provide fast and easy installation. MPI has a menu-driven interface that makes configuring individual serial ports for different devices quick work. MPI walks you through the set up of line disciplines including baud rate, flow control, data bits, and other parameters step-by-step. MPI also provides access to Digi Port Authority (DPA)[™], a software diagnostic tool that allows you to easily monitor the status of the FEP/OS and the status of the individual ports.

Connector Pinouts

The Digi-Port Series has a female 78-pin D-style 25 male connectors.

D25 Connectors. Each D25 connector is labeled with the appropriate channel number and uses EIA RS-232 voltage levels, with the following signals at the pins specified.

D25 CONNECTOR PIN ASSIGNMENTS

SIGNAL	DESCRIPTION	DTE USE	DCE USE	PIN NO.
GND	Chassis Ground	N/A	N/A	Shell
TxD	Transmitted Data	Output	Input	2
RxD	Received Data	Input	Output	3
RTS	Request to Send	Output	Input	4
CTS	Clear to Send	Input	Output	5
DSR	Data Set Ready	Input	Output	6
SG	Signal Ground	reference	Reference	7
DCD	Data Carrier Detect	Input	Output	8
DTR	Data Terminal Ready	Output	Input	20
RI	Ring Indicator	Input	Output	22

ORDER DESCRIPTION

DIGI-4PORT	4-port Serial Communications Board for the ISA bus
DIGI-8PORT	8-port Serial Communications Board for the ISA bus

OPTIONS

DIGI-4PORT-CABLE	Cable for 4-port Serial Communications Board
DIGI-8PORT-CABLE	Cable for 8-port Serial Communications Board
TESTPOINT	TestPoint Software Package

See page 479 for descriptions of all accessories.

SPECIFICATIONS

PROCESSOR: Intel[™] 80186.

NUMBER OF PORTS: 4 or 8 asynchronous.

MAXIMUM DATA TRANSFER RATE: 115.2 kbaud.

MAXIMUM DATA TRANSFER DISTANCE: 4000 feet (1220 meters).

SOFTWARE SELECTABLE FUNCTIONS: Speed, control modes, output modes, input modes, and local modes.

SERIAL INTERFACE SURGE SUPPRESSION

THRESHOLD VOLTAGE: 13V

RESPONSE TIME: Less than 10ns

ENVIRONMENTAL

AMBIENT TEMPERATURE: 0°C to 55°C

RELATIVE HUMIDITY: 5% to 90%

AIR MOVEMENT: 30 CFM forced

ALTITUDE: 0 to 12,000ft (0 to 3,660m)

EMC: Conforms to European Union Directive 89/336/EEC.

SAFETY: Meets EN61010-1/IEC 1010.

DIGI-4PORT POWER REQUIREMENTS

+5V ±5%: 2.0A typical

+12V ±5%: 0.185A typical

-12V ±5%: 0.185A typical

DIGI-8PORT POWER REQUIREMENTS

+5V ±5%: 2.11A typical

+12V ±5%: 0.438A typical

-12V ±5%: 0.450A typical

PHYSICAL

DIMENSIONS: 8.52in × 4.8in × 0.5in
(21.64cm × 12.19cm × 1.27cm)

WEIGHT: 4.5 ounces

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