

# Models SPRT2A & SPRT2B/AT

## Advanced Multi-Channel RS-232/422/485 Interface and Serial Card



Model SPRT2B/AT



Model SPRT2A/AT

### FEATURES

- **Dual RS-232/422/485 Interface**
- **16550 Buffered UART**
- **PC Compatible, Speeds to 115K bps**
- **Selectable Address Including COM1: through COM4: or any other I/O Address up to 3FF Hex**
- **Individually Selectable Interrupts (2-5) on SPRT2A/AT**
- **Individually Selectable Interrupts (2-5, 7, 10-12, and 15) on SPRT2B/AT**
- **Multiple Ports can share the same IRQ Line**
- **Multiple Cards can share the same IRQ Line**
- **RS-485 Two or Four Wire Operation**
- **RTS and CTS "Handshake" Signals Provided**



### APPLICATIONS

- **Interface for Factory Automation Equipment**
- **RS-232 Networks and PCL Communications**
- **Multi-Drop Data Collection Devices**
- **Time Clocks, Bar Code Readers, Digital Scales**

The Model SPRT2A/AT provides the PC with two, direct RS-232/422/485 asynchronous links, to data collection and other devices. Operationally independent ports allow users the choice of two ports as RS-232, or RS-422/485, or one port of each type. Distances of up to 5000ft. are easily accommodated. The Model SPRT2A/AT allows PC based systems to be used in a variety of industrial and networking applications requiring long distances or multi-drop communications.

The Model SPRT2B/AT provides the same features as the Model SPRT2A/AT while adding "AT" interrupts; (10-12 and 15). This is important when running applications that require multiple serial ports where each serial port must have its own IRQ line, (i.e. Microsoft Windows).



## CONNECTOR PIN-OUTS CONT.

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### RS-232 Interface:

<b>Signal</b>	<b>Name</b>	<b>PIN #</b>	<b>MODE</b>
TD	TRANSMIT DATA	3	OUTPUT RS-232
RTS	REQ. TO SEND	7	OUTPUT RS-232
RD	RECEIVE DATA	2	INPUT RS-232
CTS	CLEAR TO SEND	8	INPUT RS-232
GND	GROUND	5	
DCD	DATA CARRIER DETECT	1	INPUT RS-232
DSR	DATA SET READY	6	INPUT RS-232
DTR	DATA TERMINAL READY	4	OUTPUT RS-232
RI	RING INDICATOR	9	INPUT RS-232

### RS-422/485 Interface:

#### J1 AND J2 CONNECTOR PINOUT:

<b>Signal</b>	<b>Name</b>	<b>PIN #</b>	<b>MODE</b>
GND	GROUND	5	
RX+	RECEIVE POSITIVE	1	INPUT RS-422
RX-	RECEIVE NEGATIVE	2	INPUT RS-422
CTS+	CLEAR TO SEND POS.	9	INPUT RS-422
CTS-	CLEAR TO SEND NEG.	8	INPUT RS-422
TX+	TRANSMIT POSITIVE	4	OUTPUT RS-422
TX-	TRANSMIT NEGATIVE	3	OUTPUT RS-422
RTS+	REQ. TO SEND POS.	6	OUTPUT RS-422
RTS-	REQ. TO SEND NEG.	7	OUTPUT RS-422

## EXTENDED INTERRUPTS

Model SPRT2A & 2B/AT

The original IBM XT only provided two interrupt request (IRQ) lines for the COM1: and COM2: serial ports. Some programs allow COM3: and COM4: to share these IRQ lines with COM1: and COM2:. This works well but can slow down interrupt processing, resulting in serial communication errors and lost serial data. By providing access to the unused "AT" interrupts

(10-12 and 15) each COM: port can have a dedicated IRQ line, resulting in higher throughput and very reliable communications. Many of the advanced operating systems (i.e. Windows 3.1, OS/2, and Windows NT) require each port to be on separated IRQ due to the multitasking nature of the operating system architecture.

## SPECIFICATIONS

### Communications Chip

16550 UART

### Number of Ports

Dual RS-232/422/485

### Max. Data Rate

115K bps (RS-422/485)

### Interrupts

SPRT2A/AT: 2-5

SPRT2B/AT: 2-5, 7, 10-12, 15

### Max. Data Distance

Up to 5000ft.

### RS-485 Operation

Two or four wire

### Operating Temperature

0-50° C

### Storage Temperature

-20-70° C

### Humidity range

0-90% R.H.

### Current specifications

+5V @ 195mA, ±12V @ 25mA ea.

### Connector(s)

DB-9P

## ORDERING GUIDE

### Model SPRT2A/AT

2-port Card, Software & Manual

### Model SPRT2B/AT

2-port Card, Software & Manual



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