MESA ELECTRONICS

4I23 QUAD SERIAL

FEATURES: QUAD RS-232, RS-422 or 2+2 RS-485 capable outputs Uses 16C550 FIFOed UARTS Access to all AT bus interrupts RS-232 power generated on card Shared interrupt capability Low power - all CMOS Small size Made in USA - local support 2 year warranty

The 4I23 is a low cost, four channel serial port card on a stackable PC/104 bus card. The 4I23 is available in three versions: quad RS-232, quad RS-422, and a model with two RS-232 and two RS-422 channels.

The 4I23 uses 16C550 type FIFO'ed UART's. These UART's have built-in 16 byte receive and transmit FIFO's. The 16 character FIFO's reduce interrupt overhead and allow higher data rates without losing characters. The receive FIFO's also increase the allowable interrupt latency. This is especially important when using programs like WINDOWS that disable interrupts for comparatively long periods of time.

Unlike many serial cards, the 4I23 is implemented with the 16 bit bus connector so that each of the four serial ports on the 4I23 can use any of the 11 available AT bus interrupts.

The 4I23 also has an shared interrupt capability. The four serial port interrupts can be logically or'ed to a common interrupt. The or'ed interrupts are individually maskable. The interrupt status of all four channels is readable at a single port location to allow quick response to the shared interrupt. All additional I/O necessary to implement the shared interrupt logic uses aliased addresses so that no extra I/O port locations are required, and complete COMX type serial port compatibility is maintained.

The RS-422 ports have one handshake-in and one handshake-out line. The RS-422 drivers can be software enabled and disabled for bus (RS-485) type applications. RTS is used for RS-422 enable / disable. Enable polarity can be chosen such that the driver is enabled or disabled at power up. Jumper selectable 125 Ohm RS-422 termination is provided on card.

Serial port connectors are 10 pin headers that match 9 pin AT type serial port pinout when the flat cable from the header is terminated with an IDC type 9 pin subminiature D connector. RS-422 pinout is similar to EIA RS-449 9 pin D secondary channel pinout.

Serial port addresses are set with a PAL device. Eight different sets of port locations can be selected by option jumpers. The decode PAL is socketed to simplify changing the default decode set.

The 4I23 requires only +5V for operation, as all RS-232 power is generated on card. All CMOS technology keeps power dissipation to a minimum.

4I23 CONNECTOR PINOUT						
	HDR PIN	DSUB PIN	RS-232 FUNCTION	RS-422 FUNCTION		
	1	1	DCD	GND		
	2	6	DSR	RXDB		
	3	2	RXD	NC		
	4	7	RTS	RTSA		
	5	3	TXD	TXDA		
	6	8	CTS	CTSA		
	7	4	DTR	RXDA		
	8	9	RI	TXDB		
	9	5	GND	GND		
	10	NC	+5V POWER	+5V POWER		

DEFAULT PORT LOCATIONS						
COM1	3F8H	COM5	100H	COM9	120H	
COM2	2F8H	COM6	108H	СОМА	128H	
СОМЗ	3E8H	COM7	110H	СОМВ	130H	
COM4	2E8H	COM8	118H			

4123 SPECIFICATIONS:	Min	Max	Units	Notes
POWER REQUIREMENTS: Supply voltage Supply current (4I23A) Supply current (4I23B) Supply current (4I23C)	4.5 	5.5 100 150 200	V mA mA mA	No interface loading No interface loading No interface loading
ENVIRONMENTAL: Temperature range -C version Temperature range -I version Relative humidity	0 -40 0	+70 +85 90	°C °C Percent	Non-Condensing

ORDERING INFORMATION:

4I23A	4I23 QUAD SERIAL WITH 4 RS-232 PORTS		
4I23B	4I23 QUAD SERIAL WITH 2 RS-422 and 2 RS-232 PORTS		
4I23C	4I23 QUAD SERIAL WITH 4 RS-422 PORTS		
te energitu industrial temperature renge			

Add -I to specify industrial temperature range

MESA ELECTRONICS -- 4175 Lakeside Drive, Suite 100, Richmond, CA 94806

PHONE (510) 223-9272 -- FAX (510) 223-9585