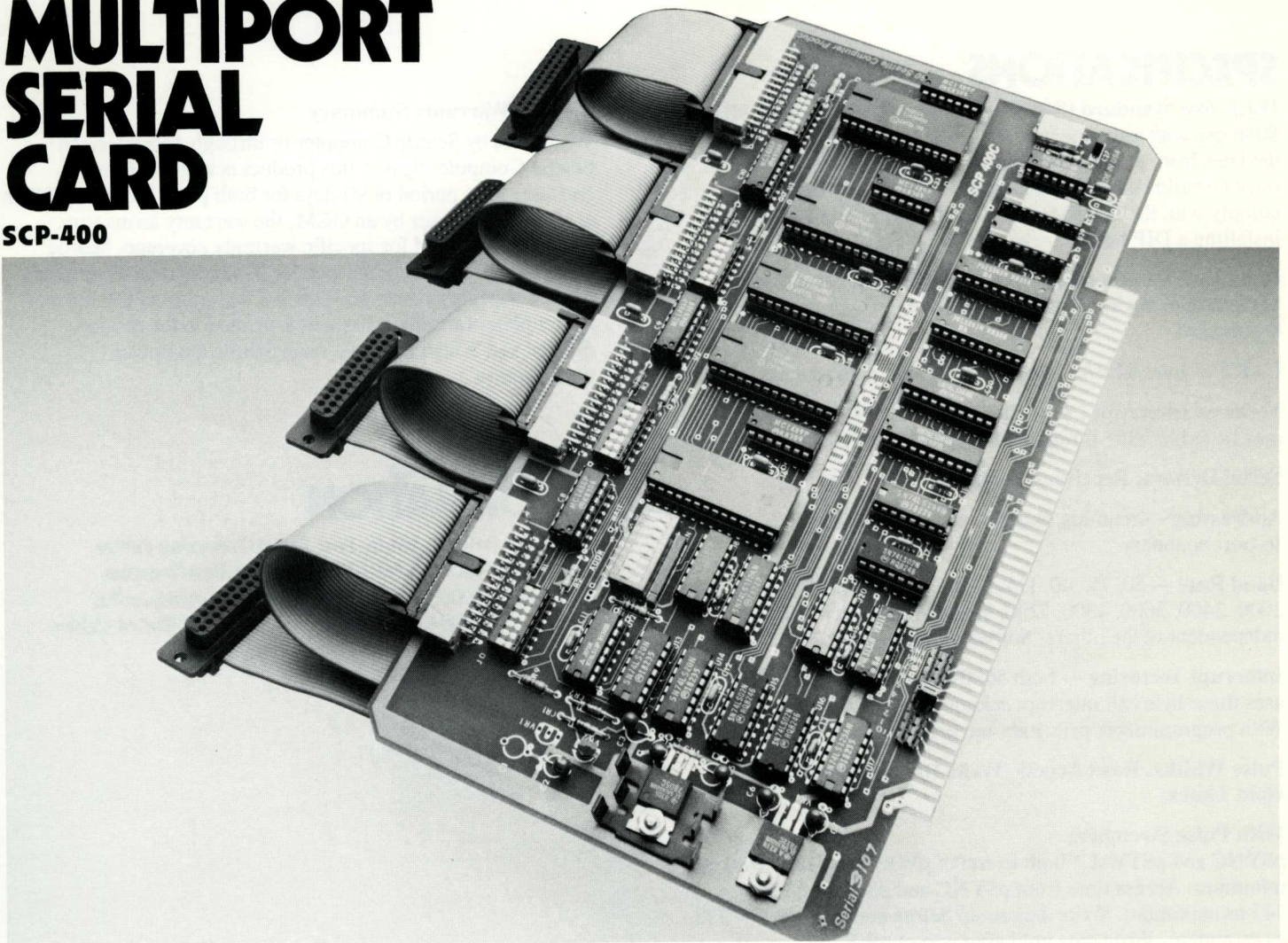


MULTI-PORT SERIAL CARD

SCP-400



In S-100 (IEEE-696) systems, the Seattle Computer Multiport Serial Card gives designers the option of either two or four RS-232 serial ports per card. The baud rate for each port is independently software programmable. As a result, only one board is necessary to connect low, medium and high speed devices; i.e., printers, modems and terminals. Each port has a configurable shunt block for customizing of handshaking and data lines. This eliminates the need for customized cables.

Systems integration and operational performance are enhanced by an on-board, 8-level, vectored interrupt controller. It eliminates the need for the CPU to poll the various input ports, and optimizes system performance in high-speed or multi-user applications. The interrupt priorities are fully software programmable. If desired, the board can also be used in a polled mode.

FEATURES

- Available in either 2- or 4-port versions.
- Independent baud rate generator for each port. Sixteen software selectable rates from 50 to 19200 baud.
- Handshake lines include hardware start/stop control for each port to interface with serial printers without additional hardware.
- Each port can be configured as a "data set", for direct connection to a terminal, or a "data terminal", for direct connection to a modem.
- Programmable 8-level vectored interrupt controller handles receive and transmit interrupt requests for each port.
- Interrupt controller may be slaved to Seattle Computer's CPU Support Card for fully vectored operation or it may be used in the "polled mode" while retaining the interrupt masking and prioritizing features.
- This card is IEEE-696 Standard (S-100) compatible. It has DIP switches for I/O port address and all options are set with switches or easy-to-use pin shunts.



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SPECIFICATIONS

IEEE-696 Standard (S-100) — To allow 8 MHz and 10 MHz 8086 use with only one wait state, the Multiport Serial Card deviates from the standard in that sINP, sOUT, and sINTA must be valid before the standard requires. May be made to comply with the IEEE standard by removing one IC, and installing a DIP header.

Baud Rate Generator — Western Digital BR1941L-5. One of these dual devices is used for a 2-port, two are used for a 4-port card.

UART — Intel 8251A Type. May be from other manufacturers.

Vectored Interrupt Controller — Intel 8259A type. Interrupt may be fed to VI0* through VI7*, NMI*, or INT*.

Serial Drivers, Receivers — 1488 and 1499 ICs.

Addressing — requires 14 ports; may be set to any 16-port boundary.

Baud Rate — 50, 75, 110, 134.5, 150, 300, 600, 1200, 1800, 2000, 2400, 3600, 4800, 7200, 9600, 19200. Each port independent of the others. Software programmable.

Interrupt Vectoring — both 8080 mode (8080, 8085, Z80 — uses three-byte call interrupt acknowledge) and 8086 mode. With programmable priorities and priority rotation, masking.

Pulse Widths, Read Access, Write Data Setup, and Hold Times:

With Pulse Stretcher:

pSYNC and pSTVAL* high to end of pWR* or pDBIN-380 ns minimum. Access time from pSYNC and pSTVAL* high — 343 ns maximum. Write data setup before end of pWR* — 238 ns minimum. Write data hold after end of pWR* — 116 ns minimum.

Without Pulse Stretcher:

pWR* or pDPIN pulse width — 300 ns minimum. Access time from pDBIN — 327 ns maximum. Write data setup before end of pWR* — 244 nsec minimum. Write data hold after end of pWR* — 244 ns minimum. Write data hold after end of pWR* — 96 ns minimum.

Power Requirements — +8V, 700 mA; +16V, 90 mA; -16V, 50 mA. (4-port at 25°C.)

Noise Margins — all signal inputs to the board have minimum of 0.4V hysteresis at 25°C.

Operating Environment — 0° to 70°C.

Reliability — Seattle Computer Multiport Serial card has been in production for over four years. The typical first year reliability rate exceeds 98%.

Limited Warranty Summary

When sold by Seattle Computer or through an authorized Seattle Computer dealer, this product is warranted to the end-user for a period of 90-days for both parts and labor. When sold to the end-user by an OEM, the warranty terms vary. Consult your OEM for specific warranty coverage. Seattle Computer offers repair service for its manufactured products beyond warranty coverage. This is a summary of the warranty. A complete warranty statement is printed in the product manual and is also available from Seattle Computer upon request.

ORDERING INFORMATION

Part No.: 040001 Multi-Port Serial/2-Port/no cables

Part No.: 040002 Multi-Port Serial/2-Port/2-cables

Part No.: 040003 Multi-Port Serial/4-Port/no cables

Part No.: 040004 Multi-Port Serial Card/4-Port/4-cables



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