

Innovative I/O

Add up to eight serial ports to your PC with a single card while eliminating the PC bottleneck at the same time. Our Serial I/O adapters feature data rates up to 460.8K bps and deep FIFO options to keep your datacom applications running error free. New USB products are available supporting data rates up to 921.6K bps.

PCI, ISA, USB, PCMCIA, PC/104 Async Serial I/O

RS-232 COM: PORTS

Protected mode operating systems such as Windows have typically required each serial port to have its own unique Interrupt Request Line. This is especially true for Windows 95/98/ME. Interrupts can be shared under Windows 95/98/ME if a serial driver replacement supporting IRQ sharing is used. Windows NT and 2000 support interrupt sharing out of the box. Under Windows NT and 2000, interrupts can be shared across multiple ports provided that the serial board has an Interrupt Status Port. Without an Interrupt Status Port, the Interrupt Service Routine (software routine that services interrupts and requests processor time) would have to poll each port separately to determine which port generated an interrupt. Sealevel Systems provides Windows Advanced COM: drivers supporting IRQ sharing.



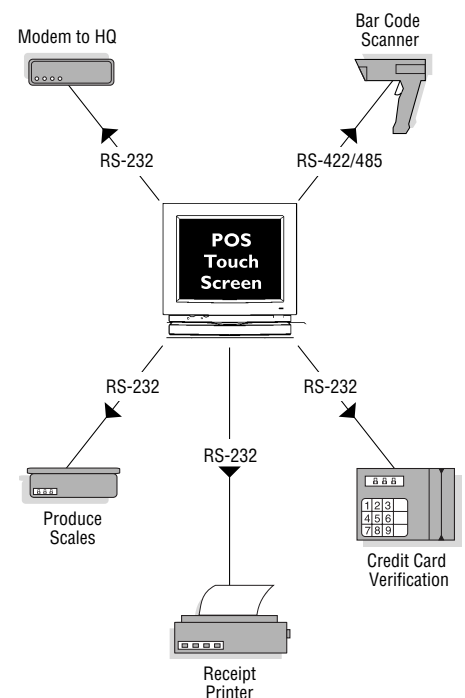
When you see this logo, it indicates that this product features the highest performance UART available **standard**.

Features

- Each port designed to maximize communications performance
- **16850** buffered UART(s) standard
- Full array of enhanced UART options
- All ports share a single IRQ
- Onboard interrupt status port for efficient interrupt sharing
- Cables/cabling options provided to simplify device connections
- All products are CE Mark certified
- Includes Windows Advanced COM: drivers, utilities, INF files and help files to simplify installation
- Supports Windows, Linux, QNX, DOS and other operating systems

Applications

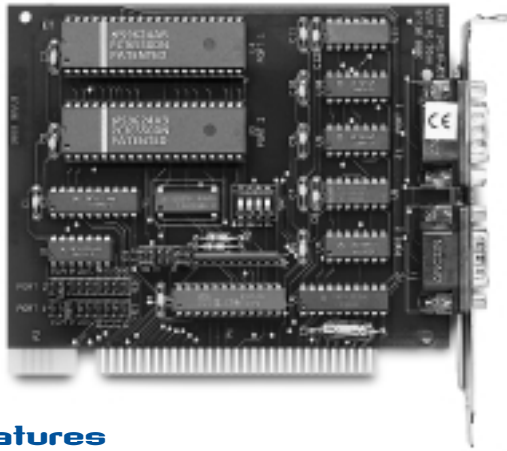
- Point of Sale (POS) interface to bar code readers, scales, scanners, terminals and other peripheral devices.
- Communication server COM: ports
- High-speed ISDN T/A Interface
- Thin client/network computer/multi-user ports
- Interface to printers, plotters, modems, etc.
- Data entry terminals



ISA 2 Port RS-232 Interface

DUOCOM:

The DUOCOM: provides two RS-232 Async links for communication servers, terminals, Point Of Sale (POS) systems and other data collection devices.



Unique Features

- Configurable to addresses including COM1:-COM4
- Supports Windows, Linux, QNX, DOS and other operating systems.



Technical Specifications

Communications chip 16550
 Number of ports 2 RS-232
 Max. data rate 115K bps (3088)
 460K bps (3188)
 Max. data distance up to 50 ft.
 Operating temperature 0-50° C
 Storage temperature -20-70° C
 Humidity range 10-90% R.H.
 Current specifications +5V @ 160mA,
 ±12V @ 50mA ea.
 Connector(s) (2) DB9P
 Physical dimensions 5.4" L x 3.5" H (13.72 x 8.89 cm)

ORDERING INFORMATION		
Description	Part No.	Price
2 Port RS-232	3088	\$89.00
w/16850 UART	3088-SE	\$109.00
2 Port High-speed	3188	\$99.00
w/16850 UART	3188-SE	\$119.00
<u>Cable Options</u>		
DB9F/25M Modem Cable	CA177	\$7.95
DB9F/9M Cable	CA127	\$9.95

Sealevel Systems Explains — "Advanced UARTs"

Overview

With the advent of new, higher speed computers and modems the need for increased data communication speed has been realized. Quantum leaps have been made in a number of areas including processing power, video graphics (Accelerated Cards) and even the PC bus itself (Vesa, PCI, USB). One area that has until recently progressed relatively slowly is the UART, the heart of the onboard and add-in Serial Ports.

High Performance Need

With the exploding popularity of the Internet, new strains have been placed on the Computer's serial ports. Dial up data connection rates of 28.8, 33.6, 57.6, and ISDN rates of 64K, 128K, to 230K are becoming commonplace in today's marketplace. 460K bps applications are not far away. These higher data communications rates are required as the Internet content grows to support multimedia applications including data, voice and video.

16550, 16554 UARTs

With the need for higher speed communications, the 16550 UART was introduced with an improved

design that allowed greater throughput to be obtained. The 16554 UART is a quad UART design incorporating (4) 16550 UARTs in a PLCC (square) package as opposed to the DIP (rectangular) package. The 16550 UART features a 16 byte input and output First In First Out (FIFO) buffer that holds characters for the transmitter and receiver.

Enhanced UARTs

Currently, most serial port manufacturers have standardized on the 16550 UART. Users who need additional buffering for higher performance applications now have the option to specify new UARTs with an even larger buffer (see table). These new UARTs power up in the 16550 compatible mode, so they are compatible with existing off-the-shelf software. Several manufacturers of UARTs have developed various enhanced UARTs. The 16C650, 750, 850, and 950 are examples. These new, faster chips provide features such as larger buffer (FIFO) size, increased speed, automatic hand-shaking (RTS/CTS), automatic RS-485 line control, and even external clocking for isochronous applications. When implemented with the appropriate onboard line drivers and receivers, these new

UARTs can allow data rates of up to 460K bps and beyond. Call our technical support staff to discover which enhanced UART may work best for your application.

Windows Drivers

Sealevel Systems' Windows advanced serial drivers take advantage of the increased FIFO sizes of these advanced UARTs to provide a higher level of serial communications performance.

UART Reference Table

UART	Buffer Size
16550	16 bytes
16554	16 bytes
16650	32 bytes
16654	64 bytes
16750	64 bytes
16850	128 bytes
16854	128 bytes
16950	128 bytes
16954	128 bytes



Sealevel Systems Incorporated ▶ 155 Technology Place ▶ PO Box 830 Liberty, South Carolina 29657 USA
 Tel: 864.843.4343 Fax: 864.843.3067 www.sealevel.com

PCMCIA 1 Port RS-232 Card

PC-SIO-232

The PC-SIO-232 card provides a single PCMCIA Async serial link to modems, terminals, printers or other data collection equipment.



Unique Features:

- Interface cable included terminates in DB-25P Connector
- "Hot swapping"/ Auto configuration standard
- SeaPC DOS client software enabler included
- Full Modem Control Signals included standard
- Includes DB25S to DB9P adapter

Technical Specifications

Communications chip . . . 16550
 Number of ports 1
 Max. data rate. 115K bps
 Max. data distance up to 50 ft.
 Operating temperature . . . 0-50° C
 Storage temperature -20-70° C
 Humidity range 10-90% R.H.
 Current specifications . . . +5V @ 25mA
 Connector(s) DB25P
 Compatibility PCMCIA 2.01, JEIDA4.1
 Physical dimensions Type II PCMCIA Card

ORDERING INFORMATION

Description	Part No.	Price
Single Port RS-232	3603	\$199.00



PCMCIA 2 Port RS-232 Card



PC-COMM+232

The PC-COMM+232 provides two Asynchronous links to modems, terminals, printers, or other data collection devices. Install the dual port PC card for applications requiring RS-232 compatibility and data rates up to 460K bps. Our included software makes data rate selection easy. Simply select your data rate and our software transparently handles divisor calculations. This makes high data rates and Windows configuration simpler than ever.

Unique Features:

- Interface cable included terminates in (2) DB-9 male connectors
- 16850 UART Standard for standard PC data rates up to 460K bps
- Includes Windows Advanced COM: drivers, utilities, INF files and help files to simplify installation

Technical Specifications

Communications chip . . . 16850
 Number of ports 2
 Max. data rate 460K bps
 Max. data distance up to 50 ft.
 Operating temperature . . . 0-50° C
 Storage temperature -20-70° C
 Humidity range 10-90% R.H.
 Current specifications . . . +5V @ 25mA
 Connector(s) (2) DB9P
 Physical dimensions Type II PC Card



ORDERING INFORMATION

Description	Part No.	Price
2 Port RS-232	3622	\$299.00



PC/104 I Port RS-232 Serial Module

PC/104 Serial I/O

While the PC architecture has become extremely popular in both general purpose (desktop) and dedicated (non-desktop) applications, its use in embedded microcomputer applications has been limited due to the large size of standard PC motherboards and expansion cards.

In the past, embedded system designers were forced to either develop their system chip-by-chip, or revert to the standard PC form factor. PC/104 changed the design process by offering the embedded system designer an off-the-shelf solution. The term "PC/104" is based on the 104 signal contacts on the two bus connectors 64 pins on P1, plus 40 pins on P2.

The needs of embedded applications have been satisfied by PC/104. Key differences between PC/104 and P996 are as follows:

- Reducing the form-factor, to 3.550 by 3.775 inches.
- Eliminating the need for backplanes or card cages, through its self-stacking bus.
- Minimizing component count and power consumption (to typically 1-2 Watts per module), by reducing required bus drive on most signals to 4 mA.

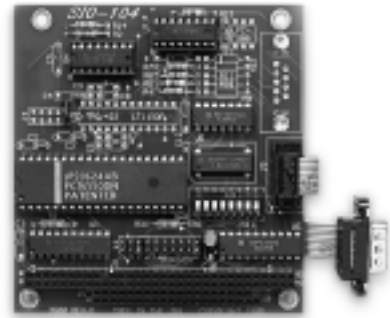
PC/104 specifies two module versions – 8-bit and 16-bit – which correspond to the PC and PC/AT bus implementations, respectively. Sealevel Systems is a charter PC/104 Consortium member. Sealevel Systems provided input to the working group that submitted the PC/104 bus for approval by the IEEE as P996.1.

SIO-104

The SIO-104 provides the PC/104 system with a direct RS-232 Asynchronous link to data collection and other devices.

Unique Features

- PC/AT compatible, 20Kbps (RS-232)
- Selectable address including COM1: - COM4: or any other I/O address up to 3FF Hex
- Sharable IRQ level (2-7, 10-12 or 15)
- RS-232 full modem control signals provided
- 16550 buffered UART standard
- Full array of enhanced UART options
- DB9P interface cable included
- PC/104 form factor (3.6" x 3.8")



Technical Specifications

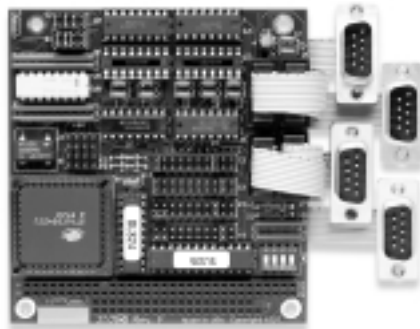
Communications chip16550
 Number of ports1
 Max. data rate115K
 Max. data distanceUp to 50ft.
 Operating temperature . . .0-50° C
 Storage temperature-20-70° C
 Humidity range10-90% R.H.
 Power requirements+5V only operation
 Current specifications60mA
 Physical dimensions3.775" L x 3.550" H (9.588 x 9.017 cm)

ORDERING INFORMATION		
Description	Part No.	Price
Single Port RS-232	3501	\$149.00
<u>Cable Options</u>		
DB9 M/F Cable 6 ft	CA127	\$9.95

PC/104 4 Port RS-232 Serial Module

C4-104

The Sealevel Systems C4-104 provides the PC/104 system with four RS-232 Asynchronous links to data collection and other devices.



Unique Features

- Supports standard PC data rates up to 460.8K bps
- Supports Windows, Linux, QNX, DOS and other operating systems.
- DB9P connectors standard



Technical Specifications

Communications chip16554
 Number of ports4 RS-232
 Max. data rate115K
 Max. data distanceUp to 50ft.
 Operating temperature . . .0-50° C
 Storage temperature-20-70° C
 Humidity range10-90% R.H.
 Power requirements+5V only operation
 Current specifications130mA
 Physical dimensions3.775" L x 3.550" H (9.588 x 9.017 cm)

ORDERING INFORMATION		
Description	Part No.	Price
4 Port RS-232	3521	\$249.00
<u>Cable Options</u>		
DB9 M/F Cable	CA127	\$9.95



Sealevel Systems Incorporated ▶ 155 Technology Place ▶ PO Box 830 Liberty, South Carolina 29657 USA
 Tel: 864.843.4343 Fax: 864.843.3067 www.sealevel.com