104-COM-8SM
104-COM-4SM
104-COM-2SM

8-, 4-, or 2-Port RS-232/422/485
PC/104 Serial Communication

KEY FEATURES:

- 8, 4, or 2 independent asynchronous serial COM ports
- Field selectable RS-232, RS-422 and RS-485, independent for each port
- Auto-RTS feature makes half-duplex RS-485 communications effortless
- Speeds up to 921.6K with 64-byte FIFO
- Fixed bias and jumper selectable termination provided on each transmit and receive channel simplifies cabling
- Programmable individual non-volatile base addresses and IRQs simplifies installation
- Low power required: +5VDC at 80mA typical
- Operates as a standard COM port in all operating systems

FACTORY OPTIONS:

- 0 to 70°C and -40 to +85°C versions available
- 128-byte FIFO

The 104-COM-8SM Series are eight, four, or two-port, asynchronous, serial communication boards that support field selectable RS-232/422/485 communication. Ports are accessed via two 40-pin IDC type right angle header connectors. The boards include a convenient Auto-RTS feature, which makes half-duplex RS-485 communications effortless.

The 104-COM-8SM Series are feature-rich and allow for the connection of multiple serial devices—ideal for a variety of applications such as POS, gaming systems, machine monitoring and control, military, high-density networking applications or any other application requiring the connection of RS-232/422/485 serial devices to a PC/104 compatible system.

The 104-COM-8SM Series were designed using type 16780 UARTS and include 64-byte transmit/receive FIFO buffers to protect against lost data in multi-tasking systems while maintaining 100% compatibility with all operating system COM port drivers. A crystal oscillator located on the board permits baud rate capability up to 921.6K. The boards are offered in both standard and extended temperature versions - ideal for outdoor applications or harsh industrial surroundings.

SOFTWARE

The 104-COM-8SM Series are supported for use in all operating systems and include a free DOS, Linux and Windows 95/98/Me/NT/2000/XP/2003 compatible software package. This contains sample programs and source code in "C" and Pascal for DOS, and Visual Basic, Delphi, C++ Builder, and Visual C++ for Windows. Also included is a graphical setup program in Windows. Embedded OS support includes Windows XPe and CE. An easy-to-use Windows terminal program simplifies verification of proper operation.

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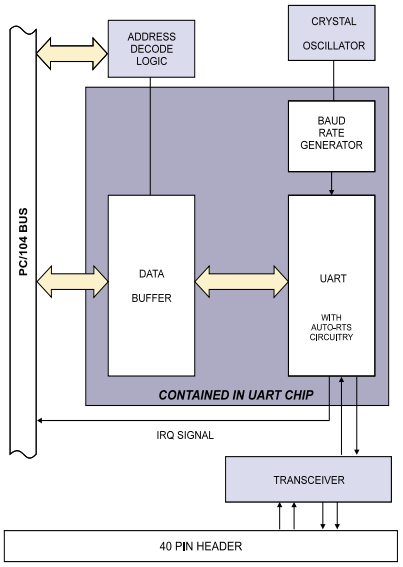
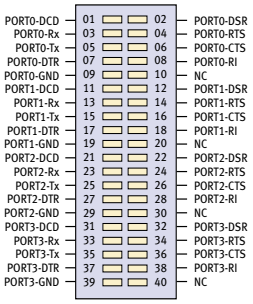
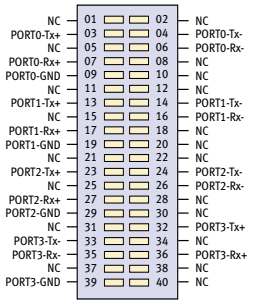
Block Diagram & Pin Configuration



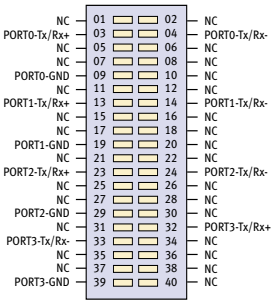
RS-232 Functions



RS-422 Functions



RS-485 Functions



Specifications

Serial Ports

Number of serial ports	8, 4, or 2
Protocol	Full RS-232, RS-422 and RS-485, independent for each port
Maximum baud rate	921.6K
Character length	5, 6, 7, or 8 data bits
Parity	Even, odd, or none
Receiver input sensitivity	±200mV differential input. Lines include factory bias and jumper selectable termination.
Common mode voltage range	+12V to -7V
Transmitter output drive capability	60mA with thermal shutdown. Lines include factory bias and jumper selectable termination.
Base address options	Programmable
Interrupts	Individual IRQs for each channel are stored onboard in non-volatile memory

General

I/O connections	Via two 40 pin IDC type right angle connectors. There are eight pins per port plus common grounds.
Short circuit protection	All outputs protected against continuous short circuit
Power required	+5VDC at 80mA typical, all outputs open
Operating temperature	-40 to +85°C optional, all versions
Operating humidity	5% to 95% RH, non-condensing
PC/104 bus	8-bit and 16-bit bus headers are used

Ordering Guide

104-COM-8SM	8-port RS-232/422/485
104-COM-4SM	4-port RS-232/422/485
104-COM-2SM	2-port RS-232/422/485

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Assured Systems

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