These modules provide eight asynchronous serial communication ports from a single PMC carrier slot. Software-configuration helps you quickly set baud rates, character-sizes, stop bits, and parity.

For more efficient data processing, each serial port is equipped with 64-character FIFO buffers on the transmit and receive lines.

The data ports generate individually controlled transmit, receive, line status, data set, and flow control interrupts. A global interrupt source register provides interrupt status indication for all eight channels to speed up interrupt parsing.

### Features
- Eight asynchronous, full duplex RS422B serial ports (supports RS485)
- 64-byte transmit FIFO buffers
- 64-byte receive FIFO buffers
- Programmable baud rate (up to 1.8432Mbps)
- Line-break and false start-bit detection
- Failsafe receivers
- Socketed termination and bias resistors
- Industry-standard software-compatible 16C550 configuration registers

### Benefits
- High-density design lowers per-port costs and saves PMC carrier card slots for other functions.
- 64-byte FIFO buffers minimize CPU interaction for improved system performance.
- Extended temperature ranges deliver dependable operation in extreme conditions.

### Specifications

#### RS422B Serial Ports
- Configuration: Independent, non-isolated serial ports with a common single return connection.
- Data rate: 20MB/second, maximum. 
  - Standard crystal limits data rate to 1.8432Mbps.
- Max. cable length: 1200 meters (4000 feet), typical.
- Character size: 5 to 8 bits, software-programmable.
- Parity: Odd, even, or no parity, software-programmable.
- Stop bits: 1, 1-1/2, or 2 bits, software-programmable.
- Data register buffers: Double buffered or 64-byte FIFO buffered, mode selectable.
- Interrupts: Receiver line status (overrun, parity, framing error, or break interrupt); receive/transmit FIFO level reached or character time-out; Xon/Xoff or special character detected.

#### Environmental
- Operating temperature: 0 to 70°C (PMC521-64) or -40 to 85°C (PMC521-64E).
- Storage temperature: -55 to 125°C.
- Relative humidity: 5 to 95% non-condensing.
- Power: +5V (±5%), consult factory for current specifications.

### PMC Compliance
- Conforms to PCI Local Bus Specification, Revision 2.3 and CMC/PMC Specification, P1386.1.
- 4K Memory Space Required: One Base Address Register.
- Signaling: 3.3V and 5V compliant.

### Ordering Information

- **PMC Modules**
  - PMC521
  - Eight RS422B serial ports, front I/O connector
  - PMC521E
  - Same as PMC521 plus extended temperature range.
  - PMC521R
  - Same as PMC521 except with rear I/O connector
  - PMC521RE
  - Same as PMC521R plus extended temperature range

- **Customized PMC Modules**
  - † 5086-x
  - Modified PMC521 with user-specified crystal/baud rate.
  - † Specify x = crystal frequency when ordering.
  - Minimum quantity per order is two units.

### Software
- (see [software documentation](#) for details)
  - PMCSW-API-VxW
    - VxWorks® software support package
  - PCISW-API-WIN
    - Windows® DLL software support
  - PCISW-API-LNX
    - Linux® support (website download only)

### Accessories
- (see [accessories software](#) for details)
  - 5025-288
    - Termination panel, SCSI-3 connector, 68 screw terminals
  - 5028-432
    - Cable, shielded, SCSI-3 connector both ends