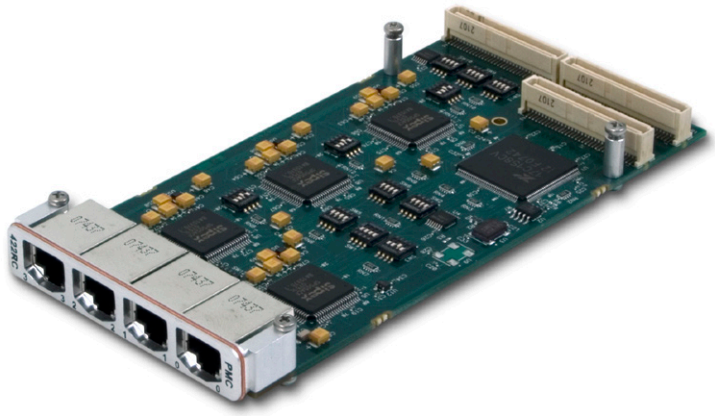
GE Fanuc
Intelligent Platforms



PMC-422RC

Eight Port Serial Controller

Features

- PMC form factor
- Eight port RS232/RS422/RS485 serial controller
- PCI bus 2.2 target interface compliant up to 33 MHz clock, 32-bit bus
- Eight high performance 16C550 UARTs with 64 bytes of TX/RX FIFO per channel
- All ports accessible on rear I/O J4 with PMC I/O Module (PIM) PIM422RC
- 4 RS232 ports can be accessible via front RJ45 connectors
- Automatic RTS/CTS or DTR/DSR flow control
- Automatic Xon/Xoff software flow control
- RS485 half-duplex control with selectable delay
- RoHS compliant
- Conformal coating optional

The PMC-422RC is a flexible solution for integrating multiple serial I/O channels onto a Single Board Computer (SBC), VMEbus or CompactPCI system. Efficiently packaging eight serial channels onto a single PMC makes effective use of available PMC sites. Each serial port is implemented with an independent UART with a separate programmable baud rate.

An Octal UART is used to increase performance by reducing programmed I/O operations. Use of the Octal UART also minimizes the time required to integrate the PMCs into existing software environments, plus provides an evolutionary path for enhanced software to further improve performance.

Each of the ports in a pair has individually programmable line drivers to set any of the most popular signaling types: RS232, RS422, RS485 (full-duplex and half-duplex with termination or non-termination option). The signaling characteristics are set with on-board DIP switches. Each serial ports baud rate is separately programmed from 150 bits/s to 6.2 Mb/s, depending on specific crystal used.

Additionally, a 16-bit general purpose Timer/Counter with eight general inputs is provided. Eight bits can be set with on-board switches and read by the host. A total of 256 combinations is possible.

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PMC-422RC Eight Port Serial Controller

Specifications

Form Factor
- PMC

PCI Bus Characteristics
- Signaling: 3.3V and 5V
- Specification 2.2
- 33 MHz/32-bit

Serial Characteristics
- Eight rear RS485/RS422/RS232 serial ports
- Four RS232 ports on front; RJ45 connectors (front ports are not available for RS485 and RS422)

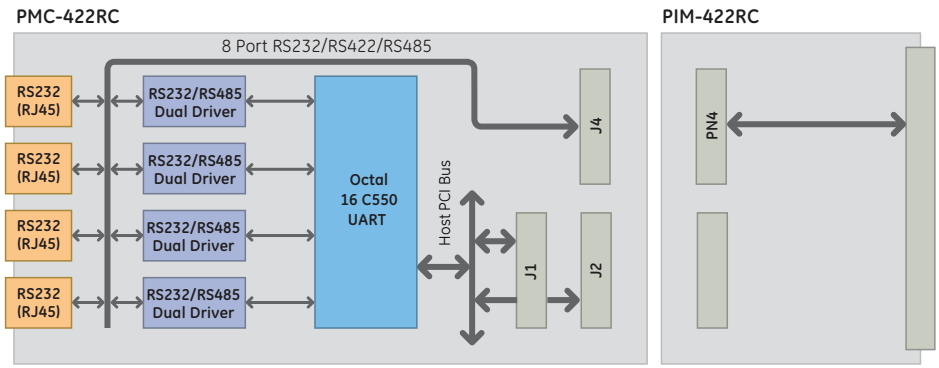
Power Requirements
- 3 watts total
- 0.3A @ 3.3V
- 0.4A @5V

Environmental
- Operating Temperature: 0° to +60 °C
- Storage Temperature: -40° to +85 °C
- Relative Humidity: 5% to 95%, non-condensing

MTBF
- 253,000 hours (MIL 217-F Nav Shel 25 Deg. C)

Regulatory Compliance
- European Union (CE Mark)
  - EN55022 Radiated Emissions Class A
  - EN55022 Conducted Emissions Class A
- United States
  - FCC 47 Part 15, Class A
- Safety
  - UL60950-1
  - CSA C22.2, No. 60950-1
  - EN60950-1 (Low Voltage)
- RoHS 6/6: European Community Directive 2002/95/EC

Block Diagram



Ordering Information

PMC-422RC PMC with eight serial channels routed to rear I/O; J4 connectors; RoHS

PIM-422RC PIM for PMC-422RC; RoHS

Suffix -CC to model number to indicate conformal coated boards

About GE Fanuc Intelligent Platforms

GE Fanuc Intelligent Platforms is a leading global provider of embedded computing solutions for a wide range of industries and applications. Our comprehensive product offering includes many types of I/O, single board computers, high performance signal processors, fully integrated, rugged systems including flat panel displays, plus high speed networking and communications products. The company is headquartered in the U.S. and has design, manufacturing and support offices throughout the world. Whether you're looking for one of our standard products or a fully custom solution, GE Fanuc Intelligent Platforms has the breadth, experience and 24/7 support to deliver what you need. For more information, visit www.gefanuc.com.

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Additional Resources

For more information, please visit the GE Fanuc Intelligent Platforms web site at:

www.gefanuc.com

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