

PMC523

16 Port Serial Controller

The PMC523 is a flexible solution for integrating multiple serial I/O channels onto a Single Board Computer (SBC) that has a PCI Mezzanine Card (PMC) site. Efficiently packaging 16 serial channels onto a single PMC makes effective use of available PMC sites.

Dual Octal UARTs are 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: RS-232 or RS-422 (with termination 120 ohm or non-termination option). The signaling characteristics are available as a build option. Each serial port's 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.

FEATURES:

- PMC form factor
- 16 port RS-422 serial controller
- PCI bus 2.3 target interface compliant up to 33 MHz clock, 32-bit bus
- 16 RS-422 ports are accessible via front 68 pin high-density connector or on rear I/O via P14
- Automatic RTS/CTS or DTR DSR flow control
- Automatic Xon/Xoff software flow control
- Conformal coating optional (Humiseal 1B31 or 1B73)

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Specifications

Form Factor

- PMC

PCI Bus Characteristics

- Signaling: 3.3V and 5V
- Specification 2.3
- 33 MHz/32-bit

Serial Characteristics

- 16 RS-422 ports on front via 68 pin high density connector

Power Requirements

- 5 watts total
- 0.6A@5V

Environmental

- Operating Temperature
 - -40 to 85 °C
- Storage Temperature:
 - -40° to +85 °C
 - 5% to 95%, non-condensing

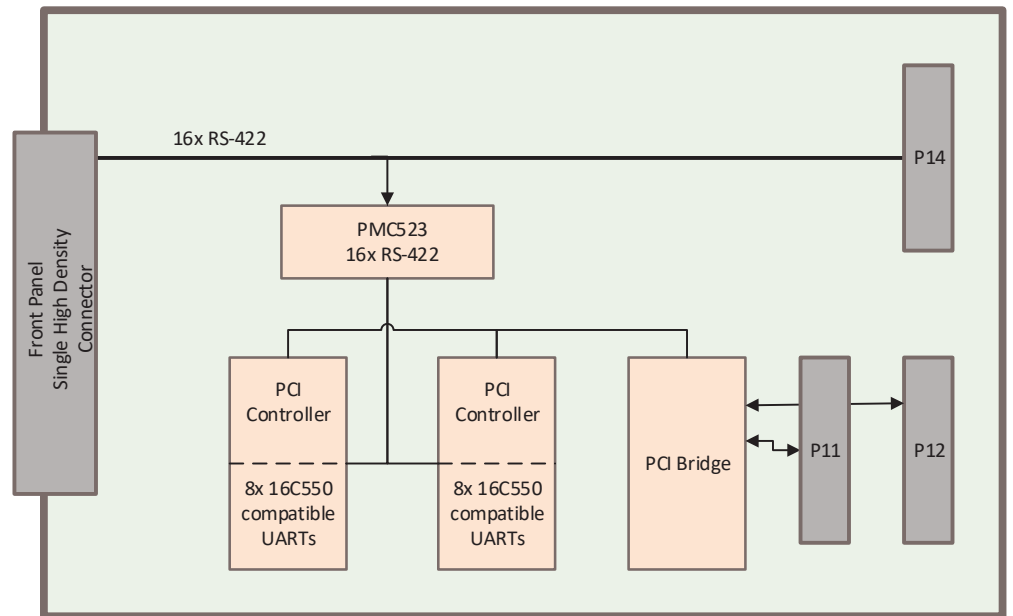
MTBF

- 430,000 h
- MTBF values shown are based on calculation according to MIL-HDBK-217F and MIL-HDBK-217F Notice 2; Environment: GB 20°C.
- The MTBF calculation is based on component FIT rates provided by the component suppliers. If FIT rates are not available, MIL-HDBK-217F and MIL-HDBK-217F Notice 2 formulas are used for FIT rate calculation.

Weight

- 74 g

Block diagram



Ordering information

PMC523-	X	X	X	DESCRIPTION
	2			16 Channel Serial RS-422
B		0		Reserved
C			0	No coating
			1	Humiseal 1B31 coating
			2	Humiseal 1B73 coating



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