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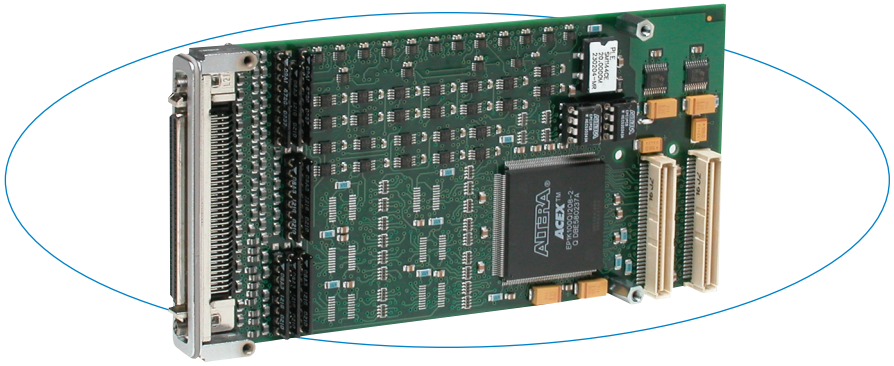
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Find the *Acromag PMC464* at our website: ***Click HERE***

Acromag
THE LEADER IN INDUSTRIAL I/O

PMC464
Digital I/O and Counter/Timers



This module saves money and PMC slots by combining digital I/O, and counter/timer functions on a single card.

The PMC464 module provides 64 digital input/ output channels and four 16-bit multifunction counter/timers.

Sixteen digital I/O channels can be programmed as an input or an output on an individual channel basis. The other 48 digital input/output channels are programmed as inputs or outputs on an 8-bit port basis. All inputs support change of state and high/low level transition interrupts.

Four 16-bit multifunction counters/timers can be configured for pulse width modulated output, watchdog timer, event counter, frequency measurement, pulse width measurement, period measurement, or one shot pulse output. The four 16-bit counters can also be configured into two 32-bit counter/timers. A conduction-cooled version is also available.

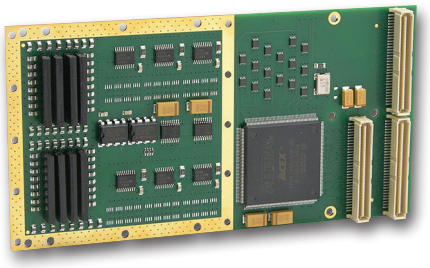
Features

Digital I/O

- 64 digital input/output channels:
  - 16 individually programmable channels (15 channels for 464R
  - 48 channels configured on an 8-bit port basis
- Programmable change of state/level interrupts
- Input signal filtering debounce logic

Counter/Timer

- Four 16-bit or two 32-bit counter/timer channels (control lines shared with 16 TTL I/O channels)
- Six operating modes:
  - Pulse width modulation
  - Watchdog timer
  - Event counter
  - Frequency measurement
  - Pulse width or period measurement
  - One-shot and repetitive one-shot
- TTL-compatible thresholds
- Power-up and system reset is failsafe



PMC464CC for conduction cooling

Specifications

Digital I/O

I/O channel configuration:
64 bidirectional TTL transceivers.
Channels 0-47: Direction controlled on a port basis.
Channels 48-63: Direction controlled independently (shared as counter/timer control signals). (48-62 for 464R)

Reset/power-up condition: All channels default to input.

Digital Input

Input voltage range: 0 to 5V DC.

Input signal threshold (channels 0-47):
Low to high: 2.0V typical.
High to low: 0.8V typical.

Input signal threshold (channels 48-63):
Low to high: 3.5V typical.
High to low: 1.5V typical.

Input response time: 10 nanoseconds, typical.

Interrupts: 64 channels of interrupts for high-to-low, low-to-high, or any change-of-state event types.

Debounce: Selectable for each channel. User-selectable (5.6µS, 50.4µS, 408.8µS, or 3.276mS).

Digital Output

Output voltage range: 0 to 5V DC.

Output ON current range (channels 0-47): -15 to 64mA.

Output ON current range (channels 48-63): -32 to 32mA.

Output pullups: 4.7K ohm socketed resistors.

Turn on time: 10nS.

Turn off time: 10nS.

Counter/Timers

Counter/timer configuration: Four 16-bit counters can be configured into two 32-bit counters.

Functions: Pulse width modulation, watchdog timer, event counting, frequency measurement, period measurement, pulse width measurement, and one-shot/repetitive.

Counter input: Each counter has an INA, INB, and INC input port. These TTL input signals control start/stop, reload, event input, external clock, trigger, and up/down operations.

Counter output: Each counter has one output signal. The TTL output is used for waveform output, watchdog active indicator, or 1.6µS pulse upon counter function completion. Programmable as active high or low.

Clock frequencies: Selectable for 20MHz, 10MHz, 5MHz, 2.5MHz, 1.25MHz or external up to 8MHz.

Minimum I/P event: 100nS (debounce disabled).
Minimum pulse measurement: 100nS (debounce disabled).
Minimum period measurement: 200nS (debounce disabled).
Minimum gate/trigger pulse: 100nS (debounce disabled).

Board crystal oscillator: 20MHz.

PMC Compliance

Conforms to PCI Local Bus Specification, Revision 2.2 and CMC/PMC Specification, P1386.1.

4K Memory Space Required: One Base Address Register.

Signaling: 5V Compliant, 3.3V Tolerant.

Environmental

Operating temperature: 0 to 70°C (PMC464 / R) or -40 to 85°C (PMC464E / CC)

Storage temperature: -55 to 105°C.

Relative humidity: 5 to 95% non-condensing.

MTBF: 1,750,590 hrs. at 25°C, MIL-HDBK-217F, notice 2.

Power: 160mA at +5V, typical.

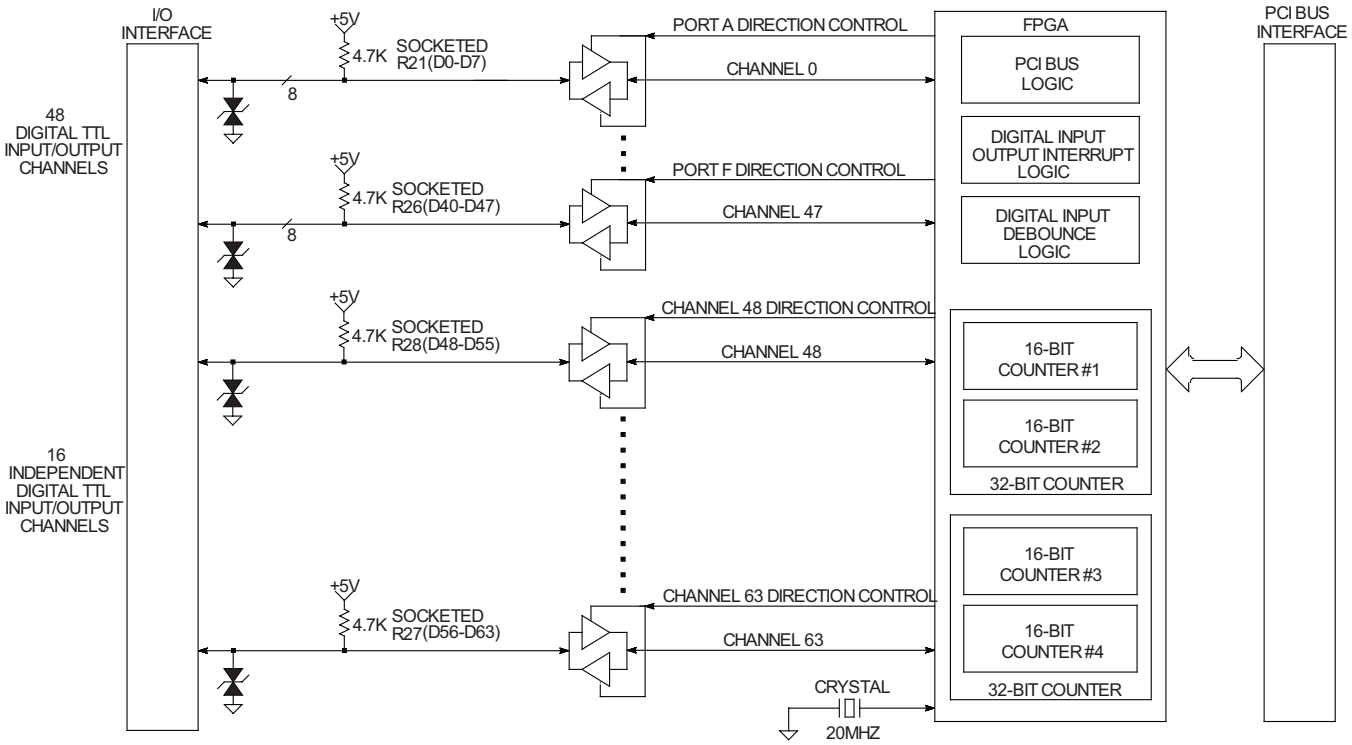
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Block Diagram



Ordering Information

PMC464: Digital I/O and counter/timer module

PMC464E: Same as PMC464 plus extended temp. range

PMC464R: Digital I/O and counter/timer module with rear I/O connector

PMC464CC: Digital I/O and counter/timer module, extended temperature range and conduction cooled with rear I/O connector

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 documentation for details)
5025-288: Termination panel, SCSI-3 connector, 68 screw terminals

5028-432: Cable, shielded, SCSI-3 connector both ends

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