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Find the *Acromag / Xembedded / Xycom AcPC482* at our website: *Click HERE*

Acromag
THE LEADER IN INDUSTRIAL I/O

AcPC48x Counter/Timer with Quadrature

- AcPC482: Ten 16-bit counters – TTL
- AcPC483: Four 16-bit counters – TTL, and Four 32-bit counters – RS422
- AcPC484: Six 32-bit counters – RS422

Several models with a variety of configurations provide up to ten counter/timer channels for counting events, generating waveform control signals, measuring pulse-widths, periodic rates, or quadrature position and monitoring operations.

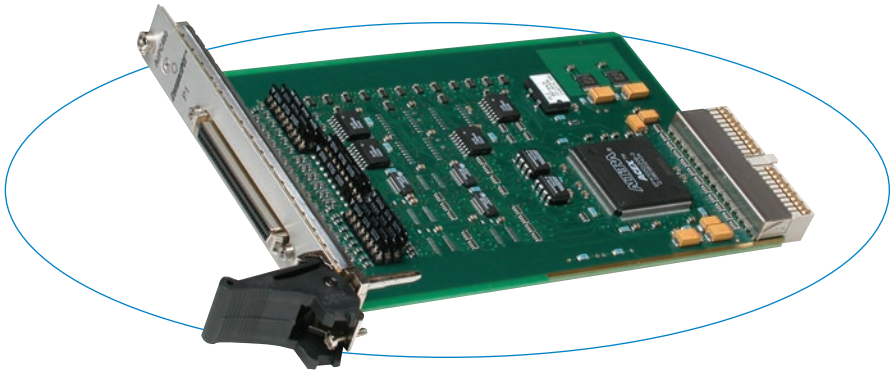
Support for internal or external triggering simplifies the synchronization of operations to specific events. Counter functions can use internally generated clocks or an externally supplied clock.

Features

- Ten 16-bit counter/timers (AcPC482 only) or six 32-bit counter/timers (AcPC484 only)
- Two 16-bit counters can be combined to create one 32-bit counter
- Available with both TTL and RS422 driver interface (AcPC483 only)
- 16 bi-directional digital I/O
- 20MHz clock time base
- Counter/timer functions:
  - Quadrature position measurement
  - Pulse width modulation
  - Watchdog timer
  - Event counting
  - Frequency measurement
  - Period/pulse-width measurement
  - One-shot/repetitive
- Extended temperature option (-40 to 85°C)

Benefits

- Most configuration is handled by a single register which minimizes programming.
- Pullups are socketed for easy adjustment.



These modules are very flexible and available in several varieties to accommodate a broad range of counter/timer applications.

Specifications

Counter/Timers

Counter/timer configuration:
AcPC482: Ten 16-bit counters – TTL
AcPC483: Four 16-bit counters – TTL
Four 32-bit counters – RS422
AcPC484: Six 32-bit counters – RS422
Other I/O mixes can be made available as specials.

Clock frequency: 20MHz.

Field I/O: Front panel SCSI-3 connector.

Speed (with 20MHz internal clock):
Maximum output pulse/square wave freq.: 200nS.
Minimum event pulse width: 100nS.
Minimum pulse width measurement: 100nS.
Minimum period measurement: 200nS.

Mode accuracy (with external clocking):
Waveform generation: Period is ±125nS.
Watchdog: Timeout occurs within ±1 clock cycle.
Pulse/period measurement: ±1 clock cycle.

Internal clocks: Programmable 1.25, 2.5, 5, 10 or 20MHz via the counter control register.

External clocks: Supported on a per-counter basis via clock line. Maximum frequency 8MHz.

Interrupts: Supported for watchdog timer time-out, event count complete, pulse width or periodic rate measurement complete, pulse wave complete (one-shot mode), successive waveform generation (continuous).

Triggering/gate: Programmable via register write or external trigger. Minimum pulse width 100nS. Line may be used for gating of counter.

Counter trigger: Interface for triggering counter functions. Input level is TTL or RS422 differential digital.

Counter input: Interface for events and pulse/period measurements. Also triggers load of watchdog timer register. Level is TTL or RS422 differential digital.

TTL compatibility: $V_{IH} = 2.0V$ and $V_{IL} = 0.8V$. Inputs are buffered and include 4.7K ohm pull-ups to +5V.

Counter output: Level is TTL or RS422 differential digital.

Digital I/O

I/O channel configuration:
16 bi-directional TTL transceivers.
Direction controlled as 16 independent channels.

CompactPCI bus Compliance

Meets PCI spec. V2.2 and PICMG 2.0, R3.0.

Data transfer bus: Slave with 32-bit, 16-bit, and 8-bit data transfer operation.

Interrupts (INTA#): Interrupt A is used to request an interrupt.

Plug-and-Play: The system maps the base address into the PCI bus 32-bit memory space.

Environmental

Operating temperature:
0 to 70°C or -40 to 85°C (E versions)

Storage temperature: -55 to 125°C.

Relative humidity: 5 to 95% non-condensing.

Power: 320mA at +5V, typical.

MTBF: Hours at 25°C, MIL-HDBK-217F, notice 2
AcPC482 1,744,259; AcPC483 1,727,707;
AcPC484 1,708,729

Ordering Information

CompactPCI Boards

AcPC482: Ten 16-bit counters – TTL
AcPC482E: AcPC482 with extended temperature range
AcPC483: Four 16-bit counters – TTL, Four 32-bit counters – RS422
AcPC483E: AcPC483 with extended temperature range
AcPC484: Six 32-bit counters – RS422
AcPC484E: AcPC484 with extended temperature range

Software

PMCSW-API-VXW: VxWorks® software support package
PCISW-API-WIN32: 32-bit Windows® DLL Driver software package
PCISW-API-WIN64: 64-bit Windows® DLL Driver software package
PCISW-API-LNX: Linux™ support (website download only)

Accessories

5025-288: Termination panel, SCSI-3 connector, 68 screw terminals
5028-432: Cable, shielded, SCSI-3 connector both ends

Visit web page for more information

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