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Find the *Acromag APC482* at our website: ***Click HERE***

APC48x Counter/Timer with Quadrature

- APC482: Ten 16-bit counters – TTL
- APC483: Four 16-bit counters – TTL and Four 32-bit counters – RS422
- APC484: 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.

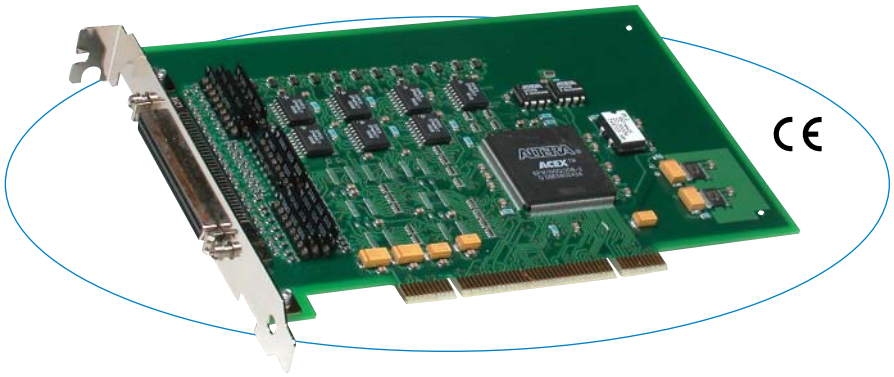
Support for internal or external triggering simplifies the synchronization of operations to specific events. Counter functions can use internally generated clocks or an externally supplied clock.

Features

- Ten 16-bit counter/timers (APC482 only) or six 32-bit counter/timers (APC484 only)
- Two 16-bit counters can be combined to create one 32-bit counter
- Available with both TTL and RS422 driver interface (APC483 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:
APC482: Ten 16-bit counters – TTL
APC483: Four 16-bit counters – TTL
Four 32-bit counters – RS422
APC484: 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.

PCI Bus Compliance

This device meets or exceeds all written PCI local bus specifications per rev. 2.2 dated December 1998.

System base address: This board operates in memory space. It consumes 4K of memory space.

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

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

Environmental

Operating temp.: 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
APC482 1,744,259; APC483 1,727,707;
APC484 1,708,729

Ordering Information

PCI Boards

APC482: Ten 16-bit counters – TTL
APC482E: APC482 with extended temperature range.
APC483: Four 16-bit counters – TTL, Four 32-bit counters – RS422
APC483E: APC483 with extended temperature range.
APC484: Six 32-bit counters – RS422
APC484E: APC484 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

CompactPCI Boards

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