



## Artisan Technology Group is your source for quality new and certified-used/pre-owned equipment

- FAST SHIPPING AND DELIVERY
- TENS OF THOUSANDS OF IN-STOCK ITEMS
- EQUIPMENT DEMOS
- HUNDREDS OF MANUFACTURERS SUPPORTED
- LEASING/MONTHLY RENTALS
- ITAR CERTIFIED SECURE ASSET SOLUTIONS

### SERVICE CENTER REPAIRS

Experienced engineers and technicians on staff at our full-service, in-house repair center

### *InstraView*<sup>SM</sup> REMOTE INSPECTION

Remotely inspect equipment before purchasing with our interactive website at [www.instraview.com](http://www.instraview.com) ↗

### WE BUY USED EQUIPMENT

Sell your excess, underutilized, and idle used equipment. We also offer credit for buy-backs and trade-ins. [www.artisanng.com/WeBuyEquipment](http://www.artisanng.com/WeBuyEquipment) ↗

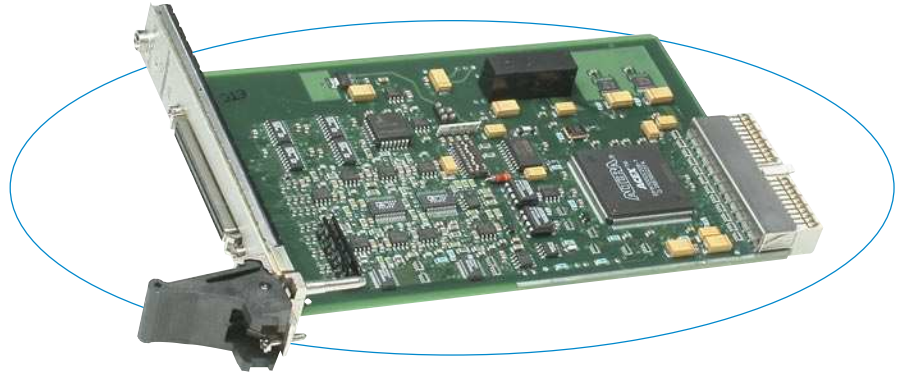
### LOOKING FOR MORE INFORMATION?

Visit us on the web at [www.artisanng.com](http://www.artisanng.com) ↗ for more information on price quotations, drivers, technical specifications, manuals, and documentation

**Contact us:** (888) 88-SOURCE | [sales@artisanng.com](mailto:sales@artisanng.com) | [www.artisanng.com](http://www.artisanng.com)

## AcPC730 Multi-function I/O

- Analog Input
- Analog Output
- Digital I/O
- Counter/Timer



AcPC730 I/O boards provide a variety of I/O functions on a single card. These new high-density boards perform both high-speed and high-resolution A/D and D/A conversion and also handle digital I/O plus counter/timer functions.

Now you can conserve your precious card slots and still get all the I/O functionality you need. The AcPC730 is designed for extreme versatility with many deluxe features to meet most applications. However, the AcPC730 is still very budget-friendly.

### Features

#### Analog Inputs

- 16 differential or 32 single-ended inputs ( $\pm 3.3V$ ,  $\pm 5V$ ,  $\pm 10V$ , 0-5V, and 0-10V ranges)
- 16-bit ADC with 512 sample RAM
- 10 $\mu$ S conversion time (100KHz)
- Interrupt upon ADC memory threshold condition (user-programmable data sample threshold)
- User-programmable interval timer

#### Analog Outputs

- Eight analog output channels ( $\pm 10V$  range)
- Individual 16-bit DACs per channel
- 1024 sample FIFO for waveform generation
- 12.375 $\mu$ S settling time (80.8KHz throughput)
- Interrupt on user-programmable FIFO threshold

#### Digital I/O

- 16 TTL bidirectional input/outputs

#### Counter/Timer

- One 32-bit counter/timer

The AcPC730 combines analog I/O, digital I/O, and counter/timer functions on a single high-density module to save cPCI slots.

### Specifications

#### Analog Input

Input configuration: 16 differential or 32 single-ended channels multiplexed to a single A/D converter.  
 A/D resolution: 16 bits.  
 Input ranges:  $\pm 3.3V$ ,  $\pm 5V$ ,  $\pm 10V$ , 0-5V, and 0-10V.  
 Maximum throughput rate:  
 One channel updated at a time.  
 1 channel (maximum): 10 $\mu$ S  
 16 channels (maximum): 160 $\mu$ S  
 32 channels (maximum): 320 $\mu$ S  
 Data sample memory: 512 samples shared by all channels.  
 A/D trigger: Internal timer, external source, software.  
 On-board timer: One user-programmable timer for analog input acquisition control.  
 System accuracy:  $\pm 3$  LSB typ. (SW calib., gain=1, 25°C).  
 Data format: Straight binary or binary two's complement.  
 Input overvoltage protection: -40 to 55V power off.  
 Common mode rejection ratio (60Hz): 96dB typical.  
 Channel-to-channel rejection ratio (60Hz): 96dB typical.

#### Analog Output

Output configuration: 8 single-ended channels, each controlled by its own independent D/A converter.  
 D/A resolution: 16 bits.  
 Output range:  $\pm 10V$ .  
 Maximum throughput rate:  
 Outputs updated simultaneously or individually.  
 1 channel: 12.375 $\mu$ S  
 8 different channels: 12.375 $\mu$ S  
 DAC programming: Via independent channel registers or through shared FIFO.  
 Data sample memory: 1024 sample FIFO shared by all channels.  
 D/A trigger: Internal timer, external source, software.  
 On-board timer: One user-programmable timer for analog output control.  
 System accuracy: 0.0076% of 20V span max. error corrected (i.e. calibrated) at 25°C with output unloaded.  
 Data format: Straight binary.  
 Output at reset: 0V.

Output current: -10 to 10mA (maximum).  
 Short circuit protection: Indefinite at 25°C.

#### Digital I/O

I/O channel configuration: 16 TTL transceivers, input/output direction selectable on an 8-channel basis.

#### Digital Input

Input voltage range: 0 to 5V DC.  
 Input signal threshold:  
 Low to high: 2.0V typical.  
 High to low: 0.8V typical.  
 Input response time: 250 nanoseconds.  
 Interrupts: 16 channels of interrupts for high-to-low, low-to-high, or any change-of-state event types.  
 Debounce: Individual debounce selectable on each channel. User-selectable (4 $\mu$ S, 64 $\mu$ S, 1mS, or 8mS).

#### Digital Output

Output voltage range: 0 to 5V DC.  
 Output ON current range: -15 to 64mA.  
 Output pullups: 4.7K ohm socketed resistors.

#### Counter/Timers

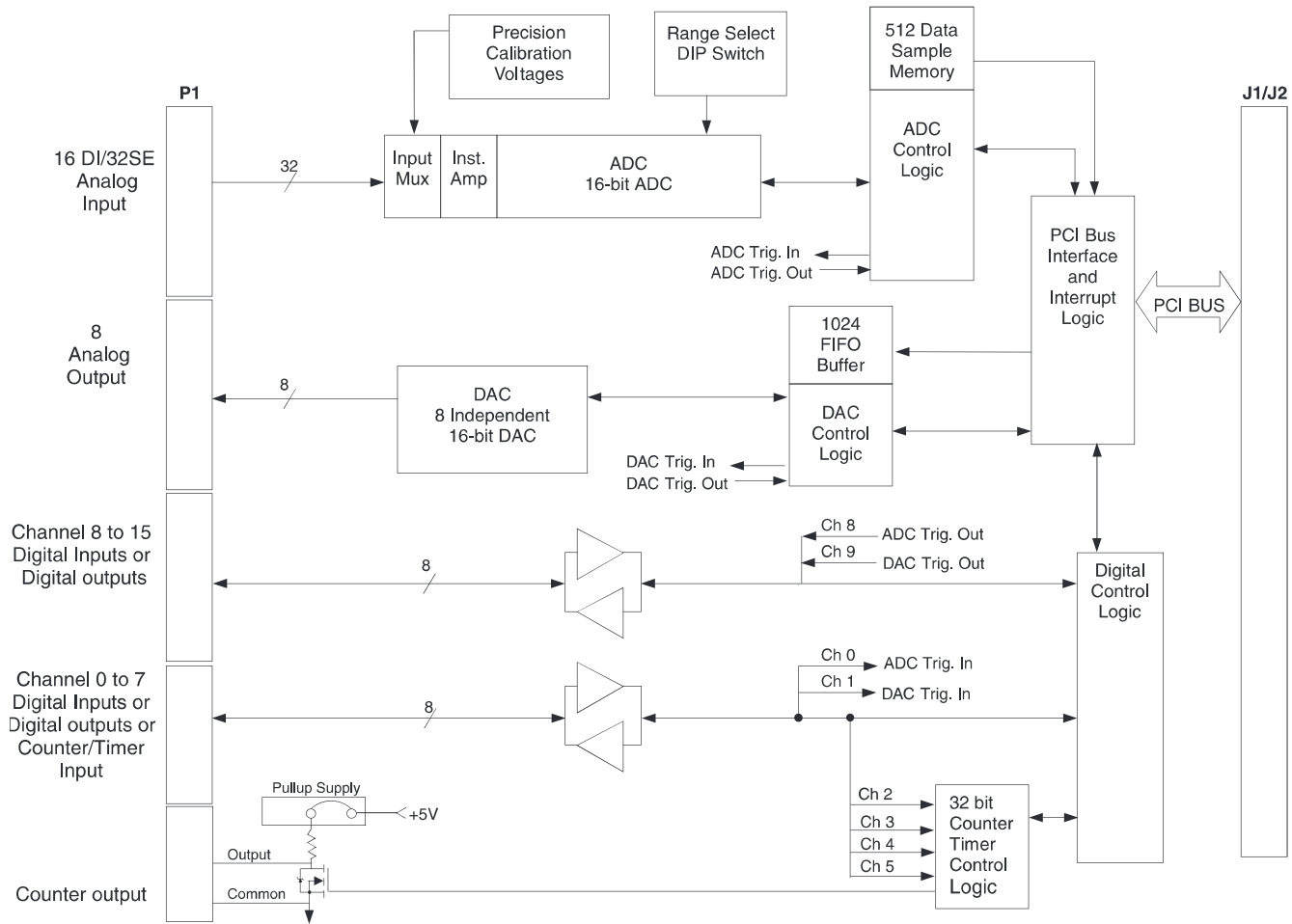
Counter/timer configuration: one 32-bit counter (requires use of channels 2 through 5 of digital I/O section).

#### Functions:

Watchdog timer, event counting, pulse measurement, period measurement, output waveform generation (pulse width modulation, continuous pulse, single pulse, continuous waveform).  
 Internal clock: Programmable 1, 4, 8MHz.  
 External clock: 3.4MHz.  
 Input voltage range: 0 to 5V DC.  
 Output voltage range: 0 to 5V with 4.7 ohm pull-up.  
 Maximum of 0 to 35V with external supply.

Continued on the next page.

All trademarks are the property of their respective owners.



CompactPCI Boards

CompactPCI Boards

## Specifications (continued)

### CompactPCI bus Compliance

Meets PCI spec. V2.1 and PICMG 2.0, R3.0.  
 Data transfer bus: Slave with 32-bit, 16-bit, and 8-bit data transfer operation 32-bit read/write accesses are implemented as two 16-bit transfers.  
 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 (E version -40 to 85°C)  
 Storage temperature: -40 to 85°C.  
 Relative humidity: 5 to 95% non-condensing.  
 Power: 245mA at +5V (290mA maximum).  
 MTBF: Consult factory.

## Ordering Information

### I/O Boards

- AcPC730**  
Multi-function I/O board
- AcPC730E**  
Same as AcPC730 plus 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-LINUX**  
Linux™ support (website download only)

### Accessories

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

[Visit web page for more information](#)

All trademarks are the property of their respective owners.



## Artisan Technology Group is your source for quality new and certified-used/pre-owned equipment

- FAST SHIPPING AND DELIVERY
- TENS OF THOUSANDS OF IN-STOCK ITEMS
- EQUIPMENT DEMOS
- HUNDREDS OF MANUFACTURERS SUPPORTED
- LEASING/MONTHLY RENTALS
- ITAR CERTIFIED SECURE ASSET SOLUTIONS

### SERVICE CENTER REPAIRS

Experienced engineers and technicians on staff at our full-service, in-house repair center

### *InstraView*<sup>SM</sup> REMOTE INSPECTION

Remotely inspect equipment before purchasing with our interactive website at [www.instraview.com](http://www.instraview.com) ↗

### WE BUY USED EQUIPMENT

Sell your excess, underutilized, and idle used equipment. We also offer credit for buy-backs and trade-ins. [www.artisanng.com/WeBuyEquipment](http://www.artisanng.com/WeBuyEquipment) ↗

### LOOKING FOR MORE INFORMATION?

Visit us on the web at [www.artisanng.com](http://www.artisanng.com) ↗ for more information on price quotations, drivers, technical specifications, manuals, and documentation

**Contact us:** (888) 88-SOURCE | [sales@artisanng.com](mailto:sales@artisanng.com) | [www.artisanng.com](http://www.artisanng.com)