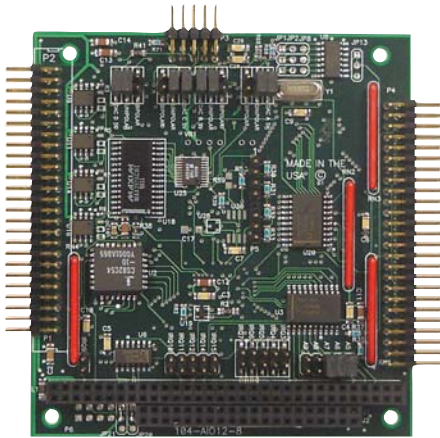


- **104-ADI0128**
- **PC/104 8-Ch. A/D, 12-bit multifunction board**



- **Rugged embedded data acquisition and control**

The 104-ADI0128 Series provides one of the most flexible embedded PC/104 industrial multifunction data acquisition and control boards in the market. All standard units come with eight differential or eight single ended inputs on the 12-bit A/D, 24 line buffered digital TTL lines and three 16-bit counter/timers. The 104-ADI0128 additionally has four 12-bit analog outputs. All units are capable of being configured for both unipolar and bipolar voltage ranges of 5 and 10V. The 82C55 based 24 line digital section has extra buffering and pull-ups for high sink/source current with industry standard 50-pin PB module rack compatible connector. Input change-of-state detection

interrupt for the eight digital lines of port C is standard with all units. The 104-ADI0128 Series has a large number of custom options for large OEM sales such as 4 to 20mA inputs, high gain lower ranges with direct sensor interface, extended temperature, low power or reduced feature sets to reduce cost.

Additional options are: Remove any combination of connectors and above circuits. Differential amplifier standard, gain of 1. Instrumentation amplifier optional with high gains. DC to DC converter for analog outputs when system is 5VDC only.

- **Eight differential or single-ended inputs**
- **100k samples/sec**
- **12-bit resolution**
- **DOS, Linux®, Windows®95/98/2000/NT/XP**
- **Four analog outputs (104-ADI0128)**
- **24 digital lines (50-pin PB rack compatible)**
- **Digital high sink/source 64/32mA**
- **Change-of-state IRQ on digital port C**
- **Three 16-bit counter/timer (82C54)**
- **Extended temperature models available**

## ► 104-ADI0128 - Technical Specifications

### Bus

- PC/104

### Channels

#### Analog inputs

- Eight differential or single-ended

#### Analog outputs

- Four (104-ADI0128 only)

#### Digital

- 24 I/O buffered TTL

### Counters

- Three 16-bit counters (82C54)

### Resolution

- 12-bit

### Input Range

- 0 to 5, 0 to 10V
- $\pm 5$ ,  $\pm 10V$
- 4 to 20mA (special option)

### Output Range

- 0 to 5, 0 to 10V
- $\pm 5$ ,  $\pm 10V$
- 4 to 20mA (special option)

### Digital

- 82C55A with A,B and C digital groups
- High sink/source (64/32mA)
- Change-of-state IRQ on group C

### Throughput

- 100k samples/sec

### Connectors

- 50-pin IDC (analog inputs/counters)
- 50-pin IDC (digital, PB compatible)
- 10-pin IDC (analog outputs)

### Power Requirements

- 5V @ 240mA typical (with optional DC to DC converter)
- $\pm 12V$  @ 35mA (with optional DC to DC converter uses 5V @ 200mA)

### Environmental

#### Operating Temperature

- $-20^{\circ}$  to  $70^{\circ}C$  (standard)
- $20^{\circ}$  to  $85^{\circ}C$  (extended temperature option with DC to DC converter)
- $40^{\circ}$  to  $85^{\circ}C$  (extended temperature without DC to DC converter option)

#### Non-Operating Temperature

- $-50^{\circ}$  to  $120^{\circ}C$

#### Humidity

- 5 to 95% RHNC

#### MTBF

- >200,000hrs

### OS Support

- DOS, Linux®, Windows®95/98/2000/NT/XP

### Support

- Superior pre- and post sales technical support
- Two year limited warranty

### Ordering Guide

#### 104-AD10128

- PC/104 8-Ch. A/D, 4-Ch. D/A MF card, software & manual CD

#### 104-AD128

- PC/104 8-Ch. A/D, no D/A MF card, software & manual CD



[www.kontron.com](http://www.kontron.com)



### Corporate Offices

**US / Canada**  
14118 Stowe Drive  
Poway, CA 92064-7147  
Tel. (858) 677-0877  
Fax (858) 677-0898  
[sales@us.kontron.com](mailto:sales@us.kontron.com)



### Europe, Middle East and Africa

Oskar-von-Miller-Straße 1  
D-85386 Eching/München Germany  
Tel. +49 (0) 800-7253756  
Fax +49 81-65 77 219  
[sales@kontron.com](mailto:sales@kontron.com)



### Asia Pacific

4F No 415, Ti-Ding Blvd., Sec. 2,  
TNei Hu Dist., Taipei 114, Taiwan  
Tel. +886 2 2799 2789  
Fax +886 2 2799 7399  
[sales@kontron.com.tw](mailto:sales@kontron.com.tw)

