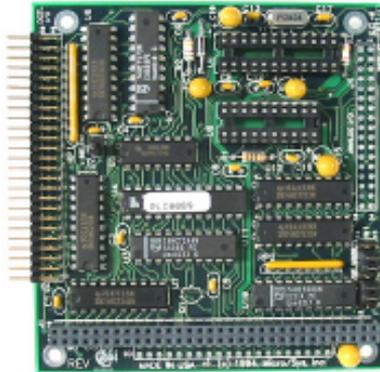




# Combination I/O, or Signal Conditioning Interface for PC/104 MPC500



## Features

- ✓ General purpose combination interface: 31 TTL I/O, one 0-5V analog input, one 0-5V analog output
- ✓ Direct connect to signal conditioning module racks
- ✓ PAMUX compatible connector for both analog and digital I/O on ribbon cable
- ✓ 5B compatible connector for analog I/O modules on ribbon cable

The MPC500 Combination I/O, or Signal Conditioning Interface can be used in one of two ways: 1) as a general purpose interface providing a mix of analog and digital I/O, or 2) as an interface to external signal conditioning racks.

The MPC500 provides 23 TTL outputs, and 8 bidirectional TTL lines. In addition, a single channel 12-bit A/D converter, and a single channel 12-bit D/A converter are optional.

When used for external signal conditioning racks, the MPC500 creates two ribbon cable busses to connect to I/O signal conditioning racks. The OPTO 22 PAMUX analog and digital rack pinout is created on a 50-pin header. OPTO 22 modules are solid state relays, AC or DC input, and various sensor inputs. The 5B analog rack pinout is created on a 34-pin header. The 5B series includes direct connect to thermocouples, RTDs, strain gauges, and 4-20mA current loops.

### Software Support

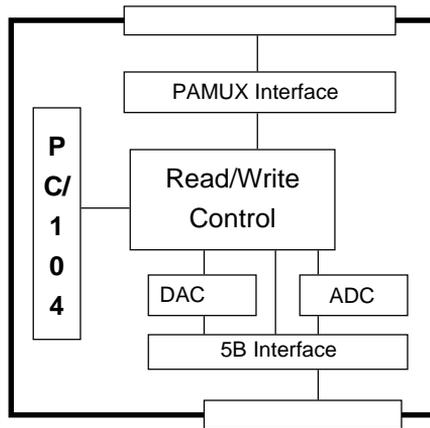
*Drivers included*

### Compatible Hardware

*Any Micro/sys CPU with  
PC/104 expansion connector  
[See Section 1]  
Digital racks,, DPB16, DBP32  
Analog racks, AIN16, APB16  
[Items above in section 4]  
Custom interfacing*

### Mounting/Packaging

*PC/104 standard*



## Specifications:

### Mechanical:

- PC/104 standard
- 3.55" (plus I/O region) x 3.775" x .6"

### Power Requirements:

- +5V  $\pm$  5% at 105mA max
- +12V  $\pm$  5% at 15mA max (-2 version only)

### Environmental:

- 0° - +70°C operating
- 25° - +85°C storage
- 5%-95% relative humidity, non-condensing

### PC/104 Interface:

- 8-bit PC/104 module
- 6 sequential I/O ports, jumper settable
- IRQ jumpers

### Digital I/O:

- 23 TTL outputs, source/sink 4mA
- 8 bidirectional TTL lines, program-controlled direction

### PAMUX Interface:

- 50-pin connector with data, address, read, write, and jumper-enabled reset signals
- 24mA drive
- 6' total cable length, max

### A/D and D/A Converters:

- 12-bit, single channel, 0-5V full scale
- Approximately 1,000 conversions/second

### 5B Interface:

- 34-pin connector with analog I/O, module select, read, and write signals
- Requires optional converters

### External Connections:

- 50-pin header, 9 TTL out, 8 bidirectional TTL (PAMUX cable)
- 34-pin header, 1 analog in, 1 analog out, 14 TTL out (5B cable)

## Ordering Information:

MPC500	Digital interface
MPC500-1	Digital plus A/D converter
MPC500-2	Digital plus A/D and D/A

### Related Products:

CA5049	50-conductor ribbon cable
CA5050	34-conductor ribbon cable
AIN16	16 non-isolated input mux
APB16	16-position 5B module rack
DPB32	32-position digital rack (G4)