

#### Accessories:

P181 PCI 208 Breakout Module  
P182 Additional Stepper Axis  
P183 Additional Encoder Axis  
P184 4 Axis DAC Module  
P185 8 Axis DAC Module  
P187 PCI 208 100 Way Cable 2.5m  
P317, P318, P319, P326, P327 CAN Modules

PCI BUS

PRODUCT CODE: P180

## PCI 208

22

The PCI 208 is based on a 120MHz 32-bit floating point Digital Signal Processor. High speed communication over the PCI bus is provided by a 128k bit dual port RAM. A large FPGA provides up to 8 stepper axes, or 8 axes with encoder feedback, or mixtures of the two. For servo drives two optional DAC mezzanine boards provide 16 bit resolution +/- 10V outputs. A DIN rail mounting break-out board eases the wiring interconnections for low-volume applications.

The PCI 208 is designed for motion control applications centred around a PC. Application programs written on the PC can access it's facilities easily using TrioPC Motion ActiveX. It is also possible to run application programs on the PCI 208 in Trio's multi-tasking TrioBASIC language or to use both programming techniques.

#### MULTI-TASKING

- 7 simultaneous TrioBASIC tasks

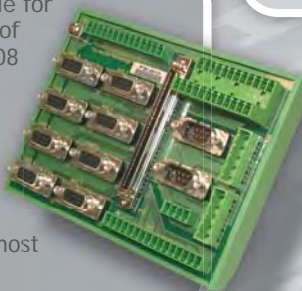
The base PCI 208 has 2 stepper / encoder axes and the axis count can be increased in single axis steps up to 8. A P184 or P185 DAC board is required for analogue output servo operation.

#### AXIS CONFIGURATION

Axis 0 - 1 stepper / servo / encoder / CAN / Analogue  
Axis 2 - 7\* stepper / servo / encoder / CAN / Analogue

*Any unused axis can be used as a virtual axis  
\*Extra Axes can be added by P182 and P183*

The P181 is an optional "Breakout" module for the PCI 208 can be used to ease the task of making connections to the 100 way PCI 208 connector. For some simple applications, connections can be wired to a mating connector which plugs directly into the PCI 208. For series production a customised connection PCB can provide the best solution. For many other applications the breakout module is the most convenient solution.



#### FEATURE ENABLE CODES

The PCI208 is supplied as standard with axis 0 and axis 1 enabled (stepper or encoder). These can be upgraded to servo axes by adding either the P184 or P185 DAC Module. Axes 2 to 7 are optionally enabled as either stepper or encoder by purchasing "Feature Enable Codes" (FECs). All enabled encoder axes can be set up as Servo by the addition of either the 4 or 8 axis DAC Modules. In addition, "Remote Axis" FECs can be added to enable analogue feedback or CANopen servodrive support.

#### OPTIONAL DAC MODULES

4 Analogue out  
4 Analogue in



P184

8 Analogue out

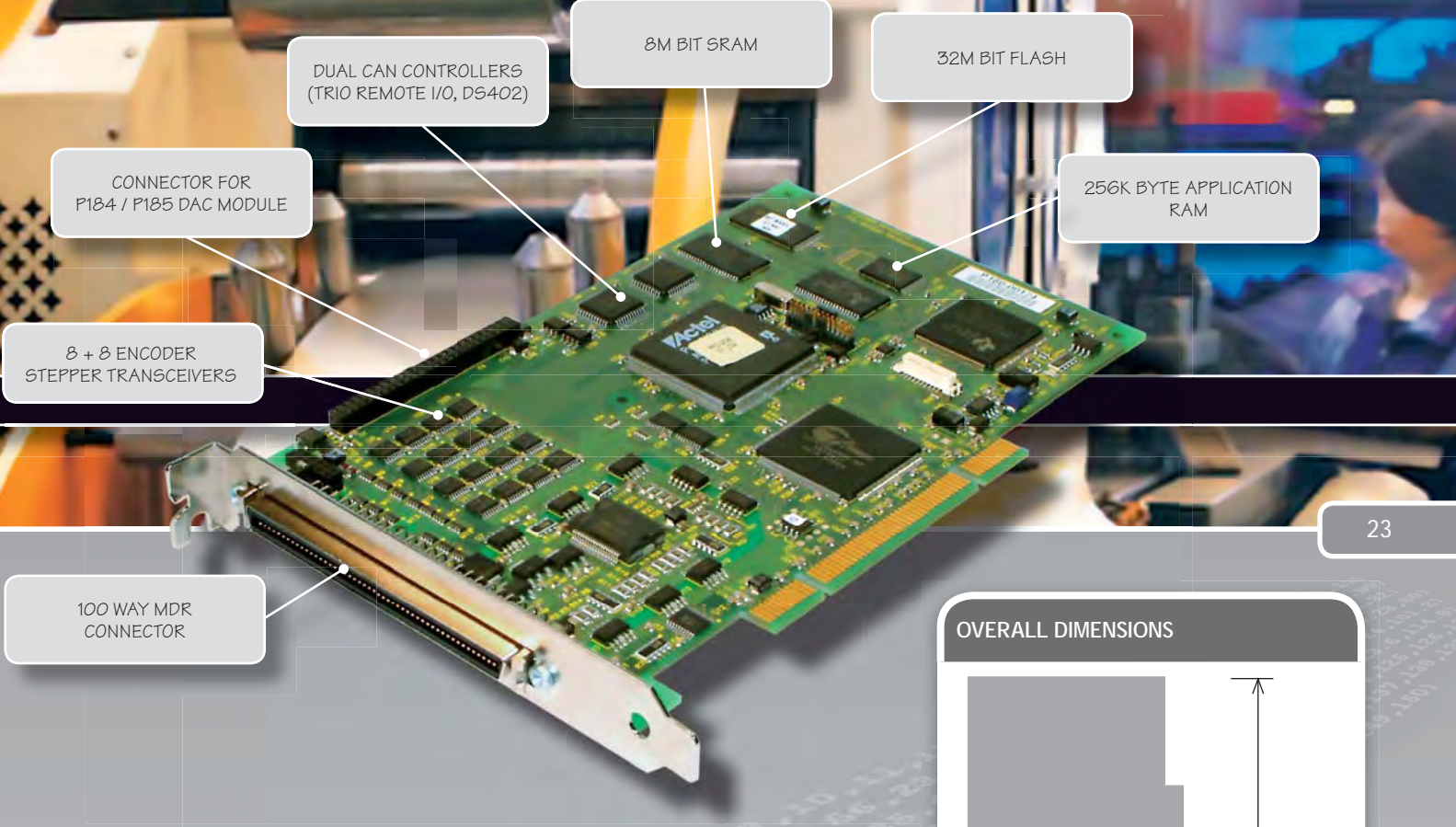


P185

The Inputs on the PCI 208 can be used as high-speed hardware registration inputs where accurate product placement in applications such as printing and packaging is required.

#### I/O CAPABILITY

- 20 24V dc inputs and 10 24V dc bi-directional channels
- Additional 4 x 12 Bit analogue inputs with P184
- Expandable to 256 I/O channels and 32/16 analogue I/O channels using the P317, P318, P319, P326 and P327 modules



DUAL CAN CONTROLLERS  
(TRIO REMOTE I/O, DS402)

8M BIT SRAM

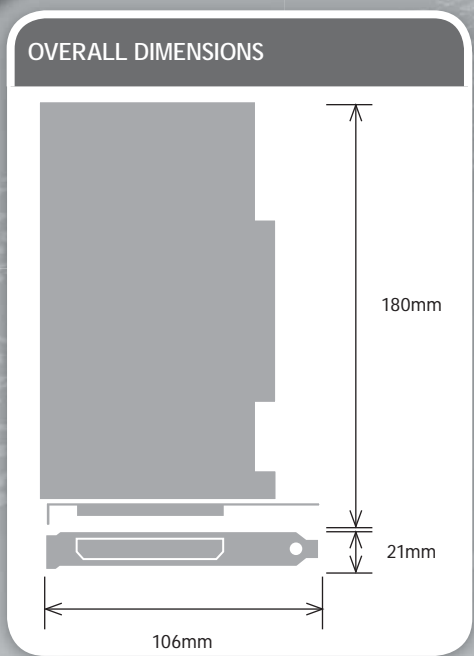
32M BIT FLASH

256K BYTE APPLICATION  
RAM

CONNECTOR FOR  
P184 / P185 DAC MODULE

8 + 8 ENCODER  
STEPPER TRANSCEIVERS

100 WAY MDR  
CONNECTOR

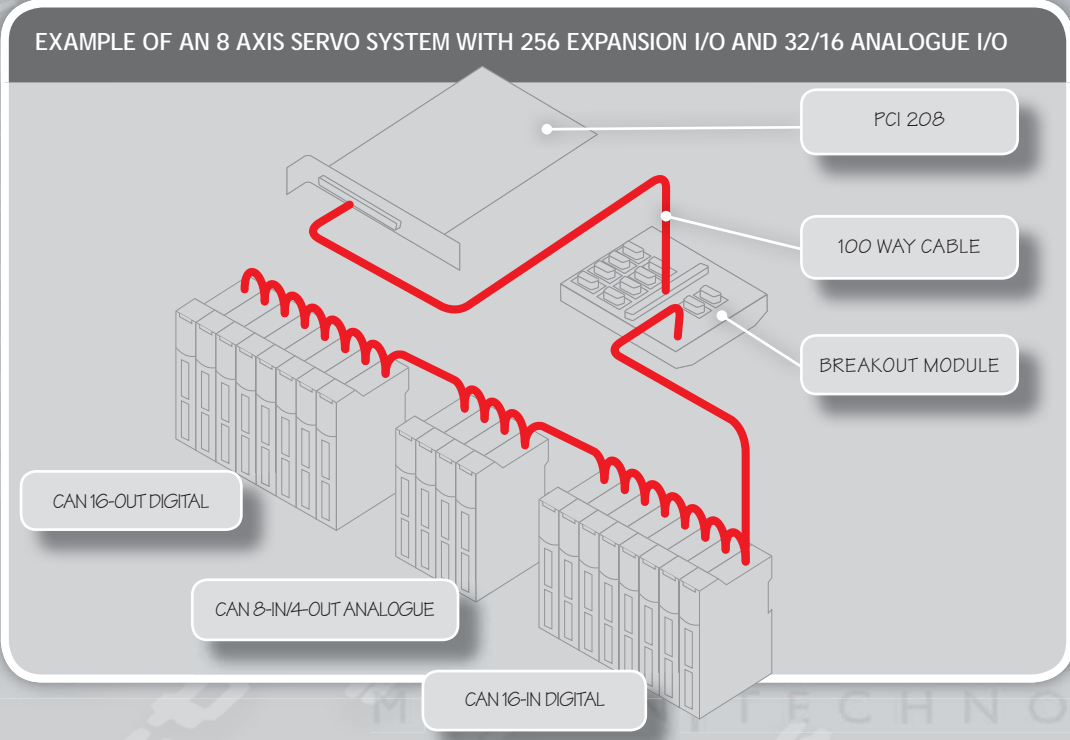


P187 - 100 way to 100 way High Density cable for connecting PCI 208 to PCI 208 Breakout Module.



**FIELDBUS COMMUNICATION OPTIONS**

CAN      TrioCAN I/O, DeviceNet slave, CANopen, or user programmable



PCI 208

100 WAY CABLE

BREAKOUT MODULE

CAN 16-OUT DIGITAL

CAN 8-IN/4-OUT ANALOGUE

CAN 16-IN DIGITAL

