

Accessories:

P181 Breakout Module
P182 Additional Stepper Axis
P183 Additional Servo Axis
P184 4 Axis DAC Module
P185 8 Axis DAC Module
P187 100 Way Cable 2.5m
P315 CAN 16-I/O
P325 CAN 8 Analogue Inputs

MOTION COORDINATOR

PCI BUS

PRODUCT CODE: P180

PCI 208

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.

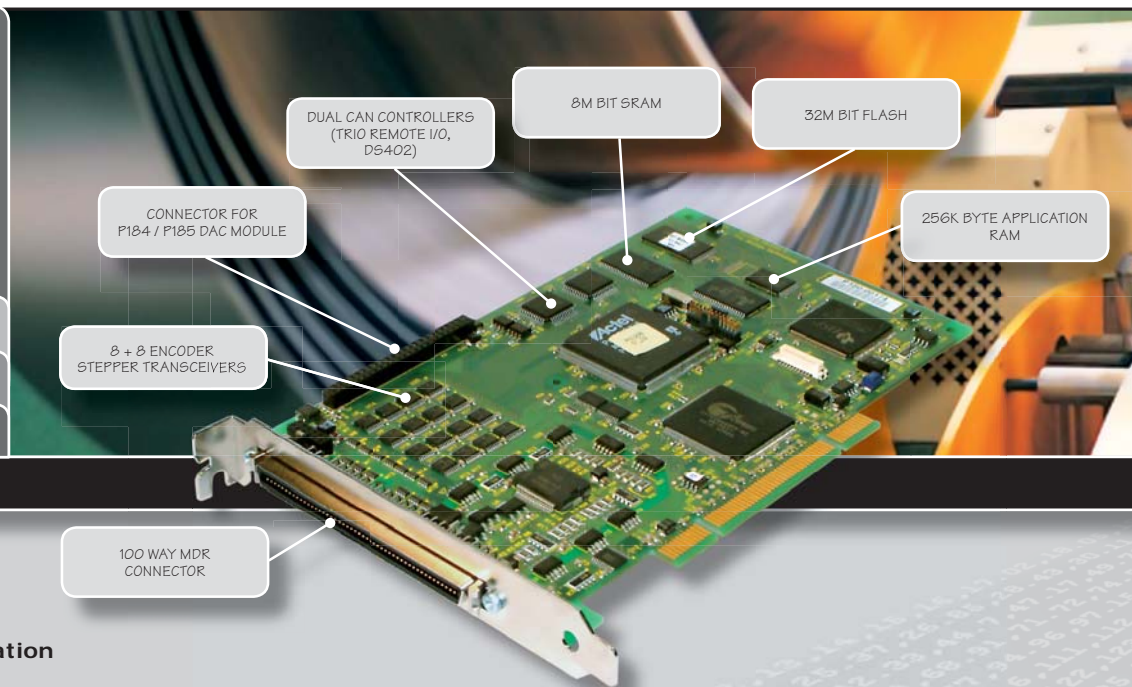
The PCI 208 is designed for motion control applications centred around a PC. Application programs written on the PC can access its facilities easily using an ActiveX component. It is also possible to run application programs on the PCI 208 in Trio's multi-tasking BASIC language or to use both programming techniques. Trio's *Motion Perfect* application development software can be used to monitor the execution of programs, I/O and motion. Complex motion such as cams, gears, linked axes, and interpolation is made easy with Trio's comprehensive BASIC command set. The PCI 208 has 20 opto-isolated digital 24V inputs and 10 opto-isolated outputs. The inputs can be used as high-speed hardware registration inputs where accurate product placement in applications such as printing and packaging is required.

The I/O count can be expanded using Trio's remote I/O system with both digital and analogue modules. The PCI 208 has 2 built-in CAN channels for I/O and axis control.

The base PCI 208 has 2 stepper 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.

I/O Capability

- 20 inputs and 10 output channels
- Expandable to 256 bi-directional channels and 32 analogue inputs.



Feature Enable Codes

The PCI 208 is supplied as standard with axis 0 and axis 1 enabled (servo or stepper). Software "Feature Enable Codes" can be purchased and then entered using *Motion Perfect* to enable axes 2 to 7 for either servo, stepper, CAN* or encoder operation. If you purchase servo codes, you will require either the 4 or 8 analogue output mezzanine option board.

*CAN FEC's: P701, P702, P704

Optional DAC Modules



Axis Configuration

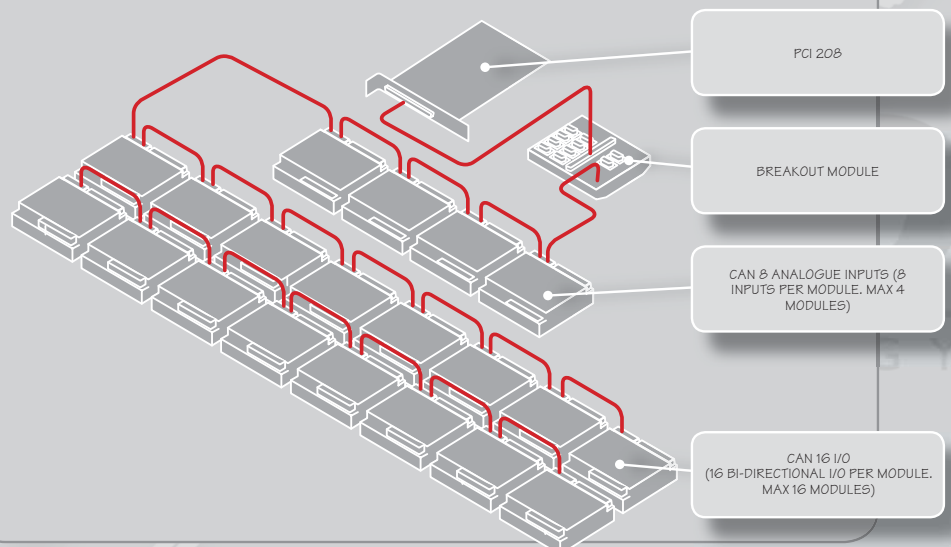
Axis 0	stepper / servo / encoder / CAN
Axis 1	stepper / servo / encoder / CAN
Axis 2	stepper / servo / encoder / CAN
Axis 3	stepper / servo / encoder / CAN
Axis 4	stepper / servo / encoder / CAN
Axis 5	stepper / servo / encoder / CAN
Axis 6	stepper / servo / encoder / CAN
Axis 7	stepper / servo / encoder / CAN

Any unused axis can be used as a virtual axis

Fieldbus Communication Options

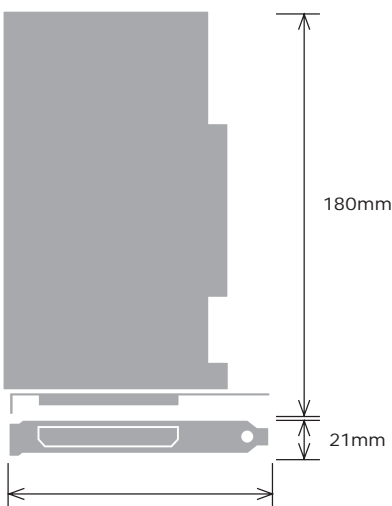
CAN	Trio remote I/O, DeviceNet slave CANopen I/O, or user programmable
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Example of an 8 Axis Servo System with 256 expansion I/O and 32 analogue inputs



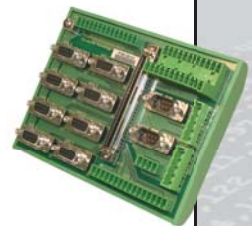
Part Number	P180
Size	106mm x 180mm x 21mm
Weight	90g
Temperature Range	0-45 degrees Celsius
Power Consumption	3.3V or 5V Supplied Via PCI Bus
Maximum Number Of Axes	8
Built In Encoder Inputs	8 bi-directional line driver encoder input/stepper output RS422P
Built In Stepper	8 @ 6MHz (Encoder) or 2MHz (Stepper)
Built In Analogue Outputs	None - Use 4 or 8 Axis Option Board (P184 OR P185)
Servo Cycle Time	1000us, 500us, or 250us
Built In Inputs	20 x 24V Opto-Isolated
Built In Outputs	10 x 24V Opto-Isolated
Built In Bi-directional I/O	None
Built In Analogue Inputs	None. Use P184-to provide 4 @ +/-10V, 12 bit
Inputs Functions	Forward Limit / Reverse Limit / Datum / F Hold
Watchdog Relay	1 Solid State - 24V @ 100mA max Current
Serial Ports	None
CAN Ports	2 @ 1MBAUD max
Daughter board Slots	None
User Memory	256kbytes
Table Memory	32000 values
Multi-tasking	2 Fast Tasks + 5 Normal Tasks
EMC Compliance	BS EN61000-6-2 : 1999 generic noise immunity standard for industrial environment BS EN61000-6-4 : 2001 generic emission standard for light industrial environment

Overall Dimensions



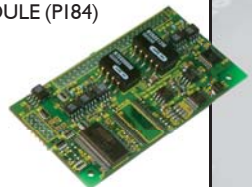
PCI 208 BREAKOUT MODULE (P181)

Din rail mounted module to convert PCI 208 100 way High Density connector to 8 x 9 pin sub D style encoder connectors and screw terminal disconnects for I/O and analogue outputs. Requires P187 connecting cable.



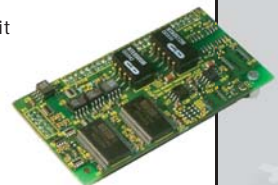
PCI 208 4 AXIS DAC MODULE (P184)

Provides 4 +/-10V, 16 Bit outputs for the P180 (PCI 208). Includes 4 x 0-10V analogue inputs 12 Bit.



PCI 208 8 AXIS DAC MODULE (P184)

Provides 8 +/-10V 12 Bit outputs for the P180 (PCI 208).



PCI 100WAY CABLE 2.5M (P187)

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



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