

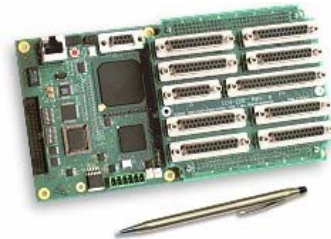
Products / MultiFlex Ethernet Series – Customization

www.pmccorp.com/products/mfxeth_custom.php

At the heart of PMC's MultiFlex ETH 1000 Series motion controllers is a powerful and flexible hardware platform that can be adapted to a multitude of applications. Because of the generous processing capacity, memory and I/O available, PMC can readily add significant features and performance enhancements to meet the unique needs of specialized OEM applications and deliver highly optimised solutions at a fraction of the cost of competing controllers.

New features can often be implemented in a matter of days at no extra cost to the customer. Some firmware-level feature and performance enhancements PMC has provided to OEM customers include:

- Additional PWM servo axes
- 18 programmable pulse channels
- 2x faster servo loop rates
- 2x higher trajectory calculation and axis update frequency
- Expansion of point memory by 10x
- On-board G/M-Code translator for precision CNC machining



A Flexible and Powerful Motion Control Platform

The successful implementation of significant new features such as these requires not only ample processing power but also a wide variety of I/O signals that can be readily reprogrammed to perform the required functions. The MultiFlex ETH 1000 Series controllers have the following hardware resources available for this purpose:

- Advanced 64-bit floating-point RISC CPU
- High-capacity customizable FPGA
- 32 MB DRAM memory on-board
- 4 analog output channels (16 bit) (1440 models only)
- 8 buffered differential encoder receiver channels with hardware failure detection circuitry
- 20 high-current open-collector output channels (4-24 Volts) (24 high-current open-collector output channels when used with ICN-125 interconnection board)
- 16 bi-directional opto-isolated digital input channels (4-24 Volts) (32 bi-directional opto-isolated digital input available when used with ICN-125 interconnection board)
- 16 digital TTL inputs
- 16 digital TTL outputs
- 8 analog input channels (14 bit) (optional)
- 28 Ground lines (analog and digital)
- 8 12V supply lines
- 40 5V supply lines
- Configurable, re-assignable I/O
- All I/O signals are conveniently available on high-density SCSI, D-sub, or customer-specified connectors
- High-density SCSI interconnection board for pin-compatibility with MultiFlex PCI series
- Additional I/O conditioning can also be provided on custom designed interconnection boards

This rich combination of I/O together with a 64-bit RISC processor and high-capacity FPGA has allowed us to provide customers with highly optimized solutions that offer unbeatable value. For example, the following matrix summarizes the possible 8-axis combinations that this platform can support - **at a fraction of the cost of ordinary 8-axis controllers:**

MultiFlex Ethernet Series - Customization

MultiFlex Ethernet Hardware Capabilities - 8 Axis Model Matrix			
Model (Ethernet/RS-232)	Analog Servo Control Channels	PWM Servo Control Channels	Pulse/Direction CW/CCW Servo or Stepper Control Channels
MFX-ETH-1440	4	0	4
Custom*	4	1	3
Custom*	4	2	2
Custom*	4	3	1
Custom*	4	4	0
Custom*	3	0	5
MFX-ETH-1440	3	1	4
Custom*	3	2	3
Custom*	3	3	2
Custom*	3	4	1
MFX-ETH-1802	3	5	0
MFX-ETH-1262	2	0	6
Custom*	2	1	5
MFX-ETH-1440	2	2	4
Custom*	2	3	3
Custom*	2	4	2
Custom*	2	5	1
MFX-ETH-1802	2	6	0
Custom*	1	0	7
Custom*	1	1	6
Custom*	1	2	5
MFX-ETH-1440	1	3	4
Custom*	1	4	3
Custom*	1	5	2
Custom*	1	6	1
MFX-ETH-1802	1	7	0
MFX-ETH-1080	0	0	8
Custom*	0	1	7
Custom*	0	2	6
Custom*	0	3	5
MFX-ETH-1440	0	4	4
Custom*	0	5	3
Custom*	0	6	2
Custom*	0	7	1
MFX-ETH-1802	0	8	0



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