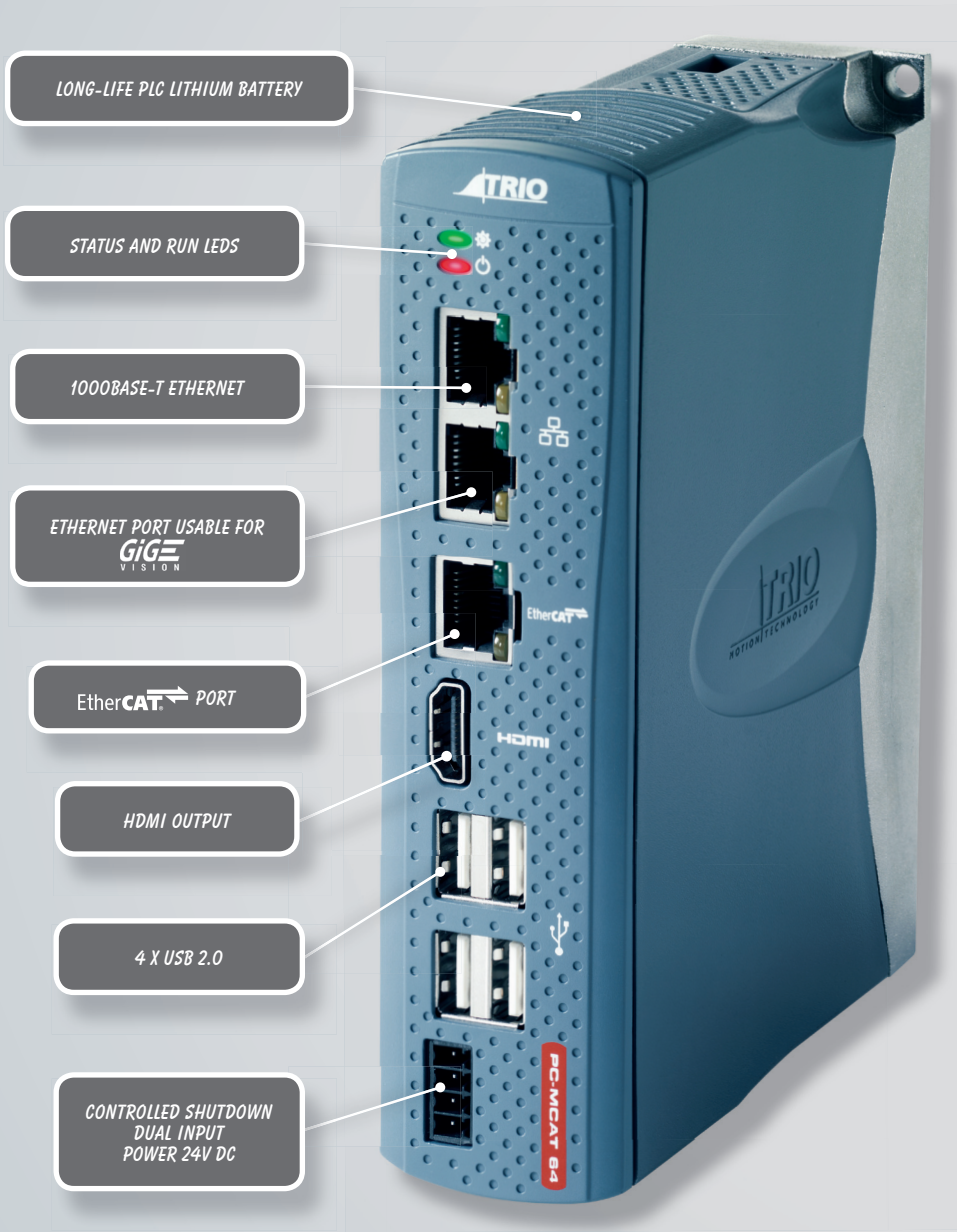


PC-MCAT 64

64 Axis EtherCAT Controller + PC



Trio's PC-MCAT 64 is an innovative "Motion + PC Solution". A powerful quad core Intel Atom processor is used to drive both a high performance motion controller and a compact PC that can run user applications under Windows. The PC-MCAT software uses a real-time extension to allow both Windows and the motion controller to run directly on their own processor cores.

The motion controller's own dedicated EtherCAT master Ethernet port can launch data packets with less than 1µsec of jitter. The 1.91GHz Atom processor is paired with 4 GBytes of RAM and a high speed 64 GByte upgradable SSD to give sufficient PC performance for many machine types.

PC-MCAT is especially suitable where a machine type needs the software and hardware facilities of a PC paired with a powerful 64 axis motion coordinator. The HDMI port can be used to drive high resolution displays for sophisticated operator interfaces.

The large 64 GByte SSD drive can hold vast amounts of machine data and recipes. Two GBit Ethernet ports are built into the PC-MCAT. These can be used for factory communications or connecting vision camera(s) whose data can be processed directly on the PC cores.

EtherCAT

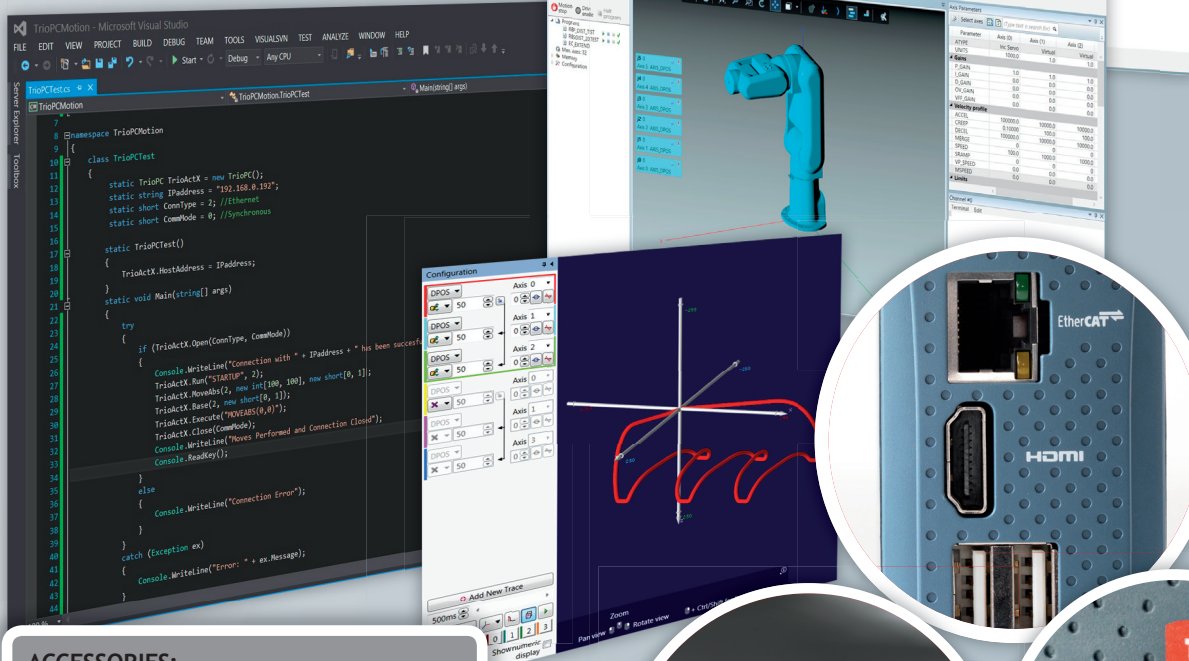
FEATURES

- ★ Motion + PC Solution for Automation Machinery
- ★ Fanless compact PC with E3845 Quad Core Atom Processor at 1.91 Ghz
- ★ Powerful up to 64 Axis EtherCAT Based Trio *Motion Coordinator*
- ★ RTX64 Real Time Extension to allow Motion + Windows Running Directly on Their Own Processor Cores
- ★ Plug and Play EtherCAT Configuration Expandable Support for Servo Drives, I/O and Devices From Over 100 Manufacturers
- ★ Programmable In Easy TrioBASIC, built-in IEC 61131 or PC based Programming Languages Such As 'C'
- ★ Machine Execution Can Continue After Windows Crash
- ★ 4 GByte RAM + 64 GByte Upgradable SSD
- ★ Choose Windows or Linux Operating System
- ★ Built-in GBit Ethernet Port For Vision Cameras

MOTION + PC SOLUTION



A machines PC applications can communicate with the Trio *Motion Coordinator* running on its dedicated processor core using fast shared memory. Machine control sequences can either be made in multi-tasking TrioBASIC / IEC61131 of the *Motion Coordinator* or can be written as a PC application (for example in "C") sending motion + I/O requests through to the *Motion Coordinator*. Trio's *Motion Perfect* v4 application development tool can be run directly on the PC-MCAT or remotely on a laptop via Ethernet.



ACCESSORIES:

P366 - P379	EtherCAT Flexslice System
P750	Kinematic Runtime FEC
P843 - P844	UNIPLAY 7" & 10" HMI's
P912	2 x EtherCAT Axes

PRODUCT CODE:

P760 PC-MCAT 64 EtherCAT Controller

SPECIFICATION:

Motion Specification:

Motion Axes	2 / 4 / 8 / 16 / 32 / 64
Servo Cycle	250 / 500 / 1000 / 2000µsec
Drive Modes	Position / Speed / Torque
Interpolation	Linear / Circular / Helical / Spherical / Transition Curves / Tangential
Linked Modes	Cam, Cambox, Flexlink, Movelink, Camlink

EtherCAT Specification:

Speed	100Mbps
Physical Layer	100BASE-TX full duplex (IEEE 802.3)
Cable	Shielded Twisted Pair (TIA/EIA-568B CAT5e)
Topology	Line, tree or star
Isolation	Pulse transformer with common-mode choke
Connector	RJ45
Cable Length	100m max between nodes
Cyclic period	250µsec, 500µsec, 1000µsec or 2000µsec
Synchronisation	Distributed Clocks technology. Jitter <1 µsec
Protocol	CoE, SoE
Number of Axes	64
Number of Nodes	128 slave nodes maximum
Motion modes	Cyclic Synchronous Position, Cyclic Synchronous Velocity, Cyclic Synchronous Torque
Parameter transfer	CoE Object read/write. SoE IDN read/write
Input/Output	Up to 8192

PC Specification:

Processor	Intel Atom™ E3845 Quad Core 1.91 Ghz
Memory	4 GBytes DDR3
Ethernet	2 x Gb Ethernet + EtherCAT port
HDMI	2560 x 1600 @ 60Hz Max
Audio	Via HDMI
USB	5 USB ports
Battery	8 Year life PLC compatible type. Replaceable without opening case.
Power Supply	24V +/- 20% Isolated Power Supply
Operating Temp	0 deg – 55 deg C
Cooling	Fanless
Operating System	Windows with RTX64 Real Time Extension

40mm 120mm 157mm