



Main Features

- ♦ Full-closed loop motion control by 32-bit dedicated processor
- ♦ Dedicated motion control DI/O for every single axis
- ♦ 32 channels digital inputs and 32 channels digital outputs
- ♦ Support E-CAM, E-Gear, PT and PVT control
- ♦ Support Standalone Procedure Access up to 32 tasks
- ♦ 2 x USB3.0 & 2 x USB2.0
- ♦ 4 x Intel® GbE LAN Ports
- ♦ 1 x CFAST socket
- ♦ Triple individual display
- ♦ Support +24VDC power input
- ♦ 2 x RS232/422/485 with Auto Flow Control
- ♦ One PCIe4, two PCI expansion slots (MAC4000P4E-GTS only)

Product Overview

MAC 4000P4E-GTS series is a specialized controller for machine automation applications which involves servo motor control and machine vision analysis. Being capable of full-closed loop controlling up to 4/8 axes, MAC 4000P4E-GTS series shows excellent performance in not only point-to-point movement but also multi-axis coordinated motion and irregular velocity profiles. MAC 4000P4E-GTS series, equipping with uncommitted DI/O up to 32 channels DI and 32 channels DO in total, reduces the number of add-on cards and thus reduces the controller size. When working on machine vision applications, data from industrial cameras can be transmitted via GbE LAN ports, USB3.0 ports or add-on cards depending on the interfaces of the camera. MAC 4000P4E-GTS series is designed for modern machine automation applications and ensures the shortest integration and development period.

Specifications

System

- ♦ CPU:
 - Support 3rd generation Intel® Core™ i5-3610ME (2.7 GHz, 3M Cache)
 - Support 3rd generation Intel® Core™ i3-3120ME (2.4 GHz, 3M Cache)
- ♦ Up to 8GB DDR3 1333 un-buffered and non-ECC SDRAM
- ♦ 4 x Intel® GbE LAN ports
- ♦ 2 x USB2.0 ports & 2 x USB3.0 ports
- ♦ 2 x RS232/422/485 with Auto Flow Control
- ♦ 1 x VGA & 1 x DVI-I, triple independent display supported
- ♦ 1 x PS/2 connector
- ♦ 1 x Speaker-out and 1 x Mic-in
- ♦ ATX power on/off switch & remote power on/off switch

Motion Control

- ♦ Full-closed loop servo motors control up to 4/8 axes
- ♦ $\pm 10V$ 16-bit control output with 4 x AB phase encoder input
- ♦ Dedicated HOME, LIMITS and ALARM for every single axis
- ♦ Dedicated SVON and Clear for every single axis
- ♦ Intelligent look-ahead trajectory planning
- ♦ Support PID plus feed forward gain control (PID+Vff+Aff)
- ♦ Support E-CAM, E-Gear, PT and PVT control
- ♦ Support Standalone Procedure Access up to 32 tasks

General I/O

- ♦ System: uncommitted DI/O up to 16-channel DI and 16-channel DO
- ♦ Terminal board: uncommitted DI/O up to 16-channel DI and 16-channel DO
- ♦ Optional remote I/O
 - Digital I/O modules: AXE-9200

Power Requirements

- ♦ DC input range: +24VDC input

Environment

- ♦ Operating temperature:
 - Ambient with air flow: 0°C to 55°C (according to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
 - Storage temperature: -20°C to 80°C
- ♦ Relative humidity: 10% to 93% (non-condensing)
- ♦ Shock protection: 20G, half sine, 11ms, IEC60068-2-27
- ♦ Vibration protection
- ♦ Random: 0.5Grms @ 5 ~ 500 Hz according to IEC68-2-64
- ♦ Sinusoidal: 0.5 Grms @ 5~500 Hz according to IEC68-2-6

Certifications

- ♦ CE
- ♦ FCC Class A

