



## Main Features

- Full-closed loop motion control by 32-bit dedicated processor
- Dedicated motion control DI/O for every single axis
- 16 channels digital inputs and 16 channels digital outputs
- Support E-CAM, E-Gear, PT and PVT control
- Support standalone procedure access up to 32 tasks
- 6 x USB 2.0 ports
- +9 to 30VDC power input
- 3 x RS232 and 1 x RS-232/422/485 with Auto Flow Control
- 2 x Intel® GbE LAN ports
- 1 x DB15 VGA & 1 x DVI-I

## Product Overview

MAC 3500-GTS series is a specialized controller for machine automation applications. Being capable of full-closed loop controlling up to 4/8 axes, MAC 3500-GTS series shows excellent performance in not only point-to-point movement but also multi-axis coordinated motion and irregular velocity profiles. Besides the outstanding motion control capability, MAC 3500-GTS series also equips with uncommitted DI/O up to 16 channels DI and 16 channels DO, and no extra add-on cards are needed. MAC 3500-GTS series is the best platform of a compact and stable machine automation controller.

## Specifications

### System

- CPU:
  - Support Intel® Core™ i7-620M PGA processor (2.66GHz, 4M Cache)
  - Support Intel® Core™ i5-520M PGA processor (2.4GHz, 3M Cache)
  - Support Intel® P4500 PGA processor (1.86GHz, 2M Cache)
- \* OnBoard mobile Intel® QM57 platform controller hub
- Up to 4GB DDR3 800/1066 SDRAM, un-buffered and non-ECC
- ATX power on/off switch & remote power on/off switch
- 2 x Intel® GbE LAN ports
- 6 x USB 2.0 ports
- 3 x RS232 and 1 x RS232/422/485 with Auto Flow Control
- 1 x DB15 VGA & 1 x DVI-I, dual independent display supported
- 1 x PS/2 connector
- 1 x Speaker-out and 1 x Mic-in

### 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 feedforward 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

- Terminal board: uncommitted DI/O up to 16-channel DI and 16-channel DO

### Power Requirements

- DC input range: +9 to 30VDC input

### Dimensions

- System: 195mm (W) x 268mm (D) x 101mm (H)

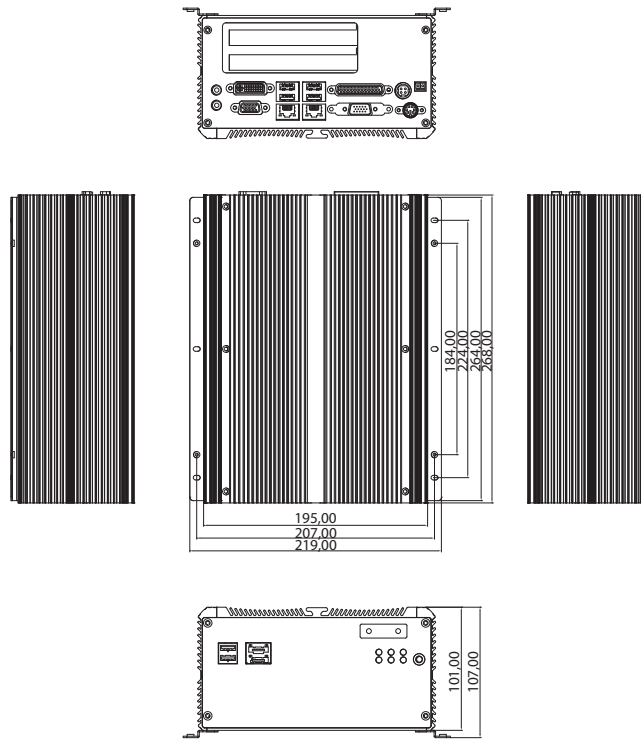
### Environment

- 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

## Dimension Drawing



## Ordering Information

- **MAC 3500-GTS (P/N:10J30350003X0)**  
Compact 4-axis motion controller for contouring application. Please note that 1 PCI slot is occupied by the motion controller