

MAXp Family

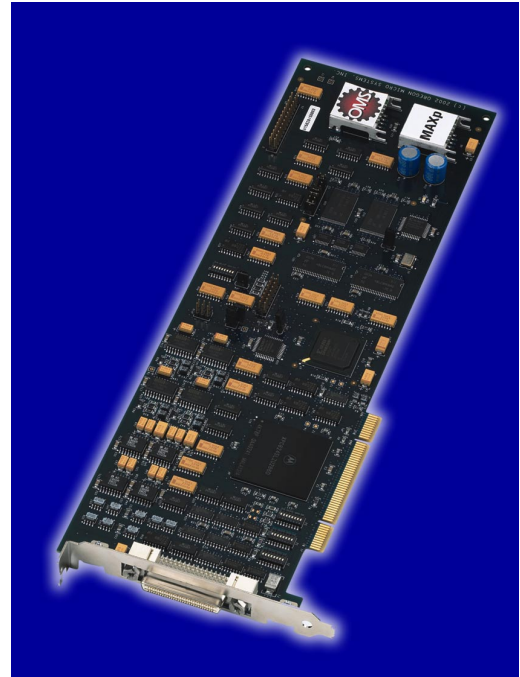
DESCRIPTION

The new MAXp 1 to 8 axes motion controller is compatible with current 5.0V PCI configurations and the 3.3V/5V Universal PCI bus. MAXp is built on a PowerPC 32-bit RISC processor running at 266 MHz. The use of this processor delivers exceptional servo control, capabilities, quality, and application performance on multi-axis requirements. All signals, data points, and the PID loop update every 122 μ s on all 8 axes. The MAXp also features 64k of Shared Memory permitting near real-time data transfer between the application program and the controller. Each axis of the MAXp controller can be configured as a servo, open loop stepper, or a closed loop stepper.

The advantages for you are: application performance, future expandability, and robust design; all carried out in an ISO 9001-2000 certified facility. The MAXp was developed with a surplus of capability, allowing MAXp to be customized to your individual request. Because most applications have unique requirements the MAXp is the optimal choice to bring about creativity to motion. Applications requiring multi-axis motion control, including virtually any robot or automated machine, should use the MAXp controller.

PROGRAMMING

MAXp motion controllers are easily programmed with ASCII character commands through an extensive command structure. These commands are combined into character strings to create sophisticated motion profiles with features of I/O and other functionality. A separate FIFO command queue for each axis is used to store the commands once they are parsed by the MAXp. The commands are executed sequentially, allowing the host to send a complex command sequence and attend to other tasks while the MAXp manages the motion process. These command queues store 2560 command values and include a command loop counter which allows multiple executions of any command string. All commands are sent to the controller as two or three character ASCII strings. Some of these commands expect one or more numerical operands to follow. These commands are identified with a '#' after the command. The '#' indicates a signed integer input parameter or a signed fixed point number of the format ### when user units are enabled. User Units define, distances, velocity and acceleration parameters and may be inputted in inches, millimeters, revolutions, etc. Synchronized moves may be made by entering the AA or AM command mode. This form of the command performs a context switch that allows entering commands of the format: MRx#,y#,z#,t#; u#, v#, r#, s#;



FEATURES

- PID update rate of 122 μ s on all 8 axes
- 266-MHz, 32-bit RISC processor
- 64k Shared Memory
- PCI Universal Bus – 3.3V or 5V
- 8 Mb system memory
- 4 channels of general purpose Analog Input, with 16 bit, +/-10 VDC input
- Support Quadrature Encoder feedback up to 8 MHz.
- Backlash compensation
- Linear, Parabolic, Cosine, "S" - curve & custom profiles
- Real time encoder position capture
- Firmware upgrades and enhancements
- Circular Interpolation
- Electronic Gearing