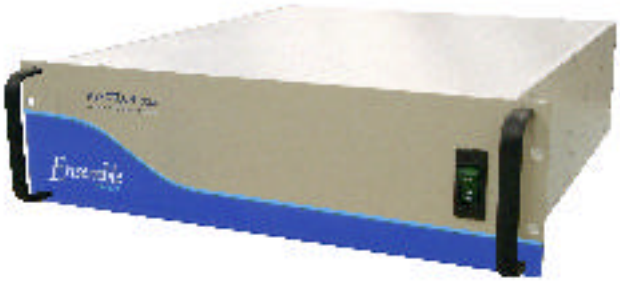
Stand-Alone Multi-Axis Motion Controllers



The Ensemble Epaq MR is Aerotech's next-generation, stand-alone motion controller for applications from basic laboratory experimentation and general purpose positioning to advanced OEM systems. It is offered in a 4- or 8-axis 3U rack-mount version that contains integrated power supplies and pluggable motor and IO connectors. The integrated PWM or linear amplifiers control brush, brushless, and stepper motors. Higher power external amplifiers may be daisy-chained to the Epaq MR using the high-speed AeroNet serial interface for a total of ten axes of coordinated motion.
The flexibility of the Epaq MR allows users to seamlessly mix and match drive types (linear versus PWM, brush or brushless, stepper, etc.) within the same positioning system using a common programming and control platform. Multiple Epaq MRs can be controlled from one Windows PC through Ethernet or USB. Optional on-board encoder interpolation offers the user programmable axis resolution including the ability to change interpolation (multiplication) values through software.

Unlike most controllers on the market today, there is no need to understand a cryptic command set to generate motion – the intuitive interface makes programming easy. Online help further simplifies writing motion programs and includes many functional examples that can be modified for customer applications. Ease of use is assured with pre-coded LabVIEW VIs, AeroBASIC programming functionality, .NET tools for C#, VB.NET, managed C++, as well as a full C library.

The Ensemble with Integrated Development Environment software offers a graphical user interface in Windows featuring an intuitive Program Editor, Variable Output window, Compiler Output window, and Task State monitor. This interface enables users to easily monitor all aspects of their positioning system, no matter how complex. The Axis Control and Diagnostic screens are further supplemented by a fully functional Autotuning utility that minimizes startup time and allows easy optimization of motion axes. The Windows-based remote software package is included with each unit, which allows the user to upload/download programs, modify parameter files, and analyze motion with Aerotech's advanced graphical tuning package, all from the convenience of a remote PC.

The EtherNet/IP interface enables AB PLCs (MicroLogix, CompactLogix, or ControlLogix) to be integrated directly with the Ensemble. Motion can be programmed in the RSLogix 5000 environment or separate programs can be written

on the controller and triggered from the AB PLC.

Aerotech manufactures a wide range of positioning stages, drives and controls to provide a fully integrated and optimized motion solution.

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