## RM-2000 Rack Mount Stage Controller



## Features

- 2 U 19" Rack Mount Control Unit: 22.8 cm D x 48.3 cm W x 8.1 cm H (9" x 19" x $3.2^{\prime \prime}$ )
- 100 MHz Microcontroller for faster command processing and servo control
- Closed-Loop DC servo control of up to four motorized axes
- 0-10 Vdc DAC output for additional analog control
- Firmware upgradable via serial connection
- Remembers last position on power up
- LCD display shows axes coordinates and status
- USB or RS-232 serial control with rates to 115200 baud
- "Zero", "@", and "Home" buttons on joystick
- Left- or Right-hand joystick unit


## Options Supported

- Z-drives, with clutch switch
- Dual filter wheel control
- Dual shutter control
- Piezo Z-axis control
- Linear encoders (XYZ)
- Hardware video autofocus
- Raster and serpentine scanning routines with TTL synchronization
- Leica Smart MoveTM Digital Potentiometers for XY motion control
- TTL control of Moves to previously stored locations
- Multi-output hardware sequencer functions
- Bare boards and custom firmware are available for OEM applications


## Specifications

| Digital Servo Loop Time | 1 millisecond per Axis |
| :---: | :---: |
| Digital-Closed-Loop Speed Dynamic Range | $>40 \mathrm{~dB}$ |
| Motor Type | Brushed DC Servo Motors |
| Maximum Motor Current | 1.5 Amp |
| Motor Voltage | 6-24Vdc |
| Encoder Options | Internal Rotary or External Linear Encoders Supported |
| Number of Axes | Up to four Motor Axes, plus DAC Output Channel |
| Manual Controls | XY Joystick, Control Wheel, Zero, @, and Home Buttons, Filterwheel Advance to Next, Shutter Toggle, Controller Reset |
| Display | 4-line by 40-character LCD Display shows Axes Positions and Status |
| Computer Interface | RS-232 Serial and USB |
| Interface Baud Rate | 9600, 19200, 115200 |
| Filter Wheel Switching Time | < 40 ms |
| Shutter Switching Time | $\leq 8 \mathrm{~ms}$ |
| Power Voltage | $100-240 \mathrm{Vac} 50 / 60 \mathrm{~Hz}$ |
| Requirements Current | 2.3 Amp (max) |

