

## MicroMax® Model 677XX

BOARD LEVEL  
SINGLE AXIS DRIVER ELECTRONICS

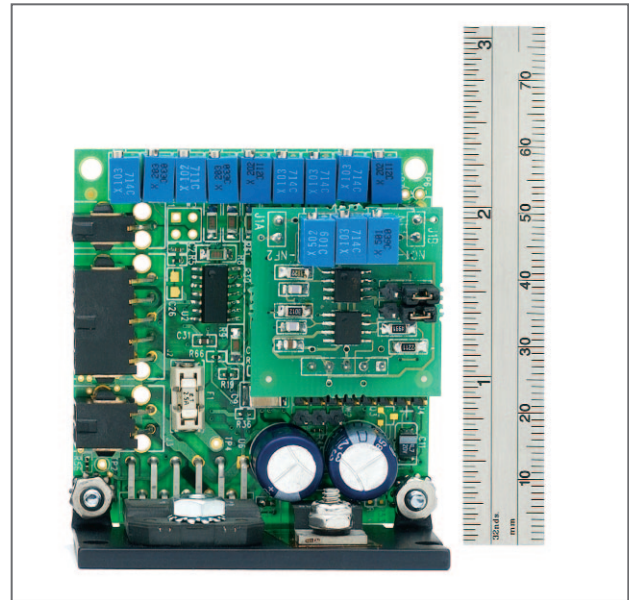
### FEATURES:

- Smallest Servo Driver For Compact, Low Cost System Integration
- Position, Error and Velocity Output Signals
- Input Scale and Offset Adjustment
- On Board Protection Circuitry
- Optimal Performance with the 6200 and 6800 Families of Cambridge Technology Scanners

*The MicroMax Model 677XX* driver from Cambridge Technology provides an extremely compact, high performance and fully featured servo package at a very attractive price. At just 2 inches in width and 2.5 in length it is among the smallest servo drivers commercially available, bringing easier integration to your scanning solution. Featuring automatic gain control (AGC), low noise system damping, linearity compensation and high stability components, the 677XX servo provides high quality and stable positioning.

*Designed with flexibility in mind, the MicroMax Model 677XX* features differential analog inputs, flexible power supply configurations and positioning control allowing for optimization of system positioning angles, speed and accuracy. System position, velocity and error output signals make integrations into complex scanning system applications easy and accurate. Integral mounting hardware, low profile connectors and the overall small size allow for compact system designs with easy integration.

*The New Smaller Size MicroMax 677XX* single axis servo driver can be configured for optimal performance with Cambridge Technology's 6200 and 6800 line of closed loop,



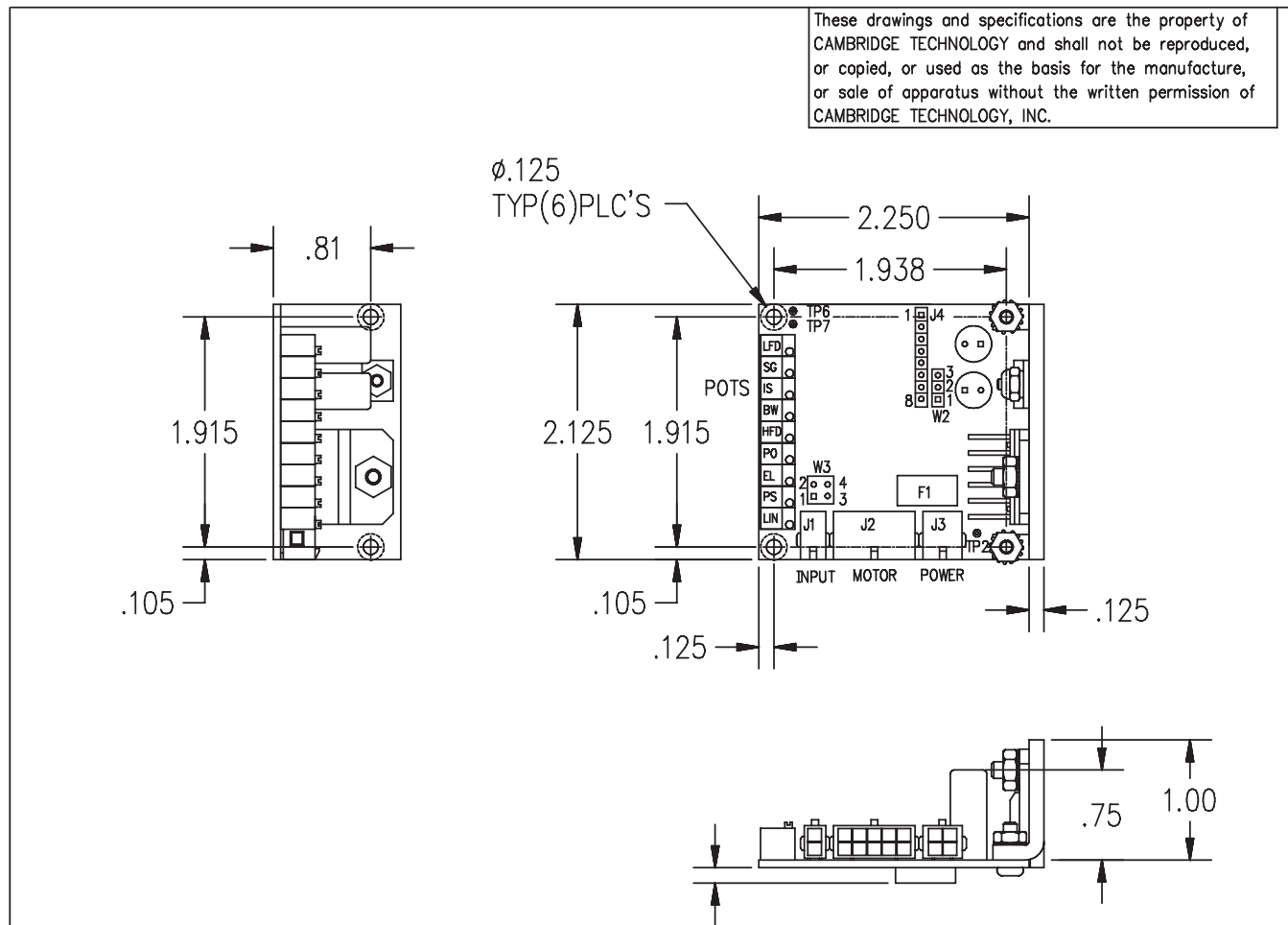
galvanometer based optical scanners. Used with Cambridge Technology's patented position detection galvanometer technology, the MicroMax 677XX provides improved time and temperature stability without the need for thermal compensation. On board protection circuitry ensures reliable system control during integration and operation. To guarantee safe operation and extended product lifetime, the MicroMax 677XX monitors and controls galvanometer rms power and features a socketed fuse for added system protection. It also utilizes servo signal conditioning to maintain controlled performance within rated angular excursion limits. This combination of size, flexibility and price make the MicroMax Model 677XX the ideal choice where high levels of speed and performance are required in the most compact environment.

*At Cambridge Technology, we take great pride in the performance of our products. Our high standards in research and development, manufacturing and customer satisfaction guarantee the performance consistency that you need to design the high quality systems demanded in today's competitive marketplace. Call us today to discuss your scanner and electronics requirements.*

# Board Level Electronics General Specifications

All angles are in mechanical degrees. All specifications apply after a 1 minute warm up period.

Analog Input Impedance:	400K +/-1% ohms (Differential) 200K +/-1% ohms (Single Ended)
Analog Output Impedance:	1K +/-1% ohms (for all observation outputs)
Position Input Scale Factor:	0.50 volt/degree (40° system), 0.67 volt/degree (30° system)
Position Input Range:	+/- 10 volts max
Position Offset Range:	+/- 10 volts
Position Output Scale Factor:	0.5 volt/degree
Error Output Scale Factor:	0.5 volt/degree
Velocity Output Scale Factor:	analog output (scaled by position differentiator gain)
Power Supply Requirements:	+/-15 to +/-28VDC configurations available
Maximum Drive Current Limit:	10 amps peak, 5 amps rms (power supply & load dependent)
Operating Temperature Range:	0 - 50 °C
Size:	2.0" x 2.5" x 1.07", 5.08cm x 6.35cm x 2.69cm



To specify configuration in ordering use servo base numerical model # followed by the central two digits of scanner model #.

Example: A MicroMax 677XX driver configured for use with a 6800 would be specified as 67780.  
 A MicroMax 677XX driver configured for use with a 6210 would be specified as 67721.