



# Cambridge Technology, Inc.

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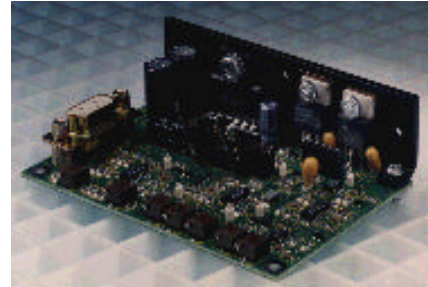
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## MicroMax™ Model 678XX

BOARD LEVEL  
SINGLE AXIS SMT DRIVE ELECTRONICS

### Features:

- **Surface Mount Technology for Compact Size and Low Cost System Integration**
- **Position, Error and Velocity Output Signals**
- **Input Scale and Offset Adjustments**
- **On Board Protection Circuitry**



*Cambridge Technology's MicroMax 678XX Driver* is designed for the highest servo and positioning speed in compact surface mount technology (SMT) at the lowest OEM prices. Using Cambridge Technology's Class 0 servo design and optional bandwidth enhancement modules, the MicroMax 678XX extends system bandwidth and positioning speeds to new levels. Cambridge Technology's advanced automatic gain control (AGC) and low noise damping provide high quality and stable positioning. Designed with flexibility in mind, the MicroMax 678XX can be configured to drive most of Cambridge Technology's extensive line of precision, closed loop, galvanometer based optical scanners. Measuring only 2.63" x 3.75", the surface mounted MicroMax 678XX is the ideal and low cost choice for high speed, small profile, scanning system applications.

*Designed and Featured for OEM Integration, the MicroMax 678XX* includes system position, error and velocity output signals for easy and accurate integration into complex scanning system applications. On board input scale and offset adjustments provide an additional level of system customization and setup for your specific scanning application. Differential analog inputs, flexible power supply configurations and positioning control allow for optimization of system positioning angle,

speed, accuracy and cost. Integral mounting hardware, convenient placement of system tuning and setup adjustments and overall servo further support compact system designs and ease of integration.

*On Board Protection Circuitry* ensures reliable system control during integration and operation. To guarantee safe operation and long lifetime, the MicroMax 678XX monitors and controls galvo RMS power and includes an optional on board fuse as an added protection feature. The MicroMax 678XX also utilizes servo signal conditioning to maintain controlled performance within the rated angular excursion limits.

*At Cambridge Technology, we take great pride in the performance of our products. Our high standards in manufacturing guarantees 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.*

# GENERAL SPECIFICATIONS

## Model 678XX Board Level Electronics

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

Analog Input Impedence	400K +/-1% ohms (Differential) 200K +/-1% ohms (Single Ended)
Analog Output Impedence	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)
Input Voltage Requirements	+/-15 to +/-28VDC (current varies with motor configuration)
Maximum Drive Current Limit	10 amps peak 5 amps rms (power supply and load dependent)
Operating Temperature Range	0 - 50 °C
Size	3.75" x 2.5" (2.63" with heatsink bracket) x 1.06" 9.52cm x 6.35cm (6.68cm) x 2.69cm
Weight	2.86 ounces / 81 grams

