

## CellMite® ProD Model 4350 CPLD Interface Board Assembly

- **“Complex Programmable Logic Device” connects directly to CellMite® ProD Data Acquisition and Control Board Units**

The **CellMite® ProD Model 4350** is a high performance CPLD interface board designed for 3-phase motor control. It is designed to connect directly to CellMite ProD Data Acquisition and Control Boards.

The main component on the board is an Altera EPM3512AQC208-10 CPLD (Complex Programmable Logic Device). The CPLD is in a 208-pin PQFP package with a standard 10-pin JTAG interface port. The CPLD has 10,000 usable gates, 512 macrocells, 32 logic array blocks and 172 user I/O pins. The CPLD is factory programmed with standard motor control firmware. This firmware can be modified by the end-user for a specific application or Electro Standards Laboratories can develop a custom application based on the end-user's application.

The CPLD interface board has 15 single-ended PWM input signals, 16 differential PWM output signals, 4 differential Brake output signals and a differential Inverter Enable output signal. It also has an 8-bit parallel LCD interface, 32-bit General Purpose I/O, 8 position DIP switch, 2 user pushbutton switches, a reset pushbutton switch and a 10MHz oscillator. For debug and test purposes the board has a 16-bit test port and 8 user LED indicators.

Model 4350 is designed for ruggedized applications and operation from 0°C to +70°C.

Optionally available for industrial applications, operation from -40°C to +85°C, contact Electro Standards Laboratories for availability.



### Specifications:

#### PWM Input Connection:

Connectors: (1) 2x8, 2mmx2mm Male Header

#### PWM Differential Output Connection:

Connectors: (4) 2x10, 0.1"x0.1" Male Headers

#### Brake Differential Output Connection:

Connectors: (4) 2x10, 0.1"x0.1" Male Headers

#### Invertable Enable Differential Output Connection:

Connectors: (1) 2x5, 0.1"x0.1" Male Header

#### Test Port Interface Connection:

Connectors: (1) 2x10, 0.1"x0.1" Male Header

#### GPIO Port Interface Connection:

Connectors: (1) 2x10, 2mmx2mm Male Header

#### LCD Interface Connection:

Connectors: (1) 2x8, 2mmx2mm Male Header

#### Indicators:

PWR indicator LED and 8 User LED's

#### Power Requirement:

Input Power: 5VDC @500mA (Polarity and Over-Voltage Protection)

Main Power Connection: 2-Pin 0.156" Male Header

#### Operating Environment:

Standard: 0°C to +70°C

Option for Industrial Applications: -40°C to +70°C

#### Mechanical:

Model 4350, Catalog No. 523327

Size: 4.50" x 5.50" (20.3 x 14.0 cm)

Weight: 3.5 oz. (100 grams)

Mounting Holes: (5) 0.156" Diameter, Plated