# MESA

4I36 PC/104 EIGHT CHANNEL QUADRATURE COUNTER

- **Eight 32 bit quadrature counters**
- **Selectable TTL or RS-422 inputs**
- **Up/down (1X) or true quadrature mode**
- **Index inputs/Clear-On-Index capability**
- **10 MHz counting rate (RS-422)**
- **Digital filter on quadrature inputs**
- **24 general purpose I/O bits**
- **FPGA based, allows field upgrades**
- **Counter pinout compatible with 4I30**
- **Two year warranty**
- **Made in USA ─ Local support**
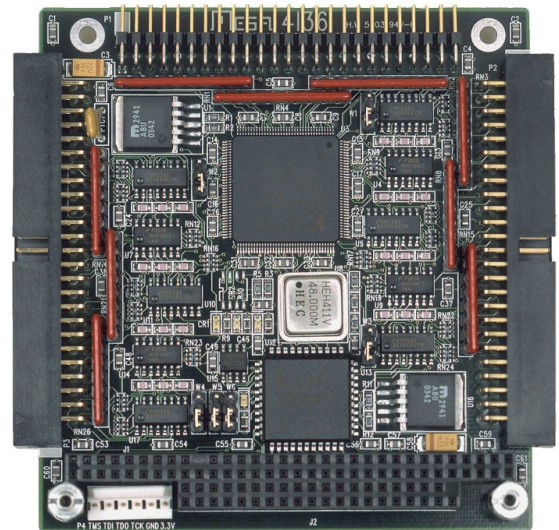
The 4I36 is a stackable PC/104 card with eight 32 bit up/down counters with quadrature count inputs and per channel index inputs. The 4I36 is intended for robotic, motor control, measurement, and instrumentation applications.

The 4I36 has selectable TTL or RS-422 levels on its quadrature and index inputs. TTL or RS-422 operation is jumper selectable in groups of two channels. The TTL inputs have pullup resistors and RC / Schmitt filtering. The differential RS-422 inputs are suited for longer cable lengths and have optional termination.

In addition to the counters, 24 general purpose I/O bits capable of sinking 24 mA are provided for control applications. These I/O bits are organized as two 12 bit ports with per bit direction control.

The 4I36 counters can count in normal quadrature mode (4X) or up/down mode (1X). Digital filtering is used on encoder inputs to reject input noise. Each counter has a option to be cleared by either the rising or falling edge of the index signal.

Maximum count rate of the 4I36 with TTL inputs is 4 million counts per second. Maximum count rate with RS-422 inputs is 10 million counts per second.

The 4I36 uses a FPGA chip for all counting and I/O, so it can be easily upgraded or modified in the field for specific requirements. The FPGA configuration flash memory can be updated from the host, no special cable or adapters are required.
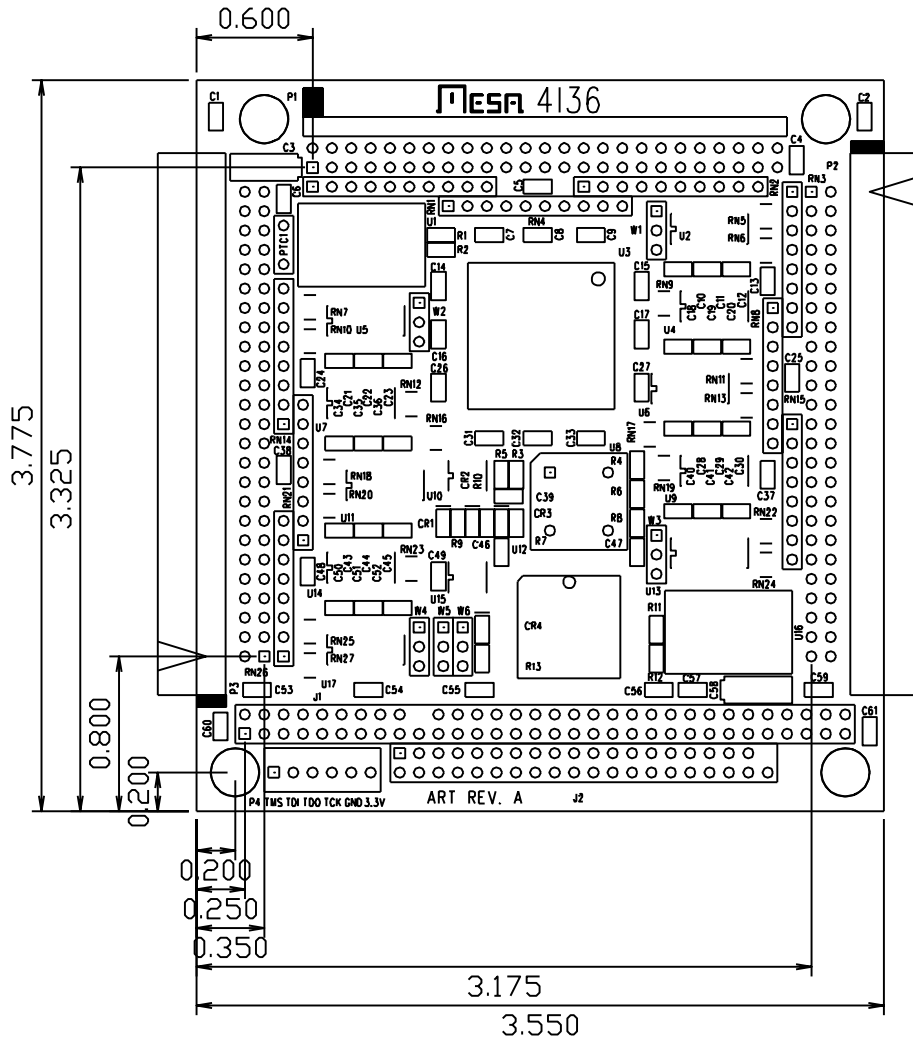
ORDERING INFORMATION:

4I36   Commercial temp version. (0 .. +70C)
4I36-I   Industrial temp. version (-40 .. +85C)