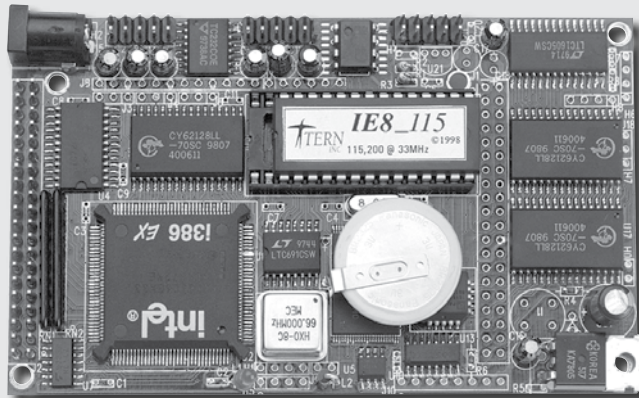# i386-Engine-P™ (IE-P)

i386-Engine plus 16-bit ADC, RS-232/485

i386-Engine-P™

Features:

- 4.5x2.7x0.3"
- Power consumption: 300/160/80/30mA at 6.5/12/24/30V
- 32-bit CPU (Intel i386EX, 33 MHz), C/C++ programmable
- Up to 3MB on-board SRAM + Flash *****
- Up to 4 serial ports • RS-232/485 drivers
- 512-byte EE • 16-bit ADC *****
- 24 multiplexed I/Os, plus 8 TTL outputs
- 5V regulator • Real-time clock, battery *****
  * optional

The **i386-Engine-P™** (**IE-P**) is based on the **i386-Engine™** design, with regulator, RS-232/485 drivers, single high speed ADC, and more on-board memory. In addition to 512KB 8-bit SRAM and 512KB 8-bit ROM/Flash, the **IE-P** supports up to 1MB 16-bit SRAM and 1MB 16-bit Flash. A 16-bit ADC (LTC1605, 100KHz, ±10 V) can be installed. Eight TTL outputs are designed for operating an external analog multiplexer.

The **IE-P/M** can be installed with **MC2140™, LittleDrive™, Mem-Card™, MotionC™, P100™** or **P300™.**

Ordering Information

IEP/IEM   **Call for Pricing**

Includes: i386EX 33MHz, 8 TTL outputs, watchdog, 512-byte EE, 5V regulator, 2 RS-232 drivers, 128KB SRAM.
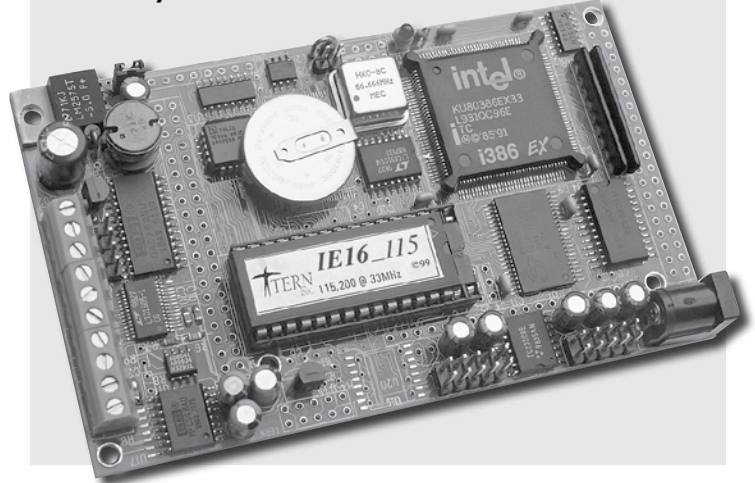
NOT including add-on options. OEM option discounts available.

Add-on Options: (IEP)

1) 8-bit SRAM: 512KB
2) Debug ROM (*IE8_0_115*)
3) Real-time clock (RTC) and battery
4) UART (SCC2691) w/ (a) RS232 or (b) RS485
5) 3 sockets for expansion: two 20x2, one 10x1
6) 16-bit SRAM: (a) 128KBx2 or (b) 512KBx2
7) 16-bit Flash: 256KW
8) 16-bit ADC (LTC1605)
9) Switching regulator

i386-Engine-M™ (IE-M)

8 ch. 12/16-bit ADC

Features:

- Same mechanical/electrical features as the **i386-Engine-P™**
- Single 16-bit SRAM replaces all 8-bit SRAM chips of **IE-P**
- Multiplexer (8 single or 4 differential) for analog inputs
- Optional 12/16-bit high speed parallel ADC
- Optional 4 channels of 5 µs 12-bit DAC(7625, BB)

The **i386-Engine-M™** (**IE-M**) is an excellent high performance controller for high speed data acquisition and motion control. A single 16-bit SRAM chip with battery backup and 16-bit Flash allow the i386EX to operate using the 16-bit data bus for code and data access.

An optional 8 ch. 12-bit ADC (LTC1415, 1MHz, 0-4.096V), or 16-bit ADC (LTC1605-1, 100K, 0-4V) can be installed with an analog multiplexer (508) of 8 single-ended differential inputs. A high speed 12-bit DAC7625 contains four precision output buffer amplifiers, providing 5µs output setting time and outputs of 0 to 2.5V with an external 2.5V reference.

Add-on Options: (IEM)

1) 16-bit SRAM: 512KB
2) Debug ROM (*IE16_0_115*)
3) Real-time clock (RTC) and Battery
4) UART (SCC2691) w/ (a) RS-232 or (b) RS-485
5) 3 sockets for expansion: two 20x2, one 10x1
6) 16-bit Flash: 256KW
7) ADC: (a) 8 ch. 12-bit, (d) 8 ch. 16-bit
8) Switching regulator
9) 4 ch. 12-bit DAC 200 KHz (DA7625)

TERN *INC.*