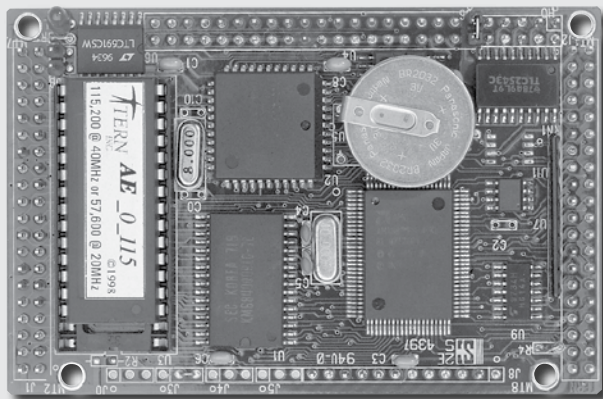


A-Engine™ (AE)

C/C++ programmable 16-bit microprocessor module with 50+ I/Os, ADC, DAC, 3 UARTs



Features:

- 3.6x2.3x0.3" **AE™** and 3.6x2.8x0.3" **AE-P™**
- 190 mA at 5V for 40 MHz
- 40MHz, 16-bit CPU (188), program in C/C++
- Up to 512KB SRAM, 512KB ROM/Flash *
- 24 I/Os (PPI), 2 PWMs, 512-byte EE, 3 serial ports*
- 32 multifunctional I/Os (188), interrupts, 3 timers
- 11 ch. 12-bit ADC, 2 ch. 12-bit DAC
- Real-time clock, battery*

*Optional

The **A-Engine™ (AE)** and **A-Engine-P™ (AE-P)** are C/C++ programmable microprocessor controllers based on a 16-bit 40 MHz CPU (188). They support up to 512KB ROM/Flash, 512KB battery-backed SRAM, a 512-byte EEPROM, a real-time clock (RTC72423), 2 asyn. serial ports supporting up to 115,200 baud and an optional UART SCC2691. There are three 16-bit programmable timers/counters and a watchdog timer. The timer can be used to count external events, up to 10MHz, or to generate PWM outputs. There are 32 user-programmable CPU I/O pins, plus 24 bi-directional, user-definable I/O lines from a PPI (82C55) chip. Schmitt-trigger inverters are provided for external interrupt inputs to increase noise immunity. A supervisor chip (691) provides power failure detection and a watchdog timer.

A 12-bit ADC provides 11 single-ended 0-5V (or 0 to REF) inputs with sample-and-hold, with a sample rate of up to 10KHz. Two 12-bit DACs provide 0 to 4.095 Volts analog voltage outputs capable of sinking or sourcing 5mA.

The **AE** is a 5V only module, but the **AE-P** has on-board RS-232 drivers and a 5V regulator allowing 8-12 V power input.

Ordering Information:

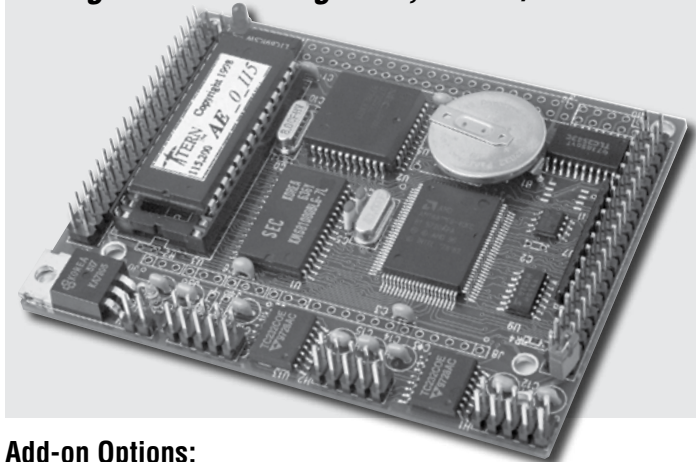
AE (40MHz)	\$129/\$104/\$79/\$54	Qty 1/100/500/1K+
AE-P (40MHz)	\$139/\$114/\$89/\$64	Qty 1/100/500/1K+

Includes: 188, 128KB SRAM, 32 I/O's, 2 UARTs, 3 timers, PPI, watchdog timer, 512-byte EE.

NOT including add-on options. OEM option discounts available.

A-Engine-P™ (AE-P) 40MHz!

A-Engine-P™ with regulator, RS-232/485 drivers



Add-on Options:

- 1) SRAM: 512KB.....\$20
- 2) Debug ROM (AE_0_115)\$20
- 3) Real-time clock (RTC) and battery.....\$20
- 4) 3rd UART + (RS232/485 for AE-P)\$20+\$10
- 5) 11 ch. 12-bit ADC (TLC2543)\$20
- 6) 2 ch. 12-bit DAC (LT1446).....\$20
- 7) **VE232™** (for AE only).....\$49
- 8) Sockets for expansion: two 20x2, one 25x2\$9

Typical Order Example:

A-Engine-P™ 40MHz, 512KB SRAM, RTC & Battery

AE-P + 1 + 3 = \$139 + \$20 + \$20 = \$179

AE and AE-P signals on J1 and J2, as shown below:

J1 Signal

Function	Pin#	Pin#	Function
VCC	1	2	GND
MP0	3	4	P1
RxD	5	6	GND
TxD	7	8	D0
VOFF	9	10	D1
PFI	11	12	D2
GND	13	14	D3
/RST	15	16	D4
RST	17	18	D5
P16	19	20	D6
MPI	21	22	D7
CLK	23	24	GND
HLDA	25	26	A7
HOLD	27	28	A6
/WR	29	30	A5
/RD	31	32	A4
VRAM	33	34	A3
VBAT	35	36	A2
GND	37	38	A1
VCC	39	40	A0

J2 Signal

Function	Pin#	Pin#	Function
GND	40	39	VCC
P4	38	37	P14
/CTS0	36	35	P6
TxD0	34	33	/INT4
RxD0	32	31	/RTS1
P5	30	29	P1
TxD1	28	27	/RTS0
RxD1	26	25	GND
P2	24	23	P15
/CTS1	22	21	/INT3
P0	20	19	/INT2
P25	18	17	P24
/WR	16	15	P3
P11	14	13	P17
P10	12	11	P13
VCC	10	9	
/INT0	8	7	/NMI
/INT1	6	5	P12
P26	4	3	P29
GND	2	1	GND



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