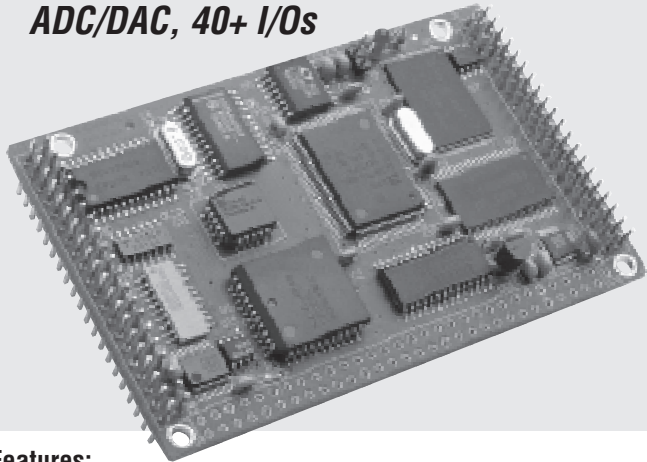


A-Engine86™ (AE86) 16-bit external data bus

AE86, 16-bit Flash & SRAM, 300KHz ADC/DAC, 40+ I/Os



Features:

- 3.6x2.3x0.3" for **AE86**, 2.3x2.2x0.3" for **AC86**
 - -40°C to +80°C, 190/30mA normal/power-save
 - 40 MHz, 16-bit CPU (186), program in C/C++.
 - 256KW ACTF Flash, 2 UARTs, EE, PWM, counter, 32 PIOs
 - 64/256KW 16-bit SRAM, Real-Time Clock and battery*
 - 16-bit ADC, 2 ch. DACs, RS232 and 5V regulator on **AC86***
 - 19 ch. ADCs, 6 DACs, 24 PPIs and 3rd UART on **AE86***
- *optional

The **A-Engine86™(AE86)** and **A-Core86™(AC86)** are high performance C/C++ programmable controller modules based on the 40MHz, 16-bit CPU (186).

Offering a 16-bit external data bus, the **AE86** and the **AC86** support on-board 256KW 16-bit ACTF flash, optional 256KW 16-bit battery-backed SRAM, 3 timers, PWMs, 32 PIOs, 512-byte serial EEPROM, two DMA-driven serial ports (up to 115,200 baud), an optional real-time clock (RTC72423), and optional 2 ch. 12-bit serial DAC (LT1446, 10KHz, 0-4.095V).

The **AE86** has 24 PPI I/Os. Optional 3rd UART (SCC2691), 8 ch. 12-bit parallel ADC (AD7852, 300KHz, 0-5V), 11 ch. 12-bit serial ADC(P2543,10KHz,0-5V), and 4 ch. 12-bit parallel DAC(DA7625, 5 μs, 0-2.5V) can be installed.

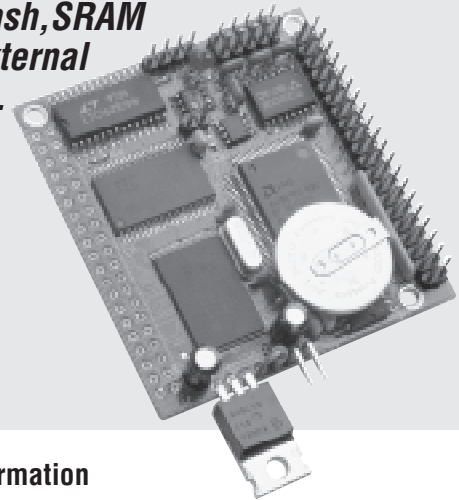
The **AC86** supports an optional 16-bit parallel ADC (LTC1605, 100K, ±10V). Optional RS232 drivers and a 5V regulator can be installed, allowing 9-12V DC power input.

Add-on Options:

- 1) 16-bit SRAM: 256KW \$40
- 2) Real-time clock (RTC) and battery \$20
- 3) 3rd UART (SCC2691), **AE86** only \$20
- 4) 4 ch. 12-bit DAC, 200 KHz (DA7625) for **AE86** \$60
or 100K 16-bit ADC(LTC1605) for **AC86** \$60
- 5) 2 ch. 12-bit DAC (LT1446) \$40
- 6) 8 ch. 12-bit ADC, 300KHz (AD7852), **AE86** only \$40
- 7) 11 ch. 12-bit ADC (P2543), **AE86** only \$30
- 8) RS232 drivers and 5V regulator, for **AC86** \$15
- 9) Sockets for expansion: two 20x2, one 30x2 \$9

A-Core86™

**100K 16-bit Parallel ADC (LTC1605)
16-bit flash, SRAM
16-bit external data bus.**



Ordering Information

AE86	\$189/\$151/\$113/\$66	Qty 1/100/1K/5K+
AC86	\$119/\$99/\$69/\$39	Qty 1/100/1K/5K+

Includes: 186, 40 MHz, I/Os, 2 UARTs, 3 timers, PPI (AE86 only), watchdog, EE, 256KW **ACTF** flash, 64KW SRAM.

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

Typical Order Example:

A-Engine86™, 4 ch. 12-bit DAC (DA7652)

$$AE86 + 4 = \$189 + \$60 = \$249$$

AE86 or **AC86** signals on J1 and J2 headers, as shown below:

J1 Signal

Function	Pin#	Pin#	Function
VCC	..... 1	2	..... GND
MPO	..... 3	4	..... P1
RxD	..... 5	6	..... GND
TxD	..... 7	8	..... D0
VOFF	..... 9	10	..... D1
/BHE	..... 11	12	..... D2
D15	..... 13	14	..... D3
/RST	..... 15	16	..... D4
RST	..... 17	18	..... D5
P16	..... 19	20	..... D6
D14	..... 21	22	..... D7
D13	..... 23	24	..... GND
	..... 25	26	..... A7
D12	..... 27	28	..... A6
/WR	..... 29	30	..... A5
/RD	..... 31	32	..... A4
D11	..... 33	34	..... A3
D10	..... 35	36	..... A2
D9	..... 37	38	..... A1
D8	..... 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
 16	15 P3
 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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