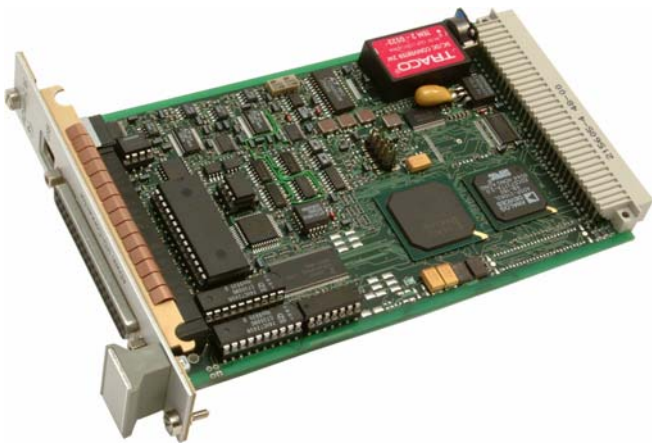




# ADwin-light-16

- 8 Analog Inputs, 16-Bit, 10  $\mu$ s ADC
- 2 Analog Outputs, 16-Bit
- 6 Digital Inputs, TTL/CMOS Compatible
- 6 Digital Outputs, TTL/CMOS Compatible
- 2 - 32-Bit Counters
- 1 Trigger Input - TTL/CMOS Compatible
- Software Calibration of Analog I/O
- Optional Up/Down Counter
- Local 32-Bit SHARC DSP
- Available in PCI, CPCI, EURO-size or external USB configurations



The **ADwin-light-16** are intelligent plug-in boards with analog and digital inputs and outputs, counters and a microprocessor with local memory. They are ideal, low-priced solutions for fast data acquisition and control in real time under Windows. Different configurations and expansion modules make these boards cost effective for application specific use. Based on one common design, the different versions include a PCI plug-in board, a CompactPCI version, a EURO-size plug-in board, and an external system in a robust metal enclosure.

The on-board SHARC DSP processor with its own local memory handles system management, data acquisition, on-line processing and control of outputs. Processing of each measurement can occur immediately after acquisition. The ADbasic control language allows users to program mathematical operations and functions which are executed immediately after each sampling step even at sampling rates as high as 1.25 MHz.

The **ADwin** software environment can be used under Windows (95/98/ME/NT/2000/XP) and Linux, or as a **stand-alone data acquisition system**. Also, **ADwin** has drivers for many of the popular programming environments including Visual Basic, Visual C/C++, LabVIEW/LabWindows, TestPoint and others.

## ADwin-light-16 Specifications

Analog Inputs	
Resolution	16 Bits
Conversion Time	10 $\mu$ s
MUX Settling Time	4 $\mu$ s
Accuracy	+/- 3 LSB
Measurement Range	+/- 10 V
Oversoltage Protection	+/- 17 V
Differential Common-Mode Voltage	Max +/- 2.5 V

Analog Outputs	
Resolution	16 Bits
Settling Time	< 3 $\mu$ s
Voltage Range	+/- 10 V
Differential Non-Linearity	+/- 1 LSB
Relative Accuracy	+/- 2 LSB
Offset Drift	+/- 10 $\mu$ V/ $^{\circ}$ C
Output Current	Max 5 mA/channel

General	
Operating Temperature	0 $^{\circ}$ C to +70 $^{\circ}$ C Chassis Temperature
Storage Temperature	-20 $^{\circ}$ C to +70 $^{\circ}$ C
Relative Humidity	0 - 90% Non-Condensing

Digital Inputs and Outputs	
Digital I/O lines	6 inputs / 6 outputs
Output Current	Max 10 mA per output
Trigger Input	1 (trigger on positive edge)
Maximum Counter Input Frequency	20 MHz

### ADwin-light-16 Series Ordering Information

<b>ADwin-L16-cPCI</b>	<b>ADwin-light-16</b> as a CompactPCI Plug-in Board with USB interface
<b>ADwin-L16-EURO</b>	<b>ADwin-light-16</b> as a EURO-size plug-in module with USB interface
<b>ADwin-L16-EURO-ENET</b>	<b>ADwin-light-16</b> as a EURO-size plug-in module with Ethernet interface
<b>ADwin-L16-EXT</b>	<b>ADwin-light-16</b> in a rugged, industrial enclosure with USB interface
<b>ADwin-L16-EXT-ENET</b>	<b>ADwin-light-16</b> in a rugged, industrial enclosure with Ethernet interface
<b>ADwin-L16-PCI</b>	<b>ADwin-light-16</b> as a PCI plug-in board (requires USB connection)

### Options (Must be specified when ordering, later upgrading is not possible)

<b>ADwin-L16-Boot</b>	Boot-loader for standalone operation (only with <b>ADwin-L16-EURO-ENET</b> and <b>ADwin-L16-EURO-ENET</b> )
<b>ADwin-L16-CO1</b>	One Channel up/down counter, quadrature evaluation, replaces standard counters
<b>ADwin-L16-DIO1</b>	One CAN interface; 32 digital I/O's (configured in groups of 8); two 32-bit counters for pulse-width measurement, impulse measurement, up/down count with clock/direction, or quadrature evaluation (Not available with the <b>ADwin-L16-CO1</b> option)
<b>ADwin-L16-Mem-512K</b>	Memory option of 512 kB local CPU memory (replaces the standard 256 kB)
<b>ADwin-L16-Mount</b>	DIN-rail installation kit
<b>ADwin-L16-pow</b>	Power supply (12 VDC) for <b>ADwin-L16-EXT</b> or <b>ADwin-L16-EXT-ENET</b>

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