

TECHNICAL SPECIFICATIONS

FEATURES	FUNCTIONS
Analog Inputs	<ul style="list-style-type: none"> ADC Type = Successive approximation Resolution = 16bit differential bipolar ADC Sampling rate = 1 Msample/s aggregate 16-ch single-ended, 8-ch differential (software controlled) Range = 0-1V, 0-2V, 0-5V, 0-10V, +/- 1V, +/- 2V, +/-5V, +/- 10V (software selectable) Int Nonlinearity Error = 0.0011% FS No Missing Codes = 16 bits Input Impedance = 1Mohm A/D Start Sources: Software Start, Timer Start, External Start, Externally Triggered Timer Start A/D Start Types: Single channel or Scan Overvoltage Protection = -40V to +40V Crosstalk = -53dB @ 1 MHz; -84dB @ 500 kHz
Analog Outputs	<ul style="list-style-type: none"> 4 single-ended output ports Resolution = 16 bit Bipolar Ranges = +/- 5V; +/- 10V (factory configured) Unipolar Ranges = 0-5V, 0-10V (factory configured) Settling Time = 20us typical, +/- 10V (+/- 1LSB at 16bits) Output Current = max +/- 10mA per channel
Digital I/O	<ul style="list-style-type: none"> 16 channel, individually direction controllable Input Logic High = 0.7V V_DIO to 5.5V Input Logic Low = -0.5V to 0.3V x V_DIO Output Logic High = 2.0V (min) 24mA source Output Logic Low = 0.5V (max) 24mA sink
Environmental	<ul style="list-style-type: none"> Operating Temperature = -40C to 85C Humidity = 5% to 95% non-condensing
Dimensions	<ul style="list-style-type: none"> PC/104 footprint (3.550" x 3.775") and mounting holes with Ethernet Interface (no PC/104 Bus)
I/O Connector	<ul style="list-style-type: none"> 68pin SCSI female .050 Series, Amplimite, PN 1761028-4
Power	<ul style="list-style-type: none"> 12V to 30VDC POE module Option Available

OVERVIEW

- 16-bit or 12-bit resolution A/D converter, sampling up to 1MHz
- 16 single-ended or 8 differential analog inputs
- 8 input ranges, 4 unipolar and 4 bipolar, channel-by-channel programmable
- 16 high-current digital I/O lines
- Four 16-bit analog outputs with 4 factory ranges
- PoE (Power Over Ethernet) Optional
- Autocalibration and filtering onboard for increased accuracy
- Operating temperature = -40C to 85C. Made in the USA.

DESCRIPTION

The ADLENET-AIO16 is an ideal solution for adding portable, easy-to-install high-speed analog and digital I/O capabilities to any computer or Ethernet network. The board is plug-and-play auto-detecting.

The ADLENET-AIO16 is a 16-bit resolution A/D board capable of sampling speeds up to 1MHz for its 16 single-ended or 8 differential analog inputs. Each channel can be independently software configured to accept 8 different input ranges. A unique, real-time internal calibration system allows the card to continually compensate for offset/gain errors giving a more accurate reading. Additional features include 16 digital I/O lines and 4 (optional) analog outputs.

The ADLENET-AIO16 data acquisition board can be used in many current real-world applications such as embedded equipment monitoring, precision PC-based and portable environmental measurements, and mobile data acquisition. The board is designed to be used in rugged wide temperature environments and sized for PC/104 mounting if necessary.

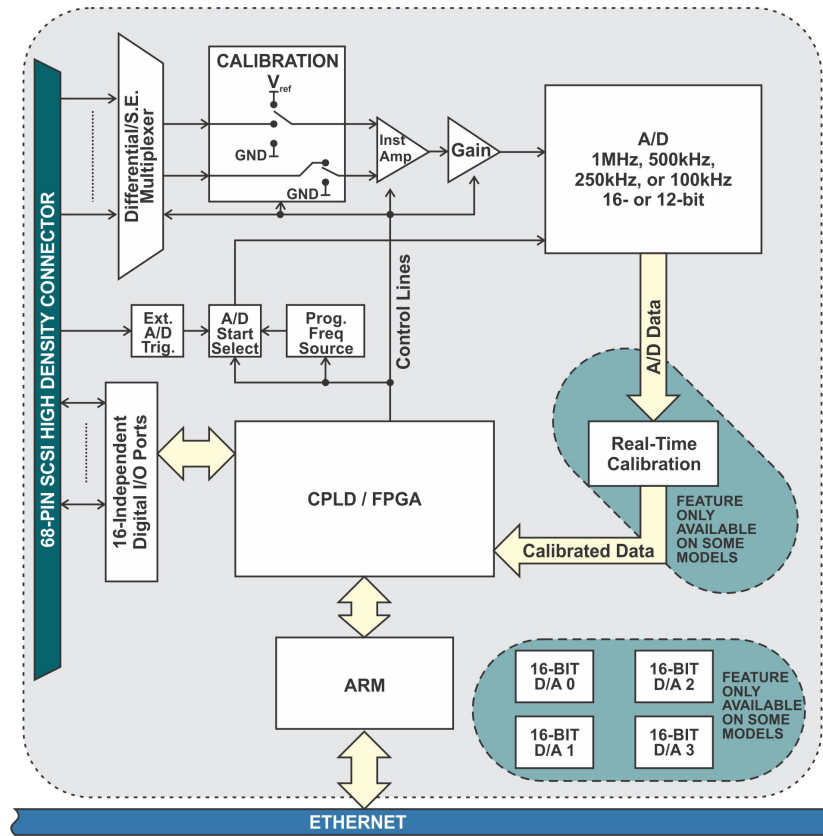
The **software support package** includes Linux and Windows sample programs and source code in C# and Delphi for Windows as well as a graphical Windows setup program with extensive Ethernet-packet level API documentation. A Windows standard DLL API is included for 3rd party applications. Embedded OS support includes PLCs and all other devices capable of TCP/IP communication.

ORDERING GUIDE

ADLENET-AIO16-16F	16-Ch A/D 16bit, 1 MHz, 4-Ch D/A, 16 Ch DIO
ADLENET-AIO16-16A	16-Ch A/D 16bit, 500 KHz, 4-Ch D/A, 16 Ch DIO
ADLENET-AI16-16F	16-Ch A/D 16bit, 2 MHz, 16 Ch DIO
ADLENET-AIO16-POE	POE Option Installed
Additional Configuration Options Available	Call Sales for details.



BLOCK DIAGRAM



*Data subject to change without notice.