24Bit Analog Input DAQ

LabJack produces a low cost, high quality, USB/Ethernet/WiFi capable data acquisition (DAQ) and control devices with 24Bit ADC's. LabJacks high resolution & high precision DAQ devices have a 24 bit Delta-Sigma ADC that is specially selected for its ability to cancel out un-wanted signal noise and produce un-matched results.

If high resolution Delta-Sigma ADCs are not required LabJack also produces devices with 16bit and 12bit ADCs.

- 16Bit Analog Inputs
- 12Bit Analog Inputs

If other connection types are required LabJack produces USB, Ethernet, and WiFi data acquisition (DAQ) and control devices.

Related LabJack Devices

High Performance, USB, Ethernet, Wifi
**T7/T7-Pro**

- Newest DAQ device supporting USB, Ethernet, and 802.11b/g WiFi
- Fully compatible with Modbus TCP/UDP and most SCADA programs
- 14 analog inputs built-in
- Expand to 84 analog inputs with Mux80 add-on
- Analog input ranges: ±10V, ±1V, ±0.1V and ±0.01V
- 16-bit high-speed ADC (up to 100k samples/s)
- 24-bit low-speed ADC (resolution as low as 1uV noise-free)
- 23 digital I/O
- Up to 10 counters
- 2 analog outputs (12-bit, 0-5V)
- Serial protocols: SPI, I2C, and more ...
- Up to 8 PWM, quadrature, pulse width, and more ...

**U6/U6-Pro**

- 14 Analog Inputs (16-18+ Bits Depending on Speed)
- Expand to 84 analog inputs with Mux80 add-on
- U6-Pro Adds 24-bit Low-Speed ADC for 22-Bit Effective Resolution
- Instrumentation Amplifier Inputs
- Software Programmable Gains of x1, x10, x100, and x1000
- Analog Input Ranges of ±10, ±1, ±0.1, and ±0.01 Volts
- 2 Analog Outputs (12-Bit, ~0-5 Volts)
- 20 Digital I/O
- Up to 2 Counters, 4 Timers (Pulse Timing, PWM Output, Quadrature Input, ...)
- Supports SPI, I2C, and Asynchronous Serial Protocols (Master Only)

**High Performance, USB, Ethernet, Wifi**

---

**T7/T7-Pro OEM**

- Newest DAQ device supporting USB, Ethernet, and 802.11b/g WiFi
- Fully compatible with Modbus TCP/UDP and most SCADA programs
- 14 analog inputs built-in
- Expand to 84 analog inputs with Mux80 add-on
- Analog input ranges: ±10V, ±1V, ±0.1V and ±0.01V
- 16-bit high-speed ADC (up to 100k samples/s)
- 24-bit low-speed ADC (resolution as low as 1uV noise-free)
- 23 digital I/O
- Up to 10 counters
- 2 analog outputs (12-bit, 0-5V)
- Serial protocols: SPI, I2C, and more ...
- Up to 8 PWM, quadrature, pulse width, and more ...

---

**U6/U6-Pro OEM**

---

**Performance**

---

**T7-OEM: $359**
**T7-Pro-OEM: $479**

---

**U6-OEM: $289**
**U6-Pro-OEM: $339**
- 14 Analog Inputs (16-18+ Bits Depending on Speed)
- U6-Pro Adds 24-bit Low-Speed ADC for 22-Bit Effective Resolution
- Instrumentation Amplifier Inputs
- Software Programmable Gains of x1, x10, x100, and x1000
- Analog Input Ranges of ±10, ±1, ±0.1, and ±0.01 Volts
- 2 Analog Outputs (12-Bit, ~0-5 Volts)
- 20 Digital I/O
- Up to 2 Counters, 4 Timers (Pulse Timing, PWM Output, Quadrature Input, ...)
- Supports SPI, I2C, and Asynchronous Serial Protocols (Master Only)

The Original, USB & Ethernet DAQ

UE9/UE9-Pro

- USB 2.0/1.1 Full Speed and 10Base-T Ethernet
- Mostly compatible with Modbus TCP and most SCADA programs
- 14 Analog Inputs (12-16 Bits Depending on Speed)
- Expand to 84 analog inputs with Mux80 add-on
- UE9-Pro Adds 24-bit Low-Speed ADC for 20-Bit Effective Resolution
- ±5 or 0-5 Volt Maximum Analog Input Range
- 2 Analog Outputs (12-Bit, 0-5 Volts) with Stream-Out Feature
- 23 Digital I/O
- Maximum Input Stream Rate of 50+ kHz (Depending on Resolution)
- Supports SPI, I2C, and Asynchronous Serial Protocols (Master Only)
- Dual-Processor Design with 168 MHz of Total Processing Power
- Electrical Isolation Possible with Ethernet Interface

Why LabJack?

All Software Is Free!
Examples In:
- LabVIEW
- C/C++
- Python
- MATLAB
- Java
- Visual Basic
- .NET
- More...

LabJack Software Options

The **LJM Library** is a set of functions used to easily communicate with several of our devices using a simple Modbus over USB interface (as well as Modbus TCP/UDP when applicable). The goal is to be easy to use and understand, yet flexible.

All important values and data from the device can be read and/or written by using the associated register(s).

LabJack's DAQ devices have a wide range of features

- Analog Inputs
- Digital I/O
- Analog Outputs
- PWM, Quadrature ...
- SPI, I2C, Async Serial ...

*Check Individual Devices for support

We don't force you into a certain operating system, software, or programming environment. We provide free support for C/C++, C#, Delphi, Java, LabVIEW, MATLAB, Python, VBA, VB.NET, DAQFactory and more. If you use something we don't already support, we will work with you to add support. Add new kinds of sensors on-the-fly. We provide inexpensive signal conditioning modules. Control valves, motors, lights, pumps, etc - using one of many digital I/O control options. Embed LabJack DAQ hardware in your product using our OEM options. Leveraging
smart designs and the latest semiconductors, allows us to provide more performance for less money. Have confidence in your measurements. Each device is individually tested and calibrated traceable to NIST standards. New features are readily available through field-programmable firmware. Each device has multiple protection mechanisms on every I/O to help prevent damage. Free lifetime support. Timely Email responses that actually answer your question. Get answers from the engineers who made the product.