T7-Pro-OEM

OEM Versions

The T7 and T7-Pro come in standard and OEM versions. **The OEM versions are intended to be embedded in another device**. They are missing the enclosure and most connectors, as it is easier to install connectors than it is to remove them. LabJack can customize the boards to add or remove hardware before shipping, for an additional fee. More information on OEM versions can be found in the OEM Versions section of the T7 Datasheet.

Analog Input

- 14 Analog Inputs built in (16-24 Bits Depending on Speed & Device Type)
- Expand to 84 analog inputs with Mux80 add-on
- T7: 16-bit high-speed ADC (up to 100k samples/s)
- T7-Pro: 24-bit low-speed ADC (resolution as low as 1uV noise-free)
- Software Configurable Resolution Settings
- Single-Ended Inputs (14) or Differential Inputs (7)

- Analog input ranges: ±10V, ±1V, ±0.1V and ±0.01V
- All analog input features are software programmable by configuring the Analog Input Registers
- High speed sampling configurable by using Stream Mode. Speeds up to 100kS/s
- Low Latency Sampling and Control (less than 1ms) is made easy with Command-Response Modbus messages
- Easy integration with sensors like thermocouples, load cells, bridges, and more …

Analog Output

- 2 analog outputs (12-bit, 0-5V)
- Future support for waveform generation via Stream Output
- Integrated LJTick-DAC support for multiple +/-10V outputs

Digital I/O

- 23 Digital I/O

- Supports SPI, I2C, and more… (Master Only)
- 5 PWM Outputs with individual phase control
- 5 Pulse Outputs with configurable number, frequency, and width
- 2 Frequency Inputs returning both frequency and period
- 2 Pulse Width Inputs measuring time spent high and low as well as duty cycle
- 2 Line-to-Line Inputs measuring the time between edges on 2 different lines
- 4 High-Speed Counters
- 6 Software Counters w/ debounce capabilities
- 6 Quadrature Inputs
- Information about Digital I/O features can be found in the DIO Extended Features section of the T7's datasheet

Fixed Current Outputs

- 200 µA

- 10 µA

Communication Options

- USB
- Ethernet
- 802.11b/g WiFi

Other Highlights

- Built-In CJC Temperature Sensor for easy thermocouple temperature readings
- Watchdog system
- Field Upgradable Firmware
- Programmable Startup Defaults
- Industrial temperature range (-40 to +85C)

- For more information please visit the hardware overview section of the T7's datasheet

T7-Pro vs. T7

The T7-Pro has all the features of the normal T7 with the major addition of 802.11b/g WiFi connectivity and an auxiliary low-speed high-resolution (24-bit) sigma-delta ADC.

Other Highlights

- Each purchase includes lifetime support
- Actively monitored and highly informative forums where users can share ideas, ask questions, and get answers from both peers and our technical support staff
- Free applications to configure, test, and log data to file
- Free examples: C/C++, C#, Delphi, Java, LabVIEW, MATLAB, Python, VB.NET and more…
- Modbus TCP – Use any platform that supports TCP/IP, no driver required
- Free cross-platform LJM Library – Extends/wraps the Modbus protocol for convenience
- Expansion boards – Add ±10V DACs, 4-20 mA inputs, terminal boards, relay boards and more…