



www.esis.com.au Ph 02 9481 7420 Fax 02 9481 7267 esis.enq@esis.com.au



Introduction

The USB-2401 is a 24-Bit, 4-channel simultaneous-sampling universal input USB DAQ modules featuring built-in signal conditioning circuitry, providing direct measurement of commonly used sensors including current output transducers, thermocouple, RTD, load cell, strain gauge, and others. Individual channels can be programmed to measure different signal types.

The USB-powered USB-2401 is equipped with removable screw-down terminals for easy device connectivity, and the included multi-functional stand fully supports desktop, rail, or wall mounting.

The USB-2401 is suitable for basic measurement applications requiring high resolution and accuracy, laboratory research and material testing environments, and industrial temperature measurement. U-test, a free ready-to-use testing program is included to enable operation or testing of all ADLINK USB DAQ series functions with no programming requirement.

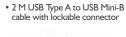
Features

- USB 2.0 High-Speed
- USB bus powered
- 4-CH simultaneous-sampling analog input
- Built-in signal conditioning for high voltage/current/thermocouple/ RTD/strain gauge/load cell measurement
- Up to 2kS/s analog input rate
- Removable screw terminal on module
- Lockable USB cable for secure connectivity
- Ready-to-use testing application (U-Test) provided
- Supported Operating System
 - Windows 7/8 x64/x86
- Driver and SDK
 - LabVIEW, MATLAB, C/C++, Visual Basic, Visual Studio.NET
- Software Utility
 - U-Test

Module stand

Standard Shipped Accessories

One pair of 20-pin removable screw terminals



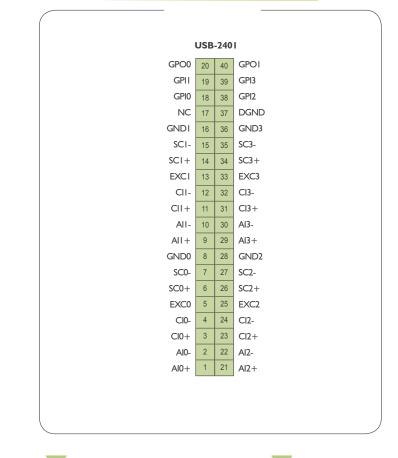


Rail-mount kit





Pin A	Assig	nment
-------	-------	-------



Ordering Information

USB-2401 4-CH 24-Bit Universal Input USB DAQ Optional Accessories RST-20P

One pair of 20-pin removable screw terminals

USB-2M-L

2 M USB Type A to USB Mini-B cable with lockable connector

USB DAQ



Specifications

Model Name		USB-2401					
nalog Input							
Number of channels		4 differential					
Resolution		24-Bit					
Measurement types		Voltage, current, thermocouple, RTD, half-bridge, full-bridge, resistance					
Maximum sampling rate		2 kS/s					
Input ranges		Mode	Input range or supporting type	Actual Range			
	Voltage		± 25 V, ± 12.5 V, ± 2.5 V, ± 312.5 mV	± 25 V, ± 12.5 V, ± 2.5 V, ± 312.5 mV			
	Current		± 20 mA	± 20 mA			
	Thermo	couple	K, J, N, R, S, B, T, E	78.125 mV			
	RTD (3-	wire, 4-wire)	Pt 100, Pt 1000	2.5 V			
	Half-Bri	dge (120Ω, 350Ω)	Max. 30 mV/V	78.125 mV			
	Full-Brid	lge (120Ω, 350Ω)	Max. 30 mV/V	78.125 mV			
	2-Wire F	Resistance	25 kΩ	2.5 V			
Input coupling		DC					
FIFO size		4k samples					
Data Transfer		Programmed I/O, continuous (USB bulk transfer mode)					
unction I/O							
Number of channels		4 inputs and 2 outputs					
Compatibility		5V/TTL					
		Digital I/O					
Support modes		General timer/counter: One 32-Bit; base clock 80 MHz, external to 10 MHz					
		PWM: One channel, modulation frequency: 0.01 Hz to 5 MHz; duty cycle: 1%-99%					
Data Transfer		Programmed I/O, continuous (USB bulk transfer mode)					
eneral Specifications							
I/O connector		Two 20-pin removable screw terminals					
Operating temperature		0 to 55°C (32°F to 122°F)					
Storage temperature		-20 to 70°C (-4°F to 158°F)					
Power requirements		5V @ 400 mA (USB powered)					
Dimensions		114 (H) x 156.5 (L) x 41 mm (W) (4.5" x 6.16" x 1.63")					
		(without connector and stand)					
Relative humidity		5% to 95%, non-condensing)					

Note: Function I/O shares the same I/O pins. Only one of these modes can be selected.

