USB-26/30-BNC

BNC 250/400KHz 14 Bit A/D Unit with 8x Differential A/D, 4x D/A & 24DIO

Ideal for Desktop/Laptop use

USB-26-BNC Front

USB-26-BNC Back

DESCRIPTION

The **MicroDAQ USB-26/30-BNC** is a multi function data acquisition device for the USB bus. The unit has a 14-bit resolution and is the perfect measurement device for portable, laboratory or classroom use.

The MicroDAQ USB-26/30-BNC has two interface options and sample speeds. The A variant is a USB 1.1 device with a sampling rate of 250kHz. The B variant is our first data acquisition product featuring the high speed USB 2.0 interface. The 480Mbps bandwidth which USB 2.0 offers allows this unit to have an analog sampling rate of 400kHz across the 8 differential channels*. This speed is unprecedented in external USB data acquisition products.

Featuring 8 differential analog inputs, which are conveniently accessible through the eight BNC connectors on the top of the chassis. This unit can measure voltage signals from sensors, transducers, accelerometers and much more. It also features four analog outputs (USB-30-BNC model) which can be used as reference voltages and many other applications. The digital I/O is available in 3 sets of 8 channels which can be programmed as inputs or outputs.

The addition of BNC connectors to this unit also makes it highly suitable for prototype applications, where easy connection and disconnection of the analog inputs may be required.

FEATURES

- USB Interface
- 8 Differential Analog Input Channels via BNC Connectors
- 4 x 14-bit Analog Outputs (USB-30-BNC)
- 250KHz / 400KHz Total Sampling Speed
- Onboard 16K FIFO
- 4x Analog Outputs (14-bit)
- 24x DIO lines (3x 8-bit ports)
- I/O Connector: 2x DB25 Male (1 for A/D & 1 for DIO)
- LED indication for power & USB connection
- Ideal for Portable/Laptop Use
- Housing: Plastic ABS with rubber feet
- Operating Temp: 0 to 70°C
- O/S Support for Windows 98/ME/XP/2000 & Linux
- Includes EDRE SDK, EDRE-Labview, EDRE-Testpoint and WaveView for Windows
- Power: Supplied with a 1A 9VDC external PSU
- Power Consumption: 500mA typ @ 9VDC
- Dimensions: 45(H) x 80(W) x 148(L) mm

DB-25M

PA1	14	1	PA0
PA3	15	2	PA2
PA5	16	3	PA4
PA7	17	4	PA6
PB1	18	5	PB0
PB3	19	6	PB2
PB5	20	7	PB4
PB7	21	8	PB6
PC1	22	9	PC0
PC3	23	10	PC2
PC5	24	11	PC4
PC7	25	12	PC6
		13	DGND

Digital I/O

DB-9F

EXT TRIG	9	5	EXT CLOCK
AGND	8	4	AGND
DAQ 3	7	3	10 V REFCAL
DAC 1	6	2	DAC 2
		1	DAC 0

Analog

Specifications

Analog Inputs (A/D)	
Input Characteristics	
Input Channels:	8x Differential A/D via BNC Connectors (16-Single-Ended if referenced to AGND on External DB-9 Connector)
Input Ranges:	± 2.5 ± 5V ± 10V 0-5V; 0-10V
Gain:	1 / 10 / 100
Gain Stage Error:	± 1-bit
Resolution:	14-bit (1 in 16384)
Input Coupling:	DC
A/D Conversion Characteristics	
Max sampling rate:	250kHz / 400kHz (Model Dependent)
Clock Source:	Internal - 10Mhz clock
	External - Convert (EXT_CLK)
Gate Source:	External - GATE (EXT_GATE)
Input Impedance:	1M Ohm
Accuracy:	± 1 LSB
Analog Output (D/A)	
No of Channels:	None / 4
Resolution:	14-bit
Output Ranges:	± 10V
Full Scale Error:	± 2 LSB
Settling Time:	1ms to 0.1% of full scale
Output Drive:	± 10V @ 5mA
Power On State:	0V
DIGITAL I/O (DIO)	
No of TTL I/O lines:	24
Logic Levels: Input Low Voltage:	-0.5V to 0.8V
Input High Voltage:	2.0V to 5.0V
Output High Voltage Min:	2.4V
Output Low Voltage Max:	0.45V
Max. Soarce/Sink Current:	2mA

Ordering Information

Supplied with EDR Enhanced Software, 1.8 Mtr. USB Cable & Universal Switch Mode 9V PSU

USB-26A16-BNC	USB 8 (DIFF) Channel 250KHz 14-bit A/D with isolated BNC's, 24 DIO
USB-26B16-BNC	USB2.0 8 (DIFF) Channel 400KHz 14-bit A/D with isolated BNC's, 24 DIO
USB-30A16-BNC	USB 8 (DIFF) Channel 250KHz 14-bit A/D with isolated BNC's, 4 x 14-bit DACS, 24 DIO
USB-30B16-BNC	USB2.0 8 (DIFF) Channel 400KHz 14-bit A/D with isolated BNC's, 4 x 14-bit DACS, 24 DIO

Please Note:

* Please note that a PC with a USB 2.0 compliant interface is required to achieve these speeds.