

REVOLUTION IN MEASUREMENT

USB DATA ACQUISITION

- **Simultaneous Series**
- **ECONseries: Low Cost USB**
- **High Performance USB**
- **General Purpose USB**
- **DSP Data Acquisition**
- **Waveform Generation**
- **Bundles: Hardware/Software**



■ (800) 525-8528
■ www.datatranslation.com

DATA TRANSLATION®

Why USB for Data Acquisition?

Imagine adding data acquisition capabilities to a PC as easily as plugging in a mouse or a keyboard. Just connect a USB data acquisition module to the computer, install the supplied software, and connect the sensor directly to the module. In minutes, and with state-of-the-art accuracy, data is being captured: temperature, pressure, sound level, whatever. This is done without programming, without opening up the PC, without even thinking of board configuration, power requirements, or connection schemes. This convenience and power are available today. Our USB modules are easy to install and completely portable - even the most sophisticated data acquisition applications come out of the factory or lab and into the field.

High Performance: Isolated

Our high performance series of USB data acquisition modules offers:

- Up to 12 simultaneous analog inputs with sampling rates from 225kHz up to 2.0MHz per channel
- 16-bit resolution on up to 32 channels at 500kHz
- 2 counter/timers and 3 quadrature decoders for measuring position and detecting rotational speed
- 16-bit deglitched DAC's for pure waveform generation

All the individual subsystems on these boards can be run simultaneously and synchronously.

General Purpose: Isolated

Our general purpose line of USB data acquisition boards offers

- a full range of multifunction modules
- 16 analog input channels at sampling rates up to 100kHz
- 12, 16, or 24-bit resolution.
- 2 analog outputs, 16 digital I/O lines, and 2 counter/timers
- 96 digital I/O

Low Cost

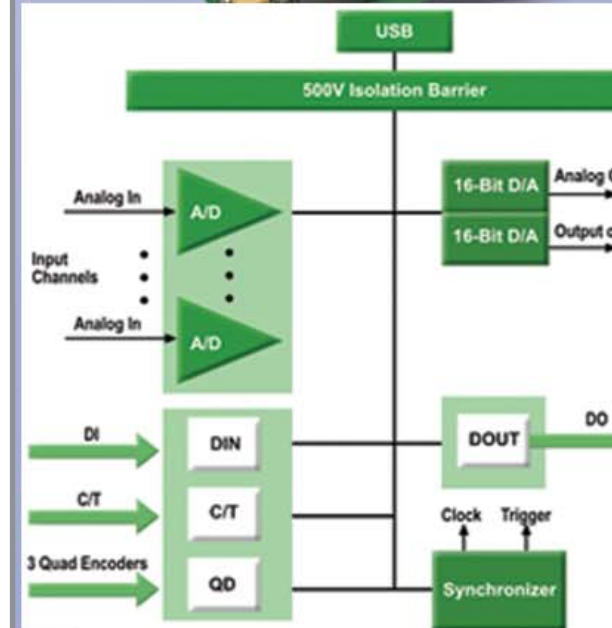
The ECONseries are economical mini-instruments for the USB bus that offer:

- a range of analog input channels (6, 8, 16, or 24)
- simultaneous sampling rates up to 150kHz
- 2 analog outputs
- 16 digital I/O lines with 1 counter/timer
- Packaged with the GO! application for oscilloscope, chart recorder, voltmeter, file viewer, analog output, digital I/O, and counter/timer functions

DSP: Isolated

The DT9840 Fulcrum II Series provides a complete USB data acquisition solution for real-time signal capture and processing. These modules offer:

- 8, 24-bit Delta-Sigma A/D converters
- 2 or 8, 24-bit Delta-Sigma D/A converters
- 24 Digital I/O, 3 counter/timers
- Uses the 300 MHz Texas Instruments TMS320C6713 DSP chip



Product Selection Charts

High Performance - Isolated

Simultaneous Series	Summary Description	Throughput per Channel	Analog Out	DIO, C/T, Quad Decoders	Packaging OEM/BNC
DT9832A	High Throughput Simultaneous DAQ with 2 channels at 2.0MHz, 16-bit resolution	2.0MHz	0 or 2	32 DIO, 2 C/T, 3 QD	Yes/Yes
DT9832	High Throughput Simultaneous DAQ with 4 channels at 1.25MHz, 16-bit resolution	1.25MHz	0 or 2	32 DIO, 2 C/T, 3 QD	Yes/Yes
DT9836	High Throughput Simultaneous DAQ with up to 12 channels at 225kHz, 16-bit resolution	225kHz	0 or 2	32 DIO, 2 C/T, 3 QD	Yes/Yes
Multichannel, High-Speed	Summary Description	Throughput	Analog Out	DIO, C/T, Quad Decoders	Packaging OEM/BNC/STP
DT9834	Multi-channel, multi-function DAQ with up to 32 channels @ 500kHz, 16-bit resolution	500kHz	0 or 4	32 DIO, 2 C/T	Yes/Yes/Yes

General Purpose - Isolated

	Summary Description	Throughput	Analog Out	DIO, C/T	Packaging BNC/STP/-EC (Easy Connect)
DT9801, DT9802, DT9803, DT9804	DAQ Multifunction Analog I/O, 12 or 16-bit resolution	100kHz	8/16 ch AI 0/2 ch AO	16 DIO, 2 C/T	Yes/Yes/Yes
DT9805, DT9806	Auto-Ranging, Cold Junction compensation, free temperature application, 16-bit resolution	50kHz	8/16 ch AI 0/2 ch AO	16 DIO, 2 C/T	STP Only
DT9821, DT9822	Highest Accuracy DAQ, 24-bit resolution	1kHz	4 ch SAI	16 DIO Only	STP Only
DT9835	96-channel Digital I/O	—	—	96 DIO Only	STP Only

Low-Cost

	Summary Description	Throughput	Analog Out	DIO, C/T	Packaging STP
DT9810	Lowest cost DAQ 10-bit resolution	25kHz	8 ch AI	20 DIO, 1 C/T	Yes
DT9812-10V, DT9813-10V, DT9814-10V	Low cost DAQ, up to 24 input channels, 12-bit resolution	50kHz	8/16/24 ch AI 2 ch AO	Up to 16 DIO, 1 C/T	Yes
DT9816, DT9816-A	Simultaneous DAQ, 6 inputs @ 150kHz, 16-bit resolution	Up to 150kHz per channel	6 ch SAI	16 DIO, 1 C/T	Yes
DT9817, DT9817-H	Low Cost Digital I/O, 28 channels, drive solid state relays	—	—	28 DIO, 1 C/T	Yes
Low Cost Isolated					
DT9817-R	Isolated, Low Cost Digital I/O, 16 channels, drive electro-mechanical relays/motors	—	—	16 DIO, 2 C/T	Yes

DSP - Isolated

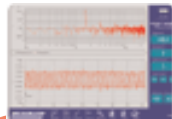
	Summary Description	Throughput per Channel	Analog Out	DIO, C/T	Packaging Sleek Box/OEM
DT9841	Simultaneous 8 input channel sigma-delta, DSP, 24-bit resolution	100kHz	8 ch AI 2 ch SAO	24 DIO, 3 C/T	Yes/Yes
DT9842	Simultaneous 8 input channel sigma-delta, DSP, 16-bit resolution	100kHz	8 ch SAI 2/8 ch SAO	24 DIO, 3 C/T	Yes/Yes
DT9841E	Low cost, 2 input channel, DSP, 24-bit resolution	100kHz	2 ch SAI 2 ch SAO	24 DIO, 3 C/T	Developers Kit

DAQ = Data Acquisition Module, AI = Analog Input, AO = Analog Output, DIO = Digital Input/Output, C/T = Counter/Timer, QD = Quadrature Decoder
SAI = Simultaneous Analog Input, SAO = Simultaneous Analog Output

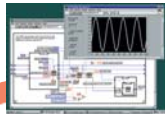
Software Choices



GO!
8 mini-instruments,
no programming



Quick DataAcq/Scope
Ready-to-measure,
applications, source
code included



DT-LV Link
Access the power
of our boards
through LabVIEW



DTx-EZ
Free Visual Studio
Development Tools,
DT-Open Layers SDK



**DAQ Adapter
for MATLAB®**
Access the
visualization
and analysis
capabilities of
MATLAB with
our hardware

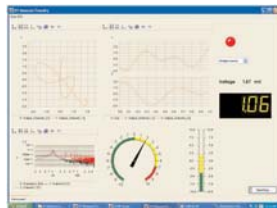


**DT Measure
Foundry**
Graphical
programming,
drag & drop,
no code, no
wires

There are many software choices available for application development. Each option offers development capabilities at different levels. From ready-to-measure applications to full graphical programming with DT Measure Foundry.

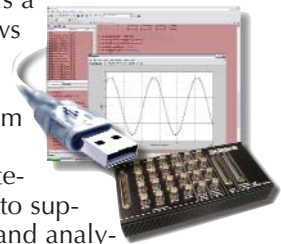
DT Measure Foundry

DT Measure Foundry is a powerful visual software environment for creating test and measurement, control, and analysis applications. By dragging and dropping instrument-like components and configuring their property pages, you can develop powerful applications quickly. No programming or wiring is required!



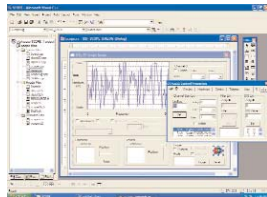
DAQ Adapter for MATLAB

The DAQ Adapter for MATLAB is a software interface tool that allows MATLAB users direct access to analog and digital I/O data. Used together with MATLAB from Mathworks and their Data Acquisition Toolbox, a single integrated environment is provided to support the entire data acquisition and analysis process.



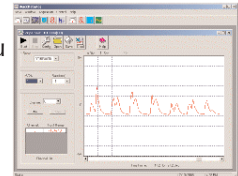
DTx-EZ

DTx-EZ™ provides visual programming tools for Microsoft® Visual Basic, Visual C++, Visual Basic.NET, Visual C++.NET, and Visual C#.NET that enable quick and easy development of test and measurement applications for DT-Open Layers-compliant USB and PCI boards.



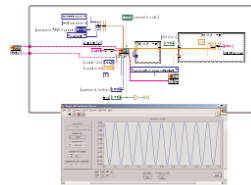
Quick Data Acquisition

Quick DataAcq is a menu-driven, ready-to-run application that lets you verify the operation of your Data Translation board, collect A/D data, display data to the screen, and save data to disk. The source Code is included: Modify the included Visual Basic source code using Visual Basic and DTx-EZ software to fit your custom application.



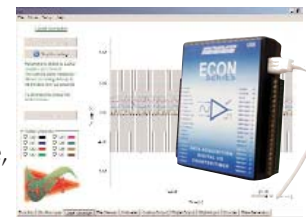
DT-LV Link

DT-LV Link provides a collection of Virtual Instruments (VIs) that give programmers the ability to access the power of Data Translation's USB and PCI data acquisition boards through LabVIEW. Three-levels of VIs



GO!

The GO! application was designed to work with the ECONseries of mini-instruments. This easy-to-use software offers oscilloscope, chart recorder, voltmeter, file viewer, analog output, digital I/O, and counter/timer functions.



Hardware/Software Bundles - Save 25%

Get all the performance you need for your application using measurement combinations that work. Our USB data acquisition bundles combine test and measurement hardware and software that were designed to work together. Plus, you can save 25%.

