

Data Translation Measurement Solutions

About Data Translation

Data Translation is a leading provider of data acquisition solutions for test and measurement. With expertise in the design of high-accuracy, high-quality hardware and application software, Data Translation partners with end users and OEMs to achieve their test and measurement goals. Customers have come to rely on Data Translation for its world-class software, design proficiency, and customer service.

Data Translation was recently acquired by Measurement Computing Corporation. This merger creates a strong data acquisition company with a broad product portfolio and increased global footprint which benefits all our customers.

Customer Support

Application engineers are available during normal business hours to discuss your requirements. Extensive information, including drivers, example code, a searchable Knowledge Base, and much more, is available 24 hours a day on our web site at www.datatranslation.com. You can also request complimentary support via email or fax at any time.

OEM Solutions

Data Translation's high quality OEM solutions are perfect for embedding into custom applications. When deciding on whether to design or buy a data acquisition module, many factors need to be considered:

- Buying an off-the-shelf data acquisition board is often the fastest way to market.
- Leveraging the knowledge and experience of the experts to provide customers with product quality, reliability, and performance that they expect.
- The "real cost" when building your own: design engineering, test engineering, quality, engineering, and production engineering.
- The "opportunity" cost involved in doing your own design. Engineering time is valuable and may be better spent on more targeted projects.

Fast turn-around and flexible scheduling and delivery are just a few of the benefits Data Translation can offer their OEM customers.



Low-Cost USB Bus-Powered Data Acquisition

Model	Analog Inputs	Resolution	Sample Rate	Digital I/O	Counter/Timers	Analog Outputs
DT9800 Series	16/8	12- or 16-bit	Up to 100 kHz	16	2	0 or 2
DT9810	8	10-bit	25 kHz	20	1	—
DT9812 Series	8	12-bit	Up to 100 kHz	16	1	2
DT9813 Series	16	12-bit	Up to 100 kHz	8	1	2
DT9814 Series	24	12-bit	Up to 50 kHz	—	1	2
DT9816 Series	6	16-bit	Up to 750 kHz/ch	16	1	—
DT9817 Series	—	—	—	Up to 28	1	—
DT9828	8	24-bit	600 Hz	8	—	—
DT9829	8	24-bit	Up to 960 Hz	8	—	—
DT9853	—	—	—	16	1	4
DT9854	—	—	—	16	1	8

High Performance USB Data Acquisition

Model	Analog Inputs	Resolution	Sample Rate	Digital I/O	Counter/Timers	Quadrature Decoders	Analog Outputs	Power
DT9818	16	16-bit	150 kHz	16	2	—	2	USB
DT9824	4	24-bit	4800 Hz/ch	16	—	—	—	USB
DT9826	16	24-bit	41.6 kHz/ch	16	2	—	—	USB
DT9832 Series	2 or 4	16-bit	Up to 2 MHz/ch	32	2	3	0 or 2	+5V
DT9834 Series	16	16-bit	500 kHz	32	5	—	0 or 4	+5V
DT9836 Series	6 or 12	16-bit	225 kHz/ch	32	2	3	0, 2, or 4	+5V
DT9844	32	20-bit	1 MHz	32	5	—	—	+5V
DT9862	2	16-bit	10 MHz	32	2	3	0 or 2	+5V
Embedded ARM-based Data Acquisition								
DT7816	8	16-bit	400 kHz/ch	16	1	—	—	+5V

High Performance Multifunction

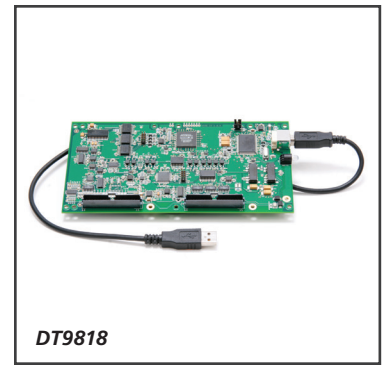
DT9818

- ±500V isolation
- 16SE/8DI analog inputs
- 2 analog outputs
- 16-bit resolution
- 150 kS/s sampling
- 16 digital I/O lines
- 2 counter/timers
- Powered by USB
- Included software and drivers

High Precision ISO-Channel™

DT9824

- ±500V isolation ch-to-ch and to earth ground
- Dedicated 24-bit resolution ADC/channel
- Input gains of 1,8,16, 32 with ±10V range
- 16 digital I/O lines
- Temperature coefficient of ±0.05µV/° C
- CMRR of greater than 150dB
- Included software and drivers
- Ethernet module available (DT8824)



DT9818

High Resolution Simultaneous

DT9826

- ±500V isolation
- 16SE analog inputs
- Dedicated 24-bit resolution ADC/channel
- Up to 41.6 KS/s sampling per channel
- 16 digital I/O lines
- 2 counter/timers, 1 tachometer
- OEM or BNC packing
- Powered by USB
- Included software and drivers

High Speed Simultaneous

DT9832/DT9836 Series

- ±500V isolation
- Up to 12SE simultaneous analog inputs
- 16-bit resolution
- Up to 2 MS/s sampling per channel
- 32 digital I/O lines
- 2 counter/timers
- 3 quadrature decoders
- Included software and drivers



DT9834 Series

High Performance Multifunction

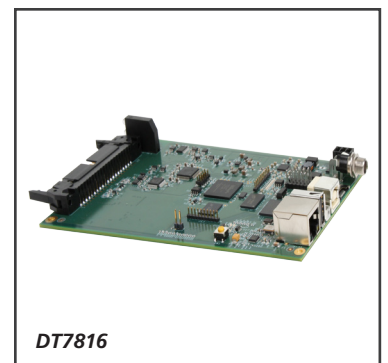
DT9834/DT9844 Series

- ±500V isolation
- Up to 32SE/16DI analog inputs
- 16-bit or 20-bit resolution
- Up to 1 MHz sampling
- Up to 32 digital I/O lines
- 5 counter/timers
- OEM, BNC, or STP packaging
- Included software and drivers

High Speed Simultaneous

DT9862

- ±500V isolation
- 2SE simultaneous analog inputs
- 16-bit resolution
- Up to 10 MS/s sampling
- 32 digital I/O lines
- 2 counter/timers
- 3 quadrature decoders
- Included software and drivers



DT7816

Data Translation Measurement Solutions

Sound, Vibration, and Strain Data Acquisition for USB and Ethernet

Model	Analog Inputs	Resolution	Sample Rate	Digital I/O	Counter/Timers	Tachometer	Analog Outputs
DT8837	4	24-bit	52.7 kHz/ch	4	2	1	1
DT9837 Series	4	24-bit	Up to 105.4 kHz/ch	—	Up to 2	1	1
DT9838	4	24-bit	52.7 kHz/ch	—	—	1	—
DT9847 Series	2 or 3	24-bit	216 kHz/ch	8	—	—	1 or 2
DT9857E Series	8 or 16	24-bit	105.4kHz/ch	16	1	1	2
VIBbox	64	24-bit	105.4kHz/ch	64	4	4	8
Embedded ARM-based Sound and Vibration							
DT7837	4	24-bit	105.4kHz/ch	16	1	1	1

Embedded ARM-based Sound & Vibration

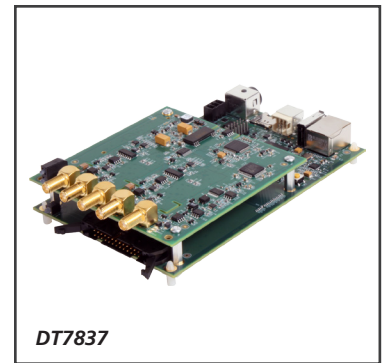
DT7837

- Dynamic Signal Analyzer – embedded ARM
- 4 IEPE channels with 24-bit resolution
- One 24-bit DAC, DIO, C/T, Tach
- TI AM335x ARM Cortex-A8 MPU with 2GB on-board NAND Flash memory
- Open-source Linux using the TI AM335x SDK Essentials Version 7.0
- SD Card interface, RS-232 serial interface
- Ethernet and USB for host communication
- Free source code provided

Sound & Vibration

DT9857E Series

- 8 or 16, 24-bit IEPE input channels @ 105.4 kS/s/ch
- Expandable to 64 channels via Sync Bus
- 2, 32-bit waveform DAC @ 216kHz
- 1 Tachometer, 8 DIO
- Start trigger and analog threshold trigger
- All inputs and outputs can be synched
- OEM and BNC versions
- Included software and drivers



DT7837

Portable Sound, Vibration & Acoustics

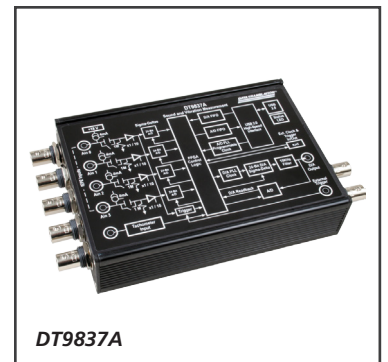
DT9837 Series

- 24-bit resolution, Delta-Sigma ADC/ch
- IEPE or voltage inputs
- 4 analog inputs, tachometer input
- Up to 105.4 kS/s sampling per channel
- Sync multiple modules for channel expansion
- OEM or BNC packaging
- Powered by USB
- Included software and drivers

Sound & Vibration, 256 Channels

VIBbox

- Up to 4 DT9857E modules in a rugged enclosure
- Connect multiple VIBboxes for up to 256 input channels
- Sampling rate of 105.4 kS/s/ch
- Up to 8, 32-bit DACs
- Up to 64 DIO, 4 C/T, 4 Tach
- Included software and drivers



DT9837A

Portable Strain- and Bridge-Based DAQ

DT9838 Series

- 24-bit resolution, Delta-Sigma ADC/ch
- Strain- and bridge-based or voltage inputs
- 4 analog inputs, tachometer input
- Up to 52.7 kS/s sampling per channel
- Sync multiple modules for channel expansion
- Powered by USB
- Included software and drivers

ISO-Channel™ Sound & Vibration

DT8837

- ±500V Isolation ch-to-ch and to earth ground
- 24-bit resolution, Delta-Sigma ADC/ch
- IEPE or voltage inputs
- 4 analog inputs, tachometer input
- 52.7 kS/s sampling per channel
- Ethernet (LXI) class-C compliant
- Sync multiple instruments with WTB
- Analog Output, 24 bit, 52.7 kS/s sampling
- Included software and drivers

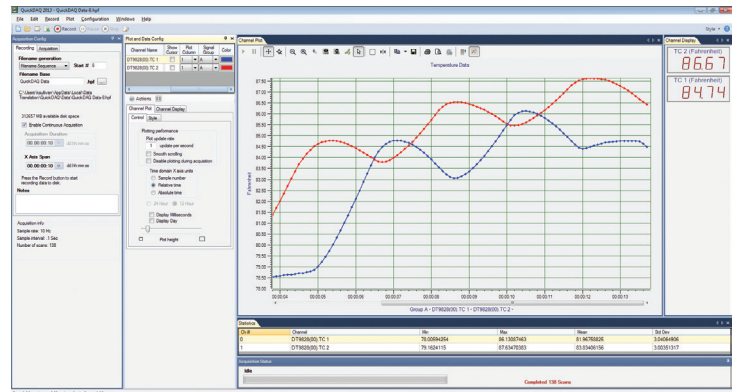


VIBbox

Data Translation Measurement Solutions

QuickDAQ

- High performance, Ready-to-Measure Application
- Configure all input channel settings
- Acquire and display live signals for real-time visual analysis
- Acquire high speed signals simultaneously and directly to disk at full throughput of hardware
- Convert signals automatically to engineering units to support a variety of data acquisition applications
- Analyze data or save it to disk for later analysis
- Import data into other applications for advanced post-processing and analysis
- Perform single channel and two-channel FFT operations



QuickDAQ software — Base version free of charge

MATLAB®

- The DAQ Adaptor for 64-bit MATLAB® provides an interface between the MATLAB® Data Acquisition Toolbox from The MathWorks® and Data Translation hardware. Support for all DT-Open Layers® compatible hardware.
- Using the MATLAB® Instrument Control Toolbox from The MathWorks®, you can access all the functions of Data Translation's Ethernet (LXI) measurement instruments, including: MEASURpoint, DT8824, and the DT8837.

LabVIEW™

- LV-Link provides an interface between National Instrument's LabVIEW™ and Data Translation hardware. Support for all DT-Open Layers® compatible hardware.
- An IVI-COM driver with example Vis is provided with each DT Ethernet instrument for use with any development environment that supports COM programming

DT-Open Layers® for .NET

- Native .NET® class library for developing test and measurement applications in Microsoft Visual Studio®
- Any language that conforms to the Common Language Specification (CLS) can be used, including: Visual Basic®, .NET, Visual C#®, Visual C++®, .NET with managed extensions, and Visual J#® .NET
- Includes DT-Display for .NET, a control for plotting data to a Windows form.

Signal Processing Component Library for .NET

- This software is ideal for developing signal processing applications. Each component contains properties and methods that can be used to perform single-channel and two-channel FFT operations, and to calculate signal metrics on time-domain data. The open design architecture allows hardware-independent support. This component library requires a single developer license; the dll can be distributed royalty-free.

DataAcq SDK

- Programmer's DLL (Dynamic Linked Library) intended for use with non .NET languages, such as ANSI C, Visual C++ 6.0, and Visual Basic 6.0
- Includes DTx-EZ, a visual programming tool for Microsoft Visual Basic and Visual C++. Enable a quick and easy development of test and measurement applications

Instrument Web Interface

- This interface allows you to verify the operation of your MEASURpoint, DT8824, or DT8837 instrument and perform basic functions with Internet Explorer with no additional software. You can configure the instrument, control output signals, measure input signals, and save results.

IVI-COM Driver

- This driver is provided to write application programs for MEASURpoint, DT8824, and DT8837 using an IVI-COM instrument interface. It can be used with programs written in Visual C#®, Visual Basic® for .NET, or C++ under Visual Studio® 2003/2005/2008/2010.

SCPI Support for Ethernet Instruments

- Use VISA or network sockets to program and control MEASURpoint, DT8824, and DT8837 LXI instruments by sending SCPI commands. Comprehensive user manual and example programs provided.