

SPOTLIGHT

Select the Right DAQ for your Data Logging Measurements

Sample more signals, faster



Product designs keep increasing in complexity, and so does the breadth of product testing. When you need to test voltage, current, and temperature on a board design, you need high-precision, connector flexibility, and simple programming for test sequences. Combine the latest precision of the DAQ970A multi-channel data acquisition (DAQ) system with BenchVue programming capability to achieve faster reading measurements, to expand measurement test ranges, and to streamline your development process by easily configuring measurement and test automation without programming.

FASTER READING MEASUREMENTS

The demand for faster reading measurements increases every day. Products get more complicated and test times get longer while project timelines get shorter. The DAQ970A mainframe comes with built-in advanced 6 ½ digit DMM & signal conditioning that provides up to 5000 readings per second with improved scan rates on all its switch multiplexer modules. The DAQM901A and DAQM908A armature switch multiplexers have at least a 30% scan rate improvement over its predecessors. A new DAQM900A solid-state switch multiplexer has a scan rate up to 450 channels per second.

EXPAND MEASUREMENT TEST RANGES

Many portable and battery-operated devices require extremely efficient, low-power consumption capability. The DAQ970A's new 6 ½ digit DMM provides the ability to perform real-time monitoring of very low current ranges; 1 µA DC and 100 µA AC, with pA resolution. It can also measure a higher resistance range of 1000 MΩ.

In addition, it has two new measurement types; the ability to perform diode test and measure capacitance with 1 nF – 100 µF ranges. The DAQ970A performs several other measurement types: temperature (with thermocouple, RTD, or thermistor sensors), 2/4-wire resistance, AC/DC voltage, AC/DC current, frequency, and period.

STREAMLINE YOUR DEVELOPMENT PROCESS

The BenchVue software perfectly complements the DAQ970A. It gives you the ability to control and configure multiple instruments together with the DAQ, data log, and view measurements in multiple display types such as numbers, bar chart, trend chart, XY chart, and even statistical histogram chart. These display types help provide you with real-time analysis and faster time to insight regarding your product's capability or potential issues. You can export your data into popular tools such as Excel, Word, and Matlab for documentation and further analysis.

The BenchVue software comes with Test Flow, an embedded application that helps you quickly create and analyze automated tests – without any programming. Using an intuitive drag-and-drop interface, Test Flow lets you easily add new blocks, move existing blocks, and also add loops and delays to create automated test sequences.



LEARN MORE!

For more information on the DAQ970A and BenchVue software, please visit our [DAQ970A website](#) and our [BenchVue website](#).

To learn more about using a DAQ for your data logging measurements, please check out our eBook [4 Things to Consider When Using a DAQ as a Data Logger](#).



NEW DAQ970A data acquisition / switch units

Get the next-generation data acquisition (DAQ) system with a 3-slot mainframe and your choice of 8 plug-in modules. Interface with the DAQ using Keysight BenchVue DAQ software, the intuitive graphical front panel with task oriented, self-guiding menus, or a web browser.

- Advanced 6½ digit internal DMM with improved accuracy and faster measurement speed
- Ability to measure very low current ranges (1 µA DC and 100 µA AC) and higher resistance range (1000 MΩ)
- New auto-calibration that compensates for internal drifts caused by time and temperature changes
- 3497XA compatible, program and configuration

PLUS

- All modules have been updated to have improved switching speeds and accuracies
- NEW DAQM900A solid state multiplexer with scan rate speed of up to 450 channels/sec



BenchVue software enabled

www.keysight.com/find/DAQ970A

[DAQ970 Data Sheet](#)

DESCRIPTION	34970/72A MODULES	DAQ970A MODULES	KEY SPECIFICATIONS
20-channel solid-state multiplexer	-	DAQM900A	Up to 450 ch/s
20-channel multiplexer + 2 current channels	34901A	DAQM901A	Armature 2/4 wire, 60 ch/s (80 ch/s for DAQ970A), up to 300 V, 1 A
16-channel multiplexer	34902A	DAQM902A	Reed 2/4 wire, 250 ch/s, up to 300 V, 50 mA
20-channel actuator/GP switch	34903A	DAQM903A	SPDT/Form C, 120 ch/s, up to 300 V, 1 A
4 x8 matrix	34904A	DAQM904A	Armature 2-wire, 120 ch/s, up to 300 V, 1 A
2 GHz, dual 4-channel, RF mux, 50Ω	34905A	DAQM905A	Common low (not terminated, 60 ch/s up to 42 V, 0.7 A
Multifunction module	34907A	DAQM907A	Two 8-bit digital I/O ports, up to 42 V, 400 mA 26-bit 100 kHz event counter, up to 42 V Two 16-bit analog outputs, up to ±12 V, 10 mA
40-channel single-ended multiplexer	34908A	DAQM908A	Common low (no 4-wire meas.) 60 ch/s, up to 300 V, 1 A

Vector Network Analysis | www.keysight.com/find/E5063A

E5063A ENA vector network analyzer*

- Various frequency options to suit your test needs and budget, upgradable at any time
- PCB manufacturing test capability with Option 011
- Support for six languages via softkey and the embedded help manual in English/Simplified Chinese
- Supports all Keysight calibration kits including the N755xA economy ECal module



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[Keysight electronic calibration kits](#)

ENA SERIES E5063A HIGHLIGHTS	
Frequency	50 kHz to 500 M, 1.5, 3, 4.5, 6.5, 8.5, 14 or 18 GHz
Test port	2-port 50 Ω S-parameter test set
Dynamic range	117 dB (spec.), 122 dB (typ.)
Trace noise	0.005 dBrms (spec.), 0.002 dBrms (typ.)
Source power	-20 to 0 dBm
Key software capability	Fixture simulator, Time domain analysis/Test Wizard option ¹ , Wireless power transfer analysis ¹ , and Materials measurement ²
Interface	LAN, USB (front 2, rear 4), USBTMC, GPIB ² , Handler I/O ²

1. Optional capability.

2. External software (Keysight N1500A Material Measurement Suite) required.

* From selected distributors only