

The Small But Mighty DSA Engine

The Data Physics Quattro provides the perfect balance of portability and measurement processing power, all contained in a rugged housing. With thousands in use worldwide, the Quattro has proven its reliability and ease of use in a wide variety of industries and applications. Featuring 4 inputs, 2 outputs and 1 dedicated tachometer channel, the Quattro represents the complete solution for small channel count applications.



The Definition of Easy

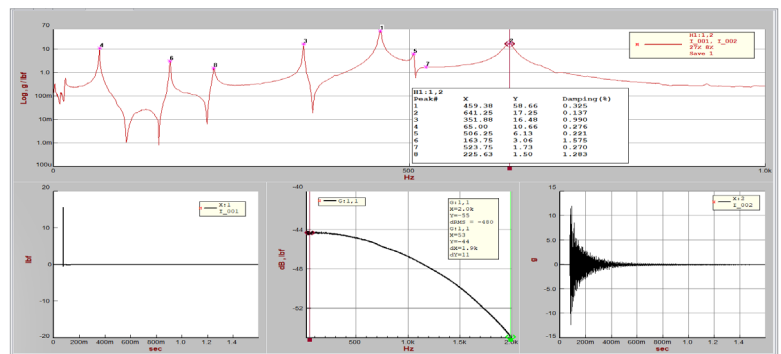
Designed to fit into a briefcase or even a pocket, the Quattro can transform any PC into a powerful dynamic signal analyzer. With USB connectivity, the Quattro is completely bus-powered from a host PC or laptop. Simply load the software and connect the USB cable between the Quattro and the PC, and you are ready to begin measurement.

Perfect for Many Applications

The Quattro provides a powerful and highly mobile backbone for many applications. Standard FFT analysis and acoustic analysis benefit greatly from the system's accuracy and channel to channel phase matching. Quattro is perfect for advanced modal testing including MIMO analysis. The easily configurable tachometer input and a host of available software measurements make it ideally suited for troubleshooting rotating machinery problems. With a high sample rate and real-time SRS capability, Quattro is also well-suited for shock measurement.

Record and Analyze Data Anywhere

With its compact size, rugged design and ability to record data on all channels at sample rates up to 204.8 kHz, the Quattro-based analyzer can tackle measurement in aircraft, within vehicles, and in industrial environments with efficiency and ease.



Supported by SignalCalc 900 Series Software

Quattro hardware now interfaces with the SignalCalc 900 Series software suite. Compatible with historical SignalCalc data files, 900 Series software provides new features such as virtual channels with signal math, and a searchable relational database structure for management of tests and setups. Enjoy the benefits of 900 Series analyzer software with Quattro!

Specifications

Input

2 to 4 channels

ADC Resolution (Analog AAF): 24-bits

Sample Resolution (Digital AAF): 32-bit floating point

Coupling: AC/DC, DIFF/SE, ICP, TEDS

Anti-alias Filters: 100 dB protection, all ranges

Dynamic Range: 120 to 150 dB

Input Ranges: 0.1, 1, 10 V Full Scale (20 V optional)

Input Impedance:

100 k Ω symmetric for Diff.;

100 k Ω with 50 Ω shield to GND for SE

Max Input Voltage: 80 vPeak, 2.5 V rms Shield (SE)

CMRR: 60 dB (typical), $f < 40$ kHz

Amplitude Accuracy: +/- 0.020 dB (0.2% FS) at 1 kHz
for 59°F (15° C) < T < 104°F (40° C)

Amplitude Ripple: (Digital AAF) - 0.005 dB for $0 < f < f_s / 2.56$

Amplitude Droop:

(Analog AAF) - 0.005 dB at 5 kHz; 0.010 dB at 25 kHz;

0.050 dB at 49 kHz

Residual Offset: +/- 0.1% FS AND not larger than 3 mV DC

Phase Accuracy: 0.05° to 0.5° for DC to 40 kHz

Crosstalk between Inputs: < -100 dB

Crosstalk between inputs and source: < -90 dB

THD: -100 dB @ 1 kHz

Minimum SampleRate: < 1 Hz

Maximum Sample Rate: 204.8 kHz (900 Series)

102.4 kHz standard and 204.8 kHz optional with 200 Series

Maximum Useful Frequency: 80 kHz (900 Series)

40 kHz standard and 80 kHz optional with 200 Series

Frequency Accuracy: 25 ppm

Time Accuracy: 25 ppm

Tachometer Input

1 channel

Maximum Frequency: 200 kHz

Input Range: +/- 24 V FS

Adjustable threshold, holdoff, prescaling

Output

1 to 2 channels

Dynamic Range: > 100 dB

Resolution: 24-bit

Voltage Range: 10 V FS

Output Current: 1 mA min., continuous short

THD: -100 dB @ 1 kHz

Output Waveforms: 65536 max blocksize for arbitrary;
unlimited for recorded (optional)

Chassis Detail

Dimensions: 5.6" x 4.0" x 0.9" (142 x 102 x 23 mm)

Weight: 1.2 lbs (.54 kg)

Operating Temperature: 32 to 131°F (0 to 55° C)

Power: USB 2.0 Bus Powered

Lights: Input OK (4), Output Active (2), Trigger Signal (1),
DSP Active (1), USB Active (1)



NOTE: Continued product improvement necessitates that Data Physics reserve the right to modify these specifications without notice.

