



Modulo Quattro

Multi-Point MCRQ Laser Ultrasonic Receiver

The future is bright



www.soundnbright.com

Sound & Bright
622 Magnolia Ave.
Inglewood, CA 90301, USA.
Tel: +1 (424) 227 4176



MULTI-POINT MCRQ

Multi-Point Laser Interferometry

The Modulo Quatro extends the benefits of MCRQ technology to a flexible, multi-point system optimized for more advanced non-destructive testing applications. With the option to either route **four detection points** through a single optical head for rapid scanning, or to use four independent optical heads to allow for simultaneous measurements from different angles on a single point or multiple points widely spaced across a sample, the Quatro platform allows us to tailor your instrument to complex and specific testing scenarios.

The Modulo Quatro's connects directly to a computer, streamlining the measurement process. No external oscilloscope or A/D card is required, making it a versatile and efficient solution for ultrasonic measurements, maintains precision and ease of use.

Multi-Detector Technology

The Modulo Quatro is based on a streamlined variant of our proprietary **multi-channel random quadrature technology (MCRQ)** and features the same benefits as our field-proven Quartet:

- Multi-mode Fiber design for large collection efficiency on any type of surface.
- Detector array and parallel processing for efficient processing of multi-speckled light.
- Patented signal processing based on 'random quadrature' demodulation scheme.

Analog Specs:

- Internal laser wavelength of 532nm or 1064nm
- Laser power: 400mW to 3W
- Detection bandwidth: up to 60MHz



Digital Specs:

- 14-bit resolution and 125 Ms/S sampling rate
- Continuous acquisition and recording of 4 signals at kHz repetition rate.

Powerful & Flexible Optical Configuration

4 simultaneous, independent measurements powered by our robust and highly sensitive Multi-Channel Random Quadrature (MCRQ) technology.

Wide variety of measurement configurations.

- **Single head** with 2-inch light collection aperture and multiple, closely-spaced detection points (1-5mm)
 - ✓ Linear layout 
 - ✓ Cross layout 
- **Multiple single-point heads** for wider spacing
 - ✓ Widely spaced measurement points for **broader measurement range**.
 - ✓ Measure at different angles to extract **3D component**.

Tailored instrument.

- **Less localized heating** as laser power is distributed among multiple measurement points.
- **Faster scanning (x4)**.
- Enables **localization of transient events** as in acoustic emission monitoring.
- **Enhanced detection selectivity** (wavelength, frequency, directivity, focusing...)

