

## Latest Model 8600 Vibrating Sample Magnetometer is the best yet from Lake Shore

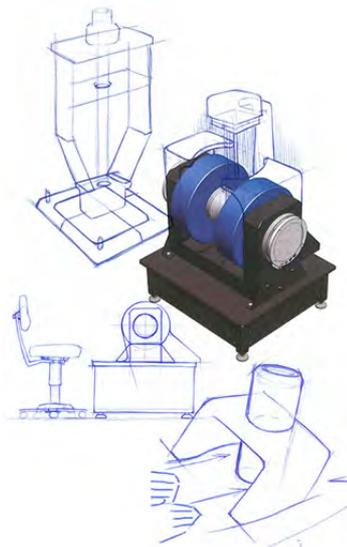


The production 8600 Series VSMs from **Lake Shore Cryotronics** further raise the bar for magnetometer performance with a significant reduction in the instrument's noise floor - down from  $0.33 \times 10^{-7}$  emu to  $0.25 \times 10^{-7}$  emu - when compared to the prototype unit demonstrated late last year. In addition, the field ramp rate has been doubled to 10 kOe/s. These improvements deliver even higher sensitivity, and more rapid measurement speeds.

Options include a cryostat, high-temperature oven, and single stage variable temperature insert. The combined temperature range of the options is 4.2 to 1273 K, and all three options quickly slide into place and are auto-detected by the system's software.

### 8600 Series Features

- $0.25 \times 10^{-7}$  emu noise floor at 10 sec/point
- 10 ms/pt data acquisition rate
- Up to 10,000 Oe/s field ramp rate
- High stability of  $\pm 0.05\%$  per day
- Fields to 3.26 T
- Widest temperature range: 4.2 K to 1273 K
- Rapid, repeatable temperature option exchange



The entire **8600 Series** system was conceived with a focus on a clean, ergonomic design that simplifies the researcher's interaction with the system. For example, a motor brings the head to a comfortable height for easy one-handed exchange of the sample, and magnet poles are also easily adjusted with a specially designed indexed positioning system. This allows the pole gap to be set at one of six repeatable positions, eliminating the need to recalibrate after each change.

Please **contact us** for more details.

### 8500 Series THz System Measurement Programme

Scientists around the globe are being invited to send samples for measurement on Lake Shore's THz materials characterisation system in order to demonstrate the capabilities of the instrument.

The aim of the project is to help identify applications where the THz technique may be particularly beneficial to the researcher. Details can be found [here](#).

### Lake Shore User Forum

Lake Shore has also created a forum to help build an online knowledge base, encourage a community among all Lake Shore product users, and to better communicate with that community.

Customers are encouraged to post tips, advice and application examples of their own to add to the discussion, and to share their technical experiences with others.

The forum is accessible from Lake Shore's homepage or directly [here](#).



THz system user Yue Huang at Brown University  
Photo by Richard Higgins

## SLICE-QT temperature controller launched at CLEO by Vescent



After several years in development, the first in a new range of **Slimline ICE** (SLICE) models was launched by **Vescent Photonics** at CLEO'17.

The SLICE-QT is a four-channel temperature controller for thermally stabilising a laser, photonic device, or non-linear crystal. It is compatible with both TECs and resistive heaters, and features auto tuning along with 40 watts of user-allocatable control power.

For more information about this or other electronics, optical modules and lasers that Vescent manufacture for cold atom science, please [contact us](#).

## Image sensor tests to benefit from Gamma Scientific's new drop-in tuneable LED source



A new turnkey, drop-in calibrated light source for custom and commercially available wafer level testing of CCD and CMOS sensors has been developed by **Gamma Scientific** from their existing digitally programmable, colour tuneable, **RS-7 LED light source**.

The new RS-7-4 can deliver virtually any arbitrary spectral power distribution of visible light over a wide range of output luminance. This makes it ideal for accurately characterising a detector's dynamic range, uniformity, linearity and spectral responsivity.

The RS-7-4 outperforms rival systems due to highly stable DC drive current circuitry that varies the output luminance of manifold discrete LED channels, rather than using pulse width modulation (PWM). This is critical when testing high speed silicon detectors, which can easily time resolve PWM signals and thus give measurement errors.

For more information about this or other light sources and instrumentation Gamma Scientific manufacture, please [contact us](#).

## Experience our product range at **LASER World of Photonics** in Munich



The biennial **LASER World of Photonics** Exhibition and Conference begins Monday, June 26th, and Elliot Scientific will be there in **Hall B3, Booth 232**.

We will be showing our world-class systems and precision accessories that we are renowned for, giving visitors the chance to see and experience the quality of our products first hand.

Below we describe just some of the models from our broad portfolio...



**Elliot|Martock Gold Series Flexure Stages** - The *gold standard* in precision stages and forming the basis of many of our custom alignment rigs controlled by the **DALi 3**, these **piezo-driven** or manually adjusted systems offer unprecedented stability and flexibility in multiple axes, with some models offering positioning with 10 nm resolution.



**Elliot|Martock high-resolution precision miniature slides** - These will be on show so visitors can experience how these smooth small stages can improve their applications. With travels of 3, 5, and 10 mm, the positioners are available in a variety of axis configurations with numerous adjustment and accessory options.



**Elliot Scientific Optical Tweezers** are installed in universities and research institutions worldwide. Our E3500 system will be at the Show, which we will be **demonstrating live**. Most high quality commercial microscopes can be upgraded with an Elliot Scientific single or multiple beam trapping package, or we can supply a complete *out of the box* working system using a microscope of your choice.



**Elliot Scientific high precision kinematic mounts** are a superior range of mechanisms that bring much to the optical table. Available in left or right hand configurations, they are both imperial and metric compatible.

If you are not going to be in Munich from the 26th to the 29th but would like to know more about any of the products or services we offer, please [contact us](#).

Elliot Scientific will be exhibiting at the following events later this month...



### Photonex Scotland Roadshow

14th June 2017

University of Strathclyde



### LASER World of Photonics

26th to 29th June 2017

Munich



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