



Probe System

Desert Cryogenics has introduced the latest in its series of tabletop probe systems to test the speed of electronic devices as a function of temperature. The new TTP-1.5 K lowers the operating temperature of the company probes to 1.5 K and has particular application in research on new semiconductors, biosemiconductors, and carbon nanotubes. It provides cryostat temperature control, multiple-sample-testing capability, and fast sample turnaround. The TTP-1.5 K's probe retracts easily, even under vacuum, and its high-resolution microscope allows viewing of the whole wafer. Each unit's modular components can be reconfigured by the user when necessary (two views above).

Desert Cryogenics

1665 East 18th Street, Suite 112

Tucson, AZ 85719

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Interferometer

Edmund has introduced its Fiber-Optic Micro-Interferometer, a portable, lightweight device with a 0.12- μm vertical resolution for field and laboratory inspections in the telecommunications industry. Its uses include viewing and measuring the radii of curvature of optical-fiber ends, inspecting surface finishes for scratches and defects, and viewing and measuring apex offset and fiber undercut or protrusion to ensure a proper polish. The interferometer comes with a carbide connector mount for FC, ST, and SC connectors that is designed to prevent damage to the ceramic ferrule, a 110/120 V ac wall



adapter, glass reference flats, hydrophobic solution, a carrying case, and a 9-V dc battery adapter.

Edmund Industrial Optics

101 East Gloucester Pike

Barrington, NJ 08007-1380

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Materials Analyzer

TA Instruments' new SDT Q600 is a rugged, accurate, and precise materials character analyzer that provides simultaneous measurements of heat flow and weight change. The Q600 incorporates a high-sensitivity dual balance mechanism, reliable bifilar-wound furnace, and horizontal purge-gas system with mass flow control and gas-switching capability to provide superior weight-change measurements. A performance-matched platinum-platinum rhodium thermocouple embedded in each beam ensures accurate and precise transi-

tion and differential temperature measurements. Calibration with sapphire and dynamic normalization using instantaneous sample weight provides heat flow data.

TA Instruments, Inc.

109 Lukens Drive

New Castle, DE 19720

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Temperature Controller

Fenwal has announced its 59 series digital temperature controller, an easily installed device that is more accurate, reliable, and versatile than the mechanical thermostats it replaces. The controller supports resistance



temperature detector or thermistor inputs up to 999 °F, which can be set by the user or preset at the factory. Temperature readings can be displayed in °F or °C. The device features a push-button to raise or lower temperature and has a three-digit, light-emitting-diode (LED) display for viewing the set-point from afar. The LED flashes the set-point value as the unit preheats, and internal diagnostics detect sensor failure and display an error message.

Fenwal

400 Main Street

Ashland, MA 01721

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Pressure Transducers

Omegadyne's PX6000 series of small, lightweight pressure transducers allow users to select from three electrical termi-



nations and six pressure fittings and require no bulky mounting structures. Each sensor comes mounted in a stainless steel case with four diffused strain gauges. Laser-trimmed resistors provide temperature compensation and adjust zero balance and span. The unit's 30-mV full-range output is compatible with most amplifiers and data-acquisition systems. PX6000 transducers rely on solid-state media isolation to improve their reliability. Thin films of chemically inert materials are deposited on the surface of a 0.1-in.² silicon chip to provide electrical isolation between the sensor and pressure medium.

Omegadyne, Inc.
149 Stelzer Court
Sunbury, OH 43074
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Current Monitor

Ion Physics' new Model CM-100-6L measures ac and pulsed currents without the need for physical contact with the current-carrying conductor and, thus, eliminates ground loops and interference noise. The doughnut-shaped device provides a high sensitivity of 1 V/A and excellent high- and low-frequency response. The CM-100-6Ls 3-dB bandwidth extends from 10 Hz to 30 MHz, and the instrument has a maximum allowable saturation value of 0.15, a maximum droop of 7%/ms, and a usable rise-time of 10 ns. It provides an output voltage equal to the current times the sensitivity, which can be read on a voltmeter or oscilloscope.

Ion Physics Corp.
P.O. Box 165, 336 Main Street
Fremont, NH 03044
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Thermocouple Cards

IOtech has introduced four new high-performance thermocouple (TC) expansion options for its DaqBook, DaqBoard, and LogBook product lines, which are intended to address a variety of connection require-

ments. The TC cards are available in 7- or 14-channel configurations and provide individual channel filtering and amplification to achieve a maximum peak-to-peak reading variation of less than 0.2 °C with no digital averaging. Software furnished with the cards allows users to configure each card to support TC types J, K, T, E, S, B, R, and N and voltage inputs up to 100 mV. The new cards provide a basic TC accuracy of 0.5 °C and a scanning bandwidth of 200 kHz.

IOtech, Inc.
25971 Cannon Road
Cleveland, OH 44146
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Photodiode Meter

Keithley's latest addition to its light-current-voltage (LIV) products, the Model 2502 fiber-alignment photodiode meter, combines two critical steps in the manufacture of laser-diode modules (LDMs)—laser-diode-fiber alignment and LIV characterization. Thus, the Model 2502 eliminates a bottleneck to rapid throughput during manufacture and provides large and small LDM manufacturers, researchers, and system integrators with the capability needed for precise excitation and high-speed LIV measurements. Its analog output can drive



fiber micropositioning systems at 2 to 10 times the speeds of other solutions.

Keithley Instruments, Inc.
28775 Aurora Road
Cleveland, OH 44139-1891
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CMM Probe

Renishaw's enhanced touch-finger TP20 probe provides increased inspection flexibility and throughput of coordinated mea-



suring machines (CMMs). New modules enable low-force probing and six-way sensing. Two probe-length extensions, which increase the probe reach to 50 and 75 mm, improve the manual-automatic stylus-changing capability of the TP20 system and its ability to carry out inspections in restricted-access areas. With the new package, the probe provides users four trigger-force capabilities: 5.5 g at 10 mm, 8 g at 10 mm, 10 g at 25 mm, and 10 g at 50 mm. The TP20 is compatible with any manual or direct-computer-controlled CMM currently using Renishaw's TP2 probe.

Renishaw, Inc.
5277 Trillium Boulevard
Hoffman Estates, IL 60192
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New Literature

Laser Measurement

Ophir offers a new four-color catalog of laser-measurement instruments, which contains a tutorial titled "Laser Power and Energy Management." The 130-page publication includes information about the NOVA, Orion, Laserstar, and AN series of displays, as well as Ophir's line of photodiode, thermal, pyroelectric, repetitive-pulse, and original-equipment-manufacturer measurement heads. Each catalog contains a compact disc that holds all the information from Ophir's Web site and the catalog in PDF format, as well as software demonstrations for its BeamStar beam profiler and WaveStar spectrum analyzer.

Ophir Optronics, Inc.
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