

## Industry Trends & Events . . .

### When a Test Company Needs a High-performance Oscilloscope



Watch Now ▶

What happens when a test company can't find an oscilloscope on the market that can satisfy their in-house testing needs? Rohde & Schwarz solved the problem by [designing their own instrument](#) and subsequently adding it to their product line. Thus was born the RTO-1014 line of scopes, the first oscilloscopes in the company's history, featuring a low-noise, high-bandwidth front end and a special A/D converter that can run at 10 gsamples per second. In this video, Business Development Manager Mike Schneckner discusses the instrument's development and demonstrates its features.

### New LXI Product Guide

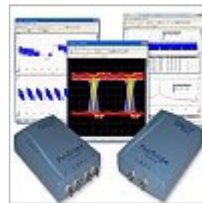
Pickering Interfaces US Inc.



When it comes to switching, LXI offers mechanical freedom that allows switching systems to have better specs, greater I/O, and very often lower prices — and Pickering is leading the pack in LXI Switching. Get help in making the right switching choices with our updated 2011 [selection guide!](#)

### New High-speed Precision Oscilloscopes

CRAG Technologies — PC Oscilloscopes



of resolution.

Featuring up to 100 MHz Bandwidths, 250 MS/s Sampling Rates and a 32 MB buffers. The [PicoScope 4226/4227](#) also feature a wide array of advanced features such as serial decoding, advanced triggers, digital triggers, segmented memory, arbitrary waveform generator, mask limit testing, and 12 bits

### IVCAD/PNA-X Bundle Promotion from Maury

Maury Microwave Corporation



Save big with Maury Microwave Corporation's IVCAD Software and PNA-X Bundle Promotion.

Maury Microwave is offering a special Bundle Promotion of the [Maury IVCAD software \(MT930\)](#) with Agilent's PNA-X when both are purchased together from

Maury. Please contact our [sales department](#) or your local Maury sales representative for details about this offer.

### Ambient Light and Proximity Sensor Tester

ProductionLine Testers, Inc.



The [IC100-A](#) is optimized for testing [optical devices with I2C communications](#) at the fastest possible production throughput.

- External Optics Module with multiple white light LED's
- Optics also have infrared LED and photodiode with amplifier for PX testing

## Delivering Solutions . . .

### A Better Hipot Tester for Production / R&D Testing

Vitrek Corporation



Made in the USA to be faster and safer with more power, accuracy, and reliability — the [950i Series Hipot Testers](#) deliver superior performance. AC/DC Hipot to 6, 10, or 30 KV with leakage to 100 pico-amps, IR to 4 T ohm, 40 A GroundBond and a precision ohmmeter with range to 150 Kohms.

The 950's offer up to 200 mA of hipot source current and are fast with test times down to 3 mS. Ethernet, serial, USB, and DI/O all standard. [For more info.](#)

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## Test Instruments . . .

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### No Longer Mutually Exclusive



In the fiercely competitive world of signal generators, high-frequency switching speeds and low phase noise have always represented something of a tradeoff. Now Aeroflex has introduced a line of signal generators [to address that conflict](#). Combining analog and

digital techniques and the latest electronics technologies, the generators achieve their performance with a smaller footprint and at a lower price than ever before.

### Testing Components with the Tools at Hand



Sometimes the ideal piece of [test equipment simply isn't available](#) in your arsenal. Verifying that a component is truly defective or determining the value of one that is unmarked without a

dedicated component tester requires getting creative. This article from *Evaluation Engineering* explores performing such tests with instruments that you already have — an oscilloscope and a waveform generator.

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## Board and Assembly Test . . .

[Learn More](#)

### Testing LTE Wireless Assemblies



The proliferation of 4G wireless technologies will require efficient test techniques that can ensure high-quality, reliable products. This item describes testing the LTE flavor of 4G by emulating the complete environment

excluding the unit under test. The approach allows manufacturers to achieve maximum test coverage by [configuring test conditions](#) as close as possible to those in the real working environment.

### Combining Optical Inspection with Boundary Scan



Both boundary scan and automated-optical inspection (AOI) have dramatically improved the ability to diagnose board-level problems. One manufacturer is increasing AOI test coverage even further by including

boundary-scan hardware and software in inspection systems to exploit the two techniques in parallel. The company claims that users can [save up to one complete process step](#), reducing manufacturing time and the associated costs.

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## New Modular AC Power Sources

Associated Power Technologies, Inc.



Our [300XAC Series](#) modular AC power sources are ideal for advanced applications. The series can be configured for 1Ø operation or linked together for up to 18 kVA of AC power in both 1Ø and 3Ø output

configurations. APT provides a 2-year warranty and stock delivery! [View more product information!](#)

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## Calibration and Repair of Test Equipment

Accura Calibration



Accura Calibration is a service-disabled veteran-owned small business, registered to ISO 9001:2008. We calibrate and repair Electrical, Phys D, and RF Microwave equipment. [Capabilities:](#)

Our company typically saves companies 10-15% from competitors with 96% customer satisfaction rates in 2010.

[Contact us](#) for a quote at [quote@accuracal.com](mailto:quote@accuracal.com), or call us at 972-278-7878.

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## Save 5% on Tektronix

Allied Electronics, Inc.

Test more and spend less at [AlliedElec.com](#). Until June 30, 2011, save 5% of all Tektronix products purchased online. Test, measure, and analyze more accurately with Tektronix. [www.alliedelec.com/tektronix](http://www.alliedelec.com/tektronix)

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## Fast Turnaround for Anemometer Calibrations

Essco Calibration Laboratory



Your anemometer calibrations can be turned around in one week and even faster [expedited service](#) is available upon request. We have the capability to calibrate anemometers from 25 to 9,000 ft per minute. Don't be without



your anemometers longer than necessary. Learn more about our capabilities at [www.esscolab.com](http://www.esscolab.com).

## Inspection & Test . . .

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### The Better to See You with...



The efficiency and effectiveness of vision-based inspection systems depend largely on image quality, which in turn depends on their ability to adequately illuminate target objects. As this report from the Automated Imaging Association points out, recent enhancements in the performance of light-emitting diodes (LEDs) used for illumination have considerably improved inspections record of success.

### Inspection and Other Challenges of Shrinking Transistors



Like it or not, device inspection cannot be divorced from manufacturing technology. In this video, Intel engineer Janice Golda describes the company's dedication to continually fueling Moore's Law and the resulting challenges to ensuring that the devices will work. One issue that falls into both venues is lithography using extreme ultraviolet (EUV) light.

## Test Equipment . . .

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### Making Filters Filter



Precision filters have to be just that — precise. And with high-end complex filters, you often don't know exactly what the filter envelope will look like until after you've measured it on the actual device. This article from *Test & Measurement World* profiles

Wainwright Instruments' method for tuning the filters after manufacturing on-the-fly — a process that can take from a few minutes to several days.

### Almost the Same is Not the Same



Few moments in the transition from the drawing board to production are as frustrating as discovering that your pet project doesn't work as expected. Troubleshooting the problem requires the skills of a detective. This case study recounts one such episode where an investigation of inconsistent device performance revealed that the behavior came from a surprising source.

### TES-1384 4 Input Thermometer/Datalogger

TES Electrical Electronic Corp.



TES Electrical Electronic Corporation introduces the TES-1384 4 Input Thermometer/Datalogger. Features of this new product include:

- Highly accurate thermometer with thermocouple
- K, J, E, T, R, S, N, L, U, B, C types
- Isolated Input Protection of 350 Vp-p

between any two inputs

- 4 input function T1/T2/T3/T4 temperature display
- Programmable Hi - Lo alarm for 4 inputs

### Infrared Microscope

OptoTherm, Inc.



Micro is a complete non-contact temperature measurement system for detecting hot spots and shorts, troubleshooting components and circuit boards, and measuring semiconductor junction temperature. Micro includes both a microscopic and wide angle lens. The system includes a mounting table, camera and target positioning stages, thermoelectric heating/cooling platform, and relay output module.

## Careers & Commentary . . .

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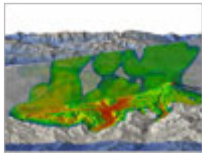
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How can we encourage today's students to study engineering? How can we get them excited about what we do? According to the president of the IEEE, the problem is not isolated to a single country or region. He suggests that teachers must instill in their students an [excitement for solving complex practical problems](#) — the core of all engineering activities.

## Diversions . . .

### How to Model a Volcano



Understanding how a volcano like Mount St. Helens explodes can help us to predict the possible consequences of an eruption and perhaps allow us to [minimize damage to people and property](#). To aid in that process, a group of researchers has created a 3D model of an exploding volcano. Their work shows that some of the destructive energy comes from unexpected forces. This article includes 2 short videos showing the model in action.

## Share Your Thoughts . . .

### About This Month's Topic



#### Testing Incredible Shrinking Features

Will the need to test new devices and assemblies to ensure that they work finally derail Moore's Law? Where does the solution most likely lie? At the design level? Manufacturing? Test? Or some combination?

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