

Industry Trends & Events . . .

A Standard Comes of Age



The introduction of new standards doesn't necessarily obsolete their predecessors. This article from *Evaluation Engineering* explores the staying power of PXI despite the newer and less-restrictive LXI and AXIe. PXI offers certain stability and capability advantages, and companies are constantly introducing new PXI modules and other tools. Although some new products provide only improved price and performance, others are explicitly [extending PXI's reach](#). In the "yin and yang in all things" department, the article's author points out that one of PXI's primary advantages is its age because of the wide variety of available conforming instruments and instrument functions.

TactiCal™ Solutions

Maury Microwave Corporation



[TactiCal™ Instrument-Grade Calibration Standards and Components](#) are ideal for measurement, production, and field service environments requiring repeatable, credible measurements from durable precision components. The right

tools at the right price! Maury also offers [RF Device Characterization Solutions](#) for the 21st Century including Active, Hybrid, and Passive Harmonic Load Pull systems.

Fast and Powerful Mixed-Signal Tester

ProductionLine Testers, Inc.



The [IC100-S](#) packs a variety of fast, powerful instruments into a small box, at a small price.

- Fully capable of high-volume production testing, with dozens of installations worldwide.
- ATE for low-to-medium complexity

analog, digital, optical, and mixed-signal IC's. [Perfect for serial interfaces like I2C and SPI.](#)

Omron MOSFET Relays to the Rescue!

Omron Electronic Components LLC



Frustrated with high repair costs from mechanical relays failing? Omron's [MOSFET](#) relays offer 2.4 pF ohm CxR, offstate leakage currents down to 10 pA typical and an average continuous life of 10 years! Having component density

problems? Try Omron's new USOP (3.25 x 2.22 x 1.65 mm) or existing [SSOP](#) MOSFET relays.

5520A High Performance Multi-product Calibrators

Fluke Calibration



Instead of several instruments to purchase, maintain, and transport, the [Fluke 5520A](#) combines all the capability in one compact, portable, and affordable tool. Its front panel is logically arranged and clearly labeled, and its bright LCD displays provide all the information you need at a glance. [Learn more...](#)

Test Instruments . . .

[Learn More](#)

Building Flexible Instruments in Software

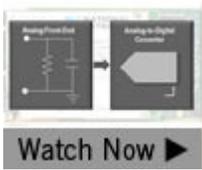
Hardware-based instruments have dominated the test industry for decades. Yet as the hardware has become increasingly transparent, with higher speeds and dramatically greater storage, configuring it to address a wide variety of applications and measurement requirements has fallen to software. This Webinar tutorial from National Instruments

Modular Instruments — Another Point of View



Like software instruments, modular instruments have become more popular because they provide more flexible test capability, yet keep costs down.

Modularity allows faster instrument development to keep up with customers' ever-changing needs, while providing



explores the [fundamentals of these software instruments](#) and examines how they fit into today's test environment. [Access to this article requires a short registration.]

advantages such as [smaller footprint and faster execution speed](#). And, as this article points out, the growth of modular solutions could not have occurred without the evolution of RF components.

Board and Assembly Test . . .

[Learn More](#)

You Contract Out Manufacturing and Test, But They're Still Your Boards



Outsourcing PCB manufacturing and test doesn't mean you wash your hands of those operations. No matter who builds your product, your customers still hold you responsible if it doesn't work.

You have to be sure that the boards coming in the door [meet your acceptance criteria](#), not those of the contract manufacturer. This item from NexLogic outlines some of the logistical issues that you will face.

Program Devices On-the-Fly



Programming devices in their target systems offers numerous advantages over an off-line approach. It simplifies inventory management because you only have to stock unprogrammed versions. It also shortens the time to

incorporate a new program version into the devices and minimizes the chances of a wrong program getting out. These [parallel programmers that can handle up to 8 devices](#) at their maximum speed were among the 2011 nominees for *Test & Measurement World's* "Best in Test" award.

Automated Hipot Tester — Easy-to-Use!

Associated Research, Inc.



[HypotULTRA III](#), from Associated Research, Inc. is an easy-to-use, automated Hipot tester for AC and DC

Hipot testing applications. With advanced, user-friendly features HypotULTRA III is the leading Hipot test solution. HypotULTRA III provides a standard USB interface, advanced safety features and is available for immediate delivery. [Learn more!](#)

33XR-A and 37XR Amprobe Multimeters, Now at Digi-Key

Digi-Key Corporation



These [Amprobe multimeters](#) offer a frequency of up to 40 MHz, temperature to 1832 F, and capacitance to 4000 μ F for the 33XR-A model and 400 μ F for the 37XR-A model. Both [multimeters](#) harbor a resistance to 40 M Ω , and provide a continuity beeper and an auto power off to save battery life.

No, You Can't Test A Ground That Way

Optimum Energy Products, Ltd.



You cannot use your multimeter or your megohmmeter to test resistance to ground but it's surprising how many people try. Recent innovation in testers means the right way is quick, easy, and accurate. So [learn the right way](#) to test by taking our [two complimentary training presentations](#).

Wilkinson Power Dividers by Aeroflex / Inmet

Aeroflex / Inmet, Inc.



A new family of [Wilkinson Power Dividers](#) has been introduced by [Aeroflex / Inmet](#) to complement its current offering of resistive divider models. The new units are two-way SMA models and are of octave and multi-octave designs covering the popular bands of 0.5-1, 0.8-2.5, 1-2, and 2-4 GHz.

Inspection & Test . . .

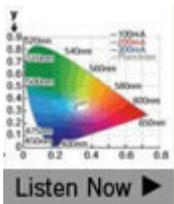
[Learn More](#)

LED Standards and Other Test Matters

How much heat can an LED withstand before it fails? How much heat *should* it withstand, especially since part of the input energy dissipates as light rather than heat. This article and the accompanying audio interview explore some misconceptions of [how to calculate the tolerances](#) and how

Looking at Equipment from the Inside

What does a wafer "see" from inside semiconductor-manufacturing equipment? As this video demonstrates, constructing a test device that looks and acts like a wafer and sending it through the process can provide a lot of the answers. The wafer-like device captures three-dimensional



to set test standards that will serve the needs of manufacturers and end-users alike.



offset data, enabling you to teach the equipment [precise wafer positioning during actual operation](#). The built-in camera can also find wafers that have been broken or lost.

Test Equipment . . .

[Learn More](#)

Testing Beamforming on LTE Basestations



Testing LTE basestations requires successfully mimicking the behavior of the corresponding handset and simulating as many operation modes as possible. To address this need, Aeroflex has announced that their

TM500 test mobile now supports both user-equipment beamforming and 4 x 2 multiple-in/multiple-out (MIMO) modes, as [specified by the latest version](#) of the Third Generation Partnership Project (3GPP) standard of the Long-Term Evolution (LTE) protocol.

EMC Certification Marches On — to 1 GHz



Because of the numerous communication systems that must operate unimpeded within its borders, the European Union has always demanded stricter electromagnetic interference (EMI) standards than elsewhere. As this blog entry reminds us, as of October 1st, all systems must comply up to 1 GHz. The current impact is a large [increase in the workload of compliance test facilities](#). How many products will fail to make the cut?

CMC 256plus

OMICRON electronics Corp. USA



The [CMC 256plus](#) is the universal solution for testing protection relays and calibrating electricity meters of up to class 0.2, transducers, power quality meters, and synchrophasor measurement devices (IEEE C37.118). It is the right choice for all applications requiring the highest versatility and precision. [Learn more](#).

SIR Test System Assesses Board Failure

Thermotron Industries



Used as a standard for assessing board assemblies failure due to corrosion with ionic contamination, Thermotron's [SIR test system](#) uses accurate and reliable designs to measure up to 256 test coupons on standard test circuit boards. The [Thermotron](#) SIR test system has the capacity to test from 8-24 test sites up to

25-256 test sites.

Careers & Commentary . . .

Attend GlobalSpec's On-Demand Events



Visit our On-Demand events to view leading-edge presentations, interact with manufacturer representatives via email, and download valuable resources including presentations, product information, technical articles, and more.

- [Quality, Test & Measurement](#)
- [Industrial Processing](#)
- [Power Generation & Distribution Equipment](#)
- [Aerospace Technology](#)

It's Not Only the Money



Employee turnover is expensive. A company has to pay direct costs such as recruiting expenses and relocation allowances, as well as the indirect costs associated with getting someone new up to speed. The best way a

company can avoid those costs is to minimize turnover by keeping people happy (as well as productive) with their jobs. Here are some recommendations on tangible and intangible ways to [keep your employees satisfied](#).

Diversions . . .

April Fool, Google — Not!

On April Fools' Day, Google publicized a revolutionary way to open, read, and respond to email by waving your arms

Share Your Thoughts . . .

About This Month's Topic

Do You Feel Overworked and Overstressed?



about rather than typing at a keyboard. The next day, the company admitted the April Fool. But some engineers took the joke as a challenge, and have now created a system that [will do what Google claimed](#). Take a look.



Has your company "downsized" so that you have fewer people to handle the same workload? How do you cope? Do you work longer hours? Take work home? What alternatives would you like to suggest to your management?

[Join the Discussion](#)

Stay Informed . . .



[Events](#)

NEW: Online, interactive conferences / trade shows featuring latest news and industry trends
[Call for Speakers](#) — submit your proposal



[Newsletter Subscriptions](#)

Your source for technology news and industry information



[Product Alerts](#)

Receive e-mail updates on new products and suppliers

Follow GlobalSpec On . . .



[The Brain Strainer](#)

[Flex your physics muscles](#)

[Take the Challenge](#)

[Directory of Companies](#)

[Technical Articles](#)

[Engineering News](#)

[Engineering Toolbar](#)

[Feedback](#) | [Media Kit](#) | [Forward to a Friend](#)

April 22, 2011 - Volume 6 Issue 4

© 2011 GlobalSpec, Inc. All rights reserved. GlobalSpec, the GlobalSpec logo, SpecSearch, The Engineering Web, The Engineering Search Engine, and *DirectU2* are registered trademarks of GlobalSpec, Inc., 30 Tech Valley Drive, Suite 102, East Greenbush, NY 12061 - 800.261.2052. All other products, company names, or other marks appearing in this e-newsletter are the trademarks and property of their respective owners.