

October 2013



## Watts Up?

Yolanda Kennedy, Editor

We are very pleased to introduce three new ecosystem partners serving the U.S. and China markets — [Catron](#), [YESTUNED](#), and [Powerwise](#) (see [September's article on Powerwise](#)). These partnerships represent Maxim's commitment to growing revenue through strategic relationships.

*"I am very pleased with the partnership between Maxim and Powerwise. In Powerwise, Maxim has an effective channel to sell into dozens of companies that we previously couldn't cover directly with our salesforce. In aggregate, Powerwise represents significant growth in revenues."* — Helen Lou, Sales Director, China

You can meet Catron, YESTUNED, and Powerwise in our booth at TC104 in Xiamen, China. See page 2 for details.

We're committed to developing an effective partner ecosystem that will help the sales team create and enable more revenue through partnerships. We're looking to collaborate with: ODM/module manufacturers, Maxim-friendly independent design houses, and partners who can be the first line of design support for small and medium customers we can't directly touch. Please send your leads to your regional business manager.

Be sure to subscribe to our monthly newsletter by sending an email with SUBSCRIBE in the subject line. And we'd love to know what you think about our newsletter. Please email us your feedback and subscribe at: [sgnewsletter@maximintegrated.com](mailto:sgnewsletter@maximintegrated.com).

## Product Spotlight: New Energy Meter ICs 71M6542GT, 71M6543GT and 71M6545T



We are pleased to introduce the 71M6542GT, 71M6543GT, and 71M6545T energy meter ICs to the market. These devices offer several feature enhancements, including improvements in measurement performance, RTC accuracy, and system reliability.

Please visit our website for more information:

<http://www.maximintegrated.com/71m654xT>  
<http://www.maximintegrated.com/71M6542GT>  
<http://www.maximintegrated.com/71M6543GT>  
<http://www.maximintegrated.com/71M6545T>

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## Smart People: Bruce Ding

Bruce Ding is an Account Executive in Shanghai, China, and has been with Maxim since April 2013. He specializes in serving customers within the smart meter market. In a short time, Bruce has already been recognized as a metering champion in China due to his in-depth understanding of energy and embedded security products.

Bruce is a strategic thinker and is dedicated to bringing solutions to his customers. He recently promoted Maxim's 71M6542FT to a customer for their Southern Grid one-phase meter project. Through a collaborative global effort consisting of support from local FAEs and the BU in the U.S., he resolved all of the customer's technical questions rapidly and helped win the project. And by using Maxim products, the customer also saved on cost.

Bruce has a Bachelor's Degree in mathematics from University of Shanghai for Science and Technology. In his free time, he enjoys swimming and shadowboxing.

## Residential Applications — Part 3

This article explains opportunities for AC measurement without data communications or reporting. These simple applications eliminate the burden and cost of implementing wired or wireless communications and eliminates the needs for gateways or cloud applications.

Let's look at an automated power strip and surge protector for AV and SOHO applications. By monitoring the current draw of outlets for TVs or PCs, a self-contained system can automatically switch off power to other equipment when either the TV or PC go into stand by mode. Likewise, outlets are automatically switched on when the TV is turned on or the PC wakes up.

Another example is an RFID-protected outlet that receives maximum current information, by RFID, from the appliance or device plugged into the outlet. An embedded AC measurement system could monitor the actual current draw and immediately switch off power to the load if maximum ratings are exceeded or unsafe conditions are detected.

A third example is a small outlet module for critical appliances like a commercial freezer. The module alerts users via an audible alarm if something goes wrong. By monitoring the AC source voltage, the unit can alert the user if the appliance is unplugged or if the breaker for that circuit is opened. Alternatively, the unit can monitor load current and notify the user of increased current (such as a door was left open), or of no current (for example, the appliance was unplugged from the monitoring unit).

Whether you're reducing phantom current and energy usage, or protecting equipment and resources, there are simple, cost-effective applications that can be enabled with little more than embedded AC measurement, using Maxim's [78M6610+LMU](#) energy measurement processor and the [78M6618](#) energy measurement IC.

Stay tuned for next month's issue:  
*"Lighting – Part 1"*

## Tech Doc Updates

New [MAX78630+PPM](#)

New [71M654xT](#)

## Protect Your Designs from Malware with the MAXQ1050

For many systems, a secure boot is a highly desirable feature. A properly secured boot process allows only authorized software to run on a given device. Only a few embedded systems, including meters and energy distribution equipment, run a truly secure boot. In most cases, this is due to the fact that the main system microcontroller itself does not implement a real secure boot.



Designers can use the MAXQ1050 DeepCover secure microcontroller to implement a secure boot that has the capability to resist even the most advanced attacks.

This protection is enabled by public key cryptography, which allows a very high level of security and simplifies authentication key management compared to a symmetric cryptography environment like AES. Click here to learn about MAXQ1050:

<http://www.maximintegrated.com/AN5696>

## Smart Energy Marketing Campaign

The Smart Energy Marketing campaign began in October and targets metering manufacturers and customers looking to embed energy measurement into their designs.

The campaign will showcase our newest smart energy technologies at two prominent industry trade shows: European Utility Week and China's TC104. Both shows will display Maxim's Capistrano, a next-generation energy meter reference platform based on the highly integrated Zeus metrology SoC. Capistrano fully integrates an applications processor, metering microcontroller, metering front-end/DSP, and security coprocessor to form the industry's most integrated and accurate metering solution.

"Maxim is well positioned in the smart grid market," said Roger Westberg, Smart Grid Segment Manager at Maxim Integrated. "We believe the new products we're introducing at European Utility Week and TC104 will strengthen our leadership position."

Also on display will be our Sonoma energy measurement design platform. It's based on the newly introduced [MAX78615+LMU](#) and [MAX78700](#) chipset. This platform enables low-cost embedding of AC-DC energy measurement into a host of applications. Other technologies highlighted at the shows include solutions for distribution automation and lighting. Please contact [Roger Westberg](#) or [Jon Vanzandt](#) for more information.

European  
Utility Week

Please visit our booth 1B34 in Hall  
#1 October 15-17 in Amsterdam.  
<http://www.european-utility-week.com/>

General Meeting of National Standardization  
Technical Committee for Electrical  
Instrumentation (SAC/TC104)

Visit our booth #139 October 16-18  
in Xiamen, China:  
[http://www.tc104.org/2013/meeting/hytz\\_en.asp](http://www.tc104.org/2013/meeting/hytz_en.asp)

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