

September 2013



## Watts Up?

Yolanda Kennedy, Editor

I recently signed up for Southern California Edison's "Save Power Day" incentive program. I'm now rewarded for reducing my energy use during peak times. The program is part of a large "demand-response management" initiative by utilities to reduce black or brown outs, and save energy, and money. Go to page 2 to read about how Maxim Integrated provides solutions that are helping homeowners, businesses, and utilities optimize residential energy use.

Also on page 2, we have a success story we'd like to share with you. It's an example of how Maxim works with partners to meet customer needs.

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: [sgsnewsletter@maximintegrated.com](mailto:sgsnewsletter@maximintegrated.com).

## Product Spotlight: Benefits of MEMS RTCs

Utilities are more closely aligning their pricing with the cost of delivering the electricity to its customers, but this requires accurate timekeeping.

Maxim Integrated can solve this issue with products such as the DS3231M microelectromechanical systems (MEMS) real-time clock (RTC). Devices like DS3231M deliver high reliability and precision timekeeping for metering.

Accurate RTCs built with MEMS technology are extremely rugged, highly accurate over both time and temperature, and significantly smaller than clocks built using standard cylindrical crystal technology.

Click on this link to learn more about the significant performance enhancements that this new and exciting technology enables in accurate RTC applications: <http://www.maximintegrated.com/landing/?lpk=788>.



## In This Edition:

- Watts Up?
- Smart People: Jim Mitrosky
- Product Spotlight: Benefits of MEMS RTCs
- Residential Applications — Part 2
- Maxim and Powerwise Partner for Customers
- Energy Measurement Processor Is Innovation Award Finalist
- Tech Doc Updates



## Smart People: Jim Mitrosky

Jim is a product definer within the Maxim Integrated Energy Solutions Group. With 29 years of industry experience, Jim has been involved in all aspects of IC design and application. His product experience includes cellular, public safety radio, DSP, security architectures, audio, and RF.

In the last few years, Jim has been defining and developing products for flow meter markets such as water, gas, and heat meters. These product lines have customers that span across the globe. He has also grown to better appreciate the escalating issues of water conservation.

"I never thought that I would need to use my Thermodynamics and Heat Transfer theory in a direct customer application," said Jim. He has grown to better appreciate the escalating issues of water conservation.

Jim was born in Toronto and became a U.S. citizen in 2009. He graduated from Ryerson University in Toronto with a Bachelor's Degree in Electrical Engineering. He continued his studies while working full-time in the U.S. and obtained his MSEE. Jim's interests include reading, playing golf, and visiting his grandchildren in Canada as often as possible.

## Residential Applications – Part 2



This is the second article in a three-part series in which we explore applications for residential

AC measurement beyond the meter. This month, we explore opportunities for embedded AC measurement in demand response (DR) programs operated by utilities and third parties.

In the simplest terms, DR is a customer-driven approach in response to energy use during peak demand times. Utilities incentivize customers to trim their electricity use during peak periods and use electricity during less congested times.

Primarily a function of statistical modeling (using aggregate measurements), DR algorithms can be greatly improved with real-time measurement data collected at the branch or load level.

With detailed energy usage data collected from a smart sub-panel or smart plug, DR systems can more accurately monitor the effects of different programs, user patterns, seasonal patterns, and extreme weather. This data can help create better baselines and reduction estimates for DR events. The end result is more meaningful data to the wireless thermostat, utilities, and participants of these programs.

Maxim's 78M6610+LMU processor enables ubiquitous AC monitoring that helps residential and business customers make better decisions about DR and energy conservation programs.

Stay tuned for next month's issue:  
*"Residential Applications – Part 3"*

## Maxim and Powerwise Partner for Customers

Maxim partners with a design house named Powerwise to provide total solutions by completing designs for customers and then selling SKD components to customers. Powerwise's markets are mainly power meters for the China State Grid, global markets, and industrial digital display meters.

Powerwise noticed a customer was using an AFE, MCU, and LCD driver with an RTC solution in an industrial digital display meter. The design house recommended that the customer use Maxim's 71M6541 and 71M6543F energy meters instead. Through a comparison, the customer discovered the change would save cost by eliminating the need for two of the chips: the LCD driver and RTC. And, Maxim's solution improved product accuracy. Powerwise also helped produce the whole design-in solution. All of this resulted in a happy customer who signed a long-term cooperation agreement, and successfully obtained a certification on the digital display meter.

Maxim values all our partner relationships. Each brings its own unique and important value. Together we bring customers complete technology solutions.

## Energy Measurement Processor Is Innovation Award Finalist

The Orange County Technology Alliance recently announced that Maxim's 78M6610+PSU energy measurement processor is a finalist in the alliance's 20<sup>th</sup> annual High-Tech Innovation Awards.



This annual business event celebrates excellence and achievement in the Southern California technology industry. It honors local companies, individuals, and products that drive innovation in Orange County. The awards will be held on October 15 in Costa Mesa, CA.

“We are honored that the 78M6610+PSU has been chosen as a finalist in the Semiconductor Category”, said Kathy Reffert, Senior Product Manager for Maxim’s Energy Solutions Group in Irvine, CA.

"We are in competition with products from Broadcom and Microsemi, which are headquartered here in Orange County," said Kathy.

The 78M6610+PSU is a cost-effective, turnkey solution. It enables accurate measurement and better decisions about power consumption in the data center (one of the major electricity consumers in today's networked world). And, the processor improves performance, saves months of development time, and reduces system costs. For more information, click on this link: [78M6610+PSU](#).

