

# NEWS RELEASE



## Peregrine Enables New Approach to RF Switching in High-Power Wireless Systems

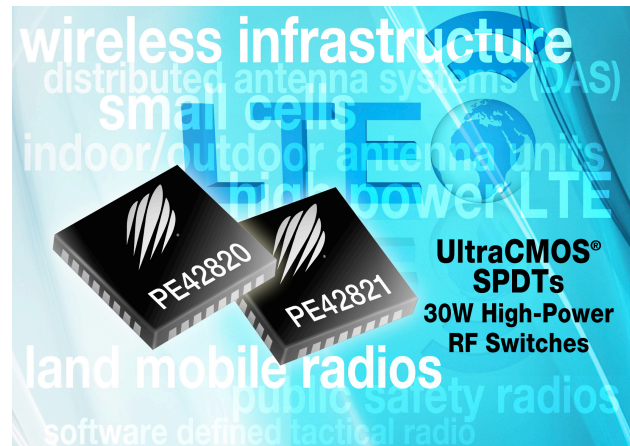
*UltraCMOS® technology delivers unprecedented combination of 30W power handling and excellent linearity across the UHF/VHF through LTE frequency bands*

**San Diego, California, September 11, 2013** -- Peregrine Semiconductor Corporation (NASDAQ: PSMI), a fabless provider of high-performance radio frequency integrated circuits (RFICs), today announced the PE42820 and PE42821 single-pole double throw (SPDT) switches for high-power wireless applications. The new switches provide an unprecedented combination of high-power handling and excellent linearity while offering an integrated approach that reduces board area, power consumption and design-in complexity compared to traditional discrete solutions. This combination makes the PE42820/821 ideal for transmit/receive, filter bank and antenna band switching applications in high-power RF systems such as wireless infrastructure devices and land mobile radios for public safety and military environments.

Peregrine's new switching ICs are significant in replacing discrete solutions including traditional pin diodes used in land mobile radios (LMR), and mechanical relays used in LTE-enabled small cells or distributed antenna systems. These discrete solutions cannot deliver both the high power handling and high linearity required for broadband frequency support as required for LMR and LTE convergence. In contrast, the PE42820/821 switching ICs offer high 30W power handling while also enabling excellent linearity across the entire 30MHz to 2.7GHz frequency range. This combination, enabled by Peregrine's UltraCMOS® technology with HaRP™ enhancements, improves signal clarity and range in high-power RF systems.

In addition, Peregrine's monolithic approach integrates flexible control voltage ranges, which eliminates the need for external bias control circuitry. This reduces the system bill of materials, thereby saving on board space and current consumption, while simplifying design for a more reliable long-term solution.

"The increased complexity that comes from supporting additional frequency bands in high-power wireless applications necessitates a new approach to system design," said Mark Schrepferman, director of Peregrine's



Hi-res photo available through editorial contact or Flickr (feel free to publish):

<http://www.flickr.com/photos/peregrinesemiconductor/9717686635/>

- more -

# NEWS RELEASE



communications and industrial product line. “Discrete solutions utilizing pin diodes and mechanical relays simply cannot support the required linearity from UHF/VHF through LTE operation while still meeting the size, cost and performance expectations of high-power wireless systems. Our monolithic approach offers a reliable solution to these challenges and provide customers with a route to future proofing their designs as they move to accommodate additional frequency bands.”

In addition to high linearity (82dBm IIP3 @ 850MHz; 76dBm IIP3 @ 2.7GHz), the PE42820 and PE42821 switching ICs feature low insertion loss (0.35 from 30MHz-1GHz; 0.20 from 1-2GHz; and 0.80 from 2-2.7GHz), and exceptional ESD of 1.5 kV HBM on all pins. The PE42820/1 high-power switches operate with a wide supply range of 2.3V to 5.5V. The PE42821 is a feature and pin-compatible version of the PE42820 with a faster switching time of 6µs.

## Development Tool Support

Peregrine Semiconductor also announced availability of the PE42820/1 Evaluation Kits, available now through Peregrine’s global direct sales representatives and worldwide distribution partners.

## Packaging, Pricing & Availability

The PE42820/821 switches are supplied in RoHS compliant, 5 x 5 mm 32-lead QFN packages. Pricing for both devices starts at \$11.69 in 10k unit quantities. Samples and volume-production quantities are available today by contacting Peregrine. For more information, visit <http://www.psemi.com>.

## About Peregrine Semiconductor

Peregrine Semiconductor (NASDAQ: PSMI) is a fabless provider of high-performance radio frequency integrated circuits (RFICs). Our solutions leverage our proprietary UltraCMOS<sup>®</sup> technology, an advanced RF Silicon-On-Insulator process. Our products deliver what we believe is an industry-leading combination of performance and monolithic integration, and target a broad range of applications in the aerospace and defense, broadband, industrial, mobile wireless device, test and measurement equipment, and wireless infrastructure markets. Additional information is available at <http://www.psemi.com>.

####

*The Peregrine Semiconductor name, logo, and UltraCMOS are registered trademarks of Peregrine Semiconductor Corporation in the U.S.A., and other countries. HaRP is a trademark of Peregrine Semiconductor Corporation in the U.S.A., and other countries. All other trademarks mentioned herein are the property of their respective owners.*

### Editorial Contact:

Tiana Dixon  
PR Account Manager  
Peregrine Semiconductor Corporation  
Phone: 503.708.1925  
[tdixon@psemi.com](mailto:tdixon@psemi.com)

**Tags/Keywords:** high-power switch, land mobile radio, wireless infrastructure, small cells, UltraCMOS, HaRP, LTE