

# NEWS RELEASE



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**See Peregrine at IEEE-MTT IMS Booth #2914  
May 25-27, 2010 – Anaheim, CA USA**

## FOR IMMEDIATE RELEASE

### **Peregrine's Newest PLL Frequency Synthesizers Offer Market-Leading Phase Noise Performance**

***First European-flow UltraCMOS™ RF ICs deliver -216 dBc/Hz/Hz with ultra-low power***

**San Diego, California, May 25, 2010** -- Peregrine Semiconductor Corporation, a leading supplier of high-performance RF CMOS and mixed-signal communications ICs, today announced two new devices in its widely popular Phase-Locked Loop (PLL) Frequency Synthesizer family. These UltraCMOS™ RFIC devices fulfill the need for low-power, ultra-low phase noise, multiple-way programmable PLL solutions for capability of the military, broadband cable infrastructure, and wireless infrastructure markets. The PE33361 Integer-N PLL and the PE33631 Delta-Sigma Modulated (DSM) Fractional-N PLL are the first devices to be completely developed through Peregrine's recently announced European design and manufacturing flow. The PLLs operate over a wide frequency range 50 MHz to 3.5 GHz, providing a high-performance RF solution for demanding applications such as cellular base stations, CATV set-top boxes, test and measurement equipment, WiMax-based communications systems and point-to-point radios where system scalability is key to improving designs.

The new PLL devices deliver market-leading RF performance and frequency synthesis up to 3.5 GHz with -216 dBc/Hz phase noise (normalized), and ultra-low power consumption of 40 mA (PE33631) and 45 mA (PE33361) at 3.3V. Both PLL devices offer flexible programming options: the PE33361 PLL is programmable through serial, parallel and direct mode access; the PE33631 PLL is programmable through serial and direct mode access. Electro-Static Discharge (ESD) tolerance is 1000 V HBM.

The devices feature a  $\pm 10/11$  dual modulus prescaler which enables high divide ratios in applications requiring low phase-detector comparison frequencies. An internal phase-frequency detector generates up and down frequency control signals, and provides a phase comparator and phase counter, the values of which are programmable. The PE33631 adds a delta-sigma modulator which maintains fine frequency resolution while eliminating fractional spurs in the output. As with all UltraCMOS-based RF ICs, the new PLLs offer a more environmentally friendly solution for next generation RF designs.

**– MORE –**

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## **ADD ONE – PEREGRINE PE33361/PE333631 PLLs**

The PE33361, packaged in the compact 48-lead 7x7mm QFN, and the PE33631, packaged in the robust 64-lead 9x9mm QFN are available in volume quantities today. The PE33361 is priced at \$11.52 each (25k units) and the PE33631 is priced at \$12.80 each (25k units). Evaluation Kits for both devices are available through Peregrine and its sales and distribution partners worldwide.

### **About UltraCMOS™ Technology**

UltraCMOS mixed-signal process technology is a patented advancement of silicon-on-insulator (SOI) technology on a sapphire substrate providing high yields, competitive costs and a viable alternative to compound semiconductor technologies. UltraCMOS delivers significant performance advantages over competing processes such as GaAs, SiGe BiCMOS and bulk silicon CMOS in applications where RF performance, low power and high levels of integration are paramount. These measureable power and size savings offer advantages for both manufacturers and consumers, including longer battery life, smaller batteries, lower power consumption and bills, less electronic waste...and a greener RF solution. Further, the company's revolutionary HaRP™ and DuNE™ technologies further exploit the fundamental benefits of silicon-on-sapphire, enabling dramatic improvements in harmonic results, linearity, power handling and overall RF performance which today remain unmatched by any other RF process technology.

### **About Peregrine Semiconductor**

Peregrine Semiconductor Corporation designs, manufactures, and markets high-performance communications RF ICs for the wireless infrastructure and mobile wireless; broadband communications and infrastructure; and high-rel markets. Manufactured on the Company's proprietary UltraCMOS mixed-signal process technology, Peregrine products are uniquely poised to meet the needs of a global RF design community in high-growth applications such as LTE, HSDPA and WCDMA digital cellular and mobile TV; broadband communications such as DTV/PCTV/DVR; and in high-reliability applications such as telecom infrastructure, industrial, automotive, military and satellite systems. Peregrine UltraCMOS devices are manufactured under licensed foundry partnerships with CMOS semiconductor manufacturers located throughout the world. The Company, headquartered in San Diego, California, maintains global sales support operations and a worldwide technical distribution network. Additional information is available on the web at [www.psemi.com](http://www.psemi.com).

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