

# NEWS RELEASE



## **EDITORIAL CONTACT:**

Rodd Novak, Director of Marketing  
(858) 731-2864

Cindy Trotto, PR/MarCom  
(602) 750-7203

## **Reader/Literature Inquiries:**

Richardson Electronics  
1-800-737-6937

## **FOR IMMEDIATE RELEASE**

### **Peregrine Semiconductor introduces New Line of Monolithic RF CMOS Digital Step Attenuators IP3 > +50 dBm maintained across steps from 1 MHz to 2.3 GHz**

**San Diego, CALIFORNIA, April 26, 2004** -- Peregrine Semiconductor Corporation, a leading supplier of mixed-signal communications ICs, today introduced a new family of Digital Step Attenuators (DSAs) that demonstrate new levels of broadband linearity, attenuation accuracy, and programming flexibility providing exquisite design solutions for today's prolific RF applications. The new family of devices, including the 6-bit PE4302 and PE4304 components, is Peregrine's first commercial DSA product line and has raised the bar on DSA performance. Manufactured on the Company's proprietary UTSi® RF CMOS Silicon-on-Sapphire technology, the products draw from many years of high-performance RF CMOS and mixed-signal IC experience.

The PE4302 and PE4304 devices are 50 and 75 ohm, 6-bit DSAs with a 0.5 dB LSB, positive logic serial and parallel interface, single +3.0 volt supply, and a unique power-up preset feature. The devices are ideal for many RF applications such as cellular base station, fixed frequency transceivers, repeaters, power amplifier distortion canceling loops and throughout CATV distribution systems.

"The extraordinary performance of the new Peregrine DSAs, including high accuracy and IP3 down to 100 KHz, has positioned the PE4302 and PE4304 as the industry choice for new designs," commented Ron Reedy, Peregrine's vice-president of Sales and Marketing.

**-MORE-**

# NEWS RELEASE



**ADD ONE/PE4302/04**

“Compared to GaAs solutions, they offer higher IP3, accuracy, better temperature stability, lower distortion, smaller footprint and lower power consumption. These aspects combine for optimal performance and cost-effectiveness” he added.

Specific capabilities brought to bear on the new DSA products from Peregrine Semiconductor include high ESD tolerance, high linearity to near DC, serial and parallel interface logic, and industry leading insertion loss of 1.5 dB. Guaranteed Return Loss (RL) for the PE4302 is 15 dB through 2.2 GHz, making it 5 to 6 dB better than its competitors and uniquely compatible with termination sensitive components. The PE430X DSA devices also include a preset power-up attenuation state, a function afforded due to the monolithic CMOS fabrication process.

The PE4302 and PE4304 are available in 20-lead QFN packages and are the first two devices of a complete line of 5 and 6 bit DSA products from Peregrine Semiconductor scheduled for release this year. Product samples, unit pricing and volume production are available now through Peregrine Semiconductor and its worldwide distribution partner, Richardson Electronics.

## **About UTSi™ CMOS Silicon-On-Sapphire (SOS) Technology**

UTSi™ CMOS is a proprietary, patented variation of silicon-on-insulator (SOI) technology. It is the first commercially qualified use of sapphire substrates with high yields and competitive costs. UTSi CMOS combines high-performance RF, mixed-signal, passive elements, nonvolatile memory and digital functions on a single device. Significant performance advantages exist over competing mixed-signal processes such as GaAs, SiGe BiCMOS and bulk silicon CMOS in applications where RF performance, low power and integration are paramount. Additionally, because UTSi SOS is fabricated in standard high-volume CMOS facilities, Peregrine products benefit from the fundamental cost

**–MORE–**

# NEWS RELEASE



**ADD TWO/PE4302/04**

effectiveness and high yields, scalability and integration of CMOS, while achieving the performance of SiGe and GaAs. And since sapphire is a near perfect insulator, UTSi SOS products can integrate high-quality passive devices directly into the IC, offering unprecedented levels of RF integration and cost effectiveness.

## **About Peregrine Semiconductor**

Peregrine Semiconductor Corporation designs, manufactures, and markets high-speed communications integrated circuits for the wireless, satellite and broadband cable communications markets. Using its patented Ultra-Thin-Silicon (UTSi<sup>®</sup>) CMOS process, Peregrine has developed a series of radio frequency IC products for high-growth applications, including CDMA and GSM digital cellular, and space and defense radiation hard ICs, and switching functions for video applications. Peregrine, headquartered in San Diego, California; maintains established design centers and operations in Chicago, IL; Aix-en-Provence, France; Sydney, Australia; and Tokyo, Japan. Additional information on Peregrine Semiconductor is available on its web site: [www.peregrine-semi.com](http://www.peregrine-semi.com). Contact Peregrine's worldwide distribution partner, Richardson Electronics (NASDAQ: RELL), for sales information at 1-800-737-6937.

*Peregrine Semiconductor is in no way affiliated with Peregrine Systems, a software company also based in San Diego, California.*

#####

The Peregrine Semiconductor name, logo and UTSi are registered trademarks of Peregrine Semiconductor Corporation. All other trademarks are the property of their respective owners.