

FOR IMMEDIATE RELEASE

## Orca Systems Announces its DSP-RF™ Platform for Radio Systems using Standard CMOS Technology

***Breakthrough Approach to Radio Architecture Provides Substantial Reductions in Silicon Area and Power Consumption without Compromising Performance***

Poway, Calif. – March 24, 2010 – [Orca Systems Inc.](#), a wireless technology licensing company, announced today its DSP-RF™ (Digital Signal Processing for Radio Frequency) Platform, a breakthrough approach to radio systems design based on a discrete time receiver architecture, DSP techniques, software tunable filters and loop-less frequency synthesis. Orca's DSP-RF Platform has been deployed in 90 nanometer (nm) and 65 nanometer (nm) standard complementary metal-oxide-semiconductor (CMOS) process nodes and is scalable in area, power and performance margin with smaller CMOS geometries.

The proliferation of wireless communication systems everywhere has created the necessity for major innovation in RF and digital design to achieve truly integrated and scalable multimode, multimedia solutions. Additionally, the complexity of radio design and number of RF paths required to support wideband, multiple-input and multiple-output, and multimode systems, has increased dramatically. Current analog design methods are cumbersome and inefficient since they are neither scalable nor programmable, leaving a large gap between digital and analog systems in meeting these growing demands.

Orca Systems began operations in 2006 specifically to solve the challenges presented by traditional analog design methods by delivering high performance radio systems using innovative digital architectures. Orca's patented DSP-RF Platform is a technology framework and system architecture used to develop custom radio solutions across a broad set of wireless standards.

"I have been in the RF/semiconductor industry for more than three decades and know firsthand what the problems are with analog design techniques. My experience was the inspiration for Orca to find solutions," said Guruswami Sridharan, founder and CEO of Orca Systems. "For example, we rejected the traditional phase-lock loop (PLL) approach for synthesis of frequencies, since in the traditional approach, achieving wide frequency range, fast frequency switching and accurate wide-band modulation are not easily possible. A traditional PLL prohibits the use of the synthesizer as a phase modulator and designers are forced to use IQ (in-phase and quadrature) up converters, which consume additional space and power."

"Our customers have been unable to achieve their product goals for features, size, power and performance using commercially available standard chips," noted Mr. Sridharan. "Using our DSP-RF they are seeing reductions for single path RF systems of 50 to 70 percent in silicon area. In addition, DSP-RF is providing radio performance that is on par with systems built using discrete components."

In addition to the benefits of size and power savings, the DSP-RF Platform also provides:

- Highly integrated solutions with minimal external components

(more)

- High performance radios applicable to systems requiring low noise figure, high dynamic range, and precise wideband modulation
- Scalable design footprint across CMOS geometries
- Flexibility in selection of CMOS process node

The DSP-RF Platform is extremely flexible with software tunable filtering and flexible design parameters enabling it to tackle any wireless standard with carrier frequencies at or below 6 GHz. Customer applications of DSP-RF to date have included Bluetooth as well as analog, digital and cable television.

**About Orca Systems Inc.**

Orca Systems is a technology company specializing in leading edge wireless chip design, implementing radio systems with innovative digital architectures. Orca's patented DSP-RF™ technology and systems expertise provide customers with high performance, small footprint and low power solutions across a broad set of wireless communication standards.

Orca is headquartered in Poway, California and has a development office in Bangalore, India. For further information please visit [www.orcasystems.com](http://www.orcasystems.com).

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