Skyworks' Second Generation Single-Chip Direct Conversion Transceiver Integrates New Functionality to Significantly Reduce Handset Manufacturing Costs

Highly Integrated Device Supports Multi-Band GSM/GPRS and EDGE Applications

WOBURN, Mass., Aug 20, 2002 (BUSINESS WIRE) -- Skyworks Solutions Inc. (Nasdaq:SWKS), the industry's leading wireless semiconductor company focused on radio frequency (RF) and complete semiconductor system solutions for mobile communications applications, today introduced a new single-chip direct conversion transceiver that simplifies the design of multi-band GSM handsets.

Building on the success of Skyworks' first-generation device, the company has also integrated the crystal oscillator circuitry and power amplifier controller functionality into a smaller 8mm x 8mm package, further reducing the customers' bill of materials cost by $1-2 per phone.

Skyworks' new CX74063 transceiver supports general packet radio service (GPRS) and downlink-enhanced data rates for global evolution (EDGE) standards, and provides a well-defined roadmap to dual-mode, wide-band code division multiple access (W-CDMA)/GSM universal mobile telecommunications (UMTS) handsets. These handsets will support such advanced applications as multimedia and high-speed Web browsing.

"I am extremely pleased with the market acceptance of our first generation direct conversion transceiver -- in a little over a year since the product was introduced, more than 20 customers have developed new handsets featuring our device," said Mohy Abdelgany, Skyworks' vice president of RF Systems.

"Our second-generation product is sampling now with lead customers and is already gaining momentum. We expect to see new GSM/GPRS handsets based on our design in the channel by the end of the year."

"Our latest single-chip implementation now includes integrated crystal oscillator circuitry and a power amplifier controller -- making this solution ideal for handset manufacturers looking to reduce the size and cost of new handsets while still addressing consumers' desire for new features and services," said Brian Daly, Skyworks' director of RF cellular marketing.

"Additionaly, as with our CX74017 transceiver, the direct conversion architecture used in our latest device eliminates the need for special baseband processing requirements providing our customers with the flexibility to combine this device with virtually any baseband solution currently available on the market."

Technical Details

Skyworks' new CX74063 device is based on the company's award-winning Full Type Approved (FTA) CX74017 single-chip direct conversion transceiver, which is included in more than 35 handset designs worldwide.

The CX74063's advanced architecture reduces the number of external components required to build a mobile handset by more than one-third, significantly reducing the size, cost and power requirements of next-generation GSM handsets. The device integrates all of the circuitry associated with generating a 13 MHz or 26 MHz system reference frequency, with the exception of the crystal.

In addition, it incorporates the power amplifier controller functionality when combined with a coupler, an RF detector and a power amplifier.

The CX74063 transceiver consists of integrated quad-band low-noise amplifiers (LNAs), a quadrature demodulator, baseband filters and a direct current (DC) offset correction sequencer. It uses a low-frequency, low-pass filter to perform all of the required tasks associated with rejecting in-band blocking signals and adjacent alternate channels.

This approach contrasts with superheterodyne architectures that require external surface acoustic wave (SAW) filters for each of the bands supported in a multi-band handset as well as a VHF voltage controlled oscillator (VCO).

As Skyworks' proprietary technology eliminates the intermediate-frequency (IF) conversion stage, all of the filtering for each of

the bands can be performed inexpensively, within a single package.

Key transceiver features include a translational loop structure on the transmitter side, consisting of an in-phase and quadrature (I/Q) modulator, offset mixer, phase detector and internal quad-band transmit VCOs without an external tank. The transmitter offers exceptionally high performance, thus also reducing the number of external components.

The local oscillator structure is formed around a fractional-N phase lock loop (PLL) with all components integrated with the exception of the external passive loop filter. Agile channel switching enables support of GPRS multi-slot operation, and key performance parameters are optimized through the use of Skyworks' internally developed, low-cost RF packaging technology.

Pricing and Availability

Skyworks' CX74063 transceiver is packaged in a 8mm x 8mm 56-pin RF land grid array (RFLGA) and is priced at $5.50 in quantities of 10,000. The CX74063 is sampling now to key customers, volume production is scheduled for the fourth calendar quarter of this year.

About Skyworks

Skyworks Solutions is the industry's leading wireless semiconductor company focused on radio RF and complete semiconductor system solutions for mobile communications applications. The company began operations in June 2002, following the completion of the merger between Alpha Industries Inc. and Conexant Systems Inc.'s wireless communications business.

Skyworks is focused on providing front-end modules, RF subsystems and cellular systems to wireless handset and infrastructure customers worldwide.

Skyworks has headquarters in Woburn, with executive offices in Newport Beach, Calif. The company has design, engineering, manufacturing, marketing, sales and service facilities throughout North America, Europe, Japan and Asia Pacific. For more information visit www.skyworksinc.com.

Safe Harbor Statement

This news release includes "forward-looking statements" intended to qualify for the safe harbor from liability established by the Private Securities Litigation Reform Act of 1995. These forward-looking statements include information relating to future results of Skyworks (including certain projections and business trends). All such statements are subject to certain risks and uncertainties that could cause actual results to differ materially from those projected, and may affect the company's future operating results, financial position and cash flows.

These risks and uncertainties include, but are not limited to: maintaining a consistent and reliable source of energy; global economic and market conditions, such as the cyclical nature of the semiconductor industry and the markets addressed by the company's and its customers' products; demand for and market acceptance of new and existing products; the ability to develop, manufacture and market innovative products in a rapidly changing technological environment; the ability to compete with products and prices in an intensely competitive industry; product obsolescence; losses or curtailments of purchases from key customers or the timing of customer inventory adjustments; the timing of new product introductions; the availability and extent of utilization of raw materials, critical manufacturing equipment and manufacturing capacity; pricing pressures and other competitive factors; changes in product mix; fluctuations in manufacturing yields; the ability to continue to grow and maintain an intellectual property portfolio and obtain needed licenses from third parties; the ability to attract and retain qualified personnel; labor relations of the company, its customers and suppliers; economic, social and political conditions in the countries in which Skyworks, its customers or its suppliers operate, including security risks, possible disruptions in transportation networks and fluctuations in foreign currency exchange rates; and the uncertainties of litigation, as well as other risks and uncertainties, including but not limited to those detailed from time to time in the company's Securities and Exchange Commission filings.

These forward-looking statements are made only as of the date hereof, and the company undertakes no obligation to update or revise the forward-looking statements, whether as a result of new information, future events or otherwise.

Note to editors:
Additional technical information and photos are available.

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