Infineon Launches Wireless Industry's Fastest and Most Energy Efficient Bluetooth Chips

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The state-of-the-art BlueMoon chip supports the new Enhanced Data Rate Protocol and triples data rate

Infineon Technologies AG today announced availability of the BlueMoon UniCellular chip - its newest, state-of-the-art integrated circuit for Bluetooth wireless applications. Three times faster than any classical Bluetooth solution, the new BlueMoon UniCellular chip is a single chip that has one of the industry's smallest packages. It supports the Version 2.0 Bluetooth standard, as well as the new Enhanced Data Rate (EDR) functionality, has extremely low power consumption and possesses excellent radio frequency characteristics, making it the best solution for GSM, EDGE and UMTS mobile phones.

BlueMoon UniCellular's new Enhanced Data Rate functionality will enable mobile handsets with wireless multimedia capabilities to exchange data three times faster within a ten meter personal range. The net data rate, previously 721 kilobits per second (kbps), becomes 2.1 Megabits per second (Mbps), while the energy budget for transmitting a single bit simultaneously goes down by a factor of three.

"Market experts anticipate that Bluetooth will soon be a standard interface in mobile phones such as IrDA is today. By 2007, we expect about every second mobile phone to be equipped with Bluetooth

functionality," said Dominik Bilo, Chief Marketing Officer of the Secure Mobile Solutions business group at Infineon Technologies AG. "Based on our extensive platform expertise, broad product portfolio and in-house system know-how, we support our customers in reducing complexity and reducing their time-to-market."

Technical details of the BlueMoon® UniCellular chip (PMB 8753)

Both the reduction of the package size to 5mm x 5mm and the decrease of the number of external components from at least nine to just six results in a Bluetooth chip that covers only 40 square millimeters of board space, which is half the size of solutions available on the market today. In addition, Infineon's Bluetooth transceiver features the industry's best radio frequency performance, providing an outstanding receiver sensitivity of -90 dBm (decibel milliwatts) even in Enhanced Data Rate mode. It surpasses by a factor of ten the required receiver sensitivity specified by the Bluetooth Standard, guaranteeing a high-quality, long-range communication link.

BlueMoon UniCellular, based on Infineon's 130nm CMOS process technology, has a power consumption that is about 35 percent lower than in the previous generation of Bluetooth solutions.

The BlueMoon UniCellular chip has successfully passed all interoperability tests in Basic Data Rate environments (1 Mbps gross data rate) as well as under Enhanced Data Rate environments (2 Mbps and 3Mbps gross data rate). With its flexible WLAN- co-existence interface (2 and 3-wire) it is well prepared to share the 2.4 GHz ISM (Industrial Scientific Medical) band with many WLAN solutions available on the market. Designed for output power Class 2 (10m range), the BlueMoon chip may be easily upgraded to Class 1 (100m range) by

an external power amplifier, making it the perfect choice for the upcoming Unlicensed Mobile Access (UMA) technology.

Infineon's Bluetooth offering is completed by a software stack perfectly supporting the enhanced feature set of the BlueMoon UniCellular chip. This flexible Bluetooth connectivity software matches many mobile phone architectures on the market and is part of Infineon's Cellular Platform offering.

Infineon is a leading supplier of Bluetooth devices for the cellular market with a dedicated Bluetooth portfolio of single-chip semiconductor solutions, modules, and software, and has shipped approximately 75 million devices so far.

Availability

Sample quantities of the BlueMoon® UniCellular chip are available today. Full production is expected to start mid 2005. The BlueMoon® UniCellular chip is offered in a WFLGA-56 lead-free and halogen-free package, which is a Very-Very Fine Pitch Land Grid Array package with 56 pins.

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