

# **Infineon Introduces Innovative, Space-Saving and Power-Saving Memory Products for Mobile and Handheld Applications**

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Munich, Germany – June 14, 2004 – Infineon Technologies AG today announced new memory products for mobile applications such as notebooks, and for handheld products like cellular phones and PDAs, extending the company's broad range of high speed, space saving and low power memory products.

- 1GB (Gigabyte) SO-DIMM (Small outline DIMM) DDR2-400 and DDR2-533 modules based on 512Mbit DDR2 single-die components
- A new generation of Mobile-RAM with 1.8 Volt power supply to reduce power consumption for handheld devices up to 80 percent
- 16Mbit and 32Mbit CellularRAM targeting the wireless handset market

## **New 1GB DDR2 SO-DIMMs**

Infineon has released first engineering samples of its 1GB (Gigabyte) DDR2 Planar SO-DIMM (Small outline DIMM) for next generation high-end notebooks and laptop PCs, which require a reduced module thickness due to their smaller dimensions. This innovative so-called "planar" design allows placement of 16 x 512Mbit DDR2 single-die components on both sides of the module to reach a total density of 1GB. Until now 1 GB DDR2 SO-DIMMS were only feasible with stacked dual-die components.

They exceeded the restrictions of JEDEC (Joint Electron Device Engineering Council) with 3.8 mm thickness per module to fulfil space

and thermal requirements. The 1GB DDR2 Planar SO-DIMM manufactured by Infineon is as thick as 3.8 mm thus offering optimized space and thermal conditions. It is organized in 2 ranks and operates at 1,8 Volt. According to market research firm iSuppli the demand for notebook units will increase from around 36.1 million units in 2003 to approx 52.2 units in 2006 with an average growth rate of 13 percent per year.

Samples are available at US-Dollar 300 for the 1GB SO-DIMM DDR2-400 and at US-Dollar 400 for the 1GB SO-DIMM DDR2-533. For further information please go to: [www.infineon.com/memory](http://www.infineon.com/memory)

## **Extended Battery Lifetime for Handhelds with 1.8 Volt Mobile-RAM**

Infineon's new Mobile-RAM generation with a 1.8 Volt power supply for PDAs and cellular phones is now available. The components offered in 128Mb and 256Mb densities significantly decrease power consumption by 80 per cent compared to a conventional SDRAM. The built-in temperature sensor developed by Infineon adapts independently the refresh rate to the actual junction temperature of the chip, without draining any CPU power for this purpose. The extra compact chip scale package meets the needs for all space constraint applications. Mobile-RAM is ideally suited for use as main or buffer memory in handheld electronics devices, such as PDAs, cellular phones, digital still cameras and MP3 players. Infineon expects major conversion of the Mobile-RAM market from 2.5 V to 1.8 V for mid 2005.

For further information please go to: [www.infineon.com/Mobile-RAM](http://www.infineon.com/Mobile-RAM)

## **Infineon complements memory portfolio with CellularRAM for 2.5G and 3G Wireless Handsets**

CellularRAM are Pseudo SRAMs (PSRAMs) specifically designed and tailored for future 2.5G and 3G handsets, which require increased memory and higher bandwidth due to their multimedia and camera functionalities and coloured displays. According to market research firm iSuppli (April 2004), PSRAM is the preferred memory solution in 40 per cent of cell phone designs in 2004, rising up to 56 per cent in 2008. Only Infineon and Micron are currently offering CellularRAM at 1.8 V with synchronous burst mode which allows higher bandwidth. CellularRAM is about to become the de-facto industry standard supported by Micron, Cypress, Renesas and Infineon.

The Infineon CellularRAM is available now in 16-Mbit and 32-Mbit-densities operating at 1.8 V with 70 ns SRAM access time and 80 MHz burst frequency. Samples of the 64Mbit are expected by the fourth quarter of calendar year 2004 and a 128Mbit CellularRAM is planned for the first quarter of calendar year 2005. For further information, please go to: [www.infineon.com/memory/CellularRam](http://www.infineon.com/memory/CellularRam).

The original press release can be found [here](#).

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