ADSL2+ Chip from Infineon Sets New Standards for Power Consumption and System Costs

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The German semiconductor manufacturer Infineon Technologies AG has introduced the world's smallest and most economical chip for "ADSL2+" - the DSL data network of the future. This chip enables telecommunications companies to boost the number of super-high-speed DSL connections that they offer to their customers by approximately one third - without additional investments for cooling or for power supply and without changing cabinet sizes. With ADSL2+, which is expected to be launched as a service on a wide scale in 2006, a conventional telephone connection is sufficient to surf the Internet, receive multiple television channels and place a telephone call all at the same time.

"With the new semiconductor chip for future DSL central offices, Infineon Technologies is underscoring its leading role in the booming market for the chips that are being used in broadband data networks," emphasizes Christian Wolff, Vice President Communications Business Group and General Manager Wireline Access Business Unit at Infineon. At the beginning of 2005, there were approximately 100 million DSL connections throughout the world. Approximately 40 percent of these connections were added last year. This growth is expected to continue over the next few years. In the process, the new ADSL2+ standard is to replace the current DSL connections soon. With ADSL2+, data can be transmitted at up to 25 megabits per second. This is approximately ten to twenty times faster than the DSL connections that are typically in use today, and it is sufficient to transmit several high-definition television

broadcasts, Internet data and inexpensive Internet telephone calls simultaneously.

Less Heat – More Connections Within the Same Space

The new “GEMINAX PRO” ADSL2+ chipset from Infineon offers DSL central offices performance features that are unmatched to date. Power consumption is about 30 percent lower than is the case with conventional chips, and a correspondingly lower amount of heat is produced. Thanks to these features and to the small overall size, it is possible to install the chips in switching systems at much higher densities without requiring any additional cooling. Over all, GEMINAX PRO now makes it possible to install approximately one third more ADSL2+ connections without increasing the amount of cabinet space that is required.

The “switched-mode” technology that is used in GEMINAX PRO is already being employed widely in portable audio devices (such as MP3 players) due to its extremely low power consumption levels. Through a multitude of technological innovations, Infineon’s developers have now succeeded in adapting and advancing this technology for broadband applications, although the requirements in this area are much more stringent and the frequency that is used is 100 times higher. The first prototypes for the new chip will be shipped in May, and volume production will begin in autumn 2005.