Infineon Introduces First Fully Integrated iLDD Single Chip Solution for Optical Data- and Telecom Systems

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Infineon Technologies AG (FSE/NYSE: IFX) today announced the industry first intelligent Laser Diode Driver (iLDD) targeting Small Form Factor (SFF) and Small Form Pluggable (SFP) optical transceiver applications for fiber based data storage and telecom systems. The single-chip solution integrates the Laser Diode Driver (LDD), the Post Amplifier (PA) and the Diagnostic Unit (DU). The digital Diagnostic Unit intelligently controls the performance of the entire optical module over the full data-rate range from 155 Mbps up to 4.25 Gbps and keeps track of laser safety regulations. Benefits to optical module manufacturers using the single-chip solution include lower cost, decreased power consumption and an improved error-rate.

The first module application, an Infineon 4.25 Gbps multi-rate transceiver, will be demonstrated at ECOC 2004 trade show in Stockholm (Hall C, stand 480), September 6 - 8.

“We are committed to provide the critical key technologies to optimize the increasing data traffic on Gigabit Ethernet, Fibre Channel and SONET/SDH fiber networks,” said Christian Scherp, Vice President and General Manger of Infineon’s North America Wireline Communications business group. “The highly integrated iLDD is one of the most versatile solutions in the market enabling our customers to develop systems for fiber-based Backbone as well as Access Networks and reducing their overall costs.”

The rapid growth of Internet-based applications such as e-mail, e-commerce, digital imaging or networked databases demands decentralized data storage centers (Storage Area Networks or SANs) for disaster resiliency and to meet legislative requirements with regards to data safety. Hence the increased storage transport and need for Fibre Channel (FC) interfaces that seamlessly and cost efficiently interconnect distributed SAN sites for enterprise customers. According to market research firm iSuppli (September 2003) the market for Gigabit Ethernet, Fibre Channel and SONET/SDH transceivers is expected to grow from US-dollar 1.2 billion in 2003 to US-dollar 3.9 billion in 2008 with a compound annual growth rate of approximately 26 per cent.

About iLDD

The iLDD chip supports data rates from 155 Mbps up to 4.25 Gbps, offers a high input sensitivity of 4 mV and is capable to drive Vertical Cavity Surface Emitting Laser (VCSEL) as well as edge-emitting laser. The device is fully MSA SFF-8472 compliant, operates from a single supply voltage with extended range from 2.85 V to 3.63 V and has a very low power consumption of 200 mW. It complies with Gigabit Ethernet, Fibre Channel and SONET/SDH standards, which makes it a perfect fit for Small Form Factor (SFF) and Small Form Pluggable (SFP) transceivers.

First samples of the iLDD chip are available now in a VQFN-40 package. Volume production is planned to start in the fourth quarter of Calendar Year 2004.