

## **Development of 10Gbps 80km Transceiver with Built-in EDC Circuit and DML**

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Sumitomo Electric Industries, Ltd.

Tokyo, Japan, September 18, 2008 — Sumitomo Electric Industries, Ltd. (TOKYO: 5802) (ISIN: JP3407400005), a leader in optical solutions, today announced that it is expanding its 10Gbps portfolio with the introduction of an integrated direct modulation laser diode (DML) and a built-in electronic dispersion compensation (EDC) feature for use in 80km transceivers. Sumitomo Electric will unveil its 10G transceiver portfolio at the 34th European Conference and Exhibition on Optical Communication (ECOC 2008).

Previously DMLs were used in transceivers up to data rates of 2.5Gbps. At 10Gbps ZR applications, DMLs were not a reliable light source because transmission distance was limited by chromatic dispersion due to optical spectrum chirping. As a result, light sources such as those combined with an expensive external modulation laser diode (EML) had to be used for this application.

This design is the first product to integrate a DML and an EDC circuit internally to the transceiver. By providing improved chirp characteristics in the DML and combining it with a receiver having a built-in EDC capability, this product offers a low cost integrated solution for long distance applications. This combination enables 10Gbps transmission over 80 km using a low cost DML and benefits system designers by eliminating an external modulator and wasted board space. Another key design feature, in addition to enhanced packaging, is that EDC is based on the maximum likelihood sequence estimation (MLSE) technique. The EDC circuit has not only an electronic dispersion compensation function, but also a digital signal processing function.

“We are very pleased with our continued advancements in 10Gbps long reach packaging. Sumitomo Electric’s DML technology has been tested with the performance of MLSE PHY. Together these technologies provide a very compelling value proposition to the optical networking market,” said Terry Fujitani, Head of the Lightwave Technologies Department of Sumitomo Electric.

Sumitomo Electric plans to launch 10 Gbps transceivers such as X2, XFP, and SFP+ using this technology in the market beginning in 2009. Sumitomo Electric will demonstrate this new 10Gbps technology at ECOC 2008 held in Brussel, Belgium in Booth 257.

### **About Sumitomo Electric Industries, Ltd.**

Sumitomo Electric Industries, Ltd. designs, manufactures and sells optical fiber, cable and components, advanced electronic devices, and automotive parts. Through a successful strategy of research and diversification, Sumitomo Electric has become one of the world's leading companies at the forefront of the revolution in information and communications. Sumitomo Electric's world-class research and manufacturing capabilities in optical technology continue to expand and strengthen the product portfolio while maintaining industry leading levels of reliability. The Company has operations around the world in more than 30 countries and employs over 150,000 people. Sumitomo Electric reported group net sales of \$25.3 billion for the year ended March 2008.

[www.sei.co.jp/index.en.html](http://www.sei.co.jp/index.en.html)

## **About ExceLight Communications**

ExceLight Communications, Inc., a subsidiary of Sumitomo Electric, is a leading provider of optical components and modules to the telecom, CATV, broadband, and data communications markets. ExceLight offers a comprehensive array of transceivers, transmitters, receivers, lasers, photodiodes, and passive components. Sumitomo Electric's world-class research and manufacturing capabilities in optical technology continue to expand and strengthen the product portfolio while maintaining industry-leading levels of reliability. ExceLight focuses on the "Americas" (geographically) and the well-established global presence of Sumitomo Electric allows integrated support to customer facilities throughout the world.

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