

3S PHOTONICS Announces Successful 20Gbit/s Transmission Test of its 1915 LMA Directly Modulated Analog Laser Module

3S PHOTONICS' new 1915 LMA 1550nm analog DFB laser module has been successfully tested at 19Gbit/s over 25km of single mode fiber without any chromatic dispersion compensation. These are promising results for Next-Generation broadband optical access networks

Nozay, November 5, 2009 – 3S PHOTONICS, world-leading French manufacturer of optical and optoelectronic components for telecommunications networks, today announced that a prototype of its *1915 LMA Series* of Next-Generation directly modulated 1550nm high bandwidth analog laser modules – introduced at ECOC in September – has been successfully tested at 19Gbit/s over 25km of single mode fiber without any chromatic dispersion compensation, and using OFDM¹ modulation format.

The *1915 LMA* prototype, presenting a 7GHz bandwidth and a +7dBm output power, was tested by Orange Labs in Lannion (France) within the EPOD² telecom project, sponsored by the French National Research Agency – ANR.

A fully satisfactory 19Gbit/s transmission over a 25km single-mode optical fiber link was experimentally demonstrated using Discrete Multi-Tone modulation (DMT), a modulation format which is already widely deployed for xDSL-type copper lines (Digital Subscriber Line). The DMT signal contains 255 sub-carriers spread over 5GHz. Transmission was achieved without any chromatic dispersion compensation and with a 8.5GHz bandwidth APD-based receiver module.

These very promising experimental results reinforce the credibility of using OFDM modulation applied on a directly modulated analog laser module to design the Next-Generation of low cost broadband optical access networks.

Additional tests are underway to demonstrate product's transmission capability at 40Gbit/s.



¹ OFDM : Orthogonal Frequency Division Multiplexing

² EPOD - Enhanced PON using OFDM modulation format – is primarily dedicated to access (FTTH) and metropolitan telecom markets, urban connections from 200 to 300 km. Orange Labs, the R&D division of the French telecom provider leads the EPOD project that also gathers French manufacturer 3S PHOTONICS and academic partners as LISIF (Laboratories of Electronics and Electromagnetism – L2E of Paris region) and a XLIM research team from University of Limoges / CNRS. Planned for 24 months, EPOD started early February 2009.

About 3S PHOTONICS

3S PHOTONICS – formerly Alcatel Optronics – is the leading world manufacturer of laser chips, optical discrete modules and components for telecommunication networks. It designs, develops, manufactures and commercializes active components powered by in-house III-V optoelectronic chips based on both Gallium Arsenide (GaAs) and Indium Phosphide (InP) technologies and passive components using Fiber Bragg Gratings (FBG).

The 3S PHOTONICS renowned optoelectronic chip manufacturing plant of Nozay is a technological feat that is unique in the world as it brings together GaAs and InP technologies under the same roof.

Its product portfolio includes five product lines:

- * Transmission Laser and Detector Modules
- * Pump Laser Modules for terrestrial and submarine applications
- * Chromatic Dispersion Compensation Modules
- * Filters, gain equalizers and pump stabilizers based on Fiber Bragg Gratings for terrestrial and submarine applications
- * Chips (lasers and detectors) and Front End Services

With over 14 years of experience, the company takes advantage of its expertise and know-how to also address new markets, providing smart solutions for defense, industrial and medical applications.

Based in Nozay (Essonne near Paris), 3S PHOTONICS is run by Alexandre Krivine and Didier Sauvage. The company employs over 160 people, of which 130 are experts in the photonics industry.

www.3Sphotonics.com

Press Relation

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