Press release

Future of telecoms: 3S PHOTONICS takes part in the EPOD project, commissioned by the French National Research Agency

3S PHOTONICS enters the FTTH market

EPOD objective:
Low-cost fiber-optic Broadband Internet services with new frequency modulation formats based on optical fiber

Nozay, April 20 2009 - 3S PHOTONICS, the leading French manufacturer of optical components for telecommunication networks, and its partners, won a competitive bid from the French National Research Agency - ANR - for the industrial research project named EPOD.

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.

These networks will face the increased customer demands for faster and higher speed broadband access due to the emergence of new services like triple-play bundles or Ultra-High Definition Video (UHDV), HD Video-on-Demand, video conferencing, interactive online gaming...

According to the EPOD project's forecast, FTTH must reach 12% of total broadband connections in France by the end of 2012 (compared to less than 1% at the end of 2007).

"The EPOD project is part of the theme VERSO - Future Networks and Services - of the National Research Agency. Its mission is to design Next-Generation telecom networks based on optical fiber by associating new-generation optical components with new frequency modulation formats. It aims at generating a low-cost, ultra-high capacity broadband access for tomorrow's needs", explains Didier Sauvage, member of the board and CTO at 3S PHOTONICS.

This performance is made possible by the implementation of new networks architectures like TDM or WDM PON (Passive Optical Networks). They will combine new optical components with OFDM modulation format - Orthogonal Frequency Division Multiplexing - derived from radio transmission.

Planned for 24 months, EPOD started early February 2009.

A 40 Gbit/s rate achieved within a bandwidth of only 10 GHz

EPOD is the French equivalent of the European project ALPHA - launched in January 2008 – in which 3S PHOTONICS is also involved. EPOD aims at increasing optical telecom network bit rates thanks to the OFDM modulation format.

OFDM enhances spectral efficiency of the transmitted signals which become more resistant to chromatic dispersion. It enables significant cost reduction by using opto-electronic components which can provide over 40 Gbit/s with an intrinsic bandwidth of "only" 10 GHz.

Orange Labs and 3S PHOTONICS will be in charge of working on system architecture. 3S PHOTONICS will supply optical transmitter modules (lasers) and receivers (photodiodes) with very good linearity to avoid noise distortions. These components will be tested by Orange Labs on target architectures, based on Time Division Multiplexing (TDM) or Wavelength Division Multiplexing (WDM).

The EPOD project will take benefit of LISIF's expertise in terms of TIA (Trans-Impedance Amplifier). The XLIM team will be in charge of system modelling with the OFDM modulation format.

The French project embraces 3 phases:

- market requirements analysis and specifications,
- two runs of prototypes to be tested by Orange Labs,
- validation of components' compatibility with future networks.

3S PHOTONICS' goal is to provide high quality optical products, ready to equip telecom networks.

In the future, these applications developed for the EPOD project could be extended to long-haul terrestrial and submarine optical networks.

About 3S PHOTONICS

3S PHOTONICS – formerly Alcatel Optronics – is a leading supplier of optical discrete modules 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 four product lines:
* Chips (lasers and detectors) and Front End Services
* Transmission Laser and Detector Modules
* Pump Laser Modules for terrestrial and submarine applications
* Filters, gain equalizers and pump stabilizers based on Fiber Bragg Gratings for terrestrial and submarine applications

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

PR contacts
Agence Clipping-traitdunion
Muriel Grimaldi / Audrey Bouchard
Tél. : +33 1 44 59 68 39 / 35
E-mail : muriel@clipping-tu.com / audrey@clipping-tu.com