



Press release

3S PHOTONICS Unveils Industry's Most Powerful 980nm Pump Laser Module for Submarine Optical Communication Networks at ECOC 2009

By Introducing its Next-Generation 1996 SGP Series Pump Laser Modules Capable of Delivering 600mW of Optical Power under Submarine Operating Conditions, 3S PHOTONICS Leverages its Historical Leadership in Ultra-High Reliability Pumps and Enables the Design of Next-Generation 10G & 40G Undersea Optical Amplifiers

Nozay, September 18, 2009 – 3S PHOTONICS, the world-class French manufacturer of optical and optoelectronic components for telecommunication networks, and leading supplier of ultra-high reliability components for undersea optical networks today announced that it will unveil its Next-Generation 1996 SGP Series 980nm submarine-grade pump modules at ECOC 2009 in Vienna from September 21-23 at 3S PHOTONICS Booth No.117.

Capable of providing 600mW of ex-fiber optical power, the 1996 SGP Series is by far the industry's most powerful 980nm pump laser module available as of today for submarine optical networking applications. Its unparalleled performance and ultra-high reliability levels enable cost-effective design solutions for the deployment of Next-Generation 10G & 40G optical amplifiers into the submerged repeaters which are distributed along the submarine intercontinental cables.

This new pump module complements the current high power pump generation – 1994 SGP - under field deployment for more than 3 years and address new customer needs for increased power.

"NEC is extremely pleased to deploy 3S PHOTONICS submarine pumps that contribute to the successful deployment of state-of-the-art submarine cable systems" comments Osamu Harada, General Manager of NEC's Submarine Networks Division. "New submarine systems will require much higher power levels and NEC has actively been collaborating with 3S PHOTONICS for the successful development and manufacturing of Next-Generation Submarine Cable Systems".

1996 SGP Series performance and ability to meet the extremely demanding submarine reliability requirements represents a key technological breakthrough for the submarine community, step-forward enabled by an ambitious development program launched by 3S PHOTONICS, many technical results of which have already been published in various proceedings.

State-of-the-art performance has been announced with optimized chip structures allowing to reduce internal losses down to record values as low as $0.55 - 0.60 \text{ cm}^{-1}$ and to keep high external efficiencies. New designs also allow to keep low junction temperatures and injection current densities. Those results translate to the completion of the initial objectives of increasing operating power in excess of 600mW at the module level while meeting the stringent reliability requirements.

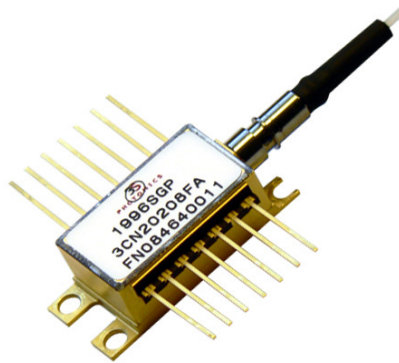
The construction of those pump modules is based on the renowned double-lens coupling platform which has proven its reliability since active components are field deployed for more than a decade in quantities over twenty thousand worldwide with no failures. Extremely long term aging tests have demonstrated the extremely high stability of the construction and typical expected end of life (EOL) power drifts are less than 2% over a 25-year lifetime.

“This platform is today the most deployed in the world so we can proudly and solidly refer to our submarine experience without the need to consolidate reliability information captured from a terrestrial platform as our competitors do”, said Yannick Bailly, VP Marketing and Product Management at 3S PHOTONICS. “Terrestrial information does not take into account the extended warranty periods requested by submarine customers and the imperative obligation of traceability for the product lifetime” he added.

3S PHOTONICS long-term strength in the area of high reliability products rely on well-mastered assembly technologies and processes, an extensive set of quality checks from kitting up to the final control before shipping, plus dedicated chip and module pedigree reviews.

“These are the key elements to guarantee to our customers the quality and reliability levels required by the submarine community”, said Michel Privat, COO and VP Sales for 3S PHOTONICS. “This new product enlarges our product portfolio for submarine applications and strengthen our position of strategic supplier with regard to submarine system makers”.

Currently, 3S PHOTONICS submarine-grade product portfolio extends beyond 980nm pump modules and includes a full range of FBG-based filters and monitoring PIN photodiodes fitted in an ultra compact package. 3S PHOTONICS strives to excellence in quality, performance and reliability, so the expectation is to see these high reliability products be used beyond the submarine field, in the spatial and defense areas.



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

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