

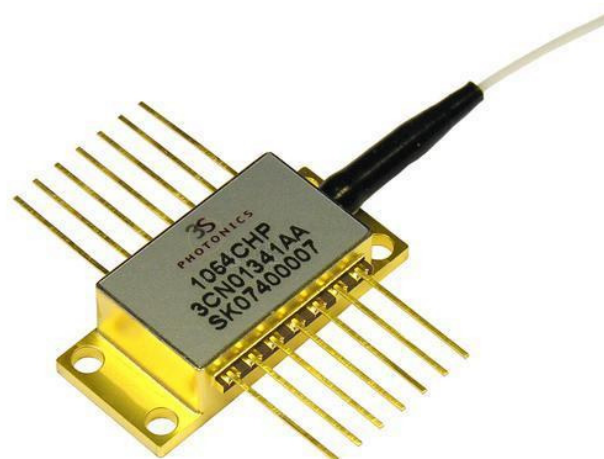
## 3S PHOTONICS Demonstrates Reliable Pulsed-Operation of 1064nm Wavelength-Stabilized Diode Lasers at High Power

**Nozay, France - January 27<sup>th</sup>, 2010** -- 3S PHOTONICS, world-leading French manufacturer of optical and optoelectronic components for telecommunication networks, demonstrated reliable pulsed-operation of its 1064nm wavelength-stabilized diode lasers at high power during a technical presentation at the SPIE Photonics West exhibition held in San Francisco, USA.

Most pulsed fiber lasers are built on a Master Oscillator – Power Amplifier (MOPA) architecture. This configuration has the advantage, among others, of exploiting direct modulation of the diode laser seed (the MO) to reach high repetition rates and high peak-power pulsed operation. To enhance the fiber lasers global performance and reliability, high power single-lateral-mode 1064nm diodes with outstanding long-term behavior are needed. The reliability of these devices at high power has been a challenge for years, due to the high built-in strain in the Quantum Well (QW).

*“The 1064nm single-lateral-mode laser diodes developed by 3S PHOTONICS have demonstrated state-of-the-art reliability results, in both continuous wave and pulsed conditions exceeding 1W peak-power at 2.35A”* explained Yannick Bailly, Vice-President of Marketing and Product Lines Management at 3S PHOTONICS. *“Aging tests in continuous wave conditions prove the intrinsic robustness of our 1064 CHP seed laser modules even at very high junction temperatures, while specific tests in pulsed-operation at 45 °C and high repetition rates of several hundred kHz, confirm the stability of the devices in accelerated conditions representative of operating applications.”*

Both free-running and wavelength stabilized - by means of a Fiber Bragg Grating (FBG) - packaged devices show very stable performances under pulsed conditions.



### **About 3S PHOTONICS**

3S PHOTONICS – formerly Alcatel Optronics – is a world-leading French 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 15 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 (near Paris, France), 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](http://www.3Sphotonics.com)**

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