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## Newsletter October 2010

### Highly reliable High-Power Laser Diode Arrays for Industrial, Medical and Scientific Applications

Cher client,

For your industrial, medical as well as scientific application, Coherent is offering highly reliable laser diode arrays with high-power output and high efficiency.

For transversal pumping of diode-pumped solid-state lasers, Coherent offers the new [PulseLife™ Horizontal Arrays](#). These PulseLife™ Horizontal Arrays are specifically designed for outstanding reliability and high CW as well as QCW output power. By using our PulseLife™ hard-solder technology those arrays are capable for on/off-operation. There are 2-bar and 3-bar configurations for CW-operation and 5-bar configurations for QCW-operation available. Currently the rated power per bar is 50 W CW and 200 W peak power for QCW operation. Moreover, customized configurations with a different number of bars per array and higher output power are available on request. The QCW arrays are conduction-cooled, whereas the CW arrays are water-cooled. The water channels in our CW arrays can handle distilled or cleaned tap water.

If you are looking for very high peak powers from a conduction-cooled device, our [PulseLife™ G-Stacks](#) might be the product of choice for you. This hard soldered, passively cooled vertical QCW laser diode stack is available in configurations with up to 16 bars per array. A peak power level of up to 200 W QCW per bar can be specified. Even at high operating temperatures (up to 50°C) the stacks show impressive conversion efficiencies of more than 50%. This makes our PulseLife™ G-Stacks a very high efficient and extremely reliable product line.



With our micro-channel cooled [Onyx™](#) laser diode arrays we offer you the opportunity to achieve very high power densities. Available are single-bar packages, vertical arrays as well as two dimensional arrays with up to 100 W per bar at all available

wavelengths (808, 915, 940 and 980 nm). Depending on the number of bars output powers of up to 50 kW CW are achievable.

Key feature of the Onyx™ 9001 platform is the very small bar-pitch of 1.6 mm only, which enables a very high brightness and power density. As option a fast-axis collimation is available. If you require a both-axis collimated laser diode beam for your application, our Onyx™ 9000 platform will be the best choice for you. All our Onyx™ actively cooled laser diode bars are on/off cycle capable and show excellent reliability under real life operation conditions.

We are more than happy to discuss your application and requirement and support you in identifying the appropriate laser diode for your needs.

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#### **About Coherent, Inc.**

**Founded in 1966, Coherent, Inc. is a world leader in providing laser-based solutions to the commercial and scientific research markets.**

To find out more about Coherent, visit our website at [www.coherent.fr](http://www.coherent.fr) or call 01 69 85 51 45.

**Visit Coherent, a world leader in providing laser-based solutions to the commercial and scientific research markets with the largest Laser-Portfolio.**

### **Superior Reliability & Performance**

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