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New Green Laser Supports Cost Sensitive, High-Throughput Micromachining

Santa Clara, Calif., June 15, 2009 – The new MATRIX™ 532-8-100 is a Q-switched, diode pumped, solid state laser designed to deliver the best cost to performance ratio for demanding micromachining tasks in solar, semiconductor and medical device manufacturing. Specifically, it provides 8W of output power at 532 nm at a pulse rate of 100 kHz, in order to support high-throughput applications. Just as important, it is constructed using Coherent's unique PermAlign™ (soldered) component mounting technology using robotic assembly methods, and incorporates proven, long-lived components such as Aluminum Free Active Area (AAA™) pump diodes. Together, these factors deliver an unmatched combination of long lifetime, high reliability and low total cost of ownership. The MATRIX 532-8-100 is RoHS compliant and backed by an 18 month/10,000 hour warranty.

The MATRIX 532-8-100 achieves superior machining quality due to its high power stability (<2%), exceptionally low pulse-to-pulse noise (typically <2% rms), excellent pointing stability (<15 µrad/°C), and good beam quality ($M^2 < 1.3$). Together with its high peak power and short pulsewidth (< 35 ns), these characteristics enable the consistent production of micron scale features in a variety of materials, with minimal heat affected zones. In addition, the MATRIX 532-8-100 provides complete control over pulse energy and timing from the first to the last pulse to guarantee controlled, predictable and uniform results.

The MATRIX 532-8-100 is primarily intended for cost sensitive, high throughput applications in which product quality cannot be compromised. These include P1, P2, P3 thin-film patterning of a:Si, CdTe, and CIGS solar cells, as well as dicing, scribing, and trimming of semiconductor materials, in addition to cutting and drilling of polymers. Other applications include marking of a wide range of materials, such as ID cards, solar cells, silicon wafers, LCDs, FPDs, hard disks, and semiconductor components.

Founded in 1966, Coherent, Inc. is a Russell 2000 Index company and a world leader in providing laser-based solutions to the commercial and scientific research markets. Please direct any questions to Jörg Heller, Product Line Manager, at +49-(0)451 3000 365. For more information about Coherent, including product and financial updates, visit our website at <http://www.Coherent.com>.