# Smart Lasers Have Control Functions Integrated Inside Laser Head

Coherent Inc. has launched a family of highly integrated lasers featuring true plug-and-play simplicity. Based on direct diode and optically pumped semiconductor laser (OPSL) technologies and using state-of-the-art miniaturized components, these lasers have all the control functions integrated inside its compact laser head, in contrast to the traditional architecture of head, dedicated cable and controller. Ranging in power up to 100 mW, the initial product offering includes models at seven wavelengths from the UV through near-IR: 375, 405, 445, 488, 640 nm, 660, and 785 nm, all with a circular TEM00 output beam. And the inherent wavelength scalability of OPSL technology will enable new wavelengths to be developed as driven by market demand

OBIS offers advanced functionality developed in response to customer requests for greater ease of integration and operation. For example, OBIS includes multiple interface control options as well as operational monitoring functions, all integrated in the industry’s most compact laser head for this power range (38 x 40 x 70 mm). OBIS also permits direct high speed digital and analog modulation (up to 150 MHz). And OBIS lasers are available in the widest range of wavelengths and output powers through the use of two well-proven technologies—direct diode and OPSL. Yet every model offers identical form, fit, and function; mechanical, optical, and electrical. This enables end users to rapidly switch wavelengths in any setup and provides faster, lower-cost time to market for OEMs, both for new products and for upgraded wavelengths in existing instruments. In addition to the benefits of performance and operational simplicity, the new OBIS platform is targeted to be the value leader in the market.

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