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Next-generation uniLDD laser diode drivers by EKSPLA deliver high currents with exceptional stability

EKSPLA has launched the second generation of its uniLDD laser diode drivers line. The updated drivers offer currents from 10 A up to 1200 A at pulse ripple and peak-to-peak stability of <0.1 %, making them suitable for the most demanding requirements of laser manufacturers.

EKSPLA's uniLDD laser diode drivers are employed in high-power and ultra-stable pumping of **femtosecond, picosecond, nanosecond & CW** Diode-Pumped Solid-State Lasers (DPSSLs) as well as **direct-diode lasers**. UniLDD series laser diode controllers are compatible with a wide range of diodes (single emitters, bars, stacks, VCSELs, LEDs) and support both pulsed (QCW) and continuous (CW) operation modes. The main application areas include industrial, medical and scientific fields.

Every uniLDD driver is built for exceptional current stability (0.1 % peak-to-peak) and **ultra-low ripple** (<0.1 %), ensuring precise control of laser power, temperature, and wavelength, which results in optimal outcomes for the user's applications.

The majority of models include an option to activate up to two integrated, independent TEC control channels, allowing to control both laser diodes and Peltier elements for superior thermal management — all from a single driver.

Additionally, the uniLDD series' modular design provides the utmost convenience for **OEM integrators**, as each version can be promptly **tailored to meet individual system requirements**. Ekspla can customize the drivers to optimize the system's peak performance thanks to extensive knowledge of DPSSL design and a long history of helping other laser manufacturers unlock the potential of their laser sources.

What sets EKSPLA apart is its **30+ years of hands-on expertise in award-winning laser design**, which ensures that uniLDD drivers are developed with a thorough understanding of real-world system requirements and end-user needs. To date, laser electronics created by Ekspla have been the heart and soul of 30 000+ laser systems.

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