QuixX®
Picosecond pulsed diode laser

Quick Facts

- Picosecond pulsed operation with down to 50ps pulse duration and single-shot to 100MHz repetition rate via internal or external triggering*

- Available at many wavelengths in 375-2090nm range with up to 500mW (CW) and 2.5W peak power (ps)*

- Integrated programmable frequency up to 100MHz with ultra-low jitter

- Synchronization output (SYNC-out) with programmable delay generator

- Continuous Wave (CW) operation in ACC and APC mode

- Analogue and digital modulation up to 1MHz in both, picosecond and CW operation

- Full ON/OFF shutter function up to 150kHz

- Highly integrated one-box solution – no external controller required

- RS-232 and USB 2.0 interface

- Windows™ based laser control software included

  *depending on specific laser model

Visit our Website
for more details

QuixX®
Picosecond pulsed diode laser

- The Multitool -

Picosecond & CW mode

User adjustable pulse-shape

Arbitrary frequency generator

Programmable delay generator

Modulation & gating capability

Highest fibre coupling efficiency

- UV / VIS / IR -

QuixX®

Picosecond pulsed diode laser

... the Multitool

Programmable delay generator

For easy synchronization of external devices like cameras, fast detectors or sensors the laser has an integrated delay generator for its SYNC output signal.
The Pulse-to-SYNC signal can be delayed by up to 28 nanoseconds with 10 picoseconds in resolution. This function can also be used to daisy-chain multiple QuixX lasers in Master/Slave setups.

Picosecond & CW mode

The laser is able to emit ultrashort pulses down to 50 picoseconds as well as continuous wave (CW). Low pulse-to-pulse jitter <2ps in picosecond mode as well as high stability and low noise emission in CW mode is assured by latest high-end quality electronics.

Modulation & gating capability

In both, picosecond and CW operation, the QuixX offers full intensity modulation and gating by external analog and digital modulation signals at high frequencies.

User adjustable pulse-shape

In picosecond mode the pulse-shape can be adjusted in shape, height and repetition-rate comfortably by software control. In "low-power"-mode the laser does produce Gaussian shaped pulses without any aftershoot / shoulder. In "high-power"-mode a higher peak and average power is achieved compromising some aftershoot. In the additional "expert"-mode, any pulse-shape between low-power and high-power mode can be adjusted.

Highest fibre coupling efficiency

Due to Omicron´s proprietary focal shaping technology, the natural astigmatism of laser diodes is eliminated, producing a high quality laser beam with perfect focusability. In free-space application the laser can be focused near to the diffraction limit resulting in a round, Gaussian focal point. This also enables very high fibre coupling efficiency into single-mode fibres.

Arbitrary frequency generator

The built-in software programmable function generator can generate frequencies from 1 Hz to 100 MHz with very low jitter. Just like an external high-end function generator.