

TPLD

Picosecond Pulsed Diode Sources

Compact pulsed laser-diode sources with internal repetition-rate settings and external triggering. A synchronisation output connects the excitation source to time-resolved detection electronics.

Best suited to: Fluorescence lifetime, time-resolved spectroscopy and synchronised pulsed excitation.



Configuration

Specify wavelength, average power, pulse width and timing interface. Peak optical power and average optical power are separate specifications.

Specifications

Published parameters	
Nominal wavelengths	380, 405, 450, 520, 650, 880, 980 nm (± 5 nm)
Pulse duration	50 ps typical; <100 ps maximum
External trigger	3–5 V TTL into 50 Ω ; pulse ≥ 10 ns
Trigger insertion delay	Approximately 10 ns
Sync output	3 V into 50 Ω ; 15 ns pulse
Supply	12 V DC; approximately 3 A

Published optical power by wavelength

Power columns use different published repetition-rate conditions. They must not be treated as interchangeable power ratings.

Wavelength (nm)	Average at 20 MHz (mW)	Peak at 10 MHz (mW)
380	0.3	300
405	0.2	300
450	0.15	150
520	0.3	300
650	0.1	100
880	0.1	100
980	0.25	250

Measurement features

- Typical 50 ps pulses; published maximum below 100 ps.
- Ten internal rate settings from 10 Hz to 20 MHz.
- External single-shot to 20 MHz triggering and a synchronisation output.

Full configuration: www.precisometer.com/spectroscopy/light-sources/tpld