PICOSECOND

Picosecond fibre seed lasers

Low-power picosecond sources for seeded amplifiers and time-resolved optical systems.

Applications to discuss: Time-resolved spectroscopy; Optical metrology.

Selection points
920-1570 nm selected bands / 3-100 ps listed options / Polarization-maintaining fibre delivery

Configuration options

Configuration	Centre wavelength	Pulse duration	Repetition rate	Average power	Spectral width
920 nm seed	920 nm	3-5 ps	80 MHz	1-20 mW	<0.5 nm
Narrowband near-infrared seed	1020-1080 nm	6-60 ps	10-100 MHz	1-60 mW	Near transform limited
Broadband near-infrared seed	1020-1080 nm	3 ps	10-100 MHz	2 mW	Broadband pulses
Long-wavelength seed	1120-1240 nm	15-100 ps	30-100 MHz	1-60 mW	Near transform limited
Telecom-band seed	1550-1570 nm	3-100 ps	10-100 MHz	1-60 mW	Near transform limited

Each row is a separate configuration. Limits from different rows must not be combined.

Technical details

Parameter	Specification or condition
Output delivery	Polarization-maintaining fibre
Beam propagation factor	M^2 <1.1, stated feature

Integration and delivery

Item	Configuration detail
OEM	200 x 130 x 28.5 mm; supply: 5 V customer supplied; cooling: Thermal Plate customer supplied
Lab	227 x 170 x 37 mm; 227 x 170 x 63 mm with fans and feet; supply: 12 V customer supplied; cooling: Thermal Plate customer supplied/Air Cooled
Rack Mount	248 x 436 x 83 mm; supply: Built-in; cooling: Air Cooled

Conditions and configuration notes

• The repetition rate and pulse duration are fixed choices within the stated intervals; those intervals are not a claim of user adjustment on every unit.

• Average power depends on wavelength, repetition rate and pulse settings. Maxima from different options must not be combined into one operating point.

• Optional fibre-Bragg-grating stretchers need to be matched to the intended compressor.

• A near-transform-limited description is qualitative here; confirm the numerical spectral bandwidth for the chosen pulse.