

ultra compact Pulsed Fiber Laser Series Single frequency at 1550nm

Model no.: ucPFL-1550



Description

This ultra compact Pulsed Fiber Laser developed for field applications, generates single frequency short nanosecond pulses at 1550 nm. It is based on a very compact MOPA (Master Oscillator Power Amplifier) architecture that uses proven subsystems and proprietary laser pulse generation. The laser incorporates real-time stabilization and control electronics to optimize laser operation.

Optical parameters (at 25°C)

Parameter	Specification	Unit
Center wavelength	In range 1545 – 1560	nm
Center wavelength stability	< 0.05	nm
Spectral width (FWHM)	< 0.5	nm
Pulse width (FWHM) - fixed	< 5	ns
Pulse repetition frequency	single-shot to 500	kHz
Peak power ¹	> 4	kW
Pulse energy ¹	> 15	μJ
Rated average power	> 1	W
Average signal to ASE ratio	> 20	dB
Output polarization	Random	-
Trigger rising edge to pulse jitter	< 1	ns

¹ trigger input frequency of 20kHz

Optical connections

Output fiber	SMF-28 or equivalent
Fiber delivery length	30cm
Fiber termination	FC/APC with attached output beam collimator

Electrical parameters

Parameter	Specification	Unit
Power supply	+5 and +9	V

Mechanical specifications

Parameter	Specification	Unit
Dimensions	95 x 20	mm

Typical output optical pulse, 3.5ns

