



RedChip 1500M

1.54 μM MINIATURIZED HIGH POWER MODE-LOCKED CHIPLASER

The **RedChip series** of lasers are compact, high efficiency laser platforms capable of operating at wavelengths from <1000nm to >3000nm. Based on the unique combination of specialty ZBLAN glass and laser inscribed waveguides, the chip laser brings performance characteristics normally only available in solid-state solutions to the size and economy regime of diode and fibre lasers.

Chiplaser technology enables compact footprints and high wall efficiencies over a range of wavelengths, requires no active cooling and delivers TEM00 mode with near-perfect mode-quality, and low variance in space, time and energy.

The **RedChip 1500M** is a passively mode-locked chip laser designed for applications that require:

- Ultrashort pulses (<100fs)
- High Peak-Power
- Highest focusability
- Eye safe output
- Compact / low mass packages
- Long term reliability
- High-power efficiency
- No service requirements

Ideal Applications include:

- Aerospace
- Bio-photonics
- OPO pumping
- Supercontinuum generation
- Frequency combs

Features

Standard

- Waveguide chip laser technology
- Sealed, nitrogen back-filled cavity
- Long-lifetime telecom-grade pump diodes
- Ambient/passive air-cooled design

Optional

- Analog power control
- Pulse Energy Monitor
- Sync-out
- AC/DC power supply
- Custom mount points
- Custom I/O locations
- OPO options under development
- please enquire

Specifications

Optical

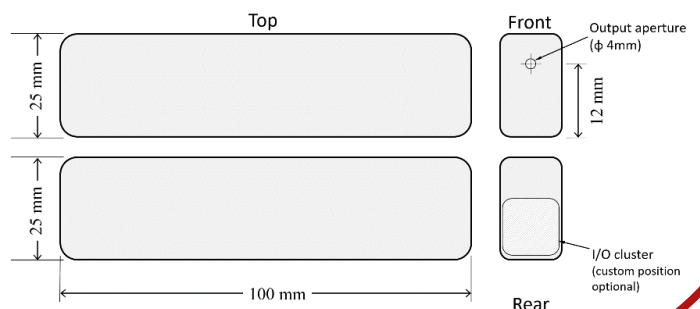
Wavelength	1540 ± 10 nm
Bandwidth (FWHM)	>25 nm
Average Power (max)	>10 mW
Pulse Energy (max)	>100 pJ
Pulse Duration (typ)	<100 fs
Energy stability (rms)	<± 0.5 %
Repetition Rate Range	>0.5-1.5 GHz
Beam Diameter (1/e ²)	1.0 mm
M ²	<1.1

Electrical

Voltage	5 VDC (12, 24VDC optional)
Current	<1 A

Physical

Dimensions (LWH)	100x25x25 (mm) (smaller form factors available)
Mass	100 g
Heat Dissipation	<1 W



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