



RedChip 1500P

1.54 μm MINIATURIZED HIGH POWER PULSED CHIPLASER

The RedChip series of lasers are compact, high efficiency laser platforms capable of operating at wavelengths from $<1000\text{nm}$ to $>3000\text{nm}$. 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, requires no active cooling and delivers TEM00 mode with near-perfect mode-quality, and low variance in space, time and energy.

The RedChip 1500P is a passively Q-switched chip laser designed for applications that require:

- High Peak Power
- Highest focusability
- Eyesafe output
- Compact / low mass packages
- Long term reliability
- High-power efficiency
- No service requirements

Ideal Applications include:

- Aerospace
- Mid-range LiDAR
- OPO pump
- IR counter-measures



Features

Standard

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

Optional

- Pulse energy monitor
- Sync-out
- Custom integrated OPO module
- AC/DC power supply
- Custom mount points

Specifications

Optical

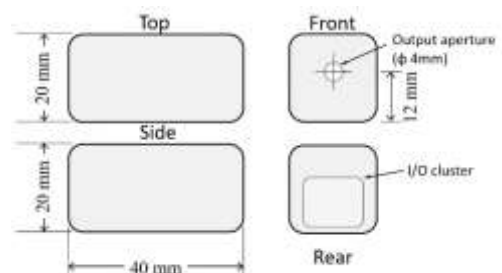
Wavelength	1540 nm
Average Power (max)	$>75\text{ mW}$
Pulse Energy (max)	$>12\ \mu\text{J}$
Pulse Duration (typ)	$<10\text{ ns}$
Energy stability (rms)	$<\pm 0.5\ \%$
Repetition Rate (max)	$>5\text{ kHz}$
Beam Diameter ($1/e^2$)	1.0 mm
M^2	<1.1

Electrical

Voltage	5 VDC (12, 24VDC optional)
Current	$<1\text{ A}$

Physical

Dimensions (LWH)	40x20x20 (mm)
Mass	100 g
Heat Dissipation	$<1\text{ W}$



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