

RedChip 2900Q

2.9µm MINIATURIZED HIGH POWER PULSED 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 to 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 jitter in space, time and energy.

The RedChip 2900Q is an actively Q-switched chip laser designed for applications that require:

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

Ideal Applications include:

- Aerospace requirements
- IR MALDI
- Mid-range LiDAR
- High res. IR imaging
- Direct water sensing
- IR counter-measures

Features

Standard

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

Optional

- Pulse energy monitor
- Analog pulse energy control
- Sync-out
- Integrated trigger pulse generator
- AC/DC power supply
- Custom mount points
- Custom I/O locations

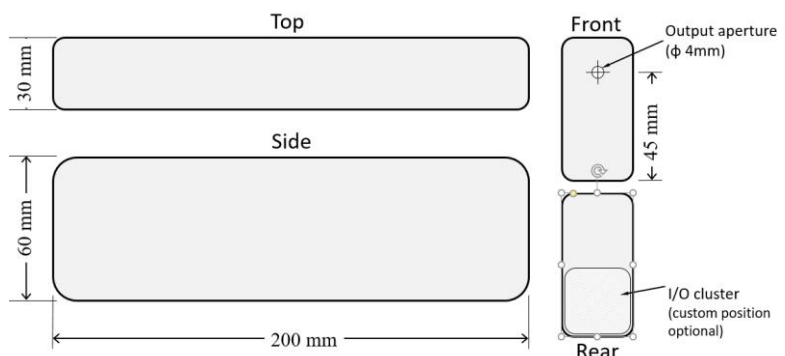
Specifications

Optical

Wavelength	2910 nm
Average Power (max)	>75 mW
Pulse Energy (max)	>100 µJ
Pulse Duration (typ)	10-15 ns
Energy stability (rms)	< ± 0.5 %
Repetition Rate Range	Single Shot – 5 kHz
Beam Diameter (1/e ²)	1.5 mm
M ²	<1.1

Voltage	5 VDC (12, 24VDC optional)
Current	<1 A
Trigger In	3.3 V TTL

Dimensions (LWH)	200x30x60 (mm)
Mass	750 g
Heat Dissipation	< 2 W



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