



MFL-3500

*prototype design shown

Compact widely tunable mid-IR fibre laser

- Efficient 3.5 μm output via patented dual-wavelength pumping
- High output power of up to 1 W (for fixed wavelength)
- Wide tunability of greater than 450 nm
- Reliable and robust single-mode fibre construction
- Built-in wireless remote control via app

MFL-3500

Compact widely tunable mid-IR fibre laser



The MFL-3500 is the first compact, turn-key mid infrared fibre laser.

Based on the highly efficient, patented dual wavelength pumping technology, the MFL-3500 outputs up to 1 W of continuous power from a single-mode fibre, delivering reliable mid infrared light to wherever it is needed.

An automated grating allows an ultra wide tunability of up to 450 nm around 3.5 μm , enabling tuning to a variety of molecular absorption lines such as various greenhouse gases and proteins.

The MFL-3500 comes with built-in wireless remote control of all laser parameters via an app, giving you the freedom to easily control the laser from anywhere in the lab.

The MFL-3500 is a simple, turn-key solution that can be readily incorporated into any experiment requiring mid-Infrared light.

Applications:

- Mid-IR spectroscopy
- Greenhouse gas sensing
- Atmospheric laser radar
- Molecular fingerprinting
- Polymer processing

Maximum power @ 3.5 μm band	1 W (fixed wavelength) ^(a)
Wavelength range	3.33 – 3.78 μm
Typical linewidth	0.3 nm ^(b)
Beam quality	TEM ₀₀ M ² < 1.1
Power stability	0.4 % ^(c)
Duty cycle	1-100 %
Polarization	Linear (30:1) Unpolarised (fixed wavelength)
Dimensions	45 x 45 x 53 cm ³ ^(d)

Preliminary

(a) Free running laser at fixed wavelength. Lower for tunable system

(b) Narrower linewidth optional

(d) Laser head size 43 x 43 x 13 cm³

(c) Standard deviation over 15 minutes - free running

*all specifications are preliminary and subject to change