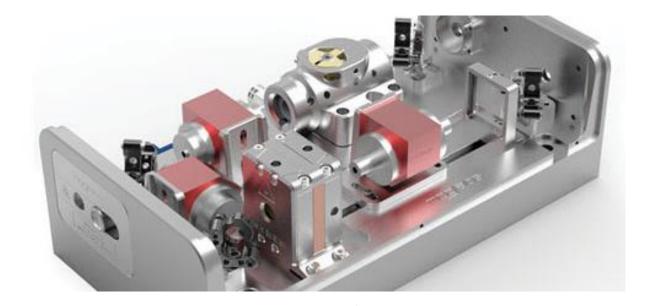
# maglabs

## MOA/MSA Optical Amplifier/Seeded Amplifier



The MOGLabs Optical Amplifier is a high-power extension for single-frequency external cavity diode lasers.

Laser power is increased by up to 4W, while maintaining the tunability and linewidth of the injection seed laser.

Replacement of the amplifier diode and alignment are easily accomplished by the enduser. Options include 35 or 70dB of input isolation and 35dB on the output, and fibre coupling of input or output or both.

Wavelength options extend from 630nm to 1064nm, and power from 250mW to 3000mW.

Also available as cateye laser seeded amplifier MSA as shown.

### **Features**

- Wavelength 630nm 1064nm
- Output power up to 3W
- Optional input and output Faraday isolators
- Optional input and output fibre coupling
- Simple customer TA diode replacement
- Stable flexure alignment

### **Applications**

- Laser cooling and trapping
- Bose-Einstein condensation
- Quantum optics: squeezed light
- Electromagnetic transparency and slow light
- Time and frequency standards
- Laser spectroscopy
- Physics teaching labs

# Optical Amplifier/Seeded Amplifier

### Specifications MOA/MSA

#### Wavelength/frequency

Wavelength 630nm – 1064nm

Gain bandwidth 10nm to 30nm, wavelength dependent

Power 250mW, 500mW, 1W, 2W, 3W and 4W options, wavelength dependent

Gain Up to 23dB (200x)

Seed input power 10mW to 30mW, depending on amplifier diode

ASE suppression >45dB

**Optical** 

Beam diameter (1/e<sup>2</sup>) Typically 1.8 x 3.0 mm, wavelength dependent

Beam quality M<sup>2</sup> from 1.1 to 1.7

Beam divergence <1.5 mrad (630 – 670nm: <2.5 mrad)

Polarisation Linear 100:1

**Thermal** 

TEC  $\pm 14V 3.3A Q = 34W \text{ standard}$ 

Sensor NTC  $10k\Omega$ 

Cooling Quick-fit water cooling, φ 6mm

**Electronics** 

Protection Relay, reverse diode, photodiode cutout

Indicator Laser ON/OFF (LED)

Connectors DE9 (temperature control) and DE15 (current control)

**Dimensions** 

Dimensions 300 x 155 x 93mm (LxWxH)

