



The MOGLabs CES cateye laser combines the advantages of cateye filter technology with unique butterfly-packaged single angled facet laser diodes. The CES achieves extremely low linewidth (5 kHz) and very broad tuning range, with integral Faraday isolator and fibre-coupled output.

Currently available wavelengths and peak power:

960 – 1080nm, 200mW*
 1080 – 1200nm, 100mW*
 1170 – 1270nm, 10mW
 1250 – 1390nm, 70mW
 1420 – 1520nm, 40mW
 1510 – 1610nm, 40mW
 1860 – 1970nm, 7mW*

Notes:

1. Full wavelength range requires swapping filters.
2. Devices marked with * do not include internal Faraday isolator.

Features

- Ultra-narrow linewidth
- Broad tuning range
- Access to unique wavelengths
- Filter-based tuning with cateye reflection
- Inherently self-aligning
- Acoustically inert

Applications

- Ring resonators
- Telecom test and measurement
- Seed for fibre amplifiers

Cateye SAF Laser

Specifications CES

Wavelength and peak power

960 – 1080nm, 200mW*	1420 – 1520nm, 40mW
1080 – 1200nm, 100mW*	1510 – 1610nm, 40mW
1170 – 1270nm, 10mW	1860 – 1970nm, 7mW*
1250 – 1390nm, 70mW	

Linewidth	Independently measured at < 5kHz with MOGLabs DLC
Modulation	20MHz bandwidth, AC or DC coupled, 20ns latency RF bias tee option: >2.5GHz bandwidth
Coarse tuning range	Up to 140nm for single diode (multiple filters)

Optical

Beam diameter ($1/e^2$)	Typically 1mm x 2mm to 1.5mm x 4mm; diode-dependent
Polarisation	PM fibre; PER > 20dB

Thermal

TEC	$\pm 14.5V$ 3.3A Q = 23W standard
Sensor	NTC 10k Ω standard; AD590, 592 optional
Stability at base	$\pm 1mK$ (controller dependent)
Cooling	Water cooling connections optional (usually not required)

Sweep/scan

Scan range	Typically 20 GHz; with MOGLabs controller, rate 4Hz to 70Hz
Mode-hop free scan	Typically >20 GHz, diode dependent, with current feed-forward
Piezo	0 – 150V, 2 to 5 μm

Electronics

Protection	Relay, cover interlock connection, reverse diode
Indicator	Laser ON/OFF (LED)
Modulation input	SMA DC to 20MHz or AC 10kHz to 20MHz, ground isolated Option: RF bias tee, 16MHz – 2.5GHz (lower cutoff optional)
Connector	MOGLabs DLC Diode Laser Controller (single cable connect)

Dimensions

Dimensions	108 x 70 x 83mm (LxWxH), 0.5kg
------------	--------------------------------

