CES Cateye SAF Laser

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

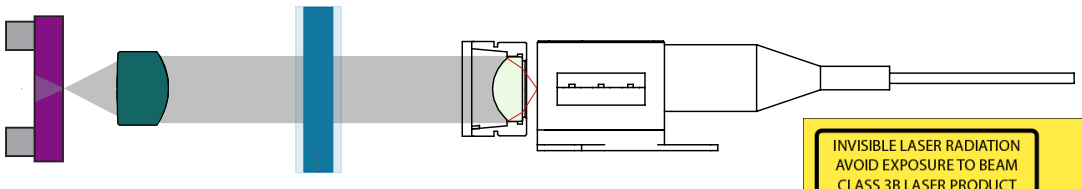
Optical	
Beam diameter ($1/e^2$)	Typically 1mm x 2mm to 1.5mm x 4mm; diode-dependent
Polarisation	PM fibre; PER > 20dB

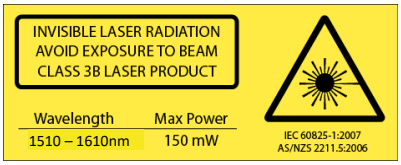
Thermal	
TEC	±14.5V 3.3A *Q* = 23W standard
Sensor	NTC 10kΩ standard; AD590, 592 optional
Stability at base	±1mK (controller dependent)
Cooling	Water cooling connections optional (usually not required)

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 5µm

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





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