

Key features

- ✓ NIR wavelength tunability
- ✓ Narrow linewidth
- ✓ Excellent SMSR
- ✓ Fully integrated with no moving parts, enabling switching between wavelengths instantly
- ✓ Exceptional repeatability
- ✓ Software based wavelength calibration
- ✓ Easy to set-up and use
- ✓ Compact size



Applications

- ✓ Sensing
- ✓ Metrology
- ✓ Spectroscopy

Description

Chilas has developed a narrow linewidth tunable laser with a hybrid integrated external cavity. The ATLAS uses state-of-the-art Photonic Integrated Circuit (PIC) technology and has distinctive advantages of which the most important are: Ultra narrow linewidth, broadband tuning, and a small footprint/size.

The ATLAS consists of a butterfly packaged laser mounted inside a tuneable laser controller, and is provided with a calibration file and corresponding software. The controller incorporates a current driver, heater driver and temperature controller to set the laser. The controller takes care of an interface to a piece of software that allows the user to tune all the different parameters of the laser by an easy slider on the screen through a GUI. Additionally, an API serial command list will be provided.



NOTE: This laser is designated for use solely as a component and therefore does not comply with all the appropriate requirements of 21 CFR 1040.10 and 21 CFR 1040.11 for complete laser products.

ATLAS-850 Product Sheet

1. Performance and specifications

	Parameter	Specified values
Optical	Center wavelength	850 nm +/- 15 nm
	Wavelength range	30 nm
	Wavelength grid	4 pm
	Fiber output power	≥ 3 mW
	Intrinsic linewidth	≤ 100 kHz
	Side-mode suppression ratio	≥ 40 dB
	Frequency Modulation depth @ 10 kHz	0.5 GHz

	Parameter	Specified values
Package	Dimensions (LxWxH)	100*60*20 mm
	Weight	167 g
	Operating temperature	15 – 50 °C
	Power supply voltage	5 V _{DC}
	Power supply current	3.8 A
	Interface connector	DE-9
	Modulation/RF connector	SMB (on request)
	Fiber type and connector	PM FC/APC



Figure 1 ATLAS with adapter for USB and power connection attached.