

Key features

- ✓ Visible wavelength tunability
- ✓ Narrow linewidth
- ✓ 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
- ✓ Quantum Computing
- ✓ Spectroscopy
- ✓ Coherent Communications

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 685 Product Sheet

1. Performance and specifications

Optical	Parameter	Specified values
	Center wavelength	685 nm \pm 5 nm
	Wavelength range	\geq 10 nm
	Wavelength resolution	\leq 4 pm
	Wavelength accuracy	\pm 10 pm
	Tuning speed between wavelengths	200 μ s
	Fiber output power	\geq 1 mW
	Intrinsic linewidth	\leq 100 kHz
	Side-mode suppression ratio	\geq 40 dB
	Frequency Modulation depth @ 10 kHz	0.5 GHz

Package	Parameter	Specified values
	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 connector	PM FC/APC



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

株式会社ハイテック
 東京都中野区本町4-44-18
 03-3229-7351