

1550nm Wavelength-Swept Narrow-Linewidth Laser Module



Part Number: ECL-310-S3

External Cavity Laser Module
Sweeping Wavelength, Narrow Linewidth
1550nm C-Band



Features

- Si Photonic integrated circuit
- Narrow linewidth (100 kHz)
- Wide wavelength-swept range up to 600GHz
- Low power dissipation
- Fast sweep rate with high linearity
- **SemiNex RSOA and SOA chips Inside**

Applications

- OFDR measurement
- LiDAR and industrial metrology
- Optical measurements and instrumentation



SemiNex delivers the highest available power at infrared wavelengths between 12xx and 19xx nm. When necessary, we will further optimize the design of our InP & GaSb laser chips to meet our customers' specific optical and electrical performance needs. Diodes, bars and packages are tested to meet customer and market performance demands. Typical results and packaging options are shown. Contact SemiNex for additional details or to discuss your specific requirements.

SemiNex Corporation • 153 Andover Street, Suite 201, Danvers, MA 01923 • 978-326-7700 • sales@seminex.com

1550nm Wavelength-Swept Narrow-Linewidth Laser Module



Specification

ECL-310-S3

Optical	Symbol	Min.	Typ.	Max.	Units
Center Wavelength	λ_c		1550 or C band		nm
Wavelength Tuning Range	$\Delta\lambda$	100		600	GHz
Swept Rate	F	2		20	kHz
Sweep Linearity			99.99999		%
Linewidth (Lorentzian)	FWHM		100		kHz
Fiber Output Power	P_f			200	mW
Side Mode Suppression	SMSR		55		dB
Random Intensity Noise	RIN			-145	dB/Hz
Operating Temperature	T_0	-10		60	°C
Storage Temperature	T_s	-40		85	°C
Operating Humidity	%	5		85	

*Specified values are rated at a constant heat sink temperature of 20°C.

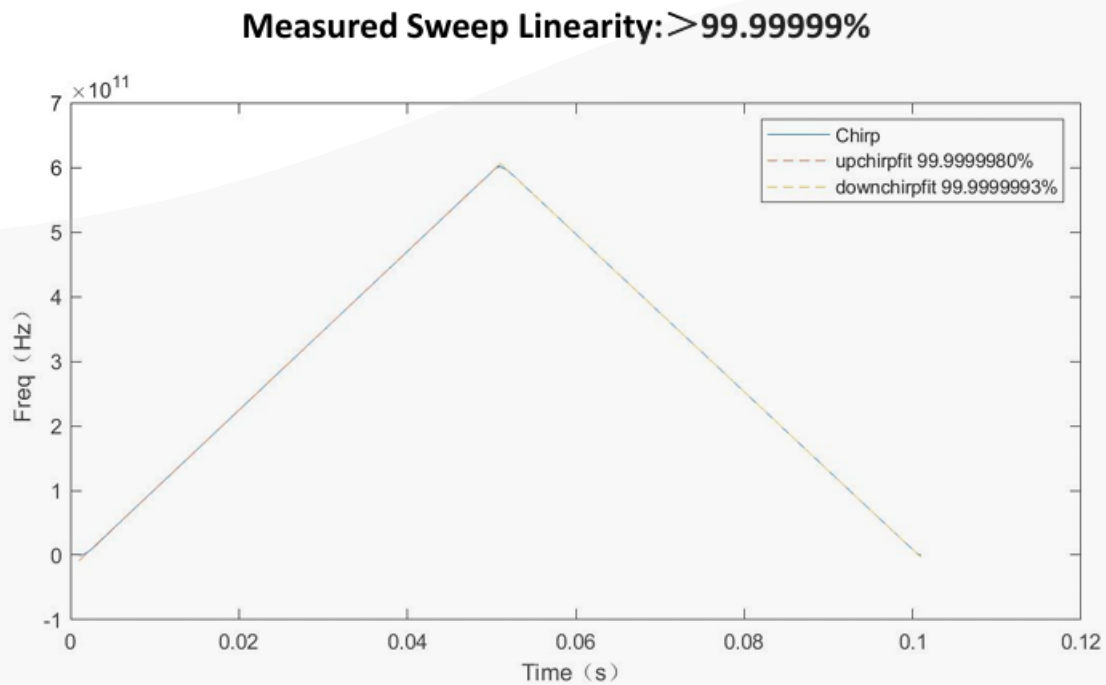
**High temperature operation will reduce performance and MTTF.
Unless otherwise indicated all values are nominal.

1550nm Wavelength-Swept Narrow-Linewidth Laser Module



ECL-310-S3

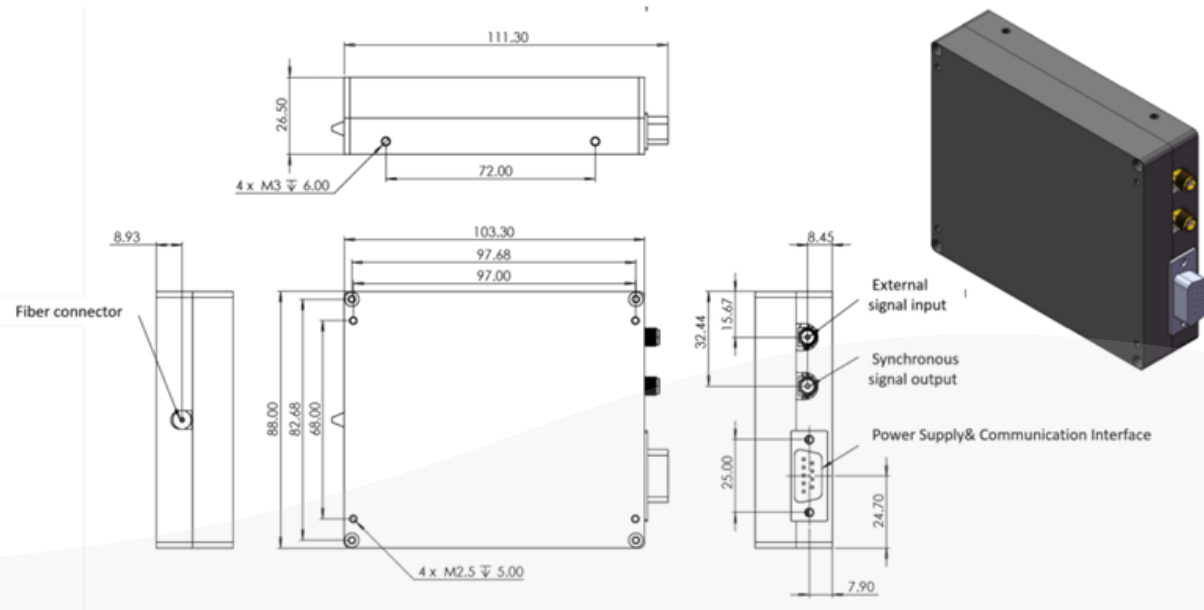
Graphs & Data



1550nm Wavelength-Swept Narrow-Linewidth Laser Module



ECL-310-S3 Mechanical Drawing



Dimensions	L×W×H=111.3×88×26.5mm
Fiber Type	PMF/SMF
Fiber Connector	FC/APC
Power Supply & Communication Interface	DB9
Synchronous signal output	OUT(SMA)
External signal input (Optional)	IN(SMA)

Warnings:

Make sure to wear protective goggles while operating high power laser that could be harmful to eyes. Nearby operators should wear protective goggles to avoid harms from the reflective of the laser. SemiNex reserves the right to modify this document without notice.

All statements, technical information and recommendations related to the product herein are based upon information believed to be reliable or accurate. The accuracy or completeness herein is not guaranteed, and no responsibility is assumed for any inaccuracies. The user assumes all risks and liability whatsoever in connection with the use of a product or its application. SemiNex Corporation reserves the right to change at any time without notice the design, specification, deduction, fit or form of its described herein, including withdrawal at any time of a product offered for sale herein. Users are encouraged to visit www.seminex.com for the latest data. SemiNex Corporation makes no representations that the products herein are free from any intellectual property claims of others. Please contact SemiNex for more information. 2024 SemiNex Corporation



SemiNex Corporation • 153 Andover Street, Suite 201, Danvers, MA 01923 • 978-326-7700 • sales@seminex.com