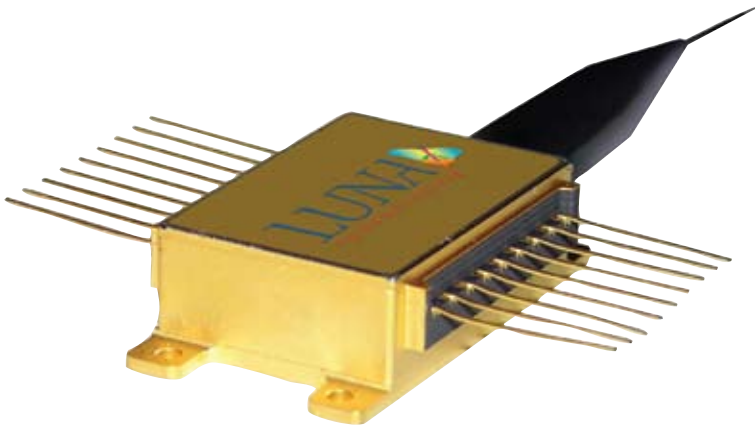


Breakthrough Functionality in Fiber Optic Testing



TUNABLE LASER SOURCE (Model PHOENIX™ 1000)

KEY FEATURES AND PRODUCT HIGHLIGHTS

- Full C-band tunability
- Fast tuning up to 500Hz
- Rugged design withstands testing rigors
- Narrow linewidth
- Superior noise characteristics

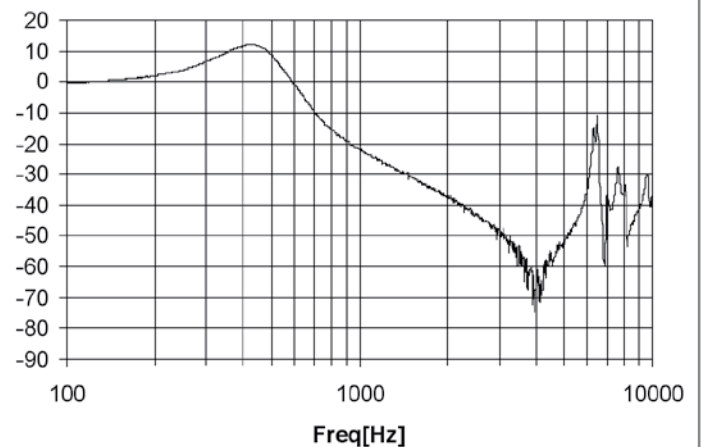
The Phoenix 1000, built upon the former Iolon swept tunable platform, offers superior performance and noise reduction.

The PHOENIX™ 1000 Swept Laser Module is a tunable laser with an optical fiber coupled output. The laser is a miniaturized, tunable external cavity laser offering high performance in a compact footprint. This Phoenix 1000 was designed with systems integration in mind and is well-suited to a range of fiber optic test and measurement and sensing instrumentation. The small form factor layout is compatible with high-volume manufacturing and is housed in a compact 18-pin TEC cooled package that provides improved scalability, ruggedness and speed compared to similar tunable lasers.

APPLICATIONS

- Fiber optic test and measurement
- Spectroscopy
- Fiber grating-based sensing
- Metrology

Mirror Motor Magnitude Response



PHOENIX 1000

Absolute Maximum Ratings and Normal Operating Conditions

PARAMETER	MIN	MAX	UNIT
Storage temperature	-40	+85	°C
Storage relative humidity	5	95 ¹	%
Operating case temperature range	-5	+70	°C
Operating relative humidity ¹	5	85	%
Operational Air Flow	TBD		fpm
Optical reflection back into swept laser		-15	dBc
Non operational shock ^{2, 3}		TBD	g
Non operational vibration (20-2000Hz) ³		TBD	g

¹Non-condensing.

²A 1 ms half sine

³Shock and vibration survivability based on a representative sample.

General Optical and Sweep Specifications

PARAMETER	MIN	TYP	MAX	UNIT
C-band Tuning Range (mode hop free)	1515		1565	nm
Tuning Modulation Bandwidth (Mirror Motor)	10			Hz
Fiber output power ¹	8	10		mW
Spectral line width ²		1.0	2.0	MHz
Side mode suppression ratio (nearest mode)	43	50		dB
Relative intensity noise		-152	-145	dB/Hz
Source spontaneous emission		-50	-43	dBc/nm
Polarization extinction ratio	TBD ³			dB
Optical isolation	40			dB

¹Fiber output power is typical at 250 mA drive current.

²Phase noise distribution full width at half maximum with 0V on PZT and 75V on mirror motor control inputs, integrated over 1 ms.

³20 dB available at a later date.

Distribution in the UK



Lambda Photometrics Ltd
 Lambda House, Batford Mill,
 Harpenden, Hertfordshire AL5 5BZ

E: info@lambdaphoto.co.uk

W: www.lambdaphoto.co.uk

T: +44 (0)1582 764334

F: +44 (0)1582 712084

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