AMONICS LTD.

ISO 9001 : 2008
Certificate No.: CC 5346

High Power Narrow Linewidth Laser

Applications

- Brillouin Distributed Sensing
- Interferometric Fiber Optics Sensing
- LiDAR
- Test & Measurement
- Seed Laser Sources

Description

Amonics' high power narrow linewidth laser (AULLD series) is integrated with Redfern Integrated Optics (RIO) PLANEX™ high performance external cavity laser. It features narrow linewidth, low phase noise, ultra low RIN, high output power with exceptionally reliable performance.

The turnkey microprocessor controlled benchtop AULLD provides alarms and status indicators. An integrated RS232 or Ethernet computer interface provides easy control, diagnostic functions and data acquisition.

It is particularly suitable for commercial fiber optic sensing applications, such as interferometric and Brillouin DTSS sensing systems for oil & gas, security, metrology and smart infrastructure.

Key Features

- Narrow linewidth
- Low phase noise
- Ultra low RIN
- High output power, up to 2W
- Linear polarized output
- Wavelength tunability
- Turnkey operation
- RS232, TCP/IP remote control
- Ultra stable

High Power Narrow Linewidth Laser

Specifications

		AULLD series
Laser Wavelength	nm	ITU DWDM or custom, ± 0.04, CW @ rated power
Optical Output Power	mW	25, 50, 100, 200, 500, 1000, 2000
Linewidth FWHM, Lorentzian	kHz	5, 10, 15 CW @rated power
Optical Isolation	dB	Min. 30, under operation temp.
Side-mode Suppression Ratio	dB	Min. 35, Typ. 45, CW @rated power
Relative Intensity Noise	dB/Hz	Shot noise limited @ frequency > 100kHz
Wavelength Tunability	nm	Min. ± 0.02
Output Power Stability	dB	Max. ± 0.2 (within 8 hrs), Max. ± 0.03 (within 10 mins) CW @ rated power and constant environment temperature
Wavelength Stability	nm	Max. ± 0.005 (within 8 hrs), Max. ± 0.001 (within 10 mins) CW @rated power and constant environment temperature

General Parameters

Parameters	Unit	Specifications
Operation Temperature	°C	0 to +40
Storage Temperature	°C	-10 to +70
Power Supply	VAC	90 – 240, 47 – 63Hz
Dimensions	mm	260(W) x 330(D) x 120(H)
Mechanical Safety Control	-	Key-lock switch, BNC interlock key
Optical Power Monitoring	-	Output power
Remote Control Port	-	DB-9 female (RS232), LabView control software included RJ-45 (TCP/IP Ethernet) (optional)
Protection	-	Pump laser (TEC) overheat
Optical Connector	-	FC/APC, FC/UPC, SC/APC, SC/UPC
Optical Fiber	-	PM fiber, SMF-28e (optional)

Ordering Information

Product Code	AULLD-vv-wwww-xx-yyyy-B-zz	vv: Default (or unspecified) for single mode, PM for polarization maintaining wwww: Wavelength in nm xx: Laser linewidth yyyy: Output power in mW zz: FA for FC/APC, FC for FC/UPC, CL for collimator SA for SC/APC, SC for SC/UPC

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