

### 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



## Specifications

AULLD series		
Laser Wavelength	nm	ITU DWDM or custom, $\pm 0.04$ , CW @ rated power
Optical Output Power	dBm	13, 17, 20, 23, 27, 30, 33
Linewidth FWHM, Lorentzian	kHz	2, 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. $\pm 0.02$
Output Power Stability	dB	Max. $\pm 0.2$ (within 8 hrs), Max. $\pm 0.03$ (within 10 mins) CW @ rated power and constant environment temperature
Wavelength Stability	nm	Max. $\pm 0.005$ (within 8 hrs), Max. $\pm 0.001$ (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	Benchtop: 260(W) x 330(D) x 120(H) Module: 200(W) x 140(D) x 50(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 www: Wavelength in nm xx: Laser linewidth in kHz yyyy: Output power in dBm zz: FA for FC/APC, FC for FC/UPC, CL for collimator SA for SC/APC, SC for SC/UPC
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Amonics undertakes continuous and intensive product development to ensure its product performance at the highest technical standards. As a result, the specifications in this document are subject to change without notice.

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