

1550nm Fiber Coupled DFB Laser Source

Single mode, up to 60mW, 1nm, Benchtop or Module



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Features

- Turnkey Laser Source
- High Stability
- Advanced Feedback Control

Applications

- Medical Laser Treatment
- Biotechnology
- Others



Agiltron provides cost-effective fiber-coupled laser sources with a wide range emitting spectrum from 370nm to 2000nm and line width from 10kHz to broadband to select. Each benchtop laser source features a pigtailed laser and high-precision, low-noise auto-feedback drive electronics to ensure constant output power or a constant driving current, and an integrated temperature control unit maintains optimal operating conditions. Each unit features a front fiber output connector and a universal power supply compatible with 100 to 240 VAC. We offer two packages: benchtop for ease of use and compact module for system integration. The user interface benchtop includes an intuitive LCD display for independent control of output power and temperature via two front rotating knobs. The module has two front output power and temperature settings. All units have a built-in isolator option to prevent reflection-induced laser emissions instability. We produce fiber-coupled isolators from 370nm to 2000nm. An isolator is essential to obtain stable laser output.

Specifications

Parameter	Min	Typical	Max	Unit
Forward Voltage	-	-	3.5	V
Threshold Current	-	10	15	mA
Optical Output Power From SM Fiber	50	60	-	mW
Center Wavelength	1540	1550	1560	nm
Spectral Width	-	-	1	nm
Rise Time	-	0.5	1.0	ns
Fall Time	-	0.5	1.0	ns
Monitor Current	0.05	-	2	mA
Absolute Maximum Ratings				
Pulsed Forward Current	-	-	750	mA
Reverse Voltage	-	-	2	V
Reverse Voltage (monitor PD)	-	-	10	V
Reverse Current (monitor PD)	-	-	2	mA
Operating Case Temperature	0	-	60	°C
Storage Temperature	-40	-	85	°C
Lead Soldering Temperature	-	-	260(10s)	°C
Relative Humidity (noncondensing)	-	-	85	%

Note: The specifications provided are for general applications with a cost-effective approach. If you need to narrow or expand the tolerance, coverage, limit, or qualifications, please [click this link](#):

Rev 10/04/24

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Benchtop Laser Source Operation Manual



- Plug in power cable
- Turn on Power Switch
- Setting the Output Power by rotating the knob
- Setting the laser diode Temperature by rotating the knob
- Connect a fiber path cable with matching connector (FC/APC is the default)
- Push the Emission switch to turn on the laser
- Measure the output power to verify

Module Laser Source Operation Manual



- Plug in power cable
- Turn on Power Switch
- Setting the Output Power by rotating the screw
- Setting the laser diode Temperature by rotating the screw
- Connect a fiber path cable with matching connector (FC/APC is the default)
- Push the Emission switch to turn on the laser
- Measure the output power to verify

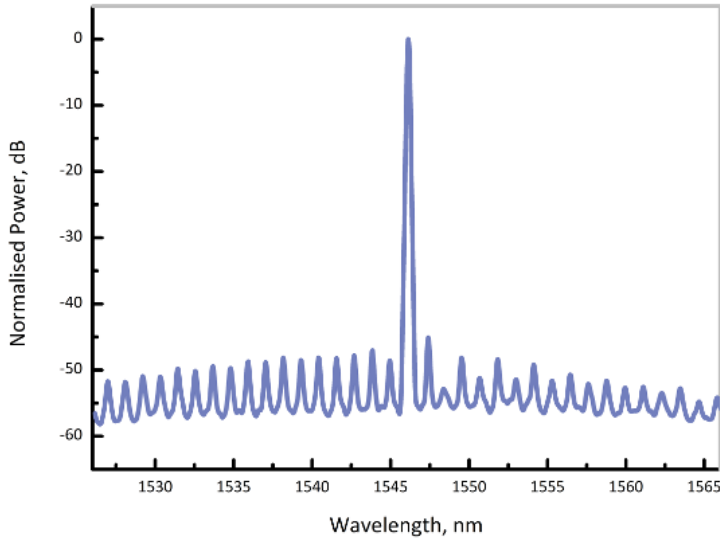
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Typical Spectrum



Ordering Information

Prefix	Wavelength	Power	Package	Isolator	Control Mode	TEC Cooling	Fiber Type	Connector
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FCLS-	1550nm = 1550	≥60mW = G	Benchtop = 1 Module = 2	None = 1 Yes = 2	Constant Current = 2 Constant Power = 1	No = 1 Yes = 2	SM28 = 1 PM1550 = 5 PM1310 = 3 Special = 0	FC/APC = 3 FC/PC = 2 Non = 1 SC/PC = 4 SC/APC = 5 LC/PC = 7 LC/UPC = U Special = 0