

1470nm Fiber Coupled DFB Laser Source

Single mode, up to 3-5mW, 0.01nm, Benchtop or Module



DATASHEET

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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
Threshold Current		10	25	mA
Forward Current (Operating Current)		50	100	mA
Forward Voltage (Operating Voltage)		1.2	1.5	V
Output Power from Pigtail (ex-fiber)	3	5		mW
Wavelength Range	1465	1470	1475	nm
Temperature Tuning Coefficient		0.2		nm/°C
Spectral Linewidth (FWHM)			0.01	nm
Rise Time in Pulse Mode			0.5	ns
Monitor Current @ VrPD=5V	0.07			mA
PD Reverse Voltage			20	V
TEC Current @ $\Delta T = 50^{\circ}\text{C}$			1.2	A
TEC Voltage @ $\Delta T = 50^{\circ}\text{C}$			2.5	V
Operating Temperature (heatsink temperature)	0		60	°C
Storage Temperature	-40		70	°C

Features

- Turnkey Laser Source
- High Stability
- Advanced Feedback Control

Applications

- Medical Laser Treatment
- Biotechnology
- Others



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](#):

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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

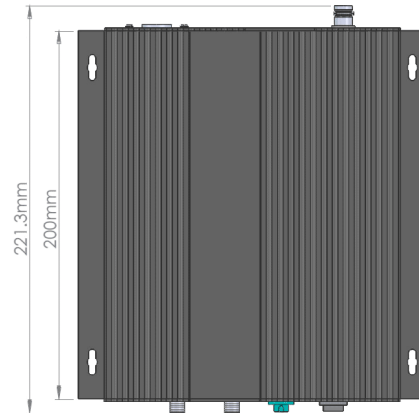
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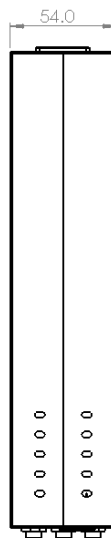
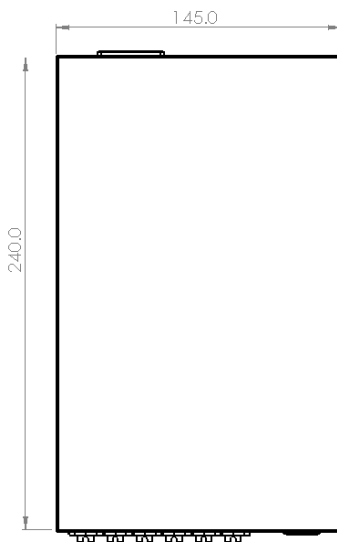


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Module (mm): Plug-Play (Power Supply Included)



Benchtop (mm): Plug-Play 100-240VAC, USB



*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

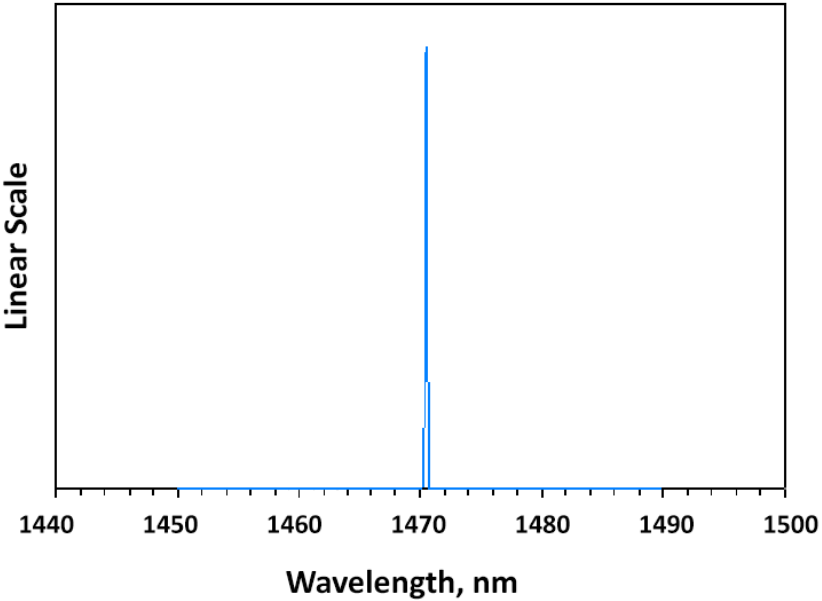
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Typical Spectrum



Ordering Information

	☐ ☐ ☐ ☐ ☐	☐	☐	☐	☐	☐	☐	☐	☐
Prefix	Wavelength	Power	Linewidth	Package	Isolator	Control Mode	TEC Cooling	Fiber Type	Connector
FCLS-	1470nm = 1470	3mW = 3 5mW = 5	0.01nm = 1	Benchtop = 1 Module = 2	None = 1 Yes = 2	Constant Current = 2 Constant Power = 1	No = 1 Yes = 2	SM28 = 1 PM1550 = 5 Special = 0	FC/APC = 3 FC/PC = 2 Non = 1 SC/PC = 4 SC/APC = 5 LC/PC = 7 LC/UPC = U Special = 0