

# 830nm Fiber Coupled FBG Laser Source

Single mode, up to 100mW, 0.2nm, Benchtop or Module



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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.

## Features

- Turnkey Laser Source
- High Stability
- Advanced Feedback Control

## Applications

- Medical Laser Treatment
- Biotechnology
- Others

## Specifications

Parameter	Min	Typical	Max	Unit
Threshold Current		40	50	mA
Forward Current		170	240	mA
Forward Voltage		1.9	2.1	V
Optical Output Power	80	100		mW
Center Wavelength@25°C	829	830	831	nm
Spectral Linewidth (FWHM)		0.2	0.5	nm
Rise Time in Pulse Mode		10		ns
Monitor Current @ VrPD=5V	0.07			mA
PD reverse voltage			20	V
TEC Current			1	A
TEC Voltage			2.2	V
Operating Temperature (heatsink temperature)	0		60	°C
Storage Temperature	-40		70	°C



**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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[+1 781-935-1200](tel:+17819351200)

[sales@photonwares.com](mailto:sales@photonwares.com)

[www.agiltron.com](http://www.agiltron.com)

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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

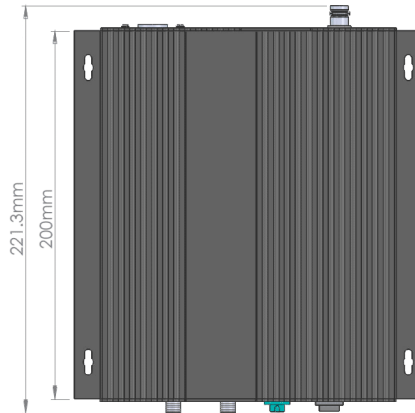
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### Module (mm): Plug-Play (Power Supply Included)



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



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

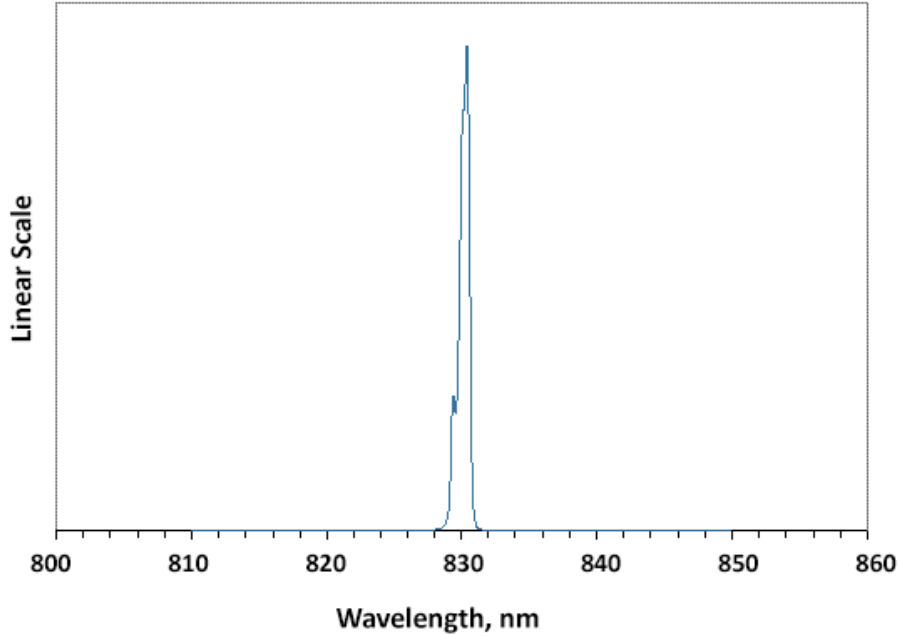
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### Typical Spectrum



### Ordering Information (Part Number)

Prefix	Wavelength	Power	Linewidth	Package	Isolator	Control Mode	TEC Cooling	Fiber Type	Connector <sup>[1]</sup>
FCLS-	830nm = 0830	100mW = A	0.2nm = 1	Benchtop = 1 Module = 2	None = 1 Yes = 2	Constant Current = 2 Constant Power = 1	No = 1 Yes = 2	Hi780 = 7 SM800 = 8 PM780 = D PM850 = E Special = 0	FC/APC = 3 FC/PC = 2 Non = 1 SC/PC = 4 SC/APC = 5 LC/PC = 7 LC/UPC = U Special = 0

[1]. The connector cannot be installed directly onto bare fiber, as it is prone to damage during shipping. However, the connector can be assembled on bare fiber if a 3 cm protective loose tube is added for reinforcement. The customer can remove this protective tube after testing. The optical power handling of a standard connector is less than 0.5 W for SM28 fiber and decreases further with smaller core fibers.