1064nm Fiber Coupled FP Laser Source

Single mode, up to 50mW, 2nm, 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.

Features

- Turnkey Laser Source
- High Stability
- Advanced Feedback Control

Applications

- Medical Laser Treatment
- Biotechnology
- Others

Specifications

Parameter	Min	Typical	Max	Unit
Threshold Current	20		30	mA
Operating Current			200	mA
Operating Voltage			2.7	V
Optical Output Power	40			mW
Center Wavelength	1063.8	1064	1064.2	nm
Sidemode Suppression Ratio	40			dB
Spectral Linewidth (-20dB)		0.1	1.0	nm
Monitor Current @ VrPD=5V	500		1250	μA
MPD Dark Current			200	nA
Thermistor Resistance @25℃	9.5	10.0	10.5	kΩ
Thermistor B-Value		3950		K
Slope Efficiency		0.28		mW/mA
TEC Operation Temperature	15		40	°C
Optical Isolation		30		dB
Absolute Maximum Ratings				
Operating Temperature Range	-20		+65	°C
Storage Temperature Range	-40		+85	°C
Laser Reverse Voltage, DC			2.0	V
Laser Forward DC Current			500	mA
TEC Voltage	-4.2		4.2	V
TEC Current	-1.8		1.8	A
Lead Soldering Temperature			260 (10s)	°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]:

Rev 01/16/25

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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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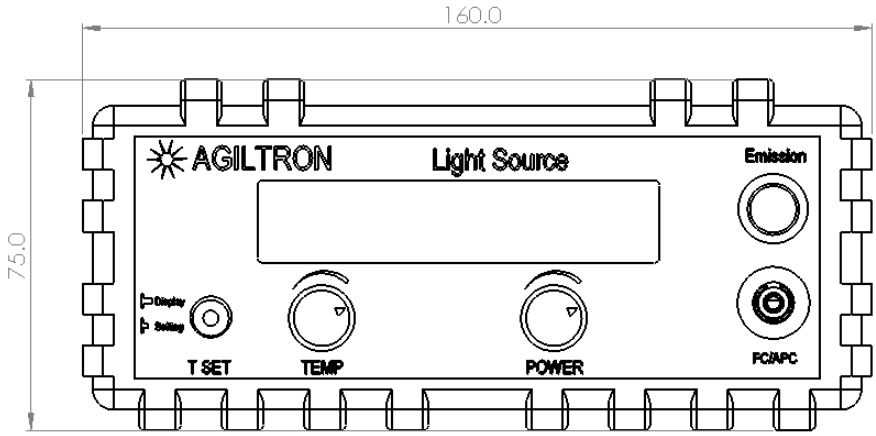
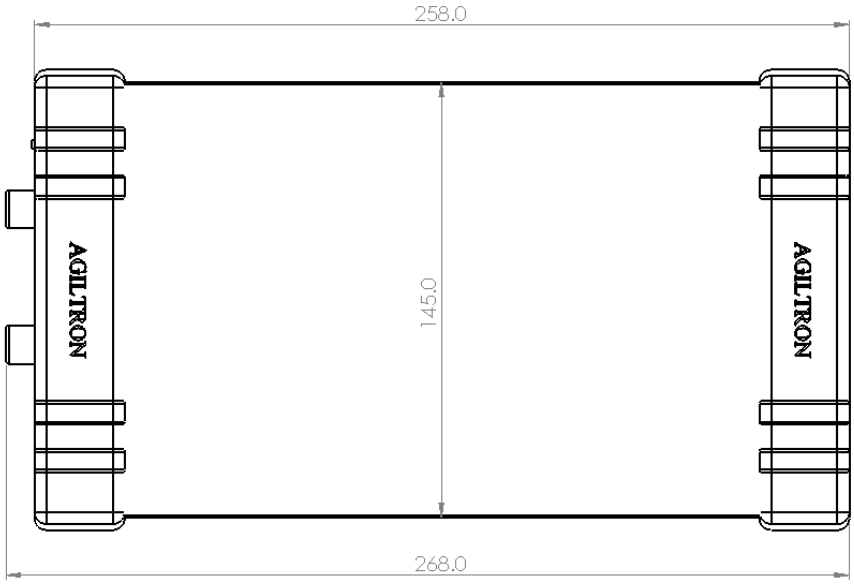
Mechanical Dimension (mm)





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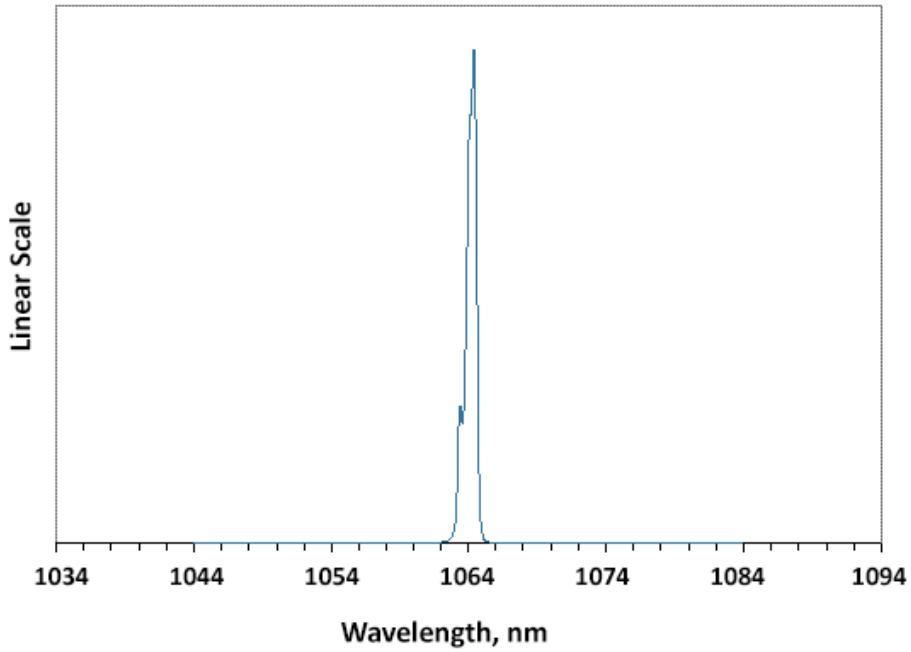
Typical Spectrum



Ordering Information

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Prefix	**Wavelength**	**Power**	**Linewidth**	**Package**	**Isolator**	**Control Mode**	**TEC Cooling**	**Fiber Type**	**Connector**
FCLS-	1064nm = 1064	50mW = A	2nm = 1	Benchtop = 1 Module = 2	None = 1 Yes = 2	Constant Current = 2 Constant Power = 1	No = 1 Yes = 2	Hi1060 = 9 PM980 = F 50/125 = M Special = 0	FC/APC = 3 Special = 0

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