1310/1550nm Fiber Coupled DFB Laser Source

AGILTRON ®

Single mode, up to 1-4mW, 0.02nm, Benchtop or Module

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

ATTENTION

OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC

Specifications

Parameter	Min	Typical	Max	Unit
Rated Power	1	-	4	mW
Slope Efficiency	-	-	0.25	mW/mA
Threshold Current	-	5	15	mA
Forward Voltage Drop	-	1.0	1.2	V
Cent Wavelength	1300	1310	1320	nm
	1540	1550	1560	
Spectrum Width(-20dB)	-	0.2	0.5	nm
Side-mode Suppression Ratio	35	-	-	dB
Bandwidth	-	2.5		GHz
Monitor Current	100	-	1200	uA
Dark Current of Monitor	-	-	100	nA
Optical Isolation(Single stage)	35	40	-	dB
Optical Isolation(Double stage)	45	50	-	dB
Return loss	-	-	-45	dB
Analog Characteristic index				
Relative Intensity Noise	-	-155	-150	dB/Hz
RF Bandpass Flatness		±1.5		dB
Carrier Noise Ratio [1], [2]	51	-	-	dB
Composite Second Order [1], [2]	-	-	-57	dBc
Composite Triple Beat [1], [2]	-	-	-65	dBc
Absolute Maximum Ratings				
LD Forward current			150	mA
LD Reverse voltage			2	V
PD Forward current			2	mA
PD Reverse voltage			15	V
Operating temperature	-40		+85	°C
Storage temperature	-40		+100	°C
Soldering temperature/time			260/10	°C/s

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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DATASHEET

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
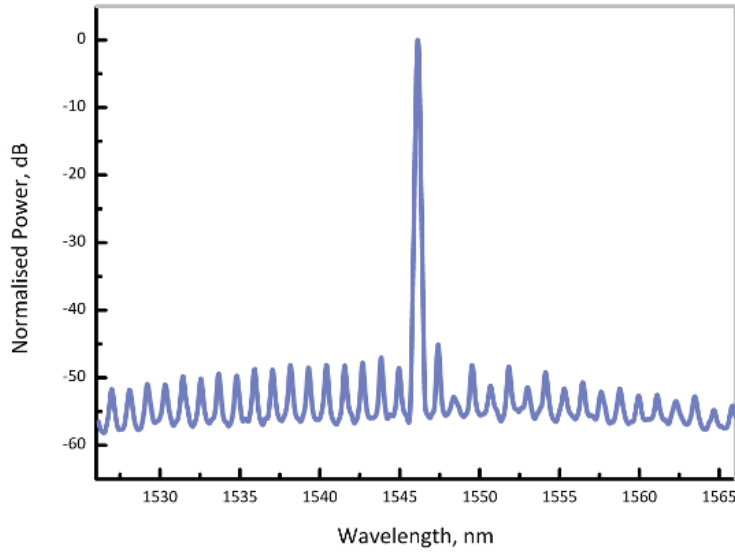- Measure the output power to verify

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Typical Spectrum

Ordering Information

	☐☐☐☐	☐	☐	☐	☐	☐	☐	☐
Prefix	**Wavelength**	**Power**	**Package**	**Isolator**	**Control Mode**	**TEC Cooling**	**Fiber Type**	**Connector**
FCLS-	1550nm = 1550 1310nm = 1310	2mW = 1 5mW = 5	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