

DFB Laser Source, Benchtop

The Optilab DFB-B series are Distributed Feedback (DFB) laser sources in bench top housing that are designed for general laboratory applications.

DFB-B DFB Laser Source, Benchtop



Product Description

The Optilab DFB-B series are Distributed Feedback (DFB) laser sources in bench top housing. They are designed for general laboratory applications. DFB-B is a reliable and cost effective DFB laser source for providing up to 8 DFB wavelengths. With Optilab's comprehensive inventory of high quality lasers, the DFB source can be ordered from a large variety of wavelengths. DFB lasers operating temperature and drive current are precisely monitored by micro-controller to ensure constant output power and emission wavelength stability.

Using its intuitive front panel or an optional RS-232 interface, the user can control the DFB output power level by adjusting the laser drive current and emission wavelength. Optilab DFB Laser Source products are constructed with Telcordia-qualified laser to ensure 15+ years of operating life, backed by a industry leading three year warranty.

Features

- Up to 8 Wavelength DFB sources
- DFB with up to 50 mW output
- Stability Wavelength to 0.005 nm
- Over 80 DWDM Wavelengths

Available

- PM output available
- RS-232 Control Interface
- Three Year Limited Warranty

Applications

- Laboratory Testing and Measurement
- DWDM Networks
- Seed Laser
- Fiber Optics Components
- Fiber Sensors

PRODUCT SPECIFICATIONS

Technical Specifications

Number of DFB	Up to 8 Lasers in One Unit
Available Wavelength Range	All C-Band DWDM Wavelengths; Custom L-Band upon Request. See Attached Table Behind. 1310 ±5 nm, 1510 ±5 nm; 1600 ±5 nm.
Wavelength Accuracy for Customization	± 0.05 nm
Output Power	10 mW, 20 mW; 50 mW on select wavelengths
Output Power Stability	± 0.05 dB over 8 Hours
Wavelength Accuracy	± 0.002 nm over 8 Hours
Standard Laser Linewidth	2 MHz typ., 10 MHz max.,
Narrow Laser Linewidth	< 1 MHz DFB Available
Side Mode Suppression Ratio	45 dB typ.
Optical Isolator	30 dB min.
Relative Intensity Noise	-145 dB/Hz max.
Polarization Extinction Ratio	20 dB typ. (with PM fiber Option)

Adjustable Features and Output

Channel Output Control	On/Off
DFB Power Output	Up to 6 dB Adjustment of Peak Power Output
DFB Wavelength Tuning	± 0.8 nm from the center of the wavelength

Ordering Information

DFB-w-B-xx-y-zzzz

w	Number of Lasers
xx	Optical Power Level (mW) 10, 20, or 50
y	Fiber Type S, SM; P, PM
z ₁ -z ₂ -z ₃ ...	All C-Band DWDM Wavelengths; Custom L-Band upon Request. See Attached Table Behind. 1310 ±5 nm, 1510 ±5 nm; 1600 ±5 nm.



Optilab

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Product specifications and description are subject to change without notice.
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Available DWDM Wavelengths for DFB-B

100 GHz Grid		50 GHz Offset		100 GHz Grid		50 GHz Offset	
nm	THz	nm	THz	nm	THz	nm	THz
1528.77	196.10	1529.16	196.05	1546.12	193.90	1546.52	193.85
1529.55	196.00	1529.94	195.95	1546.92	193.80	1547.32	193.75
1530.33	195.90	1530.72	195.85	1547.72	193.70	1548.11	193.65
1531.12	195.80	1531.51	195.75	1548.51	193.60	1548.91	193.55
1531.90	195.70	1532.29	195.65	1549.32	193.50	1549.72	193.45
1532.68	195.60	1533.07	195.55	1550.12	193.40	1550.52	193.35
1533.47	195.50	1533.86	195.45	1550.92	193.30	1551.32	193.25
1534.25	195.40	1534.64	195.35	1551.72	193.20	1552.12	193.15
1535.04	195.30	1535.43	195.25	1552.52	193.10	1552.93	193.05
1535.82	195.20	1536.22	195.15	1553.33	193.00	1553.73	192.95
1536.61	195.10	1537.00	195.05	1554.13	192.90	1554.54	192.85
1537.40	195.00	1537.79	194.95	1554.94	192.80	1555.34	192.75
1538.19	194.90	1538.58	194.85	1555.75	192.70	1556.15	192.65
1538.98	194.80	1539.37	194.75	1556.55	192.60	1556.96	192.55
1539.77	194.70	1540.16	194.65	1557.36	192.50	1557.77	192.45
1540.56	194.60	1540.95	194.55	1558.17	192.40	1558.58	192.35
1541.35	194.50	1541.75	194.45	1558.98	192.30	1559.39	192.25
1542.14	194.40	1542.54	194.35	1559.79	192.20	1560.20	192.15
1542.94	194.30	1543.33	194.25	1560.61	192.10	1561.01	192.05
1543.73	194.20	1544.13	194.15	1561.42	192.00	1561.83	191.95
1544.53	194.10	1544.92	194.05	1562.23	191.90	1562.64	191.85
1545.32	194.00	1545.72	193.95	1563.05	191.80	1563.45	191.75

DFB Laser Source, Benchtop

Mechanical Specifications

Temperature Range	10° C to +50° C (operating), -10° C to +70° C (storage)
Operating Humidity	0% to 85% Relative Humidity
Power Supply	80 – 240 V, 43 – 63 Hz AC or 40 - 58 V DC (Optional)
Power Consumption	50 W max.
Housing Dimensions	Benchtop, 16.5" x 12.5" x 5.25"
Control / Monitoring	LD Current, Output Power, Laser Wavelength
Remote Control	RS-232 via DB-9 Connector
Display	LD Current, Output Power
Optical Connectors	FC/APC, FC/UPC, SC/APC, SC/UPC PM FC/APC, PM FC/UPC
Optical Fiber Type	SMF-28 (Standard), PANDA for PM Output
Housing	Solid Cast Aluminum



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