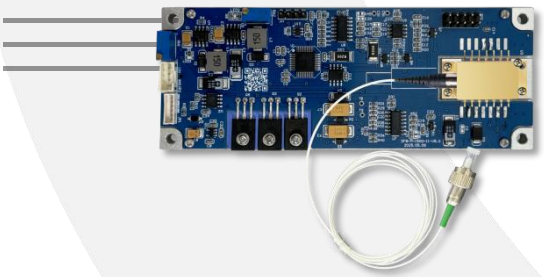
DFB-15XX-PM-M



DEVICE

DFB Laser Source Module, OEM Integration

OVERVIEW

Optilab's DFB-15XX-PM-M is a Distributed Feedback (DFB) Polarization Maintaining (PM) laser source module designed for integration with an optical modulator to form a high bandwidth analog or digital photonics link. With the DFB laser's operating temperature and output power precisely controlled to ensure constant wavelength and power stability. The DFB-15XX-PM-M is designed to work with the Optilab Compact Modulator w/ Bias Control (CMB) for RFoF applications. Utilizing the USB / RS-485 port, the user can control the laser drive current and wavelength via PC interface. Contact Optilab for more information.

FEATURES

- Polarization Maintaining (PM) output
- Laser linewidth 500 KHz is available
- Relative Intensity Noise (RIN) of -145 dB/Hz
- Up to 10 mW output
- Wavelength stability to ±10 pm
- RS-485 or USB interface

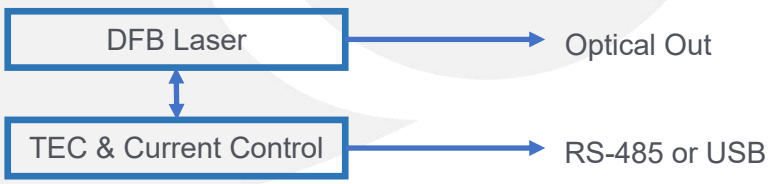
APPLICATIONS

- Light source 40G RFoF analog link
- External modulated DWDM networks
- Seed Oscillator laser for MOPA
- Laboratory testing and measurement
- HFC fiber link

OPTIONS

DFB-15XX-PM-M-xxxx-yy
xxxx: Wavelength (nm)
yy: Output Power (mW)

FUNCTION DIAGRAM



DFB-15XX-PM-M

SPECIFICATIONS

GENERAL

Available Wavelength Range	C-band: 1528 nm to 1564 nm
Wavelength Accuracy	Within ±50 pm
Output Power Level	5 mW, 8 mW, 10 mW
Output Power Stability	±0.2 dB over 8 hours
Wavelength Stability	±10 pm over 8 hours
Laser Linewidth	2 MHz typ.
Side Mode Suppression Ratio	40 dB min.
Optical Isolation	30 dB typ.
Relative Intensity Noise (RIN)	-145 dB/Hz min.
Polarization Extinction Ratio	20 dB typ.

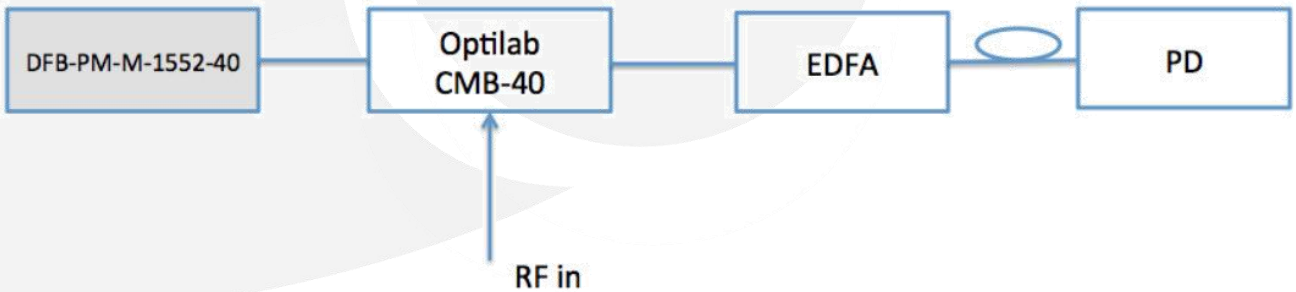
ADJUSTABLE FEATURES AND OUTPUT

DFB Power Output	10-100% adjustable range
DFB Wavelength Tuning	±1.5 nm (from wavelength center)

MECHANICAL

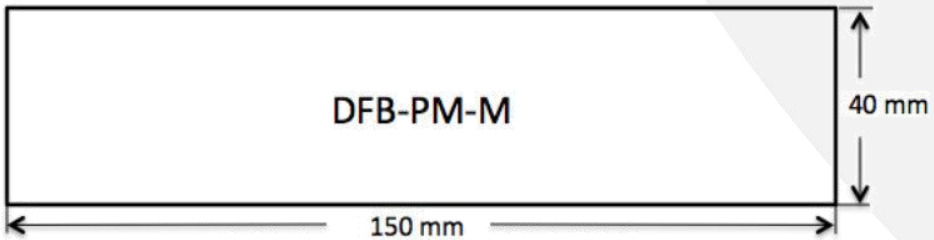
Operating Temperature	+10°C to +50°C
Operating Temperature (TQ Version)	-55°C to +70°C
Storage Temperature	-65°C to +85°C
Operating Humidity	0% to 85% Relative Humidity
Power Supply	5 V DC, 500 mA
Power Consumption	5 W max.
Dimensions	130 x 49.50 x 21 mm
Control/Monitoring	LD Current, Laser Wavelength
Remote Control	RS-485 or USB
Optical Connectors	FC/APC; Other options are available
Optical Fiber Type	PANDA for PM Output
Accessories included	USB cable, power supply

APPLICATION EXAMPLE FOR 40G RFoF ANALOG LINK



DFB-15XX-PM-M

MECHANICAL DRAWING AND PIN OUT



Height is 6 mm without cover

TABLE 1.0 AVAILABLE DFB-PM WAVELENGTHS FOR O-BAND AND C-BAND

C-BAND

Wavelength	
1528 nm	1546 nm
1530 nm	1548 nm
1532 nm	1550 nm
1534 nm	1552 nm
1536 nm	1554 nm
1538 nm	1556 nm
1540 nm	1558 nm
1542 nm	1560 nm
1544 nm	1562 nm

L-BAND

L-band wavelength is available upon request.

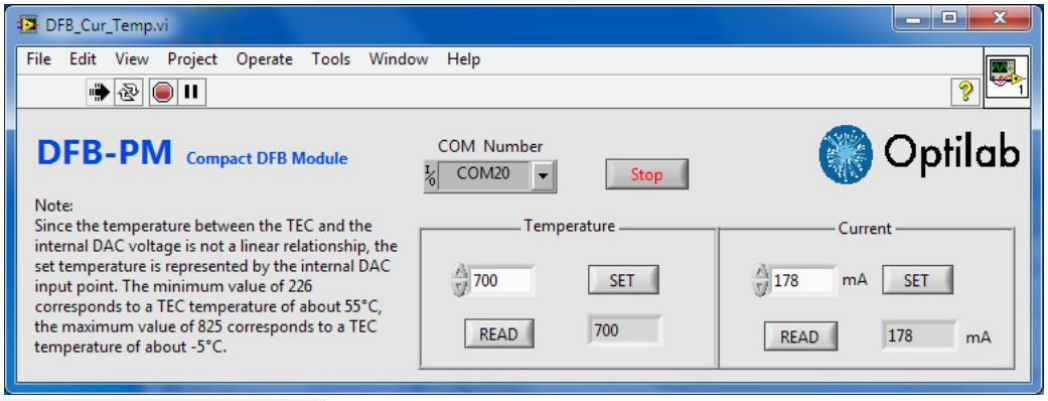
O-BAND

O-band wavelength is available upon request.

Wavelength
1290 nm
1310 nm
1330 nm
1350 nm

REMOTE LABVIEW INTERFACE

Optilab offers remote interface via Labview software, for parameter adjustment and status monitoring, contact Optilab for more details.



DFB-15XX-PM-M

DETAILED MECHANICAL DRAWING