

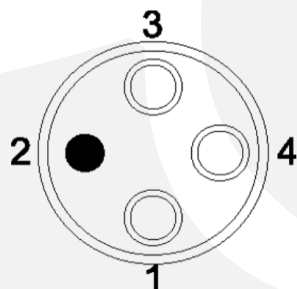
DEVICE **CWDM Laser 1270 nm to 1610 nm, Coaxial DFB w/Fiber Output**

OVERVIEW The DFB-CX is a CWDM Coaxial DFB-LD for CWDM analog communication, CATV return-path, laboratory instrument, and R&D applications. This cost-effective, high reliability DFB laser chip has a selectable wavelength with range between 1270 nm to 1610 nm. The versatile DFB-CX also features a built-in InGaAsP monitor photodiode, built-in optical isolator and 4-pin coaxial- pigtailed package, single mode coupling, and an FC/APC connector. Contact Optilab for more information.

- FEATURES
- Selectable wavelength: 1270 nm to 1610 nm
 - 4-PIN coaxial-pigtailed, single mode coupling
 - High Reliability DFB laser chip
 - Built-in InGaAsP monitor photodiode
 - Built-in optical isolator

- USE IN
- CWDM analog communication
 - CATV transmission return-paths
 - Laboratory instrument
 - R&D applications

PIN OUT DIAGRAM

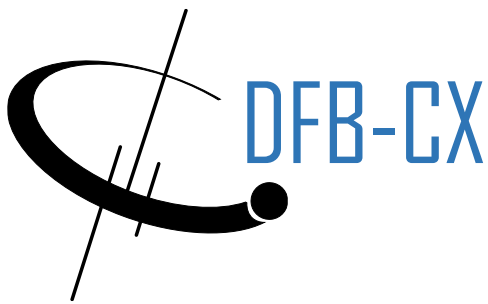


Type 2 Pinout

Pin 1	PD(-), LD(+)
Pin 2	Case
Pin 3	LD(-)
Pin 4	PD(+)

*Type 1 Pinout is available upon request





SPECIFICATIONS

ELECTRICAL

Threshold Current	8 mA typ.
Operating Current	100 mA max.
Analog Bandwidth	2.5 GHz typ. 30 mA
Monitor PD Current	50 μ A min., 2 mA max.
Monitor PD Dard Current	10 nA max.
Photodiode Capacitance	10 pF min.
RF Passband Flatness	1.0 dB max.
Noise Power Ratio	40/14 min. @ 25 °C
Rise/Fall Time	500 ps max. to 3 Gb/s

OPTICAL

Center Wavelength	1270 nm to 1610 nm (See order option for more detail)
Wavelength Tolerance	+/- 2nm
Optical Isolation	20 dB
Optical Output Power	2, 4, 6, 8 mW
Laser Linewidth .	0.1 pm max.
Side Mode Suppression Ratio	35 dB typ.
Relative Intensity Noise	-145 dB/Hz typ.

MAXIMUM RATINGS

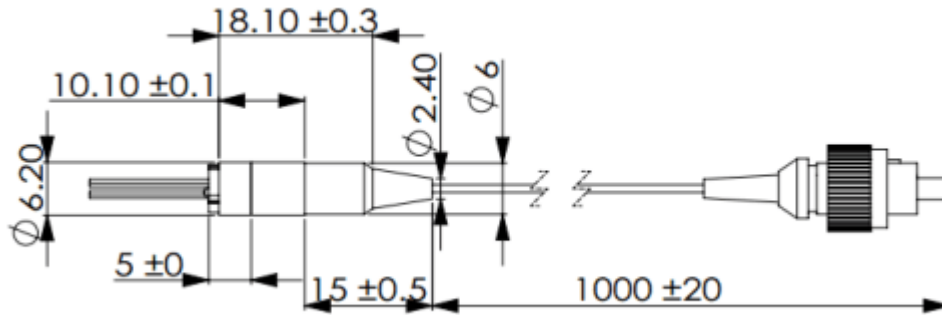
Laser Diode Reverse Voltage	2 V
Laser Diode Forward Current	150 mA
Monitor PD Reverse Voltage	15 V
Monitor PD Reverse Current	2 mA

MECHANICAL

Operating Temperature	-20 °C to +75 °C
Storage Temperature	-40 °C to +85 °C
Power Supply Voltage	1.2 V typ., 2.0 V max.
Optical Connectors	FC/APC, Other types available
Optical Fiber	SMF-28 with 900 μ m or 3 mm jacket
Housing	Coaxial with Fiber Pigtail

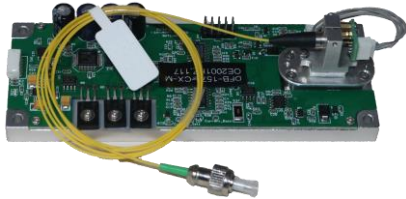


Mechanical Drawing



Module Version

- DFB-XXXX-CX-M



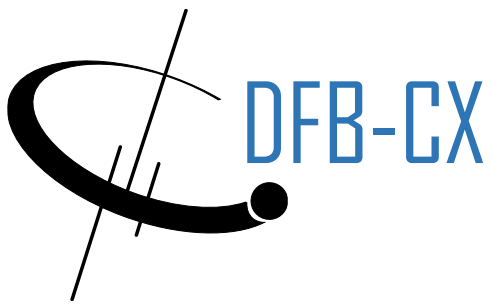
The DFB-XXXX-CX-M is a high performance integrated laser current and TEC controller, on-board heat sink. Designed specifically for DFB-CX.

Polarization Maintaining Version

- DFB-CX-PM-XXXX-YY



The DFB-CX-PM is a Polarization Maintaining version of CWDM Coaxial DFB-LD



ORDERING
OPTIONS

DFB-CX-xxxx-yy

xxxx Wavelengths: See Table 1

yy Output Power : 2, 4, 6, 8 mW

Table 1

CWDM Wavelengths	
1270nm	1450nm
1290nm	1470nm
1310nm	1490nm
1330nm	1510nm
1350nm	1530nm
1370nm	1550nm
1390nm	1570nm
1410nm	1590nm
1430nm	1610nm

