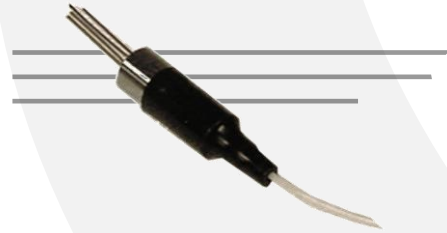


DFB-P-CX



DEVICE

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

OVERVIEW

The DFB-P-CX is a CWDM Pulse 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-P-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.

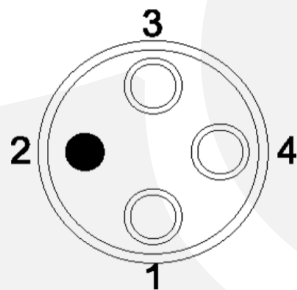
FEATURES

- Selectable wavelength: 1270 nm to 1610 nm
- 4-PIN coaxial-pigtailed, single mode coupling
- High Reliability DFB laser chip
- Up to 50 mW peak power
- Built-in InGaAsP monitor photodiode
- Built-in optical isolator

USE IN

- OTDR and reflectometer
- LIDAR and fiber sensor
- 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.
Pulse Rise Time	300 ps typ.
Monitor PD Current	50 μ A min., 2 mA max.
Monitor PD Dark Current	10 nA max.
Photodiode Capacitance	10 pF min.

OPTICAL

Center Wavelength	1270 nm to 1610 nm (See order option for more detail)
Wavelength Tolerance	+/- 2nm
Optical Isolation	20 dB
Optical Output Power (Peak)	30 mW @ 10 μ s pulse
Laser Linewidth	0.1 pm max.
Minimum Pulse Width	3 ns typ.
Side Mode Suppression Ratio	40 dB typ.
Relative Intensity Noise	-145 dB/Hz typ.

MAXIMUM RATINGS

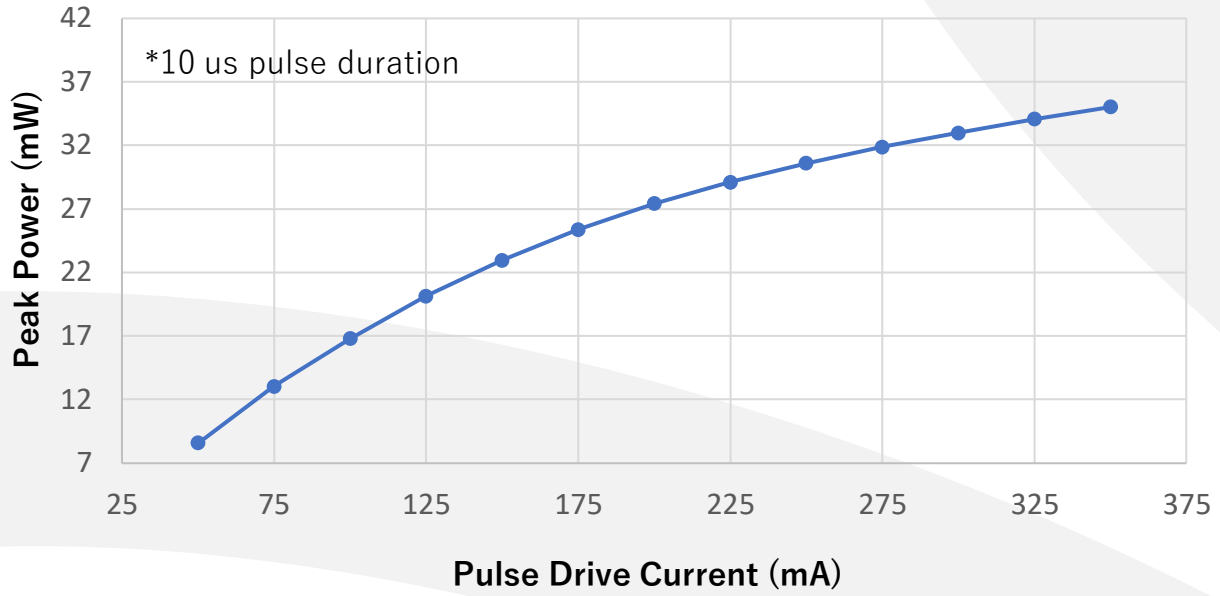
Laser Diode Reverse Voltage	2 V
Laser Diode Forward Current	150 mA
Monitor PD Reverse Voltage	15 V
Monitor PD Reverse Current	2 mA

MECHANICAL

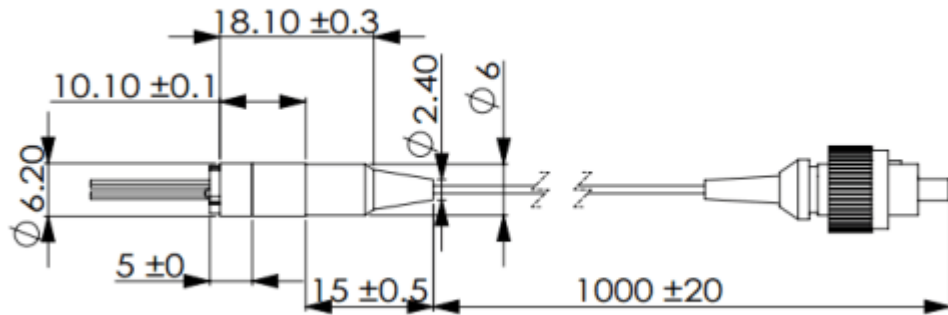
Operating Temperature	-20 $^{\circ}$ C to +75 $^{\circ}$ C
Storage Temperature	-40 $^{\circ}$ C to +85 $^{\circ}$ C
Power Supply Voltage	1.2 V typ., 2.0 V max.
Optical Connectors	FC/APC, Other types available
Optical Fiber	SMF-28 with 900 μ m or 3 mm jacket
Housing	Coaxial with Fiber Pigtail

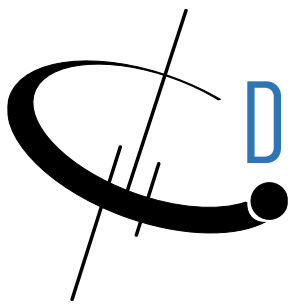


Sample Test Date



Mechanical Drawing





DFB-P-CX

Related Modules

- NPL-CX-M



The Optilab NPL-CX-M is Nanosecond Pulsed CWDM Laser Module with integrated DFB-P-CX. Please see Table 1 for available wavelengths.

- NPL-P



Phoenix Series, Portable

The Optilab NPL-P series is a Nanosecond Pulsed Laser Portable Photonics Instrument (PPI) series in handheld form factor with touchscreen control and intuitive GUI.

ORDERING OPTIONS

DFB-P-CX -xxxx

xxxx Wavelengths: See Table 1

Table 1

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

