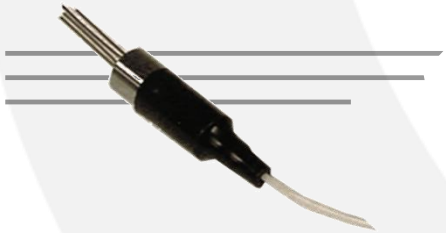
DFB-CWDM-PM



DEVICE

1290 nm to 1610 nm DFB-LD, DFB Laser

OVERVIEW

The DFB-CWDM-PM is a Polarization Maintaining CWDM Coaxial DFB-LD Module for CWDM analog communication, CATV return-path, laboratory instrument, and R&D applications. Formerly known as the LDM5S51X, this cost-effective, high stability DFB laser chip has a selectable wavelength with range between 1290 nm to 1610 nm. The versatile DFB-CWDM 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: 1290 nm to 1610 nm
- 4-PIN coaxial-pigtailed, PM Coupling
- High-stability 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

ORDERING OPTIONS

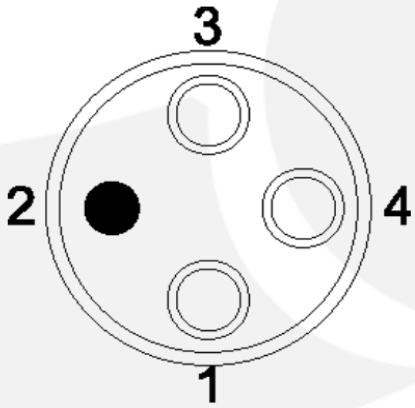
DFB-CWDM-PM-x-y-z

x Wavelengths: 1290, 1310, 1330, 1350, 1370, 1390, 1410, 1430, 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610 nm

y Fiber Connector: FC/APC – FCA, SC/APC - SCA

z Jacket Type: 3 mm jacket – 3, 900 um jacket – .9

PIN OUT DIAGRAM



COAXIAL

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

DFB-CWDM-PM

SPECIFICATIONS

ELECTRICAL

Threshold Current	8 mA typ., 15 mA max.
Operating Current	100 mA max.
Analog Bandwidth	2.5 GHz typ. 30 mA
Monitor PD Current	50 uA 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	1290 nm ± 2 nm to 1610 nm ± 2 nm
Optical Isolation	20 dB
Optical Output Power	3 dBm typ.
Laser Linewidth	0.1 nm max.
Slope Efficiency	0.05 W/A min., 0.15 W/A max.
Side Mode Suppression Ratio	30.0 dB min.
Spurious Noise w/ Carrier	-60 dBc typ.
Spurious Noise w/out Carrier	-52 dBc typ.
Relative Intensity Noise	-150 dB/Hz max.
Polarization Extinction Ratio	>25 dB

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, SC/APC
Optical Fiber	PM-PANDA with 900 um or 3 mm jacket
Housing Dimensions	28 mm x 6 mm x 6 mm
Housing	Coaxial with Fiber Pigtail