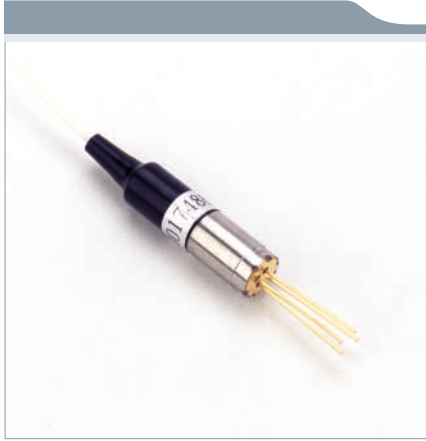


## C-15-DFB-XX-SXXXXX



### Features

- Uncooled laser diode with MQW structure
- High temperature operation without active cooling
- Hermetically sealed active component
- Built-in InGaAs monitor photodiode
- Complies with Bellcore TA-NWT-000983
- Single frequency operation with high SMSR

### Application

- For OC-3, OC-12, and Gigabit applications

### Absolute Maximum Ratings ( $T_c=25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Fiber Output Power			
L		0.6	
M	$P_f$	1.0	MW
H		1.6	
LD Reverse Voltage	$V_{rld}$	2	V
PD Reverse Voltage	$V_{rpd}$	10	V
PD Forward Current	$I_{fpd}$	2.0	mA
Operating Temperature	$T_{opr}$	0 to +70	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-40 to +85	$^\circ\text{C}$

### Ordering Information

## C-15-DFB-XX-SXXXXX-X

**Wavelength**  
15=1550nm

**Package**  
P=Pigtail  
R=Receptacle  
**Pin Assignment**  
A=A Type  
B=B Type  
D=D Type

**Connector**  
FC/ST/SC/MU/-  
**Fiber Output Power**  
"I" = Isolator  
"-" = No isolator  
Flange type (-;O;V;K)

### Optical and Electrical Characteristics ( $T_c = 25^\circ\text{C}$ )

Parameter	Symbol	Min.	Typ	Max	Unit	Test Condition
Threshold Current	$I_{th}$	-	10	15	mA	CW
Fiber Output Power						
L		0.2	-	0.5		
M	$P_f$	0.5	-	1	mW	CW, $I_{th}+20\text{mA}$ , kink free
H		1	-	2		
Peak Wavelength	$\lambda$	1535	1550	1565	nm	
Side mode Suppression	$S_r$	30	35	-	dB	CW, $P_f = P_f (\text{Min})$ , 0 to $70^\circ\text{C}$
Forward Voltage	$V_F$	-	1.2	1.5	V	CW, $P_f = P_f (\text{Min})$
Rise Time, Fall Time	$t_r, t_f$	-	-	0.3	ns	$I_{bias} = I_{th}$ , 10 to 90%
Tracking Error	$\Delta P_f / P_f$	-	-	$\pm 1.5$	dB	APC, 0 to $+70^\circ\text{C}$
PD Monitor Current	$I_m$	100	-	-	$\mu\text{A}$	CW, $P_f = P_f (\text{Min})$ , $V_{rpd} = 2\text{V}$
PD Dark Current	$I_{DARK}$	-	-	0.1	$\mu\text{A}$	$V_{rpd} = 5\text{V}$
PD Capacitance	$C_t$	-	6	15	pF	$V_{rpd} = 5\text{V}$ , $f = 1\text{MHz}$

All optical data refer to a coupled 9/125  $\mu\text{m}$  SM fiber

### DFB LD MODULES-Receptacle

#### LD Pin Assignment

Note: Pin assignment can be customized.  
Units in mm.



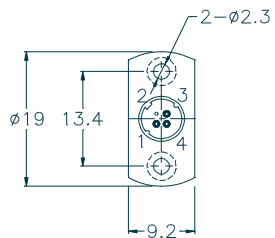
Pin 1 : Laser Cathode  
Pin 2 : Laser Anode and Case Gnd  
Pin 3 : Monitor Diode Anode  
Pin 4 : Monitor Diode Cathode



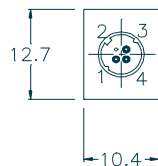
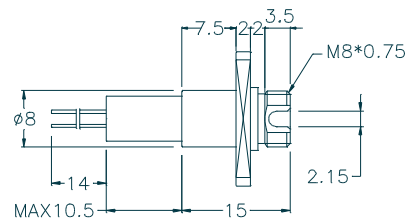
Pin 1 : Monitor Diode Anode  
Pin 2 : Laser Anode and Case Gnd  
Pin 3 : Laser Cathode  
Pin 4 : Monitor Diode Cathode



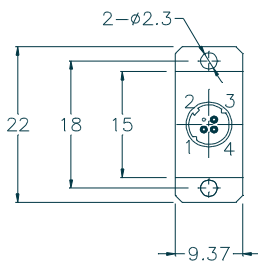
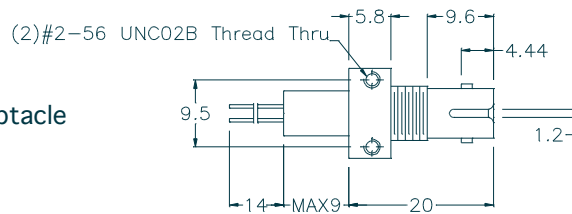
Pin 1 : Laser Anode and Monitor Diode Cathode  
Pin 2 : Case Gnd  
Pin 3 : Laser Cathode  
Pin 4 : Monitor Diode Anode



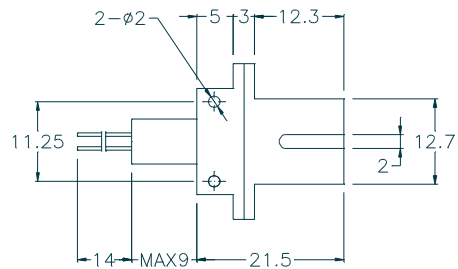
FC Receptacle



ST Receptacle



SC Receptacle



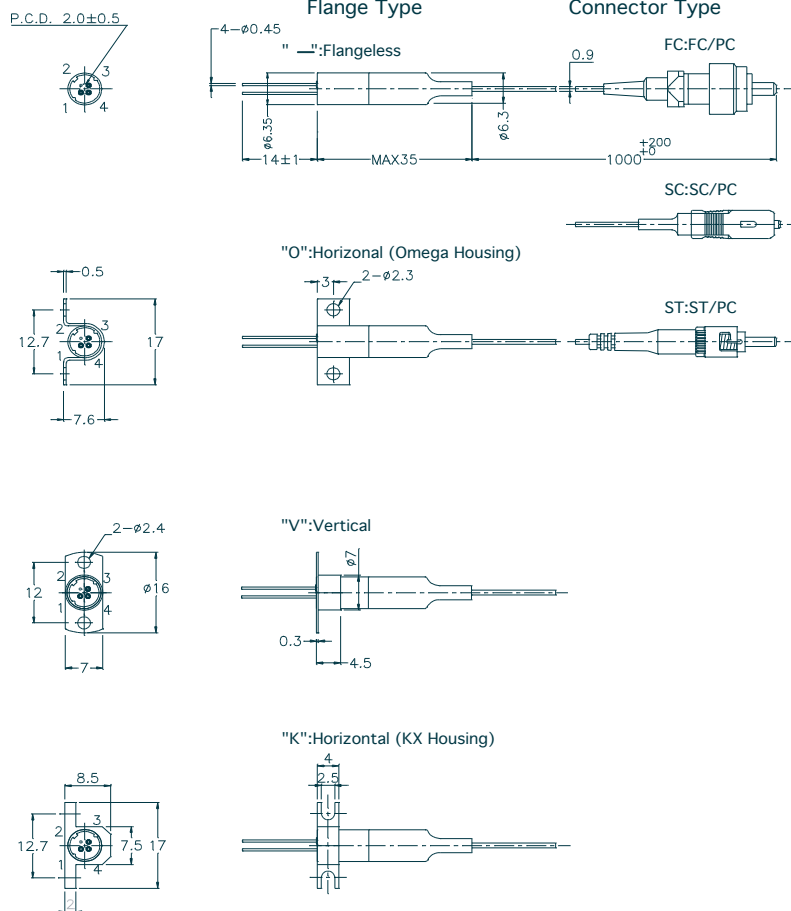
Customer Specified



### DFB LD Modules-pigtailed

#### Packaging Dimensions

Units in mm



#### Warnings

**Handling Precautions:** This device is susceptible to damage as a result of electrostatic discharge (ESD). A static free environment is highly recommended. Follow guidelines according to proper ESD procedures.

**Laser Safety:** Radiation emitted by laser devices can be dangerous to human eyes. Avoid eye exposure to direct or indirect radiation.

#### Legal Notice

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