

Reference No: OM-D-SP-0001-V14

Date: 2003/8/21

Specifications

Product (Part) Name: 2.5G CWDM Series Laser Diode Module (18 channel)

Product (Part) No: C-1XXX-DFB2.5-T/R/PX-SXXXI/XXX-X ;
C-1XXXXA-DFB2.5-T/R/PX-SXXXI/XXX-X

Revision record		
Version	Issue date	Description of change
V12	2003/3/26	1.Add product of A & B type 2.revise rise/fall time
V13	2003/8/1	1.All of the products use Isolator 2.P3 revise the drawing
V14	2003/8/21	Revise the TOSA drawing

Section issued: R&D division		
Approval	Check	Engineer
<i>C.H Chiu</i>	<i>Jack Lin</i>	<i>M.H Liu</i>

For Customer Use
If you accept the specifications, please sign it and return to us
Print Name: _____
Signature: _____

1270 nm

C-1XXXX-DFB2.5-TX-SXXXI
 C-1XXXX-DFB2.5-RX-SXXXI
 C-1XXXX-DFB2.5-PX-SXXXI/XXX-X

**2.5G CWDM Series Laser Diode Module
 (18 channel)**

Features

- Un-cooled 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

Packaging

- TOSA
- FC/ST/SC receptacle package with 2-hole flange
- Fiber pigtailed with optional FC/ST/SC/MU/LC connector

Application

- Design for 2.5G CWDM high speed optic networks



Note:

1. Pin assignment can be customized.
 2. Specifications subject to change without notice.
 3. Selected wavelength is available for WDM application
- *Peak wavelength
 n=1270;1290;1310;1330;1350;1370;
 1390;1410;1430;1450;1470; 1490;
 1510; 1530; 1550 ; 1570; 1590; 1610

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.

Luminent - OIC
 Reference No: OM-D-SP-0001-V14

Absolute Maximum Ratings(Tc=25°C)

Parameter	Symbol	Value	Unit
Fiber Output Power	L/M/H/2 P _f	0.6(L)/1(M)/2(H)/2.6(2)	mW
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~+70	°C
Storage Temperature	T _{stg}	-40~+85	°C

(All optical data refer to a coupled 9/125μm SM fiber)

Optical and Electrical Characteristics(Tc=25°C)

Parameter	Symbo	Min.	Typ.	Max.	Unit	Test condition
Threshold Current	I _{th}	-	-	20	mA	CW
Fiber Output Power	P _f	L	0.2	-	0.5	mW CW, I _{th} +25mA ,kink free
M		0.5	-	1		
H		1	1.6	-		
2		2	2.5	-	CW, I _{th} +30mA ,kink free	
Peak Wavelength	λ	n-2	n	n+2	nm	Note 3
		n-3	n	n+3		Note 3
Side mode Suppression	S _r	30	35	-	dB	CW, P _f =P _f (Min),0~70°C
Forward Voltage	V _F	-	1.2	1.5	V	CW, P _f =P _f (Min)
Rise Time	t _r	-	-	150	ps	I _{bias} =I _{th} ,20~80% , lead length=1mm
Fall Time	t _f	-	-	200	ps	
Tracking Error	ΔP _f /P _f	-	-	±1.5	dB	APC, 0~70°C
PD Monitor Current	I _m	100	-	-	μA	CW, P _f =P _f (Min),V _{RPD} =2V
PD Dark Current	I _{DARK}	-	-	0.1	μA	V _{RPD} =5V
PD Capacitance	C _t	-	6	15	pF	V _{RPD} =5V, f=1MHz
Optical Isolation	OI	30	-	-	dB	Tc=25°C
		20	-	-		0°C < Tc < 70°C

Ordering Information

C-XXXXX-DFB2.5-XX-SXXXI/XXX-X

<p>Wavelength</p> <p>1270=1270 nm 1450=1450 nm 1290=1290 nm 1470=1470 nm 1310=1310 nm 1490=1490 nm 1330=1330 nm 1510=1510 nm 1350=1350 nm 1530=1530 nm 1370=1370 nm 1550=1550 nm 1390=1390 nm 1570=1570 nm 1410=1410 nm 1590=1590 nm 1430=1430 nm 1610=1610 nm " " =Wavelength ±2nm "A"=Wavelength ±3nm</p>	<p>Package</p> <p>T=TOSA P=Pigtail R=Receptacle</p> <p>Pin Assignment</p> <p>"."=A Type B =B Type D =DType</p>	<p>Connector</p> <p>FC/ST/SC/MU/LC/-</p> <p>Fiber Output Power</p> <p>L/M/H/2</p> <p>"I" = Isolator</p>	<p>- = PC Fiber APC = APC Fiber UPC = UPC Fiber</p> <p>Flange type (-:O;V;K)</p>
---	--	---	--

1270 nm

C-1XXXX-DFB2.5-TX-SXXXI
C-1XXXX-DFB2.5-RX-SXXXI
C-1XXXX-DFB2.5-PX-SXXXI/XXX-X

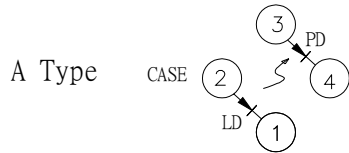
2.5G CWDM Series Laser Diode Module (18 channel)

2.5G DFB LD Module-receptacle

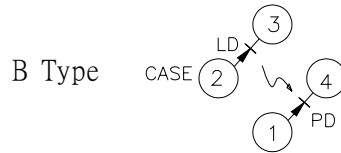
Part Number : C-XXXXX-DFB2.5-RX-SXXXI

LD Pin Assignment

Units in mm



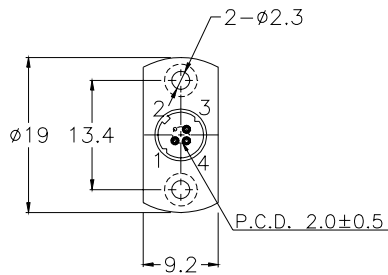
Pin 1 : Laser Cathode
Pin 2 : Laser Anode and Case Gnd
Pin 3 : Monitor Diode Anode
Pin 4 : Monitor Diode Cathode



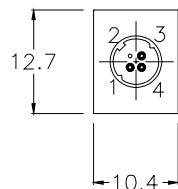
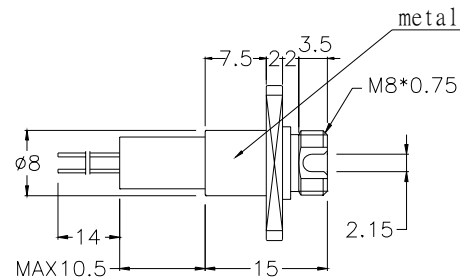
Pin 1 : Monitor Diode Anode
Pin 2 : Laser Anode and Case Gnd
Pin 3 : Laser Cathode
Pin 4 : Monitor Diode Cathode



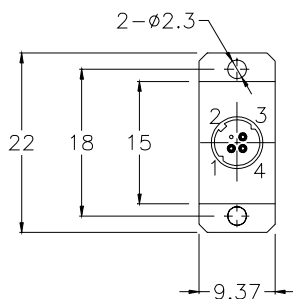
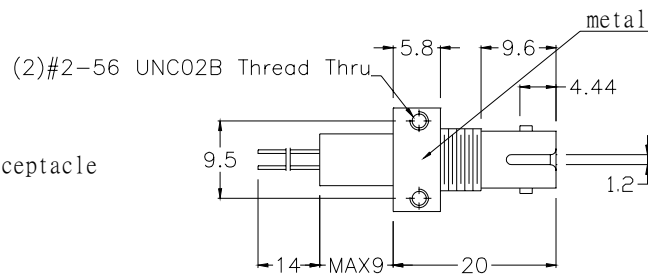
Pin 1 : Laser Anode and Monitor Diode Cathode
Pin 2 : Case Gnd
Pin 3 : Laser Cathode
Pin 4 : Monitor Diode Anode



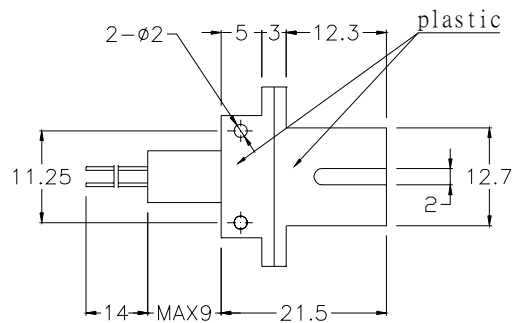
FC Receptacle



ST Receptacle



SC Receptacle



1270 nm

C-1XXXX-DFB2.5-TX-SXXXI
C-1XXXX-DFB2.5-RX-SXXXI
C-1XXXX-DFB2.5-PX-SXXXI/XXX-X

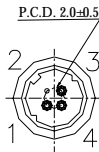
2.5G CWDM Series Laser Diode Module (18 channel)

2.5G DFB LD Module-TOSA

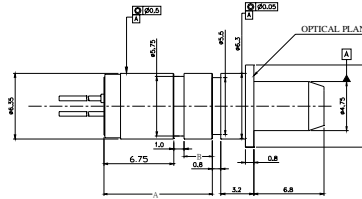
Part Number : C-XXXXX-DFB2.5-TX-SXXXI

Packaging Dimension

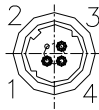
Units in mm



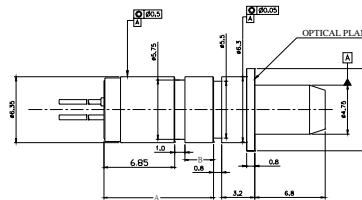
SC TOSA (L&M&H Power)
C-XXXXX-DFB2.5-TX-SSCXI



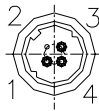
DIMENSION A:Max 11.8mm
B:Max 4.05mm



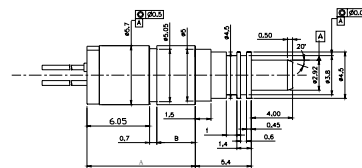
SC TOSA
C-XXXXX-DFB2.5-TX-SSC2I



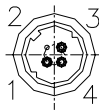
DIMENSION A:Max 11.8mm
B:Max 3.95mm



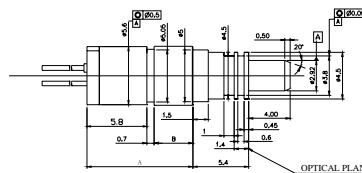
LC TOSA (L&M&H Power)
C-XXXXX-DFB2.5-TX-SLCXI



DIMENSION A:Max 11.8mm
B:Max 5.05mm



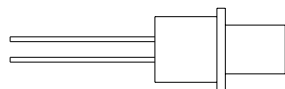
LC TOSA
C-XXXXX-DFB2.5-TX-SLC2I



DIMENSION A:Max 11.8mm
B:Max 5.3mm



Customer Specified
TOSA



1270 nm

C-1XXXX-DFB2.5-TX-SXXXI
C-1XXXX-DFB2.5-RX-SXXXI
C-1XXXX-DFB2.5-PX-SXXXI/XXX-X

2.5G CWDM Series Laser Diode Module
(18 channel)

2.5G DFB LD Module-pigtailed

Part Number : C-XXXXX-DFB2.5-PX-SXXXI/XXX-X

Packaging Dimension

Units in mm

