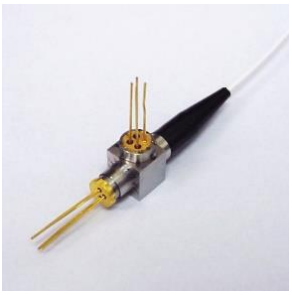
1.25Gbps TX:1310nm DFB LD / RX:1550nm PIN WDM Bi-Directional Module Pigtail

Model No. T13D-R15-P-FCHCH

Features

- Single Fiber with Bi-directional Transmission
- Integrated Wavelength Division Multiplexer
- 1310nm MQW-DFB LD
- 1550nm InGaAs PIN Receiver
- Uncooled
- Low threshold current
- Hermetically sealed
- Operating temperature -40 to +85ºC



Packaging

- Package in pigtailed module with FC/PC

Applications

- Optical Communication System
- Gigabit Ethernet links
- Fiber Channel Link at 1.06Gbps

Specifications

Absolute Maximum Ratings					
Parameters		Symbol	Value	Unit	Conditions
Storage temperature		Tstg	-40~+85	ºC	
Operating case temperature		Top	-40~+85	ºC	
TX	Peak optical output power	Po	8	mW	
	Forward current (LD)	IfLD	150	mA	
	Reverse voltage (LD)	VrLD	2	V	
	Reverse current (PD)	IrPD	2	mA	
	Reverse voltage (PD)	VrPD	15	V	
RX	Reverse Voltage	Vr	10	V	
Soldering temperature		Stemp	260	ºC	10 seconds

TX Electro-Optical Characteristics (CW @ T_C = 25ºC unless otherwise noted)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Threshold current	Ith	–	8	15	mA	CW
		–	–	50		CW, Tc = -40~85 ºC
Operating voltage	Vop	–	1.2	1.6	V	CW, Pop, Tc = -40~85ºC
Operating power	Pop	1	–	–	mW	Pop = Ith+20mA
Peak wavelength	λp	1290	–	1330	nm	CW, Pop
Side-mode suppression rate	SMSR	30	–	–	dB	CW, Pop
Spectral Width (-20dB)	Δλ	–	–	1	nm	CW, Pop
Rise time	Tr	–	–	0.3	ns	Ib=Ith, 20%~80%, Tc=-40~85ºC
Fall time	Tf	–	–	0.3	ns	Ib=Ith, 20%~80%, Tc=-40~85ºC
Monitor current	Im	0.1	0.5	–	mA	Pop, Vrp =5V
Monitor dark current	Id	–	–	100	nA	Vrp = 5V
Monitor capacitance	C	–	–	10	pF	Vrp = 5V, f=1MHZ
Tracking error	TE	–	±0.7	±1.5	dB	APC, -40~85ºC

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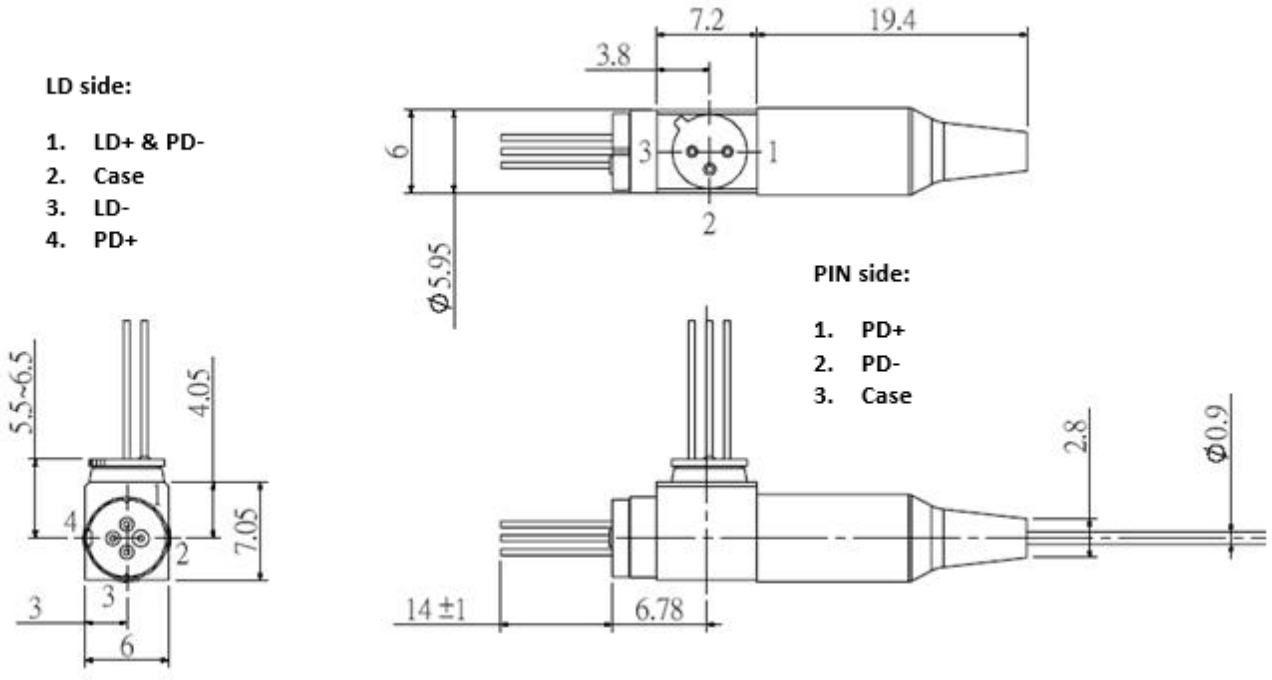
RX Electro-Optical Characteristics (CW @ T_C = 25°C unless otherwise noted)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Detection Range	λ	1480	—	1580	nm	Vr=5V
Saturation Power	P_{sat}	0	—	—	dBm	Vr=5V,λ=1550nm
Responsivity	R	0.65	—	—	A/W	Vr=5V,Pin=100uW
Dark Current	Id	—	0.1	2.0	nA	Vr=5V
Capacitance	C	—	0.7	1.2	pF	Vr=5V
Bandwidth	BW	1.5	—	—	GHz	Vr=5V

Fiber Pigtail Specifications					
Parameters	Symbol	Min.	Typ.	Max.	Unit
Fiber type	Single Mode Fiber (Flame Retardant Hytrel Coating)				
Cladding diameter	Dcl	122	125	128	um
Mode field diameter	Dmf	-	10	-	um
Coating diameter	Dbc	-	0.9	1	mm
Pigtail length*	L	0.9	1.0	1.1	m
Bending radius	Rb	30	-	-	mm
Connector	FC/PC				
*From the ferrule-end to the bottom of TO-header.					

Outline Dimensions (unit: mm)



Note: Specifications are subject to change without notice.

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