

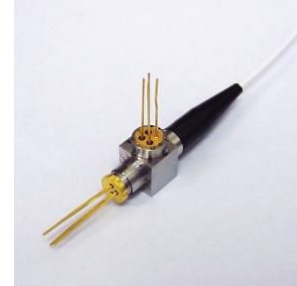


1.25Gbps TX:1550nm DFB LD / RX:1310nm PIN WDM Bi-Directional Module Pigtail

Model No. T15D-R13-P-FCHCH

Features

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



Packaging

- Package in pigtailed module with FC/PC

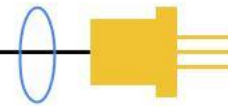
Applications

- 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	°C	
Operating case temperature		Top	-40~+85	°C	
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	°C	10 seconds

TX Electro-Optical Characteristics (CW @ T _c = 25°C unless otherwise noted)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Threshold current	I _{th}	—	8	15	mA	CW
		—	—	50		CW, T _c = -40~85°C
Operating voltage	V _{op}	—	1.2	1.6	V	CW, Pop, T _c = -40~85°C
Operating power	P _{op}	1	—	—	mW	Pop = I _{th} +20mA
Peak wavelength	λ _p	1530	—	1570	nm	CW, Pop
Side-mode suppression rate	SMSR	30	—	—	dB	CW, Pop
Spectral Width (-20dB)	Δλ	—	—	1	nm	CW, Pop
Rise time	T _r	—	—	0.3	ns	I _b =I _{th} , 20%~80%, T _c =-40~85°C
Fall time	T _f	—	—	0.3	ns	I _b =I _{th} , 20%~80%, T _c =-40~85°C
Monitor current	I _m	0.1	0.5	—	mA	Pop, V _{rp} =5V
Monitor dark current	I _d	—	—	100	nA	V _{rp} = 5V
Monitor capacitance	C	—	—	10	pF	V _{rp} = 5V, f=1MHZ
Tracking error	TE	—	±0.7	±1.5	dB	APC, -40~85°C

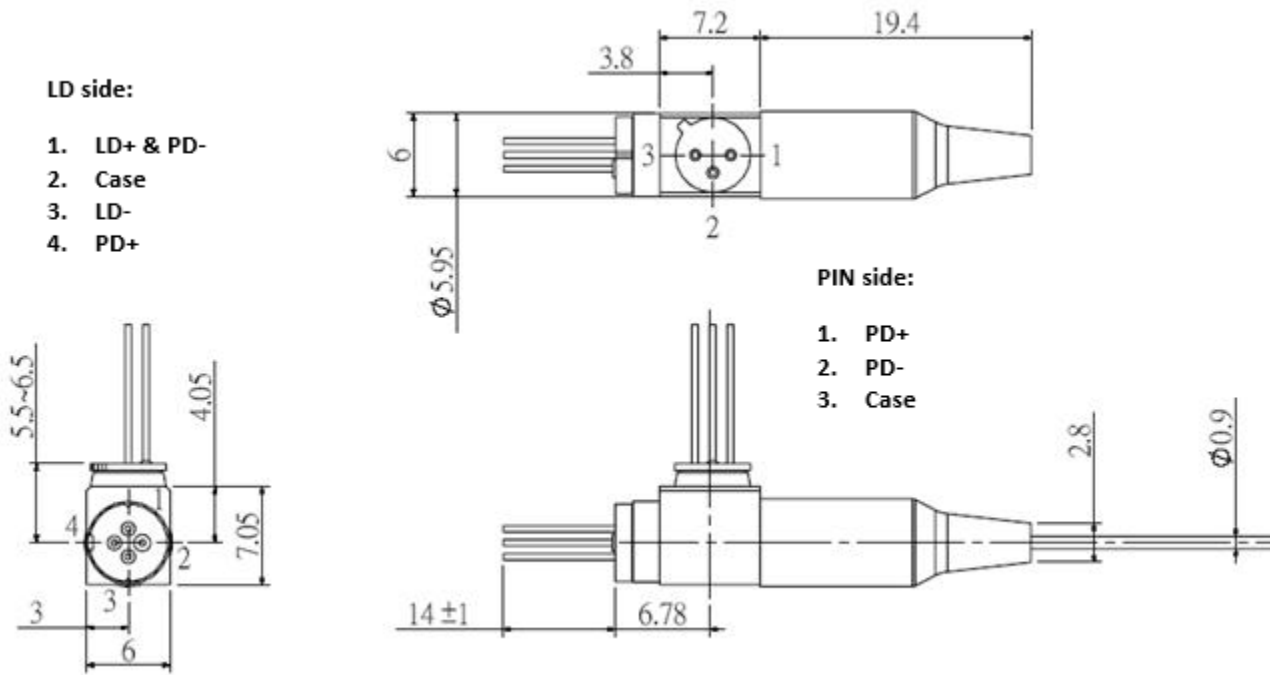


RX Electro-Optical Characteristics (CW @ T _c = 25°C unless otherwise noted)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Detection Range	λ	1260	—	1360	nm	
Saturation Power	P _{sat}	0	—	—	dBm	V _r =5V, λ =1310nm
Responsivity	R	0.65	—	—	A/W	V _r =5V, P _{in} =100uW
Dark Current	I _d	—	0.1	2.0	nA	V _r =5V
Capacitance	C	—	0.7	1.2	pF	V _r =5V
Bandwidth	BW	1.5	—	—	GHz	V _r =5V

Fiber Pigtail Specifications						
Parameters	Symbol	Min.	Typ.	Max.	Unit	
Fiber type		Single Mode Fiber (Flame Retardant Hytrel Coating)				
Cladding diameter	D _{cl}	122	125	128	um	
Mode field diameter	D _{mf}	-	10	-	um	
Coating diameter	D _{bc}	-	0.9	1	mm	
Pigtail length*	L	0.9	1.0	1.1	m	
Bending radius	R _b	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.