

Triplexer Optical Module

Features

Upstream Digital Data Rate

1.25Gb/s at 1310nm

Downstream Digital Data Rate:

1.25Gb/s at 1490nm

Downstream Analog Bandwidth:

1.0GHz at 1550nm

Applications

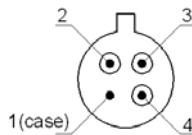
ONU for GE-PON or G-PON

FTTH



PIN assignment

PIN-TIA



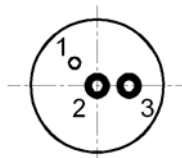
Pin	A type	B type
1	GND	GND
2	Vcc	Out(+)
3	Out(-)	Vcc
4	Out(+)	Out(-)

LD



1	case
2	LD(-)
3	PD(+)
4	LD(+)/PD(-)

PIN



pin	Function
1(case)	GND
2	N
3	P

Absolute maximum ratings

Parameter	Symbol	Value	Unit
Storage temperature	Tst	-40~+85	°C
Operating temperature	Top	-40~+85	°C
Reverse voltage	V _R	30	V
Soldering temperature/time	-	260/10	°C/ s

Optical & electrical characteristics(T=25°C)

1310nm Tx

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test condition
Center wavelength	λ _c	1290	1310	1330	nm	-
Threshold current	I _{th}	-	10	15	mA	
Spectral width	Δλ	-	1	3	nm	-
Output power	P	-	1	-	mW	CW, I _{th} +20mA
Operating voltage	V _{op}	-	1.1	1.5	V	CW, I _{th} +20mA
Rise/ Fall time	Tr/Tf	-	0.3	0.7	nS	10%~90%, I _b =I _{th}
Monitor current	I _m	0.1	0.7	-	mA	CW, I _{th} +20mA

1490nm PIN-TIA Rx

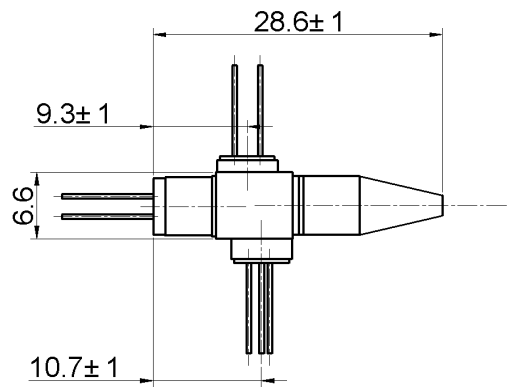
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test condition
Suplly Voltage	V _{cc}	4.5	5.0	5.5	V	-
		3.0	3.3	3.6		
Suplly Current	I _{cc}	-	32	40	mA	No load
Sensitivity*	S	-	-38	-	dBm	155M, BER=10 ⁻¹⁰
Saturation power	P _{sat}	-3	0	-	dBm	25°C

Note:*622M<-33dBm; 1.25G<-23dBm; 2.5G<-20dBm;

1550nm PIN Rx

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test condition
Detection range	λ	1540	-	1560	nm	-
Dark current	I _d	-	0.1	1	nA	V _R =5V
Quantum efficiency	R	0.80	0.85	-	A/W	V _R =5V, 1310 nm
Band width	BW	-	1.5	-	GHz	R _L =50Ω/-3dB
Capacitance	C _t	-	-	0.75	pF	V _R =5V

Dimensions Diagram



Order information

ST	X	X	X	X	X	XX
	wavelength	LD	Power	Rate	Connect	Add info.
	1310Tx/1490Rx/1550Rx	type	L, 0.2~0.5mW	1, 155M	1, FC/PC	
		1, FP	M, 0.5~1mW	2, 622M	2, SC/PC	
		2, DFB	H, >2mW	3, 1.25G	3, ST/PC	
				4, 2.5G		

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 RADIATION
AVOID EXPOSURE TO BEAM
Class 3 B laser product

CAUTION
STATIC SENSITIVE DEVICE
OBSERVE PRECAUTIONS