



R13-2G-RYZ-VP

2.5Gbps Receptacle InGaAs PIN-TIA Photodiode Receiver Module

Description

The Lasermate R13-2G-RYZ-VP is a 1100-1630nm wavelength range, InGaAs PIN photodiode receiver module integrated with transimpedance amplifier (TIA). The devices are available in connector style receptacle packages (FC or ST). The InGaAs photodiode ROSA is characterized by its high sensitivity and high speed, reaching up to 2.5Gbps data rate operation.



Features

- High speed
- High Sensitivity
- Hermetically sealed
- Single power supply +3.3V

Packaging

- FC/ST receptacle package

Applications

- SONET OC3, OC-12, OC-48
- SDH STM-1, STM-4, STM-16
- LAN

Ordering Information

Read Model No.	R13-2G-RYZ-VP
R13 = Receiver	InGaAs/InP PIN-TIA photodiode
2G = Data Rate	2.5 Gbps
R = Package	Receptacle
Y = Connector	FC (FC) , ST (ST)
Z = Sensitivity	-18dBm (1) , -20dBm (2) , -22dBm (3) , -24dBm (4)
V = Supply voltage	3.3V (3)
P = Pin configuration	5-pin (5)



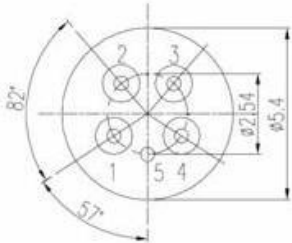
Specifications

Absolute Maximum Ratings			
Parameters	Symbol	Value	Unit
Storage temperature	Tstg	-40~+85	°C
Operating case temperature	Top	-40~+85	°C
Peak optical power	Po	0	dBm
Power supply Voltage	Vp	3.6	V
Soldering temperature	Stemp	260	°C
Soldering time	Stime	10	sec

Electro-Optical Characteristics (CW @ T _c = 25°C unless otherwise noted)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Wavelength	λ	1100		1630	nm	
Bandwidth	BW	1.4			MHz	V _{cc}
Low Frequency Cut-off	LF			100	kHz	V _{cc}
Supply Current	I _{cc}		45	60	mA	V _{cc} , no load
Sensitivity	S	-18			dBm	λ=1310nm, @2488.32Mbps, PRBS23, ER=10dB, BER=1E ⁻¹⁰
		-20				
		-22				
		-24				
Saturation power	P _{sat}	0			dBm	λ=1310nm, @2488.32Mbps, PRBS23, ER=10dB, BER=1E ⁻¹⁰
Differential Responsivity	R _d	14		30	mV/μW	R _{load} = 100ohm, P = -18Bm, λ=1310nm
Rise/Fall Time	τ _r /τ _f		170	200	ps	V _{cc} =3.3V, 20%~80%
Single Ended Impedance	R _o		50		ohm	

Pin Configuration

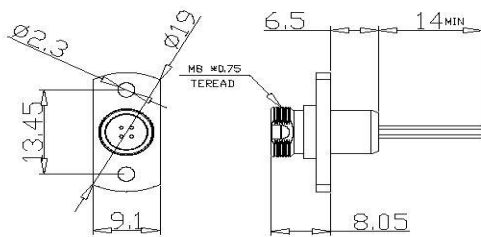
5-pin:



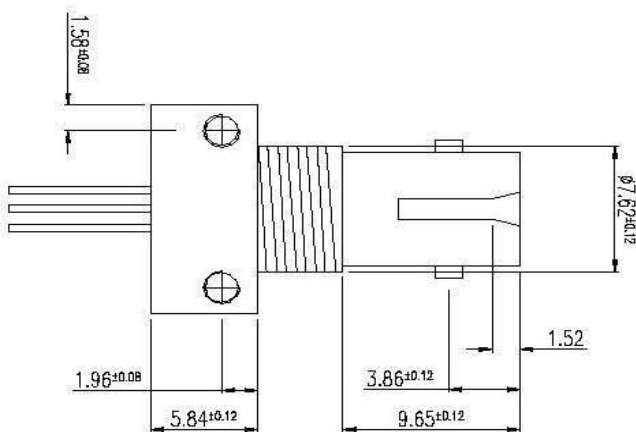
Number	Function
1	Dout +
2	Vcc
3	Isource
4	Dout -
5	GND

Outline Dimensions (unit: mm)

FC Receptacle



ST Receptacle



Note: Specifications are subject to change without notice.