



R85-1G-RYZ-VP

1.25Gbps Receptacle GaAs PIN-TIA Photodiode Receiver Module

Description

The Lasermate R85-1G-RYZ-VP series is a 770-860nm wavelength range, fiber coupled GaAs amplified photodiode receiver module integrated with transimpedance amplifier (TIA). The GaAs PIN-TIA photodiode optical module is available in receptacle style housings with FC or ST connector. The GaAs photodiode ROSA features high sensitivity and high-speed reaching up to 1.25Gbps 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 / SDH STM-1, STM-4
- LAN

Ordering Information

Read Model No.	R85-1G-RYZ-VP
R85 = Receiver	GaAs PIN-TIA photodiode
1G = Data Rate	1.25 Gbps
R = Package	Receptacle
Y = Connector	FC (FC), ST (ST)
Z = Sensitivity	-18dBm (1), -20dBm (2), -22dBm (3)
V = Supply voltage	3.3V (3)
P = Pin configuration	4-pin (4); 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	770		860	nm	
Bandwidth	BW	700			MHz	V _{cc}
Low Frequency Cut-off	LF			100	kHz	V _{cc}
Supply Current	I _{cc}		22	35	mA	V _{cc} , no load
Sensitivity	S	-18			dBm	λ=850nm, @1244.16Mbps, PRBS7, ER=10dB, BER=1E ⁻¹⁰
		-20				
		-22				
Saturation power	P _{sat}	0			dBm	λ=850nm, @1244.16Mbps, PRBS7, ER=10dB, BER=1E ⁻¹⁰
Differential Responsivity	R _d	6.4		17.8	mV/μW	R _{load} = 100ohm, P = -22Bm, λ=1310nm
Rise/Fall Time	τ _r /τ _f			400	ps	V _{cc} =3.3V, 20%~80%
Single Ended Impedance	R _o		50		ohm	

Pin Configuration

4-pin:

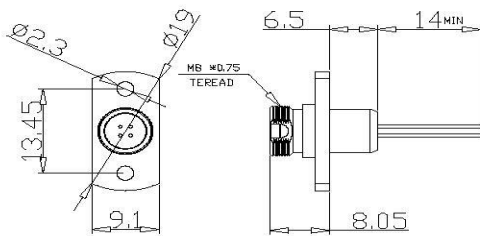
Number	Function
1	VCC
2	Dout-
3	Dout+
4	GND

5-pin:

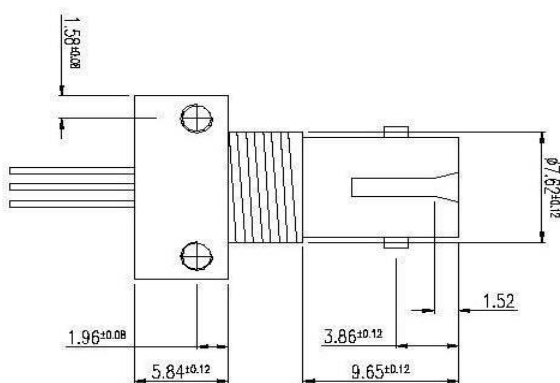
Number	Function
1	Dout +
2	Vcc
3	Isource
4	Dout -
5	GND

Outline Dimensions (unit: mm)

FC Receptacle



ST Receptacle



Note: Specifications are subject to change without notice.