

1.25Gbps Connectorized GaAs PIN-TIA Photodiode Receivers

Model No. R85-1G-XYZ-VP

Read Model No.	R85-1G-XYZ-VP
R85 = Receiver	GaAs PIN-TIA photodiode
1G = Data Rate	1.25 Gbps
X = Package	Receptacle (X=R); Pigtail (X=P)
Y = Connector	For Receptacle: FC (Y=FC), ST (Y=ST) For Pigtail: None (Y=NO); FC-PC (Y=FC); SC-PC (Y=SC); ST-PC (Y=ST); LC-PC (Y=LC)
Z = Sensitivity	-18dBm (Z=1), -20dBm (Z=2), -22dBm (Z=3)
V = Supply voltage	3.3V (V=3)
P = Pin configuration	4-pin (P=4); 5-pin (P=5)

Features

- High speed
- High Sensitivity
- Hermetically sealed
- Single power supply +3.3
- Packaged in connector Pigtail or Receptacle

Packaging

- FC/ST receptacle package
- SM fiber pigtailed with optional FC/ST/SC connector

Applications

- SONET OC3, OC-12 / SDH STM-1, STM-4
- LAN

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	

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		TBD				

Note: Horizontal mount is available upon request and provided separately.

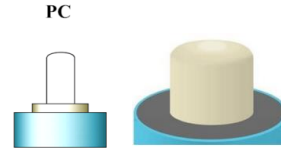
Lasermate Group, Inc.





19608 Camino De Rosa, Walnut, CA 91789, USA

Tel: (909)718-0999 | Fax: (909)718-0998 | E-mail: info@lasermate.com | URL: <http://www.lasermate.com>



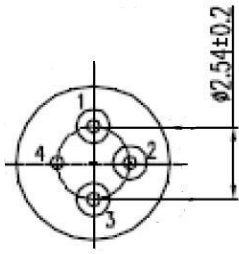
For Pigtail – Optics Fiber Connector Type



Type	Ferrule Diameter	Multi mode PC	Type	Ferrule Diameter	Multi mode PC
FC	2.5mm		ST	2.5mm	
SC	2.5mm		LC	1.25mm	

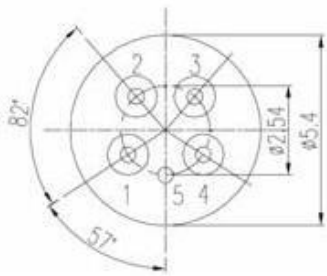
Pin Configuration

4-pin:

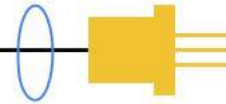


Number	Function
1	VCC
2	Dout-
3	Dout+
4	GND

5-pin:

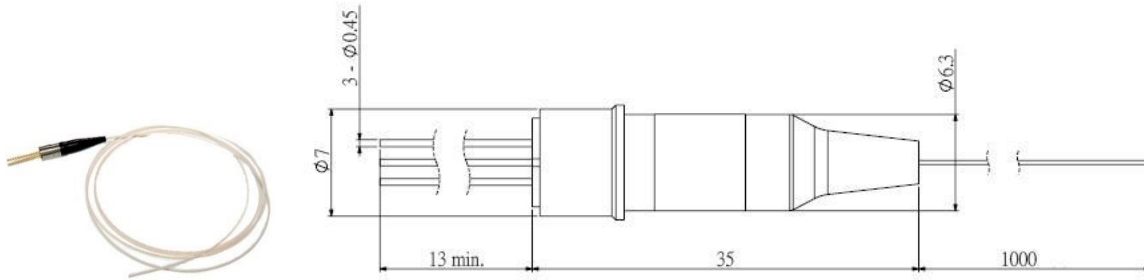


Number	Function
1	Dout +
2	Vcc
3	Isource
4	Dout -
5	GND

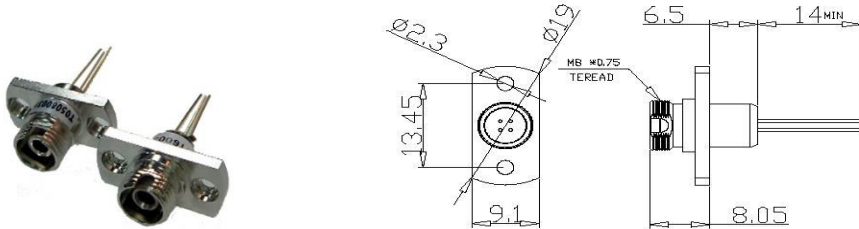


Outline Dimensions (unit: mm)

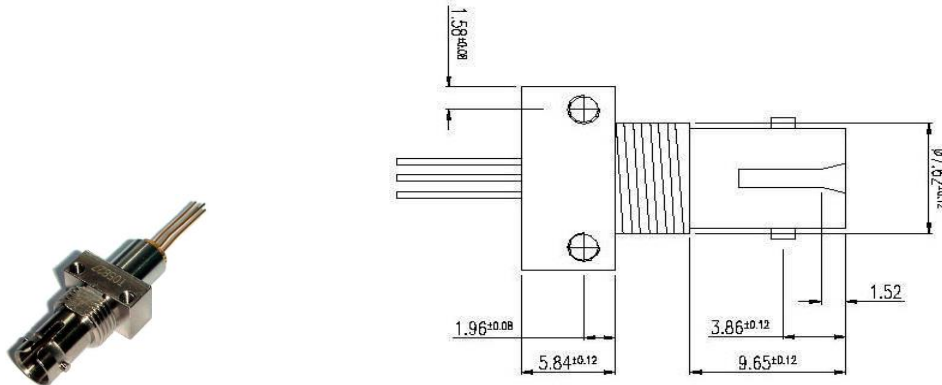
Pigtail



FC Receptacle



ST Receptacle



Note: Specifications are subject to change without notice.