

2.5Gbps Connectorized InGaAs PIN-TIA Photodiode Receivers

Model No. R13-2G-XYZ-VP

Read Model No.	R13-2G-XYZ-VP
R13 = Receiver	InGaAs/InP PIN-TIA photodiode
2G = Data Rate	2.5 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); FC-APC (Y=FA); SC-APC (Y=CA); ST-APC (Y=TA); LC-APC (Y=LA)
Z = Sensitivity	-18dBm (Z=1), -20dBm (Z=2), -22dBm (Z=3), -24dBm (Z=4)
V = Supply voltage	3.3V (V=3)
P = Pin configuration	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, OC-48
- SDH STM-1, STM-4, STM-16
- 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	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	Psat	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	

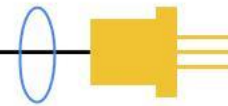
Fiber Pigtail Specifications						
Parameters	Symbol	Min.	Typ.	Max.	Unit	
Fiber type		Single Mode Fiber (Flame Retardant Hytrel Coating)				
Cladding diameter	D _{cl}	122	125	128	um	
Mode field diameter	D _{mf}	-	10	-	um	
Coating diameter	D _{bc}	-	0.9	1	mm	
Pigtail length	L	0.9	1.0	1.1	m	
Bending radius	R _b	30	-	-	mm	
Connector		TBD				

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

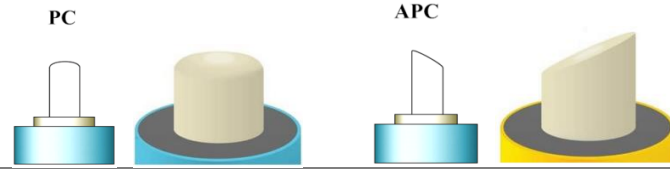
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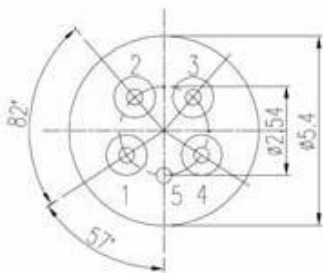
For Pigtail – Optics Fiber Connector Type



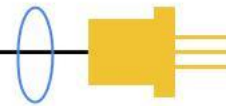
Type	Ferrule Diameter	Single mode PC	Single mode APC
FC	2.5mm		
SC	2.5mm		
ST	2.5mm		
LC	1.25mm		

Pin Configuration

5-pin (P=5):

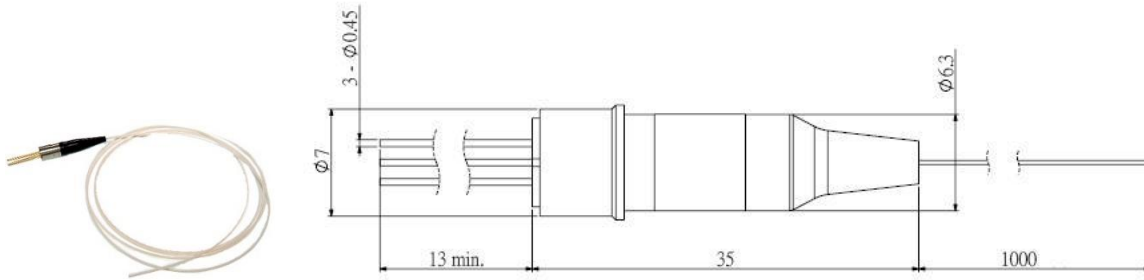


Number	Function
1	Dout +
2	Vcc
3	Isource
4	Dout -
5	GND

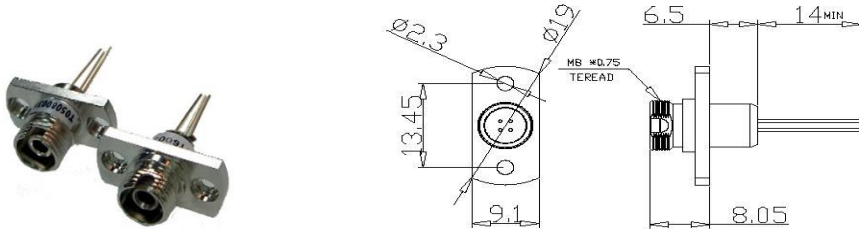


Outline Dimensions (unit: mm)

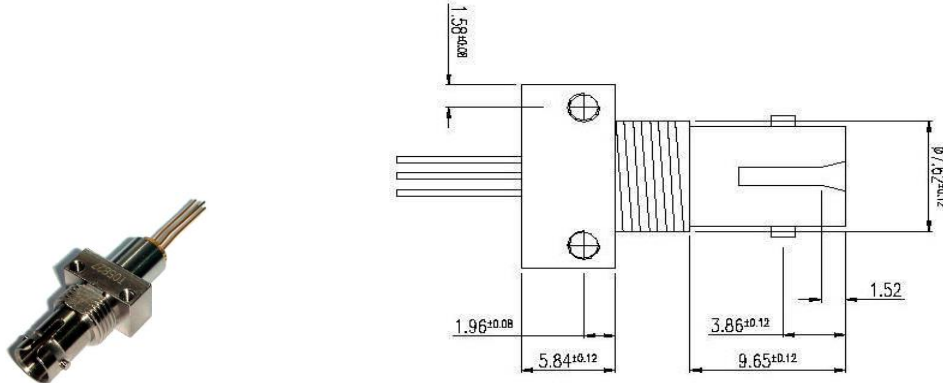
Pigtail



FC Receptacle



ST Receptacle



Note: Specifications are subject to change without notice.