

155Mbps Connectorized InGaAs PIN-TIA Photodiode Receivers

Model No. R13-155-XYZ-VP

Read Model No.	R13-155-XYZ-VP
R13 = Receiver	InGaAs/InP PIN-TIA photodiode
155 = Data Rate	155 Mbps
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	-32dBm (Z=1); -34dBm (Z=2); -36dBm (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 / SDH STM-1
- 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	115			MHz	V _{cc}
Low Frequency Cut-off	LF			30	kHz	V _{cc}
Supply Current	I _{cc}		25	35	mA	V _{cc} , no load
Sensitivity	S	-32 -34 -36			dBm	λ=1310nm, @155.52Mbps, PRBS23, ER=10dB, BER=1E ⁻¹⁰
Saturation power	Psat	0			dBm	λ=1310nm, @155.52Mbps, PRBS23, ER=10dB, BER=1E ⁻¹⁰
Differential Responsivity	Rd	0.1		120	mV/μW	Rload = 100ohm, P = -22Bm, λ=1310nm
Rise/Fall Time	Tr/Tf			4.5	ns	V _{cc} =3.3V, 20%~80%
Single Ended Impedance	Ro		50		ohm	

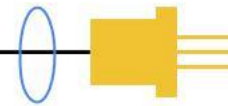
Fiber Pigtail Specifications						
Parameters	Symbol	Min.	Typ.	Max.	Unit	
Fiber type		Single Mode Fiber (Flame Retardant Hytrel Coating)				
Cladding diameter	Dcl	122	125	128	um	
Mode field diameter	Dmf	-	10	-	um	
Coating diameter	Dbc	-	0.9	1	mm	
Pigtail length	L	0.9	1.0	1.1	m	
Bending radius	Rb	30	-	-	mm	
Connector		TBD				

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

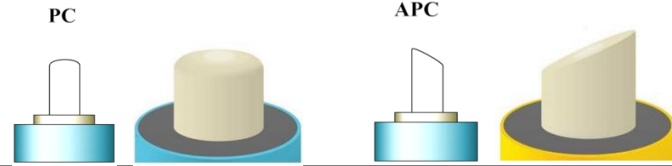
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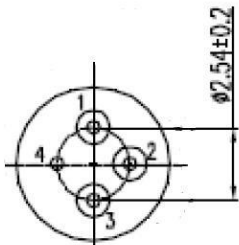
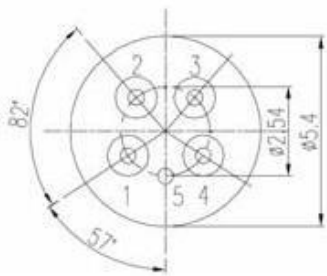


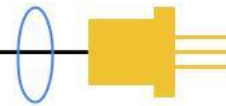
For Pigtail – Optics Fiber Connector Type



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

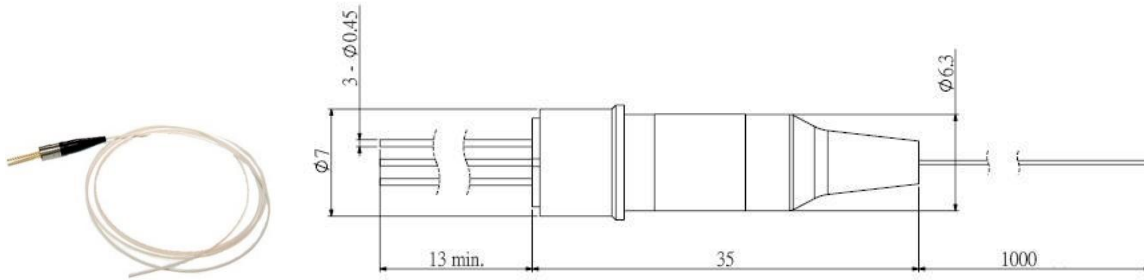
Pin Configuration

4-pin:	5-pin:																						
 <table border="1"> <thead> <tr> <th>Number</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>VCC</td> </tr> <tr> <td>2</td> <td>Dout-</td> </tr> <tr> <td>3</td> <td>Dout+</td> </tr> <tr> <td>4</td> <td>GND</td> </tr> </tbody> </table>	Number	Function	1	VCC	2	Dout-	3	Dout+	4	GND	 <table border="1"> <thead> <tr> <th>Number</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Dout +</td> </tr> <tr> <td>2</td> <td>Vcc</td> </tr> <tr> <td>3</td> <td>Isource</td> </tr> <tr> <td>4</td> <td>Dout -</td> </tr> <tr> <td>5</td> <td>GND</td> </tr> </tbody> </table>	Number	Function	1	Dout +	2	Vcc	3	Isource	4	Dout -	5	GND
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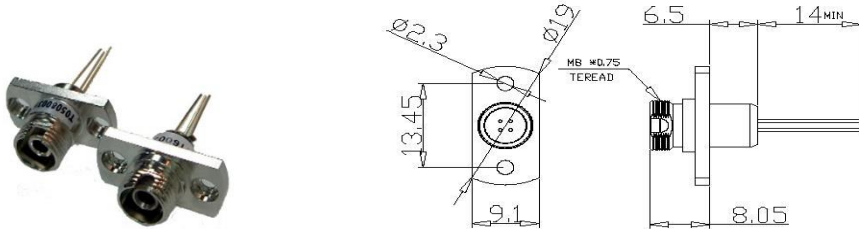


Outline Dimensions (unit: mm)

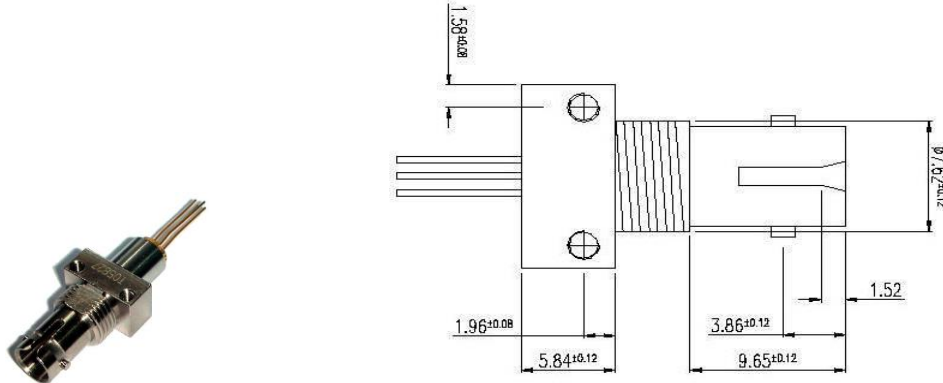
Pigtail



FC Receptacle



ST Receptacle



Note: Specifications are subject to change without notice.