



R13-155-PYZ-VP

155Mbps Pigtailed InGaAs PIN-TIA Photodiode Receiver Module

Description

The Lasermate R13-155-PYZ-VP is a 1100-1630nm wavelength range, fiber-coupled InGaAs PIN photodiode receiver module integrated with transimpedance amplifier. The InGaAs PIN-TIA photodiode optical module is available in fiber coaxial pigtailed package, with fiber end either open or equipped with FC/ST/SC optical connector. The InGaAs photodiode ROSA is characterized by its high sensitivity and high speed, reaching up to 155Mbps data rate operation.



Features

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

Packaging

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

Applications

- SONET OC3 / SDH STM-1
- LAN

Ordering Information

Read Model No.	R13-155-PYZ-VP
R13 = Receiver	InGaAs/InP PIN-TIA photodiode
155 = Data Rate	155 Mbps
P = Package	Pigtail
Y = Connector	None (NO) ; FC-PC (FC) ; SC-PC (SC) ; ST-PC (ST) ; LC-PC (LC) ; FC-APC (FA) ; SC-APC (CA) ; ST-APC (TA) ; LC-APC (LA)
Z = Sensitivity	-32dBm (1) ; -34dBm (2) ; -36dBm (3)
V = Supply voltage	3.3V (3)
P = Pin configuration	4-pin (4) ; 5-pin (5)



Specifications

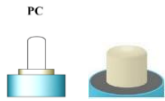
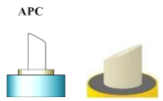








Absolute Maximum Ratings			
Parameters	Symbol	Value	Unit
Storage temperature	Tstg	-40~+85	°C
Operating case temperature	Top	-40~+85	°C
Peak optical power	Po	0	dBm
Power supply Voltage	Vp	3.6	V
Soldering temperature	Stemp	260	°C
Soldering time	Stime	10	sec

Electro-Optical Characteristics (CW @ T _c = 25°C unless otherwise noted)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Wavelength	λ	1100		1630	nm	
Bandwidth	BW	115			MHz	Vcc
Low Frequency Cut-off	LF			30	kHz	Vcc
Supply Current	Icc		25	35	mA	Vcc, 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	τ _r /τ _f			4.5	ns	Vcc=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					

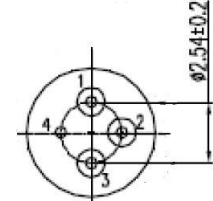
Note: Horizontal mount is available upon request and provided separately.

Optical Fiber Connector Types

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

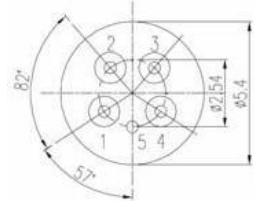
Pin Configuration

4-pin:



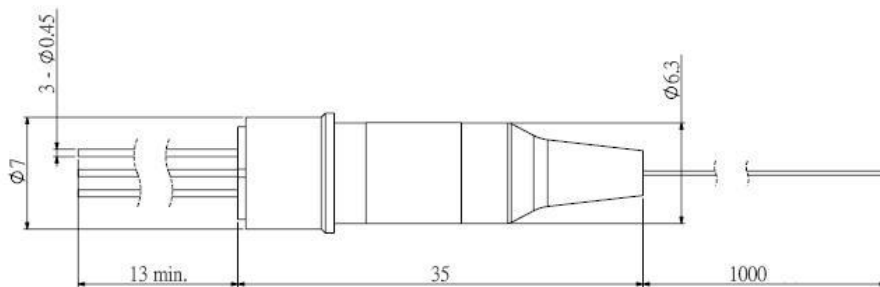
Number	Function
1	VCC
2	Dout-
3	Dout+
4	GND

5-pin:



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

Outline Dimensions (unit: mm)



Note: Specifications are subject to change without notice.