



## R13-1G-RYZ-VP

### 1.25Gbps Receptacle InGaAs PIN-TIA Photodiode Receiver Module

#### Description

The Lasermate R13-1G-RYZ-VP is a high speed, 1.25Gbps, 1100-1630nm wavelength range, fiber-coupled InGaAs PIN photodiode receiver module integrated with transimpedance amplifier (TIA). The devices are available in connector style receptacle packages.



#### 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

<b>Read Model No.</b>	<b>R13-1G-RYZ-VP</b>
R13 = Receiver	InGaAs/InP PIN-TIA photodiode
1G = Data Rate	1.25 Gbps
R = Package	Receptacle
Y = Connector	FC <b>(FC)</b> , ST <b>(ST)</b>
Z = Sensitivity	-22dBm <b>(1)</b> , -24dBm <b>(2)</b> , -26dBm <b>(3)</b>
V = Supply voltage	3.3V <b>(3)</b>
P = Pin configuration	4-pin <b>(4)</b> ; 5-pin <b>(5)</b>



## 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 <sub>c</sub> = 25°C unless otherwise noted)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Wavelength	λ	1100		1630	nm	
Bandwidth	BW	700			MHz	Vcc
Low Frequency Cut-off	LF			100	kHz	Vcc
Supply Current	Icc		22	35	mA	Vcc, no load
Sensitivity	S	-22			dBm	λ=1310nm, @1244.16Mbps, PRBS7, ER=10dB, BER=1E <sup>-10</sup>
		-24				
		-26				
Saturation power	Psat	0			dBm	λ=1310nm, @1244.16Mbps, PRBS7, ER=10dB, BER=1E <sup>-10</sup>
Differential Responsivity	Rd	12		30	mV/μW	Rload = 100ohm, P = -22Bm, λ=1310nm
Rise/Fall Time	τ <sub>r</sub> /τ <sub>f</sub>			400	ps	Vcc=3.3V, 20%~80%
Single Ended Impedance	Ro		50		ohm	

### Pin Configuration

**4-pin:**

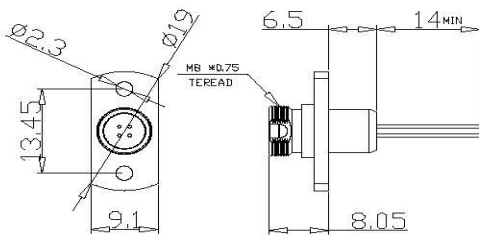
Number	Function
1	VCC
2	Dout-
3	Dout+
4	GND

**5-pin:**

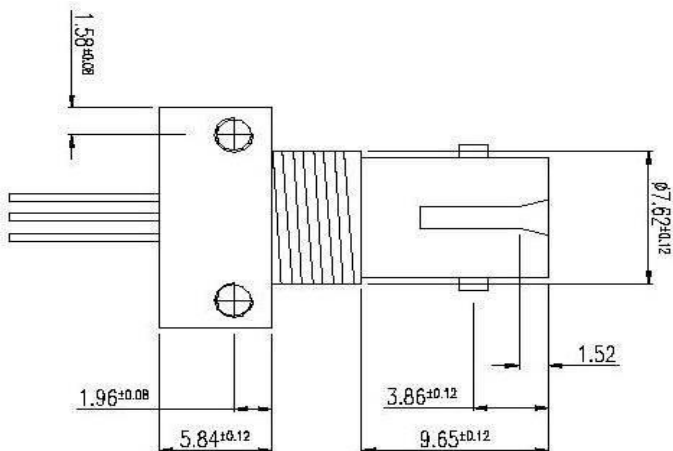
Number	Function
1	Dout +
2	Vcc
3	Isource
4	Dout -
5	GND

### Outline Dimensions (unit: mm)

#### FC Receptacle



#### ST Receptacle



Note: Specifications are subject to change without notice.