



Integrated WDM-PIN detector

PACS973-002

Features

- *High performance InGaAs PIN*
- *High linearity, high responsivity*
- *Integrated analog receiver*
- *Operating wavelength range:
1260~1620nm*
- *For FTTH and CATV application*
- *Small coaxial pigtail package*
- *Operating temperature range:
-40°C ~ +85°C*
- *Qualified to meet the intent of
Telcordia reliability GR-468-CORE*

Application

- *FTTH, FTTD etc*
- *CATV*

Description

The PACS973-002 is high performance InGaAs PIN designed for CATV, WDM and also FTTX. High performance InGaAs PIN provides high linearity and high responsivity. Filter integrated can implement WDM function; it can realize tri-wave transmission and reflection. With analog PIN and WDM filter, this product is pre-aligned and specially focuses on CATV field.

Absolute Maximum Ratings

Parameter	Symbol	Unit	Min	Max
Storage Temperature Range	Ts	°C	-40	85
Relative Humidity	RH	%	5	95
Photodiode Reverse Voltage	Vr	V	-	25
Photodiode Forward current	IF	mA	-	10
Lead Solder Temperature	-	°C	-	260
Lead Soldering Time	-	s	-	10
Input optical power	Pin	dBm	-	11

Recommended Operating Conditions

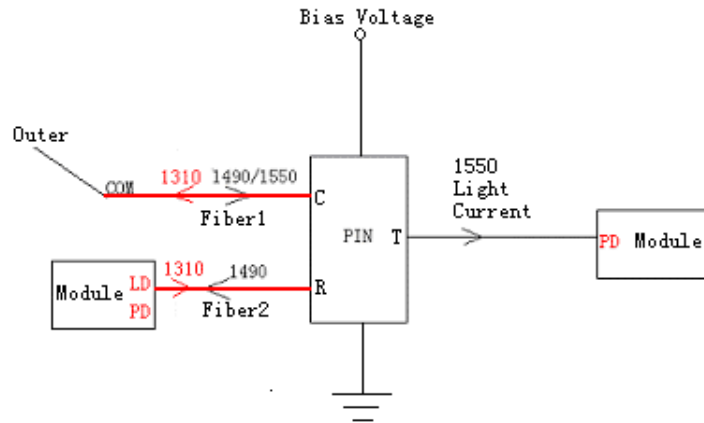
Parameter	Symbol	Unit	Min	Typ	Max
Case Operating Temperature Range	Tc	°C	-40	25	85
Reverse Voltage	Vr	V	-	5	15
Relative Humidity	RH	%	5	-	95

Specifications (T=25°C, BOL ,unless otherwise noted)

Parameter	Symbol	Unit	Min	Typ	Max	Test condition
Electrical Characteristics						
Operating Voltage	Vr	V	-	5	-	-
Detector dark current	Id	nA	-	-	1	Vr=15V
Capacitance	C	pF	-	-	1.1	-
-3dB Bandwidth	BW	GHz	1.5	-	-	-
Second Order Inter-Modulation Distortion	CSO	dBc	-	-	-70	50MHz and 505MHz, Pin=0dBm, OMI=40%, Vr=12V
Third Order Inter-Modulation Distortion	CTB	dBc	-	-	-80	50MHz and 505MHz, Pin=0dBm, OMI=40%, Vr=12V
Optical Characteristics						
Optical Input Power	Pin	dBm	-	-	11	-
Wavelength range	λ	nm	1260	-	1650	Pin=300uW
Responsivity	R	A/W	0.88	-	-	Vr=12V
Return Loss	RL	dB	-	-	-40	1550nm

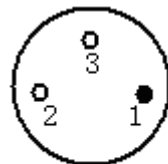
Collimator and Filter Characteristics						
Wavelength	λ	nm	1260	1310	1360	1310nm(Reflection)
			1480	1490	1500	1490nm(Reflection)
			1540	1550	1560	1550nm(Transmission)
Insert Loss	IL	dB	-	-	1	1310,1490
			-	-	1	1550
Isolation	ISO	dB	15	-	-	1550(C-R)
			34	-	-	1310(C-T)
			34	-	-	1490(C-T)
			50	-	-	1310(R-T)

Recommended Application



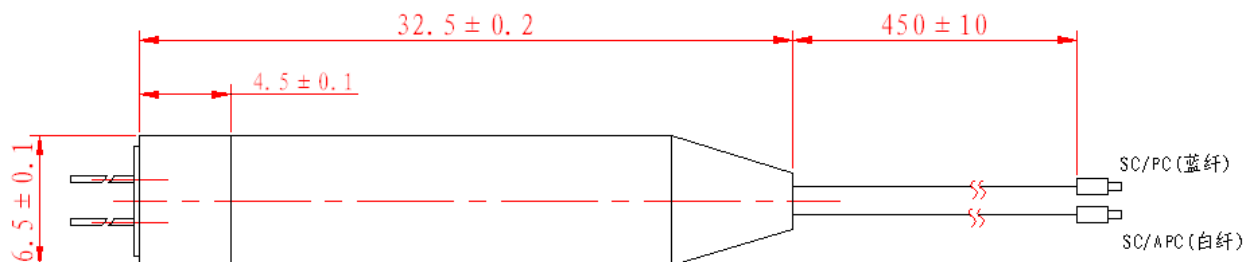
Pin Description

Pin	Name	Description	Pin	Name	Description
1	GND	Ground connection	3	PD-	PD cathode
2	PD+	PD anode	-	-	-



Bottom View

Package Outline



Ordering Information

Part No	Specifications					
	Package	Bandwidth	Rx	Responsivity	Top	Others
PACS973-002	Dual-pigtail	1.5GHz	PIN	0.88A/W	-40oC ~85°C	-

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