

12GHz Analog High Speed InGaAs PIN Photodiode

Model: LSHIPD-A12G

V4.2HIPD-006 2022-01-01

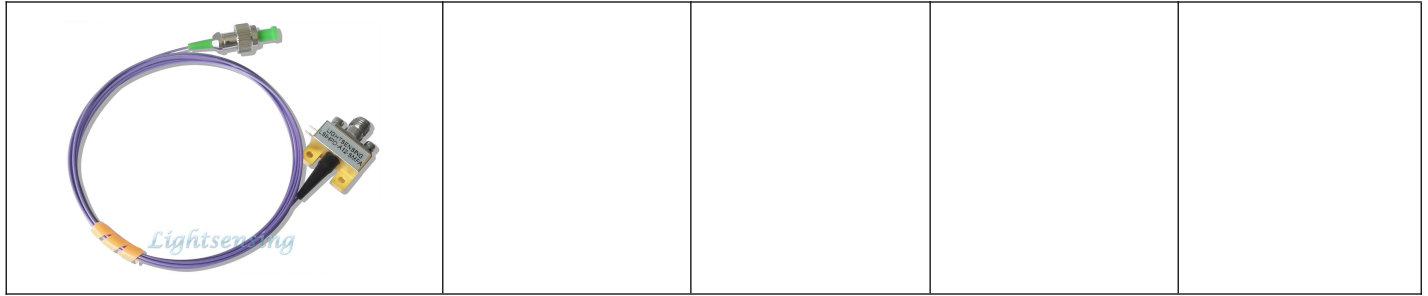
1.Features

- High reliability
- DC coupled
- Bandwidth up to 12GHz
- Built-in Bias-T
- Hermetic package with SMA RF connector

2.Applications

- Optical fiber sensor
- High speed Test and Measurement OTDR
- Microwave Photonic Link
- High Speed Optical-fiber Communication
- Science analysis and experiment

3.Picture



4.Absolute Maximum Rating (TC=25°C)

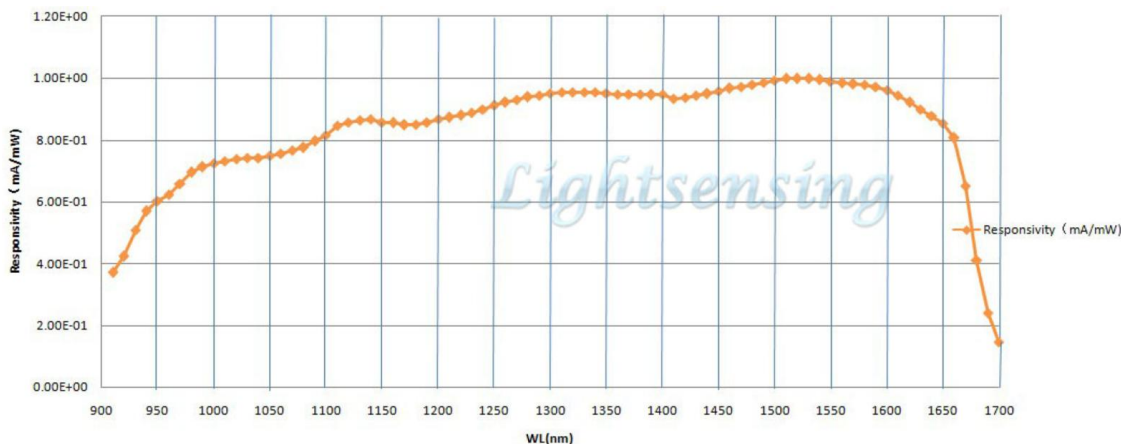
Parameter	Sym.	value	Unit
Storage temperature range	Tstg	-40 ~ +85	°C
Operating temperature range	Top	-40 ~ +75	°C
Bias Voltage	Vr	10	V
Optical Input Power	Pin	12	dBm
Electrical static discharge	VESD	250	V
Lead soldering temperature	Tp	260 (10s)	°C

5.Electrical/Optical Characteristics (TC=25°C)

Parameter	Sym	Test Condition	Values(Typ.)	Unit
-3dB bandwidth	BW	Vr =5V, Pin =1mW, λ=1550nm, RL=50Ω	DC-12	GHz
wavelength range	λ	-	980-1650	nm
Responsivity	Re	Vr=5V, Pin=1mW, λ=1310nm	0.80	A/W
		Vr=5V, Pin=1mW, λ=1550nm	0.85	
Amplitude Flatness	F	Vr=5V, Pin=1mW, λ=1550nm	±1.5	dB
Output VSWR	VSWR		2.0:1	
Output Impedance	RL		50	Ω
Dark current	Id	Vr =5V,	6	nA
Saturation Optical Power	Ps	Vr =5V, λ=1550nm, AC modulation	10	dBm
Bias Voltage	Vbias		5	V
Optical return loss	RL	λ=1.55μm, ϕe=1W	30	dB

NOTICE: The above product specifications are subject to change without notice.

The typical Responsivity curve



6. Typical Frequency Response Curve

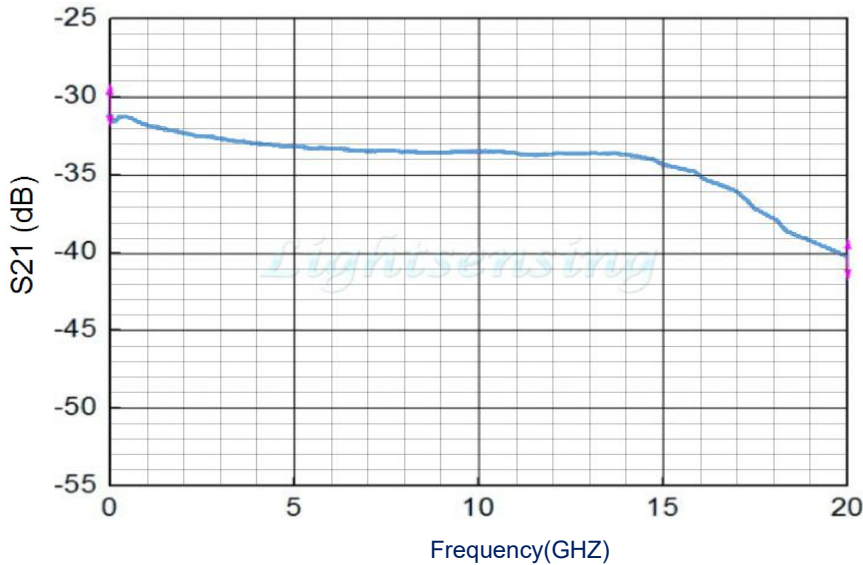
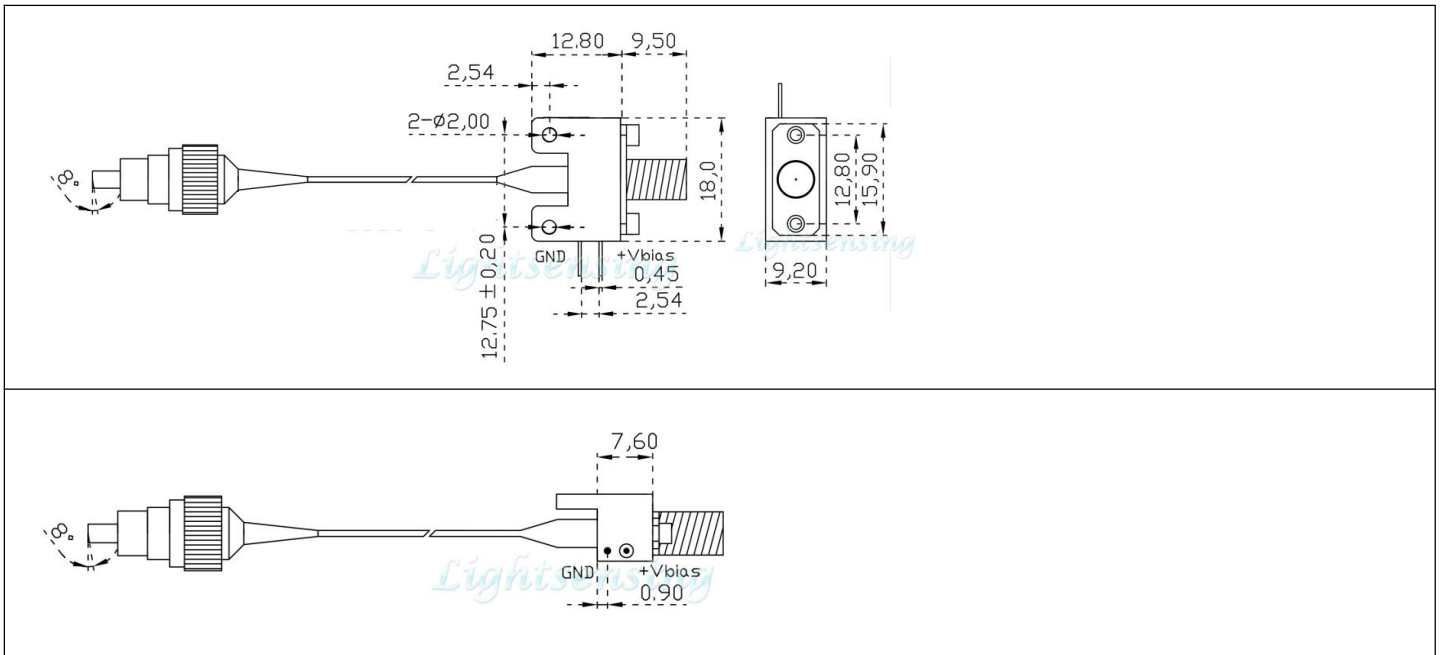


Fig.1 DC~12GHz Photodetector Frequency Response

7. The package Dimensions and Lead



Note: For more information on dimension, please contact us

8. Order information

Fiber coupling product order information: LS=Lightsensing; Def=Default;

LS	HIPD	-A12G	-SM	FA	-	-	-
	PD type	Bandwidth	Fiber type	Fiber connector	Fiber tube	Fiber length	
	HIPD= High speed InGaAs PD	12G=12GHz	SM=9um SM Other	FA=FC/APC FP=FC/PC SA=SC/APC SP=SC/PC Other	Def=0.9mm tight S=0.9mm Loose Other	Def=1 meter 0.3m=0.3 meter 0.5m=0.5 meter Other	

9. The cautions !

- 1: The above product specifications are subject to change without notice.
- 2: The suitable ESD protecting measures are recommend in storage, transporting and using.
- 3: The fiber bending radius no less than 20mm for avoiding fiber damaged ,Be sure the fiber coupling facet is clean before connecting it to opto-circuit

