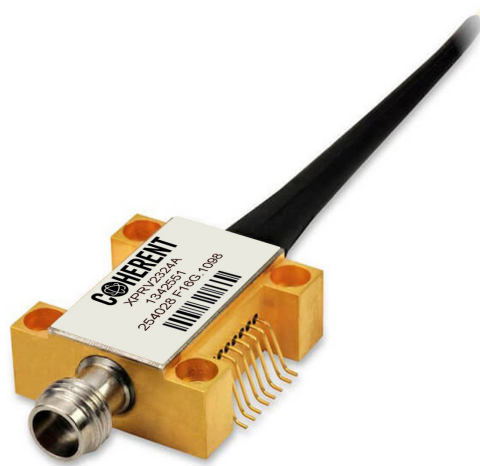


# 18 GHz HIGH GAIN LIMITING PHOTORECEIVER

## XPRV2324A

The XPRV2324A photoreceiver is a single-ended front-end with a bandwidth of 18 GHz supporting both optical windows, O-band, and C-band. The module contains a waveguide-integrated PIN-photodiode and a limiting transimpedance amplifier. An integrated feedback loop optimizes the performance in the frequency and/or time domain with respect to different optical input power. Incorporated blocking capacitors enable AC output coupling.



Picture shows product example, actual product might differ

## FEATURES

- PIN / TIA photoreceiver module
- 18 GHz typical bandwidth
- High gain, low noise
- SMD package with V<sup>®</sup> connector
- AC coupled output
- 1310 and 1550 nm window

## APPLICATIONS

- 25 Gb/s communication systems
- Transponder and line card designs
- Laboratory test equipment

### Ordering Information:



800 Village Walk #316  
Guilford, CT 06437  
Ph: 203-401-8093

Email orders to: [sales@xsoptix.com](mailto:sales@xsoptix.com)  
Fax orders to: 800-878-7282



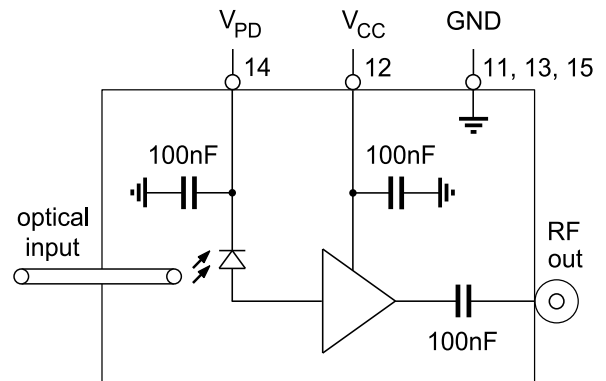
# 18 GHz HIGH GAIN LIMITING PHOTORECEIVER

## Product Selection

### XPRV2324A -Vy-zz

<b>Vy</b>	VF	= Female V <sup>®</sup> connector
<b>zz</b>	FP	= FC/PC connector (standard)
	FA	= FC/APC connector
		Other customized configurations on request

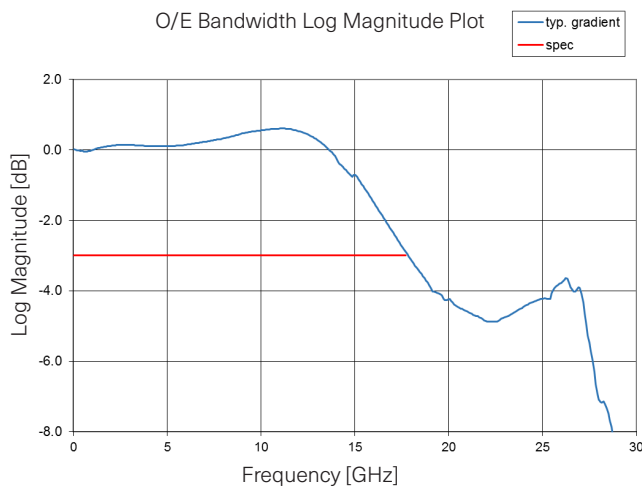
## Block Diagram



## Key Specifications

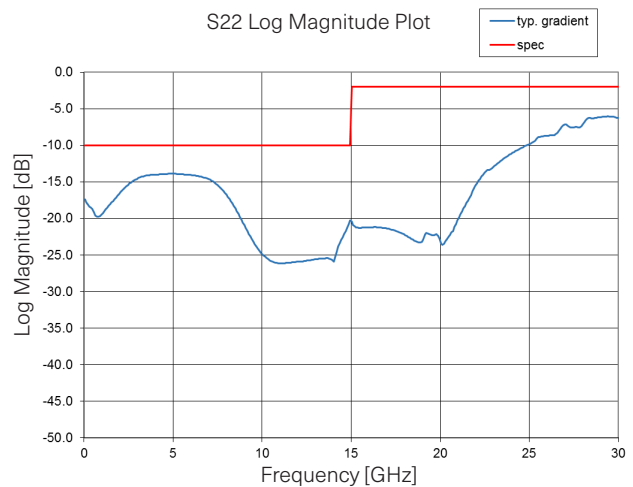
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Operating Case Temperature	$T_{CASE}$		0		75	°C
Storage Temperature	$T_{STORE}$		-40		85	°C
Wavelength Range	$\lambda$	O-band C-band		1310 1550		nm
Photodiode Supply Voltage	$V_{PD}$			3.3		V
Amplifier Supply Voltage	$V_{CC}$					
Average Optical Input Power	$P_{OPT\_avg}$				3	dBm
3 dB Cut-off Frequency	$f_{3dB}$	MGC mode, 100D		18		GHz
Output Reflection Coefficient	$s_{22}$				-2	dB
Conversion Gain	CG	$P_{OPT\_avg} = -10$ dBm		900		V/W
Output Voltage Swing	$V_{OUT}$	Maximum gain		150		mV
Power Consumption	$P_{CON}$	$V_{CC} = \text{max}$			100	mW

O/E Bandwidth Log Magnitude Plot



Typical S21 Frequency Response

S22 Log Magnitude Plot



Typical S22 Reflection Coefficient