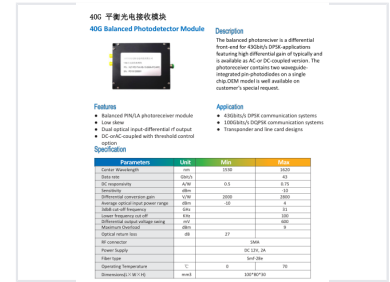


40G Balanced Photodetector Module

The balanced photoreceiver module is a differential front-end for 43Gbit/s DPSK applications. It contains two waveguide-integrated PIN photodiodes on a single chip.



Overview

High-Performance Balanced Photoreceiver

This 40G Balanced Photodetector Module serves as a high-precision differential front-end designed for demanding 43Gbit/s DPSK and 100Gbit/s DQPSK communication systems. Featuring two waveguide-integrated PIN photodiodes on a single chip, the module ensures low skew and reliable signal integrity. It is highly versatile, supporting both AC and DC coupling with an optional threshold control for optimized transponder and line card integration.

Key Features

Design Highlights

- Balanced PIN/LA photoreceiver module
- Low signal skew
- Dual optical input with differential RF output
- AC or DC coupling options
- Threshold control availability

Primary Applications

43Gbit/s DPSK Systems, 100Gbit/s DQPSK Systems, Transponder Design, Line Card Design

Performance Metrics

Core Performance

43 Gbit/s

Data Rate

31 GHz

3dB Cut-off Frequency

27 dB

Optical Return Loss

Technical Specifications

Operating Parameters

| Parameter | Range/Value |
|------------------------------|-----------------|
| Center Wavelength | 1530 - 1620 nm |
| DC Responsivity | 0.5 - 0.75 A/W |
| Sensitivity | -10 dBm |
| Differential Conversion Gain | 2000 - 2800 V/W |
| Optical Input Power | -10 to 4 dBm |
| Lower Frequency Cut-off | 100 KHz |
| Max Overload | 9 dBm |

Physical & Environmental

Mechanical & Environmental

- RF Connector: SMA
- Fiber Type: Smf-28e
- Power Supply: DC 12V, 2A
- Operating Temperature: 0 to 70 °C
- Dimensions: 100 x 80 x 30 mm