

Balanced Photoreceiver Module for DPSK Communication

The balanced photoreceiver module is a differential front-end for 43 Gbit/s DPSK applications, offering high differential gain. It contains two waveguide-integrated pin-photodiodes on a single chip and a limiting amplifier within one small form factor SMD-package.



Overview

High-Performance Differential Front-End

The BPRV2125(A) is a high-performance balanced photoreceiver module designed specifically for 43 Gbit/s DPSK and DQPSK communication applications. Featuring a waveguide-integrated PIN-photodiode pair and a limiting amplifier within a compact SMD package, it ensures excellent signal integrity. With a differential gain of 2800 V/W and a total skew of less than 5 ps, this module is optimized for demanding 40G and 100G transponder and line card designs.

Performance Metrics

Differential Gain

2800 V/W

Typical Differential Gain

Differential Output Voltage Swing	600 mV
Total Skew	5 ps

Technical Specifications

Supported Baud Rates	20 to 56 GBaud
Coupling Options	AC-coupled, DC-coupled
Package Type	Hermetically sealed SMD package
Connectors	Two GPPO™ connectors

Features & Applications

Key Features

- Balanced PIN/LA photoreceiver module
- Very low signal skew
- Dual optical input-differential output
- Threshold control option

Target Applications

- 43 Gbit/s DPSK communication systems
- 40G and 100G Transponders
- Line card designs