Product Guide
Coherent and Advanced Photodetectors and Receivers

FINISAR

[Image of FINISAR product]
Finisar’s Coherent and Advanced Photodetectors and Receivers offer exceptional performance for a wide variety of applications, including Communication, Test & Measurement, and Research & Development.

**Trust Finisar’s Coherent and Advanced Receivers and Photodetectors for:**
- Field Proven Reliability
- On Time Delivery
- Custom and Standard Products
- Vertically Integrated Design
- High-Volume Manufacturing Capabilities
- RoHS Compliance
- Extensive Patent Protection

**Coherent Receivers and Detectors**
Integrated coherent receivers (ICRs) manufactured by Finisar comply to the Optical Internetworking Forum (OIF) implementation agreement OIF-DPC-RX-01.2. They contain two matched optical 90° hybrids with monolithically integrated balanced photodetectors, manufactured in InP. The polarization beam splitter (PBS) is realized in free space optics. A monitor photodiode and a variable optical attenuator are offered as an option.

The coherent detector is a fully differential, optical front-end component suited for up to 64 GBaud with a 40 GHz bandwidth. The detector is the preferred product for coherent Test & Measurement systems and applications involving 400 Gb/s to 1 Tb/s detection and parallel optical sampling.

**Advanced Receivers and Detectors**
Single and balanced photodetectors (PDs) are based on advanced waveguide integrated photodiodes. The detectors are designed for wavelengths including 1310 nm and 1550 nm, and ensure undisturbed linear frequency response from DC to the 3dB cut-off frequency of up to 100+ GHz bandwidth and high common mode rejection ratio (CMRR).

Additionally, our single and balanced receivers contain advanced waveguide-integrated photodiodes and transimpedance amplifiers. The receiver design allows DPSK and DQPSK applications at 40G and 100G with rates from 20 to 56 GBaud.

The entire receiver and detector portfolio meets requirements for high-speed, extreme linearity, high RF power performance. It is well suited for Communication, Test & Measurement, Research & Development and Analog Applications worldwide.
## Coherent Receivers and Detectors

**OIF compliant, CPRV-series**
- OIF-DPC-RX-01.2 type 1 and type 2 ICR
- DP-QAM/QPSK/BPSK receiver
- Symbol rate up to 32 Gbaud per polarization
- Intradyne and homodyne
- Linear amplifier
- C- and L-Band versions available

**Integrated Coherent Photodetector, CPDV-series**
- Intradyne and homodyne detection
- Monolithically integrated 90° hybrid with PDs
- Integrated PBS
- 40 GHz bandwidth
- Up to 64 Gbaud systems

## Single Photodetectors

**100 GHz, 70 GHz and 50 GHz Detectors, XPDV-series**
- Select the bandwidth for your application
- Waveguide integrated PD
- W1 connector for ultra high speed
- V-connector for 50 and 70 GHz

**35 GHz Photodetector, MPDV-series**
- Multi source agreement footprint compliant
- Integrated pin-photodiode
- Single ended AC coupled output

## Balanced and High Power Photodetectors

**70 and 50 GHz Balanced PDs, BPDV-series**
- High bandwidth with excellent CMRR
- Low skew
- 1480 to 1620 nm wavelength range
- Detection of 64 Gbaud xQAM signals
- Unique on-chip bias network

**High Power Photodetector, HPDV-series**
- Up to 6 dBm RF output power at 20 GHz
- High Linearity (>25 dBm OIP3 at 40 GHz)
- No cooling required
- Analog Photonic links
- Radio-over-Fiber

## Balanced Photodetectors – Quad Set

**50 GHz Balanced Photodetectors, BPDV2150RQ**
- Dual input: FC/PC connector
- Output: V-female connector
- Single wavelength 1550nm
- Low PDL, 8-fiber matched set with low skew
- Matched Set of Quad detectors for T&M and Advanced Laboratory applications

## Single Photoreceivers

**40G Single-ended Receivers, XPRV-series**
- 150 V/W conversion gain
- Surface mountable package with V connector
- OC-768/STM-256 systems

**40G Balanced Receivers, BPRV-series**
- Excellent OSNR
- Very low skew
- High gain limiting amplifier
- High bandwidth
- Wide dynamic range
Technology Innovator.
Broad Product Portfolio.
Trusted Partner.