

ICRX2 Series

Small Form Factor Integrated Coherent Receiver



Product Brief



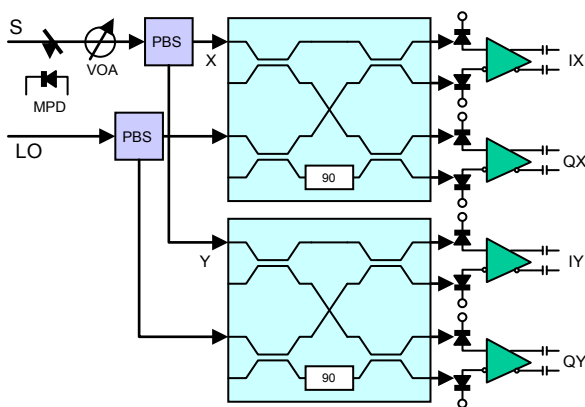
Description

Avago Technologies' ICRX2 Series Small Form Factor Integrated Coherent Receiver integrates signal and local oscillator polarization splitters, two matched 90° optical hybrids, four high speed balanced detector pairs and four differential in/out linear TIAs with manual and automatic gain control in a single compact surface-mount package. The signal input includes an integrated signal tap with monitor photodiode (MPD) and a variable optical attenuator (VOA) to enable operation at higher input optical powers found in "colorless" applications. The receiver makes use of Avago's extensive portfolio of high speed InP based balanced photodetectors (PDs) and Silica Planar Lightguide Circuit (PLC) device technology for the 90° hybrid mixers. It also leverages Avago's automated hybrid integration platform for mounting the balanced PDs directly onto the PLC chip to provide a highly integrated optical hybrid chip for high performance in a very small footprint.

Features

- Complete integrated coherent receiver functionality in a single package:
 - Polarization beam splitters
 - Signal input tap and monitor photodiode
 - Signal variable optical attenuator
 - Optical 90° hybrids (coherent mixers)
 - Balanced photodetectors
 - Linear differential in/out TIAs
- Baud rate up to 32 GBd
- Conforms with OIF-DPC-RX-01.2 Type 2 implementation agreement
- High input dynamic range: 3 mApp
- No active temperature control required.
- Available for C-Band, L-Band and C+L-Band
- Operating temperature: -5 °C to +80 °C

Schematic Diagram



Applications

- 100 Gb/s DP-QPSK coherent systems
- 400 Gb/s DC-DP-16QAM coherent systems
- Multi-channel "colorless" DWDM systems
- CFP Coherent Transceivers
- 4x5" and 5x7" 100Gb/s Long Haul Transponders

For product information and a complete list of distributors, please go to our web site: www.avagotech.com

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