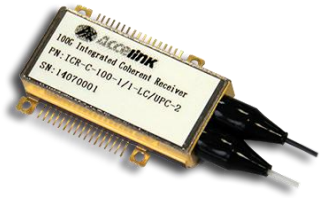
Type 2 ICR: Type 2 Integrated Coherent Receiver



Accelink's integrated coherent receiver integrates signal polarization beam splitter, two optical 90º hybrids, four sets of high speed balanced photodiodes and four differential linear amplifiers in a single compact surface-mount package. The device demodulates the state-of-polarization and optical phase of a phase-modulated signal relative to an externally supplied optical reference, enabling recovery of the 100 G/s Dual Polarization Quadrature Phase Shift Keyed (DP-QPSK) format signals.
The device is based on Silica Planar Lightwave Circuit (PLC) technology and hybrid integration technology. The PLC chip is aligned to the balanced photodiodes accurately. The demodulated optical signals are detected by the balanced photodiodes and amplified by transimpedance amplifiers (TIA) with linear transfer characteristics. The ICR is compliant to OIF-DPC-RX-01.2 type 2 form factor and is available with variable optical attenuator (VOA) and monitor-photodiode (MPD) function.

Features:

- Baud rate up to 32 GBd
- Polarization diversity
- Monitor photodiode
- Selectable automatic / manual gain control
- -5 ℃ to 75 ℃ operation

Applications

- 100G/200G coherent transmission system
- OIF MSA 100G transmission modules

Standards:

- Compliant to OIF-DPC-RX-01.2 Type 2 implementation agreement
- Telcordia GR-468-Core compliant

Specifications

Parameter	Unit	Min	Typ	Max	Note
Electrical					

Symbol Rate	Gbaud			32	
Small Signal Bandwidth(3dB)	GHz	20			
Responsivity	A/W	0.04			
Output Swing	mVppd	300	600	900	Peak to peak
Channel Skew	ps			10	
Power Consumption	W			1.2	
Optical					
Frequency Range	THz	191.35		196.2	C-Band
Phase Error	degree			±5	
Polarization Extinction Ratio	dB	18			
Optical Return Loss	dB			-27	

Ordering Information

ICR- □-□-□-□

- Form factor：1:Gen 1(OIF1.1), 2:Gen 2(OIF1.2)
- Connector：FC,SC,LC,MU/PC,UPC,APC
- Fiber Length：1:1m、customer specify
- Bit rate：100:100Gb/s