

A non-reciprocal device with multiple port inputs and outputs

The circulator is an irreversible one-way three-port component that allows light propagate in a specific direction. Circulators can be divided into nonpolarization-maintaining circulator and polarization maintaining circulator.

Non-polarization-maintaining circulator consists of birefringent beam displacer, polarization element, Faraday rotator, half-waveplate and collimator.

Polarization-maintaining optical circulator consists of input polarizer, Faraday rotator, half-waveplate, output polarizer and collimator.

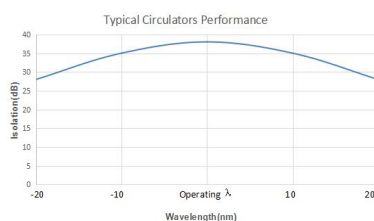
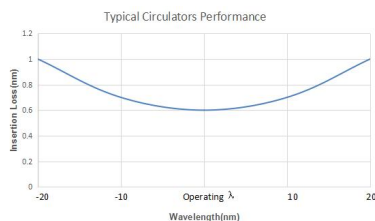
CASTECH produces circulators with low insertion loss, high isolation, low polarization dependent loss and excellent temperature stability. Operating wavelength range is 450~2000nm, and connection of fiber tail can be bare fiber or FC/APC.



Applications

- Fiber optical sensor system
- Bidirectional signal transmission system
- Dispersion compensation

CASTECH's products are produced independently throughout the entire process and can be customized according to customer needs. Refer to the following list for standard products.



Non-Polarization-Maintaining Type Model Number: HPCIR-t-p-f-λ-e-l-b-h

Type(t)	Power (p)	Fiber Type(f)	Wavelength (λ)	Pigtail Diameter(e)	Fiber Length(l)	Filter(b)	Housing(h)
CIR (Optical Circulator)	0.3- 100 W ...	1 (HI1060) ...	980-1064 nm ...	L (900 μm Loose Tube) B (3 mm Loose Tube)	1 (1 m) 2 (1.5 m) ...	C (Contained) N (Not Contained)	A01 A02 ...

Typical Specifications

Withstand Power	Extinction ratio*	Insertion Loss	Minimum Crosstalk	Peak Isolation
1 W	> 18 dB	≤ 1.2 dB	≥ 45 dB	≥ 30 dB
50 W	> 18 dB	≤ 1.2 dB	≥ 45 dB	≥ 30 dB

*Only applicable to polarization maintaining circulator

Housing dimensions(mm):

