

## 1064 nm 1x4 Narrowband Fiber Optic Coupler

TNQ1064BHF



### Description

Thorlabs' 1x4 TNQ1064BHF 1064 nm single mode narrowband fiber coupler evenly splits an input signal into four outputs. It is designed to minimize excess loss between input and output ports.

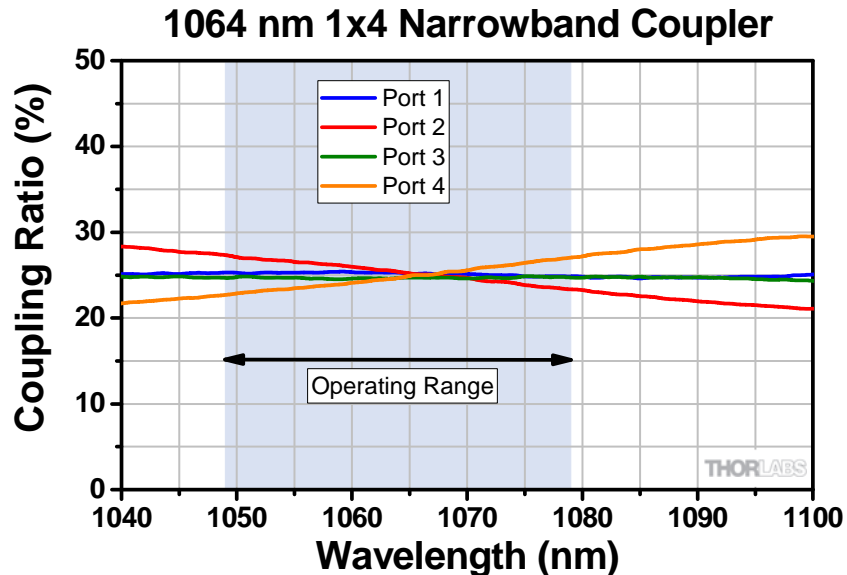
### Specifications

TNQ1064BHF <sup>a</sup>	
Center Wavelength	1064 nm
Minimum Bandwidth	±15 nm
Coupling Ratio	25:25:25:25
Coupling Ratio Tolerance	±3.0%
Excess Loss	≤0.5 dB
Insertion Loss	≤7.1 dB (Each Output Port)
Polarization-Dependent Loss (PDL)	≤0.3 dB
Optical Return Loss (ORL) / Directivity	≥60 dB
Max Power Level <sup>b,c</sup>	1W (With Connectors or Bare Fiber) 5 W (Spliced)
Fiber Type <sup>d</sup>	HI1060 FLEX
Port Configuration	1x4
Lead Length and Tolerance	0.8 m +0.075 m / -0.0 m
Connectors	2.0 mm Narrow Key FC/PC
Jacket	Ø900 µm Loose Hytrel <sup>®</sup> Tube
Pigtail Tensile Load	5 N
Package Dimensions	3.94" x 3.15" x 0.39" (100.0 mm x 80.0 mm x 10.0 mm)
Mounting	Four Mounting Holes for #2 (M2) Screws
Operating Temperature	-40 to 85 °C
Storage Temperature	-40 to 85 °C



- All values are specified at room temperature over the bandwidth without connectors and measured through the white input port.
- This value is the maximum power allowed in any individual input or output leg of the coupler. However, if the input or output has multiple fiber leads, this value is the maximum power allowed for all input or output leads combined.
- Specifies the total maximum power allowed through the component. Coupler performance and reliability under high-power conditions must be determined within the user's setup. See Usage Tips for safety and handling information.
- Other fiber types may be available upon request. Please contact [techsupport@thorlabs.com](mailto:techsupport@thorlabs.com) with inquiries.

## Performance Data



This plot shows the typical coupling ratio performance of a single TNQ1064BHF 1x4 coupler. The blue-shaded region denotes the coupler's full operating wavelength range. All data was measured without connectors.

## Usage Tips

- 1) Before connecting a component to a system, make sure the light source is turned off. Inspect both the input and output fiber ends; debris or contamination on the end face can lead to fiber damage when operated at high powers.
- 2) After connecting the component, the system should be tested and aligned using a light source at low power. The system power can be ramped up slowly to the desired output power while periodically verifying all components are properly aligned and that coupling efficiency is not changing with respect to optical launch power.
- 3) Optical connectors can be removed and the device can be spliced into a setup for operation at higher optical powers. Fiber ends should always be cleaned and cleaved prior to splicing.