

High Power Mating

Overview

The demand for higher power in optical fibers continues to increase for laser communication, industrial, and other applications. Coastal Connections has been serving this demand with end-capped fibers for free space applications since 2009. In 2023 Coastal Connections applied its expertise to making high power connectors that can be mated together.

PowerFiber Connectors (PFC) are designed for mating high power assemblies together. The beam is expanded with a fused-on GRIN lens to reduce the chance of the fiber ends burning.

PowerFiber Connectors (PFC) come in FC (most common), E-2000, and 3420 Space Connector formats. The 3420 Space Connector is compatible with Mini and Midi AVIM[®] Connectors.

The Mode Field Diameter is increased from 10µm to 35µm reducing the chances of the connector burning by twelve times.



Coastal Connections' **PowerFiber Connectors (PFC)** use standard Corning[®] SMF-28[®] Ultra, PM 1550, and HI 1060nm fiber so that you can easily splice pigtails to existing fibers.

Connector Features

- · Designed to be suitable for up to 10 Watts
- · Assembled in the USA with quality components
- FC, E-2000 and 3420 Space Connector formats
- · Compatible to Diamond's Power Solution connectors
- · Polarization maintaining fibers may be used with FC connectors
- Uses standard Corning® SMF-28® Ultra fiber for easy splicing, unlike some competitors

Specifications

Wavelengths (nm)	IL (dB)	RL (dB)	PER (dB Min)
980	0.6	45	25dB
1550	0.3	45	25dB

Values are given for design consideration. Performance is not guaranteed and therefore should be verified by testing completed cable assemblies.

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Coastal Connections custom engineers cables to the tightest specifications in the industry.

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