

# PowerFiber Connector (PFC)

## High Power Mating

### Overview

The demand for higher power in optical fibers continues to increase for laser communication, industrial, and other applications. Impact ES—Ventura has been serving this demand with end-capped fibers for free space applications since 2009. In 2023 Impact ES—Ventura 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.

Impact ES—Ventura’s PowerFiber Connectors (PFC) use standard Corning® SMF-28® Ultra, PM 1550, and HI 1060nm fiber so that you can easily splice pigtailed to existing fibers.

### Connector Features:

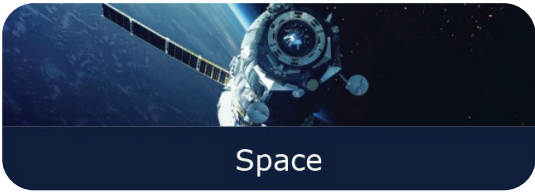
- Designed to be suitable for up to 10 Watts
- Assembled in the USA with quality components
- FC, E-2000 and 3420 Space Connector formats
- Compatible to Diamond’s Power Solution connectors
- Polarization maintaining fibers may be used with FC connectors
- Uses standard Corning® SMF-28® Ultra fiber for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



### Specifications

Wavelengths (nm)	IL (dB)	UPC 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.



## Industries We Serve

At Impact Electronic Solutions, we offer cutting-edge prototype and full-turnkey production services, providing unparalleled innovation and seamless solutions to meet your needs.

Our expertise spans highly regulated and mission-critical environments. We deliver complex electronic, fiber optic, and electromechanical products with exceptional quality and reliability. From product development to full-scale manufacturing, we prioritize customer-centric solutions and support groundbreaking innovations.

With extensive experience, we ensure success across diverse industries by consistently meeting rigorous standards and exceeding expectations.

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## About Us

We are a dynamic team dedicated to delivering innovative electronic design and manufacturing services that consistently outperform industry standards.

Our headquarters are in the Pacific Northwest, and the Impact ES network spans five key locations across the U.S.:

- Clearwater, Florida
- Cranston, Rhode Island
- Grants Pass, Oregon
- Vancouver, Washington
- Ventura, California

Our facilities have been recognized for excellence by numerous corporations, organizations, and publications, showcasing our commitment to quality, precision, and customer satisfaction nationwide.

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## Fiber Optic Cables and Assemblies Certifications



NASA 8739.5

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### Contact Us

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