

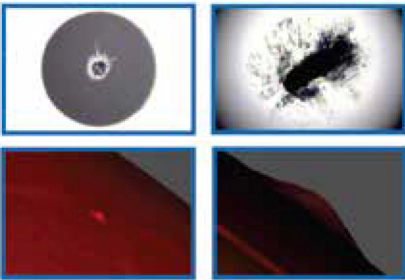
# Fiber End-Caps

Short Wavelengths and High Power Cables

## Overview

Impact ES—Ventura is the world’s leading supplier of Fiber End-Caps for PM, SM and MM fibers in ferrules and connectors. Fiber End-Caps reduce the power density where laser light enters or exits the fiber resulting in longer life cables. Short wavelength light deposits contaminants onto the core of fibers. By adding a Fiber End-Cap, the power density is reduced eliminating the depositing of contaminants.

## Fiber without End-Cap



Fiber damage from High Power Lasers

Contaminated 405nm Fiber Core

## Unique Products:

- $\leq 1\mu\text{m}$  Fiber core eccentricity on  $125\mu\text{m}$  clad fibers
- $\geq 25\text{dB}$  PER on PM Fibers (tested at the design wavelength)
- Fiber endfaces may burn with as little as  $0.5\text{MW}/\text{cm}^2$  however clean ends can withstand  $2.5\text{MW}/\text{cm}^2$
- Fiber cores can withstand  $1\text{GW}/\text{cm}^2$  (LMA fibers have survived  $2\text{GW}/\text{cm}^2$  bursts)
- Extinction ratio, return loss, endface geometry, polish quality, NA, and beam ellipticity measurements available

## Measurements Available:

- Numerical Aperture
- Beam Ellipticity
- Extinction Ratio
- Polish Quality
- Endface Geometry
- Return Loss
- Beam angle
- Polish Angle

## Connectors

Other connectors available

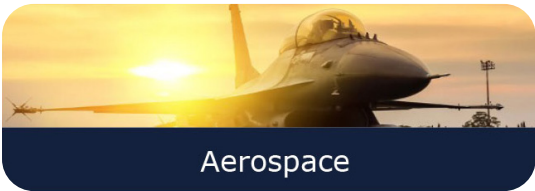
Connectors	E-2000	FC, QFC	SMA	1.25mm Ferrule	2.5mm Ferrule
Polish	APC, UPC	APC, UPC, Flat Angle	UPC	UPC	APC, UPC, Flat Angle
Type	Push/Pull	Screw on		Ceramic Stainless	Ceramic, Glass, Stainless

## Fibers

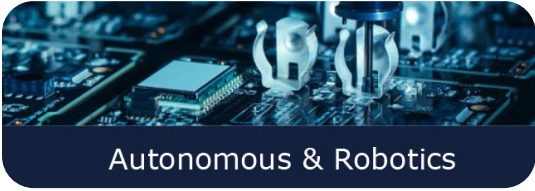
Fiber	PM	SM	LMA	MM
	350-2000mm	350-2000mm	10-30 $\mu\text{m}$ Core	25-100 $\mu\text{m}$ Core

## Cables

OD	900 $\mu\text{m}$	2mm	3mm
Jacket Material	HytreI, PVC, PVDF PTFE, PEEK	PVC, ETFE/PEEK	PVC, PVDF, Stainless



Aerospace



Autonomous & Robotics



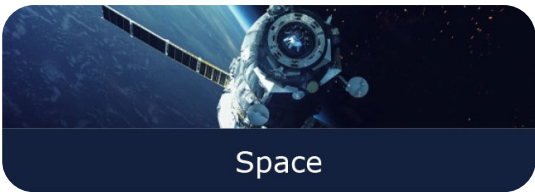
Commercial & Industrial



Medical & Life Sciences



Military & Defense



Space

## 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

**We design and build products that matter.**

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### Contact Us

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