

# ESCC 3420 Space Connectors

Lightweight, Titanium Connector for Space Flight

## Overview

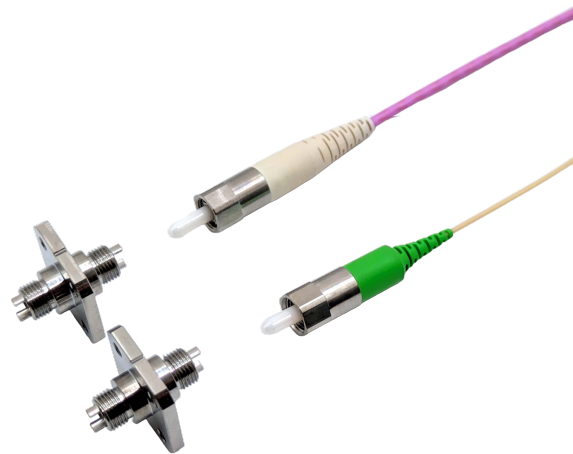
The 3420 Space Connector is designed to meet the harsh environments of aerospace applications and is affordable enough to be used wherever a lightweight, titanium connector is needed. The 3420 Space Connector is developed to meet the ESCC 3420 standard and to be compatible with the Mini and Midi AVIM® connectors. It is also compatible with many fibers and cables less than 2mm OD.

The most critical factor in guaranteeing the performance of a space connector is the assembly process. The method used at Impact ES–Ventura has been in continuous development since its founder qualified a single-mode connector for space in the 1990’s. Impact ES–Ventura builds 1,000s of connectors for space flight.

Please note that Impact ES–Ventura’s 3420 Space Adapter is not compatible with the AVIM® connector.

## Connector Features:

- Assembled in the USA with quality components
- Suitable for single-mode and multimode fibers up to 400µm OD
- Ceramic ferrule and a titanium body for better performance over time and in high vibration
- 6.5mm (1/4”) wrench flats on coupling nut so that the connector can be torqued to 1.0 Nm (9 lbf-in)



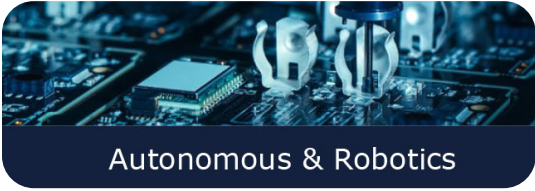
## Qualifications

	Parameters	Samples	Results
<b>Vibration</b>	35g RMS, 20–2,000 HZ, 7.5 Minute per Axis 66g RMS, 20–2,000 HZ, 1 Minute per Axis	900 µm OD, PEEK Cables 1.8mm OD, PEEK/Aramid/ETFE Cables	No noticeable degradation
<b>Shock</b>	1,500g Peak, 100–10,000 HZ, 1 per Axis 500g, 2ms Duration, Half Sine, 3 per Axis	900 µm OD, PEEK Cables 1.8mm OD, PEEK/Aramid/ETFE Cables	No noticeable degradation
<b>Thermal Cycle</b>	Temperature: -40° to 85° C Hold Time: 20 minutes Cycles: >200	900 µm OD, PEEK Cables 1.8mm OD, PEEK/Aramid/ETFE Cables	Coming soon

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



Autonomous & Robotics



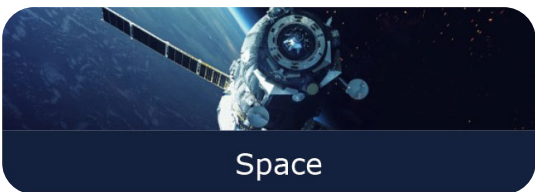
Commercial & Industrial



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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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