

# Versatile Format Interconnect (VFI) Optical Backplane System >

The modular, plug-and-play, high-speed Versatile Format Interconnect (VFI) Optical Backplane System supports co-packaged optics and scalable system growth for next-generation data centers and computing architectures. The versatile form factor and robust, blind-mating mechanical design support compatibility across multiple form factors and provide simple, reliable optical connectivity solutions that help meet growing AI-driven capacity demands.

## ADVANTAGES AND FEATURES

### Streamlines scalability and simplifies upgrades

Multiple MT ferrule configurations, including 1x2, 1x4, 1x6 and 1x8 options, provide flexibility to optimize designs and meet evolving performance demands.

### Simplifies installation operations to decrease downtime

The blind-mating, hot-swappable design ensures generous mechanical float in all three axes, making copper-to-optical system changeovers easier.

### Offers interoperability and high fiber density

The industry-standard MT ferrule interface delivers superior optical performance, up to 36 fibers per ferrule and compatibility with any MT ferrule-based footprint, minimizing integration challenges. Cable assemblies reduce design constraints by terminating to standard ribbon fiber or FlexPlane assemblies.

Ferrule Type	MT or VersaBeam MT
Port Configurations (MT Ferrule)	1x2, 1x4, 1x6, 1x8
Fiber Counts (MT Ferrule)	8, 12, 24 or 36 fibers per ferrule
Fiber Mode	Singlemode, multi-mode

### Enables co-packaged optical connections, eliminating routing congestion and complexity

The compact form factor and high-speed capability allow direct-to-chip optical connectivity, supporting high-fiber-count optical connections from the front or rear panel.

### Reduces maintenance requirements

The available MT micro-lens array with non-contacting ferrule interface minimizes issues stemming from debris and enables easy air-blast cleaning, reducing downtime.



## MARKETS AND APPLICATIONS

### Networking

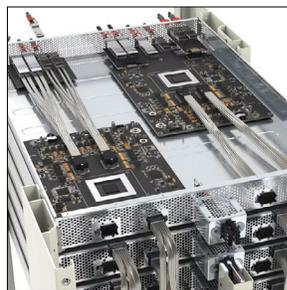
Co-packaged optics  
Switches

### Servers and Storage

Co-packaged optics  
Hyperscalers  
Machine learning systems

### Telecommunications

High-performance computing systems



Co-Packaged Optics



High-Performance Computing Systems



Switches

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## SPECIFICATIONS

### Reference Information

Packaging: Individual pack, plastic bag

Designed in: Millimeters

RoHS: Yes

Halogen Free: Yes

UL File No.: Utilizes 94V-0 materials

Mates with: VFI daughtercard mates  
with VFI backplane adapter

Use with: Singlemode, multi-mode MT

VersaBeam MT multi-mode connectors  
and cable assemblies

Fiber Mode: Singlemode, multi-mode

### Optical

Insertion Loss: Ferrule type dependent

Return Loss: Ferrule type dependent

### Mechanical

Ferrule Type: MT or VersaBeam MT

Fiber Counts: 8, 12, 24 or 36 fibers per ferrule

Adapter Port Options: 1x2, 1x4, 1x6, 1x8

Spring Force:

12 fiber MT—10N per ferrule

VersaBeam MT—5N per ferrule

Durability (min.): 50 mating cycles

### Physical

Housing: Polymer

Ferrules:

MT—Glass-filled polyphenylene sulfide

VersaBeam MT—Optical-grade plastic

Operating Temperatures: -20 to +70°C