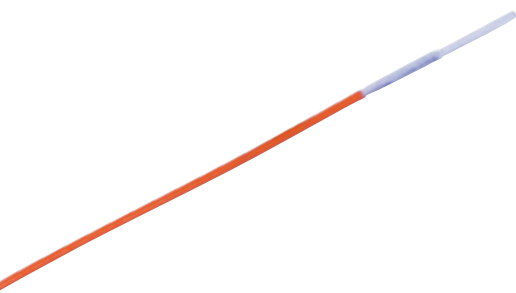


# GORE® Fiber Optic Ribbon Cables



With a unique buffering system, Gore’s rugged cables provide reliable protection under challenging conditions while maintaining high-bandwidth communications up to 12 channels on advanced digital networks (Figure 1). They bring consistent signal integrity with low optical loss for uninterrupted data and video transmission after installation and long after alternative cables have succumbed to their environment (Table 1).

Also, the compact design of our multi-channel ribbon cables increases flexibility with a small bend radius, which simplifies and speeds up the installation process in cramped areas. They are proven to optimize performance in applications ranging from inside the box to outside the aircraft or military vehicle.

## Typical Applications

- Avionics/vetronics digital networks
- Ethernet backbone
- Flight management systems
- HD streaming video systems
- Transceivers
- Weather radar systems

## Standards Compliance

- ABD0031 (AIM 2.0005); BSS7230; FAR Part 25, Appendix F, Part I: Flammability
- ABD0031 (AIM 3.0008B); BSS7238; FAR Part 25, Appendix F, Part V: Smoke Density
- ABD0031 (AIM 3.0005); BSS7239: Toxicity
- MIL-STD-202, Method 103: Humidity
- MIL-STD-810, Method 509: Salt Fog
- MIL-STD-810, Method 510: Sand and Dust

**Table 1: Cable Properties**

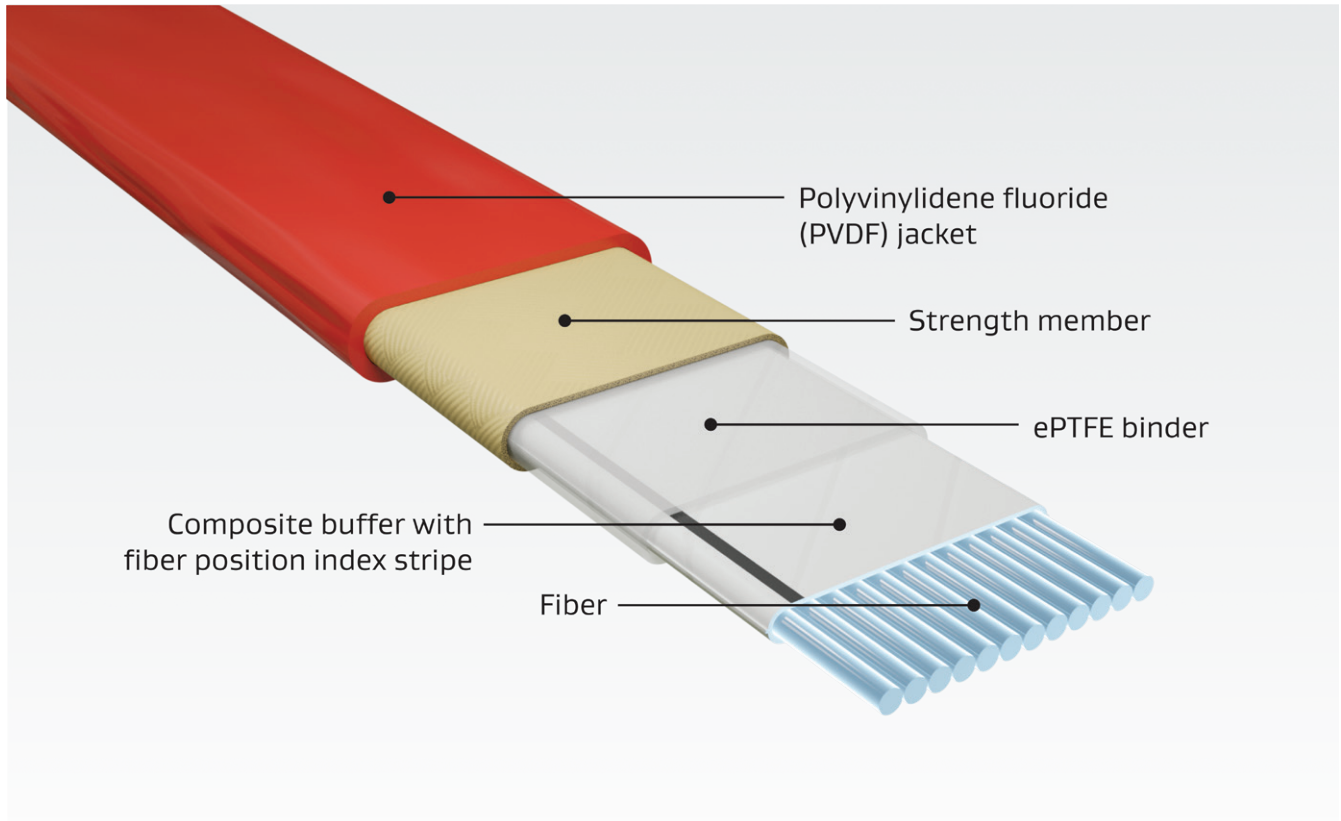
## Optical / Mechanical / Environmental

Property	Value			
	FON1214	FON1256	FON1551	FOA8100
Typical Application	Inside-the-Box		Outside-the-Box	
Signal Transmission Speed <sup>a</sup> Gb/s	Up to 100		Up to 100	
Maximum Optical Loss <sup>a</sup> at 850 nm dB/km	≤ 4.0	≤ 2.3	≤ 3.5	≤ 2.3
Jacket Material	Engineered Fluoropolymer		Extruded PVDF	Extruded PVDF with Strength Member
Jacket Color	White		Orange	
Core Type	Single Mode, Multi-Mode or Multi-Mode, Graded Index		Multi-Mode or Multi-Mode, Graded Index	
Coating Type	Acrylate	High-Temperature Acrylate	High-Temperature Acrylate	
Buffering System	PTFE		PTFE	
Nominal Weight g/m	2.0		2.0	
Tensile Strength N	350		350	
Temperature Range °C	-55 to +125	-60 to +85	-55 to +125	-60 to +125

a. Optical values are typical.

## GORE® Fiber Optic Ribbon Cables

Figure 1: Unique Buffering System



## Connector Systems & Backshells

GORE® Fiber Optic Ribbon Cables are designed to fit a variety of standard high-speed aerospace and defense MT connector systems and backshells. Contact the specific manufacturer such as Amphenol®, COTSWORKS®, Glenair®, and Radiall for exact part numbers, tooling information, and termination instructions.

**Table 2: Cable Characteristics**

Gore Part Number	Core Type	Core/Cladding/Coating	Nominal Outer Diameter mm (in)	Minimum Bend Radius mm (in)
FON1214/1/*	OM1 (Multi-Mode, Graded Index)	62.5/125/245	3.6 (0.14)	Short-Term: ≥ 12.0 (0.47) Long-Term: ≥ 25.0 (0.98)
FON1214/2/*	SM (Single Mode)	9.5/125/245	3.6 (0.14)	Short-Term: ≥ 6.0 (0.24) Long-Term: ≥ 13.0 (0.51)
FON1214/4/*	OM2 (Multi-Mode, Graded Index)	50/125/245	3.6 (0.14)	Short-Term: ≥ 12.0 (0.47) Long-Term: ≥ 25.0 (0.98)
FON1214/5/*	OM3 (Multi-Mode)	50/125/245	3.6 (0.14)	Refer to Manufacturer Data Sheet
FON1214/6/*	OM4 (Multi-Mode)	50/125/245	3.6 (0.14)	Refer to Manufacturer Data Sheet
FON1256/*/*	OM1-OM3 (Multi-Mode)	50/125/245, 62/125/245	3.6 (0.14)	Short-Term: ≥ 12.0 (0.47) Long-Term: ≥ 25.0 (0.98)
FON1551	OM2 (Multi-Mode, Graded Index)	50/125/245	3.8 (0.15)	Short-Term: ≥ 6.0 (0.24) Long-Term: ≥ 13.0 (0.51)
FOA8100/*/*	OM3 (Multi-Mode)	50/125/245	5.1 (0.20)	Short-Term: ≥ 12.0 (0.47) Long-Term: ≥ 25.0 (0.98)

## Samples & Ordering Information

GORE® Fiber Optic Ribbon Cables are identified by an asterisk designating the core type followed by an asterisk designating the number of fibers (i.e., 4, 8, or 12) (Table 2). To place an order, contact an authorized distributor for in-stock availability at [gore.com/cable-distributors](https://gore.com/cable-distributors). To view our full inventory and order complimentary samples of selected products for prototyping and evaluation in your application, visit [gore.com/hcdc-sample-inventory-air-defense](https://gore.com/hcdc-sample-inventory-air-defense).

For more information or to discuss specific characteristic limits and application needs, contact a Gore representative today at [gore.com/aerospace-defense-contact](https://gore.com/aerospace-defense-contact).

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