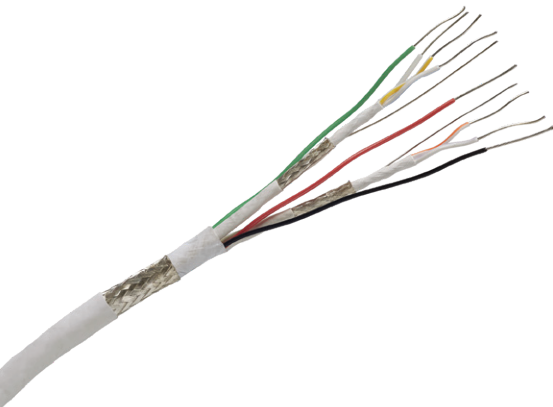


# GORE® USB Cables (2.0 / 3.1 Versions)



Each version of these cable bundles equally deliver non-stop signal transmission up to 10 Gb ensuring high volumes of data and video are uploaded and downloaded instantly (Table 1). They also support the latest power management systems allowing passengers and aircrews to charge carry-on devices quickly and easily without delays.

In addition, these sturdy cable bundles provide added protection that withstands extreme aircraft environments for lifetime service (Figure 1). Gore's USB cables have been proven to meet complex design requirements and stringent industry standards for small at-seat modules in commercial aircraft.

## Typical Applications

- Content loading
- Data transfer
- Digital video systems
- Electronic flight bag (EFB)
- Portable electronic devices
- Power remote devices

## Standards Compliance

- ABD0031 (AIM 3.0005); BSS7239: Toxicity
- ABD0031 (AIM 3.0008B); BSS7238; FAR Part 25, Appendix F, Part V: Smoke Density
- ANSI/NEMA WC 27500: Environmental Testing, Jacket and Marking
- CS/FAR Part 25, Section 25.853, Appendix F, Part I (b)(7): Flammability
- SAE AS4373™: Test Methods for Insulated Electric Wire (Contact Gore for available data)

**Table 1: Cable Properties**

### Electrical

Property	Value
Standard Impedance Ohms	
High-Speed Pairs	90 ± 5
Low-Speed Pairs	90 ± 10
Typical Operating Voltage V	< 15
Nominal Velocity of Propagation %	80
Nominal Time Delay ns/m (ns/ft)	4.07 (1.24)
Capacitance pF/m (pF/ft)	50.0 (15.2)
Maximum Skew Within Pair <sup>a</sup> ps/m (ps/ft)	15.0 (4.6)
Dielectric Withstanding Voltage Vrms	
Conductor-to-Conductor	1500
Conductor-to-Shield	1000

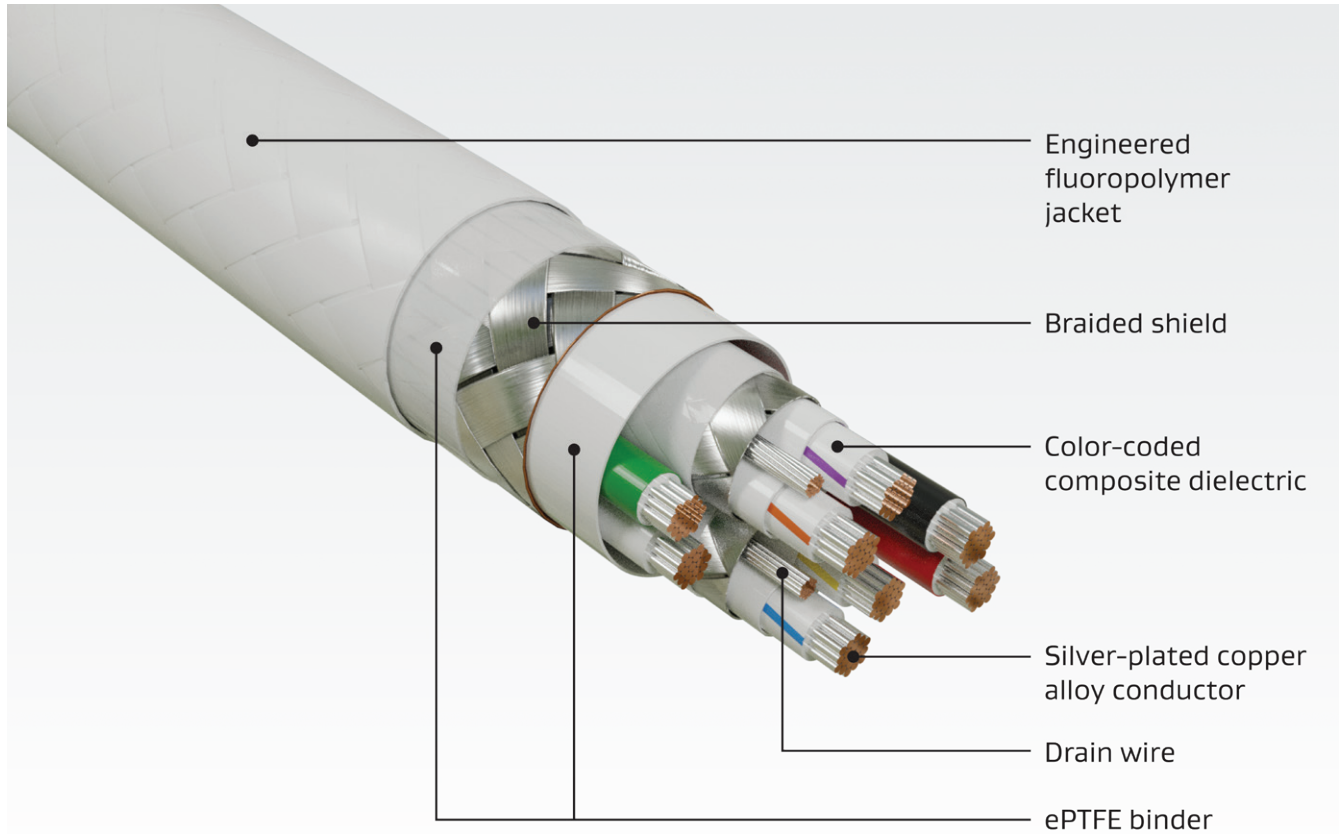
### Mechanical / Environmental

Property	Value
Jacket Material	Engineered Fluoropolymer
Jacket Color	White (Laser Markable)
Conductor	Silver-Plated Copper Alloy
Conductor Color-Coding	High-Speed Pairs: Blue/White, Yellow/White, Orange/White, Violet/White Low-Speed Pairs: Green/White Power Pair: Black/Red
Dielectric Material	ePTFE/PTFE
Temperature Range °C	-65 to +200

a. Shielded twisted pairs only.

## GORE® USB Cables (2.0 / 3.1 Versions)

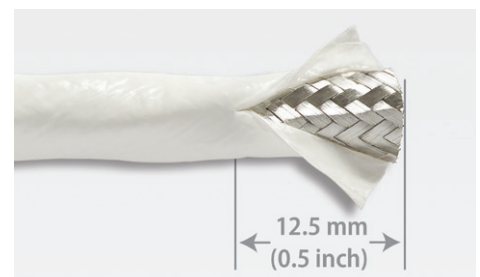
Figure 1: Sturdy Cable Bundle



### Cable Preparation

Laser stripping is the ideal method to prep GORE® USB Cables. Alternatively, Gore recommends using thermal or sharp mechanical strippers. Also, a unique method is to make a short, horizontal slit in the jacket material, peel it back to allow for contact termination and return the jacket to its original position for a neat closure (Figure 2). For more information regarding cable preparation, please contact a Gore representative.

Figure 2: Peel-Back Method



**Table 2: Cable Characteristics**

**2.0 Version**

Gore Part Number	AWG Size (Stranding)	Nominal Outer Diameter mm (in)	Minimum Bend Radius mm (in)	Nominal Weight kg/km (lb/1000 ft)	Maximum Insertion Loss dB/1 m (3.28 ft)		
					96 MHz	200 MHz	400 MHz
RCN8800-22D-22P-H	Data Pair: 22 (19/34) Power Pair: 22 (19/34)	5.1 (0.20)	15.0 (0.60)	52.0 (35.0)	0.33 <sup>a</sup>	0.55 <sup>a</sup>	1.00 <sup>a</sup>
RCN8800-24D-22P-H	Data Pair: 24 (19/36) Power Pair: 22 (19/34)	4.8 (0.19)	13.0 (0.50)	48.0 (32.0)	0.33 <sup>a</sup>	0.55 <sup>a</sup>	1.00 <sup>a</sup>
RCN8800-26D-24P-H	Data Pair: 26 (19/38) Power Pair: 24 (19/36)	4.3 (0.17)	10.0 (0.39)	46.1 (31.0)	0.42	0.71	1.29

**3.1 Version**

Gore Part Number	AWG Size (Stranding)	Nominal Outer Diameter mm (in)	Minimum Bend Radius mm (in)	Nominal Weight kg/km (lb/1000 ft)	Maximum Insertion Loss dB/1 m (3.28 ft)			
					1250 MHz	2500 MHz	5000 MHz	7500 MHz
GSC-03-84761-24D	Data Pair: 26 (19/38) Power Pair: 24 (19/36)	5.8 (0.23)	Static (< 20 bends): 15.0 (0.59) Dynamic: 60.0 (2.36)	65.0 (43.7)	1.70	2.50	3.90	5.00

a. Values are limited in length due to timing of protocol.

**Contact-Connector Options**

GORE® USB Cables are designed to fit a variety of high-speed aerospace and defense connector systems and backshells such as ARINC and MIL-STD-38999 with size 8 contacts. Please contact the specific manufacturer such as Amphenol® and Glenair® for exact part numbers, tooling information, and termination instructions.

**Ordering Information**

GORE® USB Cables are available in standard sizes (Table 2). Visit [gore.com/cable-distributors](http://gore.com/cable-distributors) for the list of distributors. In addition, visit [gore.com/hdrsamplerflyer](http://gore.com/hdrsamplerflyer) regarding Gore’s full inventory of sample products and lead times.

For more information or to discuss specific characteristic limits and application needs — including other gauge sizes that can be designed and built to order, please contact a Gore representative.

Information in this publication corresponds to W. L. Gore & Associates' current knowledge on the subject. It is offered solely to provide possible suggestions for user experimentations. It is NOT intended, however, to substitute for any testing the user may need to conduct to determine the suitability of the product for the user's particular purposes. Due to the unlimited variety of potential applications for the product, the user must BEFORE production use, determine that the product is suitable for the intended application and is compatible with other component materials. The user is solely responsible for determining the proper amount and placement of the product. Information in this publication may be subject to revision as new knowledge and experience become available. W. L. Gore & Associates cannot anticipate all variations in actual end user conditions, and therefore, makes no warranties and assumes no liability in connection with any use of this information. No information in this publication is to be considered as a license to operate under or a recommendation to infringe any patent right.

NOTICE — USE RESTRICTIONS APPLY. Not for use in food, drug, cosmetic or medical device manufacturing, processing, or packaging operations.

Amphenol is a registered trademark of Amphenol Corporation. Glenair is a registered trademark of Glenair, Inc.

GORE, *Together, improving life*, and designs are trademarks of W. L. Gore & Associates © 2019–2021 W. L. Gore & Associates

