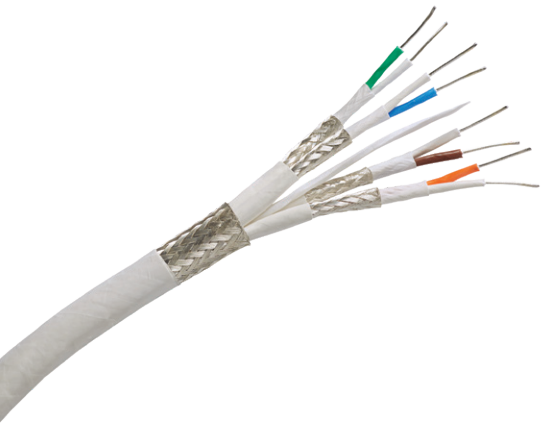
GORE® DVI Cables (Digital Only)



Gore's single-link cables are built specifically for the digital component of DVI (digital video interface) systems. They deliver exceptional signal quality supporting the highest video resolution for optimal viewing on modern displays (Table 1). These cables meet stringent requirements for impedance control, insertion loss, skew, and EMI shielding necessary for reliable cable performance in DVI systems operating in demanding EMI environments.

Additionally, Gore's cable technology is smaller, lighter weight and more flexible without sacrificing robustness. These versatile cables also enable responsible termination with leading aerospace and defense connector systems.

Gore's cables are ideally suited for standard DVI harness configurations installed in aircraft and military vehicles (Figure 1). Design engineers no longer have to worry about designing harnesses with digital components that are ultimately inadequate for harsh environments.

Typical Applications

- Cockpit/vehicle displays
- Crew workstation displays
- Flight management systems
- In-flight entertainment (IFE) systems
- Mission systems
- Weather mapping

Standards Compliance

- ABD0031 (AITM 2.0005); BSS7230; FAR Part 25, Appendix F, Part I: Flammability
- ABD0031 (AITM 3.0005); BSS7239: Toxicity
- ABD0031 (AITM 3.0008B); BSS7238; FAR Part 25, Appendix F, Part V: Smoke Density
- ANSI/NEMA WC 27500: Environmental Testing, Jacket and Marking
- SAE AS4373™: Test Methods for Insulated Electric Wire (Contact Gore for available data

Table 1: Cable Properties

Electrical

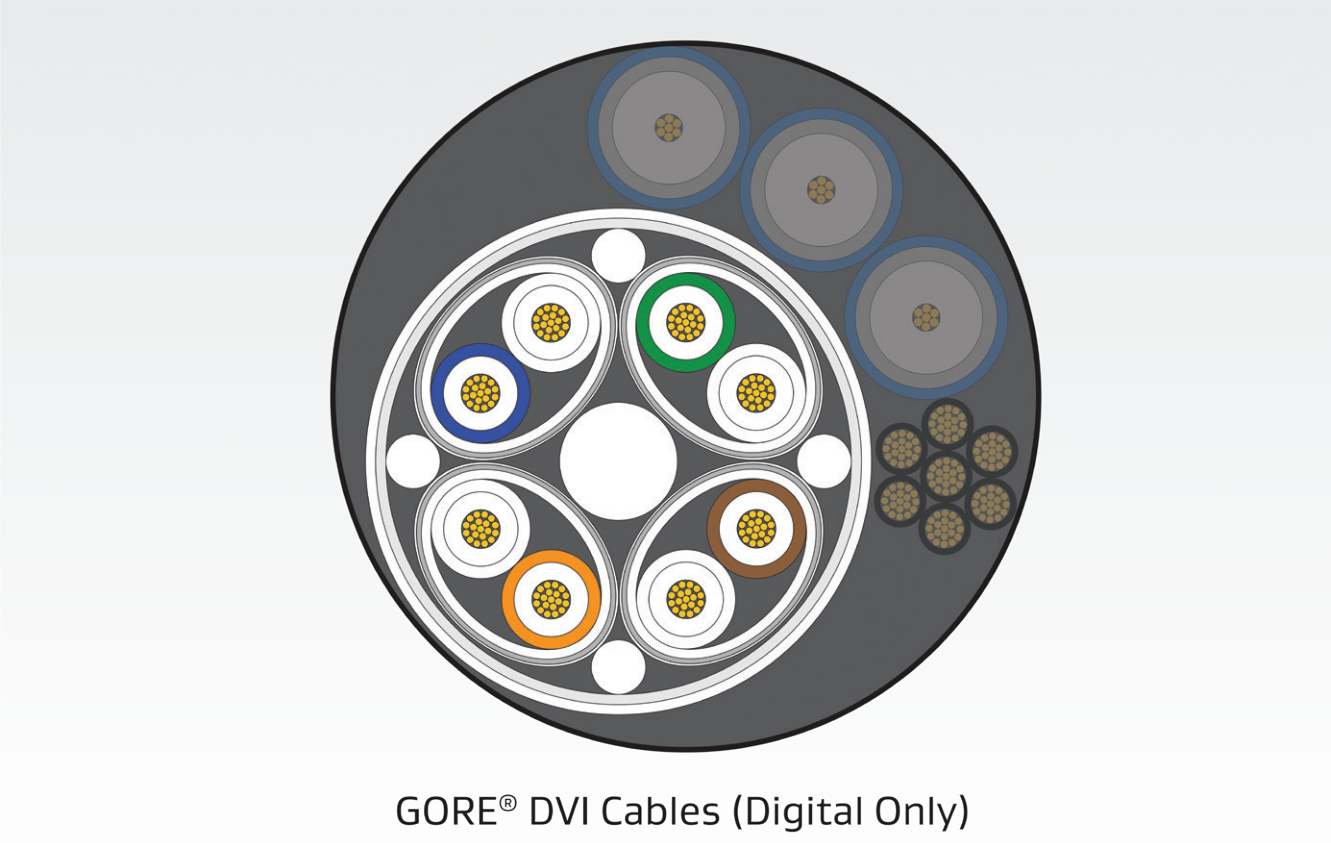
Property	Value
Standard Impedance Ohms	100 ± 10
Typical Operating Voltage V	< 15
Nominal Velocity of Propagation %	80
Nominal Time Delay ns/m (ns/ft)	4.07 (1.24)
Capacitance pF/m (pF/ft)	40.0 (12.0)
Maximum Skew ps/m (ps/ft) Pair-to-Pair Within Pair	 52.50 (16.0) 13.12 (4.0)
Dielectric Withstanding Voltage Vrms Conductor-to-Conductor Conductor-to-Shield	 1500 1000

Mechanical / Environmental

Property	Value
Jacket Material	Engineered Fluoropolymer
Jacket Color	White (Laser Markable)
Conductor	Silver-Plated Copper Alloy
Conductor Color-Coding	Blue/White, Brown/White, Green/White, Orange/White
Dielectric Material	Expanded PTFE/PTFE
Temperature Range °C	-65 to +200

GORE® HDMI Cables (1.4 Cat2 / 2.0)

Figure 1: Standard DVI Harness Cross-Section



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Cable Preparation

Laser stripping is the ideal method to prep GORE® DVI 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, contact a Gore representative.

Connector Systems & Backshells

GORE® DVI 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. Contact the specific manufacturer such as Amphenol® and Glenair® for exact part numbers, tooling information, and termination instructions.

Figure 2: Peel-Back Method

Exceptional Signal Quality

Gore evaluated the eye pattern of their 5-m (16-ft) DVI digital only cable to ensure the consistency of signal quality and transmission. The diamond-shaped eye mask shown in Figure 3 indicates the minimum receiver sensitivity specified by DVI Revision 1.0. Results showed that GORE® DVI Cables passed the eye mask test.

Figure 3: Eye Pattern of Gore's DVI Cable

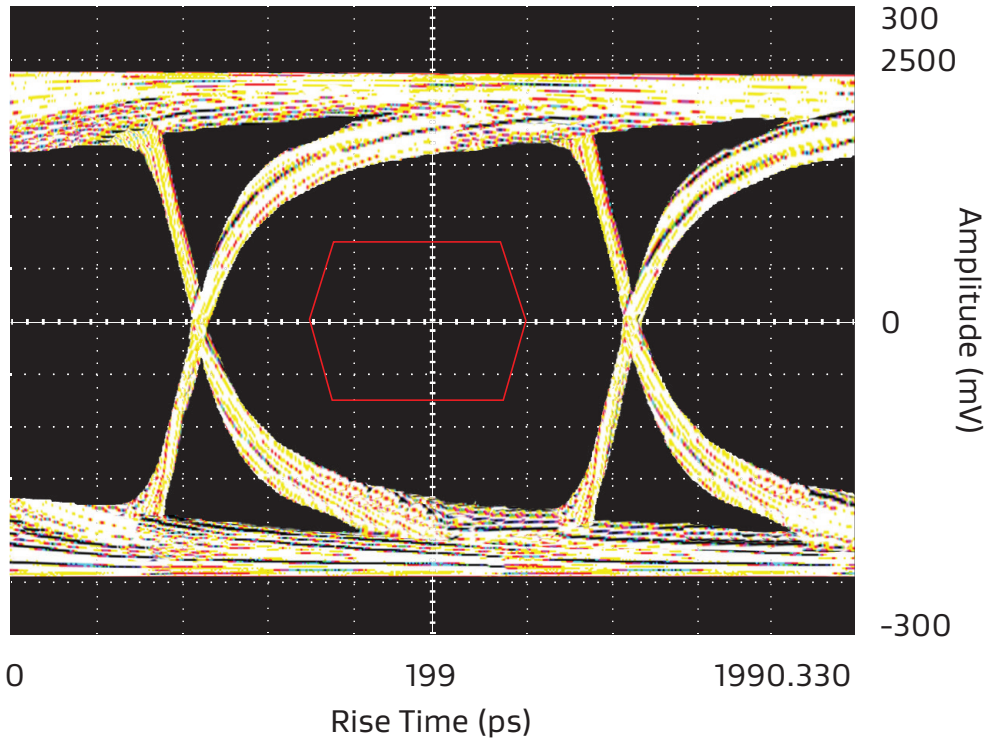

Table 2: Cable Characteristics

Gore Part Number	AWG Size (Stranding)	Nominal Outer Diameter mm (in)	Minimum Bend Radius mm (in)	Nominal Weight kg/km (lb/1000 ft)	Typical Insertion Loss dB/100 m (328 ft)			
					100 MHz	200 MHz	500 MHz	1 GHz
GSC-01-85249-24S	24 (19/36)	8.3 (0.33)	42.0 (1.65)	121.0 (81.31)	19.4	28.2	46.0	68.2

Samples & Ordering Information

GORE® DVI Cables are available in a standard size (Table 2). To place an order, contact an authorized distributor for in-stock availability at **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/hsdc-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.**

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