

GORE® CAN Bus Cables (Ultralight)

The next step in Gore's trusted high-speed cable portfolio is the Ultralight version of GORE® CAN Bus Cables for aerospace and defense applications. With a lighter weight design, this version offers up to 20% to 40% less weight than our standard version and leading alternatives (Table 1). It maintains the high standards of mechanical durability and signal integrity that system design engineers have long trusted.

Engineered for today's faster digital networks, our Ultralight version ensures clean, high-quality signals for reliable data transmission up to 1 GHz with controlled impedance at 120 ohms. Its robust construction with shielding protects sensitive lines against mechanical stress, vibration, and harsh environmental factors — ensuring stable and secure performance over the full application lifespan (Figure 1).

Using GORE® CAN Bus Cables (Ultralight), system design engineers can reduce overall platform weight, improve payload and cargo efficiency, and support next-generation programs without compromising signal integrity, reliability or long-term stability.

Table 1: Cable Properties

Mechanical / Environmental

Property	Value	
	Ultralight	Standard
Weight kg/km (lb/1000 ft)	DXN2657-24: 17.5 (11.8) DXN2657-26: 11.7 (7.9)	GSC0385752-24D: 23.0 (15.5) GSC0385752-26D: 15.4 (10.4)
Jacket Material/Color	Engineered Fluoropolymer/ White (Laser Markable)	
Conductor	Silver-Plated Copper Alloy	
Conductor Color-Coding	Blue/White	
Dielectric Material	Expanded PTFE/PTFE	
Temperature Range °C	-65 to +200	



Typical Applications

- Electrical Wiring Interconnection System (EWIS)
- Avionics/vetronics digital networks
- Cabin management systems
- Controller area networks (CAN Bus)
- Data links
- Electronic diagnostics
- Mission systems
- Serial buses

Standards Compliance

- ABD0031 (AIMT 2.0005); BSS7230; FAR Part 25, Appendix F, Part I: Flammability
- ABD0031 (AIMT 3.0005); BSS7239: Toxicity
- ABD0031 (AIMT 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)
- SAE J1128™: Low Voltage Primary Cable
- SAE J1939™: Serial Control and Communications Heavy Duty Vehicle Network

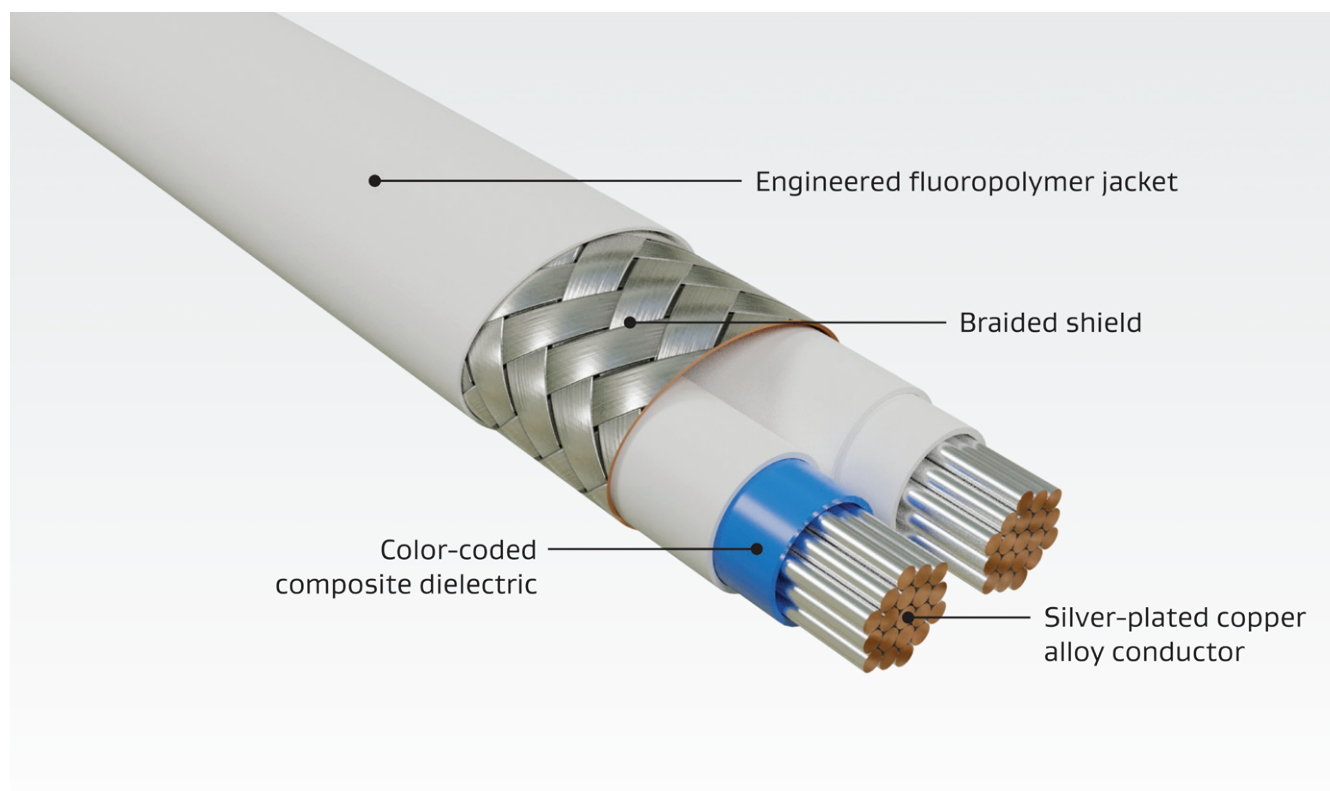
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Table 1: Cable Properties (continued)

Electrical

Property	Value	
	Ultralight	Standard
Signal Transmission Speed GHz	Up to 1	
Standard Impedance Ohms	120 ± 10	
Typical Operating Voltage V	< 48	
Nominal Velocity of Propagation %	80	
Nominal Time Delay ns/m (ns/ft)	4.10 (1.25)	
Capacitance pF/m (pF/ft)	42.0 (12.8)	
Dielectric Withstanding Voltage Vrms		
Conductor-to-Conductor	1500	
Conductor-to-Shield	1000	

Figure 1: Compact Footprint



The Ultralight version of GORE® CAN Bus Cables is available in standard sizes (Table 2).

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/30 m (100 ft)			
					100 MHz	200 MHz	500 MHz	1 GHz
DXN2657-24	24 (19/36)	4.2 (0.17)	21.0 (0.83)	17.5 (11.8)	6.5	10.0	16.0	22.0
DXN2657-26	26 (19/38)	3.5 (0.14)	17.5 (0.69)	11.7 (7.9)	8.0	12.0	18.0	24.0

Gore's ultralight design reduces weight by up to 24% compared to our standard version and up to 40% compared to most leading alternatives.



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