

High-Speed Cable

Aptiv's High-Speed Cables are designed to transmit data quickly and reliably over both short and long distances, with high bandwidth requirements for large volumes of data. These cables are meticulously engineered using advanced materials, precise impedance control, and shielding techniques to provide outstanding signal integrity even in the harshest environments. Their applications are diverse, ranging from aerospace and defense to telecommunications, computing, industrial automation, and high-end consumer electronics.

FEATURES & BENEFITS



- High Data Transfer Rates – Supports speeds up to 10 Gbps for modern high-bandwidth applications.
- Superior Signal Integrity – Low attenuation, controlled impedance, and reduced crosstalk ensure reliable performance.
- Robust Construction – Withstands flexing, vibration, and temperature variations for long-term durability.
- EMI/RFI Protection – Advanced shielding minimizes interference and prevents signal leakage.
- Versatile Configurations – Available in twisted pair, hybrid fiber-copper, and multiple Ethernet categories.
- Optimized for Harsh Environments – Resistant to chemicals, oils, and extreme temperatures.
- Lightweight & Space-Saving – Compact designs deliver performance without adding bulk.
- Customizable Solutions – Tailored designs to meet unique electrical, mechanical, and environmental needs.

PRODUCT SPECIFICATIONS

Electrical Properties	
Data Transfer Rates	Up to 10 Gbps)
Frequency Range	Up to 3GHz (Ethernet),
Impedance	50 Ω , 75 Ω , 100 Ω , 120 Ω
Dielectric Withstanding Voltage (DWV)	500 VAC to 7500 VRMS

Mechanical Properties	
Conductor Material	Copper (bare, tin-plated, silver-coated), Aluminum
Insulation Material	PE, XLPE, TPE, PVC, EPR, Polyurethane, FEP
Shielding	Foil, Braid (copper, aluminum)
Outer Jacket Material	PVC, PUR, PVDF, PE, TPE, FEP
Flex Life	Up to 20 million flex cycles (for high-flex)
Outer Diameter	Varies widely
Temperature Rating	Up to +200°C
Wire Gauge	18 AWG to 30 AWG)

PRODUCT SPECIFICATIONS CONTD.

Environmental Properties	
Parameter	Typical Value / Range
Operating Temperature	−65°C to +200°C
Chemical Resistance	Resistant to oils, fuels, solvents
UV Resistance	Construction dependent