



RAYCHEM CAT 6A CABLE

10 Gb/s ETHERNET IN A SMALLER, MORE RUGGED CABLE FOR
HARSH MILITARY AND AEROSPACE ENVIRONMENTS

RAYCHEM CAT 6A CABLE

Smaller, More Rugged Cable for Harsh Environments



Achieve 10 Gb/s speeds while saving space and helping to meet the demands of harsh military and aerospace environments. Raychem Cat 6a cables are fully shielded four-pair cables meeting the electrical requirements of ANSI/TIA-568-C.2 for Category 6a cable.

The cable's FEP insulation and jacket allow a reduced-diameter cable, when compared to standard commercial Cat 6a cables, while stranded conductors provide high flexibility in routing.

Engineered to Perform

The cable is highly engineered to provide excellent 10G signal integrity and performance stability over a temperature range as wide as -55°C to +200°C.

The cable comes in two wire gauges: the industry-standard 24 AWG and a smaller 26 AWG as required in certain military and aerospace applications.

High Speed, High Compatibility

Compared to commonly used tape-wrapped cables, Raychem Cat 6a cables are easier to terminate. Plus the cable is compatible with common high-speed aerospace and military connectors. This compatibility includes TE's high-performance 10 Gb/s CeeLok FAS-T and CeeLok FAS-X connectors.

HIGH PERFORMANCE

- Excellent signal integrity at 10 Gb/s
- Stable performance in extreme conditions
- Support full 100 m links

COMPACT AND RUGGED

- Ruggedized to survive in harsh environments
- Reduced size and weight

EASY TO USE

- Easier to terminate compared to tape-wrapped designs
- Flexible with tight bend radius for easier routing

COMPATIBLE

- Fit most high-speed aerospace connectors, including TE's CeeLok FAS-T and CeeLok FAS-X connectors

APPLICATIONS

- Military and Commercial Aerospace
- In-Flight Entertainment Systems
- Flight Control
- Avionics
- Cabin Management Systems
- Military Ground Vehicles
- Formula 1 Motorsport

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Get your product to market faster with a smarter, better solution.



Specifications

MATERIALS

- **Conductors:**
 24 AWG: Stranded silver-coated copper alloy
 26 AWG: Stranded silver-coated high-strength copper alloy
- **Dielectric:** FEP
- **Core Wrap:** PTFE (26 AWG cables only)
- **Shielding:**
 200°C Rated Cables: Silver-coated copper braid an aluminum/polyimide foil wrap
 150°C Rated Cables: Tin-coated copper braid an aluminum/polyester foil wrap
- **Jacket:** FEP, in colors per MIL-STD-681 or laser-markable white

ELECTRICAL

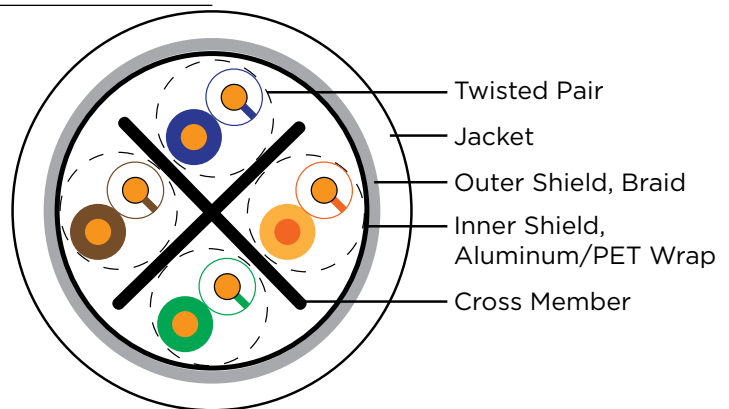
- **Standard Impedance (Nom):** 100 ohms
- **Attenuation (Max.) at 500 MHz:**
 24 AWG: 54.4 ohms/100 m
 26 AWG: 67.9 ohms/100 m
- **Mutual Capacitance (Max.) at 1 kHz:** 5.6 nF/100 m
- **DC Resistance (Nom.) at 20°C:** 43.9 ohms/1000 ft.
- **Velocity of Propagation (Nom.):** 70%

ENVIRONMENTAL/MECHANICAL

- **Temperature Range:** -55°C to 150°C or 200°C
- **Bend Radius (Min.):**
 24 AWG: 1.0 in.
 26 AWG: 0.75 in.

STANDARDS/SPECIFICATIONS

- **Ethernet Cable:** ANSI/TIA-568-C.2 and IEEE 801.3
- **Environmental Testing:** WC 27500/AS6070
- **Smoke and toxicity:**
 Boeing and Airbus ABD0031 standards
 FAR Part 25, Appendix F, Part 1
- **TE Product Specification:** 1200/1400



Part Numbers

Temperature (Max.)	Conductor Size	Jacket OD, Nom.	Part No.
150°C	24 AWG	0.292	C6A-24C444-814
	26 AWG	0.237	C6A-26C444-814
200°C	24 AWG	0.290	C6A-24C444-B24
	26 AWG	0.235	C6A-26C444-B24

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Consult TE for the latest dimensions and design specifications.

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