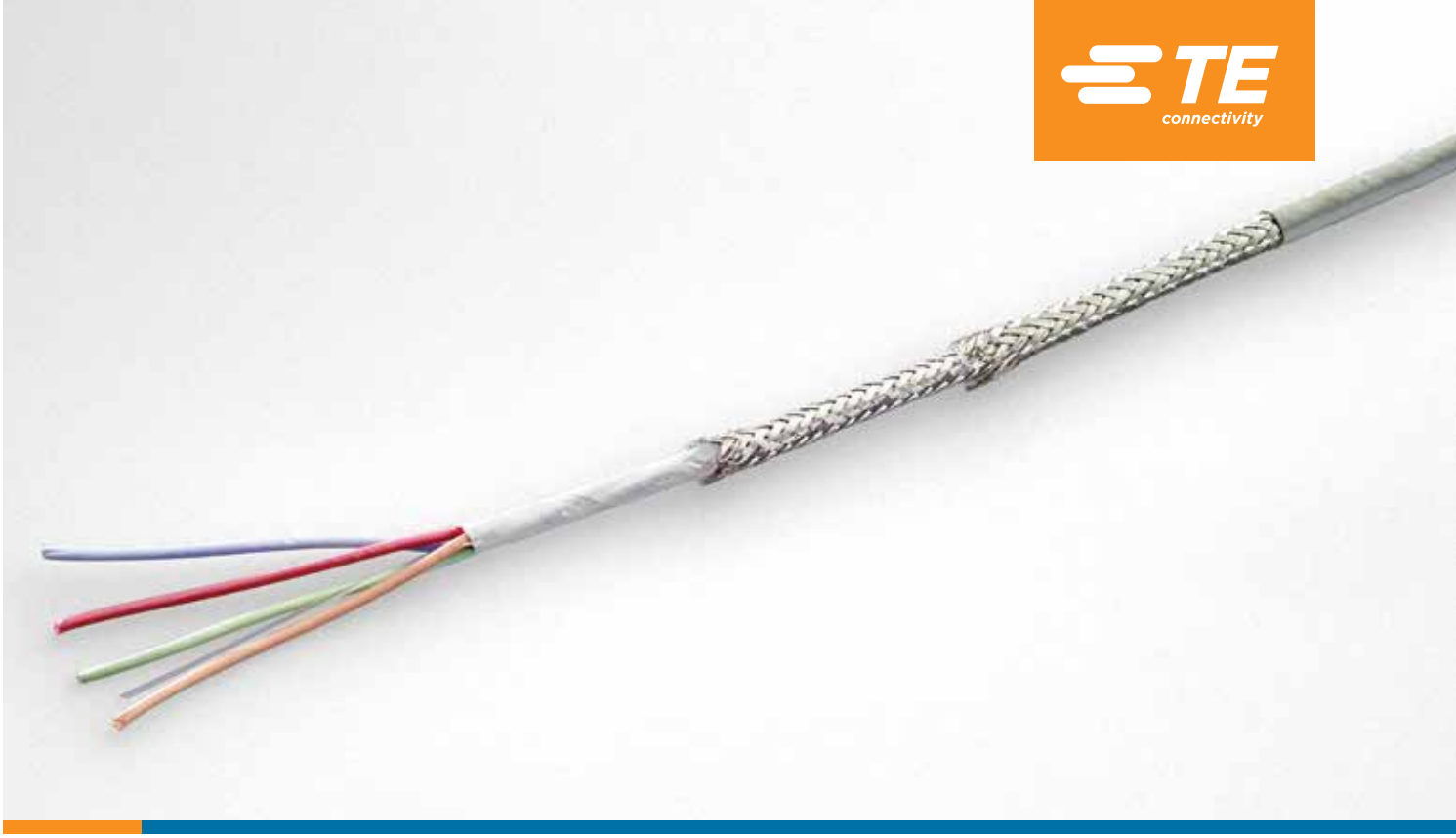


# RAYCHEM
# HIGH-SPEED CABLE FOR IEEE 1394 APPLICATIONS

## DEPENDABLE SIGNAL INTEGRITY FOR HIGH-SPEED DATA TRANSMISSION IN RUGGED MILITARY AND AEROSPACE ENVIRONMENTS

### SPACE AND WEIGHT SAVINGS
- Easier routing in confined spaces
- Smaller cable bundles for improved installation

### RUGGED
- Tough, high-temperature FEP insulation and jacket

### COMPATIBLE
- 1394A: up to 0.4 Gb/s
- 1394B: up to 3.2 Gb/s
- Laser markable jacket

### APPLICATIONS
- Mission Systems
- Flight Control
- Avionics
- Propulsion Control

Raychem high-speed cables for IEEE 1394 applications give you high-speed capabilities in a rugged, compact package. Our portfolio of fine-gauge 1394 cable designs gives you greater flexibility in routing through space-constrained environments, while still meeting requirements for a wide temperature range, low flammability and smoke generation, and easy termination.

The cables are available in four-conductor configurations to meet the needs of 1384A and B applications. Standard configurations use a double braid shield to achieve excellent signal integrity in noisy aerospace and military environments. Consult TE Connectivity (TE) for other configurations.

**TE Components . . . TE Technology . . . TE Know-how . . .**

AMP | Agastat | CII | Hartman | Kilovac | Microdot | Nanonics | Polamco | Raychem | Rochester | DEUTSCH SEACON Phoenix | L.L. Rowe | Phoenix Optix | AFP | SEACON

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

# HIGH-SPEED CABLE FOR IEEE 1394 APPLICATIONS

## High-Speed Data Transmission In Military and Aerospace Environments

## Specifications

### MATERIALS

- **Conductors:**
  24, 22 AWG: Silver-coated copper alloy
  26 AWG: Silver-coated high-strength alloy
  Component Color: Blue/Orange, Red/Green
- **Dielectric:** Foamed FEP
- **Core Wrap:** PTFE
- **Shielding:** Silver-coated copper braid, 92% coverage
- **Jacket:** FEP, white (laser markable)

### ELECTRICAL

- **Standard Impedance:** 110 +6/-4 ohms
- **Crosstalk (min.):** 26 dB, 1 to 500 MHz
- **Capacitance (max):** 13 pF/ft at 1 kHz
- **Time Delay (max):** 1.31 ns/ft
- **Time Delay Skew between Pairs (max.):** 400 ps/4.5 m
- **Velocity of Propagation (nom.):** 83%

### STANDARDS/SPECIFICATIONS

- **IEEE 1394B for Military and Aerospace Vehicles:** SAE AS5643
- **Environmental Performance Testing:** WC 27500
- **Smoke Density and Toxicity:** BSS 7238 and 7239
- **Flammability:** FAR Part 25, Appendix F, Part 1, and AS22759
- **TE Product Specification:** 1200/1400

### ENVIRONMENTAL

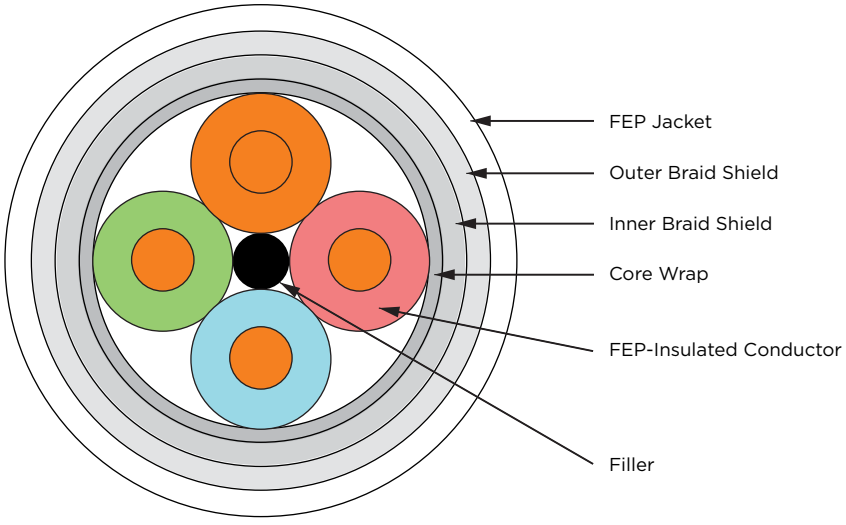
- **Temperature Range:** -55°C to 200°C

### Part Numbers

| No. of Conductors | Conductor Size | Shielding | Jacket OD, Nom. | Part No. |
|---|---|---|---|---|
| 4 | 26 AWG | Double Braid | 0.156 | 3EQ-26C422-32M |
| 4 | 24 AWG | Double Braid | 0.188 | 3EQ-24C422-32M |
| 4 | 22 AWG | Double Braid | 0.218 | 3EQ-22C222-32M |

For other constructions, including power wires, please consult TE.

### Typical Configuration




**te.com/ieee1394**



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