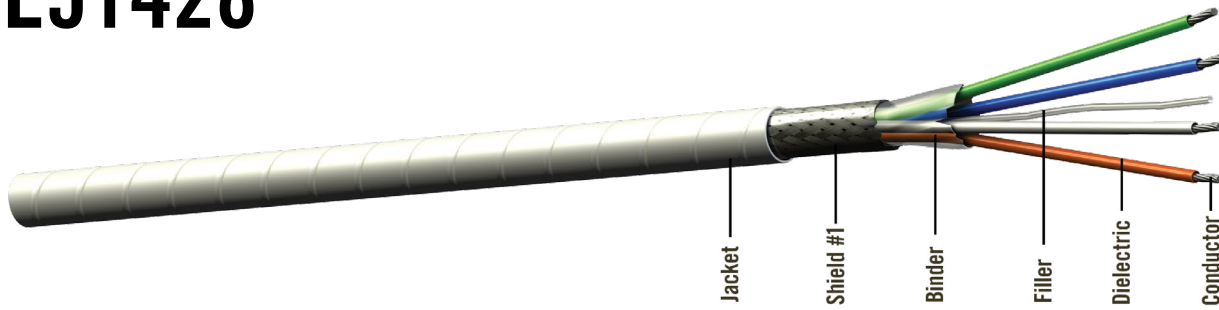


# E51428



## CABLE CONSTRUCTION

**Conductors:** Silver-Plated High Strength Copper Alloy  
**Dielectric:** PFA  
**Binder:** PTFE Tape  
**Filler:** Fluoropolymer

**Shield #1:** Silver-Plated Copper Round Braid  
**Jacket:** PTFE, White (Laser Markable)

## COLOR CODES

**Pair #1:** White/Blue  
**Pair #2:** Orange/Green

The E51428 is a 100 Base-T Quadrax cable specially designed for airborne applications as defined by ARINC Specification 664. The overall design of E51428 allows a smaller overall diameter and weight while exceeding Category 5e requirements. The E51428's construction of silver-plated high-strength copper alloy conductors is surrounded by a solid PFA insulation assuring uniform conductivity with excellent solderability.

The 80% braided shielding provides shielding to preserve technical performance. A PTFE laser-markable jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation.

## PHYSICAL DATA

**Conductor:** 28 AWG Stranded SPHSCA  
**Shield Coverage:** 80% (Braid)  
**Temperature Range:** -55 to +200°C  
**Outer Diameter:** in (mm) 0.115 (2.92)  
**Minimum Bend Radius:** in (mm) 0.6 (15.24)  
**Weight:** lbs/100 ft (kg/100 m) 1.0 (1.5)

## ELECTRICAL DATA

**Impedance:** 100 ohms  
**Capacitance:** pF/ft (m) 14.5 (47.6)  
**Velocity of Propagation:** 70%  
**Dielectric Voltage Rating:** (kV, RMS) 1.5  
**DC Resistance:** ohms/1000 ft (m) 74.8 (245.4)  
**Max Distance\*:** ft (m) 170 (52)

## ENVIRONMENTAL DATA

**Skydrol Resistant:** SAE AS4373E, Method 601  
**RoHS Compliant:** RoHS Directive 2002/95/EC  
**Flame / Smoke Requirements:** FAR Part 25.869 (a) App. F, Part 1, (a)(3)  
**Berry Specialty Metals Compliance:** Complies with DFARS 252.225-7014, Alt 1

## ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	3.7/4.1	(12.1/13.5)
@100 MHz	11.1/12.4	(36.4/40.7)

*All values nominal, unless otherwise noted*

E51428 CAT 5E ETHERNET CABLE

