

## CABLE CONSTRUCTION

1. ETFE Jacket (White) Laser Markable
2. Tin-Plated Copper Outer Round Braid
3. Tin-Plated Copper Inner Flat Strip Braid
4. PTFE Tape Binder - White
5. Fluoropolymer Insulation
6. Fluoropolymer Filler
7. Silver-Plated High Strength Copper Alloy Conductors



## COLOR CODES

- Pair #1 - Red/Blue  
 Pair #2 - Yellow/Green

This lightweight, low loss cable has been specially designed by PIC for airborne 100 Base-T data applications as defined by ARINC Specification 664.

The conductor insulation is foamed fluoropolymer making it small, light and low loss. Data transmission aboard aircraft faces more severe environmental and EMI situations than conventional LAN systems in commercial buildings, hence the double shielding to preserve technical performance. The cable is designed to be terminated with ARINC 600 and D38999 quad-type contacts. It is compatible with any contact designed for Tensolite cable part number NF24Q100.

An ETFE jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation and is laser markable.

E51424 exceeds Category 5e requirements, is Skydrol resistant, RoHS compliant and passes the FAA flammability requirements of FAR Part 23 and 25, Appendix F. Test results are available upon request.

## PHYSICAL DATA

- Conductors 24 AWG Stranded SPCA
- Shield Coverage 90% Inner (Braid), 85% Outer (Braid)
- Operating Temperature -55° to +150°C
- Outer Diameter: in (mm) 0.16 (4.06)
- Minimum Bend Radius: in (mm) 0.80 (20.32)
- Weight: lbs/100 ft (kg/100 m) 2.2 (3.3)

## ELECTRICAL DATA

- Impedance: ohms 100
- Capacitance: pF/ft (m) 13.0 (42.7)
- Velocity of Propagation: % 80.0
- Dielectric Voltage Rating (kV RMS) 0.9
- DC Resistance: ohms/1000 ft (m) Max 28.5 (93.5)
- Max Distance\*: ft (m) 255 (78)
- Attenuation: Nom / Max dB/100 ft (dB/100 m)
  - @10 MHz 2.3 / 2.7 (7.5 / 8.9)
  - @100 MHz 8.0 / 9.2 (26.2 / 30.2)

*All values nominal unless otherwise noted*  
 \*Note: The max distance is based on maximum channel insertion loss per ANSI/TIA-568-C.2

Description	Connector P/N	Tool P/N
Shielded CAT 5e, Plug w/ATUM Strain Relief	110558	110288 - RJ45 Crimp Tool
Shielded CAT 5e, Plug w/Protective Boot	110726	110288 - RJ45 Crimp Tool
Shielded CAT 6, Plug w/ATUM Strain Relief (fits Amphenol (RJF) ruggedized backshell)	110789	110288 - RJ45 Crimp Tool
Shielded CAT 6a, Jack w/ATUM Strain Relief	110939	110701 - Soft Jaw Clamping Pliers

*Call PIC For Availability*