

CABLE CONSTRUCTION

1. FEP Jacket (Translucent Blue)
2. Silver-Plated Copper Shield
3. Foil Shield
4. Foamed FEP Insulation
5. Silver-Plated Copper Conductors

COLOR CODES

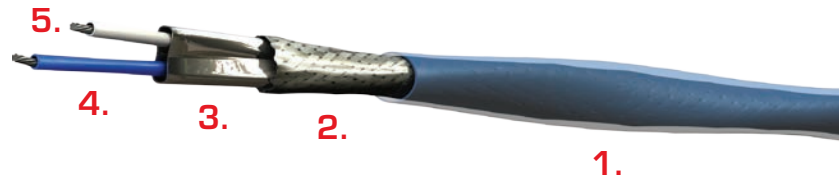
Blue, White

This cable has been specially designed by PIC for airborne 10 and 100 Base-T Local Area Network applications as defined by ARINC Specification 664. The twisted-pair construction effectively reduces inductive interference while 100% foil and 90% braided shielding serve to further protect against EMI. The cable is also approved by Honeywell for airborne NTSC/PAL/RS170 camera video where a 100-ohm balanced line is required.

Data transmission aboard aircraft faces more severe environmental and EMI situations than conventional LAN systems in commercial buildings, hence special measures have been taken to preserve technical performance.

Each conductor is surrounded by a foamed FEP dielectric having a high velocity of propagation which permits smaller overall diameter and weight while retaining performance and required operating parameters. Silver-plated copper conductors and shielding assure uniform conductivity with excellent solderability. An FEP jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation.

E10224 exceeds ANSI/TIA-568-C.2 CAT 5e Channel Requirements. It 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 SPC
• Shield Coverage	100% (Foil), 90% (Braid)
• Operating Temperature	-55° to +200°C
• Outer Diameter: in (mm)	0.16 (4.14)
• Minimum Bend Radius: in (mm)	0.87 (21.97)
• Weight: lbs/100 ft (kg/100 m)	2.2 (3.2)

ELECTRICAL DATA

• Impedance: ohms	100
• Capacitance: pF/ft (m)	13.0 (42.7)
• Velocity of Propagation: %	80.0
• Dielectric Voltage Rating (kV RMS)	1.5
• DC Resistance: ohms/1000 ft (m) Max	28.5 (93.5)
• Max Distance*: ft (m)	332 (101)
• Attenuation: Nom / Max	dB/100 ft (dB/100 m)
• @10 MHz	1.8 / 2.1 (5.9 / 6.9)
• @100 MHz	5.8 / 7.0 (19.0 / 23.0)

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

