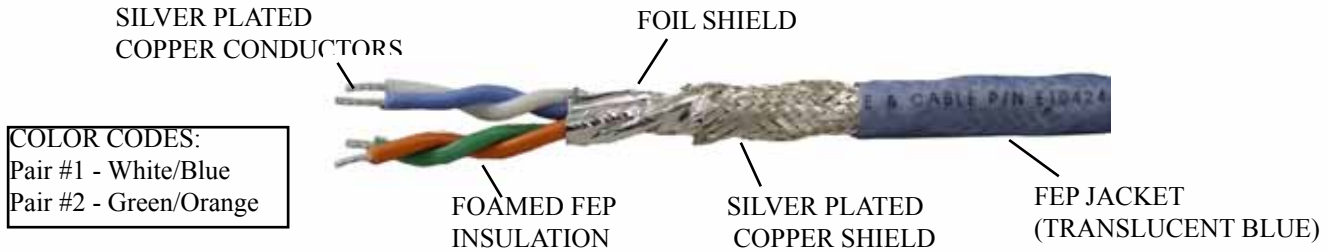


10/100BASE-T 2-PAIR (4-Conductor) CABLE



This cable has been specially designed by PIC for airborne 10 and 100Base-T Local Area Network applications as defined by ARINC Specification 664. The twisted-pair construction (two separate pairs) effectively reduces inductive interference while 100% foil and 90% braided shielding serve to further protect against EMI.

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.

E10424 exceeds ANSI/TIA-568B Category 5e 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

ELECTRICAL DATA

Conductors	24 AWG Stranded SPC	Impedance (ohms)	100
Shield Coverage	100% (Foil), 90% (Braid)	Capacitance Between Conductors (pF/ft)	13.0
Outer Diameter (in.)	0.235	Velocity of Propagation (%)	80
Temperature	-55° to +200°C	Attenuation (dB/100 ft) Max.	
Min. Bend Radius (in.)	1.17	@ 10 MHz	2.2
Weight (lbs / 100ft)	2.9	@ 100 MHz	7.5
		Dielectric Voltage Rating (KV RMS)	1.5
		Structural Return Loss (SRL) (dB) Min.	
		@ 10 MHz	23.0
		@ 100 MHz	16.0
		Near-End Cross-Talk (NEXT) (dB) Min.	
		@ 10 MHz	50.3
		@ 100 MHz	35.3
		DC Resistance (Ohms/100 ft.) Max.	2.42

All values nominal unless otherwise noted.

**Most Cables are in Stock and Available for Quick Delivery
Please Contact Customer Service for Details @ 262-246-0500**



Connectors

As an ethernet data cable, E10424 will most often be terminated with RJ45 connectors. They are reliable, inexpensive and can trace a huge installed base virtually everywhere.

The insulation surrounding each conductor in E10424 is softer and thicker than common commercial-type ethernet cables. This is necessary to achieve data rate and maintain impedance in a shielded design. As a result, the larger diameter of this insulation will not easily enter a standard RJ45 connector cavity without modification.

PIC has designed special RJ45 type connectors designed to accommodate this larger insulation. Termination using these connectors is recommended and saves considerable time.

RJ45 ISDN Connector	PIC P/N 190015
RJ45 Ethernet Connector	PIC P/N 190007
RJ45 Crimp Tool	PIC P/N 110340 or 110274
RJ45 Plug w/ Snagless Boot	PIC P/N 190061
RJ45 Plug ISDN w/ Snagless Boot	PIC P/N 190062
RJ45 Shielded Jack	PIC P/N *110382
RJ45 Shielded Plug	PIC P/N 110360** or 110362**
RJ45 Crimp Tool	PIC P/N 110288

**PIC provides a special tool for compressing this insulation to the correct size to fit into a standard RJ connector or PIC P/N 110360 or 110362. A detailed instruction sheet is available to help understand and perform this termination procedure successfully.

Insulation Compression Tool	PIC P/N 190048
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* Call PIC for availability

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