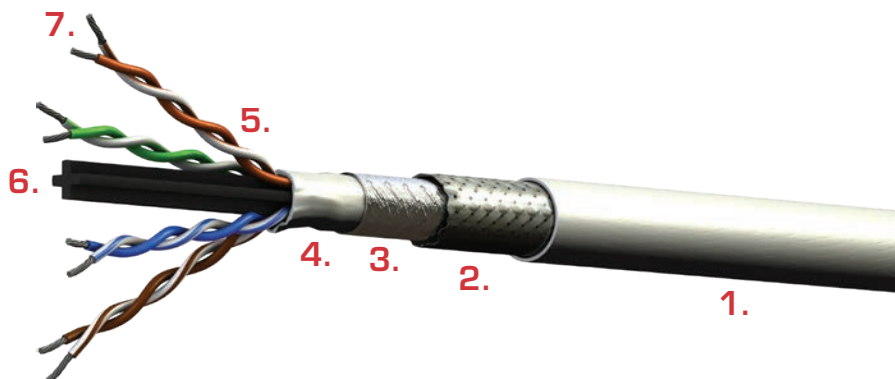


## CABLE CONSTRUCTION

1. PTFE Tape Jacket (White) Laser Markable
2. Silver-Plated Copper Braided Shield
3. Foil Shield
4. PTFE Tape Binder
5. Fluoropolymer Insulation
6. Fluoropolymer Spline
7. Silver-Plated High Strength Copper Alloy Conductors



## COLOR CODES

- Pair #1 - Blue, White/Blue
- Pair #2 - Orange, White/Orange
- Pair #3 - Green, White/Green
- Pair #4 - Brown, White/Brown

PIC's DataMATES Ethernet cables incorporate innovative design features that provide maximum electrical performance in a small, light weight and flexible package. PIC's E6A6826 delivers 10 Gigabit (ANSI/TIA-568 Category 6a) performance up to 214 ft.

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. Silver-plated copper conductors and shielding assure uniform conductivity with excellent solderability. An PTFE jacket which is laser markable passed EN3475-503 Scrape Abrasion testing and is also flexible for ease of installation.

E6A6826 is ideal for harsh environment applications that demand high reliability, maximum flexibility and light weight, such as cabin management, in-flight entertainment, internet backbones. It is Skydrol resistant, RoHS compliant and passes the FAA flammability requirements of FAR Part 23 and 25, Appendix F.

## PHYSICAL DATA

- Conductors 26 AWG (19/38) Stranded SPCA
- Shield Coverage 100% (Foil), 80% (Braid)
- Operating Temperature -55° to +200°C
- Outer Diameter: in (mm) 0.22 (5.59)
- Minimum Bend Radius: in (mm) 0.66 (16.76)
- Weight: lbs/100 ft (kg/100 m) 3.2 (4.8)

## ELECTRICAL DATA

- Impedance: ohms 100
- Capacitance: pF/ft (m) 14.5 (47.6)
- Velocity of Propagation: % 70.0
- Dielectric Voltage Rating (kV RMS) 1.5
- DC Resistance: ohms/1000 ft (m) Max 44.8 (147.0)
- Max Distance\*: ft (m) 214 (65)
- Attenuation: Nom / Max dB/100 ft (dB/100 m)
  - @10 MHz 2.6 / 3.0 (8.5 / 9.8)
  - @100 MHz 8.2 / 9.7 (26.9 / 31.8)
  - @250 MHz 13.2 / 15.8 (43.3 / 51.8)
  - @500 MHz 19.3 / 23.0 (63.3 / 75.5)

*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 6, Plug w/ATUM Strain Relief	110731	110729 - RJ45 Crimp Tool
Shielded CAT 6, Plug w/Protective Boot	110725	110729 - RJ45 Crimp Tool
Shielded CAT 6, Plug w/ATUM Strain Relief (fits Amphenol (RJF) ruggedized backshell)	110790	110729 - RJ45 Crimp Tool
Shielded CAT 6a, 90° Plug w/ATUM Strain Relief	110913 (568A) 110904 (568B)	110701 - Soft Jaw Clamping Pliers
Shielded CAT 6a, Plug w/Clamp Nut Strain Relief	111007 (568A) 111009 (568B)	110701 - Soft Jaw Clamping Pliers
Shielded CAT 6a, Jack w/ATUM Strain Relief	110937 (568A) 110938 (568B)	110701 - Soft Jaw Clamping Pliers
Shielded CAT 6a, RJ45 Plug, Blade Patch	110845	N/A
Siemon CAT 7 (Tera) Plug, 4 Pair, 26 AWG	110811*	110701 - Soft Jaw Clamping Pliers
Siemon CAT 7 (Tera) Jack, 4 Pair, 24 AWG	110813*	110701 - Soft Jaw Clamping Pliers

E6A6826 is a tested and qualified Ethernet cable for PIC Wire & Cable's MACHFORCE™ D38999 style high-speed Ethernet 10G connector.

*Call PIC For Availability*