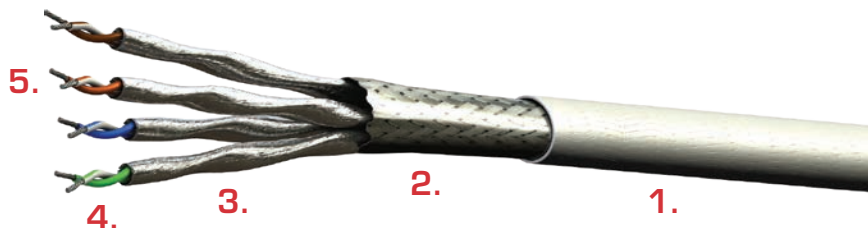


## CABLE CONSTRUCTION

1. PTFE Tape Jacket (White) Laser Markable
2. Silver-Plated Copper Braided Shield
3. Foil Shields
4. Foamed Fluoropolymer Insulation
5. 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, lightweight, flexible package.

Each pair uses a SP High Strength Copper alloy conductor and is individually shielded. PIC's E6A5826 cable delivers 10 Gbit performance per ANSI/TIA-568-C.2 Category 6a Channel requirements.

E6A5826 cable cannot only be used for Cat 6a, 10 Gbit Ethernet applications but also can be used for video applications because of the low skew between each pair (3 nS nom).

A PTFE tape jacket which is laser-markable, passed EN3475-503 Scrape Abrasion testing and is also very flexible for ease of installation.

E6A5826 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), 90% (Braid)
- Operating Temperature -55° to +200°C
- Outer Diameter: in (mm) 0.21 (5.33)
- Minimum Bend Radius: in (mm) 1.75 (44.45)
- Weight: lbs/100 ft (kg/100 m) 3.0 (4.5)

## ELECTRICAL DATA

- Impedance: ohms 100
- Capacitance: pF/ft (m) 12.0 (39.4)
- Velocity of Propagation: % 80.0
- Dielectric Voltage Rating (kV RMS) 0.9
- DC Resistance: ohms/1000 ft (m) Max 44.8 (147.0)
- Max Distance\*: ft (m) Recommended 230 (70)
- Inter-Pair Delay Skew (between pairs) 3 nS/70m nom
- Attenuation: Nom / Max dB/100 ft (dB/100 m)
  - @10 MHz 2.4 / 2.8 (7.9 / 9.2)
  - @100 MHz 7.5 / 9.0 (24.5 / 29.5)
  - @250 MHz 12.3 / 14.7 (40.4 / 48.2)
  - @500 MHz 17.8 / 21.4 (58.4 / 70.2)

*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 6a, Plug<br>w/ATUM Strain Relief      | 110650 (568A)<br>110649 (568B) | 110701 - Soft Jaw<br>Clamping Pliers |
| Shielded CAT 6a, 90° Plug<br>w/ATUM Strain Relief  | 110912 (568A)<br>110900 (568B) | 110701 - Soft Jaw<br>Clamping Pliers |
| Shielded CAT 6a, Plug<br>w/Clamp Nut Strain Relief | 110973 (568A)<br>110975 (568B) | 110701 - Soft Jaw<br>Clamping Pliers |
| Shielded CAT 6a, Jack<br>w/ATUM Strain Relief      | 110937 (568A)<br>110938 (568B) | 110701 - Soft Jaw<br>Clamping Pliers |
| Siemon CAT 7 (Tera) Plug,<br>4 Pair, 26 AWG        | 110811*                        | 110701 - Soft Jaw<br>Clamping Pliers |
| Siemon CAT 7 (Tera) Jack,<br>4 Pair, 26 AWG        | 110813*                        | 110701 - Soft Jaw<br>Clamping Pliers |

E6A5826 is a Category 6a (10Gb) ethernet cable that can be terminated in a variety of ways.

This cable can be terminated into the RJ45 connectors referenced above.

**Call PIC For Availability**