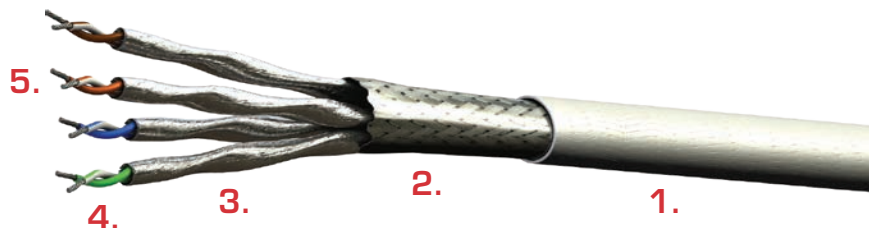


## CABLE CONSTRUCTION

1. PTFE Jacket (White) Laser Markable
2. 40 AWG Round SPC Overall Shield
3. Aluminum/Polyimide Foil (Each Pair)
4. Foamed PFA Conductor Insulation
5. 24 AWG 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 E6A5824 cable delivers 10 Gbit performance per ANSI/TIA-568-C.2 Category 6 Channel requirements.

E6A5824 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.

E6A5824 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 24 AWG (19/36) Stranded SPCA
- Shield Coverage 100% (Foil), 90% (Braid)
- Operating Temperature -55° to +200°C
- Outer Diameter: in (mm) 0.26 (6.48)
- Minimum Bend Radius: in (mm) 2.00 (50.80)
- Weight: lbs/100 ft (kg/100 m) 4.2 (6.3)

## 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) 296 (90)
- Inter-Pair Delay Skew (between pairs) 3 nS nom
- Attenuation: Nom / Max dB/100 ft (dB/100 m)
  - @10 MHz 1.9 / 2.1 (6.2 / 6.9)
  - @100 MHz 6.6 / 7.0 (21.7 / 23.0)
  - @250 MHz 10.8 / 11.4 (35.4 / 37.4)
  - @500 MHz 15.7 / 16.6 (51.5 / 54.5)

*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 6a RJ45 Plug (568B)	110975	110701 - Soft Jaw Clamping Pliers
Shielded CAT 6a RJ45 Plug (568A)	110973	110701 - Soft Jaw Clamping Pliers
Shielded CAT 6a RJ45 Plug 90° (568B)	110900	110701 - Soft Jaw Clamping Pliers
Shielded CAT 6a RJ45 Plug 90° (568A)	110912	110701 - Soft Jaw Clamping Pliers
Shielded CAT 6a RJ45 Jack (568B)	110938	110701 - Soft Jaw Clamping Pliers
Shielded CAT 6a RJ45 Jack (568A)	110937	110701 - Soft Jaw Clamping Pliers
Siemon CAT 7 (Tera) Plug, 4 Pair, 24 AWG	110807*	110701 - Soft Jaw Clamping Pliers
Siemon CAT 7 (Tera) Jack, 4 Pair, 24 AWG	110808*	110701 - Soft Jaw Clamping Pliers

E6A5824 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**