PIC Data MATES®

PIC E6A3826

10G BASE-T CATEGORY 6A 4-PAIR (8-CONDUCTOR) ETHERNET CABLE

CABLE CONSTRUCTION

1. PTFE Jacket (White) Laser Markable

PRODUCT BULLETIN

- 2. Silver-Plated Copper Braided Shield
- 3. Fluoropolymer Tape Binder
- 4. PFA Insulation
- 5. Fluoropolymer Spline
- 6. 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. Using 26 AWG silver-plated, high strength copper alloy conductors and a laser markable PTFE jacket, PIC's E6A3826 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. A PTFE jacket passed EN3475-503 Scrape Abrasion testing and is also very flexible for ease of installation.

E6A3826 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.

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PHYSICAL DATA

Conductors	26 AWG (19/38) Stranded SPCA
Shield Coverage	80% (Braid)
 Operating Temperature 	-55° to +200°C
• Outer Diameter: in (mm)	0.22 (5.59)
• Minimum Bend Radius: in (r	mm) 0.66 (16.76)
• Weight: lbs/100 ft (kg/100	m) 3.3 (4.9)

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







PIC Wire & Cable is a division of The Angelus Corporation, a leading provider of aerospace and defense industry solutions.

PRODUCT BULLETIN

PIC E6A3826 CONNECTORS

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, Plug w/ATUM Strain Relief	110826 (568A) 110825 (568B)	110701 - Soft Jaw Clamping Pliers
Shielded CAT 6a, 90° Plug w/ATUM Strain Relief	110913 (568A) 110904 (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 Ga, 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

Call PIC For Availability



