

As aircraft avionics become more complex, the need for an increase in bandwidth and reliability becomes increasingly important. With Ethernet replacing ARINC 429 point-to-point connections, the industry needs scalable networks that provide the best quality of service without fail.

For over 50 years, PIC Wire & Cable has been the trusted source for aerospace cable. Our PICmates Ethernet Cables include 1 pair, 2 pair, 4 pair, Power Over Ethernet (PoE) and Quadrax 100 ohm shielded ethernet cables carrying high-speed data up to 10G performance. Our specially engineered Cat5e/6/6a cables perform high-speed transmission needs in different aircraft cabins or flight decks for various purposes.

APPLICATIONS:

- Avionics Network
- Cabin/Flight Management Systems
- Digital Video Systems
- Ethernet Backbone
- Program Upgrades (commercial/business)
- Other Harsh Aerospace Environments

PHYSICAL & ELECTRICAL DATA (1 PAIR CABLES)

All values nominal, unless otherwise noted

PART #	SPEED RATING	DATA CONDUCTOR	JACKET	WEIGHT LBS/100 FT (KG/100 M)	O.D. IN (MM)	TEMP. RANGE	MAX. DISTANCE FT (M)
E10222	CAT5E 10/100 BASE-T	22 AWG TPC	ETFE, White (Laser Markable)	2.3 (3.4)	0.19 (4.8)	-55/+150°C	328 (100)
E5E2222-D	CAT5E 10/100 BASE-T	22 AWG SPC	ETFE, White (Laser Markable)	2.38 (3.51)	0.183 (4.64)	-55/+200°C	328 (100)
E13224	CAT5E 10/100 BASE-T	24 AWG SPHSCA	PTFE, White (Laser Markable)	2.2 (3.3)	0.168 (4.27)	-55/+200°C	328 (100)
E60224	CAT5E 10/100 BASE-T	24 AWG SPC	ETFE, White (Laser Markable)	0.9 (1.3)	0.102 (2.59)	-55/+200°C	*
E20224	CAT5E 10/100 BASE-T	24 AWG SPHSCA	ETFE, White (Laser Markable)	1.07 (1.6)	0.141 (3.58)	-55/+200°C	273 (83)
E12224	CAT5E 10/100 BASE-T	24 AWG TPC	ETFE, White (Laser Markable)	1.58 (2.4)	0.146 (3.71)	-55/+150°C	255 (78)
E61224	CAT5E 10/100 BASE-T	24 AWG SPHSCA	ETFE, White (Laser Markable)	1.98 (3.0)	0.159 (4.04)	-55/+200°C	328 (100)
E10224	CAT5E 10/100 BASE-T	24 AWG SPC	FEP, Translucent Blue	2.18 (3.2)	0.163 (4.06)	-55/+200°C	328 (100)
E13226	CAT5E 10/100 BASE-T	26 AWG SPHSCA	PTFE, White (Laser Markable)	1.7 (2.5)	0.134 (3.4)	-55/+200°C	224 (68)

PHYSICAL & ELECTRICAL DATA (2 PAIR CABLES)

PART #	SPEED RATING	DATA CONDUCTOR	JACKET	WEIGHT LBS/100 FT (KG/100 M)	O.D. IN (MM)	TEMP. RANGE	MAX. DISTANCE FT (M)
E10422	CAT5E 10/100 BASE-T	22 AWG SPC	ETFE, White (Laser Markable)	3.7 (5.5)	0.295 (7.49)	-55/+200°C	328 (100)
E13424	CAT5E 10/100 BASE-T	24 AWG SPHSCA	PTFE, White (Laser Markable)	2.9 (4.3)	0.224 (5.69)	-55/+200°C	268 (82)
E12424	CAT5E 10/100 BASE-T	24 AWG TPC	ETFE, White (Laser Markable)	2.3 (3.4)	0.208 (5.28)	-55/+150°C	257 (78)
E61424	CAT5E 10/100 BASE-T	24 AWG SPHSCA	ETFE, White (Laser Markable)	2.98 (4.4)	0.223 (5.66)	-55/+200°C	269 (82)
E10424	CAT5E 10/100 BASE-T	24 AWG SPC	FEP, Translucent Blue	3.3 (4.9)	0.21 (5.28)	-55/+200°C	268 (82)
E20424	CAT5E 10/100 BASE-T	24 AWG SPC	FEP, Translucent Blue	4.18 (6.2)	0.265 (6.73)	-55/+200°C	296 (90)
E13426	CAT5E 10/100 BASE-T	26 AWG SPHSCA	PTFE, White (Laser Markable)	2.0 (2.9)	0.16 (3.99)	-55/+200°C	224 (68)

Materials Key: TPC – Tin-Plated Copper, SPC – Silver-Plated Copper, SPHSCA – Silver-Plated High Strength Copper Alloy, *no maximum distance

PHYSICAL & ELECTRICAL DATA (QUADRAxIAL CABLES)

All values nominal, unless otherwise noted

PART #	SPEED RATING	DATA CONDUCTOR	JACKET	WEIGHT LBS/100 FT (KG/100 M)	O.D. IN (MM)	TEMP. RANGE	MAX. DISTANCE FT (M)
E51424	10/100 BASE-T	24 AWG SPHSCA	ETFE, White (Laser Markable)	2.2 (3.3)	0.161 (4.09)	-55/+150°C	255 (78)
E50424	10/100 BASE-T	24 AWG SPC	FEP, Translucent Blue	2.7 (4.0)	0.17 (4.32)	-55/+200°C	236 (72)
E51426	10/100 BASE-T	26 AWG SPHSCA	ETFE, White (Laser Markable)	1.8 (2.7)	0.137 (3.48)	-55/+150°C	214 (65)
E51428	10/100 BASE-T	28 AWG SPHSCA	PTFE, White (Laser Markable)	1.0 (1.5)	0.115 (2.92)	-55/+200°C	170 (52)

PHYSICAL & ELECTRICAL DATA (4 PAIR CABLES)

PART #	SPEED RATING	DATA CONDUCTOR	JACKET	WEIGHT LBS/100 FT (KG/100 M)	O.D. IN (MM)	TEMP. RANGE	MAX. DISTANCE FT (M)
E84824	CAT8 40G BASE-T	24 AWG SPCA	ETFE, White (Laser Markable)	4.6 (2.08)	0.28 (7.1)	-55/+200°C	90 (27.5)
E74824	CAT7 10G BASE-T	24 AWG SPCA	ETFE, White (Laser Markable)	4.7 (7.0)	0.28 (7.11)	-55/+200°C	296 (90)
E74826	CAT7 10G BASE-T	26 AWG SPCA	ETFE, White (Laser Markable)	3.3 (4.9)	0.23 (5.84)	-55/+200°C	230 (70)
E6A5824	CAT6A 10G BASE-T	24 AWG SPHSCA	PTFE, White (Laser Markable)	4.2 (6.3)	0.255 (6.6)	-55/+200°C	296 (90)
E6A6824	CAT6A 10G BASE-T	24 AWG SPHSCA	PTFE, White (Laser Markable)	4.4 (6.5)	0.26 (6.6)	-55/+200°C	246 (75)
E6A0824	CAT6A 10G BASE-T	24 AWG SPC	FEP, Translucent Blue	5.28 (7.9)	0.275 (6.99)	-55/+200°C	246 (75)
E6A5826	CAT6A 10G BASE-T	26 AWG SPHSCA	PTFE, White (Laser Markable)	3.0 (4.5)	0.215 (5.46)	-55/+200°C	230 (70)
E6A6826	CAT6A 10G BASE-T	26 AWG SPHSCA	PTFE, White (Laser Markable)	3.2 (4.8)	0.22 (5.59)	-55/+200°C	214 (65)
DV0824	CAT5E 1000 BASE-T	24 AWG SPCA	ETFE, White (Laser Markable)	7.7 (11.5)	0.35 (8.89)	-55/+200°C	*
E50824	CAT5E 1000 BASE-T	24 AWG SPC	FEP, Translucent Blue	5.0 (7.4)	0.265 (6.73)	-55/+200°C	268 (82)

POWER OVER ETHERNET (PoE)

PART #	SPEED RATING	DATA CONDUCTOR	JACKET	WEIGHT LBS/100 FT (KG/100 M)	O.D. IN (MM)	TEMP. RANGE	MAX. DISTANCE FT (M)
E5E3624	CAT5E	24 AWG SPCA	PTFE, White (Laser Markable)	4.5 (6.7)	0.25 (6.35)	-55/+200°C	268 (82)
E5E1724	CAT5E	24 AWG TPC	ETFE, White (Laser Markable)	3.56 (5.3)	0.208 (5.28)	-55/+150°C	257 (78)

Materials Key: TPC – Tin-Plated Copper, SPC – Silver-Plated Copper, SPCA – Silver-Plated Copper Alloy, SPHSCA – Silver-Plated High Strength Copper Alloy, *no maximum distance