PIC®
WIRE & CABLE

HIGH-PERFORMANCE INTERCONNECT SOLUTIONS

PREMIUM CABLES, CONNECTORS & ASSEMBLIES DESIGNED FOR AEROSPACE & DEFENSE APPLICATIONS

WHO WE ARE

THE PREMIER INTERCONNECT SOLUTIONS EXPERTS

For more than 50 years, PIC Wire & Cable has been a leading provider of high-quality and reliable network cables, data transfer cables, and communication cables.

We are committed to providing high-quality, premium products and are always focused on providing superior solutions to the aerospace and defense industries.

Our technical sales experts have decades of combined experience in the industry, so they can guide engineers to a reliable interconnect solution. We understand applicable standards, certifications, and material selection so we can help you find cables and connectors that work for your project.

With decades of experience, our teams can solve tough challenges using innovative solutions and can deliver customized cables and connectors solutions. Our technical sales team and engineers are on your team: collaborating with you to ensure that your project is a success.

Make PIC your go-to for aerospace interconnect solutions and you'll see why we've been trusted with some of the toughest jobs in the industry.

MARKETS WE SERVE

MILITARY & DEFENSE

PIC's rugged military cables and cable assemblies are built to last, even in extreme conditions--from temperature extremes, dry and dusty or wet and muddy conditions, to high shock and vibration environments. Our solutions are lightweight, solve routing issues, and deliver reliable performance. We make sure they're flexible enough for routing yet durable for the long haul.

BUSINESS & CORPORATE

PIC has decades of experience partnering with leading aircraft OEMs to provide interconnect solutions for system critical applications. PIC offers a complete portfolio of cable, connector and assembly solutions for a wide range of applications. Our capabilities include aircraft antenna cables, TCAS cables, USB cables, premium Ethernet cables and data bus cable assemblies.

COMMERCIAL

Technology is the backbone of the modern flight experience, and our products are quietly working behind the scenes to deliver a smooth, enjoyable flight experience. From in-flight entertainment and cabin management systems to avionics, PIC cables transmit at high speeds and support high-resolution displays in the cockpit and cabin, providing constant connectivity throughout the entire length of the aircraft.

OUR TEAM

ADVANCED TESTING

We utilize a wide variety of engineering experience, skills and capabilities to design, manufacture, test and assemble harnesses and assemblies. And we have the specialized ability to test on-site for SATCOM, phased-array antennas and ESA antennas. We go the extra mile for you because once we terminate, we complete third party testing for: environment, electrical, mechanical testing and EWIS. PIC also provides Phase matching, VSWR testing and reporting and mechanical testing for shock and vibration.

The progressive evolution of this industry reflects the ever-growing demand for high-performing connectivity solutions specifically engineered to meet the sophisticated demands of modern aerospace and defense applications.

CUSTOMERS FIRST

We are committed to providing high-quality, premium products and are always focused on providing superior solutions to the aerospace and defense industries.

Our technical sales experts have decades of combined experience in the industry, so they can guide engineers to a reliable interconnect solution. We understand applicable standards, certifications, and material selection so we can help you find cables and connectors that work for your project.

With decades of experience, our teams can solve tough challenges using innovative solutions and can deliver customized cable and connector solutions. Our technical sales team and engineers are on your team: collaborating with you to ensure that your project is a success.

This is what we do —

WE'RE HERE TO MAKE OUR CUSTOMERS' JOBS EASIER.

Make PIC your go-to for aerospace cabling solutions and you'll see why we've been trusted with some of the toughest jobs in the industry.

OUR COMMITMENT

PARTNERSHIP

At PIC, we believe in the power of partnerships. We work alongside you to achieve each of your goals. We believe that open and transparent communication between our customers and our employees is crucial to a successful partnership. Our technical sales team and engineers are on your team, collaborating to ensure that your project is a success. We're not just here to take your order—we're ready to help you every step of the way. PIC is a partner you can trust for the long run.

SOLUTIONS

Since 1971, our teams have solved tough challenges using innovative cables and connectors to deliver solutions. Our technical sales team and engineers are on your team, collaborating to ensure your project is a success. We have a deep understanding of how customers use our products and how to maximize performance based on those needs - from military programs to commercial aircraft. With decades of experience behind us, our teams can solve tough challenges using innovative solutions and can offer customized cables and connectors to deliver results.

QUALITY

Our commitment to quality and durability has proven invaluable to our customers. Through regular audits, strict supplier assessments and customer-driven metrics, we maintain a holistic view of quality and continually drive improvement. We're committed to delivering on the promises we make to you day in and day out.

LRQA CERTIFIED AS 9100 — ANAB ACCREDITED ISO/IEC 17021-1 MANAGEMENT SYSTEMS CERTIFICATION BODY

ISO 9001 & AS9100 Certified

AEROTEC

FAA PMA
(Part Manufacturer Approval)

PICMATES® 50 OHM RF CABLE SOLUTIONS

Our 50 Ohm RF Cables provide low attenuation, a lightweight design and easy installation. PICMates RF cables will allow you to save on a variety of things- from fuel consumption to making your equipment easier to install, without sacrificing performance.

We design them to have optimal characteristics like small size, low weight and outstanding strength and offer two types of construction to ensure you get the right coaxial cable for your application.

UltraLite RF Cables (50 Ohm) – Premium coaxial cables built with low loss and ultra-lightweight materials.

S Line of RF Cables (50 Ohm) – The workhorse of the industry with decades of proven performance in the aerospace and defense markets.

APPLICATIONS:

- TCAS and Navigation
- Collision Avoidance
- Communications & SATCOM
- Marker Beacon
- GPS Connectivity
- Cockpit Displays
- Surveillance Cameras
- ADS-B
- Mode S

50 OHM ULTRALITE COAX CABLE SOLUTIONS

ULTRALITE coaxial cables from PIC are the next step in cutting-edge technology. Our latest innovation is designed to be light as a feather and built with low loss materials so that you never sacrifice quality again. ULTRALITE cables are an expansion of our already successful 50-ohm RF coaxial cable line to provide extra weight savings for those who with weight critical applications.

- UH44193 offers ***30% weight savings*** compared to cables of a similar size and ***56% lighter*** and has significantly lower loss than RG400/142 coax cable.
- UH67163 is ***more than 30% lighter*** than cables of a similar size and ***80% lighter*** than traditional RG393 coax cable.
- UH22089 can ***save 60% or more in cable weight*** compared to cables of a similar size and has a lower loss.
- UH25107 is ***up to 80% lighter*** than RG211

ULTRALITE 50 OHM COAX CABLES

PART #	DATA CONDUCTOR	LOSS @ 1.0 GHz NOM/MAX dB/100 FT. (100 M)	WEIGHT LBS/100 FT (KG/100 M)	O.D. IN (MM)	BEND RADIUS IN (MM)	SHIELDING EFFECTIVENESS (dB min)	JACKET
UH25107	8 AWG Solid SPCCA	2.8/3.1 (9.2/10.2)	12.0 (17.9)	0.445 (11.3)	2.5 (63.5)	-110	Extruded ETFE , White (Laser Markable)
UH22089	10 AWG Solid SPCCA	3.5/3.9 (11.5/12.8)	7.2 (10.7)	0.345 (8.76)	1.7 (43.18)	-110	Extruded ETFE , White (Laser Markable)
UH67163	14 AWG Solid SPCCA	6.2/6.8 (20.3/22.3)	3.4 (5.1)	0.227 (5.77)	1.2 (30.48)	-110	Extruded ETFE , White (Laser Markable)
UH44193	19 AWG Solid SPCCS	10.4/11.6 (34.1/38.1)	1.9 (2.8)	0.155 (3.94)	0.8 (20.32)	-110	Extruded ETFE , White (Laser Markable)

Materials Key: **SPCCS** – Sliver Plated Copper Clad Steel, **SPCCA** – Silver-Plated Copper Clad Aluminum

50 OHM RF CABLE SOLUTIONS

50 OHM RF CABLES

PART #	DATA CONDUCTOR	LOSS @ 1.0 GHz NOM/MAX dB/100 FT. (100 M)	WEIGHT LBS/100 FT (KG/100 M)	O.D. IN (MM)	BEND RADIUS IN (MM)	SHIELDING EFFECTIVENESS (dB min)	JACKET
S22089	10 AWG Stranded SPC	3.5/3.9 (11.5/12.8)	18 (26.8)	0.435 (11.05)	2.5 (63.5)	-90	Extruded Clear, FEP
S55122	12 AWG Stranded SPC	5.1/5.6 (16.7/18.4)	8.3 (12.4)	0.31 (7.87)	1.55 (39.37)	-90	Extruded FEP, Clear
S33141	14 AWG Stranded SPC	6.7/7.4 (22.0/24.3)	6.5 (9.7)	0.27 (6.86)	1.4 (35.56)	-90	Extruded FEP, Clear
S67163	15 AWG Solid SPC	7.0/7.7 (23.0/25.3)	5.4 (8.0)	0.225 (5.72)	1.2 (30.48)	-90	Extruded FEP, Clear
S65161-A	16 AWG Stranded SPC	8.2/9.1 (26.9/29.9)	3.5 (5.2)	0.195 (4.95)	1 (25.4)	-110	Extruded ETFE, White (Laser Markable)
S44193	19 AWG Solid SPCCS	11.1/12.2 (36.4/40.0)	4.3 (6.4)	0.195 (4.95)	1 (25.4)	-90	Extruded FEP, Clear
S44191	20 AWG Stranded SPC	11.8/13.0 (38.7/42.7)	4.3 (6.4)	0.195 (4.95)	1 (25.4)	-90	Extruded FEP, Clear
S88207	20 AWG Solid SPC	12.8/4.1 (42.0/46.3)	1.9 (2.8)	0.13 (3.3)	0.65 (16.51)	-80	Extruded FEP, Clear
S86208	21 AWG Stranded SPC	14.1/15.5 (46.3/50.9)	1.95 (2.9)	0.13 (3.3)	0.65 (16.51)	-80	Extruded FEP, Clear
S40501	24 AWG Solid SPCCS	19.4/21.4 (63.6/70.2)	1.4 (2.1)	0.104 (2.64)	0.625 (16)	-110	Extruded FEP, Solid Blue
S46191	20 AWG Stranded TPC	22.3/24.6 (73.2/80.7)	2.68 (4.0)	0.195 (4.95)	1 (25.4)	-75	Extruded FEP, Brown Tint, Translucent
S31601	26 AWG Stranded SPCCS	26.3/31.2 (86.3/102.4)	1.0 (1.5)	0.102 (2.59)	0.5 (12.7)	-90	Extruded ETFE, White (Laser Markable)
TRIAX CABLES							
L8620TX	21 AWG Stranded SPC	15.1/16.6 (49.5/54.5)	2.9 (4.3)	0.173 (4.39)	0.9 (21.59)	-90	Extruded ETFE, White (Laser Markable)
L2201TX	20 AWG Stranded TPC	20.4/22.4 (66.9/73.5)	6.0 (8.9)	0.245 (6.22)	1.3 (31.75)	-75	Extruded, FEP, Clear

Materials Key: **TPC** – Tin-Plated Copper, **SPC** – Silver-Plated Copper, **SPCCS** – Silver-Plated Copper Clad Steel

50 OHM HIGH FREQUENCY CABLE SOLUTIONS

High-frequency applications on the Ku and X bands need cables with outstanding signal integrity and low insertion loss. Our 50 Ohm microwave cable assemblies are designed specifically for this purpose. These cables are designed to optimize performance and give system designers flexibility. Our products give you superior signal integrity, low insertion loss, less RF interference, and a robust yet easy-to-install design.

APPLICATIONS:

- Navigation/Communication Systems
- Electronic warfare (EW) Systems
- Electronic Surveillance
- Countermeasures/Jamming
- Radar warning receiver (RWR) Systems
- Electronic/Signal Intelligence
- C5ISR (Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance)

HIGH FREQUENCY COAX CABLES

PART #	DATA CONDUCTOR	MAX FREQUENCY	WEIGHT LBS/100 FT (KG/100 M)	O.D. IN (MM)	BEND RADIUS IN (MM)	V.O.P. %	SHIELDING EFFECTIVENESS (dB min)	JACKET
HH85295F	11 AWG Solid SPC	18 GHz	7.9 (11.8)	0.291 (7.39)	1.5 (38.1)	83	-110	Extruded FEP, Olive Drab
HT77300F	12 AWG Solid SPC	18 GHz	8.8 (13.1)	0.300 (7.62)	1.5 (38.1)	77	-90	Extruded FEP, Olive Drab
HT77210F	16 AWG Solid SPC	26 GHz	4.5 (6.7)	0.208 (5.28)	1 (25.4)	76.5	-90	Extruded FEP, Olive Drab

Materials Key: **SPC** – Silver-Plated Copper

All values nominal, unless otherwise noted

PICMATES® 75 OHM RF CABLE SOLUTIONS

Our 75 ohm coaxial and triaxial video cables are lightweight, low loss, flexible, easy to terminate for reliable performance in aircraft systems. They're specifically designed and manufactured for reliable performance in aircraft systems and other harsh environments involving high temperature, strong EMI, corrosive materials and more. Our cables exceed stringent standards, save valuable weight on your next mission, simplify routing and reduce your operating costs.

APPLICATIONS:

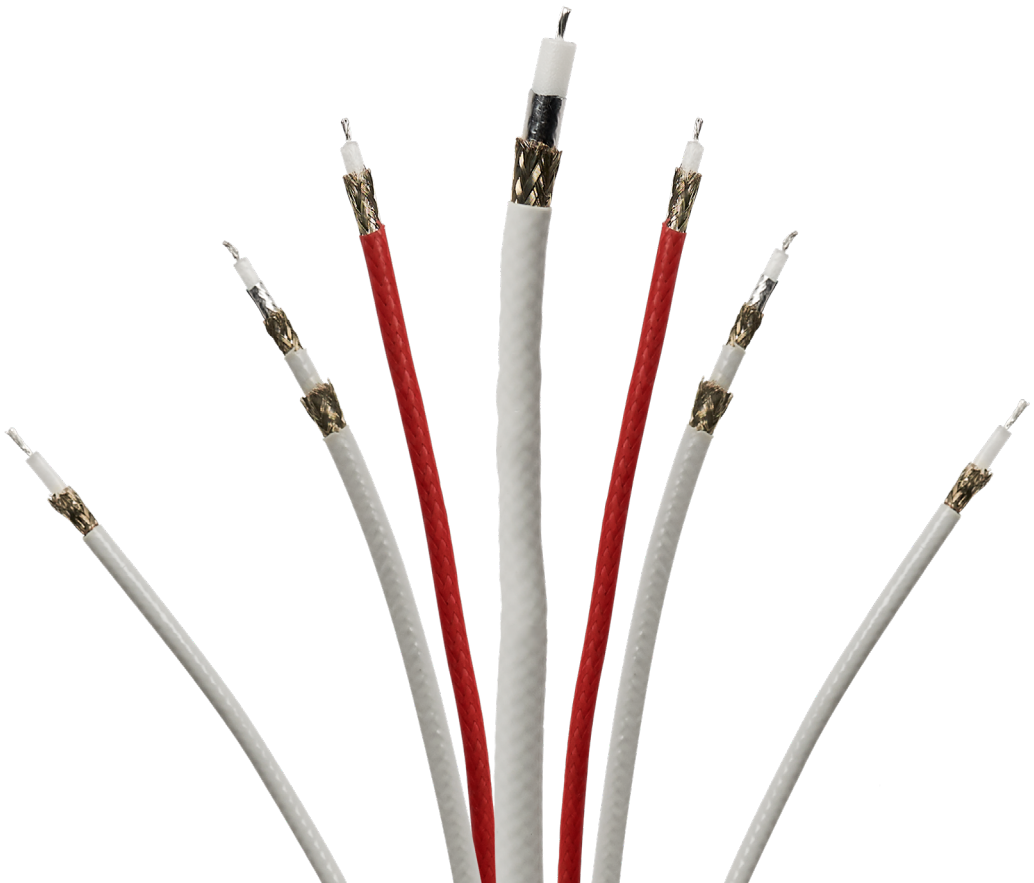
- Cockpit Displays
- Surveillance Cameras
- Cabin Entertainment
- High Definition Video
- 3G-SDI (SMPTE 424M)

75 OHM RF CABLES

PART #	DATA CONDUCTOR	WEIGHT LBS/100 FT (KG/100 M)	O.D. IN (MM)	TEMP. RANGE (°C)	BEND RADIUS IN (MM)	SHIELDING EFFECTIVINESS (dB min)	JACKET
COAX CABLES							
V78209	20 AWG Stranded SPC	3.15 (4.7)	0.211 (5.36)	-55/+150 °C	1.1 (27.9)	-90	Extruded ETFE, White (Laser Markable)
V73263	26 AWG Stranded SPC	1.5 (2.2)	0.125 (3.18)	-55/+150 °C	0.65 (16.51)	-110	Extruded ETFE, White (Laser Markable)
V76261	26 AWG Stranded SPC	1.1 (1.6)	0.122 (3.1)	-55/+150 °C	0.6 (15.24)	-90	Extruded ETFE, White (Laser Markable)
V75268	26 AWG Stranded SPC	1.3 (1.9)	0.122 (3.1)	-55/+150 °C	0.6 (15.24)	-50	Extruded FEP, Red
TRIAX CABLES							
L7626TX	26 AWG Stranded SPC	2.2 (3.3)	0.157 (3.99)	-55/+150 °C	0.8 (3.3)	-90	Extruded ETFE, White (Laser Markable)

Materials Key: SPC – Silver-Plated Copper

All values nominal, unless otherwise noted



PICMATES® ASSEMBLY SOLUTIONS

PROPER CABLE ASSEMBLY IS KEY TO MAXIMIZING THE BENEFITS OF CABLE AND CONNECTOR TECHNOLOGY

With PIC Assemblies, we assemble cables and connectors to maximize their performance. PIC assemblies deliver outstanding mechanical and electrical performance while preserving signal integrity.

PIC Assemblies Offer:

- Custom solutions tailored from design to delivery
- Manufactured and precision-assembled in house by highly skilled technicians
- Specialty tooling ensures your assembly is done with precision to optimize performance and durability
- Ready-to-install assemblies for plug-and-play use, minimizing installation labor
- Assemblies are tested to meet system specifications, maintain quality and ensure reliability
- Test data is sent with every assembly and retained for future reference

CAPABILITIES & TESTING

PIC offers a wide variety of engineering experience and capabilities throughout our manufacturing facility. These skills are used to design, manufacture, test and assemble harnesses and assemblies.

Capabilities Include:

- Overmolding capability
- Termination by skilled technicians
- Laser Marking for custom labeling
- Mechanical testing for shock and vibration
- Phase matching
- VSWR testing and reporting
- Complete lot traceability with serialization

PICMATES® HIGH SPEED DATA CABLE SOLUTIONS

As aircraft avionics become more complex, the need for increased 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.

PICMates Ethernet Cables include 1 pair, 2 pair, 4 pair and Quadrax 100 ohm shielded Ethernet cables carrying high-speed data up to 10G. Our specially engineered Cat5e/6/6a cables perform high-speed transmission needs in aircraft cabins or flight decks.

Our rugged and fast USB cables allow you to upload/download data at speeds up to 10 Gb when it matters most. Whatever the environment - in a cockpit or cabin - we make sure you stay connected without interruption. Our cables are durable enough to endure extreme aerospace conditions and still provide high-speed data transmission, from takeoff to landing.

APPLICATIONS:

- Avionics Network
- Cabin/Flight Management Systems
- Digital Video Systems
- Ethernet Backbone
- Content Loading
- Data Transfer
- Electronic Flight Bag (EFB)
- Portable Electronic Devices
- Power Remote Devices
- Program Upgrades (commercial/business)
- Other Harsh Aerospace Environments

HIGH SPEED DIGITAL VIDEO CABLES

PART #	MAX DISTANCE FT (M)	DATA CONDUCTOR	WEIGHT LBS/100 FT (KG/100 M)	O.D. IN (MM)	TEMP. RANGE	MAX. DISTANCE FT (M)	JACKET
H1926-HS	16.4 (5)	26 AWG SPCA	6.0 (8.95)	0.285 (7.24)	-55/+200°C	1.3 (33.02)	PTFE, White (Laser Markable)
DVI1226							

SINGLE PAIR ETHERNET CABLES

PART #	SPEED RATING	DATA CONDUCTOR	WEIGHT LBS/100 FT (KG/100 M)	O.D. IN (MM)	TEMP. RANGE	MAX. DISTANCE FT (M)	JACKET
E1G4222	1000BASE-T1	22 AWG SPC	2.3 (3.4)	0.183 (4.65)	-55/+200°C	139.8 (42.6)	PTFE, White (Laser Markable)

1 PAIR ETHERNET CABLES

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

2 PAIR ETHERNET CABLES

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

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*

All values nominal, unless otherwise noted

4 PAIR ETHERNET CABLES

PART #	SPEED RATING	DATA CONDUCTOR	WEIGHT LBS/100 FT (KG/100 M)	O.D. IN (MM)	TEMP. RANGE	MAX. DISTANCE FT (M)	JACKET
E84824	CAT8 40G BASE-T	24 AWG SPCA	4.6 (2.08)	0.28 (7.1)	-55/+200°C	90 (27)	ETFE, White (Laser Markable)
E74824	CAT7 10G BASE-T	24 AWG SPCA	4.7 (7.0)	0.28 (7.11)	-55/+200°C	296 (90)	ETFE, White (Laser Markable)
E74826	CAT7 10G BASE-T	26 AWG SPCA	3.3 (4.9)	0.23 (5.84)	-55/+200°C	230 (70)	ETFE, White (Laser Markable)
E6A5824	CAT6A 10G BASE-T	24 AWG SPHSCA	4.2 (6.3)	0.255 (6.6)	-55/+200°C	296 (90)	PTFE, White (Laser Markable)
E6A6824	CAT6A 10G BASE-T	24 AWG SPHSCA	4.4 (6.5)	0.26 (6.6)	-55/+200°C	246 (75)	PTFE, White (Laser Markable)
E6A0824	CAT6A 10G BASE-T	24 AWG SPC	5.28 (7.9)	0.275 (6.99)	-55/+200°C	246 (75)	FEP, Translucent Blue
E6A5826	CAT6A 10G BASE-T	26 AWG SPHSCA	3.0 (4.5)	0.215 (5.46)	-55/+200°C	230 (70)	PTFE, White (Laser Markable)
E6A6826	CAT6A 10G BASE-T	26 AWG SPHSCA	3.2 (4.8)	0.22 (5.59)	-55/+200°C	214 (65)	PTFE, White (Laser Markable)
DV0824	CAT5E 1000 BASE-T	24 AWG SPHSCA	7.7 (11.5)	0.35 (8.89)	-55/+200°C	*	ETFE, White (Laser Markable)
E50824	CAT5E 1000 BASE-T	24 AWG SPC	5.0 (7.4)	0.265 (6.73)	-55/+200°C	268 (82)	FEP, Translucent Blue

QUADRAXIAL CABLES

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

POWER OVER ETHERNET (PoE) CABLES

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

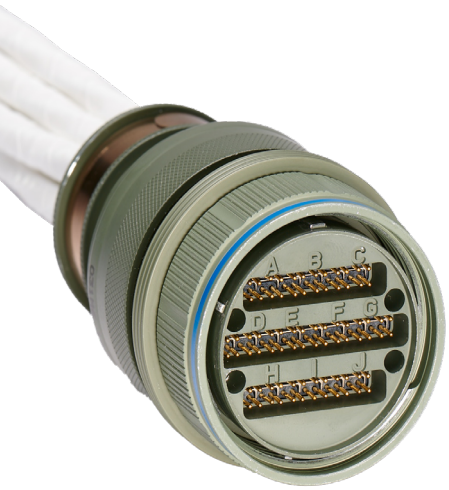
USB CABLES

PART #	SPEED RATING	DATA/POWER CONDUCTOR	WEIGHT LBS/100 FT (KG/100 M)	O.D. IN (MM)	TEMP. RANGE	TIME DELAY (NS/FT)	JACKET
USB2422	USB 2.0	24/22 AWG SPC	2.36 (3.51)	0.18 (4.57)	-55/+150°C	1.39 (4.56)	ETFE, White (Laser Markable)
USB2624	USB 2.0	26 AWG SPHSCA/ 24 AWG SPC	2.2 (3.27)	0.164 (4.17)	-55/+200°C	1.48 (4.86)	PTFE, White (Laser Markable)
USB3-2624	USB 3.1	26/24 AWG SPHSCA	3.4 (5.06)	0.209 (5.31)	-55/+200°C	1.46 (4.79)	PTFE, White (Laser Markable)

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*

All values nominal, unless otherwise noted

RUGGED INTERCONNECT SOLUTIONS - INNOVATIVE DESIGN FOR OPTIMAL PERFORMANCE

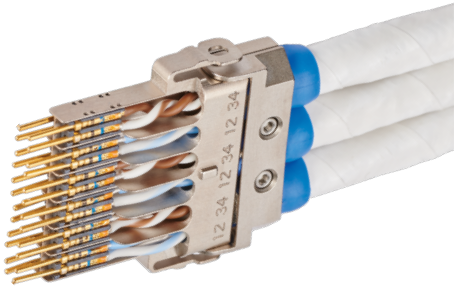


MACHFORCE® connectors are advanced D38999-style 10G Ethernet solutions, specifically designed for high-speed aerospace and defense electronics utilizing SWaP/SWaP-C design principles. These connectors optimize performance while minimizing space and installation time. Built for mission-critical applications, they ensure maximum system uptime through their robust performance and ease of installation and field repair, making downtime a thing of the past.

LEARN MORE

APPLICATIONS:

- C5ISR
- Autonomous Weapons
- Cyber Security
- Artificial Intelligence



OUTSTANDING HIGH-SPEED PERFORMANCE

Our patented High Speed Module (HSM) makes the density possible.

- HSMs are configured in a linear pattern
  - More modules in a single row
  - Provides better electrical performance due to reduced crosstalk
- Allows every twisted pair to maintain its twist right up to the pin or socket, minimizing cross talk.

TRANSMITS MORE DATA IN LESS SPACE

- Add more functionality without increasing your box size
- MACHFORCE's proprietary design maximizes port density and allows for
  - 10 Ethernet ports in a size 25 housing
  - 4 Ethernet ports in a size 17 housing
- Reduced number of connectors results in smaller, lighter and more compact final product

BETTER & EASIER TERMINATION

- Utilizing the high-speed module, termination time is reduced
  - Designed for any skill level technician
  - Great choice for streamlining termination processes
- No special tooling required
  - Industry-standard tools
  - 22D pins & sockets
- Field repairability
  - The connector body and HSM provides direct access to terminated wires
  - PCB accessibility allows for pin changes without disturbing contacts or board components

RUGGEDIZED TECHNOLOGY

- Robustness and excellent electrical performance have not been sacrificed despite its compact design
- Temperature extremes from -65°C to +200°C (depending upon plating option)
- Pair with PIC E6A6824, E6A6826 or E74826 Ethernet cables for an extremely robust, high-speed data solution
- Backshells provide strain relief and ingress protection (IP67) against sand, dust, and fluids
- Anti-decoupling ring allows for secure connection in high shock and vibration environments

PLATING OPTIONS

- Olive Drab Cadmium
- Black Zinc Nickel (RoHS compliant)
- Electroless Nickel (RoHS compliant)

CONNECTOR

SAMPLE PART NUMBER: MF | 3825 | F | S | W | N – EC

PRODUCT	MF	Family: MACHFORCE								
SHELL TYPE	3825	D38999 – Size 25	3817	D38999 – Size 17						
SHELL STYLE	F	Flange Mount*	P	Straight Plug	J	Jam Nut				
CONTACT	S	Sockets (F or J Shell Style)	P	Pin (Plug Only)						
PLATING	W	Olive Drab Cadmium	Z	Black Zinc Nickel	R	Electroless Nickel				

KEY POSITION DETAIL		K°	L°	M°	N°		K°	L°	M°	N°
	N	80	142	196	293	C	66	140	200	257
	A	135	170	200	310	D	62	145	180	280
	B	49	169	200	244					

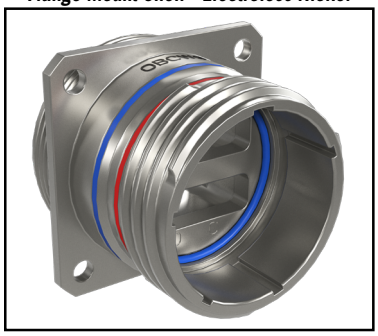
CABLE TYPE	EC	24 AWG Ethernet (E6A6824)	PC1	PCB Mount (F or J Style)
	ED	26 AWG Ethernet (E6A6826) (E74826)		

**Size 25 Mounting Nut Plates Available - Contact PIC Wire & Cable for more information*

Jam Nut Shell - Black Zinc Nickel

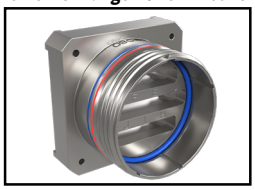
Straight Plug Shell - Olive Drab Cadmium

Flange Mount Shell - Electroless Nickel



Size 17 Jam Nut w/PCB Mount

Size 25 Flange w/PCB Mount



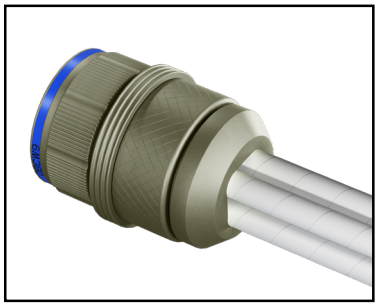
BACKSHELL

SAMPLE PART NUMBER: MF | 3825 | SP | W | S | BC

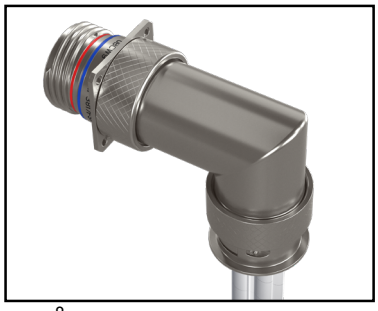
PRODUCT	MF	Family: MACHFORCE				
SHELL TYPE	3825	D38999 – Size 25	3817	D38999 – Size 17		
STYLE	SP	Standard Profile Sealed	LP	Low Profile Unsealed		
PLATING	W	Olive Drab Cadmium	Z	Black Zinc Nickel	R	Electroless Nickel
ANGLE	S	Straight	R	Right Angle (SP Style, 3817 Shell Type Only)		
CABLE TYPE	BC	24 AWG Ethernet (E6A6824)	BD	26 AWG Ethernet (E6A6826) (E74826)		

Standard Profile Sealed Backshell

Low Profile Unsealed Backshell



Standard Profile 90° Backshell



The 90° backshell does not support E74826

For those with specific or unique applications, MACHFORCE is offered as a complete assembly for your customization needs.
For customized configurations, contact PIC Wire & Cable.

LET PIC WIRE & CABLE FIND SOLUTIONS FOR YOUR TOUGHEST CONNECTIVITY CHALLENGES

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For more than 50 years, PIC Wire & Cable has been a leading provider of high-quality and reliable network cables, data transfer cables, and communication cables. With deep aerospace and defense application knowledge, our technical specialists provide support throughout the entire system design and can assist with customization and rapid prototyping services. Make PIC your go-to for aerospace cabling solutions and you'll see why we've been trusted with some of the toughest jobs in the industry.

an ANGELUS company