

# PREMIER AEROSPACE & DEFENSE INTERCONNECT SOLUTIONS PARTNER

**MILITARY & DEFENSE** 

CORPORATE

COMMERCIAL

CABLES

CONNECTORS

**ASSEMBLIES** 

FOR OVER 50 YEARS, WE'VE WORKED SIDE-BY-SIDE WITH CLIENTS TO SOLVE CHALLENGING PROBLEMS AND INTEGRATE THOSE ENGINEERED SOLUTIONS INTO AIRCRAFT WORLDWIDE. THIS IS WHAT WE DO—WE'RE HERE TO MAKE OUR CUSTOMERS' JOBS EASIER.

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

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.

PICWIRE.COM

# MARKETS

### **MILITARY & DEFENSE**

PIC Wire & Cable military cables and cable assemblies are designed, manufactured and tested to perform with reliability in harsh environments. Our lightweight military aircraft cables and connectors tested to mil-specs can significantly reduce fuel consumption and increase payload capacity. A reduction in maintenance time and cost can also be realized with PIC Wire & Cable's field replaceable connectors.

### CORPORATE

With a selection of lightweight, EMI immune, high-temperature cable, low loss coax cable and aircraft wire, PIC Wire & Cable has the right network cables, data transfer cables and communications cables for almost any corporate, business or general aircraft. PIC provides superior databus, Ethernet, video, RF, IFE System Cables, TCAS, USB cables and aircraft antenna cables for corporate avionic systems.

### COMMERCIAL

PIC Wire & Cable provides electronic airplane cable solutions for new aircraft, maintenance, retrofit and engineering/kitting customers. By consistently delivering the best overall value in network cables, data transfer cables and communications cables, PIC Wire & Cable has become a leader in commercial platform solutions worldwide.









### INNOVATIVE DESIGN FOR OPTIMAL PERFORMANCE

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

SUPPORTS 4-Port, 3-Port and 2-Port Offerings and 10-gigabit Ethernet signals.



RUGGED D38999-STYLE

FASTER TERMINATION

FIELD REPAIRABILITY

SPACE SAVINGS

SUPERIOR SIGNAL INTEGRITY

USES STANDARD TOOLS!





### MACHFORCE



PART BUILDER



RoHS-Compliant Coating Options:

Black Zinc Nickel (shown) and Electroless Nickel



### D38999 TESTING CRITERIA

	ROHS COMPLIANT	CORROSION RESISTANCE	TEMPERATURE CYCLING
Cadmium	_	500hr Dynamic Salt Spray Test	- 65C° to +175C°
Black Zinc Nickel	Yes	500hr Dynamic Salt Spray Test	- 65C° to +175C°
Electroless Nickel	Yes	96hr Standard Salt Spray Test	- 65C° to +200C°

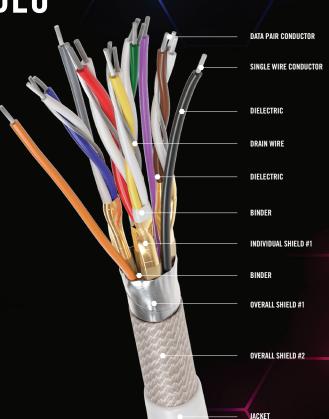
# HIGH-SPEED DIGITAL VIDEO

# DISCOVER THE FUTURE OF AEROSPACE AND DEFENSE CONNECTIVITY WITH OUR CERTIFIED HDMI® CABLE

Elevate your aerospace and defense applications with the industry's first aerospace-grade certified High Speed HDMI® Cable with Ethernet. Engineered and certified to meet the stringent standards of HDMI requirements, this cable sets a new standard for aerospace and defense applications.

### VERSATILITY AND COMPATIBILITY

Support for 3D formats, content type signaling, and multiple color spaces further enhance versatility and compatibility, making the H1926-HS cable ideal for a wide range of military and civil applications. From high-resolution video surveillance and reconnaissance to cockpit displays and in-flight entertainment systems, our H1926-HS incorporates HDMI® technology to deliver unmatched quality and performance.



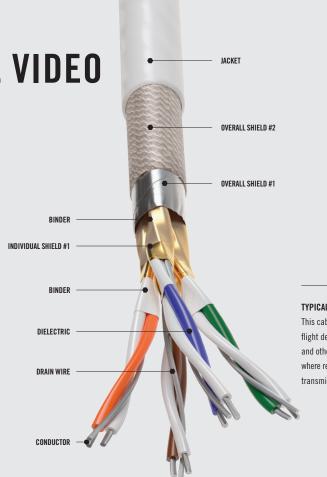


The terms HDMI, HDMI High-Definition Multimedia Interface, HDMI trade dress and the HDMI Logos are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.

# HIGH-SPEED DIGITAL VIDEO

AEROSPACE-GRADE DIGITAL VIDEO INTERFACE (DVI) CABLE

PIC's Aerospace-grade DVI11226 cable is engineered for demanding airborne applications, utilizing stranded high strength silver plated copper 26 AWG conductors Each individual signal pair is shielded and features a dedicated drain wire for minimizing EMI and crosstalk in aircraft systems. The cable's robust construction includes a laser-markable jacket, allowing for identification and traceability. The conductors are designed for high-flexibility and durability according to ASTM B624 specifications.



### TYPICAL APPLICATIONS

This cable is ideal for displays in the flight deck, in-flight entertainment, and other aerospace applications where reliable, high-resolution video transmission is essential.



# ULTRALITE

FOR MAXIMUM WEIGHT SAVINGS

ULTRALITE coaxial cables from PIC are the next step in cutting-edge technology. These next-generation ULTRALITE cables are an extension of our already successful 50-ohm RF coaxial cable line that provides additional weight savings for those with weight restrictions. ULTRALITE coaxial cables are designed to be lighter than typical cables while maintaining high-quality performance, low attenuation and easy installation design making them perfect for applications where weight is an issue.

Switching to ULTRALITE cables - such as our UH25107, UH67163, UH22089 and UH44193 models - will allow you to save on a variety of valuable characteristics- from fuel consumption to easier to installation, without sacrificing performance. With ULTRALITE's low attenuation, ultra-lightweight design and easy installation, we're confident they'll exceed your expectations.

L-Band Air-to-Ground (ATG) networks
Active electronically steered phased arrays
GPS connectivity
SATCOM antennas

# **HIGH-FREQUENCY**

### **OUTSTANDING SIGNAL INTEGRITY**

High-frequency applications on the X, Ku and K bands need cables with outstanding signal integrity and low insertion loss. Our 50 Ohm microwave cable assemblies are designed specifically for this purpose. These high-frequency 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.

High-Frequency Cables are sold as assemblies only.



### TYPICAL APPLICATIONS

Navigation/communication systems
Electronic warfare (EW) systems
Electronic Surveillance
Countermeasure / Jamming
Radar warning receiver (RWR) systems
Electronic / signal Intelligence
C6ISR (Command, Control, Computers,
Communications, Cyber, Intelligence,
Surveillance, Reconnaissance, and
combat systems)



### TYPICAL APPLICATIONS

L-Band Air-to-Ground (ATG) networks
Active electronically steered phased arrays
GPS connectivity
Iridium
Ku-Band SATCOM antennas
Swift Broadband

### PICMates®

# 50 OHM

### COAX/TRIAX CABLES

Our 50 Ohm RF Cables provide low attenuation, a lightweight design and easy installation. We're confident they'll exceed your expectations. Switching to PIC-Mates RF cables will allow you to save on a variety of value characteristics - from fuel consumption to easier installation, without sacrificing performance.

We design our cables 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 0hm):

Premium coaxial cables built with low loss and ultra-lightweight materials.

### S Line of RF Cables (50 Ohm):

The industry's workhorse with decades of proven performance in the aerospace and defense markets.

### LEARN MORE



# **75 OHM**

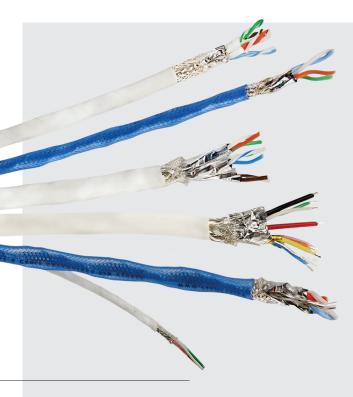
### **COAX/TRIAX CABLES**

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

### LEARN MORE







### TYPICAL APPLICATIONS

Avionics Network
Cabin/Flight Management Systems
Digital Video Systems
Ethernet Backbone
Program Upgrades (commercial/business)

PICMates®

# **ETHERNET**

### UNMATCHED PERFORMANCE AND VERSATILITY

We understand that connectivity in aerospace and defense applications demands unparalleled reliability, flexibility, and performance. That's why we've engineered our PICMates Ethernet Cables to meet and exceed these exacting standards. Lightweight, flexible, low-loss, high temperature resistant, and laser markable, our Ethernet cables are designed for the most demanding high-speed data requirements. Our range of PICMates Ethernet Cables includes solutions for every need: Single Pair, 1 Pair, 2 Pair, 4 Pair, Quadrax and Power over Ethernet (PoE).

These 100-ohm shielded Ethernet cables deliver exceptional performance, supporting high-speed data transmission up to 40Gb. Whether you're looking for Cat5e, Cat6, Cat6a, Cat7, or Cat8 cables, PICMates offers the perfect solution tailored to your specific application. Crafted with precision engineering, our Ethernet cables are tailored to meet the rigorous requirements of aerospace and defense applications for seamless connectivity in a variety of critical systems



### E1G4222 SINGLE PAIR ETHERNET CABLE

The E1G4222 cable's breakthrough design enables gigabit-speed data transmission with reduced space and weight requirements, all while ensuring superior signal integrity and durability. Engineered to meet IEEE 802.3-2022bp 1000BASE-T1 Type B standards, the E1G4222 supports run lengths up to 42.6 meters (139 feet).

### LEARN MORE





# USB

### RELIABLE, RUGGED CABLES FOR AEROSPACE

Our rugged and fast USB cables allow you to upload/download data at speeds up to 10 Gbps 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.

### TYPICAL APPLICATIONS

Content Loading
Data Transfer
Digital Video Systems
Electronic Flight Bag (EFB)
Portable Electronic Devices
Power Remote Devices



# **DATABUS**

# HIGH-QUALITY CABLES FOR AIRCRAFT AND MILITARY SYSTEMS

Databus cables are an essential part of your aircraft or military vehicle's network system. The efficient transmission of data between various electronic components is what makes the whole system work, and our lightweight data bus cables are designed to deliver the performance you need for your operating system.

Our impedance characteristics help ensure low signal loss and superior electromagnetic interference (EMI) shielding, so you can be confident that your system will keep functioning reliably at all times. PIC offers a variety of specialty aerospace data cables for avionics databus and CANbus applications, including ARINC 429 (70 ohm), MIL-STD-1553 (77 ohm), ASCB (125 ohm) and fiber channel.

# **CONNECTORS**



Our PICMates portfolio features a range of high-quality connectors and contacts, including TNC, BNC, N, HN, C, SMA, ARINC, M39029, and D-Sub, all optimized for our cable offerings. We also provide termination instructions and crimp die sets for most connectors to ensure proper field installation.

# **ASSEMBLIES**

### SIMPLIFY YOUR DESIGN PROCESS

### SOLUTION TO DESIGN CHALLENGES

We understand that it can be difficult to terminate in the field, so we offer a full line of cable and connector assembly options to fit your needs.

At PIC, our onsite highly skilled technicians do the assembly and precision termination work for you. Our high-frequency cables require specialized attention that our expert techs can provide. We're here to make your job easier, and our cable assembly drastically reduces your installation time. Plus, our team of application engineers will guide you through the design process to ensure that we're capturing all your requirements for a successful installation. As new technologies demand higher frequencies, the requirement for technicians with advanced skills to perform those terminations will run in parallel, thereby increasing the need for cable assemblies.

## WE DESIGN COMPLETE CONNECTIVITY SOLUTIONS TO MEET OR EXCEED YOUR DESIGN CHALLENGES THROUGH:

- Customized connectivity solutions
- Turn-key pre-engineered assemblies
- Rapid in-house assembly services
- In-stock component availability
- Extensive range of connector products
- Full technical support available at your fingertips
- IPC-620 certified technicians ensure expert assembly
- Quality overmolding and automation processes
- Laser marking for custom labeling
- Complete lot traceability with serialization
- Specially designed precision tooling for demanding applications



# **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.

### CONFIDENTIALITY

When you work with us, you're trusting us to handle your intellectual property with the utmost care - that's why we have a culture of confidentiality. When we meet for the first time or the 100th, we approach our relationship with the same level of sensitivity and attention to detail.

We've worked hard to build this reputation, and it's something we take very seriously. We know that you can't have a truly open conversation about technical solutions if you're worried about protecting your information—so we're committed to removing that barrier so that we can get down to business.

### 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.



ISO 9001 & AS9100 Certified



1.800.742.3191 SALES@THEANGELUSCORP.COM W220 N1051 SPRINGDALE ROAD WAUKESHA, WI 53186 PICWIRE.COM

# CONNECT WITH PIC EXPERTS — YOUR TEAM FOR INTERCONNECT SOLUTIONS

CONTACT US/LEARN MORE





