



## Shipboard

RF systems are essential for critical [shipboard](#) operations, requiring high reliability in harsh environments. Coaxial cable assemblies meet stringent military standards and ensuring optimal performance for demanding RF applications.



### Military Shipboard Radar

Shipboard radar, with the use of coaxial cables, keep maritime operations safe and efficient, covering everything from navigation aid to target tracking.



### Sea to Air Communications Systems

Sea to Air Communications Systems ensure seamless communication between naval vessels and aircraft.



### MIL-DTL-17 Standard

MIL-DTL-17 sets rigorous standards for high-reliability coaxial cables used in military and aerospace, ensuring durability, signal integrity, and EMI shielding in critical applications.



### **Command and Control (C2) and Weapons Controls Systems (WCS)**

C2 and Weapons Control Systems rely on coaxial cables for secure, reliable data transmission, ensuring effective military operations.



### **Ship Radio Frequency Communications Systems**

Ship RF Communications Systems provide essential connectivity for vessels, using quality coaxial cables for reliable signal transmission.



### **Intelligence, Surveillance, and Reconnaissance (ISR) Systems**

ISR systems rely on high-performance coaxial cables for reliable intelligence, surveillance, and reconnaissance in military operations.



### **Missile Defense/Electronic Warfare Systems**

Coaxial cables are crucial for reliable signal transmission and EMI shielding in Missile Defense and Electronic Warfare systems.

Check out our [Shipboard](#) page!

## **Advantages of Coaxial Cables for Shipboard Applications**

Each shipboard system has unique requirements, requiring custom solutions to meet application-specific challenges. With the need for high reliability and performance, even in harsh environmental conditions, coaxial cables offer numerous advantages for ensuring seamless operation alongside other shipboard technologies.

- **Extreme temperature, humidity, and corrosion resistance:** Our cables and connectors operate a wide temperature range and are designed to [withstand](#) salt fog and humidity.
- **Ideal for Space Constraints:** Space constraints on military vessels often lead to challenges with electromagnetic interference, but our high-performance cables provide excellent [shielding](#) and signal isolation to overcome these obstacles. Cable routing through bulkheads and compartments in confined spaces can be challenging, but our broad range of field-terminable cables provides a flexible solution.

- **Phase Stability:** Phase stable coaxial cables, like [PhaseTrack® Low Smoke](#) cable assemblies, are a crucial element of shipboard applications. These systems often undergo temperature fluctuations, and coaxial cables must offer accurate phase tracking, ensuring minimal phase change and consistent performance, especially at higher frequencies.
- **Meet Power Needs:** Maritime communication systems often require higher power to achieve extended range capabilities. Our [high power coaxial cables](#) are designed to handle the necessary power without significantly impacting SWaP (Size, Weight, and Power), ensuring optimal electrical performance, mechanical durability, and thermal management, all while maintaining efficient power transfer and reliability.
- **Fire Safety:** [Low smoke, zero halogen coaxial cables](#) are one of the critical parameters for many shipboard applications due to the dangers of a shipboard fire. In confined spaces, fire quickly fills an area with smoke, which can drastically impede safe evacuation. Added dangers include toxic gases and a lack of replacement air, especially on a submarine.



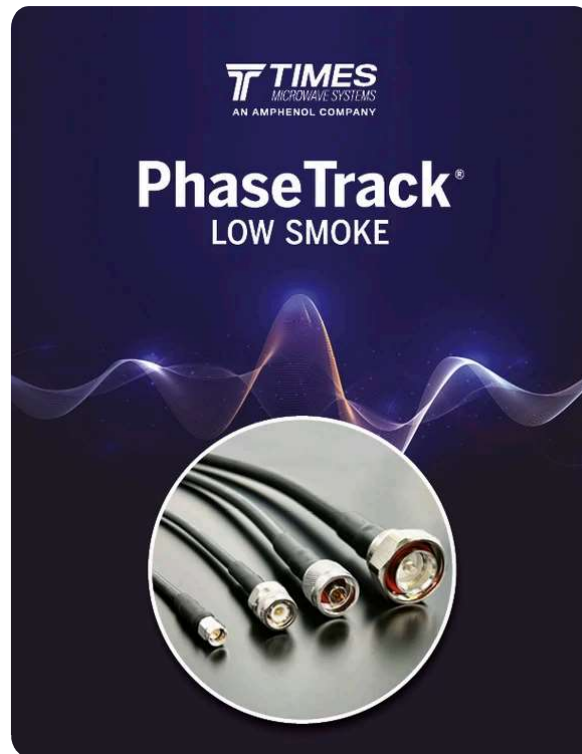
## Join Our Team!

Our team is growing! We have positions available in a few different departments. Apply today!

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## Product Spotlight



PhaseTrack<sup>®</sup> Low Smoke (PTLS) cable assemblies are low-smoke, zero-halogen, and phase-stable, featuring a proprietary foamed polyethylene dielectric TF5<sup>™</sup>.

This material provides exceptional phase stability over a wide range of temperatures. PhaseTrack Low Smoke cable assemblies are ideal for [shipboard](#) and other MIL-DTL-17 applications demanding stable phase over temperature.

Learn more about PhaseTrack<sup>®</sup> Low Smoke

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## Perfecting Shipboard Cable Termination

In this video demonstration led by Product Manager Kevin Moyher, we showcase a straightforward method for terminating the M17/223 shipboard cable using our cutting, prepping, and crimping tools. The CCT-03 cutting tool ensures a precise, square cut, while the CST-400 prepares the cable for termination.



Watch the Video

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**Q: How does temperature affect phase stability in coaxial cables?**

A: Temperature fluctuations primarily affect the dielectric material in coaxial cables, altering signal propagation speed, which can lead to phase shifts and impact system performance. PhaseTrack<sup>®</sup> Low Smoke cable assemblies feature a proprietary foamed polyethylene dielectric TF5<sup>™</sup> that exhibits exceptional phase stability over a wide range of temperatures.

Got a question you'd like answered in the next newsletter? Submit it here!

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