

Defense Communications

# COUNTER EVERY THREAT





# Make the first move

For over 60 years, Photonis has developed cutting-edge solutions and components for electronic warfare, communications and radar systems. With a diverse range of highly reliable, field-proven standard and custom solutions, Photonis technology will put you one step ahead of the enemy in any battlespace.

## Electronic Warfare

Always make the first move with proven high powered RF amplifiers and signal simulators from the leading Electronic Warfare (EW) component manufacturer:

- Plug and play installation
- Wide variety of versatile configurations
- In-house custom solution design capability
- Meet specific EW needs

## Communications

Be the first to transmit vital intelligence and sensor information with a defense communications network powered by Photonis:

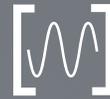
- Solutions designed for efficient mission-critical information transfer
- Wide range of platforms from probes to satellites
- High volume data flow
- High linearity and low harmonics

## Radar

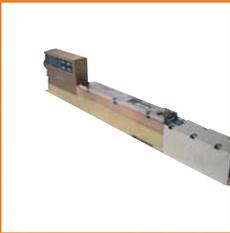
Our expertise in naturally hardened, ruggedized solutions brings flight-tested reliability to your radar applications, making you the first to identify mission-critical activity:

- High power and broad bandwidth
- Both standard and miniature configurations
- Seamlessly integrate with solid-state devices
- Prototyping and custom manufacture for large and small quantity radar solutions
- Fit any program need

# Meet every need



**Photonis Defense Communications solutions are based on highly reliable, advanced technology, designed to deliver more power across a wider bandwidth in a lighter, smaller package.**



## Traveling Wave Tubes

Photonis Traveling Wave Tube (TWT) technologies offer greater data throughput for modern high-performance communication applications, delivering optimum functionality in our most critical defense systems.

With superior radio frequency amplification across a wider range of frequencies than Solid State (SS) devices, Photonis TWTs are a versatile and highly reliable solution for specific bandwidth applications and broadband multi-octave requirements. Mini and Micro TWTs are also available for applications where small size, weight and power (SWaP) is a concern.



## Traveling Wave Tube Amplifiers

A Traveling Wave Tube Amplifier (TWTa) combines two innovative technologies – a specialized solid-state high voltage power supply (HVPS) with a lightweight, reliable Traveling Wave Tube for a powerful plug-and-play solution with built-in-test functionality. TWTAs deliver PRF synchronization and protection features across a wide range of power sources, providing the highest output to support SWaP considerations.

TWT Amplifiers also have far fewer heat-related failures than their solid state counterparts. This is because TWTAs do not require additional cooling and dissipation systems, resulting in a longer lifespan and lower overall weight.



## Microwave Power Modules

Microwave Power Modules integrate a solid-state HVPS and a Mini or Micro TWT into a compact, lightweight unit that typically generates up to 400W of wide-band microwave amplification for portable, sea, land or air applications. Other designs can be integrated to support specific linearity or Solid State Power Amplifier requirements.

The low noise performance of the solid-state MMIC combined with the high efficiency TWT creates an extremely compact and efficient amplifier.

# PHOTONIS

Power and Microwave

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