VERSITRON Introduces NDAA-Compliant Tethered Drone Fiber Optic Converters for Secure Airborne Communications

NEWARK, DE, UNITED STATES, June 11, 2026 /EINPresswire.com/ -- VERSITRON, a U.S. manufacturer of fiber optic communication solutions since 1958, today announced the availability of its NDAA-compliant Tethered Drone Fiber Optic Converter platform, designed to provide secure video and telemetry communications for defense, ISR, surveillance, industrial inspection, and critical infrastructure applications.

Tethered Drone Fiber Optic Converters – NDAA Compliant

As tethered drone deployments continue to expand across military, public safety, and industrial markets, operators require communication systems that deliver reliable performance in environments where traditional wireless technologies may be vulnerable to interference, congestion, or electronic disruption. VERSITRON's fiber optic converter platform addresses these challenges by providing a secure, hardwired optical communication link between airborne and ground-based systems.

Secure Communications for Mission-Critical Operations

The VERSITRON tethered drone platform enables transmission of uncompressed analog video and bidirectional TTL/UART data over a single simplex single-mode fiber using wavelength division multiplexing (WDM) technology. The architecture supports real-time communications while eliminating susceptibility to electromagnetic interference (EMI), radio frequency interference (RFI), and signal congestion.

Unlike conventional RF-based communication systems, fiber optic transmission provides a physically secured communication path that is inherently immune to jamming, interception, and electromagnetic detection concerns commonly associated with wireless communications.

Designed for Airborne and Ground-Side Deployment

The system consists of lightweight airborne and rugged ground-side converter modules that work together to establish a reliable optical communication link for tethered drone operations.

> Organizations need trusted communications for demanding tethered drone operations. Versitron's fiber optic converters deliver secure, reliable, NDAA-compliant video and telemetry transmission."
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> *R.W. Tull, President at VERSITRON*

Key capabilities include:

- NDAA-compliant design for government, defense, and critical infrastructure deployments
- Uncompressed 8-bit analog video transmission
- Bidirectional 3.3V TTL/UART communications
- WDM transmission over simplex single-mode fiber
- Immunity to EMI, RFI, crosstalk, and signal distortion
- Plug-and-play operation with no optical or electrical adjustments required
- Compact, lightweight construction optimized for airborne integration
- Real-time low-latency communications
- LED indicators for system monitoring and diagnostics

Applications Across Defense and Industry

The VERSITRON tethered drone communication platform supports a wide range of operational requirements, including:

Military and Defense Operations

Persistent ISR missions, tactical reconnaissance, border surveillance, and secure airborne monitoring applications requiring dependable command, control, video, and telemetry communications.

Public Safety and Emergency Response

Aerial observation, disaster response, search-and-rescue operations, and incident monitoring where communication reliability is critical.

Industrial Inspection

Infrastructure inspection, utility monitoring, pipeline assessment, energy facility surveillance, and industrial asset management in environments where wireless communications may be unreliable.

Critical Infrastructure Protection

Perimeter security, facility monitoring, transportation systems surveillance, and long-duration airborne observation programs.

Built for Reliability

The fiber optic architecture provides deterministic communication performance without the interference challenges commonly encountered in RF-based systems. By transporting video and telemetry over fiber, operators gain a secure communication channel capable of supporting demanding airborne missions in electronically congested environments.

"Organizations deploying tethered drone systems require communication platforms they can trust under demanding operating conditions," said R.W. Tull, President at VERSITRON. "Our tethered drone fiber optic converters were engineered to provide secure, reliable video and telemetry transmission while meeting NDAA compliance requirements for government and defense applications."

Availability
The VERSITRON Tethered Drone Fiber Optic Converter platform is available now. For product information, pricing, and application support, visit www.versitron.com or contact VERSITRON directly at sales@versitron.com or 1-800-537-2296.

About VERSITRON
Founded in 1958, VERSITRON designs and manufactures fiber optic communication solutions for military, government, industrial, transportation, security, and critical infrastructure applications. The company specializes in secure fiber optic transmission systems supporting voice, video, and data communications in demanding environments.

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