

Owl Talon Torrent®

Data Diode Card Kit

Low Latency, High-Speed One-Way Transfer Up to 100 Gbps



Key Features

- Secure, hardware-enforced, one-way data transfers
- Transfer multiple high-speed simultaneous data types and protocols via 16 independent channels on a single device
- Reduce SWaP footprint and hardware costs by deploying card kit directly in existing infrastructure
- Long-lasting, set-and-forget reliability
- U.S. Government evaluated and listed Protocol Filtering Diode (PFD)
- Up to 100 Gbps max throughput

Supported Protocols

- High-Speed TCP
- High-Speed UDP
- RFTS
- SFTP
- Syslog
- HTTP/HTTPS
- Direct driver/API
- Coming Soon: NiFi

Decades of Diode Innovation, Reimagined

Owl Cyber Defense has decades of experience developing data diode cards to deliver the security, agility, and scalability that critical operations demand. Owl Talon Torrent® Data Diode Card Kits represent the next evolution of this product offering, bringing vastly improved efficiency and performance while maintaining the Protocol Filtering Diode implementation that is critical to many applications.

Owl Talon Torrent® : Ultra High-Speed Protocol Filtering Diodes

Owl Talon Torrent is Owl's most advanced protocol filtering diode (PFD) series, delivering U.S. Government-validated, hardware-enforced one-way protection at speeds up to 100 Gbps via an FPGA-based, low-latency architecture.

Owl Talon Torrent® : Card Kit

In addition to all-in-one 1U and 2x1U appliances, Owl Talon Torrent is also available as a cardkit-only configuration in 10 Gbps and 100 Gbps options, letting operators integrate proven, U.S. Government-validated one-way protection directly into their own chassis or existing infrastructure, cutting SWaP footprint and hardware costs. Each cardkit pairs a send card and receive card, connected via fiber or copper, physically enforcing the same deterministic one-way transfer assurance as a full Owl Talon Torrent® appliance.

Government-Validated Performance, Built for Every Use Case

Designed for ease of use, Owl Talon Torrent card kits pack multiple software solutions under a single license to meet a wide range of operational needs.

- For bare metal users, a direct driver/API allows the user to push local buffers directly over the diode from inside their own optimized application, giving developers low-level control without added overhead.
- For file transfer, Owl's RFTS (Remote File Transfer Service) offers a simple drag-and-drop interface that makes one-way file movement fast and intuitive, even for non-technical users.
- For streaming applications, Owl's high-speed TCP and UDP protocol adaptors/proxies let users partition and pass through as many flows as necessary, supporting demanding real-time data environments.
- Coming soon, Owl's Torrent NiFi processor will deliver seamless compatibility with any NiFi data flow through the diode interface, and additional protocol adaptors/proxies are planned to meet further customer needs as they arise.

Owl Talon Torrent: Built for What's Next in One-Way Protection

Owl Talon Torrent Data Diode Cards succeed Owl's v7 data diode cards, delivering meaningfully stronger performance and capability over that previous generation. Owl Talon Torrent support transfers up to 100 Gbps with protocol filtering capability, enabled by an FPGA-based architecture built for efficient, high-speed data processing. Owl Talon Torrent is the next evolution of Owl's data diode card line, delivering meaningfully stronger performance and capability over previous generations.

Visit owlcyberdefense.com to learn more.



Owl Cyber Defense Solutions, LLC, headquartered in Columbia, MD, is a pure play cybersecurity company solely focused on purpose-built, made-in-the-USA data diode and cross domain solutions. Trusted to protect the most sensitive government and commercial networks worldwide, our technologies are developed and manufactured to meet the strictest U.S. security standards. Owl enables secure, near-instantaneous collaboration across network boundaries—powering faster, safer, and smarter decisions for military, federal, and commercial critical infrastructure organizations. With a focus on scalability, interoperability, and regulatory compliance, Owl ensures resilient communication in the most high-threat environments. Rigorously tested. Globally trusted.

Visit www.owlcyberdefense.com or contact us at info@owlcyberdefense.com for more details.

