

SHIELDING EMP MITIGATION-RED EDGE™ PULSE PROTECTION



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- **Protection Level 1: Survival of Data and Equipment**
- **Protection Level 2: Survival and Continuous Operations**
- **Shielding Effectiveness Meets or Exceeds MIL-STD 188-125**

ETS-Lindgren Red Edge Pulse Protection System is engineered to protect critical infrastructure from the damaging effects of High-Altitude Electromagnetic Pulse (HEMP), Intentional Electromagnetic Interference (IEMI), and other severe electromagnetic threats. Developed for organizations that cannot afford downtime, Red Edge provides a hardened, certified solution proven at the U.S. Air Force's Little Mountain Test Facility. As a Hardness Critical Item (HCI)-validated system, Red Edge meets or exceeds the performance requirements of MIL-STD-188-125, ensuring that essential equipment, data, and processing environments remain safeguarded during extreme electromagnetic events.

Product Features Performance

Red Edge is available in two levels of EMP protection. Level 1 delivers hardened shielding designed to protect equipment and data so they remain intact and recoverable once utilities are restored after a pulse event. Level 2 extends this capability by enabling both survival and continuous operation, even if external power sources fail. This enhanced configuration maintains processing, monitoring, and communication functions through a fully independent, protected power and utility source, ensuring mission-critical continuity for the most demanding environments.

System Architecture

Red Edge Pulse Protection System integrates pulse-protected components into a unified shielding ecosystem that may include filtered power entry, hardened penetrations, RF-shielded enclosures, and certified EMP protection interfaces. These elements are designed to work in concert to control conducted and radiated pathways, ensuring that electromagnetic energy cannot penetrate or destabilize sensitive systems. ETS-Lindgren's modular architecture allows the solution to be configured for equipment rooms, data centers, control suites, telecommunications hubs, and other vital operational areas.

Applications

Red Edge is ideal for facilities where infrastructure integrity and operational uptime are non-negotiable. Typical applications include data centers, utility control rooms, defense installations, emergency operations environments, telecommunications switching facilities, and any mission-critical system that must remain functional or rapidly recover following an EMP or IEMI event. Whether the requirement is to safeguard stored data or maintain full system operation during and after a pulse, Red Edge delivers dependable, validated performance.

Certified Protection

Every Red Edge solution is backed by independent testing performed at the U.S. Air Force Little Mountain Test Facility, ensuring that each installation meets HCI certification standards. This rigorous evaluation process confirms both the shielding performance and the system's ability to deliver survival-level or continuity-level protection as required by MIL-STD-188-125. Customers gain the assurance that their infrastructure is protected not only by advanced engineering but also by validated, test-proven performance.

Support and Integration

ETS-Lindgren's engineering and service teams provide full lifecycle support, including system design, installation, verification, maintenance, and upgrades. Whether integrating with new construction or enhancing an existing facility, Red Edge is designed for long-term resilience and reliable operation. From utility isolation to enclosure hardening, every system is tailored to the user's threat profile, operational requirements, and environmental constraints.

