



# RUGGED RECORDERS, COMPUTERS, AND DISPLAYS



# RUGGED. MISSION-READY. BATTLE-TESTED.

Spectra Defense Technologies is a global provider of proven C5ISR solutions for aerospace and defense customers. With over 35 years of proven performance and differentiated expertise, we deliver fully integrated mission systems, data recorders, secure networking, edge computing, robust data-at-rest encryption and advanced visualization that capture, process and display mission-critical data across air, land, sea and space. Backed by engineering, sales, and production teams in North America and Europe, Spectra combines global reach with agile innovation to meet evolving end-user needs with speed and precision. Guided by a culture of

innovation and deep customer partnership, we build enduring trust through open-architecture designs, technical excellence and resilient systems designed to meet today's mission needs and anticipate tomorrow's demands for the U.S. DoW, NATO, European defense organizations and allied partners worldwide.

**End-to-end information products & systems, when it matters most, Spectra is the solution.**

Visit [spectradefense.tech](https://spectradefense.tech) to learn more.



RUGGED DISPLAYS



DATA RECORDERS



STORAGE SOLUTIONS

Spectra exists to support mission critical challenges by creating enduring technological solutions that address the spectrum of legacy specifications, current demands and future capabilities.





## SPECTRA SIMPLIFIES INTEGRATION

Spectra has decades of extensive C5ISR experience. The company's proven and trusted systems capture, process and display mission-critical data in the harshest environmental conditions. In the air, at sea, on land and in space.

CAPTURE		PROCESS		DISPLAY	
<p><b>RECORDING</b></p> <p>RIPR 1400 SERIES RECORDERS</p> <p>G1 MICRO RECORDER</p> <p>XSR RECORDER</p> <p>HPR RECORDER</p> <p>RIPR 2600 RECORDER</p>	<p><b>ACQUISITION</b></p> <p>DATA ACQ UNIT</p> <p>TITAN XMC</p>	<p><b>NAS &amp; FILE SERVING</b></p> <p>XSR NAS</p> <p>G1 MICRO SERVER</p> <p><b>PROCESSING &amp; ROUTING</b></p> <p>RIPR 6601</p> <p>RIPR 2600R</p> <p>HPR PROCESSOR</p>	<p><b>ENCRYPTED STORAGE</b></p> <p>XSR FAMILY</p> <p>G1 FAMILY</p> <p><b>MISSION COMPUTING</b></p> <p>XSR MISSION COMPUTER</p> <p>GROUND VEHICLE COMPUTER</p> <p>ACB RUGGED COMPUTER</p>	<p><b>DISPLAYS &amp; PERIPHERALS</b></p> <p>5" - 43" LOD DISPLAY</p> <p>KVM SWITCH</p> <p>KEYBOARDS</p>	<p><b>TABLETS &amp; WORKSTATIONS</b></p> <p>RW515 STATION</p> <p>AT213 TABLET</p>



## DATA RECORDING SOLUTIONS

**Integrated, open system data acquisition, recording, processing and routing solutions for today's demanding national security needs**

Spectra designs, produces and supports mission-critical defense electronics and software systems for numerous aircraft fleets, missile and UAV systems, and the flight test community. The company's trusted systems are fielded on dozens of fixed- and rotary-wing military platforms. Since 1986, Spectra has set the industry standard for airborne mission data and video recording, processing and routing solutions from its Las Cruces, New Mexico facility.

### DATA RECORDERS



Spectra RIPP (Recorder, Integrated Processor, and Router) systems are designed for use on any mobile platform for applications that require a small form factor data acquisition, processing, routing, recording and/or streaming capability. With the variety of factory or user stackable/reconfigurable or fixed models, the Model 1201/1401/1402/1403 RIPRs are the smart choice for any commercial or military data acquisition application.

### VIDEO RECORDERS



The CSR-2300 Recorder, functions as an Integrated Processor and Router (RIPP), offers multifaceted capabilities including digital video recording with in-flight playback, flight data recording with multi-level security, data bus routing, and integration with pods and Hands On Throttle-and-Stick (HOTAS) systems. From 2007 to 2020, a total of 535 systems were delivered, with ongoing support for sustainment, spares and training.

### DATA ACQUISITION



The RAPTOR fiber optic recorder delivers high-speed, high-capacity data capture for modern military applications. This data acquisition system handles demanding requirements for data acquisition, processing and recording, with expandable storage and precise data synchronization across diverse sources. The system adheres to IRIG 106 standard and TMATS configurations for versatile platform adaptability.

### HIGH-DENSITY STORAGE



The Model 1401 RIPP offers unparalleled high-density storage for diverse applications, featuring a 1TB industrial CFAST card for quick, toolless access. This versatile recorder supports a wide range of digital and analog inputs, with the ability to expand capabilities through stackable/reconfigurable I/O modules. Designed for rapid configuration and deployment, it meets the stringent demands of both commercial and military data acquisition applications.



# PROCESSING, STORAGE & COMPUTING SOLUTIONS

**Rugged and secure C5ISR-enabling technologies for high-density secure storage, file serving and mission processing.**

Since 2009, Spectra has earned a reputation as an innovative and agile provider of commercial off-the-shelf (COTS) rugged computing products for the defense and aerospace market. Meticulously designed and engineered to support national security requirements around the world, the company's secure and reliable C5ISR-enabling technologies promote a tactical advantage and foster peace of mind in the harshest environmental conditions.

## RUGGED DATA RECORDERS



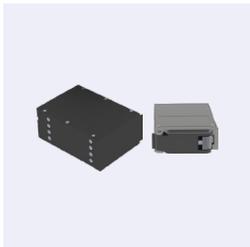
Spectra's Rugged Data Recorders excel in compactness and performance, capable of interfacing with multiple Gigabit Ethernet sources for efficient data capture. The SWaP-C optimized design suits various deployed environments like unmanned systems and ground vehicles. Features include removable storage for quick data access, industry-standard SSDs for evolving storage needs, and optional FIPS 140-2 and AES-256 encryption for enhanced data security, complemented by flexible key management and additional security measures.

## NETWORK ATTACHED STORAGE & FILE SERVERS



Rugged Servers and NAS systems are engineered for demanding applications, delivering performance and functionality in severe conditions. These solutions support a range of platforms from small unmanned to large manned vehicles, with seamless integration and enhanced data security. The systems enable server virtualization and efficient network storage without compromising performance or security.

## ENCRYPTED STORAGE



Removable Data Modules (RDM) provide flexible, encrypted storage for data recorders, NAS and servers, designed for easy field swapping. They accommodate up to 80TB with customizable SSD options. Security is bolstered by AES 256-bit encryption, quick and secure erase functions, and NIAP-Approved Dual-Layer Full Disk Encryption, safeguarding data across various environments.

## MISSION COMPUTING SYSTEMS



Spectra Rugged Mission Computers excel in extreme environments, ensuring high functionality and performance for applications in UAVs, UGVs, surveillance, and sensor development. The SWaP-optimized design is complemented by optional advanced security features, including FIPS 140-2 and AES-256 encryption, to safeguard data with flexible key management and erasure options.



## DISPLAY & INTERFACE SOLUTIONS

**Rugged computing and display solutions that serve sea, air and land applications worldwide**

Spectra has been providing rugged computer and display solutions to mission critical defense applications for over 35 years. The company focuses on demanding customer requirements and offers a wide variety of solutions that minimize size, weight and power while maintaining state-of-the-art visualization and computing performance.

### DISPLAY SYSTEMS



Spectra specializes in rugged LCDs ranging from 5.0" to 43", designed for deployment across a wide variety of military platforms. Products feature sunlight readability, NVG compatibility, rugged AR touch screens, and more. Units can be customized to meet specific program requirements.

### COMPUTING SOLUTIONS



Low SWaP computing solutions enable swift conflict resolution and reliable performance. By sourcing both the display monitor and computing system as integrated solutions, potential conflicts are mitigated to ensure compatibility.

### TABLETS & WORKSTATIONS



Rugged tablets and workstations offer the smallest SWaP for demanding environments. Tablets and fully featured workstations are designed for extreme durability, with customizable options like processor types, RAM sizes and storage. Integrated solutions ensure compatibility and ease procurement complexities, eliminating potential conflicts.

### KVMs & PERIPHERALS



NIAP EAL4-certified KVM switches are available along with a full range of keyboards suitable for a wide variety of military and aerospace applications. Features include NVIS compatibility, sealed and backlit options, and an integrated trackball. Customization options include I/O interfaces, pointing devices and mounting solutions.





## CONTACT

Contact us to discuss how the full suite of rugged information products and systems can meet your program requirements. Reach out today to explore solutions for your mission-critical applications.



### North American Operations

- Las Cruces, New Mexico
- Alpharetta, Georgia
- Houston, Texas
- Katy, Texas
- Fort Worth, Texas
- San Diego, California

### International Operations

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