

SPEC
OnBoard Systems

Other OnBoard Products Include:

Tornado 6DOF

Records Acceleration Data in six degrees of freedom (6DOF)



Tornado 16CR

Records High G, short duration Acceleration Data using an internal accelerometer package and also has the capability of recording signals from 16 external sensors



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Provides a product line of solid-state data acquisition and storage systems and event recorders for use in demanding environmental conditions.

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**Solid-State
Data Acquisition &
Storage Systems**

Global Hawk image courtesy of Northrop Grumman

TornadoX™

Whether your application is airborne reconnaissance or test instrumentation, OnBoard Systems' TornadoX™ Data Storage System provides a modular and configurable data acquisition, processing, and storage system solution that can easily be integrated or embedded into a variety of aerospace or commercial applications. With its extremely flexible architecture and data rate and memory depth growth capabilities, the versatile TornadoX™ offers significant performance improvements over conventional data recorders.

Providing a variety of interfaces (such as Gigabit Ethernet, Fibre Channel and SCSI) and with an AES 256 encryption card option, the TornadoX™ solid-state recorder/storage system has demonstrated continuous record rates of over 728 Mbits/s, read rates over 690 Mbits/s and aggregate concurrent read-while-write rates of over 900 Mbits/s.

OnBoard Systems expects to double these rates within the next 6 months. Additional data links can be utilized to accommodate even higher data rate requirements.

Designed for operation in extreme environments, the conduction cooled TornadoX™ is the ideal onboard data storage system for simultaneous support of data management systems, Intelligence, Surveillance, and Reconnaissance (ISR) systems, communications systems, and instrumentation systems. In addition to its high speed data transfer capability the TornadoX™ is designed to accommodate demanding solid-state mass storage requirements. Onboard Systems is producing systems with up to 1.6TBytes of non-volatile solid state storage (FLASH) capacity. The system can be configured for multiple TBytes of storage capacity.

Features:

- Modular design facilitates implementation of standard and custom interfaces
- Data encryption option
- Lightweight, low power, low volume, rugged construction
- VMEbus/PCibus/RACE++ open architecture structure
- Data throughput expandable to 6Gbps
- Memory capacity currently expandable from 120GB to multiple TBytes
- Removable Memory Units detach for quick swap-out
- Light Weight: <50 lbs.
Low Power: <100 W

