



MONSSTR[®] Instrumentation Recorder

MOdular Non-volatile Solid STate Recorder
Model 2400

- **Reliability**
- **Rugged construction**
- **Convenience**
- **Configuration flexibility**
- **Efficiency**
- **Precision**

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MOdular Non-volatile Solid STate Recorder

The MONSSTR 2400 is a rugged, solid-state instrumentation recorder that uses revolutionary high-density, non-volatile FlashCache™ memory to record 4.2GB to 68.6GB of single channel or multiplexed data including PCM, MIL-STD-1553, analog, parallel and serial formats, and video.



Reliability

With solid-state construction and no moving parts, the MONSSTR 2400 offers greatly enhanced reliability over existing tape and disk recorders. Estimated mean time between failures (MTBF) is an order of magnitude greater than for traditional recorders. Continuous error checking prevents loss of data with real-time remapping of bad blocks, error detection and error correction.

Rugged Construction

The MONSSTR 2400 components are housed in a heavy-duty precision-milled metal unit. The solid-state FlashCache™ recording medium is further protected by its own rugged cartridge housing that can withstand impacts up to 30g. The MONSSTR 2400 adheres to MIL-STD-810E environmental requirements. It operates accurately and reliably at altitudes up to 80,000 feet, at temperatures from -40°C to +72°C, and at acceleration up to 15g in any axis. It can withstand shocks up to 20g in any axis and overall vibration of 16.75g_{RMS} in any axis.

Convenience

With just one solid-state cartridge, the MONSSTR 2400 can capture 4.2 to 68.6GB of data from single channel or multiplexed data sources plus voice and IRIG time-code. The single cartridge plugs directly into the MONSSTR to record data. The cartridge also plugs directly into a PC workstation for postflight analysis and review.

Configuration Flexibility

The MONSSTR 2400 is configurable to user specifications. Solid-state memory is expandable from 4.2 to 68.6GB. A user-selectable control interface allows the choice of discrete control (supporting Record and Event Mark functions), RS-422 serial control, or 1553 control. The MONSSTR 2400 can record single streams or be fitted with a variety of CompactPCI modules. PCM, MIL-STD-1553, 8-32 bit parallel, serial (RS-242/422/485) and analog channels are available. MONSSTR 2400 recorders have extensive built-in test, diagnostic and status reporting software.

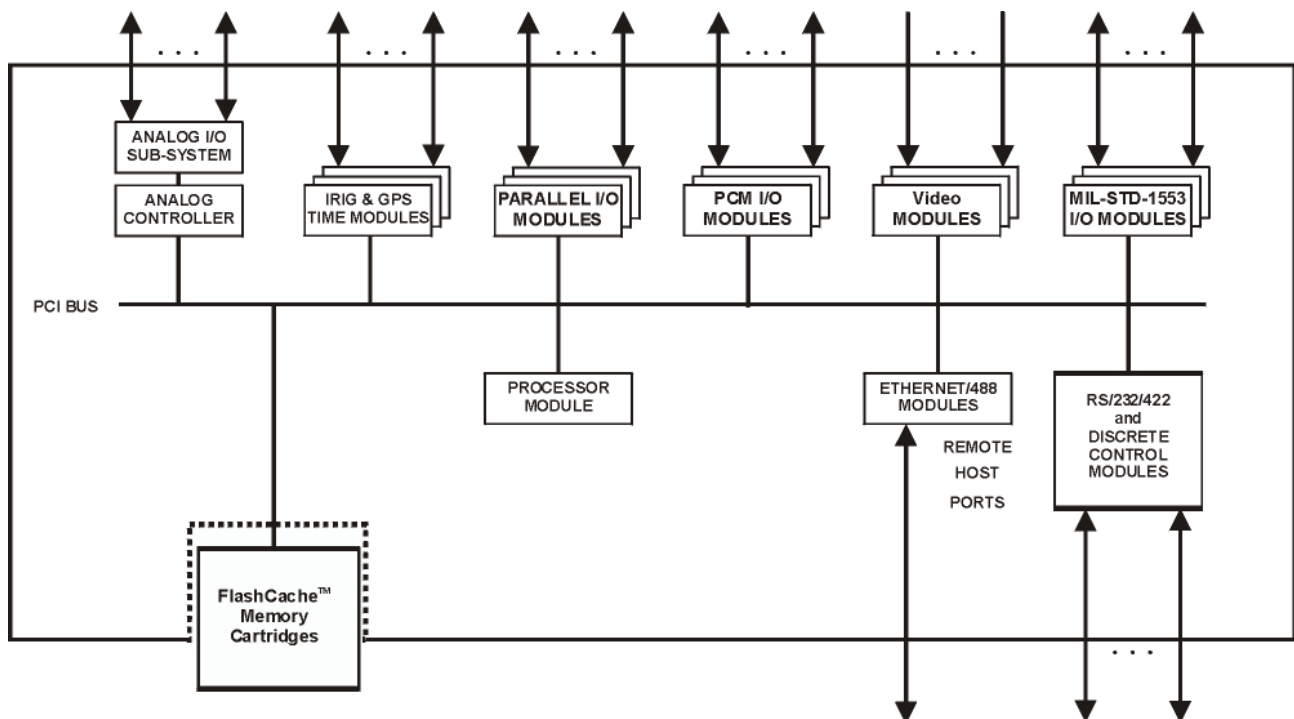
Efficiency

The small footprint of the MONSSTR 2400—only 7.6"x7.5"x12.7"—means it can fit easily into existing spaces such as the map case. It can replace existing tape recorders without extensive modifications to the aircraft. The 2400 weighs just 25 pounds. The solid-state memory cartridge weighs just .5 pound and fits in the hand as neatly as a tape cassette. The FlashCache I cartridge can be configured with from 4.2 to 34.3GB and measures 1"x4"x6.5"; the FlashCache II cartridge can hold up to 68.6GB and measures 1.75"x4"x6.5". Despite its small size, the memory cartridge has an impressive capacity. A MONSSTR PC playback station equipped with

playback software is available, ensuring seamless system compatibility. With a sustained transfer rate of 64 MB/s, a 17-GB cartridge can be downloaded to the hard disk on a host computer in 4 minutes.

Precision

The MONSSTR 2400 captures IRIG-A, -B, or -G time-code data and time-stamps each recorded data packet to ensure synchronization of data upon playback. Built-in real-time error checking and correction ensure accuracy. Simultaneous playback of all synchronized channels with accurate phase correlation is possible.



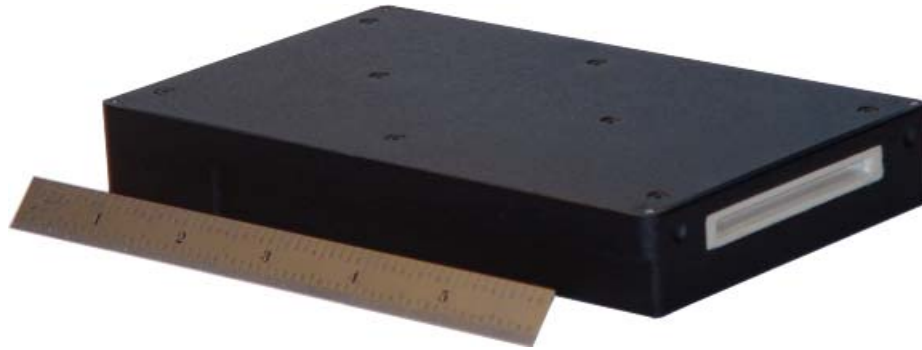
MONSSTR 2400 Block Diagram

MONSSTR™ Instrumentation Recorder

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<i>Characteristic</i>	<i>Specification</i>
Temperature	Operation: -40°C to +72°C Storage: -55°C to +155°C
Humidity	Operation and storage: 10% to 90%, non-condensing
Cooling	Conduction, 30W maximum dissipation
Altitude	80,000 ft.
Shock	20g, any axis
Acceleration	15g, any axis
Vibration	16.75g _{RMS} , any axis



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