

Rugged Flight Test Data Recorder and Network File Server

Product Description

Introducing the MiniR v2 Solid State Recorder - a compact and powerful solution offering increased throughput, expanded storage, and flexible user configuration. With backwards compatibility and versatile I/O options, it captures traditional flight test data, telemetry, electronic warfare signals, and more. Its lower-cost solid-state mRMM and future-ready design ensure optimal performance and seamless adaptability. Upgrade your recording capabilities with the MiniR v2.



Encryption Options

- FIPS 197/AES256: Available for Data-At-Rest and Data-In-Transit
- FIPS-140: Available for Data-At-Rest
- Commercial Solutions for Classified (CSfC): Available for Data-At-Rest and Data-In-Transit
- Turnstile: Robust encryption method designed by Ampex

Features

- **IRIG 106 Chapter 10 File Format**
- **Outputs Chapter 10/11 Data As A Chapter 7 Serial PCM Stream**
- **Totally Flexible & Modular I/O**
- **Sustained Data Rates To 1,000 Mb/sec**
- **Up To 4TB Of Removable Storage**

Ampex Common Compute Environment (ACCE)

ACCE is a comprehensive software suite designed for data acquisition, management, and storage. It provides a unified interface and supports various hardware devices, simplifying data and device management while ensuring data integrity.

- Software-defined recording for capturing diverse data types
- Facilitation of third-party software integration
- Accurate timestamping and synchronization with external time sources
- File indexing for efficient data retrieval and analysis
- Comprehensive device management capabilities

Data Types

Ampex offers an open architecture platform designed to address the unique data storage and management challenges faced by the defense industry, particularly the Department of Defense (DoD) weapon system portfolios. Its adaptability enables seamless integration of new input/output configurations, ensuring effective management and storage of any data type required.

- Seamless support for data interfaces: IRIG 106 Chapter 10 File Format, IRIG 106 Chapter 11 Packet Format, Network Acquisition, HD & SD Video, SDI, DVI, MPEG2 H.264/AVC, IRIG 106 Chapter 7 Output, GPS, IRIG-B HAVE QUICK Time Signals, and a variety of AMux 600/700 I/O Modules
- Versatile solution for handling diverse critical data types in the defense industry
- Enables effective management and storage of various Flight Test data formats
- Empowering defense professionals with comprehensive data handling capabilities.

System

Specifications ^{1 & 2}

¹ Specifications subject to change without notice, ² Contact Ampex for availability of options

CPU:	Intel Atom E3800 Series "Bay Trail"
Network Interfaces:	1 Gigabit Ethernet, 10/100Mbps Fast Ethernet, RS232/422, 'sliced-based' expansion
Removable Storage:	4TB
Network Protocols:	Varies by Configuration
Operating System:	Red Hat Enterprise Linux (RHEL) plus ACCE Framework
Encryption:	AES 256/FIPS 197, FIPS-140, Turnstile, and Commercial Solutions for Classified (CSfC)

Performance

NFS Data Rate:	1,000 Mb/sec
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Power

Power Input:	28VDC
Dissipation:	15W

Mechanical

Dimensions:	4.125" H x 3.5" W x 6.82" D
Weight (System):	4.6lbs

Environmental

Temperature:	-40°C to +71°C
Humidity:	0% to 95% RH
Vibration:	14 grms
Shock:	20 g. 11ms
EMI Compatibility:	MIL-STD-461

Module	Input	Output	Description
AM-132	2 (+2)	—	Video: RS-170A (NTSC/PAL) with MPEG2/4 Encoder, 2 audio, Event Tone, Time Insertion
AM-11x4	4 (+2)	—	Video Input: RS-170A (NTSC/PAL) matted "4 up" on a single 1440x1152 HD frame, 2 audio, incl. Event Tone, Time Insertion
AM-170x	—	—	MPEG-4/H.264 (AVC) Encoder with two channel audio; requires a video input module
AM-15F	1	—	Video: FC-AV (HSVN-9) Interface for F/A-18; Triple-width module
AM-156	6	—	Audio: CVSD at 32Kbps rate
AM-172	1 (+2)	—	Video: SDI/HD-SDI to 1080p with H.264 Encoder, KLV metadata, 2 audio
AM-173	1 (+2)	—	Video: HD DVI-A, DVI-D to 1080p with H.264 Encoder, 2 audio
AM-204	4	—	MIL-STD-1553B Bus Monitor (4 dual-redundant busses)
AM-228	8	—	ARINC 429 bus monitor
AM-261	1	—	IEEE1394B (FireWire) IIDC v1.31 DCAM Acquisition (400/800Mbps)
AM-264	1	—	IEEE1394B (FireWire) Bus Monitor (400/800Mbps)
AM-338	8	—	PCM: NRZ-L data with clock (RS-422 and TTL levels), data rate to 20Mb/s
AM-344	4	—	PCM: NRZ-L data with clock, Bi-phase, RS-422 and TTL levels, data rate to 20Mb/s
AM-413	3/2/1	—	Parallel input, programmable as 32bits x 1, or 16bits x 2, or 8bits x 3
AM-432	32	—	Discrete Inputs, TTL levels, debounced
AM-458	8	—	RS-232, RS-422/485 up to 1 million baud
AM-524	4	—	Analog with ICP interface: 16-bit resolution (Programmable Gain/Offset/Resolution)
AM-51b6	16	—	Analog with ICP interface: 16-bit resolution (Programmable Gain/Offset), requires AM-530a
AM-530a	—	—	Analog control module for AM-5xb6 with Digital Filter
AM-60x	1 / 2	—	Low overhead HOTLink II™ 400Mbps serial ports, one (AM-601) or two (AM-602) channels.
AM-801	1	1	IEEE802.3 Gigabit Ethernet for frames ("sniffing"), UDP, and TCP, input & output
AM-901	1	—	GPS: Time input and Time-Space-Position-Information channel
AO-381	—	1	PCM Output for on-board data reduction and telemetry downlink
AO-387	—	1	PCM Chapter 7 Output for on-board data reduction and telemetry downlink
AO-388	—	1	PCM Chapter 8 Output for on-board data reduction and telemetry downlink

Ampex Data Systems Corporation, A Delta Information Systems Company

26460 Corporate Ave., Hayward, CA 94545, USA

www.ampex.com, +1-650-367-2011, sales@ampex.com

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Tokyo Office +81-3-6433-9081, info@ampex.co.jp