

Rugged PC 104

ASR3104

Product Overview

ASR3104 is an expandable and compact yet high speed, reliable data, video, audio and other interfaces robust system / recorder carries SOF (Safety Of Flight) approval.

ASR3104 carries high performance on a one-piece rugged Data Monitor / Recorder and Management Computer designed specifically for Airborne, Land & Naval Military Tactical field recording & monitoring applications.

ASR3104 enables its OEM customers to utilize standard COTS PC104/+ cards, these cards integrated with its mechanical - Thermal slice designed to be added or removed upon specific project requirements. The modular construction of the ASR3104 allows additional of peripherals, accessories, and interfaces.

ASR3104 acquires all tactical data physical and logical formats and effectively compress the data to MPEG2/4 for recording. Data compression enables long time recording according customer's demand. ASR3104 enables recording more than 8 hours of Video and other interfaces.

The ASR3104 supports VxWorks, Integrity, Windows2000/XP, Linux/R.T./Embedded, and LinxOS, Kernels as well as other R.T. operating systems.

The ASR3104 is ideally suited for embedded applications requiring to survive harsh environments.



Applications

High-speed flight data / video recording

Military tactical field-recorder

Rugged environment Computer

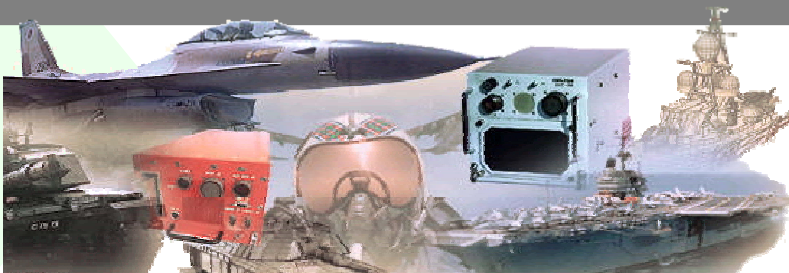
UAV monitoring & control

Missiles data processing

Video and Data Acquisition

Cockpit voice & data recording

Video surveillance for public transportation



Features

- Processor system
 - Data processing CPU - Pentium M ®
 - Second processor - PPC (optional)
 - Protocol controller – FPGA (optional)
- Memory: up to 1 GB SDRAM and 2TB embedded flash disk
- Recording & Monitoring interfaces
- Available ports
 - Video In – Composite RS170
 - Frame grabber to 15/30 fps, up to 4 channels
 - **MPEG2/MPEG4** Video Encoder, up to 4 channels
 - LCD Interface
 - 2xRS-232/422/485 Ports
 - 2x 1553, Arinc 429, CAN-bus up to 4 channels
 - Isolated Digital I/O – 8 bits
 - 1 Gbit Ethernet, FireWire 1394, 2x USB
 - Analog I/O, Audio
 - Fiber Channel
 - Removable **Flash Disk**: up to 256 GB capacity, 40MB/Sec. (Optional 60MB/Sec) sustain, 100Mb/Sec. burst data transfer
- Standard Interfaces: Keyboard & mouse 10/100 Ethernet, USB, audio – AC'97 Standard
- VGA Support up to 1600x1200 with up to 64 MB Memory
- OS support: **VxWorks**, Integrity, Windows 2000/XP, Linux/R.T./Embedded, QNX
- Expandable Construction
- Conduction cooling based
- Complete Array of Rugged Peripherals
- Shock & Vibrations enhancements
- Warranty - 1 Year with optional extension support

Environmental Characteristics

Temperature:

Operating: -35°c to +55°c.

Optional: -40°c to +71°c, +85°c (consult factory)

Intermittent: -40°c to +70°c

Humidity:

Operating/storage: MIL-STD-810C Method 507.3 Proc. 195% RH (non condensation)
Optional Conformal coating

Vibrations:

Hard Mount: MIL-STD-810D, Method 514.3, Category 4, Table 514.3- II & Fig. 514.3-25A

Shock Tray Mount: MIL-STD-810D, Method 514.3, Category 6

Shock:

Operating: MIL-STD-810D, Method 516.4, Proc. I, 30g @ 11ms. Saw Tooth

Explosive:

MIL-5400, Par. 3.2.2.4.10

EMI/RFI:

MIL-STD-461D

DRIP PROOF:

MIL-STD-810E

ALTITUDE:

Operating: 15,000 ft.

75,000 ft. is optional

None Operating: 80,000 ft

Software

- Run time API for fast disk data transfer
- Optional BSP for other R.T. kernels
- Recording and playback for interfaces
 - Single synchronized Time Stamp for all interfaces
 - Runs for playback also on desktop PC with same captured data files

Physical Characteristics

- Size: 88mm to 188mm High* x 178mm Wide x 174mm Deep (*additional heights available)
- Weight: up to 3.3 Kg / 4.8Kg (slots dependency).
- Power supply: 28VDC Input (704A compliant) / Consumption max. 40W / 60W. Maximum total expandable power consumption to 100 Watt
- Compliant to MIL-STD-461C and 704A