AMC-1000 Military Dual Core PC Airborne, Naval and Vehicles

Extended Temperature Range

AMC-1000 is a miniature military PC computer loaded with **Windows XP** Embedded, and/or INtime RMX for Windows . The computer is used on military planes, Fighters, Helicopters as well as on Autonomous Vehicles and on Naval Vessels. AMC-1000 is tailored to meet special requirements, such as various input output cards, additional serial ports, sound, video, A/D, 1553 bus, ARINC-429 CAN Bus etc'.

Base Line Configuration

- Dual Core ATOM D510 (2 Cores 4 Threads).
- L2 Cache 1MB.
- 8-128GB Flash Disk.
- DRAM - 1GB
- 4 x RS-232 4 x RS-422.
- VGA
- 4 x USB 2.0 (or 2 x PS2 + 2 x USB 2.0)
- 4 x 100 BaseT LAN ports
- Output discrete signals
  8 outputs of discrete signals via SI2308DS MOSFET. Each of the outputs is capable of sinking Continuous load current ratings to 800 mA @71°C, withstanding 60V in the off state.
- Input Discrete Signals
  4 x TTL discrete signals.
  4 x HV (28VDC) Isolated discrete signals.
- 1PPS interrupt time sync.
- Power Supply: 9-36VDC per MIL-704E, MIL-STD-1275B
- Environmental Conditions per MIL-STD-810F
- EMI/RFI per MIL-STD-461E
- Standard temperature range –20ºC to +71ºC,
- Extended temperature range from –40ºC to +71ºC,

Dimensions & Weight

135x100x250 (WXHXL) [mm], 5.5Lbs

Options

- RS-170, S-Video AUDIO Recording & Streaming via TCP/IP (MPEG4, H.264).
- Video Out—RS-170 & VGA
- MIL-STD-1553 - 1 or 2 channels with BC, RT, Monitor.
- ARINC-429
- A/D CONVERTER
- CAN Bus.

Software development

AMC-1000 is loaded with a development environment, drivers and code examples.

Test Cables

BES offers a set of test cables that could be used in software lab to run the computer during development.

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ETI Services Inc. **www.military-computers.com** **CAGE CODE: 1PZ92**
1400 N Jefferson St., Anaheim CA. 92807
Tel: +1-714-524-2986, Fax: +1-714-524-8771 E-mail: sales@military-computers.com

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Environmental Conditions

Temperature:

The AMC-1000 will not be damaged or affected by the effects of ambient air temperature as follows: Operating: The AMC-1000 shall meet performance requirements specified herein after exposure to temperatures from -20°to +71°C or-40° to +71°C.
Non-operating: (Storage/transportation) from
-54° to 85°C.

Relative humidity

Operating: 95% relative humidity (RH) with no
condensation.
Non-operating: 95% RH.

Vibration

According to MIL-STD-810F for Airborne, Helicopter or Vehicle environment.

Shock

According to MIL-STD-810E, 40g saw tooth for duration of 11msec.

Fungus

The AMC-1000 is non-nutrient to fungus growth according to the requirements in MIL-STD-810F.

Sand and Dust

The AMC-1000 shall operate as specified herein while and after being subjected to sand and dust as encountered in dry arid arias according to the requirements of MIL-STD-810F.

Thermal Design

The cooling of the components on the AMC-1000 PC cards, Power Supply and the Pentiums chip is accomplished by conduction through the aluminum enclosure of the unit.

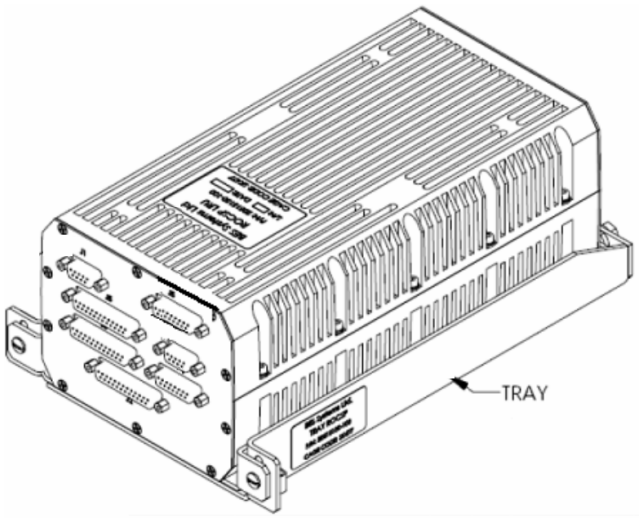
External Connectors

External connectors are used for interfacing with the subassemblies or equipment and are in accordance with requirement of MIL-STD-454.
Connector mating bodies are keyed, and keyed locations are varied to prevent improper installation.

Electromagnetic Interference:

AMC-1000 complies to MIL-STD-461E.

- CS101 Conducted Susceptibility, Power Leads, 30HZ-150KHz.
- CE101 Conducted Emissions, Power Leads, 30Hz - 10kHz
- CE102 Conducted Emissions, Power Leads, 10kHz - 10MHz
- RE102 - Radiated Emissions, 10 KHz to 18 GHz



AMC-1000 with a tray, for fast installation and removal

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