AMC-1000 Military PC Airborne & Vehicles

1.4GHz Pentium M
Extended Temperature Range

AMC-1000 is a miniature PC computer running **Windows XP** Embedded, Linux, and/or RMX for Windows . The computer is built for military planes, helicopter as well as Ground Mobile environment. AMC-1000 has growth capability options, such as various input output cards, more serial ports, Sound, Video, A/D, 1553 bus, and Custom made boards.

Base Line Configuration

- 8-128GB Flash Disk.
- DRAM - 512MByte, (option -1GB)
- Pentium M 1.4GHz
- 2MBytes high performance cache
- 8 x Serial Ports RS-232/422.
- XVGA (Intel Ext. Graphics II Controller)
- 4 x USB 2.0 (or 2 x PS2 + 2 x USB 2.0)
- LAN A - 4 x 100 BaseT LAN ports
- Environmental Conditions per MIL-STD-810F
- EMI/RFI per MIL-STD-461C
- Temperature range From –40ºC to +71ºC

Power Supply

9-36VDC max 30W per MIL-STD-704E.
MIL-STD-1275B

WINDOWS RMX Real Time

INTIME RMX for Windows for critical I/O (real time operating system), runs in parallel with Windows XP Embedded

Dimensions & Weight

135x100x250 (WXHXL) [mm],
5.15"x4.0"x10.0" (WXHXL),
Weight: 5.0Lbs

Options

- **Two independent LAN ports**
  - **LAN A** connected to HUB SWITCH with 4 x 100/100BaseT ports.
  - **LAN B is** 100/100BaseT port
- **RS-170, S-Video & AUDIO Recording & Streaming via TCP/IP (MPEG4, H.264)**.
- **MIL-STD-1553**
  MIL-STD-1553 BUS Monitor, BUS Controller, Remote Terminal
- **ARINC-429**
  ARINC-429 interface, 4 x RX, 2 x TX.
- **Discrete Signals**
  4 x TTL Input x 4 discretes
  4 x OPTO isolated 28VDC discretes.
- **GPS**
  Interrupts and time, synch. to 1PPS

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July 2009

BES Systems Ltd.

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 –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 or Helicopter or Vehicle environment.

Shock

According to MIL-STD-810E, 40g 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.

Salt Fog:

The AMC-1000 is resistant to the corrosive effects of salt fog environment per MIL-STD-810F.

Reliability:

MTBF of 10,000 hours
Mean Time To Repair (MTTR) < 30 minutes.

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.

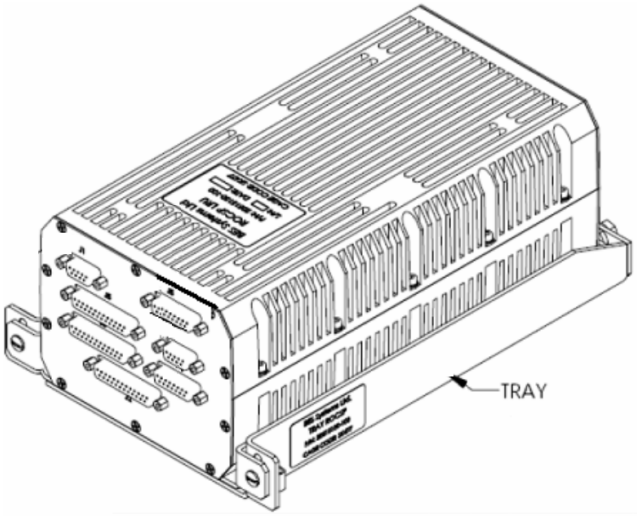
External Connectors

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 as specified with its internal boards, complies to MIL-STD-461D.

- CE101 Conducted Emissions, Power Leads, 30Hz - 10kHz
- CE102 Conducted Emissions, Power Leads, 10kHz - 10MHz
- CS101 Conducted Susceptibility, Power Leads, 30Hz - 50kHz
- RE102 Radiated Emissions, Electric Field, 100kHz - 10GHz
- RS101 Radiated Susceptibility, Magnetic Field, 30Hz - 100kHz



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

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