AVC-301M
Rugged Military Vehicle PC

AVC-310M Rugged Vehicle PC

Extended Temperature Range

AVC-301M is a miniature PC computer running Windows XP Embedded. The computer is built for military vehicle environment. AVC-301M has growth capability options, such as various input output cards, more serial ports, Sound, Video, A/D, CAN bus, and external or internal power supply.

Base Line Configuration

- Dual Core ATOM D510 1.60 GHz. (2 Cores 4 Threads), Cache 1MB
- RAM - 1 or 2GB
- 6-40VDC per MIL-STD-704E, MIL-STD-1275B
- 8-128GBGB Flash Disk (removable).
- 8 or 16 Serial Ports RS-232/422.
- VGA
- 4 x USB 2.0
- 4 x 100/100BaseT LAN
- Discrete signals
- Environmental Conditions per MIL-STD-810F
- EMI/RFI per MIL-STD-461E
- operation Temperature Range -20ºC to +71ºC. or -40ºC to +71ºC
- Storage –40ºC to +71ºC.
- Audio Out

Growth Capability

AVC-301Mhas growth capability options, such as various input output cards, various interfaces such as CAN BUS, MIL-STD-1553 etc'.

Dimensions & Weight (without tray)

131x100x250 (WXHXL) [mm],
5.15"x4.0"x10.0" (WXHXL),
Weight: 5.0Lbs

Options

- RS-170 Video video Capture
- Video Out: RS-170, or STANAG 3350
- MPEG4 Streaming via LAN
- A/D Converter
- ARINC-429
- IRIG-B or 1PPS Time Synchronization
- On board GPS
- Internal 5msec interrupt synched w. 1PPS
- VxWorks
- Extended operational temperature range –40ºC to +71ºC

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Environmental Conditions

Temperature:

The AVC-301M will not be damaged or affected by the effects of ambient air temperature as follows: Operating: The AVC-301M shall meet performance requirements specified herein after exposure to temperatures from
-20°/ or -40° to +71°C
Non-operating: (Storage/transportation) from -40° to +71°C.

Relative humidity

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

Vibration

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

Shock

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

Fungus

The AVC-301M is non-nutrient to fungus growth according to the requirements in MIL-STD-810F.

Sand and Dust

The AVC-301M 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 AVC-301M is resistant to the corrosive effects of salt fog environment per MIL-STD-810F.

Reliability:

MTBF of 10,000 hours

Thermal Design

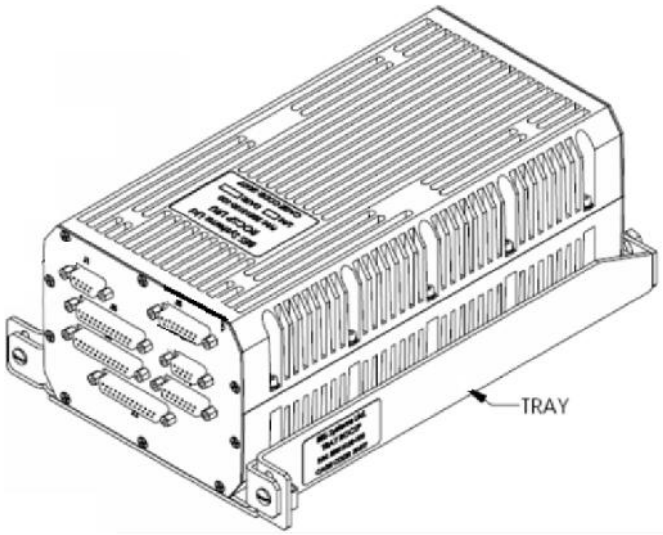
The cooling of the components on the AVC-301M cards, Power Supply and the Pentiums chip is accomplished by conduction through the aluminum enclosure of the unit.

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:

The AVC301-M as specified with its internal boards shall meet the requirements of MIL-STD-461E, for CE102, CS101, RE102, **RS103**, with all external cabling routed with shielded cables.
CE102— 10KHz to 10MHz on AVC301-M 28VDC power leads.
CS114— Conducted Susceptibility bulk cable injection, 10 kHz to 30 MHZ
RE102— Electrical Field Radiated Emission, frequency range of 100 KHz to 1.0 GHz.
RS103—Susceptibility to Radiated Electric Field 2MHz to 2.0 GHz.



AVC-301M with a tray, for fast installation and

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