

# 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

- ◆ 6-40VDC per MIL-STD-704E, MIL-STD-1275B
- ◆ 8-128GB Flash Disk (removable).
- ◆ DRAM - 1-2GB
- ◆ ATOM N270 or Dual Core D510 1.66GHz
- ◆ 1MB high performance cache
- ◆ 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 -20°C to +71°C.
- ◆ Storage -40°C to +71°C.

#### Growth Capability

AVC-301M has growth capability options, such as various input output cards, PCMCIA, more serial ports, CAN BUS, MIL-STD-1553 and external or internal power supply.

##### CAN BUS

- ◆ Sound
- ◆ RS-170 MPEG4 streaming via LAN
- ◆ Video Out : NTSC/PAL Streaming, or STANAG 3350

#### Dimensions & Weight (without tray)

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

#### More Options

- ◆ RS-170 Video video Capture
- ◆ 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 -40°C to +71°C



ETI Services Inc. [www.military-computers.com](http://www.military-computers.com)

1400 N Jefferson St., Anaheim CA. 92807 CAGE CODE: 1PZ92

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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 areas 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:*

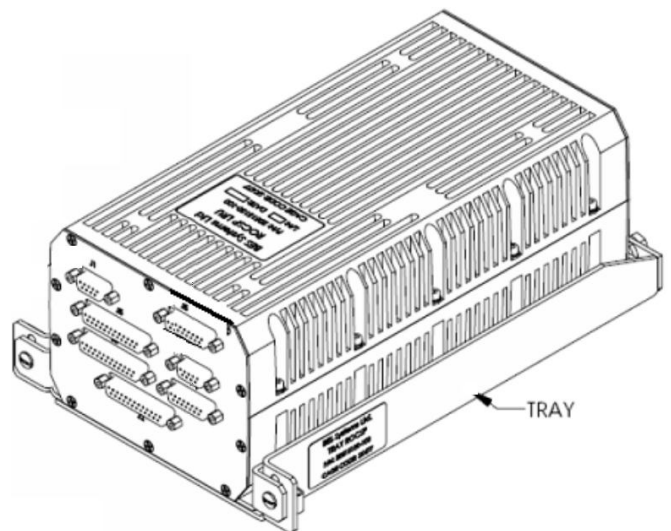
The AVC301-M as specified with its internal boards shall meet the requirements of MIL-STD-461E, for CE102, CS101, RE102, **RS103**, with all external cabling routed with shielded cables.

**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 removal



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