

AMC-300B Avionic PC for AIM9L & UAVs

Extended Temperature Range

Miniature Airborne PC computer running Embedded Windows XP/7 on ATOM N270 CPU, 1GB. AMC-300B is built and qualified for AIM-9L and P-4 type ACMI POD tubes. It is used on fighter planes such as F-16 "Wing Tips.

Features

- ◆ 1GB RAM
- ◆ 8-256GB Flash disk, XP Embedded
- ◆ 10/100BaseT Ethernet
- ◆ 4 x RS232/RS422/RS485
- ◆ 4 x USB 2.0 host
- ◆ SoundBlaster with output impedance
- ◆ 8 ohm or 50Kohm
- ◆ SVGA
- ◆ 1-2 x MIL-STD-1553, Bus controller, Remote-terminal, Bus-monitor
- ◆ I/O—Discrete signals
- ◆ Support for 1.8" micro SATA

Options

- ◆ RS-170 output

AMC-300B, Construction

The AMC-300B, is designed and constructed in accordance with the general requirements of MIL-STD-454.



Dimensions & Weight

100x100x255 (WXHXL) [mm],
Weight: 5.0Lbs

Power Supply requirements

A single 18-36VDC per MIL-STD-704A

Discrete Signals

Input

4 x TTL discrete signals
4 x OPTO isolated 28VDC discrete signals

Output

8 x 28VDC discrete Signals

1PPS

Interrupts and time, synch. to 1PPS

Option: TDMA Data-Link Controller

ETI Services Inc. CAGE CODE: 1PZ92

1400 N Jefferson St., Anaheim CA. 92807 Tel: +1-714-524-2986,
Mobile: +1-714-932-9669 Fax: +1-714-524-8771 E-mail: ezra@etiservicesinc.com

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Environmental Conditions

Temperature:

The AMC-300B will not be damaged or affected by the effects of ambient air Operation temperature: -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 AIM9L POD or UAV..

Shock

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

Fungus

The AMC-300B is non-nutrient to fungus growth according to the requirements in MIL-STD-810F.

Sand and Dust

The AMC-300B shall operate as specified herein while and after being subjected to sand and dust as encountered in dry arid arias according to MIL-STD-810F.

Salt Fog:

The AMC-300B is resistant to the corrosive effects of salt fog environment per the requirements of MIL-STD-810F.

Thermal Design

The cooling of the components on the AMC-300B 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 MIL-STD-454. Connectors mating bodies are keyed, and keyed locations are varied to prevent improper installation.

Electromagnetic Interference:

AMC-300B as specified with its internal boards, complies to MIL-STD-461E.

- ◆ 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

Reliability:

MTBF of 30,000 hours

Mean Time To Repair (MTTR) < 30 minutes.

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