

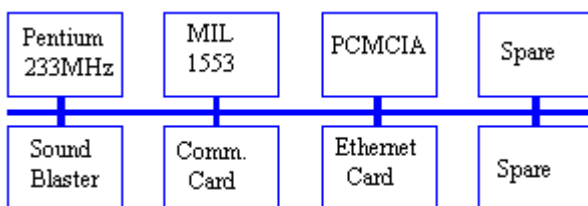


ETI services Inc.

Miniature Airborne PC Computer

Miniature qualified Airborne PC computer running Windows NT Embedded (NTE), or XP Embedded. The AMC-300 is built for the environment of F-16 "Wing Tips". It handles the algorithms and navigation in ACMI POD system and Airborne Data Links. The major hardware components of the AMC-300 are:

- ◆ 300MHz Pentium CPU, 128-256MB RAM
- ◆ 48-2564MB Disk On Chip
- ◆ 10Base2 or 10/100BaseT Ethernet
- ◆ RS-422 or RS-232 by software selection
- ◆ PCMCIA Drive up to 2 GB
- ◆ SoundBlaster, 8ohm or 50Kohm impedance
- ◆ MIL-STD-1553 Bus controller/Remote-terminal/Bus-monitor



Power Supply requirements

Option A - 5VDC 4A, +12VDC .3A, -12VDC 0.1A

Option B - 12-36VDC per MIL-STD-704D.



CPU Card General Description

- ◆ 300 MHz Pentium MMX™ Processor
- ◆ 128-256MB Synchronous DRAM
- ◆ Software selectable RS-232/422/485 ports
- ◆ Power Management and quick Boot
- ◆ Math coprocessor
- ◆ 16KB internal cache
- ◆ DiskOnChip (48MB-256MB)
- ◆ Real time clock
- ◆ Watchdog timer
- ◆ 7 DMA channels
- ◆ 15 interrupt channels
- ◆ 3 timer/counter channels
- ◆ ECP/EPP parallel port

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Thermal Design

The cooling of the components on the AMC-300 is accomplished by heat natural convection from its surface.

Environmental Conditions

Temperature:

The AMC-300 will not be damaged or affected by the effects of ambient air temperature as follows:

Operating: The AMC-300 shall meet performance requirements specified herein after exposure to temperatures from -54° to +71°C

Non-operating: (Storage/transportation) from -54° to 95°C.

Relative humidity

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

Non-operating: 95% RH.

Vibration

According to MIL-STD-810E for airborne environment.

Shock

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

Electromagnetic Interference

The AMC-300 as specified complies to the requirements of MIL-STD-461C.

Fungus

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

Sand and Dust

The AMC-300 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-810E.

Salt Fog:

The AMC-300 is resistant to the corrosive effects of salt fog environment according to MIL-STD-810E.

RELIABILITY:

The AMC-300 -PC has an MTBF of 10,000 hours at 25°C . Mean Time To Repair (MTTR) does not exceed 30 minutes.

SOUND BLASTER MODULE GENERAL DESCRIPTION

SoundBlaster, SoundBlaster Pro software compatible
Audio for pilot audio line – Level up to 40VPP into a load >20KOHM, 1KHz nominal.
16-bit and 8-bit stereo recording and playback.
5KHz to 44.1KHz sample rates
On-board ADPCM compression/decompression
Yamaha OPL3 compatible FM music synthesis
Built-in stereo audio power amplifier
Manual and/or software controlled speaker volume

1553 CARD GENERAL DESCRIPTION

The card is in single channel version dual redundant (dual channel is optional). The dual redundant channel may be programmed to operate as a Bus Controller or Remote Terminal or Monitor or Remote Terminal Concurrent Monitor. The card is supplied with C drivers, including source code, and menu driven software.

SALIENT FEATURES

Supports MIL-STD- 1553A, B
Operates as BC, RT, & RT .
32K x 16 per channel Dual Port RAM
Polling or Interrupt Driven Bus Controller
Major & Minor Frames
Programmable Intermessage Gap Bus Monitor
Monitor All or Selected Messages
16 Bit Time Tag

ETHERNET FUNCTION DESCRIPTION

SMC 91C94 (SMC 9000 series)
Ethernet bus, using CSMA/CD
10Base-2 (thin coax)
10M bits/second
4608 byte onboard RAM, accessed via I/O ports
300h, 320h, 340h, or 360h
IRQ2, IRQ3, IRQ4, IRQ5, IRQ10, IRQ11
External cabling: RG-58A/U, 50 ohm

2 October 2000