

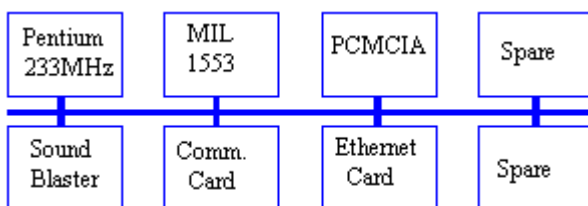


# ETI services Inc.

## 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

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