

# AMC

## Auxiliary Maintenance Computer



### A High Performance Airborne Server that Supports Military Aircraft Networking Activities

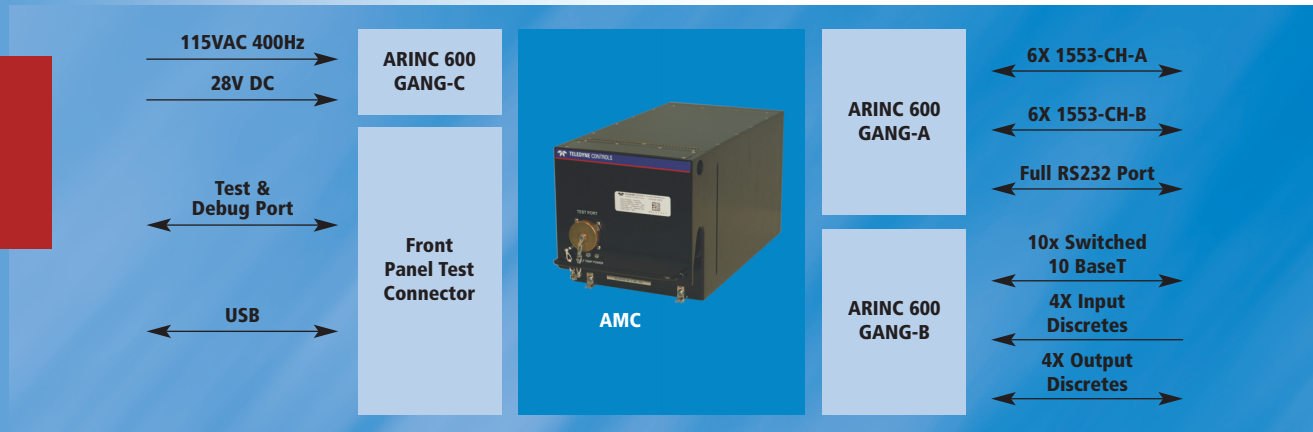
Teledyne's Auxiliary Maintenance Computer (AMC) is a high performance airborne server that was developed for the C-5 aircraft RERP. This ruggedized unit, which supports Mil-Std-1553B avionic busses and Ethernet networks, provides a stable computing platform for military customers' software applications.

#### Rugged and Reliable Interfaces

The AMC is designed for harsh environments and features solid-state flash drives to ensure high reliability and enhanced functionality at higher altitudes. It runs a Windows® Server Operating System on an Intel processor. The AMC supports six dual redundant 1553B serial interfaces, and ten channels of switched 10 BaseT/100 BaseTX Ethernet. The AMC is a modified commercial design that meets ARINC 600 6-MCU size, power and cooling requirements for airborne equipment.

#### Key Features

- Combination of COTS and custom assemblies
- Windows® Server Operating System
- Six (6) MIL-STD 1553B dual redundant avionic interfaces expandable to eight (8)
- Ten (10) port managed Ethernet switching capabilities
- AC and DC power input with battery backup UPS
- Internal fan cooling that requires no external cooling air
- Environmentally sealed with EMI containment electronics compartment
- Industry standard compact PCI technology
- Expandable to support additional functionality

**AMC  
Interface  
Block  
Diagram**

**TECHNICAL SPECIFICATIONS**
**Performance**

Main Processor & Speed	2 GHz i7 Intel Processor
RAM	4 GB ECC DRAM
Storage	32 GB Flash Disk
I/O Processors	Mil-STD-1553B controlled by a subsystem processor
Ethernet Switch	SNMP managed switch, with VLAN and separate management processor

**ARINC 600 Connector Interfaces**

Mil-STD-1553B	6 Dual Redundant 1553 capable, Remote Terminal, Bus Monitor modes of operation, and Bus Controller option
Ethernet	10 ports, 10 BaseT / 100 BaseTX auto sensing, auto negotiating, supports SNMP & VLAN
RS-232	1 channel
Aircraft Discretes	4 Inputs and 4 Outputs

**Front Panel Utility Connector Interfaces**

Interfaces	Display, keyboard, mouse, floppy drive, USB, Ethernet, test points
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**Power**

Primary	115VAC, 400Hz and/or 28VDC, Nominal Power - 100 watts, Maximum Power – 150 watts
Secondary	28VDC backup when operating on 115VAC, 400Hz
Battery	Field Replaceable 12 Volt DC – Provides backup power for orderly shutdown

**Mechanical**

Dimensions	7.62" H x 7.5" W x 14.2" D (ARINC 600, 6MCU) / 194 mm x 191 mm x 361 mm
Weight	26 lbs / 11.8 kg
Interface Connector	ARINC 600, Type 2 connector
Front Panel	Utility port connector, Battery access panel on front top, LEDs - power, fail, temperature

**Environmental & EMI**

DO-160D Environmental	A1, C, A, B (Sustained Acceleration), X, E, W, X, D, F, S
DO-160D EMI	X, A (Normal and Abnormal DC Power), A, A, A, R, M, xxC3, X, X, X
MIL-STD-704C	Normal and Abnormal AC Power
MIL-STD-810C	Operational Shock Method 516.2, Procedure I, Figure 516.2-2 Impulse Crash Safety Method 516.2, Procedure III, Figure 516.2-2
MIL-STD-810E	Acceleration Method 513.4 Procedure I & II Vibration Method 514.4 Category 5
MIL-STD-464	Bonding Section 5.10
Altitude	25,000 feet / 7,620 meters
Temperature	Operating -40°C to +55°C

