# AIRBORNE MISSION COMPUTER
ARM-AE1

Features:

- Intel Core i5 1.9Ghz Quad Core
- 16GB DDR3 Memory
- 2 touchscreen displays support (HDMI/DVI, VGA)
- 2/4 independent PAL/NTSC analog or HD/SD video inputs
- OS: Windows 7, Windows 8, Windows 10, VxWorks
- DO-160 Certified
- Analog/Digital signal proccessing support
- Multiple I/O ports including 2x1553, ARINC 429 Rx/Tx, 2xCANBus, multiple UARTS
- Removable USB SSD for mission plan loading, data recording and debrief support
- MIL 38999 III circular connections
- Robust and fan less convection cooling

The Airborne Mission Computer (ARM-AE1) is a highly reliable airborne mission control and information system, designed and built in the SERBIA by TELEOPTIK-Gyroscopes Electro-Opto Mechanics. ARM-AE1 is an ideal solution for military airborn (fixed wing and helicopter aircraft) and ground vehicles, where space and reliability are at a premium.
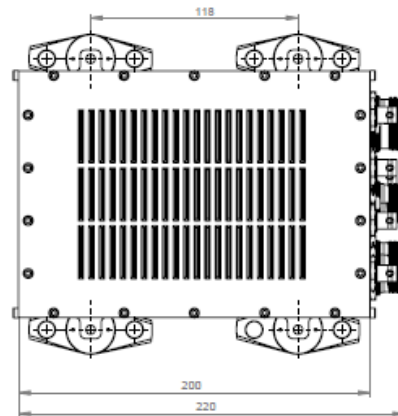
ARM-AE1 is optimised for Military airborne harsh environment requirements, offering exceptional performance and versatility in a small package.

ARM-AE1 supports analog/digital signal acquisition & processing enabling integrating function within system consisting of devices with analog /GPIO digital interfaces.

AIRBORNE MISSION COMPUTER
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Processor and Interface Characteristics

Processor & Memory & SSD	Intel Core i5 1.9Ghz Quad Core, 4/8/16GB, 256GB
Operation System	Windows 7, 8 ,10 / VxWorks
UARTS	4x RS – 232, 3x RS – 422
CAN BUS / Ethernet	2 Independent isolated channels / 1 channel
Discrete Input 28V / 5V	24 / 9
Analogue Inputs / Outputs	16 single ended (8 differential) / 2 (±10V with Programmable Gain)
MIL – STD – 1553B	2xCH1 + 2xCH2 (Dual redundancy configuration)
ARINC – 429	8 Rx + 16 Tx
Analogue VIDEO Input	2 independent channels (625/25 PAL & 525/30 NTSC)
Display Output / AUDIO Output	1xHDMI/DVI + 1xVGA / 1 Audio output

Environmental and Mechanics

Dimensions	156mm x 180.1mm x 265 mm (including connectors)
Weight	3.7 kg
Temperature, Vibration, Shock	MIL-STD-810G
EMI/EMC	MIL-STD-461/464
Power	28VDC, 1.7A

ARM-AE1 MIL-1553 & ARINC interfaces enables user to communicate with integrated third party devices such as Inertial Navigation System, Air Data Computer, HOTAS, Radio Navigation equipment, Airborne armament FCS, as well as pilot HMI or other USB or Ethernet peripherals.

ARM-AE1 supports specially interfaced removable USB Solid State Drive for loading mission execution sensitive and classified data and post mission downloading of video, audio and digital flight record data. Specially interfaced removable USB Solid State Drive is securely stored away from the ARM-AE1.

ARM-AE1 is provided with an two-way armament interface connection consisting of 1553/422/CAN/Ethernet digital data busses and dual co-axial BNC video links, enabling control of Electro-Optical and armmament delivery systems.

ARM-AE1 can output video to 2 independent touch-screen displays allowing the users to carry out tasks such as:

• Primary Flight Display & Navigation visualization using mapping and augmented reality software

• Operate the surveillance/armament function of a OE system/HH viewing video feed

• Record and play back video