



LAND



SEA



AIR



# AV700

MIL-STD FANLESS RUGGED  
SYSTEM COMPUTER



## POWER AUTOMATION COMPUTER

- Intel® Core™ i7-6822EQ Processor (2.8GHz, 4 cores, 8 threads)
- Up To 32GB DDR4 Memory
- 1 x VGA, 2 x Gigabit Ethernet, 2 x USB, 2 x COM
- Rugged MIL-DTL-38999 connectors
- 9V~36V DC-in

# Specifications

## SYSTEM

|                      |  |
|----------------------|--|
| High Power Processor | Intel® Core™ i7-6822EQ Processor (Frequency 2.0GHz, Turbo Boost Frequency up to 2.8GHz), 4-Core, 8 Thread Support, 8MB SmartCache.<br>Build-in Turbo Boost Technology 2.0, VPro and Hyper-Threading support. |
| Memory type          | 2 x SODIMMs up to 32GB DDR4 2133MHz SDRAM  |
| Chipset              | Intel® QM170 Platform Controller Hub   |

## DISPLAY

|                    |                            |
|--------------------|----------------------------|
| Graphics Processor | Intel® HD Graphics 530     |
| Resolution         | Up to 1920x1080@60Hz 32bpp |

## STORAGE

|         |              |
|---------|--------------|
| HDD/SDD | 1 x 2.5" SSD |
|---------|--------------|

## ETHERNET

|          |  |
|----------|--|
| Ethernet | 1x Intel® i210IT Gigabit Ethernet<br>1x Intel® i219LM Gigabit Ethernet |
|----------|--|

## FRONT I/O

|              |                                     |
|--------------|-------------------------------------|
| DC-In        | 1 (Amphenol TV07RW-11-54P)          |
| Power Button | 1 x Power Button with LED backlight |
| Ground Screw | 1 x M4 Screw                        |

## REAR I/O

|    |                                  |
|----|----------------------------------|
| X1 | 1 x LAN (Amphenol TV07RW-13-98S) |
| X2 | 1 x LAN (Amphenol TV07RW-13-98S) |
| X3 | 2 x USB (Amphenol TV07RW-13-98S) |
| X4 | 2 x COM (Amphenol TV07RW-13-35S) |
| X5 | 1 x VGA (Amphenol TV07RW-13-98S) |

## POWER REQUIREMENT

|             |   |
|-------------|---|
| Power Input | Standard: DC-In 9~36V<br>Optional : MIL-STD-1275, MIL-STD 704 and DO-160 power supply, 12 to 40V (150W max) |
|-------------|---|

## APPLICATIONS, OPERATING SYSTEM

|                  |   |
|------------------|---|
| Applications     | Commercial and Military Platforms Requiring Compliance to MIL-STD-810G Embedded Computing, Process Control, Intelligent Automation and manufacturing applications where Harsh Temperature, Shock, Vibration, Altitude, Dust and EMI Conditions.<br>Used in all aspects of the military. |
| Operating System | Windows 10 64Bit<br>Ubuntu14.04, Fedora 20/23, RedHat Linux EL 7.1/7.2  |

## PHYSICAL

|                       |  |
|-----------------------|--|
| Dimension (W x D x H) | 230 x 83 x 280mm (9.06" x 3.27" x 11.02")              |
| Weight                | 6.0 Kg (13.2lbs)                                       |
| Chassis               | Aluminum Alloy, Corrosion Resistant                    |
| Finish                | Anodic aluminum oxide (Color Iron gray)                |
| Cooling               | Natural Passive Convection/Conduction. No Moving Parts |
| Ingress Protection    | IP65   |

## ENVIRONMENTAL

|                   |  |
|-------------------|--|
| MIL-STD-810G Test | Method 507.5, Procedure II (Temperature & Humidity)<br>Method 516.6 Shock-Procedure V Non-Operating (Mechanical Shock)<br>Method 516.6 Shock-Procedure I Operating (Mechanical Shock)<br>Method 514.6 Vibration Category 24/Non-Operating (Category 20 & 24, Vibration) Method 514.6 Vibration Category 20/Operating (Category 20 & 24, Vibration) Method 501.5, Procedure I (Storage/High Temperature)<br>Method 501.5, Procedure II (Operation/High Temperature)<br>Method 502.5, Procedure I (Storage/Low Temperature)<br>Method 502.5, Procedure II (Operation/Low Temperature)<br>Method 503.5, Procedure I (Temperature shock) |
| Reliability       | No Moving Parts; Passive Cooling.<br>Designed & Manufactured using ISO 9001/2000 Certified Quality Program.  |
| EMC               | MIL-STD-461E :<br>CE102 basic curve, 10kHz - 30 MHz<br>RE102-4, (1.5 MHz) -30 MHz - 5 GHz<br>RS103, 1.5 MHz - 5 GHz, 50 V/m equal for all frequencies<br>EN 61000-4-2: Air discharge: 8 kV, Contact discharge: 6kV<br>EN 61000-4-4: Signal and DC-Net: 1 kV  |

|                   |   |
|-------------------|---|
|                   | EN 61000-4-5: Leads vs. ground potential 1kV, Signal und DC-Net: 0.5 kV EN<br>61000-4-2: Air discharge: 8 kV, Contact discharge: 6kV<br>EN 61000-4-4: Signal and DC-Net: 1 kV<br>EN 61000-4-5: Leads vs. ground potential 1kV, Signal und DC-Net: 0.5 kV EN<br>61000-4-2: Air discharge: 8 kV, Contact discharge: 6kV<br>EN 61000-4-4: Signal and DC-Net: 1 kV<br>EN 61000-4-5: Leads vs. ground potential 1kV, Signal und DC-Net: 0.5 kV EN<br>55022, class A<br>EN 61000-4-3: 10V/m<br>CE and FCC |
| Operating Temp.   | -40 to 70°C (ambient with air flow)   |
| Storage Temp.     | -40 to 85°C   |
| Relative Humidity | 5% to 95%, non-condensing.  |

## Ordering Information

AV700

MIL-STD Fanless Rugged System with Intel® Core™i7-6822EQ Processor, IP65 protection, MIL-STD D38999 Connectors, 9V to 36V DC-in, Wide Temp. -40 to 70°C

## Dimension

