AV600TH-A20-PA1

Military IP66 Mission GPU Computer

MIL-STD 461/1275 MIL-STD 810

- MIL-STD 810 Thermal, shock, vibration, Humidity / EMI / EMC conditions
- IP66 Chassis with D38999 connectors
- Intel® W-11865MRE, up to 8 cores
- 64GB DDR4 SO-DIMM ECC or non ECC support
- NVIDIA RTX™ A2000 MXM 8GB GDDR6 2560 CUDA cores
- 2.5” SATA SSD
- 1x 3G-SDI Capture Card (Options)
- MIL-STD-461 18V~36V DC-Input
- Extreme Temperature: -20 to 55°C degree

Specifications

System	
CPU	Intel® 11th gen. Tiger Lake W-11865MRE Processors, 2.60GHz Max 4.70GHzup to 8 cores, integrated Intel® UHD Graphics
Memory type	64GB DDR4 SO-DIMM ECC or non ECC support
CHIPSET	Intel® RM590E (support ECC, with Xeon CPU) /QM580E
GPGPU	NVIDIA RTX™ A2000 GA104-955 GPU 8GB GDDR6 memory, 2560 CUDA cores
Video Capture	
SDI	1x 3G-SDI Capture Card
UART	
COM	1x RS232, 2x RS422/485
Storage	
SATA	2.5” SSD
Ethernet	
Ethernet	2x 10/100/1000 Ethernet Ports
Display	
DVI	1x support NTSC/PAL
Front I/O	
X1	2x GbE LAN + 2x USB2.0 + 1x COM(RS232) with D38999 Nickel plating connector
X2	1x VGA + 4x DI / 4x DO + 3x RS422 with D38999 Nickel plating connector
X3	1x USB3.0 , with D38999 Nickel plating connector
X4	1x USB3.0 , with D38999 Nickel plating connector
X5	1x DC-in , with D38999 Nickel plating connector
LED	1x SSD/HDD LED indicator
switch	1x IP66 power button , with LED indicator
Power	
Power input	MIL-STD-461 18V~36V DC-Input

Operating System

OS	Windows® 10 or **11(TPM 2.0 By Request)** 64-bit Linux (support by request)

Physical

Dimension	250(L) x 313.5 (W) x 100 (H)mm
Weight	10Kg (22 lbs.)
Chassis	SECC
Heatsink	Heatsink Aluminum Alloy, Corrosion Resistant

Environmental

Green Product	RoHS, WEEE compliance
Operating Temp.	-20 to 55°C
Storage Temp.	-40 to 85°C
Relative Humidity	5% to 95%, non-condensing

MIL-STD-810 Specifications (Operating) Design to meet

Method 502.6 Procedure 2	Low Temperature	-35°C, 4 hours, ±3°C
Method 501.6 Procedure 2	High Temperature	+63°C, 4 hours, ±3°C
IEC 60529	Immersion	class IP66
Method 510.7	Sand Dust	Particle density: 10 +/- 7 g/m^3 Air velocity: 8.9m/s Dust particle size of maximum 149µm Temperature: 60°C
Method 509.6	Salt Fog	Salt type: 5% - NaCl
Method 514.6	Vibration	5-500Hz, Vertical 2.20Grms, 40mins x 3axis.
Method 516.6	Shock	20 Grms, 11ms, 3 axes.
Method 506.6	Rain	Rate: 100 mm/hr. Wind velocity: 25km/hr. Duration: 40min
Method 513.8	Acceleration	3 g's, 6 directions, 1 minute

MIL-STD-810 Specifications (None-Operating) Design to meet

Method 502.6 Procedure 1	Low Temperature Storage	-40°C, 4 hours, change rate: ≦20°C/ Hour -15°C, 72hours (By request)
Method 501.6	High Temperature Storage	+71°C, 4 hours, change rate: ≦20°C/ Hour

Procedure 1		+63°C, 240 hours (By request)
Method 507.6	Humidity	10 diurnal cycles at 30÷60°C@95% RH acc.
Method 510.7	Sand Dust	Particle density: 1.1g/m^3 Air velocity: 18-29 m/s Temperature: 60°C
Method 504.1	Contamination By Fluids	Diesel oil, Motor Oil-15w40/WSS-M2C171-E, Hydraulic OIL – ISO-VG15
Method 514.8	Vibration	5-500Hz, Vertical 2.20Grms, 40mins x 3axis.
Method 516.6	Shock	20 Grms, 11ms, 3 axes.

MIL-STD-461 Design to meet		
Conducted Emissions Power Leads	CE101	30Hz – 10kHz
Conducted Emissions Power Leads	CE102	10kHz – 10MHz
Conducted Susceptibility Power Leads	CS101	30Hz – 150kHz
Conducted Susceptibility Transients, Power Leads	CS106	
Conducted Susceptibility Bulk Cable Injection	CS114	10kHz – 200MHz
Conducted Susceptibility Damped Sinusoidal Transient, Cables & Power Leads	CS116	10kHz – 100MHz
Radiated Emissions Magnetic Field	RE101	40Hz – 100kHz
Radiated Emissions, Electric Filed	RE102	10kHz – 18GHz
Radiated Susceptibility Magnetic Field	RS101	30Hz – 100kHz
Radiated Susceptibility Electric Field	RS103	2MHz – 18GHz, 50 V/m
MIL-STD-704 (By Request)		
LDC101	Load Measurements	
LDC102	Steady State Limits for Voltage	

LDC103	Voltage Distortion Spectrum
LDC104	Total Ripple
LDC105	Normal Voltage Transients
LDC201	Power Interrupt
LDC301	Steady State Limits for Voltage
LDC401	Steady State Limits for Voltage
LDC501	Starting Voltage Transients
LDC601	Power Failure
LDC602	Phase Reversal

MIL-STD-1275 (By Request)

Steady State	20V-33V
Surge Low	18V/500ms
Surge High	100V/500ms