



LAND



SEA



AIR

AV600-TH-A20H

Military IP66 Mission GPU Computer



- 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°C to +60°C degree



Specifications

System

CPU	Intel® 11th gen. Tiger Lake W-11865MRE Processors, 2.60GHz Max 4.70GHz up 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
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UART

COM	1x RS232, 3x RS422/485
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Storage

SATA	2.5" SSD
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Ethernet

Ethernet	2x 10/100/1000 Ethernet Ports
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Display

DVI	1x support NTSC/PAL
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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
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Operating System

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

Dimension	250(W) x 325 (L) 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°C to +60°C
Storage Temp.	-40°C 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	Low Temperature Storage	-40°C, 4 hours, change rate: ≤ 20°C/ Hour
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Procedure 1		-15°C, 72hours (By request)
Method 501.6	High Temperature Storage	+71°C, 4 hours, change rate: $\leq 20^{\circ}\text{C}/\text{Hour}$
Procedure 1		+63°C, 240 hours (By request)
Method 507.6	Humidity	10 diurnal cycles at $30\pm 60^{\circ}\text{C}@95\% \text{RH acc.}$
Method 510.7	Sand Dust	Particle density: $1.1\text{g}/\text{m}^3$ 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

Order information

Model	AV600-TH-A20H	AV600-TH-A45
CPU	W-11865MRE	
GPU	MXM A2000	MXM A4500
Memory	DDR4 up to 64GB	
Storage	2x 2.5" SATA III SSD	
I/O		
USB	2x USB3.0 + 2 x USB2.0	
LAN	2x	
COM	1x RS232 + 3x RS4322	
Display	1x VGA	
Power	9V~36V DC-IN	