AV600X-CH

Military Mission Computer, Data Recorder

MIL-STD 810 MIL-STD 461/1275

- MIL-STD 810 Thermal, shock, vibration, Humidity / EMI / EMC conditions
- Data Recorder up to 32TB storage with RAID 0/1/5
- Intel® 9th Gen. Coffee Lake (H) Xeon® E-2276ML processor
- Up to 128GB DDR4 SO-DIMM, non-ECC and ECC
- NVIDIA RTX™ A1000, 2048 CUDA® cores, 4GB GDDR6 memory
- NVIDIA RTX™ A2000, 2560 CUDA® cores, 8GB GDDR6 memory
- NVMe 3.0 512GB.(MB/sec, Max.) 3,400/3,200 MB
- MIL-STD-461 18V~36V DC-Input (Options for MIL-704/1275)
- Extreme Temperature : -40 ~+55 Degree
- Optional with External GPU Turbo Kit
- Dimensions : 250(W) X 325(L) X 100(H) mm

Special Request :

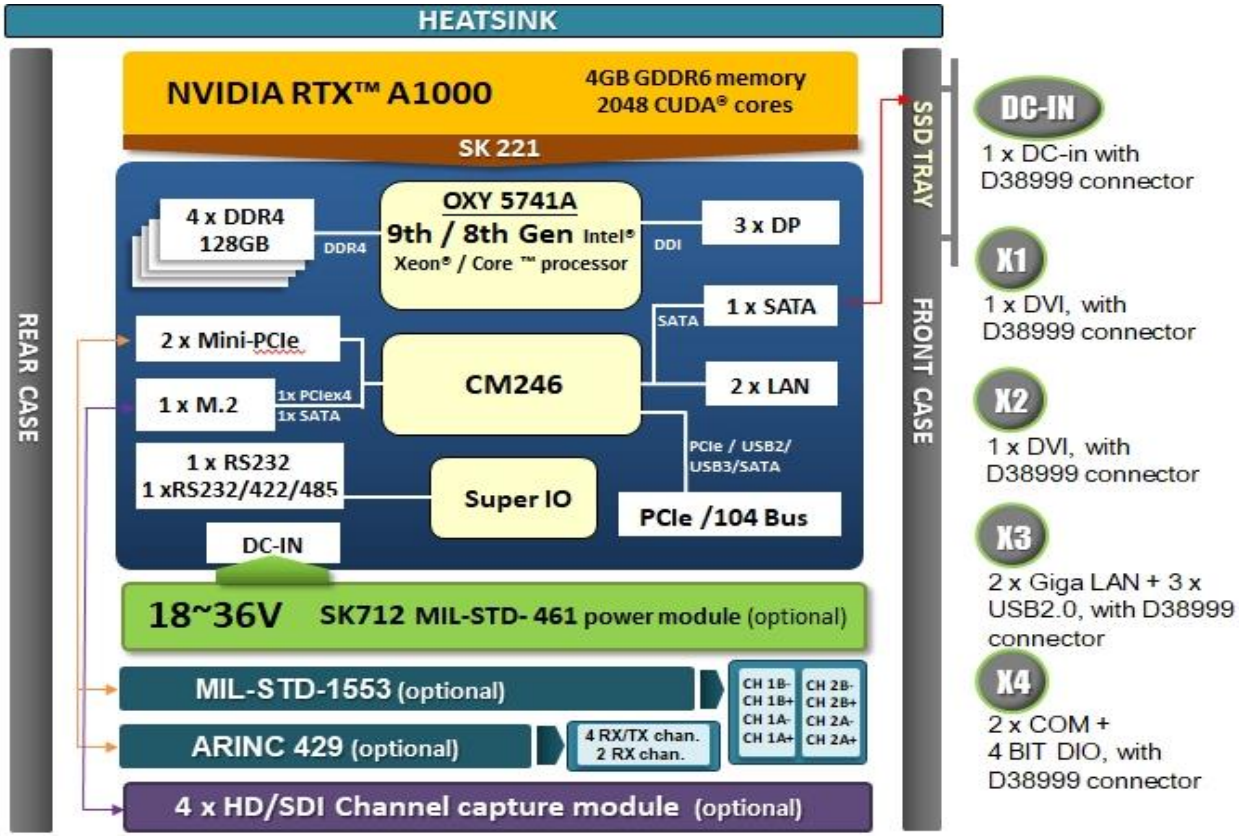
- Frame Grabber : 4xCH HD-SDI
- Discrete IO : 4xDI 4Xdo
- Dual Redundant MIL-STD-1553 connections
- Dual ARINC 429 input connections
- Data Recorder: Up to 32TB SATA III SSD

Specifications

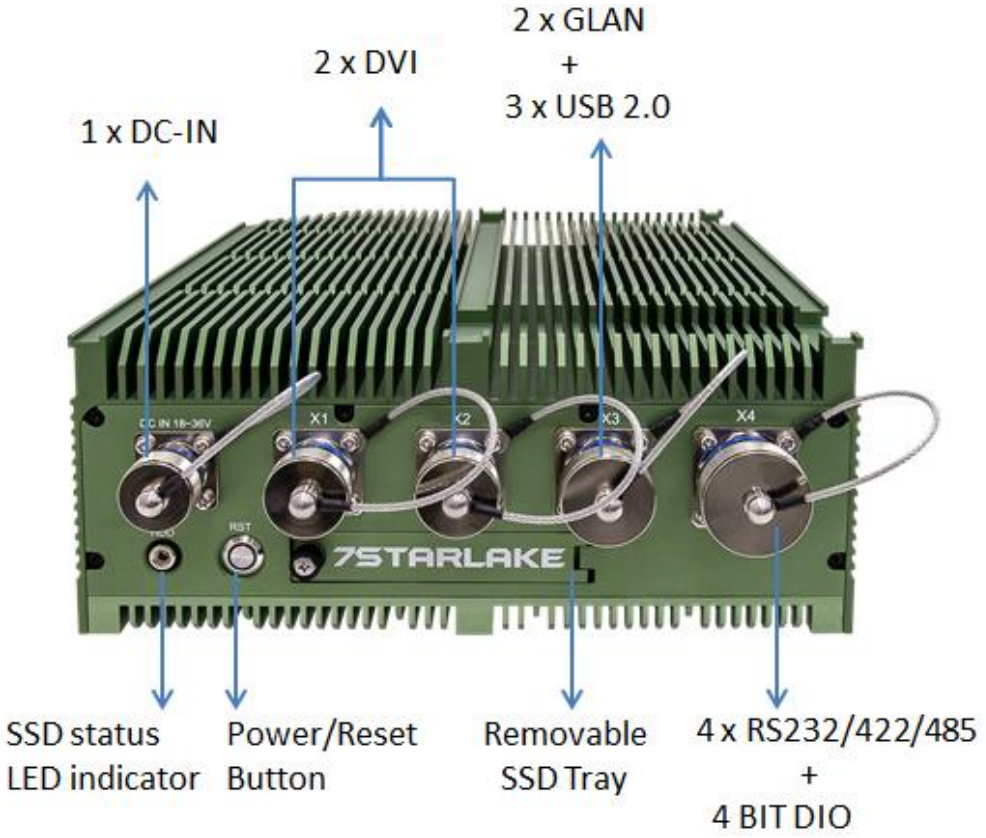
System	
CPU	Xeon E-2276ML (6 Cores/12 Threads, 12M Cache, up to 4.20 GHz), 25W
Memory type	4 x 260 Pin DDR4 2400MHz SO-DIMM (up to 128GB, XEON®SKU support ECC)
CHIPSET	CM246
GPU (optional)	NVIDIA RTX™ A1000/A2000 embedded graphics - Standard MXM 3.1 Type A (82 x 70 mm) - 2048/2560 CUDA® cores, 16/20 RT Cores, and 64/80 Tensor Cores - 6.66/8.25TFLOPS peak FP32 performance - 4GB/8GB GDDR6 memory, 128-bit
On Board Storage	NVMe 3.0 512GB.(MB/sec, Max.) 3,400/3,200 MB
Expansion Slot	1x M.2(M-key, Type: 2280 , SATA/PCIe 3.0 x 4 NVMe) 2x Mini PCIe Full size (USB / PCIe and 1x micro SIM Card) 1x PCIe/104, 1x FPE
TPM	TPM 2.0 (SLB9665)
Video Input(optional)	4 Channel capture module for 4 x SMA male connectors (optional)
Storage	
SATA	4x 2.5”8TB SSD, Up to 32TB
M.2	1x M.2(M-key, Type: 2280 , SATA/PCIe 3.0 x 4 NVMe)
Ethernet	
Ethernet(Internal)	2x 10/100/1000 Ethernet Ports
Front I/O	
DC-in	1x DC-in , with D38999 connector
X1	1x DVI , with D38999 connector
X2	1x DVI , with D38999 connector
X3	2x GLAN + 3x USB 2.0, with D38999 connector
X4	1x RS232/422/485 + 1x RS232 + 4 BIT DIO, with D38999 connector
LED	1x SSD/HDD LED indicator
switch	1x IP65 power button , with LED indicator
Power	
Power input	MIL-STD -461 18V~36V DC-Input
Operating System	
OS	Windows® 10 64-bit / Linux (support by request)
Physical	
Dimension	250(W) x 325(L) x 100 (H)mm , (L=395mm for Data recorder, Options)

Weight	10.5kg	
Chassis	Aluminum Alloy	
Heatsink	Heatsink Aluminum Alloy, Corrosion Resistant	
ENVIRONMENTAL		
Green Product	RoHS, WEEE compliance	
Operating Temp.	-40°C to +60°C	
Storage Temp.	-40°C to +85°C	
Relative Humidity	5% to 95%, non-condensing	
MIL-STD-810 SPECIFICATIONS (OPERATING)		
Method 507.5, Procedure II (Temperature & Humidity)		
Method 516.6 Shock-Procedure V Non-Operating (Mechanical Shock)		
Method 516.6 Shock-Procedure I Operating (Mechanical Shock)		
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)		
Method 501.5, Procedure II (Operation/High Temperature)		
Method 502.5, Procedure I (Storage/Low Temperature)		
Method 502.5, Procedure II (Operation/Low Temperature)		
Method 503.5, Procedure I (Temperature shock)		
RELIABILITY		
No Moving Parts; Passive Cooling.		
Designed & Manufactured using ISO 9001 / 2000 Certified Quality Program.		
MIL-STD-461		
Conducted Emissions Power Leads	CE102 basic curve	10kHz – 10MHz
Radiated Susceptibility Electric Field	RS103	1.5 MHz – 3GHz, 50 V/m equal for all frequencies
		2MHz – 80MHz, 50 V/m equal for all frequencies
		80MHz – 3GHz, 50 V/m equal for all frequencies
		3GHz – 5GHz, 50 V/m equal for all frequencies
	RE102-4	1.5 MHz -30 MHz - 5 GHz
MIL-STD-1275 (OPTIONS)		
	Steady State	20V-33V
	Surge Low	18V/500ms
	Surge High	100V/500ms

Block Diagram



Appearance



Ordering Information

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Model no.	**AV600X-CH-A10**	**AV600X-CH-A10P**	**AV600X-CH-A20**	**AV600X-CH-A20P**	**AV600X-CH-A20R32**
CPU	Xeon E-2276ML				
GPU	Nvidia Quadro MXM A1000		Nvidia Quadro MXM A2000		
RAM	DDR4 , up to 128GB				
AES key	Optional				
Swap CMOS	Optional				
Storage 1	Optional to M.2 NVMe , up to 4TB				
Storage 2	Swap SATA SSD , up to 2TB				STAT III 8TB
Storage 3	NA				STAT III 8TB
Storage 4	NA				STAT III 8TB
Storage 5	NA				STAT III 8TB
I/O					
DC-IN	DC-IN , with DTL38999 connector				
X1	1 x DVI , with DTL38999 connector				
X2	1 x DVI , with DTL38999 connector				
X3	2 x GLAN + 3 x USB2.0 , with DTL38999 connector				
X4	4 x RS232/422/485 + 4 BIT DIO , with DTL38999 connector				
	1 x SSD/HDD LED indicator				
	1 x IP65 power button , with LED indicator				
Power	18V~36Vdc, MIL-STD-461/ 1275	10V~40Vdc, MIL-STD-461/ 1275/704	18V~36Vdc, MIL-STD-461/ 1275	10V~40Vdc, MIL-STD-461/ 1275/704	18V~36Vdc, MIL-STD-461/ 1275