



LAND



SEA



AIR

# HPC3000-IL

3U IP65 Dual-GPU Rugged Server with Intel®

Xeon Ice Lake-SP Processor



- Intel® 3rd Gen Ice Lake Xeon® Silver 4316(20xC) Processor, up to Xeon® Platinum 8380(40xC) Processor
- 2TB NVMe Gen 3.0 (W/R,3000MB/sec)-System Drive  
8xSATA Drive Bay (SAS/SATA) RAID10
- 2 x 10GbE, Option : 2 x 100GbE(QSFP28)
- 2 x Nvidia Quadro RTX A4000 GPU (6,144 CUDA)  
Option 1 : Nvidia Quadro RTX A4500 GPU (7,168 CUDA)  
Option2 : Nvidia RTX A2000 GPU (3,328 CUDA)
- DC-DC 24V (800W)  
Option1 : for Redundant AC 100~240V Input  
Option2 : MIL-STD -461 18V~36V DC
- MIL-STD-810 Thermal, shock, vibration, Humidity EMI / EMC Resistance
- Extreme Temperature : -20 ~+55 degree



# Specifications

## SYSTEM

CPU	Intel® Ice Lake Xeon™ Sliver 4316 150W (20 Core, 2.3GHz, Up to 3.4Ghz) Option : Intel® Ice Lake Xeon™ Platinum 8380 270W (40 Core, 2.3GHz, Up to 3.4Ghz)
Memory type	Up to 2TB ECC RDIMM, DDR4-3200MHz

## DISPLAY

GPU	Dual x NVIDIA Quadro RTX A4000 PCI-E(16GB-GDDR6, CUDA 6,144) Option 1 : NVIDIA Quadro RTX A4500 PCI-E (20GB-GDDR6, CUDA 7,168) Option 2 : NVIDIA Quadro RTX A2000 PCI-E (12GB-GDDR6, CUDA 3,328)
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## STORAGE

NVMe	2TB NVMe 3.0 M.2 (R/W, 3000MB/sec) Option : 2TB RAID1 NVMe 3.0 (R/W, 3000MB/sec)
HDD/SSD	8 x 2.5" Easy Swap HDD/SSD Tray RAID 10 Support

## ETHERNET

Ethernet	2 x 10GbE Intel® X550 Option : 2 x Intel 100GbE (QSFP28) E810-CQDA2*2
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## FRONT I/O

USB3.0	2 x DTL38999(USB3FTV7AZNF312)
100GbE(Optional)	2 x DTL38999(LCFTV6MDGN)
10GbE	2 x DTL38999(LCFTV6MDGN)
IPMI	1 x DTL38999(LCFTV6MDGN)
VGA	1 x DTL38999(TV07RW-9-09S)
COM	1 x DTL38999(TV07RW-9-09S)
DIO	1 x DTL38999(TV07RW-9-09S)
DC-IN	1 x DTL38999(TV06RW09-98S)
Power Button	1 x Power Button with LED backlight
SDD	1 x SSD light 8 x 2.5" Easy swap HDD/SSD Tray Option : AES Button

CMOS SWOP 1 x CMOS SWOP Battery

### POWER REQUIREMENT

Power Input DC-DC 24V (800W)  
Option 1 : Redundant AC 100~240V Input  
Option 2 : MIL-STD -461 18~36V DC-Input

### APPLICATION

Application Military Platforms Requiring Compliance MIL-STD-810  
Embedded Computing and applications subject to Harsh Temperature,  
Shock, Vibration, Attitude, Dust and EMI Conditions.

### OS SUPPORT LIST

Windows Windows 10

Linux By request

### ENVIRONMENT

Dimension 480x132x500 mm (WxHxD)

Classis Aluminum Alloy, Corrosion Resistant

Operation Temp. -20 to +55°C

Storage Temp. -40 to +85°C

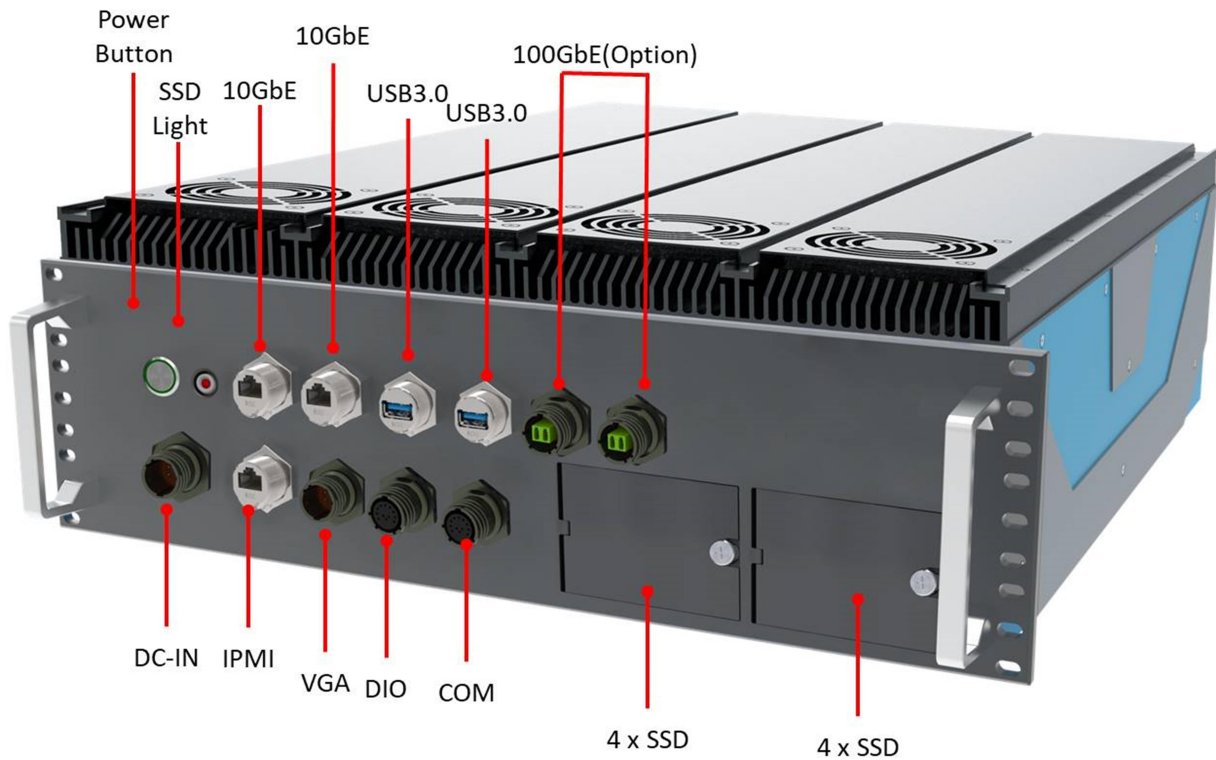
Relative Humidity 5% to 95%, non-condensing

EMC EN 61000-4-2: Air discharge: 8 kV, Contact discharge: 6kV  
EN 61000-4-3: 10V/m  
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  
CE and FCC  
MIL-STD-461 (Options):  
CE102 basic curve, 10kHz - 30 MHz  
RE102-4, (1.5 MHz) -30 MHz - 5 GHz  
RS103, 1.5 MHz - 5 GHz, 50 V/m equal for all frequencies

MIL-STD-810 Method 500.5, Procedures I and II (Altitude, Operation):  
12,192M, (40,000 ft) for the initial cabin altitude (18.8Kpa or 2.73 Psia)  
Method 500.5, Procedures III and IV (Altitude, Non-Operation):  
15,240, (50,000 ft) for the initial cabin altitude (14.9Kpa or 2.16 Psia)  
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)  
Method 507.5, Procedure II (Temperature & Humidity)  
Method 514.6, Vibration Category 24/Non-Operating (Category 20 & 24,Vibration)  
Method 514.6, Vibration Category 20/Operating (Category 20 & 24,Vibration)  
Method 516.6, Shock-Procedure V Non-Operating (Mechanical Shock)  
Method 516.6, Shock-Procedure I Operating (Mechanical Shock)

## Front I/O



## Ordering Information

<b>Model Spec</b>	<b>HPC3000-IL -2A40D</b>	<b>HPC3000-IL -2A40A</b>	<b>HPC3000-IL -2A40M</b>	<b>HPC3000-IL -1A45M</b>
<b>CPU</b>	Xeon Silver 4316	Xeon Silver 4316	Xeon Silver 4316	Xeon Silver 4316
<b>RAM</b>	DDR4 Up to 2TB	DDR4 Up to 2TB	DDR4 Up to 2TB	DDR4 Up to 2TB
<b>GPU-1</b>	PCI-E RTX A4000	PCI-E RTX A4000	PCI-E RTX A4000	PCI-E RTX A4500
<b>GPU-2</b>	PCI-E RTX A4000	PCI-E RTX A4000	PCI-E RTX A4000	PCI-E RTX A2000
<b>LAN</b>	2 x10GbE	2 x10GbE	2 x10GbE	2 x10GbE
<b>NIC(Optional)</b>	2x100GbE (QSFP28)	2x100GbE (QSFP28)	2x100GbE (QSFP28)	2x100GbE (QSFP28)
<b>USB 3.0</b>	2	2	2	1
<b>IPMI</b>	1	1	1	1
<b>VGA</b>	1	1	1	1
<b>Power</b>	DC-DC 24V	AC100~240V	MIL-461 28VDC	MIL-461 28VDC
<b>System Drive</b>	2TB NVMe Gen 3.0 (W/R,3000MB/sec)			
<b>Storage</b>	8xSATA Drive Bay (SAS/SATA) RAID10			2x SATA
<b>AES (Button)</b>	N/A	N/A	N/A	YES
<b>CMOS SWOP Battery</b>	N/A	N/A	N/A	YES
<b>Operation Temp</b>	-20 to +55°C			