

INF-NVL-THC-GVFU-1

Quick reference



Product Description

The INF-NVL-THC-GVFU-1 is a Fanless PC designed to support Processor Intel® Xeon® Processor D-2775TE, CPU TDP 100W. The motherboard supports up to 256GB of ECC RDIMM and up to 512GB LRDIMM DDR4 memory with speeds of up to 2933MT/s in four memory slots. The INF-NVL-THC-GVFU-1 allows customers to have a high-density computing machine in constrained space. This solution delivers optimized performance for workloads with space and power constraints, from the data center to the intelligent network edge. D-series processors support high-density, single-socket (system-on-a-chip) edge computing, networking, storage and cloud solutions with a range of integrated security, networking and acceleration features. The INF-NVL-THC-GVFU-1 grant to customers the following exceptional features:

- Zero noise level (Fanless Device)
- Very wide range of operative temperature (5°C a +50°C)
- Very wide range of relative non-condensing humidity (5% ~ 95%)
- Compliance with MIL-STD-810 and MIL-STD-461
- CE, REACH and RoHS Certifications

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R.E.A.: 64033
Cap. Soc.: € 2.000.000 i.v.

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Configuration Ordering Code

INF-NVL-THC-GVFU-1

• Intel® Xeon® Processor D-2775TE, CPU TDP 100W • 64GB RAM DDR4 • 2x SSD 500GB • Supply 12V DC • IP44 • Nvidia T1000 • Eco Capture Dual SDI.

Technical & Configuration Specifications

CHASSIS	290x267x75mm
POWER SUPPLY	12V DC on 7W2 connector (MAX 250W)
CHIPSET	System on Chip (SoC)
CPU	Intel® Xeon® Processor D-2775TE, CPU TDP 100W Processor Base Frequency 2,00 GHz Max Turbo Frequency 3,10 GHz Cores 16 – Threads 32 – Cache 25MB Intel®
RAM SYSTEM MEMORY	Total Memory: ECC-RDIMM DDR4 64GB 2933MHz
STORAGE	2x SSD 500GB SATA (accessible from the bottom panel)
GRAPHIC	The system host an integrated graphic card on board and one Nvidia Quadro T1000: <ul style="list-style-type: none"> • Integrated graphic card: ASpeed AST2600 up to 1920x1200@60Hz a 32 Bit Color • Discrete Nvidia graphic adapter: NVIDIA® QUADRO® T1000 <ul style="list-style-type: none"> ○ GPU memory: 4 GB GDDR6 ○ Chip: NVIDIA CUDA® Cores 896 ○ Interface: PCI Express 3.0 x16 ○ Max power sink: 50 W ○ Interfaces: 4x mDP 1.4 ○ Max Resolution: 4x 7680x4320@ 60Hz ○ Graphics APIs Shader Model 5.17, ○ OpenGL 4.68 ○ DirectX 12.07 ○ Vulkan 1.2

INTERFACES

- Back of the device
 - 1 x Power supply connector
 - 1 x Ground connector
- Front of the device
 - 1 x Power button
 - 1 x RJ45 IPMI ASPEED AST2600 BMC
 - 4 x RJ45 1 Gigabit Ethernet LAN ports integrated
 - 2 x RJ45 10 Gbase-T ports Ethernet LAN ports integrated
 - 2 x Fiber 25Gb on LC connector SFP28 via SoC
 - 2 x USB 3.0 (2 TYPE A)
 - 7 x USB 2.0 & 1x RS232 in circular connector MIL D38999/20FE35SN
 - 1 x Connector jack 3,5mm Speaker
 - 1 x Connector jack 3,5mm Mic
 - 1 x VGA port
 - 4 x Mini Displayport (on Nvidia T1000)
 - 2 x Bnc connector (Video Grabber Eco Capture Dual SDI)

NETWORKING

The unit has 3 network integrated cards :

- Dual LAN with 25G SFP28 LAN via SoC
- Dual LAN with Intel® X550 10GBase-T Ethernet Controller
- Quad LAN with Intel® i350 Gigabit Ethernet Controller

NOISE - COOLING

Zero noise

- Up to 30% Maximum System performance - 0.5 m/s airflow
- Over 30% Maximum System performance - 7.2 m/s airflow

**Note: required air flow to guarantee correct operation of the device: (in laminar direction with respect to the heat sink fins) - 150 m3/h - 99CFM in the worst case.*

IP PROTECTION

IP44

RECOMMENDED THERMAL CONDION

Operating: 5°C a +50°C

Storage: -40°C a +80°C

HUMIDITY

Relative Humidity: 95% (non-condensing)

CERTIFICATIONS

CE - Reach – RoHS

COMPLIANCE MIL-STD

Environmental: MIL-STD-810G

EMI/EMC: MIL-STD-461

**Note: Designed to meet MIL-STD910D*

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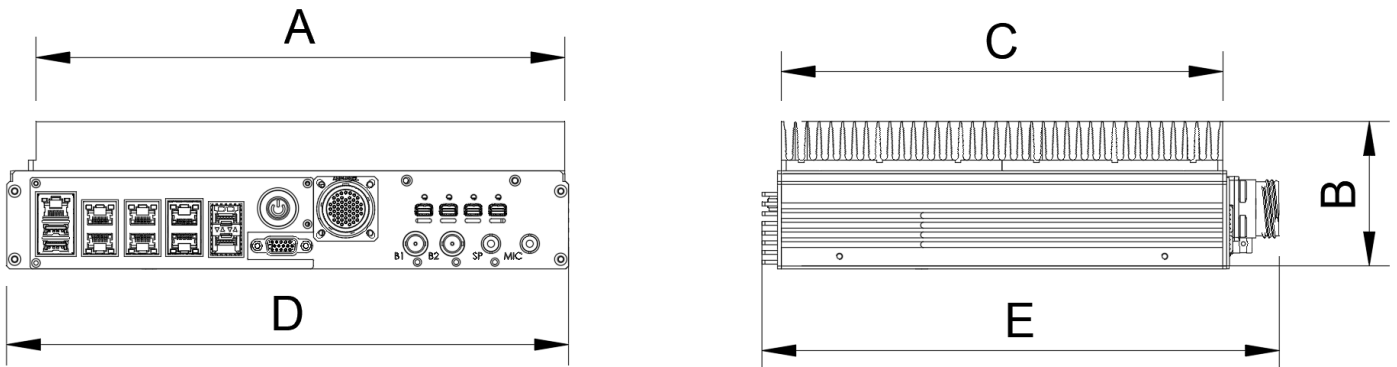
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MTBF	100000hrs @ 25°C; 60000hrs @ 45°C
MTBCF	120000hrs @ 25°C; 70000hrs @ 45°C
SUPPORTED OPERATING SYSTEMS	<ul style="list-style-type: none"> • Microsoft Windows 10 Enterprise 64 bit • Ubuntu 18.04.1 LTS • Fedora 29 • Red Hat 7.9 • Red Hat 8.1 • Red Hat 8.2 • Red Hat 8.3 • Red Hat 8.4 • CentOS 7.9 • CentOS 8.2 • CentOS 8.3 • Oracle 8.3 • Oracle 8.4 • Fedora 32 • Fedora 33
TMP	1 TPM Header & Chip both

INF-NVL-THC-GVFU-1 - Dimensions



	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	PESO [Kg]
INF-NVL-THC-GVFU-1	273	75	228	290	267	10

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INF-NVL-THC-GVFU-1 - Interfaces



- 2 x USB 3.1 Type A
- 4 x RJ45 1GbE Ethernet LAN
- 2 x RJ45 10GbE Ethernet LAN
- 2 x RJ45 10GbE Ethernet LAN
- 2 x Fiber 25Gb on LC connector SFP28
- 1 x VGA

*4x mini displayport with
fixing holes*

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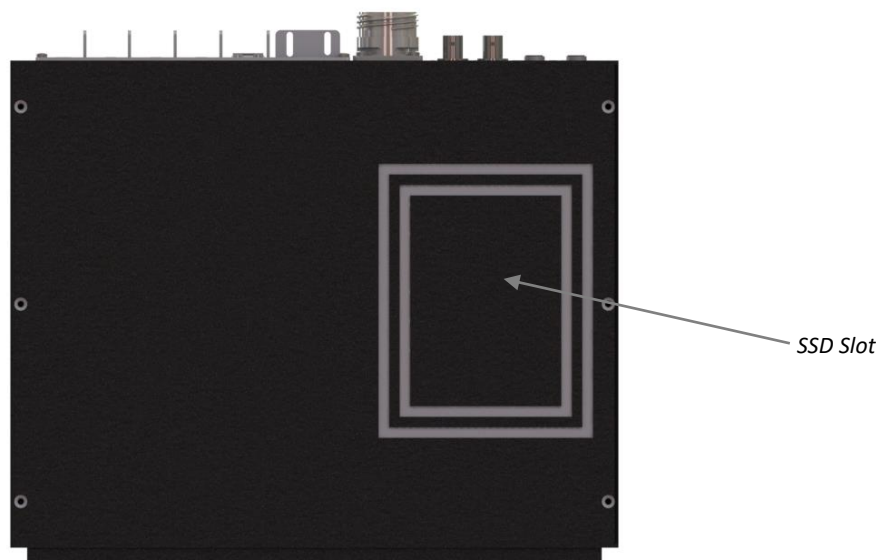
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INF-NVL-THC- GVFU-1 SSD Slot

From the bottom panel it is possible to access the secondary ssd by removing the appropriate door.



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List of revisions

Rev.	Date	Pages Effected	Description
0	3 April 2023	1-7	Original issue
1	20 March 2024	1-7	Technical review

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For hard drives, 1GB = 1 billion bytes. Actual formatted capacity is less.*

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