

Onyx

Simply NUC Business Motherboard – NUC130XBv9



Simply NUC®

Onyx v9 Board

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Unmatched Performance for Modern Business

Onyx is the latest and greatest in ultra-small form factor compute power from Simply NUC, driving unmatched performance for modern business from the desk to the edge to the cloud and back. Powered by Intel's 13th Gen Raptor Lake 13900H processor and kept cool with Simply NUC's Dual Exhaust Cooling solution, the Onyx NUC features a Core i9 option on the high-end, a new performance level never achieved before in a 4x4 motherboard. With support for up to 96GB of DDR5-5200 memory, up to 16TB of storage, and off-the-charts benchmark results, Onyx delivers all the power, without the tower.

Onyx - Defined by You, Built for You

Onyx may be a Simply NUC product, but it was defined by our customers, and built to meet your needs, with key features like dual HDMI 2.1, dual USB 4.0 Type-C, and a 2.5Gb Ethernet port to name a few. The Onyx motherboard gives you the flexibility to embed high performance compute power into any space. From office

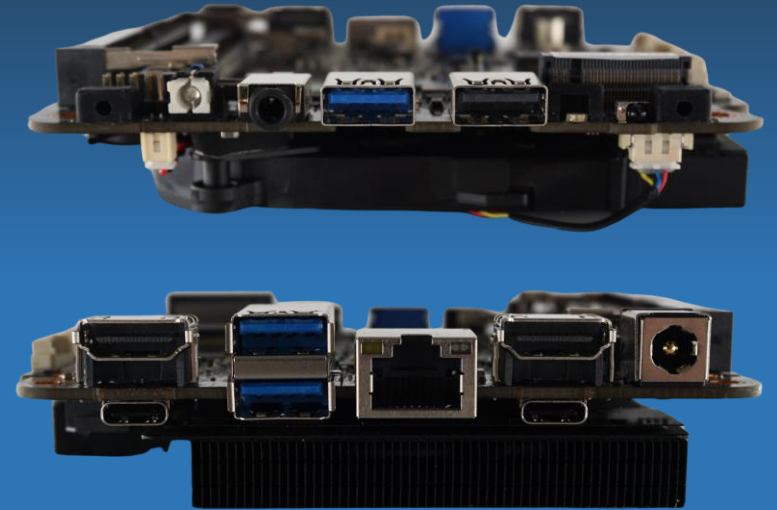
workstations, to on-prem heavy edge computing, to robotics and sophisticated IoT networks, Onyx v9 has the flexibility and performance options to perfectly serve your usage requirements.

Performance with Uncompromised Security and Reliability

Powered by Intel's 13th Gen Raptor Lake 13900H processor, featuring 14 cores and 20 threads, Onyx packs outsized performance into a small footprint. Raptor Lake processors feature Intel Thread Director, using machine learning to schedule tasks on the right core at the right time, preventing background tasks from slowing you down, and keeping the focus on the primary workload. Select Onyx SKUs also feature Intel vPro technology allowing for remote management of your 24x7 tested computer fleet and secure communications across networks. Upgrade to Onyx v9 today, and enjoy uncompromised and highly reliable processing power.

Features

- Intel® Core™ i9-13900H Processor
- Intel® Iris® Xe Graphics
- Intel® vPro® Technology
- 2x DDR5-5200 SO-DIMM Sockets
- 1x M.2 22x80 M-key supporting PCIe x4 Gen4 NVMe
- MicroSD card slot
- TPM (Infineon 2.0)
- 2x HDMI 2.1 TMDS
- 2x USB 4 Type-C (Alt-DP)
- Optional Intel® Wi-Fi 6E + Bluetooth 5.2
- 1x Intel 2.5Gb LAN
- 2x USB 4 Type-C
- 3x USB 3.2 Gen2 Type-A
- 1x USB 2.0 Type-A
- 3.5mm stereo headset jack
- Optional 19V, 120W power supply
- Extended service support (3-year)



Customization

- Primary storage up to 8TB Gen4 NVMe
- Memory up to 96GB
- OS options: Windows 11 Home & Pro, Windows IoT, Ubuntu



Technical Specification

Processor	Intel® Core™ i9-13900H Processor with vPro® 6P+8E/20T P-Cores: up to 5.4 GHz - E-Cores: up to 4.1 GHz 24MB Intel® Smart Cache 45W TDP
Graphics	Intel® Iris Xe Graphics up to 1.50GHz 4x 4K Displays Supported via: 2x HDMI 2.1 TMDS + 2x USB-C (Alt-DP) 1x 8K Display supported via USB-C (Alt-DP)
Memory	Dual DDR5-5200 SODIMMs 1.2V 96GB Max
Storage	1x M.2 22x80 socket supporting PCIe x4 Gen4 NVMe from 128GB to 8TB or SATA SSD from 128GB to 2TB
Peripherals	Optional Intel Wi-Fi 6E AX210 + Bluetooth 5.2 1x Intel 2.5Gb LAN (i225-V) 1x Front USB 3.2 Gen2 Type-A 1x Front USB 2.0 Type-A 2x Rear USB 4 Type-C 2x Rear USB 3.2 Gen2 Type-A
Board	117x112x25.5mm
Expansion	1x USB 2.0 header 1x USB 3.0 header 1x Front panel header
Audio	3.5mm Front Stereo Headset Jack
Power	12-24V _{DC} Input Supply Range Optional 19V _{DC} , 120W Power Supply

Certifications and Regulations

Safety Regulations and Standards	J62368-1 (2020) GB 17625.1-2012 GB 4943.1-2011 GB/T 9254.1-2021 (Class A) KCC UL 62368-1: 2019 EN IEC 62368-1:2020
EMC/RF Regulations & Standards	FCC CFR Title 47, Chapter I, Part15, Subparts B, C, E ETSI EN 301 489-1 V2.2.3 (2019-11) Draft ETSI EN 301 489-17 V3.2.5 (2022-08) EN 55032:2015 EN 55035:2017 EN IEC 61000-3-2:2019 EN 61000-3-3:2013 ETSI EN 300 328 V2.2.2 (2019-07) EN 61000-3-3:2013
Environmental Regulations	RoHS Compliant REACH Compliant
Certified Operating Systems	Windows 11 (Pro and Home) Windows IoT Linux (Ubuntu)
Environmental Operating Temp etc.	0°C to +40°C Non-Condensing Humidity