

intel® NUC

INTEL® NUC 9 EXTREME

BUILD YOUR DREAM RIG

Game like never before with the highest-performing
Intel® NUC for consumers



LEVEL UP. WAY UP.

Imagine your dream gaming rig. Then build it with the Intel® NUC 9 Extreme Kit, the highest-performing Intel® NUC available for consumers today. Ultra-powerful and modular, it's also upgradable with an Intel® NUC 9 Extreme Compute Element.

The Intel NUC 9 Extreme Kit supports up to an eight-inch discrete graphics card, giving enthusiast gamers the flexibility they need to build a monster rig for gaming and streaming simultaneously. All this in a 5-liter chassis—making this one of the smallest-footprint gaming systems available that supports desktop discrete graphics.

The kit comes in a range of top-end 9th Gen Intel® Core™ processors (H-series), including for the first time an unlocked Intel® Core™ i9 processor—the highest-performing H-series processor available today. With a 500W internal power supply and integrated cooling, these compact systems run cool and quiet while delivering desktop-level graphics performance on the latest AAA games.

The Intel NUC 9 Extreme Kit is the high-powered, portable, and customizable system enthusiast gamers have been dreaming of.

Intel NUC 9 Extreme: Take Gaming to the Extreme

1ST INTEL NUC
TO SUPPORT DESKTOP
DISCRETE GRAPHICS
WITH AN INTEL® CORE™ i9 PROCESSOR
WITH INTEL NUC 9 EXTREME COMPUTE
ELEMENT FOR PROCESSOR UPGRADES

500W
INTERNAL POWER
SUPPLY IN A SMALL
FOOTPRINT

FEATURES

- Unlocked 9th gen Intel® Core™ i9 processor
- PCIe* x16 slot for desktop graphics support, up to 8" card length, dual-slot capable
- Supports three 4K displays (*additional displays supported with a discrete graphics card*)
- Two Thunderbolt™ 3 ports
- Intel® Wi-Fi 6
- Bluetooth* 5
- Two Intel® Gigabit LAN ports
- HDMI* 2.0a port
- 3-year limited warranty

IDEAL FOR

- Enthusiast Gaming
- AAA Gaming & More
- Content Creation

AVAILABLE SKUs

- Intel® NUC Kit
- Intel® NUC Compute Element



INTEL® NUC 9 EXTREME KIT & COMPUTE ELEMENT

Built with 9th generation Intel® Core™ i9 processors



	Kit	Compute Element (H-Series)
	NUC9i9QNX	NUC9i9QNB
Processor	Intel® Core™ i9-9980HK processor 2.40 GHz – 5.00 GHz Turbo, ¹ 8 core, 16 thread, 16 MB Cache, 45W	
Graphics	Intel® UHD Graphics 630, 350 MHz – 1.25 GHz Double-wide PCIe* x16 slot, supports discrete graphics, up to 8" card length, dual-slot capable	Intel® UHD Graphics 630, 350 MHz – 1.25 GHz
Memory	Dual-channel SODIMM slots DDR4-2666+ 32 GB max or DDR4-2400 64 GB max	
Storage	Two M.2 slots: 42/80 + 42/80/110 NVMe or SATA, RAID-0/1 capable, One M.2 slot: 42/80/110 NVMe, Intel® Optane™ Memory M10, H10, and Intel® Optane™ SSD ready	Two M.2 slots: 42/80 + 42/80/110 NVMe or SATA, RAID-0/1 capable, Intel® Optane™ Memory M10, H10, and Intel® Optane™ SSD ready
Other Features & Technology	Two Thunderbolt™ 3 ports, Intel® WiFi-6 and Bluetooth* 5 with dual antennas built-in, Two Intel® Gigabit LAN ports, HDMI* 2.0a port, SDXC card slot with UHS-II support, Four USB 3.1 Gen2 ports, 500W internal power supply, 3-Year limited warranty	Two Thunderbolt™ 3 ports, Intel® WiFi-6 and Bluetooth* 5, Two Intel® Gigabit LAN ports, HDMI* 2.0a port, Four USB 3.1 Gen2 ports, 3-Year limited warranty
Geo-Specific Power Cord	US, EU, UK, AU, CN, or no cord option	—
Operating System	Not included	Not included
What's Needed	Memory, storage, operating system	Chassis, power supply, memory, storage, operating system

INTEL® NUC 9 EXTREME KIT & COMPUTE ELEMENT

Built with 9th generation Intel® Core™ i7 processors



	Kit	Compute Element (H-Series)
	NUC9i7QNX	NUC9i7QNB
Processor	Intel® Core™ i7-9750H processor 2.60 GHz – 4.50 GHz Turbo, ¹ 6 core, 12 thread, 12 MB Cache, 45W	
Graphics	Intel® UHD Graphics 630, 350 MHz – 1.15 GHz Double-wide PCIe* x16 slot, supports discrete graphics, up to 8" card length, dual-slot capable	Intel® UHD Graphics 630, 350 MHz – 1.15 GHz
Memory	Dual-channel SODIMM slots DDR4-2666+ 32 GB max or DDR4-2400 64 GB max	
Storage	Two M.2 slots: 42/80 + 42/80/110 NVMe or SATA, RAID-0/1 capable, One M.2 slot: 42/80/110 NVMe, Intel® Optane™ Memory M10, H10, and Intel® Optane™ SSD ready	Two M.2 slots: 42/80 + 42/80/110 NVMe or SATA, RAID-0/1 capable, Intel® Optane™ Memory M10, H10, and Intel® Optane™ SSD ready
Other Features & Technology	Two Thunderbolt™ 3 ports, Intel® WiFi-6 and Bluetooth* 5 with dual antennas built-in, Two Intel® Gigabit LAN ports, HDMI* 2.0a port, SDXC card slot with UHS-II support, Four USB 3.1 Gen2 ports, 500W internal power supply, 3-Year limited warranty	Two Thunderbolt™ 3 ports, Intel® WiFi-6 and Bluetooth* 5, Two Intel® Gigabit LAN ports, HDMI* 2.0a port, Four USB 3.1 Gen2 ports, 3-Year limited warranty
Geo-Specific Power Cord	US, EU, UK, AU, CN, or no cord option	—
Operating System	Not included	Not included
What's Needed	Memory, storage, operating system	Chassis, power supply, memory, storage, operating system

INTEL® NUC 9 EXTREME KIT & COMPUTE ELEMENT

Built with 9th generation Intel® Core™ i5 processors



	Kit	Compute Element (H-Series)
	NUC9i5QNX	NUC9i5QNB
Processor	Intel® Core™ i5-9300H processor 2.40 GHz – 4.10 GHz Turbo, ¹ 4 core, 8 thread, 8 MB Cache, 45W	
Graphics	Intel® UHD Graphics 630, 350 MHz – 1.05 MHz Double-wide PCIe* x16 slot, supports discrete graphics, up to 8" card length, dual-slot capable	Intel® UHD Graphics 630, 350 MHz – 1.05 MHz
Memory	Dual-channel SODIMM slots DDR4-2666 32 GB max or DDR4-2400 64 GB max	
Storage	Two M.2 slots: 42/80 + 42/80/110 NVMe or SATA, RAID-0/1 capable, One M.2 slot: 42/80/110 NVMe, Intel® Optane™ Memory M10, H10, and Intel® Optane™ SSD ready	Two M.2 slots: 42/80 + 42/80/110 NVMe or SATA, RAID-0/1 capable, Intel® Optane™ Memory M10, H10, and Intel® Optane™ SSD ready
Other Features & Technology	Two Thunderbolt™ 3 ports, Intel® WiFi-6 and Bluetooth* 5 with dual antennas built-in, Two Intel® Gigabit LAN ports, HDMI* 2.0a port, SDXC card slot with UHS-II support, Four USB 3.1 Gen2 ports, 500W internal power supply, 3-Year limited warranty	Two Thunderbolt™ 3 ports, Intel® WiFi-6 and Bluetooth* 5, Two Intel® Gigabit LAN ports, HDMI* 2.0a port, Four USB 3.1 Gen2 ports, 3-Year limited warranty
Geo-Specific Power Cord	US, EU, UK, AU, CN, or no cord option	—
Operating System	Not included	Not included
What's Needed	Memory, storage, operating system	Chassis, power supply, memory, storage, operating system

INTEL® NUC 9 EXTREME KITS AND COMPUTE ELEMENTS

Technical Specifications

INTEL® NUC 9 EXTREME COMPUTE ELEMENT

Processors and Graphics

NUC9i9QNB

- Intel® Core™ i9-9980HK processor (2.40 GHz – 5.00 GHz Turbo, 8 core, 16 thread, 16 MB Cache, 45W)
- Intel® UHD Graphics 630, 350 MHz – 1.25 GHz

NUC9i7QNB

- Intel® Core™ i7-9750H processor (2.60 GHz – 4.50 GHz Turbo, 6 core, 12 thread, 12 MB Cache, 45W)
- Intel® UHD Graphics 630, 350 MHz – 1.15 GHz

NUC9i5QNB

- Intel® Core™ i5-9300H processor (2.40 GHz – 4.10 GHz Turbo, 4 core, 8 thread, 8 MB Cache, 45W)
- Intel® UHD Graphics 630, 350 MHz – 1.15 GHz

Storage Capabilities

- Two M.2 slots: 42/80 + 42/80/110 NVMe or SATA3 SSD, RAID 0/1 capable
- Intel® Optane™ Memory M10, H10, and Intel® Optane™ SSD ready

System Memory

NUC9i9QNB & NUC9i7QNB

- Two DDR4 SODIMM sockets (Dual channel DDR4-2666+ SODIMMs, 1.2V, max 64 GB @ 2400 MHz or 32 GB @ 2666 MHz)

NUC9i5QNB

- Two DDR4 SODIMM sockets (Dual channel DDR4-2666 SODIMMs, 1.2V, max 64 GB @ 2400 MHz or 32 GB @ 2666 MHz)

¹ Max turbo frequency is the maximum single core frequency at which the processor is capable of operating using Intel® Turbo Boost Technology and, if present, Intel® Thermal Velocity Boost. Frequency is measured in gigahertz (GHz), or billion cycles per second.

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Connectivity

- Two Thunderbolt™ 3 ports
- Intel® Wi-Fi 6 AX200
- Bluetooth* v5
- Two Intel® 10/100/1000 Mbps (i219-LM and i210-AT) Ethernet ports
- HDMI* 2.0a port
- Four USB 3.1 Gen2 Type-A ports
- Up to 7.1 multichannel digital audio via HDMI or Thunderbolt 3
- 3.5 mm rear speaker/TOSLINK combo jack
- SDXC slot with UHS-II support
- Internal Front Panel Audio, CEC, 2x USB 3.1 Gen2 Type-C, 2x USB 2.0, and SATA3 headers

Operating System Compatibility

- Windows® 10
- Various Linux* distros

System BIOS

- 256 Mb Flash EEPROM with Intel® Platform Innovation Framework for EFI Plug and Play
- Advanced configuration and power interface V5.0b, SMBIOS2.5
- Intel® BIOS
- Intel® Express BIOS update support

Hardware Management Features

- CPU vapor chamber and firmware-controlled 80 mm fan
- Voltage and temperature sensing
- ACPI-compliant power management control

All products, dates, and figures specified are preliminary based on current expectations, and are subject to change without notice. Availability in different channels may vary.

Actual Intel® NUC kit may differ from the image shown.

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Power Requirements

- 12-19Vdc 180W via EPS 12V connector

Thermal Management

- Dual 80 mm firmware-controlled exhaust fans

INTEL® NUC 9 EXTREME CHASSIS

Storage Capabilities

- One CPU-attached M.2 slot: 42/80/110 NVMe-only

Expansion Capabilities

- PCIe X16 slot up to 8" card length dual-slot capable
- PCIe X4 slot up to 8" card length, shared with X16 slot

Front Panel Connectivity

- Two USB 3.1 Gen2 Type-A ports
- 3.5 mm front stereo headset jack
- SDXC slot with UHS-II support

Chassis Size

- 9.37" x 8.50" x 3.78"
- 238 mm x 216 mm x 96 mm

Power Requirements

- 500W internal power with geo-specific AC cords
- Internal EPS 12V connector for Intel 9 Extreme Compute Element
- Internal 6+2 pin and 6-pin PCIe GPU power connectors, supplying up to 225W

Environment Operating Temperature

- 0° C to +35° C

Storage Temperature

- -20° C to +40° C

Safety Regulations and Standards

- IEC/EN/UL 60950-1
- IEC/EN/UL 62368-1

EMC/RF Regulations and Standards

- FCC Part 15B/15C/15E
- CISPR/EN 55032/55024
- ICES-003
- VCCI 32
- BSMI CNS 13438
- KN 32/35
- AS/NZS CISPR 32
- EN 300 328
- EN 301 893
- EN 300 440
- EN 301 489-1/3/17
- EN 62311
- AS/NZS 4268
- AS/NZS 2772.2
- ARPANSA

Environmental Regulations

- EU RoHS
- China RoHS
- Taiwan BSMI RoHS
- REACH

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