



Intel® NUC 12 Pro Kit NUC12WSKi3

☒ Add To Compare

Specifications

Ordering & Compliance

Compatible Products

Downloads

Support

Essentials

Supplemental Information

Memory & Storage

Processor Graphics

Expansion Options

I/O Specifications

Package Specifications

Advanced Technologies

Security & Reliability

Essentials

[Download Specifications](#) ↓

Product Collection

Intel® NUC Kit with 12th Generation Intel® Core™ Processors

Code Name

[Products formerly Wall Street Canyon](#)

Marketing Status

Launched

Launch Date ⓘ

Q3'22

Expected Discontinuance ⓘ

1H'25

Supported Operating Systems

Windows 11 Home*, Windows 11 Pro*, Windows 10 Home*, Windows 10 IoT Enterprise*, Windows 10 Pro*, Red Hat Linux*, Ubuntu 20.04 LTS*

Board Number

NUC12WSBi3

Board Form Factor

UCFF (4" x 4")

Socket

Soldered-down BGA

Internal Drive Form Factor

M.2 SSD

of Internal Drives Supported

2

TDP ⓘ

20 W

DC Input Voltage Supported

12-20 VDC

Recommended Customer Price ⓘ

\$358.08 - \$360.54

Processor Included

[Intel® Core™ i3-1220P Processor \(12M Cache, up to 4.40 GHz\)](#)

Total Cores ⓘ

10

Total Threads ⓘ

12

Lithography ⓘ

Intel 7

Max Turbo Frequency ⓘ

4.40 GHz

Supplemental Information

Embedded Options Available ⓘ

No

Memory & Storage

Max Memory Size (dependent on memory type) ⓘ

64 GB

Memory Types ⓘ

DDR4-3200 1.2V SODIMMs

Max # of Memory Channels ⓘ

2

Max # of DIMMs ⓘ

2

ECC Memory Supported † ⓘ

No

Processor Graphics

Integrated Graphics † ⓘ

Yes

Graphics Output ⓘ

2x HDMI 2.1 TMDS Compatible, 2x DP 1.4a via Type C

of Displays Supported †

4

Expansion Options

PCI Express Revision ⓘ

Gen 4 (m.2 22x80 slot); Gen 3 (otherwise)

PCI Express Configurations † ⓘ

PCIe x4 Gen 4: M.2 22x80 (key M)
PCIe x1 Gen 3: M.2 22x42 (key B)
PCIe x1: M.2 22x30 (key E)

M.2 Card Slot (wireless) ⓘ

22x30 (E)

M.2 Card Slot (storage) ⓘ

22x80 NVMe (M); 22x42 SATA (B)

I/O Specifications

of USB Ports

4

USB Configuration

Front: 2x USB 3.2
Rear: 2x USB 4 (type C), 1x USB 3.2, 1x USB 2.0
Internal: 1x USB 3.2 on m.2 22x42 (pins), 2x USB 2.0 (headers)

Serial Port via Internal Header

No

Audio (back channel + front channel)

Front panel: 3.5mm headphone/mic jack

Integrated LAN ⓘ

Intel® Ethernet Controller i225-V

Integrated Wireless†

Intel® Wi-Fi 6E AX211(Gig+)

Integrated Bluetooth

Yes

Additional Headers ⓘ

Front_panel (PWR, RST, 5V, 5Vsby, 3.3Vsby); Internal 2x2 power connector

of Thunderbolt™ Ports ⓘ

2x Thunderbolt™ 4

Package Specifications

Chassis Dimensions

117 x 112 x 37 [mm] (LxWxH)

Advanced Technologies

Intel® Optane™ Memory Supported † ⓘ

No

Intel® Virtualization Technology for Directed I/O (VT-d) † ⓘ

Yes

Intel® ME Firmware Version ⓘ

16

Intel® HD Audio Technology ⓘ

Yes

Intel® Virtualization Technology (VT-x) † ⓘ

Yes

Intel® Platform Trust Technology (Intel® PTT) ⓘ

Yes

Security & Reliability

Intel® AES New Instructions ⓘ

Yes

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Refer to Datasheet for formal definitions of product properties and features.

† This feature may not be available on all computing systems. Please check with the system vendor to determine if your system delivers this feature, or reference the system specifications (motherboard, processor, chipset, power supply, HDD, graphics controller, memory, BIOS, drivers, virtual machine monitor-VMM, platform software, and/or operating system) for feature compatibility. Functionality, performance, and other benefits of this feature may vary depending on system configuration.

*Announced" SKUs are not yet available. Please refer to the Launch Date for market availability.

System and Maximum TDP is based on worst case scenarios. Actual TDP may be lower if not all I/Os for chipsets are used.

Some products can support AES New Instructions with a Processor Configuration update, in particular, i7-2630QM/i7-2635QM, i7-2670QM/i7-2675QM, i5-2430M/i5-2435M, i5-2410M/i5-2415M. Please contact OEM for the BIOS that includes the latest Processor configuration update.