



Intel® NUC 12 Pro Mini PCs, Kits, & Boards

Small Size. Big Business Performance.

Boost business performance with 12th Gen Intel® Core™ processors and the latest features to support productivity, collaboration, and edge compute



Powerful Performance. Perfect Fit.

Intel® NUC 12 Pro Mini PCs, Kits, and Boards raise the bar for performance and connectivity in a 4x4 device for productivity, collaboration, and edge compute. 12th Gen Intel® Core™ processors—plus up to 64GB dual-channel memory and massive SSD capacity—drive enterprise-class performance in a pint-sized PC. Collaboration is faster and easier than ever with lightning-fast wired and wireless connectivity options. Select SKUs come with Intel vPro® technology for remote manageability, hardware-enhanced security features, and platform stability to help businesses cut IT costs and boost uptime.

The systems are built to deliver great experiences at the edge, with their small size, numerous ports front and back, dual LAN expansion module (select SKUs), and these added features:

- **Intel Watchdog Utility: Monitors and can automatically restart applications.**
- **Display emulation: Enables emulation of displays for one or both HDMI ports when a display is not attached or is temporarily disconnected.**
- **Client management interface: HDMI CEC can be queried and configured via the WMI interface.**

Every Intel® NUC 12 Pro Mini PC, Kit, and Board is qualified for 24x7 operation and designed to last with a three-year warranty from Intel. For performance, connectivity, and reliability in a small footprint, these 4x4s are tough to beat.

Productivity

Including business computing and home office

Collaboration

Including video conferencing and huddle rooms

Edge compute

Including digital signage, digital kiosks, intelligent vending, and edge appliances

Connect up to
one 8K or four 4K displays

Qualified for
24/7 operation



Features

12th Gen Intel® Core™ i7/i5/i3 processors

Intel vPro® Enterprise with 12th Gen Intel® Core™ i7/i5 processors

Up to 64GB dual-channel DDR4-3200 memory

Intel® Iris® Xe graphics or Intel® UHD graphics

M.2 slots for PCIe x4 Gen 4 NVMe SSD and second SSD (select SKUs support third SSD)

2x Thunderbolt™ 4 ports (select SKUs),

3x USB 3.2 ports, 1 USB 2.0 port,

2x HDMI 2.1 TMDS Compatible

Intel® i225-V Ethernet for speeds up to 2.5 Gbps and Intel® Wi-Fi 6E AX211 (Gig+)

Tall SKU available with second Ethernet port (Intel® i225-V) and two additional USB 2.0 ports

Tolerates 0-40° C external ambient operating temperature

All USB ports with individual USB power control

Intel three-year warranty

Three-year product availability



Intel® NUC 12 Pro: **Go Small for Big Performance**

Built with Intel® Core™ i7 processors

Intel® NUC 12 Pro Mini PCs, Kits and Boards



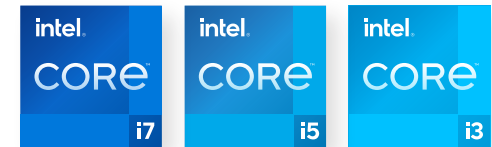
	Mini PC		Mini PC PRC only	Kits			Boards		
	RNUC12 WSKi70XC1	RNUC12 WSKi70XC2	RNUC12 WSHi70QA6	NUC12 WSHi7	NUC12 WSKi7	NUC12 WSHi70Z	NUC12 WSKi70Z	BNUC12 WSBi70000	BNUC12 WSBi70Z00
	Slim		Tall	Tall	Slim	Tall	Slim	-	-
Processor	12th Generation Intel® Core™ i7-1260P Intel® Iris® Xe Graphics 12 Processor Cores (4P+8E), 16 threads, 18MB Intel® Smart Cache, 35W TDP P-Cores: 4.8GHz Turbo; E-Cores: 3.4GHz Turbo								
Graphics	Intel® Iris® Xe Graphics 96EU, 1.40 GHz								
Memory	2x8GB DDR4-3200			Dual-channel DDR4-3200 SODIMMs, 1.2V, 64GB max.					
Storage	500GB NVMe x4 Gen4 SSD			M.2 22x80 key M slot for PCIe x4 Gen 4 NVMe SSD M.2 22x42 key B slot for PCIe x1 Gen 3, USB 3.2 Gen 2 and SATA SSD expandability					
Thunderbolt™ Technology	-		2x Thunderbolt™ 4 ports (incl. DP 1.4a and USB 4)			-		2x Thunderbolt™ 4 ports (incl. DP 1.4a and USB 4)	-
Other Features & Technology	Intel® i225 -v 10/100/1000/2500 Mbps RJ45 Ethernet Discrete TPM 2.0 2x front and 1x rear USB 3.2 Gen 2 type A ports 1x rear type A and 2x internal USB 2.0 headers 2x HDMI 2.1 TMDS Compatible (4K@60Hz), with built-in CEC per port 3.5mm front stereo headset jack Up to 7.1 multichannel (or 8-channel) digital audio on HDMI and DP type C ports (select SKUs only)								
Wi-Fi	Intel® Wi-Fi 6E AX211 (Gig+) on M.2 slot, Bluetooth™ 5.2							M.2 2230 key E slot for Intel® Wi-Fi 6E AX211 (Gig+) card (sold separately)	
Geo-Specific Power Cord	US	EU	CN	US, EU, CN or No Cord Option	US, EU or No Cord Option	-			
Operating System	Windows 11 Pro Standard		Windows 11 Home Plus	-	-	-			
What's Needed	-			Memory, Storage and OS				-	
VESA Bracket	Yes		No	-					
Box	Yes			-					

Built with Intel® Core™ i5 processors

Intel® NUC 12 Pro Mini PCs, Kits and Boards



	Mini PC		Mini PC PRC only	Kits			Boards		
	RNUC12 WSKi50YC1	RNUC12 WSKi50YC2	RNUC12 WSHi50WA6	NUC12 WSHi5	NUC12 WSKi5	NUC12 WSHi50Z	NUC12 WSKi50Z	BNUC12 WSBi50000	BNUC12 WSBi50Z00
	Slim		Tall	Tall	Slim	Tall	Slim	-	-
Processor	12th Generation Intel® Core™ i5-1250P Intel® Iris® Xe Graphics 12 Processor Cores (4P+8E), 16 threads, 12MB Intel® Smart Cache, 35W TDP P-Cores: 4.4GHz Turbo; E-Cores: 3.3GHz Turbo								
Graphics	Intel® Iris® Xe Graphics 80EU, 1.40 GHz								
Memory	2x8GB DDR4-3200			Dual-channel DDR4-3200 SODIMMs, 1.2V, 64GB max.					
Storage	500GB NVMe x4 Gen4 SSD			M.2 22x80 key M slot for PCIe x4 Gen 4 NVMe SSD M.2 22x42 key B slot for PCIe x1 Gen 3, USB 3.2 Gen 2 and SATA SSD expandability					
Thunderbolt™ Technology	-		2x Thunderbolt™ 4 ports (incl. DP 1.4a and USB 4)			-		2x Thunderbolt™ 4 ports (incl. DP 1.4a and USB 4)	
Other Features & Technology	Intel® i225 -v 10/100/1000/2500 Mbps RJ45 Ethernet Discrete TPM 2.0 2x front and 1x rear USB 3.2 Gen 2 type A ports 1x rear type A and 2x internal USB 2.0 headers 2x HDMI 2.1 TMDS Compatible (4K@60Hz), with built-in CEC per port 3.5mm front stereo headset jack Up to 7.1 multichannel (or 8-channel) digital audio on HDMI and DP type C ports (select SKUs only)								
Wi-Fi	Intel® Wi-Fi 6E AX211 (Gig+) on M.2 slot, Bluetooth™ 5.2							M.2 2230 key E slot for Intel® Wi-Fi 6E AX211 (Gig+) card (sold separately)	
Geo-Specific Power Cord	US	EU		US, EU, CN or No Cord Option	US, CN or No Cord Option	-			
Operating System	Windows 11 Pro Standard		Windows 11 Home Standard	-					
What's Needed	-			Memory, Storage and OS				-	
VESA Bracket	Yes		No	-					
Box	Yes			-					



Processor

- 12th Generation Intel® Core™ i7-1260P
Intel® Iris® Xe Graphics
12 Processor Cores (4P+8E), 16 threads
18MB Intel® Smart Cache, 35W TDP
P-Cores: 4.8GHz Turbo; E-Cores: 3.5GHz Turbo
- 12th Generation Intel® Core™ i5-1240P
Intel® Iris® Xe Graphics
12 Processor Cores (4P+8E), 16 threads
12MB Intel® Smart Cache, 35W TDP
P-Cores: 4.4GHz Turbo; E-Cores: 3.3GHz Turbo
- 12th Generation Intel® Core™ i3-1220P
Intel® UHD Graphics for 12th Gen Intel®
Processors 10 Processor Cores (2P+8E),
12 threads 12MB Intel® Smart Cache, 20W
TDP P-Cores: 4.4GHz Turbo; E-Cores:
3.3GHz Turbo

Graphics

- i7 vPro, i7,
Intel® Iris® Xe Graphics 96EU, 1.40 GHz
- i5 vPro, & i5 SKUs
Intel® Iris® Xe Graphics 80EU, 1.40 GHz
- i3 SKUs
Intel® UHD Graphics for 12th Gen Intel®
Processors

Storage Capabilities

- M.2 22x80 key M slot for PCIe x4 Gen 4 NVMe
SSD
- M.2 22x42 key B slot for PCIe x1 Gen 3, USB 3.2
Gen 2 and SATA SSD expandability

System Memory

- Dual-channel DDR4-3200 SODIMMs, 1.2V,
64GB max.

Connectivity

- 2x Thunderbolt 4 ports (incl. DP 1.4a and USB
4) via back panel type C connectors (select
SKUs only)
- 2x HDMI 2.1 TMDS Compatible (4K@60Hz),
with built-in CEC per port
- 2x front and 1x rear USB 3.2 Gen 2 type A ports
- 1x rear type A and 2x internal USB 2.0 headers
- Front panel header (with Vcc5/1A, 5Vsby2A,
3.3Vsby1A)
- All USB ports with individual USB power
control
- Intel® i225-v 10/100/1000/2500 Mbps RJ45
Ethernet (i225-V on vPro SKUs; i225-V on non-
vPro SKUs)
- Dual LAN tall SKU: 2nd Intel® i225-V
Ethernet and two additional USB 2.0 ports
on expansion module (optional)
- Intel® Wi-Fi 6E AX211 (Gig+) vPro, Bluetooth™
5.2
- 3.5mm front stereo headset jack

System BIOS

- 256Mb Flash EEPROM with Intel® Platform
Innovation Framework for EFI Plug and Play
- Advanced configuration and power interface
V5.0b, SMBIOS 2.5
- Intel® BIOS
- Intel® Express BIOS update support

Hardware Management Features

- TDP settings for Core i5/i7 CPUs down-
configurable to 20W
- Voltage and temperature sensing

- ACPI-compliant power management
control

Chassis Expansion and Robustness

- 2nd Intel® i225-V Ethernet and 2 x additional
USB 2.0 ports on expansion module (select
SKUs only)
- Replaceable lid
- Kensington lock with base security
- Cable locking arm
- VESA mounting plate included
- Tall kits only: 2.5" drive bay (15mm SATA) and
internal expansion bay via backpanel

Audio

- 3.5mm front stereo headset jack
- Up to 7.1 multichannel (or 8-channel) digital
audio on HDMI and DP type C ports (select
SKUs only)

Advanced Features

- Qualified for 24x7 operation
- Delayed AC start; Auto CMOS reset
- Display emulation (headless display, virtual
display, persistent displays) via HDMI

Operating System Compatibility

- Microsoft Windows* 11, Windows 10 (logo'd),
Windows 10 IOT Enterprise
- Compatible with various Linux distros

Power Requirements

- 12 – 20VDC ±5% input on rear jack, internal
2x2 power connector, with OVP/UVp, with DC
transient voltage suppression
- 19VDC power supply adapter (120W for Core
i7, i5; 90W for Core i3) with geo-specific AC
cord (IEC C5)

Product Dimensions

- Board: 104x102 mm
- "K" chassis: 117x112x37 mm
- "H" chassis: 117x112x54 mm

Environment Operating Temperature

- 0 C to +35 C
- Up to 40degC external ambient operating
temperature tolerance

Storage Temperature

- -20 C to +60 C

Safety Regulations and Standards

- IEC/EN 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

Energy Efficiency Regulations for Mini PCs

- US Energy Star and CEC
- EU ErP Directive
- China CEL
- South Korea E-standby
- Australia GEMS
- Israel Energy Source

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

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