NUC8i3PNB - Quad-Core i3 Motherboard

Easy Customization

The NUC8i3PNB (code-named Provo Canyon), built with 8th generation Intel® Core™ i3 processors, delivers the performance and innovation for small space and embedded solutions. Whether you're creating a digital kiosk, deploying intelligent vending, or refreshing enterprise PCs, the Provo Canyon can get the job done easily. With the option to run Windows® 10 or Linux or another OS, the Provo Canyon delivers the flexibility to build the exact solution your solution needs.

create interactive touch systems perfect for digital signage or intelligent vending. The NUC8i3PNB board also has an internal power connector with a 12-24 volt input range so your systems stay up and running no matter the fluctuation in power. The board ships without a wireless card so you can choose what's best for the solution you're building.
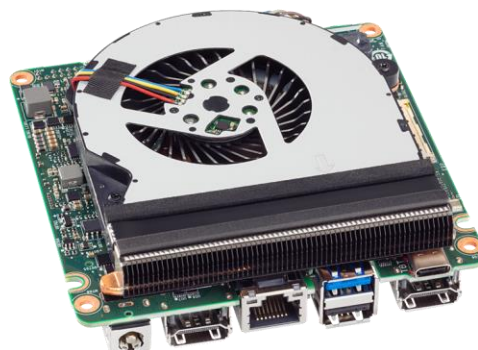
Build Embedded Solutions

The Provo Canyon NUC board enables incredible flexibility and expandability depending on your customers' needs. It has some new features including a high-speed Thunderbolt™ 3 port to complement the two full-sized HDMI 2.0a ports for powering up to three brilliant 4K displays at 60 Hz. This unit also features display emulation which enables various options including headless operation, a second virtual display, and persistent displays. The board includes a 4-lane eDP connector that allows you to

Highlighted features

- 8th Gen Intel® Core™ i3
- Intel® HD Graphics 620
- Two DDR4-2666 SO-DIMM Sockets
- M.2 slot supports PCI or SATA SSDs
- Intel® Optane™ Memory ready
- Dual HDMI 2.0 supporting 4K @ 60Hz
- Intel® Gigabit LAN with AMT Support
- Three USB 3.1 Gen2 Ports
- One USB 2.0 Port
- Digital Audio 7.1 Surround Sound
- Internal Dual-Band Antennas
- 19V DC Jack (12-24v operation)*
- VESA Mount Kit

Customization

- Supports DDR4 RAM 4GB-64GB
- Supports M.2 SSD 128GB-2TB
- SATA drive connector
- Legacy Serial port option
- Two USB 2.0 and One USB 3.0 Internal Headers
- Consumer Electronics Control (CEC) Internal Header

Simply NUC Services
You can order this NUC in your various configurations, as well as your corporate OS Image loaded and ready to deploy.

Technical Specifications

Processor
- Intel® Core™ i3-8145U processor (2.1GHz with 3.9GHz Turbo, Quad Core, Hyper-thread, 4MB Smart Cache, 15W TDP)

Storage Capabilities
- One M.2 socket supporting 22x80 M.2 SSDs, SATA or PCIe, Intel® Optane™ Memory
- One SATA 3 port for connection to 2.5" HDD or SSD

Audio
- Up to 7.1 surround audio via HDMI

Hardware Management Features
- AMT supported Ethernet Controller
- Voltage and temperature sensing
- ACPI-compliant power management control
- Processor fan speed control
- Fan sensor inputs used to monitor fan activity

Graphics
- Intel® HD Graphics 620
- Two HDMI 2.0a ports with HDCP 2.2
- Built-in CEC for both ports
- Support for a 3rd monitor via Thunderbolt 3

Peripheral Connectivity
- Intel® Gigabit LAN w/ AMT support
- Three Super-Speed USB 3.1 Gen2 ports (one on back panel and two on front panel)
- One back USB 2.0 port
- One back USB 3.1 Gen 2 ports on Type-C Connector
- One M.2 socket supporting optional 22x30 M.2 wireless solutions

Baseboard Power Requirements
- 19V, 90W AC-DC power adapter with detachable power cord.
- **US Cord sold separately***, other countries available

Mechanical Board Size
- 4" x 4.1"
- 102 mm x 104 mm

System Memory
- Two DDR4 SO-DIMM sockets, 64GB Max, 1.2V

System Bios
- 64 Mb Flash EEPROM with Intel® Platform Innovation Framework for EFI Plug and Play
- Advanced configuration and power interface V3.0b, SMBIOS2.5
- Intel® Visual BIOS
- Intel® Express BIOS update support

Front Panel Header
- Reset, HDD LED, Power LEDs, power on/off

Expansion Capabilities
- One USB 3.0 port via a 1x10 header
- Two USB 2.0 ports on two 1x4 Headers
- One M.2 22x30 socket
- Optional Legacy Serial Connector
- One AUX_PWR connector
- One Consumer Electronics Control

Certification and Regulations

Product Safety Regulations and Standards
- IEC 60950-1
- UL 60950-1
- EN 60950-1
- CAN/CSA-C22.2 No. 60950-1

Environment Operating Temp
- 0° C to +40° C
- Non-condensing Humidity

Storage Temperature
- -20° C to +60° C

EMC/RF Regulations and Standards (Class B)
- CISPR 52
- FCC CFR Title 47, Chapter I, Part 15, Subparts B, C, E
- ICES-005
- EN 55052
- ETSI EN 500 528 501 489-1
- ETSI EN 501 489-17 501 895
- EN 62511
- AS/NZS 2772.2 4268
- VCCI V-2, V-5, V-4
- KN-52
- CNS 15458

- EN 55024
- ETSI EN

- ETSI EN

- AS/NZS

- KN-24

Environmental Regulations
- RoHS Directive 2011/65/EU
- WEEE Directive 2012/19/EU
- China RoHS

Certified Operating Systems
- Windows 10 64-bit (Pro & Home)
- Windows 10 IoT Enterprise - (64-bit only) CBB and LTSB
- Windows Server 2016
- Various Linux including: Ubuntu, Mint, openSUSE, etc (Contact Simply NUC for specifics)