

NUC Ultra 100 Motherboard Series

NUC-155H R2, NUC-125H R2

NUC Motherboard

KEY FEATURES

- Intel® Core™ Ultra processors (Meteor Lake-U/H)
- 2 x 262-pin SO-DIMM DDR5 5600MHz up to 96GB (48GB per DIMM)
- 1 x USB4/Thunderbolt™4, 4 x USB3.2 Gen2, 2 x USB 2.0, 2 x M.2 Key M, 1 x M.2 Key E, 1 x COM, 1 x SATA3
- 2 x Intel 2.5 Gigabit LAN
- Supports Quad display, 2 x HDMI 2.1 TMDS, 1 x DP 2.1 (from USB4), 1 x DP 1.4a (from Type-C)
- Intel® PTT
- Supports Intel® vPro, VMD RAID 0/1
- 12V~24V DC-in

SPECIFICATIONS

Form Factor

Dimensions	NUC (4.09-in x 4.02-in x 1.5-in, 10.4 cm x 10.2 cm x 3.8 cm)
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Processor System

CPU	Intel® Core™ Ultra processors (Meteor Lake-H/U) NUC-155H R2 (Ultra 7 155H, 6P+8E) NUC-125H R2 (Ultra 5 125H, 4P+8E)
Chipset	MCP
BIOS	AMI SPI 256 Mbit

Memory

Technology	Dual Channel DDR5 5600 MHz
Capacity	96GB (48 GB per DIMM)
Socket	2 x 262-pin SO-DIMM

Graphics

Controller	Intel® Arc™ Graphics
HDMI	HDMI 2.1 TMDS Max resolution up to 4096x2160@60Hz
DisplayPort	DisplayPort 2.1/ 1.4a, DP++ Max resolution up to 4096x2160@60Hz
MultiDisplay	Max 4 display (Included 2 outputs from Type-C)

Expansion Slot

M.2	1 x M.2 (Key E, 2230) with PCIe x1, USB 2.0 and CNVi for Wireless
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Audio

Interface	Realtek ALC256, High Definition Audio.
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Ethernet

Controller/ Speed	LAN1: Intel® I226LM with 10/100/1000/2500 Mbps LAN2: Intel® I226V with 10/100/1000/2500 Mbps
Connector	2 x RJ-45

Front I/O

USB	1 x USB 3.2 Gen2 (Type A) 1 x USB4/Thunderbolt™4 (5V/3A, Supports DP 2.1 display output) 1 x USB3.2 gen2x2 (Type-C, 5V/3A, Supports DP1.4a display output) *For Thunderbolt support, please refer to support list.
Audio	1 (headphone & microphone jack)

Rear I/O

HDMI	2 x HDMI 2.1 TMDS
Ethernet	2 x 2.5 Gigabit LAN
USB	2 x USB 3.2 Gen2 (Type A)
DC Jack	1

Internal Connector

USB	2 x USB 2.0 (1 x 2.00 pitch header)
COM	1 x COM(RS-232/RS-422/RS-485)

Storage

M.2	1 x M.2 (KEY M, 2242) with PCIe Gen4 x4 for SSD 1 x M.2 (KEY M, 2242/2280) with PCIe Gen4 x4 for SSD
SATA	1 x SATA3.0 (6.0 Gb/s)
RAID	Intel® VMD RAID 0/1 **supported by identical interface (PCIe) PCIe interface: 2*M.2 Key M

Security

TPM	Intel® PTT
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Watchdog Timer

Output	From Super I/O to drag RESETCON#
Interval	256 Segments, 0, 1, 2, ...255sec

Power Requirements

Input PWR	12V~24V DC-In Jack
Power On	AT/ATX Supported - AT : Directly PWR on as power input ready - ATX : Press button to PWR on after power input ready

Environment

Operating Temp	-20°C ~ 70°C
Storage Temp	-40° C ~ 85° C
Operating Humidity	5% ~ 90%
Storage Humidity	5% ~ 90%

BLOCK DIAGRAM

