

MAB-T660D



Product Features

- 12/13/14th Generation Intel® Core™ i3/i5/i7/i9 Processors. Max TDP 65W
- 2 x SODIMM sockets support DDR5 5600MHz up to 64GB (Non-ECC) (CPU dependent)
- 1 x PCIe x16 Gen 4 (from CPU) (with riser card), 1 x M.2 E-Key CNVi support, 1 x M.2 M-Key NVMe support
- 1 x Internal 2.5" SSD
- 0~40°C (32°F ~ 104°F) Operating Temp
- Intel® H610E Chipset
- 1 x DP 1.4, 1 x HDMI
- 1 x Intel GbE LAN; 1 x Intel 2.5 GbE LAN
- 2 x USB 3.2 Gen1 x1 Type A at Rear, 2 x USB 2.0 Type A at Rear, 2 x USB 2.0 Type A at Front
- Riser Card PCIe16 1 to 1

Specification

System Information

Processor	12th Gen Alder Lake/ 13th Gen Raptor Lake/ 14th Gen Raptor Lake Refresh Intel® Core™ i3/i5/i7/i9 Processors. Max TDP 65W
Platform Controller Hub	Intel® H610E Chipset
System Memory	2 x SODIMM sockets support DDR5 5600MHz up to 64GB (Non-ECC) (CPU dependent)
I/O Chipset	Nuvoton NCT6126D (eSPI super IO)
BIOS	AMI uEFI BIOS, 256Mbit SPI Flash ROM
Watchdog Timer	H/W Reset, 5~255 seconds/5~255 minutes
H/W Status Monitor	CPU temperature monitoring, Voltages monitoring, CPU fan speed control
TPM	dTPM2.0
iAMT	Yes
SBC	MX610HD

Expansion

M.2	1 x M.2 M-Key 2242/2280 NVMe (PCIe x4 + SATA III) 1 x M.2 E-Key 2230 CNVi (PCIe x1 + USB 2.0)
PCIe	1 x Gen 4 PCIe x16

Storage

M.2	1 x M.2 Key-M 2242/2280 NVMe (PCIe x4, SATA3)
Storage	1 x Internal 2.5" Drive Bay

Front I/O

Power Button	1 x PWR Button
LED Indicator	1 x Power on/off LED
USB	2 x USB 2.0

Rear I/O

USB	2 x USB 2.0 (Type A) 2 x USB 3.2 (Type A)
LAN Port	2 x RJ45
Audio	Line-out, Mic-in
DP	1 x DP
HDMI	1 x HDMI
AC/DC Input	DC-In

Display

Graphic Chipset	Intel® Integrated UHD Graphic with Xe Architecture (CPU Dependent)
Spec. & Resolution	1 x DP 1.4a 4096 x 2304@60Hz 1 x HDMI 1.4b 3840 x 2160 @30Hz

Audio

Audio Codec	Realtek HD Audio Codec
Audio Amplifier	TI TPA3005 Stereo Class-D 3W4Ω

Power Requirement

Voltage Input Spec	12V-24V Wide Range DC-In
Voltage Input Conn.	4-pin DC Jack
ACPI	Single power ATX support S0, S3, S4, S5
Power Mode	AT / ATX mode (Default ATX)
Adapter	External 180W adapter (Optional medical 180W adapter)

Ethernet

LAN Chipset	1 x Intel® I225LM 2.5 Gigabit Controller 1 x Intel® I219-V Gigabit Ethernet PHY
Data Rate Per Port	2.5GbE (I225-LM) 1GbE (I219-V)

Software Support

OS	Win 10, Win 11, Linux
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Certification

Certification Information	IT CE/FCC
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Internal I/O

SATA Signal	2 x SATA III
SATA PWR	1 x 15-pin SATA Power Connector (2 Devices)

GPIO	1 x 8-bit GPIO Header
USB Port	1 x 2 x 5 pin, pitch 2.54mm connector for 2 x USB 2.0 (USB78) 1 x 2 x 10 pin, pitch 2.00mm connector for 2 x USB 3.2 Gen 1x1 (USB56)
COM Port	COM1~COM2: • 2 x RS232/422/485 ports, selectable via BIOS • Connector: 2 x 5-pin header (2.00mm pitch) • Pin 9: No power output • Power selection (Pin 9) available via jumper (JCOMPWR1~2): +5V / +12V / RI (Ring Indicator) COM3: • 1 x RS232 port • Connector: 2 x 5-pin header (2.00mm pitch) • Pin 9: No power output • Power configuration via jumper (JCOMPWR3): +5V / +12V / RI
AT/ATX Selector	1 x 1 x 3 pin, pitch 2.00mm connector for AT/ATX jumper (JPSON1)
RTC Battery	1 x 2 Pin, pitch 1.25mm horizontal type battery connector (SMD Type)
Audio	1 x 2 x 5 pin, pitch 2.54mm connector for front panel audio (FP_AUDIO1)
DC-Input	1 x 4 pin, pitch 2.50mm Mini-Fit Jr DC Jack at IO (DC_IN1)
Buzzer	Onboard
CPU/System FAN	65W cooler fan; N/A
AC/DC Input Conn.	1 x 2 x 2 pin, pitch 2.40mm for 12V ATX power (ATX12V1)

Mechanical & Environmental	
Operating Temp.	0°C ~ 40°C (32°F ~ 104°F) with 0.5m/s air flow (turbo mode off)
Drop Test	Package drop test:One corner, three edges, six faces ISTA 2A, IEC-60068-2-32
Shock Test	With SSD : 10 Grms, IEC 60068-2-27, half sine, 11ms
Vibration Test	Operating with SSD : 0.5 Grms, IEC 60068-2-64, 5 ~ 500Hz, 0.5hr/axis
Weight	4.8 kg
Dimension (W x L x H)	315 * 273 * 92 mm
Operating Humidity	40°C @ 95% Relative Humidity, Non-condensing
Storage Temp.	-20°C ~ 60°C(-4°F ~ 140°F)