

# MANO560 NEW

Mini-ITX SBC with LGA1700 12th Gen Intel® Core™ i9/i7/i5/i3, DisplayPort++, HDMI, VGA, LVDS, USB 3.2, M.2, and Dual GbE LAN

## Features

- LGA1700 12th gen Intel® Core™ i9/i7/i5/i3 processor
- Intel® H610 chipset
- 2 DDR4 SO-DIMM for up to 64GB memory
- 2 USB 3.2 Gen1 and 5 USB 2.0
- 4 COM port
- 1 PCIe x16 and 1 M.2 Key E slot
- 1 Full-size mini-PCIe slot
- 1 SATA-600
- 1 M.2 Key B for USB 3.2 interface 5G module



## Core System

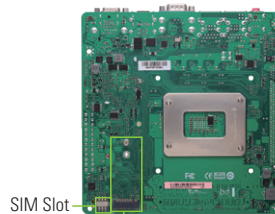
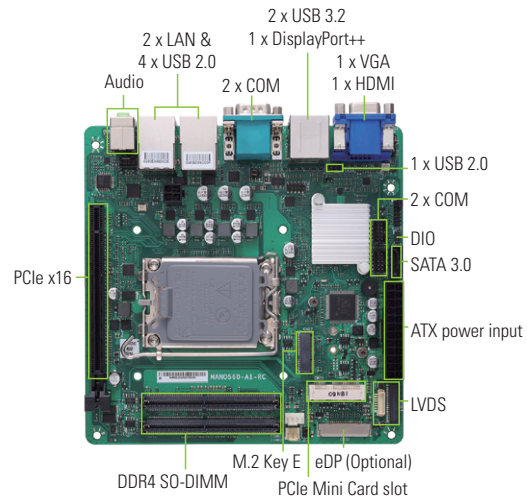
CPU	LGA1700 12th gen Intel® Core™ i9/i7/i5/i3, Intel® Pentium® processors Gold/Celeron® processors (up to 65W)
System Memory	2 x 266-pin DDR4-3200/2666/2400 SO-DIMM, up to 64GB
Chipset	Intel® H610
BIOS	AMI
Watchdog Timer	255 levels, 1 to 255 sec.
Expansion Interface	1 x PCIe x16 1 x M.2 Key B 1 x M.2 Key E 2230 1 x mini-PCIe
M.2 Key B Expansion Function Option	USB 3.2 Gen1 for 3042/3052 5G module or SATA interface for 2242 SSD
Battery Lithium	Lithium 3V/220mAh
Power Input	Standard 12V ATX power 24+4 pin ATX connector AT mode auto power function supported
Size	170 x 170 mm
Board Thickness	1.6 mm
Operating Temperature	0°C to +60°C (+32°F to +140°F)
Relative Humidity	10%- 95% relative humidity, non-condensing

## I/O

SATA	1 x SATA-600
Hardware Monitoring	Detect CPU/system temperature, voltage and fan speed
Ethernet	1 x 2500/1000/100/10 Mbps Gigabit/Fast Ethernet supports Wake-on-LAN, PXE with Intel® I225-V 1 x 1000/100/10 Mbps Gigabit/Fast Ethernet supports Wake-on-LAN, PXE with Intel® I219-V
Audio	HD Codec audio as MIC-in/Line-in/Line-out with Realtek ALC897
USB	2 x USB 3.2 Gen1 5 x USB 2.0
Serial	1 x RS-232/422/485 (with +5V/+12V power) 3 x RS-232
PS/2 Combo Port	N/A
TPM	Onboard TPM 2.0 (TPM IC: SLB9670)
SMBus	N/A
Digital I/O	8-channel in/out programmed

## Display

Chipset	Intel® UHD Graphics
Memory Size	Share system memory
Display Interface	1 x DisplayPort++ 1 x HDMI 1 x LVDS (eDP BOM optional) 1 x VGA



M.2 Key B ▲ Rear view (2242/3042/3052)



▲ ECM500

## ECM500, Embedded Chassis

Construction	Heavy-duty cold-rolled steel
I/O	1 x Power button 1 x Standard Mini-ITX I/O bracket space 3 x D-Sub connector 1 x PCI Express card slot
Dimensions	217.2 mm (8.55") (D) x 300 mm (11.81") (W) x 74 mm (2.91") (H)
ECM500 (P/N: E272500101)	Embedded MicroBox for low power Mini-ITX SBC

## Packing List

### Standard

I/O bracket

## Ordering Information

### Standard

MANO560-H-B-U (P/N: E38M560100)	Mini-ITX SBC with LGA1700 12th gen Intel® Core™ processor, DP++, HDMI, VGA, LVDS, USB 3.2, M.2 for USB 3.2 interface, dual GbE LAN, HD audio, and bulk packing
MANO560-H-S-U (P/N: E38M560101)	Mini-ITX SBC with LGA1700 12th gen Intel® Core™ processor, DP++, HDMI, VGA, LVDS, USB 3.2, M.2 for USB 3.2 interface, dual GbE LAN, HD audio, and single box packing
MANO560-H-B-S (P/N: E38M560102)	Mini-ITX SBC with LGA1700 12th gen Intel® Core™ processor, DP++, HDMI, VGA, LVDS, USB 3.2, M.2 for SATA interface, dual GbE LAN, HD audio, and bulk packing
MANO560-H-S-S (P/N: E38M560103)	Mini-ITX SBC with LGA1700 12th gen Intel® Core™ processor, DP++, HDMI, VGA, LVDS, USB 3.2, M.2 for SATA interface, dual GbE LAN, HD audio, and single box packing

### optional

505000001000	LGA1700 Cooler 1U 4500RPM
505000001100	LGA1700 Cooler 1.5U 5500RPM
594P8802810E	USB Cable 1.25_4pin Housing L: 150 mm
594M5402100E	COM Cable DB9M/DUPONT 2 x 5 P2.0 L=20 cm
59386831010E	SATA2 Signal Cable 180D, L=350 mm (PC)