

# MANO561 NEW

Thin Mini-ITX SBC with LGA1700 12th Gen Intel® Core™ i9/i7/i5/i3, 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, 1 M.2 Key E, 1 M.2 Key B & 1 mini-PCIe Slot
- 1 Full-size mini-PCIe slot
- 1 SATA-600
- 12 to 24 VDC power in



### Core System

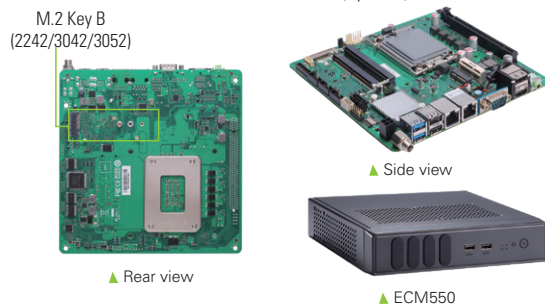
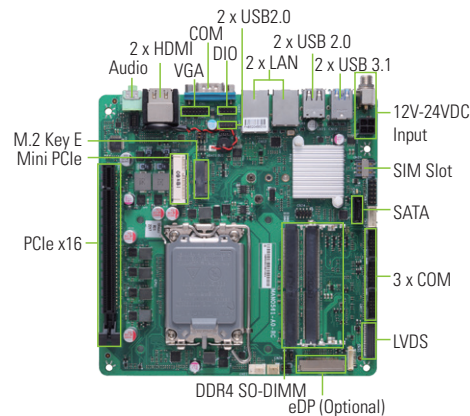
CPU	LGA1700 12th gen Intel® Core™ i9/i7/i5/i3, Intel® Pentium® processors Gold/Celeron® processors (up to 65W)
System Memory	2 x 260-pin DDR4-3200/2666/2400 SO-DIMM, up to 64GB
Chipset	Intel® H610
BIOS	AMI
Watchdog Timer	255 levels, 1 to 255 sec.
Expansion Interface	1 x PCIe x16 1 x M.2 Key B : Support SATA & USB3.2 Gen1 1 x M.2 Key E 2230 1 x mini-PCIe : Support PCIe x1 & USB2.0 1 x SIM Slot : For M.2 Key B
Battery Lithium	Lithium 3V/220mAH
Power Input	1 x 12 to 24V DC Jack 1 x 12 to 24V 4-pin ATX connector
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
TPM	Onboard TPM 2.0 (TPM IC: SLB9670)
Digital I/O	8-channel in/out programmed

### Display

Chipset	Intel® UHD Graphics
Memory Size	Share system memory
Display Interface	2 x HDMI 1 x LVDS (eDP BOM optional) 1 x VGA



### ECM550, Embedded Chassis

Construction	Heavy-duty cold-rolled steel
Indicator	1 x Blue LED for system power-on 1 x Amber LED HDD Active
Panel I/O	Front: 4 x D-Sub connector 1 x Power button 2 x USB 2.0 1 x Reset button Rear: 1 x Standard Thin Mini-ITX I/O bracket space
ECM550 (P/N: E272550101)	Embedded Thin MicroBox for Low Power Mini-ITX SBC

### Packing List

#### Standard

I/O bracket 2cps (Thin and Standard)

### Ordering Information

#### Standard

MANO561-H-B (P/N: E38M561100)	Mini-ITX SBC with LGA1700 12th gen Intel® Core i processor, HDMI, VGA, LVDS, USB 3.2, M.2, dual GbE LAN, HD audio, and bulk packing
MANO561-H-S (P/N: E38M561101)	Mini-ITX SBC with LGA1700 12th gen Intel® Core i processor, HDMI, VGA, LVDS, USB 3.2, M.2, 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 (RC)
594E3420610E	Cable 4P housing to SATA/180D L:300 mm
5095AD24000E	ADAPTER 19V 120W w/screw
590000015500	VGA cable 250mm DSUB 15P (F)/HS (2004-H-2x8P)16P