

# MANO500

Mini-ITX SBC with LGA1151 Socket 6th/7th Gen Intel® Core™ Processor,  
Intel® H110/Q170, HDMI/DisplayPort/VGA/LVDS/eDP, Dual LANs and USB 3.0

## Features

- LGA1151 socket 6th/7th gen Intel® Core™ i7/i5/i3, Pentium® & Celeron® processor (Skylake/Kaby Lake)
- Intel® H110/Q170
- 2 DDR4-2133 Long-DIMM, up to 32GB
- 1 PCIe x16 slot
- 1 PCI Express Mini Card slot and SIM card slot
- 3 SATA-600 and 1 mSATA
- 4 USB 3.0 and 4 USB 2.0

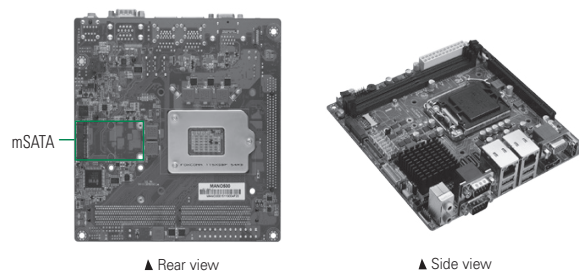
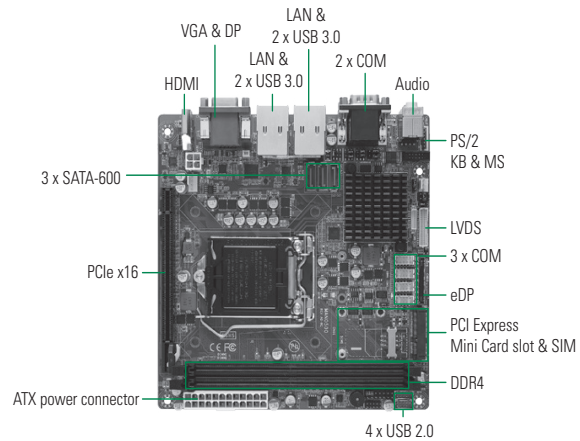


### Core System

|                       |                                                                                 |
|-----------------------|---------------------------------------------------------------------------------|
| CPU                   | LGA1151 socket 6th/7th gen Intel® Core™ i7/i5/i3, Pentium® & Celeron® processor |
| System Memory         | 2 x 288-pin Long-DIMM dual channel DDR4-2133, up to 32GB                        |
| Chipset               | Intel® H110/Q170                                                                |
| BIOS                  | AMI                                                                             |
| SSD                   | N/A                                                                             |
| Watchdog Timer        | 255 level, 1 ~ 255 sec.                                                         |
| Expansion Interface   | 1 x PCIe x16<br>1 x PCI Express Mini Card slot<br>1 x SIM Card slot             |
| Battery Lithium       | Lithium 3V/220 mAh                                                              |
| Power Input           | 2 x 12 ATX connector<br>ATX power<br>AT Auto Power On function supported        |
| Dimensions            | 170 x 170 mm                                                                    |
| Board Thickness       | 1.6 mm                                                                          |
| Operating Temperature | 0°C to +60°C (+32°F to +140°F)                                                  |
| Humidity              | 10% - 95% relative humidity, non-condensing                                     |

### I/O

|                     |                                                                                                                                      |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| MIO                 | 1 x PS/2 keyboard & mouse<br>1 x RS-232/422/485 (with 5V/12V power select)<br>5 x RS-232                                             |
| SATA                | 3 x SATA-600<br>1 x mSATA                                                                                                            |
| Hardware Monitoring | Detect CPU/system temperature, voltage and fan speed                                                                                 |
| Ethernet            | 1st port as 10/100/1000 Mbps supports WOL, PXE with Intel® i219-LM<br>2nd port as 10/100/1000 Mbps supports, PXE with Intel® i211-AT |
| Audio               | HD Audio as Mic-in/Line-out with Realtek ALC662                                                                                      |
| USB                 | 4 x USB 3.0 (rear I/O)<br>4 x USB 2.0                                                                                                |
| TPM                 | N/A                                                                                                                                  |
| Digital I/O         | 8 channels programmable                                                                                                              |
| SMBus               | N/A                                                                                                                                  |



### Display

|                   |                                                                                                        |
|-------------------|--------------------------------------------------------------------------------------------------------|
| Chipset           | Intel® HD Graphics 530/510 for 6th gen processors<br>Intel® HD Graphics 630/610 for 7th gen processors |
| Memory Size       | Shared memory                                                                                          |
| Display Interface | 1 x HDMI<br>1 x VGA<br>1 x DisplayPort<br>1 x LVDS<br>1 x eDP (co-layer with LVDS) (optional)          |

### Packing List

| Standard                |  |
|-------------------------|--|
| I/O bracket, Driver DVD |  |

### Ordering Information

| Standard                          |                                                                                                                                                                      |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MANO500VHGA (P/N:E38M500101)      | Mini-ITX SBC with LGA1151 socket 6th/7th gen Intel® Core™ i7/i5/i3, Pentium®, Celeron® processor, Intel® H110, HDMI/DisplayPort/VGA/LVDS/eDP, 2 GbE LANs and USB 3.0 |
| MANO500VHGA-Q170 (P/N:E38M500105) | Mini-ITX SBC with LGA1151 socket 6th/7th gen Intel® Core™ i7/i5/i3, Pentium® Celeron® processor, intel® Q170, HDMI/DisplayPort/VGA/LVDS/eDP, 2 GbE LANs and USB 3.0  |
| Optional                          |                                                                                                                                                                      |
| 594M5002100E                      | 2 x COM port with bracket, P=2.0 mm, L=300 mm                                                                                                                        |
| 59382631000E                      | 2 x USB 2.0 wafer cable with bracket, 180 mm                                                                                                                         |
| 59384500100E                      | Audio cable with bracket, P=2.0 mm, L=450 mm                                                                                                                         |
| 594M5002A00E                      | PS/2 cable PS/wafer 6-pin P=2.0 mm, L=200 mm                                                                                                                         |
| 5077L07C000E                      | LGA115x 1U fan back plate H:2.45 mm                                                                                                                                  |
| 50721127100E                      | LGA115x 1.5U fan JAC6L23C-C H=35                                                                                                                                     |



## Assured Systems

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