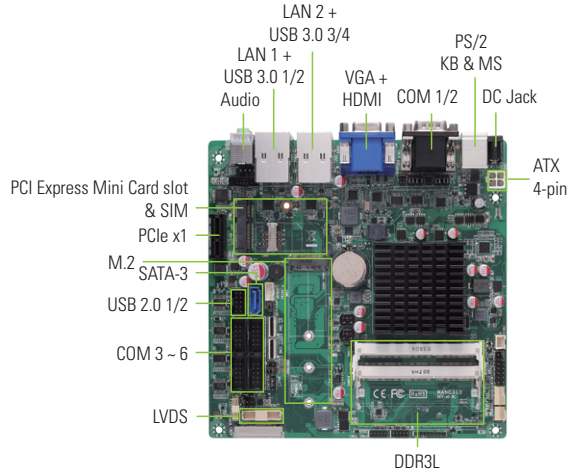


MANO310 NEW

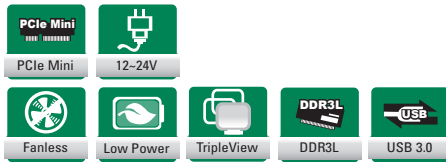
Mini-ITX SBC with Intel® Pentium® Processor N4200 & Celeron® Processor N3350, VGA/HDMI/LVDS, USB 3.0, PCI Express Mini Card Slot, M.2, and HD Audio

Features

- Intel® Pentium® processor N4200 & Celeron® processor N3350
- 2 DDR3L SO-DIMM, up to 8GB
- PCI Express Mini Card slot and PCIe x1
- 4 USB 3.0 and 2 USB 2.0
- 1 SATA-600, 1 M.2 and 1 SDXC slot
- 6 COM supported
- 12 ~ 24 VDC
- VGA, HDMI and LVDS with triple-view supported



▲ Side view



Core System

CPU	Intel® Pentium® N4200 & Celeron® N3350 (Apollo Lake)
System Memory	2 x 204-pin DDR3L-1867 SO-DIMM dual channel, up to 8GB
Chipset	SoC integrated
BIOS	AMI
SSD	1 x M.2 Key B 22 x 42/60/80 1 x SDXC slot
Watchdog Timer	255 levels, 1 ~ 255 sec.
Expansion Interface	1 x PCIe x1 1 x PCI Express Mini Card slot 1 x SIM card slot
Battery	Lithium 3V/220 mAH
Power Requirements	12 ~ 24 VDC
Size/Weight	170 x 170 mm
Board Thickness	1.6 mm
Temperature	0°C ~ +60°C (+32°F ~ +140°F), operation
Operation Humidity	10% ~ 95% relative humidity, non-condensing

I/O

MIO	1 x PS/2 keyboard and mouse 2 x RS-232/422/485 (Rear I/O) 4 x RS-232 (COM 3 with +5/+12V)
SATA	1 x SATA-600
Ethernet	2 ports 10/100/1000 Mbps support Wake-on-LAN, PXE with Realtek RTL8111F
Audio	HD Codec audio as Mic-in/Line-out with Realtek ALC662
USB	2 x USB 2.0 (internal) 4 x USB 3.0 (rear I/O)
TPM	N/A
Digital I/O	16 channels In/Out programmable
SMBus	N/A

Display

Chipset	Intel® integrated Gfx graphic engine
Memory Size	Shared memory
Display Interface	1 x VGA 1 x HDMI 1 x LVDS; 18/24-bit dual channel

Packing List

Standard	User's manual/utility CD and I/O bracket
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Ordering Information

Standard	
MANO310VHGGGA-N3350 (P/N: E38M310104)	Mini-ITX SBC with Intel® Celeron® processor N3350 (1.1 ~ 2.4 GHz, 2MB cache, 6W), VGA/HDMI/LVDS, 2 GbE LANs, 6 COM, USB 3.0, M.2, PCI Express Mini Card slot and HD audio
Optional	
MANO310VHGGGA-N4200	Mini-ITX SBC with Intel® Pentium® processor N4200 (1.1 ~ 2.5 GHz, 2MB cache, 6W), VGA/HDMI/LVDS, 2GbE LANs, 6 COM, USB 3.0, M.2, PCI Express Mini Card slot and HD audio
59411500600E	SATA power cable 4P 18 cm (RC)