



Features

- Onboard Intel® Whiskey Lake U Processor
- 1 x DDR4 SO-DIMM 2400 MHz up to 32GB
- Integrated DisplayPort, HDMI,
- 1 x Intel® Gigabit PHY LAN, 1 x Intel® Gigabit LAN,
- 1 x M.2 (Key E)
- 1 x SATA3, 2 x USB2.0, 2 x USB3.1 Gen2, 2 x RS232,
- Support Watchdog Timer
- Support 4K resolution
- DC input 12V ±5%

System

Processor	Intel® Whiskey Lake U Processor FCBGA1528 package
Memory	1 x DDR4 SO-DIMM 2400 MHz up to 32GB, Support Non-ECC, unbuffered memory
Watchdog Timer	Generates a system reset with internal timer for 1 min/s ~ 255 min/s
Real Time Clock	Chipset integrated RTC with lithium battery
Expansion	1 x M.2 (Key E) for Wi-Fi and Bluetooth 2230mm

Graphics

Processor	Intel® Gen 9.5 integrated HD Graphics
Display Interface	1 x DisplayPort, 1 x HDMI,

LAN

Chip	1 x Intel® I219-LM Gigabit PHY LAN (Support iAMT12.0) 1 x Intel® I210-AT Gigabit LAN
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I/O

Serial ATA	1 x SATA3
Audio	Realtek ALC262 HD Audio
Internal I/O	1 x SATA3, 2 x USB2.0, 1 x LPC 2 x RS232, 1 x Audio, 1 x SMBus, 1 x Header for LVDS or VGA (Note1)
Rear I/O	1 x DisplayPort, 1 x HDMI, 2 x LAN 2 x USB3.1 Gen2,

Mechanical & Environmental

Power Requirement	DC input 12V±5%
Size	100 mm x 72mm (L x W)
Temperature	Operating within 0°C~60°C (32°F~140°F) Storage within -20°C~80°C (-4°F~176°F)
Relative Humidity	10%~90%, non-condensing

Ordering Code

LP-1787:	With i7-8665UE + Cooler fan, support HDMI, DP , Header for LVDS or VGA (Note1)
LP-178C:	With Celeron 4305UE + Cooler fan, support HDMI, DP, Header for LVDS or VGA (Note1)
ADP-3355:	DisplayPort to VGA module
ADP-3460E:	DisplayPort to LVDS module for LP-178.

Note1: Add ADP-3355 supports VGA or Add ADP-3460E supports LVDS.

Note2: If you want to use other WHL U CPU(i5-8365UE,i3-8145UE), please contact with our sales.

Note3: If you want more LVDS or VGA, please contact with our sales.