

LP-177



Features

- Intel® Apollo Lake Series Processor
- 1 x DDR3L SO-DIMM 1866 MHz up to 8GB
- Integrated HDMI, DisplayPort, LVDS for Triple display supports
- 2 x Intel® Gigabit LAN, 1 x MiniPCie
- 1 x SATA3, 2 x USB2.0, 2 x USB3.0, 2 x COM, 1 x LPC, 1 x PS/2
- Support Watchdog Timer, 4K resolution
- DC input 5V±5%

System

Processor	Intel® Apollo Lake Series Processor N3350/N4200/x7-E3950, FCBGA1296 package
Chipset	Apollo Lake SoC
Memory	1 x DDR3L SODIMM 1866 MHz up to 8GB, Support Non-ECC, unbuffered memory only.
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 MiniPCle (Minicard support mSATA)
Graphics	
Chipset	Intel® HD Graphics
Display Interface	1 x LVDS (Note1), 1 x HDMI, 1 x DisplayPort (Optional)
LAN	
Chip	2 x Intel® I210-AT Gigabit LAN

I/O

Serial ATA	1 x SATA3
Audio	Realtek ALC262 HD Audio
Internal I/O	1 x SATA3, 2 x RS232, 2 x USB2.0, 1 x LPC, 1 x PS/2, 1 x SMBUS, 1 x LVDS, 1 x LCD inverter 1 x Audio
Rear I/O	2 x USB3.0, 2 x LAN, 1 x HDMI, 1 x DisplayPort (Optional)

Mechanical & Environmental

Power Requirement	DC input 5V±5%
Size	100 mm x 72mm (L x W)
Temperature	Operating within 0°C~60°C Storage within -20°C~80°C (For LP-177 N3350/N4200 Series) Operating within -40°C~85°C Storage within -40°C~85°C (For LP-177 x7-E3950 Series)
Relative Humidity	10%~90%, non-condensing

Ordering Code

LP-177PN4S	With N4200 + Heat spreader, support HDMI, LVDS, DP
LP-177TN4S	With N4200 + Heat spreader, support HDMI, LVDS, Header for VGA or 2nd LVDS (Note2)
LP-177PN3S	With N3350 + Heat spreader, support HDMI, LVDS, DP
LP-177TN3S	With N3350 + Heat spreader, support HDMI, LVDS, Header for VGA or 2nd LVDS (Note2)
LP-177PN4F	With N4200 + Cooler Fan, support HDMI, LVDS, DP
LP-177TN4F	With N4200 + Cooler Fan, support HDMI, LVDS, Header for VGA or 2nd LVDS (Note2)
LP-177PN3F	With N3350 + Cooler Fan, support HDMI, LVDS, DP
LP-177TN3F	With N3350 + Cooler Fan, support HDMI, LVDS, Header for VGA or 2nd LVDS (Note2)
LP-177PEF	With x7-E3950 + Cooler Fan, support HDMI, LVDS, DP
LP-177TEF	With x7-E3950 + Cooler Fan, support HDMI, LVDS, Header for VGA or 2nd LVDS (Note2)
ADP-3355NB	DP to VGA Adapter, without bracket
ADP-3460	DP to LVDS Adapter (For 2nd LVDS)
DC-DC6	DC 12V to DC 5V, 40W Converter Module with Heat spreader, Terminal block, provides 12V connector for LCD inverter
LP-177P(T)N4S-8G	Same as LP-177P(T)N4S, with DDR3L/8G
LP-177P(T)N3S-8G	Same as LP-177P(T)N3S, with DDR3L/8G
LP-177P(T)N4F-8G	Same as LP-177P(T)N4F, with DDR3L/8G
LP-177P(T)N3F-8G	Same as LP-177P(T)N3F, with DDR3L/8G

Note1: Onboard 18/24-bit single/dual channel LVDS connector with +3.3V/+5V supply

Note2: Add ADP-3355 supports VGA or Add ADP-3460 supports 2nd LVDS.