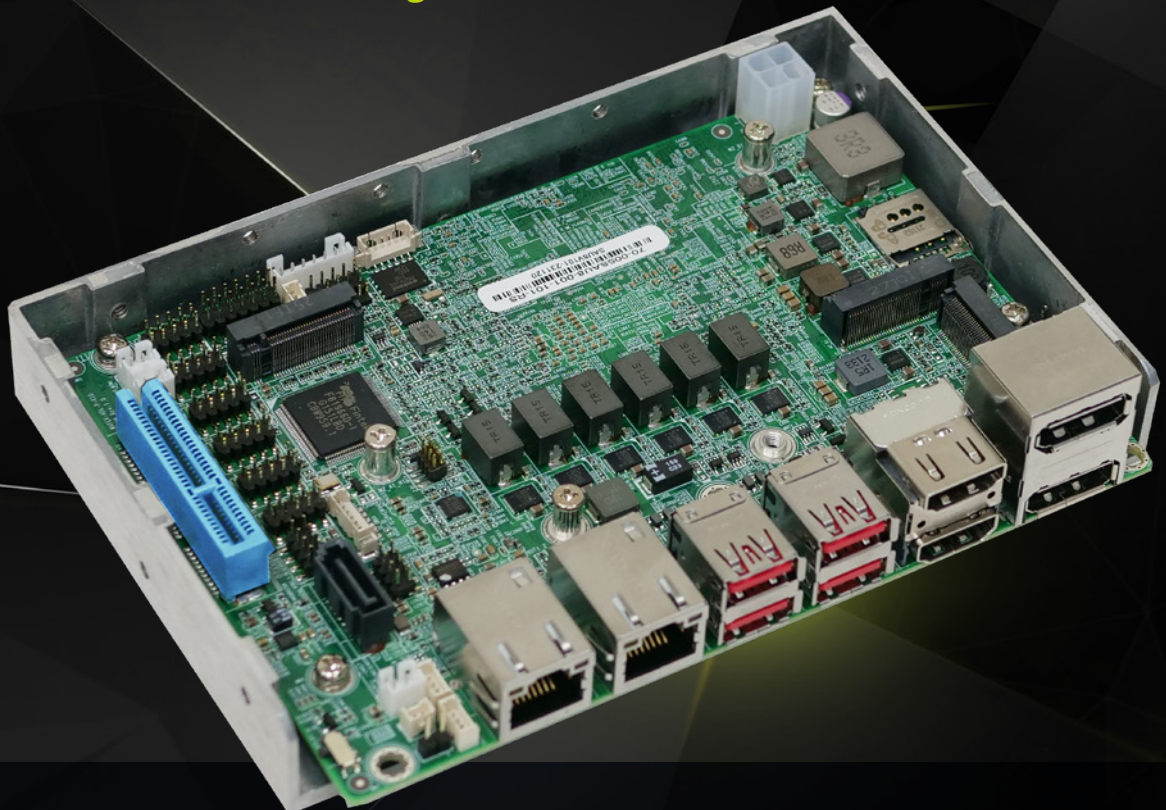


WAFER-ADL-P

3.5 SBC supports Intel® Alder Lake-P Core™ i7/i5/i3 and Celeron® processor with 8GB LPDDR4x memory on board default

- Supports 12th Gen. Intel® mobile Alder Lake-P on board SoC
- On-board LPDDR4x 3200 MHz 8GB , up to 16GB
- Support 2 x 2.5GbE with i225-V
- Support quadruple independent display
- Support PCIE X4,M.2 B key,M.2 A key and M.2 M key expansion

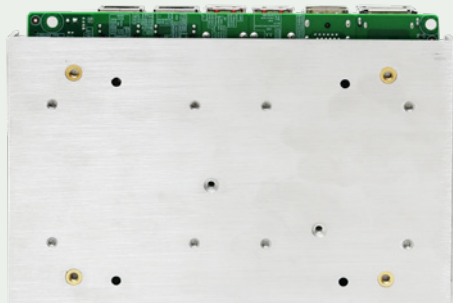
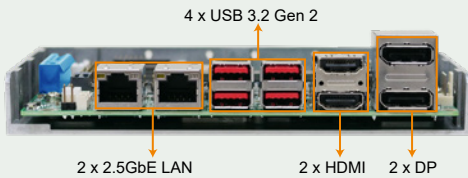
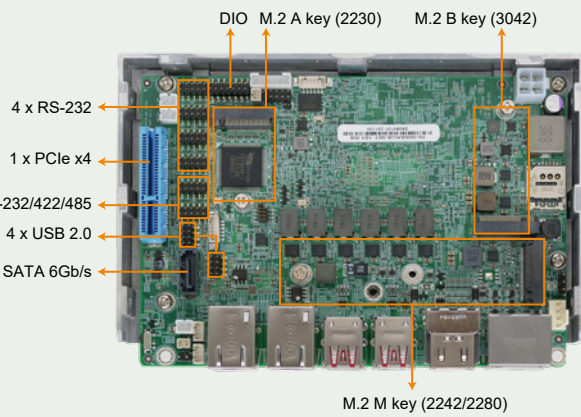
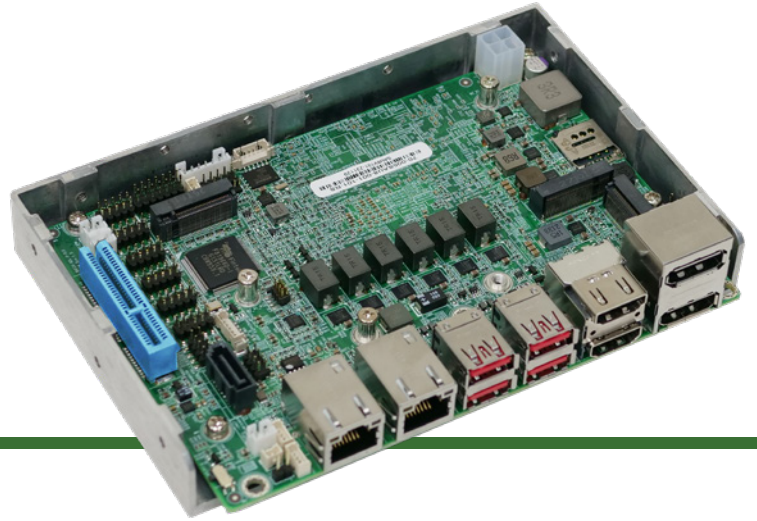
**High Performance Capability
with multi-tasking function**



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WAFER-ADL-P

3.5 SBC supports Intel® Alder Lake-P Core™ i7/i5/i3 and Celeron® processor with 8GB LPDDR4x memory on board default



Support 12th Intel® mobile AlderLake-Ponboard SoC

Equipped with 12th Core™ i7/i5/i3 and Celeron® on-board processor



Support Intel® I225V 2.5GbE Network Controller

Support two RJ45 network interface via Intel® I225v 2.5GbE network controller to achieve up to 2.5GbE network transmission rate.



PCIe x4 Slot Available for Riser Card

One PCIe x4 slot (PCIe Gen3 x4 signal) is reserved on the edge of the motherboard, which can be used to connect a PCIe expansion card or a riser card designed by IEI.

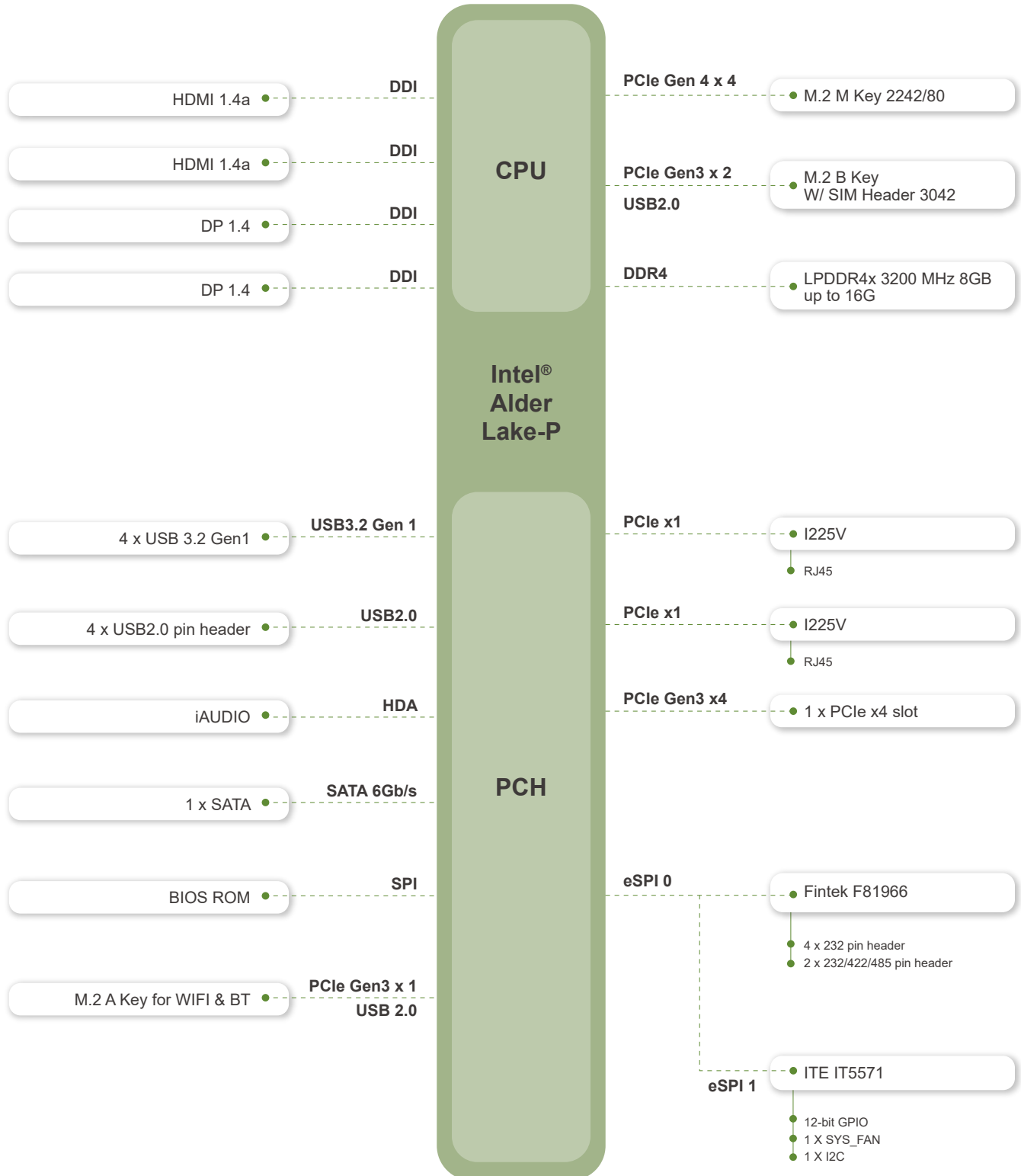


Abundant expansion slots

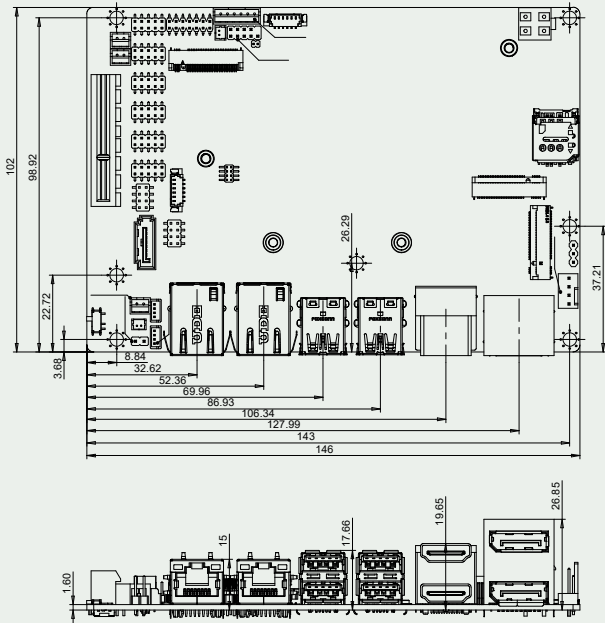
Support M.2 A key for Bluetooth, WiFi module expansion, M.2 B key can be used for 5G module expansion, and M.2 M key for NVME storage expansion



WAFER-ADL-P Block Diagram



Dimensions



Optional accessories



Specifications

Model	WAFER-ADL-P
SoC	12th Gen. Intel® mobile Alder Lake-P on board SoC
BIOS	AMI UEFI BIOS
Memory	On-board LPDDR4x 3200 MHz 8GB
Graphics Engine	Intel® UHD Graphics for Celeron® 7305 and Core i3-1215U Intel® Xe Graphics architecture for Core i5-1235U and Core i7-1255U
Display Output	Quadruple independent display 2 x HDMI 1.4a (up to 4096 x 2160@30Hz) 2 x DP 1.4a (up to 4096 x 2160 @60Hz)
Ethernet	2 x Intel® I225V 2.5GbE controller (Colay with I225-LM)
External I/O Interface	4 x USB 3.2 Gen 2 x1(10Gb/s)
Internal I/O Interface	1 x SATA 6Gb/s 4 x USB 2.0 (2x4 pin, P=2.0) 2 x RS-232/422/485 (2 x 5 pin, P=2.0) 4 x RS-232 (2 x 5 pin, P=2.0)
SMBus/I2C	1 x I ² C (1x4 pin) 1 x SMBus (1x4 pin)
Audio	1 x iAUDIO, support IEI AC-KIT-888S Audio Module (2 x 5 pin)
Front Panel	1 x Front Panel Power LED&HDD LED(1x6 pin), Power Button (1 x 2 pin), Reset Button (1 x 2 pin)
Expansion	1 x M.2 A Key for WIFI & BT 2230(PCle Gen3 x 1 & USB 2.0) 1 x M.2 M Key (PCle x4) 2242/2280 1 x M.2 B Key W/ SIM Header 3042(PCle x2 & USB 2.0) 1 x PCle x4 (x4 &x2+x2&x1+x1+x1+x1)
Digital I/O	1 x 12-bit Digital I/O (2x7 pin)
TPM	Intel® PTT
FAN connector	1 x System Fan Connect (1x4 pin)
Power supply	12V DC power supply Support AT/ATX mode
Watchdog Timer	Software Programmable support 1~255 sec. System reset
Power Consumption	TBD
Operating Temperature	0°C ~ 60°C
Storage Temperature	-30°C ~ 70°C
Operating Humidity	5% ~ 95%,non-condensing
Diemension	146mm x 102mm
Weight	TBD
Certification	CE/FCC Compliant

Packing List

1 x WAFER-ADL-P single board computer	1 x SATA with power cable kit
1 x Power cable for P4	1 x QIG

Ordering Information

WAFER-ADL-P-CC-R10	3.5 SBC supports Intel® Alder Lake-P Celeron® 7305 SoC Processor, with 8GB LPDDR4x memory on board default, with DP ,HDMI ,dual 2.5 GbE , USB 3.2 gen 2 , M.2, SATA 6Gb/s, COM,PCle x4 for riser card and RoHS
WAFER-ADL-P-i3C-R10	3.5 SBC supports Intel® Alder Lake-P Core™ i3-1215U Processor, with 8GB LPDDR4x memory on board default, with DP ,HDMI ,dual 2.5 GbE , USB 3.2 gen 2 , M.2, SATA 6Gb/s, COM,PCle x4 for riser card and RoHS
WAFER-ADL-P-i5C-R10	3.5 SBC supports Intel® Alder Lake-P Core™ i5-1235U Processor, with 8GB LPDDR4x memory on board default, with DP ,HDMI ,dual 2.5 GbE , USB 3.2 gen 2 , M.2, SATA 6Gb/s, COM,PCle x4 for riser card and RoHS
WAFER-ADL-P-i7C-R10	3.5 SBC supports Intel® Alder Lake-P Core™ i7-1255U Processor, with 8GB LPDDR4x memory on board default, with DP ,HDMI ,dual 2.5 GbE , USB 3.2 gen 2 , M.2, SATA 6Gb/s, COM,PCle x4 for riser card and RoHS

Optional Accessories

AC-KIT-888S-R10	Realtek ALC888S 7.1 Channel HD Audio peripheral board, RoHS
CB-USB02A-RS	Dual port USB cable with bracket, 300mm, P=2.00
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
32205-002700-200-RS	RS-232/422/485, 200mm, P=2.0
CM-WAFER-WF-R10	Cooler Module (W/FAN); Mechanical; for 3.5" WAFER series, RoHS
CM-WAFER-WOF-R10	Cooler Module (W/O FAN); Mechanical; for 3.5" WAFER series, RoHS
NWR2-L2S-R10	PCle x4 to two PCle x2 riser card for WAFER on the left side
NWR2-R2S-R10	PCle x4 to two PCle x2 riser card for WAFER on the right side
NWR-L4S-R10	PCle x4 to four PCle x1 riser card for WAFER on the left side
NWR-R4S-R10	PCle x4 to four PCle x1 riser card for WAFER on the right side