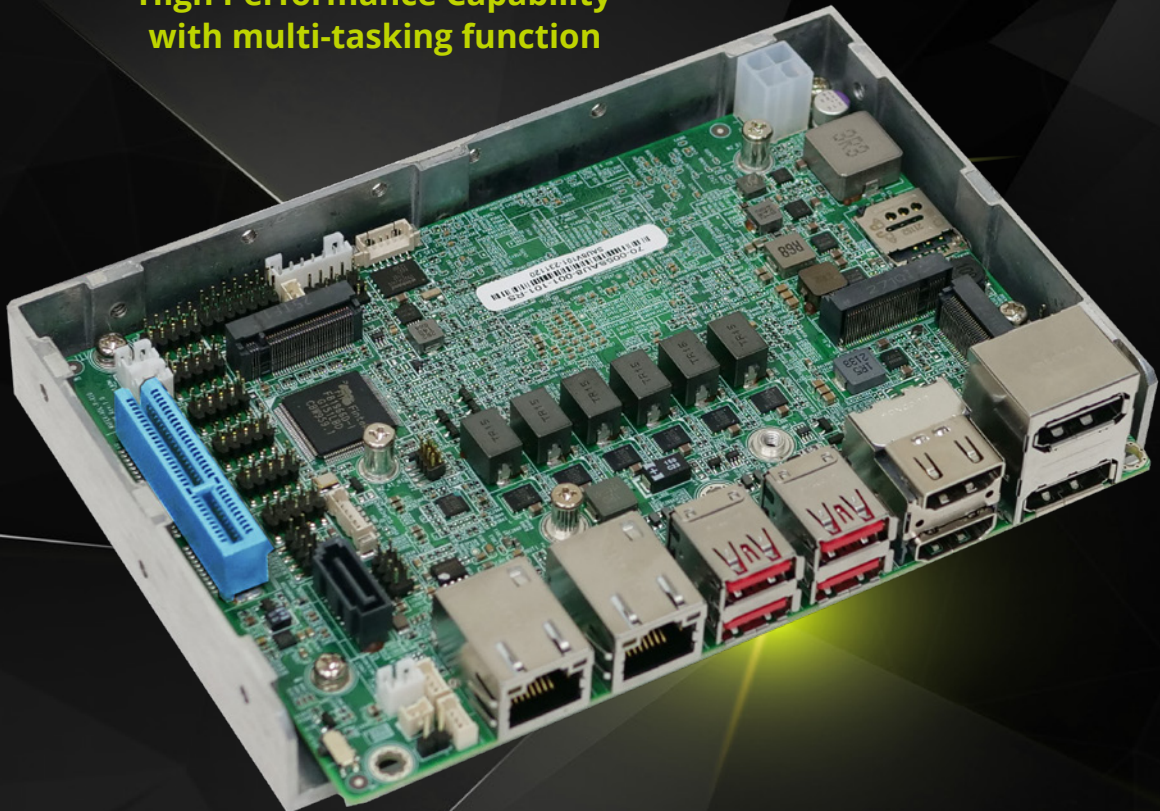


# WAFER-ADL-P

**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 32GB
- Support 2 x 2.5GbE with I225-V/I226-V
- Support quadruple independent display
- Support PCIe X4,M.2 B key,M.2 A key and M.2 M key expansion

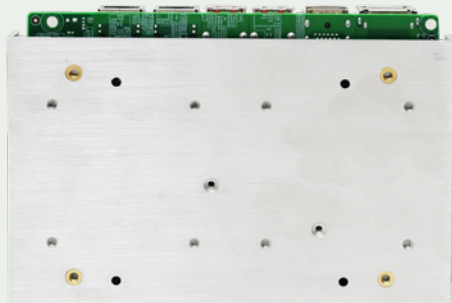
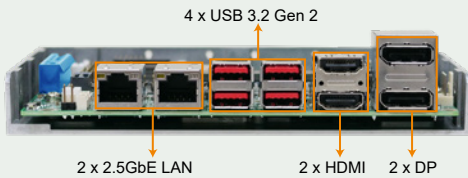
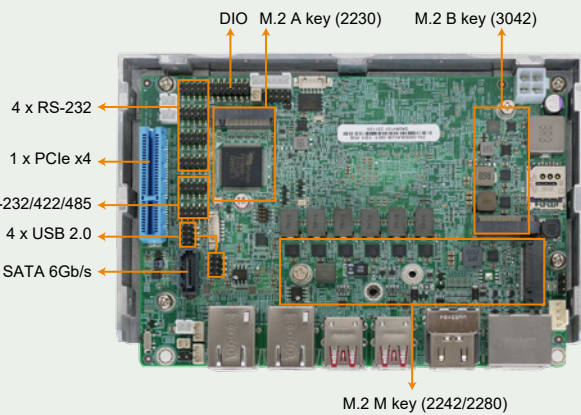
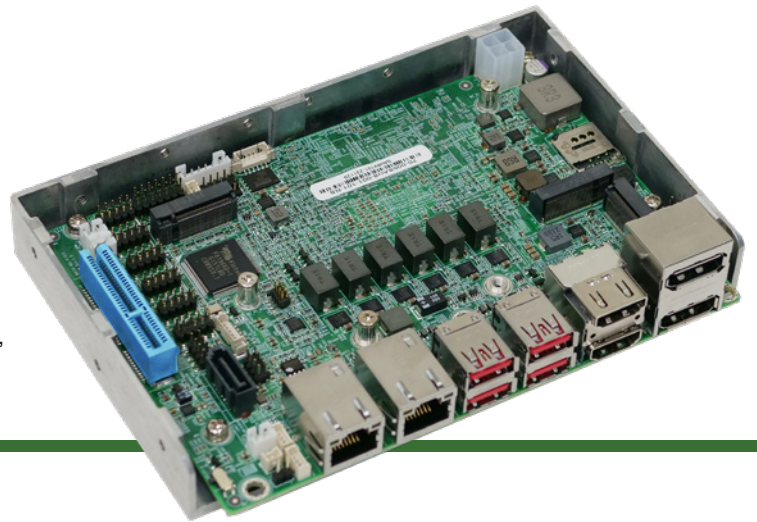
**High Performance Capability  
with multi-tasking function**



[www.ieiworld.com](http://www.ieiworld.com)

# 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, with DP ,HDMI ,dual 2.5 GbE , USB 3.2 Gen 2 , M.2, SATA 6Gb/s, COM, PCIe x4 for riser card and RoHS



## Support 12th Intel® mobile Alder Lake-P on-board SoC

Equipped with 12th Intel® Alder Lake-P Celeron® 7305, Core™ i3-1215U, Core™ i5-1235U and i7-1255U on-board SoC.



## Support Intel® I225-V/I226-V 2.5GbE Network Controller

Support two RJ45 network interface via Intel® I225-V/I226-V 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.

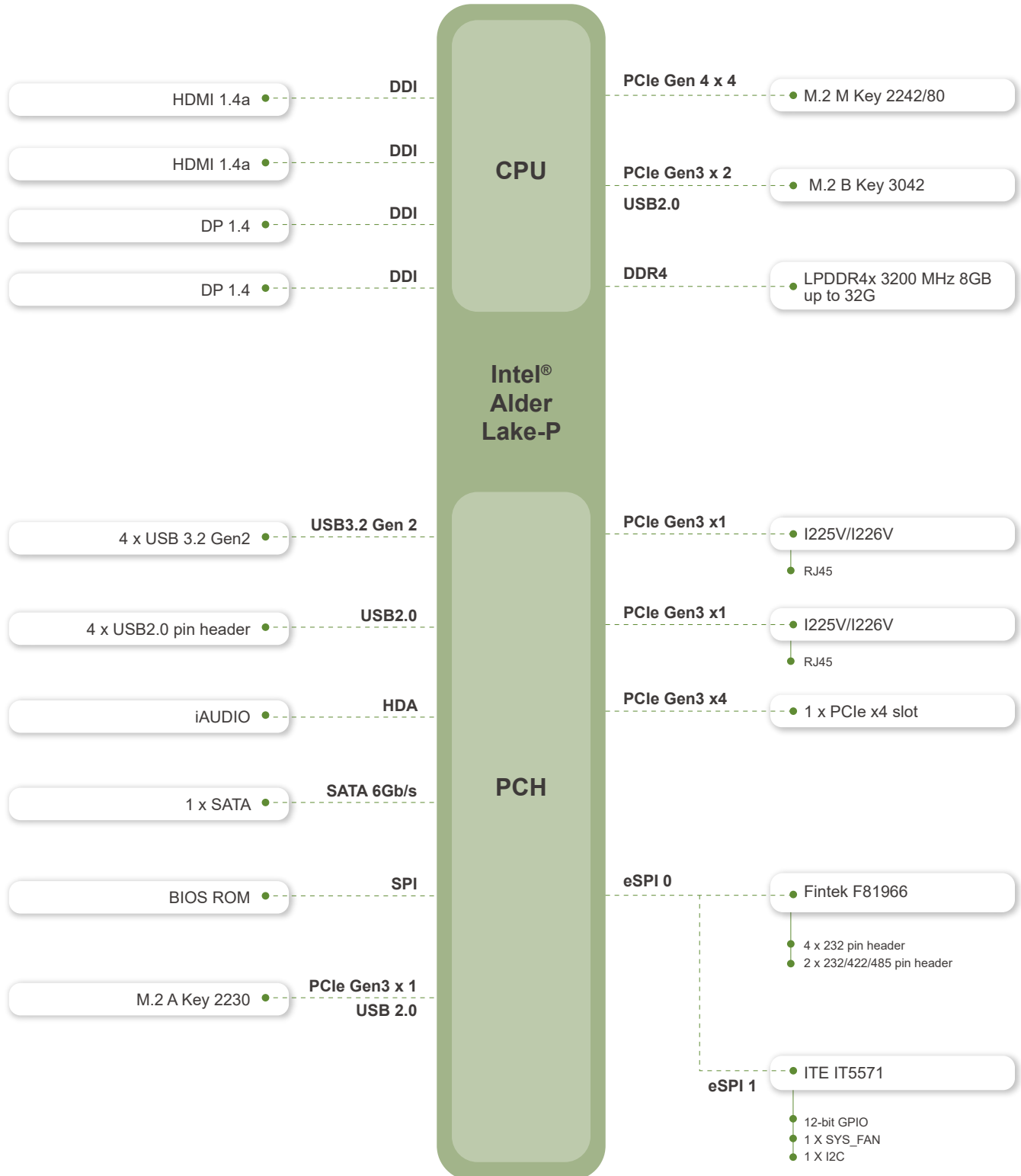


## Abundant expansion slots

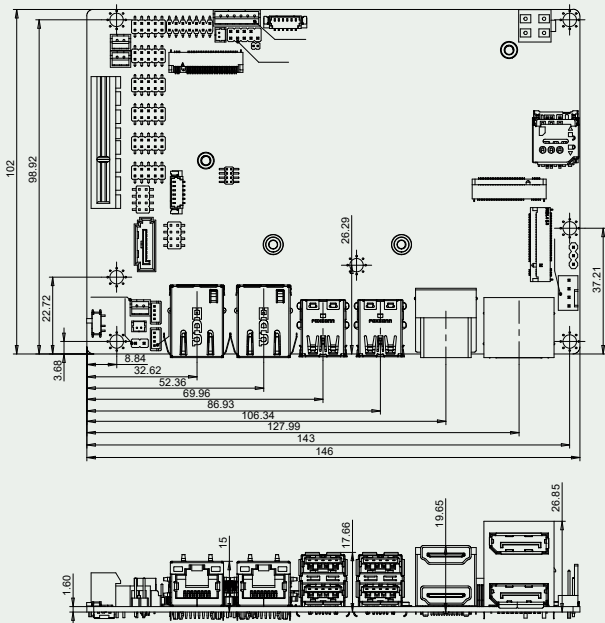
Support M.2 A key for Bluetooth, WiFi module expansion, M.2 B key can be used for 5G module expansion , and M.2 M key for NVME storage expansion



# 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, up to 32GB
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 (4K@30Hz) 2 x DP 1.4a (4K@60Hz)
Ethernet	2 x Intel® I225V/I226V 2.5GbE controller (Colay with I225-LM/I226-LM)
External I/O Interface	4 x USB 3.2 Gen2 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 <sup>2</sup> 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 2230 for WIFI & BT (PCIe Gen3 x 1 & USB 2.0) 1 x M.2 M Key 2242/80 (PCIe Gen3 x4) 1 x M.2 B Key 3042 (PCIe x2 & USB 2.0) 1 x On-board SIM card socket (hinge type) for M.2 B key 1 x PCIe Gen3 x4 (x4 & x2+x2)
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	12V@2.83A (12th Gen Intel® Core™ i7-1265UE CPU with 8 GB 3200 MHz LPDDR4x memory, max. loading, EuP mode enabled)
Operating Temperature	-10°C ~ 65°C
Storage Temperature	-30°C ~ 70°C
Operating Humidity	5% ~ 95%,non-condensing
Dimension	146mm x 102mm
Weight	GW:850g / NW:350g
Certification	CE/FCC Compliant

### Packing List

1 x WAFER-ADL-P single board computer	1 x SATA with power cable kit (PN: 32801-000201-300-RS)
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 Gen2 , M.2, SATA 6Gb/s, COM,PCIe 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 Gen2 , M.2, SATA 6Gb/s, COM,PCIe 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 Gen2 , M.2, SATA 6Gb/s, COM,PCIe 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 Gen2 , M.2, SATA 6Gb/s, COM,PCIe 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	PCIe x4 to two PCIe x2 riser card for WAFER on the left side
NWR2-R2S-R10	PCIe x4 to two PCIe x2 riser card for WAFER on the right side