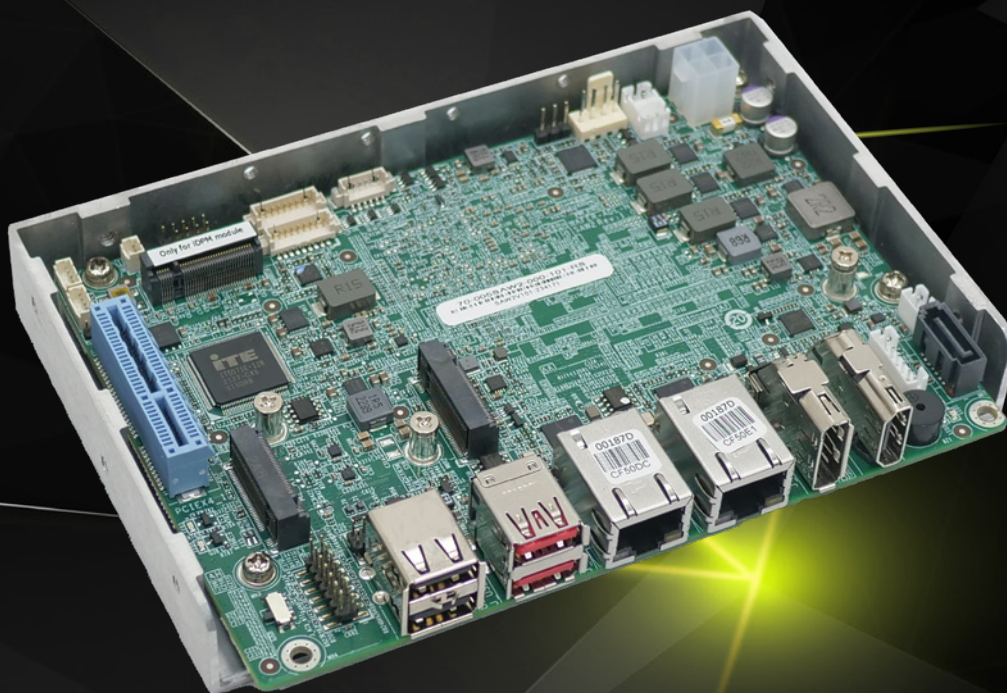


# WAFER-ADL-N

3.5 SBC supports Intel® Alder Lake-N Atom™ Celreon and Pentium on-board SoC

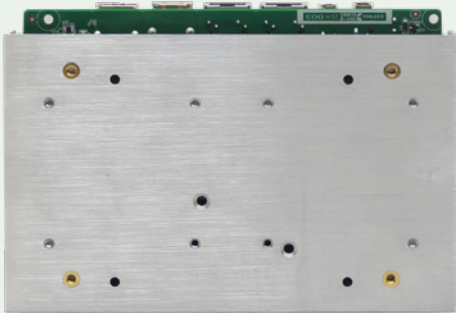
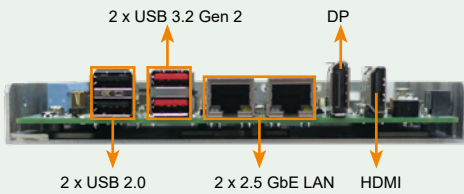
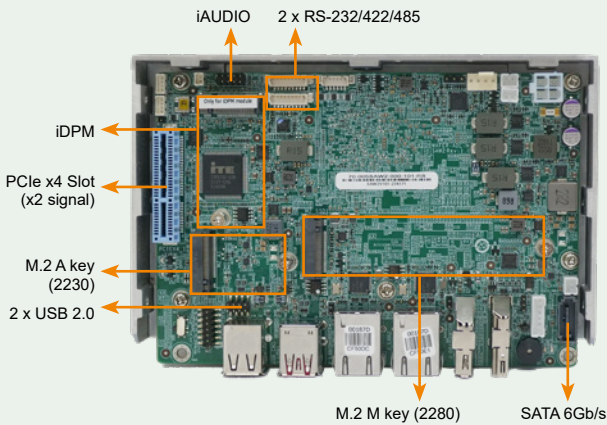
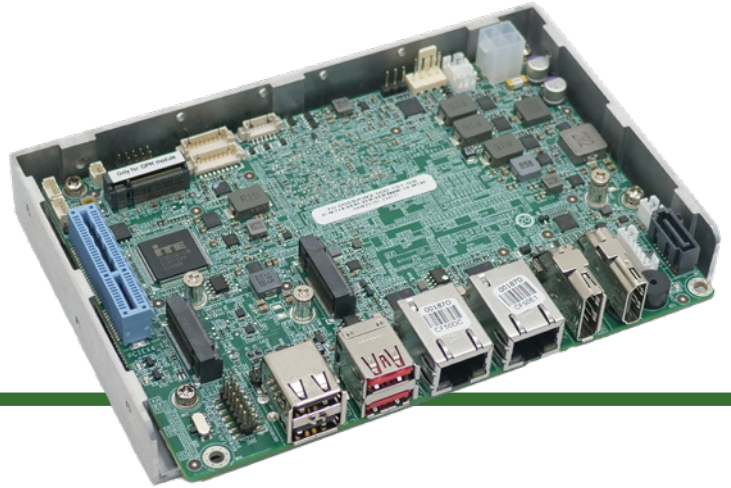
- Dual channel on-board LPDDR5 8G pre-installed (system max.16G)
- Three displays with 1 x HDMI 2.0, 1 x DP 1.4b, 1 x iDPM slot
- High speed I/O interface for USB 3.2 Gen 2, SATA 6Gb/s
- 2 x 2.5GbE with I225V/I226V
- Support M.2 A Key, M.2 M key, PCIe x4 slot (x2 signal) with riser card supported



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

# WAFER-ADL-N

3.5 SBC supports Intel® Atom™ Celreon and Pentium on-board SoC, triple display with DP ,HDMI and iDPM slot,dual 2.5 GbE , USB 3.2 gen 2 , M.2, SATA 6Gb/s, COM and RoHS, 0°C ~60°C



### Support 12th Intel® AlderLake-N onboard SoC

Intel® Processor N-series on-board SoC, equipped with N97 and N200 SoC Processor. Supports Intel® new 10 nm technology Intel 7



### Supporting Intel® I225V/I226V 2.5GbE Controllers

Two RJ45 network interfaces are supported via Intel® I225V/ I226V 2.5GbE controllers, achieving up to 2.5GbE network transmission rate.



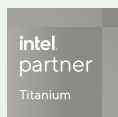
### Abundant expansion slots

Support M.2 A key for Bluetooth, WiFi module expansion, M.2 M key for NVME storage expansion, and one PCIe x4 slot (x2 signal) for PCIe Expansion Cards.

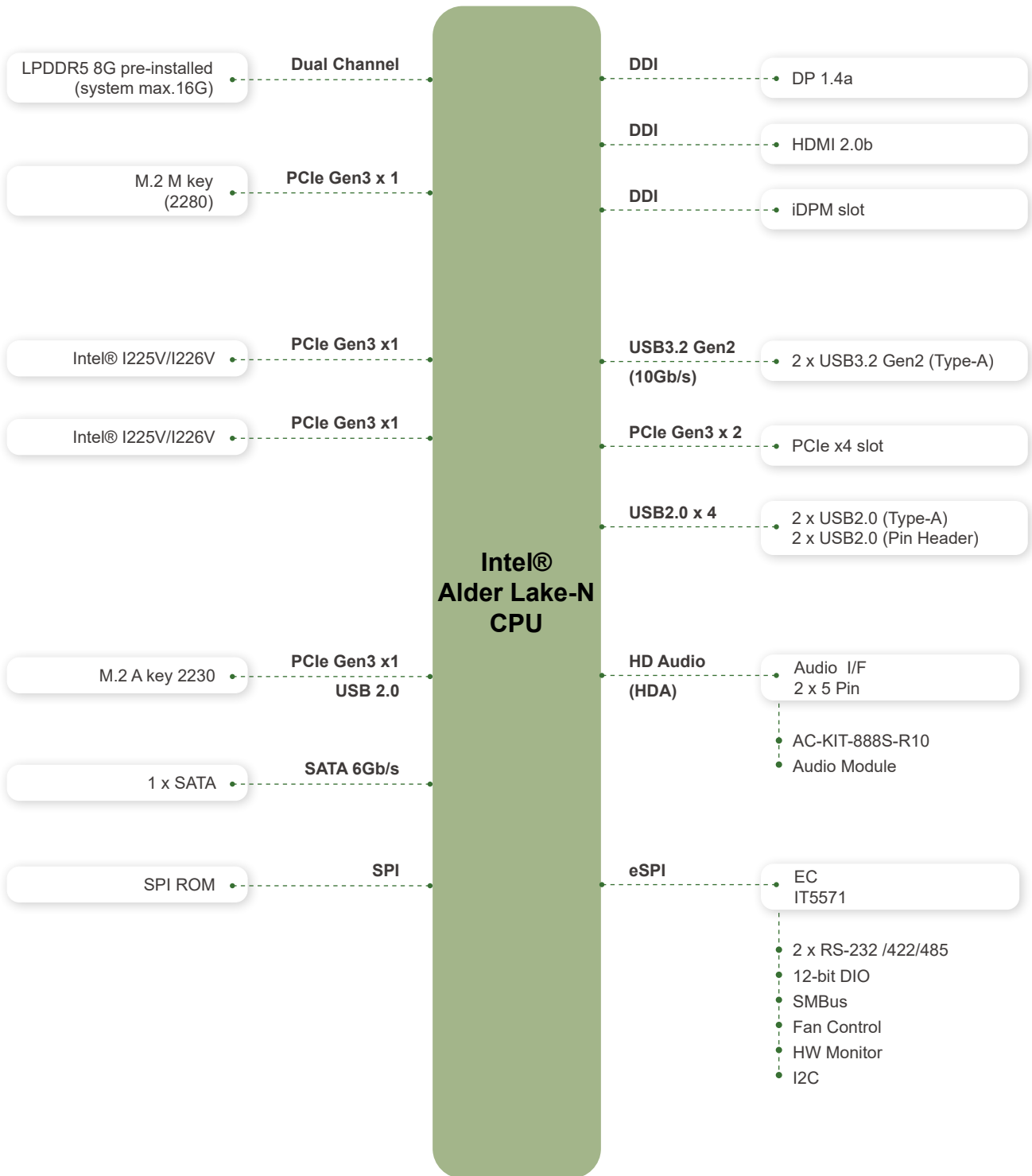


### IEI-specific iDPM Interface

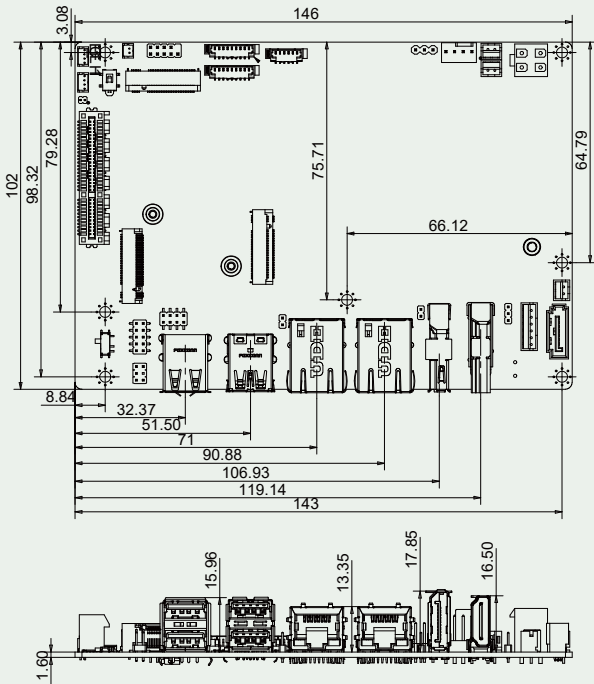
IEI uniquely designs a iDPM interface that can connect to display modules, enabling users to add LVDS/eDP/VGA display interface upon requiremen



# Block Diagram



Dimensions



Optional Accessories

32001-008600-200-RS	iDPM-eDP-R10
iDPM-LVDS-R10	iDPM-VGA-R10
NWR-L2S-R10	NWR-R2S-R10
AC-KIT-888S-R10	CM-WAFER-WF-R10
CM-WAFER-WOF-R10	

Specifications

Model	WAFER-ADL-N
SoC	Intel® Alder Lake-N N97 SoC Processor Intel® Alder Lake-N N200 SoC Processor
BIOS	AMI UEFI BIOS
Memory	Dual channel on-board LPDDR5 8G pre-installed (system max.16G)
Graphics Engine	Intel® Gen 12 UHD Graphics
Display Output	Triple Independent Displays 1 x HDMI 2.0 (up to 4096x2160 @ 30Hz) 1 x DP 1.4a (up to 4096x2160 @ 60Hz) 1 x IEI iDPM 3040 slot (only for IEI eDP/LVDS/VGA module)
Ethernet	2 x Intel® I225-V/I226-V 2.5 GbE LAN
External I/O Interface	2 x USB 3.2 Gen 2 2 x USB 2.0
Internal I/O Interface	1 x SATA 6Gb/s with 5V SATA power connector 2 x USB 2.0 (2x4 pin, P=2.0) 2 x RS-232/422/485 (1x9 pin, P=1.25)
SMBus/ I2C	1 x I2C (1x4 pin, P=2.0)
TPM	Support Intel PTT
Audio	1 x iAUDIO Support IEI AC-KIT-888s (2x5 pin)
Front Panel	1 x Power LED & HDD LED (1x6 pin) 1 x Power button (1x2 pin) 1 x Reset button (1x2 pin)
LAN LED	2 x LAN LED (1x2 pin)
Expansion	1 x M.2 A Key 2230 (PCIe Gen3 x1 & USB 2.0) 1 x M.2 M Key 2280 (PCIe Gen3 x1) 1 x PCIe Gen3 x4 Slot (x2 signal)
Digital I/O	1 x 12-bit digital I/O (2x7 pin)
FAN connector	1 x System fan connector (1x4 pin)
Power supply	12V DC input power (AT/ATX mode)
Watchdog Timer	Software Programmable support 1~255 sec. System reset
Power Consumption	12V@3.21A (Intel® Processor N97 with 8 GB 4800 MHz LPDDR5 memory, max. loading, EuP mode disabled) 12V@2.67A (Intel® Processor N200 with 8 GB 4800 MHz LPDDR5 memory, max. loading, EuP mode disabled)
Operating Temperature	-10°C ~ 65°C
Storage Temperature	-20°C ~ 70°C
Operating Humidity	5% ~95%, non-condensing
Dimension	146mm x 102mm
Weight	GW:850g / NW:350g
Heatsink	No fan
Certification	CE/FCC Compliant

Packing List

1 x WAFER-ADL-N SBC with heat spreader	1 x SATA with power cable kit (PN: 32801-000201-300-RS)
1 x Power cable (PN: 32100-087100-RS)	1 x QIG

Ordering Informaiton

WAFER-ADL-N97C-R10	3.5 SBC supports Intel® Processor N-series N97 SoC Processor, with 8GB LPDDR5x memory on board default, with DP, HDMI iDPM, dual 2.5 GbE, USB 3.2 Gen 2 , M.2, SATA 6Gb/s, COM, PCIe x4 for riser card and RoHS
WAFER-ADL-N200C-R10	3.5 SBC supports Intel® Processor N-series N200 SoC Processor, with 8GB LPDDR5x memory on board default, with DP, HDMI iDPM, dual 2.5 GbE, USB 3.2 Gen 2 , M.2, SATA 6Gb/s, COM, PCIe x4 for riser card and RoHS

Optional Accessories

32001-008600-200-RS	Dual-port USB 2.0 cable, 210mm, P=2.0
32205-008000-100-RS	Flat cable, RS-232/422/485, 250mm, 1*9 pin, P=1.25
iDPM-eDP-R10	eDP to eDP DisplayPort converter board (for IEI iDPM connector)
iDPM-LVDS-R10	eDP to LVDS DisplayPort converter board (for IEI iDPM connector)
iDPM-VGA-R10	eDP to VGA Connector converter board (For IEI Display Module)
NWR-L2S-R10	PCIe x2 to two PCIe x1 riser card for NANO/WAFER on the left side
NWR-R2S-R10	PCIe x2 to two PCIe x1 riser card for NANO/WAFER on the right side
AC-KIT-888S-R10	Realtek ALC888S 7.1 Channel HD Audio peripheral board, RoHS
CM-WAFER-WOF-R10	Cooler Module (W/O FAN); Mechanical; for 3.5" WAFER series, RoHS
CM-WAFER-WF-R10	Cooler Module (W/FAN); Mechanical; for 3.5" WAFER series, RoHS