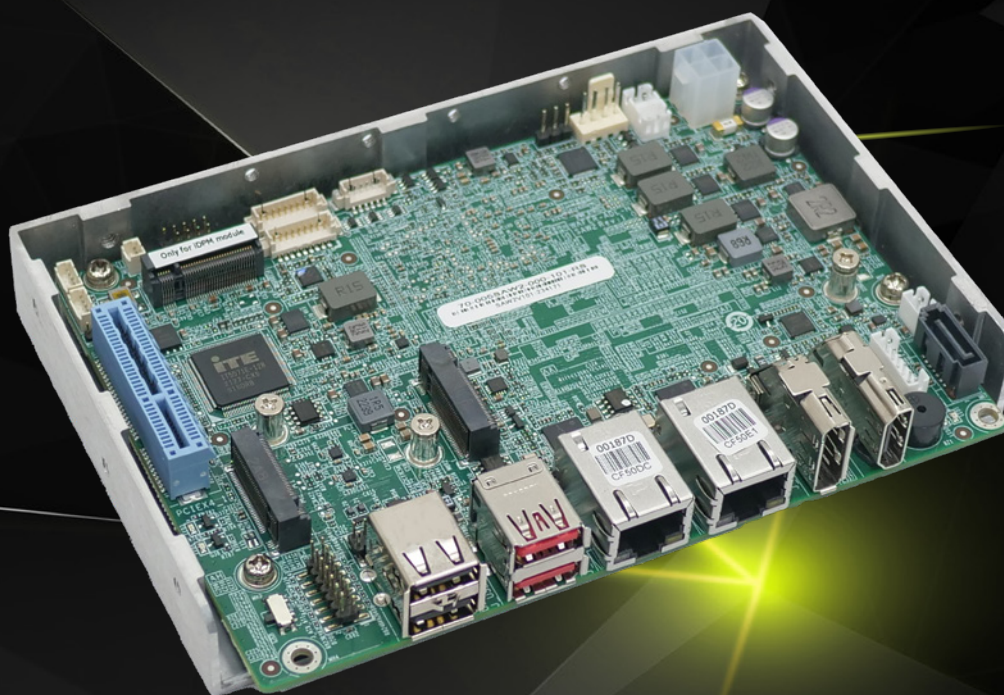


WAFER-ADL-N

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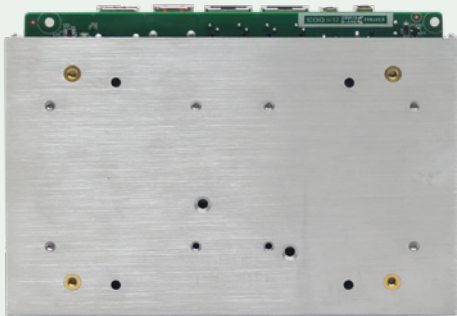
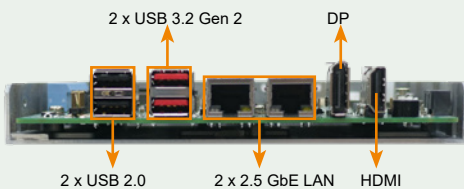
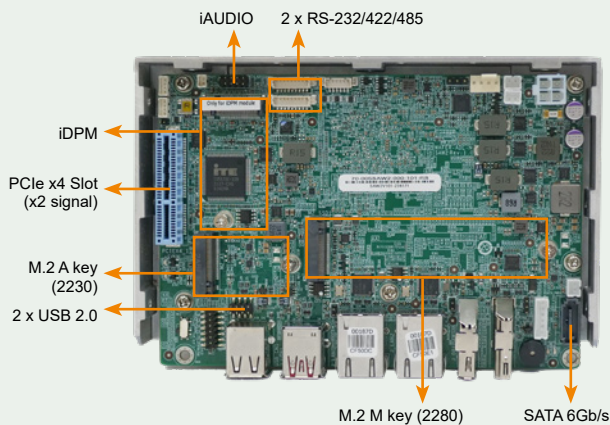
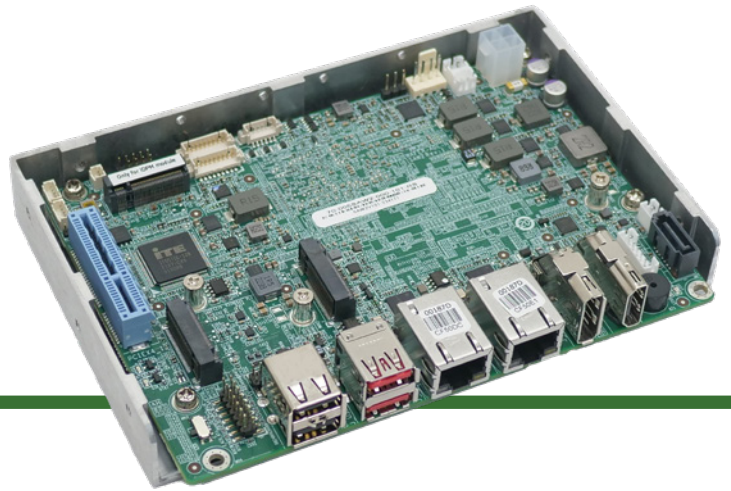
3.5 SBC supports Intel® Alder Lake-N Atom™ Celreon and Pentium on-board SoC

- Dual channel 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 i225-V/LM
- Support M.2 A Key, M.2 M key, PCIe x4 slot (x2 signal) with riser card supported



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® Atom™ 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 2.5GbE Controllers

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



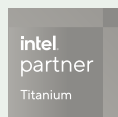
Abundant expansion slots

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.

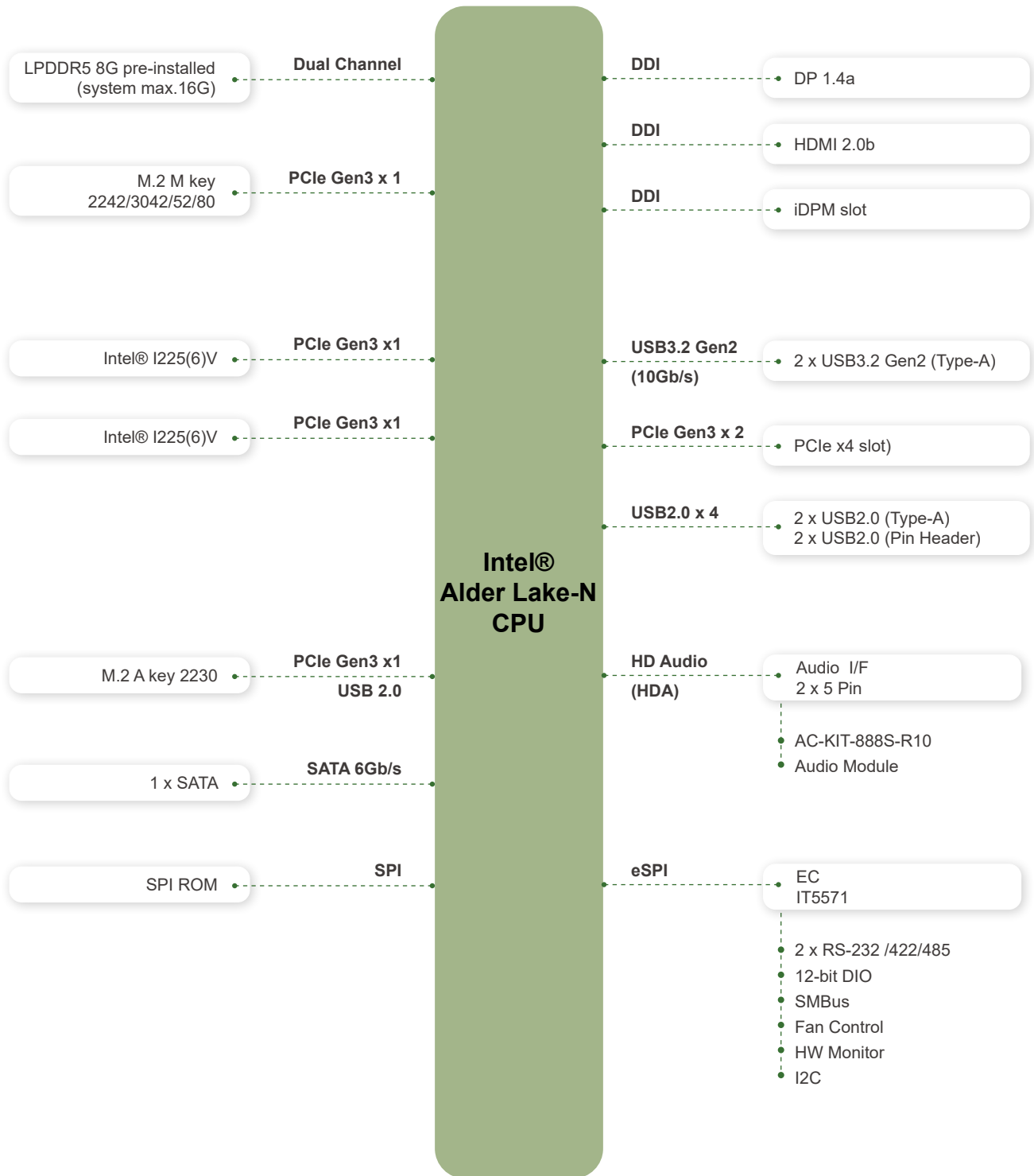


IEI-specific iDPM Interface

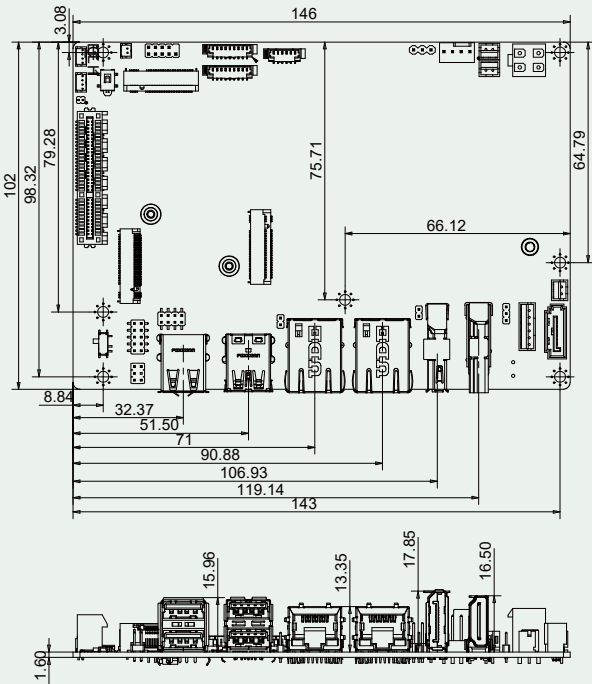
IEI uniquely designs a iDPM interface that can connect to display modules, enabling users to add LVDS/eDP/VGA display interface upon requiremen



Block Diagram



Dimensions



Optional Accessories



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 LPDDR5 8G pre-installed (system max.16G) |
| Graphics Engine | 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 2.5 GbE LAN |
| External I/O Interface | 2 x USB 3.2 Gen 2 2x 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 | 0°C ~ 60°C |
| Storage Temperature | -20°C ~ 70°C |
| Operating Humidity | 5% ~95%, non-condensing |
| Diemension | 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-N200C-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-N97C-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 |