

KINO-ADL-P

Mini-ITX SBC with Intel® Alder Lake-P/Raptor Lake-P SoC Processor

- Dual-channel DDR5 4800MHz SO-DIMMs
- Support DisplayPort 1.4a, HDMI 2.0b & iDPM slot for eDP/ LVDS/VGA module
- Triple Intel® 2.5 GbE LAN
- Support PCIe Gen3 x4, M.2 M key, M.2 B key and M.2 E key expansion

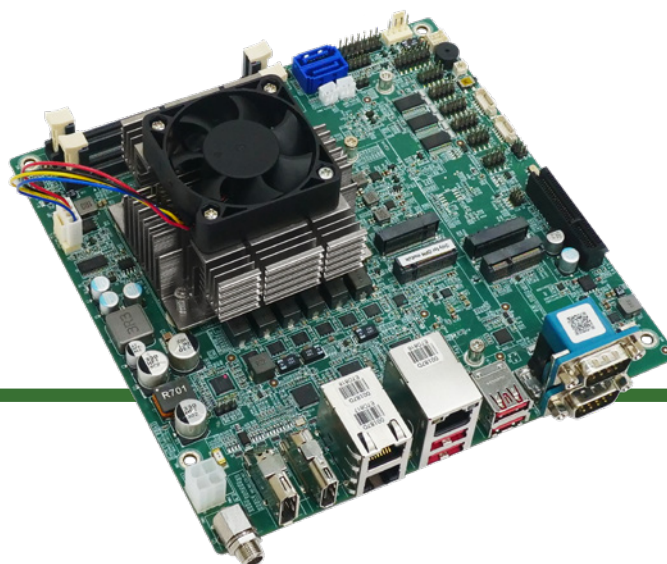
**High Performance Capability
with multi-tasking function**



www.ieiworld.com

KINO-ADL-P

Mini-ITX SBC with Intel® Alder Lake-P SoC Processor, DDR5 SO-DIMM, 12~28V DC input, Triple Display, Triple Intel 2.5GbE



Two 262-pin 4800 MHz Dual-Channel DDR5 SDRAM Unbuffered DIMMs

M.2 B key (3042)

2 x SATA 6Gb/s

4 x RS-232

4 x USB 2.0

M.2 M key (2280)

PCIe Gen3 x4

M.2 E key (2230)

iDPM Support
eDP to
eDP/LVDS/VGA
Module

3 x 2.5GbE LAN

DP

DC power jack

HDMI

4 x USB 3.2 Gen 2

2 x RS-232/422/485



Support Intel® 12/13th mobile SOC processor

Equipped with Alder Lake-P/Raptor Lake-P Core™ i7/i5/i3 and Celeron® on-board processor.



Support Intel® 2.5GbE Network Controller

Three Gigabit RJ45 network ports are provided via Intel® I226V, I226LM 2.5GbE network controller to achieve up to 2.5GbE network transmission rate.



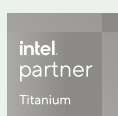
Abundant Expansion Slots

The KINO-ADL-P provides PCIe x4 (Gen 3) for expansion, M.2 E 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

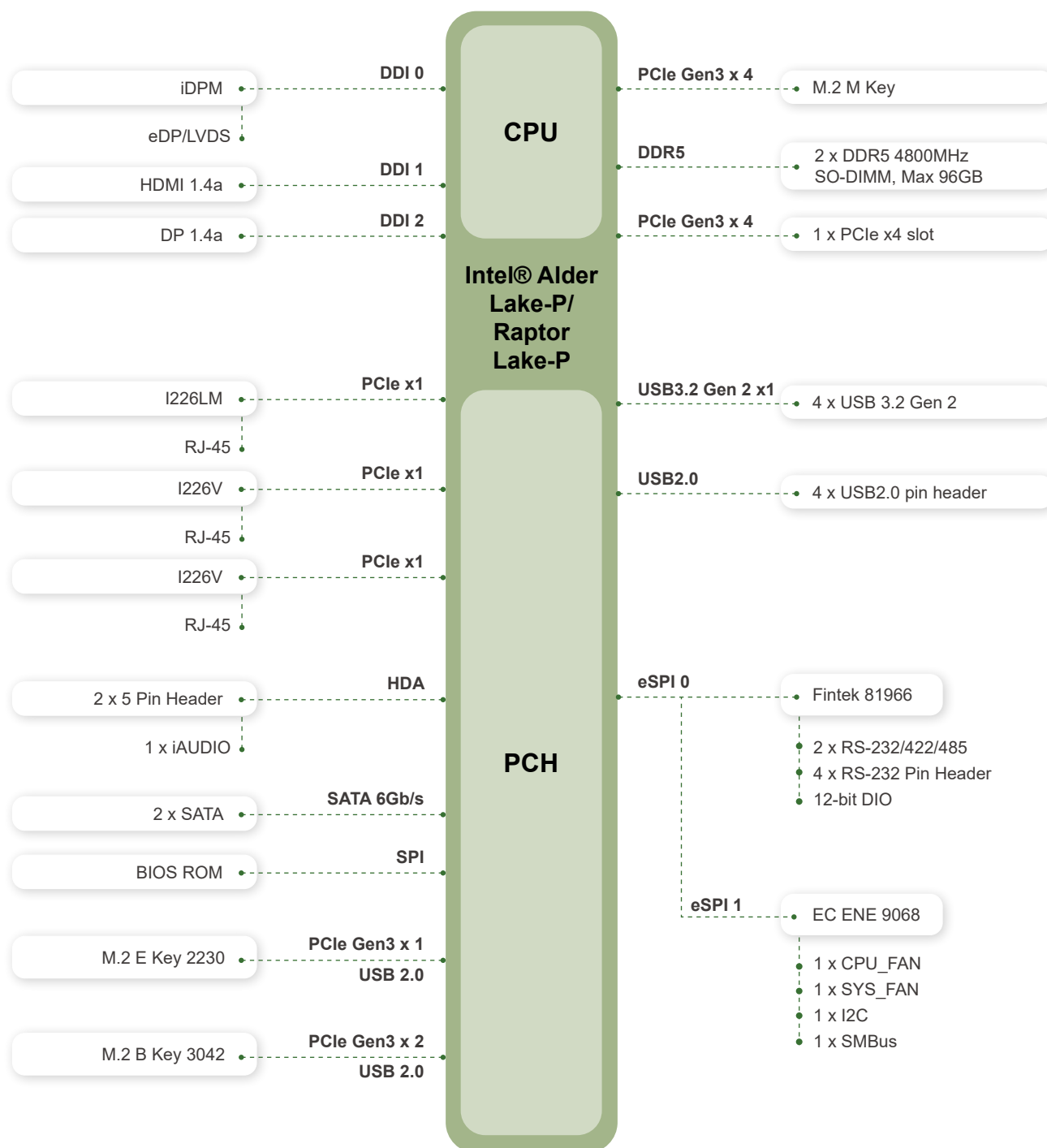


IEI-specific iDPM Interface

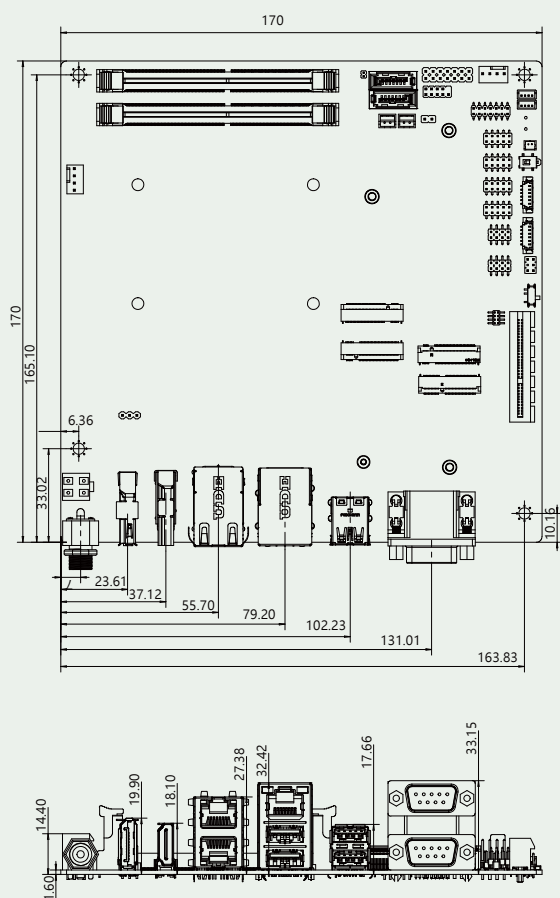
IEI uniquely designs a iDPM interface that can connect to display modules, enabling users to add LVDS/eDP/VGA display interface upon requirements.



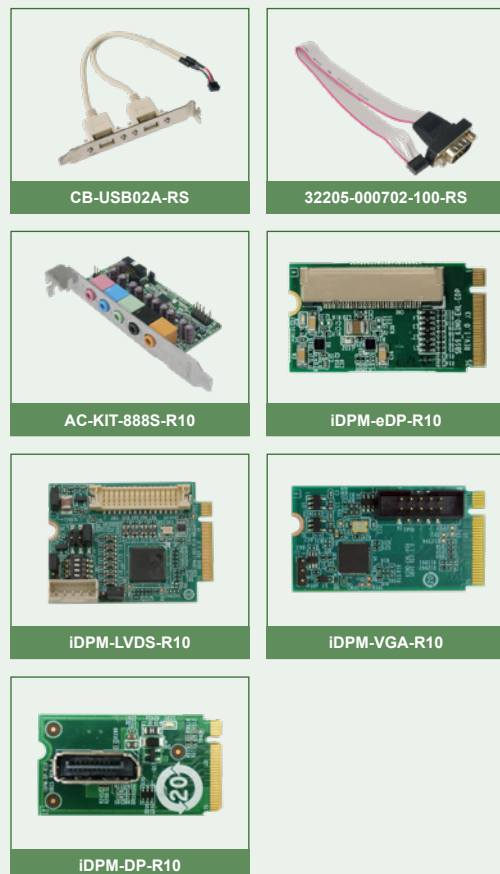
Block Diagram



Dimensions



Optional Accessories



Specifications

Model	KINO-ADL-P
CPU	12th/13th Gen. Intel® Alder Lake-P/Raptor Lake-P on board SoC Intel® Celeron® 7305E (1.0 GHz, 5-core, 15W TDP) Intel® Core™ i3-1320PE (up to 4.5GHz, 8-core, 28W TDP) Intel® Core™ i5-1340PE (up to 4.5GHz, 12-core, 28W TDP) Intel® Core™ i7-1370PE (up to 4.8GHz, 14-core, 28W TDP)
BIOS	AMI UEFI BIOS
Memory	2 x 262-pin 4800 MHz DDR5 SO-DIMM, system up to 96GB
Graphics Engine	Intel® UHD Graphics for Celeron® and i3 Intel® Xe Graphics for i5 and i7
Display Output	Triple independent display 1 x HDMI 1.4 (up to 4096 x 2160 @30Hz) 1 x DP 1.4 (up to 4096 x 2160 @60Hz) 1 x IEI iDPM 3040 slot (only for IEI eDP/ LVDS/ VGA module)
Ethernet	LAN1: Intel® I226LM 2.5GbE controller LAN2: Intel® I226V 2.5GbE controller LAN3: Intel® I226V 2.5GbE controller
External I/O Interface	4 x USB 3.2 Gen 2 (10Gb/s) 2 x RS-232/422/485
Internal I/O Interface	2 x SATA 6Gb/s 4 x USB 2.0 (2x4 pin, P=2.0) 4 x RS-232 (2x5 pin, P=2.0)
SMBus	1 x SMBus (1x4 pin)
I2C	1 x I ² C (1x4 pin)
Audio	1 x iAUDIO, support IEI AC-KIT-888S Audio Module (2x5 pin)
Front Panel	1 x Front Panel (2x7 pin, Power LED, HDD LED, Speaker, Power Button, Reset Button)
Expansion	1 x PCIe Gen3 x4 Slot Open-ended 1 x M.2 E Key for WIFI & BT 2230(Pcie Gen3 x1 & USB 2.0) 1 x M.2 B key 3042 (PCIe Gen3 x2/USB2.0) 1 x M.2 M key 2280 (PCIe Gen3 x4)
Digital I/O	1 x 12-bit digital I/O (2x7 pin)
TPM	1 x TPM 2 x10 pin, support Intel PTT
Fan connector	1 x CPU fan connector (1x4 pin) 1 x System fan connector (1x4 pin)
Power Supply	input voltage range, 12~28V 1 x internal power connector (2x2 pin) 1 x external DC power jack (Ø2.6mm) ErP/EuP Compliant
Watchdog Timer	Software Programmable support 1~255 sec. System reset
Power Consumption	12V@5.09A, 19V@3.25A, 24V@2.58A, 28V@2.23A, (12 th Gen Intel® Core™ i7-1270PE CPU with 32 GB 3200 MHz DDR4 memory, max. loading, EuP mode disabled)
Operating Temperature	0°C ~ 60°C
Storage Temperature	-30°C ~ 70°C
Operating Humidity	5% ~95%, non-condensing
Dimension	170 mm x 170 mm
Weight	GW:900g / NW:450g
Certification	CE/FCC Compliant

Packing List

1 x KINO-ADL-P single board computer	1 x SATA cable
1 x I/O Shielding (45014-0104C0-00-HF)	1 x QIG

Ordering Information

KINO-ADL-P-CE-R20	Mini-ITX SBC with Intel® Alder Lake-P Celeron® 7305E SoC Processor, DDR5 SO-DIMM, 12~28V DC input, Triple Display, SATA, Triple Intel 2.5GbE, USB3.2, M.2, TPM, RoHS
KINO-ADL-P-Ri3E-R20	Mini-ITX SBC with Intel® Alder Lake-P Core™ i3-1320PE SoC Processor, DDR5 SO-DIMM, 12~28V DC input, Triple Display, SATA, Triple Intel 2.5GbE, USB3.2, M.2, TPM, RoHS
KINO-ADL-P-Ri5E-R20	Mini-ITX SBC with Intel® Alder Lake-P Core™ i5-1340PE SoC Processor, DDR5 SO-DIMM, 12~28V DC input, Triple Display, SATA, Triple Intel 2.5GbE, USB3.2, M.2, TPM, RoHS
KINO-ADL-P-Ri7E-R20	Mini-ITX SBC with Intel® Alder Lake-P Core™ i7-1370PE SoC Processor, DDR5 SO-DIMM, 12~28V DC input, Triple Display, SATA, Triple Intel 2.5GbE, USB3.2, M.2, TPM, RoHS

Optional Accessories

CB-USB02A-RS	Dual port USB with bracket, 300mm, P=2.0
32205-000702-100-RS	RS-232 cable, 200 mm, p=2.0 mm
AC-KIT-888S-R10	Realtek ALC888S 7.1 Channel HD Audio peripheral board, RoHS
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)
iDPM-DP-R10	eDP to DP DisplayPort converter board (for IEI iDPM connector)