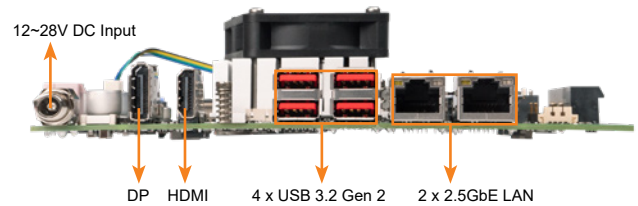
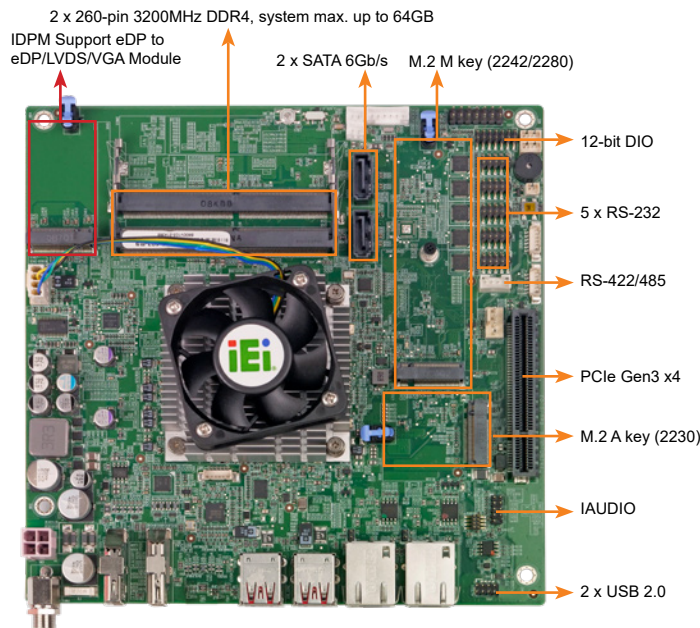


KINO-TGL-U

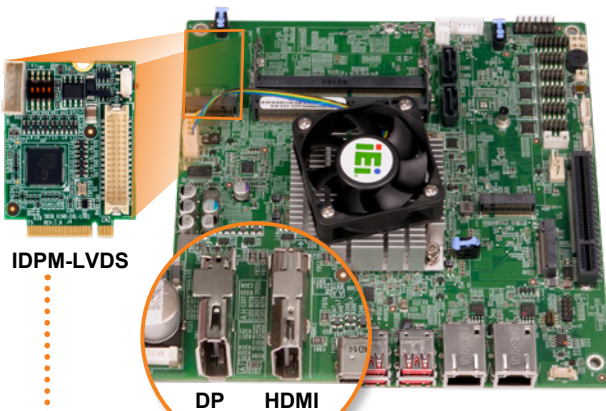


Mini-ITX SBC supports Intel® Tiger Lake-UP3 Processor, 12~28V DC input, triple independent displays, HDMI, DP, SATA 6Gb/s, dual Intel® 2.5GbE, USB 3.2, M.2 and RoHS

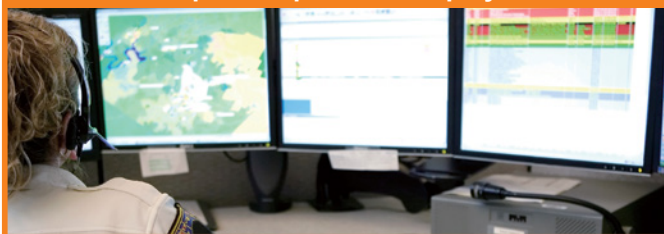


IDPM-LVDS

eDP to 24-bit dual-channel LVDS converter board



Triple Independent Displays



Features



Support Intel® Tiger Lake-UP3 Processors

Equipped with 11th Gen. Intel® Core™ i7/i5/i3, Celeron® UP3 processor, the KINO-TGL features high performance, and can handle multitasking efficiently.



Support Intel® I225V 2.5GbE Network Controller

Two Gigabit RJ45 network ports are provided via Intel® I225V 2.5GbE network controller to achieve up to 2.5GbE network transmission rate.



Abundant Expansion Slots

The KINO-TGL provides PCIe x8 for expansion, M.2 A key for Bluetooth and Wi-Fi modules, M.2 M key for NVME storage, and M.2 B key for 5G modules and storage.



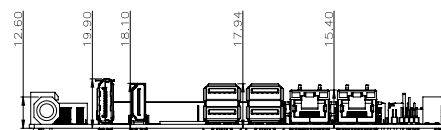
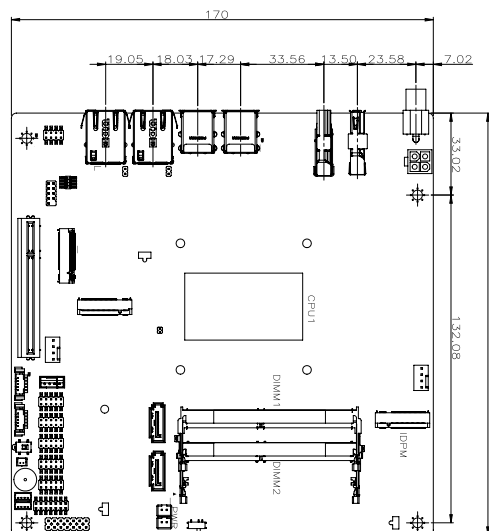
IEI-specific IDPM Interface

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

Specifications

- ◆ CPU
 - 11th Gen. Intel® mobile Tiger Lake-UP3 SoC
 - Intel® Core™ i7-1185G7E (up to 4.8GHz, quad-core, 12M Cache, TDP=28/15/12W)
 - Intel® Core™ i5-1145G7E (up to 4.4GHz, quad-core, 8M Cache, TDP=28/15/12W)
 - Intel® Core™ i3-1115G4E (up to 4.1GHz, quad-core, 6M Cache, TDP=28/15/12W)
 - Intel® Celeron® 6305 (up to 1.8GHz, dual-core, 4M Cache, TDP=15W)
- ◆ BIOS
 - AMI UEFI BIOS
- ◆ Memory
 - 2 x 260-pin 3200MHz DDR4, system max. up to 64GB
- ◆ Graphics Engine
 - Intel® HD Graphics Gen 12 Gfx; Up to 96EU; 2VDbox; AI (INT8)
 - HDMI 2.0 integrated, 4 Display Pipes, 8k60/210b
 - AV1 Codec, 12b support, E2E Compression, IPU6 FF
- ◆ 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® I225V 2.5GbE controller
 - LAN2: Intel® I225V 2.5GbE controller
- ◆ External I/O Interface
 - 4 x USB 3.2 Gen 2 (10Gb/s)
- ◆ Internal I/O Interface
 - 2 x SATA 6Gb/s with 5V SATA power connector
 - 1 x RS-422/485 (1x4 pin, P=2.0) (RS-485 support AFC)
 - 2 x USB 2.0 (2x4 pin, P=2.0)
 - 5 x RS-232 (2x5 pin, P=2.0)
- ◆ SMBus
 - 1 x SMBus (1x4 pin)
- ◆ I²C
 - 1 x I²C (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, power button, reset button)
- ◆ LAN LED
 - 2 x LAN LED (1x2 pin)
- ◆ Expansion
 - 1 x PCIe x4 slot, open-ended (PCIe Gen3 x4 signal)
 - 1 x M.2 A key (2230) (PCIe Gen3 x1 & USB 2.0 signal)
 - 1 x M.2 M key (2242/2280) (PCIe Gen3 x2 signal)
- ◆ Digital I/O
 - 1 x 12-bit digital I/O (2x7 pin, P=2.0)
- ◆ TPM
 - Support Intel® PTT (TPM 2.0)
- ◆ Fan Connector
 - 1 x CPU fan connector (1x4 pin)
 - 1 x System fan connector (1x4 pin)
- ◆ Power Supply
 - 10~28V DC input
 - 1 x Internal power connector (2x2 pin)
 - 1 x External DC power jack (Ø5.5mm)
 - ErP/EuP Compliant
- ◆ 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
- ◆ Dimension
 - 170 mm x 170 mm
- ◆ Weight
 - GW:900g / NW:400g
- ◆ Certification
 - CE/FCC Compliant

Dimensions (Unit: mm)



Packing List

1 x KINO-TGL-U single board computer with Cooler Module	1 x SATA cable
1 x Power cable for P4	1 x QIG

Ordering Information

Part No.	Description
KINO-TGL-U-C-R10	Mini-ITX SBC with Intel® Tiger Lake-UP3 Celeron® 6305 Processor,DDR4 SO-DIMM, 10~28V DC input, Quad Display,SATA,Dual Intel® 2.5GbE,USB3.2,M.2,SoC,RoHS
KINO-TGL-U-i3-R10	Mini-ITX SBC with Intel® Tiger Lake-UP3 Core™ i3-1115G4E Processor, DDR4 SO-DIMM, 10~28V DC input, quad display, SATA, dual Intel® 2.5GbE, USB 3.2, M.2, SoC, RoHS
KINO-TGL-U-i5-R10	Mini-ITX SBC with Intel® Tiger Lake-UP3 Core™ i5-1145G7E Processor, DDR4 SO-DIMM, 10~28V DC input, quad display, SATA, dual Intel® 2.5GbE, USB 3.2, M.2, SoC, RoHS
KINO-TGL-U-i7-R10	Mini-ITX SBC with Intel® Tiger Lake-UP3 Core™ i7-1185G7E Processor, DDR4 SO-DIMM, 10~28V DC input, quad display, SATA, dual Intel® 2.5GbE, USB 3.2, M.2, SoC, RoHS

Optional Accessories

Part No.	Description
CB-USB02A-RS	Dual port USB cable with bracket, 300mm, P=2.00
AC-KIT-888S-R10	Realtek ALC888S 7.1 Channel HD Audio peripheral board, RoHS
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
32205-002700-200-RS	RS-232/422/485, 200mm, P=2.0

