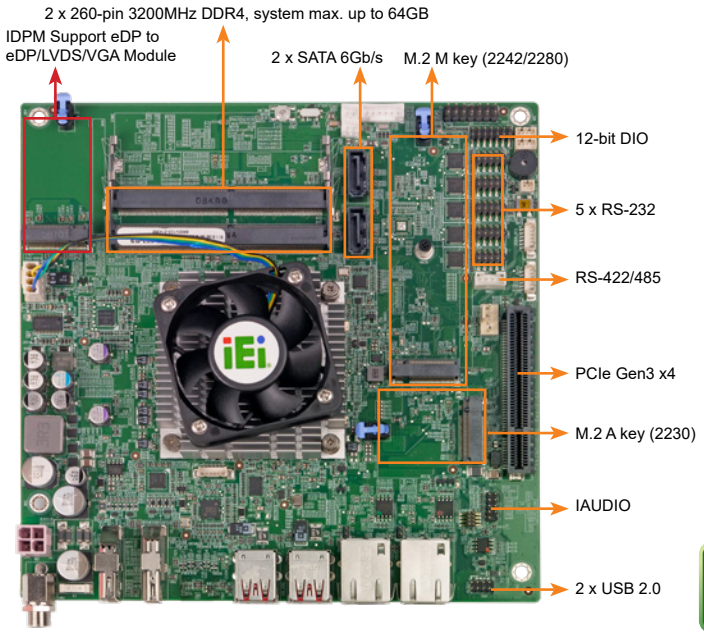
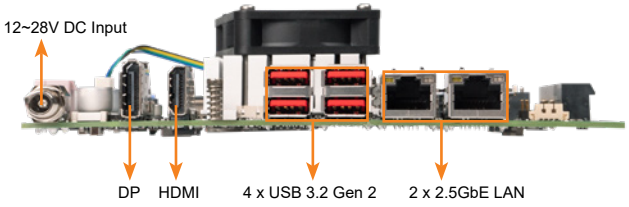
KINO-TGL-U

NEW

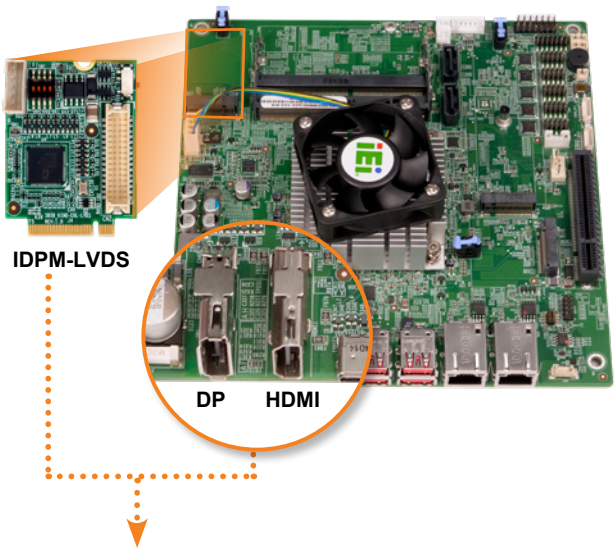
Mini-ITX SBC supports Intel® Tiger Lake-UP3 Processor, 12~28V DC input, triple independent displays, HDMI, DP, SATA 6Gb/s, dual Intel® 2.5GbE, USB 3.2, M.2 and RoHS



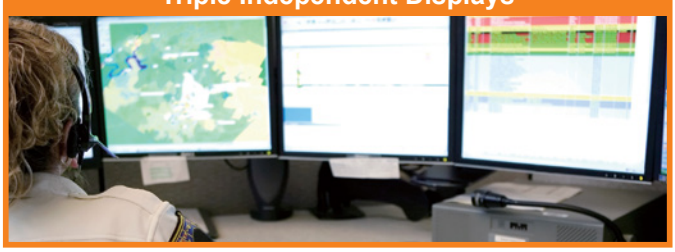


IDPM-LVDS

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.

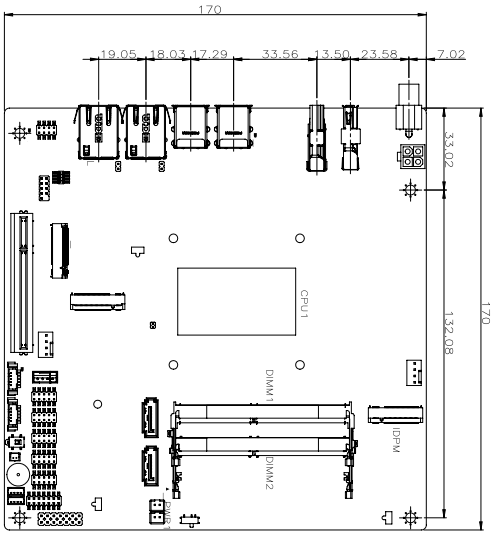
IEI-specific IDPM Interface

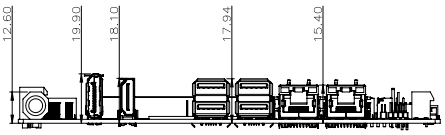
IEI uniquely designs a IDPM interface that can connect to display modules, enabling users to add LVDS/eDP/VGA display interface upon requirements.

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, 8k60210b
  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 Proccessor,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 Proccessor, 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 Proccessor, 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 Proccessor, 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

CB-USB02A-RS

AC-KIT-888S-R10

32102-000100-200-RS

32205-002700-200-RS