

tKINO-ULT6

Thin Mini-ITX SBC supports 11th Gen. Intel® Core™ Processor Family (Tiger Lake-UP3), 9~36V DC input, Quadruple Independent Display, SATA 6Gb/s, Dual Intel® 2.5GbE, USB4, M.2, HD audio and RoHS



Features

- » Thin Mini-ITX form factor with Intel® Tigerlake-UP3 processor support DDR4-3200 memory
- » Wide range 9~36V DC Input
- » Support quadruple independent displays (HDMI™, DP, eDP/LVDS, Type-C DP)
- » Dual Intel® GbE LAN with Intel® AMT 11.0 supported
- » M.2 A key for WIFI+Bluetooth (PCIe x1/USB 2.0), M.2 M key for Storage (PCIe x2/SATA)
- » PCIe x8 slot (x4 signal)

Specifications

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|-----------------------------|---|
| Form Factor | |
| Form Factor | Mini-ITX Motherboard |
| System | |
| CPU | 11th Gen. Intel® mobile Tiger Lake-UP3 on-board processor |
| | Intel® Core™ i7-1185G7E (up to 4.4GHz, quad-core, 12M Cache, TDP=28/15/12W) |
| | Intel® Core™ i5-1145G7E (up to 4.1GHz, quad-core, 8M Cache, TDP=28/15/12W) |
| | Intel® Core™ i3-1115G4E (up to 3.9GHz, dual-core, 6M Cache, TDP=28/15/12W) |
| | Intel® Celeron® 6305E (up to 1.8GHz, dual-core, 4M Cache, TDP=15W) |
| Memory | 2 x SO-DIMM DDR4 3200MHz, system maximum up to 64GB |
| Memory Max. | Up to 64GB |
| Cooling method / System Fan | 1 x CPU Cooler |
| Physical Characteristics | |
| Dimensions (LxWxH) (mm) | 170mm x 170mm |
| Net Weight | GW:900g / NW:400g |
| Storage | |
| Storage | 2 x SATA |
| | 1 x M.2(NGFF) |
| I/O Interface | |
| Display Output | 1 x HDMI™ 2.0b (up to 4096 x 2160 @60Hz) |
| | 1 x Display Port 1.4a (up to 4096 x 2160 @60Hz) |
| | 1 x LVDS Single/Dual channel 18/24-bit (up to 1920 x 1200 @60Hz) (select by switch) |
| | 1 x eDP 4 lane (up to 4096 x 2304 @60Hz) (select by switch) |
| Ethernet | 2 x LAN : 2.5GbE LAN (Intel® I225-V) |
| Audio | 1 x Line out |
| | 1 x Mic |
| | 1 x Front Audio (2x5-pin) |
| | HD Audio : Realtek ALC888S HD audio codec |

| | |
|-----------------------|---|
| I/O Interface | 4 x Internal RS-232 (2x5 pin, P=2.0) |
| | 1 x Internal RS-422/485 (2x5 pin, P=2.0) (RS-485 support AFC) |
| | 1 x Internal RS-232/422/485 (2x5 pin, P=2.0) (RS-485 support AFC) |
| | 4 x Internal USB 2.0 (2x4 pin, P=2.0) |
| | 1 x PS/2 (1x6 pin) |
| | 1 x DIO : 8-bit digital I/O (2x5 pin) |
| | 4 x External USB 3.2 Gen2x2 |
| | 1 x External USB 4 Gen2x2 |
| Expansion | 1 x PCIe x8 : Open-ended Slot(with x4 signal) |
| | 2 x M.2(NGFF) : 1 x M.2 2230 A key (PCIe x1/USB 2.0), 1 x M.2 2242/2280 M key (PCIe x2/SATA) |
| Other Features | |
| TPM | 1 x TPM 2.0 connector (2x10 pin) (SPI interface) |
| Power | |
| Input | 9~36V DC input |
| | 1 x Internal power connector (2x2 pin) |
| | 1 x External DC power Jack (Ø5.5mm) |
| Power Consumption | 12V@6.48A (Intel® Core™ i7-1185G7E up to 4.4GHz CPU with 16GB (8GB x 2) DDR4-3200 memory running in 2.8GHz) |
| Environment | |
| Operating Temperature | -20°C ~ 60°C |
| Storage Temperature | -30°C ~ 70°C |
| Humidity | 5% ~ 95%, non-condensing |
| Certifications | |
| Safety & EMC | CE/FCC compliant |

Ordering Information

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|-------------------|--|
| tKINO-ULT6-i7-R10 | Thin Mini-ITX SBC supports Intel® 11th Gen Tigerlake-UP3 Mobile Core™ i7-1185G7E Processor, 9~36V DC input, Quadruple Independent Display, HDMI™, DP, eDP, SATA 6Gb/s, Dual Intel® 2.5GbE, USB 3.2 Gen 2, M.2, HD audio and RoHS |
| tKINO-ULT6-i5-R10 | Thin Mini-ITX SBC supports Intel® 11th Gen Tigerlake-UP3 Mobile Core™ i5-1145G7E Processor, 9~36V DC input, Quadruple Independent Display, HDMI™, DP, eDP, SATA 6Gb/s, Dual Intel® 2.5GbE, USB 3.2 Gen 2, M.2, HD audio and RoHS |
| tKINO-ULT6-i3-R10 | Thin Mini-ITX SBC supports Intel® 11th Gen Tigerlake-UP3 Mobile Core™ i3-1115G4E Processor, 9~36V DC input, Quadruple Independent Display, HDMI™, DP, eDP, SATA 6Gb/s, Dual Intel® 2.5GbE, USB 3.2 Gen 2, M.2, HD audio and RoHS |
| tKINO-ULT6-C-R10 | Thin Mini-ITX SBC supports Intel® 11th Gen Tigerlake-UP3 Mobile Celeron® 6305E Processor, 9~36V DC input, Quadruple Independent Display, HDMI™, DP, eDP, SATA 6Gb/s, Dual Intel® 2.5GbE, USB 3.2 Gen 2, M.2, HD audio and RoHS |

Packing List

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|------------------------------------|----------------|
| 1 x tKINO-ULT6 SBC with CPU cooler | 1 x SATA cable |
| 1 x I/O shielding | 1 x QIG |