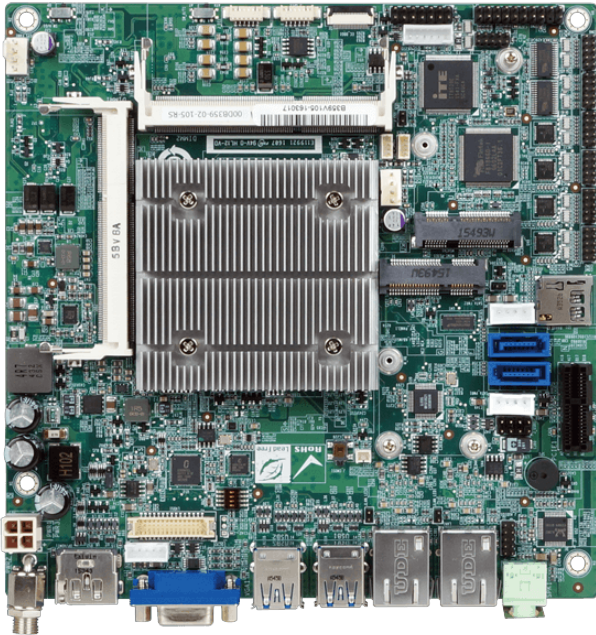


# tKINO-BW

Thin Mini-ITX SBC supports 14nm Intel® Pentium®/Celeron® on-board SoC



## Features

- » Thin Mini-ITX form factor with 14nm Intel® Pentium®/Celeron® on-board SoC processor supports DDR3L memory
- » Supports USB 3.0, two SATA 6Gb/s
- » Triple independent display, supporting 4K resolution
- » Supports IEI jumperless function

## Specifications

| System                   |  |
|--------------------------|--|
| CPU                      | Intel® Pentium® N3710 on-board SoC (up to 2.56GHz, quad-core, 2MB cache, TDP=6W)<br>Intel® Celeron® N3160 on-board SoC (up to 2.24GHz, quad-core, 2MB cache, TDP=6W)<br>Intel® Celeron® N3060 on-board SoC (up to 2.48GHz, dual-core, 2MB cache, TDP=6W)<br>Intel® Celeron® N3010 on-board SoC (up to 2.24GHz, dual-core, 2MB cache, TDP=4W) |
| Memory                   | Two 204-pin 1333/1600 MHz single-channel DDR3L SDRAM unbuffered SO-DIMM  |
| Memory Max.              | 8GB  |
| Physical Characteristics |  |
| Net Weight               | 400g   |
| Storage                  |  |
| Storage                  | 2 x SATA :6Gb/s with 5V output<br>1 x mSATA :colay SATA2<br>1 x SD/MicroSD card  |
| I/O Interface            |  |
| Display Output           | 1 x VGA :up to 1920x1200@60Hz<br>1 x LVDS :18/24-bit dual-channel (up to 1920x1200@60Hz)   |
| Ethernet                 | 1 x Description: Dual Realtek RTL8111E PCIe GbE controller   |
| Audio                    | Description: Realtek ALC662 HD codec<br>1 x Line out :on rear IO<br>1 x Speaker :1x4 pin<br>1 x Front Audio :2x5 pin   |
| I/O Interface            | 4 x Internal RS-232 :2x5 pin, P=2.0<br>2 x Internal RS-232/422/485 :2x5 pin, P=2.0<br>2 x Internal USB 2.0 :2x4 pin, P=2.54<br>1 x PS/2 :1x6 pin<br>1 x DIO :8-bit digital I/O (2x5 pin)   |
| Expansion                | 1 x PCIe x1<br>1 x PCIe mini Card Slot   |
| Other Features           |  |

|                       |   |
|-----------------------|---|
| TPM                   | 2x10 pin  |
| <b>Power</b>          |   |
| Power Consumption     | 12V@1.61A (Intel® Celeron® N3710 CPU with two 4 GB 1600 MHz DDR3L memory) |
| Power Supply          | 1 x External DC power jack (ø5.5 mm)                                      |
|                       | 1 x Internal power connector (2x2 pin) Input Voltage Range: 9V ~ 30V      |
|                       | Support AT/ATX mode   |
| <b>Environment</b>    |   |
| Operating Temperature | -20°C ~ 60°C  |
| Storage Temperature   | -30°C ~ 70°C  |
| Humidity              | 5% ~ 95%, non-condensing  |
| <b>Certifications</b> |   |
| Safety & EMC          | CE/FCC compliant  |

## Ordering Information

|                 |  |
|-----------------|--|
| tKINO-BW-N4-R20 | Thin Mini-ITX SBC supports Intel® Pentium® quad-core processor N3710 up to 2.56GHz (6W), VGA/LVDS/DP+HDMI™, SATA, dual GbE, USB 3.0, HD Audio and RoHS |
|-----------------|--|

## Packing List

|  |                   |
|--|-------------------|
| 1 x tKINO-BW single board computer with heatsink | 1 x I/O shielding |
| 1 x SATA cable                                   | 1 x QIG           |