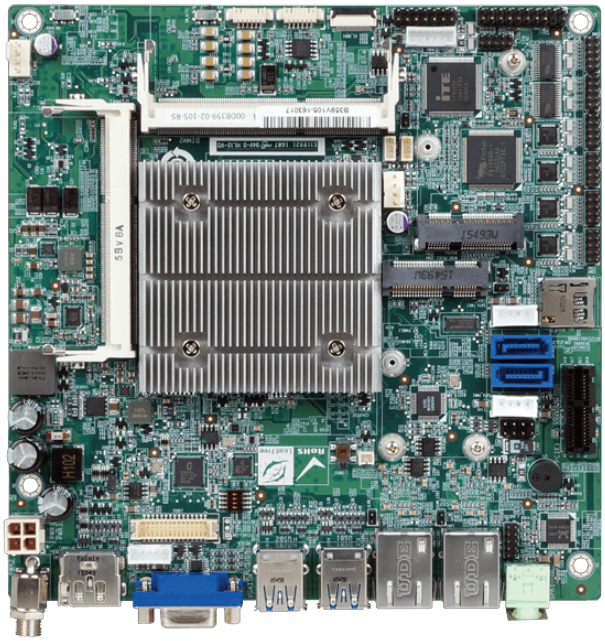
Embedded Computer > Single Board Computer > Industrial Motherboard

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)
	Intel® Celeron® N3160 on-board SoC (up to 2.24GHz, quad-core, 2MB cache, TDP=6W)
	Intel® Celeron® N3060 on-board SoC (up to 2.48GHz, dual-core, 2MB cache, TDP=6W)
	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
	1 x mSATA :colay SATA2
	1 x SD/MicroSD card
I/O Interface	
Display Output	1 x VGA :up to 1920x1200@60Hz
	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
	1 x Line out :on rear IO
	1 x Speaker :1x4 pin
	1 x Front Audio :2x5 pin
I/O Interface	4 x Internal RS-232 :2x5 pin, P=2.0
	2 x Internal RS-232/422/485 :2x5 pin, P=2.0
	2 x Internal USB 2.0 :2x4 pin, P=2.54
	1 x PS/2 :1x6 pin
	1 x DIO :8-bit digital I/O (2x5 pin)
Expansion	1 x PCIe x1
	1 x PCIe mini Card Slot
Other Features	

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TPM	2x10 pin
Power	
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
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

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
tKINO-BW-N3-R20	Thin Mini-ITX SBC supports Intel® Celeron® quad-core processor N3160 up to 2.24GHz (6W), VGA/LVDS/DP+HDMI, SATA, dual GbE, USB 3.0, HD Audio and RoHS
tKINO-BW-N2-R20	Thin Mini-ITX SBC supports Intel® Celeron® dual-core processor N3060 up to 2.48GHz (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