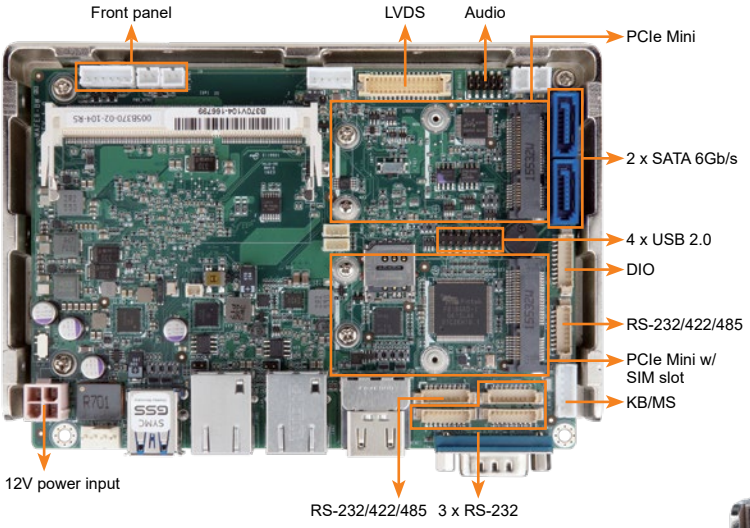
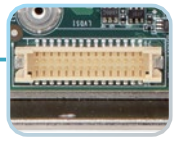
WAFER-BW

3.5" SBC with Intel® 14nm Pentium®/Celeron® on-board SoC with Dual HDMI and LVDS, Dual PCIe GbE, USB 3.2 Gen 1 (5Gb/s), PCIe Mini, SATA 6Gb/s, mSATA, COM, Audio and RoHS

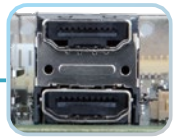


Triple independent display

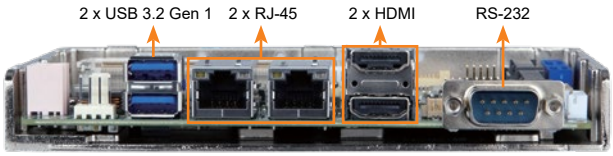
(Dual HDMI and one 18/24-bit dual-channel LVDS)



LVDS



HDMI



Specifications

- SoC
  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)
- BIOS
  AMI UEFI BIOS
- Memory
  One 204-pin 1600/1333 MHz single-channel DDR3L SDRAM unbuffered SO-DIMM slot supports up to 8 GB
- Graphics Engine
  Intel® HD Graphics Gen 8 Engine with 16 low-power execution units, supporting DX11.1, OpenGL 4.2 and OpenCL1.2
- Display Output
  Triple independent display
  2 x HDMI (up to 3840x2160@30Hz)
  1 x 18/24-bit dual-channel LVDS (up to 1920x1200@60Hz)
- Ethernet
  LAN1: Realtek RTL8111GN
  LAN2: Realtek RTL8111GN
- External I/O Interface
  1 x RS-232
  2 x USB 3.2 Gen 1 (5Gb/s) (on rear I/O)
- Internal I/O Interface
  1 x eMMC4.51 (optional)
  1 x KB/MS (1x6 pin)
  1 x mSATA
  2 x SATA 6Gb/s with 5V SATA power connector (no RAID)
  3 x RS-232 (1x9 pin, P=1.25)
  4 x USB 2.0 (2x4 pin, P=2.0)
  2 x RS-232/422/485 (2 by pin header) (1x9 pin, P=1.25)
- SMBus
  1 x SMBus (1x4 pin)
- I²C
  1 x I²C (1x4 pin)
- Audio
  Realtek ALC662 HD codec
  1 x Front audio (2x5 pin)
- Front Panel
  1 x Power LED & HDD LED (1x6 pin)
  1 x Power button (1x2 pin)
  1 x Reset button (1x2 pin)
- LAN LED
  2 x LAN LED (1x2 pin)
- Expansion
  1 x Full/Half-size PCIe Mini slot (with SIM card holder)
  1 x Full/Half-size PCIe Mini slot (supports mSATA, colay with SATA port 2)
- Digital I/O: 8-bit digital I/O (1x10 pin, P=1.25)
- Fan Connector
  1 x Smart fan connector (1x4 pin)
- Power Supply
  12V only DC input
  1 x Internal power connector (2x2 pin)
  Support AT/ATX mode
- Power Consumption
  12V@1.52A (Intel® Pentium® processor N3710 with 8 GB 1600 MHz DDR3L memory)
- Watchdog Timer: Software programmable supports 1~255 sec. system reset
- Operating Temperature: -20°C ~ 60°C
- Storage Temperature: -30°C ~ 70°C
- Operating Humidity: 5% ~ 95%, non-condensing
- Dimensions: 146mm x 102mm
- Weight: GW: 600g/ NW: 250g
- CE/FCC compliant

Features

- 3.5" SBC supports Intel® 14nm Pentium®/Celeron® on-board SoC
- Triple independent display support
- 1.35V DDR3L 1333/1600 MHz SDRAM up to 8 GB
- COM, USB 3.2 Gen 1 (5Gb/s), SATA 6Gb/s, PCIe Mini, mSATA and Audio support
- Two full-size PCIe Mini slots (one with SIM holder for WLAN/WWAN expansion)

Packing List

1 x WAFER-BW single board computer	
1 x Audio cable	
1 x Power cable	2 x SATA with power cable kit
1 x RS-232/422/485 cable	1 x QIG

Ordering Information

Part No.	Description
WAFER-BW-N4-R21	3.5" SBC supports Intel® Pentium® quad-core processor N3710 up to 2.56GHz (6W) with dual HDMI and LVDS, Dual PCIe GbE, PCIe Mini, USB 3.2 Gen 1 (5Gb/s), SATA 6Gb/s, mSATA, COM, Audio and RoHS
WAFER-BW-N3-R21	3.5" SBC supports Intel® Celeron® quad-core processor N3160 up to 2.24GHz (6W) with dual HDMI and LVDS, Dual PCIe GbE, PCIe Mini, USB 3.2 Gen 1 (5Gb/s), SATA 6Gb/s, mSATA, COM, Audio and RoHS
WAFER-BW-N2-R21	3.5" SBC supports Intel® Celeron® dual-core processor N3060 up to 2.48GHz (6W) with dual HDMI and LVDS, Dual PCIe GbE, PCIe Mini, USB 3.2 Gen 1 (5Gb/s), SATA 6Gb/s, mSATA, COM, Audio and RoHS
WAFER-BW-N1-R21**	3.5" SBC supports Intel® Celeron® dual-core processor N3010 up to 2.24GHz (4W) with dual HDMI and LVDS, Dual PCIe GbE, PCIe Mini, USB 3.2 Gen 1 (5Gb/s), SATA 6Gb/s, mSATA, COM, Audio and RoHS
32001-008600-200-RS	Dual-port USB 2.0 cable, 210mm, P=2.0
32006-001100-201-RS	PS/2 KB/MS cable, 135mm/110mm, P=2.0
32005-003500-200-RS	RS-232/422/485 cable, 250mm, P=1.25

**By order production, MOQ: 100