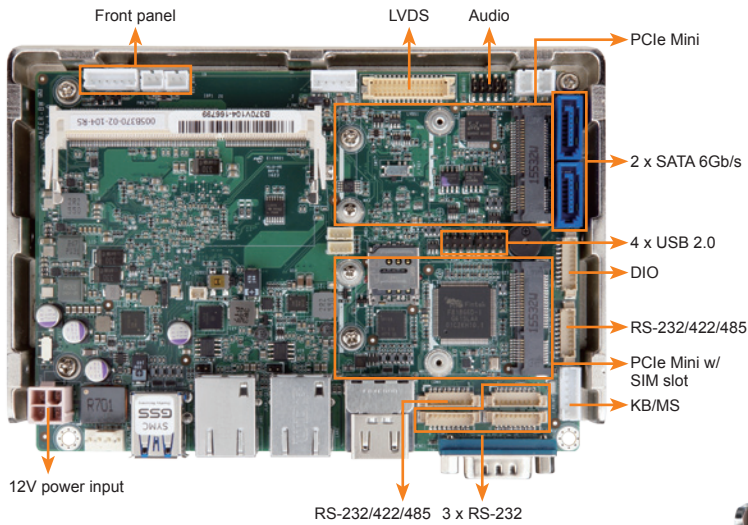


# WAFER-BW

3.5" SBC with Intel® 14nm Pentium®/Celeron® on-board SoC with Dual HDMI and LVDS, Dual PCIe GbE, USB 3.0, PCIe Mini, SATA 6Gb/s, mSATA, COM, Audio and RoHS



## 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 1333/1600 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 OpenCL 1.2
- ◆ Display Output
  - Triple independent display
  - 2 x HDMI (up to 3840x2160@30Hz)
  - 1 x 18/24-bit dual-channel LVDS by CH7511B DP to LVDS converter (up to 1920x1200@60Hz)
- ◆ Ethernet
  - LAN1: Realtek RTL8111GN controller
  - LAN2: Realtek RTL8111GN controller
- ◆ External I/O Interface
  - 1 x RS-232
  - 2 x USB 3.0 (on rear I/O)
- ◆ Internal I/O Interface
  - 1 x eMMC4.51 (optional)
  - 1 x KB/MS (1x6 pin)
  - 1 x mSATA
  - 2 x RS-232/422/485 (2 by pin header) (1x9 pin, P=1.25)
  - 2 x SATA 6G/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)
- ◆ SMBus
  - 1 x SMBus (1x4 pin)
- ◆ I<sup>2</sup>C
  - 1 x I<sup>2</sup>C (1x4 pin)
- ◆ Audio
  - Realtek ALC662 HD codec
  - 1 x Analog 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
  - 2 x Full/Half-size PCIe Mini card slot (1 w/ SIM holder) (1 w/ mSATA support: share SATA signal from SATA2)
- ◆ Digital I/O: 1 x 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

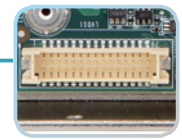
## Triple independent display

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

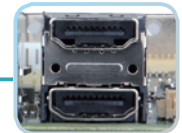


Digital Signage

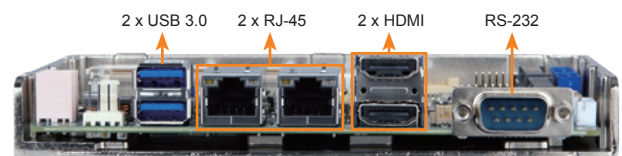
Preliminary



LVDS



HDMI



## 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 3.0, SATA 6Gb/s, PCIe Mini, mSATA and Audio support
- Two full-size PCIe Mini slots (one with SIM holder for WLAN/WWAN expansion)
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery

## Packing List

1 x WAFER-BW single board computer
1 x Audio cable
1 x Power cable
1 x RS-232/422/485 cable
2 x SATA with power cable kit
1 x One Key Recovery CD
1 x QIG (Quick Installation Guide)
1 x Utility CD

## Ordering Information

Part No.	Description
WAFER-BW-N4-R10	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 3.0, SATA 6Gb/s, mSATA, COM, Audio and RoHS
WAFER-BW-N3-R10	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 3.0, SATA 6Gb/s, mSATA, COM, Audio and RoHS
WAFER-BW-N2-R10	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 3.0, SATA 6Gb/s, mSATA, COM, Audio and RoHS
WAFER-BW-N1-R10**	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 3.0, SATA 6Gb/s, mSATA, COM, Audio and RoHS
32000-023800-RS	PS/2 KB/MS 135mm, P=2.0
32001-008600-200-RS	Dual-port USB 2.0 cable, 210mm, P=2.0

\*\*By order production, MOQ: 100