# Single Board Computer

***Full-size***

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**WSB-BT**

***Full-size PICMG 1.0 CPU Card supports Intel® Celeron™ on-board SoC with VGA, iDP, Dual Intel® PCIe GbE, USB 3.1 Gen 1 (5Gb/s), PCIe Mini, SATA, mSATA, COM, CF, Audio and RoHS***

2 x SATA 3Gb/s

LVDS

iDP

Front Panel

RS-232/422/485

CF Type II

Audio

TPM

LPT

RS-232

**Multiple Choice for Storage**

## CF Type II

USB 3.1 Gen 1

USB 2.0

Dual LAN

VGA

## SATA 3Gb/s

mSATA

PCIe Mini

USB 2.0

KB/MS DIO

DDR4

***USB***

2133

USB 3.1 SATA 3Gb/s Expansion

PCIe Mini

mSATA

# *Specifications*

WSB-BT-2019-V10

CPU

Intel® Celeron® J1900 on-board SoC (2GHz, quad-core, 2MB cache, TDP=10W) Intel® Celeron® N2807 on-board SoC (1.58GHz, dual-core, 2MB cache, TDP=4.3W) Memory

One 204-pin 1333/1066MHz dual-channel DDR3L SDRAM unbuffered DIMM supports up to 8GB (J1900) or 4GB (N2807)

BIOS

AMI UEFI BIOS

Graphics

Intel® HD Graphics Gen 7 Engines with 4 execution units, supports DX11.1, OpenGL 4.2 and OpenCL1.2

Display Output

1 x VGA (up to 1920x1200@60Hz)

1 x 18/24-bit dual-channel LVDS (up to 1920x1200@60Hz)

1 x iDP interface for HDMI, LVDS, VGA, DVI, DP (up to 2560x1600@60Hz) Ethernet

LAN1: Intel® I211-AT PCIe controller

LAN2: Intel® I211-AT PCIe controller External I/O

1 x USB 3.1 Gen 1 (5Gb/s)

1 x USB 2.0

Internal I/O

1 x CF Type II 2 x RS-232/422/485 (2x5 pin, P=2.54)

1 x KB/MS (1x6 pin) 2 x SATA 3Gb/s

1 x LPT (2x13 pin) 4 x RS-232 (2x5 pin, P=2.54)

1 x mSATA (SATA 3Gb/s) 4 x USB 2.0 (2x4 pin, P=2.54)

1 x USB 2.0 (180º Type-A)

Front Panel

1 x Front panel (Power LED, HDD LED, Speaker, Power Button, Reset Button) Digital I/O

8-bit digital I/O (2x5 pin)

TPM

1 x TPM (2x10 pin) Audio

7.1 channel HD Audio supported by IEI AC-KIT-892HD kit

SMBus

1 x SMBus (1x4 pin) I²C

1 x I²C (1x4 pin)

Expansion

1 x Full/Half-size PCIe Mini card slot PCI and ISA\* signal via golden finger Watchdog Timer

Software programmable supports 1~255 sec. system reset Fan Connector

1 x CPU smart fan (1x4 pin)

1 x System smart fan (1x3 pin) Power Supply

5V/12V, AT/ATX support

Power Consumption

3.3V@0.009A, 5V@4.68A, 5Vsb@0.008A, 12V@1.143A

(Intel® Celeron® J1900 1.99 GHz 10W CPU with 8GB 1600MHz DDR3L memory) Operating Temperature

-20°C ~ 60°C

Storage Temperature

-30°C ~ 70°C

Operating Humidity

5% ~ 95%, non-condensing Dimensions

338 mm x 122 mm

Weight

GW: 1000g / NW: 260g

CE/FCC compliant

# *Features*

* Full-size PICMG 1.0 with Intel® Celeron™ J1900 & N2807 on-board SoC
* Dual-channel 1066/1333MHz DDR3L SO-DIMM supports up to 8GB of memory
* Dual Gigabit Ethernet LAN controller
* SATA 3Gb/s, USB 3.1 Gen 1 (5Gb/s), PCIe Mini, mSATA and CF card supported
* TPM v1.2 & 2.0 hardware security function supported by TPM module
* Stiffener bars

# *Packing List*

|  |
| --- |
| 1 x WSB-BT single board computer |
| 1 x Dual RS-232 cable with bracket |
| 1 x SATA cable |
| 1 x QIG |

***Ordering Information***

|  |  |
| --- | --- |
| Part No. | Description |
| WSB-BT-J19001-R10 | Full-size PICMG 1.0 CPU card supports Intel® Celeron™ J1900 on-board SoC with VGA, iDP, Dual Intel® PCIe GbE, PCIe Mini,USB 3.1 Gen 1 (5Gb/s), SATA, mSATA, COM, CF, Audio and RoHS |
| WSB-BT-N28071-R10 | Full-size PICMG 1.0 CPU card supports Intel® Celeron™ N2807 on-board SoC with VGA, iDP, Dual Intel® PCIe GbE, PCIe Mini, USB 3.1 Gen 1 (5Gb/s), SATA, mSATA, COM, CF, Audio and RoHS |
| 19800-000049-RS | LPT flat cable, 240mm, P=2.54 |
| 19800-000075-RS | PS/2 KB/MS cable with bracket, 220mm, P=2.0 |
| 32102-000100-200-RS | SATA power cable, MOLEX 5264-4P to SATA15P |
| DP-DP-R10 | DisplayPort to DisplayPort converter board (for IEI iDP connector) |
| DP-DVI-R10 | DisplayPort to DVI-D converter board (for IEI iDP connector) |
| DP-HDMI-R10 | DisplayPort to HDMI converter board (for IEI iDP connector) |
| DP-LVDS-R10 | DisplayPort to LVDS converter board (for IEI iDP connector) |
| DP-VGA-R10 | DisplayPort to VGA converter board (for IEI iDP connector) |
| AC-KIT-892HD-R10 | 7.1 channel HD Audio kit with Realtek ALC892 support dual audio stream |
| TPM-IN01-R20 | 20-pin Infineon TPM1.2 module, software management tool, firmware v3.17 |
| TPM-IN02-R20 | 20-pin Infineon TPM2.0 module, software management tool, firmware v5.5 |

\* ISA Limitation. Please refer to the manual for more information.