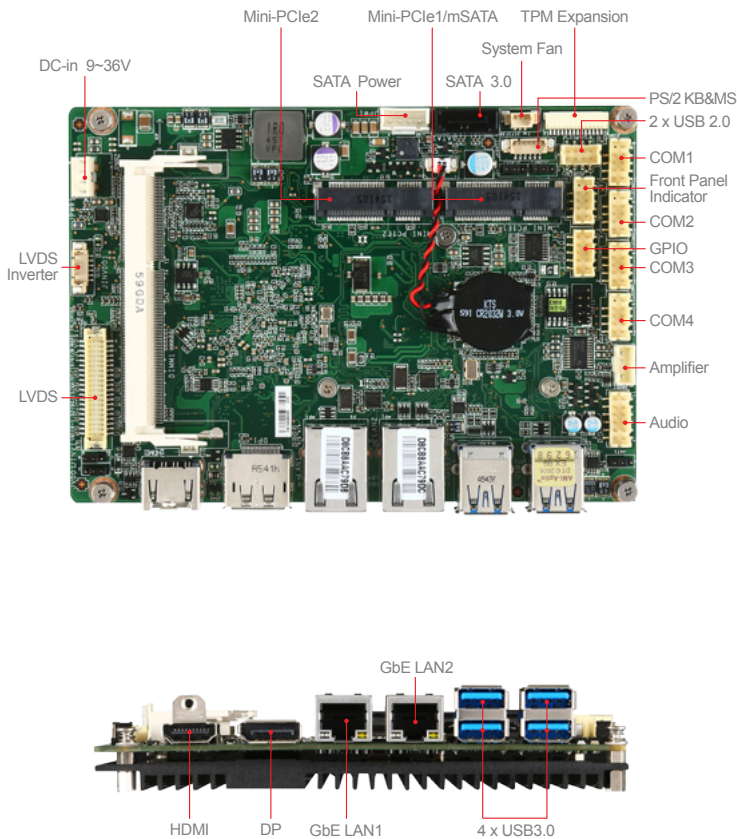


# MS-9818

3.5" SBC with Intel® Celeron® Processor N3010/N3160 for High-Performance, Low-Power & Fanless Solution



## Features

- Intel® Braswell N3000 Series SoC
- Supports DDR3L 1333/1600 MHz SO-DIMM memory up to 8GB
- 3 independent displays with HDMI, DP, and LVDS outputs
- 4 USB 3.0, 2 USB 2.0, and 4 COM ports
- Dual Mini-PCIe, SATA, mSATA, and Dual GbE LAN
- Supports DC-in 9~36V

## Ordering Information

| Part Number  | Description                                                                                                                                                              |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 919-9818-003 | MS-9818 10 OPTB, 3.5-INCH, INTEL CELERON N3160, 1*DDR3L SO-DIMM, DP, HDMI, LVDS, 2*MINI-PCIE, 2*LAN, 1*SATA3.0, 1*MSATA, 6*USB (4*USB 3.0+2*USB 2.0), 4*COM, DC-IN 9~36V |
| 919-9818-004 | MS-9818 10 OPTC, 3.5-INCH, INTEL CELERON N3010, 1*DDR3L SO-DIMM, DP, HDMI, LVDS, 2*MINI-PCIE, 2*LAN, 1*SATA3.0, 1*MSATA, 6*USB(4*USB 3.0+2*USB 2.0), 4*COM, DC-IN 9~36V  |

## Packing List

| Part Number           | Description               |
|-----------------------|---------------------------|
| K10-3002145-V03       | DC LOCKABLE CABLE, 120mm  |
| K1B-3008034-V03       | USB2.0 CABLE, 150mm       |
| K14-1009062-V03       | INT COM PORT CABLE, 250mm |
| K1D-1012064-V03       | SATA Power CABLE, 200mm   |
| G71-SEDC152-N56 / X03 | DRIVER CD                 |

## Specifications

|                   |                       |                                                                                                                                                 |
|-------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Processor         | CPU                   | Intel® Celeron® Processor N3160, QC, 6W<br>Intel® Celeron® Processor N3010, DC, 4W                                                              |
|                   | Frequency             | N3160, 1.6 GHz up to 2.24 GHz<br>N3010, 1.04 GHz up to 2.24 GHz                                                                                 |
|                   | L2 Cache              | 2MB                                                                                                                                             |
|                   | CPU Type              | BGA                                                                                                                                             |
|                   | Chipset               | Integrated in SoC                                                                                                                               |
| Memory            | BIOS                  | AMI                                                                                                                                             |
|                   | Technology            | Single-channel DDR3L 1600MHz                                                                                                                    |
|                   | Max. Capacity         | Up to 8 GB                                                                                                                                      |
| Display           | Socket                | 1 x 204-pin SO-DIMM                                                                                                                             |
|                   | Controller            | Intel® HD Graphics                                                                                                                              |
|                   | Graphic Memory        | Shared system memory up to 1.7 GB SDRAM                                                                                                         |
|                   | LVDS                  | Dual Channel 18/24-bit                                                                                                                          |
|                   | HDMI                  | 1                                                                                                                                               |
| Display           | DisplayPort           | 1                                                                                                                                               |
|                   | Multiple Display      | 3 independent displays                                                                                                                          |
|                   | Display Interface     | LVDS up to 1920 x 1200 @ 60 Hz,<br>HDMI up to 2560 x 1600 @ 60 Hz, 3840 x 2160 @ 30 Hz<br>DP1.1a up to 2560 x 1600 @ 60 Hz, 3840 x 2160 @ 30 Hz |
| Ethernet          | Controller            | 2 x Realtek® RTL8111G GbE LAN                                                                                                                   |
| Audio             | Controller            | Realtek® ALC887-VD2-CG HD Audio Codec                                                                                                           |
| Super I/O         | Controller            | Fintek F81866AD-I                                                                                                                               |
| H/W Monitor       | Watchdog Timer        | 256-level Watchdog Timer                                                                                                                        |
|                   | Smart Fan             | Yes                                                                                                                                             |
| TPM               | Controller            | Pin header                                                                                                                                      |
| I/O Interface     | USB                   | 2 x USB 2.0 (2 x internal)<br>4 x USB 3.0 (4 x rear)                                                                                            |
|                   | Serial                | 4 x COM (internal)<br>COM1: RS-232/422/485, 0V/5V/12V<br>COM2~4: RS-232                                                                         |
|                   | PS/2                  | 1 (box header)                                                                                                                                  |
|                   | GPIO                  | 8-bits (4 x GPI; 4 x GPO)                                                                                                                       |
| Expansion Slot    | M.2                   | N/A                                                                                                                                             |
|                   | Mini-PCIe             | 2 x Full-size (one w/ mSATA)                                                                                                                    |
| Storage           | SATA                  | 1 x SATA 3.0                                                                                                                                    |
|                   | mSATA                 | 1 (Shared with Mini-PCIe1)                                                                                                                      |
| Power Supply      | DC                    | DC-in 9~36V                                                                                                                                     |
|                   | ATX                   | N/A                                                                                                                                             |
| Environment       | Operating Temperature | -10 ~ 60°C                                                                                                                                      |
|                   | Operating Humidity    | 10 ~ 90%, non-condensing                                                                                                                        |
|                   | Storage Temperature   | -20 ~ 80°C                                                                                                                                      |
|                   | Storage Humidity      | 10 ~ 90%, non-condensing                                                                                                                        |
| Form Factor       | Dimensions            | 146mm x 102mm (3.5")                                                                                                                            |
|                   | Weight                | 0.33 kg                                                                                                                                         |
| Certification     | EMC                   | FCC, CE, RCM, VCCI, BSMI                                                                                                                        |
| Software Platform | OS Support            | Windows 7 (32/64-bit)<br>Windows 8.1 (64-bit)<br>Windows 10 (64-bit)<br>Fedora 21<br>Ubuntu 14.04.03                                            |