

MS-9810

Mini-ITX with Intel® Atom™ Braswell Platform Low-Power, Slim/ Low-Profile & Fanless Solution

Industrial Computer

COM Express Board

Pico-ITX Board

3.5" Board

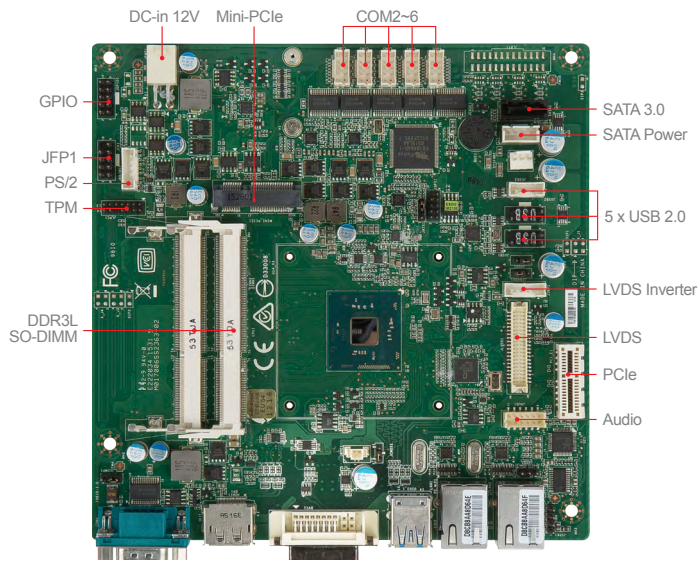
EPIC Board

Mini-ITX Board

Micro-ATX Board

ATX Board

Peripheral



919-9810-103



919-9810-104



Features

- Intel® Braswell Series SoC
- 2 DDR3L 1600/1333 MHz SODIMM slots up to 8GB
- Triple independent displays: DVI-D, DP(HDMI by option), LVDS
- 2 GbE LAN with RJ-45
- 1 PCIe x1(Gen 2), 1 Mini-PCIe (Full/Half size, with mSATA) slots
- mSATA, SATA 3.0 for storage
SATA RAID 0/1
- 2 USB 3.2 Gen 1, 5 USB 2.0, 6 COM(1 RS485), GPIO, LPT(by option), PS/2, Audio, S/PDIF, System FAN
- Onboard TPM 1.2 (by option)
- DC-IN 12V

Ordering Information

| Part Number | Description |
|--------------|---|
| 919-9810-103 | MS-9810\609-9810-030\809-9810-103 STD VER 1.0, FANLESS, Braswell CPU N3160, 1*SATA CABLE, 1*Power CABLE, I/O Shield, BULK |
| 919-9810-104 | MS-9810\609-9810-040\809-9810-104 STD VER 1.0, FANLESS, Braswell CPU N3060, 1*SATA CABLE, 1*Power CABLE, I/O Shield, BULK |

Packing List

| Part Number | Description |
|-----------------|-------------------------|
| E21-9810010-C22 | I/O Shielding (2 x LAN) |
| E21-9810020-C22 | I/O Shielding (1 x LAN) |
| K1D-1012064-V03 | SATA Cable, 200mm |
| K10-3004215-V03 | DC power cable, 160mm |

Specifications

| | | |
|--------------------------|-----------------------|--|
| Processor | CPU | Intel® Pentium processor N3710, QC, 6W Intel® Celeron processor N3160, QC, 6W Intel® Celeron processor N3060, DC, 6W Intel® Celeron processor N3010, DC, 4W |
| | Frequency | N3710, 1.6 GHz, up to 2.56 GHz N3160, 1.6 GHz, up to 2.24 GHz N3060, 1.6 GHz, up to 2.48 GHz N3010, 1.04 GHz, up to 2.24 GHz |
| | L2 Cache | 2MB |
| | CPU Type | BGA |
| | Chipset | Integrated |
| Memory | BIOS | AMI |
| | Technology | Dual-channel DDR3L 1333/1600 MHz |
| | Max. Capacity | Up to 8GB |
| Display | Socket | 2 x 204-pin SO-DIMMs (1 slot for opt SKU) |
| | Controller | Intel® HD Graphics |
| | Graphic Memory | Depends on CPU |
| | LVDS | Dual channel 24-bit |
| | DVI | 1 (DVI-D) |
| | HDMI | 1 (colay with DP) |
| | DisplayPort | 1 (colay with HDMI) |
| Ethernet | Multiple Display | 3 independent displays |
| | Display Interface | LVDS up to 1920 x 1200 @60Hz DP up to 3840 x 2160 @30Hz HDMI up to 1920 x 1200 @60Hz DVI up to 1920 x 1200 @60Hz |
| Ethernet | Controller | 2 or 1 x Realtek® RTL8111G-CG GbE LAN (depends on SKU) |
| Audio | Controller | Realtek® ALC887 co-lay ALC888S |
| Super I/O | Controller | Fintek F81866AD-I |
| H/W Monitor | Watchdog Timer | 256-level Watchdog Timer |
| | Smart Fan | Yes |
| TPM | Controller | Pin header (default) Infineon SLB9635TT 1.2 (by BOM option) |
| I/O Interface | USB | 5 x USB 2.0 (internal) 2 x USB 3.1 Gen 1 (rear) |
| | Serial | 6 x COM ports (COM1: rear, COM2~5: internal) COM1: RS-232/422/485, 0V/5V/12V COM2~6: RS-232, w/o power |
| | Parallel | 1 (by BOM option) |
| | PS/2 | 1 (pin header) |
| | GPIO | 8-bits (4 x GPI; 4 x GPO), 5V |
| Expansion Slot | PCIe x 1 | 1 |
| | M.2 | N/A |
| | Mini-PCIe | 1 x Full-size co-lay mSATA (support Half-size card) |
| Storage | SATA | 1 x SATA 3.0 |
| | mSATA | 1 (support by Mini-PCIe slot) |
| Power Supply | DC | DC-in 12V |
| | ATX | N/A |
| Environment | Operating Temperature | 0 ~ 60°C Note: Thermal w/ Airflow:0.7m/s |
| | Operating Humidity | 10 ~ 90%, non-condensing |
| | Storage Temperature | -20 ~ 80°C |
| | Storage Humidity | 10 ~ 90%, non-condensing |
| Form Factor | Dimensions | 170 x 170 mm (Mini-ITX) |
| | Weight | 0.37 kg |
| Certification | EMC | FCC, CE, RCM, VCCI |
| Software Platform | OS Support | Windows 7 (32/64-bit) Windows 8.1 (64-bit) Windows 10 (64-bit) Linux (Support by request) |

Optional Item

| Part Number | Description |
|-----------------|-----------------------|
| K14-1018003-V03 | COM port cable, 300mm |
| K1B-3008012-E06 | USB 2.0 Cable, 330mm |