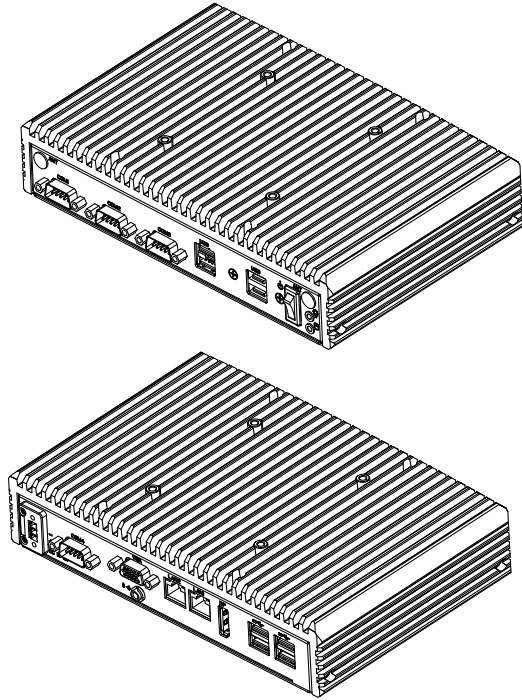


# BS-E098

## Quick Reference Guide



Ver. Q1

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## Packing Checklist

If you discover any item below damaged or lost, please contact your vendor.

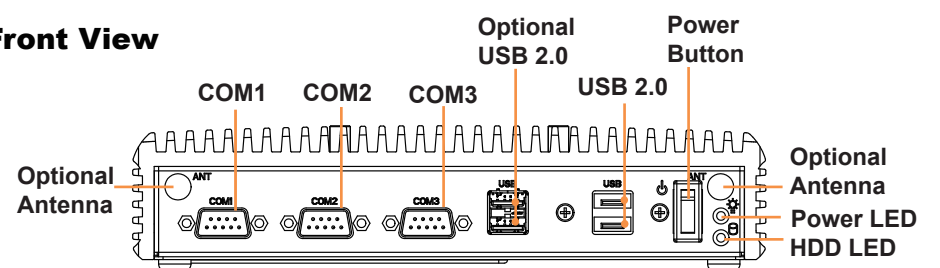
- BS-E098 x1
- This Quick Reference Guide x1
- Driver/ Manual DVD x1
- Mini Jumper (2.0 mm) x6

## Specifications

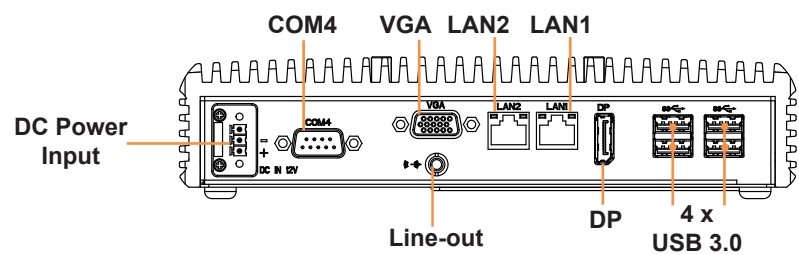
|                           |  |
|---------------------------|--|
| <b>System</b>             |  |
| CPU                       | <b>BS-E098RA-N1B:</b> Pentium® N4200 4C/6W/2.5GHz<br><b>BS-E098RA-N0B:</b> Celeron® N3350 2C/6W/2.4GHz<br><b>BS-E098RA-U1B:</b> Pentium® N4200 4C/6W/2.5GHz<br><b>BS-E098RA-U0B:</b> Celeron® N3350 2C/6W/2.4GHz   |
| Memory Support            | 1x SO-DIMM socket, supporting 1600/1867 DDR3L DRAM up to 8G (non-ECC)  |
| Drive Bay                 | 1 x 2.5" 7mm SATAIII HDD / SSD   |
| Power Supply              | DC 12V power input (3 pins lockable terminal block)  |
| O.S. Support              | Windows® 10 64bit, Ubuntu14.04 64bit (kernel 4.4)  |
| Dimension (WxHxD)         | 217.5mm x 45mm x 148mm   |
| Weight                    | 2 kg   |
| Certificate               | FCC/CE   |
| <b>I/O Ports</b>          |  |
| USB                       | <b>BS-E098RA-N1B/N0B:</b> 4 x USB 3.0 (rear), 2 x USB 2.0 (front)<br><b>BS-E098RA-U1B/U0B:</b> 4 x USB 3.0 (rear), 4 x USB 2.0 (front)   |
| Serial Ports              | COM1~COM3 on front I/O, COM4 on rear I/O<br>COM2 RS-232/422/485 selectable by BIOS (default: RS-232)<br>RS-485 supports auto flow control (selected by BIOS)<br>COM3/4 RI/5V/12V selectable by jumper (default:RI) |
| Antenna Hole              | 2 x antenna holes for reservation  |
| LAN                       | 2 x GbE LAN, supports Wake-On-LAN  |
| Expansion Slots/<br>mSATA | <b>BS-E098RA-N1B/N0B:</b> 1 full-sized mPCIe,<br>1 full-sized mSATA (with USB signals)<br><b>BS-E098RA-U1B/U0B:</b> 1 full-sized mSATA (with USB signals)  |
| Audio                     | 1 x Line-out (on rear I/O panel)   |
| <b>Display</b>            |  |
| Display                   | <b>1 x DP1.2 resolution:</b> up to 4096x2160@60Hz (rear I/O)<br><b>1 x VGA resolution:</b> up to 1920x1200@60Hz (rear I/O)   |
| <b>Others</b>             |  |
| Software Support          | Hardware Monitor API (for Temp) and WatchDog API   |
| Optional Item             | 60W Power adapter with lockable 3-pin terminal block   |
| <b>Environment</b>        |  |
| Operating Temp.           | <b>SSD:</b> 0°C ~ 60°C (32°F~140°F)<br><b>HDD:</b> 0°C ~ 40°C (32°F~104°F)   |
| Storage Temp.             | -40°C ~ 86°C (-40°F~185°F)   |
| Humidity                  | 20% ~ 95%  |

## System View

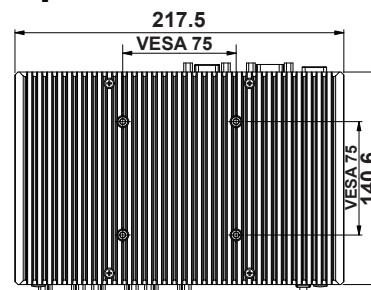
### Front View



### Rear View



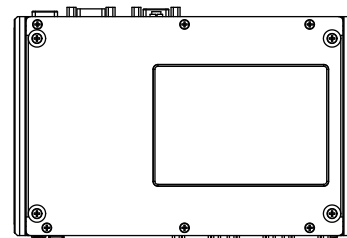
### Top View



### Side View



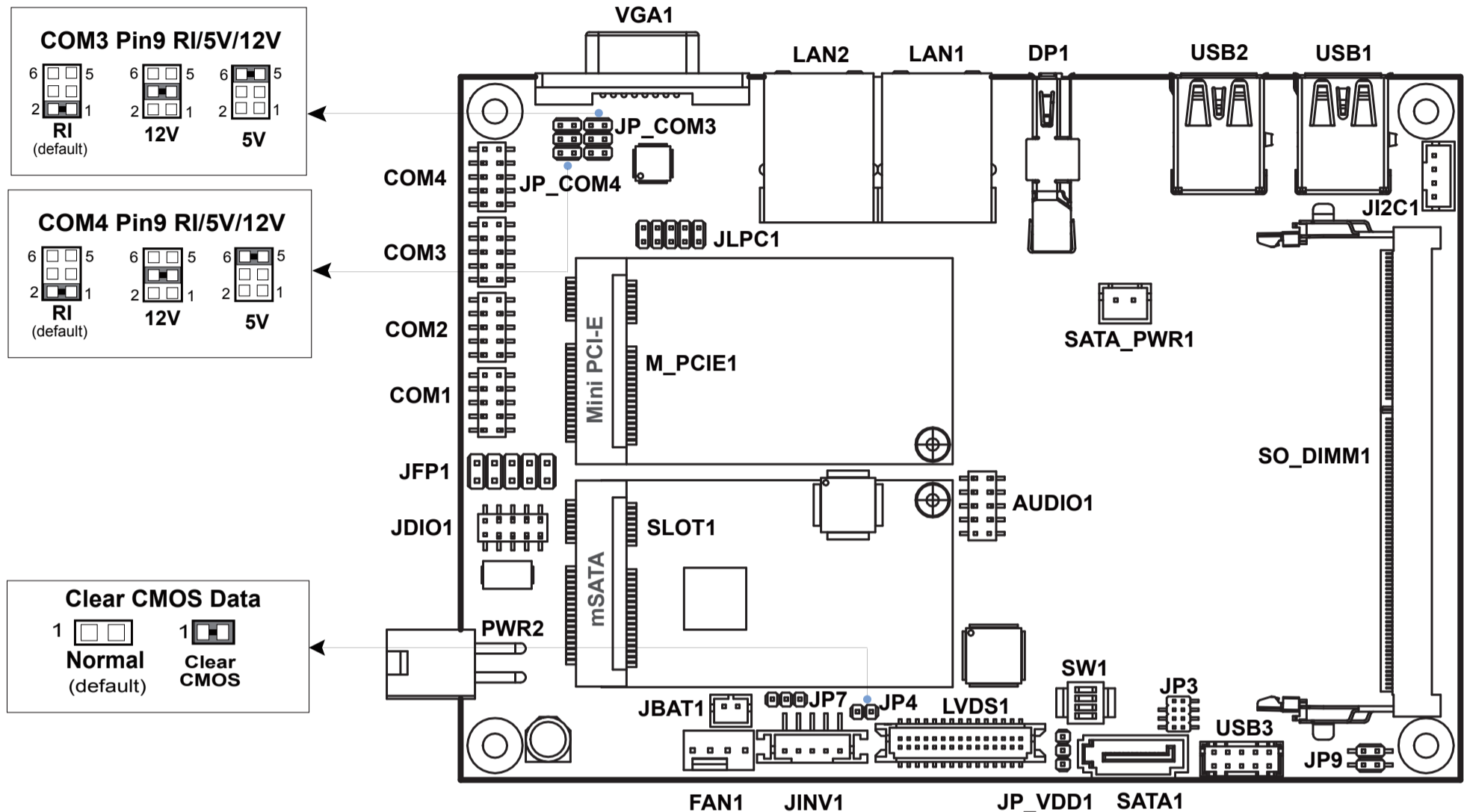
### Bottom View



# BS-E098

Fanless Embedded PC with Intel® Apollo Lake Pentium™ / Celeron® SoC

## Jumper Setting



**CAUTION!** Danger of explosion may occur if the battery is replaced incorrectly. Replace batteries only with the same or equivalent type recommended by the manufacturer. Dispose the used batteries according to the manufacturer's instructions.

## Safety Precaution

The following messages are safety reminders on how to protect your system from damages, and thus help you extend the life cycle of the system.

### 1. Check the Line Voltage

- The operating voltage for the power supply should cover the range of 9V~36V DC; otherwise, the system may be damaged.

### 2. Environmental Conditions

- Place your BS-E098 on a sturdy, level surface. Be sure to allow enough room on each side to have easy access.
- Avoid moving the system rapidly from a hot place to a cold place or vice versa because condensation may come from inside of the system.
- Place BS-E098 against strong vibrations, which may cause hard disk failure.

### 3. Handling

- Do not turn the system upside down. This may cause the hard drive to mal-function.

- Do not allow foreign objects to fall into this product.
  - If water or other liquid spills into this product, unplug the power cord immediately.
- ### 4. Good Care
- When the outside of the case is stained, remove the stain with neutral washing agent with a dry cloth.
  - If dust has been accumulated on the outside, remove it by using a special made vacuum cleaner for computer.

### CAUTION!

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

### WARNING!

Some internal parts of the system may have high electrical voltage. Therefore we strongly recommend qualified engineers open and disassemble the system.