

# SEPC-BYT

Fanless Intel® Celeron® Processor J1900 Tiny Box PC

## Quick Reference Guide

1<sup>st</sup> Ed – 09 February 2015

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(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE.

(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRABLE OPERATION.

THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS "A" DIGITAL DEVICE, PURSUANT TO PART 15 OF THE FCC RULES.

THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE WHEN THE EQUIPMENT IS OPERATED IN A COMMERCIAL ENVIRONMENT. THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY AND, IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL, MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS.

OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE IN WHICH CASE THE USER WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT HIS OWN EXPENSE.

## Notice

This guide is designed for experienced users to setup the system within the shortest time. For detailed information, please always refer to the electronic user's manual.

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To receive the latest version of the user's manual; please visit our Web site at:

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# 1. Getting Started

## 1.1 Safety Precautions

### Warning!



Always completely disconnect the power cord from your chassis whenever you work with the hardware. Do not make connections while the power is on. Sensitive electronic components can be damaged by sudden power surges. Only experienced electronics personnel should open the PC chassis.

### Caution!



Always ground yourself to remove any static charge before touching the CPU card. Modern electronic devices are very sensitive to static electric charges. As a safety precaution, use a grounding wrist strap at all times. Place all electronic components in a static-dissipative surface or static-shielded bag when they are not in the chassis.

## 1.2 Packing List

Before you begin installing your single board, please make sure that the following materials have been shipped:

- 1 x SEPC-BYT Fanless Intel® Celeron® Processor J1900 Tiny Box PC
- 1 x DVD-ROM contains the followings:
  - Quick Reference Guide
  - Driver Utility
- Other major components include the followings:
  - Adapter X 1
  - Power cord X 1
  - Rubber x 4
  - Screws



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If any of the above items is damaged or missing, contact your retailer.

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## 1.3 System Specifications

System	
<b>CPU</b>	Onboard Intel® Celeron® Processor J1900 (2M Cache, up to 2.42 GHz)
<b>BIOS</b>	AMI uEFI BIOS, 64Mbit SPI Flash ROM
<b>I/O Chip</b>	iTE 8772E
<b>System Memory</b>	One 204-pin DDR3L 1333MHz SO-DIMM socket, supports up to 8GB Max
<b>Storage</b>	1 x 2.5" Drive Bay, Onboard eMMC 32GB
<b>Watchdog Timer</b>	Reset: 1sec. ~ 65535sec./min. and 1sec. or 1min./step
<b>H/W Status Monitor</b>	Monitoring CPU & System Temperature and Voltage
<b>Expansion</b>	1 x Full size Mini PCI-e socket (support WiFi) 1 x Half size Mini PCI-e socket (support m-SATA)
External I/O	
<b>USB port</b>	2 x USB 2.0, 1 x USB 3.0
<b>COM port</b>	1 x RS-232 port (Pin 9 without power)
<b>LAN port</b>	1 x RJ45
<b>VGA port</b>	1 x VGA
<b>HDMI port</b>	1 x HDMI
<b>SD card</b>	1 x SD card socket
<b>Audio port</b>	Line-out , Mic-in
<b>DC Jack</b>	1 x DC Jack 2.5mm
<b>WiFi</b>	1 x Full size Mini PCI-e socket (support WiFi)
<b>Others</b>	1 x Power on/off 1 x HDD LED 1 x 4 bit GPIO 1 x SMA Connector 1 x Power LED
Display	
<b>Chipset</b>	Intel® Atom™ Celeron® SoC integrated Graphics Supports dual display
<b>Resolution</b>	VGA: 2560 x 1600/ HDMI: 1920 x1080
<b>Dual Display</b>	VGA + HDMI
Audio	
<b>Audio Codec</b>	Realtek ALC662 HD Audio Decoding controller supports 2-CH
<b>Audio Interface</b>	Mic-in, Line-out
Ethernet	
<b>LAN Chip</b>	1x Realtek RTL8111G PCI-e Gigabit Ethernet
<b>Ethernet Interface</b>	10 /100 /1000 Base-Tx Gigabit Ethernet

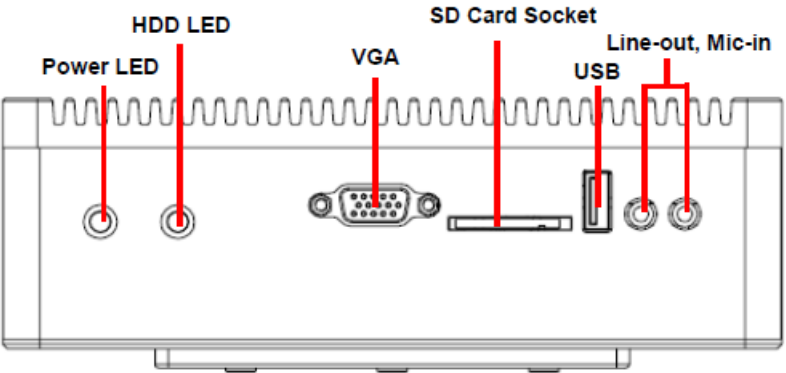
<b>SIM card</b>	
<b>SIM card</b>	1 x SIM Card socket
<b>SD card socket</b>	
<b>SD card socket</b>	1 x SD card socket
<b>Environment &amp;Mechanical</b>	
<b>Power Type</b>	12V 5A 60W adapter
<b>Operating Temp.</b>	0 ~ 50°C (32 ~ 122°F), (w/SSD, mSATA), ambient w/ air flow 0 ~ 40°C (32 ~ 104°F), (w/HDD), ambient w/ air flow
<b>Storage Temp.</b>	-20 ~ 75°C (-4 ~ 167°F) w/SSD -20 ~ 65°C ( -4 ~ 149°F ) w/HDD
<b>Operating Humidity</b>	0 ~ 90% Relative Humidity, Non-condensing
<b>Size (L x W)</b>	180mm x 125mm x 58 mm



**Note:** Specifications are subject to change without notice.

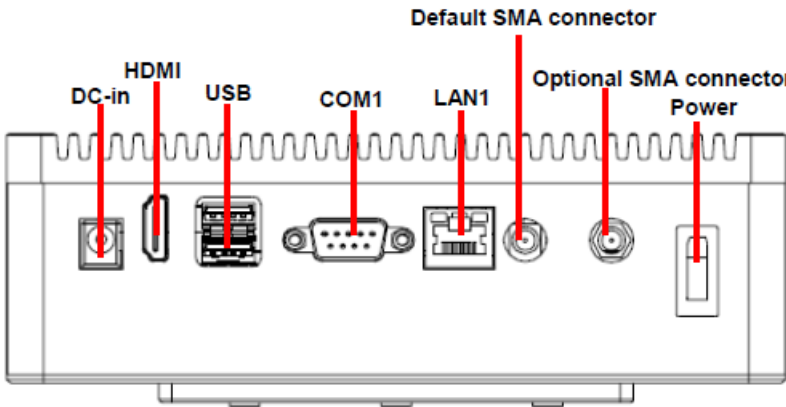
1.4 System Overview

1.4.1 Front View



Connectors		
Label	Function	Note
Line-out	Line-out jack	
Mic-in	Microphone-in audio jack	
VGA	VGA connector	D-sub 15-pin, female
USB	USB 2.0 Type A connector	
HDD LED	HDD LED indicator	
Power LED	Power LED indicator	
SD Card Socket	SD/MS/MMC socket	

1.4.2 Rear View



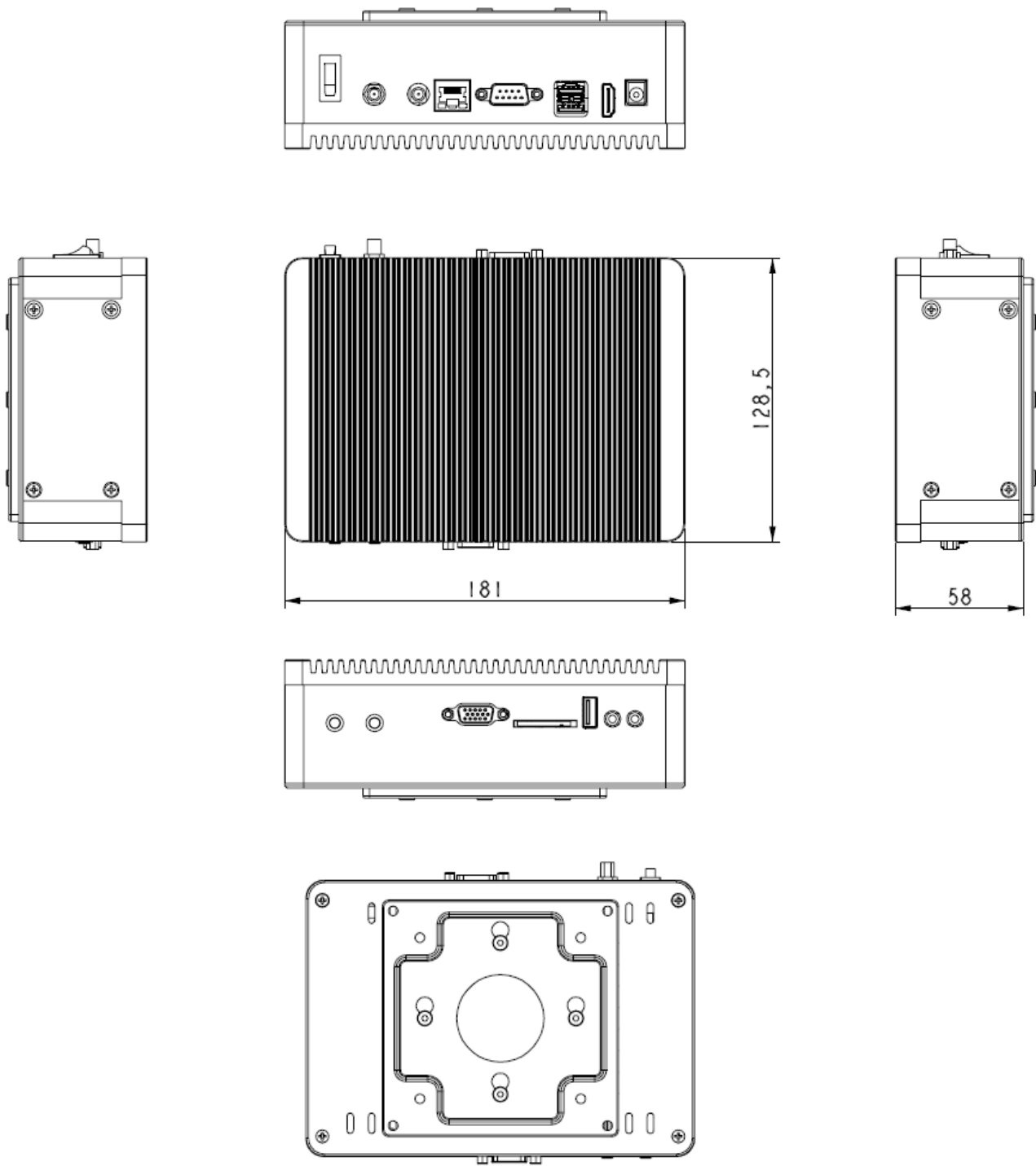
Connectors		
Label	Function	Note
COM1	Serial port connector	DB-9 male connector



<b>Power</b>	Power on button
<b>DC-in</b>	DC power-in connector
<b>HDMI</b>	HDMI connector
<b>LAN1</b>	Gigabit LAN (RJ-45) connector
<b>SMA connector 1</b>	SMA connector (Default)
<b>SMA connector 2</b>	SMA connector (Optional)
<b>USB</b>	1 X USB 2.0 Type A connector
	1 X USB 3.0 Type A connector

1.5 System Dimensions

1.5.1 Front & Top view



**Note:** VESA Bracket optional

(Unit: mm)

## 2. Hardware Configuration

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Please refer to SENX-BYT User's Manual for advanced information.

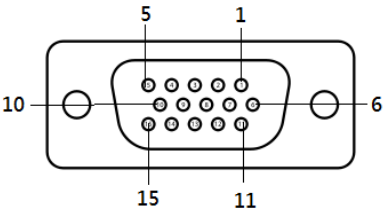
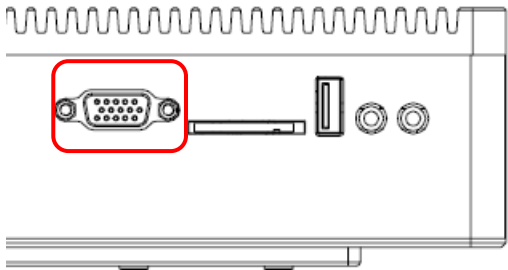


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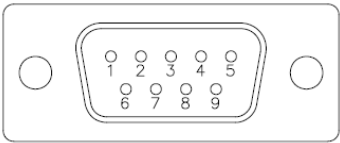
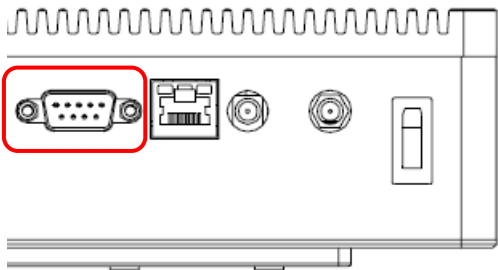
2.1 SEPC-BYT connector mapping

2.1.1 VGA connector (VGA)



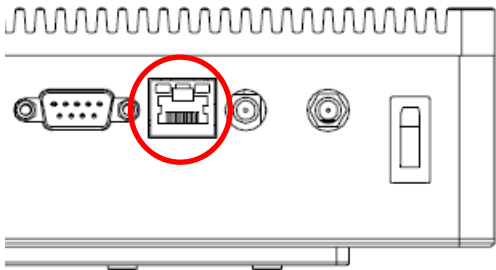
PIN	Signal	PIN	Signal	PIN	Signal
1	R	6	GND	11	NC
2	G	7	GND	12	DATA
3	B	8	GND	13	HSYNC
4	NC	9	+5V	14	VSYNC
5	GND	10	GND	15	CLK

2.1.2 Serial port connector (COM1)



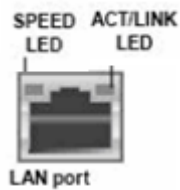
Signal	PIN	PIN	Signal
DCD#	1	6	DSR#
RXD	2	7	RTS#
TXD	3	8	CTS#
DTR#	4	9	RI#
GND	5		

2.1.3 Gigabit LAN (RJ-45) connector (LAN)



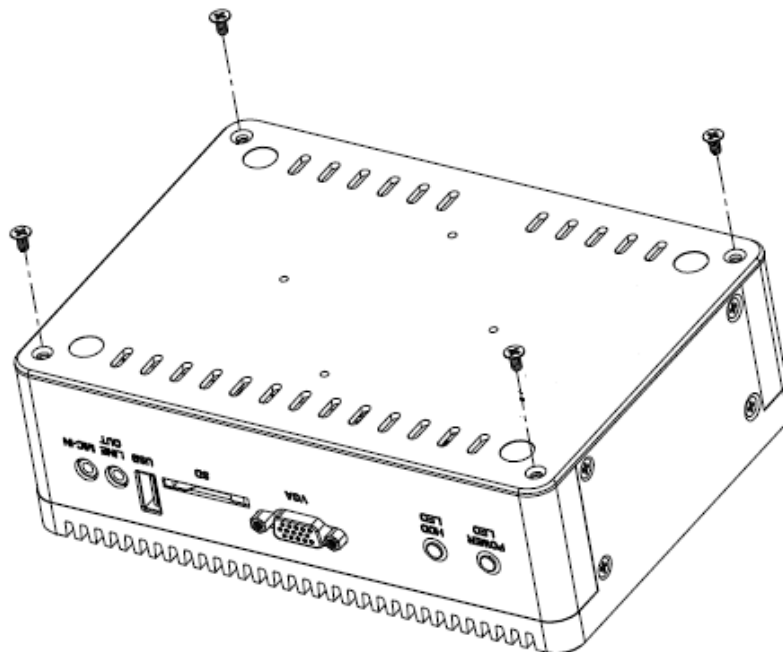
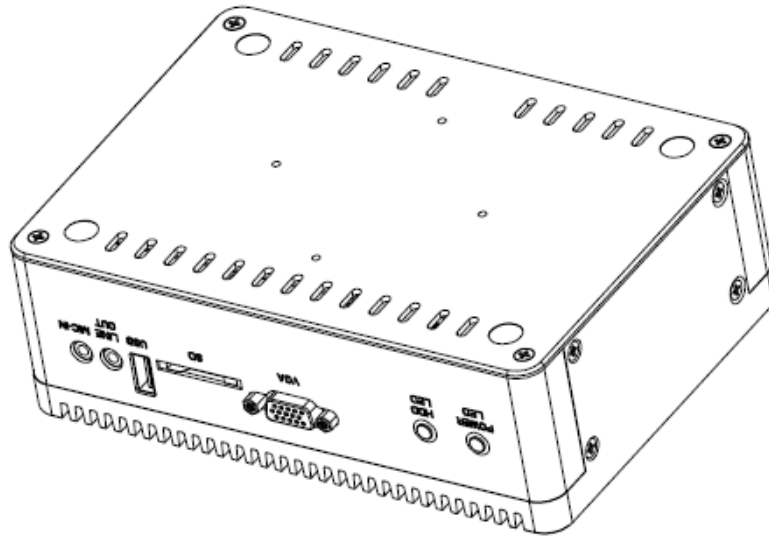
**Note:**

This port allows Gigabit connection to a Local Area Network (LAN) through a network hub. Refer to the table below for the LAN port LED indications.

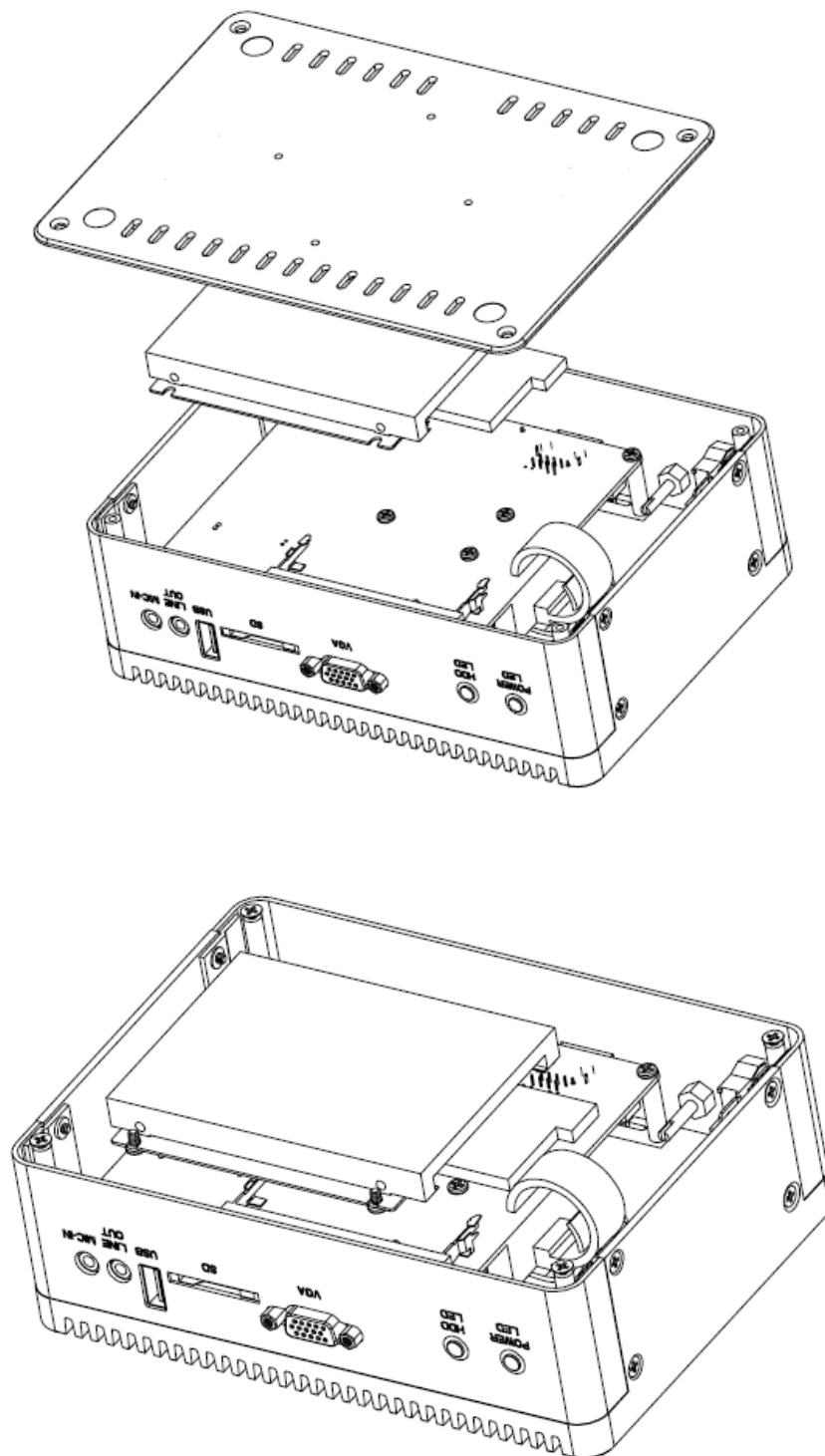


Speed Status	Speed Description	Speed Status	Speed Description
OFF	No Light	OFF	10Mbps connection
Orange	Linked	Green	100Mbps connection
Blinking	Data activity	Orange	1Gbps connection

## 2.2 Installing Hard Disk & Memory



**Step1.** Unfasten 4 screws to remove the back cover.



**Step2.** Insert the HDD & Memory and fasten 4 screws.

**Step3.** Assemble the back cover back as step 2 to step 1.

