LPC-1206/1506

12.1"/15" 2nd Gen Intel® Core™ Processor i7/i5/i3 Fanless Rugged Touch Panel PC

Quick Reference Guide

1st Ed – 15 June 2016

Part No. E2017L560A0R

FCC Statement

THIS DEVICE COMPLIES WITH PART 15 FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:

(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE.

(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED 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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1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into body, or (b) support or sustain life and whose failure to perform, when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user.

   2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

A Message to the Customer

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We want you to get the maximum performance from your products. So if you run into technical difficulties, we are here to help. For the most frequently asked questions, you can easily find answers in your product documentation. These answers are normally a lot more detailed than the ones we can give over the phone. So please consult the user's manual first.

To receive the latest version of the user's manual; please visit our Web site at:
http://www.avalue.com.tw/

Content

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

- 1 x LPC-1206/1506 Panel PC
- 1 x DVD-ROM contains the followings:
  — User's Manual (this manual in PDF file)
  — Ethernet driver and utilities
  — VGA drivers and utilities
  — Audio drivers and utilities
  — WiFi drivers and utilities
  — Touch controller drivers and utilities
  — Chipset drivers and utilities
- 1 x Power Adapter
- 1 x Stand for Panel PC (optional)

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

1.3 System Specifications

Panel ▼		
Model	**LPC-1206**	**LPC-1506**
LCD size	12.1", 4:3	15", 4:3
Display type	XGA	
Resolution	1024 x 768	
Pixel pitch	0.240mm(H) x 0.240mm(V)	0.297mm(H) x 0.297mm(V)
Luminance	600 cd/m²	400 cd/m²
Contrast ratio	700	700
Viewing angle	70 (U), 70 (D), 80 (L), 80 (R)	
Response time	16 ms	
Backlight	LED	
Touch type	5 Wires resistive	
Touch Light transmission	80 %	
Touch interface	Onboard USB touch (PenMount)	
System ▼		
Board	EPI-QM67	
Processor	2nd Gen Intel® Core processor	
System Chipset	Intel® QM67 Express Chipset	
I/O Chipset	Nuvoton NTC6776F	
System Memory	1 x 204-Pin DDR3 1333MHz SO-DIMM up to 8 GB	
Watchdog Timer	H/W Reset, 1sec. ~ 65535min. and 1sec. or 1min./step	
H/W Status Monitor	Monitoring SYSTEM Temperature and Voltage with Auto Throttling Control	
Expansion ▼		
Expansion	1 x Mini PCIe Support mSATA	
Storage ▼		
Storage	1 x 2.5" Drive Bay	
I/O ▼		
USB	4 x USB 2.0	
SATA	2 x SATA III	
COM Port	1 x RS232 1 x RS232/422/485	
Other	1 x HDMI 1 x DVI	
Display ▼		

Chipset	Intel® QM67 Chipset Integrated Supports dual display	
Resolution	DVI-D: Max. resolution 1920 x 1200 @ 60Hz	
	HDMI: Max. resolution 1920 x 1200 @ 60Hz	

Audio ⊙		
Chipset	Realtek ALC892	
Audio Interface	Line out	
Speaker Output	2 x 1W	

Ethernet ⊙		
Chipset	1 x Intel® 82574L	
	1 x Intel® 82579LM	
Ethernet Interface	10/100/1000 Base-Tx GbE compatible	
LAN Port	2 x RJ-45	

Power Requiement ⊙		
Power Connector	Lockable DC Jack	
Power Requirement	+12V ~ +19V	
Power Type	AT/ATX (ATX is default setting)	
Adapter	Input: 100 ~ 240Vac/ 50 ~ 60Hz; Output 84W Adapter (12V @ 7A Adapter)	

Mechanical & Environment ⊙		
System Fan	Fanless	
Construction-Front	Silver Aluminum	
Construction-Rear	Black	
Dimension	283 x 222 x 68.8 mm	350 x 273.9 x 72.4 mm
Weight	3.9 Kgs	5 Kgs
Operating	0°C ~ 40°C (32°F ~ 104°F)	
Storage Temperature	-20°C ~ 60°C (-4°F ~ 140°F)	
Operating Humidity	0% ~ 90% Relative Humidity, Non-condensing	
Vibration Test	With SSD/mSATA : 1.5Grms, IEC 60068-2-64, Random, 5 ~ 500Hz, 30min/axis	
Mounting	Wall / Stand / VESA 75mm x 75mm, 100mm x 100mm	
Shock Test	With CF/SSD : 10Grms, IEC 60068-2-27, Half Sine, 11ms	

Certifications ⊙		
Certification Information	CE	
	FCC Class B	

| Software Support ⊙		
OS Information	Win7/Win8/Linux	

LPC-1206/1506

Note: Specifications are subject to change without notice.

1.4 System Overview

1.4.1 Top View
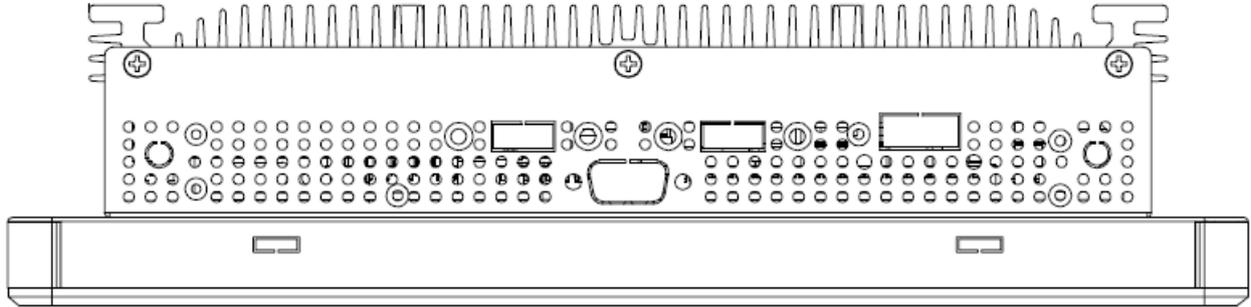
1.4.2 Bottom View
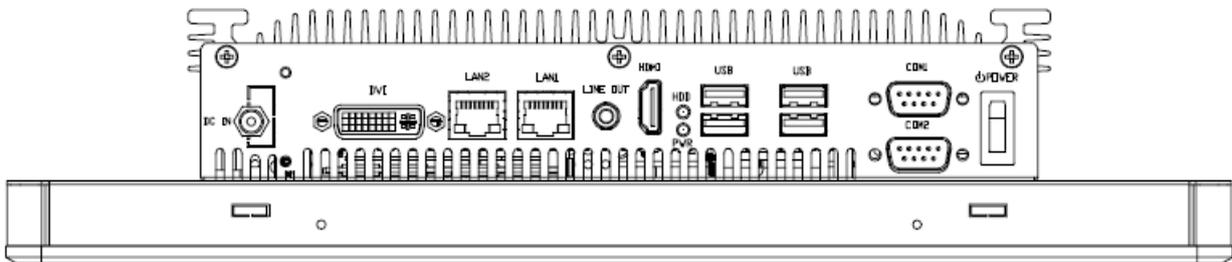
Connectors

Label	Function	Note
POWER	Power on button	
COM1	Serial port 1 connector	DB-9 male connector **Note:** COM1 support RS422/485 by BIOS setting
COM2	Serial port 2 connector	DB-9 male connector
LINE OUT	Line-out audio jack	
USB	4 x USB 2.0 connector	Dock USB
LAN1/2	RJ-45 Ethernet connector 1/2	
HDD	HDD indicator	
PWR	System power indicator	
HDMI	HDMI connector	
DVI	DVI connector	
DC-IN	DC Power-in connector	

1.5 System Dimensions

1.5.1   LPC-1206 Front and Rear side
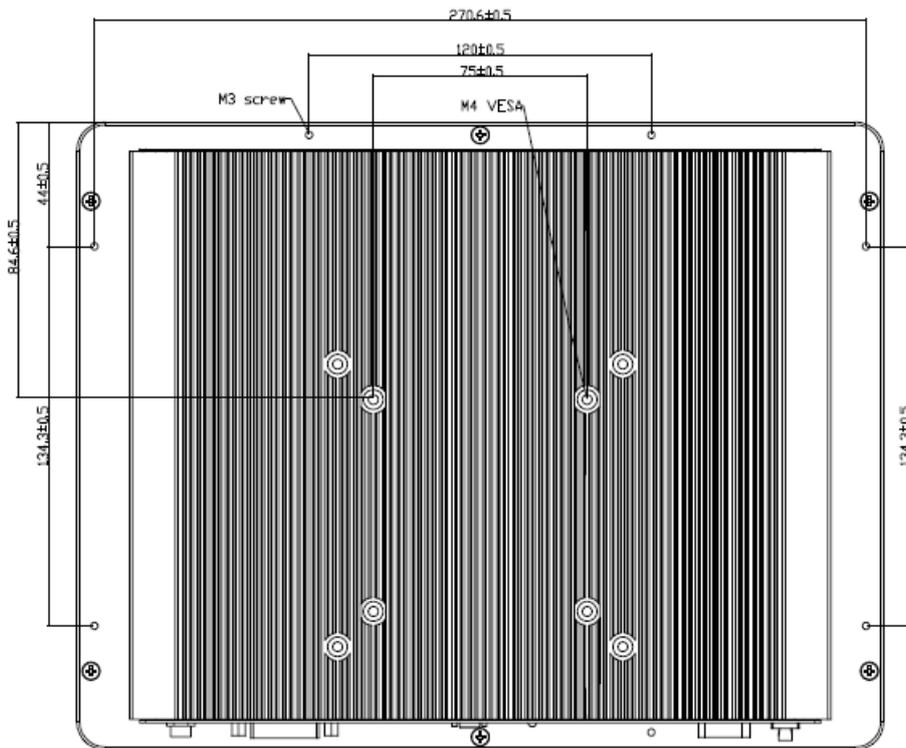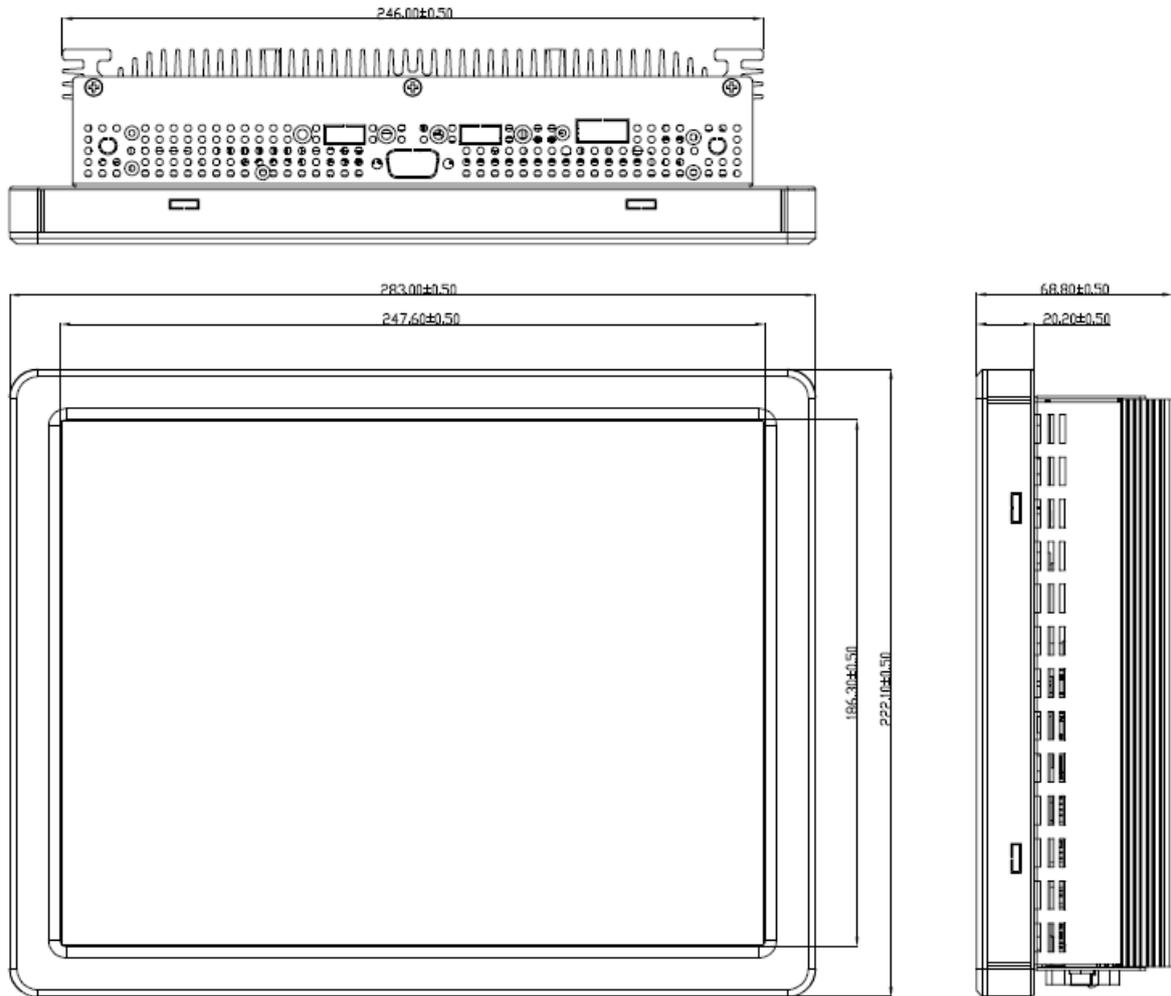
(Unit: mm)

1.5.2 LPC-1506 Front and Rear side
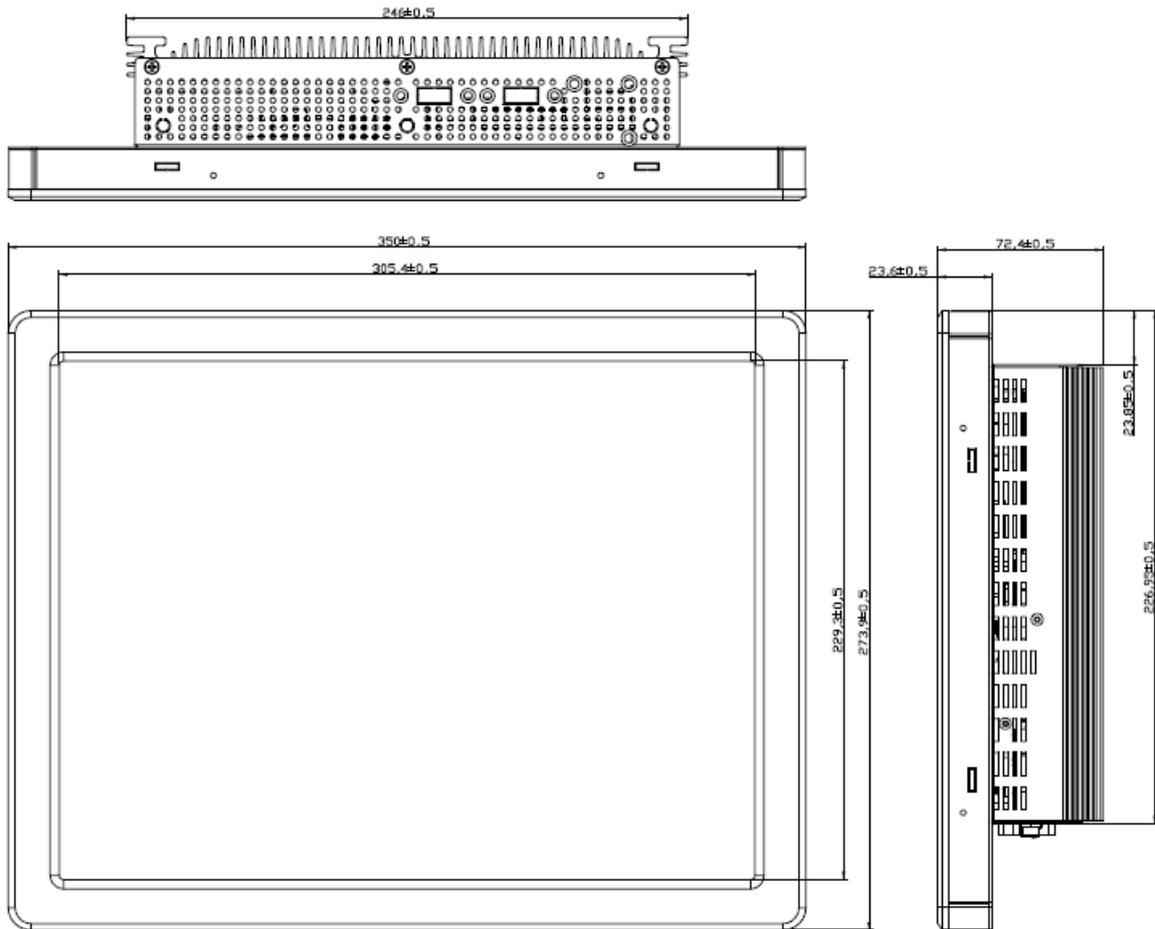
(Unit: mm)

2. Hardware Configuration

For advanced information, please refer to:

1- EPI-QM67 User's Manual

Note: If you need more information, please visit our website:

http://www.avalue.com.tw

2.1 LPC-1206/1506 connector mapping

2.1.1   Serial port 1 connector (COM1)
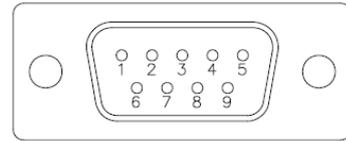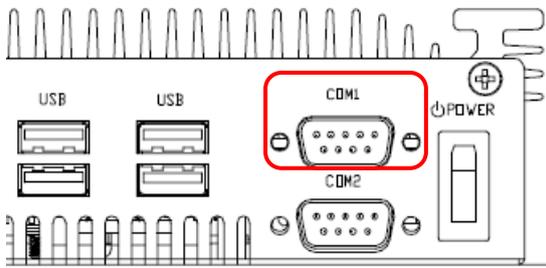
RS-232

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

RS-422

Signal	PIN	PIN	Signal
TxD-	1	6	NC
RxD-	2	7	NC
TxD+	3	8	NC
RxD+	4	9	NC
GND	5		

RS-485

Signal	PIN	PIN	Signal
DATA-	1	6	NC
DATA+	2	7	NC
NC	3	8	NC
NC	4	9	NC
GND	5		

2.1.2   Serial port 2 connector (COM2)
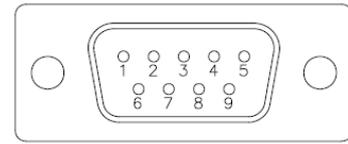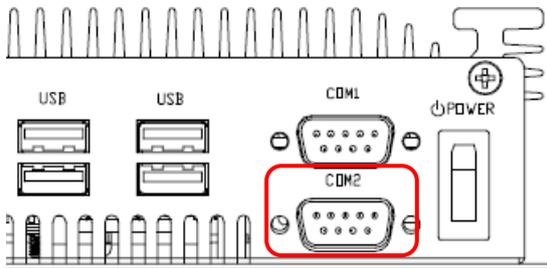
Signal	PIN	PIN	Signal
DCD	1	6	DSR
RXD	2	7	RTS
TXD	3	8	CTS
DTR	4	9	RI
GND	5		

2.1.3   DVI connector (DVI)
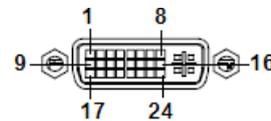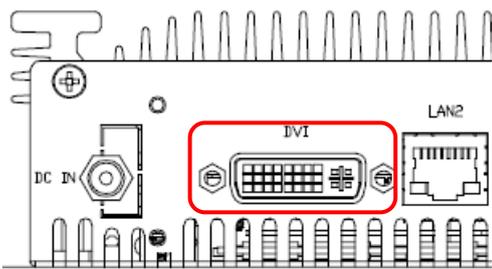
| PIN	Signal	PIN	Signal	PIN	Signal
1	TMDS2-	9	TMDS1-	17	TMDS0-
2	TMDS2+	10	TMDS1+	18	TMDS0+
3	TMDS_2/4_Shield	11	TMDS_1/3_Shield	19	TMDS_0/5_Shield
4	NC	12	NC	20	NC
5	NC	13	NC	21	NC
6	DDC_CLK	14	VCC	22	TMDSCLK_Shield
7	DDC_DATA	15	GND	23	TMDSCLK+
8	VSYNC	16	HOTPLUG_DETECT	24	TMDSCLK-

2.2 Installing Hard Disk & Memory (For LPC-1206/1506)

Step 1. Unfasten 6 screws from the case to take off the top chassis.
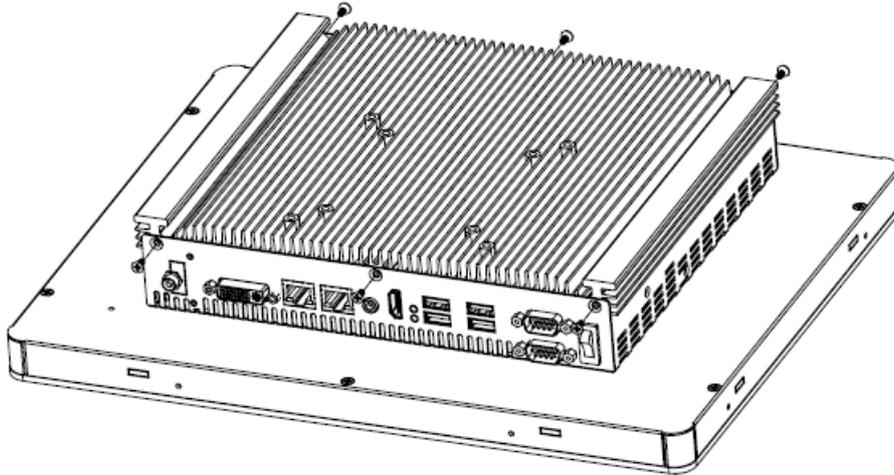
**Step 2-1. Memory Installation:** Unfasten 6 screws of the board and take it off.

Step 2-2. Insert the SODIMM into the memory socket.
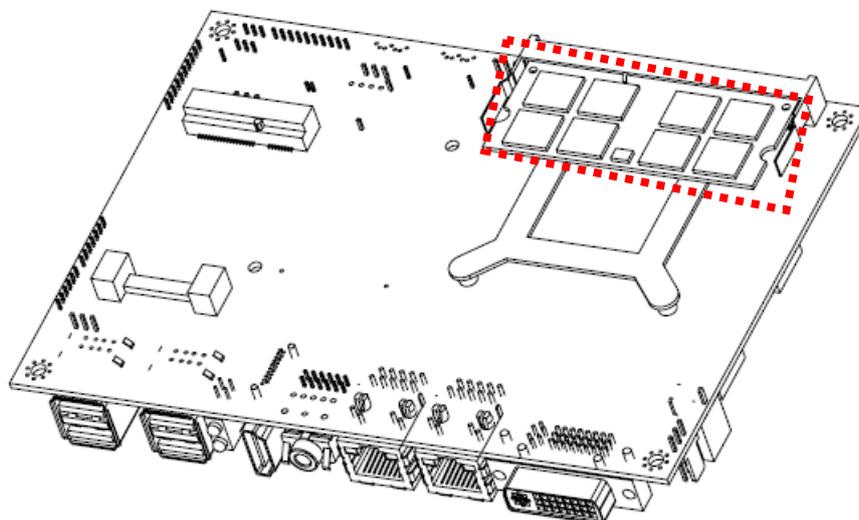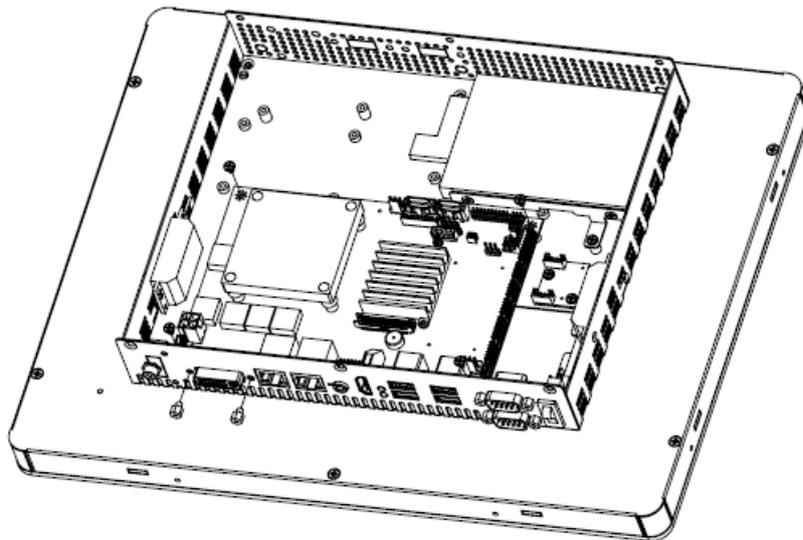
Step 3-1. HDD Installation: Unfasten 2 screws of the HDD bracket and take it off.
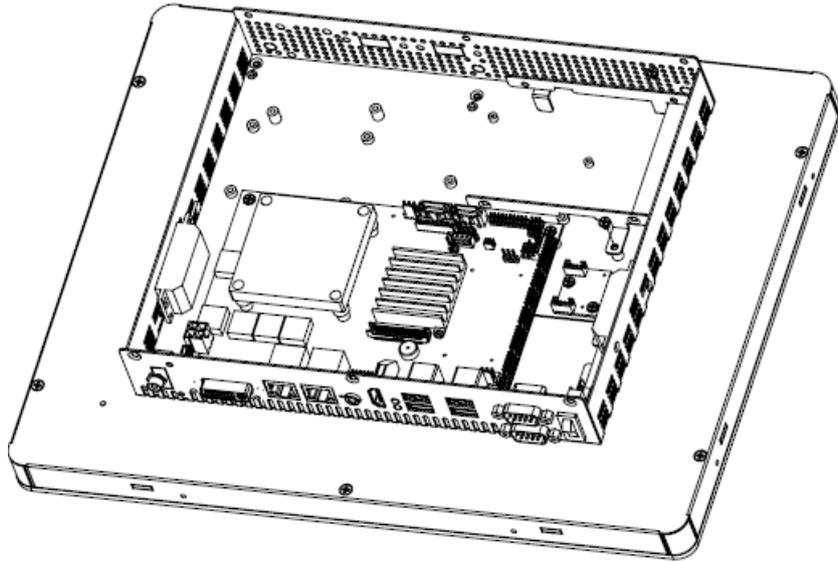
Step 3-2. Insert the HDD into the bracket and fasten 4 screws.
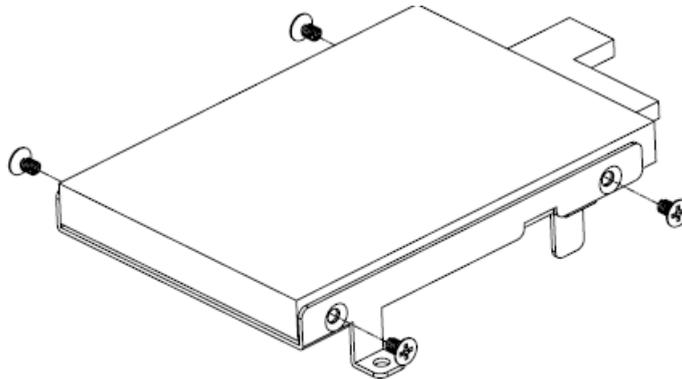
Step 3-3. Insert the HDD back and fasten 2 screws.

Step 4. Place back the chassis with 6 screws locked.

HDD