WNA-7012-2707 series

User Manual Rev.02, Oct. 2012

Statement

All product specifications are subject to change without prior notice.

Packing List

- ☐ WNA-7012-2707 x 1
- ☐ 60W DC12V Adapter x 1
- ☐ Power cord (US) x 1
- ☐ RJ50 to COM cable x 1
- ☐ SATA + Power cable x 1
- ☐ Food pad x 4
- ☐ Screws pack x 1
- ☐ Wall mount kit x 1
- ☐ Driver CD (Include user's manual) x 1
- ☐ VGA cable x 1 (optional, direct connect to board, for development only)

Ordering Information

☐ WNA-7012-2707

Slim type Network Appliance Platform with Intel® Atom™ processor N270 and 4 LANs (w/o bypass support), 60W DC12V Adapter, Smart Fan Design

☐ WNA-7012-2707-B

Slim type Network Appliance Platform with Intel® Atom™ processor N270 and 4 LANs (1 pair with bypass support), 60W DC12V Adapter, Smart Fan Design

Contents

Chapter 1 Product Information

This chapter introduces the product features, jumper and connector information.

1.1 General Description

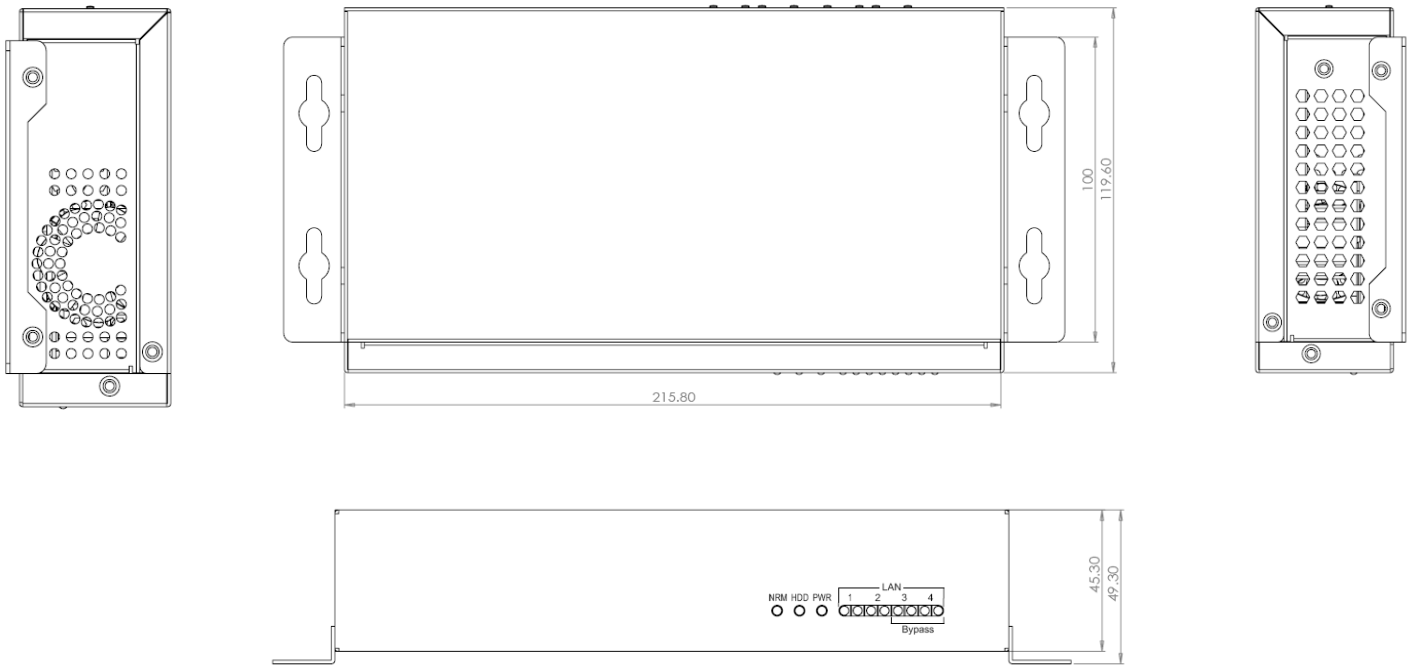
The **WNA-7012-2707 series** is an network appliance system that can support Atom N270 processors. The **WNA-7012-2707 series** supports Windows® 2000, Windows® XP, Windows® XP embedded, Windows® 7, suitable for the most endurable operation.

1.2 Features

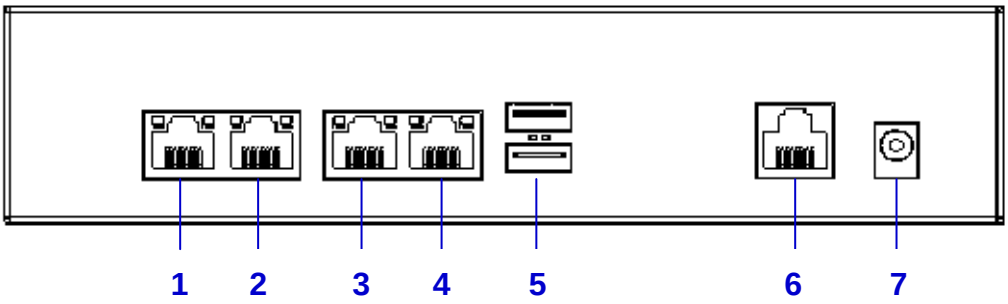
Construction	Heave duty steel
CPU	Intel Atom N270 1.6GHz processor onboard
System memory	1 x 200-pin DDR2 400/533/667 SO DIMM SDRAM, max. up to 2GB
FSB	533MHz
Chipset	Intel 945GSE + ICH7M
BIOS	Award 16MB SPI
System I/O	2 x USB, 1 x RS232(RJ50); 4 x LAN(RTL8111C); 1 pair with bypass support(WNA-7012-2707-B only)
Watch dog timer	Interval: Programmable 1~255 sec. Output: Sytstem reset
Storage support	1 x CF and 1 x 2.5" HDD
System Indicators	1 x Power LED, 1 x HDD LED 1 x Normal LED(bypass sattus), 8 x LAN status LED
Mounting Kit	Wall mount support
Power Supply	AC 60W adapter, Input: AC 100~240V~2A 50-60Hz, Output: DC12V@5A
Operating Temperature	0°C~50°C (32°F~122°F)
Storage temperature	-20°C~80°C (-4°F~176°F)
Relative Humidity	0%~90% (non-condensing)
Dimensions	216.8mm(W) x 119.6mm(D) x 45.3mm(H) 8.54"(W) x 4.7"(D) x1.8"(H)
Weight	Gross:1.9Kg/4.18Lb Net: 1.4Kg/3.08Lb
Standard Color	Black

1.3 Dimensions

The following diagrams show you dimensions and outlines of the **WNA-7012-2707 series**.

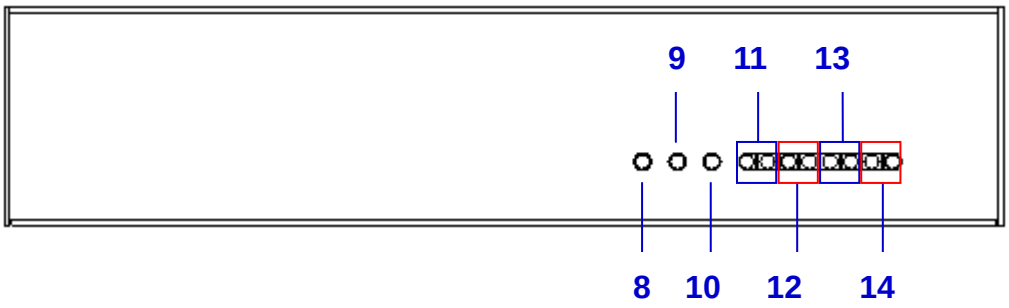


1.4 I/O Outlets



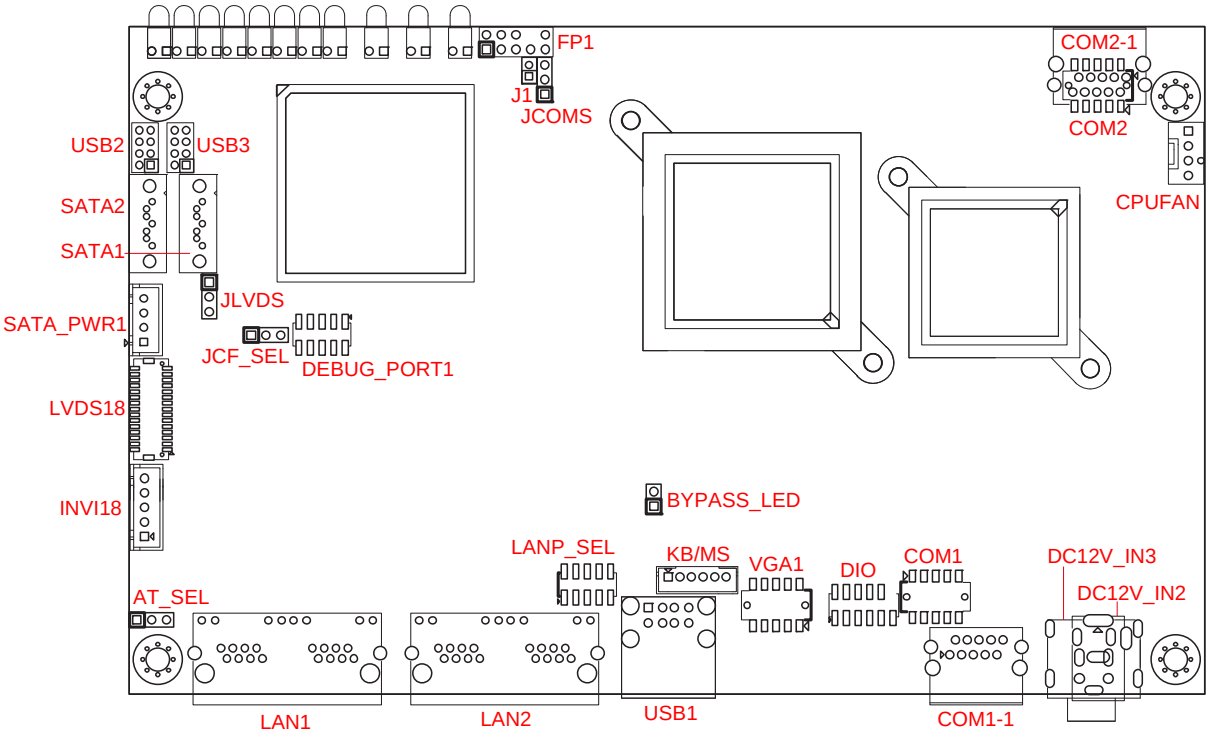
1. LAN1
2. LAN2
3. LAN3
4. LAN4
5. 2 x USB Port
6. COM Port (RJ50 type)
7. DC12V input

Note: WNA-7012-2707-B LAN1/2 pair with LAN bypass support



8. LAN bypass status LED (Light on normal mode)
9. HDD status LED (Light on HDD access)
10. Power status LED (Light on power on)
11. LAN4 status LED
12. LAN3 status LED
13. LAN2 status LED
14. LAN1 status LED

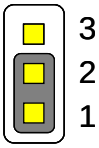
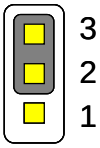
1.5 M/B PCB Layout



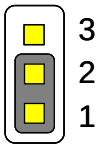
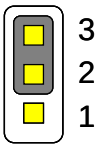
1.6 Jumper Setting

The **WNA-7012-2707 series** has a number of jumpers inside the chassis that allow you to configure your system to suit your application. The table below lists the functions of the various jumpers.

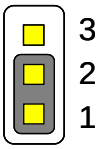
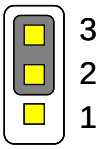
AT_SEL: ATX power and AT power select (2.54mm)

Pin No.	1-2	2-3
Function	ATX	AT (Default)
Jumper Setting		

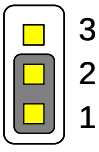
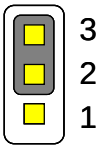
JCMOS：CMOS Clear (2.54mm)

Pin No.	1-2	2-3
Function	Normal Operation (Default)	Clear CMOS Contents
Jumper Setting		

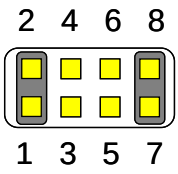
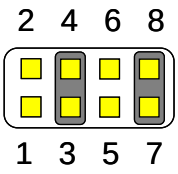
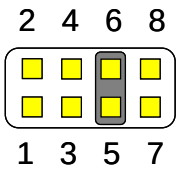
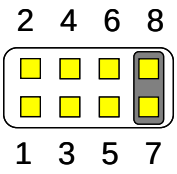
JLVDS_VDD18: LVDS power select (2.54mm)

Pin No.	1-2	2-3
Function	LCD Power 5V	LCD Power 3.3V (Default)
Jumper Setting		

JCF_SEL (Compact Flash Master/Slave Select) (2.54mm)

Pin No.	1-2	2-3
Function	Master Mode	Slave Mode (Default)
Jumper Setting		

LANP_SEL (LAN 1, 2 by pass selection) (2.54mm)

Pin No.	1-2, 7-8	3-4, 7-8	5-6	7-8
Jumper Setting				
LAN Bypass Activity	Stop toggling GPO state	GPIO=GPI / GPIO=GPO=High / System-reset / Power-off	WDT=Time-out / System-reset / Power-off	Power-off
WDT System Reset	By WDT when time-out	By WDT when time-out	N.A.	By WDT when time-out
WDT Cycle Reset	Yes	Yes	N.A.	Yes
Toggle mode by AP	Yes	Yes	N.A.	Yes
Function	LANs will enter NORMAL mode only if the AP keeps toggling GPO state	LANs will enter NORMAL mode only if GPIO=GPO=Low	LANs will enter NORMAL mode by Low pulse of WDTO=GPO	No LAN Bypass Function

1.7 Connector Function List

Connector	Function	Note
COM1	Serial port Connector with Box-header	Option
COM1-1	COM port RJ50 Connector	Default
COM2	Serial port Connector with Box-header	Default
COM2-1	COM port RJ50 Connector	Option
CPU FAN	CPUFAN 4-pin Connector	
DC12V_IN2	DC12V Input (Power Jack)	Default
DC12V_IN3	DC12V Input (Power connector)	Option
DIO	Digital I/O with Pin-header	
FP1	Front Panel Connector	
INV18	18bit LCD Inverter connector	
KB_MS1	KB/MS PS2 Connector	
LAN 1, 2	LAN Connector	
LVDS18	18bit LCD Connector	
SATA1-2	SATA Connector	
SATA_PWR1	SATA Power	
USB1	USB Connector	
USB2,3	USB Connector with Pin-header	
VGA	VGA Connector	
VGA1	VGA Connector with Box-header	

1.8 Internal Connector Pin Define

COM1, 2：COM connector with Box-header (2.0 mm)

Pin No.	Signal	Pin No.	Signal
1	DCD	2	DSR
3	RXD	4	RTS
5	TXD	6	CTS
7	DTR	8	RI
9	GND	10	N/A

COM1-1, 2-1：COM port RJ50 Connector

Pin No.	Signal
1	N/A
2	DCD
3	DSR
4	RXD
5	RTS
6	TXD
7	CTS
8	DTR
9	GND
10	RI

CPUFAN：CPUFAN connector with (2.54 mm)

Pin No.	Signal
1	GND
2	+12V
3	Speed Sense
4	PWM Control

DC12V_IN2：DC12V Power Jack (Default)

Pin No.	Signal
1	+12V
2	GND
3	GND

DC12V_IN3：DC12V Power Input connector (Option)

Pin No.	Signal	Pin No.	Signal
1	GND	2	+12V
3	GND	4	+12V

DIO: Digital I/O with Pin-header (2.00mm)

Pin No.	Signal	Pin No.	Signal
1	DIO-Out0	2	DIO-In0
3	DIO-Out1	4	DIO-In1
5	DIO-Out2	6	DIO-In2
7	DIO-Out3	8	DIO-In3
9	+12V	10	+5V
11	GND		

FP1：Front Panel connector with Pin header (2.54 mm)

Pin No.	Signal	Pin No.	Signal
1	Suspend LED+	2	Suspend LED -
3	Reset-	4	Speaker-
5	Reset+	6	N/A
7	Power Button+		Key pin
9	Power Button-	10	Speaker +

INV18：LCD Inverter connector with Box-header (2.5 mm)

Pin No.	Signal
1	+12V
2	+12V
3	GND
4	Back Light Control
5	Back Light Enable#

KB_MS: Keyboard and Mouse connector with Box-header (2.0 mm)

Pin No.	Signal
1	+5V
2	Mouse Data
3	Mouse Clock
4	Keyboard Data
5	Keyboard Clock
6	GND

LVDS18：18 bit LCD connector with Box-header(1.0mm)

Pin No.	Signal	Pin No.	Signal
1	GND	2	GND
3	N/C	4	N/C
5	A_CLK+	6	A_CLK-
7	A_DATA2+	8	A_DATA2-
9	A_DATA1+	10	A_DATA1-
11	A_DATA0+	12	A_DATA0-
13	GND	14	GND
15	NC	16	N/C
17	B_CLK+	18	B_CLK-
19	B_DATA2+	20	B_DATA2-
21	B_DATA1+	22	B_DATA1-
23	B_DATA0+	24	B_DATA0-
25	DDC_CLK	26	DDC_DATA
27	+3.3V	28	+3.3V
29	+3.3V	30	+3.3V

SATA1, SATA2: SATA Connector

Pin No.	Signal
1	Ground
2	TX+
3	TX-
4	Ground 1
5	RX-
6	RX+
7	Ground 2

SATA_PWR1：SATA Power connector with Box-header (2.0 mm)

Pin No.	Signal
1	+5V
2	+5V
3	GND
4	GND
5	+12V
6	+12V

USB2, 3：USB connector with Pin header (2.0 mm)

Pin No.	Signal	Pin No.	Signal
1	+5V	2	GND
3	USB DATA-	4	USB DATA-
5	USB DATA+	6	USB DATA+
7	GND	8	+5V

VGA1：VGA Connector with Box-header (2.0 mm)

Pin No.	Signal	Pin No.	Signal
1	VGA RED	2	DDC DATA
3	VGA GREEN	4	DDC Clock
5	VGA BLUE	6	GND
7	HSYNC	8	GND
9	VSYNC	10	GND

LED Description

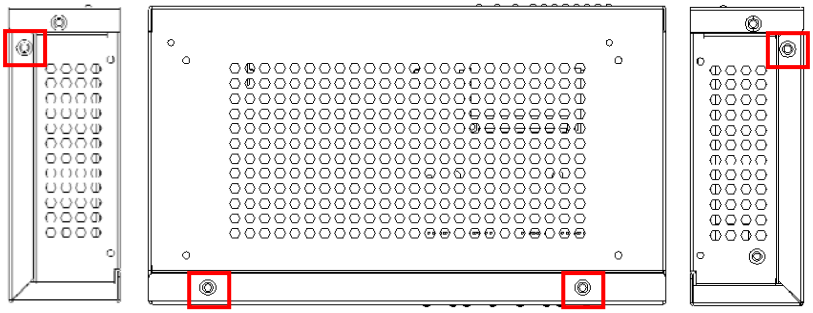
LED	Description	Note
D1 (Green)	LAN 1 active LED	
D2 (Orange/Yellow)	LAN 1 Link Speed LED	Dark for 10Mb Yellow for 100Mb Orange for 1Gb
D3 (Green)	LAN 2 active LED	
D4 (Orange/Yellow)	LAN 2 Link Speed LED	Dark for 10Mb Yellow for 100Mb Orange for 1Gb
D5 (Green)	LAN 3 active LED	
D6 (Orange/Yellow)	LAN 3 Link Speed LED	Dark for 10Mb Yellow for 100Mb Orange for 1Gb
D7 (Green)	LAN 4 active LED	
D8 (Orange/Yellow)	LAN 4 Link Speed LED	Dark for 10Mb Yellow for 100Mb Orange for 1Gb
D9 (Red)	HDD LED	
D10 (Green)	Power LED	
D11 (Green)	LAN1,2 bypass LED	

Chapter 2 Hardware installation

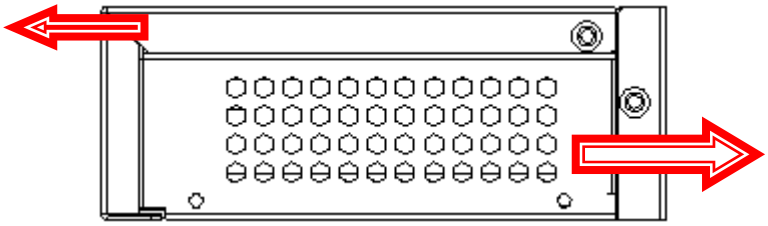
The **WNA-7012-2707 series** are convenient for your various hardware configurations, such as Memory Module, HDD, Compact Flash. The chapter 2 will show you how to install the hardware. It includes:

2.1 System decomposition

Step 1: Disconnect the screws (4pcs)

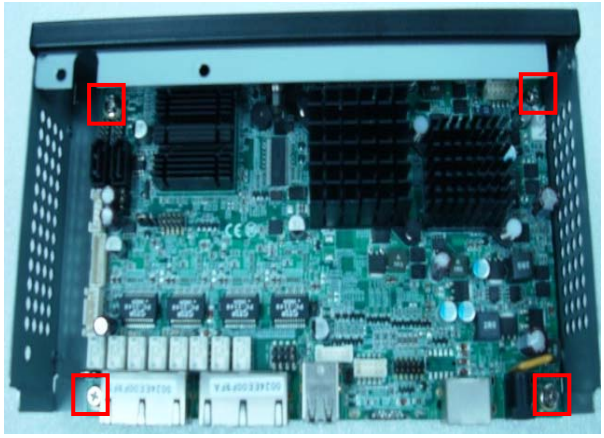


Step 2: Open the cover



Step 3: Remove the HDD holder screws (3pcs)

Step 4: Disconnect the Screws (4pcs)



2.2 Installing the memory module

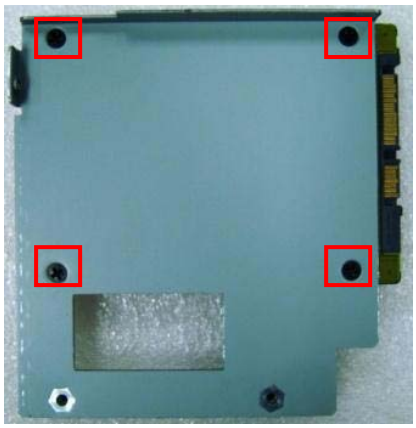
Insert the RAM module here

2.3 Installing the Compact Flash Card

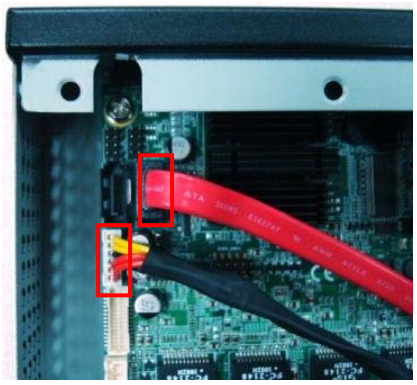
Insert the Compact Flash here

2.4 Installing the Hard Disk

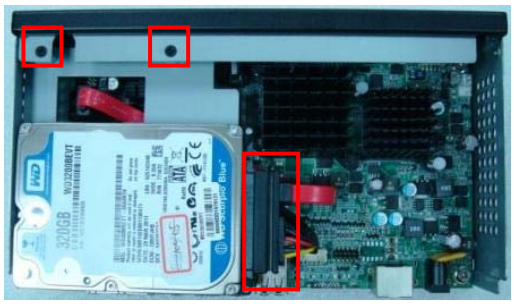
Step 1: Connect the HDD screws (4pcs)



Step 2: Connect the SATA + Power cable

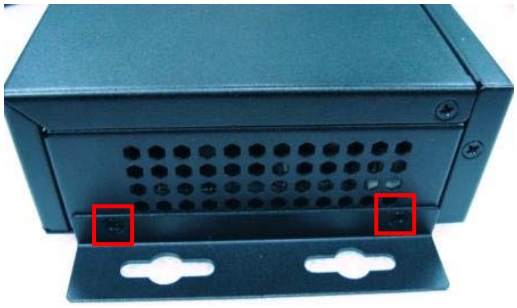


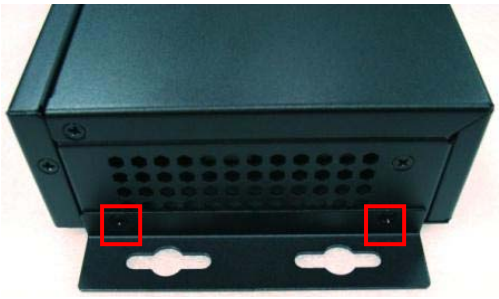
Step 3: Connect the HDD holder to main chassis (3pcs) and HDD cable



2.5 Installing the wall mount kit

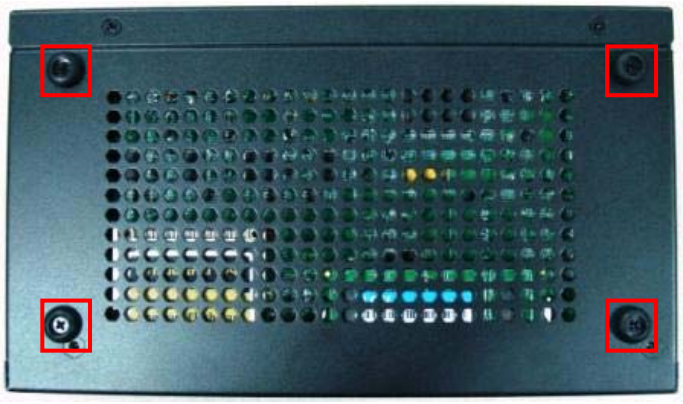
Connect the wall mount kit screws (4pcs)





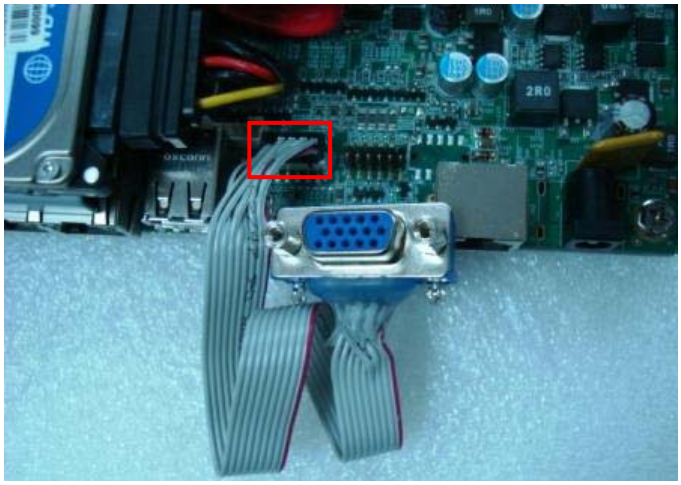
2.6 Installing the foot pad

Connect the foot pad screws (4pcs)



Note: Wall mount kit and foot pad only can select one

2.7 Connect the internal VGA cable



Note: Only for option internal VGA cable