

LPC-1232/1532

12.1"/15" 6th Gen Intel® Core™ SoC ULT Processor i7/i5/i3
Touch Panel PC

Quick Reference Guide

1st Ed – 28 March 2016

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(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRE 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. 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-1232/1532 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

Component 		
Model	LPC-1232	LPC-1532
Mother Board	EBM-SKLU	
CPU	Onboard 6th Gen Intel® Core™ SoC i7/i5/i3 BGA Processor	
Memory	One 260-pin DDR4 SODIMM Socket Supports Up to 32GB DDR4 2133 SDRAM	
Adapter	+12 Vdc / 5 A (60W)	
Wireless LAN	Optional USB/MPCIe WiFi module	
TPM	Optional TPM 2.0 & 1.2	
Storage 		
Hard Disk Drive	One 2.5" SATA HDD	
Solid State Drive	Optional 2.5" SATA SSD	
Other Storage Device	Optional mSATA	
Panel 		
LCD Panel	12", 4:3, XGA	15", 4:3, XGA
B/L Inverter/Converter	Built in LED backlight	
Touch Screen	5 Wires resistive	
Touch Controller	Onboard USB (EETI)	
External I/O 		
Serial Port	2 x RS-232/422/485	
USB Port	4 x USB 3.0	
Audio Port	1 x Line-out Realtek ALC233	
LAN Port	1 x Intel I210AT GbE controller 1 x Intel I219LM Gigabit Ethernet PHY	
Wireless LAN Antenna	Reserved 1 for WiFi or 3G antenna	
Speaker Output	N/A	2 x 1W
Indicator Light	LED for Power, HDD	
Expansion Slots	2 x Mini PCIe	
Mechanical 		
Power Type	AT/ATX	
Power Connector Type	DC in	
Dimension	283 x 222 x 45 mm	351.5 x 272 x 52 mm
Weight	2.84 Kgs	4.2 Kgs
Color	Front Silver & Rear panel Black	
Fanless	Yes	
Reliability 		

Quick Reference Guide

EMI Test	Class B
Safety	CE FCC
Dust and Rain Test	IP65
Vibration Test	Random Vibration Operation: IEC 60068-2-64
	Sine Vibration test (Non-operation): IEC 60068-2-6
	Package vibration test: IEC 60068-2-64
Mechanical Shock Test	Bump Test: IEC 60068-2-29
Drop Test	IEC-60068-2-32
Operating Temperature	-10 to 50°C
Operating Humidity	5% ~ 90% relative humidity, non-condensing
Storage Temperature	-20 to 60°C

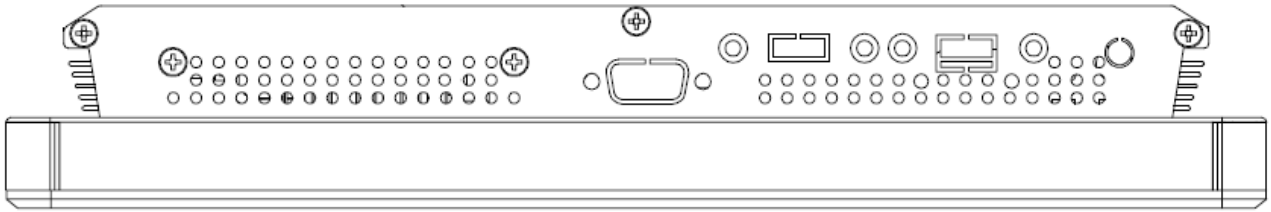


Note: Specifications are subject to change without notice.

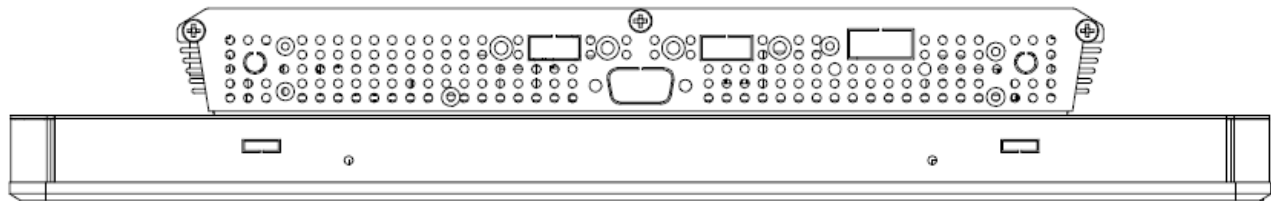
1.4 System Overview

1.4.1 Top View

LPC-1232

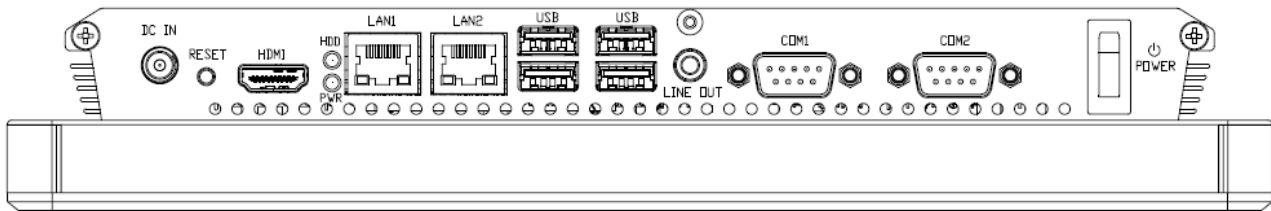


LPC-1532

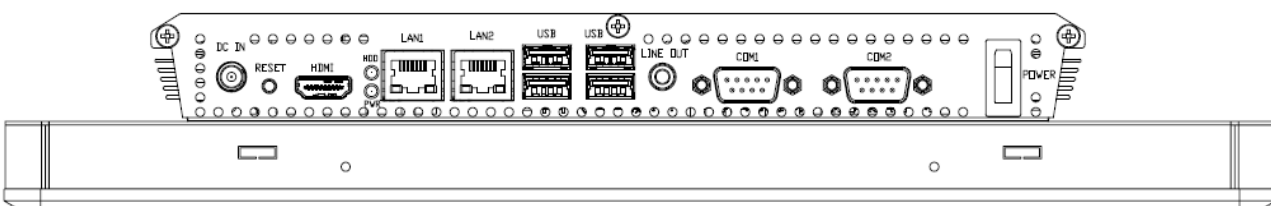


1.4.2 Bottom View

LPC-1232



LPC-1532



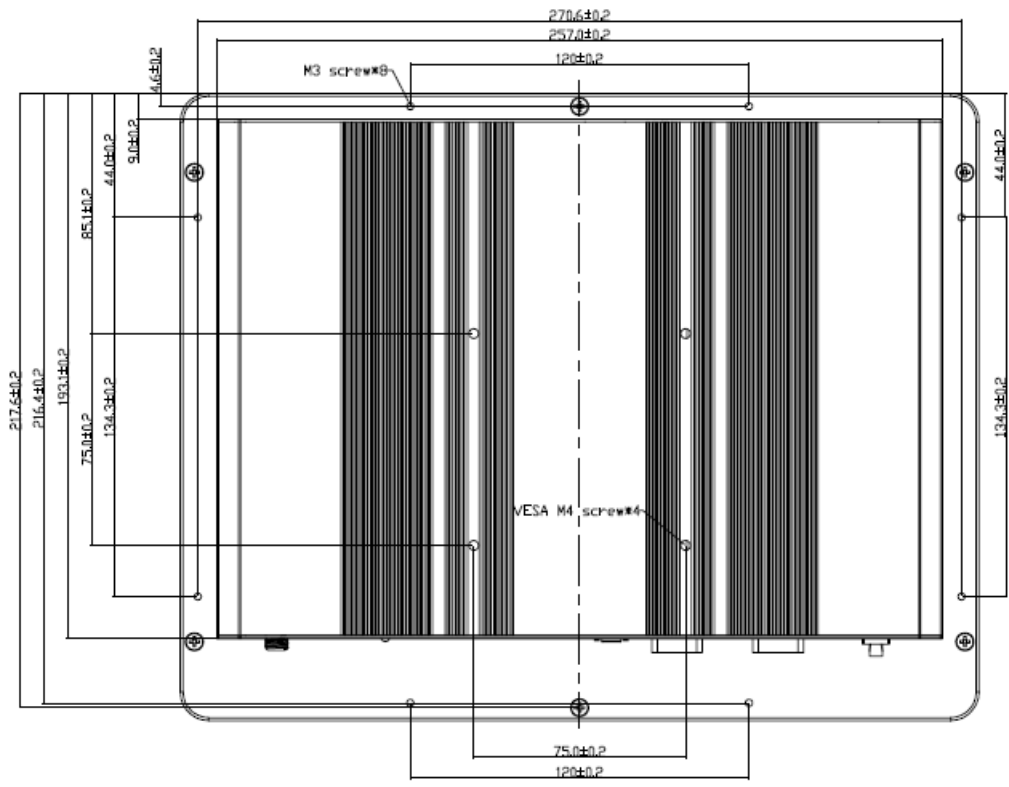
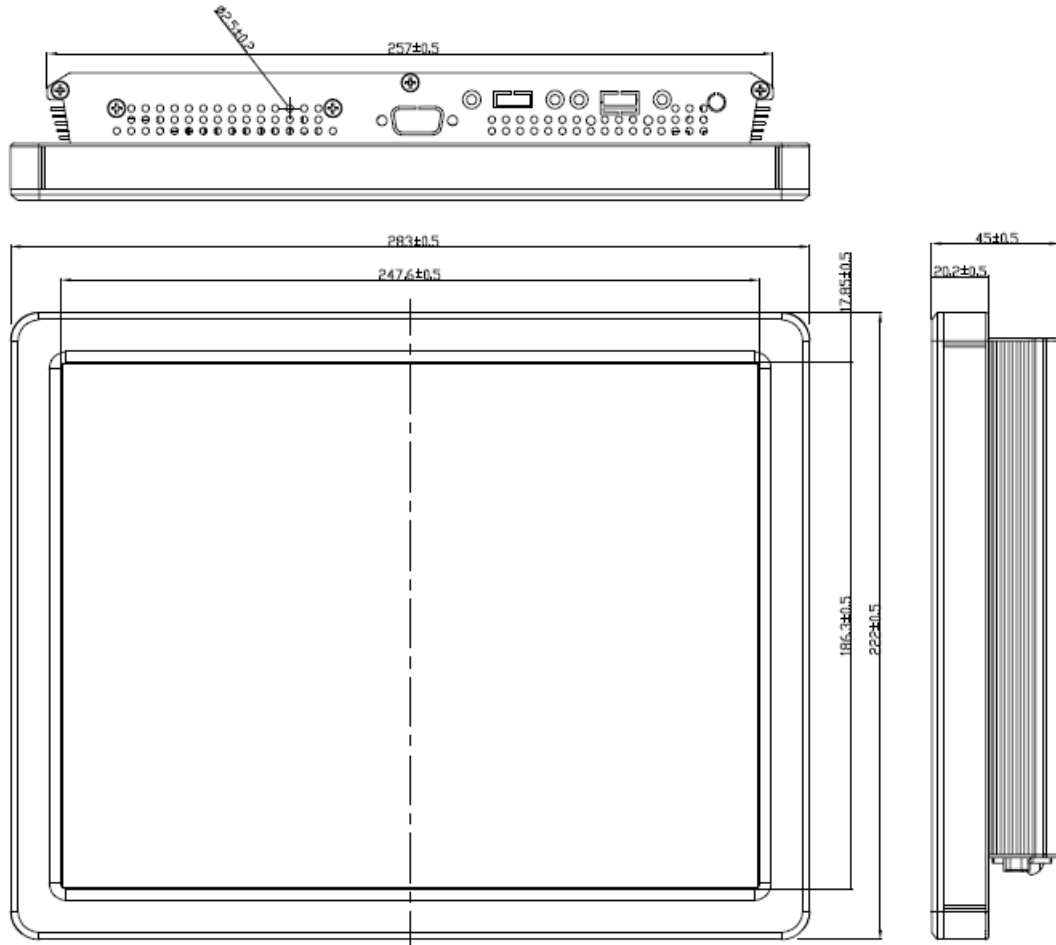
Connectors

Label	Function	Note
POWER	Power on button	
COM1/2	Serial port 1/2 connector	DB-9 male connector
LINE OUT	Line-out audio jack	
USB	4 x USB 3.0 connector	Dock USB
LAN1/2	RJ-45 Ethernet connector 1/2	
HDD	HDD indicator	

PWR	System power indicator
HDMI	HDMI connector
RESET	Reset button
DC IN	DC Power-in connector

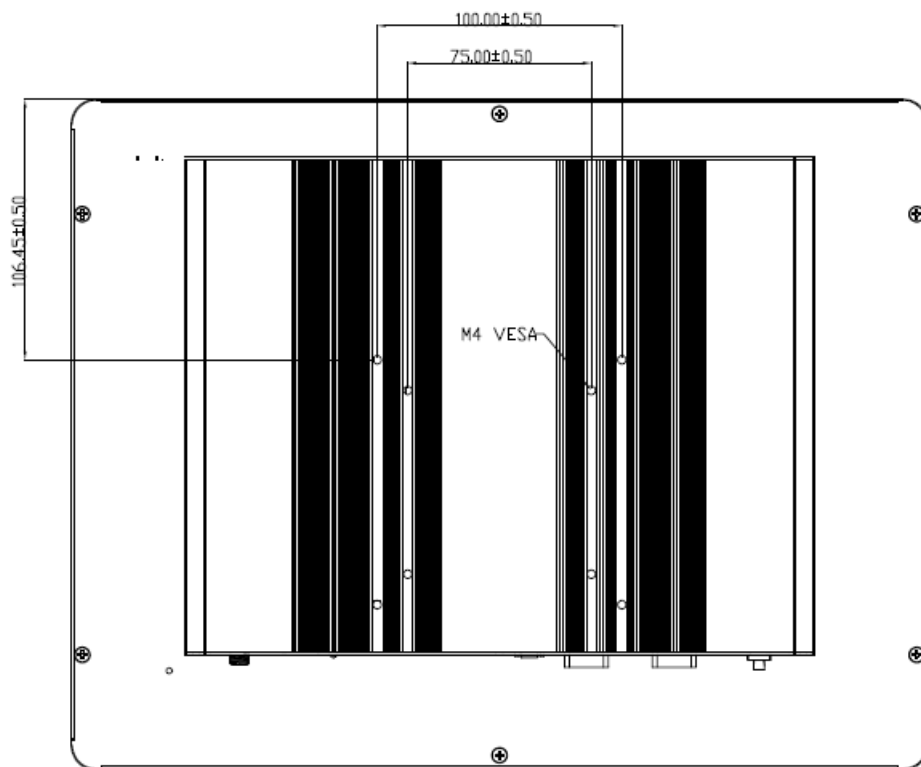
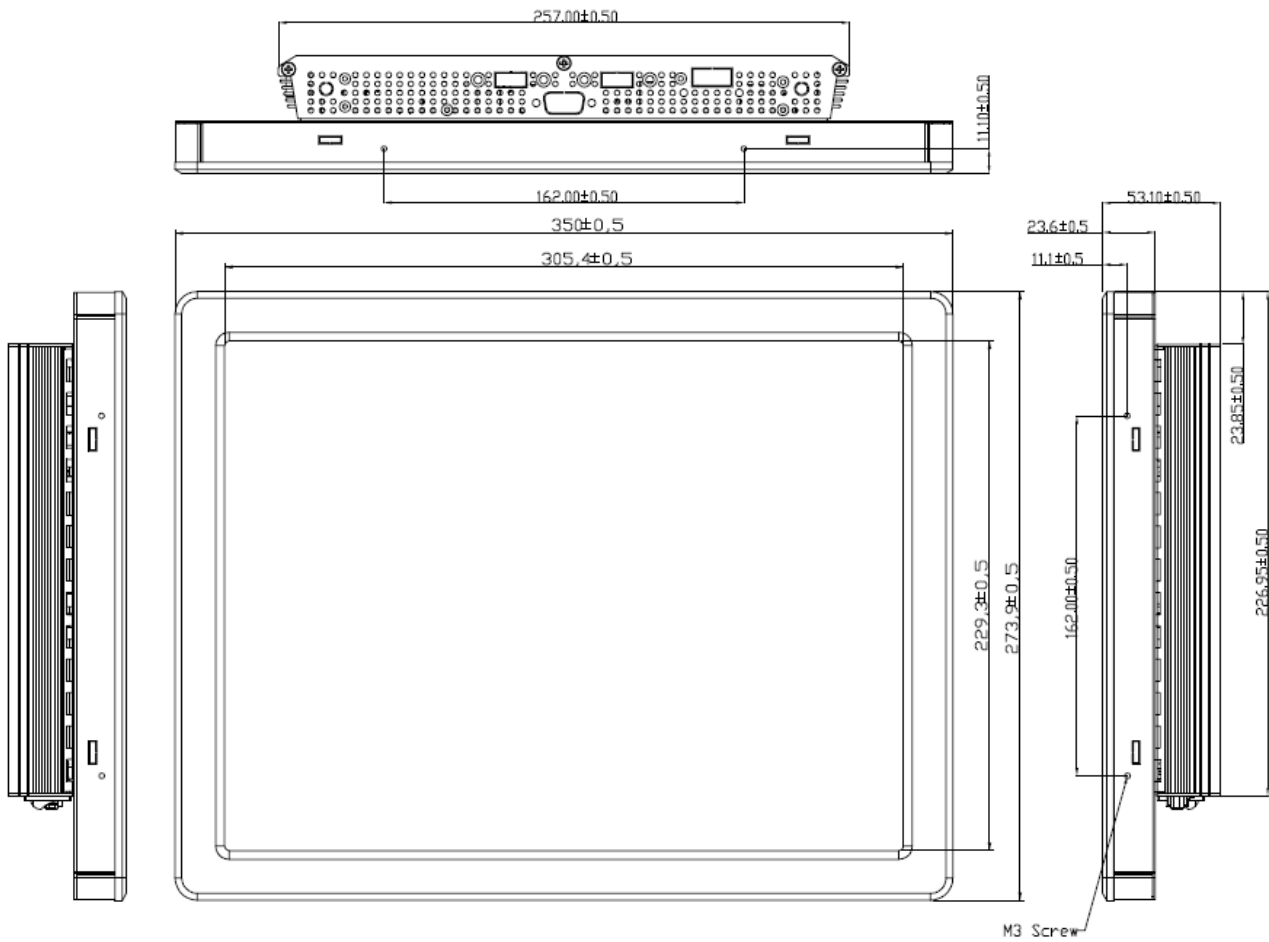
1.5 System Dimensions

1.5.1 LPC-1232 Front and Rear side



(Unit: mm)

1.5.2 LPC-1532 Front and Rear side



(Unit: mm)

2. Hardware Configuration

For advanced information, please refer to:

- 1- EBM-SKLU User's Manual

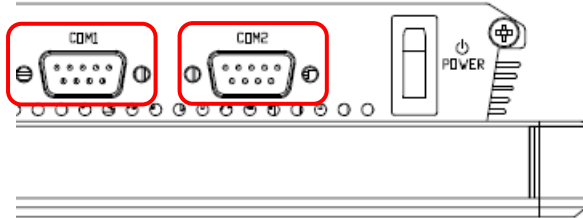


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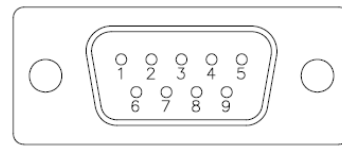
2.1 LPC-1232/1532 connector mapping

2.1.1 Serial port 1/2 connector (COM1/2)



Note:

RS-232 mode is default, RS-422 and RS-485 changed setting by Switch(SW1) and jumper(JCOM_SEL1, JCOM_SEL2).



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

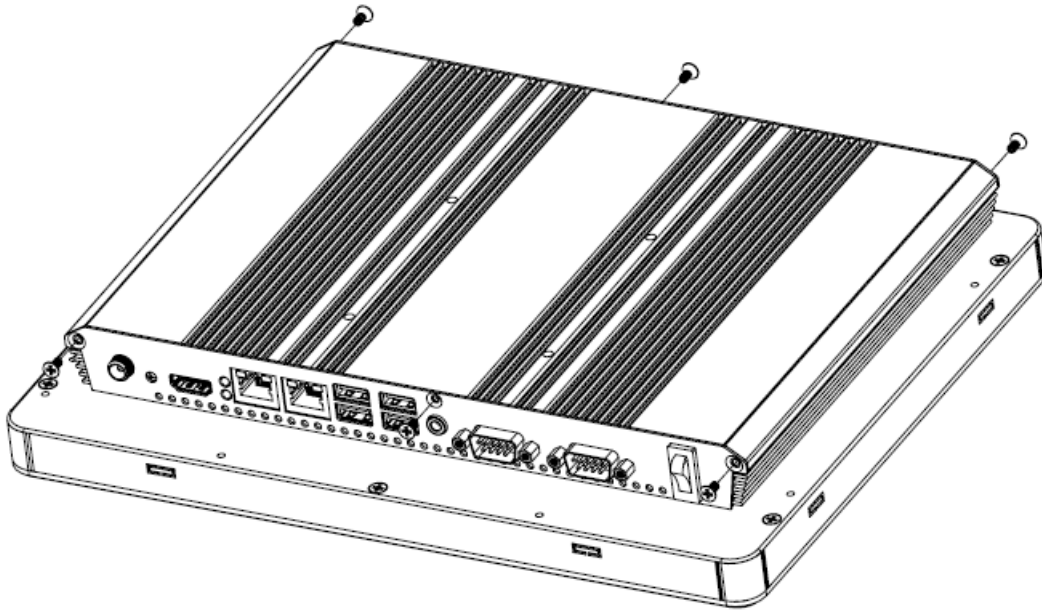
Signal	PIN	PIN	Signal
422_Tx-	1	6	NC
422_Rx+	2	7	NC
422_Tx+	3	8	NC
422_Rx-	4	9	NC
GND	5		

RS-485

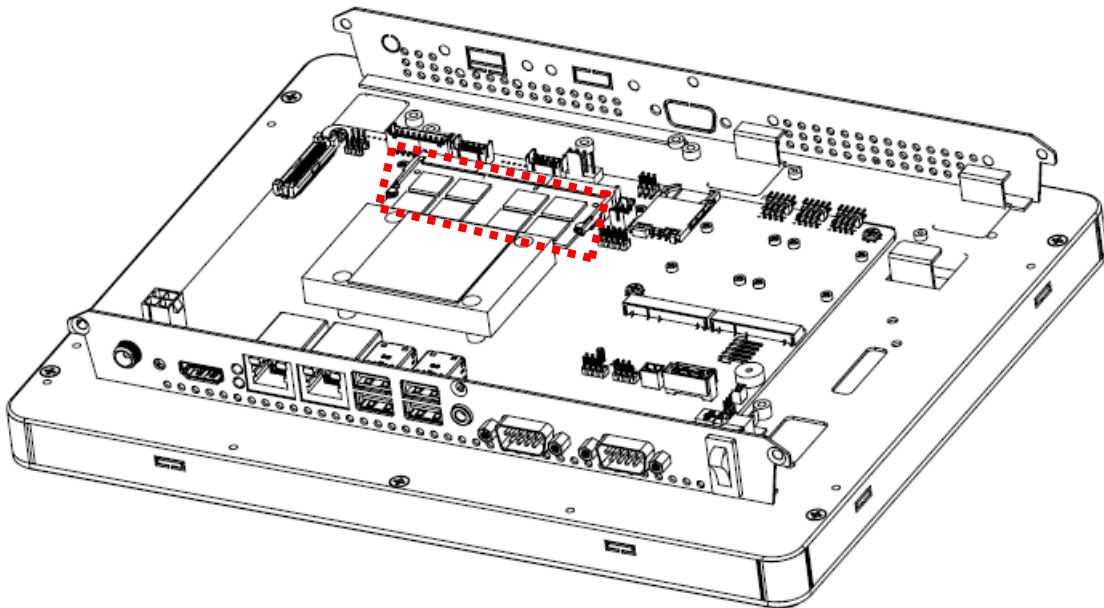
Signal	PIN	PIN	Signal
485_Tx-	1	6	NC
NC	2	7	NC
485_Tx+	3	8	NC
NC	4	9	NC
GND	5		

2.2 Installing Hard Disk & Memory (For LPC-1232)

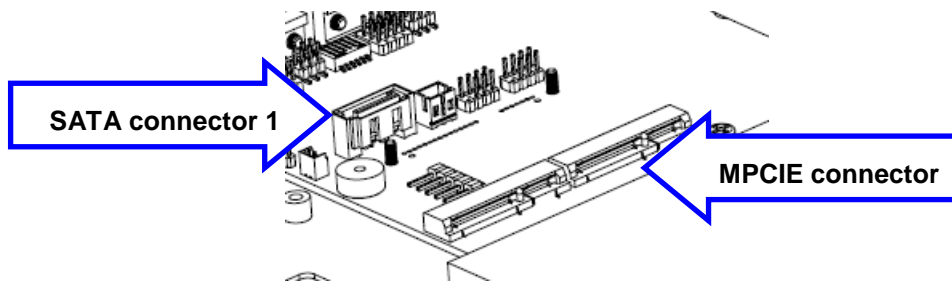
Step 1. Unfasten 6 screws from the case. Then take off the top chassis.



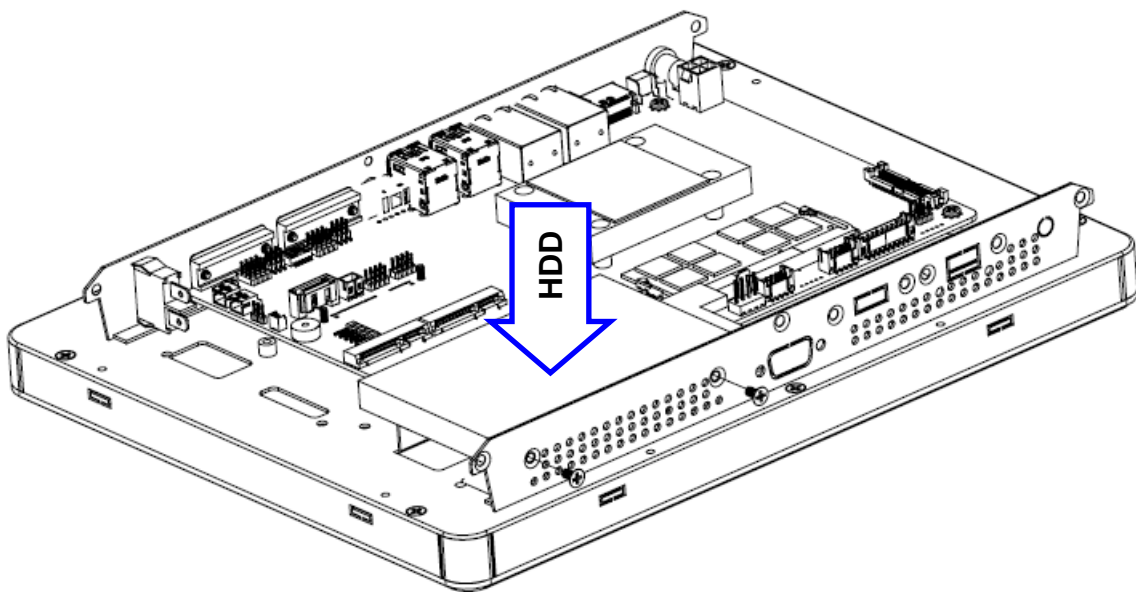
Step 2. Memory Installation: Insert the SODIMM into the memory socket.



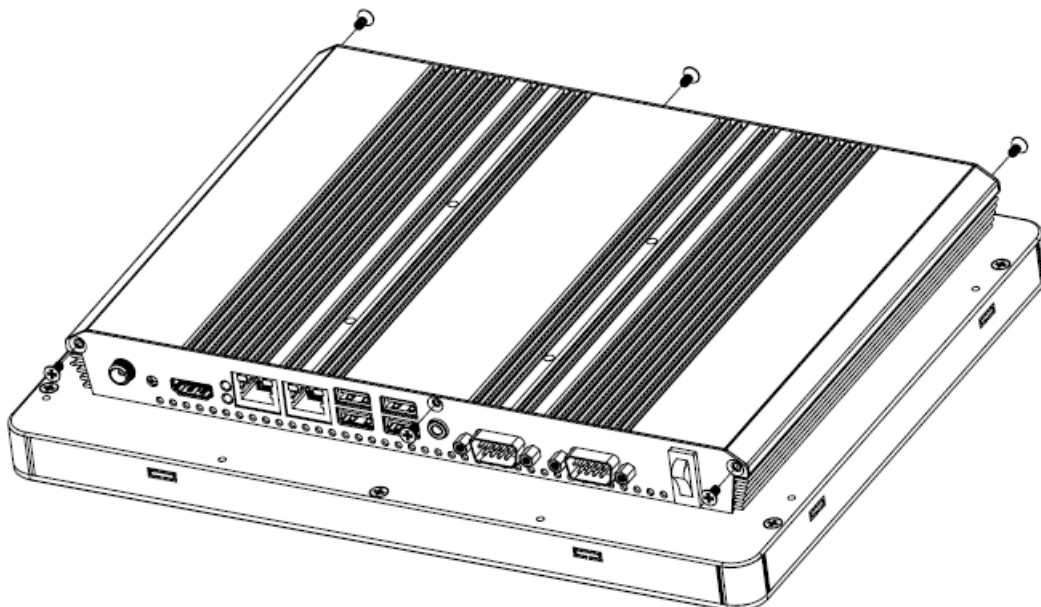
Step 3-1. SATA HDD Installation: By default, the SATA cables had been inserted to the according connectors. Just connect to SATA HDD with the two cables.



Step 3-2. Insert the HDD into the Drive Bay. Remember to place the HDD down to the bottom exactly in order to screw the device tightly.

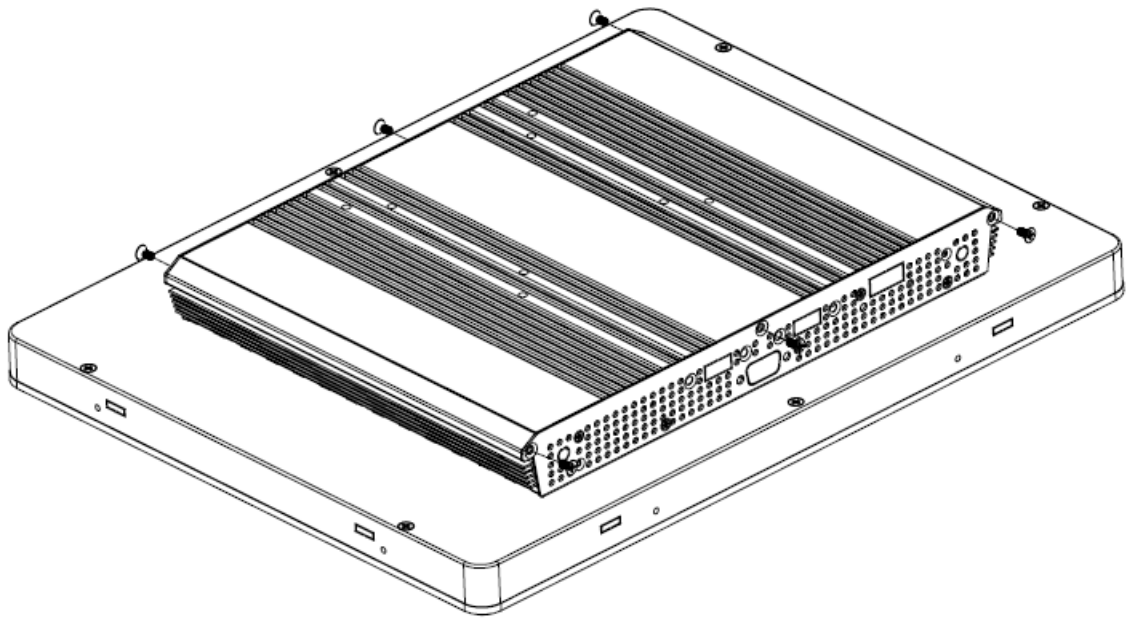


Step 4. Place back the chassis with 6 screws locked.

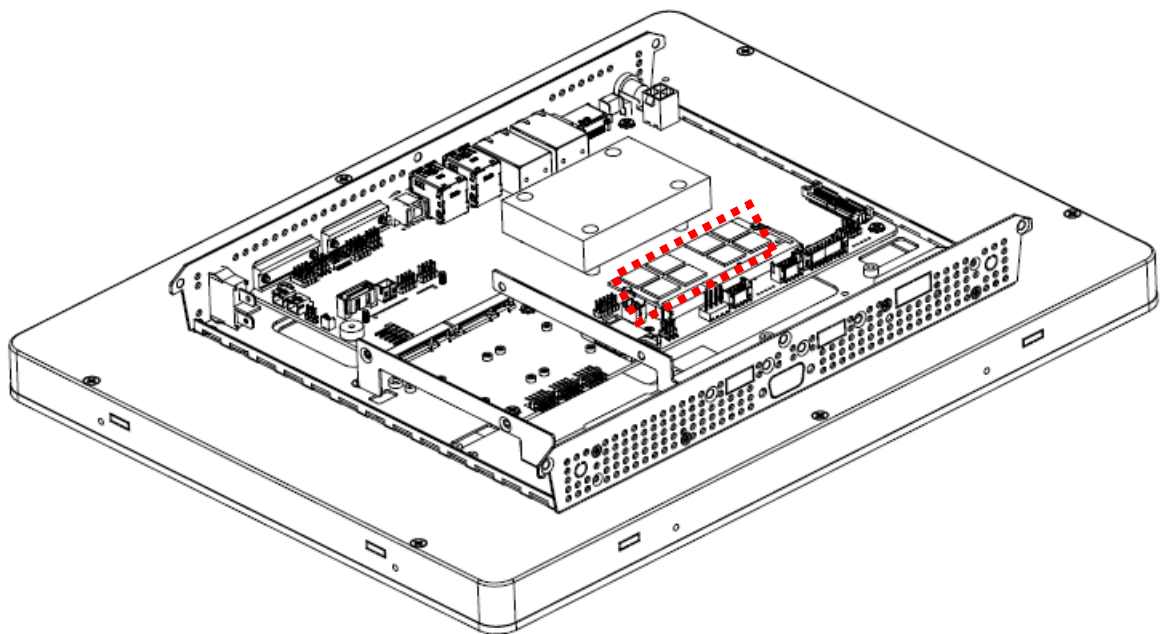


2.3 Installing Hard Disk & Memory (For LPC-1532)

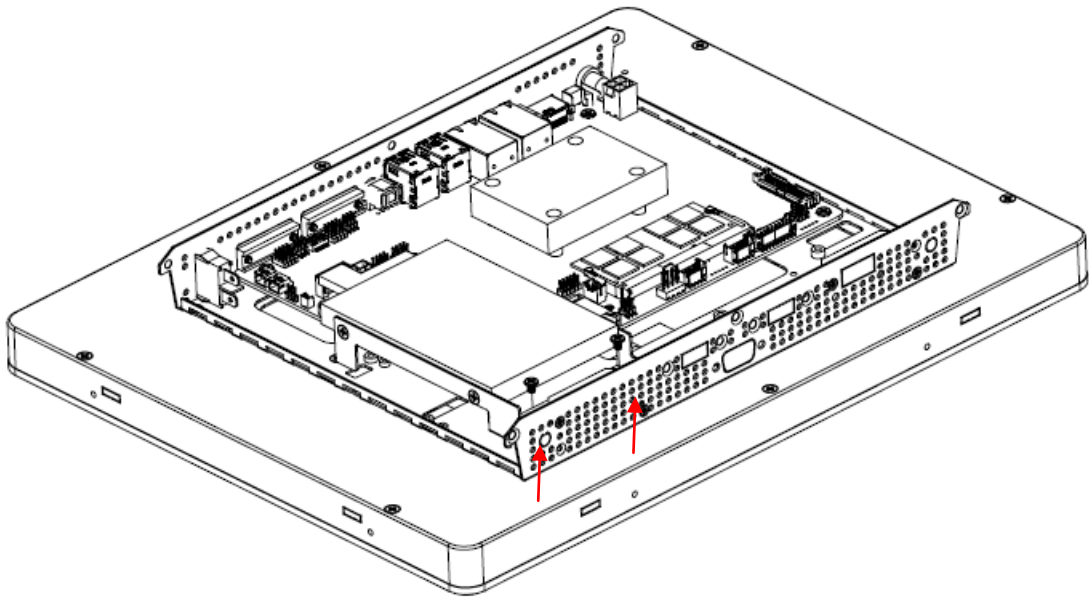
Step 1. Unfasten 6 screws from the case. Then take off the top chassis.



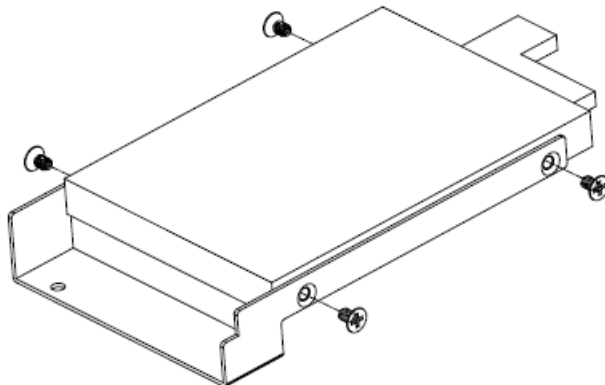
Step 2. Memory Installation: Insert the SODIMM into the memory socket.



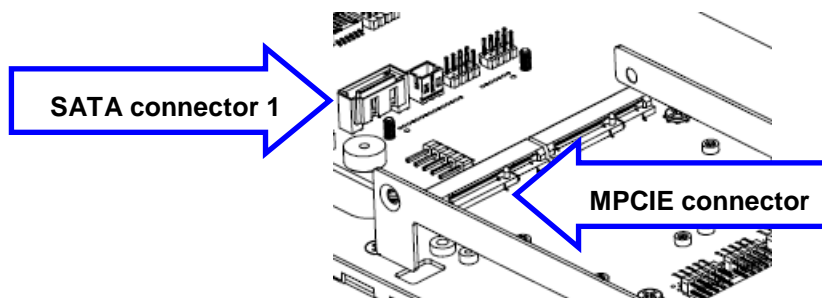
Step 3-1. HDD Installation: Unfasten 2 screws of the HDD bracket and take it off.



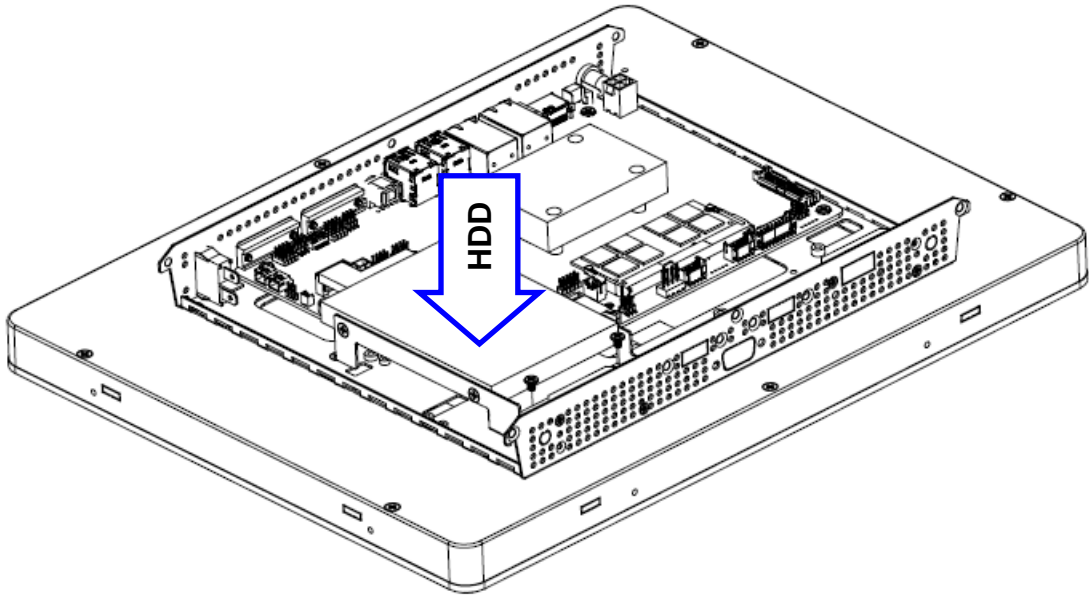
Step 3-2. Insert the HDD into the bracket and fasten 4 screws.



Step 3-3. SATA HDD Installation: By default, the SATA cables had been inserted to the according connectors. Just connect to SATA HDD with the two cables.



Step 3-4. Insert the HDD into the Drive Bay. Remember to place the HDD down to the bottom exactly in order to screw the device tightly.



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

