AMS100-807 Series

Fanless System

User's Manual

Version 1.0

IBASE TECHNOLOGY INC.
Bldg. G, 11F, No. 3-1, Yuan Qu St.,
Nankang, Taipei, Taiwan, R.O.C.
TEL: +886-2-2655-7588
FAX: +886-2-2655-7388
E-mail: sales@ibase.com.tw

Table of Contents

Safety Information

AMS100-807 is designed and tested to meet the latest standards of safety for information technology equipment. However, to ensure your safety, it is important that you read the following safety instructions.

Setting up your system

- Read and follow all instructions in the documentation before you operate your system.
- Do not use this product near water.
- Set up the system on a stable surface or secure on wall with the provided rail. Do not secure the system on any unstable plane or without the rail.
- Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
- Slots and openings on the chassis are for ventilation. Do not block or cover these openings. Make sure you leave plenty of space around the system for ventilation. Never insert objects of any kind into the ventilation openings.
- This system should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
- Use this product in environments with ambient temperatures between 0˚C and 45˚C.
- If you use an extension cord, make sure that the total ampere rating of the devices plugged into the extension cord does not exceed its ampere rating.

Care during use

- Do not walk on the power cable or allow anything to rest on it.
- Do not spill water or any other liquids on your system.
- When the system is turned off, a small amount of electrical current still flows.
  Always unplug all power, and network cables from the power outlets before cleaning the system.
- If you encounter the following technical problems with the product, unplug the power cord and contact a qualified service technician or your retailer.
  - The power cable or plug is damaged.
  - Liquid has been spilled into the system.
  - The system does not function properly even if you follow the operating instructions.
  - The system was dropped or the cabinet is damaged.

Lithium-Ion Battery Warning

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.

NO DISASSEMBLY

The warranty does not apply to the products that have been disassembled by users

Chapter 1 Specifications

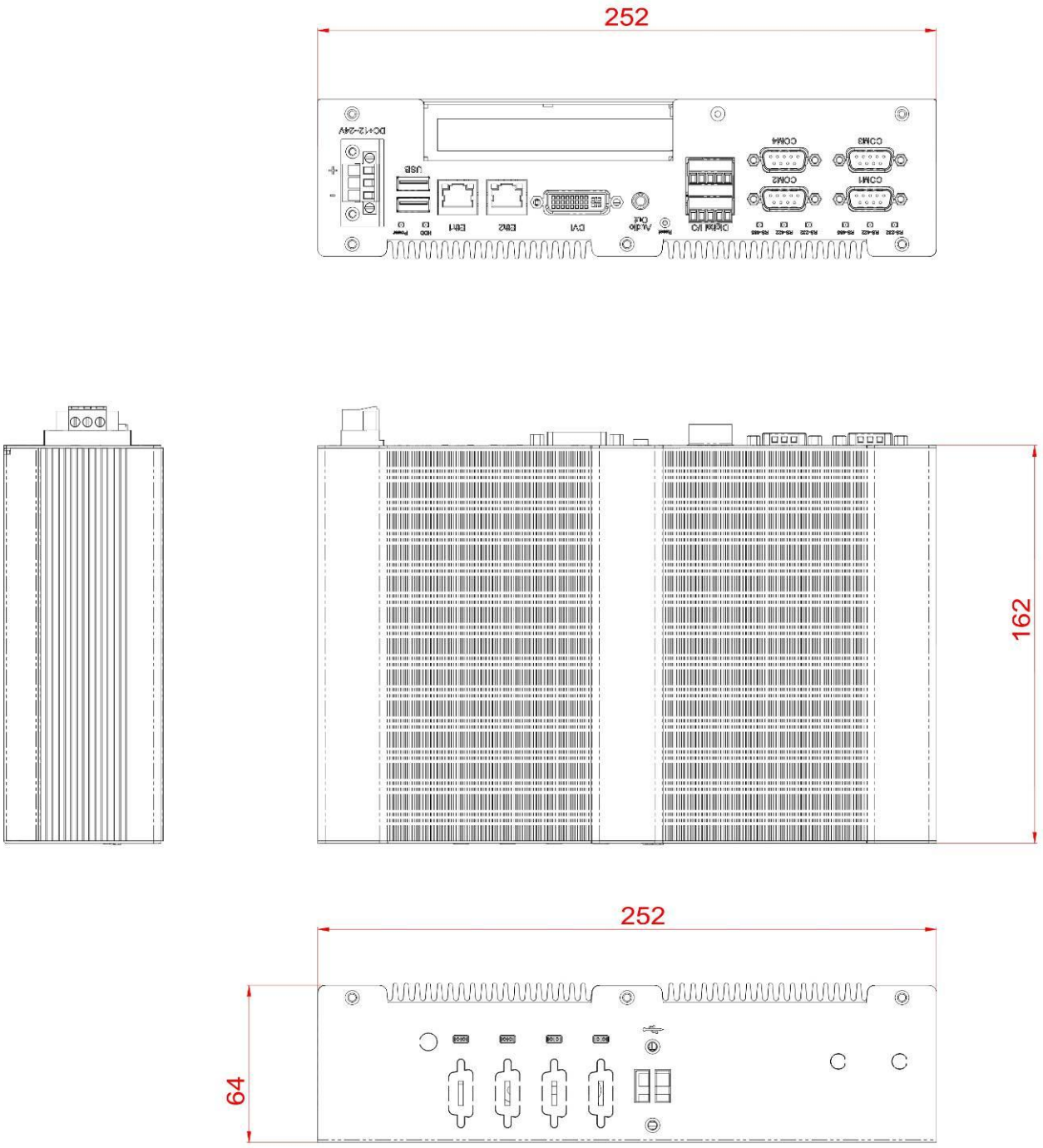
Form Factor	Fanless system
CPU Type **Operating Frequency**	Intel "Cedar view" Processor, 32nm Bulk Atom D2550 = 1.86 GHz [TDP= 10W] Cores = Dual Core
Chipset	Intel "Tiger Point" PCH, CG82NM10 [TDP = 2.1W, 130 nm]
BIOS	AMI BIOS w/ACPI
Memory	CPU on-die memory controller supporting up to 4GB (Single Channel; 64-bit) One DDR3-1333 SO-DIMM socket, Non-ECC, unbuffered, 1.5V
Watchdog Timer	Yes (256 segments, 0, 1, 2…255 sec/min)
Storage	● Onboard CFast Socket x1 ● 2.5" SSD or HDD x1
Front Panel	● Reset Button x1 ● USB 2.0 x2 ● Audio (AC97 audio output) ● RJ45 with LED x2 for GLAN ● DVI-I connector x1 ● 2x5 Terminal Block connector x1 ● DB-9 Male connector x2 for RS-232, RS-422 or RS-485 (BIOS Control) ● DB-9 Male connector x2 for RS-232 ● Terminal Block (TB) 3-pin Connector DC +12 ~ +24V ● Amber LED indicator x 6 for RS232/422/485 status display ● Green LED indicator x 2 for Power & HDD active status
Rear Panel	● Optional Antenna Opening for Wireless LAN x2 ● USB 2.0 x2 ● Optional power jack for DC +12 ~ +24V input ● Optional DB-9 opening x4
Internal I/O Connectors	● PCI-E x16 slot (PCI + PCI-e 1x Signals) ● SATA connector x1 ● 4-pin +5V power connector x1 ● System fan 4-pin connector x1 ● 2-pin DC +12 ~ +24V connector x2 ● CFast Card Socket x1 ● Mini PCI-E Socket x1 ● DDR3 SO-DIMM Socket x1 ● 4 ports USB 2.0 pin header ● LVDS connector x1
Expansion Slot	Standard Full Height Slot opening on Front panel supports add-on card length up to **122 mm**
Dimensions	252 (W) x 162 (D) x 64 (H) mm
Operation Temperature	0 ~ 45℃
Storage Temperature	-20 ~ 70℃
Operation Humidity	5% ~ 90% @ 45℃, non-condensing

Anti-vibration	Non-operating: 1.0 grms / 5~500 Hz random operation Operating: 0.25 grms / 5~500 Hz random operation
Certifications	CE, FCC, UL, CCC
Features	● Support IBASE iSMART for auto-scheduler and power resume ● EuP/ErP compliant ● Switch RS-232 / 422 / 485 mode in BIOS (COM1 & COM2)

Chapter 2 AMS100-807 Series Features

- Supports two Gigabit LAN ports
- Supports Intel® Atom™ D2550 at 1.86GHz processor
- DDR3 SO-DIMM x1, up to 4GB
- RS-232 / RS-422 / RS-485 function preset with BIOS
- RS-485 auto flow control
- 4 in & 4 out Digital IO
- 3-pin terminal block or DC Jack +12V ~ +24V DC power input selection
- Mini PCI-E slot x1
- CFast Card slot x1
- Supports PCI (IP807) or PCI-E (IP808) Riser Card
- Supports iSMART feature
- EuP / ErP compliant
- Fanless design

Chapter 3 System Dimensions



Unit: mm

Chapter 4 Opening the Chassis

Fig. 4-1 Loosen three #6-32 screws on front panel.

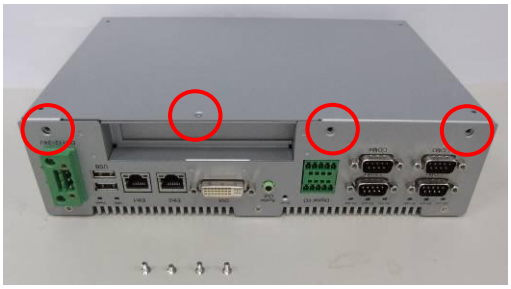


Fig. 4-2 Loosen Four M3 screws on rear & top panel. Top screw is shorter.

Fig. 4-3 The system

Chapter 5 Installing the Memory Module

Fig. 5-1 Insert DDR3 SO-DIMM memory module.

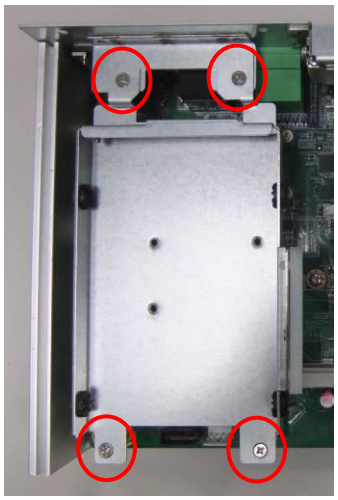


Fig. 6-1 *Loosen four screws to remove HDD bracket.*

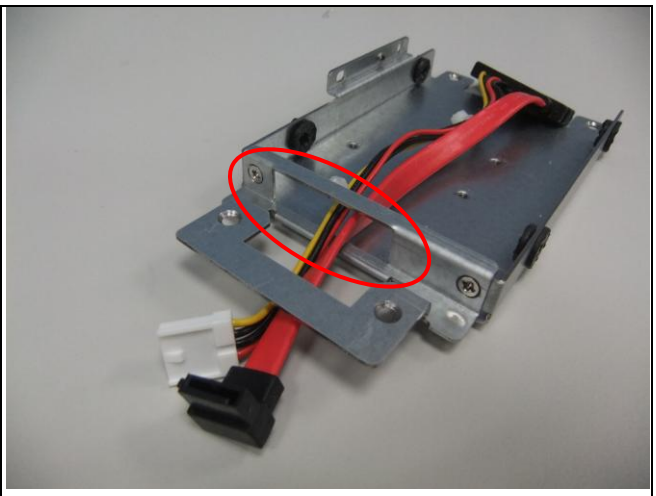


Fig. 6-2 *Insert the SATA cable*

Fig. 6-3 *Put HDD on the bracket*

Fig. 6-4 *Assemble cable and HDD*

shoulder screw

Fig. 6-5 *Fasten HDD on bracket with four shoulder screws.*

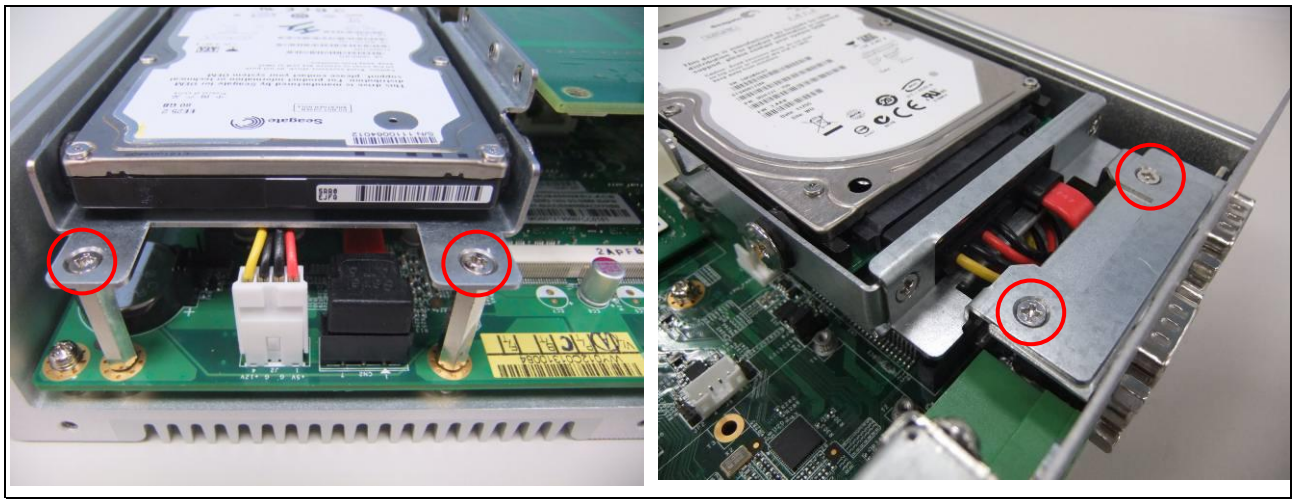


Fig. 6-6 *Fasten HDD bracket with four screws.*

Chapter 7 Installing the Mini PCI-e Module

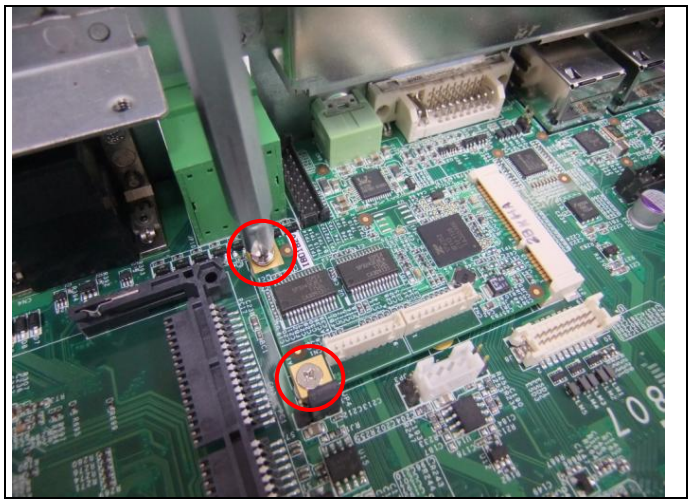


Fig. 7-1 Insert Mini PCI-E module and fixed with two M2 screws.

Chapter 8 Terminal Block (TB) DC Input

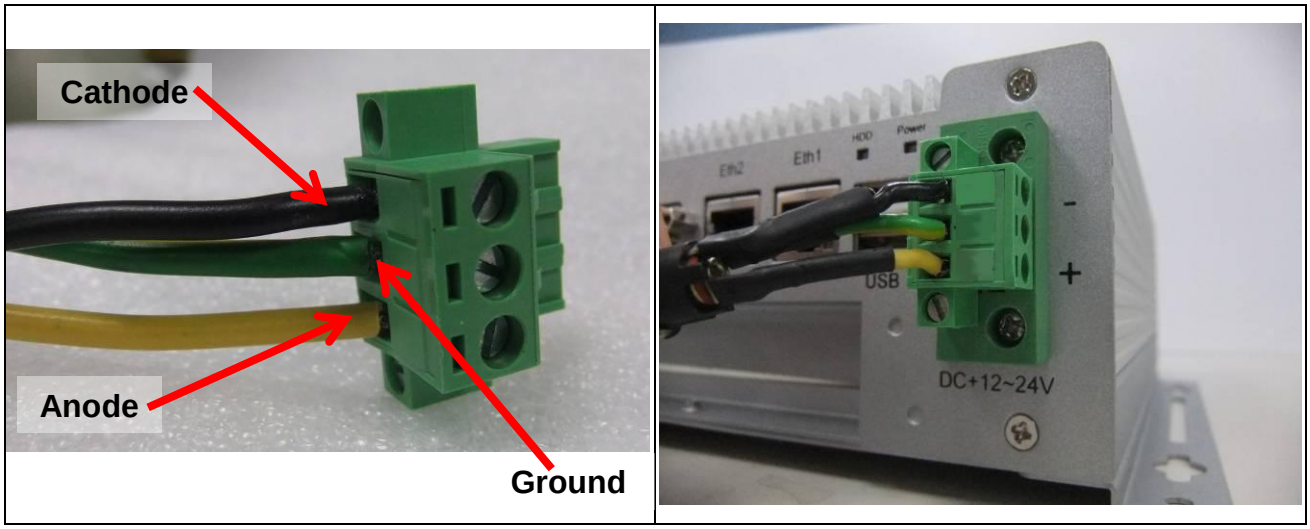


Fig. 8-1 *Screw tight the DC cables.*

Fig. 8-2 *Plug TB onto AMS100-807.*

Chapter 9 Rear USB Cable

Fig. 9-1 *Plug USB cable onto the motherboard.*

Chapter 10 Rear COM 5 & COM6 Cable (Optional)

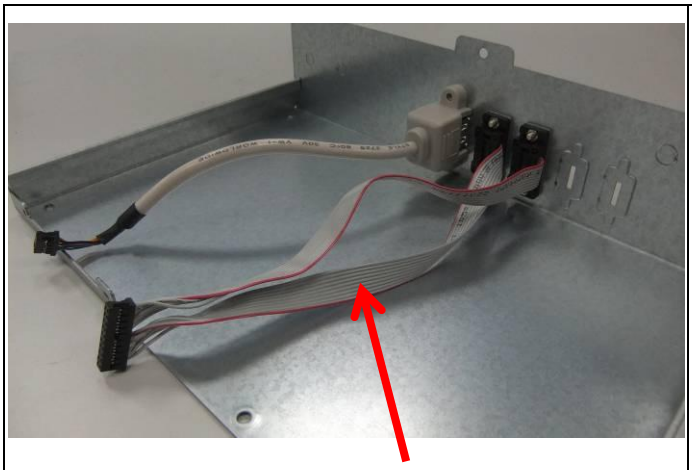


Fig. 10-1 *Knock off two DB-9 opening and screw RS-232 connectors on chassis.*

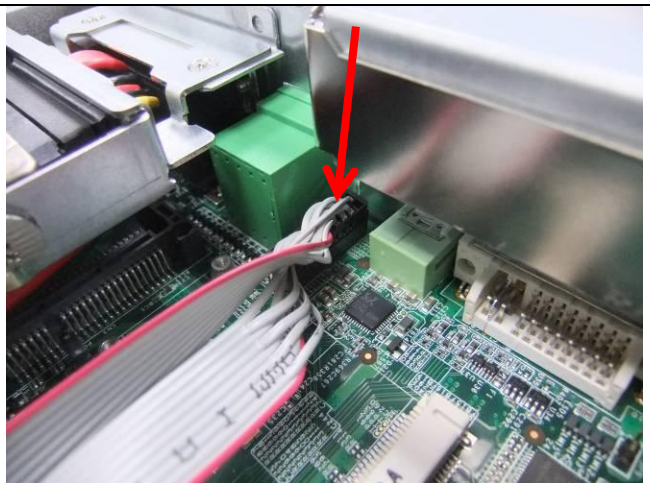


Fig. 10-2 *Plug COM 5 & COM 6 cable onto the motherboard.*

IP807 --- PCI Riser Card

IP808 --- PCI-E Riser Card

Fig. 11-1 *Make sure the add-on card interface.*

Fig. 11-2 *Loosen slot screw.*

Fig. 11-3 *Remove HDD kit.*

Fig. 11-4 *Insert add-on card and fasten the screw.*

Fig. 11-5 *Assemble HDD and make sure the guide rail fits the add-on card.*

Chapter 12 Assembling Mounting Brackets

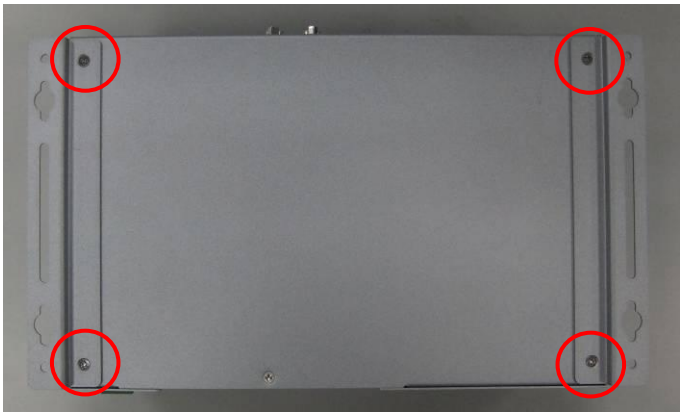


Fig. 12-1 *Put mounting brackets on bottom and fasten with four screws.*

Chapter 13 Optional COM7 & COM8 Assembly

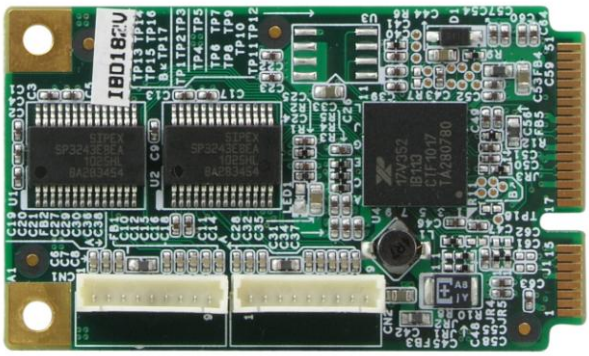


Fig. 13-1 IBD-182V, IBASE RS-232 Mini PCI-E card

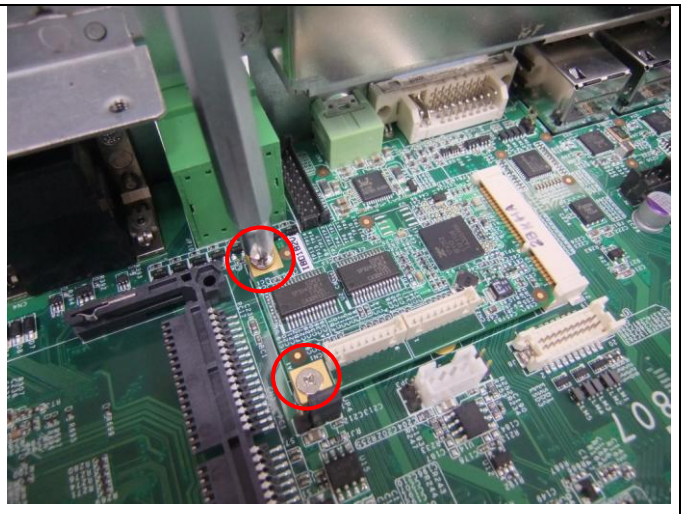


Fig. 13-2 Insert IBD-182V and fixed with two M2 screws.

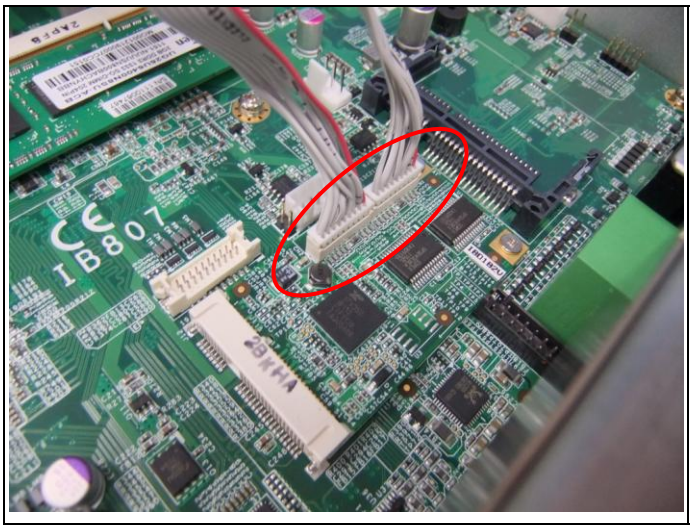


Fig. 13-3 Plug COM port cables onto IBD-182V

Fig. 13-4 COM7 & COM 8