

# **BFC-15W9**

**15.6" Multifunctional Full Flat  
Multi-Touch Panel Computer**

## **Quick Reference Guide**



**1<sup>st</sup> Ed –09 October 2014**



### **Copyright Notice**

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## 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 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.

## A Message to the Customer

### *Avalue Customer Services*

Each and every Avalue's product is built to the most exacting specifications to ensure reliable performance in the harsh and demanding conditions typical of industrial environments. Whether your new Avalue device is destined for the laboratory or the factory floor, you can be assured that your product will provide the reliability and ease of operation for which the name Avalue has come to be known.

Your satisfaction is our primary concern. Here is a guide to Avalue's customer services. To ensure you get the full benefit of our services, please follow the instructions below carefully.

### *Technical Support*

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/>

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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 BFC-15W9 15.6" Multifunctional Full Flat Multi-Touch Panel Computer
- 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
  - Chipset drivers
- Other major components include the followings:
  - 60W adapter and power cord



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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

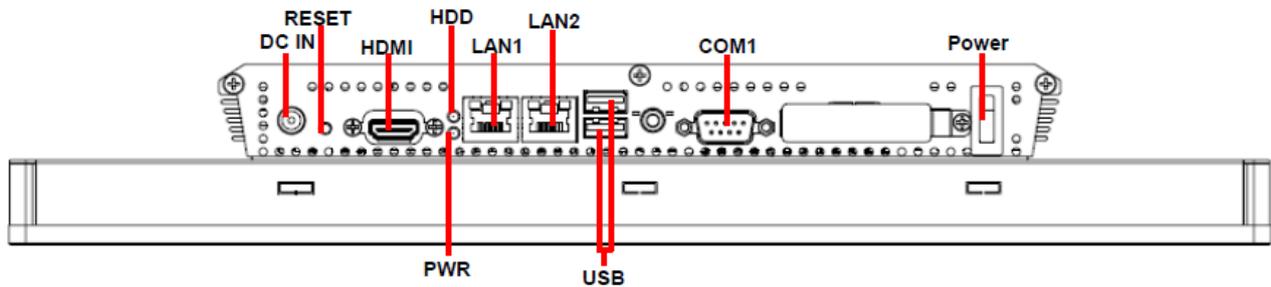
| Component              |  |
|------------------------|--|
| Mother Board           | <ul style="list-style-type: none"> <li>EBM-BYT</li> </ul>  |
| CPU                    | <ul style="list-style-type: none"> <li>Onboard Intel® Atom Quad-Core J1900 2.0GHz with Integrated Chipset</li> </ul>       |
| Memory                 | <ul style="list-style-type: none"> <li>One 204-pin DDR3L SODIMM Socket Supports Up to 8GB DDR3L 1066/1333 SDRAM</li> </ul> |
| Adapter                | <ul style="list-style-type: none"> <li>+12 Vdc / 5 A (60W)</li> </ul>  |
| Wireless LAN           | <ul style="list-style-type: none"> <li>Optional USB/MPCle WiFi module</li> </ul>   |
| Storage                |  |
| Hard Disk Drive        | <ul style="list-style-type: none"> <li>Optional 2.5" SATA HDD</li> </ul>   |
| Solid State Drive      | <ul style="list-style-type: none"> <li>Optional 2.5" SATA SSD</li> </ul>   |
| Other Storage Device   | <ul style="list-style-type: none"> <li>Optional mSATA</li> </ul>   |
| Panel                  |  |
| LCD Panel              | <ul style="list-style-type: none"> <li>15.6", 16:9, HD</li> </ul>  |
| B/L Inverter/Converter | <ul style="list-style-type: none"> <li>Built in LED backlight</li> </ul>   |
| Touch Screen           | <ul style="list-style-type: none"> <li>P-cap</li> </ul>  |
| Touch Controller       | <ul style="list-style-type: none"> <li>EETI</li> </ul>   |
| External I/O           |  |
| PS/2 KB & Mouse        | <ul style="list-style-type: none"> <li>1 x RS-232</li> </ul>   |
| USB Port               | <ul style="list-style-type: none"> <li>1 x USB 3.0, 1 x USB 2.0</li> </ul>   |
| Audio Port             | <ul style="list-style-type: none"> <li>1 x Line-out</li> </ul>   |
| LAN Port               | <ul style="list-style-type: none"> <li>2 x RJ-45 (Dual Intel I211AT PCI-E Gigabit LAN)</li> </ul>                          |
| Wireless LAN Antenna   | <ul style="list-style-type: none"> <li>Reserved 1 for WiFi or 3G antenna</li> </ul>  |
| Indicator Light        | <ul style="list-style-type: none"> <li>LED for Power, HDD</li> </ul>   |
| Expansion Slots        | <ul style="list-style-type: none"> <li>2 x Mini PCIe</li> </ul>  |
| Mechanical             |  |
| Power Type             | <ul style="list-style-type: none"> <li>AT/ATX</li> </ul>   |
| Power Connector Type   | <ul style="list-style-type: none"> <li>DC in</li> </ul>  |
| Dimension              | <ul style="list-style-type: none"> <li>385.3mm x 240.3mm x 55.5mm</li> </ul>   |
| Weight                 | <ul style="list-style-type: none"> <li>5.2 Kg</li> </ul>   |
| Color                  | <ul style="list-style-type: none"> <li>Front Silver &amp; Rear panel Black</li> </ul>                                      |
| Fanless                | <ul style="list-style-type: none"> <li>Yes</li> </ul>  |
| Reliability            |  |
| EMI Test               | <ul style="list-style-type: none"> <li>Class B</li> </ul>  |
| Safety                 | <ul style="list-style-type: none"> <li>CE FCC</li> </ul>   |
| Dust and Rain Test     | <ul style="list-style-type: none"> <li>Follow standard ones</li> </ul>   |

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|                              |  |
|------------------------------|--|
| <b>Vibration Test</b>        | <ul style="list-style-type: none"><li>• Follow standard ones</li></ul>                     |
| <b>Mechanical Shock Test</b> | <ul style="list-style-type: none"><li>• Follow standard ones</li></ul>                     |
| <b>Drop Test</b>             | <ul style="list-style-type: none"><li>• Follow standard ones</li></ul>                     |
| <b>Operating Temperature</b> | <ul style="list-style-type: none"><li>• 0 to 40°C</li></ul>                                |
| <b>Operating Humidity</b>    | <ul style="list-style-type: none"><li>• 5%~90% relative humidity, non-condensing</li></ul> |
| <b>Storage Temperature</b>   | <ul style="list-style-type: none"><li>• -10 to 50°C</li></ul>                              |

## 1.4 System Overview

### 1.4.1 Rear View

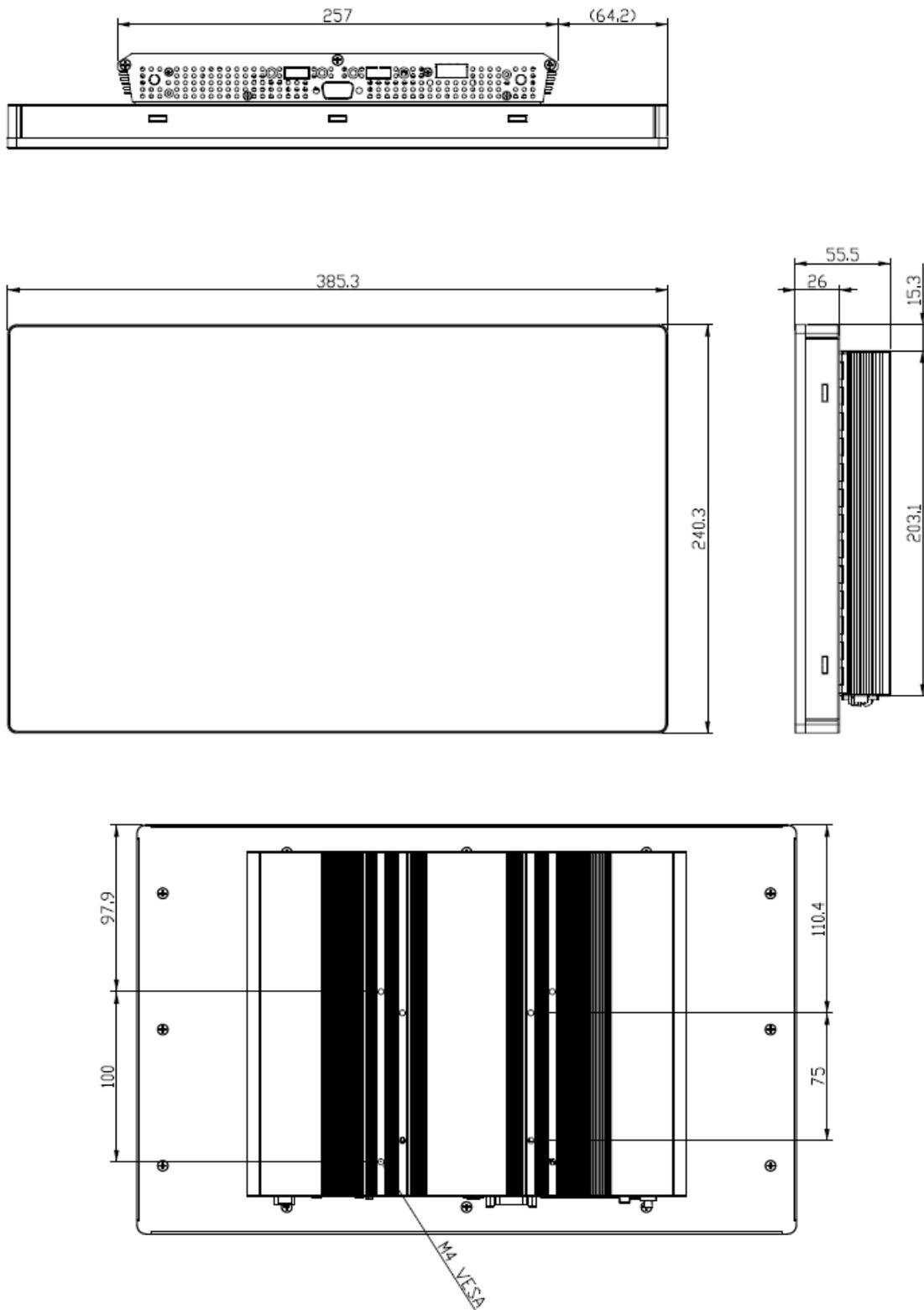


#### Connectors

| Label  | Function                                       | Note                |
|--------|--|---------------------|
| COM1   | External Serial Port 1 connector               | DB-9 male connector |
| HDMI   | HDMI connector                                 |                     |
| LAN1/2 | RJ-45 Ethernet 1/2                             |                     |
| Power  | System power switch                            |                     |
| DC IN  | DC Power-in connector                          |                     |
| RESET  | Reset button                                   |                     |
| HDD    | HDD LED  |                     |
| PWR    | Power LED                                      |                     |
| USB    | USB 2.0 connector x 1<br>USB 3.0 connector x 1 |                     |

## 1.5 System Dimensions

### 1.5.1 Front, rear and side view



(Unit: mm)

# 2. Hardware Configuration

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For advanced information, please refer to:

- 1- EBM-BYT Quick Installation Guide or User's Manual

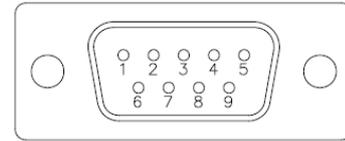
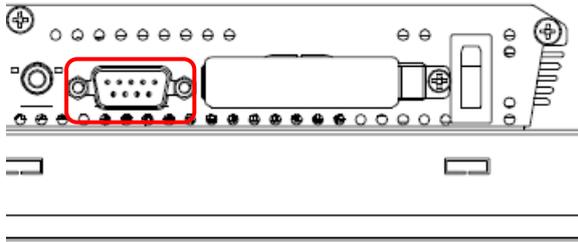


**Note:** If you need more information, please visit our website:

<http://www.avalue.com.tw>

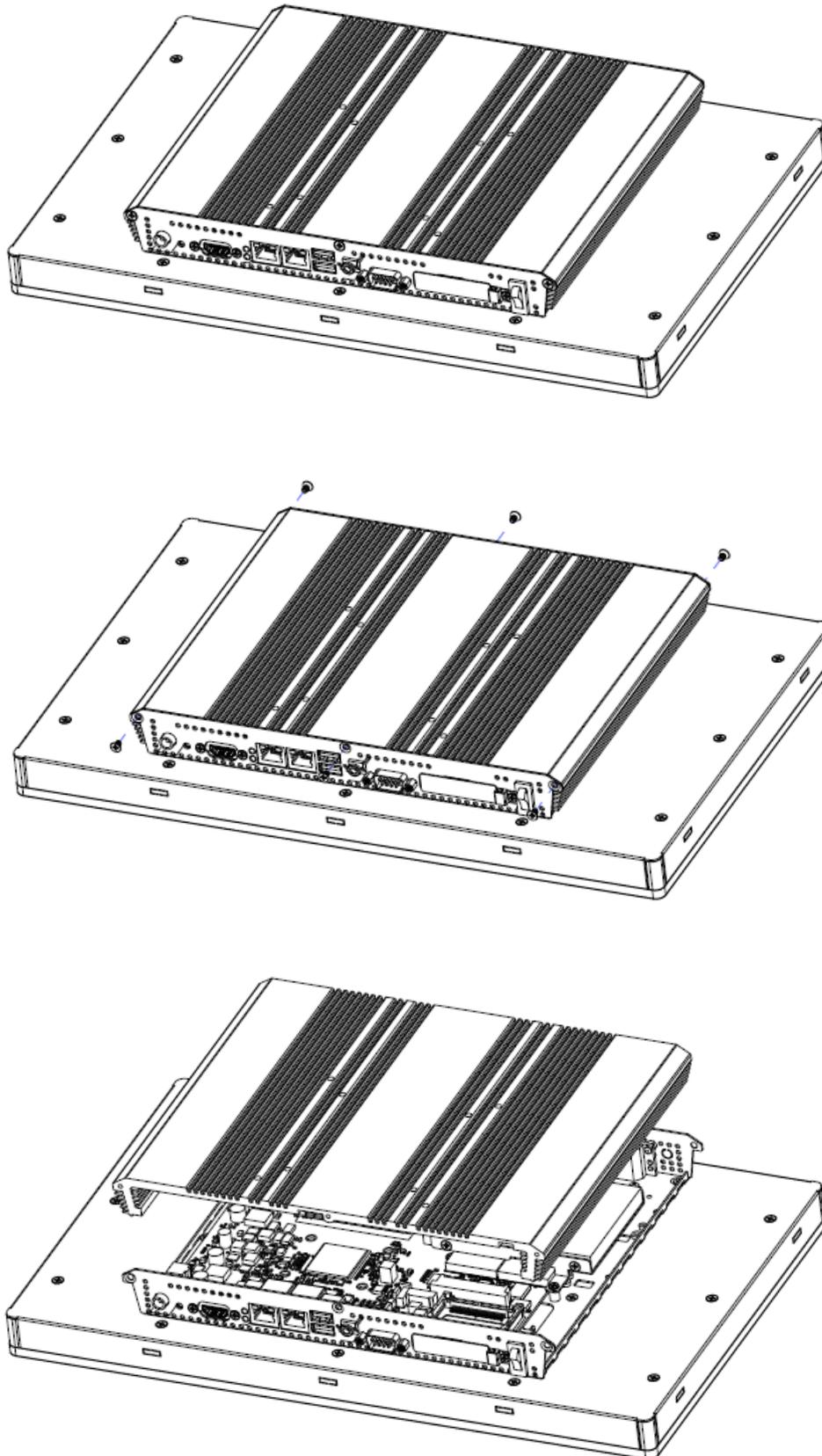
## 2.1 BFC-15W9 connector mapping

### 2.1.1 External Serial Port 1 connector (COM1)



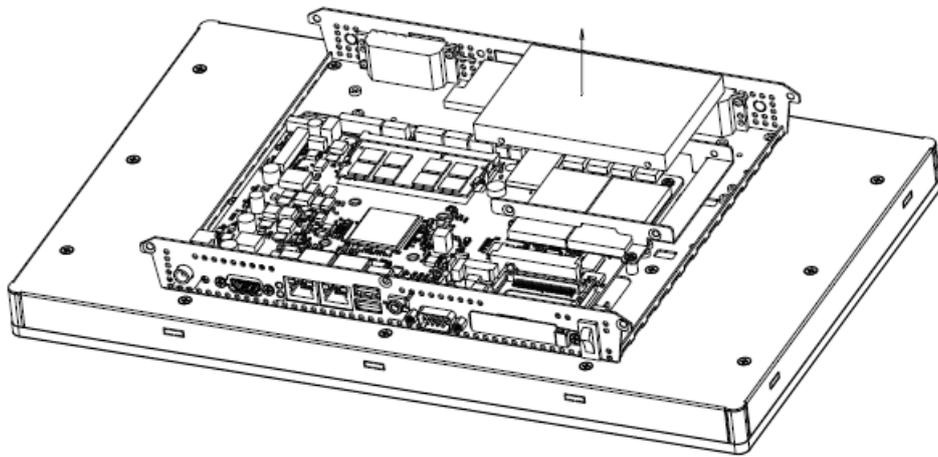
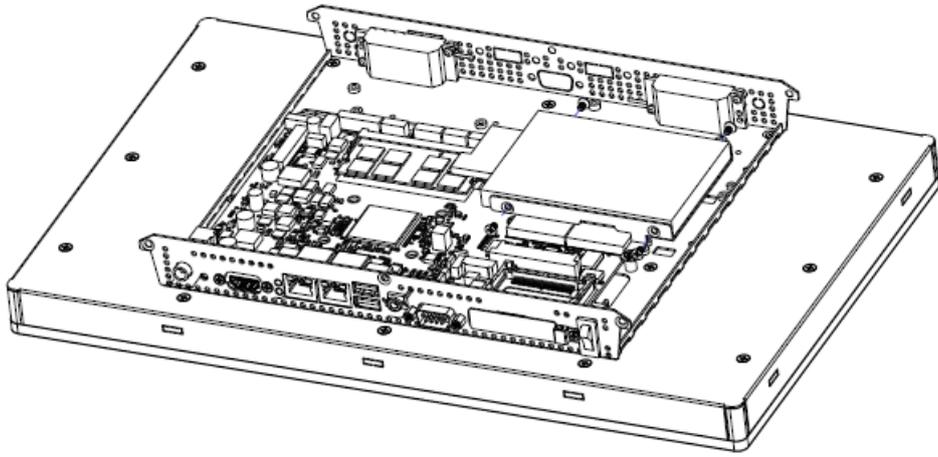
| Signal        | PIN | PIN | Signal |
|---------------|-----|-----|--------|
| NDCDA#_485TXN | 1   | 6   | NDSRA# |
| NRXDA_485TXP  | 2   | 7   | NRTSA# |
| NTXDA_485RXP  | 3   | 8   | NCTSA# |
| NDTRA#_485RXN | 4   | 9   | NRIA#  |
| GND           | 5   |     |        |

## 2.2 Installing Hard Disk & Memory (BFC-15W9)

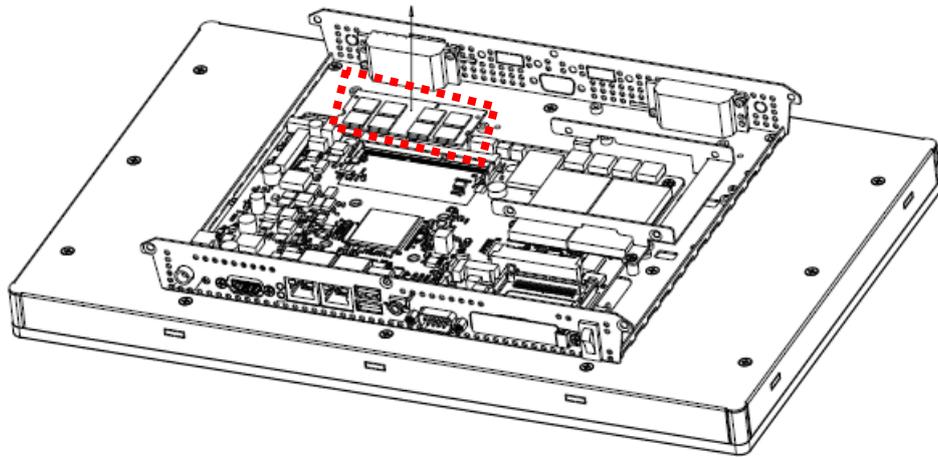


**Step1.** Unfasten 6 screws from the case to take off the top chassis.

**Step2.** Remove the top chassis.



**Step3.** Unfasten 4 screws of the HDD bracket and take it off.



**Step4.** Remove the SODIMM from the memory socket.

