BFC-1509

15" Intel® Celeron SOC Processor J1900 Multifunctional Full Flat Multi-Touch Panel Computer

Quick Reference Guide

1st Ed –27 May 2016

Part No. E2017BF09A0R

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 INSTATLLED 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/

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 BFC-1509 15" 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

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

1.3 System Specifications

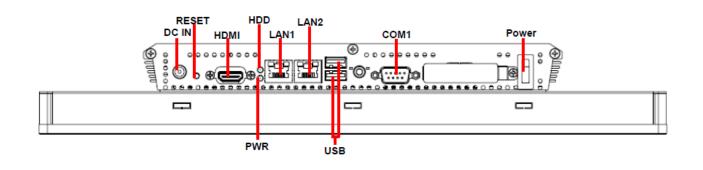| Component	
Mother Board	• EBM-BYT
CPU	• Onboard Intel® Atom Quad-Core J1900 2.0GHz with Integrated Chipset
Memory	• One 204-pin DDR3L SODIMM Socket Supports Up to 8GB DDR3L 1066/1333 SDRAM
Adapter	• +12 Vdc / 5 A (60W)
Wireless LAN	• Optional USB/MPCIe WiFi module
Storage	
Hard Disk Drive	• Optional 2.5" SATA HDD
Solid State Drive	• Optional 2.5" SATA SSD
Other Storage Device	• Optional mSATA
Panel	
LCD Panel	• 15", 4:3, XGA
B/L Inverter/Converter	• Built in LED backlight
Touch Screen	• P-cap
Touch Controller	• EETI
External I/O	
PS/2 KB & Mouse	• 1 x RS-232
USB Port	• 1 x USB 3.0, 1 x USB 2.0
Audio Port	• 1 x Line-out
LAN Port	• 2 x RJ-45 (Dual Intel I211AT PCI-E Gigabit LAN)
Wireless LAN Antenna	• Reserved 1 for WiFi or 3G antenna
Indicator Light	• LED for Power, HDD
Expansion Slots	• 2 x Mini PCIe
Mechanical	
Power Type	• AT/ATX
Power Connector Type	• DC in
Dimension	• 350mm x 273.9mm x 53.5mm
Weight	• 4.2 Kg
Color	• Front Silver & Rear panel Black
Fanless	• Yes
Reliability	
EMI Test	• Class B
Safety	• CE FCC
Dust and Rain Test	• Front Panel IP65

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Vibration Test	• With SSD/mSATA: 1.5Grms, IEC 60068-2-64, Random, 5~500Hz, 30min/axis
Mechanical Shock Test	• With CF/SSD: 10Grms, IEC 60068-2-27, Half Sine, 11ms
Drop Test	• Reference ISTA 2A, Method: IEC-60068-2-32
Operating Temperature	• 0 to 40°C
Operating Humidity	• 5%~90% relative humidity, non-condensing
Storage Temperature	• -10 to 50°C

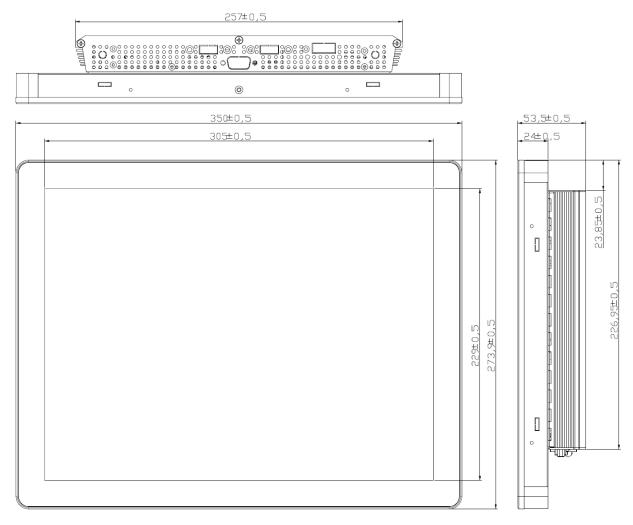**Note:** Specifications are subject to change without notice.

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 USB 3.0 connector x 1	

1.5 System Dimensions

1.5.1   Front, rear and side view

100±0,5

75±0,5

118,95±0,5

106,45±0,5

M4 VESA

(Unit: mm)

2. Hardware Configuration

For advanced information, please refer to:

1- EBM-BYT Quick Installation Guide or User's Manual
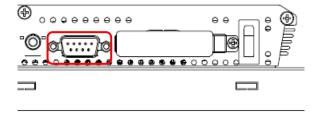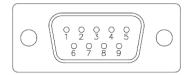
Note: If you need more information, please visit our website:

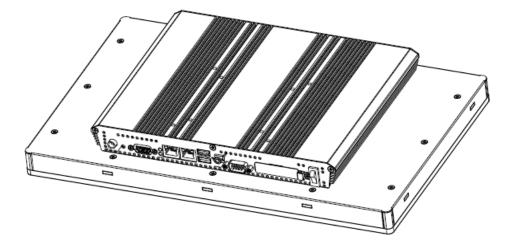**http://www.avalue.com.tw**

2.1 BFC-1509 connector mapping
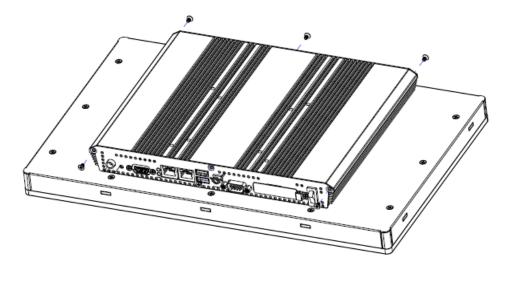
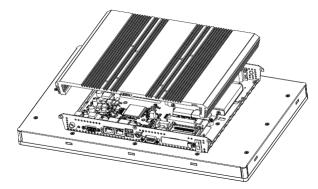### 2.1.1   External Serial Port 1 connector (COM1)

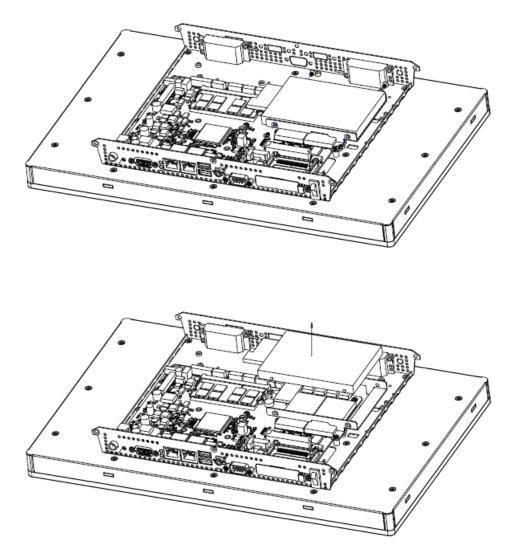| Signal	PIN	PIN	Signal
NDCDA#_485TXN	1	6	NDSRA#
NRXDA_485TXP	2	7	NRTSA#
NTXDA_485RXP	3	8	NCTSA#
NDTRA#_485RXN	4	9	NRIA#
GND	5		

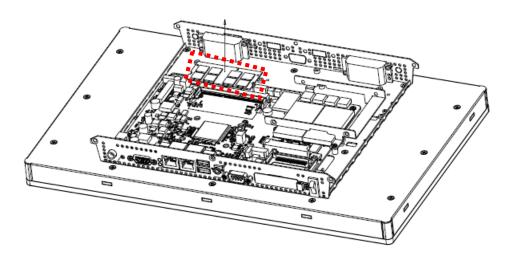## 2.2 Installing Hard Disk & Memory (BFC-1509)

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.