ADVANTECH

FWA-1330B
Tabletop Network Application Platform X86-Based Intel® Bay Trail Processor
Startup Manual

Packing List

Before installation, ensure that the following materials have been received:

- One FWA-1330B Internet Security Platform
- One box of accessories
- One warranty certificate

If any of these items are missing or damaged, please contact your distributor or sales representative immediately.

Note: Acrobat Reader may be used to view any PDF file on the CD. Acrobat Reader can be downloaded at: www.adobe.com/Prodindex/acrobat/readstep.html (Acrobat is a trademark of Adobe).

FWA-1330B Internet Security Platform

Front View



Back View



For more information on this and other Advantech products, please visit our website at:

http://www.advantech.com

http://www.advantech.com/eplatform

For technical support and service, please visit our support website at:

http://www.advantech.com/support

This manual is for the FWA-1330 series.

Part No. 2002A13320 1st Edition,
Printed in Taiwan September, 2015

Specifications

- **CPU:** Intel® Celeron® Processor N2807
- **Chipset:** Intel Bay Trail SoC
- **BIOS:** AMI 16 Mbit SPI
- **Memory:** Single channel DDR3L 1333/1600 MHz SO-DIMM, up to 4 GB
- **Network Connectivity:**
  - Ethernet: 4 x Intel I211-AT 10/100/1000 Base-T Ethernet
  - LAN Bypass: Up to 2 Segments
- **Mass Storage:**
  - mSATA: 1 x mSATA slot (Half Size or Full Size)
  - SATA: 1 x SATA connector, Support one 2.5" HDD bay
- **Peripherals:**
  - Console:1x Console port (RJ45 connector)
  - USB:2 x USB2.0 Type A connector
  - VGA:1 x VGA Port on rear panel
  - Mini PCIE: 1 x Mini PCIE slot (Half Size, USB Interface Default, PCIE Interface Option)
  - Pin Header: PS/2, GPIO, Reset, COM
- **Front LED Indicator:**
  - Power LED:1 (Green)
  - SATA LED:1 (Amber)
  - LAN LED: 4 pairs (Speed and Status)
- **Power supply:** Adapter 40 W 12 V
- **Dimensions (W x H x D):** 208 x 44 x 181 mm (8.19" x 1.73" x 7.13")
- **Weight:**1.8 KG (3.96 lb)
- **Environment:** Operating Non-operating
- **Temperature:** 0 ~ 40° C (32 ~ 104° F) -20 ~ 75° C (-4 ~ 167° F)
- **Humidity:** 5 ~ 85% @ 40° C 5 ~ 95% @ 40° C

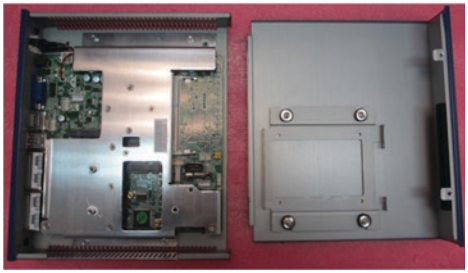
Installation

Setup

1. Unpack the box and take FWA-1330 out of it. Unfasten the four screws indicated with the red arrows in the below figure, then remove the top cover.







Installing the mSATA & Memory

1. Take one memory card and push it into DIMM slot as shown in the second figure below, then press it to make it hooked firmly (the third figure below shows the position of the card hooks).



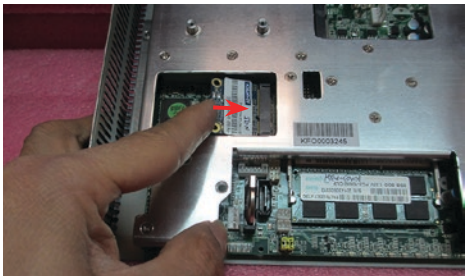
Installation (Cont.)





2. Take one mSATA and push it into mSATA slot (Mini-PCIE connector, location named MSATA1) in the direction as shown in the below.



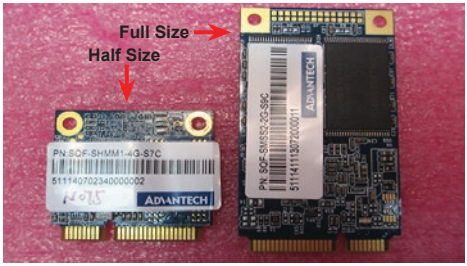


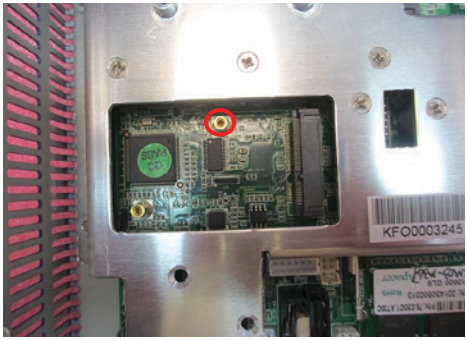
3. Take one Nylok screw from the accessory box and insert it into the position marked by a red circle in the below figure to fix mSATA.





4. Here, FWA-1330 can support both Full Size and Half Size mSATA. If Full Size is required, please firstly remove one copper cylinder shown in the below figure and fix mSATA. Please refer to the third figure below for an appropriate installation.







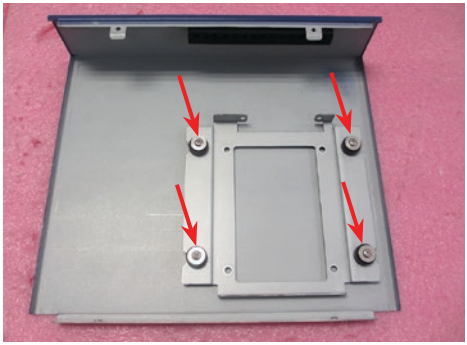
Installation (Cont.)

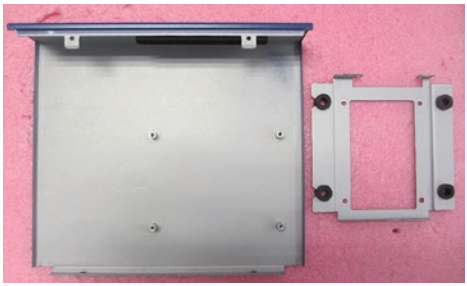
5. Now, mSATA and memory card have been successfully installed.



Installing the HDD Module

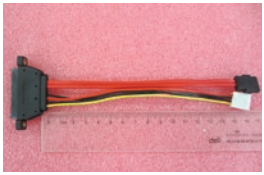
1. Unfasten the four screws of the top cover for future use and remove HDD bracket.

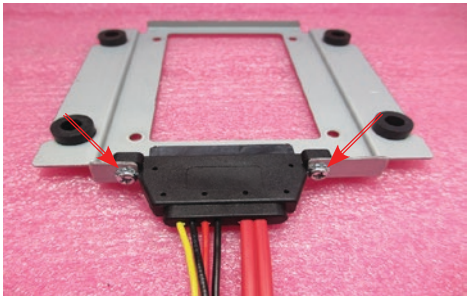




Installation (Cont.)

2. Take two textured anti-skidding screws and a SATA cable from the accessory box. Follow the figure below to connect the SATA cable to the bracket.



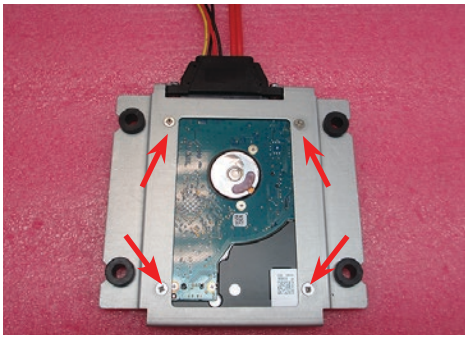
3. Take an HDD and insert it into the SATA interface as follow.




4. Use four sunk screws in the accessory box to fix the HDD module onto the bracket.

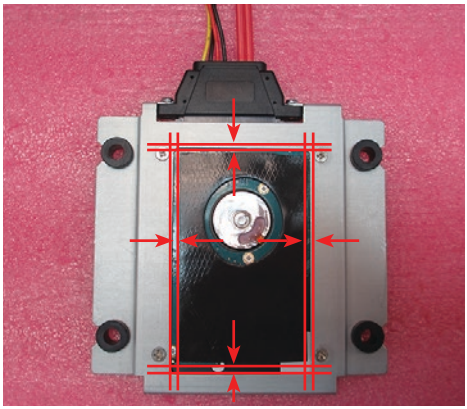


Installation (Cont.)



5. Take the thermal pad out of the accessory box and stick it onto HDD.
   Note:
   A. Margins should be kept between the pad edge and the bracket (see below).
   B. Thermal pad should not be placed onto the HDD motor.

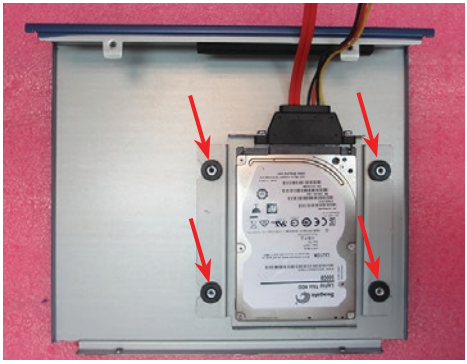




Installation (Cont.)

6. Fasten the four screws removed earlier from the top cover to fix the HDD module.





7. Connect SATA cable and power cable of the HDD to the main board. Please follow the second figure to correctly connect the cable.



Installation (Cont.)



Install the Top Cover

1. Replace and fix the top cover with the four screws removed earlier.







Jumpers and Connectors

The board has a number of jumpers that allow you to configure your system to suit your application. The table below lists the function of each of the jumpers and connectors.

Jumpers and Connectors	
Label	**Function**
JCMOS1	Clear CMOS
BPLED1_2 BPLED2_3	Enable/Disable RJ45 LAN Bypass LED
PSON1	AT and ATX MODE Change
USB1_2	USB Connector on Rear
COM1	Console RJ45
COM2	COM Pin header
LAN1_2 LAN3_4	Ethernet RJ45
VGA1	VGA Display Connector on Rear
DIMM1	SODIMM Socket
SATA1	SATA Connectors
mSATA1	mSATA Socket
USB3_4	USB Pin Header
MINIPCIE1	MINI PCIE Socket
SATA_PWR1 SATA_PWR2	Driver Power Connetor
DC_CN1	ATX 4Pin Power Connector 12V
DC_JACK1	DC JACK 12V Input
SYSFAN1 SYSFAN2	4Pin Connector for Fan
KBMS1	PS/2 Connector
LPC1	LPC 80 Port Connector
GPIO1	GPIO Connector
PWR_BTN1	Power Button Signal Connector
SMB_CN1	SMBus connector
SYS_RST1	System Reset
SATA_PWR_ LED1	Pin Header for SATA LED/Power LED

JCMOS1	
Pins	**Function**
1-2	Normal status
2-3	Clear CMOS
Default setting:1-2 Jumper Short	

Jumpers and Connectors (Cont.)



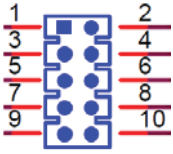
BPLED1_2, BPLED2_3	
Pins	**Function**
1-2	Enable RJ45 LAN Bypass LED (Remove Jumper Disable LED)
2-3	Cable Linking for Additional LAN Bypass LED
Default setting:1-2 Jumper Short	



PSON1	
Pins	**Function**
1-2	AT MODE
2-3	ATX MODE
Default setting:2-3 Jumper Short	



GPIO	
Pin Number	**Pin Name**
1	GPIO0
2	GPIO0
3	GPIO1
4	GPIO5
5	GPIO2
6	GPIO6
7	GPIO3
8	GPIO7
9	VCC
10	GND

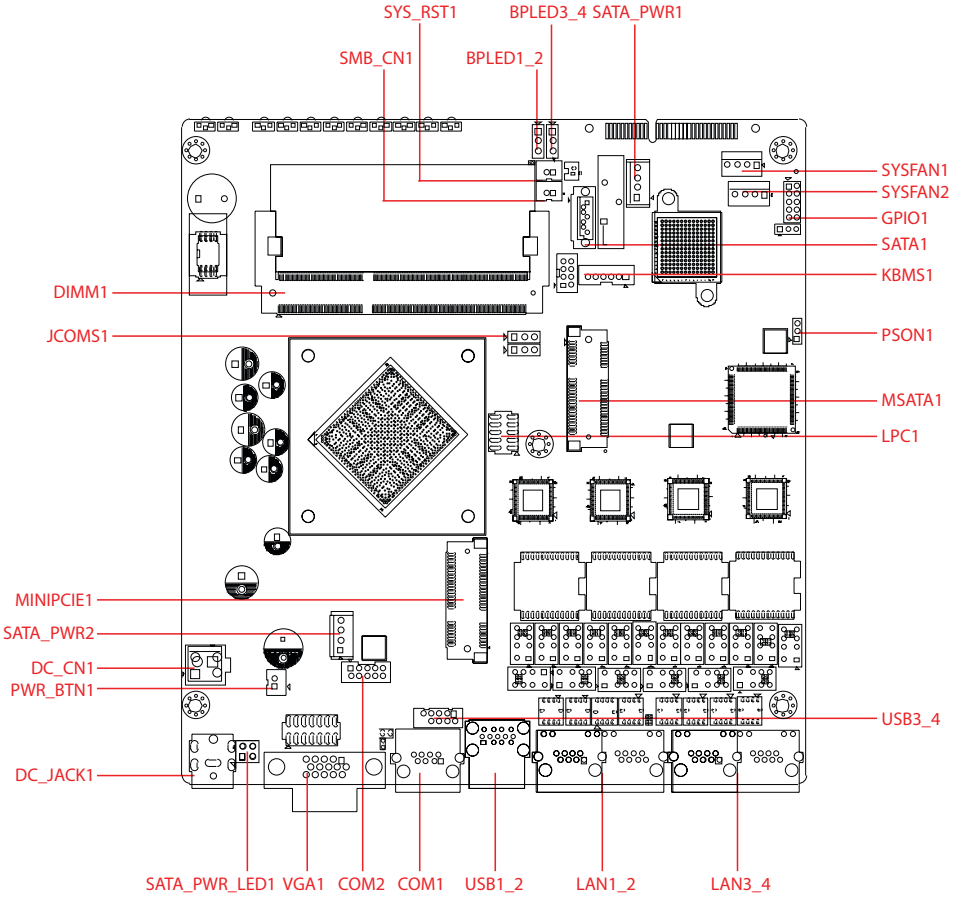


Software Installations

Software List:

- Windows 7 Ultimate English
- Linux Red Hat 6.1/CentOS 6.5

Board Placement



Safety Instructions

1. Read these safety instructions carefully.
2. Keep this user manual for later reference.
3. Disconnect this equipment from AC outlet before cleaning. Do not use liquid or spray detergents for cleaning.
4. For pluggable equipment, the power outlet shall be installed near the equipment and shall be easily accessible.
5. Keep this equipment away from humidity.
6. Put this equipment on a reliable surface during installation. Dropping it or letting it fall could cause damage.

7. Do not leave this equipment in an environment unconditioned where the storage temperature under 0° C (32° F) or above 40° C (104° F), it may damage the equipment.
8. The openings on the enclosure are for air convection hence protects the equipment from overheating. DO NOT COVER THE OPENINGS.
9. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
10. Place the power cord such a way that people can not step on it. Do not place anything over the power cord. The voltage and current rating of the cord should be greater than the voltage and current rating marked on the product.
11. All cautions and warnings on the equipment should be noted.
12. If the equipment is not used for long time, disconnect it from the power source to avoid being damaged by transient overvoltage.
13. Never pour any liquid into ventilation openings. This could cause fire or electrical shock.
14. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.\
15. If any of the following situations arises, get the equipment checked by service personnel:
    a. The power cord or plug is damaged.
    b. Liquid has penetrated into the equipment.
    c. The equipment has been exposed to moisture.
    d. The equipment does not work well or you cannot get it to work according to user manual.
    e. The equipment has been dropped and damaged.
    f. The equipment has obvious signs of breakage.
16. CAUTION: The computer is provided with a battery-powered real-time clock circuit. There is a danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type recommended by the manufacture. Discard used batteries according to the manufacturer's instructions.
17. THE COMPUTER IS PROVIDED WITH CD DRIVES THAT COMPLY WITH APPROPRIATE SAFETY STANDARDS, INCLUDING IEC 60825.



18. This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
19. CAUTION: 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.
20. CAUTION: Always ground yourself to remove any static charge before touching the motherboard, backplane, or add-on cards. 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 on a static-dissipative surface or in a static-shielded bag when they are not in the chassis.
21. CAUTION: Any unverified component could cause unexpected damage. To ensure the correct installation, please always use the components (ex. screws) provided with the accessory box.



22. Caution text concerning lithium batteries:
23. "Rack Mount Instructions - The following or similar rack-mount instructions are included with the installation instructions:
    A) Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.
    B) Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.
    C) Mechanical Loading - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
    D) Circuit Overloading - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
    E) Reliable Earthing-Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips)."