FWA-300 User manual

Tabletop Internet security platform with VIA C7 processor based and 4 GbE Front LAN Ports

Advantech Internet Security Platform

CE Notification

The FWA-300, developed by Advantech Co., Ltd., has passed the CE test for environment specifications when shielded cables are used for external wiring. We recommend the use of shielded cables. 1st Edition Printed in Taiwan June 2007

Product warranty

Advantech warrants to you, the original purchaser, that each of its products will be free from defects in materials and workmanship for two year from the date of purchase.

This warranty does not apply to any products which have been repaired or altered by persons other than repair personnel authorized by Advantech, or which have been subject to misuse, abuse, accident or improper installation. Advantech assumes no liability under the terms of this warranty as a consequence of such events.

Because of Advantech's high quality-control standards and rigorous testing, most of our customers never need to use our repair service. If an Advantech product is defective, it will be repaired or replaced at no charge during the warranty period. For out-of-warranty repairs, you will be billed according to the cost of replacement materials, service time and freight. Please consult your dealer for more details. If you think you have a defective product, follow these steps:

1   Collect all the information about the problem encountered. For example, CPU speed, Advantech products used, other hardware and software used, etc. Note anything abnormal and list any on-screen messages you get when the problem occurs.
2   Call your dealer and describe the problem. Please have your manual, product, and any helpful information readily available.
3   If your product is diagnosed as defective, obtain an RMA (return merchandise authorization) number from your dealer. This allows us to process your return more quickly.
4   Carefully pack the defective product, a fully-completed Repair and Replacement Order Card and a photocopy proof of purchase date (such as your sales receipt) in a shippable container. A product returned without proof of the purchase date is not eligible for warranty service.
5   Write the RMA number visibly on the outside of the package and ship it prepaid to your dealer.

Packing List

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

> One FWA-300 Internet Security Platform
> One box of accessories
> One warranty certificate
> If any of these items are missing or damaged, contact your distributor or sales representative immediately.

Technical Support and Sales Assistance

If you have any technical questions about the FWA-300 or any other Advantech products, please visit our support website at:
> **http://www.advantech.com.tw/support**
> **http://www.advantech.com**.

For more information about Advantech's products and sales information, please visit:

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General Information

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1.1 Introduction

The FWA-300 is a compact and power efficient tabletop Internet Security Platform designed for entry-level SMB/SOHO/Home offices security applications. The platform is driven by the power saving VIA C7 CPU, combined with VIA CX700 chipset, making it the ideal alternative for an economical entry level security solution. The VIA C7™ processor has built-in PadLock™ Security Engine which acts as a fast and reliable hardware security accelerator without the added cost of an extra add-on card. With the Marvell 8001 Ethernet controllers, the FWA-300 provides four Gigabit Ethernet (GbE) LAN ports for robust connectivity.

The FWA-300 supports optional IDE, which effectively enhances the implementation of many internet security applications such as IDS/IPS, anti-virus, and VPN Gateways. A CompactFlash slot is available for OS and application updates, which can be easily accessed and replaced through an easy removable cover on the back. Plus there are LED indicators on the front panel to display platform status and a 9-pin RS-232 serial port for local system management, maintenance and diagnostics. The FWA-300 is FCC, CE, UL and RoHS compliant.

For more information on VIA PadLock™ Security Engine, please visit http://www.via.com.tw/en/initiatives/padlock/index.jsp

1.2 Features

Tabletop Internet security platform
VIAl® C7 1GHz CPU processor
Four 10/100/1000 Gigabit Ethernet ports
Console port for local setting
Hard drive mounting bracket for 2.5″ drive
VIA PadLock™ Security Engine for hardware crypto acceleration

1.3 Specifications

- **Processor System:**
  CPU: VIA C7 1.0GHz processor
  Max. Speed: 533/400 MHz FSB
  L2 Cache: 2MB or 1MB
  Chipset: VIA CX700
  BIOS: Award 4 Mb Flash
Memory: Support DDR2 533/400, Max. Capacity 1 GB, Socket 200-pin SOD DIMM x 1
Ethernet: 4 10/100/1000 Gigabit Ethernet, RJ-45 x 4
Drive Bay: 2.5″HDD x1
Management: Console RS-232 x1
Cooling: Fan (15 CFM) x2
Miscellaneous: Power Switch, 2 LED indicators for Power/HDD, 12 LED
    indicators for LAN ports, CompactFlash Socket x1
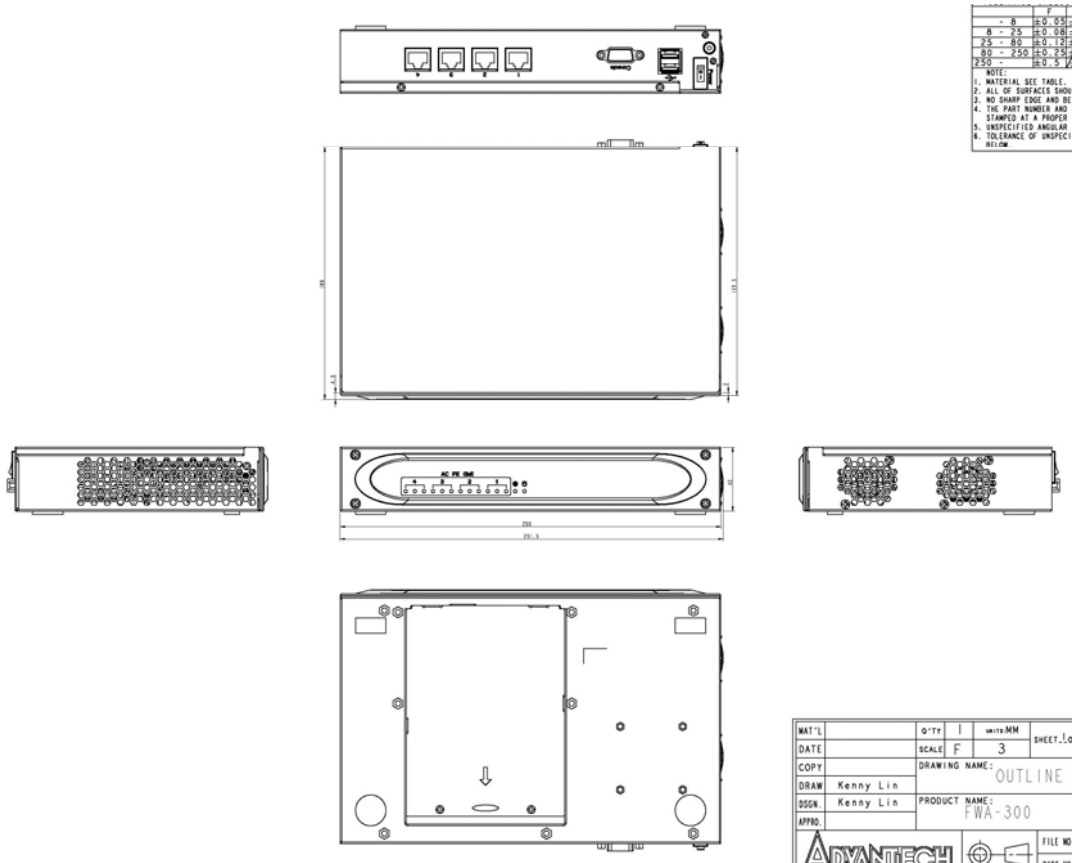

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- **Adapter Power Requirement:** Input: Power adapter, AC 90 ~ 264 V @ 47 ~ 63 Hz, full range

  Output: 65W

- **Operating Environment:** Operating: Temperature 0 ~ 40 °C (32 ~ 104 °F), Humidity 5 ~ 85 %

  Non-Operating: Temperature -20 ~ 75 °C (-4 ~ 167 °F), Humidity 5 ~ 95 %
    Dimensions (W x H x D):Tabletop: 250 x 44 x 170.5 mm (9.8" x 1.7" x 6.7")
    Weight: 1.2 Kg (8.8 lb)

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1.4 Dimensions

1.5 Model List

FWA-300: Tabletop Internet security platform, with VIA C7 processor and four 10/100 GbE Ethernet ports supporting

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System Setup

Setting up your FW-300 requires only a screwdriver and a small amount of time. Before you begin, you should also gather together all of the device you plan to install, as well as the CPU, RAM, HDD, and etc. The front panel of FWA-300 includes two LEDs where one is power LED and another is HDD LED, 12 LEDs for LAN indicators. On the rear panel, two USB ports, four Ethernet ports, RS-232 console port, there is a power switch located on the top left hand corner.

Figure 2-1: Front view of FWA-300

2.1 Removing the cover

There are screws which secure the cover to the chassis. They are along the rear sides, near the top. Remove them, and then slide the cover to the rear of the chassis.

Figure 2-2: Remove top cover

Figure 2-3: Inside of FWA-300

2.2 Installing CPU heat-sink

1   Apply the thermal tape to provide better heat conduction between your CPU and cooling fan. Position the cooling fan on top of the CPU. Use screw driver to fix the heat-sink sequence.
2   Make sure the CPU fan power connector is plugged to the motherboard fan power connector, than installing CPU is completed.
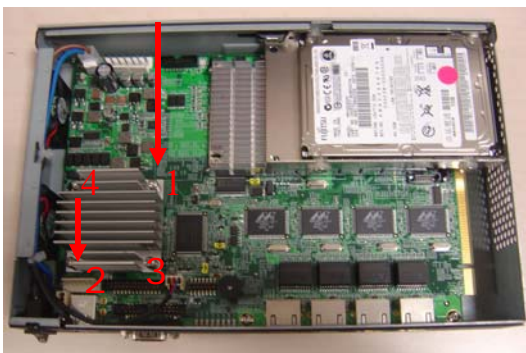

Figure 2-4: Install CPU

2.3 Installing Memory Module

1   Unlock a DIMM socket by. Align the notch of the DIMM memory module to match on the socket and insert the DIMM into the socket until the DIMM is properly seated.
2   Press the DIMM inward to lock the DIMM memory module. Installing memory module is completed.

Figure 2-5: Install RAM module

2.4 Installing Hard Disk Drive

1   Unscrew each side of the HDD supporting frame on the chassis and pull it out.
2   Put the HDD above the HDD supporting frame and position the screws accordingly.
3   Screw each side of the HDD supporting frame to fix on the chassis.
4   Connect the IDE cable included in the accessory box to the connector on the HDD. And set the HDD to slave mode via a jumper, Connect IDE cable to the MB. Installing Hard Disk Drive is completed.
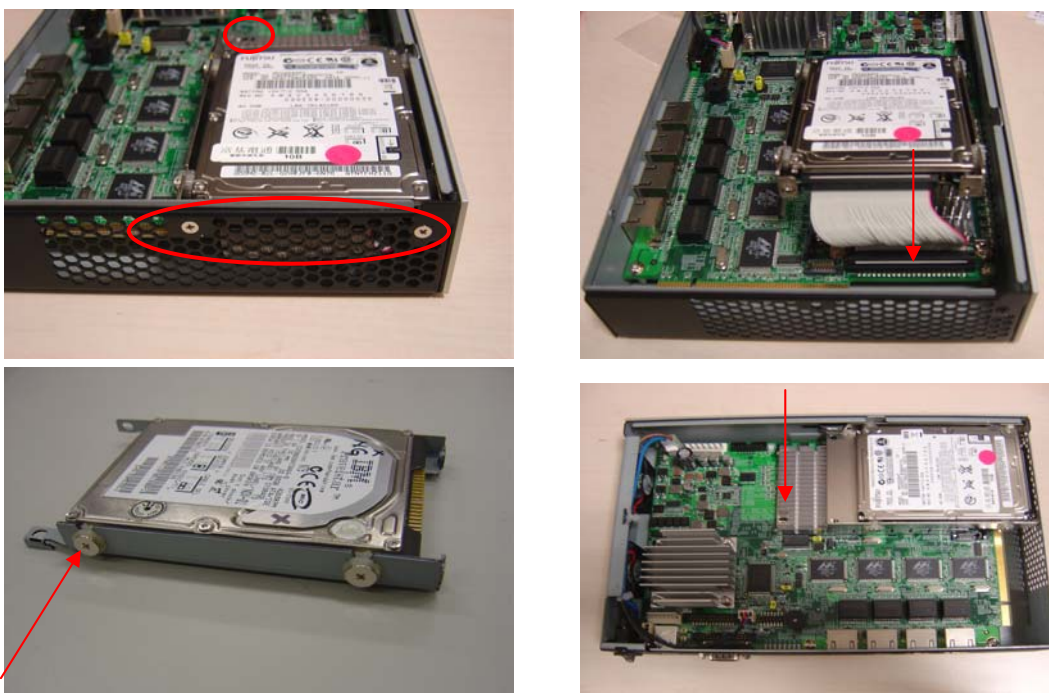

Figure 2-6: Install HDD

2.5 Installing Compact Flash

1   Position a CompactFlash disk accordingly in the CompactFlash disk socket and push it inward. Installing CompactFlash disk is completed.

Figure 2-7: Install CF card

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Pin Assignments

APPENDIX
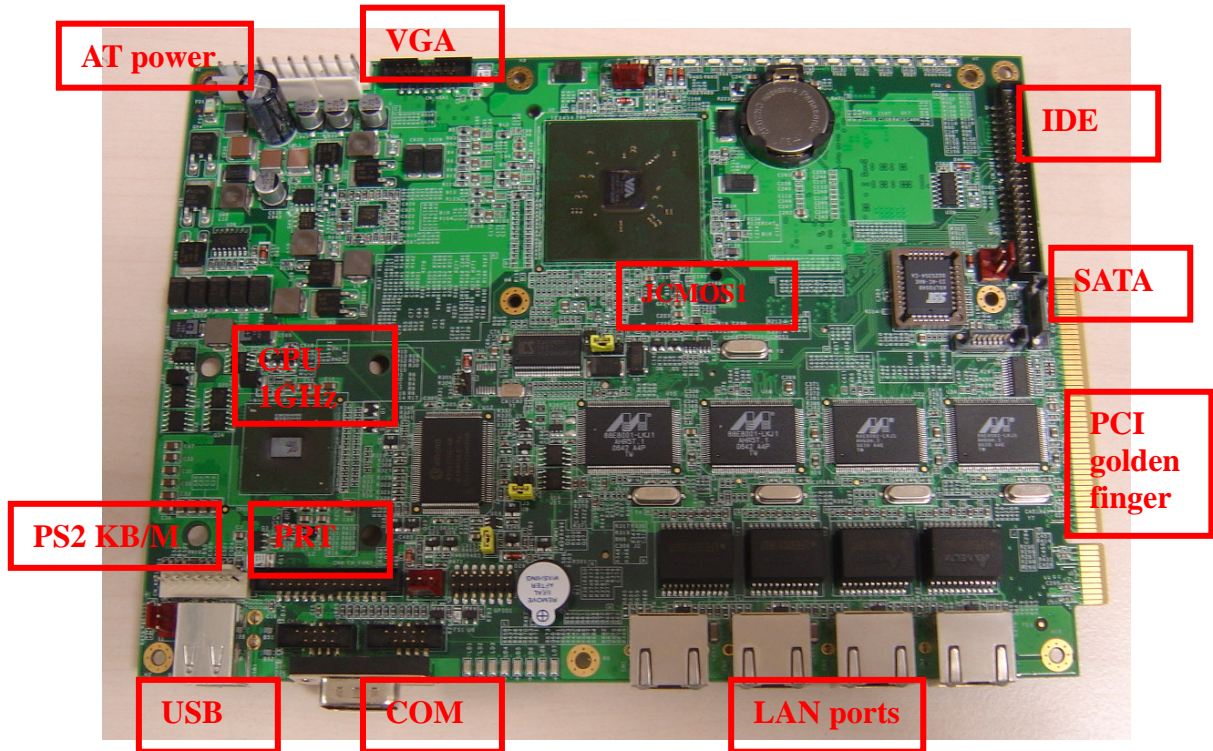
A.1 NAME-300 Mother Board

Jumper setting of FWA-300:

No.	Jumper Name	Description	Default Setting
1	J1	System Reset	Off
2	J3	ATX Power On	On
3	J4	HDD Active LED (Only for FWA-3300)	On for FWA-3300
4	JCMOS1	CMOS Clear Jumper	Connect Pin 1 and Pin 2 (Connect Pin 2 and Pin 3 to clear CMOS)
5	JP_HWM1	Internal Buzzer	On

No.	Connector	Description
6	CN_KBMS1	PS2 KB/Mouse connector
7	CN_COM1	D-SUB COM port connector
8	CN1 ~ CN4	Gigabit Ethernet connector
9	CN7	USB PIN header (3,4)
10	USB1	USB connector (1,2)
11	CN_COM2	COM2 PIN header
12	CN8	Printer port PIN header
13	GPIO1	General purpose Input/Output PIN
14	CN5 ~ CN6	SATA connector
15	CN_IDE1	44PIN IDE PIN header for 2.5" HDD
16	CN_VGA1	VGA 15P PIN header
17	CN10	DC IN Power adapter connector

Jumper & connector, location notice of item no.: