

User Manual

FWA-3305XXX

Advantech Network Security
Platform

ADVANTECH

Enabling an Intelligent Planet

Copyright

The documentation and the software included with this product are copyrighted 2011 by Advantech Co., Ltd. All rights are reserved. Advantech Co., Ltd. reserves the right to make improvements in the products described in this manual at any time without notice. No part of this manual may be reproduced, copied, translated or transmitted in any form or by any means without the prior written permission of Advantech Co., Ltd. Information provided in this manual is intended to be accurate and reliable. However, Advantech Co., Ltd. assumes no responsibility for its use, nor for any infringements of the rights of third parties, which may result from its use.

Acknowledgements

Award is the trademark of Award Software International, Inc.

VIA is the trademark of VIA Technologies, Inc.

IBM, PC/AT, PS/2 and VGA are trademarks of International Business Machines Corporation.

Intel and Pentium are trademarks of Intel Corporation.

Microsoft Windows is the registered trademark of Microsoft Corp.

RTL is the trademark of Realtek Semi-Conductor Co., Ltd.

ESS is the trademark of ESS Technology, Inc.

UMC is the trademark of United Microelectronics Corporation.

SMIp is the trademark of Silicon Motion, Inc.

Creativep is the trademark of Creative Technology LTD.

CHRONTEL is the trademark of Chrontel Inc.

All other product names or trademarks are properties of their respective owners.

For detailed information about this product and other products of Advantech, please visit our websites:

<http://www.advantech.com/>

<http://www.advantech.com/ePlatform/>

For other support and services, please visit our technical support website:

<http://support.advantech.com>

Product Warranty (2 years)

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

Declaration of Conformity

FCC Class A

Note: 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.

Technical Support and Assistance

1. Visit the Advantech website at <http://support.advantech.com> where you can find the latest information about the product.
2. Contact your distributor, sales representative, or Advantech's customer service center for technical support if you need additional assistance. Please have the following information ready before you call:
 - Product name and serial number
 - Description of your peripheral attachments
 - Description of your software (operating system, version, application software, etc.)
 - A complete description of the problem
 - The exact wording of any error messages

Warnings, Cautions and Notes

Warning! *Warnings indicate conditions, which if not observed, can cause personal injury!*



Caution! *Cautions are included to help you avoid damaging hardware or losing data. e.g.*



There is a danger of a new battery exploding if it is incorrectly installed. Do not attempt to recharge, force open, or heat the battery. Replace the battery only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

Note! *Notes provide optional additional information.*



Packing List

Before setting up the system, check that the items listed below are included and in good condition. If any item does not accord with the table, please contact your dealer immediately.

- 1 x FWA-3305XXX Internet Security Platform
- 1 x Accessory Box
- 1 x Warranty Card

Ordering Information

Model Name	Processor	LAN	Power
FWA-3305-00A1E	D510	6	100 W
FWA-3305-01A1E	D410	6	100 W

Packing List

Part No.	Description
1700000298	VGA interface cable (for installing system)
1700018155	PS/2 keyboard/mouse cable 20 cm
1700002463	Console cable RJ45/D-sub9 220 cm
1700009572	SATA data line 20 cm

Options

Part No.	Description
1700009652	3P 180 cm, Chinese standard
1702002600	3P 180 cm, American standard
1702002605	3P 180 cm, European standard
1702031801	3P 180 cm, English standard
1700000237	3P 180 cm, Japanese standard

Safety Instructions

1. Read these safety instructions carefully.
2. Keep this User Manual for later reference.
3. Disconnect this equipment from any AC outlet before cleaning. Use a damp cloth. Do not use liquid or spray detergents for cleaning.
4. For plug-in equipment, the power outlet socket must be located near the equipment and must 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 may cause damage.
7. The openings on the enclosure are for air convection. Protect the equipment from overheating. **DO NOT COVER THE OPENINGS.**
8. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
9. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
10. All cautions and warnings on the equipment should be noted.
11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient overvoltage.
12. Never pour any liquid into an opening. This may cause fire or electrical shock.
13. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
14. If one of the following situations arises, get the equipment checked by service personnel:
 - The power cord or plug is damaged.
 - Liquid has penetrated into the equipment.
 - The equipment has been exposed to moisture.
 - The equipment does not work well, or you cannot get it to work according to the user's manual.
 - The equipment has been dropped and damaged.
 - The equipment has obvious signs of breakage.
15. **DO NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT WHERE THE STORAGE TEMPERATURE MAY GO BELOW -20° C (-4° F) OR ABOVE 60° C (140° F). THIS COULD DAMAGE THE EQUIPMENT. THE EQUIPMENT SHOULD BE IN A CONTROLLED ENVIRONMENT.**
16. **CAUTION: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER, DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.**

The sound pressure level at the operator's position according to IEC 704-1:1982 is no more than 70 dB (A).

DISCLAIMER: This set of instructions is given according to IEC 704-1. Advantech disclaims all responsibility for the accuracy of any statements contained herein.

Contents

Chapter 1	Overview	1
1.1	Introduction	2
1.2	Hardware Specification	2
1.3	Mechanical Specifications	3
	1.3.1 Dimensions	3
	1.3.2 Weight	3
1.4	Power Specifications	3
	1.4.1 System Power Supply	3
	1.4.2 RTC Power Supply	3
1.5	Environment Specifications	4
	1.5.1 Operating Temperature	4
	1.5.2 Relative Humidity	4
	1.5.3 Storage Temperature	4
	1.5.4 Vibration during the System Operation	4
	1.5.5 Safety	4
	1.5.6 EMC	4

Chapter 1

Overview

This chapter introduces the basic information of FWA-3305.

1.1 Introduction

FWA-3305 is a 1U rackmount internet security platform of Advantech, with rich functions, convenient internal design, highly integrated mainboard and LCM control module. It uses the latest Atom D510/D410 processor and ICH8M southbridge, supporting 2 single channel 667/800 MHz memory up to 4 G. 3.5" HDD and CF card can both be used as storage devices or network security application devices. It supports up to 6 Giga network interfaces, and 4 optional Giga LANs or Mini PCIe. There are 2 USB 2.0 interfaces, 1 RJ45 super terminal and LCM control module in the front panel used for system application installation.

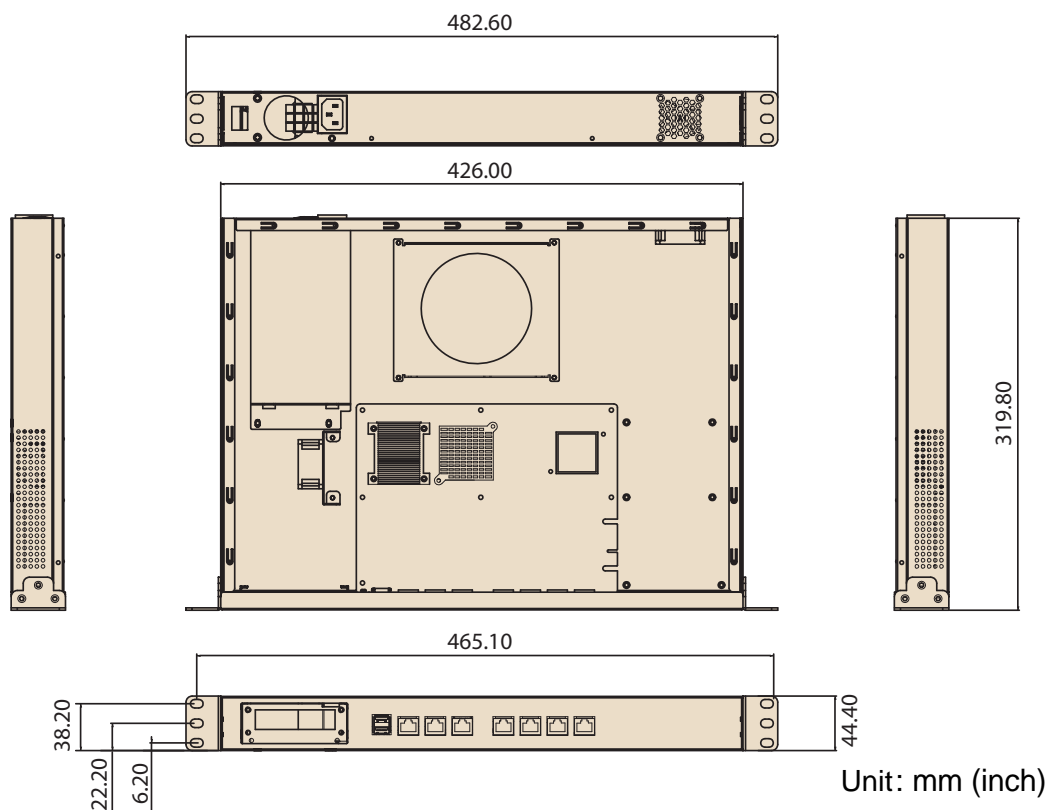
This product has passed CE, FCC, UL, CCC and RoHS certificates.

1.2 Hardware Specification

Processor	CPU (45 nm)	Intel Atom D510	Intel Atom D410	Intel Atom D410
	Max speed	1.66 GHz (Dual core)	1.66 GHz (Single core)	1.66 GHz (Single core)
	L2 Cache	1 M	512 KB	512 KB
	Chipset	ICH8M		
	BIOS	AMI 16 Mbit SPI		
Memory	Technology	Single-channel DDR2 667/800 SODIMM		
	Capacity	Up to 4 G		
Expansion	PCI Express (PCIe)	1 proprietary internal PCIe x1 connector for LAN expansion board (optional)		
	Mini PCIe	Optional		
	PCI	PCI 32-bit/33 MHz PCI Slot		
Network	Management Port	1 x 82567V GbE, 1 x 82583V GbE		
	Gigabit Ethernet	4 x 10/100/1000 Mbps PCIe GbE ports		
		4 x Intel 82583V		
	LAN Bypass	2 segment on GbE ports		
Storage	SATA	SATA connector x 3 on separate SATA channels Max. data transfer rate 300 MB/s Support 3.5" SATA HDD x 1		
	Compact Flash Socket	1 CF socket on IDE 0 (Primary/Master)		
Peripherals	USB	2 (USB 2.0)		
	Serial	1 (RS-232)		
	LCD Module	1		
	K/B, Mouse, LPT, CRT, COM	Pin Headers		

1.3 Mechanical Specifications

1.3.1 Dimensions



1.3.2 Weight

4.5 kg (9.9 lb)

1.4 Power Specifications

1.4.1 System Power Supply

Power SupplyWatt100 W/150 W

Input 90 ~ 240 V_{AC}, auto range

1.4.2 RTC Power Supply

3 V/220 mA CR2032

1.5 Environment Specifications

1.5.1 Operating Temperature

0 ~ 40° C (32 ~ 104° F)

1.5.2 Relative Humidity

5% ~ 85% @ 40° C (Non-condensing)

1.5.3 Storage Temperature

-20 ~ 70° C (-40 ~ 185° F)

1.5.4 Vibration during the System Operation

0.5 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 Oct./min, 1 hr/axis

1.5.5 Safety

UL, CCC

1.5.6 EMC

CE, FCC, CCC

ADVANTECH

Enabling an Intelligent Planet

www.advantech.com

Please verify specifications before quoting. This guide is intended for reference purposes only.

All product specifications are subject to change without notice.

No part of this publication may be reproduced in any form or by any means, electronic, photocopying, recording or otherwise, without prior written permission of the publisher.

All brand and product names are trademarks or registered trademarks of their respective companies.

© Advantech Co., Ltd. 2011