IPC-611 Series
4U Rackmount Industrial Chassis
User Manual

Copyright

Advantech Co., Ltd copyrights this documentation and the software included with this product in Nov. 2005. 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, or for any infringements of the rights of third parties, which may result from its use.

Acknowledgments

Intel®, Pentium® and Celeron® are trademarks of Intel Corporation.
IPC-611, PCA-6113P4R-0C1, PCA-6113P7X, PCA-6114P4-C, PCA-6114P7-0D2, PCA-6114P10-B, PCA-6114P12-0B2, PCA-6114-0B1, PCA-6114P12X-A1 are trademarks of Advantech Co., Ltd.
All other product names or trademarks are the properties of their respective owners.

On-line Technical Support

For technical support and service, please visit our support website at:
http://www.advantech.com/support

A Message to the Customer

Advantech customer services

Each and every Advantech 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 Advantech equipment 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 Advantech has come to be known. Your satisfaction is our primary concern. Here is a guide to Advantech'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 this manual first. If you still cannot find the answer, gather all the information or questions that apply to your problem, and with the product close at hand, call your dealer. Our dealers are well trained and ready to give you the support you need to get the most from your Advantech products. In fact, most problems reported are minor and are able to be easily solved over the phone.

In addition, free technical support is available from Advantech engineers every business day. We are always ready to give advice on application requirements or specific information on the installation and operation of any of our products.

iii

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 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.

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:

Step 1.   Collect all the information about the problem encountered. (For example, type of PC, 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.

Step 2.   Call your dealer and describe the problem. Please have your manual, product, and any helpful information readily available.

Step 3.   If your product is diagnosed as defective, obtain an RMA (return material authorization) number from your dealer. This allows us to process your return more quickly.

Step 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.

Step 5.   Write the RMA number visibly on the outside of the package and ship it prepaid to your dealer.

Part No. 2006061100 1st Edition
Printed Nov. 2005

iv   *IPC-611 User Manual*

Contents

v

General Information

Chapter 1 Information
1.1   Introduction

IPC-611 is a 4U height 14-slot rackmount IPC chassis designed as a core building block for mission-critical applications. This rugged, all-steel chassis meets the EIA RS-310C 19" rackmount standard.

IPC-611 comes with shockproof and front accessed driver bay, three 5.25" & one 3.5". This chassis supports a versatile 14-slot full-length passive backplane or an ATX M/B form factor, one front accessible easy maintenance cooling fan which provides abundant cooling. The flexible mechanical design provides PS/2 size single or redundant power supply through a power supply bracket replacement.

A wide range of standard computing peripherals can be integrated with the chassis to meet various application developments under mission-critical environment 24 hours a day, 7 days a week.

1.2   Specifications

Table 1.1: Specifications of IPC-611			
		Front-accessible	Internal
Drive Bay	3.5"	1	
	5.25"	3	
Cooling	Fan	1(85 CFM/each) and front accessible	
	Air Filter	Yes	
Miscellaneous	Front LED Indicator	LED display for power on and HDD activity	
	Rear panel	D-SUB 9-pin and 25-pin openings	
Environment		Operating	Non-Operating
	Temperature	0 ~ 40 ℃ (32 ~ 104 ℉)	-20 ~ 60 ℃ (-4 ~ 140 ℉)
	Humidity	10 ~ 85%	10 ~ 95 %
	Vibration (5-500 Hz)	1 Grms	2 G
	Shock	10 G (With 11 msec duration, 1/2 sine wave)	30G
	Altitude	10,000 ft	40,000 ft
Physical	Dimensions (W x H x D)	482 x 177 x 480 mm (19" x 7" x 18.9")	
	Weight	14 kg (30.8 lb)	
Compliance	Safety	CE compliant, UL/cUL approved	

1.3   Power Supply Options

Table 1.2: Power Supply Options

Model Name	Watt	Input	Output	Mini-load	Safety & MTBF
PS-250ATX-Z (ATX, PFC)	250W	AC 115/230 (Selected)	+5V@ 27A +3.3V@20A +12V@13A -12V@0.8A -5V@0.3A +5Vsb@2A	+5 V @ 0.5 A +3.3 V @ 0.3 A	UL/ CB/ TUV/ CCC 100,000 hours @25℃
PS-300ATX-ZB (ATX, PFC)	300W	AC 100 ~ 240 (Full-range)	+5V@ 30A +3.3V@28A +12V@15A -12V@0.8A -5V@0.3A +5Vsb@2A	+5 V @0.1 A +3.3 V @ 0.3 A	UL/CB/CCC/TUV 100,000 hours @25℃
RPS-300ATX-Z (ATX, PFC)	300W (1+1)	AC 100 ~ 240 (Full-range)	+5Vsb@2A +5V@ 25A +3.3V@18A +12V@16A -12V@0.5A -5V@0.5A +5Vsb@2A	+5Vsb@0.1A +5V@ 3A +3.3V@1A +12V@2A +5Vsb@0.1A	UL/CCC/CB/TUV CE 110,000 hours @25℃

1.4   Passive Backplane Options

Table 1.3: Passive Backplane Options

B/P Model Name	Slot per Segment (ISA/PCI/CPU)	Segment
PCA-6114-0B1	32-bit, 14-slot: 14 ISA	1
PCA-6114P4-C	32-bit, 14-slot: 8 ISA, 4 PCI, 2 PICMG	1
PCA-6114P7-0D1	32-bit, 14-slot: 4 ISA, 6 PCI, 3 PICMG, 1 PCI/ISA	1
PCA-6114P10-B	32-bit, 14-slot: 2 ISA, 10 PCI, 2 PICMG	1
PCA-6114P12-0B1	32-bit, 14-slot: 1 ISA, 11 PCI, 1 PICMG/PCI, 1 PICMG	1
PCA-6114P12X-A1	64-bit, 14-slot: 1 ISA, 11 PCI, 1 PICMG/PCI, 1 PICMG	1
PCA-6113P4R-0C1	32-bit, 13-slot: 7 ISA, 4 PCI, 2 PICMG	1
PCA-6113P7X	64-bit, 13-slot: 4 ISA, 7 PCI, 2 PICMG	1

3

1.5   Dimension Diagram
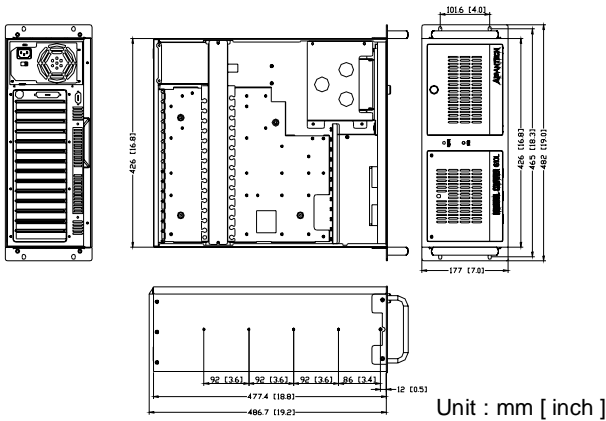

Unit : mm [inch]

Figure 1.1: Dimension diagram of IPC-611

1.6   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 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.**

Caution!   **These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.**

FCC

This device complies with the requirements in 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.

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 device in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense. The user is advised that any equipment changes or modifications not expressly approved by the party responsible for compliance would void the compliance to FCC regulations and therefore, the user's authority to operate the equipment.

6

System Setup

Chapter 2   System Setup

If you want to connect any USB device or PS/2 keyboard to the system, you could use the front accessible USB & PS/2 connectors. The system LED display is on front of door cover and shows system power status, system voltages, and HDD activity. Power switch and system reset are behind the door.

2.1   System Setup of IPC-611

2.1.1 Attaching the handles and removing the top cover

The handles for the front panel are in the accessory box. To install the handles, simply secure them to the front panel with the screws provided. Please remove the chassis cover by releasing two screws which are on the rear of chassis.

2.1.2 Adding and removing disk drives

Undo the four screws of cushion to release disk enclosure from chassis, and then you could move disk enclosure out of chassis to install or remove the necessary 5.25" and 3.5" disk drives.

2.1.3 Chassis front panel sections

Refer Figure 2.1 to find system power LED and HDD LED on front bezel; power switch and system reset which are behind the door.

Figure 2.1: Front panel section

2.1.4 Momentary switch

Use momentary switch and by way of ATX (PS_ON) function to turn on system ATX power supply. Please use system shutdown to turn off system power automatic or press momentary switch for more than 5 seconds to turn off system power.

2.1.5 Replacing cooling fan and filter

Refer Figure 2.2 to find location of system cooling fan and filter. Please replace system cooling fan if it is defective; replace or clearing filter when the dust is too heavy.

Figure 2-2: Cooling fan & filter

9

Exploded Diagrams

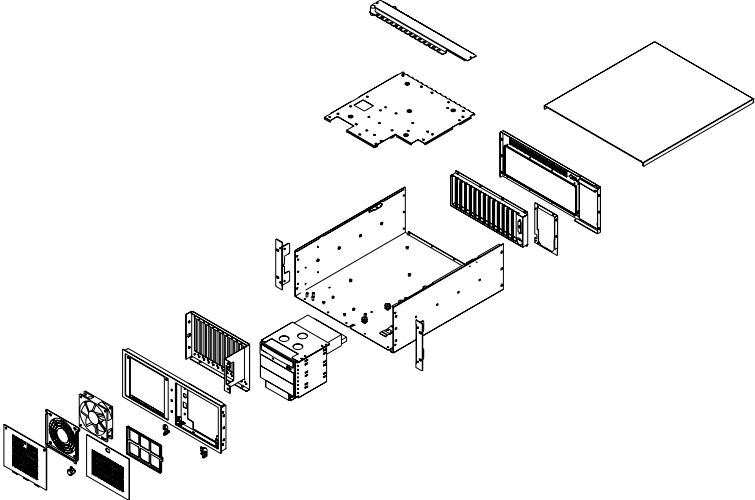# Appendix A Exploded Diagrams

A.1 IPC-611 Exploded Diagram

Figure A.1: exploded diagram

Safety Instructions

Appendix B Safety Instructions

1. Read these safety instructions carefully.
2. Keep these instructions carefully.
3. Keep this installation reference guide for later reference.
4. Follow all instructions.
5. Clean only with a dry cloth.
6. Disconnect this equipment from any AC outlet before cleaning. Do not use liquid or spray detergents for cleaning. Use a damp cloth.
7. For pluggable equipment, the power outlet must be installed near the equipment and must be easily accessible.
8. Keep this equipment away from humidity or water.
9. Put this equipment on a reliable surface during installation. Dropping it or letting it fall could cause damage.
10. The openings on the enclosure are for air convection. Protect the equipment from overheating. DO NOT COVER THE OPENINGS.
11. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
12. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
13. Protect the power cord from being walked on or pinched particularly at plug, convenience receptacles, and the point where they exit from the apparatus.
14. All cautions and warnings on the equipment should be noted.
15. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient over-voltage.
16. Never pour any liquid into an opening. This could cause fire or electrical shock.
17. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
18. 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 or rain.
    d. The equipment does not work well, or you cannot get it to work according to the installation reference guide.
    e. The equipment has been dropped and damaged.
    f. The equipment has obvious signs of breakage.
19. DO NOT LEAVE THIS EQUIPMENT IN AN UNCONTROLLED ENVIRONMENT WHERE THE STORAGE TEMPERATURE IS BELOW -20° C (-4° F) OR ABOVE 60° C (140° F). THIS MAY DAMAGE THE EQUIPMENT.
20. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
21. Do not install near any heat sources such as radiators, heat registers, stoves,

or other apparatus (including amplifiers) that produce heat.

22. Do not defeat the safety purpose of the polarized or ground plug: A polarized plug has two blades with one wider than the other. The wide blade is provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

23. Only use attachments/accessories specified by the manufacturer.

24. Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus, When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

25. Unplug this apparatus during lighting storms or when unused for long periods of time.

26. To Reduce The Risk Of Fire Or Electric Shock, Do Not Expose This Apparatus To Rain Or Moisture.

27. Apparatus shall not be exposed to dripping or splashing and objects filled with liquids, shall not be placed on the apparatus.

28. Only used with the battery which specified by manufacturer.

The sound pressure level at the operator's position according to IEC 704-1:1982 is equal to or less 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.

15

16

Free Manuals Download Website

http://myh66.com

http://usermanuals.us

http://www.somanuals.com

http://www.4manuals.cc

http://www.manual-lib.com

http://www.404manual.com

http://www.luxmanual.com

http://aubethermostatmanual.com

Golf course search by state

http://golfingnear.com

Email search by domain

http://emailbydomain.com

Auto manuals search

http://auto.somanuals.com

TV manuals search

http://tv.somanuals.com