IPC-510

Industrial Chassis

User's Manual

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CHAPTER 1

General Information

Chapter 1 General Information

1.1 Introduction

IPC-510 is a 4U height IPC rackmount chassis which includes 14-slot ISA or ISA/PCI backplane and within 250W ATX PFC PS/2 power supply. It is the best price performance industrial chassis platform for building block and mission-critical applications.

IPC-510 is with shockproof and easy installation front accessed driver bay, three half-height 5.25", one 3.5" FDD, one internal 3.5" HDD and front accessible USB, PS/2 keyboard connector. For the high-density application, IPC-510 supports versatile ISA/PCI backplane, ATX M/B version and 300W ATX PFC power supply by options.

IPC-510 is a rack-optimized IPC chassis and offers the best total cost ownership and scalability for customers who want to growth their business without increasing cost. A wide range of standard computing peripherals can be integrated with the chassis to meet different application development under mission-critical environment 24 hours a day, 7days a week.

1.2 Specification

Table 1.1: Specification

		Front-accessible	Internal
Drive Bay	3.5"	1	1
	5.25"	3	
Cooling	Fan	1(84 CFM/each)	
I/O Interface	USB PS/2	1(front-accessible) 1(front-accessible)	
Miscellaneous	Rear panel Indicator	Two D-SUB 9-pin brackets LED display for power on and HDD activity	
Environment		Operating	Non-Operating
	Temperature	0 ~ 40 ºC (32 ~ 104 ºF)	-20 ~ 60 ºC (-4 ~ 140 ºF)
	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
	Acoustic Noise	Less than 60dB sound pressure at 5~28ºC (41~82ºF)	
Physical	Dimensions (W x H x D)	482 x 177 x 450 mm (19" x 7" x 17.7")	
	Weight	9.8 kg (21.6 lb)	
Compliance	Safety	CE compliant, UL/cUL approved	

1.3 Passive Backplane Options

Table 1.2: 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

1.4 Power Supply Options

Table 1.3: Power Supply Options

Model Name	Watt	Input	Output	Mini-load	Safety & MTBF
PS-250ATX-Z	250W ATX, PFC	95 ~ 132 Vac 190 ~ 264 Vac (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/CSA/TUV /CCC 100,000 hours@25℃ (Full load)
1757930070	300W ATX, PFC	100 ~ 240 Vac (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 @ 0.3A	UL/CSA/TUV 100,000 hours@25℃ (Full load)

1.5 Dimension Diagram

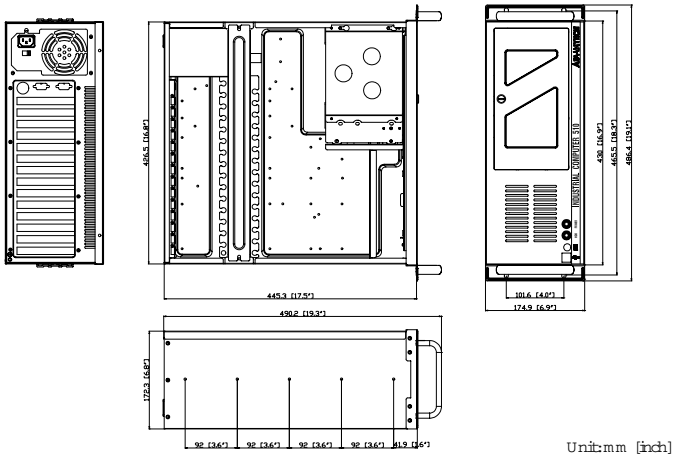


Figure 1-1: Dimension Diagram

CHAPTER 2

System Setup

Chapter 2 System Setup

2.1 Removing the top cover

First, remove the chassis cover by releasing two screws which are on rear of chassis.

2.2 Adding and removing disk drivers

By releasing four screws of disk enclosure, you could move disk enclosure out of chassis and refer figure 2-1 to install or remove the necessary 5.25" and 3.5" disk drivers.

Figure 2-1 Disk Enclosure

2.3 Chassis front panel sections

Refer figure 2-2 to find USB, PS/2 keyboard connector, system power and HDD LED, power switch and system reset location.

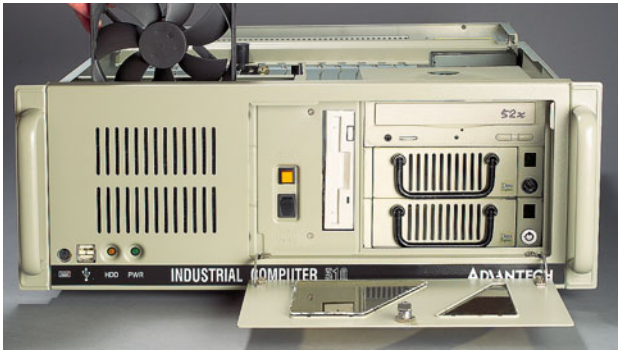


Figure 2-2 Front Panel Section

If you want to connect any USB device or PS/2 keyboard to the system, you could use the front accessible USB & PS/2 connector of IPC-510. The PWR LED is for system power status. The HDD LED is for HDD activity. Power switch and system reset are behind the door.

2.4 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 a while to turn off system power.

2.5 Replacing cooling fan and filter

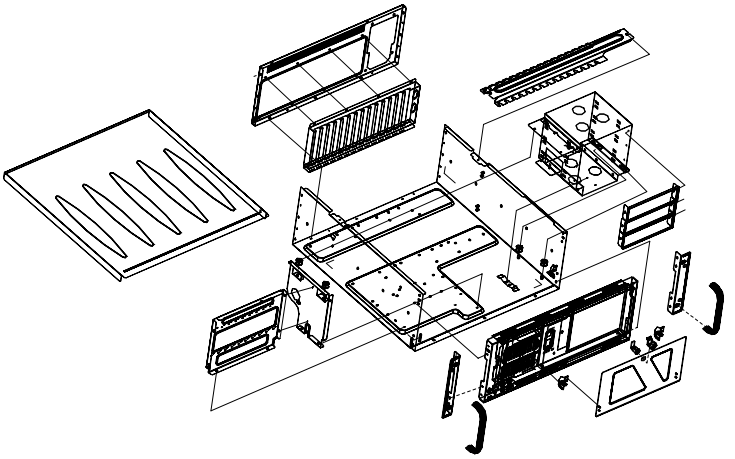
Refer figure 2-3 to find location of system cooling fan and filter. Please replace system cooling fan if it is defective, replace or clear filter when the dust is too heavy.

Figure 2-3 Cooling fan & filter

APPENDIX A

Exploded Diagram

Appendix A Exploded Diagram



APPENDIX B

Safety Instructions

Appendix B Safety Instructions

Safety Instructions

1. Read these safety instructions carefully.

2. Keep this User's Manual for later reference.

3. Disconnect this equipment from any AC outlet before cleaning. Do not use a damp cloth, 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 over voltage.

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:

    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 the user's manual.

e. The equipment has been dropped and damaged.

f. 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.

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

16. Any insulation on conductors inside equipment which connect accessible metal parts or other protectively earthed parts with a protective function to the protective earth terminal shall be identified by the colors green and yellow at lease at the termination of the conductors.

17. 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.

18. The computer is provided with CD drives that that comply with appropriate safety standards including IEC 60825.

19.Before your begin make sure the Green/Yellow wire has a reliable connection between the metal part of the computer and ground connector.