

103-00015-03

Light System Engine

Consumption Applications

Version: 1.0

Quick Installation Guide



ABOUT

The 103-00015-03 is designed for Mini-ITX motherboards. The front panel includes spaces for an I/O interface panel and optional I/O ports. One HDD drive may be installed.

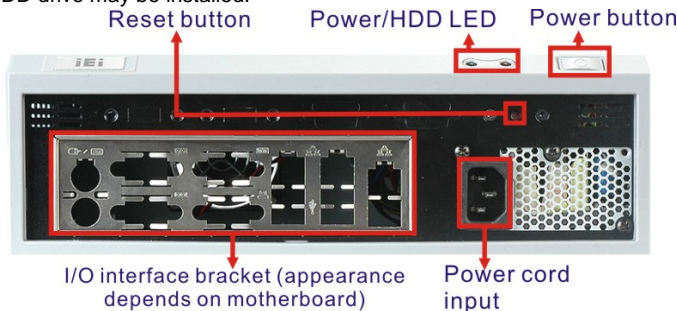


Figure 1: Chassis Front Panel

SPECIFICATIONS

Specifications	103-00015-03
SBC Form Factor	Mini-ITX
Drive Bays	One 3.5" HDD
System Cooling fan	One 6cm fan
I/O Ports	Depends on SBC
Indicators	Power, HDD LED
Buttons	Power, Reset
Chassis construction	Heavy duty metal with plastic front panel
Color	Black
Mounting	Desktop, wall mount
Operating temperature	0°C~40°C (*Operating temperature is determined by system thermal test running with KINO-9654G4,Pentium IV 3.4GHz processor 651 and 2GB DDR2 RAM.)

Operating humidity	10% ~90%
EMC/Safety	CE, FCC class A
Weight (Net/Gross)	2.5Kg / 3.9Kg
Dimensions (DxWxH)	230 mm x 280 mm x 88 mm

Table 1: Specifications

COMPATIBLE SBC/COOLING KIT

Compatible SBC	Recommended cooling kits
KINO-9654G4	CF-520-RS, CF-775B-RS
KINO-9454	CF-520-RS, CF-775B-RS
KINO-9652	CF-479B-RS
KINO-9453	CF-479B-RS
KINO-9452	CF-479B-RS
KINO-690AM2	CF-AM2-RS
KINO-761AM2	CF-AM2-RS

Table 2: Compatible SBC and Cooling Kit

POWER SUPPLY SPECIFICATIONS

The 103-00015-03 embedded chassis is shipped with a power supply. The specifications for each option are listed below.

Specifications	ACE-A627A-RS					
Input Type	90~264 VAC Full Range					
	+3.3 V	+5 V	+12 V	+12 V 2	-12 V	+5 Vsb
Output Voltage	16 A (0.5 A min)	18 A (0.5 A min)	16 A (1 A min)	10 A (1 A min)	0.8 A (0 A min)	2.5 A (0 A min)
Efficiency	80%					
Temperature	Operating : 0°C ~ 50°C Storage : -20°C ~ 80°C					
MTBF(hrs)	100,000 hrs					
Output Connector	20-pin ATX, 4-pin 12 V, FDD and 3 x HDD					
Dimensions	150 x 81.5 x 40.5 (mm)					
Table 3: ACE-A627A-RS Specifications						

Specifications	ACE-A618A-RS				
Input Type	90~264 VAC Full Range				
	+3.3 V	+5 V	+12 V	-12 V	+5 Vsb
Output Voltage	14 A (0.3 A min)	16 A (0.3 A min)	14 A (1.5 A min)	0.5 A (0 A min)	2.0 A (0 A min)
Efficiency	68%				
Temperature	Operating : 0°C ~ 50°C Storage : -20°C ~ 80°C				
MTBF(hrs)	100,000 hrs				
Output Connector	20-pin ATX, 4-pin 12 V, FDD and 3 x HDD				
Dimensions	150 x 81.5 x 40.5 (mm)				
Table 4: ACE-A618A-RS Specifications					

PACKING LIST

- 103-00015-03/ACE-A627A or 103-00015-03/ACE-A618A
- Quick Installation Guide
- Power cord
- SATA cable for slim type ODD
- Screw set
- Wall mount kit

SCREW SET DETAILS

Part/Peripheral	Screw Type
? (4)	
HDD (6)	
SBC (4)	
HDD/ODD bracket (4)	
Wall mount bracket (6)	
Table 5: Screw Set Details	

DIMENSION DRAWING

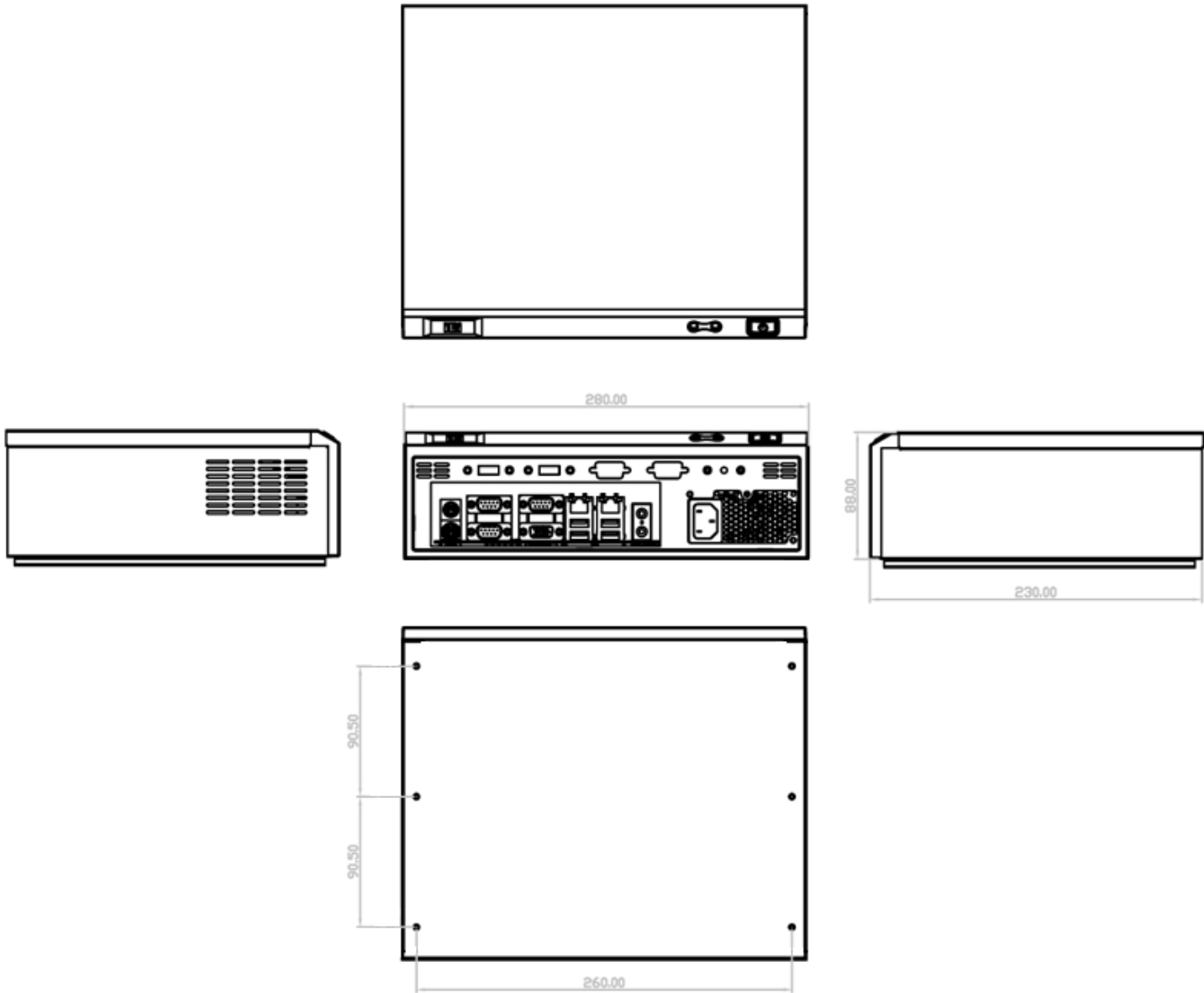


Figure 2: Dimension Drawing (measurement in millimeters)

INSTALLATION STEPS

To install the 103-00015-03 chassis, the following installation steps must be completed:

1. Remove Chassis Cover
2. Install I/O Bracket
3. Install SBC
4. Install HDD
5. Front Panel Connections
6. Reinstall Chassis Cover

The installation steps outlined above are described in detail below. Please refer to the relevant section.

UNPACK

The 103-00015-03 is shipped in a plastic bag that is placed inside a cardboard box. The accessories are also shipped with the chassis. When unpacking the chassis:

- Make sure all the accessories and components mentioned in the PACKING LIST section are present.
- Make sure the chassis has not been damaged in any way

REMOVE CHASSIS COVER AND HDD BRACKET

- Step 1:** Remove the chassis cover retention screw on the rear panel (**Figure 3**).

Chassis cover retention screws



Figure 3: Chassis Cover Retention Screws

- Step 2:** Push the cover back to separate it from the chassis until the cover case can be lifted from the chassis

- Step 3:** Remove HDD bracket. The bracket is attached to the chassis by four retention screws (**Figure 4**). Remove the retention screws.

HDD bracket retention screws



Figure 4: HDD Bracket Retention Screws

INSTALL I/O BRACKET

Note: I/O brackets differ in appearance depending on the SBC model to be installed in the 103-00015-03.

- Step 1:** Snap the I/O bracket into place from the inside of the chassis.



Figure 5: I/O Bracket Installation

INSTALL SINGLE BOARD COMPUTER (SBC)

To install a Single Board Computer (SBC) with cooling kit into the chassis, please follow these steps:

- Step 1:** Mount the SBC on the four metal posts on the bottom of the chassis. Make sure the SBC I/O interface panel is aligned with the I/O bracket.

Motherboard retention screws

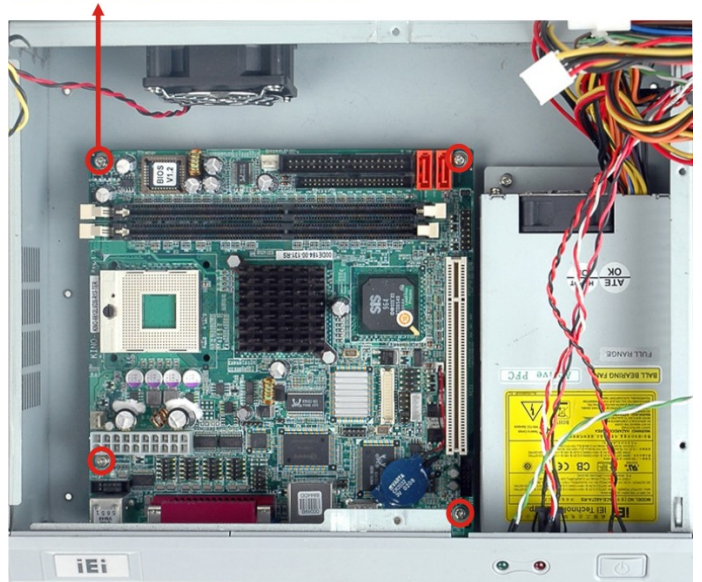


Figure 6: SBC Retention Screws

- Step 2:** Align the retention screw holes on the SBC with the metal post retention screw holes.
- Step 3:** Insert the four retention screws to secure the SBC to the chassis.
- Step 4:** Connect the power supply to the SBC according to the SBC user manual.

INSTALL HDD

To install a 3.5" SATA HDD, please follow the steps below.

- Step 1:** Attach the HDD to the HDD bracket. To do this, slide the HDD into the HDD bracket with the SATA cable and power connects at the rear of the bracket as shown in the figure below.



Figure 7: HDD Bracket (Top)

Step 2: Attach the HDD to the HDD bracket. Align the retention screw holes in the sides of the bracket with the retention screw holes on the HDD. Insert the retention screws into the bracket as seen below.



Figure 8: HDD Retention Screws

Step 3: Attach SATA and power cable to HDD and SBC as shown below according to the SBC user manual.

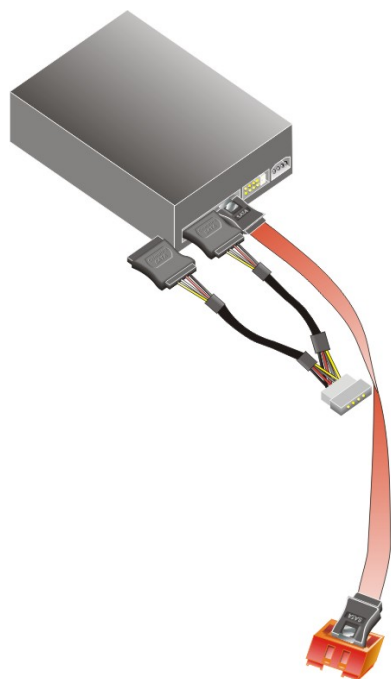


Figure 9: SATA Cables

Step 4: Install the bracket with HDD into the chassis by aligning the bracket retention screw holes in the top of the HDD bracket with the retention screw holes on the chassis. Insert the four previously removed retention screws into the top of the HDD bracket (Figure 10).

HDD bracket retention screws



Figure 10: HDD/ODD Bracket Retention Screws

FRONT PANEL CABLE CONNECTIONS

The following buttons and LEDs are on the front panel of the 103-00015-03 chassis.

- 1 x Power LED
- 1 x HDD LED
- 1 x Power switch
- 1 x Reset button

These components are all connected to the SBC with cables. To correctly connect these cables, please refer to the technical documentation that came with your SBC. The connectors that are provided with the chassis are listed below.





No.	Name
1	 Power LED cable
1	 Reset Switch cable
1	 HDD LED cable
1	 Power switch cable

Table 6: Chassis Connectors

REINSTALL CHASSIS COVER

- Step 1:** Replace chassis cover.
- Step 2:** Reinsert the two retention screws.

103-00015-03 MAINTANENCE

The following 103-00015-03 components may be replaced if they fail:

- Power Supply Replacement
- System Fan Replacement

POWER SUPPLY REPLACEMENT

A power supply is installed in the chassis. To replace the power supply, please follow the instructions below.

- Step 1:** Disconnect the power supply connector cable from the SBC.
- Step 2:** Remove the three power supply retention screws on the front panel of the chassis as indicated below.



Figure 11: Power Supply Retention Screws

- Step 3:** Remove the power supply bracket retention screws that secure the power supply to the bottom of the chassis as shown below.
- Step 4:** Remove the power supply from the chassis and remove the screws securing the bracket to the power supply.

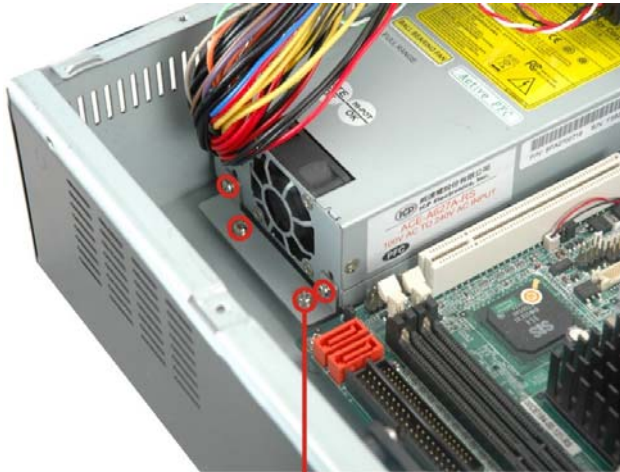


Figure 12: Power Supply Bracket Retention Screws

- Step 5:** Replace the power supply.
- Step 6:** Secure the power supply bracket to the power supply and then secure the power supply bracket to the chassis as shown in **Figure 12**.

- Step 7:** Secure the power supply to the front panel of the chassis with the three screws as indicated in **Figure 11**.
- Step 8:** Connect the power supply to the SBC according to the SBC user manual.

SYSTEM FAN REPLACEMENT

To replace the system fan please follow the steps below.



NOTE:

Please ensure that the power of the computer is switched off before fan replacement procedure.

- Step 1:** Remove the chassis cover.
- Step 2:** Disconnect the system fan cable from the SBC.
- Step 3:** Remove the system fan from the chassis by removing the four retention screws on the back panel (**Figure 13**).



Figure 13: System Fan Retention Screws

- Step 4:** Install the new system fan with the four previously removed retention screws.
- Step 5:** Reconnect the system fan cable connector.