

# **SI-102-424 Series**

## **User Manual**

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V1.0	2015/05/14

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## Safety Information

Your SI-102-424 is designed and tested to meet the latest standards of safety for information technology equipment. However, to ensure your safety, it is important that you read the following safety instructions

### Setting up your system

- Read and follow all instructions in the documentation before you operate your system.
- Do not use this product near water.
- Set up the system on a stable surface. Do not secure the system on any unstable plane.
- Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
- Slots and openings on the chassis are for ventilation. Do not block or cover these openings. Make sure you leave plenty of space around the system for ventilation. ***Never insert objects of any kind into the ventilation openings.***
- This system should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
- Use this product in environments with ambient temperatures between 0°C and 45°C.
- If you use an extension cord, make sure that the total ampere rating of the devices plugged into the extension cord does not exceed its ampere rating.
- DO NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT WHERE THE STORAGE TEMPERATURE MAY GO BELOW -20° C (-4° F) OR ABOVE 80° C (176° F). THIS COULD DAMAGE THE EQUIPMENT. THE EQUIPMENT SHOULD BE IN A CONTROLLED ENVIRONMENT.

## Care during use

- Do not walk on the power cord or allow anything to rest on it.
- Do not spill water or any other liquids on your system.
- When the system is turned off, a small amount of electrical current still flows. Always unplug all power, and network cables from the power outlets before cleaning the system.
- If you encounter the following technical problems with the product, unplug the power cord and contact a qualified service technician or your retailer.
  - The power cord or plug is damaged.
  - Liquid has been spilled into the system.
  - The system does not function properly even if you follow the operating instructions.
  - The system was dropped or the cabinet is damaged.

## Lithium-Ion Battery Warning

**CAUTION:** Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

## NO DISASSEMBLY

The warranty does not apply to the products that have been disassembled by users

## WARNING

### HAZARDOUS MOVING PARTS

**KEEP FINGERS AND OTHER BODY PARTS AWAY**

## Acknowledgments

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## CHAPTER 1 INTRODUCTION

### 1.1 General Description

The “Signature Book™” SI-102-424 is a professional fanless digital signage system powered by the new AMD Embedded new generation G-Series quad-core APU with DASH compliance for remote control, and compact & slim design. It supports 2x HDMI, 1x RJ45 for LAN, 1x RJ45 for RS232, 1x USB2.0 and 2x USB3.0 ports to give a wide selection for data communication in display applications.





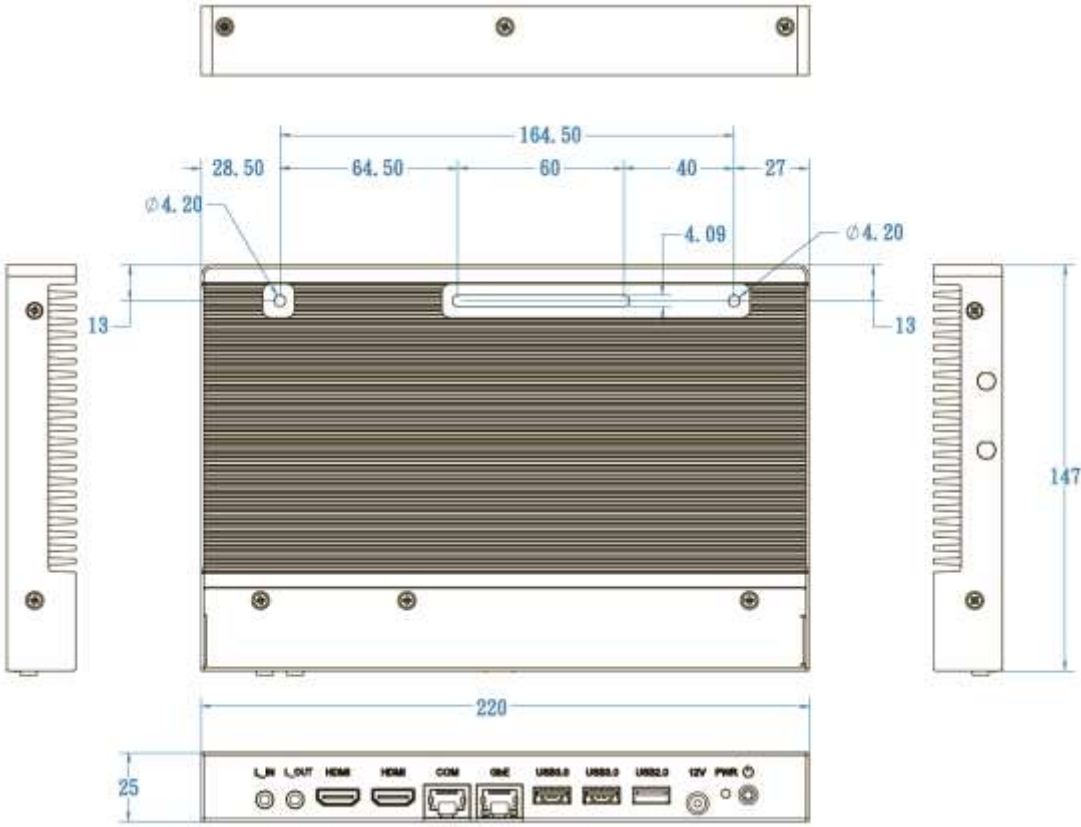
## 1.2 System Specifications

### 1.2.1 Hardware Specifications

Model Name	SI-102-424
System Mainboard	IB923-424
CPU	AMD Embedded G-Series SoC; 4 Cores @ 2.4GHz APU FT3b BGA package
Chipset	SoC Integrated
Memory	1x DDR3 1866 MHz SO-DIMM, Max. 8GB (Non-ECC)
I/O Interface	2x HDMI 1.4a 2x USB 3.0 ports, 1x USB 2.0 port 1x RJ45 for LAN, 1x RJ45 for RS232 2x Microjack audio connectors for Line-in / Line-out Power LED, 1x power on/off button 1x DC jack
Storage	1 x mSATA
Expansion Slots	1x mPCIe(x1) for WiFi + Bluetooth, 3G, and TV tuner options 1x UIM/SIM card slot (for 3G/LTE adapter in mPCIe slot)
Power Supply	+12V DC-in with 60W power adaptor
Construction	Aluminum + SGCC
Chassis Color	Black & White
Mounting	STD system bracket
Dimensions	220mm(W) x 147mm(D) x 25mm(H) 8.66"(W) x 5.79"(D) x 0.98"(H)
Operating Temperature	0°C~ 45°C (32°F~113°F)
Storage Temperature	-20° ~ 80°C (-4°F~176°F)
Relative Humidity	5~90% @45°C (non-condensing)
Vibration	mSATA: 5 Grms/5~500Hz random operation
RoHS	Available
Certification	CE/FCC, VCCI class B, UL & CCC

*·This specification is subject to change without prior notice.*

### 1.2.2 Dimensions

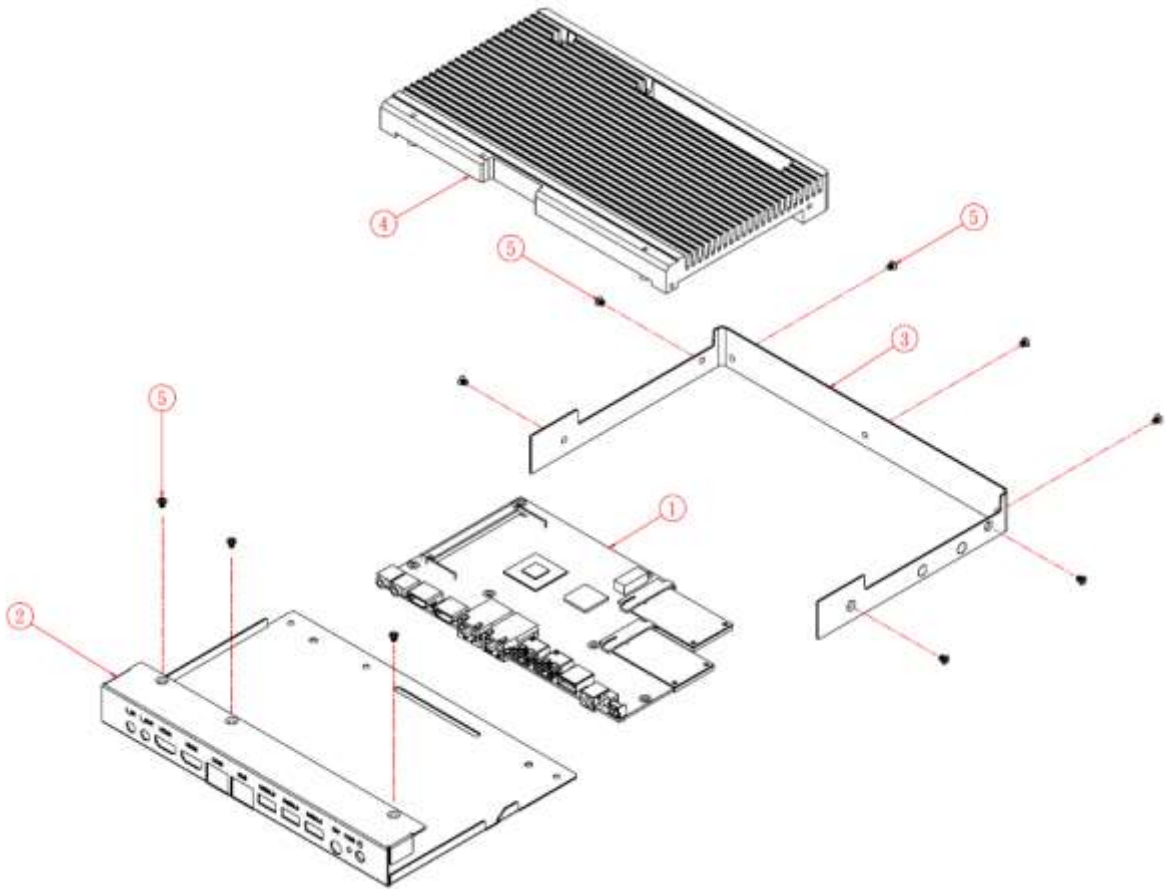


### 1.2.3 I/O View



Item	Connector	Item	Connector
1	Line-in	6	2x USB 3.0
2	Line-out	7	1x USB 2.0
3	2x HDMI 1.4a	8	12V DC jack
4	1x RJ45 for RS232	9	Power LED
5	1x RJ45 for LAN	10	Power on/off button

### 1.3 Exploded View of the SI-102-424 Assembly









#### 1.3.1 Parts Description

Part No.	Description	Part No.	Description
1	IB923-424 motherboard	2	SI-102-424 Base
3	SI-102-424 Cover	4	SI-102-424 heat sink
5	Screw-B30		

#### 1.4 Packing List

Item No.	Description	Qty
1	Driver CD	1
2	Power adaptor	1
3	Power Cord	1

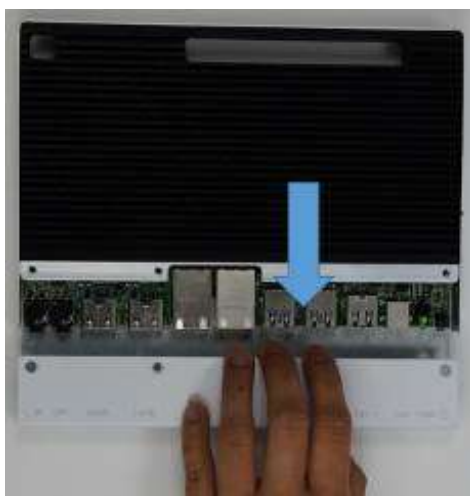
### 1.4.1 Optional Items

WiFi Solution	Description	
QCOM WiFi module	Wireless; PCI-E Mini Card 802.11B/G/N [AW-NE238H] (A008WLAWNE238H000P)	 
External Antenna (2pcs)	WiFi Antenna (A055RFA02C2M20800P)	
Internal cable (2pcs)	Internal Antenna 100mm [BTC130-1-70B-100]RoHS (A055RFA0000021000P)	
Bracket	MPCI-E-EXT V-B2 Bracket RoHS (SC2MPCIEXT0B2100P)	
3G Solution	Description	
ZU 202	Wireless; 3.75G UMTS/HSPA [ZU202] RoHS (A008WIRELESS00520P)	
ZU 200	Wireless; 3.75G UMTS/HSPA & GPS Module [ZU200] RoHS (A008WIRELESS00510P)	
WW-350U	Wireless; 3.75G UMTS/HSPA [NAVISYS WW-350U] RoHS (A008WIRELESS00530P)	
Cable	Cable; Antenna-2 30CM P 2pcs (C501ANT0200300000P)	
Antenna	Antenna; 3G, P, 2pcs (A055ANT0921Q2P000P)	
COM Port Cable	Description	
EXT-481	Cable; EXT-481 2-HD 8C 90CM; RJ45 Jack-8M=>DSU-9M RoHS (C501EXT4810902000P)	
EXT-424	Cable; EXT-424 2-HD 8C 90CM; RJ45 Jack-8M=>DSU-9F RoHS (C501EXT4240902000P)	
EDID Dongle	Description	
H8246JT021-001	EDID Emulator Dongle (HDMI), Adapter; HDMI 19P A/M TO A/F (A025HDMI001010000P)	

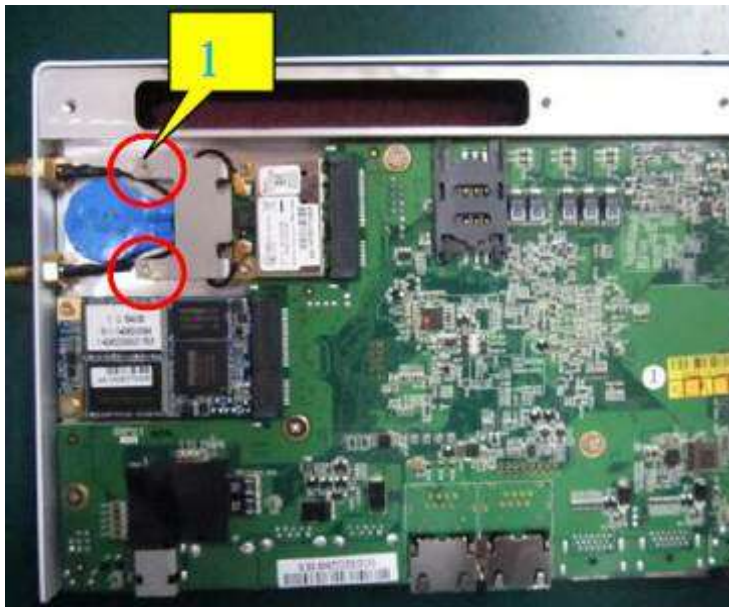
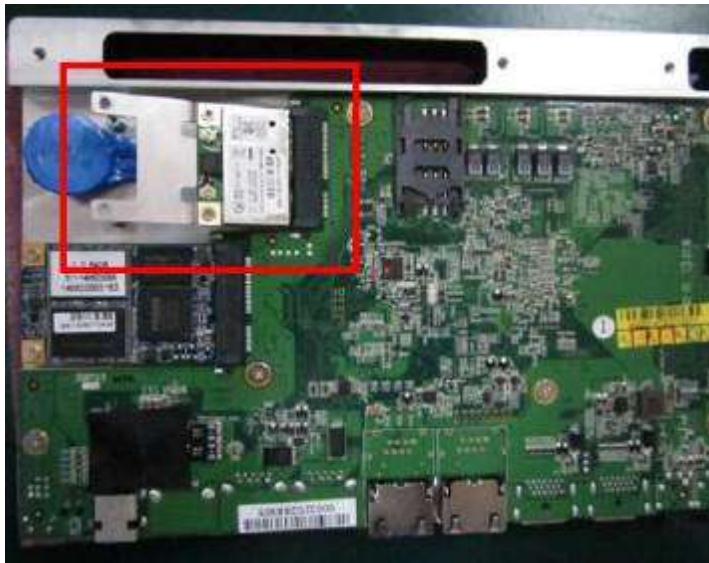
## 1.5 HARDWARE INSTALLATION

### 1.5.1 Installing the optional Wireless Module

1. Remove the six screws on the sides that are used to secure the white cover to the chassis. Once all the screws are removed, from the side, push the cover forward to remove it.



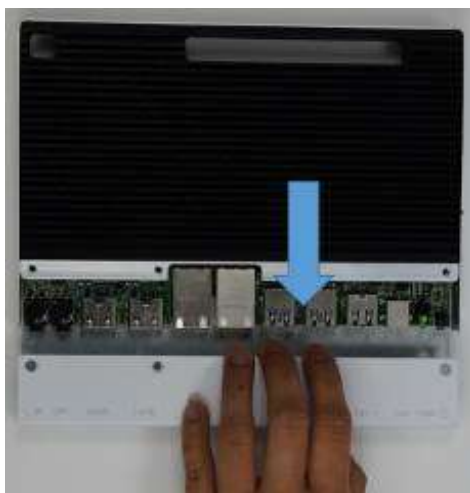
2. Push the WIFI module into the slot. Screw two screws to secure the module in the slot.



*\*\* The picture is only for reference only. Please make the object as the standard.*

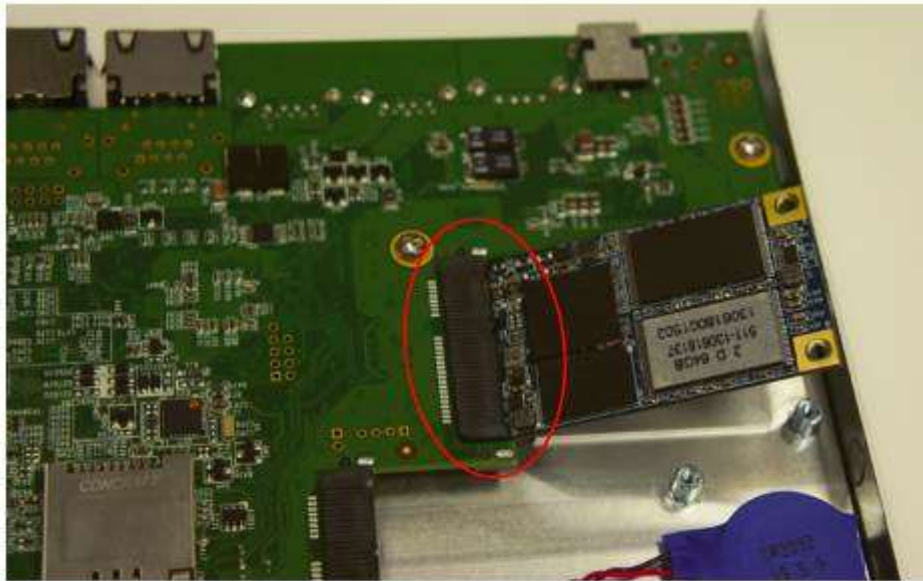
## 1.5.2 Installing the mSATA Module

1. Remove the six screws on the sides that are used to secure the white cover to the chassis. Once all the screws are removed, from the side, push the cover forward to remove it.





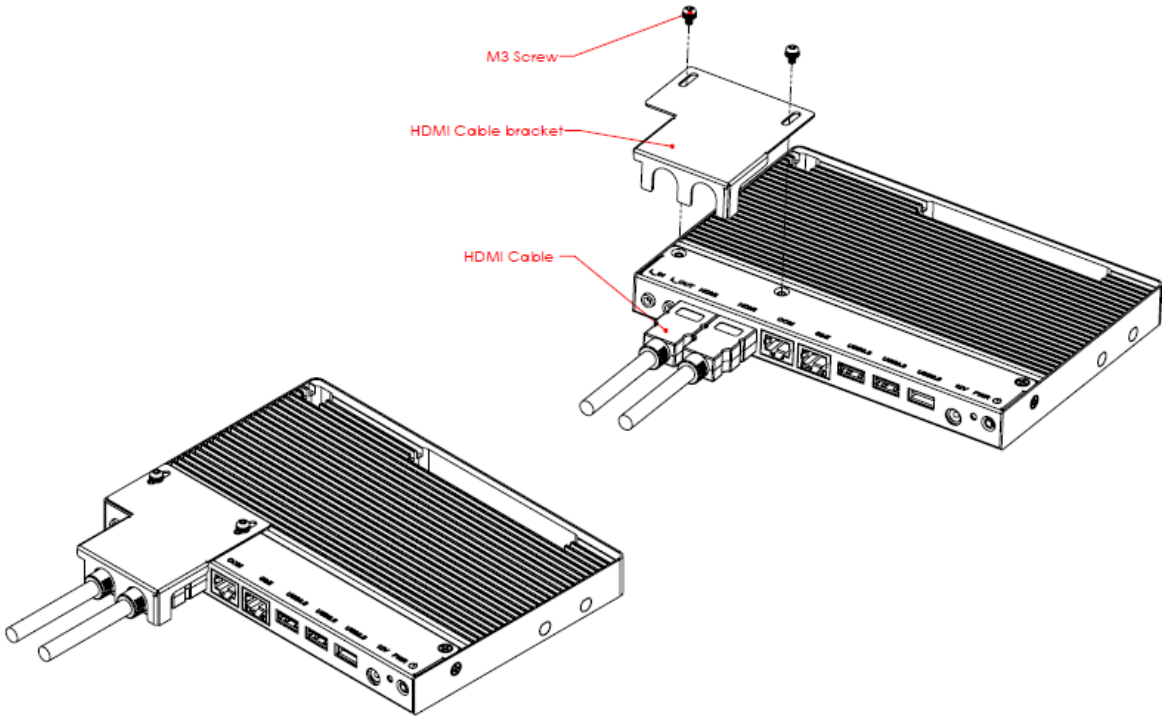
2. Push the mSATA module into the slot. Screw two screws to secure the module in the slot.



*\*\* The picture is only for reference, please make the object as the standard.*

### 1.5.3 Installing the Optional HDMI cable holder

Install the HDMI cable holder and screw two M3 screws as shown.



## CHAPTER 2 MOTHERBOARD INTRODUCTION

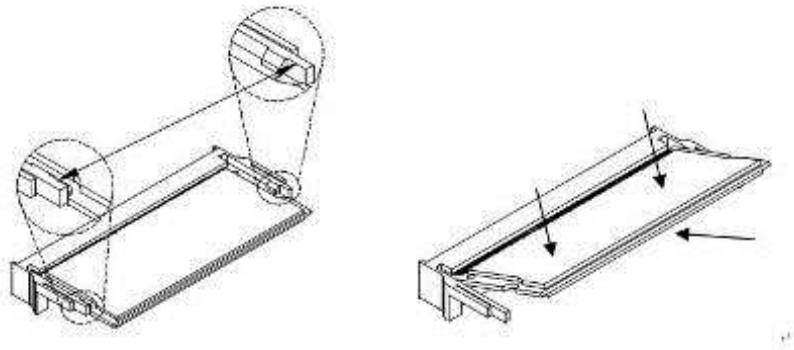
### 2.1 Installing the Memory

The IB923 board supports one DDR3 memory socket J6 for a maximum total memory of 8GB DDR3 memory type.

#### Installing and Removing Memory Modules

To install the DDR3 modules, locate the memory slot on the board and perform the following steps:

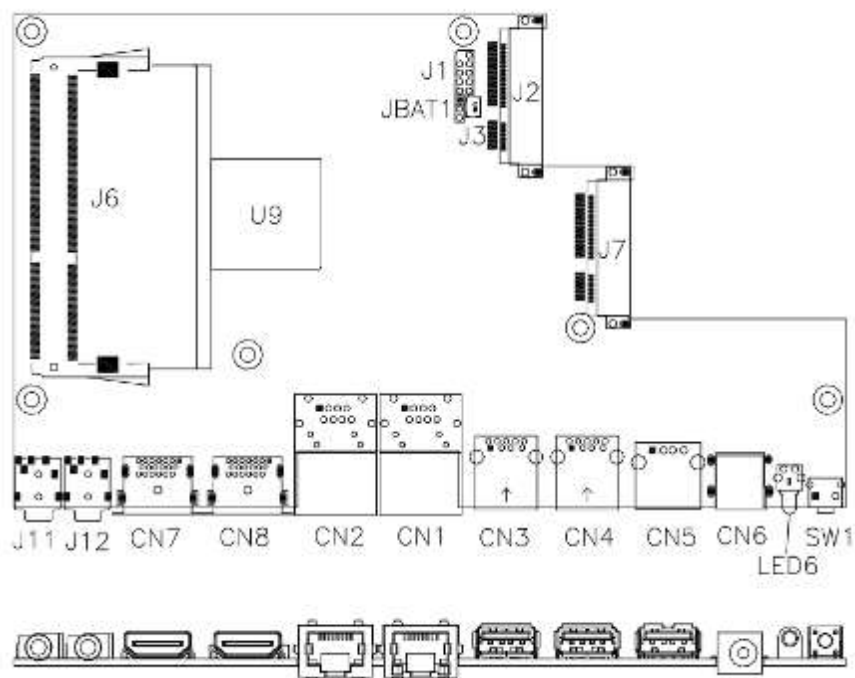
1. Hold the DDR3 module so that the key of the DDR3 module aligned with that on the memory slot.
2. Gently push the DDR3 module in an upright position until the clips of the slot close to hold the DDR3 module in place when the DDR3 module touches the bottom of the slot.
3. To remove the DDR3 module, press the clips with both hands.



## 2.2 Setting the Jumpers

Jumpers are used on IB923 to select various settings and features according to your needs and applications. Contact your supplier if you have doubts about the best configuration for your needs. The following lists the connectors on IB923 and their respective functions.



### Jumper Locations on IB923



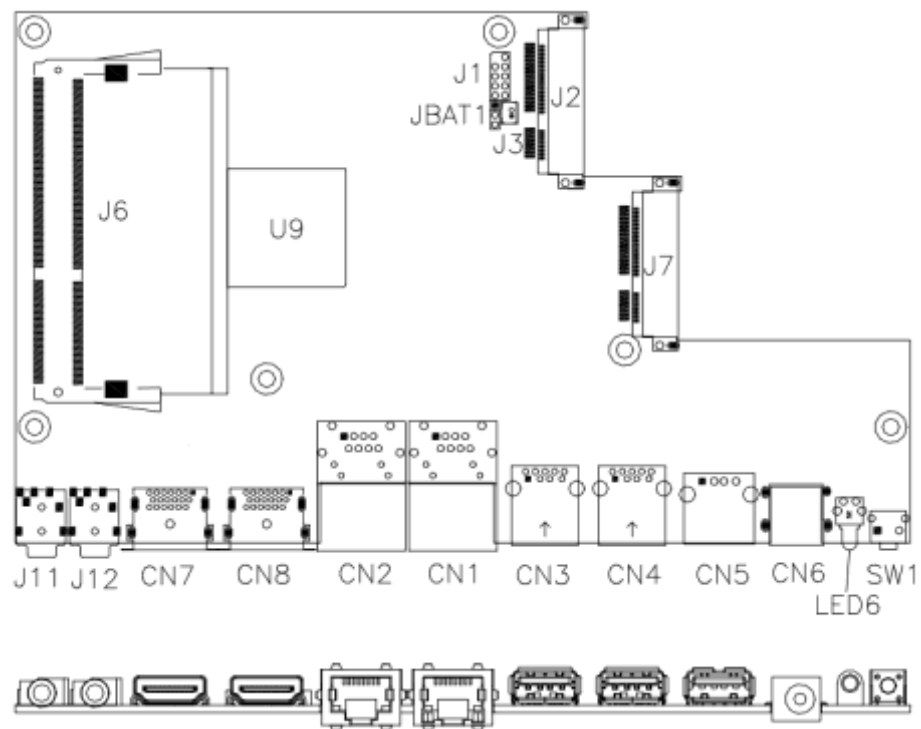
**SW1: Power On Button**

**LED6 : Power On LED**

### JBAT1: Clear CMOS Contents

JBAT1	Setting	Function
	Pin 1-2 Short/Closed	Normal
	Pin 2-3 Short/Closed	Clear CMOS

## 2.3 Connectors on IB923



**CN1: Gigabit LAN (RTL8111DP)**

**CN2: COM1/RS232 Serial Port (RJ45 TYPE)**

Signal Name	Pin #	Pin #	Signal Name
RTS, Request to send	1	2	Data terminal ready
TXD, Transmit data	3	4	GND, ground
GND, ground	5	6	RXD, Receive data
DSR, Data set ready	7	8	CTS, Clear to send

**CN3, CN4: USB 3.0 Connector**

**CN5: USB 2.0 Connector**

**CN6: Board Input Power Connector**

**CN7, CN8: HDMI Connector**

**J1: SPI Flash Connector (factory use only)**

**J2: Mini PCIE Connector (with *USB SIM support*)**

**J3: Battery Connector**

**J6: DDR3 SO-DIMM Socket**

**J7: Mini PCIE Connector (*w/ M-SATA support*)**

**J11: Audio LINE\_IN Connector**



**J12: Audio LINE\_OUT Connector**



## CHAPTER 3 BIOS SETUP

This chapter describes the different settings available in the BIOS that comes with the board. The topics covered in this chapter are as follows:

### 3.1 BIOS Introduction

The BIOS (Basic Input/Output System) installed in your computer system's ROM provides critical low-level support for a standard device such as disk drives, serial ports and parallel ports. It also adds virus and password protection as well as special support for detailed fine-tuning of the chipset controlling the entire system.

### 3.2 BIOS Setup

The BIOS provides a Setup utility program for specifying the system configurations and settings. The BIOS ROM of the system stores the Setup utility. When you turn on the computer, the BIOS is immediately activated. Pressing the <Del> key immediately allows you to enter the Setup utility. If you are a little bit late pressing the <Del> key, POST (Power On Self Test) will continue with its test routines, thus preventing you from invoking the Setup. If you still wish to enter Setup, restart the system by pressing the "Reset" button or simultaneously pressing the <Ctrl>, <Alt> and <Delete> keys. You can also restart by turning the system Off and back On again. The following message will appear on the screen:

```
Press <DEL> or <ESC> to Enter Setup
```

In general, you press the arrow keys to highlight items, <Enter> to select, the <PgUp> and <PgDn> keys to change entries, <F1> for help and <Esc> to quit.

When you enter the Setup utility, the Main Menu screen will appear on the screen. The Main Menu allows you to select from various setup functions and exit choices.

## Main Settings

Aptio Setup Utility – Copyright © 2011 American Megatrends, Inc.

Main	Advanced	Chipset	Boot	Security	Save & Exit
					<b>Choose the system default language</b>
System Language		[English]			→ ← Select Screen
System Date		[Tue 01/20/2009]			↑ ↓ Select Item
System Time		[15:27:20]			Enter: Select
Access Level		Administrator			+ - Change Field
					F1: General Help
					F2: Previous Values
					F3: Optimized Default
					F4: Save ESC: Exit

### System Date

Set the Date. Use Tab to switch between Data elements.

### System Time

Set the Time. Use Tab to switch between Data elements.

## Advanced Settings

This section allows you to configure and improve your system and allows you to set up some system features according to your preference.

Aptio Setup Utility

Main	Advanced	Chipset	Boot	Security	Save & Exit
	<ul style="list-style-type: none"> <li>▶ PCI Subsystem Settings</li> <li>▶ ACPI Settings</li> <li>▶ CPU Configuration</li> <li>▶ IDE Configuration</li> <li>▶ Shutdown Temperature Configuration</li> <li>▶ iSmart Controller</li> <li>▶ MCTP Configuration</li> <li>▶ USB Configuration</li> <li>▶ F81866 Super IO Configuration</li> <li>▶ F81866 H/W Monitor</li> </ul>				→ ← Select Screen ↑ ↓ Select Item Enter: Select + - Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save ESC: Exit



**PCI Subsystem Settings****Aptio Setup Utility**

<b>Main</b>	<b>Advanced</b>	<b>Chipset</b>	<b>Boot</b>	<b>Security</b>	<b>Save &amp; Exit</b>
	PCI Bus Driver Version		V 2.05.02		
	PCI Common Settings				→ ← Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save ESC: Exit
	▶ PCI Express Settings				

## PCI Express Settings

Aptio Setup Utility

Main	Advanced	Chipset	Boot	Security	Save & Exit
PCI Express Device Register Settings					
	Relaxed Ordering		Disabled		
	Extended Tag		Disabled		
	No Snoop		Enabled		
	Maximum Payload		Auto		
	Maximum Read Request		Auto		
PCI Express Link Register Settings					
WARNING: Enabling ASPM may cause some PCI-E devices to fail					
	Extended Synch		Disabled		→ ← Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save ESC: Exit
	Link Training Retry		5		
	Link Training Timeout (uS)		100		
	Unpopulated Links		Keep Link ON		
	Restore PCIe Registers		Disabled		

## ACPI Settings

Aptio Setup Utility

Main	Advanced	Chipset	Boot	Security	Save & Exit
ACPI Settings					
	Enable ACPI Auto Configuration		Disabled		→ ← Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save ESC: Exit
	Enable Hibernation		Enabled		
	ACPI Sleep State		S3 (Suspend to R...)		
	Lock Legacy Resources		Disabled		

### Enable Hibernation

Enables or Disables System ability to Hibernate (OS/S4 Sleep State). This option may be not effective with some OS.

### ACPI Sleep State

Select ACPI sleep state the system will enter, when the SUSPEND button is pressed.

### Lock Legacy Resources

Enabled or Disabled Lock of Legacy Resources.

## CPU Configuration

This section shows the CPU configuration parameters.

Aptio Setup Utility					
Main	Advanced	Chipset	Boot	Security	Save & Exit
CPU Configuration					
Module Version: 4.6.5.4 MullinsPI 014 AGESA Version: 1.0.0.3					
PSS Support			Enabled		→ ← Select Screen
PSTATE Adjustment			Pstate 0		↑ ↓ Select Item
PPC Adjustment			Pstate 0		Enter: Select
NX Mode			Enabled		+ - Change Field
SVM Mode			Enabled		F1: General Help
CPB Mode			Auto		F2: Previous Values
Core Leveling Mode			Automatic mode		F3: Optimized Default
▶ Node 0 Information					F4: Save ESC: Exit

### PSS Support

Enable/disable the generation of ACPI \_PPC, \_PPC, \_PSS, and \_PCT objects.

### PSTATE Adjustment

Provide to adjust startup P-state level.

### PPC Adjustment

Provide to adjust \_PPC object.

### NX Mode

Enable/disable No-execute page protection function.

### SVM Mode

Enable/disable CPU Virtualization.

### CPB Mode

Enable/disable CPB.

### Core Leveling Mode

Change the number of cores in the system

### Node 0 Information

View memory information related to Node 0.

## IDE Configuration

### Aptio Setup Utility

Main	Advanced	Chipset	Boot	Security	Save & Exit
IDE Configuration					→ ← Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save   ESC: Exit
SATA Port0		Not Present			
SATA Port1		Not Present			

## Shutdown Temperature Configuration

### Aptio Setup Utility

Main	Advanced	Chipset	Boot	Security	Save & Exit	
ACPI Shutdown Temperature			Disabled		→ ← Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save   ESC: Exit	

### ACPI Shutdown Temperature

The default setting is Disabled.

## iSmart Controller

### Aptio Setup Utility

Main	Advanced	Chipset	Boot	Security	Save & Exit
iSmart Controller					→ ← Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save   ESC: Exit
Power-On after Power failure		Enable			
Schedule Slot 1		None			
Schedule Slot 2		None			

### Power-On after Power failure

Enable or Disable.

### Schedule Slot 1 / 2

Setup the hour/minute for system power on.

## MCTP Configuration

Aptio Setup Utility

Main	Advanced	Chipset	Boot	Security	Save & Exit
Management Configuration	Component	Transport	Protocol(MCTP)		→ ← Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save   ESC: Exit
	Realtek Lan card DASH function		Disabled		
	MCTP Support		Disabled		

### Realtek LAN Card DASH Function

Realtek LAN card DASH function Enable/Disable

## USB Configuration

Aptio Setup Utility

Main	Advanced	Chipset	Boot	Security	Save & Exit
USB Configuration					
USB Module Version			8.10.31		
USB Devices:					
1 Keyboard, 1 Mouse					
Legacy USB Support			Enabled		
USB3.0 Support			Enabled		
XHCI Hand-off			Enabled		
EHCI Hand-off			Enabled		
USB hardware delays and time-outs:					
USB Transfer time-out			20 sec		
Device reset time-out			20 sec		
Device power-up delay			Auto		
					→ ← Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save ESC: Exit

### Legacy USB Support

Enables Legacy USB support.

AUTO option disables legacy support if no USB devices are connected.

DISABLE option keeps USB devices available only for EFI applications.

### USB3.0 Support

Enable/Disable USB3.0 (XHCI) Controller support.

### XHCI Hand-off

This is a workaround for OSeS without XHCI hand-off support. The XHCI ownership change should be claimed by XHCI driver.

### EHCI Hand-off

Enabled/Disabled. This is a workaround for OSeS without EHCI hand-off support. The EHCI ownership change should be claimed by EHCI driver.

### USB Transfer time-out

The time-out value for Control, Bulk, and Interrupt transfers.

### Device reset time-out

USB mass Storage device start Unit command time-out.

### Device power-up delay

Maximum time the device will take before it properly reports itself to the Host Controller.

'Auto' uses default value: for a Root port it is 100ms, for a Hub port the delay is taken from Hub descriptor.

## F81866 Super IO Configuration

### Aptio Setup Utility

Main	Advanced	Chipset	Boot	Security	Save & Exit
F81866 Super IO Configuration					→ ← Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save   ESC: Exit
F81866 Super IO Chip			F81866		
▶ Serial Port 0 Configuration					

### Serial Port Configuration

Set Parameters of serial ports. User can Enable/Disable the serial port and select an optimal settings for the Super IO device.

**F81866 H/W Monitor****Aptio Setup Utility**

Main	Advanced	Chipset	Boot	Security	Save & Exit
PC Health Status					
SYS temperature			+35 C	→ ← Select Screen	
CPU temperature			+52 C	↑ ↓ Select Item	
Vcore			+1.384 V	Enter: Select	
VCC5V			+5.003 V	+- Change Field	
VCC12V			+12.320 V	F1: General Help	
Memory Voltage			+1.528 V	F2: Previous Values	
				F3: Optimized Default	
				F4: Save ESC: Exit	

**Temperatures/Voltages**

These fields are the parameters of the hardware monitoring function feature of the board. The values are read-only values as monitored by the system and show the PC health status.

**Smart Fan Function**

This field enables or disables the smart fan feature. At a certain temperature, the fan starts turning. Once the temperature drops to a certain level, it stops turning again.



## Chipset Settings

This section allows you to configure and improve your system and allows you to set up some system features according to your preference.

Aptio Setup Utility

Main	Advanced	Chipset	Boot	Security	Save & Exit
<ul style="list-style-type: none"> <li>▶ GFX Configuration</li> <li>▶ South Bridge</li> <li>▶ North Bridge</li> </ul>					→ ← Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save ESC: Exit

Aptio Setup Utility

Main	Advanced	Chipset	Boot	Security	Save & Exit
GFX Configuration  IGD VBios Version: ATOMBIO SBK-AMD VER015.042.000.002.000000  Integrated Graphics <span style="float: right;">Auto</span>					→ ← Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save ESC: Exit

## Integrated Graphics

Enable Integrate Graphics Controller

Aptio Setup Utility

Main	Advanced	Chipset	Boot	Security	Save & Exit
AMD Reference code Version:			Mullins PI 1.0.0.3		→ ← Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save ESC: Exit
<ul style="list-style-type: none"> <li>▶ SB SATA Configuration</li> </ul>					

## Aptio Setup Utility

Main	Advanced	Chipset	Boot	Security	Save & Exit
OnChip SATA Channel			Enabled		
OnChip SATA Type			AHCI		
OnChip iDE mode			Legacy mode		
SATA IDE Combined Mode			Enabled		
					→ ←Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save ESC: Exit

**OnChip SATA Channel**

Enabled or Disabled.

**OnChip SATA Type**

Native IDE /n RAID /n AHCI/n AHCI/n Legacy IDE /n IDE->AHCI/n HyperFlash

**OnChip IDE mode**

Legacy mode or Native mode

**SATA IDE Combined Mode**

Enabled or Disabled.

Aptio Setup Utility

Main	Advanced	Chipset	Boot	Security	Save & Exit
North Bridge Configuration					
Memory Clock			Auto		
Memory Information					
Memory Clock : 677MHZ					
Total Memory : 4080 MB (DDR3)					
▶ Memory Configuration					
▶ Socket 0 Information					
					→ ← Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save ESC: Exit

Aptio Setup Utility

Main	Advanced	Chipset	Boot	Security	Save & Exit
Socket 0 Information					
Starting Address: 0KB					
Ending Address: 4194303 KB					
Dimm0: size=4096 MB, speed=933 MHz					
Dimm1: Not Present					
					→ ← Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save ESC: Exit

## Boot Settings

Aptio Setup Utility

Main	Advanced	Chipset	Boot	Security	Save & Exit
Boot Configuration					
Setup Prompt Timeout		1			
Bootup NumLock State		On			
Quiet Boot		Disabled			
Fast Boot		Disabled			
Boot Option Priorities				→ ← Select Screen	
Boot Option #1		SATA PM: WDC WD80		↑ ↓ Select Item	
▶ CSM16 Parameters				Enter: Select	
CSM parameters				+- Change Field	
				F1: General Help	
				F2: Previous Values	
				F3: Optimized Default	
				F4: Save ESC: Exit	

### Setup Prompt Timeout

Number of seconds to wait for setup activation key.  
65535(0xFFFF) means indefinite waiting.

### Bootup NumLock State

Select the keyboard NumLock state.

### Quiet Boot

Enables/Disables Quiet Boot option.

### Fast Boot

Enables/Disables boot with initialization of a minimal set of devices required to launch active boot option. Has no effect for BBS boot options.

## CSM parameters

OpROM execution, boot options, filter, etc.

Aptio Setup Utility					
Main	Advanced	Chipset	Boot	Security	Save & Exit
Launch CSM			Enabled		
Boot option filter			UEFI and Legacy		→ ← Select Screen
Launch PXE OpROM policy			Do not launch		↑ ↓ Select Item
Launch Storage OpROM policy			Legacy only		Enter: Select
Launch Video OpROM policy			Legacy only		+ - Change Field
					F1: General Help
					F2: Previous Values
					F3: Optimized Default
Other PCI device ROM priority			Legacy OpROM		F4: Save ESC: Exit

### Launch CSM

This option controls if CSM will be launched.

### Boot option filter

This option controls what devices system can boot to.

### Launch PXE OpROM policy

Controls the execution of UEFI and Legacy PXE OpROM.

### Launch Storage OpROM policy

Controls the execution of UEFI and Legacy Storage OpROM.

### Launch Video OpROM policy

Controls the execution of UEFI and Legacy Video OpROM.

### Other PCI device ROM priority

For PCI devices other than Network, Mass storage or Video defines which OpROM to launch.



## Save & Exit Settings

Aptio Setup Utility					
Main	Advanced	Chipset	Boot	Security	Save & Exit
Save Changes and Exit					→ ← Select Screen ↑ ↓ Select Item Enter: Select +- Change Field F1: General Help F2: Previous Values F3: Optimized Default F4: Save ESC: Exit
Discard Changes and Exit					
Save Changes and Reset					
Discard Changes and Reset					
Save Options					
Save Changes					
Discard Changes					
Restore Defaults					
Save as User Defaults					
Restore User Defaults					

### Save Changes and Exit

Exit system setup after saving the changes.

### Discard Changes and Exit

Exit system setup without saving any changes.

### Save Changes and Reset

Reset the system after saving the changes.

### Discard Changes and Reset

Reset system setup without saving any changes.

### Save Changes

Save Changes done so far to any of the setup options.

### Discard Changes

Discard Changes done so far to any of the setup options.

### Restore Defaults

Restore/Load Defaults values for all the setup options.

### Save as User Defaults

Save the changes done so far as User Defaults.

### Restore User Defaults

Restore the User Defaults to all the setup options.

## CHAPTER 4 DRIVERS INSTALLATION

This section describes the installation procedures for software and drivers. The software and drivers are included with your package. If you find the items missing, please contact the vendor where you made the purchase.

### IMPORTANT NOTE:

After installing your Windows operating system, you must install first the Intel Chipset Software Installation Utility before proceeding with the drivers installation.

### 4.1 VGA Drivers Installation

1. Insert the drivers DVD that comes with the board. Click **System**, then **SI-102 Series Products**.

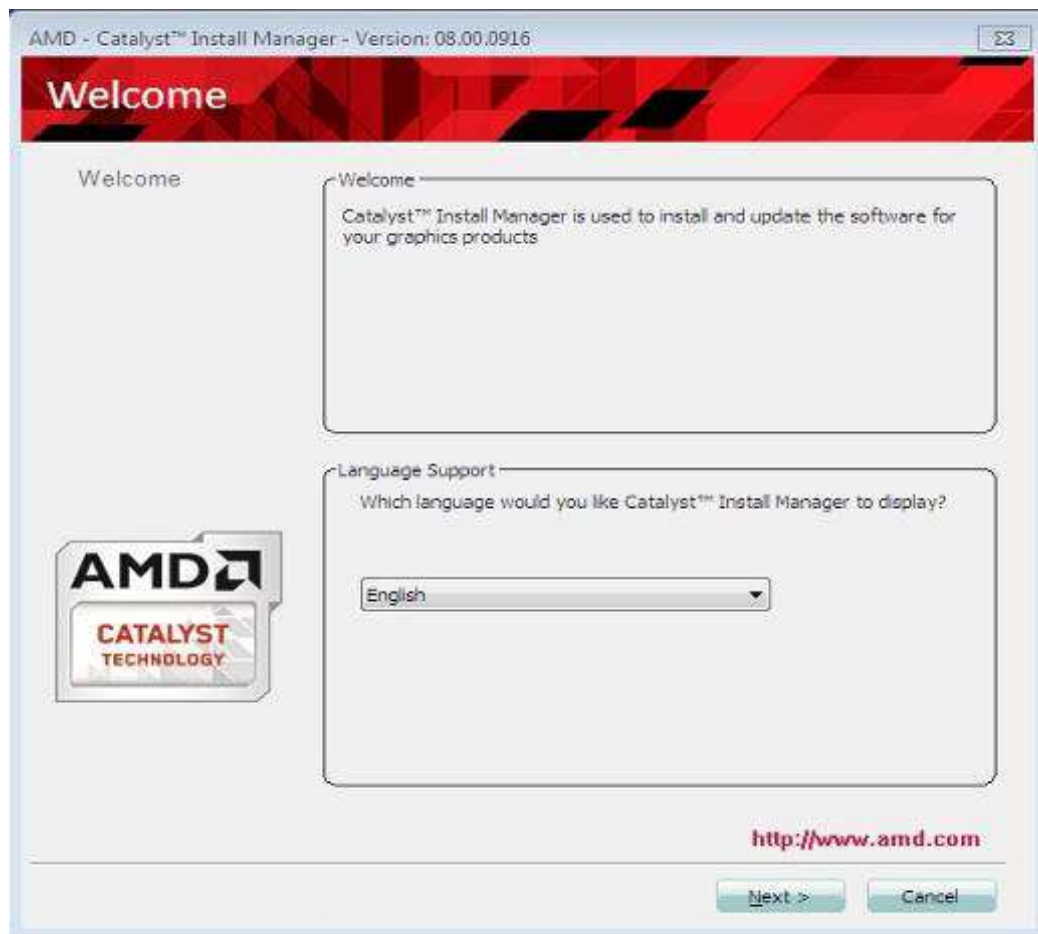


2. Click **AMD Steppe Eagle Graphics Drivers**.





3. When the welcome screen appears, click **Next**.



4. Select the language you would like to be displayed and click **Next**.

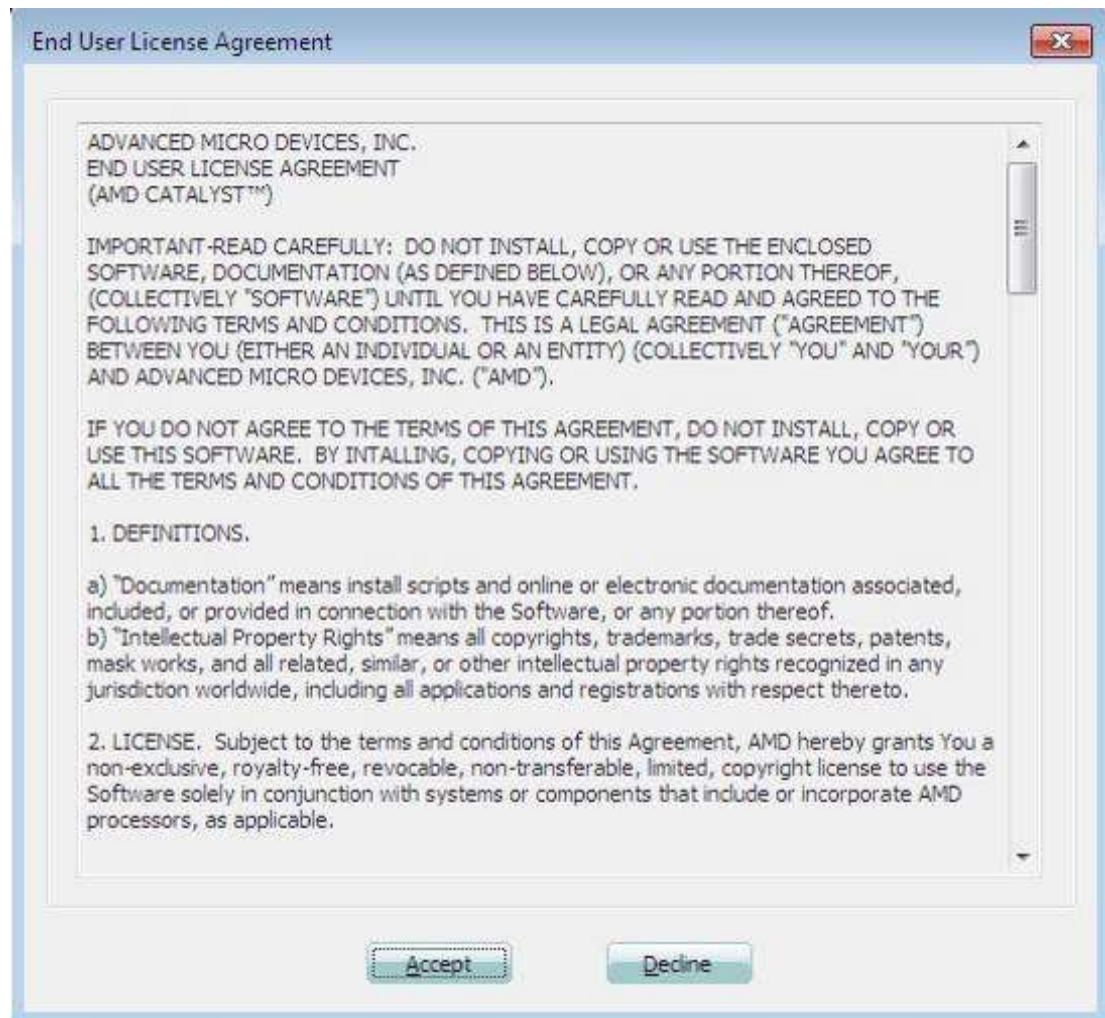
5. Click **Install** to continue the installation process.



6. Select **Express** and the **installation location** and click **Next**.



7. Click **Accept** to accept the End User License Agreement.



8. To reboot the system, click **Yes**.

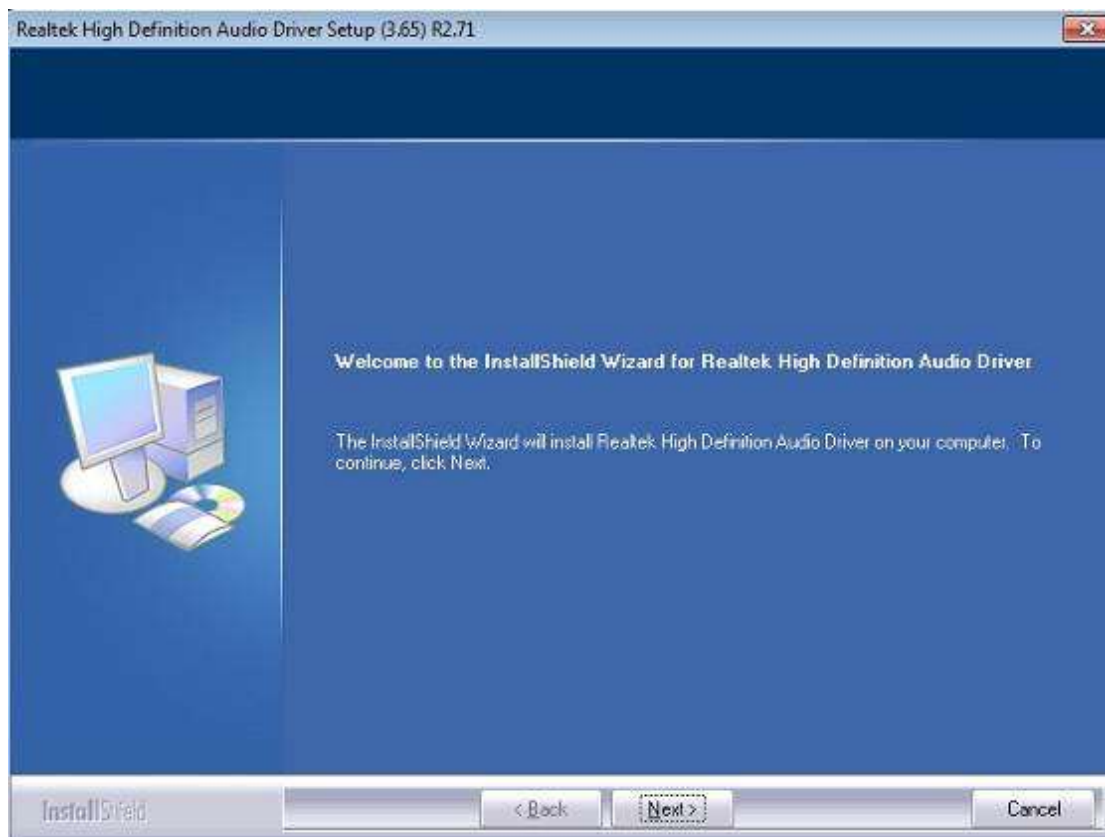


## 4.2 Realtek HD Audio Driver Installation

1. Click **Realtek High Definition Audio Driver**.



2. On the Welcome to the InstallShield Wizard screen, click **Next** to proceed with and complete the installation process.



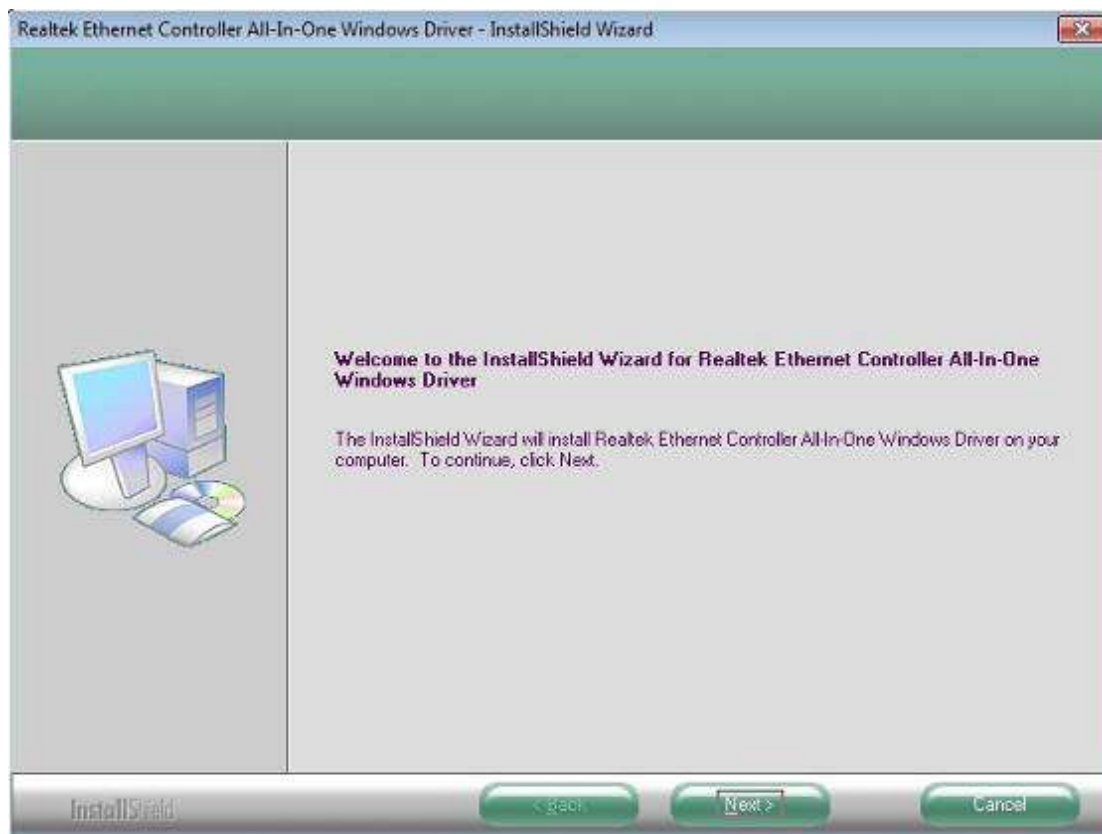
3. Restart the computer when prompted.

### 4.3 LAN Drivers Installation

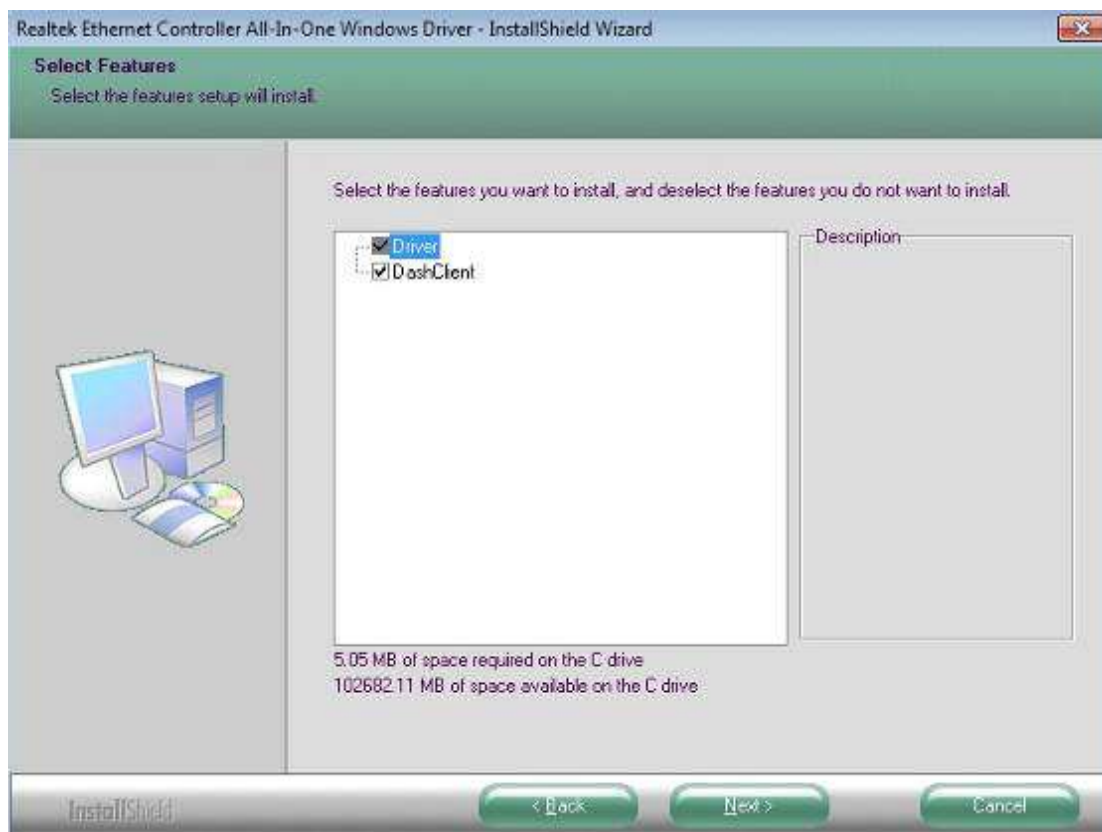
1. Insert the CD that comes with the board.
2. Click **Realtek GbE\_FE Ethernet PCI-E NIC Drivers**.



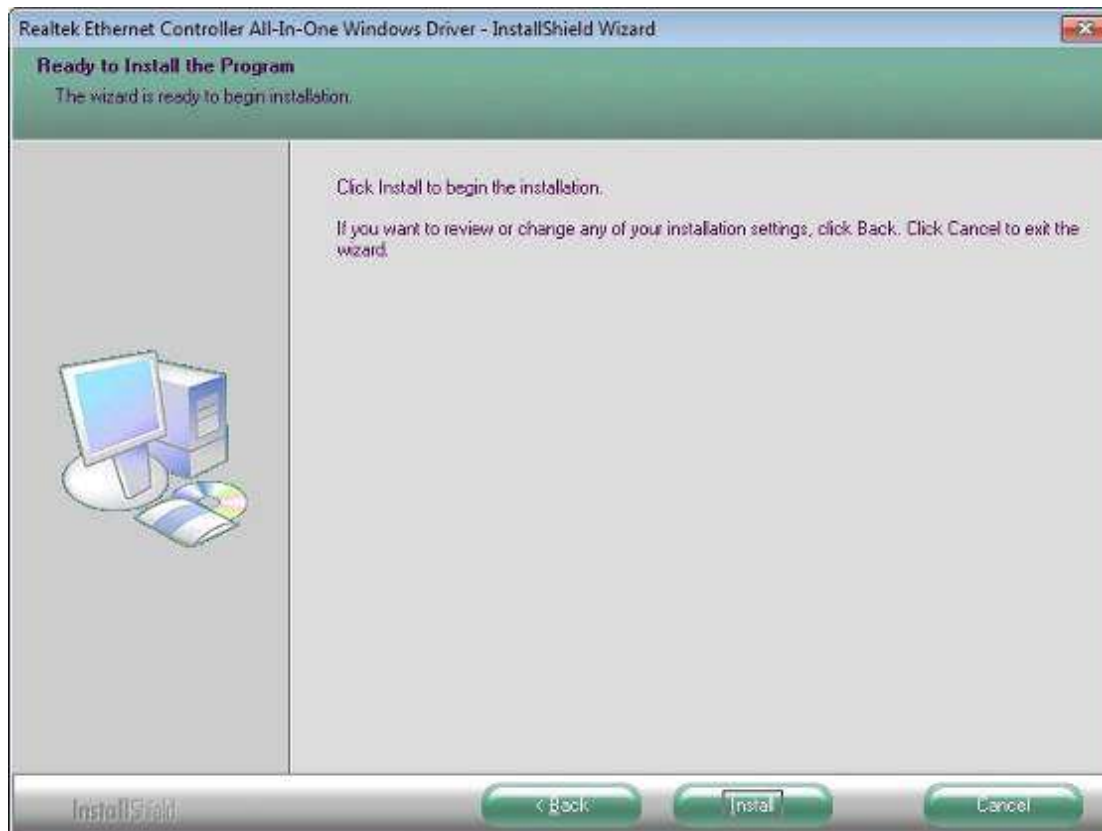
3. In the Welcome screen, click **Next**.



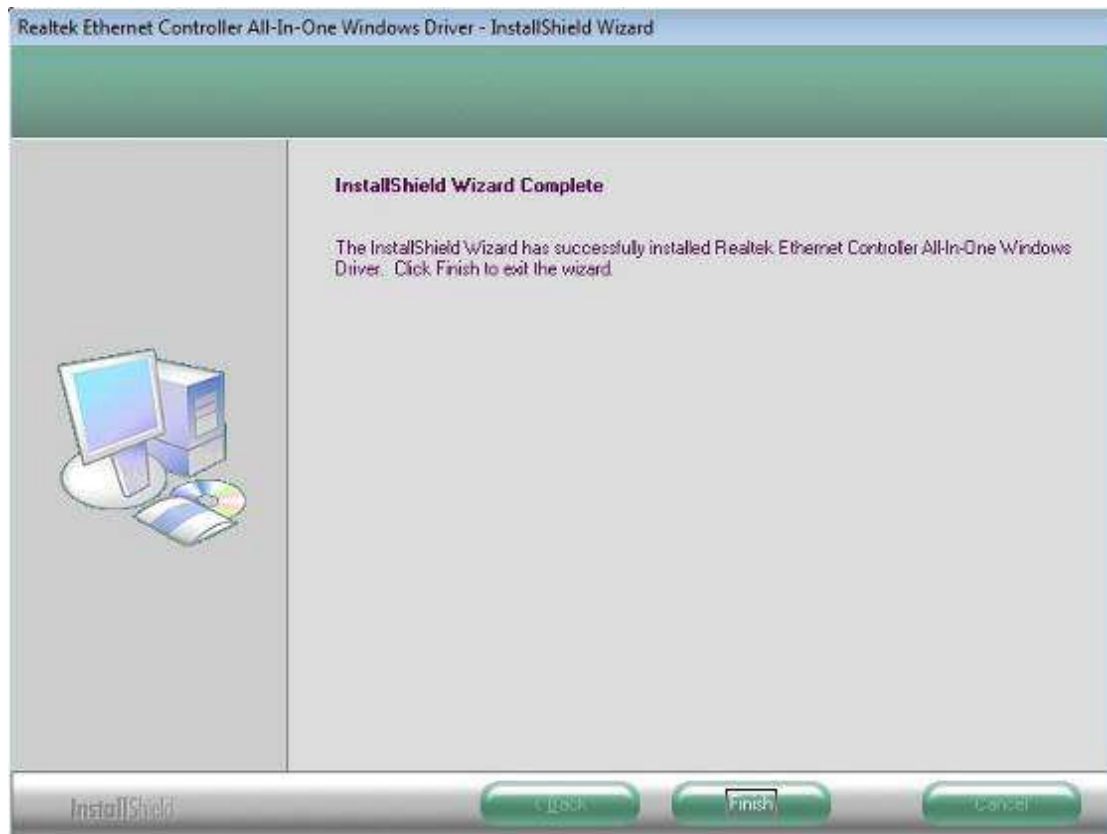
4. In the Select Features screen, click **Next**



5. When the Ready to Install the Program screen appears, click **Install** to continue.

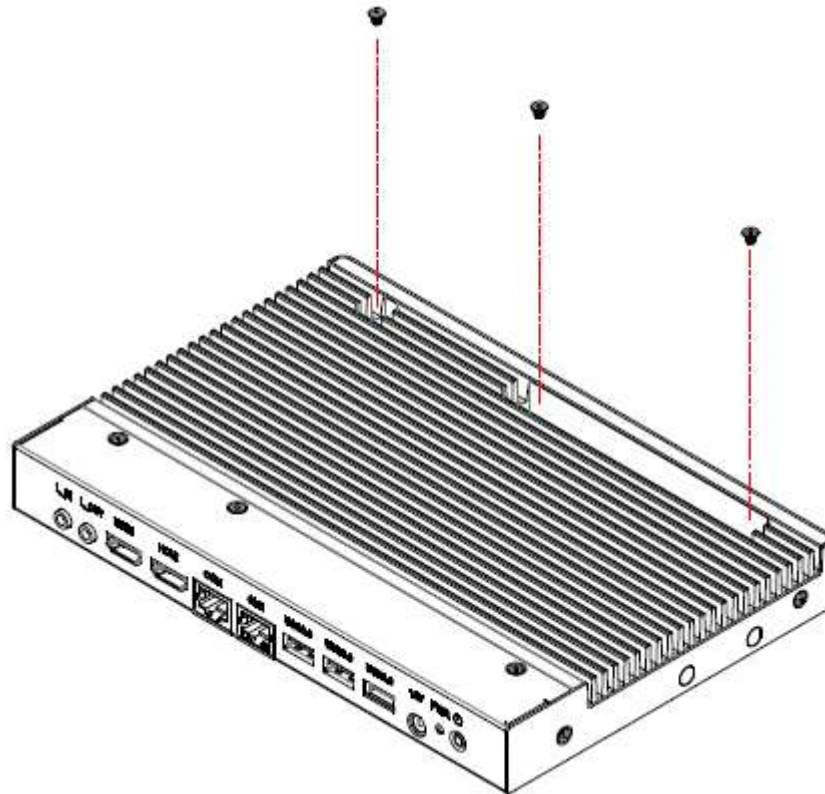


6. When InstallShield Wizard is complete, click **Finish**.



## Appendix

### Mounting SI-102-424 to the Wall



You can install SI-102-424 on plastic (LCD monitor), wood, drywall surface over studs, or a solid concrete or metal plane directly. Ensure the installer uses at least three M3 length 6mm screws to secure the system on the wall. ***Four M3 length 6mm screws are recommended to secure the system onto the wall.***

Fasteners are not included with the unit, and must be supplied by the installer. The types of fasteners required are dependent on the type of wall construction. Choose fasteners that are rated either "Medium Duty" or "Heavy Duty." To assure proper fastener selection and installation, follow the fastener manufacturer's recommendations.



## Wall Mounting Requirements

**Note:** Before mounting the system onto the wall, ensure that you are following all applicable building and electric codes.

When mounting, ensure that you have enough room for power and signal cable routing and have good ventilation for power adapter. The method of mounting must be able to support the weight of SI-102-424 plus the suspend weight of all the cables to be attached to the system. Use the following methods for mounting your system:

### Mounting to hollow walls

- **Method 1: Wood surface** – A minimum wood thickness – 38mm (1.5in.) by 25.4 cm (10in.) – of high, construction – grade wood is recommended.

**Note:** This method provides the most reliable attachment of the unit with little risk that the unit will come loose or require ongoing maintenance.

- **Method 2: Drywall walls** - Drywall over wood studs is acceptable.

**Mounting to a solid concrete or brick wall** - Mounts on a flat smooth surface.

## Selecting the Location

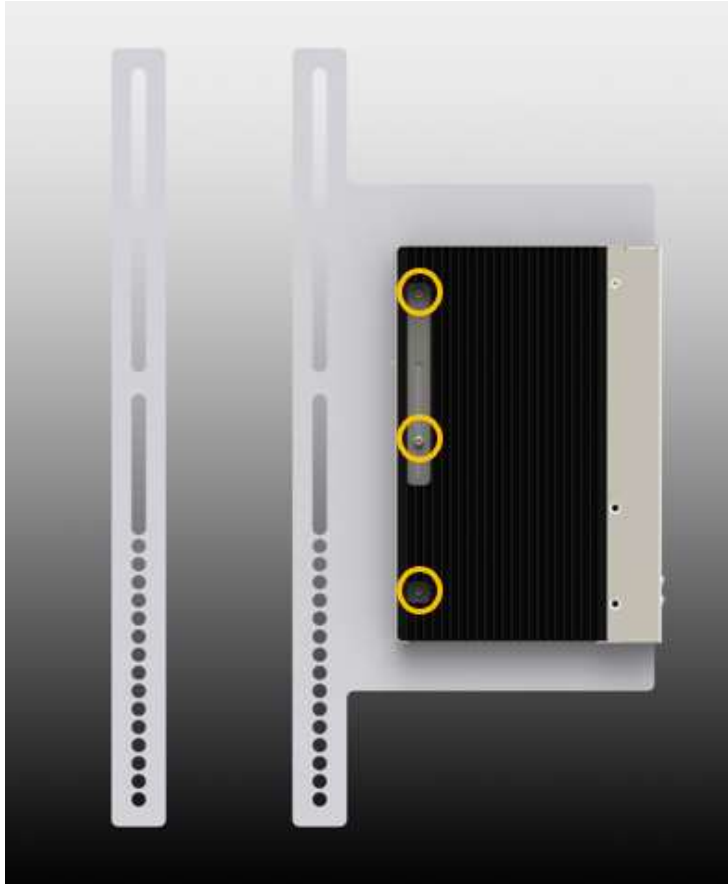
Plan the mounting location thoroughly. Locations such as walkway areas, hallways, and crowded areas are not recommended. Mount the unit to a flat, sturdy, structurally sound column or wall surface.

The best mounting surface is a standard countertop, cabinet, table, or other structure that is minimally the width and length of the unit. This recommendation reduces the risk that someone may accidentally walk into and damage the device. Local laws governing the safety of individuals might require this type of consideration.

## SI-102-424 Mounting Bracket Solution

SI-102-424 mounting bracket (IBASE) part number: SC2SIMK1---B10100P

1. Please install SI-102-424 to the mounting bracket using 3 screws, as shown in the picture.



2. Please install mounting bracket to the mounting hole of display which you use.  
Depending on the application, there are different orientations, as shown below.



3. Install the TV mounting black bracket on the SI-102-424 silver-color mounting bracket.



4. After completing the above steps, you can now put the display on the desired location.

