



IMB-1000D  
IMB-1000D-WF

User Manual

Version 1.0

Published December 2019

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# Contents

<b>1 Introduction .....</b>	<b>5</b>
1.1 Package Contents .....	5
1.2 Specifications.....	6
1.3 Motherboard Layout.....	8
1.4 I/O Panel.....	10
<b>2 Installation .....</b>	<b>11</b>
2.1 Screw Holes.....	11
2.2 Pre-installation Precautions .....	11
2.3 Installation of Memory Modules (SO-DIMM).....	12
2.4 Expansion Slot.....	13
2.5 Jumpers Setup.....	14
2.6 Onboard Headers and Connectors.....	16
<b>3 UEFI SETUP UTILITY.....</b>	<b>20</b>
3.1 Introduction .....	20
3.1.1 UEFI Menu Bar .....	20
3.1.2 Navigation Keys .....	21
3.2 Main Screen.....	21
3.3 Advanced Screen.....	22
3.3.1 CPU Configuration .....	23
3.3.2 Chipset Configuration.....	24
3.3.3 Storage Configuration .....	25
3.3.4 Super IO Configuration .....	26
3.3.5 ACPI Configuration.....	27
3.3.6 USB Configuration .....	28
3.3.7 Trusted Computing.....	29
3.4 Hardware Health Event Monitoring Screen .....	30
3.5 Security Screen .....	31
3.6 Boot Screen .....	32
3.7 Exit Screen .....	34
<b>4 Software Support .....</b>	<b>35</b>
4.1 Install Operating System.....	35
4.2 Support CD Information .....	35
4.2.1 Running Support CD.....	35
4.2.2 Drivers Menu.....	35
4.2.3 Utilities Menu.....	35
4.2.4 Contact Information.....	35

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# Chapter 1: Introduction

Thank you for purchasing ASRockInd **IMB-1000D / IMB-1000D-WF** motherboard, a reliable motherboard produced under ASRockInd's consistently stringent quality control. It delivers excellent performance with robust design conforming to ASRockInd's commitment to quality and endurance.

In this manual, chapter 1 and 2 contain introduction of the motherboard and step-by-step guide to the hardware installation. Chapter 3 and 4 contain the configuration guide to BIOS setup and information of the Support CD.



Because the motherboard specifications and the BIOS software might be updated, the content of this manual will be subject to change without notice. In case any modifications of this manual occur, the updated version will be available on ASRockInd website without further notice. You may find the latest VGA cards and CPU support lists on ASRockInd website as well. ASRockInd website <http://www.asrockind.com>

If you require technical support related to this motherboard, please visit our website for specific information about the model you are using.

[www.asrockind.com/support/index.asp](http://www.asrockind.com/support/index.asp)

## 1.1 Package Contents

ASRockInd **IMB-1000D / IMB-1000D-WF** Motherboard

(Mini-ITX Form Factor: 6.7-in x 6.7-in, 17.0 cm x 17.0 cm)

ASRockInd **IMB-1000D / IMB-1000D-WF** Driver CD

ASRockInd **IMB-1000D / IMB-1000D-WF** Jumper Setting Instruction

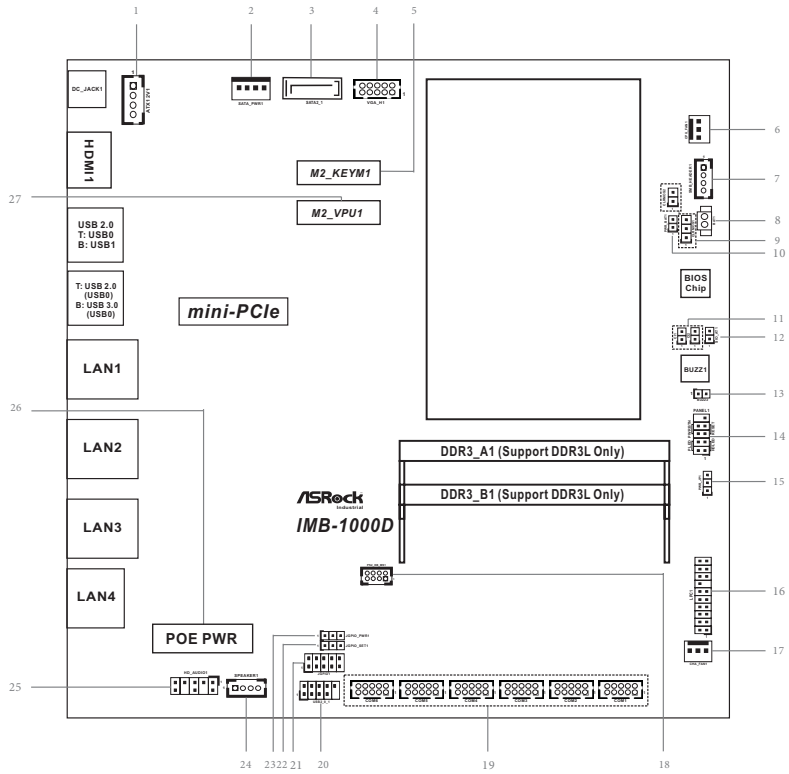
1 x I/O Panel Shield

## 1.2 Specifications

<b>Form Factor</b>	Dimensions	Mini-ITX (6.7-in x 6.7-in)
<b>Processor System</b>	CPU	Intel® Celeron® Processor J1900, QC, 2.00GHz, 10W
	Chipset	SoC
<b>Expansion Slot</b>	PCIe	N/A
	PCI	1 x Full/Half mini-PCIe with PCIe x1 and shared USB 2.0
	M.2	1 x M.2 (Key M, 2242/2260/2280) with SATA2 for SSD 1 x M.2 (Key M, 2260) with PCIe x1
	POE Power Slot	1 x POE Power Slot for ASRI PSE module (Optional: LAN4 supports POE function by PSE-30W/PSE-15W)
<b>Memory</b>	Technology	Dual Channel DDR3L 1333 MHz
	Max.	16GB (8GB per DIMM)
	Socket	2 x SO-DIMM
<b>Graphics</b>	Controller	Integrated Intel® Gen7 Intel® Graphics DX 11, OGL3.2
	VGA	Supports max resolution up to 1920x1200@60Hz
	DVI	N/A
	LVDS	N/A
	HDMI	HDMI 1.4a Max resolution up to 1920x1200@60Hz
	DisplayPort	N/A
	Multi Display	Dual Display
<b>Ethernet</b>	Ethernet	10/100/1000 Mbps
	Controller	LAN1: 1 x Realtek RT8119I with 10/100/1000 Mbps LAN2: 1 x Realtek RT8119I with 10/100/1000 Mbps LAN3: 1 x Intel® I210IT with 10/100/1000 Mbps LAN4: 1 x Intel® I210IT with 10/100/1000 Mbps (Optional: LAN4 supports POE function by ASRI PSE module)
<b>Storage</b>	SATA	1 x SATA2 (3.0Gb/s)

<b>Rear I/O</b>	VGA	N/A
	DVI	N/A
	HDMI	1
	DisplayPort	N/A
	Ethernet	4
	USB	1 x USB3.1, 3 x USB 2.0
	Audio	N/A
	Serial	N/A
	PS/2	N/A
<b>Internal Connector</b>	USB	2 x USB 2.0
	LVDS/ Inverter	N/A
	eDP	N/A
	VGA	1 x Header
	Serial	COM1, 2 (RS-232/422/485), COM3, 4, 5, 6 (RS-232)
	SATA	1 x SATA2 (3.0Gb/s)
	Parallel	N/A
	GPIO	4 x GPI, 4 x GPO
	SATA PWR Output	1
	Speaker Header	1
	TPM	TPM Header
	<b>Watchdog Timer</b>	Output
Interval		256 segments, 0,1,2...255sec
<b>Power Requirements</b>	Input PWR	12V DC-In (with 4-pin wafer PWR cable or DC Jack)
	Power On	AT/ATX Supported
		-AT : Directly PWR on as power input ready -ATX : Press button to PWR on after power input ready
<b>Environment</b>	Temperature	0°C – 60°C
	Storage Temp	-40°C – 85°C
	Operating Humidity	5% ~ 90%
	Storage Humidity	5% ~ 90%

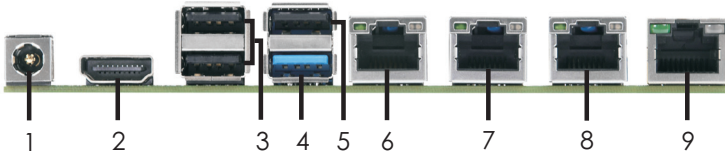
### 1.3 Motherboard Layout





- 
- 1 : 4-pin DC-in PWR Connector (Input +12V)
  - 2 : SATA Power Output Connector
  - 3 : SATA2 Connector (SATA2\_1)
  - 4 : VGA Header
  - 5 : M.2 Key-M Socket (M2\_KEYM1)
  - 6 : CPU FAN Connector (+12V)
  - 7 : SMB Header
  - 8 : Battery Connector
  - 9 : Clear CMOS Headers (CLRMOS1, CLRMOS2)
  - 10 : PWR\_BAT1
  - 11 : Chassis Intrusion Headers (CI1, CI2)
  - 12 : SIO\_AT1
  - 13 : Buzzer
  - 14 : System Panel Header
  - 15 : ATX/AT Mode Select (PWR\_JP1)
  - 16 : LPC Header
  - 17 : Chassis FAN Connector (+12V)
  - 18 : PS2 Keyboard/Mouse Header
  - 19 : COM Port Headers (COM1~6)
  - 20 : USB2.0 Connector (USB2\_0\_1)
  - 21 : Digital Input / Output Pin Header (JGPIO1)
  - 22 : Digital Input / Output Default Value Setting (JGPIO\_SET1)
  - 23 : Digital Input / Output Power Select (JGPIO\_PWR1)
  - 24 : 3W Audio AMP Output Wafer
  - 25 : Front Panel Audio Header
  - 26 : POE PWR
  - 27 : M2\_VPU1

## 1.4 I/O Panel



- |   |                          |   |                        |
|---|--------------------------|---|------------------------|
| 1 | DC Jack (DC_JACK1)       | 6 | LAN RJ-45 Port (LAN1)* |
| 2 | HDMI Port (HDMI1)        | 7 | LAN RJ-45 Port (LAN2)* |
| 3 | USB2.0 Ports (USB2H_0_1) | 8 | LAN RJ-45 Port (LAN3)* |
| 4 | USB3.0 Ports (USB3_0)    | 9 | LAN RJ-45 Port (LAN4)* |
| 5 | USB2.0 Port (USB2H_0)    |   |                        |

\* There are two LED next to the LAN port. Please refer to the table below for the LAN port LED indications.

### LAN Port LED Indications

Activity/Link LED		SPEED LED		ACT/LINK LED	SPEED LED
Status	Description	Status	Description		
Off	No Link	Off	10Mbps connection		
Blinking	Data Activity	Orange	100Mbps connection		
On	Link	Green	1Gbps connection		

---

## Chapter 2: Installation

This is a Mini-ITX form factor (6.7" x 6.7", 17.0 x 17.0 cm) motherboard. Before you install the motherboard, study the configuration of your chassis to ensure that the motherboard fits into it.



Make sure to unplug the power cord before installing or removing the motherboard. Failure to do so may cause physical injuries to you and damages to motherboard components.

### 2.1 Screw Holes

Place screws into the holes to secure the motherboard to the chassis.



Do not over-tighten the screws! Doing so may damage the motherboard.

### 2.2 Pre-installation Precautions

Take note of the following precautions before you install motherboard components or change any motherboard settings.

1. Unplug the power cord from the wall socket before touching any component.
2. To avoid damaging the motherboard components due to static electricity, NEVER place your motherboard directly on the carpet or the like. Also remember to use a grounded wrist strap or touch a safety grounded object before you handle components.
3. Hold components by the edges and do not touch the ICs.
4. Whenever you uninstall any component, place it on a grounded antistatic pad or in the bag that comes with the component.



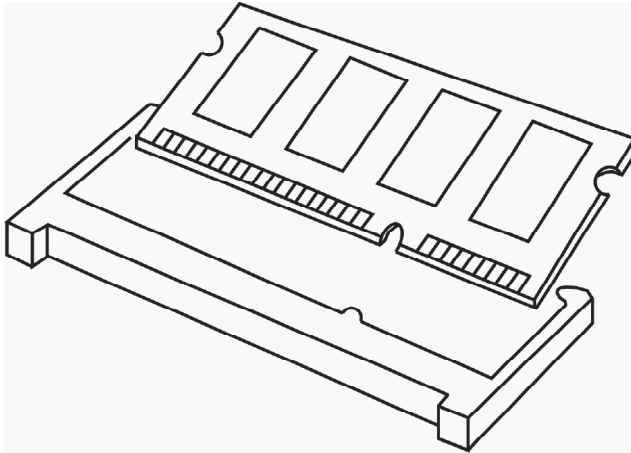
Before you install or remove any component, ensure that the power is switched off or the power cord is detached from the power supply. Failure to do so may cause severe damage to the motherboard, peripherals, and/or components.

---

## 2.3 Installation of Memory Modules (SO-DIMM)

**IMB-1000D / IMB-1000D-WF** provides two 204-pin DDR3 (Double Data Rate 3) SO-DIMM slots.

- Step 1. Align a SO-DIMM on the slot such that the notch on the SO-DIMM matches the break on the slot.



1. The SO-DIMM only fits in one correct orientation. It will cause permanent damage to the motherboard and the SO-DIMM if you force the SO-DIMM into the slot at incorrect orientation.
2. Please do not intermix different voltage SO-DIMMs on this motherboard.

- Step 2. Firmly insert the SO-DIMM into the slot until the retaining clips at both ends fully snap back in place and the SO-DIMM is properly seated.

## 2.4 Expansion Slots (mini-PCIe and M.2 Sockets)

There is 1 mini-PCIe slot and 2 M.2 sockets on this motherboard.

### mini-PCIe slot:

MINI\_PCIE1 (mini-PCIe slot; full/half size) is used for PCI Express mini cards.

### M.2 sockets:

M.2 (Key M, 2242/2260/2280) supports SATA2 for SSD.

M.2 (Key M, 2260) supports PCIe x1.

### M.2 Socket Pin Definition:

#### M.2 Key-M Socket (M2\_KEYM1)

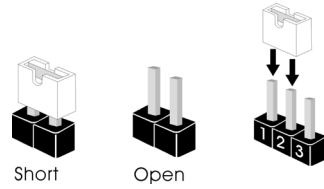
Pin	Signal	Signal	Pin
1	GND	+3.3V	2
3	GND	+3.3V	4
5	NA	NA	6
7	NA	NA	8
9	GND	SATA_LED	10
11	NA	+3.3V	12
13	NA	+3.3V	14
15	GND	+3.3V	16
17	NA	+3.3V	18
19	NA	NA	20
21	GND	NA	22
23	NA	NA	24
25	NA	NA	26
27	GND	NA	28
29	NA	NA	30
31	NA	NA	32
33	GND	NA	34
35	NA	NA	36
37	NA	DEVSLP	38
39	GND	SMB_CLK	40
41	SATA-B+	SMB_DATA	42
43	SATA-B-	NA	44
45	GND	NA	46
47	SATA-A-	NA	48
49	SATA-A+	PERST#	50
51	GND	CLKREQ#	52
53	PEFCLKn	WAKE#	54
55	PEFCLKp	NA	56
57	GND	NA	58
67	NA	NA	68
69	PEDET	+3.3V	70
71	GND	+3.3V	72
73	GND	+3.3V	74
75	GND		

#### M.2 Socket (M2\_VPU1)

Pin	Signal	Signal	Pin
1	GND	+3.3V	2
3	GND	+3.3V	4
5	NA	NA	6
7	NA	NA	8
9	GND	SATA_LED	10
11	NA	+3.3V	12
13	NA	+3.3V	14
15	GND	+3.3V	16
17	NA	+3.3V	18
19	NA	NA	20
21	GND	NA	22
23	NA	NA	24
25	NA	NA	26
27	GND	NA	28
29	NA	NA	30
31	NA	NA	32
33	GND	NA	34
35	NA	NA	36
37	NA	DEVSLP	38
39	GND	SMB_CLK	40
41	PERn0	SMB_DATA	42
43	PERp0	NA	44
45	GND	NA	46
47	PETn0	NA	48
49	PETP0	PERST#	50
51	GND	CLKREQ#	52
53	PEFCLKn	WAKE#	54
55	PEFCLKp	NA	56
57	GND	NA	58
67	NA	NA	68
69	NA	+3.3V	70
71	GND	+3.3V	72
73	GND	+3.3V	74
75	GND		

## 2.5 Jumpers Setup

The illustration shows how jumpers are setup. When the jumper cap is placed on pins, the jumper is "Short". If no jumper cap is placed on pins, the jumper is "Open". The illustration shows a 3-pin jumper whose pin1 and pin2 are "Short" when jumper cap is placed on these 2 pins.



### Clear CMOS Jumpers

(3-pin CLRMOS1)

(see p.8, No. 9)



CLRMOS1 :

1-2 : Normal

2-3 : Clear CMOS

**Note:** CLRMOS1 allows you to clear the data in CMOS. To clear and reset the system parameters to default setup, please turn off the computer and unplug the power cord from the power supply. After waiting for 15 seconds, use a jumper cap to short pin2 and pin3 on CLRMOS1 for 5 seconds. However, please do not clear the CMOS right after you update the BIOS. If you need to clear the CMOS when you just finish updating the BIOS, you must boot up the system first, and then shut it down before you do the clear-CMOS action. Please be noted that the password, date, time, user default profile and MAC address will be cleared only if the CMOS battery is removed.

(2-pin CLRMOS2)

(see p.8, No. 9)



CLRMOS2 :

Open : Normal

Short : Auto Clear CMOS  
(Power Off)

### Digital Input / Output Power Select

(3-pin JGPIO\_PWR1)

(see p.8 No. 23)



1-2: +12V

2-3: +5V

### Digital Input / Output Default Value Setting

(3-pin JGPIO\_SET1)

(see p.8 No. 22)



1-2: Pull-High

2-3: Pull-Low

### ATX/AT Mode Select

(3-pin PWR\_JP1)

(see p.8 No. 15)



1-2: AT Mode

2-3: ATX Mode

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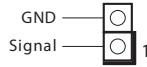
**PWR\_BAT1**  
(2-pin PWR\_BAT1)  
(see p.8, No. 10)



Open: Normal  
Short: Change Battery

---

**Chassis Intrusion Headers**  
(2-pin CI1, CI2: see p.8, No. 11)



This motherboard supports CASE OPEN detection feature that detects if the chassis cover has been removed. This feature requires a chassis with chassis intrusion detection design.

CI1 :  
Close : Active Case Open  
Open : Normal  
CI2 :  
Close : Normal  
Open : Active Case Open

---

**SIO\_AT1**  
(2-pin SIO\_AT1)  
(see p.8, No. 12)



Open : ATX Mode  
Close : AT Mode

---

## 2.6 Onboard Headers and Connectors



Onboard headers and connectors are NOT jumpers. Do NOT place jumper caps over these headers and connectors. Placing jumper caps over the headers and connectors will cause permanent damage of the motherboard!

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### SATA2 Connector

(SATA2\_1: see p.8, No. 3)



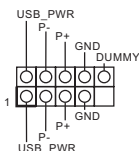
This Serial ATA2 (SATA2) connector supports SATA data cables for internal storage devices. The current SATA2 interface allows up to 3.0 Gb/s data transfer rate.

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### USB 2.0 Connector

(9-pin USB2\_0\_1)

(see p.8 No. 20)



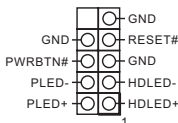
Besides three default USB 2.0 ports on the I/O panel, there is one USB 2.0 connector on this motherboard. This USB 2.0 connector can support two USB ports.

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### System Panel Header

(9-pin PANEL1)

(see p.8 No. 14)



This header accommodates several system front panel functions.



Connect the power switch, reset switch and system status indicator on the chassis to this header according to the pin assignments below. Note the positive and negative pins before connecting the cables.

#### **PWRBTN (Power Switch):**

Connect to the power switch on the chassis front panel. You may configure the way to turn off your system using the power switch.

#### **RESET (Reset Switch):**

Connect to the reset switch on the chassis front panel. Press the reset switch to restart the computer if the computer freezes and fails to perform a normal restart.

#### **PLED (System Power LED):**

Connect to the power status indicator on the chassis front panel. The LED is on when the system is operating. The LED keeps blinking when the system is in S1 sleep state. The LED is off when the system is in S3/S4 sleep state or powered off (S5).



### HDLED (Hard Drive Activity LED):

Connect to the hard drive activity LED on the chassis front panel. The LED is on when the hard drive is reading or writing data.

The front panel design may differ by chassis. A front panel module mainly consists of power switch, reset switch, power LED, hard drive activity LED, speaker and etc. When connecting your chassis front panel module to this header, make sure the wire assignments and the pin assignments are matched correctly.

### Buzzer

(2-pin BUZZ1)

(see p.8 No. 13)



### 3W Audio AMP Output Wafer

(4-pin SPEAKER1)

(see p.8 No. 24)

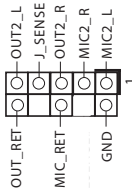


PIN	Signal Name	PIN	Signal Name	PIN	Signal Name	PIN	Signal Name
1	OUTLN	2	OUTLP	3	OUTRP	4	OUTRN

### Front Panel Audio Header

(9-pin HD\_AUDIO1)

(see p.8 No. 25)



This is an interface for front panel audio cable that allows convenient connection and control of audio devices.

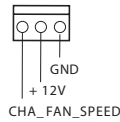


1. High Definition Audio supports Jack Sensing, but the panel wire on the chassis must support HDA to function correctly. Please follow the instruction in our manual and chassis manual to install your system.
2. If you use AC'97 audio panel, please install it to the front panel audio header as below:
  - A. Connect Mic\_IN (MIC) to MIC2\_L.
  - B. Connect Audio\_R (RIN) to OUT2\_R and Audio\_L (LIN) to OUT2\_L.
  - C. Connect Ground (GND) to Ground (GND).
  - D. MIC\_RET and OUT\_RET are for HD audio panel only. You don't need to connect them for AC'97 audio panel.
  - E. To activate the front mic.  
Go to the "FrontMic" Tab in the Realtek Control panel. Adjust "Recording Volume".

### Chassis Fan Connector

(3-pin CHA\_FAN1)

(see p.8 No. 17)

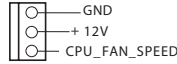


Please connect the fan cable to the fan connector and match the black wire to the ground pin.

### CPU Fan Connector

(4-pin CPU\_FAN1)

(see p.8 No. 6)



Please connect the CPU fan cable to the connector and match the black wire to the ground pin.

### 4-pin DC-in PWR Connector

(Input +12V)

(4-pin ATX12V1)

(see p.8 No. 1)



Please connect a DC-in power to this connector.

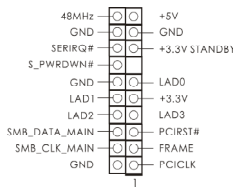
1-4: GND

2-3: DC Input

### LPC Header

(19-pin LPC1)

(see p.8, No. 16)

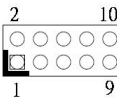


This connector supports a Trusted Platform Module (TPM) system, which can securely store keys, digital certificates, passwords, and data. A TPM system also helps enhance network security, protects digital identities, and ensures platform integrity.

### Digital Input / Output Pin Header

(10-pin JGPIO1)

(see p.8 No. 21)

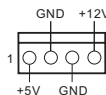


PIN	Signal Name	PIN	Signal Name	PIN	Signal Name	PIN	Signal Name	PIN	Signal Name
2	SIO_GP80	4	SIO_GP81	6	SIO_GP82	8	SIO_GP83	10	GND
1	SIO_GP84	3	SIO_GP85	5	SIO_GP86	7	SIO_GP87	9	JGPIO_PWR

### SATA Power Output Connector

(4-pin SATA\_PWR1)

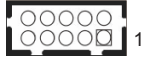
(see p.8 No. 2)



## VGA Connector

(10-pin VGA\_H1)

(see p.8 No. 4)



PIN	Signal Name	PIN	Signal Name	PIN	Signal Name	PIN	Signal Name	PIN	Signal Name
10	DDC_DATA	8	VSYNC	6	GND	4	GND	2	GND
9	DDC_CLK	7	HSYNC	5	BLUE	3	GREEN	1	RED

## SMB Header

(4-pin SMB\_HEADER1)

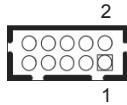
(see p.8 No. 7)



PIN	Signal Name
1	POWER
2	SMB_CLK
3	SMB_DATA
4	GND

## COM Port Headers

(9-pin COM1~6: see p.8, No. 19)



PIN	Signal Name	PIN	Signal Name	PIN	Signal Name	PIN	Signal Name	PIN	Signal Name
10	NC	8	CCTS#	6	DDSR#	4	DDTR#	2	RRXD
9	+5V/+12V	7	RRTS#	5	GND	3	TTXD	1	DDCD#

\* This motherboard supports RS232/422/485 on COM1 and COM2 ports. Please refer to below table for the pin definition. In addition, COM1 and COM2 ports (RS232/422/485) can be adjusted in BIOS setup utility > Advanced Screen > Super IO Configuration. You may refer to page 26 for details.

### COM1, 2 Ports Pin Definition

PIN	RS232	RS422	RS485
1	DCD	TX-	RTX-
2	RXD	RX+	N/A
3	TXD	TX+	RTX+
4	DTR	RX-	N/A
5	GND	GND	GND
6	DSR	N/A	N/A
7	RTS	N/A	N/A
8	CTS	N/A	N/A
9	+5V/+12V	+5V/+12V	+5V/+12V
10	NC	NC	NC

## PS2 Keyboard/Mouse Header

(8-pin PS2\_KB\_MS1)

(see p.8 No. 18)



PIN	Signal Name	PIN	Signal Name	PIN	Signal Name	PIN	Signal Name
8	GND	6	GND	4	USB2_PWR6_7	2	USB2_PWR6_7
7	MSCLK	5	MSDATA	3	KBDATA	1	KBCLK

---

## Chapter 3: UEFI SETUP UTILITY

### 3.1 Introduction

This section explains how to use the UEFI SETUP UTILITY to configure your system. The UEFI chip on the motherboard stores the UEFI SETUP UTILITY. You may run the UEFI SETUP UTILITY when you start up the computer. Please press <F2> or <Del> during the Power-On-Self-Test (POST) to enter the UEFI SETUP UTILITY, otherwise, POST will continue with its test routines.

If you wish to enter the UEFI SETUP UTILITY after POST, restart the system by pressing <Ctl> + <Alt> + <Delete>, or by pressing the reset button on the system chassis. You may also restart by turning the system off and then back on.



Because the UEFI software is constantly being updated, the following UEFI setup screens and descriptions are for reference purpose only, and they may not exactly match what you see on your screen.

#### 3.1.1 UEFI Menu Bar

The top of the screen has a menu bar with the following selections:

<b>Main</b>	To set up the system time/date information
<b>Advanced</b>	To set up the advanced UEFI features
<b>H/W Monitor</b>	To display current hardware status
<b>Security</b>	To set up the security features
<b>Boot</b>	To set up the default system device to locate and load the Operating System
<b>Exit</b>	To exit the current screen or the UEFI SETUP UTILITY

Use <←> key or <→> key to choose among the selections on the menu bar, and then press <Enter> to get into the sub screen. You can also use the mouse to click your required item.

---

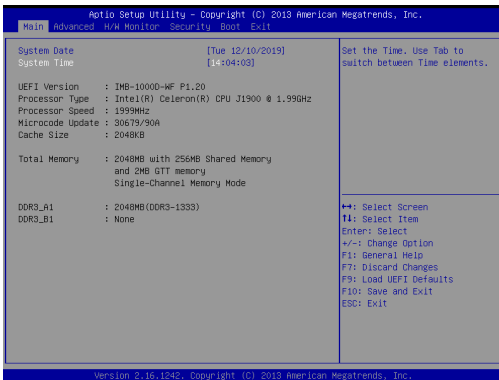
## 3.1.2 Navigation Keys

Please check the following table for the function description of each navigation key.

Navigation Key(s)	Function Description
← / →	Moves cursor left or right to select Screens
↑ / ↓	Moves cursor up or down to select items
+ / -	To change option for the selected items
<Enter>	To bring up the selected screen
<F1>	To display the General Help Screen
<F7>	Discard changes
<F9>	To load optimal default values for all the settings
<F10>	To save changes and exit the UEFI SETUP UTILITY
<F12>	Print screen
<ESC>	To jump to the Exit Screen or exit the current screen

## 3.2 Main Screen

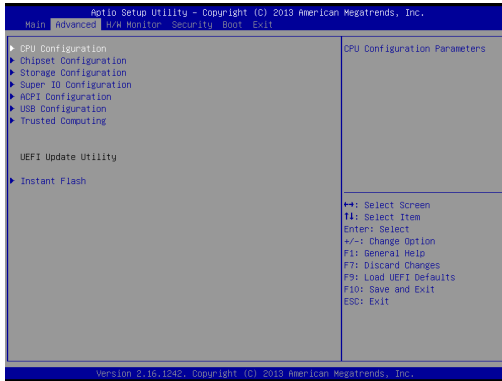
When you enter the UEFI SETUP UTILITY, the Main screen will appear and display the system overview.



---

### 3.3 Advanced Screen

In this section, you may set the configurations for the following items: CPU Configuration, Chipset Configuration, Storage Configuration, Super IO Configuration, ACPI Configuration, USB Configuration and Trusted Computing.



Setting wrong values in this section may cause the system to malfunction.

#### Instant Flash

Instant Flash is a UEFI flash utility embedded in Flash ROM. This convenient UEFI update tool allows you to update system UEFI without entering operating systems first like MS-DOS or Windows®. Just launch this tool and save the new UEFI file to your USB flash drive, floppy disk or hard drive, then you can update your UEFI only in a few clicks without preparing an additional floppy diskette or other complicated flash utility. Please be noted that the USB flash drive or hard drive must use FAT32/16/12 file system. If you execute Instant Flash utility, the utility will show the UEFI files and their respective information. Select the proper UEFI file to update your UEFI, and reboot your system after UEFI update process completes.

---

### 3.3.1 CPU Configuration



#### Intel SpeedStep Technology

Intel SpeedStep technology is Intel's new power saving technology. Processors can switch between multiple frequencies and voltage points to enable power saving. The default value is [Enabled]. Configuration options: [Enabled] and [Disabled]. If you install Windows® 8 / 8.1 and want to enable this function, please set this item to [Enabled]. This item will be hidden if the current CPU does not support Intel SpeedStep technology.



Please note that enabling this function may reduce CPU voltage and lead to system stability or compatibility issues with some power supplies. Please set this item to [Disabled] if above issues occur.

#### CPU C States Support

Enable CPU C States Support for power saving. It is recommended to keep C3, C6 and C7 all enabled for better power saving.

#### Enhanced Halt State (C1E)

Enable Enhanced Halt State (C1E) for lower power consumption.

#### No-Execute Memory Protection

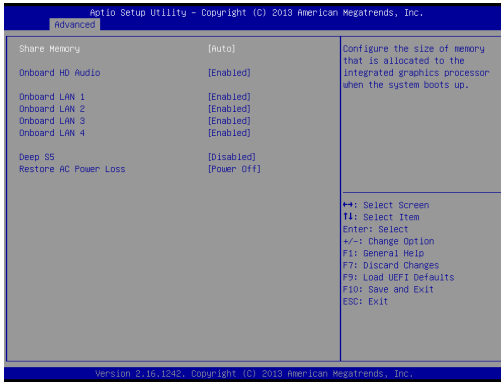
No-Execution (NX) Memory Protection Technology is an enhancement to the IA-32 Intel Architecture. An IA-32 processor with "No Execute (NX) Memory Protection" can prevent data pages from being used by malicious software to execute codes. This option will be hidden if the current CPU does not support No-Execute Memory Protection.

#### Intel Virtualization Technology

When this option is set to [Enabled], a VMM (Virtual Machine Architecture) can utilize the additional hardware capabilities provided by Vanderpool Technology. This option will be hidden if the installed CPU does not support Intel Virtualization Technology.

---

## 3.3.2 Chipset Configuration



### Share Memory

Configure the size of memory that is allocated to the integrated graphics processor when the system boots up.

### Onboard HD Audio

Select [Auto], [Enabled] or [Disabled] for the onboard HD Audio feature.

### Onboard LAN 1

This allows you to enable or disable the Onboard LAN 1 feature.

### Onboard LAN 2

This allows you to enable or disable the Onboard LAN 2 feature.

### Onboard LAN 3

This allows you to enable or disable the Onboard LAN 3 feature.

### Onboard LAN 4

This allows you to enable or disable the Onboard LAN 4 feature.

### Deep S5

Mobile platforms support Deep S5 in DC only and desktop platforms support Deep S5 in AC only. The default value is [Disabled].

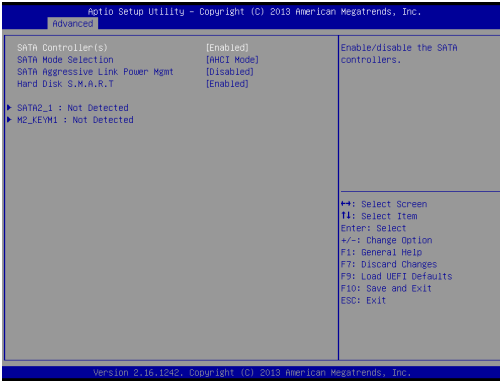
### Restore on AC/Power Loss

Select the power state after a power failure. If [Power Off] is selected, the power will remain off when the power recovers. If [Power On] is selected, the system will start to boot up when the power recovers.



---

### 3.3.3 Storage Configuration



#### SATA Controller(s)

Use this item to enable or disable the SATA Controller feature.

#### SATA Mode Selection

Use this to select SATA mode. Configuration options: [IDE Mode], [AHCI Mode] and [Disabled]. The default value is [AHCI Mode].



AHCI (Advanced Host Controller Interface) supports NCQ and other new features that will improve SATA disk performance but IDE mode does not have these advantages.

#### SATA Aggressive Link Power Management

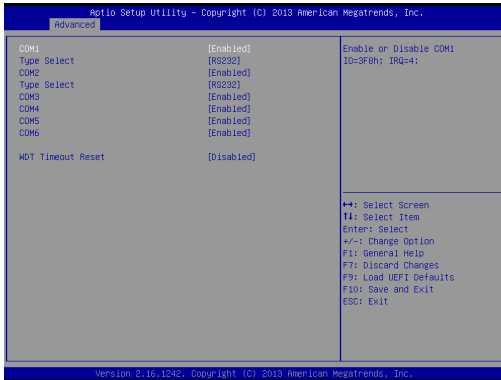
Use this item to configure SATA Aggressive Link Power Management.

#### Hard Disk S.M.A.R.T.

Use this item to enable or disable the S.M.A.R.T. (Self-Monitoring, Analysis, and Reporting Technology) feature. Configuration options: [Disabled] and [Enabled].

---

### 3.3.4 Super IO Configuration



#### COM1 Configuration

Use this to set parameters of COM1. Select COM1 port type: [RS232], [RS422] or [RS485].

#### COM2 Configuration

Use this to set parameters of COM2. Select COM2 port type: [RS232], [RS422] or [RS485].

#### COM3 Configuration

Use this to set parameters of COM3.

#### COM4 Configuration

Use this to set parameters of COM4.

#### COM5 Configuration

Use this to set parameters of COM5.

#### COM6 Configuration

Use this to set parameters of COM6.

#### WDT Timeout Reset

This allows users to enable/disable the Watch Dog Timer timeout to reset system. The default value is [Disabled].

---

### 3.3.5 ACPI Configuration



#### **Suspend to RAM**

Use this item to select whether to auto-detect or disable the Suspend-to-RAM feature. Select [Auto] will enable this feature if the OS supports it.

#### **ACPI HPET Table**

Use this item to enable or disable ACPI HPET Table. The default value is [Enabled]. Please set this option to [Enabled] if you plan to use this motherboard to submit Windows® certification.

#### **Onboard LAN Power On**

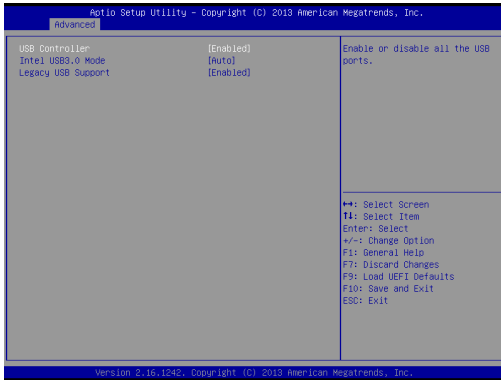
Use this item to enable or disable onboard LAN to turn on the system from the power-soft-off mode.

#### **RTC Alarm Power On**

Use this item to enable or disable RTC (Real Time Clock) to power on the system.

---

## 3.3.6 USB Configuration



### USB Controller

Use this item to enable or disable the use of USB controller.

### Intel 3.0 Mode

Use this item to enable or disable the use of USB 3.0 controller.

### Legacy USB Support

Use this option to select legacy support for USB devices. There are three configuration options: [Enabled], [Auto] and [UEFI Setup Only]. The default value is [Auto]. Please refer to below descriptions for the details of these four options:

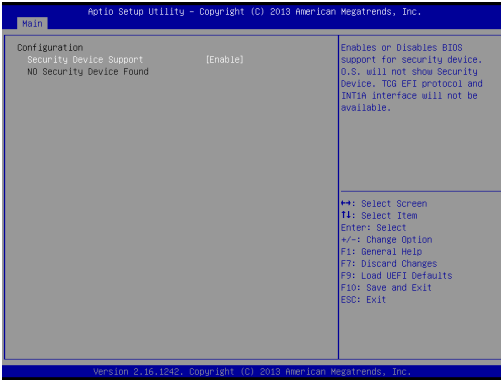
[Enabled] - Enables support for legacy USB.

[Auto] - Enables legacy support if USB devices are connected.

[UEFI Setup Only] - USB devices are allowed to use only under UEFI setup and Windows / Linux OS.

---

### 3.3.7 Trusted Computing



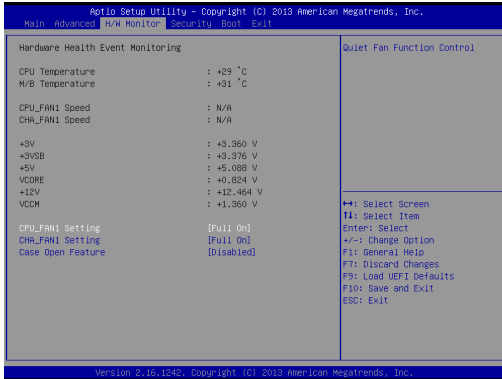
#### Security Device Support

Enable or disable BIOS support for security device.

---

## 3.4 Hardware Health Event Monitoring Screen

In this section, it allows you to monitor the status of the hardware on your system, including the parameters of the CPU temperature, motherboard temperature, CPU fan speed, chassis fan speed, and the critical voltage.



### CPU\_FAN1 Setting

This allows you to set CPU\_FAN1's speed. Configuration options: [Full On] and [Automatic Mode]. The default value is [Full On].

### CHA\_FAN1 Setting

This allows you to set CHA\_FAN1's speed. Configuration options: [Full On] and [Automatic Mode]. The default value is [Full On].

### Case Open Feature

This allows you to enable or disable case open detection feature. The default is value [Disabled].

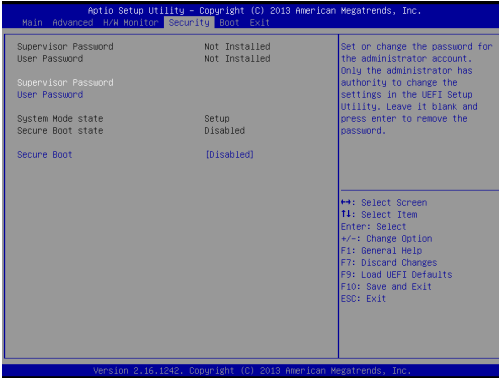
### Clear Status

This option appears only when the case open has been detected. Use this option to keep or clear the record of previous chassis intrusion status.

---

## 3.5 Security Screen

In this section, you may set, change or clear the supervisor/user password for the system.



### Supervisor Password

Set or change the password for the administrator account. Only the administrator has authority to change the settings in the UEFI Setup Utility. Leave it blank and press enter to remove the password.

### User Password

Set or change the password for the user account. Users are unable to change the settings in the UEFI Setup Utility. Leave it blank and press enter to remove the password.

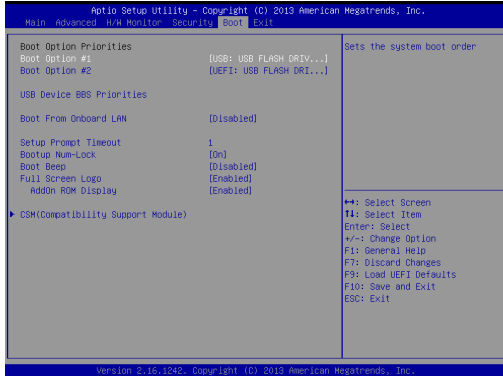
### Secure Boot

Enable to support Windows 8 64-bit Secure Boot.

---

## 3.6 Boot Screen

In this section, it will display the available devices on your system for you to configure the boot settings and the boot priority.



### Boot From Onboard LAN

Use this item to enable or disable the Boot From Onboard LAN feature.

### Setup Prompt Timeout

This shows the number of seconds to wait for setup activation key.

### Bootup Num-Lock

If this item is set to [On], it will automatically activate the Numeric Lock function after boot-up.

### Boot Beep

Select whether the Boot Beep should be turned on or off when the system boots up. Please note that a buzzer is needed.

### Full Screen Logo

Use this item to enable or disable OEM Logo. The default value is [Enabled].

### AddOn ROM Display

Enable AddOn ROM Display to see the AddOn ROM messages or configure the AddOn ROM if you've enabled Full Screen Logo. Disable for faster boot speed.



---

## CSM (Compatibility Support Module)



### CSM

Enable to launch the Compatibility Support Module. Please do not disable unless you're running a WHCK test. If you are using Windows® 8 64-bit and all of your devices support UEFI, you may also disable CSM for faster boot speed.

### Launch PXE OpROM Policy

Select UEFI only to run those that support UEFI option ROM only. Select Legacy only to run those that support legacy option ROM only. Select Do not launch to not execute both legacy and UEFI option ROM.

### Launch Storage OpROM Policy

Select UEFI only to run those that support UEFI option ROM only. Select Legacy only to run those that support legacy option ROM only. Select Do not launch to not execute both legacy and UEFI option ROM.

### Launch Video OpROM Policy

Select UEFI only to run those that support UEFI option ROM only. Select Legacy only to run those that support legacy option ROM only. Select Do not launch to not execute both legacy and UEFI option ROM.

---

## 3.7 Exit Screen



### Save Changes and Exit

When you select this option, it will pop-out the following message, “Save configuration changes and exit setup?” Select [OK] to save the changes and exit the UEFI SETUP UTILITY.

### Discard Changes and Exit

When you select this option, it will pop-out the following message, “Discard changes and exit setup?” Select [OK] to exit the UEFI SETUP UTILITY without saving any changes.

### Discard Changes

When you select this option, it will pop-out the following message, “Discard changes?” Select [OK] to discard all changes.

### Load UEFI Defaults

Load UEFI default values for all the setup questions. F9 key can be used for this operation.

### Launch EFI Shell from filesystem device

Attempts to Launch EFI Shell application (Shell64.efi) from one of the available filesystem devices.

---

## **Chapter 4: Software Support**

### **4.1 Install Operating System**

This motherboard supports Microsoft® Windows® operating systems: 10 64-bit. Because motherboard settings and hardware options vary, use the setup procedures in this chapter for general reference only. Refer to your OS documentation for more information.

### **4.2 Support CD Information**

The Support CD that came with the motherboard contains necessary drivers and useful utilities that enhance the motherboard's features.

#### **4.2.1 Running The Support CD**

To begin using the support CD, insert the CD into your CD-ROM drive. The CD automatically displays the Main Menu if "AUTORUN" is enabled in your computer. If the Main Menu did not appear automatically, locate and double click on the file "ASRSETUP.EXE" from the BIN folder in the Support CD to display the menus.

#### **4.2.2 Drivers Menu**

The Drivers Menu shows the available device's drivers if the system detects installed devices. Please install the necessary drivers to activate the devices.

#### **4.2.3 Utilities Menu**

The Utilities Menu shows the application software that the motherboard supports. Click on a specific item then follow the installation wizard to install it.

#### **4.2.4 Contact Information**

If you need to contact ASRockInd or want to know more about ASRockInd, you're welcome to visit ASRockInd's website at <http://www.asrockind.com>; or you may contact your dealer for further information.