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Dichiarazione di conformità sintetica

Ai sensi dell'art. 2 comma 3 del D.M. 275 del 30/10/2002

Si dichiara che questo prodotto è conforme alle normative vigenti e soddisfa i requisiti essenziali richiesti dalle direttive

2004/108/CE, 2006/95/CE e 1999/05/CE

quando ad esso applicabili

Short Declaration of conformity

We declare this product is complying with the laws in force and meeting all the essential requirements as specified by the directives

2004/108/CE, 2006/95/CE and 1999/05/CE

whenever these laws may be applied

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CHAPTER 1: INTRODUCTION

1.1 Before You Start

Thank you for choosing our product. Before you start installing the motherboard, please make sure you follow the instructions below:

- Prepare a dry and stable working environment with sufficient lighting.
- Always disconnect the computer from power outlet before operation.
- Before you take the motherboard out from anti-static bag, ground yourself properly by touching any safely grounded appliance, or use grounded wrist strap to remove the static charge.
- Avoid touching the components on motherboard or the rear side of the board unless necessary. Hold the board on the edge, do not try to bend or flex the board.
- Do not leave any unfastened small parts inside the case after installation. Loose parts will cause short circuits which may damage the equipment.
- Keep the computer from dangerous area, such as heat source, humid air and water.
- The operating temperatures of the computer should be 0 to 45 degrees Celsius.
- To avoid injury, be careful of:
 - Sharp pins on headers and connectors
 - Rough edges and sharp corners on the chassis
 - Damage to wires that could cause a short circuit

1.2 Package Checklist

- Serial ATA Cable x2
- Rear I/O Panel for ATX Case x1
- Quick Installation Guide x1
- Fully Setup Driver DVD x1

Note: The package contents may be different due to the sales region or models in which it was sold. For more information about the standard package in your region, please contact your dealer or sales representative.

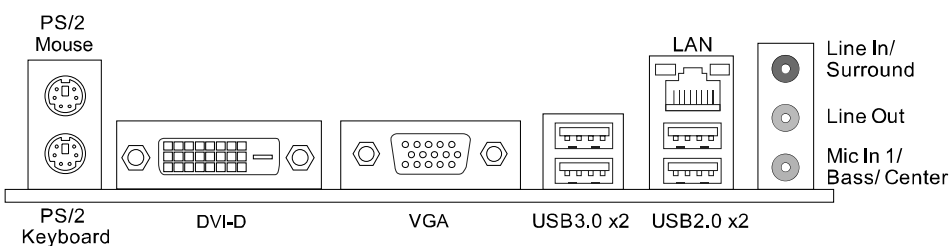
1.3 Motherboard Specifications

Specifications	
CPU Support	Socket 1150 for Intel® Core i7 / i5 / i3 / Pentium / Celeron processor Maximum CPU TDP (Thermal Design Power): 95Watt * Please refer to www.biostar.com.tw for CPU support list.
Chipset	INTEL® H87 (Hi-Fi H87S3) INTEL® B85 (Hi-Fi B85S3) INTEL® H81 (Hi-Fi H81S3)
Memory	Supports Dual Channel DDR3 1066/ 1333/ 1600 2 x DDR3 DIMM Memory Slot, Max. Supports up to 16 GB Memory Each DIMM supports non-ECC 512MB/ 1/ 2/ 4/ 8 GB DDR3 module * Please refer to www.biostar.com.tw for Memory support list.
Storage	INTEL® H87: 6x SATA 6Gb/s Connector Supports RAID 0,1,10,5 & SRT, AHCI INTEL® B85: 4x SATA 6Gb/s Connector 2x SATA 3Gb/s Connector Supports AHCI INTEL® H81: 2x SATA 6Gb/s Connector 2x SATA 3Gb/s Connector Supports AHCI
LAN	Realtek RTL 8111F 10/ 100/ 1000 Mb/s auto negotiation, Half / Full duplex capability
Audio Codec	ALC662 5.1 Channels, High Definition Audio, Biostar Hi-Fi
USB	Hi-Fi H87S3 & Hi-Fi B85S3: 4x USB 3.0 port (2 on rear I/Os and 2 via internal headers) 6x USB 2.0 port (2 on rear I/Os and 4 via internal headers) Hi-Fi H81S3: 2x USB 3.0 port (2 on rear I/Os) 6x USB 2.0 port (2 on rear I/Os and 4 via internal headers)
Expansion Slots	Hi-Fi H87S3 & Hi-Fi B85S3: 1x PCIe 2.0 x1 Slot 1x PCIe 2.0 x16 Slot (x4) 1x PCIe 3.0 x16 Slot (x16) Hi-Fi H81S3: 1x PCIe 2.0 x1 Slot 1x PCIe 2.0 x16 Slot (x4) 1x PCIe 2.0 x16 Slot (x16)
Rear I/Os	1x PS/2 Mouse 1x PS/2 Keyboard 1x DVI Port 1x VGA Port 1x LAN port 2x USB 2.0 Port 2x USB 3.0 Port 3x Audio Jack

Hi-Fi H87S3/Hi-Fi B85S3/Hi-Fi H81S3

Specifications				
	Hi-Fi H87S3	Hi-Fi B85S3	Hi-Fi H81S3	
Internal I/Os	6x SATA 6.0Gb/s Connector	4x SATA 6.0Gb/s Connector	2x SATA 6.0Gb/s Connector	
	2x USB 2.0 Header (each header supports 2 USB 2.0 ports)	2x SATA 2.0Gb/s Connector	2x SATA 2.0Gb/s Connector	
	1x USB 3.0 Header (each header supports 2 USB 3.0 ports)	2x USB 2.0 Header (each header supports 2 USB 2.0 ports)	2x USB 2.0 Header (each header supports 2 USB 2.0 ports)	
	1x 4-Pin Power Connector	1x USB 3.0 Header (each header supports 2 USB 3.0 ports)	1x 4-Pin Power Connector	
	1x 24-Pin Power Connector	1x 4-Pin Power Connector (each header supports 2 USB 3.0 ports)	1x 24-Pin Power Connector	
	1x CPU Fan Connector	1x 4-Pin Power Connector	1x CPU Fan Connector	
	1x System Fan Connector	1x 24-Pin Power Connector	1x System Fan Connector	
	1x Front Panel Header	1x CPU Fan Connector	1x Front Panel Header	
	1x Front Audio Header	1x System Fan Connector	1x Front Audio Header	
	1x Clear CMOS Header	1x Front Panel Header	1x Clear CMOS Header	
	1x Consumer IR Header	1x Front Audio Header	1x Consumer IR Header	
	1x Serial Port Header	1x Clear CMOS Header	1x Serial Port Header	
	1x Printer Port Header	1x Consumer IR Header	1x Printer Port Header	
			1x Serial Port Header	
			1x Printer Port Header	
	Form Factor	ATX Form Factor, 244 mm x 180 mm		
OS Support	Windows 7/ 8 Biostar reserves the right to add or remove support for any OS with or without notice.			

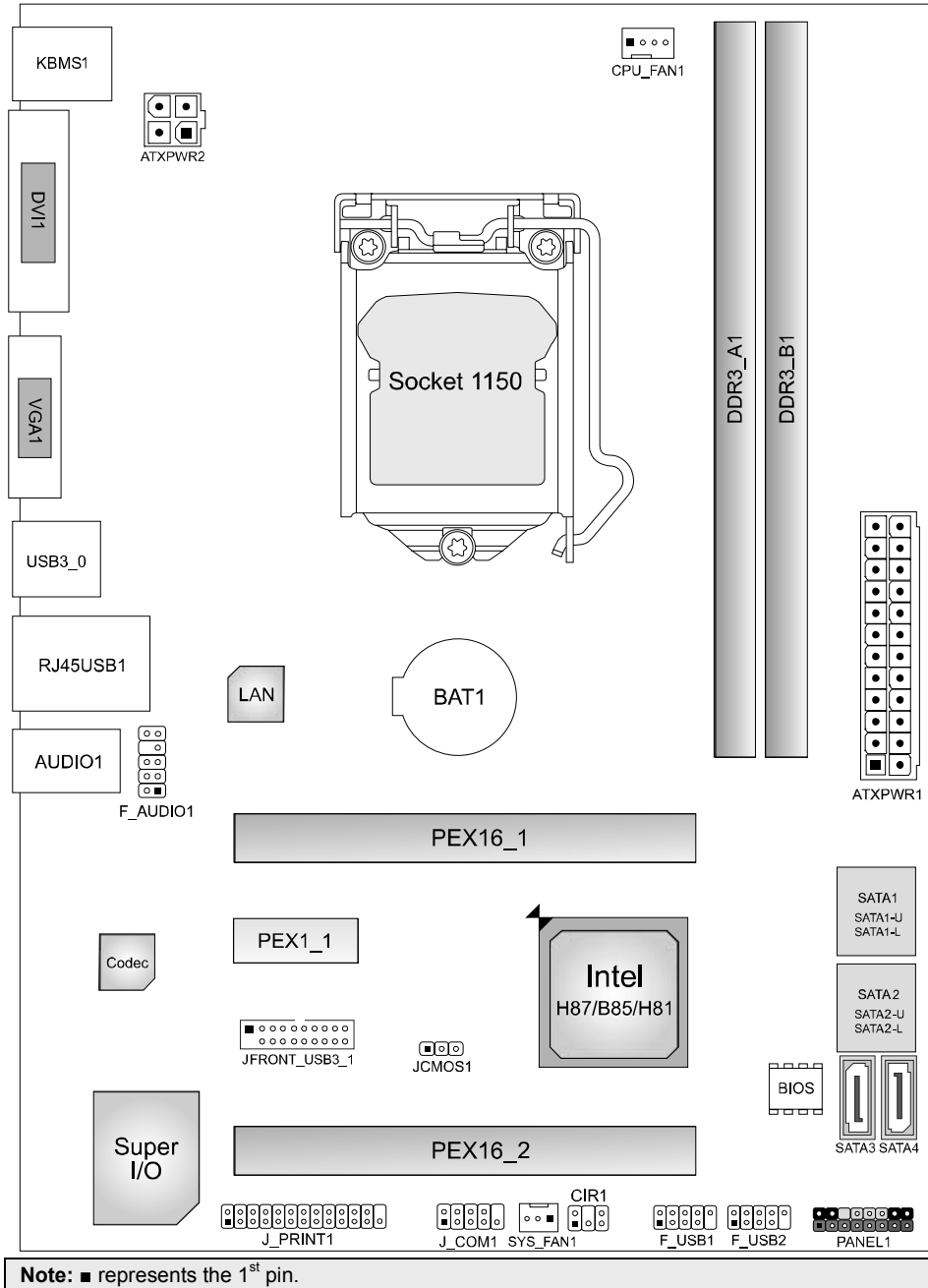
1.4 Rear Panel Connectors



Note1: DVI & VGA ports only work with an Intel® integrated Graphics Processor.

Note2: Maximum resolution:
DVI: 1920 x 1200 @60Hz
VGA: 1920 x 1200 @60Hz

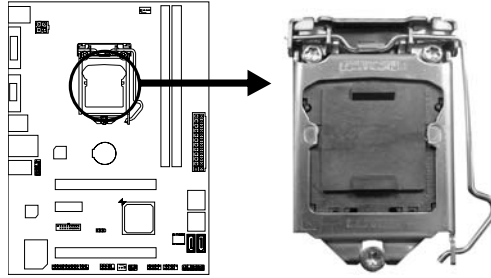
1.5 Motherboard Layout



CHAPTER 2: HARDWARE INSTALLATION

2.1 Install Central Processing Unit (CPU)

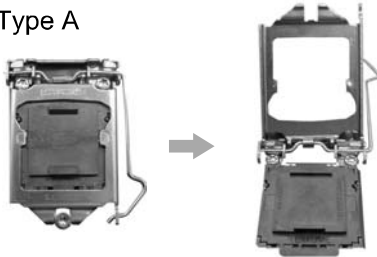
Step 1: Locate the CPU socket on the motherboard



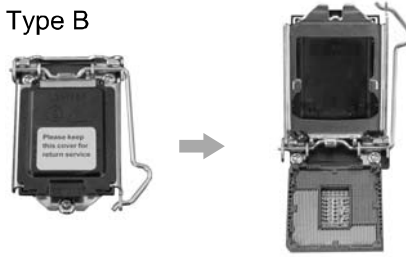
Note1: Remove Pin Cap before installation, and make good preservation for future use. When the CPU is removed, cover the Pin Cap on the empty socket to ensure pin legs won't be damaged.
Note2: The motherboard might equip with two different types of pin cap. Please refer below instruction to remove the pin cap.

Step 2: Pull the socket locking lever out from the socket and then raise the lever up.

Type A

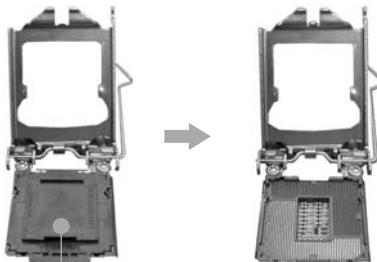


Type B



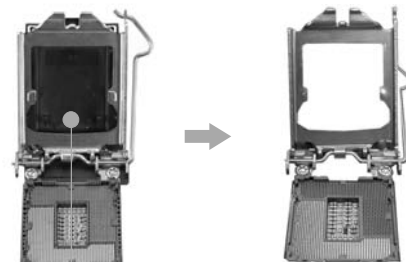
Step 3: Remove the Pin Cap.

Type A



Pin Cap

Type B



Pin Cap

Motherboard Manual

Step 4: Hold processor with your thumb and index fingers, oriented as shown. Align the notches with the socket. Lower the processor straight down without tilting or sliding the processor in the socket.



Note1: The LGA1155 CPU is not compatible with LGA 1150 socket. Do not install a LGA 1155 CPU on the LGA 1150 socket.

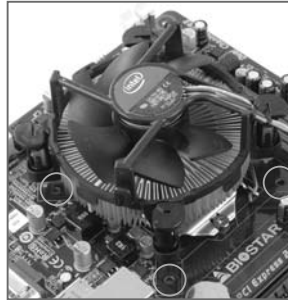
Note2: The CPU fits only in one correct orientation. Do not force the CPU into the socket to prevent damaging the CPU.

Step 5: Hold the CPU down firmly, and then lower the lever to locked position to complete the installation.

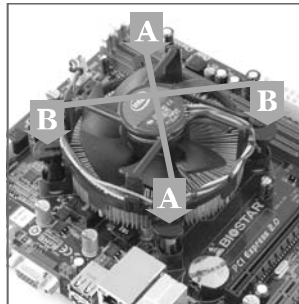


2.2 Install a Heatsink

Step 1: Place the CPU fan assembly on top of the installed CPU and make sure that the four fasteners match the motherboard holes. Orient the assembly and make the fan cable is closest to the CPU fan connector.



Step 2: Press down two fasteners at one time in a diagonal sequence to secure the CPU fan assembly in place. Ensure that all four fasteners are secured.



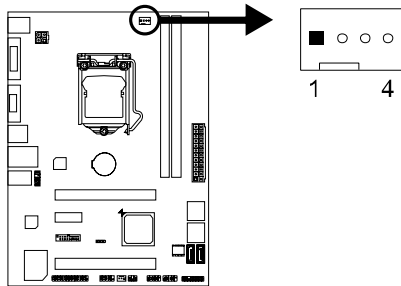
Note1: Do not forget to connect the CPU fan connector.

Note2: For proper installation, please kindly refer to the installation manual of your CPU heatsink.

2.3 Connect Cooling Fans

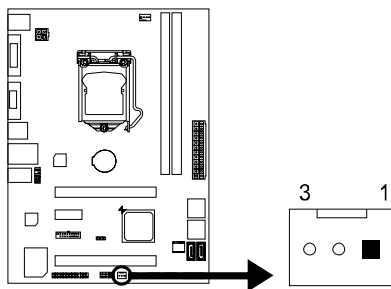
These fan headers support cooling-fans built in the computer. The fan cable and connector may be different according to the fan manufacturer.

CPU_FAN1: CPU Fan Header



Pin	Assignment
1	Ground
2	+12V
3	FAN RPM rate sense
4	Smart Fan Control (By Fan)

SYS_FAN1: System Fan Header

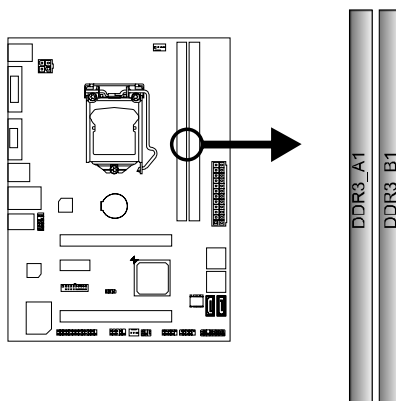


Pin	Assignment
1	Ground
2	+12V
3	FAN RPM rate sense

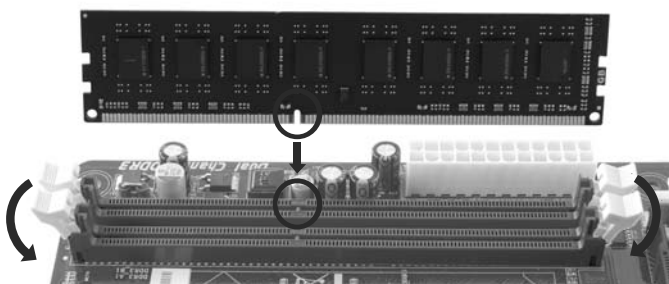
Note: CPU_FAN1, SYS_FAN1 support 4-pin and 3-pin head connectors. When connecting with wires onto connectors, please note that the red wire is the positive and should be connected to pin#2, and the black wire is Ground and should be connected to pin#1(GND).

2.4 Install System Memory

DDR3 Modules



Step 1: Unlock a DIMM slot by pressing the retaining clips outward. Align a DIMM on the slot such that the notch on the DIMM matches the break on the slot.



Step 2: Insert the DIMM vertically and firmly into the slot until the retaining chip snap back in place and the DIMM is properly seated.



Note: If the DIMM does not go in smoothly, do not force it. Pull it all the way out and try again.

Memory Capacity

DIMM Socket Location	DDR3 Module	Total Memory Size
DDR3_A1	512MB/1GB/2GB/4GB/8GB	Max is 16GB.
DDR3_B1	512MB/1GB/2GB/4GB/8GB	

Dual Channel Memory Installation

Please refer to the following requirements to activate Dual Channel function:

Install memory module of the same density in pairs, shown in the table.

Dual Channel Status	DDR3_A1	DDR3_B1
Disabled	O	X
Disabled	X	O
Enabled	O	O

(O means memory installed, X means memory not installed.)

Note: The DRAM bus width of the memory module must be the same (x8 or x16)

2.5 Expansion Slots

Install an Expansion Card

You can install your expansion card by following steps:

1. Read the related expansion card's instruction document before install the expansion card into the computer.
2. Remove your computer's chassis cover, screws and slot bracket from the computer.
3. Place a card in the expansion slot and press down on the card until it is completely seated in the slot.
4. Secure the card's metal bracket to the chassis back panel with a screw.
5. Replace your computer's chassis cover.
6. Power on the computer, if necessary, change BIOS settings for the expansion card.
7. Install related driver for the expansion card.

**PEX16_1: PCI-Express Gen3 x16 Slot
(Hi-Fi H87S3 & Hi-Fi B85S3)**

- PCI-Express 3.0 compliant.
- Maximum theoretical realized bandwidth of 16GB/s simultaneously per direction, for an aggregate of 32GB/s totally.

**PEX16_1: PCI-Express Gen2 x16 Slot
(Hi-Fi H81S3)**

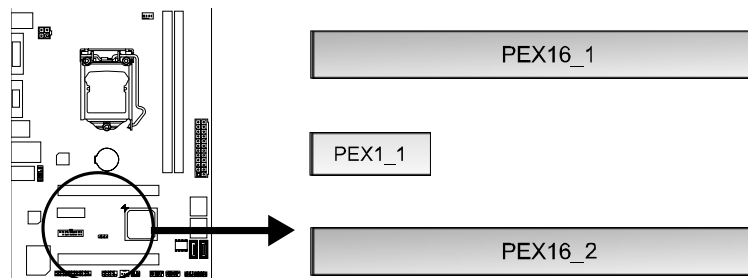
- PCI-Express 2.0 compliant.
- Maximum theoretical realized bandwidth of 8GB/s simultaneously per direction, for an aggregate of 16GB/s totally.

PEX16_2: PCI-Express Gen2 x4 Slot

- PCI-Express 2.0 compliant.
- Maximum theoretical realized bandwidth of 2GB/s simultaneously per direction, for an aggregate of 4GB/s totally.

PEX1_1: PCI-Express Gen2 x1 Slot

- PCI-Express 2.0 compliant.
- Data transfer bandwidth up to 500MB/s per direction; 1GB/s in total



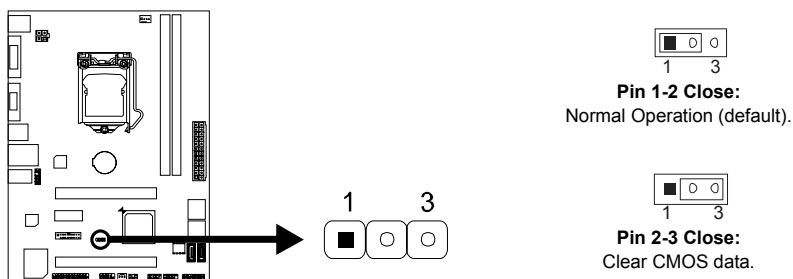
2.6 Jumper Setting

The illustration shows how to set up jumpers. When the jumper cap is placed on pins, the jumper is “close”, if not, that means the jumper is “open”.



JCMOS1: Clear CMOS Jumper

Placing the jumper on pin2-3, it allows user to restore the BIOS safe setting and the CMOS data. Please carefully follow the procedures to avoid damaging the motherboard.



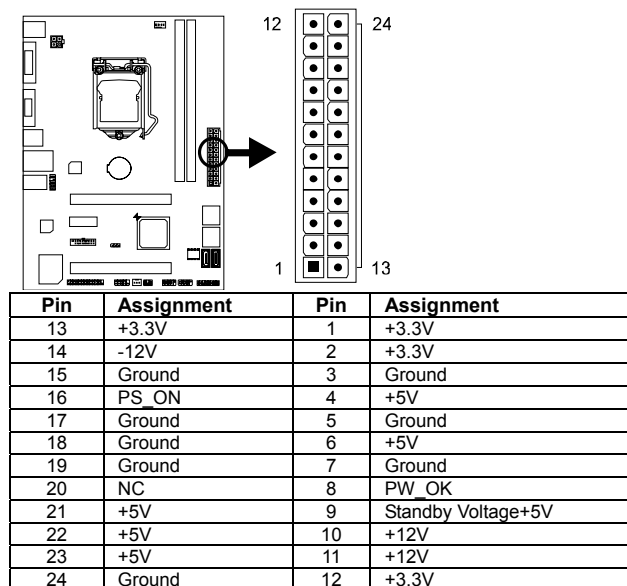
※ Clear CMOS Procedures:

1. Remove AC power line.
2. Set the jumper to “Pin 2-3 close”.
3. Wait for five seconds.
4. Set the jumper to “Pin 1-2 close”.
5. Power on the AC.
6. Load Optimal Defaults and save settings in CMOS.

2.7 Headers & Connectors

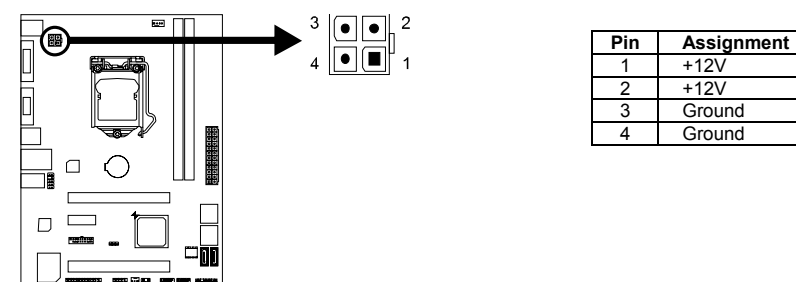
ATXPWR1: ATX Power Source Connector

This connector allows user to connect an ATX 24-pin power supply. Make sure to find the proper orientation before plugging the connector.



ATXPWR2: ATX Power Source Connector

The connector provides +12V to the CPU power circuit.

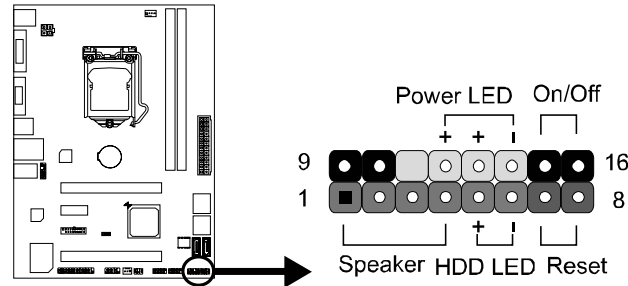


Note1: Before you power on the system, please make sure that both ATXPWR1 and ATXPWR2 connectors have been plugged-in.

Note2: Insufficient power supplied to the system may result in instability or the peripherals not functioning properly. Use of a PSU with a higher power output is recommended when configuring a system with more power-consuming devices.

PANEL1: Front Panel Header

This 16-pin header includes Power-on, Reset, HDD LED, Power LED, and speaker connection. It allows user to connect the PC case's front panel switch functions.

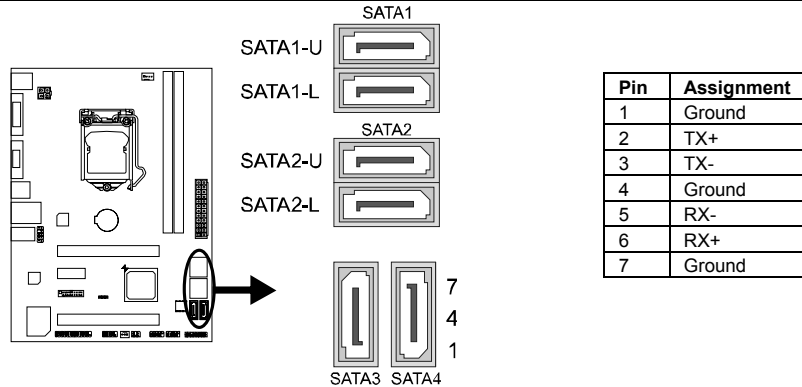


Pin	Assignment	Function	Pin	Assignment	Function
1	+5V	Speaker Connector	9	N/A	N/A
2	N/A		10	N/A	
3	N/A		11	N/A	
4	Speaker		12	Power LED (+)	Power LED
5	HDD LED (+)	13	Power LED (+)		
6	HDD LED (-)	14	Power LED (-)		
7	Ground	Reset button	15	Power button	Power-on button
8	Reset control		16	Ground	

SATA1~SATA4: Serial ATA Connectors

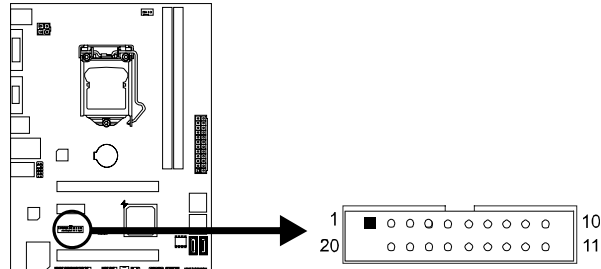
These connectors connect to SATA hard disk drives via SATA cables. Please refer below table for SATA data transfer rates.

Connectors Models	SATA1-U SATA1-L	SATA2-U SATA2-L	SATA3	SATA4
Hi-Fi H87S3	SATA 6Gb/s			
Hi-Fi B85S3	SATA 6Gb/s	SATA 3Gb/s	SATA 6Gb/s	
Hi-Fi H81S3	SATA 6Gb/s	N/A	SATA 3Gb/s	



JFRONT_USB3_1: Header for USB 3.0 Ports at Front Panel

This header allows user to add additional USB ports on the PC front panel, and also can be connected with a wide range of external peripherals.

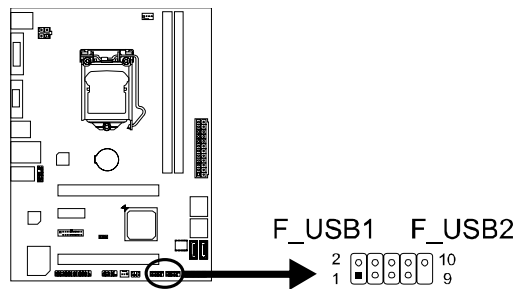


Pin	Assignment	Pin	Assignment
1	VBUS0	11	D2+
2	SSRX1-	12	D2-
3	SSRX1+	13	Ground
4	Ground	14	SSTX2+
5	SSTX1-	15	SSTX2-
6	SSTX1+	16	Ground
7	Ground	17	SSRX2+
8	D1-	18	SSRX2-
9	D1+	19	VBUS1
10	ID	20	Key

Note1: This header is only for Hi-Fi H87S3 & Hi-Fi B85S3

F_USB1/2: Header for USB 2.0 Ports at Front Panel

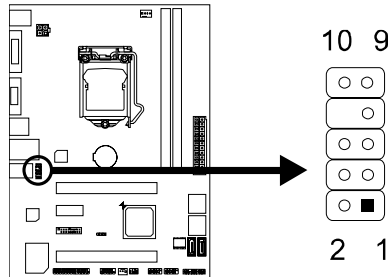
This header allows user to add additional USB ports on the PC front panel, and also can be connected with a wide range of external peripherals.



Pin	Assignment
1	+5V (fused)
2	+5V (fused)
3	USB-
4	USB-
5	USB+
6	USB+
7	Ground
8	Ground
9	NC
10	Key

F_AUDIO1: Front Panel Audio Header

This header allows user to connect the chassis-mount front panel audio I/O which supports HD and AC'97 audio standards.



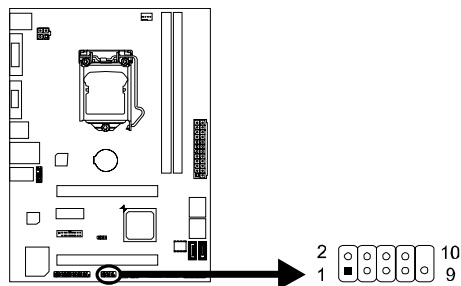
HD Audio		AC'97	
Pin	Assignment	Pin	Assignment
1	Mic Left in	1	Mic In
2	Ground	2	Ground
3	Mic Right in	3	Mic Power
4	GPIO	4	Audio Power
5	Right line in	5	RT Line Out
6	Jack Sense	6	RT Line Out
7	Front Sense	7	Reserved
8	Key	8	Key
9	Left line in	9	LFT Line Out
10	Jack Sense	10	LFT Line Out

Note1: It is recommended that you connect a high-definition front panel audio module to this connector to avail of the motherboard's high definition audio capability.

Note2: Please try to disable the "Front Panel Jack Detection" if you want to use an AC'97 front audio output cable. The function can be found via O.S. Audio Utility.

J_COM1: Serial Port Header

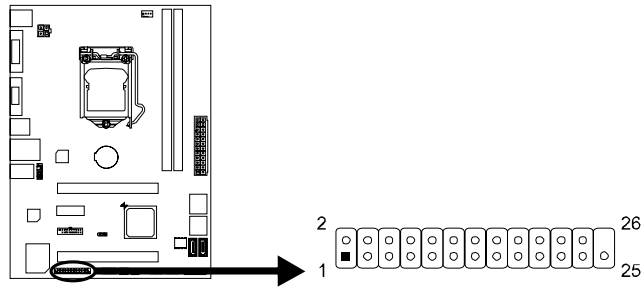
The motherboard has a serial port header for connecting RS-232 Port.



Pin	Assignment
1	Carrier detect
2	Received data
3	Transmitted data
4	Data terminal ready
5	Signal ground
6	Data set ready
7	Request to send
8	Clear to send
9	Ring indicator
10	NC

J_PRINT1: Printer Port Header

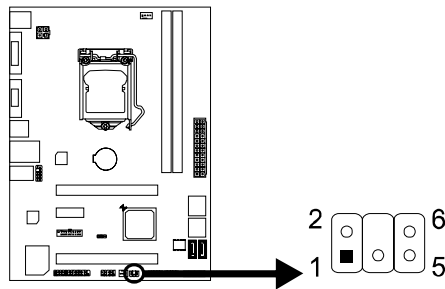
This header allows user to connect a printer to the PC.



Pin	Assignment	Pin	Assignment
1	-Strobe	14	Ground
2	-ALF	15	Data 6
3	Data 0	16	Ground
4	-Error	17	Data 7
5	Data 1	18	Ground
6	-Init	19	-ACK
7	Data 2	20	Ground
8	-Scltin	21	Busy
9	Data 3	22	Ground
10	Ground	23	PE
11	Data 4	24	Ground
12	Ground	25	SCLT
13	Data 5	26	Key

CIR1: Consumer IR Header

This header is for infrared remote control and communication.



Pin	Assignment
1	IrDA serial input
2	Ground
3	Ground
4	Key
5	IrDA serial output
6	IR Power

CHAPTER 3: UEFI BIOS & SOFTWARE

3.1 UEFI BIOS Setup

- The BIOS Setup program can be used to view and change the BIOS settings for the computer. The BIOS Setup program is accessed by pressing the key after the Power-On Self-Test (POST) memory test begins and before the operating system boot begins.
- For further information of setting up the UEFI BIOS, please refer to the UEFI BIOS Manual in the Setup DVD.

3.2 BIOS Update

The BIOS can be updated using either of the following utilities:

- **BIOSTAR BIOS Flasher:** Using this utility, the BIOS can be updated from a file on a hard disk, a USB drive (a flash drive or a USB hard drive), or a CD-ROM.
- **BIOSTAR BIOS Update Utility:** It enables automated updating while in the Windows environment. Using this utility, the BIOS can be updated from a file on a hard disk, a USB drive (a flash drive or a USB hard drive), or a CD-ROM, or from the file location on the Web.

BIOSTAR BIOS Flasher

BIOSTAR BIOS Flasher is a BIOS flashing utility providing you an easy and simple way to update your BIOS via USB pen drive.

Note1: This utility only allows storage device with FAT32/16 format and single partition.

Note2: Shutting down or resetting the system while updating the BIOS will lead to system boot failure.

Updating BIOS with BIOSTAR BIOS Flasher

1. Go to the website to download the latest BIOS file for the motherboard.
2. Then, copy and save the BIOS file into a USB flash (pen) drive.
3. Insert the USB pen drive that contains the BIOS file to the USB port.
4. Power on or reset the computer and then press <F12> during the POST process.

5. After entering the POST screen, the BIOS-FLASHER utility pops out. Choose [fs0] to search for the BIOS file.



Hi-Fi H87S3/Hi-Fi B85S3/Hi-Fi H81S3

6. Select the proper BIOS file, and a message asking if you are sure to flash the BIOS file. Click Yes to start updating BIOS.



7. A dialog pops out after BIOS flash is completed, asking you to restart the system. Press the [Y] key to restart system.



8. While the system boots up and the full screen logo shows up, press key to enter BIOS setup. After entering the BIOS setup, please go to the **Save & Exit**, using the **Restore Defaults** function to load Optimized Defaults, and select **Save Changes and Reset** to restart the computer. Then, the BIOS Update is completed.

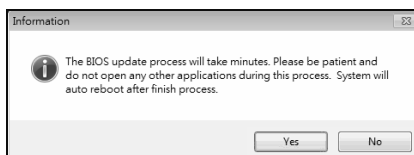
BIOS Update Utility (through the Internet)

1. Installing BIOS Update Utility from the DVD Driver.
2. Please make sure the system is connected to the internet before using this function.

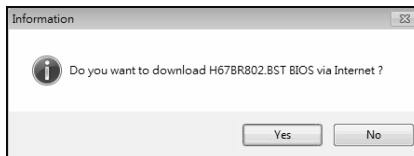
3. Launch BIOS Update Utility and click the **Online Update** button on the main screen.



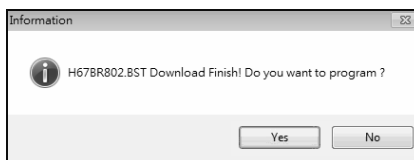
4. An open dialog will show up to request your agreement to start the BIOS update. Click **Yes** to start the online update procedure.



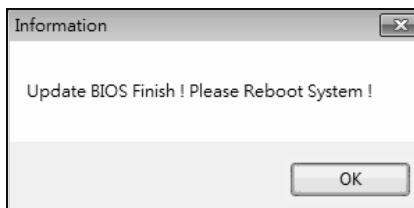
5. If there is a new BIOS version, the utility will ask you to download it. Click **Yes** to proceed.



6. After the download is completed, you will be asked to program (update) the BIOS or not. Click **Yes** to proceed.



7. After the updating process is finished, you will be asked you to reboot the system. Click **OK** to reboot.



8. While the system boots up and the full screen logo shows up, press key to enter BIOS setup. After entering the BIOS setup, please go to the **Save & Exit**, using the **Restore Defaults** function to load Optimized Defaults, and select **Save Changes and Reset** to restart the computer. Then, the BIOS Update is completed.

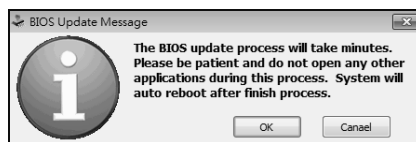
BIOS Update Utility (through a BIOS file)

1. Installing BIOS Update Utility from the DVD Driver.
2. Download the proper BIOS from <http://www.biostar.com.tw/>

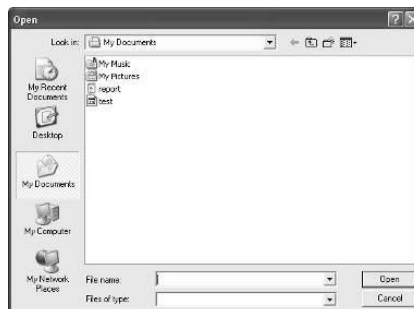
3. Launch BIOS Update Utility and click the **Update BIOS** button on the main screen.



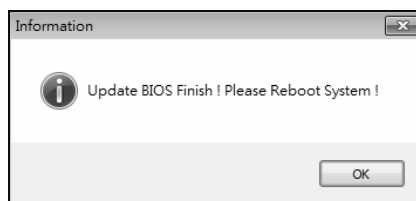
4. A warning message will show up to request your agreement to start the BIOS update. Click **OK** to start the update procedure.



5. Choose the location for your BIOS file in the system. Please select the proper BIOS file, and then click on **Open**. It will take several minutes, please be patient.



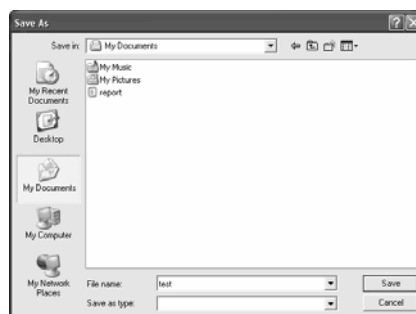
6. After the BIOS Update process is finished, click on **OK** to reboot the system.



7. While the system boots up and the full screen logo shows up, press key to enter BIOS setup. After entering the BIOS setup, please go to the **Save & Exit**, using the **Restore Defaults** function to load Optimized Defaults, and select **Save Changes and Reset** to restart the computer. Then, the BIOS Update is completed.

Backup BIOS

Click the Backup BIOS button on the main screen for the backup of BIOS, and select a proper location for your backup BIOS file in the system, and click **Save**.



3.3 Software

Installing Software

1. Insert the Setup DVD to the optical drive. The driver installation program would appear if the Auto-run function has been enabled.
2. Select **Software Installation**, and then click on the respective software title.
3. Follow the on-screen instructions to complete the installation.

Launching Software

After the installation process is completed, you will see the software icon showing on the desktop. Double-click the icon to launch it.

Note1: All the information and content about following software are subject to be changed without notice. For better performance, the software is being continuously updated.

Note2: The information and pictures described below are for your reference only. The actual information and settings on board may be slightly different from this manual.

BIOScreen Utility

This utility allows you to personalize your boot logo easily. You can choose BMP as your boot logo so as to customize your computer.



Please follow the step-by-step instructions below to update boot logo:

- Load Image : Choose the picture as the boot logo.
- Transform : Transform the picture for BIOS and preview the result.
- Update Bios : Write the picture to BIOS Memory to complete the update.

eHot-Line

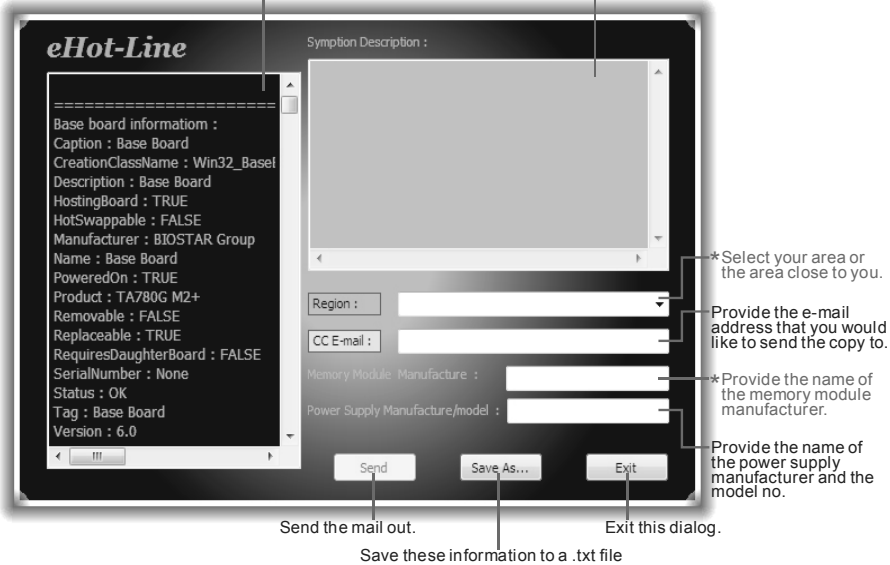
eHot-Line is a convenient utility that helps you to contact with our Tech-Support system. This utility will collect the system information which is useful for analyzing the problem you may have encountered, and then send these information to our tech-support department to help you fix the problem.

Note: Before you use this utility, please set Outlook Express as your default e-mail client application program.

*represents important information that you must provide. Without this information, you may not be able to send out the mail.

This block will show the information which would be collected in the mail.

*Describe condition of your system.



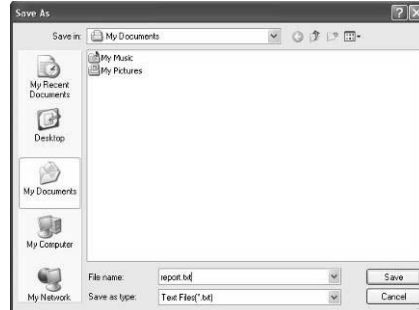
After filling up this information, click “Send” to send the mail out. A warning dialog would appear asking for your confirmation; click “Send” to confirm or “Do Not Send” to cancel.

If you want to save this information to a .txt file, click “Save As...” and then you will see a saving dialog appears asking you to enter file name.

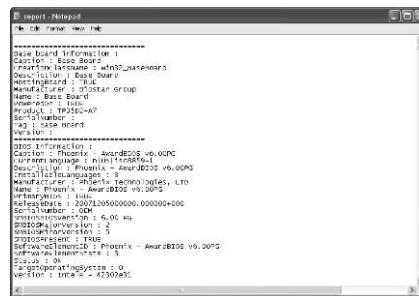


Motherboard Manual

Enter the file name and then click “**Save**”. Your system information will be saved to a .txt file.



Open the saved .txt file, you will see your system information including motherboard/BIOS/CPU/video/ device/OS information. This information is also concluded in the sent mail.



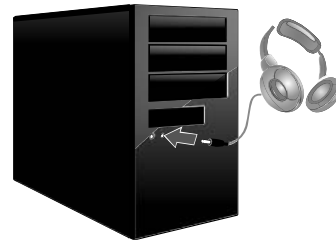
Note1: We will not share customer's data with any other third parties, so please feel free to provide your system information while using eHot-Line service.

Note2: If you are not using Outlook Express as your default e-mail client application, you may need to save the system information to a .txt file and send the file to our tech support with other e-mail application. Go to the following website <http://www.biostar.com.tw/app/en/about/contact.php> for getting our contact information.

Smart EAR

Hi-Fi Audio Requirements:

1. A chassis with front audio output jacks
2. An earphone or a headphone
3. Windows 7 or Windows 8 operation system



Installation Guide:

1. Make sure the front audio cable of the chassis connected to the front audio header of the motherboard properly.
2. Install the Smart Ear 3D Utility from the driver DVD.
3. Connect the earphone or headphone to the front audio jack of the chassis.

Note: If you want to use an AC'97 front audio output cable, please disable the "Front Panel Jack Detection" setting. This setting can be found via O.S. Audio Utility.

Smart EAR Utility:



- **High/Low Gain Switch:** Keep the gain switch to low for low impedance headphone and set to high for high impedance headphone.
- **Mute Button:** To disable system sound
- **Volume Control Knob:** The volume can be finely adjusted by turning the knob either clockwise or anti-clockwise to increase or decrease system volume accordingly.
- **Information Button:** Get information of the application
- **Minimize Button:** Minimize the application window to the taskbar
- **Exit Button:** Exit the application

Smart Connect Technology

Intel® Smart Connect Technology is designed to update programs by periodically waking your computer from sleep/standby mode for a short time. This function works with applications that automatically get their data from the Internet.

System Requirement:

- Intel Smart Connect Technology enabled in BIOS Setup
- Set the “ACPI Sleep State” to S3 in BIOS Setup.
- Windows 7 and Windows 8
- Normal internet connection

Configuring Intel Smart Connect Technology

Step 1: After installing the operating system and motherboard drivers, install the Intel Smart Connect Technology application. Restart your computer when completed.

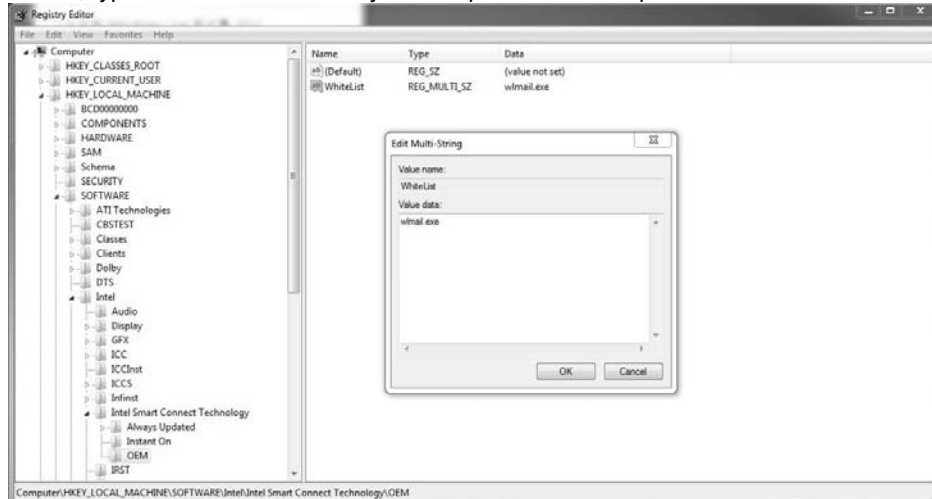
Step 2: Click on start menu and input "regedit" in the search bar. Press enter to open the registry editor. Look for the following directory in the registry editor:

Computer\HKEY_LOCAL_MACHINE\SOFTWARE\Intel\Intel Smart Connect Technology

Right-click on *Intel Smart Connect Technology* and select *New > Key*. Type “OEM”.

Note: Intel Smart Connect Technology is for S3 mode only. During the updating process, the monitor will not light up and no sound will be output from the speaker.

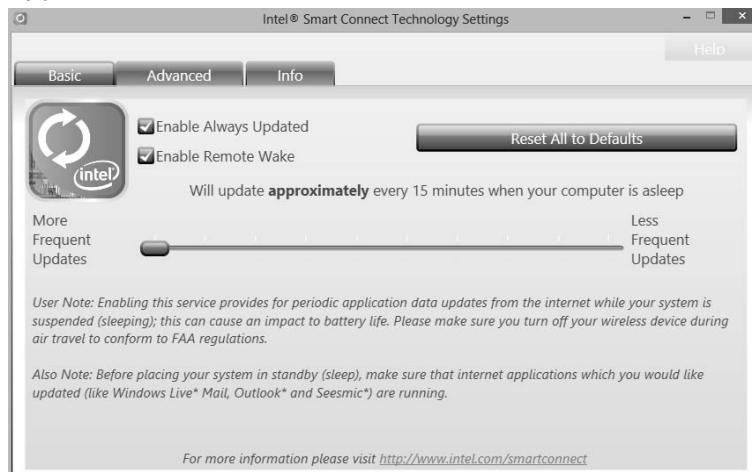
Step 3: As shown in the screenshot below, right-click on OEM, select *New > Multi-String Value*, and type “WhiteList”. Double-click *WhiteList* and type the application name to be added in *Edit Multi-String*. For example, to add Microsoft Live Mail, type “wmail.exe”. Restart your computer when completed.



Step 4: After completing the steps above, go to `Start\All Programs\Intel` and launch Intel(R) Smart Connect Technology.

Basic and advanced settings

Basic Tab



Update Frequency slider: This slider bar sets the amount of time the feature waits to wake your computer and update your applications. Move the slider in the user interface to change the frequency. The slider bar can be set to wake and update your computer from every 15 to 60 minutes. The longer the time between updates the less power the feature consumes.

Reset All to Defaults button: This button is designed to reset Intel® Smart Connect Technology back to the original factory setting for wake frequency.

Advanced Tab



Extended Power Savings: You can set a time for Intel Smart Connect Technology to work in Extended Power Savings mode. This night time mode updates your computer every two hours, saving power for the times you are not using your computer.

Rapid Start Technology

Intel® Rapid Start technology enables your system to get up and running faster from even the deepest sleep, saving time and power consumption. Feel secure knowing that your system will still resume to working conditions in the event of unexpected power loss while in sleep mode.

System Requirement:

- An Intel® SATA SSD (SATA Gen2 or Gen3. Preferably Gen3, and 80 GB or larger)
- Windows 7 and Windows 8

Note1: Please visit below webpage for more details about operating systems supporting http://www.intel.com/p/en_US/support

Note2: The Rapid Start Technology is NOT supported by H81 chipset.

Installing Intel® SBA:

Step 1: BIOS Setting

1-1 Go to [Advanced Menu] > [ACPI Settings], and set [ACPI Sleep State] to S3 (Suspend to RAM)

1-2 Go to [Advanced Menu] > [SATA Configuration], and set [SATA Mode Selection] to AHCI

1-3 Go to [Advanced Menu] and set [Intel(R) Rapid Start Technology] to Enabled

1-4 Save your changes, and then exit the BIOS Setup.

Step 2: Operating System Installation

Step 3: Installing Intel® Rapid Start Application

3-1 Insert the setup Driver DVD into your optical drive. Click “Intel Rapid Start Technology” to launch the program.

3-2 Below window will pop-out, then click “Create Disk” to start disk partition. After disk partition finished, please click “OK” then system will reboot automatically.




Hi-Fi H87S3/Hi-Fi B85S3/Hi-Fi H81S3

3-3 After rebooting, the system will setup Intel® Rapid Start Technology automatically. We recommend you restart the system after this installation is complete,



Step 4: Configuring Intel® Rapid Start Application

Launch the Intel® Rapid Start Technology Manager application from [Start] > [All Programs] > [Intel] or click the icon  in the notification area.



Intel® Small Business Advantage

Intel Small Business Advantage (Intel SBA) provides an out-of-the-box hardware-based security and productivity suite designed for the small business user.

Software Monitor

Software Monitor helps keep critical security software running by monitoring it at the hardware level and alerting the business if there has been an attack. The Software Monitor also maintains an event log that shows status information and any errors generated, so businesses can know what happened.

Data Backup and Restore

Data Backup and Restore provides reliable after-hours backup of critical data using the local maintenance timer to power on the computer. Data can be backed up to a designated location.

USB Blocker

The optional USB Blocker lets businesses control access to their infrastructure, preventing unauthorized USB devices or file imports or exports on company computers.

PC Health Center

PC Health Center can schedule and do PC maintenance tasks after hours, without interrupting employee work time. Tasks such as updating the operating system, deleting temporary internet files, and running disk defragmentation can be done at night. PC Health Center works even if the computer is powered-down, as long as it is plugged in.

Energy Saver

With the optional Energy Saver, businesses can save energy by scheduling PCs to power-down at the end of the day and turn on before the work day begins - ready for employees as they arrive in the morning.

Supported Operating Systems:

Windows 7 and Windows 8

Note1: Please visit below webpage for more details about operating systems supporting http://www.intel.com/p/en_US/support

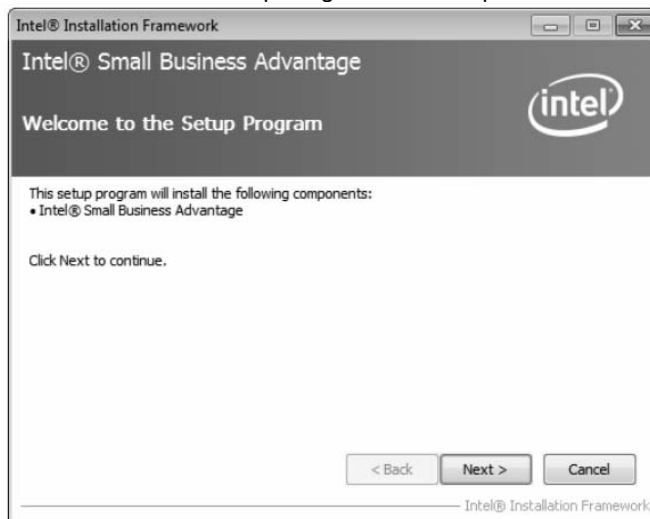
Note2: The Intel® Small Business Advantage is only supported by H87 & B85 chipsets.

Installing Intel SBA

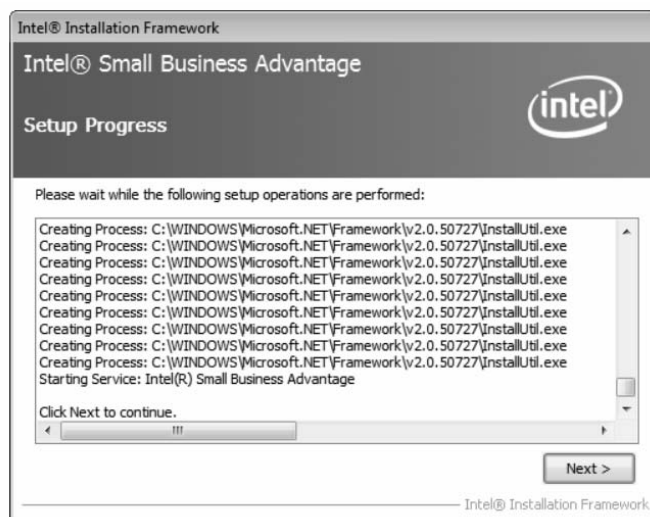
This procedure describes how to install Intel SBA.

1. Logon to the computer with a user that has administrator privileges.
2. Copy the Setup.exe file to the computer.
3. Double-click Setup.exe.

The Welcome to the Setup Program window opens.



4. Click Next. The installer starts the installation and the Setup Progress window opens showing the progress of the installation. When installation is complete, the installer starts the Intel SBA service and the Next button is enabled.



5. Click Next. The Setup Is Complete window opens.
6. Click Finish. The installer closes.

CHAPTER 4: USEFUL HELP

4.1 Driver Installation

After you installed your operating system, please insert the Fully Setup Driver DVD into your optical drive and install the driver for better system performance.

You will see the following window after you insert the DVD



The setup guide will auto detect your motherboard and operating system.

A. Driver Installation

To install the driver, please click on the Driver icon. The setup guide will list the compatible driver for your motherboard and operating system. Click on each device driver to launch the installation program.

B. Software Installation

To install the software, please click on the Software icon. The setup guide will list the software available for your system, click on each software title to launch the installation program.

C. Manual

Aside from the paperback manual, we also provide manual in the Driver DVD. Click on the Manual icon to browse for available manuals.

Note1: If this window didn't show up after you insert the Driver DVD, please use file browser to locate and execute the file SETUP.EXE under your optical drive.

Note2: You will need Acrobat Reader to open the manual file. Please download the latest version of Acrobat Reader software from <http://get.adobe.com/reader/>

4.2 AMI BIOS Beep Code

Boot Block Beep Codes

Number of Beeps	Description
Continuing	Memory sizing error or Memory module not found

POST BIOS Beep Codes

Number of Beeps	Description
1	Success booting.
8	Display memory error (system video adapter)

4.3 Troubleshooting

Probable	Solution
<ol style="list-style-type: none"> There is no power in the system. Power LED does not shine; the fan of the power supply does not work Indicator light on keyboard does not shine. 	<ol style="list-style-type: none"> Make sure power cable is securely plugged in. Replace cable. Contact technical support.
System is inoperative. Keyboard lights are on, power indicator lights are lit, and hard drives are running.	Using even pressure on both ends of the DIMM, press down firmly until the module snaps into place.
System does not boot from a hard disk drive, but can be booted from optical drive.	<ol style="list-style-type: none"> Check cable running from disk to disk controller board. Make sure both ends are securely plugged in; check the drive type in the standard CMOS setup. Backing up the hard drive is extremely important. All hard disks are capable of breaking down at any time.
System only boots from an optical drive. Hard disks can be read, applications can be used, but system fails to boot from a hard disk.	<ol style="list-style-type: none"> Back up data and applications files. Reformat the hard drive. Re-install applications and data using backup disks.
Screen message shows "Invalid Configuration" or "CMOS Failure."	Review system's equipment. Make sure correct information is in setup.
System cannot boot after user installs a second hard drive.	<ol style="list-style-type: none"> Set master/slave jumpers correctly. Run SETUP program and select correct drive types. Call the drive manufacturers for compatibility with other drives.

CPU Overheated

If the system shutdown automatically after power on system for seconds, that means the CPU protection function has been activated.

When the CPU is over heated, the motherboard will shutdown automatically to avoid a damage of the CPU, and the system may not power on again.

In this case, please double check:

1. The CPU cooler surface is placed evenly with the CPU surface.
2. CPU fan is rotated normally.
3. CPU fan speed is fulfilling with the CPU speed.

After confirmed, please follow steps below to relief the CPU protection function.

1. Remove the power cord from power supply for seconds.
2. Wait for seconds.
3. Plug in the power cord and boot up the system.

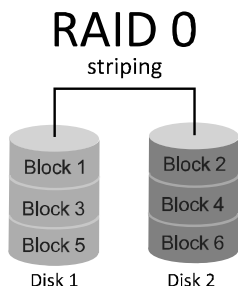
Or you can:

1. Clear the CMOS data.
2. Wait for seconds.
3. Power on the system again.

4.4 RAID Functions

RAID Definitions

RAID 0:

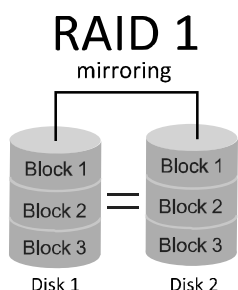


In a RAID 0 system data are split up in blocks that get written across all the drives in the array. By using multiple disks (at least 2) at the same time, this offers superior I/O performance. This performance can be enhanced further by using multiple controllers, ideally one controller per disk.

Features and Benefits

- **Drives:** Minimum 2, and maximum is up to 6 or 8. Depending on the platform.
- **Uses:** Intended for non-critical data requiring high data throughput, or any environment that does not require fault tolerance.
- **Benefits:** provides increased data throughput, especially for large files. No capacity loss penalty for parity.
- **Drawbacks:** Does not deliver any fault tolerance. If any drive in the array fails, all data is lost.
- **Fault Tolerance:** No.
- **Total Capacity:** (Minimal. HDD Capacity) x (Connected HDDs Amount)

RAID 1:

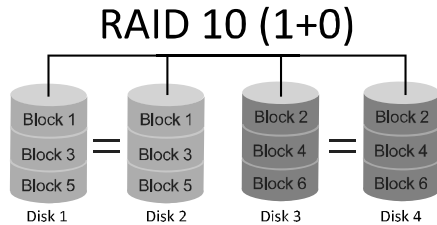


Data are stored twice by writing them to both the data disk (or set of data disks) and a mirror disk (or set of disks). If a disk fails, the controller uses either the data drive or the mirror drive for data recovery and continues operation. You need at least 2 disks for a RAID 1 array.

Features and Benefits

- **Drives:** Minimum 2, and maximum is 2.
- **Uses:** RAID 1 is ideal for small databases or any other application that requires fault tolerance and minimal capacity.
- **Benefits:** Provides 100% data redundancy. Should one drive fail, the controller switches to the other drive.
- **Drawbacks:** Requires 2 drives for the storage space of one drive. Performance is impaired during drive rebuilds.
- **Fault Tolerance:** Yes.

RAID 10:

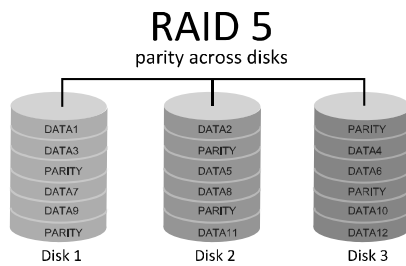


RAID 10 combines the advantages (and disadvantages) of RAID 0 and RAID 1 in one single system. It provides security by mirroring all data on a secondary set of disks (disk 3 and 4 in the drawing below) while using striping across each set of disks to speed up data transfers.

Features and Benefits

- **Drives:** Minimum 4, and maximum is 6 or 8, depending on the platform.
- **Benefits:** Optimizes for both fault tolerance and performance, allowing for automatic redundancy. May be simultaneously used with other RAID levels in an array, and allows for spare disks.
- **Drawbacks:** Requires twice the available disk space for data redundancy, the same as RAID level 1.
- **Fault Tolerance:** Yes.

RAID 5:



A RAID 5 array can withstand a single disk failure without losing data or access to data. Although RAID 5 can be achieved in software, a hardware controller is recommended. Often extra cache memory is used on these controllers to improve the write performance.

Features and Benefits

- **Drives:** Minimum 3.
- **Uses:** RAID 5 is recommended for transaction processing and general purpose service.
- **Benefits:** An ideal combination of good performance, good fault tolerance, and high capacity and storage efficiency.
- **Drawbacks:** Individual block data transfer rate same as a single disk. Write performance can be CPU intensive.
- **Fault Tolerance:** Yes.

Note1: The RAID 0,1,10 and 5 functions are only supported by Z87 & H87 chipsets.
Note2: For more details settings about Intel® Rapid Storage Technology (Intel® RST), please visit http://www.intel.com/p/en_US/support/highlights/chpsts/ims

Hi-Fi H87S3/Hi-Fi B85S3/Hi-Fi H81S3

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APPENDIX: Specifications in Other Languages**Arabic**

المواصفات	
Intel® Core i7 / i5 / i3 / Pentium / Celeron المأخذ 1150 لمعالج ايه إم دي الحد الأقصى للطاقة الحرارية في تصميم المعالج (thermal design power – TDP): 95 واط. * يرجى الرجوع إلى الموقع www.biostar.com.tw لقائمة دعم المعالج CPU.	قاعدة وحدة المعالجة المركزية
INTEL® H81(Hi-Fi H81S3) INTEL® B85(Hi-Fi B85S3) INTEL® H87(Hi-Fi H87S3)	مجموعة الشرائح
تدعم قناة مزدوجة دي. دي. ار. DDR3 1066/ 1333/ 1600 2x دي. دي. ار. DDR3 فتحات الذاكرة المزدوجة DIMM، تتحمل كحد أقصى 16 جيجابايت ذاكرة كل فتحة مزدوجة DIMM تتحمل دون ECC 512 ميجا بايت / 8/4/2/1 جيجابايت دي. دي. ار. DDR3 * يرجى الرجوع إلى الموقع www.biostar.com.tw لقائمة دعم الذاكرة.	الذاكرة
INTEL® H81 INTEL® B85 INTEL® H87 وصلة 6x ساتا SATA 6 جيجا جيجا وصلة 4x ساتا SATA 6 جيجا بايت / الثانية وصلة 2x ساتا SATA 3 جيجا بايت / الثانية وصلة 2x ساتا SATA 3 جيجا بايت / الثانية تتحمل رايد AHCI, SRT /10 تتحمل رايد AHCI	التخزين
ريالتيك رت ل REALTEK RTL 8111 F 10 / 100 / 1000 ميجابايت / الثانية ، تحديد تلقائي ، النصف / القدرة القصوى المزدوجة	شبكة محلية LAN
ALC662 5.1 قنوات عالية الدقة، Biostar Hi-Fi	الترميز الصوتي
Hi-Fi H87S3 & Hi-Fi B85S3: منافذ 4 x ناقل متسلسل عام USB 3.0 (2 في المداخل والمخارج الخلفية و 2 من خلال الموزع الداخلي) منافذ 6 x ناقل متسلسل عام USB 2.0 (2 في المداخل والمخارج الخلفية و 4 من خلال الموزع الداخلي) Hi-Fi H81S3: 3.0 (2 في المداخل والمخارج الخلفية) USB ناقل متسلسل عام x 2 منافذ منافذ 6 x ناقل متسلسل عام USB 2.0 (2 في المداخل والمخارج الخلفية و 4 من خلال الموزع الداخلي)	ناقل متسلسل عام USB
Hi-Fi H81S3: Hi-Fi H87S3 & Hi-Fi B85S3: 1 x فتحة منفذ الملحقات الإضافية PCIe 2.0 x 1 1 x فتحة منفذ الملحقات الإضافية PCIe (x4) 16 x 2.0 1 x فتحة منفذ الملحقات الإضافية PCIe (x16) 16 x 2.0	فتحات التوسع
1 x PS/2 الفأرة 1 x PS/2 لوحة المفاتيح للكمبيوتر فتحة توصيل عدد 1 x DVI وسيط متعدد العالوي الوضوح فتحة توصيل عدد 1 x منظومة العرض المرني VGA فتحة لتوصيل عدد 1 x الشبكة المحلية LAN فتحة توصيل عدد 2 x ناقل متسلسل عام USB 2.0 فتحة توصيل عدد 2 x ناقل متسلسل عام USB 3.0 فتحة توصيل عدد 3 x جاك للصوت	المداخل والمخارج الخلفية

Hi-Fi H87S3/Hi-Fi B85S3/Hi-Fi H81S3

المواصفات			
<p style="text-align: center;">Hi-Fi H81S3</p> <p>وصلة 2 x SATA 6 جيجابايت / الثانية وصلة 2 x SATA 3 جيجابايت / الثانية موزع 2 x نقل متسلسل عام 2.0 USB (كل موزع يتحمل فحنتين نقل متسلسل عام 2.0 USB) موزع 1 x نقل متسلسل عام وصلة للطاقة 4 x 1 ديبايس وصلة للطاقة 1 x 24 ديبوس وصلة 1 x مروحة تبريد وحدة المعالجة المركزية وصلة 1 x مراوح تبريد المنظومة موزع 1 x اللوحة الأمامية موزع 1 x الصوت الأمامي موزع 1 x سيموس مباشر موزع 1 x مستهلك IR موزع 1 x فتحة تسلسلية موزع 1 x فتحة للطابعة</p>	<p style="text-align: center;">Hi-Fi H87S3</p> <p>وصلة 4 x SATA 6 جيجابايت / الثانية وصلة 2 x SATA 3 جيجابايت / الثانية موزع 2 x نقل متسلسل عام 2.0 USB (كل موزع يتحمل فحنتين نقل متسلسل عام 2.0 USB) موزع 1 x نقل متسلسل عام 3.0 USB (كل موزع يتحمل فحنتين نقل متسلسل عام 3.0 USB) وصلة للطاقة 4 x 1 ديبايس وصلة للطاقة 1 x 24 ديبوس وصلة 1 x مروحة تبريد وحدة المعالجة المركزية وصلة 1 x مراوح تبريد المنظومة موزع 1 x اللوحة الأمامية موزع 1 x الصوت الأمامي موزع 1 x سيموس مباشر موزع 1 x مستهلك IR موزع 1 x فتحة تسلسلية موزع 1 x فتحة للطابعة</p>	<p style="text-align: center;">Hi-Fi H87S3</p> <p>وصلة 6 x SATA 6 جيجابايت / الثانية موزع 2 x نقل متسلسل عام 2.0 USB (كل موزع يتحمل فحنتين نقل متسلسل عام 2.0 USB) موزع 1 x نقل متسلسل عام 3.0 USB (كل موزع يتحمل فحنتين نقل متسلسل عام 3.0 USB) وصلة للطاقة 4 x 1 ديبايس وصلة للطاقة 1 x 24 ديبوس وصلة 1 x مروحة تبريد وحدة المعالجة المركزية وصلة 1 x مراوح تبريد المنظومة موزع 1 x اللوحة الأمامية موزع 1 x الصوت الأمامي موزع 1 x سيموس مباشر موزع 1 x مستهلك IR موزع 1 x فتحة تسلسلية موزع 1 x فتحة للطابعة</p>	المداخل والمخارج الداخلية
عامل شكل مدد التكنولوجيا المتقدمة ATX ، 244 مم x 180 مم			عامل الشكل
ويندوز 7 / ويندوز 8 بيوستار BIOSTAR تحتفظ بحق إضافة أو إزالة الدعم لأي نظام تشغيل مع أو بدون أنظار.			أنظمة التشغيل المدعومة

French

Spécifications				
Support Unité Centrale	Socket 1150 Processeurs Intel® Core i7 / i5 / i3 / Pentium / Celeron Enveloppe thermique Unité Centrale maximum : 95Watt * Veuillez vous reporter à www.biostar.com.tw pour la liste des supports modèles d'Unité Centrale.			
Jeu de puces	INTEL® H87 (Hi-Fi H87S3) INTEL® B85 (Hi-Fi B85S3) INTEL® H81 (Hi-Fi H81S3)			
Mémoire	Supporte mémoire DDR3 double canal 1066/ 1333/ 1600 Banc de mémoire 2 x DDR3 DIMM, Supporte max. jusqu'à une mémoire de 16 GB Chaque module DIMM supporte module DDR3 non-ECC 512MB/ 1/ 2/ 4/ 8 GB * Veuillez vous reporter à www.biostar.com.tw pour la liste des soutien de la mémoire.			
Stockage	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; vertical-align: top;">INTEL® H87: Connecteur 6 x SATA 6Gb/s Supporte système RAID 0,1,10,5, AHCI & SRT</td> <td style="width: 33%; vertical-align: top;">INTEL® B85: Connecteur 4 x SATA 6Gb/s Connecteur 2 x SATA 3Gb/s Supporte système AHCI</td> <td style="width: 33%; vertical-align: top;">INTEL® H81: Connecteur 2 x SATA 6Gb/s Connecteur 2 x SATA 3Gb/s Supporte système AHCI</td> </tr> </table>	INTEL® H87: Connecteur 6 x SATA 6Gb/s Supporte système RAID 0,1,10,5, AHCI & SRT	INTEL® B85: Connecteur 4 x SATA 6Gb/s Connecteur 2 x SATA 3Gb/s Supporte système AHCI	INTEL® H81: Connecteur 2 x SATA 6Gb/s Connecteur 2 x SATA 3Gb/s Supporte système AHCI
INTEL® H87: Connecteur 6 x SATA 6Gb/s Supporte système RAID 0,1,10,5, AHCI & SRT	INTEL® B85: Connecteur 4 x SATA 6Gb/s Connecteur 2 x SATA 3Gb/s Supporte système AHCI	INTEL® H81: Connecteur 2 x SATA 6Gb/s Connecteur 2 x SATA 3Gb/s Supporte système AHCI		
Réseau local	Realtek RTL 8111F 10/ 100/ 1000 Mb/s auto négociation, capacité bidirectionnelle à l'alternat / bidirectionnelle simultanée			
Codec audio	ALC662 Canaux 5.1, écoute audio de haute définition, Biostar Hi-Fi			
USB	Hi-Fi H87S3 & Hi-Fi B85S3: Port 4x USB 3.0 (2 sur les I/O arrières et 2 en interne) Port 6x USB 2.0 (2 sur les I/O arrières et 4 en interne) Hi-Fi H81S3: Port 2x USB 3.0 (2 sur les I/O) Port 6x USB 2.0 (2 sur les I/O arrières et 4 en interne)			
Connecteur d'extension	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; vertical-align: top;"> Hi-Fi H87S3 & Hi-Fi B85S3: 1x PCIe 2.0 x1 Fente 1x PCIe 2.0 x16 Fente (x4) 1x PCIe 3.0 x16 Fente (x16) </td> <td style="width: 40%; vertical-align: top;"> Hi-Fi H81S3: 1x PCIe 2.0 x1 Fente 1x PCIe 2.0 x16 Fente (x4) 1x PCIe 2.0 x16 Fente (x16) </td> </tr> </table>	Hi-Fi H87S3 & Hi-Fi B85S3: 1x PCIe 2.0 x1 Fente 1x PCIe 2.0 x16 Fente (x4) 1x PCIe 3.0 x16 Fente (x16)	Hi-Fi H81S3: 1x PCIe 2.0 x1 Fente 1x PCIe 2.0 x16 Fente (x4) 1x PCIe 2.0 x16 Fente (x16)	
Hi-Fi H87S3 & Hi-Fi B85S3: 1x PCIe 2.0 x1 Fente 1x PCIe 2.0 x16 Fente (x4) 1x PCIe 3.0 x16 Fente (x16)	Hi-Fi H81S3: 1x PCIe 2.0 x1 Fente 1x PCIe 2.0 x16 Fente (x4) 1x PCIe 2.0 x16 Fente (x16)			
I/O arrières	1x PS/2 Souris 1x PS/2 Clavier 1x Port DVI 1x Port VGA 1x port LAN 2x Port USB 2.0 2x Port USB 3.0 3x entrées audio			

Hi-Fi H87S3/Hi-Fi B85S3/Hi-Fi H81S3

Spécifications			
	Hi-Fi H87S3	Hi-Fi B85S3	Hi-Fi H81S3
I/O en interne	6x Connecteur SATA 6.0Gb/s 2x embases USB 2.0 (chaque embase supporte 2 Ports USB 2.0) 1x embase USB 3.0 (chaque embase supporte 2 Ports USB 3.0) 1x 4-Broche de carte 1x 24-Broche de carte 1x Connecteur ventilateur unité centrale 1x Connecteur ventilateur système 1x Fiche panneau avant 1x Fiche audio avant 1x Fiche mémoire CMOS vide 1x Fiche Registre d'état Consommateur 1x Embase port série 1x Embase port imprimante	4x Connecteur SATA 6.0Gb/s 2x Connecteur SATA 3.0Gb/s 2x embases USB 2.0 (chaque embase supporte 2 Ports USB 2.0) 1x embase USB 3.0 (chaque embase supporte 2 Ports USB 3.0) 1x 4-Broche de carte 1x 24-Broche de carte 1x Connecteur ventilateur unité centrale 1x Connecteur ventilateur système 1x Connecteur ventilateur système 1x Fiche panneau avant 1x Fiche audio avant 1x Fiche mémoire CMOS vide 1x Fiche Registre d'état Consommateur 1x Embase port série 1x Embase port imprimante	2x Connecteur SATA 6.0Gb/s 2x Connecteur SATA 3.0Gb/s 2x embases USB 2.0 (chaque embase supporte 2 Ports USB 2.0) 1x 4-Broche de carte 1x 24-Broche de carte 1x Connecteur ventilateur unité centrale 1x Connecteur ventilateur système 1x Fiche panneau avant 1x Fiche audio avant 1x Fiche mémoire CMOS vide 1x Fiche Registre d'état Consommateur 1x Embase port série 1x Embase port imprimante
Facteur d'encombrement	Facteur d'encombrement ATX, 244 mm x 180 mm		
Support SE	Windows 7/ 8 Biostar se réserve le droit d'ajouter ou d'enlever le support pour toute SE avec ou sans préavis.		

German

Spezifikationen				
CPU-Unterstützung	Anschluss-1150 für Intel® Core i7 / i5 / i3 / Pentium / Celeron Prozessor Maximale CPU TDP (Thermal Design Power): 95 Watt * Bitte konsultieren Sie www.biostar.com.tw für CPU-Unterstützungsliste			
Chipset	INTEL® H87 (Hi-Fi H87S3) INTEL® B85 (Hi-Fi B85S3) INTEL® H81 (Hi-Fi H81S3)			
Festplattenspeicher	Unterstützt zweikanaliges DDR3 1066/ 1333/ 1600 2 x DDR3 DIMM-SpeicherSlot, Max. Unterstützung bis zu 16 GB-Speicher Jedes DIMM unterstützt nicht-ECC 512MB/ 1/ 2/ 4/ 8 GB DDR3-Module * Bitte konsultieren Sie www.biostar.com.tw für Speicherunterstützung Liste.			
Arbeitsspeicher	<table border="0"> <tr> <td>INTEL® H87: 6x SATA 6Gb-Verbindung Unterstützt RAID 0,1,10,5, AHCI & SRT</td> <td>INTEL® B85: 4x SATA 6Gb-Verbindung 2x SATA 3Gb-Verbindung Unterstützt AHCI</td> <td>INTEL® H81: 2x SATA 6Gb-Verbindung 2x SATA 3Gb-Verbindung Unterstützt AHCI</td> </tr> </table>	INTEL® H87: 6x SATA 6Gb-Verbindung Unterstützt RAID 0,1,10,5, AHCI & SRT	INTEL® B85: 4x SATA 6Gb-Verbindung 2x SATA 3Gb-Verbindung Unterstützt AHCI	INTEL® H81: 2x SATA 6Gb-Verbindung 2x SATA 3Gb-Verbindung Unterstützt AHCI
INTEL® H87: 6x SATA 6Gb-Verbindung Unterstützt RAID 0,1,10,5, AHCI & SRT	INTEL® B85: 4x SATA 6Gb-Verbindung 2x SATA 3Gb-Verbindung Unterstützt AHCI	INTEL® H81: 2x SATA 6Gb-Verbindung 2x SATA 3Gb-Verbindung Unterstützt AHCI		
LAN	Realtek RTL 8111F 10/ 100/ 1000 Mb Auto-Negotiation, Halb- / Voll-Duplex-fähig			
Audio-Codec	ALC662 5.1 Kanäle, HD-Audio, Biostar Hi-Fi			
USB	Hi-Fi H87S3 & Hi-Fi B85S3: 4x USB 3.0-Port (2 hintere I/Os und 2 via interne Header) 6x USB 2.0-Port (2 hintere I/Os und 4 via interne Header) Hi-Fi H81S3: 2x USB 3.0-Port (2 hintere I/Os) 6x USB 2.0-Port (2 hintere I/Os und 4 via interne Header)			
Erweiterungsanschlüsse	<table border="0"> <tr> <td>Hi-Fi H87S3 & Hi-Fi B85S3: 1x PCIe 2.0 x1-Slot 1x PCIe 2.0 x16-Slot (x4) 1x PCIe 3.0 x16-Slot (x16)</td> <td>Hi-Fi H81S3: 1x PCIe 2.0 x1-Slot 1x PCIe 2.0 x16-Slot (x4) 1x PCIe 2.0 x16-Slot (x16)</td> </tr> </table>	Hi-Fi H87S3 & Hi-Fi B85S3: 1x PCIe 2.0 x1-Slot 1x PCIe 2.0 x16-Slot (x4) 1x PCIe 3.0 x16-Slot (x16)	Hi-Fi H81S3: 1x PCIe 2.0 x1-Slot 1x PCIe 2.0 x16-Slot (x4) 1x PCIe 2.0 x16-Slot (x16)	
Hi-Fi H87S3 & Hi-Fi B85S3: 1x PCIe 2.0 x1-Slot 1x PCIe 2.0 x16-Slot (x4) 1x PCIe 3.0 x16-Slot (x16)	Hi-Fi H81S3: 1x PCIe 2.0 x1-Slot 1x PCIe 2.0 x16-Slot (x4) 1x PCIe 2.0 x16-Slot (x16)			
Hintere I/Os	1x PS/2-Maus 1x PS/2-Keyboard 1x DVI-Port 1x VGA-Port 1x LAN-Port 2x USB 2.0-Port 2x USB 3.0-Port 3x Audio Jack			

Hi-Fi H87S3/Hi-Fi B85S3/Hi-Fi H81S3

Spezifikationen				
	Hi-Fi H87S3	Hi-Fi B85S3	Hi-Fi H81S3	
Interne I/Os	6x SATA 6.0Gb/s-Verbindung	4x SATA 6.0Gb/s-Verbindung	2x SATA 6.0Gb/s-Verbindung	
	2x USB 2.0-Header (jeder Header unterstützt 2 USB 2.0-Ports)	2x SATA 3.0Gb/s-Verbindung 2x USB 2.0-Header (jeder Header unterstützt 2 USB 2.0-Ports)	2x SATA 3.0Gb/s-Verbindung 2x USB 2.0-Header (jeder Header unterstützt 2 USB 2.0-Ports)	
	1x USB 3.0-Header (jeder Header unterstützt 2 USB 3.0-Ports)	1x USB 3.0-Header (jeder Header unterstützt 2 USB 3.0-Ports)	1x 4-Pin-Stromverbindung	
	1x 4-Pin-Stromverbindung	1x 4-Pin-Stromverbindung	1x 24-Pin-Stromverbindung	
	1x 24-Pin-Stromverbindung	1x 4-Pin-Stromverbindung	1x CPU-Ventilatorverbindung	
	1x CPU-Ventilatorverbindung	1x 24-Pin-Stromverbindung	1x System-Ventilatorverbindung	
	1x System-Ventilatorverbindung	1x CPU-Ventilatorverbindung	1x Header für Frontpanel	
	1x Header für Frontpanel	1x System-Ventilatorverbindung	1x Header für Frontaudio	
	1x Header für Frontaudio	1x Header für Frontpanel	1x Header für klares CMOS	
	1x Header für klares CMOS	1x Header für Frontaudio	1x Consumer IR-Header	
	1x Consumer IR-Header	1x Header für klares CMOS	1x Serieller Port-Header	
	1x Serieller Port-Header	1x Consumer IR-Header	1x Header für Druckeranschluss	
	1x Header für Druckeranschluss	1x Serieller Port-Header		
		1x Header für Druckeranschluss		
	Formfaktor	ATX Formfaktor, 244 mm x 180 mm		
	OS-Unterstützung	Windows 7/ 8 Biostar reserves the right to add or remove support for any OS with or without notice.		

Italian

Specificazioni	
Supporto processore	Slot 1150 per processore Intel® Core i7 / i5 / i3 / Pentium / Celeron Alimentazione di Proiezione Termico (TDP – Thermal Design Power): 95Watt * Si prega di consultare www.biostar.com.tw per la lista di supporto del processore.
Tipo scheda	INTEL® H87 (Hi-Fi H87S3) INTEL® B85 (Hi-Fi B85S3) INTEL® H81 (Hi-Fi H81S3)
Memoria	Supporta DDR3 1066/ 1333/ 1600 Doppio Canale 2 x DDR3 DIMM Slot di Memoria Supporta fino a 16 GB Memoria Ogni DIMM supporta non-ECC 512MB/ 1/ 2/ 4/ 8 GB DDR3 moduli * Si prega di consultare www.biostar.com.tw per la lista di supporto del memoria.
Memorizzazione	INTEL® H87: Connettore 6x SATA 6Gb/s Supporta RAID 0,1,10,5, AHCI & SRT INTEL® B85: Connettore 4x SATA 6Gb/s Connettore 2x SATA 3Gb/s Supporta AHCI INTEL® H81: Connettore 2x SATA 6Gb/s Connettore 2x SATA 3Gb/s Supporta AHCI
Catena	Realtek RTL 8111F 10/ 100/ 1000 Mb auto negoziazione, capacita di duplex Meta / Completo
Codec Audio	ALC662 Canali Audio di Alta Definizione 5.1, Biostar Hi-Fi
USB	Hi-Fi H87S3 & Hi-Fi B85S3: Slot 4x USB 3.0 (2 nei ingressi/ uscite posteriore e 2 da distributori interni) Slot 6x USB 2.0 (2 nei ingressi/ uscite posteriore e 4 da distributori interni) Hi-Fi H81S3: Slot 2x USB 3.0 (2 nei ingressi) Slot 6x USB 2.0 (2 nei ingressi/ uscite posteriore e 4 da distributori interni)
Slot di espansione	Hi-Fi H87S3 & Hi-Fi B85S3: Slot 1x PCIe 2.0 x1 Slot 1x PCIe 2.0 x16 (x4) Slot 1x PCIe 3.0 x16 (x16) Hi-Fi H81S3: Slot 1x PCIe 2.0 x1 Slot 1x PCIe 2.0 x16 (x4) Slot 1x PCIe 2.0 x16 (x16)
Ingressi/ Uscite Posteriore	Mouse 1x PS/2 Tastiera 1x PS/2 Slot 1x DVI Slot 1x VGA Slot 1x LAN Slot 2x USB 2.0 Slot 2x USB 3.0 Jack audio 3x

Hi-Fi H87S3/Hi-Fi B85S3/Hi-Fi H81S3

Specificazioni			
	Hi-Fi H87S3	Hi-Fi B85S3	Hi-Fi H81S3
	Connettore 6x SATA 6.0Gb/s	Connettore 4x SATA 6.0Gb/s	Connettore 2x SATA 6.0Gb/s
	Distributore 2x USB 2.0 (ogni distributore supporta 2 slot USB 2.0)	Connettore 2x SATA 3.0Gb/s Distributore 2x USB 2.0 (ogni distributore supporta 2 slot USB 2.0)	Connettore 2x SATA 3.0Gb/s Distributore 2x USB 2.0 (ogni distributore supporta 2 slot USB 2.0)
	Distributore 1x USB 3.0 (ogni distributore supporta 2 slot USB 3.0)	Distributore 1x USB 3.0 (ogni distributore supporta 2 slot USB 3.0)	Connettore con 4 pin x1 Connettore con 24 pin x1
	Connettore con 4 pin x1	Connettore con 4 pin x1	Connettore Ventilatore processore x1
	Connettore con 24 pin x1	Connettore con 24 pin x1	Connettore Ventilatore Sistema x2
Ingressi/ Uscite Interni	Connettore Ventilatore processore x1 Connettore Ventilatore Sistema x2 Distributore Pannello Frontale x1 Distributore Audio Frontale x1 Distributore CMOS Diretto x1 Distributore Consumabile IR x1 Distributore Slot Serie x1 Distributore Slot Stampante x1	Connettore Ventilatore processore x1 Connettore Ventilatore Sistema x2 Distributore Pannello Frontale x1 Distributore Audio Frontale x1 Distributore CMOS Diretto x1 Distributore Consumabile IR x1 Distributore Slot Serie x1 Distributore Slot Stampante x1	Distributore Pannello Frontale x1 Distributore Audio Frontale x1 Distributore CMOS Diretto x1 Distributore Consumabile IR x1 Distributore Slot Serie x1 Distributore Slot Stampante x1
Fattore di Forma	Fattore di Forma ATX, 244 mm x 180 mm		
Supporto SO	Windows 7/ 8 Biostar si riserva il diritto di aggiungere o ritirare il supporto per qualsiasi SO con o senza preavviso.		

Japanese

仕様	
CPU サポート	Intel® Core i7 / i5 / i3 / Pentium / Celeron プロセッサの Socket 1150 最大 CPU TDP (Thermal Design Power 最大放熱量) :95 W *CPU サポート リストについては、 www.biostar.com.tw を参照してください。
チップセット	INTEL® H87 (Hi-Fi H87S3) INTEL® B85 (Hi-Fi B85S3) INTEL® H81 (Hi-Fi H81S3)
メモリ	デュアルチャンネル1066/ 1333/ 1600 をサポート 2 x DDR3 DIMM メモリ スロット、最大 16 GB メモリまでサポート 各 DIMM は、非-ECC 512MB/ 1/ 2/ 4/ 8 GB DDR3 モジュールをサポートしています *サポートされているメモリのリストについては、 www.biostar.com.tw を参照してください。
保存スペース	INTEL® H87: 6x SATA 6Gb/s コネクタ RAID 0,1,10,5, AHCI & SRT のサポート INTEL® B85: 4x SATA 6Gb/s コネクタ 2x SATA 3Gb/s コネクタ AHCI のサポート INTEL® H81: 2x SATA 6Gb/s コネクタ 2x SATA 3Gb/s コネクタ AHCI のサポート
LAN	Realtek RTL 8111F 10/ 100/ 1000 Mb/s オートネゴシエーション、半/全 二重通信
オーディオ コーデック	ALC662 5.1 チャンネル、ハイ デフィニション オーディオ、Biostar Hi-Fi
USB	Hi-Fi H87S3 & Hi-Fi B85S3: 4x USB 3.0 ポート (後部 I/O に2つ 及び 内蔵 ヘッダー経由に2つ) 6x USB 2.0 ポート (後部 I/O に2つ 及び 内蔵ヘッダー経由に4つ) Hi-Fi H81S3: 2x USB 3.0 ポート (後部 I/O に2つ) 6x USB 2.0 ポート (後部 I/O に2つ 及び 内蔵ヘッダー経由に4つ)
拡張スロット	Hi-Fi H87S3 & Hi-Fi B85S3: 1x PCIe 2.0 x1 スロット 1x PCIe 2.0 x16 スロット(x4) 1x PCIe 3.0 x16 スロット(x16) Hi-Fi H81S3: 1x PCIe 2.0 x1 スロット 1x PCIe 2.0 x16 スロット(x4) 1x PCIe 2.0 x16 スロット(x16)
後部 I/O	1x PS/2 マウス 1x PS/2 キーボード 1x DVI ポート 1x VGA ポート 1x LAN ポート 2x USB 2.0 ポート 2x USB 3.0 ポート 3x オーディオ ジャック

Hi-Fi H87S3/Hi-Fi B85S3/Hi-Fi H81S3

仕様																																														
	仕様																																													
内蔵 I/O	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">Hi-Fi H87S3</th> <th style="width: 33%;">Hi-Fi B85S3</th> <th style="width: 33%;">Hi-Fi H81S3</th> </tr> </thead> <tbody> <tr> <td>6x SATA 6.0Gb/s コネクタ</td> <td>4x SATA 6.0Gb/s コネクタ</td> <td>2x SATA 6.0Gb/s コネクタ</td> </tr> <tr> <td>2x USB 2.0 ヘッダー (各ヘッダーは、2つの USB 2.0 ポートをサポートしています)</td> <td>2x SATA 3.0Gb/s コネクタ</td> <td>2x SATA 3.0Gb/s コネクタ</td> </tr> <tr> <td>1x USB 3.0 ヘッダー (各ヘッダーは、2つの USB 3.0 ポートをサポートしています)</td> <td>2x USB 2.0 ヘッダー (各ヘッダーは、2つの USB 2.0 ポートをサポートしています)</td> <td>2x USB 2.0 ヘッダー (各ヘッダーは、2つの USB 2.0 ポートをサポートしています)</td> </tr> <tr> <td>1x 4-Pin パワー コネクタ</td> <td>1x USB 3.0 ヘッダー (各ヘッダーは、2つの USB 3.0 ポートをサポートしています)</td> <td>1x 4-Pin パワー コネクタ</td> </tr> <tr> <td>1x 24-Pin パワー コネクタ</td> <td>1x 4-Pin パワー コネクタ</td> <td>1x 24-Pin パワー コネクタ</td> </tr> <tr> <td>1x CPU ファン コネクタ</td> <td>1x 24-Pin パワー コネクタ</td> <td>1x CPU ファン コネクタ</td> </tr> <tr> <td>1x システム ファン コネクタ</td> <td>1x CPU ファン コネクタ</td> <td>1x システム ファン コネクタ</td> </tr> <tr> <td>1x フロント パネル ヘッダー</td> <td>1x システム ファン コネクタ</td> <td>1x フロント パネル ヘッダー</td> </tr> <tr> <td>1x フロント オーディオ ヘッ ダー</td> <td>1x フロント パネル ヘッダー</td> <td>1x フロント オーディオ ヘッ ダー</td> </tr> <tr> <td>1x クリア CMOS ヘッダー</td> <td>1x フロント オーディオ ヘッ ダー</td> <td>1x クリア CMOS ヘッダー</td> </tr> <tr> <td>1x コンシューマー IR ヘッダ ー</td> <td>1x クリア CMOS ヘッダー</td> <td>1x コンシューマー IR ヘッダ ー</td> </tr> <tr> <td>1x シリアル ポート ヘッダー</td> <td>1x コンシューマー IR ヘッダ ー</td> <td>1x シリアル ポート ヘッダー</td> </tr> <tr> <td>1x プリンター ポート ヘッ ダー</td> <td>1x シリアル ポート ヘッダー</td> <td>1x プリンター ポート ヘッ ダー</td> </tr> <tr> <td></td> <td>1x プリンター ポート ヘッ ダー</td> <td></td> </tr> </tbody> </table>	Hi-Fi H87S3	Hi-Fi B85S3	Hi-Fi H81S3	6x SATA 6.0Gb/s コネクタ	4x SATA 6.0Gb/s コネクタ	2x SATA 6.0Gb/s コネクタ	2x USB 2.0 ヘッダー (各ヘッダーは、2つの USB 2.0 ポートをサポートしています)	2x SATA 3.0Gb/s コネクタ	2x SATA 3.0Gb/s コネクタ	1x USB 3.0 ヘッダー (各ヘッダーは、2つの USB 3.0 ポートをサポートしています)	2x USB 2.0 ヘッダー (各ヘッダーは、2つの USB 2.0 ポートをサポートしています)	2x USB 2.0 ヘッダー (各ヘッダーは、2つの USB 2.0 ポートをサポートしています)	1x 4-Pin パワー コネクタ	1x USB 3.0 ヘッダー (各ヘッダーは、2つの USB 3.0 ポートをサポートしています)	1x 4-Pin パワー コネクタ	1x 24-Pin パワー コネクタ	1x 4-Pin パワー コネクタ	1x 24-Pin パワー コネクタ	1x CPU ファン コネクタ	1x 24-Pin パワー コネクタ	1x CPU ファン コネクタ	1x システム ファン コネクタ	1x CPU ファン コネクタ	1x システム ファン コネクタ	1x フロント パネル ヘッダー	1x システム ファン コネクタ	1x フロント パネル ヘッダー	1x フロント オーディオ ヘッ ダー	1x フロント パネル ヘッダー	1x フロント オーディオ ヘッ ダー	1x クリア CMOS ヘッダー	1x フロント オーディオ ヘッ ダー	1x クリア CMOS ヘッダー	1x コンシューマー IR ヘッダ ー	1x クリア CMOS ヘッダー	1x コンシューマー IR ヘッダ ー	1x シリアル ポート ヘッダー	1x コンシューマー IR ヘッダ ー	1x シリアル ポート ヘッダー	1x プリンター ポート ヘッ ダー	1x シリアル ポート ヘッダー	1x プリンター ポート ヘッ ダー		1x プリンター ポート ヘッ ダー	
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	フォーム ファクタ	ATX フォーム ファクタ、244 mm x 180 mm																																												
	サポート OS	Windows 7/ 8 Biostar には、通知なしでサポート OS を変更する権限があります。																																												

Polish

Specyfikacje techniczne	
Obsługa procesora	Gniazdo procesora (Socket) 1150 dla procesorów Intel® Core i7 / i5 / i3 / Pentium / Celeron Moc Wydzielanego Ciepła (TDP - Thermal Design Power): 95Watt * Proszę sprawdzić listę obsługiwanych procesorów na stronie internetowej www.biostar.com.tw
Rodzaj płyty	INTEL® H87 (Hi-Fi H87S3) INTEL® B85 (Hi-Fi B85S3) INTEL® H81 (Hi-Fi H81S3)
Pamięć	Obsługa pamięci DDR3 1066/ 1333/ 1600 Dwukanałowa 2 x DDR3 DIMM Pamięć Gniazda procesora (Slot), Maksymalna wielkość pamięci 16 GB Każdy DIMM obsługuje jeden moduł non-ECC 512MB/ 1/ 2/ 4/ 8 GB DDR3 * Proszę sprawdzić listę obsługiwanych pamięć na stronie internetowej www.biostar.com.tw
Przechowywanie	INTEL® H87: Złącze 6x SATA 6Gb/s Obsługa RAID 0,1,10,5, AHCI & SRT INTEL® B85: Złącze 4x SATA 6Gb/s Złącze 2x SATA 3Gb/s Obsługa AHCI INTEL® H81: Złącze 2x SATA 6Gb/s Złącze 2x SATA 3Gb/s Obsługa AHCI
LAN	Układ RTL 8111F 10/ 100/ 1000 Mb auto negocjacja, pojemność duplex Połowe / Pełny
Codec Audio	ALC662 Kanały Audio wysokiej Definicji 5.1, Biostar Hi-Fi
USB	Hi-Fi H87S3 & Hi-Fi B85S3: 4 x złącza USB 3.0 (2 przez tylne porty wejścia/ wyjścia oraz 2 przez wewnętrzne porty) 6 x złącza USB 2.0 (2 przez tylne porty wejścia/ wyjścia oraz 4 przez wewnętrzne porty) Hi-Fi H81S3: 2 x złącza USB 3.0 (2 przez tylne porty wejścia) 6 x złącza USB 2.0 (2 przez tylne porty wejścia/ wyjścia oraz 4 przez wewnętrzne porty)
Złącza rozszerzeń	Hi-Fi H87S3 & Hi-Fi B85S3: złącze 1x PCIe 2.0 x1 (Slot) złącza 1x PCIe 2.0 x16 (Slot) (x4) złącza 1x PCIe 3.0 x16 (Slot) (x16) Hi-Fi H81S3: złącze 1x PCIe 2.0 x1 (Slot) złącza 1x PCIe 2.0 x16 (Slot) (x4) złącza 1x PCIe 2.0 x16 (Slot) (x16)
Tylne porty wejścia/ wyjścia	Myszka 1x PS/2 Klawiatura 1x PS/2 Port 1x DVI (gniazdo) Port 1x VGA Port 1x LAN Porty 2x USB 2.0 Porty 2x USB 3.0 Porty audio 3x

Hi-Fi H87S3/Hi-Fi B85S3/Hi-Fi H81S3

Specyfikacje techniczne			
	Hi-Fi H87S3	Hi-Fi B85S3	Hi-Fi B81S3
Wewnętrzne porty wejścia/ wyjścia	Złącza 6x SATA 6.0Gb/s	Złącza 4x SATA 6.0Gb/s	Złącza 2x SATA 6.0Gb/s
	Złącza 2x USB 2.0 (każde złącze obsługuje dodatkowe 2 porty USB 2.0)	Złącza 2x SATA 3.0Gb/s Złącza 2x USB 2.0 (każde złącze obsługuje dodatkowe 2 porty USB 2.0)	Złącza 2x SATA 3.0Gb/s Złącza 2x USB 2.0 (każde złącze obsługuje dodatkowe 2 porty USB 2.0)
	Złącze 1x USB 3.0 (każde złącze obsługuje dodatkowe 2 porty USB 3.0)	Złącze 1x USB 3.0 (każde złącze obsługuje dodatkowe 2 porty USB 3.0)	Złącza 4 pionowe x 1
	Złącza 4 pionowe x 1	Złącza 4 pionowe x 1	Złącza 24 pionowe x 1
	Złącza 24 pionowe x 1	Złącza 4 pionowe x 1	Złącze wentylatora CPU x 1
	Złącze wentylatora CPU x 1	Złącza 24 pionowe x 1	Złącze wentylatora obudowy x 1
	Złącze wentylatora obudowy x 1	Złącze wentylatora CPU x 1	Złącze przedniego panelu x1
	Złącze przedniego panelu x1	Złącze wentylatora obudowy x 1	Złącze audio przedniego panelu x1
	Złącze audio przedniego panelu x1	Złącze przedniego panelu x1	Złącze bezpośrednie CMOS x1
	Złącze bezpośrednie CMOS x1	Złącze audio przedniego panelu x1	Złącze konsument IR x1
	Złącze konsument IR x1	x1	Port szeregowy x1
	Port szeregowy x1	Złącze bezpośrednie CMOS x1	Złącze port drukarki x1
	Złącze port drukarki x1	Złącze konsument IR x1	
		Port szeregowy x1	
		Złącze port drukarki x1	
	Obudowa	Obudowa ATX, 244 mm x 180 mm	
Obsługa OS	Windows 7/ 8 Biostar zastrzega sobie prawo do dodania lub wycofania obsługi dla OS, z wypowiedzeniem lub bez wypowiedzenia.		

Portuguese

Especificações										
Suporte Processador	<p>Porta 1150 para processador Intel® Core i7 / i5 / i3 / Pentium / Celeron</p> <p>Alimentação de Design Térmico (TDP – Thermal Design Power): 95Watt</p> <p>* Por favor consulte www.biostar.com.tw para obter uma lista de suporte do processador.</p>									
Tipo Placa Mãe	INTEL® H87 (Hi-Fi H87S3) INTEL® B85 (Hi-Fi B85S3) INTEL® H81 (Hi-Fi H81S3)									
Memória	<p>Suporta DDR3 1066/ 1333/ 1600 Canal Duplo</p> <p>2 x DDR3 DIMM Slot de memória Suporta até 16 GB Memória</p> <p>Cada DIMM suporta non-ECC 512MB/ 1/ 2/ 4/ 8 GB DDR3 módulo</p> <p>* Por favor consulte www.biostar.com.tw para obter uma lista de suporte do memória.</p>									
Armazenamento	<table border="0"> <tr> <td>INTEL® H87:</td> <td>INTEL® B85:</td> <td>INTEL® H81:</td> </tr> <tr> <td>Conector 6x SATA 6Gb/s</td> <td>Conector 4x SATA 6Gb/s</td> <td>Conector 2x SATA 6Gb/s</td> </tr> <tr> <td>Suporta RAID 0,1,10,5, AHCI & SRT</td> <td>Conector 2x SATA 3Gb/s Suporta AHCI</td> <td>Conector 2x SATA 3Gb/s Suporta AHCI</td> </tr> </table>	INTEL® H87:	INTEL® B85:	INTEL® H81:	Conector 6x SATA 6Gb/s	Conector 4x SATA 6Gb/s	Conector 2x SATA 6Gb/s	Suporta RAID 0,1,10,5, AHCI & SRT	Conector 2x SATA 3Gb/s Suporta AHCI	Conector 2x SATA 3Gb/s Suporta AHCI
INTEL® H87:	INTEL® B85:	INTEL® H81:								
Conector 6x SATA 6Gb/s	Conector 4x SATA 6Gb/s	Conector 2x SATA 6Gb/s								
Suporta RAID 0,1,10,5, AHCI & SRT	Conector 2x SATA 3Gb/s Suporta AHCI	Conector 2x SATA 3Gb/s Suporta AHCI								
LAN	<p>Realtek RTL 8111F</p> <p>10/ 100/ 1000 Mb auto negociação, capacidade duplex Metade / Cheio</p>									
Codec de Audio	<p>ALC662</p> <p>Canais de Áudio de Alta Definição 5.1, Biostar Hi-Fi</p>									
USB	<p>Hi-Fi H87S3 & Hi-Fi B85S3:</p> <p>Porta 4x USB 3.0 (2 nas entradas/saídas traseiras e 2 pelos Dispositivos internos)</p> <p>Porta 6x USB 2.0 (2 nas entradas/saídas traseiras e 4 pelos Dispositivos internos)</p> <p>Hi-Fi H81S3:</p> <p>Porta 2x USB 3.0 (2 nas entradas)</p> <p>Porta 6x USB 2.0 (2 nas entradas/saídas traseiras e 4 pelos Dispositivos internos)</p>									
Slots de expansão	<table border="0"> <tr> <td>Hi-Fi H87S3 & Hi-Fi B85S3:</td> <td>Hi-Fi H81S3:</td> </tr> <tr> <td>Porta 1x PCIe 2.0 x1</td> <td>Porta 1x PCIe 2.0 x1</td> </tr> <tr> <td>Porta 1x PCIe 2.0 x16 (x4)</td> <td>Porta 1x PCIe 2.0 x16 (x4)</td> </tr> <tr> <td>Porta 1x PCIe 3.0 x16 (x16)</td> <td>Porta 1x PCIe 2.0 x16 (x16)</td> </tr> </table>	Hi-Fi H87S3 & Hi-Fi B85S3:	Hi-Fi H81S3:	Porta 1x PCIe 2.0 x1	Porta 1x PCIe 2.0 x1	Porta 1x PCIe 2.0 x16 (x4)	Porta 1x PCIe 2.0 x16 (x4)	Porta 1x PCIe 3.0 x16 (x16)	Porta 1x PCIe 2.0 x16 (x16)	
Hi-Fi H87S3 & Hi-Fi B85S3:	Hi-Fi H81S3:									
Porta 1x PCIe 2.0 x1	Porta 1x PCIe 2.0 x1									
Porta 1x PCIe 2.0 x16 (x4)	Porta 1x PCIe 2.0 x16 (x4)									
Porta 1x PCIe 3.0 x16 (x16)	Porta 1x PCIe 2.0 x16 (x16)									
Entradas/Saídas no painel traseiro	<p>Mouse 1x PS/2</p> <p>Teclado 1x PS/2</p> <p>Porta 1x DVI</p> <p>Porta 1x VGA</p> <p>Porta 1x LAN</p> <p>Porta 2x USB 2.0</p> <p>Porta 2x USB 3.0</p> <p>Soquete audio 3x</p>									

Hi-Fi H87S3/Hi-Fi B85S3/Hi-Fi H81S3

Especificações			
	Hi-Fi H87S3	Hi-Fi B85S3	Hi-Fi H81S3
	Conector 6x SATA 6.0Gb/s	Conector 4x SATA 6.0Gb/s	Conector 2x SATA 6.0Gb/s
	Dispositivo 2x USB 2.0 (cada Dispositivo suporta 2 portas USB 2.0)	Conector 2x SATA 3.0Gb/s	Conector 2x SATA 3.0Gb/s
	Dispositivo 1x USB 3.0 (cada Dispositivo suporta 2 portas USB 3.0)	Dispositivo 2x USB 2.0 (cada Dispositivo suporta 2 portas USB 2.0)	Dispositivo 2x USB 2.0 (cada Dispositivo suporta 2 portas USB 2.0)
	Conector de 4 pinos x1	Dispositivo 1x USB 3.0 (cada Dispositivo suporta 2 portas USB 3.0)	Conector de 4 pinos x1
	Conector de 24 pinos x1	Conector de 4 pinos x1	Conector de 24 pinos x1
Conectores na placa	Conector de Ventoinha processador x1	Conector de 24 pinos x1	Conector de Ventoinha processador x1
	Conector de Ventoinha Sistema x1	Conector de Ventoinha processador x1	Conector de Ventoinha Sistema x1
	Dispositivo Painel Frontal x1	Conector de Ventoinha Sistema x1	Dispositivo Painel Frontal x1
	Dispositivo de Audio Frontal x1	Dispositivo Painel Frontal x1	Dispositivo de Audio Frontal x1
	Dispositivo CMOS Direct x1	Dispositivo de Audio Frontal x1	Dispositivo CMOS Direct x1
	Dispositivo Consumível IR x1	Dispositivo CMOS Direct x1	Dispositivo Consumível IR x1
	Dispositivo Porta Série x1	Dispositivo Consumível IR x1	Dispositivo Porta Série x1
	Dispositivo Porta Impressora x1	Dispositivo Porta Série x1	Dispositivo Porta Impressora x1
		Dispositivo Porta Impressora x1	
Fator de Fôrma	Fator de Fôrma ATX, 244 mm x 180 mm		
Suporte OS	Windows 7/ 8 Biostar reserva seu direito de adicionar ou retirar o suporte para qualquer OS com ou sem notificação.		

Russian

Спецификации	
Поддержка центрального процессора	Сокет 1150 для процессоров Intel® Core i7 / i5 / i3 / Pentium / Celeron Максимальный термopakет центрального процессора (TDP): 95 ватт * Перечень поддержки центрального процессора смотрите на www.biostar.com.tw .
Набор микросхем	INTEL® H87 (Hi-Fi H87S3) INTEL® B85 (Hi-Fi B85S3) INTEL® H81 (Hi-Fi H81S3)
Память	Поддерживает двухканальный 1066/ 1333/ 1600 2 гнезда платы памяти DDR3 DIMM, максимальная память до 16 Гб Каждый модуль DIMM поддерживает модуль не-ECC 512 Мб/ 1/ 2/ 4/ 8 Гб DDR3 * Перечень поддержки памяти смотрите на www.biostar.com.tw .
Накопитель	INTEL® H87: INTEL® B85 INTEL® H81 Соединитель 6x SATA 6 Гб/с Соединитель 4x SATA 6 Гб/с Соединитель 2x SATA 6 Гб/с Поддерживает RAID 0,1,10,5, Соединитель 2x SATA 3 Гб/с Соединитель 2x SATA 3 Гб/с AHCI & SRT Поддерживает AHCI Поддерживает AHCI
Локальная сеть	Realtek RTL 8111F Автосогласование 10/ 100/ 1000 Мб/с, работает в полно/полудуплексном режиме
Аудиокодек	ALC662 Каналы 5.1, высококачественное аудио, Biostar Hi-Fi
USB	Hi-Fi H87S3 & Hi-Fi B85S3: 4 порта USB 3.0 (2 сзади ввода-вывода и 2 через внутренние контакты) 6 порта USB 2.0 (2 сзади ввода-вывода и 4 через внутренние контакты) Hi-Fi H81S3: 2 порта USB 3.0 (2 сзади ввода-вывода) 6 порта USB 2.0 (2 сзади ввода-вывода и 4 через внутренние контакты)
Гнезда расшир.	Hi-Fi H87S3 & Hi-Fi B85S3: Hi-Fi H81S3: 1x PCIe 2.0 x1 гнездо 1x PCIe 2.0 x1 гнездо 1x PCIe 2.0 x16 гнездо (x4) 1x PCIe 2.0 x16 гнездо (x4) 1x PCIe 3.0 x16 гнездо (x16) 1x PCIe 2.0 x16 гнездо (x16)
Задняя плата ввода-вывода	1 мышь PS/2 1 клавиатура PS/2 1 порт DVI 1 порт VGA 1 порт локальной сети 2 порта USB 2.0 2 порта USB 3.0 3 гнезд для подключения наушников

Hi-Fi H87S3/Hi-Fi B85S3/Hi-Fi H81S3

Спецификации				
	Hi-Fi H87S3	Hi-Fi B85S3	Hi-Fi H81S3	
Внутр. Плата ввода-вывода	Соединитель 6x SATA 6 Гб/с	Соединитель 4x SATA 6 Гб/с	Соединитель 2x SATA 6 Гб/с	
	2 контакта USB 2.0 (каждый контакт поддерживает 2 порта USB 2.0)	Соединитель 2x SATA 3 Гб/с 2 контакта USB 2.0 (каждый контакт поддерживает 2 порта USB 2.0)	Соединитель 2x SATA 3 Гб/с 2 контакта USB 2.0 (каждый контакт поддерживает 2 порта USB 2.0)	
	1 контакт USB 3.0 (каждый контакт поддерживает 2 порта USB 3.0)	1 контакт USB 3.0 (каждый контакт поддерживает 2 порта USB 3.0)	1 4-выводный разъем питания	
	1 4-выводный разъем питания	1 4-выводный разъем питания	1 24-выводный разъем питания	
	1 24-выводный разъем питания	1 24-выводный разъем питания	1 разъем вентилятора ЦП	
	1 разъем вентилятора ЦП	1 разъем вентилятора ЦП	1 разъема вентилятора системы	
	1 разъема вентилятора системы	1 разъем вентилятора системы	1 контакт передней панели аудиопанели	
	1 контакт передней аудиопанели	1 контакт передней аудиопанели	1 контакт микросхемы Clear CMOS	
	1 контакт микросхемы Clear CMOS	1 контакт микросхемы Clear CMOS	1 инфракрасный пользовательский контакт	
	1 инфракрасный пользовательский контакт	1 инфракрасный пользовательский контакт	1 контакт последовательного порта	
	1 контакт последовательного порта	1 контакт последовательного порта	1 контакт порта принтера	
	1 контакт порта принтера	1 контакт порта принтера		
	Конструктив	Форм-фактор ATX, 244 мм x 180 мм		
	Поддержка ОС	Windows 7/ 8 Biostar оставляет за собой право добавлять или удалять поддержку любой ОС, с уведомлением или без.		

Spanish

Especificaciones									
Compatibilidad con el procesador	<p>Ranura 1150 para procesador Intel® Core i7 / i5 / i3 / Pentium / Celeron</p> <p>Alimentación de Proyección Térmica (TDP – Thermal Design Power): 95Watt</p> <p>*Por favor consultar con www.biostar.com.tw para la lista de compatibilidad con el procesador.</p>								
Tipo de Placa	INTEL® H87 (Hi-Fi H87S3) INTEL® B85 (Hi-Fi B85S3) INTEL® H81 (Hi-Fi H81S3)								
Memoria	<p>Soporta DDR3 1066/ 1333/ 1600 Doble Canal</p> <p>2x DDR3 DIMM Ranura de memoria Soporta hasta 16 GB Memoria</p> <p>Cada DIMM soporta un modulo non-ECC 512MB/ 1/ 2/ 4/ 8 GB DDR3</p> <p>*Por favor consultar con www.biostar.com.tw para la lista de compatibilidad con el memoria.</p>								
Almacenamiento de información	<table border="0"> <tr> <td>INTEL® H87: Conector 6x SATA 6Gb/s Soporta RAID 0,1,10,5, AHCI & SRT</td> <td>INTEL® B85: Conector 4x SATA 6Gb/s Conector 2x SATA 3Gb/s Soporta AHCI</td> <td>INTEL® H81: Conector 2x SATA 6Gb/s Conector 2x SATA 3Gb/s Soporta AHCI</td> </tr> </table>	INTEL® H87: Conector 6x SATA 6Gb/s Soporta RAID 0,1,10,5, AHCI & SRT	INTEL® B85: Conector 4x SATA 6Gb/s Conector 2x SATA 3Gb/s Soporta AHCI	INTEL® H81: Conector 2x SATA 6Gb/s Conector 2x SATA 3Gb/s Soporta AHCI					
INTEL® H87: Conector 6x SATA 6Gb/s Soporta RAID 0,1,10,5, AHCI & SRT	INTEL® B85: Conector 4x SATA 6Gb/s Conector 2x SATA 3Gb/s Soporta AHCI	INTEL® H81: Conector 2x SATA 6Gb/s Conector 2x SATA 3Gb/s Soporta AHCI							
LAN	<p>Realtek RTL 8111F</p> <p>10/ 100/ 1000 Mb/s auto negociación, capacidad dúplex Mitad/Completo</p>								
Códec Audio	<p>ALC662</p> <p>Canales Audio de Alta Definición 5.1, Biostar Hi-Fi</p>								
USB	<p>Hi-Fi H87S3 & Hi-Fi B85S3:</p> <p>Ranura 4x USB 3.0 (2 en las entrada/salidas posteriores y 2 por los distribuidores internos)</p> <p>Ranura 6x USB 2.0 (2 en las entrada/salidas posteriores y 4 por los distribuidores internos)</p> <p>Hi-Fi H81S3:</p> <p>Ranura 2x USB 3.0 (2 en las entrada)</p> <p>Ranura 6x USB 2.0 (2 en las entrada/salidas posteriores y 4 por los distribuidores internos)</p>								
Ranuras de Extinción	<table border="0"> <tr> <td>Hi-Fi H87S3 & Hi-Fi B85S3:</td> <td>Hi-Fi H81S3:</td> </tr> <tr> <td>Ranura 1x PCIe 2.0 x1</td> <td>Ranura 1x PCIe 2.0 x1</td> </tr> <tr> <td>Ranura 1x PCIe 2.0 x16 (x4)</td> <td>Ranura 1x PCIe 2.0 x16 (x4)</td> </tr> <tr> <td>Ranura 1x PCIe 3.0 x16 (x16)</td> <td>Ranura 1x PCIe 2.0 x16 (x16)</td> </tr> </table>	Hi-Fi H87S3 & Hi-Fi B85S3:	Hi-Fi H81S3:	Ranura 1x PCIe 2.0 x1	Ranura 1x PCIe 2.0 x1	Ranura 1x PCIe 2.0 x16 (x4)	Ranura 1x PCIe 2.0 x16 (x4)	Ranura 1x PCIe 3.0 x16 (x16)	Ranura 1x PCIe 2.0 x16 (x16)
Hi-Fi H87S3 & Hi-Fi B85S3:	Hi-Fi H81S3:								
Ranura 1x PCIe 2.0 x1	Ranura 1x PCIe 2.0 x1								
Ranura 1x PCIe 2.0 x16 (x4)	Ranura 1x PCIe 2.0 x16 (x4)								
Ranura 1x PCIe 3.0 x16 (x16)	Ranura 1x PCIe 2.0 x16 (x16)								
Panel trasero de E/S	<p>Teclado 1x PS/2</p> <p>Ratón 1x PS/2</p> <p>Ranura 1x DVI</p> <p>Ranura 1x VGA</p> <p>Ranura 1x LAN</p> <p>Ranura 2x USB 2.0</p> <p>Ranura 2x USB 3.0</p> <p>Socket audio 3x</p>								

Hi-Fi H87S3/Hi-Fi B85S3/Hi-Fi H81S3

Especificaciones			
	Hi-Fi H87S3	Hi-Fi B85S3	Hi-Fi H81S3
Conectores en placa	Conector 6x SATA 6Gb's	Conector 4x SATA 6Gb's	Conector 2x SATA 6Gb's
	Distribuidor 2x USB 2.0 (cada distribuidor soporta 2 ranuras USB 2.0)	Conector 2x SATA 3Gb's	Conector 2x SATA 3Gb's
	Distribuidor 1x USB 3.0 (cada distribuidor soporta 2 ranuras USB 3.0)	Distribuidor 2x USB 2.0 (cada distribuidor soporta 2 ranuras USB 2.0)	Distribuidor 2x USB 2.0 (cada distribuidor soporta 2 ranuras USB 2.0)
	Conector con 4 patillas x1	Distribuidor 1x USB 3.0 (cada distribuidor soporta 2 ranuras USB 3.0)	Conector con 4 patillas x1
	Conector con 24 patillas x1	Conector con 4 patillas x1	Conector con 24 patillas x1
	Conector Ventilador procesador x1	Conector con 24 patillas x1	Conector Ventilador procesador x1
	Conector Ventilador Sistema x1	Conector Ventilador procesador x1	Conector Ventilador Sistema x1
	Distribuidor Panel Frontal x1	Conector Ventilador Sistema x1	Distribuidor Panel Frontal x1
	Distribuidor Audio Frontal x1	Distribuidor Panel Frontal x1	Distribuidor Audio Frontal x1
	Distribuidor CMOS Directo x1	Distribuidor Audio Frontal x1	Distribuidor CMOS Directo x1
	Distribuidor Consumible IR x1	Distribuidor CMOS Directo x1	Distribuidor Consumible IR x1
	Distribuidor Ranura Serie x1	Distribuidor Consumible IR x1	Distribuidor Ranura Serie x1
	Distribuidor Ranura Impresora x1	Distribuidor Ranura Serie x1	Distribuidor Ranura Impresora x1
	Distribuidor Ranura Impresora x1	Distribuidor Ranura Impresora x1	
Factor de Forma	Factor de Forma ATX, 244 mm x 180 mm		
Soporte OS	Windows 7/ 8 Biostar reserva su derecho de añadir o retirar el soporte para cada OS con o sin notificación.		

2013/05/07