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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

Table of Contents

| | |
|--|-----------|
| Chapter 1: Introduction | 1 |
| 1.1 Before You Start..... | 1 |
| 1.2 Package Checklist..... | 1 |
| 1.3 Motherboard Specifications | 2 |
| 1.4 Central Processing Unit (CPU)..... | 3 |
| 1.5 Rear Panel Connectors | 3 |
| 1.6 Motherboard Layout | 4 |
| Chapter 2: Hardware Installation | 5 |
| 2.1 Connect Cooling Fans | 5 |
| 2.2 Install System Memory | 5 |
| 2.3 Expansion Slots | 7 |
| 2.4 Jumper Setting | 8 |
| 2.5 Headers & Connectors | 9 |
| Chapter 3: UEFI BIOS & Software | 13 |
| 3.1 UEFI BIOS Setup | 13 |
| 3.2 BIOS Update | 13 |
| 3.3 Software..... | 17 |
| Chapter 4: Useful Help | 20 |
| 4.1 Driver Installation | 22 |
| 4.2 AMI BIOS Beep Code..... | 23 |
| 4.3 Troubleshooting | 23 |
| Appendix: SPEC In Other Languages | 25 |
| Arabic | 25 |
| French | 26 |
| German..... | 27 |
| Italian | 28 |
| Japanese | 29 |
| Polish..... | 30 |
| Portuguese | 31 |
| Russian..... | 32 |
| Spanish..... | 33 |

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

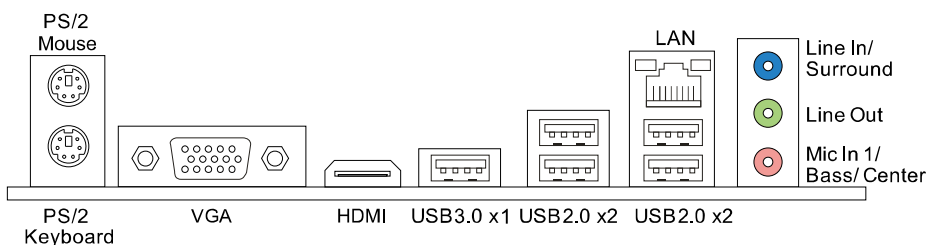
- Serial ATA Cable x2
- Rear I/O Panel for ATX Case x1
- Installation Guide x1
- Fully Setup Driver DVD x1

| |
|---|
| <p>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.</p> |
|---|

1.3 Motherboard Specifications

| Specifications | |
|-----------------|--|
| CPU Support | J1800NHL/ J1800NH: Intel® Celeron® J1800 processor J1900NHL/ J1900NH: Intel® Celeron® J1900 processor J2900NHL/ J2900NH: Intel® Pentium® J2900 processor |
| Memory | Supports SingleChannel DDR3L 1333 (1.35V/1.5V) 1 x DDR3L SO-DIMM Memory Slot, Max. Supports up to 8 GB Memory Each DIMM supports non-ECC 512MB/ 1/ 2/ 4/ 8 GB DDR3L module * Please refer to www.biostar.com.tw for Memory support list. |
| Storage | 2x SATA 3Gb/s Connector, Supports Native IDE, AHCI Mode |
| LAN | J1800NH/ J1900NH/ J2900NH: Realtek RTL 8111G, 10/ 100/ 1000 Mb/s auto negotiation, Half / Full duplex capability J1800NHL/ J1900NHL/ J2900NHL: Realtek RTL 8106E, 10/ 100 Mb/s auto negotiation, Half / Full duplex capability |
| Audio Codec | ALC662, 5.1 Channels, High Definition Audio |
| USB | 6x USB 2.0 port (4 on rear I/Os and 2 via internal header) 1x USB 3.0 port (1 on rear I/Os) |
| Expansion Slots | 1x PCIe x1 Slot |
| Rear I/Os | 1x PS/2 Mouse 1x PS/2 Keyboard 1x VGA Port 1x HDMI Port 1x USB 3.0 Port 4x USB 2.0 Port 1x LAN port 3x Audio Jack |
| Internal I/Os | 2x SATA 3.0Gb/s Connector 1x USB 2.0 Header (each header supports 2 USB 2.0 ports) 1x 4-Pin Power Connector 1x 24-Pin Power Connector 2x System Fan Connector 1x Front Panel Header 1x Front Audio Header 1x Clear CMOS Header 1x Printer Port Header 1x Serial Port Header |
| Form Factor | Mini-ITX Form Factor, 170 mm x 170 mm |
| OS Support | Windows 7 / 8 / 8.1 Biostar reserves the right to add or remove support for any OS with or without notice. |

1.4 Rear Panel Connectors



Note 1: Since the audio chip supports High Definition Audio Specification, the function of each audio jack can be defined by software. The input / output function of each audio jack listed above represents the default setting. However, when connecting external microphone to the audio port, please use the Line In (Blue) and Mic In (Pink) audio jack.

Note 2: Maximum resolution:

HDMI: 1920 x 1200 @60Hz

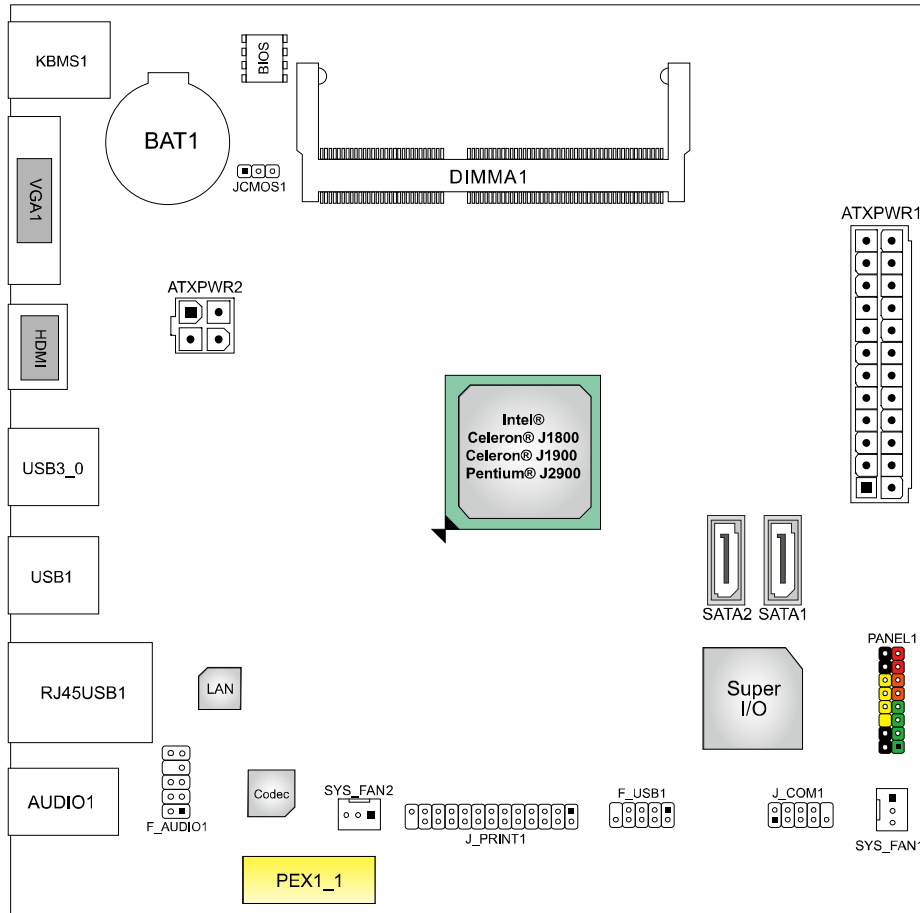
VGA: 2560 x 1600 @60Hz

1.5 Central Processing Unit (CPU)

The motherboard is equipped with an onboard Intel processor and a CPU cooler.

| Model Name: | Onboard CPU: |
|-------------------|---|
| J1800NHL/ J1800NH | Intel® Celeron® J1800 processor (Dual core, 1M Cache, 2.58 GHz) |
| J1900NHL/ J1900NH | Intel® Celeron® J1900 processor (Quad core, 2M Cache, 2.42 GHz) |
| J2900NHL/ J2900NH | Intel® Pentium® J2900 processor (Quad core, 2M Cache, 2.67 GHz) |

1.6 Motherboard Layout



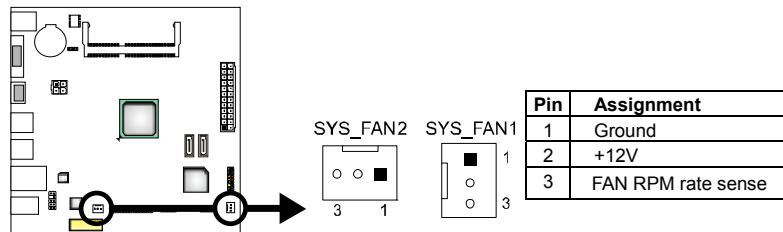
Note: ■ represents the 1st pin.

CHAPTER 2: HARDWARE INSTALLATION

2.1 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. Connect the fan cable to the connector while matching the black wire to pin#1.

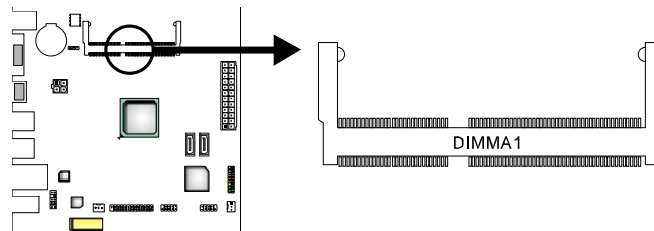
SYS_FAN1/2: System Fan Header



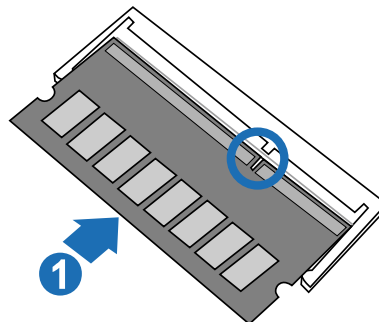
Note: SYS_FAN1/2 support 4-pin and 3-pin head connectors. When connecting with wires onto connectors, please note that the red wire is the positive and should be connected to pin#2, and the black wire is Ground and should be connected to GND.

2.2 Install System Memory

A. DDR3L SO-DIMM Module (1.35V/1.5V)

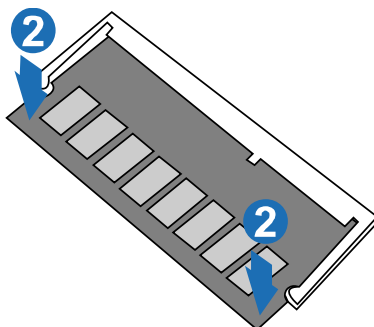


Step 1: Align a DIMM on the slot such that the notch on the DIMM matches the break on the Slot.



Motherboard Manual

Step 2: Insert the DIMM 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.

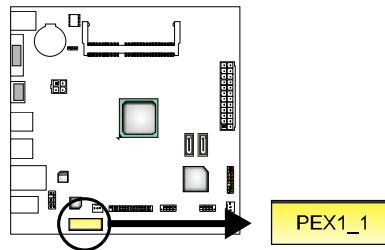
B. Memory Capacity

| DIMM Socket Location | DDR3L Module | Total Memory Size |
|----------------------|-----------------------|-------------------|
| DIMMA1 | 512MB/1GB/2GB/4GB/8GB | Max is 8GB |

2.3 Expansion Slots

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.



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.

2.4 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”.



Pin opened



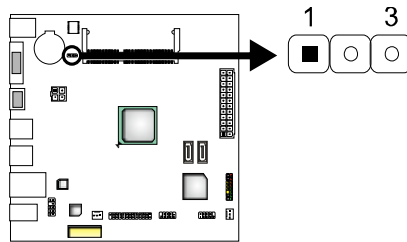
Pin closed



Pin1-2 closed

JCMOS1: Clear CMOS Header

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.



Pin 1-2 Close:
Normal Operation (default).



Pin 2-3 Close:
Clear CMOS data.

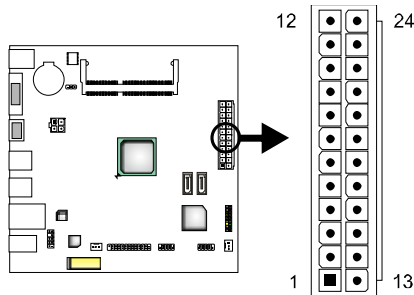
※ Clear CMOS Procedures:

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.

2.5 Headers & Connectors

ATXPWR1: ATX Power Source Connector

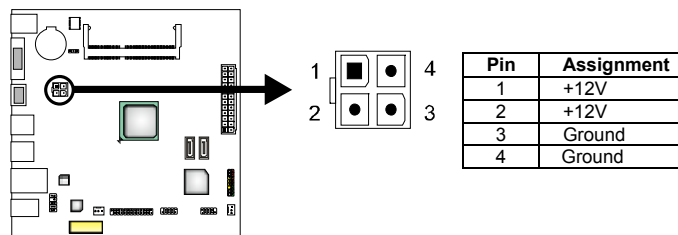
For better compatibility, we recommend to use a standard ATX 24-pin power supply for this connector. Make sure to find the correct orientation before plugging the connector.



| Pin | Assignment | Pin | Assignment |
|-----|------------|-----|--------------------|
| 13 | +3.3V | 1 | +3.3V |
| 14 | -12V | 2 | +3.3V |
| 15 | Ground | 3 | Ground |
| 16 | PS_ON | 4 | +5V |
| 17 | Ground | 5 | Ground |
| 18 | Ground | 6 | +5V |
| 19 | Ground | 7 | Ground |
| 20 | NC | 8 | PW_OK |
| 21 | +5V | 9 | Standby Voltage+5V |
| 22 | +5V | 10 | +12V |
| 23 | +5V | 11 | +12V |
| 24 | Ground | 12 | +3.3V |

ATXPWR2: ATX Power Source Connector

This connector will provide +12V to CPU power circuit.



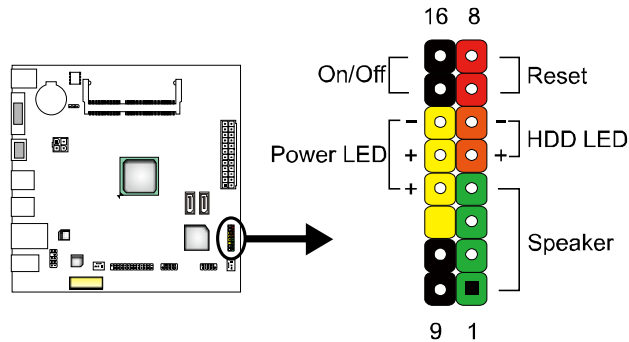
| Pin | Assignment |
|-----|------------|
| 1 | +12V |
| 2 | +12V |
| 3 | Ground |
| 4 | Ground |

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

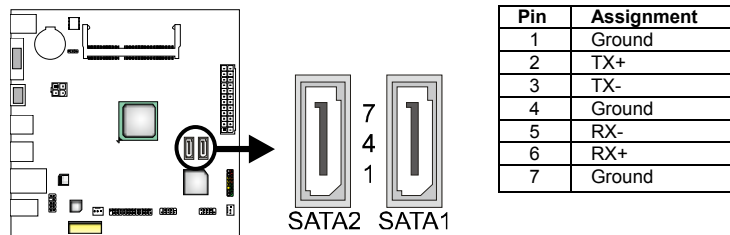
This 16-pin connector includes Power-on, Reset, HDD LED, Power LED, and speaker connection. It allows user to connect the PC case's front panel switch functions.



| 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 | |

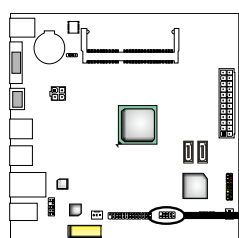
SATA1/2: Serial ATA Connectors

These connectors connect to SATA hard disk drives via SATA cables. It satisfies the SATA 2.0 specification and with transfer rate of 3.0Gb/s.



F_USB1: Header for USB 2.0 Ports at Front Panel

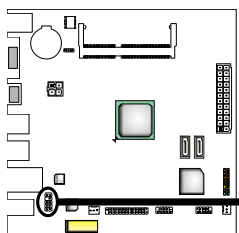
This header allows user to connect additional USB cable on the PC front panel, and also can be connected with a wide range of simultaneously accessible external Plug and Play peripherals.



| 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 front audio output cable with the PC front panel. This header supports HD and AC'97 audio front panel connector.



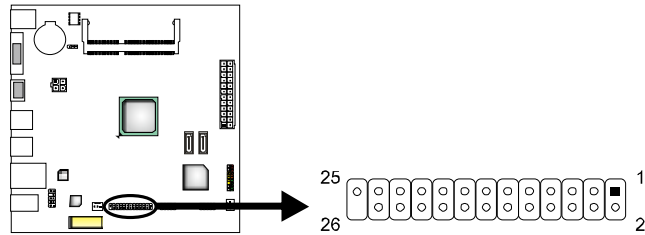
| HD Audio | | AC'97 | |
|----------|---------------|-------|--------------|
| Pin | Assignment | Pin | Assignment |
| 1 | Mic Left in | 1 | Mic In |
| 2 | Ground | 2 | Ground |
| 3 | Mic Right in | 3 | Mic Power |
| 4 | GPIO | 4 | Audio Power |
| 5 | Right line in | 5 | RT Line Out |
| 6 | Jack Sense | 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_PRINT1: Printer Port Connector

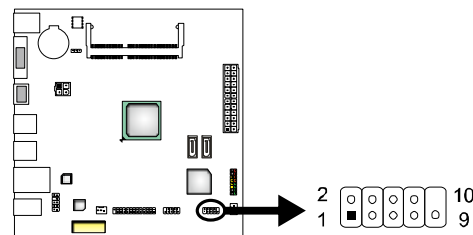
This header allows you to connector printer on the PC.



| 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 |

J_COM1: Serial Port Connector

The motherboard has a Serial Port Connector 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 |

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.

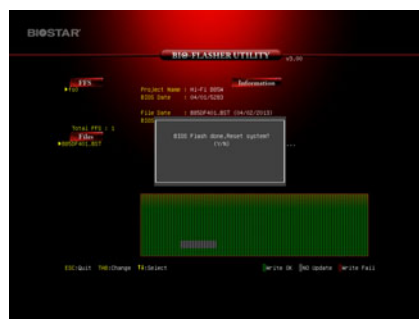
5. After entering the POST screen, the BIOS-FLASHER utility pops out. Choose [fs0] to search for the BIOS file.



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)

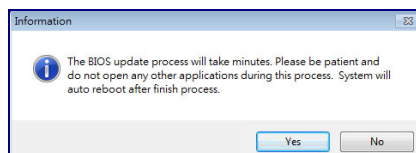
1. Installing BIOS Update Utility from the DVD Driver.
2. Please make sure the system is connected to the internet before using this function.

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

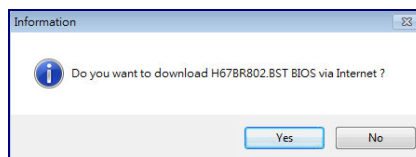


Intel Bay Trail Mini-ITX Motherboard

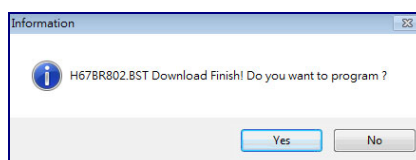
4. An open dialog will show up to request your agreement to start the BIOS update. Click **Yes** to start the online update procedure.



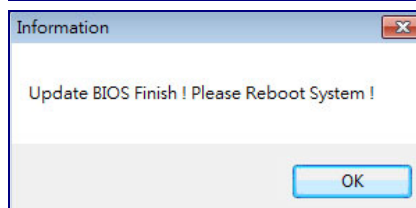
5. If there is a new BIOS version, the utility will ask you to download it. Click **Yes** to proceed.



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.

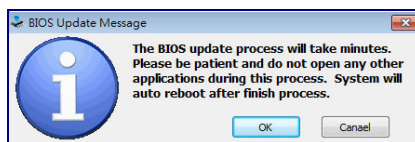
BIOS Update Utility (through a BIOS file)

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

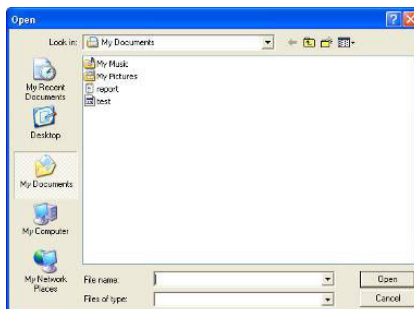
3. Launch BIOS Update Utility and click the **Update BIOS** button on the main screen.



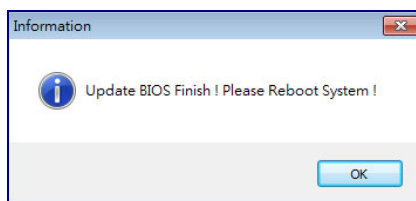
4. A warning message will show up to request your agreement to start the BIOS update. Click **OK** to start the update procedure.



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.



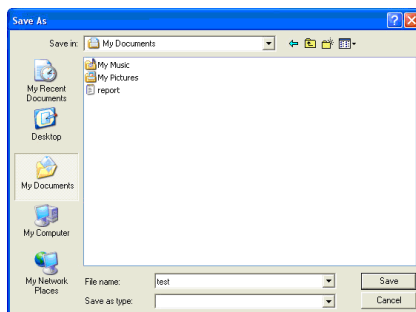
6. After the BIOS Update process is finished, click on **OK** to reboot the system.



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

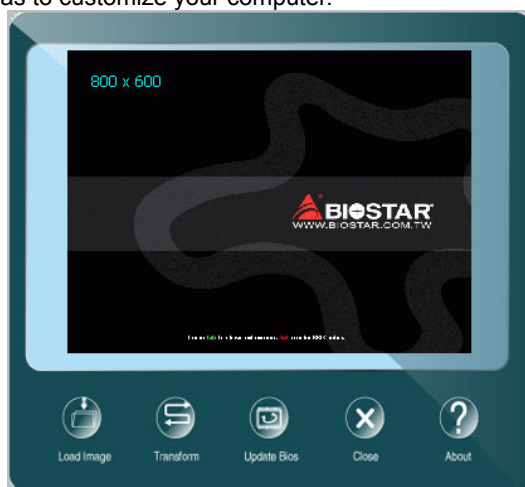
After the installation process is completed, you will see the software icon showing on the desktop. Double-click the icon to launch it.

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.

*Select your area or the area close to you.

Provide the e-mail address that you would like to send the copy to.

*Provide the name of the memory module manufacturer.

Provide the name of the power supply manufacturer and the model no.

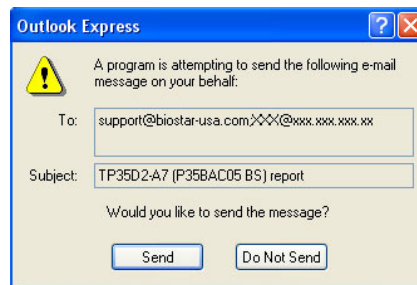
Send the mail out.

Save these information to a .txt file

Exit this dialog.

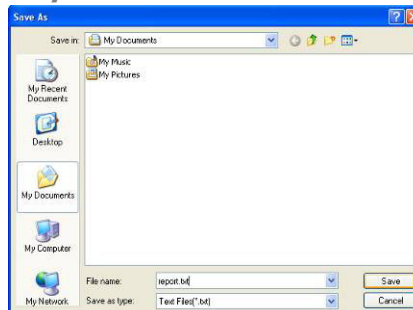
After filling up this information, click **“Send”** to send the mail out. A warning dialog would appear asking for your confirmation; click **“Send”** to confirm or **“Do Not Send”** to cancel.

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.

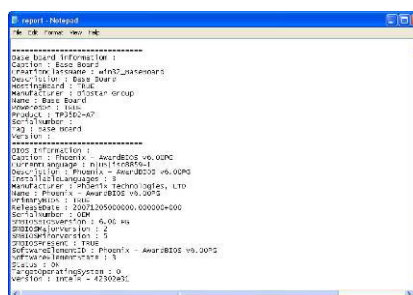


Intel Bay Trail Mini-ITX Motherboard

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 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, Windows 8 and Windows 8.1
- 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.

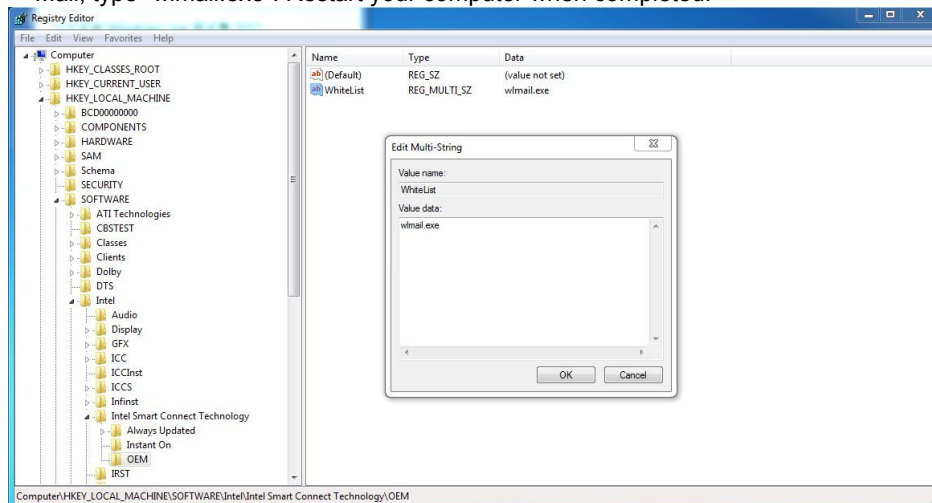
Step 2: Click on start menu and input "regedit" in the search bar. Press enter to open the registry editor. Look for the following directory in the registry editor:

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.

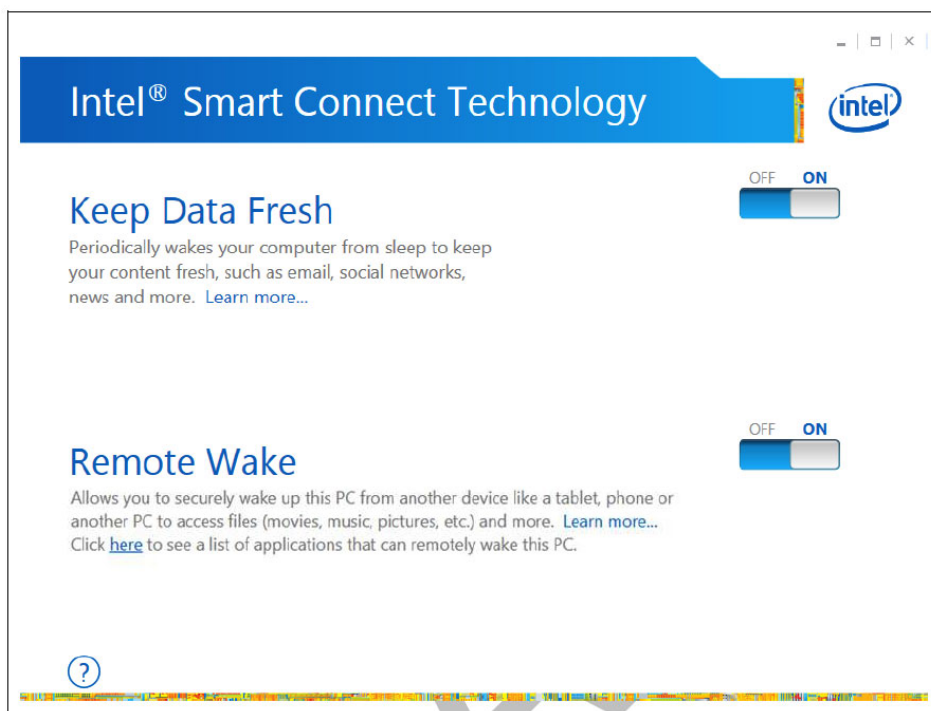
Step 3: As shown in the screenshot below, right-click on OEM, select *New > Multi-String Value*, and type “WhiteList”. Double-click WhiteList and type the application name to be added in Edit Multi-String. For example, to add Microsoft Live Mail, type “wlmail.exe”. Restart your computer when completed.



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

Configuration Utility

The Intel Smart Connect Technology Configuration Utility allows configuration of the sleep duration, extended hours sleep duration, and viewing of the Event History along with other settings. To launch the application, select the application “Intel® Smart Connect Technology in the Start menu (Windows* 7) or Start screen (Windows* 8/8.1) to launch the configuration GUI. Once launched, the following is presented:

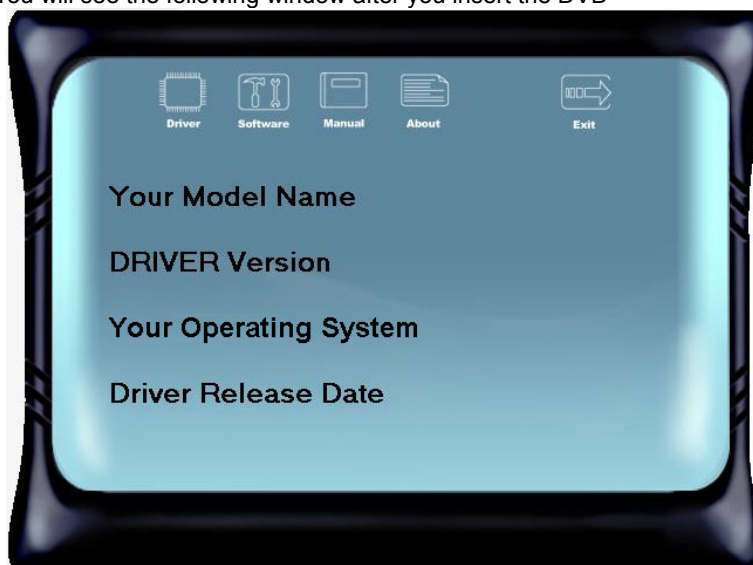


Note: For detailed setting of Intel® Smart Connect Technology, please check the below link.
<http://www.intel.com/support/services/smartconnect/sb/CS-033109.htm>

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/>
Note3: Intel(R) Trusted Execution Engine Interface Driver is only supported with Windows 8/8.1 & Windows 7. For Windows 7 user, please install Microsoft Kernel-Mode Driver Framework (KMDF) version 1.1. Otherwise, you found a yellow bang appears as "Intel Trusted Execution Engine Interface" under system device manager. Also, you can follow the Microsoft instructions from the link: KB2685811. <http://support.microsoft.com/kb/2685811>

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.

APPENDIX: SPEC IN OTHER LANGUAGES**Arabic**

| المواصفات | |
|---|------------------------------|
| J1800NHL/ J1800NH: Intel® Celeron® J1800 processor J1900NHL/ J1900NH: Intel® Celeron® J1900 processor J2900NHL/ J2900NH: Intel® Pentium® J2900 processor | قاعدة وحدة المعالجة المركزية |
| تدعم قلة مزدوجة دي. دي. ار. (1.35V/1.5V) DDR3L 1333 x1 دي. دي. ار. DDR3L قحتت الذاكرة المزدوجة SO-DIMM، تتحمل كحد أقصى 8 جيجابايت ذاكرة كل فتحة مزدوجة DIMM تتحمل دون 512 ECC ميجا بايت / 8/4/2/1 جيجابايت دي. دي. ار. DDR3L * يرجى الرجوع إلى الموقع www.biostar.com.tw لقتمة دعم الذاكرة. | الذاكرة |
| وصلة x2 ساتا 3 SATA جيجا بايت / الثانية تتحمل رايد الأم AHCI / IDE | التخزين |
| REALTEK RTL 8111 G (J1800NH/ J1900NH/ J2900NH) رت ل 1000 / 100 / 10 ميجا بايت / الثانية ، تحديد تلقائي ، النصف / القدرة القصوى المزدوجة REALTEK RTL 8106E (J1800NHL/ J1900NHL/ J2900NHL) رت ل 100 / 10 ميجا بايت / الثانية ، تحديد تلقائي ، النصف / القدرة القصوى المزدوجة | شبكة محلية LAN |
| ALC662 5,1 قنوات عالية النقة | الترميز الصوتي |
| منافذ x 6 ناقل متسلسل عام USB 2.0 (4 في المداخل والمخارج الخلفية و 2 من خلال الموزع الداخلي) منافذ x 1 ناقل متسلسل عام USB 3.0 (1 في المداخل والمخارج الخلفية) | ناقل متسلسل عام USB |
| x 1 فتحة منفذ الملحقات الإضافية PCIe 1 x | فتحت التوسع |
| 1 x PS/2 الفرة 1 x PS/2 لوحة المفاتيح للكمبيوتر فتحة توصيل عدد 1 x HDMI وسيط متعدد العلي الوضوح فتحة توصيل عدد 1 x منظومة العرض المرئي VGA فتحة لتوصيل عدد 1 x الشبكة المحلية LAN فتحة توصيل عدد 1 x ناقل متسلسل عام USB 3.0 فتحة توصيل عدد 4 x ناقل متسلسل عام USB 2.0 فتحة توصيل عدد 3 x جاك للصوت | المداخل والمخارج الخلفية |
| وصلة x 2 SATA 3 جيجابايت / الثانية موزع x 1 ناقل متسلسل عام USB 2.0 (كل موزع يتحمل قحتين ناقل متسلسل عام USB 2.0) وصلة للطاقة 1 x 4 دبليس وصلة للطاقة 1 x 24 دبوس وصلة x 2 مرواح تبريد المنظومة موزع x 1 اللوحة الأمامية موزع x 1 الصوت الأملي موزع x 1 سيموس مباشر موزع x 1 فتحة للطابعة موزع x 1 فتحة تنسلسلية | المداخل والمخارج الداخلية |
| عامل شكل مدد التكنولوجيا المتقدمة Mini-ITX، 170 x 170 مم | عامل الشكل |
| ويندوز إكس ب 7 / 8 / 8.1 بيوستار BIOSSTAR تحتفظ بحق إضافة أو إزالة الدعم لأي نظام تشغيل مع أو بدون أنظار. | أنظمة التشغيل المدعومة |

French

| Spécifications | |
|------------------------|--|
| Support Unité Centrale | J1800NHL/ J1800NH: Intel® Celeron® J1800 J1900NHL/ J1900NH: Intel® Celeron® J1900 J2900NHL/ J2900NH: Intel® Pentium® J2900 |
| Mémoire | Supporte mémoire DDR3L double canal 1333 (1.35V/1.5V) Banc de mémoire 1 x DDR3L SO-DIMM, Supporte max. jusqu'à une mémoire de 8 GB Chaque module DIMM supporte module DDR3L 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 | Connecteur 2 x SATA 3Gb/s Supporte système indigène IDE & AHCI mode |
| Réseau local | Realtek RTL 8111G (J1800NH/ J1900NH/ J2900NH) 10/ 100/ 1000 Mb/s auto négociation, capacité bidirectionnelle à l'alternat / bidirectionnelle simultanée Realtek RTL 8106E (J1800NHL/ J1900NHL/ J2900NHL) 10/ 100 Mb/s auto négociation, capacité bidirectionnelle à l'alternat / bidirectionnelle simultanée |
| Codec audio | ALC662, Canaux 5.1, écoute audio de haute définition |
| USB | Port 6x USB 2.0 (4 sur les I/O arrière et 2 en interne) Port 1x USB 3.0 (1 sur les I/O arrière) |
| Connecteur d'extension | 1x PCIe x1 Fente |
| I/O arrière | 1x PS/2 Clavier 1x PS/2 Souris 1x Port HDMI 1x Port VGA 1x port LAN 1x Port USB 3.0 4x Port USB 2.0 3x entrées audio |
| I/O en interne | 2x Connecteur SATA 3.0Gb/s 1x embases USB 2.0 (chaque embase supporte 2 Ports USB 2.0) 1x 4-Broche de carte 1x 24-Broche de carte 2x Connecteur ventilateur système 1x Fiche panneau avant 1x Fiche audio avant 1x Fiche mémoire CMOS vide 1x Embase port imprimante 1x Embase port série |
| Facteur d'encombrement | Facteur d'encombrement Mini-ITX, 170 mm x 170 mm |
| Support SE | Windows 7 / 8 / 8.1 Biostar se réserve le droit d'ajouter ou d'enlever le support pour toute SE avec ou sans préavis. |

German

| Spezifikationen | |
|------------------------|---|
| CPU-Unterstützung | J1800NHL/ J1800NH: Intel® Celeron® J1800 J1900NHL/ J1900NH: Intel® Celeron® J1900 J2900NHL/ J2900NH: Intel® Pentium® J2900 |
| Festplattenspeicher | Unterstützt zweikanaliges DDR3L 1333 (1.35V/1.5V) 1 x DDR3L SO-DIMM-SpeicherSlot, Max. Unterstützung bis zu 8 GB-Speicher Jedes DIMM unterstützt nicht-ECC 512MB/ 1/ 2/ 4/ 8 GB DDR3L-Module * Bitte konsultieren Sie www.biostar.com.tw für Speicherunterstützung Liste. |
| Arbeitsspeicher | 2x SATA 3Gb-Verbindung Unterstützt Ureinwohner IDE & AHCI Modus |
| LAN | Realtek RTL 8111G (J1800NH/ J1900NH/ J2900NH) 10/ 100/ 1000 Mb Auto-Negotiation, Halb- / Voll-Duplex-fähig Realtek RTL 8106E (J1800NHL/ J1900NHL/ J2900NHL) 10/ 100 Mb Auto-Negotiation, Halb- / Voll-Duplex-fähig |
| Audio-Codec | ALC662, 5.1 Kanäle, HD-Audio |
| USB | 6x USB 2.0-Port (4 hintere I/Os und 2 via interne Header) 1x USB 3.0-Port (1 hintere I/Os) |
| Erweiterungsanschlüsse | 1x PCIe x1-Slot |
| Hintere I/Os | 1x PS/2-Maus 1x PS/2-Keyboard 1x HDMI-Port 1x VGA-Port 1x LAN-Port 1x USB 3.0-Port 4x USB 2.0-Port 3x Audio Jack |
| Interne I/Os | 2x SATA 3.0Gb/s-Verbindung 1x USB 2.0-Header (jeder Header unterstützt 2 USB 2.0-Ports) 1x 4-Pin-Stromverbindung 1x 24-Pin-Stromverbindung 2x System-Ventilatorverbindung 1x Header für Frontpanel 1x Header für Frontaudio 1x Header für klares CMOS 1x Header für Druckerport 1x Serieller Port-Header |
| Formfaktor | Mini-ITX Formfaktor, 170 mm x 170 mm |
| OS-Unterstützung | Windows 7 / 8 / 8.1 Biostar reserves the right to add or remove support for any OS with or without notice. |

Italian

| Specificazioni | |
|-----------------------------|---|
| Supporto processore | J1800NHL/ J1800NH: Intel® Celeron® J1800 J1900NHL/ J1900NH: Intel® Celeron® J1900 J2900NHL/ J2900NH: Intel® Pentium® J2900 |
| Memoria | Supporta DDR3L 1333 Doppio Canale (1.35V/1.5V) 1 x DDR3L SO-DIMM Slot di Memoria Supporta fino a 8 GB Memoria Ogni DIMM supporta non-ECC 512MB/ 1/ 2/ 4/ 8 GB DDR3L moduli * Si prega di consultare www.biostar.com.tw per la lista di supporto del memoria. |
| Memorizzazione | Connettore 2x SATA 3Gb/s Supporta nativo IDE & AHCI modo |
| Catena | Realtek RTL 8111G (J1800NH/ J1900NH/ J2900NH) 10/ 100/ 1000 Mb auto negoziazione, capacita di duplex Meta / Completo Realtek RTL 8106E (J1800NHL/ J1900NHL/ J2900NHL) 10/ 100 Mb auto negoziazione, capacita di duplex Meta / Completo |
| Codec Audio | ALC662 Canali Audio di Alta Definizione 5.1 |
| USB | Slot 6x USB 2.0 (4 nei ingressi/ uscite posteriore e 2 da distributori interni) Slot 1x USB 3.0 (1 nei ingressi/ uscite posteriore) |
| Slot di espansione | Slot 1x PCIe x1 |
| Ingressi/ Uscite Posteriore | Mouse 1x PS/2 Tastiera 1x PS/2 Slot 1x HDMI Slot 1x VGA Slot 1x LAN Slot 1x USB 3.0 Slot 4x USB 2.0 Jack audio 3x |
| Ingressi/ Uscite Interni | Connettore 2x SATA 3.0Gb/s Distributore 1x USB 2.0(ogni distributore supporta 2 slot USB 2.0) Connettore con 4 pin x1 Connettore con 24 pin x1 Connettore Ventilatore Sistema x2 Distributore Pannello Frontale x1 Distributore Audio Frontale x1 Distributore CMOS Diretto x1 Distributore Slot Stampante x1 Distributore Slot Serie x1 |
| Fattore di Forma | Fattore di Forma Mini-ITX, 170 mm x 170 mm |
| Supporto SO | Windows 7 / 8 / 8.1 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 | J1800NHL/ J1800NH: Intel® Celeron® J1800 J1900NHL/ J1900NH: Intel® Celeron® J1900 J2900NHL/ J2900NH: Intel® Pentium® J2900 |
| メモリ | デュアルチャンネル DDR3L 1333 をサポート(1.35V/1.5V) 1x DDR3L SO-DIMM メモリ スロット、最大 8GB メモリまでサポート 各 DIMM は、非-ECC 512MB/ 1/ 2/ 4/ 8 GB DDR3L 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 | 2x SATA 3Gb/s コネクタ ネイティブ IDE & AHCI モード のサポート |
| LAN | Realtek RTL 8111G (J1800NH/ J1900NH/ J2900NH) 10/ 100/ 1000 Mb/s オートネゴシエーション、半/全 二重通信 Realtek RTL 8106E (J1800NHL/ J1900NHL/ J2900NHL) 10/ 100 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 |
| USB | 6x USB 2.0 ポート (後部 I/O に4つ 及び 内蔵ヘッダー経由に2つ) 1x USB 3.0 ポート (後部 I/O に1つ) |
| 拡張スロット | 1x PCIe x1 スロット |
| 後部 I/O | 1x PS/2 キーボード 1x PS/2 マウス 1x HDMI ポート 1x VGA ポート 1x LAN ポート 1x USB 3.0 ポート 4x USB 2.0 ポート 3x オーディオ ジャック |
| 内蔵 I/O | 2x SATA 3.0Gb/s コネクタ 1x 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 24-Pin パワー コネクタ 2x 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 クリア CMOS 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 |
| フォーム ファクタ | Mini-ITXフォーム ファクタ、170 mm x 170 mm |
| サポート OS | Windows 7 / 8 / 8.1 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 | J1800NHL/ J1800NH: Intel® Celeron® J1800 J1900NHL/ J1900NH: Intel® Celeron® J1900 J2900NHL/ J2900NH: Intel® Pentium® J2900 |
| Pamięć | Pojedynczy pamięci DDR3L 1333 Dwukanałowa (1.35V/1.5V) 1 x DDR3L SO-DIMM Pamięć Gniazda procesora (Slot), Maksymalna wielkość pamięci 8 GB Każdy DIMM obsługuje jeden moduł non-ECC 512MB/ 1/ 2/ 4/ 8 GB DDR3L * Proszę sprawdzić listę obsługiwanych pamięć na stronie internetowej www.biostar.com.tw |
| Przechowywanie | Złącze 2x SATA 3Gb/s, Obsługa rodzimy IDE & AHCI tryb |
| LAN | Realtek RTL 8111G (J1800NH/ J1900NH/ J2900NH) 10/ 100/ 1000 Mb auto negocjacja, pojemność duplex Połowe / Pełny Realtek RTL 8106E (J1800NHL/ J1900NHL/ J2900NHL) 10/ 100 Mb auto negocjacja, pojemność duplex Połowe / Pełny |
| Codec Audio | ALC662 Kanały Audio wysokiej Definicji 5.1 |
| USB | 6 x złącza USB 2.0 (4 przez tylne porty wejścia/ wyjścia oraz 2 przez wewnętrzne porty) 1x złącza USB 3.0 (1 przez tylne porty wejścia) |
| Złącza rozszerzeń | złącza 1x PCIe x1 |
| Tylne porty wejścia/ wyjścia | Myszka 1x PS/2 Klawiatura 1x PS/2 Porty 1x HDMI (gniazdo) Porty 1x VGA Porty 1x LAN Porty 1x USB 3.0 Porty 4x USB 2.0 Porty audio 3x |
| Wewnętrzne porty wejścia/ wyjścia | Złącza 2x SATA 2.0Gb/s Złącza 1x USB 2.0 (każde złącze obsługuje dodatkowe 2 porty USB 2.0) Złącza 4 pionowe x 1 Złącza 24 pionowe x 1 Złącze wentylatora obudowy x2 Złącze przedniego panelu x1 Złącze audio przedniego panelu x1 Złącze bezpośrednie CMOS x1 Złącze port drukarki x1 Port szeregowy x1 |
| Obudowa | Obudowa Mini-ITX, 170 mm x 170 mm |
| Obsługa OS | Windows 7 / 8 / 8.1 Biostar zastrzega sobie prawo do dodania lub wycofania obsługi dla OS, z wypowiedzeniem lub bez wypowiedzenia. |

Portuguese

| Especificações | |
|------------------------------------|--|
| Suporte Processador | J1800NHL/ J1800NH: Intel® Celeron® J1800 J1900NHL/ J1900NH: Intel® Celeron® J1900 J2900NHL/ J2900NH: Intel® Pentium® J2900 |
| Memória | Suporta DDR3L 1333 Canal Duplo (1.35V/1.5V) 1 x DDR3L SO-DIMM Slot de memória Suporta até 8 GB Memória Cada DIMM suporta non-ECC 512MB/ 1/ 2/ 4/ 8 GB DDR3L módulo * Por favor consulte www.biostar.com.tw para obter uma lista de suporte do memória. |
| Armazenamento | Conector 2x SATA 3Gb/s, Suporta nativo IDE & AHCI modo |
| LAN | Realtek RTL 8111G (J1800NH/ J1900NH/ J2900NH) 10/ 100/ 1000 Mb auto negociação, capacidade duplex Metade / Cheio Realtek RTL 8106E (J1800NHL/ J1900NHL/ J2900NHL) 10/ 100 Mb auto negociação, capacidade duplex Metade / Cheio |
| Codec de Audio | ALC662 Canais de Áudio de Alta Definição 5.1 |
| USB | Porta 6x USB 2.0 (4 nas entradas/saídas traseiras e 2 pelos Dispositivos internos) Porta 1x USB 3.0 (1 nas entradas/saídas traseiras) |
| Slots de expansão | Porta 1x PCIe x1 |
| Entradas/Saídas no painel traseiro | Mouse 1x PS/2 Teclado 1x PS/2 Porta 1x HDMI Porta 1x VGA Porta 1x LAN Porta 1x USB 3.0 Porta 4x USB 2.0 Soquete audio 3x |
| Conectores na placa | Conector 2x SATA 3.0Gb/s Dispositivo 1x USB 2.0 (cada Dispositivo suporta 2 portas USB 2.0) Conector de 4 pinos x1 Conector de 24 pinos x1 Conector de Ventoinha Sistema x2 Dispositivo Painel Frontal x1 Dispositivo de Audio Frontal x1 Dispositivo CMOS Direct x1 Dispositivo Porta Impressora x1 Dispositivo Porta Série x1 |
| Fator de Fôrma | Fator de Fôrma Mini-ITX, 170 mm x 170 mm |
| Suporte OS | Windows 7 / 8 / 8.1 Biostar reserva seu direito de adicionar ou retirar o suporte para qualquer OS com ou sem notificação. |

Russian

| Спецификации | |
|-----------------------------------|---|
| Поддержка центрального процессора | J1800NHL/ J1800NH: Intel® Celeron® J1800 J1900NHL/ J1900NH: Intel® Celeron® J1900 J2900NHL/ J2900NH: Intel® Pentium® J2900 |
| Память | Поддерживает двухканальный DDR3L 1333 (1.35V/1.5V) 1 гнезда платы памяти DDR3L SO-DIMM, максимальная память до 8 Гб Каждый модуль DIMM поддерживает модуль не-ECC 512 Мб/ 1/ 2/ 4/ 8 Гб DDR3L * Перечень поддержки памяти смотрите на www.biostar.com.tw . |
| Накопитель | Соединитель 2x SATA 3 Гб/с, Поддерживает родной IDE & AHCI режим |
| Локальная сеть | Realtek RTL 8111G (J1800NH/ J1900NH/ J2900NH) Автосогласование 10/ 100/ 1000 Мб/с, работает в полно/полудуплексном режиме Realtek RTL 8106E (J1800NHL/ J1900NHL/ J2900NHL) Автосогласование 10/ 100 Мб/с, работает в полно/полудуплексном режиме |
| Аудиокодек | ALC662 Каналы 5.1, высококачественное аудио |
| USB | 6 порта USB 2.0 (4 сзади ввода-вывода и 2 через внутренние контакты) 1 порта USB 3.0 (1 сзади ввода-вывода) |
| Гнезда расшир. | 1x PCIe x1 гнездо |
| Задняя плата ввода-вывода | 1 мышь PS/2 1 клавиатура PS/2 1 порт HDMI 1 порт VGA 1 порт локальной сети 1 порта USB 3.0 4 порта USB 2.0 3 гнезд для подключения наушников |
| Внутр. Плата ввода-вывода | Соединитель 2x SATA 3 Гб/с 1 контакта USB 2.0 (каждый контакт поддерживает 2 порта USB 2.0) 1 4-выводный разъем питания 1 24-выводный разъем питания 2 разъема вентилятора системы 1 контакт передней панели 1 контакт передней аудиопанели 1 контакт микросхемы Clear CMOS 1 контакт порта принтера 1 контакт последовательного порта |
| Конструктив | Форм-фактор Mini-ITX, 170мм x 170 мм |
| Поддержка ОС | Windows 7 / 8 / 8.1 Biostar оставляет за собой право добавлять или удалять поддержку любой ОС, с уведомлением или без. |

Spanish

| Especificaciones | |
|----------------------------------|--|
| Compatibilidad con el procesador | J1800NHL/ J1800NH: Intel® Celeron® J1800 J1900NHL/ J1900NH: Intel® Celeron® J1900 J2900NHL/ J2900NH: Intel® Pentium® J2900 |
| Memoria | Soporta DDR3L 1333 Doble Canal (1.35V/1.5V) 1x DDR3L SO-DIMM Ranura de memoria Soporta hasta 8 GB Memoria Cada DIMM soporta un modulo non-ECC 512MB/ 1/ 2/ 4/ 8 GB DDR3L *Por favor consultar con www.biostar.com.tw para la lista de compatibilidad con el memoria. |
| Almacenamiento de información | Conector 2x SATA 3Gb/s, Soporta nativo IDE & AHCI modo |
| LAN | Realtek RTL 8111G (J1800NH/ J1900NH/ J2900NH) 10/ 100/ 1000 Mb/s auto negociación, capacidad dúplex Mitad/Completo Realtek RTL 8106E (J1800NHL/ J1900NHL/ J2900NHL) 10/ 100 Mb/s auto negociación, capacidad dúplex Mitad/Completo |
| Códec Audio | ALC662, Canales Audio de Alta Definición 5.1 |
| USB | Ranura 6x USB 2.0 (4 en las entradas/salidas posteriores y 2 por los distribuidores internos) Ranura 1x USB 3.0 (1 en las entradas/salidas posteriores) |
| Ranuras de Extinción | Ranura 1x PCIe x1 |
| Panel trasero de E/S | Ratón 1x PS/2 Teclado 1x PS/2 Ranura 1x HDMI Ranura 1x VGA Ranura 1x LAN Ranura 1x USB 3.0 Ranura 4x USB 2.0 Socket audio 3x |
| Conectores en placa | Conector 2x SATA 3Gb's Distribuidor 1x USB 2.0 (cada distribuidor soporta 2 ranuras USB 2.0) Conector con 4 patillas x1 Conector con 24 patillas x1 Conector Ventilador Sistema x2 Distribuidor Panel Frontal x1 Distribuidor Audio Frontal x1 Distribuidor CMOS Directo x1 Distribuidor Ranura Impresora x1 Distribuidor Ranura Serie x1 |
| Factor de Forma | Factor de Forma Mini-ITX, 170 mm x 170 mm |
| Soporte OS | Windows 7 / 8 / 8.1 Biostar reserva su derecho de añadir o retirar el soporte para cada OS con o sin notificación. |

2014/08/07