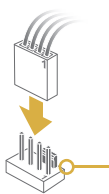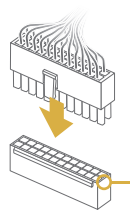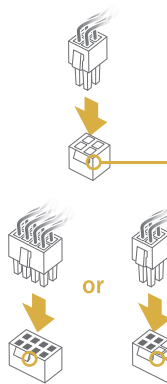## Power Connection

CPU Fan Power

CPU Fan Power: It supports 4-pin connector. When connecting fan cable into this connector, please note that the black wire is Ground and should be connected to pin#1(Ground).

CPU Fan Power

24-pin ATX Power

24-pin ATX Power: The main power supply connector is located along the edge of the board next to the DIMM slots. Firmly plug the power supply cable into the connector and make sure it is secure.

24 - pin ATX Power

4 or 8-pin ATX Power

4 or 8-pin ATX Power: The 4 or 8-pin ATX 12V power connector is used to provide power to the CPU. Align the pins to the connector and press firmly until seated.

4 - pin ATX Power

or

8 - pin ATX Power

Memory Installation

- The motherboard support 2-4 memory module slot.
- Dual-channel introduction (If you do not support dual-channel motherboards, there is no such rule)

- Dual-channel operation will improve system performance.
- Dual-channel operation requires the following conditions: Both channels must have the same capacity of memory and have the same type.
- Dual-channel memory slots are the same color to help you identify pairs of slots. For better performance, plug the memory into the same color slot. (Based on actual object)

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.

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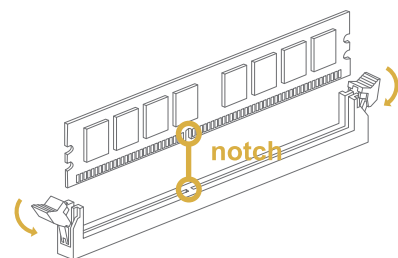
Step 2   Insert the DIMM vertically and firmly into the slot until the retaining clips snap back in place and the DIMM is properly seated.
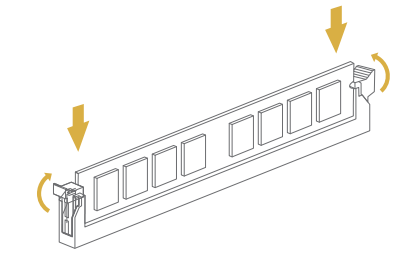
Note

The motherboard used in the illustrations may not resemble the actual board. These illustrations are for reference only.

Clear CMOS Header
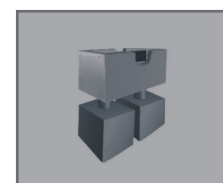
The Occasion to Clear CMOS

- The CMOS data becomes corrupted.
- Forgot the supervisor/user password preset in the BIOS menu.
- Unable to boot up system because the CPU clock was incorrectly set in the BIOS menu.
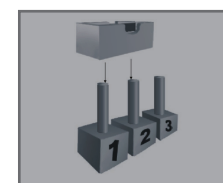
How to Setup Jumpers

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".
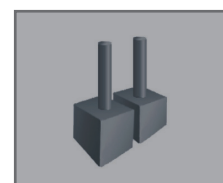
Pin Opened   Pin Closed   Pin 1-2 Closed

2Pins Clear CMOS Procedure

- Remove AC power line.
- Set the jumper to "Pin 1-2 close", you can use a metal object like a screwdriver to touch the two pins.
- Wait for five seconds.
- After clearing the CMOS values, be sure the jumper is "Pin 1-2 open".
- Power on the AC.
- Load Optimal Defaults and save settings in CMOS.

3Pins Clear CMOS Procedure

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

Driver & Manual

After you installed your operating system, please insert the Full Setup Driver CD into your optical drive and install the driver for better system performance. You will see the following window after you insert the CD.

Step 1

Display the Driver page and automatically detect your system to find the corresponding driver to install.

Your Model Name

Step 2

Click on Install and the program will begin to install the proper driver for your system.

Your Model Name

When the driver installation completes, there will be a dialogue appears asking you to restart the system. Please click on YES to restart your computer.

Q & A of Technical Support

Q: How to get a quick response for my request on technical support?
A: Please carry out a simple troubleshooting before sending "Technical Support Form" on our website.

Q: Is the motherboard dead? Do I need to return it to where I bought from or go through an RMA process?
A: After you have gone through the troubleshooting procedures, yet the problem still exists, or you find an evident damage on the motherboard. Please contact your reseller shop to get the RMA service.

Copyright and Warranty Notice

MEMO

MEMO

CE

50-BIOAMDSOC-QB1-V5

BIOSTAR

MOTHERBOARD

AMD SERIES

Quick Installation Guide

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

Note: The package contents may be different due to area or your motherboard version.

MOTHERBOARD AMD SERIES

MOTHERBOARD INTRODUCTION

SYSTEM ON A CHIP
- SOC is AMD's high-performance processor interface that allows users to experience high-performance capabilities.

CHIPSET
- The motherboard uses AMD chipset, which has stable and innovative technology features.

PCI-EXPRESS (PCI-E) 2.0/ 3.0
- Data transfer speed of PCI-E 3.0 is double the speed of PCI-E 2.0, can be 32Gb/s in both directions.

DDR 3/ DDR 3L (BASED ON ACTUAL OBJECT)
- DDR3 memory provides faster speed, higher data bandwidth, and lower power consumption.

DDR 4 (BASED ON ACTUAL OBJECT)
- DDR4 memory provides faster speed, higher data bandwidth, and lower power consumption.

DUAL CHANNEL (BASED ON ACTUAL OBJECT)
- Supports dual channels, providing double data bandwidth for higher system performance.

10/ 100 LAN
- The motherboard integrates a 10/ 100 BASE-T Ethernet controller for Internet connectivity.

GBE LAN (OPTIONAL)
- The motherboard integrates a Gigabit LAN card with maximum transmission rate of 1,000 Mbps.

SERIAL ATA II/ III
- SATA II/ III is new-gen SATA interface, providing a transfer rate of 3Gbp/sec or 6Gbp/sec respectively.

SATA RAID (OPTIONAL)
- SATA II/ III port provided in the chipset can use the RAID function.

USB 2.0/ 3.1(GEN1) (OPTIONAL)
- The USB2.0/ USB3.1(Gen1) interface with faster data transfer rate is compatible with older USB devices.

6/ 8 CHANNELS AUDIO (OPTIONAL)
- The motherboard is equipped with a 6/ 8-channel audio card. The mainboard's audio interface can be set to 2/ 6/ 8-channel mode.

M.2 SLOT (OPTIONAL)
- The M.2 slot supports the M.2 Type 2242/ 2260/ 2280 SSD module.

MOTHERBOARD INTERFACE INTRODUCTION

CPU_FAN/CHA_FAN/SYS_FAN
CPU fan/CHA fan/system fan power connector: Connect the CPU fan/CHA fan/system fan power to this connector.
Control / Sense / +12V / GND

CHA_FAN/SYS_FAN
System fan power connector: If you want to add another fan to the system, connect the fan interface to this connector.
Sense / +12V / GND

COM
Serial port connector: The serial port can be used to connect modems, serial printers, remote display terminals, and other serial devices.
DCD — RXD / TXD — DTR / GND — DSR / RTS — CTS / RI

ATX
ATX: The 24-pin ATX power interface plug is designed to be inserted only in one direction.
- ATX and ATX_12V power interfaces must be used simultaneously
+3.3V — GND / +12V — +5V / +12V — +5V / 5VSB — +5V / PW-OK — -5V / GND — GND / +5V — GND / GND — GND / +5V — PS-ON / GND — GND / +3.3V — -12V / +3.3V — +3.3V

ATX_12V
ATX_12V: The 4/8-pin ATX 12V power interface power plug is designed to be inserted only in one direction.
- ATX and ATX_12V power interfaces must be used simultaneously
GND — +12V / GND — +12V / GND — +12V / GND — +12V / GND — +12V / GND — +12V

USB2.0
USB2.0: 4 additional USB 2.0 interfaces. The motherboard provides additional on-board USB connectors. To use this additional USB interface, you need a USB expansion interface bracket. Please contact your dealer or reseller for more information.
VCC — VCC / DATA- — DATA- / DATA+ — DATA+ / GND — GND / NC

FAUDIO
Front HD audio connector: The front panel audio interface is connected to this connector. Please refer to your main chassis manual for wiring the front HD audio.
MIC_L — GND / MIC_R — GPIO / LINE_R — MIC_JD / JACK / LINE_L — LINE_JD

Front Panel
Host shell front panel control:
- HDD LED
- PWR LED
- RESET
- On/Off
- Speaker
Speaker / HDD LED / Power LED / Reset / On/Off

SATA
Serial ATA interface: These interfaces are used to connect Serial ATA hard drives or SATA devices.
GND / TX+ / TX- / GND / RX- / RX+ / GND

USB3.1 (Gen1) (Optional)
USB3.1 (Gen1): 2 additional USB 3.1(Gen1) interfaces. The motherboard provides additional on-board USB connectors. To use this additional USB interface, you need a USB expansion interface bracket. Please contact your dealer or reseller for more information.
VBUS1 — VBUS0 / SSRX2- — SSRX1- / SSTX2+ — SSRX1+ / GND — GND / SSTX2- — SSTX1- / SSTX2+ — SSTX1+ / GND — GND / D2- — D1- / D2+ — D1+ / ID

MOTHERBOARD SPECIFICATIONS
(BASED ON ACTUAL OBJECT)

PROCESSOR
- Support AMD SOC (System on a chip) processor.

MEMORY
- 240-pins DDR3/ DDR3L SDRAM DIMM memory socket or 284-pins DDR4 SDRAM DIMM memory socket.
  Supports 1.2V DDR4 memory dual channel architecture.
  Supports 1.5V DDR3 memory (Single/ dual) channel architecture or 1.35V DDR3L memory (Single/ dual) channel architecture.
  Supports single or double sided, no buffering, no ECC check, 512MB/ 1/ 2/ 4/ 8GB.

EXPANSION SLOT
- PCI slots that comply with the PCI V2.3 specification.
  PCI Express 2.0/ 3.0 PCI-E(x16)/ PCI-E(x8)/ PCI-E(x4)/ PCI-E(x1)slots.

USB
- Integrated USB controller provides USB interface for the USB 2.0/ 3.1(Gen1) connectors.

ETHERNET LAN DEVICE
- Gigabit/ 100M Ethernet cards are provided by the onboard PCIE NIC controller.

SATA RAID
- Provides SATA II/ III interfaces supporting high bandwidth RAID formation.

HD AUDIO
- The onboard audio decoder chip provides 6 or 8 channel audio.

Please refer to one of the following tables for audio configuration on back panel:

AUDIO INTERFACE COLOR	2 CHANNEL AUDIO	6 CHANNEL AUDIO	8 CHANNEL AUDIO
BLUE	LINE-IN	REAR SPEAKERS	REAR SPEAKERS
GREEN	LINE-OUT	FRONT SPEAKERS	FRONT SPEAKERS
PINK	MICROPHONE	CENTER/SUBWOOFER	CENTER/SUBWOOFER
GREEN (FRONT PANEL)	—	—	SIDE SPEAKERS

AUDIO INTERFACE COLOR	2 CHANNEL AUDIO	6 CHANNEL AUDIO	8 CHANNEL AUDIO
BLUE	LINE-IN	LINE-IN	LINE-IN
GREEN	LINE-OUT	FRONT SPEAKERS	FRONT SPEAKERS
PINK	MICROPHONE	MICROPHONE	MICROPHONE
GRAY	--	--	SIDE SPEAKERS
BLACK	--	REAR SPEAKERS	REAR SPEAKERS
ORANGE	--	CENTER/SUBWOOFER	CENTER/SUBWOOFER

I/O INPUT AND OUTPUT INTERFACE (OPTIONAL)
- Supports traditional PS/2 keyboard and mouse, floppy disk, serial interface devices.
  Supports hardware monitoring function such as fan speed and CPU temperature.

FEATURES
- Support Wake-on-Lan.
  O.N.E Bios Overclocking
  -Ability to fine tune the CPU output frequency in steps.
  -Support BIOS to adjust memory frequency, etc.
  -Support BIOS to adjust CPU/ Memory/ chip voltage, etc.

BIOS
- Flash EEPROM Provides Award Plug & Play BIOS.
  Support Boot for quick selection of boot devices.

FRONT PANEL HEADER
- Support restart and Power button.
  Support Hard Disk and Power Indicator.
  Support PC Speaker.

SUPPORTED OPERATING SYSTEMS
- Windows XP/ Windows 7/ Windows 8/ Windows 8.1/ Windows 10(64bit)

BIOS FEATURES

ADVANCED MENU
- Intelligently monitor and control processor temperature, fan speed, USB Configuration and Network.

BOOT MENU
- Boot menu can be set to boot related functions and protection mechanisms.

O.N.E MENU
- Supports full overclocking settings via the BIOS, including: CPU/ chip/ memory voltage.

BIOSTAR®