



# Your PDF Guides

You can read the recommendations in the user guide, the technical guide or the installation guide for GIGABYTE G1-SNIPER A88X. You'll find the answers to all your questions on the GIGABYTE G1-SNIPER A88X in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

**User manual GIGABYTE G1-SNIPER A88X**  
**User guide GIGABYTE G1-SNIPER A88X**  
**Operating instructions GIGABYTE G1-SNIPER A88X**  
**Instructions for use GIGABYTE G1-SNIPER A88X**  
**Instruction manual GIGABYTE G1-SNIPER A88X**

## G1.Sniper A88X

User's Manual  
Rev. 3001  
12ME-G1SNP88-3001R



[You're reading an excerpt. Click here to read official GIGABYTE G1-SNIPER A88X user guide](http://yourpdfguides.com/dref/5435315)  
<http://yourpdfguides.com/dref/5435315>

**Manual abstract:**

Sniper A88X User's Manual Rev. @ @19, 2013 Aug. 19, 2013 Copyright © 2013 GIGA-BYTE TECHNOLOGY CO., LTD. All rights reserved.

@@@ In order to assist in the use of this product, carefully read the User's Manual. For quick set-up of the product, read the Quick Installation Guide included with the product. For product-related information, check on our website at: <http://www.gigabyte.com> Identifying Your Motherboard Revision The revision number on your motherboard looks like this: "REV: X.

X." For example, "REV: 1.0" means the revision of the motherboard is 1.0. Check your motherboard revision before updating motherboard BIOS, drivers, or when looking for technical information.

Example: Table of Contents G1.Sniper A88X Motherboard Layout....

.....

.....

.....

.....

.....

.....

.....

.....

.....

....4 G1.Sniper A88X Motherboard Block Diagram....

.....

.....

.....

.....

.....

.....

.....

.....

..5 Chapter 1 Hardware Installation...

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....6 1-1 1-2 1-3 1-4 1-5 1-6 1-7 1-8 1-9 Installation Precautions..

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

... 6 Product Specifications.....

.....

.....

.....

.....

.....  
.....  
.....

.....  
.....  
.....  
.....

*7 Installing the APU.....*

.....  
.....  
.....

.....  
.....  
.....

.....  
.....  
.....  
.....

*.... 9 Installing the Memory.....*

.....  
.....  
.....

.....  
.....  
.....

.....  
.....  
.....  
.....

*.. 9 Installing an Expansion Card.....*

.....  
.....  
.....

.....  
.....  
.....

.....  
.....  
.....

*. 10 Setup of the AMD Dual Graphics Configuration....*

.....  
.....

.....  
.....  
.....

*.. 10 Back Panel Connectors.....*

.....  
.....  
.....

.....  
.....  
.....



.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

..... 20 2-3 System Information...

.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

..... 23 2-4 BIOS Features....

.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.. 24 2-5 Peripherals...

.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....

.... 26 2-6 Power Management.....

.....  
.....





product, please consult a certified computer technician. -6- 1-2 Product Specifications APU □□ FM2+ Socket: - AMD A series processors - AMD Athlon™ series processors (Go to GIGABYTE's website for the latest CPU support list.) □□ AMD A88X □□ 4 x 1.5V DDR3 DIMM sockets supporting up to 64 GB of system memory \* □□ Due to a Windows 32-bit operating system limitation, when more than 4 GB of physical memory is installed, the actual memory size displayed will be less than the size of the physical memory installed. \* □□ maximum 64 GB of system memory can be supported using 16 GB (or above) The memory modules.

GIGABYTE will update the memory support list on the official website when the memory modules are available on the market. Chipset Memory Onboard Graphics □□ Dual channel memory architecture □□ Support for DDR3 2133/1866/1600/1333 MHz memory modules □□ □ support for AMD Memory Profile (AMP)/Extreme Memory Profile (XMP) memory S modules (Go to GIGABYTE's website for the latest supported memory speeds and memory modules.) □□ APU with integrated AMD Radeon™ HD 8000/7000 series graphics: - - \* □□ o use the onboard graphics port, you must install an AMD APU with integrated T graphics. - □ x HDMI port, supporting a maximum resolution of 4096x2160 1 \* □□ Support for 2560x1600 resolution requires both a monitor and cable that support Dual Link DVI. \* The DVI-D port does not support D-Sub connection by adapter. \* □□ resolution of 4096x2160 can be supported when using an FM2+ APU; the The maximum resolution supported is 1920x1200 when using an FM2 APU.



[You're reading an excerpt. Click here to read official GIGABYTE G1-SNIPER A88X user guide](http://yourpdfguides.com/dref/5435315)  
<http://yourpdfguides.com/dref/5435315>

\* Support for HDMI 1.4a version. 1 x D-Sub port, supporting a maximum resolution of 1920x1200 1 x DVI-D port, supporting a maximum resolution of 2560x1600 Audio     - Maximum shared memory of 2 GB Realtek® ALC898 codec High Definition Audio 2/4/5.1/7.

1-channel Support for S/PDIF Out LAN  Realtek® GbE LAN chip (10/100/1000 Mbit) Expansion Slots  1 x PCI Express x16 slot, running at x16 (PCIEX16) (The PCIEX16 slot conforms to PCI Express 3.0 standard.)    Multi-Graphics  Support for AMD Dual Graphics technology \* Only A series APUs support AMD Dual Graphics. Technology Storage Interface  Chipset: - 8 x SATA 6Gb/s connectors - Support for RAID 0, RAID 1, RAID 5, RAID 10, and JBOD -7- 1 x PCI Express x16 slot, running at x4 (PCIEX4) 3 x PCI Express x1 slots (The PCIEX4 and PCI Express x1 slots conform to PCI Express 2.0 standard.

) 2 x PCI slots \* To support PCI Express 3.0, you must install an FM2+ APU. USB Internal Connectors Back Panel Connectors  Chipset: -  USB 3.0/2.0 ports (2 ports on the back panel, 2 ports available through the 4 internal USB header) -  USB 2.

0/1.1 ports (5 ports on the back panel, 4 ports available through the 9 internal USB headers)  1 x 24-pin ATX main power connector  1 x 8-pin ATX 12V power connector  8 x SATA 6Gb/s connectors  1 x APU fan header  3 x system fan headers  1 x front panel header  1 x front panel audio header  1 x S/PDIF Out header  1 x USB 3.0/2.0 header  2 x USB 2.0/1.1 headers  1 x serial port header  1 x Clear CMOS jumper  1 x Trusted Platform Module (TPM) header  2 x gain control switches  1 x PS/2 keyboard/mouse port  1 x D-Sub port  1 x DVI-D port  1 x HDMI port  2 x USB 3.0/2.0 ports  5 x USB 2.0/1.1 ports  1 x RJ-45 port  1 x optical S/PDIF Out connector   x audio jacks (Center/Subwoofer Speaker Out, Rear Speaker Out, Line In, 5 Line Out, Mic In)  iTE® I/O Controller Chip            System voltage detection APU/System temperature detection APU/System fan speed detection APU overheating warning APU/System fan fail warning APU/System fan speed control I/O Controller Hardware Monitor \*  Whether the fan speed control function is supported will depend on the cooler you install.

BIOS 2 x 64 Mbit flash Use of licensed AMI EFI BIOS Support for DualBIOS™ PnP 1.0a, DMI 2.0, SM BIOS 2.6, ACPI 2.0a Support for @BIOS Support for Q-Flash Support for Xpress Install Support for EasyTune Unique Features       Support for Smart Recovery 2 -8- \* Available functions in EasyTune may differ by motherboard model. Unique Features   Support for ON/OFF Charge Bundled Software Operating System   Norton® Internet Security (OEM version)   cFosSpeed   Support for Windows 8.1/8/7 32-bit/64-bit   Support for Windows XP 32-bit Form Factor \*  you plan to install Windows 8.1, please download the latest drivers from If GIGABYTE's website. \*  support Windows XP 32-bit, you must install an AMD FM2 Trinity APU. To  ATX Form Factor; 30.

5cm xhics technology-supported motherboard (with the BIOS updated to the latest version) and correct driver (make sure the onboard graphics driver version is Rev. 8.982 or above) -- An AMD Radeon™ HD 6000 series graphics card that supports AMD Dual Graphics technology (for more details, please visit AMD's official website) and correct driver Step 1: Observe the steps in "1-5 Installing an Expansion Card" and install an AMD Dual Graphics technology-supported graphics card on the PCIEX16 slot. Plug the monitor cable into the graphics card and start up your computer. Step 2: Enter BIOS Setup to set the following items under the Peripherals\GFX Configuration menu: -- Set Integrated Graphics to Force.

-- Set UMA Frame Buffer Size to 512M or above. Save the settings and exit BIOS Setup. Restart your computer. C. Configuring the Graphics Driver After installing the graphics card driver in the operating system, go to the AMD VISION Engine Control Center.

Browse to PerformanceAMD Radeon™ Dual Graphics and ensure the Enable AMD Radeon Dual Graphics check box is selected. (Note) Make sure the drivers for the Chipset, onboard graphics, and external graphics card are properly installed. 1-7 Back Panel Connectors - 10 - USB 2.0/1.1 Port The USB port supports the USB 2.0/1.1 specification. Use this port for USB devices such as a USB keyboard/mouse, USB printer, USB flash drive and etc. PS/2 Keyboard/Mouse Port D-Sub Port Use this port to connect a PS/2 mouse or keyboard. The D-Sub port supports a 15-pin D-Sub connector and supports a maximum resolution of 1920x1200 (the actual resolutions supported depend on the monitor being used).

Connect a monitor that supports D-Sub connection to this port. DVI-D Port (Note 1) The DVI-D port conforms to the DVI-D specification and supports a maximum resolution of 2560x1600. Connect a monitor that supports DVI-D connection to this port. Please note that the actual resolutions supported are dependent on the monitor being used and support for 2560x1600 resolution requires both a monitor and cable that support Dual Link DVI. USB 3.0/2.0 Port HDMI Port The USB 3.0 port supports the USB 3.0 specification and is compatible to the USB 2.0/1.

1 specification. Use this port for USB devices such as a USB keyboard/mouse, USB printer, USB flash drive and etc. The HDMI port is HDCP compliant and supports Dolby True HD and DTS HD Master Audio formats. It also supports up to 192KHz/24bit 8-channel LPCM audio output. You can use this port to connect your HDMI-supported monitor.

The maximum supported resolution is 4096x2160 (Note 2), but the actual resolutions supported are dependent on the monitor being used. After installing the HDMI device, make sure to set the default sound playback device to HDMI. A. Triple-Display Configurations: B. Playback of a Blu-ray Disc™: Triple-display configurations are supported after you install motherboard drivers in OS.

Only dual-display configurations are supported during the BIOS Setup or POST process. In order to get better playback quality, when playing a Blu-ray Disc™, refer to the recommended system requirements (or better) below. •• AMD A series processors •• Memory: Two 1 GB DDR3 1333 MHz memory modules with dual channel mode enabled •• BIOS Setup: At least 512 MB of UMA Frame Buffer Size (refer to Chapter 2, "BIOS Setup," "Peripherals\GFX Configuration," for more information) •• Playback software: CyberLink PowerDVD 10.0 or later (Note: Please ensure Hardware Acceleration is enabled. Whether Hardware Acceleration can be enabled for 3D Blu-ray discs is dependent on the APU being used.) •• HDCP compliant monitor(s) USB 2.0/1.1 Port The USB port supports the USB 2.0/1.1 specification.

You can connect a USB DAC to this port or use this port for USB devices such as a USB keyboard/mouse, USB printer, USB flash drive and etc.



[You're reading an excerpt. Click here to read official GIGABYTE G1-SNIPER A88X user guide](http://yourpdfguides.com/dref/5435315)  
<http://yourpdfguides.com/dref/5435315>

(Note 1) The DVI-D port does not support D-Sub connection by adapter. (Note 2) The resolution of 4096x2160 can be supported when using an FM2+ APU; the maximum resolution supported is 1920x1200 when using an FM2 APU. - 11 - RJ-45 LAN Port Connection/ Speed LED The Gigabit Ethernet LAN port provides Internet connection at up to 1 Gbps data rate. The following describes the states of the LAN port LEDs. Activity LED Connection/Speed LED: State

Orange LAN Port Green Off Description 1 Gbps data rate 100 Mbps data rate 10 Mbps data rate Activity LED: State Blinking Off Description Data transmission or receiving is occurring No data transmission or receiving is occurring Center/Subwoofer Speaker Out Jack Rear Speaker Out Jack Use this audio jack to connect center/subwoofer speakers in a 5.1/7.1-channel audio configuration. This jack can be used to connect front speakers in a 4/5.1/7.1-channel audio configuration. Optical S/PDIF Out Connector Line In Jack This connector provides digital audio out to an external audio system that supports digital optical audio. Before using this feature, ensure that your audio system provides an optical digital audio in connector. The default line in jack.

Use this audio jack for line in devices such as an optical drive, walkman, etc. Line Out Jack The default line out jack. This jack supports audio amplifying function. For better sound quality, it is recommended that you connect your headphone/speaker to this jack. Use this audio jack for a headphone or 2-channel speaker. This jack can be used to connect front speakers in a 4/5.1/7.1-channel audio configuration. Mic In Jack The default Mic in jack. Microphones must be connected to this jack. The audio jacks can be reconfigured to perform different functions via the audio software (supported functions for each jack may vary based on hardware specification). If you install a Side Speaker, you need to retask other audio jack to be Side Speaker out. Only microphones still MUST be connected to the default Mic in jack. •• When removing the cable connected to a back panel connector, first remove the cable from your device and then remove it from the motherboard. •• When removing the cable, pull it straight out from the connector. Do not rock it side to side to prevent an electrical short inside the cable connector.

1-8 Changing the Operational Amplifier Step 1: Use an IC extractor to carefully grip the IC's sides and extract it from the socket. - 12 - Step 2: Align the notch on your OP chip with the notch on the socket and gently press the chip into the socket until seated. For purchasing the IC extractor and OP Chip, please contact the local dealer. 1-9 Internal Connectors 1 3 4 2 4 4 15 13 9 5 5 7 8 11 12 10 14 6 5 1) 2) 3) 4) 5) 6) 7) 8) ATX\_12V ATX CPU\_FAN SYS\_FAN1/SYS\_FAN2/SYS\_FAN3 SATA3 0/1/2/3/4/5/6/7 F\_PANEL F\_AUDIO SPDIF\_O 9) 10) 11) 12) 13) 14) 15) F\_USB30 F\_USB1/F\_USB2 COM TPM BAT CLR\_CMOS CAP\_SW1/CAP\_SW2 Read the following guidelines before connecting external devices: •• First make sure your devices are compliant with the connectors you wish to connect. •• Before installing the devices, be sure to turn off the devices and your computer. Unplug the power cord from the power outlet to prevent damage to the devices. •• After installing the device and before turning on the computer, make sure the device cable has been securely attached to the connector on the motherboard. - 13 - 1/2) ATX\_12V/ATX (2x4 12V Power Connector and 2x12 Main Power Connector) With the use of the power connector, the power supply can supply enough stable power to all the components on the motherboard. Before connecting the power connector, first make sure the power supply is turned off and all devices are properly installed. The power connector possesses a foolproof design. Connect the power supply cable to the power connector in the correct orientation. The 12V power connector mainly supplies power to the APU. If the 12V power connector is not connected, the computer will not start. To meet expansion requirements, it is recommended that a power supply that can withstand high power consumption be used (500W or greater). If a power supply is used that does not provide the required power, the result can lead to an unstable or unbootable system.

ATX\_12V: 5 1 ATX\_12V 8 4 Pin No. 1 2 3 4 ATX: Definition Pin No. GND (Only for 2x4-pin 12V) 5 GND (Only for 2x4-pin 12V) 6 GND 7 GND 8 Definition +12V (Only for 2x4-pin 12V) +12V (Only for 2x4-pin 12V) +12V +12V 12 24 Pin No. 1 2 3 4 5 6 7 8 9 10 11 12 1 ATX 13 Definition Pin No. 3.

3V 13 3.3V 14 GND 15 +5V 16 GND 17 +5V 18 GND 19 Power Good 20 5VSB (stand by +5V) 21 +12V 22 +12V (Only for 2x12-pin 23 ATX) 3.3V (Only for 2x12-pin 24 ATX) Definition 3.3V -12V GND PS\_ON (soft On/Off) GND GND GND -5V +5V +5V +5V (Only for 2x12-pin ATX) GND (Only for 2x12-pin ATX) 3/4) CPU\_FAN/SYS\_FAN1/SYS\_FAN2/SYS\_FAN3 (Fan Headers) The motherboard has a 4-pin CPU fan header (CPU\_FAN), two 4-pin (SYS\_FAN1, SYS\_FAN2) and a 3-pin (SYS\_FAN3) system fan headers. Most fan headers possess a foolproof insertion design. When connecting a fan cable, be sure to connect it in the correct orientation (the black connector wire is the ground wire). The speed control function requires the use of a fan with fan speed control design. For optimum heat dissipation, it is recommended that a system fan be installed inside the chassis. CPU\_FAN: 1 1 SYS\_FAN3 CPU\_FAN 1 Pin No. 1 2

3 4 Definition GND +12V Sense Speed Control SYS\_FAN1/2: SYS\_FAN3: Pin No.

1 2 3 4 Definition GND Speed Control Sense VCC Pin No. 1 2 3 Definition GND +12V NC SYS\_FAN1/2 •• Be sure to connect fan cables to the fan headers to prevent your APU and system from overheating. Overheating may result in damage to the APU or the system may hang. •• These fan headers are not configuration jumper blocks. Do not place a jumper cap on the headers. - 14 - DEBUG PORT DEBUG PORT DEBUG PORT DEBUG PORT DEBUG PORT PORT PORT 5) SATA3 0/1/2/3/4/5/6/7 (SATA 6Gb/s Connectors) The SATA connectors conform to SATA 6Gb/s standard and are compatible with SATA 3Gb/s and SATA 1.5Gb/s standard. Each SATA connector supports a single SATA device. The AMD A88X Chipset supports RAID 0, RAID 1, RAID 5, RAID 10, and JBOD. Refer to Chapter 3, "Configuring SATA Hard Drive(s)," for instructions on configuring a RAID array.

6 SATA3 7 7 7 1 3 5 0 2 4 7 7 1 1 SATA3 1 1 Pin No. 1 2 3 4 5 6 7 Definition GND TXP TXN GND RXN RXP GND •• A RAID 0 or RAID 1 configuration requires at least two hard drives. If more than two hard drives are to be used, the total number of hard drives must be an even number. •• A RAID 5 configuration requires at least three hard drives. (The total number of hard drives does not have to be an even number.) •• A RAID 10 configuration requires four hard drives. 6) F\_PANEL (Front Panel Header) Connect the power switch, reset switch, speaker, chassis intrusion switch/sensor and system status indicator on the chassis to this header according to the pin assignments below.

1 2 3 4 Definition GND Speed Control Sense VCC Pin No. 1 2 3 Definition GND +12V NC SYS\_FAN1/2 •• Be sure to connect fan cables to the fan headers to prevent your APU and system from overheating. Overheating may result in damage to the APU or the system may hang. •• These fan headers are not configuration jumper blocks. Do not place a jumper cap on the headers. - 14 - DEBUG PORT DEBUG PORT DEBUG PORT DEBUG PORT DEBUG PORT PORT PORT 5) SATA3 0/1/2/3/4/5/6/7 (SATA 6Gb/s Connectors) The SATA connectors conform to SATA 6Gb/s standard and are compatible with SATA 3Gb/s and SATA 1.5Gb/s standard. Each SATA connector supports a single SATA device. The AMD A88X Chipset supports RAID 0, RAID 1, RAID 5, RAID 10, and JBOD. Refer to Chapter 3, "Configuring SATA Hard Drive(s)," for instructions on configuring a RAID array.

6 SATA3 7 7 7 1 3 5 0 2 4 7 7 1 1 SATA3 1 1 Pin No. 1 2 3 4 5 6 7 Definition GND TXP TXN GND RXN RXP GND •• A RAID 0 or RAID 1 configuration requires at least two hard drives. If more than two hard drives are to be used, the total number of hard drives must be an even number. •• A RAID 5 configuration requires at least three hard drives. (The total number of hard drives does not have to be an even number.) •• A RAID 10 configuration requires four hard drives. 6) F\_PANEL (Front Panel Header) Connect the power switch, reset switch, speaker, chassis intrusion switch/sensor and system status indicator on the chassis to this header according to the pin assignments below.

1 2 3 4 Definition GND Speed Control Sense VCC Pin No. 1 2 3 Definition GND +12V NC SYS\_FAN1/2 •• Be sure to connect fan cables to the fan headers to prevent your APU and system from overheating. Overheating may result in damage to the APU or the system may hang. •• These fan headers are not configuration jumper blocks. Do not place a jumper cap on the headers. - 14 - DEBUG PORT DEBUG PORT DEBUG PORT DEBUG PORT DEBUG PORT PORT PORT 5) SATA3 0/1/2/3/4/5/6/7 (SATA 6Gb/s Connectors) The SATA connectors conform to SATA 6Gb/s standard and are compatible with SATA 3Gb/s and SATA 1.5Gb/s standard. Each SATA connector supports a single SATA device. The AMD A88X Chipset supports RAID 0, RAID 1, RAID 5, RAID 10, and JBOD. Refer to Chapter 3, "Configuring SATA Hard Drive(s)," for instructions on configuring a RAID array.

6 SATA3 7 7 7 1 3 5 0 2 4 7 7 1 1 SATA3 1 1 Pin No. 1 2 3 4 5 6 7 Definition GND TXP TXN GND RXN RXP GND •• A RAID 0 or RAID 1 configuration requires at least two hard drives. If more than two hard drives are to be used, the total number of hard drives must be an even number. •• A RAID 5 configuration requires at least three hard drives. (The total number of hard drives does not have to be an even number.) •• A RAID 10 configuration requires four hard drives. 6) F\_PANEL (Front Panel Header) Connect the power switch, reset switch, speaker, chassis intrusion switch/sensor and system status indicator on the chassis to this header according to the pin assignments below.

1 2 3 4 Definition GND Speed Control Sense VCC Pin No. 1 2 3 Definition GND +12V NC SYS\_FAN1/2 •• Be sure to connect fan cables to the fan headers to prevent your APU and system from overheating. Overheating may result in damage to the APU or the system may hang. •• These fan headers are not configuration jumper blocks. Do not place a jumper cap on the headers. - 14 - DEBUG PORT DEBUG PORT DEBUG PORT DEBUG PORT DEBUG PORT PORT PORT 5) SATA3 0/1/2/3/4/5/6/7 (SATA 6Gb/s Connectors) The SATA connectors conform to SATA 6Gb/s standard and are compatible with SATA 3Gb/s and SATA 1.5Gb/s standard. Each SATA connector supports a single SATA device. The AMD A88X Chipset supports RAID 0, RAID 1, RAID 5, RAID 10, and JBOD. Refer to Chapter 3, "Configuring SATA Hard Drive(s)," for instructions on configuring a RAID array.



[You're reading an excerpt. Click here to read official GIGABYTE](http://yourpdfguides.com/dref/5435315)

[G1-SNIPER A88X user guide](http://yourpdfguides.com/dref/5435315)

<http://yourpdfguides.com/dref/5435315>

Note the positive and negative pins before connecting the cables. Power Switch Speaker ••••• PLED/PWR\_LED (Power LED, Yellow/Purple): Connects to the power status indicator System Status LED on the chassis front panel. The LED is on S0 On when the system is operating. The LED is S3/S4/S5 Off off when the system is in S3/S4 sleep state or powered off (S5). 2 20 ••PW (Power Switch, Red): 1 19 Connects to the power switch on the chassis front panel. You may configure the way to turn off your system using the power switch (refer to Chapter 2, "BIOS Setup," "Power Management," for more information). ••SPEAK (Speaker, Orange): Hard Drive Reset Power LED Activity LED Switch Connects to the speaker on the chassis front panel. The system reports Chassis Intrusion Header system startup status by issuing a beep code. One single short beep will be heard if no problem is detected at system startup. HD (Hard Drive Activity LED, Blue): Connects to the hard drive activity LED on the chassis front panel. The LED is on when the hard drive is reading or writing data. RES (Reset Switch, Green): Connects to the reset switch on the chassis front panel. Press the reset switch to restart the computer if the computer freezes and fails to perform a normal restart.

CI (Chassis Intrusion Header, Gray): Connects to the chassis intrusion switch/sensor on the chassis that can detect if the chassis cover has been removed. This function requires a chassis with a chassis intrusion switch/sensor. Power LED PLED+ PLEDPW+ PW- SPEAK+ RESRES+ CICI+ HD- The front panel design may differ by chassis. A front panel module mainly consists of power switch, reset switch, power LED, hard drive activity LED, speaker and etc. When connecting your chassis front panel module to this header, make sure the wire assignments and the pin assignments are matched correctly. - 15 - PWR\_LED+ PWR\_LEDPW\_LED- HD+ SPEAK- 7) F\_AUDIO (Front Panel Audio Header) The front panel audio header supports Intel High Definition audio (HD) and AC'97 audio. You may connect your chassis front panel audio module to this header. Make sure the wire assignments of the module connector match the pin assignments of the motherboard header. Incorrect connection between the module connector and the motherboard header will make the device unable to work or even damage it. For HD Front Panel Audio: Pin No.

Definition 1 MIC2\_L 2 GND F\_PANEL(NH) 3 MIC2\_R 4 -ACZ\_DET 5 LINE2\_R 6 GND 7 FAUDIO\_JD 8 No Pin 9 LINE2\_L 10 GND For AC'97 Front Panel Audio: Pin No. Definition 1 MIC 2 GND F\_PANEL 3 MIC Power (H61M-D2) 4 NC 5 Line Out (R) 6 NC 7 NC 8 No Pin 9 Line Out (L) 10 NC 9 1 \_AUDIO(H) 10 2 PWM Switch (S 2 3 4 5 DB\_PORT BIOS Switcher (X58A-OC) 1 1 ••The front panel audio header supports HD audio by default. ••Audio signals will be present on both of the front and back panel audio connections simultaneously. ••Some chassis provide a front panel audio module that has separated connectors on each wire instead of a single plug. For information about connecting the front panel audio module that has different wire assignments, M\_SATA please contact the chassis manufacturer.

1 1 8) SPDIF\_O (S/PDIF Out Header) ge measurement module(X58A-OC) PCIe power connector (SATA)(X58A-OC) This header supports digital S/PDIF Out and connects a S/PDIF digital audioACPI\_CPT cable (provided by expansion (GA-IVB) cards) for digital audio output from your motherboard to certain expansion cards like graphics cards and soundPWM Switch (X58A-OC) some graphics cards may require you to use a S/PDIF digital audio cable for cards. For example, digital audio output from your motherboard to your graphics card if you wish to connect an HDMI display to the graphics card and have digital audio output from the HDMI display at the same time. DIP For information about connecting the S/PDIF digital audio cable, carefully read the manual for your SMB\_CPT expansion card. (GA-IVB) DIP 1 2 3 1 2 3 1 2 3 BIOS\_PH (GA-IVB) 1 Pin No. 1 2 Definition SPDIFO GND CLR\_CMOS 9) F\_USB30 (USB

3. 0/2.0 Header) F\_USB30 CI The header conforms to USB 3.0/2.0 specification and can provide two USB ports. For purchasing the DIS\_ME optional 3.5" front panel that provides two USB 3.0/2.0 ports, please contact the local dealer. GP15\_CPT BIOS Switcher (SW4) Pin No. Definition 1 VBUS 20 1 2 SSRX1PCIe Control (Z87X-UP7) 3 SSRX1+ ATX\_12V\_2X3 4 GND 5 SSTX16 SSTX1+ DIP 7 GND 1 2 3 4 10 11 8 D19 D1+ 10 NC DIP 1 2 3 4 1 2 3 4 Pin No.

11 12 13 14 15 16 17 18 19 20 Definition D2+ D2GND SSTX2+ SSTX2GND SSRX2+ SSRX2VBUS No Pin (GA-IVB) XDP\_CPU XDP\_PCH (GA-IVB) F\_USB3 (Front Panel) Prior to installing the USB front panel, be sure to turn off your computer and unplug the power cord from the power outlet to prevent damage to the USB front panel. - 16 - DIP 1 2 3 4 DIP DIP 1 2 3 DIP DIP DB\_PORT F\_AUDIO(H) 10) F\_USB1/F\_USB2 (USB 2.0/1.1 Headers) Pin No. 1 2 3 4 5 Definition Power (5V) Power (5V) USB DXUSB DYUSB DX+ The headers conform to USB 2.0/1.1 specification. Each USB header can provide two USB ports via an optional USB bracket. For purchasing the optional USB bracket, please contact the local dealer. Pin No.

6 7 8 9 10 Definition USB DY+ GND GND No Pin NC 9 10 1 2 ••Do not plug the IEEE 1394 bracket (2x5-pin) cable into the USB header. ••Prior to installing the USB bracket, be sure to turn off your computer and unplug the power cord from the power outlet to prevent damage to the USB bracket. 11) COM (Serial Port Header) F\_USB30 The COM header can provide one serial port via an optional COM port cable. For purchasing the optional COM port cable, please contact the local dealer. F\_PANEL(NH) F\_AUDIO(H) Pin No.

1 2 3 4 5 Definition NDCDNSIN NSOUT NDTRGND Pin No. 6 7 8 9 10 Definition NDSRNRTSNCNTRINo Pin 9 10 1 2 DB\_PORT BIOS Switcher (X58A-OC) 1 1 You may connect a TPM (Trusted Platform Module) to this header. 1 DIP - 17 Voltage measurement points(G1.Sniper 3) BIOS Switcher (SW4) PCIe Control (Z87X-UP7) DIP 1 2 3 4 1 2 3 4 1 2 3 4 DIP DIP DIP 20 2 1 2 3 1 2 3 TPM w/housing 19 Pin No. 1 2 3 4 5 6 7 8 9 10 Voltage measurement module(X58A-OC) Definition Pin No.

Definition LCLK 11 LAD0 PWM Switch (X58A-OC) GND 12 GND LFRAME 13 NC No Pin 14 ID DIP 1 2 3 LRESET 15 SB3V NC 16 SERIRQ PCIe power connector (SATA)(X58A-OC) LAD3 17 GND LAD2 18 NC VCC3 19 NC LAD1 20 SUSCLK 1 2 3 1 1 12) TPM (Trusted Platform Module Header) M\_SATA DIP ATX\_12V\_2X3 DIP 13) BAT (Battery) The battery provides power to keep the values (such as BIOS configurations, date, and time information) in the CMOS when the computer is turned off. Replace the battery when the battery voltage drops to a low level, or the CMOS values may not be accurate or may be lost. You may clear the CMOS values by removing the battery: 1. Turn off your computer and unplug the power cord. 2. Gently remove the battery from the battery holder and wait for one minute.



[You're reading an excerpt. Click here to read official GIGABYTE G1-SNIPER A88X user guide](http://yourpdfguides.com/dref/5435315)  
<http://yourpdfguides.com/dref/5435315>

(Or use a metal object like a screwdriver to touch the positive and negative terminals of the battery holder, making them short for 5 seconds.) 3. Replace the battery. 4.

Plug in the power cord and restart your computer. Always turn off your computer and unplug the power cord before replacing the battery. Replace the battery with an equivalent one. Danger of explosion if the battery is replaced with an incorrect model. Contact the place of purchase or local dealer if you are not able to replace the battery by yourself or uncertain about the battery model. When installing the battery, note the orientation of the positive side (+) and the negative side (-) of the battery (the positive side should face up). Used batteries must be handled in accordance with local environmental regulations. ••••

•••• 14) CLR\_CMOS (Clear CMOS Jumper) Use this jumper to clear the BIOS configuration and reset the CMOS values to factory defaults. To clear the CMOS values, use a metal object like a screwdriver to touch the two pins for a few seconds. Open: Normal Short: Clear CMOS Values •• Always turn off your computer before clearing the CMOS values.

•• After system restart, go to BIOS Setup to load factory defaults (select Load Optimized Defaults) or manually configure the BIOS settings (refer to Chapter 2, "BIOS Setup," for BIOS configurations). 15) CAP\_SW1/CAP\_SW2 (Gain Control Switches) 1 2 3 4 The two switches allow for gain control for your headphone. Please make sure the two switches are set in the same position and are set according to your headphone specification. CAP\_SW2 2 1 2 3 4 1 2 3 4 DIP 1 2 3 4 1 2 3 4 DIP 1 2 3 DIP 1 2 3 TPM w/housing TPM w/housing PCIe Control (Z87X-UP7) PCIe Control (Z87XBIOS Voltage measurement points(G1.Sniper 3) Voltage measurement points(G1.

SniperBIOS Switcher (SW4) Switcher (SW4) 3 A DIP 1 2 3 DIP DIP 1 2 3 Voltage measurement module(X58A-OC) Voltage measurement module(X58A-OC) PCIe power connector (SATA)(X58A-OC)(SATA)(X58A-OC) PCIe power connector PWM Switch (X58A-OC) PWM Switch (X58A-O 1 2 3 DIP 1 2 3 4 DIP DIP CAP\_SW1 2 1 1: 2.5X (Default) 2: 6X DIP 1 2 3 4 1 2 3 DIP DIP 1 2 3 4 1 2 3 DIP DIP - 18 - 1 2 3 DIP Chapter 2 BIOS Setup BIOS (Basic Input and Output System) records hardware parameters of the system in the CMOS on the motherboard. Its major functions include conducting the Power-On Self-Test (POST) during system startup, saving system parameters and loading operating system, etc. BIOS includes a BIOS Setup program that allows the user to modify basic system configuration settings or to activate certain system features. When the power is turned off, the battery on the motherboard supplies the necessary power to the CMOS to keep the configuration values in the CMOS.

To access the BIOS Setup program, press the <Delete> key during the POST when the power is turned on. To upgrade the BIOS, use either the GIGABYTE Q-Flash or @BIOS utility. •• Q-Flash allows the user to quickly and easily upgrade or back up BIOS without entering the operating system. •• @BIOS is a Windows-based utility that searches and downloads the latest version of BIOS from the Internet and updates the BIOS. •• Because BIOS flashing is potentially risky, if you do not encounter problems using the current version of BIOS, it is recommended that you not flash the BIOS. To flash the BIOS, do it with caution. Inadequate BIOS flashing may result in system malfunction. •• It is recommended that you not alter the default settings (unless you need to) to prevent system instability or other unexpected results. Inadequately altering the settings may result in system's failure to boot. If this occurs, try to clear the CMOS values and reset the board to default values.

(Refer to the "Load Optimized Defaults" section in this chapter or introductions of the battery/clear CMOS jumper in Chapter 1 for how to clear the CMOS values.) 2-1 Startup Screen The following startup Logo screen will appear when the computer boots. (Sample BIOS Version: F1d) Function Keys On the main menu of the BIOS Setup program, press arrow keys to move among the items and press <Enter> to accept or enter a sub-menu. Or you can use your mouse to select the item you want. •• When the system is not stable as usual, select the Load Optimized Defaults item to set your system to its defaults. •• The BIOS Setup menus described in this chapter are for reference only and may differ by BIOS version. - 19 - 2-2 M.I.T. This section provides information on the BIOS version, CPU base clock, CPU frequency, memory frequency, total memory size, CPU temperature, Vcore, and memory voltage.

Whether the system will work stably with the overclock/overvoltage settings you made is dependent on your overall system configurations. Incorrectly doing overclock/overvoltage may result in damage to CPU, chipset, or memory and reduce the useful life of these components. This page is for advanced users only and we recommend you not to alter the default settings to prevent system instability or other unexpected results. (Inadequately altering the settings may result in system's failure to boot. If this occurs, clear the CMOS values and reset the board to default values.

) ``M.I.T. Current Status This screen provides information on CPU/memory frequencies/parameters. ``Advanced Frequency Settings && BCLK/PCIe Clock Control && NB Clock (Mhz) Allows you to manually set the CPU base clock and PCIe bus frequency in 1 MHz increments.

(Default: Auto) Important: It is highly recommended that the CPU frequency be set in accordance with the CPU specifications. Allows you to manually set the CPU North Bridge frequency. The adjustable range is from 800 MHz to 6000 MHz. Allows you to set the onboard graphics clock. The adjustable range is from 300 MHz to 2000 MHz. && Processor Graphics Clock && CPU Clock Ratio && CPU Frequency Allows you to alter the clock ratio for the installed CPU. The adjustable range is dependent on the CPU being installed. Displays the current operating CPU frequency. ``Advanced CPU Core Features && CPU Clock Ratio, CPU Frequency The settings above are synchronous to those under the same items on the Advanced Frequency Settings menu. - 20 - && Core Performance Boost (Note 1) && Turbo CPB (Note 1) && CPB Ratio (Note 1) Allows you to determine whether to enable the Core Performance Boost (CPB) technology, a CPU performance-boost technology.

(Default: Auto) Allows you to determine whether to improve CPU performance. (Default: Disabled) && Cool&Quiet Allows you alter the ratio for the CPB. The adjustable range is dependent on the CPU being installed. (Default: Auto)  Enabled  Lets the AMD Cool'n'Quiet driver dynamically adjust the CPU clock and VID to reduce heat output from your computer and its power consumption.



[You're reading an excerpt. Click here to read official GIGABYTE](http://yourpdfguides.com/dref/5435315)

[G1-SNIPER A88X user guide](http://yourpdfguides.com/dref/5435315)

<http://yourpdfguides.com/dref/5435315>

(Default)  Disabled  Disables this function. && SVM Mode  Virtualization enhanced by Virtualization Technology will allow a platform to run multiple operating systems and applications in independent partitions. With virtualization, one computer system can function as multiple virtual systems. (Default: Enabled) && C6 Mode  Allows you to determine whether to let the CPU enter C6 mode in system halt state. When enabled, the CPU core frequency will be reduced during system halt state to decrease power consumption. The C6 state is a more enhanced power-saving state than C1.

(Default: Enabled) && CPU core Control  Allows you to determine whether to manually enable/disable CPU cores. Automatic mode allows the BIOS to enable all CPU cores (number of cores available depends on the CPU being used). (Default: Automatic mode) && APM Enables or disables Application Power Management. (Default: Enabled) (Default: Enabled) && Extreme Memory Profile (X.M.P.) (Note 2) Allows the BIOS to read the SPD data on XMP memory module(s) to enhance memory performance when enabled.  Disabled  Disables this function. (Default)  Profile1  Uses Profile 1 settings.  Profile2 (Note 2) Uses Profile 2 settings.

Allows the BIOS to read the SPD data on AMP memory module(s) to enhance memory performance when enabled. (Default: Disabled) Allows you to set the system memory multiplier. Auto sets memory multiplier according to memory SPD data. (Default: Auto) This value is automatically adjusted according to the BCLK/PCIe Clock Control and System Memory Multiplier settings. && AMD Memory Profile (A.M.P.) (Note 2) && System Memory Multiplier && Memory Frequency (MHz) ``Advanced Memory Settings &&  Xtreme Memory Profile (X.M.P.)

) (Note 2), System Memory Multiplier, Memory E Frequency(MHz) The settings above are synchronous to those under the same items on the Advanced Frequency Settings menu. (Note 1) This item is present only when you install a CPU that supports this feature. (Note 2) This item is present only when you install a CPU and a memory module that support this feature. - 21 - && DRAM Timing Selectable && Profile DDR Voltage Quick and Expert allows the memory timing settings below to be configurable. Options are: Auto (default), Quick, Expert. When using a non-XMP memory module or Extreme Memory Profile (X.M.P.) is set to Disabled, this item will display as 1.50V.

When Extreme Memory Profile (X.M.P.) is set to Profile1 or Profile2, this item will display the value based on the SPD data on the XMP memory. The value displayed here is dependent on the CPU being used. Enables or disables memory rank interleaving. Enabled allows the system to simultaneously access different ranks of the memory to increase memory performance and stability. (Default: Enabled) Enables or disables memory channel interleaving. @@@@ @@@@ @@@@ @@@@ @@@@ Sets the warning threshold for CPU temperature. @@@@ @@@@ @@@@ @@@@ @@@@  Disabled Allows the fan to run at full speeds.  Allows you to control the fan speed. @@ Options are: 0.75 PWM value /oC ~ 2.50 PWM value /oC. @@@@ (Default)  Silent  Allows the fan to run at slow speeds. @@  Disabled Allows the fan to run at full speeds.  Allows you to control the fan speed. @@ Options are: 0.75 PWM value /oC ~ 2.50 PWM value /oC.

@@@ (Default)  Silent  Allows the fan to run at slow speeds. @@  Disabled Allows the fan to run at full speeds.  Allows you to control the fan speed. This item is configurable only when 2nd System Fan Speed Control is set to Manual. Options are: 0.75 PWM value /oC ~ 2.50 PWM value /oC. && 1st System Fan Speed Control (SYS\_FAN1 Connector) Allows you to determine whether to enable the fan speed control function and adjust the fan speed. && Slope PWM && 2nd System Fan Speed Control (SYS\_FAN2 Connector) Allows you to determine whether to enable the fan speed control function and adjust the fan speed. && Slope PWM 2-3 System Information This section provides information on your motherboard model and BIOS version.

You can also select the default language used by the BIOS and manually set the system time. && System Language Selects the default language used by the BIOS. - 23 - && System Date && System Time Sets the system date. The date format is week (read-only), month, date, and year. Use <Enter> to switch between the Month, Date, and Year fields and use the <Page Up> or <Page Down> key to set the desired value. Sets the system time. The time format is hour, minute, and second. For example, 1 p.m. is 13:0:0.

Use <Enter> to switch between the Hour, Minute, and Second fields and use the <Page Up> or <Page Down> key to set the desired value. Displays the current access level depending on the type of password protection used. (If no password is set, the default will display as Administrator.) The Administrator level allows you to make changes to all BIOS settings; the User level only allows you to make changes to certain BIOS settings but not all. && Access Level 2-4 BIOS Features && Boot Option Priorities &&  Hard Drive/CD/DVD ROM Drive/Floppy Drive/Network Device BBS Priorities H Specifies the overall boot order from the available devices. For example, you can set hard drive as the first priority (Boot Option #1) and DVD ROM drive as the second priority (Boot Option #2). The list only displays the device with the highest priority for a specific type. For example, only hard drive defined as the first priority on the Hard Drive BBS Priorities submenu will be presented here. Removable storage devices that support GPT format will be prefixed with "UEFI:" string on the boot device list. To boot from an operating system that supports GPT partitioning, select the device prefixed with "UEFI:" string.

Or if you want to install an operating system that supports GPT partitioning such as Windows 7 64-bit, select the optical drive that contains the Windows 7 64-bit installation disk and is prefixed with "UEFI:" string. Specifies the boot order for a specific device type, such as hard drives, optical drives, floppy disk drives, and devices that support Boot from LAN function, etc. Press <Enter> on this item to enter the submenu that presents the devices of the same type that are connected. This item is present only if at least one device for this type is installed. Enables or disables Numlock feature on the numeric keypad of the keyboard after the POST. (Default: Enabled) - 24 - && Bootup NumLock State && Security Option && Full Screen LOGO Show Specifies whether a password is required every time the system boots, or only when you enter BIOS Setup. After configuring this item, set the password(s) under the Administrator Password/User Password item.  Setup  password is only required for entering the BIOS Setup program.

@@@ (Default)  Silent  Allows the fan to run at slow speeds. @@  Disabled Allows the fan to run at full speeds.  Allows you to control the fan speed. This item is configurable only when 2nd System Fan Speed Control is set to Manual. Options are: 0.75 PWM value /oC ~ 2.50 PWM value /oC. && 1st System Fan Speed Control (SYS\_FAN1 Connector) Allows you to determine whether to enable the fan speed control function and adjust the fan speed. && Slope PWM && 2nd System Fan Speed Control (SYS\_FAN2 Connector) Allows you to determine whether to enable the fan speed control function and adjust the fan speed. && Slope PWM 2-3 System Information This section provides information on your motherboard model and BIOS version.

You can also select the default language used by the BIOS and manually set the system time. && System Language Selects the default language used by the BIOS. - 23 - && System Date && System Time Sets the system date. The date format is week (read-only), month, date, and year. Use <Enter> to switch between the Month, Date, and Year fields and use the <Page Up> or <Page Down> key to set the desired value.

Sets the system time. The time format is hour, minute, and second. For example, 1 p.m. is 13:0:0. Use <Enter> to switch between the Hour, Minute, and Second fields and use the <Page Up> or <Page Down> key to set the desired value. Displays the current access level depending on the type of password protection used. (If no password is set, the default will display as Administrator.) The Administrator level allows you to make changes to all BIOS settings; the User level only allows you to make changes to certain BIOS settings but not all. && Access Level 2-4 BIOS Features && Boot Option Priorities &&  Hard Drive/CD/DVD ROM Drive/Floppy Drive/Network Device BBS Priorities H Specifies the overall boot order from the available devices. For example, you can set hard drive as the first priority (Boot Option #1) and DVD ROM drive as the second priority (Boot Option #2). The list only displays the device with the highest priority for a specific type. For example, only hard drive defined as the first priority on the Hard Drive BBS Priorities submenu will be presented here. Removable storage devices that support GPT format will be prefixed with "UEFI:" string on the boot device list. To boot from an operating system that supports GPT partitioning, select the device prefixed with "UEFI:" string.

Or if you want to install an operating system that supports GPT partitioning such as Windows 7 64-bit, select the optical drive that contains the Windows 7 64-bit installation disk and is prefixed with "UEFI:" string. Specifies the boot order for a specific device type, such as hard drives, optical drives, floppy disk drives, and devices that support Boot from LAN function, etc. Press <Enter> on this item to enter the submenu that presents the devices of the same type that are connected. This item is present only if at least one device for this type is installed. Enables or disables Numlock feature on the numeric keypad of the keyboard after the POST. (Default: Enabled) - 24 - && Bootup NumLock State && Security Option && Full Screen LOGO Show Specifies whether a password is required every time the system boots, or only when you enter BIOS Setup. After configuring this item, set the password(s) under the Administrator Password/User Password item.  Setup  password is only required for entering the BIOS Setup program.

@@@ (Default)  Silent  Allows the fan to run at slow speeds. @@  Disabled Allows the fan to run at full speeds.  Allows you to control the fan speed. This item is configurable only when 2nd System Fan Speed Control is set to Manual. Options are: 0.75 PWM value /oC ~ 2.50 PWM value /oC. && 1st System Fan Speed Control (SYS\_FAN1 Connector) Allows you to determine whether to enable the fan speed control function and adjust the fan speed. && Slope PWM && 2nd System Fan Speed Control (SYS\_FAN2 Connector) Allows you to determine whether to enable the fan speed control function and adjust the fan speed. && Slope PWM 2-3 System Information This section provides information on your motherboard model and BIOS version.

You can also select the default language used by the BIOS and manually set the system time. && System Language Selects the default language used by the BIOS. - 23 - && System Date && System Time Sets the system date. The date format is week (read-only), month, date, and year. Use <Enter> to switch between the Month, Date, and Year fields and use the <Page Up> or <Page Down> key to set the desired value. Sets the system time. The time format is hour, minute, and second. For example, 1 p.m. is 13:0:0. Use <Enter> to switch between the Hour, Minute, and Second fields and use the <Page Up> or <Page Down> key to set the desired value. Displays the current access level depending on the type of password protection used. (If no password is set, the default will display as Administrator.) The Administrator level allows you to make changes to all BIOS settings; the User level only allows you to make changes to certain BIOS settings but not all. && Access Level 2-4 BIOS Features && Boot Option Priorities &&  Hard Drive/CD/DVD ROM Drive/Floppy Drive/Network Device BBS Priorities H Specifies the overall boot order from the available devices. For example, you can set hard drive as the first priority (Boot Option #1) and DVD ROM drive as the second priority (Boot Option #2). The list only displays the device with the highest priority for a specific type. For example, only hard drive defined as the first priority on the Hard Drive BBS Priorities submenu will be presented here. Removable storage devices that support GPT format will be prefixed with "UEFI:" string on the boot device list. To boot from an operating system that supports GPT partitioning, select the device prefixed with "UEFI:" string.

Or if you want to install an operating system that supports GPT partitioning such as Windows 7 64-bit, select the optical drive that contains the Windows 7 64-bit installation disk and is prefixed with "UEFI:" string. Specifies the boot order for a specific device type, such as hard drives, optical drives, floppy disk drives, and devices that support Boot from LAN function, etc. Press <Enter> on this item to enter the submenu that presents the devices of the same type that are connected. This item is present only if at least one device for this type is installed. Enables or disables Numlock feature on the numeric keypad of the keyboard after the POST. (Default: Enabled) - 24 - && Bootup NumLock State && Security Option && Full Screen LOGO Show Specifies whether a password is required every time the system boots, or only when you enter BIOS Setup. After configuring this item, set the password(s) under the Administrator Password/User Password item.  Setup  password is only required for entering the BIOS Setup program.



[You're reading an excerpt. Click here to read official GIGABYTE](http://yourpdfguides.com/dref/5435315)

[G1-SNIPER A88X user guide](http://yourpdfguides.com/dref/5435315)

<http://yourpdfguides.com/dref/5435315>

System  password is required for booting the system and for entering the BIOS Setup  A program. (Default) Allows you to determine whether to display the GIGABYTE Logo at system startup.

Disabled skips the GIGABYTE Logo when the system starts up. (Default: Enabled) Allows you to select the operating system to be installed. (Default: Other OS) && OS Type && CSM Support && Boot Mode Selection Enables or disables UEFI CSM (Compatibility Support Module) to support a legacy PC boot process.  Always  Enables UEFI CSM. (Default)  Never  Disables UEFI CSM and supports UEFI BIOS boot process only.

This item is configurable only when OS Type is set to Windows 8. Allows you to select which type of operating system to boot.  UEFI and Legacy   Allows booting from operating systems that support legacy option ROM or UEFI option ROM. (Default)  Legacy Only  Allows booting from operating systems that only support legacy Option ROM.  UEFI Only  Allows booting from operating systems that only support UEFI Option ROM.

This item is configurable only when CSM Support is set to Always. Allows you to select whether to enable the legacy option ROM for the LAN controller. (Default: Disabled) This item is configurable only when CSM Support is set to Always. Allows you to select whether to enable the UEFI or legacy option ROM for the storage device controller.  Disabled  Disables option ROM.  Legacy Only  Enables legacy option ROM only. (Default)  UEFI Only  Enables UEFI option ROM only.  Legacy First  Enables legacy option ROM first.  UEFI First  Enables UEFI option ROM first. This item is configurable only when CSM Support is set to Always.

Allows you to select whether to enable the UEFI or Legacy option ROM for the PCI device controller other than the LAN, storage device, and graphics controllers.  Legacy OpROM  Enables legacy option ROM only.  UEFI OpROM  Enables UEFI option ROM only. (Default) Disables or enables booting from the network to install a GPT format OS, such as installing the OS from the Windows Deployment Services server. (Default: Disable Link) Enables or disables IPv4 PXE Support. This item is configurable only when Network stack is enabled. Enables or disables IPv6 PXE Support. This item is configurable only when Network stack is enabled. && LAN PXE Boot Option ROM && Storage Boot Option Control && Other PCI Device ROM Priority && Network stack && Ipv4 PXE Support && Ipv6 PXE Support - 25 - && Administrator Password && User Password Allows you to configure an administrator password. Press  Enter on this item, type the password, and then press  Enter.

You will be requested to confirm the password. Type the password again and press  Enter. You must enter the administrator password (or user password) at system startup and when entering BIOS Setup. Differing from the user password, the administrator password allows you to make changes to all BIOS settings. 2-5 Peripherals Allows you to configure a user password.

Press  Enter on this item, type the password, and then press  Enter. You will be requested to confirm the password. Type the password again and press  Enter. You must enter the administrator password (or user password) at system startup and when entering BIOS Setup. However, the user password only allows you to make changes to certain BIOS settings but not all.

To cancel the password, press  Enter on the password item and when requested for the password, enter the correct one first. When prompted for a new password, press  Enter without entering any password. Press  Enter again when prompted to confirm. && IOMMU && OnChip SATA Channel && OnChip SATA Type Enables or disables AMD IOMMU support. (Default: Enabled) Enables or disables the integrated SATA controllers. (Default: Enabled) && OnChip SATA Port4-7 Type (SATA3 4~SATA3 7 connectors) Enables or disables RAID for the SATA controllers integrated in the AMD Chipset or configures the SATA controllers to AHCI mode.  Native IDE  Configures the SATA controller to IDE mode.  RAID  Enables RAID for the SATA controller.  AHCI   Configures the SATA controllers to AHCI mode. Advanced Host Controller Interface (AHCI) is an interface specification that allows the storage driver to enable advanced Serial ATA features such as Native Command Queuing and hot plug.

(Default) This option is configurable only when OnChip SATA Type is set to RAID or AHCI. Configures the operating mode of the integrated SATA3 4~SATA3 7 connectors.  As SATA Type The mode depends on the OnChip SATA Type settings. (Default)  - 26 - && OnChip USB Controller  IDE  Disables RAID for the SATA controller and configures the SATA controller to IDE mode. && HD Audio Azalia Device Enables or disables the integrated USB controller. (Default: Enabled) && Onboard LAN Controller Enables or disables the onboard audio function. (Default: Enabled) If you wish to install a 3rd party add-in audio card instead of using the onboard audio, set this item to Disabled. Enables or disables the onboard LAN function. (Default: Enabled) If you wish to install a 3rd party add-in network card instead of using the onboard LAN, set this item to Disabled. Allows USB keyboard/mouse to be used in MS-DOS.

(Default: Enabled) && Legacy USB Support && XHCI Hand-off && EHCI Hand-off Determines whether to enable XHCI Hand-off feature for an operating system without XHCI Hand-off support. (Default: Enabled) Determines whether to enable EHCI Hand-off feature for an operating system without EHCI Hand-off support. (Default: Disabled) && Port 60/64 Emulation  Enables or disables emulation of I/O ports 64h and 60h. This should be enabled for full legacy support for USB keyboards/mice in MS-DOS or in operating system that does not natively support USB devices. (Default: Disabled) && USB Storage Devices ``Trusted Computing && TPM SUPPORT  Displays a list of connected USB mass storage devices.

This item appears only when a USB storage device is installed. Enables or disables Trusted Platform Module (TPM). Set this item to Enable when a TPM device is installed. (Default: Disable) ``GFX Configuration && Primary Video Device && Integrated Graphics Specifies the first initiation of the monitor display from the installed PCI Express graphics card or the onboard graphics.  IGD Video  Sets the onboard graphics as the first display.

NB PCIe Slot Video   Sets the PCI Express graphics card on the PCI Express slot controlled by the North Bridge as the first display. (Default)  SB PCIe slot Video   Sets the PCI Express graphics card on the PCI Express slot controlled by the South Bridge as the first display. Enables or disables the onboard graphics function.



[You're reading an excerpt. Click here to read official GIGABYTE](http://yourpdfguides.com/dref/5435315)

[G1-SNIPER A88X user guide](http://yourpdfguides.com/dref/5435315)

<http://yourpdfguides.com/dref/5435315>

Auto The BIOS will automatically enable or disable the onboard graphics depending on  the graphics card being installed. (Default) Disabled  Disables the onboard graphics. Force  Always activates the onboard graphics, whether or not a PCI Express card is installed. This item is configurable only when Integrated Graphics is set to Force. Frame buffer size is the total amount of system memory allocated solely for the onboard graphics controller. MS-DOS, for example, will use only this memory for display. Options are: Auto (default), 256M, 512M, 1G, 2G.

- 27 - **UMA Frame Buffer Size** **ATA Port Information** This section provides information on the device connected to each SATA port controlled by AMD Chipset. **SATA Configuration** & **PORT0 Hot Plug~PORT7 Hot Plug** & **SATA Power on PORT0~SATA Power on PORT7** Enables or disables each SATA port. (Default: Enabled) Enables or disable the hot plug capability for each SATA port. (Default: Disabled) **Super IO Configuration** & **Serial Port A** This section provides information on the super I/O chip and allows you to configure the serial port. Enables or disables the onboard serial port. (Default: Enabled) **2-6 Power Management** & **Resume by Alarm** & **HPET Timer (Note)** & **Audio LED (Note)** Determines whether to power on the system at a desired time. (Default: Disabled) If enabled, set the date and time as following: Wake up day: Turn on the system at a specific time on each day or on a specific day in a month. Wake up hour/minute/second: Set the time at which the system will be powered on automatically. Note: When using this function, avoid inadequate shutdown from the operating system or removal of the AC power, or the settings may not be effective. Enables or disables High Precision Event Timer (HPET) for Windows 8/7 operating system.

(Default: Enabled) Enables or disables the onboard audio LED. (Default: Enabled) Supported on Windows 8/7 operating system only. - 28 - **USB DAC Power** & **Soft-Off by PWR-BTTN** Enables or disables the power for the USB DAC connector on the back panel. For a USB DAC that has independent power, set this item to Disabled. (Default: Enabled) Configures the way to turn off the computer in MS-DOS mode using the power button.

Instant-Off  Press the power button and then the system will be turned off instantly. (Default) Delay 4 Sec  Press and hold the power button for 4 seconds to turn off the system. If the power button is pressed for less than 4 seconds, the system will enter suspend mode. Determines the state of the system after the return of power from an AC power loss. Memory  The system returns to its last known awake state upon the return of the AC power.

Always On  The system is turned on upon the return of the AC power. Always Off  system stays off upon the return of the AC power. (Default)  The Allows the system to be turned on by a PS/2 keyboard wake-up event. Note: To use this function, you need an ATX power supply providing at least 1A on the +5VSB lead. Disabled  Disables this function. (Default) Password  Set a password with 1~5 characters to turn on the system. Keyboard 98 Press POWER button on the Windows 98 keyboard to turn on the system. Any Key  Press any key to turn on the system. Set the password when Power On By Keyboard is set to Password. Press <Enter> on this item and set a password with up to 5 characters and then press <Enter> to accept.

To turn on the system, enter the password and press <Enter>. Note: To cancel the password, press <Enter> on this item. When prompted for the password, press <Enter> again without entering the password to clear the password settings. Allows the system to be turned on by a PS/2 mouse wake-up event. Note: To use this function, you need an ATX power supply providing at least 1A on the +5VSB lead. Disabled  Disables this function. (Default) Move  Move the mouse to turn on the system. Double Click Double click on left button on the mouse to turn on the system.  Determines whether to let the system consume least power in S5 (shutdown) state. (Default: Disabled) Note: When this item is set to Enabled, the following functions will become unavailable: PME event wake up, power on by mouse, power on by keyboard, and wake on LAN.

**AC BACK** & **Power On By Keyboard** & **Power On Password** & **Power On By Mouse** & **ErP** - 29 - **2-7 Save & Exit** & **Save & Exit Setup** & **Exit Without Saving** Press <Enter> on this item and select Yes. This saves the changes to the CMOS and exits the BIOS Setup program. Select No or press <Esc> to return to the BIOS Setup Main Menu. Press <Enter> on this item and select Yes. This exits the BIOS Setup without saving the changes made in BIOS Setup to the CMOS.

Select No or press <Esc> to return to the BIOS Setup Main Menu. Press <Enter> on this item and select Yes to load the optimal BIOS default settings. The BIOS default settings help the system to operate in optimum state. Always load the Optimized defaults after updating the BIOS or after clearing the CMOS values. Allows you to select a device to boot immediately.

Press <Enter> on the device you select and select Yes to confirm. Your system will restart automatically and boot from that device. This function allows you to save the current BIOS settings to a profile. You can create up to 8 profiles and save as Setup Profile 1~ Setup Profile 8. Press <Enter> to complete. Or you can select Select File in HDD/USB/FDD to save the profile to your storage device. If your system becomes unstable and you have loaded the BIOS default settings, you can use this function to load the BIOS settings from a profile created before, without the hassles of reconfiguring the BIOS settings. First select the profile you wish to load and then press <Enter> to complete. You can select Select File in HDD/USB/FDD to input the profile previously created from your storage device or load the profile automatically created by the BIOS, such as reverting the BIOS settings to the last settings that worked properly (last known good record). & **Load Optimized Defaults** & **Boot Override** & **Save Profiles** & **Load Profiles** - 30 - Chapter 3 Appendix 3-1 Configuring SATA Hard Drive(s) Before you begin ••At least two SATA hard drives (to ensure optimal performance, it is recommended that you use two hard drives with identical model and capacity).

If you do not want to create RAID, you may prepare only one hard drive. ••Windows 8/7/XP( 32-bit) setup disk. ••Motherboard driver disk. ••A USB flash drive. ••A USB floppy disk drive (needed during Windows XP installation). ••An empty formatted floppy disk (needed during Windows XP installation).



[You're reading an excerpt. Click here to read official GIGABYTE G1-SNIPER A88X user guide](http://yourpdfguides.com/dref/5435315)  
<http://yourpdfguides.com/dref/5435315>

Configuring SATA Controllers A. Installing SATA hard drive(s) in your computer Attach one end of the SATA signal cable to the rear of the SATA hard drive and the other end to available SATA port on the motherboard. Then connect the power connector from your power supply to the hard drive. B.

Configuring SATA controller mode in BIOS Setup Make sure to configure the SATA controller mode correctly in system BIOS Setup. For the BIOS Setup menus, refer to Chapter 2, "BIOS Setup," "Integrated Peripherals." Steps: 1. Turn on your computer and press <Delete> to enter BIOS Setup during the POST (Power-On Self-Test). Ensure OnChip SATA Channel is enabled under Peripherals.

Set OnChip SATA Type to RAID. 2. If you want to configure UEFI RAID, follow the steps in "C-1." To enter the legacy RAID ROM, save the settings and exit BIOS Setup. Refer to "C-2" for more information.

The BIOS Setup menus described in this section may differ from the exact settings for your motherboard. The actual BIOS Setup menu options you will see shall depend on the motherboard you have and the BIOS version. C-1. UEFI RAID Configuration This mode supports Windows 8 64-bit installation only. To configure UEFI RAID, you need to prepare a USB flash drive using FAT 32 file format and copy all files (including the UEFI RAID utility rcadm.efi) in the \BootDrv\UEFI RAID Utility folder in your motherboard driver disk to the flash drive. Then follow the steps below. Step: In BIOS Setup, go to BIOS Features and set OS Type to Windows 8 and CSM Support to Never. Save the changes and exit BIOS Setup. Running the UEFI RAID Utility Restart your computer and press <F12> to enter the boot device configuration menu.

Use the up or down arrow key to select your USB flash drive which is prefixed with "UEFI:" string. Then press <Enter> to access the screen. To run the UEFI RAID utility, enter the following commands. You can enter the commands at Shell or fsx: level (x represents the disk number for your USB flash drive). Checking Disk Information To see the hard drive information, enter the following commands and press <Enter>. You will see CONTROLLER LIST and DISK LIST displayed on the screen. rcadm -M -qa Creating a RAID Array To create a RAID array, refer to the following examples to enter the commands and press <Enter>. When succeeded, the message which says "created successfully" will appear. - 31 - Example 1: Create a RAID 0 array with Drive 0 and Drive 1 and the array size is 40 GB. rcadm -C -r0 -d 0 1 -s 40000 ("C"=Create a array, "r0"=RAID 0, d 0 1=Drive 0 and Drive 1, "s 40000"=Size of 40 GB; to use the maximum size allowed, do not enter "s x0000") Example 2: Create a RAID 5 array with Drive 1~4 and the array size is 75 GB. rcadm -C -r5 -d 1 2 3 4 -s 75000 ("C"=Create a array, "r5"=RAID 5, d 1 2 3 4=Drive 1~4, "s 75000"=Size of 75 GB) After you create the array, you can enter the "rcadm -M -qa" commands to see the array information. In addition to the CONTROLLER LIST and DISK LIST information, you will see ARRAY LIST information displayed on the screen, too. Deleting an Array To delete an array, enter the following commands and press <Enter>. rcadm -D -a 1 ("D"=Delete a array, "a 1"=Array 1, to delete all arrays, enter "a \*") When prompted to confirm, enter YES to delete or NO to cancel, and then press <Enter>. To exit the UEFI RAID utility, enter "exit" and press <Enter>.

C-2. Configuring Legacy RAID ROM Enter the legacy RAID BIOS setup utility to configure a RAID array. Skip this step and proceed with the installation of Windows operating system for a non-RAID configuration. Steps: After the POST memory test begins and before the operating system boot begins. Press <Ctrl> + <R> to enter the RAID BIOS setup utility.

Creating a RAID Array 1. To create a new array, press <Enter> on the Create Array option. 2. The selection bar will move to the Disks section on the right of the screen. Select the hard drives to be included in the RAID array. Use the up or down arrow key to select a hard drive and press <Insert>. The selected hard drive will be shown in green. To use all of the hard drives, simply press <A> to select all. Then press <Enter> and the selection bar will move to the User Input section on the left bottom of the screen. 3.

First, select a RAID mode and press <Enter>. The selections available depend on the number of the hard drives being installed. Then follow the on-screen instructions to specify the array size. You can select All available space to use the maximum size allowed or use the up or down arrow key to adjust the size and press <Enter>. 4. Select a caching mode. Options include Read/Write, Read Only, and None. Then press <Enter> to proceed. 5. Finally, a message which says "Confirm Creation of Array" will appear.

Press <C> to confirm or <Esc> to return to the previous screen. When completed, you will see the new array on the main screen. To exit the RAID BIOS utility, press <Esc> and then press <C> to confirm. Deleting an Array The Delete Array(s) menu option allows for deletion of disk array assignments. 1. Select Delete Array(s) in the Main Menu and press <Enter>. 2. In the Arrays section, press the <Insert> key on the array you want to delete and then press <Enter> to proceed. 3. When prompted to confirm, press <C> to continue the deletion or <Esc> to cancel.

Deleting an existing disk array could result in loss of data. Record all array information including the array type, the disk members, and stripe block size in case you wish to undo a deletion. - 32 - Installing the SATA RAID/AHCI Driver and Operating System With the correct BIOS settings, you are ready to install the operating system. A. Installing Windows 8/7 (The following instructions use Windows 8 as the example operating system.) Step 1: You need to install the SATA RAID/AHCI driver during the OS installation. Use an alternative system to copy the SATA RAID/AHCI driver from the motherboard driver disk to a USB flash drive. Copy the Hw8\_A88 folder under BootDrv in the driver disk. Step 2: Boot from the Windows 8 setup disk and perform standard OS installation steps. When the screen requesting you to load the driver appears, select Browse.

Step 3: Then browse to the USB flash drive and select the location of the driver. The locations of the drivers are as follows: RAID driver for Windows 8 32-bit: Hw8\_A88\RAID\x86 RAID driver for Windows 8 64-bit: Hw8\_A88\RAID\x64 AHCI driver for Windows 8 32-bit: Hw8\_A88\AHCNW8 AHCI driver for Windows 8 64-bit: Hw8\_A88\AHCN\W864A For Windows 7, browse to the Hw7\_A88 folder. Step 4: Select AMD-RAID Controller and click Next to load the driver and continue the OS installation. B. Installing Windows XP (32-bit) Before installing Windows XP, connect a USB floppy disk drive to your computer first because you need to install the SATA RAID/AHCI driver from a floppy disk that contains the driver during the OS installation.



[You're reading an excerpt. Click here to read official GIGABYTE](http://yourpdfguides.com/dref/5435315)

[G1-SNIPER A88X user guide](http://yourpdfguides.com/dref/5435315)

<http://yourpdfguides.com/dref/5435315>