Your PDF Guides

You can read the recommendations in the user guide, the technical guide or the installation guide for GIGABYTE GA-8ITXE. You'll find the answers to all your questions on the GIGABYTE GA-8ITXE in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

User manual GIGABYTE GA-8ITXE
User guide GIGABYTE GA-8ITXE
Operating instructions GIGABYTE GA-8ITXE
Instructions for use GIGABYTE GA-8ITXE
Instruction manual GIGABYTE GA-8ITXE

When you installing AGP card, please make sure the following notice is fully understood and practiced. If your AGP card has "AGP 4X notch"(show below), please make sure your AGP card is AGP 4X (1.5V).

AGP 2X notch   AGP 4X notch

Do not use AGP 2X card (3.3V) in this motherboard. It will burn and damage the motherboard due to Intel® 850 chipset can't support AGP 2X(3.3V).

Example 1: Diamond Vipper V770 golden finger is compatible with 2X/4X mode AGP slot. It can be switched between AGP 2X (3.3V) or 4X(1.5V) mode by adjusting the jumper. The factory default for this card is 2X(3.3V). If you install this card in GA-8ITXE (or any AGP 4X only) motherboards without switching the jumper to 4X mode (1.5V), it will burn the motherboard.

Example 2: ATi Rage 128 Pro (Power Color) & SiS 305 golden finger is compatible with 2X/4X mode AGP slot, but it supports 2X(3.3V) only. If you install this card in GA-8ITXE (or any AGP 4X only) motherboards, it will burn the motherboard.

Before you install PCI cards, please remove the Dual BIOS label from PCI slots if there is one.

Manual abstract:

3V) or 4X(1.5V) mode by adjusting the jumper. The factory default for this card is 2X(3.3V). If you install this card in GA-8ITXE (or any AGP 4X only) motherboards without switching the jumper to 4X mode (1.5V), it will burn the motherboard. Example 2: ATi Rage 128 Pro (Power Color) & SiS 305 golden finger is compatible with 2X/4X mode AGP slot, but it supports 2X(3.3V) only. If you install this card in GA-8ITXE (or any AGP 4X only) motherboards, it will burn the motherboard. Before you install PCI cards, please remove the Dual BIOS label from PCI slots if there is one.

The author assumes no responsibility for any errors or omissions that may appear in this document nor does the author make a commitment to up date the information contained herein. Third-party brands and names are the property of their respective owners. Please do not remove any labels on motherboard, this may void the warranty of this motherboard. Due to rapid change in technology, some of the specifications might be out of date before pwblicution of this booklet. DECLARATION OF CONFORMITY Per FCC Part 2 Section 2.

1077(a) Responsible Party Name: G.B.T. INC. Address: 18305 Valley Blvd.

, Suite#A LA Puent, CA 91744 Phone/Fax No: (818) 854-9338/ (818) 854-9339 hereby declares that the product Product Name: Motherboard Model Number: GA-8ITXE Conforms to the following specifications: FCC Part 15, Subpart B, Section 15.107(a) and Section 15.109(a), Class B Digital Device Supplementary Information: This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful and (2) this device must accept any inference received, including that may cause undesired operation. Representative Person's Name: ERIC LU Signature: Eric Lu Date: September 28,2001 Declaration of Conformity We, Manufacturer/Importer (full address) G.B.T. Technology Träding GMbH Ausschlager Weg 41, 1F, 20537 Hamburg, Germany declare that the product (description of the apparatus, system, installation to which it refers) Mother Board GA-8ITXE is in conformity with (reference to the specification under which conformity is declared) in accordance with 89/336 EEC-EMC Directive EN 55011 Limits and methods of measurement of radio disturbance characteristics of industrial,scientific and medical (ISM high frequency equipment EN 55013 Limits and methods of measurement of radio disturbance characteristics of broadcast receivers and associated equipment EN 55014 Limits and methods of measurement of radio disturbance characteristics of household electrical appliances, portable tools and similar electrical apparatus EN 55015 Limits and methods of measurement of radio disturbance characteristics of fluorescent lamps and luminaries Immunity from radio interference of broadcast receivers and associated equipment EN 55022 Limits and methods of measurement of radio disturbance characteristics of information technology equipment DIN VDE 0855 part 10 part 12 Cabled distribution systems; Equipment for receiving and/or distribution from sound and television signals EN50091-2 ENV 55104 EN 50082-1 EN 50081-1 EN 61000-3-3 EN 60555-3 EN 61000-3-2* EN 60555-2 Disturbances in supply systems cause by household appliances and similar electrical equipment "Harmonics" Disturbances in supply systems cause by household appliances and similar electrical equipment "Voltage fluctuations" Generic emission standard Part 1: Residual commercial and light industry Generic immunity standard Part 1: Residual commercial and light industry EN 55081-2 Generic emission standard Part 2: Industrial environment EN 55020 EN 55082-2 Generic emission standard Part 2: Industrial environment lmmunity requirements for household appliances tools and similar apparatus EMC requirements for uninterruptible power systems (UPS) CE marking (EC conformity marking) The manufacturer also declares the conformity of above mentioned product with the actual required safety standards in accordance with LVD 73/23 EEC EN 60065 Safety requirements for mains operated electronic and related apparatus for household and similar general use EN 60950 EN 60335 Safety of household and similar electrical appliances EN 50091-1 Manufacturer/Importer Signature: (Stamp) Rex Lin Rex Lin Date : September 28, 2001 Name: GA-8ITXE P4 Titan-RDRAM Motherboard USER'S MANUAL Pentium®4 Processor Motherboard Rev. 1.0 Second Edition 12ME-8ITXE-1002 GA-8ITXE Motherboard Table of Content Revision History.*

.. 62 3 GA-8ITXE Motherboard Revision History Revision 1.0 1.0 Revision Note Initial release of the GA-8ITXE motherboard user's manual. Second release of the GA-8ITXE motherboard user's manual. Date Oct.2001 Nov.2001 Item Checklist The GA-8ITXE motherboard IDE cable x 1 / Floppy cable x 1 USB cable x 1 CD for motherboard driver & utility (IUCD) GA-8ITXE user's manual I/O Shield Quick PC Installation Guide CRIMM x 2 4 WARNING! WARNING! Computer motherboards and expansion cards contain very delicate Integrated Circuit (IC) chips. To protect them against damage from static electricity, you should follow some precautions whenever you work on your computer.

1. Unplug your computer when working on the inside. 2. Use a grounded wrist strap before handling computer components. If you do not have one, touch both of your hands to a safely grounded object or to a metal object, such as the power supply case.

Hold components by the edges and try not touch the IC chips, leads or connectors, or other components. Place components on a grounded antistatic pad or on the bag that came with the components whenever the components are separated from the system.

Ensure that the ATX power supply is switched off before you plug in or remove the ATX 3. 4. 5. power connector on the motherboard. Installing the motherboard to the chassis... If the motherboard has mounting holes, but they don't line up with the holes on the base and there are no slots to attach the spacers, do not become alarmed you can still attach the spacers to the mounting holes. Just cut the bottom portion of the spacers (the spacer may be a little hard to cut off, so be careful of your hands). In this way you can still attach the motherboard to the base without worrying about short circuits. Sometimes you may need to use the plastic springs to isolate the screw from the motherboard PCB surface, because the circuit wire may be near by the hole. Be careful, don't let the screw contact any printed circuit write or parts on the PCB that are near the fixing hole, otherwise it may damage the board or cause board malfunctioning. 5 GA-8ITXE Motherboard Chapter 1 Introduction Summary of Features Form Factor CPU 30.

5cm x 24.5cm ATX size form factor, 4 layers PCB. Socket 478 for Intel® Micro FC-PGA2 Pentium® 4 processor Intel Pentium®4 400MHz FSB 2nd Level cache depend on CPU Chipset 82850 HOST/AGP/Controller 82801BA(ICH2) I/O Controller Hub 4 184-pin RIMM Sockets Dual direct RDRAM channel Supports up to 2GB (Max) I/O Control Slots Winbond W83627HF 1 CNR(Communication and Networking Riser) Slot 1 AGP support 4X(1.5V) device 5 PCI slot supports 33MHz & PCI 2.2 compliant On-Board IDE An IDE controller on the Intel 82801BA PCI chipset provides IDE HDD/CD-ROM with PIO, Bus Master (Ultra DMA33/ATA66/ATA100) operation modes. Can connect up to four IDE devices On-Board Peripherals 1 Floppy port supports 2 FDD with 360K, 720K,1.2M, 1.44M and 2.88M bytes. 1 Parallel port supports Normal/EPP/ECP mode 2 Serial ports (COMA&COMB) 4 USB ports (Rear USB x 2, Front USB x 2) 1 IrDA connector for IR/CIR Hardware Monitor CPU/Power/System Fan Revolution detect CPU Overheat Warning System Voltage Detect to be continued.

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Chipset Memory 6 Introduction On-Board Sound PS/2 Connector BIOS Additional Features AC97 CODEC Line In/Line Out/Mic In/CD In/Game Port PS/2 Keyboard interface and PS/2 Mouse interface Licensed AMI BIOS, 4M bit FWH Supports Dual BIOS PS/2 Keyboard power on by p/B. CRIMM Insert the RIMM module into the slot. Push the ejector tab towards the RIMM. When STR/RIMM LED is ON, you do not install / remove RDRAM from socket. Please note that the DIMM module can only fit in one direction due to the two notches.

*Wrong orientation will cause improper installation. Please change the insert orientation. 12 Hardware Installation Process Master Device Direct Rambus ASIC Cell(RAC) Direct RDROM RIMM Module SPD ROM RIMM Continuity Module Rambus Channel RIMM Module Direct Rambus Clock Generator (DRCG) RIMM Continuity Module Introduce RIMM (Rambus In-line Memory Module) Direct Rambus Memory Controller RIMM Connector Directly support a Dual Direct Rambus * Channel Supports 300&400 MHz Direct Rambus * Channel @ 100MHz host bus frequency. Maximum memory array size up to 256MB using 64Mb/72Mb, 512MB using 128Mb/144Mb, 1GB using 256Mb/288Mb DRAM technology Supports up to 32 Direct Rambus devices per channel Supports a maximum DRAM address decode space of 4GB Configurable optional ECC operation ECC with single bit Error Correction and multiple bit Error Detection Single bit errors corrected and written back to memory (auto-scrubbing) Parity mode not supported APIC memory space in hardware. It is the BIOS or system designer's responsibility to limit DRAM population so that adequate PCI, AGP, High BIOS, and APIC memory space can be allocated. 13 GA-8ITXE Motherboard Step 3: Install expansion cards 1. Read the related expansion card's instruction document before install the expansion card into the computer. 2. Remove your computer's chassis cover, necessary screws and slot bracket from the computer. 3.*

Press the expansion card firmly into expansion slot in motherboard. 4. Be sure the metal contacts on the card are indeed seated in the slot. 5. Replace the screw to secure the slot bracket of the expansion card. 6. Replace your computer's chassis cover. 7. Power on the computer, if necessary, setup BIOS utility of expansion card from BIOS. 8.

Install related driver from the operating system. 14 Hardware Installation Process Step 4: Connect ribbon cables, cabinet wires, and power supply I/O Back Panel Introduction PS/2 Keyboard and PS/2 Mouse Connector PS/2 Mouse Connector (6 pin Female) PS/2 Keyboard Connector (6 pin Female) This connector supports standard PS/2 keyboard and PS/2 mouse. Parallel Port and Serial Ports (COMA/COMB) Parallel Port (25 pin Female) This connector supports 2 standard COM ports and 1 Parallel port. Device like printer can be connected to Parallel port ; mouse and modem etc can be connected to Serial ports. COMA COMB Serial Ports (9 pin Male) 15 GA-8ITXE Motherboard Game /MIDI Ports This connector supports joystick, MIDI keyboard and other relate audio devices.

Joystick/ MIDI (15 pin Female) Audio Connectors After install onboard audio driver, you may connect speaker to Line Out jack, micro phone to MIC In jack. Device like CD-ROM , walkman etc can be connected to Line-In jack. Line Out Line In MIC In USB Connector Before you connect your device(s) into USB connector(s), please make sure your device(s) such as USB keyboard, mouse, scanner, zip,speaker..etc.

Have a standard USB USB 0 USB 1 interface. Also make sure your OS (Win 95 with USB supplement, Win98, Windows 2000, Windows ME, Win NT with SP 6) supports USB controller. If your OS does not support USB controller, please contact OS vendor for possible patch or driver upgrade. For more information please contact your OS or device(s) vendors. 16 Hardware Installation Process Connectors Introduction A B C D E P F G H O I J K N M L A) B) C) D) E) F) G) H) J16 CPU_FAN PWR_FAN LED2 J15 J18 FLOPPY IDE1/IDE2 I) J) K) L) M) N) O) P) J17 SYS_FAN JP15 J7 CN10 BAT1 J2 FRONT AUDIO 17 GA-8ITXE Motherboard B) CPU_FAN (CPU FAN Connector) GND +12V/Control Sense 1 Please note, a proper installation of the CPU cooler is essential to prevent the CPU from running under abnormal condition or damaged by overheating.The CPU fan connector supports Max. current up to 600mA . C) PWR_FAN (Power FAN Connector) J) SYS_FAN (System FAN Connector) GND +12V/Control Sense 1 1 Sense +12V/Control GND E) J15 (ATX Power) 20 +12V 5V SB (Stand by +5V) Power Good GND VCC GND VCC GND 3.3V 3.3V VCC VCC -5V GND GND GND PS-ON(Soft On/Off) GND -12V 3.

3V 1 AC power cord should only be connected to your power supply unit after ATX power cable and other related devices are firmly connected to the mainboard. 18 Hardware Installation Process F) J18 (AUX Power) 6 +5VDC +3.3VDC +3.3VDC GND GND GND 1 The 6-pin Aux.

Power connector provides additional current to meet the board's +3.3VDC and +5VDC requirments. Please refer to the detail on P.24 A) J16 (AUX +12V Power Connector) 3 +12V GND 12 4 +12V GND This connector (ATX +12V) is used only for CPU Core Voltage. D) LED2 (RIMM LED) Do not remove memory modules while RIMM LED is on. It might cause short or other unexpected damages due to the 2.

5V stand by voltage. Remove memory modules only when STR function is disabled by jumper and AC Power cord is disconnected. 19 GA-8ITXE Motherboard G) FLOPPY (Floppy Connector) 1 H) IDE1/IDE2 [IDE1 / IDE2 Connector(Primary/Secondary] Important Notice: Please connect first harddisk to IDE1 and connect CDROM to IDE2. 1 IDE2 IDE1 1 O) J2 (CD Audio Line In) CD-R GND 1 CD-L I) J17 (Wake On Lan) 1 +5V SB GND Signal 20 Hardware Installation Process L) J7 (2x11 pins jumper) HD 1 SPK 1 RE 1 1 GN 1 P-P-P+ PW GD GN (Green Switch) GD (Green LED) HD (IDE Hard Disk Active LED) SPK (Speaker Connector) Open: Normal Operation Close: Entering Green Mode Pin 1: LED anode(+) Pin 2: LED cathode(-) Pin 1: LED anode(+) Pin 2: LED cathode(-) Pin 1: VCC(+) Pin 2- Pin 3: NC Pin 4: Data(-) Open: Normal Operation Close: Reset Hardware System Pin 1: LED anode(+) Pin 2: LED cathode(-) Pin 3: LED cathode(-) RE (Reset Switch) P-P-P+(Power LED) PW (Soft Power Connector) Open: Normal Operation Close: Power On/Off Please connect the power LED, PC speaker, reset switch and power switch etc of your chassis front panel to the front panel jumper according to the pin assignment above. 21 GA-8ITXE Motherboard M) CN10 (Front USB Connector) NC USB D3+ USB D3- Be careful with the polarity of the front Power panel USB connector.

Check the pin assignment while you connect the front panel USB cable. Please contact your nearest dealer for optional front panel GND 1 Power USB D2USB D2+ NC USB cable. GND K) JP15 (IR/CIR) Make sure the pin 1 on the IR device is NC CIRRX VCC GND NC aling with pin one the connector. To enable the IR/CIR function on the board, you are required to purchase an option IR/ CIR module. For detail information please 1 VCC NC IRRX GND IRTX contact your autherized Giga-Byte distributor.

To use IR function only, please connect IR module to Pin1 to Pin5. 22 Hardware Installation Process P) FRONT AUDIO (Front Audio) 1 Incase speaker (R) GND GND +12V MIC Front Audio (R) Front Audio (L) GND 15 16 2 Incase speaker (L) GND GND GND Front Audio (R) Front Audio (L) If you want to use "Front Audio" connector, you must move 11-12,13-14 Jumper. In order to utilize the front audio header, your chassis must have front audio connector. Also please make sure the pin assigment on the cable is the same as the pin assigment on the MB header. To find out if the chassis you are buying support front audio connector, please contact your dealer. N) BAT1 (Battery) CAUTION Danger of explosion if battery is incorrectly replaced. + Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions. 23 GA-8ITXE Motherboard ATX 12V Power Supply Introduction -Additional 4 pin connector for 12V voltage -Backward compatibility maintained with load sharing capability -Support 12V or 5V CPU VRs Check power supply if it is supported by ATX12V Power Supply. Additional dedicated 12V 4-pin power connector 6Pin auxiliary ATX power connector ATX power connector 6 Pin Aux.

Power Connector Step1: In a 45° angle position, align the tooth of aux. Step2: Insert the aux. Power cable downward. Power cable onto the gird of aux. Power socket. Tooth Figure 1 Step3: Properly installed shown below. Figure 2 Figure 3 24 BIOS Setup Chapter 3 BIOS Setup BIOS Setup is an overview of the BIOS Setup Program. The program that allows users to modify the basic system configuration. This type of information is stored in battery-backed CMOS RAM so that it retains the Setup information when the power is turned off. ENTERINGSETUP Press <F8> to enter Boot Menu during POST (Power On Self Test); press <F12> to enter Network boot function, press <Del> to enter CMOS Setup.

a. Boot Screen American Release:08/04/2001 Megatrends AMIBIOS (C) 1999 American Megatrend 8ITXE E4 Check System Health OK, Vcore = 1.750V CPUID : 0F0A Patch ID : 0009 Intel(R) Pentium(R) 4 Processor-1.50 GHz RamBus/Host Frequency is 300/100MHz Checking NVRAM 262144KB Wait.. . DEL: Setup F8: Boot Menu F12: Network boot Press any key to contiune (C) American Megatrends Inc., 63-0001-001199-00101111-071595-i850-GA8ITXE0-H b. Press <F8> to enter Boot Menu Select First Boot Device Floppy [Up/Dn] Select : 1.44MB 31/2 [RETURN] Boot [ESC] Cnacel Boot order depends on the devices you use, for example: Floppy, HDD, CD-ROM.

.. 25 GA-8ITXE Motherboard c. Press<F12> to boot from Network. d. After power on the computer, pressing <Del> immediately during POST (Power On Self Test) it will allow you to enter AMI BIOS CMOS SETUP. CONTROLKEYS <> <> < < > > Move to previous item Move to next item Move to the item in the left hand Move to the item in the right hand Main Menu - Quit and not save changes into CMOS Status Page Setup Menu and Option Page Setup Menu - Exit current page and return to Main Menu Decrease the numeric value or make changes General help, only for Status Page Setup Menu and Option Page Setup Menu Reserved Select Language Select Language Reserved Restore the previous CMOS value from CMOS, only for Option Page Setup Menu Load the default CMOS value from BIOS default table, only for Option Page Setup Menu <F7> <F8> <F9> <F10> Load the Setup Defaults Flash Utility Reserved Save all the CMOS changes, only for Main Menu <Esc> <+/PgUp> Increase the numeric value or make changes <-/PgDn> <F1> <F2> <F3> (Shift)F3 <F4> <F5> <F6> 26 BIOS Setup GETTINGHELP Main Menu The on-line description of the highlighted setup function is displayed at the bottom of the screen. Status Page Setup Menu / Option Page Setup Menu Press F1 to pop up a small help window that describes the appropriate keys to use and the possible selections for the highlighted item. To exit the Help Window press <Esc>. Select Language You can press <F3> to select multi language.

There are 7 languages available, including English, Japanese, French, Spanish, Germany, Simplified Chinese, Traditional Chinese. The Main Menu (For example: BIOS Ver. :F1) Once you enter AMI BIOS CMOS Setup Utility, the Main Menu (Figure 1) will appear on the screen. The Main Menu allows you to select from eight setup functions and two exit choices. Use arrow keys to select among the items and press <Enter> to accept or enter the sub-menu. AMIBIOS SIMPLE SETUP UTILITY - VERSION 2.

00 (C) 2001 American Megatrends, Inc. All Rights Reserved STANDARD CMOS SETUP BIOS FEATURES SETUP CHIPSET FEATURES SETUP POWER MANAGEMENT SETUP PNP / PCI CONFIGURATION LOAD FAIL-SAFE DEFAULTS LOAD OPTIMIZED DEFAULTS ESC: Quit F6: Fail-Safe Values Current Language: English Time, Date , Hard Disk Type...

Figure 1: Main Menu : Select Item INTEGRATED PERIPHERALS HARDWARE MONITOR & MISC SETUP SUPERVISOR PASSWORD USER PASSWORD IDE HDD AUTO DETECTION SAVE & EXIT SETUP EXIT WITHOUT SAVING (Shift)F3 : Select Language F8: Flash Utility F5: Old Values F10:Save & Exit F7: Optimized Values 27 GA-8ITXE Motherboard Standard CMOS Features This setup page includes all the items in standard compatible BIOS. BIOS Features Setup This setup page includes all the adjustable items of AMI special enhanced features. Chipset Features Setup This setup page includes all the adjustable items of chipset special features. Power Management Setup This setup page includes all the adjustable items of Green function features. PNP/PCI Configurations This setup page includes all the adjustable configurations of PCI & PnP ISA resources.

Load Fail-Safe Defaults Load Fail-Safe Defaults option loads preset system parameter values to set the system in its most stable configurations. Load Optimized Defaults Load Optimized Defaults option loads preset system parameter values to set the system in its highest performance configurations. Integrated Peripherals This setup page includes all onboard peripherals. Hardware Monitor & MISC Setup This setup page is auto detect fan and temperature status. Set Supervisor password Set Change or disable password.

It allows you to limit access to the system and/or BIOS setup. Set User password Set Change or disable password. It allows you to limit access to the system. IDE HDD Auto Detection Automatically configure hard disk parameters. Save & Exit Setup Save CMOS value settings to CMOS and exit setup. Exit Without Saving Abandon all CMOS value changes and exit setup. 28 BIOS Setup Standard CMOS Features AMIBIOS SETUP - STANDARD CMOS SETUP (C) 2001 American Megatrends, Inc. All Rights Reserved System Date : Aug 01 2001 Wed System Time : 14:44:35 TYPE SIZE CYLS HEAD PRECOMP LANDZ SECTOR MODE Pri Master : Auto Pri Slave Sec Slave : Auto : Auto Base Memory : 640 Kb Other Memory : 384 Kb Extended Memory : 255 Mb Virus Protection : Disabled Date is standard format Month : Jan - Dec Day Year : 01- 31 : 1990 - 2099 Total Memory : 256 Mb ESC : Exit : Select Item PU / PD / + / - :Modify (Shift) F3 : Select Language Figure 2: Standard CMOS Setup Sec Master : Auto Floppy Drive A : 1.44 MB 31/2 Floppy Drive B : Not Installed System Date The date format is <month>, <day>, <year>, <week>. Month Day Year Week The month, Jan.

Through Dec. The day, from 1 to 31 (or the maximum allowed in the month) The year, from 1990 through 2099 The week, from Sun to Sat, determined by the BIOS and is display only 29 GA-8ITXE Motherboard SystemTime The times format in <hour> <minute> <second>. The time is calculated base on the 24-hour militarytime clock. For example, 1 p.m. is 13:00:00. Primary Master, Slave / Secondary Master, Slave The category identifies the types of hard disk from drive C to F that has been installed in the computer. There are two types: auto type, and manual type. Manual type is user-definable; Auto type which will automatically detect HDD type. Note that the specifications of your drive must match with the drive table.

The hard disk will not work properly if you enter improper information for this category. If you select User Type, related information will be asked to enter to the following items. Enter the information directly from the keyboard and press <Enter>. Such information should be provided in the documentation form your hard disk vendor or the system manufacturer. CYLS.

HEADS PRECOMP LANDZONE SECTORS Number of cylinders number of heads write precomp Landing zone number of sectors If a hard disk has not been installed select NONE and press <Enter>. Floppy Drive A / Drive B The category identifies the types of floppy disk drive A or drive B that has been installed in the computer. None 360K, 5.25 in. 1.

2M, 5.25 in. 720K, 3.5 in. 1.44M, 3.5 in. 2.88M, 3.5 in.

No floppy drive installed 5.25 inch PC-type standard drive; 360K byte capacity. 5.25 inch AT-type high-density drive; 1.2M byte capacity (3.5 inch when 3 Mode is Enabled). 3.5 inch double-sided drive; 720K byte capacity 3.5 inch double-sided drive; 1.44M byte capacity.

3.5 inch double-sided drive; 2.88M byte capacity. 30 BIOS Setup Virus Protection If it is set to enable, the category will flash on the screen when there is any attempt to write to the boot sector or partition table of the hard disk drive. The system will halt and the following error message will appear in the mean time. You can run anti-virus program to locate the problem. Enabled Activate automatically when the system boots up causing a warning message to appear when anything attempts to access the boot sector or hard disk partition table No warning message to appear when anything attempts to access the boot sector or hard disk partition table (Default Value) Disabled Memory The category is display-only which is determined by POST (Power On Self Test) of the BIOS. Base Memory The POST of the BIOS will determine the amount of base (or conventional) memory installed in the system. The value of the base memory is typically 512 K for systems with 512 K memory installed on the motherboard, or 640 K for systems with 640 K or more memory installed on the motherboard. Other Memory This refers to the memory located in the 640 K to 1024 K address space.

This is memory that can be used for different applications. DOS uses this area to load device drivers to keep as much base memory free for application programs. Most use for this area is Shadow RAM. ExtendedMemory The BIOS determines how much extended memory is present during the POST. This is the amount of memory located above 1 MB in the CPU's memory address map. 31 GA-8ITXE Motherboard BIOS Features Setup AMIBIOS SETUP - BIOS FEATURES SETUP (C) 2001 American Megatrends, Inc. All Rights Reserved BIOS Flash Protection 1st Boot Device 2nd Boot Device 3rd Boot Device Floppy Drive Seek BootUp Num-Lock Password Check S.M.A.R.

T. for Hard Disks : Auto : Floppy : IDE-0 : CDROM : Disabled : On : Setup : Disabled ESC: Quit F1 : Help F6 : Fail-Safe F7 : Optimized Figure 3: BIOS Features Setup : Select Item PU/PD/+/- : Modify F8: Flash Utility F5 : Old Values (Shift)F3: Select Language BIOS Flash Protection This field lets you determine the states that flash BIOS Auto Enabled BIOS enables flash write access automatically when updating BIOS data/DMI/ ESCD. (Default Value) During POST, DMI/ESCD would not be updated. But flash tools can update BIOS always 1st / 2nd / 3rd Boot device Floppy ARMD-FDD ARMD-HDD CDROM SCSI NETWORK BBS-0 BBS-1 BBS-2 BBS-3 Select your boot device priority by Floppy.

Select your boot device priority by ARMD-FDD. Select your boot device priority by ARMD-HDD. Select your boot device priority by CDROM. Select your boot device priority by SCSI. Select your boot device priority by NETWORK. Select your boot device priority by BIOS Boot Specification-0. Select your boot device priority by BIOS Boot Specification-1. Select your boot device priority by BIOS Boot Specification-2. Select your boot device priority by BIOS Boot Specification-3. 32 BIOS Setup USB FDD USB CDROM USB HDD USB LS120 USB ZIP/MO Disabled IDE-0~3 Select your boot device priority by USB FDD. Select your boot device priority by USB CDROM. Select your boot device priority by USB HDD. Select your boot device priority by USB LS120. Select your boot device priority by USB ZIP/MO. Disable this function. Select your boot device priority by IDE-0~3.

Floppy Drive Seek During POST, BIOS will determine the floppy disk drive installed is 40 or 80 tracks. 360 K type is 40 tracks 720 K, 1.2 M and 1.44 M are all 80 tracks. Enabled BIOS searches for floppy disk drive to determine it is 40 or 80 tracks. Note that BIOS can not tell from 720 K, 1.2 M or 1.44 M drive type as they are all 80tracks. Disabled BIOS will not search for the type of floppy disk drive by track number. Note that there will not be any warning message if the drive installed is 360 K.

(Default value) Boot Up NumLock On Off Keypad is number keys. (Default value) Keypad is arrow keys. Password Check Please refer to the detail on P.52 Always Setup The user must enter correct password in order to access the system and/or BIOS Setup. The user must enter correct password in order to access BIOS setup utility. (Default Value) HDD S.M.A.R.T Capability Enabled Disabled Enable HDD S.

M.A.R.T. Capability.

Disable HDD S.M.A.R.T.

Capability. (Default value) 33 GA-8ITXE Motherboard Chipset Features Setup AMIBIOS SETUP - CHIPSET FEATURES SETUP (C) 2001 American Megatrends, Inc. All Rights Reserved Front Side Bus Clock (MHz) CPU Frequency Ratio RDRAM Bus Frequency Memory ECC Mode Graphics Aperture Size ICH Delayed Transaction DMA Collection Buffer : By Hardware : 8.0x(Safe) : Auto : Disabled : 64MB : Disabled : Enabled ESC: Quit F1 : Help F6 : Fail-Safe F7 : Optimized Figure 4: Chipset Features Setup : Select Item PU/PD/+/- : Modify F8: Flash Utility F5 : Old Values (Shift)F3: Select Language Front Side Bus Clock (MHz) When set to "By Hardware", the FSB clock frequency will be set to 100MHz. You may also set FSB clock by BIOS. For power End-User use only. By Hardware 100.00 103.00 105.00 108.

00 110.00 112.00 115.00 118.00 120.00 133.33 Set Front Side Bus Clock (MHz) to By Hardware. (Default Value) Set Front Side Bus Clock (MHz) to 100.00. Set Front Side Bus Clock (MHz) to 103.

00. Set Front Side Bus Clock (MHz) to 105.00. Set Front Side Bus Clock (MHz) to 108.00.

Set Front Side Bus Clock (MHz) to 110.00. Set Front Side Bus Clock (MHz) to 112.00. Set Front Side Bus Clock (MHz) to 115.

00. Set Front Side Bus Clock (MHz) to 118.00. Set Front Side Bus Clock (MHz) to 120.00. Set Front Side Bus Clock (MHz) to 133.33. 34 BIOS Setup CPU Frequency Ratio 8.0x, 10.0x~24.

0x (Default Value: 8.0x) RDRAM Bus Frequency Auto 400MHz 300MHz Set RDRAM Bus Frequency automatically. (Default Value) Set RDRAM Bus Frequency to 400MHz. (If the current RDRAM is supported) Set RDRAM Bus Frequency to 300MHz. (If the current RDRAM is supported) Memory ECC Mode Enabled Disabled Enable Memory Data Check ECC Mode. Disable this function. (Default Value) Graphics Aperture 4 MB 8 MB 16 MB 32 MB 64 MB 128 MB 256 MB Display Graphics Aperture Size is 4MB. Display Graphics Aperture Size is 8MB. Display Graphics Aperture Size is 16MB. Display Graphics Aperture Size is 32MB.

Display Graphics Aperture Size is 64MB. (Default Value) Display Graphics Aperture Size is 128MB. Display Graphics Aperture Size is 256MB. ICH Delayed Transaction Enabled Disabled Enable PCI 2.1 features including release and delayed transaction for the chipset.

Disable this function. (Default Value) DMA Collection Buffer Enabled Disabled Enable DMA collection buffer for LPC I/F and PC/PCI DMA.(Default Value) Disable this function. 35 GA-8ITXE Motherboard Power Management Setup AMIBIOS SETUP - POWER MANAGEMENT SETUP (C) 2001 American Megatrends, Inc. All Rights Reserved ACPI Sleep Type USB Dev Wakeup From S3 Suspend Time Out (Minute) Throttle Slow Clock Ratio Soft-Off by Power Button System After AC Back ModemRingOn/WakeOnLan PME Event Wake Up Resume by RTC Alarm RTC Alarm Date RTC Alarm Hour RTC Alarm Minute RTC Alarm Second KB & PS/2 Mouse Access FDC/LPT/COM Ports Access Pri.

Master IDE Access Pri. Slave IDE Access Sec. Master IDE Access Sec. Slave IDE Access PIRQ[A] IRQ Active : S1/POS : Disabled : Disabled : 50.0% : Instant Off : Off : Enabled : Enabled : Disabled : Every Day : 00 : 00 : 00 : Monitor : Monitor : Monitor : Ignore : Monitor : Ignore : Ignore ESC: Quit F1 : Help F6 : Fail-Safe F7 : Optimized : Select Item PU/PD/+/- : Modify F8: Flash Utility PIRQ[B] IRQ Active : Ignore PIRQ[C] IRQ Active : Ignore PIRQ[D] IRQ Active : Ignore F5 : Old Values (Shift)F3: Select Language Figure 5: Power Management Setup 36 BIOS Setup ACPI Sleep Type S1/POS S3/STR Set ACPI Sleep Type to S1/POS (Power On Suspend). (Default value) Set ACPI Sleep Type to S3/STR (Suspend To RAM). USB Dev Wakeup From S3 Enabled Disabled Enable USB Device Wakeup From S3. Disable USB Device Wakeup From S3. (Default value) Suspend Time Out Disabled 1Minute ~ 60 Minute Disable the timer to enter suspend mode. (Default Value) Set the timer to enter suspend mode.

Throttle Slow Clock Ratio 12.5%/25.0%/37.5%/50.0% (Default Value)/62.5%/75.0%/87.5% Soft-off by Power Button Instant off Suspend The user press the power button once, he can turn off the system. (Default Value) The user press the power button once, then he can enter suspend mode. System after AC Back Off On Last State When AC-power back to the system, the system will be in "Off" state.

(Default Value) When AC-power back to the system, the system will be in "On" state. When AC-power back to the system, the system will return to the Last state before AC-power off. ModemRingOn/WakeOnLan Disabled Enabled Disable Modem Ring On / Wake On LAN function. The modem ring / LAN wake up will bring the system out of soft-off or suspend state if this option is set "Enabled". (Default Value) 37 GA-8ITXE Motherboard PME Event Wake up Disabled Enabled Disable PME event wake up function.

The PME event wake up will bring the system out of soft-off or suspend state if this option is set "Enabled". (Default Value) Resume by RTC Alarm You can set "Resume by RTC Alarm " item to enabled and key in Data/time to power on system. Disabled Enabled Disable this function. @@@@(Default Value) Ignore FDC/LPT/COM Ports Access. Pri.

Master IDE Access Monitor Ignore Monitor Primary Master IDE Access. (Default Value) Ignore Primary Master IDE Access. Pri.

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slave IDE Access Monitor Ignore Monitor Primary slaveIDE Access. Ignore Primary slave IDE Access. (Default Value) 38 BIOS Setup Sec. @@(Default Value) Ignore Secondary Master IDE Access. Sec. slave IDE Access Monitor Ignore Monitor Secondary slave IDE Access. @@Ignore PIRQ[A] IRQ Active.

@@Ignore PIRQ[B] IRQ Active. @@Ignore PIRQ[C] IRQ Active. @@Ignore PIRQ[D] IRQ Active.
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@All Rights Reserved OnBoard IDE IDE1 Conductor Cable IDE2 Conductor Cable OnBoard FDC OnBoard Serial Port A OnBoard Serial Port B Serial Port B Mode IR Duplex Mode OnBoard CIR Port CIR IRQ Select OnBoard Parallel Port Parallel Port Mode EPP Version Parallel Port IRQ Parallel Port DMA OnBoard Midi Port Midi IRQ Select OnBoard Game Port Mouse PowerOn Function Keyboard PowerOn Function : Both : Auto : Auto : Auto : Auto : Auto : Normal : Half Duplex : Disabled : 10 : Auto : ECP : N/A : Auto : Auto : Disabled : 10 : 200 : Disabled : Disabled ESC: Quit F1 : Help F6 : Fail-Safe F7 : Optimized : Select Item PU/PD/+/- : Modify F8: Flash Utility Specific Key for PowerOn USB Function USB Legacy Support AC97 Audio AC97 Modem : N/A : Enabled : Disabled : Auto : Auto F5 : Old Values (Shift)F3: Select Language Figure 9: Integrated Peripherals 44 BIOS Setup OnBoard IDE Disabled Both Primary Secondary Disable OnBoard IDE. Both Primary & Secondary IDE channel will be enabled. (Default Value) Only Primary IDE channel is enabled. Only Secondary IDE channel is enabled. IDE1 Conductor Cable Auto ATA66/100 ATA33 Will be automatically detected by BIOS. (Default Value) Set IDE1 Conductor Cable to ATA66/100 (Please make sure your IDE device and cable is compatible with ATA66/100). Set IDE1 Conductor Cable to ATA33 (Please make sure your IDE device and cable is compatible with ATA33).
IDE2 Conductor Cable Auto ATA66/100 ATA33 Will be automatically detected by BIOS. (Default Value) Set IDE2 Conductor Cable to ATA66/100 (Please make sure your IDE device and cable is compatible with ATA66/100). Set IDE2 Conductor Cable to ATA33 (Please make sure your IDE device and cable is compatible with ATA33). OnBoard FDC Disabled Enabled Auto Disable this function. Enable on board floppy disk controller.
Set the floppy disk controller automatically. (Default Value) Onboard Serial Port A Auto 3F8/COM1 2F8/COM2 3E8/COM3 2E8/COM4 Disabled BIOS will automatically setup the port A address. (Default Value) Enable onboard Serial port A and address is 3F8. Enable onboard Serial port A and address is 2F8. Enable onboard Serial port A and address is 3E8.
Enable onboard Serial port A and address is 2E8. Disable onboard Serial port A. 45 GA-8ITXE Motherboard Onboard Serial Port B Auto 3F8/COM1 2F8/COM2 3E8/COM3 2E8/COM4 Disabled BIOS will automatically setup the port B address. (Default Value) Enable onboard Serial port B and address is 3F8. Enable onboard Serial port B and address is 2F8. Enable onboard Serial port B and address is 3E8. Enable onboard Serial port B and address is 2E8. Disable onboard Serial port B. Serial Port B Mode (This item allows you to determine which Infra Red(IR) function of Onboard I/O chip) ASKIR IrDa Normal Set onboard I/O chip UART to ASKIR Mode. Set onboard I/O chip UART to IrDa Mode.

Set onboard I/O chip UART to Normal Mode. (Default Value) IR Duplex Mode Half Duplex Full Duplex IR Function Duplex Half. (Default Value) IR Function Duplex Full. OnBoard CIR Port Disabled Enabled Disable this function. (Default Value) Enable Onboard CIR port. CIR IRQ Select IRQ 3 / 4 / 9 / 10 (Default Value) / 11 Onboard Parallel Port 378 278 3BC Auto Disabled Set On Board LPT port and address to 378. Set On Board LPT port and address to 278. Set On Board LPT port and address to 3BC. Set On Board LPT port Automatically. (Default Value) Disable onboard Serial port A.
46 BIOS Setup Parallel Port Mode EPP ECP Normal Using Parallel port as Enhanced Parallel Port. Using Parallel port as Extended Capabilities Port. (Default Value) Normal Operation. EPP Version N/A 1.9 1.
7 Disable this function. (Default Value) Compliant with EPP 1.9 version. Compliant with EPP 1.7 version.
Parallel Port IRQ 7 5 Auto Set Parallel Port IRQ to 7. Set Parallel Port IRQ to 5. Set Parallel Port IRQ automatically. (Default Value) Parallel Port DMA 3 1 0 Auto Set Parallel Port DMA to 3. Set Parallel Port DMA to 1. Set Parallel Port DMA to 0. Set Parallel Port DMA automatically. (Default Value) OnBoard Midi Port Disabled 300 330 292 290 Disable onboard Midi Port. (Default Value) Set onboard Midi Port to 300. Set onboard Midi Port to 330.

Set onboard Midi Port to 292. Set onboard Midi Port to 290. Midi IRQ Select IRQ 5 / 7 / 9 / 10 (Default Value) 47 GA-8ITXE Motherboard OnBoard Game Port Disabled 200 208 Disable OnBoard Game Port. Set OnBoard Game Port to 200. (Default Value) Set OnBoard Game Port to 208. Mouse PowerOn Function Disabled Right -button Left-button Disable this function. (Default Value) Click right-button to power on the system. Click Left-button to power on the system. Keyboard PowerOn Function Disabled Specific key Power Key Disable this function. (Default Value) Set password key to power on by keyboard. Set "Power key" to power on the system. Specific Key for PowerOn N/A Password Disable this function. (Default Value) Input password (from 1 to 5 characters) and press Enter to set the Key board Power On Password. USB Function Enabled Disabled Enable USB Function. (Default Value) Disable this function.
USB Legacy Support Enabled Disabled Enable USB Legacy Support. Disable this function.(Default Value) 48 BIOS Setup AC97 Audio Auto Disabled Enable onboard AC'97 audio function. (Default Value) Disable this function. AC97 Modem Auto BIOS will search MC97 Codec (AMR Modem Card).
If found, MC97 function will be enabled. If no MC97 Codec found, MC97 function will be disabled. (Default Value) Disabled Disable this function. 49 GA-8ITXE Motherboard Hardware Monitor & MISC Setup AMIBIOS SETUP - HARDWARE MONITOR & MISC SETUP (C) 2001 American Megatrends, Inc. All Rights Reserved CPU Temp. Alarm CPU Fan Fail Alarm Power Fan Fail Alarm System Fan Fail Alarm Current CPU Temp. Current System Temp. Current CPU Fan Speed Current System Fan Speed Current Power Fan Speed CPU VID Vcore Vcc18 Vio +5.000V +12.000V Battery +5V SB :Disabled :No :No :No : 35°C/ 95°F : 33°C/ 91°F : 5273 RPM : 0 RPM : 0 RPM : 1.

700 V : +1.632V : +1.840V : +3.344V : +5.080V : +11.840V : +3.020V : +4.972V ESC: Quit F1 : Help F6 : Fail-Safe F7 : Optimized Figure 10: Hardware Monitor & MISC Setup : Select Item PU/PD/+/- : Modify F8: Flash Utility F5 : Old Values (Shift)F3: Select Language CPU Temp. Alarm 60°C / 140°F 70°C / 158°F 80°C / 176°F 90°C / 194°F Disabled Monitor CPU Temp. at 60°C / 140°F.
Monitor CPU Temp. at 70°C / 158°F. Monitor CPU Temp. at 80°C / 176°F. Monitor CPU Temp. at 90°C / 194°F. Disable this function.

(Default Value) 50 BIOS Setup Fan Fail Alarm CPU / Power / System No Yes Fan Fail Alarm Function Disable. (Default Value) Fan Fail Alarm Function Enable. Current CPU Temp.

Detect CPU Temp. automatically. Current System Temp. Detect System Temp. automatically. Current CPU Fan / System Fan / Power Fan Speed (RPM) Detect Fan speed status automatically. Current CPU VID / Vcore / Vcc18 / Vio /+12 / +5V / Battery / +5VSB Detect system's voltage status automatically. 51 GA-8ITXE Motherboard Set Supervisor / User Password When you select this function, the following message will appear at the center of the screen to assist you in creating a password. AMIBIOS SIMPLE SETUP UTILITY - VERSION 2.00 (C) 2001 American Megatrends, Inc.

All Rights Reserved STANDARD CMOS SETUP BIOS FEATURES SETUP CHIPSET FEATURES SETUP POWER MANAGEMENT SETUP INTEGRATED PERIPHERALS HARDWARE MONITOR & MISC SETUP SUPERVISOR PASSWORD USER PASSWORD PNP / PCI CONFIGURATIONEnter new supervisor password: DETECTION IDE HDD AUTO LOAD FAIL-SAFE DEFAULTS LOAD OPTIMIZED DEFAULTS ESC: Quit F6: Fail-Safe Values Current Language: English Change / Set / Disable Password Figure 11: Password Setting : Select Item SAVE & EXIT SETUP EXIT WITHOUT SAVING (Shift)F3 : Select Language F8: Flash Utility F5: Old Values F10:Save & Exit F7: Optimized Values Type the password, up to six characters, and press <Enter>. You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <Esc> to abort the selection and not enter a password. To disable password, just press <Enter> when you are prompted to enter password. A message "PASSWORD DISABLED" will appear to confirm the password being disabled. Once the password is disabled, the system will boot and you can enter Setup freely. The BIOS Setup program allows you to specify two separate passwords: a SUPERVISOR PASS WORD and a USER PASSWORD. When disabled, anyone may access all BIOS Setup program function. When enabled, the Supervisor password is required for entering the BIOS Setup program and having full configuration fields, the User password is required to access only basic items.

If you select "Always" at "Password Check" in BIOS Features Setup Menu, you will be prompted for the password every time the system is rebooted or any time you try to enter Setup Menu. If you select "Setup" at "Password Check" in BIOS Features Setup Menu, you will be prompted only when you try to enter Setup. 52 BIOS Setup IDE HDD Auto Detection AMIBIOS SETUP - STANDARD CMOS SETUP (C) 2001 American Megatrends, Inc. All Rights Reserved System Date: Aug 01 2001 Wed System Time: 14:44:35 TYPE SIZE CYLS HEAD PRECOMP LANDZ SECTOR MODE Pri Master : Auto Pri Slave Sec Slave : Auto : Auto Base Memory : 640 Kb Other Memory : 384 Kb Extended Memory : 255 Mb Virus Protection : Disabled Date is standard format Month : Jan - Dec Day Year : 01- 31 : 1990 - 2099 Total Memory : 256 Mb ESC : Exit : Select Item PU / PD / + / - :Modify (Shift) F3 : Select Language Figure 12: IDE HDD Auto Detection Sec Master : Auto Floppy Drive A : 1.44 MB 31/2 Floppy Drive B : Not Installed Type "Y" will accept the H.

D.D. parameter reported by BIOS. Type "N" will keep the old H.D.

D. parameter setup. If the hard disk cylinder number is over 1024, then the user can select LBA mode or LARGER mode for DOS partition larger than 528 MB. 53 GA-8ITXE Motherboard Save & Exit Setup AMIBIOS SIMPLE SETUP UTILITY - VERSION 2.00 (C) 2001 American Megatrends, Inc. All Rights Reserved STANDARD CMOS SETUP BIOS FEATURES SETUP CHIPSET FEATURES SETUP POWER MANAGEMENT SETUP INTEGRATED PERIPHERALS HARDWARE MONITOR & MISC SETUP SUPERVISOR PASSWORD USER PASSWORD Save to CMOS and EXIT HDD AUTO DETECTION PNP / PCI CONFIGURATION IDE (Y/N)? Y LOAD FAIL-SAFE DEFAULTS LOAD OPTIMIZED DEFAULTS ESC: Quit F6: Fail-Safe Values Current Language: English Save Data to CMOS & Exit SETUP Figure 13: Save & Exit Setup : Select Item SAVE & EXIT SETUP EXIT WITHOUT SAVING (Shift)F3 : Select Language F8: Flash Utility F5: Old Values F10:Save & Exit F7: Optimized Values Type "Y" will quit the Setup Utility and save the user setup value to RTC CMOS. Type "N" will return to Setup Utility. 54 BIOS Setup Exit Without Saving AMIBIOS SIMPLE SETUP UTILITY - VERSION 2.00 (C) 2001 American Megatrends, Inc. All Rights Reserved STANDARD CMOS SETUP BIOS FEATURES SETUP CHIPSET FEATURES SETUP POWER MANAGEMENT SETUP PNP / PCI CONFIGURATION LOAD FAIL-SAFE DEFAULTS LOAD OPTIMIZED DEFAULTS ESC: Quit F6: Fail-Safe Values Current Language: English Abandon all Datas & Exit SETUP Figure 14: Exit Without Saving : Select Item INTEGRATED PERIPHERALS HARDWARE MONITOR & MISC SETUP SUPERVISOR PASSWORD USER PASSWORD Quit Without Saving (Y/N)?AUTO DETECTION IDE HDD N SAVE & EXIT SETUP EXIT WITHOUT SAVING (Shift)F3 : Select Language F8: Flash Utility F5: Old Values F10:Save & Exit F7: Optimized Values Type "Y" will quit the Setup Utility without saving to RTC CMOS.

Type "N" will return to Setup Utility. 55 GA-8ITXE Motherboard Revision History Chapter 4 Technical Reference Performance List The following performance data list is the testing results of some popular benchmark testing programs. These data are just referred by users, and there is no responsibility for different testing data values gotten by users. (The different Hardware & Software configuration will result in different benchmark testing results.) CPU DRAM CACHE SIZE DISPLAY STORAGE O.S DRIVER Intel Pentuim® 4 2GHz processor (128 x 2) MB RAM (SAMSUNG MR16R0828AN1-CK7) 256KB included in CPU Gigabyte GV-GF3000D Onboard IDE (Quantum AS30000AT 30GB) Windows 2000+ SP2 Display Driver at 1024 x 768 x 64K colors x 75Hz. IUCD ver. 1.81 For Intel chipset M.B.

Intel Pentium® 4 2GHz (100x20) 2008.88 100.44 3900/(1046/2450) 7970/9856 20759 1406/1460 14.97 25.92 4.

048 13.43 17.45 49.18 236.2 179.

*0 5962 Processor WCPUID 3.0C Clock Frequency Internal MHz External MHz SiSoft Sandra 2001 CPU/FPU Benchmark CPU Multi-Media Benchmark Drives Benchmark Memory Benchmark SPECviewperf 6.12 Pro CDRS-03 MedMCAD-01 Light-04 DX-06 DRV-07 Awadvs-04 QUAKE III Arena 640*480*16 Demo1 1024*768*32 Demo2 3D Mark 2001 1.0 56 Technical Reference Block Diagram Pentium 4 Socket 478 CPU AGP 4X AGPCLK (66MHz) System Bus 100MHz RDRAM Intel 82850 5 PCI 300/400MHz MCH66 (66MHz) MCHCLK+/- (100MHz) 66 MHz 33 MHz 14.318 MHz 48 MHz FWH SST49LF004A Intel ICH 2 LPC BUS AC97 Link CPUCLK+/- (100MHz) Game Port Winbond W83627HF Floppy LPT Port PCICLK (33MHz) AC97 CODEC 48 MHz 4 USB Ports ATA33/66/100 33 MHz IDE Channels PS/2 KB/Mouse COM Ports CNR LINE-OUT MIC LINE-IN PCICLK (33MHz) USBCLK (48MHz) 14.318 MHz 33 MHz ICS 9250AF-37 MCH66 (66MHz) CPUCLK+/- (100MHz) AGPCLK (66MHz) MCHCLK+/- (100MHz) ICH3V66 (66MHz) 57 GA-8ITXE Motherboard Q-Flash Utility Introduction A.*

What is Q-Flash Utility? Q-Flash utility is a pre-O.S. BIOS flash utility enables users to update its BIOS within BIOS mode, no more fooling around any OS.

B.

How to use Q-Flash? a. After power on the computer, pressing <Del> immediately during POST (Power On Self Test) it will allow you to enter AMI BIOS CMOS SETUP, then press <F8> to enter Flash utility. AMIBIOS SIMPLE SETUP UTILITY - VERSION 2.00 (C) 2001 American Megatrends, Inc. All Rights Reserved STANDARD CMOS SETUP BIOS FEATURES SETUP CHIPSET FEATURES SETUP POWER MANAGEMENT SETUP PNP / PCI CONFIGURATION LOAD FAIL-SAFE DEFAULTS LOAD OPTIMIZED DEFAULTS ESC: Quit F6: Fail-Safe Values Current Language: English Time, Date , Hard Disk Type... : Select Item INTEGRATED PERIPHERALS HARDWARE MONITOR & MISC SETUP SUPERVISOR PASSWORD USER PASSWORD IDE HDD AUTO DETECTION SAVE & EXIT SETUP EXIT WITHOUT SAVING (Shift)F3 : Select Language F8: Flash Utility F5: Old Values F10:Save & Exit F7: Optimized Values b. AMI BIOS Flash Utility AMI BIOS Flash Utility V1.02 Boot From.

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.........Main BIOS Main ROM Type.

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SST 49LF004A Load BIOS from Floppy Enter: Run : Move ESC: Reset 58 F10: Power Off Technical Reference Load BIOS From Floppy In the A:drive, insert the "BIOS" diskette, then Press Enter to Run. Input BIOS file name in the text box. Press "Enter". Load XXXX.XX Where XXX.

XX is name of the BIOS file. Are you sure to COPY BIOS? [Enter] to Continue Or [Esc] to abort.. !! COPY BIOS Completed -Pass !! Please press any key to continue Congratulation! You have completed the flashed and now can restart system. 59 GA-8ITXE Motherboard @ BIOS Introduction Gigabyte announces @ BIOS Windows BIOS live update utility Have you ever updated BIOS by yourself? Or like many other people, you just know what BIOS is, but always hesitate to update it? Because you think updating newest BIOS is unnecessary and actually you don't know how to update it.

Maybe not like others, you are very experienced in BIOS updating and spend quite a lot of time to do it. But of course you don't like to do it too much. First, download different BIOS from website and then switch the operating system to DOS mode. Secondly, use different flash utility to update BIOS. The above process is not a interesting job. Besides, always be carefully to store the BIOS source code correctly in your disks as if you update the wrong BIOS, it will be a nightmare. Certainly, you wonder why motherboard vendors could not just do something right to save your time and effort and save you from the lousy BIOS updating work? Here it comes! Now Gigabyte announces @BIOS--the first Windows BIOS live update utility. This is a smart BIOS update software. It could help you to download the BIOS from internetand update it. Not like the other BIOS update software, it's a Windows utility.

With the help of "@BIOS', BIOS updating is no more than a click. Besides, no matter which mainboard you are using, if it's a Gigabyte's product*, @BIOS help you to maintain the BIOS. This utility could detect your correct mainboard model and help you to choose the BIOS accordingly. It then downloads the BIOS from the nearest Gigabyte ftp site automatically. There are several different choices; you could use "Internet Update" to download and update your BIOS directly. Or you may want to keep a backup for your current BIOS, just choose "Save Current BIOS" to save it first. You make a wise choice to use Gigabyte, and @BIOS update your BIOS smartly. You are now worry free from updating wrong BIOS, and capable to maintain and manage your BIOS easily. Again, Gigabyte's innovative product erects a milestone in mainboard industries. For such a wonderful software, how much it costs? Impossible! It's free! Now, if you buy a Gigabyte's motherboard, you could find this amazing software in the attached driver CD.

But please remember, connected to internet at first, then you could have a internet BIOS update from your Gigabyte @BIOS. 60 Technical Reference Easy TuneIIITM Introduction Gigabyte announces EasyTuneIII Windows overdrive utility "Overdrive" might be one of the most common issues in computer field. But have many users ever tried it? The answer is probably "no". Because "overdrive" is thought to be very difficult and includes a lot of technical know-how, sometimes "overdrive" is even considered as special skills found only in some enthusiasts. But as to the experts in "overdrive", what's the truth? They may spend quite a lot of time and money to study, try and use many different hardware and software tools to do "overdrive".

And even with these technologies, they still learn that it's quite a risk because the safety and stability of an "overdrive" system is unknown. Now everything is different because of a Windows overdrive utility EasyTuneIII--announced by Gigabyte. This utility has totally changed the gaming rule of "overdrive". This is the first overdrive utility suitable for both normal and power users. Users can choose either "Easy Mode" or "Advanced Mode" to run "overdrive" at their convenience.

For users who choose "Easy Mode", they just need to click "Auto Optimize" to have auto and immediate CPU overclocking. This software will then overdrive CPU speed automatically with the result being shown in the control panel. If someone prefers to "overdrive" by oneself, there is also another choice. Click "Advanced Mode" to enjoy "sport drive" class overclocking. In "Advanced Mode", one can change the system bus speed in small increments to get ultimate system performance. And no matter which mainboard is used, if it's a Gigabyte's product*, EasyTuneIII helps to perform the best of system. Besides, different from other traditional over-clocking methods, EasyTuneIII doesn't require users to change neither BIOS nor hardware switch/ jumper setting; on the other hand, they can do "overdrive" at only one click. Therefore, this is a safer way for "overdrive" as nothing is changed on software or hardware. If user runs EasyTuneIII over system's limitation, the biggest lost is only to restart the computer again and the side effect is then well controlled. Moreover, if one well-performed system speed been tested in EasyTuneIII, user can "Save" this bus speed and "Load" it in next time.

Obviously, Gigabyte EasyTuneIII has already turned the "overdrive" technology toward to a newer generation. This wonderful software is now free bundled in Gigabyte motherboard attached driver CD. Users may make a test drive of "EasyTuneIII" to find out more amazing features by themselves. 61 GA-8ITXE Motherboard Revision History Chapter 5 Appendix Picture below are shown in Windows ME (IUCD driver version 1.

81) Appendix A: Intel 850 Chipset Driver Installation A. Windows 9x/ME/2000/XP INF Update Utility: Insert the driver CD-title that came with your motherboard into your CD-ROM driver, the driver CD-title will auto start and show the installation guide. If not, please double click the CD-ROM device icon in "My computer", and execute the setup.exe. 1.Click "Windows 9x/ME/2000/XP INF Update Utility" item.

(1) (2) 3.Click "Yes". (4) 2.Click "Next". (3) 62 Appendix 4.

Click "Next". (5) (6) 5.Click "Finish" to restart computer. (7) 63 GA-8ITXE Motherboard B. Intel Ultra ATA Storage Driver: Insert the driver CD-title that came with your motherboard into your CD-ROM driver, the driver CD-title will auto start and show the installation guide.

If not, please double click the CD-ROM device icon in "My computer", and execute the setup.exe. 1.Click "Intel Ultra ATA Storage Driver" item. (1) (2) 2.Click "Next". 3.Click "Yes". (3) (4) 4.Click "Next".

5.Click "Next". (5) 64 (6) Appendix 6.Click "Finish" to restart computer. (7) (8) 65 GA-8ITXE Motherboard Appendix B: RealTek AC'97 Audio Driver Revision History Insert the driver CD-title that came with your motherboard into your CD-ROM driver, the driver CD-title will auto start and show the installation guide. If not, please double click the CD-ROM device icon in "My computer", and execute the setup.exe. 1.Click "RealTek AC'97 Audio Driver" item. (2) (1) 2.

Click "Next". (3) (4) 3.Click "Finish" to restart computer. (5) 66 Appendix Appendix C: EasyTuneIII Utilities Installation Revision History Insert the driver CD-title that came with your motherboard into your CD-ROM driver, the driver CD-title will auto start and show the installation guide. If not, please double click the CD-ROM device icon in "My computer", and execute the setup.

exe. Press "Tools" icon. 2.Click "Easy Tune III Setup". 1.

Click "Gigabyte Utilities". (1) (2) 4. Please enter your name and company name, then click "Next". (4) 3.Click "Next". (3) 67 GA-8ITXE Motherboard 5.Click "Next". 6.Click "Next". (5) (6) 7.

Click "Finish" to restart computer. (7) (8) 68 Appendix Appendix D: Issues To Beware Of When Installing CNR Please use standard CNR card like the one in order to avoid mechanical problem. (See Figure A) Figure A: Standard CNR Card 69 GA-8ITXE Motherboard Appendix E: BIOS Flash Procedure BIOS update procedure: If your OS is Win9X, we recommend that you used Gigabyte @BIOSTM Program to flash BIOS. Press "Tools" icon. 2.Click "@BIOS Writer Utility v1.08e". 1.Click "Gigabyte Utilities". (1) (2) Click " ".

Click here. (3) Methods and steps: I. Update BIOS through Internet a. Click "Internet Update" icon b. Click "Update New BIOS" icon c.

Select @BIOSTM sever ("Gigabyte @BIOSTM sever 1 in Taiwan" and "Gigabyte @BIOSTM sever 2 in Taiwan" are available for now, the others will be completedsoon) d. Select the exact model name on your motherboard e. System will automatically download and update the BIOS. 70 Appendix II. Update BIOS NOT through Internet: a.

Do not click "Internet Update" icon b. Click "Update New BIOS" c. Please select "All Files" in dialog box while opening the old file. d. Please search for BIOS unzip file, downloading from internet or any other methods (such as: 8ITXE.F1). e. Complete update process following the instruction. III. Save BIOS In the very beginning, there is "Save Current BIOS" icon shown in dialog box.

It means to save the current BIOS version. IV. Check out supported motherboard and Flash ROM: In the very beginning, there is "About this program" icon shown in dialog box. It can help you check out which kind of motherboard and which brand of Flash ROM are supported. Note: a. In method I, if it shows two or more motherboard's model names to be selected, please make sure your motherboard's model name again. Selecting wrong model name will cause the system unbooted. b. In method II, be sure that motherboard's model name in BIOS unzip file are the same as your motherboard's. Otherwise, your system won't boot.

c. In method I, if the BIOS file you need cannot be found in @BIOSTM server, please go onto Gigabyte's web site for downloading and updating it according to method II. d. Please note that any interruption during updating will cause system unbooted 71 GA-8ITXE Motherboard We use GA-7VTX motherboard and Flash841 BIOS flash utility as example. Please flash the BIOS according to the following procedures if you are now under the DOS mode.

Flash BIOS Procedure: STEP 1: (1) Please make sure you have set "Auto" for BIOS Feature Setup (BIOS Flash Protection). For more detail please refer to page 32. (2) Please make sure your system has installed the extraction utility such as winzip or pkunzip. Firstly you have to install the extraction utility such as winzip or pkunzip for unzip the files. Both of these utilities are available on many shareware download pages like http://www.

shareware.cnet. com STEP 2: Make a DOS boot diskette. (See example: Windows 98 O.S.) Beware: Windows ME/2000 are not allowed to make a DOS boot diskette. (1) With an available floppy disk in the floppy drive. Please leave the diskette "UN-write protected" type. Double click the "My Computer" icon from Desktop, then click "3.5 diskette (A)" and right click to select "Format (M)" 72 Appendix (2) Select the "Quick (erase)" for Format Type, and pick both "Display summary when finished" and "Copy system files", after that press "Start".

That will format the floppy and transfer the needed system files to it. Beware: This procedure will erase all the prior data on that floppy, so please proceed accordingly. (3) After the floppy has been formatted completely, please press "Close". 73 GA-8ITXE Motherboard STEP 3: Download BIOS and BIOS utility program. (1) Please go to Gigabyte website http://www.gigabyte.com.tw/index.html, and click "Support". (2) From Support zone, click the "Motherboards BIOS & Drivers".

74 Appendix (3) We use GA-7VTX motherboard as example. Please select GA-7VTX by Model or Chipset optional menu to obtain BIOS flash files. (4) Select an appropriate BIOS version (For example: F4), and click to download the file. It will pop up a file download screen, then select the "Open this file from its current location" and press "OK". 75 GA-8ITXE Motherboard (5) At this time the screen shows the following picture, please click "Extract" button to unzip the files.