

## TZ77B Motherboard



- Support the Intel 3rd and 2nd generation Core i7 and Core i5 processors in the 1155 package
- Intel Z77 single chip architecture
- Support 4-DIMM DDR3-2600(OC)/2400(OC)/2133(OC)/1866(OC)/1600/1333 up to 32G maximum capacity
- Support SATA 6Gb/s 2X speed than current SATA 3G
- Support Intel Smart Response Technology
- Support USB 3.0
- 100% X.D.C solid capacitor
- BIOSSTAR G.P.U (Green Power Utility) Technology for Energy Saving
- BIOSSTAR Toverclocker utility

## TZ77B Specification

CPU SUPPORT	Intel® Core™ i7 LGA 1155 Processor Intel® Core™ i5 LGA 1155 Processor Intel® Core™ i3 LGA 1155 Processor Intel® K-Series unlocked CPU supported Maximum CPU TDP (Thermal Design Power) : 95Watt
MEMORY	Support Dual Channel DDR3 2600(OC)/2400(OC)/2133(OC)/1866(OC)/1600/1333/1066 MHz 4 x DDR3 DIMM Memory Slot Max. Supports up to 32GB Memory
INTEGRATED VIDEO	By CPU model Supports DX11 Supports HDCP
STORAGE	2 x SATA III Connector 4 x SATA II Connector Support SATA RAID: 0,1,5,10 Support Intel Smart Response Technology
LAN	Realtek RTL8111E - 10/100/1000 Controller
AUDIO CODEC	Realtek ALC892 8-Channel Blu-ray Audio

USB	<ul style="list-style-type: none"> <li>2 x USB 3.0 Port</li> <li>1 x USB 3.0 Header</li> <li>4 x USB 2.0 Port</li> <li>2 x USB 2.0 Header</li> <li>Intel USB3.0 only support Win7 or later version</li> </ul>
EXPANSION SLOT	<ul style="list-style-type: none"> <li>1 x PCI-E 3.0 x16 Slot(supported by Core i5 -3xxx / Core i7 3xxx CPU)</li> <li>1 x PCI-E 2.0 x16 Slot(x4)</li> <li>2 x PCI-E 2.0 x1 Slot</li> <li>2 x PCI Slot</li> </ul>
REAR I/O	<ul style="list-style-type: none"> <li>1 x PS/2 Keyboard</li> <li>2 x USB 3.0 Port</li> <li>4 x USB 2.0 Port</li> <li>1 x HDMI Connector</li> <li>1 x DVI Connector</li> <li>1 x VGA Port</li> <li>1 x LAN Port</li> <li>6 x Audio Jacks</li> </ul>
INTERNAL I/O	<ul style="list-style-type: none"> <li>1 x USB 3.0 Header</li> <li>2 x USB 2.0 Header</li> <li>2 x SATA III Connector (6Gb/s)</li> <li>4 x SATA II Connector (3Gb/s )</li> <li>1 x Front Audio Header</li> <li>1 x Front Panel Header</li> <li>1 x S/PDIF-Out Header</li> <li>1 x CPU Fan Connector</li> <li>2 x System Fan Connector</li> <li>1 x CIR Header</li> <li>1 x COM Port Header</li> </ul>
H/W MONITORING	<ul style="list-style-type: none"> <li>CPU / System Temperature Monitoring</li> <li>CPU / System Fan Monitoring</li> <li>Smart / Manual CPU Fan Control</li> <li>System Voltage Monitoring</li> </ul>
DIMENSION	ATX Form Factor Dimension: 29.5 cm x 23 cm ( W x L )
OS SUPPORT	Supports Windows XP / Vista / 7 / 8
BUNDLE SOFTWARE	<ul style="list-style-type: none"> <li>BIO-Remote2</li> <li>BIO-Remote</li> </ul>
ACCESSORIES	<ul style="list-style-type: none"> <li>4 x SATA Cable</li> <li>1 x I/O Shield</li> <li>1 x DVD Driver</li> <li>1 x User Manual</li> </ul>
FEATURES	<ul style="list-style-type: none"> <li>Windows 8 Ready</li> <li>Supports uEFI GUI Interface BIOS</li> <li>Supports 100% Solid capacitor</li> <li>Supports Rapid Switch2</li> <li>Rapid Debug3</li> <li>Supports Toverclcoker OC software</li> <li>Supports GPU</li> <li>Supports Charger Booster</li> <li>Supports BIOS Online Update</li> </ul>

# TZ77B OVERVIEW

## CPU-Chipset



### Intel Z77 chipset

Intel Z77 is the first chip to use Intel's 22nm tri-gate transistors, which will help scale frequency and reduce power consumption. It features an integrated GPU and it is backwards compatible with previous LGA-1155(Sandy Bridge) motherboards. The Intel Z77 chipset also supports USB 3.0 natively and Intel's Smart Response Technology(SRT, aka SSD caching).



### Intel LGA 1155 3rd Generation Intel Core™ Processor support

Intel 3rd generation processor "Ivy Bridge" is the codename for Intel's 22nm of the Sandy Bridge microarchitecture. The first to use tri-gate("3D") transistors, it is also backwards-compatible with the Sandy Bridge platform requiring a BIOS/firmware update.



### Intel LGA 1155 2<sup>nd</sup> Generation Intel Core™ Processors support

2<sup>nd</sup> Generation Intel® Core™ Processors with New 32nm Intel® micro architecture / Impressive leap in energy-efficient performance / Optimized Intel Turbo Boost Technology and Intel Hyper-Threading Technology / Significant advances in visual and 3D graphics capabilities / New Intel RAVX instructions for enhanced floating point intensive application performance.

## Audio+



### Blu-ray Audio

Upgrading your Audio performance in the easiest way is choosing BIOSTAR ultimate Motherboard. It does support Blu-ray audio DRM (compatible driver/software) and provide the higher audio output of 24 bit/ 192KHz than the 16 bit/ 48KHz from the normal MB. You will experience the high quality sound effect with pure Blu-Ray Audio.



### Clean-Tone2

## Clean Tone 2 Technology

Biostar innovative low distortion audio design reduces high frequency noise generated by a motherboard. One independent capacitor per channel handles the occurring noise. Clean-Tone 2 delivers a signal to the noise ratio over 98dB which perfectly fits into the Windows 7 OS environment.

## Video+



## HDMI 3D Visual

The HDMI 3D Visual provides a level of interoperability for devices designed to deliver 3D content over the HDMI connection. The latest HDMI Specification adds key enhancements to support the market requirements for bringing broadcast 3D content into the home featuring key enhancements for 3D applications including the addition of mandatory 3D formats for broadcast content.



## DVI {INS\_STR}

DVI is better than VGA for LCD displays since it is digital while VGA is analog. For LCD displays, the picture is digitized pixel per pixel. Through DVI, the panel gets data for each pixel, so the picture generated in the Graphics device matches the pixels on the panel itself.



## ATI CrossFire X™ Technology

ATI CrossFireX™ is the ultimate multi-GPU performance gaming platform. With game-dominating power, ATI CrossFireX technology enables two or more discrete graphics processors to work together to improve system performance. It supports up to four ATI Radeon™ HD graphics cards, making it the most scalable gaming platform ever!

## Speed+



## USB 3.0

Experience Fastest data transfers at 5 Gbps with USB 3.0- the new latest connectivity standard. Built to connect easily with next-generation components and peripherals, USB 3.0 transfers data 10X faster and backward compatible with previous USB 2.0 components.



## Charger Booster

Charger booster is the best and efficient charger solution for apple devices such as iPad, iPhone. Basically, Charger booster Technology is able to boost the charging time to be more efficiency and faster once any apple goods connecting to our Motherboard. With charger booster technology, you are able to charge your apple devices up to 42 % faster.



## PCIe 3.0

PCIe 3.0 is the ubiquitous and general-purpose PCI Express I/O standard. At 8GT/s bit rate, the interconnect performance bandwidth is doubled over PCIe 2.0, while preserving compatibility with software and mechanical interfaces.



## PCI Express 2.0 Support

PCI Express 2.0 bus architecture offers a future-proofing bridge to tomorrow's most bandwidth-driven games and 3D applications by maximizing 5 GT/s of bandwidth. PCI Express 2.0 motherboards are fully backwards compatible with existing PCI Express products for broad support of PC peripherals.



## SATAIII 6Gbps

SATAIII 6Gbps provides a higher bandwidth to retrieve and transfer HD media. With this super speed data transfer, SATAIII allows an incredible data boost which is 2x faster than the SATA II.



## SRT(Intel Smart Response Technology)

Intel Smart Response Technology is an Intel Rapid Storage Technology(RST) eaching feature that improves computer system performance. It allows a user to configure computer systems with an SSD used as cache memory between the hard disk drive and system memory. This provides the advantage of having a hard disk drive(or a RAID volume) for maximum storage capacity while delivering an SSD-like overall system performance experience.



## T-Overclocker

T-overclocker presents a simple Windows-based system performance enhancement and utility management. It features several powerful yet easy to use tools such as overclocking for system performance enhancement, CPU and memory special enhancement, a smart-fan control for managing fan speed control of both CPU cooling fan, north-bridge chipset cooling fan, PC health for monitoring system status, and pre-set OC modes for easy OC.



## Dual Channel DDR3

It supports 2 or 4 DIMM Slots DDR3 memory that features data transfer rates of DDR3 2000(O.C.)/1800(O.C.)/1600/1333. The processor support 2 memory channels and setting the memory multiplier, allows selection of the channel speed. These clearly uplift the band width and boost the overall system performance.

## Durable+



## 6 Phase Power Phase Design

6-phase VRM design with high quality power components such as low RDS(on) Mosfet for lower temperature has the advantage to raise the overclocking ability.



## 100% Solid Caps

With armor-plated Biostar Technology, all capacitors are placed with 100% solid capacitors that have a lasting life cycle, durability and stability for crucial components.



## BIOSTAR "GPU" Technology

BIOSTAR G.P.U (Green Power Utility) is a new function that enhances energy efficiency by disabling extra phases while the CPU is under light loading. It integrates a friendly GUI to monitor the resourcing and response of your CPU, as well as optimize the power saving function in your system. G.P.U sets the best power efficiency in your system, be it for heavy 3D gaming, Internet or MSN chatting.

## Protection+



## BullGuard Internet Security (90 days FREE trial)

BullGuard Internet Security comes with the broadest line-up of internet security features on the market, including: a cutting-edge dual Antivirus engine, Online Backup for your precious files, PC Tune Up to speed up your system, a Game Mode for a seamless gaming experience, Parental Control, Firewall, Safe Browsing and many more. Make the most of your digital life with Bullguard!

DIY+



## UEFI BIOS

Unified Extensible Firmware Interface (UEFI) is a brand new framework that provides a revolutionary interface. It is a modern clear and easy-to-use graphical user interface. The UEFI comes with a colorful easy-understand icons leads users into the setup layer directly.



## BIO-Remote 2

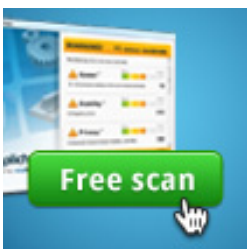
BIO-Remote2 Technology is featuring users a better Home Theater environment. Users who own either Android mobile or Apple goods are able to access and control your PC remotely; At this moment, you're smart device became a intelligent and functional remote controller; more than that, BIO-Remote2 also includes both function of mouse pad and power point presentation mode.

**MX SUITE**  
THE ALL-IN-ONE  
MEDIA SOLUTION

**FREE  
DOWNLOAD**

## MX SUITE

As an Biostar customer you can download MAGIX multimedia tools designed to enhance your music, videos and photos for free. From music and website creation to video editing and photo management. Four products that cover all of your multimedia needs. Simply do more with your media than you ever thought possible.



## Simplitec

"Simplitec" offers premium solutions to ensure your PC is faster, more reliable and free of security gaps - automatically or with customized setups. "Simplitec" is a free bundle software to scan your computer for problems and offers a professional solution for each problem to put your PC back in top form.



**Driver-Genii**

## Driver-Genii

With just 1-click of the BIOSTAR MB cd drivers, all necessary MB drivers are automatically installed in a few seconds.



## BIOS-Flasher

BIO-Flasher is a convenient BIOS update tool. Just launch this tool and put the BIOS on USB pen driver before entering the OS. You can update your BIOS with only a few clicks without preparing an additional floppy disk or other complicated flash utility.



## BIO-ReLife

BIO-ReLife Technology lets you recover crashed BIOS data from a USB flash pen driver that stores new BIOS file. This practical BIOS utility can restore your system and recover from a BIOS crash situation.



## eHot-Line Utilitiy

Integrated e-service automatically sends your technical support request to Biostar Globe tech support without any delay.



## BIOScreen Utility

Personalize your desktop with customizable boot logo. BIOScreen is the new feature that lets you personalize and create your own style with unique, custom-made boot logo.



## Rapid Switch 2

Engineered by BIOSTAR, the exquisite onboard switches allow you to easily shut down and restart your system.



## Rapid Debug 3

Rapid Debug 3 posts critical POST code information in a digital LED display. When system malfunction occurs, it auto-detects the device's failure and translates the error codes on the digital LED.



\*The specification and pictures are subject to change without notice and the package contents may differ by area or your motherboard version!

BIOSTAR