

## TA970 Plus Motherboard

<image/>	<ul> <li>Supported Socket AM3+ processors AMD FX/ Phenom II/ Athlon II processor</li> <li>Supported AMD Mutil Core(x8,x6)</li> <li>AMD 140W processor support</li> <li>AMD 970 Chipset</li> <li>AMD 970 Chipset</li> <li>4 DIMM supported DDR3-2133(OC)/ 2000(OC)/ 1866/ 1600/ 1333/ 1066</li> <li>Supported SATA 6Gb/s 2X speed than current SATA 3G</li> <li>Supported USB 3.0</li> <li>mSATA/Mini PCI-E Combo Connector</li> <li>BIOSTAR Hi-Fi</li> <li>AMD OverDrive<sup>™</sup> with ACC feature (Advanced Clock Calibration) supported</li> </ul>
CPU SUPPORT	AMD FX <sup>™</sup> Processor AMD FX <sup>™</sup> Processor AMD Phenom <sup>™</sup> II X6 Processor AMD Phenom <sup>™</sup> II X4 Processor AMD Phenom <sup>™</sup> II X3 Processor AMD Athlon <sup>™</sup> II X2 Processor AMD Athlon <sup>™</sup> II X4 Processor AMD Athlon <sup>™</sup> II X3 Processor AMD Athlon <sup>™</sup> II X3 Processor AMD Athlon <sup>™</sup> II X2 Processor AMD Sempron <sup>™</sup> Processor Maximum CPU TDP (Thermal Design Power) : 140Watt
HT	Support HT 4.8G
MEMORY	Support Dual Channel DDR3 2133(OC)/2000(OC)/1866/1600/1333/1066/800 MHz 4 x DDR3 DIMM Memory Slot Max. Supports up to 64GB Memory

STORAGE	5 x SATA III Connector 1 x mSATA Connector Support SATA RAID: 0,1,5,10
LAN	Realtek RTL8111GR - 10/100/1000Mb/s Controller
AUDIO CODEC	Realtek ALC892 8-Channel Blu-ray Audio Support Biostar Hi-Fi
USB	ASMedia ASM1042A USB 3.0 Controller 2 x USB 3.0 Port 1 x USB 3.0 Header 6 x USB 2.0 Port 2 x USB 2.0 Header
EXPANSION SLOT	2 x PCI-E 2.0 x16 Slot(x16, x4) 2 x PCI-E 2.0 x1 Slot 2 x PCI Slot
REAR I/O	1 x PS/2 Mouse 1 x PS/2 Keyboard 2 x USB 3.0 Port 6 x USB 2.0 Port 1 x LAN Port 6 x Audio Jacks
INTERNAL I/O	1 x USB 3.0 Header 2 x USB 2.0 Header 5 x SATA III Connector (6Gb/s) 1 x mSATA/Mini PCI-E Combo Connector 1 x Front Audio Header 1 x Front Panel Header 1 x S/PDIF-Out Header 1 x CPU Fan Connector 2 x System Fan Connector 1 x CIR Header 1 x COM Port Header
H/W MONITORING	CPU / System Temperature Monitoring CPU / System Fan Monitoring Smart / Manual CPU Fan Control System Voltage Monitoring
DIMENSION	ATX Form Factor Dimension: 30.5cm x 22.5cm ( W x L )
OS SUPPORT	Supports Windows XP / Vista / 7 / 8 / 10
BUNDLE SOFTWARE	BullGuard BIO-Remote2 BIO-Remote Smart Speed LAN

ACCESSORIES	2 x SATA Cable 1 x I/O Shield 1 x DVD Driver 1 x User Manual
FEATURES	Supports PURO Hi-Fi Supports AOD ACC Supports 100% Solid capacitor BIO-FLASHER Supports Charger Booster Supports BIOS Online Update
TA970 F	Plus OVERVIEW
CPU-Chipset	
AMDI 9-SERIES CHIPSET	AMD 970 chipset AMD 970 Chipset is designed to support up to 4800MT HT 3.0 interface speed and PCI-Express 2.0 x16 graphics. It is optimized with AMDR's latest AM3+ and multi-core CPUs to provide excellent system performance and overclocking capabilities.
AMD ANST PROCESSOR READY	AM3+/AM3 Support Supporting upcoming AMD Socket AM3+/AM3 32nm processors, it delivers better overclocking capabilities and reduces power consumption. Moreover, AM3+ CPU supports DDR3 memory module and accelerates data transfer rate by up to 5200MT/s via HyperTransport 3.0 technology.
Audio+	
	Hi-Fi A combination of exclusive hardware & software design including "ground-isolation circuit design", "an independent audio power", and "a built=on-board amplifier", with all these hardware features gives you the best audio quality and performance. As for software, we offer you a free bundle utility "Multi-Channel Calibration" which normally you'll find in high level sound systems; this feature allows you to auto detect your location; with a user friendly interface, you can easily adjust the volume of every speakers to make a well balanced surround sound. And of course, the built-on-board amplifier always gives you a super powerful sound comparing to other motherboards.

PURE SOUND EFFECT	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.
Super HI-FI Audio Connectors	Super Hi-Fi Audio Connectors 30uF "Golden" plated audio connectors provide superb signal conductivity, less oxidation, and best possible studio-grade headgears.
	Hi-Fi Power Audio power is an important factor in audio quality. Most AV equipment isolates the power supply for each analog and digital signal to gather high- quality sound reproduction. Equipped with BIOSTAR Hi-Fi Power technology, it will utilize audio components with independent power design for a significant reduction in electronic noise and superb sound quality.
HI-FI GROUND	Hi-Fi Ground BIOSTAR Hi-Fi Ground ( Golden Line ) is noise- blocking multi-layer PCB design to isolates analog audio signals from digital sources. Unique PCB layout is ideal for exceptional clarity and high fidelity sound.
	Hi-Fi Sound BIOSTAR Hi-Fi series motherboards have a sampling rate of 192kHz/24-bit which delivers a high quality audio through an analog connection to your home theater system, multi-channel speakers and high-end headphone. You can enjoy real Blu- ray grade high-definition sound that you've never experienced before.
HI-FI AMP	Hi-Fi AMP The built-in amplifier can drive major high-end headphones with over 100dB loads and offer wide band-width, low noise, high slew rate and low distortion audio source from front panel I/O. Gaming enthusiasts can enjoy a fuller range of dynamic sound with crisper details and less distortion.

SMART SMART CONTRACTOR CONTRACTON	Smart Ear Smart EAR is a windows-based audio utility which allows you to easily adjust system volume. With its user-friendly GUI, you can also increase or decrease impedance setting (Low/High Gain) to optimize your headphone performance. You can easily enjoy high-quality and awesome sound.
M S G fi	Hi-Fi Resistor Metal-oxide film resistors are made of metal oxides such as tin oxide. The electric characteristics are greater stability and reliability than regular metal ilm resistors when operating in an extremely proad working temperature range. This special component is used in applications with high endurance audio demands.
B q c d h T	Hi-Fi Cap BIOSTAR Hi-Fi series motherboards come with high quality 'Non-Polarized Electrolysis Electric audio capacitors' for each audio channel circuit. The customized audio capacitors deliver low noise, low distortion, and wide bandwidth to achieve the highest sound resolution and sound expansion. The critical component will ensure the most realistic sound effects to gaming enthusiasts.
E 1 b p	Hi-Fi 110dB+ Embrace exceptional sound quality for the win with 10dB SNR and stylish and efficient EMI shield blocks electromagnetic interference to help brovide cleaner audio. It has achieved a signal-t- noise ratio (SNR) of 110dB, yielding almost loss- ess audio form rear audio connectors.
Video+	
Graphics DXII	DX11 Direct3D 11 enables Direct3D 10 APIs and Direct3D 11 APIs to use one underlying rendering device. And it allows developers to achieve a high speed, fully conformant software rasterizer.
Speed+	

	SmartSpeedLAN is a free software application which monitors and manages your PC's network behavior. With user-friendly GUI, it allows you to select and prioritize different types of network traffic, including gaming, media streaming, communications or web surfing.You can also set any specific applications, choosing to prioritize or block accordingly. SmartSpeedLAN can feature automatic management options that use adaptive networking intelligence to ensure that you are getting the best online experience possible.
SUPER SPEED, 5 GODT	USB 3.0 Experience Fastest data transfers at 5 Gbps with USB 3.0the 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.
SATA + mPCIe Contrological	mini-PCIe+mSATA Combo connector which allows both mini-PCIe and mSATA SSD and others upgrades
Durable+	
Super Durable Ferrite Choke	Super Durable Ferrite Choke Super Durable Ferrite Choke brings the benefits of higher current capacity, lower energy loss and better power stability.

•

SOLID CAPS	Super Durable Solid Caps The best quality solid state capacitors with ultra low ESR design, the Super Durable Solid Caps doubles the lifespan.
Moistureproof PCB	Moistureproof of PCB The popularity of PC usage and working environment is getting deteriorating and moist (rural, coastal, etc.). The PCB will be oxidizing easily by damp or absorbed moisture, and ionic migration or CAF (Conductive Anodic Filament) will be generated. Moisture-proof PCB meets high density and high reliability requirements for moisture proof.
Low RdsOn P-Pak MOS	Low RdsOn P-Pak MOS Low resistance design can significantly reduce the current out of energy loss. Low temperature, small size, excellent thermal conductivity.
SOLID CAPACITOR Stable,Lifespan++	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.
Protection+	
ESD PROTECTION	ESD Protection ESD (Electrostatic Discharge) is the major factor to destroy the PC by electrical overstress (EOS) condition. ESD occurred by PC users when touch any devices connect to a PC, which may result in damage to the motherboard or parts. ESD protection is designed to protect the motherboard and equipment from damage by EOS.
USB Polyswitch	USB Polyswitch On board dedicated power fuse to help prevent USB port failure. It prevents USB Port overcurrent and safe guard your system and device lifespan.

<b>BIOS Virus</b> Protection	BIOS Virus Protection When enabled, the BIOS will protect the boot sector and partition table by halting the system and flashing a warning message whether there's an attempt to write to these areas.
OC-OV-OH PROTECTION	OC / OV / OH Protection OC / OV / OH Protection design detects overvoltage conditions and prevents voltage surges from spreading in real time. It also actively cuts off the overvoltage supply to protect your system.
BullGuard	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+	
UEFIBIOS	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.
Header Zone	Header Zone Users can easily assemble their own computer, a simple-swap data discs and other accessories.
REMOTE	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.

BIOS FLASHER	BIO-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.
HOT	eHot-Line Utiltiy Integrated e-service automatically sends your technical support request to Biostar Globe tech support without any delay.
BIOSCREEN	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.
Super Durable Box Heatler	Super Durable Box Header Super Durable Box Header provides solid, secure and durable connections between motherboard and peripheral cables.

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