Thunder h1000E

S3970

AMD Opteron™ Rev. F Platform

- Dual 1207-pin sockets support AMD Opteron™ (Rev. F) 2000 Series processors
- Supports DDR2 667/533 registered ECC DIMM; 8x DIMM socket
- (1) PCI-X 64-bit 100/133MHz Slot (6th slot); (4) 32-bit/33 MHz PCI v2.3 Slots
- (1) Tyan TARO™ SO-DIMM Socket
- (1) IDE connector
- (4) SATA ports running at 1.5Gb/s w/RAID 0, 1, 5, 10 (S3970 G2NR only)
  - M7901/M7902, SO-DIMM U320 SCSI card (optional )
  - M9000 SO-DIMM SAS/SATA card (optional)
- (2) Intel® 82541PI GbE Controllers
- XGI XG20 with 16MB DDR memory

(Specifications are subject to change without notice. Items pictured may only be representative.)
**SPECIFICATIONS**

**Processors**
- Dual 1207-pin Socket
- Supports up to dual AMD Opteron™ 2000 series processors (S3970G32NR)
- Supports single AMD Opteron™ 2000 series processor (S3970G32N-U)
- Up to 1.0GHz Hyper-Transport link support

**Chipset**
- Broadcom BCM-5785 core logic
- SMSC SCH4307 Super I/O

**Memory**
- Dual memory channel
- Supports up to eight DDR2 667/533 DIMMs
- Supports registered, ECC memory module

**Expansion Slots**
- One PCI-X 64-bit/100/133MHz Slot (6th slot)
- Four 32-bit/33 MHz PCI v2.3 Slots
- One Tycon TARO SO-DIMM Socket
- Total six usable expansion slots

**System Management**
- SMSC SCH4307 w/2 EMCSR103
- Six fan headers, 4 of them with 3+1-pin headers and tachometer monitoring and smart fan control (PWM)
- Temperature and voltage monitoring
- Watchdog timer
- Chassis intrusion detection

**Integrated PCI IDE**
- Single channel master mode support up to two IDE devices
- Support for ATA-133/100/66/33 IDE drives and ATAPI compliant devices

**Integrated Serial ATA**
- Four Serial ATA ports at 1.5Gb/s with NCQ
- Supports RAID 0/1/5/10 (S3970G32NR only)

**Integrated I/O Interfaces**
- One FDD Connector
- One IDE Connector
- Four SATA Ports
- Four USB 2.0 Ports (2 at rear, 2 via cable)
- Two COM ports (1 at rear, 1 via cable)
- Two 2x9-pin front panel pin header
- Two 2x9-pin header for front panel LAN LED and ID LED switch
- Two 25-pin IPMI for optional Tycon SMDC card

**Back Panel I/O Ports**
- Stacked PS2 Mouse & Keyboard Port
- Stacked 2x USB Ports
- One 9-pin COM port
- One 15-pin VGA port
- Two side-by-side RJ45 ports

**Integrated 2D/3D PCI Graphics**
- XGI Volcan Z7 (XG20)
- 16MB frame buffer memory

**Integrated LAN controllers**
- Two Intel 82541Pi GbE LAN controllers
- Operating on PCI 32-bit/33MHz bus
- With ASF 2.0/WiM/Teaming support

**Optional TARO Modules**
- M3291, IPMI 2.0 Remote System Mgmt Card
- Renesas HiS2167 BMC Controller
- PT, KCS, Logging support
- IPMI-over-LAN
- Remote power on/off and reset
- M7901/M7902, Ultra 320 SCSI TARO Card
- Adaptec AIC-7901/7902 single dual channel Ultra 320 SCSI controller
- Adaptec HostRAID 0, 1, 10 supported
- M9000 SAS/SATA II TARO Card
- Adaptec AIC-9405/9410 SAS Controller
- Supports up to 4-port (M9000-4x) and 8-port (M9000-8x) SAS & SATA at 3 Gb/s
- Adaptec HostRAID 0, 1, 10 supported

**BIOS**
- AMI BIOS on 8mbit LPC Flash ROM
- Serial Console Redirect
- USB boot supported
- ACPI supported
- PnP, DIM2.0, WfM2.0 Power Management

**Form Factor**
- ATX footprint, 10.2" x 12.0" (259 mm x 305 mm)

**Power**
- On board 4-phase digital VRM
- EPS12 (24+8) power connectors

**Regulatory**
- FCC Class B (Declaration of Conformity)
- CE (Declaration of Conformity)

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**TYAN COMPUTER CORP.**

Tyen Computer USA  
Tel: +1-510-455-6969  
Fax: +1-510-451-9788

Tyen Computer Taiwan  
Tel: +886-2-8751-3200  
Fax: +886-2-8779-2787

Tyen Computer Germany  
Tel: +49-6135-6395-30  
Fax: +49-6135-6395-44

Tyen Computer UK  
Tel: +44-1285-267030  
Fax: +44-1285-6800-23

Tyen Computer China  
Tel: +86-10-6285-5015  
Fax: +86-10-6285-2204

Tyen Computer Japan  
Tel: +81-3-3837-7580  
Fax: +81-3-3837-7581