

# G4H875-N

Intel® Pentium® 4 Processor and Intel® Celeron® Processor

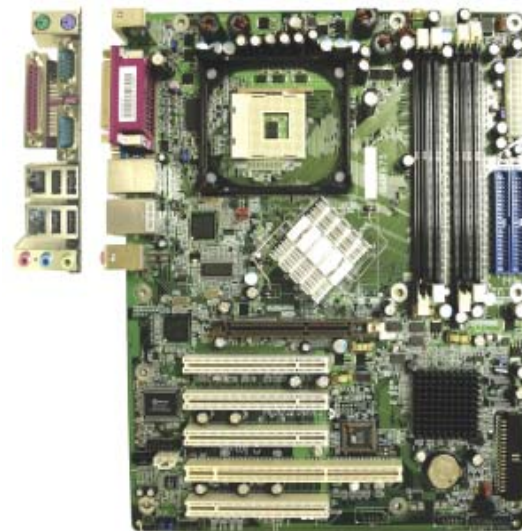
ATX format with 4 PCI Slots, 1 PCI-X slot, on-board Audio and LAN

Introduced: Q3/2004

## Features:

- ATX format
- Supports Intel® Pentium® 4 Processor to 3.2GHz+ or Intel® Celeron® Processor
- Intel® 875P chipset – 400/533/800 MHz data bus
- 4 PCI slots
- 1 PCI-X slot
- AGP slot supports 1.5V AGP
- 2 On-board LAN
- On-board Audio
- Up to 4 Serial Ports
- Supports up to 4 USB (2.0)
- Supports Serial ATA RAID 0 & RAID 1
- Long and stable product life cycle

9.06" (24.4.cm)



12.05" (30.5cm)

The G4H875-N revision controlled motherboard offers the combination of the Intel® Pentium® 4 or Intel® Celeron® power processor (478 pin), four PCI slots, one PCI-X slot, and one AGP slot with 1.5V support. This ATX motherboard has a great combination of on-board audio, 2 on-board LAN, 4 USB ports, and up to 4 serial ports with Serial ATA RAID 0 & RAID 1 support.

Other features include read back capability that displays voltage, fan speed, and temperature monitoring.

The G4H875-N motherboard is produced under strict revision control guidelines to provide a long product life cycle (3 yrs or more). This reduces your long-term costs for system testing, certification, and maintenance. ITOX motherboards are used in a variety of applications and in many industries including those listed below.

## Markets

- Computer Telephony (CTI)
- Networking
- Medical Imaging
- Security
- Industrial Control
- IT Systems
- Voice Recognition
- Embedded Integration



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# G4H875-N Revision Controlled Motherboard

## PROCESSOR (Socket 478-based Intel®)

- Intel® Pentium® 4 Processor with Hyper-Threading Technology
  - Up to 3.2GHz+ with 512KB and 1GB cache
  - 533MHz/800MHz system data bus
- Intel® Pentium® 4 Processor (478-pin)
  - 400MHz/533MHz system data bus
- Intel® Celeron® Processor (478-pin)
  - 400MHz system data bus

## CHIPSET

- Intel® 875P chipset
  - Intel® 82875P Memory Controller Hub (MCH)
  - Intel® 6300ESB I/O Controller Hub

## SYSTEM MEMORY

- Supports dual channel (128-bit wide) memory interface
  - Each channel supports 2 DIMM sockets
- Supports maximum of 4GB system memory
- Supports Dynamic mode to optimize system performance
- Synchronous operation with processor system bus
  - PC2100/PC2700/PC3200 (DDR266/DDR333/DDR400) with 800 MHz FSB CPU (supports PAT mode). DDR333 will run at 320MHz memory frequency when used with 800MHz FSB CPU
  - PC2100/PC2700 (DDR266/DDR333) with 533 MHz FSB CPU
  - PC2100 (DDR266 with 400MHz FSB CPU)
- Supports ECC /non-ECC DIMMs
- Supports unbuffered DIMMs

## BIOS

- Award BIOS, Windows® 98SE/2000/ME/XP Plug and Play compatible
- 4Mbit or 8Mbit flash memory
- Supports optional BIOS Write Protect function by hardware
- Supports DMI 2.0 function

## ENERGY EFFICIENT DESIGN

- Supports ACPI specification and OS Directed Power Management
- Supports ACPI STR (Suspend to RAM) function
- Wake-On-Events include:
  - Wake-On-PS/2 Keyboard/Mouse
  - Wake-On-USB Keyboard
  - Wake-On-Ring (external modem)
  - Wake-On-LAN
  - RTC timer to power-on the system
- System power management supported
- CPU stopped clock control
- Microsoft®/Intel® APM 1.2 compliant
- Soft Power supported - ACPI v1.0a specification
- AC power failure recovery

## DAMAGE FREE INTELLIGENCE

- Monitors CPU/system temperature and overheat alarm
- Monitors Vcore/VCC3/±12V/VCC/VBAT/5VSB voltages and failure alarm
- Monitors chassis/CPU/MB fan speed and failure alarm
- Read back capability that displays temperature, voltage and fan speed
- CPU Fan Protection function monitors the CPU fan during system boot up
- CPU Temperature Protection function monitors the CPU temperature during system boot up
- Supports Watchdog Timer Function

## ONBOARD AUDIO FEATURES

- 18-bit stereo full-duplex codec with independent variable sampling rate
- High quality differential CD input
- True stereo line level outputs
- 2-channel audio output

## ONBOARD LAN FEATURES

- 82547EI Gigabit LAN CSA interface
  - Integrated power management functions
  - Full duplex support at 10, 100, and 1000 Mbps
  - Supports IEEE 802.3 auto-negotiation
  - Supports wire for management
- 82551 QM fast ethernet controller
  - Integrated IEEE 802.3, 10BASE-T and 100BASE-TX compatible PHY
  - Glueless 32-bit PCI master interface
  - Glueless CardBus master interface
  - 128Kbyte Flash interface
  - Thin BGA 15<sup>2</sup>mm package

## PCI IDE INTERFACE

- Supports ATA/33, ATA/66 and ATA/100 hard drives
- PIO Mode 4 Enhanced IDE (data transfer rate up to 14MB/sec.)
- Bus mastering reduces CPU utilization during disk transfer
- Supports ATAPI CD-ROM, LS-120 and ZIP

## Serial ATA IDE INTERFACE

- Supports two SATA (Serial ATA) interfaces which are compliant with SATA 1.0 specification (1.5Gbps interface)
- Supports RAID 0 and RAID 1

## ACCELERATED GRAPHICS PORT (A.G.P.)

- Supports 1.5V AGP 8x (2.13GB/sec.) and AGP 4x (1066MB/sec.) for 3D graphics applications  
(AGP 2x and 3.3V AGP card are not supported)

## REAR PANEL I/O PORTS

- 4 USB 2.0/1.1 ports
- 2 RJ45 LAN port
- 2 DB-9 serial ports
- 1 DB-25 parallel port
- 1 mini-DIN-6 PS/2 mouse port
- 1 mini-DIN-6 PS/2 keyboard port
- 3 audio jacks: line-out, line-in and mic-in

## CONNECTORS

- 2 connectors for 2 external serial ports
- 1 front audio connector for external line-out and mic-in jacks
- 1 connector for an external game/MIDI port
- 2 internal audio connectors (CD-in and AUX-in)
- 1 connector for IrDA interface
- 2 Serial ATA connectors
- 2 IDE connectors
- 1 floppy connector
- 2 ATX power supply connectors
- 1 Wake-On-LAN connector
- CPU fan, chassis fan, second fan, and MB fan

## EXPANSION SLOTS

- 1 AGP slot
- 4 PCI slots
- 1 PCI-X 64-bit/66MHz slot

## COMPATIBILITY

- PCI 2.2 and AC '97 compliant
- Intel® AGP version 3.0

## PCB

- 4 layers, ATX form factor
- 30.5cm (12.05") x 24.4cm (9.6")

## SAFETY

- UL, cUL, FCC, CE