

# G4E620-B G4E620-N

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

G4E620-B 1 LAN  
G4E620-N 2 LAN

Introduced: Q1/2004

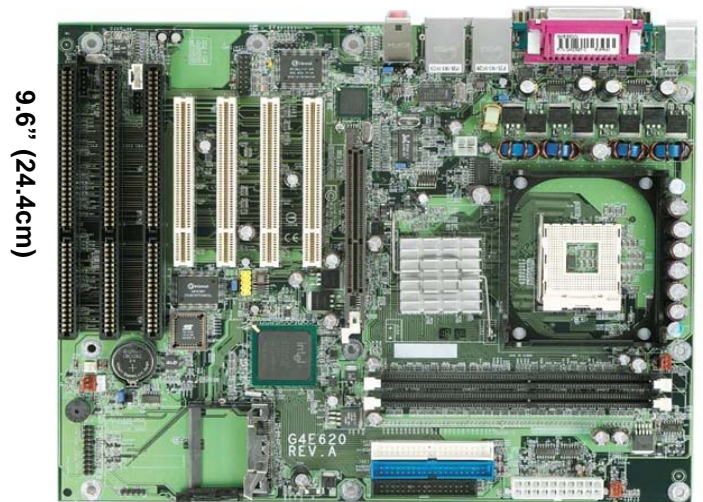
## Features:

- ATX format
- Supports Intel® Pentium® 4 Processor or Intel® Celeron® Processor
- Intel® 845E chipset – 400/533 MHz data bus
- Seven Expansion Slots:  
3 PCI, 1 Shared PCI/ISA, 2 ISA and 1 AGP slot
- On-board LAN (-N version has 2 LAN)
- On-board Audio
- Supports up to 6 USB (2.0)
- On-board CompactFlash Socket
- Long and stable product life cycle
- Revision Controlled Product
- Monitors CPU, system temperature and overheat alarm

The G4E620-B and G4E620-N revision controlled motherboards offer the combination of the Intel® Pentium® 4 processor power or Intel® Celeron® processor power (478 pin), 3 PCI slots, 1 shared PCI/ISA slot, 3 ISA slots, and 1 AGP slot. This ATX motherboard has a great combination of on-board audio, on-board LAN, and up to 6 USB ports; the G4E620-N offers 2 on-board LANs.

An added feature is the direct Compact Flash boot up, which is available via the on-board Compact Flash Socket. Other features include read back capability that displays voltage, fan speed, and temperature monitoring.

12" (30.5cm)



G4E620-N Version

The G4E620-B and G4E620-N boards are produced under strict revision control guidelines to provide a long product life cycle (3-5 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
- Voice Recognition
- Embedded Integration



# Rev Controlled Motherboard: G4E620-B and G4E620-N

## PROCESSOR

- Intel® Pentium® 4 Processor with Hyper-Threading Technology
- Intel® Pentium® 4 Processor (478-pin)
  - 533MHz system data bus
  - 400MHz system data bus
- Intel® Celeron® Processor (478-pin)
  - 400MHz system data bus

## CHIPSET

- Intel® 845E chipset
  - Intel® 82845E Memory Controller Hub (MCH)
  - Intel® 82801DB I/O Controller Hub (ICH4)

## SYSTEM MEMORY

- Two 184-pin DDR SDRAM DIMM sockets
- 2.5V unbuffered PC1600 (DDR200), PC2100 (DDR266) DDR SDRAM DIMM
- Supports maximum of 2.1GB system memory using 64Mbit, 128Mbit, 256Mbit or 512Mbit technology
  - Double-sided x16 DDR SDRAM DIMM is not supported
- Supports ECC function--Revision AD0 and later.  
(OPTIONAL BIOS DOWNLOAD available for earlier revisions)

## BIOS

- Award BIOS, Windows® 98SE/2000/ME/XP Plug and Play compatible
- Supports SCSI sequential boot-up
- Flash EPROM for easy BIOS upgrades
- Supports DMI 2.0 function
- 4Mbit flash memory

## ENERGY EFFICIENT DESIGN

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

## DAMAGE FREE INTELLIGENCE

- Monitors CPU/system temperature and overheat alarm
- Monitors 5VSB/VBAT/1.5V/3.3V/±5V/±12V/Vcore voltages and failure alarm
- Monitors CPU/system/second fan speed and failure alarm
- Read back capability that displays temperature, voltage and fan speed
- Opened chassis alarm
- 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
- S/PDIF-out interface
- 2-channel audio output



8 Elkins Road  
East Brunswick, NJ 08816  
Tel: 732-390-2815  
Toll-Free: 888-200-ITOX  
Fax: 732-390-2817  
www.itox.com

## ONBOARD LAN FEATURES

- Uses 82562 fast ethernet controller
  - Basic 10/100 Client Connection. Supports 559 level cable and PHY Stats. Support for Server OS included as check item, but no Server function included
  - Same Quality Driver suits as 82559
  - Supports DMI/SNMP/WMI
  - 10/100 Auto Sensing
  - IEEE 802.3, 10BASE-T/100BASE-TX compliant physical layer interface
  - IEEE 802.3u Auto-Negotiation
  - 48-pin SSOP, 3.3V device
- Uses 82551 fast ethernet controller (-N version, 2nd LAN)
  - Integrated IEEE 802.3, 10BASE-T and 100BASE-TX compatible PHY
  - Glueless 32-bit PCI master interface
  - Glueless CardBus master interface
  - Integrated power management functions
  - 128 Kbyte Flash interface
  - Thin BGA 15mm<sup>2</sup> 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

## PROCESSOR SOCKET

- Socket 478-based Intel®

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

- Supports 1.5V AGP with up to 1066MB/sec. bandwidth for 3D graphics applications

## REAR PANEL I/O PORTS

- 4 USB 2.0/1.1 ports
- 1 RJ45 LAN port (-N version has 2 ports)
- 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

## I/O CONNECTORS

- 1 CompactFlash™ socket
- 1 connector for 2 additional external USB 2.0/1.1 ports
- 1 connector for an external game/MIDI port
- 2 internal audio connectors (CD-in and AUX-in)
- 1 S/PDIF-out connector
- 1 connector for IrDA interface
- 2 IDE connectors
- 1 floppy connector
- 2 ATX power supply connectors
- 1 Wake-On-LAN connector
- 1 Wake-On-Ring connector
- 1 chassis open connector
- 1 keylock connector
- CPU fan, system fan and second fan connectors

## EXPANSION SLOTS

- 1 AGP slot that supports 1.5V AGP
- 3 PCI slots
- 1 shared slot (PCI/ISA)
- 2 ISA slots

## COMPATIBILITY

- PCI 2.2 and AC '97 compliant

## CIRCUIT BOARD (PCB)

- 4 layers, ATX form factor
- 30.5cm (12") x 24.4cm (9.6")

## SAFETY

- UL, cUL, FCC Class B, CE



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