# G4E600-D

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

9.6" (24.4cm)

Intel® Pentium® 4 Motherboard with Hyper Threading Technology and on-board audio and LAN

### Features:

- ATX format
- Supports Intel® Pentium® 4 Processor with Hyper Threading Technology or Intel® Celeron® Processor
- Intel® 845E chipset 400/533 MHz data bus
- On-board LAN
- On-board Audio
- 5 PCI slots
- 1 AGP slot
- Supports up to 6 USB (2.0)
- Long and stable product life cycle
- Open chassis alarm
- Monitors fan speed, temperature, and power supply voltages



Introduced: Q4/2003

12.05" (30.5cm)

The G4E600-D revision controlled motherboard offers the combination of Intel® Pentium® 4 Processor or Intel® Celeron® Processor power (478 pin), with up to five PCI slots, 1 CNR slot, and 1 AGP 1.5V slot. This ATX form factor motherboard has a great combination of on-board audio and on-board LAN, and up to 6 USB 2.0/1.1 ports.

The G4E600-D features the Intel® 845E chipset on an ATX format motherboard. The 533MHz system data bus provides a seamless user interaction while other industry features include voltage, fan speed, and temperature monitoring.

The G4E600-D 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**

- ATM machines
- POS Terminals
- Networking
- Medical Imaging
- Security
- Industrial Control
- Voice Recognition
- Embedded Integration





## Revision Controlled Motherboard: G4E600-D Intel® 845E chipset, ATX System Board

#### **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), or PC2100 (DDR266) DDR SDRAM DIMM
- Supports ECC Function
- Supports maximum of 2GB system memory using 64Mbit, 128Mbit, 256Mbit or 512Mbit technology
  - Double-sided x16 DDR SDRAM DIMM is NOT supported

#### **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

#### **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 v1.0a specification
- AC power failure recovery

#### DAMAGE FREE INTELLIGENCE

- Monitors CPU/system temperature and overheat alarm
- Monitors 5VSB(V)/VBAT(V)/1.5V/3.3V/5V/±12V/CPU voltages and failure alarm
- · Monitors CPU/chassis/2nd fan speed and failure alarm
- Automatic chassis/second fan on/off control
- Read back capability that displays temperature, voltage and fan speed
- Opened chassis alarm



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#### **ONBOARD AUDIO FEATURES**

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

#### **ONBOARD LAN FEATURES**

- Uses Intel® 82562EX 10/100Mbps PLC
- Integrated IEEE 802.3 10BASE-T and 100BASE-TX compatible PHY
- Supports IEEE 802.3u auto-negotiation
- Automatic detection of "unplugged mode"
- 1:1 transmit transformer ratio support
- 10 BASE-T auto-polarity correction

#### **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<sup>®</sup>

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

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

#### ATX DOUBLE DECK PORTS

- 4 USB 2.0/1.1 ports
- 1 RJ45 LAN port
- 2 DB-9 serial port
- 1 DB-25 parallel port
- 1 mini-DIN-6 PS/2 mouse port
- 1 mini-DIN-6 PS/2 keyboard port3 audio jacks: line-out, line-in and mic-in

#### CONNECTORS

- 1 connector for 2 additional external USB 2.0/1.1 ports
- 1 connector for 1 external game/MIDI port
- 3 internal audio connectors (CD-in, AUX-in, and TAD)
- 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 opened chassis alarm connector
- 3 connectors for CPU, chassis, and second fans

#### **EXPANSION SLOTS**

- 1 AGP slot that supports 1.5V AGP
- · 5 PCI slots (1 shared with CNR slot)
- 1 CNR slot

#### **COMPATIBILITY**

- PCI 2.2, CNR 1.0 "A" type and AC '97 compliant
- Intel AGP version 2.0

#### **PCB**

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

#### SAFETY

• UL, cUL, FCC Class B, CE



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