

# G4C600-R

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

ATX Motherboard with Highpoint RAID controller and 5 PCI slots

Introduced: Q1/2004

## Features:

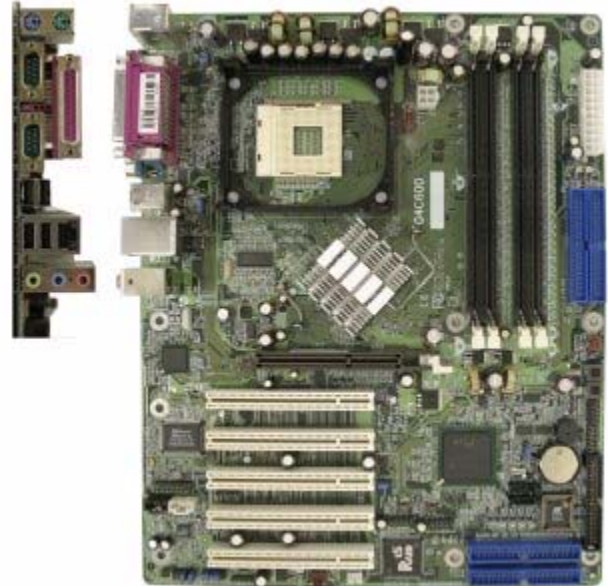
- ATX format
- Supports Intel® Pentium® 4 Processor or Intel® Celeron® Processor
- Hyper-Threading Technology
- Intel® 875P chipset – 800/533/400 MHz data bus
- On-board LAN
- On-board Audio
- On-board ATA RAID
- 5 PCI slots
- 1 AGP slot 1.5V
- Supports up to 8 USB (2.0)
- Uses HighPoint 372N RAID controller for RAID 0, 1, 0 +1, and 1.5
- Monitors fan speed, temperature, and power supply voltages

The G4C600-R revision controlled motherboard offers the combination of Intel® Pentium® 4 or Intel® Celeron® processor power (478 pin), with up to five PCI slots, and 1 AGP 1.5V slot. This ATX form factor motherboard has a great combination of on-board audio, on-board LAN, on-board ATA RAID, and up to 8 USB 2.0/1.1 ports.

The G4C600-R features the Intel® 875P chipset on an ATX format motherboard. The 800MHz/533MHz/400MHz system data bus provides a seamless user interaction while other industry features include read back capability that displays voltage, fan speed, and temperature monitoring.

9.6" (24.4cm)

12.05" (30.5cm)



The G4C600-R is produced under strict revision control guidelines to provide an extend product life cycle (2-3 years at minimum). 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
- Kiosks
- Gaming
- Networking
- Medical Imaging
- Security
- Industrial Control
- Voice Recognition
- Embedded Integration



# Revision Controlled Motherboard: G4C600-R

## Intel® 875P chipset, ATX System Board

### PROCESSOR

- Intel® Pentium® 4 Processor with Hyper Threading Technology
  - 800MHz/533MHz system data bus
- Intel® Pentium® 4 Processor (478-pin)
  - 533MHz/400MHz system data bus
- Intel® Pentium® 4 processor (478-pin)
  - 800MHz system data bus
- Intel® Celeron® Processor (478-pin)
  - 400MHz system data bus

### CHIPSET

- Intel® 875P chipset
  - Intel® 82875P Memory Controller Hub (MCH)
  - Intel® 82801ER I/O Controller Hub (ICH5R)

### SYSTEM MEMORY

- Supports dual channel (128-bit wide) memory interface
  - Each channel supports 2 DIMM sockets
- Supports up to 4GB system memory
- Supports Dynamic mode to optimize system performance
- Synchronous operation with processor system bus
  - PC2100/PC2700/PC3200 (DDR266/DDR333/DDR400) with 800MHz FSB CPU (supports PAT mode). DDR333 will run at 320MHz memory frequency when used with 800MHz FSB CPU.
  - PC2100/PC2700 (DDR266/DDR333) with 533MHz 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
- 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 (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 CPU/1.5V/5VSB/VBAT/3.3V/5V/±12V voltages and failure alarm
- Monitors CPU/chassis/2nd fan speed and failure alarm
- Automatic chassis/second fans on/off control
- Read back capability that displays temperature, voltage and fan speed

### ONBOARD AUDIO FEATURES

- 20-bit stereo full-duplex codec with independent variable sampling rate
- High quality differential CD input
- True stereo line level outputs
- S/PDIF-in/out interface
- 6-channel audio output

### ONBOARD LAN FEATURES

- Integrated IEEE 802.3, 10BASE-T and 100 BASE-TX compatible PHY
- 32-bit PCI master interface
- Integrated power management functions
- Full duplex support at both 10, and 100 Mbps
- Supports IEEE 802.3u auto-negotiation
- Supports wire for management

### ATA RAID (Redundant Array of Inexpensive Disk)

- Uses HighPoint 372N RAID controller
- RAID 0, 1, 0+1, and 1.5
- Two independent IDE channels support 4 hard disk drives (ATA/33, ATA/66, ATA/100, ATA/133 or EIDE)
- Supports PIO modes on 0/1/2/3/4, DMA modes 0/1/2 and UDMA modes 0/1/2/3/4/5/6

### 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

### ICH5R SATA IDE/RAID INTERFACE

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

### PROCESSOR SOCKET

- Socket 478-based Intel®

### 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)
- Supports AGP 3.0 and AGP 2.0 spec.

### REAR PANEL I/O 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 port
- 3 audio jacks: line-out, line-in and mic-in

### I/O CONNECTORS

- 2 connectors for 4 additional external USB 2.0/1.1 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 4-channel audio output connector
- 1 S/PDIF-in/out connector
- 1 connector for IrDA interface
- 2 RAID IDE connectors
- 2 Serial ATA connectors
- 2 IDE connectors
- 1 floppy connector
- 2 ATX power supply connectors
- 1 Wake-On-LAN connector
- 3 fan connectors for CPU fan, system fan, and 2nd fan

### EXPANSION SLOTS

- 1 AGP slot-1.5V
- 5 PCI slots

### 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 Class B, CE



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