

# G4V300-D

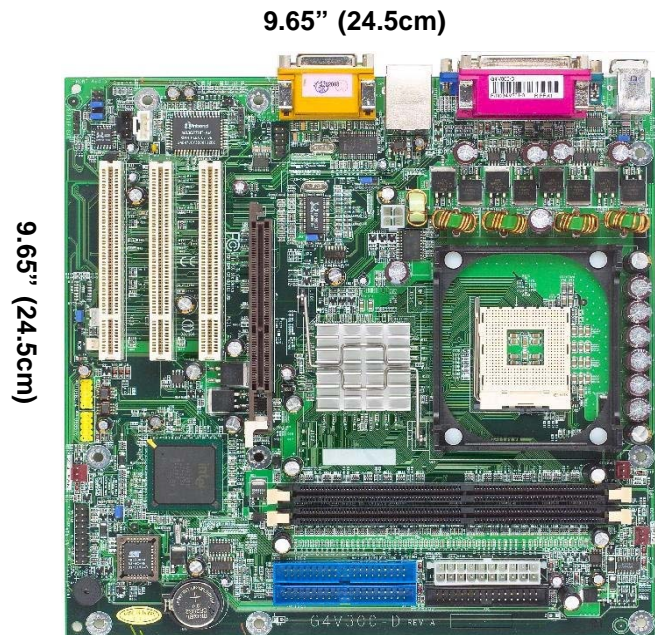
Intel® Pentium® 4 Processor and Intel® Celeron® Processor

MicroATX board with 3 PCI slots, on-board Video, Audio, and LAN

Introduced: Q2/2003

## Features:

- MicroATX format
- Supports Intel® Pentium® 4 Processor and Intel® Celeron® Processor
- Hyper Threading Technology
- Intel® 845GV chipset – 400/533 MHz data bus
- On-board Graphics
- On-board LAN
- On-board Audio
- Supports up to 6 USB (2.0/1.1)
- Stable product life cycle
- Open chassis alarm
- Monitors fan speed, temperature, and power supply voltages



The G4V300-D revision controlled motherboard offers the combination of Intel® Pentium® 4 or Intel® Celeron® processor power (478 pin), with three PCI slots and 1 ADD slot for AGP Digital Display Cards. This microATX motherboard has a great combination of on-board audio, on-board video, on-board LAN, and up to 6 USB 2.0/1.1 ports.

The G4V300-D features the Intel® 845GV chipset on a MicroATX format motherboard. The 533MHz system data bus provides a seamless user interaction while other features include read back capability that displays voltage, fan speed, temperature monitoring and a S/PDIF connector offering a digital audio interface.

The G4V300-D is produced under strict revision control guidelines to provide a long 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

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



# Revision Controlled Motherboard: G4V300-D

## PROCESSOR

- Intel® Pentium® 4 Processor with Hyper-Threading Technology-533MHz FSB
- 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® 845GV chipset
  - Intel® 845GV B1 stepping Graphics Memory Controller Hub (GMCH)
  - Intel® 82801DB I/O Controller Hub (ICH4)

## SYSTEM MEMORY

- Two 184-pin DDR SDRAM DIMM sockets
- 2.5V unbuffered PC1600 (DDR200) or PC2100 (DDR266) or PC2700 (DDR333) DDR SDRAM DIMM
- Supports maximum of 2GB systems 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
- 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
  - Wake-On-Ring
  - 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(V) voltages and failure alarm
- Monitors CPU/chassis/2nd fan speed and failure alarm
- Read back capability that displays temperature, voltage and fan speed
- Opened chassis alarm
- Watchdog timer function

## ONBOARD GRAPHICS FEATURES

- Graphics memory
  - Shares 512MB/1MB/8MB of the system memory in DOS mode
  - Uses Dynamic Video Memory Technology (DVMT) in Windows mode
- Graphics controller
  - Core frequency of 200MHz
  - 350MHz integrated 24-bit RAMDAC
  - Analog display up to 2048x1536 @ 60Hz refresh
  - 3D setup and render engine - Discrete, Triangles, Strips and fans
  - Per pixel perspective corrected texture mapping
  - Software DVD at 30fps, full screen
- 2D graphics features
  - Optimized 256-bit BLT engine
  - 32-bit alpha blended cursor
  - Programmable 3-color transparent cursor
- 3D graphics features
  - 200 megapixels/sec fill rate
  - Maximum 3D resolution: 1600x1200x32 @ 85Hz
  - Flat and Gouraud shading

- 16- and 24-bit Z-buffering and 16- and 24-bit W-buffering
- Vertex and programmable pixel fogging and atmospheric effects
- Double and triple render buffer
- Software drivers
  - Windows® 98SE/2000/ME/XP
  - Windows NT® 4.0

## 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

## ONBOARD LAN FEATURES

- Uses Intel® 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

## 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®

## REAR PANEL I/O PORTS

- 2 USB 2.0/1.1 ports
- 1 RJ45 LAN port
- 1 DB-9 serial port
- 1 DB-15 VGA port
- 1 DB-25 parallel port
- 1 mini-DIN-6 PS/2 mouse port
- 1 mini-DIN-6 PS/2 keyboard port
- 1 game 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 connector for 1 external serial port
- 1 connector for external line-out and mic-in jacks
- 2 internal audio connectors (CD-in and AUX-in)
- 1 S/PDIF-out connector (audio digital interface)
- 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
- 3 fan connectors for CPU fan, chassis fan and 2nd fan

## EXPANSION SLOTS

- 1 ADD slot; supports (AGP Digital Display) card only

- 3 PCI slots

## COMPATIBILITY

- PCI 2.2 and AC '97 compliant

## PCB

- 4 layers, MicroATX form factor
- 24.5cm (9.65") x 24.5cm (9.65")

## SAFETY

- UL, FCC Class B, CE



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