

G4S300-B

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

MicroATX board with Serial ATA support and 3 PCI slots

Introduced: Q1/2004

Features:

- MicroATX format
- Supports Intel® Pentium® 4 and Intel® Celeron® Processor
- Hyper Threading Technology
- Intel® 865G chipset – 400/533/800 MHz data bus
- On-board Video
- On-board LAN
- On-board Audio
- Serial ATA support (2)
- Supports up to 8 USB (2.0/1.1)
- Four expansion slots: 3 PCI and 1 AGP
- Monitors fan speed, temperature, and power supply voltages

7.87" (20cm)

9.64" (24.5cm)



The G4S300-B revision controlled motherboard offers the combination of the Intel® Pentium® 4 or Intel® Celeron® processor power (478 pin), with three PCI slots and 1 AGP 1.5V slot. This MicroATX motherboard has a great combination of on-board audio, on-board video, on-board LAN, and up to 8 USB 2.0 ports.

The G4S300-B features the Intel® 865G chipset on a MicroATX format motherboard. The 800MHz/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 G4S300-B is produced under strict revision control guidelines to provide an extended product life cycle (2-3 years 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 Systems
- Industrial Control
- Voice Recognition
- Embedded Integration



Extended Life Motherboard: G4S300-B

Intel® 865G chipset, MicroATX System Board

PROCESSOR

- Intel® Pentium® 4 Processor with Hyper-Threading Technology
 - 800MHz/533MHz system data bus
- Intel® Pentium® 4 Processor
 - 533MHz/400MHz system data bus
- Intel® Celeron® Processor
 - 400MHz system data bus

CHIPSET

- Intel® 865G chipset
 - Intel® 865G Graphics Memory Controller Hub (GMCH)
 - Intel® 82801EB I/O Controller Hub (ICH5)

SYSTEM MEMORY

- Two 184-pin DDR DIMM sockets
- Supports dual channel (128-bit wide) memory interface
- Supports up to 2GB system memory
- Synchronous operation with processor system bus
 - PC2700/PC3200 (DDR266/DDR333/DDR400) with 800MHz FSB CPU
 - 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 non-ECC (x64) DIMM using 128Mb, 256Mb, or 512Mb
- Supports unbuffered DIMMs

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
- 2Mbit 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) and 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

ONBOARD GRAPHICS FEATURES

- Graphics memory
 - Shares 1MB/4MB/8MB/16MB/32MB of the system memory in DOS mode
 - Uses Dynamic Video Memory Technology (DVMT) in Windows mode
- Graphics controller
 - Core frequency of 266MHz
 - 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 and 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 Realtek RTL8101L fast ethernet controller
- Integrated IEEE 802.3, 10BASE-T and 100BASE-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

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

SATA IDE INTERFACE

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

PROCESSOR SOCKET

- Socket 478-based Intel®

ACCELERATED GRAPHICS PORT (A.G.P)

- Supports AGP 3.0 and AGP 2.0 spec.
- AGP 8x data rate provides a theoretical maximum bandwidth of 2.13GB/sec.
- Supports 1.5V AGP 4x with up to 1066MB/sec. bandwidth for 3D graphics applications (3.3V AGP card is NOT supported)

REAR PANEL I/O PORTS

- 4 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
- 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 1 external game/MIDI port
- 1 connector for external line-out and mic-in jacks
- 1 CD-in internal audio connector
- 1 S/PDIF-out connector
- 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
- 3 fan connectors for CPU fan, chassis fan and 2nd fan

EXPANSION SLOTS

- 1 AGP slot; 1.5V AGP 4x/8x card
- 3 PCI slots

COMPATIBILITY

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

PCB

- 4 layers, MicroATX form factor
- 24.5cm (9.64") x 20cm (7.87")

SAFETY

- UL, cUL, FCC Class B, CE



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