

G4S306-C

Rev. A+ System Board User's Manual

935-G4S306-500G
A80210545

Chapter 1 - Introduction

1.1 Features and Specifications

1.1.1 Features

Chipset

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

Processor

The system board is equipped with Socket 478 for installing one of the following supported processors.

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

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 (DDR333/DDR400) with 800MHz FSB CPU. DDR333 will run at 320MHz memory frequency when used with 800MHz FSB CPU.
 - Use PC2100/PC2700 (DDR266/DDR333) with 533MHz FSB CPU
 - Use PC2100 (DDR266) with 400MHz FSB CPU
- Supports non-ECC (x64) DIMM using 128Mb, 256Mb or 512Mb
- Supports unbuffered DIMMs



Note:

When using DDR333/DDR400 with Celeron 400MHz FSB CPU, the maximum speed will be limited to the speed of a DDR266.

Density	64 Mbit		128 Mbit		256 Mbit		512 Mbit	
Density Width	X8	X16	X8	X16	X8	X16	X8	X16
Single/Double	SS/DS	SS/DS	SS/DS	SS/DS	SS/DS	SS/DS	SS/DS	SS/DS
184-pin DDR	64/128MB	32MB/NA	128/256MB	64MB/NA	256/512MB	128MB/NA	512/1024MB	256MB/NA

Expansion Slots

- 1 AGP slot
- 3 PCI slots

AGP (Accelerated Graphics Port)

- Supports AGP 3.0 (AGP 4x and 8x) and AGP 2.0 (AGP 1x and 4x) spec.
- Supports 1.5V AGP 8x (2.13GB/sec.) and AGP 4x (1066MB/sec.) add-in cards.

AGP is an interface designed to support high performance 3D graphics cards for 3D graphics applications. It handles large amounts of graphics data with the following features:

- Pipelined memory read and write operations that hide memory access latency.
- Demultiplexing of address and data on the bus for nearly 100 percent efficiency.



Note:

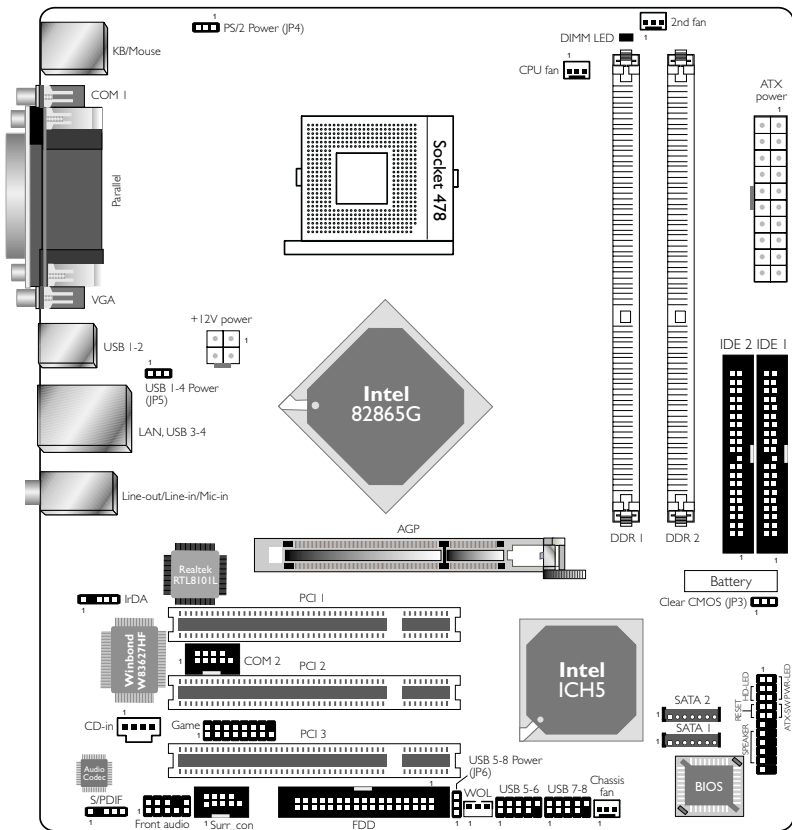
AGP 2x and 3.3V AGP cards are not supported.

Onboard Graphics Features

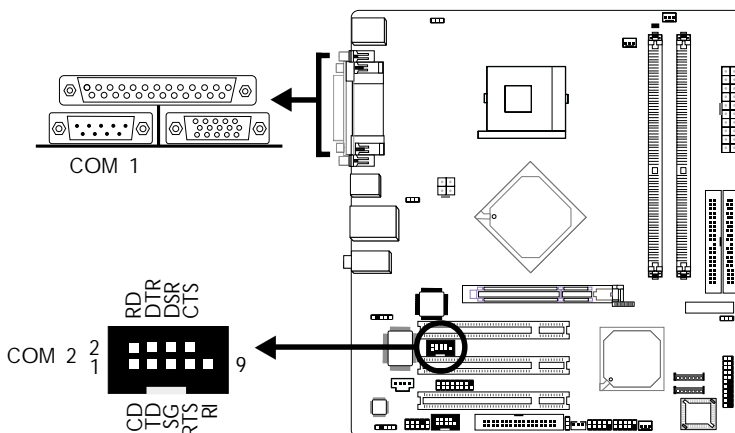
- Graphics memory
 - Shares 1MB/8MB/16MB of the system memory in DOS mode
 - Uses Dynamic Video Memory Technology (DVMT) in Windows mode
- Graphics controller
 - Core frequency of 266MHz
 - 350MHz integrated 24-bit RAMDAC

Chapter 2 - Hardware Installation

2.1 System Board Layout



2.5.2 Serial Ports



The serial ports are RS-232C asynchronous communication ports with 16C550A-compatible UARTs that can be used with modems, serial printers, remote display terminals, and other serial devices.

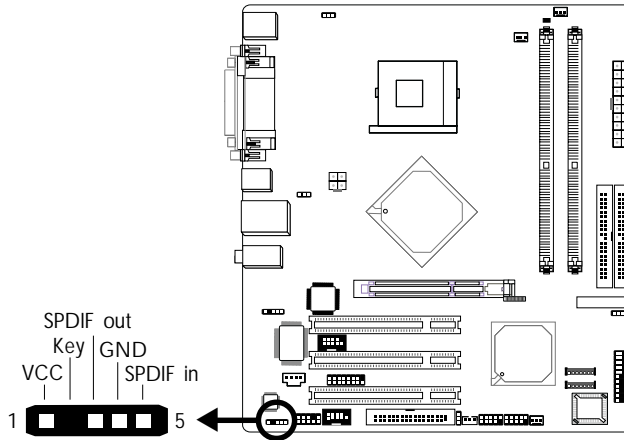
The system board is equipped with an onboard serial port (CN4 - Teal/Turquoise) for COM 1 and a 9-pin connector at location J6 for COM 2.

One card-edge bracket, mounted with a serial port cable, will be provided as an option. If you want to use the COM 2 serial port, connect the serial port cable to connector J6. Make sure the colored stripe on the ribbon cable is aligned with pin 1 of connector J6. Mount the card-edge bracket to the system chassis.

BIOS Setting

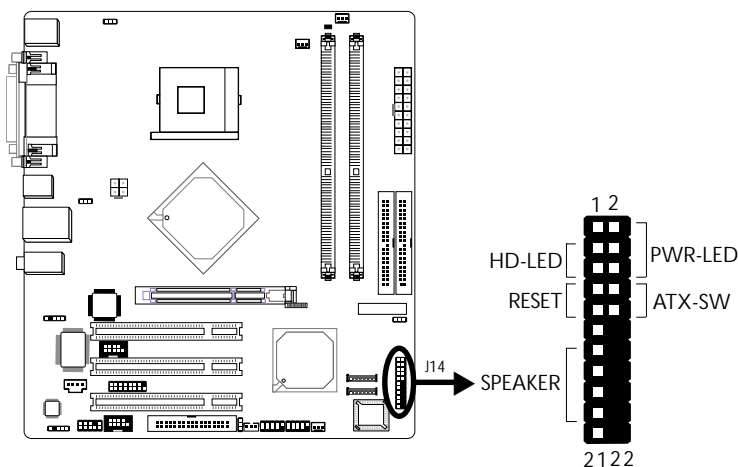
Select the serial ports' I/O address in the Integrated Peripherals submenu ("Super IO Device" section) of the BIOS. Refer to chapter 3 for more information.

2.6.3 S/PDIF Connector



The system board is equipped with a S/PDIF connector. One card-edge bracket, mounted with S/PDIF ports, will be provided as an option. Install the card-edge bracket to the system chassis then connect the audio cable connector to J3. Make sure pin 1 of the audio cable connector is aligned with pin 1 of J3.

2.6.13 Front Panel Connectors



HD-LED: Primary/Secondary IDE LED

This LED will light when the hard drive is being accessed.

RESET: Reset Switch

This switch allows you to reboot without having to power off the system thus prolonging the life of the power supply or system.

SPEAKER: Speaker Connector

This connects to the speaker installed in the system chassis.

ATX-SW: ATX Power Switch

Depending on the setting in the BIOS setup, this switch is a “dual function power button” that will allow your system to enter the Soft-Off or Suspend mode. Refer to “Soft-Off By PWR-BTTN” in the Power Management Setup (Chapter 3).

PWR-LED: Power/Standby LED

When the system's power is on, this LED will light. When the system is in the S1 (POS - Power On Suspend) or S3 (STR - Suspend To RAM) state, it will blink every second.

**Note:**

If a system did not boot-up and the Power/Standby LED did not light after it was powered-on, it may indicate that the CPU or memory module was not installed properly. Please make sure they are properly inserted into their corresponding socket.

	Pin	Pin Assignment
HD-LED (Primary/Secondary IDE LED)	3 5	HDD LED Power HDD
Reserved	14 16	N. C. N. C.
ATX-SW (ATX power switch)	8 10	PWRBT+ PWRBT-
Reserved	18 20	N. C. N. C.
RESET (Reset switch)	7 9	Ground H/W Reset
SPEAKER (Speaker connector)	13 15 17 19	Speaker Data N. C. Ground Speaker Power
PWR-LED (Power/Standby LED)	2 4 6	LED Power (+) LED Power (+) LED Power (-) or Standby Signal
Reserved	1 11 21 22	N. C. N. C. N. C. N. C.
Key	12	N. C.