# Helios

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**MICRONICS**
HIGH-PERFORMANCE SYSTEM-BOARDS

## STANDARD FEATURES

- ATX Footprint 8.3" x 12"
- Dual Intel Slot 1 CPU support. Single or Dual operation OK
- Supports Intel 66MHz FSB CPUs 233MHz - 333MHz and 100MHz FSB CPUs 350MHz - 400MHz
- Jumperless CPU configuration via BIOS
- Intel 440BX AGPset north bridge
- (4) 3.3Volt unbuffered 168-pin DIMM Sockets with support for 66MHz SDRAM or PC100 spec 100MHz SDRAM
- Maximum memory 1GB
- Dual Channel PCI BUS mastering EIDE with Ultra DMA/33 Protocol support

- (1) AGP slot / (4) PCI slots / (1) PCI/ISA shared expansion slot
- (2) USB (Universal Serial BUS) ports
- (2) Serial (16550 UART compatible) ports
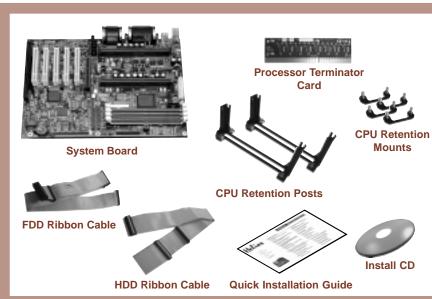- (1) ECP/EPP/STD Parallel port

### BIOS FEATURES

- Phoenix 4.06 BIOS on 2MB Flash
- Advanced Power Management 1.2
- Quick Boot / Multi-Boot-II
- DMI 2.0 / SMI

## OPTIONAL FEATURES (MANUFACTURING OPTIONS)

- LM79 Microprocessor System Hardware Monitor.
  - (2) CPU fan speed monitoring 3-pin headers
  - (2) LM75 CPU temperature sensors
  - (1) Chassis intrusion 2-pin header
  - (1) Chassis fan speed monitoring 3-pin header
- ESS Maestro-2 PCI Audio.
  - Full DOS Legacy Compatible

- Line-in, Line-out, Mic, and Game/MIDI port
- PC/PCI ready (14-pin & 6-pin header)
- 4-pin CD-ROM audio header (ATAPI)
- 4-pin telephony header (ATAPI)
- 4-pin line in header (ATAPI)
- 4-pin Aux 2 header (ATAPI)
- 4-pin Video-in header (ATAPI)

# Contents

**System Board**

**Processor Terminator Card**

**CPU Retention Mounts**

**CPU Retention Posts**

**FDD Ribbon Cable**

**HDD Ribbon Cable**
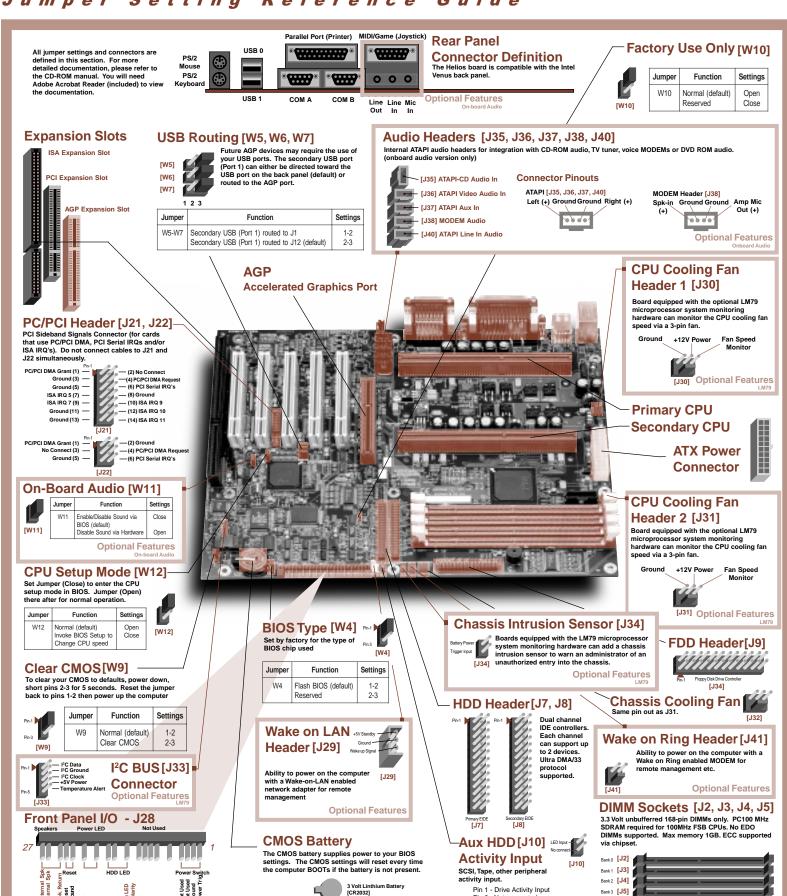
**Quick Installation Guide**

**Install CD**

### Contents Listing

- (1) Helios System Board
- (1) Processor Terminator Card
- (2) CPU Retention Posts
- (4) CPU Retention Mounts
- (1) Two Device 34-Pin Floppy Disk Drive Ribbon Cable
- (1) Two Device 40-Pin Hard Disk Drive Ribbon Cable
- (1) Device Drivers CD-ROM with Software Manual via Adobe Acrobat Reader

# Jumper Setting Reference Guide

All jumper settings and connectors are defined in this section. For more detailed documentation, please refer to the CD-ROM manual. You will need Adobe Acrobat Reader (included) to view the documentation.

**PS/2 Mouse**
**PS/2 Keyboard**
**USB 0**
**USB 1**
**Parallel Port (Printer)**
**COM A**
**COM B**
**MIDI/Game (Joystick)**
**Line Out** **Line In** **Mic In**

### Rear Panel Connector Definition
The Helios board is compatible with the Intel Venus back panel.

Optional Features
On-board Audio

### Factory Use Only [W10]

| Jumper | Function | Settings |
|---|---|---|
| W10 | Normal (default) | Open |
| | Reserved | Close |

[W10]

### Expansion Slots

ISA Expansion Slot
PCI Expansion Slot
AGP Expansion Slot

### USB Routing [W5, W6, W7]

Future AGP devices may require the use of your USB ports. The secondary USB port (Port 1) can either be directed toward the USB port on the back panel (default) or routed to the AGP port.

[W5]
[W6]
[W7]
1 2 3

| Jumper | Function | Settings |
|---|---|---|
| W5-W7 | Secondary USB (Port 1) routed to J1 | 1-2 |
| | Secondary USB (Port 1) routed to J12 (default) | 2-3 |

### Audio Headers [J35, J36, J37, J38, J40]

Internal ATAPI audio headers for integration with CD-ROM audio, TV tuner, voice MODEMs or DVD ROM audio. (onboard audio version only)

[J35] ATAPI-CD Audio In
[J36] ATAPI Video Audio In
[J37] ATAPI Aux In
[J38] MODEM Audio
[J40] ATAPI Line In Audio

**Connector Pinouts**

ATAPI [J35, J36, J37, J40]
Left (+) Ground Ground Right (+)

MODEM Header [J38]
Spk-in Ground Ground Amp Mic
(+) Out (+)

Optional Features
Onboard Audio

### AGP
Accelerated Graphics Port

### CPU Cooling Fan Header 1 [J30]

Board equipped with the optional LM79 microprocessor system monitoring hardware can monitor the CPU cooling fan speed via a 3-pin fan.

Ground  +12V Power  Fan Speed Monitor

[J30] Optional Features
LM79

### PC/PCI Header [J21, J22]

PCI Sideband Signals Connector (for cards that use PC/PCI DMA, PCI Serial IRQs and/or ISA IRQ's). Do not connect cables to J21 and J22 simultaneously.

Pin-1
PC/PCI DMA Grant (1) — (2) No Connect
Ground (3) — (4) PC/PCI DMA Request
Ground (5) — (6) PCI Serial IRQ's
ISA IRQ 5 (7) — (8) Ground
ISA IRQ 7 (9) — (10) ISA IRQ 9
Ground (11) — (12) ISA IRQ 10
Ground (13) — (14) ISA IRQ 11
[J21]

Pin-1
PC/PCI DMA Grant (1) — (2) Ground
No Connect (3) — (4) PC/PCI DMA Request
Ground (5) — (6) PCI Serial IRQ's
[J22]

**Primary CPU**
**Secondary CPU**

**ATX Power Connector**

### On-Board Audio [W11]

| Jumper | Function | Settings |
|---|---|---|
| W11 | Enable/Disable Sound via BIOS (default) | Close |
| | Disable Sound via Hardware | Open |

[W11]
Optional Features
On-board Audio

### CPU Cooling Fan Header 2 [J31]

Board equipped with the optional LM79 microprocessor system monitoring hardware can monitor the CPU cooling fan speed via a 3-pin fan.

Ground  +12V Power  Fan Speed Monitor

[J31] Optional Features
LM79

### CPU Setup Mode [W12]

Set Jumper (Close) to enter the CPU setup mode in BIOS. Jumper (Open) there after for normal operation.

| Jumper | Function | Settings |
|---|---|---|
| W12 | Normal (default) | Open |
| | Invoke BIOS Setup to Change CPU speed | Close |

[W12]

### BIOS Type [W4]

Set by factory for the type of BIOS chip used

Pin-1
Pin 3
[W4]

| Jumper | Function | Settings |
|---|---|---|
| W4 | Flash BIOS (default) | 1-2 |
| | Reserved | 2-3 |

### Chassis Intrusion Sensor [J34]

Boards equipped with the LM79 microprocessor system monitoring hardware can add a chassis intrusion sensor to warn an administrator of an unauthorized entry into the chassis.

Battery Power
Trigger Input
[J34]

Optional Features
LM79

### FDD Header [J9]

Pin-1  Floppy Disk Drive Controller
[J34]

### Clear CMOS [W9]

To clear your CMOS to defaults, power down, short pins 2-3 for 5 seconds. Reset the jumper back to pins 1-2 then power up the computer

Pin-1
Pin-3
[W9]

| Jumper | Function | Settings |
|---|---|---|
| W9 | Normal (default) | 1-2 |
| | Clear CMOS | 2-3 |

### HDD Header [J7, J8]

Dual channel IDE controllers. Each channel can support up to 2 devices. Ultra DMA/33 protocol supported.

Pin-1  Pin-1

Primary EIDE  Secondary EIDE
[J7]  [J8]

### Chassis Cooling Fan [J32]
Same pin out as J31.

[J32]

### I²C BUS [J33] Connector

Pin-1  I²C Data
I²C Ground
I²C Clock
+5V Power
Pin-5  Temperature Alert
[J33]

Optional Features
LM79

### Wake on Ring Header [J41]

Ability to power on the computer with a Wake on Ring enabled MODEM for remote management etc.

[J41]  Optional Features

### Front Panel I/O - J28

Speakers   Power LED   Not Used

27 ........................................ 1

External Spk
Internal Spk
Spk Return
Reset
Reset Ground
HDD LED
(+)LED Polarity
Not Used
Not Used
Ground
Power Trigger

Speakers   Power LED   Reset   HDD LED   Power Switch

### Wake on LAN Header [J29]

+5V Standby
Ground
Wake up Signal

Ability to power on the computer with a Wake-on-LAN enabled network adapter for remote management

[J29]  Optional Features

### CMOS Battery

The CMOS battery supplies power to your BIOS settings. The CMOS settings will reset every time the computer BOOTs if the battery is not present.

3 Volt Linthium Battery
[CR2032]

### Aux HDD [J10] Activity Input

SCSI, Tape, other peripheral activity input.

Pin 1 - Drive Activity Input
Pin 2 - Not connected

LED Input +
No connect
[J10]

### DIMM Sockets [J2, J3, J4, J5]

3.3 Volt unbuffered 168-pin DIMMs only. PC100 MHz SDRAM required for 100MHz FSB CPUs. No EDO DIMMs supported. Max memory 1GB. ECC supported via chipset.

Bank 0  [J2]
Bank 1  [J3]
Bank 2  [J4]
Bank 3  [J5]

# Installation

Follow the instructions provided by your chassis manufacturer for details on hardware installation. Before booting the system board for the first time, set your jumper **W12** to (close), "SETUP" mode, then power ON. Once the CPU settings are completed through your BIOS, Save & Exit then power OFF. Change the Jumper **W12** back to (Open), "NORMAL" mode and reboot. For a more detailed manual of the HELIOS system board, please refer to the manual located on your installation CD-ROM.