

**The following information is provided to help you begin using your RadiSys SF810 Micro NLX motherboard as quickly as possible.**

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The RadiSys SF810 Micro NLX motherboard has been designed to meet the NLX 1.8 specification and should always be used with an NLX 1.8 compliant riser card that is equipped with power connectors, I/O slots and other data connections.

**IMPORTANT:** When inserting the motherboard into the riser card always remove the AC power to prevent any accidental damage to the board.

### **PSU**

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It is recommended that an ATX style 'soft-switched' power supply be used to power the board. A 'hard-switched' power supply will also work as long as it has the facility of providing 3.3V. Beware that some power management features will not be supported using 'hard-switched' PSU's as they do not have a 5V<sub>SBY</sub> output.

### **CPU**

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The motherboard supports Socket 370 PGA Celeron<sup>®</sup> and FC-PGA Pentium<sup>®</sup> III processors operating at 66MHz and 100MHz FSB (Front Side Bus). Processor core multipliers and voltages are set automatically by the processor, which eliminates the need for any CPU speed jumpers. For proper cooling of the processor an active (fan) heat sink is recommended.

### **RAM**

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Two 168-pin DIMM sockets are fitted to the motherboard which accept 64-bit wide unbuffered PC-100 SDRAM modules with Serial Presence Detect (SPD), providing a maximum capacity of 512MB.

Please note that EDO and 72-bit with parity/ECC memory is **not** supported.

**CAUTION:** Given that the memory modules are supplied from the 3V3 Standby rail, it is important to remove the AC power before removing or inserting any memory module.

### **BIOS**

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Configuration of the motherboard, in the majority of cases, is achieved through BIOS settings. Please note that the BIOS is currently in its early stages of development and sample boards may be supplied with a pre-release BIOS in which not all options/settings are available. BIOS updates will be made available for download during the course of the BIOS development and will be posted on the RadiSys website shown below.

The facility to display a custom logo and to set BIOS defaults is also under development.

RadiSys BIOS Website	<a href="http://www.radisys.com/cgi-bin/filelib/showdir/Endura/BIOS">http://www.radisys.com/cgi-bin/filelib/showdir/Endura/BIOS</a>
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### **Drivers**

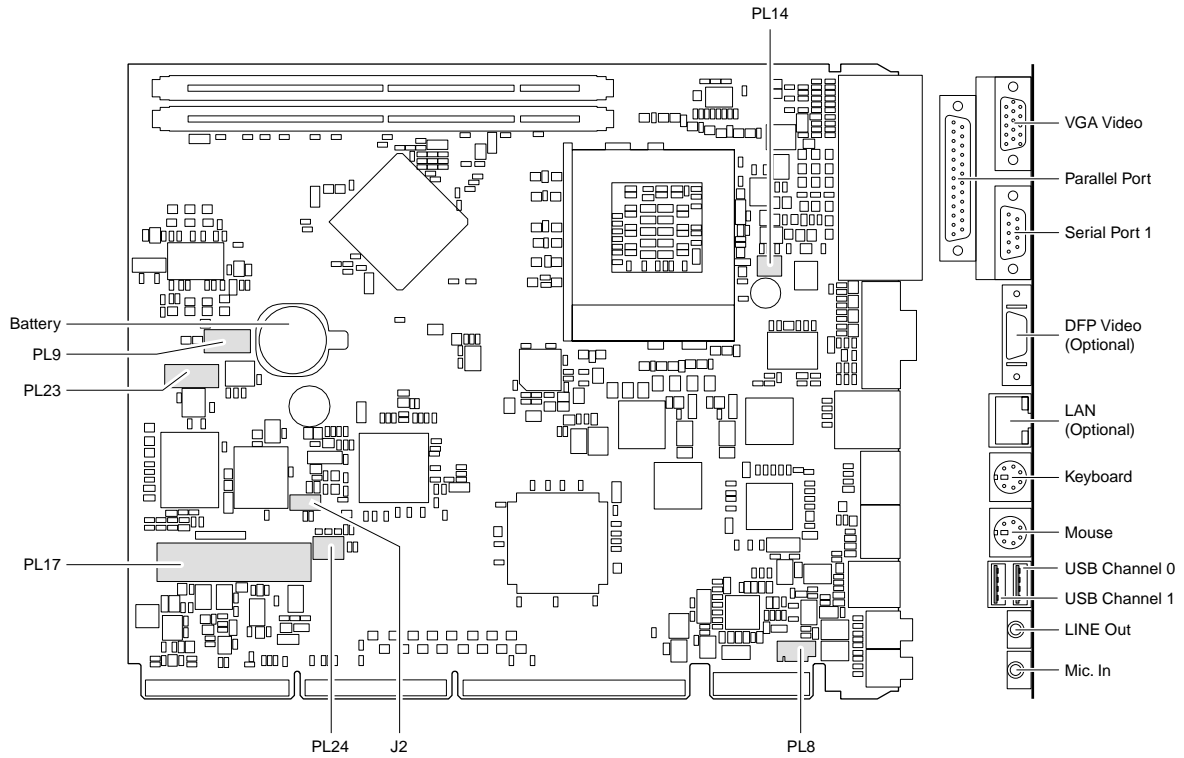
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The currently validated software drivers for the Audio, Video and Network devices on the motherboard, for Windows9x, WindowsNT and Windows2000 operating systems, are provided on the accompanying CDROM. Any later device drivers will be posted on the RadiSys website in the Download Library.

RadiSys Drivers Website	<a href="http://www.radisys.com">http://www.radisys.com</a>
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# Motherboard Connectors

The following diagram shows the location of the motherboard connectors.



**NOTE:** The Mouse and Keyboard are interchangeable and the Audio Line-Out connector is designed to power headphones or amplified speakers only.

- PL8 - ATAPI CD-ROM Audio connector.**
- PL14 - CPU Fan.**
- PL23 - GPIO Header.**

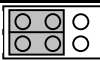
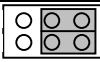
- PL9 - Serial Port B (COM2).**
- PL17 - Floppy Disk drive. Optional fit.**

Provides 8 general purpose I/O lines that can be individually programmed.

Pin	Signal	Pin	Signal
1	GPIO20	2	GPIO21
3	GPIO22	4	GPIO23
5	GPIO24	6	GPIO25
7	GPIO26	8	GPIO27
9	Key	10	GND
11	+5V	12	+3V3

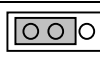
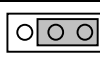
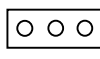
**PL24 - USB Routing.**

Allows the motherboard to route USB channel 1 either to the rear connector or to the riser.

Routing	Jumper Setting
Rear Connector	1 – 3 
Riser Connector	3 – 5 

**J2 - Operating Mode Selector.**

This jumper selects one of the following three operating modes for the motherboard:

Mode	Jumper Setting	Configuration
Normal	1 – 2 	The BIOS uses the current configuration information and passwords for booting.
Configure	2 – 3 	After the POST is run, Setup is run automatically using BIOS defaults.
Recovery	None 	The BIOS attempts to recover the BIOS configuration using a recovery diskette.

**CAUTION:** None of the internal board connectors have overcurrent protection and are only intended for devices inside the chassis.