RadiSys®

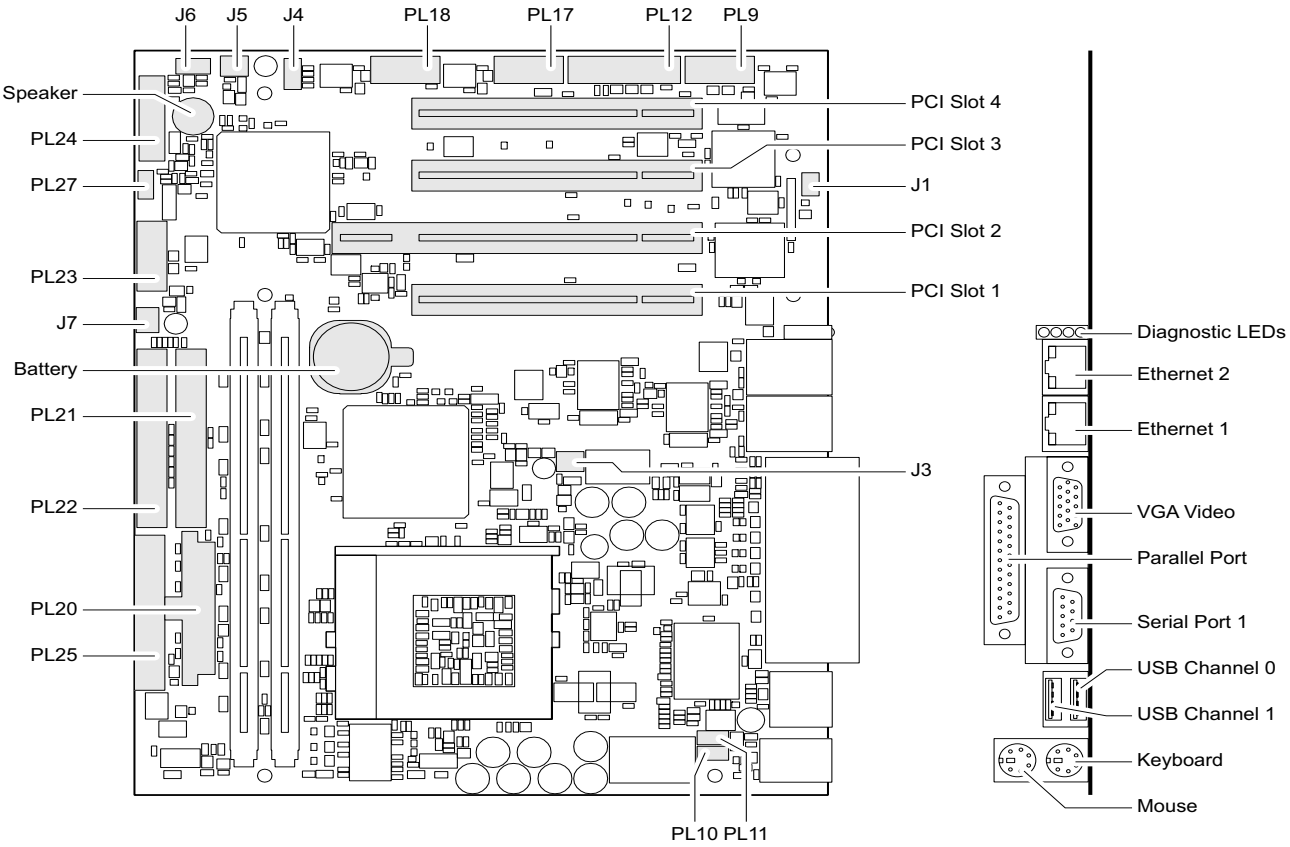
Embedded Motherboards

Endura CH815C microATX

QuickStart Guide

The following information is provided to help you quickly configure, install and operate your RadiSys CH815C microATX motherboard. Refer to the product manual for more detailed information.

The RadiSys CH815C is an ATX-family motherboard that meets the microATX form factor specifications and is based around an Intel® 815 chipset with the Intel® Communications I/O Controller Hub (C-ICH). It supports Intel® FC-PGA and FC-PGA2 Celeron™ and Pentium® III processors and features integrated video, riser support on PCI slots 2, 3 & 4, system monitoring, quad RS232 serial ports and dual Ethernet on a board measuring 9.6 x 8.0 inches.



J1	Enable Riser Support for Slots 3 & 4	PL17	Serial Port 3 Header
J3	Processor Fan	PL18	Serial Port 4 Header
J4	Operating Mode Jumper	PL20	ATX Power Connector
J5	System Fan 1	PL21	Secondary IDE Connector
J6	3-Pin Power LED Header	PL22	Primary IDE Connector
J7	System Fan 2	PL23	External LAN LED Header
PL9	Serial Port 2 Header	PL24	Front Panel Header
PL10	Keyboard Header	PL25	Floppy Diskette Connector
PL11	Mouse Header	PL27	SMBUS Header
PL12	GPIO Header		

Quick Start

To begin operating your CH815C motherboard, perform the following:

- Ensure that the jumper settings match your requirements.
- Attach all necessary peripheral devices to the appropriate headers and connections on the board using the information provided on the following page.
- Power on the system.
- Run the BIOS setup utility (press <F2> during POST) if you need to change any settings to match your requirements.

To avoid damage or injury, always exercise the following precautions when handling this product:

- Use a grounding wrist strap or other static dissipating device.
- Power off the system.
- Disconnect all power cables.

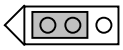
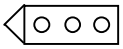
BIOS

Configuration of the motherboard, in the majority of cases, is achieved through BIOS settings. These can be viewed and modified using the BIOS setup utility that can be started by pressing the <F2> key during POST. The BIOS also has the facility to display a custom logo and to set customizable defaults. The instructions to create these are in the product manual.
BIOS updates will be made available for download during the course of the BIOS development and will be posted on the download page on the RadiSys Web site http://www.radisys.com

Technical and Product Support

BIOS updates, device drivers, product and technical support documentation are available for download from the RadiSys Web site. Click on 'Support and Service' to access a link to the appropriate page. Documentation is available in Adobe® Acrobat® .PDF format and may be viewed and printed using Acrobat® Reader™ software. The latest BIOS and device driver files are available for download in .ZIP format.
Current documentation and driver files are also supplied on a CD-ROM that is available upon request.
Note: It is recommended that only the drivers supplied by RadiSys are used as those posted on the device manufacturer's Web sites are unlikely to function correctly.

Connector Descriptions

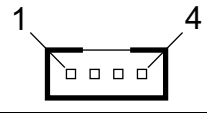
Operating Mode Jumper (J4)		
Mode	**Jumper Setting**	**Configuration**
Normal	1 – 2 	The BIOS uses the current configuration information and passwords for booting.
Configure	2 – 3 	After POST is run, Setup is run automatically using BIOS defaults.
Recovery	None 	The BIOS attempts to recover the BIOS configuration using a recovery diskette.

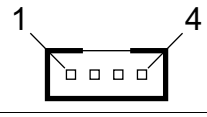
External LAN LED Header (PL23)			
Pin	**Signal**	**Pin**	**Signal**
1	150Ω pull up to +3.3Vsby	2	Ethernet 2 Activity LED
3	Key	4	Ethernet 2 Link LED
5	150Ω pull up to +3.3Vsby	6	Ethernet 2 Speed LED
7	150Ω pull up to +3.3Vsby	8	Ethernet 1 Activity LED
9	150Ω pull up to +3.3Vsby	10	Ethernet 1 Link LED
11	150Ω pull up to +3.3Vsby	12	Ethernet 1 Speed LED

Front Panel Header (PL24)			
Pin	**Signal**	**Pin**	**Signal**
1	330Ω pull up to +5V	2	Power LED (Green)
3	HDD Activity LED#	4	Power LED (Yellow)
5	Ground	6	Power Switch
7	Reset Switch	8	Ground
9	+5V	10	+5V
11	Infra Red RxD	12	Speaker
13	Ground	14	No Pin (Key)
15	Infra Red TxD	16	Speaker
17	Not Used	18	Tamper
19	Not Used	20	Ground

GPIO Header (PL12)			
Pin	**Signal**	**Pin**	**Signal**
1	GPIO20	2	GPIO21
3	GPIO22	4	GPIO23
5	GPIO24	6	GPIO25
7	GPIO26	8	GPIO27
9	Key	10	Ground
11	+5V	12	+3.3V
13	GPIO30	14	GPIO31
15	Reserved	16	GPIOSW1
17	Not Used	18	GPIOSW2
19	Not used	20	Ground

Serial Ports 2 to 4 (PL9, 17 & 18)			
Pin	**Signal**	**Pin**	**Signal**
1	DCD	2	DSR
3	RXD	4	RTS
5	TXD	6	CTS
7	DTR	8	RI
9	Ground	10	Key

SMBUS Header (PL27)		
Pin	**Signal**	**Connector**
1	+3.3V	
2	Data	
3	Clock	
4	Ground	

Keyboard & Mouse Headers (PL10 & 11)		
Pin	**Signal**	**Connector**
1	5V (Fused)	
2	Data	
3	GND	
4	Clock	

3-Pin Power LED Header (J6)	
Pin	**Signal**
1	Green LED
2	Not Used
3	Yellow LED

Riser Support for PCI Slots 3 & 4 (J1)	
Jumper installed	- Riser support Enabled
Jumper not installed	- Riser support Disabled