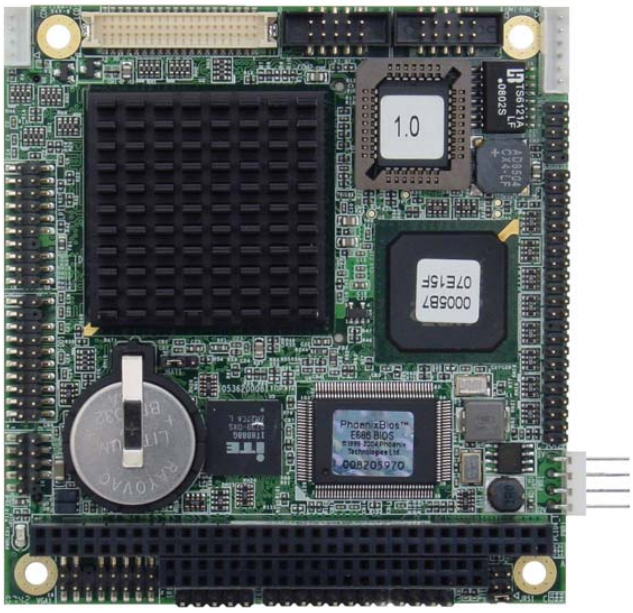
RHODEUS–LC

Low-Power 500MHz PC/104 SINGLE BOARD COMPUTER



- Low power, mid-range PC/104 expandable single board computer
- AMD Geode LX800 processor operating fan-less at 500MHz
- Up to 1GB DDR SO-DIMM DRAM
- Fully featured including support for:
  - Two USB 2.0 ports
  - Two RS-232 serial ports
  - 10/100Mbps Ethernet
  - IDE hard drive interface for two devices
  - CompactFlash Type II storage
  - VGA CRT or 1280 X 1024 LCD
- PC/104 ISA expansion
- -20°C to +70°C operating temperature

DESCRIPTION

Rhodeus-LC offers mid-range computing power in a compact, low power consumption and low cost PC/104 single board computer. It is a superior choice for low-cost / high volume applications such as medical equipment, process control and instrumentation.

Rhodeus-LC utilizes the AMD Geode LX800 processor operating fan-less at 500MHz. The LX800 has an integrated VGA controller with 2D hardware acceleration and support for high resolution CRT and LCD displays. In addition the Realtek RTL8100CL Ethernet controller provides 10/100Mbps network connectivity with wake-on-LAN capability supported in BIOS. Up to 1GB of SDRAM system memory is provided via a standard 200-pin DDR SO-DIMM.

A full set of I/O ports is provided to support any application's requirements including Ethernet, UDMA-33 IDE, CompactFlash, floppy, parallel, PS/2 keyboard and mouse, and 2 USB 2.0 ports. The SBC also has two 16450-compatible serial ports: one is fixed RS-232 and the second is jumper configurable for RS-232, RS-422, and RS-485 protocols. The watchdog timer provides protection from software crashes and is programmable for delays between 1 and 255 seconds or minutes.

MASS STORAGE

Multiple mass storage devices can be used with Rhodeus, including:

- UDMA-33 IDE hard drive (up to 2 devices)
- CompactFlash Type II (socket on bottom side)
- Floppy drive (up to 2 devices)

CABLE KIT

A cable kit is available that provides all of the cables necessary to bring the on-board I/O out from the pin headers to industry standard connectors.

CUSTOMIZATION / RUGGEDIZATION

Rhodeus-LC can be customized to meet your specific application needs. Minimum order quantities may apply.

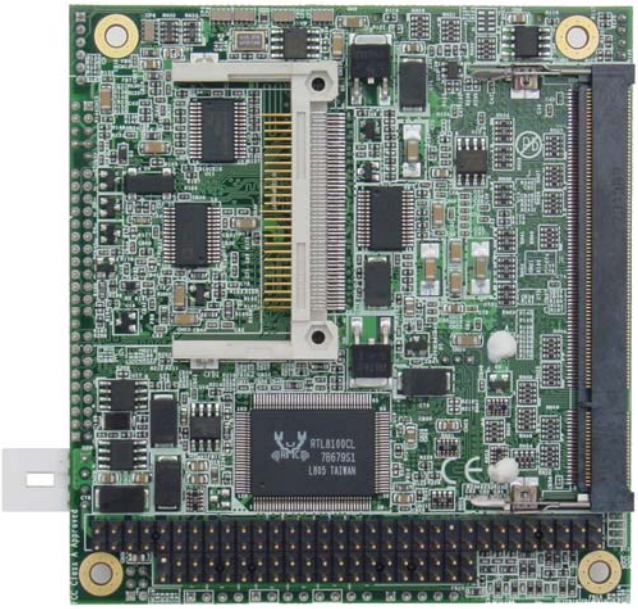
- Conformal coating: Acrylic, Urethane, or Silicone
- Hardwired configurations to replace jumpers
- Battery-less boot
- Custom splash screen at boot-up

OPERATING SYSTEM SUPPORT

Rhodeus-LC supports Windows 2000, Windows XP, Windows CE 5.0 and Linux.

SPECIFICATIONS

Form Factor	PC/104
Processor	AMD Geode™ LX800
Cache	64K L1 cache & 128K L2 cache
Chipset	CS5536
I/O Chip	W83627HG
PCI to ISA bridge	ITE8888G
System Memory	1 x 200 pins DDR SO-DIMM up to 1GB SDRAM
VGA/ LCD Controller	AMD Geode LX series CPU integrated VGA controller with 2D engine (shared memory max, 64MB)
LCD	Supports 18/24-bit TTL up to 1280 x 1024
Ethernet	Realtek 8100CL 10/100 Base-T Ethernet
BIOS	Phoenix-Award BIOS
IDE Interface	1 x Ultra DMA 33, supports 2 IDE devices
Serial Ports	2 x RS-232 ports COM1: RS-232 COM2: RS-232/RS-422/RS-485 selectable
Parallel Port	1 x SPP/EPP/ECP mode
Floppy Port	1x Floppy connector
Keyboard / Mouse	Standard PS/2 Keyboard and Mouse
Universal Serial Bus	2 x USB 2.0 ports
On-Board Mass Storage	1 x Type II Compact flashdisk socket up to 4GB
Audio	Speaker Out
Hardware Monitor	Integrated in W83627HG
Real-Time Clock	AMD Geode CS5536 built-in RTC with lithium battery
Watchdog Timer	1 - 255 Levels (Sec. or Min.)
Expansion Bus	PC/104 (ISA) interface
Power Input	+5V +/-5% @ 2.0A typical
Power Consumption	5W typical
Operating Temp.	-20°C to +70°C
Dimension (L x W)	96 x 90 mm (3.775” x 3.550”)



Bottom view of Rhodeus-LC SBC showing SO-DIMM memory socket and CompactFlash socket

ORDERING INFORMATION

Part Number	Description
RDS800-LC	Rhodeus SBC, 500MHz LX800, 0MB RAM
MEM-256-04	256MB DDR SO-DIMM DRAM
MEM-512-04	512MB DDR SO-DIMM DRAM
MEM-1024-04	1024MB DDR SO-DIMM DRAM
C-RDS-KIT	Rhodeus Cable Kit

FOR MORE INFORMATION

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