# Rhodeus<sup>™</sup> SBC



# Rugged, low-power PC/104<sup>™</sup> SBC featuring integrated CRT/LCD video, Ethernet, and CompactFlash



### Low-Cost Single Board Computer

Rhodeus™ is a full-featured, rugged, PC/104<sup>™</sup>-expandable single board computer offering a wide range of system I/O at an affordable price.

### Low Power Consumption

Rhodeus combines a full set of embedded-PC functions with lower power consumption and rugged construction, allowing it to excel in applications with restricted airflow.

### Wide Operating Temperature

Rhodeus operates over the full extended temperature range of -40°C to +85°C, enabling it to deliver maximum performance in harsh environments.

# Fully Integrated Systems

Rhodeus is available as a complete system with your choice of operating system, in a specially-designed enclosure that eliminates all cables and provides a rugged, compact, wide-temperature box PC ready for application download and deployment.

# Software Support

Rhodeus supports Linux, Windows CE<sup>™</sup> and Windows XP<sup>™</sup>, and Windows Embedded Standard<sup>™</sup>.

# **Key Features**

- ◆ Low-power, PC/104 form-factor SBC
- ◆ Based on an AMD Geode<sup>™</sup> LX800 CPU, operating fanless at at 500MHz
- ♦ Up to 1GB of SO-DIMM DDR SDRAM
- ◆ Comprehensive set of I/O interfaces: - two USB 2.0 ports
- one RS-232/422/485 and one RS-232 serial port
- 10/100Mbps Ethernet
- one IDE port supporting 2 devices
- on-board CompactFlash Type II socket
- VGA CRT or TTL LCD display
- ♦ -20°C to +71°C or -40°C to +85°C operating temperature



Octavio-RDS Embedded Application Server

# Cable Kit

A Rhodeus Cable Kit (C-RDS-KIT) is available with all of the Rhodeus I/O cables.

# **RHODEUS:** PC/104 Single Board Computer



SPECIFICATIONS	
Processor	AMD Geode LX800 at 500MHz
Chipset	AMD LX800 + CS5536
Cache	64k L1 cache and 128K L2 cache
Cooling	Heat sink, fanless
Memory	Up to 1GB DDR SO-DIMM DRAM
Display type	VGA CRT or TTL LCD
Display resolution	1280x1024 maximum
USB ports	2 USB 2.0
Serial ports	1 RS-232, 1 RS-232/422/485
Parallel port	1 SPP/EPP/ECP mode
Floppy port	1 floppy connector
Networking	10/100Base-T Ethernet from Realtek 8100CL
Mass storage	1 IDE UDMA-33 port Supports 2 IDE devices
Flashdisk	1 Type II CompactFlash socket Supports up to 8GB
Keyboard/Mouse	PS/2
Audio	Speaker out
Hardware monitor	Integrated in W83627HG
Real-time clock	AMD Geode CS5536 built-in RTC with lithium battery
Watchdog timer	255-level reset
Expansion bus	PC/104 (ISA)
Input power	5V ±5%
Power consumption	5W typical @1A
Operating temp.	-20°C to +71°C (-4°F to +160°F) or -40°C to +85°C (-40°F to +185°F)
Dimensions	3.55" x 3.775" (90mm x 96mm)
Weight	2.5oz / 71g
RoHS	Compliant

ORDERING INFORMATION	
RDS800-XT	Rhodeus SBC, 500MHz, LX800, 0MB RAM, -40°C to +85°C operating temperature
RDS800-LC	Rhodeus SBC, 500MHz, LX800, 0MB RAM, -20°C to +71°C operating temperature
MEM-256-04	256MB DDR SO-DIMM SDRAM
MEM-512-04	512MB DDR SO-DIMM SDRAM
MEM-1024-04	1024MB DDR SO-DIMM SDRAM
SDK-RDS-LNX	Rhodeus Linux 2.6.23 Software Development Kit with Linux image on 512MB CompactFlash disk, software tools on CD, and documentation
C-RDS-KIT	Rhodeus Cable Kit for all on-board I/O
PNL-RDS-01	Rhodeus Panel I/O Board
OCTAVIO-RDS- RD128-00-17-00	Octavio-RDS Embedded Application Server: 500MHz Rhodeus XT SBC, 1MB RAM, 128MB Linux flashdisk, 1.7" enclosure

## Rhodeus SBC Block Diagram

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