

Cool LiteRunner-LX800

PC/104 Single Board Computer
AMD Geode™ LX800

Features

AMD Geode-LX800@0.9W, 500 MHz

256 MB soldered DDR400 RAM

Graphics up to 1920 x 1440 pixels

CRT, TFT, LVDS, with backlight

2 x LAN

4 x USB 2.0

2 x RS232/RS422/RS485

1 x RS485/Irda

IDE Ultra ATA100

CompactFlash™ socket

Low power consumption

Opt. ext. temperature range -40 °C...+85 °C

More Features

- AC97 audio
- Mini-PCI slot
- Watchdog



The Cool LiteRunner-LX800 is an affordable PC/104 single board computer, powered by an AMD Geode LX800 processor running at 500 MHz. It features 256 MB soldered DDR-RAM, AC97 sound and four USB 2.0 host ports. It is plug-in compatible to the familiar Cool LiteRunner 2.

The processor's CS5536 I/O companion integrates many of the standard PC peripherals. It has an graphics controller sharing its memory with the system memory. Either VGA monitors or digital TFT panels are selectable via jumper or BIOS settings.

A Super I/O chip provides serial and printer interfaces, as well as PS/2 ports. The Cool LiteRunner-LX800 can be expanded using the PC/104 connector or the built-in mini-PCI slot. Two independent Fast Ethernet controllers are on-board, making the Cool LiteRunner-LX800 the selection of choice for applications like managed bridges and industrial automation.

Two serial ports can be software configured for the RS232/RS422/RS485 line levels, the third is RS485 only. An integrated battery buffers the real time clock. Eight I/O signals are freely usable for application defined signals and are accessible on a flat cable connector. The ATA100 compliant EIDE interface connects storage devices. A CompactFlash adapter facilitates construction of devices without moving parts, as it is often required for mobile applications.

Troubleshooting is easy with supervision LED's for power, watchdog, Ethernet and application-defined life signaling on the module. The PC/104 bus allows system expansion with many commercially available peripheral I/O boards.

The Cool LiteRunner-LX800 uses the LiPPERT Enhanced Management Technology (LEMT). It handles the boards housekeeping tasks like power sequencing and watchdog, and provides useful utility functions for the application. Among them is a secure, write and clear protected Flash area that can be used for security keys. LEMT also enables remote condition monitoring.

LiPPERT is an independent design house and manufacturer that develops and builds special customer specific solutions. Please ask for a specific quotation.

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PC/104 Single Board Computer

AMD Geode™ LX800

Technical Data

Board Format	PC/104, 96 mm x 90 mm (3.775" x 3.550")	PS2	Keyboard, mouse
Processor	AMD Geode LX800@0.9W	GPIO	8 programmable signals
Speed	500 MHz	Watchdog	Yes
Core Logic	I/O companion: CS5536 Super I/O: ITE8712	Status LED	HDD, power, standby, power mode, live, 4x Ethernet, watchdog
RAM	256 MB DDR400, soldered on board	Operating temperature	0°C...+60°C (commercial, all versions) -20°C...+60°C (industrial, all versions) -40°C...+85°C (extended, optional)
RAM clock	400 MHz	ISA Bus	PC/104
Graphics	Integrated in the Geode LX800. Up to 254 MB video memory.	PCI Bus	Mini-PCI slot
CRT	Analog VGA 1920 x 1440 pixel at 85 Hz max.	I²C bus	Supported
TFT	Single channel, 18 bits 1600x1200 pixel at 60 Hz max.	RTC Backup	Battery on board
LVDS	Single channel, 18 and 24 bits 1600x1200 pixel at 60 Hz max.	Power Supply	5 V ±5 % All necessary voltages are generated on-board.
Audio	AC97 2.1, 2 channels	Power Consumption	Max. 6.0 watts Typ. 5.0 watts
USB	4 x USB 2.0 host ports	Cooling	Not required
Ethernet	2 x 10/100 MBit with Intel 82551IT	MTBF	308.342 hours at 25 °C
Serial	2 x RS232/RS422/RS485 1 x RS485/Irda	BIOS	Insyde Technology BIOS parameters are also saved in EEPROM
IDE	1 x Ultra ATA100 (ATA6) port	Supported OS	Windows XP, XP Embedded, Windows CE, Linux, VxWorks
Compact Flash	Type 2 socket		
LPT	Multi-Mode™ bi-directional Parallel		



Ordering Information

Ordering Number	Description
t02-0008-10	PC/104 CPU board with AMD Geode™-LX800@0.9W

Note: t denotes the temperature range. Use 7 for commercial, 8 for industrial and 9 for extended temperature range