

Cool SpaceRunner-LX800

PC/104-Plus Single Board Computer

AMD Geode™-LX800

Features

AMD Geode LX800@0.9W, 500 MHz

256 MB soldered DDR SDRAM

Graphics up to 1920 x 1440 pixels

CRT, LVDS, with backlight

100/10BaseT Ethernet

4 x USB 2.0

2 x RS232/RS422/RS485

IDE Ultra ATA100

2 GB Solid State Disk

Low power consumption

Extended temperature range -40 °C...+85 °C



More Features

- LEMT
- Watchdog
- Flash BIOS



The Cool SpaceRunner-LX800 is a fully self-contained, rugged single board computer. Its X86-compatible AMD Geode LX800 processor is combined with 256MB soldered RAM and a 2 GB solid state disk to create a single board computer without moving parts. The small PC/104-Plus board features an integrated graphics controller and handles either VGA or LVDS displays. There is a LAN interface, four USB host ports, and two serial interfaces, user configurable to handle either RS232/RS422/RS485 levels. An IDE interface for external harddisks and a flexible parallel printer port complete the interface range.

The Cool SpaceRunner-LX800 features status indication LED's and a programmable watchdog. The computer can be expanded with standard peripheral cards for the PC/104 or PC/104-Plus bus.

Power consumption is a mere 5 watts and doesn't require cooling. The board is specified for the extended ambient temperature range of -40 °C...+85 °C.

The Cool SpaceRunner-LX800 uses the LiPPERT Enhanced Management Technology (LEMT). It handles the board's 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.

With its soldered RAM, the solid state disk, the very low power consumption, and the rugged through-hole-connectors, the Cool SpaceRunner-LX800 is the best choice for devices that need to operate in adverse environments. Applications like remote data processing, security and medical devices, and many industrial controllers profit from its special features, as do all kind of mobile appliances.

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

Cool SpaceRunner-LX800

PC/104-Plus Single Board Computer

AMD Geode™-LX800

Technical Data

Board Format	PC/104-Plus, 96 mm x 90 mm (3.775" x 3.550")
Processor	AMD Geode™ LX800@0.9W
Speed	500 MHz
Core Logic	I/O companion: CS5536 Super I/O: ITE8712
RAM	256MB DDR400, soldered on board
RAM clock	400MHz
Graphics	Integrated in LX800 up to 254 MB video memory
CRT	Analog VGA 1920x1440 pixel at 85 Hz max.
LVDS	Single channel, 18 and 24 bits 1600x1200 pixel at 60 Hz max.
USB	4xUSB 2.0 host
Ethernet	10/100 MBit with Intel 82551IT
Serial	2xRS232/RS422/RS485
IDE	1 xUDMA-5 (ATA6) port
Solid State Disk	2 GB
LPT	Multi-Mode™ bi-directional Parallel

Watchdog	Yes
Status LED	HDD, power, standby, power mode, live, 3x Ethernet, watchdog
Operating temperature	-20°C...+60°C (industrial, all versions) -40°C...+85°C (extended, optional)
ISA Bus	PC/104
PCI Bus	PC/104-Plus, 3.3V compliant. Peripherals need their own 3.3V supply.
RTC Backup	Integrated Lithium battery
Power Supply	5 V ±5 % All necessary voltages are generated on-board.
Power Consumption	< 5 watts
Cooling	None required
MTBF	294.173 hours at 25 °C
BIOS	Insyde Technology BIOS parameters are also saved in Flash
Supported OS	Windows XP, XP Embedded, Windows CE, Linux, VxWorks



Ordering Information

Ordering Number	Description
#03-0019-10	PC/104+ CPU board with AMD Geode™ LX800

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

LiPPERT Embedded Computers GmbH
Hans-Thoma-Str. 11 · D-68163 Mannheim
Phone +49 621 43214-0 · Fax +49 621 43214-30
sales@lippertembedded.com
www.lippertembedded.com

LiPPERT Embedded Computers Inc.
5555 Glenridge Connector, Suite 200
Atlanta, GA 30342
Phone (404) 459 2870 · Fax (404) 459 2871
ussales@lippertembedded.com

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