

Hurricane-LX800

EPIC Single Board Computer
AMD Geode™ LX800

Features

AMD Geode™ LX800 Processor @ 500 MHz

2 x RS232/RS422/RS485

1 GB DDR333 RAM.

Graphics: 1920 x 1440 pixel

CRT, TFT, LVDS

IDE Ultra ATA100

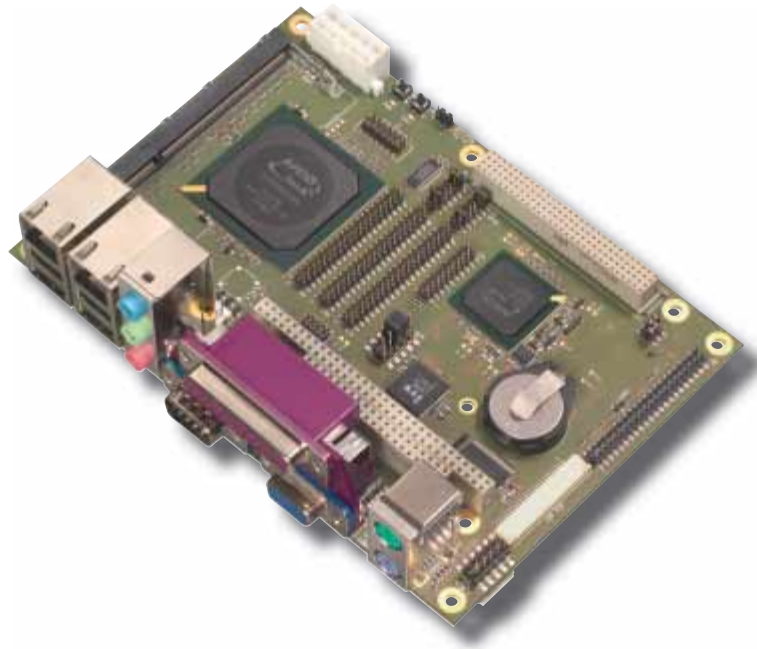
2 x Ethernet

4 x USB 2.0

Analog and Digital I/O

Only 5.25 W power consumption

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



More Features

- PC/104, PC/104-Plus
- MiniPCI slot
- Watchdog
- AC97 5.1 Sound



With the Hurricane-LX800, LiPPERT offers a high-performance EPIC board with AMD's Geode™ LX processor with very low power requirements. The board integrates all peripherals needed to build an embedded PC on a small 115 mm x 165 mm (4.5" x 6.5") printed circuit board.

The Hurricane-LX800 integrates a powerful yet efficient AMD Geode™ LX800 processor together with a CS5536 I/O companion and a Super I/O chip to form a complete PC, with all the standard peripherals already on board. There is graphics controller with VGA, LVDS, and parallel TFT adapters to connect to many sorts of display terminals. Backlighting is provided for LCD modules.

Two fast 100/10BaseT Ethernet ports, RS232/RS42/RS485 serial ports, and four USB 2.0 host ports handle the communication with external devices. There are PS/2 connectors for keyboard and mouse as well as a parallel printer port available. Sound I/O according to AC97 is supported, too. An IDE ATA100 adapter allows connection of hard disk or CD drives. Applications that require non-moving storage can use the built-in uDOC interface and connect a suitable FlashDrive to it.

Additionally, digital and analog I/O is available for the application. There is a high speed data input port for 8 bit data capture or video input with 300 Mb/s isochronous speed integrated to facilitate fast data acquisition. System expansion is easily done using the PC/104-Plus connector and adding suitable specialized I/O modules. The Hurricane-LX800 is powered by a micro ATX supply and supports ACPI, advanced power management and PCI power management.

Security critical applications take advantage of the Geode LX processor, too. It has an on-chip AES 128-bit crypto acceleration block capable of 44 Mbps throughput on either encryption or decryption. The AES block runs asynchronously to the processor core and is DMA based.

The Hurricane-LX800 runs Windows, Linux and VxWorks operating systems.

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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LiPPERT
THE EMBEDDED PC COMPANY

Hurricane-LX800

EPIC Single Board Computer
AMD Geode™ LX800

Technical Specifications

Board Format	EPIC, 115 mm x 165 mm (4.5" x 6.5")	Sound I/O	AC97, 6-channel (5.1) audio with 3.5 mm connector
Processor	AMD Geode™ LX800	Digital I/O	29 general purpose I/O signals
Speed	500 MHz	Analog I/O	8 channels, 8 bit, 0...4.096V
Core logic	I/O companion: CS5536 Super I/O: ITE8712	High Speed Input Port	Raw 16 bit input with 300 Mb/s isochronous capture Video: VESA 1.1, 2.0 and BT.656 compliant.
RAM (max.)	1 GB DDR333-SODIMM	Watchdog	yes
RAM clock	333 MHz	Status LED	HDD, power, standby
Graphics	Integrated in LX800 up to 254 MB video memory	Operating temperature	-20°C ... +60°C -40°C ... +85°C (optional)
CRT	Analog VGA 1920 x 1440 pixel at 85 Hz max.	ISA Bus	PC/104, with full DMA capability
LVDS	Single channel, 24 bits 1600 x 1200 pixel at 60 Hz max.	PCI Bus	PC/104-Plus MiniPCI, 3.3 V compliant
TFT	18 bits 1600 x 1200 pixel	LPC Bus	Available
USB	4 x USB 2.0	Power Supply	10 pin mini-ATX power connector 5 V +/- 5% All necessary voltages are generated on-board.
Ethernet	100/10 MBit Micrel KSZ8842 dual port Ethernet switch	Power Consumption	5.25 W typical 7 W maximum
Serial	2 x RS232/RS422/RS485	Cooling	passive
IDE	1 x Ultra ATA100 (ATA6) port	MTBF	>100.000 h (t.b.d.)
Floppy	Up to 2.44 MB	BIOS	t.b.d.
uDOC	10 pin header for USB 2.0 Flash Drives	Supported OS	Windows XP, XP Embedded, Windows CE, Linux, VxWorks



Ordering Information

Ordering Number	Description
t10-0001 -10	EPIC board with AMD Geode LX800, 4 x USB2.0 RTC, IDE, floppy disk, 2 x COM LPT, PS/2 keyboard and mouse, watchdog, VGA, LCD, LVDS, 2 x Fast Ethernet, 8 Bit I/O, AC97 Sound.

Note: t denotes the temperature range. Substitute with **8** for standard and **9** for extended temperature range