

### Main Features

- ◆ **AMD Geode™ LX800 Processor with 128 KB L2 Cache**
- ◆ **VIA CS5536 Integrated Chipset**
- ◆ **1 x SO-DIMM Socket, Up to 1GB Non-ECC/Non-registered DDR SDRAM**
- ◆ **1 x Realtek 8139C+ 10/100 Ethernet Controller**
- ◆ **Supports CRT/TTL LCD**
- ◆ **CompactFlash Socket/PCI 104 Interface**

### Product Overview

The EBC 320 is a 3.5" embedded board featuring AMD LX800 processor supporting one DDR SO-DIMM socket, up to 1GB Non-ECC Non-Registered DDR SDRAM. The EBC 320 incorporates AMD CS 5536 chipsets supporting un-registered non-ECC DDR 200 MHz SDRAM with maximum memory up to 1GB and integrated graphic controller supporting both standard VGA and TFT.

The EBC 320 embedded board supports a various range of Operating Systems such as Windows XP embedded, Win CE, and Linux. The EBC 320 with low power processor, small footprint, and versatile I/O port to offer the best solution for industrial applications.

### Specifications

#### CPU Support

- ◆ AMD Geode™ LX800,500 MHz on Board
- ◆ 128 KB L2 cache (64 KB I-cache/64 KB D-cache)

#### Main Memory

- ◆ 1 x 200-pin SO-DIMM socket, up to 1GB Non-ECC/Non-Registered DDR SDRAM (64-bit, 200 MHz)

#### Chipset

- ◆ AMD Geode LX800/AMD CS 5536

#### BIOS

- ◆ Award system BIOS
- ◆ Plug & Play support
- ◆ Advanced Power Management and Advanced Configuration & Power Interface support
- ◆ 4M bits flash ROM ACPI
- ◆ ACPI support: Only support Software Shutdown by 5Vsb Provided

#### On-board LAN

- ◆ 1 x Realtek 8139C+ 10/100 Fast Ethernet Controller
- ◆ Supports Boot From LAN (PXE)
- ◆ Supports Wake on LAN by 5usb provided
- ◆ 1 x RJ45 with LED

#### Display

- ◆ The Geode™ LX800 integrated Graphic, supports both standard VGA and TFT
- ◆ Analog VGA Interface:  
1 x DB15 VGA port  
CRT Supports up to 1920x1440x32 bpp at 85 Hz
- ◆ TTL Interface:  
TTL LCD supports up to 24bit, 1600x1200x32 bpp at 60 Hz for TFT

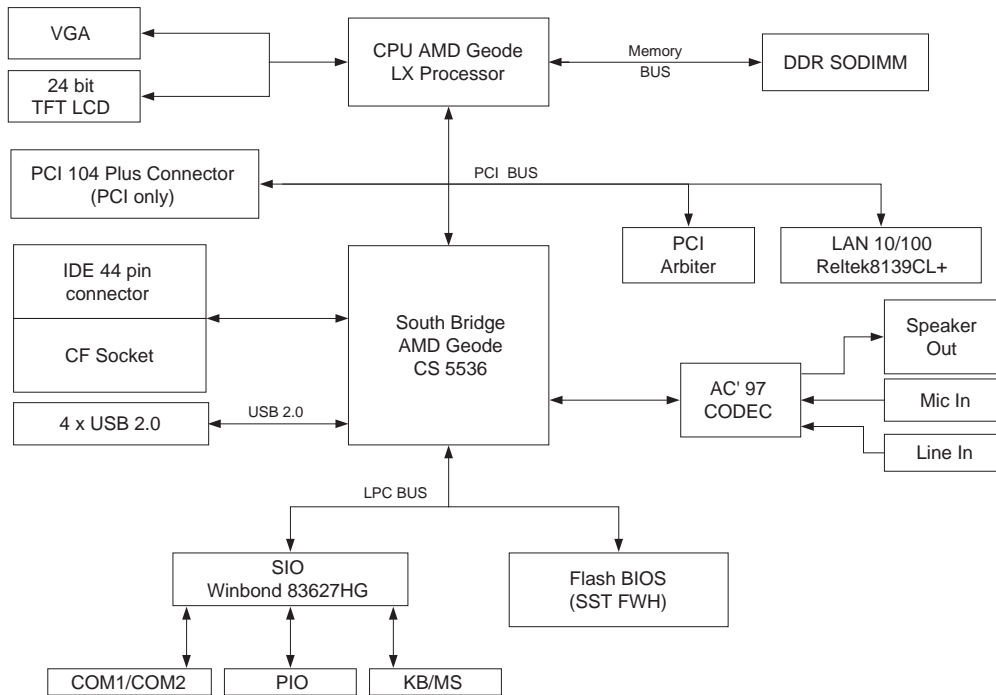
#### Audio

- ◆ REALTEK,ALC203 CODEC for AC97 v. 2.0
- ◆ Mic in and Speaker out connector, Line in with pin header

#### I/O Interface

- ◆ 4 x USB 2.0 port (USB 1/2 on front, USB 3/4 via one JST connector), bandwidth: 480 Mb/s
- ◆ 2 x SIO, 16C550 UARTs (One on DB9 edge connector support RS-232, one onboard with pin header support RS-232/422/485)
- ◆ Parallel ports:Bi-directional, EPP/ECP support, 1 x box header 26-pin connector
- ◆ PS/2: 1 x 6-pin 2.0mm JST box header
- ◆ IrDA: 1 x 5-pin box header for IrDA,TX,RX
- ◆ On Board buzzer
- ◆ two x 2 pin header for Reset switch and Power Button
- ◆ two x 2 pin header Power LED and HDD LED
- ◆ 1 x 3 pin 2.0mm pin header for SMBUS and I<sup>2</sup>C

## Block Diagram



### Storage Support

- 1 x CF Internal socket  
Support One Type I & II Compact Flash Card (Primary Master)
- 1 x IDE 44-pin connector, supports Ultra DMA 33/66/100  
1 x 2-pin IDE Active LED Header

### Watchdog Timer

- Watchdog Timer is programmable by software from 0 to 255 seconds and from 0 minute to 255 minutes (Tolerance 15% under room temperature 25°C)

### On-board RTC

- On chip RTC with battery back up
- 1 x External Li-ion Battery

### Power Requirements

- Supports both AT and ATX Mode (BIOS and H/W is default to AT mode)
- AT Mode: +5V Power in, No Power On push Button, Software Shutdown function and LAN remote wake up

Power requirement	+5 V
Full-Loading Mode	1.55A
Light loading Mode	1A

- ATX Mode: Power Required: +5V/-5V/5Vsb Power In  
When Change to ATX Mode, the BIOS default setting is as follow:  
POWER -SUPPLY TYPE -->[ATX]  
AUTO PWR-FAILURE RESUME-->[ON]

### Dimensions

- 3.5" form factor  
146mm (L) x 105mm (W) (5.7" x 4.1")

### Environment

- Board level operating temperature: 0°C to 60°C
- Storage temperature: -20°C to 85°C
- Relative humidity: 10% to 90% (Non-condensing)

### Certifications

- CE approval
- FCC Class A

## Ordering Information

- **EBC 320-LX8 (P/N: 10E00032000X0)** RoHS Compliant  
3.5" Low Voltage Embedded Board with on board AMD LX800 processor w/ PCI 104/IDE/CF/VGA/COM/Audio/USB2.0/LAN

### Packing List

Part No.	Description
60233USB59X00	USB CABLE
60233MK202X00	PS2 Y CABLE
60233IDE86X00	IDE CABLE 44P TO 40P
6023325262X00	PRINT CABLE
60233SIO06X00	COM CABLE w/BACKET
60233PW145X00	POWER CABLE