Welcome to <u>E-XFL.COM</u>

Understanding <u>Embedded - Microcontroller, Microprocessor, FPGA Modules</u>

Embedded - Microcontroller, Microprocessor, and FPGA Modules are fundamental components in modern electronic systems, offering a wide range of functionalities and capabilities. Microcontrollers are compact integrated circuits designed to execute specific control tasks within an embedded system. They typically include a processor, memory, and input/output peripherals on a single chip. Microprocessors, on the other hand, are more powerful processing units used in complex computing tasks, often requiring external memory and peripherals. FPGAs (Field Programmable Gate Arrays) are highly flexible devices that can be configured by the user to perform specific logic functions, making them invaluable in applications requiring customization and adaptability.

Applications of <u>Embedded - Microcontroller,</u>

Details

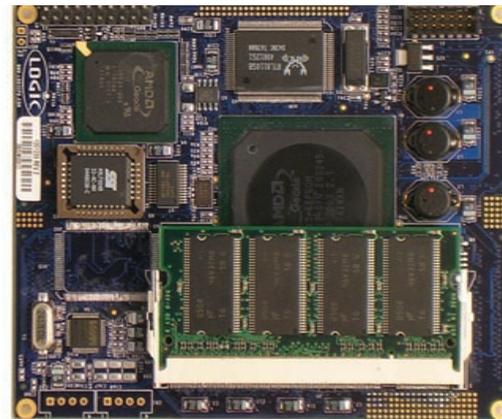|	
Product Status	Obsolete
Module/Board Type	MPU Core
Core Processor	Geode, LX 800
Co-Processor	-
Speed	500MHz
Flash Size	-
RAM Size	-
Connector Type	-
Size / Dimension	3.78" x 4.53" (96mm x 115mm)
Operating Temperature	0°C ~ 70°C
Purchase URL	https://www.e-xfl.com/product-detail/logic-pd/somlx800-11-000gcr

AMD GEODE™ LX 800 System on Module

The AMD Geode LX 800 System on Module (SOM) is a compact, low-power x86, product-ready hardware and software solution that fast forwards your embedded design.

The AMD Geode LX 800 SOM-ETX offers essential features for building small form factor and embedded PC systems. Use of custom baseboards makes the SOM-ETX the ideal foundation for OEMs developing handheld and compact products. The SOM-ETX provides a common reference pin-out on its expansion connectors, which enables easy scalability to next generation microprocessor SOMs when new functionality or performance is required.

Application development is performed right on the product-ready AMD Geode LX 800 SOM-ETX, which enables you to seamlessly transfer your application code and hardware into production.

The AMD Geode LX 800 SOM-ETX is ideal for applications in the medical, point-of-sale, gaming, industrial, and security markets. From patient monitoring and medical imaging, to card payment

AMD GEODE LX 800 SOM-ETX

terminals and bar code readers, to CCTV cameras and intruder alarms, the AMD Geode LX 800 SOM-ETX allows for powerful versatility and long-life products.
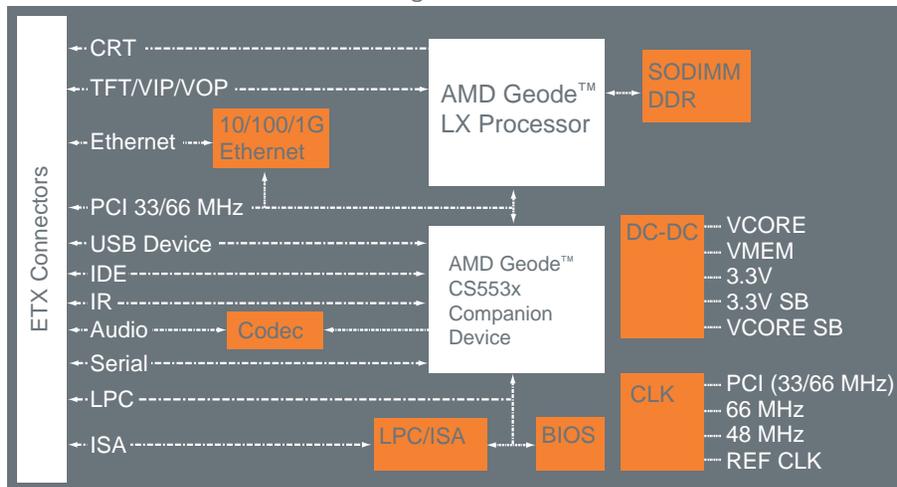
GEODE LX 800 SOM-ETX :: HIGHLIGHTS:

+ Product-ready System on Module
+ Compact form factor based on ETX standard (96 x 115 mm)
+ Operating system drivers available for Microsoft Windows® XP/XPe/CE and Linux
+ Fanless and ultra-low power consumption
+ Long product lifecycle
+ 0°C to 70°C (commercial temp)
+ RoHS compliant

ZOOM™ GEODE LX DB800 :: FEATURES:

+ Mini-ITX application baseboard
+ LX 800 SOM-ETX
+ 256 MB SODIMM
+ CompactFlash interface
+ Low cost
+ See the Zoom™ Geode LX Development Kit product brief for more information

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Geode LX SOM-ETX Block Diagram

ETX Connectors		
CRT		
TFT/VIP/VOP		AMD Geode™ LX Processor
Ethernet	10/100/1G Ethernet	
PCI 33/66 MHz		SODIMM DDR
USB Device		
IDE		AMD Geode™ CS553x Companion Device
IR		
Audio	Codec	
Serial		
LPC		
ISA	LPC/ISA	BIOS

DC-DC → VCORE, VMEM, 3.3V, 3.3V SB, VCORE SB

CLK → PCI (33/66 MHz), 66 MHz, 48 MHz, REF CLK

Block diagram is not drawn to scale. For reference purposes only.

Geode LX SOM-ETX Ordering Information

Logic Model Number	Speed (MHz)	DDR Mem (MB)	Stack Height (mm)
SOMLX800-10-700GCR*	500	256	7
SOMLX800-11-000GCR	500	0	3

*SOMLX800-10-700GCR configuration is only available with development kit and is not available in production quantities.

ZOOM™ Geode LX Development Kit Ordering Information

Model Number	SOM Configuration	Recommended Resale
LX-DB800D-EVAL-KIT	SOMLX800-10-700GCR	$750

LOGIC WEBSITE :: DESIGN RESOURCES:

+Logic Technical Support : http://www.logicpd.com/support/

+Technical Discussion Group : http://www.logicpd.com/support/tdg/

+Frequently Asked Questions (FAQ) : http://www.logicpd.com/support/faq/

+For more information contact Logic Sales : product.sales@logicpd.com

LOGIC

embedded product solutions

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Product Features

Processor
+AMD Geode LX 800 processor running at 500 MHz

SDRAM Memory
+Supports up to 512 MB—PC2700

Display
+TFT LCD support up to 1600x1200x32bpp
+CRT support up to 1920x1440x32bpp at 85Hz

Peripheral Support
+USB 2.0—three high-speed hosts and one configurable host/device
+Serial—three RS232, 16C550 compatible ports
+IDE—UltraATA 133 support
+Ethernet, 10/100/1G—Realtek 8110SB
+AC97 audio
+PCI, 33/66 MHz—2.2 and 3.0 compliant
+LPC to ISA bridge—Winbond W83626F

Flash Interface
+Multiplexed with IDE interface supports many industry standard NAND and NOR flash

Operating System Support
+Microsoft Windows® XP
+Microsoft Windows® XPe
+Microsoft Windows® CE
+Linux

BIOS
+General Software
+Insyde Software

Mechanical
+96 mm wide x 115 mm long x 12 mm high

RoHS Compliant

AMD Geode™

PN: 1003389 Rev F