

Product Brief

AMD Embedded G-Series LX Family SOCs

Industry-Leading Price/Performance Profile, and Successor to the AMD Geode Family

PRODUCT OVERVIEW

AMD Embedded G-Series LX Family SOCs are distinguished by their highly-competitive price/performance profiles and low power attributes. Providing improved performance compared to low cost, legacy AMD Geode processors, AMD Embedded G-Series LX Family SOCs provide a compelling upgrade path from the Geode platform.

KEY BENEFITS

Scalability – Pin compatibility with the higher performance, 1st & 2nd Gen AMD Embedded G-Series SoC devices allow design continuity and the ability to right size your solution.

Ultra-Competitive Price/Performance – The 64-bit x86 AMD Embedded G-Series LX Family SOCs meet the compute and multimedia processing performance needs of mainstream embedded applications at pricing typically associated with 32-bit ARM solutions.

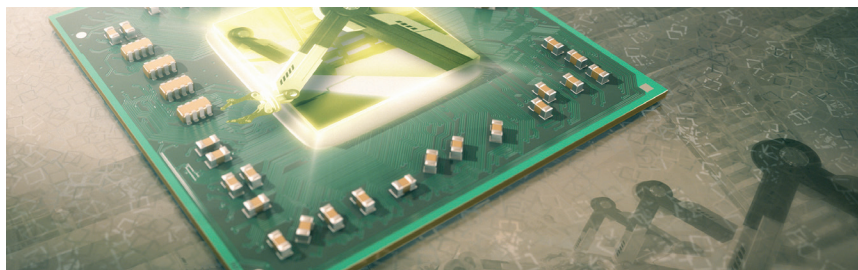
Energy Efficiency – AMD Embedded G-Series LX Family SOCs support a wide range of thermal design profiles (TDPs) spanning from 6W to 15W, helping ensure an optimal price-per-watt balance.

Highly Integrated I/O – AMD Embedded G-Series LX Family SOCs integrate two x86 “Jaguar” CPU cores with 1MB of shared L2 cache, a Radeon™ GPU R1E compute unit¹, and an I/O controller on a single die.

Multi-Display Support – AMD Embedded G-Series LX Family SOCs support up to two display interfaces, enabling flexible multi-display configurability.

Supply Longevity – Planned longevity for AMD Embedded G-Series LX Family SOCs extends to up to 10 years, providing a long-lifecycle support roadmap.

AMD Embedded G-Series LX Family SOCs provide pin and software stack compatibility with the 1st and 2nd Gen AMD Embedded G-Series SOCs (FT3 class), enabling you to maintain design continuity, streamline development cycles, and scale your designs from low-end to high-end offerings. Discuss all your options with your AMD representative.



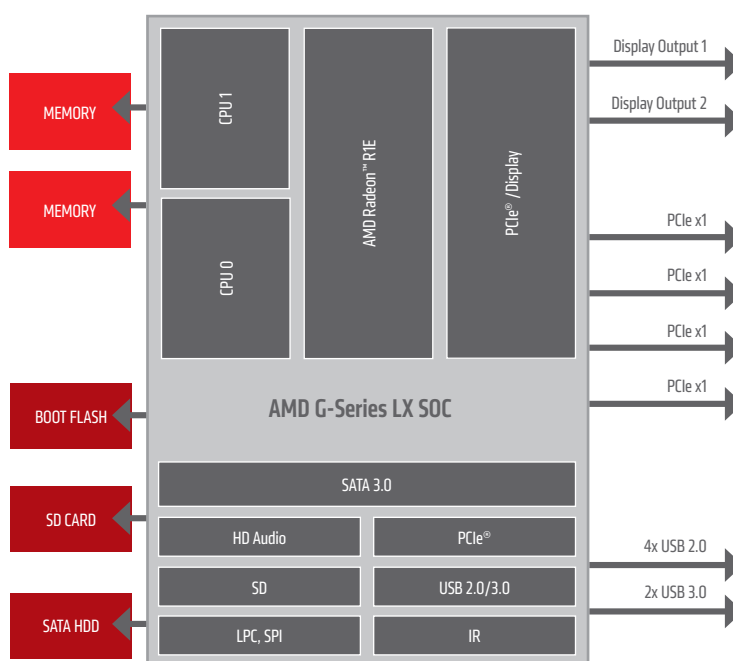
TARGET APPLICATIONS

AMD Embedded G-Series LX Family SOCs are designed to meet the processing requirements of a wide range of embedded applications, including thin client, digital signage, retail POS, industrial/automation, military/aerospace, and networking/communications applications.

KEY FEATURES

- Flexible scalability across AMD FT3 class offerings including AMD Embedded G-Series 'eKabini' and 'Steppe Eagle' SOCs
- 2X "Jaguar" x86 cores with 1MB shared L2 cache
- AMD Radeon™ R1E GCU graphics (1CU)
- Single channel 64-bit DDR3 memory
- Multi format encode and decode
- Support for up to two display interfaces via HDMI 1.4, DisplayPort 1.2, Embedded DisplayPort 1.4
- Support for DirectX® 11.2
- High performance, integrated Controller Hub supports:
 - PCIe® Gen 2 4x1
 - 2 USB3, 4 USB2 ports
 - 2 SATA 2.0/3.0 ports

AMD G-SERIES LX FAMILY SOC BLOCK DIAGRAM



G-SERIES LX FAMILY SOC

AMD Embedded G-Series LX Family SOCs

Model	OPN	Radeon™ Brand	CPU Cores	TDP	L2 Cache	CPU Clock Speed	Radeon™ Cores	GPU Clock Speed	MAX DDR3 Speed	Operating Temp Range Tj °C	ECC
GX-218GL	GE218GITJ23JB	R1E	2	15W	1MB	1.8 GHz	1CU	497 MHz	DDR3-1600	0-90°C	Yes
GX-215GL	GE215GITJ23JB	R1E	2	15W	1MB	1.5 GHz	1CU	497 MHz	DDR3-1600	0-90°C	Yes
GX-210KL	GE210KIVJ23JB	R1E	2	4.5W	1MB	1.0 GHz	1CU	267 MHz	DDR3-1333	0-90°C	Yes
GX-210HL	GE210HIZJ23JB	R1E	2	7W	1MB	1.0 GHz	1CU	267 MHz	DDR3-1066	-40-105°C	Yes

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1. AMD Radeon™ and FirePro™ GPUs based on the Graphics Core Next architecture consist of multiple discrete execution engines known as a Compute Unit ("CU"). Each CU contains 64 shaders ("Stream Processors") working in unison.

