Product Brief

3rd Generation AMD Embedded G-Series SoC J Family

The Optimal Balance of Multimedia Processing Performance and Power Efficiency

PRODUCT OVERVIEW

AMD Embedded G-Series J Family SOCs provide optimized performance-per-watt and cutting-edge multimedia capabilities for a range of mainstream embedded applications. Delivering a 4K multimedia experience at a competitive price point, the midrange AMD Embedded G-Series J Family SOCs provide high-speed graphics and computing performance without compromising energy efficiency.

KEY BENEFITS

Scalability – Pin compatibility with the higher performance, AMD Embedded R-Series SoC allows design continuity and the ability to right size your solution.

High Performance, Competitive Price – AMD Embedded G-Series J Family SOCs support 4K high-speed video decode enabling crisp, eye-catching multimedia at affordable price points.

Dual-display Flexibility – AMD Embedded G-Series J Family SOCs enable flexible multi-display configurability via two display interfaces.

Low Power Consumption – Ideal for applications with exacting energy efficiency requirements, AMD Embedded G-Series J Family SOCs support thermal design profiles (TDPs) measuring less than 10W.

Tight Integration, Compact Form Factor – AMD Embedded G-Series J Family SOCs integrate two x86 “Excavator” CPU cores with 1MB of shared L2 cache, up to three Radeon™ GPU compute units¹, and an I/O controller on a single die.

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

3rd Generation AMD Embedded G-Series SoCs provide pin and software stack compatibility with high-end AMD Embedded R-Series SOCs 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 J Family SOCs are designed to meet the processing requirements of a wide range of embedded applications, including thin client, digital signage, digital gaming, retail POS, industrial/automation, military/aerospace, smart camera, set-top box and networking/communications applications.

KEY FEATURES

- Flexible scalability across AMD FP4 class offerings including AMD Embedded R-Series SOCs and AMD Embedded G-Series J Family SOCs
- 2X “Excavator” x86 cores with 1MB shared L2 cache
- AMD Radeon™ graphics (up to 3CUs) with support for DirectX® 12
- Single channel 64-bit DDR4 or DDR3 memory
- 4K x 2K H.265 decode capability with 10-bit compatibility and multi format encode and decode
- Support for up to two display interfaces via HDMI® 2.0, DisplayPort 1.2, Embedded DisplayPort 1.4
- 1.0-compliant Heterogeneous System Architecture
- AMD Secure Processor
- High performance, integrated Controller Hub supports:
  - PCIe® Gen 3 1x4, PCIe Gen 2/3 4x1
  - 2 USB3, 2 USB2 ports
  - 2 SATA 2.0/3.0 ports

G-SERIES J AND JX FAMILY SOCs

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<th>Model</th>
<th>OPN</th>
<th>Radeon Branding</th>
<th>Target TDP</th>
<th>Shared L2 Cache</th>
<th>Target GPU Base/Max Freq.</th>
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