AMD together we advance_

ACCELERATE AI-DRIVEN SYSTEMS-END TO END

Meet the new family of AMD Versal[™] Al Edge Series Gen 2 adaptive SoCsdelivering single-chip intelligence for real-time, Al-driven embedded systems.

Optimize all three phases of compute with a single device

PREPROCESSING

Sensor processing, fusion, and data conditioning

AI INFERENCE

Execution of deep-learning algorithms

POSTPROCESSING

Decision-making, control, and feedback

Unleash efficient Al at the edge

DMIPs compute at ASIL D / SIL 3² Up to BX higher

TOPS-per-watt¹

Up to 10X

scalar compute³

Projected performance vs. previous generation.

Power real-world systems



VJO

FLEXIBLE, REAL-TIME PREPROCESSING

World-class programmable logic supports custom sensor combinations and low-latency processing pipelines.

EFFICIENT AI INFERENCE

Next-generation AI Engines accelerate math-intensive functions and boost compute efficiency.

HIGH-PERFORMANCE POSTPROCESSING

The greater CPU capacity handles complex decision-making and scalar workloads.

Achieve performance and safety targets

AUTONOMOUS DRIVING

SMART CAMERAS WITH SENSOR FUSION

INDUSTRIAL ROBOTICS

AMD Versal AI Edge Series Gen 2

Experience next-level performance in an edge-tuned package—with all-in-one adaptive SoCs built for real-time control systems.

Learn More

- Based on AMD internal performance and power projections for the AIE-ML v2 compute tile architecture in the Versal[™] AI Edge Series Gen 2 using the MX6 data type, compared to performance specifications and AMD Power Design Manager power results for the AIE-ML compute tile architecture featured in the first-generation Versal AI Edge Series using INT8 data type. Assumptions: 2 row, 8 column sub-arrays. Operating conditions: 1 GHz Fmax, 0.7V AIE operating voltage, 100°C junction temperature, typical process, 60% vector load, % activations = 0 < 10%. Actual performance will vary when final products are released in market. Performance projections as of March 2024. (VER-023)
- Based on AMD internal pre-silicon functional safety targets and performance estimates for total DMIPs of the application processing unit (APU) in the Versal[™] AI Edge Series Gen 2 and Versal Prime Series Gen 2 processing system when configured with 8 Arm[®] Cortex[®]-A78AE applications cores at 2.2 GHz. Operating conditions: Highest available speed grade, 0.88V PS operating voltage, and maximum supported operating frequency, with all APU cores operating in lock-step mode. Actual performance will vary when final products are released in market. (VER-028)
- 3. Based on pre-silicon estimates for combined total DMIPs of the Versal[™] AI Edge Series Gen 2 and Versal Prime Series Gen 2 processing systems, when configured with 8 Arm[®] Cortex[®]-A78AE application cores at 2.2 GHz and 10 Arm Cortex-R52 real-time cores at 1.05 GHz, compared to the combined total DMIPs in the first-generation Versal AI Edge Series and Versal Prime Series. Versal AI Edge Series Gen 2 and Versal Prime Series Gen 2 operating conditions: Highest available speed grade, 0.88V PS operating voltage, split-mode operation, and maximum supported operating frequency. First-generation Versal AI Edge Series and Versal Prime Series operating conditions: Highest available speed grade, 0.88V PS operating voltage, operating voltage, and maximum supported operating frequency. Actual DMIPs performance will vary when final products are released in market. (VER-027)

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