



Adaptive SoCs for Next-Generation Emulation and Prototyping

UNLEASH TOMORROW'S TECHNOLOGY. ADVANCE OUR FUTURE.

Blazing a trail for what's next in AI, 6G, quantum computing, virtual reality, Industry 5.0, and more depends on semiconductor innovation.

AMD is a catalyst, building breakthrough adaptive SoCs and FPGAs to enable high-performance emulation and prototyping systems that help chip makers get transformational technology to market fast.

LEADING THE WAY FOR INNOVATION

Confidently prototype with proven technology

17+ years

of experience advancing emulation-class adaptive SoCs and FPGAs to maximize performance and shift software validation left

Meet evolving demands backed by a first-mover track record

6 generations

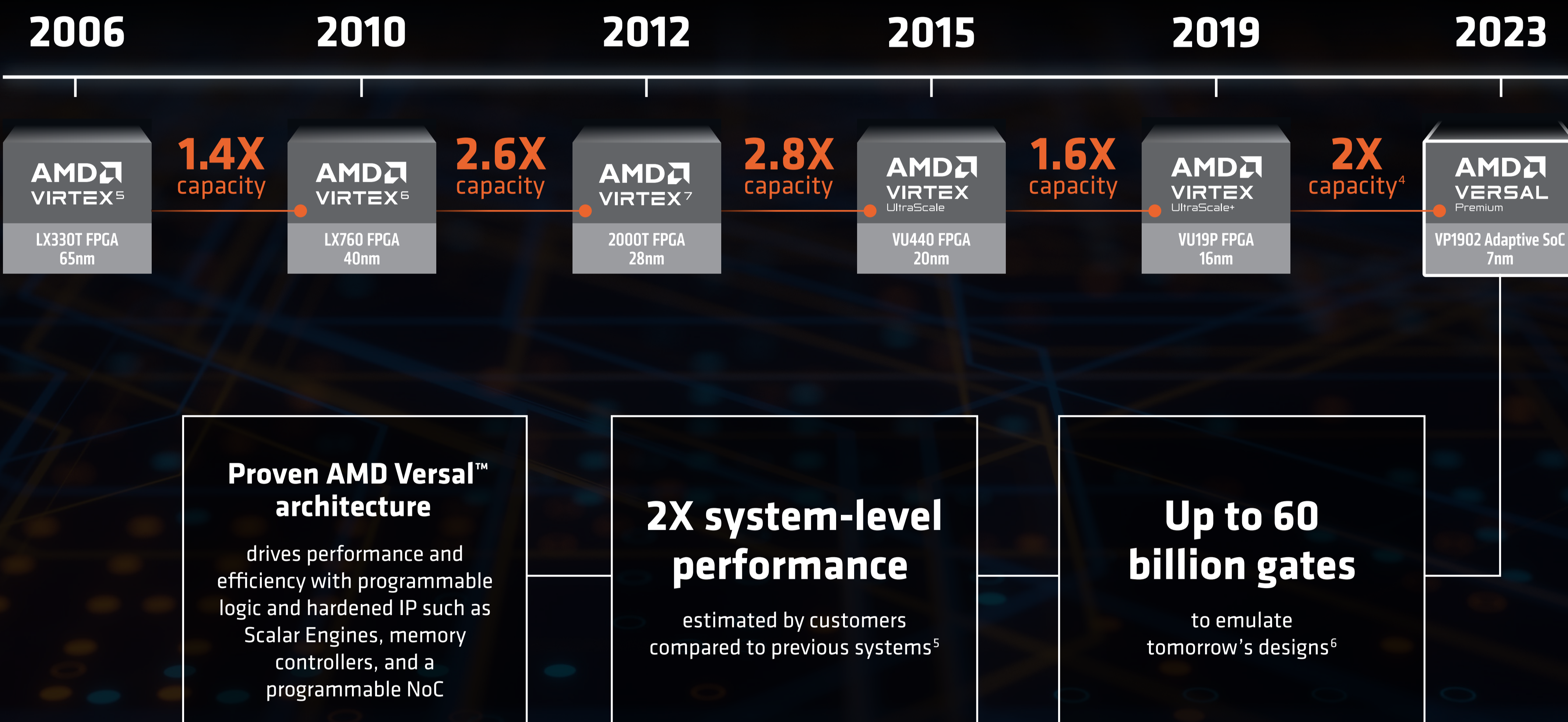
of the world's largest programmable hardware devices made for large, complex designs¹

Scale with your needs, backed by a history of trusted leadership

#1 provider

for top EDA vendors, enabling scalability from the desktop to the cloud²

DELIVERING THE INDUSTRY'S HIGHEST CAPACITY³



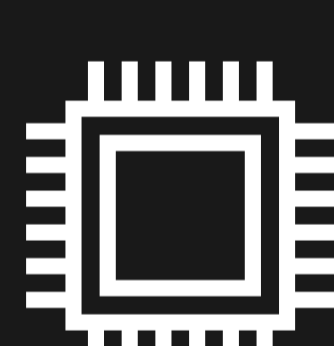
Proven AMD Versal™ architecture
drives performance and efficiency with programmable logic and hardened IP such as Scalar Engines, memory controllers, and a programmable NoC

2X system-level performance
estimated by customers compared to previous systems⁵

Up to 60 billion gates
to emulate tomorrow's designs⁶



CAPITALIZE ON THE WORLD'S LARGEST ADAPTIVE SOC AND FPGA⁷



Emulate next-gen ASIC and SoC designs with extremely high capacity



Enhance routability and decrease latency with innovative architecture⁸



Speed up design iteration with advanced debug capabilities



Compared to AMD Virtex™ UltraScale™ VU19P FPGA.

Iterate Designs Fast with AMD Vivado™ Design Suite

AMD continues to innovate with its development tools for rapid prototyping, now providing a new multi-partition flow and enhanced back-end compiler for large designs.

AMD VERSAL PREMIUM VP1902 ADAPTIVE SOC

Build high-performance emulation and prototyping systems. Deliver groundbreaking technology to market.

[Learn More](#)

1. Based on AMD internal analysis, May 2023. (VER-009)
 2. Based on AMD survey in June 2023 of FPGA-based emulation and prototyping solutions. (VER-011)
 3. Based on AMD internal analysis in May 2023 with a 6-input LUT count to compare the Versal Premium VP1902 device versus the Intel Stratix 10 GX 10M FPGA. (VER-002)
 4. Based on AMD internal analysis in May 2023, comparing the number of system logic cells of the Versal Premium VP1902 device versus the Virtex UltraScale+ VU19P device. (VER-001)
 5. Based on AMD internal system clock performance analysis in May 2023, comparing the Versal Premium VP1902 device to the Virtex UltraScale+ VU19P device across a range of design sizes and cut-nets. (VER-006)
 6. Based on AMD Labs projection in May 2023 of 2X capacity compared to prior generation Virtex UltraScale+ VU19P FPGA emulation and prototyping platforms. (VER-007)
 7. See note 3 above.
 8. Based on AMD internal analysis in May 2023, comparing the latency in nanoseconds of an AMD Versal adaptive SoC XPIO in an 8:1 mux configuration with bypass FIFO mode enabled to a Virtex UltraScale+ FPGA HP I/O with no bypass FIFO option. Actual results will vary. (VER-008)
 9. See note 4 above.
 10. Based on AMD Labs testing using an A6865 package to simulate the XPIO data rate performance of an AMD Versal Premium VP1902 device versus the published data rate of an AMD Virtex UltraScale+ VU19P device. Actual results will vary. (VER-003)
 11. Based on AMD Labs testing using an A6865 package to simulate the XPIO data rate performance of an AMD Versal adaptive SoC CFI interface versus an AMD Virtex UltraScale+ FPGA ICAP interface. Actual performance will vary. (VER-004)



together we advance_