Xilinx Solutions

Xilinx develops highly flexible and adaptive processing platforms that enable rapid innovation across a variety of technologies—from the endpoint to the edge to the cloud. Xilinx is the inventor of the FPGA, hardware programmable SoCs, and the ACAP, designed to deliver the most dynamic processor technology in the industry.

The adaptive compute acceleration platform (ACAP) Versal architecture was designed to enable all types of developers to accelerate their whole application with disruptive performance through optimized hardware and software, providing a solution that adaptable faster than the pace of silicon design cycles.

The Xilinx UltraScale™ architecture delivers unprecedented levels of integration and capability while delivering ASIC-class system level performance for the most demanding applications requiring massive I/O & memory bandwidth, massive data flow, DSP, and packet processing performance. Our break-out portfolio also includes the industry's only hardware programmable homogeneous and heterogeneous 3D ICs with the highest bandwidth and system integration. In addition, our hardware, software, and I/O programmable SoC platform offers the flexibility and scalability of an FPGA combined with ASIC-like performance and power and the ease of use of an ASSP.

Industry's First ACAP

Adaptive Compute Acceleration Platform

Adaptive compute acceleration platform (ACAP) is a fully software-programmable, heterogeneous compute platform that combines Scalar Engines, Adaptable Engines, and intelligent AI and DSP Engines to enable a disruptive increase in compute for applications in data center, wireless networking, automotive driver assist, and wired communications. This high-performance architecture is designed to enable all types of developers - software engineers, hardware engineers, and data scientists — to accelerate their entire application with optimized hardware and software.
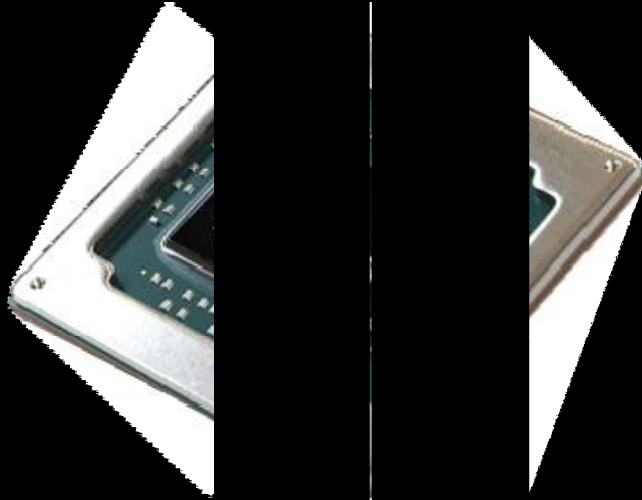
Industry Leading FPGAs

Xilinx offers a comprehensive multi-node portfolio to address requirements across a wide set of applications. Whether you are designing a state-of-the art, high-performance networking application requiring the highest capacity, bandwidth, and performance, or looking for a low-cost, small footprint FPGA to take your software-defined technology to the next level, Xilinx FPGAs and 3D ICs provide you with system integration while optimizing for performance/watt.

Learn More

Programmable SoCs, MPSoCs, and RFSoCs

Unmatched Performance and Power

Xilinx's SoC portfolio integrates the software programmability of a processor with the hardware programmability of an FPGA, providing you with unrivaled levels of system performance, flexibility, and scalability. The portfolio gives your designs overall system benefits of power reduction and lower cost with fast time to market.

Learn More

Programmable 3D ICs

Highest Bandwidth and Integration

Xilinx homogeneous and heterogeneous 3D ICs deliver the highest logic density, bandwidth, and on-chip resources in the industry, breaking new ground in system-level integration. Xilinx UltraScale 3D ICs provide unprecedented levels of system integration, performance, bandwidth, and capability.

Learn More

Cost-Optimized Portfolio

The Xilinx cost-optimized portfolio is the broadest in the industry, comprising four families that are optimized for specific capabilities:

- Spartan®-6 FPGAs for I/O optimization

- Spartan-7 FPGAs for I/O optimization with the highest performance-per-watt

- Artix®-7 FPGAs for transceiver optimization and highest DSP bandwidth

- Zynq®-7000 programmable SoCs for system optimization with scalable processor integration

Learn More

Configuration Memory

Easy-to-Use
Configuration Solutions

Xilinx also offers configuration memories optimized
for ease of use with Spartan-6 FPGAs
and earlier device architectures.

CPLDs

Xilinx CPLDs offer High Performance and Ultra-low Power Consumption

Xilinx has a CPLD solution to fit your design challenge,
whether you need low-power, high-performance or
a combination of the two.

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