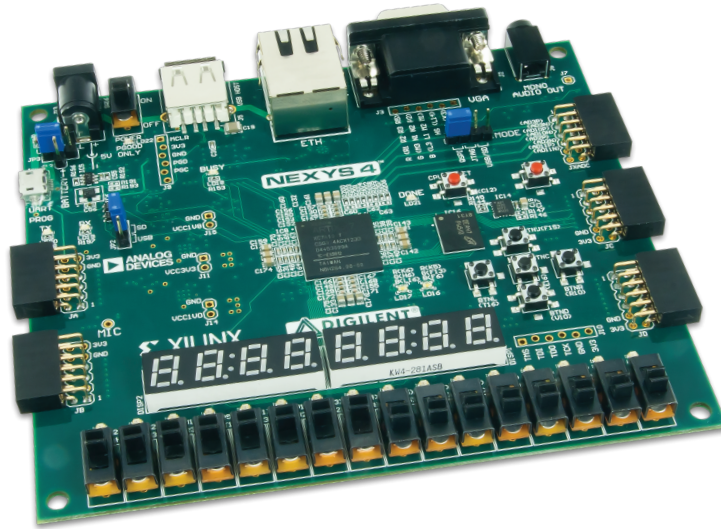


NEXYS™ 4

Artix-7™ Power, Priced for Students.



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The Nexys4 board is a complete, ready-to-use digital circuit development platform based on the latest Artix™-7 Field Programmable Gate Array (FPGA) from Xilinx. With its large, high-capacity FPGA (Xilinx part number XC7A100T-1CSG324C), generous external memories, and collection of USB, Ethernet, and other ports, the Nexys4 can host designs ranging from introductory combinational circuits to powerful embedded processors. Several built-in peripherals, including an accelerometer, temperature sensor, MEMs digital microphone, speaker amplifier and lots of I/O devices allow the Nexys4 to be used for a wide range of designs without needing any other components.

The Artix-7 FPGA is optimized for high performance logic, and offers more capacity, higher performance, and more resources than earlier designs.

The Nexys4 is compatible with Xilinx's new high-performance Vivado® Design Suite as well as the ISE toolset, which includes ChipScope and EDK. Xilinx offers free "Webpack" versions of these toolsets, so designs can be implemented for no additional cost.

Artix-7 100T Features Include:

- 15,850 logic slices, each with four 6-input LUTs and 8 flip-flops
- 4,860 Kbits of fast block RAM
- Six clock management tiles, each with phase-locked loop (PLL)
- 240 DSP slices
- Internal clock speeds exceeding 450MHz
- On-chip analog-to-digital converter (XADC)

Nexys4 Ports & Peripherals:

- 16 user switches
- USB-UART Bridge
- 12-bit VGA output
- 3-axis accelerometer
- 16Mbyte CellularRAM
- Pmod for XADC signals
- 16 user LEDs
- Two tri-color LEDs
- PWM audio output
- Temperature sensor
- Serial Flash
- Digilent USB-JTAG port for FPGA programming and communication
- Two 4-digit 7-segment displays
- Micro SD card connector
- PDM microphone
- 10/100 Ethernet PHY
- Four Pmod ports
- USB HID Host for mice, keyboards and memory sticks



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