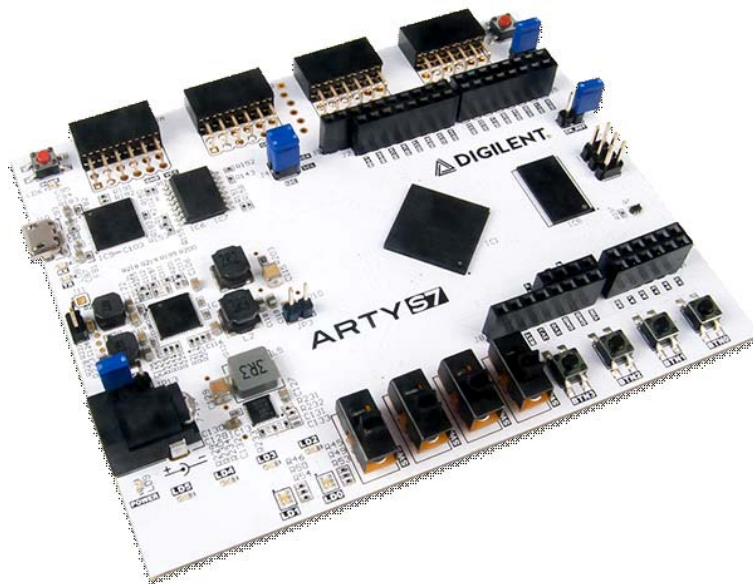




Digilent FPGA

PREVIEW: Arty S7 Spartan-7 FPGA for Makers and Hobbyists

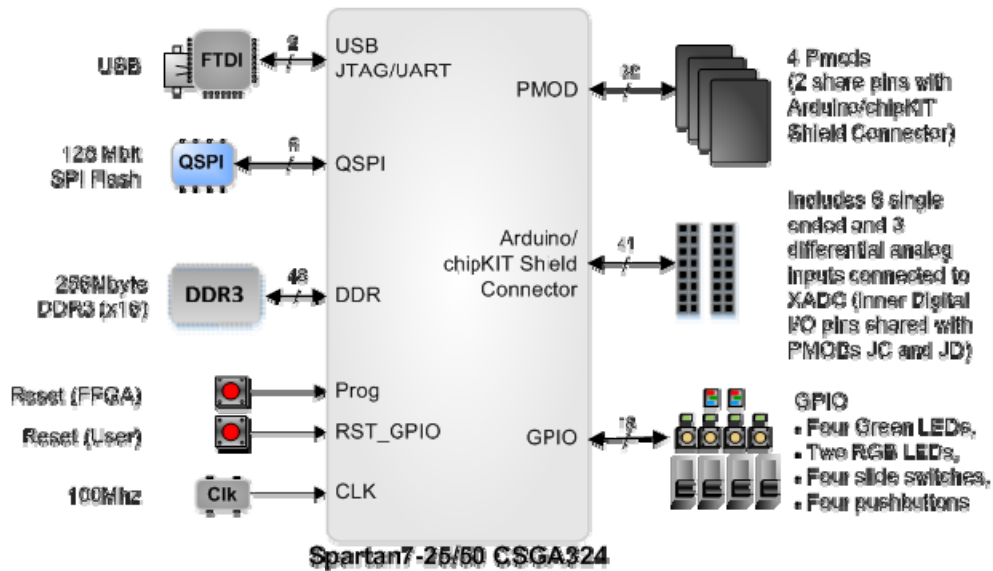
SKU:
410-352



Product Description

The Arty **S7** board features new Xilinx **Spartan-7** FPGA and is the latest member of the Arty family for Makers and Hobbyists.

The Spartan-7 FPGA offers the most size, performance, and cost-conscious design engineered with the latest technologies from Xilinx and is fully compatible with Vivado Design Suite. Putting this FPGA in the Arty form factor provides users with a wide variety of I/O and expansion options. Use the dual row Arduino® connectors to mount one of the hundreds of hardware compatible shields available, or use the Pmod ports with Digilent's pre-made Pmod IP blocks for a more streamlined design experience. Arty S7 was designed to be MicroBlaze ready and comes out of the box ready to use with the Xilinx free WebPack version of Vivado Design Suite.



Arty S7 block diagram.

Note:

The official distribution channel for the Arty S7 board is through Avnet and Digilent only. For this reason, we cannot provide distributor discounts for the Arty S7 board.

Features:

- Arty S7 comes in two FPGA variants: Arty S7-25 features Xilinx XC7S25-CSGA324. Arty S7-50 features the larger Xilinx XC7S50-CSGA324. Arty S7 has the features listed below:

	Arty S7-25	Arty S7-50
FPGA part	XC7S25-CSGA324	XC7S50-CSGA324
1 MSPS On-chip ADC	Yes	Yes
Logic Cells	23,360	52,160

Slices	3,650	8,150
Flip-flops	29,200	65,200
Block RAM (Kbits)	1,620	2,700
Clock Management Tiles	3	5
DSP Slices	80	120

- Internal clock speeds exceeding 450MHz;
- On-chip analog-to-digital converter (XADC).
- Programmable over JTAG and Quad-SPI Flash
- System Features:
 - 256 MB DDR3L with a 16-bit bus @ 667 MHz
 - 128 Mbits Quad-SPI Flash
 - 100 MHz External Clock
 - USB-JTAG Programming circuitry (USB Micro cable required, **NOT INCLUDED**).
 - Powered from USB or any 7V-15V source
- System Connectivity:
 - USB-UART Bridge
- Interaction and Sensory Devices
 - 4 Switches
 - 4 Buttons
 - 1 Board Reset Button
 - 1 FPGA Reset Button
 - 4 Green LEDs
 - 2 RGB LEDs
- Expansion Connectors:
 - 4 Pmod connectors
 - Arduino/chipKIT Shield connector

