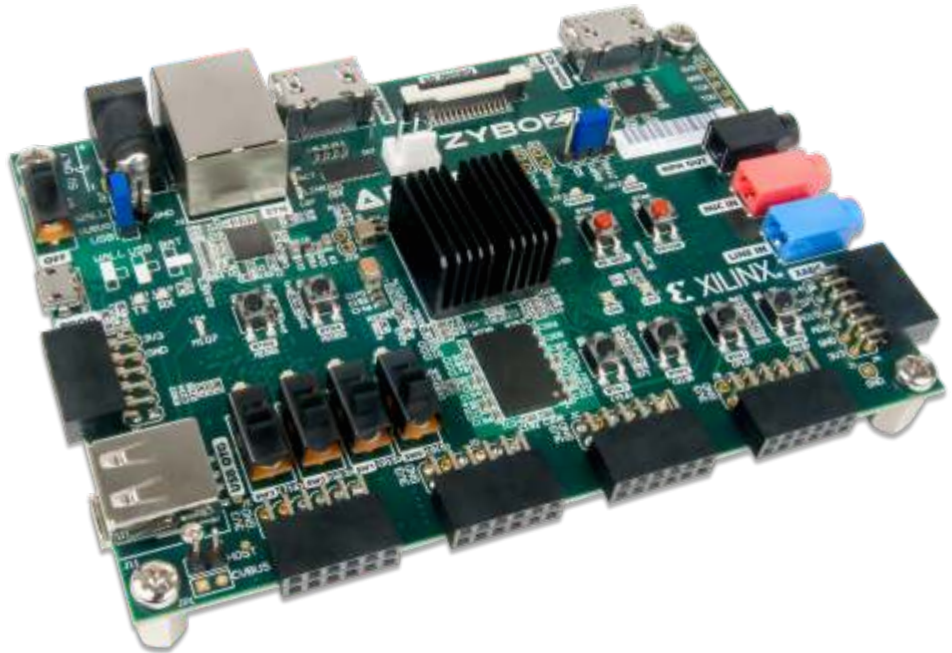


ZYBO Z7 Zynq-7000 ARM/FPGA SoC Platform

Accelerate Embedded Software Development. Hardware-Software Co-Design

The Digilent ZYBO Z7 is the newest addition to the popular ZYBO line of ARM/FPGA SoC Platform. ZYBO Z7 comes in two Xilinx Zynq-7000 variants: ZYBO Z7-10 features Xilinx XC7Z010-1CLG400C. ZYBO Z7-20 features the larger Xilinx XC7Z020-1CLG400C.



The ZYBO Z7 surrounds the Zynq with a rich set of multimedia and connectivity peripherals to create a formidable single-board computer, even before considering the flexibility and power added by the FPGA. Hardware designer and software developer can seamlessly integrate your FPGA and CPU functionality. The ZYBO Z7's video-capable feature set includes a MIPI CSI-2 compatible Pcam connector, HDMI input, HDMI output, and high DDR3L bandwidth. Attaching additional hardware is made easy by the ZYBO Z7's Pmod connectors, allowing access to Digilent's catalog of over 70 Pmod peripheral boards, including motor controllers, sensors, displays, and more. ZYBO Z7-20 comes with SDSoC voucher.

- Xilinx XC7Z010-1CLG400C / XC7Z020-1CLG400C
- 1 GB DDR3L with 32-bit bus @ 1066 Mhz
- 16 MB Quad-SPI Flash
- Gigabit Ethernet PHY
- USB OTG PHY with host and device support
- Pcam camera connector with MIPI CSI-2 support
- HDMI sink port (input)
- HDMI source port (output)
- Audio codec with stereo headphone, stereo line-in, and microphone jacks
- Pmod connectors
- Powered from USB or any 5V external power source
- ZYBO Z7-20 comes with SDSoC voucher

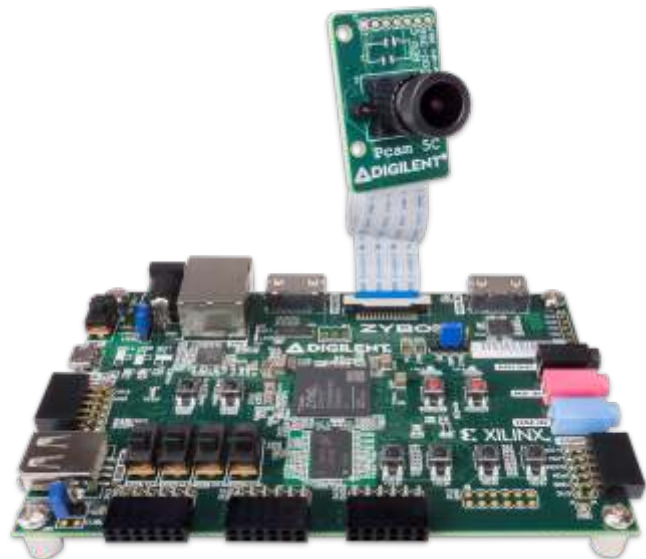
The SDSoC™ development environment provides a familiar embedded C/C++ application development experience including an easy to use Eclipse IDE and a comprehensive design environment for heterogeneous Zynq® All Programmable SoC.

HD Video Processing Ecosystem

Pcam 5C: 5 MP Fixed Focus Color Camera Module

Target Applications:

- Mobile Phone
- Entertainment
- Digital Still and Video Camera



The Pcam 5C is an imaging module meant for use with FPGA development boards. The module is designed around the Omnivision OV5640 5 megapixel (MP) color image sensor. This sensor includes various internal processing functions that can improve image quality, including automatic white balance, automatic black level calibration, and controls for adjusting saturation, hue, gamma and sharpness. Data is transferred over a dual-lane MIPI CSI-2 interface, which provides enough data bandwidth to support common video streaming formats such as 1080p (at 30 frames per second) and 720p (at 60 frames per second). The module is connected to the FPGA development board via a 15-pin flat-flexible cable (FFC). The Pcam 5C comes with a set of open source Vivado IP cores on FPGA and Zynq host boards, a 10 cm flat-flexible cable and a factory-installed fixed focus lens with M12 lens mount, so it is ready to use out of the box.

- 5MP color system-on-chip image sensor Omnivision Ov5640
- 15-pin FFC connector for image data
- Dual lane MIPI CSI-2 image sensor interface
- Supports QSXGA@15Hz, 1080p@30Hz, 720p@60Hz, VGA@90Hz and QVGA@120Hz
- Output formats include RAW10, RGB565, CCIR656, YUV422/420, YCbCr422, and Standard M12 lens mount for lens interchangeability
- Ships with 10 cm cable and factory installed fixed-focus lens
- Small PCB size for flexible designs (4.0 cm x 2.5 cm)
- 1×7 straight 100-mil header for access to auxiliary camera signals
- Works with Pcam compatible Digilent development boards
- *JPEG compressed output is a feature of the OV5640, but is currently untested on this module

