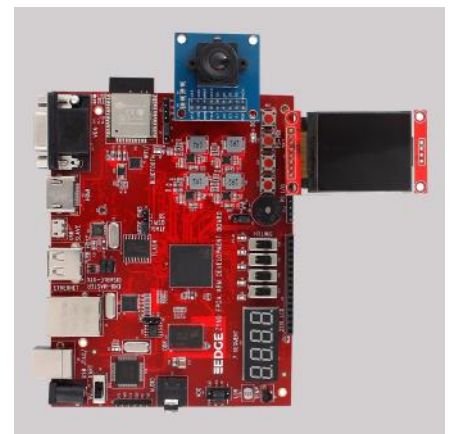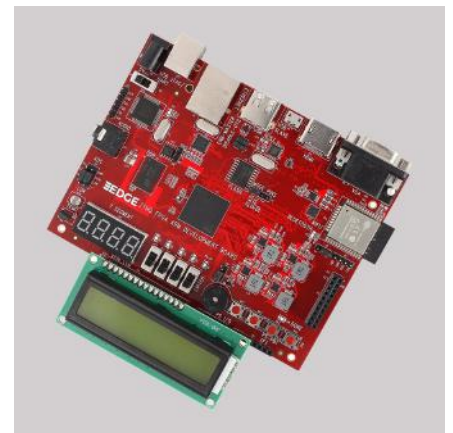## Description

EDGE ZYNQ SoC FPGA Development Board is a feature rich and high-performance Single Board Computer built around the Xilinx Zynq Z7010 Z7020 FPGA. It features integrated dual-core ARM Cortex-A9 processor with Xilinx 7-series FPGA.EDGE ZYNQ SoC FPGA Development Board is designed to create best learning experience of both processing system (PS) and programming logic(PL). It also features 512MB DDR3 SDRAM and 16MB QSPI Flash USB-to-UART, USB OTG, 10/100/1000Mbps Ethernet, HDMI, USB JTAG, Temperature sensor, Micro SD, WiFi, Bluetooth, ADC, LCD, 7 Segment, camera, TFT, Buzzer, Switches, buttons and LEDs.

Advantage of EDGE FPGA kit is easy to implement plenty of applications ranging from single board computer, Wireless control, Image/video Processing, Internet of Things without additional interfaces.

Xilinx offers free WebPACK™ versions of Vivado design suite, so designs can be implemented at no additional cost.

Package includes

- EDGE ZYNQ SoC FPGA Development Board
- USB Cable
- LCD Display 2x16
- SPI TFT (optional)
- VGA CMOS Camera (optional)
- 5MP CMOS Camera (optional)
- Lab Protection Box (optional)
- Sensor Addon (Gesture/Ultrasonic/Touch/Accelero.) (optional)
- Motor Addon (Stepper/DC/Servo/Relay) (optional)

Technical Specification

FPGA	Xilinx XC7Z010-1CLG400C or XC7Z020-1CLG400C
	– 667MHz ARM® dual-core Cortex™-A9 processor
	– Integrated Artix-7 FPGA Programmable fabric
DDR3	512MB DDR3 SDRAM (16-bit)
SPI FLASH	16MB QSPI Flash
Wireless	Single Chip Wireless Module
	– Wi-Fi 802.11b/g/n
	– Bluetooth: v4.2 BR/EDR and BLE (Bluetooth Low Energy)
Gigabit Ethernet	10/100/1000M Ethernet
USB2.0 OTG	USB OTG (Device/Host/OTG)
VGA	12-bit, 4096 Color
HDMI	HDMI TX/RX
Sensor	LM35 Temperature Sensor, LDR
PS I/O	Support external interfaces like SPI, I2C, UART, CAN on PL side
Audio	Stereo Jack Audio Output
7 segment Display	4-Digit 7 Segment Display
LCD	2×16 Character LCD
Buzzer	5v Piezo Buzzer
Slide Switch	4 SPDT Slide switch on PL Side
LEDs	4 LED on PL side, 1 LED on PS side
Push Button	2 Push Button on PL side, 1 Push Button on PS side, 1 Push Button Reset
MicroSD	MicroSD card up to 128 GB support
JTAG	USB JTAG for Programming. Fully Compatible with Xilinx Vivado Tool.
UART	USB UART communicate at different baud rate
Clock	50 MHz Clock on PL side, 33.33 MHz Clock on PS side

Technical Specification (Optional)

Camera VGA	OV7670 CMOS Camera
TFT	1.8 inch SPI TFT, 128×160
Camera 5MP	OV5640 CMOS Camera
Digital Sensor Addon	Gesture sensor/ Ultrasonic Sensor/ Touch Sensor/ 3 axis Accelerometer
Motor Driver Addon	Stepper Motor/ DC Motor/ Servo Motor/ 2 channel Relay/ 12v Adaptor/ Motor Driver Board

Applications

- Single Board Computer
- Wireless Communication
- IoT (Internet of Things)
- Product Prototyping
- Image Processing
- Video Processing