Description

EDGE Spartan 6 FPGA board is the low cost and feature rich development board with Xilinx Spartan 6 FPGA. The FPGA kit consist of 26 External I/O, USB UART, USB JTAG, WiFi, Bluetooth, SPI FLASH, ADC, DAC, LCD, 7 segment, VGA, PS2, Buzzer, Temperature Sensor and LDR. It also provides additional interface like CMOS Camera and TFT Display at the expansion connectors.
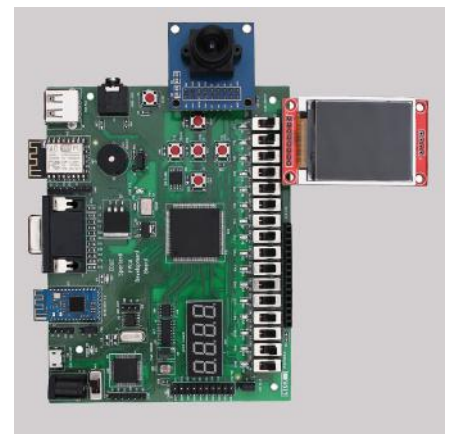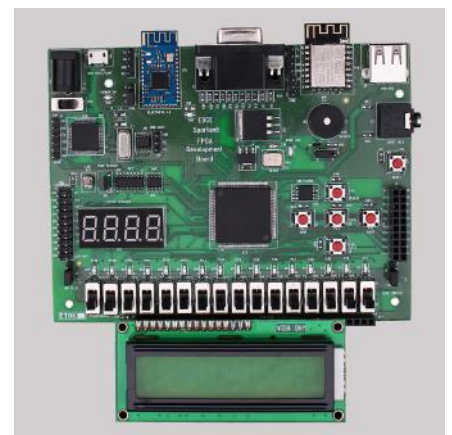
EDGE FPGA kit is ready to use Laboratory kit for ECE Curriculum. It can be useful for developing basic to intermediate level digital circuits.

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

Xilinx offers free WebPACK™ versions of ISE tool, so designs can be implemented at no additional cost.

Package includes

- EDGE Spartan 6 FPGA Development Board
- USB Cable
- LCD Display 2x16
- SPI TFT (optional)
- 1 x CMOS Camera (optional)
- Acrylic Sheet Top/Bottom (optional)
- Lab Protection Box (optional)
- Sensor Addon (Gesture/Ultrasonic/Touch/Accelero.) (optional)
- Motor Addon (Stepper/DC/Servo/Relay) (optional)

Technical Specification

FPGA	Xilinx Spartan 6 XC6SLX9 TQG144, 9152 Logic Elements, 589824 bits of Block RAM
SPI FLASH	8 MByte for FPGA Configuration
WiFi	ESP-12F WIFI Modem
VGA	12-bit, 4096 Color
Bluetooth	1.8 inch SPI TFT, 128×160
ADC	8 channel 12-bit SPI ADC, 6 channel available at J7 Connector.
Sensor1	LM35 Temperature Sensor
Sensor2	LDR
DAC	12-bit SPI DAC output at J7 Connector
Audio	Stereo Jack
7 segment Display	4-Digit 7 Segment Display
LCD	2×16 Character LCD
Buzzer	5v Piezo Buzzer
Slide Switch	16 Nos of SPDT
LEDs	16 Nos of LEDs
Push Button	5 Nos of Push Button
PS2	Keyboard interface on USB connector. Only compatible with 3.3v Keyboard.
JTAG	USB JTAG for Programming and Debugging. Fully Compatible with Xilinx iMPACT, Chipscope Pro, Xilinx System Generator, Xilinx Platform Studio.
UART	USB UART can communicate at different baud rate
Clock	50 MHz

Technical Specification (Optional)

Camera	OV7670 CMOS Camera
TFT	1.8 inch SPI TFT, 128×160
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

- Wireless Communication
- IoT (Internet of Things)
- Environment monitor
- Product Prototyping
- Image Processing
- Video Processing