



Description

EDGE Artix 7 FPGA Development board is upgraded version of EDGE Spartan 6 board. It is exclusively designed for the latest vivado Design Suite. The EDGE Artix 7 board is build around Xilinx Artix 7 XC7A35T FPGA IC. The features includes external memory SRAM, HDMI Out, Micro SD, WiFi, Bluetooth, ADC, DAC, LCD, 7 Segment, camera, TFT, Buzzer, Switches, buttons and LEDs interface. Microblaze softcore processor design can be easily implemented with SRAM using vivado SDK.

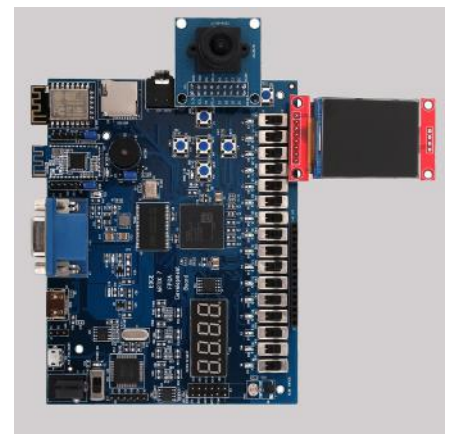
EDGE FPGA kit is ready to use Laboratory kit for ECE Curriculum. It can be useful for developing basic to advanced level digital circuits.

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 Vivado design suite, so designs can be implemented at no additional cost.

Package includes

- EDGE Artix 7 FPGA Development Board
- Micro 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 Artix 7 XC7A35T-1FTG256C, 33208 Logic Elements, 1843200 bits of Block RAM |
| SRAM | 512K x 8 SRAM |
| SPI FLASH | 64 Mb FLASH for FPGA Configuration |
| Wi-Fi | ESP-12F WIFI Modem |
| Bluetooth | Bluetooth BLE 4.0 |
| VGA | 12-bit, 4096 Colour |
| HDMI | HDMI OUT |
| 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 | 2x16 Character LCD |
| Buzzer | 5v Piezo Buzzer |
| Slide Switch | 16 Nos of SPDT |
| LEDs | 16 Nos of LEDs |
| Push Button | 5 Nos of Push Button |
| MicroSD | Micro SD |
| JTAG | USB JTAG for Programming and Debugging. Fully Compatible with Xilinx Vivado Tool. |
| UART | USB UART can communicate at different baud rate |
| Clock | 50 MHz Single Ended |

Technical Specification (Optional)

| | |
|----------------------|--|
| Camera | OV7670 CMOS Camera |
| TFT | 1.8 inch SPI TFT, 128x160 |
| 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

