

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 SDRAM, HDMI Out, Micro SD, WiFi, Bluetooth, ADC, DAC, LCD, 7 Segment, camera, TFT, Buzzer, Switches, buttons and LEDs interface. Real Time image and video processing can be easily implemented with 32 MB of SDRAM onboard.

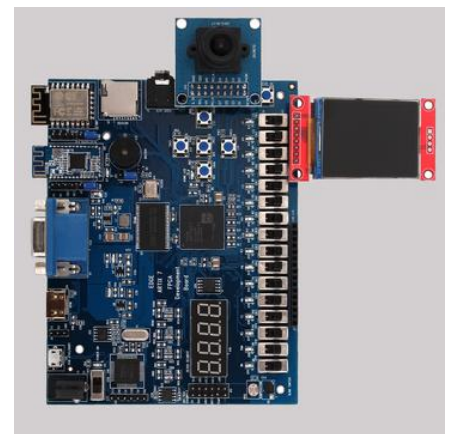
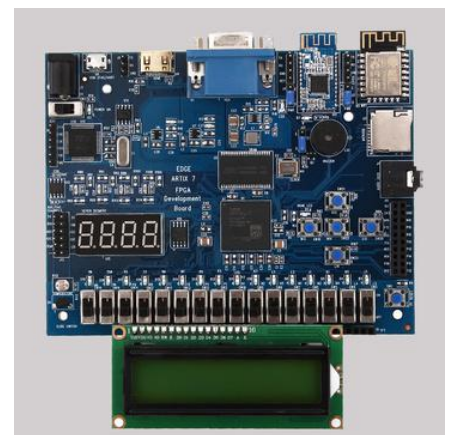
EDGE FPGA kit is ready to use Laboratory kit for ECE Curriculum. It can be useful for developing basic to advanced level digital circuits.

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)
- CMOS VGA Camera (optional)
- CMOS 5 MP Camera (optional)
- Sensor Addon (Gesture/Ultrasonic/Touch/Accelero.) (optional)
- Motor Addon (Stepper/DC/Servo/Relay) (optional)
- Acrylic Sheet Top/Bottom (optional)
- Lab Protection Box (optional)



Technical Specification

FPGA	Xilinx Artix 7 XC7A35T-1FTG256C, 33208 Logic Elements, 1843200 bits of Block RAM
SDRAM	32MB SDRAM
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	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
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 Accessories)

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

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

