



The PINE-S7 board is a complete, ready-to-use digital circuit development platform based on the latest Spartan7 Field Programmable Gate Array (FPGA) from Xilinx. With its high-capacity FPGA (Xilinx part number XC7S15FTGB196-1), low overall cost, and collection of USB, VGA, and other ports, the PINE-S7 can host designs ranging from introductory combinational circuits to complex sequential circuits like embedded processors and controllers.

It includes enough switches, LEDs and other I/O devices to allow a large number designs to be completed without the need for any additional hardware, and enough uncommitted FPGA I/O pins to allow designs to be expanded using Pmods or other custom boards and circuits. An advantage of Spartan 7 over Spartan 6 is more logics resources and fully compatible with Vivado design suite.

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

PINE Spartan 7 FPGA kit Brochure

The PINE-S7 board has on board USB JTAG which support Vivado & vitis. PINE-S7 FPGA kit is ready to use Laboratory kit for ECE Curriculum. It can be useful for developing basic to advanced level digital circuits.

Technical Specification

- Xilinx Spartan 7 XC7S15 FTGB196, 12800 Logic Elements, 368640 bits
- 16 user switches
- 16 user LEDs
- 4 user pushbuttons
- 100MHz clock
- 4-digit 7-segment display
- Four Pmod ports (32GPIO)
- ESP-12E WiFi
- Buzzer
- RGB LED
- VGA output
- USB-UART
- Serial Flash
- USB-JTAG port for FPGA programming and communication (support Vivado)

Applications

- Product Prototype Development
- Development and testing of custom embedded processors
- Signal Processing
- Communication devices development
- Educational tool for Schools and Universities

Package includes

- Pine-S7 FPGA board
- Micro usb cable
- 16BY2 LCD (Addon)
- OV7670 camera (Addon)
- TFT DISPLAY 160×128 (Addon)
- Bluetooth (Addon)
- Matrix keypad 4x4 (Addon)
- OLED (Addon)
- Motor driver (Addon)