



- Ethernet, USB, WiFi (Dongle required, not included)
- Basic Accessories for Getting Started: 16GB, Class 10 SD Card, 1m Ethernet Cable, 5V2A Power Supply
- Ready for Deployment: CE, FCC Certified

## Description

The Red Pitaya STEMLab 125-14 Starter Kit contains a basic set of tools to start developing with the included Red Pitaya STEMLab 125-14 board. The board features a dual-core ARM® Cortex® A9 and Xilinx Zynq 7010 FPGA MCU, offering both fast and slow analog I/O. The STEMLab 125-14 has 14-bit input/ output channels for highly accurate measurement results, and is suitable for use in professional environments such as industrial control systems or smart city controllers. It can be used as desired for various electronics applications as an oscilloscope, spectrum analyzer, LCR Meter, and more. In addition, you can explore free, open-source applications contributed by the community on the [Red Pitaya Marketplace](#).

## Applications

- Oscilloscope
- Industrial PID Controller
- Signal Generator
- Spectrum Analyzer
- Bode Analyzer
- LCR Meter

## Specifications

Specification	Details
Processor	Dual-Core ARM Cortex-A9 MPCore
FPGA	Xilinx Zynq 7010

Specification	Details
RAM	512MB
System Memory	MicroSD up to 32GB
Connectivity	Gigabit Ethernet USB 2.0 WiFi (Dongle required, not included)

F Inputs	Channels	2
	Sample Rate	125MS/s
	ADC Resolution	14 bit
	Full Scale Voltage Range	$\pm 1V / \pm 20V$
	Input Coupling	DC
	Bandwidth	DC- 60MHz
	Input Impedance	1 M $\Omega$
RF Outputs	Channels	2
	Sample Rate	125MS/s
	ADC Resolution	14 bit
	Full Scale Voltage Range	$\pm 1V$
	Load Impedance	50 $\Omega$
	Shortcut Protection	Yes

	Typical Raising / Falling Time	2V / 10ns
	Bandwidth	DC - 60MHz
Peripherals	Digital IOs	16
	Analog Inputs	4 Channels, 0-3.5V 12 bit
	Analog Outputs	4 Channels, 0-1.8V 12 bit
	Communication Interfaces	I2C, UART, SPI
	Available Voltages	+5V, +3.3V, -4V
Synchronization	Trigger input through extension connector Daisy chain connection over SATA	

## Part List

- 1 x Red Pitaya STEMLab 125-14 board
- 1 x Micro-SD Card (16GB, class 10)
- 1 x Micro-SD Card Adapter
- 1 x Ethernet cable (1m)
- 1 x International Power Adapter (5V, 2A)