



## Product information "Red Pitaya Calibrated Diagnostic Kit"

### Description

Red Pitaya is an open source project developed around a reconfigurable measurement instrument in size of a credit card. It can replace many expensive laboratory measurement and control instruments. The users can start using the applications available within the Bazaar free of charge marketplace. This can be achieved with a single click. At the same time they can view and modify the published source code in order to develop new applications and share their results with the community.

The Red Pitaya unit is a network attached device based on Linux operating system. It includes Radio Frequency signal acquisition and generation technologies, FPGA, Digital Signal Processing and CPU processing. Red Pitaya enables everyone to start using technologies, yesterday available only to advanced research laboratories and industry.

### Key Features

Calibration of Red Pitaya Oscilloscope and Signal generator Application include next parameters:

Calibration of Inputs DC offset

Calibration of Inputs gains

Calibration of Outputs DC offset

Calibration of Outputs gains

Calibration is performed in noise controlled environment. Inputs and outputs gains are calibrated with 0.02% and 0.003% DC reference voltage standards. Input gains calibration is performed in medium size timebase range. Red Pitaya is non-shielded device and its inputs/outputs ground is not connected to the earth grounding as it is in case of classical Oscilloscopes. To achieve calibration results given below, Red Pitaya must be grounded and shielded.

## Red Pitaya Calibrated Diagnostic Kit (Package Content)

Calibrated Diagnostic kit includes:

- 1 x Calibrated Red Pitaya V1.1 board
- 1 x Oscilloscope PRO Application
- 1 x Spectrum Analyzer PRO Application
- 1 x Micro USB Power Supply Adaptor
- 1 x 4GB Micro SD Card
- 2 x 50 ohm termination
- 1 x Red Pitaya compatible WI-FI USB dongle
- 2 x 60MHz Oscilloscope Probes
- 2 x Adaptors SMA(M) to BNC(F)

## Software

Red Pitaya is based on GNU/Linux operating system and can be customized at different programming levels. Available software interfaces include: HDL, C/C++, scripting languages, MATLAB and HTML based web interfaces.

Red Pitaya software is **open source** and can be downloaded from github. All development tools are free.

## References

- Manufacturer name: Red Pitaya
- Manufacturer's part name(s): Red Pitaya Calibrated Diagnostic Kit

## Resources

- Red Pitaya User Forum