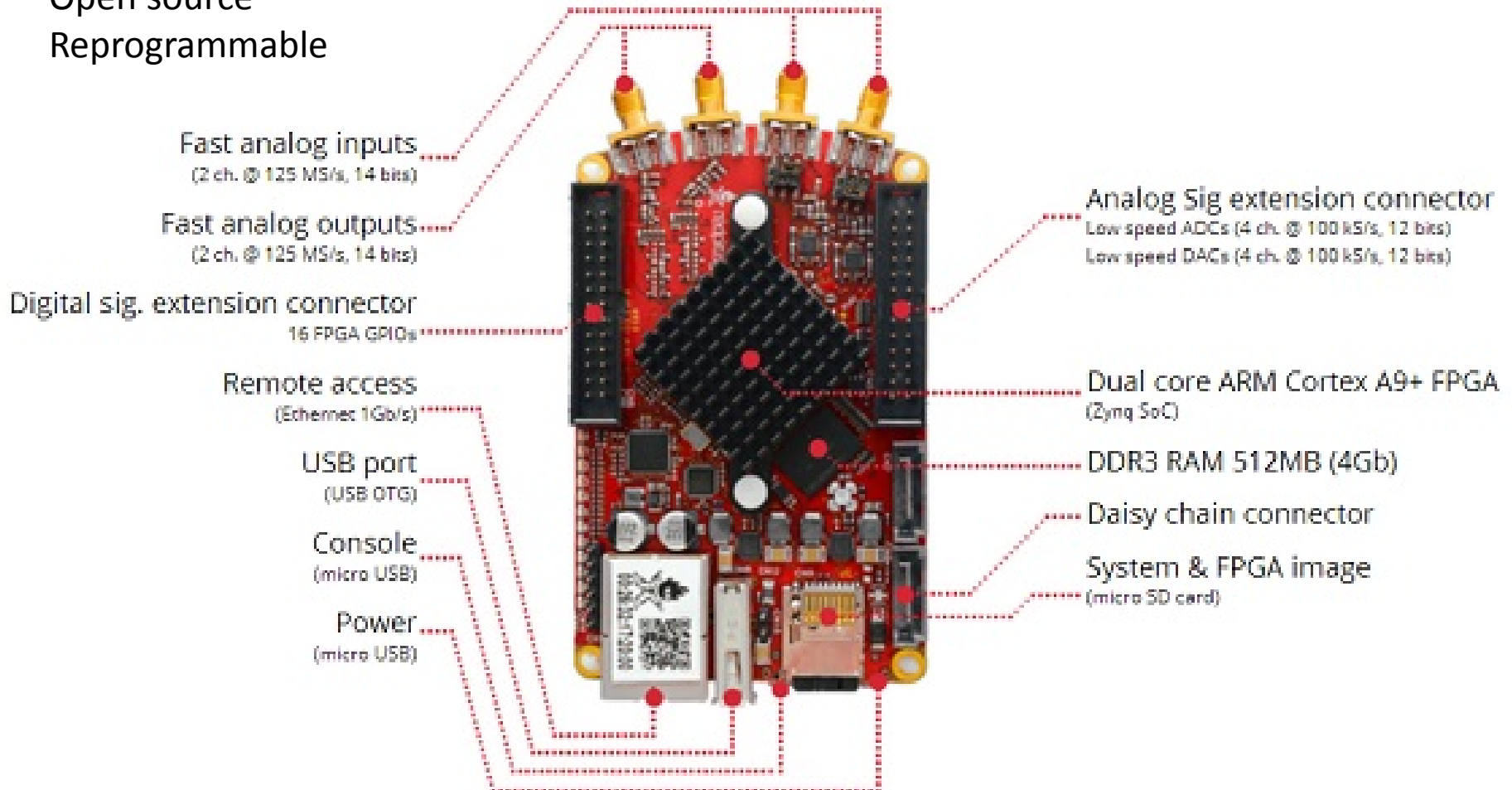




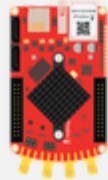
# Red Pitaya

# Red Pitaya

Système embarqué  
Open source  
Reprogrammable



# Red Pitaya vs



Red Pitaya



Raspberry PI



Arduino UNO

**Features**

Features	Red Pitaya	Raspberry PI	Arduino UNO
Processor	Dual core ARM Cortex A9 + FPGA	ARM 700MHz	Microcontroller ATmega328
FPGA	✓	⊘	⊘
Fast Analog Inputs and outputs	125 MS/s 14 bit	⊘	⊘
Slow analog inputs	100 kS/s 12 bit	⊘	10 kS/s 10 bit
Operating system	Linux	Linux	⊘
Default functionality	Multi-instrument	Computer	Microcontroller
App. market	✓	⊘	⊘

# 3 modes de fonctionnements

## Instruments

### Oscilloscope

2 canaux 14 bits et 125Msps

### Générateur arbitraire

2 canaux 125 MHz

### Analyseur de spectre

2 canaux DC - 60 MHz

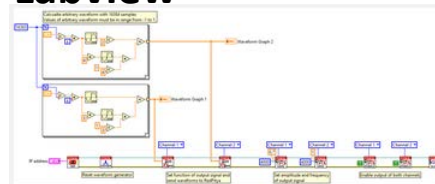
### Un régulateur PID

2 canaux.

## Post traitement

(avec un PC)

### Labview



### Matlab

### Scilab

### Python

### C/C++

## Temps réel

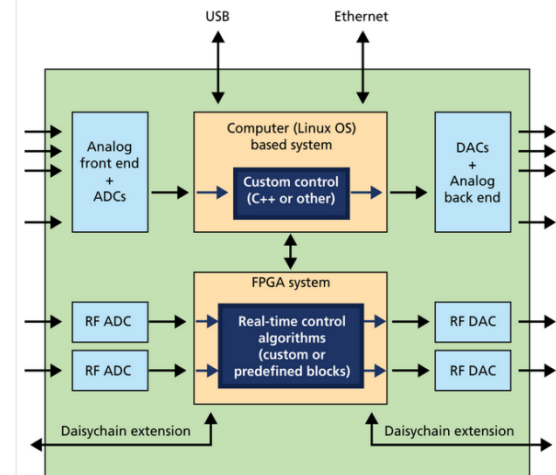


Figure 2 – Architecture système Red Pitaya

Sources : <http://redpitaya.com/>

<http://fr.rs-online.com/web/generalDisplay.html?id=infozone&file=electroniques/red-pitaya-xilinx>

# Exemples

