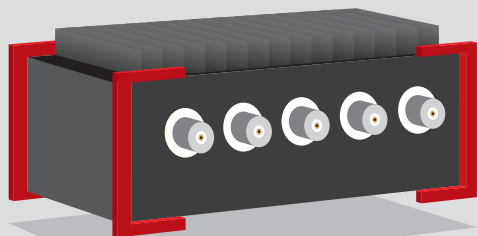


SIGNAL lab 250-12

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WHO IS IT FOR?

Manufacturers

Research labs

Quality control departments

R&D departments



MAIN ADVANTAGES

OEM component

Ability to run custom FPGA code

Remote control

Free test & measurement applications available



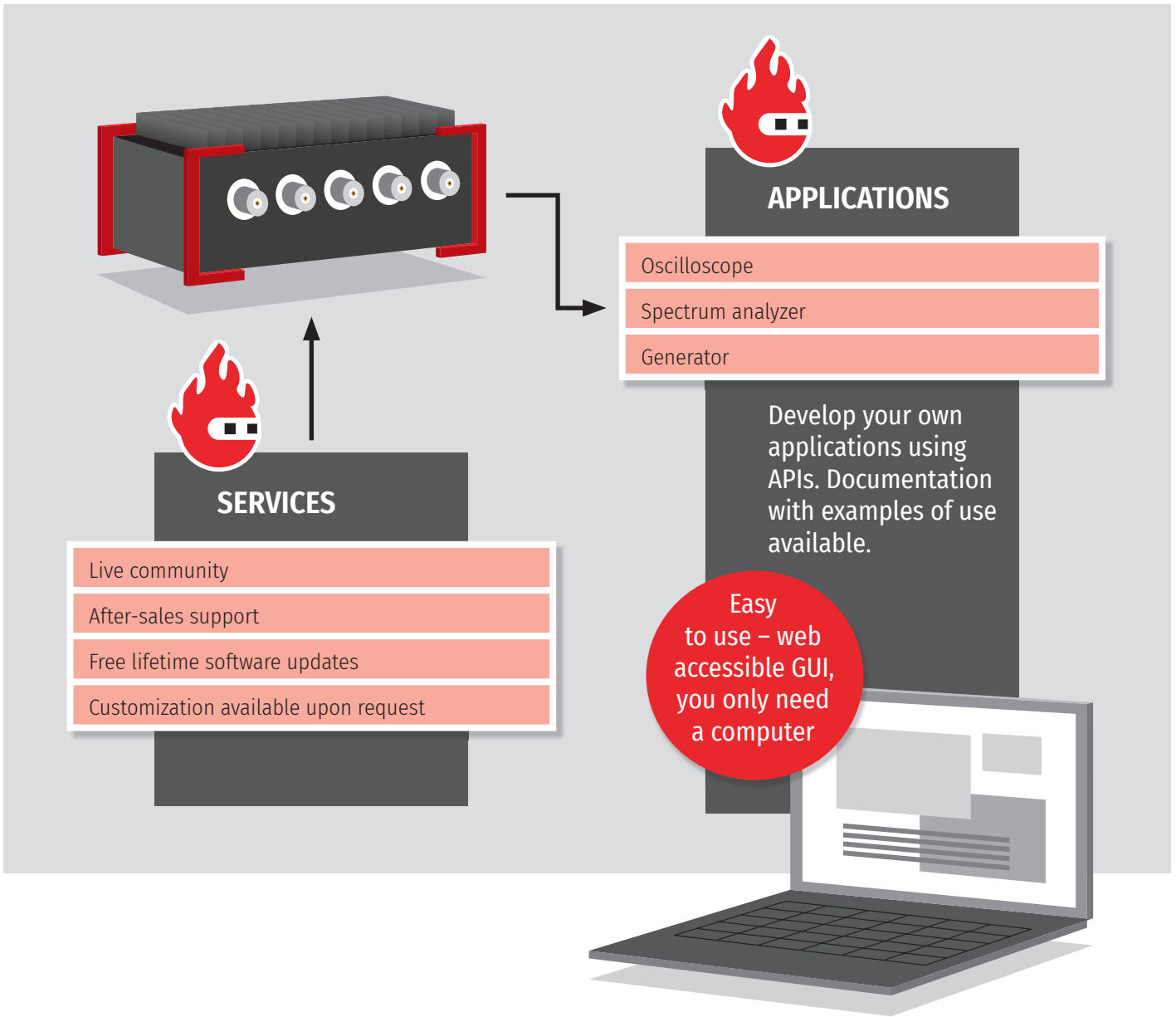
AREAS OF APPLICATION

Test and measurement

Electronic tools

Embedded solutions

Development boards and kits



Why Red Pitaya?

Reliable OEM component for a broad range of applications,
flexible open-source platform, small size

TECHNICAL SPECIFICATIONS



General

PROPERTY	VALUE	COMMENT	
Sampling rate	250 Msps		
Number of channels	2 inputs, 2 outputs	4 BNC connectors on the front panel	
Synchronization inputs	1 trigger input, level SW settable	1 BNC connector on the front panel	
	1 reference clock input (10 MHz)	1 SMA connector on the back panel	
Operating temperature range	0 to +55°C	Boxed or bare PCB with a heatsink	
Storage temperature range	-20 to +85°C		
Dimensions (W × L × H, incl. connectors)	110 × 157 × 23 mm	PCB with standoffs, without chassis	
	131 × 157 × 58 mm	Chassis dimension	
Power supply	Barrel type connector	10 to 28 V DC	
	Power over Ethernet (PoE)	48 V DC, optional	
GUI	Web application	Accessible through Ethernet or WiFi	
Extension Connector 2 × 26 pins IDC (M)	pinout compatible with STEM 125-14	16 Digital I/O (3.3 V)	
		4 channels 0 - 3.5 V 12 bit 4 channels 0 - 1.8 V 12 bit I2C, UART, USB, SPI	
Operating system	Linux	Bootable from SD card	
Input	Max input voltage	30 V	
	Input coupling	AC, DC	SW selectable
	Input impedance	1 MΩ	
	Voltage range	± 1 V at 1/1	SW selectable
		± 20 V at 1/20	
	A/D converter resolution	12 bits	
	Channel Isolation	>60 dB	DC to 100 MHz
	Frequency response	± 0.5 dB up to 45 MHz	*
		-3 dB at 60 MHz	*
	Rise/fall time	13 ns	Input 1/20
11 ns		Input 1/1	
Output	Max output voltage (including offset)	± 5 V	On 50 Ω load
		± 10 V	On HiZ load
	Output impedance	50 Ω	
	Return loss	< -30 dB	60 MHz
		< -20 dB	100 MHz
	Output gain	X1 / X5	SW selectable
	Frequency response (-3 dB)	± 0.5 dB up to 45 MHz	*
		57 MHz	x5 output range
		60 MHz	X1 output range
	Rise/fall time	<17 ns	+/- 5V output, 50 Ω or HiZ load