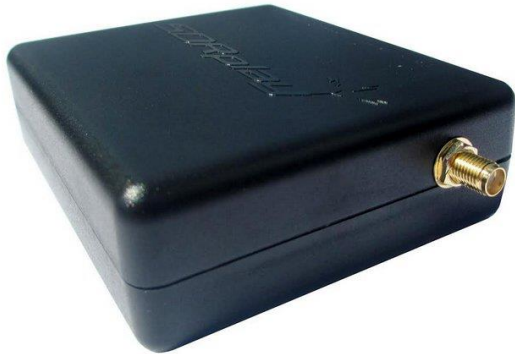# SDRplay

Radio Spectrum Processor

The SDR-play RSP1 is a powerful wideband full-featured SDR which covers all frequencies from 10 kHz up to 2 GHz. All it needs is a PC and an antenna to provide excellent communications receiver functionality. Combined with the power of readily available SDR receiver software (including our own 'SDRuno') you can enjoy all modes of operation while monitoring up to 10 MHz of spectrum at a time. An open API allows developers to create new demodulators or applications around the platform.

KEY FEATURES

- Robust and strong plastic case
- Continuous coverage from 10kHz to 2GHz
- 12-bit ADC silicon technology (not another 8 bit dongle!)
- Built-in High-Performance front-end filters
- Up to 10 MHz bandwidth
- Good sensitivity and selectivity
- Low noise floor
- Simple USB interface (type B socket)
- SMA antenna socket
- Powers over the USB cable
- SDRuno - World class SDR software

KEY BENEFITS

- Ideal for portable operation
- No need for an up-converter
- Covers all amateur bands from experimental LF through HF, VHF and UHF
- Simultaneous entire amateur band monitoring possible
- Works with all the popular SDR software (including HDSDR, SDR Console, Cubic SDR & our own SDRuno)
- Compatible with existing open source radio software
- ExtIO based plugin available
- Compatible with Mirics Radio & TV software
- Software upgradeable for future standards
- Strong and growing software support network
- API provided to allow demodulator or application development
- Multiplatform support including Windows, Linux, Mac, Android and Raspberry Pi 2/3

SPECIFICATIONS

General
- Weight 110g
- Size: 95mm x 80mm x 30mm
- Low Current: 120 – 175 mA

Connectivity
- Single 50Ω RF connector (SMA)
- USB 2.0 (high speed) type B socket

Frequency Range
- Continuous coverage 10kHz – 2GHz
- Frequency Tolerance: 10ppm (max)

ADC Characteristics
- Sample frequency 2MSPS – 10.66MSPS
- 12 bit native ADC
- 10.4 ENOB
- 60dB SNR
- 67dB SFDR

IF Modes
- Zero IF, All IF bandwidths
- Low IF, IF bandwidths ≤ 1.536MHz

IF Bandwidths (3dB)
- 200kHz
- 300kHz
- 600kHz
- 1.536MHz
- 5.0 MHz
- 6.0 MHz
- 7.0 MHz
- 8.0 MHz

Typical Noise Figures
- 12.5dB @ 3MHz
- 12.0dB @ 10MHz
- 11.5dB @ 20MHz
- 12.0dB @ 40MHz
- 4.5dB @ 100MHz
- 4.5dB @ 200MHz
- 5.0dB @ 360MHz
- 3.5dB @ 600MHz
- 3.5dB @ 1300MHz
- 4.0dB @ 1800MHz

Front End Filtering
Automatically configured front end filtering

Low Pass
12MHz

Band Pass
- 12 – 30MHz
- 30 – 60MHz
- 60 – 120MHz
- 120 – 250MHz
- 250 – 420MHz
- 420 – 1000MHz

High Pass
- 1000MHz