



Radio Spectrum Processor



The SDRplay RSP1 is a powerful wideband full-featured SDR (Software Defined Radio) Receiver which covers all frequencies from 100 kHz up to 2 GHz. It is designed to be controlled by a host computer running communications software such as HDSDR or SDR-Console, or specialist programmes for specific modes of Spectrum Analysis or Signal Processing. The RSP1 enables up to 8MHz of spectrum to be processed in one go and an open API allows developers to create new demodulators and applications.

KEY FEATURES

- Robust and strong plastic case
- Continuous coverage from 100kHz to 2 GHz
- 12-bit ADC silicon technology (not another 8 bit dongle!)
- Built-in High-Performance front-end filters
- Up to 8 MHz bandwidth
- Good sensitivity and selectivity
- Low noise floor
- Simple USB interface (type B socket)
- SMA antenna socket
- Powers over the USB cable

KEY BENEFITS

- Ideal for portable operation
- No need for an up-converter
- Covers all amateur, broadcast and professional bands from experimental LF through HF, VHF and >UHF
- Works with popular SDR software (e.g. HDSDR, & SDR-Console)
- Compatible with existing open source radio software
- ExtIO based plugin available
- Compatible with Mirics Radio & TV software
- Strong and growing software support network
- API provided to allow demodulator or application development
- Multiplatform support including Windows, Linux, Mac and Android

SPECIFICATIONS

General

- Weight 110g
- Size: 95mm x 80mm x 30mm

Connectivity

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

Frequency Range

- Continuous coverage 100kHz – 2GHz

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 ≤ 1.536 MHz

IF Bandwidths

- 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