



KiwiSDR Kit

SKU 110060490



KiwiSDR is a software-defined radio (SDR) covering shortwave, the longwave & AM broadcast bands, various utility stations, and amateur radio transmissions, world-wide, in the spectrum from 10 kHz to 30 MHz.

Description

KiwiSDR is a software-defined radio (SDR) covering shortwave, the longwave & AM broadcast bands, various utility stations, and amateur radio transmissions, world-wide, in the spectrum from 10 kHz to 30 MHz. The KiwiSDR is a custom circuit board (cape) you connect to the [BeagleBone Green](#) or [BeagleBone Black](#) computer. You simply add an antenna, power supply and network connection. The KiwiSDR is available in two versions: the [cape alone](#) and a more complete version including BBG, enclosure and GPS antenna. Both versions include software supplied on a micro-SD card.

An HTML5-capable browser and internet connection will let you listen to a public KiwiSDR anywhere in the world. Up to four people can listen simultaneously to one radio — each listener tunes independently.

Try it right now! Listen to KiwiSDR registered on the [sdr.hu](#) website.

Features

100% Open Source / Open Hardware.

Browser-based interface allowing four simultaneous user web connections.

Each connection tunes an independent receiver channel over the entire spectrum.

Waterfall tunes independently of audio and includes zooming and panning.

Multi-channel, parallel DDC design using bit-width optimized CIC filters.

Good performance at VLF/LF since we personally spend time monitoring those frequencies.

Automatic frequency calibration via received GPS timing.

Easy hardware and software setup. Browser-based configuration interface.

Extension interface for adding decoders and utilities.

Specification

SDR covers the 10 kHz to 30 MHz (VLF-HF) spectrum.

Web interface based on OpenWebRX from András Retzler, HA7ILM.

Demodulation modes: AM, AMN, LSB, USB, CW, CWN, NBFM.

Extensions at present: WSPR viewer/decoder, IQ display, Loran-C viewer.

RF antenna connector: SMA and terminal block.

Integrated software-defined GPS receiver from Andrew Holme's Homemade GPS Receiver.

GPS receives the Navstar system on L1 frequency 1575.42 MHz.

GPS antenna connector: SMA, 3.3V powered for active antennas.

Voltage: +5V DC, 2.1mm jack, center pin positive.

Current: 1.5A including Beagle, KiwiSDR powers Beagle through header connectors.

Dimensions: KiwiSDR PCB 117mm * 55mm, SMA connectors additional.

Part List

1 x KiwiSDR Board

1 x Beaglebone Green

1 x Unassembled enclosure

1 x Skyworks SE4150L GPS front-end antenna

1 x Micro-SD Card