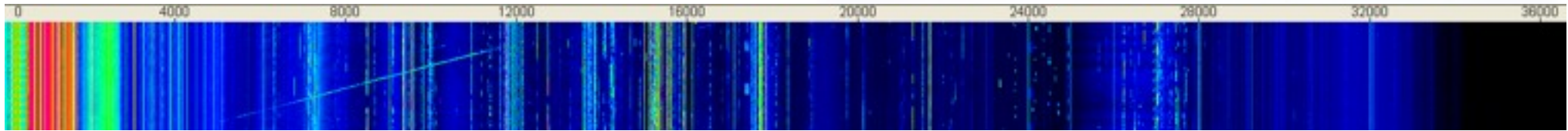# Direct Sampling Software Defined Radio

NETWORKED SOFTWARE DEFINED RADIO

The RFSPACE NetSDR is a high-performance, direct sampling, software defined radio with a frequency range of 10 KHz to 34 MHz. It includes a 40 MHz spectral and waterfall display. The 2 MHz output sample rate allows the recording of 1.6 MHz of spectrum to the hard-drive for playback at a later time. The NetSDR is equipped with one of the highest performance front-ends in the industry. It includes a high performance preamp, a bank of 10 sub-octave filters and a 10dB, 20dB and 30dB attenuator. In addition, the analog to digital converter uses 16 bits, quantization noise dithering and output bit randomization for exceptional performance.

The NetSDR uses an ethernet interface for the most robust connection between the PC and the radio. This allows the radio to be remoted anywhere on the network without being limited to a single PC or distance by a USB connection.

The NetSDR ships with the latest version of SpectraVue and SDR-Radio software. The SDR-Radio software allows the use of the NetSDR anywhere in the world using an internet connection. In addition, RFSPACE supplies a fully open source CuteSDR application for those interested is writing their own application. The software is developed using the QT framework and uses totally open, Free BSD licensing with no GPL restrictions. It can be compiled in Mac OS, Linux and Windows.
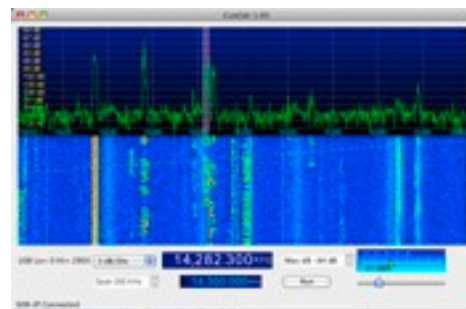
The NetSDR hardware is upgradable with OCXO Reference Lock (Opt 01), VCXO Reference Lock (Opt 04) and internal downconverters. The NetSDR is rack mountable and comes with CE and FCC compliance.
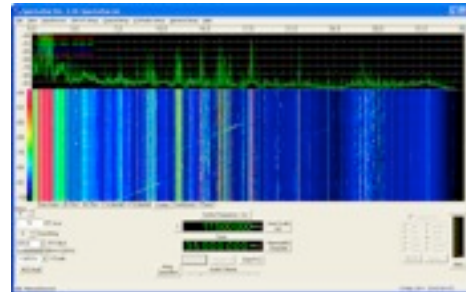
SpectraVue

SDR-Radio

CuteSDR

SPECIFICATIONS

Frequency Range: 10 KHz - 34 MHz, 0.02 Hz steps

Digital Down Converter: Xilinx FPGA

Synchronization : Optional 10 MHz reference input

PC Interface: Ethernet 100 base-T (UDP/TCP/IP)

Filters: 100dB, 80% alias free BW (Dual DDC Mode)

Output I/Q Sample Rate: 12.5 KHz to 2.0 MHz

Passband Flatness: <0.5 dB

Dynamic Range: 105 dB

MDS ADC High Gain (500Hz): -129dBm 10 MHz

Analog to Digital Converter: 16 bits with dithering

IQ RX Mute Control: Available on RS-232 pin

Preselection: 10 sub-octave filters

Attenuators: 10dB, 20dB, 30dB

Sample Rate: 80.000 MHz

Real Mode Memory: 65536 x 16 bit samples

External Radio Control: Built-in RS-232 port

Dimensions: 9" x 1.5" x 7.1" W x H x L

Power: 5 Volts DC @ 1.5 Amp

Connections: 3 x BNC (RF 1, Ext Ref, RF2/Aux) , RS-232, USB Setup, Stereo In, Ethernet, Power, RX Mute, Ground Screw.

Compliance: CE,FCC,IC

Price : $1,449 plus options