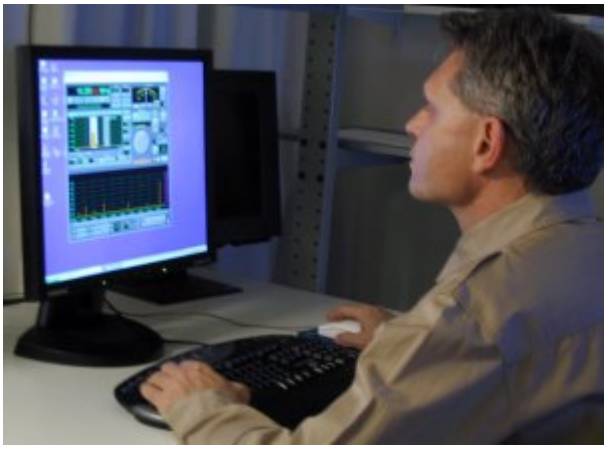
WR-G313i
Overview



The WiNRADiO WR-G313i is a software-defined high-performance HF receiver (9 kHz to 30 MHz, optionally extendable to 180 MHz) on a PCI card.
This receiver is intended for government, military, security, surveillance, broadcast monitoring, industrial and demanding consumer applications.

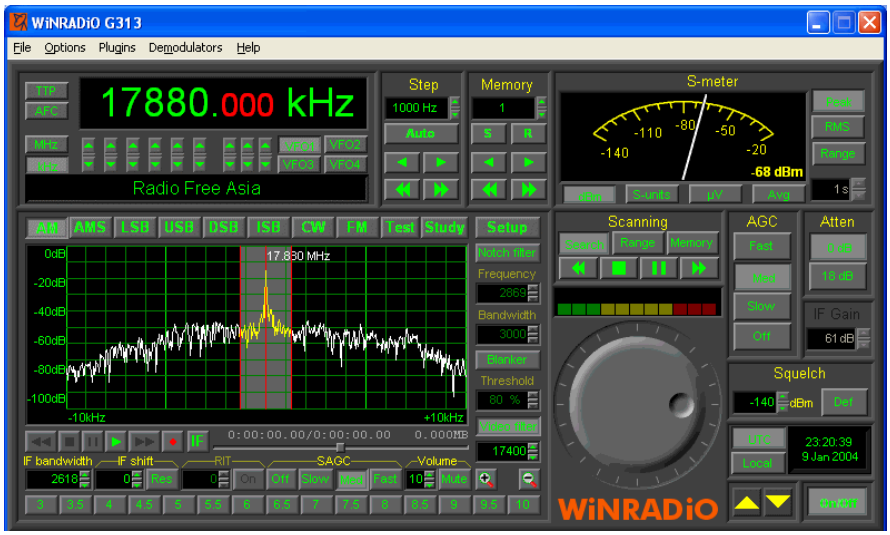
The receiver is extremely sensitive, making it possible to comfortably read CW signals under 0.05 µV input levels, yet featuring a respectable 95 dB dynamic range making the receiver resistant to strong signal overload. The high sensitivity is also matched by that of the S-meter: The fully calibrated S-meter shows the received signal levels in dBm, µV or S-units, down to the -140 dBm noise floor.
The hardware and software package consists of the receiver card, Windows-based software, a start-up antenna and a user's manual.

Hardware

The PCI card plugs into an available slot of an IBM-compatible PC. Several receivers (as many as there are free PCI slots available) can be controlled by a single PC - an ideal solution for high-performance multi-channel automatic monitoring systems.
There is a single SMA antenna connector and an output line audio jack which can be used to connect the receiver output directly to a sound card line-input or an amplified speaker.
The receiver has its own on-board DSP, and does not rely on the PC sound card for its performance. As the DSP performs the final stage IF filtering and all demodulation, this receiver is entirely software-defined, which means that additional demodulation or decoding modes can be easily added by a mere software change. (For example, an optional ***DRM decoder/demodulator*** is also available.)
No cables or power supplies needed - no clutter on your desk. Every modern desktop computer can be converted into a powerful HF monitoring station with minimum fuss.

Software

The WR-G313i software contains numerous advanced features, many tuning and scanning options, virtually unlimited memories and a rich on-line help facility:



There are numerous demodulation modes, continuously variable IF bandwidth 1 Hz to 15 kHz (in 1 Hz increments), a 20 kHz wide real-time spectrum analyzer with 16 Hz resolution, noise blanker and notch filter. There is also an integrated recorder, making it possible to instantly record and playback the received signal.
Apart from audio recording and playback, the receiver can also record an entire 20 kHz wide IF spectrum, making it possible to thoroughly analyze the received signal, and "re-receive" the same signal again and again with different IF filter bandwidths, notch filter, noise blanking or demodulator settings, to arrive at the best possible reception of weak or interference-prone transmissions.
In addition to the real-time narrow-band spectrum analyzer, there is also a wide-band ***spectrum analyzer*** which contains additional professional instrumentation facilities: the ability to display minimum and maximum spectrum sweeps, search for peaks, average spectra, save and print spectra, marker mode, etc.
Another useful feature, previously unavailable with receivers of this price class, is a ***test and measurement*** facility, performing measurements on the received signal including frequency accuracy, amplitude modulation depth, frequency deviation, THD (total harmonic distortion) and SINAD. An audio spectrum analyzer is also included, making it possible to observe the demodulated spectrum in real-time with a resolution of 5 Hz.
The unique ***research and education*** function makes it possible to explore interactive block diagrams of the software-defined demodulator, for each demodulation mode, and observe demodulation taking place on real-time signals using two spectrum analyzers and a vector voltmeter.

What's included?

The standard WR-G313i package includes:

- WR-G313i receiver card
- Application software
- Comprehensive user's manual
- Start-up antenna
- Audio lead
- BNC-to-SMA adapter

System requirements:

- PC with 500 MHz Pentium CPU or faster
- One free PCI slot
- Windows XP/Vista/7