WiNRADiO®

AVENTAS INC

Embedded Computing, Timing and Telemetry Products

WR-G39WSBe Sonobuoy Receiver

Overview

The WiNRADiO WR-G39WSBe Sonobuoy Receiver is a third-generation receiver specifically designed for sonobuoy telemetry operation.

It is particularly suitable for standard DIFAR sonobuoys operating in the 136 to 173.5 MHz standard sonobouoy VHF band. This standard frequency range can be extended to UHF frequencies (up to 1.8 GHz) to suit customized telemetry requirements.

The WR-G39WSBe features an antenna input, analog output, as well as digitized audio output via the USB bus for spectrum analysis and monitoring.

The fully self-contained receiver can be used with a standard PC or even laptop or mounted inside an industrial-grade instrument rack. The receiver is supplied together with Windows control software (Linux support is optional) and support documentation.

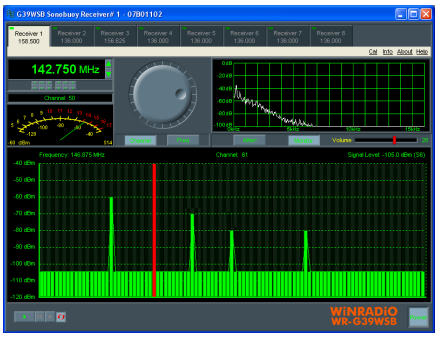
The receiver's modular architecture allows for a high-degree of customization for application-specific requirements. The receiver also contains its own DSP, making it possible to develop customized solutions featuring various on-board signal processing, analysis and decoding facilities.

As most of the RF signal processing is performed by the receiver, the PC hardware and software requirements are modest. Up to eight receivers can be controlled by the same USB hub, and controlled separately and independently. WiNRADiO can also supply complete rack-mounted multi-channel systems.

User interface

The WR-G39WSBi receiver is supplied with Windows based application software. Programmers' API and Linux drivers are available upon request, suitable for integration in custom designed sonobuoy systems.

The Windows application software shows a graphical representation of all installed receivers (a virtual control panel), making it possible to observe the status of all receivers at a glance and make individual adjustments if necessary. Each receiver can be monitored and the real-time spectrum of the demodulated signal observed. A mixing facility is provided where a particular receiver can be selected for audio monitoring by simply clicking on the corresponding receiver panel.



Technical Specifications	
Frequency range	136.000-173.500 MHz
Channel spacing	375 kHz
Modes	FM (DIFAR)
Sensitivity	0.9 µV
IF bandwidth	230 kHz @ -6 dB
Skirt selectivity	470 kHz @ -25 dB 730 kHz @ -60 dB
Frequency response	5 Hz to 25 kHz @ ± 1 dB 5 Hz to 40 kHz @ ± 2 dB
Output level	1.0 ± 0.2 V rms @ 75 kHz deviation and 1 kHz modulation frequency

RSSI range	80 dB typ.
Image rejection	70 dB or better
Tuning accuracy	±1 ppm
Frequency stability	±0.5 ppm
Input impedance	50 ohm
Output impedance	600 ohm
Connectors	2 x SMA: RF input, demodulator output
Interface	USB (1.0 and 2.0 compatible)
Power requirements	12 V DC @ 500 mA
Dimensions	Length: 166 mm (6.5") Width: 97 mm (3.8") Height: 41 mm (1.6")
Weight	430 g (15.1 oz)
Ambient temperature	Storage: -20º to +75º C Operation: 0º to +45º C

Specifications are subject to change without notice due to continuous product development and improvement.

AVENTAS INC

1131 Rockingham Dr. Suite 110 Richardson, TX 75080
Dallas – 972.231.7337 **Austin** – 512.832.1070 **Houston** – 713.228.5400
Toll Free – 800.460.9653 Fax – 972.231.5973
www.aventasinc.com info@aventasinc.com