

# SeRo Unveils its State-of-the-Art GRX 3X Multi-Band Receiver

*Receive and Monitor Up to 6 Channels Simultaneously with a Single Integrated Device*

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[/EINPresswire.com/](https://EINPresswire.com/) -- SeRo Systems, a leader in next-generation CNS monitoring solutions, announced the latest innovation in its GRX receiver platform, the GRX 3X Multi-Band receiver. This affordable sensor is the first in its class, boasting an expandable motherboard that can operate up to three independent radio front-ends (daughterboards) simultaneously. Daughterboards are available for the 978 MHz, 1030 MHz, and 1090 MHz frequency bands, covering the main frequencies used in Europe and the US for commercial, military, and general aviation operators. With this innovative design, the GRX 3X enables SeRo's customers to receive and monitor up to 6 channels simultaneously with a single integrated device. In addition, the GRX 3X offers the flexibility to accommodate custom daughterboard designs for customers with special requirements, making it an ideal choice for a wide range of applications.



GRX 3X Multi-Band Receiver



SeRo Systems GmbH

"The GRX 3X reflects SeRo's commitment to innovation and affordability in the field of air traffic surveillance and spectrum protection," said Dr. Matthias Schäfer, managing director of SeRo Systems. "Designed with state-of-the-art radio technology, these receivers are rigorously tested to ensure the highest level of operational performance and reliability across the board. We are proud to be the provider of the only affordable multi-band standalone receiver solution that offers this extensive level of features and flexibility."

The GRX product line is the backbone of SeRo's air surveillance and monitoring receiver network. It is widely deployed in Europe and the east coast of the US to help customers ensure the



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*Dr. Matthias Schäfer,  
managing director of SeRo  
Systems*

security and safety of the airspace. Designed to meet the stringent demands of modern communication and monitoring, the new GRX 3X's features include:

- **Comprehensive Frequency Coverage:** This receiver is ADS-B (1090ES and UAT), and Mode S Up and Downlink compliant, making it a reliable and cost-effective choice for monitoring all air surveillance frequencies. It provides the ability to receive and monitor ADS-B, Mode S, and other frequencies simultaneously.

- **Antenna diversity:** Supports beamforming, angle-of-arrival measurements, and use of sectorized antennas with multiple synchronized RF front-ends covering the same frequency.
- **Exceptional Performance:** The GRX product line offers proven performance, particularly in high-noise environments, thanks to the highest degarbling capabilities. It has a configurable dynamic range, making it suitable for wide area and surface surveillance, even under challenging conditions.
- **Cutting-Edge Technology:** Built on state-of-the-art software-defined radio technology, the GRX 3X supports the latest standards, including phase overlay of ADS-B v3 (DO-290C/ED-102B). It is capable of providing nanosecond timestamps for multilateration and Doppler shift/frequency measurements with Hz resolution for more than 3000 received signals per second.
- **User-Friendly Interface:** All our devices feature a convenient, language-independent, and well-documented API, granting users access to raw data, metadata, I/Q data, monitoring information, GPS data, system health data, and spectrum data (PSD data). Standardized ASTERIX data stream options are also available.
- **Maximum Flexibility:** The GRX 3X runs on Debian Linux, ensuring maximum flexibility for users. It can be extended with custom firmware/tools and hardware extensions via USB, all while maintaining a remarkably small deployment footprint (SWaP).

## About SeRo Systems

Headquartered in Frankfurt, Germany, SeRo Systems provides technology and engineering expertise to monitor and ensure the security and safety of air navigation and surveillance services and enforce spectrum and regulatory compliance. We design advanced passive air traffic surveillance sensors and operate a sensor network that collects ADS-B and spectrum data from commercial and military aircraft in the US and Europe. For more information about SeRo's innovative solutions, visit [www.sero-systems.de](http://www.sero-systems.de).

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