

Vaisala Cirrus® Sounding System MW51

VAISALA

Product Spotlight

Providing trusted weather observations for a sustainable future

A generational leap in upper-air observations

Upper-air soundings are critical to global weather observations, forecasts, and climate studies. Vaisala radiosondes provide world-class data, and the Vaisala Cirrus Sounding System MW51 enables superior data processing and operational performance over a long lifecycle.



Key benefits

Outstanding radio performance with long telemetry range and excellent tolerance against interference.

Thoughtful user experience integrating valuable features, such as an intuitive message configurator, system overview panel, and comprehensive diagnostics.

One system for office and field campaigns with new compact IP54 rated Vaisala Cirrus Sounding Processing Subsystem SPS511.

Industry-leading security features provide protection against cyber threats and unauthorized access.

New unlocked opportunities for meteorological research breakthroughs with multisounding capability, which allows simultaneous upper air observations from multiple radiosondes.

Why Vaisala?

As the global leader in weather and environmental measurements, Vaisala provides trusted weather observations for a sustainable future. With over 85 years of experience and customers in 170+ countries, from the North and South Poles to Mars, we help provide the most reliable and accurate weather and climate information for better and safer daily lives.

Our instruments and intelligence are known as the gold standard for precision and reliability. As a sustainability leader we enable meteorology professionals to better understand, forecast and explain climate change. We continue to channel our curiosity into climate action and new ways of enabling a better planet for all.

The system comes with modern, proprietary radio technology in a compact, portable and IP54-protected package – helping customers meet their most crucial objectives in atmospheric measurements.

The MW51 is also the first product of its kind to provide readiness for simultaneous upper-air observations, using multiple radiosondes – providing unprecedented visibility into rapidly changing weather conditions and enhance forecasting accuracy.

Best-in-class cyber security features provide protection against data threats and unauthorized access. Data encryption, message authentication and buffering prevent loss or tampering, while the secure login and user management system ensures industry-leading security. User-friendly software and customization options make it easy to use and tailor to your needs.

Built on state-of-the-art software and hardware components, including the Vaisala DigiCORA sounding software and Vaisala SPS511 Processing Subsystem, MW51 delivers exceptional performance and accuracy. Its software diagnostics feature enables quick and precise identification of error sources, facilitating efficient troubleshooting and maintenance.

Applications:

- Synoptic upper-air soundings for meteorological agencies
- Research campaigns requiring increased portability
- Special applications such as ozone soundings, with flexibility to use additional connected sensors
- Test range observations

