# Vaisala weather radars

### / OPTIMIZED DUAL-POLARIZATION PERFORMANCE





# Industry-leading data accuracy

Vaisala dual polarization weather radars are designed to produce superior data quality and availability, meeting even the most demanding requirements. With industry-leading data processing and hardware design, they are perfect for a wide variety of applications.



#### **Benefits**

- Unrivalled data quality and availability – including quantitative precipitation estimation and hydrometeor classification, as well as the elimination of nonmeteorological targets.
- Outstanding remote calibration capabilities – all calibration work, and most other regular maintenance tasks, can be performed remotely so there is no need for site visits.
- Flexible and easy to use with intuitive graphical displays and the most comprehensive, robust software in the industry, Vaisala radars are perfect for fast processing and sophisticated clutter filtering.
- Simplified maintenance intelligent mechanical design means all parts can be accessed without the need to dismount the antenna or pedestal, making routine maintenance easier and faster.

Vaisala dual polarization weather radars are the standard for modern radar systems, producing clear, clutter-free, high-resolution measurements of rainfall events. They provide precise quantitative precipitation estimation (QPE) to help meteorologists gather rainfall accumulation measurements. They also include HydroClass, the world's first automatic hydrometeor classification software for dualpolarization radars. This helps to clearly distinguish between different types of precipitation and improve data quality by eliminating moving, non-meteorological targets ..

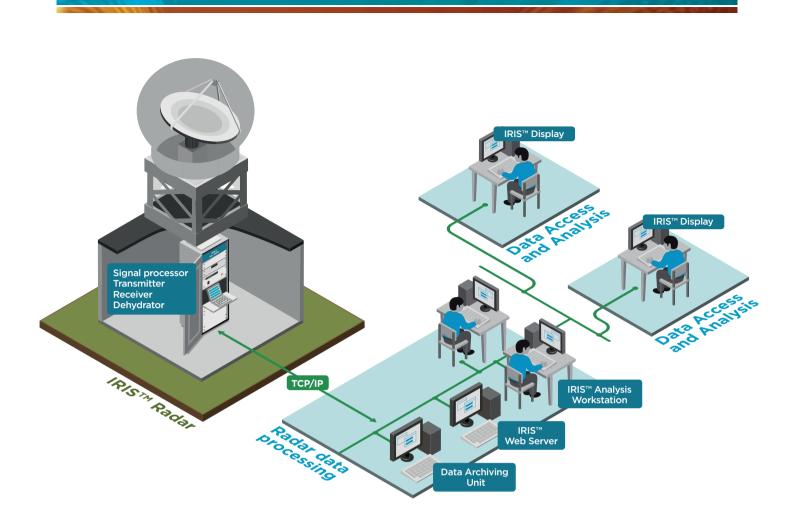
#### Unrivalled data processing performance

Vaisala weather radars are flexible and easy to use, with the most comprehensive and robust software in the industry – perfect for fast processing and sophisticated clutter filtering. With over 30 years of algorithm development, Vaisala radars guarantee excellent data quality. Vaisala Sigmet Digital Receiver and Signal Processor RVP900 and Interactive Radar Information System IRIS deliver the world's most sophisticated application software and signal processing. Its scalable architecture works with a single radar or in a large network.

## Optimized antenna performance

The radar antenna plays a vital role in the quality of the data gathered. The dish shape, structure, and size optimize dual-polarization performance and provide excellent side-lobe reduction. Its integrated cross-polarization isolation is the best in the industry (-35 dB).

The antenna's lightweight, balanced pedestal increases scanning flexibility, thanks to quick, precise movements. Every antenna is individually tested to ensure the highest possible standard and performance.



# Simplified maintenance and operation

Vaisala systems can be accessed from anywhere via a secure network link, minimizing the number of site visits, while the integrated Uninterruptible Power Supply (UPS) ensures continuous operation during temporary power outages.

The Vaisala Radar Antenna Controller provides complete fail-safe operation to protect the antenna and pedestal structure from operating outside its limits – significantly reducing maintenance visits and costs. All parts can be accessed without the need to dismount the antenna or pedestal, making routine maintenance easier and faster.

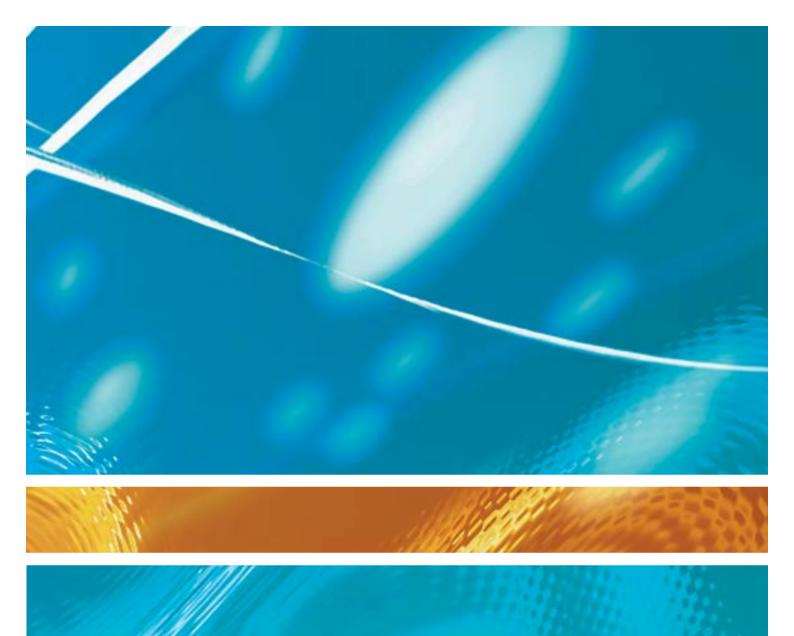
#### Applications

- Weather surveillance
- Severe weather monitoring
- Hurricane, typhoon, and cyclone tracking
- Hail detection
- Hydrometeorological applications, such as flood forecasting
- Airport wind-shear detection
- Meteorological research
- Weather modification
- Agriculture
- Launch support systems

#### **Optional functionalities**

- Weather radar networking
- Vaisala Rain Gauge Network
- Vaisala Lightning Detection Network
- Weather satellite image composites
- Vaisala automatic weather stations
- Low Level Wind Shear Alert System Integration (LLWAS)

Find out more at www.vaisala.com





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