

X-band Weather Radar WRS400

VAISALA

Product Spotlight

Accurate localized and storm tracking precipitation reporting for effective road safety and maintenance.

When it comes to making the decisions that keep our roads drivable and drivers safe, a one-size-fits-all approach to weather monitoring simply doesn't work. You need to know what's happening in your coverage area so you can take proper action. X-band Weather Radar WRS400 provides a reliable source of precipitation and wind data across a wider area – such as a city or county.



Key benefits

Compact design combined with solid-state transmitters reduces complexity and improves maintainability

Independent solid-state transmitters provide redundancy

Dual-polarization radar captures more accurate precipitation and location data

Remote operation and diagnostics reduce the need for site visits

Automatic and continuous calibration increases data reliability while minimizing downtime.

Attenuation correction algorithm corrects for signal variances associated with heavy rainfall and strong storm cells.

Why Vaisala?

Vaisala's weather and environmental technologies take every measure for unrivaled road network awareness – keeping roadways safe and efficient in any season.

Our instruments and intelligence are built on 85+ years of innovation and are known as the gold standard for precision and reliability. We understand how accurate data and insights do even more by driving sustainable road operations and climate action. Our holistic approach provides customers with end-to-end simplicity, valuable partnership, and a comprehensive portfolio that is constantly evolving.

As recognized experts in transportation, we continue to channel our curiosity into new ways of making roadways safer and more efficient than ever.

WRS400 radar delivers highly accurate, real-time measurements for your maintenance area with unparalleled resolution from almost ground level. It delivers detailed storm system data that includes the exact path, precipitation levels, precipitation type, and ground-level amounts. It also identifies areas where conditions are perfect for ground-level disturbances, such as tornadoes. It is a great source for the critical, localized information needed to prepare the roads and drivers for potentially hazardous driving conditions.

WRS400 radar can also be integrated with other road condition measurement tools, such as Vaisala's Mobile Detector MD30, Road Weather Station RWS200, and Wx Horizon decision support system to expand the coverage and increase the overall accuracy of your road condition forecasts.

Applications

- Enabling city- or county-scale storm monitoring and dangerous road condition warnings.
- Localizing short-term weather nowcasting across a range of phenomena: rain, snow, hail, thunderstorms, and more.
- Improving road safety and maintenance efficiency with accurate detection and forecasting of large precipitation events.
- Increasing the efficiency and accuracy of flood forecasting and rainfall management planning.
- Providing detection of snow, rain, and other weather activity in mountainous areas and other tough terrain.
- Filling in the gaps and improving coverage of C-band and S-band radar networks.

