

# Compact X-band Doppler Weather Radar

Model **WR110**

*At last, Performance, Transportability and Reliability within everyone's reach!*

## A weather Radar for all situations



### Cities

Local weather observation capabilities for optimal wastewater treatment efficiency, increased public safety and minimizing property loss through enhanced flood damage prevention control.



### Airports

Observation and identification of approaching rainfall/snowfall around airports for improved traffic management and safety.



### Mountains

Observation of rainfalls and their effect in mountainous areas allowing easier prediction of water flows for disaster prevention.

## Transportability

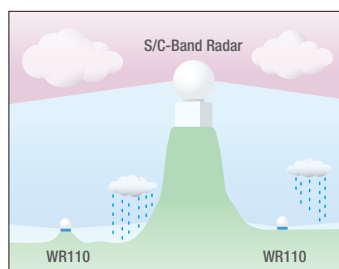


WR110 on a trailer (example)

- **Wide range of transportation choices**  
Pickup, Trailer, Small trucks...
- **Heading sensor for azimuth adjustment\***
- **Vibration isolator for safe relocation and transport\***  
MIL-STD-810G Test Method 514.7 ANNEX C Category 4 Secured Cargo, Common carrier (US highway truck vibration exposure) Test1
- **WR110 case for easy transportation\***

\*Option

## Large Radars (S/C-Band) supplement



The WR110 can supplement, reinforce and fill-in areas global surveillance weather radars cannot reach.

\*Example diagram of an efficient combination using WR110 X-Band Radar to detect local weather changes with high precision in lower elevation areas while large S/C band radars sweep higher elevations for longer range surveillance.

## Easy Installation

- Very Compact and lightweight (1 m, 65 kg)
- No heavy equipment required
- Compatible with regular power outlet

## Various data format compatibilities

Various data formats used in major software packages, such as Baron Lynx and Vaisala IRIS Focus, are available

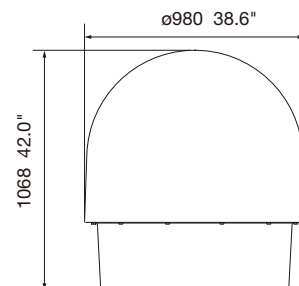
## Reduced Operating Costs

- Solid-State
  - Reliable, less maintenance, long life solid-state transmission device
  - Lower power consumption
- Radar status monitoring for optimized performance

|                                 |                                                                                                                           |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <b>Model Name</b>               | <b>WR110</b>                                                                                                              |
| Antenna Polarization            | Single polarization (Horizontal)                                                                                          |
| Operating Frequency             | 9.4 GHz band                                                                                                              |
| Pulse Width                     | 0.5 - 50 $\mu$ s                                                                                                          |
| Pulse Repetition Frequency(PRF) | up to 2,000 Hz                                                                                                            |
| Beam Width                      | 2.7 degrees                                                                                                               |
| Peak Output Power               | 100 W                                                                                                                     |
| Vertical Scan Angle             | -2 to 182 degrees (adjustable)                                                                                            |
| Antenna Rotation Speed          | 0.5 - 10 rpm                                                                                                              |
| Observation Range               | 70 km max.                                                                                                                |
| Scan Modes                      | PPI, Volume Scan, Sector PPI, Sector RHI                                                                                  |
| Output Parameters               | Reflectivity factor Zh (dBZ), Doppler velocity V (m/s),<br>Doppler velocity width W (m/s), Rainfall intensity Rain (mm/h) |
| Data Correction                 | Distance and Rain attenuation, Doppler Velocity Folding                                                                   |
| Doppler Speed                   | +/-64 m/s                                                                                                                 |
| Unwanted Signal Removal         | Suppression of clutter from land, Interference Rejection                                                                  |
| Available Data Formats          | Binary, CSV, JPEG, CF/Radial, Opera Odim HDF5, NEXRAD Level 2                                                             |
| Temperature Range               | -10 to +50°C (Starting), -20 to +50°C (Operating)                                                                         |
| Maximum Wind Survival Speed     | 90 m/s                                                                                                                    |
| Power Supply                    | 100-240 VAC, Single phase, 50/60 Hz                                                                                       |
| Power Consumption               | 350 W max., 200 W typ.                                                                                                    |

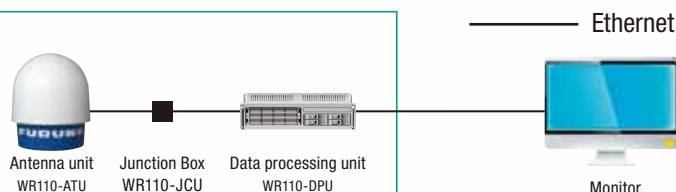


**WR110**  
65 kg 143.3 lb



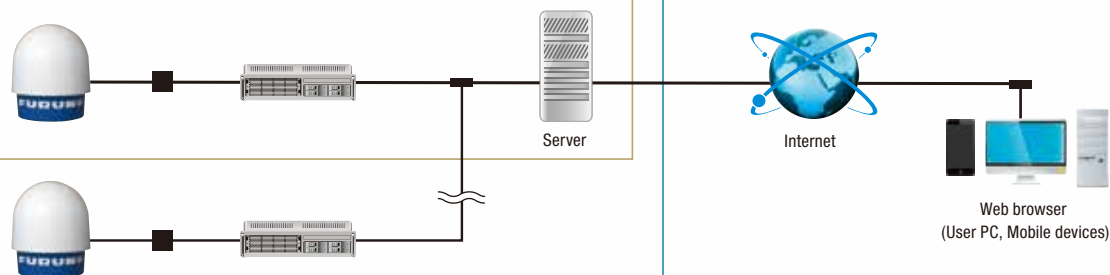
It can also be carried through narrow spaces (800 mm) if disassembled.

### Standard configuration



### Multi-radar configuration

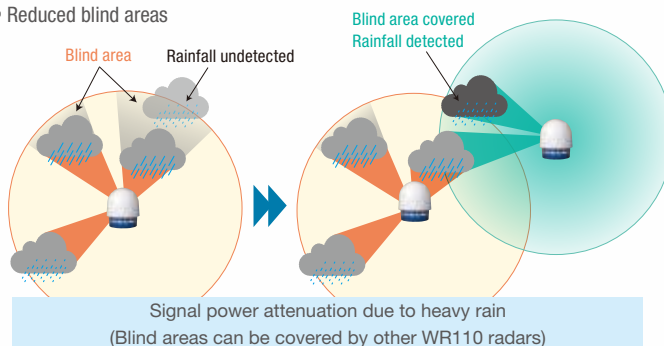
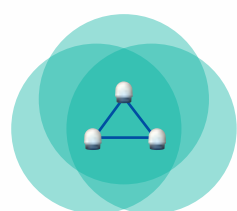
#### Server configuration



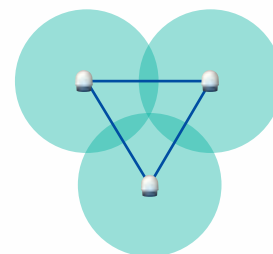
### Multi-radar configuration for higher precision and reduced blind areas

- High precision measurements

- Reduced blind areas



### Multi-radar configuration for increased observation range



Beware of similar products

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