SOLID STATE

FURUNO

# Compact X-band
# Doppler Weather Radar

Model **WR110**




***At last, Perfomance, 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

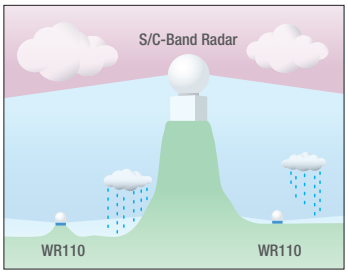


WR110 on a trailer (example)

- **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

## Reduced Operating Costs

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

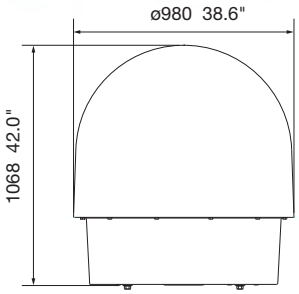
## Various data format compatibilities

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

| Model Name | WR110 |
|---|---|
| Antenna Polarization | Single polarization (Horizontal) |
| Operating Frequency | 9.4 GHz band |
| Pulse Width | 0.5 - 50 μs |
| 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), 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 | CF/Radial, Opera Odim HDF5, CF-compliant NetCDF (rain only) Grib2 (rain only) |
| 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. |

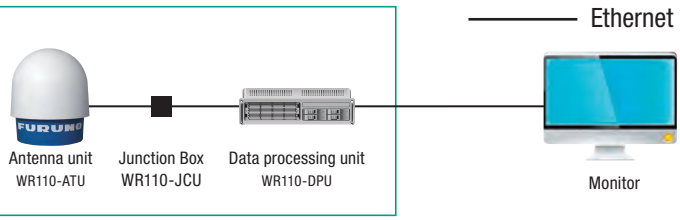



WR110
65 kg 143.3 lb



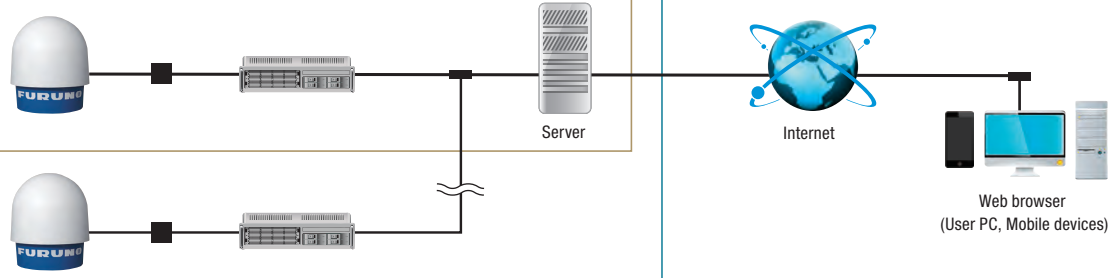

It can also be carried through narrow spaces (800 mm) if disassembled.

## Standard configuration



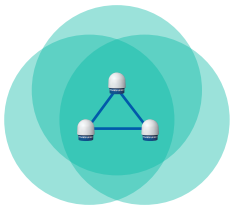

## Multi-radar configuration

### Server configuration

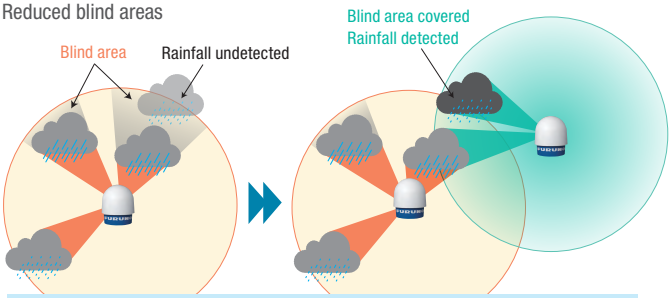



## Multi-radar configuration for higher precision and reduced blind areas

● High precision measurements

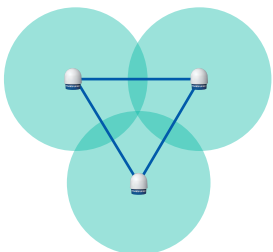


● Reduced blind areas




Signal power attenuation due to heavy rain
(Blind areas can be covered by other WR110 radars)

## Multi-radar configuration for increased observation range



Beware of similar products

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