X BAND DUAL POLARIZATION WEATHER RADAR

Overview

X band weather radar is mainly used to obtain reflectivity factors, radial velocity, velocity spectrum width and polarization parameters of cloud and rain targets within an effective range. It is a powerful tool for the analysis of medium-scale and small-scale weather systems, warning of severe convection and formulate short-term weather forecasts. It can be used for the real-time monitoring and warning for medium-scale and small-scale storms, hails, strong wind shears, cyclones, tornadoes, high winds and other disastrous weather.

Applications

Forecast of approaching weather and monitoring of disastrous weather for meteorological departments at all levels;
Weather modification;
Atmospheric physics research;
Aviation and military meteorological support;
Water conservancy, agriculture, transportation, salt fields, etc.

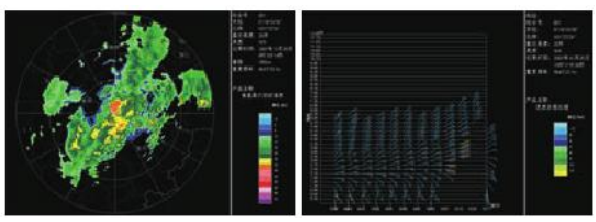
System Features

The system uses the all-solid-state design with small size, light weight and high reliability;
The system uses dual-sending and dual-receiving polarization technology that can obtain more parameters with high precision in rainfall estimation;
The system uses phase coherent pulse compression technology with high distance resolution;
The system uses a digital receiving and servo system under flexible control with good reliability;
The system uses the shelter-in structure with strong mobility, which can meet the needs of field detection.

Main Technical Specifications

Operating frequency	X band	Detecting precision	Echo intensity ≤1dB (RMS)
Detection range	Vertical 150m-20km		Radial velocity ≤ 1 m/s(RMS)
	Horizontal 150m-150km	Range of scanning	Position 0° ~+360°
	Distance resolution 75m,150m		Pitching -2° ~+182°
Transmitter system	Solid-state transmitter	Installation pattern	Shelter-in, flexed and vehicle- mounted

This product can be integrated in the fixed or mobile pattern as is required by users. It has been widely used in meteorological bureaus,
civil aviation, water conservancy, military meteorological area and meteorological research institutions.



Detection instance:Echo intensity ,Detection distance:Vertical wind profile