

## DOPPLER POLARIMETRIC SCANNING RADARS



Meteorological radar with a scanning antenna



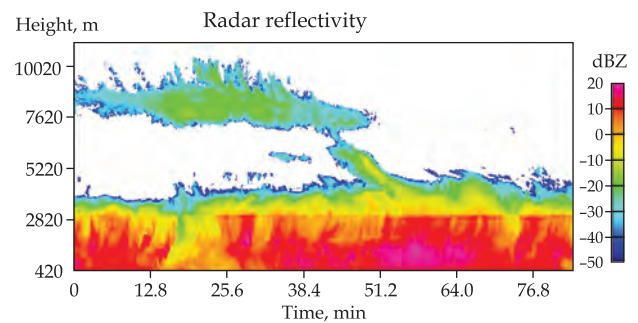
Vertically pointed meteorological radar

### Areas of Application

The devices are designed for measuring micro- and macroscopic characteristics of clouds and precipitations

### Specification

Operating frequency, GHz	36
Peak power, kW	30
Transmitter type	Magnetron
Spatial resolution, m	15–60
PRF, kHz	2.5; 5; and 10
Receiver noise factor, dB	3.2
ADC sampling rate, MHz	125
ADC resolution, bit	14
Range gates count (max)	512
Doppler velocity resolution, m/s	0.05
Antenna diameter, m	1.2
Side lobes level, dB	-25
Antenna positioning accuracy	0.1°
Sensitivity at a range of 15 km (average time 0.1 s), dBZ	-45
Scanning rate (in both directions), deg./s	10
Polarization isolation, dB	-40



Real time measurements of intensity profiles of signal reflected from clouds and rain

### Advantages

High-sensitive and high-resolution measurements of thin low-dense clouds; real-time measurements of cloud density, droplet velocity, precipitation intensity, depolarization ratio, etc.; long-term, unattended operation at any remote site; and continuous auto-calibration of radar sensitivity

Stage of Development.  
Suggestions for Commercialization

IRL8, TRL7  
Manufacture, delivery, warranty service, and staff training, upon request

IPR Protection

IPR1

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