COMPACT SCANNING POLARIMETRIC DOPPLER RADAR

Specification

Frequency, GHz	34.8 ± 0.15
Peak power, kW	2.5
Max. range, km	60
Range resolution, m	15 — 60
Antenna diameter, m	0.5
Antenna beam width, deg.	1.2 × 1.2
Polarization isolation, dB	–40
Receiver noise factor, dB	3.5
Dynamical range, dB	90
Range gates	1000
FFT length	128; 256; 512; 1024
Count of averaged spectra	1–32768
ADC sampling rate, MHz	125
Calibration accuracy, dB	±0.5
ADC resolution, bit	16
Host PC OS	Linux
Azimuth scanning	–180°...+180°
Elevation scanning	0° — 90°
Scanning rate, deg./s:	90
Positioning accuracy, deg.	0.1
Power supply, Hz	50
Power consumption (max), W	400
Weight, kg	190
Dimensions, mm	1800 × 1200 × × 1000
Temperature operating range, °C	–40...+50

Areas of Application

Real-time measurements
of micro- and macroscopic characteristics
of clouds and precipitations, including
simultaneous co- and cross polarization
time-range profiles of reflected signal intensity,
Doppler velocity, and Doppler spectra

Advantages

Unattended operation at any remote site;
continuous auto-calibration functionality;
remote monitoring, diagnostics, and real-time
data acquisition via the TCP/IP

IPR Protection

IPR1

Stage of Development. Suggestions for Commercialization

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

Contact Information

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