

S S Microelectronics Technology Pvt. Ltd.

C-BAND WEATHER RADAR

The C-band dual polarization full coherent weather radar is new generation weather radar, which is a version with addition of dual polarization function based on the Doppler weather radar. It has two operation modes, one is the dual line polarization transmit/ receive mode, the other is the horizontal liner transmit and dual liner polarization receive mode. The radar is used for application in weather, weather artificial intervention, water conservancy, aviation, military and scientific research sectors.

SPECIFICATIONS	
Operation frequency	5300~5700MHz
Intensity monitoring range	$\geq 400\text{km}$
Intensity measuring range	$\geq 200\text{km}$
Velocity monitoring range	$\geq 150\text{km}$
Dual polarization monitoring range	$\geq 200\text{km}$
Azimuth scanning	$0^\circ \sim 360^\circ$
Elevation scanning	$-2^\circ \sim 90^\circ$
Positioning accuracy	0.1° (azimuth and elevation)
Parameter Measuring Range	
Intensity	$-10 \sim +70\text{dBz}$
Velocity	$\pm 41\text{m/s}$
Spectrum width	12m/s
Parameter Measuring Accuracy	
Intensity	1dBz
Velocity	1m/s
Spectrum width	1m/s
Differential reflectivity factor (ZDR)	0.2dB
Differential spreading phase shift (K d p)	$0.2^\circ/\text{km}$
Correlation variable (phv)	0.01
Linear depolarization ratio (LDR)	1dB
Radar system phase stability	$\leq 0.3^\circ$
Clutter cancellation capability	$30 \sim 50\text{dB}$