



Marketing Department Product Specification

Product Name: Ku-band Rx256 Single-beam Phased Array Antenna

1 Product Description

The Ka-band Single-Beam Transmit array is designed to meet communication requirements for both GEO and LEO satellites, featuring compact size and high EIRP, making it suitable for airborne, shipborne, and vehicular platforms.

2 Technical features

- 1) Independent beam regulation and switching;
- 2) 2D Scalable Architecture
- 3) Dual-Axis (2D) Subarray Scanning
- 4) Polarization Reconfigurability

3 Technical parameters

S/N	Items	Technical Parameters	Remarks
1	Working Frequency	10.7GHz ~ 12.7GHz	Rx256
2	Polarization	LHCP/RHCP, switchable	
3	Layout	Elements: $N_x \times N_y = 256$	
		Arrangement: rectangular grid	
4	Scanning Range	$\pm 70^\circ$	
5	G/T	$\geq 2.5\text{dB/K}$ @12.7GHz, Normal direction	
6	Scanning Loss @12GHz	Off-axis angle 30° : $\leq 2\text{dB}$;	
		Off-axis angle 45° : $\leq 3\text{dB}$;	
		Off-axis angle 60° : $\leq 5\text{dB}$;	
7	Sidelobe Suppression @12GHz	Normal direction: $\leq 12\text{dB}$;	
		Off-axis angle 30° : $\leq 11\text{dB}$;	
		Off-axis angle 45° : $\leq 10\text{dB}$;	
		Off-axis angle 60° : $\leq 9\text{dB}$;	

8	Axial ratio @ 20.2GHz	Normal direction: $\leq 2.5\text{dB}$;		
		Off-axis angle 30° : $\leq 4\text{dB}$;		
		Off-axis angle 45° : $\leq 5\text{dB}$;		
		Off-axis angle 60° : $\leq 6\text{dB}$;		
9	Output VSWR	≤ 2.0		
10	Gain	$\geq 60\text{dB}$		
11	Operating Voltage	28V		
12	Power Consumption	$\leq 48.5\text{W}$		
13	Working Temperature	$-40^\circ\text{C} \sim +70^\circ\text{C}$		
14	Dimensions	176mm*176mm*25mm		
15	Interfaces	RF Output	SSMP-JWHD6-L	
		Power Control	JL24-16ZJB	
16	Weight	$\leq 1500\text{g}$		

4 Product Photo



