COXSAT

恪赛科技

Marketing Department

Product Specification

Product Name: Ka-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

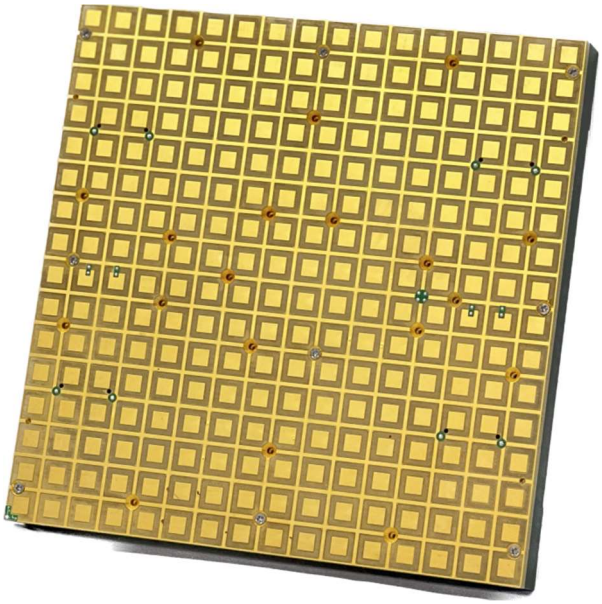
1) Independent beam regulation and switching;
2) 2D Scalable Architecture
3) Dual-Axis (2D) Subarray Scanning
4) Polarization Reconfigurability

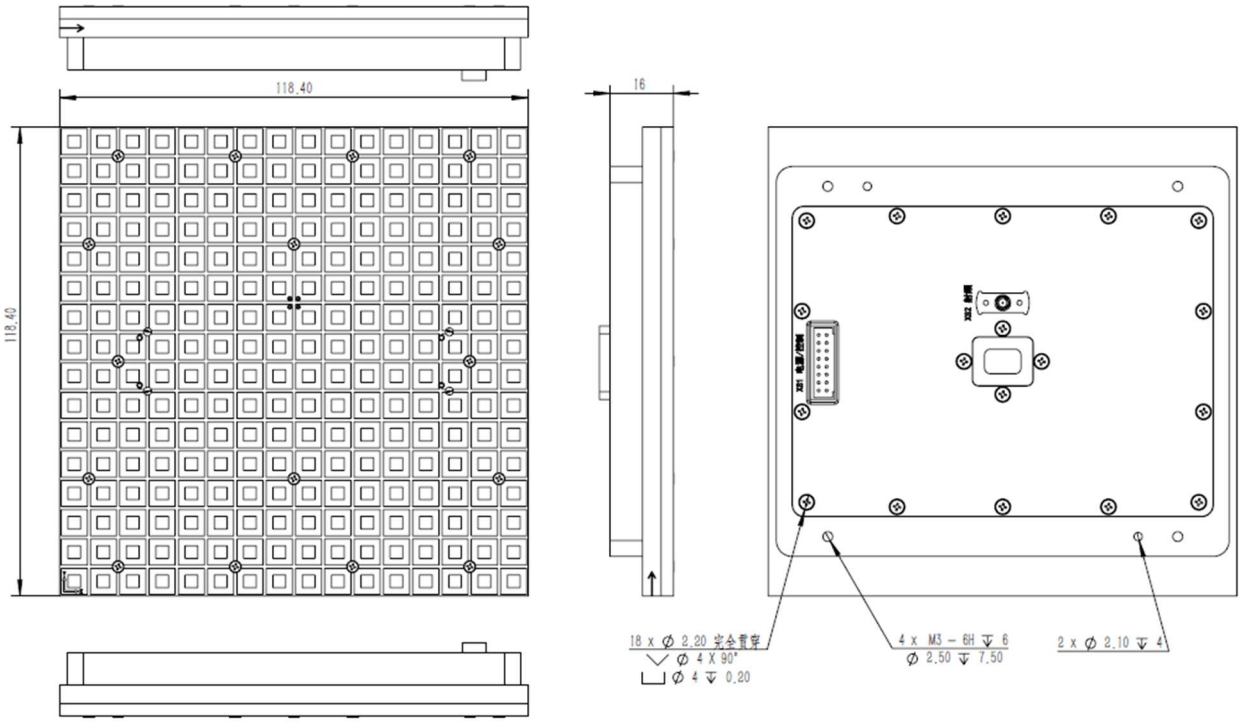
3 Technical parameters

S/N	Items	Technical Parameters	Remarks
1	Working Frequency	17.5GHz ~ 21.2GHz	Rx256
2	Polarization	LHCP/RHCP, switchable	
3	Layout	Elements: Nx×Ny = 256	
		Arrangement: rectangular grid	
4	Scanning Range	±60°	
5	G/T	⩾3.11dB/K @20.2GHz, Normal direction	
6	Scanning Loss @ 20.2GHz	Off-axis angle 30°: ⩽2dB;	
		Off-axis angle 45°: ⩽3dB;	
		Off-axis angle 60°: ⩽5dB;	
7	Sidelobe Suppression @ 20.2GHz	Normal direction: ⩽12dB;	
		Off-axis angle 30°: ⩽11dB;	
		Off-axis angle 45°: ⩽10dB;	
		Off-axis angle 60°: ⩽9dB;	

8	Axial ratio @ 20.2GHz	Normal direction: ≤2.5dB;		
		Off-axis angle 30°: ≤4dB;		
		Off-axis angle 45°: ≤5dB;		
		Off-axis angle 60°: ≤6dB;		
9	VSWR	≤2.0		
10	Gain	≥50dB		
11	Operating Voltage	28V		
12	Power Consumption	≤34W		
13	Working Temperature	-40℃ ~ +70℃		
14	Dimensions	118.4mm*118.4mm*20mm		
15	Interfaces	RF Output	SSMP-JWHD6-L	
		Power Control	JL24-16ZJB	
16	Weight	≤1000g		

4 Outline drawing




118.40
118.40
16
18 x ∅ 2.20 安全贯穿
∅ 4 X 90°
∅ 4 ↧ 0.20
4 x M3 – 6H ↧ 6
∅ 2.50 ↧ 7.50
2 x ∅ 2.10 ↧ 4