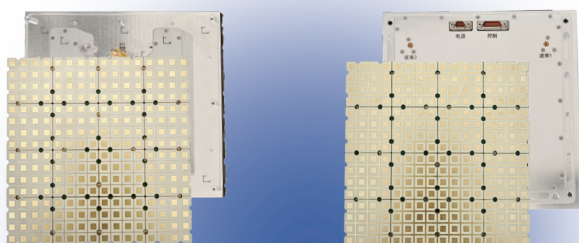


Ku-band 2D Expandable Phased Array Antenna Subarray

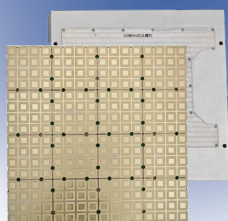
COXSAT

This Ku-band phased array subarray integrates 256 receiving elements and adopts 2D electronic scanning to realize automatic satellite alignment and fast tracking. With a slim and compact design, it supports flexible splicing and expansion to adapt to various application scenarios. Equipped with fully China-made components and powered by 12V, it works stably and reliably in harsh wide-temperature environments ranging from -40°C to 70°C.

Product Images



Ku Single-Beam Rx Subarray Ku Dual-Beam Rx Subarray



Ku Single-Beam Tx Subarray

Product Feature

High expandability

Subarrays can be infinitely expanded in two dimensions to form large arrays

High Platform Adaptability

Suitable for use on various platform such as vehicles, ships, and aircraft.

polarization switchable

Supports LHCP/RHCP switchable polarization

High Reliability

Phased array 2D electronic scanning, no mechanical rotation, with low profile and strong reliability.

Compact size and light weight

Application Scenarios

- Independent beam control
- form large arrays
- Subarrays can be infinitely expanded
- Subarrays support electronic scanning

2x2 4x4 5x5

致力于成为低成本相控阵领域头部品牌

Product Specifications

	Ku Single-Beam Rx Subarray	Ku Dual-Beam Rx Subarray
Working Frequency	10.7GHz~12.7GHz	
Polarization	LHCP/RHCP, switchable	
Scanning Range	Azimuth:0~360°;Off-axis angle:±70°	
Beam Quantity	1	2
G/T	Normal direction: ≥3.5 dB/K@12.7GHz(40K)	
Scanning Loss	Off-axis angle 30°: ≤2.5dB;	
	Off-axis angle 45°: ≤3.5dB;	
	Off-axis angle 60°: ≤5.5dB;	
	Off-axis angle 70°: ≤7.5dB;	
Sidelobe Suppression	Normal direction: ≥12dB;	
	Off-axis angle 30°: ≥11dB;	
	Off-axis angle 45°: ≥10dB;	
	Off-axis angle 60°: ≥9dB;	
	Off-axis angle 70°: ≥8dB;	
Axial Ratio	≤2.0dB@11.7GHz@Normal direction	
Pointing Accuracy	≤ 1/8 HPBW	
HPBW	7.4°±0.5°@11.7GHz, Normal direction	
Beam Switching Time	≤100us	
SWR	≤2.0	
IBW	≥300MHz	≥500MHz
Gain	≥60.0dB(Including antenna gain)	
Operating Voltage	12V±1V	
Power Consumption	≤25.0W @ CP	≤58W @ CP
Working Temperature	-40°C~+70°C	
Dimensions	176mm*176mm*19.6mm	176mm*176mm*21.75mm



CONTACT

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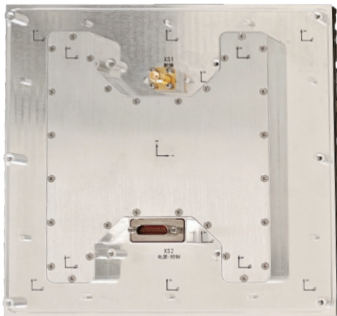
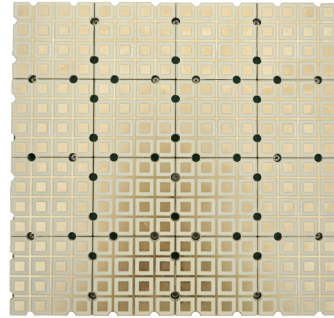
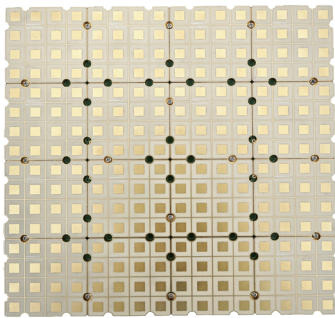
Website: www.coxsat.com

Address: 4th Floor, Building B, No.3 Tianhong Road, High-tech West Zone, Chengdu

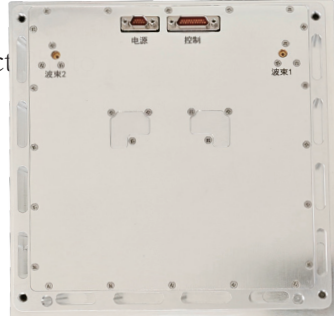
Product Specifications

	Ku Single-Beam Rx Subarray	Ku Dual-Beam Rx Subarray
Interfaces	RF Output:SMA-K(WS Ring) Power Control:J30JM-21ZKP	RF Output:SMP-J Control Connector:J30J-21ZKNP5-J Power Connector:J30J-9ZKNP5-J
Weight	≤1.0Kg	≤1.25Kg

Product Photo

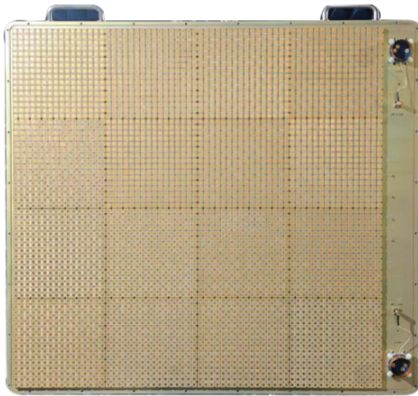


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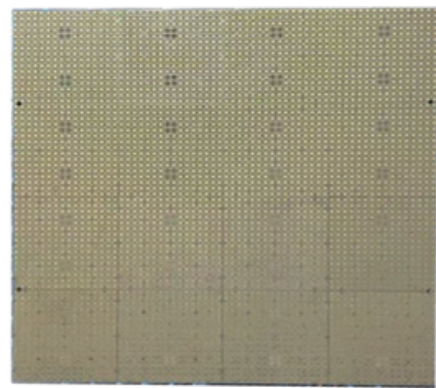


Ku Single-Beam Rx Subarray

Ku Dual-Beam Rx Subarray



Ku Rx Single Beam Array, 4096 Elements



Ku Rx Dual-Beam Array, 4096 Elements



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Product Specifications

Ku Single-Beam Tx Subarray	
Working Frequency	13.75GHz~14.5GHz
Polarization	LHCP/RHCP, switchable
Scanning Range	Azimuth: 0~360°; Off-axis angle: ±70°
Beam Quantity	1
EIRP	≥33dBW@14.1GHz@LP(Normal direction); ≥30dBW@14.1GHz@CP(Normal direction)
Scanning Loss	Off-axis angle 30°: ≤2.5dB; Off-axis angle 45°: ≤3.5dB; Off-axis angle 60°: ≤5.5dB; Off-axis angle 70°: ≤7.5dB;
Sidelobe Suppression	Normal direction: ≥12dB; Off-axis angle 30°: ≥11dB; Off-axis angle 45°: ≥10dB; Off-axis angle 60°: ≥9dB; Off-axis angle 70°: ≥8dB;
XPI	≤-25dB@14.1GHz
Pointing Accuracy	≤ 1/8 HPBW
HPBW	7.4°±0.5°@11.7GHz, Normal direction
Beam Switching Time	≤100us
SWR	≤2.0
RF Input	≤+4dBm
Gain	≥60.0dB(Including antenna gain)
Operating Voltage	12V±1V
Power Consumption	≤75W@CP
Working Temperature	-40°C~+70°C



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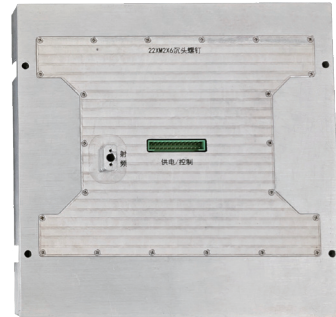
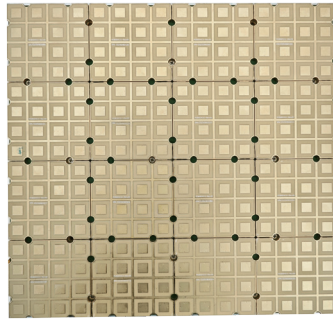
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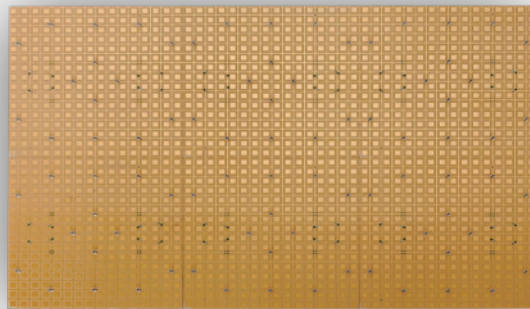
Product Specifications

Ku Single-Beam Tx Subarray	
Dimensions	$\leq 155.2\text{mm} \times 155.2\text{mm} \times 18.0\text{mm}$
Interfaces	RF Output: SSMP-J Power Connector: JL23-26ZJB
Weight	$\leq 1.5\text{Kg}$

Product Photo



Ku Single-Beam Tx Subarray



Ku Tx Single-Beam Array, 1536 Elements



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