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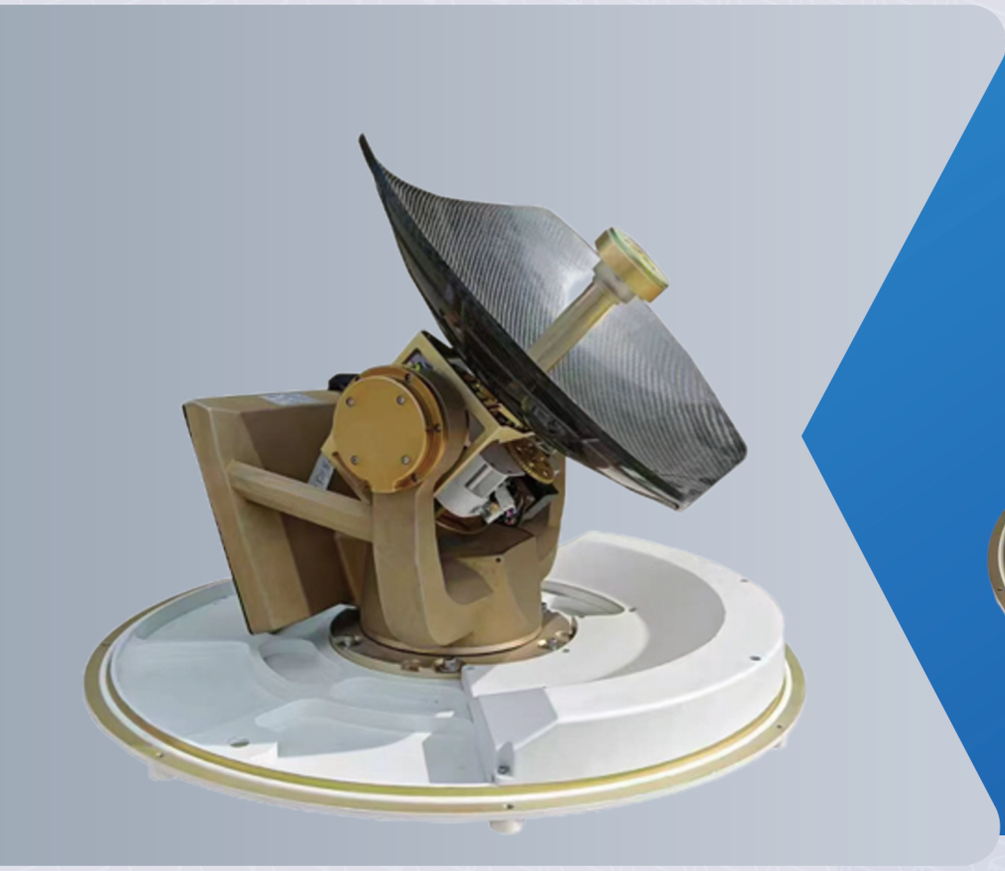
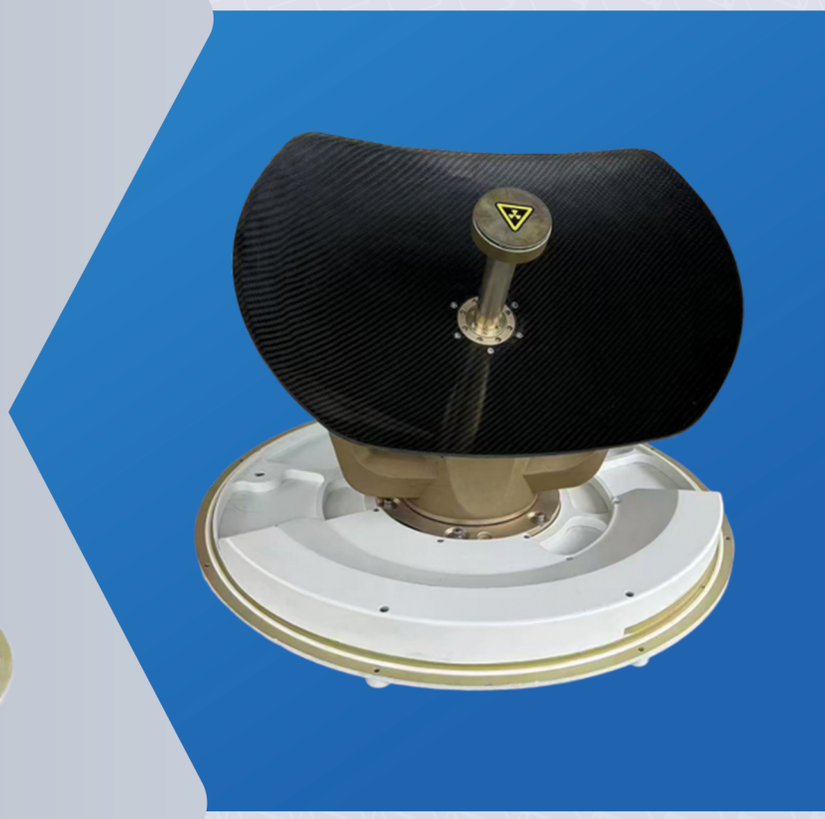
POMA-40





POMA-40

The SOTM type POMA-40 supports Ku, Ka band HTS and GEO satellite operations. Its design integrates the high-efficiency parabolic feed network, low noise amplifier, servo control modeule GPS positioning module and intelligent tracking structure into the same antenna, which enables the unmanned platform to perform remote control through satellites in dynamic motion, real-time video transmission, IP call and broadband internet access.

This antenna operates independently of GPS by using satellite beacon tracking to correct gyro errors, requiring only manual input of local latitude and longitude before initial satellite pointing. It offers rapid initial satellite pointing, with GPS/BD cold start positioning in under 80 seconds and hot start (or manual input) in under 60 seconds.

The POMA-40 SOTM terminal is widely deployed on military mobile platforms to enhance combat effectiveness, and serves as a vital asset for emergency response units—including police, fire, and medical services—providing reliable communications for disaster relief and crisis management.

Key Features

- Supports Ku and Ka Bands for both HTS and GEO satellites
- High Tracking Accuracy, the tracking error <0.5 dB (RMS) without blockage
- Perfect Tracking Stability; the AZ adopts loop stability alghoritm for precise satellite tracking, even during fast movements or "S" travel
- Use 2-axes stability, 3-axes tracking system
- Fast Sheltering Recovery Time; the blockage time <5min, recovery time <3s
- Convenient Maintenance; modular design, simple interface specification and convenient fault diagnosis and maintenance
- Optional 4G / 5G / LTE supported modem for load balancing and bonding solutions

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POMA-40

Environmental Specifications	
Working temperature	-40°C-+55°C
Storage temperature	-55°C-+70°C
Protection grade	IP65(Including Radome)
Working humidity	0%-98%

RF Specifications				
Aperture	0.40m			
Reflector material	Carbon fiber			
Antenna form	Circular symmetrical reflector and cap feed			
	Ku-Band 2 ports, Linear polarized Feed		Ka-Band 2 ports, circular polarized Feed	
Working frequency (GHz)	Tx	Rx	Tx	Rx
	13.75	10.70	29.0	18.7
	14.50	12.75	30.0	20.2
POL form	H/ V Linear		LHCP/RHCP	
Antenna Gain (dBi)	33.5+20lg(f/14.0)	32.3+20lg(f/12.25)	39.5+20lg(f/29.4)	36.5+20lg(f/19.6)
Antenna Pattern Compliancy	ITU-R S.580-6 and ITU-R S.465-6			
Cross POL (dB)	35 (axis)		-	
Axial ratio (dB)	-		1.5	
Tx-Rx isolation (dB)	85	-	85	-
Rx-Tx isolation (dB)	-	30	-	30
EIRP (dBw)	-	44.5 (16W BUC)	-	48.5 (10W BUC)
G/T (dB/k)	9.1	-	12.3	-

Mechanical Specifications		
AZ Motion Range	360° continuous rotation without limit	
EL Motion Range	-5°- 100°	
POL Motion Range	± 110°	± 90°
AZ Revolution	100°/s	
EL Revolution	100°/s	
AZ Acceleration	200°/s²	
EL Revolution	200°/s²	
Pointing Accuracy	≤0.2° (R.M.S)	
Initial Acqusition Time	≤ 2min	
Blockage Recovery Time	≤3s (cover for 5 minutes)	
Weight of Product	≤11.5Kg(including antenna system, 40W Ku band Transceiver and IQ200 modem) ≤10.5Kg(including antenna system, 10W Ka-band Transceiver and IQ200 modem) ≤18Kg(including Radome)	
Antenna Platform Dimension	Φ610×427mm (D× H)	

Electrical Specifications	
Power supply of system	DC 18-32V
Positioning mode	GPS+BD
Steady type	2-axes for stability, 3-axes for tracking

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