



POMA-35

The POMA-35 represents a breakthrough in mobile satellite technology, establishing itself as the world's most compact and advanced Land-on-the-Move (OTM) antenna system. Engineered for exceptional reliability and performance on the move, it provides seamless, real-time connectivity for mission-critical operations across both Ku and Ka frequency bands.

Despite its minimal footprint, the POMA-35 delivers robust performance with the option for simultaneous Ku/Ka dual-band functionality without the need to change the feed. Its innovative design incorporates a highly reliable direct drive mechanism for precise azimuth (AZ) and elevation (EL) control, paired with a cap design feed for maximum efficiency and significantly reduced side lobes.

A key feature of the POMA-35 is its self-contained operation. It operates completely independent of GPS, utilizing advanced satellite beacon tracking to automatically correct gyro drift. The system requires only a one-time manual input of local latitude and longitude for initial setup, ensuring operational security and simplicity.

Key Features

- Available in Ku and Ka Bands
- High Tracking Accuracy; the tracking error <0.5 dB RMS without blockage
- Good Tracking Stability; the AZ system uses a closed-loop stabilization algorithm for precise satellite tracking, even during fast movements or "S" travel
- Blockage recovery in under 3 seconds for blockage times under 5 minutes; recovery in under 5 seconds for blockage times under 20 minutes
- Dynamic pointing and switching enables real-time satellite pointing and seamless satellite switching while in motion.
- Optional 4G / 5G / LTE supported modem for load balancing and bonding solutions
- Supports OpenAmip



Environmental Data	
Operating wind speed	Max.60m/s at any direction
Working temperature	-30°C~+55°C
Storage temperature	-40°C~+60°C
Protection grade	IP65
Working humidity	0%-98%

RF performance data				
Aperture	0.35m			
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)	Rx	Tx	Rx	Tx
	10.70	13.75	18.7	29.0
	12.75	14.50	20.2	30.0
POL form	H/ V linear		LHCP/RHCP	
Antenna Gain at Mid (dBi)	33.6+20lg(f/12.25)	34.7+20lg(f/14.0)	37.5+20lg(f/19.6)	40.9+20lg(f/29.4)
1st side lobe	≤-16dB		≤-16dB	
Cross POL (dB)	35 (axis)		-	
Axial ratio (dB)	-		1.5	
Tx-Rx isolation (dB)	85	-	85	-
Rx-Tx isolation (dB)	-	30	-	30
VSWR	1.50:1	1.30:1	1.50:1	1.30:1
G/T (dB/k)	11	-	13.8	-

Mechanical	
AZ Motion Range	360° continuous rotation without limit
EL Motion Range	-5°- 100°
POL Motion Range	± 110° ± 95°
AZ Revolution	100°/s
EL Revolution	100°/s
AZ Acceleration	200°/s ²
EL Revolution	200°/s ²
Pointing Accuracy	≤0.2° (R.M.S)
Initial Acquisition Time	≤ 2min
Blockage Recovery Time	≤5s (cover for 5 minutes)
Weight of Product	≤10Kg
Radome Size	Φ460×415 mm (D× H)

Electrical data	
Power supply of system	100-230VAC 50-60Hz
Positioning mode	GPS+BD
Steady type	Two axes for stability, three axes for tracking

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