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POMA-35

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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, theTracking 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 <3 seconds for blockage times <5 minutes; recovery in <5 seconds for blockage times <20 minutes
- Dynamic Pointing and Switching enables real-time satellite pointing and seamless satellite switching while in motion.
- Supports OpenAmip
- Optional 4G / 5G / LTE supported modem for load balancing and bonding solutions

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Environmental Data	
Operating wind speed	Max.60m/s at any direction
Working temperature	-40°C-+55°C
Storage temperature	-55°C-+70°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 (dBi)	30.6+20lg(f/12.25)	32.0+20lg(f/14.0)	35.0+20lg(f/19.6)	38.3+20lg(f/29.4)
Antenna Pattern Compliancy	ITU-R S.580-6 and ITU-R S.465-6			
Cross POL (dB)	35 (axisl)		-	
Axial ratio (dB)	-		1.5	
Tx–Rx isolation (dB)	85	-	85	-
Rx–Tx isolation (dB)	-	30	-	30
EIRP (dBw)		47.2 (50W BUC)		47.5 (10W BUC)
G/T (dB/k)	9.6	-	11	-

Mechanical		
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	≤5s (cover for 5 minutes)	
Weight of Product	≤10Kg	
Radome Size	Φ420×595 mm (D× H)	

Electrical data	
Power supply of system	DC18-36V
Positioning mode	GPS
Steady type	3-axes for stability, 4-axes for tracking

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