



POMA-35SPL

Ruggedized type SOT PALS POMA-35SPL supports both Ku and Ka band operations and can simultaneously achieve Ku & Ka dual-band functionality without changing the feed. It features a direct drive mechanism for azimuth (AZ) and elevation (EL) with high reliability and a cap design feed for efficient performance and reduced side lobes.

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.

It is widely used in various military unmanned platforms to improve the combat effectiveness and mobility of troops. It is also used in the emergency command and communication of public security, armed police, fire protection, traffic, safety supervision, communications and other departments to improve the ability of relevant departments to deal with emergencies such as flood rescue, earthquake rescue, forest fire, fire protection, and civil air defense

Key Features

- Available in Ku and Ka Band
- High Tracking Accuracy, the Tracking error <0.5 dB RMS without blockage
- Good Tracking Stability, the AZ system uses a 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.
- 2-Axes Stability, 3-Axes Tracking System
- Durable Carbon-Fiber and Ruggedized System
- 50W BUC (EIRP:47.2 dBW) and LNB included
- Magnetic Kit for Stabilization on the Platform
- User Friendly Web Interface
- Supports OpenAmip



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 at Mid (dBi)	$33.6+20\lg(f/12.25)$	$34.7+20\lg(f/14.0)$	$37.5+20\lg(f/19.6)$	$40.9+20\lg(f/29.4)$
1st side lobe	$\leq -16\text{dB}$		$\leq -16\text{dB}$	
Cross POL (dB)	35 (axisl)		-	
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
EL Motion Range	-5° - 105°
POL Motion Range	$\pm 110^\circ$ $\pm 90^\circ$
AZ Revolution	100°/s
EL Revolution	100°/s
AZ Acceleration	200°/s ²
EL Acceleration	200°/s ²
Pointing Accuracy	$\leq 0.2^\circ$ (R.M.S)
Initial Acquisition Time	$\leq 2\text{min}$
Blockage Recovery Time	$\leq 5\text{s}$ (cover for 5min)
Weight of Product	$\leq 10\text{Kg}$
Radome Size	$\leq \phi 420 \times H 595\text{mm}$ (D× H)

Electrical data	
Power supply of system	DC18-36V
Positioning mode	GPS
Steady type	Three axes for stability, four axes for tracking
Power Consumption	$\leq 95\text{W}$ $\leq 100\text{W}$

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