



Communications
& Technology

PDA-150-MIL

High Performance in Military Conditions



STANDARD
MIL-STD
461F

STANDARD
MIL-STD
188-164A

STANDARD
MIL-STD
810G

PDA-150-MIL

PDA-150MIL complies to Military Standards of low error precise auto-pointing accuracy, X-Pol & Co-Pol performance which provides high EIRP with G/T. PDA-150-MIL provides static and dynamic wind load resistance due to its highly durable zero backlash elevation over azimuth polarisation motorised chassis.

PALS provides satellite auto acquisition with Beacon tracking. Designed to operate with minimal training thanks to "One Touch" operation feature. The extreme ease and acquisition speed will guarantee that you will not miss any data, even in rugged environmental conditions.

The PDA-150 Drive-Away Antenna's precision, accurate reflector surface and dual optic design provides remarkably low sidelobes and excellent cross-polar performance. It has a three axes positioner which provides full antenna rotation and entirely backlash-free in 3 axes.

COMPATIBILITY

- MIL-STD-810G Compliant
- MIL-STD-461F Compliant
- MIL-STD-1472 Compliant
- MIL-STD-188-164A Compliant
- ITU-RS-580 Compliant
- ITU-RS-465-6 Compliant
- EUTELSAT characterized

Key Features

- X, Ku, Ka, DBS Band options are available
- High EIRP, high performance 1.5m Gregorian offset antenna with dual optics and very low sidelobes
- Carbon-Fiber composite reflector supported with lightweight mount
- High gain and very good cross-polar rejection (> 35 db)
- Integrated DVB-S/S2 & Beacon Receiver
- De-Ice Systems (Optional)
- Antenna pod is designed to accommodate outdoor HPAs / SSPAs
- 0,01° pointing accuracy with resolvers at 3 axes
- Manual drive tool kit for emergency situations
- Optional hand-held control unit
- Optional 4G / 5G / LTE supported modem for load balancing and bonding solutions
- Supports OpenAmip



GENERAL SPECIFICATIONS

Reflector Diameter	1.5m
Reflector Type	Gregorian Offset
Operation On-Air Time	~3 Minutes
Antenna Concept	Gregorian dual offset antenna with 1.5m elliptical main reflector, folding feed-arm, fixed sub-reflector

RF CHARACTERISTIC

		Ku-Band	Ka-Band	X-Band
Frequency (GHz)	Tx	13.75 - 14.50	28.10 - 30.00	7.90 - 8.40
	Rx	10.70 - 12.75	18.30 - 20.20	7.25 - 7.75
Antenna Gain (±0.2 dBi)	Tx	44.50 @ 14.25 GHz	49.50 @ 29.00 GHz	39.50 @ 8.15 GHz
	Rx	43.00 @ 11.70 GHz	39.10 @ 19.00 GHz	39.10 @ 7.50 GHz
Polarization		2 Port Linear (3 Port Optional)	Circular	Circular
Satellite Operator Compliancy		Compliant with most of satellite operator requirements		
VSWR		1.3:1	1.3:1	1.119:1
Cross Polar Isolation		>35 dB within 1 dB beamwidth		
Radiation Pattern Compliancy		Compliant with MIL-STD-188-164A, ITU - R.S-580-6 and ITU-R S.465-6		

MECHANICAL SPECIFICATIONS

		Azimuth	Elevation	Polarization
Drive Rates	Slow	0.4° / sec	0.1° / sec	0.4° / sec
	Medium	2.5° / sec	1.5° / sec	1.9° / sec
	Fast	4.5° / sec	3.0° / sec	3.42° / sec
Antenna Travels		± 220°	Up to 90°	± 115°
Manual Override Mechanism		Manual override for elevation and azimuth drive system		

ENVIRONMENTAL SPECIFICATIONS

Temperature	Compliant with MIL-STD-810g Method 501.5 and 502.5	Operational -30°C to 55°C Survival -40°C to 70°C
Wind Speed	Compliant with ESOG-120	Unstowed 150 km/h Stowed 190 km/h Operational 100 km/h Survival 190 km/h
Rain	Compliant with MIL-STD-810g Method 506.5	Survival in heavy rainstorm
Humidity	Compliant with MIL-STD-810g Method 507.5	%95 Aggravated
Solar Radiation	Compliant with MIL-STD-810g Method 505.5	1120 W/m2 (A1 Cycle)
Low Pressure	Compliant with MIL-STD-810g Method 500.5	4500 mt
Shock	Compliant with MIL-STD-810g Method 516.5	
Sand and Dust	Compliant with MIL-STD-810g Method 510.5	
Temperature Shock	Compliant with MIL-STD-810g Method 503.5	-40/70 Cyclic
Icing	Compliant with MIL-STD-810g Method 521.3	Min 37 mm Survival
Acoustics	Compliant with MIL-STD-1472	<65 dB (A) from 1.5 mt
Electromagnetic Compatibility	Compliant with CE102, CS101, CS114, CS115, CS116, RE102, RS103	

Compliances / Certificates



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