



STANDARD  
MIL-STD  
461F

STANDARD  
MIL-STD  
188-164A

STANDARD  
MIL-STD  
810G

## PDA-120-MIL

The PDA-120-MIL is a compact and sophisticated design for Military Communications. Aerodynamic design of PDA-120MIL provides wind load resistance due to its highly durable zero-backlash elevation over azimuth and polarisation motorised chassis.

PALS offers auto-acquisition satellite tracking with Beacon receiver. It's possible to operate with minimal training by "One Touch" feature. The extreme ease and acquisition speed will guarantee that you will not lose the connection, even in rugged environmental conditions.

The PDA-120-MIL 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 drive system.

## 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

## Key Features

- X, Ku, Ka, DBS Bands options are available
- High EIRP, high performance Gregorian Antenna
- Carbon-Fiber composite reflector supported with lightweight mount
- High gain and very good cross-polar rejection (> 35 db)
- Integrated DVB-S/S2 & Beacon Receiver
- 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
- Supports OpenAmp
- Optional 4G / 5G / LTE supported modem for load balancing and bonding solutions
- Optional hand-held control unit
- Optional De-Ice System



GENERAL SPECIFICATIONS			
Reflector Diameter		1.2m	
Reflector Type		Gregorian Offset	
Operation On-Air Time		~3 Minutes	
Antenna Concept		Gregorian dual offset antenna with 1.2m elliptical main reflector, folding feed-arm, fixed sub-reflector	
RF CHARACTERISTIC			
		Ku-Band	Ka-Band
Frequency (GHz)	Tx	13.75 – 14.50	17.7 – 21.2
	Rx	10.70 – 12.75	27.5 – 31
Antenna Gain ( $\pm 0.2$ dBi)	Tx	43.0 (Midband)	48.7+20log(f/29.25)
	Rx	41.8 (Midband)	45.3+20log(f/19.45)
Polarization		2 Port Linear (3 Port Optional)	Circular
TX/RX Isolation		85 dB	
Satellite Operator Compliancy		Compliant with most of satellite operator requirements	
VSWR		1.3:1	1.3:1
Cross Polar Rejection		>35 dB within 1 dB beamwidth	
Antenna Pattern Compliancy		MIL-STD-188-164A, ITU-R S.580-6 and ITU-R S.465-6	
MECHANICAL SPECIFICATIONS			
		Azimuth	Elevation
Drive Rates	Slow	0.4° / sec	0.1° / sec
	Medium	2.5° / sec	1.5° / sec
	Fast	4.5° / sec	3.0° / sec
Antenna Travels		± 220°	Up to 90°
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 Survival
			-30°C to 55°C -40°C to 70°C
Wind Speed		Compliant with ESOG-120	Unstowed 150 km/h Stowed 190 km/h
			Operational Survival
			100 km/h 190 km/h
Rain		Compliant with MIL-STD-810g Method 506.5	
Humidity		Compliant with MIL-STD-810g Method 507.5	
Solar Radiation		Compliant with MIL-STD-810g Method 505.5	
Low Pressure		Compliant with MIL-STD-810g Method 500.5	
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	

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