



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 OpenAmip
- 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	X-Band
Frequency (GHz)	Tx	13.75 - 14.50	17.7 - 21.2	7.9 - 8.4
	Rx	10.70 - 12.75	27.5 - 31	7.25 - 7.75
Antenna Gain (±0.2 dBi)	Tx	43.0 (Midband)	48.7+20log(f/29.25)	38.0+20log(f/8.25)
	Rx	41.8 (Midband)	45.3+20log(f/19.45)	37.4+20log(f/7.5)
Polarization		2 Port Linear (3 Port Optional)	Circular	Circular
TX/RX Isolation		85 dB		
Satellite Operator Compliancy		Compliant with most of satellite operator requirements		
VSWR		1.3:1	1.3:1	1.119:1
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	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 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		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			

TURKEY

P : +90 216 540 72 57
M : sales@pals.com.tr
W : www.pals.com.tr

NETHERLANDS

P : +31 6 85 52 63 16
M : sales@pals-comsat.com
W : www.pals-comsat.com

