

**STANDARD**
MIL-STD
188-164A**STANDARD**
MIL-STD
810G

PDA-180

The PDA-180 provides instant access to satellite communications in C, X, Ku, or Ka Band. It ensures reliable transmission for applications of DSNG, disaster relief, emergency communications, networks, etc.

The PDA-180 Drive-Away Antenna's precision, accurate reflector surface and prime focus design provide remarkably low sidelobes and excellent cross-polar rejection performance. It has a three axes positioner which provides full antenna rotation and is entirely backlash-free in elevation, azimuth and polarization axes.

COMPATIBILITY

- MIL-STD-810G Compliant
- MIL-STD-1472 Compliant
- MIL-STD-188-164A Compliant
- ITU-R S.580-6 Compliant
- ITU-R S.465-6 Compliant

Key Features

- C, X, Ku, and Ka Bands options are available
- Antenna pod is designed to accommodate 2 x 400W outdoor HPAs / SSPAs
- Carbon-fiber composite reflector supported with lightweight mount
- Entirely zero-backlash mechanical drive system
- Easy vehicle integration
- Optional beacon tracking
- Optional De-Ice System
- Manual drive tool kit for emergency situations
- High gain and very good cross polar rejection (> 35 db)
- 0,01° pointing accuracy with resolvers at 3 axes
- Optional 4G / 5G / LTE supported modem for load balancing and bonding solutions



GENERAL SPECIFICATIONS

Reflector Diameter	1.8m
Reflector Type	Gregorian Offset
Operation On-Air Time	~3 Minutes
Antenna Concept	Prime focus antenna with 1.8m elliptical main reflector, folding feed-arm, fixed sub-reflector

RF CHARACTERISTIC

		Ku-Band	Ka-Band	C-Band
Frequency (GHz)	Tx	13.75 - 14.50	29.00 - 30.00	5.85 - 6.725
	Rx	10.70 - 12.75	19.20 - 21.20	3.40 - 4.20
Antenna Gain (±0.2 dBi)	Tx	46,50 @ 14.25 GHz	47,60 - 47,80 GHz	39,50 @ 6.25 GHz
	Rx	44,20 @ 11.70 GHz	43,90 - 44,50 GHz	35,40 @ 3.80 GHz
Polarization		2 Port Linear (3 Port Optional)	Circular	Circular / Linear
Satellite Operator Compliancy		Compliant with most of satellite operator requirements		
VSWR		1.3		
Cross Polar Isolation		>35 dB within 1 dB beamwidth		
Radiation Pattern Compliancy		Compliant with MIL-STD-188-164A, ITU RS. 580-6 and ITU RS. 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		360°	10° to 80°	± 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 125 km/h Stowed 190 km/h	Operational Survival 90 km/h 180 km/h
Rain	Compliant with MIL-STD-810g Method 506.5	Survival in heavy rainstorm	
Humidity	Compliant with MIL-STD-810g Method 507.5	Up to 100% with condensation	
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		
Icing	Compliant with MIL-STD-810g Method 521.3		
Acoustics	Compliant with MIL-STD-1472		

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