



STANDARD
MIL-STD
810

STANDARD
MIL-STD
461

STANDARD
MIL-STD
188-164

Size:

1.80m

PDA-180

Readiness for Critical Missions

The PDA-180 delivers instant satellite connectivity across X, C, Ku, and Ka bands. Engineered for versatility, it ensures reliable, high-performance transmission for the most demanding applications, including DSNG, disaster relief, emergency communications, and network deployment.

Rapid Deployment

Designed for efficiency, the PDA-180 features an intuitive interface that allows for quick setup and operation with minimal training. The "One Touch" auto-deploy feature significantly reduces acquisition time, ensuring users can establish a stable link in minutes, even under challenging conditions.

High-Precision Mechanics

The antenna system delivers remarkably low sidelobes and excellent cross-polarization rejection. The robust three-axis positioner enables full rotation, while the entirely backlash-free drive system ensures pinpoint accuracy and reliability throughout its operational life.

Key Features

- X, C, Ku, Ka Bands available
- Carbon-Fiber design
- High EIRP and very good cross-polar rejection (> 35 dB)
- Integrated DVB-S/S2 & Beacon Receiver
- 0.01° pointing accuracy with resolvers at 3 axes
- Manual drive tool kit for emergency situations
- Supports OpenAMIP
- Optional De-Ice System
- Optional 4G/5G/LTE supported modem for load balancing and bonding solutions
- Optional Simultaneous X-Ka, Ku-Ka Feeds





GENERAL SPECIFICATIONS

Reflector Diameter	1.8m
Operation On-Air Time	~3 Minutes
Surface Accuracy	≤ 0.3 mm RMS

RF CHARACTERISTIC

	C-Band	X-Band	Ku-Band	Ka-Band
Frequency (GHz) Tx	5.85-6.725	7.90-8.40	13.75-14.50	27.50-31.00
Frequency (GHz) Rx	3.40-4.20	7.25-7.75	10.70-12.75	17.70-21.20
Antenna Gain @ Midband (±0.2 dBi) Tx	≥39.50	≥ 41.21	≥ 46.50	≥52.00
Antenna Gain @ Midband (±0.2 dBi) Rx	≥35.40	≥ 40.40	≥ 44.20	≥48.50
Polarization	Circular / Linear	Circular	2 Port Linear (3 Port Optional)	Circular
VSWR	1.3	1.5	1.5	1.5
Cross Polar Isolation	>35 dB within 1 dB beamwidth			
Radiation Pattern Compliance	Compliant with MIL-STD-188-164C, ITU-R S.580-6 & ITU-R S.465-6			

MECHANICAL SPECIFICATIONS

	Azimuth	Elevation	Polarization
Drive Rates Slow	0.4° / sec	0.1° / sec	0.4° / sec
Drive Rates Medium	2.5° / sec	1.5° / sec	1.9° / sec
Drive Rates Fast	4.5° / sec	3.0° / sec	3.42° / sec
Antenna Travel Range	360°	0° to 90° (Without POD)	± 115°
Manual Override Mechanism	Manual override for elevation and azimuth drive system		

ENVIRONMENTAL SPECIFICATIONS

Temperature Range Operational	-30°C to 55°C, Compliant with MIL-STD-810G Method 501.5 and 502.5
Temperature Range Survival	-40°C to 70°C, Compliant with MIL-STD-810G Method 501.5 and 502.5
Wind Speed Operational	90 km/h, Compliant with ESOG-120
Wind Speed Unstowed	125 km/h
Wind Speed Stowed	190 km/h
Rain	Survival in heavy rainstorm, Compliant with MIL-STD-810G Method 506.5
Humidity	Up to 100% with condensation, 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
Icing	Compliant with MIL-STD-810G Method 521.3
Acoustics	Compliant with MIL-STD-1472

Specifications are subject to change.

