



STANDARD  
MIL-STD  
810G

STANDARD  
MIL-STD  
188-164A

STANDARD  
MIL-STD  
461

Size:

1.20m

## PDA-120-MIL

### Unmatched Durability

The PDA-120-MIL is a sophisticated, compact antenna system engineered for demanding military communications. Its aerodynamic, low-profile design, combined with a highly durable, zero-backlash motorised drive, provides exceptional resistance to wind loading, ensuring reliable operation in the harshest environmental conditions.

### Precision Tracking

Equipped with PALS auto-acquisition satellite tracking and a Beacon receiver, the system delivers pinpoint accuracy. The intuitive "One Touch" feature allows for operation with minimal training, while the extreme speed of acquisition guarantees a steadfast connection.

### Superior RF Performance

Featuring a precision reflector surface and a dual optic feed, the PDA-120-MIL achieves remarkably low sidelobes and excellent cross-polarization isolation. The full three-axis positioner provides complete antenna rotation and a completely backlash-free drive system, ensuring reliable pointing accuracy throughout its operational life.

### Key Features

- Available in X, Ku, DBS, Ka Bands;
- Strong yet lightweight Carbon-Fiber design
- 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 De-Ice System
- Optional 4G/5G/LTE supported modem for load balancing and bonding solutions





GENERAL SPECIFICATIONS

Reflector Diameter
Reflector Type
Operation On-Air Time
Antenna Concept

PDA-120-MIL

1.2m
Gregorian Offset
~3 Minutes
Gregorian dual offset antenna with 1.2m elliptical main reflector, folding feed-arm, fixed sub-reflector

RF CHARACTERISTIC

Frequency (GHz) Tx
Frequency (GHz) Rx
Antenna Gain (±0.2 dBi) Tx
Antenna Gain (±0.2 dBi) Rx
Polarization
TX/RX Isolation
VSWR
Cross Polar Rejection
Antenna Pattern Compliancy

X-Band

7.9 - 8.4
7.25 - 7.75
38.0+20log(f/8.25)
37.4+20log(f/7.5)
Circular
1.119:1

Ku-Band

13.75 - 14.50
10.70 - 12.75
43,0 (Midband)
41.8 (Midband)
2 Port Linear (3 Port Optional)
85 dB
1.3:1
>35 dB within 1 dB beamwidth
MIL-STD-188-164A, ITU-R S.580-6 and ITU-R S.465-6

Ka-Band

17.7 - 21.2
27.5 - 31
48.7+20log(f/29.25)
45.3+20log(f/19.45)
Circular
1.3:1

MECHANICAL SPECIFICATIONS

Drive Rates Slow
Drive Rates Medium
Drive Rates Fast
Antenna Travel Range
Manual Override Mechanism

Azimuth

0.4° / sec
2.5° / sec
4.5° / sec
± 220°
Manual override for elevation and azimuth drive system

Elevation

0.1° / sec
1.5° / sec
3.0° / sec
Up to 90°

Polarization

0.4° / sec
1.9° / sec
3.42° / sec
± 115°

ENVIRONMENTAL SPECIFICATIONS

Temperature Range Operational
Temperature Range Survival
Wind Speed Operational
Wind Speed Stowed
Wind Speed Unstowed
Wind Speed Survival
Rain
Humidity
Solar Radiation
Low Pressure
Shock
Sand and Dust
Temperature Shock
Icing Survival
Acoustics
Electromagnetic Compatibility

PDA-120-MIL

-30°C to 55°C
-40°C to 70°C Compliant with MIL-STD-810g Method 501.5 and 502.5
100 km/h Compliant with ESOG-120
150 km/h
190 km/h
190 km/h
Survival in heavy rainstorm, Compliant with MIL-STD-810g Method 506.5
%95 Aggravated, Compliant with MIL-STD-810g Method 507.5
1120 W/m2 (A1 Cycle), Compliant with MIL-STD-810g Method 505.5
4500 mt, Compliant with MIL-STD-810g Method 500.5
Compliant with MIL-STD-810g Method 516.5
Compliant with MIL-STD-810g Method 510.5
-40/70 Cyclic, Compliant with MIL-STD-810g Method 503.5
Min 37 mm, Compliant with MIL-STD-810g Method 521.3
<65 db(A) from 1.5 mt, Compliant with MIL-STD-1472
Compliant with CE102, CS101, CS114, CS115, CS116, RE102, RS103

Specifications are subject to change.

