Size: 1.20m

PDA-120

Advanced Motorized Antenna Technology

The PDA-120 is a fully motorized Gregorian offset antenna system with a precision 1.2m carbon-fiber reflector. Its integrated POD (Shell) protection shields the antenna and BUC from weather while improving vehicle aerodynamics, making it ideal for high-speed mobile operations.

Exceptional Signal Performance

The precision-engineered carbon-fiber reflector combines with advanced Dual Optic design to deliver outstanding electrical performance. This sophisticated architecture, paired with a specialized feed-horn system, ensures remarkably low sidelobes and excellent cross-polar rejection for crystal-clear transmission in challenging environments.

Lightweight Design for Rapid Deployment

Engineered for durability and compact footprint, the PDA-120 mounts seamlessly on virtually any vehicle. It is the ideal choice for broadcast newsgathering (SNG) and diverse VSAT applications including disaster relief, emergency communications, corporate networks, and military operations where swift deployment is critical.

Key Features

- Available in X, Ku, DBS, Ka Bands
- Strong yet lightweight Carbon-Fiber design
- Entirely zero-backlash mechanical drive system
- Support OpenAMIP
- Manual drive tool kit for emergency situations
- One-Button Operation
- Optional Beacon Tracking
- Optional De-Ice System
- Optional hand-held control unit
- Optional 4G/5G/LTE supported modem for load balancing and bonding solutions

PALS® | Communications & Technology

Go Anywhere with High Performance

TECHNICAL SPECIFICATIONS / PDA-120

Scan the QR code for more information.

GENERAL SPECIFICATIONS	PDA-120
Reflector Diameter	1.2m
Antenna Concept	Gregorian dual offset antenna with 1.2m elliptical main reflector, folding feed-arm, fixed sub-reflector
Operation On-Air Time	~3 Minutes
Weight	65Kg (excluding BUC & LNB)

RF CHARACTERISTIC	X-Band	Ku-Band	Ka-Band
Frequency (GHz) Tx	7.9 - 8.4	13.75-14.50	17.7- 21.2
Frequency (GHz) Rx	7.25 - 7.75	10.70 -12.75	27.5 - 31
Antenna Gain (±0.2 dBi) Tx	38.0+20log(f/8.25)	43,0 (Midband)	48.7+20log(f/29.25)
Antenna Gain (±0.2 dBi) Rx	37.4+20log(f/7.5)	41.8 (Midband)	45.3+20log(f/19.45)
Polarization	Circular	2 Port Linear (3 Port Optional)	Circular
TX/RX Isolation		85 dB	
VSWR	1.12	1.3	1.3:1
Cross Polar Rejection		>35 dB within 1 dB beamwidth	
Antenna Pattern Compliancy	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
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 Travels	± 195°	Up to 90°	± 115°
Manual Override Mechanism	Manual override for elevation and azimuth drive system		

ENVIRONMENTAL SPECIFICATIONS	PDA-120
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	72 km/h, Compliant with MIL-STD-810g Method 501.5 and 502.5
Wind Speed Stowed	150 km/h, Compliant with MIL-STD-810g Method 501.5 and 502.5
Wind Speed Unstowed	120 km/h, Compliant with MIL-STD-810g Method 501.5 and 502.5
Wind Speed Survival	180 km/h, Compliant with MIL-STD-810g Method 501.5 and 502.5
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
Tempreture 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.

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