PALS® Communications & Technology

PDA-150

Go Anywhere with High Performance

STANDARD MIL-STD 188-164A

STANDARD MIL-STD 810G

PDA-150

The PDA-150 is a light-weight, Carbon-Fiber antenna which is used for all kinds of satellite communication purposes. It is aerodynamically designed and improved with a pod that provides both aesthetic and security during transportation. On-site, the antenna system will enable you to be on air within 3 minutes therefore, you will not be disturbed by any noise or heat, since the HPAs could be located within the pod very conveniently. User-friendly GUI design allows operator with minimal satellite experience to operate the antenna for any application.

High precision pointing via resolver, boosted with 16 bit chip sets. 0,01° pointing accuracy with resolvers at 3 axes.

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
- EUTELSAT characterized

Key Features

- Ku, Ka, X, DBS Band options are available
- High EIRP, high performance 1.5m Gregorian offset antenna with dual optics and very low sidelobes
- Carbon-Fiber composite reflector supported with light weight mount
- High gain and very good cross polar rejection (> 35 db)
- Optional Beacon Tracking
- Optional De-Ice
- Antenna pod is designed to accommodate 2 x 400W HPA outdoor HPAs / SSPAs
- Easy vehicle integration
- Manual drive tool kit for emergency situations
- Optional hand-held control unit
- One-Button Operation

eutelsat characterized

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Go Anywhere with High Performance

GENERAL SPECIFICATIONS	
Reflector Diameter	1.5m
Reflector Type	Gregorian Offset
Operation On-Air Time	~3 Minutes
Antenna Concept	Gregorian dual offset antenna with 1.5m elliptical main reflector, folding feed-arm, fixed sub-reflector

RF CHARACTERISTIC				
		Ku-Band	Ka-Band	X-Band
Frequency (GHz)	Tx	13.75 - 14.50	28.10 - 30.00	7.90 - 8.40
	Rx	10.70 - 12.75	18.30 - 20.20	7.25 - 7.75
Antenna Gain (±0.2 dBi)	Tx	44,50 @ 14.25 GHz	49.50 @ 29.00 GHz	39.50 @ 8.15 GHz
	Rx	43.00 @ 11.70 GHz	39.10 @ 19.00 GHz	39.10 @ 7.50 GHz
Polarization		2 Port Linear (3 Port Optional)	Circular	Circular
Satellite Operator Compliancy		Compliant with most of satellite operator requirements		
VSWR		1.3:1	1.3.1:1	1.119:1
Cross Polar Isolation		>35 dB within 1 dB beamwidth		
Radiation Pattern Compliancy		Compliant with MIL-STD-188-164A, ITU - RS-580 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		± 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	Operational Survival	72 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		
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		
Electromagnetic Compatibility	Compliant with CE102, CS101, CS114, CS115, CS116, RE102, RS103		

Compliances / Certificates

eutelsat TÜRKSAT CE TÜVRheinland® TÜV CERT RoHS COMPLIANT

Would you like to get more information?

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Specifications are subject to change