



## ProSat-Solutions

### D120M MOTORIZED SNG ANTENNA

- ☒ Robust
- ☒ High performance
- ☒ Powerful
- ☒ Offset reflector
- ☒ Designed for Ku-Band uplink
- ☒ Easy to mount
- ☒ Eutelsat characterised RF and autopointing performance configuration , Intelsat & Asiasat compliant



D120M is compact while still offering high performance being a powerful and efficient motorized SNG Antenna System. The antenna is designed for Ku-Band uplink operations as part of dedicated integrated uplink vehicles. Designed for heavy duty conditions as a reliable system which has been field proved with more than 200 delivered units. The D120M is an easy to mount, self-contained antenna system fitting on the roof of most vehicles thanks to its compact design. Once installed it offers trouble free usage for many years of operation. Due to its compact design it is very easy to remove and re-install onto new vehicles.

32 selectable motor speeds, 3 axis simultaneous movement

#### ANTENNA CONTROL CAPABILITIES

AKS250 Antenna controller

Basic functions: Control of azimuth, elevation and polarization movements, automatic stow and deploy to preset position. Includes automatic antenna pointing to selected satellite using GPS and Fluxgate compass.

#### Options

- OPT-AKS-DVBS/S2 : DVB-S/S2 tuner card to identify satellite and for fine tuning
- OPT-EUT-AUTO: Eutelsat approved autopointing functionality for Ku band only (has to be selected at order, no field upgrade possible)
- OPT-D-HSNG: Aerodynamic enclosure with possibility to mount HPA(s) (picture include pod option)
- OPT-AKS-SPECT: Integrated spectrum monitoring, visible on front panel display
- OPT-3PRT-FEED: Co-pol reception, adds second receive port
- OPT-DEICE: De-icing, manual or automatic control
- OPT-AKS-ETH: Ethernet interface and PC control software for AKS250 (strongly recommended e.g. to enable remote diagnostics)

#### Compliance

Intelsat, Eutelsat and AsiaSat approvals, Eutelsat Type Approved reflector



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#### RF SPECIFICATIONS

	Transmit	Receive
Frequency Band	13.75-14.5 GHz	10.7 -12.75 GHz
Polarization	Linear Orthogonal	
Antenna Gain	44,5 dBi (typical) 43.6 dBi(minimum)	43 dBi (typical) 42.2 dBi(minimum)
Antenna Noise Temperature	-	48°K @ 10° elevation
Antenna Cross Pol, Isolation	35 dB	35 dB
Co-polar Sidelobe Envelope	1.7° < $\theta$ < 7° 29-25log $\theta$	-
	7° < $\theta$ < 9.2° 8 dBi	-
	9.2° < $\theta$ < 48° 32-25log $\theta$	-
VSWR	1.3:1 Max	-
Feed Interface	WR-75	WR-75
Tx to Rx Isolation	80 dB	40 dB
Insertion Loss	0.2 dB	0.3 dB
EIRP Capability	68.5 dBW with 400W TWTA (typical)	

#### MECHANICAL SPECIFICATIONS

Antenna Geometry	Offset Front Feed	
Antenna Reflector Effective Aperture	Diagonal: 1.5m, Across flats: 1.2m	
Ports	2 (optionally 3 port)	
Elevation Range	0°-90° (without housing) 6°-90° (with housing)	
Azimuth Range	> ±180° (overlapping)	
Polarization Range	± 100°	
Weight	130 kg antenna (Pod 30 kg)	
Dimensions	Max 194 x 150 x 56 cm (with Pod)	
Reflector Material	Carbon Fiber	
Motor speed	Adjustable by user in 32 steps	
	Minimum	Maximum
Elevation	0.1 °/sec	2.3 °/sec
Azimuth	0.1 °/sec	2.3 °/sec
Polarization	0.1 °/sec	8 °/sec

#### ENVIRONMENTAL SPECIFICATIONS

	Operational	Survival
Wind Load	typ. 75 km/h / 20,8m/sec max. 100km/h / 27,8m/sec	160 km/h / 44,5m/sec(stowed)
Ambient Temperature	-20 ° C to +50 ° C	-40 ° C to +60 ° C
Humidity	%0 - %100	%0 - %100