

ProSat-Solutions

DO90M MOTORIZED VSAT SNG ANTENNA

- **Cost efficient**
- **High performance**
- **Powerful and robust**
- **Dual Offset reflector**
- **Efficient**
- **Designed for Ku-Band uplink**
- **Easy to mount**
- **Eutelsat, Intelsat & Asiasat compliant**



DO90M is compact while still offering high performance as a powerful and efficient motorized SNG or VSAT Antenna System. The ProSat DO90M is a 90 cm motorized antenna system offering the most economical solution for just about any application. Trouble free mechanical solutions, of course with manual backup on all axis. Ideal for Mobile VSAT and SNG,s. Designed for heavy duty conditions as a reliable system which has been field proven during many years. The DO90M is an easy to mount, self-contained antenna system fitting on the roof of most vehicles thanks to its compact design. With its small footprint and uncomplicated mechanical design it can be installed in unconventional locations.

ANTENNA CONTROL CAPABILITIES

Level 1 : Simple version to control azimuth, elevation, polarization movement, automatic stow and deploy to preset position.

Level 2 : Automatic antenna pointing to selected satellite by using GPS and fluxgate compass.

Level 3 : Tracking of an inclined orbit satellite by using optional tuner card or Beacon receiver

Azimuth Motor	42V PWM Control (8A Max)
Elevation Motor	42V PWM Control (8A Max)
Polarization Motor	24V PWM Control (0.8A Max)
Azimuth Sensor	Proximity (Resolver optional)
Polarization Sensor	Potentiometer (Resolver optional)
Elevation Sensor	Clinometer, (Resolver optional)

Mechanical Limit Switches:

Provides movement limitation for the three axis, stow position and status control by eight limit switches.

Applicable Options :

Motorized Polarization adjustment

DVB Tuner Card: Allows for recognition of satellite and fine tuning

Spectrum monitoring: Integrated in controller, visible on frontpanel display

Co pol port reception: Second receive port

De-icing: Manual or automatic control

APPROVALS

Intelsat, Eutelsat and AsiaSat compliant



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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	40 dBi @ 14.250 GHz	38.3 dBi @ 11.750GHz
Antenna Figure of Merite (G/T)	-	17,5 dB/K @ 11,7GHz
Antenna Cross Pol, Isolation	35 dB	35 dB
Co-polar Sidelobe Envelope	1.7° < θ < 7° 29-25log θ 7° < θ < 9.2° 8 dBi 9.2° < θ < 48° 32-25log θ	- - -
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	65.1 dBW with 400W TWTA (typical)	

MECHANICAL SPECIFICATIONS

Antenna Geometry	Dual Offset Gregorian	
Antenna Reflector Effective Aperture	90 cm	
Ports	2 (optionally 3 port)	
Elevation Range	0°-70°	
Azimuth Range	± 180°	
Polarization Range	± 120° (optional)	
Weight	59 kg	
Dimensions	Max 145 x 93 x 47 cm	
Reflector Material	Fiberglass	
Motor speed	Adjustable by user in 32 steps	
	Minimum	Maximum
Elevation	0.2 °/sec	4 °/sec
Azimuth	0.2 °/sec	4 °/sec
Polarization	0.2 °/sec	4 °/sec

ENVIRONMENTAL SPECIFICATIONS

	Operational	Survival
Wind Load	55 km/h	130 km/h(stowed)
Ambient Temperature	-20 ° C to +50 ° C	-40 ° C to +60 ° C
Humidity	%0 - %100	%0 - %100