

# SVS SATELLITE SYSTEMS

## SDO120 MOTORIZED SNG ANTENNA

- Robust
- High Performance
- Powerfull
- Efficient
- Designed for Ku, Ka, DBS, C, X band uplink
- Easy to mount
- 3-axis efficient antenna
- Can be adapted for custom implementations



SDO 120-Ku is a high performance, powerfull and efficient Motorised SNG Antenna System

SDO 120-Ku designed for Ku band uplink operations as part of uplink vehicles.

It has been also designed for heavy duty conditions as a reliable system which was proved in field for many years in operations.

SDC120-Ku Antenna is an easy to mount antenna system on the top of vehicle.

Once you fix the antenna you can use the system for many years without any problems.

SDO 120 is developed for cost focused customer segment of the market.

### 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 Tuner Card or Beacon Receiver



**Mechanical Limit Switches :** Provides limitation for the 3-axis movement, stow position & status control by 8-limit switches.

**Applicable Options :** 3 or 4 ports receive, Housing, De-ice



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## SDO120 MOTORIZED SNG ANTENNA

### RF SPECIFICATIONS

		Transmit	Receive
Frequency Band		13.75-14.5 GHz	10.7-12.75 GHz
Polarization		Linear Orthogonal	Linear Orthogonal
Antenna Gain		43.4 dBi(14.250 GHz)	41.8 dBi(11.750 GHz)
Antenna Noise Temperature		-	48°K el; 10°
Antenna Cross Polarization Isolation		35 dB	35 dB
	29-25 log $\theta$ dBi	1.7° < $\theta$ < 7°	-
Copolateral Sidelobe Envelope	8 dBi	7° < $\theta$ < 9.2°	-
	32-25 log $\theta$ dBi	9.2° < $\theta$ < 48°	-
VSWR		<1.3:1 Max	
Feed Interface		WR-75	WR-75
Tx to Rx Isolation (with transmit reject filter)		80 dB	40 dB
Insertion Loss		0.2 dB	0.3 dB

### MECHANICAL SPECIFICATIONS

Antenna Geometry	Dual Optic Gregorian
Antenna Reflector Effective Aperture	120 cm
Ports	2 (optionally 3 port)
Elevation Range	0°-70° (without housing), 10°-70° (with housing), (Up limit can be adjustable without housing till 90° )
Azimuth Range	±180°
Polarization Range	±100°
Elevation Safety Stow Degree	Adjustable
Weight	130 kg antenna(Pod 28 kg)
Reflector Material	Fiber Glass
Dimensions	Max 187x131x58,5 cm (with pod)

### SPEED

	Minimum	Maksimum
Elevation	0.2°/sec	3.2°/sec
Azimuth	0.2°/sec	3.2°/sec
Polarization	0.2°/sec	17°/sec

### ENVIRONMENTAL SPECIFICATION

	Operational	Survival
Wind Load	80km/h	160 km/h(stowed)
Ambient Temperature	-20°C to +50°C	-40°C to 60°C
Humidity	%0 - %100	%0 - %100



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