

SDC150 DIAMOND MOTORIZED SNG ANTENNA

- Eutelsat auto-pointing approval with resolver option
- Diamond shape offset carbon fiber reflector (1.5m)
- Designed for Ku, Ka, DBS, C, X band applications
- Easy to mount
- Robust
- High performance
- 3-axis efficient antenna
- Can be adapted for customized implementations



EUTELSAT APPROVAL



SDC150 is a high performance, powerful and efficient motorized SNG Antenna System.

SDC150 is designed for Ku-band uplink operations as part of uplink vehicles.

SDC150 is also designed for heavy duty conditions as a reliable system which was proved in field for many years in operation.

SDC150 is an easy to mount antenna system on the top of the vehicle through its compact design.

SDC150 has the Eutelsat auto-pointing approval by achieving 0.01° sensibility with the advanced auto-pointing algorithm and hardware.

SDC150 is developed for quality 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.

DVB Tuner Card: Allows to make fine tuning and recognize satellite.

Applicable Options: 2 port receive Housing, De-ice.

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RF SPECIFICATIONS		Transmit	Receive
Frequency Band		13.75-14.5 GHz	10.95-12.75 GHz
Polarization		Linear Orthogonal	Linear Orthogonal
Antenna Gain		46 dBi (Typical) – 45.5 dBi (min)	44 dBi(Typical)-43.7 dBi(min)
Antenna Cross Polarization Isolation		35 dB	35 dB
Off Axis Gain (Tx-Rx)	25-25 log θ dBi	1.0° < θ < 2.5°	-
	($\theta=90^\circ$) 19-25 log θ dBi	2.5° < θ < 15.0°	-
	In Azimuth Plane -10dBi	15.0° < θ < 140.0°	-
	+5dBi	140.0° < θ < 180.0°	-
	($\theta=0^\circ$) 29-25 log θ dBi	1.0° < θ < 35.0°	1.5° < θ < 35.0°
	In Elevation plane -10dBi	35.0° < θ < 130.0°	35.0° < θ < 120.0°
+5 dBi	130.0° < θ < 180.0°	130.0° < θ < 180.0°	
VSWR		<1:3:1	-
Feed Interface		WR-75	WR-75
Tx to Rx Isolation (with transmit reject filter)		>80 dB	
Insertion Loss		0.2 dB	0.3 dB
MECHANICAL SPECIFICATIONS			
Antenna Geometry		Offset Front Feed	
Antenna Reflector Effective Aperture		Diagonal: 1.89 m, Across Flat: 1.5 m	
Ports		2 (optionally 3 port)	
Elevation Range		0°-70° (without housing), 5°-70° (with housing), (Up limit can be adjusted up to 87°)	
Azimuth Range		±180°	
Polarization Range		±95°	
Elevation Safety Stow Degree		Adjustable	
Weight		205 kg with pod	
Reflector Material		Carbon Fiber	
Dimensions		Max 232x189x68 cm (with pod)	
SPEED		Minimum	Maximum
Azimuth		0.2°/sec	1.6°/sec
Elevation		0.2°/sec	1.6°/sec
Polarization		0.2°/sec	9.7°/sec
ENVIRONMENTAL SPECIFICATIONS		Operational	Survival
Wind Load		72 km/h (Optionally 100 km/h)	160 km/h(stowed)
Ambient Temperature		-30°C to +60°C	-40°C to +70°C
Humidity		0% - 100%	0% - 100%