

- 1.8 m transmit-receive offset antenna
- Compliant for C, Ku and X band feeds
- Galvanized support arm and alignment struts
- Supported by robust mechanic
- Supported by AKS250 antenna controller
- Movement on three axes
- Auto-peaking and auto-pointing opportunities
- Optionally, tracking system with the beacon receiver or DVB tuner card
- Optionally, resolver for high sensitivity
- Optionally, de-icing system



SVS Telekom provides the best value antenna solution to the market with competitive prices, the highest quality products, and superb engineering support since 1995.

As a fixed motorized antenna, SM180 Transmit-Receive antenna system is a robust, high performance, efficient and affordable antenna system. SM180 which is supported by AKS250, has excellent movement ability on three axes. SM180 is used under difficult conditions for many years and with this experience we found excellent mechanical and controlling design.

For tracking system we offer you two option, DVD tuner card and beacon receiver. DVB tuner card can be used for just Ku-Band antenna. But beacon receiver is fully compliant for Ku-Band and C-Band Antennas.



### Key words for SM180-RxTx antenna solution

- High Performance
- Robust
- Affordable
- Efficient
- Flexible
- Professional
- Durable
- Constantly Technical Support

# SM180-RxTx FIXED MOTORIZED ANTENNA SOLUTION

RF SPECIFICATIONS		C-Band	Ku-Band
Frequency Band	Tx:	5.850-6.425 GHz	13.75-14.50 GHz
	Rx:	3.625-4.200 GHz	10.70-12.75 GHz
Polarization		Circular	Linear Orthogonal
Antenna Gain		(±0.4 dBi)	(±0.2 dBi)
	Tx:	39.5 dBi @6.1 GHz	46.8 dBi @14.3 GHz
	Rx:	35.4 dBi @3.9 GHz	45.3 dBi @12.0 GHz
3 dB Beamwidth	Tx:	2.0° @6.1 GHz	0.79° @14.3 GHz
	Rx:	3.0° @3.9 GHz	0.99° @12.0 GHz
Co-polar Sidelobe Envelope (Tx)	29-25 log $\theta$ dBi	2.8° < $\theta$ < 20.0°	1.0° < $\theta$ < 20.0°
	-3.5 dBi	20.0° < $\theta$ < 26.3°	20.0° < $\theta$ < 26.3°
	32-25 log $\theta$ dBi	26.3° < $\theta$ < 48.0°	26.3° < $\theta$ < 48.0°
	-10 dBi	48.0° < $\theta$ < 180.0°	48.0° < $\theta$ < 180.0°
Axial Ratio	Tx	1.3 VAR (2.3 dB)	-
	Rx	1.3 VAR (2.3 dB)	-
Antenna Cross Polarization		-	30 dB (On axis) 26 dB in 0.5 dB Contour
Antenna Noise Temperature	@ 10° EI	41° K	43° K
	@ 20° EI	36° K	28° K
	@ 30° EI	33° K	23° K
VSWR	Tx:	1.3:1	1.3:1
	Rx:	1.5:1	1.5:1
Isolation (Port to Port)	Tx:	80 dB	80 dB
	Rx:	60 dB	35 dB
Feed Interface	Tx:	CPR-137	WR-75 Flat Flange
	Rx:	CPR-229	WR-75 Flat Flange
MECHANICAL SPECIFICATIONS			
Antenna Geometry		Offset Feed Prime Focus	
Antenna Reflector Effective Aperture		1.8 m	
Ports		2 ports	
Elevation Range		10°-90°	
Azimuth Range		±150° (Adjustable for ±180°)	
Polarization Range		±100°	
Weight		200 kg	
Reflector Material		Glass Fiber Reinforced Polyester	
SPEED		Minimum	Maximum
Azimuth		0.1°/sec	1.5°/sec
Elevation		0.1°/sec	1.5°/sec
Polarization		0.5°/sec	13°/sec
ENVIRONMENTAL SPECIFICATIONS		Operational	Survival
Wind Load		100 km/h	160 km/h
Ambient Temperature		-30°C to +60°C	-40°C to +70°C
Humidity		0% - 100% (Condensing)	0% - 100% (Condensing)