

Starwin 0.75M SMC VSAT Antenna Datasheet



Description

Starwin 0.75m SMC antenna delivers exceptional high performance for transmit/receive application in Ku, ka band in Tx/Rx 2 port or Rx 1 port with high gain, low noise and low microwave interference.

Starwin 0.75m SMC antenna offers a fine reflector design with high qualified SMC panels, strong back struts and hub for easy of field alignment. The standard designed azimuth over elevation pedestal provides a cost-effective solution for ground or roof installation with high stiffness and stability, full orbital arc coverage and fine drive performance, and ensures the pointing and tracking accuracy.

The electrical performance is compliant with FCC and ITU-RS-580 sidelobe specifications and Intelsat, Eutelsat, INMARSAT, ASIASAT, APT and CHINASAT, etc requirement.

Key Features

- * Meets or exceeds CCIR 580 and INTELSAT Requirements
- * High G/T, excellent pattern characteristic
- * Precision compression molded offset antenna
- * CP/LP switchable feed
- * Hot dip zinc steel pedestal, hub & back struts
- * Galvanized stainless-steel fasteners
- * Foundation hardware kit provided
- * Package suitable for air, ocean land transportation

Antenna Accessory

- * Limit Switches (For motorized antenna)
- * Foundation hardware Kit
- * Grounding Kits Cable - Mounting kits
- * Cable mounting kits
- * ODU Support Kits
- * Factory Feed System Testing and Documentation
- * Ocean /Air/land Transport Packing

Options

- * Ku, Ka and DBS-band feed configurations
- * 800MHz bandwidth is available
- * Two -Tx/Rx port in linear or circular polarized feeds
- * Motorization kits
- * Feed blower or deicing with automatic controls
- * Lightning Rod Kits
- * Non-penetrating mount
- * Integrated LNB or LNA systems
- * HPAs, converters and M&C systems
- * Turnkey installation & testing

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Electrical, Mechanical, Environmental Specification

Electrical Specification

Type	SW75Ku		SW75Ka	
Operating Frequency, GHz	Ku-Band		Ka-Band	
	Receive	Transmit	Receive	Transmit
	10.75-12.75	13.75-14.5	18.7~21.2	27.5-30.0
Gain, Mid-band, dBi	37.6 (12.5GHz)	38.6 (14.25GHz)	41	44
Polarization	Linear		Circular	
XPD (on Axis), dB	30	30	/	/
Axis Ratio	/	/	1.5	1.5
VSWR	1.3	1.3	1.5	1.3
Tx. Power Capability, W		500W		50W
Feed Interface	WR-75	WR75	WR42	WR28
Feed Insertion Loss, dB	0.2	0.2	0.3	0.3
Isolation, Tx to Rx, dB (Tx-Rx with Filter)	≥85		≥85	
Side Lobe (dBi)	$100\lambda/D < q \leq 20^\circ$ 29 - 25 Log θ dBi $20^\circ < q \leq 26.3^\circ$ -3.5 dBi $26.3^\circ < q \leq 48^\circ$ 32 - 25 Log θ dBi $\theta > 48^\circ$ -10 dBi (averaged)		$100\lambda/D < q \leq 20^\circ$ 29 - 25 Log θ dBi $20^\circ < q \leq 26.3^\circ$ -3.5 dBi $26.3^\circ < q \leq 48^\circ$ 32 - 25 Log θ dBi $\theta > 48^\circ$ -10 dBi	

Mechanical Specification

Antenna Diameter		0.75m
Antenna Type		Offset antenna
Antenna material		SMC -one piece
Surface Accuracy (RMS)		≤0.5mm
Antenna Pointing Range	Azimuth	$0^\circ \sim 360^\circ$ (Continuous), Ku: $0^\circ \sim 15^\circ$ Fine Tune; $5^\circ \sim 90^\circ$ (Continuous) Ku: $\pm 90^\circ$ (Continuous)
	Elevation Polarization	
Drive Mode		Manual

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Environmental Specification

Operational Wind Speed	Ku: 35m/s; Ka: 20m/s
Survival Wind Speed	Ku: 55m/s; Ka: 35m/s
Temperature	-40°~+60°
Rain (operational and survival)	Ku: 1/2"(13mm/hr); Ka: 10cm/h
Relative Humidity	0%-100%
Solar Radiation	Ku: 360BTU/h/ft ² ; Ka: 1000kcal/hm ²
Radial Ice	2.5cm
Atmospheric conditions	Salt, Pollutant and Contaminants as Encountered in Coastal and Industrial Areas