

90 cm Dual Reflector V SAT Antenna

Antenna



Approval
EUTELSAT
EA-V038

- **Superior quality for Transmit / Receive applications :**

A rugged mount construction ensures the necessary mechanical stability. Two aluminum shaped arms ensure the perfect alignment of the Rx / Tx system and Sub reflector with the main Reflector.

- **Excellent protection against severe environment conditions:**

Main reflector in glass fiber reinforced polyester (SMC) and Sub reflector in aluminum provide an exceptional lifetime.

- **Easy installation and fine adjustment :**

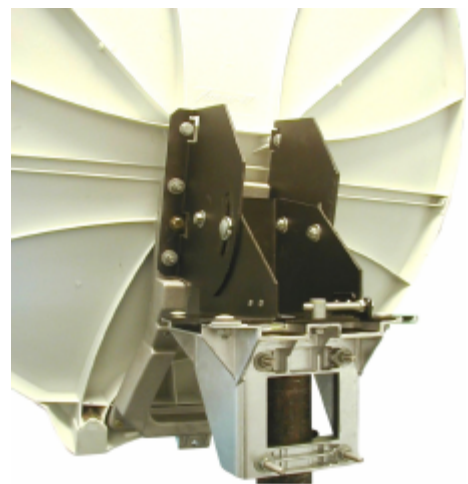
A rugged AZ/EL mount construction allows the fine adjustments in azimuth and elevation and insures the highest performances.

A special attention was given in the mount design to provide pointing accuracy and stability.

- The SMC main Reflector and Aluminium molded Sub reflector provide the essential requirements for transmission to satellite :

- dimensional accuracy
- mechanical stability
- high performance

The Gregorian design gives Low Cross polarisation levels needed for Transmit.



Antenna

VISIOSAT 90 RECEIVE/TRANSMIT ANTENNA

Technical Specifications :

RF PERFORMANCE :

	RECEIVE	TRANSMIT
Polarization	Linear	Linear Orthogonal
Operating Frequency	10,7 - 12,75 GHz	13,75 - 14,5 GHz
Gain	38,3dB @11,7GHz	40dB @ 13,75GHz 40dB @ 14,5GHz
3dB Beamwidth	1,9° @ 11,7GHz	1,6° @ 14,25GHz
<u>Copolar Envelope</u>		
• $2.5^\circ \leq \theta \leq 7^\circ$	29-25 log θ dBi	29-25 log θ dBi
• $7^\circ < \theta \leq 9.2^\circ$	8 dBi	8 dBi
• $9.2^\circ < \theta \leq 48^\circ$	32-25 log θ dBi	32-25 log θ dBi
• $\theta > 48^\circ$	-10 dBi	-10 dBi
<u>Cross-Polarization</u>		
• $2.8^\circ < \theta \leq 7^\circ$	29-25 log θ dBi	29-25 log θ dBi
• $7^\circ < \theta \leq 9.2^\circ$	-2 dBi	-2 dBi
	>30 dB in 1 dB contour	>30 dB in 1 dB contour
<u>Figure of merite (G/T)</u> (30° Elevation , LNB 1.0 dB NF)	17,5 dB/K @ 11,7GHz	
Isolation Tx/Rx (10,7~12,75GHz) Rx/Tx (13,75~14,5GHz)	75 dB Min.	40 dB Min.

MECHANICAL PERFORMANCE :

Antenna width	90 cm
Antenna height	99 cm
Shape	Gregorian Offset Effective aperture Ø 90 cm
Material	
• Main reflector	Glass fiber reinforced polyester
• Sub reflector	Molded Aluminum
Mount Pipe	60~80 mm
Feed interface	WR75
Wind Loading	Operational 100 km/h and under blasts until 130 km/h.
Metal parts treatment	Black electrolytic treatment, Hold > 500 hours Salt spray screws with Dacromet treatment > 400 hours salt spray
Temperature	-40° to 70°C
Atmosphere	salt and pollutants as encountered in coastal and industrial areas.

AZ / EL ADJUSTEMENT :

Azimuth	0 /360° with +/- 5° fine adjustment
Elevation	16/90° with +/- 5° fine adjustment

