

SMC 120 DO

VSAT SMC 120CM ANTENNA

EUTELSAT APPROVAL EA-A028



Réf. 0141134

Superior quality for Transmit / Receive applications:

The aluminium shaped arms ensure the perfect alignment of the Rx / Tx system with the reflector.
A special attention was given in the masthead design to provide pointing accuracy and stability.



10 YEARS WARRANTY

Excellent protection against severe environment conditions:

Reflector in glass fiber reinforced polyester (SMC) for an exceptional lifetime.

- 10 years warranty against corrosion
- Reduced focus of the sunshine rays into the electronics

Sub reflector in die cast aluminium

• Easy installation and fine adjustment:

The stiff Az/EI masthead allows the fine adjustments of each parameter individually and insures the highest performances.

• The SMC Reflector provides the essential requirements for transmission to satellite:

- dimensional accuracy
- mechanical stability over time and temperature
- excellent performance at high frequencies



Réseaux de Communication
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120 CM DUAL OPTICS ANTENNA

MECHANICAL DATAS

| | |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------|
| Antenna width | 123 cm |
| Antenna height | 127 cm |
| Geometry | offset dual optics, effective aperture 120 cm |
| Reflector | glass fiber reinforced polyester |
| Feed interface | WR 75 |
| Mount | Az/EI |
| Azimuth range | 0~360° with +/-5° fine tune |
| Elevation range | 10~90° continuous fine tune |
| Pipe diameter | 76 mm |
| Metal part treatment | Black electrolytic treatment, Hold> 500 hours salt spray Screws with zinc bichromat treatment > 200 hours salt spray |
| Operating temperature | -30°C ~ +60°C |
| Atmosphere | coastal and industrial areas |
| Operational windspeed | 80 Km/h with bursts up to 130Km/h |
| Weight | < 30 kg |

RF PERFORMANCE

Receive :

| | |
|--------------------------------|-----------------|
| Polarization | linear |
| Frequency band | 10,7 ~12,75 GHz |
| 3dB beamwidth | 1,3° |
| Gain @ 12,5 GHz | 41,8 dBi |
| G/T (30° elevation) @ 12,5 GHz | 21,6 dBK |

Transmit :

| | |
|------------------------------------|-------------------|
| Polarization : | linear orthogonal |
| Frequency band | 13,75 ~14,5 GHz |
| 3dB beamwidth | 1,1° |
| Gain @ 14,25 GHz | 42,5 dBi |
| VSWR | 1,3 : 1 max |
| Isolation Rx / Tx (13,75~14,5 GHz) | 40 dB min |
| Isolation Tx / Rx (10,75~12,75GHz) | 75 dB min |

Copolar sidelobe envelope (dBi)

| | |
|------------------------------------|-----------------|
| $2,5^{\circ} \leq \leq 7^{\circ}$ | 29 – 25 log dBi |
| $7^{\circ} \leq \leq 9,2^{\circ}$ | 8 dBi |
| $9,2^{\circ} \leq \leq 48^{\circ}$ | 32 – 25 log dBi |
| $> 48^{\circ}$ | -10 dBi |

Cross polar sidelobe envelope

| | |
|-----------------------------------|-----------------|
| $2,8^{\circ} \leq \leq 7^{\circ}$ | 19 – 25 log dBi |
| $7^{\circ} \leq \leq 9,2^{\circ}$ | -2 dBi |

Cross polarization > 30 dB within the -1dB contour