



ND SATCOM

SKYRAY MAS 1900



characterized

The SKYRAY family with more than 300 systems sold world-wide is the most robust product in the market. All moving parts are completely sealed against dust, humidity and icing. It is transmitting for customers in very cold snowy regions as well as in very hot desert areas.

These mobile antenna subsystems are designed for cut roofs to lower the vehicle height while maintaining operator headroom. It comes from 1,2m to 1,9m dish size and can host from 20W SSPAs up to three 750W linearized HPAs for redundancy. The antenna can transmit in C-, Ku-, K- and Ka-Band.

The system will be delivered with an easy to operate ACU (Antenna Control Unit) incl. web interface.

KEY FEATURES

- Highest reliability – 5 years of warranty
- All moving parts are completely sealed
- RF Characteristic and automatic pointing option is Eutelsat approved
- Individually configurable for Tx power 20 W SSPA – 750 W TWTA
- Maintenance free AZ/EL positioner
- Highest wind load in the market
- Multiband exchangeable feed system on request

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TECHNICAL SPECIFICATIONS

ANTENNA SPECIFICATIONS

Antenna Diameter	1.9 m
Antenna Pointing (SKYWAN, DVB carrier)	Antenna Control Unit ACU 5020 / one button operation Option: Automatic Pointing System (APS) supports GPS, compass and inclinometer. Polarisation fine tuning done by true measurement
Azimuth Travel	± 190°
Elevation Travel	10° to 70° continuous (5° to +90° on request)
Antenna Backup System	Car Battery Emergency Control for motors via ACU Optional manual hand cranks for driving Az/EI
Drive Rates	High Speed: 2°/sec; Slow Speed: 1°/sec
Reflector	Single piece diamond shaped reflector

PHYSICAL SPECIFICATIONS

Dimensions (L x W x H)	210cm x 149cm x 58 cm
Weight	95 kg (without RF equipment)

ENVIRONMENTAL SPECIFICATIONS

Temperature Range	-30° to +55°C
Survival Temperature	-40°C to +60°C
Humidity	0% to 100% with condensation
Operational Wind Speed	100 km/h
Rain	Survival in heavy rainstorm
Survival Wind Speed	stowed: 190 km/h; unstowed: 140 km/h
Solar Radiation	1000 W/m ²

ELECTRICAL SPECIFICATIONS

Tx Frequency Range	13.75 – 14 .50 GHz
Rx Frequency Range	10.7 – 12.75 GHz
Tx Antenna Gain	46 dBi (typical), 45.5 dBi (min) @ 14 GHz
Rx Antenna Gain	44 dBi (typical), 43.7 dBi (min) @ 11.7 GHz
G/T	23.8 dB/K @ 30° Elevation
Antenna Noise Temperature	110K @ 20° Elevation (linear) / 90K @ 40° Elevation (linear)
VSWR	Rx: <1.3 : 1 (Rx port 10.95 – 12.75 GHz) / Tx: <1.3 : 1 (Tx port 13.75 – 14.5 GHz) Isolation: Tx band >40 dB excluding transmit reject filter, Rx band >35 dB
Waveguide Interface Flange	WG17/UBR 120
Max. allowed EIRP	48.8 dBW / 40 kHz for digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 § 6.1 refers)



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