



INSTALLING
RELIABILITY



www.ndsatcom.com

SKYRAY MAS 1900



The SKYRAY family with more than 300 systems sold world-wide is one of the most robust product in the market. All moving parts are completely sealed against dust, humidity and icing. It reliably transmits in very cold snowy regions as well as in very hot desert areas, in high winds and heavy rainstorms. SKYRAY superbly handles such extreme temperatures and conditions.

These mobile antenna subsystems are designed for cut roofs that lower the total vehicle height while maintaining operator headroom. They range from 1.2 m to 1.9 m dish size and can host from 20 W SSPAs up to three 750 W linearised HPAs for redundancy. The antenna can transmit in C-, Ku-, K- and Ka-Band.

These systems will be delivered with an easy-to-operate Antenna Control Unit (ACU), including web interface.

High load capacity of the mounts is a major advantage with the SKYRAY MAS 1900 antennas, allowing use of the space available on the sides. Up to 70 kg of equipment can be installed on the feed arm and in back.

Another notable advantage is the waveguide switching system built into the feed arm.

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 Azimuth/Elevation positioner
- Highest wind load in the market
- Multiband exchangeable feed system on request

TECHNICAL SPECIFICATIONS SKYRAY MAS 1900

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 Azimuth/Elevation
Drive Rates	High-speed: 2°/sec; slow-speed: 1°/sec
Reflector	Single piece diamond shaped reflector

PHYSICAL SPECIFICATIONS

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

ENVIRONMENTAL SPECIFICATIONS

Temperature Range	-30 °C 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	1,000 W/m ²

ELECTRICAL SPECIFICATIONS

Tx Frequency Range	13.75 – 14.50 GHz
Rx Frequency Range	10.70 – 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	110 K@20° Elevation (linear)/90 K@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/UBR120
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)



HEADQUARTERS

ND SatCom GmbH
Graf-von-Soden-Strasse
88090 Immenstaad
Germany
PHONE: + 49 7545 939 0
FAX: + 49 7545 939 8780
E-Mail: info@ndsatcom.com

CHINA

ND SatCom (Beijing) Co. Ltd.
PHONE: +86 10 6590 6869/6878

MIDDLE EAST

ND SatCom FZE
PHONE: +971 4886 5012

WEST AFRICA

ND SatCom Senegal
Phone: +221 77 569 8017