



INSTALLING
RELIABILITY



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SKYRAY COMPACT 1500PLUS



The SKYRAY family, with more than 300 systems sold world-wide, is one of the most robust product on the market. All moving parts are completely sealed against dust, humidity and icing. With exceptional reliability, SKYRAY transmits in extreme temperatures and conditions, from very cold snowy regions to very hot desert areas, from high winds to heavy rainstorms.

The SKYRAY Compact 1500 Plus antenna system can be easily mounted on standard vehicle roof railings via its 6 mounts. It is designed for EBU transmission with a redundant RF chain for up to 2 x 400 W HPAs. This antenna system is best of breed regarding lifespan, wind load and pointing accuracy. High-resolution resolvers and received signal measurements support the automatic pointing process. The amplifiers are mounted into the feed arm to shorten the waveguide length and minimise signal loss.

The high load capacity of the mounts permits use of the free space on the sides. This Plus version can have up to 70 kg of equipment installed on the feed arm, plus additional equipment on the supporting frame (these additions will be protected by a special cover).

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

PLUG AND PLAY

- Easy and cost-effective vehicle integration with standard mounting components
- Automatic pointing system incl. polarisation optimisation with measurement
- Easy-to-operate web interface and one-button operation

KEY FEATURES

- For EBU transmissions 2 x 400 W TWTA
- Highest reliability – 5 years of warranty
- Aerodynamic casing for high-speed travel
- RF characteristic and automatic pointing option is Eutelsat approved
- Maintenance-free Azimuth/Elevation positioner
- Highest wind load in the market
- Multiband exchangeable feed system on request

TECHNICAL SPECIFICATIONS SKYRAY COMPACT 1500PLUS

ANTENNA SPECIFICATIONS

Antenna Diameter	1.5 m diamond shape
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)	220 cm x 156 cm x 71 cm
Weight	118 kg (fully covered)

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
Radial Ice	2.5 cm on all surfaces

ELECTRICAL SPECIFICATIONS

Tx Frequency Range	13.75 – 14.50 GHz
Rx Frequency Range	10.70 – 12.75 GHz
Tx Antenna Gain	44.5 dBi (typical), 43.6 dBi (min)@14 GHz
Rx Antenna Gain	43 dBi (typical), 42.2 dBi (min)@11.7 GHz
G/T	22.3 dB/K@30° Elevation
Antenna Noise Temperature	25 K@30° Elevation
VSWR	Rx: <1.3:1 (Rx port 10.95 – 12.75 GHz) Tx: <1.3:1 (Tx port 13.75 – 14.5 GHz)
Waveguide Interface Flange	WG17/UBR120
Max. allowed EIRP	51.0 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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