



INSTALLING  
RELIABILITY



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# SKYRAY COMPACT 1500



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. 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 antenna system can be easily mounted on standard vehicle roof railings via its six mounts. It can be used with a non-redundant HPA up to 400 W for breaking news or with redundant SSPAs up to 100 W each for smaller events. 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 waveguide length and minimise signal loss.

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

The high load capacity of the SKYRAY Compact 1500 mounts allows use of the free space on the sides. This compact version can have up to 70 kg of equipment installed on the feed arm (equipment will be protected by a special cover).

## PLUG AND PLAY

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

## KEY FEATURES

- Highest reliability – 5 years of warranty
- All moving parts are completely sealed
- Aerodynamic casing for high-speed travel
- RF characteristic and automatic pointing option is Eutelsat approved
- Individually configurable for Tx power  
20 W SSPA – 400 W TWTA
- Maintenance-free Azimuth/Elevation positioner
- Highest wind load in the market
- Multiband exchangeable feed system on request

## TECHNICAL SPECIFICATIONS SKYRAY COMPACT 1500

### ANTENNA SPECIFICATIONS

Antenna Diameter	1.5 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)	220 cm x 156 cm x 63 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 <sup>2</sup>

### 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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