

RM150 DSNG Antenna

Eutelsat Characterised DSNG Antenna in Ku-Band



The RM150 is a Eutelsat Characterised DSNG Antenna from Holkirk designed to excel in today's demanding DSNG environment.

With excellent attention to mechanical detail and high performing materials selection, the RM series of Antennas will provide many years of continuous service in the harshest of applications.

Compact

The RM150 antenna is an ultra-compact roof mount system which encompasses the drive control, positioning hardware and BUC/HPA into the aerodynamic antenna enclosure, making the system a robust standalone sub-assembly ready to install onto almost any vehicle.

Versatile

The versatile power-payload of the RM antenna series has been designed to take low power SSPAs or high power TWTs in single thread or 1:1 redundant configurations with power levels up to 400W.

Auto-Acquire

The main reflector is manufactured from high quality The Satellite Acquisition Controller uses industry standard position transducers and a sophisticated pattern recognition algorithm to confirm and refine its heading information using visible satellites. The controller is mounted on the antenna structure with a separate power supply and control panel in a rack mount unit for mounting within the equipment area.

Ease of Use

The system is simple to install, set up and use. Following relocation of the antenna, the system will reliably and accurately locate and lock on to the designated traffic satellite, typically in less than 3 minutes from stowed.

- Fully Eutelsat characterised auto pointing antenna
- Auto point or manual options
- 1.5m high gain carbon fibre reflector
- Single thread or 1+1 redundant RF options up to 400W
- High wind loading
- Full fairing aerodynamic housing
- Rotary joints on all axis
- Simple load spreading vehicle mounting
- Minimised cable and connections for ease of integration

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Specification

Mechanical Data

Antenna width:		150 cm
Antenna height:		52 cm
Geometry:		Single offset
Reflector material:		Carbon fibre
Weight:		100kg
Speed: Elevation	Fast	2°/Sec
	Slow	0.5°/Sec
Azimuth	Fast	5°/Sec
	Slow	11°/Sec
Feed interface:		WR 75
Azimuth range:		+/- 220°
Elevation range:		5 to 90°
Polarisation range:		+/- 95°
Operating temperature:		-20°C~+50°C
Temperature specification for survival		-30°C~+60°C
Wind speed operational:		40mph (68kph)
Stowed:		100mph (161kph)
Power Handling:		>400W
Antenna Radiation Pattern:		ITU-RD-580-5
Pointing Loss:		Better than 2dB

Electrical Data

Receive

Polarisation:	Orthogonal linear (cross POL)
Frequency band:	10,7 ~ 12,75 GHz
Gain @ 12.5 GHz :	44 dBi
G/T (30° elevation) @ 12.5 GHz:	23 dBK
Beam Width -3dB:	<1.3deg
VSWR:	1.35 : 1 max

Transmit

Polarisation:	Orthogonal linear (cross POL)
Frequency band:	13.75 ~ 14,5 GHz (operational 13.0 - 13.25GHz)
Gain @ 14.25 GHz:	45.7 dBi
VSWR:	1.3 : 1 max
Isolation Rx / Tx (13.75~14,5 GHz):	40 dB min
Isolation Tx / Rx (10.75~12,75GHz):	85 dB
Beam Width -3dB:	<1.1deg

