



NAUTI FLY 75 AUTOMATIC

0,75m Ka band Trolley



NAUTISAT srl

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NAUTIFLY 75 is an automatic pointing flyaway antenna for satellite communications in Ka-band, easily transportable because contained in a small suitcase.

NAUTIFLY 75 can be assembled and activated in 5 to 10 minutes by one person.

NAUTIFLY 75 can be taken on board passing through the normal check-in passengers performing with IATA standards (the sum of the three dimensions is less than 158 cm and weighing less than 32 kg). On arrival, the suitcase will be withdrawn on the conveyor belt.



COMPOSITION

NAUTIFLY 75 is an antenna in Ka band completely contained in a small suitcase for transport, composed by a base that supports the antenna and a cover with leveling legs that acts as a sub-base. The antenna consists of the following components:

- Reflector prime focus offset of carbon fiber, with an opening 0.75 m, divided into three parts with the side sections folded on the central sector;
- Handling system with two axes: Azimuth and Elevation;
- Automatic pointing of the chosen satellite;
- Arm support of the feed / transceiver articulated for easy automatic folding in the trolley;
- Modem housed in a sealed container integral with the feed support arm transceiver;
- Location detection system of the antenna (GPS, electronic fluxgate) and data center for pointing;
- A.C.U. (antenna control unit) placed in the trolley in front of the antenna for transportation;
- Connecting cable to the ACU for remote control;
- Power connection for auxiliary batteries for autonomous operation;



SYSTEM DEPLOYMENT

The cover of the trolley acts as a sub-base level using the four leveling screws.

The base must be positioned on the cover and fixed to it with the appropriate hooks.

The ACU must be connected to the connecting cable for remote station (supplied with the antenna).

The deployment system allows you to elevate the antenna from the base of the trolley up to the stand-by mode (vertical reflector and feed support arm horizontal).



AUTOMATIC POINTING SYSTEM

The automatic pointing system is constituted by:

- GPS that provides the coordinates of the place where the antenna is located;
- Electronic Fluxgate that provides the orientation of the base of the antenna respect to the North;
- ACU that allows you to select the satellite and make the fine pointing; in the ACU data of magnetic declination of the whole Earth's surface are stored to eliminate the errors of the electronic fluxgate. The ACU has an alphanumeric display for the presentation of data.
- Original algorithm to perform automatic pointing controlling the positioners of Azimuth and Elevation



ELECTRICAL CHARACTERISTICS

Antenna:	Ka-band
Reflector:	0,75 m offset
Polarization:	Circular
Feed and Transceivers:	Integrated
Technology	ViaSat
TX Power:	3W
Maximum power:	4W (optional)
Frequency TX:	29.50 ÷ 30.00 GHz
Frequency RX:	19.70 ÷ 20.20 GHz
TX Gain:	44.2 dB (typical at 29.75 GHz)
RX Gain:	40.1 dB (typical at 19.95 GHz)
Handling Az and El	Motorized
Automatic tracking through GPS, Fluxgate electronic and angular sensors	
Azimuth range:	-90 ° to + 90 °
Elevation range:	0° to 90°
Power supply	220V BC; 30V A.D.
Auxiliary batteries	12V A.D.

MECHANICAL PROPERTIES

Trolley Dimensions	930 x 440 x 220 mm
Weight	less than 32 kg
Tightness class	IP67