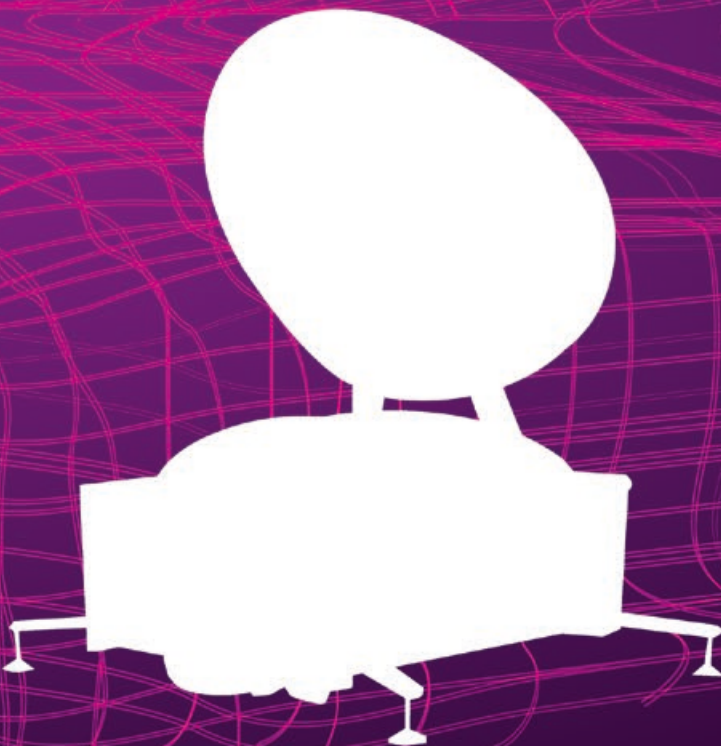


EasyFLYSAT



Tenix
communications

EasyFLYSAT is an “all-in-one” compact portable satellite gateway designed for applications which require mobility and fast deployment in any environmental conditions.

The unit can be operated by unskilled personnel thanks to an user-friendly innovative Process Control Module (PCM) for monitoring and managing all the critical parameters and functionalities.

As “integrated system”, in addition to the main standard functionalities and features of a native IP Gateway for voice, video and data, the unit can host up to 3U 40cm 19’ rack units for further customization and/or special requirements.

KEY POINTS:

Native IP Gateway

1+1 redundant hot stand-by System

▶ Wireless BTS 2G/3G (PicoCell) e 4G WiMAX e LTE (700Mhz up to 5,8Mhz or any other on request)

▶ VHF/UHF Repeater

▶ DMR and Analog, Tetra, Wi-Fi.

▶ Web-Based management system accessible via Ethernet or Wi-Fi.

Fully customizable.





NO TOOLS REQUIRED

For deployment and pointing, no tools are required; all parts are assembled in very few operations with clean hands.

EASY TO CARRY & TRANSPORT

EasyFLYSAT is designed as a "Trolley" to be carried along by one person only. Dimensions and weight allow an easy transport in small car or by airflights. Featuring an external rugged carbon fiber material enclosure reinforced with kevlar, internal parts and equipment are hosted on a solid carbon fiber frame that warranties high stability. EasyFLYSAT is provided with Manual Pointing Set-up or Fully Motorized 3-axes Autopointing System:

Fully 3-Axes Autopointing System

The Full Motion EasyFLYSAT is fully motorized and together with the Antenna Control Unit can automatically perform the satellite Autopointing including Stow & Deploy, Peaking and Tracking (Step-Track, Memory Track); includes GPS, Compass & Inclinator, Angle Transducers and Hardware Limit Switches.

On the side panel a green button enables the autopointing procedure on the selected satellite.

From the Web Interface on the PMU it is possible to monitor and enter antenna presets, move the antenna UP/DOWN/CCW/CW and the polarization (if required) CCW/CW, by clicking on the respective button.

It is also possible to select the Station Status (Stow, Deploy, Feed Mount) and the desired Tracking Mode (Autopointing, Step Track, Memory Track, Program Track).



Manual Drive System

A pointing support tool allows a reliable and secure pointing in any condition, with simple operations through an handheld touch screen terminal (ASAC200).

It integrates built-in GPS, Compass, Inclinator, DVB-S Receiver and a Processor Module providing all the necessary instruction to drive manually the Flyaway Antenna to acquire the selected satellite with no need of supplementary equipment.

Specifications Table

Ku band

Dish size	130 cm	120 cm	100 cm
Frequency Range	Rx: 10.95-12.75GHz; Tx: 13.75-14.50GHz (standard)		
Gain (mid band)	Rx: 42.2 dBi Tx: 43.7 dBi	Rx: 41.3 dBi Tx: 42.8 dBi	Rx: 39.4 dBi Tx: 40.9 dBi
Max EIRP (*)	65.0 dBW (200W TWT)	58.5 dBW (40W BUC)	57.1 dBW (40W BUC)
G/T (40K, 20° EL) (**)	20.0 dB/K	19.3 dB/K	17.7 dB/K
Cross Pol Isolation	>35dB 1dB Contour	>33dB on axis >28dB 1dB Contour	>30dB on axis >26dB 1dB Contour
Polarization	Linear Orthogonal		
Isolation Tx/Rx	85 dB	85/30 dB	85/30 dB
Insertion Loss Tx/Rx (*)	1.5/0.25 dB	0.6/0.25 dB	0.4/0.25 dB

X-Band Terminal

Dish size	130 cm	120 cm	100 cm
Frequency Range	Rx: 7.25-7.75 GHz; Tx: 7.9-8.4 GHz		
Gain (mid band)	Rx: 38.3 dBi Tx: 39.0 dBi	Rx: 37.6 dBi Tx: 38.3 dBi	Rx: 36.0 dBi Tx: 36.7 dBi
Max EIRP (with 20W BUC) (*)	50.4 dBW	50.4 dBW	48.7 dBW
G/T (40K, 20° EL) (**)	16.2 dB/K	15.3 dB/K	13.7 dB/K
Axial Ratio	< 2 dB		
Polarization	Circular LHCP/RHCP		

Ka-Band Terminal - Commercial & Military Bands

Dish size	130 cm	120 cm	100 cm
Frequency Range	Rx: 19.7-21.2 GHz; Tx: 29.5-31.0 GHz		
Gain (mid band)	Rx: 47.0 dBi Tx: 50.4 dBi	Rx: 46.0 dBi Tx: 49.4 dBi	Rx: 44.0 dBi Tx: 47.7 dBi
Max EIRP (with 10W BUC) (*)	59.8 dBW	58.7 dBW	57.0 dBW
G/T (40K, 20° EL) (**)	22.6 dB/K	21.4 dB/K	19.8 dB/K
Axial Ratio	<0.75 dB		
Polarization	Circular LHCP/RHCP		

Specifications Table

Physical specifications

Dish size	130 cm	120 cm	100 cm
Optic Geometry	Prime or Dual Optic Center Focus	Offset prime focus	Offset prime focus
Mount Geometry	Elevation over Azimuth		
Travel Range	AZ: +/-170°; EL: 0° to 90°; POL: +/-110°		
Drive Speed (***)	2°/sec deploy; 0.2°/sec peaking		
Controller	Advanced Satellite Acquisition Controller (for manual drive system) or Fully Automatic Autopointing		
Weight	from 49Kg up to 85Kg depending on configuration		
Dimensions	74x99x68 cm	74x99x68 cm	74x99x59 cm

Environmental specifications

Dish size	130 cm	120 cm	100 cm
Wind	Operational 80km/h; Survival 100km/h deployed; 150km/h stowed (with ballasts or anchors)		
Temperature	Operational -20°/50°C; Storage -30°/60°C; (optional: -32°/55°C Operational, -40°/70°C Storage)		
Humidity	100% Condensing		
Altitude	up to 5000m		





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