

EasyFLYSAT Communication Gateway Terminal

◆ EasyFLYSAT , an “All In One Easy To Use” Compact Portable Satellite Terminal, introduces innovative concepts in Mobile Satellite Communications, opening Satellite Technology to applications where mobility and fast deployment are required also in extreme environmental conditions.



Featuring a flyaway system in a very compact quickly-on-the-air satellite package, it combines easy one-person operation with exceptional technical performances in a rugged design with state of the art technology.

EasyFLYSAT works as an “Integrated System” and it is totally autonomous by auxiliary external equipments. All the equipment, 19” standard (up to 3U x 40cm), are hosted inside the EasyFLYSAT case. An embedded control module provides a full management for all internal devices and their functionalities through a Web based interface. The unit can be customized for special requirements.

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 airlights. Featuring an external rugged carbon fiber material enclosure reinforced with kevlar, internal parts and equipment are hosted on a solid carbon fiber frame that warrants high stability.

Main features

- easy one-person operation with exceptional technical features
- lightweight, robust, high-precision reflector ideal for extreme environmental conditions
- High Performance
 - Low Sidelobes
 - High E.I.R.P. (65dBW Ku-Band with 200W Power Amplifier)
- Compliances:
 - EESS-502 (Eutelsat)
 - IESS-601E (Intelsat)
 - MIL-STD-188-164B

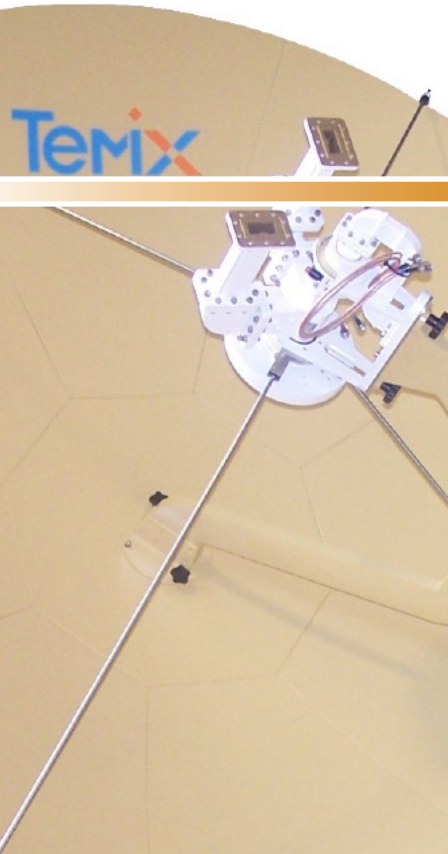
*The Information included in this data sheet may be changed without advise. rev_01/17



◆ TEMIX Communication Engineering

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EasyFLYSAT is provided with Manual Pointing Set-up or Fully Motorized 3-axes Autopointing System.

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.



Main features

Antenna Optic:

- 130cm Prime Focus
- 100cm PrimeFocus
- 75cm PrimeFocus

Antenna Drive System:

- 3-axes Fully Motorized
- 3-axes manual

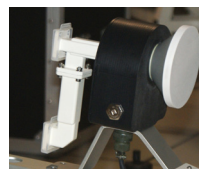
Satellite Acquisition:

- 3-axes Fully Autopointing
- 3-axes manual and/or Assisted Satellite Acquisition Controller (ASAC200)

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).



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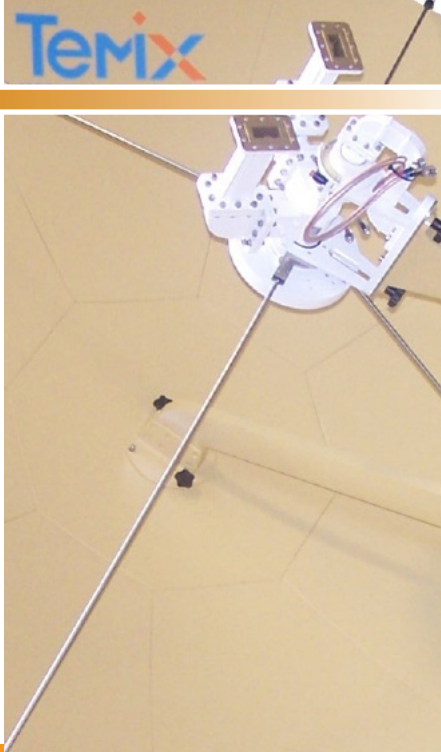
EasyFLYSAT Communication Gateway Terminal

Features:

Ku-Band	130cm	100cm	75cm
Features:			
Frequency Range	Rx: 10.70-12.75GHz; Tx: 13.75-14.50GHz (standard)		
Gain (mid band)	Rx: 42.2 dBi Tx: 43.7 dBi	Rx: 39.4 dBi Tx: 40.9 dBi	Rx: 37.2 dBi Tx: 38.8 dBi
Max EIRP at feed flange	65.0 dBW (200W TWT)	57.1 dBW (40W BUC)	55.0 dBW (40W BUC)
G/T (40K, 20° EL) at LNB flange	20.0 dB/K	17.7 dB/K	15.7 dB/K
Cross Pol Isolation	>35dB 1dB Contour		
Polarization	Linear Orthogonal		
Isolation Tx/Rx	85/35 dB (with standard filters; others available)		
Insertion Loss Tx/Rx	1.5/0.25 dB (at feed flange)		
Physical:			
Optic Geometry	Prime Center Focus		
Mount Geometry	Elevation over Azimuth		
Travel Range	AZ: +/-180°; EL: 0° to 90°; POL: +/-110°		
Drive Speed	2°/sec deploy; 0.2°/sec peaking (motorized Terminal)		
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	74x99x59 cm	74x99x59 cm
Environmental:			
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		



1.0m EasyFLYSAT Terminal



Main features

Optional 1+1 Redundant Hot Standby System:

- up to 2x 50W Ext. Ku-band integrated BUCs & Controller

Optional Full Ku-band Receive System:

- DUAL PLL Ku-band LNB (10.95-12.75 GHz)

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EasyFLYSAT Communication Gateway Terminal

EasyFLYSAT is a high-tech complex system designed to work in extreme conditions, where reliability is the must. To answer to this mandatory requirement Temix has adopted the most advanced technologies and the state-of-the-art materials. EasyFLYSAT adopts an innovative Process Control Module (PCM), for monitoring and managing all critical parameters, with embedded software and various interfaces for acquisition and control through a user-friendly interface.

The user interfaces is Web based with an embedded Web Server via the Console Ethernet port or via Wi-Fi.



Features (X/Ka-band):

Dish Size	130cm	100cm	75cm
Features:			
X-Band Terminal			
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: 36.0 dBi Tx: 36.7 dBi	Rx: 33.5 dBi Tx: 34.2 dBi
Max EIRP (20W BUC) at feed flange	50.4 dBW	48.7 dBW	46.2 dBW
G/T (40K, 20° EL) at LNB flange	16.2 dB/K	13.7 dB/K	12.1 dB/K
Axial Ratio	< 2 dB		
Polarization	Circular LHCP/RHCP		
Ka-Band Terminal	Commercial & Military Bands		
Frequency Range	Rx: 19.2-21.2 GHz; Tx: 29.0-31.0 GHz (Rx: 21.4-21.7 GHz; Tx: 18.1-18.4 GHz; optional)		
Gain (mid band)	Rx: 47.0 dBi Tx: 50.4 dBi	Rx: 44.0 dBi Tx: 47.7 dBi	Rx: 42.3 dBi Tx: 45.7 dBi
Max EIRP (10W BUC) at feed flange	59.8 dBW	57.0 dBW	55.0 dBW
G/T (40K, 20° EL) at LNB flange	22.6 dB/K	19.8 dB/K	18.2 dB/K
Axial Ratio	< 0.75 dB		
Polarization	Circular LHCP/RHCP		

EasyFLYSAT Communication Gateway

- Satcom (X/Ku/Ka-bands)
- VHF/UHF Repeater
- GSM 2G/3G BTS/PicoCell
- 4G/WiMax/LTE
- TETRA BTS
- Wireless Full Mesh On The Move
700/900MHz,
1.2/2.4/3.5/5.8 GHz,
or any other on request)

....fully Integrated Communication System.....

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