

SatixFy Onyx Aero Terminal

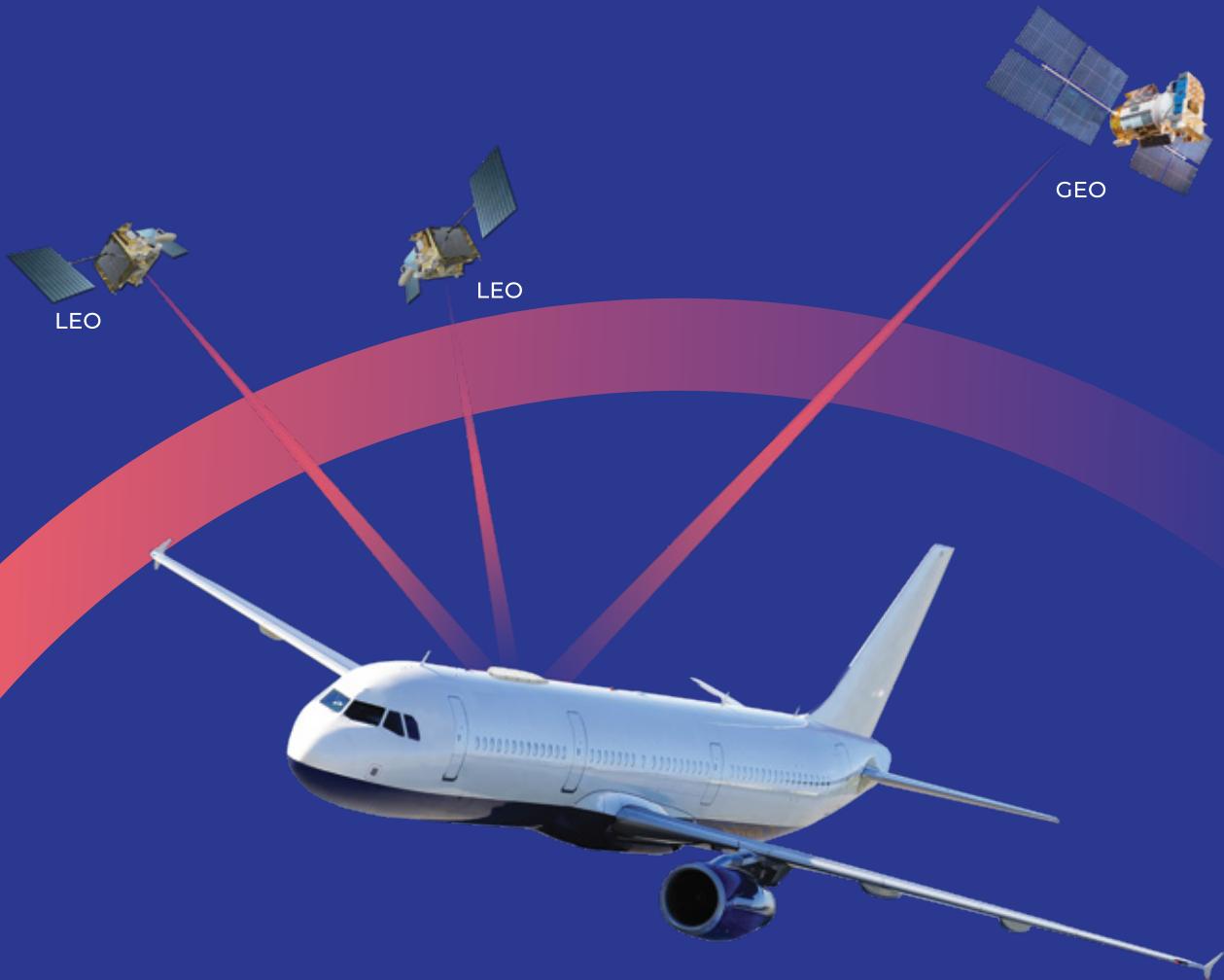


SatixFy's Onyx In-Flight-Connectivity (IFC) terminal brings to the market disruptive satellite communication technology, suitable for small to mid-size aerial platforms.

SatixFy's Onyx software defined antenna solution presents the optimal blend of thin form factor, lightweight, scalable size, future-proof, multi-orbit and multi satellite operation.

The Onyx terminal is multi-orbit capable (GEO/MEO/LEO), providing broadband IFC to aircrafts. The terminal supports acquisition and tracking for multiple beams.

It integrates SatixFy's SDR modem ASIC for a comprehensive terminal solution and also supports any external modem.



SatixFy's Aero all-in-one terminal is fully electronic, with no moving parts, to allow fast and simple installation, keep the highest reliability and low maintenance.

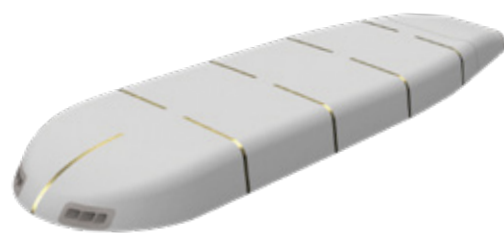
Highlights



Onyx Antenna

- All-in-one integrated solution including two antenna apertures (receive and transmit), Antenna Control Unit (ACU), RF and high-speed Modem
- Superior technology based on digital ESMA and true-time delay for digital beamforming
- High performance, wide band for simultaneous broadband and live TV connectivity
- Multi-orbit connectivity, with instant in-between satellite switching
- Future proof based on Software Defined Radio (SDR), enabling straightforward integration with available network or broadcast operators
- Optimized for simple installation, with quick and automatic self-calibration

- High data rate solution (hundreds of Mbps).
- Serves both line-fit and retrofit requirements, offering a quick and simple installation and calibration.
- Straightforward integration with available networks or broadcast operators.
- Inherent make-before-break capability.
- Software defined antenna that supports multiple satellite operators with its future proof SDR modem.
- Embedded LEO/MEO support, software configurable, allowing the flexibility to migrate to new constellations.



Technical Specifications

Onyx Antenna

Supported satellite constellations	GEO / LEO
Embedded in aero terminal	Rx array, Tx array, RF (HPA, LNA), ACU, modem, SDR
Steering technology	Fully digital, SatixFy's beamforming ASIC, True-Time Delay (TTD) based
Polarization	Software configurable linear / circular
Integrated ACU	Yes
Modem	SatixFy's integrated multichannel SDR. Optional: External GEO and/or LEO
Integrated BUC	Yes, SatixFy RFIC
RECEIVE	
Rx band [GHz]	Ku-band: 10.7-12.75
G/T (typical) @boresight	10
TRANSMIT	
Tx band [GHz]	Ku-band: 13.75-14.5
EIRP (typical) @boresight	42
MEASUREMENTS (terminal only)	
Size (cm/inch)	170x46x11 / 67x18x4
Weight (kg/lbs)	36/79
MODEM	
In terminal (OAE)	Multichannel SDR supporting SCPC & VSAT networks
Antenna connectivity	Digital for internal SDR / L-band and ethernet for external modem
POWER & ENVIRONMENTAL	
Operational temperature	-40° to +55C° ambient
DO-160	Yes, comply
ANTENNA PERFORMANCE	
Satellite acquisition and tracking	Fully automated, continuous, based on Internal sensors or Arinc 429 interface
Scan range - azimuth	Automatically adjusted, 0°-360°
Scan range - elevation	Automatically adjusted 20°-90°
Beam / satellite switching time	< 1 mSec
Scanning speed	> 45°/sec
Pointing error	<0.2°