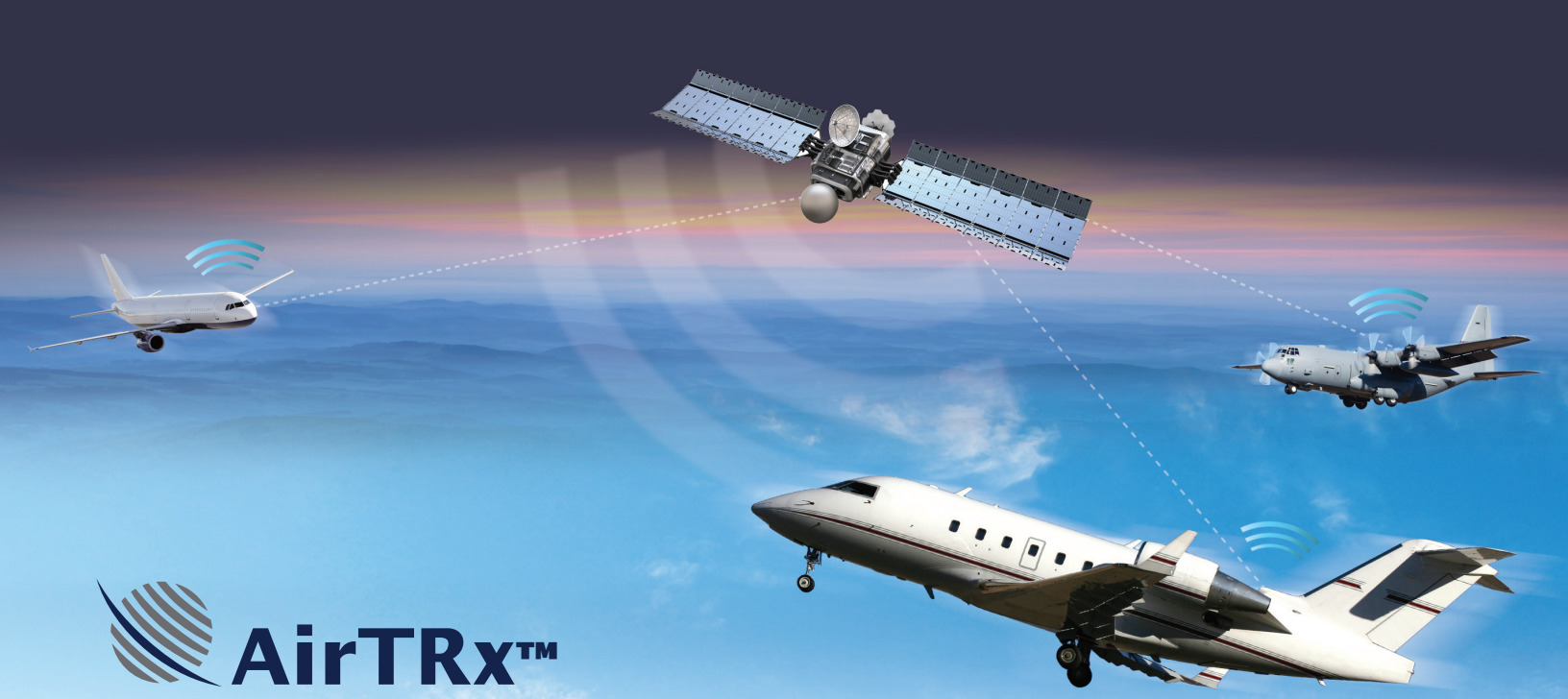


AirTRx™

Airborne Stabilized VSAT Systems

AirTRx™ - Versatile Solutions for a Range of Airborne Platforms

AirTRx™ is a family of innovative airborne stabilized VSAT antenna systems, providing quality broadband communication via satellite to various airborne platforms.

Designed to accommodate the regional and global coverage needs of the airborne market, AirTRx™ is built to empower critical applications. AirTRx™ supports Ku, Ka and X bands; featuring outstanding RF performance and dynamic response under virtually any operating environment. The AirTRx™ series is the optimal solution for the broadband communications needs of myriad airborne platforms such as mission aircrafts, airliners, business jets and helicopters.

As customers demand more complex, compact, reliable and comprehensive broadband infrastructure to support communication applications and services such as audio, video, data and internet, ORBIT continues to invest significantly in in-house research and development to maintain and enhance its position as a leading provider of flexible advanced systems suitable for any airborne application.

ORBIT maintains its robustness and reliability and was selected by prestigious customers worldwide. With more than 1500 systems operating globally for the last 20 years, ORBIT's customers include aircraft manufacturers, major airborne integrators, communications service providers and military users.

The AirTRx™ series complies with the most stringent worldwide SatCom regulations and certifications including the RTCA/DO-160.

Key Features

- Multi band support
- Low weight
- Minimal swept volume
- Short lead time
- INS and RF tracking
- More than 1,500 delivered airborne systems
- Certified to RTCA DO160 F/G

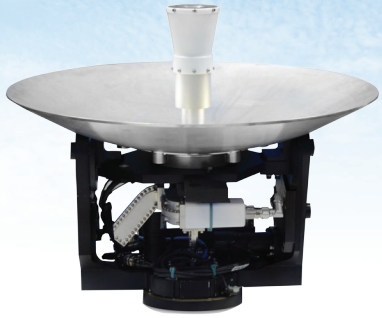
The AirTRx™ Series:

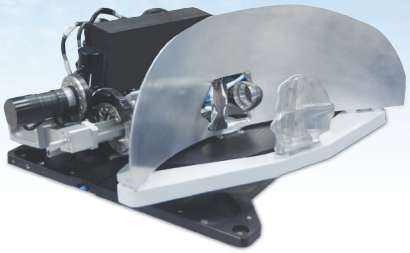
AirTRx Parabolic Solutions

34, 46 and 60cm terminals for customers that strive for best performance in SWaP package

AirTRx Low Profile Solution

25cm available in Ku, Ka and Ku/Ka autoswitch configuration





AirTRx™ System Specifications

	AirTRx 34	AirTRx 46	AirTRx 60	AirTRx 25LP
Parameters				
Frequency Range*	Ku-band: Tx: 13.75 – 14.50 Rx: 10.95 – 12.75 Ka-band: Tx 29.0 – 31.0 Rx: 18.2 – 21.2			
Antenna Size	34cm (Parabolic Antenna)	46cm (Parabolic Antenna)	60cm (Parabolic Antenna)	Height 285 Diameter 770
Polarization	Ku-band: Linear Ka-band: Circular			
G/T (Typical, at mid-range, at 30° Elevation, without radome)	Ku-band: 9.5 dB/°K Ka-band: 11.1 dB/°K	Ku-band: 12.6 dB/°K Ka-band: 13.8 dB/°K	Ku-band: 14.0 dB/°K Ka-band: 15.9 dB/°K	Ku-band: 9.8 dB/°K Ka-band: 12.6 dB/°K
EIRP (without radome)	Ku-band: 45.5 dBW (with 40W BUC) Ka-band: 43.5 dBW (With 5W BUC)	Ku-band: 47.5 dBW (with 40W BUC) Ka-band: 46.2 dBW (With 5W BUC)	Ku-band: 52.7 dBW (with 50W BUC) Ka-band: 48.5 dBW (With 5W BUC)	Ku-band: 43.8 dBW (with 25W BUC) Ka-band: 43 dBW (With 5W BUC)
Pedestal Type	Elevation Over Azimuth, with Polarization compensation			
Azimuth Range	Continuous 360º			
Elevation Range (mechanical)	0º to 90º			
Velocity	40º/sec			
Acceleration	50º/sec²			
Tracking Accuracy (excluding radome beam deflection and CFE INS error)	Better than 0.2º			
Weight (w/o radome & BUC)	~ 14 Kg	~ 15Kg	~ 15 Kg	~ 33 Kg
Swept Volume	H: 46 cm D: 48 cm	H: 58 cm D: 50 cm	H: 70 cm D: 66 cm	H: 29 cm D: 76 cm
Environmental Conditions	According to Airborne RTCA DO-160G			According to Airborne RTCA DO-160F

Notes:
- The system is designed to accommodate different appartures ranging from 30cm to 60cm - optional
- Additional configurations including X-band is available per request
- Radome can be supplied upon request - optional
- Other BUC sizes are optional
- A turnkey solution is available upon request.