# KuStream 2000 Antenna System

#### KuBand receive only Antenna Subsystem:

- · EAA External Antenna
- · ACU Antenna Control Unit

#### **Novel Antenna Technology**

- · Unique cavity array with suspended air strip line feed network
- Proves superior G/T

#### **Embedded GPS Pointing Solution**

· Eliminates pointing error drift

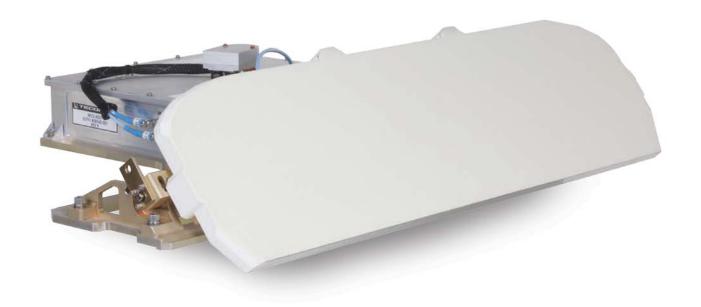
## Flight Tested in 2011

· Designed for FAA Certification

## External Antenna Assembly (EAA)

- Cavity backed suspended air stripline array aperture
- Two orthogonal linear polarization
- Two axis elevation over azimuth pedestal

Receive frequency	10.7 – 11.4 GHz	
Receive G/T	11.3 dB/K @ 11.05 GHz	
Azimuth gain pattern	First sidelobe -17 dB @ 5° / Grating lobe -25 dB	
Pedestal positioning range	Elevation $0^{\circ}$ to $90^{\circ}$ / Azimuth $0^{\circ}$ to $360^{\circ}$ continuous	
Satellite tracking accuracy	Better than 0.48° combined azimuth-elevation error	
Dimensions, sweep volume	6.30 x 30.41 inches (H x D )	



## Antenna Control Unit (ACU)

- Interfaces with aircraft for navigation
- Provides antenna positioning command and control

Power	115 VAC 380 - 800 Hz
Dimensions	11.8 x 8.1 x 3.0 Inches (W x L x H)
Mounting	Inside Fuselage



# **System Specifications**

Total system current requirement	1 Amp
Total system power requirement	115 Watts
Built in test (BIT)	Extensive
Mean time between failure (MTBF)	> 20,000 Hrs (ACU, EAA)
Environmental qualification	RTCA/DO-160E

# **Block Diagram**

