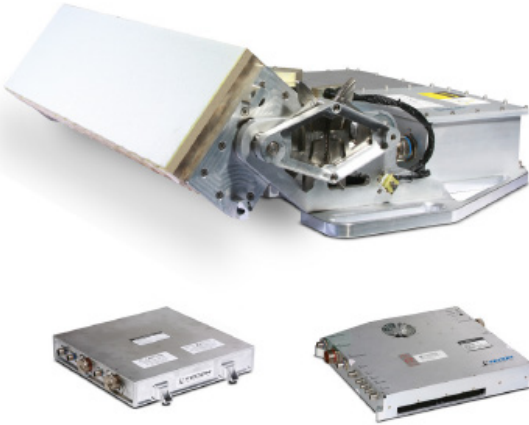


KuStream[®] 1000 ANTENNA SYSTEM



Integrated 4 LRU Solution

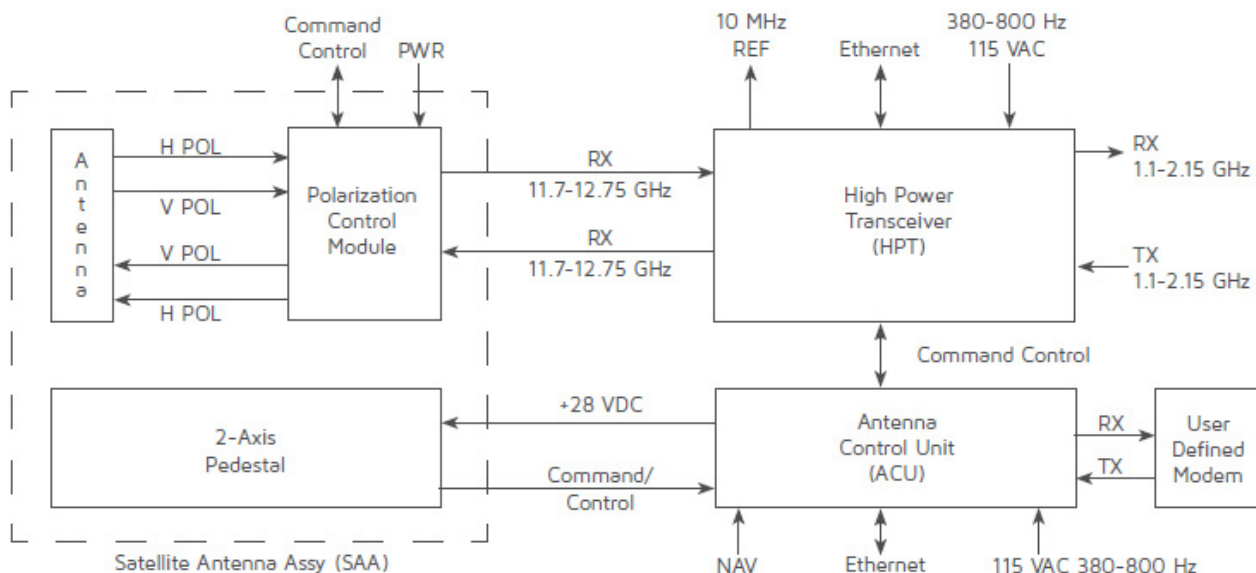
- Satellite Antenna Assembly (SAA)
- Antenna Control Unit (ACU)
- High Power Transceiver (HPT)
- Modem Agnostic (customer selected)

The Industry-leading Ku Broadband Antenna System For In-Flight Connectivity

Features & Benefits

- Superior antenna system performance in transmit and receive
- Enables maximum Ku-band satellite network data rates
- Industry-leading geographical skew angle range
- Maximizes satellite footprint usage, resulting in fewer satellites required for network operation, therefore reducing cost
- Novel antenna pointing and tracking solution
- Full compliance with stringent FCC regulatory standards
- Well-proven and successful
- Serving millions of passengers worldwide
- connecting passengers non-stop gate-to-gate
- Operates on global Ku-band networks and new HTS satellites
- Large install base with commercial and military variants
- Easily adaptable to most commercially available modems

Block Diagram, U.S. Configuration Only



Technical Characteristics

Satellite Antenna Assembly (SAA)

- Precision horn array aperture with integrated feeding network
- Dual linear polarizations (co-pol or cross-pol), integrated feeding network
- Two-axis pedestal

Transmit frequency	13.75-14.5 GHz
Receive frequency	10.7-12.75 GHz
Receive G/T	11.8 dB/K @ 11.7 GHz
Transmit EIRP	Up to 42.5 dBW (depending on service providing scheme and coverage)
Azimuth gain pattern	Complies with 47 CFR 25.209 up to geographic skew angles of at least $\pm 35^\circ$
Azimuth EIRP spectral density pattern	Complies with 47 CFR 25.222
Pedestal positioning range	Elevation: 0° to $+90^\circ$; Azimuth: $0-360^\circ$ continuous
Tracking accuracy	$< 0.2^\circ$
Dimensions	8.0 x 32.0 inches (H x D, swept volume)
Weight	96 lbs

High Power Transceiver (HPT)

- Block Up Converter
- Block Down Converter
- High Power Amplifier
- Single Chassis Configuration

Transmit power	up to 25 Watts
Power	115 VAC, 380-800 Hz, $< 300W$
Dimensions	2.5 x 17.5 x 13.6 inches (H x W x L)
Mounting	Inside fuselage



Antenna Control Unit (ACU)

- Interfaces with Aircraft for Navigation Information
- Provides Antenna Positioning Command and Control
- Controls HPT

Power	115 VAC, 47-800 Hz, $< 150W$
Dimensions	2.5 x 14.0 x 14.7 inches (H x W x L)
Mounting	Inside fuselage



Systems Specifications

Total system current requirements	6 Amps
Total system power requirements	700W
Mean Time Between Failure (MTBF)	30,000 hrs (SAA + ACU) 15,000 hrs (HPT)
Environmental Qualification	RTCA/DO-160 E

