AL-1614-TxRx
Ku-Band Airborne SatCom Antenna System

Successfully tested on Airbus aircraft (A340-600)

In today's dynamic world, having access to broadband networks anywhere, anytime under any condition while you're in the air, has become essential. Orbit's airborne SatCom solution keeps you in touch - always.

AL-1614-TxRx Antenna System is Orbit's latest innovative stabilized VSAT Ku-band solution. Comprising a compact yet efficient dual reflector antenna with an RF front end, our solution provides a typical 3Mbps reception and 512Kbps transmission, delivering optimal non-stop quality connectivity with the selected satellite.

AL-1614 is a reliable solution, which has been tested and proven in severe weather conditions. Based on major sub-assemblies operating in over 1500 installations worldwide, our solution is designated for tail mounted business jets and fuselage mounted wide body aircrafts (such as Airbus A340-600).

Backed by over 50 years of global experience and internationally deployed teams of highly trained engineering support personnel, Orbit solutions are installed on a wide range of airborne platforms.

Benefits

- Innovative technology
- High dynamic accuracy for continuous broadband SatCom
- Meets aeronautic standard RTCA 160D
- Complies with ETSI & FCC satellite regulations
- Excellent proven track record (over 1500 installations of similar systems worldwide)

Key Features

- Efficient "Dual Reflector" Antenna System
- High EIRP (> 44dBW) & G/T (>9.5dB/^{o}k)
- Up to 25W BUC/SSPA
- Typical Data Rate: Tx: 512 Kbps Rx: 3 Mbps

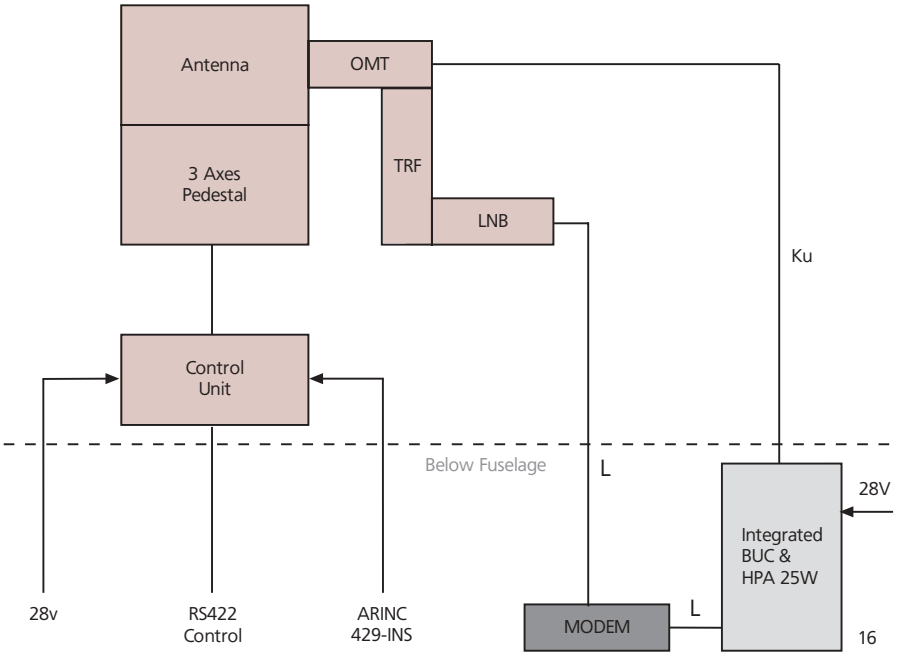
* Typical Eb/No of 6dB (depending on satellite to be used)

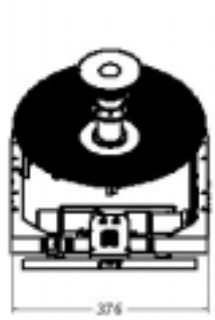
* Tested & proven in severe weather conditions

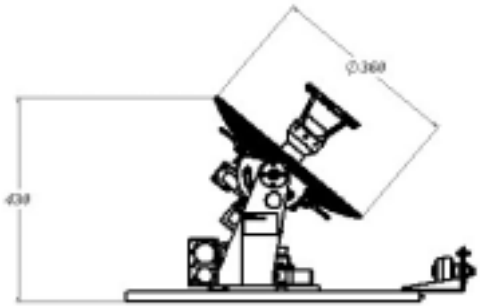
System Specifications

Parameter	Value
Power Supply	28VDC @ 6A for ACU
	28VDC @ 9A for BUC/SSPA
Antenna Size/Type	0.36m "Dual Reflector "
Operating Frequency	
Transmit GHz	14.00-14.50
Receive GHz	10.95 -12.75
Tx Antenna Gain dBi (@ GHz)	32 (14.25)
Rx Antenna Gain dBi (@ GHz)	30 (11.25)
Polarization	Linear V/H
Side Lobe Pattern	Meets ETSI & FCC Satellite Regulations
Stabilization & Pointing System	
Pedestal Configuration	Polarization Over Elevation over Azimuth
Max Velocity (deg/sec)	30
Max Acceleration (deg/sec/sec)	30
Typical Total Tracking Accuracy (deg RMS @ 30 deg/sec/sec2)	<0.2 (assuming no INS Errors)
Stabilization Technique	Based on INS Data (Yaw, Pitch, Roll, Available from Aircraft)
INS & Control	ARINC 429 & RS-422
RF Front End	
BUC/SSPA	Up to 25W
Input Frequency Range (MHz)	950 to 1450
Output Frequency Range (GHz)	14.00 to 14.50
Input Power from Modem	-30 to +3dBm nominal output level
Operating Temperature Range (C)	-55 to +70

System Layout







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