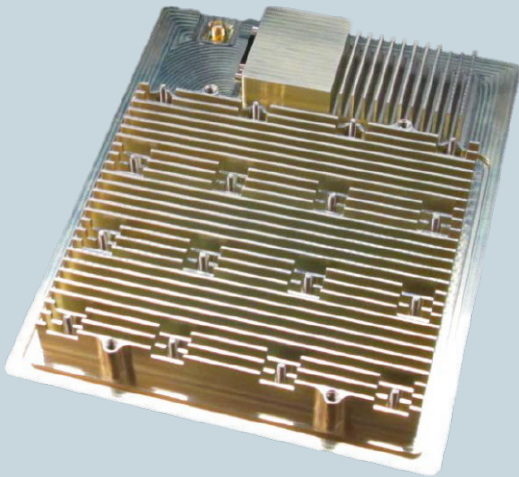
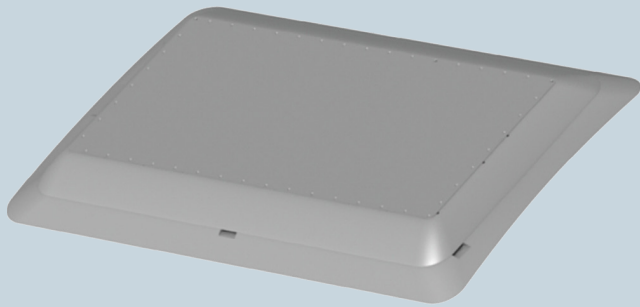


# AIRLINK® X-2



GO BEYOND WITH BALL.®

Ball Aerospace has developed an industry-leading, low-profile, modular and scalable phased array architecture to reliably and affordably provide high data rate X-band SATCOM solutions. This is accomplished by using Ball's unique "sub-array" building blocks to configure an aperture size that meets the desired airborne, maritime or ground platform's size, weight, power and throughput requirements.

AIRLINK® X-2 is a complete X-band SATCOM terminal which leverages the modular architecture into a direct drop in form factor of Ball's current Airlink® L-Band saddlebag configuration.

## OVERVIEW

Configured for a saddlebag installation, the AIRLINK® X-2 antenna utilizes the same airplane modification for antenna interface as the proven L-band AIRLINK® product with a slight increase in profile. No new penetrations are required in the aircraft. With an adaptor plate change, this could be mounted on multiple platforms.

Internal to the craft is an integrated Inertial Reference Unit (IRU) for accurate satellite tracking in harsh dynamic environments which can be mounted anywhere in the craft. Also internal to the craft, there is an array combining electronic box that mounts between the two array faces and a 2U 19-inch rack-mount RF electronics unit which performs frequency conversion and provides the interface for power, Ethernet and any L-band modem. Minimal system components results in a light weight terminal.

The AIRLINK® X-2 terminal supports operation with Wideband Global SATCOM (WGS) and commercial X-band satellites providing operational flexibility. Performance with similar terminal has been tested on XTAR-LANT, WGS and Skynet Anik G1 satellites.

## ADVANTAGES

Electronically steered phased arrays have numerous advantages over mechanically steered antennas.

- Saddle bag configuration enables coverage below the horizon
- No moving antenna parts or motors provides higher reliability
- Faster satellite tracking and acquisition
- Distributed amplification allows for graceful degradation
- Uses same interface as existing, approved platform modification
- Lower profile
- Lighter weight
- Lower power

## SYSTEM PERFORMANCE

• Frequency	
Transmit	8.20 to 8.40 GHz
Receive	7.25 to 7.70 GHz
• Data Rate	
Transmit	Up to 10's Mbps
Receive	Up to 4 Mbps
• EIRP (at P1 dB at boresight)	41.0 dBW, 45.5 dBW
• G/T	3 to 5 dB/K
• Polarization	Switchable linear, circular
• Axial Ratio	<2 dB
• Antenna Size	
Length, Width	40 in. x 26 in.
Height	<3 in.
• Antenna Weight	158 lbs
• Supply Voltage	18 to 31 VDC
• Peak Power	600 W
• Data/Control Interface	Ethernet, RS-232
• Modem Interface	OpenAMIP
• Modem Modulator	DVB-S2/ACM, iNFINITI TDM
• Modem Demodulator	ATDMA
(RX Upstream Carrier)	

## SYSTEM COMPONENTS

