



ATLAS
SPACE OPERATIONS™

NEW TECHNOLOGY, NEW THINKING.
LOWEST PRICES, HIGHEST QUALITY.



ATLAS LINKS™ ELECTRONICALLY STEERED ARRAY SYSTEM

ATLAS Space Operations, Inc. has developed the ATLAS LINKS™ Electronically Steered Array System as the first mobile, rapidly deployable electronically steered array RF ground system in the world. The LINKS™ system is capable of being carried in a backpack, flown by plane, and assembled in hours, increasing your speed to market exponentially.

With a seamless connection into the ATLAS Freedom™ Software Platform, the array instantly connects to our system, eliminating any scheduling conflicts. Each element stands 0.7 meters tall and 1 meter in diameter and weighs approximately 55 pounds.

Unlike a traditional parabolic antenna, LINKS™ has the capability to track and receive downlink signals from no less than four satellites simultaneously. By leveraging LINKS™ multi-contact capability, we can ensure access to customers whenever a satellite is in view. The system is scalable to the G/T requirements of any of our customers. By adding elements, LINKS™ G/T can be increased to meet the specification to close the link with customer satellite radios.

Visit www.atlasground.com or contact us at info@atlasground.com for more information.

ATLAS LINKS™ SPECIFICATIONS

S-Band LINKS™ Aperture Array (Rx/Tx)				
Array Size	4 Apertures	8 Apertures	12 Apertures	16 Apertures
Array Area	3m x 9m	5m x 12m	8.5m x 24m	10m x 26m
Frequency	Rx = 2200-2290 MHz Tx = 2025-2110 MHz			
G/T (dB/K @ 10°)	15.75	21.77	25.3	27.79
Polarization	RHCP, LHCP			
EIRP (dBW)	35	45	49	52

X-Band LINKS™ Aperture Array (Rx)				
Array Size	2 Apertures	8 Apertures	12 Apertures	16 Apertures
Array Area	1m x 6m	5m x 12m	8.5m x 24m	10m x 26m
Frequency	Rx = 8025-8500 MHz			
G/T (dB/K @ 10°)	24.73	36.77	40.3	42.79
Polarization	RHCP, LHCP			

Baseband Performance	
Data Rates	7 bps to 100 Mbps
Modulation / Demodulation	BPSK, QPSK and SOQPSK
Coding	Convolutional Encode/Decode (Viterbi), Reed Solomon Encode/Decode, Frame Sync, and CCSDS TC/TM Processing

Outdoor Environment	
Temperature	20 to +50°C nominal-40 to +55°C survival
Humidity	Up to 98% condensation
Wind (2 min avg)	90 km/h nominal – 180 km/h survival
Wind (2 sec avg)	08 km/h nominal– 200 km/h survival
Rainfall	Up to 200 mm/h
Snow	Up to 26 cm/h




Indoor Environment	
Frequency	Temperature: -15 °C to +50 °C Humidity: less than 95%
Operating Room	Temp: 14° to 30° C Humidity: < 95%

* 16, 32, 48, and 64 radio systems are shown

In comparison to a traditional parabolic Az/El or X/Y systems operating in similar frequencies, LINKS™ provides the following benefits:

- **Enhance Performance:** Designed with high gain provides very little system noise
- **Resiliency & Reliability:** Allows for a single person to repair the system in under 30 minutes - eliminating downtime due to troubleshooting and hardware R&R
- **Speed to Market:** The array can be set up on location within 6 hours of being on site and drastically reduces shipping costs due to its small size

NETWORK MAP

 Live Antenna  Available in 2018  Available in 2019



RADOME OPTIONS

If your antenna is installed in a location where inclement weather is a reality, you may want a weather protective radome. ATLAS offers a radome option, provided by Intershelter. The radome is a half-sphere and measures 6 meters in diameter and 3 meters tall. The radome can withstand winds up to 200 MPH, 30 feet of snow, and weighs 1,100 pounds.

BASEBAND REQUIREMENTS

At each of our support locations, ATLAS will pair Amergint's SatTRAC modem and baseband unit with the LINKS™ Electronically Steered Array System. Amergint's software modem is an industry leader in providing telemetry and commanding operations for commercial and government mission. The Amergint modem and baseband unit has been confirmed to operate with industry leading satellite radio communications subsystems.