

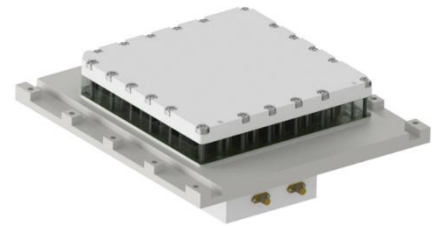
## TITAN Antenna



The ATG Solutions TITAN (Tactical Integrated Telemetry Antenna for Network) Antenna is a multi-band radio antenna designed for hypersonics, rockets, and other challenging environments. It is designed to enable the consolidation of multiple communications channels onto a single antenna. The TITAN antenna provides wideband frequency support to reduce the number of antennas on a platform. Our virtualization technology allows multiple discrete radios to be incorporated into a single hardware platform and operate as applications. The antenna was developed under an SBIR with the Naval Surface Warfare Center (NSWC), Crane, Indiana.

### Key Features

<b>Frequency Range</b>	Covers L, S, and lower C-band
<b>Polarization</b>	Dual Polarity Circular
<b>Size and Weight</b>	Dimensions: 6.5"x6.5"x1.5" Weight: 4 lbs
<b>TRL</b>	TRL-6, documentation submitted for TRL-7



### Hypersonics Test Flight

The TITAN Antenna was successfully tested on the Hot-4-Hypersonics (H4H) Mission on a Malemute Sounding Rocket in October 2021, satisfying the criteria for TRL-7.

In addition, we developed receiver virtualization technologies tested with the TITAN antenna on a second hypersonic test flight launched in October 2022 from Wallops Flight Facility on Wallops Island, Virginia. The goal of the flight was to determine if weapon communications and navigation equipment could withstand extreme conditions.



## Antenna

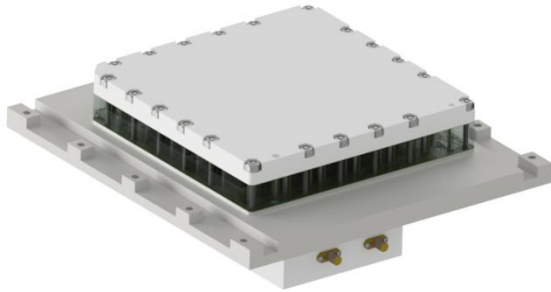


Photo from successful test on Malemute Sounding Rocket, October 2021

## Technical Specifications

### Gain

2 dB at L-band, 5 dB at S and C-band

### Beamwidth

~60 degrees, consistent across frequency

### Polarization

Left and right-hand circular

### Dimensions

6.5"x6.5"x1.5"

### Weight

4 lbs.

### Vibration

Per MIL-STD-810G method 514

### Temperature Range

-40° to 140°F (-40° to 60°C)

### Relative Humidity

5 to 95% (non-condensing)