The AS-49061 flew on the High Endoatmospheric Defense Interceptor (HEDI) Kinetic Kill Vehicle Integrated Technology Experiment (KITE). It was used in support of the flight termination system. It is a monopole blade antenna encased in fused silica. This antenna type is inherently linear. The materials used in the construction of the antenna were chosen to minimize the effects of the severe environments.

A resin quartz composite heat shield was mounted to the antenna to make the antenna flush with the heat shield of the vehicle. The mounting flange can be modified to meet the mounting requirements of a particular vehicle.

**FEATURES:**
- Space Qualified
- Linear Polarization
- High Temperature
- Flush Mounted
- High Pyrotechnic Shock
- Tunable
- Ideal Flight Termination Antenna

**SPECIFICATIONS FOR: AS-49061 MONOPOLE BLADE ANTENNA**

**ELECTRICAL**
- **Frequency Range:** 408 MHz to 430 MHz
- **VSWR:** 2.0:1, max
- **Gain, Peak:** -3.5 dBi, min* *Typical gain values with antenna mounted on a 4’ x 4’ flat ground plane. Performance may vary depending on ground plane/vehicle size and dia.
- **Gain, over 170° BW:** -10 dBi, min*
- **Pattern Shape:** Omnidirectional
- **Polarization:** Linear
- **Bandwidth:** 1 MHz
- **Power Handling:** 1 watt CW

**MECHANICAL**
- **Connector:** SMA Female
- **Weight:** 1.6 lbs (726kg)

**ENVIRONMENTAL**
- **Temperature Shock:** -14.8° F (-26° C), +249.8° F (121° C)
- **Altitude:** Operating 21 mmHg to 8 mmHg
- **Humidity:** MIL-STD-810D Method 507.3 Procedure I Natural
- **Pyrotechnic Shock:** Triaxial
  - Freq: 50-20,000, G Level: 150-4,653
  - Duration/Axis: 30 sec/axis

This unit was designed for 2500° F for 5 minutes and 5000° F for 10 to 30 seconds.

It has flown several successful missions.

*Typical gain values with antenna mounted on a 4’ x 4’ flat ground plane. Performance may vary depending on ground plane/vehicle size and dia.
AS-49061
Monopole Blade Antenna

INCHES [CENTIMETERS]

Consult with factory for mounting specifications.