Haigh-Farr’s Omnislot™ antennas provide the same radiation pattern characteristics as a stub or blade antenna in a thin, conformal, aerodynamic package. Omnislot™ antennas are preferable for use in applications where blade antennas may get damaged, such as net retrieval of RPV’s and high aero-heating environments. Custom shape requirements are common.

Typical applications include data links for high-rate imaging and communications, as well as transponder signals. Designs are available from 300 MHz to 13 GHz.

The Omnislot™ antenna may be either flush mounted, or mounted directly to the exterior of the vehicle. The antenna may be secured to the vehicle using mechanical fasteners and/or adhesive bonding agents.

The antenna may be mounted inside a radome for enhanced ruggedization. For high aero-heating applications an ablative heat shield may be added.

**FEATURES:**
- Omnidirectional in Azimuth
- Designs from 300 MHz to 13 GHz
- Conformal - Flush or External Mounting
- Thin Fabrication .085” to .300”
- High Aero-Heating Protection Available
- Rugged Construction - Designed for Tactical Missile Environments
- Fastened or Bonded to Vehicle

**APPLICATIONS:**
- Data Links, Telemetry, Transponder
- Image Downlinks
- Aircraft
- Helicopters
- Drones
- Missed Distance Targets
- Missiles

**DESIGN CAPABILITY:**
Haigh-Farr has an over 50 year history of designing and producing exceptionally rugged, high-performance antennas. If you don’t find an antenna meeting your requirements in our standard list of products, Haigh-Farr has the experience and modeling capability to customize a solution. Adaptations of existing designs can be done with very short lead times.

Contact Haigh-Farr for a review of your antenna requirements.
TYPICAL SPECIFICATIONS:

- Operating Band: 300 MHz to 13 GHz
- Input Impedance: 50 Ohms
- Bandwidth: Design parameter, 1% - 5%
- VSWR (Across Band): 2:1 Max across Band
- Power: 40 W cw, 5kW peak
- Polarization: Linear vertical
- Radiation Pattern: See plots below
- Connector: SMA standard, other connector options available including direct cable feeds
- Weight: Function of electrical requirements 2.2 ounces (62g), basic S-Band antenna
- Dimensions: Design parameter
  - Basic S-Band antenna dimensions:
    - Width: 3.7” (94 mm)
    - Length: 3.0” (76 mm)
    - Thickness: .16” (4 mm)
- Mounting Surface: Antenna is flexible and manufactured to naturally mate with specific cylindrical, conical or flat surface
- Securing: Screw and/or Bond
- Altitude: Any
- Environment: Design parameter, typical of tactical supersonic missiles and kinetic kill weapons

Omnidirectional in Azimuth

AZIMUTH (YAW) - 2300 MHz
ISOTROPIC - 6 dB

ELEVATION (PITCH) - 2300 MHz
ISOTROPIC - 6 dB

Radiation patterns are a function of the vehicle shape and size since the vehicle serves as the ground plane for the antenna. The patterns shown were measured on a typical smooth cylindrical ground plane.