

OMNISLOT™ ANTENNAS:

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.

APPLICATIONS:

Data Links, Telemetry, Transponder

Image Downlinks

Aircraft

Helicopters

Drones

Missed Distance Targets

Missiles

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

HAIGH-FARR CAPABILITIES:

Haigh-Farr engineers utilize state of the art simulation tools for initial design work, well proven manufacturing techniques and world-class facilities for hardware production, and an abundance of in-house environmental test equipment and RF anechoic chambers for final performance verification of our products. Such design flow has enabled Haigh-Farr to make the most rugged and reliable antennas on the market for over half a century; and if our standard product offerings don't meet your exact needs, we can leverage off of this experience to design something that will.

Please contact Haigh-Farr today for antenna recommendations to meet your needs of tomorrow.



TYPICAL SPECIFICATIONS

ELECTRICAL:

Operating Band:	300 MHz to 13 GHz
Input Impedance:	50 Ohms
Bandwidth:	Design parameter, 1% - 5%
VSWR Across Band:	2:1 Max across Band
Polarization:	Linear vertical
Power:	40 W cw, 5 kW peak
Radiation Pattern:	See plots

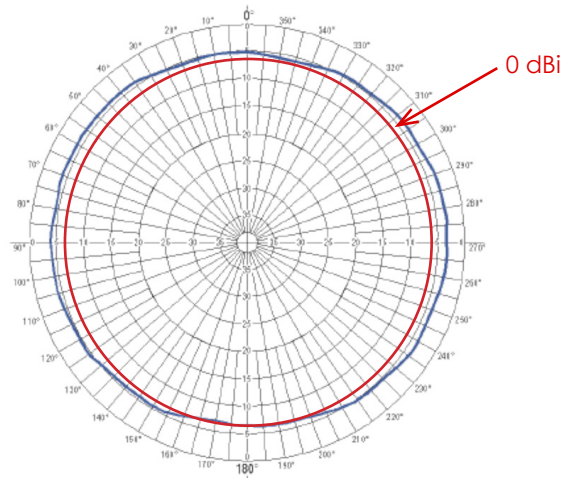
MECHANICAL:

Connector:	SMA standard, other connector options available such as direct cable feeds
Weight:	Design parameter - Function of electrical requirements 2.2 ounces (62g), basic S-Band antenna
Dimensions:	<ul style="list-style-type: none">• Design parameter• Basic S-Band antenna dimensions:<ul style="list-style-type: none">• Width: 3.7" (94 mm)• Length: 3.0" (76 mm)• Thickness: .16" (4 mm)
Mounting Surface:	Design parameter - Antenna is flexible and designed to naturally mate with specified cylindrical, conical, or flat surface
Securing:	Screw and/or Bond
Altitude:	Any
Environment:	Design parameter - typical for supersonic tactical missiles and kinetic kill weapons

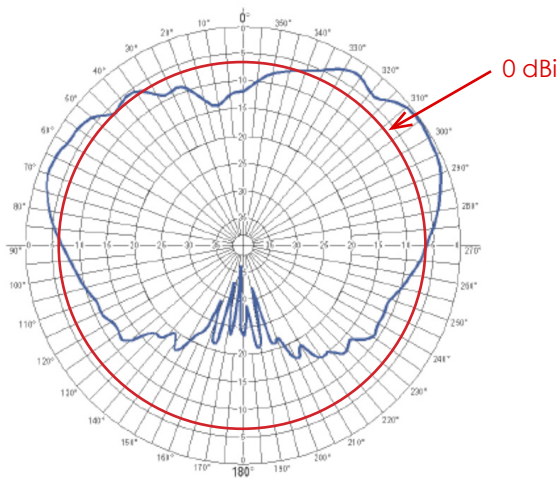


REPRESENTATIVE RADIATION PATTERNS

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.