Flexislot[™] Antennas





FLEXISLOT™ ANTENNAS:

The Haigh-Farr Flexislot[™] antenna offers unique mounting capabilities and is designed for simple installation and retrofit on flat, cylindrical and conical shaped bodies. It provides broadbeam E-plane pattern coverage. Designs are available from 300 MHz to 13 GHz.

The Flexislot[™] is a building block element and may be arrayed to provide either directive beam shapes or wider spherical coverage. If more than one Flexislot[™] is used, the necessary power divider circuitry may be contained within one of the elements or provided as a separate device.

Haigh-Farr also manufactures the necessary cabling to feed multi-element systems. All multi-element configurations are tested as a system, including measuring the radiation pattern.

The Flexislot[™] antenna may be either flush mounted or mounted directly to the exterior of the vehicle, and 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:

Tactical Missiles
Aircraft, Helicopters
Missiles
Launch Vehicles
Targets

FEATURES:

Hemispherical Coverage Designs Covering Discrete Bands from 300 MHz to 13 GHz Ultra Small Footprint Built to Withstand Extreme Shock & Vibration Simple Installation



CUSTOM ANTENNA DESIGN

Haigh-Farr designs custom antennas to meet customer specifications.

LEVERAGE EXISTING DESIGNS

Haigh-Farr can take an existing design and customize it to meet your application, saving NRE dollars and design time.



IN-HOUSE CAPABILITIES

Manufacturing & testing is done in-house.

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TYPICAL SPECIFICATIONS

ELECTRICAL:

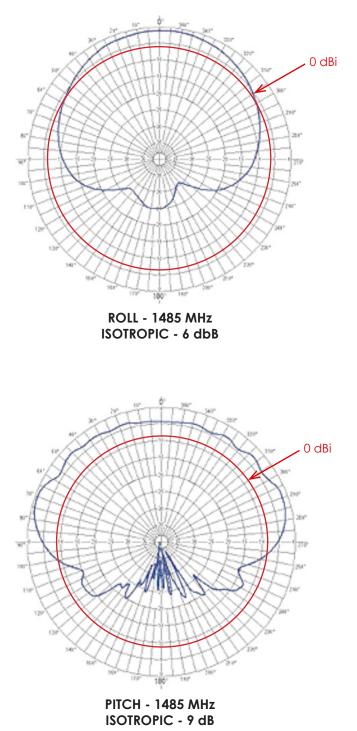
Operating Band:	300 MHz to 13 GHz
Input Imedance:	50 Ohms
Bandwidth:	Design parameter, 1% - 5%
VSWR Across Band:	2:1 Max across Band
Polarization:	Linear
Power:	40 W cw, 5 kW peak
Radiation Pattern:	See plots

MECHANICAL:

Connector:	SMA standard, other connector options available such as direct cable feeds
Weight:	Design parameter - Function of electrical requirements 1.0 ounces (28g), basic S-Band antenna
Dimensions:	Basic S-Band antenna dimensions: Width: 2.0" (51 mm) Length: 2.8" (71 mm) Thickness: .10" (2.5 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



*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.