

Flexislot™ Antennas Board Beamwidth

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.





FEATURES:

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

APPLICATIONS:

- Tactical Missiles
- Aircraft, Helicopters
- Missiles
- Launch Vehicles
- Targets

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.



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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

Radiation Pattern*: See plots below

Connector: SMA standard, other connector options available including direct cable feeds

Weight: Function of electrical requirements 1.0 ounces (28g), basic S-Band antenna

Design parameter

Dimensions: Basic S-Band antenna dimensions:

Width: 2.0" (51 mm) Length: 2.8" (71 mm) Thickness: .10" (2.5 mm)

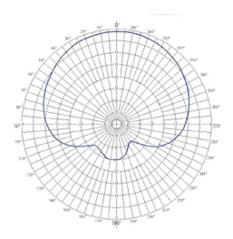
Mounting Surface: Antenna is flexible and manufactured to naturally mate with specific cylindrical, conical

or flat surface

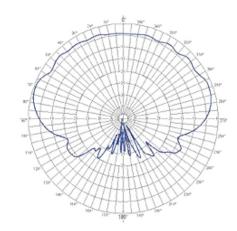
Securing: Screw and/or Bond

Altitude: Any

Environment: Design parameter, typical of tactical supersonic missiles and kinetic kill weapons



ROLL - 1485 MHz ISOTROPIC - 6 dbB



PITCH - 1485 MHz ISOTROPIC - 9 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.