

**Features:**

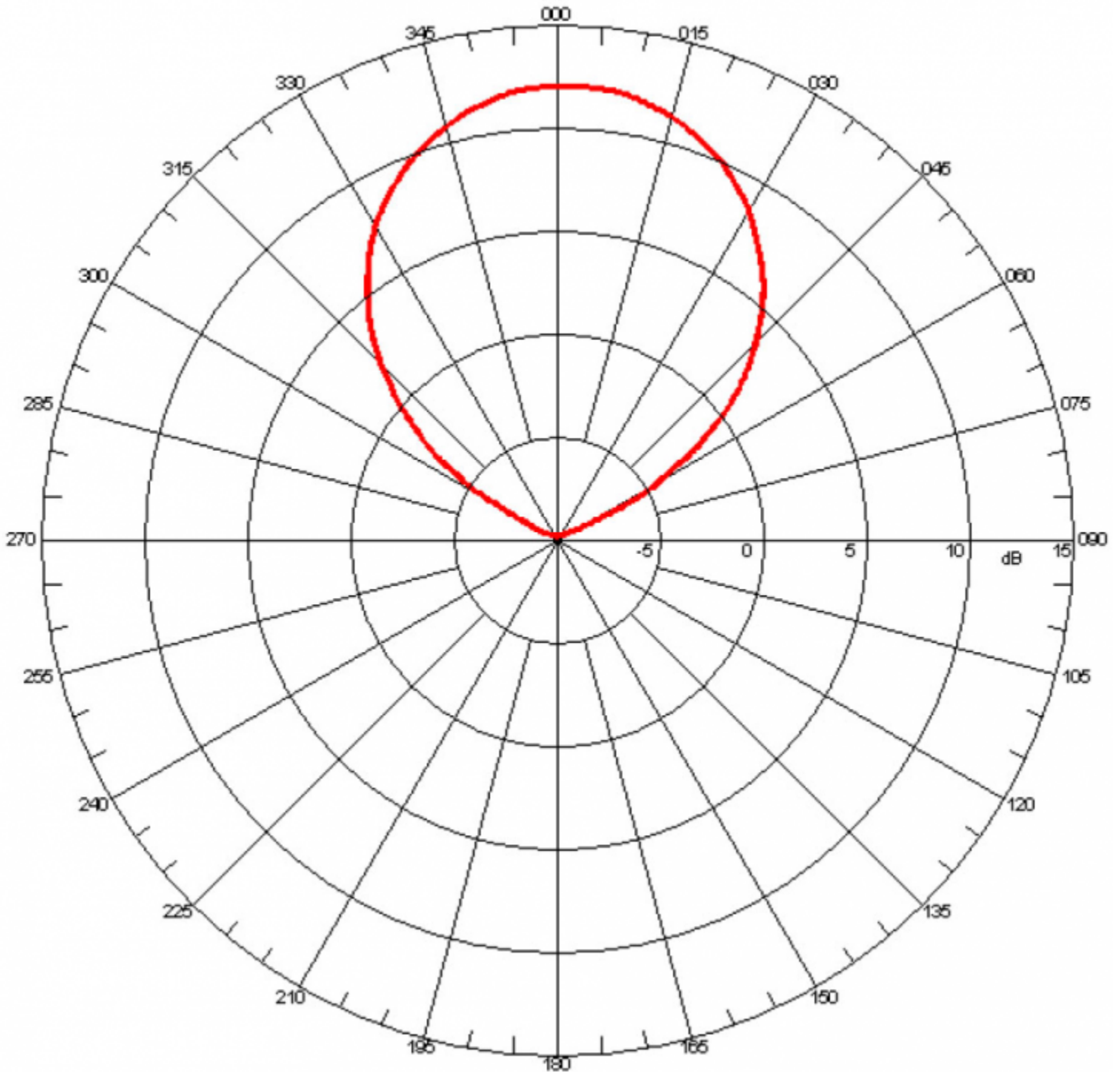
- Broad Band Coverage
- 4.4 - 5.9 GHz
- 15 dBi
- Designed for C Band communication in the following markets:
  - Law Enforcement
  - Surveillance
  - UAV & UGV Ground Stations



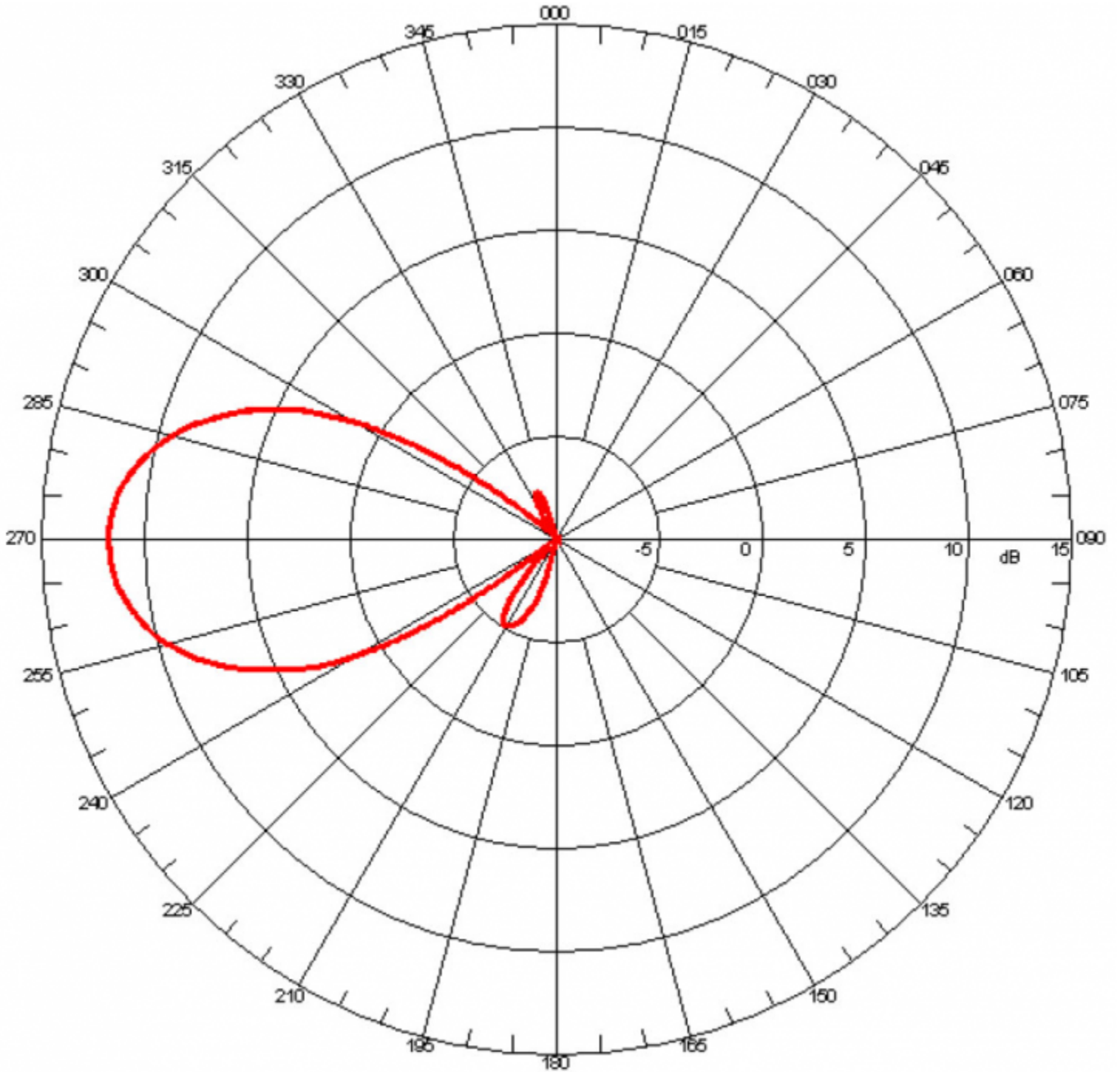
**Antenna Specifications**

Parameter	Value	Units	Tolerance
<b>Antenna Pattern</b>	Directional Antenna		
<b>Frequency Band</b>	C		
<b>Impedance</b>	50	Ohms	
<b>Minimum Frequency</b>	4.4 / 4,400	GHz / MHz	
<b>Maximum Frequency</b>	5.9 / 5,900	GHz / MHz	
<b>Frequency Bandwidth</b>	1.5 / 1,500	GHz / MHz	
<b>Maximum VSWR</b>	1.5:1	Ratio	15 dB Return Loss
<b>Gain</b>	15	dBi	
<b>Polarization</b>	Vertical		
<b>Maximum RF Input Power</b>	50	Watts	
<b>Horizontal (AZ) Beamwidth</b>	55	Degrees	
<b>Vertical (EL) Beamwidth</b>	32	Degrees	

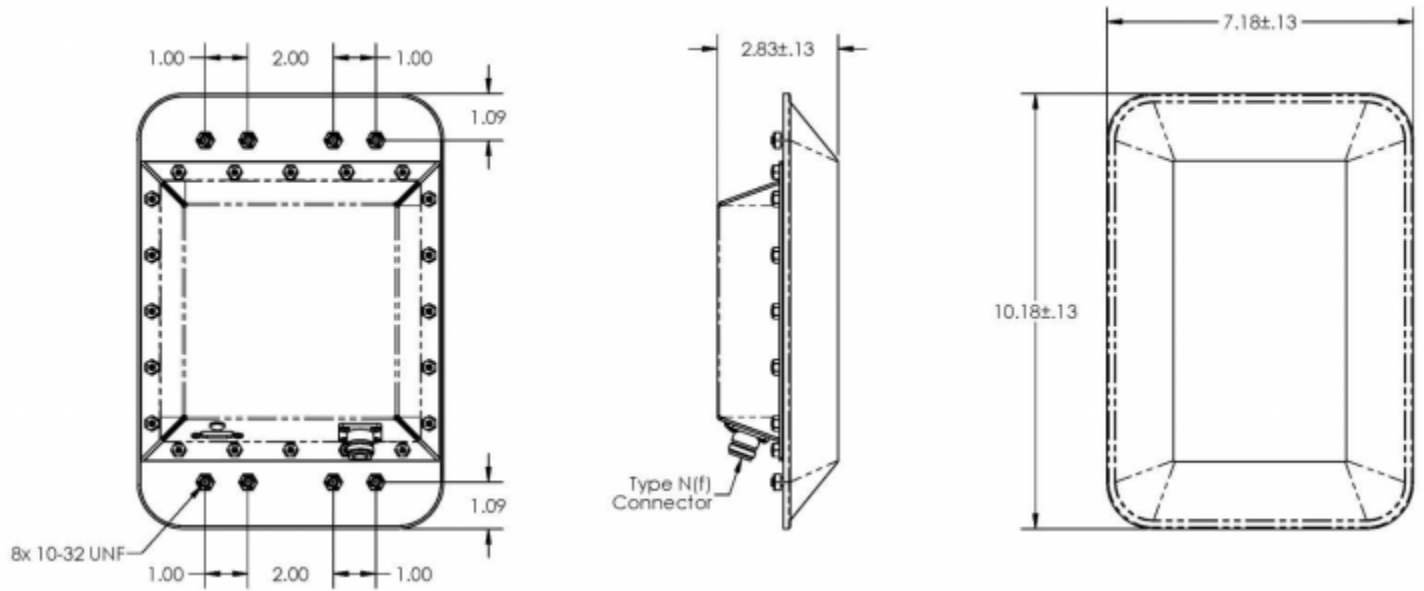
Parameter	Value	Units	Tolerance
<b>Ground Plane Required</b>	No		
<b>Color</b>	White		
<b>Mount Style</b>	Panel		
<b>RF Connector Type</b>	Type-N(f)		
<b>IP Rating</b>	IP64 when RF connectors are terminated with mating connectors		
<b>Operating Temperature Range</b>	-40 to +185	°F	(-40 to +85 °C)
<b>Product Length</b>	10.180 / 258.572	inches / mm	±0.13"
<b>Product Width</b>	7.180 / 182.372	inches / mm	±0.13"
<b>Product Height</b>	2.830 / 71.882	inches / mm	±0.13"
<b>Product Weight</b>	16.00 / 453.59	oz / grams	



**Azimuth Pattern**



**Elevation Pattern**



### Engineering Drawing

Dimensions are in inches

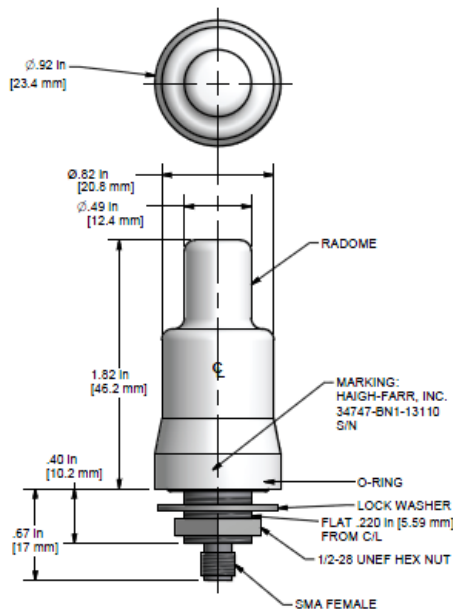
THE WORLD LEADER IN HIGH PERFORMANCE WRAPAROUND™ ANTENNAS.



# BROADBAND BUTTON ANTENNA P/N BNI-13110

Model BN1-13110 is designed to operate at telemetry frequencies within L-, S-, and C-Band. Over the frequency ranges 1.4-2.7 GHz and 4.0-5.5 GHz, it provides both low VSWR and excellent omnidirectional pattern coverage.

Haigh-Farr Button antennas are designed for applications where size and weight are critical. They utilize well-proven materials and methods of construction, providing a solid package and requiring only one "D" hole installed in the vehicle for mounting. Superb protection is obtained through the use of a high-impact, high-temperature radome, with excellent properties in environments containing moisture and contaminants.



## ELECTRICAL:

Frequency Bands:	1.4-2.7 GHz and 4.0-5.5 GHz
Power:	>30W Average
VSWR:	<1.6:1 typical, 2:1 max over operating bands
Input Impedance:	50 Ohms nominal
Polarization:	Linear, vertical
Radiation Pattern:	Omni-directional

## MECHANICAL:

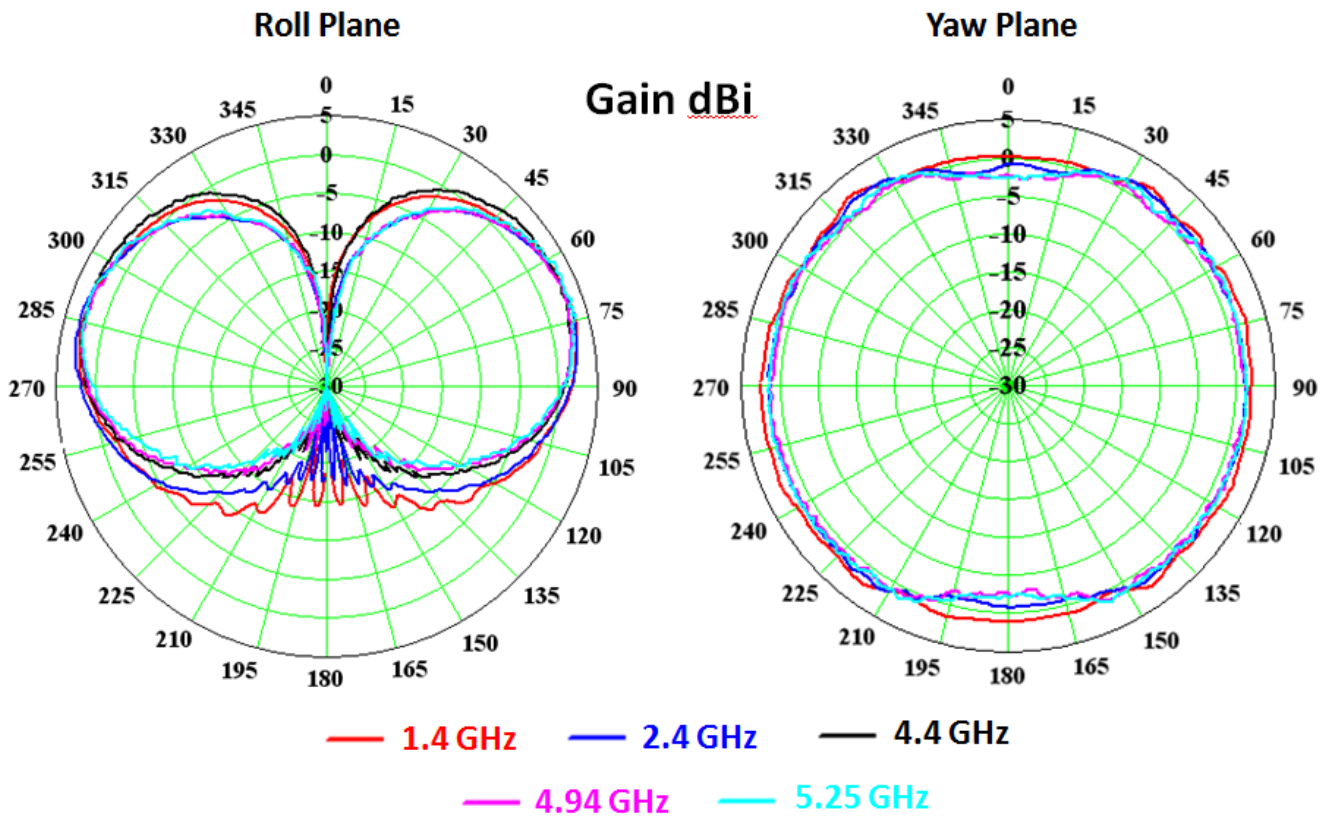
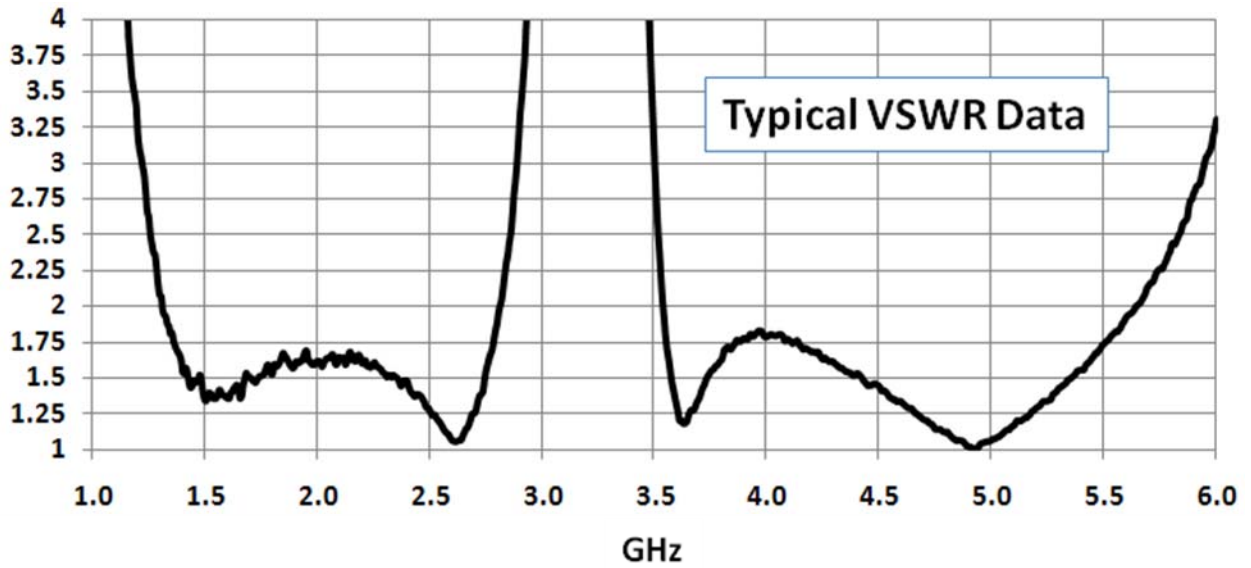
Connector:	SMA Female Standard (TNC Optional)
Dimensions:	See above drawing
Weight:	1.9 oz (55 gm)
Finish:	All exposed metallic surfaces are passivated stainless steel
Environmental:	Typical for supersonic airborne applications
Mounting:	Through "D" hole in vehicle and secured using lock washer and nut

## DESIGN CAPABILITY

Haigh-Farr has an over 40 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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Note: Measured on a 40" diameter, 6' long cylindrical ground plane. Fins and other protrusions on the vehicle will perturb the radiation pattern. The extent of any perturbations cannot be fully determined until radiation patterns are either calculated or measured on a model of the vehicle. Haigh-Farr offers engineering services, which include the calculation of radiation patterns on a specific vehicle.