

THE WORLD LEADER IN HIGH PERFORMANCE WRAPAROUND™ ANTENNAS.



# BLADE ANTENNAS

Haigh-Farr's family of rugged Blade antennas are available in frequencies ranging from UHF to upper C-band, and may be provided in either straight or rounded blade configurations. These antennas have demonstrated proven reliability in over 30 years of high-performance airborne applications. Blade antennas are also used extensively in ground-based vehicles such as race cars, trucks, tanks, and motorcycles, to name a few.

These Blade antennas exhibit quasi-uniform null-free hemispherical patterns.



## FEATURES:

- **Hemispherical Coverage**  
(see patterns on next page)
- **Frequencies from UHF to C-Band**
- **Small, Compact Footprint**
- **Aerodynamic Design**
- **Common Footprint for All Models**
- **Built to Withstand Extreme Shock & Vibration Environments**

## APPLICATIONS:

- **Data Links, Telemetry, Transponder**
- **Aircraft**
- **UAVs**
- **Helicopters**
- **Tactical Missiles**
- **Ships**
- **Ground-Based Vehicles**
- **Single or Array Implementations with Matching Power Dividers and Cables**

## DESIGN CAPABILITY

Haigh-Farr has a more than 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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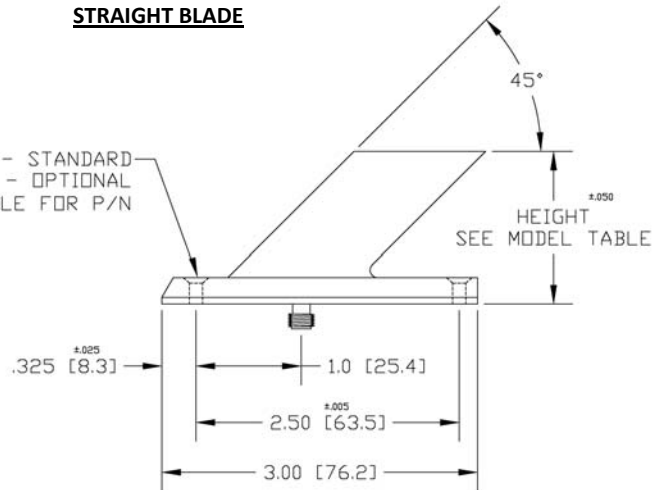
E-mail: [sales@haigh-farr.com](mailto:sales@haigh-farr.com) Web Site: [www.haigh-farr.com](http://www.haigh-farr.com)

# MECHANICAL DIMENSIONS

**HAIGH-FARR**

## STRAIGHT BLADE

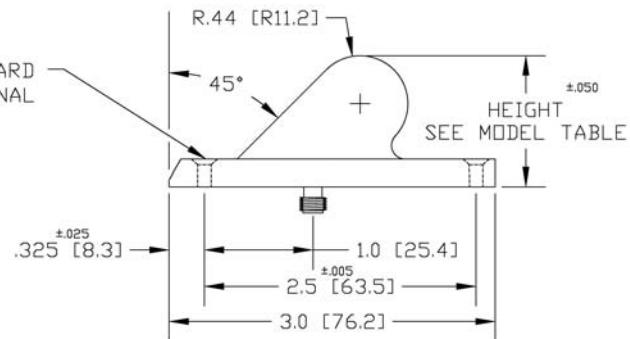
#4 SCREW - 82° INSERT - STANDARD  
M3 SCREW - 100° INSERT - OPTIONAL  
SEE TABLE FOR P/N



SMA IS STANDARD  
TNC IS OPTIONAL  
SEE TABLE FOR P/N

## ROUNDED BLADE

#4 SCREW - 82° INSERT - STANDARD  
M3 SCREW - 100° INSERT - OPTIONAL  
SEE TABLE FOR P/N



SMA IS STANDARD  
TNC IS OPTIONAL  
SEE TABLE FOR P/N

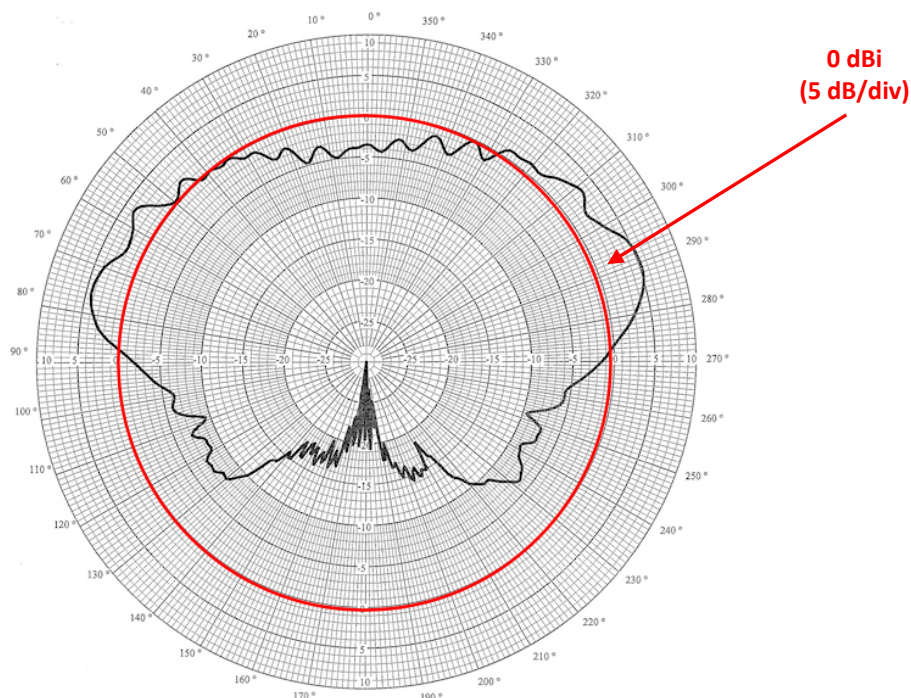
| Round Blade<br>P/N | Straight Blade<br>P/N | Frequency Range<br>GHz | VSWR<br>MAX/TYPICAL | 5KW <sup>1</sup><br>ALTITUDE | PEAK <sup>2</sup><br>POWER | Height<br>Inches [mm] | Weight (SMA)<br>OZ [grams] |
|--------------------|-----------------------|------------------------|---------------------|------------------------------|----------------------------|-----------------------|----------------------------|
| 6107               | 6007                  | 1.060 ± .030           | 2.0:1/1.50:1        | 116                          | 160 W                      | 2.30 [58.4]           | 1.0 [28.3]                 |
| 6108               | 6008                  | 0.9165 ± .025          | 2.0:1/1.50:1        | 116                          | 160 W                      | 2.30 [58.4]           | 1.0 [28.3]                 |
| 6109               | 6009                  | 1.35 – 1.54            | 2.0:1/1.50:1        | 116                          | 160 W                      | 1.75 [44.3]           | 0.9 [26]                   |
| 6110               | 6010                  | 1.43 – 1.54            | 1.5:1/1.25:1        | 116                          | 160 W                      | 1.54 [39.1]           | 0.8 [23]                   |
| 6110-2             | 6010-2                | 1.425 – 1.525          | 1.5:1/1.25:1        | 116                          | 160 W                      | 1.54 [39.1]           | 0.8 [23]                   |
| 6110-3             | 6010-3                | 1.45 – 1.65            | 2.0:1/1.50:1        | 116                          | 160 W                      | 1.54 [39.1]           | 0.8 [23]                   |
| 6110-4             | 6010-4                | 1.50 – 1.80            | 2.0:1/1.50:1        | 116                          | 160 W                      | 1.54 [39.1]           | 0.8 [23]                   |
| 6115               | 6015                  | 1.60 – 1.70            | 1.5:1/1.25:1        | 116                          | 160 W                      | 1.54 [39.1]           | 0.8 [23]                   |
| 6120               | 6020                  | 1.71 – 1.85            | 1.5:1/1.25:1        | 114                          | 240 W                      | 1.45 [36.8]           | 0.8 [23]                   |
| 6125               | 6025                  | 2.00 – 2.10            | 1.5:1/1.25:1        | 110                          | 350 W                      | 1.19 [30.2]           | 0.7 [20]                   |
| 6125-1             | 6025-1                | 2.00 – 2.30            | 2.0:1/1.50:1        | 110                          | 350 W                      | 1.19 [30.2]           | 0.7 [20]                   |
| 6130               | 6030                  | 2.20 – 2.30            | 1.5:1/1.25:1        | 110                          | 350 W                      | 1.19 [30.2]           | 0.7 [20]                   |
| 6130-1             | 6030-1                | 2.30 – 2.40            | 1.5:1/1.25:1        | 110                          | 350 W                      | 1.19 [30.2]           | 0.7 [20]                   |
| 6130-2             | 6030-2                | 2.40 – 2.50            | 1.5:1/1.25:1        | 110                          | 350 W                      | 1.19 [30.2]           | 0.7 [20]                   |
| 6130-3             | 6030-3                | 2.20 – 2.40            | 1.5:1/1.25:1        | 110                          | 350 W                      | 1.19 [30.2]           | 0.7 [20]                   |
| 6130-4             | 6030-4                | 2.30 – 2.50            | 1.5:1/1.25:1        | 110                          | 350 W                      | 1.19 [30.2]           | 0.7 [20]                   |
| 6130-6             | 6030-6                | 2.20 – 2.50            | 1.75:1/1.50:1       | 110                          | 350 W                      | 1.19 [30.2]           | 0.7 [20]                   |
| 6135-1             | 6035-1                | 3.10 – 3.30            | 1.5:1/1.25:1        | 106                          | 350 W                      | 1.19 [30.2]           | 0.7 [20]                   |
| 6135-2             | 6035-2                | 3.45 – 3.55            | 1.5:1/1.25:1        | 106                          | 350 W                      | 1.19 [30.2]           | 0.7 [20]                   |
| 6135-3             | 6035-3                | 3.65 – 3.85            | 1.5:1/1.25:1        | 106                          | 350 W                      | 1.19 [30.2]           | 0.7 [20]                   |
| 6140               | 6040                  | 4.50 – 5.00            | 1.5:1/1.25:1        | 104                          | 1.5 kW                     | 0.90 [22.9]           | 0.6 [17]                   |
| 6150               | 6050                  | 5.40 – 5.90            | 1.5:1/1.25:1        | 102                          | 2.2 kW                     | 0.75 [19.1]           | 0.6 [17]                   |
| 6150-1             | 6050-1                | 5.25 to 5.85           | 1.5:1/1.25:1        | 102                          | 2.2 kW                     | 0.75 [19.1]           | 0.6 [17]                   |
| 6150-2             | 6050-2                | 6.40 – 6.60            | 1.5:1/1.25:1        | 102                          | 2.2 kW                     | 0.75 [19.1]           | 0.6 [17]                   |

- Thermal environments: -50°C to 150°C; 300°C Transient
- Polarization: Linear, predominately vertical
- Connector: SMA (50 Ω) Standard; TNC (50 Ω) Optional
- Required Mounting Screws: 82° Flathead #4 Standard; 100° Flathead #4 or M3 optional
- UHF models are available in different configurations
- Mechanical outline drawings are available upon request

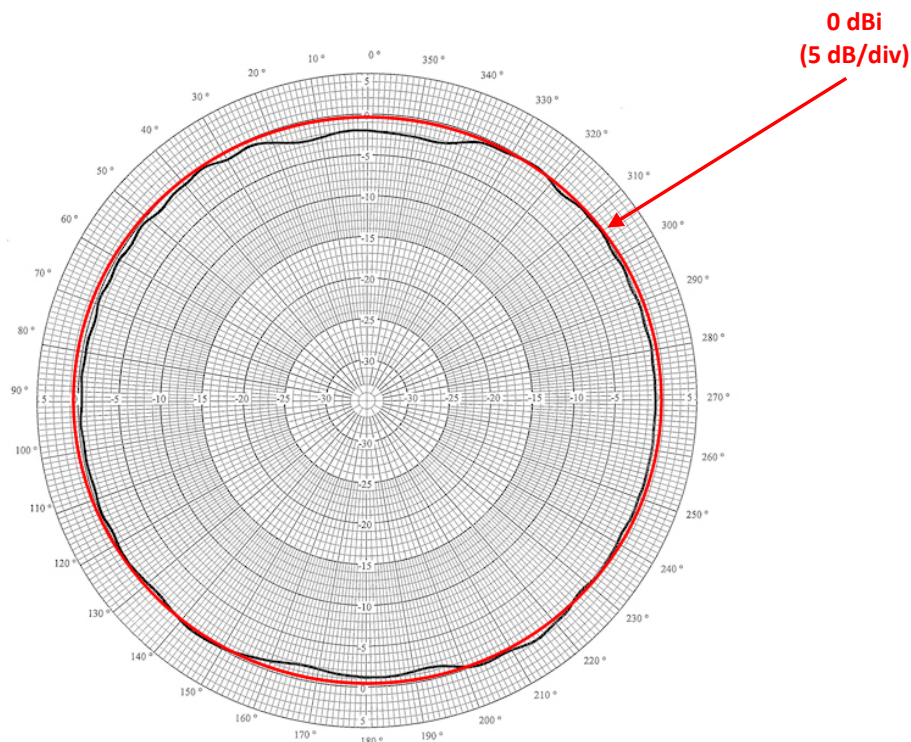
<sup>1</sup> The 5kW altitude (k ft) is the approximate altitude at which the antenna will experience external corona with 5kW peak power.

<sup>2</sup> Peak power indicates the maximum power that may be radiated without experiencing external corona at any altitude. These antennas routinely handle average power in the 25-30W CW range. Sufficient airflow is required at the higher power levels.





ELEVATION (PITCH)  
2.25 GHz



AZIMUTH (YAW)  
2.25 GHz

Note: The patterns shown above were measured with model 6130 on a cylindrical ground plane but are typical of the other Blades used. 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.