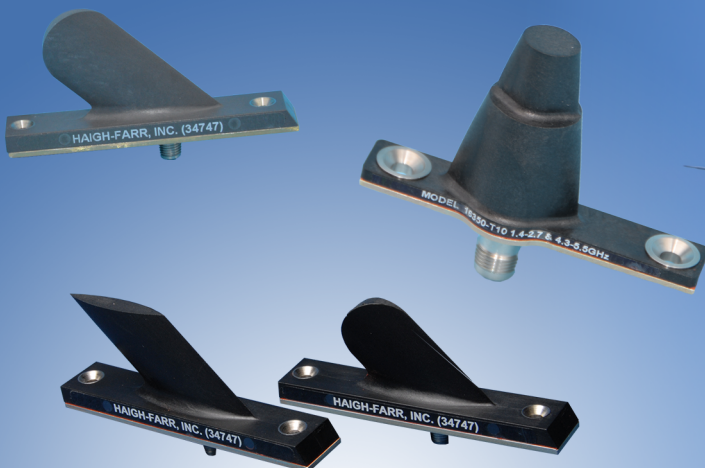




BLADE ANTENNAS



BLADE ANTENNAS:

The Haigh-Farr family of rugged Blade antennas is available in frequencies ranging from UHF to upper C-band. Since 1972, our blade antennas have a demonstrated reliability of use in high-performance airborne applications. In addition, they are used extensively in ground-based vehicles such as race cars, trucks, tanks, and motorcycles, to name a few.

60XX & 61XX Series: Our 60XX & 61XX series blade antennas have quasi-uniform null-free hemispherical gain patterns and may be provided in either straight or rounded blade configurations. 60XX and 61XX Series blade antennas are available in standard and high powered versions. With sufficient airflow, our standard blades handle an average power of 20W max and our high powered blades can handle an average power of 80W CW. These blade antennas share a common footprint with varying height.

Multiband: Haigh-Farr multiband blade antennas utilize identical materials and construction as our 60XX & 61XX series blade antennas with additional bandwidth.

UHF: Haigh-Farr UHF blade antennas provide coverage down to 380 MHz and up to 470 MHz in two unique form factors. Our 6300-X series of blade antennas utilize identical materials and construction as our 60XX & 61XX series blade antennas in the larger blade structure required at UHF-band. Our P/N's 16230-XXX and 16400-XXX are low profile, mechanically robust designs that can be custom tuned to meet discrete UHF frequencies, with an option to add thermal protection for high temperature 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



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.

FEATURES:

Hemispherical coverage options
Frequencies from UHF to C-Band
Small, compact footprint in aerodynamic design
Base plate conversion coated aluminum
Built to withstand extreme shock & vibration environments
High powered blades available in white and grey
Qualified hardware options
Stp. files available upon request
Associated test hats available for select P/N's



PART NUMBERS

61XX and 60XX Series

Haigh-Farr Rounded Blades (61XX) are identical in performance to our Straight Blades (60XX) and are often preferred for safety reasons due to their rounded radome over the sharp edges of 60XX series.

Round Blade P/N (61XX)	Straight Blade P/N (60XX)	Frequency Range GHz	VSWR TYPICAL/MAX	MAX Power Standard*	MAX Power - HP*	Height Inches [mm]	Applicable Figures
6102	6002	0.958 - 0.998	1.50:1/2.0:1	20W	80W	2.3 [58.4]	1-1, 2-1
6103	6003	1.25 - 1.40	1.50:1/2.0:1	20W	80W	2.05 [52.1]	1-1, 2-1
6103-1	6003-1	1.30 - 1.39	1.50:1/2.0:1	20W	80W	2.05 [52.1]	1-1, 2-1
6104	6004	1.31 - 1.49	1.50:1/2.2:1	20W	80W	1.67 [42.4] 1.72 [43.7]	1-1, 2-1
6107	6007	1.030 - 1.090	1.50:1/2.0:1	20W	80W	2.30 [58.4]	2-2
6107-1		1.060 - 1.120	1.50:1/2.0:1	20W	80W	2.30 [58.4]	2-2
6108	6008	0.9165 ± .025	1.50:1/2.0:1	20W	80W	2.30 [58.4]	1-1, 2-2
6108-1		0.876 - 0.960	1.50:1/2.0:1	20W	80W	2.30 [58.4]	2-2
6109	6009	1.35 - 1.54	1.50:1/2.2:1	20W	80W	1.75 [44.5]	1-1, 2-1
6110	6010	1.43 - 1.54	1.25:1/2:1	20W	80W	1.68 [42.7]	1-1, 2-1
6110-2	6010-2	1.425 - 1.525	1.25:1/1.5:1	20W	80W	1.68 [42.7]	1-1, 2-1
6110-3	6010-3	1.45 - 1.65	1.50:1/2.0:1	20W	80W	1.68 [42.7]	1-1, 2-1
6110-4	6010-4	1.50 - 1.80	1.50:1/2.1:1	20W	80W	1.68 [42.7]	1-1, 2-1
6110-5		1.4 - 1.6	1.5:1/2.0:1	20W	80W	1.68 [42.7]	2-1
6115	6015	1.60 - 1.70	1.25:1/1.5:1	20W	80W	1.54 [39.1]	1-1, 2-1
6120	6020	1.71 - 1.85	1.25:1/1.5:1	20W	80W	1.45 [36.8]	1-1, 2-1
6123	6023	1.8 - 2.2	1.50:1/2.2:1	20W	80W	1.45 [36.8]	1-1, 2-1
6125	6025	2.00 - 2.10	1.25:1/2.0:1	20W	80W	1.19 [30.2] 1.24 [31.5]	1-1, 2-1
6125-1	6025-1	2.00 - 2.30	1.50:1/2.0:1	20W	80W	1.19 [30.2] 1.24 [31.5]	1-1, 2-1
6130	6030	2.20 - 2.30	1.25:1/1.5:1	20W	80W	1.19 [30.2]	1-1, 2-1
6130-1	6030-1	2.30 - 2.40	1.25:1/1.5:1	20W	80W	1.19 [30.2]	1-1, 2-1
6130-2	6030-2	2.40 - 2.50	1.25:1/1.5:1	20W	80W	1.19 [30.2]	1-1, 2-1
6130-3	6030-3	2.20 - 2.40	1.25:1/2.0:1	20W	80W	1.19 [30.2]	1-1, 2-1
6130-4	6030-4	2.30 - 2.50	1.25:1/1.5:1	20W	80W	1.19 [30.2]	1-1, 2-1
6130-5	6030-5	2.18 - 2.48	1.50:1/2.0:1	20W	80W	1.19 [30.2]	1-1, 2-1
6130-6	6030-6	2.20 - 2.50	1.50:1/2.0:1	20W	80W	1.19 [30.2]	1-1, 2-1
6130-7	6030-7	2.5 - 2.7	1.50:1/2.0:1	20W	80W	1.19 [30.2]	1-1, 2-1
6130-8		2.1 - 2.4	1.50:1/2.0:1	20W	80W	1.19 [30.2]	1-1, 2-1
6135-1	6035-1	3.10 - 3.30	1.25:1/1.5:1	20W	80W	1.19 [30.2]	1-1, 2-1
6135-2	6035-2	3.45 - 3.55	1.25:1/1.5:1	20W	80W	1.19 [30.2]	1-1, 2-1
6135-3	6035-3	3.65 - 3.85	1.25:1/1.5:1	20W	80W	1.19 [30.2]	1-1, 2-1
6140	6040	4.50 - 5.00	1.25:1/1.5:1	20W	80W	0.90 [22.9]	1-1, 2-3
6140-1	6040-1	4.40 - 5.50	1.25:1/2.0:1	20W	80W	0.90 [22.9]	1-1, 2-3
6150	6050	5.40 - 5.90	1.25:1/1.5:1	20W	80W	0.75 [19.1]	1-1, 2-3
6150-1	6050-1	5.25 - 5.85	1.25:1/1.5:1	20W	80W	0.75 [19.1]	1-1, 2-3
6150-2	6050-2	6.40 - 6.60	1.25:1/1.5:1	20W	80W	0.75 [19.1]	1-1, 2-3
6150-3	6050-3	6.40 - 7.20	1.25:1/1.5:1	20W	80W	0.75 [19.1]	1-1, 2-3

Weight: 1.10 oz Maximum

Thermal Environments: -50°C to 150°C; 300°C transient

Polarization: Linear, predominately vertical

Connectors: Standard: SMA Female

Optional: TNC Female – add a "T" as a suffix to the base part number (e.g. 6130T-6)

Impedance: 50 Ohms nominal

Required Mounting Screws: Standard: 82° Flathead with 0.125 through hole – compatible with #4 and M3

Optional: 100° Flathead with 0.125 through hole – compatible with #4 and M3 – add a "M" as a suffix to the base part number (e.g. 6130M-6)

Power: Standard 61XX and 60XX series antennas handle 20W MAX power with sufficient airflow. High powered blades should be considered for power levels over 20W or poor airflow applications. High powered blades are available in grey (GY) or white (WH). Add "--HP" to the end of the part number followed by the color code "-GY" or "-WH" (e.g. 6130M-6-HP-WH)



PART NUMBERS

Multiband Options

P/N	Frequency Range GHz	Frequency	VSWR TYPICAL/MAX	MAX Power*	Height Inches [mm]	Weight (SMA) OZ [grams]	Drawing	P/N Options
BL1-16180	0.350 - 1.250	UHF/ L	1.50:1/2.0:1	10W, up to 30W*	6.677 [169.6]	38.4 [1088]	3	BL1-16180 - SMA, insert for #6 x 82° flathead
16110-XX	1.25 - 2.6 and 4.3 - 5.5	L / S / C	2.0:1	10W, up to 30W	2.17 [55.5]	2.2 MAX	4	16110-S - SMA, insert for #4 x 82° flathead 16110-T - TNC, insert for #4 x 82° flathead 16110-SM - SMA, insert for M3 x 100° flathead 16110-TM - TNC, insert for M3 x 100° flathead 16110-S6 - SMA, insert for #6 x 100° flathead 16110-T6 - TNC, insert for #6 x 100° flathead 16110-S10 - SMA, insert for #10 x 100° flathead 16110-T10 - TNC, insert for #10 x 100° flathead
16350-XXX	1.4 - 2.7 and 4.3 - 5.5	L / S / C	1.50:1/2.0:1	75W	1.87 [47.5]	2.1 [59.5]	5	16350-S - SMA, insert for #4 x 82° flathead 16350-T - TNC, insert for #4 x 82° flathead 16350-SM - SMA, insert for M3 x 100° flathead 16350-TM - TNC, insert for M3 x 100° flathead 16350-S6 - SMA, insert for #6 x 100° flathead 16350-T6 - TNC, insert for #6 x 100° flathead 16350-S10 - SMA, insert for #10 x 100° flathead 16350-T10 - TNC, insert for #10 x 100° flathead
16360-XXX	1.4 - 2.7 and 4.3 - 5.5	L / S / C	1.50:1/2.0:1	75W	1.87 [47.5]	3.2 [81.3]	6	<i>Larger base version of 16350-XXX</i> 16360-S6 - SMA, insert for #6 x 100° flathead 16360-T6 - TNC, insert for #6 x 100° flathead 16360-S10 - SMA, insert for #10 x 100° flathead 16360-T10 - TNC, insert for #10 x 100° flathead
16120-XX	1.43 - 1.45 and 5.09 - 5.25	L / C	<2:1	10W, up to 30W	2.02 [51.2]	1 [28]	7	16120-S - SMA, insert for #4 x 82° flathead 16120-T - TNC, insert for #4 x 82° flathead 16120-SM - SMA, insert for M3 x 100° flathead 16120-TM - TNC, insert for M3 x 100° flathead
BL1-16165-HP	1.7 - 2.5	L / S	1.50:1/1.7:1	80W	1.56 [39.62]	1.3 [36]	8	BL1-16165-HP - SMA, insert for #4 x 100° flathead BL1-16165T-HP - TNC, insert for #4 x 100° flathead
16100-XX	2.2 - 5.85	S / C	1.50:1/1.7:1	10W, up to 30W	1.13 [28.7]	1 [28]	9	16100-S - SMA, insert for #4 x 82° flathead 16100-T - TNC, insert for #4 x 82° flathead 16100-SM - SMA, insert for M3 x 100° flathead 16100-TM - TNC, insert for M3 x 100° flathead

Thermal environments: -50°C to 150°C; 300°C transient**Polarization:** Linear, predominately vertical**Impedance:** 50 Ohms nominal**Connectors:** SMA Female or TNC Female



PART NUMBERS

UHF

P/N	Frequency Range MHz	VSWR TYPICAL/MAX	MAX Power*	Height Inches [mm]	Weight (SMA) OZ [grams]	Drawings	Notes
6300-1	450 - 470	1.50:1/2.0:1	30W	5.90 [149.9]	5.6 [159]	10	SMA
6300-2	420 - 470	1.50:1/2.0:1	30W	5.90 [149.9]	5.6 [159]	10	SMA
6300-3	389 - 425	1.50:1/2.0:1	30W	5.90 [149.9]	5.6 [159]	10	SMA
6300-FFF	Factory tuned between 410 - 450 25 MHz Bandwidth	1.50:1/2.0:1	30W	5.90 [149.9]	5.6 [159]	10	SMA
6300T-425-HP	400 - 450	1.50:1/2.0:1	200W	5.90 [149.9]	5.6 [159]	10	TNC, High Power
16230-XXX	Factory tuned between 420 - 470 1.5 MHz bandwidth	<2:1	5W	1 [25.4]	7 [198.4]	11	16230-XXX - SMA, mounting hole for 2x 10-32 UNF-2B 1 DIA HELICOIL .25 MIN DRILL DP 16230M-XXX - SMA, mounting hole for 2x M5X0.8 1DIA HELICOIL 6.6mm MIN DRILL DP
16400-XXX	Factory tuned between 380-430 1.5 MHz bandwidth	<2:1	5W	1 [25.4]	5 [141.7]	12	16400-XXX - SMA, mounting hole for 2x 10-32 UNF-2B 1 DIA HELICOIL .25 MIN DRILL DP 16400M-XXX - SMA, mounting hole for 2x M5X0.8 1DIA HELICOIL 6.6mm MIN DRILL DP

Thermal environments: -50°C to 150°C; 300°C transient

Polarization: Linear, predominately vertical

Impedance: 50 Ohms nominal

Connectors: SMA Female or TNC Female