

MOONRAKER AUSTRALIA

122BB/S Broadband HF Whip Antenna High Performance for Naval Vessels and Base Stations

- ideal for use in high power electronic counter measure systems*
- out performs traditional 10.7m (35ft) whip with automatic coupler*
- up to 5kw CW power permits connection to multiple transmitters*



The 122BB/S broadband naval whip is designed to provide high power high performance broadband communications over the MF/HF band from 1 to 30 MHz for multiple transceivers via a suitable multicoupler.

In many broadband systems performance is not always consistent across the band, with the result that compromises have to be made. The 12m (40ft) 122BB/S, however, exceed the results normally achieved with the traditional 10.7m (35ft) whip and coupler system., consistently throughout the band. It provides VSWR of less than 3.0:1 in the 1-30 MHz range, being typically <2.0:1.

The highly rugged design can withstand wind speeds up to 224 km/h (140mph) without ice, and will perform in temperatures as low as -50 to +65°C (-60 to +150°F). It also meets the military standard 167-1 Type 1 for vibration and 901-1 Grade A for shock.

The system comprises two tapering aluminium slip together sections on an epoxy composite base insulator with the standard international 10.7m (35ft) naval whip footprint. A high durability based coating ensures a long operational life with minimal maintenance.

Specifications

Frequency Range	1 to 30 MHz
Overall Length	12 metres (40ft)
Radiator Diameter	127mm (8.25in) tapering to 50.8mm (2in) at tip
Base Diameter	344mm (13.5in)
Impedance	50 W nominal
Power Capability	4kW CW up to 5KW CW
VSWR	<3.0:1, typically <2.0:1
Pattern	Omnidirectional in azimuth plane
Polarisation	Vertical
Wind Survival	Designed to withstand wind velocities of 224 km/h (140 mph) without ice; ice loading 22kg/sq m (4.5 lbs/sq ft)
Temperature	-50 to +65°C (-60 to +150°F); 100% humidity
Connector	LC type on base (side feed); other types to order
Mounting	Flange base with 8 equally spaced 17.5mm (0.69 in) holes on 273mm (10.75 in) circle, identical to current 107BB/S pattern
Weight	160kg (350 lbs); packed 250kg (550 lbs)

Specifications subject to change 04/11

Reactances and Resistances

MHz	Resistance W	Reactance W	VSWR
30	57.43	-j13.11	1.32
29	52.14	+j4.896	1.11
28	34.15	-j5.233	1.50
27	37.41	-j30.77	2.12
26	75.23	-j55.02	2.59
25	130.4	+j19.13	2.68
24	71.36	+j32.37	1.89
23	60.1	+j33.87	1.89
22	34.45	-j28.76	2.16
21	31.28	+j2.771	1.60
20	38.61	-j1.755	1.30
19	30.59	-j8.676	1.71
18	38.11	-j37.62	2.40
17	70.46	-j29.41	1.81
16	65.34	-j17.25	1.49
15	81.36	-j40.48	2.19
14	74.6	+j7.203	1.52
12	65.12	-j35.49	1.95
10	73.74	+j26.47	1.78
9	65.17	+j4.176	1.32
8	111.4	+j41.45	2.61
7	39.5	+j39.62	2.45
6	44.49	+j24.91	1.71
5	27.45	+j1.87	1.85
4	76.57	-j4.338	1.56
3	37.24	-j16.32	1.62
2	58.8	-j51.14	2.53
1	86.17	+j30.61	2.03

typical readings

Moonraker Australia Pty. Limited,

Tasmania Technopark, Dowsing Point, Tasmania 7010 Australia
tel: 61 3 6273 1533 fax: 61 3 6273 1749

email: radiocom@moonraker.com.au website: www.moonraker.com.au

