



## Type 122BB/S

**High power capability broadband HF whip antenna  
for ships over 50 metres (164 feet) and base stations**

The type 122BB/s comprises a 12 metre (40 ft) heavy duty free standing whip with a continuous power capability of up to 4 kW. The system is intended for use in high power ECM (electronic counter measure) systems and designed to provide reliable high performance broadband communications for transmit and receive over the HF frequency band from 1 to 30 MHz without the use of an antenna coupler. With a suitable multicoupler, multiple transmitters may be used into the one antenna.

The system is extremely rugged, being designed to meet standards for vibration (167-1 Type 1) and shock (901-1 Grade A). Main construction is of heavy gauge marine grade aluminium alloy. The antenna is base mounted and designed to withstand wind speeds of up to 225 km/h (140 mph) without permanent deformation. Minimal maintenance is required.

For ease of transport, the radiator comprises two tapering sections which slip together and then fasten by set screws. The epoxy fibreglass base insulator uses the accepted international footprint for 10.7 metre (35ft) naval whips. The radiator and base flange are finished with a high durability based coating, which is highly resistant to chemical attack, abrasion and the effects of ozone and ultra-violet radiation. This provides a high degree of strength ensuring a long operational life. Standard colour is navy grey with other colours to order.

### Specifications

|                                |   |
|--------------------------------|---|
| <b>Colour</b>                  | Standard is APO Grey. Option other colours to order.  |
| <b>Frequency Range</b>         | 1-30 MHz.   |
| <b>Overall Length (approx)</b> | 12 metres (40ft)  |
| <b>Radiator Diameter</b>       | 127mm (8.25 in) tapering to 50.8mm (2 in) at tip  |
| <b>Base Diameter</b>           | 344mm (13.5 in)   |
| <b>Impedance</b>               | 50Ω nominal   |
| <b>Power Capability</b>        | 4kW CW  |
| <b>VSWR</b>                    | <3.0:1, typically <2:1  |
| <b>Pattern</b>                 | Omnidirectional in azimuth plane  |
| <b>Polarisation</b>            | Vertical  |
| <b>Wind Survival</b>           | Designed to withstand wind velocities of 224 km/h (140 mph) without ice; ice loading 22kg/sq m (4.5 lbs/sq ft)            |
| <b>Temperature</b>             | -50 to +65°C (-60 to +150°F); 100% humidity   |
| <b>Connector</b>               | LC type on base (side feed)   |
| <b>Mounting</b>                | Flange base with 8 equally spaced 17.5mm (0.69 in) holes on 273mm (10.75 in) circle, identical to current 107BB/S pattern |
| <b>Weight</b>                  | 160 kg (350 lbs); packed 378kg (832 lbs)  |



Specifications subject to change: issued 01/09/13

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