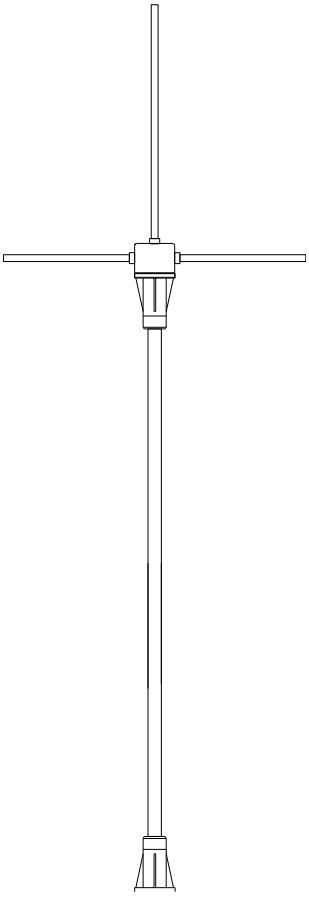
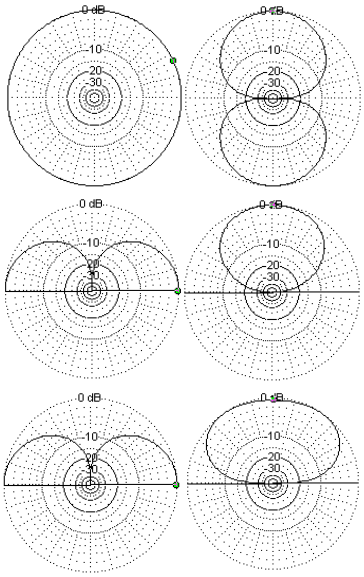
Type HF RXDPA

Military Active Broadband Receive Antenna



Monopole **Dipole**



Radiation Patterns
From top: azimuth, Elevation 0°, Elevation 90°

Designed to provide compact efficient HF broadband reception from 0.01 to 30 MHz over short, medium and long range distances simultaneously, being capable of receiving high (NVIS) through to low angle signals.

The HF RXDPA antenna system comprises two separate antennas mounted on a single support mast with separate feeds. Output from the antennas is fed directly to two broadband amplifiers. When erected onboard ship or at ground level, the array is suitable for simultaneous reception of both high angle (NVIS) mode and low angle long distance communications. Erected on buildings, it is possible to reduce local interference by careful positioning to null out unwanted signals. By using multiple antennas mounted at different angles with a suitable switching network into a receiver, it is possible to determine direction of signals. Over voltage protection (lightning/EMP) is provided.

The antenna is constructed of heavy gauge marine grade aluminium alloy. The radiator and base are finished with a high durability epoxy based coating in non-obtrusive APO navy grey, highly resistant to chemical attack, abrasion and the effects of ozone and ultra-violet radiation. For ease of transportation the antenna breaks down into three easy to assemble sections. The support mast is available in 2 or 3 metre lengths or as required for ease of shipboard siting.

SPECIFICATIONS

Antenna Elements	Vertical 1 x 1010mm (3.3ft); Horizontal 2 x 620mm (2.1ft)	
Antenna Height (overall)	3.65m (12ft) or 2.65m (8.7ft), depending on choice of support mast (Optional)	
Radiators	**Active Monopole**	**Active Dipole**
Frequency Range	0.010 to 30 MHz	0.10 to 30 MHz
Gain (nominal)	5.5dB +/- 1dB depending on frequency. NB lower frequencies may show negative gain as amplifier is being used mainly as a matching device.	
Polarisation	Vertical	Horizontal
Radiation Pattern	Omnidirectional	Bi-directional
Output Impedance	50Ω Nominal	
Output Intercept Point	2^{nd} Order = 66 dBm; 3^{rd} Order = 36 dBm	
Connectors	N Type Sockets	
Supply Voltage	11-14v DC @ 140 mA via each coaxial cable	
Power Supply Unit (Option)	Output Voltage 12v DC; Input Voltage Optional as required 12-24v DC	
Support Mast	2 or 3 metres (6.6 or 9.8 ft). optional	
Weights - Antenna	4.4kg (10 lbs); packed 5.6kg (12 lbs)	
- Mast (3m)	9.2kg (20.24lbs); packed 19kg (41.8lbs)	
Operating Temperature	-40° to +70°C, relative humidity 100%	
Wind Survival	200 km/h (125 mph)	

Specifications subject to change 03/12