

BROADBAND PROPAGATION

Antenna Design & Supply

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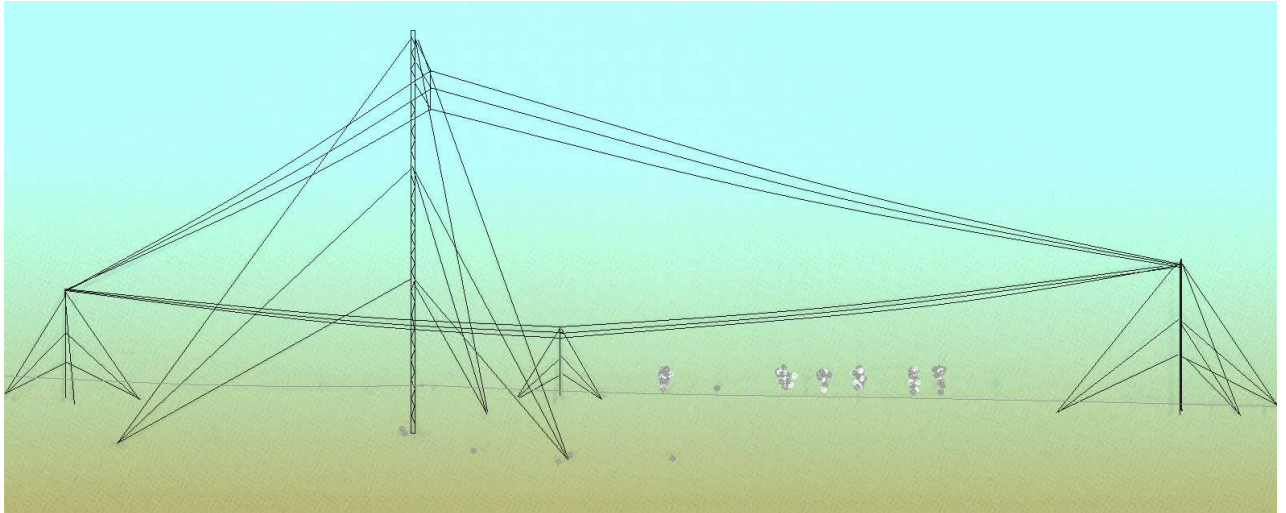
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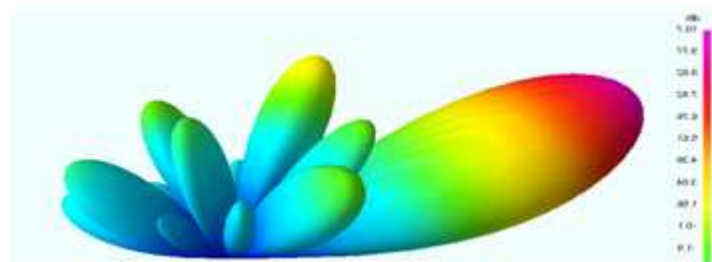
HF RHOMBIC ANTENNAS

Models: BPRH-3-12; BPRH-4-16; BPRH-5-20



Rhombic antennas have high directional gain and low take-off angles, best suited to long distance, point to point communications. Three models are available covering 3-12, 4-16, and 5-20 MHz. Installation area needed is relatively large, especially for the low frequency model, and four masts are used, however installation of the antenna is simple and can be carried out without specialist skills.

Our HF Rhombic range offer a cost effective answer for permanent base stations where low take-off angle, and high directional gain is needed, with good radiation efficiency.



- High Gain (to 18 dBi)
- Low Radiation Angles
- High Radiation Efficiency

Specifications

Electrical

	BPRH-3-12	BPRH-4-16	BPRH-5-20
Frequency:	3-12 MHz	4-16 MHz	5-20 MHz
VSWR:	Better than 2.0 : 1 across band		
Gain:	~12 dBi Low end of Band ~16dBi Mid-band ~18dBi High end of Band		
Take-off Angle:	26 Deg Low end of Band 14 Deg Mid-band 10 Deg High end of Band		
Polarisation:	Horizontal		
Power Rating :	Antenna only (all Models) Max. 30 kW Average, 60 kW PEP, Overall rating dependant on ratings of Balun/ Termination pair Which are available from 1-20 kW		
Input Impedance:	50 ohms		
Input connection:	Dependant on balun power rating		

Mechanical

	BPRH-3-12	BPRH-4-16	BPRH-5-20
Mast Height:	40m	30m	24m
Overall length:	410m	310m	248m
Overall Width:	220m	165m	134m
Wind Rating:	150 km/hr		

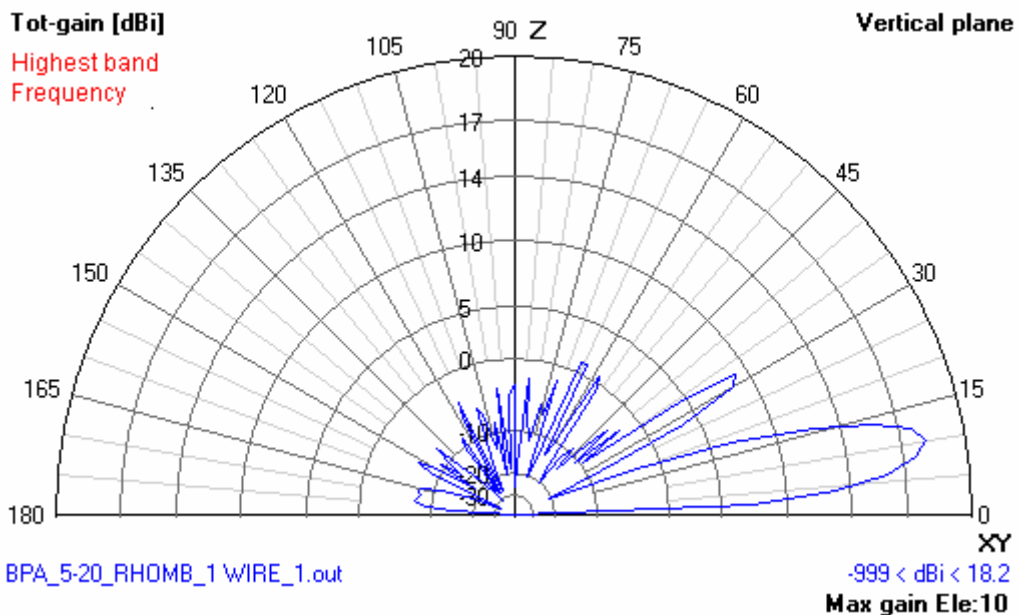
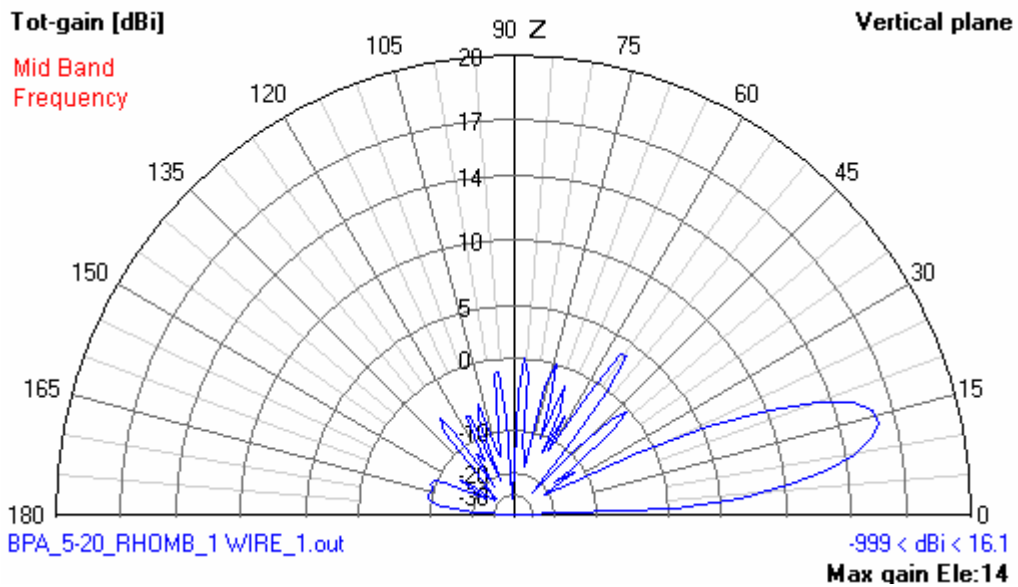
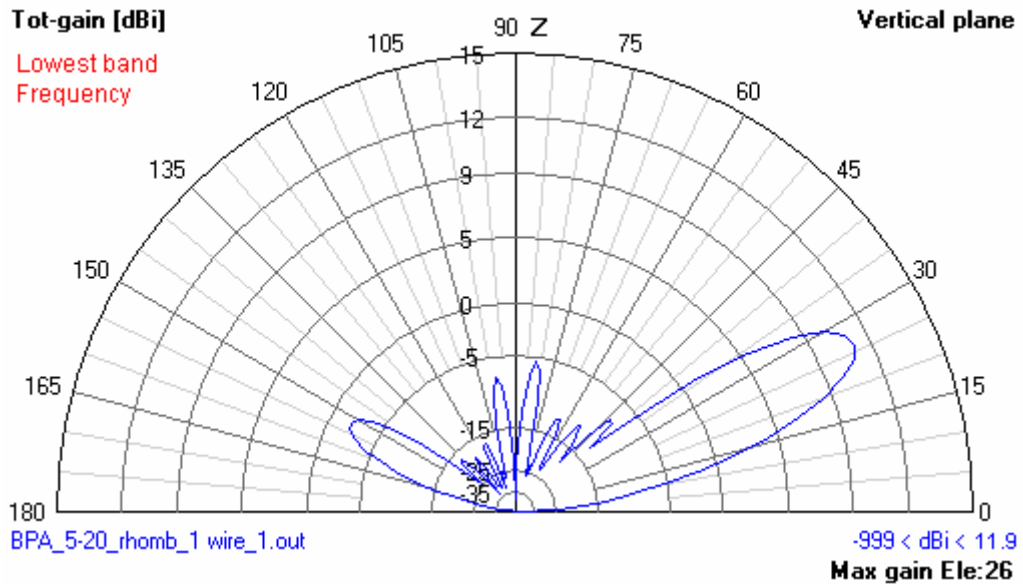
Construction

All metal materials are of high grade stainless steel or hot-dip galvanised steel.
Ceramic insulators used throughout.

General

The antenna is supplied with all fittings required for installation, masts are not included.
Masts may be quoted separately if you would like us to supply these also.
The antenna may be fed via coaxial cable to the tower mounted balun or can be fed via suitable
balanced open wire line from the transmitter "hut". Balun and termination requirements are dependant
on the power rating required for the installation and are available from 1-20 kW.

VERTICAL RADIATION PATTERNS



These plots apply to the lowest, middle and highest frequencies for each antenna model.