

# BROADBAND PROPAGATION

*Antenna Design & Supply*

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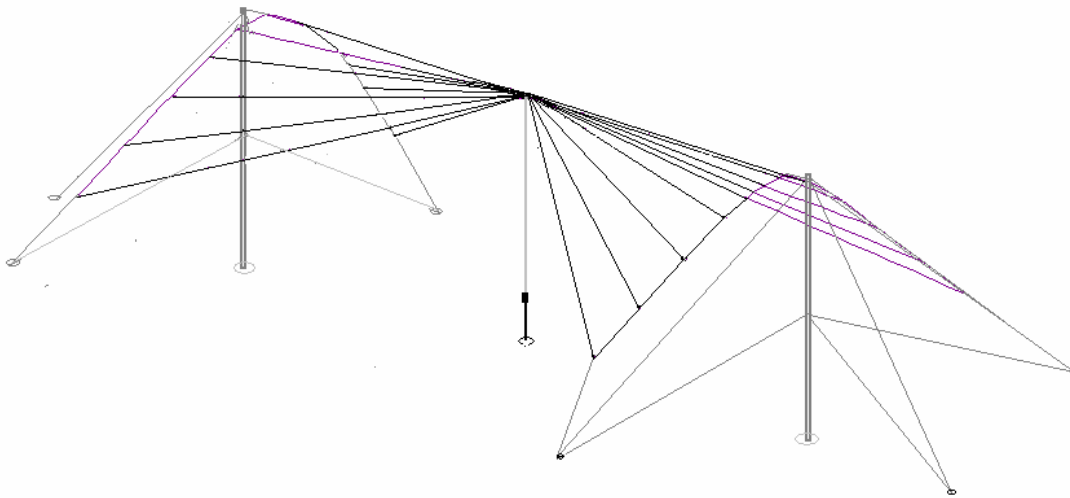
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## HF BROADBAND BICONICAL DIPOLE

**Model: BPBD-2-30**



Our HF broadband Biconical Dipoles are highly efficient, horizontally polarised antennas that at lower frequencies have high-angle radiation components suitable for short (NVIS) to medium range communication and at higher frequencies have the strongest signals at lower angles, for long range propagation.

The antenna is centre fed and can be supplied with power ratings ranging from 200 watts, to 10 Kilowatts CW (Continuous). The antennas are almost 100% efficient across the full operating range of frequencies. No power is lost in tuning or loading devices. The antenna is ideal for frequency agile transmissions and is constructed of high grade materials throughout.

The design is a cost effective solution for broadband HF short and medium range communications and is easy and safe to install, requiring only two vertical towers to mount the antenna. The antenna can be easily lowered for maintenance or repair.

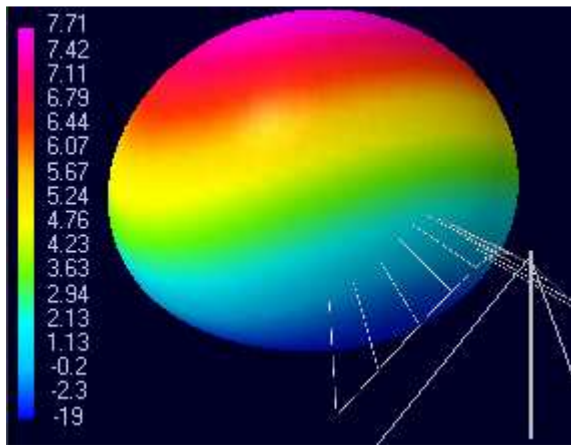
Feed to the antenna is via coaxial cable to a balun mounted at the antenna, for power ratings up to 1 Kilowatt or via a pole mounted balun and open wire, balanced ladder line, for higher power ratings.

### Specifications

- ~ Broadband, 2-30 MHz
- ~ Omni directional
- ~ No Antenna Tuner
- ~ No Resistive Loading
- ~ Easy to Install

#### *Electrical*

Frequency:	2-30 MHz
Gain:	8.5 dBi
VSWR:	2.0-1 most of band, 2.5:1 maximum
Polarisation:	Horizontal
Power Rating:	Rx, 1 KW, 5KW, and 10 KW Average
Input Impedance:	50 ohms
Input connection:	N, DIN 7/16", 7/8" EIA, or 1-5/8" EIA, Dependant on power rating



3D Pattern @ 2MHz

Specifications

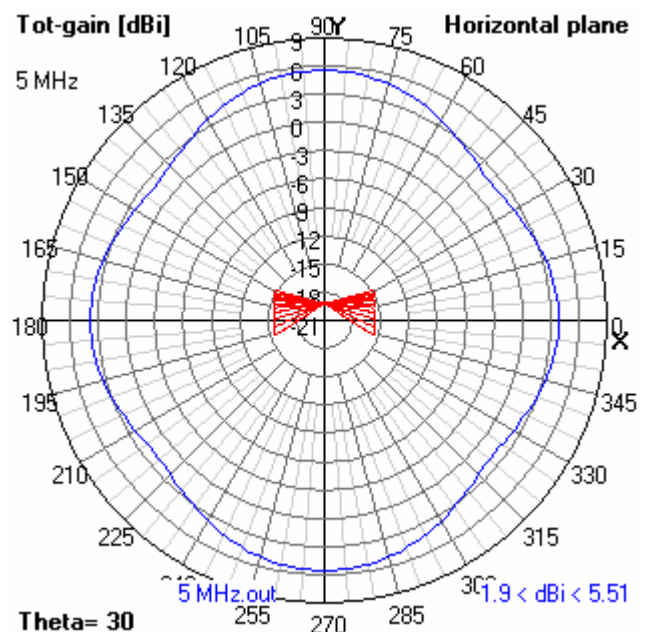
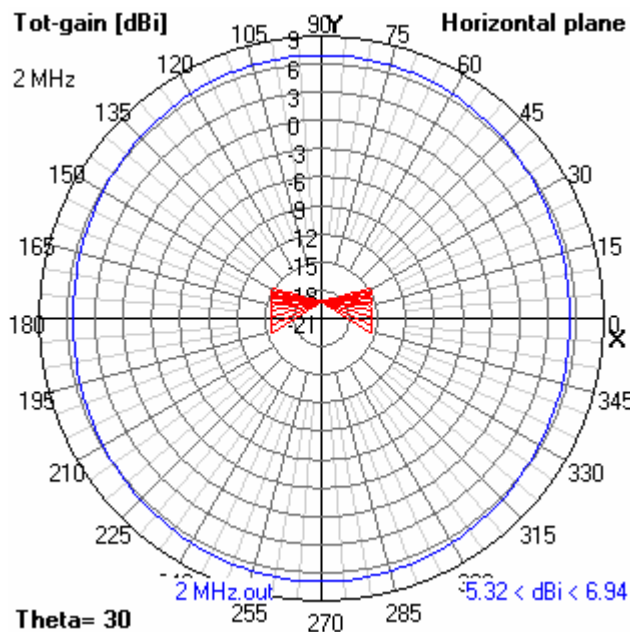
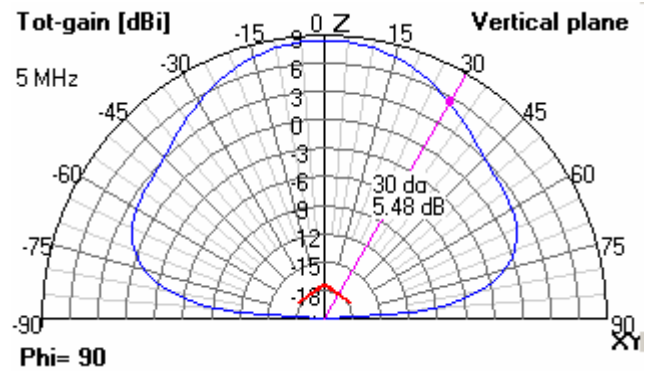
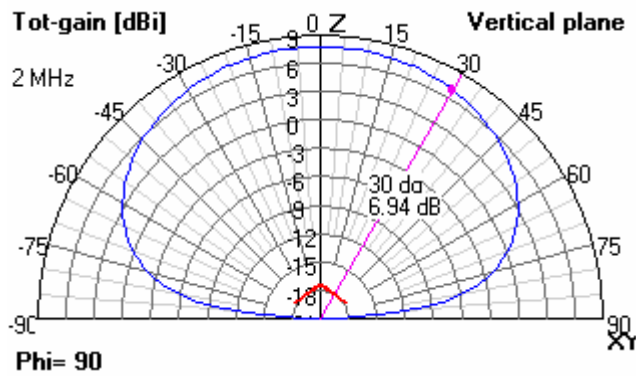
*Mechanical*

Mast Height:	20m
Overall length:	80m*
Overall Width:	40m
Wind Rating	230 km/hr

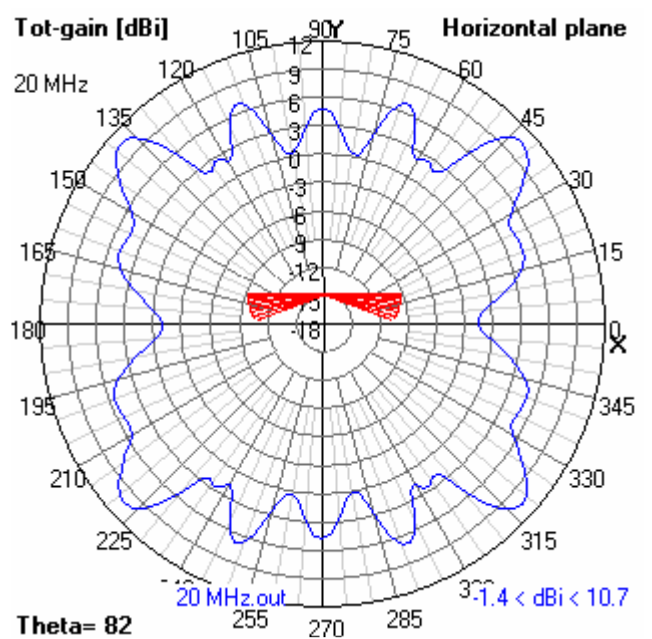
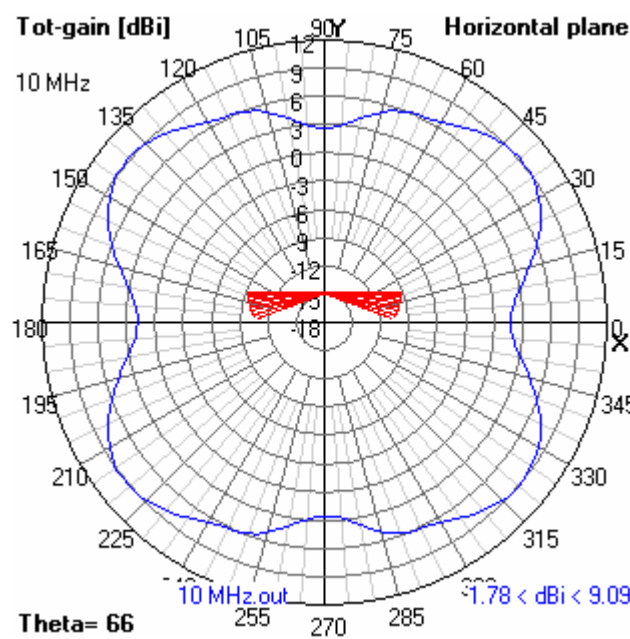
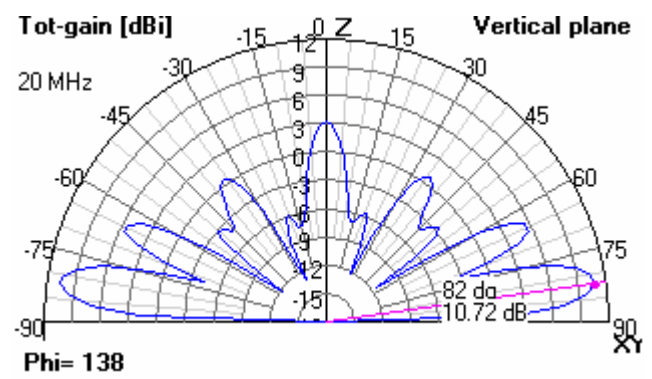
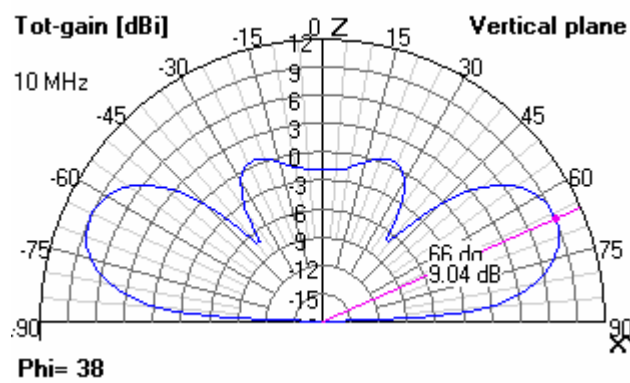
\* Antenna length measured at extreme guying points

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

RADIATION PATTERNS:



**RADIATION PATTERNS:**



**VSWR PLOT**

