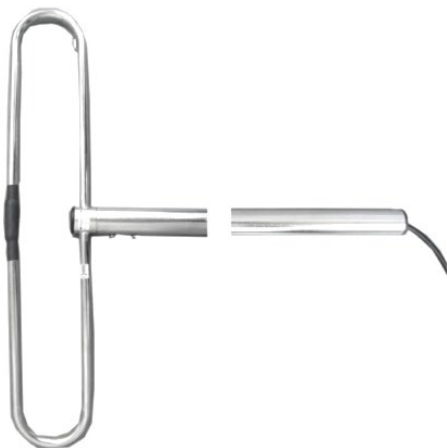


DATASHEET

HIVHF FOLDED DIPOLE ANTENNA

136 – 174 MHz

PART NO: **02531B**



The 02531B antenna is a 2.5dBd Gain, all Electropolished Stainless Steel, Folded Dipole antenna for use in the High Band VHF commercial radio band. Its wide bandwidth is ideal in Duplexing and Multicoupling applications where numerous operators are required to be connected to one antenna system. The 02531B antenna offers a stable radiation pattern across the whole band 136 -174 MHz. With the use of the appropriate phasing harness, the 02531B antenna can be stacked in two or four stack configurations for increased gain requirements. Its robust construction ensures excellent longevity and performance. The all Electropolished Stainless Steel construction is ideally suited for weather and corrosion resistance.

APPLICATIONS

Wide band VHF High Band
Duplexing / Multicoupling

TUNING

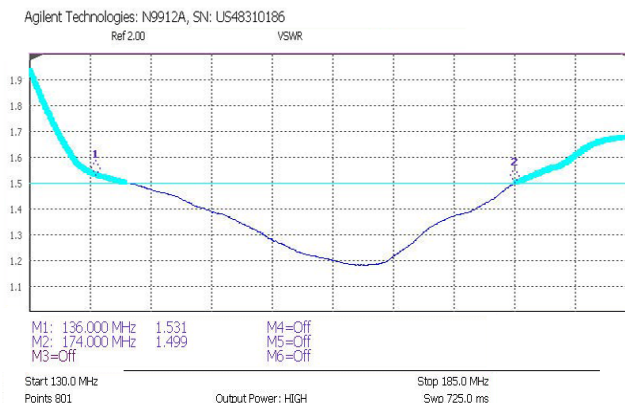
Factory Tuned, no further tuning required.

FEATURES

- Wide Band
- Hi Band VHF, Marine VF, Amateur 2M, Wx
- Gain 2.5 dBd
- Stainless Steel Mounting Boom 50 mm Diameter
- Stainless Steel Folded dipole
- Robust
- Weather and corrosion resistance

* Dependent on spacing from boom

VSWR



SPECIFICATIONS

Frequency	136 – 174 MHz
Tuned Bandwidth	38 MHz
Gain	* 2.5 dBd
Impedance	50 Ω Nominal
Operating VSWR	<1.5:1 (1.7:1 1 wave mount)
Length	1.30 m
Width	0.828 m
Weight	4.20 kg
H Plane Beamwidth	200 Deg
E Plane Beamwidth	80 Deg
Termination	N Male
Cable Tail	RG214
Power Rating	500 W

PROVIDED MOUNINGS

The boom allows for mounting at 1λ , $1/2\lambda$ or $1/4\lambda$ spacing from the support structure (see installation instructions)

02815 Small Bracket S/Steel.

CONSTRUCTION

All welded and Electropolished Stainless Steel

PACKAGING

Cardboard Carton @ 5.2 kg / 1 Antenna per Carton

WARRANTY

3 Years (Please refer to [Benelec Terms & Conditions](#))

DETAILED RADIATION PATTERNS AT 155 MHz

	1/4 wavelength Mounting	1/2 wavelength Mounting
Azimuth	<p>Farfield (Array) Directivity Abs (Theta=90)</p> <p>— farfield (f=155) [1]</p> <p>Frequency = 155 MHz Main lobe magnitude = 4.19 dBi Main lobe direction = 329.0 deg. Angular width (3 dB) = 208.3 deg.</p> <p>Phi / Degree vs. dBi</p>	<p>Farfield (Array) Directivity Abs (Theta=90)</p> <p>— farfield (f=155) [1]</p> <p>Frequency = 155 MHz Main lobe magnitude = 3.99 dBi Main lobe direction = 88.0 deg. Angular width (3 dB) = 85.1 deg.</p> <p>Phi / Degree vs. dBi</p>
Elevation (0 deg)	<p>Farfield (Array) Directivity Abs (Phi=0)</p> <p>— farfield (f=155) [1]</p> <p>Frequency = 155 MHz Main lobe magnitude = 4.32 dBi Main lobe direction = 100.0 deg. Angular width (3 dB) = 76.3 deg. Side lobe level = -6.9 dB</p> <p>Theta / Degree vs. dBi</p>	<p>Farfield (Array) Directivity Abs (Phi=0)</p> <p>— farfield (f=155) [1]</p> <p>Frequency = 155 MHz Main lobe magnitude = 2.42 dBi Main lobe direction = 130.0 deg. Angular width (3 dB) = 25.2 deg. Side lobe level = -1.5 dB</p> <p>Theta / Degree vs. dBi</p>
Elevation (90 deg)	<p>Farfield (Array) Directivity Abs (Phi=90)</p> <p>— farfield (f=155) [1]</p> <p>Frequency = 155 MHz Main lobe magnitude = 2.62 dBi Main lobe direction = 97.0 deg. Angular width (3 dB) = 73.4 deg.</p> <p>Theta / Degree vs. dBi</p>	<p>Farfield (Array) Directivity Abs (Phi=90)</p> <p>— farfield (f=155) [1]</p> <p>Frequency = 155 MHz Main lobe magnitude = 5.28 dBi Main lobe direction = 78.0 deg. Angular width (3 dB) = 59.6 deg. Side lobe level = -1.1 dB</p> <p>Theta / Degree vs. dBi</p>