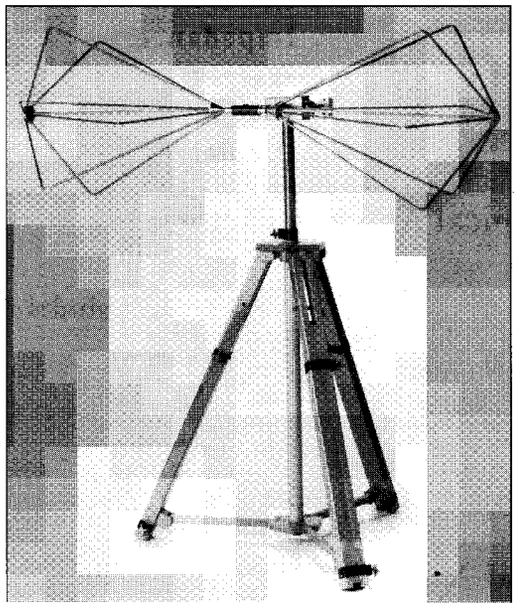
COM-POWER CORPORATION

Biconical Antenna
AB-100, AB-900



Features

Wide Band - 30MHz to 300 MHz

Smooth Antenna Factor Curve - Reduces errors

For use in Limited Space - 57 inches end to end

Corrosion Resistant Finish

Easy to use

Description

AB-100 and AB-900 are Broadband Biconical Antennas for use in 30 MHz - 300 MHz frequency bands. The AB-100 antenna balun is designed for receive only applications whereas the balun for AB-900 can be used for receive or transmit applications. Both antennas use identical elements. These elements are constructed using light weight aluminum with corrosion resistant conductive coating.

The balun for AB-100 is designed to get a smooth response curve for the antenna factors. An antenna factor curve with minimum peaks and valleys helps to minimize the error during calibration and use. This balun, however, can be used only for receiving purposes.

AB-900 Antenna has a coaxial balun. This balun can be used for receiving as well as transmitting signals; therefore, it can also be used for susceptibility testing. The AB-900 can transmit 100 W power in continuous mode in the applicable frequency range.

Both antennas have the same mounting base, with a standard 1/4 inch x 20 threaded hole, for mounting on a Com-Power AT-100 antenna tripod.

Application

Biconical Antennas are time saving alternatives to tunable dipole antennas. Dipole antennas require precise adjustments of element length at every frequency. Com-Power Biconical Antennas are designed to cover the frequency band from 30 MHz to 300 MHz (The Log Periodic Antenna AL-100 covers the frequency range 300 MHz - 1 GHz.).

Another distinct advantage of a Biconical Antenna is space saving. Tunable dipoles are very long at low frequencies. For example, the total length of a tuned dipole antenna at 30 MHz is 5 meters. This is too long to allow measurements in vertical polarization at 1 meter antenna height. Biconical Antennas eliminate such limitation because they are only 57 inches (144 cm) long end-to-end.

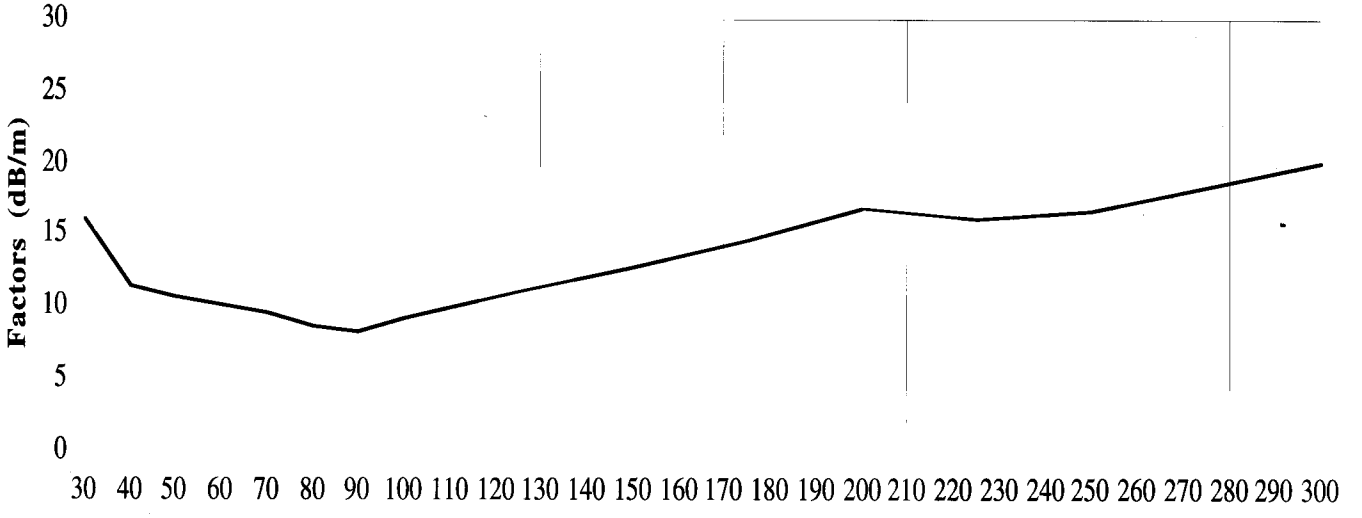
Model AB-100 is a receive only antenna designed for a smooth antenna factors curve, so that measurement accuracy is maximized. However, this antenna cannot be used for transmitting power as required for immunity testing. Model AB-900 includes a power balun, and can be used for transmitting up to 50W of continuous power.

Specifications

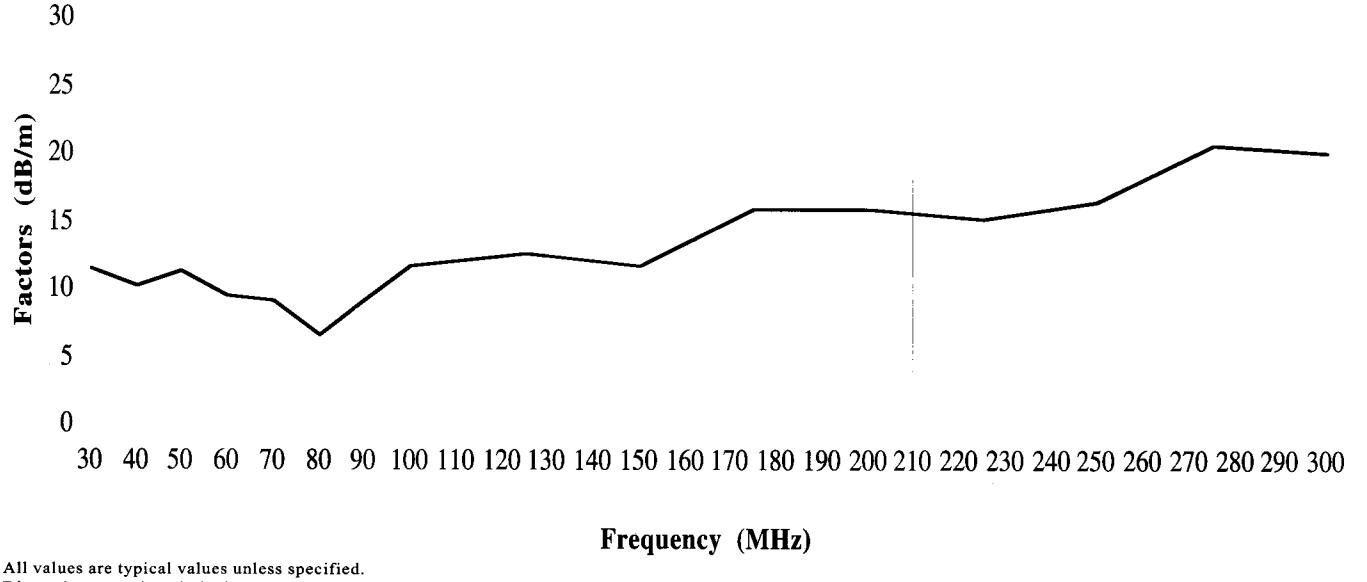
Frequency Range:	25 MHz-300 MHz
Power:	50W continious (Model AB-900)
Impedance:	Matched to 50Ω
Weight:	7 lbs. Maximum
Length:	57 inches max. end-to-end
Diameter:	22 inches

Typical Antenna Factors:

Model AB-100 Antenna Factors



Model AB-900 Antenna Factors



All values are typical values unless specified.
Dimensions are given in inches.
All specifactions are subject to change without notice.