

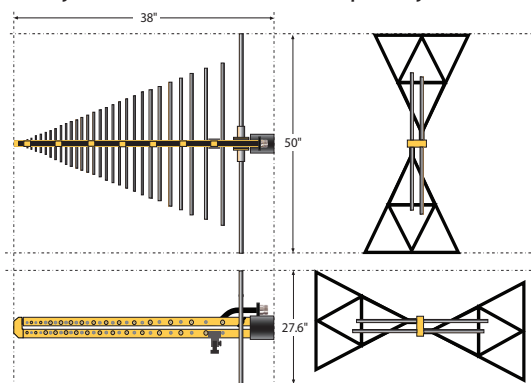
## Features

- **Wide Frequency Range**  
Emissions - 20 MHz to 2 GHz  
Immunity - 80 MHz to 2 GHz
- **Transmit & Receive Capabilities**  
emissions/immunity applications
- **Individual Calibration Included**  
per ANSI C63.5 with NIST traceability
- **Three-year Standard Warranty**

## Description

The AC-220 CombiLog is a broadband, linearly polarized hybrid antenna. Hybrid antennas are, put simply, log periodic antennas with the feed lines modified to include a set of low frequency antenna elements, commonly referred to as “bow-tie” elements. Additionally, common-mode chokes are typically installed to reduce common-mode currents flowing on the outer conductor of the coaxial feed line/receive cable. By essentially combining a log periodic and biconical antenna, a hybrid antenna can typically cover, at a minimum, the frequency range of the combined antenna types.

The AC-220 operates from 20 MHz to 2 GHz as a receiving antenna. Using typical conventional antennas, four separate antennas would be necessary to cover the same frequency band.



## Calibration

Each antenna is individually calibrated per ANSI C63.5 with NIST traceability. The calibration data and certificate is provided. Recognized ISO 17025 accredited calibration also available upon request.



## Application

The AC-220 CombiLog Antenna is suitable for use as an EMI test antenna for qualification-level regulatory compliance measurements (FCC, CE, Mil-Std, RTCA DO-160, FDA, SAE Automotive, etc.) over the frequency range of 20 MHz to 2 GHz.

The AC-220 is equally suitable for use transmitting antenna over the frequency range of 80 MHz to 2 GHz. The antenna is driven by a power amplifier for purpose of establishing radiated RF fields for product immunity tests. It is capable of handling power levels up to 500 Watts.

Notwithstanding the above applications, the AC-220 can also be used for test site comparisons, shielding effectiveness tests of large enclosures, field monitoring, site surveys, etc.

## Mounting

The mounting assembly for the the AC-220 incorporates a hinge mechanism to quickly and easily change the antenna polarization.

The assembly is equipped with a standard 1/4-inch x 20 mounting hole, which allows it to be affixed to a tripod or antenna mast or other similar structure.

Com-Power’s **AT-812 Tripod** and **AM-400 Antenna Mast**, are the recommended supports for this antenna.



### Specifications

Product Name	<b>CombiLog Antenna</b>
Frequency Range	<b>20 MHz to 2 GHz</b> (as receive antenna - emissions)
	<b>80 MHz to 2 GHz</b> (as transmit antenna - immunity)
Polarization	<b>Linear</b>
Nominal Impedance	<b>50Ω</b>
Power Handling (CW)	<b>500 Watts</b>
Connector	<b>N-type</b> (female)
Antenna Factor	[see graph below]
Isotropic Gain	[see graph below]
VSWR/Return Loss	[see graphs below]
Radiated Field Strength	[see graph below]
Specifications	FCC, CISPR, EN, ETSI, FAA, Mil-Std, Automotive, etc.
Dimensions (L x W x H)	<b>50" x 27.6" x 38"</b> [127 x 70.1 x 96.5 cm]
Weight	<b>10.5 lbs.</b> [4.8 kg]

All specifications are subject to change without notice.  
All values are typical, unless specified.

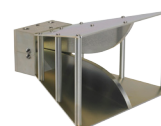
Also available from  
Com-Power...



PAM-103A Preamplifier (1 MHz to 1 GHz)



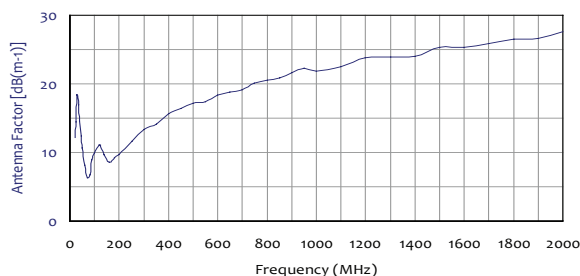
AT-812 Antenna Tripod



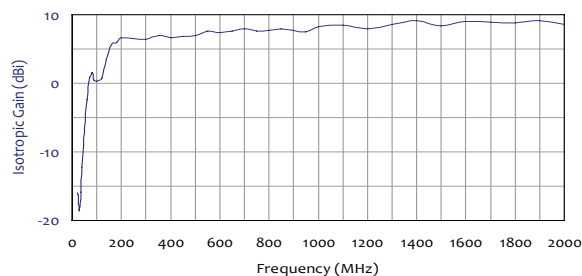
AH-118 Horn Antenna (1-18 GHz)

**Also Available:**  
AH-840 Horn Antenna (18-40 GHz)  
AB-900 Biconical Antenna  
AL-100, ALC-100, ALP-100 Log Periodic Antennas

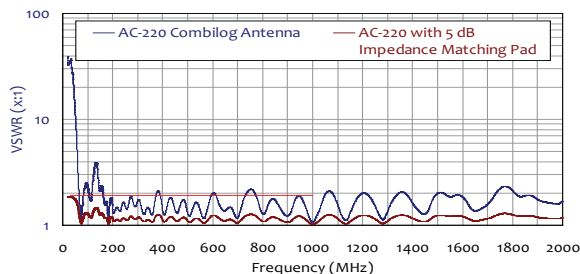
### Antenna Factors



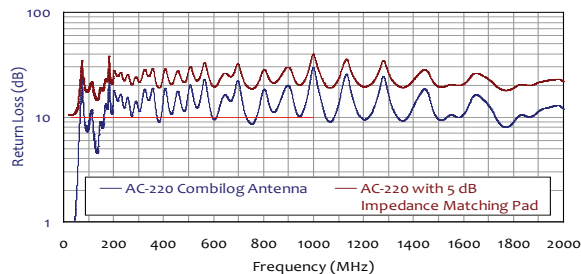
### Isotropic Gain



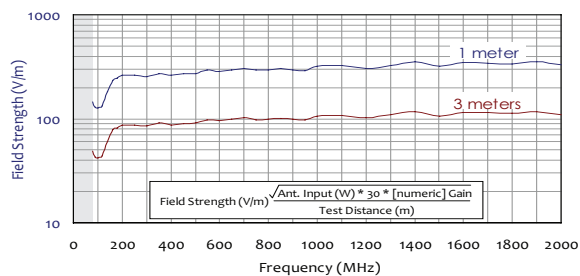
### VSWR Characteristics



### Return Loss



### Field Strength with 500 Watts Input Power



### Forward Power Levels vs Field Strength

