COM-POWER CORPORATION

CombiLog Antenna
AC-220

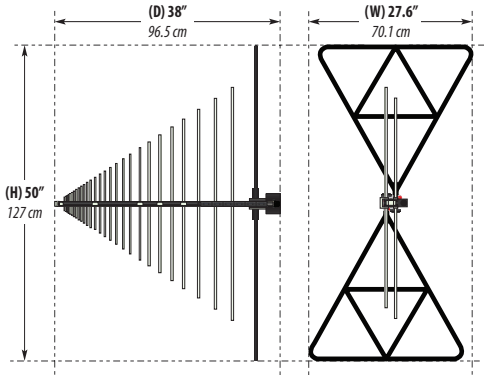
Features

- Wide Frequency Range: 20 MHz to 2 GHz *(emissions)*
  80 MHz to 2 GHz *(immunity)*
- Complies with ±1 dB Antenna Symmetry/Balance Requirements of ANSI C63.5 and CISPR 16-1-4
- Good Cross-Polarization Performance
- Transmit & Receive Capabilities
- Individual Calibration Included
- 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 needed to cover the same frequency range.*



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 as per most regulatory requirements.*

The **AC-220** *is equally suitable for use as a transmitting antenna over the frequency range of 80 MHz to 2 GHz. The antenna is driven by an RF power amplifier for the 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, antenna mast or other mounting structure.

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

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Specifications

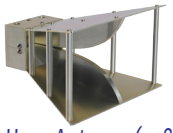
All specifications are subject to change without notice.
All values are typical, unless specified.

Product Name	**CombiLog Antenna**
Frequency Range	**20 MHz to 2 GHz** *(as receive antenna - emissions testing)* **80 MHz to 2 GHz** *(as transmit antenna - immunity testing)*
Polarization	**Linear**
Ant. Symmetry (Balance)	**< ±1 dB** *(30 MHz to 2 GHz)*
Cross Polarization Rejection	**see graph below**
Nominal Impedance	**50Ω**
Power Handling (CW)	**500 Watts** *(continuous)*
Connector	**N-type** *(female)*
Antenna Factor	***see graph below***
Isotropic Gain	***see graph below***
VSWR	***see graph below***
Return Loss	***see graph below***
Specifications	**FCC, CISPR, EN, ETSI, etc.**
Dimensions (H x W x D)	**50" x 27.6" x 38"** *[127 x 70.1 x 96.5 cm]*
Weight	**10.5 lbs.** *[4.8 kg]*

Related Items available from Com-Power...

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

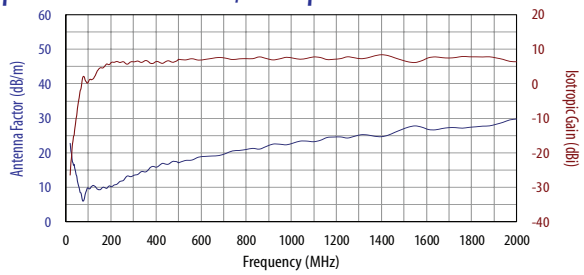
AT-812 *Antenna Tripod*



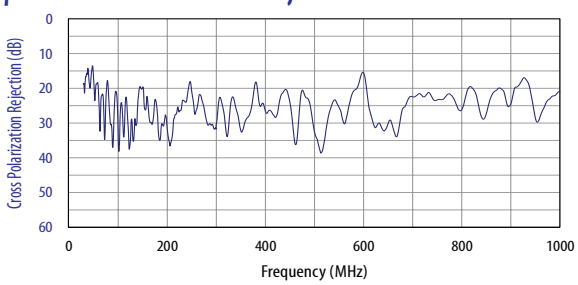
AH-118 *Horn Antenna (1-18 GHz)*

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

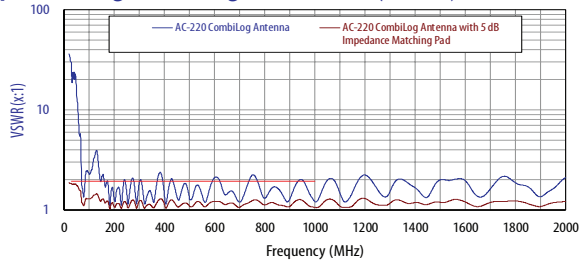
Typical Antenna Factors/Isotropic Gain



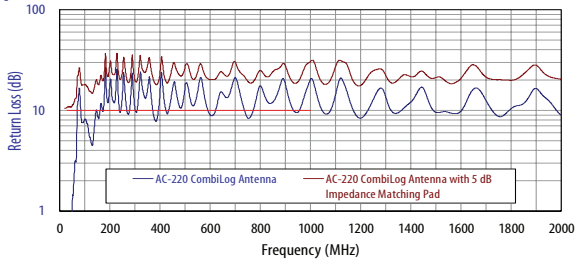
Typical Cross Polarization Rejection



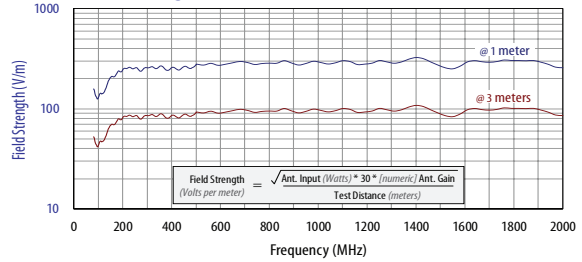
Typical Voltage Standing Wave Ratio (VSWR)



Typical Return Loss



Typical Field Strength with 500W Input Power



Typical Forward Power Levels