



## Combilog Antenna

AC-213, AC-220

### Features

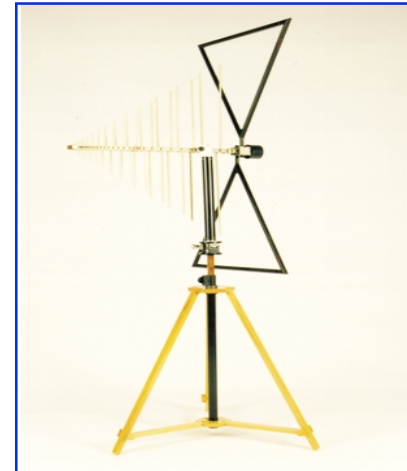
**Broadband:** 30 MHz - 2000 MHz

**Minimizes antenna switching**

**Transmit and receive capabilities**

**Individual calibration**

**Two year warranty**



### Description

The Combilog antennas are broadband antennas designed to operate in the 30 MHz - 2000 MHz frequency range for electromagnetic compatibility testing. The Combilog antenna combines the electrical properties of a biconical antenna and a log periodic antenna.

Two Combilog antenna models are available. They are AC-213 and AC-220. The model AC-213 has a frequency range of 30 MHz -1300 MHz. The model AC-220 has a frequency range of 30 MHz to 2000 MHz.

The antenna is shipped with an insulated mounting tube. This tube can also be adapted for mounting the antenna to an antenna mast or tripod. The antenna also has a polarization adjustment joint. The polarization of the antenna can be easily changed (Vertical or Horizontal) during testing by using this joint.

The elements are constructed using aluminum with corrosion resistant conductive coating. The rear triangle elements can be removed for storage and transportation.

### Application

The Combilog antennas are designed for emissions and susceptibility testing to verify compliance to FCC, IEC, CISPR, FAA and MIL-STD specifications.

The main advantage of a Combilog antenna is that it covers the frequency range of the Biconical and Log Periodic antenna. This eliminates antenna switching (typically at 300 MHz) and allows continuous sweep measurement without a frequency band break. The broadband matching network located in the rear improves antenna response at the lower frequencies.

For susceptibility testing the Combilog antenna can be used in the in a shielded room for generating electromagnetic fields. It can handle up to 500 Watts input at its terminals.

Each Combilog antenna is individually calibrated. The calibration data will be shipped with each antenna.

During radiated emissions measurement, the field strength (dBV/m) is calculated for frequency selected, by adding the antenna factor dB/m to the output measurement (dBV) displayed by the EMI meter.

# Specifications

**Frequency Range:** 30 MHz - 2000 MHz (AC-220)  
 30 MHz - 1300 MHz (AC-213)

**Power handling:** 500 W

**Gain:** 5 dBi min. (200 MHz -2000 MHz)

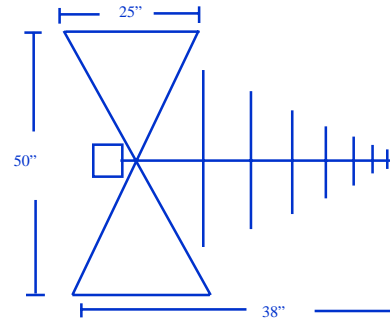
**Impedance:** matched to 50 Ohm

**Connector:** Type N Female

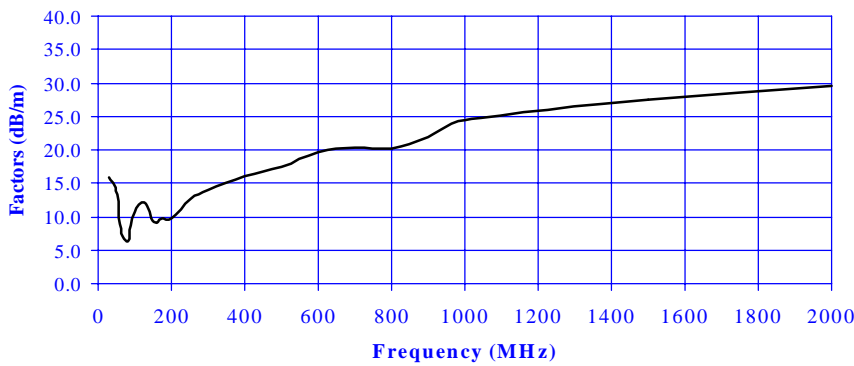
**VSWR:** 2:1 average

**Weight:** 8 lbs. 3.6 kg

**Dimensions (L x W x H):** 38 x 50 x 25 inches , 96 x 127 x 63 cm



## Typical Antenna Factors (Model AC-213 and AC-220)



## Typical Input Power Requirement in (Watts) at 1 meter antenna spacing to achieve field (V/m)

Freq.	3 V/m	10 V/m	Freq.	3 V/m	10 V/m
80	0.67	29.7	600	0.02	1.08
90	0.70	31.2	700	0.02	1.00
100	0.60	26.5	800	0.02	0.88
125	0.55	24.5	900	0.02	0.76
150	0.16	7.10	1000	0.01	0.64
175	0.17	7.46	1500	0.01	0.29
200	0.10	4.24	2000	0.01	0.25
250	0.09	3.83			
300	0.07	2.92			
400	0.04	1.90			
500	0.03	1.43			

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