

Features

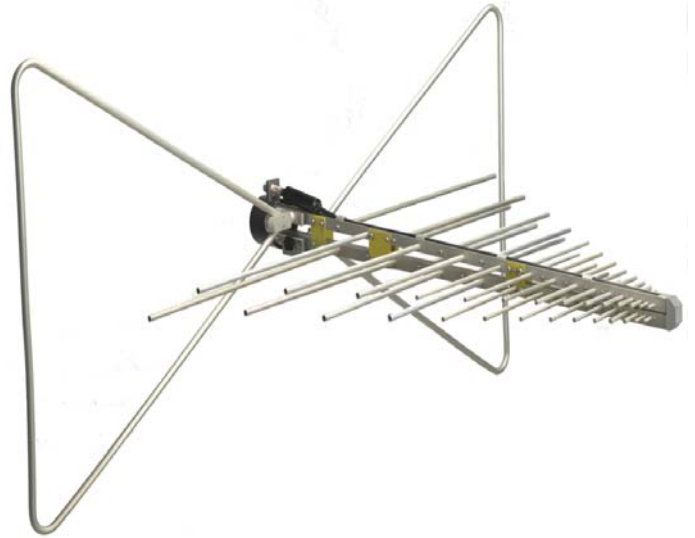
Broadband: 30 MHz - 2000 MHz

Minimizes antenna switching

Transmit and receive capabilities

Individual calibration

Three year warranty



Description

The AC-220 Combilog antenna is 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.

The antenna can be mounted to mast using four 1/4 x20 threads mounting holes on the bottom. During automated EMC testing to minimize vertical displacement when changing polarity, an optional (ATC-400) fixture can be purchased with the antenna. This fixture can be mounted to the antenna mast cross boom.

For tripod mounting an optional adapter (ATC-100) is also available.

All 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.

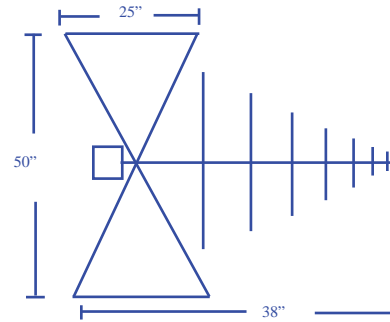
For susceptibility testing the Combilog antenna can be used in a shielded room for generating electromagnetic fields. It can handle up to 500 Watts input at its terminals.

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

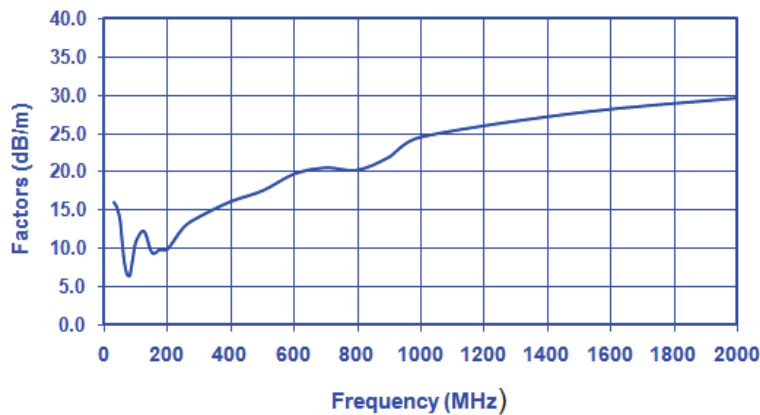
During radiated emissions measurement, the field strength (dBV/m) is calculated for frequency selected, by adding the antenna factor dB/m to the output measurement (dBV) displayed by the EMI meter.

Specifications

Frequency Range: 30 MHz - 2000 MHz (AC-220)
Power handling: 500 Watt max.
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



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.