

# Antennas<sup>1</sup>

## Agilent 11966A Active Magnetic Loop Antenna

The 11966A active loop antenna was designed specifically for three-meter VDE 0871 Limit B magnetic-emissions testing. A built-in preamplifier in the antenna base matches the low impedance of the loop with the 50 watt input of the EMI receiver and provides a consistent, linear antenna factor over the frequency range of the antenna. A built-in saturation indicator alerts the operator to overload conditions. The standard unit is supplied with a 120 VAC/60 Hz battery charger. Option 220 replaces the standard battery charger with a 220 VAC/50 Hz unit.



**Frequency Range** 10 kHz–30 MHz  
**Loop Diameter** 600 mm (23.6 inches)  
**Battery Type** Rechargeable, sealed lead-acid  
**Impedance** 50  $\Omega$   
**Connector Type** BNC female  
**Mounting Base** (to attach unit to tripod)  
 1/4 inch x 20 female thread

Frequency (MHz)	Typical Antenna Factor (dB)
0.01	17.7
0.02	13.4
0.05	10.0
0.07	10.4
0.1	10.2
0.15	10.1
0.25	10.1
0.5	10.2
0.75	10.3
1	10.4
2	10.5
3	10.5
4	10.6
5	10.6
10	10.6
15	10.3
20	9.6
25	8.6
30	7.1

## Agilent 11966B Active Monopole Antenna

This broadband active rod E-field antenna has a preamplifier built into its base. This design provides sensitivity, high dynamic range, and a flat antenna factor, yet eliminates the need for manual tuning or band-switching. A built-in saturation indicator alerts the operator to overload conditions. The standard unit is supplied with a 120 VAC/60 Hz battery charger. Option 220 replaces the standard battery charger with a 220 VAC/50 Hz unit.



**Frequency Range** 30 Hz–50 MHz  
**Internal Atten** 10 and 30 dB  
**Saturation Point** 22 V/m (using 30 dB atten)  
**Battery Type** Rechargeable, sealed lead-acid  
**Impedance** 50  $\Omega$   
**Connector Type** BNC female  
**Mounting Base** (to attach unit to tripod)  
 1/4 inch x 20 female thread

Frequency (MHz)	Typical Antenna Factor (dB)
0.0001	5.3
0.0003	1.7
0.0005	1.2
0.0007	1.1
0.0009	1.0
0.001	1.1
0.003	0.9
0.005	0.8
0.007	0.9
0.009	0.6
0.01	1.0
0.03	0.7
0.05	0.6
0.07	0.5
0.09	0.5
0.1	0.6
0.3	0.5
0.5	0.5
0.7	0.5
0.9	0.6
1	0.6
3	1.4
5	1.6
7	1.9
9	2.2
20	2.9
50	9.6