

Our **BBH series** broadband magnetic field antennas are designed to provide maximum sensitivity for receiving magnetic field signals in the VLF through VHF spectrum. These antennas are responsive primarily to the magnetic component of an electromagnetic field with practically no sensitivity to the electric component. The electrical balance with respect to ground and cables renders them almost immune to common mode interference.

BBH antennas are ideally suited for use with automatic noise measuring equipment requiring magnetic field sensors, vehicular and shipboard surveillance applications, elementary direction finding on ground waves, location of obscure noise sources and for accurate measurement of magnetic field intensity at practically all radian distances from the source. They exhibit remarkably clean reception inside of buildings, at some depth below the earth's surface, in badly cluttered areas, and in environments of locally generated man-made noise.

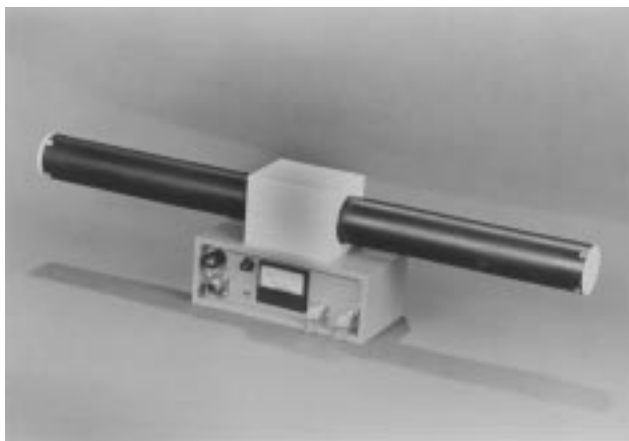
BBH-1100 and **3100** antennas are intended primarily for use indoors, including shielded rooms.

SPECIFICATIONS:

	BBH-1100	BBH-3100	BBH-150/D	BBH-160/B
FREQUENCY	100 Hz - 100 MHz	300 Hz - 100 MHz	1 - 100 MHz	1 kHz - 7 MHz
DYNAMIC RANGE	115 dB	115 dB	125 dB	115 dB
CONNECTOR	BNC female	BNC female	N female	N female
POWER SUPPLY	Internal Rechargeable 115 VAC	Internal Rechargeable 115 VAC	Remote, 12 VDC	Remote, 12 VDC
SIZE	25"W x 6.5"H	25"W x 6.5"H	25"W x 12"H x 8"D	25"W x 12"H x 8"D
WEIGHT LBS/KG	15 / 7	15 / 7	30 / 13.5	30 / 13.5
	Active Receive Only	Active Receive Only	Active Receive Only	Active Receive Only

POLARIZATION: Linear, vertical on horizon, horizontal overhead
 IMPEDANCE: 50 ohms, nominal
 OVERLOAD: 1 V/m (RMS)

OUTPUT VSWR: 2 : 1
 DIRECTIVITY: Bidirectional in "H" plane
 Omni in E-plane
 NULL DEPTH: ≥ 20 dB



BBH-1100

FREQUENCY	AFH (dBm^{-1})	MDF ($\text{dBm}/\text{A}/\text{m}$)
100 Hz	41.7	39.0
300 Hz	32.5	28.0
1 kHz	20.1	14.4
10 kHz	1.0	-8.1
100 kHz	-20.5	-33.5
1 MHz	-39.0	-47.1
10 MHz	-36.8	-46.0
100 MHz	-24.2	-48.3

**TYPICAL E-FIELD ANTENNA FACTOR (AFH) AND
 SENSITIVITY (MINIMUM DETECTABLE H-FIELD, MDF)
 REFERENCED TO 1 KHZ BANDWIDTH FOR BBH-1100**

MAGNETIC FIELD ANTENNAS ACTIVE, RECEIVE ONLY

BBH-150 and **160** antennas are weatherproof, and designed for outdoor installation. Both antennas are designed for sufficient dynamic range to tolerate strong signals such as local radio broadcast signals. A rotatable aluminum mast with integral top and base plate is recommended for permanent outdoor installation.

A remote controlled rotator system, such as our **ARC-1/B**, is also available for use with outdoor **BBH** antennas.

BBH series antennas can be modified for peak performance (Low H-field Antenna Factor) at other frequencies in the band. For example, Model **BBH-160 (M)** is a modified version of **BBH-160**, optimized for best performance at 100 kHz.



BBH-150/D

OPTIONS FOR BBH-150/D AND 160/B

1. Calibration Loop
2. Remote Power Supply (PSD-12/A)
3. 100 Foot Power Cable
4. 100 Foot RF Cable
5. Antenna Stand Assembly
6. Rotator System

TYPICAL H-FIELD ANTENNA FACTOR (AFH) AND SENSITIVITY (MINIMUM DETECTABLE H-FIELD, MDF) REFERENCED TO 1 KHZ BANDWIDTH

BBH-150/D		
FREQUENCY (MHz)	AFH (dB M ⁻¹)	MDF (dB μA/m)
1	-26.1	-29.6
2	-33.5	-34.0
3	-34.3	-38.1
5	-32.8	-43.3
10	-30.8	-50.7
20	-24.7	-56.6
30	-20.9	-56.1
40	17.9	-54.0
50	-15.5	-52.6
70	-11.2	-50.0
80	-9.6	-49.5
100	-3.5	-46.0

BBH-160/B		BBH-160*(M)	
FREQUENCY	AFH (dB M ⁻¹)	MDF (dB μA/m)	AFH (dB M ⁻¹)
1 kHz	34.7	41.9	36.7
3 kHz	24.7	16.6	25.7
10 kHz	14.5	-1.2	4.7
50 kHz	-.6	-19.7	-17.7
100 kHz	-7.7	-31.0	-25.7
200 kHz	-14.1	-38.1	-14.1
300 kHz	-19.5	-41.6	-7.1
500 kHz	-30.1	-46.5	-2.5
600 kHz	-35.0	-47.7	-1.0
800 kHz	-23.6	-48.1	2.0
1.0 MHz	-19.4	-47.9	4.0
2.0 MHz	-11.4	-39.8	
5.0 MHz	.5	-29.1	
7.0 MHz	13.4	-23.8	

* Model **BBH-160(M)** is a modified version of model **BBH-160**, optimized for peak performance at 100 kHz.