



TECHNICAL SPECIFICATIONS MQ1364

DESCRIPTION

- Mid/High VA4 loudspeaker system
- Optimized for permanent installation only
- Horn-loaded 10-in cone with VA4 phase plug
- 2-in exit/75mm voice coil compression driver on constant directivity horn

The new MQ Series represents the next generation of permanent installation loudspeaker systems. Using VA4 Technology developed for the new KF700 Series, the MQ range replaces the MH and BV ranges of Virtual Array systems. The Series comprises matched sets of mid/high and low frequency enclosures that enjoy complementary dimensions and trapezoid angles to facilitate the creation of optimized-coverage arrays.

The MQ1364 uses a single, horn-loaded 10-in midrange cone with a specially designed geometry that produces a time-coherent wavefront through the upper portion of the midrange that is critical to vocal articulation. A phase plug with radial slots then serves to reduce the mechanical reactance of the subsystem without affecting the directivity of the source, allowing for flawless arraying of multiple MQ mid/high modules.

A high power 2-in exit/75mm voice coil high frequency compression driver is mounted on a constant directivity horn for consistent, accurate dispersal of HF information. The MQ1364 provides a nominal coverage pattern of 60° (h) x 40° (v).

APPLICATION

The MQ1364 mid/high module works with the MQ1312 triple 12-in low frequency module to create arrays for use in a wide variety of permanently installed applications.

The most common array configuration is 2x MQ1364's separated by a single MQ1312. In such an array, a certain amount of splay must be provided to achieve optimal coverage. Rigging systems currently available allow users up to 10° of overlap between the mid/high enclosures.

All MQ Series enclosures feature a comprehensive system of 3/8"-16 threaded mounting points for maximum flexibility when suspending arrays overhead.

Applications include:

Large House of Worship
Arena
Stadium
Theater
Performing Arts Center



DESCRIPTIVE DATA

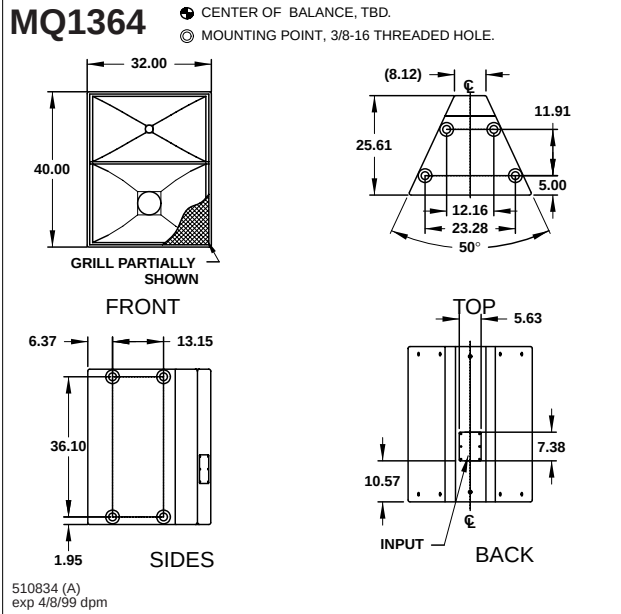
Configuration	Mid/High	
Powering	Bi-amplified	
MF Subsystem	1x 10-in Horn-Loaded Cone, Radial Phase Plug	
HF Subsystem	1x 2-in Exit/75mm Voice Coil Compression Driver on Constant Directivity Horn	
Cabinet Type (shape)	Trapezoid	
Enclosure Materials	Baltic Birch Plywood	
Finish	Black Polyurethane	
Connectors	4-Terminal Barrier Strip & 1x Neutrik NL4 Speakon	
Suspension Hardware	(16) 3/8"-16 Threaded Mounting Suspension Points (4 each top, bottom and sides)	
Grill	Powder Coated Perforated Steel	
Dimensions	inches	millimeters
	Height	40.00 1016
	Width (front)	32.00 813
	Width (rear)	8.12 206
	Depth	25.61 650
Trapezoid Angle		50°
Weights	pounds	kilograms
	Net Weight	148 67.3
	Shipping Weight	156 71.0
Companion Systems		
Sub Bass		SB528, BH822e
LF		MQ1312





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DIMENSIONAL DRAWINGS



NOMINAL DATA

Frequency Response (1 W @ 1m)

±3 dB	190 Hz to 19 kHz
-10 dB	140 Hz

Axial Sensitivity (dB SPL, 1 Watt @ 1m)

MF	109.5
HF	114.0

Impedance (Ohms)

MF	8
HF	8

Power Handling, AES Standard (Watts)

MF	400
HF	200

Calculated Maximum Output (dB SPL)

MF Peak	141.5
HF Peak	143.0
MF Long Term	135.5
HF Long Term	137.0

Nominal Coverage Angle/-6 dB points (degrees)

Horizontal	60
Vertical	40

Recommended High-Pass Frequency

24 dB/Octave	190 Hz
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ARCHITECTURAL SPECIFICATIONS

The two-way mid/high loudspeaker system shall incorporate a 10-in cone MF transducer and a 2-in exit compression driver HF transducer.

The MF driver shall be loaded into a midrange horn constructed of 3mm birch plywood reinforced with high density polyurethane foam. The MF horn shall incorporate a phase/displacement plug. The HF driver shall be loaded on constant directivity horn with a nominal coverage pattern of 60° (h) x 40° (v). An internal passive filter network shall provide system equalization.

System frequency response shall vary no more than ±3 dB from 190 Hz to 19 kHz measured on axis. The midrange frequency section shall produce a Sound Pressure Level (SPL) of 109.5 dB SPL on axis at 1 meter with a power input of 1 Watt, and shall be capable of producing a peak output of 141.5 dB SPL on axis at 1 meter. The high frequency section shall produce a Sound Pressure Level (SPL) of 114 dB SPL on axis at 1 meter with a power input of 1 Watt, and shall be capable of producing a peak output of 143 dB SPL on axis at 1 meter. The midrange frequency section shall handle 400 Watts of amplifier power (AES Standard) and shall have a nominal impedance of 8 Ohms. The high frequency section shall handle 200 Watts of amplifier power (AES Standard) and shall have a nominal impedance of 8 Ohms.

The loudspeaker enclosure shall be trapezoidal in shape. It shall be constructed of 15mm thickness void-free cross-grain-laminated Baltic birch plywood and shall employ extensive internal bracing. It shall be finished in black catalyzed polyurethane. Input connectors shall be 4-terminal barrier strip and one Neutrik NL4 Speakon. A total of sixteen 3/8"-16 threaded mounting/suspension points (4 each top, bottom and sides) shall be provided. The front of the loudspeaker shall be covered with a powder coated perforated steel grill.

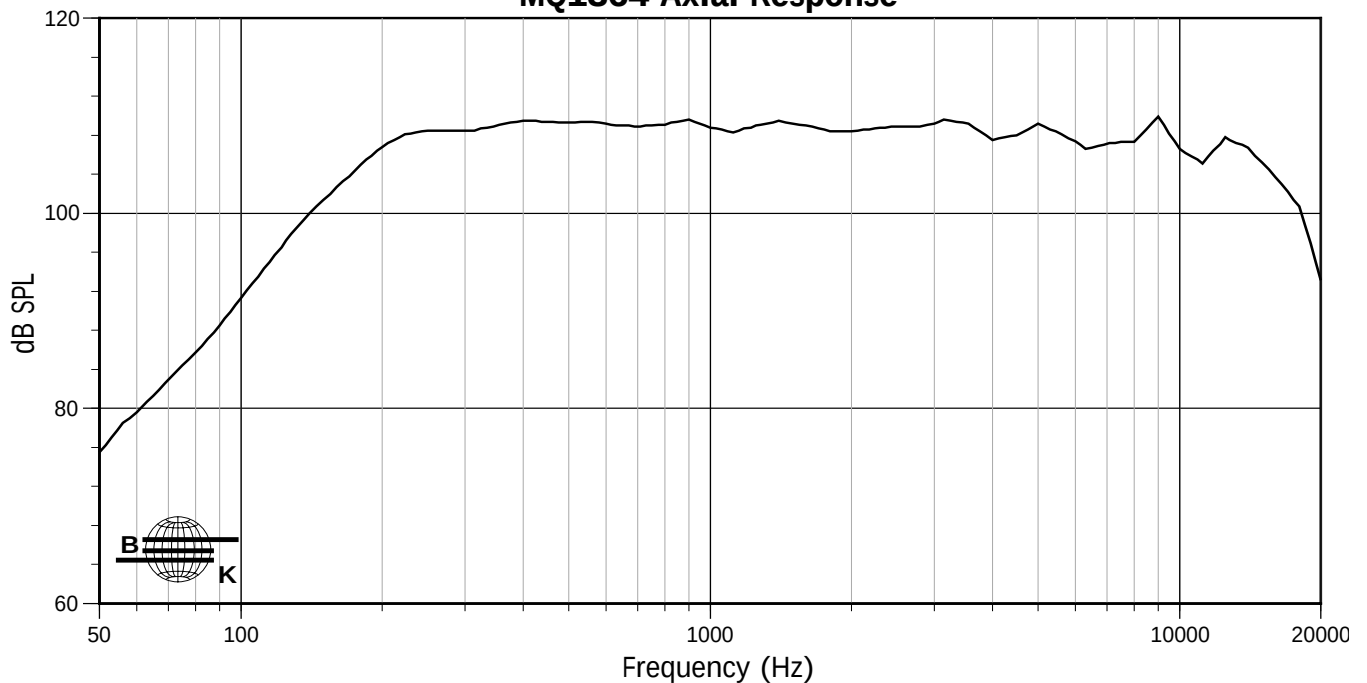
The two-way mid/high loudspeaker shall be the EAW model MQ1364.



PERFORMANCE SPECIFICATIONS MQ1364

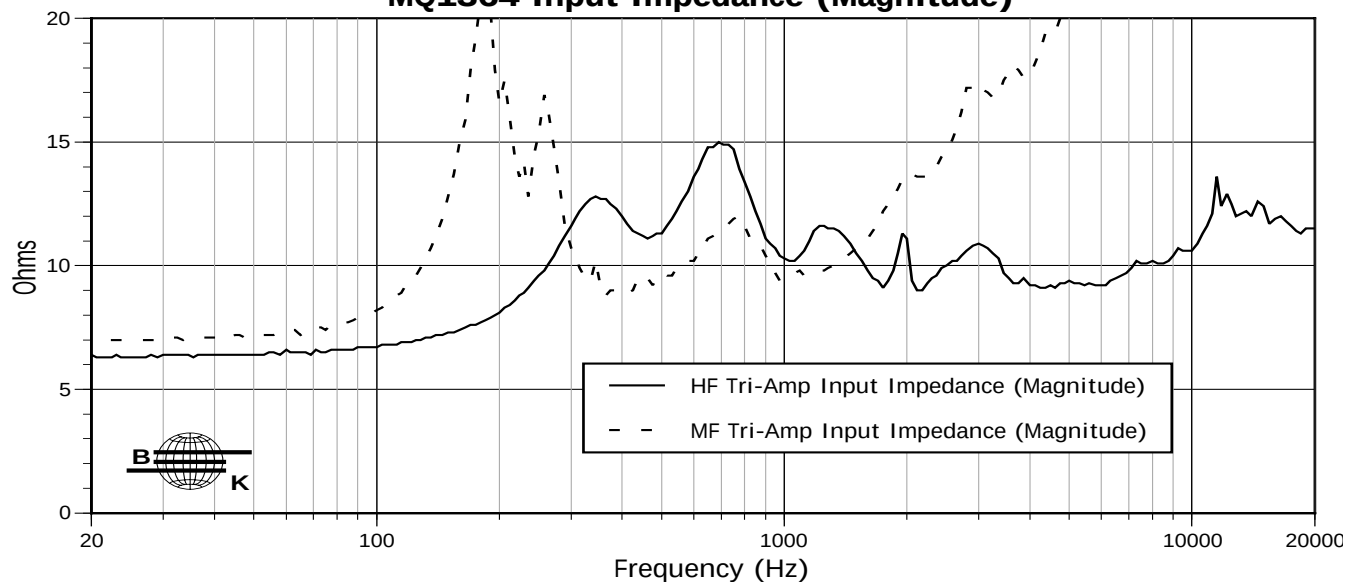
FREQUENCY RESPONSE

MQ1364 Axial Response



INPUT IMPEDANCE

MQ1364 Input Impedance (Magnitude)

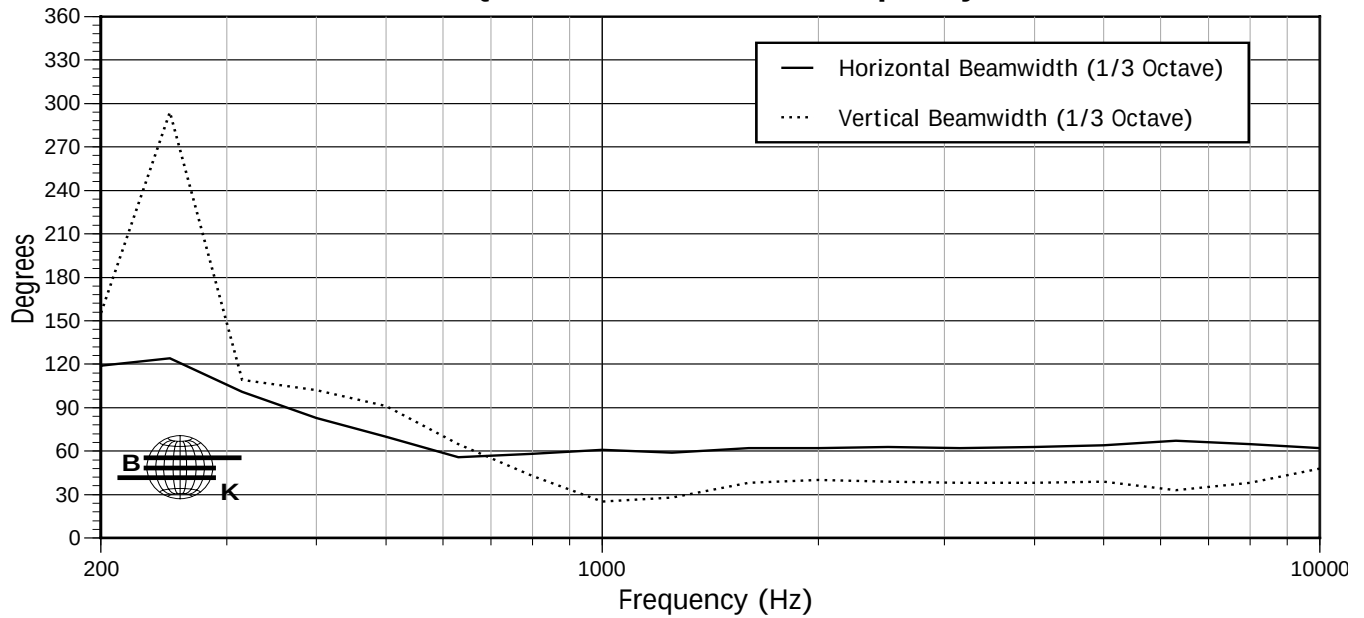




PERFORMANCE SPECIFICATIONS MQ1364

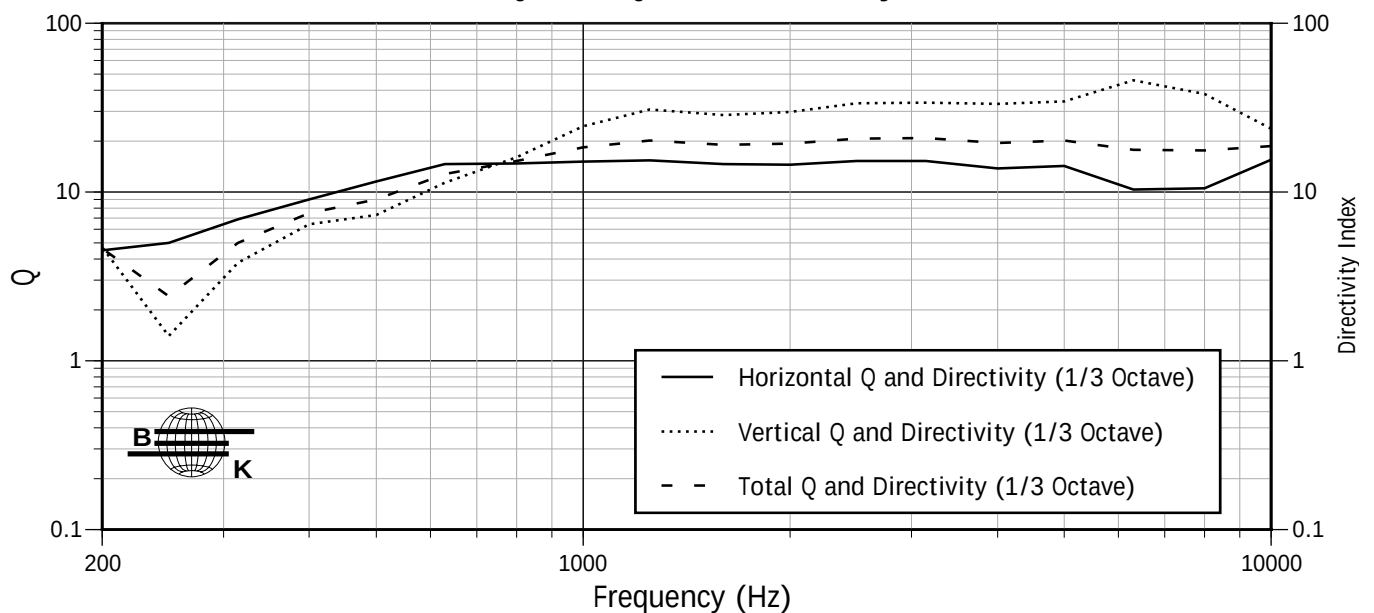
BEAMWIDTH

MQ1364 Beamwidth vs Frequency



Q & DIRECTIVITY INDEX (DI)

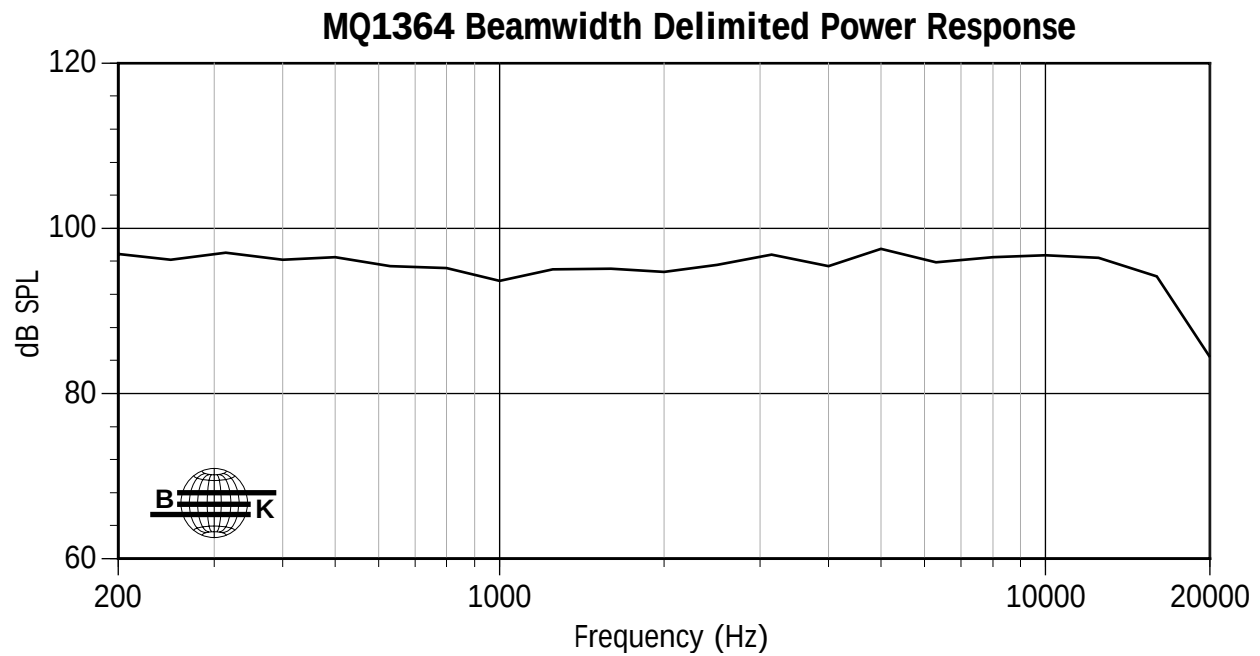
MQ1364 Q and Directivity





PERFORMANCE SPECIFICATIONS MQ1364

POWER RESPONSE





PERFORMANCE SPECIFICATIONS MQ1364

Q & DIRECTIVITY & BEAMWIDTH BY FREQUENCY

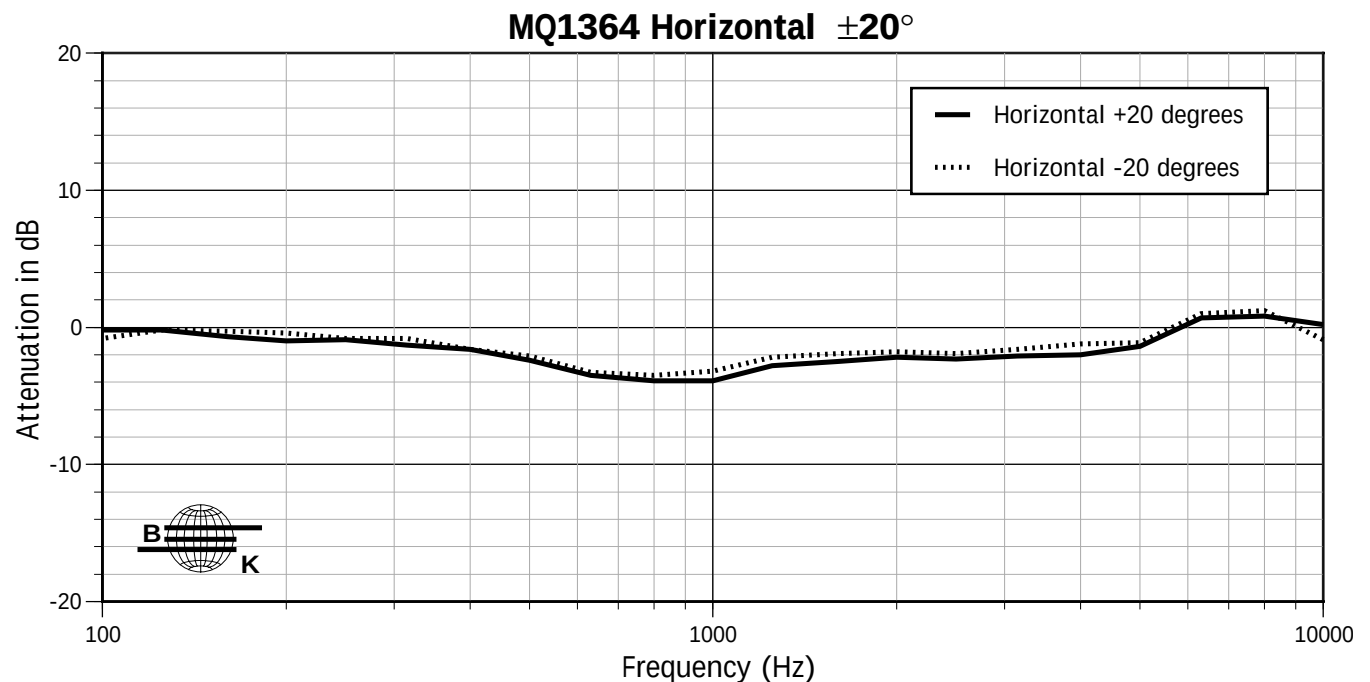
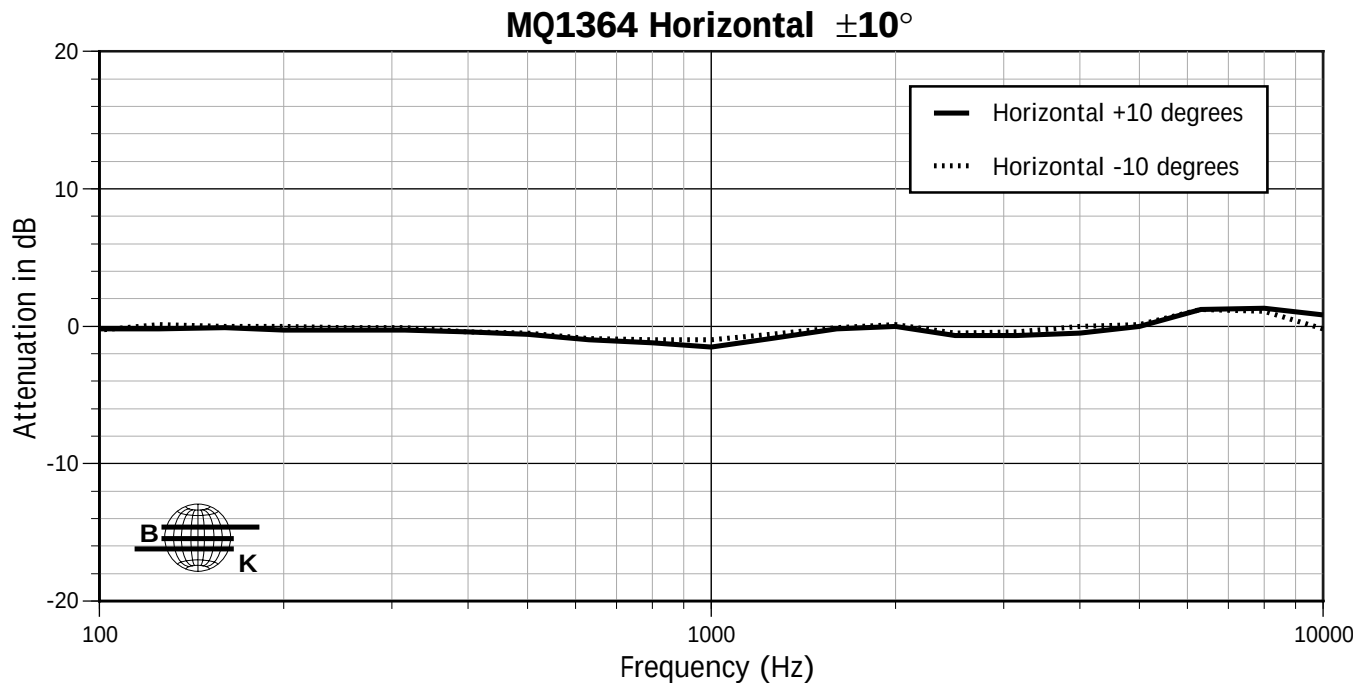
Frequency	Hor Beamwidth	Ver Beamwidth	Hor Q & Dir	Ver Q & Dir	Tot Q & Dir
80	360	360	4.3	1.8	2.7
100	360	360	3.9	3.2	3.5
125	360	360	2.2	2.4	2.3
160	360	130	2.7	5.1	3.5
200	119	155	4.5	4.7	4.6
250	124	294	5	1.4	2.4
315	101	109	6.9	3.8	5
400	83	102	9	6.4	7.5
500	70	91	11.5	7.3	9
630	56	65	14.6	11.3	12.8
800	58	43	14.7	16	15.3
1000	61	25	15.1	24.4	18.3
1250	59	28	15.4	30.9	20.1
1600	62	38	14.6	28.6	19
2000	62	40	14.5	29.8	19.3
2500	63	39	15.2	33.5	20.7
3150	62	38	15.2	33.8	20.8
4000	63	38	13.8	33.2	19.4
5000	64	39	14.2	34.3	20.1
6300	67	33	10.3	46	17.8
8000	65	38	10.5	38.1	17.6
10000	62	48	15.5	23.6	18.6
12500	64	41	13.2	26.9	16.5
16000	47	39	24.3	32.9	27.7
20000	71	33	13.4	32.4	17.9



PERFORMANCE SPECIFICATIONS MQ1364

HORIZONTAL OFF-AXIS RESPONSE

On-axis response normalized to 0 dB.



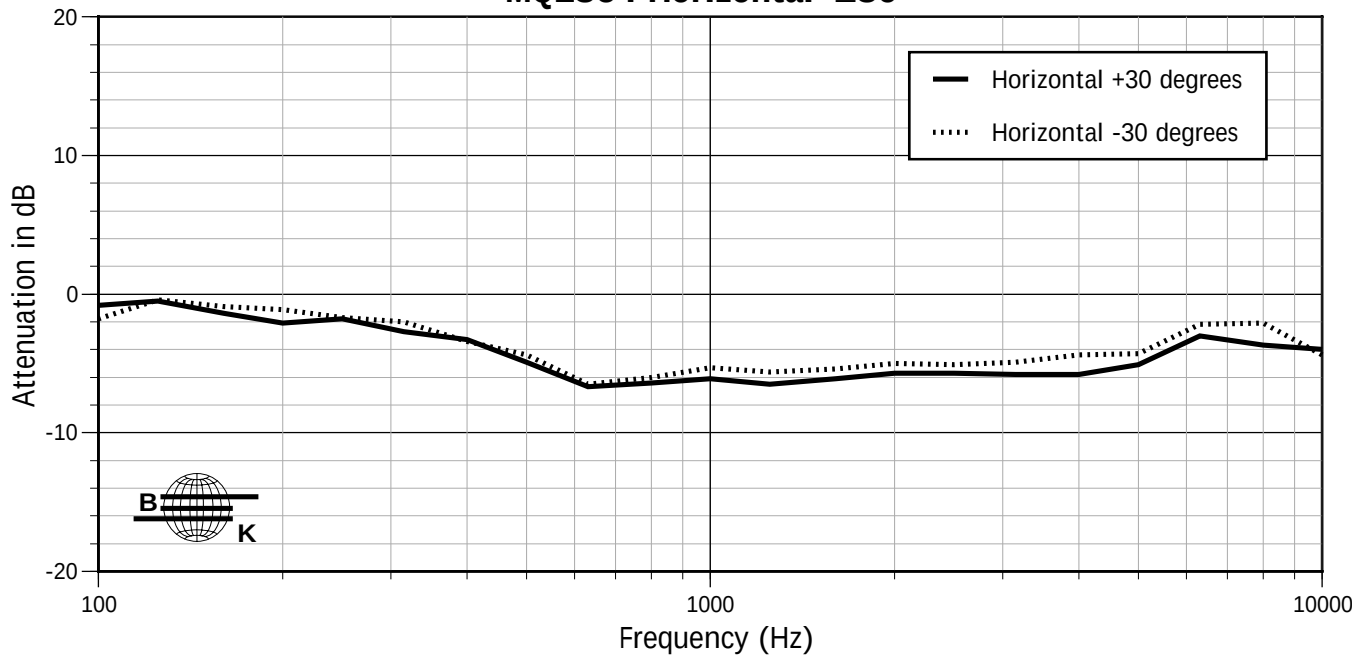


PERFORMANCE SPECIFICATIONS MQ1364

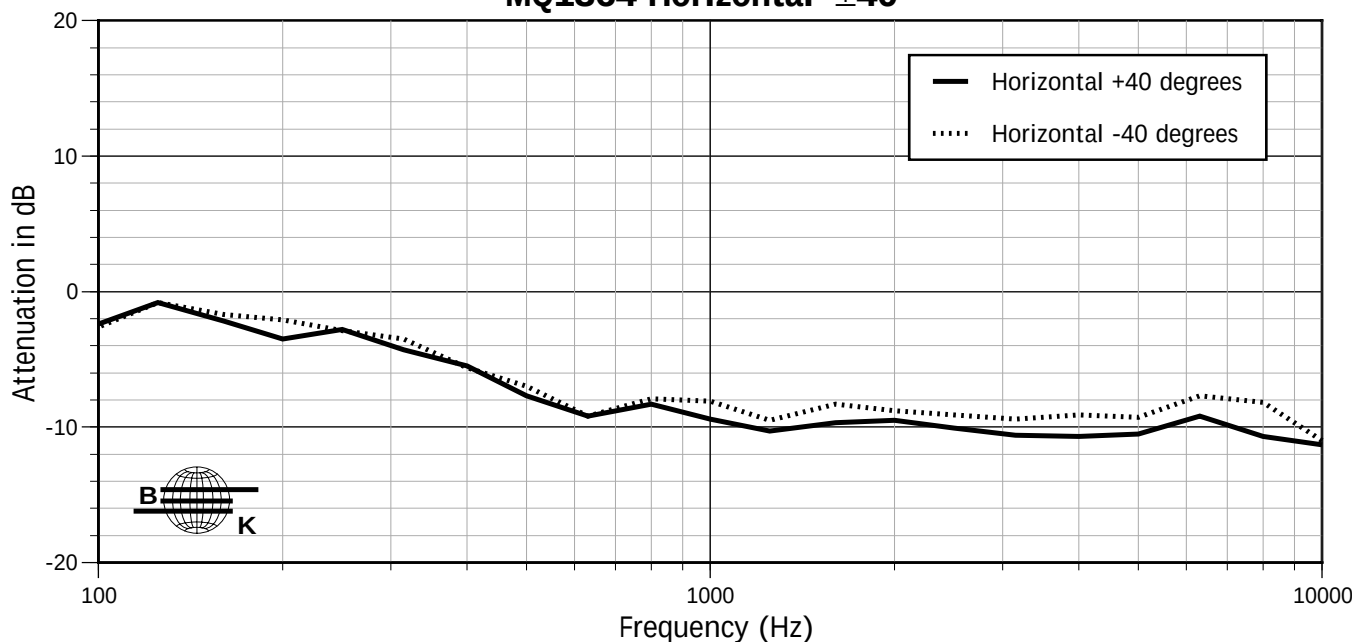
VERTICAL OFF-AXIS RESPONSE

On-axis response normalized to 0 dB.

MQ1364 Horizontal $\pm 30^\circ$



MQ1364 Horizontal $\pm 40^\circ$



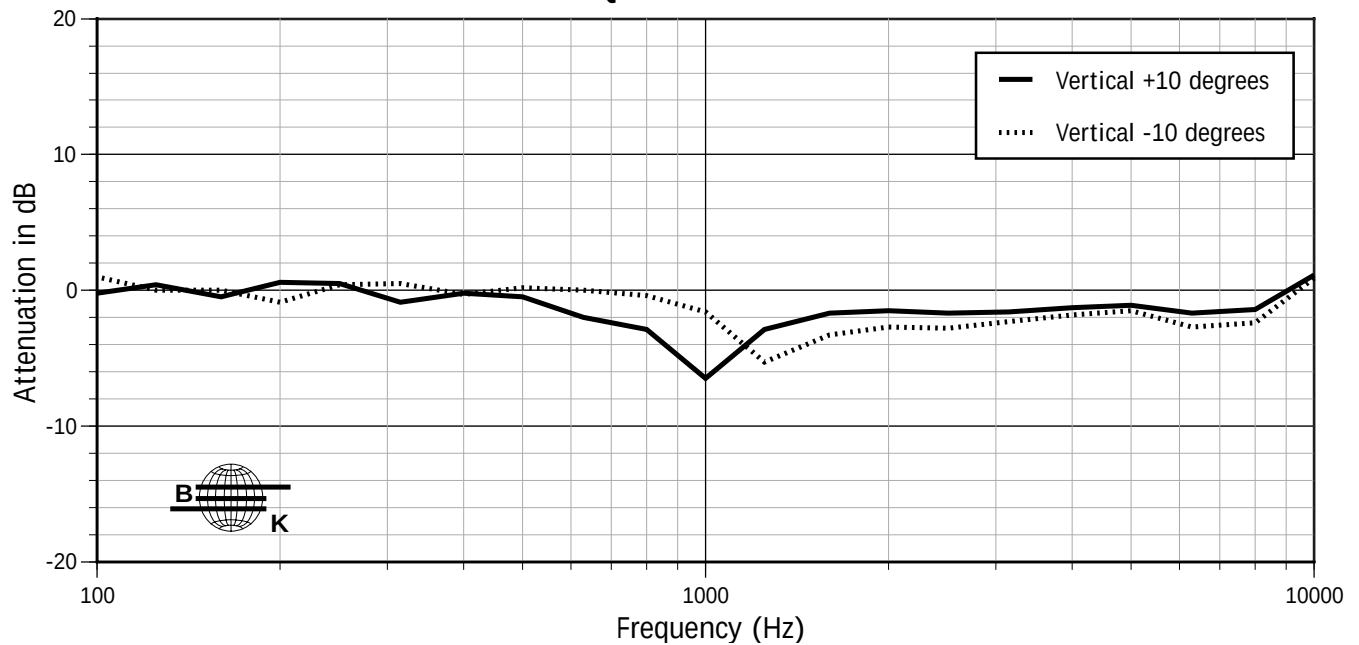


PERFORMANCE SPECIFICATIONS MQ1364

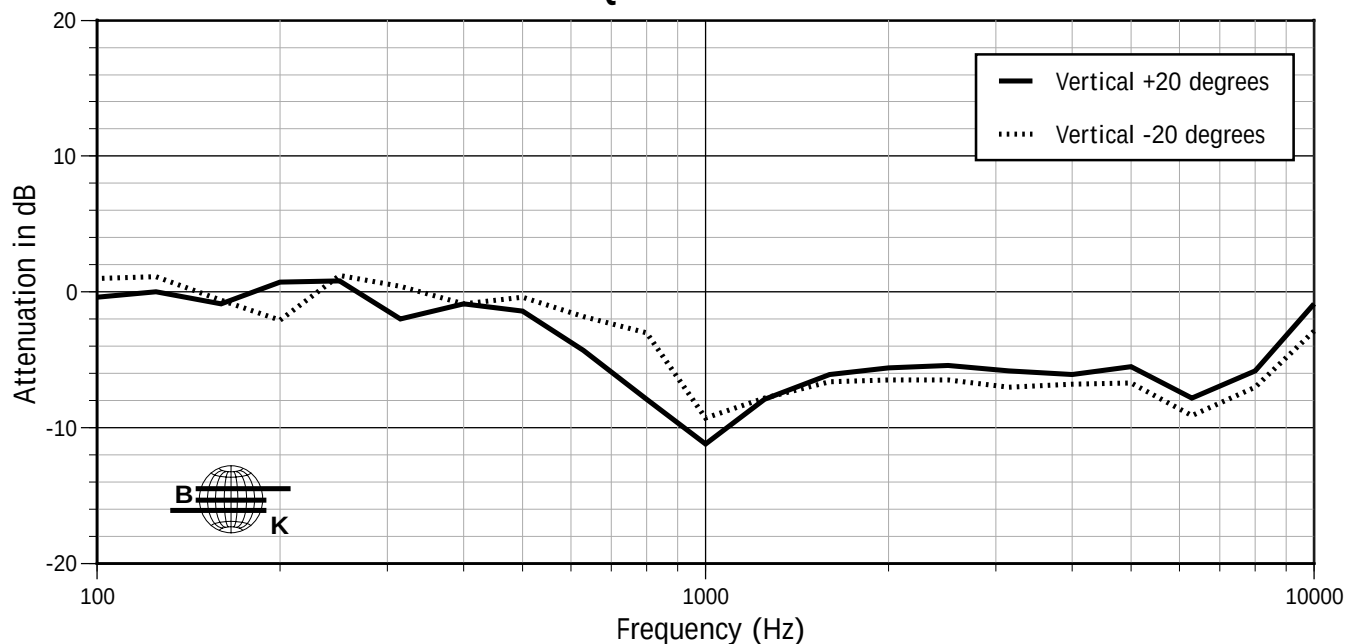
VERTICAL OFF-AXIS RESPONSE

On-axis response normalized to 0 dB.

MQ1364 Vertical $\pm 10^\circ$



MQ1364 Vertical $\pm 20^\circ$



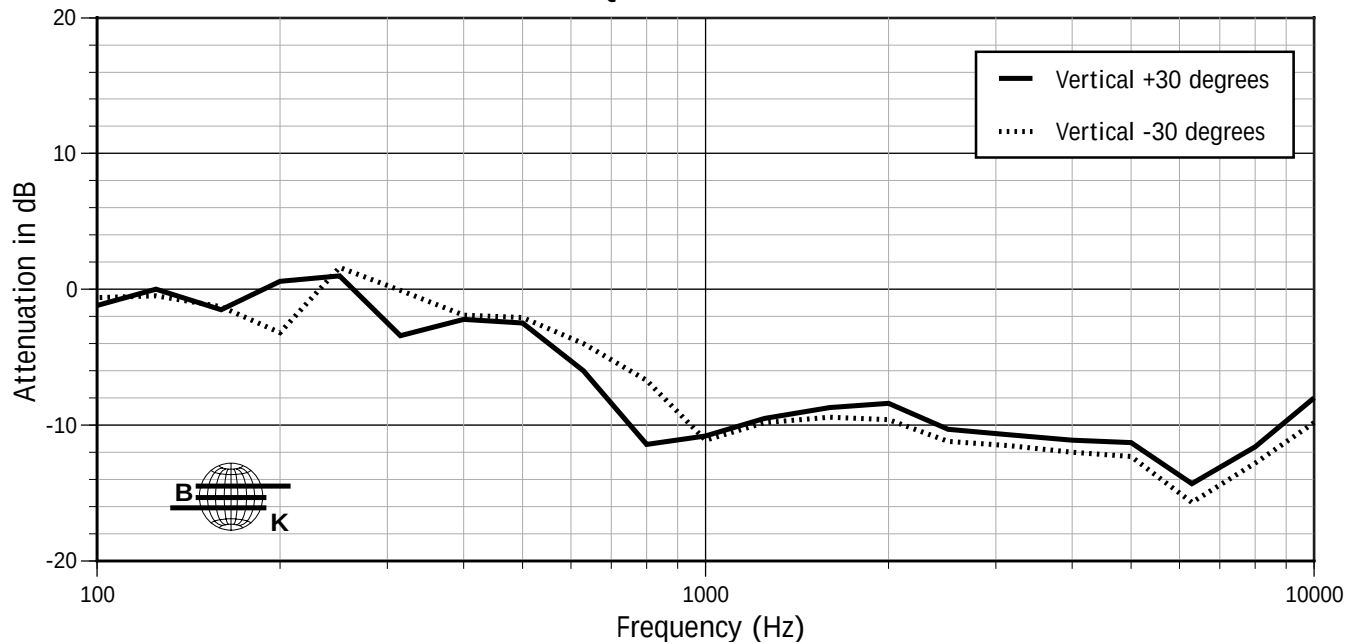


PERFORMANCE SPECIFICATIONS MQ1364

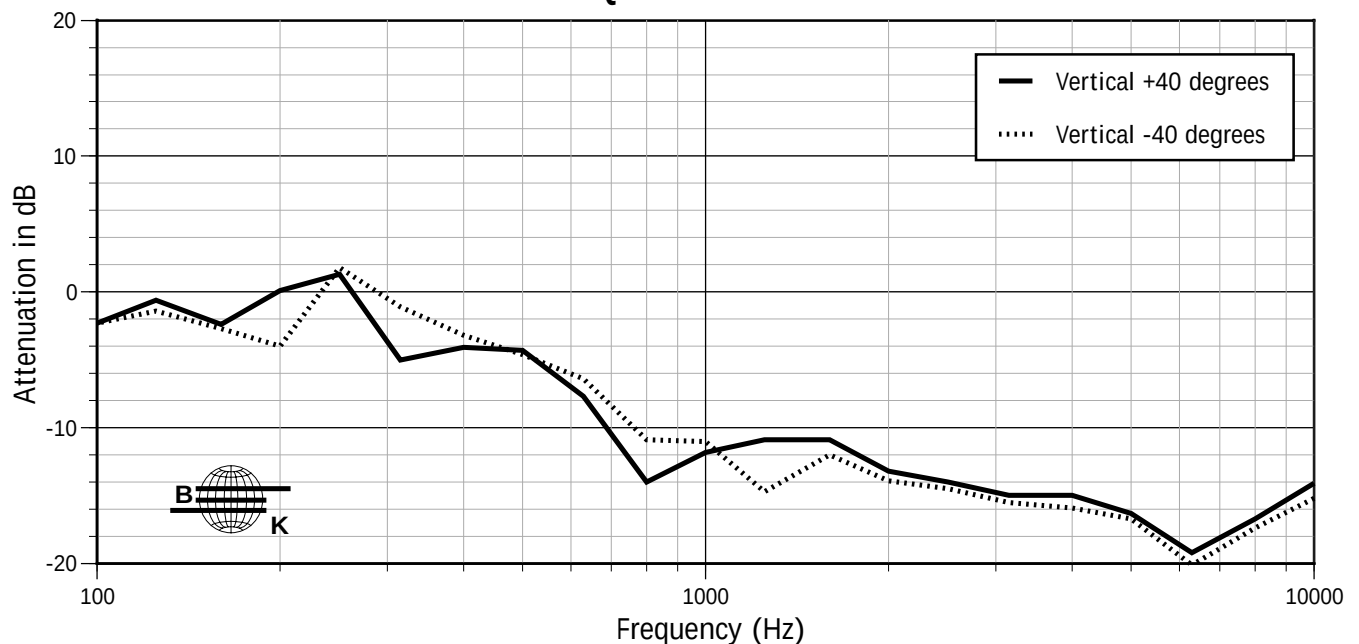
VERTICAL OFF-AXIS RESPONSE

On-axis response normalized to 0 dB.

MQ1364 Vertical $\pm 30^\circ$

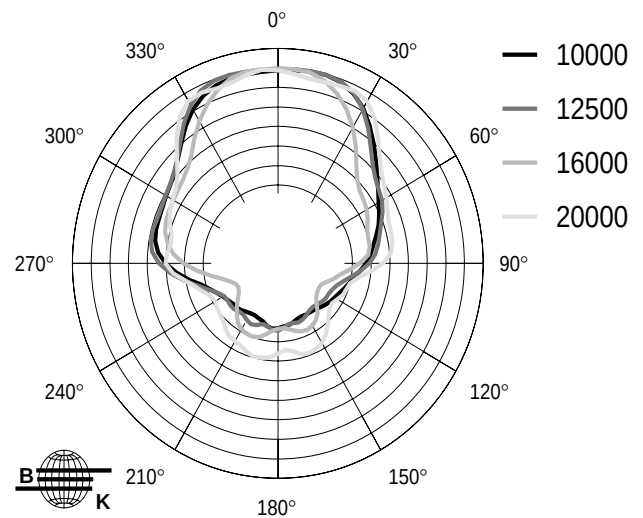
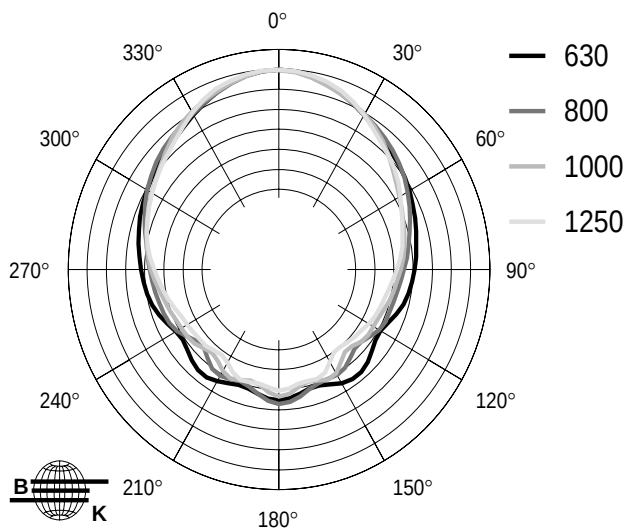
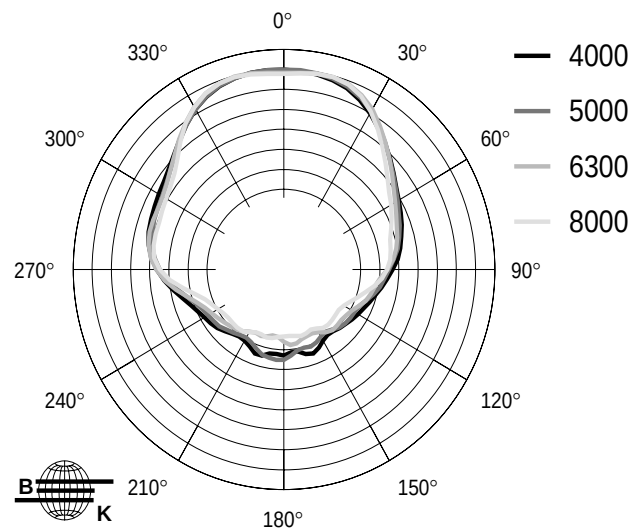
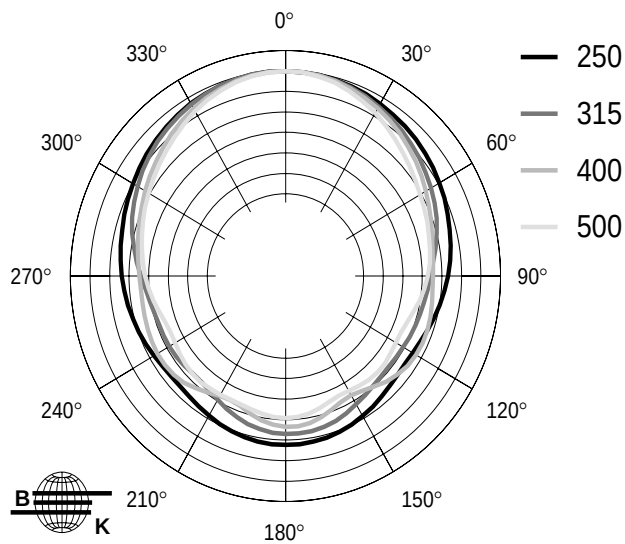
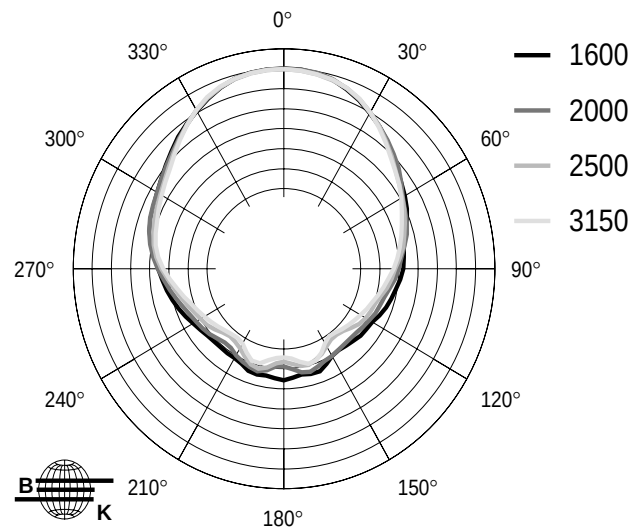
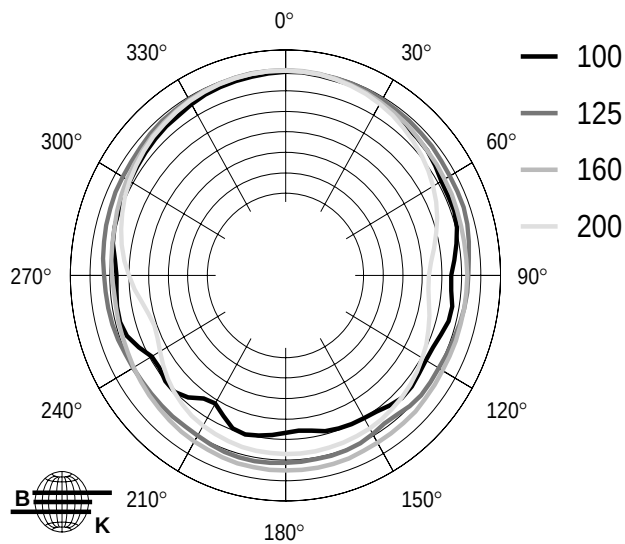


MQ1364 Vertical $\pm 40^\circ$





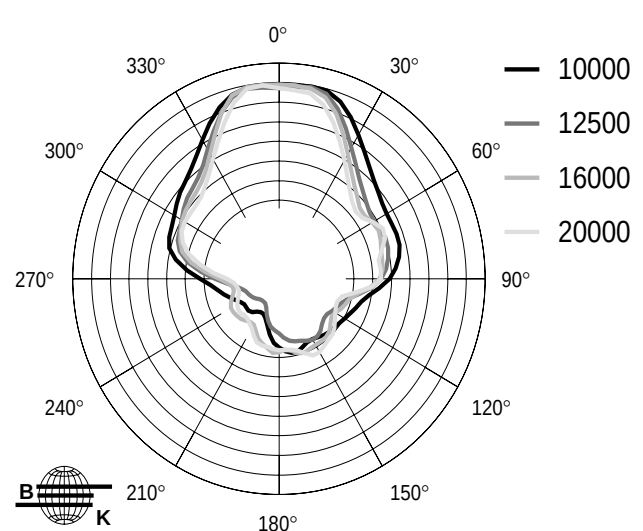
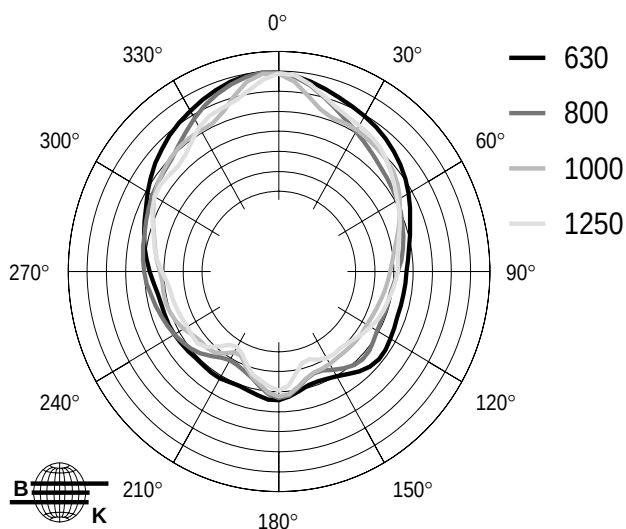
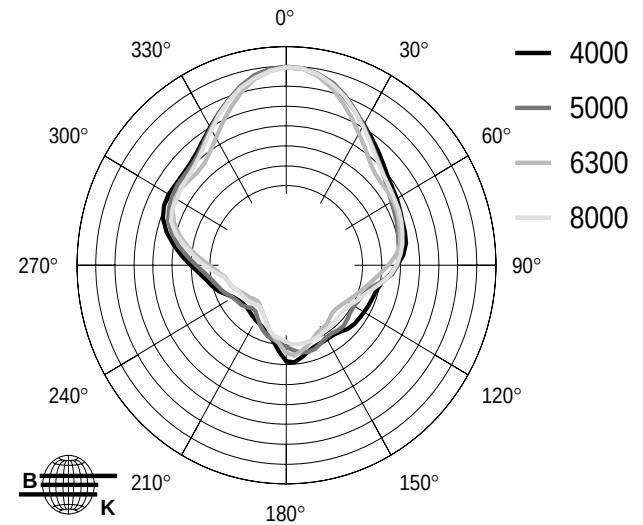
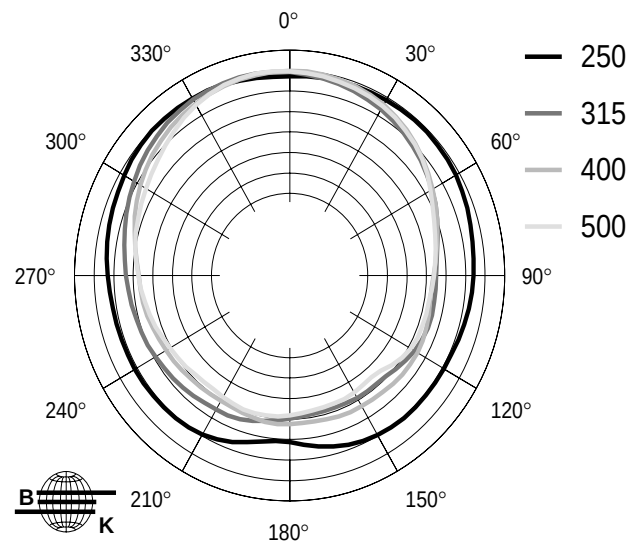
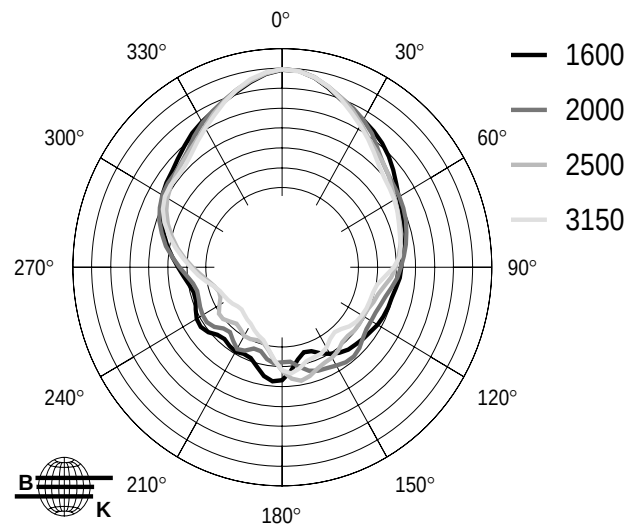
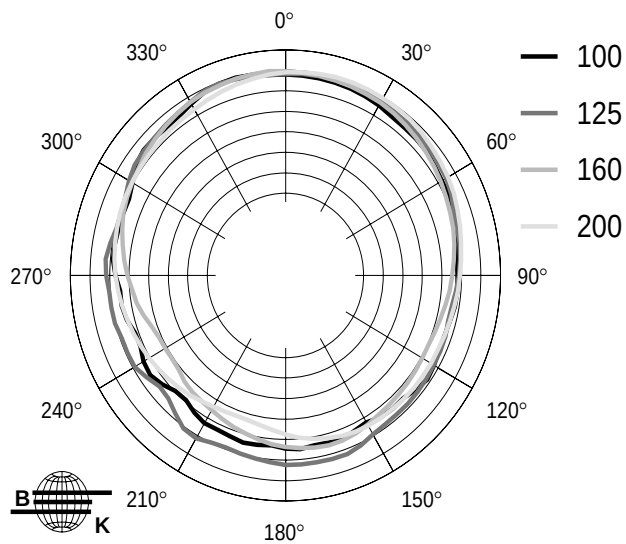
HORIZONTAL 1/3 OCTAVE POLAR DATA MQ1364



6 db/div.



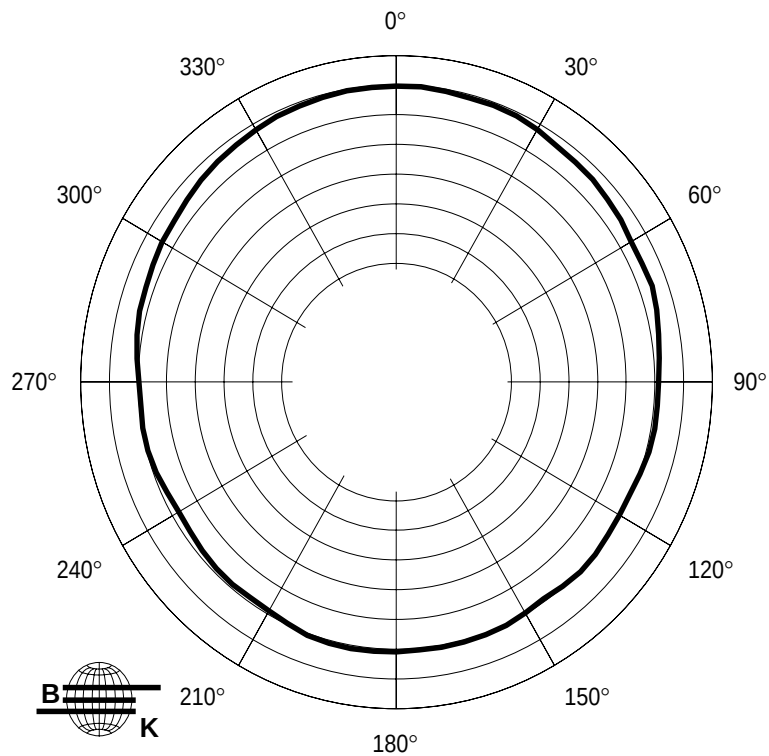
VERTICAL 1/3 OCTAVE POLAR DATA MQ1364



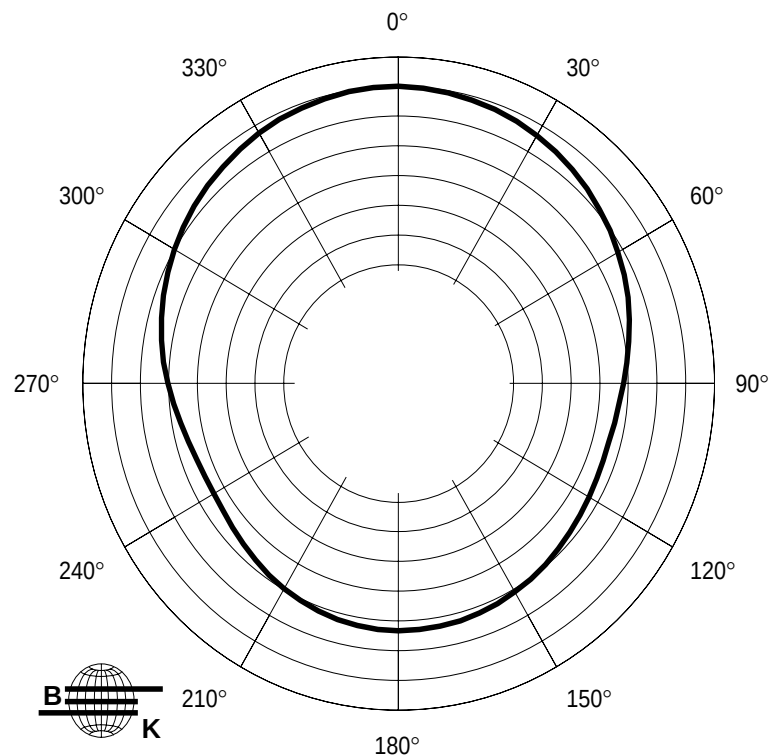


HORIZONTAL OCTAVE POLAR DATA MQ1364

MQ1364 125 Hz Horizontal Octave Polar Data



MQ1364 250 Hz Horizontal Octave Polar Data

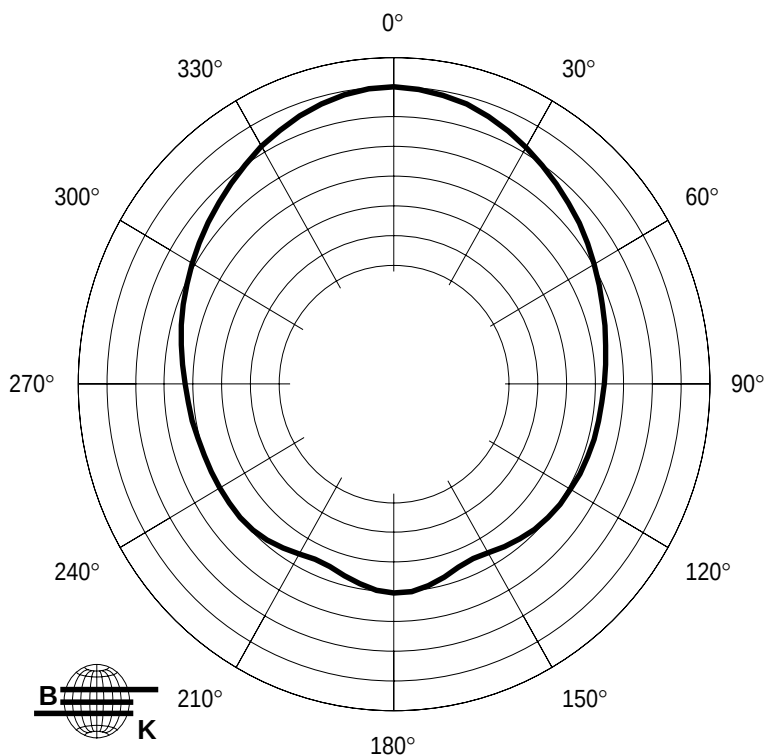


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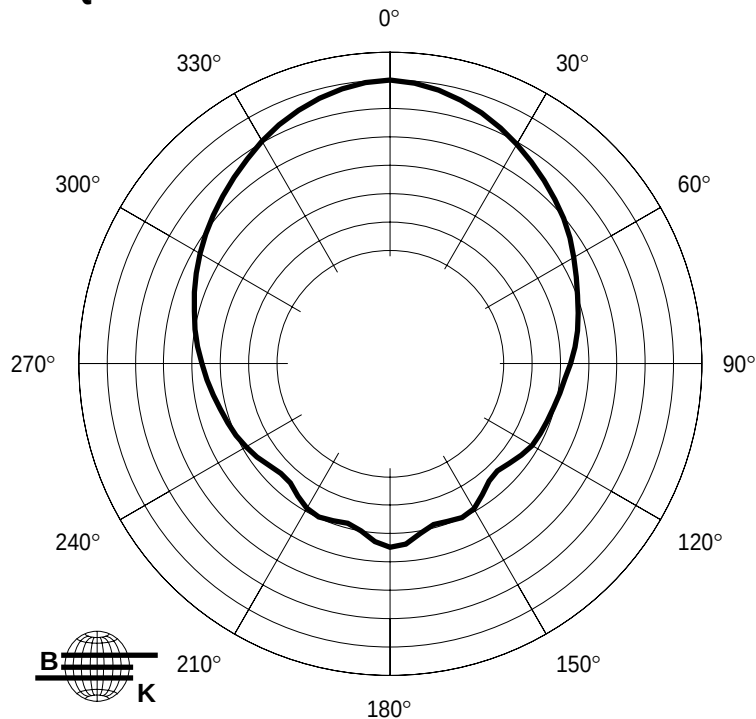


HORIZONTAL OCTAVE POLAR DATA MQ1364

MQ1364 500 Hz Horizontal Octave Polar Data



MQ1364 1000 Hz Horizontal Octave Polar Data

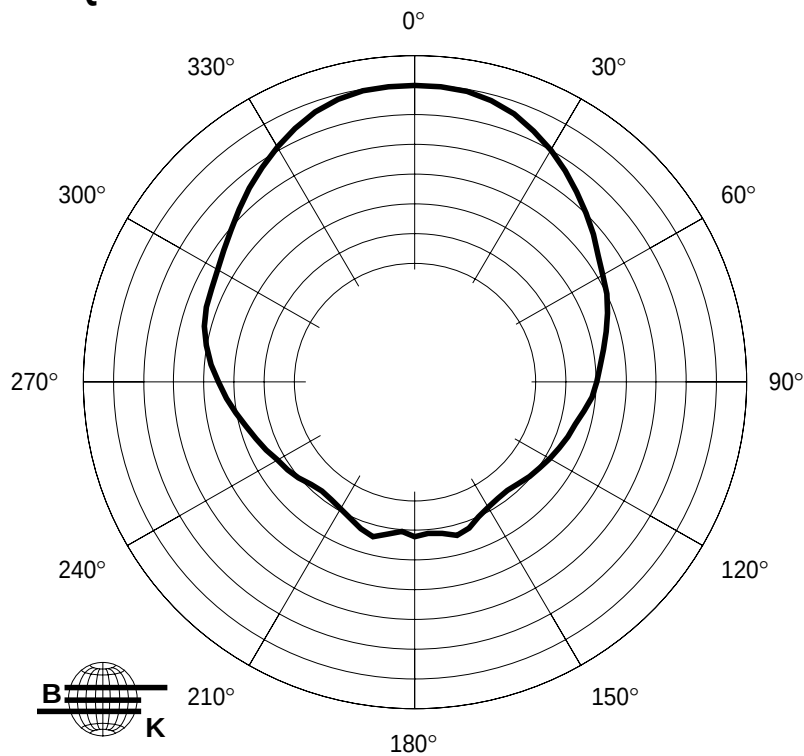


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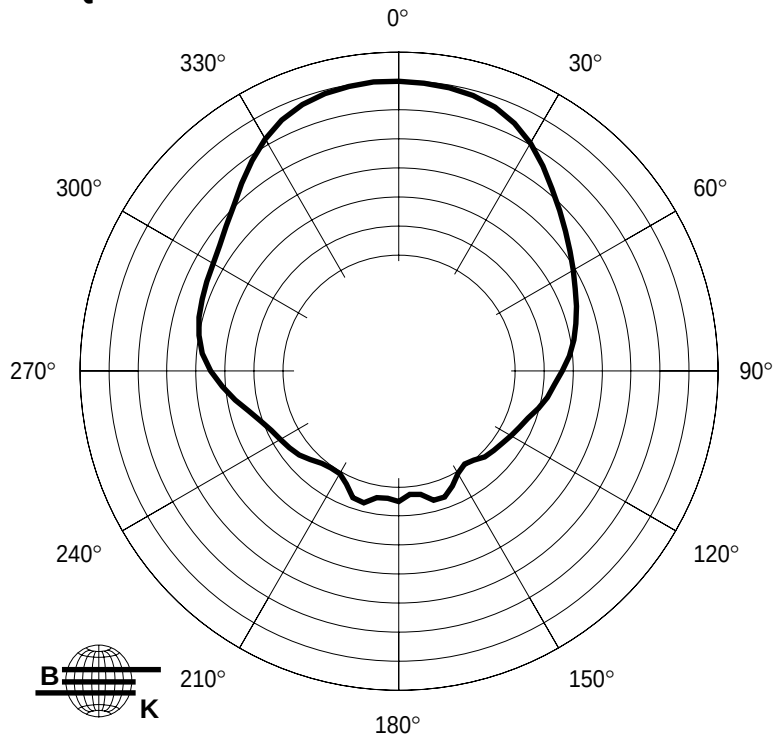


HORIZONTAL OCTAVE POLAR DATA MQ1364

MQ1364 2000 Hz Horizontal Octave Polar Data



MQ1364 4000 Hz Horizontal Octave Polar Data

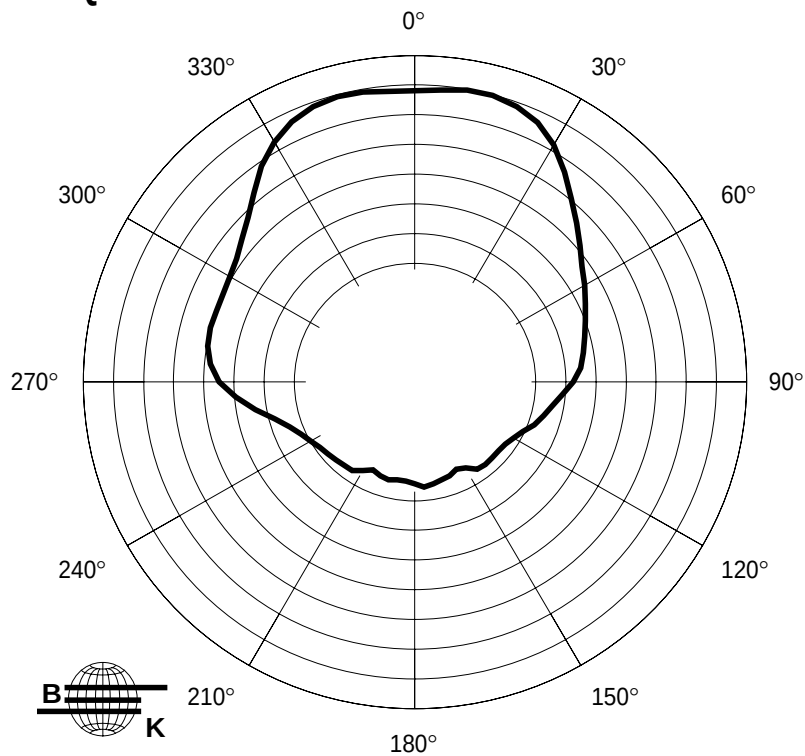


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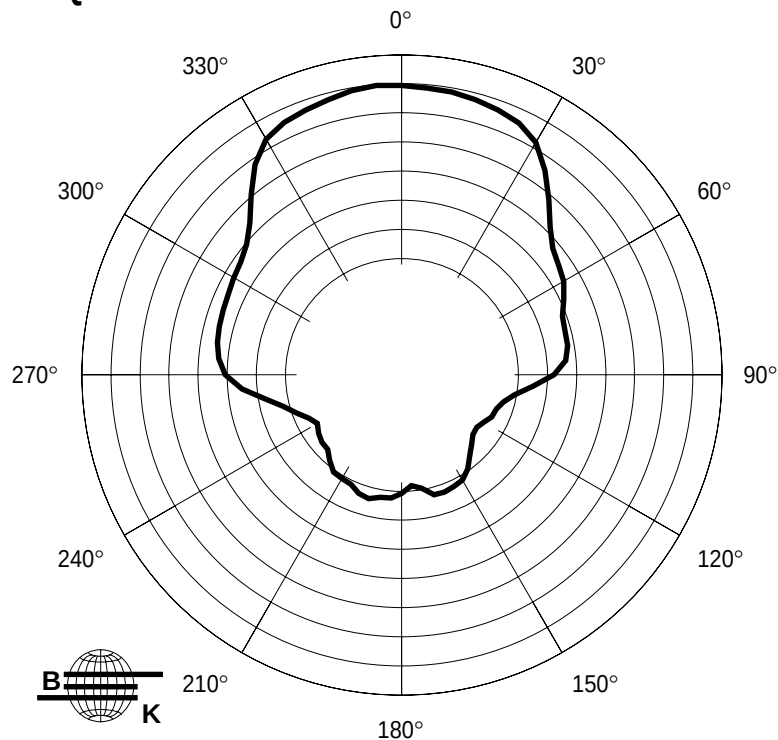


HORIZONTAL OCTAVE POLAR DATA MQ1364

MQ1364 8000 Hz Horizontal Octave Polar Data



MQ1364 16000 Hz Horizontal Octave Polar Data

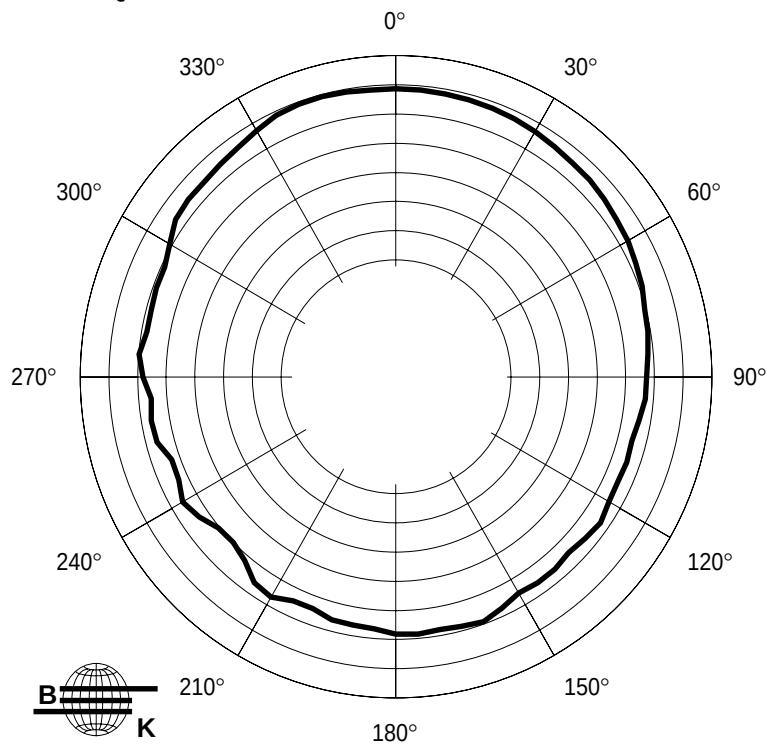


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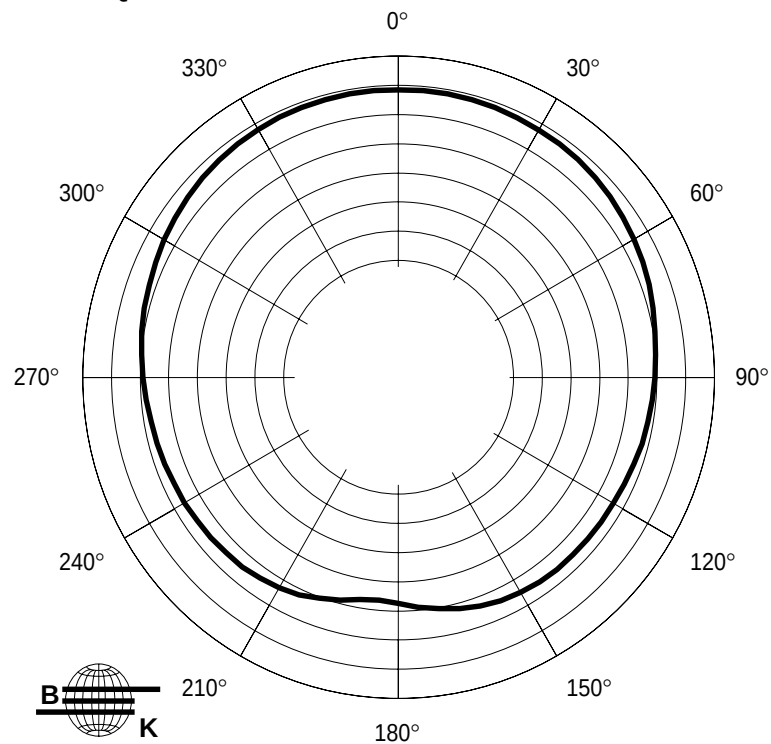


VERTICAL OCTAVE POLAR DATA MQ1364

MQ1364 125 Hz Vertical Octave Polar Data



MQ1364 250 Hz Vertical Octave Polar Data

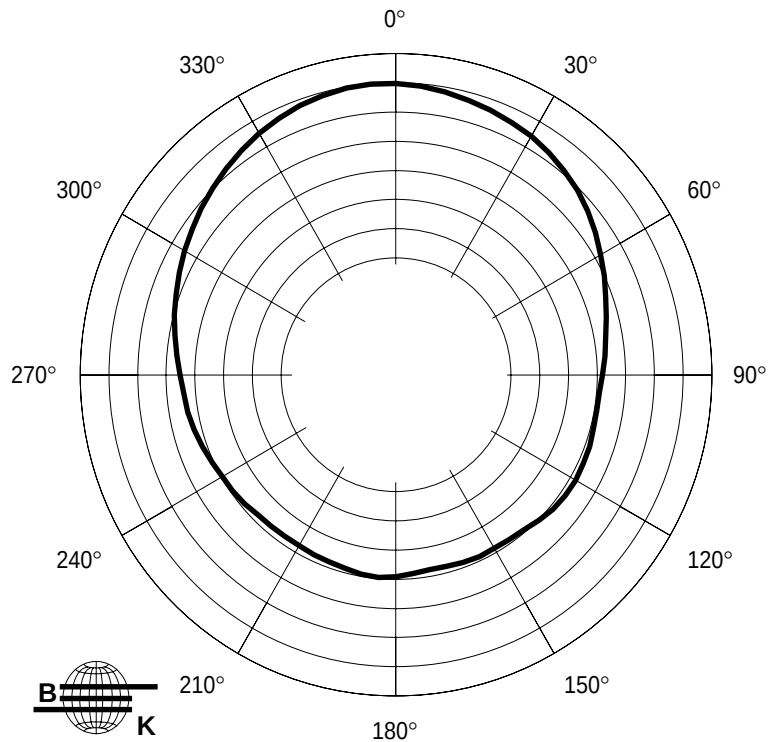


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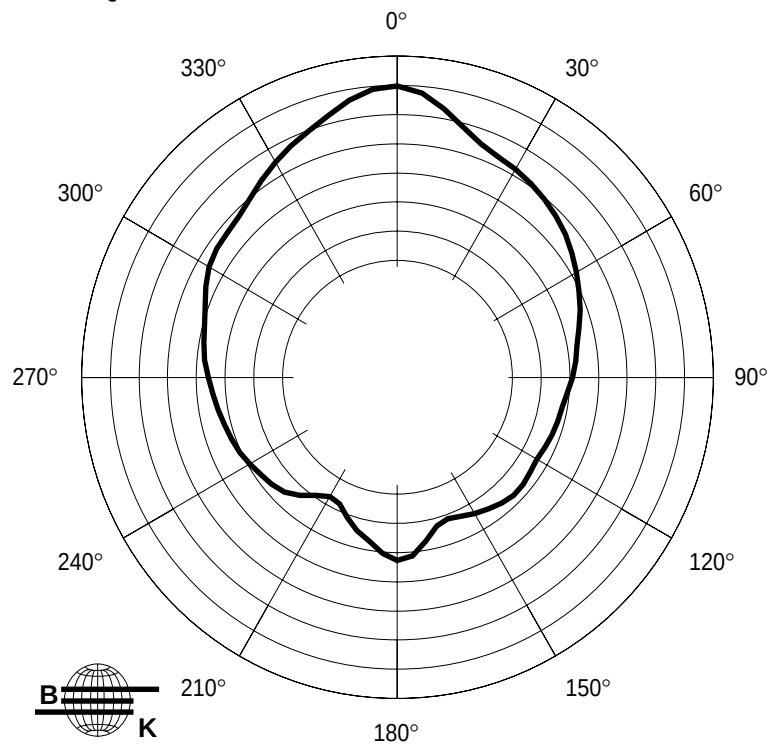


VERTICAL OCTAVE POLAR DATA MQ1364

MQ1364 500 Hz Vertical Octave Polar Data



MQ1364 1000 Hz Vertical Octave Polar Data

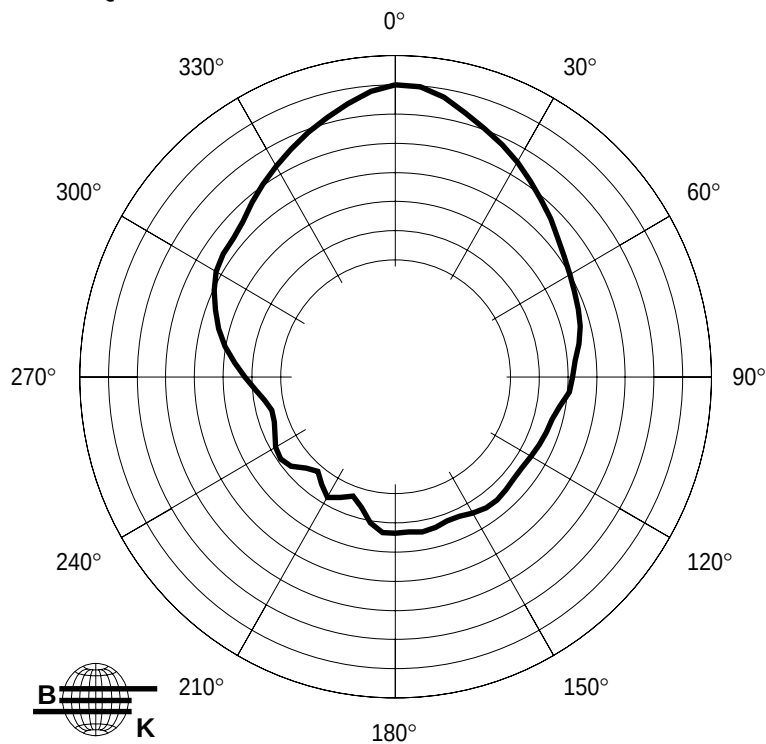


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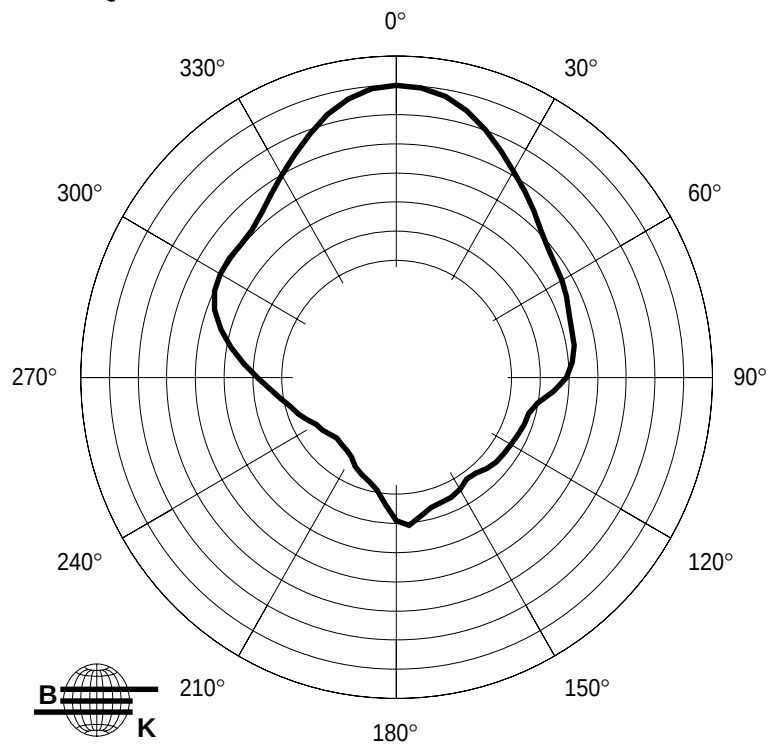


VERTICAL OCTAVE POLAR DATA MQ1364

MQ1364 2000 Hz Vertical Octave Polar Data



MQ1364 4000 Hz Vertical Octave Polar Data

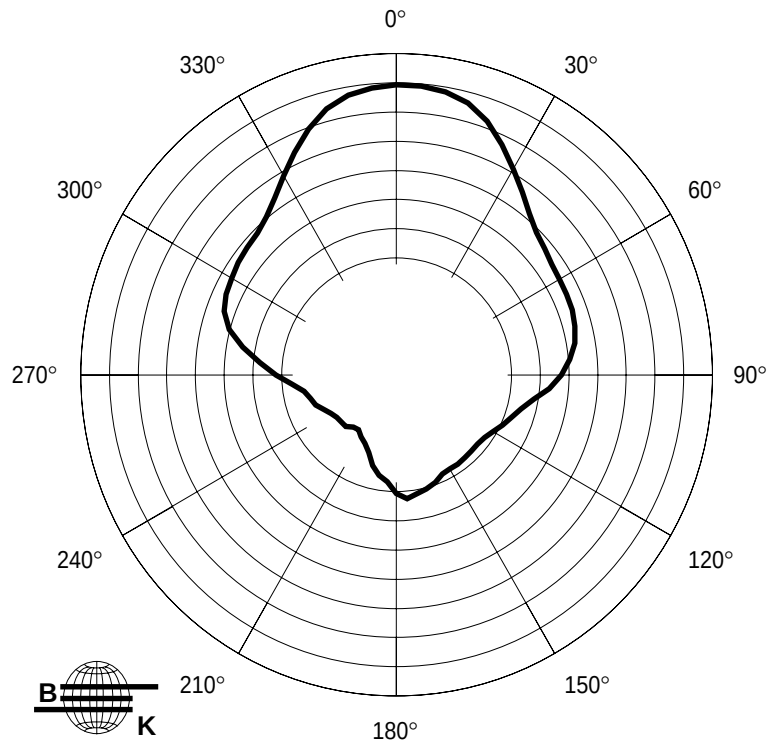


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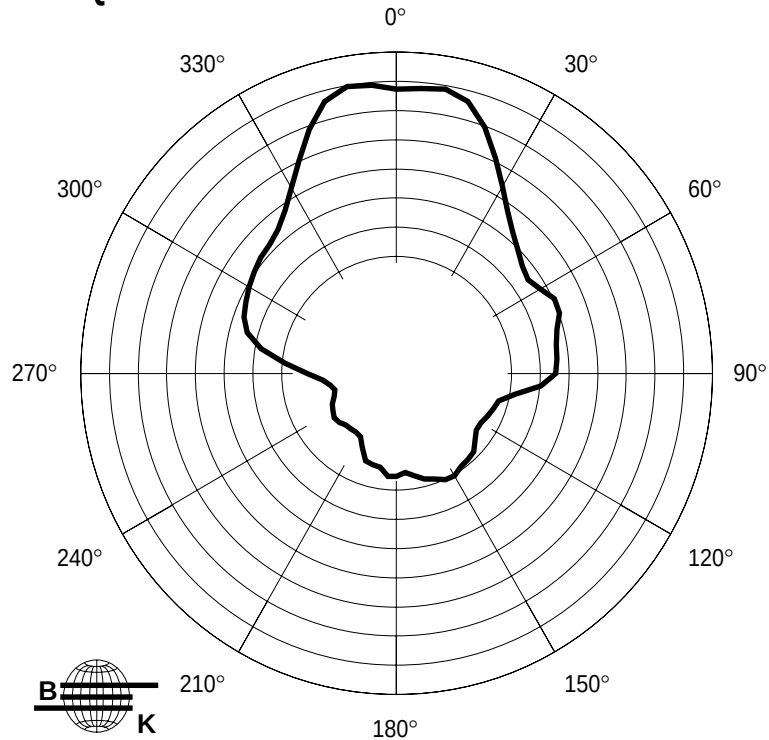


VERTICAL OCTAVE POLAR DATA MQ1364

MQ1364 8000 Hz Vertical Octave Polar Data



MQ1364 16000 Hz Vertical Octave Polar Data



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