TECHNICAL SPECIFICATIONS MQ2364

DESCRIPTION

- Mid/High VA4 loudspeaker system
- Optimized for permanent installation only
- Dual horn-loaded 10-in cones 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 trapeziod angles to facilitate the creation of optimized-coverage arrays.

The MQ2364 uses dual horn-loaded 10-in midrange cones 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 MQ2364 provides a nominal coverage pattern of 60° (h) x 40° (v).

APPLICATION

The MQ2364 mid/high module works with the MQ2412 quad 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 MQ2364's separated by a single MQ2412. 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	Biamplified	
MF Subsystem	2x 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	54.00	1372
Width (front)	32.00	813
Width (rear)	8.12	206
Depth	25.61	650
Trapezoid Angle	50°	
Weights	**pounds**	**kilograms**
Net Weight	217	98.7
Shipping Weight	241	109.7
Companion Systems		
Sub Bass	SB528, BH822e	
LF	MQ2412	

EASTERN ACOUSTIC WORKS

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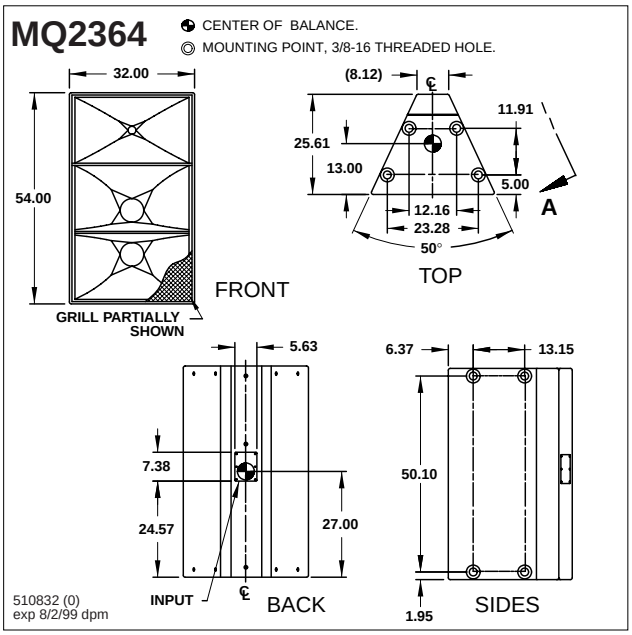
 • PUB# MQ2364-888144 (0)/2 pp/8/1/99 • Printed In USA

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	112
HF	114
Impedance (Ohms)	
MF	4
HF	8
Power Handling, AES Standard (Watts)	
MF	800
HF	200
Calculated Maximum Output (dB SPL)	
MF Peak	147.0
HF Peak	143.0
MF Long Term	141.0
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

ARCHITECTURAL SPECIFICATIONS

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

The MF drivers shall be loaded into separate midrange horns 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 112 dB SPL on axis at 1 meter with a power input of 1 Watt, and shall be capable of producing a peak output of 147 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 800 Watts of amplifier power (AES Standard) and shall have a nominal impedance of 4 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 MQ2364.

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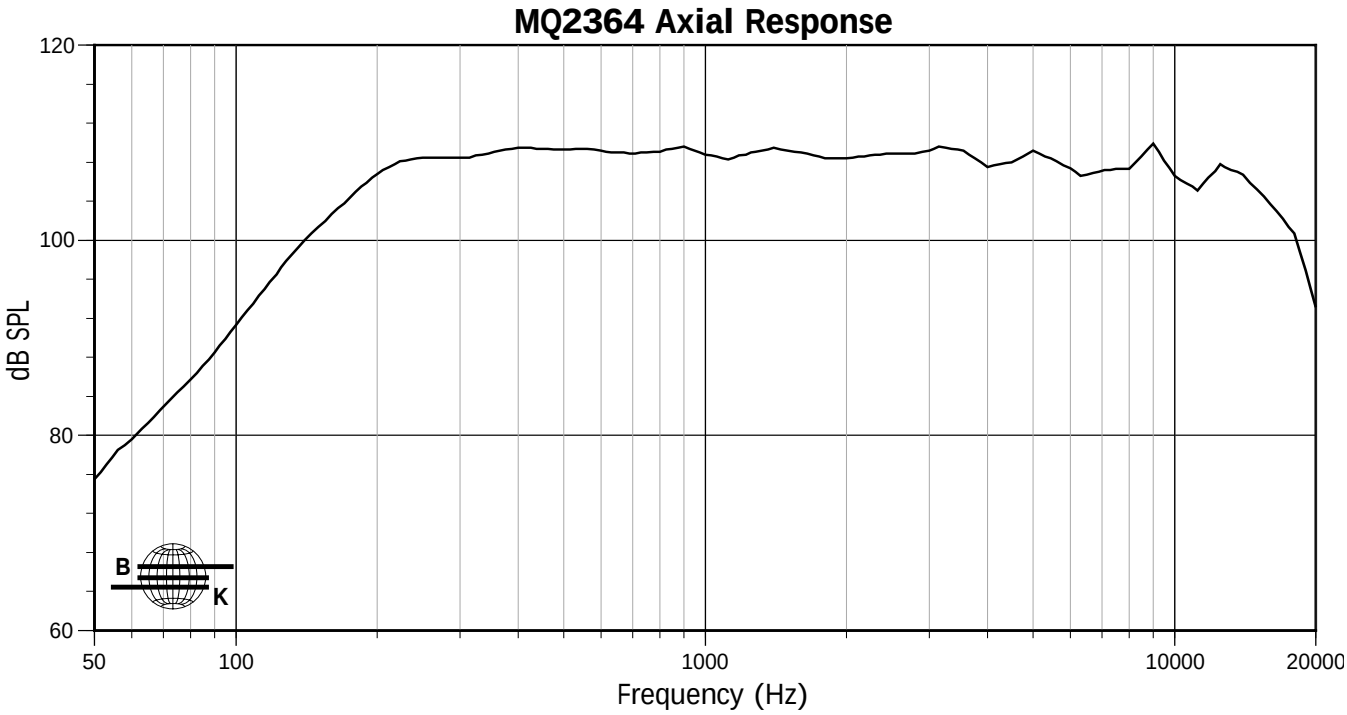
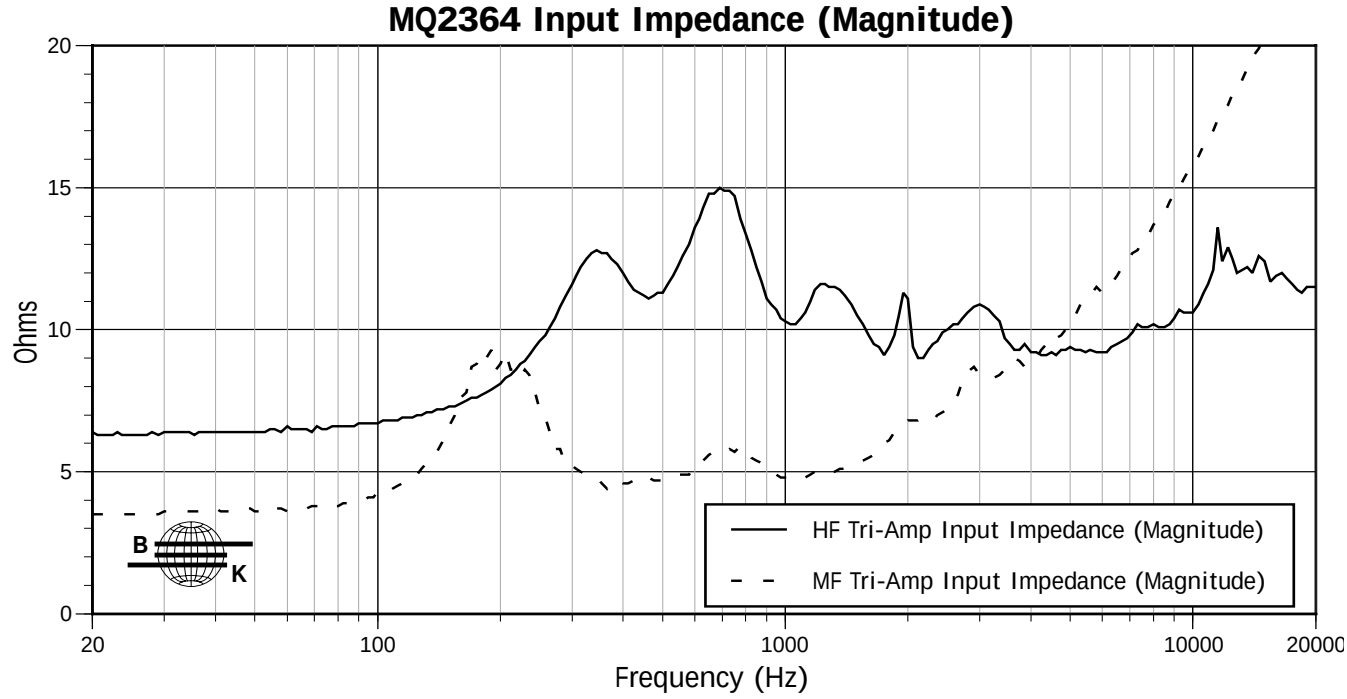
PERFORMANCE SPECIFICATIONS MQ2364

FREQUENCY RESPONSE



INPUT IMPEDANCE



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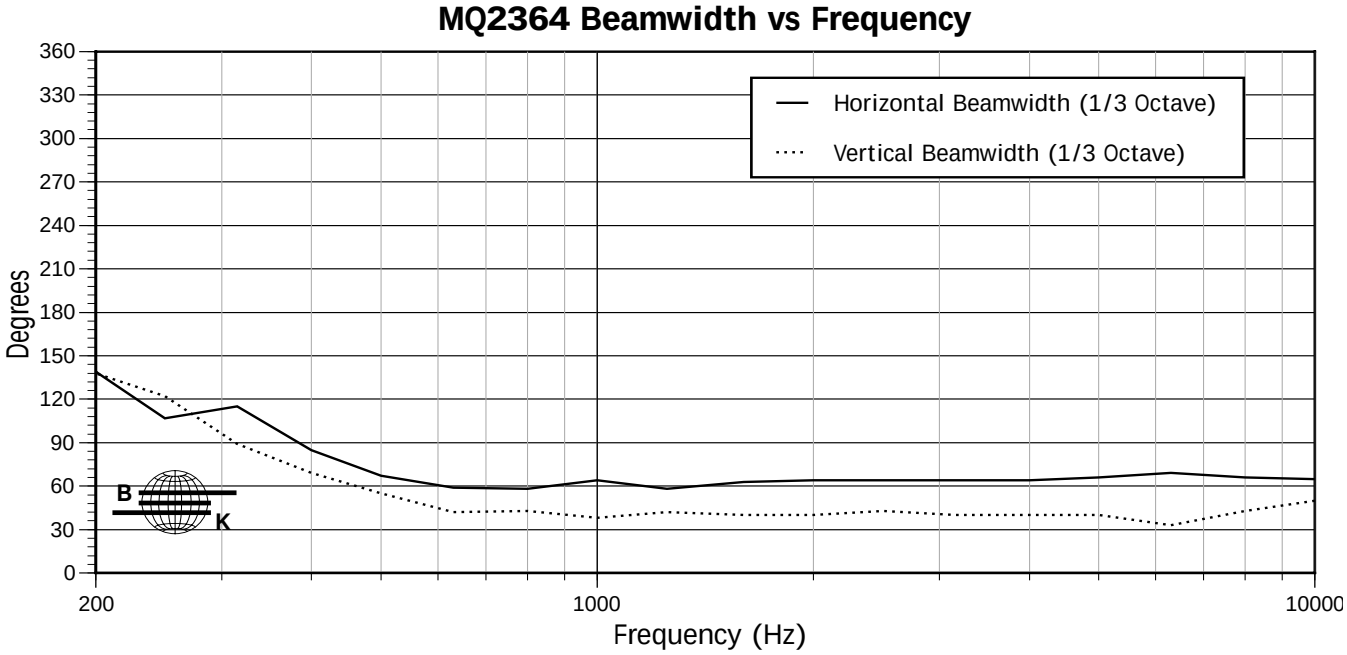
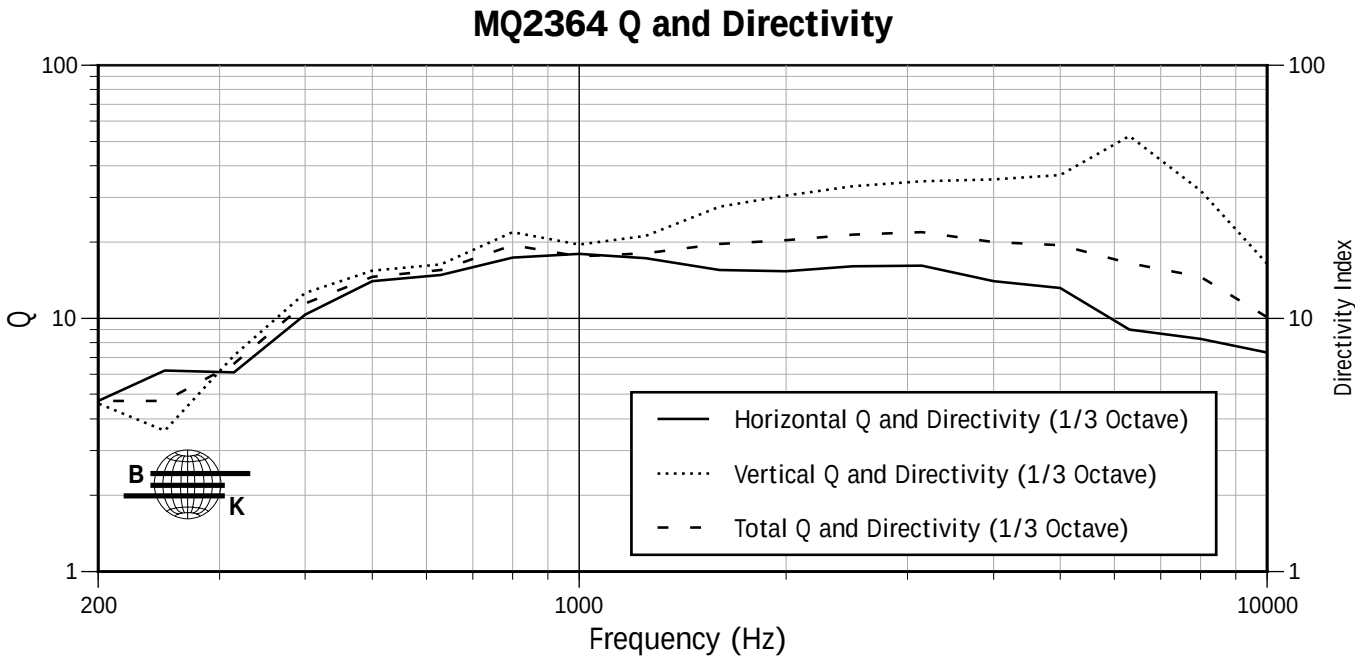
BEAMWIDTH



Q & DIRECTIVITY INDEX (DI)



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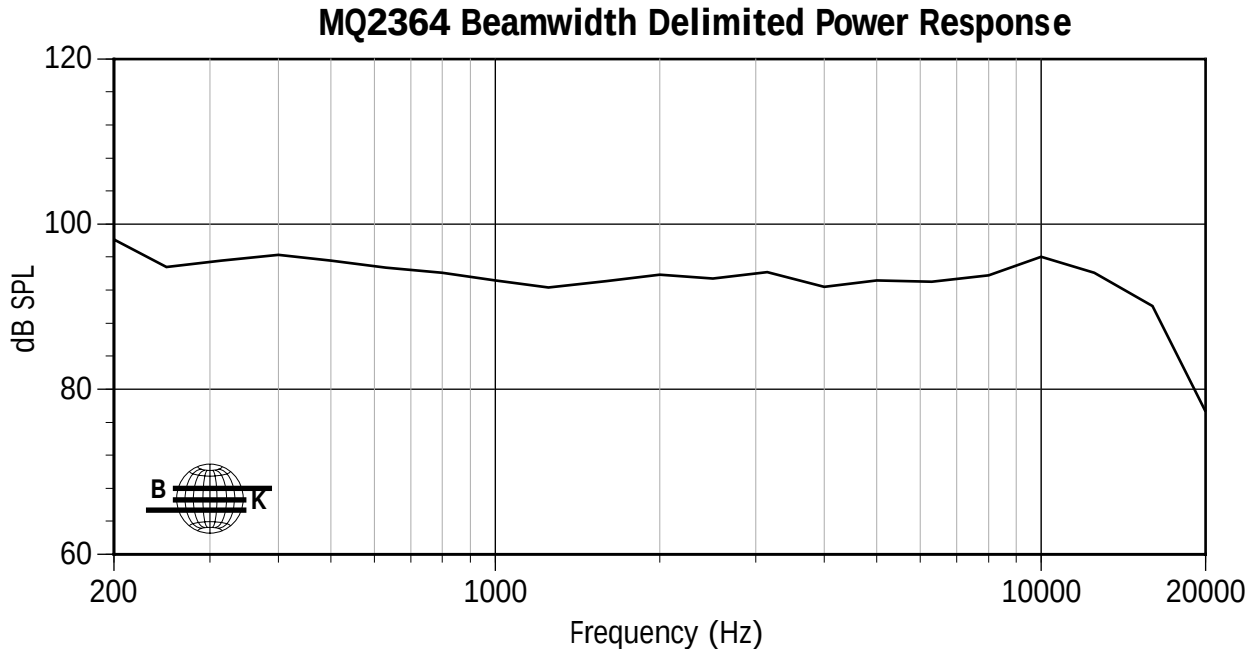
POWER RESPONSE



Q & DIRECTIVITY & BEAMWIDTH BY FREQUENCY

Frequency	Hor Beamwidth	Ver Beamwidth	Hor Q & Dir	Ver Q & Dir	Tot Q & Dir
100	345	360	2.3	2.3	2.3
125	360	360	3	3.7	3.3
160	131	127	4.8	5.5	5.2
200	139	138	4.7	4.6	4.7
250	107	122	6.2	3.6	4.7
315	115	89	6.1	7.1	6.6
400	85	69	10.3	12.6	11.4
500	67	55	14	15.4	14.6
630	59	42	14.8	16.3	15.5
800	58	43	17.4	21.9	19.4
1000	64	38	18	19.5	17.6
1250	58	42	17.3	21.1	18.1
1600	63	40	15.5	27.6	19.6
2000	64	40	15.3	30.5	20.3
2500	64	43	16	33.3	21.4
3150	64	40	16.1	34.7	21.9
4000	64	40	14	35.3	20
5000	66	40	13.2	36.7	19.4
6300	69	33	9	52.5	16.5
8000	66	43	8.3	32	14.6
10000	65	50	7.3	16.4	10.1
12500	64	44	11.9	24	15.4
16000	47	39	17.7	34.9	21.8
20000	50	38	21.9	40.2	27.1

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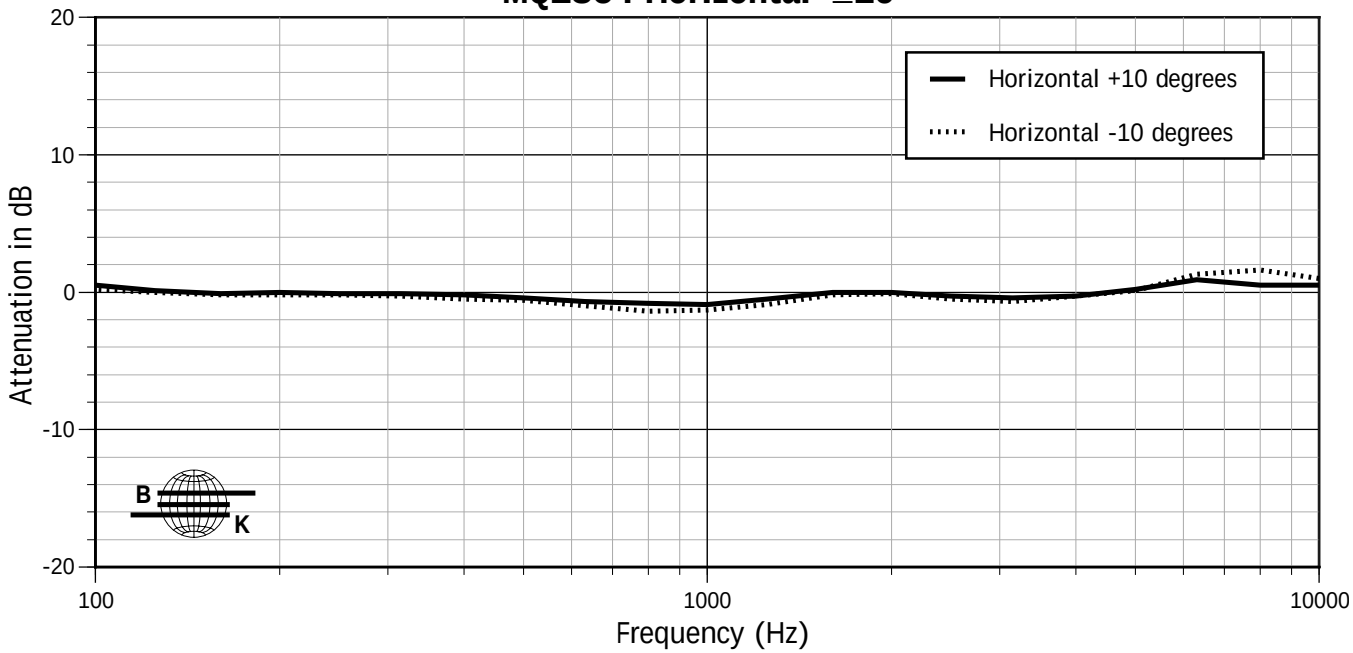
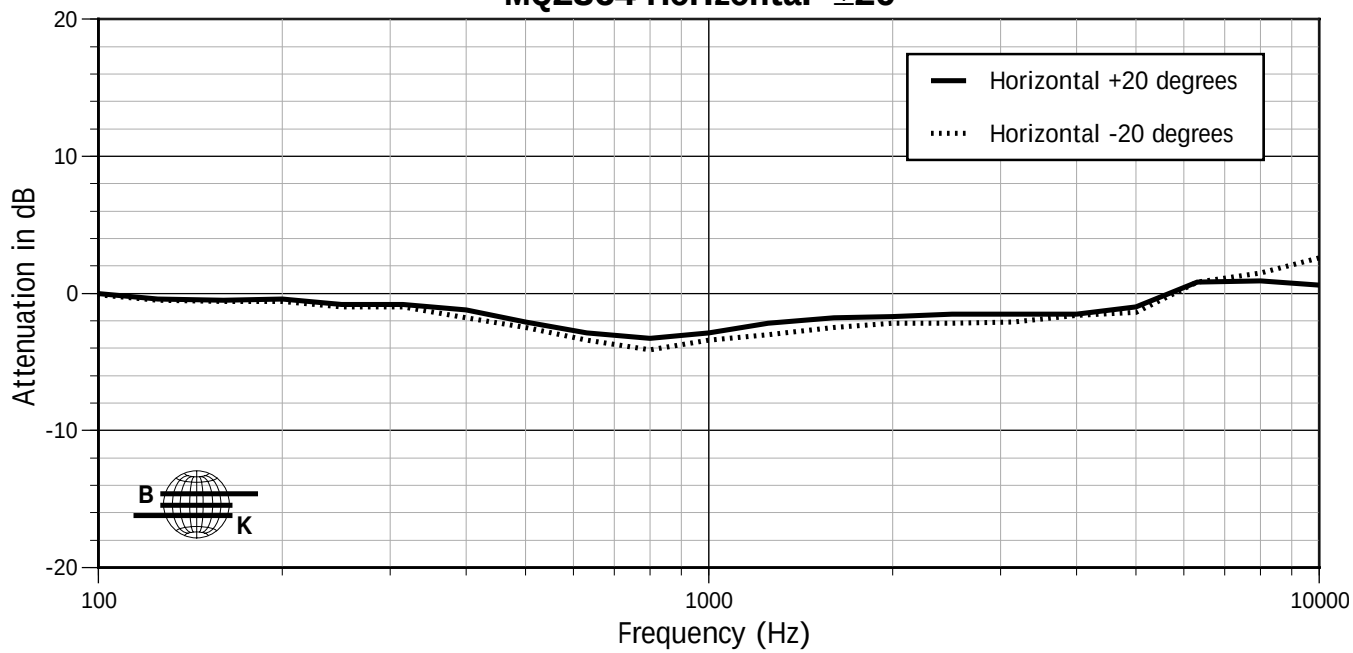
HORIZONTAL OFF-AXIS RESPONSE

On-axis response normalized to 0 dB.

MQ2364 Horizontal ±10°



MQ2364 Horizontal ±20°



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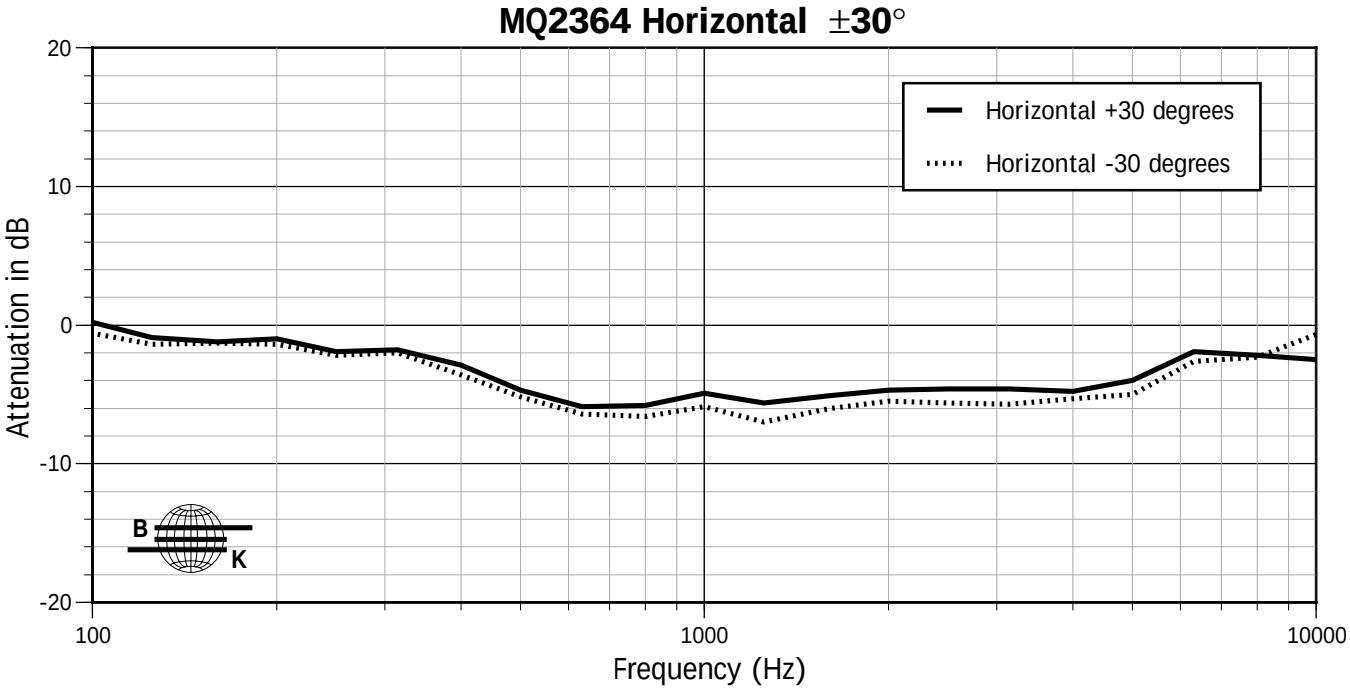
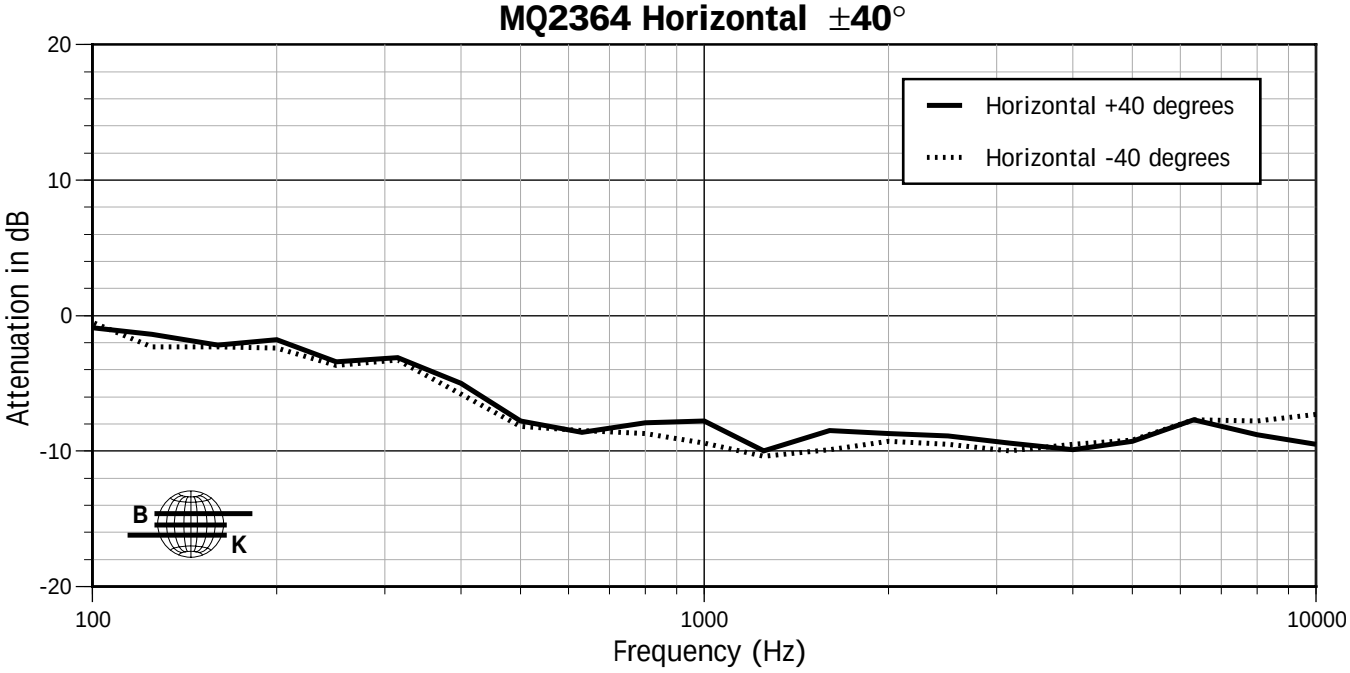
VERTICAL OFF-AXIS RESPONSE

On-axis response normalized to 0 dB.





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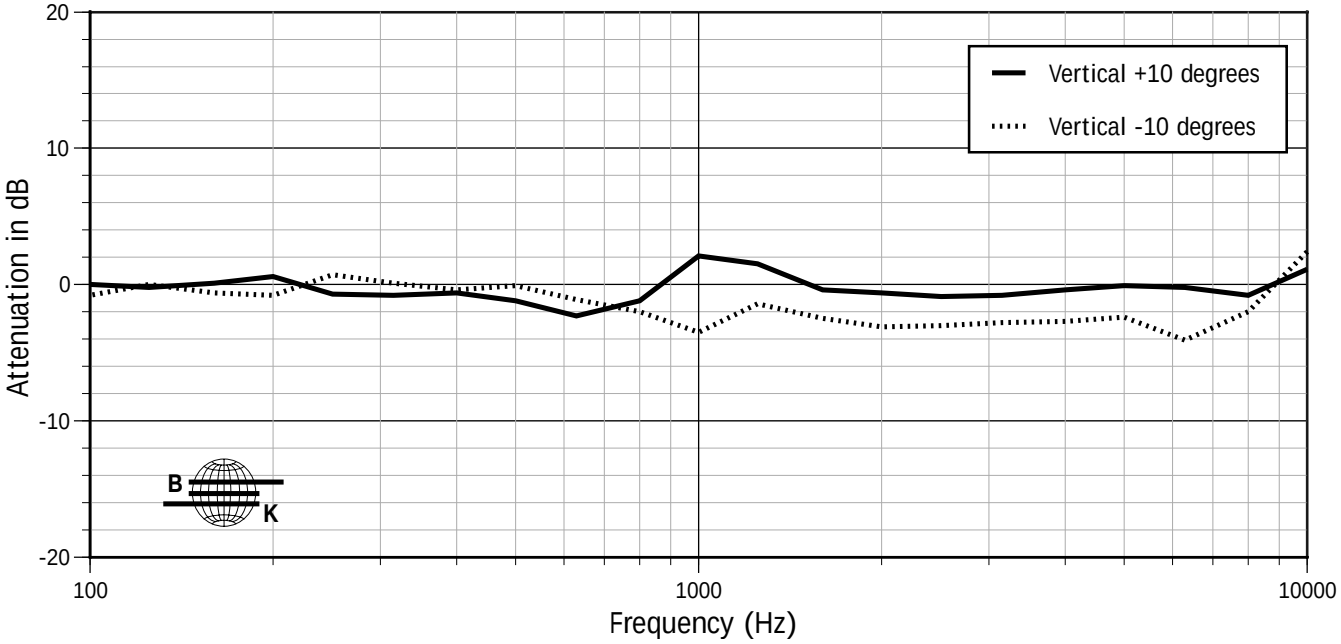
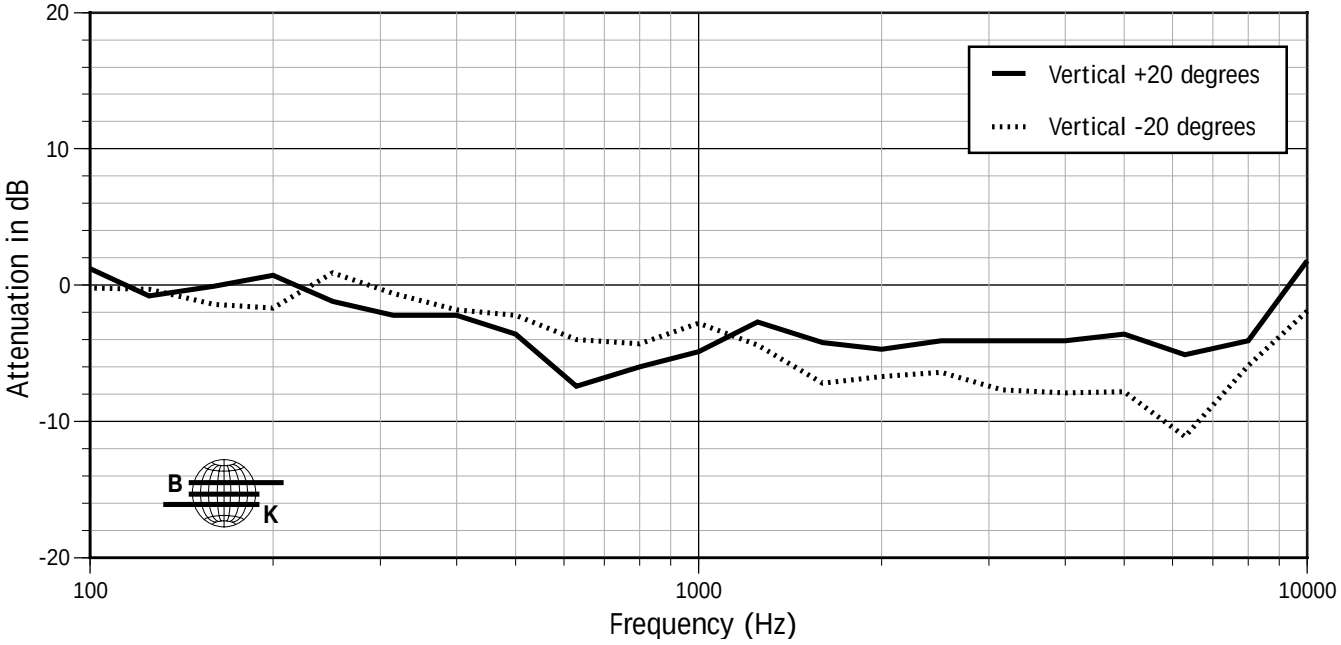
VERTICAL OFF-AXIS RESPONSE

On-axis response normalized to 0 dB.

MQ2364 Vertical ±10°



MQ2364 Vertical ±20°



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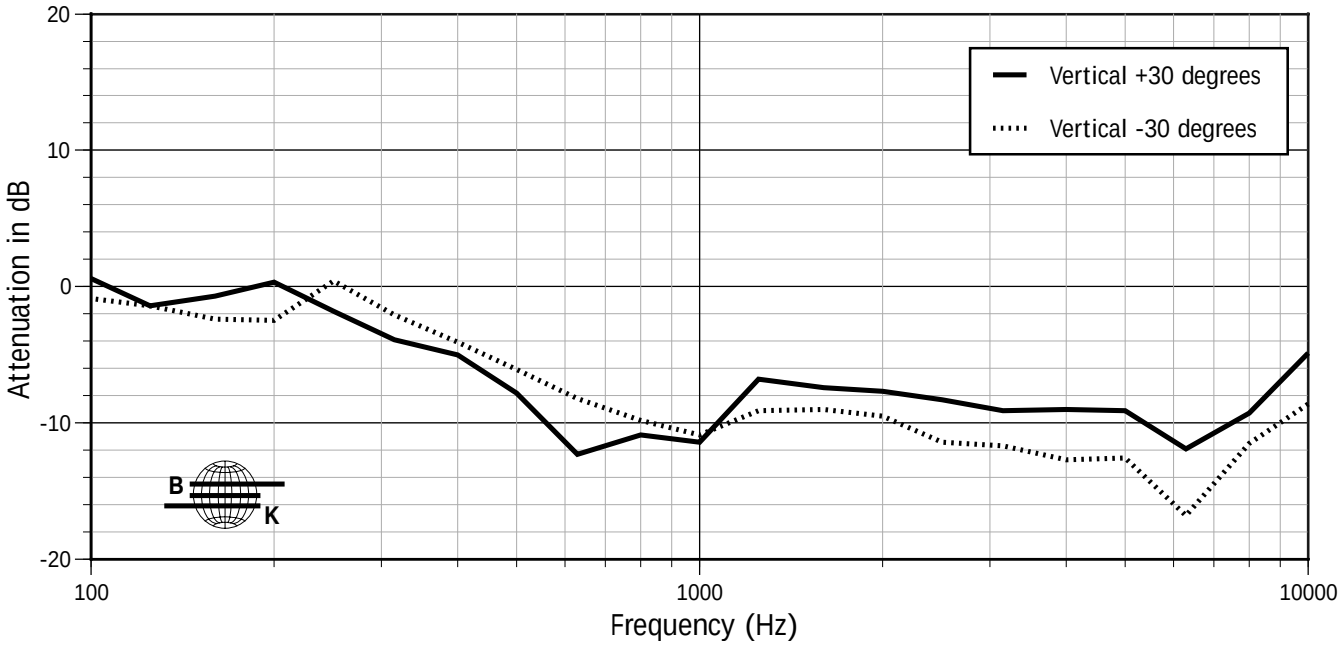
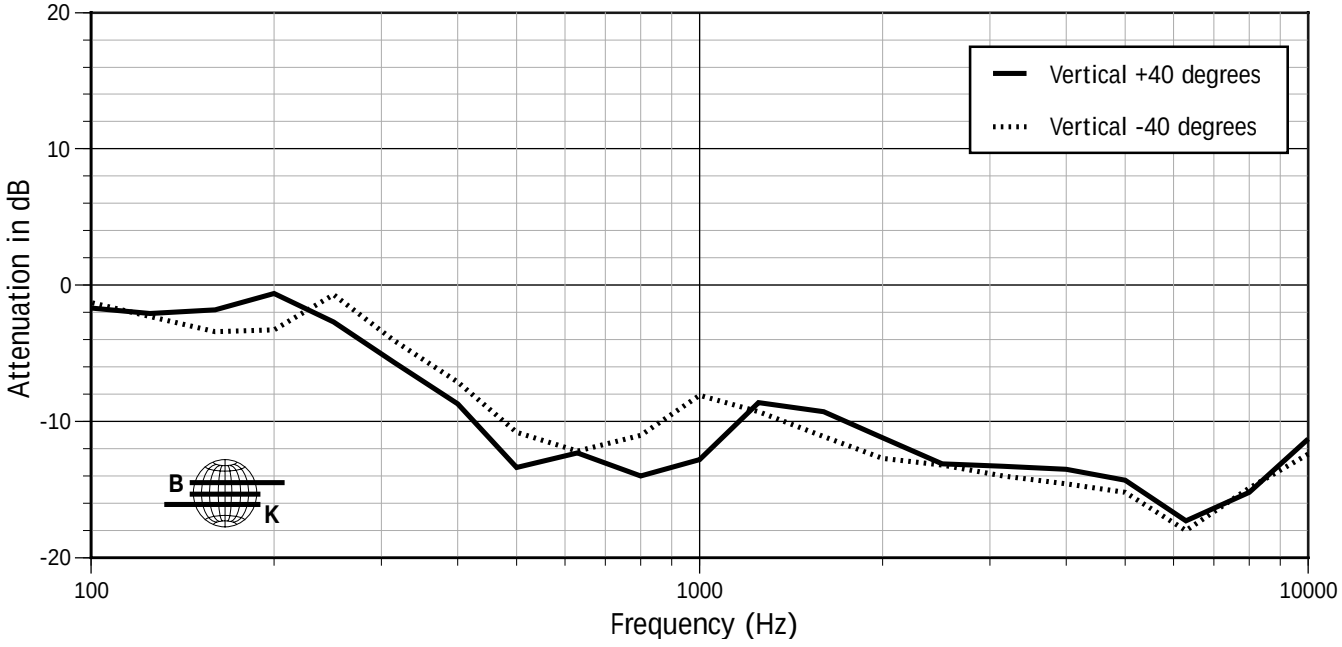
VERTICAL OFF-AXIS RESPONSE

On-axis response normalized to 0 dB.

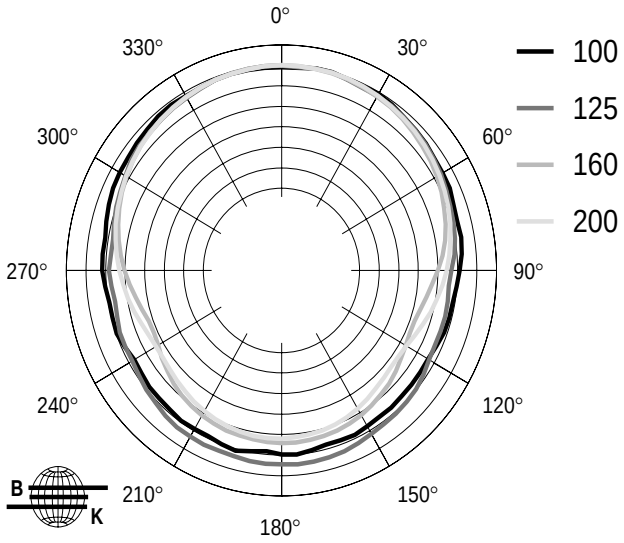
MQ2364 Vertical ±30°

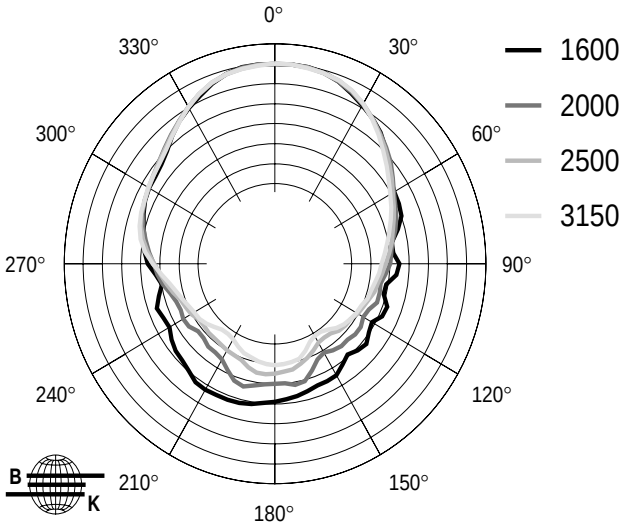


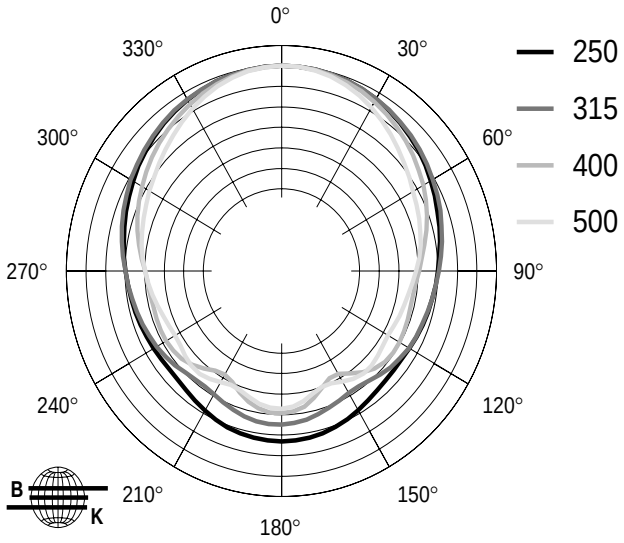
MQ2364 Vertical ±40°

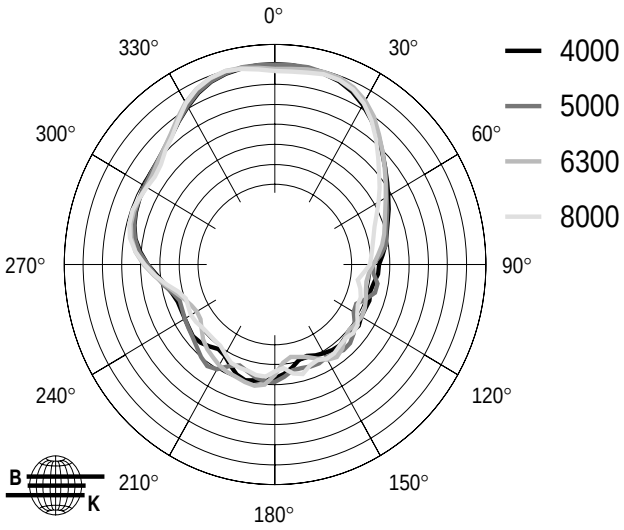


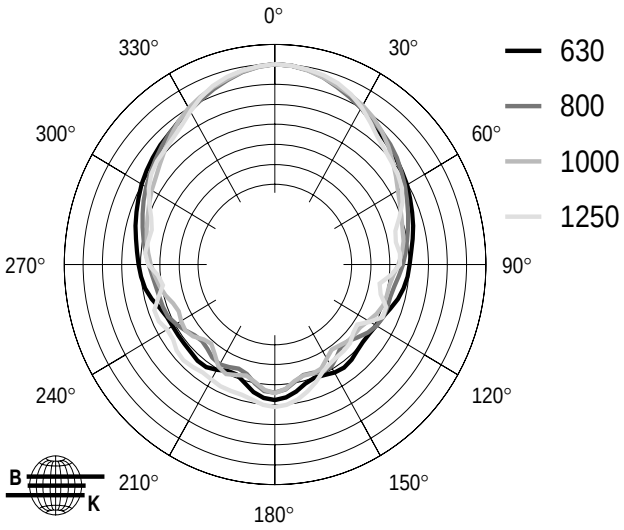
HORIZONTAL 1/3 OCTAVE POLAR DATA MQ2364

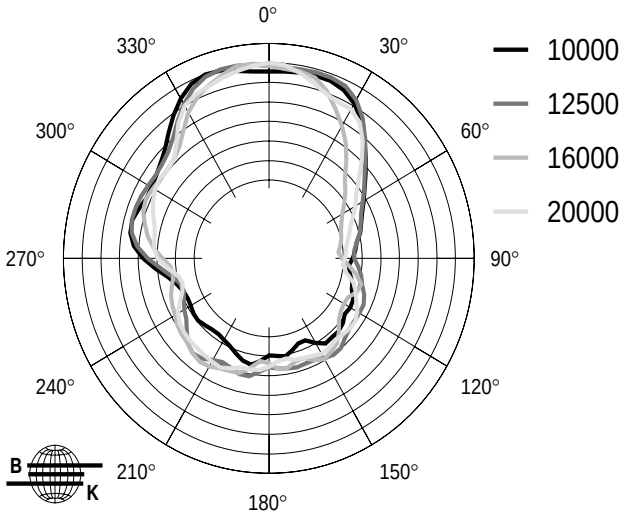












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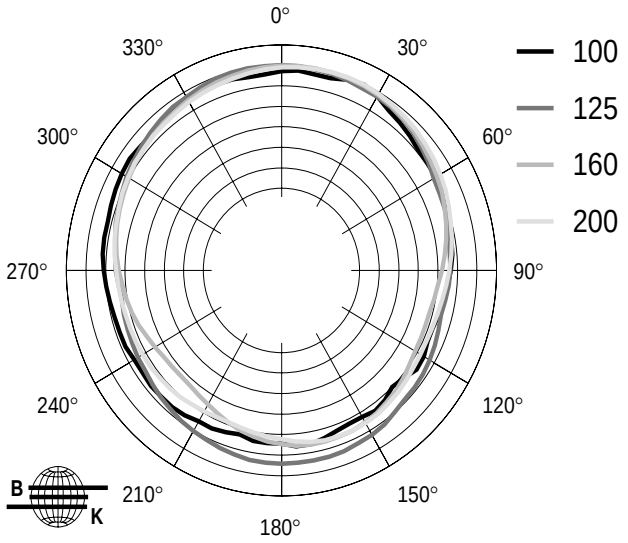
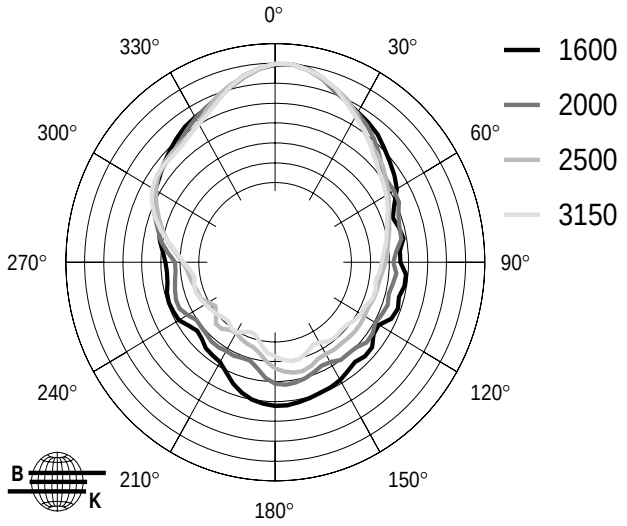
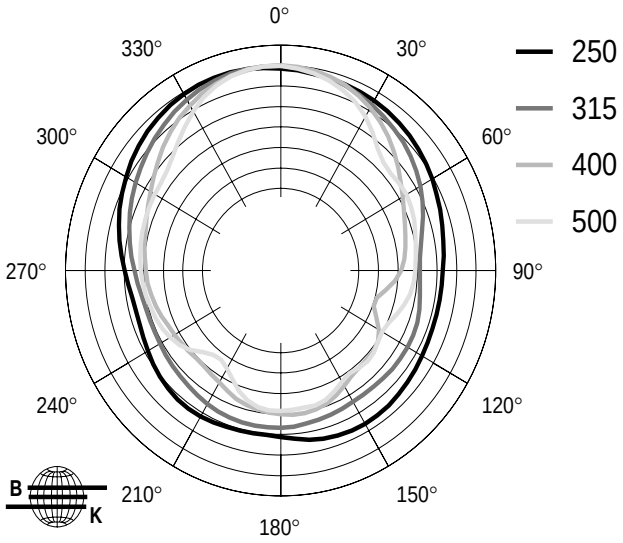
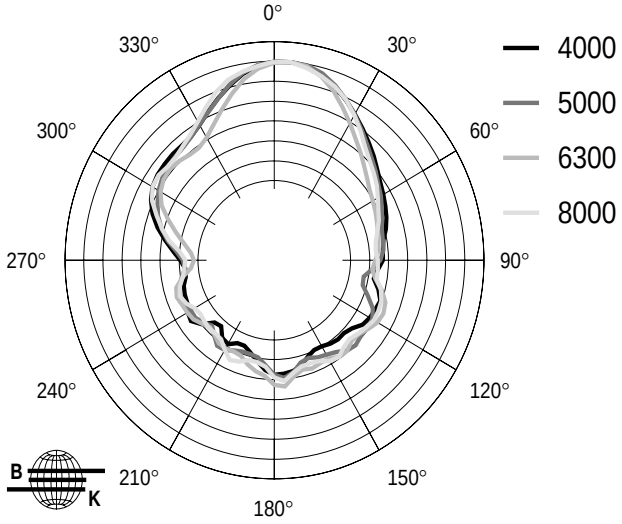
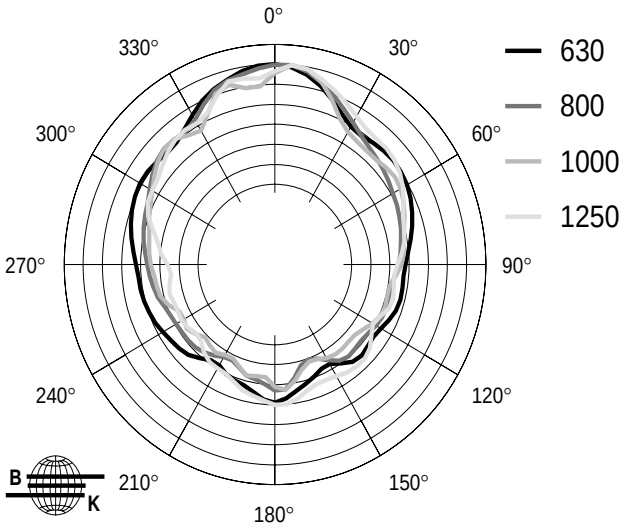
VERTICAL 1/3 OCTAVE POLAR DATA MQ2364

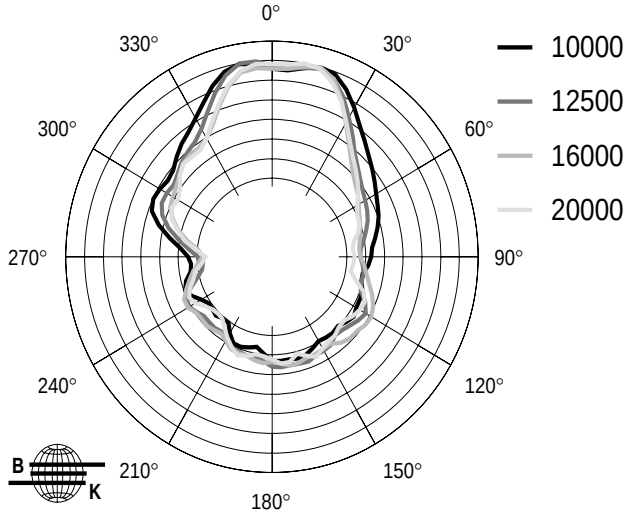












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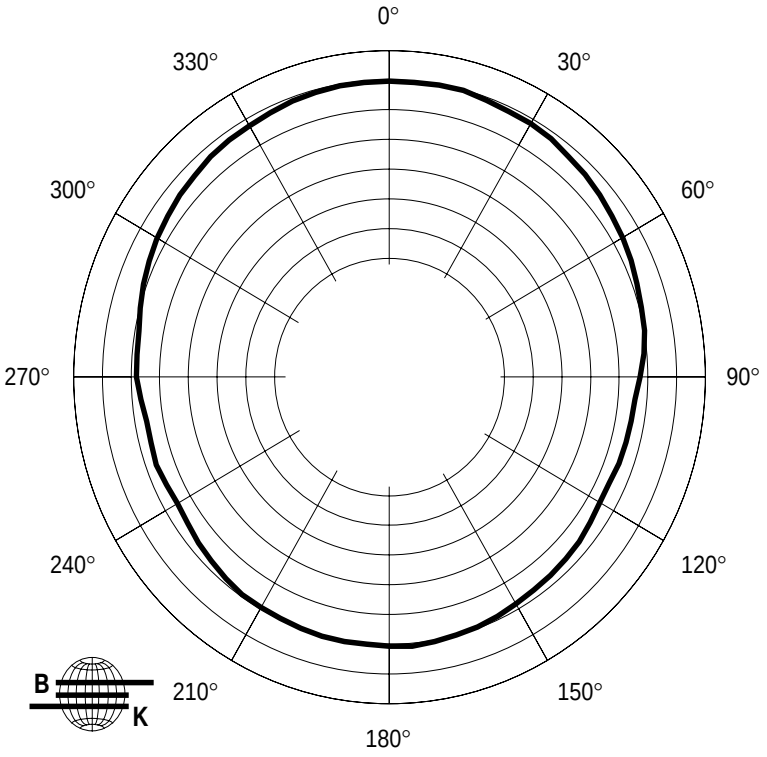
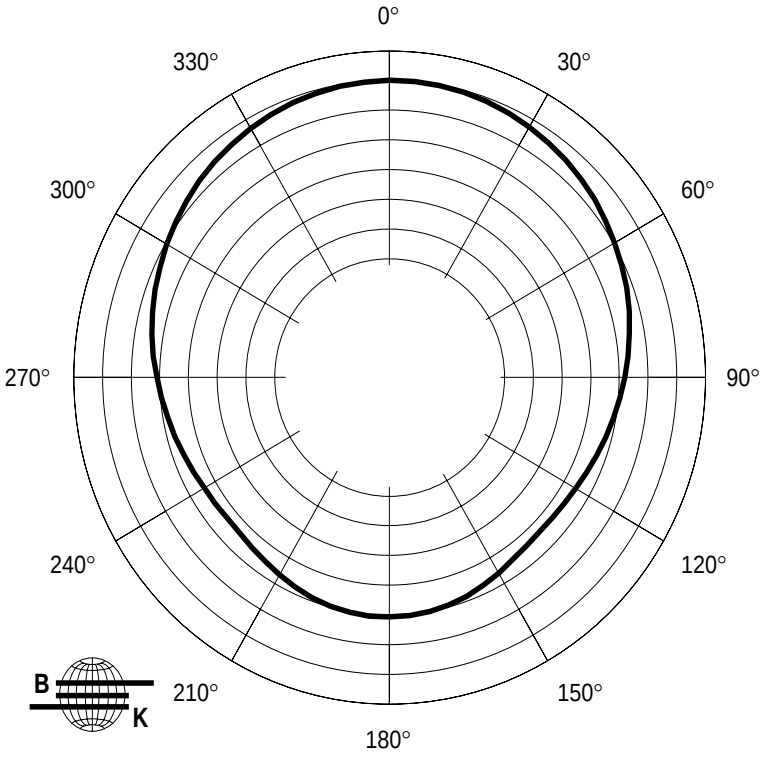
MQ2364 125 Hz Horizontal Octave Polar Data



MQ2364 250 Hz Horizontal Octave Polar Data



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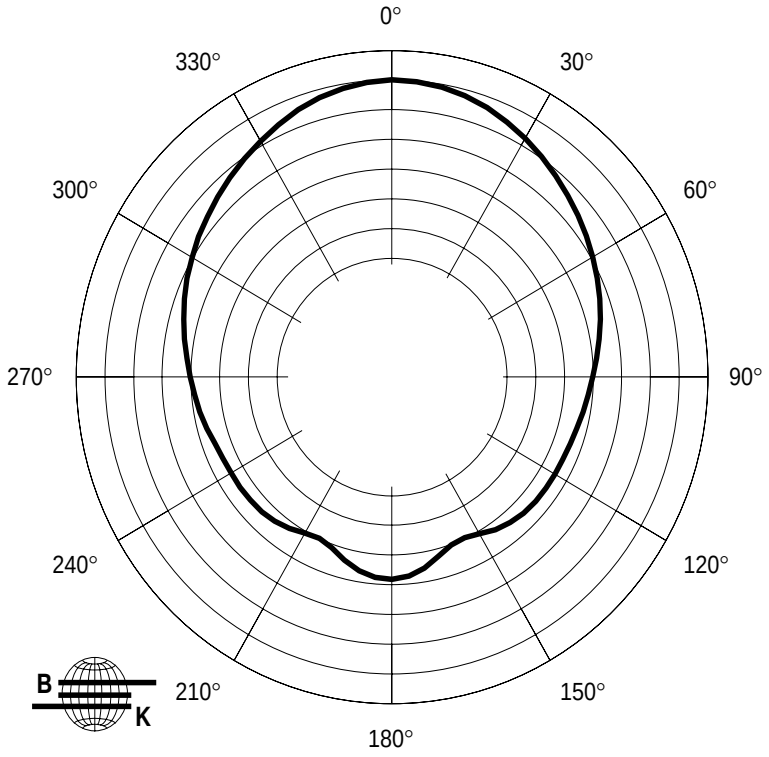
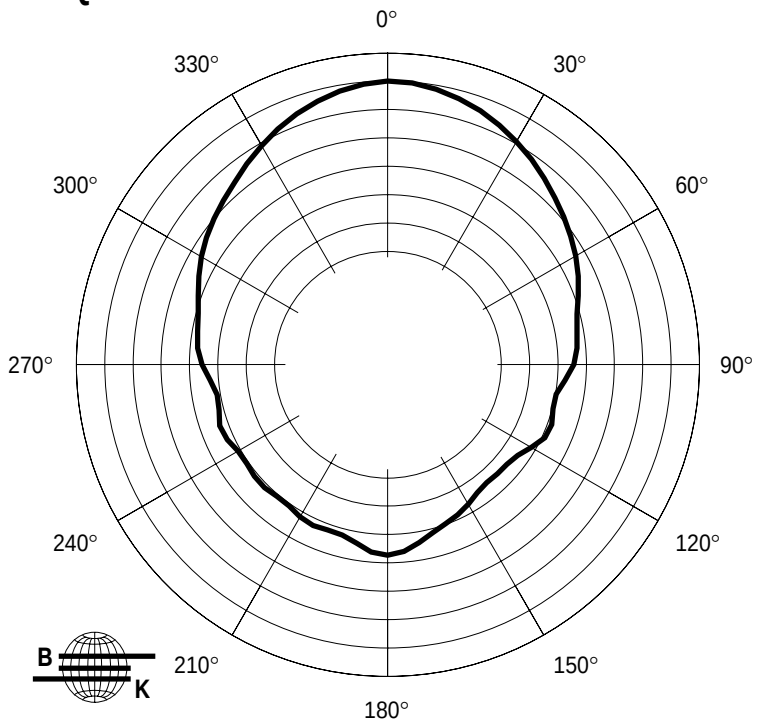
MQ2364 500 Hz Horizontal Octave Polar Data



MQ2364 1000 Hz Horizontal Octave Polar Data



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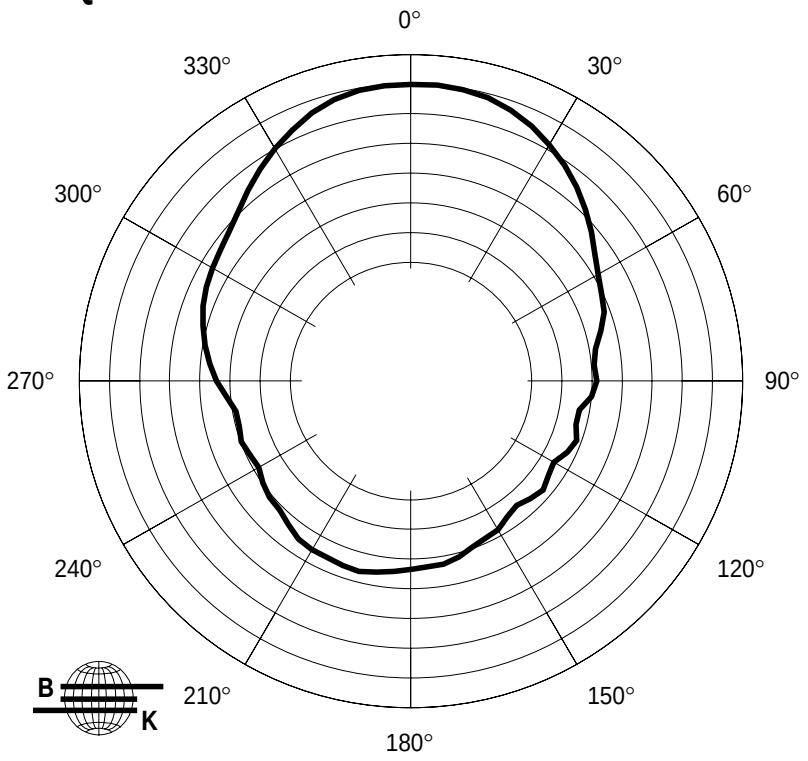
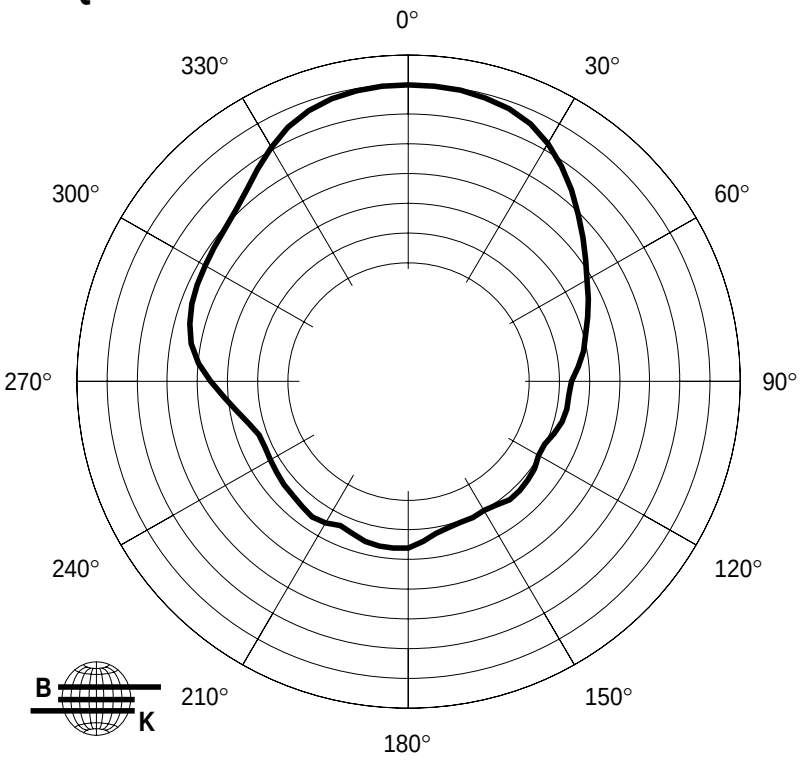
HORIZONTAL OCTAVE POLAR DATA MQ2364

MQ2364 2000 Hz Horizontal Octave Polar Data



MQ2364 4000 Hz Horizontal Octave Polar Data



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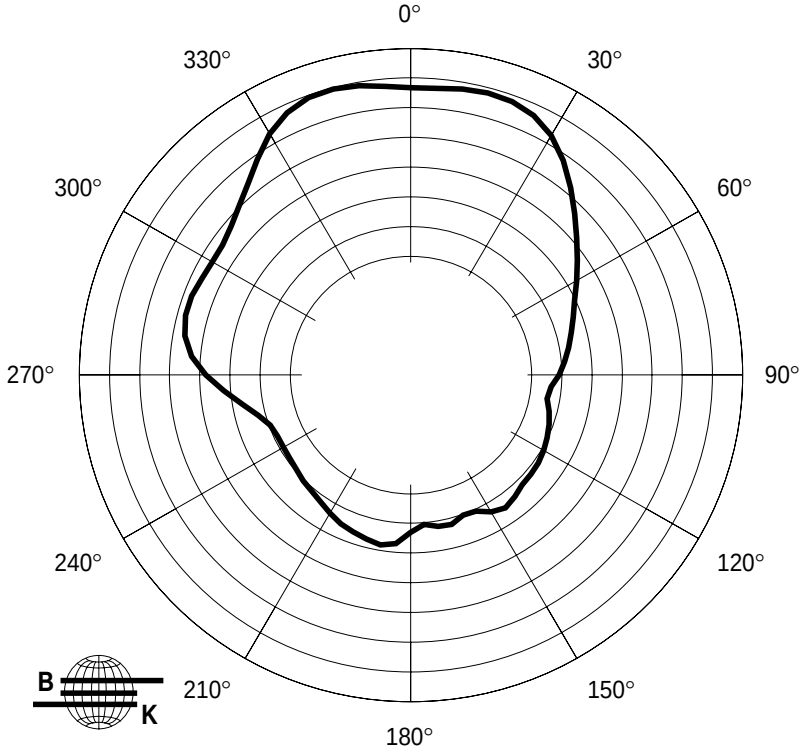
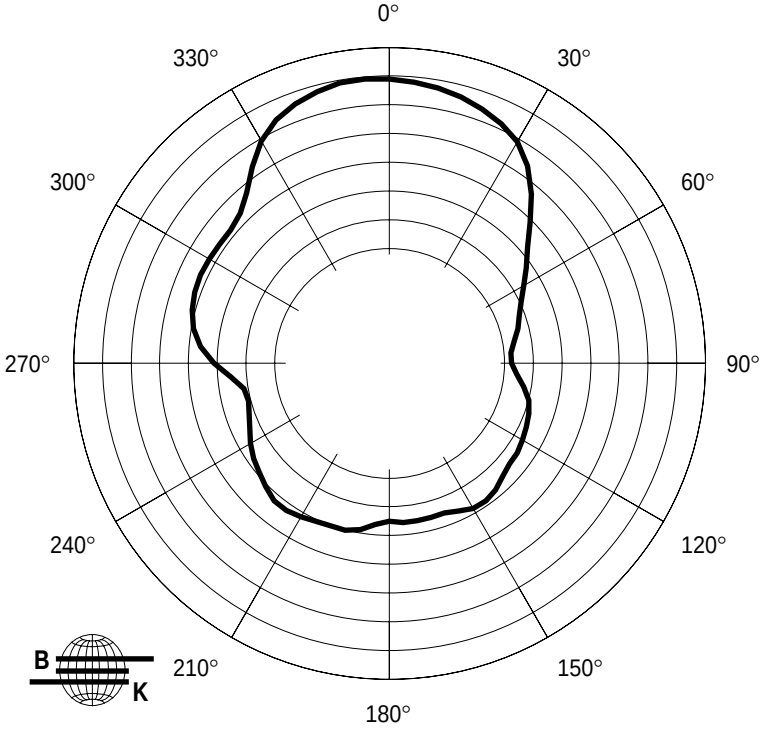
HORIZONTAL OCTAVE POLAR DATA MQ2364

MQ2364 8000 Hz Horizontal Octave Polar Data



MQ2364 16000 Hz Horizontal Octave Polar Data



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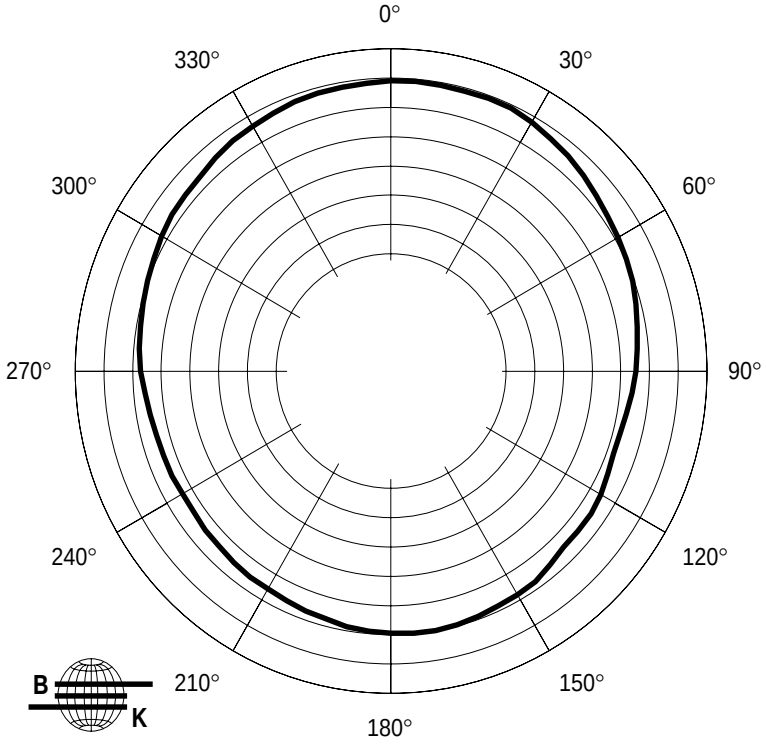
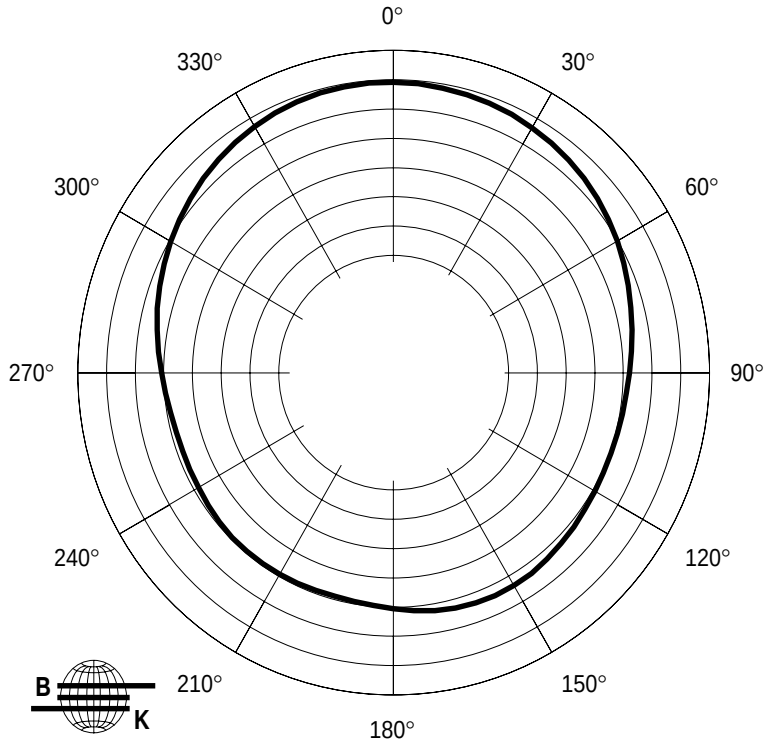
MQ2364 125 Hz Vertical Octave Polar Data



MQ2364 250 Hz Vertical Octave Polar Data



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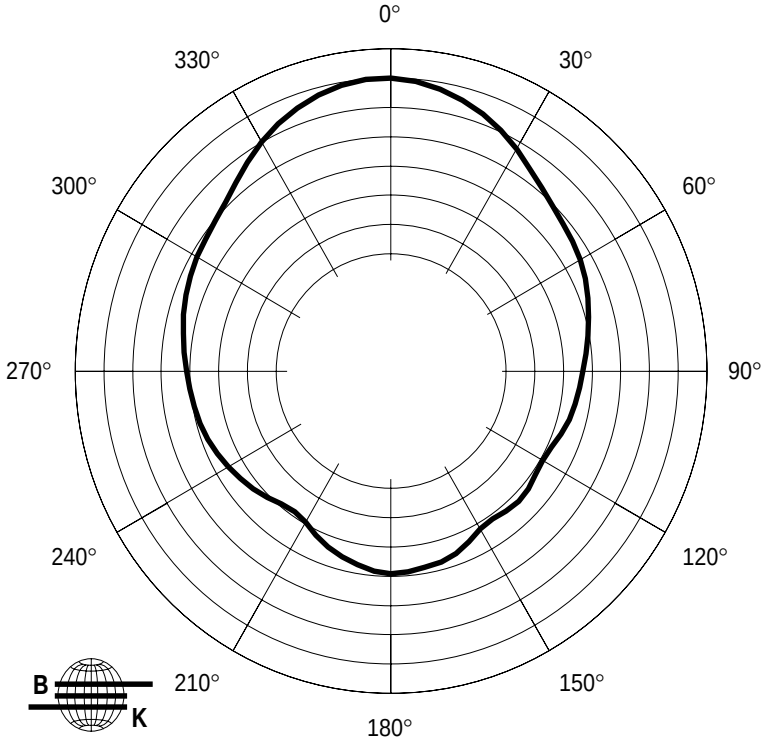
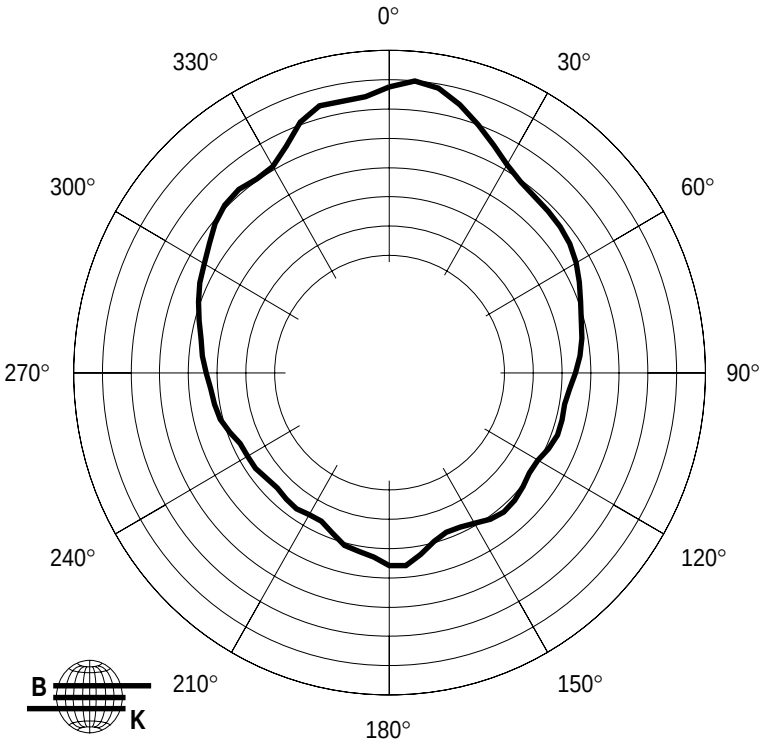
VERTICAL OCTAVE POLAR DATA MQ2364

MQ2364 500 Hz Vertical Octave Polar Data



MQ2364 1000 Hz Vertical Octave Polar Data



6 db/div.

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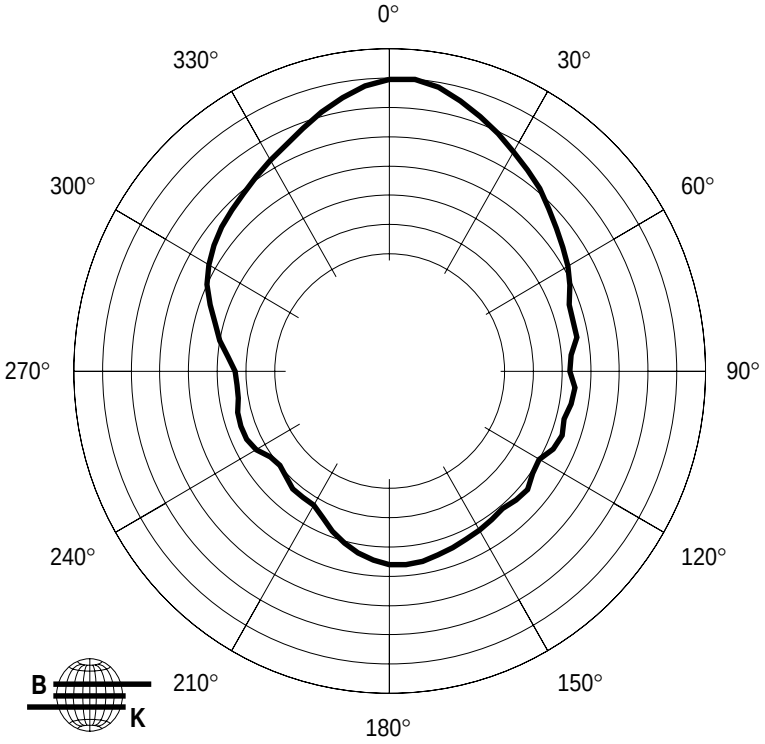
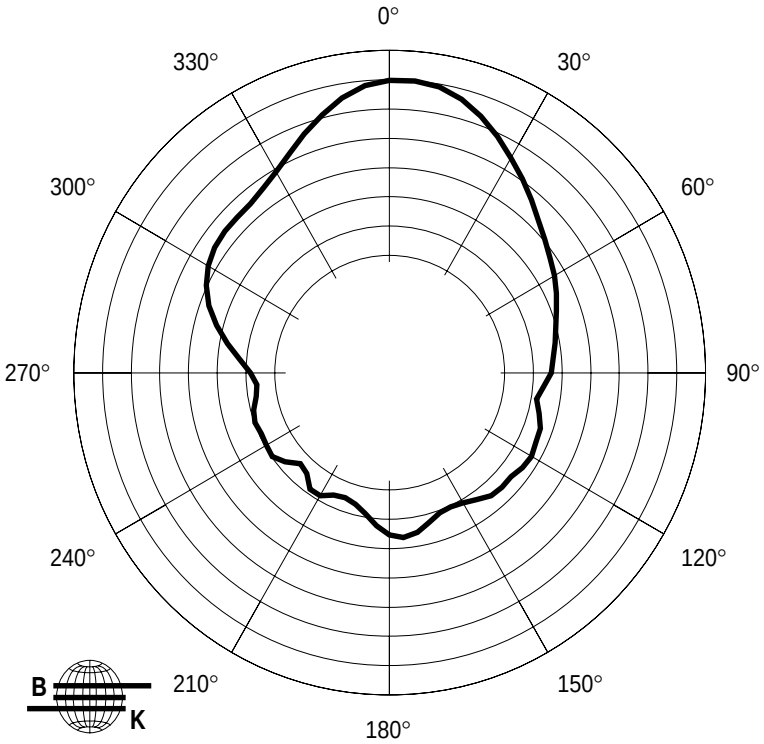
VERTICAL OCTAVE POLAR DATA MQ2364

MQ2364 2000 Hz Vertical Octave Polar Data



MQ2364 4000 Hz Vertical Octave Polar Data



6 db/div.

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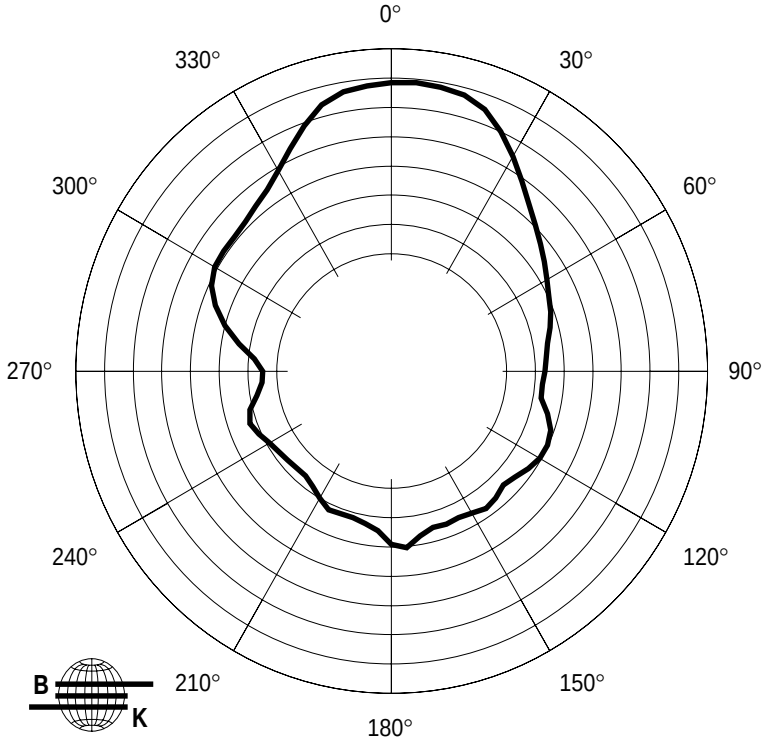
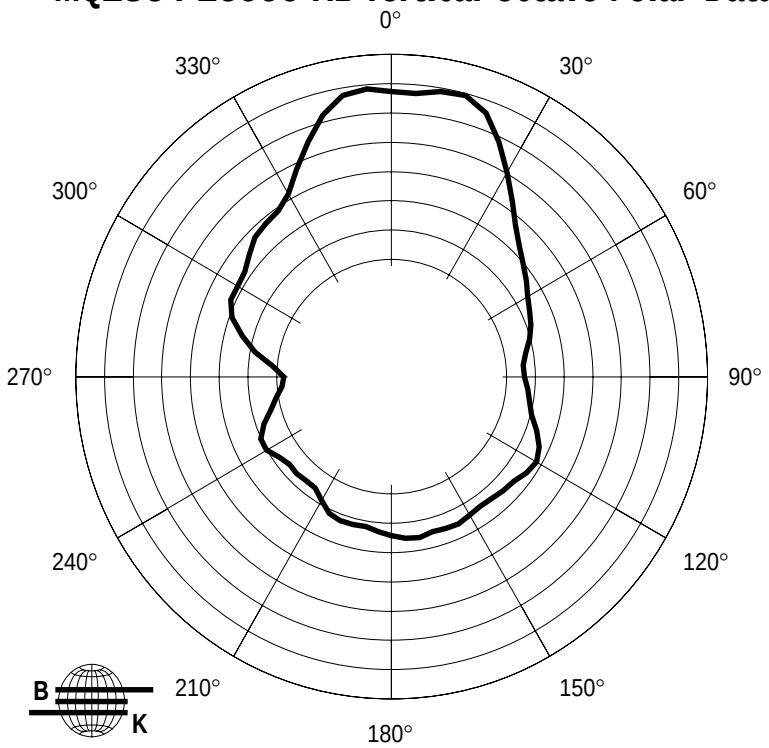
MQ2364 8000 Hz Vertical Octave Polar Data



MQ2364 16000 Hz Vertical Octave Polar Data



6 db/div.

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