



TECHNICAL SPECIFICATIONS CP621

DESCRIPTION

A 2-way/coaxial passive full range system for permanent installation in 24-in square ceiling grids. Includes 6x concentrically arrayed 5.25-in woofers plus 2x phase aligned 5.25-in woofers and 1-in exit compression driver on a 60° (conical) constant directivity horn in a vented enclosure. Available with optional installed 70 Volt transformer (CP621T).

APPLICATIONS

The CP621 uses Concentric Phase Aligned Array Technology to achieve even response over a large defined area. Excellent power handling lets it cover a larger area than traditional ceiling mounted loudspeakers with higher quality sound. Easy installation in 24-in or 600 mm ceiling grids. Six year warranty.

Applications include:

- Gymnasiums
- Convention Centers
- Transportation Centers
- Major Malls
- Major Retail Spaces

DESCRIPTIVE DATA

Part Number	999047 (CP621) 999048 (CP621T)
Product Group	M
LF Subsystem & Loading	6x 5.25-in. Concentrically Arrayed Cones, Vented plus 2x 5.25-in Phase Aligned Cones
HF Subsystem & Loading	1x 1-in Exit Compression Driver On Constant Directivity Horn
System Configuration	Full Range 2-way Coaxial System
Powering Configuration(s)	Passive LF/HF Crossover
Recommended High-Pass Frequency (24 dB/Octave)	65Hz
Cabinet Type (shape)	Rectangular
Enclosure Materials	Baltic Birch Plywood
Finish	Black Catalyzed Polyurethane
Connectors	2-Terminal Barrier Strip
Suspension Hardware	(8) 3/8"-16 Threaded Mounting Points (2 each right and left side, 4 on top)
Grill	Vinyl Coated Perforated Steel
Options	70 Volt Transformer Version (CP621T)



NOMINAL DATA

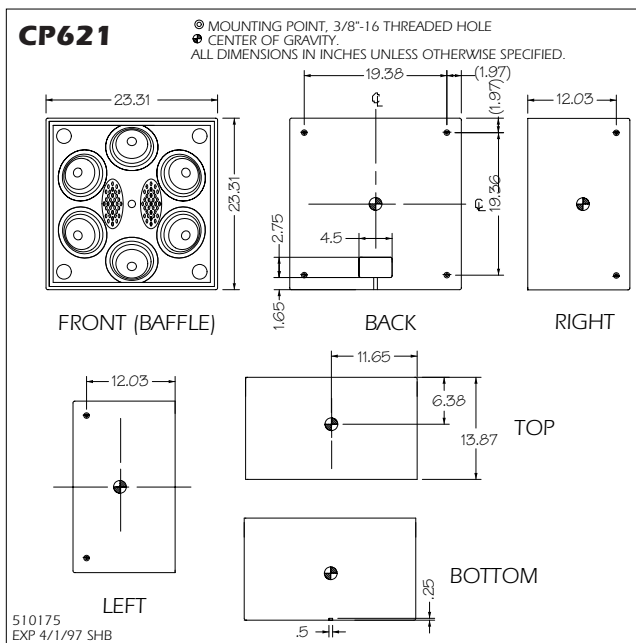
Frequency Response (Hz)			
±3 db		75Hz to 18kHz	
-10 dB		60Hz	
Axial Sensitivity (dB SPL/1 Watt/1m)			
101			
Impedance (Ohms)			
4			
Power Handling (Watts)			
AES Standard		300	
Calculated Maximum Output (dB SPL, @ 1m)			
Peak		131.8	
Long Term		125.8	
Nominal Coverage Angle / -6 dB points (degrees)			
Horizontal		60	
Vertical		60	
Dimensions		inches	millimeters
Height		23.8	605
Width		23.8	605
Depth		13.6	345
Weights		pounds	kilograms
Net Weight		75	34.1
Shipping Weight		79	35.9





TECHNICAL SPECIFICATIONS CP621

DIMENSIONAL DRAWING



SERVICE ITEMS

LF: Complete Cone Driver

EAW Part No. 803002

HF: Complete Compression Driver/Tweeter

EAW Part No. 804056

Filter/Crossover Network: Complete Assembly

EAW Part No. 225076

ARCHITECTURAL SPECIFICATIONS

The 2-way full range ceiling mounted coaxial loudspeaker systems shall incorporate 6x 5.25 concentrically arrayed LF transducers plus 2x 5.25 phase aligned LF transducers and a 1-in exit compression driver HF transducer.

The LF drivers shall be mounted in a vented enclosure tuned for optimum low frequency response. The HF driver shall be loaded on an axis symmetrical constant directivity horn with a nominal coverage pattern of 60° (conical). An internal passive filter network shall provide fourth order acoustical crossover and system equalization.

System frequency response shall vary no more than ± 3 dB from 75Hz to 18kHz measured on axis. The loudspeaker shall produce a Sound Pressure Level (SPL) of 101 dB SPL on axis at 1 meter with a power input of 1 Watt, and shall be capable of producing a peak output of 131.8 SPL on axis at 1 meter. The loudspeaker shall handle 300 of amplifier power (AES Standard) and shall have a nominal impedance of 4 Ohms.

The loudspeaker enclosure shall be rectangular in shape and shall be designed to mount in a 24-in ceiling grid. It shall be constructed of 15mm thickness void-free cross-grain-laminated Baltic birch plywood. It shall be finished in black catalyzed polyurethane. Input connectors shall be 2-terminal barrier strip type. A total of eight 3/8"-16 threaded mounting/suspension points (2 each right and left side, 4 on back) shall be provided. The front of the loudspeaker shall be covered with a vinyl coated perforated steel grill.

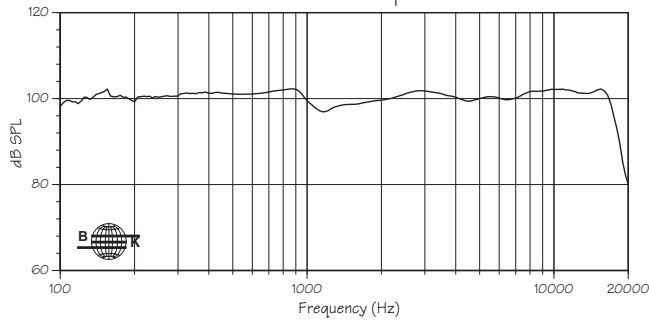
The 2-way full range ceiling mounted coaxial loudspeaker shall be the EAW model CP621.



TECHNICAL SPECIFICATIONS CP621

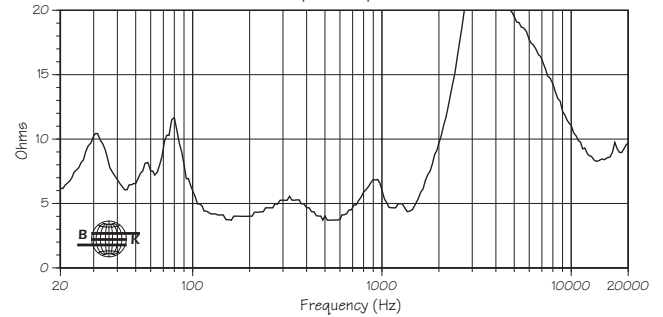
FREQUENCY RESPONSE

CP621 Axial Response



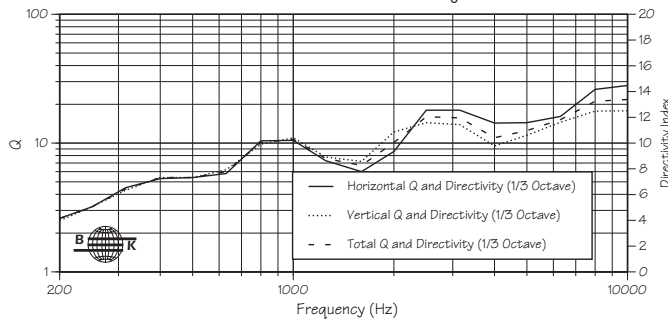
INPUT IMPEDANCE

CP621 Full Range Input Impedance (Magnitude)



Q & DIRECTIVITY INDEX (DI)

CP621 Q and Directivity

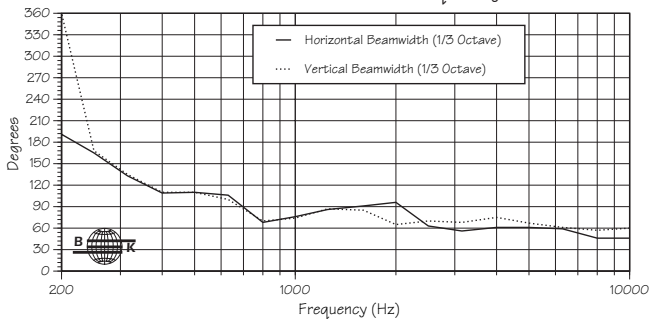


Q & BEAMWIDTH BY FREQUENCY

Freq	Hor Q	Ver Q	Tot Q	Hor Beamwidth	Ver Beamwidth
100	1.7	1.8	2	360	360
125	2.4	2.6	2.6	360	360
160	2.9	2.7	2.9	162	187
200	2.6	2.5	2.6	191	360
250	3.2	3.2	3.2	165	168
315	4.5	4.3	4.4	133	135
400	5.3	5.4	5.4	109	110
500	5.4	5.4	5.4	110	110
630	5.8	6.2	6	106	100
800	10.4	9.8	10.1	68	70
1000	10.5	11	10.7	76	74
1250	7.3	7.8	7.6	86	87
1600	6	7.2	6.7	91	85
2000	8.6	12.2	10.1	96	65
2500	18	14.4	16	63	70
3150	18	13.9	15.7	56	68
4000	14.3	9.5	11	61	75
5000	14.4	11.5	12.5	61	67
6300	16.1	14.5	15.2	59	61
8000	26.1	17.7	21.1	46	57
10000	28	17.8	21.8	46	60
12500	30	17.6	22.2	44	58
16000	27.2	21.5	24	45	53
20000	31.2	21.1	25.2	42	54

BEAMWIDTH

CP621 Beamwidth vs Frequency

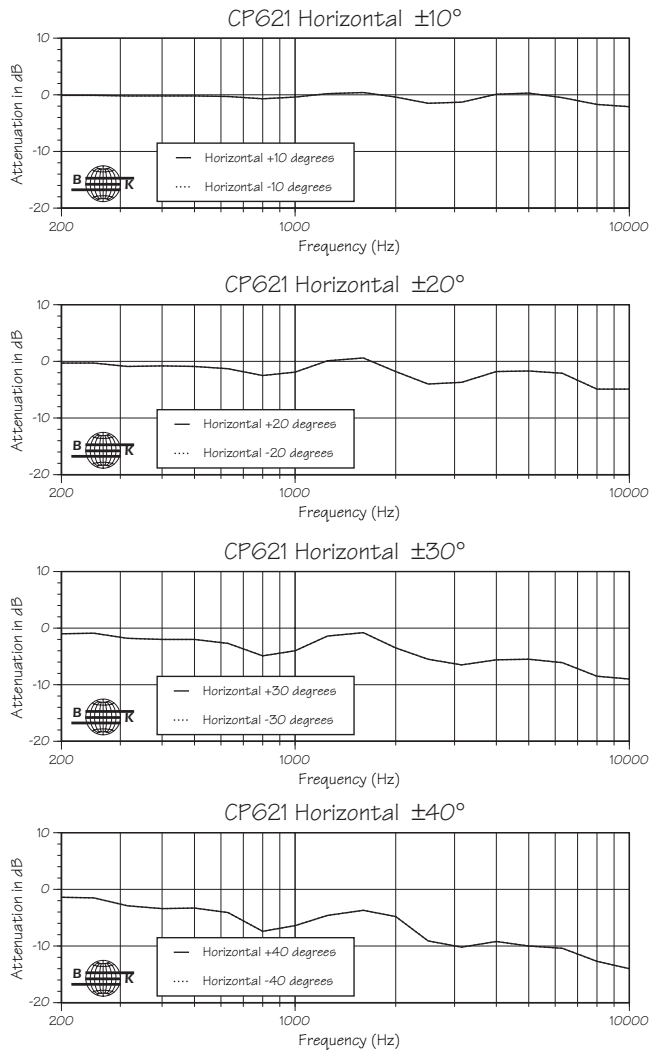




TECHNICAL SPECIFICATIONS CP621

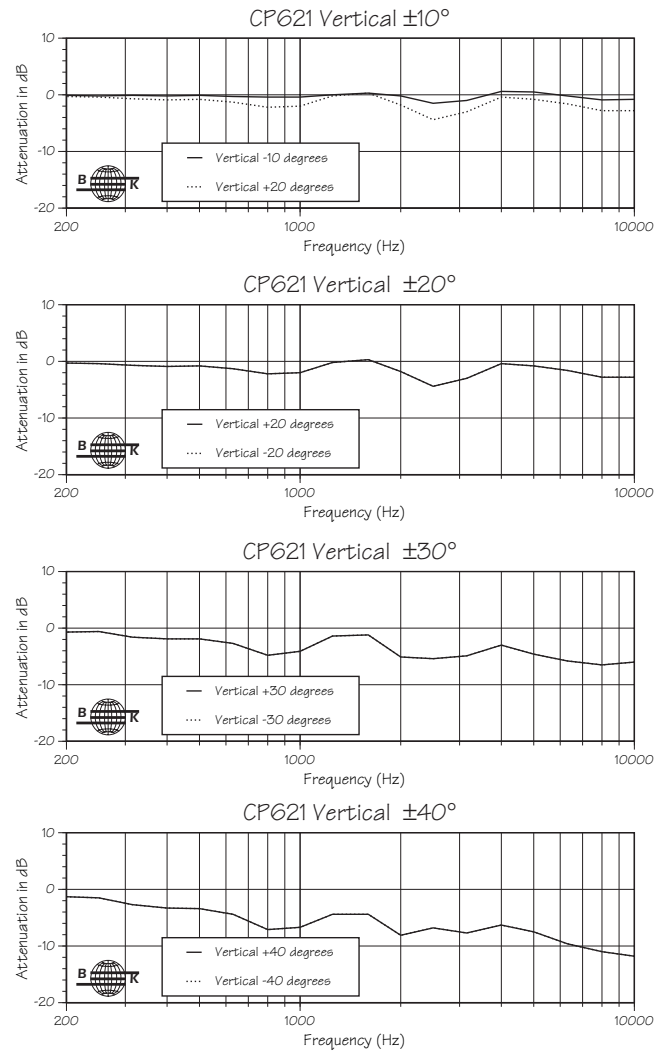
HORIZONTAL OFF-AXIS RESPONSE

On-axis response normalized to 0 dB.



VERTICAL OFF-AXIS RESPONSE

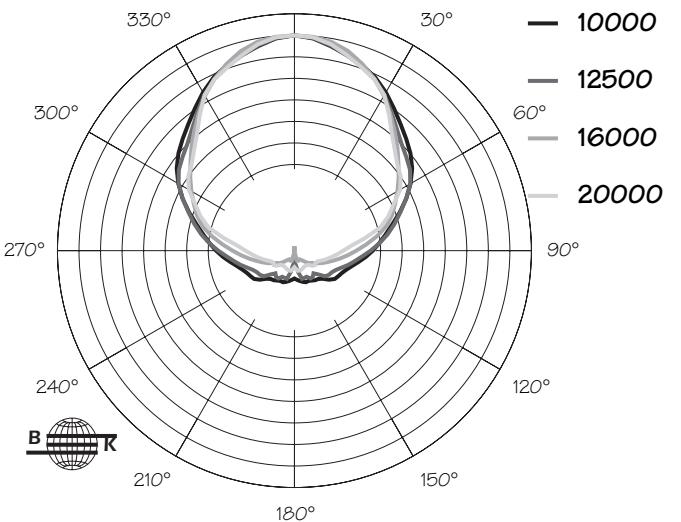
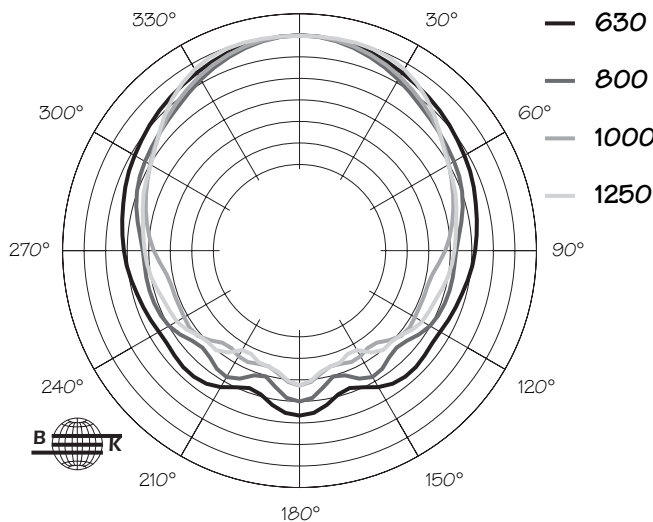
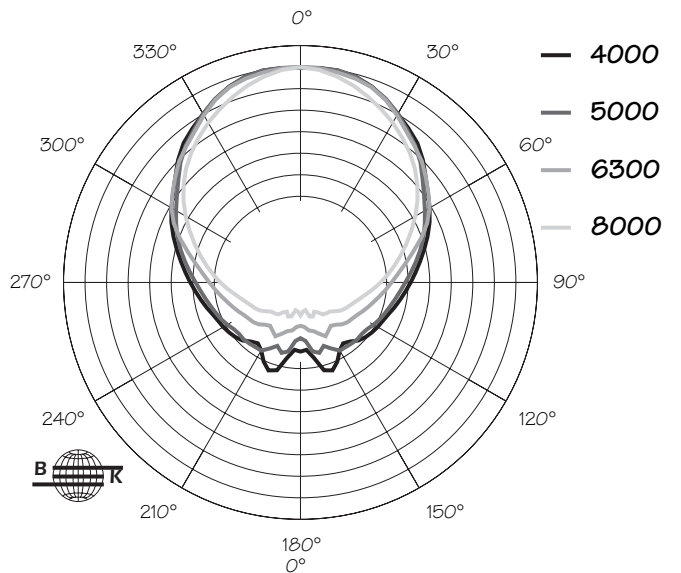
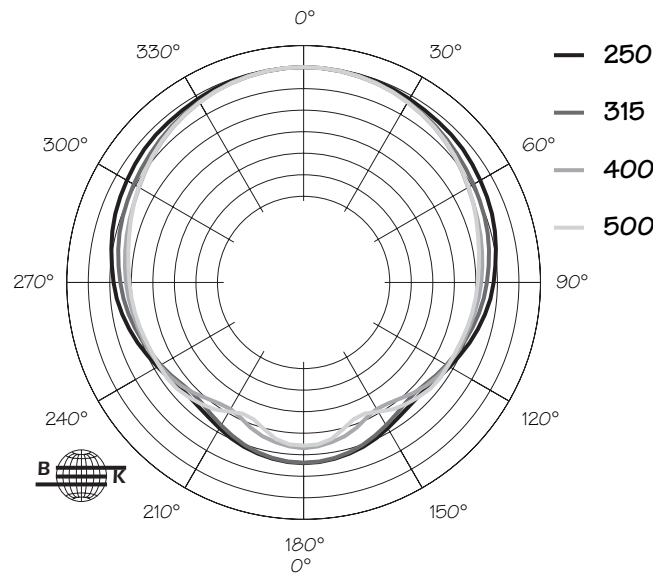
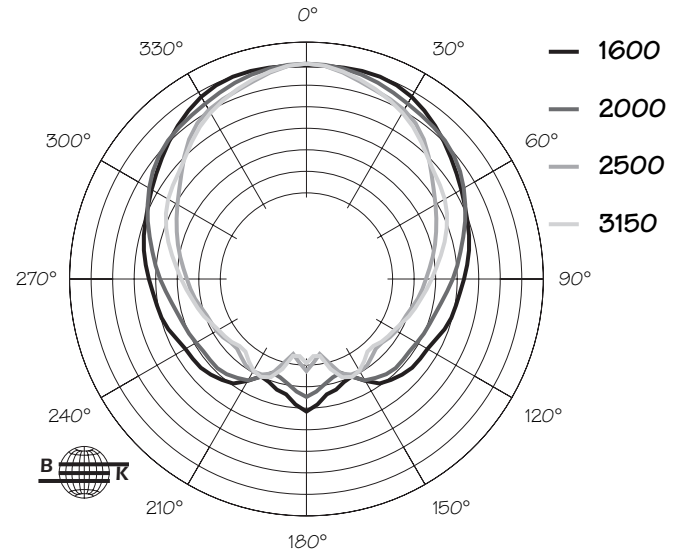
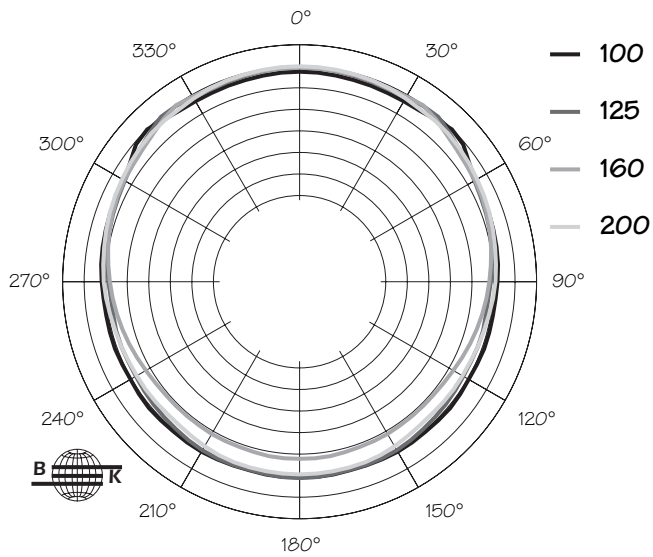
On-axis response normalized to 0 dB.





TECHNICAL SPECIFICATIONS CP621

HORIZONTAL 1/3 OCTAVE POLAR DATA

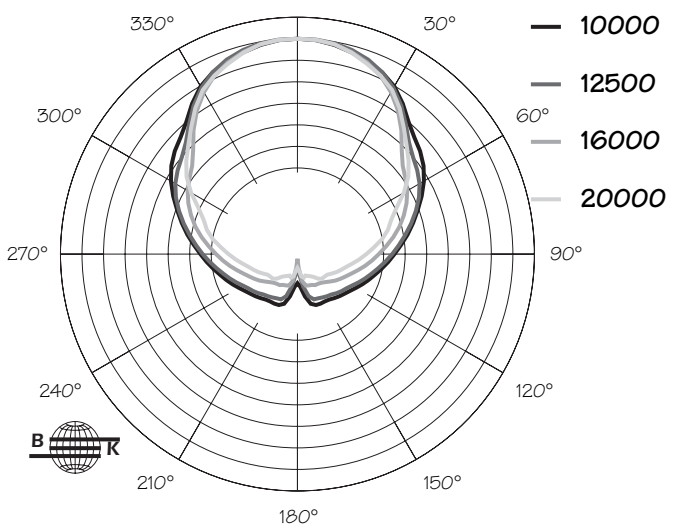
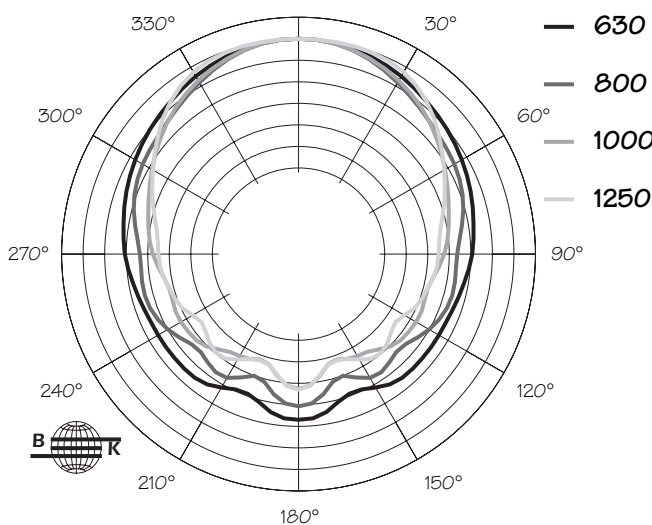
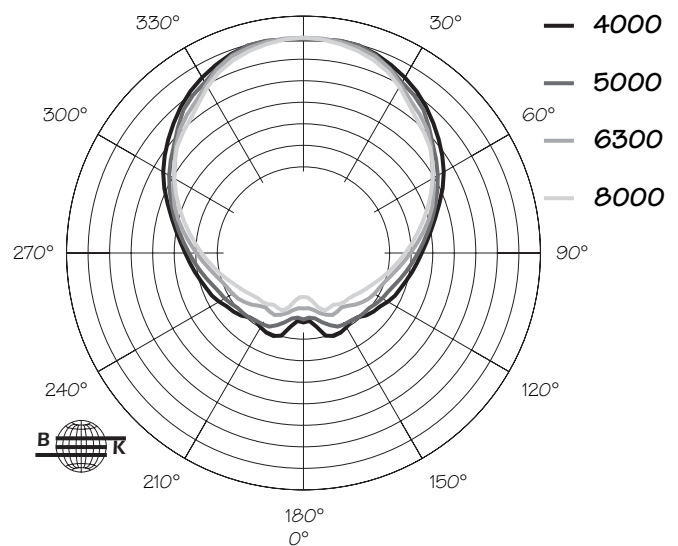
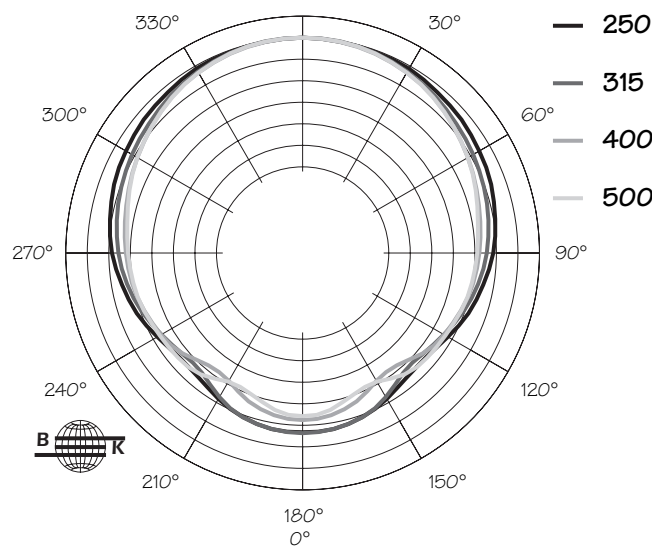
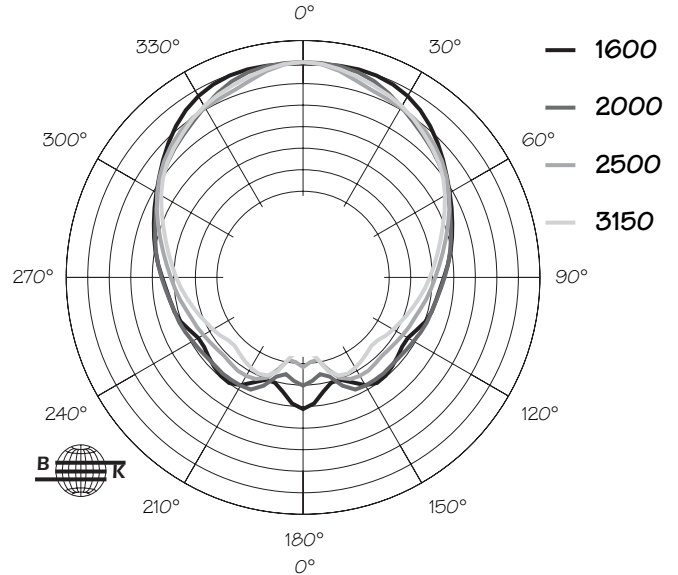
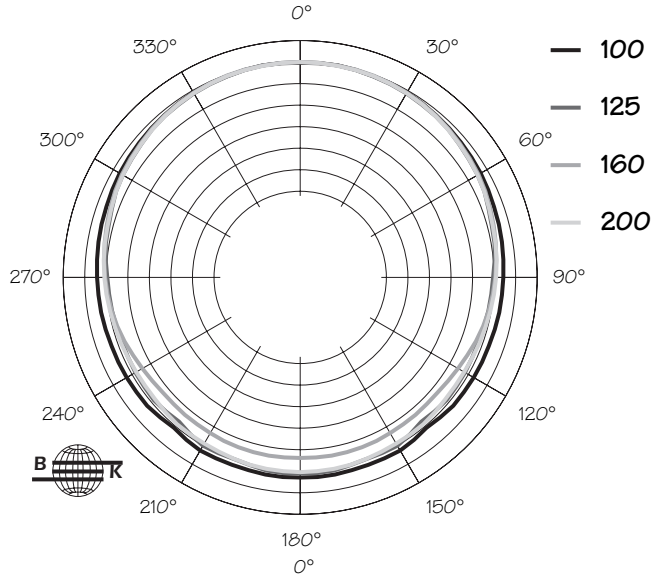


6 db/div.



TECHNICAL SPECIFICATIONS CP621

VERTICAL 1/3 OCTAVE POLAR DATA



6 db/div.