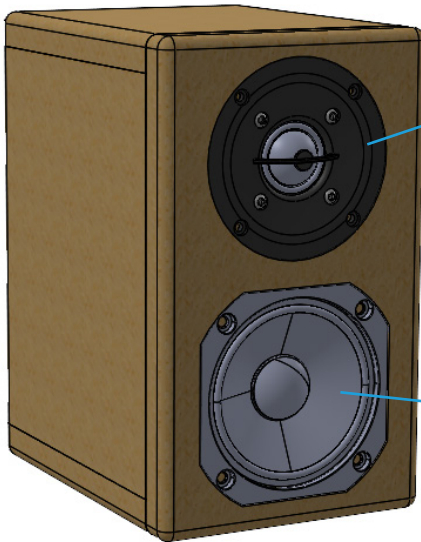


4" 2-Way Bookshelf Speaker Enclosure Design

This bookshelf speaker design delivers exceptional sound quality with its 1" soft-dome tweeter, producing crystal-clear highs, and a 4" carbon fiber midbass woofer for tight, punchy bass and rich midrange. This combination creates a well-balanced audio experience, perfect for precise, immersive sound in any home or studio setting.



BDT-2901

1" Soft Dome, Neo-Classic Tweeter
(See specs on page 5)

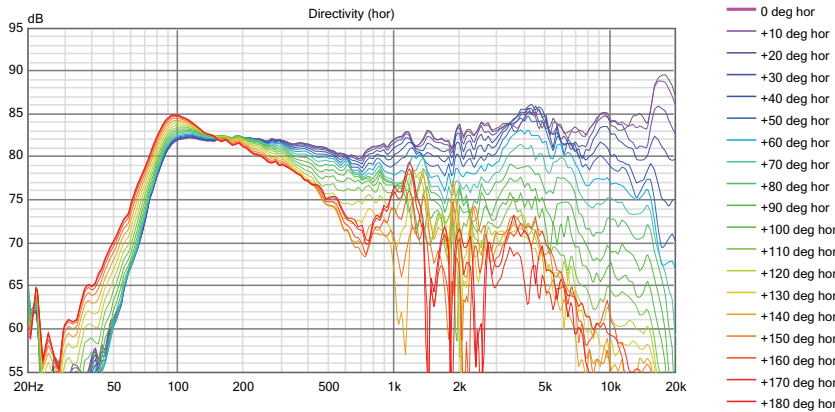
- High energy neodymium ring magnet for high sensitivity in dual woofer designs
- Copper pole cap for low inductance and extended high frequency
- Large rear chamber for low resonance and lower cross-over point
- 29mm silk dome diaphragm by Kurt Mueller

BMW-4001

4" Carbon Fiber Midbass Woofer
(See specs on page 6)

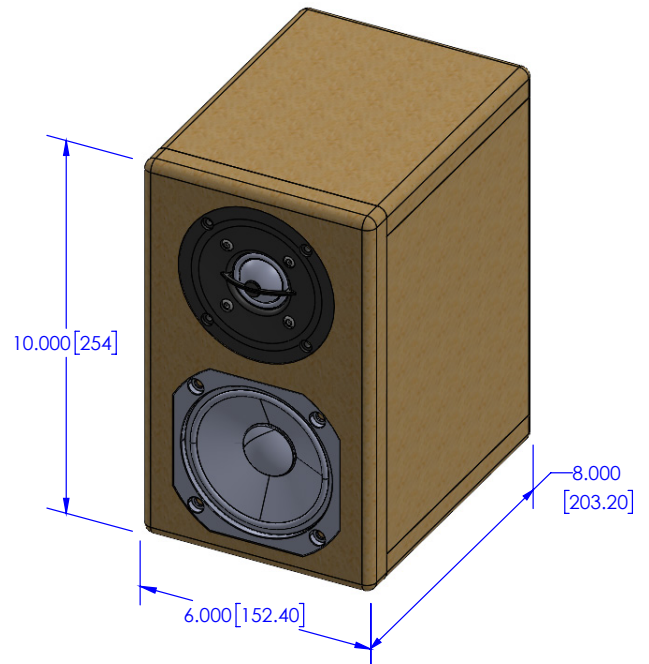
- Lightweight, rigid carbon fiber cone with rubber surround
- 2.6 mm, Klippel verified minimum Xmax
- Vented, square-cast aluminum basket
- 1 inch voice coil, edge-wound copper on Kapton former
- Wide frequency range of 60 to 12kHz

DIRECTIVITY CHART



ABOUT BOLD NORTH AUDIO

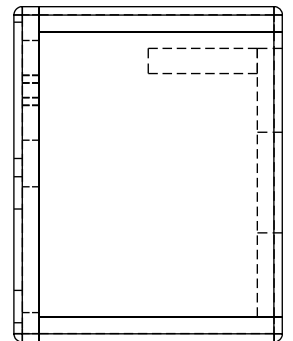
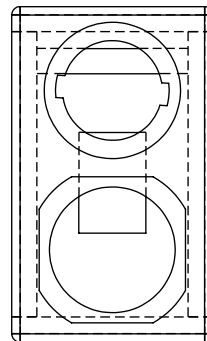
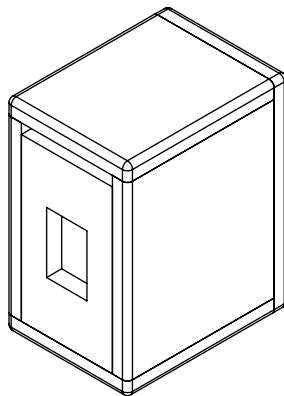
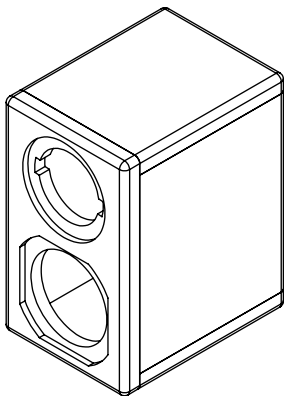
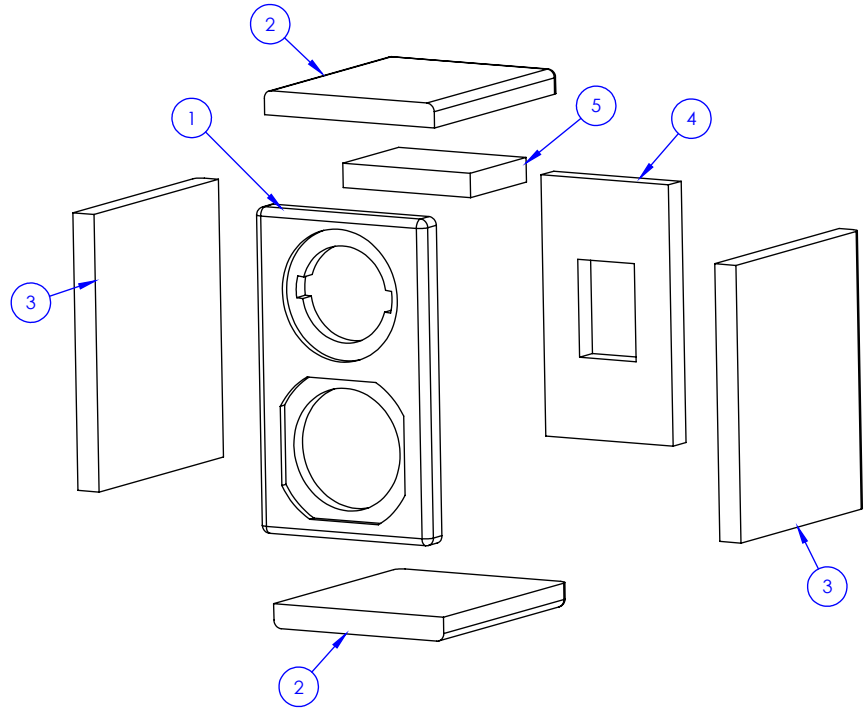
Bold North Audio products are the most accurate, engineered audio transducers available. Each design undergoes Klippel vibrational test analyses to verify the key characteristics for optimal audio performance. While we rely heavily on objective science to lead us, we understand that most of all speakers need to tell the musical truth. Our engineers, musicians, and recording studio veterans are the final judges of when a design is worthy of the Bold North Audio brand. All Bold North Audio products are designed and assembled in Minnesota, with parts sourced from around the world to produce the highest combination of performance, consistency, and customer value.



6" x 10" Bookshelf Speaker

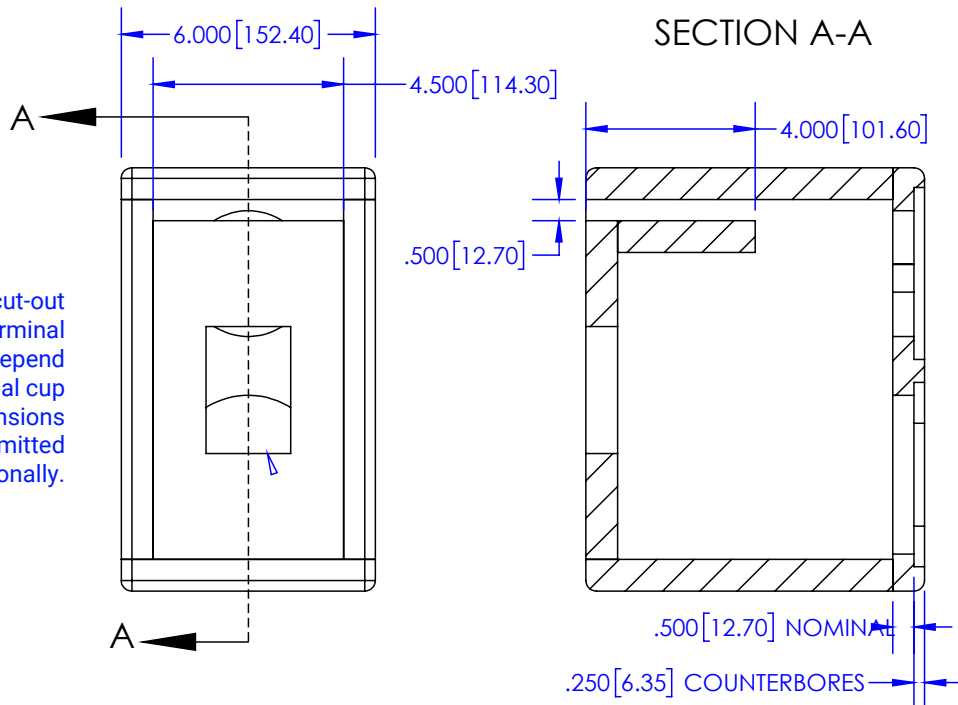
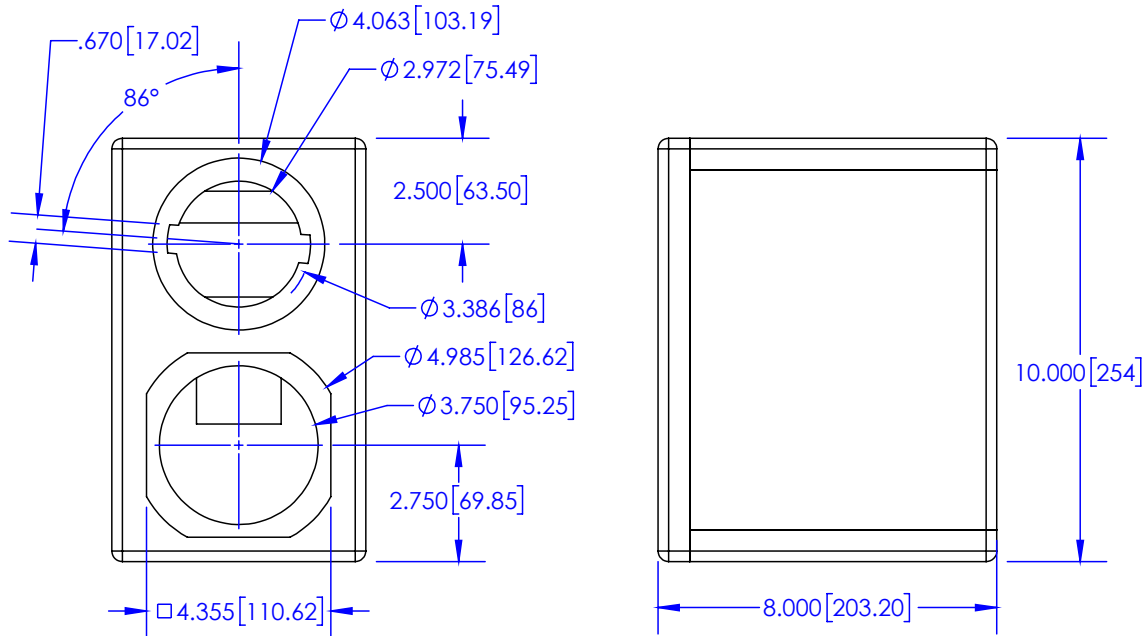
Designed for 3/4" MDF Nominal

Item No.	Description	QTY
1	Front	1
2	Top-Bottom	2
3	Sides	2
4	Back	1
5	Port	1



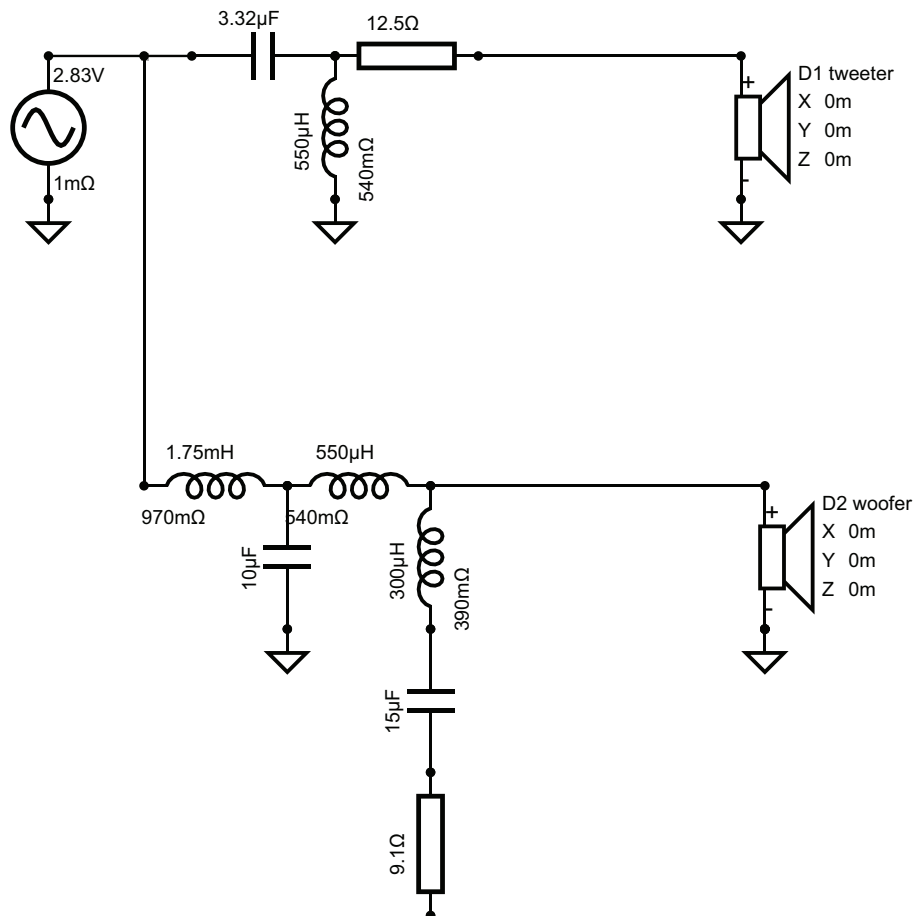
6" x 10" Bookshelf Speaker

Designed for 3/4" MDF Nominal



6" x 10" Bookshelf Speaker

CROSSOVER SCHEMATIC



1.1" Soft Dome, Neo-Classic Tweeter

KEY FEATURES

- High energy, compact neodymium ring magnet
- Copper pole cap for low inductance and extended high frequency
- Unique T-Pole and tapered front plate for high BL
- Large rear chamber for low resonance and lower cross-over point
- 29mm silk dome diaphragm by Kurt Mueller
- 8 ohm impedance, 91 dB SPL
- Designed and assembled in the USA

GENERAL SPECIFICATIONS

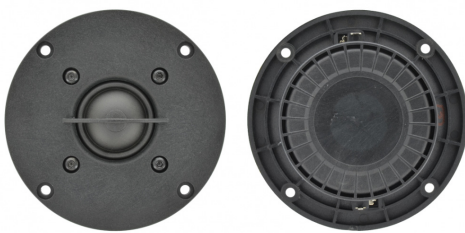
Overall Diameter (in & mm)	4.1" (104 mm)
Nominal Impedance (Z) (Ω)	8
Rated Power AES (W)	50 (100 watts peak)
Voice Coil Diameter (in & mm)	1.1" (28.8 mm)
SPL (dB) 1W @ 1M	91
Frequency Range (Hz)	1kHz-25kHz

SMALL SIGNAL PARAMETERS

Fs (Hz)	670
Re (Ω)	5.7
Le (mH)	0.02
Mms (g)	0.28
Rms (kg/s)	0.80
Cms (mm/N)	0.19
Bl (T*m)	3.07
Qms	1.35
Qes	0.68
Qts	0.45
Vas (Liters)	0.01
Sd (cm ²)	6.6
EBP (Fs/Qes)	903

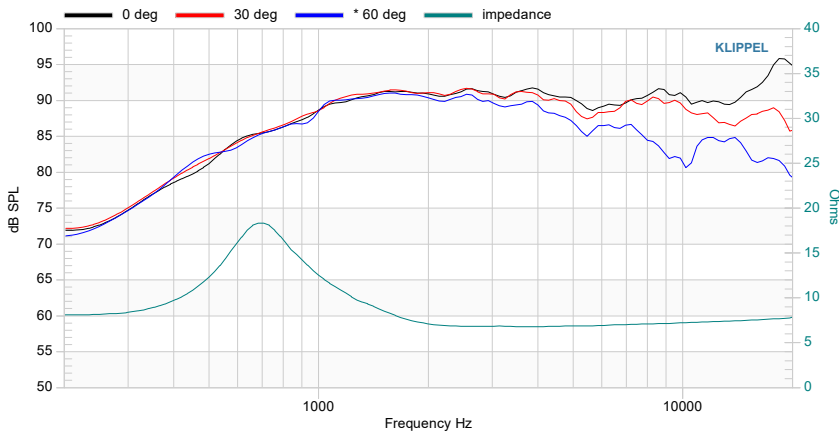
MATERIAL DESCRIPTIONS

Basket	ABS
Magnet Material	Neodymium
Cone Material	Dome Diaphragm
Voice Coil	Aluminum
Voice Coil Former	Aluminum



FREQUENCY RESPONSE AND IMPEDANCE CURVES

- Input: 2.83 volts measured at 1 meter



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4" Carbon Fiber Midbass Woofer

KEY FEATURES

- Light weight, rigid carbon fiber cone with rubber surround
- 2.6 mm, Klippel verified minimum Xmax
- Vented, square cast aluminum basket
- 1" voice coil, edge-wound copper on Kapton form
- Wide frequency range, 60 to 12kHz
- 0.9 kg, (2.1 lb) net weight

GENERAL SPECIFICATIONS

Nominal Diameter (in & mm)	4" (102 mm)
Nominal Impedance (Z) (Ω)	8
Rated Power AES (W)	25 (50 watts peak)
Magnet Weight (oz)	12
Voice Coil Diameter (in & mm)	1" (25.4 mm)
SPL (dB) 1W @ 1M	88
Frequency Range (Hz)	60Hz-12kHz

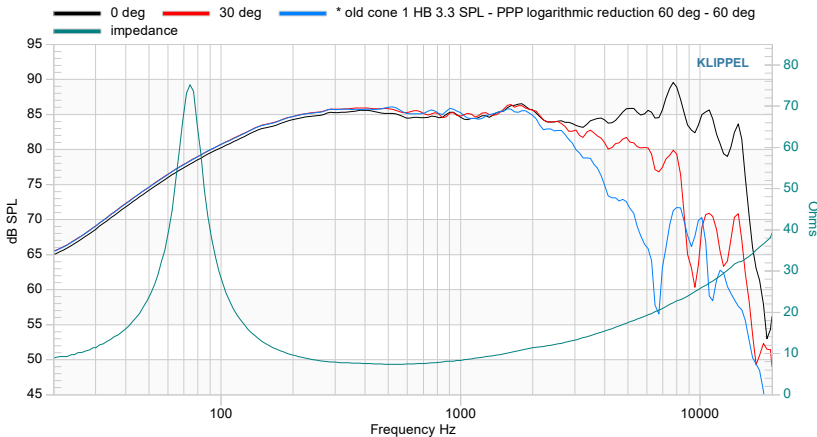
SMALL SIGNAL PARAMETERS

Fs (Hz)	68
Re (Ω)	6.4
Le (mH)	0.33
Mms (g)	6.49
Rms (kg/s)	0.34
Cms (mm/N)	0.84
Bl (T*m)	7.23
Qms	8.3
Qes	0.34
Qts	0.33
Vas (Liters)	3.31
Sd (cm ²)	52.8
Xmax (mm) Klippel verified @82% Bl	2.6



FREQUENCY RESPONSE AND IMPEDANCE CURVES

- Input: 2.83 volts measured at 1 meter



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MATERIAL DESCRIPTIONS

Basket	Cast Aluminum
Magnet Material	Ferrite
Cone Material	Carbon Fiber
Cone Edge	Rubber
Dust Cap	Poly
Voice Coil	Copper
Voice Coil Former	Kapton