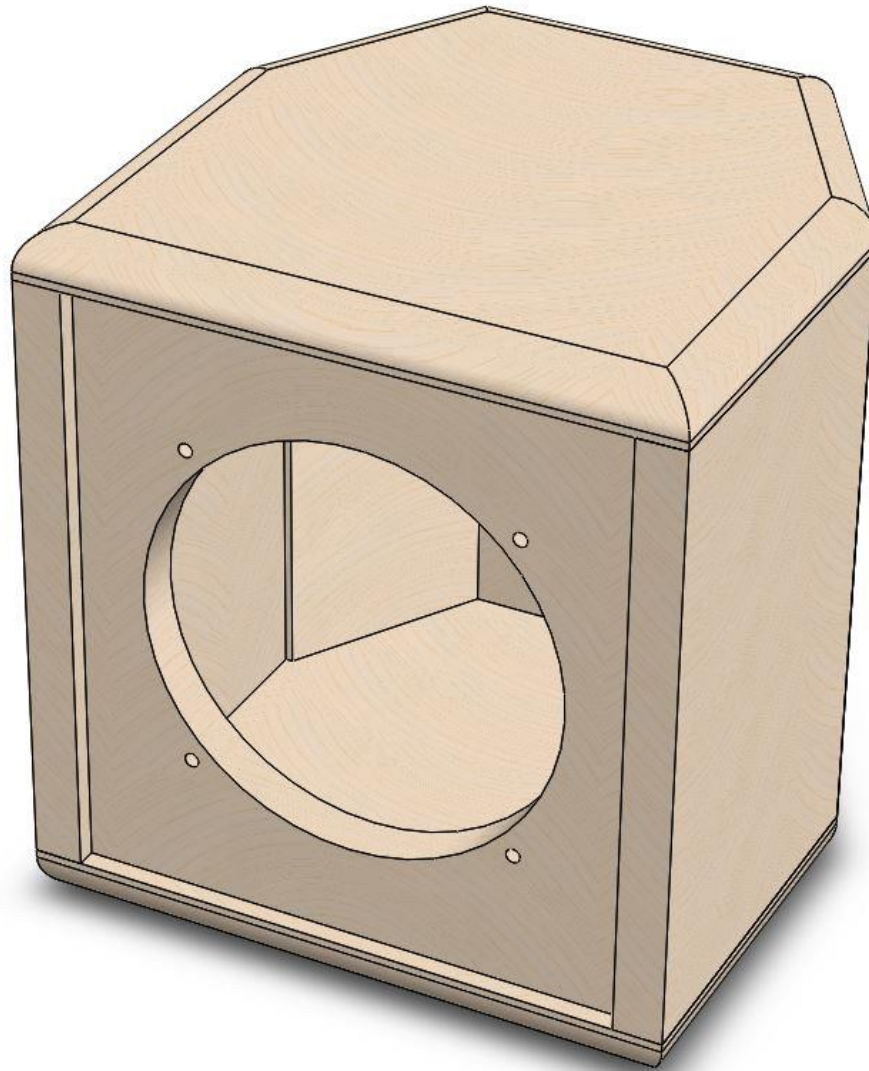




## **CX04**

**Multi-Purpose 4"  
Coaxial Speaker**

1x4" Coaxial Transducer – 4CXN36 8 ohm

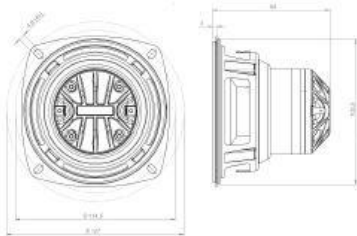


# TRANSDUCER

## 4CXN36

8Ω

Coaxials - 4.0 Inches



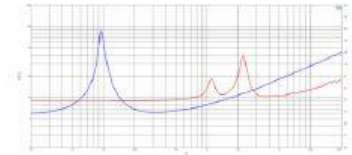
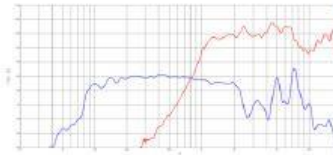
- 200 W continuous program power capacity
- 70° nominal coverage
- 95 - 18000 Hz response
- 86 dB sensitivity
- 21.5 mm (0.85") HF unit exit diameter
- Neodymium magnet allows a very light yet powerful motor assembly
- Aluminium demodulating ring allows a very low distortion figure



Unique to B&C, a complete lineup of high sensitivity and power handling 4" frame transducers. These high technology products are made with our famously critical quality control, allowing new compact loudspeaker designs with appropriately scaled performance. Combined with a 1.4" dome compression driver, our 4CXN36 coaxial is the most compact and cost effective full range transducer we have ever built, offering 95 - 18000Hz frequency response and a 70° conical coverage pattern.

## 4CXN36

Coaxials- 4.0 Inches



### SPECIFICATIONS

Nominal Diameter	100 mm (4.0 in)
Nominal Impedance	8 Ω
Minimum Impedance LF	6.4 Ω
Minimum Impedance HF	11.0 Ω
Frequency Range	95 - 18000 Hz
Dispersion Angle <sup>1</sup>	70 °
Woofer Cone Treatment	WP Waterproof Front Side
Magnet Material	Neodymium Ring

### SPECIFICATIONS LF UNIT

Sensitivity <sup>2</sup>	86.0 dB
Nominal Power Handling <sup>3</sup>	100 W
Continuous Power Handling <sup>4</sup>	200 W
Voice Coil Diameter	33 mm (1.3 in)
Winding Material	Copper
Flux Density	0.8 T
Former Material	Glass Fibre
Winding Depth	11.0 mm (0.43 in)
Magnetic Gap Depth	6.0 mm (0.24 in)

### SPECIFICATIONS HF UNIT

Sensitivity <sup>5</sup>	99.0 dB
Nominal Power Handling <sup>6</sup>	25 W
Continuous Power Handling <sup>7</sup>	50 W
Voice Coil Diameter	36 mm (1.4 in)
Winding Material	Aluminium
Flux Density	1.5 T
Diaphragm Material	HT Polymer
Recommended Crossover <sup>8</sup>	2.0 kHz
Inductance	0.14 mH

### PARAMETERS

Resonance Frequency	94 Hz
Re	5.4 Ω
Qes	0.8
Qms	15.75
Qts	0.76
Vas	1.9 dm <sup>3</sup> (0.07 ft <sup>3</sup> )
Sd	56.0 cm <sup>2</sup> (8.68 in <sup>2</sup> )
η <sub>s</sub>	0.19 %
X <sub>max</sub>	4.0 mm
X <sub>var</sub>	4.0 mm
M <sub>ms</sub>	6.8 g
Bl	5.25 Txm
Le	0.75 mH
EBP	117 Hz

### MOUNTING AND SHIPPING INFO

Overall Diameter	127 mm (5.0 in)
Bolt Circle Diameter	114 mm (4.51 in)
Baffle Cutout Diameter	103 mm (4.06 in)
Depth	84 mm (3.31 in)
Flange and Gasket Thickness	3 mm (0.12 in)
Net Weight	0.54 kg (1.19 lb)
Shipping Units	1
Shipping Weight	0.75 kg (1.65 lb)
Shipping Box	210x210x125 mm (8.27x8.27x4.92 in)

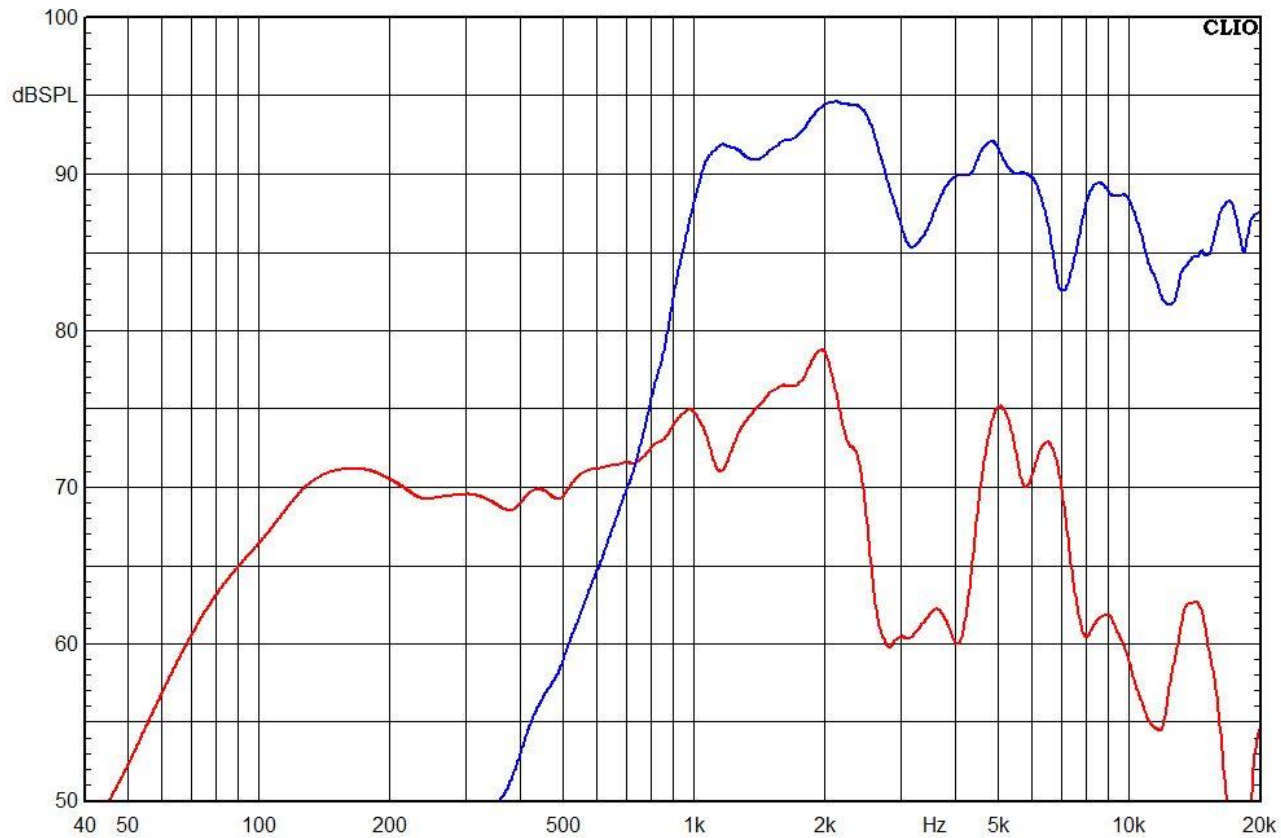
### SERVICE KIT

LF recone kit	RCK004CXN368
MF replacement diaphragm	MMDE11016

1. Included by -6 dB down points.  
 2. Applied RMS Voltage is set to 2.83V.  
 3. 2 hours test made with continuous pink noise signal within the range Fs-10Fs. Power calculated on rated minimum Impedance. Loudspeaker in free air.  
 4. Power on Continuous Program is defined as 3 dB greater than the Nominal rating.  
 5. Applied RMS Voltage is set to 2.83V.  
 6. 2 hour test made with continuous pink noise signal within the range from the recommended crossover frequency to 20 kHz. Power calculated on rated minimum Impedance. Loudspeaker in free air.  
 7. Power on Continuous Program is defined as 3 dB greater than the Nominal rating.  
 8. 12 dB/oct. or higher slope high-pass filter.

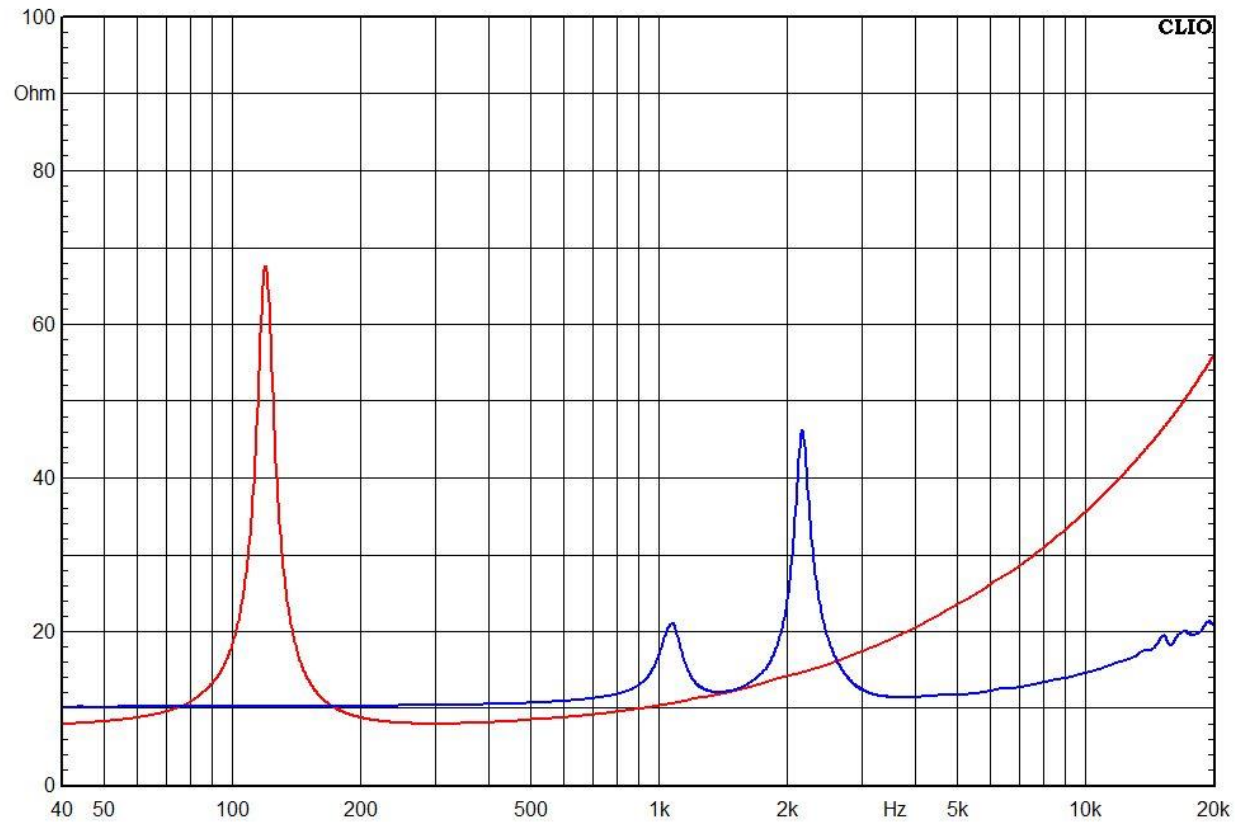
# MEASUREMENTS

Unfiltered Frequency Response 2.83V@1m in Half-Space

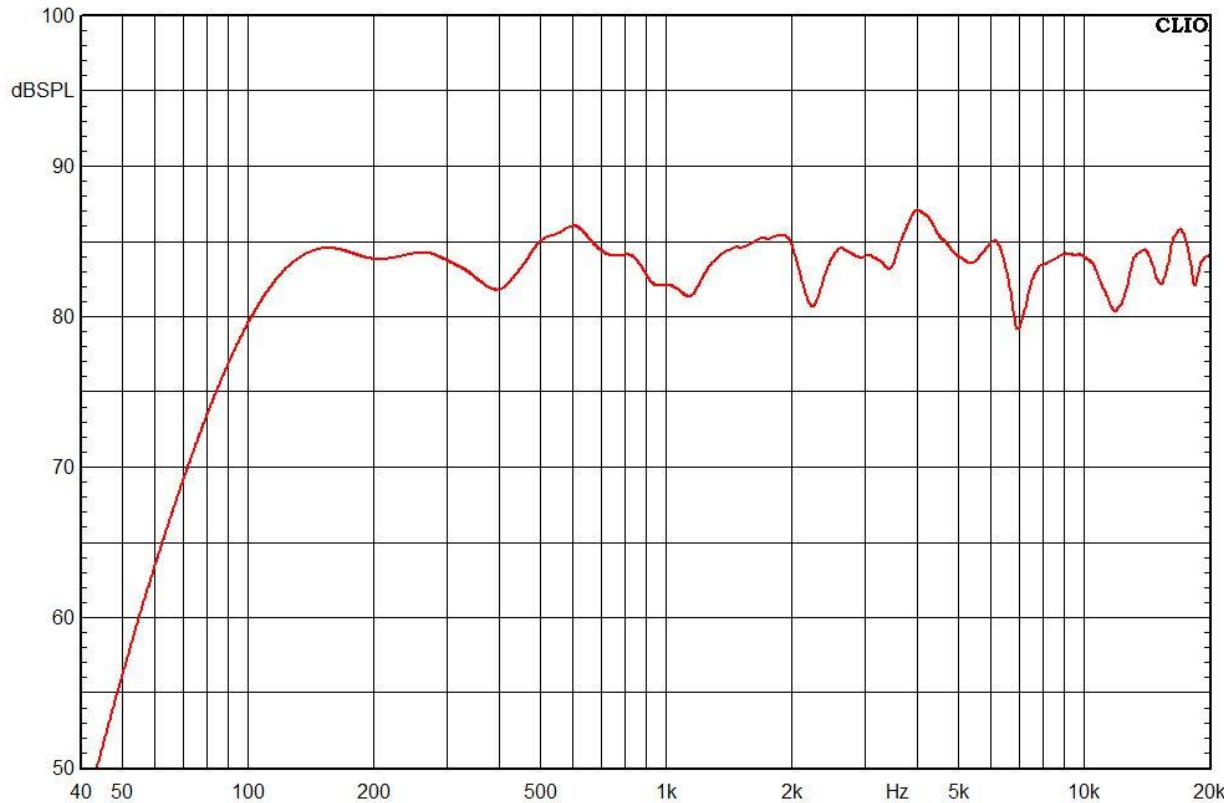


# MEASUREMENTS

Component Impedance @-20dBu Input



## Active DSP Settings



*Processed Frequency response*

*LF:*

*In: (0dB)*

*HPF: 70Hz – BTW 24dB/Oct*

*Peaking #1: +3.5dB – Q:1.3 – Frq:100Hz*

*Peaking #2: +4.5dB – Q:0.8 – Frq:450Hz*

*Peaking #3: -2dB – Q:3 – Frq:965Hz*

*Peaking #4: -3dB – Q:2 – Frq: 2KHz*

*Peaking #5: -3dB – Q:6 – Frq: 2.3KHz*

*LPF: 2.3KHz – BTW 24dB/Oct*

*HF:*

*In: (-20db)*

*Phase Inversion*

*HPF: 2.5KHz – BTW 12dB/Oct*

*Peaking #1: -4dB – Q:2 – Frq:2.2KHz*

*Peaking #2: +5dB – Q:2 – Frq:3.2KHz*

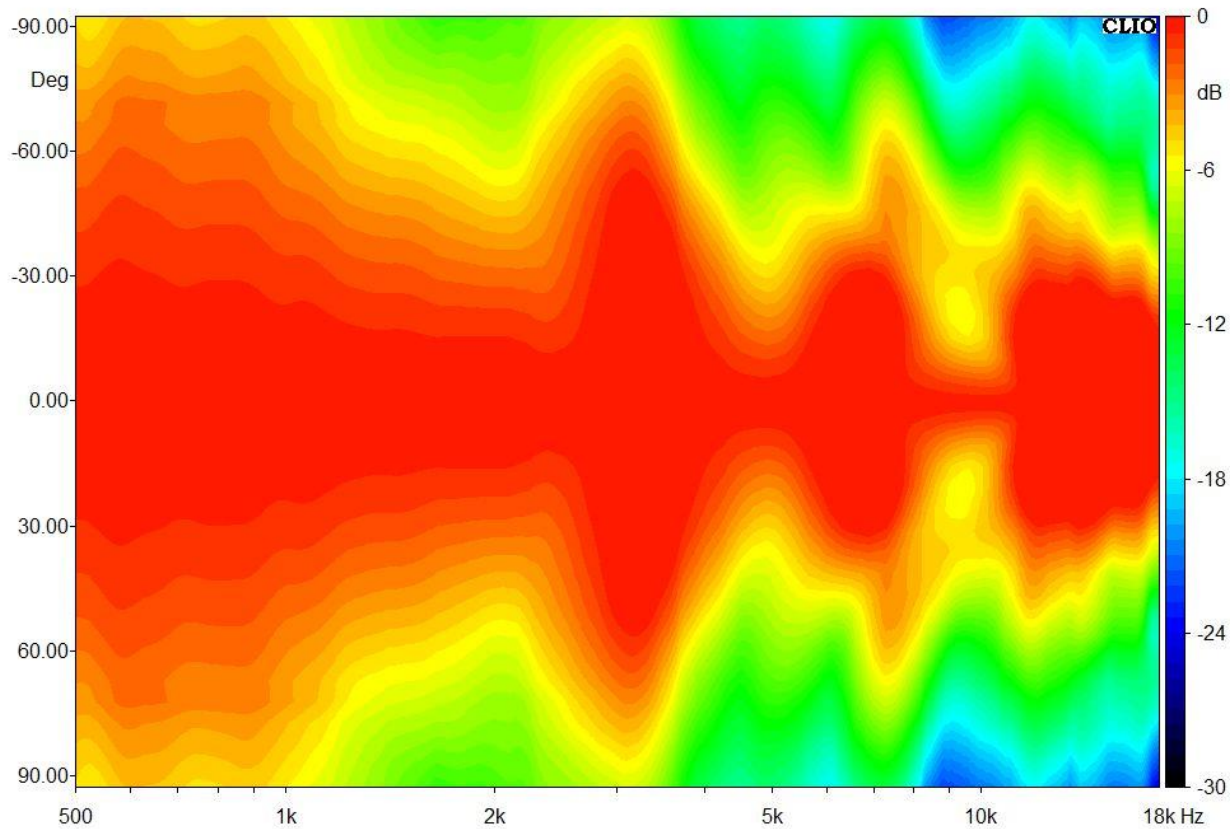
*Peaking #3: +2dB – Q:7 – Frq:7KHz*

*Peaking #4: +3dB – Q:5 – Frq: 13KHz*

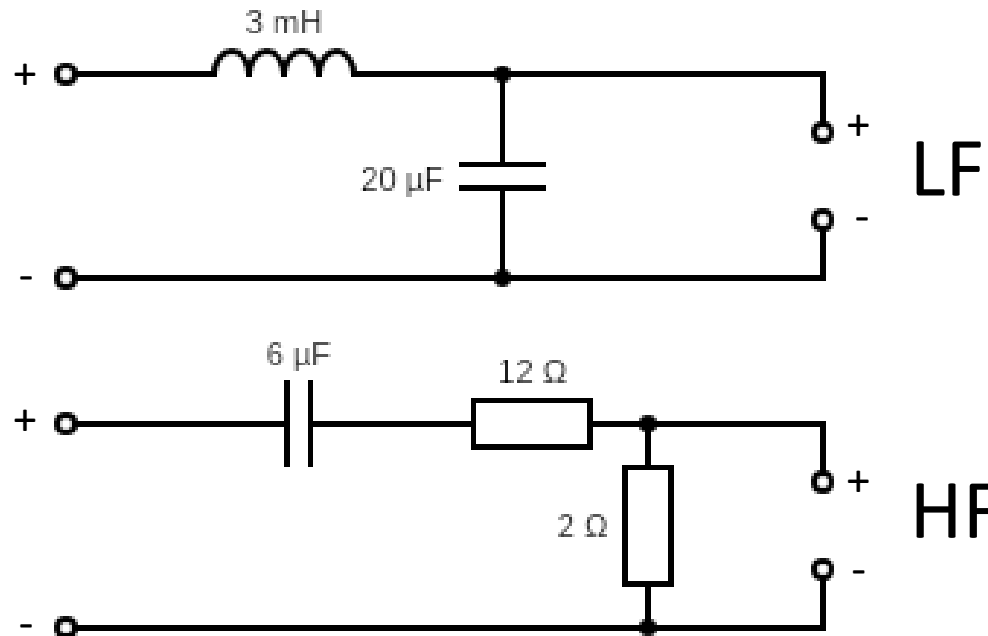
*High Shelving: 3dB – Q:1.25 – Frq: 6KHz*

## Polar Map

Vertical and Horizontal Directivity Index with Active DSP Settings.



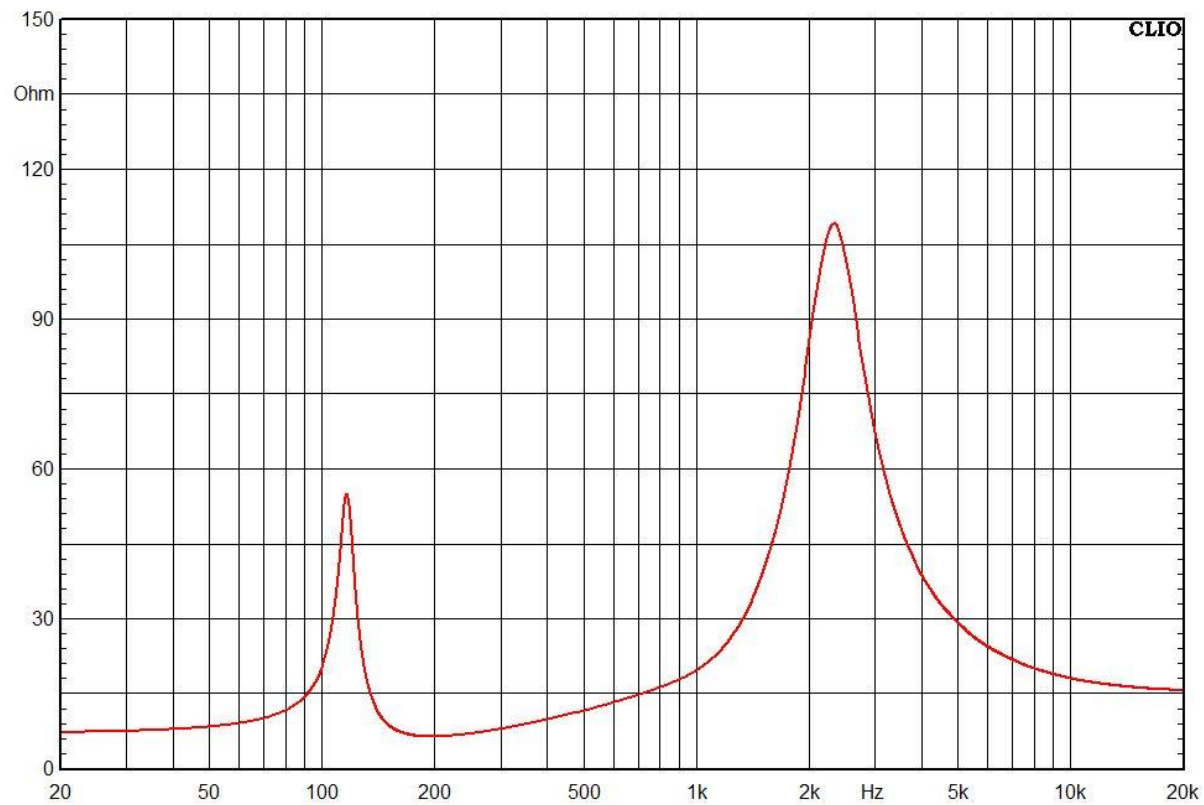
## Passive Crossover Circuit Diagram





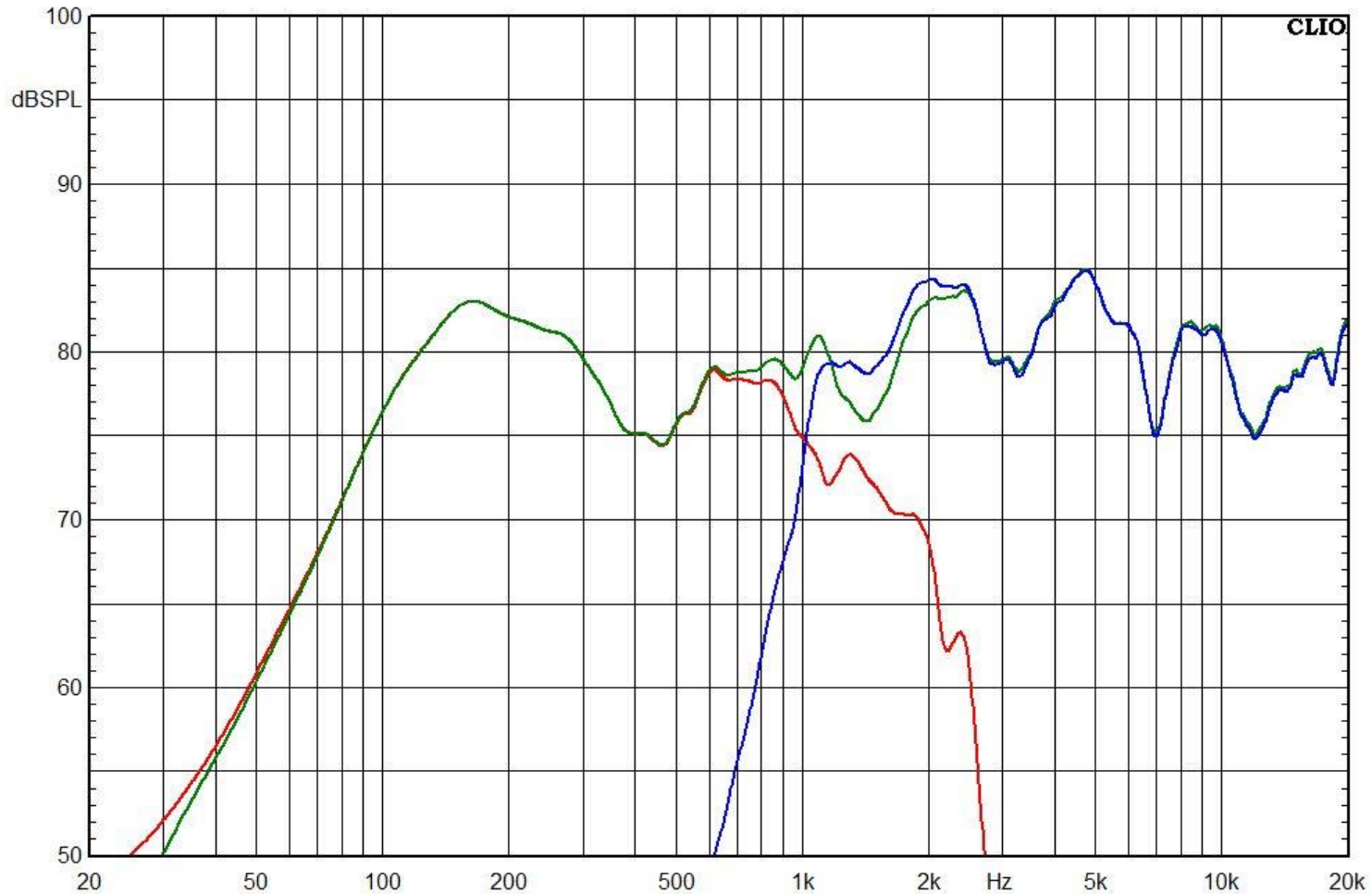
# Passive Crossover Circuit

Impedance (all connected)



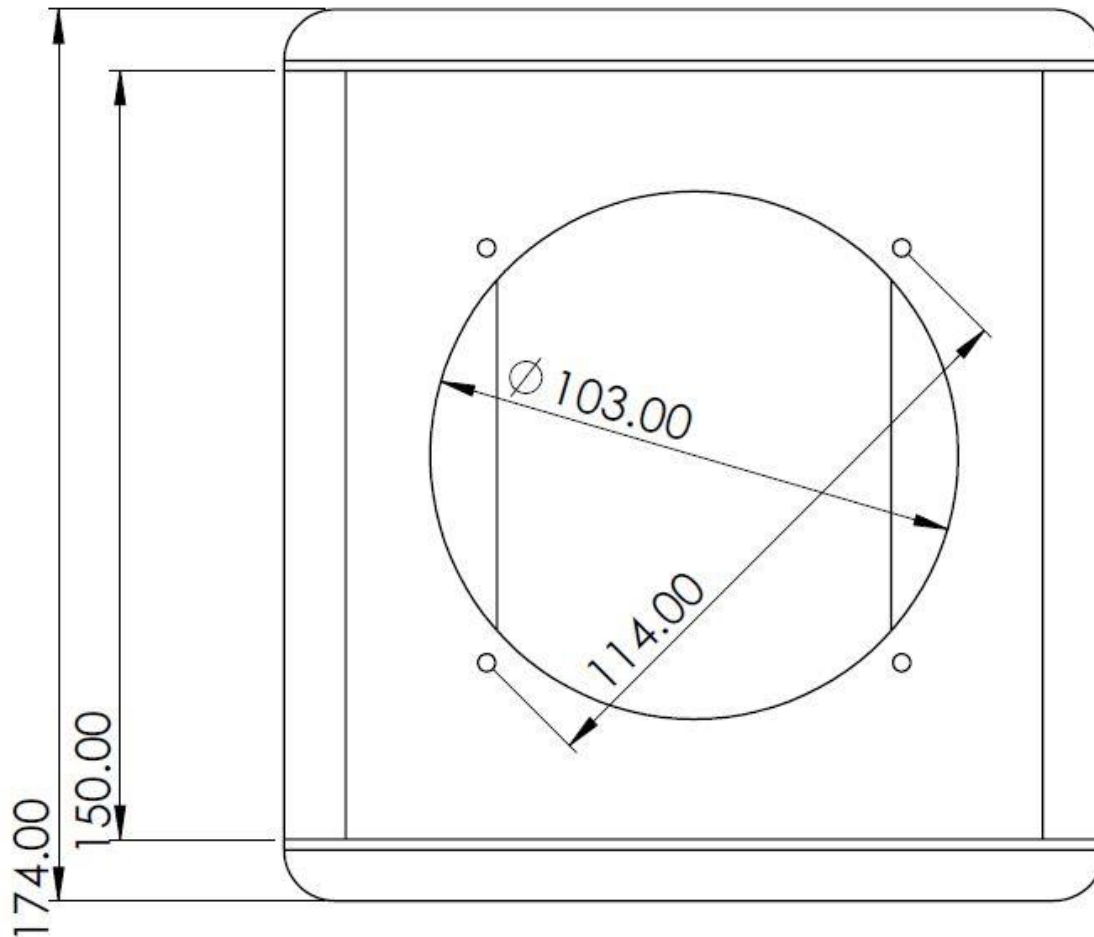
# Passive Crossover Circuit

Frequency Response, 1 watt @ 1 meter .



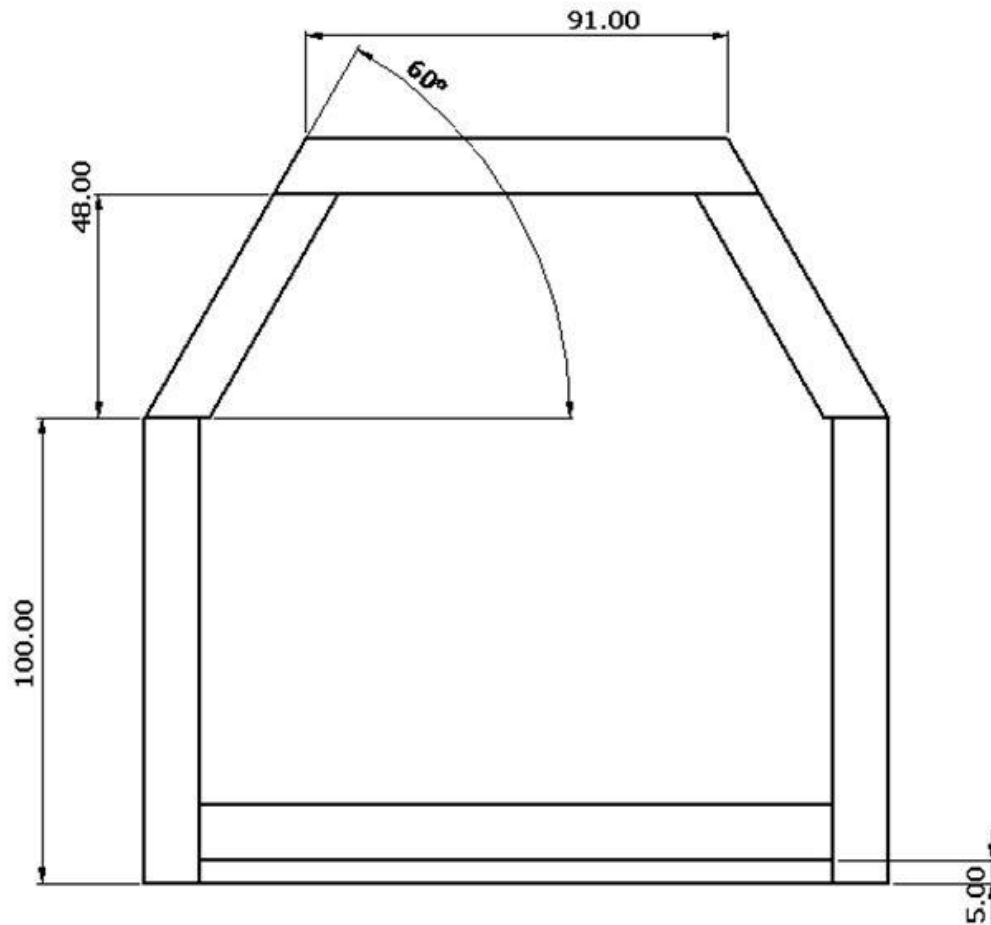
## Enclosure Design

Front view



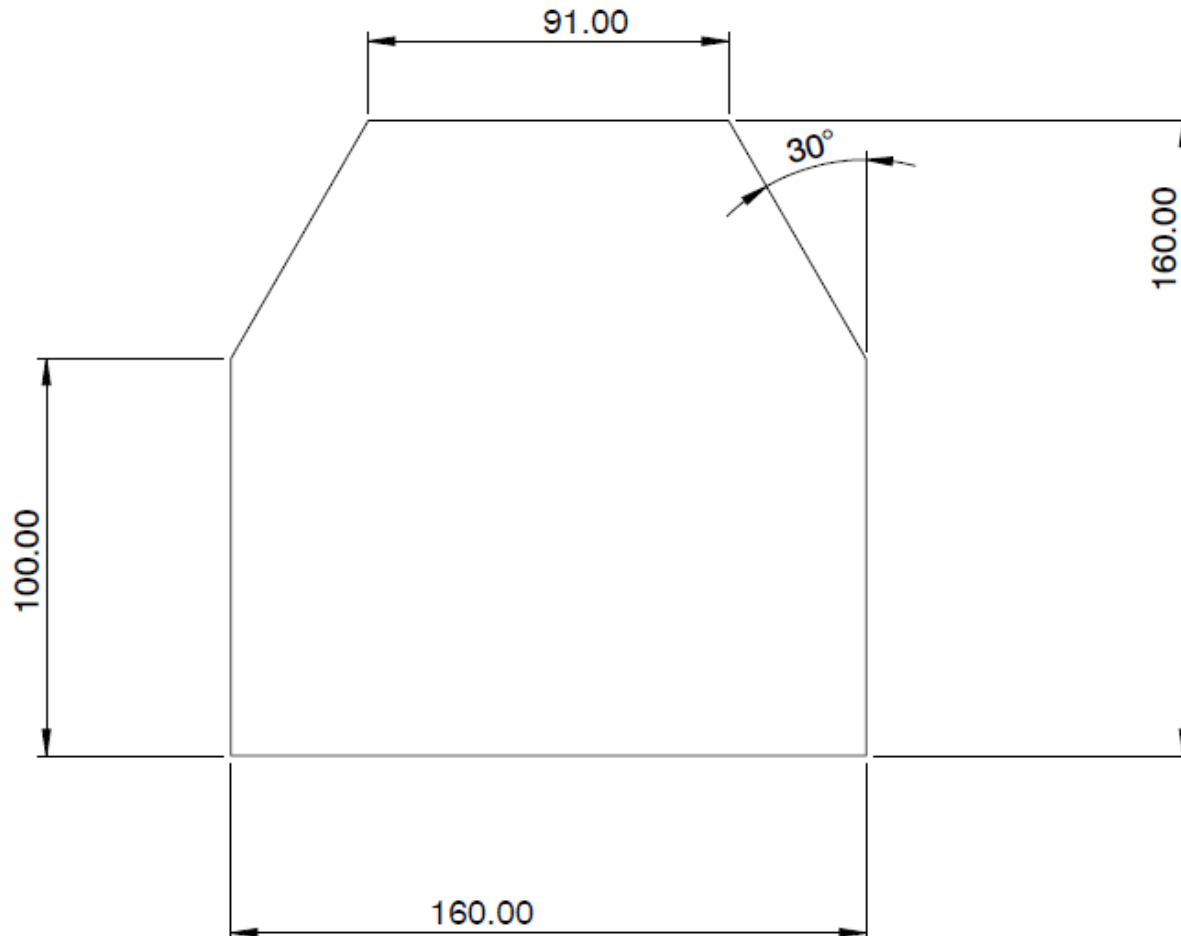
# Enclosure Design

Upper view



## Enclosure Design

Bottom / Top Panels





## **BUILDING NOTES**

- *Wood thickness: 12mm (birch plywood suggested)*
- *Connections, paint and handles are left to the user's choice.*
  - *Transducer bolts suggested: M4*
- *The usage of an internal dampening foam is highly recommended on every internal panel except the front one .*