



CX10.64

Multi purpose – compact 10” coaxial speaker

1x10” Neo Coaxial Transducer – 10CXN64 8 ohm

Or

1x10” Ceramic Coaxial Transducer – 10FCX64 8 ohm



CX10.64

TRANSDUCER (10CXN64)

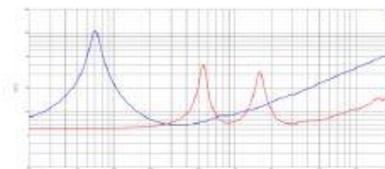
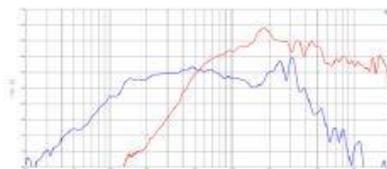
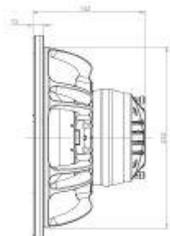
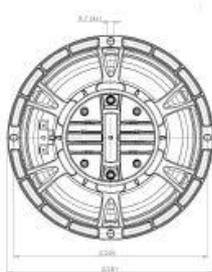
10CXN64

Coaxials - 10.0 Inches

8Ω

10CXN64

Coaxials- 10.0 Inches



SPECIFICATIONS

Nominal Diameter	250 mm (10.0 In)
Nominal Impedance	8 Ω
Minimum Impedance LF	6.7 Ω
Minimum Impedance HF	7.0 Ω
Frequency Range	70 - 18000 Hz
Dispersion Angle ¹	70 °
Woofer Cone Treatment	WP Waterproof Front Side
Magnet Material	Neodymium Ring

SPECIFICATIONS LF UNIT

Sensitivity ²	97.0 dB
Nominal Power Handling ³	250 W
Continuous Power Handling ⁴	500 W
Voice Coil Diameter	64 mm (2.5 In)
Winding Material	Copper
Flux Density	1.1 T
Former Material	Kapton
Winding Depth	15.0 mm (0.59 In)
Magnetic Gap Depth	9.0 mm (0.35 In)

SPECIFICATIONS HF UNIT

Sensitivity ⁵	103.0 dB
Nominal Power Handling ⁶	80 W
Continuous Power Handling ⁷	160 W
Voice Coil Diameter	65 mm (2.5 In)
Winding Material	CCAW
Flux Density	1.75 T
Diaphragm Material	Titanium
Recommended Crossover ⁸	1.2 kHz
Inductance	0.15 mH

PARAMETERS

Resonance Frequency	68 Hz
Re	5.6 Ω
Qes	0.33
Qms	5.6
Qts	0.31
Vas	23.0 dm ³ (0.81 ft ³)
Sd	320.0 cm ² (49.6 in ²)
η _s	2.2 %
X _{max}	5.5 mm
X _{var}	5.0 mm
M _{ms}	33.5 g
Bl	15.8 Txm
Le	1.1 mH
EBP	206 Hz

MOUNTING AND SHIPPING INFO

Overall Diameter	261 mm (10.28 In)
Bolt Circle Diameter	245 mm (9.65 In)
Baffle Cutout Diameter	233 mm (9.17 In)
Depth	142 mm (5.59 In)
Flange and Gasket Thickness	13 mm (0.51 In)
Net Weight	3.2 kg (7.05 lb)
Shipping Units	1
Shipping Weight	4.1 kg (9.04 lb)
Shipping Box	360x360x200 mm (14.17x14.17x7.87 In)

SERVICE KIT

LF recone kit	RCK10CXN64B
HF replacement diaphragm	MMD620TNSM

- 500 W continuous program power capacity
- 70° nominal coverage
- 70 - 18000 Hz response
- 97 dB sensitivity
- 33 mm (1.3") HF unit exit diameter
- Single Neodymium magnet assembly
- Aluminium demodulating ring allows a very low distortion figure

Continuing our never-ending quest for higher output, we now offer our popular single neodymium magnet coaxials with larger voice coils for increased power handling. A significant increase in magnet mass also improves sensitivity and cone control, while integrating our latest compression driver technologies improves sound quality and durability in the HF as well. For high output applications where fidelity at maximum SPL is the primary concern, consider the 10CXN64 with 2.5" LF & HF voice coils. Power handling has increased to 500W, while also improving nearly every other parameter (including Xvar) relative to our established 10" coax models.

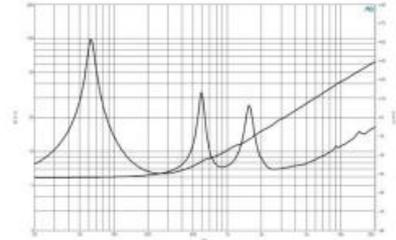
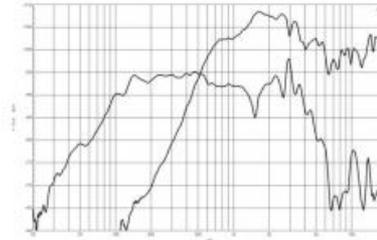
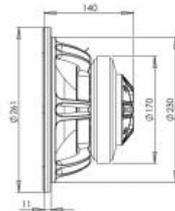
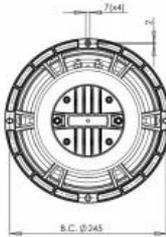
1. Included by -5 dB down points.
 2. Applied RMS Voltage is set to 2.83V.
 3. 2 hours test made with continuous pink noise signal within the range F5-10Fs. Power calculated on rated minimum Impedance. Loudspeaker in free air.
 4. Power on Continuous Program is defined as 3 dB greater than the Nominal 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.

TRANSDUCER (10FCX64)

10FCX64

8Ω

Coaxials - 10.0 Inches



SPECIFICATIONS

Nominal Diameter	250 mm (10.0 in)
Nominal Impedance	8 Ω
Minimum Impedance LF	6.4 Ω
Minimum Impedance HF	7.0 Ω
Frequency Range	65 - 18000 Hz
Dispersion Angle ¹	70 °
Woofer Cone Treatment	WP Waterproof Front Side
Magnet Material	Ferrite

SPECIFICATIONS LF UNIT

Sensitivity ²	95.0 dB
Nominal Power Handling ³	250 W
Continuous Power Handling ⁴	500 W
Voice Coil Diameter	64 mm (2.5 in)
Winding Material	Copper
Flux Density	0.96 T
Former Material	Kapton
Winding Depth	13.0 mm (0.51 in)
Magnetic Gap Depth	8.0 mm (0.31 in)

SPECIFICATIONS HF UNIT

Sensitivity ⁵	104.0 dB
Nominal Power Handling ⁶	80 W
Continuous Power Handling ⁷	160 W
Voice Coil Diameter	65 mm (2.5 in)
Winding Material	Aluminium
Flux Density	1.6 T
Diaphragm Material	Titanium
Recommended Crossover ⁸	1.2 kHz
Inductance	0.15 mH

PARAMETERS

Resonance Frequency	63 Hz
Re	5.5 Ω
Qes	0.44
Qms	7.9
Qts	0.42
Vas	25.0 dm ³ (0.89 ft ³)
Sd	320.0 cm ² (49.1 in ²)
ηe	1.4 %
Xmax	± 5.5 mm
Xvar	± 6.0 mm
Mms	37.0 g
Bl	13.4 Txm
Le	1.2 mH
EBP	143 Hz

MOUNTING AND SHIPPING INFO

Overall Diameter	261 mm (10.3 in)
Bolt Circle Diameter	245 mm (9.6 in)
Baffle Cutout Diameter	230 mm (8.8 in)
Depth	140 mm (5.51 in)
Flange and Gasket Thickness	11 mm (0.43 in)
Net Weight	5.65 kg (12.8 lb)
Shipping Units	1
Shipping Weight	6.55 kg (14.44 lb)
Shipping Box	360x360x200 mm (14.17x14.17x7.87 in)

CROSSOVER

SERVICE KIT

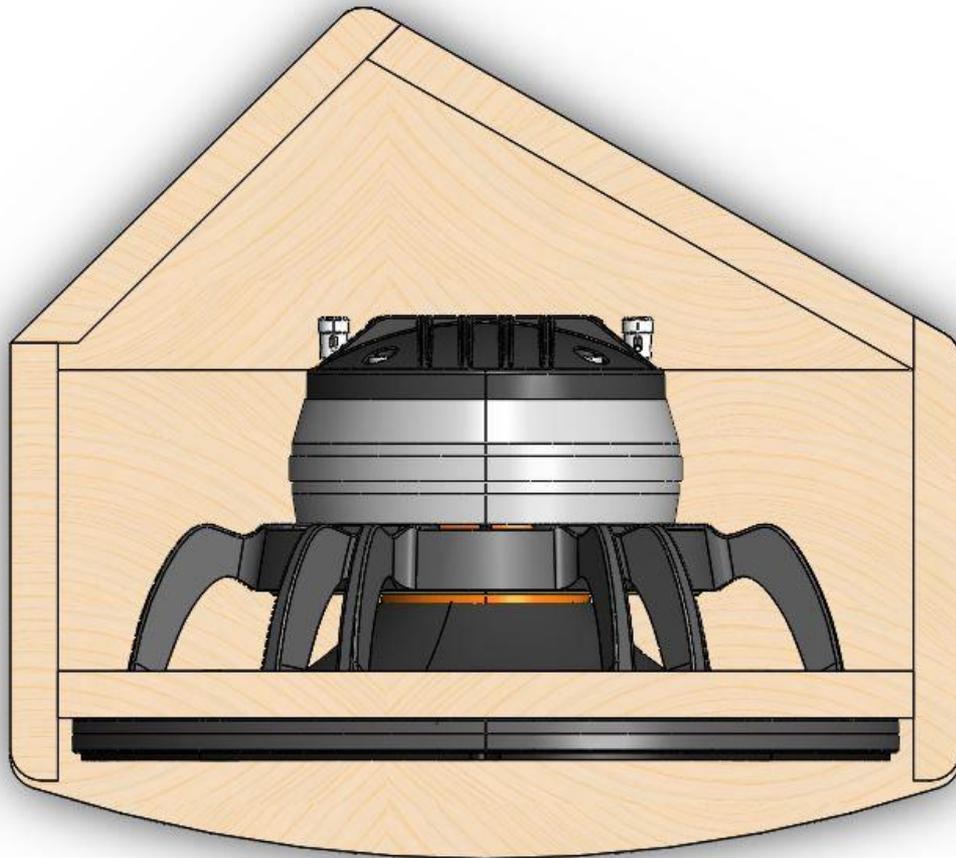
LF recone kit	RCK10FCX648
MF replacement diaphragm	MMD620TNBM

- 500 W continuous program power capacity
- 70° nominal coverage
- 65 - 18000 Hz response
- 95 dB sensitivity
- 33 mm (1.3") HF unit exit diameter

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.

ENCLOSURE DESIGN

Upper internal view and notes



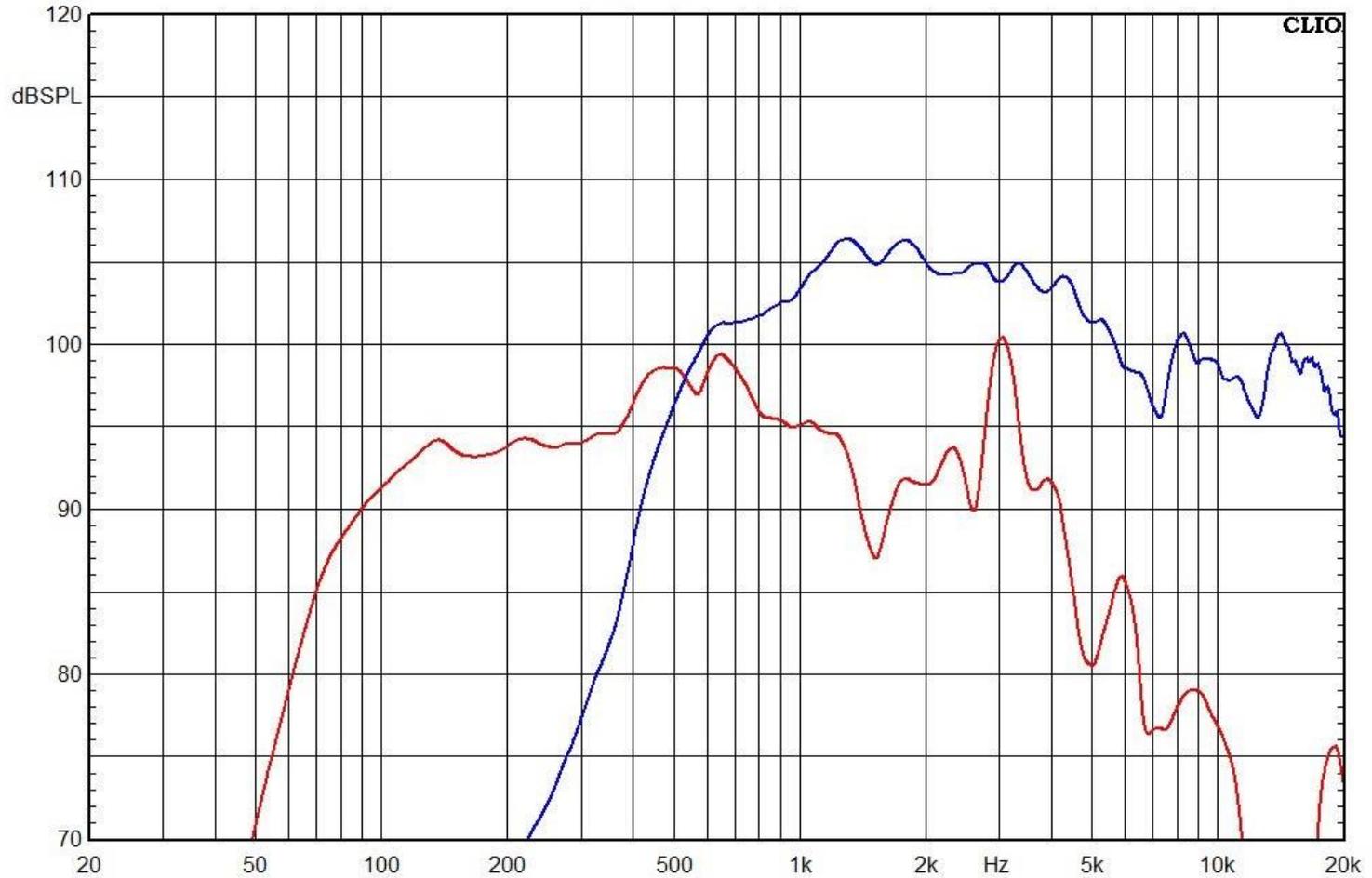
- 15mm Wood thickness (birch plywood suggested)

- A good dampening material should be placed inside the cabinet except the bottom panel and the back side panels around the port.

- M5 screws suggested for fixing the transducer.

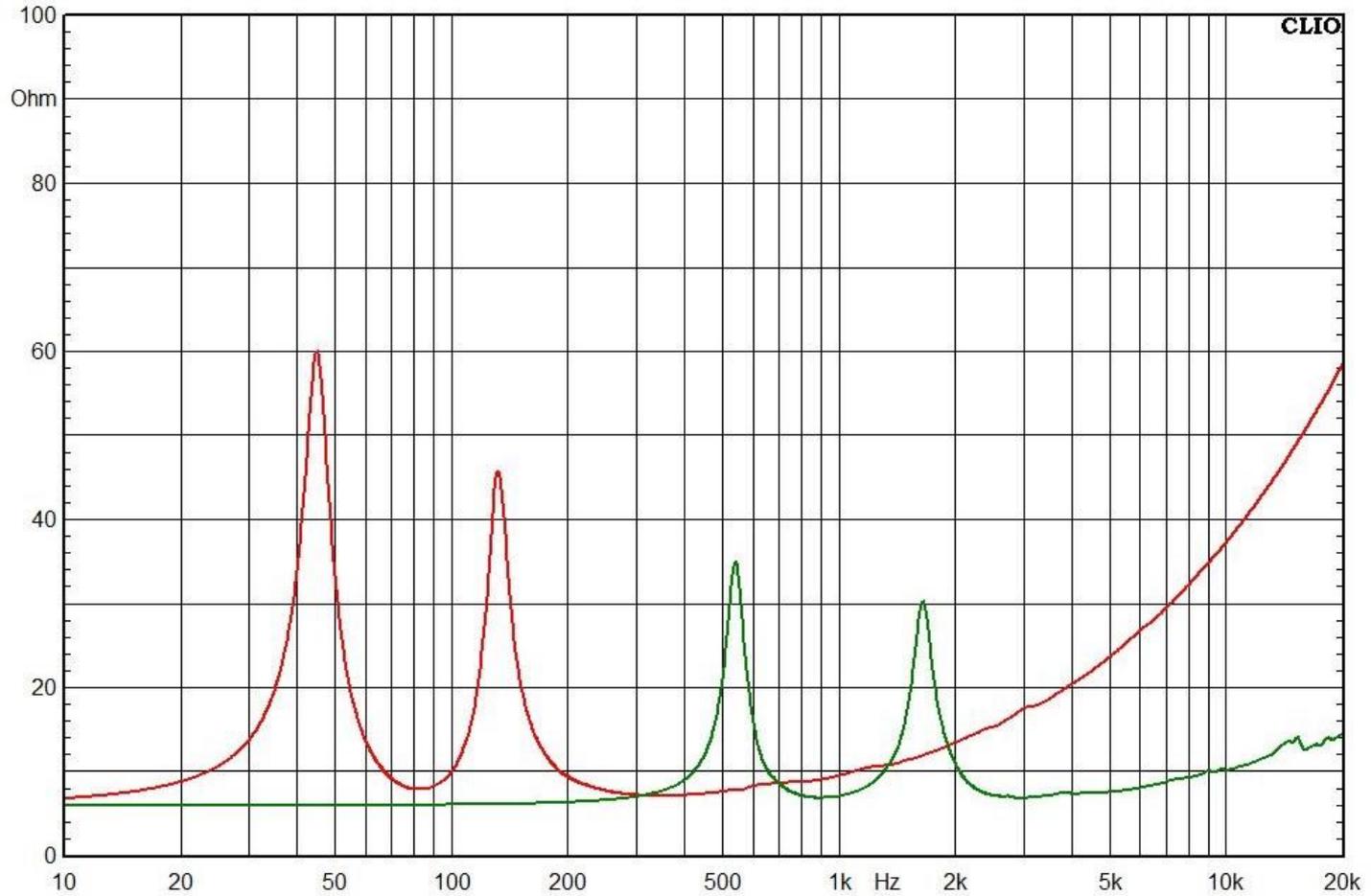
MEASUREMENTS

Unfiltered frequency response 2.83V@1m with 10CXN64

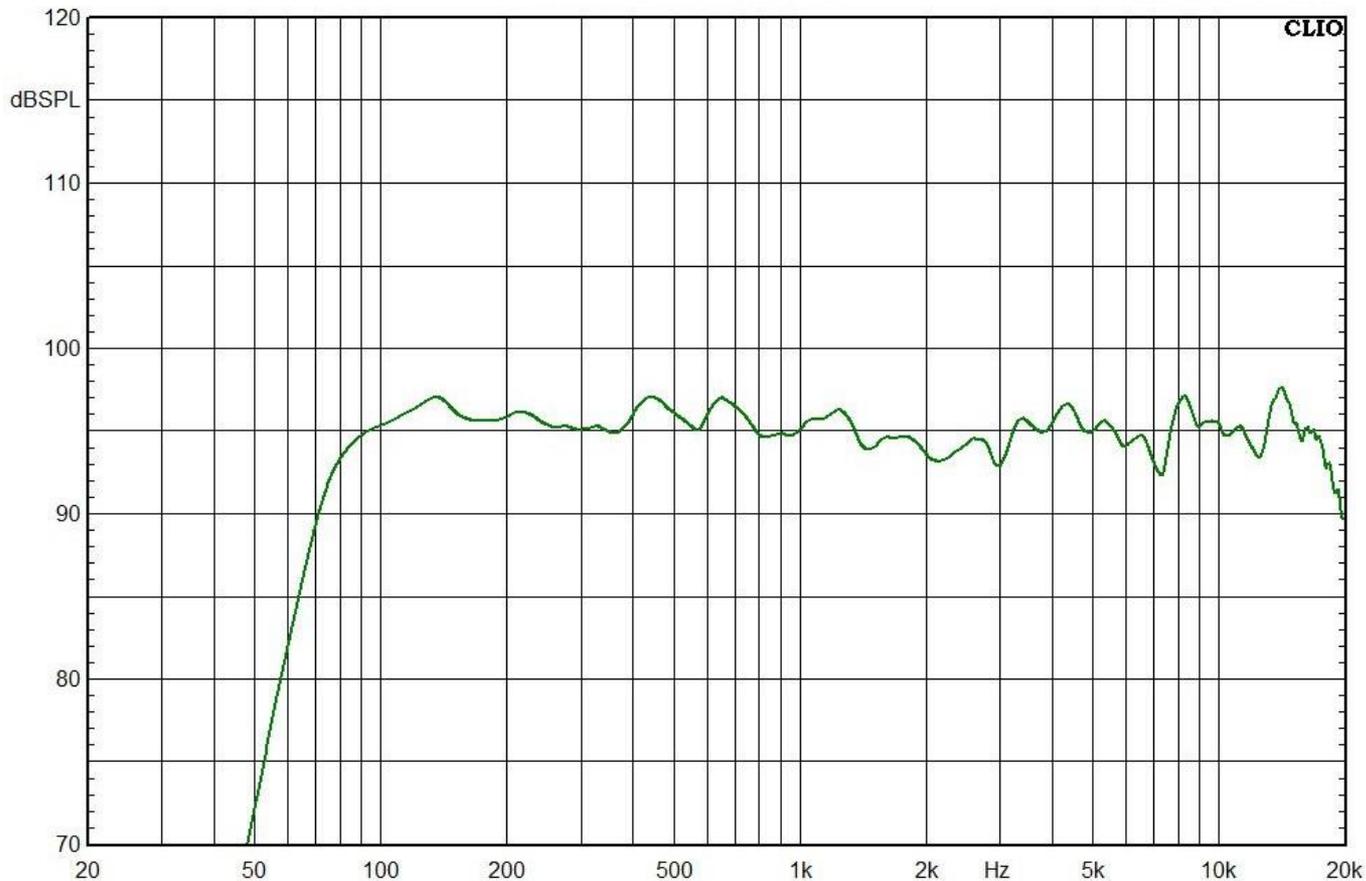


MEASUREMENTS

Impedance @-25dBu input with 10CXN64



Active dsp settings with 10CXN64



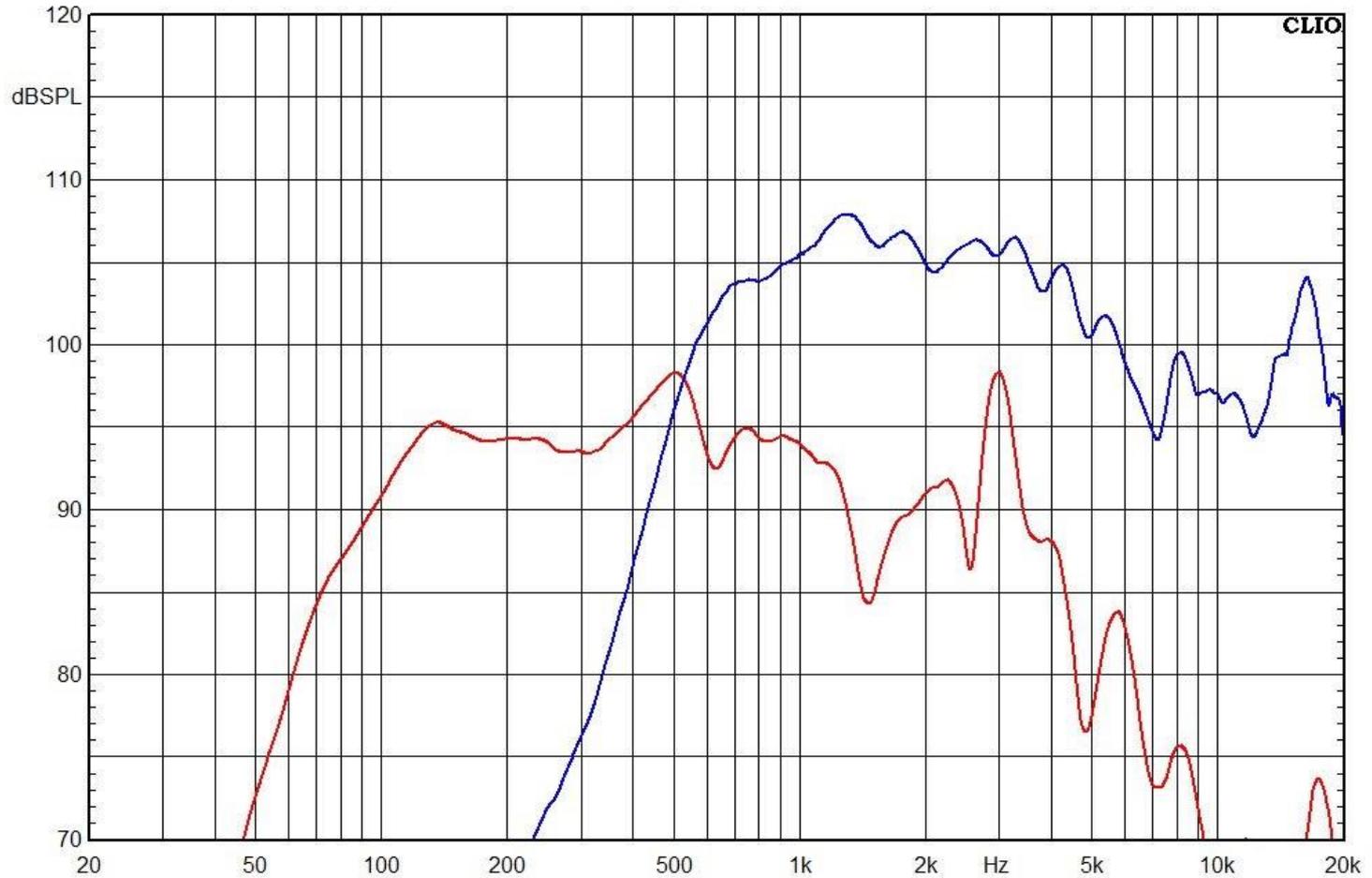
LF:
In: 0dB
HPF: 45Hz – BTW 24dB/Oct
Peaking #1: +5dB – Q:1.5 – Frq:80Hz
Peaking #2: +2dB – Q:0.5 – Frq:250Hz
Peaking #3: -4dB – Q:1.5 – Frq:580Hz
Peaking #4: +4,5dB – Q:2 – Frq:1600Hz
LPF: 1.7KHz – BTW 24dB/Oct

HF:
In: -10dB
HPF: 2.2KHz – BTW 24dB/Oct
Peaking #1: +1dB – Q:3 – Frq:2.2KHz
Peaking #2: +2dB – Q:3 – Frq:6.8KHz
Peaking #3: +2dB – Q:3 – Frq:12.5KHz
High Shelving: 6dB – Q:1 – Frq:5KHz

Processed Frequency response

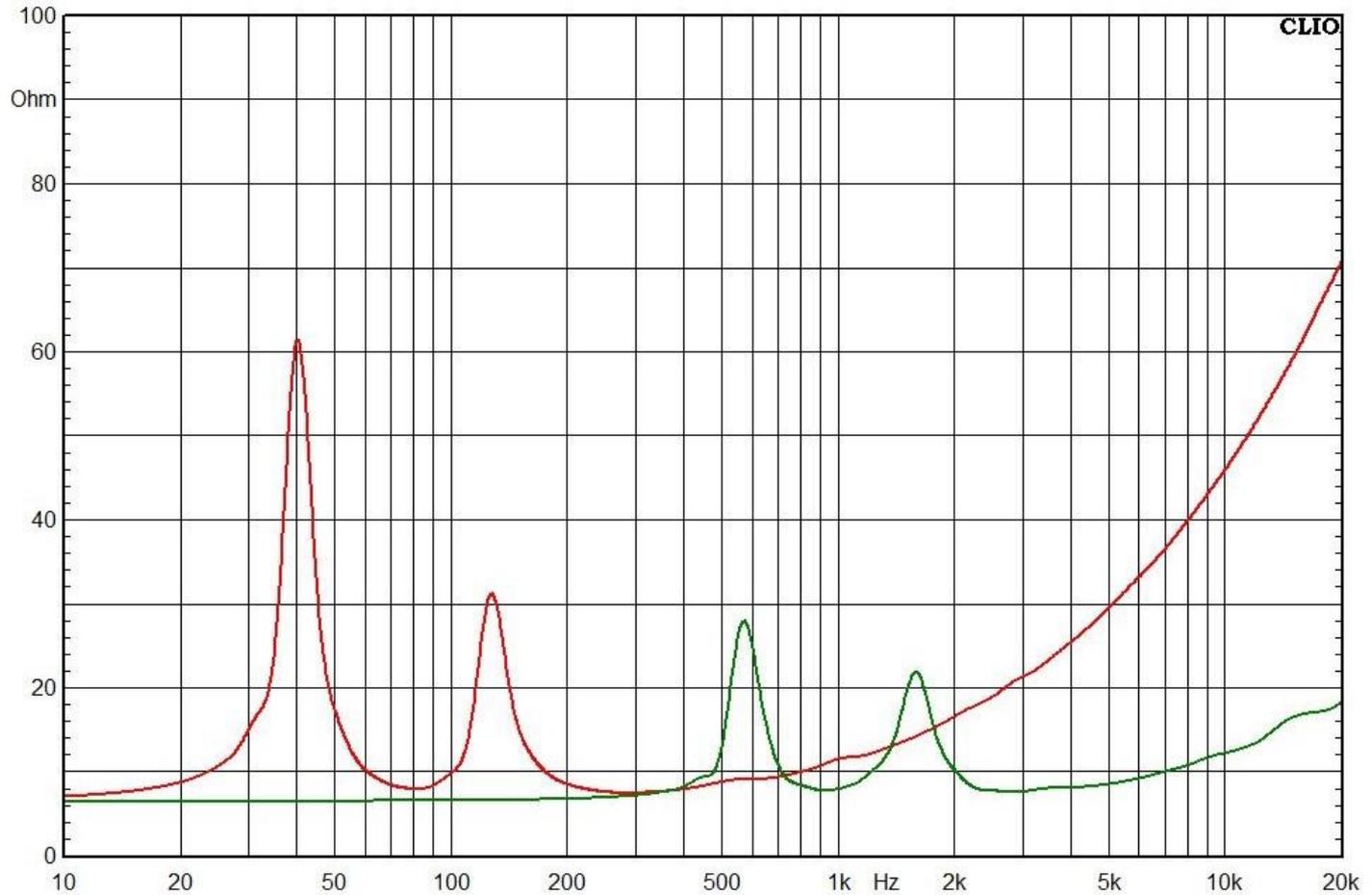
MEASUREMENTS

Unfiltered frequency response 2.83V@1m with 10FCX64

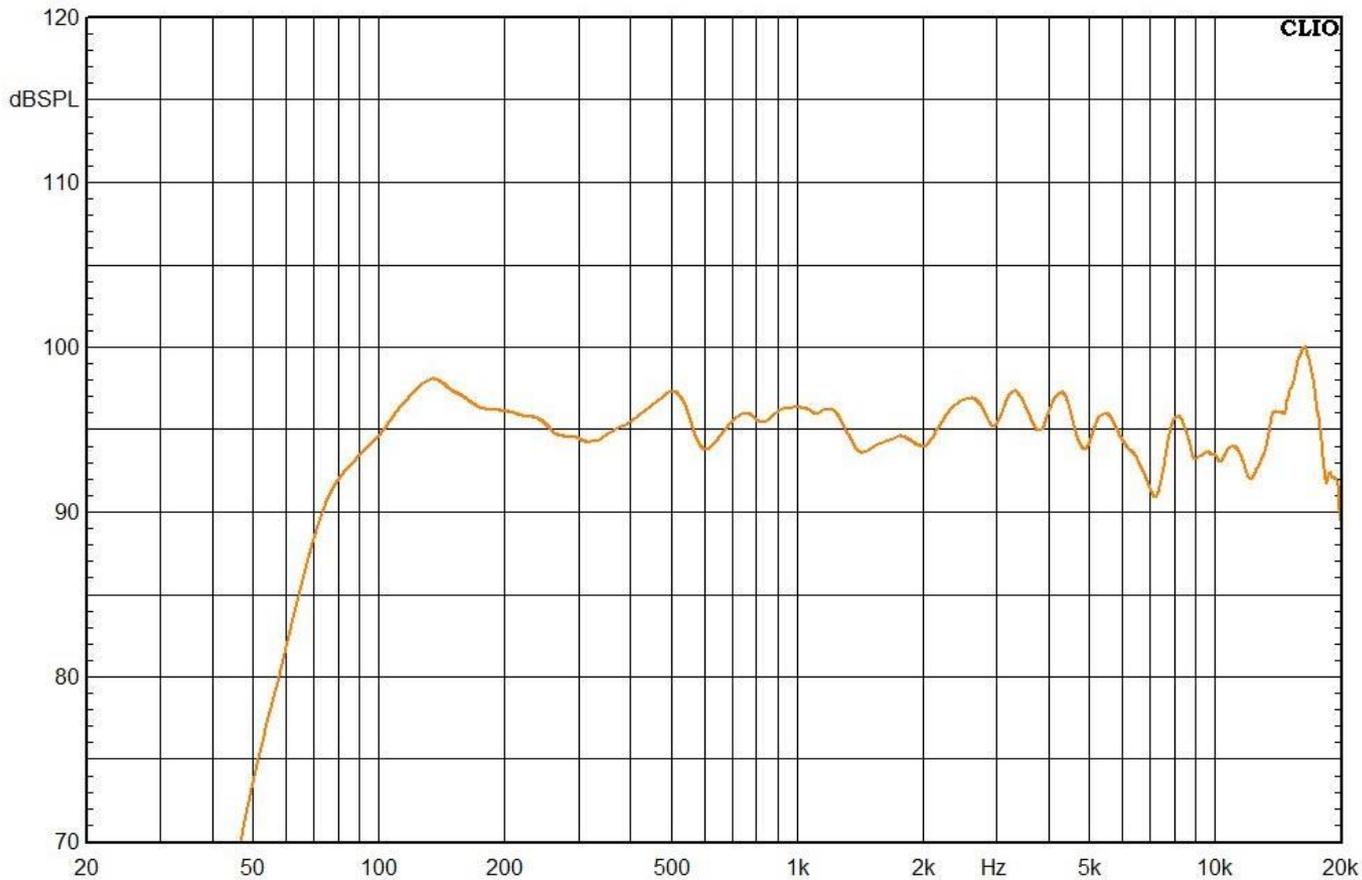


MEASUREMENTS

Impedance @-25dBu input with 10FCX64



Active dsp settings with 10FCX64



LF:

In: 0dB

HPF: 45Hz – BTW 24dB/Oct

Peaking #1: +5dB – Q:1.5 – Frq:80Hz

Peaking #2: +2dB – Q:0.5 – Frq:250Hz

Peaking #3: -2dB – Q:1.5 – Frq:500Hz

Peaking #4: +4,5dB – Q:1 – Frq:1450Hz

LPF: 1.7KHz – BTW 24dB/Oct

HF:

In: -10dB

HPF: 2KHz – BTW 24dB/Oct

Peaking #1: +2dB – Q:3 – Frq:2.2KHz

Peaking #2: +2dB – Q:3 – Frq:6.8KHz

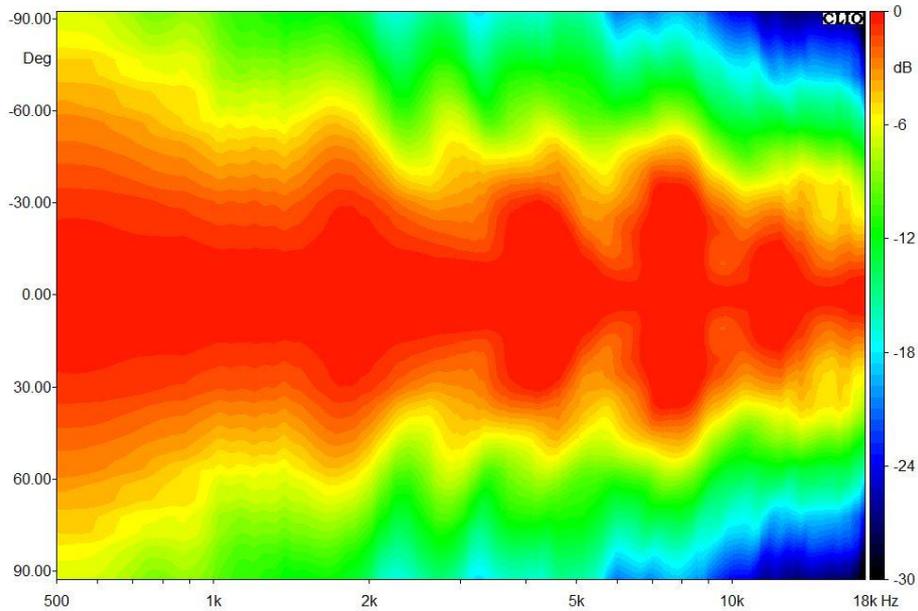
Peaking #3: +2dB – Q:3 – Frq:12.5KHz

High Shelving: 6dB – Q:1 – Frq:5KHz

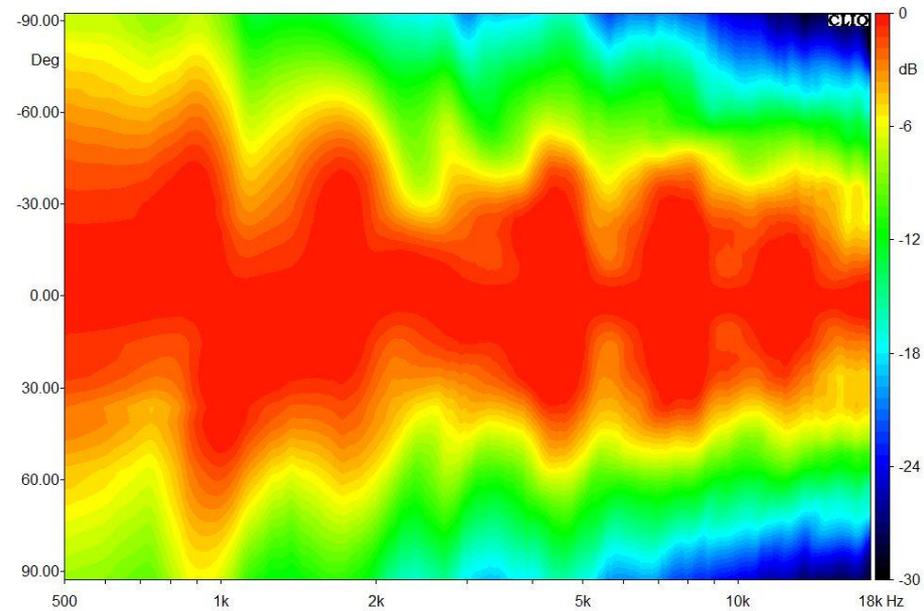
Processed Frequency response

Polar map

Directivity index with active dsp settings (both transducer models).

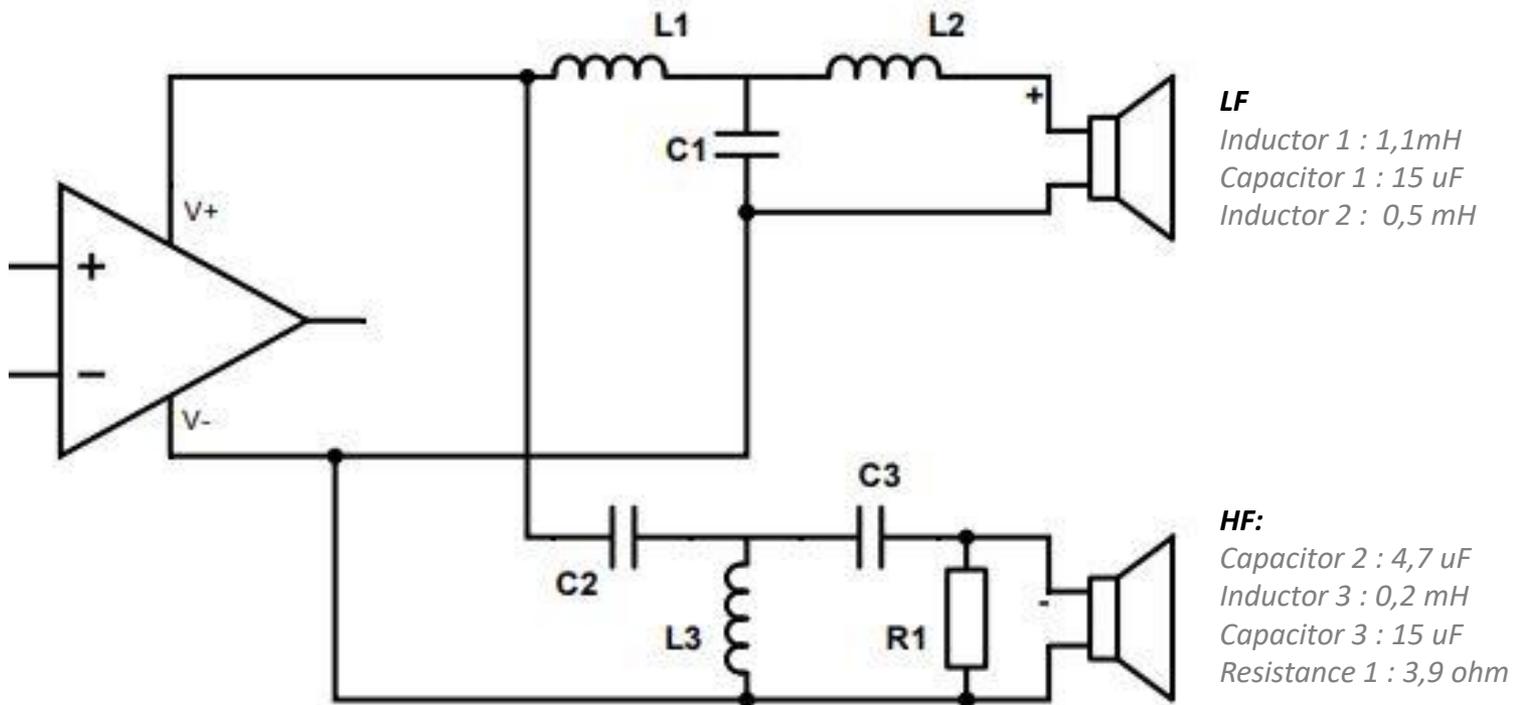


Horizontal plane



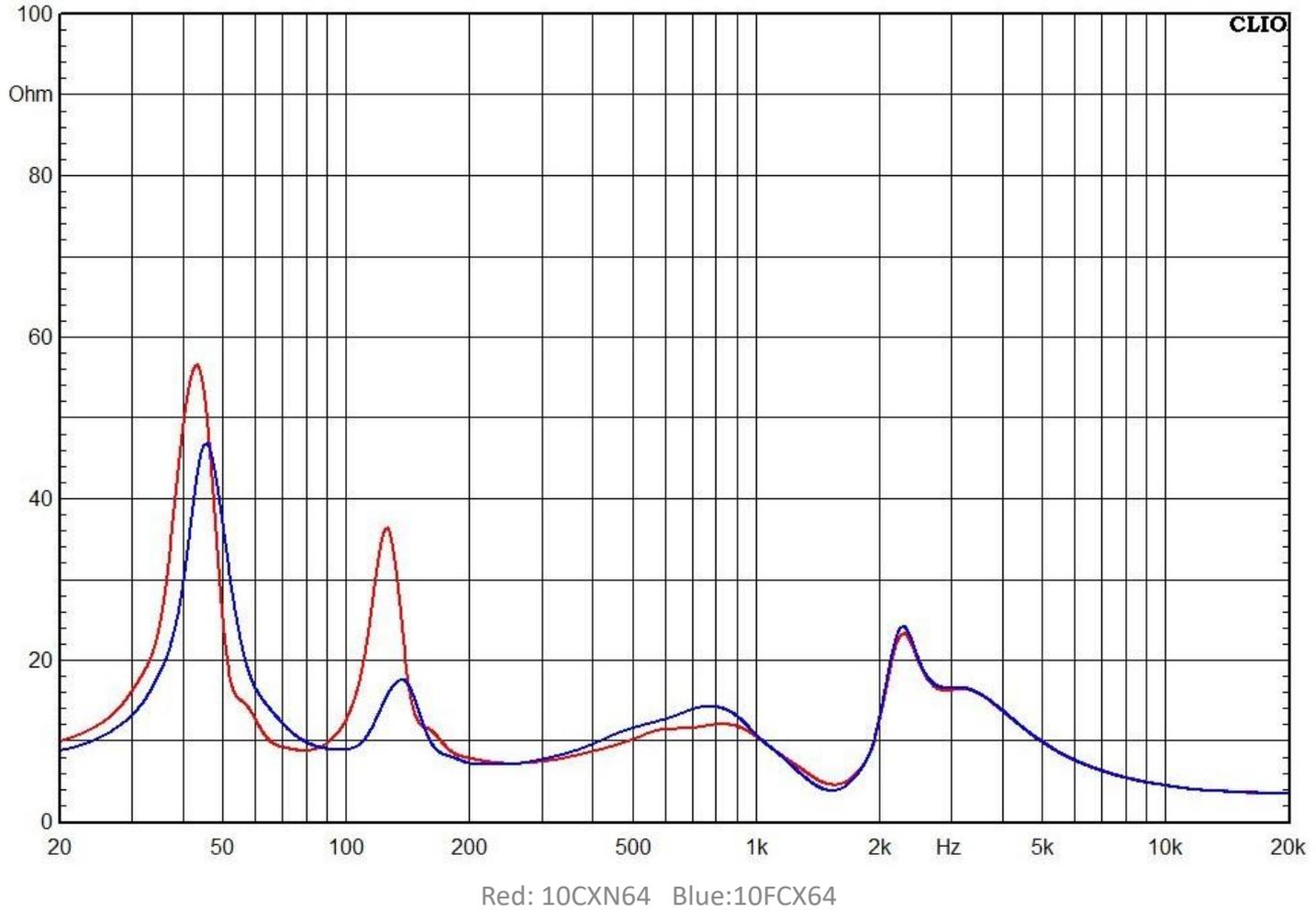
Vertical plane

Alternative passive filter (both transducer models)



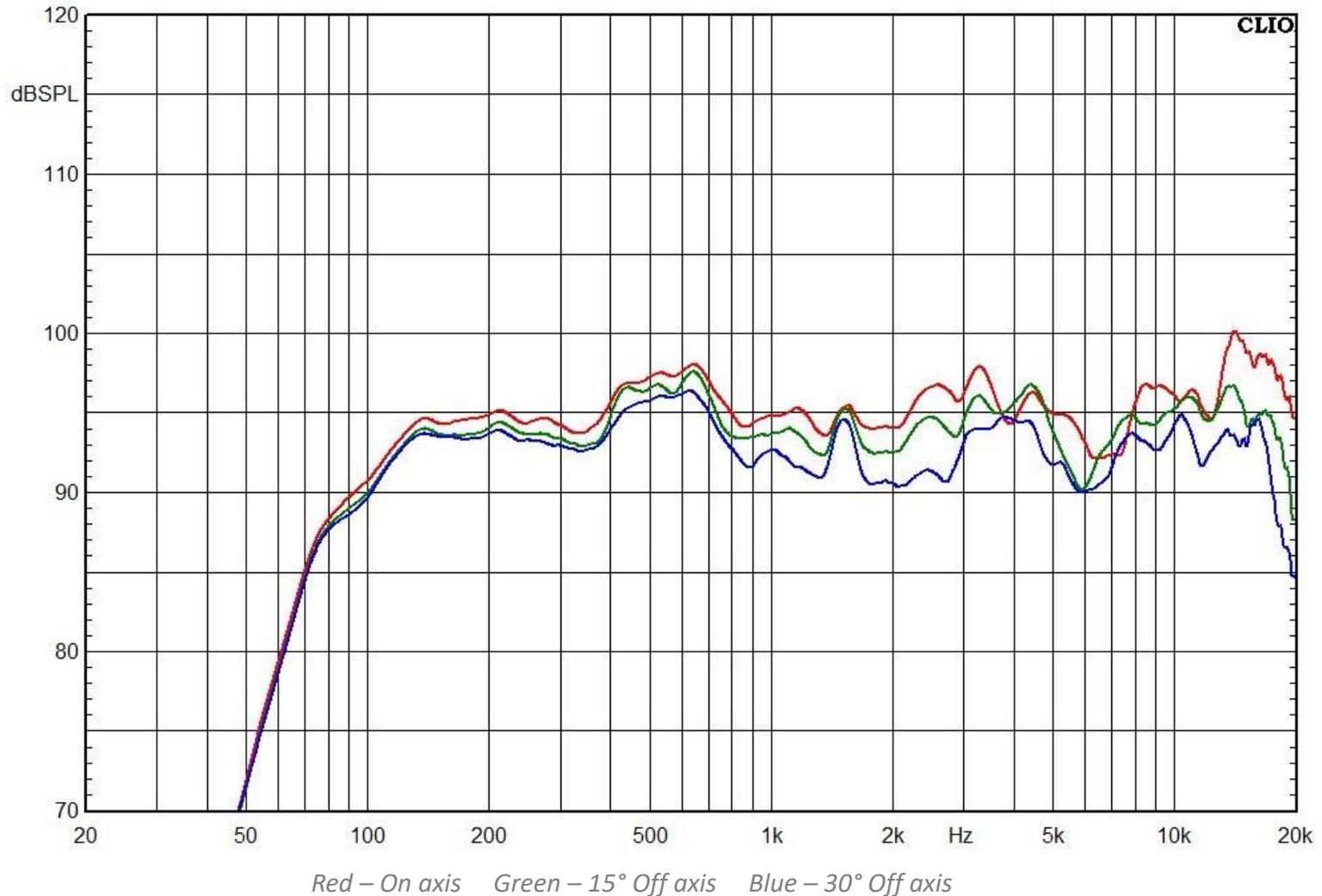
MEASUREMENTS

Impedance @-20dBu input with suggested passive filter



MEASUREMENTS

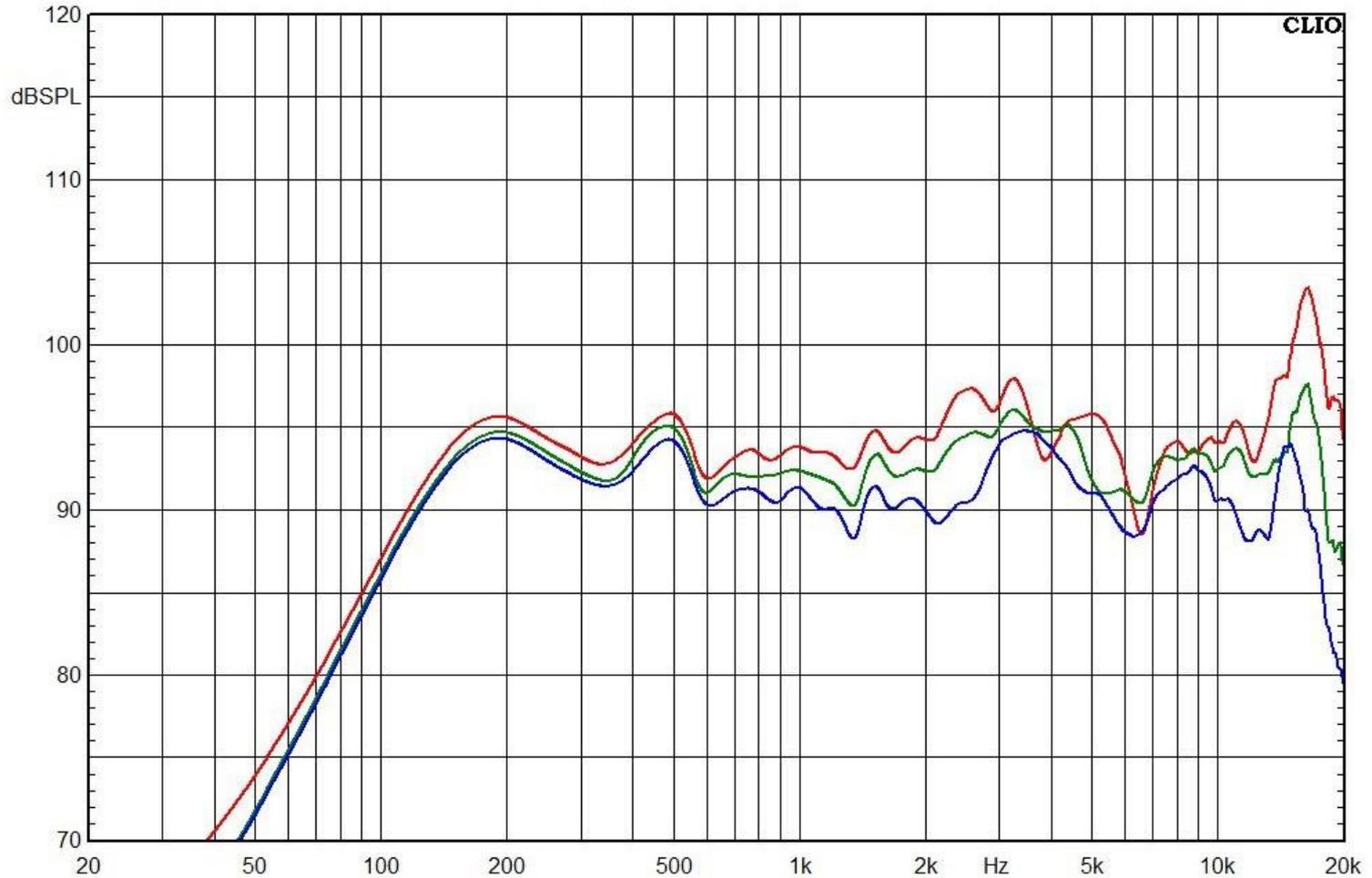
Frequency response @1meter with suggested passive filter (10CXN64) no eq applied



Red – On axis Green – 15° Off axis Blue – 30° Off axis

MEASUREMENTS

Frequency response @1meter with suggested passive filter (10FCX64) no eq applied

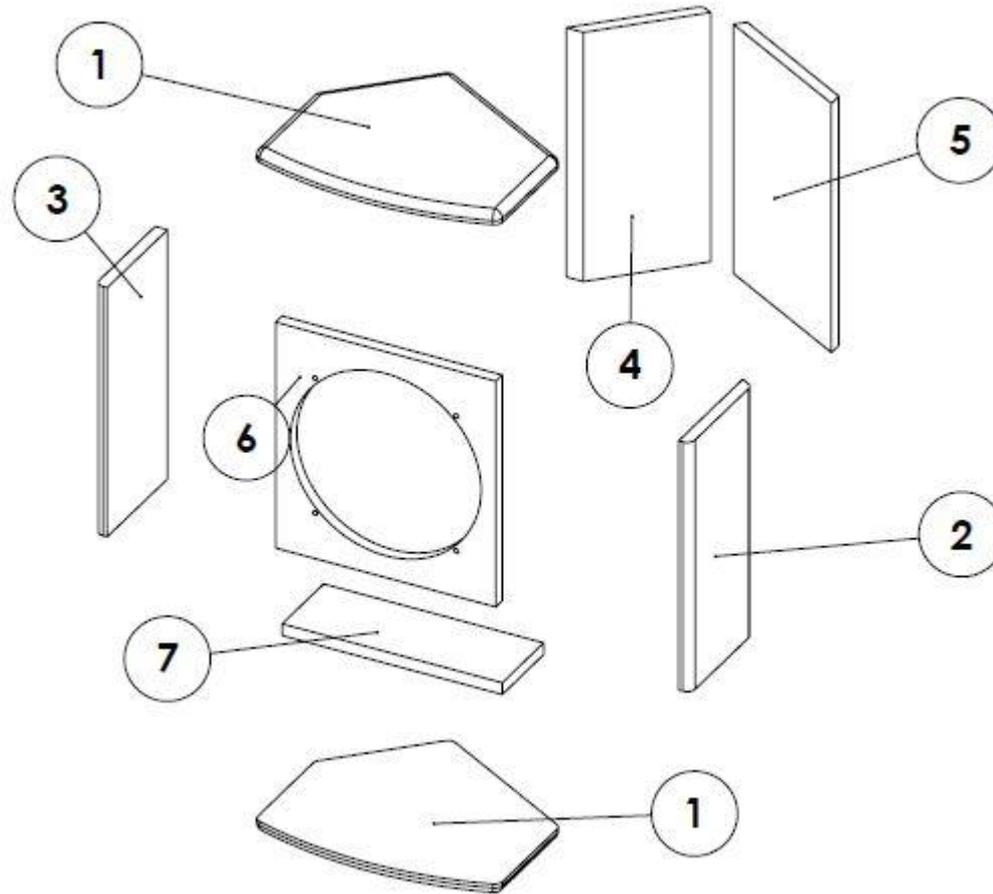


Red – On axis Green – 15° Off axis Blue – 30° Off axis

CX10.64

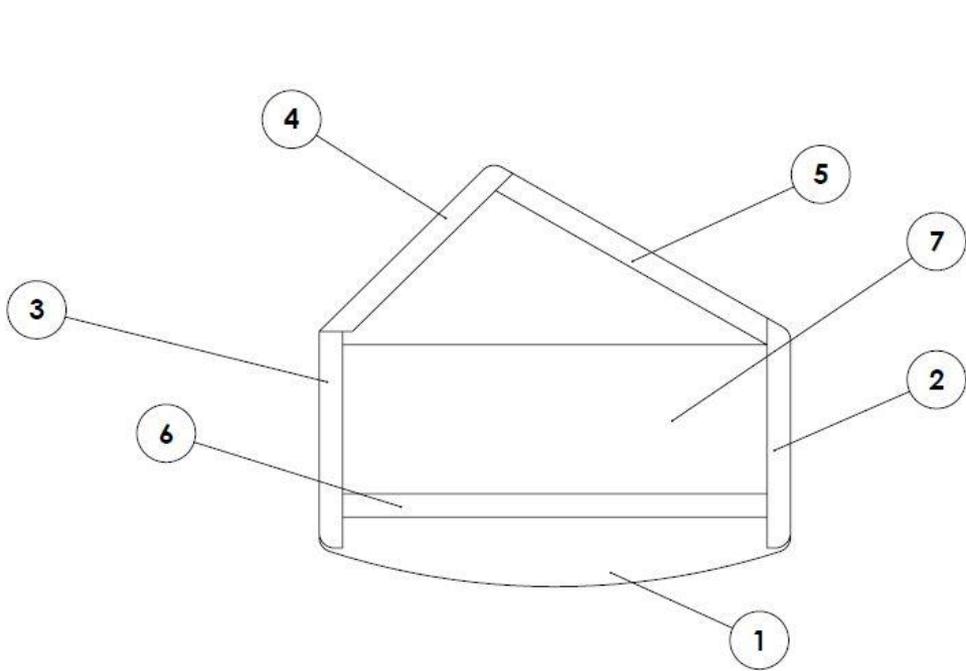
ENCLOSURE DESIGN

Exploded view and parts

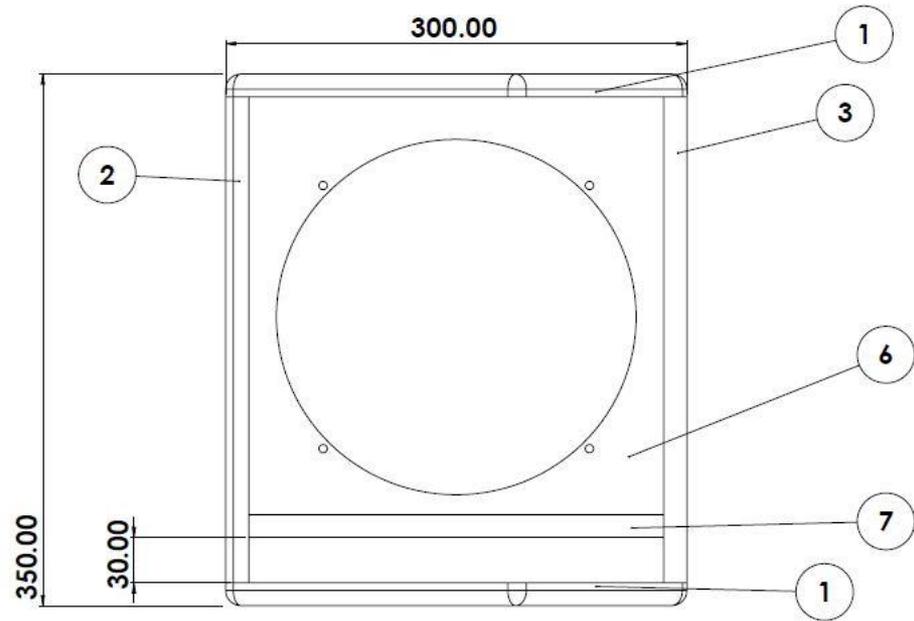


ENCLOSURE DESIGN

Assembly and overall dimensions



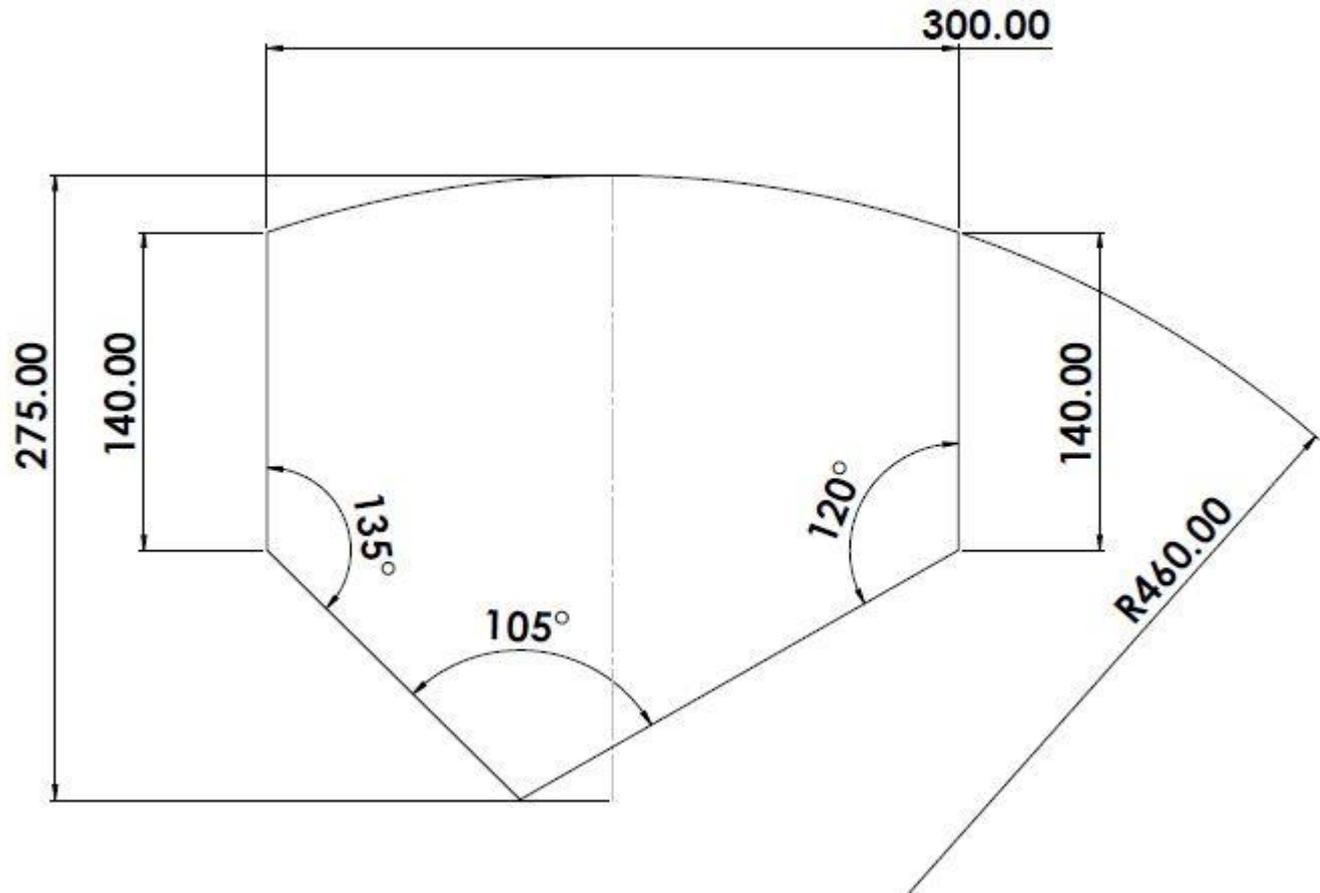
Upper view without top panel



Rear view without back panels

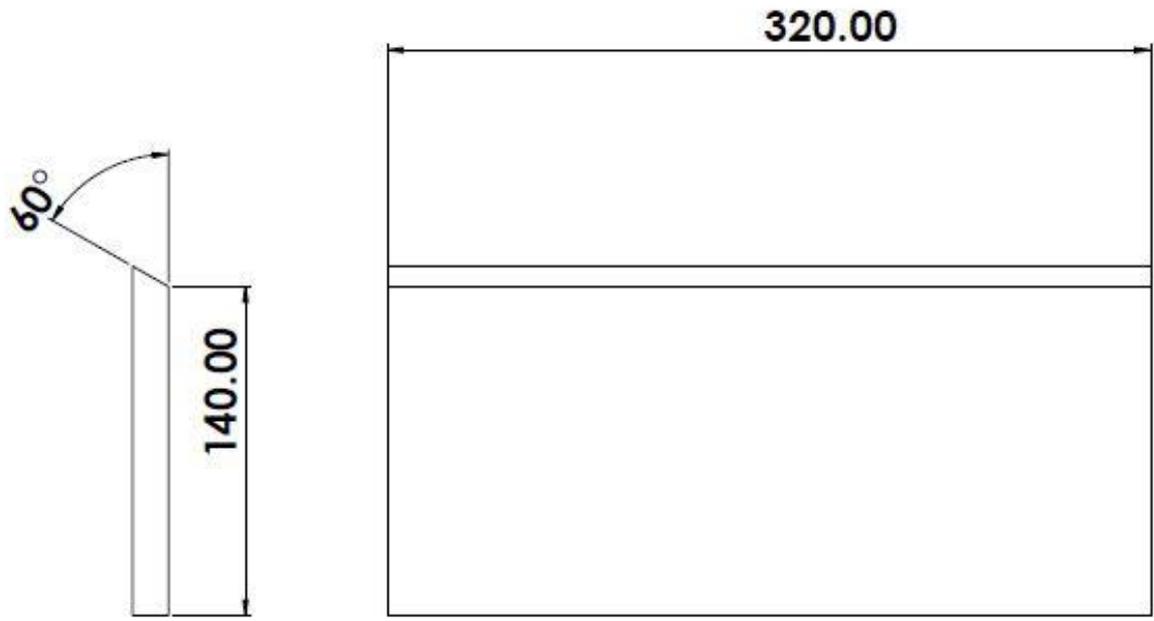
ENCLOSURE DESIGN

Part 1: Bottom/Top panels (nr:2)



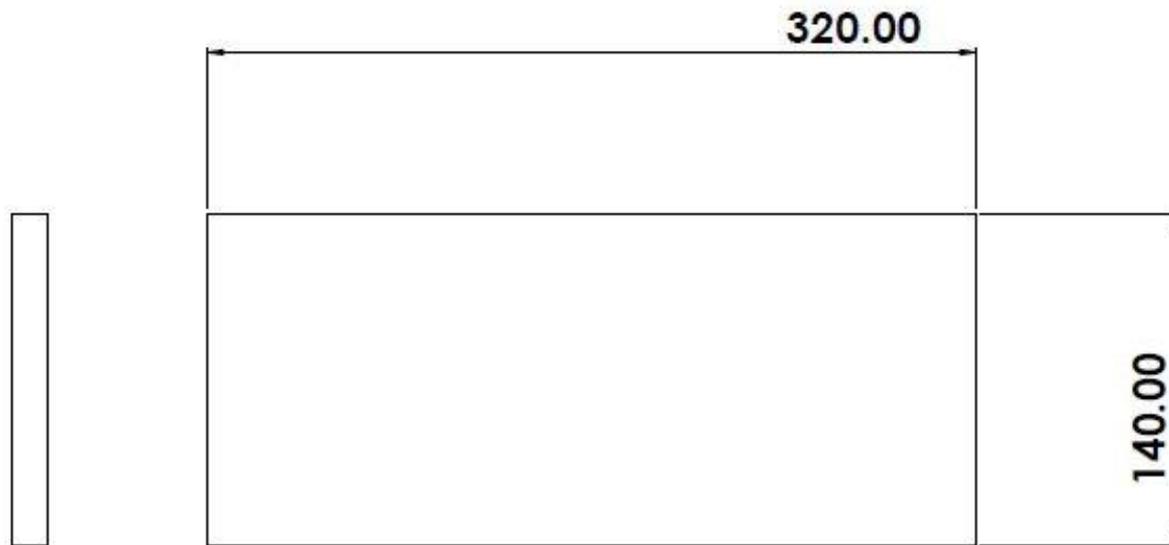
ENCLOSURE DESIGN

Part 2: Baffle right side panel



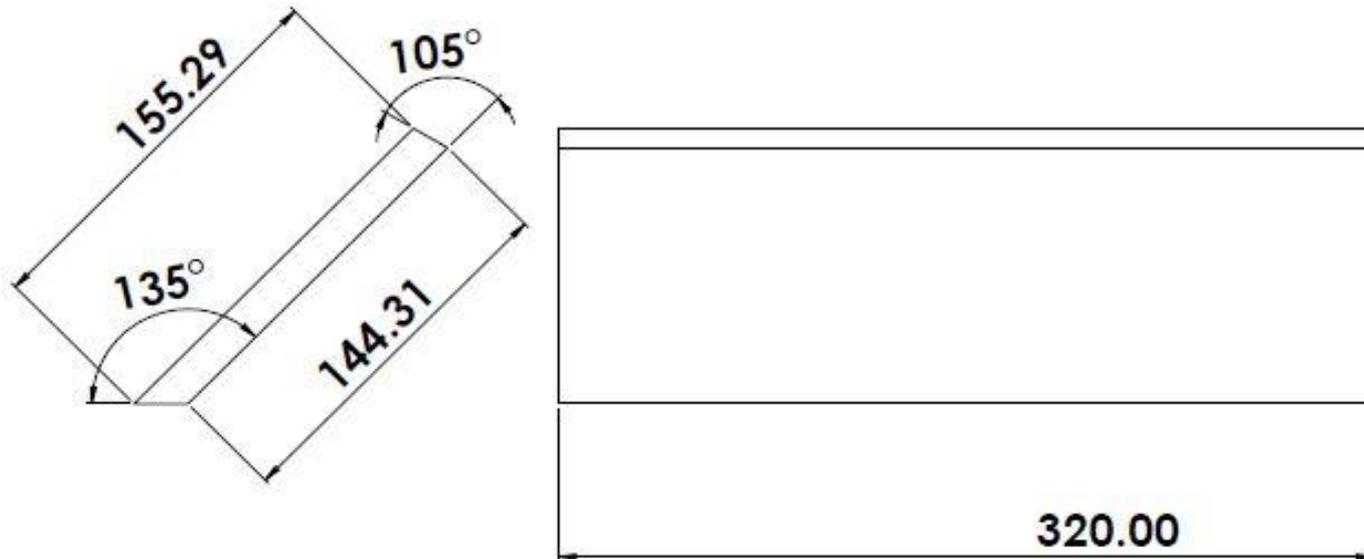
ENCLOSURE DESIGN

Part 3: Baffle left side panel



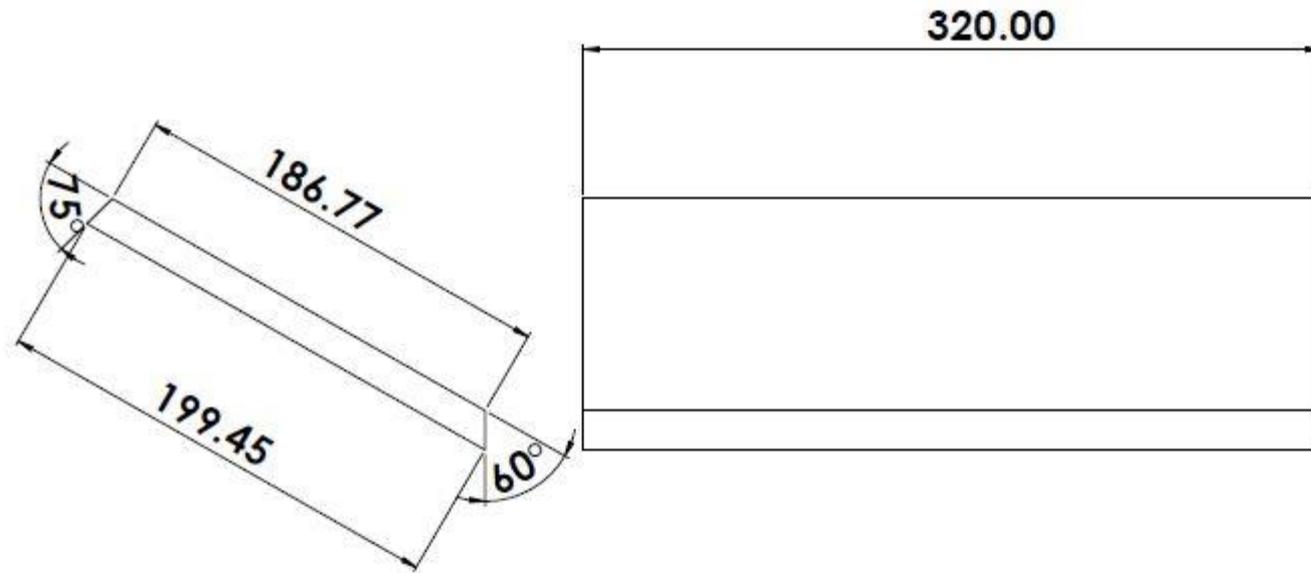
ENCLOSURE DESIGN

Part 4: Side back panel 1



ENCLOSURE DESIGN

Part E: Side back Panel 2



ENCLOSURE DESIGN

Part F: Baffle

