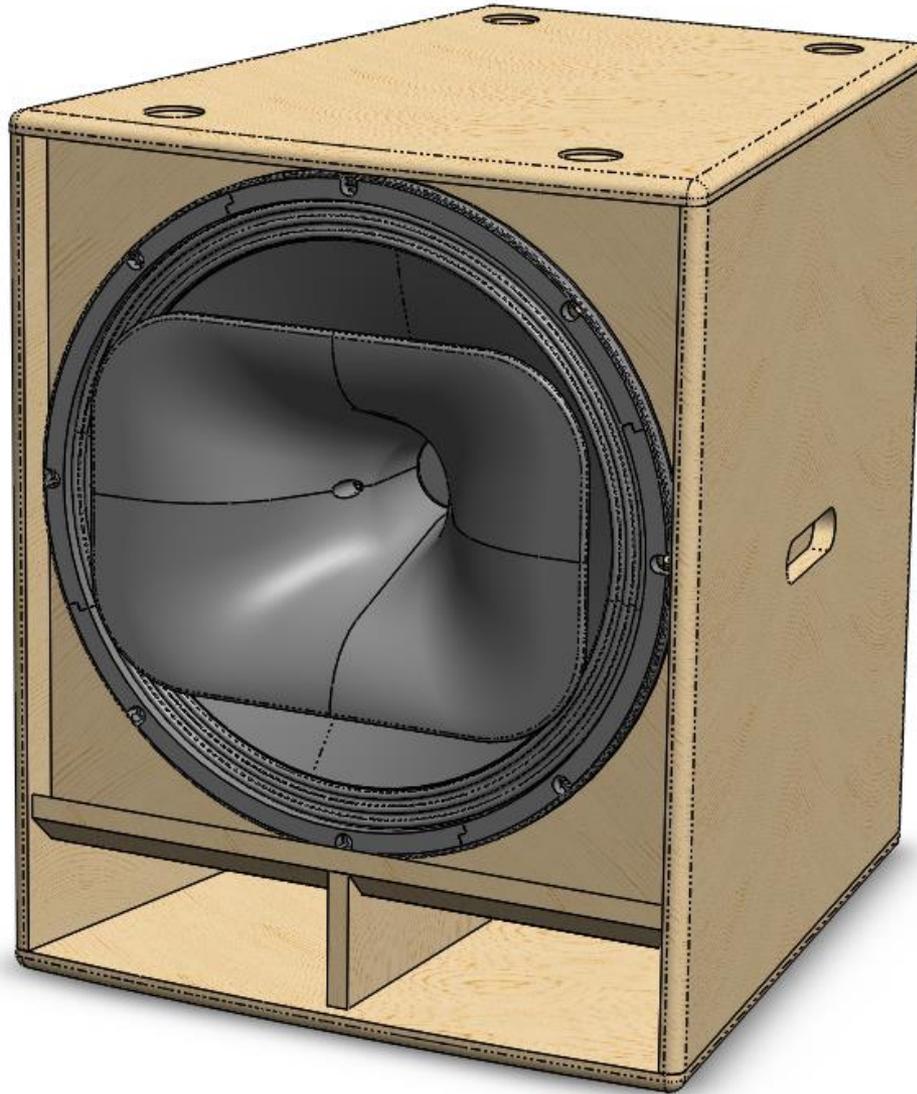




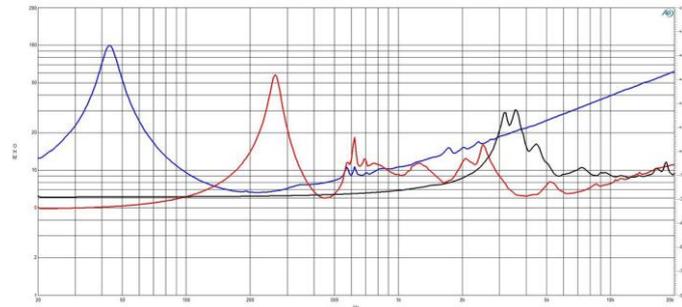
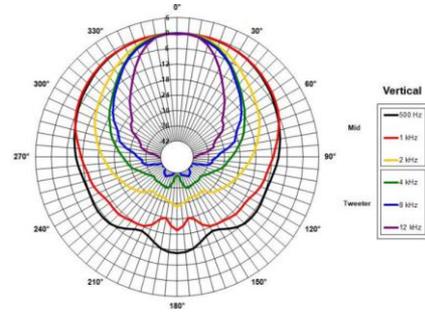
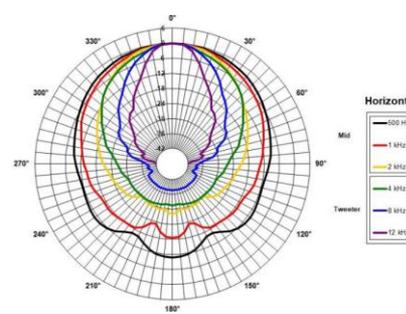
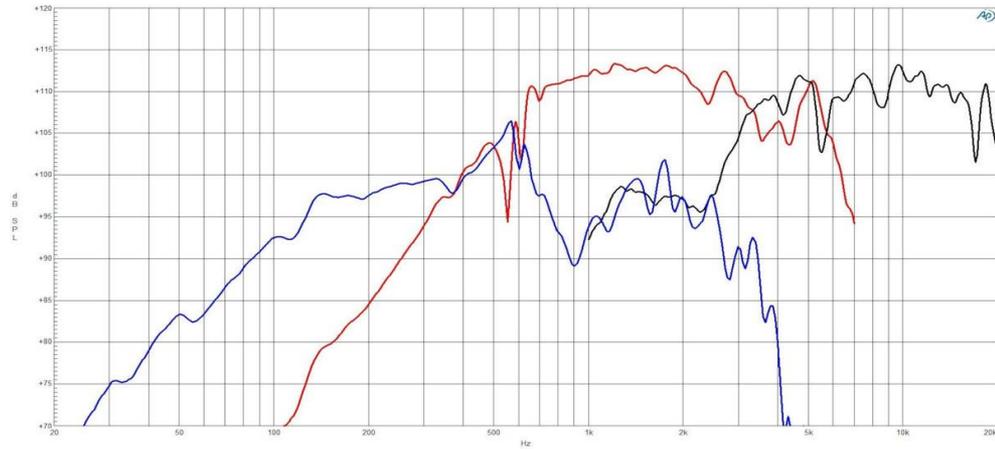
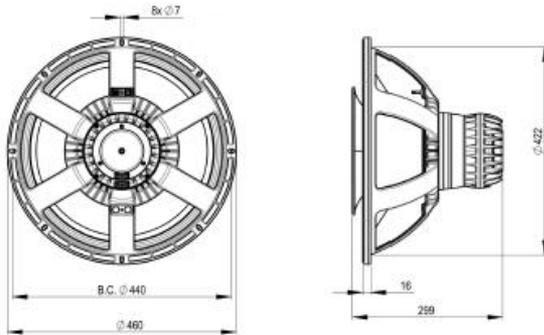
TX-18

**Three way – biamped
Triaxial point source**

1x18" Triaxial – 18HTX100 / 8 ohm
1x FB464V2 crossover



Transducer (18HTX100 - 8 ohm)



- 100 dB (LF), 110 dB (MF/HF) sensitivity
- 1600 W continuous program power capacity
- 60°x40° nominal coverage
- 44 - 18000 Hz response
- FEA optimized horn flare for improved acoustic loading and controlled coverage
- Double silicone spider with optimized compliance
- Aluminium demodulating ring for very low distortion

Transducer (HTX100 - 8 ohm)

SPECIFICATIONS

Nominal Diameter	460.0 mm (18.0 in)
Frequency Range	44.0 - 18000.0 Hz
Dispersion Angle ¹	60°x40 °
Woofer Cone Treatment	TWP Waterproof Both Sides
Magnet Material	Neodymium Ring

SPECIFICATIONS MF UNIT

MF Nominal Impedance	8 Ω
MF Minimum Impedance	6.0 Ω
MF Nominal Power Handling ⁹	110 W
MF Continuous Power Handling ¹⁰	220 W
MF Sensitivity (1W/1m) ¹¹	110.0 dB
MF Frequency Range	0.5 - 5.5 kHz
MF Recommended Crossover ¹²	0.6 kHz
MF Voice Coil Diameter	100 mm (4.0 in)
MF Winding Material	Aluminium
MF Inductance	0.21 mH
Mf diaphragm material	HT Polymer
MF Flux Density	1.9 T
MF Magnet Material	Neodymium Ring

SPECIFICATIONS LF UNIT

LF Nominal Impedance	8 Ω
LF Nominal Power Handling ²	800 W
LF Continuous Power Handling ³	1600 W
LF Minimum Impedance	6.6 Ω
LF Sensitivity ⁴	100.0 dB
LF Voice Coil Diameter	100.0 mm (4.0 in)
LF Winding Material	Aluminium
LF Former Material	Glass Fibre
LF Winding Depth	25.1 mm (1.0 in)
LF Magnetic Gap Depth	10.2 mm (0.4 in)
LF Flux Density	1.5 T

PARAMETERS¹³

Resonance Frequency	44.0 Hz
Re	5.4 Ω
Qes	0.34
Qms	6.3
Qts	0.32
Vas	173.0 dm ³ (6.11 ft ³)
Sd	1210.0 cm ² (187.55 in ²)
η _o	4.3 %
Xmax	± 10.0 mm
Xvar	± 13.0 mm
Mms	158.5 g
Bl	26.3 Txm
Le	1.16 mH
EBP	129 Hz

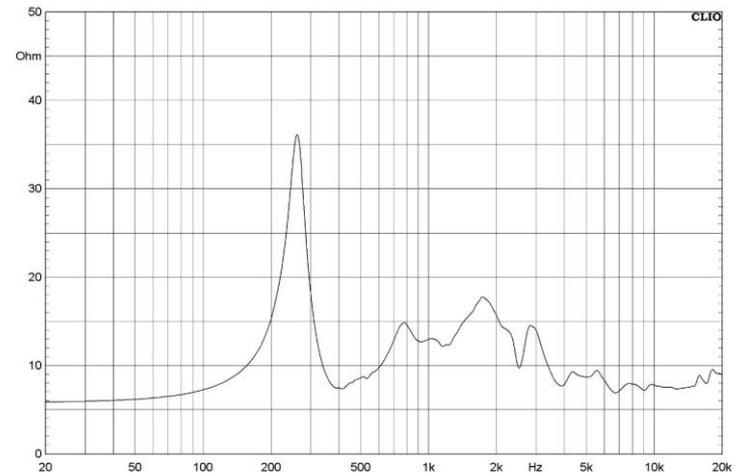
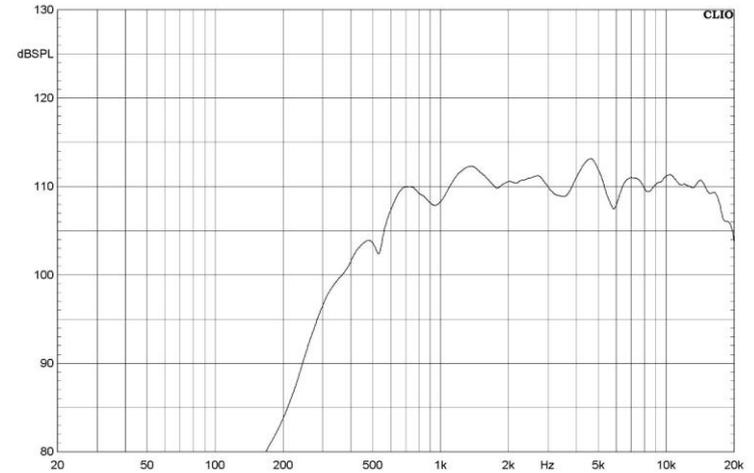
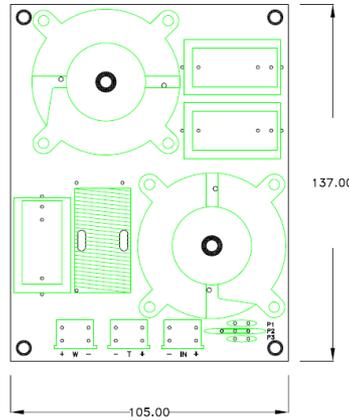
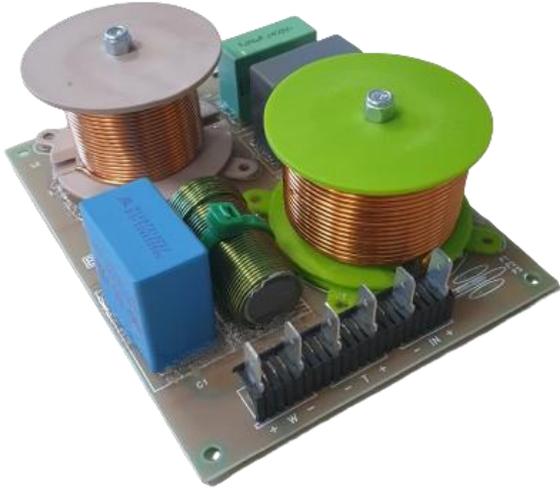
SPECIFICATIONS HF UNIT

HF Nominal Impedance	8 Ω
HF Minimum Impedance	9.0 Ω
HF Nominal Power Handling ⁵	80 W
HF Continuous Power Handling ⁶	160 W
HF Sensitivity (1W/1m) ⁷	110.0 dB
HF Frequency Range	3.5 - 18.0 kHz
HF Recommended Crossover ⁸	4.0 kHz
HF Voice Coil Diameter	65 mm (2.5 in)
HF Winding Material	Aluminium
HF Inductance	0.1 mH
Hf diaphragm material	HT Polymer
HF Flux Density	2.14 T
HF Magnet Material	Neodymium Inside Slug

MOUNTING AND SHIPPING INFO

Overall Diameter	460.0 mm (18.11 in)
Bolt Circle Diameter	440.0 mm (17.32 in)
Baffle Cutout Diameter	423.0 mm (16.65 in)
Depth	299.0 mm (11.77 in)
Flange and Gasket Thickness	16.0 mm (0.63 in)
Net Weight	12.05 kg (26.57 lb)
Shipping Units	1
Shipping Weight	13.95 kg (30.75 lb)
Shipping Box	570x570x340 mm (22.44x22.44x13.39 in)

FB464V2 – passive crossover for channel 2 (Mid + High)



8 Ω

Nominal impedance

Two Way

Filter Type

18.0 dB/oct

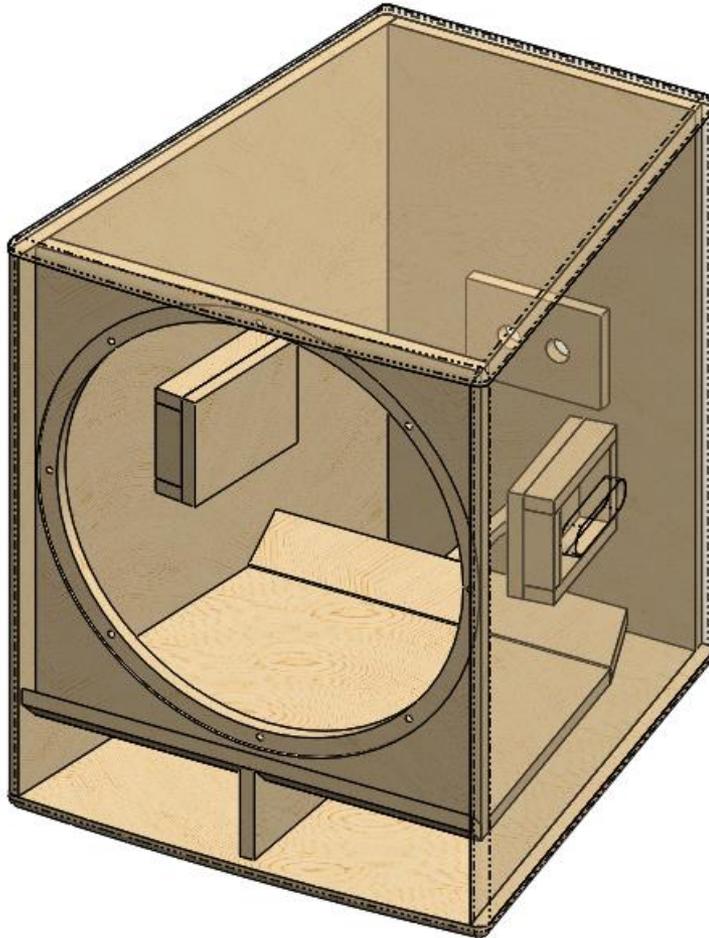
Low-pass Slope

12.0 dB/oct

High-pass Slope

Enclosure Design

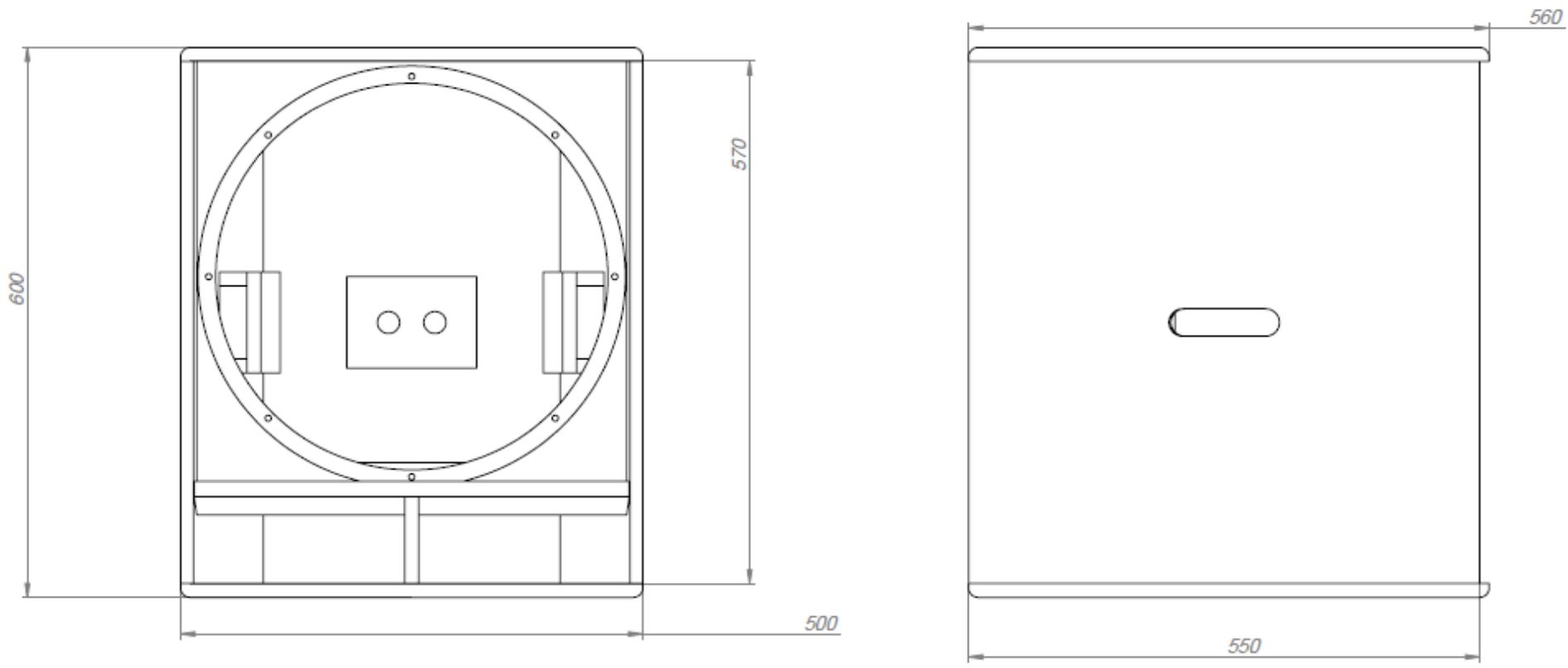
Internal View and Notes



- *The structure of the cabinet should be made of 15mm birch plywood. The baffle should be 18mm thick. The bass reflex port flares should be 12mm thick.*
- *- A good dampening material (acoustic foam suggested) should be placed inside the whole rear chamber walls, except for the lower half part of the back panel (part3).*
- *M6 screws suggested for mounting the transducer to the baffle panel (part4).*
- *Handles, protection grill and connections can be changed by the end users as required.*
- *All measurements are expressed in millimeters*
- *-The cabinet can be used as lightweight subwoofer. The two configurations can be combined in a full, high power sound system.*

Enclosure Design

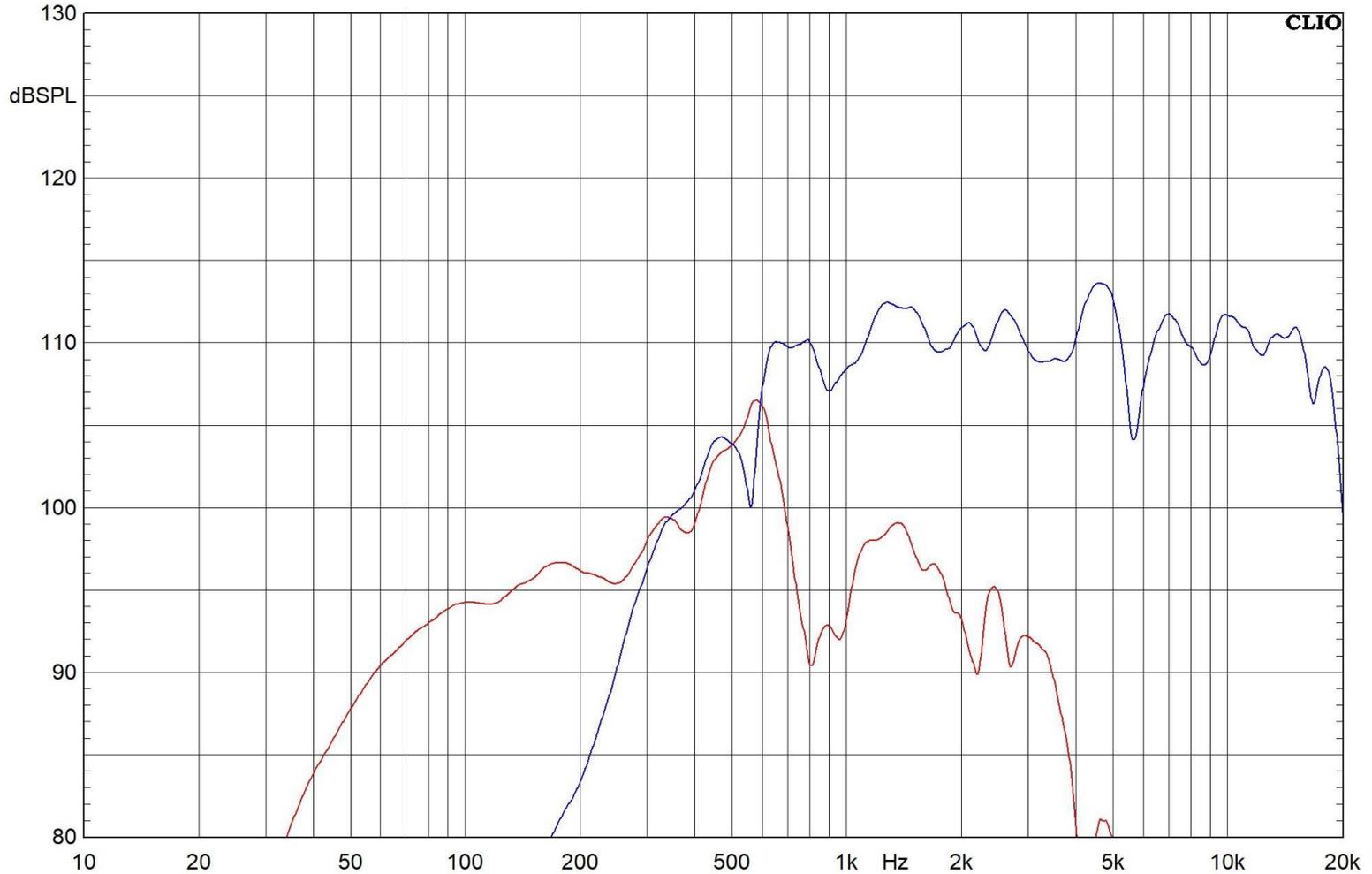
Overall dimensions



Measurements

Unfiltered frequency response 2.83V @ 1m

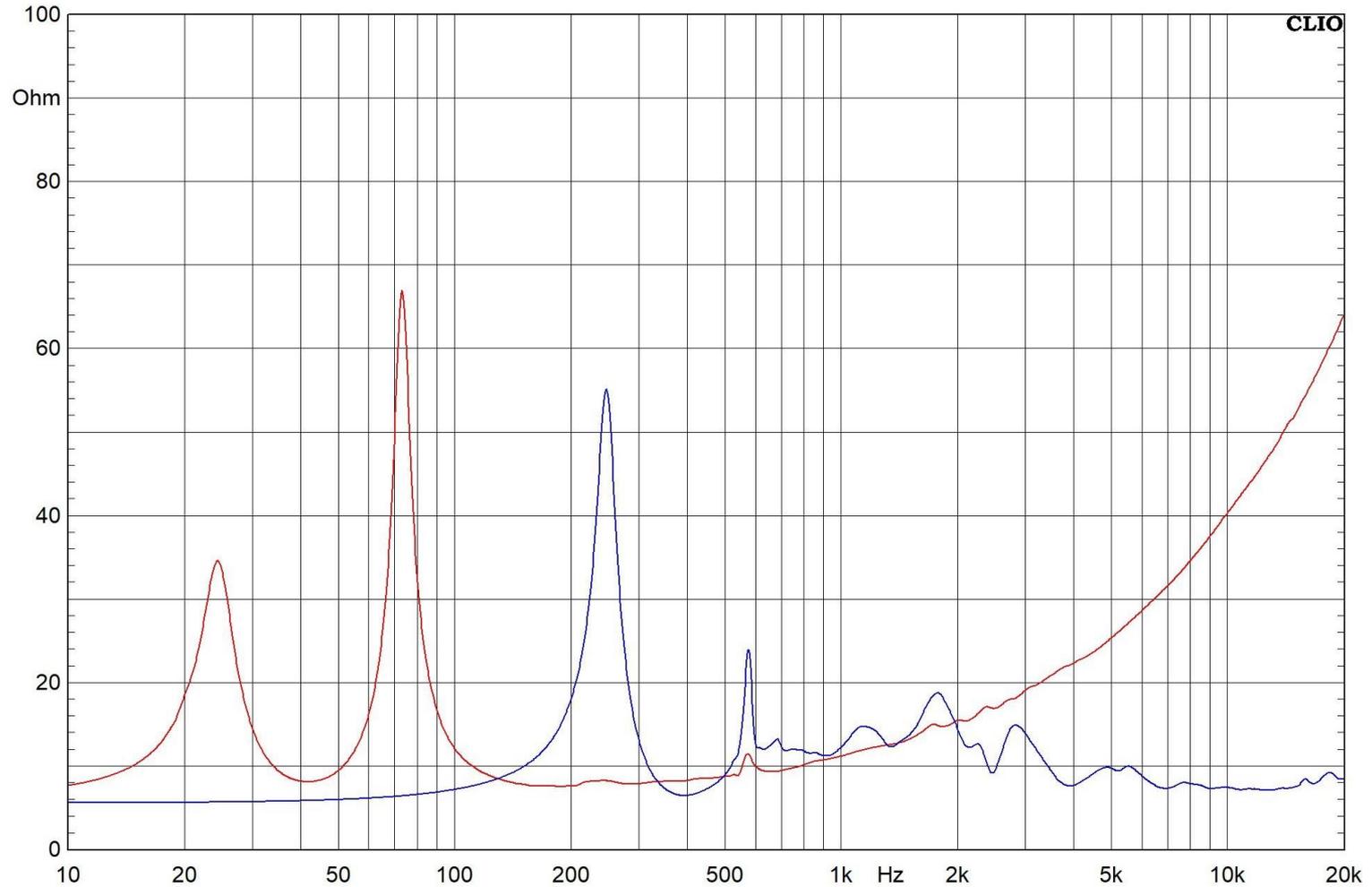
Red: Ch1=Woofer Blue: Ch2=Mid+High with passive filter



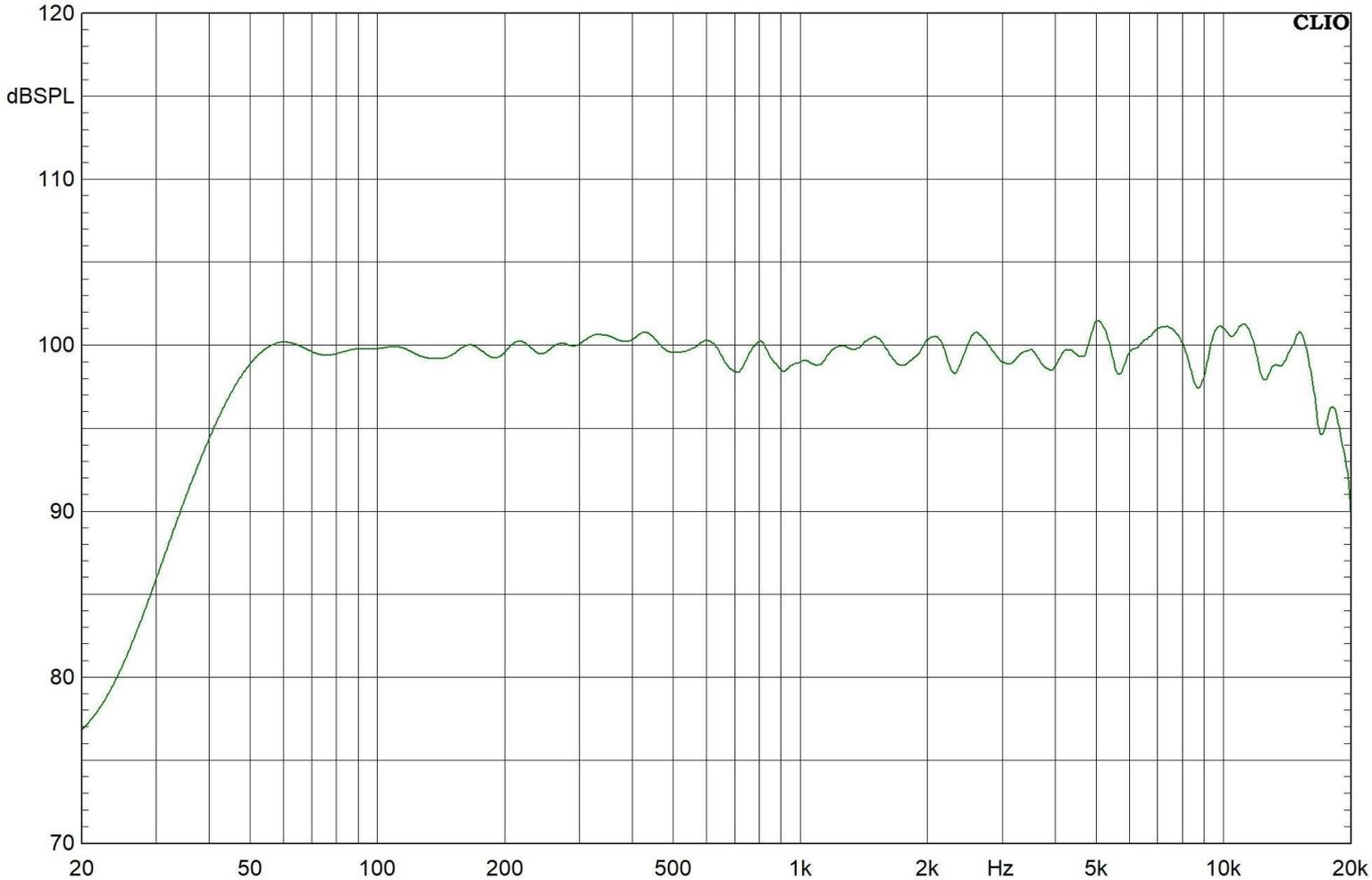
Measurements

Impedance chart at -25dBu input

Red: Ch1=Woofer Blue: Ch2=Mid+High with passive filter



Active DSP settings

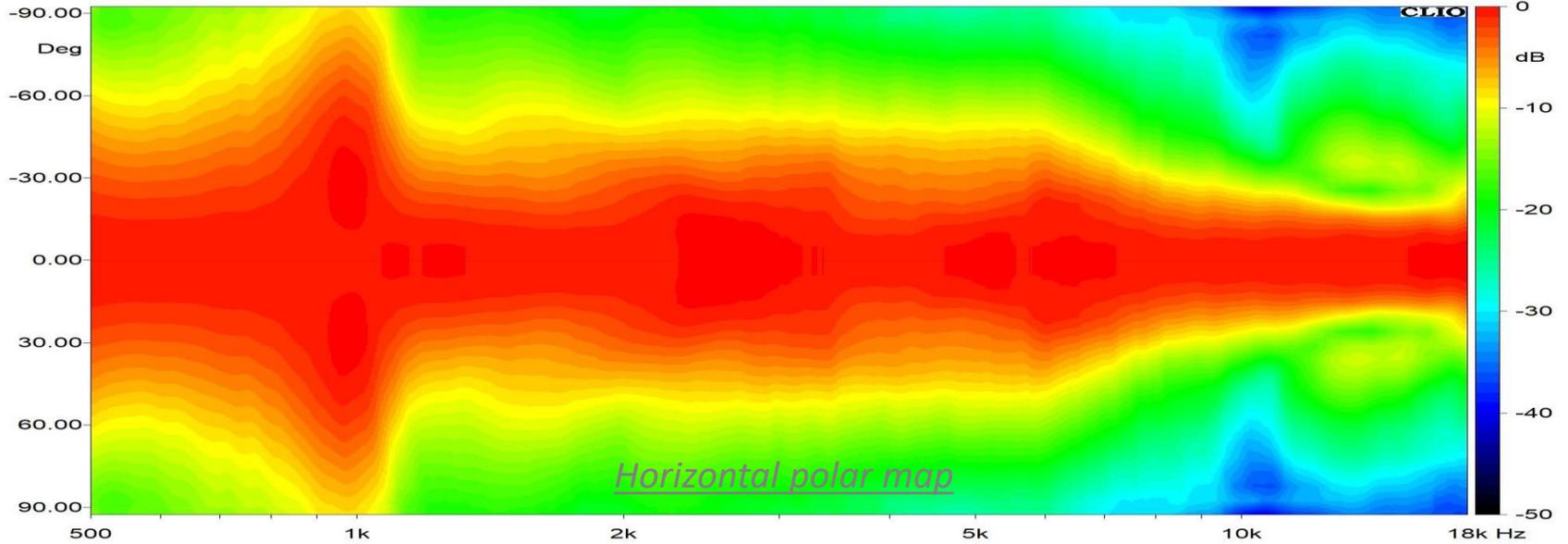


LF
 Gain: +4dB - No delay
 Hp - BTW 24dB/oct - 30Hz
 PEQ - +8dB - Q:1,5 - 40Hz
 PEQ - +2dB - Q:2 - 70Hz
 PEQ - +1dB - Q:2,5 - 120Hz
 PEQ - +6dB - Q:4 - 250Hz
 PEQ - -3dB - Q:2 - 330Hz
 PEQ - +2dB - Q:4 - 400hz
 PEQ - -1dB - Q:4 - 465hz
 Allpass - Q 5,6 - 630Hz
 LP - BTW24dB/oct - 400hz
 Peak Limiter: 130V
 Atk:32ms - Rls: 256ms
 Clip limiter: 160V

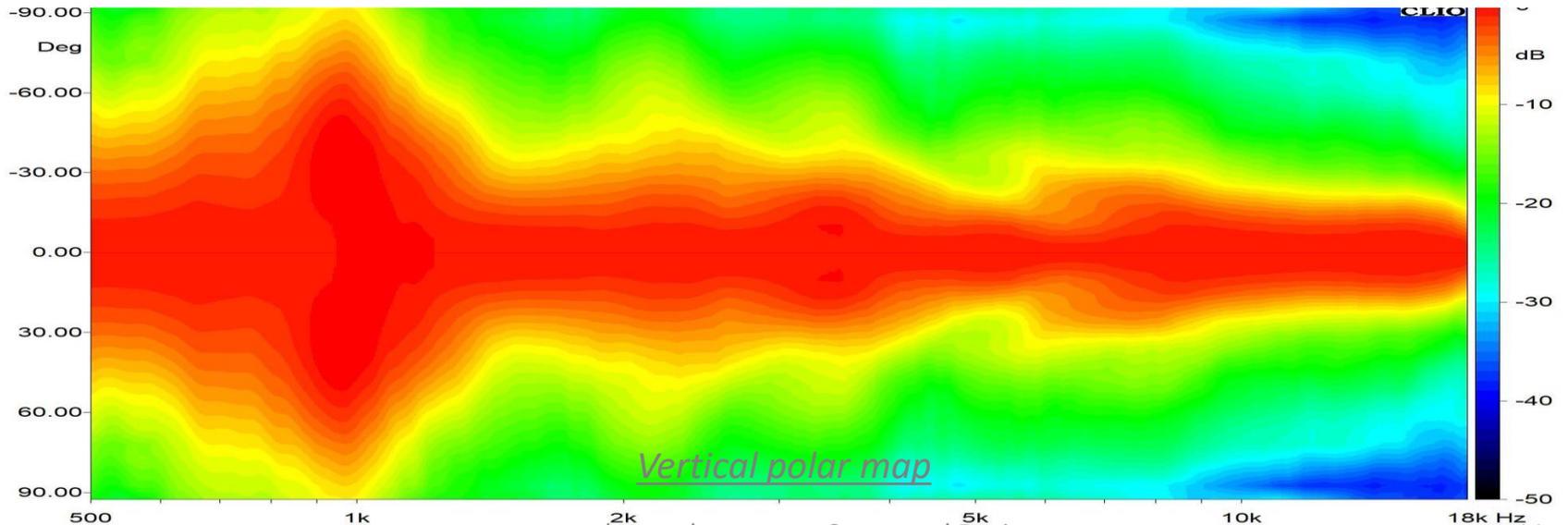
MF+HF
 Gain: -13dB - No delay
 HP - BTW24dB/oct - 500hz
 PEQ - -12dB - Q:3 - 480hz
 Allpass - Q:5,5 - 600Hz
 PEQ - +4,5dB - Q:1 - 885Hz
 PEQ - -2dB - Q:4 - 1300Hz
 PEQ - +3dB - Q:4 - 3200hz
 PEQ - -4dB - Q:8 - 4700Hz
 PEQ - +6,5dB - Q:5 - 5700Hz
 PEQ - +2dB - Q:4 - 8500Hz
 HSH - +3dB - Q:1,25
 Peak limiter: 65V
 Atk: 2ms - Rls:32ms
 Clip limiter: 85V

Processed Frequency Response @ -20dB input, measured @ 1meter, on axis.

Measurements



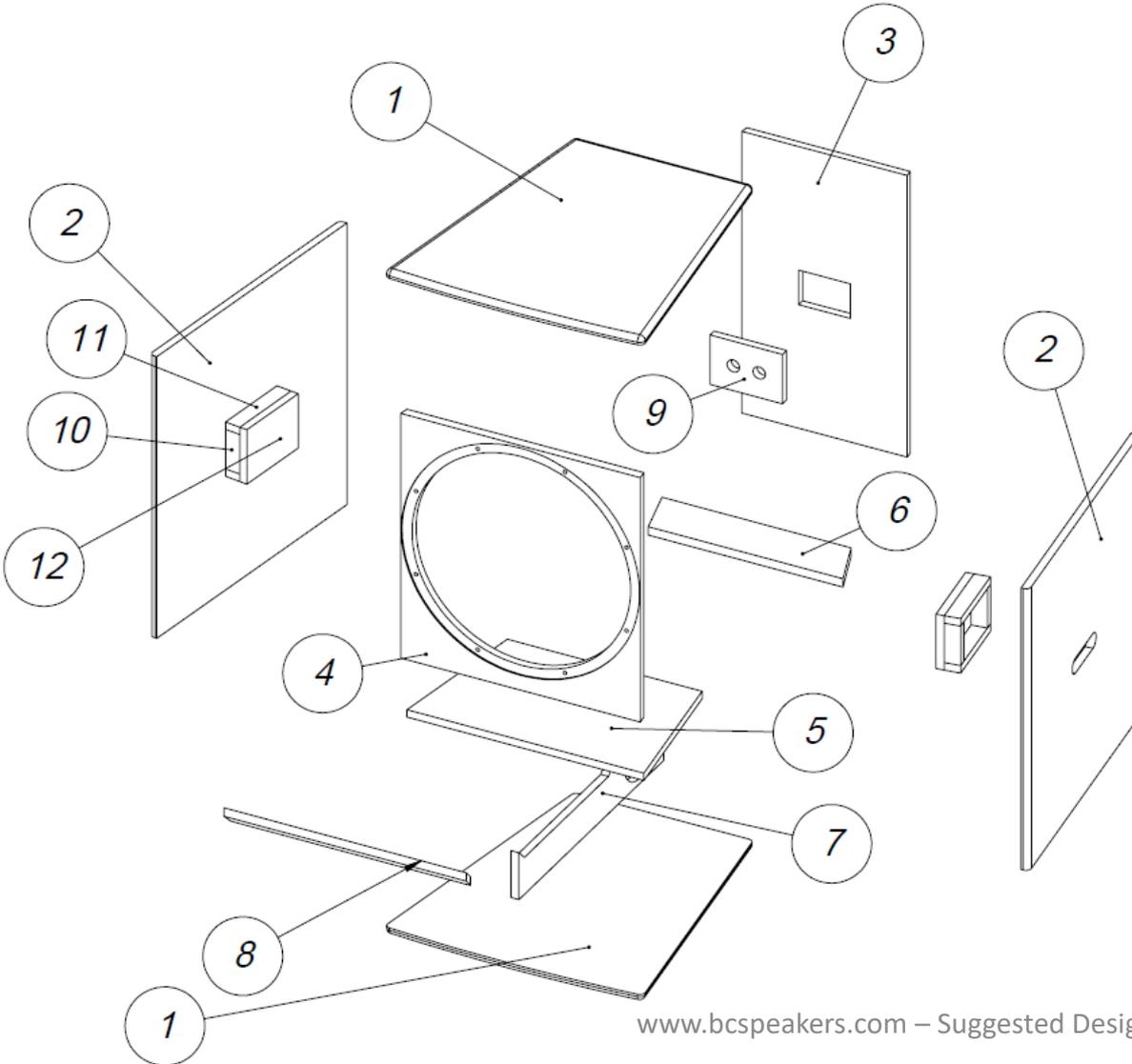
Horizontal polar map



Vertical polar map

Enclosure design

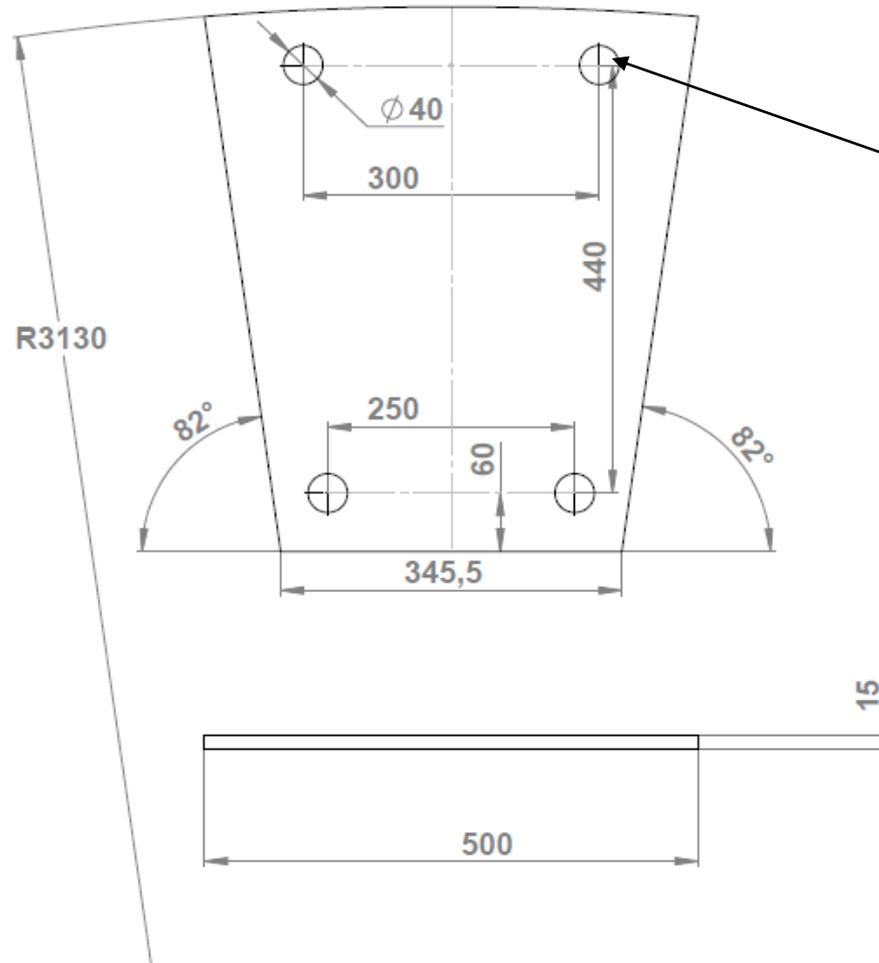
Exploded view and parts



Part N	Name	Thickness	Qty.
1	Bottom/top	15mm	2
2	Side	15mm	2
3	Back	15mm	1
4	Baffle	18mm	1
5	Reflex port panel	15mm	1
6	Internal flare	12mm	1
7	Internal reinforcement	15mm	1
8	External flare	12mm	1
9	Speaker panel	12mm	1
10	Handle vertical side	15mm	4
11	Handle horizontal side	15mm	4
12	Handle internal side	15mm	2

Enclosure design

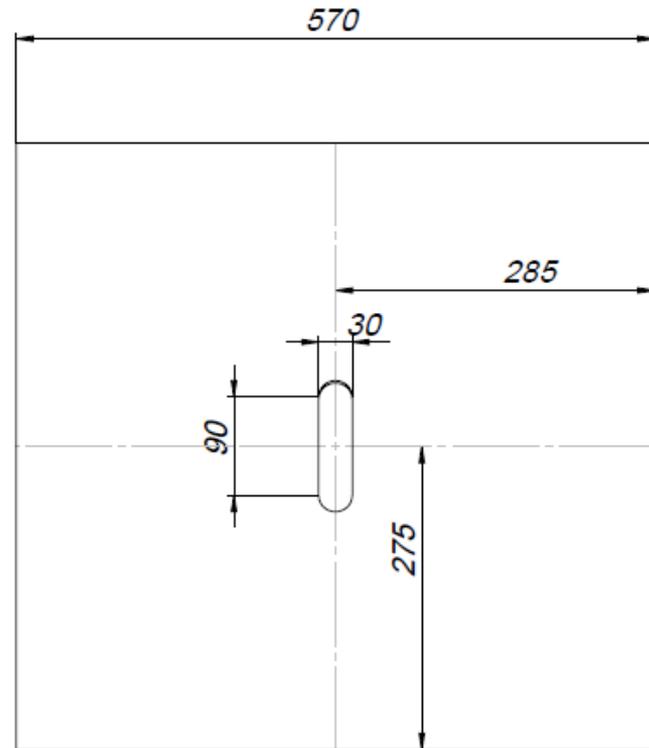
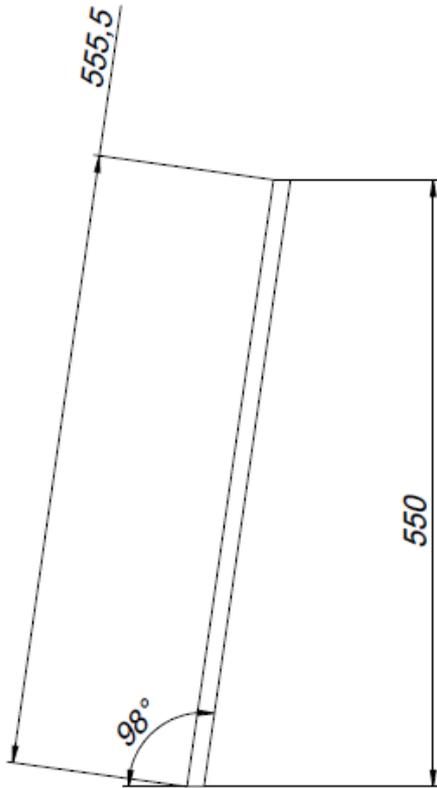
Part1 (Top/bottom, 2 pcs)



3mm milling for 38mm rubber feet to be put in the bottom panel.

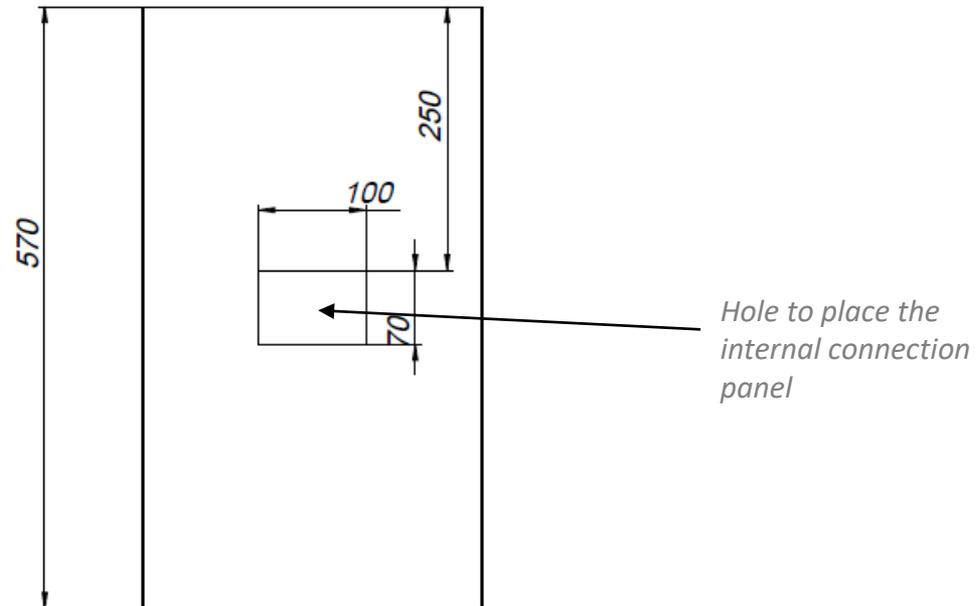
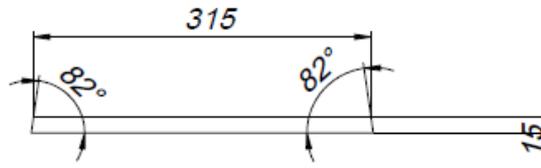
Enclosure design

Part2 (Sides, 2 pcs)



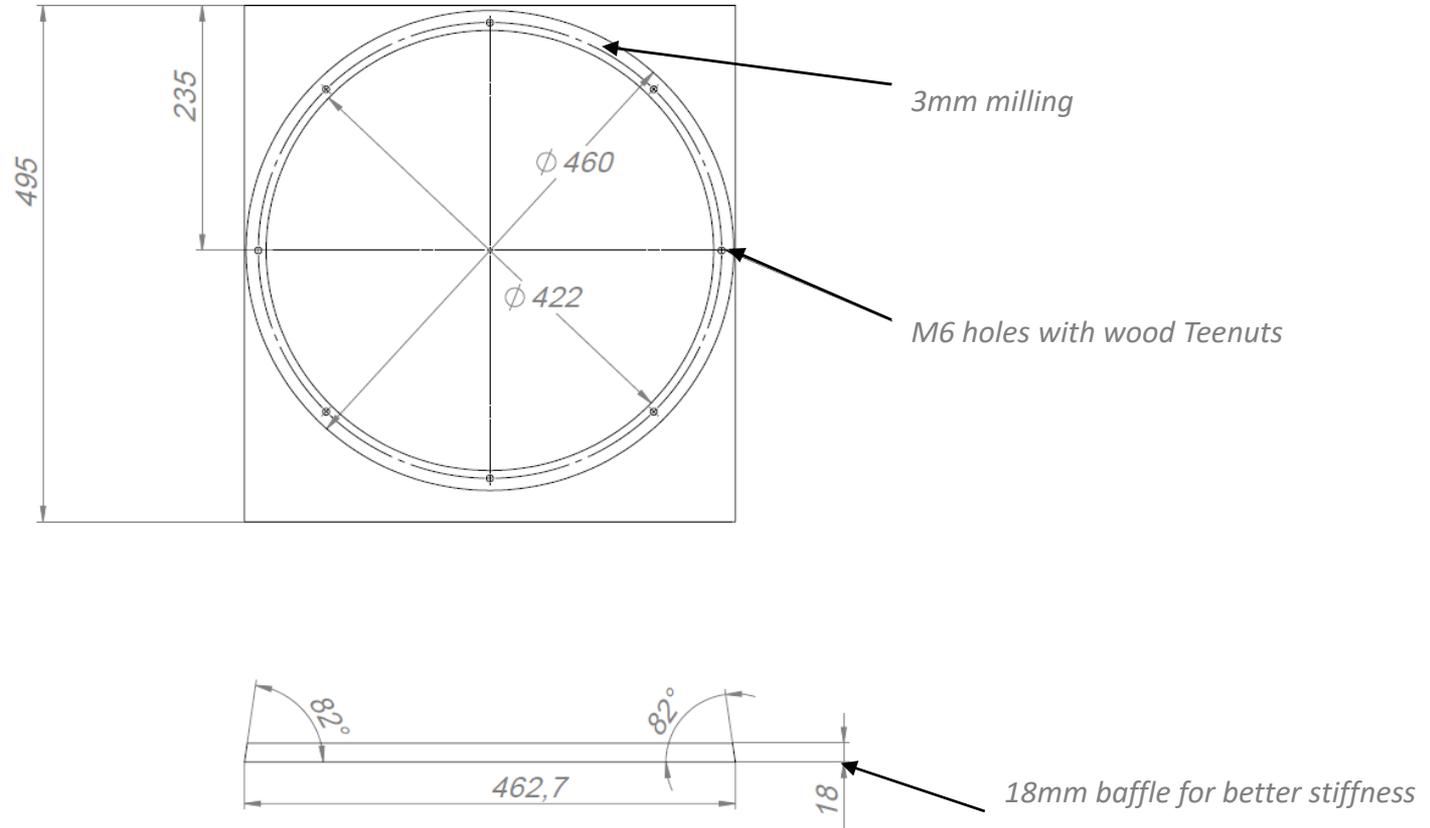
Enclosure design

Part3 (Back)



Enclosure design

Part4 (Baffle)



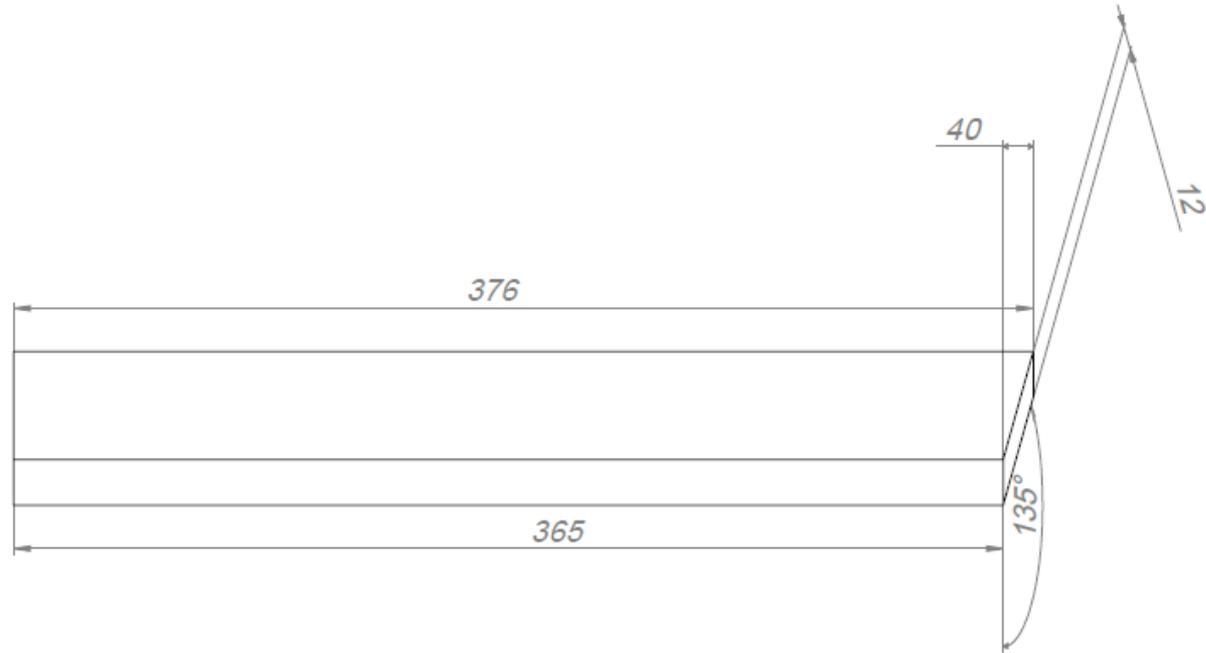
Enclosure design

Part5 (Reflex port panel)



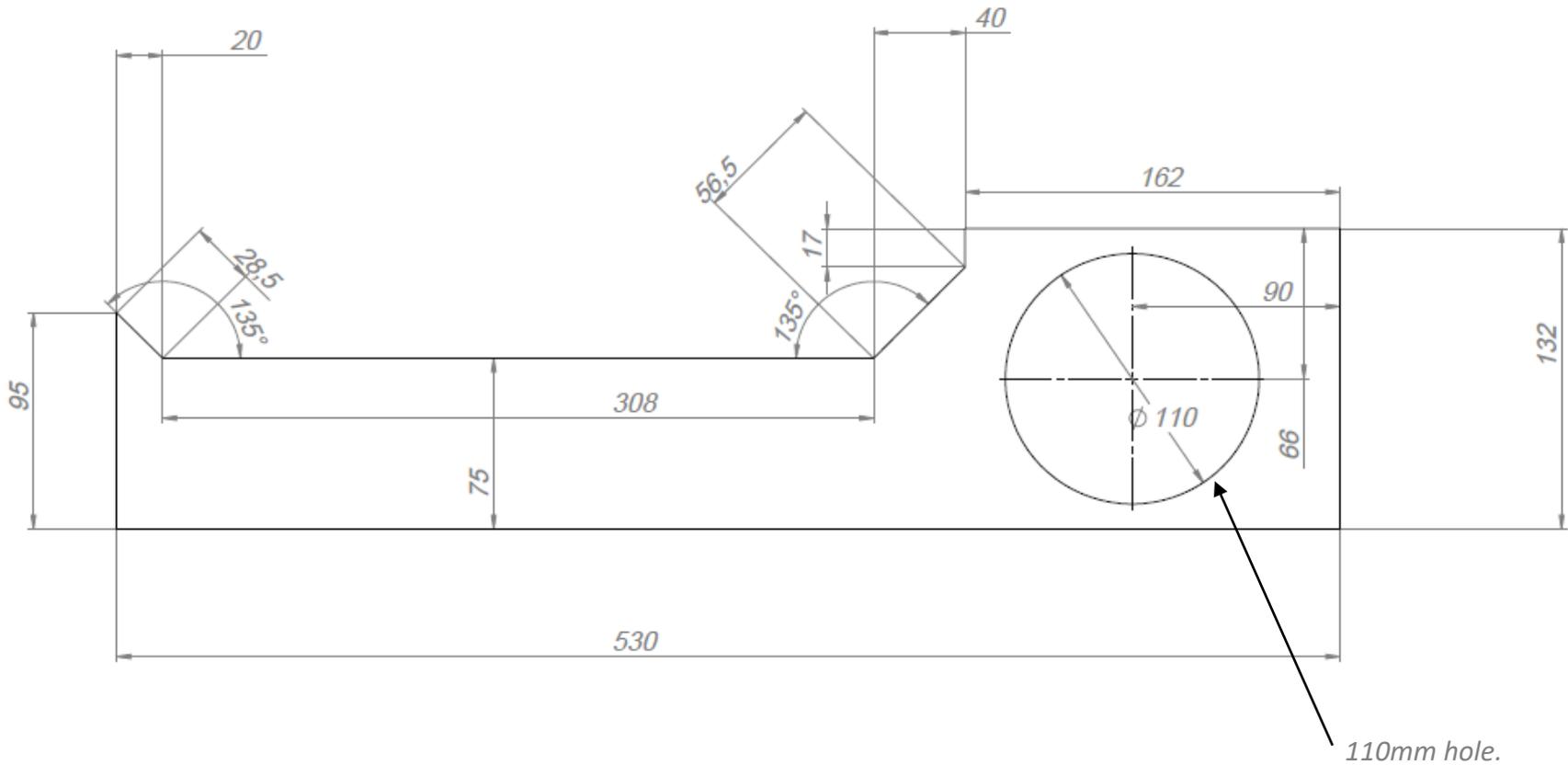
Enclosure design

Part6 (45° Internal flare – 12mm thickness)



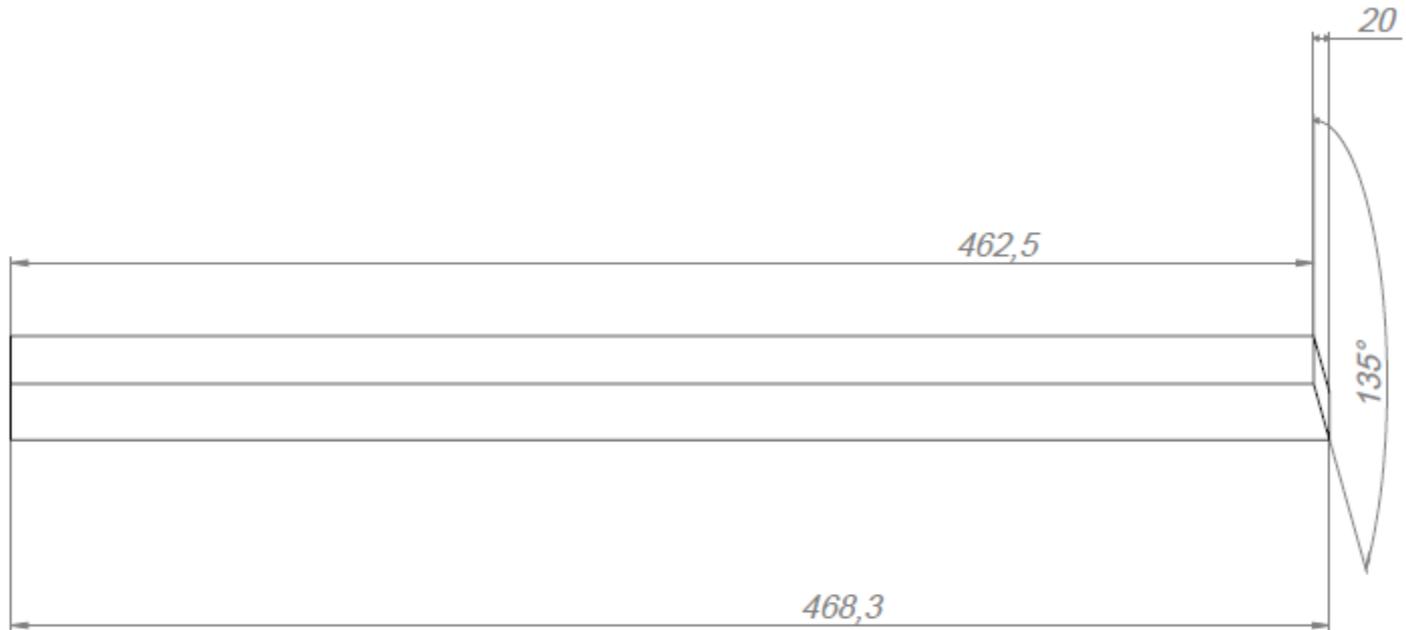
Enclosure design

Part7 (Internal reinforcement)



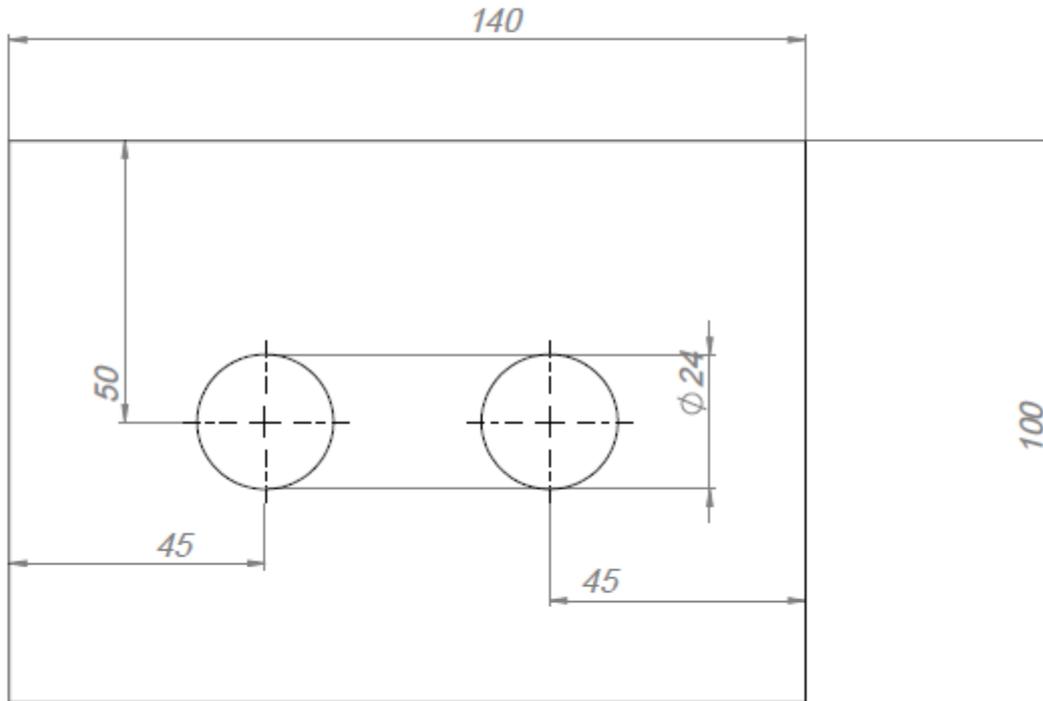
Enclosure design

Part8 (45° External flare – 12mm thickness)



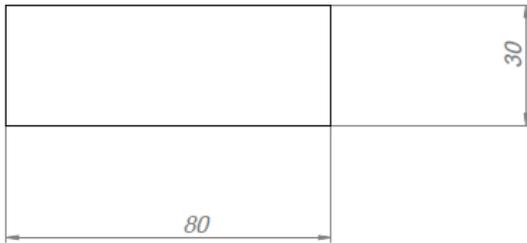
Enclosure design

Part9 (Speakon panel)

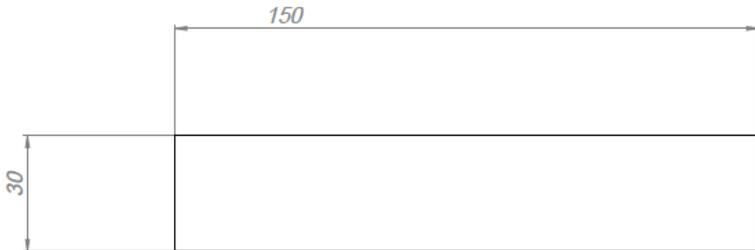


Enclosure design

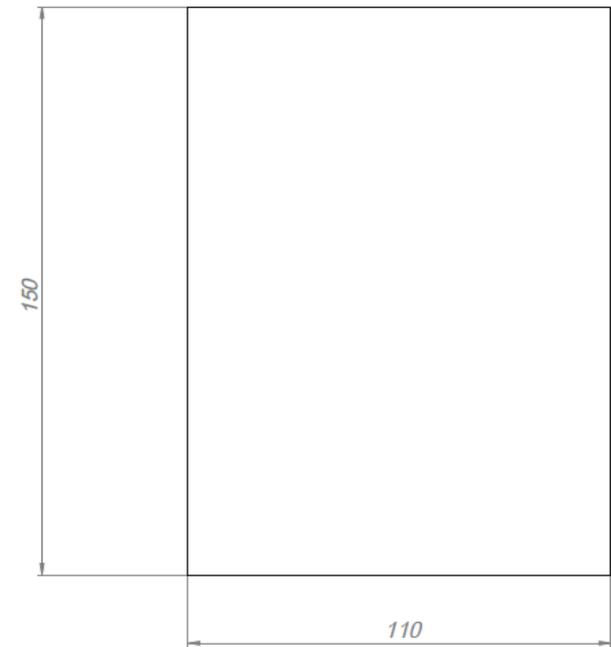
Part10 (internal handle
vertical panel – 4pcs)



Part11 (internal handle
horizontal panel – 4pcs)



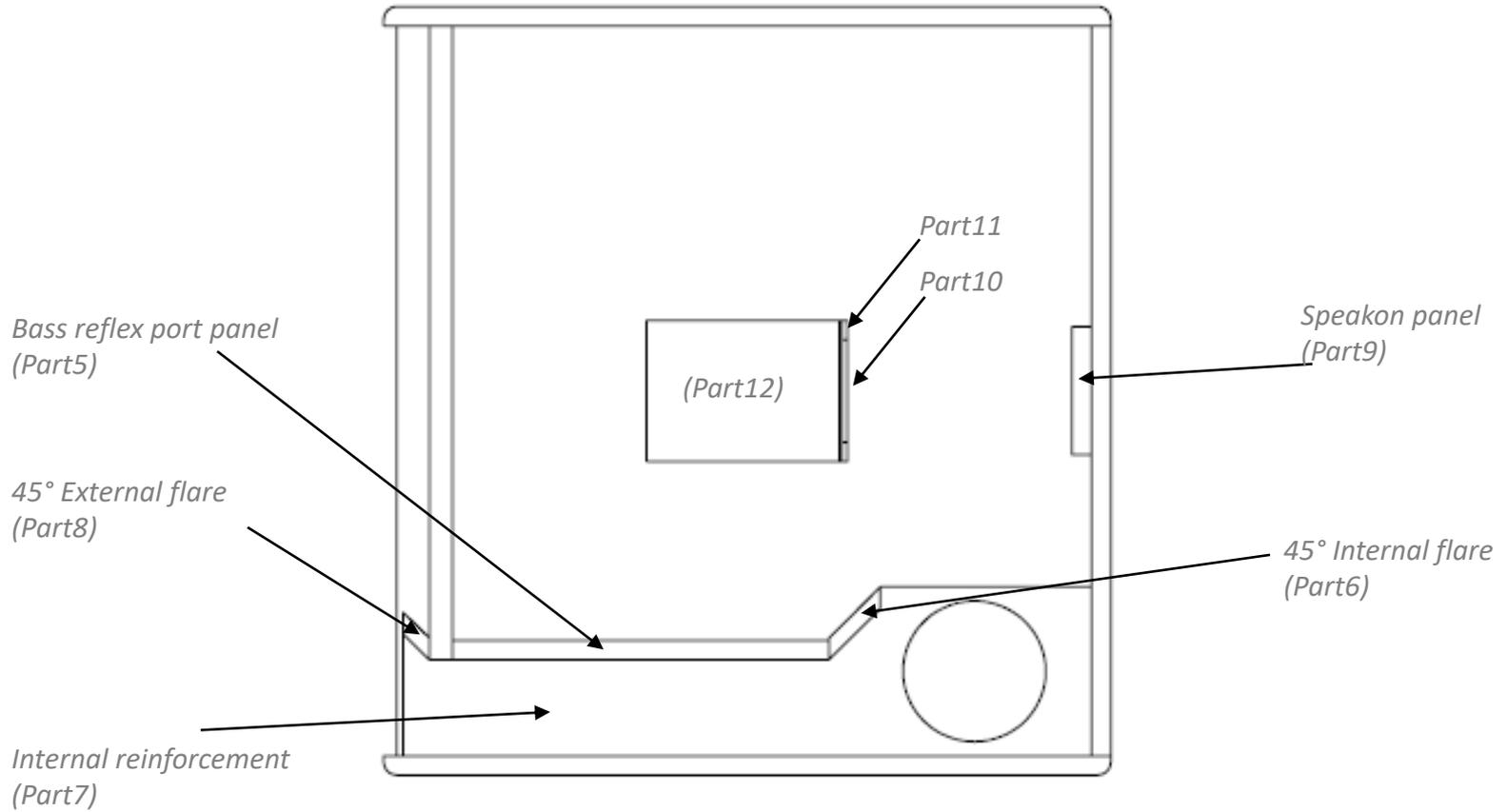
Part12 (internal handle
top panel – 2pcs)



Enclosure design

Internal components assembly

(Side view without left side panel and left handle)



Full stack example

1 TX18 Triax equipped + 2TX18 equipped with 18NW100
(each side)

18NW100

LF Drivers - 18.0 Inches

SPECIFICATIONS

Nominal Diameter	460 mm (18.0 in)
Nominal Impedance	8 Ω
Minimum Impedance	6.3 Ω
Nominal Power Handling ¹	1200 W
Continuous power handling ²	2400 W
Sensitivity (1W/1m) ³	98.0 dB
Frequency Range	35 - 1000 Hz
Voice Coil Diameter	100 mm (4.0 in)
Winding Material	Copper
Former Material	Glass Fibre
Winding Depth	25.0 mm (1.0 in)
Magnetic Gap Depth	12.0 mm (0.5 in)
Flux Density	1.2 T

DESIGN

Surround Shape	Triple Roll
Cone Shape	Radial
Magnet Material	Neodymium Inside Slug
Spider	Double Silicone
Pole Design	T-Pole
Woofer Cone Treatment	TWP Waterproof Both Sides
Recommended Enclosure	160.0 dm ³ (5.65 ft ³)
Recommended Tuning	37 Hz

PARAMETERS⁴

Resonance Frequency	31 Hz
Re	5.1 Ω
Qes	0.27
Qms	4.2
Qts	0.26
Vas	252.0 dm ³ (8.9 ft ³)
Sd	1210.0 cm ² (187.6 in ²)
η _e	2.7 %
X _{max}	± 9.0 mm
X _{var}	± 11.0 mm
M _{ms}	211.0 g
Bl	28.0 Txm
Le	1.7 mH
EBP	114 Hz

Subwoofer settings with 18NW100

Gain: +6dB - No delay
 Hp - BTW 24dB/oct - 30Hz
 PEQ - +6dB - Q:1 - 45Hz
 PEQ - +3dB - Q:2 - 70Hz
 PEQ - +2dB - Q:2 - 135Hz
 LP - BTW12dB/oct - 150Hz

Peak limiter: 155V
 Atk: 50ms - Rls: 200ms
 Clip limiter: 180V

