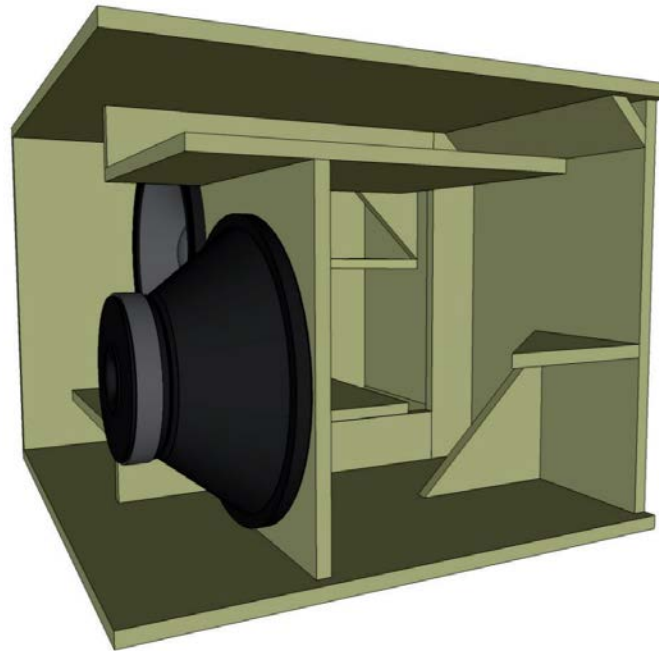


APPLICATION NOTE



DOUBLE 15" FRONT LOAD SUBWOOFER SYSTEM

COMPONENT KEY FEATURES

- High performance 2x15" subwoofer system;
- Very high power subwoofer system (2400 Watt AES)



15LW2400

15LW2400 subwoofer key features:
1200 W AES power handling
100 mm (4 In) Interleaved voice coil (ISV)
Double Silicon Spider (DSS)
Weather protected fiberglass reinforced cone

General Specifications

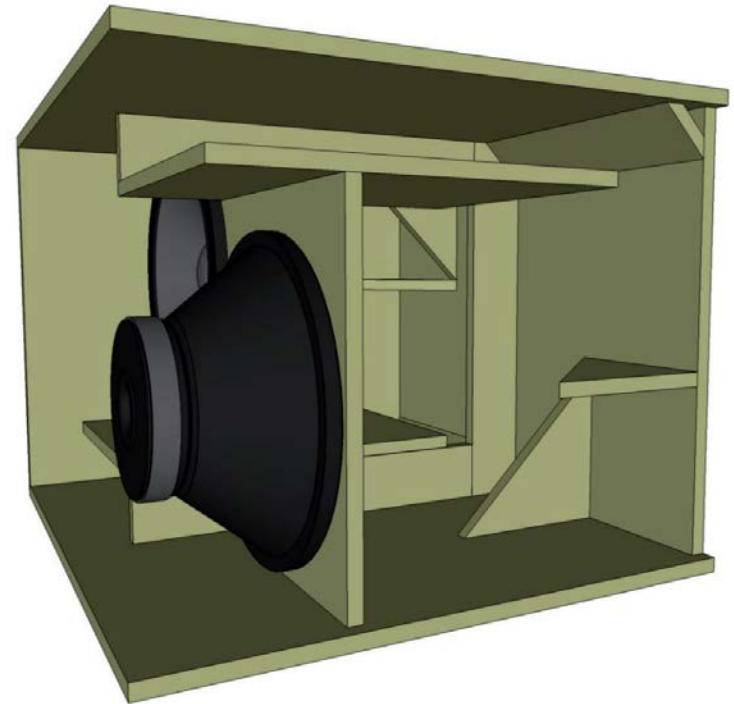
Nominal Diameter	380 mm (15 in)
Rated Impedance	8 Ohm
AES Power	1200 W
Program Power	2400 W
Peak Power	7000 W
Sensitivity	97 dB
Frequency Range	40 + 2200 Hz
Power Compression @-10dB	0,7 dB
Power Compression @-3dB	1,5 dB
Power Compression @Full Power	2,2 dB
Max Recomm. Frequency	500 Hz
Recomm. Enclosure Volume	60 + 130 lt. (2.12 + 4.59 cuft)
Max Peak To Peak Excursion	38 mm (1,53 in)
Voice Coil Diameter	100 mm (4 in)
Voice Coil Winding Material	copper
Suspension	Triple roll, Polycotton
Cone	Straight ribbed, Fiberglass reinforced treated cellulose

Thiele Small Parameters

Fs	40 Hz
Re	5,3 Ohm
Sd	0,090 sq.mt. (139,5 sq.in.)
Qms	4,75
Qes	0,32
Qts	0,3
Vas	131 lt. (4,63 cuft)
Mms	138 gr. (0,30 lb)
BL	24 Tm
Linear Mathematical Xmax	± 10 mm (±0,39 in)
Le (1kHz)	1,25 mH
Ref. Efficiency 1W@1m (half space)	96,4 dB

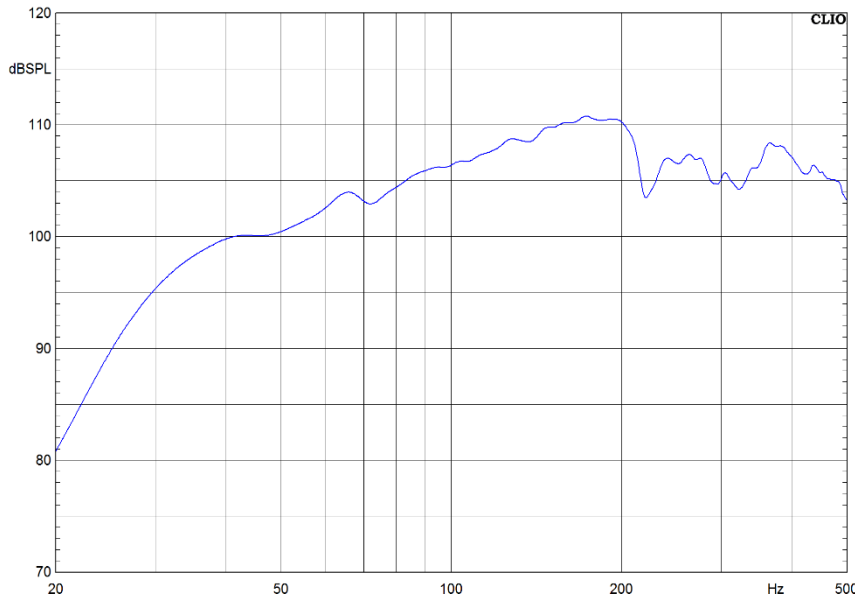
SYSTEM KEY FEATURES

- The enclosure should be made of Baltic birch plywood (15mm thickness)
- Bolts are M6x35mm (M6 T-Nuts recommended)
- Handling, rigging and connectors are user's choice
- It's recommended to well damp the cabinet interior (an high density dampening material, such as Dacron or other synthetic fibers, is required for better performance)

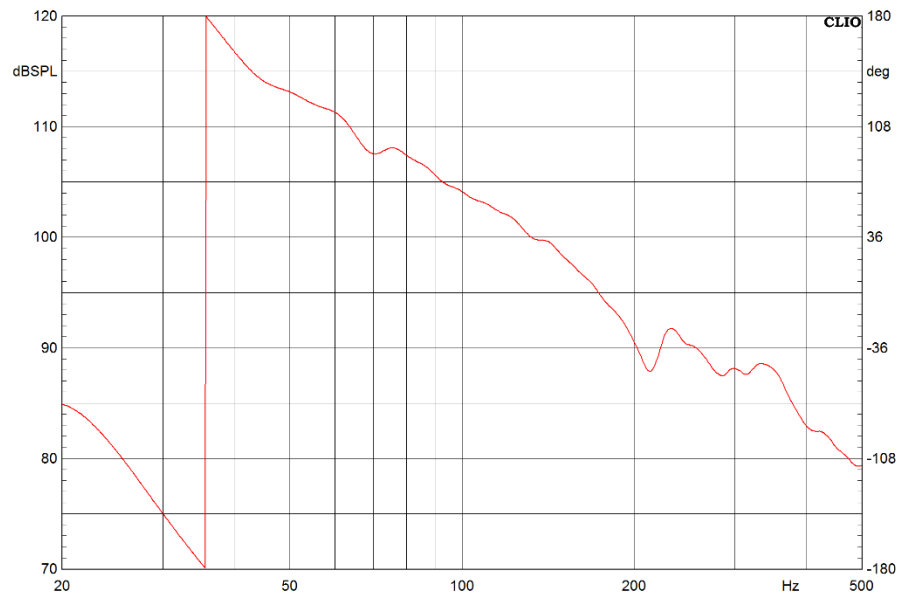


INTERNAL VIEW

UNFILTERED MAGNITUDE RESPONSE AND RELATIVE PHASE

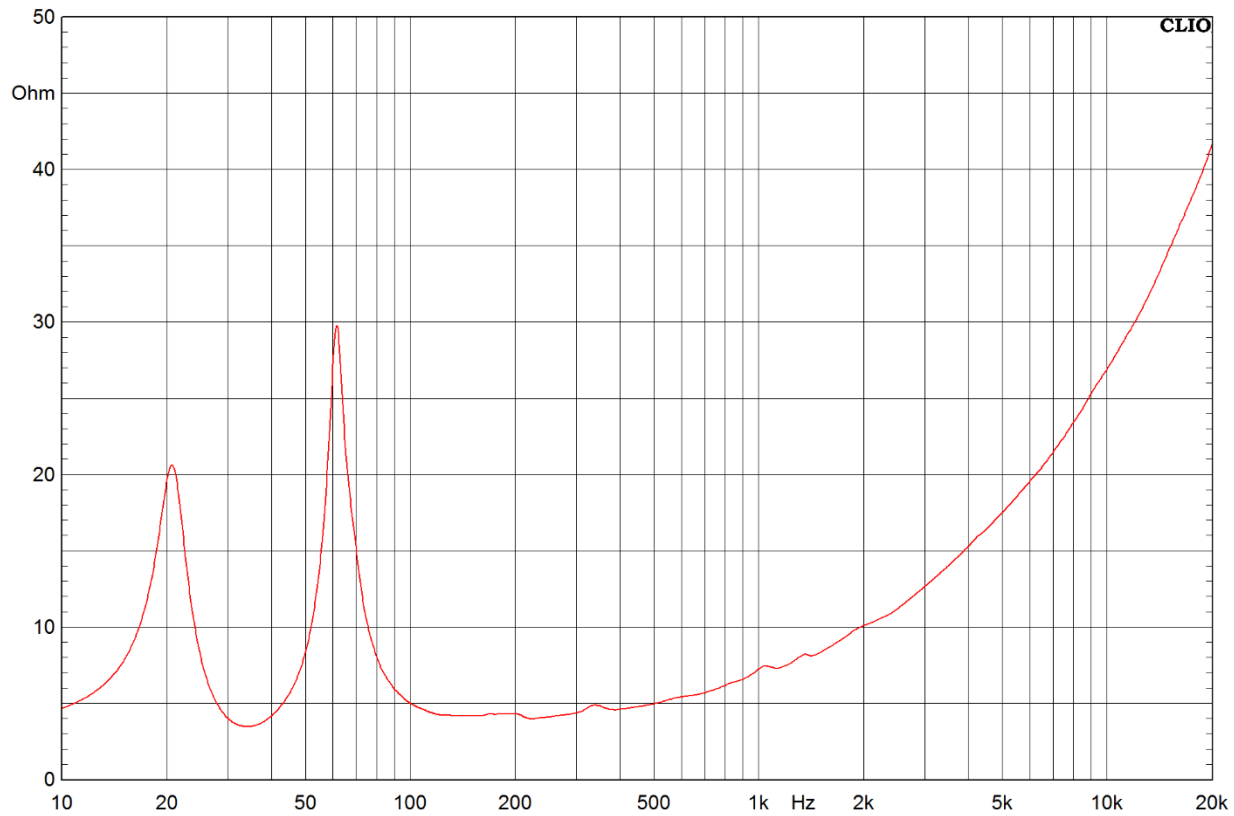


MAGNITUDE RESPONSE

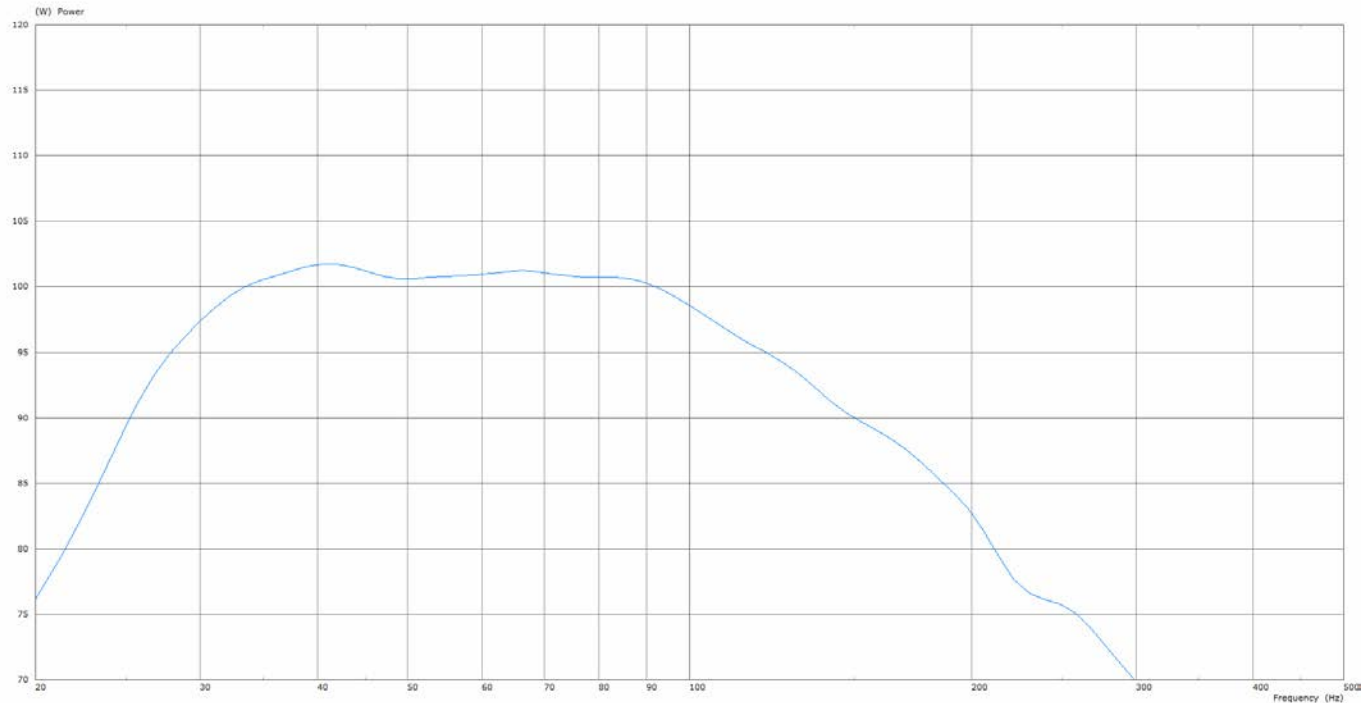


PHASE RESPONSE

SYSTEM IMPEDANCE RESPONSE



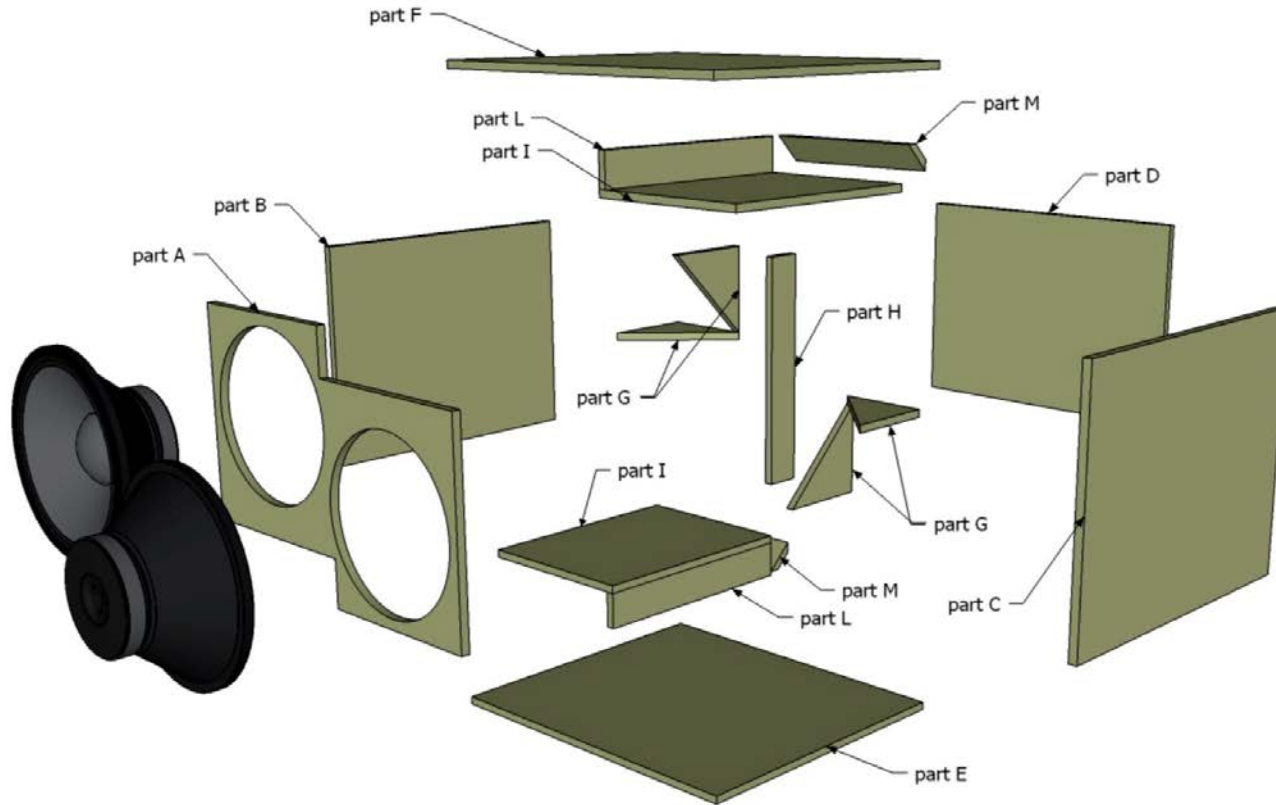
PROCESSED SYSTEM MAGNITUDE RESPONSE



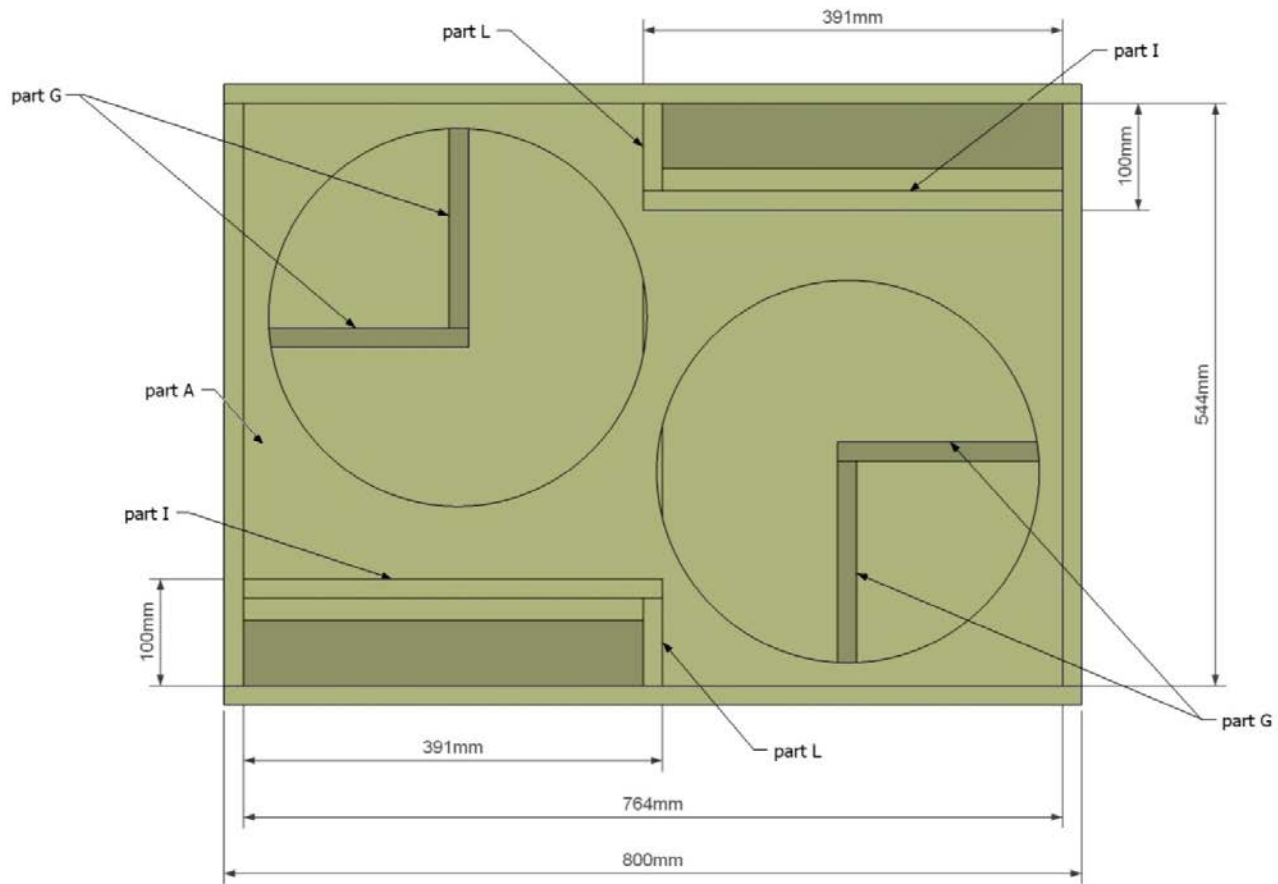
EQUALIZATION SETTINGS SUGGESTION

High Pass: Butterworth 24dB/Oct 28Hz
Parametric EQ: $f_o = 102\text{Hz} / -3\text{dB} / Q = 2$
Parametric EQ: $f_o = 171\text{Hz} / -10\text{dB} / Q = 2$
Parametric EQ: $f_o = 32\text{Hz} / +2\text{dB} / Q = 2$
Low Pass: Linkwitz-Riley 24dB/Oct 85Hz

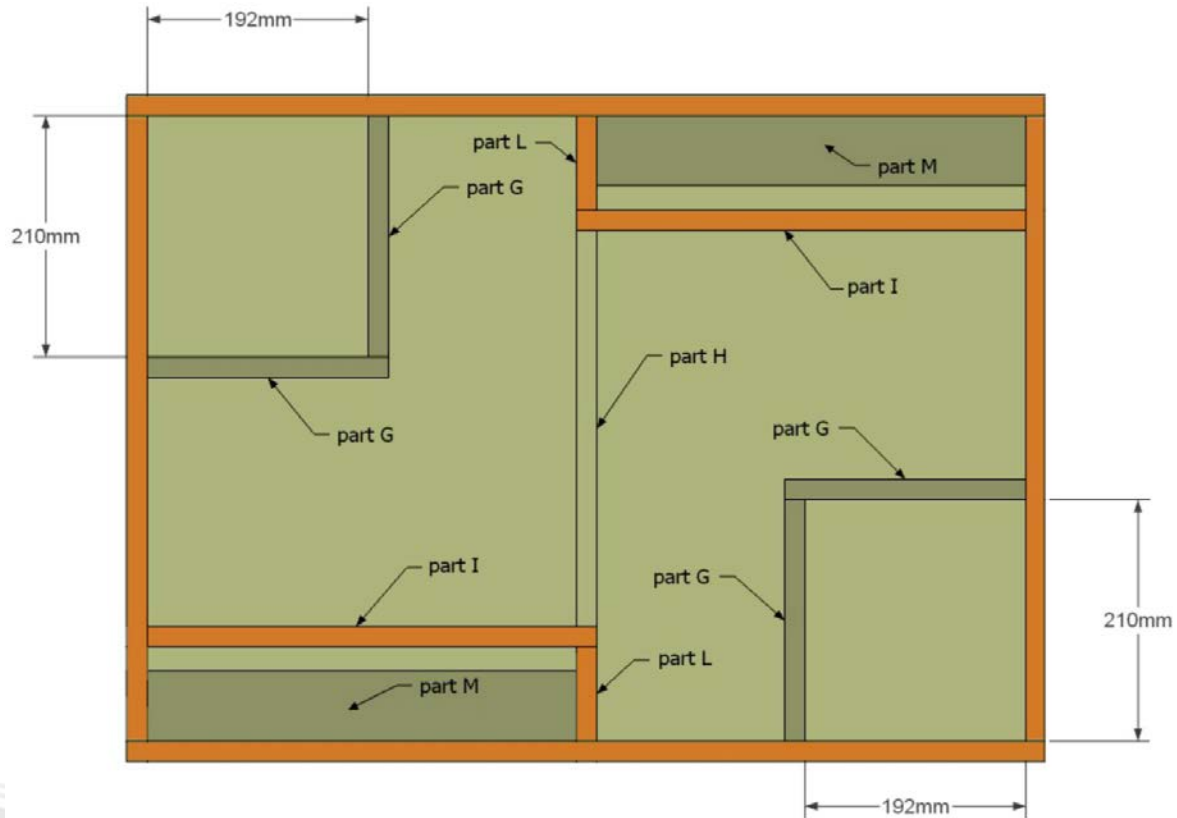
EXPLODED VIEW



FRONT VIEW

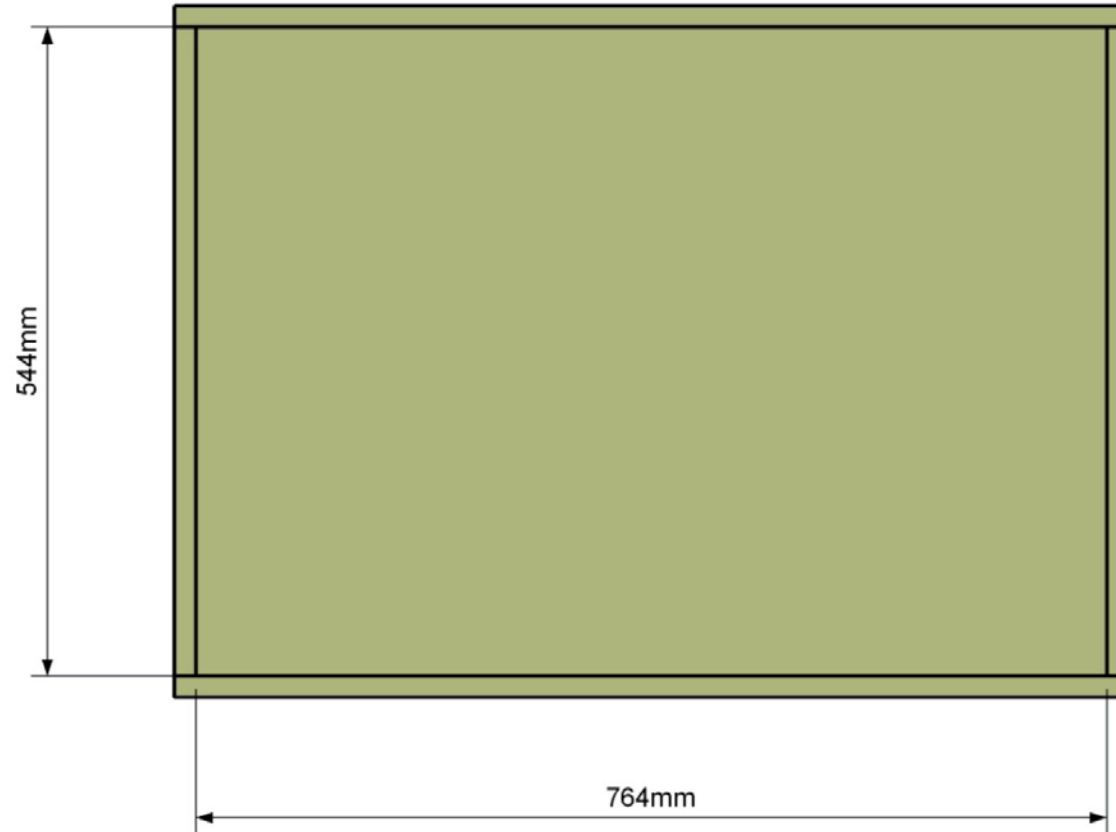


FRONT SECTION

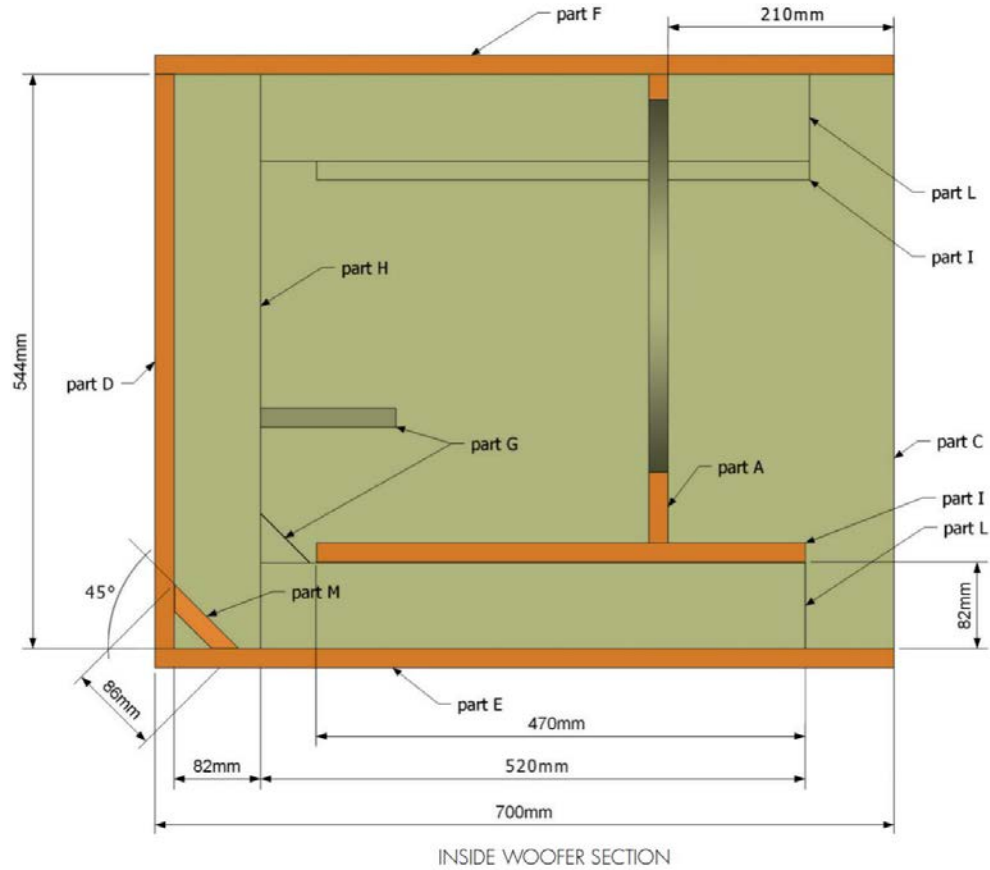


WOOFER PANEL SECTION

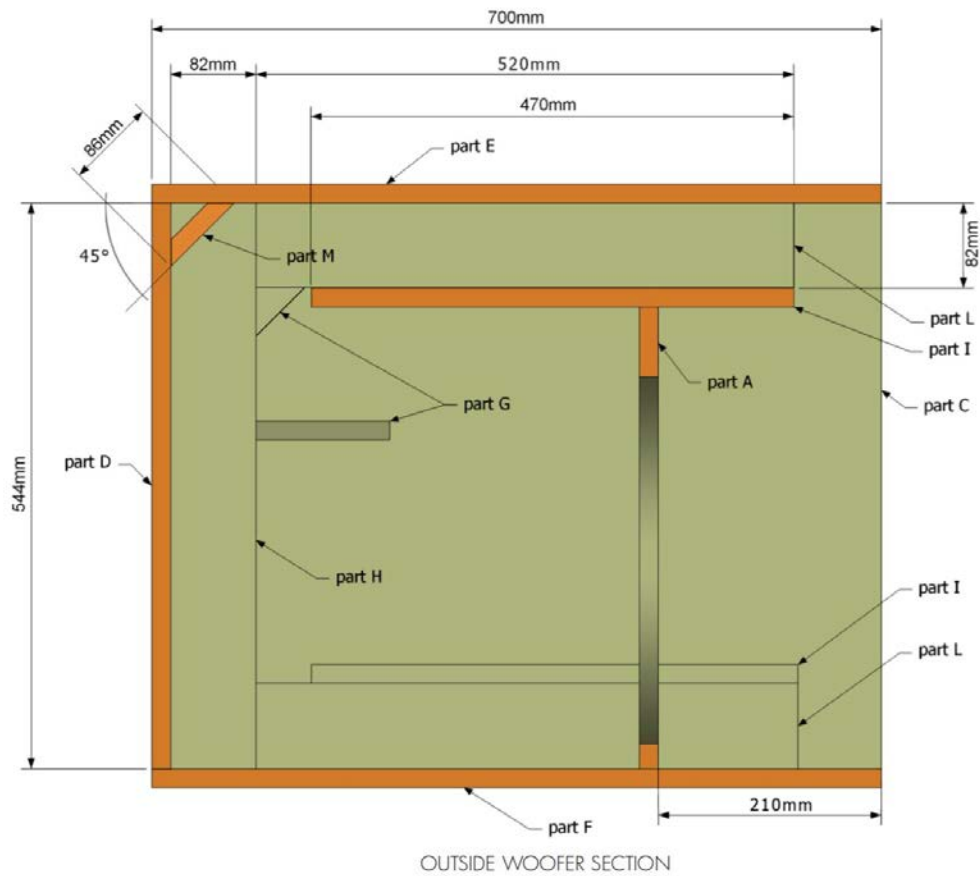
REAR VIEW



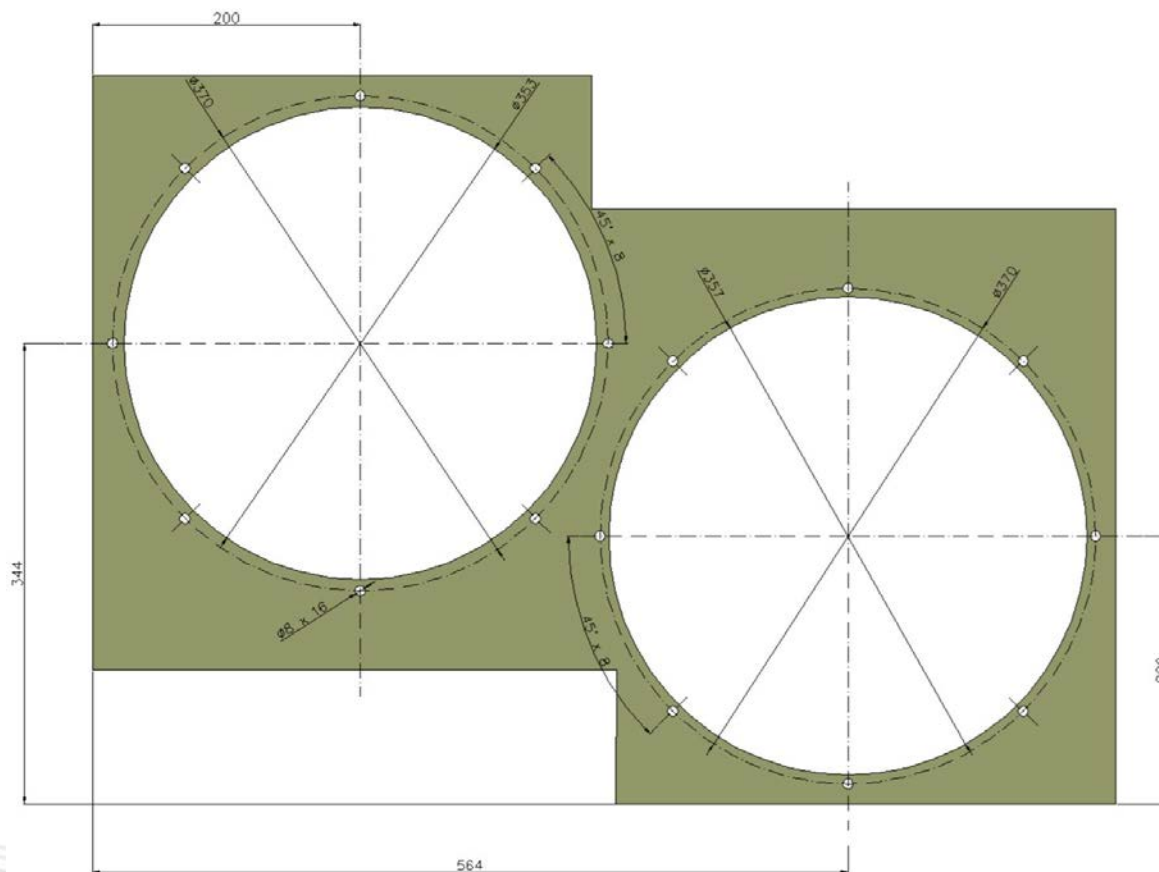
SIDE SECTION



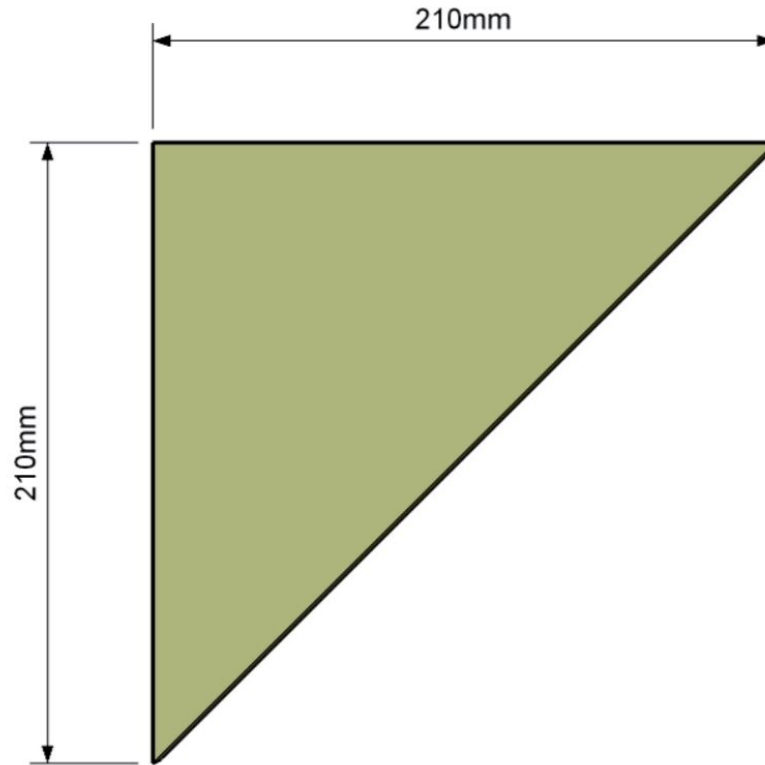
SIDE SECTION



DETAILS: PART A



DETAILS: PART G



PART G

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