APPLICATION NOTE

GENERAL PURPOSE 12” COAXIAL LOUDSPEAKER SYSTEM

KEY FEATURES

- An effective, high performance and easy to build two way loudspeaker system for high performance in a very compact and portable enclosure.
- An “already optimized” 18 Sound Passive crossover network greatly simplifies the system setup.
- The coaxial neodymium transducer provide high power and wide dispersion while maintaining low weight

12NCX750

12NCX750 XOVER

General Specifications

Nominal Diameter	300 mm (12 in)
Rated Impedance	8 Ohm
AES Power	400 W
Program Power	800 W
Peak Power	1600 W
Sensitivity	97 dB
Frequency Range	60 - 5000 Hz
Power Compression @-10dB	0.9 dB
Power Compression @-3dB	2.8 dB
Power Compression @Full Power	4.2 dB
Max Recomm. Frequency	1800 Hz
Recomm. Enclosure Volume	40 - 90 lt. (1,41 - 3,18 cuft)
Minimum Impedance	6.4 Ohm at 25°C
Max Peak To Peak Excursion	27 mm (1.06 in)
Voice Coil Diameter	75 mm (3 in)
Voice Coil winding material	copper
Suspension	Triple roll, polycotton
Cone	Curvilinear, Water repellent, High damping pulp

Mounting information

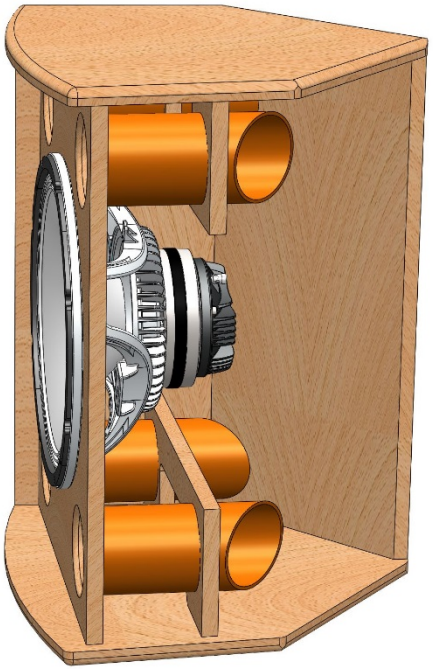
Overall diameter	310 mm (12.20 in)
N. of mounting holes and bolt	8
Mounting holes diameter	5.9 mm (0,23 in)
Bolt circle diameter	295 mm (11.61 in)
Front mount baffle cutout ø	280 mm (11 in)
Rear mount baffle cutout ø	280 mm (11 in)
Total depth	148 mm (5.85 in)
Flange and gasket thickness	14 mm (0,55 in)
Net weight	4.5 kg (9.92 lb)
Shipping weight	5 kg (11,02 lb)
Packaging Dimensions	5 kg (11,02 lb)

General Specifications HF

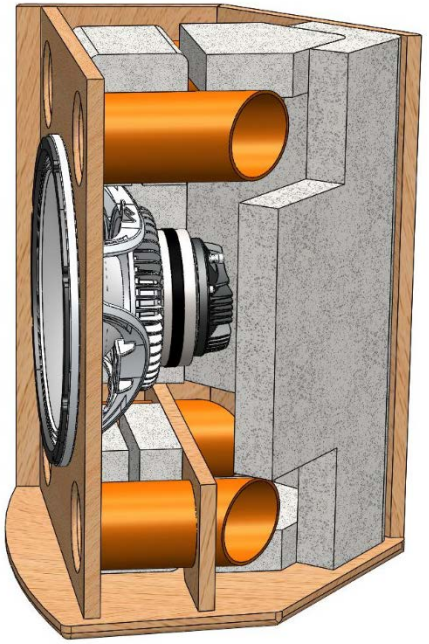
D.C. Resistance	6.1 Ohm
Continuous Power	120W above 1,1 kHz
Program power (8)	240W above 1,1 kHz
Sensitivity (9)	107 dB
Power Compression @Full Power	4.2 dB
Frequency Range	0.9 - 18 kHz
Min. Xover Frequency	1.1 kHz
Diaphragm material	Titanium
Voice Coil Diameter	60 mm (2.4 in)
Voice Coil winding material	Edge-wound aluminum
Magnet material	Neodymium

KEY FEATURES

- The enclosure should be made out of Baltic birch plywood (15mm thick);
- The vents can be made with standard PVC plumbing pipe connection with internal diameter of 74mm;
- M5 T-Nuts in conjunction with M5x35mm Bolts is recommended;
- Handling, rigging and Connectors are user's choice;
- It's highly recommended to well damp the cabinet as shown in the pictures;
- An high density dampening material, such as Dacron or other synthetic fibers, is required for best acoustic performance

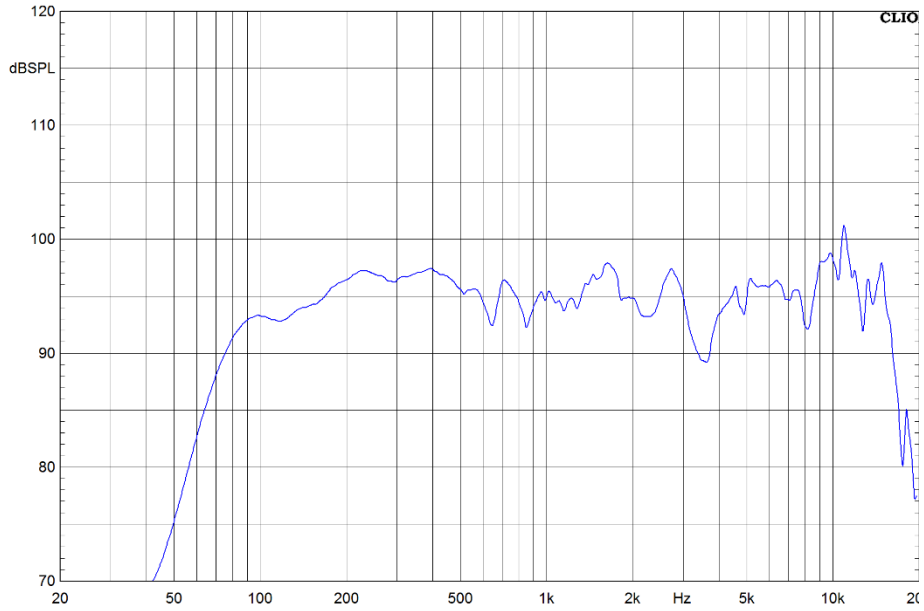


INTERNAL VIEW

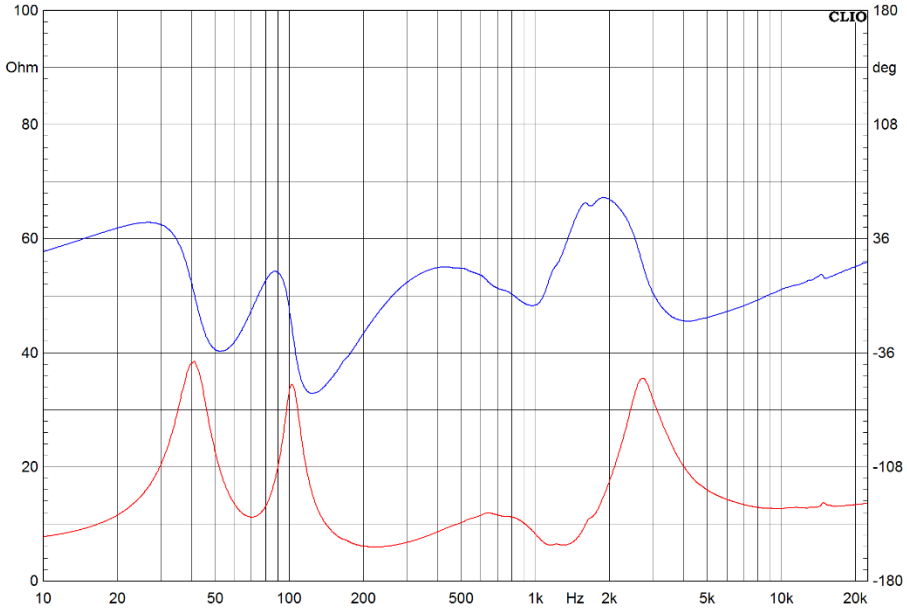


DAMPING DISPOSITION

MEASUREMENTS: 12NCX750 + DEDICATED CROSSOVER

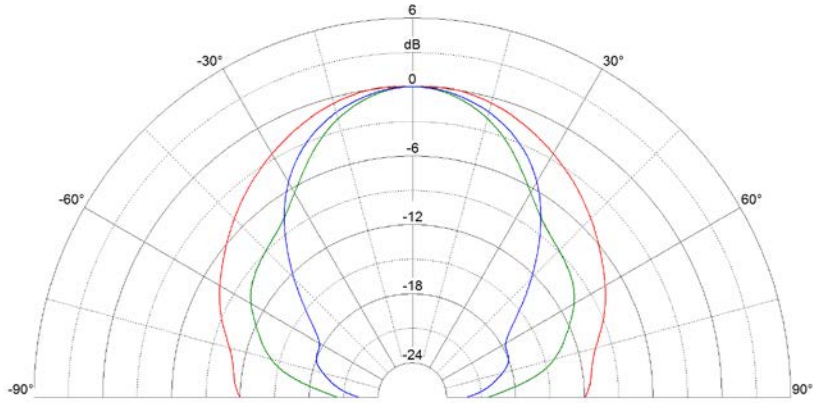


MAGNITUDE RESPONSE

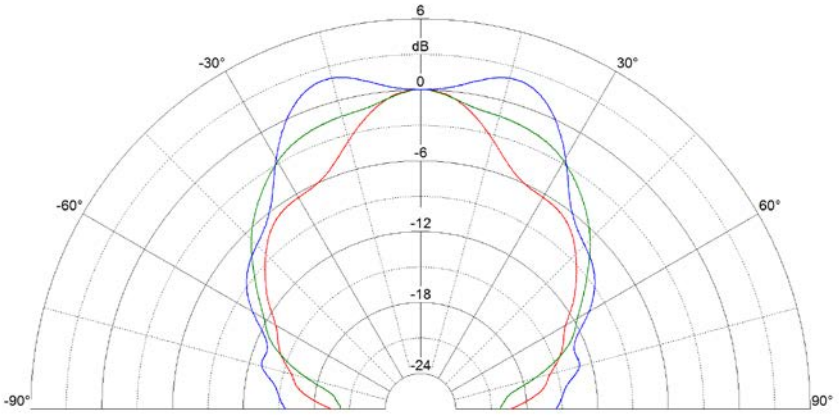


PHASE RESPONSE
IMPEDANCE

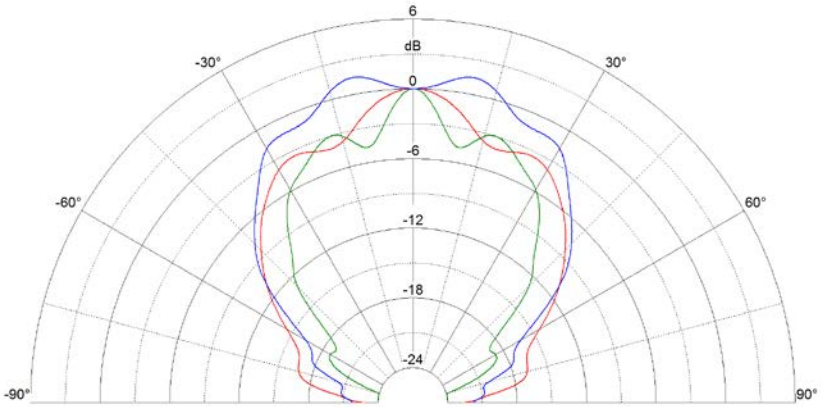
HORIZONTAL POLAR PLOT



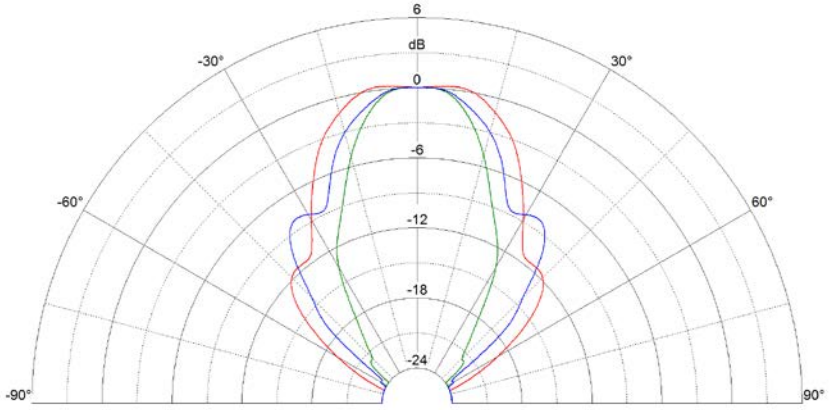
1250Hz – 1600Hz – 2000Hz



2500Hz – 3150Hz – 4000Hz

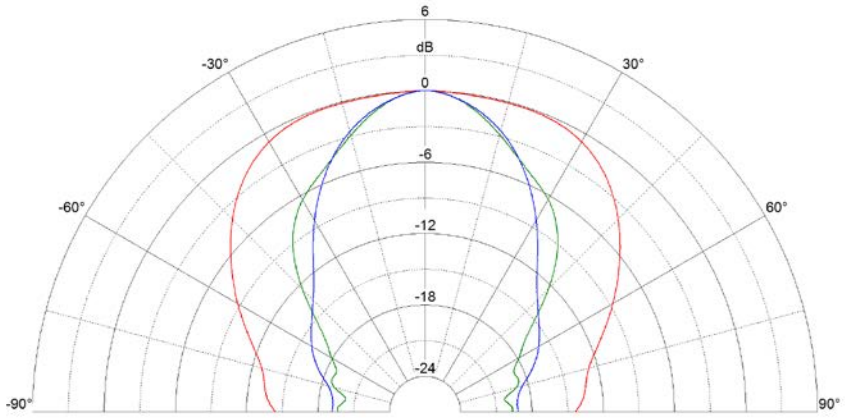


5000Hz – 6300Hz – 8000Hz

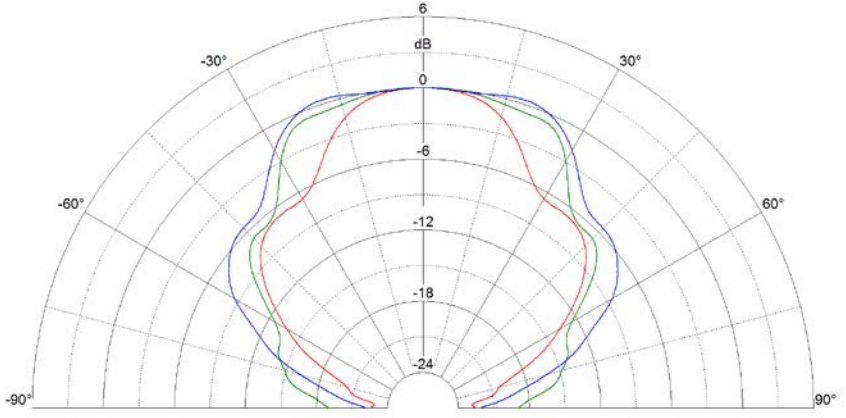


10000Hz – 12500Hz – 16000Hz

VERTICAL POLAR PLOT



1250Hz – 1600Hz – 2000Hz



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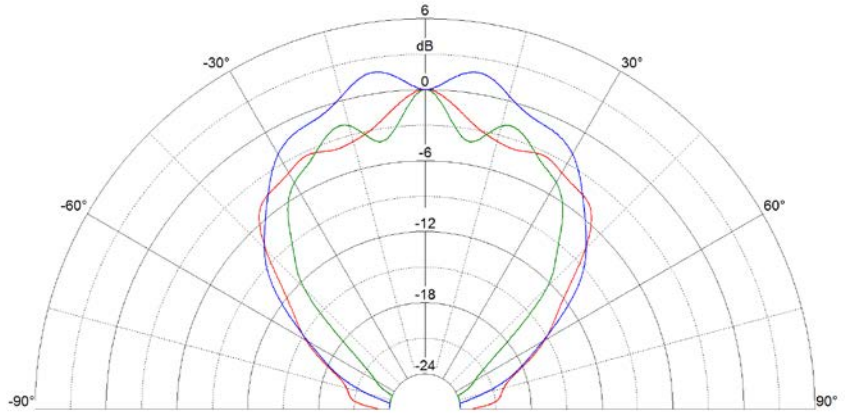
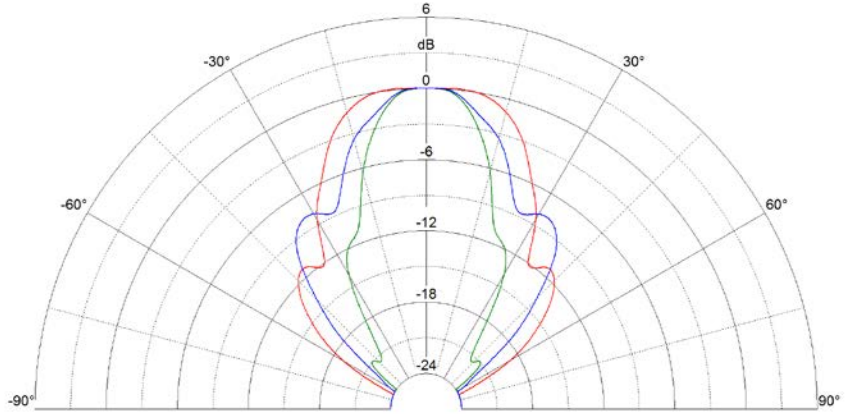
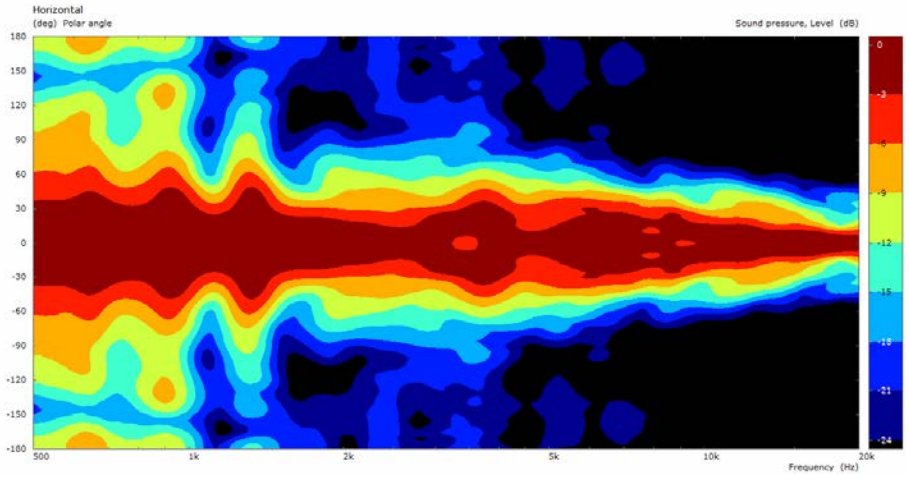


5000Hz – 6300Hz – 8000Hz

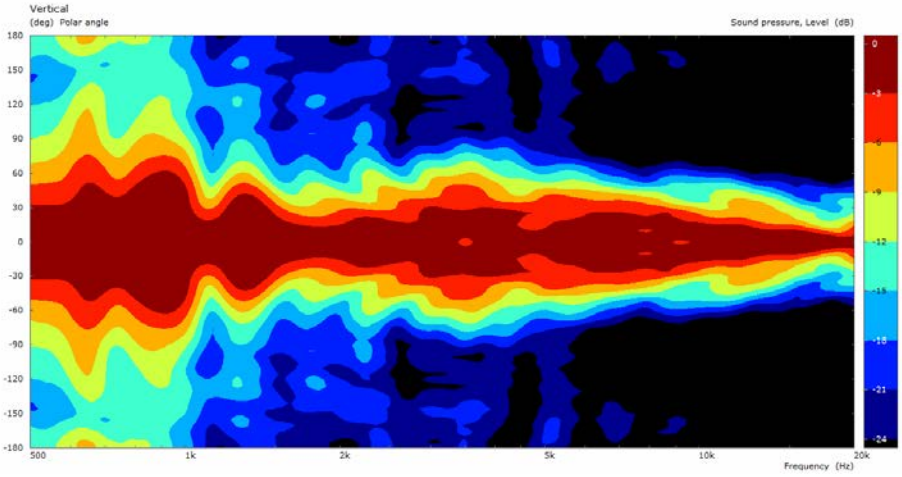


10000Hz – 12500Hz – 16000Hz

POLAR MAPS



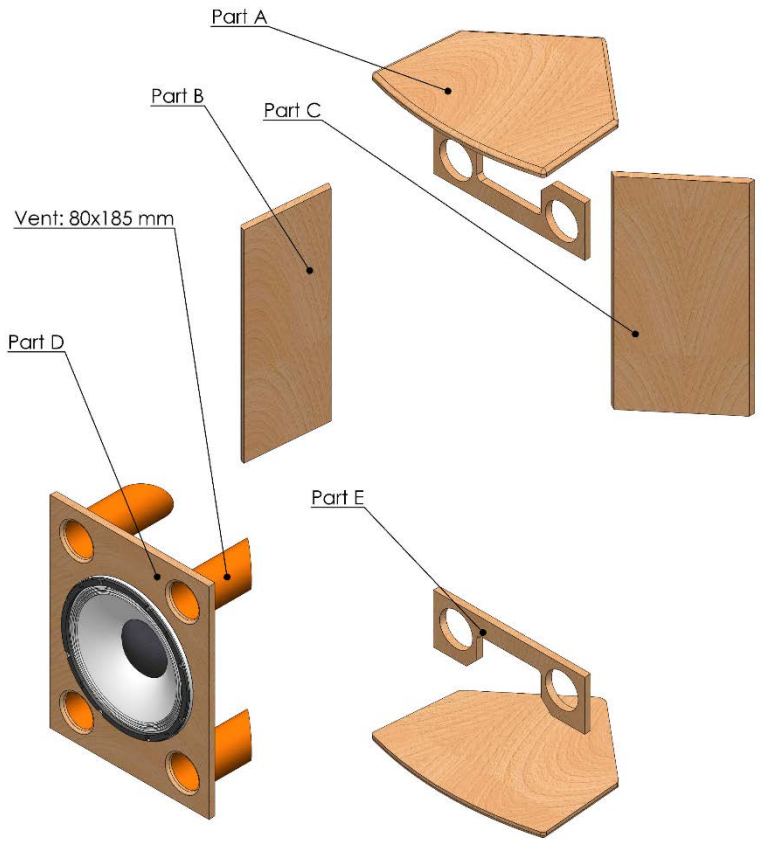
HORIZONTAL POLAR MAP
Normalized to 0deg Axis – 1/3 Smoothing



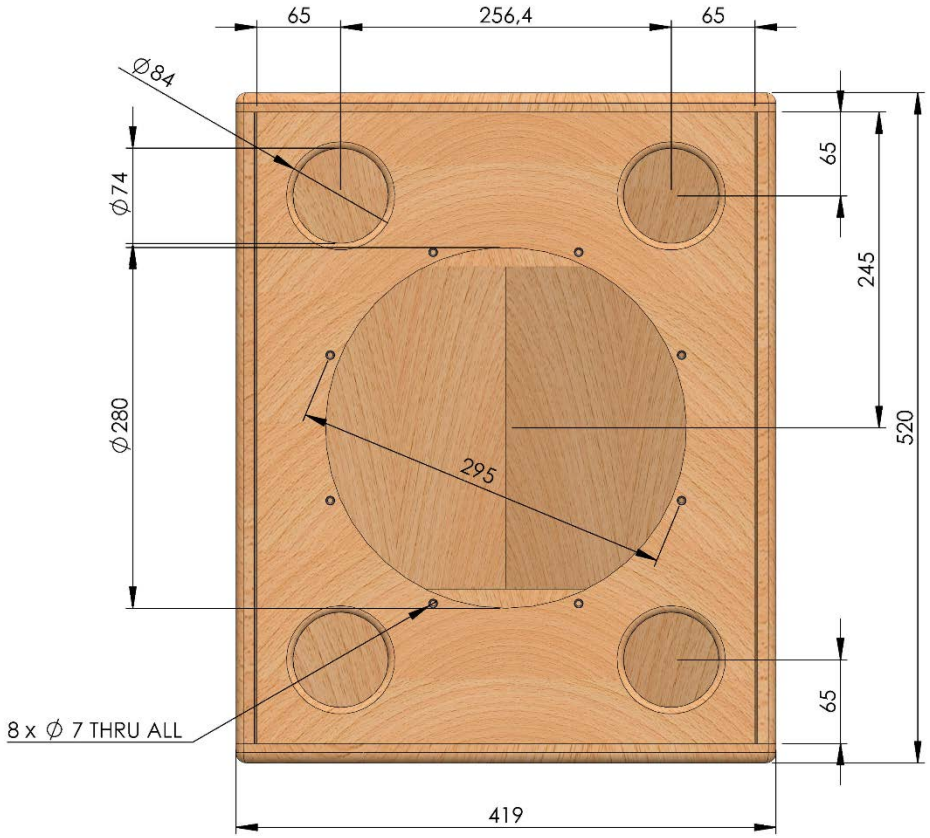
VERTICAL POLAR MAP
Normalized to 0deg Axis – 1/3 Smoothing

EXPLODED VIEW

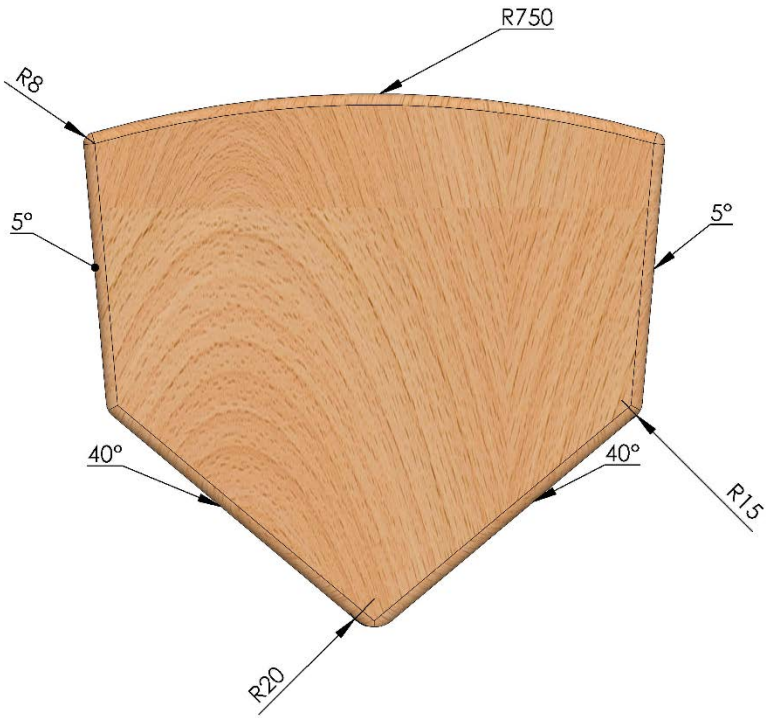
Part Name	Quantity
(A) Base	2
(B) Side	2
(C) Back	2
(D) Baffle	1
(E) Reinforcement	2
Vent 80x185 mm	4



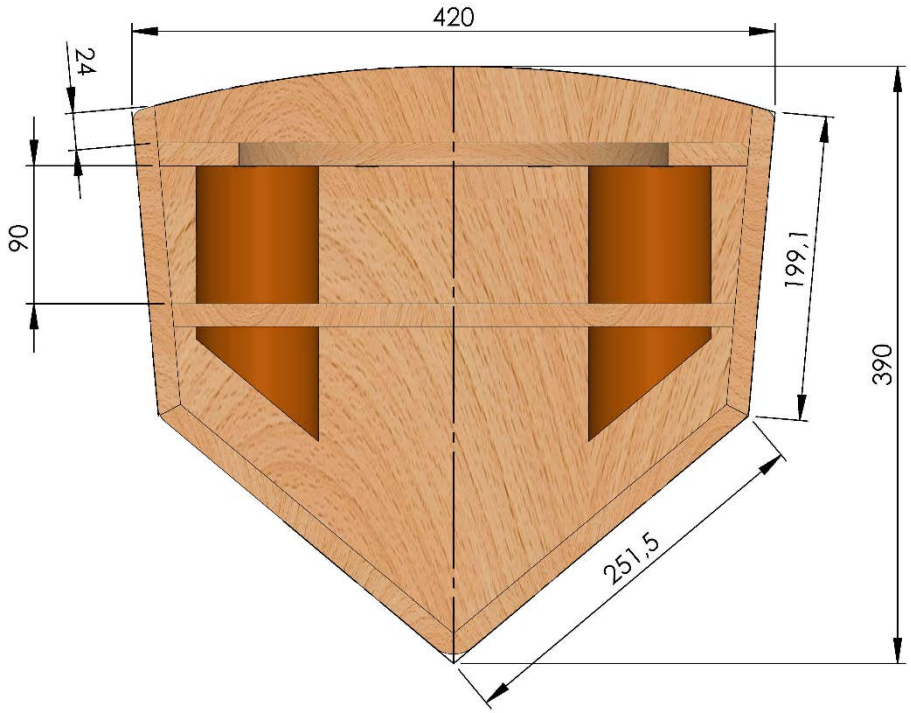
FRONT VIEW



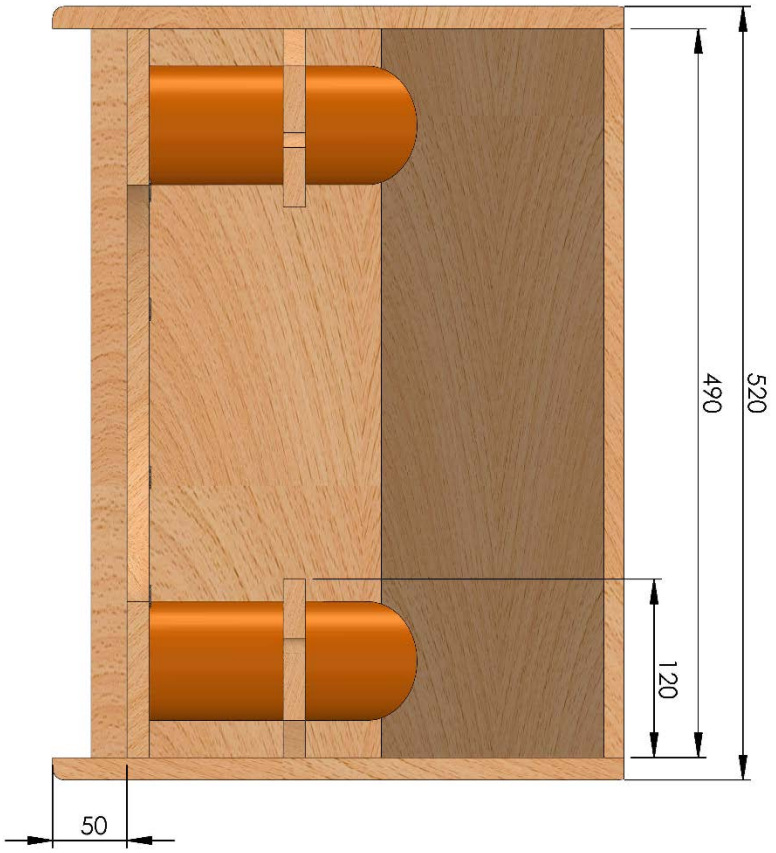
TOP VIEW



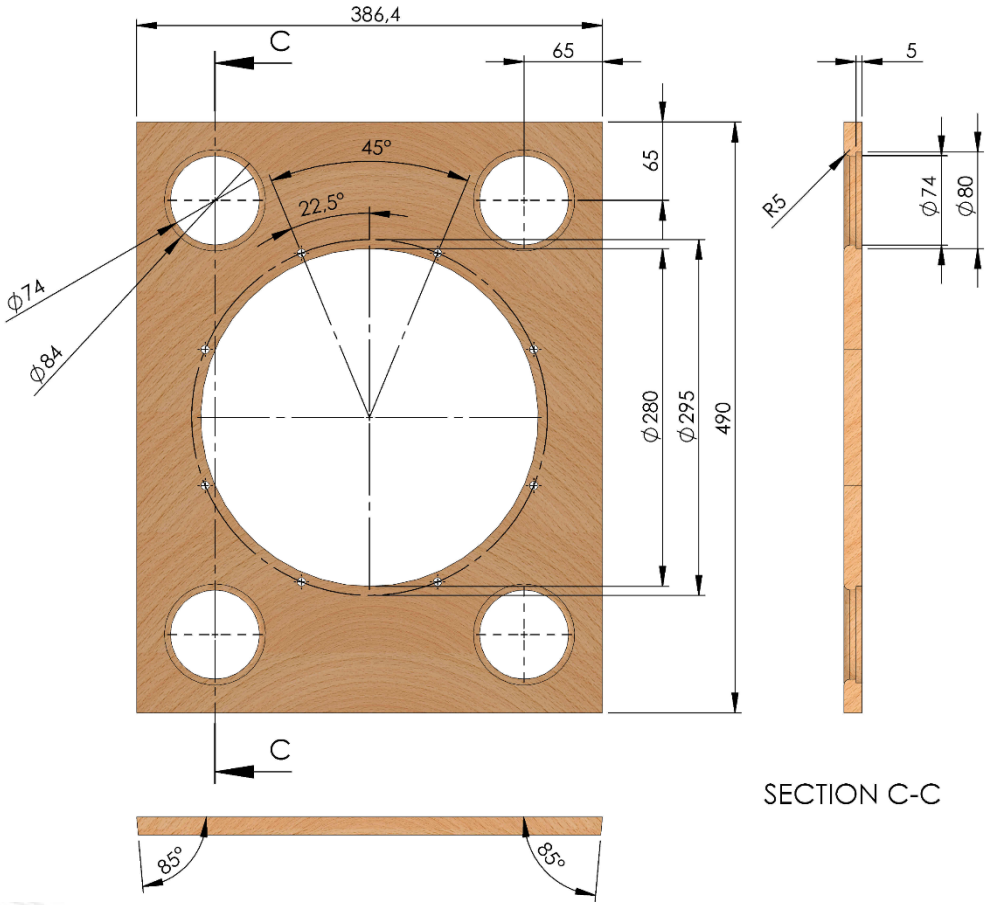
TOP SECTION



SIDE SECTION

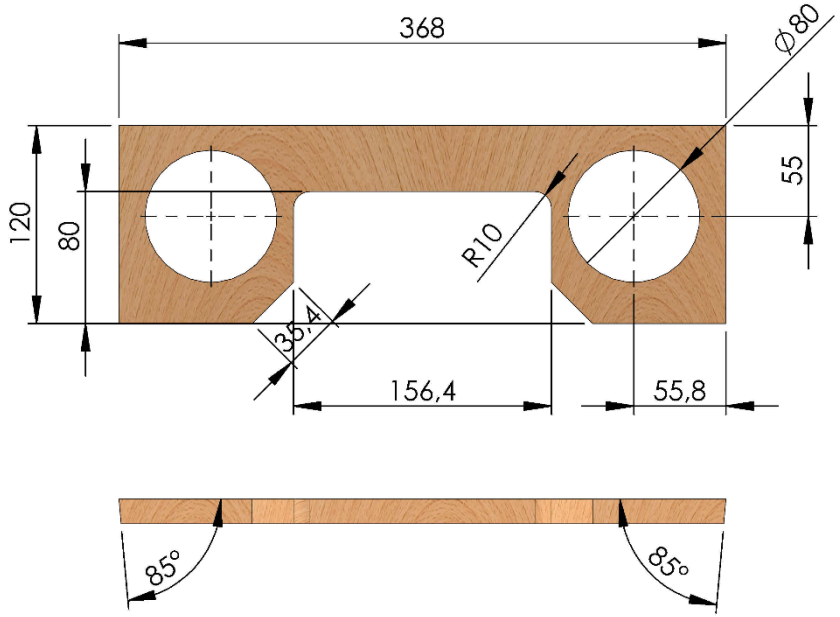


FRONT BAFFLE: PART D

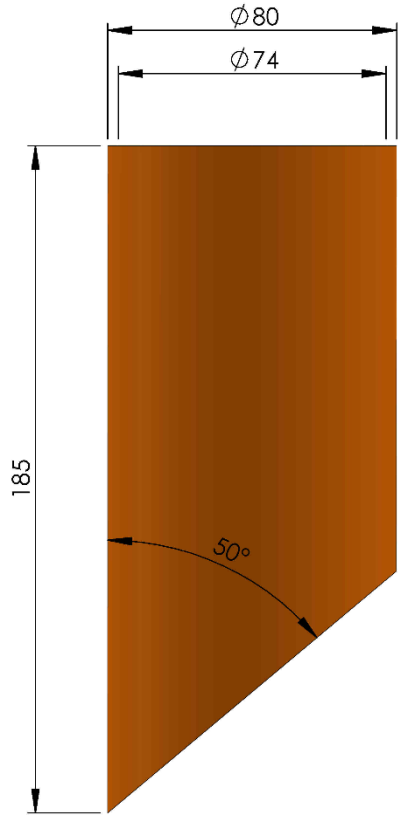


SECTION C-C

DETAILS: PART E



DETAILS: VENT



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