



## CHR 120

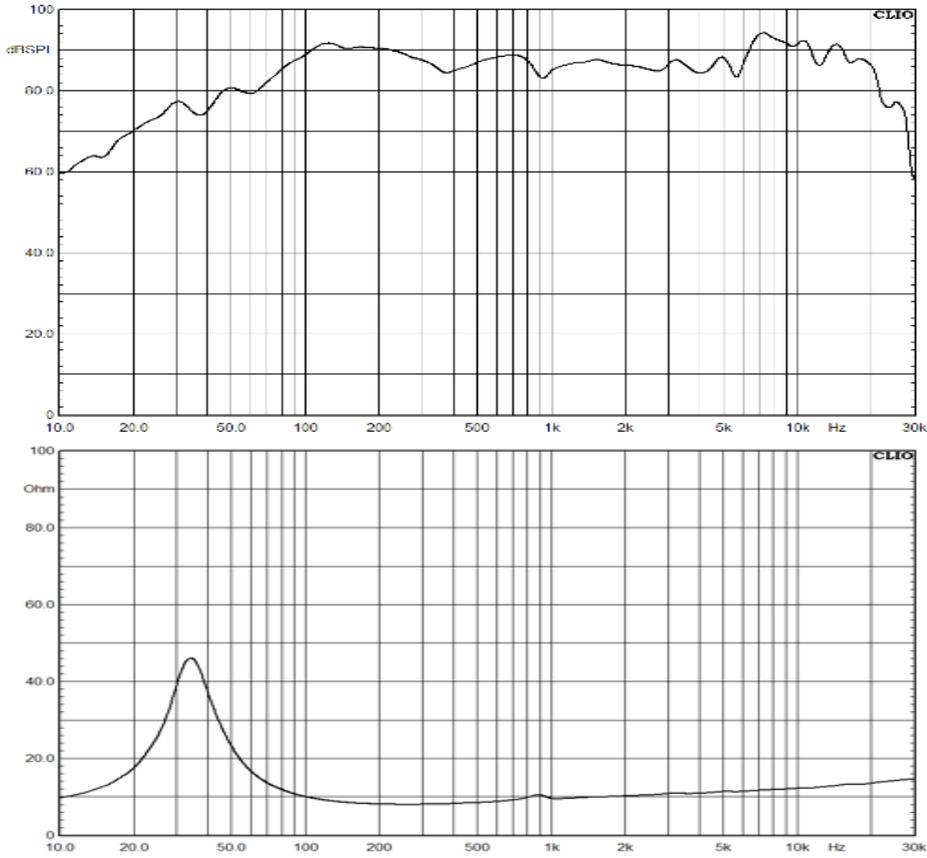
The CHR-120 is a brand-new 6-inch high fidelity multi-purpose high-volume driver design from Markaudio.

This new driver has been purpose developed to provide significant bass extension beyond what many similar-sized midbass units can deliver, combined with full-range frequency output.

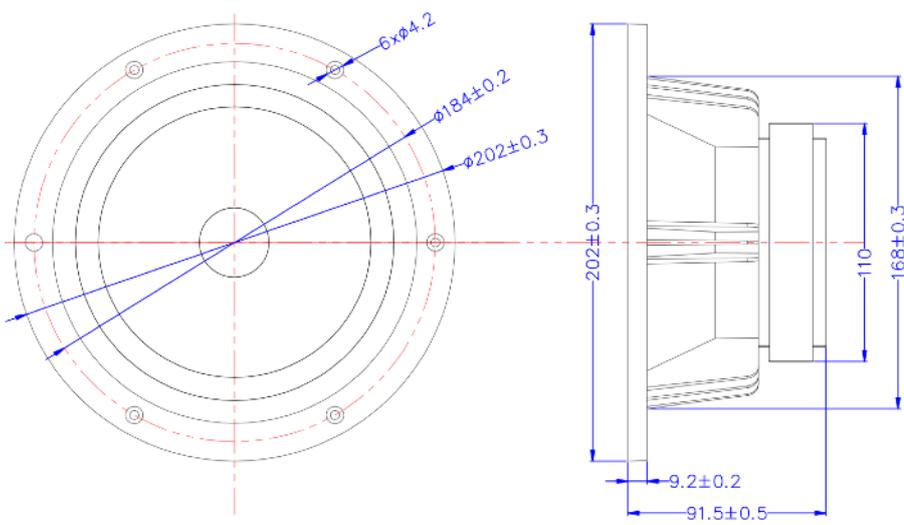
The CHR-120 cone is made from a high-strength, aerospace grade magnesium-alloy designed to cope with high bending stress loads. Based upon our renowned shallow profile, wide-dispersion multiform cone concept, the material thickness is carefully balanced to maximise low-frequency load capacity while retaining excellent performance at higher frequencies. The long-stroke suspension and low-distortion motor are designed to provide a low resonant frequency, medium Q and an air volume compliance of around 59 litres. Optimised for use in larger enclosures, the CHR-120 can provide output to some 30Hz and smooth high frequency range extending above 20KHz in a suitable design. Other key features include an "easy install" reinforced polymer frame for both surface and recessed mounting.

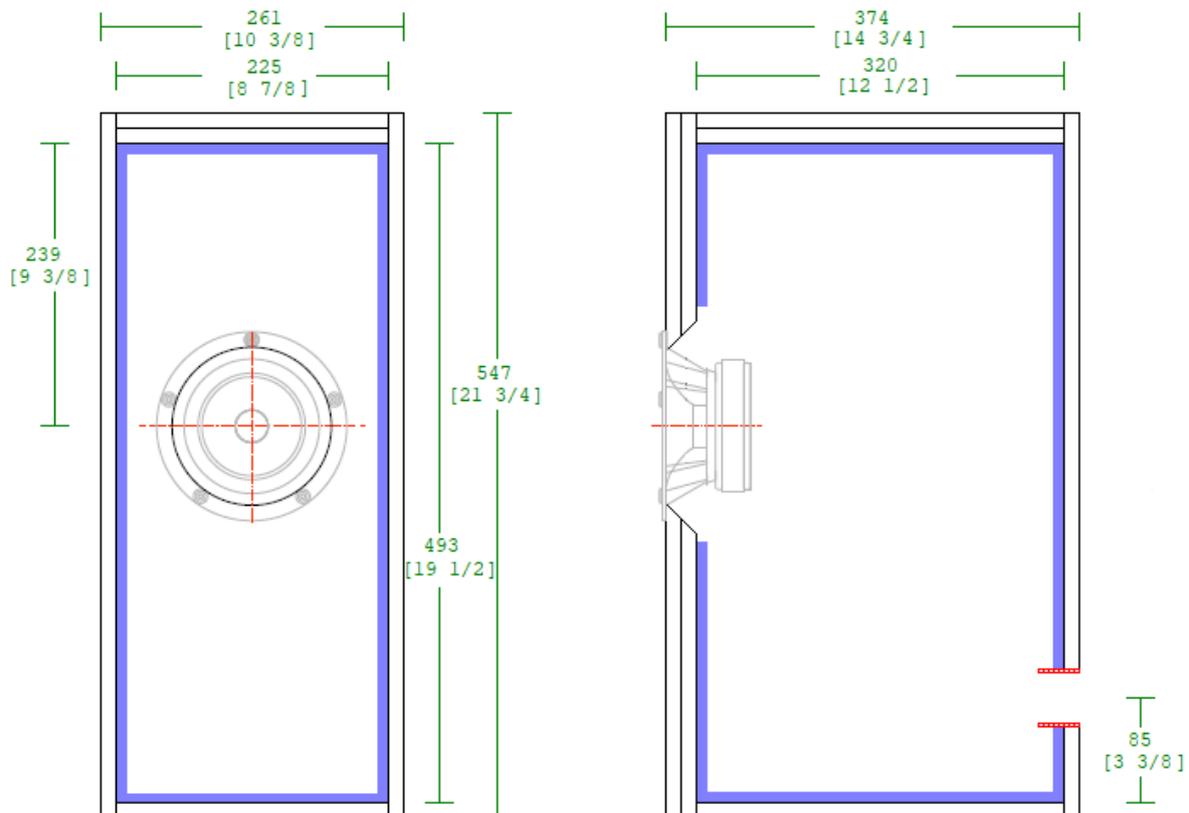
The CHR-120 provides custom builders with wide operational flexibility at a surprisingly affordable price, and can be used as a high-performance full-range driver, or as a wide-range midbass. It is ideal for use in high-fidelity, home-theatre, commercial A/V applications, and by suiting a wide range of enclosure types, it continues Markaudio's reputation for providing qualitative excellence and advanced mechanical engineering at an accessible level.





FS	34.2417 Hz
VAS	58.8923 L
RE	7.2000 Ω
QMS	2.3823
QES	0.4411
QTS	0.3722
SPL	89.3145
SD	0.0147 m <sup>2</sup>
CMS	1.9409 mm/N
MMS	11.1310 g
RMS	1.0052 W
MMD	10.1179 g
ZMIN	7.9869 W
ZMAX	46.0862 W
L1kHz	0.1272 mH
L10kHz	0.0907 mH
X Max	9mm (1 way)
Pwr	50 Watts (Nom)





Classic 35 litre vented box standmount designed by Dr Scott Lindgren

Notes:

0/ diagram provides Imperial and metric dimensions. Dimensions not direct conversions / equivalents

1/ 18mm & 3/4in sheet build material assumed. MDF acceptable, quality void-free multi-ply recommended

2/ front and top baffles doubled for enhanced rigidity

3/ bracing not shown but recommended.

4/ chamfer / relieve driver cut-out to prevent reflections & enhance airflow

5/ all internal faces lagged 15mm - 20mm / 3/4in acoustic fibreglass, Ultratouch recycled denim, jute, quality wool felt or similar. Avoid acoustic foam

Design assumes voltage source amplifier & 1/2ohm series resistance for typical speaker wiring & connections

Fb = 36Hz

F3 = 39Hz (nominal anechoic)

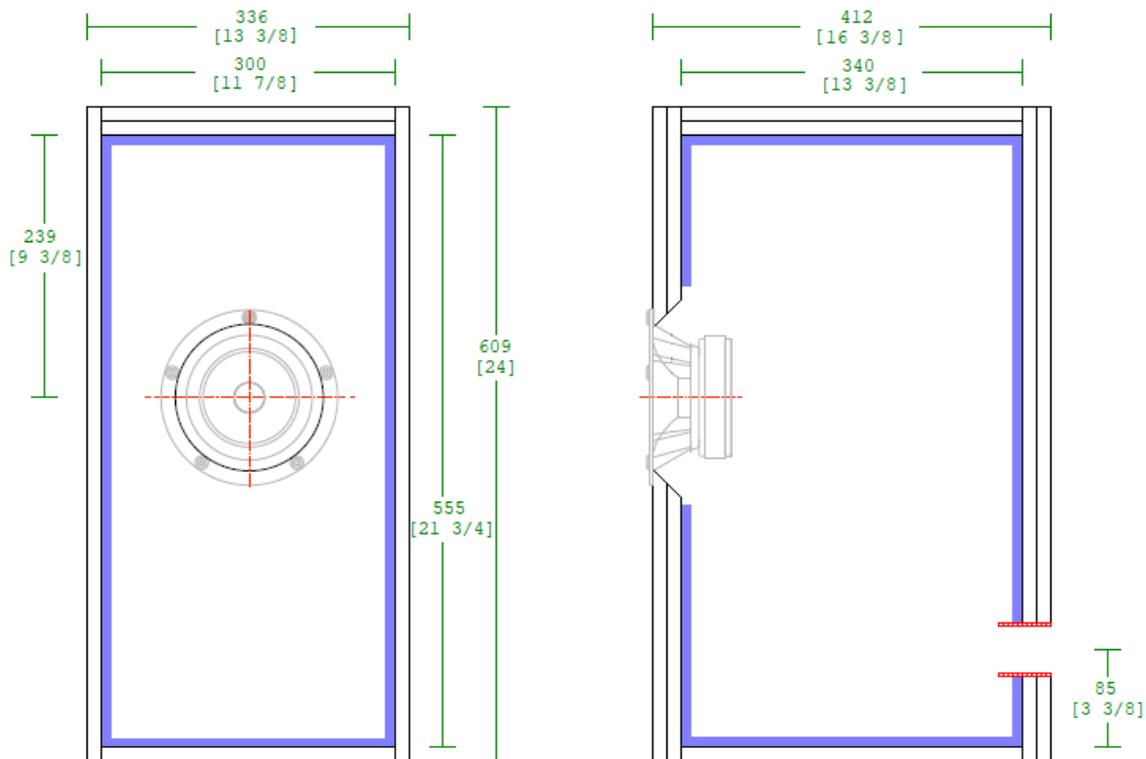
F6 = 33Hz (nominal anechoic)

Vent options (assumes untapered duct)

1/ Single vent: 50mm [2in] diameter x 95mm [3 3/4in] long

2/ Twin vents: 35mm [1 3/8in] diameter x 100mm [3 15/16in] long

If twin vent option used, position side-by-side



Classic 56 litre vented box standmount designed by Dr Scott Lindgren

**Notes:**

0/ diagram provides Imperial and metric dimensions. Dimensions not direct conversions / equivalents

1/ 18mm & 3/4in sheet build material assumed. MDF acceptable, quality void-free multi-ply recommended

2/ front, top & rear baffles doubled for enhanced rigidity

3/ bracing not shown but recommended.

4/ chamfer / relieve driver cut-out to prevent reflections & enhance airflow

5/ all internal faces lagged 15mm - 20mm / 3/4in acoustic fibreglass, Ultratouch recycled denim, jute, quality wool felt or similar. Avoid acoustic foam

Design assumes voltage source amplifier & 1/2ohm series resistance for typical speaker wiring & connections

Fb = 31Hz

F3 = 31Hz (nominal anechoic)

F6 = 26Hz (nominal anechoic)

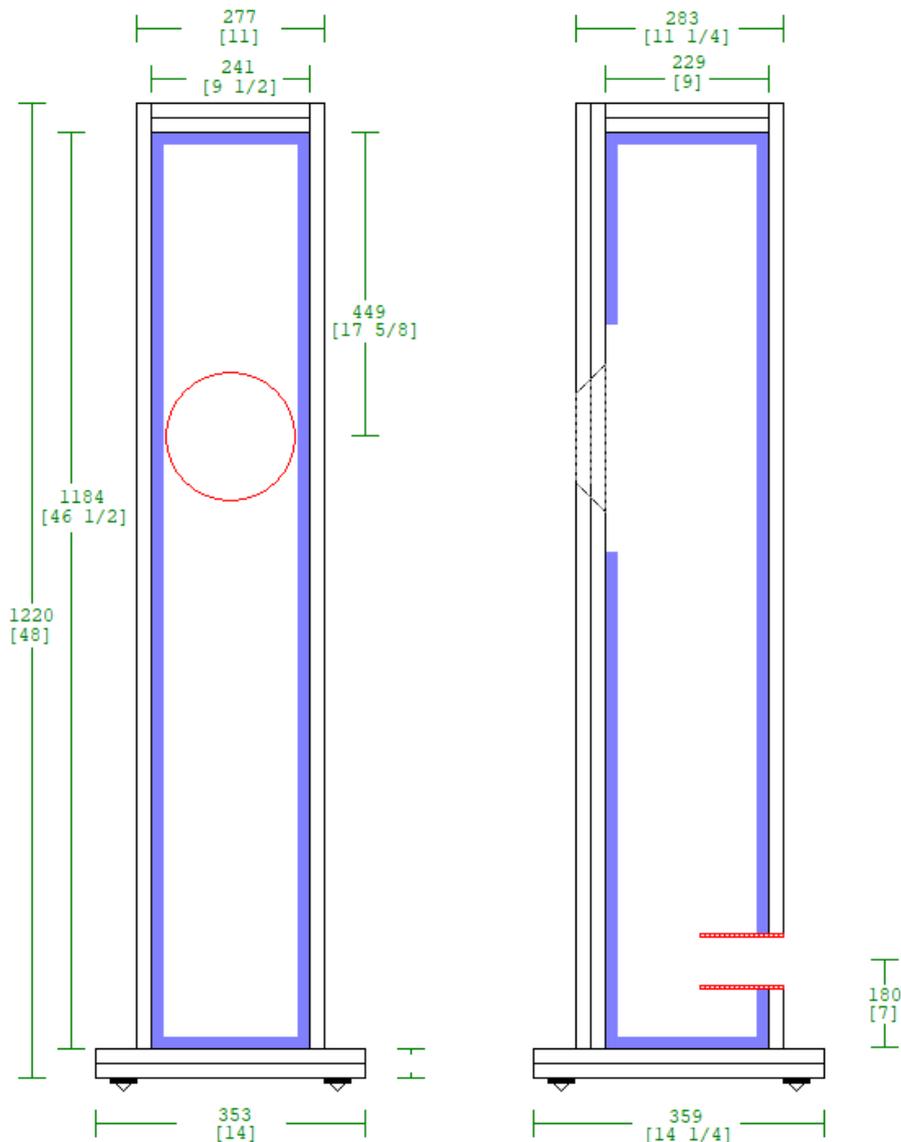
Vent options (assumes untapered duct)

1/ Single vent: 50mm [2in] diameter x 75mm [3in] long

2/ Twin vent: 35mm [1 3/8in] diameter x 80mm [3 3/16in] long

3/ Triple vent: 35mm [1 3/8in] diameter x 130mm [5 1/8in] long

If twin or triple vent option used, position side-by-side



Compact MLTL designed by Dr. Scott Lindgren

Notes:

- 0/ Metric and Imperial dimensions provided. Not exact equivalents / direct conversions
- 1/ Front baffle & top doubled to increase stiffness. Quality void-free multiply (Baltic birch, apple, marine, bamboo) recommended
- 2/ Bracing not shown but recommended (minimum 3x window braces win uneven distribution.
- 3/ Duct 75mm [3in] diameter x 133m [5 1/4in] long on rear panel
- 4/ All internal faces lagged 15mm - 25mm [3/4in - 1in] acoustic fibreglass, SAE-F13 rated felt, Ultratouch, jute or similar. Avoid acoustic foam
- 5/ Chamfer rear of driver cutout to improve airflow

Fb = 32Hz

F3 = 34Hz (nominal anechoic)

F6 = 28Hz (nominal anechoic)