

Two 15-inch subs for a home theatre

Two ported subs, each up to 650 x 550 x 600 mm, on your NX3000D

MY SUGGESTION

Two **Dayton Audio MX15-22**, 15-inch dual 2-ohm subs, each ported in about 135 L tuned to 20.5 Hz, one per channel on your NX3000D. They reach about 22 Hz and hold about 112 dB each at 20 Hz in your room. The pair is \$1,509.90, a touch over your \$1,500.

112 dB

per sub at 20 Hz, 1 m, in your room (estimate)

135 L

net box volume

1011 mm

vent length

\$9

over your \$1,500

What you're after

Down to 18 to 22 Hz: the deepest, for movie effects you feel in the room. I ranked every driver on how loud it plays cleanly from 18 to 80 Hz, each in its own best box, and the headline numbers are at 20 Hz.

If you wanted more punch above 30 Hz, the RSS390HF-4 gives about 1 dB more there, with nothing lost across 18-80 Hz.

How close it gets: it gets into your 18 to 22 Hz band; in this box the bass holds down to about 22 Hz before it starts to fade, so the bottom few hertz of the band are a little softer. Your room adds depth at your seat on top of this.

Why this one

I modelled every 15-inch sub in stock that fits your box, each in its own best box on your NX3000D at its measured power. The MX15-22 and RSS390HF-4 are close; the MX15-22 gets into your 18 to 22 Hz band.

Driver	Its box	In your room (estimate)			Pair, 24 Oct	My take
		20 Hz	40 Hz	80 Hz		
MX15-22 Dayton Audio, 15" 2+2 ohm coils in series: 4 ohm	135 L, vented	112 dB	114 dB	115 dB	\$1,509.90	MY PICK Reaches your band: about 112 dB at 20 Hz per sub in your room. Dual 2-ohm coils, wired in series for 4 ohms.
RSS390HF-4 Dayton Audio, 15" 4 ohm	135 L, vented	112 dB	116 dB	115 dB	\$1,529.90	Neck and neck at 20 Hz and a bit louder from 30 Hz up, but it stops just short of your band. A good alternative.
DCS385-4 Dayton Audio, 15" 4 ohm	135 L, vented	107 dB	113 dB	113 dB	\$869.90	Much cheaper, but its power rating holds it back: noticeably less at 20 Hz. Fine if the budget matters most.
SDF-375F75PR01-04 Peerless, 15" 4 ohm	135 L, vented	113 dB	113 dB	115 dB	\$1,989.90	The most level at 20 Hz, but at \$994.95 each it's well over budget for a small gain.

Each in its own box, one sub at 1 m, with a lower room-gain estimate because your room is open plan.

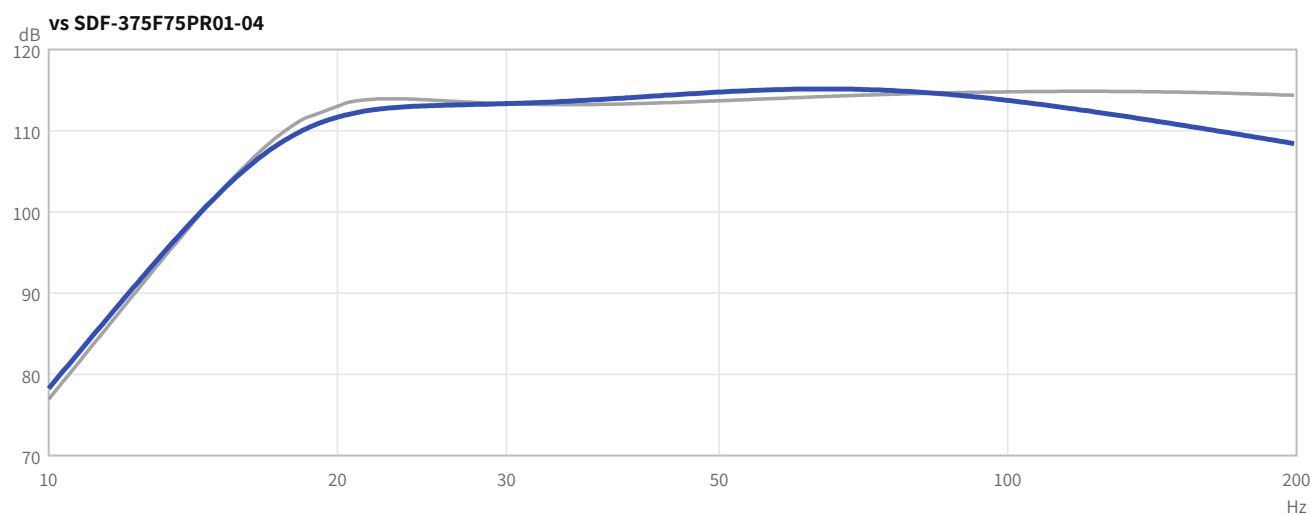
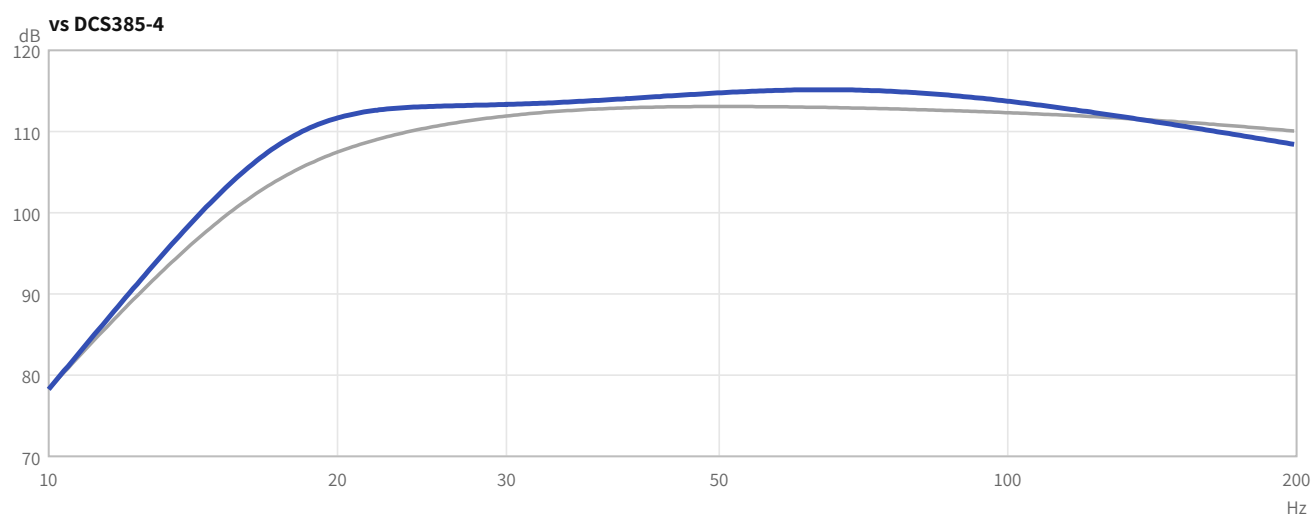
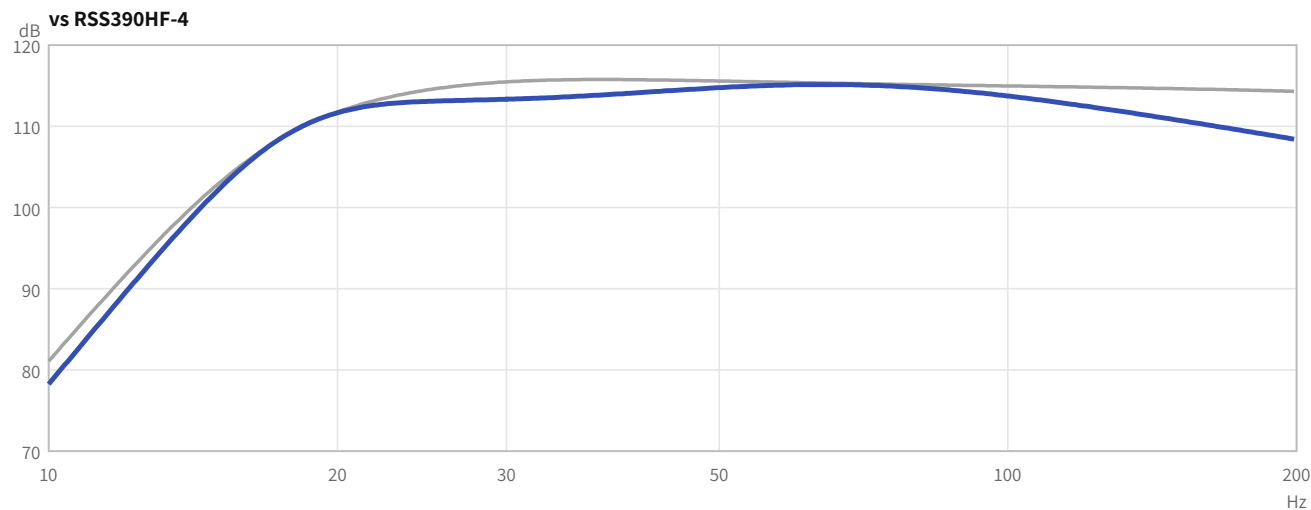
Words in this report

Max SPL: the loudest it can play before the cone, the vent, the amp or the power rating runs out. **Tuning:** the note the vent is set to. Below it the cone unloads, so a subsonic filter helps. **Xmax:** how far the cone can move cleanly. Run out of it and the bass distorts.

Inside: page 2, how each plays, turned up as far as it goes · page 3, how loud each can play cleanly · page 4, your box and parts list · page 5, with DSP on your amp · page 6, how I made this, and more from NB Audio

How each plays, turned up as far as it goes

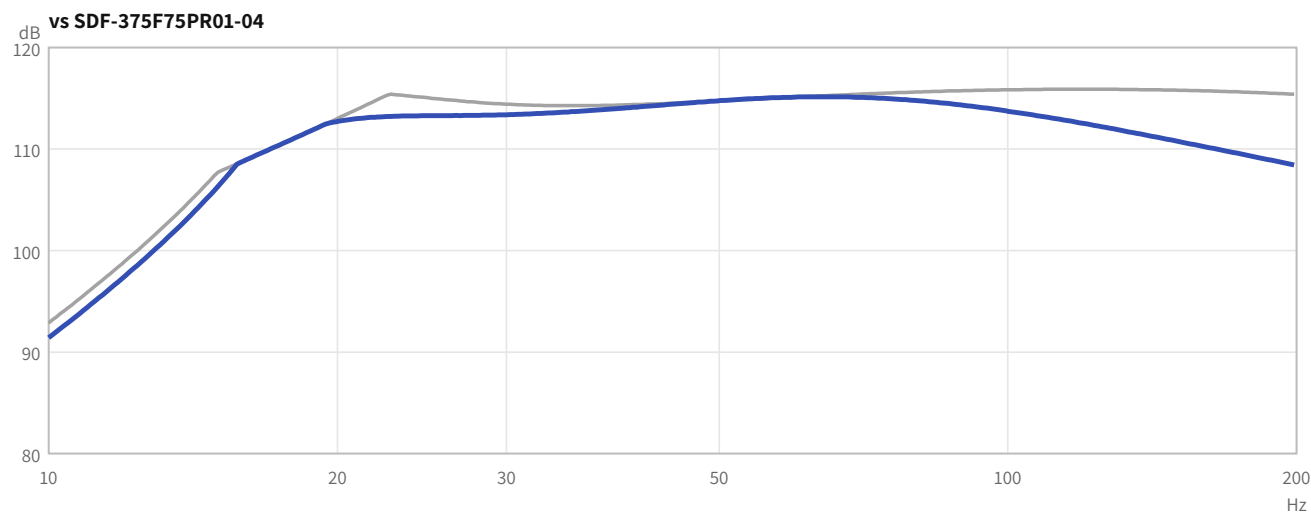
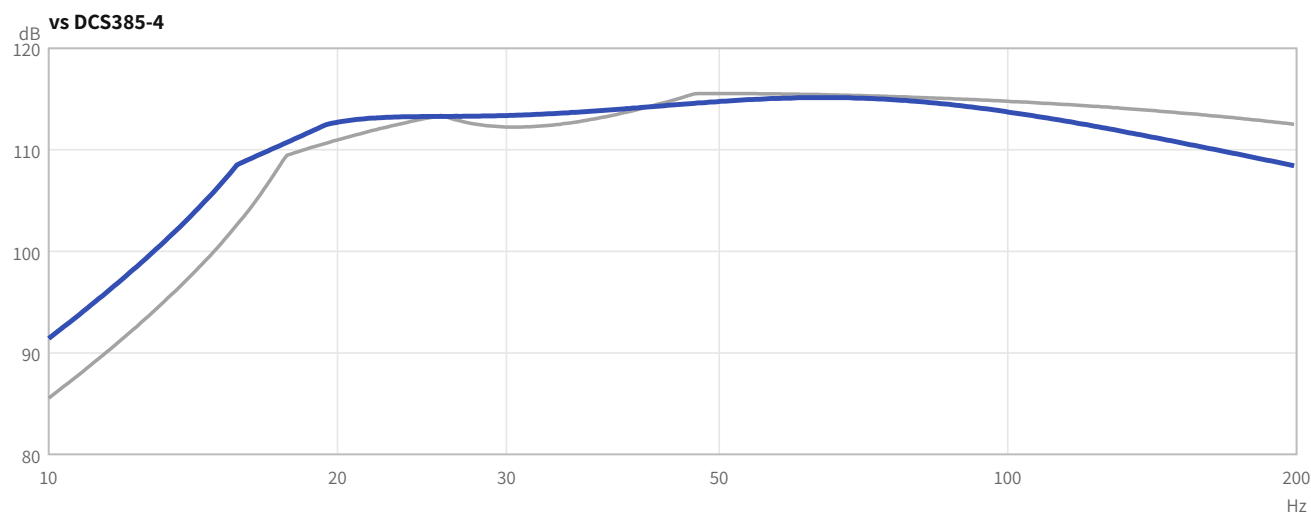
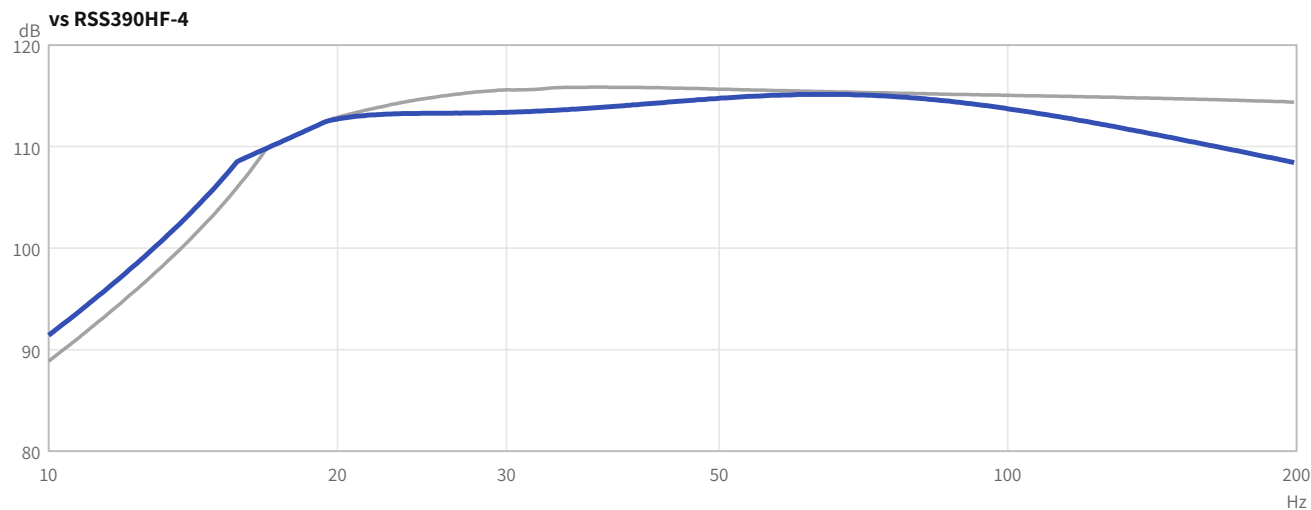
my suggestion, MX15-22 the driver named on each panel (each in its own best box)



Each driver turned up as far as it can go before the amp, the cone or the vent runs out, no EQ, one at 1 m, with my estimate of your room included. The amp's 24 dB/oct subsonic filter is included, set just under each box's tuning. Where a driver can't play a note cleanly at that volume, its line shows the clean limit.

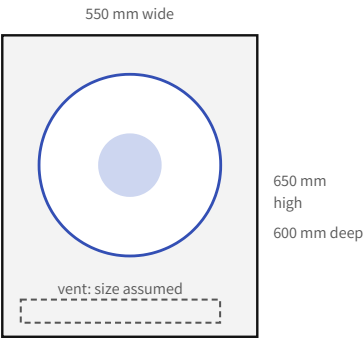
How loud each can play cleanly

my suggestion, MX15-22 the driver named on each panel (each in its own best box)



The loudest each can play at each frequency, limited by whichever comes first: cone travel, the power rating, the amp, or vent air speed (17 m/s), with my room estimate. Below the tuning a subsonic filter is wise with any of them.

Your box



- Fit check: the 392 mm frame on the 550 x 650 mm front: 79 mm to the nearest edge, 99 mm from the vent, cut-out clears the inside walls by 79 mm.
- You said 18 mm MDF: about 178 litres inside 650 x 550 x 600 mm. My pick wants about 135 L net; the long vent and bracing use the rest.
- Vent: a 430 x 50 mm slot about 1011 mm long. Fold it along the floor and up the back.
- Build both boxes the same, so the two subs match.

How room gain works

Outdoors, a sub's bass spreads out and keeps going. In a room, once the sound wave is longer than about twice the longest wall (below about 29 Hz for your 6 m), the sub can't radiate it away any more. It pressurises the whole room instead, and the deeper the note, the more it builds up. A solid, sealed room can add up to 12 dB per octave below that point; doorways, windows and plasterboard let some out, so I've used a lower estimate: about 2 dB at 25 Hz and 4 dB at 20 Hz. Your room will differ, which is what room EQ is for.

Would more amp help?

- On its own channel each MX15-22 uses about 400 W in the deep bass, about all the NX3000D really makes at 4 ohms.
- I've used the NX3000D's measured output, both channels driven, not Behringer's rating: about half of it.

Two subs on one amp

How it's wired	Each sub gets	MX15-22 uses	20 Hz in room	What runs out first
One channel per sub the amp sees 4 ohms	250 W at 8 ohms, 400 W at 4 ohms	about 400 W	112 dB	the amp
Both subs on one channel the amp sees 2 ohms	235 W at 8 ohms, 300 W at 4 ohms	about 300 W	110 dB	the amp

The same box and driver, each way of hooking the subs to one amp. On one channel, both subs share one signal, so you lose separate level, delay and EQ for each sub.

- Each sub on its own channel gets the most from your NX3000D, and keeps level, delay and EQ separate for each sub. That's what I'd do.
- Bridging into both subs isn't safe here: two 4-ohm subs in parallel put 2 ohms on the bridged output, and its minimum is 4.

Parts list

Part	Qty	Each	Total
Dayton Audio - 15" Max-X Subwoofer DVC - MX15-22 My suggestion. Wire its two coils in series (4 ohm)	2	\$754.95	\$1,509.90

From the store, 24 October 2026

\$1,509.90

You supply: the board (MDF or ply), glue and screws, damping and gasket tape and a terminal (the store has those too); the slot vent (430 x 50 mm, about 1011 mm long), cut from the same board.

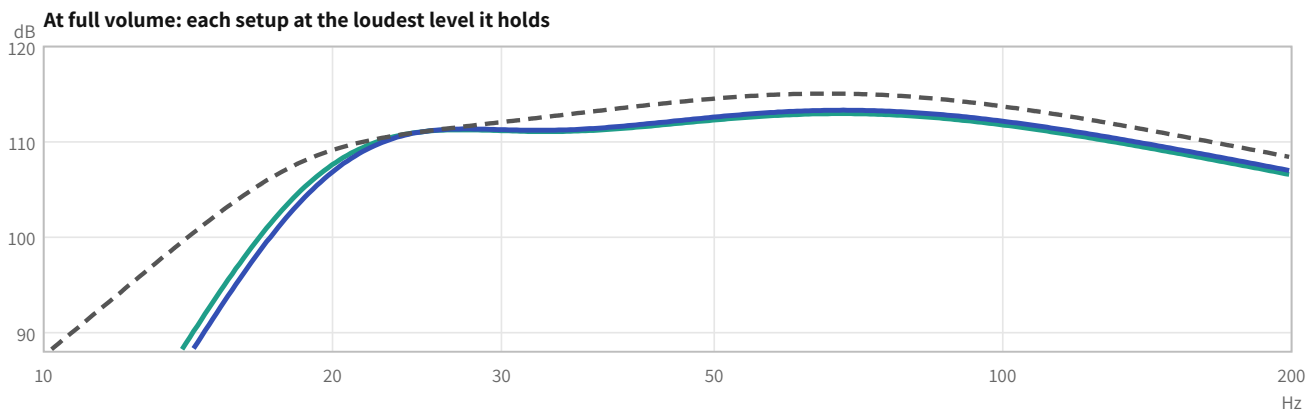
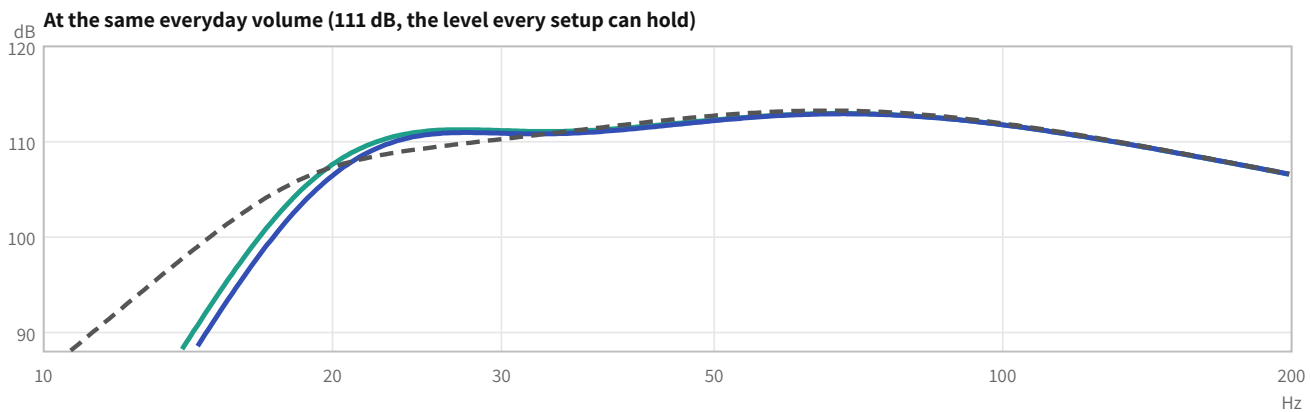
With DSP on your amp

Your NX3000D has DSP built in: a subsonic filter, EQ, delay and a limiter. Here's what it can do with the MX15-22 in this box.

Setup (per sub)	F3	Loudest level	Settings (indicative)	What it means
No DSP	22 Hz	113 dB	None	Played natural, as in the rest of this report. Nothing protects the cones below the tuning.
Flat to 22 Hz	21 Hz	112 dB	High-pass 22 Hz, 24 dB/oct Butterworth Low shelf +3.7 dB at 27.3 Hz, Q 1.2 within 4.8 dB of the target	Protects the cones below the tuning, for a little less at full volume. My starting point.
Flat to 20 Hz	21 Hz	111 dB	High-pass 20 Hz, 24 dB/oct Butterworth Low shelf +2.9 dB at 28.6 Hz, Q 1.2 within 4.8 dB of the target	Much the same, for a little less again; your room lifts that end anyway.

Loudest level each setup holds across 20 to 200 Hz with its own response shape (each target rolls off below its F3), limited by cone travel, the driver's rating, vent air speed or the amp. The high-pass and EQ are simulated together. One sub at 1 m, no room gain.

— No DSP — Flat to 22 Hz — Flat to 20 Hz



Top: below full volume the cone has room to spare, so the boost adds real depth (flat to 20 Hz: about +3 dB at 20 Hz). Bottom: at full volume the cone runs out either way. The settings are a starting point: check at your seat with a measurement mic.

- My starting point: a high-pass just under the vent's tuning to protect the cones, and leave the rest natural. Room EQ then tidies the peaks at your seat.
- Leave the low-pass to your processor's bass management, and set the limiter so the subs can't be pushed past their limits.
- With each sub on its own channel, set level and delay per sub. A quick check with a measurement mic sorts out delay and polarity: fine-tuning, not something to change the plan over.

How I made this report

This report comes from the design tool I use alongside the NB Speaker Builder. It uses the same enclosure simulation engine as the builder and the store's driver database, which holds each maker's published specifications. First it checked every 15-inch subwoofer or woofer in stock against your box: all 15 fit. It simulated all of them cleanly in a box sized for each, ranked for reaching 18 to 22 Hz, then I compared four of them in detail: my pick, a value option and two more from the top of the list, plus the DSP setups. A total of 15 drivers were considered and 1,940 simulations were run. The tool does the number crunching; I went through the results and picked what I'd use.

What it doesn't cover: the simulations use the maker's figures at 1 m in half space and leave out differences between individual drivers, and the room is only an estimate, so read the numbers as a fair comparison rather than a promise. Prices are the store's on 24 October 2026. This is a sample report from a made-up enquiry. Prices as at 24 Oct 2026; check the store for today's.

About me



I'm Jeshua (Jesh) Miller. NB stands for No Bullsh*t: it started in 2018 as NB Speaker Cables, and building cables led to building speakers, subwoofers first, until I'd built my own 7.2.4 home theatre. NB Audio has sold parts for people who build their own speakers since 2024, and since January 2026 it's been my main focus. I won't tell you a part is the 'best'. I'll tell you what it does, what it suits and what it doesn't.

More on [who's behind NB Audio](#) and [how I think about sound](#).

Guides for your build

- [Why I don't tune subs 'flat to 20 Hz'](#)
- [Sealed vs ported vs passive radiator: which box?](#)
- [DIY subwoofer: build or buy?](#)
- [Building the cabinet: MDF vs ply, bracing, damping, ports and sealing](#)
- [Planning the enclosure: check the box on paper before you cut](#)
- New to building? The 8-part [Beginner Guide](#), every part also a [free PDF book](#). [All the guides](#).

Free tools and advice

- Every driver and amp in this report links to its page in the store, with the price on 24 October 2026.
- The [Driver Fit Finder](#) shows which drivers fit a cabinet you already have.
- The [Port Designer](#) gives you push-fit flares and a port tube, sized to your box, as free STL and STEP files to print.
- Coming soon: the [NB Speaker Builder](#), to design a speaker box around the drivers in the store and see how it'll play before you cut any wood.
- Questions about this report, or your next build? Advice on choosing parts is free: email sales@nbaudio.com.au.

Let me know if you have any questions, or if you'd like to go ahead.