



Satyr 3 (DIY HiFi Headphones)



Capra-Audio

[VIEW IN BROWSER](#)

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Summary

Open-back Audiophile-Grade High Fidelity Headphone design.

[Gadgets](#) > [Audio](#)

Tags: [music](#) [headphone](#) [headphones](#) [audiophile](#) [hifi](#)

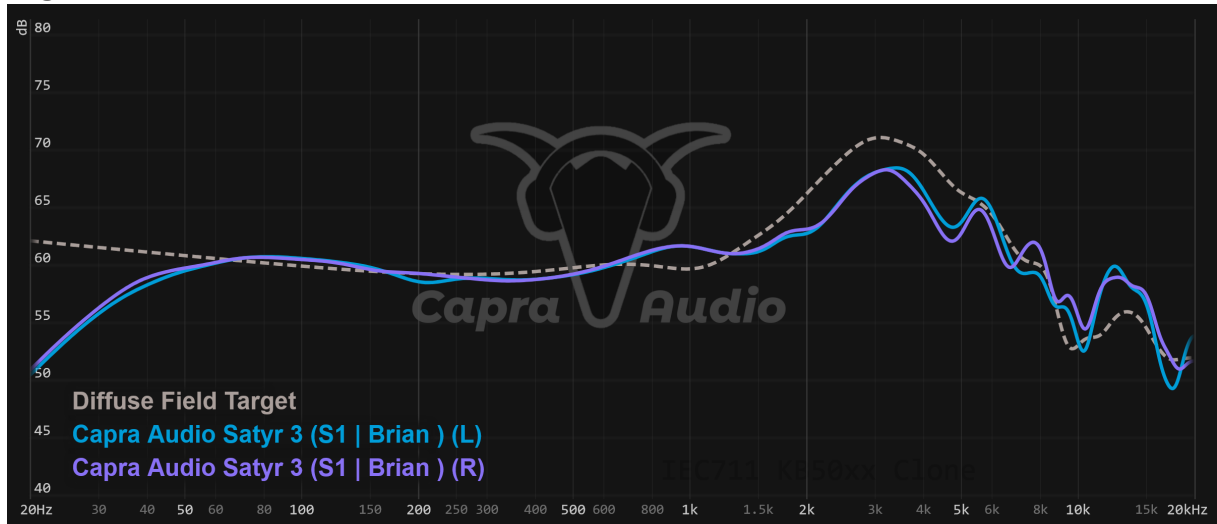
Capra Audio

Designed by a Professional

What makes this headphone Hi-Fi? **SCIENCE!** I spent quite a while finding the optimum combination of tuning materials and geometry to bring you the Satyr 3. This design beats out all of its competition in the category of DIY headphones and even beats out a lot of mainstream headphones too! So long as you use all of the correct materials in the BOM and follow the instructions in assembly you'll have a headphone that competes with and beats out other headphones in the \$500 range. Dont trust the DIY competition when they say you can use any old speakers and earpads and you'll get a decent headphone, this is a science and you need to be precise to get actually good results. [Join the discord](#) community and be apart of something bigger!

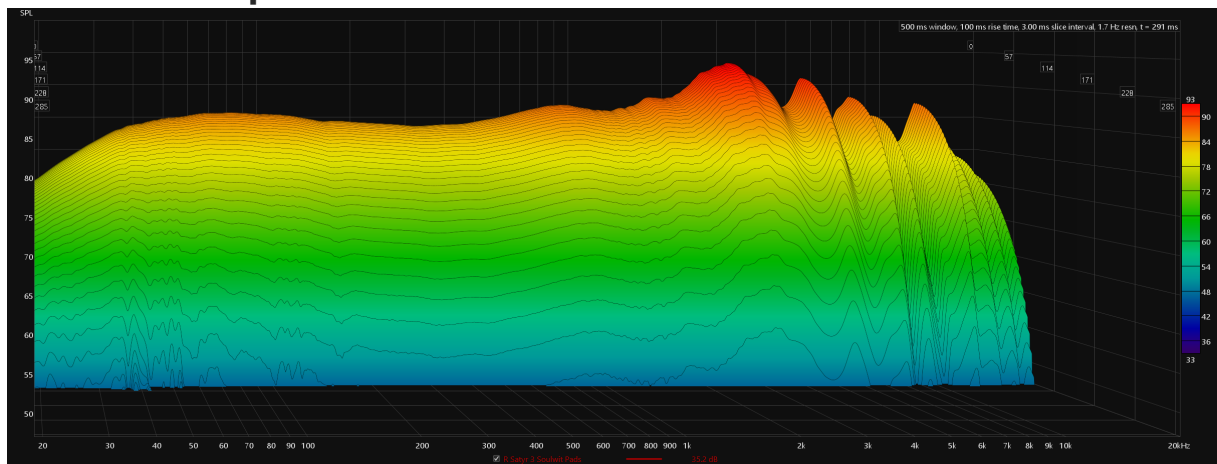
Frequency Response Graph using anIEC711 GRAS Clone Measurement

Rig



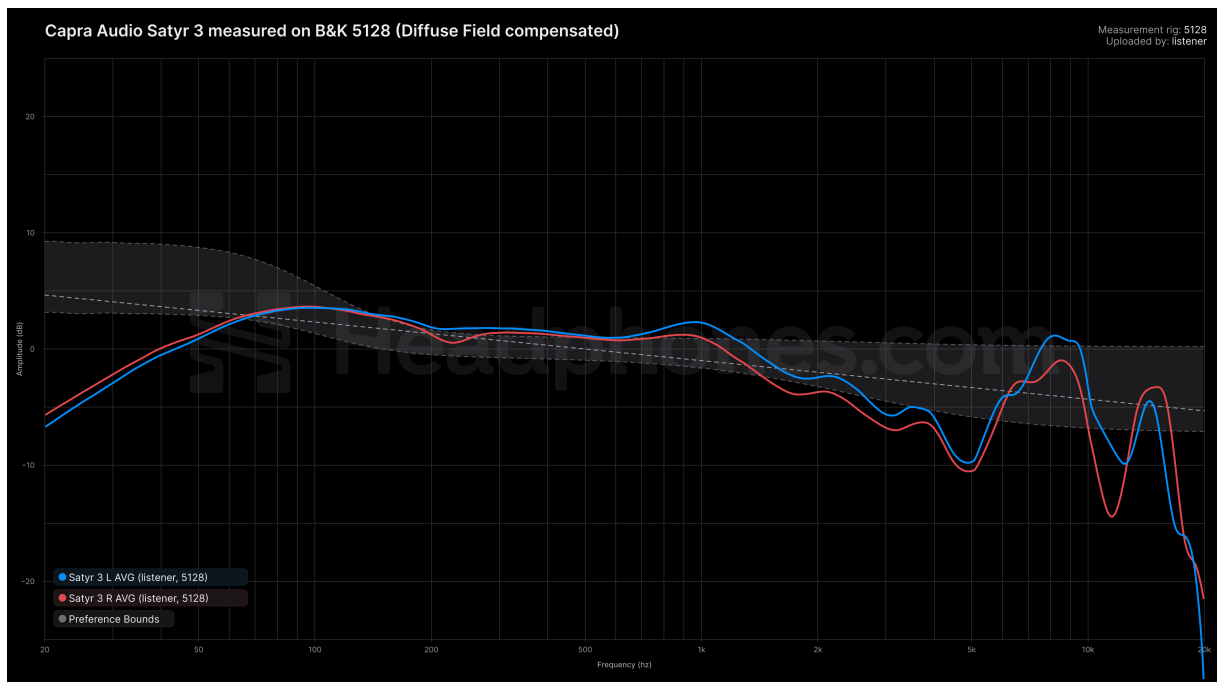
Compare against other headphones on squig.link

Waterfall Graph



(waterfall graphs don't actually tell you much of anything when it comes to headphones it just looks cool)

5128 Measurements!



Headband Files: [V3 Capra Headband](#)

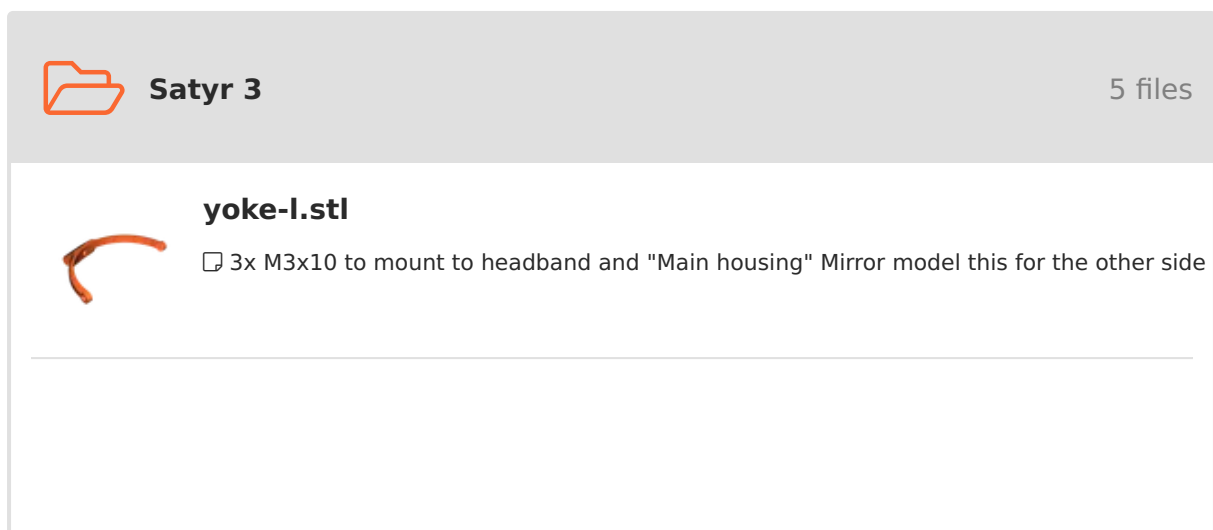
BOM:

Part	Affiliate Link
Pads	Pro Pads / Standard Pads
Heat-set inserts	M3 Voron Standard
FHSC Screws	M3 FHSC Screws
Tuning Foam	Dekoni Attenuation Foam Kit / ALT
3.5mm Connectors	3.5mm Panel Mount / ALT
Wires	Wire
Speakers	50mm Peerless Drivers
PETG	Polymaker PETG
PLA Pro	Polymaker PLA Pro
TPU	Polymaker 95a TPU

Cut the Dekoni foam (black not-shiny) into a 52mm circle (just bigger than the driver) with a 10mm hole in the center (enough to not block the center hole on the driver) and place it behind the driver before inserting it into the chassis.



Model files





fascia.stl

☐ 2x M3 Heat inserts to mount to the Main housing



pad-frame.3mf

☐ Same for both sides 4x M3x10 FHSC screws to mount to "Main Housing"



driver-grille.3mf

☐ Same for both sides held in place by the Pad Frame



housing-l.stl

☐ Mirror this in the slicer to get the Right side



STEP Files

1 file



fascia.step



Depreciated Files

2 files



main-housing-l-minixlr.stl

☐ 6x M3 Heat inserts to mount the "Pad Mount" and "Yoke" Mirror model this for the other side



pad-mount.stl

☐ Same for both sides 4x M3x10 FHSC screws to mount to "Main Housing"

Other files



headband-files-link.txt

📄 <https://www.printables.com/model/1108653-capra-headband-v3>

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